BACHELOR ENLISTED QUARTERS FACILITY

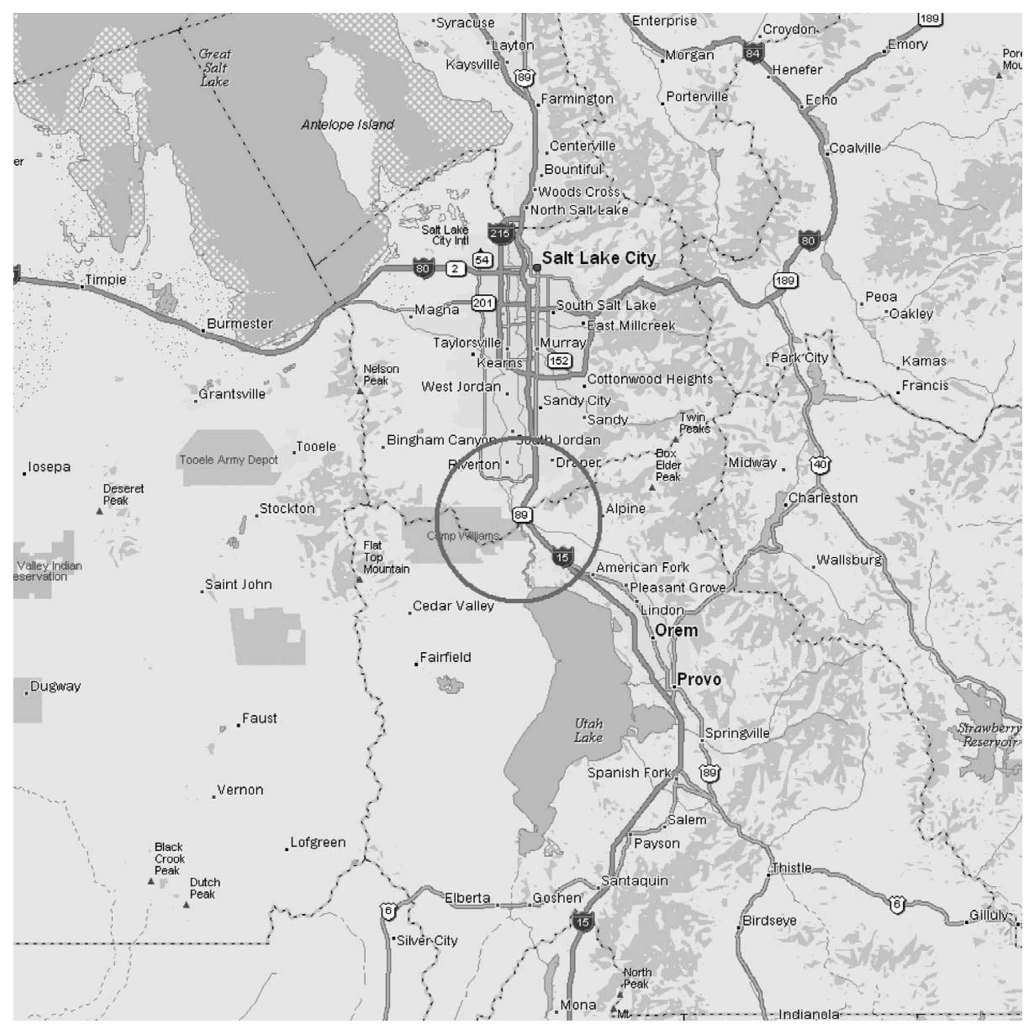
UTAH NATIONAL GUARD - CAMP WILLIAMS

17800 SOUTH CAMP WILLIAMS ROAD
RIVERTON, UTAH 84065

CONSTRUCTION DOCUMENTS

EFT ARCHITECTS PROJECT NO. 11007

DFCM PROJECT NO. 10281480 FY 13 PROJECT NO. 490076



REGIONAL MAP

VICINITY MAP

FEBRUARY 15, 2013

THE FOLLOWING DOCUMENTS ARE REQUIRED BEFORE A CERTIFICATE OF OCCUPANCY IS ISSUED

1. A CODE INSPECTION REPORT RECOMMENDING THAT A CERTIFICATE OF OCCUPANCY BE ISSUED.

2. A CODE INSPECTION REPORT RECOMMENDING THAT FINAL APPROVAL OF THE PROJECT BE GIVEN.

3. FINAL REPORT FROM THE SPECIAL INSPECTION AGENCY.

4. CERTIFICATE OF FIRE CLEARANCE FROM THE STATE FIRE MARSHALL.

5. FINAL APPROVAL FROM THE STATE ELEVATOR INSPECTOR.

6. FINAL APPROVAL FROM THE STATE BOILER INSPECTOR.

7. REPORT OF THE DISINFECTION OF THE POTABLE WATER SYSTEM. IPC 610

8. A STAMPED AND SIGNED FINAL REPORT FROM THE STRUCTURAL ENGINEER WHEN STRUCTURAL OBSERVATION IS REQUIRED BY IBC 1710.

SPECIAL NOTES

1. THESE DRAWINGS ARE MEETING THE DOD SPACE PLANNING CRITERIA.
2. THESE DRAWINGS ARE MEETING THE NG DESIGN GUIDE.
3. THESE DRAWINGS ARE MEETING THE DFCM STANDARDS.

BUILDING OFFICIAL APPROVAL

APPROVALS:

PRIME AGENCY DATE

DFCM DATE

APPROVAL DOES NOT RELIEVE A/E OF DESIGN LIABILITY

GEOTECHNICAL ENGINEER
GSH Gordon Spilker Huber Geotechnical Consultants, Inc.
473 WEST 4800 SOUTH
SALT LAKE CITY , UTAH 84123
PH: 801.685.9190
FAX: 801.685.2990
WWW.GSHGEO.COM

STATE OF UTAH
DEPARTMENT OF ADMINISTRATIVE SERVICES DIVISION OF FACILITIES CONSTRUCTION & MANAGEMENT
4110 STATE OFFICE BUILDING
SALT LAKE CITY, UTAH 84114
PHONE: (801) 538 - 3018
FAX: (801) 538 - 3267
INTERNET: http://dfcm.utah.gov

ARCHITECT
EFT ARCHITECTS
265 EAST 100 SOUTH, SUITE 350
SALT LAKE CITY , UTAH 84111
PH: 801.521.8564
FAX: 801.355.2938
STATE OF UTAH ERIC R. THOLEN 129665 LICENSED ARCHITECT

CIVIL ENGINEER
Stanley Consultants INC.
383 WEST VINE ST. SUITE 400
MURRAY. UTAH 84123
PH: 801.293.8880
WWW.STANLEYGROUP.COM
REGISTERED PROFESSIONAL ENGINEER No. 357572-2202 JEFFERY DAMON UPRIGHT 2/15/13 STATE OF UTAH

LANDSCAPE ARCHITECT
Landmark Design, Inc.
2834 HIGHLAND DRIVE
SALT LAKE CITY, UTAH 84106
PH: 801.474.3300
WWW.LDI-UT.COM
STATE OF UTAH HUGH HOLT NO. 106783 LICENSED LANDSCAPE ARCHITECT 15 FEB 2013

STRUCTURAL ENGINEER
REAVELEY ENGINEERS + ASSOCIATES Consulting Structural Engineers
675 EAST 500 SOUTH, SUITE 400
SALT LAKE CITY , UTAH 84102
PH: 801.486.3883
FAX: 801.485.0911
WWW.REAVELEY.COM
LICENSED CERTIFIED STRUCTURAL ENGINEER NO. 154201 ARTHUR PARRY BROWN UTAH 02/20/13

MECHANICAL ENGINEER
VAN BOERUM & FRANK ASSOCIATES, INC. CONSULTING ENGINEERS
330 SOUTH 300 EAST
SALT LAKE CITY , UTAH 84111
PH: 801.530.3148
FAX: 801.530.3150
WWW.VBFA.COM
PROFESSIONAL ENGINEER 7705747-2202 BRADLEY J. WELCH 2-15-13 STATE OF UTAH

ELECTRICAL ENGINEER
SPECTRUM ENGINEERS
324 SOUTH STATE STREET, SUITE 400
SALT LAKE CITY , UTAH 84111
PH: 801.328.5151
WWW.SPECTRUM-ENGINEERS.COM
LICENSED PROFESSIONAL ENGINEER No. 7083854 DAVID L. AFFLECK STATE OF UTAH 02-15-2013

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FA103B	THIRD LEVEL FIRE ALARM PLAN EAST WING
FA601	FIRE ALARM RISER

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

INDEX

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: G001
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

CODE ANALYSIS

APPLICABLE CODES			
INTERNATIONAL BUILDING CODE	2009	INTERNATIONAL ENERGY CONSERVATION CODE	2009
INTERNATIONAL MECHANICAL CODE	2009		
INTERNATIONAL FUEL GAS CODE	2009	NATIONAL ELECTRICAL CODE	2011
INTERNATIONAL PLUMBING CODE	2009	ADA STANDARD FOR ACCESSIBLE DESIGN	2010
INTERNATIONAL FIRE CODE	2009		

A. OCCUPANCY AND GROUP: R-1, S-1

CHANGE IN USE: YES_____NO__X__MIXED OCCUPANCY: YES__X__NO_____

SPECIAL USE AND OCCUPANCY (E.G. HIGH RISE, COVERED MALL): __X__ YES (SECTION 420)

B. SEISMIC DESIGN CATEGORY: __D__ DESIGN WIND SPEED: 90/C MPH

C. TYPE OF CONSTRUCTION (CIRCLE ONE):

I/A I/B II/A (II/B) III/A III/B IV/HT V/A V/B

D. FIRE RESISTANCE RATING REQUIREMENTS FOR THE EXTERIOR WALLS BASED ON THE FIRE SEPARATION DISTANCE (IN HOURS):

NORTH: __0__ SOUTH: __0__ EAST: __0__ WEST: __0__

E. MIXED OCCUPANCIES: __Y__ NONSEPARATED USES: __Y__

S1 OCCUPANCIES: (JANITOR, STORAGE ROOMS, LAUNDRY CHUTE ACCESS ROOMS & MECHANICAL ROOMS)

INCIDENTAL ACCESSORY OCCUPANCIES: (LAUNDRY ROOMS, > 100 SF WITHOUT CHUTE, WATER HEATER ROOM)

F. SPRINKLERS:

REQUIRED: __Y__ PROVIDED: __Y__

TYPE OF SPRINKLER SYSTEM (IBC 903.3.1.1) NFPA 13

G: NUMBER OF STORIES: __3__ BUILDING HEIGHT: 44' - 0"

H: ACTUAL AREA PER FLOOR (SQUARE FEET):

FIRST FLOOR: 27,750 SF
SECOND FLOOR: 25,900 SF
THIRD FLOOR: 25,700 SF
TOTAL: 79,350 SF

I: TABULAR AREA: (TABLE 503): R-1: 16,000
S-1: 17,500

J: AREA MODIFICATIONS:

A) $A_a = \{A_t + [A_f \times I_f] + [A_s \times I_s]\}$

R-1: 48,000 = 16,000 + 32,000 (MOST STRINGENT)

S-1: 52,500 = 17,500 + 35,000

B) SUM OF THE RATIO CALCULATIONS FOR MIXED OCCUPANCIES:

ACTUAL AREA / ALLOWABLE - N/A

C) TOTAL ALLOWABLE AREA FOR:

1) ONE STORY: 48,000
2) TWO STORY: $A_a(2)$ 48,000
3) THREE STORY: $A_a(3)$ 48,000

D) UNLIMITED AREA BUILDING: YES_____NO__X__CODE SECTION:_____

K. FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS).

ELEMENT	HOURS	ASSEMBLY LISTING	ELEMENT	HOURS	ASSEMBLY LISTING
EXTERIOR BEARING WALLS	0	N/A	FLOORS - CEILING FLOORS	1	IBC TABLE 720.1(3) ITEM 4-1.1
INTERIOR BEARING WALLS	0	N/A	ROOFS - CEILING ROOFS	0	N/A
EXTERIOR NON-BEARING WALLS	0	N/A	SHAFT ENCLOSURES	1	UL U905
STRUCTURAL FRAME	0	N/A	FIRE WALLS	0	N/A
PARTITIONS - PERMANENT	0	N/A	SMOKE PARTITIONS	0	N/A
FIRE BARRIERS	1	UL U545, U905	BEAM SUPPORTING FIRE BARRIER	1	IBC TABLE 720.1(1) ITEM 2-4.1
EXTERIOR DOORS AND WINDOWS	0	N/A	FIRE PARTITIONS	1	UL U419, U473, U905
			COLUMN SUPPORTING FIRE BARRIER	1	UL X528

L. DESIGN OCCUPANT LOAD: 378

EXIT WIDTH REQUIRED: SEE MEANS OF EGRESS DRAWING

EXIT WIDTH PROVIDED: SEE MEANS OF EGRESS DRAWING

M. MINIMUM NUMBER OF REQUIRED PLUMBING FACILITIES:

A) WATER CLOSETS - REQUIRED: __86__ PROVIDED __87__
B) URINALS - REQUIRED: __0__ PROVIDED __1__
C) LAVATORIES - REQUIRED: __170__ PROVIDED __172__
D) BATH TUBS OR SHOWERS: __84__ PROVIDED __84__
E) DRINKING FOUNTAINS: __6__ SERVICE SINKS: __3__

FOOTNOTES:

1) IN CASE OF CONFLICT WITH THE U.S. DEPARTMENT OF JUSTICE FEDERAL REGISTERS PARTS 1 THROUGH Σ - ADA GUIDELINES AND SPECIFIC REFERENCE TO THE INTERNATIONAL BUILDING CODE ACCESSIBILITY CHAPTERS, THE MORE RESTRICTIVE REQUIREMENT SHALL GOVERN.
2) SQUARE FOOTAGES INCLUDE MAIN BASE BID AND ALTERANTES 1 THORUGH 4.

GENERAL CODE DATA

Project

CAMP WILLIAMS, UT - BEQ FACILITY FY PROJECT #490076

Utah Statewide Codes (with amendments), and Standards

2009 International Building Code	2009 International Mechanical Code
2009 International Plumbing Code	2011 National Electrical Code
2009 International Energy Conservation Code	2009 International Fire Code
2010 ADA Standards for Accessible Design	2009 International Fuel Gas Code

Occupancy

Occupancy Classification: **R-1, S-1**

Mixed Occupancy (Non-Separated and Incidental Accessory): **Yes**
S-1 Occupancies:
Janitor, Storage Rooms, Laundry Chute Access Rooms, Mechanical Rooms
Incidental Accessory Occupancies (R-1 Billet Building): **Yes**
Laundry rooms >100 sf without chute
Water Heater Room (Level 3)

Most Restrictive Requirements (Non-Separated)	R-1	S-1
Allowable Area per Floor	48000 √	52500
Allowable No. of Stories	5	3 √
Allowable Height	75 √	75 √
Automatic Sprinkler System	R √	R √
Standpipe System	NR √	NR √
Fire Alarm and Detection System	R √	NR

√ = Most restrictive requirement

Incidental Accessory Occupancies	Area	Floor Area	Ratio
Level 1	990	27750	0.036
Level 2	430	25900	0.017
Level 3	750	25700	0.029

Incidental Accessory Occupancies not more than 10% of floor area, and less than tabular value - OK

Accessory assembly rooms and spaces (decks, break rooms) with less than 50 occupants considered part of main occupancy (R-1) [IBC 303.1 exception 2]

Special Requirements for Use and Occupancy (Chapter 4): **Section 420**

Area

Allowable Area	Multipliers	R-1	S-1
Tabular Area (At)		16000	17500
Frontage Increase (If) (Not required)		0	0
Sprinkler Increase (Is)	200	32000	35000
Allowable Area (Aa) - Per Floor		48000	52500
Allowable Area - Building Total	3	144000	157500

Actual Area	Totals	R-1	S-1
Actual Area - Level 1 (Includes 1550 sf Mech/Storage Building)	27750	25550	2200
Actual Area - Level 2	25900	25260	640
Actual Area - Level 3	25700	25420	280
Actual Area - Building Totals	79350	76230	3120

Billet Building and Mechancial/Storage Building considered as single building [IBC 503.1.2].

Actual area per floor/total building less than allowable area - OK

Height and Number of Stories

	R-1	S-1
Allowable Height*	75	75
Actual Height	44	44
Allowable No. of Stories*	5	4
Actual No. of Stories	3	3

*Height modification (1 story/20 feet) allowed for NFPA 13 sprinkler system [IBC 504.2]
Billet Building and Mechancial/Storage Building considered as single building [IBC 503.1.2].

Actual height and number of stories less than allowable height and number of stories - OK

Type of Construction

Type of Construction: **IIB**

Fire-Resistance-Rated Construction

Fire-Resistance Rating Requirements for Building Elements (Based on Type of Construction)*

Element	Hours	Test No.
Structural Frame	0	N/A
Exterior Bearing Walls	0	N/A
Interior Bearing Walls	0	N/A
Exterior Non-Bearing Walls and Partitions	0	N/A
Interior Non-Bearing Walls and Partitions	0	N/A
Floor Construction	0	N/A
Roof Construction	0	N/A

*Note: See also required ratings for specific elements below.

Fire-Resistance Rating Requirements for Exterior Walls (Based on Fire Separation Distance)*

Location/Fire Separation Distance	Wall (Hours)	Wall Test No.	Openings % U/P	Door/Win (Hours)
North >30	0	N/A	0/0	0/0
East >30	0	N/A	0/0	0/0
South >30	0	N/A	0/0	0/0
West >30	0	N/A	0/0	0/0

*Note: See also required ratings for specific elements below.

Fire-Resistance-Rating Requirements for Specific Elements

Element	Rating (Hours)	Test No.	Doors (Hours)	Windows (Hours)
Fire Barriers [Shafts, Exit Enclosures]	1	UL U545, U905	1	N/A
Fire Barriers [Laundry Chute Access Rooms]	1	UL U905	1	N/A
Fire Partitions [Sleeping Rooms, Corridors][0.5 hour required, 1 hour provided]	1*	UL U419, U473, U905	1/3	N/A
Floors [Floors at Sleeping Rooms][0.5 hour required, 1 hour provided]	1*	IBC Table 720.1(3) Item 4-1.1	N/A	N/A
Steel Beam Supporting Fire Barrier at Stair Enclosure	2 (1 req)	IBC Table 720.1(1) Item 2-4.1	N/A	N/A
Steel Column Supporting Fire Barrier at Stair Enclosure	1	UL X528	N/A	N/A
Horizontal Top of Folding Door Pocket, and Jamb at Stair Enclosure	1	UL U415	1	N/A

*Supporting construction not required to be rated [IBC 709.4]

Interior Finishes

Wall and Ceiling Finish Requirements	Requirement	Provided
Exit Enclosures	Class B	Class A
Corridors	Class C	Class A
Rooms and Enclosed Spaces	Class C	Class A

Floor Finish Requirements		
Exit Enclosures. Corridors	Pill Test*	Class I
All Areas	Pill Test	Class I

*Allowed when NFPA 13 system installed

Fire Protection Systems

Automatic Sprinkler System Required: **Yes**
Reason: R-1 Occupancy, Area Increase
Type: NFPA 13

Standpipe System Required: **No**
Reason: Highest floor less than 30 ft. above lowest level of FDA

Fire/Smoke Alarm System Required: **Yes**
Reason: R-1 Occupancy
Type: Manual, Automatic Smoke Detection, Single/Multi Station Smoke

Means of Egress

Occupant Load	
Occupant Load - Level 1	126
Occupant Load - Level 1 Mechanica/Storage Building	8
Occupant Load - Level 2	122
Occupant Load - Level 3	122
Occupant Load - Building Total	378

Means of Egress	Requirement	Provided
Building Exits - Level 1	2	4
Building Exits - Mechanical/Storage Building	4	4
Building Exits - Level 2	2	3
Building Exits - Level 3	2	3
Building Accessible Means of Egress - Level 1	2	4
Building Accessible Means of Egress - Mechancial/Storage Building	4	4
Building Accessible Means of Egress - Level 2	2	3
Building Accessible Means of Egress - Level 3	2	3
Maximum Common Path of Travel (ft.)	75	40
Maximum Dead End Corridor (ft.)	50	10
Maximum Travel Distance (ft.)	250	164

Elevator Required for Accessible Means of Egress: **No***
Reason: Less than 4 Stories

Area of Refuge Required: **No**
Reason: Automatic Sprinkler System Provided

48-inch Wide Stair Required: **No***
Reason: Automatic Sprinkler System Provided

Vertical Exit Enclosures Required: **Yes**
Reason: 3-Story Building
Required Rating: 1 hour

Emergency Escape and Rescue Windows Required: **No**
Reason: Automatic Sprinkler System Provided

*Element is not required but is provided.

Accessibility

	Requirement	Provided
Accessible Parking Stalls - East Lot (97 stalls total)	4	5
Accessible Parking Stalls - West Lot (8 stalls total)	1	2
Van Accessible Parking Stalls - East Lot	1	2
Van Accessible Parking Stalls - West Lot	1	2
Accessible Entrances	3	4
Accessible Sleeping Units (Fully Accessible)	8	8
Units with Transfer Type Showers	6	6
Units with Roll-In Type Showers	2	2
Units without Mobility Features Provided with Communication Features	13	13
Units with Mobility Features Provided with Communication Features	1	1
Accessible Sleeping Units (Type B)*	0	42

*Type B units are not required for this project [IBC 1107.6.1]. The Utah National Guard indicates that the units are not intended to be occupied as a residence, and will be used similar to a transient hotel/motel type use for short-term training lodging only. However, based on the standard unit configuration with the inclusion of reinforcent for the installation of future grab bars and shower seats, all units in the main wing not designated as fully accessible (42 units) can be considered Type B units.

Accessible Elevator Required: **Yes**
Reason: >3000 sf above accessible level

Roof Covering

	Requirement	Provided
Roof Covering Fire Classification Requirement:	Class C	Class A

Seismic and Wind

Seismic Design Category: **D**
Design Wind Speed/Exposure: **90/C**

Plumbing Systems

Sleeping Units	Requirement	Provided
Water Closets* [2 units share 1]	84	84
Urinals	0	0
Lavatories* [1 per room]	168	168
Showers* [2 units share 1]	84	84
Employees**		
Water Closets [1 Men, 1 Women Required]	2	3
Urinals	0	1
Lavatories [1 Men, 1 Women Required]	2	4
Other		
Drinking Fountains	0	6
Service Sinks [1 each floor]	1	3

*For purposes of determining water closet and shower count, the State Building Offical has allowed 2 sleeping rooms sharing a common toilet/shower room to be considered as a single sleeping unit.

**A convenience/employee restroom has been provided on the first floor
(M=1 wc, 1 ur, 2 lav. W=2 wc, 2 lav)

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CODE

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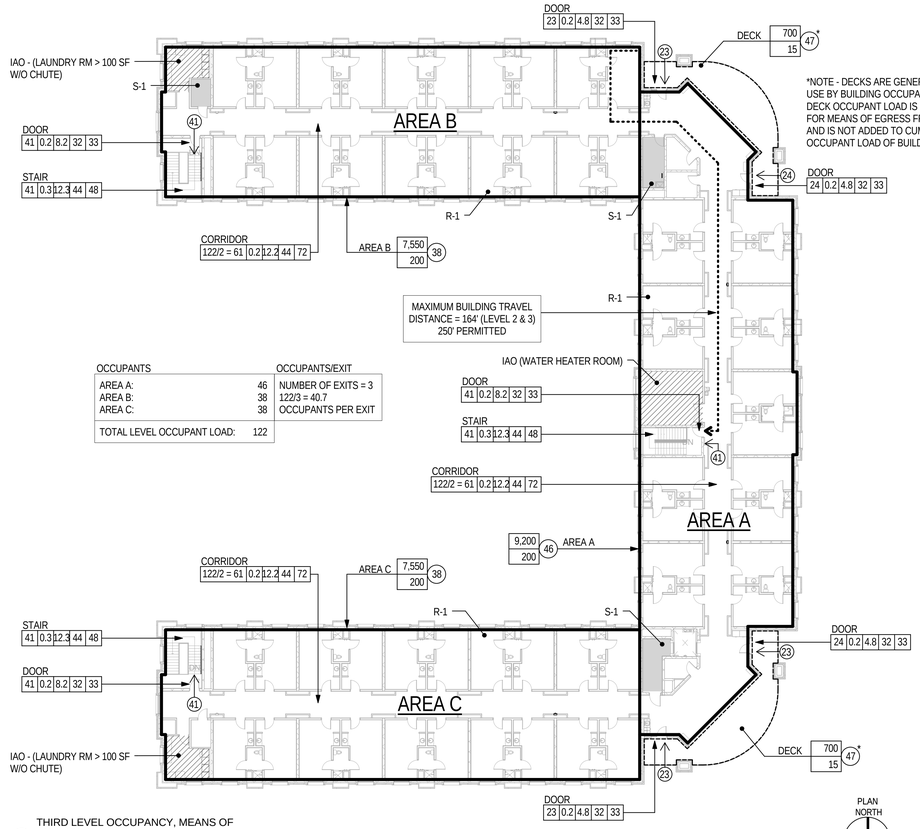
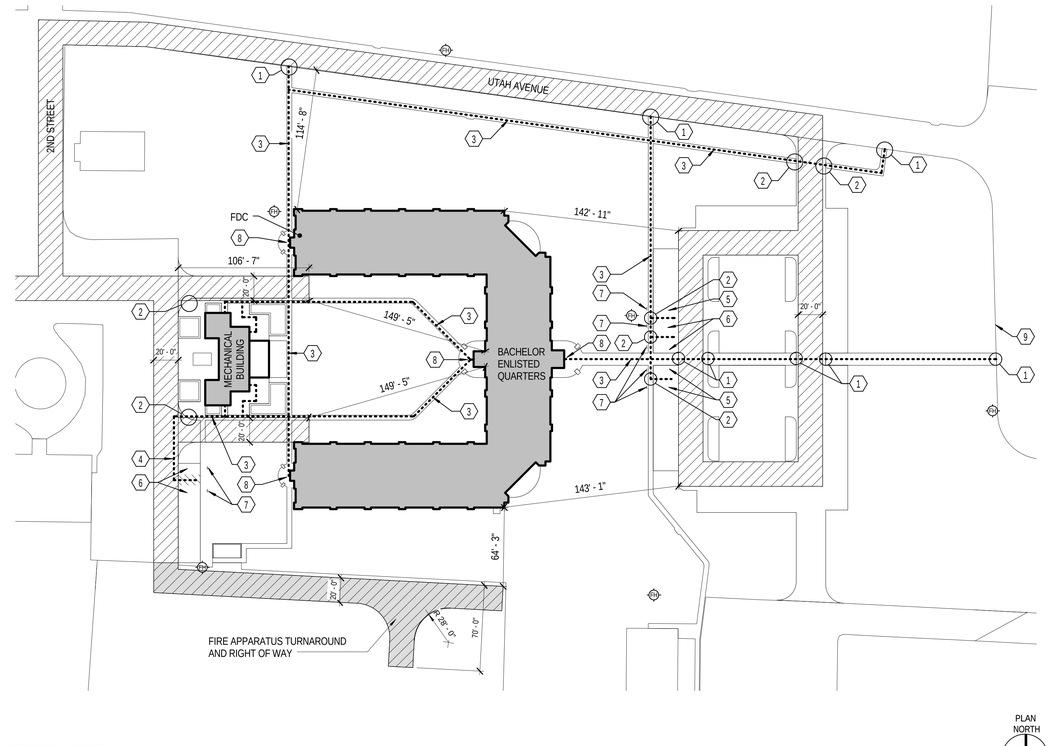


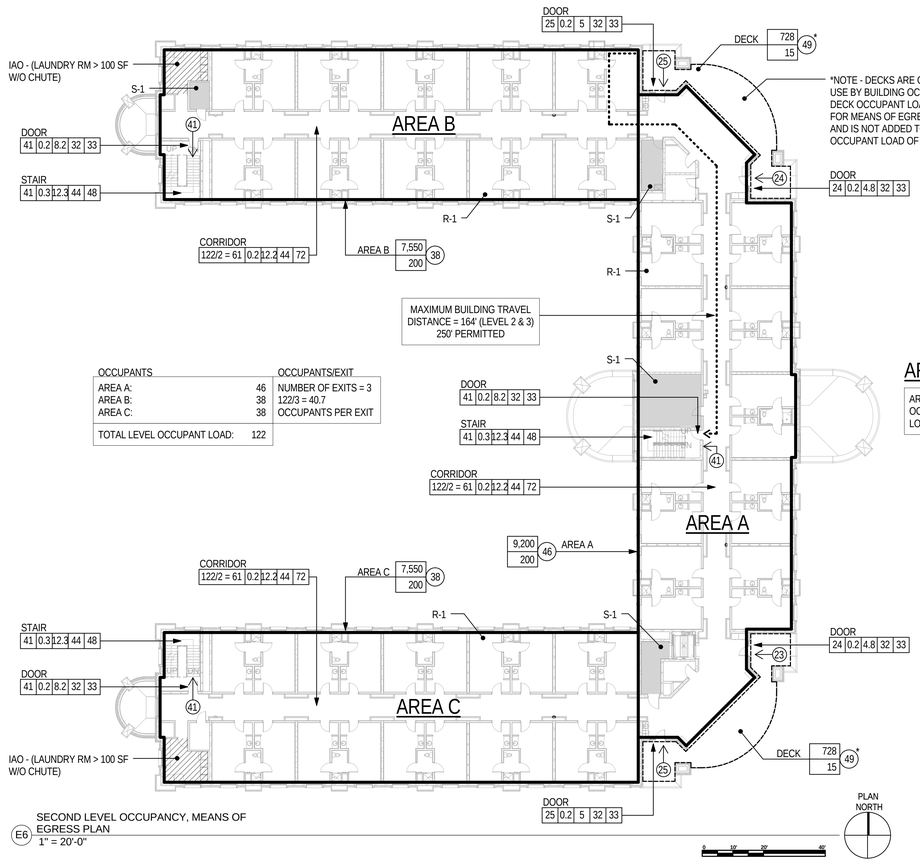
OCCUPANTS		OCCUPANTS/EXIT
AREA A:	46	NUMBER OF EXITS = 3
AREA B:	38	122/3 = 40.7
AREA C:	38	OCCUPANTS PER EXIT
TOTAL LEVEL OCCUPANT LOAD:	122	

*NOTE - DECKS ARE GENERALLY FOR USE BY BUILDING OCCUPANTS ONLY. DECK OCCUPANT LOAD IS CALCULATED FOR MEANS OF EGRESS FROM DECK, AND IS NOT ADDED TO CUMULATIVE OCCUPANT LOAD OF BUILDING.

C6 THIRD LEVEL OCCUPANCY, MEANS OF EGRESS PLAN
1" = 20'-0"



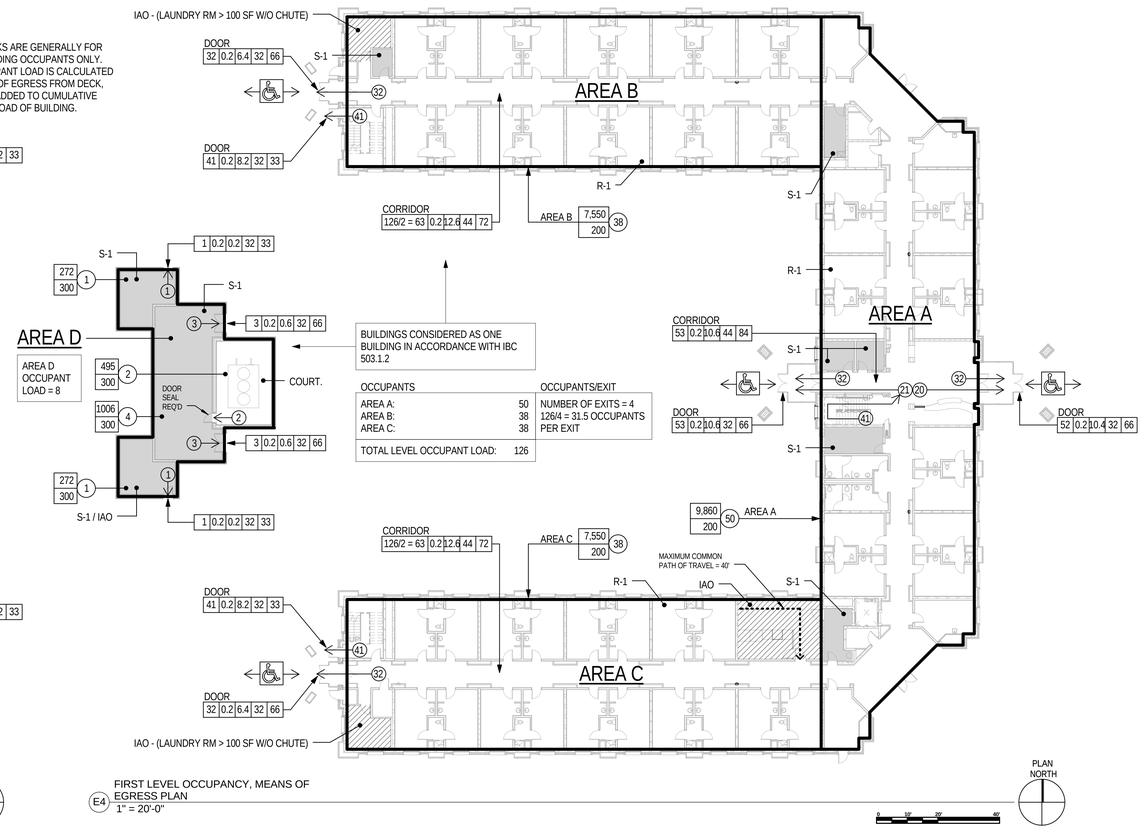
C4 SITE PLAN - CODE
1" = 50'-0"



OCCUPANTS		OCCUPANTS/EXIT
AREA A:	46	NUMBER OF EXITS = 3
AREA B:	38	122/3 = 40.7
AREA C:	38	OCCUPANTS PER EXIT
TOTAL LEVEL OCCUPANT LOAD:	122	

*NOTE - DECKS ARE GENERALLY FOR USE BY BUILDING OCCUPANTS ONLY. DECK OCCUPANT LOAD IS CALCULATED FOR MEANS OF EGRESS FROM DECK, AND IS NOT ADDED TO CUMULATIVE OCCUPANT LOAD OF BUILDING.

E6 SECOND LEVEL OCCUPANCY, MEANS OF EGRESS PLAN
1" = 20'-0"



OCCUPANTS		OCCUPANTS/EXIT
AREA A:	50	NUMBER OF EXITS = 4
AREA B:	38	126/4 = 31.5 OCCUPANTS
AREA C:	38	PER EXIT
TOTAL LEVEL OCCUPANT LOAD:	126	

E4 FIRST LEVEL OCCUPANCY, MEANS OF EGRESS PLAN
1" = 20'-0"

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KEYNOTES

1. NEW SIDEWALK FLUSH WITH PAVING.
2. ACCESSIBLE CURB RAMP REFER TO CIVIL DRAWINGS.
3. NEW ACCESSIBLE SIDEWALK WITH MAXIMUM 1:20 SLOPE AND 1:48 CROSS SLOPE. REFER TO CIVIL DRAWINGS.
4. ACCESSIBLE ROUTE ON PAVING WITH MAXIMUM 1:20 SLOPE AND 1:48 CROSS SLOPE. REFER TO CIVIL DRAWINGS.
5. ACCESSIBLE PARKING SPACE AND ACCESS AISLE WITH MAXIMUM 1:48 SLOPE ANY DIRECTION. REFER TO CIVIL DRAWINGS.
6. VAN ACCESSIBLE PARKING SPACE AND ACCESS AISLE WITH MAXIMUM 1:48 SLOPE ANY DIRECTION. REFER TO CIVIL DRAWINGS.
7. ACCESSIBLE PARKING SIGNS. "VAN ACCESSIBLE" AT VAN ACCESSIBLE STALLS. REFER TO CIVIL DRAWINGS
8. ACCESSIBLE ENTRANCE/EXIT WITH ACCESSIBLE THRESHOLD. SEE DETAIL A504-C3.
9. EDGE OF EXISTING PAVING

SITE PLAN - CODE LEGEND

- FIRE APPARATUS ACCESS
- FIRE HYDRANT
- ACCESSIBLE ROUTE / MEANS OF EGRESS

OCCUPANCY AND EGRESS LEGEND

- S-1 — STORAGE OCCUPANCY
- IAO — INCIDENTAL ACCESSORY OCCUPANCY
- R-1 — RESIDENTIAL OCCUPANCY
- MAXIMUM BUILDING TRAVEL DISTANCE
- ACCESSIBLE ENTRIES/ MEANS OF EGRESS - SEE CODE ANALYSIS SITE PLAN FOR CONTINUATION OF ACCESSIBLE ROUTE ON SITE.
- 31 — NUMBER OF OCCUPANTS
- NO. OCCUPANTS / EGRESS WIDTH FACTOR / WIDTH PROVIDED / MINIMUM REQUIRED WIDTH / MINIMUM CALCULATED REQUIRED WIDTH
- AREA / OCCUPANT LOAD / OCCUPANT LOAD FACTOR

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OCCUPANCY AND MEANS OF EGRESS PLANS

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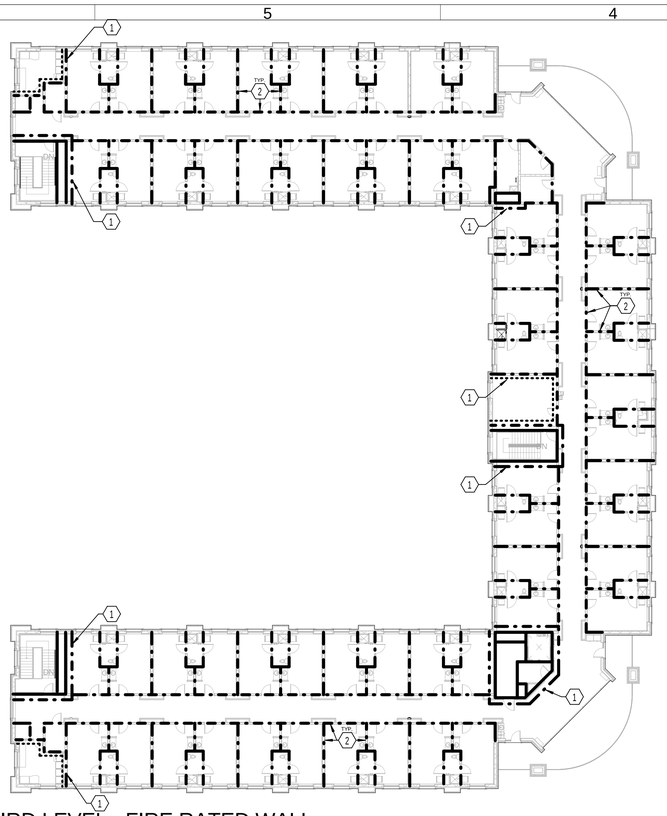
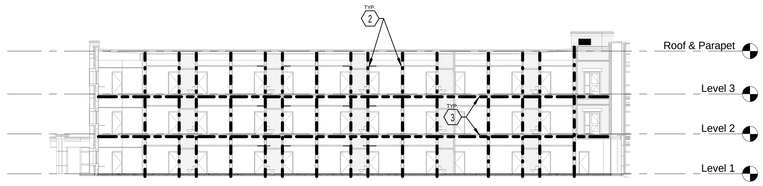


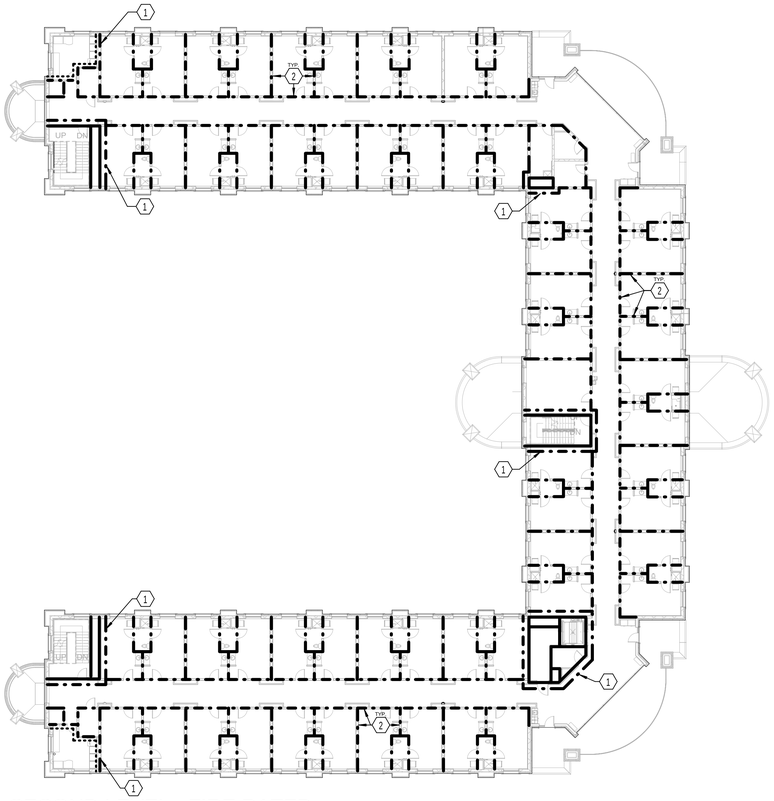
C6 THIRD LEVEL - FIRE RATED WALL ASSEMBLY PLAN

SCALE: 1" = 20'-0"



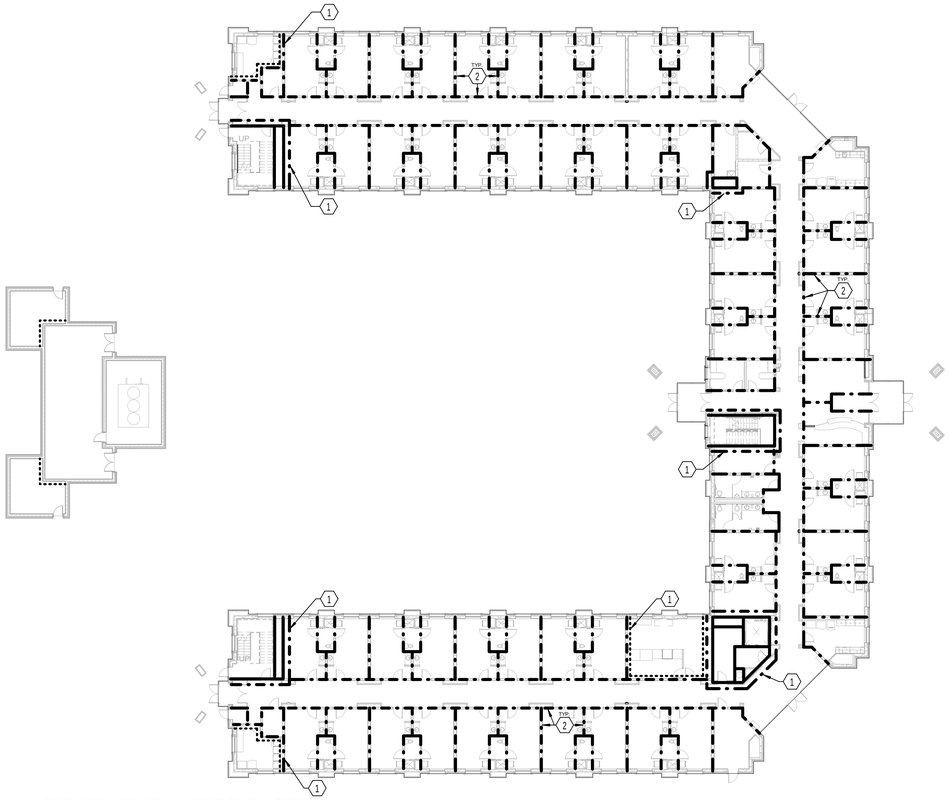
C3 BUILDING SECTION - FIRE RATED HORIZONTAL ASSEMBLIES

SCALE: 1" = 20'-0"



E6 SECOND LEVEL - FIRE RATED WALL ASSEMBLY PLAN

SCALE: 1" = 20'-0"



E3 FIRST LEVEL - FIRE RATED WALL ASSEMBLY PLAN

SCALE: 1" = 20'-0"

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KEYNOTES

1 WHERE TWO WALL TYPES ARE INDICATED AT THE SAME WALL, THE MOST STRINGENT REQUIREMENTS FOR EACH WALL TYPE ARE PROVIDED.

2 REFER TO FLOOR PLANS AND WALL TYPES SHEET A501 FOR DETAILED INFORMATION ON FIRE-RATED WALL ASSEMBLIES.

3 REFER TO SHEET A501 FOR DETAILED INFORMATION ON FIRE-RATED FLOOR ASSEMBLIES.

FIRE RATED ASSEMBLY LEGEND

A — 1 HOUR RATED FIRE PARTITION (CORRIDOR, SLEEPING UNITS SEPARATION). SUPPORTING CONSTRUCTION NOT REQUIRED TO BE FIRE RATED. (IBC 709.4).

B — 1 HOUR RATED FIRE BARRIER SUPPORTED BY FOUNDATION (SHAFTS, EXIT ENCLOSURES, LAUNDRY CHUTE ACCESS ROOMS).

C — WALL COMPLYING WITH NON-FIRE RESISTANCE RATED SEPARATION WALL REQUIREMENTS FOR INCIDENTAL ACCESSORY OCCUPANCY (SMOKE RESISTANT).

D — HORIZONTAL ASSEMBLY - 1 HOUR FIRE RATED FLOOR SLAB (CONCRETE/STEEL DECK). SUPPORTING CONSTRUCTION NOT REQUIRED TO BE FIRE RATED. (IBC 712.4).

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FIRE RATED ASSEMBLY DRAWINGS

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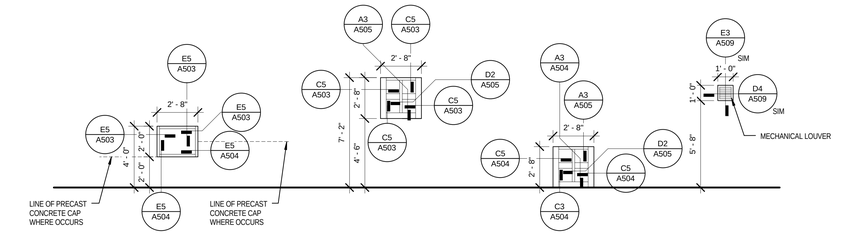
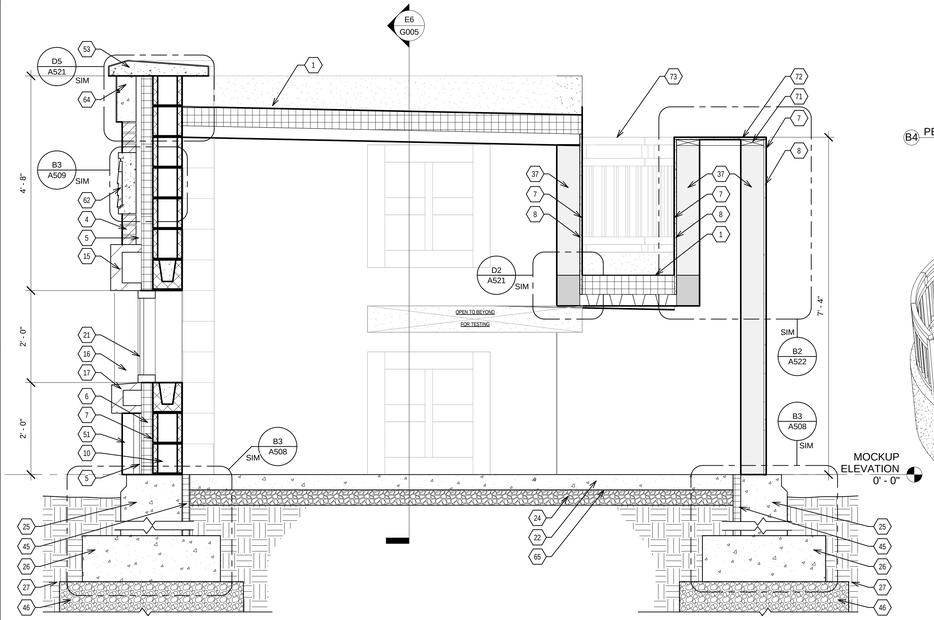
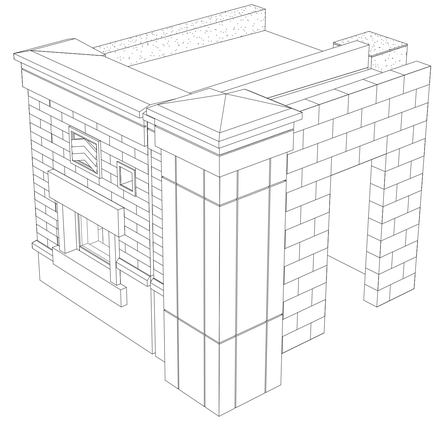


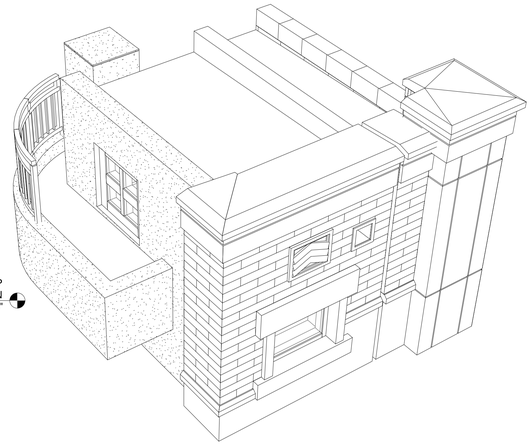
A6 WINDOW ELEVATIONS - MOCKUP
1/4" = 1'-0"



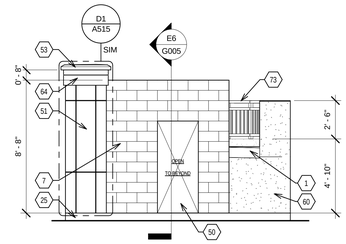
C6 SECTION - LONGITUDINAL - MOCKUP
3/4" = 1'-0"



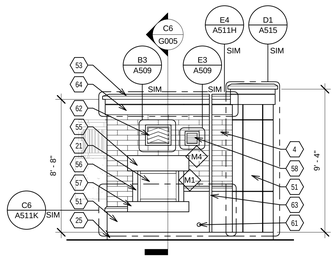
B4 PERSPECTIVE NE - MOCKUP



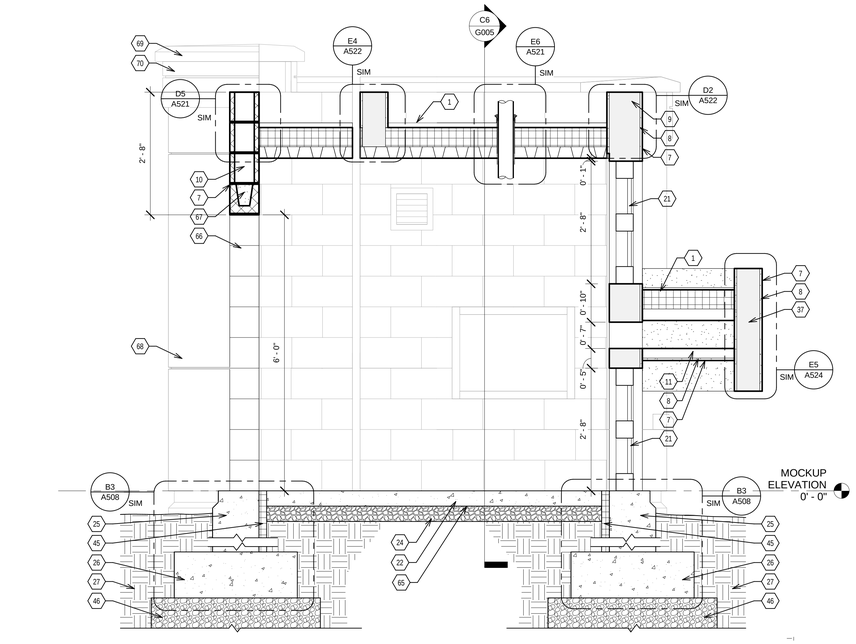
C4 PERSPECTIVE SE - MOCKUP



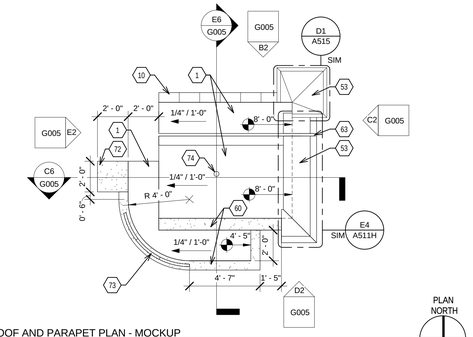
B2 EXTERIOR ELEVATION - NORTH - MOCKUP
1/4" = 1'-0"



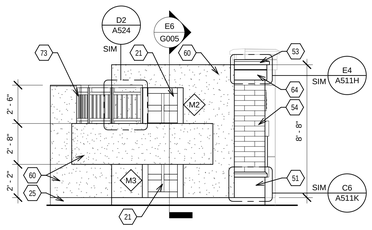
C2 EXTERIOR ELEVATION - EAST - MOCKUP
1/4" = 1'-0"



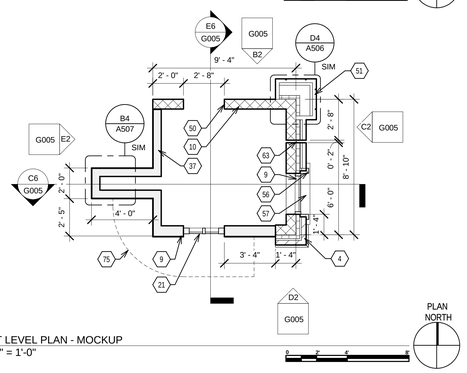
E6 SECTION - TRANSVERSE - MOCKUP
3/4" = 1'-0"



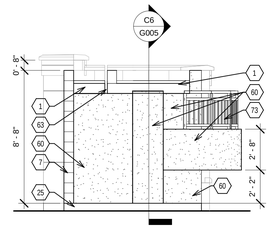
D4 ROOF AND PARAPET PLAN - MOCKUP
1/4" = 1'-0"



D2 EXTERIOR ELEVATION - SOUTH - MOCKUP
1/4" = 1'-0"



E4 1ST LEVEL PLAN - MOCKUP
1/4" = 1'-0"



E2 EXTERIOR ELEVATION - WEST - MOCKUP
1/4" = 1'-0"

KEYNOTES

1 SINGLE PLY ROOFING MEMBRANE OVER RIGID INSULATION ON METAL DECK ASSEMBLY
4 NOMINAL 4"x4"x16" BRICK VENEER
5 AIR GAP
6 CONTINUOUS RIGID INSULATION EFFECTIVE 15 R-VALUES- SEE SHEET NOTES
7 AIR AND WEATHER BARRIER
8 5/8" EXTERIOR SHEATHING
9 8" STRUCTURAL METAL STUD - SEE STRUCTURAL DWGS
10 NOMINAL 8X8X16 CMU
11 2 1/2" METAL STUD 25 GA @ 24" O.C.
15 PRECAST CONCRETE WINDOW HEADER - SEE ELEVATIONS & DETAILS
16 PRECAST CONCRETE WINDOW JAMB - SEE ELEVATIONS & DETAILS
17 PRECAST CONCRETE WINDOW SILL - SEE ELEVATIONS & DETAILS
21 WINDOW SYSTEM - REFER TO WINDOW ELEVATIONS
22 CONCRETE SLAB ON GRADE- REFER TO STRUCTURAL DRAWINGS
24 DRAINAGE COURSE
25 CONCRETE FOUNDATION WALL- REFER TO STRUCTURAL DRAWINGS
26 CONCRETE FOOTING- REFER TO STRUCTURAL DRAWINGS
27 EARTH- REFER TO STRUCTURAL DRAWINGS
37 6" STRUCTURAL METAL STUD - SEE STRUCTURAL DWGS
45 CONTINUOUS RIGID INSULATION EFFECTIVE 10 R-VALUES- SEE SHEET NOTES
46 COMPACTED STRUCTURAL FILL - SEE STRUCTURAL DRAWINGS
50 OPENING TO ALLOW ACCESS
51 PRECAST CONCRETE PANELS & REVEALS - SEE WALL SECTIONS AND DETAILS
53 53 PRECAST CONCRETE CAP WITH METAL FLASHING UNDERNEATH - SEE DETAILS
54 BRICK VENEER OVER 5/8" SHEATHING ON STRUCTURAL METAL STUDS - SEE WALL SECTIONS
55 PRECAST CONCRETE HEADER - SEE DETAILS
56 PRECAST CONCRETE JAMB - SEE DETAILS
57 PRECAST CONCRETE SILL - SEE DETAILS
58 MECHANICAL LOUVER - SEE WINDOW ELEVATIONS
60 AIR AND WEATHER BARRIER OVER 5/8" SHEATHING ON METAL STUD SUBSTRATE - SHOW EXAMPLES OF BRICK AND PRECAST CONCRETE CONNECTIONS TO SUBSTRATE
61 HOSE BIB PENETRATION
62 PRECAST CONCRETE KEYSTONE - SEE ELEVATIONS AND DETAILS
63 EXPANSION JOINT - SEE DETAILS
64 PRECAST CONCRETE TRIM - SEE DETAILS
65 VAPOR RETARDER
66 OPENING TO ALLOW ACCESS BEYOND
67 NOMINAL 8" MASONRY LINTEL
68 PRECAST CONCRETE PANELS & REVEALS BEYOND - SEE WALL SECTIONS AND DETAILS
69 PRECAST CONCRETE CAP WITH METAL FLASHING UNDERNEATH BEYOND - SEE DETAILS
70 PRECAST CONCRETE TRIM BEYOND- SEE DETAILS
71 FIRE TREATED WOOD NAILERS AS REQUIRED
72 SINGLE PLY ROOFING MEMBRANE OVER 3/4" EXTERIOR FIRE RETARDED PLYWOOD
73 GUARDRAIL - SEE DETAILS
74 ROOF PENETRATION
75 ROOF OVERHEAD

EXTERIOR ELEVATION LEGEND

- NOMINAL 4" X 4" X 16" BRICK VENEER RUNNING BOND
- PRECAST CONCRETE PANEL
- NOMINAL 8X8X16 CMU
- 5/8" SHEATHING ON METAL STUD SUBSTRATE
- 1' - 4" X 1' - 8" PRECAST CONCRETE MEDALLION
- CONSTRUCTION JOINT REVEAL
- PRECAST CONCRETE CAP
- PRECAST CONCRETE SURFACE PLATE
- PRECAST CONCRETE TRIM
- METAL GUARDRAIL
- M1 WINDOW TYPE M1 SEE A6/G005
- M2 WINDOW TYPE M2 SEE A6/G005
- M3 WINDOW TYPE M3 SEE A6/G005
- M4 WINDOW TYPE M4 SEE A6/G005

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. MOCKUP IS INTENDED TO TEST ALL EXTERIOR ENVELOPE ASSEMBLIES AND MUST BE CONSTRUCTED WITH ALL WALL, FLOOR, AND ROOF COMPONENTS AS PER THE DESIGN DOCUMENTS. IT WILL BE TESTED FOR AIR AND WATER TIGHTNESS BY THE COMMISSIONING AGENT (OR A DESIGNATED REPRESENTATIVE OF THE COMMISSIONING AGENT).
2. THE GENERAL CONTRACTOR WILL CHOOSE THE LOCATION OF THE MOCKUP ON THE CONSTRUCTION SITE. IT WOULD BE PREFERABLE IF THE MOCKUP WERE CLOSE TO THE GENERAL CONTRACTOR'S JOB TRAILER. THE MOCKUP WILL NEED TO REMAIN IN PLACE FOR THE DURATION OF THE PROJECT BECAUSE IT WILL CONTINUALLY BE REFERENCED FOR QUALITY OF WORK.
3. THE MOCKUP NEEDS TO SHOW EXAMPLES FOR ALL TYPES OF PENETRATIONS THROUGH THE AIR AND WEATHER BARRIER AND ITS APPROPRIATE SUBSTRATES: BRICK AND CMU TIES, PRECAST CONCRETE STRUCTURAL CONNECTIONS, HOSE BIB, CONDUIT FOR EXTERIOR LIGHTING, ROOF VENTS AND WALL LOUVERS
4. SLOPE FINISH GRADE AWAY FROM MOCKUP FOUNDATIONS.
5. PROVIDE CONTINUOUS AIR AND WEATHER BARRIER OVER ALL EXTERIOR SURFACES OF MOCKUP FOR TESTING.
6. MOCKUP HAS NOT BEEN DESIGNED BY A STRUCTURAL ENGINEER. CONTRACTOR IS RESPONSIBLE FOR STRUCTURAL DESIGN OF MOCKUP.

PHASE ONE - MOCKUP - THE FIRST PHASE OF THE MOCKUP WILL CONSIST OF THE AIR AND WATER INFILTRATION TESTING. CONSTRUCT MOCKUP WITHOUT CLADDING. SHOW EXAMPLES OF ALL PENETRATIONS THAT OCCUR THROUGH THE AIR AND WEATHER BARRIER.

PHASE TWO - MOCKUP - THE SECOND PHASE OF THE MOCKUP IS TO SHOW EXAMPLES OF THE EXTERIOR CLADDING FOR APPROVAL OF QUALITY AND WORKMANSHIP. THIS WILL HAPPEN AFTER THE AIR AND WATER INFILTRATION TESTING. FINISHES WILL HAPPEN ON THE EAST ELEVATION OF MOCKUP - SEE EXTERIOR ELEVATION DRAWING C2/G005 FOR EXTEND OF EXTERIOR FINISHES.

ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
2. GENERAL CONTRACTOR MUST ENSURE AND PROVIDE EXTERIOR AESTHETIC SEALANT JOINTS BETWEEN ALL SIDES OF THE FENESTRATION AND THE CLADDING OF THE BUILDING AS NEEDED TO COMPLETELY CONCEAL THE AIR BARRIER (TYPICAL).
3. GENERAL CONTRACTOR MUST ENSURE A CONTINUOUS AIR BARRIER IS PROVIDED INTO ALL FENESTRATION ROUGH OPENINGS INCLUDING ALL HEAD, JAMB AND SILL CORNERS WITH INTERIOR SEALANT JOINT INSTALLED CONTINUOUSLY BETWEEN FENESTRATION AND AIR BARRIER, AND IN ACCORDANCE WITH FENESTRATION AND AIR BARRIER MANUFACTURERS INSTALLATION PROCEDURES (TYPICAL).
4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

MOCKUP

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: G005
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

SPECIAL INSPECTION, MATERIAL TESTING & STRUCTURAL OBSERVATION ITEMS REQUIRED BY CHAPTER 17 OF THE 2009 IBC

FABRICATORS (IBC 1704.2)

☐ Approved Fabricator	Yes	No

☐ Unapproved Fabricator	Yes	No

Fabricators Name:	
Fabricators plant location	
Required In-plant Inspections	☐ Steel Construction ☐ Cold-formed Construction ☐ Concrete Construction ☐ Other: _____ ☐ Wood Construction ☐ Other: _____

STEEL CONSTRUCTION (IBC 1704.3, 1707.2 & 1708.3)

Item			Detailed Instructions and Frequencies
WELDING (1704.3.1)			
Complete & partial penetration groove welds	☒ Continuous	☐ Periodic	
Multi-pass fillet welds	☒ Continuous	☐ Periodic	
Single-pass fillet welds > 5/16"	☒ Continuous	☐ Periodic	
Single-pass fillet welds ≤ 5/16"	☐ Continuous	☒ Periodic	Pre-welding inspections are to be performed to ensure that proper materials (i.e. structural steel, weld filler material, etc.), welding procedures, and welding personnel qualifications are appropriate. A visual inspection of all welds must be provided with periodic inspections made of work in progress.
Floor & roof deck welds	☐ Continuous	☒ Periodic	
Shear connector (i.e. stud) welds	☐ Continuous	☒ Periodic	
Cold-formed steel welds	☐ Continuous	☒ Periodic	
Welds of stairs & railing systems	☐ Continuous	☒ Periodic	
DETAILS OF STEEL FRAME (1704.3.2)			
Member locations, bracing, gusset plates, stiffeners and other connection components	☐ Continuous	☒ Periodic	All steel frames shall be inspected to verify compliance with the approved construction documents, such as bracing, stiffening, member size and location, and proper application of joint details at each connection.
HIGH-STRENGTH BOLTING (1704.3.3)			
Pretensioned & slip-critical joints	☐ Continuous	☒ Periodic ☐ #1 ☐ #2 ☒ #3	For periodic inspections one of the following methods must be used: (1) turn-of-nut method w/ match-marking, (2) direct tension indicator method or (3) the alternate design fastener (i.e. twist-off bolt) method (see Section 9.2 of 2009 RCSC Specification).
Snug-tightened joints	☐ Continuous	☒ Periodic	Verify that all joints use proper fastener components, connected elements are fabricated properly, the bolted joint is drawn into firm contact, and that the nuts cannot be removed without the use of a wrench (see Section 9.1 of 2009 RCSC Specification).

CONCRETE CONSTRUCTION (IBC 1704.4 & 1708.2)

Item			Detailed Instructions and Frequencies
Reinforcing steel, including prestressing tendons	☐ Continuous	☒ Periodic	Verify prior to placing concrete that reinforcing is of specified type, grade and size; that it is free of oil, dirt and rust; that it is located and spaced properly; that hooks, bends, ties, stirrups and supplemental reinforcement are placed correctly; that lap lengths, stagger and offsets are provided; and that all mechanical connections are installed per the manufacturer's instructions and/or evaluation report.
Welding of reinforcing steel	☐ Continuous	☒ Periodic	Verify weldability of reinforcing steel other than A706. Continuous inspection is required for welding of reinforcing steel used in intermediate or special concrete moment frames, boundary elements of special structural walls or shear reinforcement.
Cast-in bolts & embeds	☒ Continuous	☐ Periodic	
Post-installed anchors or dowels	☐ Continuous	☐ Periodic	All post-installed anchors/dowels shall be specially inspected as required by the approved ICC-ES report.
Use of required mix design	☐ Continuous	☒ Periodic	Verify that all mixes used comply with the approved construction documents; ACI 318: Ch. 4, 5.2-5.4; and IBC 1904.3, 1913.2, 1913.3.
Concrete sampling for strength tests, slump, air content, and temperature	☒ Continuous	☐ Periodic	
Concrete placement	☒ Continuous	☐ Periodic	
Curing temperature and techniques	☐ Continuous	☒ Periodic	Verify that the ambient temperature for concrete is kept at > 50°F for at least 7 days after placement. High-early-strength concrete shall be kept at > 50°F for at least 3 days. Accelerated curing methods may be used (see ACI 318: 5.11.3). The ambient temperature for shotcrete shall be > 40°F for the same period of time as noted for concrete. Shotcrete shall be kept continuously moist for at least 24 hours after shotcreting. All concrete materials, reinforcement, forms, fillers, and ground shall be free from frost. In hot weather conditions ensure that appropriate measures are taken to avoid plastic shrinkage cracking and that the specified water/cement ratio is not exceeded.
Erection of precast concrete	☐ Continuous	☒ Periodic	Verify that all precast elements are lifted, assembled and braced in accordance with the approved construction documents.

MASONRY CONSTRUCTION (IBC 1704.5)

Item			Detailed Instructions and Frequencies
Review material certificates, mix designs, test results and construction procedures	☐ Continuous	☒ Periodic	It shall be confirmed that materials used conform to the requirements of the approved construction documents. Mortar mix designs shall show compliance with the proportion or property specification of ASTM C270. Grout shall comply with the proportion or strength requirements of ASTM C476 or be based upon compressive strength tests in accordance with ASTM C1019. Material certificates shall be provided for the following: reinforcement; anchors, ties, fasteners, and metal accessories; masonry units; mortar and grout materials. Construction procedures for cold-weather or hot-weather construction shall be reviewed.
Verify f'_m and f'_{AAC} prior to construction	☐ Continuous	☒ Periodic	Determine the compressive strength for each wythe by the "unit strength method" or by the "prism test method" as specified in Section 1.4B of ACI 530.1-08 prior to construction. For Occupancy Category IV this should be verified at every 5,000ft² of construction.
Self-consolidating grout	☒ Continuous	☐ Periodic	
Grout placement	☒ Continuous	☐ Periodic	
Preparation of required grout specimens, mortar specimens and/or prisms shall be observed	☐ Continuous	☒ Periodic	If the prism test method is used a minimum of three prisms shall be constructed in accordance with ASTM C1314. If the unit strength method is selected the compressive strength of the grout shall be determined per ASTM C1019 (not required if grout complies with ASTM C476). Continuous inspection required for Occupancy Category IV structures.
Post-installed anchors or dowels	☐ Continuous	☐ Periodic	All post-installed anchors/dowels shall be specially inspected as required by the approved ICC-ES report.
PRIOR TO GROUTING:			
Grout space is clean	☐ Continuous	☒ Periodic	Verify that grout space is free of mortar droppings, debris, loose aggregate, and material deleterious to masonry grout. Continuous inspection required for Occupancy Category IV structures.
Placement of reinforcement an connectors	☐ Continuous	☒ Periodic	Verify that reinforcement, joint reinforcement, wall ties, anchor bolts and veneer anchors are installed in accordance with Section 3.4 of ACI 530.1-08.
Proportions of site-prepared grout and prestressing grout	☐ Continuous	☒ Periodic	Verify that grout is proportioned per ASTM C476 and has a slump between 8-11 inches. Self-consolidated grout shall not be proportioned onsite.
AS MASONRY CONSTRUCTION BEGINS:			
Proportions of site-prepared mortar	☐ Continuous	☒ Periodic	Ensure that mortar that begins to stiffen or is not used within 2½ hours is discarded. No admixtures containing > 0.2% chlorides shall be used. Jobsite pigments shall meet the limitations of Section 2.6A of ACI 530.1-08.
Construction of mortar joints	☐ Continuous	☒ Periodic	Unless specified otherwise construct 3/8" bed and head joints, except at foundation or glass unit masonry. Bed joint at foundation shall be >1/4" and ≤ 3/4". Tool joints with a round jointer when mortar is thumbprint hard. Remove masonry protrusions extending ≥ 1/2" into cells to be grouted. Solidly fill collar joints < 3/4" with mortar during construction.
Location of reinforcement, connectors, prestressing tendons and anchorages	☐ Continuous	☒ Periodic	Verify compliance with approved construction documents. Do not place dissimilar metals in contact with each other. Prestressing tendon placement shall conform to Section 3.6A of ACI 530.1-08.
DURING CONSTRUCTION:			
Size and location of structural elements	☐ Continuous	☒ Periodic	Verify that structural elements are placed in locations specified on the approved construction documents and to the tolerances noted in Section 3.3F of ACI 530.1-08.
Type, size and location of anchors and other details of masonry anchorages to structural members	☐ Continuous	☒ Periodic	Verify that structural elements are placed in locations specified on the approved construction documents. Headed or bent bar anchor bolts shall be embedded in grout. Continuous inspection required for Occupancy Category IV structures.
Size, grade and type of reinforcement, prestressing tendons and metal accessories	☐ Continuous	☒ Periodic	Verify that materials meet the requirements of Section 2.4 of ACI 530.1-08. All reinforcement shall be placed in grout with minimum grout cover of 1/2" for coarse grout and 1/4" for fine grout. Verify that reinforcement protection, standard hooks and minimum bend diameters comply with Section 1.15 of ACI 530-08.
Welding of reinforcing bars	☒ Continuous	☐ Periodic	
Preparation, construction and protection of masonry during cold or hot weather construction	☐ Continuous	☒ Periodic	When the ambient air temperature is <40°F ensure that construction complies with Section 1.8C of ACI 530.1-08. When the ambient air temperature is >100°F, or >90°F with a wind velocity >8mph, ensure that construction complies with Section 1.8D of ACI 530.1-08.
OCCUPANCY CATEGORY IV:			
Verification of proportions of materials in premixed or pre-blended mortar and grout as delivered to the site	☐ Continuous	☒ Periodic	Verify that proportions for mortar meet ASTM C270 and proportions for grout meet ASTM C476.
Placement of masonry units	☐ Continuous	☒ Periodic	Verify that face shells and head joints are fully mortared and that vertical cells are aligned and unobstructed openings for grout are provided. All units are to be clean and placed while mortar is soft and plastic. Review Section 3.3B(5) for requirements at glass units.

SOILS CONSTRUCTION (IBC 1704.7)

Item			Detailed Instructions and Frequencies
Verify subgrade is adequate to achieve design bearing capacity	☐ Continuous	☒ Periodic	Prior to placement of concrete.
Verify excavations extend to proper depth and material	☐ Continuous	☒ Periodic	Prior to placement of compacted fill or concrete.
Verify that subgrade has been appropriately prepared prior to placing compacted fill	☐ Continuous	☒ Periodic	Prior to placement of compacted fill.
Perform classification and testing of compacted fill materials	☐ Continuous	☒ Periodic	All materials shall be checked at each lift for proper classifications and gradations not less than once for each 10,000ft² of surface area.
Verify proper materials, densities and lift thicknesses during placement and compaction.	☒ Continuous	☐ Periodic	

SMOKE CONTROL (IBC 1704.16)

Item			Detailed Instructions and Frequencies
Verify device locations and perform leakage testing	☐ Continuous	☒ Periodic	During erection of ductwork and prior to concealment. As defined by rational analysis.
Pressure difference testing, flow measurements and detection and control verification	☐ Continuous	☒ Periodic	Prior to occupancy and after sufficient completion. As defined by rational analysis.

ARCHITECTURAL COMPONENTS (IBC 1707.6)

Item			Detailed Instructions and Frequencies
Erection and fastening of exterior cladding or interior and exterior veneers	☐ Continuous	☒ Periodic	Verify appropriate materials, fasteners and attachment at commencement of work and at completion. Performed by code inspection firm. (Not required if < 30 feet or less than 5psf).
Erection and fastening of interior and exterior nonbearing walls	☐ Continuous	☒ Periodic	Verify appropriate materials, fasteners and attachment at commencement of work and at completion. Performed by code inspection firm. (Not required if < 30 feet or for interior walls < 15psf).

MECHANICAL & ELECTRICAL COMPONENTS (IBC 1707.7, 1707.8 & 1708.4)

Item			Detailed Instructions and Frequencies
Installation of piping systems carrying flammable, combustible or highly toxic materials	☐ Continuous	☒ Periodic	Verify that installation and restraint comply with approved construction documents. Performed by code inspection firm.
Designated seismic systems	☐ Continuous	☒ Periodic	Confirm that manufacturer's certificate of compliance conforms to the requirements of Section 13.2.1 of ASCE 7-05. Verify that the label, anchorage or mounting conforms to the manufacturer's certificate of compliance. Performed by code inspection firm.

MISCELLANEOUS AREAS

These inspections are recommended by the Architect/Engineer and approved by DFCM.

			Detailed Instructions and Frequencies
Suspended Ceiling Grid Clips	☐ Continuous	☒ Periodic	Performed by code inspection firm.
Suspended Ceiling wire spacing (Seismic)	☐ Continuous	☒ Periodic	Performed by code inspection firm.
Soils backfill (specify locations and frequency)	☐ Continuous	☒ Periodic	Every Lift: Performed by materials testing firm.
Soils for curb and gutter (specify locations and frequency)	☐ Continuous	☒ Periodic	Every Lift: Performed by materials testing firm.
Soils for parking lots (specify locations and frequency)	☐ Continuous	☒ Periodic	Every Lift: Performed by materials testing firm.
Soils for utility trench backfill	☐ Continuous	☒ Periodic	Every Lift: Performed by materials testing firm.
Reinforcement for slab on grade sidewalks and drive approaches (specify locations and frequency)	☐ Continuous	☒ Periodic	Every Batch: Performed by materials testing firm.
Concrete testing for slab on grade sidewalks and drive approaches (specify locations and frequency)	☐ Continuous	☒ Periodic	Every Batch: Performed by materials testing firm.
Concrete testing for interior slab on grade (specify locations and frequency)	☐ Continuous	☒ Periodic	
Asphalt inspection (specify locations and frequency)	☐ Continuous	☒ Periodic	Every Batch: Performed by materials testing firm.
Asphalt testing (specify locations and frequency)	☐ Continuous	☒ Periodic	Every Batch: One core sample will be taken for every 1,000 square yards or less of installed pavement with no fewer than three cores taken
Seismic supports for duct work and sealing of joints for duct work	☐ Continuous	☒ Periodic	
Seismic supports for electrical raceways, cable trays and lights	☐ Continuous	☒ Periodic	
Seismic supports for plumbing lines including gas, water and steam and condensation	☐ Continuous	☒ Periodic	
Seismic bracing for mechanical units both on slab and suspended	☐ Continuous	☒ Periodic	

Special Inspectors Shall:

- Be approved by the Building Official prior to performing any duties;
- Provide proof of licensure as a special inspector by the State of Utah for each type of inspection;
- Inspection reports are to meet the requirements of IBC 1704.1.2 and DFCM standards;
- Inspection reports are to be submitted to the code consultant, architect, DFCM project manager, and the State of Utah Building Official within 48 hours of performing inspections;
- A final inspection report shall be submitted following completion of the project documenting the types of special inspections performed and a statement indicating that the structure is in compliance with the approved construction documents and applicable codes (see IBC 1704.1.2).

NONSTRUCTURAL COMPONENT CHECKLIST

ITEM DESCRIPTION	*NOT REQUIRED*	*ON CONST. DOCUMENTS*	*DEFERRED SUBMITTAL*	*COMMENTS*
Architectural Components:				
Interior Nonstructural Walls & Partitions		X		
Cantilever Elements *(i.e. parapets, etc.)*	X			
Exterior Nonstructural Wall Elements		X		
Veneer		X		
Penthouses	X			
Ceilings *(i.e. suspended grid or hard-lid)*		X		
Cabinets *(i.e. storage cabinets, equip, etc.)*	X			
Access Floors	X			
Storage Racks	X			
Appendages & Ornamentations	X			
Signs & Billboards	X			
Other:	X			
Other:	X			
MEP Components:				
Fire Sprinklers			X	
Mechanical Equipment *(i.e. HVAC, fans, air handlers, boilers, furnaces, tanks, chillers, water heaters, heat exchangers, evaporators, engines, turbines, pumps, compressors, MFR equipment, etc.)*			X	
Electrical Equipment *(i.e. generators, batteries, inverters, transformers, MCC, panel boards, switch gear, cabinets, etc.)*			X	
Elevator & Escalator Components	X			
Communication Equipment, Computers, Instrumentation, and Controls	X			
Roof-mounted Chimneys, Stacks, Cooling & Electrical Towers	X			
Lighting Fixtures			X	
Vibration Isolated Components			X	
Piping & Conduit Systems			X	
Ductwork *(including in-line components)*			X	
Conveyors	X			
Cable Trays			X	
Other:	X			
Other:	X			

NOTES:

1. Deferred submittals for seismic restraint of nonstructural components must be submitted to the DFCM Building Official a minimum of two weeks prior to the planned installation in order to allow for plan review and forwarding to inspectors. In the event that the submittal is deficient additional time may become necessary.
2. If seismic restraints of non-structural components are installed prior to receiving DFCM approval they shall not be covered or concealed until receiving both plan review and inspection approval. Further, installers are proceeding at their own risk until plan review and inspection approval occurs.
3. The requirements for seismic restraint of nonstructural components cannot be satisfied by a general reference to Design Manuals. The design professional may utilize these manuals as a basis of their design, but must provide all supporting documentation to ensure that the design conforms to the requirements of ASCE 7-05, Chapter 13.
4. Submittals must include details of the proposed seismic restraint of nonstructural components. These details must show specific information relating to the materials, type, size, and locations of anchorages; materials used for bracing; attachment requirements of bracing to structure and component; and locations of transverse and longitudinal sway bracing and rod stiffeners. Submittals may also require structural calculations, engineering reports, test data, and/or specifications to ensure code compliance.

SEISMIC DESIGN REQUIREMENTS FOR NON STRUCTURAL COMPONENTS

CONTRACTOR SHALL DESIGN AND INSTALL SEISMIC RESTRAINTS SYSTEMS FOR NONSTRUCTURAL COMPONENTS (E.G. ARCHITECTURAL, MECHANICAL AND ELECTRICAL) TO COMPLY WITH THE 2009 INTERNATIONAL BUILDING CODE (IBC), ASCE 7-05 AS REFERENCED IN THE IBC, SEISMIC CONTROL SPECIFICATIONS AND DETAILS ON THE DRAWINGS. CALCULATIONS ARE TO BE PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF UTAH.

DEFERRED SUBMITTALS	ESTIMATED SUBMITTAL DATE
1. MECHANICAL, ELECTRICAL, PLUMBING AND OTHER SEISMIC BRACING.	JUNE 2013
2. FIRE ALARM/ MASS NOTIFICATION.	JUNE 2013
3. FIRE SPRINKLER SYSTEMS.	JUNE 2013
4. PENETRATION FIRESTOPPING SYSTEMS.	JUNE 2013
5. PRECAST CONCRETE SYSTEM.	JUNE 2013

DEFERRED SUBMITTALS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL FOR REVIEW WITH AN ACCOMPANIED LETTER FROM THE ARCHITECT STATING THAT THE DRAWINGS ARE IN CONFORMANCE WITH THE DESIGN. SUBMITTALS FOR FIRE ALARMS AND SUPPRESSION SHALL BE SUBMITTED TO THE STATE FIRE MARSHALL FOR THEIR APPROVAL. WORK RELATED TO THE DEFERRED SUBMITTALS IS NOT TO COMMENCE UNTIL THE BUILDING OFFICIAL HAS APPROVED THE SUBMITTAL.

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH ERIC R. THOLEN 129665 LICENSED ARCHITECT

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

DFCM FORMS

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY CO CS CR	CHECKED BY CR MM
PROJECT NO. 11007	DRAWING NO. G006
DATE 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

THE CONTRACTOR SHALL CAREFULLY READ ALL OF THE NOTES AND SPECIFICATIONS, THE CONTRACTOR SHALL BE SATISFIED AS TO THE TRUE MEANING AND INTENTION AND SHALL BE RESPONSIBLE FOR COMPLYING WITH EACH.

GENERAL NOTES:

1) ALL IMPROVEMENTS SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE FOLLOWING: THE UTAH CHAPTER OF THE 2012 EDITION AMERICAN PUBLIC WORKS ASSOCIATION MANUAL OF STANDARD PLANS AND SPECIFICATIONS IN ITS LATEST EDITION (APWA), WHERE APPLICABLE.

2) PRIOR TO ANY WORK BEING PERFORMED, THE CONTRACTOR SHALL CONTACT THE UTAH NATIONAL GUARD FOR A PRE-CONSTRUCTION CONFERENCE AS DIRECTED BY THE OWNER. CONTRACTOR SHALL ALSO NOTIFY THE BELOW LISTED PROJECT CONTACTS (48) HOURS IN ADVANCE OF SAID MEETING:

A. REGULATORY AGENCY: UTAH NATIONAL GUARD
12953 SOUTH MINUTEMAN DRIVE, DRAPER UT 84020-1776
(801) 523-4233
(801) 523-4737 FAX
CONTACT: D. SCOTT POTTER, ENGINEERING SUPERVISOR

B. ENGINEER: STANLEY CONSULTANTS
383 WEST VINE STREET, SUITE 400 MURRAY UTAH 84123
(801) 293-8880
(801) 293-8886 FAX
CONTACT: JEFFERY UPRIGHT, P.E.

C. POWER COMPANY: PACIFICORP
12840 SOUTH PONY EXPRESS ROAD, RIVERTON, UT 84065
(801) 576-6228
CONTACT: JOHN SPRINGER

D. GAS COMPANY: QUESTAR
1140 WEST 200 SOUTH, SALT LAKE CITY, UT 84104
(801) 324-3957
CONTACT: DEANNA HOPKINS

E. TELEPHONE COMPANY: QWEST
1425 WEST 3100 SOUTH, SALT LAKE CITY, UT 84119
(801) 974-8168
CONTACT: JD HOOTER

F. SANITARY SEWER: SOUTH VALLEY SEWER DISTRICT
874 EAST 12400 SOUTH PO Box 908 Draper, Utah 84020
(801) 571-1166
CONTACT: MIKE FOERSTER

3) IT IS INTENDED THAT THESE PLANS AND SPECIFICATIONS REQUIRE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES OR AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. THE ENGINEER'S INTERPRETATION THEREOF SHALL BE CONCLUSIVE.

4) WHERE THE PLANS OR SPECIFICATIONS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS BUT NOT IN COMPLETE DETAIL, IT IS UNDERSTOOD THAT ONLY THE BEST GENERAL PRACTICE IS TO PREVAIL AND THAT ONLY MATERIALS AND WORKMANSHIP OF THE FIRST QUALITY ARE TO BE USED.

5) THE CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PROJECT PLANS AND SPECIFICATIONS. THEREFORE, THE OWNER IS RELYING UPON THE EXPERIENCE AND EXPERTISE OF THE CONTRACTOR, IT SHALL BE EXPECTED THAT PRICES PROVIDED WITHIN THE CONTRACT DOCUMENTS SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE.

THE CONTRACTOR SHALL BE COMPETENT, KNOWLEDGEABLE AND HAVE SPECIAL SKILLS IN THE NATURE, EXTENT AND INHERENT CONDITIONS OF THE WORK TO BE PERFORMED. CONTRACTOR SHALL ALSO ACKNOWLEDGE THAT THERE ARE CERTAIN PECULIAR AND INHERENT CONDITIONS EXISTENT IN THE CONSTRUCTION OF THE PARTICULAR FACILITIES, WHICH MAY CREATE, DURING THE CONSTRUCTION PROGRAM, UNUSUAL OR UNSAFE CONDITIONS HAZARDOUS TO PERSONS, PROPERTY AND THE ENVIRONMENT. CONTRACTOR SHALL BE AWARE OF SUCH PECULIAR RISKS AND HAVE THE SKILL AND EXPERIENCE TO FORESEE AND TO ADOPT PROTECTIVE MEASURES TO ADEQUATELY AND SAFELY PERFORM THE CONSTRUCTION WORK WITH RESPECT TO SUCH HAZARDS.

6) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND LICENSES REQUIRED and connection fees, inspections associated with fees, FOR THE CONSTRUCTION AND COMPLETION OF THE PROJECT, AND SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS AND CONDITIONS OF ALL PERMITS AND APPROVALS APPLICABLE TO THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT THE NECESSARY RIGHT-OF-WAYS, EASEMENTS, AND/OR PERMITS ARE SECURED PRIOR TO CONSTRUCTION. FEES COULD BE DUE FROM SOUTH VALLEY WATER, SOUTH VALLEY SEWER.

7) THE CONTRACTOR SHALL, AT THE TIME OF BIDDING, AND, THROUGHOUT THE PERIOD OF THE CONTRACT, BE LICENSED IN THE STATE OF UTAH AND SHALL BE BONDABLE FOR AN AMOUNT EQUAL TO OR GREATER THAN THE AMOUNT BID AND TO DO THE TYPE OF WORK CONTEMPLATED IN THE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PLANS AND SPECIFICATIONS.

8) CONTRACTOR SHALL INSPECT THE SITE OF THE WORK PRIOR TO BIDDING TO SATISFY THEMSELVES BY PERSONAL EXAMINATION OR BY SUCH OTHER MEANS AS THEY MAY PREFER, OF THE LOCATION OF THE PROPOSED WORK, AND OF THE ACTUAL CONDITIONS OF AND AT THE SITE OF WORK.

IF, DURING THE COURSE OF THEIR EXAMINATION, A BIDDER FINDS FACTS OR CONDITIONS WHICH APPEAR TO THEM TO BE IN CONFLICT WITH THE LETTER OR SPIRIT OF THE PROJECT PLANS AND SPECIFICATIONS, THEY SHALL CONTACT THE ENGINEER FOR ADDITIONAL INFORMATION AND EXPLANATION BEFORE SUBMITTING THEIR BID.

SUBMISSION OF A BID BY THE CONTRACTOR SHALL CONSTITUTE ACKNOWLEDGMENT THAT, IF AWARDED THE CONTRACT, THEY HAVE RELIED AND ARE RELYING ON THEIR OWN EXAMINATION OF (1) THE SITE OF THE WORK, (2) ACCESS TO THE SITE, AND (3) ALL OTHER DATA AND MATTERS REQUISITE TO THE FULFILLMENT OF THE WORK AND ON THEIR OWN KNOWLEDGE OF EXISTING FACILITIES ON AND IN THE VICINITY OF THE SITE OF THE WORK TO BE CONSTRUCTED UNDER THIS CONTRACT.

THE INFORMATION PROVIDED BY THE ENGINEER IS NOT INTENDED TO BE A SUBSTITUTE FOR, OR A SUPPLEMENT TO THE INDEPENDENT VERIFICATION BY THE CONTRACTOR TO THE EXTENT SUCH INDEPENDENT INVESTIGATION OF SITE CONDITIONS IS DEEMED NECESSARY OR DESIRABLE BY THE CONTRACTOR. CONTRACTOR SHALL ACKNOWLEDGE THAT THEY HAVE NOT RELIED SOLELY UPON OWNER OR ENGINEER FURNISHED INFORMATION REGARDING SITE CONDITIONS IN PREPARING AND SUBMITTING THEIR BID.

9) THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, BARRICADES, SIGNS, FLAGMEN OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY, AS REQUIRED BY THE RESPECTIVE REGULATORY AGENCY

10) THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL WATER, POWER, SANITARY FACILITIES AND TELEPHONE SERVICES AS REQUIRED FOR THE CONTRACTORS USE DURING CONSTRUCTION.

11) THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNER, AND/OR THE ENGINEER.

12) THE CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCH MARKS, CONTROL POINTS, REFERENCE POINTS AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSES FOR REPLACEMENT AND/OR ERRORS CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE.

13) THE CONTRACTOR AGREES THAT:

A. THEY SHALL BE RESPONSIBLE TO CLEAN THE JOB SITE AT THE END OF EACH PHASE OF WORK.

B. THEY SHALL BE RESPONSIBLE TO REMOVE AND DISPOSE OF ALL TRASH, SCRAP AND UNUSED MATERIAL OFF SITE AT THEIR OWN EXPENSE IN A TIMELY MANNER.

C. THEY SHALL BE RESPONSIBLE TO MAINTAIN THE SITE IN A NEAT, SAFE AND ORDERLY MANNER AT ALL TIMES.

D. THEY SHALL BE RESPONSIBLE TO KEEP MATERIALS, EQUIPMENT, AND TRASH OUT OF THE WAY OF OTHER CONTRACTORS SO AS NOT TO DELAY THE JOB. FAILURE TO DO SO WILL RESULT IN A DEDUCTION FOR THE COST OF CLEAN UP FROM THE FINAL PAYMENT.

E. THEY SHALL BE RESPONSIBLE FOR THEIR OWN SAFETY, TRAFFIC CONTROL, PERMITS, RETESTING AND REINSPECTION AT THEIR OWN EXPENSE.

14) THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER. CONTRACTOR SHALL SECURE SITE WITH CONSTRUCTION FENCING

15) DUST CONTROL SHALL BE PROVIDED AT ALL TIMES, AT THE CONTRACTOR'S EXPENSE, TO MINIMIZE ANY DUST NUISANCE AND SHALL BE IN ACCORDANCE WITH SECTION 01570 (APWA) AND THE REQUIREMENTS OF THE REGULATORY AGENCY

16) FOR ALL WORK WITHIN PUBLIC RIGHT-OF-WAYS OR EASEMENTS, THE CONTRACTOR SHALL PRESERVE THE INTEGRITY AND LOCATION OF ANY AND ALL PUBLIC UTILITIES AND PROVIDE THE NECESSARY CONSTRUCTION TRAFFIC CONTROL. CONTRACTOR SHALL, THROUGH THE ENCROACHMENT PERMIT PROCESS, VERIFY WITH THE NECESSARY REGULATORY AGENCIES, THE NEED FOR ANY TRAFFIC ROUTING PLAN. IF PLAN IS REQUIRED, CONTRACTOR SHALL PROVIDE PLAN AND RECEIVE PROPER APPROVALS PRIOR TO BEGINNING CONSTRUCTION.

17) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE REGULATORY AGENCY'S STANDARD SPECIFICATIONS. ALL TESTING AND INSPECTION SHALL BE PAID FOR BY THE CONTRACTOR UNLESS NOTED IN SPECIFICATIONS; ALL RE-TESTING AND/OR RE- INSPECTION SHALL BE PAID FOR BY THE CONTRACTOR.

18) IF EXISTING IMPROVEMENTS NEED TO BE DISTURBED AND/OR REMOVED FOR THE PROPER PLACEMENT OF IMPROVEMENTS TO BE CONSTRUCTED BY THESE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE. COST OF REPLACING OR REPAIRING EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS REQUIRING REMOVAL AND/OR REPLACEMENT OF EXISTING IMPROVEMENTS. THERE WILL BE NO EXTRA COST DUE THE CONTRACTOR FOR REPLACING OR REPAIRING EXISTING IMPROVEMENTS.

19) WHENEVER EXISTING FACILITIES ARE REMOVED, DAMAGED, BROKEN, OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS OR SPECIFICATIONS, SAID FACILITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE, AFTER PROPER BACKFILLING AND/OR CONSTRUCTION, WITH MATERIALS EQUAL TO OR BETTER THAN THE MATERIALS USED IN THE ORIGINAL EXISTING FACILITIES. THE FINISHED PRODUCT SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER, THE ENGINEER, AND THE RESPECTIVE REGULATORY AGENCY.

20) THE CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL STRUCTURES AND OTHER FACILITIES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO THE ENGINEER, ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE AS-BUILT RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATIONS REDLINED AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.

21) WORK IN EASEMENT AND/OR RIGHT-OF-WAY IS SUBJECT TO THE APPROVAL AND ACCEPTANCE OF THE REGULATORY AGENCY RESPONSIBLE FOR OPERATION AND/OR MAINTENANCE OF SAID EASEMENT AND/OR RIGHT-OF-WAY.

22) GENERAL NOTE: CONTRACTOR TO SUBMIT TRAFFIC CONTROL PLAN TO THE REGULATORY AGENCY PRIOR TO CONSTRUCTION FOR APPROVAL.

CLEARING AND GRADING NOTES:

1) BENCHMARK: STREET MONUMENT
ELEVATION: 4792.62
DATUM: UTAH COUNTY
DESCRIPTION: STREET MONUMENT LOCATED IN THE INTERSECTION OF CAMP WILLIAMS AVE AND 2ND STREET.

2) CONTRACTOR SHALL PERFORM EARTHWORK IN ACCORDANCE WITH DIVISION 2 OF THE 2012 OR LATEST EDITION AMERICAN PUBLIC WORKS ASSOCIATION STANDARD SPECIFICATIONS.

3) IF THE PROJECT REQUIRES ANY IMPORT OR EXPORT TO ACHIEVE A BALANCED SITE, A SEPARATE UNIT PRICE PER CUBIC YARD SHALL BE INCLUDED IN THE BID FOR SAID IMPORT OR EXPORT. ANY EXPORT MATERIAL SHALL BE STOCKPILED OR REMOVED FROM THE PROJECT SITE AS DIRECTED BY THE OWNER AND/OR ENGINEER.

4) SITE CONSTRUCTION AND GRADING SHALL BE AS OUTLINED IN THE GEOTECHNICAL REPORT PREPARED BY GSH GEOTECHNICAL, INC. DATED JULY 1, 2011 AND AS OUTLINED BY THE PROJECT STANDARDS AND SPECIFICATIONS.

UNDERGROUND UTILITIES:

1) THE INFORMATION SHOWN ON THE PLANS WITH REGARD TO THE EXISTING UTILITIES AND/OR IMPROVEMENTS, WAS DERIVED FROM FIELD INVESTIGATIONS AND/OR RECORD INFORMATION. THE ENGINEER DOES NOT GUARANTEE THESE LOCATIONS TO BE EITHER TRUE OR EXACT. PRIOR TO CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO VERIFY ALL EXISTING IMPROVEMENTS AND TO EXPOSE ALL EXISTING UNDERGROUND UTILITIES RELATED TO THE PROJECT, INCLUDING BUT NOT LIMITED TO, SEWER, STORM DRAIN, WATER, IRRIGATION, GAS, ELECTRICAL, ETC. AND SHALL NOTIFY THE ENGINEER IN WRITING FORTY-EIGHT (48) HOURS IN ADVANCE OF EXPOSING THE UTILITIES, SO THAT THE EXACT LOCATION AND ELEVATION CAN BE VERIFIED AND DOCUMENTED. THE COST ASSOCIATED TO PERFORM THIS WORK SHALL BE INCLUDED IN EITHER THE LUMP SUM CLEARING COST OR IN THE VARIOUS ITEMS OF WORK. IF LOCATION AND/OR ELEVATION DIFFERS FROM THAT SHOWN ON THE DESIGN PLANS, PROVISIONS TO ACCOMMODATE NEW LOCATION/ELEVATION MUST BE MADE PRIOR TO CONSTRUCTION.

2) PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE, IN THE FIELD, THEIR MAIN AND SERVICE LINES. THE CONTRACTOR SHALL NOTIFY BLUE STAKES AT 1-800-662-4111 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK. THE CONTRACTOR SHALL RECORD THE BLUE STAKES ORDER NUMBER AND FURNISH ORDER NUMBER TO OWNER AND ENGINEER PRIOR TO ANY EXCAVATION. IT WILL BE THE CONTRACTORS SOLE RESPONSIBILITY TO DIRECTLY CONTACT ANY OTHER UTILITY COMPANIES THAT ARE NOT MEMBERS OF BLUE STAKES. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THIS CONTRACT. ANY REPAIRS NECESSARY TO DAMAGED UTILITIES SHALL BE PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL BE REQUIRED TO COOPERATE WITH OTHER CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICE TO THE PROJECT.

3) THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 4 FEET OR MORE. FOR EXCAVATIONS 4 FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL COMPLY WITH INDUSTRIAL COMMISSION OF UTAH SAFETY ORDERS SECTION 68 - EXCAVATIONS, AND SECTION 69 - TRENCHES, ALONG WITH ANY LOCAL CODES OR ORDINANCES.

4) PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATIONS; I.E. SEWER, WATER, FUEL, ELECTRIC LINES, ETC., WILL BE ENCOUNTERED AND IF SO, WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN THE EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH AN INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING; AND, WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION.

THE CONTRACTOR WILL VERIFY DEPTHS OF ALL UTILITIES IN THE FIELD BY POT HOLING A MINIMUM OF 300 FEET AHEAD OF PIPELINE CONSTRUCTION TO AVOID CONFLICTS WITH DESIGNED PIPELINE GRADE AND ALIGNMENT. IF A CONFLICT ARISES RESULTING FROM THE CONTRACTOR NEGLECTING TO POT HOLE UTILITIES THE CONTRACTOR WILL BE REQUIRED TO RESOLVE THE CONFLICT WITHOUT ADDITIONAL COST OR CLAIM TO THE OWNER.

5) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL PIPE OF ADEQUATE CLASSIFICATION WITH SUFFICIENT BEDDING TO MEET ALL REQUIREMENTS AND RECOMMENDATIONS OF THE GOVERNING MUNICIPALITY FOR H-20 LOAD REQUIREMENTS.

7) ALL UNDERGROUND UTILITIES SHALL BE IN PLACE PRIOR TO INSTALLATION OF CURB, GUTTER, SIDEWALK AND STREET PAVING.

SURFACE IMPROVEMENTS:

1) ALL MANHOLE RIMS, LAMP HOLES, VALVES AND MONUMENT BOXES, ETC. SHALL BE ADJUSTED TO FINISHED GRADE & COLLARED AFTER STREET PAVING, UNLESS OTHERWISE NOTED. COST FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES FOR SAID FACILITIES.

2) PAYMENT FOR PAVEMENT WILL BE MADE ONLY FOR AREAS SHOWN ON PLANS. REPLACEMENT OF PAVEMENT WHICH IS BROKEN OR CUT DURING THE INSTALLATION OF THE WORK COVERED BY THESE SPECIFICATIONS, AND WHICH LIES OUTSIDE OF SAID AREAS, SHALL BE INCLUDED IN THE CONTRACTOR'S UNIT PRICE FOR PAVEMENT, AND NO ADDITIONAL PAYMENT SHALL BE MADE FOR SUCH WORK.

3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL STRIPING AND/OR PAVEMENT MARKINGS NECESSARY TO TIE EXISTING STRIPING INTO FUTURE STRIPING. METHOD OF REMOVAL SHALL BE BY GRINDING OR SANDBLASTING.

4) STRIPING AND PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH APWA 2012 OR LATEST VERSION SECTIONS 01555 AND 02765 AND THE LATEST EDITION OF THE MUTCD.

ROADWAY MATERIALS:

ROADWAY MATERIALS SPECIFICATIONS AND CONSTRUCTION REQUIREMENTS SHALL BE AS OUTLINED IN THE GEOTECHNICAL REPORT PREPARED BY GSH GEOTECHNICAL, INC DATED JULY 1, 2011 AND AS OUTLINED BY THE PROJECT STANDARDS AND SPECIFICATIONS.

ABBREVIATION :

APWA	AMERICAN PUBLIC WORKS ASSOC.	MIN	MINIMUM
AC	ASPHALTIC CONCRETE	N	NORTH
&	AND	NIC	NOT IN CONTRACT
APPROX.	APPROXIMATELY	NTS	NOT TO SCALE
ARV	AIR RELEASE VALVE	O.C.	ON CENTER
@	AT	OH	OVERHEAD
BDRY	BOUNDARY	PC	POINT OF CURVATURE
BVC	BEGIN VERTICAL CURVE	P.E.	REGISTERED PROFESSIONAL ENGINEER
BRG	BEARING	PI	POINT OF INTERSECTION
BW	BOTTOM OF WALL	PL	PROPERTY LINE
CB	CATCH BASIN	POC	POINT ON CURVE
CL OR ℄	CENTERLINE	PP	POWER POLE
CMP	CORRUGATED METAL PIPE	PRC	POINT OF REVERSE CURVE
C.O.B.	CLEANOUT BOX	PRV	PRESSURE REDUCING VALVE
CONC	CONCRETE	PSI	POUNDS PER SQUARE INCH
DET	DETAIL	PT	POINT OF TANGENT
DIA	DIAMETER	PVC	POLYVINYL CHLORIDE
DIP	DUCTILE IRON PIPE	PUD	PUBLIC UTILITY & DRAINAGE EASEMENT
DIST	DISTRICT	PUE	PUBLIC UTILITY EASEMENT
DWG	DRAWING	PVI	POINT OF VERTICAL INTERSECTION
EA	EACH	PVT	POINT OF VERTICAL TANGENT
EG	EXISTING GRADE	R	RADIUS
EP	EDGE OF PAVEMENT	RCP	REINFORCED CONCRETE PIPE
EVC	END OF VERTICAL CURVE	REF	REFERENCE
ELEV	ELEVATION	R.O.W.	RIGHT-OF-WAY
ESMT	EASEMENT	SS	SANITARY SEWER
EXIST.	EXISTING	SD	STORM DRAIN
EXP.	EXPIRATION	SW	SIDEWALK
FF	FINISH FLOOR	SCH	SCHEDULE
FH	FIRE HYDRANT	SEC.	SECTION
FIN	FINISH	S.F.	SQUARE FEET
FL	FLOWLINE	SHT	SHEET
FT	FEET	STA	STATION
G	GUTTER	STD	STANDARD
GB	GRADE BREAK	TA	TOP OF ASPHALT
HP	HIGH POINT	TBC	TOP BACK OF CURB
HORIZ	HORIZONTAL	TEMP	TEMPORARY
HYD	HYDRANT	THRU	THROUGH
ID	INSIDE DIAMETER	TG	TOP OF GRATE
I.E.	INVERT ELEVATION	TW	TOP OF WALL
IRR	IRRIGATION	TYP	TYPICAL
L	LENGTH	VAR	VARIES
L.F.	LINEAR FEET	VERT	VERTICAL
LP	LOW POINT	WATER	WATER
MAX	MAXIMUM	W/	WITH
MH	MANHOLE	WS	WATER SURFACE

LEGEND:

4790	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
4790	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED GRASS PAVERS
	EXISTING ASPHALT
	PROPOSED ASPHALT
	PROPOSED SIDEWALK
	PROPOSED CURB & GUTTER
	PROPOSED VERTICAL CURB
	PROPOSED LEED BOUNDARY
	PROPOSED CENTERLINE
	PROPOSED RIGHT-OF-WAY LINE
	PROPOSED WHITE VINYL FENCE
8"W	PROPOSED WATER LINE
IRR	PROPOSED IRRIGATION LINE
8"SS	PROPOSED SEWER LINE
MSS	PROPOSED SEWER M.H.
	PROPOSED WATER VALVE
	PROPOSED FIRE HYDRANT
SD	PROPOSED STORM DRAIN MANHOLE
SSMH-2	SEWER M.H. TAG
	PROPOSED CATCH BASIN
	PROPOSED CLEANOUT/IRRIGATION BOX
	PROPOSED COMBO. BOX
15"SD	PROPOSED 15" STORM DRAIN LINE
18"SD	PROPOSED 18" STORM DRAIN LINE
24"SD	PROPOSED 24" STORM DRAIN LINE
CB-1	STORM DRAIN BOX TAG
WTS-1	UTILITY LINE SERVICE TAG
	PROPOSED STREET LIGHT
	EXIST. SECTION MONUMENT
	EXIST. CURB & GUTTER
	EXIST. LOT LINE
	EXIST. PROPERTY LINE
4800	EXIST. CONTOUR LINE
	EXIST. CENTERLINE
	EXIST. RIGHT-OF-WAY LINE
	EXIST. FIRE HYDRANT
	EXIST. WATER VALVE
W	EXIST. WATER LINE
EX6"W	EXIST. 6" WATER LINE
IRR	EXIST. IRRIGATION LINE
	EXIST. STREET LIGHT
	EXIST. IRRIGATION BOX
WM	EXIST. WATER METER
S	EXIST. SEWER M.H.
EX8"S	EXIST. SEWER LINE
	EXIST. CATCH BASIN
	EXIST. CLEANOUT BOX
	EXIST. COMBO. BOX
-SD- -SD-	EXIST. STORM DRAIN LINE

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EFT ARCHITECTS
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801.521.8564 WWW.EFTARCH.COM

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383 West Vine Street
Suite 400
Murray, Utah 84123
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UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062
PROJECT #490076

GENERAL NOTES

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: NS
CHECKED BY: JDU
PROJECT NO.: 11007
DRAWING NO.: CN101
DATE: 02/15/2013

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265 EAST 100 SOUTH SUITE 350
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801.521.8564 WWW.EFTARCH.COM

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JEFFERY DAMON UPRIGHT
2/15/13
STATE OF UTAH

383 West Vine Street
Suite 400
Murray, Utah 84123
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LEGEND

—GAS—	Existing Gas Line
—SD—	Existing Storm Drain Line
—W—	Existing Water Line
—IRR—	Existing Irrigation Line
—P—	Existing Power Line
—SS—	Existing Sewer Line
— EX COMM —	Existing Communications Line
MSD	Existing Sewer Manhole
	Existing Fire Hydrant
	Existing Water Valve
	Existing Light Pole

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PROJECT #490076

EXISTING CONDITIONS
SCALE 1:30

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: MH	CHECKED BY: CRY
PROJECT NO.: 23472	DRAWING NO.: CU101
DATE: 02/15/2013	

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Q:\23472\07-Design\3 dwg\BEQ Site Design.dwg Feb 12, 2013 - 6:47pm

CULINARY WATER SYSTEM			
DESCRIPTION	NORTHING	EASTING	COMMENTS
WT-01	329241.8319	522551.6350	6"X8" REDUCER
WT-02	329241.8319	522551.6350	8" GATE VALVE
WT-03	329242.7582	522560.8741	8"X4"X8" TEE
WT-04	329231.1886	522560.8035	4" METER W/ CONCRETE BOX
WT-05	329245.2901	522587.4462	8" 90° BEND
WT-06	329258.9497	522587.4722	8"X8"X8" TEE
WT-07	329258.9497	522587.4722	8" GATE VALVE
WT-08	329287.6221	522587.5269	8" 90° BEND
WT-09	329287.6221	522918.8840	8" 90° BEND
WT-10	329184.2613	522918.8840	8" 90° BEND
WT-11	329184.2613	522918.8840	8" GATE VALVE
WT-12	329184.2613	522918.8840	8"X6" REDUCER

WATER/SEWER/GAS SERVICES		
DESCRIPTION	NORTHING	EASTING
WTS-1	329186.7214	522560.8741
WTS-2	329258.9497	522601.4939
SSS-1	329230.8796	522820.3606
SSS-2	329080.4914	522820.3607
SSS-3	329078.4941	522820.3607
SSS-4	329197.9988	522549.8019
GS-1	329112.6685	522536.8283
FH-1	329277.6221	522584.3401
FH-2	329199.7630	522879.9593

SANITARY SEWER SYSTEM							
DESCRIPTION	NORTHING	EASTING	RIM ELEVATION	INVERT OUT	INVERT IN	INVERT IN	COMMENTS
SSMH-EX1	329233.0250	522517.2144	4790.98	4780.63 (NE)	4780.73 (W)	4780.73 (SE)	EXISTING MANHOLE, ADD NEW OPENING, CLOSE EAST OPENING
SSMH-2	329297.6221	522583.4461	4788.88	4780.00 (E)	4780.10 (W)	–	
SSMH-3	329297.6221	522836.5761	4787.04	4778.50 (SE)	4778.60 (W)	4778.60 (SW)	
SSMH-EX4	329185.6800	522908.7164	4785.11	4777.74 (E)	4777.85 (SW)	4777.85 (NW)	EXISTING MANHOLE, RAISE TO GRADE. (APPROX 0.6') CORE & GROUT NEW NW AND SW OPENINGS, PLUG EXISTING WEST OPENING, REMOVE EXISTING WATER LINE OUT OF MANHOLE
SSMH-5	329079.7457	522838.6387	4788.20	4778.75 (NE)	4778.85 (SW)	4778.85 (W)	
SSMH-EX6	329163.7777	522995.8653	4781.72	–	–	–	EXISTING MANHOLE, RAISE TO GRADE (APPROX 1.3').
SSMH-EX7	329145.0630	523070.7114	4778.60	–	–	–	EXISTING MANHOLE, RAISE TO GRADE. (APPROX 1.5')

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
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GENERAL NOTES:

1. REMOVE ALL UNDERGROUND UTILITIES WITHIN THE LIMITS OF THE NEW BUILDING EXCAVATION.

2. COORDINATE WITH OWNER BEFORE DISRUPTING ANY UTILITY SERVICE.

3. REMOVE OR ABANDON-IN-PLACE ALL UNDERGROUND UTILITIES WITHIN THE LEED BOUNDARY LIMITS THAT WILL NO LONGER BE IN USE, ABANDONING UTILITIES MUST BE ACCEPTABLE AND NOT INTERFERE WITH SITE IMPROVEMENTS, CONSTRUCTION, AND AESTHETICS.

4. SEE ELECTRICAL PLANS FOR ELECTRICAL REMOVALS AND SITE LAYOUT.

5. SEE MECHANICAL PLANS FOR WATER AND GAS SERVICES BETWEEN MECHANICAL BUILDING AND BEQ BUILDING.

6. SEE LANDSCAPE PLANS FOR IRRIGATION REMOVALS AND SITE LAYOUT.

7. ALL SANITARY SEWER CONSTRUCTION SHALL COMPLY WITH SOUTH VALLEY SEWER DISTRICT'S DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS.

8. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND INVERT ELEVATIONS OF EXISTING MANHOLES AND OTHER UTILITIES BEFORE STAKING OR CONSTRUCTING ANY NEW SEWER LINES.

9. FOUR FEET OF COVER WILL BE REQUIRED OVER ALL SEWER LINES.

10. SEWER AND WATER LATERALS WILL BE STUBBED TO WITHIN FIVE FEET OF THE BUILDING. SEE PLUMBING PLANS FOR CONTINUATION INTO THE BUILDING.

11. ADJUST SERVICE CONNECTION LOCATIONS AND PIPE LENGTHS BASED ON ALTERNATIVE TO BE CONSTRUCTED.

CONSTRUCTION NOTES:

1. INSTALL SANITARY SEWER MANHOLE PER DETAIL A, SHEET C501
2. INSTALL 4" SS SDR-35 PVC PER DETAIL A, SHEET C501
3. INSTALL 6" SS SDR-35 PVC PER DETAIL A, SHEET C501
4. INSTALL 8" SS SDR-35 PVC PER DETAIL A, SHEET C501
5. NOT USED
6. ADJUST EXISTING MANHOLE RIM TO NEW GRADE
7. INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL S, SHEET C506
8. ROTATE OR INSTALL NEW CONCENTRIC MANHOLE CONE AS NEEDED TO AVOID CONFLICT WITH NEW VERTICAL CURB, SEE DETAIL A, SHEET C501 IF NEEDED
9. INSTALL 8"X6" REDUCER
10. INSTALL 8" GATE WATER VALVE PER DETAIL U, SHEET C506
11. INSTALL 8" W C-900 DR-18 PIPE, MAINTAIN 5' MINIMUM COVER PER DETAIL B, SHEET C501
12. INSTALL 8"X8"X8" TEE W/TRUST BLOCK PER DETAIL T, SHEET C506
13. INSTALL 8"X4"X8" TEE W/TRUST BLOCK PER DETAIL T, SHEET C506
14. INSTALL 4" W C-900 DR-18 PIPE, MAINTAIN 5' MINIMUM COVER PER DETAIL B, SHEET C501
15. INSTALL 8" 90° ELBOW W/TRUST BLOCK PER DETAIL T, SHEET C506
16. NOT USED
17. INSTALL 4" METER W/ CONCRETE BOX, SEE DETAIL R, SHEET C506
18. NOT USED

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UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062
PROJECT #490076

UTILITY RELOCATION PLAN
SCALE 1:30

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: NS
CHECKED BY: JCD
PROJECT NO.: 11007
DRAWING NO.: CU102
DATE: 02/15/2013

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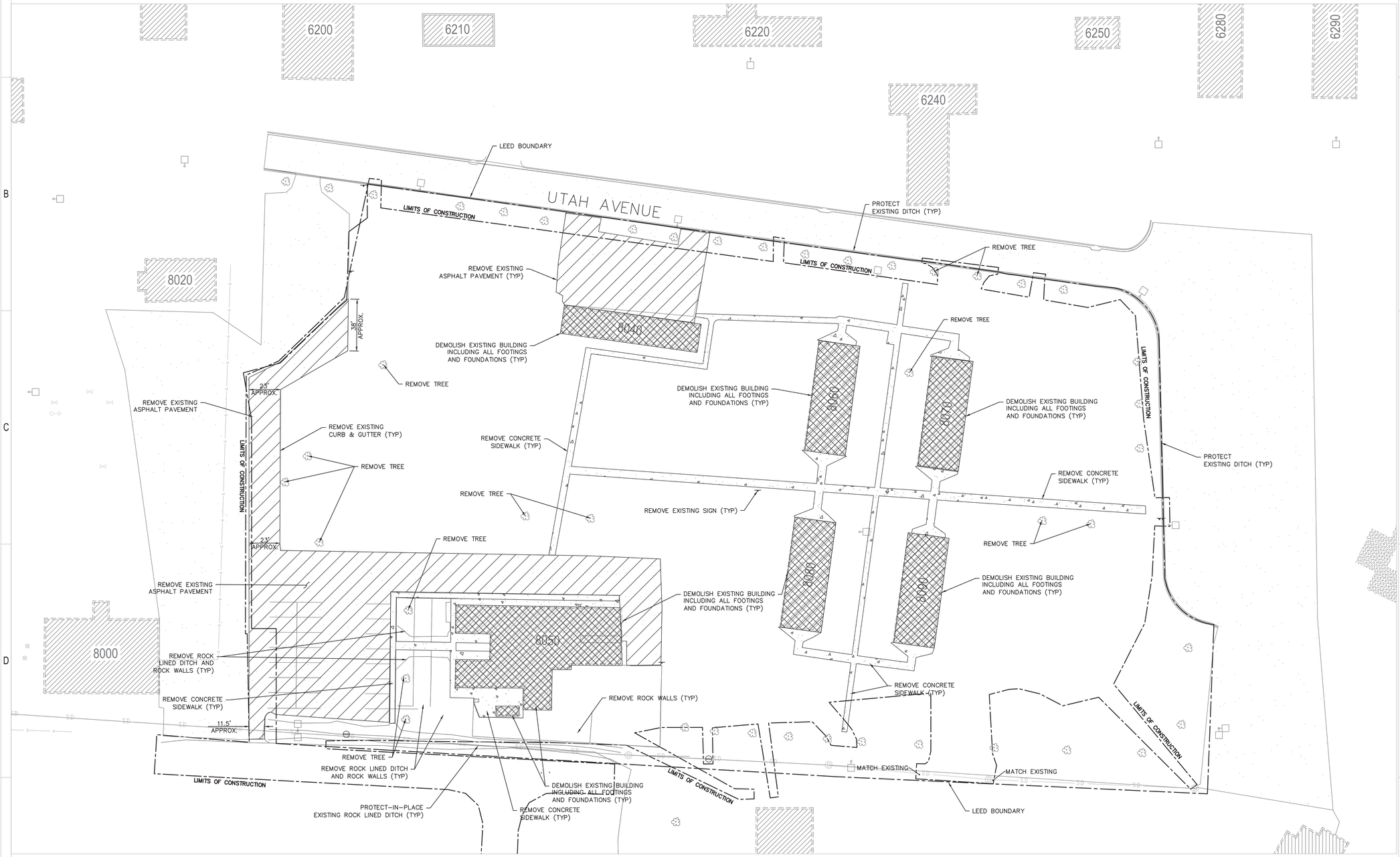

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STATE OF UTAH

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GENERAL NOTES:

1. SEE UTILITY PLAN FOR THE LIMITS OF UNDERGROUND UTILITY REMOVAL.

2. CONTRACTOR TO COORDINATE WITH OWNER BEFORE BUILDING DEMOLITION TO ENSURE THE OWNER HAS SUFFICIENT TIME TO SALVAGE WHAT THEY NEED FROM THE EXISTING BUILDINGS.

3. PROTECT ALL TREES UNLESS OTHERWISE NOTED.

4. SEE SHEET CU102 FOR UTILITY REMOVALS

5. SEE SPECIFICATIONS AND GENERAL NOTES FOR PROPER REMOVAL AND DISPOSAL OF DEMOLISHED MATERIALS.

- DEMOLISH EXISTING BUILDING
- REMOVE EXISTING ASPHALT
- REMOVE EXISTING CONCRETE SIDEWALK
- EXISTING PAVEMENT, PROTECT-IN-PLACE
- EXISTING TREE
- EXISTING SIGN

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UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062
PROJECT #490076

DEMOLITION PLAN

SCALE 1:30

REVISION	DATE	BY	DESCRIPTION
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△			
△			
△			

DRAWN BY: NS	CHECKED BY: JDU
PROJECT NO.: 11007	DRAWING NO.: CD101
DATE: 02/15/2013	

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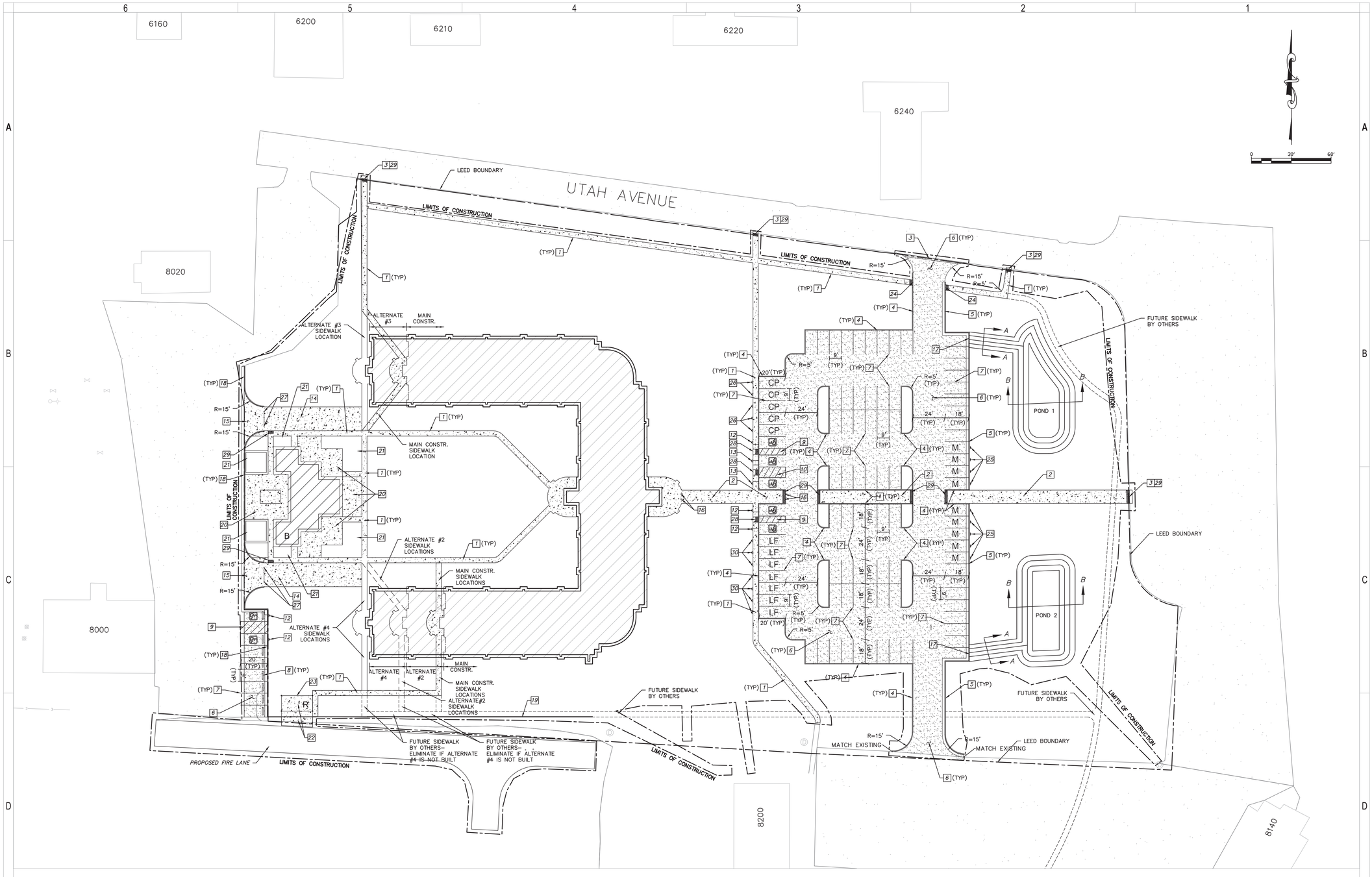


GENERAL NOTES:

1. REMOVE ALL EXISTING UNDERGROUND UTILITIES WITHIN THE LIMITS OF THE NEW BUILDING EXCAVATION.

2. REMOVE OR ABANDON–IN–PLACE ALL UNDERGROUND UTILITIES WITHIN THE LEED BOUNDARY LIMITS THAT WILL NO LONGER BE IN USE, SEE ELECTRICAL AND MECHANICAL PLANS FOR MORE INFORMATION.

3. ALL SANITARY SEWER CONSTRUCTION SHALL COMPLY WITH SOUTH VALLEY SEWER DISTRICT'S DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS.

4. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND INVERT ELEVATIONS OF EXISTING MANHOLES AND OTHER UTILITIES BEFORE STAKING OR CONSTRUCTING ANY NEW SEWER LINES.

5. FIVE FEET OF COVER WILL BE REQUIRED OVER ALL WATER LINES.

6. SEWER AND WATER LATERALS WILL BE STUBBED TO WITHIN FIVE FEET OF THE BUILDING. SEE PLUMBING PLANS FOR CONTINUATION INTO THE BUILDING.

7. CONTRACTOR TO COORDINATE WITH LANDSCAPE AND MECHANICAL SHEETS FOR LIMITS OF SNOW MELT SYSTEM.

ALTERNATE INFORMATION:

SITE PLAN DRAWINGS REFLECT CONDITIONS WITH BASE BID AND ALL ALTERNATIVES INCLUDED. THE FOLLOWING ADJUSTMENTS ARE TO BE MADE BASED ON THE ACCEPTED BID ALTERNATIVE.

BASE BID – THE MAIN BUILDING WILL ONLY INCLUDE THE AREA SHOWN AS MAIN CONSTR. ADJUST SIDEWALK AS INDICATED BY ALTERNATE SIDEWALK LOCATIONS ATTACHED TO MAIN CONSTR.

ALTERNATE #1 – BASE BID CONSTRUCTION.

ALTERNATE #2 – USE THE MAIN CONSTR. SIDEWALK LOCATIONS FOR THE NORTH WING OF THE MAIN BUILDING. USE ALTERNATE #2 SIDEWALK LOCATIONS FOR THE SOUTH WING.

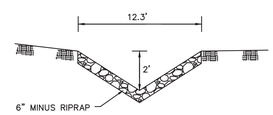
ALTERNATE #3 – USE THE SITE PLAN SIDEWALK LOCATIONS FOR THE NORTH WING OF THE MAIN BUILDING. USE ALTERNATE #2 SIDEWALK LOCATIONS FOR THE SOUTH WING.

ALTERNATE #4 – USE THE SITE PLAN SIDEWALK LOCATIONS.

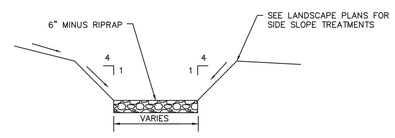
SITE LEGEND:

LF	PARKING FOR LOW EMITTING AND FUEL EFFICIENT CARS ONLY
CP	PARKING FOR COMMUTE POOL AND SHARING CARS ONLY
M	PARKING FOR MOTORCYCLES ONLY
	ADA ACCESSIBLE PARKING ONLY
B	BICYCLE RACKS (27 CAPACITY) AND STORAGE ROOM
R	RECYCLING WASTE BASKETS, BINS, AND DUMPSTER

--REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL SIGN INFORMATION--



A SWALE CROSS-SECTION
SCALE: N.T.S.



B POND CROSS-SECTION
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GENERAL NOTES:

1. INSTALL 4' WIDE SIDEWALK PER DETAIL M, SHEET C503
2. INSTALL 10' SIDEWALK PER DETAIL J, SHEET C503
3. INSTALL DITCH CROSSING PER DETAIL V, SHEET C506
4. INSTALL 6" CURB WALL PER DETAIL L, SHEET C503
5. INSTALL 6" CURB AND GUTTER PER DETAIL K, SHEET C503
6. INSTALL ASPHALT PAVING PER DETAIL C–1, SHEET C501
7. INSTALL WHITE PARKING STRIPE PER DETAIL X, SHEET C507
8. INSTALL PARKING CHUCK PER DETAIL CC, SHEET C508
9. INSTALL ADA PARKING STRIPING PER DETAIL Y, SHEET C507
10. INSTALL VAN ACCESSIBLE ADA PARKING STRIPING PER DETAIL Y, SHEET C507
11. NOT USED
12. INSTALL ADA PARKING SIGN PER DETAIL Y, SHEET C507
13. INSTALL VAN ACCESSIBLE ADA PARKING SIGN PER DETAIL Y, SHEET C507
14. INSTALL CONCRETE FIRE LANE ACCESS PER DETAIL C–2, SHEET C501
15. INSTALL DRIVEWAY ENTRANCE PER DETAIL O, SHEET C504
16. INSTALL BOLLARD PER DETAIL W, SHEET C507
17. INSTALL CURB CUT (SEE GRADING SHEET CG101)
18. INSTALL 8" CURB AND GUTTER PER DETAIL K, SHEET C503
19. INSTALL 8" CURB PER DETAIL L, SHEET C503
20. INSTALL 4" CONCRETE PATIO PER DETAIL M, SHEET C503
21. INSTALL PLANTER WITH CONCRETE SEATING, SEE ARCHITECT PLAN SHEETS
22. INSTALL CONCRETE PAD PER DETAIL C–3, SHEET C501
23. INSTALL TRASH ENCLOSURE PER DETAIL A105
24. INSTALL CONCRETE SIDEWALK RAMP PER DETAIL N, SHEET C504
25. INSTALL SIGN "MOTORCYCLE PARKING ONLY" CONTRACTOR TO SUBMIT SHOP DRAWINGS TO OBTAIN OWNERS APPROVAL
26. INSTALL SIGN "COMMUTE POOL AND SHARING CARS ONLY" CONTRACTOR TO SUBMIT SHOP DRAWINGS TO OBTAIN OWNERS APPROVAL
27. INSTALL BOLLARD PER DETAIL W, SHEET C507 WITH HEAVY DUTY BREAK–AWAY CHAIN AND PADLOCK. INSTALL REFLECTIVE SIGN ON CHAIN– CONTRACTOR TO SUBMIT SHOP DRAWINGS TO OBTAIN OWNERS APPROVAL.
28. INSTALL MID BLOCK SIDEWALK RAMP PER DETAIL P, SHEET C504
29. INSTALL DETECTABLE WARNING SURFACE PER DETAIL PP, SHEET C504
30. INSTALL SIGN "LOW EMITTING AND FUEL EFFICIENT CARS ONLY" CONTRACTOR TO SUBMIT SHOP DRAWINGS TO OBTAIN OWNERS APPROVAL

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CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062
PROJECT #490076

OVERALL SITE PLAN
SCALE 1:30

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: NS	CHECKED BY: JDU
PROJECT NO.: 11007	DRAWING NO.: CS101
DATE: 02/15/2013	

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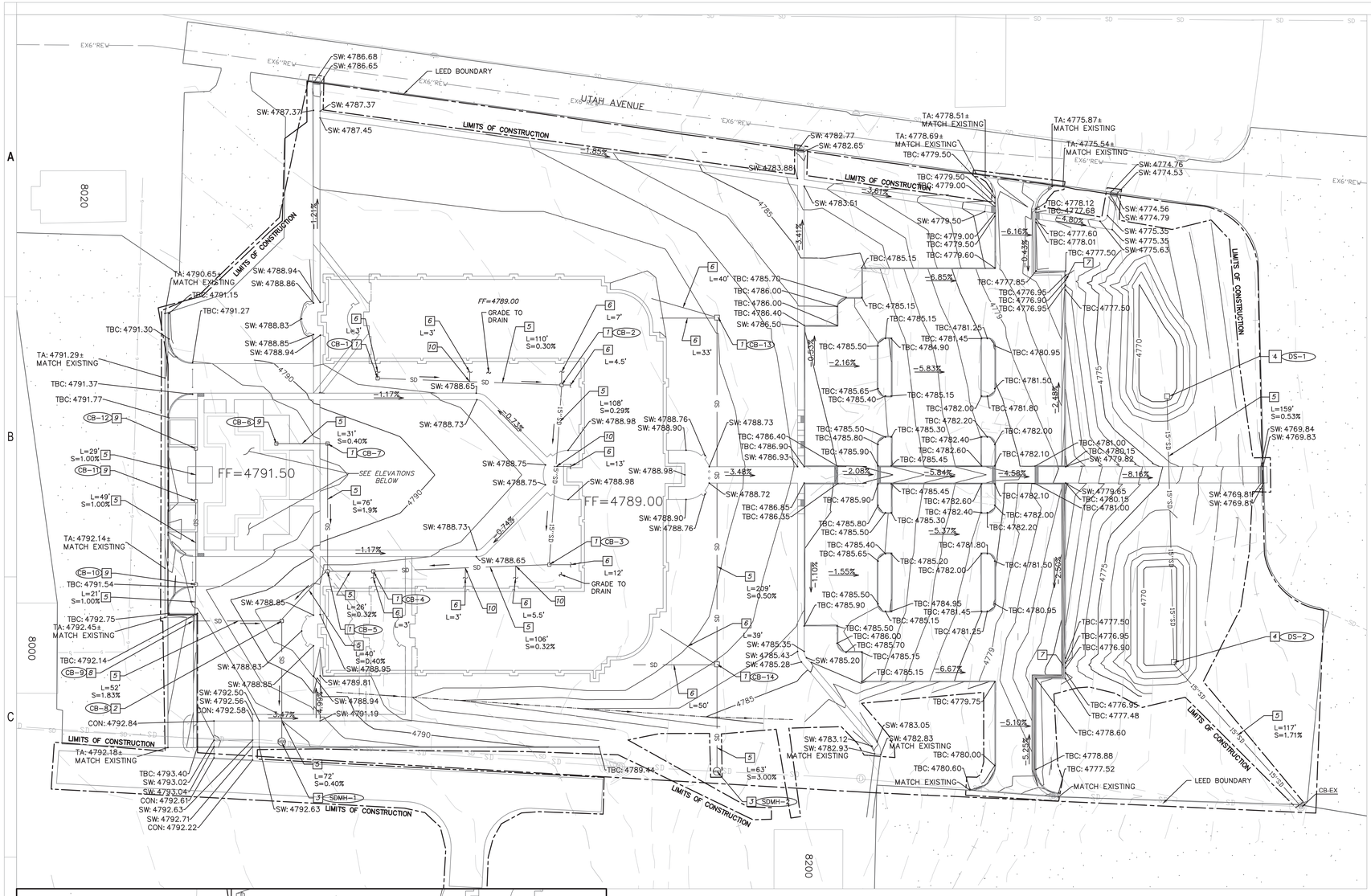

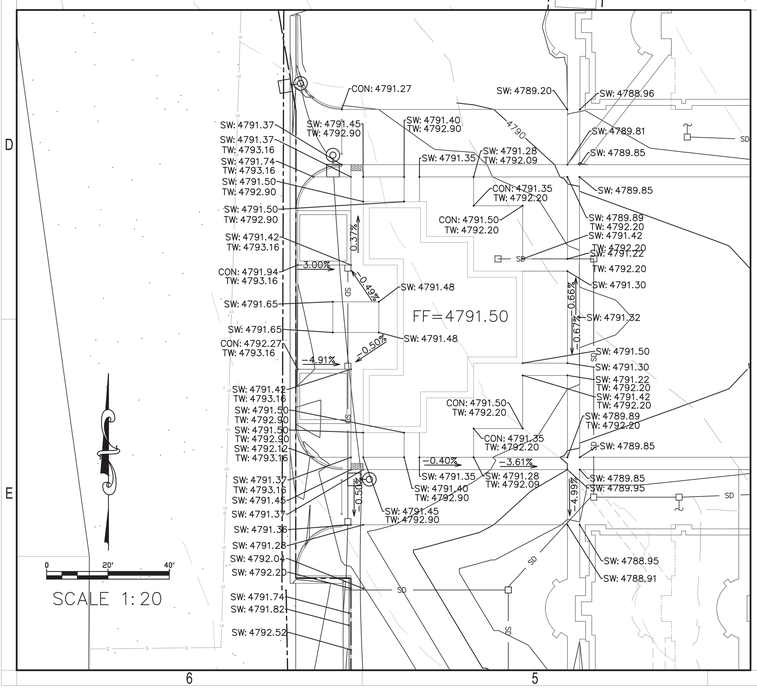

STORM DRAIN SYSTEM					
POINT #	DESCRIPTION	NORTHING	EASTING	RIM ELEVATION	INV ELEVATION
1	CB-1	329214.0456	522639.6133	4788.50	4786.46
2	CB-2	329210.0615	522751.6088	4788.50	4786.11
3	CB-3	329100.6676	522744.1004	4788.50	4785.77
4	CB-4	329096.6226	522636.9513	4788.50	4785.43
5	CB-5	329096.6226	522609.1415	4788.50	4785.35
6	CB-6	329174.3415	522577.9095	4791.46	4785.77
7	CB-7	329174.3415	522609.1415	4790.65	4785.65
8	CB-8	329066.3676	522581.2635	4788.00	4785.62
9	CB-9	329068.3544	522529.2993	4791.47	4786.14
10	CB-10	329088.6228	522528.9693	4791.47	4786.35
11	CB-11	329139.3343	522528.9693	4791.36	4786.84
12	CB-12	329171.3330	522528.9693	4791.42	4787.13
13	SDMH-1	328992.8517	522581.2844	4792.26	4784.90+/-
14	CB-13	329251.0551	522846.1387	4787.81	4784.10
15	CB-14	329039.9931	522846.1390	4786.85	4783.05
16	SDMH-2	328974.8573	522846.1387	4785.76	4781.25+/-
17	DS-1	329203.1873	523120.0825	SEE SHEET C505	SEE SHEET C505
18	DS-2	329041.4392	523124.1781	SEE SHEET C505	SEE SHEET C505
21	CB-EX	328953.0946	523202.1161	4770.00	4765.00+/-

ALTERNATE INFORMATION:

GRADING PLAN DRAWINGS REFLECT CONDITIONS WITH BASE BID AND ALL ALTERNATIVES INCLUDED. ADJUST GRADES AND ELEVATION CALLOUTS AS NEEDED FOR THE FINAL IMPROVEMENTS. REGARDLESS OF ALTERNATES SELECTED, CONTRACTOR SHALL GRADE AREAS TO DRAIN.

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2/15/13
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GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY LOCATIONS AND INVERT ELEVATIONS OF ALL EXISTING MANHOLES AND CATCH BASINS BEFORE STAKING OR CONSTRUCTING ANY NEW STORM AND SEWER LINES.

2. ALL ELEVATION POINTS ARE TO TOP BACK OF CURB (TBC), TOP OF ASPHALT (TA), FLOWLINE (FL), OR SIDEWALK (SW), AS NOTED.

3. ALL SIDEWALK CROSS SLOPES ARE 1.0% OR OTHERWISE NOTED.

4. ALL CURB IS 6 INCHES IN HEIGHT OR OTHERWISE NOTED.

5. ALL SIDEWALK CONNECTED TO TBC IS AT THE SAME ELEVATION IF NOT OTHERWISE NOTED.

CONSTRUCTION NOTES:

1. INSTALL NYLOPLAST CATCH BASIN WITH DOMED GRATE PER DETAIL G, SHEET C502
2. INSTALL 2X2 CONCRETE CATCH BASIN PER DETAIL F, SHEET C502
3. INSTALL STORM DRAIN MANHOLE PER DETAIL G,SHEET C502
4. INSTALL DRAINAGE STRUCTURE PER DETAIL Q, SHEET C505
5. INSTALL 15" RCP CL III PIPE PER DETAIL B, SHEET C501
6. INSTALL 4" ROOF DRAIN EXTENSION. SEE MECHANICAL PLANS FOR CONTINUATION
7. INSTALL CURB CUT TO DRAIN PARKING LOT
8. INSTALL STANDARD TYPE CATCH BASIN PER DETAIL D, SHEET C501
9. INSTALL NYOPLAST CATCH BASIN WITH FLAT GRATE PER DETAIL G, SHEET C502
10. INSTALL ROOF DRAIN CONNECTION PER DETAIL BB, SHEET C508

LEGEND:

TA = TOP OF ASPHALT
TBC = TOP BACK OF CURB
FL = FLOWLINE
SW = SIDEWALK
HP = HIGH POINT
CON = CONCRETE PAD
TW = TOP OF WALL

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GRADING PLAN
SCALE 1:30

REVISION	DATE	BY	DESCRIPTION
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CHECKED BY: JDU
PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: CG101

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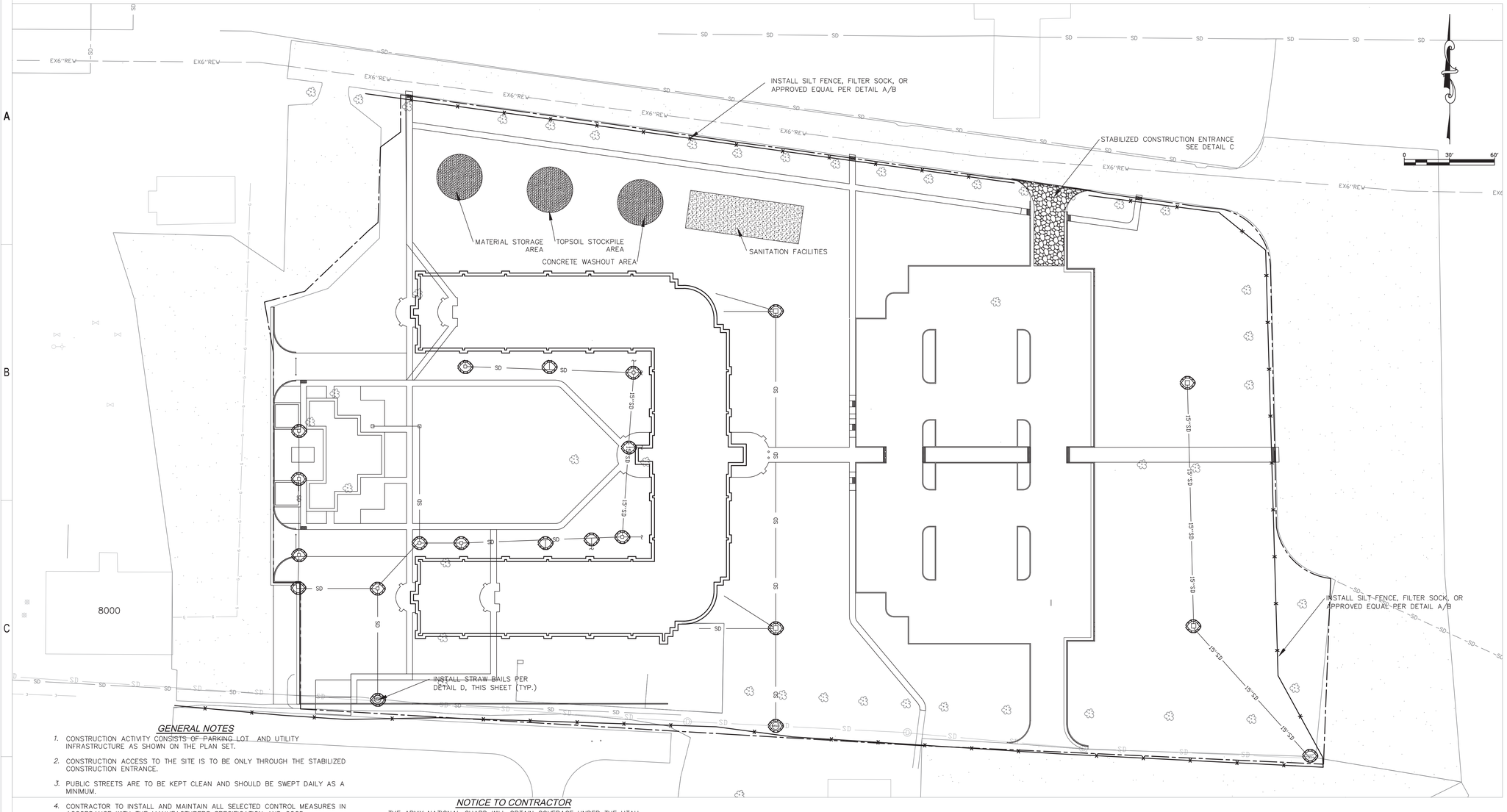
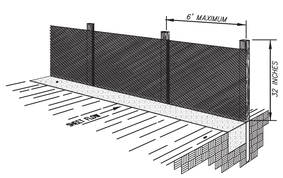


GENERAL NOTES

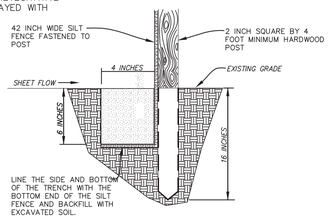
1. CONSTRUCTION ACTIVITY CONSISTS OF PARKING LOT AND UTILITY INFRASTRUCTURE AS SHOWN ON THE PLAN SET.
2. CONSTRUCTION ACCESS TO THE SITE IS TO BE ONLY THROUGH THE STABILIZED CONSTRUCTION ENTRANCE.
3. PUBLIC STREETS ARE TO BE KEPT CLEAN AND SHOULD BE SWEPT DAILY AS A MINIMUM.
4. CONTRACTOR TO INSTALL AND MAINTAIN ALL SELECTED CONTROL MEASURES IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION AND GOOD ENGINEERING PRACTICES.
5. CONTRACTOR TO REMOVE OFF-SITE ACCUMULATIONS OF SEDIMENT AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS IF SEDIMENT ESCAPES.
6. CONTRACTOR TO REMOVE SEDIMENT TRAPS WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%.
7. PRIOR TO ANTICIPATED STORM EVENTS. THE CONTRACTOR SHALL REMOVE OR OTHERWISE PREVENT FROM BECOMING A POLLUTANT SOURCE FOR STORM WATER DISCHARGES: LITTER, CONSTRUCTION DEBRIS AND CONSTRUCTION CHEMICALS EXPOSED TO STORM WATER.
8. CONTRACTOR SHALL INITIATE STABILIZING MEASURES AS SOON AS PRACTICABLE AND NO LATER THAN 5 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
9. CONTRACTOR SHALL MINIMIZE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST. ANY TRACKING WILL RESULT IN FINE.
10. SLOPES OVER 3:1 SHALL BE TREATED WITH EROSION CONTROL/REVEGITATIVE MATTING. SLOPED FLATTER THAN 3:1 MAY BE SEEDED AND SPRAYED WITH TACKIFIER.

NOTICE TO CONTRACTOR

THE ARMY NATIONAL GUARD WILL OBTAIN COVERAGE UNDER THE UTAH POLLUTION DISCHARGE ELIMINATION SYSTEM (UPDES) GENERAL PERMIT ASSOCIATED WITH CONSTRUCTION ACTIVITY. THE CONTRACTOR WILL BE RESPONSIBLE FOR APPLYING FOR THE NOTICE OF INTENT (NOI). THIS COVERAGE COMPLIES WITH UTAH ADMINISTRATIVE CODE (UAC) R317-8-3.9. THE GOAL OF THIS PERMIT IS TO PREVENT THE DISCHARGE OF POLLUTANTS ASSOCIATED WITH CONSTRUCTION ACTIVITY FROM ENTERING INTO THE STORM DRAIN SYSTEM, GROUND AND SURFACE WATERS. THE CONTRACTOR (AS CO-PERMITTEE) WILL DEVELOP, CERTIFY AND COMPLY WITH THE REQUIREMENTS OF THE SWPPP AND THE PERMITS FOR ANY WORK PERFORMED ON SITE. ANY PERSON OR GROUP WHO VIOLATES ANY CONDITION OF THE PERMIT(S) MAY BE SUBJECT TO SUBSTANTIAL PENALTIES IN ACCORDANCE WITH STATE AND FEDERAL LAW. THE CONTRACTOR IS ENCOURAGED TO ADVISE EACH EMPLOYEE WORKING ON THIS PROJECT OF THE REQUIREMENTS OF THE SWPPP AND THE PERMIT(S). A COPY OF THE SWPPP AND PERMIT(S) WILL BE MADE AVAILABLE FOR REVIEW AT THE ENVIROMENTAL RESOURCE MANAGEMENT OFFICE AND AT THE PROJECT SITE. ONCE THE DESIGN PACKAGE HAS BEEN FINALIZED, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE DEVELOPMENT OF THE PLAN AND THE REMAINING NECESSARY ELEMENTS FOR THE SUCCESSFUL IMPLEMENTATION OF THE SWPPP, INCLUDING THE PLAN COMPLETION, NOTICE OF INTENT, MONITORING, INSPECTING, AND NOTICE OF TERMINATION.



PERSPECTIVE VIEW

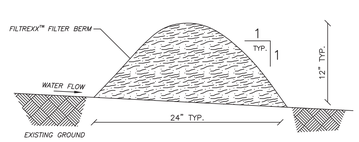


PLAN VIEW

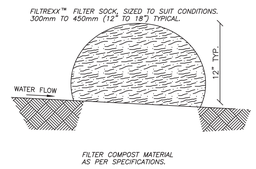
SILT FENCE GENERAL NOTES:

1. *WHERE POSSIBLE, LAYOUT THE SILT FENCE 5 FOOT TO 10 FOOT BEYOND THE TOE OF SLOPE.*
2. *ALIGN THE FENCE ALONG THE CONTOUR AS CLOSE AS POSSIBLE.*
3. *WHEN EXCAVATING THE TRENCH, USE MACHINERY THAT WILL PRODUCE NO MORE THAN THE DESIRED DIMENSIONS.*
4. *AVOID USING JOINTS ALONG THE FENCE AS MUCH AS POSSIBLE. IF A JOINT IS NECESSARY, SPLICE THE SILT FENCE AT A POST WITH A 6 INCH OVERLAP AND SECURELY FASTEN BOTH ENDS TO THE POST.*
5. *MAINTAIN A PROPERLY FUNCTIONING SILT FENCE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL DISTURBED AREAS HAVE BEEN VEGETATED.*
6. *REMOVE SEDIMENT AS IT ACCUMULATES AND PLACE IT IN A STABLE AREA*

A — SILT FENCE DETAIL
SCALE: N.T.S.



BERM OPTION

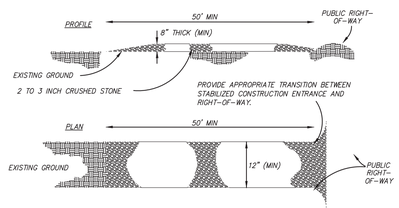


SOCK OPTION

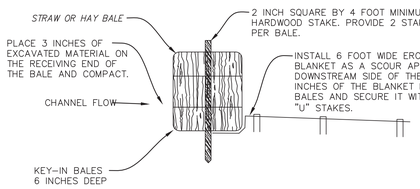
NOTES:

1. *ALL MATERIAL TO MEET FILTREXX™ SPECIFICATIONS.*
2. THE CONTRACTOR SHALL MAINTAIN THE COMPOST FILTER BERM IN A FUNCTIONAL CONDITION AT ALL TIMES AND IT SHALL BE ROUTINELY INSPECTED.
3. WHERE THE BERM REQUIRES REPAIR, IT WILL BE ROUTINELY REPAIRED.
4. THE CONTRACTOR SHALL REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE BERM WHEN THEY REACH 1/3 OF THE EXPOSED HEIGHT OF THE BERM, OR AS DIRECTED BY THE ENGINEER.
5. THE COMPOST FILTER BERM WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED, AS DETERMINED BY THE ENGINEER.

B — FILTER SOXX BARRIER
SCALE: N.T.S.



C — STABILIZED CONSTRUCTION ENTRANCE
SCALE: N.T.S.



D — STRAW BALE BARRIER
SCALE: N.T.S.

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UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062
PROJECT #490076

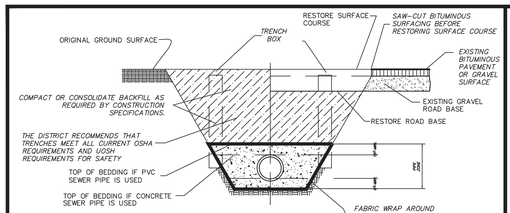
EROSION CONTROL PLAN

SCALE 1:30

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: NS
CHECKED BY: JDU
PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: CG102

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



CROSS-SECTION: TYPICAL TRENCH

RECOMMENDED TRENCH QUANTITIES

PIPE DIAMETER (INCHES)		RECOMMENDED MAXIMUM TRENCH WIDTH FOR FILL IN PIPE ZONE		RECOMMENDED MAXIMUM WIDTH FOR FILL & SURFACING ABOVE PIPE ZONE MEASURED AT TOP OF TRENCH CENTERED ON PIPE	
(IN.)	mm	(INCHES)	mm	(INCHES)	mm
4	101.6	72	1828.8	96	2438.4
6	152.4	72	1828.8	96	2438.4
8	203.2	72	1828.8	96	2438.4
10	254.0	72	1828.8	96	2438.4
12	304.8	72	1828.8	96	2438.4
15	381.0	72	1828.8	96	2438.4
18	457.2	72	1828.8	96	2438.4
21	533.4	72	1828.8	96	2438.4
24	609.6	72	1828.8	96	2438.4
30	762.0	84	2133.6	108	2743.2
36	914.4	84	2133.6	108	2743.2
42	1066.8	96	2438.4	120	3048.0
48	1219.2	96	2438.4	120	3048.0
54	1371.6	108	2743.2	132	3352.8
60	1524.0	120	3048.0	144	3657.6

NOTES:

1. THE DISTRICT RECOMMENDS CONTRACTOR MEET ALL OF THE REQUIREMENTS ESTABLISHED FOR SAFE TRENCHING. (SEE OSHA AND UOSH REQUIREMENTS, LATEST EDITIONS).
2. CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE LAYING PIPE WITHIN 50' OF SAID UTILITIES WHICH MAY BE EXPOSED, DAMAGED OR CROSSED AS SHOWN ON THE DRAWINGS OR AS "BLUE STAKED". THE CONTRACTOR WILL MAKE ARRANGEMENTS WITH THE UTILITY COMPANY TO MOVE THE UTILITY IF NECESSARY OR OBTAIN PERMISSION FROM THE DISTRICT ENGINEER TO MODIFY GRADE OF PIPELINE IN ORDER TO GO AROUND UTILITIES.
3. TESTING: ALL NEW SANITARY SEWERS TO BE "TELEVISED" AND NECESSARY REPAIRS MADE BEFORE ACCEPTANCE. ALL LINES SHALL BE PRESSURE TESTED TO 3.5 psi MIN. FOR 5 MINUTES. A MANDRAL OR BALL CAN BE USED TO VERIFY DEFORMATION OF A PIPE AS DETERMINED FROM THE VIDEO UNLESS SPECIFIED OTHERWISE.
4. ALL SEWER LINES TO BE INSTALLED IN PUBLIC RIGHT-OF-WAY OR RECORDED SEWER EASEMENT UNLESS OTHERWISE APPROVED BY SALT LAKE COUNTY SEWERAGE IMPROVEMENT DISTRICT No.1.

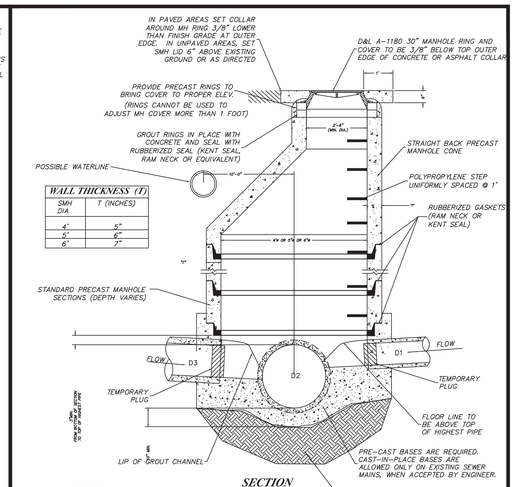
No Scale

NO	DATE	REVISION	BY	CK	APP
5					
4					
3					
2					
1					

SOUTH VALLEY SEWER DISTRICT

STANDARD SEWER TRENCH DETAIL — NOT TO SCALE — 1

DATE	FILE NAME	DRAWING NAME
JUNE 98	STANDARD\SAN-SEW	SS-1A



WALL THICKNESS (T)	
SMH DIA	T (INCHES)
4'	5"
5'	6"
6'	7"

SECTION

NOTES:

1. IF GRADE ALLOWS, INVERTS OF D1 & D3 SHALL MATCH TOP OF D2. OTHERWISE AS APPROVED BY DISTRICT.
2. AFTER ALL GRADING AROUND MANHOLE HAS BEEN COMPLETED AND FINAL SURFACING IS IN PLACE, REMOVE DEBRIS AND TEMPORARY PLUGS OR PLYWOOD FROM INSIDE OF MANHOLES.
3. IF MANHOLE IS TO BE POURED IN PLACE, FOLLOW SAME PATTERN AS SHOWN EXCEPT USE 10" MIN WALL THICKNESS.
4. MANHOLES DEEPER THAN 20 FEET SHALL HAVE AN 18" THICK CONCRETE BASE.
5. SET MANHOLE FRAME AND COVER TO 3/8" BELOW FINISH GRADE AFTER FINAL STREET GRADING IS COMPLETE.
6. CONE AND WALL SECTIONS TO CONFORM TO ASTM C-478
7. JUNCTIONS OF THREE OR MORE PIPES REQUIRE 5' DIAMETER OR LARGER MANHOLE.
8. DEFLECTION ANGLE OF 75° OR HIGHER REQUIRED 5'ø OR LARGER MANHOLE.

No Scale

NO	DATE	REVISION	BY	CK	APP
5					
4					
3					
2					
1					

SOUTH VALLEY SEWER DISTRICT

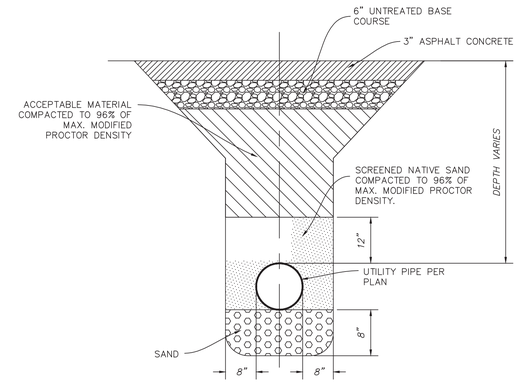
STANDARD MANHOLE — NOT TO SCALE — 2

DATE	FILE NAME	DRAWING NAME
JUNE 98	STANDARD\SAN-SEW	SS-2A

(A / VAR) SOUTH VALLEY SEWER DISTRICT STANDARD DETAILS

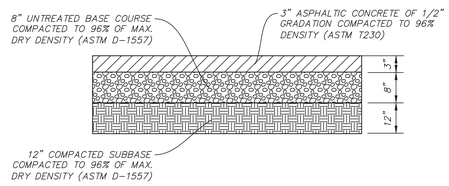
NOT TO SCALE

NOTES:
1. SEE PLANS FOR PIPE SIZES
2. INSTALL SEWER WARNING TAPE 2'-3' ABOVE PIPE

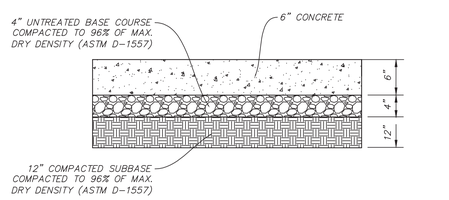


(B / —) UTILITY TRENCH DETAIL

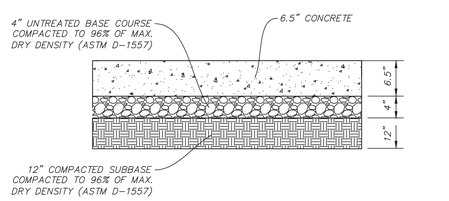
NOT TO SCALE



1 ASPHALT SECTION (NEW)



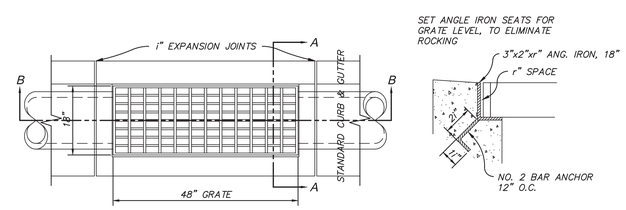
2 CONCRETE DRIVEWAY SECTION (NEW)



3 CONCRETE PAD SECTION (NEW)

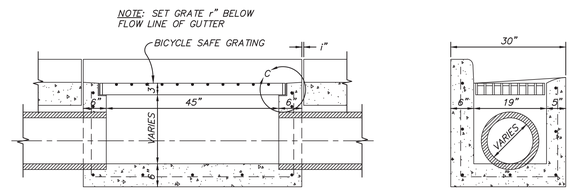
(C / —) PAVEMENT SECTIONS DETAILS

SCALE: N.T.S.



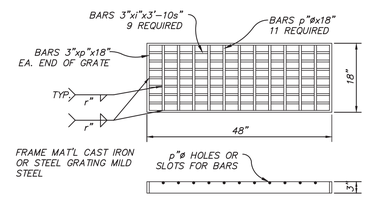
PLAN

DETAIL C



SECTION B-B

SECTION A-A



BICYCLE SAFE GRATING DETAIL

NOTE: PIPE LOCATION INTO BOX SHOWN ON THIS PLAN IS PICTORIAL ONLY. PIPE MAY ENTER BOX FROM ANY SIDE AS INDICATED ON CONSTRUCTION PLAN.

NOTE: PIPE SIZE AND DEPTH VARIES.

REINFORCE BOX WITH #4 RODS, 12" O.C. BOTH WAYS AT CENTER OF WALL AND BOTTOM.

NOTE: ON STEEP GRADES WARP CURB FLOW LINE TO PERMIT HORIZONTAL INSTALLATION OF GRATING.

(D / —) STANDARD CURB TYPE CATCH BASIN

SCALE: N.T.S.

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

REGISTERED PROFESSIONAL ENGINEER
JEFFERY DAMON UPRIGHT
STATE OF UTAH
2/15/13

Stanley Consultants INC.
383 West Vine Street
Suite 400
Murray, Utah 84123
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PROJECT #490076

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DRAWN BY: NS	CHECKED BY: JDU
PROJECT NO.: 11007	DRAWING NO.: C501
DATE: 02/15/2013	

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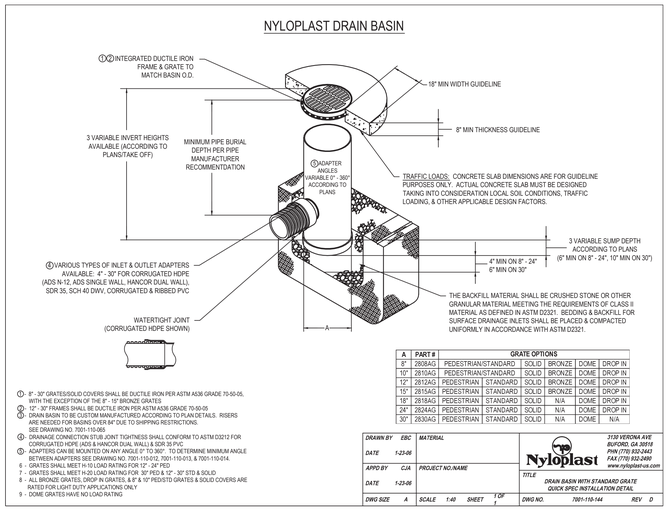


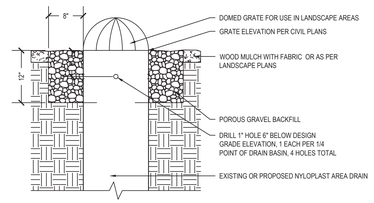
① 8" - 30" GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE #1 - 18" BRONZE GRATES
② 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
③ DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
④ - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
⑤ ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012, 7001-110-013, & 7001-110-014.
6 - GRATES SHALL MEET H-10 LOAD RATING FOR 12" - 24" PED
7 - GRATES SHALL MEET H-20 LOAD RATING FOR 30" PED & 12" - 30" STD & SOLID
8 - ALL BRONZE GRATES, DROP IN GRATES, & #1 & #7 RED/STD GRATES & SOLID COVERS ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY
9 - DOME GRATES HAVE NO LOAD RATING

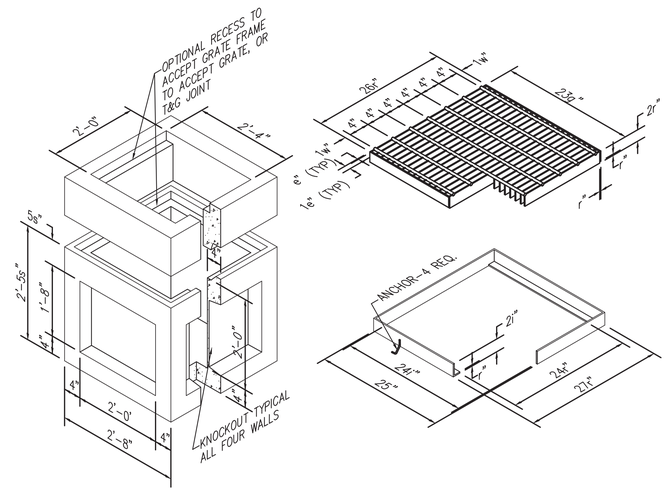
A	PART #	GRATE OPTIONS				
8"	2808AG	PEDESTRIAN/STANDARD	SOLID	BRONZE	DOME	DROP IN
10"	2810AG	PEDESTRIAN/STANDARD	SOLID	BRONZE	DOME	DROP IN
12"	2812AG	PEDESTRIAN	STANDARD	SOLID	BRONZE	DOME	DROP IN
15"	2815AG	PEDESTRIAN	STANDARD	SOLID	BRONZE	DOME	DROP IN
18"	2818AG	PEDESTRIAN	STANDARD	SOLID	N/A	DOME	DROP IN
24"	2824AG	PEDESTRIAN	STANDARD	SOLID	N/A	DOME	DROP IN
30"	2830AG	PEDESTRIAN	STANDARD	SOLID	N/A	DOME	N/A

DRAWN BY	EBC	MATERIAL	Nyloplast 3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2442 FAX (770) 932-2490 www.nyloplastus.com
DATE	1-23-06		
APPD BY	CJA	PROJECT NO./NAME	TITLE DRAIN BASIN WITH STANDARD GRATE QUICK SPEC INSTALLATION DETAIL
DATE	1-23-06		
DWG SIZE	A	SCALE 1:40 SHEET 1 OF 1	DWG NO. 7001-110-144 REV D

E — NYLOPLAST CATCH BASIN WITH DOMED GRATE

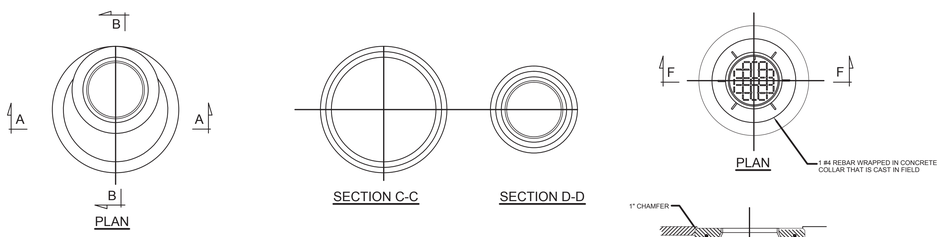
SCALE: N.T.S.

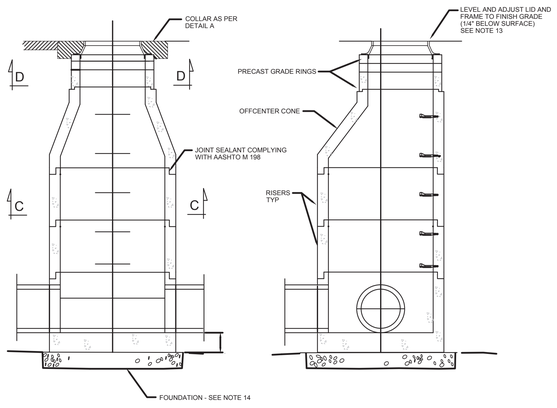




F — 2x2 CONCRETE CATCH BASIN

SCALE: N.T.S.





DESIGN DATA

STRUCTURAL STEEL: Fy = 36,000 psi

STRUCTURAL CONCRETE: f'c = 4,000 psi; fy = 60,000 psi; n = 8

NOTES

1. PROVIDE PRECAST CONCRETE STANDARD MANHOLE SECTIONS THAT CONFORM TO AASHTO M 199 (ASTM C 478) EXCEPT THAT THE MINIMUM WALL THICKNESS WILL BE 3 INCHES.
2. USE DEFORMED-CARBON REINFORCING STEEL BARS CONFORMING TO M 31, GRADE 60 OR WELDED WIRE REINFORCING CONFORMING TO AASHTO M 55 OR AASHTO M 221.
3. COATED STEEL IS NOT REQUIRED FOR PRECAST MANHOLES.
4. USE CLASS AA (AE) CONCRETE.
5. USE TYPE II CEMENT (LOW ALKALI).
6. PROVIDE 2 INCH CONCRETE COVER TO REINFORCING STEEL.
7. PLACE STEPS BEGINNING NOT LESS THAN12 INCHES BELOW FINISH GRADE AND PLACE ADDITIONAL STEPS ACCORDING MANUFACTURES RECOMENDATIONS. MANUFACTURER WILL ADJUST GRADE RINGS AND RISER HEIGHTS TO ACCOMMODATE UNIFORM SPACING OF STEPS .
8. USE 3, 4, 6, OR 8 INCH GRADE RINGS FOR RISERS.
9. SEE PLANS FOR NUMBER, LOCATION, AND SIZE OF PIPE.
10. REMOVE THE CONE AND GRADE RINGS AND ADJUST THE MANHOLE ELEVATION WITH THE APPROPRIATE MANHOLE SECTION. IF THE REQUIRED MANHOLE ADJUSTMENT IS MORE THAN 1 FT. MATCH FINISH GRADE FOR THE CONE SECTION AND GRADE RINGS, FRAME AND LID.
11. REMOVE DEBRIS FROM MANHOLE AND PIPE INVERTS.
12. REPAIR OR REPLACE MANHOLE SECTIONS, CONES AND GRADE RINGS DAMAGED BY CONSTRUCTION TO THE SATISFACTION OF THE ENGINEER, AT NO COST TO THE OWNER.
13. USE STD RING AND LID.
14. PROVIDE HYDRAULIC CEMENT MORTAR ACCORDING TO ASTM C 1329.
15. DO NOT OVER EXCAVATE. PLACE 6 INCH MIN UTBC BEDDING ACCORDING TO STANDARD SPECIFICATIONS ON FIRM SUBGRADE. DO NOT USE CRUSHED ROCK IN ACTIVE WATER TABLE WITHOUT APPROVAL OF THE ENGINEER.
16. CAST FORMED INVERT TO BE POURED IN PLANT, WHEN SPECIFIED.
17. MANUFACTURE MANHOLE RISERS, BASES, CONES, AND GRADE RINGS, INCLUDING STEEL REINFORCING WHERE REQUIRED ACCORDING TO ASTM C 478.

MAX PIPE O.D.		
DIA	45 DEG ANGLE	90 DEG ANGLE
4'- 0"	27"	18"
5'- 0"	36"	24"

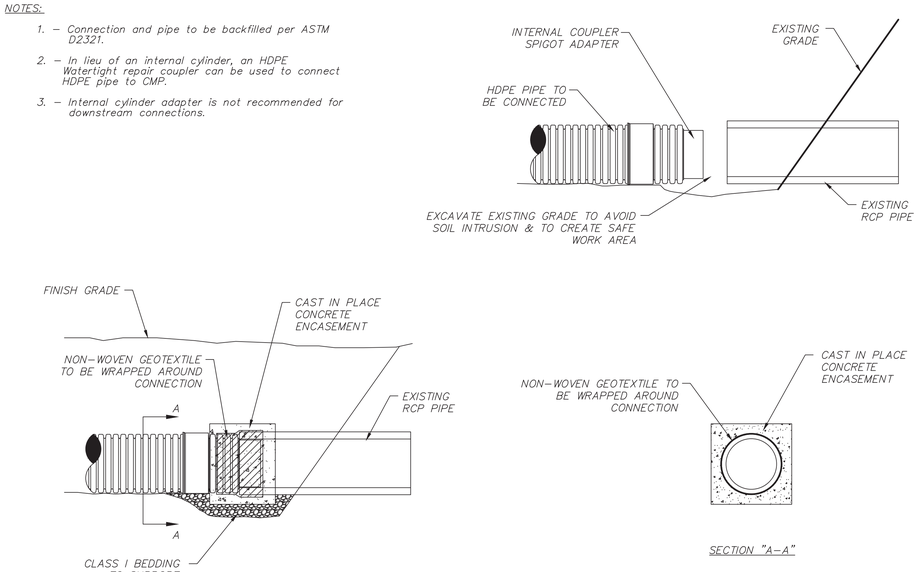
PRECAST SECTIONS	MAX HEIGHT
GRADE RINGS	8"
COMBINED GRADE RINGS AND LID	18"
CONES	36"
RISERS	48"

G — STORMDRAIN MANHOLE

SCALE: N.T.S.

NOTES:

1. – Connection and pipe to be backfilled per ASTM D2321.
2. – In lieu of an internal cylinder, an HDPE Watertight repair coupler can be used to connect HDPE pipe to CMP.
3. – Internal cylinder adapter is not recommended for downstream connections.



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REV.	DESCRIPTION	BY	REVDATE	CHK'D
REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

PROJECT LOCATION

DRAWING NUMBER: DRAWING#

ADS ADVANCED DRAINAGE SYSTEMS, INC. 4640 TRUEMAN BLVD HILLIARD, OHIO 43026

DRAWN BY	ABC
DATE	DATE
DES BY	ENG
SCALE	NTS
SHEET	OF

H — RCP TO HDPE PIPE CONNECTION

SCALE: N.T.S.

CALL BEFORE YOU DIG! IT'S THE LAW! BLUE STAKES 1-800-662-4111

REGISTERED PROFESSIONAL ENGINEER JEFFERY DAMON UPRIGHT 6/15/12 STATE OF UTAH

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Murray, Utah 84123
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△			
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DRAWN BY: NS	CHECKED BY: JDU
PROJECT NO.: 11007	DRAWING NO.: C502
DATE: 02/15/2013	

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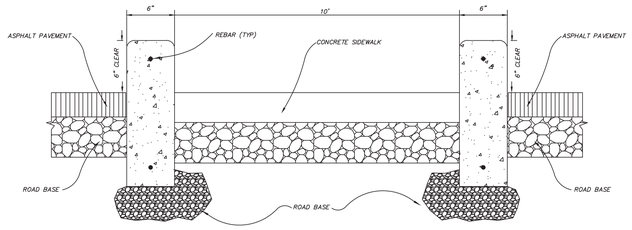
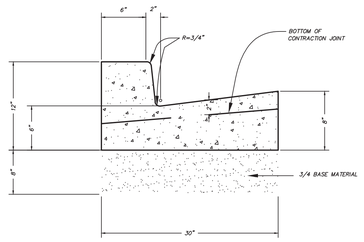
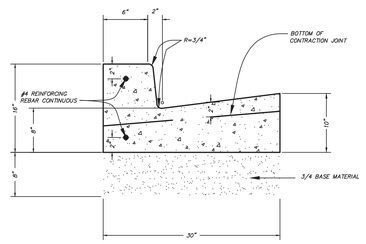


J — PARKING LOT SIDEWALK DEATIL

SCALE: N.T.S.



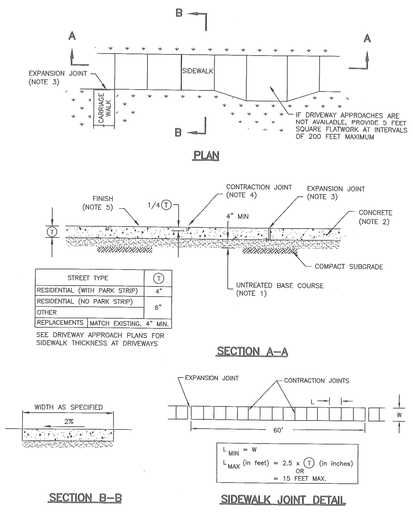
A 6" CURB AND GUTTER



B 8" CURB AND GUTTER

K — CURB AND GUTTER DETAILS

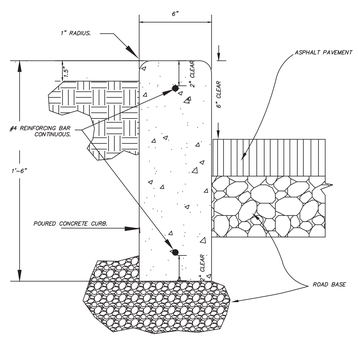
SCALE: N.T.S.



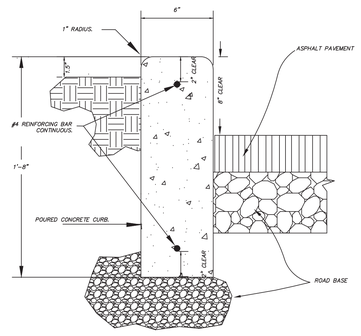
M — SIDEWALK DETAIL

SCALE: N.T.S.

REFER TO APWA STANDARD DETAILS FOR ADDITIONAL NOTES



A 6" CURB WALL



B 8" CURB WALL

L — CURB WALL DETAILS

SCALE: N.T.S.

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

REGISTERED PROFESSIONAL ENGINEER
JEFFERY DAMON UPRIGHT
STATE OF UTAH
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DATE: 02/15/2013	

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EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

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JEFFERY DAMON UPRIGHT
2/15/13
STATE OF UTAH

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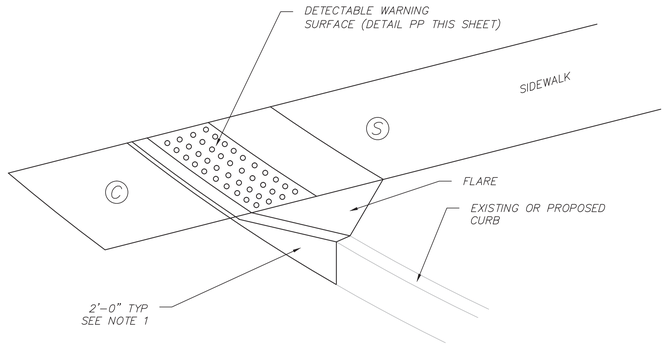
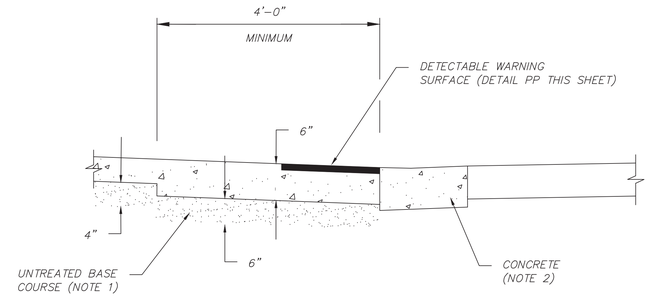
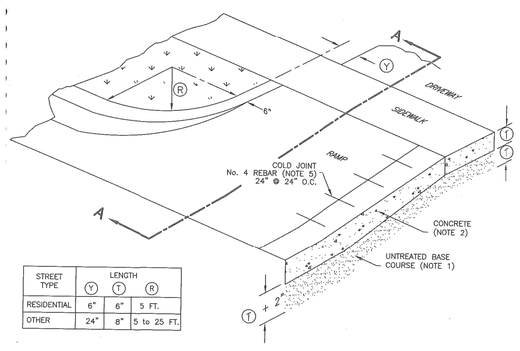




		RUNNING SLOPE	CROSS SLOPE
SIDEWALK (S)	4' WIDE	1:20 (5%)	1:48 (2%)
CLEAR SPACE (C)	4' SQUARE	1:20 (5%)	1:48 (2%)

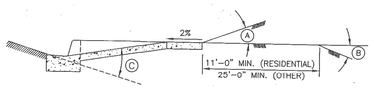
(N) SIDEWALK RAMP DETAIL

SCALE: N.T.S.



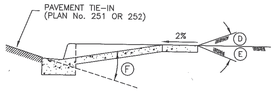
STREET TYPE	LENGTH (Y)	(T)	(R)
RESIDENTIAL	6"	6"	5 FT.
OTHER	24"	8"	5 to 25 FT.

OBLIQUE



STREET TYPE	BREAKOVER ANGLE (MAXIMUM) (A)	(B)	(C)
RESIDENTIAL	16%	12%	16%
OTHER	6%	8%	10%

SECTION A–A – APPROACH REQUIRING SERVICE TRUCK ACCESS

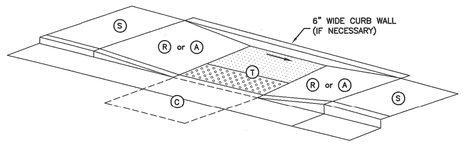


STREET TYPE	BREAKOVER ANGLE (MAXIMUM) (D)	(E)	(F)
RESIDENTIAL	16%	12%	16%
OTHER	6%	8%	10%

SECTION A–A – TYPICAL DRIVEWAY APPROACH

(O) TYPICAL DRIVEWAY DETAIL

SCALE: N.T.S.
REFER TO THE APWA STANDARD PLANS FOR ADDITIONAL NOTES

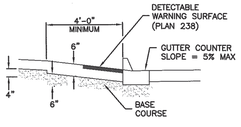


EXAMPLE 5

ELEMENT	DIMENSION
(R) (A)	4 FEET WIDE MINIMUM
(C) (T)	4 FEET SQUARE MINIMUM

WHERE TURNING SPACE IS CONSTRAINED ON 2 SIDES, PROVIDE 5 FEET IN THE DIRECTION OF THE CROSSWALK

TABLE OF DIMENSIONS



MATERIALS

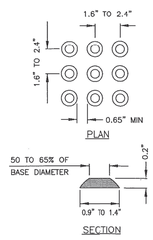
		RUNNING SLOPE (%) MAXIMUM	CROSS SLOPE (%) MAXIMUM
TURNING SPACE	(T)	STREET GRADE	2
CURB RAMP	(R)	8.33	2
CLEAR SPACE	(C)	5	STREET GRADE
SIDEWALK	(S)	STREET GRADE	2
APPROACH	(A)	8.33	2

(a) RUNNING SLOPE IS IN THE DIRECTION OF PEDESTRIAN TRAVEL. RUNNING SLOPE OF FLARE IS PARALLEL TO BACK OF CURB
(b) CROSS SLOPE IS PERPENDICULAR TO DIRECTION OF PEDESTRIAN TRAVEL

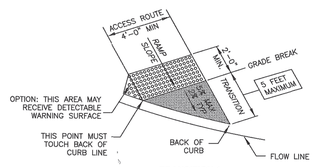
SLOPE TABLE

(P) MID BLOCK SIDEWALK RAMP DETAIL

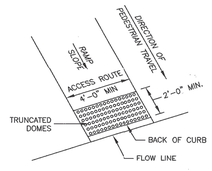
SCALE: N.T.S.
REFER TO THE APWA STANDARD PLANS FOR ADDITIONAL NOTES



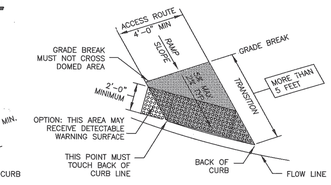
TRUNCATED DOME DETAIL



TRANSITION 1

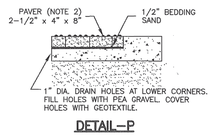


PERPENDICULAR ASSEMBLY

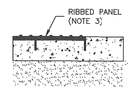


TRANSITION 2

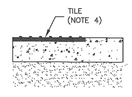
NON–PERPENDICULAR ASSEMBLY



DETAIL–P



DETAIL–R



DETAIL–T

(PP) DETECTABLE WARNING SURFACE

SCALE: N.T.S.
REFER TO THE APWA STANDARD PLANS FOR ADDITIONAL NOTES

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UTAH NATIONAL GUARD
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RIVERTON, UT 84062
PROJECT #490076

GENERAL DETAILS

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PROJECT NO.: 11007
DRAWING NO.: C504
DATE: 02/15/2013

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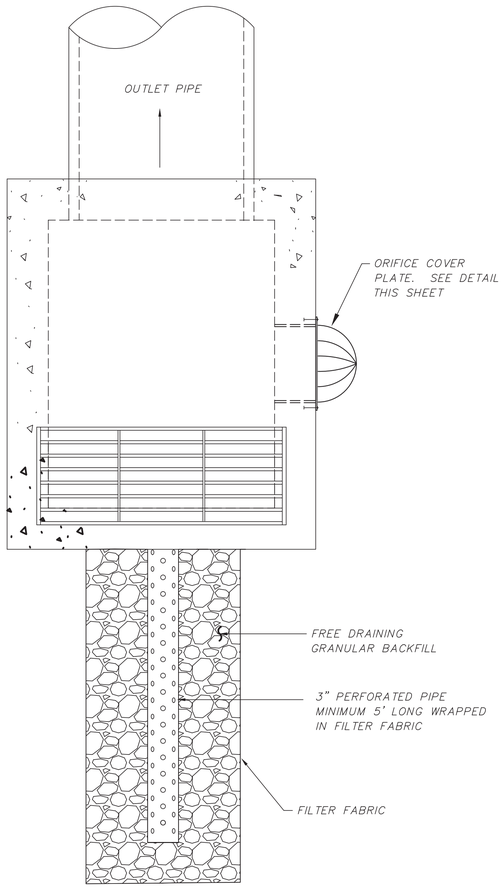
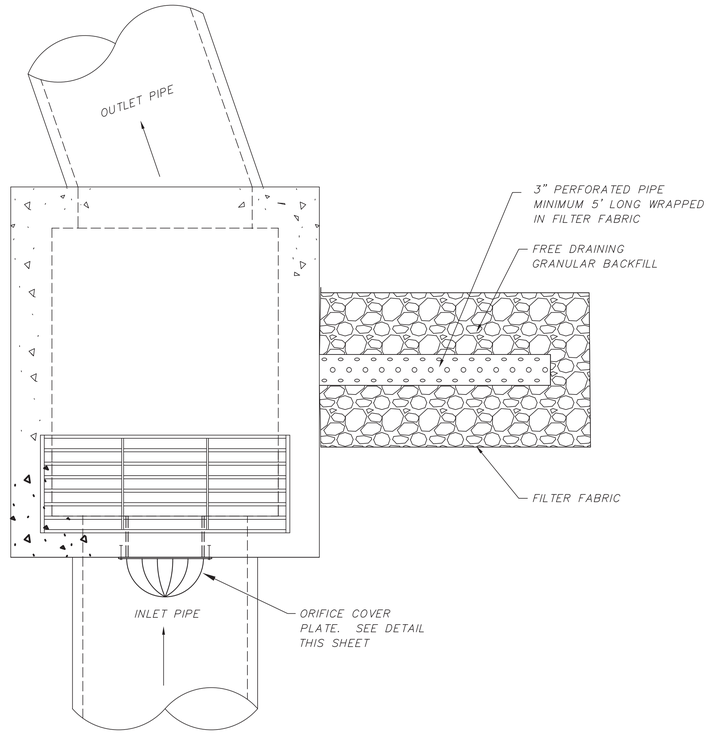
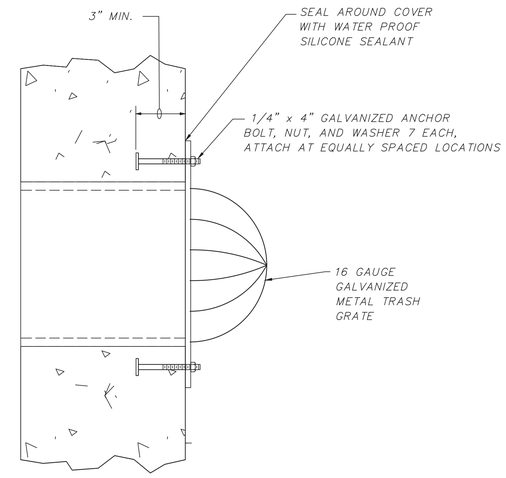


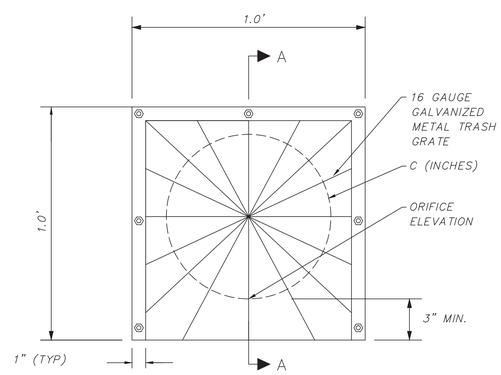
POND 1 PLAN



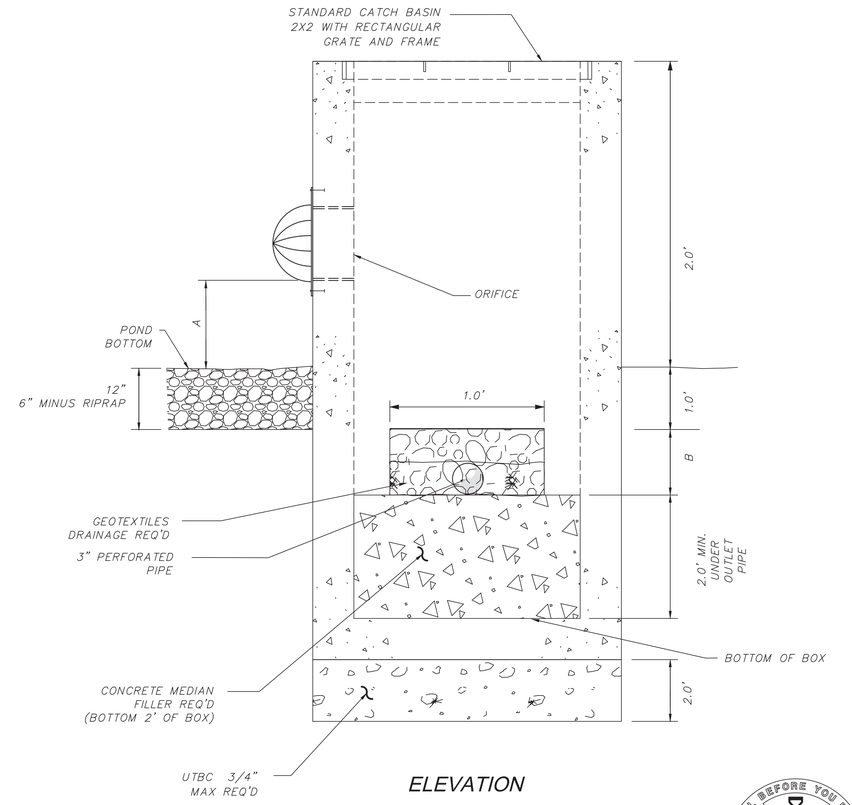
POND 2 PLAN



SECTION A-A



ORIFICE COVER PLATE DETAIL



ELEVATION

POND	A	B	C	TOP OF GRATE EL.	POND BOTTOM EL.	BOTTOM OF BOX	ORIFICE EL.	NO. OF ORIFICES	PIPE INVERT
POND 1	0.5'	1.0'	5"	4772.0	4770.0	4766.0	4770.5	1	4768.00'
POND 2	0.5'	1.85'	5"	4772.0	4770.0	4765.15	4770.5	1	4767.15'

NOTE: ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED

STORM DRAIN OUTLET STRUCTURE DETAIL

SCALE: N.T.S.

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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

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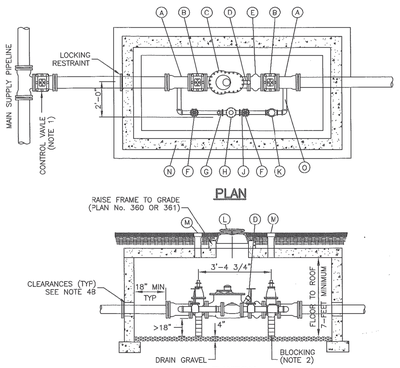


LEGEND			
No.	*	ITEM	DESCRIPTION
A		3" OR 4" FLANGE x M.J. ADAPTER	
B		3" OR 4" GATE VALVE WITH 2"x2" OPERATING NUT	
C		3" OR 4" COMPOUND METER	
D		2" TEST ASSEMBLY	
E		3" OR 4" CHECK VALVE	
F		2" GATE VALVE	
G		2" METER FLANGE	
H		2" DISPLACEMENT METER	
J		2" MALE METER FLANGE	
K		2" CHECK VALVE	
L		27" FRAME AND COVER	PLAN No. 502
M		TOP SECTION OF VALVE BOX WITH LID	PLAN No. 574
N		CONCRETE BOX	PLAN No. 505
O		COPPER PIPING	

* FURNISHED BY AGENCY

3" and 4" Compound meter with 2" bypass

Plan No. **523**

August 2001 21G

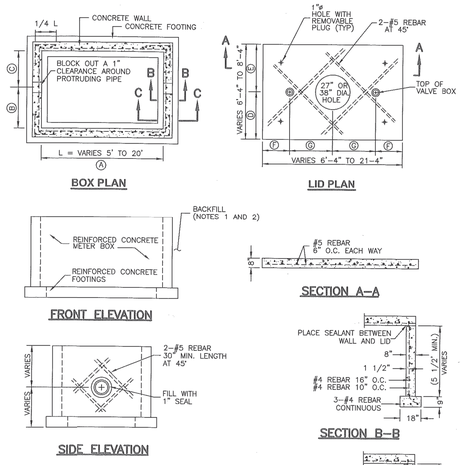


TABLE OF DIMENSIONS					
	METER SIZES				
No.	10"	8"	6"	3" & 4"	1 1/2" & 2"
A	20'-0"	11'-0"	11'-0"	9'-0"	5'-0"
B	3'-10"	3'-5"	3'-5"	3'-0"	2'-6"
C	6'-2"	3'-5"	3'-5"	2'-0"	2'-6"
D	4'-6"	4'-1"	4'-1"	3'-8"	2'-6"
E	6'-10"	4'-1"	4'-1"	2'-8"	2'-6"
F	4'-8"	3'-5 3/4"	3'-10 1/4"	3'-5 1/2"	CENTER
G	5'-4"	2'-8 1/4"	2'-3 3/4"	1'-8 1/2"	

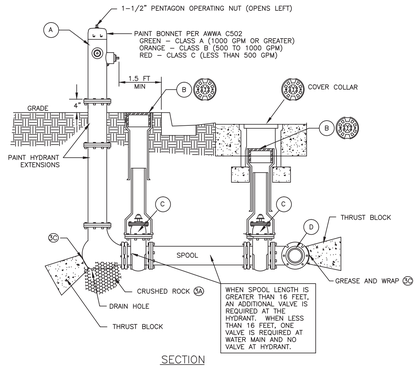
Concrete boxes

Plan No. **505**

August 2001 21I

R — *4" METER WITH CONCRETE BOX DETAIL*

SCALE: N.T.S.



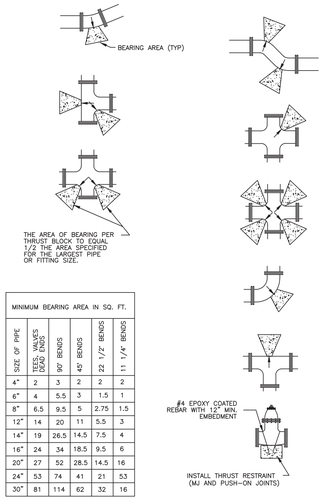
LEGEND		
No.	ITEM	DESCRIPTION
A	FIRE HYDRANT	AWWA C502
B	VALVE BOX WITH LID	2 PIECE CAST IRON
C	GATE VALVE WITH 2"x2" NUT	AWWA C509
D	TEE WITH 125 # FLANGE	AWWA C110

NOTES

1. INSPECTION: PRIOR TO BACKFILLING, SECURE INSPECTION OF INSTALLATION BY ENGINEER.
2. BACKFILL: PROVIDE, PLACE AND COMPACT PER SPECIFICATIONS. MAXIMUM LIFT THICKNESS IS 8 INCHES BEFORE COMPACTION.
3. HYDRANT: DRY BARREL PER AWWA C502.
   A. PROVIDE AT LEAST 1 CUBIC YARD OF CRUSHED ROCK AROUND DRAIN HOLE AT BASE OF HYDRANT. WRAP PLASTIC OVER SEWER ROCK TO PREVENT SILTING.
   B. PAINT FIRE HYDRANT TO SALT LAKE CITY'S FIRE HYDRANT PAINT COLOR CODE.
   C. APPLY CHEVRON FM #1 NON-OXIDE GREASE TO ALL BURIED METAL SURFACES. WRAP WITH 8 MIL THICK POLYETHYLENE SHEET AND TAPE WRAP.
   D. NOTIFY FIRE DEPARTMENT AS SOON AS HYDRANT IS PLACED IN SERVICE.
4. THRUST BLOCKS: (SEE DETAIL X)
   A. PRIOR TO POURING CONCRETE, WRAP PIPE SYSTEM WITH 8 MIL THICK PLASTIC SHEET TO PREVENT BONDING OF CONCRETE TO PIPE SYSTEM.
   B. NOT REQUIRED FOR FLANGED OR WELDED PIPE SYSTEMS.

S — *FIRE HYDRANT ASSEMBLY*

SCALE: N.T.S.



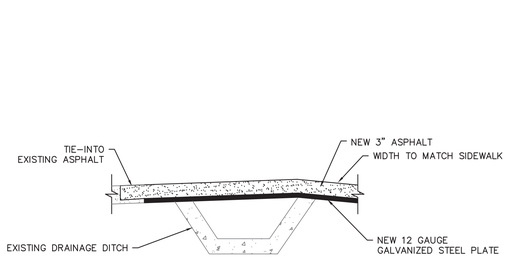
MINIMUM BEARING AREA IN SQ. FT.					
SIZE OF PIPE	TEES, VALVES DEAD ENDS	90° BENDS	45° BENDS	22 1/2° BENDS	11 1/4° BENDS
4"	2	3	2	2	2
6"	4	5.5	3	1.5	1
8"	6.5	9.5	5	2.75	1.5
12"	14	20	11	5.5	3
14"	19	26.5	14.5	7.5	4
16"	24	34	18.5	9.5	6
20"	27	52	28.5	14.5	16
24"	53	74	41	21	53
30"	81	114	62	32	16

NOTES

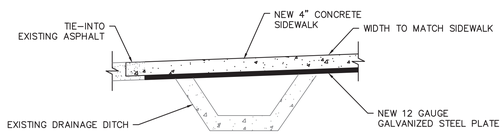
1. CONCRETE: CLASS B(AE) PER UDOT SECTION 03055. POUR AGAINST UNDISTURBED SOIL.
2. PIPE JOINTS: DO NOT COVER WITH CONCRETE. LEAVE COMPLETELY ACCESSIBLE.
3. GREASE: APPLY CHEVRON FM #1 NON-OXIDE GREASE TO ALL BURIED METAL SURFACES. WRAP WITH 8 MIL THICK POLYETHYLENE SHEET AND TAPE WRAP.
4. SPECIAL CONSTRUCTION REQUIREMENTS.
   A. THRUST DESIGN FOR PIPE SIZES OR CONFIGURATIONS NOT SHOWN REQUIRE SPECIAL DESIGN.
   B. BEARING AREAS, VOLUMES, AND SPECIAL THRUST BLOCKING DETAILS SHOWN ON DRAWINGS TAKE PRECEDENCE OVER THIS PLAN.
   C. REINFORCING STEEL BARS TO BE EPOXY COATED AT LEAST 15 MILS THICK. MINIMUM STRESS YIELD STRENGTH OF TIE DOWN BARS IS 70,000 PSI.
   D. LOCKING RESTRAINT DEVICES MAY BE USED IN CONJUNCTION WITH CONCRETE THRUST BLOCKING (AT OPTION OF ENGINEER).
5. INSPECTION: PRIOR TO BACKFILLING AROUND THRUST BLOCK, SECURE INSPECTION OF INSTALLATION BY ENGINEER.

T — *THRUST BLOCK*

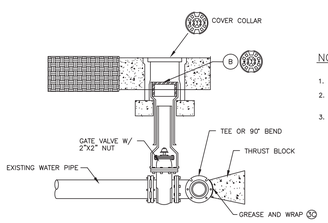
SCALE: N.T.S.



A — *ASPHALT CAP OVER DITCH*



B — *CONCRETE CAP OVER DITCH*



NOTES

1. INSPECTION: PRIOR TO BACKFILLING, SECURE INSPECTION OF INSTALLATION BY ENGINEER.
2. BACKFILL: PROVIDE, PLACE AND COMPACT PER SPECIFICATIONS. MAXIMUM LIFT THICKNESS IS 8 INCHES BEFORE COMPACTION.
3. THRUST BLOCKS: (SEE DETAIL T)
   A. PRIOR TO POURING CONCRETE, WRAP PIPE SYSTEM WITH 8 MIL THICK PLASTIC SHEET TO PREVENT BONDING OF CONCRETE TO PIPE SYSTEM.
   B. NOT REQUIRED FOR FLANGED OR WELDED PIPE SYSTEMS.

U — *GATE VALVE*

SCALE: N.T.S.

V — *PIPED DRIVEWAY APPROACH DETAIL*

SCALE: N.T.S.

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PROJECT #490076

GENERAL DETAILS

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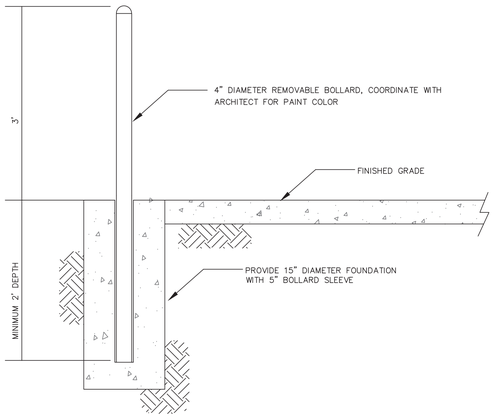

W
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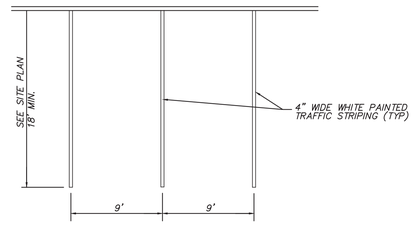
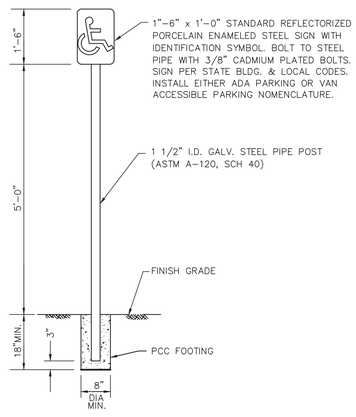
BOLLARD DETAIL
SCALE: N.T.S.

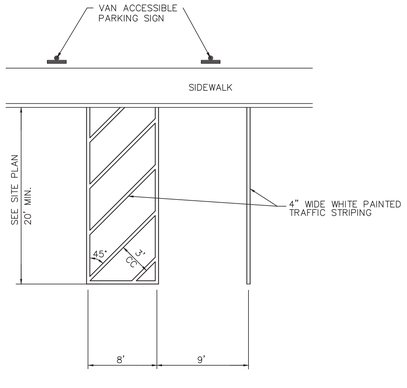


TYPICAL PARKING LOT STRIPING

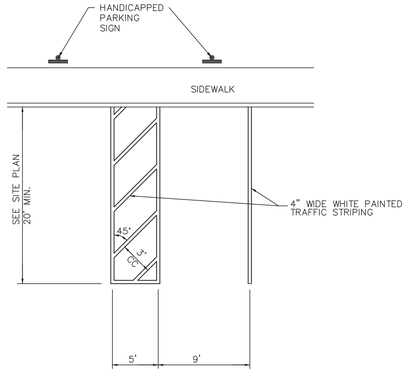
X
—
PARKING LOT STRIPING
SCALE: N.T.S.



ADA / VAN ACCESSIBLE PARKING SIGN AND POST



VAN ACCESSIBLE STRIPING



ADA PARKING STRIPING

NOTES:

1. SIGN AND STRIPE PER STATE BUILDING CODE.
2. ALL STRIPING TO BE 4" WIDE.
3. SEE SITE PLAN FOR LOCATION.

Y
—
ADA PARKING DETAILS
SCALE: N.T.S.

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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
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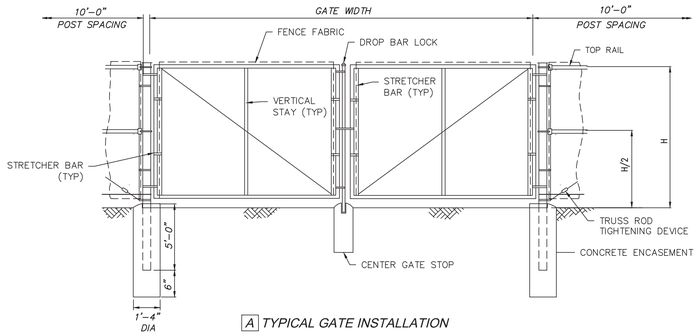
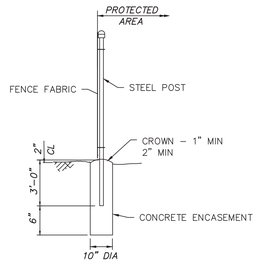
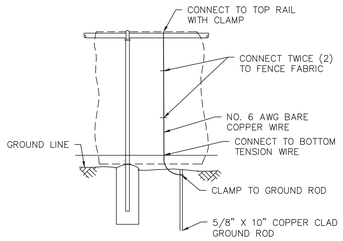


A TYPICAL GATE INSTALLATION



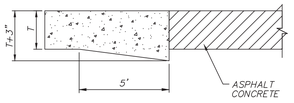
B POST INSTALLATION DETAIL



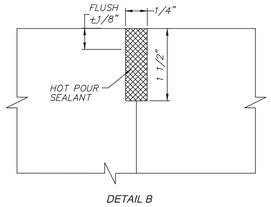
D TYPICAL GROUND ROD INSTALLATION DETAIL

Z CHAIN LINK FENCE DETAILS

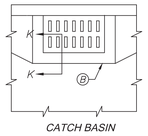
SCALE: N.T.S.



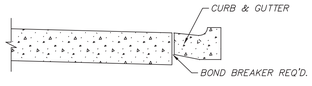
DETAIL A



DETAIL B



CATCH BASIN DETAIL D



DETAIL E

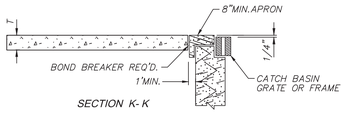
NOTES

THESE RIGID PAVEMENT SECTIONS ARE FOR NON REINFORCED PORTLAND CEMENT CONCRETE. AS DIRECTED IN THE SOILS REPORT.

CONSTRUCTION OF THE RIGID PAVEMENT SHOULD BE IN SECTIONS 10 TO 12 FEET IN WIDTH WITH CONSTRUCTION OR EXPANSION JOINTS OR ONE-QUARTER DEPTH SAW CUTS ON NO MORE THAN 12 FOOT CENTERS.

SAW CUTS MUST BE COMPLETED WITHIN 24 HOURS OF INITIAL SET OF THE CONCRETE AND SHOULD BE PERFORMED UNDER THE DIRECTION OF THE CONCRETE PAVING CONTRACTOR.

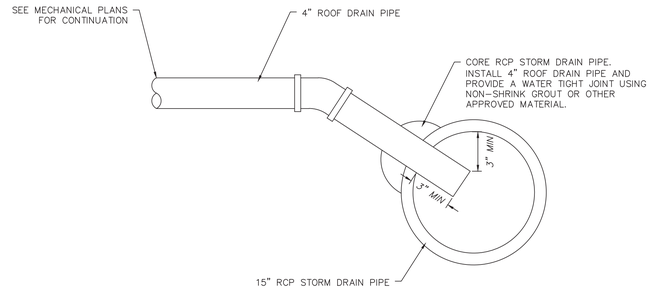
THE CONCRETE SHOULD HAVE A MINIMUM 28 DAY UNCONFINED COMPRESSIVE STRENGTH OF 4,000 POUNDS PER SQUARE INCH AND CONTAIN A 6 PERCENT PLUS OR MINUS 1 PERCENT AIR ENTRAINMENT. PAVEMENT THICKNESS PER SOILS REPORT, 5.5 INCHES PORTLAND CEMENT CONCRETE, 4.0 INCHES AGGREGATE BASE COURSE OVER PROPERLY PREPARED NATURAL SOILS AND OR SITE GRADING FILL EXTENDING TO SUITABLE NATURAL SOILS.



SECTION K-K

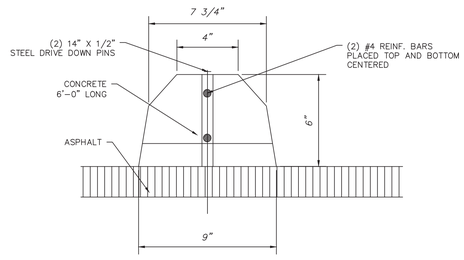
AA CONCRETE DRIVEWAY DETAILS

SCALE: N.T.S.



BB ROOF DRAIN CONNECTION DETAIL

SCALE: N.T.S.



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RIVERTON, UT 84062
PROJECT #490076

GENERAL DETAILS

REVISION	DATE	BY	DESCRIPTION
△			
△			
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DRAWN BY: NS	CHECKED BY: JDU
PROJECT NO.: 11007	DRAWING NO.: C508
DATE: 02/15/2013	

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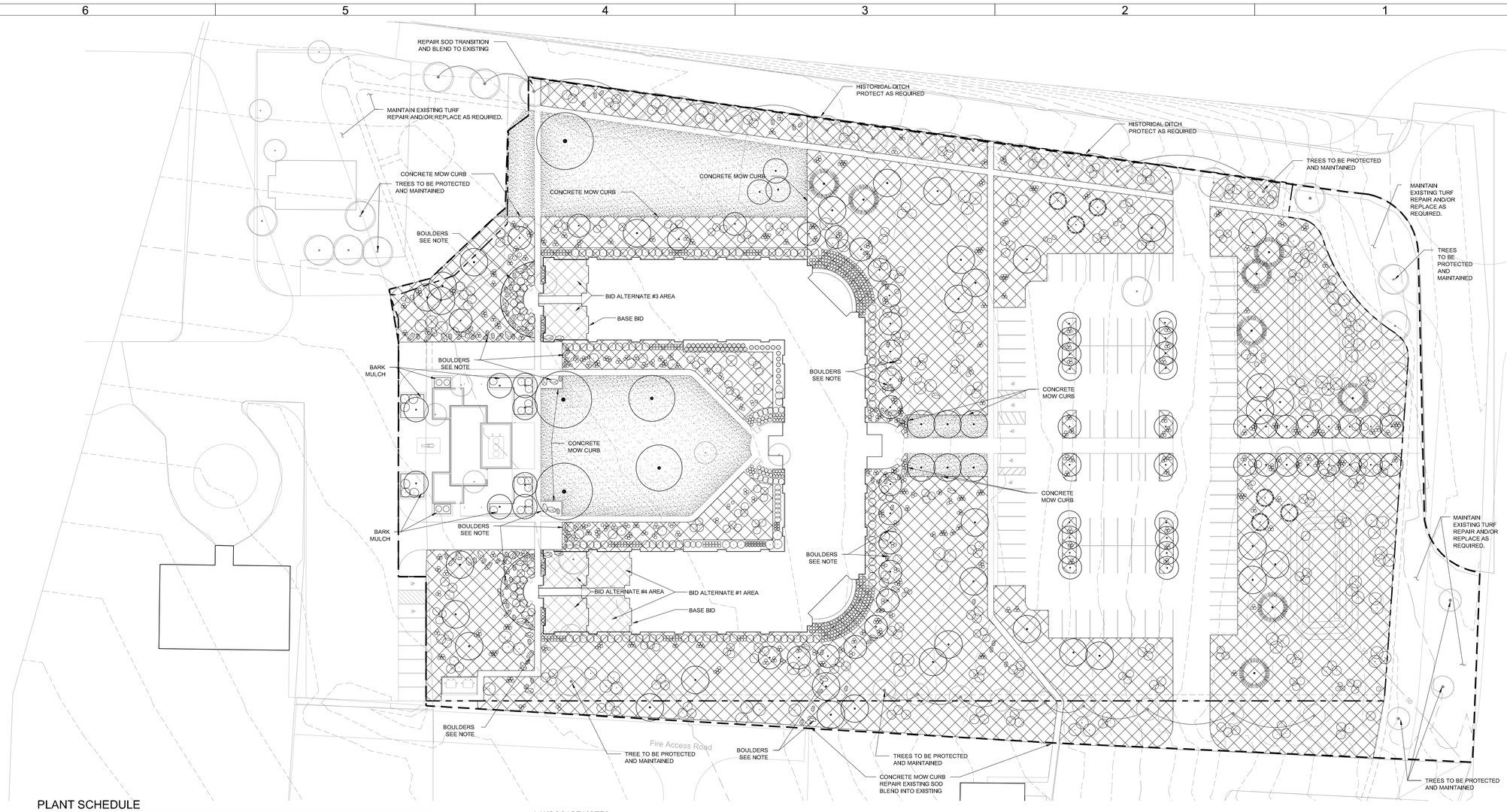

1 Landscape Site Treatment Plan
1" = 30'-0"

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT/SIZE
CC2	6	Crataegus x lavallei 'Carriere'	Carriere Hawthorn	2" Cal.
GS	2	Gleditsia triacanthos inermis 'Shademaster'	Shademaster Locust	2" Cal.
MS2	11	Malus x 'Spring Snow'	Spring Snow Crab Apple	15 gal Tree Form
QM	3	Quercus macrocarpa	Burr Oak	2" Cal.
NATIVE TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT/SIZE**
AG2	15	Acer glabrum	Rocky Mountain Maple	15 gal clump
AG3	20	Acer grandidentatum	Bigtooth Maple	15 gal clump
AG	60	Amelanchier x grandiflora 'Autumn Brilliance'	'Autumn Brilliance' Serviceberry	15 gal Tree Form
PB2	8	Picea pungens	Colorado Spruce	5'
PP	6	Pinus edulis	Pinon Pine	5'
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**
BB	14	Buddleja davidii 'Black Knight'	Black Knight Butterfly Bush	5 gal
CP	8	Caragana pygmaea	Pygmy Peashrub	5 gal
FA	9	Forsythia x 'Arnold Dwarf'	Arnold Dwarf Forsythia	5 gal
VD	19	Viburnum dentatum 'Blue Muffin'	Blue Muffin Viburnum	5 gal
GRASSES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**
CA	27	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	1 gal
MS	12	Miscanthus sinensis 'Adagio'	Adagio Eulalia Grass	1 gal
SS	20	Schizachyrium scoparium	Little Bluestem Grass	1 gal
NATIVE PERENNIAL	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**
FW	63	Fragaria vesca	Woodland Strawberry	1 gal
G	57	Geranium viscosissimum	Sticky Geranium	1 gal
MR	745	Mahonia repens	Creeping Mahonia	1 gal
O	103	Penstemon cyananthus	Wasatch penstemon	1 gal
P	115	Penstemon pinifolius 'Mersea Yellow'	Yellow Threadleaf Beardtongue	1 gal
R	127	Rudbeckia fulgida 'Goldsturm'	Goldsturm Black-eyed Susan	1 gal
ZG	87	Zauschneria latifolia 'Garrettii'	Orange Carpet	1 gal
NATIVE SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**
AW	35	Artemisia tridentata wyominensis	Wyoming Sagebrush	5 gal
CL	59	Cercocarpus ledifolius	Curl-Leaf Mountain Mahogany	5 gal
CM	3	Cercocarpus montanus	Alderleaf Mountain Mahogany	5 gal
PB3	87	Prunus besseyi	Sand Cherry	5 gal
PP2	120	Prunus besseyi 'Pawnee Buttes'	Sand Cherry	5 gal
RG	119	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	5 gal
RG2	2	Rhus glabra	Smooth Sumac	5 gal
RC	6	Rhus glabra 'Cismontana'	Western Smooth Sumac	5 gal
RA	130	Rosa woodsii	Mountain Rose	5 gal
SE	18	Salix exigua	Coyote Willow	5 gal
PERENNIALS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**
A	16	Agastache rupestris 'Sunset'	Sunset Hyssop	1 gal
K	38	Hemerocallis x 'Rosy Returns'	Rosy Returns Daylily	1 gal
SOD/SEED	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**
BBG	23,211 sf	Poa pratensis L. 'NE-KYB-05-001'	Bella Bluegrass	sod

LANDSCAPE NOTES:

1. THE LANDSCAPE CONTRACTOR MUST EXAMINE THE SITE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND NOTIFY THE OWNER'S AUTHORIZED REPRESENTATIVE IN WRITING OF ANY UNSATISFACTORY CONDITIONS. DO NOT PROCEED UNTIL CONDITIONS HAVE BEEN CORRECTED.
2. BEFORE ANY EXCAVATION, HAVE THE UTILITIES LOCATED AND/OR COORDINATE WITH THE GENERAL CONTRACTOR FOR THE LOCATION OF UTILITIES, SLEEVES, CONDUITS, ETC.
3. THE LANDSCAPE CONTRACTOR MUST COORDINATE WITH ALL OTHER ASSOCIATED TRADES TO BEST FACILITATE PROGRESS ON THE JOB.
4. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR FINISH GRADE ELEVATIONS IN LANDSCAPED AREAS. COORDINATE WITH GENERAL CONTRACTOR FOR ROUGH GRADING ELEVATIONS. ALLOW FOR DEPTH OF MULCH OR SOD.
5. ALL PLANT MATERIALS MUST MEET SIZES INDICATED IN SCHEDULES. THE OWNER'S AUTHORIZED REPRESENTATIVE RESERVES THE RIGHT TO REFUSE PLANT MATERIALS WHICH DO NOT MEET THE QUALITY REQUIRED OF THE PROJECT.
6. ANY PLANT QUANTITIES SHOWN ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. CONTRACTOR TO VERIFY ALL PLANT QUANTITIES REQUIRED AND PROVIDE THE PLANTS NECESSARY TO COMPLETE THE PLANTINGS.
7. TOPSOIL IS REQUIRED. 6" MINIMUM DEPTH IN TURF AREAS AND 12" MINIMUM DEPTH IN ALL SHRUB, GROUNDCOVER, ORNAMENTAL GRASS, AND PERENNIAL AREAS.
8. CONTRACTOR TO VERIFY LOCATION OF UTILITY LINES. TREES TO BE PLACED A MINIMUM OF 3 FEET LATERALLY FROM UTILITY LINES WHERE POSSIBLE.
9. ALL HABITAT AREA TO HAVE GEOTEXTILE LANDSCAPE FABRIC AND 3" DEEP STONE MULCH. LANDCAPE PLANTERS AROUND MECHANICAL BUILDING TO HAVE GEOTEXTILE LANDCAPE FABRIC AND 3" BARK MULCH
10. BOULDERS ARE SHOWN SCHEMATICALLY. SIZE AND SHAPE WILL VARY WITH 2 FT MINIMUM DIAMETER EACH. PLACEMENT GUIDELINES - PLACE BOULDERS WITH RANDOM SPACING WITH NO SPACING GREATER THAN 6 FT. BETWEEN BOULDERS. DO NOT PLACE BOULDERS EQUAL DISTANCE FROM EACH OTHER OR IN A STRAIGHT LINES.
11. BOULDERS EXCAVATED DURING DEMOLITION MAY BE USED IF ACCEPTED BY CONTRACTING OFFICER.
12. EXISTING TREES THAT ARE TO REMAIN ARE TO BE PROTECTED AND MAINTAINED. SEE SPECIFICATIONS.

ALTERNATE INFORMATION
DRAWINGS - THE PLANTING AND IRRIGATION PLANS REFLECT THE CONDITIONS WITH ALL ADDITIVE ALTERNATES INCLUDED.

BASE BID - THE BASE BID INCLUDES +/- 1,470 ADDITIONAL SQUARE FEET OF LANDSCAPE CONSTRUCTION ON THE NORTH WING AND +/- 2,940 ADDITIONAL SQUARE FEET OF LANDSCAPE ON THE SOUTH WING. GRADING, TOPSOIL, LANDSCAPE FABRIC, BULDERS, PLANTING AND IRRIGATION IS REQUIRED IN THESE AREAS. PLANTS AND IRRIGATION WILL BE RELOCATED FROM THE ADJACENT AREAS.

ALTERNATE 1 - BUILDING ELEMENTS, EQUIPMENT SYSTEMS, ETC FOR TWELVE BILLET UNITS. IF ALTERNATE 2 IS ACCEPTED, THE TOPSOIL, LANDSCAPE FABRIC, AND MULCH WILL BE ELIMINATED AND THE PLANTING, AND IRRIGATION WILL BE RELOCATED.

ALTERNATE 2 - NO LANDSCAPE OR IRRIGATION MODIFICATIONS.

ALTERNATE 3 - BUILDING ELEMENTS, EQUIPMENT SYSTEMS, ETC FOR TWELVE BILLET UNITS. IF ALTERNATE 3 IS ACCEPTED, THE TOPSOIL, LANDSCAPE FABRIC, AND MULCH WILL BE ELIMINATED AND THE PLANTING, AND IRRIGATION WILL BE RELOCATED.

ALTERNATE 4 - BUILDING ELEMENTS, EQUIPMENT SYSTEMS, ETC FOR TWELVE BILLET UNITS. IF ALTERNATE 4 IS ACCEPTED, THE TOPSOIL, LANDSCAPE FABRIC, AND MULCH WILL BE ELIMINATED AND THE PLANTING, AND IRRIGATION WILL BE RELOCATED.

LEED RESTORE HABITAT AREA REQUIREMENT CALCULATIONS

REQUIRED RESTORE HABITAT AREA = (LEED AREA - BUILDING AREA) * 50%

- BASE BID
  115,900 SF = (254,935 - 23,136) * 50%
- WITH ALT. #1
  115,165 SF = (254,935 - 24,605) * 50%
- WITH ALT. #3
  114,431 SF = (254,935 - 26,074) * 50%
- WITH ALT. #4
  113,696 SF = (254,935 - 27,543) * 50%

LANDSCAPE LEGEND

- ASSUMED PROPERTY LINE
- LEED BOUNDARY (273,738 SQ. FT.)
- LEED RESTORE HABITAT AREA (CREDIT 5.1)
  BASE BID = 127,781 SQ. FT.
  WITH ALT #1 = 126,446 SQ. FT.
  WITH ALT #3 = 125,111 SQ. FT.
  WITH ALT #4 = 123,776 SQ. FT.
- TURF GRASS SOD (23,211 SQ. FT.)
- EXISTING EVERGREEN TREE
- EXISTING DECIDUOUS TREE
- PROPOSED TREES AND SHRUBS

0 30 60 90 120 feet
1" = 30'

NORTH

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LANDSCAPE ARCHITECTURE AND LAND PLANNING
2834 Highland Drive
Salt Lake City
Utah 84106
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Web: ldi-ut.com

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BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84065

Landscape Site Treatment Plan

REVISION	DATE	BY	DESCRIPTION
△			
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DRAWN BY: H. Holt
CHECKED BY: M. Vlasic
PROJECT NO.: 11007
DRAWING NO.: LS101
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

Robert, Feb 12, 2013 - 9:12am
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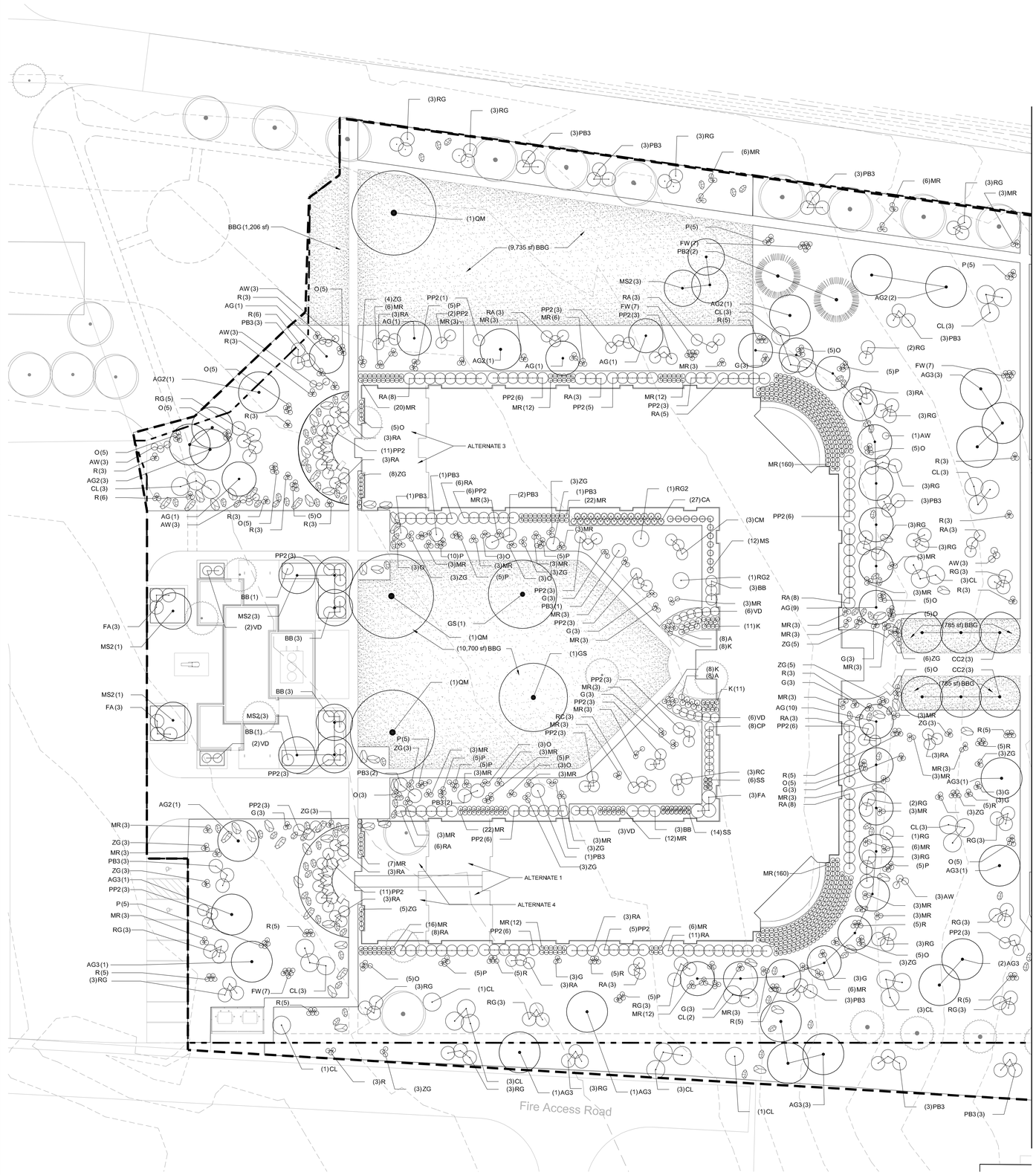

1 Planting Plan - 1
1" = 20'-0"

PLANT SCHEDULE

TREES	BOTANICAL NAME	COMMON NAME	CONT/SIZE
CC2	Crataegus x lavallei 'Carriere'	Carriere Hawthorn	2" Cal.
GS	Gleditsia triacanthos inermis 'Shademaster'	Shademaster Locust	2" Cal.
MS2	Malus x 'Spring Snow'	Spring Snow Crab Apple	15 gal Tree Form
QM	Quercus macrocarpa	Burr Oak	2" Cal.
NATIVE TREES	**BOTANICAL NAME**	**COMMON NAME**	**CONT/SIZE**
AG2	Acer glabrum	Rocky Mountain Maple	15 gal clump
AG3	Acer grandidentatum	Bigtooth Maple	15 gal clump
AG	Amelanchier x grandiflora 'Autumn Brilliance'	'Autumn Brilliance' Serviceberry	15 gal Tree Form
PB2	Picea pungens	Colorado Spruce	5'
PP	Pinus edulis	Pinon Pine	5'
SHRUBS	**BOTANICAL NAME**	**COMMON NAME**	**CONT**
BB	Buddleja davidii 'Black Knight'	Black Knight Butterfly Bush	5 gal
CP	Caragana pygmaea	Pygmy Peashrub	5 gal
FA	Forsythia x 'Arnold Dwarf'	Arnold Dwarf Forsythia	5 gal
VD	Viburnum dentatum 'Blue Muffin'	Blue Muffin Viburnum	5 gal
GRASSES	**BOTANICAL NAME**	**COMMON NAME**	**CONT**
CA	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	1 gal
MS	Miscanthus sinensis 'Adagio'	Adagio Eulalia Grass	1 gal
SS	Schizachyrium scoparium	Little Bluestem Grass	1 gal
NATIVE PERENNIAL	**BOTANICAL NAME**	**COMMON NAME**	**CONT**
FW	Fragaria vesca	Woodland Strawberry	1 gal
G	Geranium viscosissimum	Sticky Geranium	1 gal
MR	Mahonia repens	Creeping Mahonia	1 gal
O	Penstemon cyananthus	Wasatch penstemon	1 gal
P	Penstemon pinifolius 'Mersea Yellow'	Yellow Threadleaf Beardtongue	1 gal
R	Rudbeckia fulgida 'Goldsturm'	Goldsturm Black-eyed Susan	1 gal
ZG	Zauschneria latifolia 'Garrettii'	Orange Carpet	1 gal
NATIVE SHRUBS	**BOTANICAL NAME**	**COMMON NAME**	**CONT**
AW	Artemisia tridentata wyominensis	Wyoming Sagebrush	5 gal
CL	Cercocarpus ledifolius	Curl-Leaf Mountain Mahogany	5 gal
CM	Cercocarpus montanus	Alderleaf Mountain Mahogany	5 gal
PB3	Prunus besseyi	Sand Cherry	5 gal
PP2	Prunus besseyi 'Pawnee Buttes'	Sand Cherry	5 gal
RG	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	5 gal
RG2	Rhus glabra	Smooth Sumac	5 gal
RC	Rhus glabra 'Cismontana'	Western Smooth Sumac	5 gal
RA	Rosa woodsii	Mountain Rose	5 gal
SE	Salix exigua	Coyote Willow	5 gal
PERENNIALS	**BOTANICAL NAME**	**COMMON NAME**	**CONT**
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K	Hemerocallis x 'Rosy Returns'	Rosy Returns Daylily	1 gal
SOD/SEED	**BOTANICAL NAME**	**COMMON NAME**	**CONT**
BBG	Poa pratensis L. 'NE-KYB-05-001'	Bella Bluegrass	sod

0 20 40 60 80 feet
1" = 20'

NORTH

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HUGH HOLT
NO. 106783
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15 FEB 2013

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Planting Plan - 1

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: H. Holt	CHECKED BY: M. Vlasic
PROJECT NO.: 11007	DRAWING NO.: LS102
DATE: 02/15/2013	

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PLANT SCHEDULE

TREES	BOTANICAL NAME	COMMON NAME	CONT/SIZE
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VD	Viburnum dentatum 'Blue Muffin'	Blue Muffin Viburnum	5 gal

GRASSES	BOTANICAL NAME	COMMON NAME	CONT
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MS	Miscanthus sinensis 'Adagio'	Adagio Eulalia Grass	1 gal
SS	Schizachyrium scoparium	Little Bluestem Grass	1 gal

NATIVE PERENNIAL	BOTANICAL NAME	COMMON NAME	CONT
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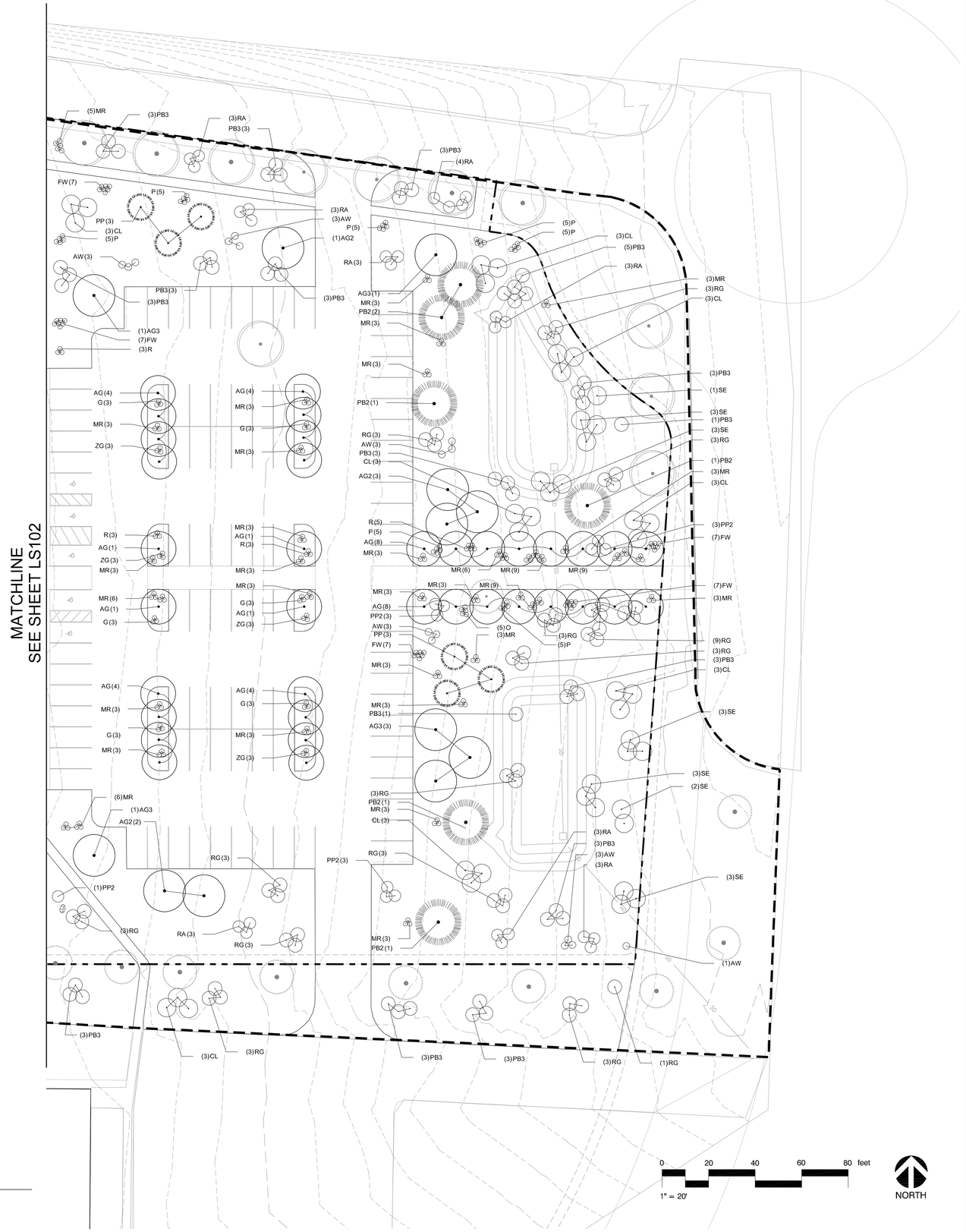
MR	Mahonia repens	Creeping Mahonia	1 gal
O	Penstemon cyananthus	Wasatch penstemon	1 gal
P	Penstemon pinifolius 'Mersea Yellow'	Yellow Threadleaf Beardtongue	1 gal
R	Rudbeckia fulgida 'Goldsturm'	Goldsturm Black-eyed Susan	1 gal
ZG	Zauschneria latifolia 'Garrettii'	Orange Carpet	1 gal

NATIVE SHRUBS	BOTANICAL NAME	COMMON NAME	CONT
AW	Artemisia tridentata wyominensis	Wyoming Sagebrush	5 gal
CL	Cercocarpus ledifolius	Curl-Leaf Mountain Mahogany	5 gal
CM	Cercocarpus montanus	Alderleaf Mountain Mahogany	5 gal
PB3	Prunus besseyi	Sand Cherry	5 gal
PP2	Prunus besseyi 'Pawnee Buttes'	Sand Cherry	5 gal
RG	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	5 gal
RG2	Rhus glabra	Smooth Sumac	5 gal
RC	Rhus glabra 'Cismontana'	Western Smooth Sumac	5 gal
RA	Rosa woodsii	Mountain Rose	5 gal
SE	Salix exigua	Coyote Willow	5 gal

PERENNIALS	BOTANICAL NAME	COMMON NAME	CONT
A	Agastache rupestris 'Sunset'	Sunset Hyssop	1 gal
K	Hemerocallis x 'Rosy Returns'	Rosy Returns Daylily	1 gal

SOD/SEED	BOTANICAL NAME	COMMON NAME	CONT
BBG	Poa pratensis L. 'NE-KYB-05-001'	Bella Bluegrass	sod



1 Planting Plan - 2
1" = 20'-0"

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Utah 84106
Phone: (801) 474-3300
Web: ldi-ut.com

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Planting Plan - 2

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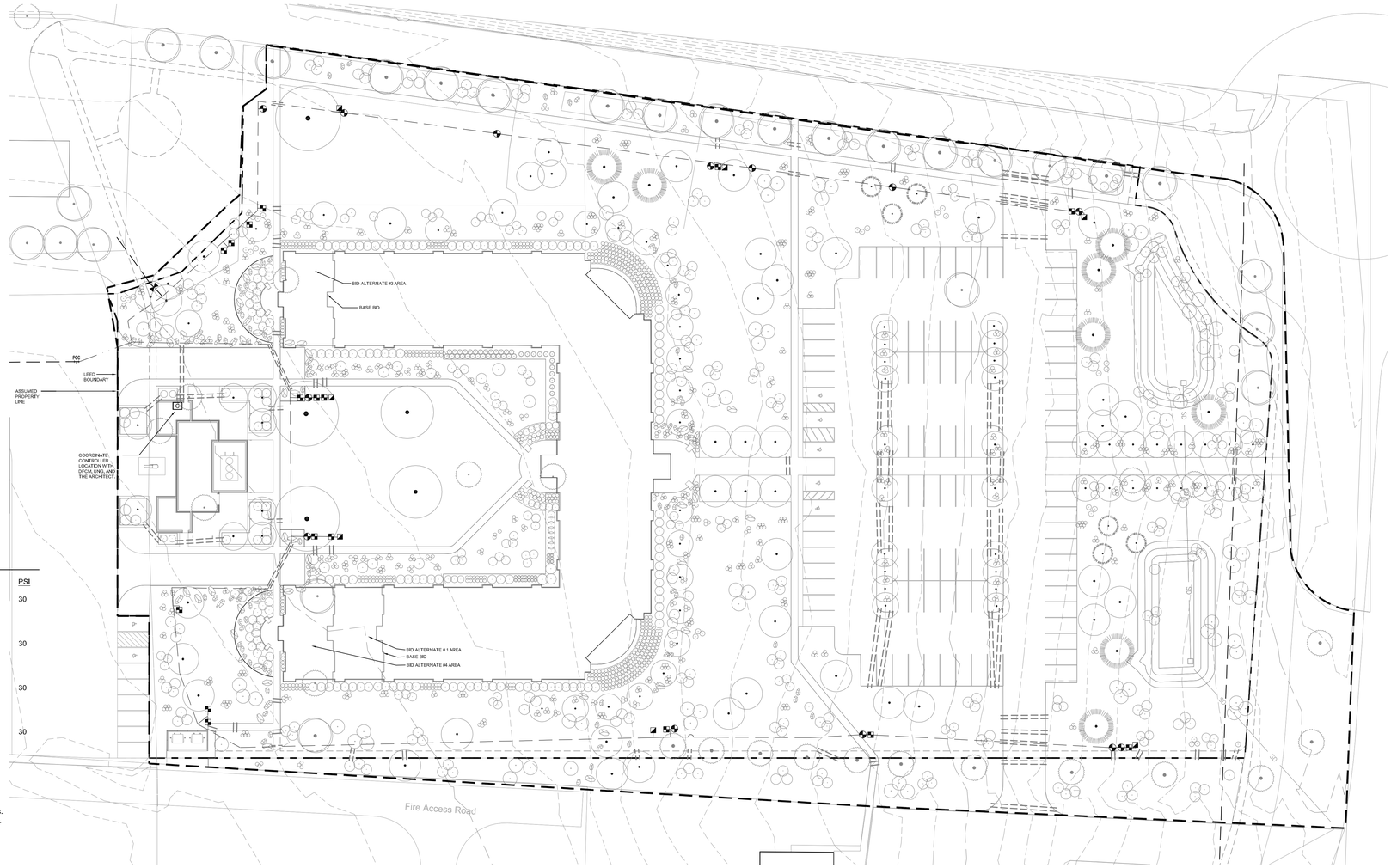
DRAWN BY H. Holt	CHECKED BY M. Vlasic
PROJECT NO. 11007	DRAWING NO. LS103
DATE 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

Robert, Feb 11, 2013 - 1:49pm
\\Design_server\projects_01SECTS\LA_CURRENT\CAMPWILLIAMS_BEQ_JAN2011\3 CD INFO\UNGBEQ04-LS101LAND.dwg



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
M O	Hunter MP1000 w/ Rain Bird 1804 PRS SAM Turf Rotator, 4" pop-up with check valve, MP Rotator nozzle. M=Maroon adj arc 90 to 210, L=Light Blue 210 to 270 arc, O=Olive 360 arc, on pop-up body.	30
K G R	Hunter MP2000 w/ Rain Bird 1804 PRS SAM Turf Rotator, 4" pop-up with factory installed check valve, MP Rotator nozzle. K=Black adj arc 90-210, G=Green adj arc 210-270, R=Red 360 arc, on pop-up body.	30
B Y A	Hunter MP3000 w/ Rain Bird 1804 PRS SAM Turf Rotator, 4" pop-up with factory installed check valve, MP Rotator nozzle. B=Blue adj arc 90-210, Y=Yellow adj arc 210-270, A=Gray 360 arc, on pop-up body.	30
LST RST SST	Hunter MP Strip w/ Rain Bird 1804 PRS SAM Turf Rotator, 4" pop-up with factory installed check valve, MP Rotator nozzle. LST=Ivory left strip, SST=Brown side strip, RST=Copper right strip, on pop-up body.	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Rain Bird XCZ-100-PRB-LC Medium Plus Flow Drip Control Kit, for Light Commercial Uses. 1" PGA Valve, with 1" Pressure Regulating 40psi Basket Filter. 5gpm to 20gpm.
	Shrub Drip Emitter Line Drip Emiter Loop (2.6 GPH)
	Existing Tree Root Watering Bubblers 5 Root Watering Bubblers 7' from trunk of Existing Tree (2.5 GPM per tree)
	Tree Root Watering Bubblers 3 Root Watering Bubblers per Tree (1.5 GPM per tree)
	Irrigation Turf Head (Relocated) Adjust as required to provide coverage. X = Approximate existing location.
	Area to Receive Dripline Netafim TLCV-04-18 (18) Techline Pressure Compensating Landscape Dripline with Check Valve. 0.4GPH emitters at 18.0" O.C. Dripline laterals spaced at 18.0" apart, with emitters offset for triangular pattern. 17mm.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Rain Bird PGA-PRS-D- Globe 1", 1-1/2", 2" Electric Remote Control Valve, Globe. With Pressure Regulator Module.
	Rain Bird 44RC 1" Quick Coupler Valve, two piece body
	Shut Off Valve 2" Stop and Waste Valve
C	Rain Bird ESPLXM Rain Bird ESP-LX Modular Series. Modular controller up to 32 stations maximum with ESPLXMSM4- 4 station and ESPLXMSM8- 8 station modules. Install the proper number of modules to accomodate the number of stations in the scope of work.
	Irrigation Lateral Line: PVC Schedule 40 PVC Schedule 40 irrigation pipe.
	Irrigation Mainline: PVC Schedule 40
	Irrigation Mainline: PVC Class 200 SDR 21 PVC Class 200 irrigation pipe.
	Pipe Sleeve: PVC Schedule 40 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.

Valve Callout
- Valve Number
- Valve Flow
- Valve Size

1 Landscape Site Plan
1" = 30'-0"

GENERAL IRRIGATION SITE PLAN NOTES

1. THE IRRIGATION CONTRACTOR MUST EXAMINE THE SITE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND NOTIFY THE OWNER'S AUTHORIZED REPRESENTATIVE IN WRITING OF UNSATISFACTORY CONDITIONS. DO NOT PROCEED UNTIL CONDITIONS HAVE BEEN CORRECTED.

2. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO BE FAMILIAR WITH ALL GRADE DIFFERENCES. LOCATION OF WALKS, WALLS, STRUCTURES, AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY THE WORK PERFORMED.

3. BEFORE ANY TRENCHING, EXCAVATION OR DIGGING FOR ANY REASON THE CONTRACTOR SHALL HAVE THE UTILITIES IN THE AREA LOCATED, THE CONTRACTOR WILL CONDUCT THE WORK IN SUCH A MANNER TO PROTECT ALL UTILITIES FROM DAMAGES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR OR REPLACE ANY DAMAGE AT NO EXPENSE TO THE OWNER.

4. DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES, OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.

5. ALL COORDINATION WITH THE OWNER AND END USER MUST BE THROUGH THE GENERAL CONTRACTOR.

6. THE IRRIGATION SYSTEM DESIGN IS BASED ON A MINIMUM OPERATING PRESSURE AT THE POINT OF CONNECTION OF APPROXIMATELY 90 PSI. THE IRRIGATION CONTRACTOR WILL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCES BETWEEN THE PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION (P.O.C.) TO THE ARCHITECT.

7. ALL IRRIGATION EQUIPMENT NOT OTHERWISE DETAILED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.

8. ALL MAIN LINES AND LATERAL LINES TO BE PVC SCH 40. THE INTENT IS TO CONNECT TO THE EXISTING MAINLINE AT ONE LOCATION. ONE IRRIGATION MAINLINE CROSSES THE EAST SIDE OF THE PROJECT AND SERVES OTHER LOCATIONS OUTSIDE OF THE PROJECT AREA. ANY DISRUPTION TO THE MAINLINES MUST BE COORDINATED FOR TIMES WHEN THE AREAS OUTSIDE OF THE PROJECT WILL NOT HAVE REQUIRED IRRIGATION WATER. COORDINATE WITH THE OWNER'S AUTHORIZED REPRESENTATIVE.

9. MAIN AND LATERAL LINES SHOWN ON PLANS ARE DIAGRAMMATIC ONLY. ALL PIPES SHALL BE LAIN IN COMMON TRENCHES AND LANDSCAPED AREAS WHEN FEASIBLE.

10. CONTROL WIRES NOT LAIN IN A COMMON TRENCH WITH MAINLINE SHALL BE INSTALLED IN CONDUIT OF SUFFICIENT SIZE. CONTROL WIRES TO BE PLACED IN SEPARATE SLEEVE FROM IRRIGATION LINES. ALL CONTROL WIRES TO BE LABELED WITH ZONE NUMBER AT CONTROLLER AND VALVE.

11. THE IRRIGATION CONTRACTOR SHALL SUPPLY THE OWNER'S AUTHORIZED REPRESENTATIVE AT FINAL INSPECTION WITH COMPLETE 'RED LINE DRAWINGS', WRITTEN START-UP AND SHUT-DOWN PROCEDURES, A COMPLETE MATERIALS LIST, AS WELL AS NAMES, ADDRESSES, AND PHONE NUMBERS OF THE CONTRACTORS AND LOCAL DISTRIBUTORS OF THE VARIOUS MATERIALS USED.

12. THE IRRIGATION CONTRACTOR SHALL MAKE THE ELECTRICAL CONNECTION FROM THE NEW VALVES TO THE CONTROLLER. IRRIGATION RUN TIMES SHALL BE SET BY THE CONTRACTOR.

13. VERIFY LOCATION OF CONTROLLER AND SLEEVES WITH OWNER.

14. REPAIR AREAS DISTURBED BY IRRIGATION MODIFICATION WORK INCLUDING SIDEWALKS,TRENCHES, SITE EQUIPMENT, EXISTING LANDSCAPE, ETC.

15. INFORMATION OF EXISTING IRRIGATION SYSTEM IS BASED ON UTILITY DRAWINGS, OWNER'S KNOWLEDGE AND SITE OBSERVATION. CONTRACTOR TO VERIFY LOCATION OF EXISTING EQUIPMENT AND SYSTEMS TO ADJUST ACCORDINGLY.

16. SALVAGE EXISTING HEADS, VALVES, AND CONTROLLERS TO THE OWNER.

ALTERNATE INFORMATION

DRAWINGS - THE PLANTING AND IRRIGATION PLANS REFLECT THE CONDITIONS WITH ALL ADDITIVE ALTERNATES INCLUDED.

BASE BID - THE BASE BID INCLUDES +/- 1,470 ADDITIONAL SQUARE FEET OF LANDSCAPE CONSTRUCTION ON THE NORTH WING AND +/- 2,940 ADDITIONAL SQUARE FEET OF LANDSCAPE ON THE SOUTH WING. GRADING, TOPSOIL, LANDSCAPE FABRIC, BOULDERS, PLANTING AND IRRIGATION IS REQUIRED IN THESE AREAS. PLANTS AND IRRIGATION WILL BE RELOCATED FROM THE ADJACENT AREAS.

ALTERNATE 1 - BUILDING ELEMENTS, EQUIPMENT SYSTEMS, ETC FOR TWELVE BILLET UNITS. IF ALTERNATE 2 IS ACCEPTED, THE TOPSOIL, LANDSCAPE FABRIC, AND MULCH WILL BE ELIMINATED AND THE PLANTING, AND IRRIGATION WILL BE RELOCATED.

ALTERNATE 2 - NO LANDSCAPE OR IRRIGATION MODIFICATIONS.

ALTERNATE 3 - BUILDING ELEMENTS, EQUIPMENT SYSTEMS, ETC FOR TWELVE BILLET UNITS. IF ALTERNATE 3 IS ACCEPTED, THE TOPSOIL, LANDSCAPE FABRIC, AND MULCH WILL BE ELIMINATED AND THE PLANTING, AND IRRIGATION WILL BE RELOCATED.

ALTERNATE 4 - BUILDING ELEMENTS, EQUIPMENT SYSTEMS, ETC FOR TWELVE BILLET UNITS. IF ALTERNATE 4 IS ACCEPTED, THE TOPSOIL, LANDSCAPE FABRIC, AND MULCH WILL BE ELIMINATED AND THE PLANTING, AND IRRIGATION WILL BE RELOCATED.

0 30 60 90 120 feet
1" = 30'

NORTH

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE.

STATE OF UTAH HEIDI HOLT NO. 106783 LICENSED LANDSCAPE ARCHITECT
15 FEB 2013

LANDMARK DESIGN
INCORPORATED
LANDSCAPE ARCHITECTURE AND LAND PLANNING
2834 Highland Drive
Salt Lake City
Utah 84106
Phone: (801) 474-3300
Web: ldi-ut.com

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84065

Irrigation Site Plan

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY H. Holt	CHECKED BY M. Vlasic
PROJECT NO. 11007	DRAWING NO. LS201
DATE 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

Robert, Feb 12, 2013 – 10:50am
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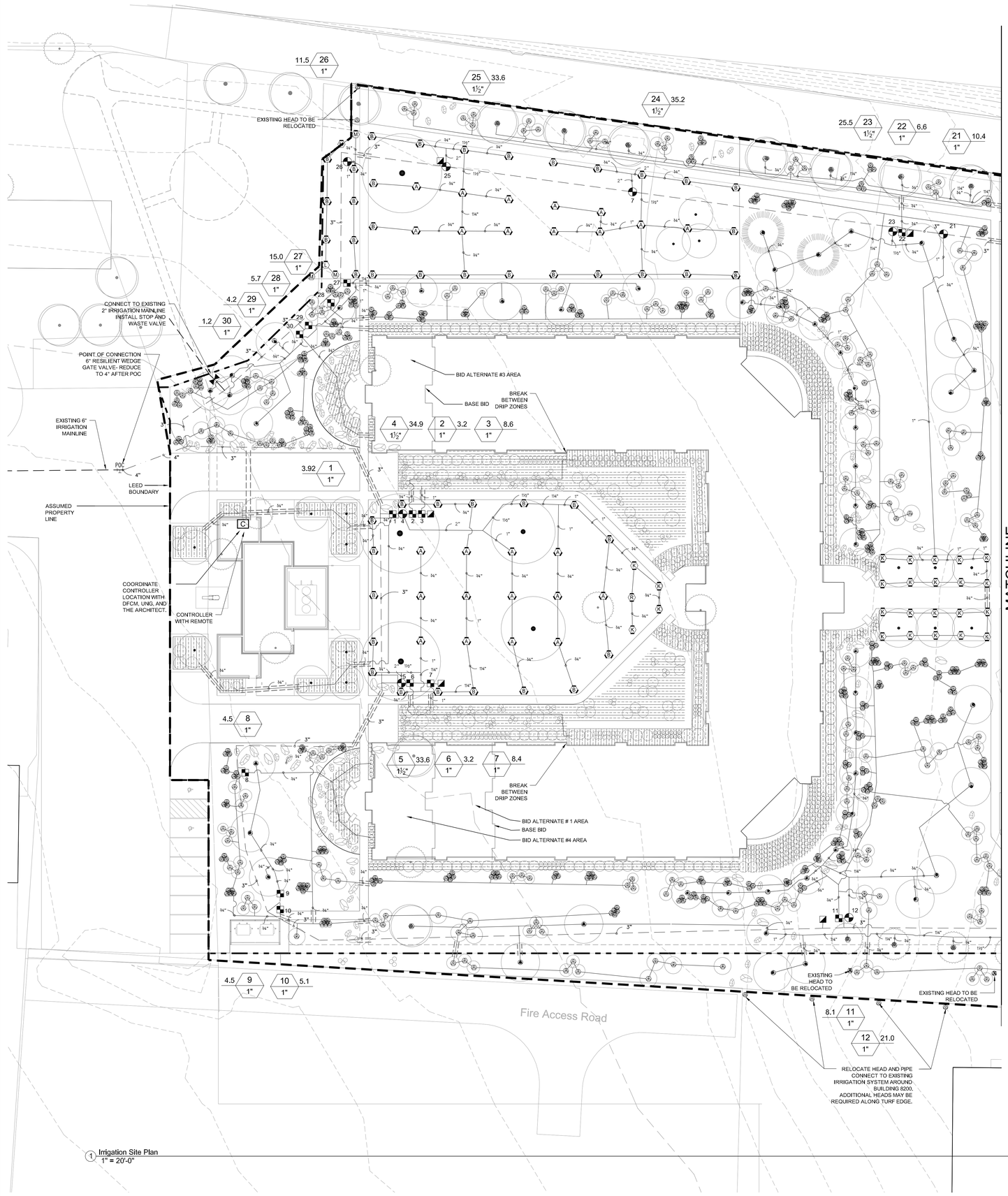

1 Irrigation Site Plan
1" = 20'-0"

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
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Valve Callout
- Valve Number
- Valve Flow
- Valve Size

0 20 40 60 80 feet
1" = 20'

NORTH

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE.

STATE OF UTAH HUGH ALLEN HOLT NO. 106783 LICENSED LANDSCAPE ARCHITECT
15 FEB 2013

LANDMARK DESIGN INCORPORATED
LANDSCAPE ARCHITECTURE AND LAND PLANNING
2834 Highland Drive
Salt Lake City
Utah 84106
Phone: (801) 474-3300
Web: ldi-ut.com

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84065

Irrigation Site Plan

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: H. Holt	CHECKED BY: M. Vlasic
PROJECT NO.: 11007	DRAWING NO.: LS202
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

Robert, Fri Feb 12, 2013 – 10:55am
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EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

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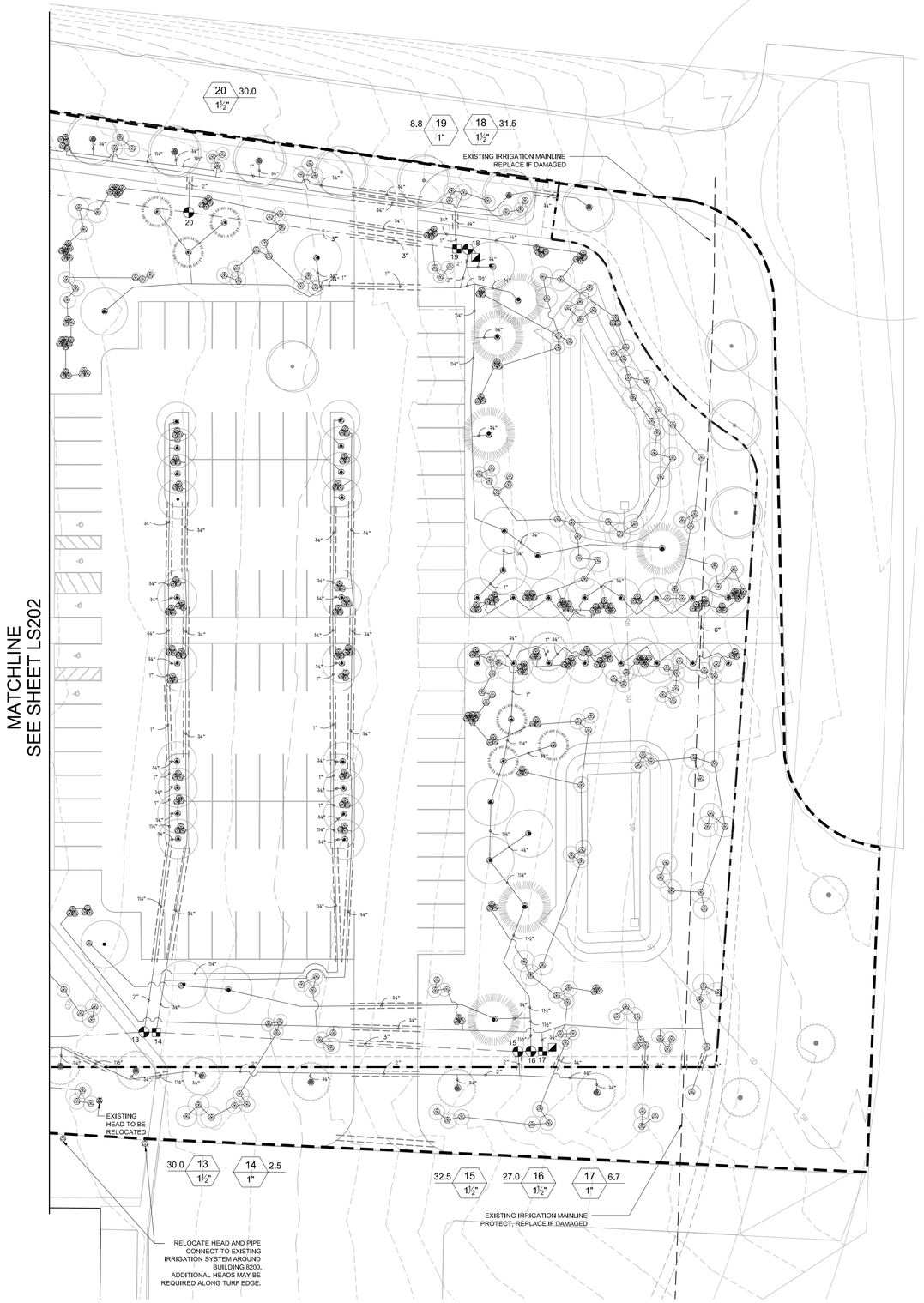
Valve Callout
- Valve Number
- Valve Flow
- Valve Size



1 Irrigation Site Plan
1" = 20'-0"

SEAL & SIGNATURE.

STATE OF UTAH HUGH ALLEN HOLT NO. 106783 LICENSED LANDSCAPE ARCHITECT 15 FEB 2013

LANDMARK DESIGN INCORPORATED
LANDSCAPE ARCHITECTURE AND LAND PLANNING
2834 Highland Drive
Salt Lake City
Utah 84106
Phone: (801) 474-3300
Web: ldi-ut.com

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84065

Irrigation Site Plan

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: H. Holt
CHECKED BY: M. Vlasic
PROJECT NO.: 11007
DRAWING NO.: LS203
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

Robert, Feb 12, 2013 – 10:56am
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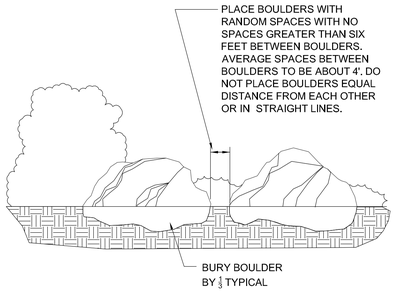
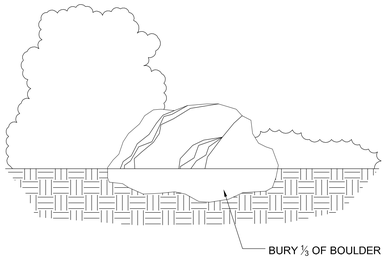


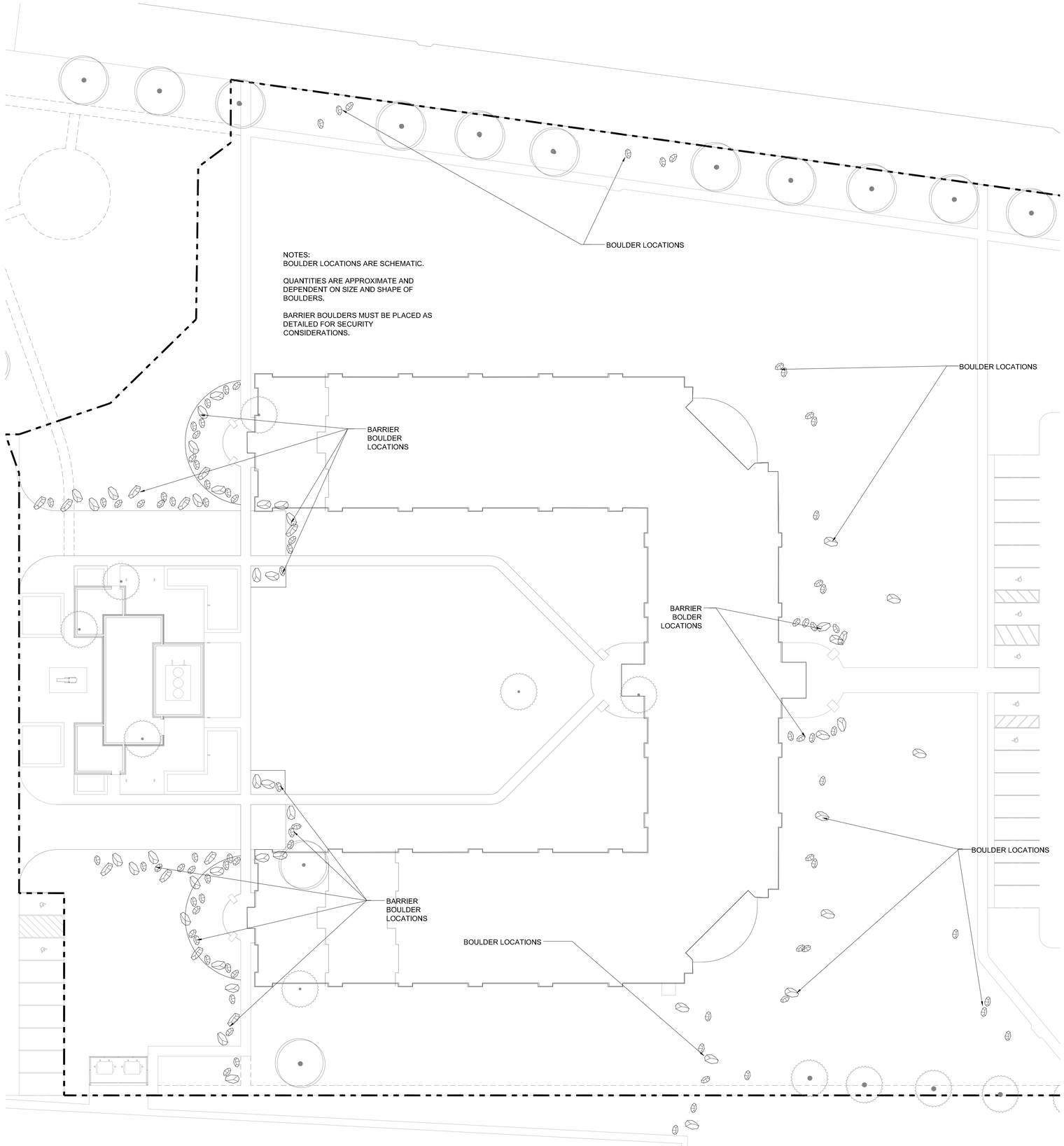
1 BARRIER BOULDER DETAIL

LDI-321901-03



2 BOULDER DETAIL

LDI-321901-04



NOTES:
BOULDER LOCATIONS ARE SCHEMATIC.

QUANTITIES ARE APPROXIMATE AND DEPENDENT ON SIZE AND SHAPE OF BOULDERS.

BARRIER BOULDERS MUST BE PLACED AS DETAILED FOR SECURITY CONSIDERATIONS.

BOULDER SCHEMATIC PLAN
(NO SCALE)

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE.

STATE OF UTAH · HUGH HOLT · NO. 106783 · LICENSED LANDSCAPE ARCHITECT · 15 FEB 2013

LANDMARK DESIGN
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BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84065

Landscape Details

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY H. Holt	CHECKED BY M. Vlasic
PROJECT NO. 11007	DRAWING NO. LS501
DATE 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

Robert, Feb 12, 2013 - 11:03am
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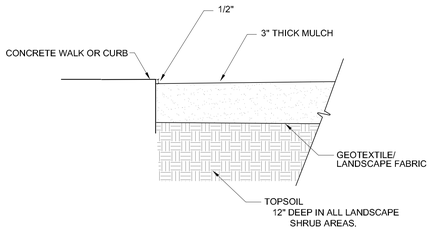
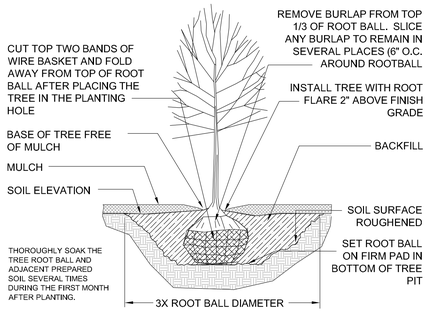


1 MULCH AT CONCRETE EDGE

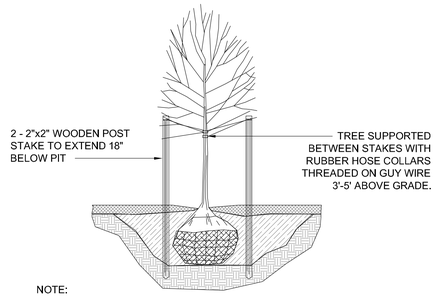
LDI-321543-04



STAKING TREES
1. STAKING IS NOT GENERALLY REQUIRED FOR ALL TREE PLANTING. IF CONDITIONS ARE PRESENT WHERE THE CONTRACTOR DEEMS IT NECESSARY TO STAKE TREES TO ENSURE VIABILITY THROUGH THE GUARANTEE PERIOD, THE CONTRACTOR MAY STAKE THE TREES AT NO ADDITIONAL COST TO THE OWNER.
2. ANY STAKING WILL BE IN ACCORDANCE WITH CURRANT HORTICULTURE PRACTICE. STAKING OF TREES WILL BE WITH WOODEN STAKES PLACED OUTSIDE OF THE ROOT BALL

2 DECIDUOUS TREE PLANTING

LDI-329343.01-09



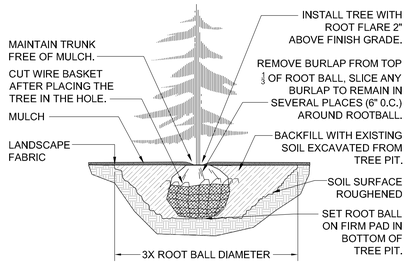
NOTE:

ANY STAKING WILL BE IN ACCORDANCE WITH CURRANT HORTICULTURE PRACTICE. STAKING OF TREES WILL BE WITH WOODEN STAKES PLACED OUTSIDE OF THE ROOT BALL

SEE DETAILS FOR TREE PLANTING

3 TREE STAKING (DECIDUOUS)

329343.01-03



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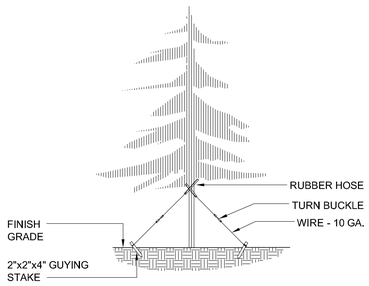
4 EVERGREEN TREE PLANTING

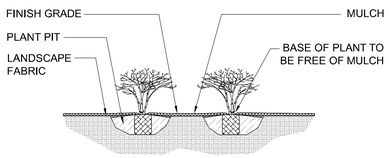
LDI-329343.01-06



NOTE:
1. STAKING WILL BE IN ACCORDANCE WITH CURRANT HORTICULTURE PRACTICE. STAKING OF TREES WILL BE WITH WOODEN STAKES PLACED OUTSIDE OF THE ROOT BALL.
2. THREE EQUALLY SPACED WIRES ARE TO BE USED IN GUYING.
3. ALL TREE STAKING SHALL BE INCLUDED.
4. SEE DETAILS FOR TREE PLANTING.

5 TREE GUYING (EVERGREEN)

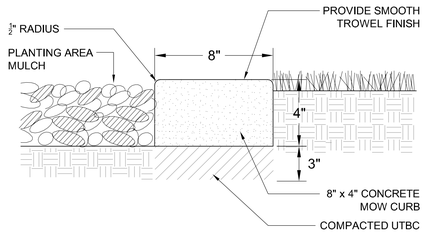
329343.01-04



SOAK TOPSOIL AND ALLOW TO PERCOLATE PRIOR TO PLANTING. SET PLANT AT SAME RELATIONSHIP TO FINISH GRADE AS IN CONTAINER.

6 SHRUB PLANTING

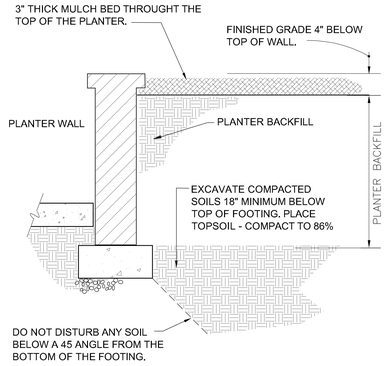
LDI-329333.01-03



NOTE: SCORE JOINTS EVENLY SPACED, 10' MAX.
EXPANSION JOINTS EVENLY SPACED, 40' MAX.

7 CONCRETE MOW CURB

LDI-329413.19-07



8 RAISED PLANTER EXCAVATION AND BACKFILL

329363.16-01

1" = 1'-0"

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STATE OF UTAH · HUGH J. HOLT · NO. 106783 · LICENSED LANDSCAPE ARCHITECT · 15 FEB 2013

LANDMARK DESIGN
INCORPORATED
LANDSCAPE ARCHITECTURE AND LAND PLANNING
2834 Highland Drive
Salt Lake City
Utah 84106
Phone: (801) 474-3300
Web: ldi-ut.com

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CAMP WILLIAMS
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Landscape Details

REVISION	DATE	BY	DESCRIPTION
△			
△			
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DRAWN BY H. Holt	CHECKED BY M. Vlasic
PROJECT NO. 11007	DRAWING NO. LS502
DATE 02/15/2013	

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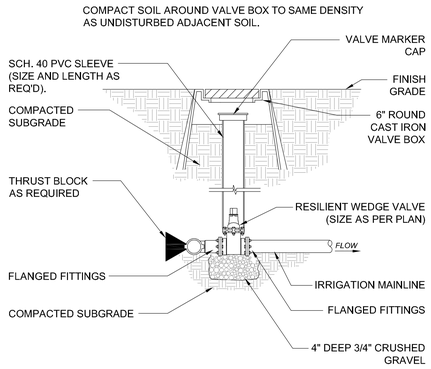
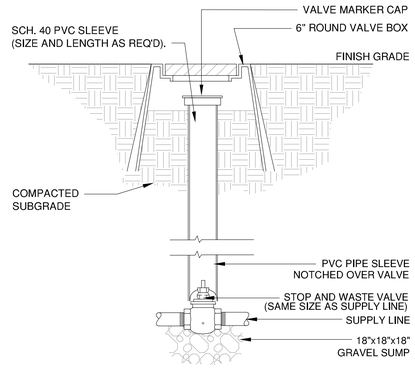


1 ISOLATION VALVE

LDI-328406.33-08

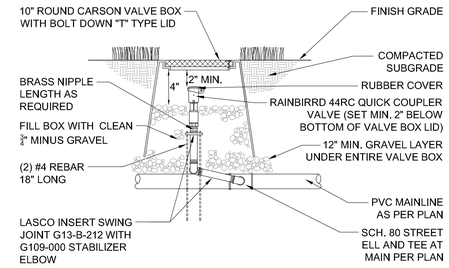


2 STOP AND WASTE VALVE

LDI-328406.02-01

3 DETAIL NOT USED

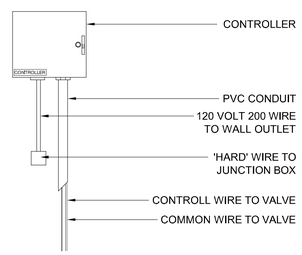
LDI-010101-01



4 QUICK COUPLER

LDI-328406.43-08

NOTES:
1 - SEE MANUAL FOR MOUNTING INSTRUCTIONS.
2 - ALL WIRING TO BE INSTALLED AS PER LOCAL CODES.
3 - CONTROLLER TO BE LOCATED AS SHOWN ON PLANS COORDINATE WITH OWNER'S AUTHORIZED REPRESENTATIVE AND ELECTRICAL CONTRACTOR..



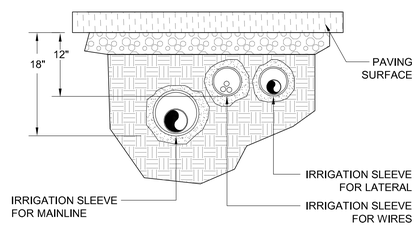
5 WALL MOUNT CONTROLLER

LDI-328409.13-10

NOTE:

SURROUND ALL SLEEVING IN 2" MINIMUM SAND ALL AROUND.

EXTEND ALL SLEEVING A MINIMUM OF 6" BEYOND EDGE OF PAVING.



6 TYPICAL SLEEVING

328409.76-06

SLEEVE SIZE CHART

PIPE SIZE	MIN. SLEEVE SIZE
3/4"	1 1/2"
1"	2"
1 1/4"	2 1/2"
1 1/2"	3"
2"	4"
2 1/2"	6"
3"	6"
4"	8"
6"	12"

*WHEN MULTIPLE PIPES OCCUR IN ONE TRENCH, ADD REQUIRED SLEEVE SIZES TOGETHER FOR 1 SLEEVE SIZE.

*WIRES SHALL BE IN SEPARATE CONDUIT AS PER CHART BELOW

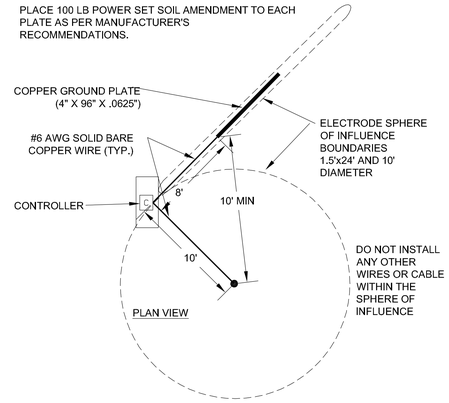
WIRE CONDUIT SIZES

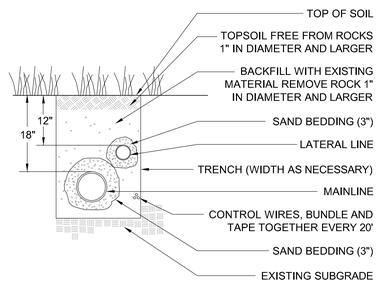
NUMBER OF WIRES	MIN. CONDUIT SIZE
1-7	1"
8-11	1 1/2"
12-22	2"
23-31	2 1/2"
32-36	3"

7 SLEEVING REQUIREMENTS

328409.76-07

PLACE 100 LB POWER SET SOIL AMENDMENT TO EACH PLATE AS PER MANUFACTURER'S RECOMMENDATIONS.

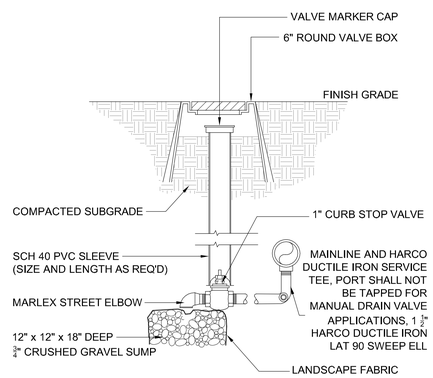




TIE A LOOSE 20" LOOP IN ALL WIRING AT CHANGES OF DIRECTION GREATER THAN 30 DEGREES. UNTIE ALL LOOPS AFTER CONNECTIONS HAVE BEEN MADE.

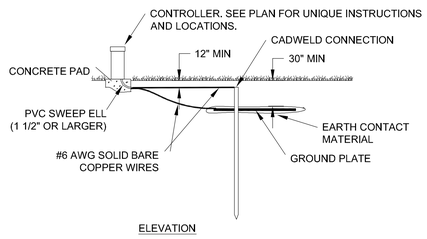
8 TYPICAL TRENCHING

LDI-328409.76-12



9 MANUAL DRAIN VALVE

LDI-328409.86-02



10 GROUNDING PLATE AND ROD

LDI-328409.79-02

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265 EAST 100 SOUTH SUITE 350
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STATE OF UTAH HUGH J. HOLT NO. 106783 LANDSCAPE ARCHITECT 15 FEB 2013

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2834 Highland Drive
Salt Lake City
Utah 84106
Phone: (801) 474-3300
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RIVERTON, UT 84065

Irrigation Details

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: H. Holt
CHECKED BY: M. Vlasic
PROJECT NO.: 11007
DRAWING NO.: LS503
DATE: 02/15/2013

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Robert, Feb 11, 2013 - 1:55pm
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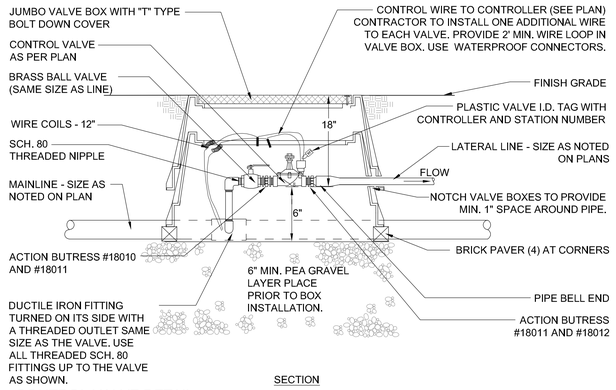
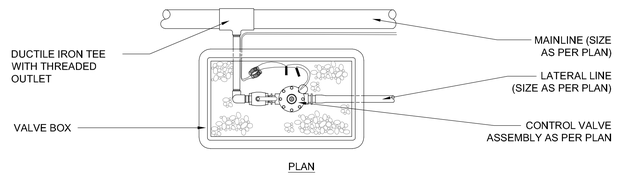
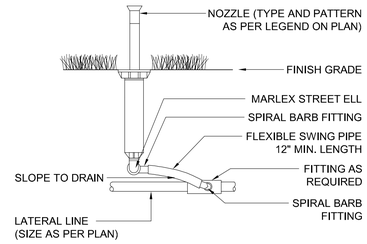




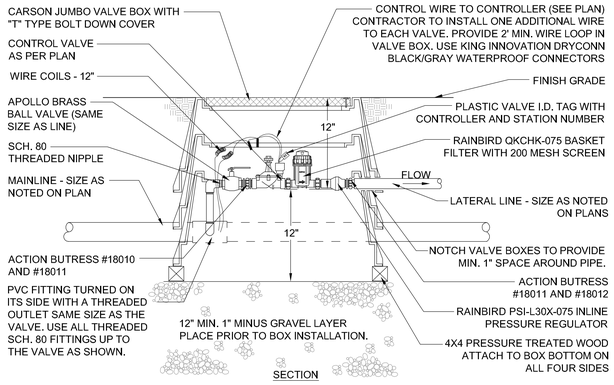
1 CONTROL VALVE DETAIL

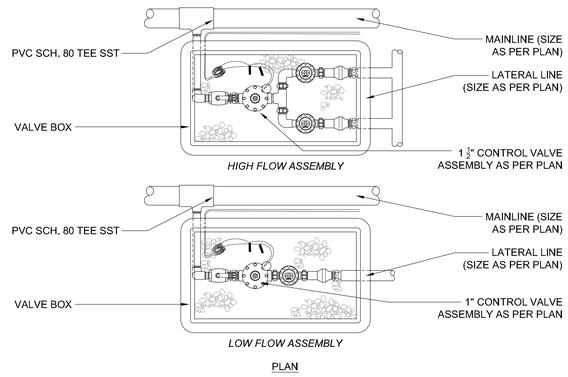
328406.01-04



2 POP-UP SPRAY HEAD

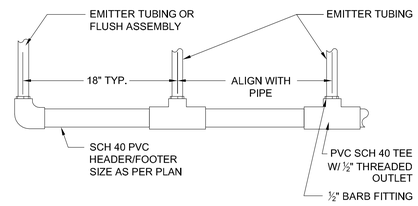
LDI-328403-02





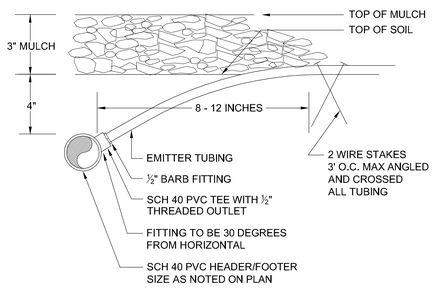
3 DRIP VALVE/FILTER/PRESSURE REG. DETAIL

328413.76-07



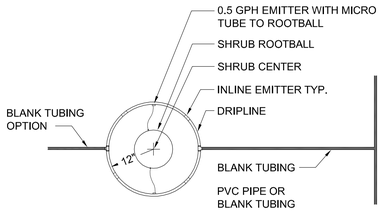
4 PVC HEADER AND EMITTER TUBING

LDI-328413.56-18



5 PVC-EMITTER TUBING TRANSITION AND STAKING

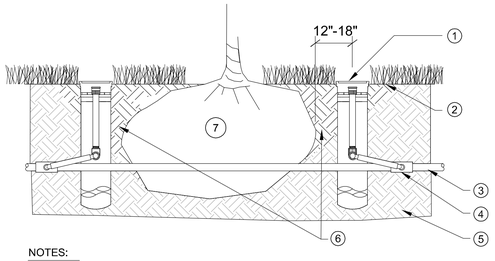
LDI-328413.56-22



NOTES:
1. LENGTH OF DRIPLINE IS 7.5' PER SHRUB.
2. VERIFY THAT THERE ARE FOUR INLIINE EMITTERS ON DRIPLINE BEFORE PLACING AROUND SHRUB.
3. DRIPLINE MAY NOT BE LOOPED CONTINUOUSLY. BLANK TUBING MAY BE USED TO CONNECT A SERIES OF SHRUB LOOPS.
4. STAKE TUBING AS DETAILED.

6 DRIP TUBING (SHRUB)

328413.56-01

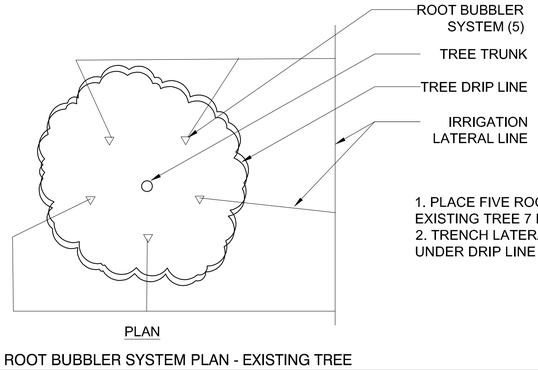


1. ROOT WATER SYSTEM (RWS) SEE IRRIG. PLAN FOR MODEL NO.
2. FINISH GRADE
3. LATERAL LINE
4. PVC SCH. 80 ELL OR TEE
5. EXISTING SOIL
6. BACKFILL MIX SEE DETAIL
7. TREE ROOT BALL

NOTES:
1. THREE RWS PER TREE TYP.
2. PLACE RWS ON UPHILL SIDE OF TREE ROOT BALL

7 ROOT WATER SYSTEM

LDI-328499-07



1. PLACE FIVE ROOT BUBBLER SYSTEMS ABOUT THE EXISTING TREE 7 FEET FROM TREE TRUNK.
2. TRENCH LATERAL PIPE PERPENDICULAR TO TREE UNDER DRIP LINE 8 INCHES DEEP.

8 ROOT BUBBLER SYSTEM PLAN - EXISTING TREE

328499-09

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265 EAST 100 SOUTH SUITE 350
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STATE OF UTAH HUGH J. HOLT NO. 106783 LICENSED LANDSCAPE ARCHITECT 15 FEB 2013

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LANDSCAPE ARCHITECTURE AND LAND PLANNING
2834 Highland Drive
Salt Lake City
Utah 84106
Phone: (801) 474-3300
Web: ldi-ut.com

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RIVERTON, UT 84065

Irrigation Details

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: H. Holt	CHECKED BY: M. Vlasic
PROJECT NO.: 11007	DRAWING NO.: LS504
DATE: 02/15/2013	

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I. Design Criteria

A. Governing Building Code: 2009 International Building Code (IBC)

B. Progressive Collapse Design Data:
1. Code: .... UFC 4-023-03, 14 July 2009
2. Occupancy Category: II
3. Design Method .... Alternate Path
4. Future additions or alterations to this structure shall not jeopardize the requirements for progressive collapse resistance.

C. Floor Live Loading:
1. Rooms: .... 40 psf Live Load + 15 psf Partition Load
2. Exit Facilities & Corridors: .... 100 psf Live Load
3. Mechanical Rooms: .... 125 psf Live Load or actual weights, if larger

D. Roof Live Loading:
1. Roof Live Load: .... 20 psf
2. Roof Snow Load: .... 32 psf + Drift per IBC
   a. Ground Snow Load, P_g: .... 46 psf
   b. Snow Exposure Factor, C_e: 1.0
   c. Importance Factor, I_S: 1.0
   d. Thermal Factor, C_t: 1.0

E. Earthquake:
1. Occupancy Category: II
2. Seismic Design Category .... D
3. Spectral Response Accelerations:
   S_S = 1.127 g S_{DS} = .788 g
   S_1 = .461 g S_{D1} = .473 g
4. Soil Site Class: .... D
   F_a = 1.049 F_v = 1.539
5. Basic Seismic-Force-Resisting System: .... Special Reinforced Masonry Shearwall
   R = 5.0 C_d = 3.5 Ω_0 = 2.5
6. Importance Factor, I_E: 1.0
7. Design Base Shear: .... 1376 kips
8. Design Story Drift, Δ: .... 0.3 in (amplified)
9. Analysis Procedure: .... Equivalent Lateral Force (Static)

F. Wind:
1. Basic Wind Speed (3-second gust): .... 90 mph
2. Importance Factor, I_W: 1.0
3. Exposure: C
4. Internal Pressure Coefficient, GC_{pi}: 0.18
5. Topographic Factor, K_{zt}: 1.0

G. Foundation:
1. Subsurface Conditions:
   Soils report and log of borings was obtained by the Owner for the Engineer's use in the design of the foundation, and is not a part of the Contract Documents. This report and log of borings is available for the Contractor's information, but is not a warranty of the subsurface conditions. The Contractor may use the report at his own risk.
2. Soils Report by GSH, Inc.,
   dated July 1, 2011.
3. Soil Bearing Pressure: .... 3500 psf, on Suitable Natural Granular Soils or Compacted Fill extending to these soils,
4. Lateral Soil Pressure Fluid Equivalent Density.
   a. Active: .... 35 pcf (retaining walls)
   b. At Rest: .... 55 pcf (rigid foundation walls)
   c. Passive: .... 300 pcf (granular backfill, above water table)
   d. Increase for Seismic: .... 60 pcf
5. Coefficient of Friction: .... 0.45 (granular soils)

II. Earthwork

A. Clearing: The entire building area shall be scraped to remove the top 4 inches of soil, including all vegetation and debris.

B. Near surface non-engineered fills and fine-grained soils: Do not place any footing on this material. Remove all of this material from below footings and replace it with compacted structural fill. Remove an area that extends three feet beyond the perimeter of the building. Refer to the project soils report.

C. Proof rolling: The natural undisturbed soil below all footings shall be proof rolled prior to placing concrete. Remove all soft spots and replace with compacted structural fill.

D. Compacted structural fill: All fill material shall be a well-graded granular material with a maximum size less than 4 inches and with not more than 10 percent passing a No. 200 sieve. It shall be compacted to 95 percent of the maximum laboratory density as determined by ASTM D1557. All fill shall be tested (See Specifications and the Quality Assurance section of the GSN).

III. Concrete

A. Materials shall comply with the Standards specified in American Concrete Institute (ACI) 318-08, "Building Code Requirements for Structural Concrete."
1. Concrete mix design requirements shall be as follows:

Location	f'c at 28 days (psi)	Max W/C Ratio	Air Content (%)	Max Aggregate Size	Exposure Classes*		
					F	S	C
Footings	4500	0.45	4.5	1"	F1	S0	C1
Interior Slabs on Grade	3000	0.45	-	1"	F0	S0	C0
Exterior Walls	4500	0.45	5	¾"	F1	S0	C1
Walls	4000	0.45	-	¾"	F0	S0	C0
Lightweight Concrete over Steel Deck	3000	0.45	-	¾"	F0	S0	C0
All other site cast concrete	4500	0.45	4.5	1"	F1	S0	C1

* Exposure Classes are per ACI 318, Section 4.2.1, where F, S and C are exposure categories for freezing and thawing, sulfate, and corrosion protection of reinforcement, respectively.

2. Cementitious Materials:
   a. Portland Cement (ASTM C150):
      (1) Type I or II for exposure class S0.
      (2) Type II or V for exposure class S1.
      (3) Type V for exposure class S2 and S3.
   b. Fly Ash (ASTM C618, Class C or F): maximum fly ash content as a percentage of total weight of cementitious materials shall be 25 percent.
3. Concrete Density (Maximum Air Dry Weight):
   a. Normal weight concrete shall be approximately 145 to 155 pounds per cubic foot. Aggregate shall be ASTM C33.
   b. Lightweight concrete shall not exceed 110 pounds per cubic foot and shall be made of lightweight coarse aggregates and either lightweight and/or normal weight fines meeting ASTM C330.
4. Reinforcement steel:
   a. ASTM A615 Grade 60, fy = 60,000 psi min. unless noted otherwise.
5. Admixtures:
   a. Air-entraining admixtures, comply with ASTM C 260 (when used).
      (1) Tolerance on air content as delivered shall be +/- 1.5%.
      (2) When air content of a trowel finished floor slab exceeds 3%, there is an increased risk for delaminations and blistering to occur. When this situation is present, the contractor shall pay special attention to the finishing procedures to help minimize such risks. Refer to ACI 302.1R-96 "Guide for Concrete Floor and Slab Construction" for proper finishing guidelines.
   b. Calcium chloride or admixtures containing calcium chloride shall not be added to the concrete mix.
6. Chloride Ion: Maximum water soluble chloride ion concentrations in hardened concrete at age between 28 and 42 days contributed from the ingredients including water, aggregates, cementitious materials, and admixtures shall not exceed a maximum, by weight of cement, of 1.00% for concrete with exposure class C0, 0.30% for concrete with exposure class C1, 0.15% for concrete with exposure class C2, and 0.06% for all prestressed concrete.
7. Slump Limit: 4 inches, maximum for all concrete prior to the addition of plasticizers and water reducing admixtures. The concrete supplier shall indicate the final slump of each concrete mix in the submitted mix design.
8. Shrinkage Limit: Interior slabs on grade shall have a drying shrinkage limit of 0.040 percent tested in accordance with ASTM C157. Drying shrinkage test results shall be submitted with mix designs.
9. Only one grade or type of concrete shall be poured on the site at any given time.

B. Formwork shall comply with ACI Standards Publication 347 and the project specifications. The contractor shall be responsible for the design, detailing, care, placement and removal of the formwork and shores.

C. Concrete cover requirements for deformed bar reinforcing steel shall comply with ACI 318, "Building Code Requirements for Structural Concrete".
1. Cast-in-place Concrete: Specified Cover
   a. Cast against and permanently exposed to earth: .... 3"
   b. Formed concrete exposed to earth or weather:
      #6 thru #18 bars .... 2"
      #5 and smaller bars .... 1.1/2"
   c. Concrete not exposed to weather or in contact with ground:
      Slabs, Walls, Joists; #11 bars and smaller .... 3/4"
      Beams, Columns: primary reinforcement, ties, stirrups, spirals .... 1.1/2"

D. Construction Joints and Control Joints:
1. Provide a surface intentionally roughened to ¼" amplitude in all wall footings. A continuous keyway shall not be used for concrete shear wall to footing connections, unless specifically indicated. Refer to project plans, schedules and details for the shear wall to footing connection requirements.
2. All horizontal and vertical construction joints shall have a surface intentionally roughened to ¼" amplitude. A continuous 2 X 4 keyway may be used on elements other than shear walls.
3. Provide reinforcement dowels to match the member reinforcement across the joint, unless noted otherwise. For dowels across construction joints and wall to footing connections of concrete shear walls, refer to specific project plans, schedules, and details.
4. Slabs on grade shall have construction or control joints spaced not to exceed 30 times the slab thickness in any direction.
5. Control joints shall be installed in slabs on grade so the length to width ratio of the slab is no more than 1.25:1. Control joints shall be completed within 12 hours of concrete placement. See typical details for joint configuration.
6. Control joints in visually exposed walls, unless noted otherwise: (Joints shall line up with masonry and architectural joints, see drawings.)
   a. Vertical control joints at 10'-0" on center.
   b. Reinforcing shall be continuous through control and construction joints, unless noted otherwise.
   c. Control joints in concrete foundation walls shall line up with masonry control joints.

E. Detailing: All reinforcing, including welded wire fabric, shall be detailed, bolstered & supported to comply with ACI 315, "Details and Detailing of Concrete Reinforcement" and the Concrete Reinforcing Steel Institute (CRSI) recommendations. Reinforcing bars shall not be welded unless specifically shown on drawings.
1. Lap splice lengths shall be detailed to comply with the CONCRETE REINFORCING BAR DEVELOPMENT AND LAP SPLICE SCHEDULE.
2. All mechanical splices shall have the capacity to develop at least 1.25fy of the bar in tension or compression. Type 2 couplers have the capacity to develop the full tension capacity of the bar. Type 1 couplers shall not be used in moment frames and shear wall jamb columns. Mechanical splices shall have a current ICC Code Evaluation Report; "Lenton" (ER-3967), "Taper-Lock" (ESR-2481) or "SAS Stressteel" (ESR-1163) tapered threaded rebar splices, "Bar-Lock" (ESR-2495) bolt coupling sleeves or approved equivalent may be used. Mechanical couplers on adjacent bars shall be staggered a minimum of 24" apart along the longitudinal axis of the reinforcing bars.
3. All embedded elements and dowels shall be securely tied to formwork or to adjacent reinforcing prior to the placement of concrete.
4. Use chairs or other support devices recommended by CRSI to support and tie reinforcement bars and welded wire fabric prior to placing concrete. Welded wire fabric shall be continuously supported at 36" o.c. maximum.
5. See typical details for reinforcing at wall intersections and ends and reinforcing around wall openings..
6. The 90-degree hooks of two successive pier crossties engaging the same longitudinal bars shall be alternated end for end.
7. Contractor shall coordinate placement of all openings, curbs, dowels, sleeves, conduits, bolts, inserts and other embedded items prior to concrete placement.
8. All reinforcement shall be bent cold, and shall be bent only once at the same location. All reinforcement shall be shop bent, unless otherwise permitted by the engineer.

F. Minimum Reinforcing: Wall reinforcing shall be as follows, unless noted otherwise:

Wall Thickness	Horizontal Reinforcing	Vertical Reinforcing
6"	#4 @ 13" o.c.	#4 @ 18" o.c.
8"	#5 @ 15" o.c.	#4 @ 16" o.c.
10"	#5 @ 12" o.c.	#4 @ 13" o.c.
12"	#4 @ 13" o.c. Each Face	#4 @ 18" o.c. Each Face
Others	0.25% of Wall Area	0.15% of Wall Area

Spacing shall exceed neither three times the wall thickness nor 18". In addition to the above reinforcing, 2 - #5 x continuous horizontal bars shall be placed at the bottom of the wall (near the footing) and at each floor level, at the roof level and at the top of wall.

G. No aluminum conduit or product containing aluminum or any other material injurious to concrete shall be embedded in concrete.

H. Unless otherwise noted, all slabs on grade shall be 4" thick.

IV. Masonry

A. Materials, unless noted otherwise:
1. Concrete Masonry Units: ASTM C 90, Lightweight.
2. Hollow Clay Units: Hollow Brick, ASTM C652, Grade SW.
3. Solid Clay Units: ASTM C216, Grade SW.
4. Material Strength: The Prism Test Method or the Unit Strength Method according to IBC Section 2105.2 may be used to determine the compressive strength of masonry assemblies. The contractor shall select the desired method and meet the required material strengths as follows:
   a. Prism Test Method, IBC 2105.2.2.1:
      (1) Concrete Masonry or Hollow Clay Unit Assembly, f'm = 1500 psi.
   b. Unit Strength Method, IBC 2105.2.2.2:
      (1) Concrete Masonry or Hollow Clay Units, minimum unit strength of 1900 psi average or better. (f'm = 1500 psi)
5. Mortar: Use Type "S" according to ASTM C270, proportion specification. Admixtures shall not be added to the mortar mix.
6. Grout: For masonry assemblies with f'm = 2,000 psi or less conform to ASTM C476, proportion specification. Grout that does not meet the requirements of ASTM C476 proportion specification or that is used in masonry assemblies with f'm > 2,000 psi shall meet the following requirements: Meet the material requirements of ASTM C476, obtain a minimum compressive strength of f'm or 2,000 psi, whichever is larger, at 28 days tested according to ASTM C1019, and a slump of 8 in. to 11 in. as determined by ASTM C143.
   a. Self Consolidating Grout: Conform to the material requirements of ASTM C476, obtain a minimum compressive strength of f'm or 2,000 psi, whichever is larger, at 28 days tested according to ASTM C1019, obtain a slump flow of 24 in. to 30 in. as determined by ASTM C1611, and shall have a Visual Stability Index less than or equal to 1 as determined in accordance with ASTM C1611 Appendix X.1. Field addition of admixtures is not permitted.
7. Reinforcing: Grade 60 reinforcing steel shall comply with ASTM A615.
8. Deformed Bar Anchors (DBA): All DBAs shall comply with ASTM A496.
9. Anchor Bolts (AB): ASTM A307 with ASTM A563 heavy hex nuts and hardened washers, Grade A, unless noted otherwise.
10. Headed Stud Anchors (HSA): Manufacture all HSAs in conformance with ASTM A108 with dimensions complying with AISC specifications.

B. Construction Requirements:
1. Mortar Joints: Joints shall be "concave", "V-joint" or "weathered raked" for structural members unless noted otherwise on architectural drawings.
2. Masonry walls, beams and columns shall be constructed with running bond, unless noted otherwise.
3. Grouting Requirements: Comply with IBC Section 2104 and ACI 530.1/ASCE 6/TMS 602 Section 3.5. Grout shall be mechanically consolidated and mechanically reconsolidated according to TMS 602/ACI 530.1/ASCE 6 Section 3.5 E.
   a. Grout Pour Heights that exceed 4 feet shall meet the following requirements:
      (1) Provide cleanouts in the bottom course of masonry for each grout pour in accordance with ACI530.1/ASCE 6/TMS 602 Section 3.2 F.
      (2) For grout other than Self Consolidating Grout a demonstration panel representative of the proposed wall construction and construction procedures shall be provided and approved by the Architect. The demonstration panel may be a part of the completed construction as approved by the Architect.
      (3) For Self Consolidating Grout placed in masonry that has cured for at least 4 hours, place in lifts not exceeding the Maximum Grout Pour Height in listed in ACI 530.1/ASCE 6/TMS 602 Table 7.
   b. When grouting, form grout keys between grout pours. Form grout keys between grout lifts when the first lift is permitted to set prior to placement of the subsequent lift.
      (1) Form a grout key by terminating the grout a minimum of 1.1/2 in. below a mortar joint.
      (2) Do not form grout keys within beams.
      (3) At beams or lintels laid with closed bottom units, terminate the grout pour at the bottom of the beam or lintel without forming a grout key.
4. Reinforcing Bars shall not be welded unless specifically shown on drawings. In such cases, use only AWS standards. Do not substitute reinforcing bars for DBAs or HSAs.
5. Control Joints: Spacing shall not exceed 40'-0" or 2.5 times the wall height, whichever is less. Joints shall not be located over masonry openings, and shall be a minimum of the schedule masonry column width away from masonry openings. See architectural drawings for locations.
6. Grout all beam and joist pockets solid after installation of beams and joists.
7. Masonry Veneer Attachment and Reinforcing:
   a. To steel stud and wood stud walls: Veneer shall be attached to the studs with Hohmann & Barnard DW-10HS seismic veneer anchors (or equal) spaced at 16" o.c maximum in both directions. Veneer anchors shall be attached to studs with #10 corrosion resistant self drilling screws. Attach the veneer to the anchors with Hohmann & Barnard Seismiclip Interlock System (or equal) spaced at a maximum of 16" o.c. in both directions. Anchor ties shall engage to a galvanized No. 9 gauge horizontal joint reinforcement wire in the veneer which shall be continuous and shall be placed at 16" o.c. maximum at the center of the veneer.
   b. To concrete walls: 22 gauge galvanized dovetail slots shall be installed vertically in concrete at 16" o.c. Attach the veneer to dovetail slots with Hohmann & Barnard 315-BT Flexible Dovetail Brick Tie with Seismiclip Interlock System (or equal) spaced at a maximum of 16" o.c. in both vertical and horizontal directions. Anchor ties shall engage to a galvanized No. 9 gauge horizontal joint reinforcement wire in the veneer which shall be continuous and shall be placed at 16" o.c. maximum at the center of the veneer. Dovetail slots and anchor ties shall be galvanized.
   c. To reinforced masonry walls: Veneer shall be attached with tri-rod laddur type reinforcement spaced at a maximum of 16" o.c. vertically consisting of 3 - #9 gauge, galvanized, corrugated, wires. Veneer may also be attached with Hohmann & Barnard 285 Grip-Lok Ladder (or equal) spaced at 16" o.c. maximum in both vertical and horizontal directions. Where the joints in the veneer and masonry back up walls do not align, attach veneer with Hohman & Barnard DW-10HS seismic veneer anchors (or equal) spaced at 16" o.c. maximum in both directions. Attach the veneer to the anchors with Hohmann & Barnard Seismiclip Interlock System (or equal) spaced at a maximum of 16" o.c. in both directions. Anchor ties shall engage to a galvanized No. 9 gauge horizontal joint reinforcement wire in the veneer which shall be continuous and shall be placed at 16" o.c. maximum at the center of the veneer.
   d. Other methods of attachment may be used after written acceptance by the architect and structural engineer.
   e. Steel Lintels: Provide steel angle lintels at all openings through the masonry veneer. Provide one inch of bearing for each foot of width of opening, with a minimum bearing of six inches. See the Steel Angle Lintel Schedule for size.

C. Detailing Requirements:
1. Standards: Reinforcing detailing shall comply with American Concrete Institute (ACI) Standard 315, "Details and Detailing of Concrete Reinforcement."
2. Reinforcement Protection (cover):
   a. Reinforcement shall have a minimum coverage of one bar diameter over all the bars, but not less than 3/4". When masonry is exposed to soil, minimum coverage shall be 1.5".
3. Vertical steel reinforcement shall be placed and secured against displacement prior to grouting by wire positioners or other suitable devices: at intervals not exceeding 112 bar diameters, at the grout lift heights, or at bar splice locations, whichever is less. Vertical reinforcing shall be located at the center of the wall, unless noted otherwise.
4. Lap Splice Lengths: Lap all masonry reinforcing bars per the "Masonry Reinforcing Bar Lap Splice Schedule." Joint reinforcement shall lap a minimum of 6".
5. Corner Bars: Horizontal reinforcement shall be continuous at all corners and at intersecting walls. Provide corner bars with the required lap splice length.
6. Dowels: All vertical reinforcing shall be doweled to the foundation wall, footing (structure below) and to the structure above with the same size dowel, spacing (and in the same core) as the vertical wall reinforcing unless noted otherwise.
7. Wall Openings 24" wide and wider: Provide reinforced masonry lintels per Masonry Lintel Schedule over the top of, and 2 - #5 bars, in grouted spaces, on all sides and adjacent to every unscheduled opening, unless noted otherwise. Bars for all openings shall extend a minimum of 48 bar diameters beyond the corners of the opening. Vertical bars shall extend from floor level below to the floor , or roof, level above. Where a 48 bar diameter extension is not possible, extend bars as far beyond the opening as possible and terminate them with a 90 degree standard ACI hook.
8. Horizontal wall reinforcing shall be continuous through joining concrete walls, masonry walls, columns, and pilasters. Provide a key between the wall and the column or pilaster. Horizontal wall reinforcing shall be placed inside the column vertical reinforcing.
9. Anchor bolts and headed stud anchors shall be set in a grouted cell. Anchor bolts and headed stud anchors shall have 1" grout surrounding the shank at its penetration. Grout shall be flush with the face or top of the masonry.
10. All masonry column ties shall terminate with 135 degree hooks plus a 6 bar diameter extension (4" minimum).
11. The exposed face of all embed plates shall be set flush with the face of masonry wall or column.

D. Minimum Reinforcing:
All masonry walls shall be reinforced as follows, unless shown otherwise on the drawings. Reinforcing shall be placed in grouted cells.

Wall Thickness	Horizontal Reinf.	Vertical Reinf.
6"	#4 @ 48" o.c.	#5 @ 32" o.c.
8"	#5 @ 48" o.c.	#5 @ 32" o.c.

V. Structural Steel

A. Material:
1. W-Shapes: ASTM A992, (F_y = 50 ksi), except as noted otherwise.
2. All Other Shapes and Plates: ASTM A36 (Fy = 36 ksi), except as noted otherwise.
3. Rectangular and Square Hollow Structural Sections (HSS): ASTM A500, Grade B (Fy = 46 ksi).
4. Steel Pipe: ASTM A53, Grade B (Fy = 35 ksi).
5. Deformed Bar Anchors (DBA): ASTM A496.
6. Headed Stud Anchors (HSA): ASTM A108, with dimensions complying with AISC specifications.
7. Anchor Rods: ASTM F1554, Grade 36 with ASTM A563 heavy hex nuts and ASTM F436 hardened washers, unless noted otherwise.

B. Fabrication and construction shall comply with the following Codes and Standards:
1. American Institute of Steel Construction (AISC) 360-05, "Specification for Structural Steel Buildings," dated March 9, 2005.
2. AISC 303-05, "Code of Standard Practice for Steel Buildings and Bridges" excluding the following: Section 3.3 (last sentence of first paragraph), Section 4.4, Section 4.4.1, Section 4.4.2, Section 4.5, and Section 7.13.3.
   a. The architectural drawings are the prime contract drawings. Consultants' drawings by other disciplines are supplementary to the architectural drawings. The structural drawings shall be used in conjunction with the architectural drawings. Detailing and shop drawing production for structural elements will require information (including dimensions) contained in architectural, structural, and/or other consultants' drawings. Refer to VII. Special Instructions, notes VII.B and VII.C on this sheet.
3. AISC/RCSC 2004, "Specification for Structural Joints Using ASTM A325 or A490 Bolts"
4. American Welding Society (AWS) D1.1-04, "Structural Welding Code – Steel" (specific items do not apply when they conflict with the AISC requirements).
5. American Welding Society (AWS) D1.8-05, "Structural Welding Code – Seismic Supplement" (specific items do not apply when they conflict with the AISC requirements).
6. American Iron and Steel Institute (AISI) 2007, "North American Specification for the Design of Cold-Formed Steel Structural Members."

C. Structural shapes and plates shall be fabricated from newly rolled (milled) one-piece sections without splices, unless specifically noted otherwise on the structural drawings. Connections for structural steel shall comply with the structural drawings, unless written approval is given by the structural engineer.

D. Welding:
1. It is recommended the steel erection contractor and steel fabricator contact the Quality Assurance Agency prior to beginning any welds. A program of joint preparation and welding procedures should be worked out between the two parties before the welding is started so that correct welds will be made from the beginning.
2. Certification of Welders: All shop and field welding shall be executed by AWS certified welders who have been specifically certified for the process of welding being performed. The welder's certification will be considered as being current unless the welder is not engaged in the process of welding being performed for a period exceeding six months or there is a specific reason to question a welder's ability as required by AWS. Certification and records must comply with AWS Standards. Certification and appropriate records must be provided to the architect prior to beginning work.
3. Electrodes: E-70 XX or as noted otherwise. E60 XX may be used for welding steel floor and roof decks.
4. Minimum Welds: All intersecting steel shapes that are not bolted shall be connected by a fillet weld all around, unless noted otherwise. Fillet weld sizes that are not shown shall be 1/16" less

PLAN MARKS

BF-#	BRACED FRAME
CB-#	CONCRETE BEAM
CC-#	CONCRETE COLUMN
CDP-#	CONC DRILLED PIER
CFW-#	CONC FDTN. WALL
CGB-#	CONC GRADE BEAM
CJ-#	CONCRETE JOIST
CL-#	CONCRETE LINTEL
CP-#	CONCRETE PIER
CRW-#	CONC RETAINING WALL
CSG-#	CONC SLAB ON GRADE
CSS-#	CONC SUSPENDED SLAB
CSW-#	CONC SHEAR WALL
CW-#	CONCRETE WALL
FC#	CONTINUOUS FOOTING
FM#	MAT FOOTING
FR#	RECTANGULAR FOOTING
FS#	SQUARE FOOTING
FTS#	THICKEND SLAB FOOTING
MC-#	MASONRY COLUMN
MF-#	MOMENT FRAME
ML-#	MASONRY LINTEL
MP-#	MASONRY PIER
MW-#	MASONRY WALL
PD-#	PLYWOOD DIAPHRAGM
PSW-#	PLYWOOD SHEAR WALL
SBP-#	STEEL BASE PLATE
SC-#	STEEL COLUMN
SCP-#	STEEL CAP PLATE
SD-#	STEEL DECK

ABBREVIATIONS

AB	ANCHOR BOLT (S)
ABV	ABOVE
@	AT
ALT	ALTERNATE
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
BM	BEAM
BLW	BELOW
BRG	BEARING
BTWN	BETWEEN
BLDG	BUILDING
BOT	BOTTOM
C.J.	CONSTRUCTION JOINT OR CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION
CMU	CONC MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CTR	CENTER
DB	DECK BEARING
DBA	DEFORMED BAR ANCHORS
DBL	DOUBLE
DET	DETAIL
DIA (OR)	DIAMETER
DIM	DIMENSION
DN	DOWN
DWG	DRAWING
DWL	DOWEL
EA	EACH
E.J.	EXPANSION JOINT (SEISMIC SEPARATION JOINT)
ELEV	ELEVATION
ELEC	ELECTRICAL
EQUIP	EQUIPMENT
EQ	EQUAL
EXIST	EXISTING
EXP	EXPANSION / EXPOSED
EXT	EXTERIOR
E.F.	EACH FACE
E.W.	EACH WAY
F.D	FLOOR DRAIN
FDTN	FOUNDATION
F.F.	FINISH FLOOR
FIN	FINISH
FL	FLOOR
FT	FOOT
FTG	FOOTING
FV	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GLB	GLU-LAMINATED BEAM
GR	GRADE
GSN	GENERAL STRUCTURAL NOTES
HB	HORIZONTAL BRIDGING
HT	HEIGHT
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHORS
IBC	INTERNATIONAL BUILDING CODE
ICBO	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
ICC	INTERNATIONAL CODE COUNCIL
IN.	INCH
INSUL	INSULATION
INT	INTERIOR
I.F.	INSIDE FACE
JT	JOINT
JST	JOIST
KLF	KIPS PER LINEAL FOOT
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
K	KIPS - 1,000 POUNDS
LF	LINEAL FOOT
LBS	POUNDS
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MAS	MASONRY
MAX	MAXIMUM
MCJ	MASONRY C.J.
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OPNG	OPENING
OPP	OPPOSITE
O.C.	ON CENTER
O.F.	OUTSIDE FACE
OWSJ	OPEN WEB STEEL JOIST
PCF	POUNDS/CUBIC FOOT
PL	PLATE
PLF	POUNDS/LINEAL FOOT
PNL	PANEL
PSF	POUNDS/SQ FOOT
PSI	POUNDS/SQ INCH
PT	POINT
REINF	REINFORCING
R.D.	ROOF DRAIN
REQ'D	REQUIRED
SHT	SHEET
SI	SPECIAL INSPECTION
SOG	SLAB ON GRADE
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
SQ	SQUARE
SIM	SIMILAR
STR	STRUCTURAL
STAG	STAGGERED
T&B	TOP AND BOTTOM
TEMP	TEMPERATURE
THDS	THREADS
T.O.	TOP OF
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF SLAB
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W/	WITH
WWF	WELDED WIRE FABRIC

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P: 801.486.3883
F: 801.485.0911
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LICENSED CERTIFIED STRUCTURAL ENGINEER NO. 154201 ARTHUR PARK BROWN UTAH
02/15/13

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

GENERAL STRUCTURAL NOTES

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: YW
CHECKED BY: RM
PROJECT NO.: 11007
DRAWING NO.: SG001
DATE: 02/15/2013

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than the thinnest of the connected parts for thicknesses 1/4" and larger. Fillet welds on plates less than 1/4" shall be of the same size as the thinnest of the connected parts
5. Reinforcing Bars: Do not weld rebar except as specifically detailed in the drawings. In such cases, use only AWS standards. Do not substitute reinforcing bars for deformed bar anchors (DBAs), machine bolts, or headed stud anchors (HSAs).
6. Bolts: Do not apply any welds, including "tack" welds to bolts, including anchor bolts, except as specifically detailed in the drawings.
7. Headed Stud Anchor (HSA) welding and Deformed Bar Anchor (DBA) welding shall conform to the manufacturer's specifications. Welding shall comply with AWS D1.1 Section 7.6 through 7.8 and Annex IX.

E. Bolted Connections:
1. Provide snug tightened joints with ASTM A325N Type 1 bolts for steel to steel connections, as noted herein or as noted on the drawings. Snug tightened joints shall be used in connections for simple span framing and beam (or girder) to bearing plate connections. The snug tightened condition is usually attained by a few impacts of an impact wrench or the full effort of a man using an ordinary spud wrench. Bolts shall be tightened until all plies of the joint are in firm contact. Provide pretensioned bolts where indicated.
2. Provide hardened washers beneath the turned element of all bolts or nuts. Provide hardened beveled washers, to compensate for the lack of parallelism, where the outer face of the bolted parts has a slope greater than one in twenty with respect to the plane normal to the bolt axis. Hardened washers or plates installed over oversized holes or slotted holes shall be at least 5/16" thick and shall conform to ASTM F436. Plates or bars installed at slotted holes shall have a size sufficient to completely cover the slot after installation.
3. Where a steel to steel beam connection is not detailed in the drawings, provide a standard AISC framed connection with the capacity to support one half of the total uniform load capacity of the given shape for the span and for the steel specified.
4. Bolts, nuts and washers shall not be reused.

F. Steel Lintels:
Provide steel angle lintels at all openings through the masonry veneer. Provide one inch of bearing for each foot of width of opening, with a minimum bearing of six inches. See the Steel Angle Lintel Schedule for size.

G. Beam Web Stiffener Plates:
Provide full-height web stiffener plates to each side of all beams above all bearing points. Stiffener plates shall be the thickness noted below unless noted otherwise and shall be welded on both sides of the stiffener plate with fillet welds (noted below) all around.

Beam Web stiffener thickness	For beams with flange widths between	Weld Size
1/4 inch thick	Greater than 0" and less than 8 1/4"	3/16"
3/8 inch thick	Greater than 8 1/4" and less than 12 1/4"	1/4"

H. Composite Beams
1. Composite beams are indicated on the framing plans with the suffix ( ). The number inside the brackets indicates number of studs for this beam. Beams shall have the studs spaced uniformly over the entire beam length.
2. Beams which have more than one number inside the symbol (, ,), such as (W, X, Y, Z), shall have "W" number of studs spaced evenly over the first "section of beam", "X" number of studs spaced evenly over the second "section of beam", "Y" number of studs spaced evenly over the third "section of beam", and "Z" number of studs spaced evenly over the fourth "section of beam". A "section of beam" is defined as that portion of beam located between the column and the nearest intersecting framing member or that portion of beam located between two adjacent intersecting framing members.
3. All headed stud type shear connectors shall be in conformance with ASTM A108. Dimensions shall comply with AWS. Use 3/4" diameter studs. Headed studs shall extend 2" minimum above the top of the steel deck after welding. Headed studs shall be applied through the metal deck to the top flange of the steel section, or welded directly to the steel section.
4. The minimum center-to-center spacing of stud connectors shall be six (6) diameters along the longitudinal axis of the supporting composite beam and four (4) diameters transverse to the longitudinal axis of the supporting composite beam. The maximum center to center spacing shall not exceed 32".
5. C= 0.00" on the plans denotes precamber dimension (upward) in inches.

I. Steel Floor Deck:
1. Steel floor deck shall comply with the latest requirements of the Steel Deck Institute (SDI). Submit ICC Code Evaluation Report with load and lateral shear capacities with shop drawings.
2. Steel floor deck shall be 3" deep X 18 gauge minimum phosphatized/painted composite (deck shall be galvanized (G60) when used above or below mechanical equipment rooms), type "W" deck with interlocking side seams with the following properties:

	18 Gauge
Minimum S (in^3/ft) =	0.767
Minimum I (in^4/ft) =	1.203

Painted deck shall be coated with special paint to receive sprayed-on fire proofing, where required.
3. A 2 1/2" thick (5 1/2" overall) lightweight concrete (f'c = 3,000 psi @ 28 days unless noted otherwise) slab shall be poured over the steel deck. Reinforce slab with 6" x 6" - W2.1/W2.1 welded wire fabric (minimum) or reinforce slab with 2 pounds per cubic yard minimum polypropylene fibrillated fiber reinforcement, as per specifications. Welded Wire Fabric shall be placed 1" to 1 1/2" below the top of the slab.
4. Steel deck with 2 1/2" thick (5 1/2" overall) lightweight concrete slab shall have a minimum diaphragm shear capacity of 1300 lbs/ft. for a 14'-0" deck span.
5. Weld deck to supporting framing members with 3/4" diameter puddle welds at the following spacing (Closer spacings may be used to develop minimum shear requirements.):
   a. 12" o.c. to supports perpendicular to deck corrugations (4 welds per 36" wide sheet).
   b. 12" o.c. to all supports parallel to deck corrugations.
   c. Stud welds may take the place of puddle welds where studs are welded through the deck to the top flange of beams.
   d. All welded surfaces shall be dry before welding deck or studs to supports.
6. Attach interlocking seams with 3/16" button punch at 18" o.c. or 1 1/2" top seam weld at 36" o.c. between adjacent pieces of deck. Crimp seams before button punching or welding interlocking seams. Closer spacings may be used to develop minimum shear requirements.
7. All deck shall be 3-span continuous minimum where possible. In areas where 3-span conditions are not possible, the deck shall meet the floor loading criteria for the span condition.
8. Deck shall have a minimum bearing length of 2".

J. Steel Roof Deck:
1. Steel roof deck shall comply with the latest requirements of the Steel Deck Institute (SDI). Submit ICC Code Evaluation Report with load and lateral shear capacities with shop drawings.
2. Except where indicated otherwise, steel roof deck shall be 3" deep X 20 Gauge minimum galvanized (G60), type "N" deck with interlocking side seams with the following properties:

	20 Gauge	18 Gauge
Minimum S (in^3/ft)=	0.234	0.322
Minimum I (in^4/ft)=	0.213	0.296

Painted roof deck shall be coated with special paint to receive sprayed-on fire proofing, where required.
3. Minimum allowable deck diaphragm shear values shall be 360 lb/ft. for a 14'-0" deck span.
4. Weld steel roof deck to supporting framing members with 3/4" diameter puddle welds at the following spacings (Closer spacings may be used to develop minimum shear requirements.):
   a. 8" o.c. to all supports perpendicular to deck corrugations (4 welds per 24" sheet).
   b. 12" o.c. to the following supports parallel to deck corrugations: All masonry walls and drag struts.
   c. 12" o.c. to all other supports parallel to deck corrugations.
   d. All welded surfaces shall be dry before welding deck to supports.
5. Attach interlocking seams with 1 1/2" long top seam welds at 12" o.c. minimum between adjacent pieces of decking. Crimp side seams before welding. Closer spacings may be used to develop minimum shear requirements.
6. Alternate means of deck attachment and fastening using screws, pins or other mechanical fastening methods are permitted with approval of the engineer. The contractor shall submit the proposed attachment system and the code evaluation report demonstrating the system has the strength to meet the required deck shears specified above (in item 3) and on the plans. The flexibility factor of the proposed deck attachment system shall be equal to or less than the flexibility factor for the specified welded deck attachment system. If the alternate attachment method is approved, it is the responsibility of the contractor to ensure that the deck type and profile is compatible with the fastening system being used.
7. Provide a 2" minimum bearing and a 4-inch lap at the splice points of all pieces of deck.
8. All deck shall be 3-span continuous minimum where possible. The contractor shall provide heavier gauge deck as required for one or two span conditions to meet the snow load plus 5 psf.
9. Steel roof deck shall not be used to support loads from plumbing, HVAC ducts, light fixtures, architectural elements or equipment of any kind, unless specifically noted otherwise. Lightweight suspended acoustical ceilings with a total weight per wire not exceeding 50# may be hung from the steel roof deck. The hangers should be staggered to distribute the load over multiple deck flutes.

K. Cold-Formed Steel
1. Light Gauge Steel Framing:
   a. Where steel framing size designators are used in the drawings, they follow the convention established by the Steel Stud Manufacturers' Association (SSMA) and the North American Steel Framing Alliance (NASFA). Framing members provided shall comply with the designations according to this convention.
   b. All load bearing stud (and/or) joist framing members along with all runner, bridging, and end track shall be of the designation shown on the plans. All studs with base metal thickness of 54 mil and 68 mil, and joists with base metal thickness of 54 mil, 68 mil and 97 mil, shall be formed from steel meeting the requirements of ASTM A570 except that the steel shall have a 50,000 psi yield stress. All track and end closures with base metal thickness of 54 mil and 68 mil, bridging with base metal thickness of 54 mil, and studs and track with base metal thickness of 43 mil and 33 mil, shall be formed from steel with a minimum yield of 33,000 psi. All components shall be galvanized.
   c. Follow all manufacturers' recommendations for the use of these products.
   d. Unless noted otherwise, all welded connections shall be done using 1/8" AWS type 6013 or 7014 rod with a welding heat of 60-110 amperes depending on the gauge of material and the fit of the parts. Wire tying of framing components shall not be permitted.
   e. All interior non-bearing steel stud walls that extend above the ceiling but do not attach to the floor or roof diaphragm (above) shall have diagonal braces at 45 degrees (+/-). The KL/r ratio of the brace shall not exceed 200 and shall not be spaced further apart than 10'-0". Connect diagonal braces to the top of the steel stud walls and to the underside of the top flange of the steel beams, open web joists or girders, etc. with 1/8" fillet welds all around. Diagonal angle braces may be connected to 8" x 8" x 1/4" steel plates which shall be anchored to the floor or roof decks which have concrete fill above with 2- 3/8" dia. expansion anchors for each plate. Connect angle to plate with a 1/4" fillet weld all around. Connect diagonal braces to roof decking which does not have concrete fill above per the non-bearing wall brace connection details shown on the structural drawings. Diagonal braces may be constructed from cold-formed light gauge steel studs but must conform to the kl/r ratio of less than 200 requirement. When diagonal brace lengths exceed 10'-0" (+/-), cold-formed box sections made from two 600S137-54 steel studs will likely be required.

VII. Special Instructions

A. The project specifications are not superseded by the General Structural Notes but are intended to be complementary to them. Consult the specifications for additional requirements in each section. Notes and specific details on the drawings shall take precedence over General Structural Notes and typical details.

B. The architectural drawings are the prime contract drawings. Consultant drawings by other disciplines are supplementary to the architectural drawings. All omissions or conflicts, including dimensions, between the various elements of the consultants' drawings and/or specifications shall be brought to the attention of the Architect before proceeding with any work involved. In case of conflict, follow the most stringent requirement as directed by the Architect without additional cost to the owner. Any work done by the contractor after discovery of such discrepancy shall be done at the contractor's risk.

C. The structural drawings shall be used in conjunction with the architectural drawings. Primary structural elements and overall structural layout are indicated within the structural plans and details. Some secondary elements, architectural layouts, alcoves, elevations, slopes, depressions, curbs, mechanical equipment and electrical equipment, are not indicated within the structural drawings. Detailing and shop drawing production for structural elements will require information (including dimensions) contained in the architectural, structural and/or other consultants' drawings.

D. Shoring and Bracing Requirements:
1. Floor and Roof Structures -- The General Contractor is responsible for the method and sequence of all structural erection. He shall provide temporary shoring and bracing as his method of erection requires to provide adequate vertical and lateral support. Shoring and bracing shall remain in place as the chosen method requires until all permanent members are in place and all final connections are completed, including all roof and floor attachments. The building shall not be considered stable until all connections are complete.
3. Walls above grade shall be braced until the structural system is complete. Walls shall not be considered to be self supporting.

E. All expansion joints (E.J.) shown in the structural drawings shall be considered seismic separation joints, unless noted otherwise.

F. Submittals: A copy of all shop drawings that have been submitted for review must be kept at the construction site for reference. These drawings must bear the appropriate review stamps. The shop drawing review shall not relieve the contractor of the responsibility of completing the project according to the contract documents. The general contractor shall review and mark all shop drawings prior to submitting them to the Architect for his review. Shop Drawings made from reproductions of (these) contract drawings will be rejected.

G. Project Coordination: It shall be the responsibility of the general contractor to coordinate with all trades any and all items that are to be integrated into the structural system. Openings or penetrations through, or attachments to the structural system that are not indicated on these drawings shall be the responsibility of the general contractor and shall be coordinated with the Architect/Engineers. The order of construction is the responsibility of the general contractor. It is the contractor's obligation to provide all items necessary for his chosen procedure.

H. Contractor shall field verify all dimensions, and conditions. If the contract drawings do not represent actual conditions, contractor shall notify architect/engineer prior to fabrication or construction within that area.

I. Notice of Copyright: The structural drawings, plans, schedules, notes and details are hereby copyrighted by Reaveley Engineers and Associates, Inc., All Rights reserved. Submission or distribution of documents to meet official regulatory requirements or for similar purposes in connection with the project is not to be construed as publication in derogation of Reaveley Engineers and Associates, Inc.'s reserved rights. The documents defining the structure are instruments of service prepared by Reaveley Engineers and Associates, Inc. for one use only. Furthermore, these documents shall not be reproduced, or copied, in whole or in part by the contractor or his subcontractors for preparation of shop drawings or other submittals.

VIII. Quality Assurance

A. Quality Assurance Agency Requirements:
1. The owner shall engage a qualified Quality Assurance Agency (QAA) to provide all special inspection and quality assurance testing for the project. All quality assurance personnel assigned to the project shall demonstrate competence, to the satisfaction of the building official, for inspection of the particular type of construction or operation requiring special inspection.
2. Prior to construction, the QAA shall prepare a written Quality Assurance Implementation Plan (QAIP) for the project. The QAIP shall include a list of personnel assigned to the project including management personnel, inspection procedures and frequency, proposed testing methods and frequency of testing, and reporting procedures. The QAIP shall also outline methods of documenting deficiencies and reporting corrections. A copy of the QAIP shall be given to the contractor for review and coordination with subcontractors.
3. Prior to construction, the QAA shall submit the following information to the Architect and Engineer of Record for approval:
   a. A copy of the Quality Assurance Implementation Plan for the project.
   b. A copy of the appropriate certification and training records for each individual performing inspections or testing.
   c. A list of the testing equipment designated for the project and recent calibration records for the equipment.
   d. Sample inspection and testing reports and the distribution list for the reports.
4. The special inspector shall inspect the work per Chapter 17 of the IBC for conformance with the contract documents. The special inspector shall send reports to the owner, building official, architect, engineer, and contractor. All discrepancies shall be brought to the immediate attention of the contractor for correction. The QAA shall submit a final signed report stating that the special inspection work was, to the best of their knowledge, in conformance with the plans, specifications and applicable workmanship provisions of the IBC.

B. Seismic Force Resisting Systems
1. Elements that are a part of the Main Seismic Force Resisting System for the structure may require increased quality assurance inspection and testing. The Main Seismic Force Resisting system for the structure includes the following elements:
   a. Masonry walls.
   b. Footings and foundation systems that directly support masonry walls.
   c. Roof decking.
   d. Floor decking and/or slab systems.
   e. All elements labeled as "drag struts" or "chords."
   f. Connections between the elements referenced above.

C. Progressive Collapse Resisting Systems
1. Elements that are a part of the Progressive Collapse Resisting System for the structure may require increased quality assurance inspection and testing. The Progressive Collapse Resisting System for the structure includes the following elements:
   a. Perimeter masonry walls.
   b. Perimeter columns and the beams that bear on them.
   c. Elements in details which reference progressive collapse.
   d. Footings and foundations supporting the elements referenced above.

D. Special Inspection: Special Inspection shall be provided for the following elements per IBC sections 1704 and 1707:
1. Concrete and elements embedded in concrete shall be special inspected prior to and during placement of concrete. Special inspection of concrete shall include the following:
   a. Reinforcing steel size and placement.
   b. Surface preparation at cold joints including placement of keyways.
   c. Bolt and embed size, configuration and placement.
   d. Concrete shall receive continuous special inspection during placement, and periodic inspection after placement to ensure proper curing and weather protection procedures.
2. Structural steel fabrication and erection shall be special inspected, including the following:
   a. High strength bolts per IBC 1704.3.3 and IBC section 2209.
   b. Fillet welds smaller than 5/16" per AWS D1.1.
   c. Fillet welds larger than 5/16", multiple pass welds, and all groove welds shall receive continuous special inspection during weld placement per AWS D1.1.
   d. Welding of reinforcing steel shall receive continuous special inspection during weld placement per AWS D1.1.
   e. Welding of Headed Stud Anchors (HSA) and Deformed Bar Anchors (DBA) shall be inspected to comply with AWS D1.1 Section 7.6 through 7.8 and Annex IX.
   f. Welding or fastening of floor or roof deck per AWS D1.3. or per the code evaluation report for the fastening method.
3. Structural Masonry: Special inspection shall be provided, as follows:
   a. As masonry construction begins, and periodically during construction, verify the following are in compliance:
      (1) Proportions of site-mixed mortar and grout.
      (2) Placement of masonry units and construction of mortar joints.
      (3) Locations of reinforcement, connectors and embeds.
      (4) Protection of masonry during cold or hot weather.
   b. Prior to grouting, verify the following are in compliance:
      (1) Grout space.
      (2) Size and location of structural elements.
      (3) Grade, size and placement of reinforcement, connectors and embeds.
      (4) Construction of all mortar joints.
   c. Continuous inspection is required during placement of grout and during preparation of grout specimens, mortar specimens, and/or prisms for testing.
4. Post-installed anchors, including but not limited to expansion anchors, adhesive anchors and rebar dowels, and low velocity fasteners, shall receive special inspection per the code evaluation reports for the anchors.
   a. Continuous special inspection is required during the installation of all adhesive anchors and rebar dowels. Special inspector shall verify the following:
      (1) Anchor size and steel grade.
      (2) Hole diameter, location, and type of drill bit.
      (3) Cleanliness of hole and anchor.
      (4) Adhesive application.
      (5) Anchor embedment.

E. Structural Testing: The following materials shall be tested per IBC sections 1704 and 1708. The owner reserves the right to test any and all materials using any appropriate non-destructive procedure. Any items found to be deficient shall be corrected and retested at no additional cost to the owner.
1. Earthwork: All compacted structural fill shall be tested to verify soil gradation, lift thickness, and compaction requirements. See the specifications and earthwork section of the GSN for testing frequency and acceptability criteria.
2. Concrete Strength Verification and Testing. All concrete shall be tested to verify strength, slump, unit weight, air content, and temperature. See the specifications for testing criteria, testing frequency and acceptability criteria.
3. Masonry Strength Verification:
   a. Masonry strength, f'm shall be verified using the "Unit Strength Method" per IBC Section 2105.2.2.1 and as follows: Prior to construction, the masonry units and grout shall be tested for compressive strength. Certificates of compliance with strength requirements of the masonry units and grout shall be submitted by the masonry and grout suppliers. During construction, the masonry units and grout shall be tested for every 5,000 square feet of masonry constructed per GSN IV A, above. Proportions of materials in mortar and grout delivered to the site shall be verified.
   b. The contractor has the option of using the "Masonry Prism Test Method" per IBC Section 2105.2.2.2, in lieu of the "Unit Strength Method."
4. Welded connections shall be tested for compliance according to IBC Table 1704.3, AWS D1.1 and the contract specifications and plans. As a minimum, the testing shall include the following:
   a. All complete penetration groove welds shall be tested 100 percent either by ultrasonic testing or by radiography.
   b. Partial penetration groove welds shall be tested either by ultrasonic testing or radiography. A minimum of 50% of these welds shall be tested.
   c. Any material discontinuities shall be accepted or rejected on the basis of the defect rating in accordance with the testing in AWS D1.1 Chapter 6, excluding Sections 6.1 through and including 6.6. All deficient welds shall be corrected and retested at no additional cost to the owner.
5. Post-installed anchors, including but not limited to expansion anchors, adhesive anchors, and low velocity fasteners, shall be tested per the code evaluation reports for the anchors.

F. Structural Observations by the Engineer of Record.
1. The Engineer of Record may perform structural observations at critical phases of the project. Copies of the engineer's report will be sent to the architect for distribution to the building official, contractor, owner, and QAA.
2. Observation visits to the site by the Engineer's field representatives shall not be construed as inspection or approval of construction.
3. Notification of Engineer: The contractor shall notify the engineer twenty-four hours prior to:
   a. Placing concrete in any footing.
   b. Closing any wall forms.
   c. Grouting any masonry.
   d. Completing the welding of major sections of steel decking.

G. Contractor Responsibility: The contractor shall prepare and submit a written statement of responsibility to the building official and the owner prior to commencement of work on the project. As a minimum the statement shall contain the following information:
1. Acknowledgement of the quality assurance requirements for the structure.
2. Acknowledgement of receipt of the Quality Assurance Implementation Plan (QAIP) from the testing agency.
3. Acknowledgement that control will be exercised to obtain conformance to the Contract Documents and the QAIP.
4. Quality control procedures within the contractors organization, methods and frequency of reporting, and distribution of the reports.
5. Identification and qualifications of the person(s) responsible for quality control and their position(s) in the organization.

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE
CERTIFIED STRUCTURAL ENGINEER NO. 154201 MARK BROWN UTAH
02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

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GENERAL STRUCTURAL NOTES

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: YW
CHECKED BY: RM
PROJECT NO. 11007
DRAWING NO. SG002
DATE 02/15/2013

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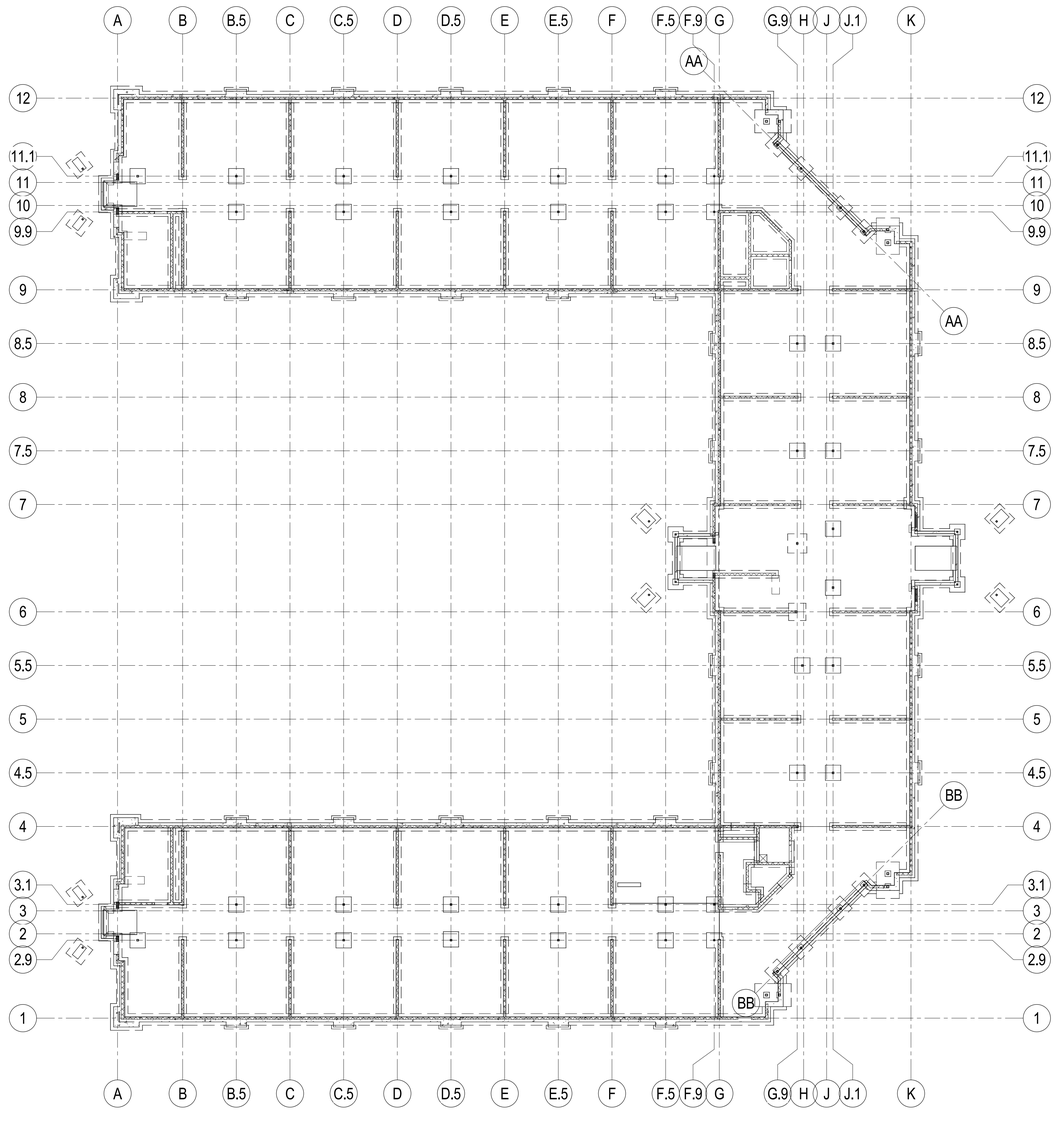

B2
SEE SF401 FOR DUMPSTER ENCLOSURE FOOTING & FOUNDATION PLAN

E4
SB101
OVERALL FOOTING & FOUNDATION PLAN
SCALE: 1/16" = 1'-0"

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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

REGISTERED CERTIFIED STRUCTURAL ENGINEER
NO. 154201
MARK BROWN
UTAH
02/15/13

REAVELEY
ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

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OVERALL FOOTING & FOUNDATION PLAN

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: YW	CHECKED BY: RM
PROJECT NO.: 11007	DRAWING NO.: SB101
DATE: 02/15/2013	

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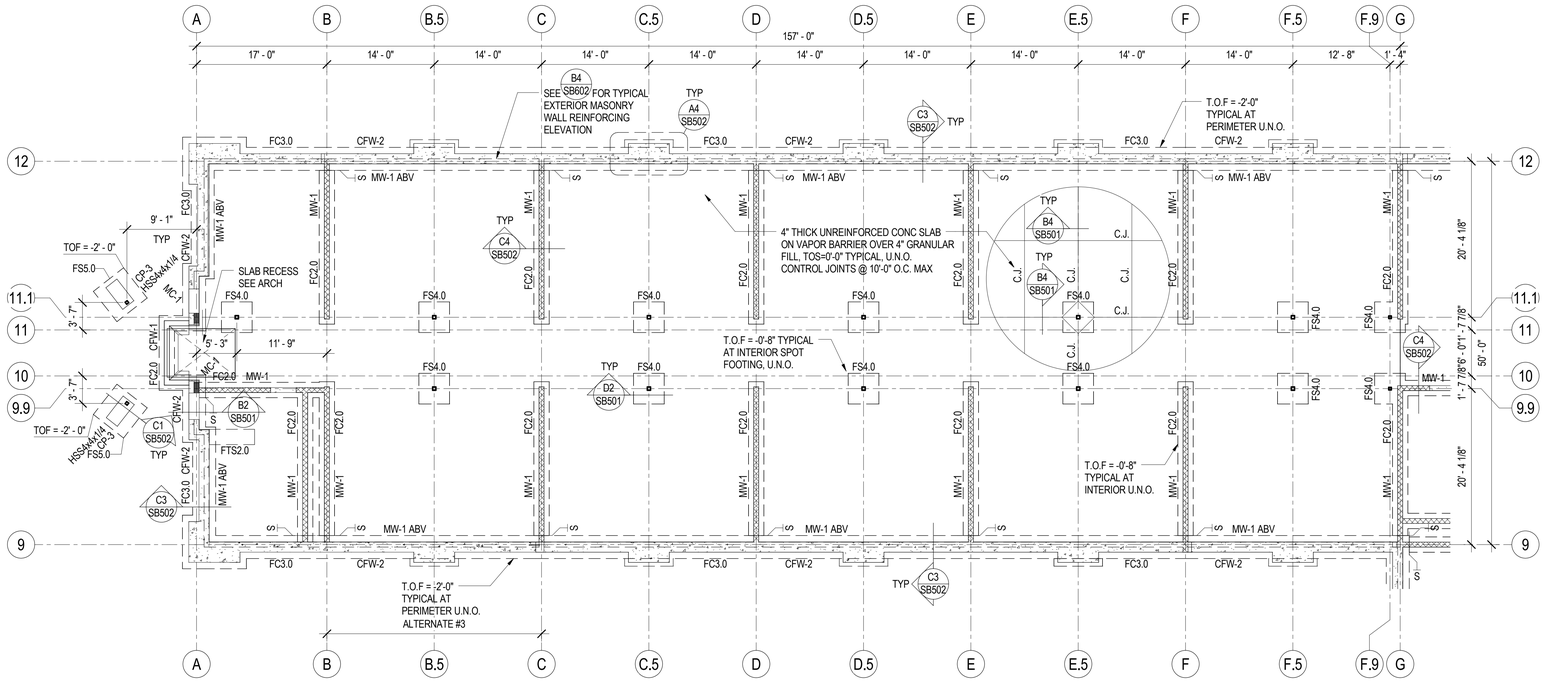
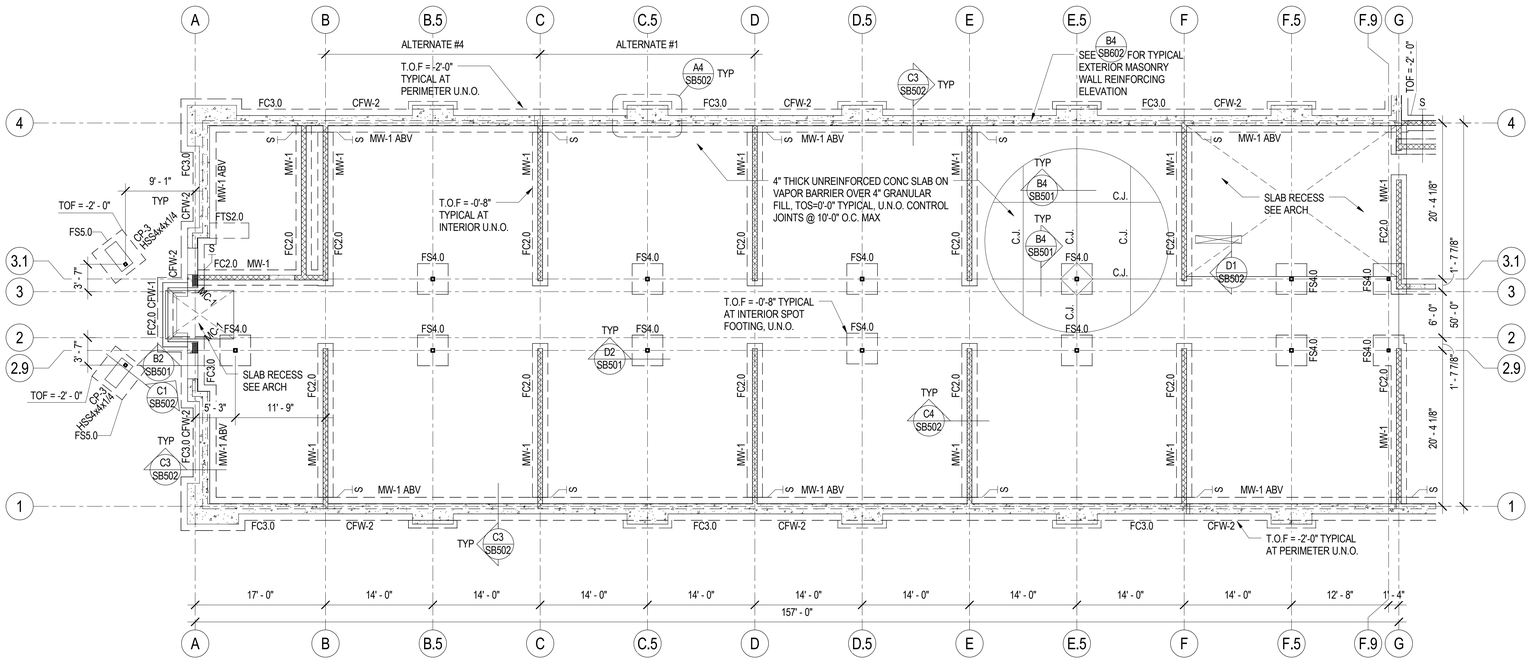


B4 / SB101A FOOTING & FOUNDATION PLAN NORTH WING

SCALE: 1/8" = 1'-0"

PLAN NORTH



D4 / SB101A FOOTING & FOUNDATION PLAN SOUTH WING

SCALE: 1/8" = 1'-0"

PLAN NORTH

FOOTING & FOUNDATION PLAN LEGEND

- FOOTING STEP
- FOOTING - CONTINUOUS
- FOOTING - THICKENED SLAB
- FOOTING - SQUARE FOOTING - RECTANGULAR FOOTING - MAT FOOTING
- CONCRETE WALL, CONCRETE FOUNDATION WALL, OR CONCRETE RETAINING WALL
- CONCRETE FOUNDATION WALL - RECESSED
- CONCRETE PIER IN CONCRETE WALL. TOP OF PIER RECESSED 8" BELOW SLAB. TYP U.N.O.
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY WALL - RECESSED
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- 0" CHANGE IN ELEVATION
- SLAB BLOCK-OUT AT COLUMN
- CJ / C SLAB CONTROL/CONSTRUCTION JOINT
- SPECIAL SLAB AREA
- RECESSED/DEPRESSED SLAB
- OPENING

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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

LICENSED CERTIFIED STRUCTURAL ENGINEER NO. 154201 MARK BROWN UTAH

02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

FOOTING & FOUNDATION PLAN NOTES

1. SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS ETC.

2. SEE ARCHITECTURAL DRAWINGS AND FINISH SCHEDULE FOR SLAB AREAS TO RECEIVE FLOOR TILE.

3. SEE ARCHITECTURAL DRAWINGS FOR SLAB DEPRESSIONS AND SLOPES TO DRAINS, ETC.

4. SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR ADDITIONAL EXTERIOR CONCRETE RETAINING AND / OR SITE WALLS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

5. SEE TYPICAL STEP DETAIL AT CONTINUOUS FOOTING AND TYPICAL STEP DETAIL AT MAT FOOTING FOR CHANGES IN FOOTING ELEVATIONS.

6. SEE TYPICAL CONCRETE WALL REINFORCING DETAILS FOR REINFORCEMENT AT INTERSECTIONS CORNERS AND ENDS.

7. SEE TYPICAL CONCRETE SLAB ON GRADE DETAILS FOR CONSTRUCTION JOINTS, CONTROL JOINTS AND ADDITIONAL SLAB REINFORCING.

8. SEE TYPICAL CONCRETE SLAB ON GRADE PROFILE DETAIL FOR SUBGRADE REQUIREMENTS.

9. PROVIDE COMPACTED STRUCTURAL FILL UNDER ALL CONCRETE FOOTINGS PER TYPICAL COMPACTED STRUCTURAL FILL DETAIL.

10. SEE TYPICAL HOUSEKEEPING PAD AND CURB DETAILS FOR HOUSEKEEPING PADS AND CURBS.

11. SEE TYPICAL OPENINGS THROUGH CONCRETE WALLS FOR PENETRATIONS IN CONCRETE WALLS.

12. SEE TYPICAL STEEL COLUMN CONNECTION TO CONCRETE FOOTING/CONCRETE PIER FOR STEEL COLUMN BASE CONNECTIONS.

13. SEE TYPICAL CONCRETE SLAB ON GRADE TO EXTERIOR CONCRETE FOUNDATION WALL FOR CONCRETE SLAB TO WALL.

14. SEE TYPICAL CONCRETE WALL CONNECTION TO CONCRETE FOOTING FOR CONCRETE WALL BASE TO FOOTING.

15. SEE B4/SB602 FOR TYPICAL EXTERIOR MASONRY WALL REINFORCING ELEVATION.

16. STEEL COLUMN LOCATION SHALL BE COORDINATED WITH ARCHITECTURAL.

17. SEE TYPICAL RECESS IN 8" MASONRY WALL FOR RECESSES IN MASONRY WALL.

18. SEE TYPICAL REINFORCING AROUND MISC OR RECESSED MASONRY OPENINGS FOR OPENINGS IN MASONRY WALLS.

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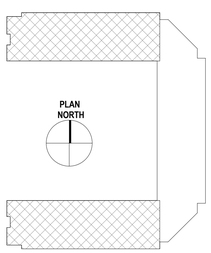

KEY PLAN

FTNG & FOUNDATION PLAN NORTH & SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: YW	CHECKED BY: RM
PROJECT NO.: 11007	DRAWING NO.: SB101A
DATE: 02/15/2013	

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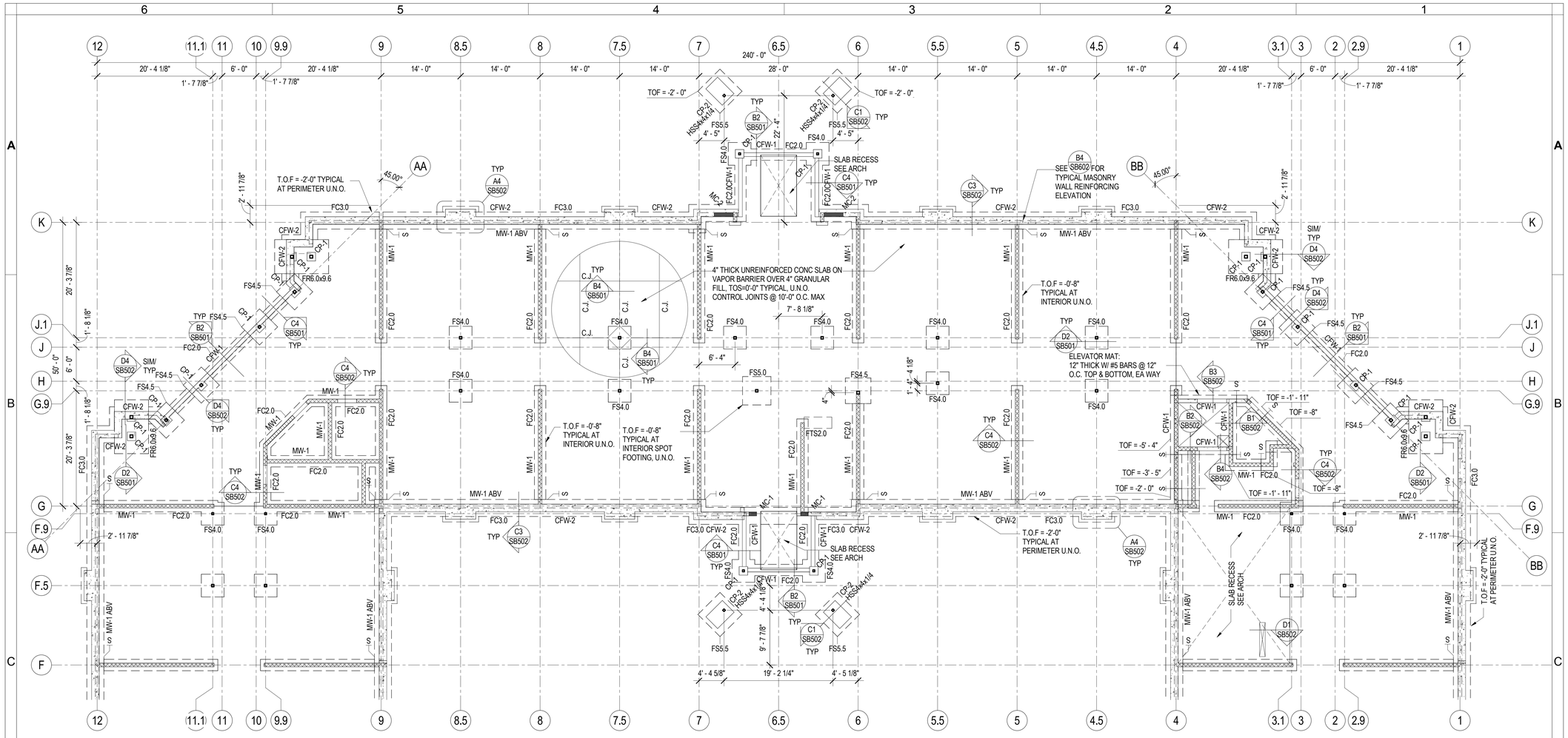

C4 / SB101B FOOTING & FOUNDATION PLAN EAST WING

SCALE: 1/8" = 1'-0"

PLAN NORTH

FOOTING & FOUNDATION PLAN LEGEND

- FOOTING STEP
- FOOTING - CONTINUOUS
- FOOTING - THICKENED SLAB
- FOOTING - SQUARE FOOTING - RECTANGULAR FOOTING - MAT FOOTING
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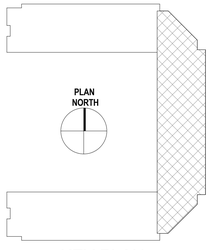

KEY PLAN

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

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REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers

P 801.486.3883
F 801.485.0911

675 E 500 S, Suite 400
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02/15/13

FOOTING & FOUNDATION PLAN NOTES

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FOOTING & FOUNDATION PLAN EAST WING

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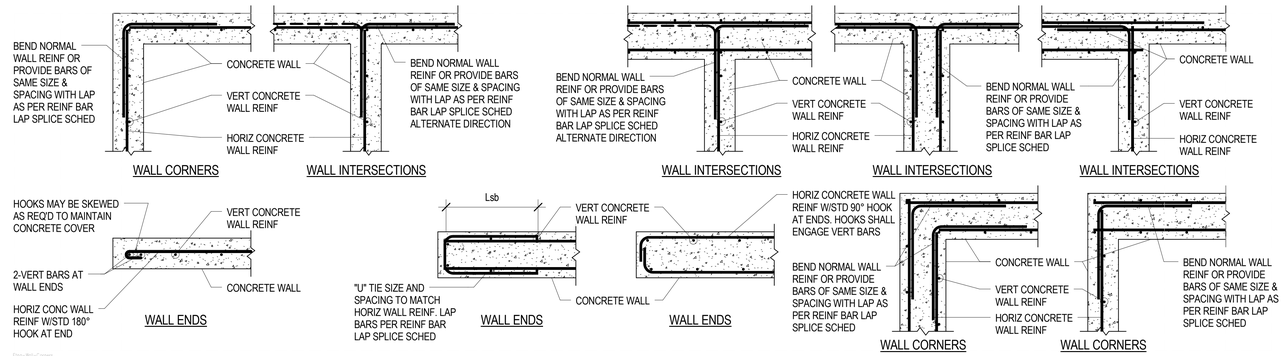
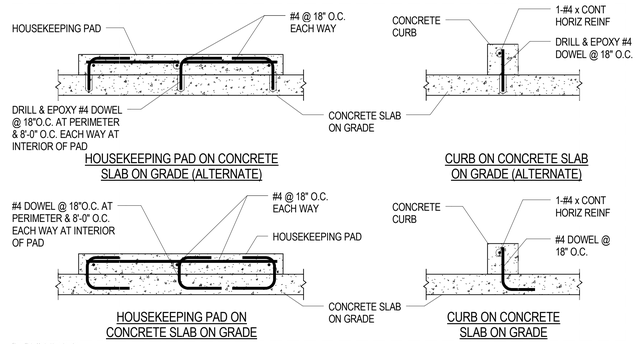
PROJECT NO.: 11007	DRAWING NO.: SB101B
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



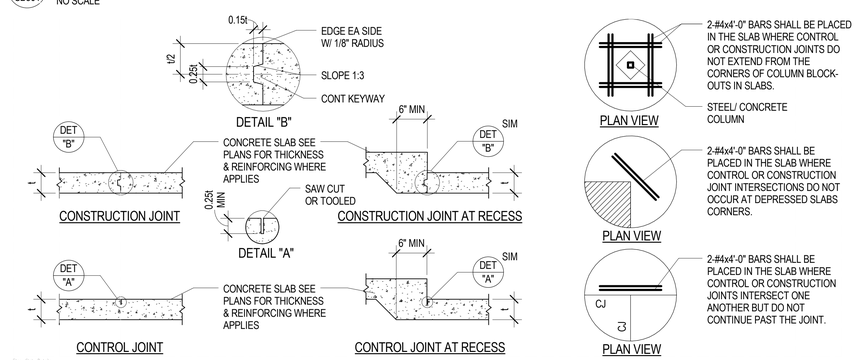
A4 / SB501 TYPICAL CONCRETE WALL INTERSECTIONS AND ENDS (PLAN VIEWS)

NO SCALE



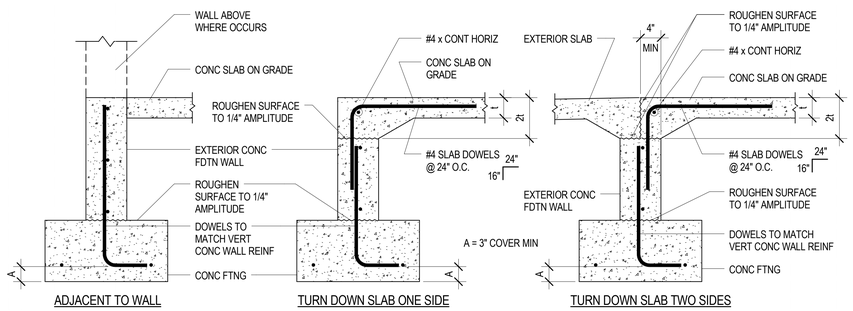
A1 / SB501 TYPICAL HOUSEKEEPING PAD & CURB DETAILS

NO SCALE



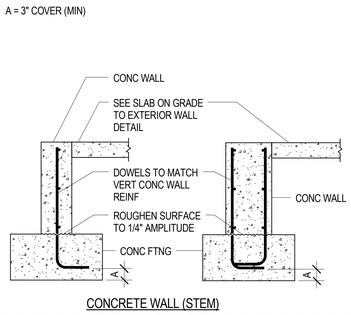
B4 / SB501 TYPICAL CONCRETE SLAB ON GRADE DETAILS

NO SCALE



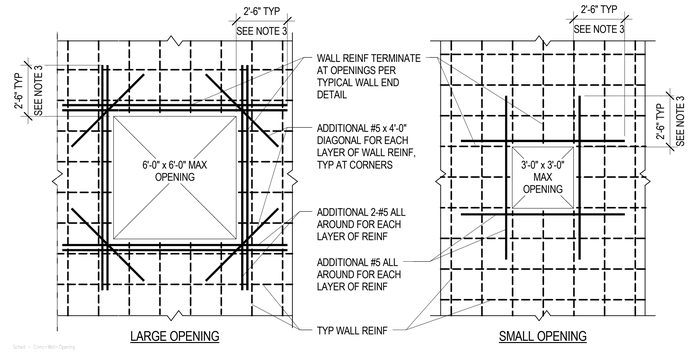
B2 / SB501 TYPICAL CONCRETE SLAB ON GRADE TO EXTERIOR CONCRETE FOUNDATION WALL

NO SCALE



C4 / SB501 TYPICAL CONCRETE WALL CONNECTION TO CONCRETE FOOTING

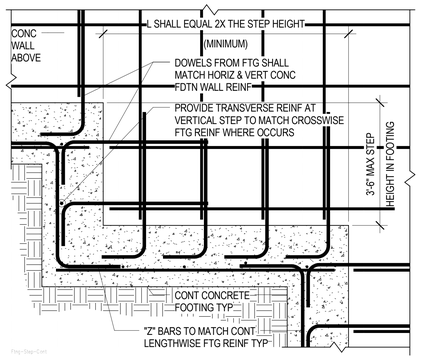
NO SCALE



NOTES:
1. OMIT ADDED REINFORCEMENT SHOWN WHEN SPECIAL REINFORCEMENT INDICATED ON PLANS OR DETAILS, EXCEEDS THIS REINFORCEMENT.
2. CONTRACTOR SHALL VERIFY ALL OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS WITH THE STRUCTURAL ENGINEER BEFORE PLACEMENT.
3. WHEN EDGE OF CONCRETE CLOSE TO OPENING WILL NOT ALLOW THIS LENGTH TERMINATE AT EDGE WITH STANDARD HOOK.
4. WHERE MULTIPLE OPENINGS OCCUR WITHIN TWO TIMES THE OPENING DIMENSION, THE GROUP OF OPENINGS SHALL BE TREATED AS A SINGLE OPENING

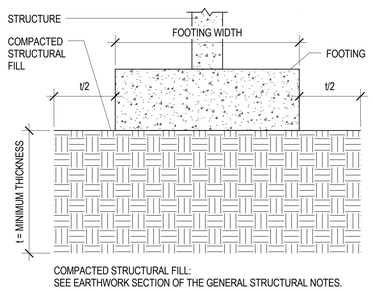
C3 / SB501 TYPICAL OPENINGS THROUGH CONCRETE WALLS

NO SCALE



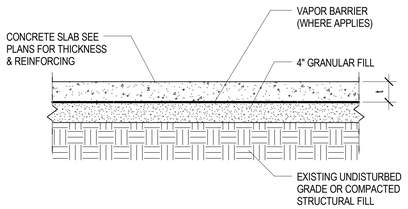
C2 / SB501 TYPICAL STEP DETAIL AT CONTINUOUS FOOTING

NO SCALE



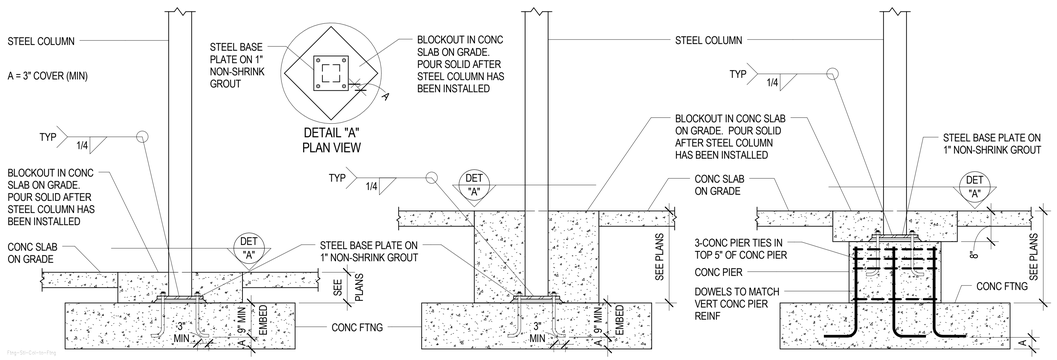
D4 / SB501 TYPICAL COMPACTED STRUCTURAL FILL DETAIL

NO SCALE



D3 / SB501 TYPICAL CONCRETE SLAB ON GRADE PROFILE

NO SCALE



D2 / SB501 TYPICAL STEEL COLUMN CONNECTION TO CONCRETE FOOTING/CONCRETE PIER

NO SCALE

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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

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REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

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UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

TYPICAL FOOTING & FOUNDATION DETAILS

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: YW	CHECKED BY: RM
PROJECT NO.: 11007	DRAWING NO.: SB501
DATE: 02/15/2013	

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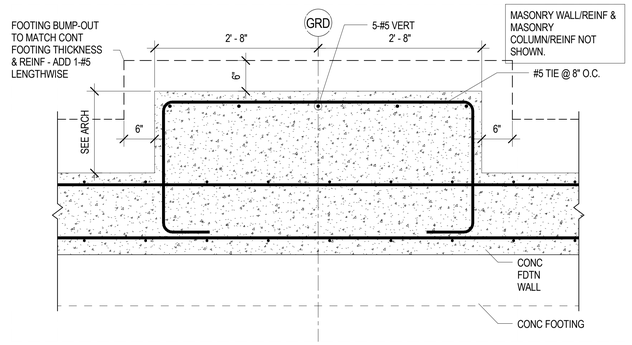
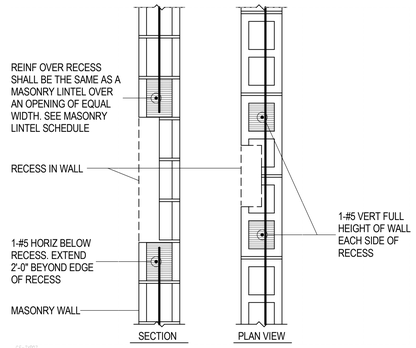
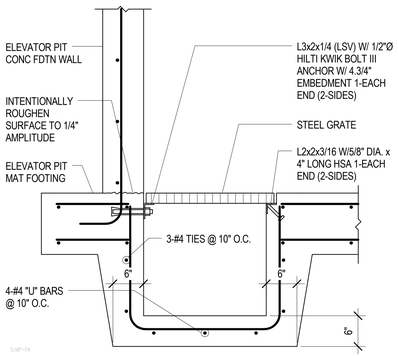


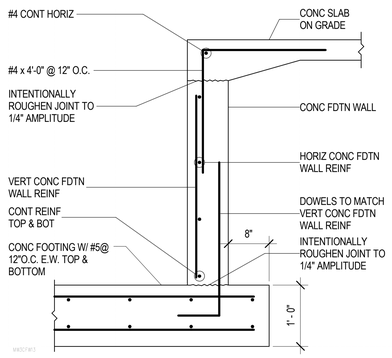
A4 / SB502 CONCRETE FOUNDATION WALL BUMP-OUT - PLAN VIEW
NO SCALE



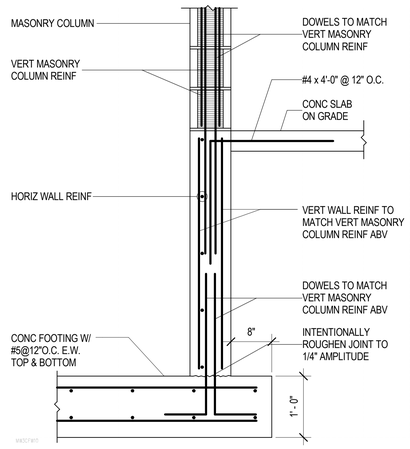
A2 / SB502 TYPICAL RECESS IN 8" MASONRY WALL
NO SCALE



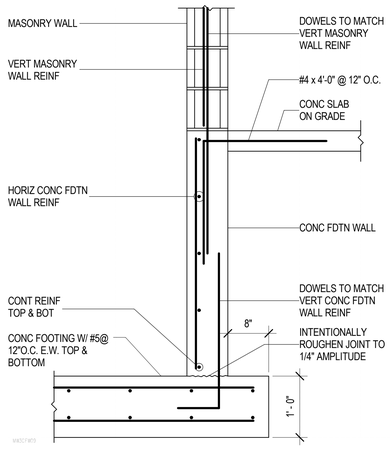
B4 / SB502 TYPICAL SUMP PIT AT ELEVATOR WALL
NO SCALE



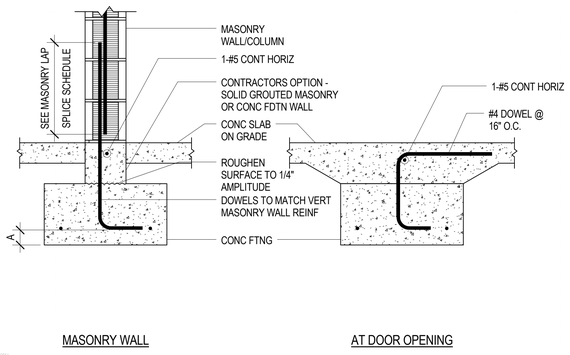
B3 / SB502 TYPICAL ELEVATOR PIT DETAIL
NO SCALE



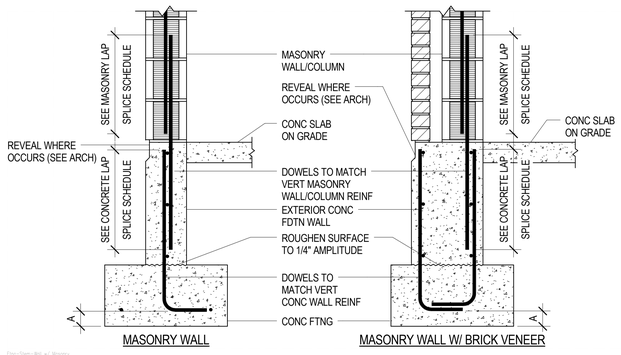
B2 / SB502 TYP MASONRY COLUMN ON CONCRETE FOUNDATION WALL AT ELEVATOR PIT
NO SCALE



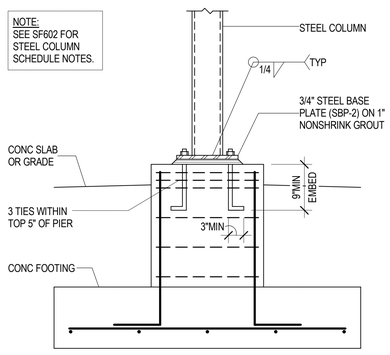
B1 / SB502 TYP MASONRY WALL ON CONCRETE FDTN WALL AT ELEVATOR PIT
NO SCALE



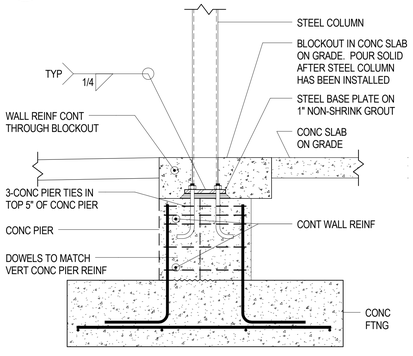
C4 / SB502 TYPICAL INTERIOR BEARING MASONRY WALL AT CONCRETE FOOTING
NO SCALE



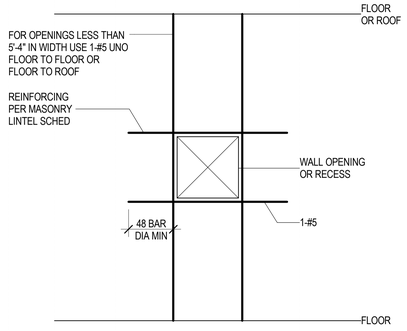
C3 / SB502 TYP CONCRETE SLAB ON GRADE TO EXTERIOR CONCRETE FOUNDATION WALL W/ MASONRY WALL ABOVE
NO SCALE



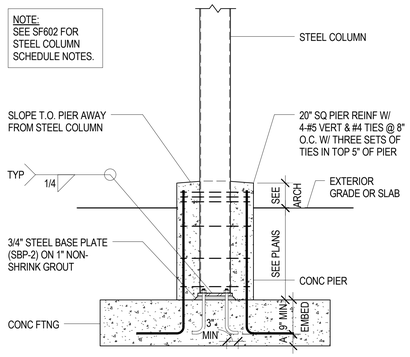
C1 / SB502 TYPICAL STEEL COLUMN BASE AT CONCRETE PIER
NO SCALE



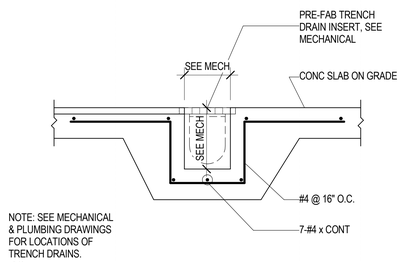
D4 / SB502 STEEL COLUMN BASE AT CONCRETE PIER
NO SCALE



D3 / SB502 TYP REINF AROUND MISC OR RECESSED MASONRY OPENINGS
NO SCALE



D2 / SB502 TYP STEEL COLUMN CONNECTION TO CONCRETE FOOTING/CONCRETE PIER - MECH'L BUILDING
NO SCALE



D1 / SB502 TYPICAL TRENCH DRAIN IN CONCRETE SLAB ON GRADE
NO SCALE

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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE
LICENSED CERTIFIED STRUCTURAL ENGINEER
NO. 154201
MARK BROWN
UTAH
02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

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TYPICAL FOOTING & FOUNDATION DETAILS

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: YW	CHECKED BY: RM
PROJECT NO.: 11007	DRAWING NO.: SB502
DATE: 02/15/2013	

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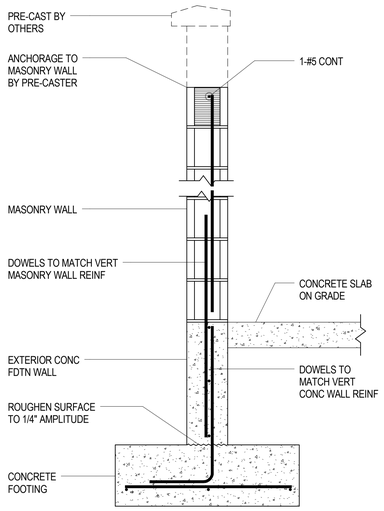
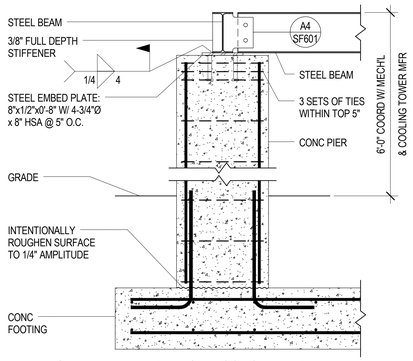


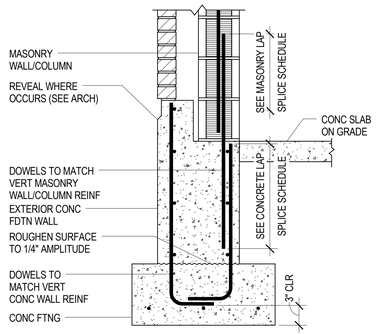
B3 / SB503 MASONRY WALL AT CONCRETE FOUNDATION WALL BEARING AT CONCRETE FOOTING

NO SCALE



A2 / SB503 STEEL BEAM BEARING AT CONCRETE PIER AT MAT FOOTING - MECH'L BLDG

NO SCALE



A1 / SB503 TYP MASONRY WALL AT CONCRETE FDTN WALL AT PLANTER LOCATION

NO SCALE

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801.521.8564 WWW.EFTARCH.COM

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REGISTERED CERTIFIED STRUCTURAL ENGINEER NO. 154201 RICHARD MARK BROWN UTAH

02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

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FOOTING & FOUNDATION DETAILS

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: YW	CHECKED BY: RM
PROJECT NO.: 11007	DRAWING NO.: SB503
DATE: 02/15/2013	

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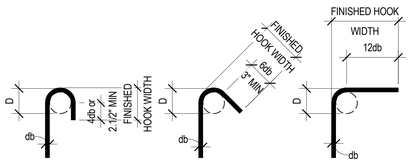
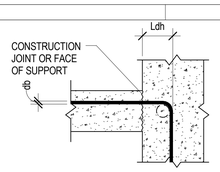


180° HOOK 135° HOOK 90° HOOK

END HOOK SCHEDULE				
BAR SIZE	D	FINISHED HOOK WIDTH		
		180° HOOK	135° HOOK	90° HOOK
#3	2.1/4"	3"	3"	6"
#4	3"	4"	3"	8"
#5	3.1/4"	5"	3.3/4"	10"
#6	4.1/2"	6"	4.1/2"	12"
#7	5.1/4"	7"	5.1/4"	14"
#8	6"	8"	6"	16"
#9	9.1/2"	11.3/4"	--	19"
#10	10.3/4"	13.1/4"	--	22"
#11	12"	14.3/4"	--	24"
#14	18.1/4"	21.3/4"	--	31"
#18	24"	28.1/2"	--	41"

Sched - End-Hook



TENSION HOOK DEVELOPMENT LENGTH (Ldh)					
BAR SIZE	NORMAL WEIGHT CONCRETE, f'c = PSI				
	3,000	4,000	4,500	5,000	6,000
#3	6"	6"	6"	6"	6"
#4	8"	7"	7"	7"	7"
#5	10"	9"	8"	8"	7"
#6	12"	10"	10"	9"	8"
#7	14"	12"	11"	11"	10"
#8	16"	14"	13"	12"	11"
#9	18"	15"	14"	14"	13"
#10	20"	17"	16"	15"	14"
#11	22"	19"	18"	17"	16"
#14	37"	32"	31"	29"	27"
#18	50"	43"	41"	39"	35"

NOTES:
1. VALUES HERE VALID FOR ALL CASES IF:
   SIDE COVER ≥ 2.1/2"
   END COVER ≥ 2"

2. MULTIPLY VALUES IN SCHEDULE BY 1.2 FOR LIGHTWEIGHT CONCRETE

3. MULTIPLY VALUES IN SCHEDULE BY 1.2 FOR USE WITH EPOXY COATED REBAR

Sched - Tension-Hook

CONCRETE FOOTING SCHEDULE												
MARK	WIDTH	LENGTH	THICK	CROSSWISE REINFORCING				LENGTHWISE REINFORCING				REMARKS
				NO.	SIZE	LENGTH	SPACE	NO.	SIZE	LENGTH	SPACE	
FR3.5x8.0	3' - 6"	8'-0"	1' - 0"	8	#4	3'-0"	EQ	4	#4	7'-6"	EQ	TOP & BOT
FR6.0x9.6	6' - 0"	9'-6"	1' - 5"	9	#6	5' 6"	13.5"	6	#6	9'-0"	13.2"	
FS4.0	4' - 0"	4' 0"	1' - 0"	4	#5	3' 6"	14"	4	#5	3' 6"	14"	
FS4.5	4' - 6"	4' 6"	1' - 1"	4	#5	4' 0"	16"	4	#5	4' 0"	16"	
FS5.0	5' - 0"	5' 0"	1' - 2"	5	#5	4' 6"	13.5"	5	#5	4' 6"	13.5"	
FS5.5	5' - 6"	5' 6"	1' - 4"	7	#5	5' 0"	10"	7	#5	5' 0"	10"	
FTS2.0	2' - 0"	CONT.	1' - 0"	--	--	--	--	3	#4	CONT.	EQ.	
FC2.0	2' - 0"	CONT.	1' - 0"	--	--	--	--	3	#4	CONT.	EQ.	
FC3.0	3' - 0"	CONT.	1' - 0"	--	#5	2'-6"	14"	3	#5	CONT.	EQ.	

NOTES:
1. PLACE ALL FOOTING REINFORCING IN BOTTOM OF FOOTING WITH 3" CLEAR CONCRETE COVER UNLESS NOTED OTHERWISE.

2. TOP REINFORCING, WHERE SPECIFIED, SHALL BE PLACED IN THE TOP OF THE FOOTING WITH 2" CLEAR CONCRETE COVER.

3. SPOT FOOTINGS SHALL BE CENTERED UNDER COLUMNS AND CONTINUOUS FOOTINGS SHALL BE CENTERED UNDER WALLS, UNLESS NOTED OTHERWISE.

4. ALL FOOTINGS SHALL BE FORMED. FOOTINGS SHALL NOT BE EARTH FORMED OR OVERSIZED WITHOUT WRITTEN PERMISSION FROM THE STRUCTURAL ENGINEER.

Sched - Footing

CONCRETE REINFORCING BAR DEVELOPMENT AND LAP SPLICE LENGTH SCHEDULE																					
BAR SIZE	f'c = 3000 PSI				f'c = 4000 PSI				f'c = 4500 PSI				f'c = 5000 PSI				f'c = 6000 PSI				f'c = ALL	
	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ldc	Lsc
#3	17"	22"	22"	28"	15"	19"	19"	25"	14"	18"	18"	23"	13"	17"	17"	22"	12"	16"	16"	20"	8"	12"
#4	22"	29"	29"	38"	19"	25"	25"	33"	18"	24"	24"	31"	17"	23"	23"	29"	16"	21"	21"	27"	10"	15"
#5	28"	36"	36"	47"	24"	31"	31"	41"	23"	30"	30"	38"	22"	28"	28"	36"	20"	26"	26"	33"	12"	19"
#6	33"	43"	43"	56"	29"	37"	37"	49"	27"	35"	35"	46"	26"	34"	34"	44"	24"	31"	31"	40"	15"	23"
#7	48"	63"	63"	81"	42"	54"	54"	71"	40"	51"	51"	67"	38"	49"	49"	63"	34"	45"	45"	58"	17"	27"
#8	55"	72"	72"	93"	48"	62"	62"	81"	45"	59"	59"	76"	43"	56"	56"	72"	39"	51"	51"	66"	19"	30"
#9	62"	81"	81"	105"	54"	70"	70"	91"	51"	66"	66"	86"	48"	63"	63"	81"	44"	57"	57"	74"	22"	34"
#10	70"	91"	91"	118"	61"	79"	79"	102"	57"	74"	74"	96"	54"	71"	71"	92"	50"	64"	64"	84"	24"	39"
#11	78"	101"	101"	131"	67"	87"	87"	114"	64"	82"	82"	107"	60"	78"	78"	102"	55"	71"	71"	93"	27"	43"
#14	93"	121"	NA	NA	81"	105"	NA	NA	76"	99"	NA	NA	72"	94"	NA	NA	66"	86"	NA	NA	33"	NA
#18	124"	161"	NA	NA	108"	140"	NA	NA	101"	132"	NA	NA	96"	125"	NA	NA	88"	114"	NA	NA	43"	NA

NOTES:
1. DEFINITIONS:
   Ld: TENSION DEVELOPMENT LENGTH FOR REINFORCEMENT SATISFYING THE FOLLOWING CONDITIONS:
      SLABS AND WALLS: CLEAR SPACING > 2db AND CONCRETE CLEAR COVER > db
      BEAMS AND COLUMNS: CLEAR COVER SPACING > db AND CONCRETE CLEAR COVER > db
   Lt: DEVELOPMENT LENGTH FOR TOP BARS IN TENSION
   Lsb: TENSION LAP SPLICE LENGTH FOR OTHER THAN TOP BARS (CLASS B)
   Lsbt: TENSION LAP SPLICE LENGTH OF TOP BARS.
   Ldc: DEVELOPMENT LENGTH FOR BARS IN COMPRESSION
   Lsc: TIED COLUMN LAP SPLICE IN COMPRESSION
   db: NOMINAL BAR DIAMETER (INCHES)
   TOP BARS: HORIZONTAL BEAM REINFORCEMENT WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW

2. MULTIPLY VALUES IN SCHEDULE BY 1.5 IF CLEAR SPACING OR CONCRETE COVER DO NOT MEET REQUIREMENTS FOR Ld IN NOTE 1.

3. MULTIPLY VALUES IN SCHEDULE BY 1.3 FOR USE IN LIGHTWEIGHT AGGREGATE CONCRETE.

4. FOR EPOXY COATED BAR: MULTIPLY VALUES IN SCHEDULE BY 1.5 FOR BARS WITH CLEAR COVER < 3db OR CLEAR SPACING < 6db. OTHERWISE MULTIPLY VALUES BY 1.2.

5. a. FOR BUNDLED BARS OF THREE OR LESS MULTIPLY LENGTHS BY 1.2.
   b. FOR BUNDLED BARS OF FOUR OR MORE MULTIPLY LENGTHS BY 1.33.
   c. INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP. ENTIRE BUNDLES SHALL NOT BE LAP SPLICED.

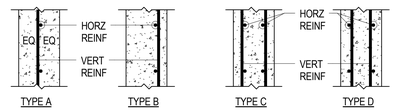
6. SCHEDULE LENGTHS ARE FOR fy=60ksi REINFORCING, MULTIPLY LENGTHS BY 1.25 FOR fy=75ksi REINFORCING.

7. LAP SPLICES ARE NOT PERMITTED FOR #14 & #18 BARS. USE BAR COUPLERS PER G.S.N.

CONCRETE FOUNDATION WALL SCHEDULE					
MARK	THICK	VERTICAL REINFORCING	HORIZONTAL REINFORCING	T & B HORIZ. BARS	PLACEMENT
CFW-1	8"	#5 @ 16" O.C.	#5 @ 15" O.C.	1-#5	TYPE A
CFW-2	1' - 4"	#5 @ 16" O.C., E.F.	#5 @ 15" O.C., E.F.	2-#5	TYPE D

NOTES:
1. HORIZONTAL WALL REINFORCING SHALL BE CONTINUOUS THRU CONSTRUCTION & CONTROL JOINTS.
2. SPLICES IN HORIZONTAL WALL REINFORCING SHALL BE TYPE Lsb, STAGGERED SUCH THAT SPLICES DO NOT OVERLAP. SPLICES IN TWO CURTAINS SHALL NOT OCCUR IN THE SAME LOCATION.

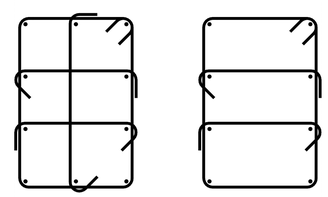
PLACEMENT TYPE



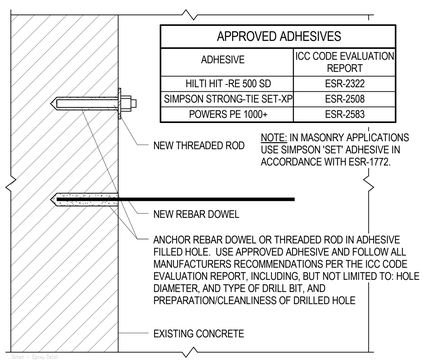
TYPE A TYPE B TYPE C TYPE D

E.F. = EACH FACE
O.F. = OUTSIDE FACE (AGAINST SOIL)
I.F. = INSIDE FACE
3L = THREE LAYERS

CONCRETE PIER SCHEDULE					
MARK	DIMENSIONS		REINFORCING		REMARKS
	DEPTH	WIDTH	VERTICAL	TIES	
CP-1	1' - 6"	1' - 6"	4-#6	#3 @ 8" O.C.	
CP-2	4' - 1"	2' - 11"	10-#5	4-#4 @ 8" O.C.	
CP-3	3' - 7"	1' - 10"	8-#5	3-#4 @ 8" O.C.	



CP-2 CP-3



APPROVED ADHESIVES	
ADHESIVE	ICC CODE EVALUATION REPORT
HILTI HIT -RE 500 SD	ESR-2322
SIMPSON STRONG-TIE SET-XP	ESR-2508
POWERS PE 1000+	ESR-2583

NOTE: IN MASONRY APPLICATIONS USE SIMPSON 'SET' ADHESIVE IN ACCORDANCE WITH ESR-1772.

Schet - Epoxy Detail

ADHESIVE ANCHORING SCHEDULE			
REINFORCING		THREADED ROD	
DOWEL SIZE	EMBEDMENT LENGTH (SEE NOTE #2)	SIZE (DIA)	EMBEDMENT LENGTH (SEE NOTE #2)
#3	4"	3/8"	4 1/2"
#4	6"	1/2"	6"
#5	9"	5/8"	7 1/2"
#6	10"	3/4"	9"
#7	12"	7/8"	10 1/2"
#8	13"	1"	12"
#9	14"	1 1/4"	15"
#10	18"		
#11	18"		

NOTES:
1. THIS SCHEDULE SHALL BE USED ONLY WHERE SPECIFICALLY REFERENCED ON THE DRAWINGS AND AT OTHER LOCATIONS WITH THE APPROVAL OF THE ENGINEER.
2. EMBEDMENT LENGTHS SPECIFIED ON PLANS OR DETAILS TAKE PRECEDENCE OVER EMBEDMENT LENGTHS IN THIS SCHEDULE.
3. WHERE THE THICKNESS OF THE EXISTING CONCRETE MEMBER IS NOT SUFFICIENT TO ACHIEVE SCHEDULED EMBEDMENT AND SPECIFIED CLEAR COVER FOR THE ANCHOR, CONTACT THE ENGINEER.
4. USE PROCEDURES AND PRODUCTS RECOMMENDED BY ADHESIVE MANUFACTURER FOR OVERHEAD INSTALLATION.
5. SPECIAL INSPECTION IS REQUIRED DURING INSTALLATION OF ALL ADHESIVE ANCHORS PER THE CODE EVALUATION REPORT FOR THE ANCHOR AND THE QUALITY ASSURANCE SECTION OF THE GENERAL STRUCTURAL NOTES.

D4 / SB601 ADHESIVE ANCHORING SCHEDULE

NO SCALE

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801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

REGISTERED CERTIFIED STRUCTURAL ENGINEER NO. 154201 RICHARD MARK BROWN UTAH

02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

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SCHEDULE SHEET

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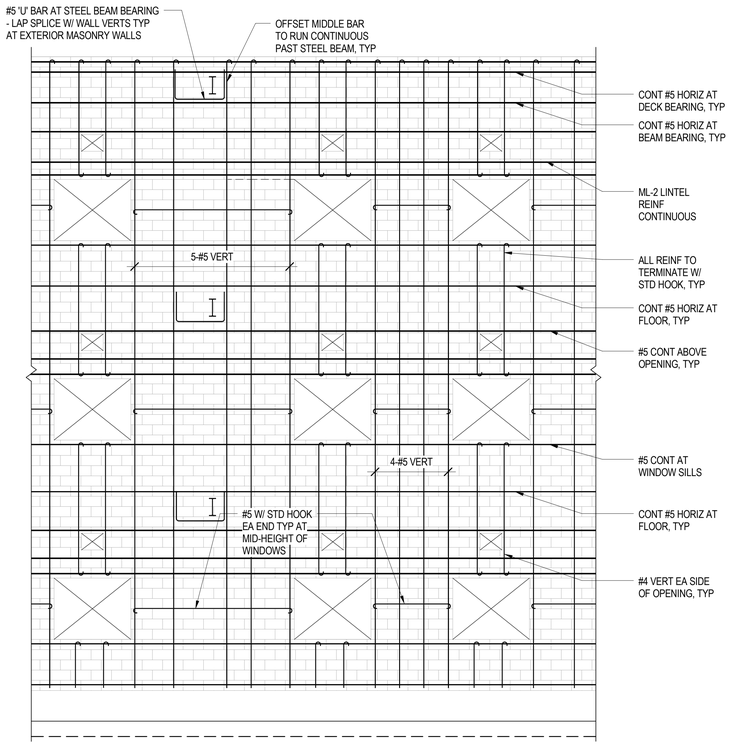


B4 / SB602 TYPICAL EXTERIOR MASONRY WALL REINFORCING ELEVATION

NO SCALE

MASONRY WALL SCHEDULE

MARK	WIDTH	MATERIAL	REINFORCING VERTICAL	REINFORCING HORIZONTAL	REMARKS
MW-1	8"	CMU	#5 @ 32" O.C.	#5 @ 48" O.C.	
MW-2	8"	CMU	#5 @ 32" O.C.	#5 @ 16" O.C.	

1. PROVIDE SCHEDULED VERTICAL REINFORCING BARS AT ALL CORNERS, ENDS OF WALLS, AND SPACED AS SCHEDULED, UNLESS NOTED OTHERWISE.
2. HORIZONTAL REINFORCING BARS SHALL BE CONTINUOUS AT ALL CORNERS AND AT INTERSECTING WALLS. PROVIDE CORNER BARS WITH THE REQUIRED LAP SPLICE LENGTH.
3. TERMINATE ALL HORIZONTAL REINFORCING BARS AT ENDS OF WALLS AND EDGES OF OPENINGS WITH A STANDARD HOOK AROUND VERTICAL REINFORCING BARS. TERMINATE ALL VERTICAL BARS WITH STANDARD HOOK AROUND HORIZONTAL BAR.
4. SEE PLANS, DETAILS AND GENERAL STRUCTURAL NOTES FOR ADDITIONAL REINFORCING REQUIREMENTS.
5. GROUT SOLID ALL CELLS BELOW GRADE, CELLS CONTAINING EMBEDS (HSA'S, DBA'S, ANCHOR BOLTS, ETC.), AND CELLS CONTAINING REINFORCING. CONSOLIDATE GROUT AS PER THE GENERAL STRUCTURAL NOTES.
6. HORIZONTAL WALL REINFORCING SHALL BE PLACED INSIDE THE VERTICALS OF MASONRY COLUMNS.
7. HORIZONTAL WALL REINFORCING SHALL CONTINUE THROUGH MASONRY LINTELS. WHERE BOTH HORIZONTAL WALL REINFORCING AND LINTEL REINFORCING OCCUR IN THE SAME COURSE, THE LARGER BARS ARE TO REPLACE THE SMALLER BARS.

MASONRY LINTEL SCHEDULE

MARK	LINTEL DEPTH	LINTEL WIDTH	MASONRY TYPE	LINTEL HORIZONTAL	LINTEL STIRRUPS	MAXIMUM SPAN	REMARKS
ML-1	8"	8"	CMU	1- #5 CONT.	-----	3'-4"	
ML-2	16"	8"	CMU	1- #5 CONT. TOP & BOT.	-----	5'-4"	
ML-3	24"	8"	CMU	1- #5 CONT. TOP & BOT.	#3 @ 8" O.C.	8'-0"	
ML-4	32"	8"	CMU	1- #5 CONT. TOP & BOT.	#3 @ 8" O.C.	10'-0"	
ML-5	48"	8"	CMU	1- #7 CONT. TOP & BOT.	#3 @ 16" O.C.		

NOTES:

1. MASONRY LINTELS ML-1 THROUGH ML-4 SHALL BE USED OVER OPENINGS IN MASONRY WALLS WHEN A SPECIFIC MASONRY LINTEL IS NOT OTHERWISE SPECIFIED. THE MASONRY LINTEL TO BE USED SHALL BE DETERMINED BY THE MAXIMUM SPAN AS SPECIFIED IN THIS SCHEDULE. WHEN A SPECIFIC MASONRY LINTEL IS CALLED OUT ON THE PLAN, THE MAXIMUM SPAN AS NOTED IN THIS SCHEDULE SHALL NOT APPLY

2. MASONRY LINTELS ML-1 THROUGH ML-4 SHALL NOT BE LOCATED BELOW ANY FLOOR, OR ROOF BEAM, OR GIRDER, OR ANY OTHER CONCENTRATED LOAD UNLESS SHOWN SPECIFICALLY ON THE PLAN SHEET. JOISTS SHALL NOT BEAR ON ANY LINTEL LESS THAN 16" DEEP.

3. FOR MASONRY LINTELS NOT SHOWN ON THE DRAWINGS THAT CARRY ANY FLOOR, OR ROOF BEAM, OR GIRDER, OR ANY OTHER CONCENTRATED LOAD, OR THAT SPAN GREATER THAN 10'-0" CONSULT THE STRUCTURAL ENGINEER.

4. EXTEND ALL HORIZONTAL REINFORCING 48 BAR DIAMETERS BEYOND THE EDGE OF THE OPENING. IF HORIZONTAL REINFORCING CANNOT BE EXTENDED 48 BAR DIAMETERS BEYOND THE EDGE OF THE OPENING, PROVIDE 90 DEGREE STANDARD HOOK.

5. GROUT MASONRY LINTELS MONOLITHICALLY WITH THE SUPPORT WALL OR COLUMN AT EACH END.

6. SPLICE TOP BARS AT MIDSPAN OF LINTEL ONLY.

7. SPLICE BOTTOM BARS OVER SUPPORTS ONLY.

8. FOR WALL ABOVE LINTEL, DOWEL VERTICAL REINFORCING INTO FULL DEPTH OF THE LINTEL OR 48 BAR DIAMETERS, WHICHEVER IS LESS.

9. HORIZONTAL WALL REINFORCING SHALL CONTINUE THROUGH MASONRY LINTELS. WHERE BOTH HORIZONTAL WALL REINFORCING AND LINTEL REINFORCING WOULD OCCUR IN THE SAME COURSE, THE LARGER BARS ARE TO REPLACE THE SMALLER BARS.

MASONRY REINFORCING BAR LAP SPLICE SCHEDULE

BAR SIZE	f'm = 1500 psi 6" CMU CLASS A	8" CMU CLASS A	8" CMU CLASS B	10" CMU CLASS A	10" CMU CLASS B	12" CMU CLASS A	12" CMU CLASS B	f'm = 2500 psi 6" ATLAS CLASS A	8" ATLAS CLASS A	8" ATLAS CLASS B
#3	19"	19"	19"	19"	19"	19"	19"	15"	15"	15"
#4	25"	25"	30"	25"	28"	25"	28"	20"	20"	24"
#5	35"	31"	49"	31"	45"	31"	45"	31"	24"	40"
#6	81"	57"	**	53"	92"	53"	92"	64"	45"	87"
#7	-	79"	**	61"	**	61"	**	-	63"	**
#8	-	**	**	87"	**	75"	**	-	89"	**
#9	-	-	-	**	**	90"	**	-	-	-

NOTES:

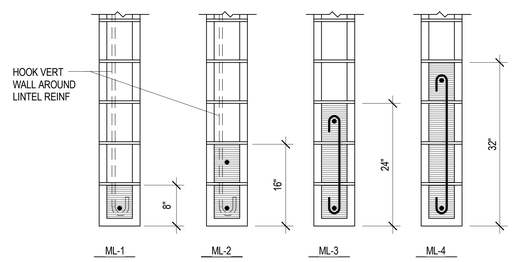
1. CLASS A SPLICES MAY BE USED WHEN ONLY ONE BAR IS CONTINUOUS IN THE MASONRY CELL OR COURSE.
2. CLASS B SPLICES SHALL BE USED WHEN TWO BARS ARE CONTINUOUS IN THE MASONRY CELL OR COURSE.
3. ** INDICATES THAT A LAP SPLICE IS NOT ALLOWED AND MECHANICAL BAR COUPLERS ARE REQUIRED FOR THE BAR SPLICES.
4. WHERE VERTICAL BARS HAVE A REQUIRED LAP SPLICE GREATER THAN THE HEIGHT OF THE GROUT POUR, THE BAR SPLICE SHALL BE MADE WITH A MECHANICAL BAR COUPLER. WHERE THE HEIGHT OF THE GROUT POUR EXCEEDS 60 INCHES, HIGH LIFT GROUTING PROCEDURES SHALL BE FOLLOWED.
5. WHERE MECHANICAL BAR COUPLERS ARE USED, THE CONNECTOR SHALL DEVELOP 125% OF THE SPECIFIED YIELD STRENGTH OF THE BAR IN TENSION AND COMPRESSION.

MASONRY COLUMN SCHEDULE

MARK	WIDTH	DIMENSIONS DEPTH	REINFORCING VERTICAL	REINFORCING TIES	REMARKS
MC-1	8"	1' - 4"	4-#4	#2 @ 8" O.C.	
MC-2	8"	4' - 0"	8-#4	3-#2 @ 8" O.C.	

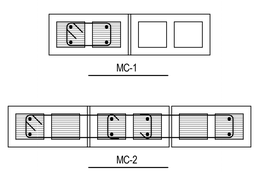
MASONRY COLUMN NOTES

1. THE CENTERLINE OF VERTICAL BARS SHALL BE LOCATED 2.1/2" FROM THE FACE OF THE MASONRY. HORIZONTAL BARS SHALL BE LOCATED TO THE INSIDE OF THE VERTICAL BARS.
2. UNLESS NOTED OTHERWISE, VERTICAL REINFORCING AND TIES SHALL EXTEND FULL HEIGHT OF THE WALL.
3. MASONRY COLUMN VERTICAL BARS OR DOWELS IN CONCRETE FOUNDATION WALLS SHALL BE TIED WITH #3 TIES @ 8" O.C.



C2 / SB602 TYPICAL MASONRY LINTEL DETAILS

NO SCALE



C1 / SB602 TYPICAL MASONRY COLUMN DIAGRAMS

NO SCALE

STEEL ANGLE LINTEL SCHEDULE

BEARING EQUALS 1" PER FOOT OF OPENING OR 6" MINIMUM TYPICAL

OPENING SIZE	ANGLE SIZE
0'-0" - 7'-0"	L3.1/2x3.1/2x1/4
7'-0" - 9'-0"	L4x3.1/2x1/4
9'-0" - 10'-0"	L5x3.1/2x1/4

NOTES:

LINTELS ARE DESIGNED TO SUPPORT UNIFORM LOADS CONSISTING ONLY OF WEIGHT OF WALL WITHIN A 60 DEGREE ISOSCELES TRIANGLE AREA ABOVE OPENING.

ALL STEEL LINTELS ARE TO HAVE LONG LEG VERTICAL.

LINTEL SCHEDULE FOR 4" VENEER

ALL ANGLE LINTELS SHALL BE GALVANIZED.

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265 EAST 100 SOUTH SUITE 350
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801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

CERTIFIED STRUCTURAL ENGINEER NO. 154201 RICHARD MARK BROWN UTAH

02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
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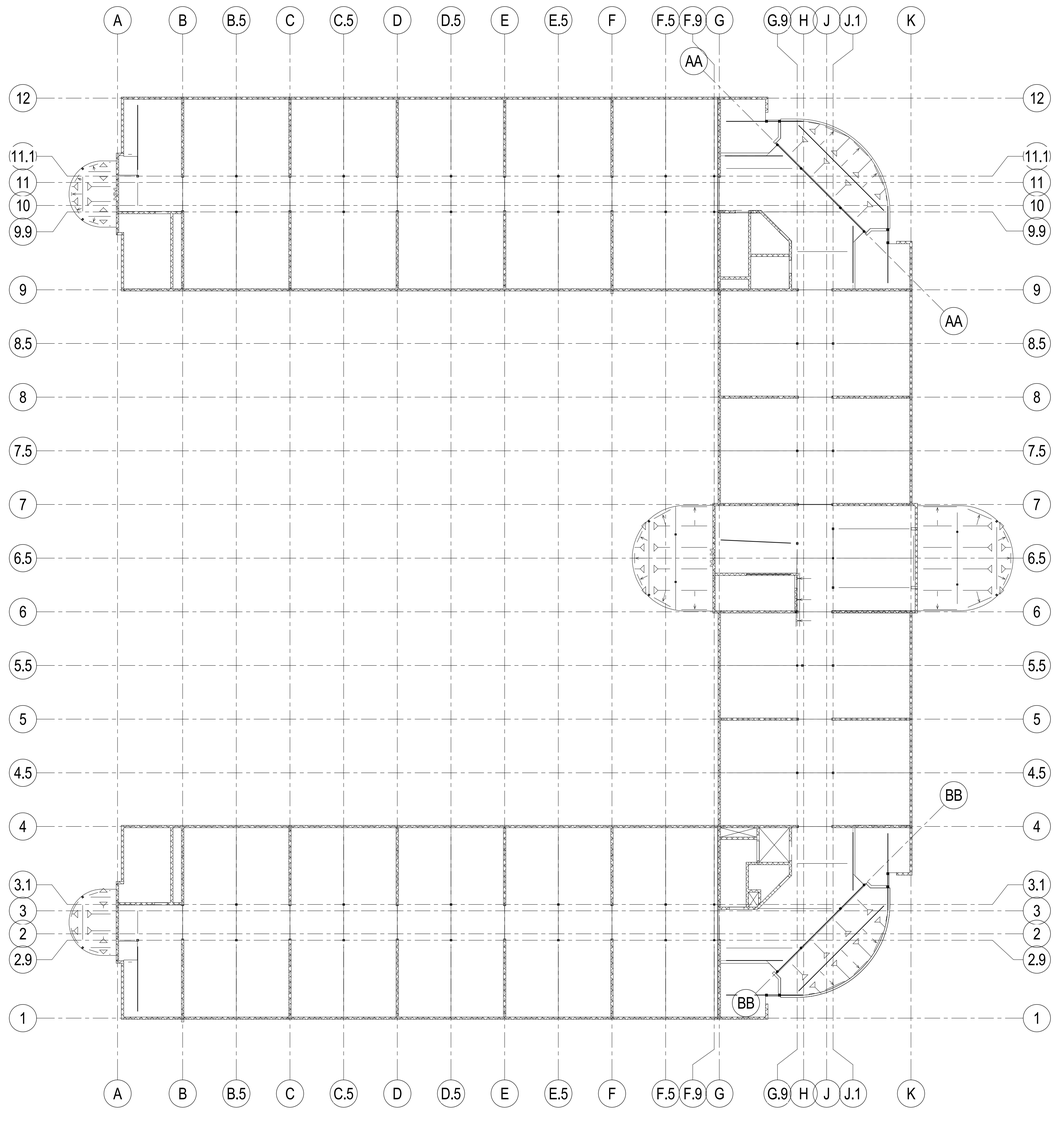

E4 / SF101 OVERALL SECOND LEVEL FLOOR FRAMING PLAN

SCALE: 1/16" = 1'-0"

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SEAL & SIGNATURE

REGISTERED CERTIFIED STRUCTURAL ENGINEER
NO. 154201
MARK BROWN
UTAH
02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
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OVERALL SECOND LEVEL FRAMING PLAN

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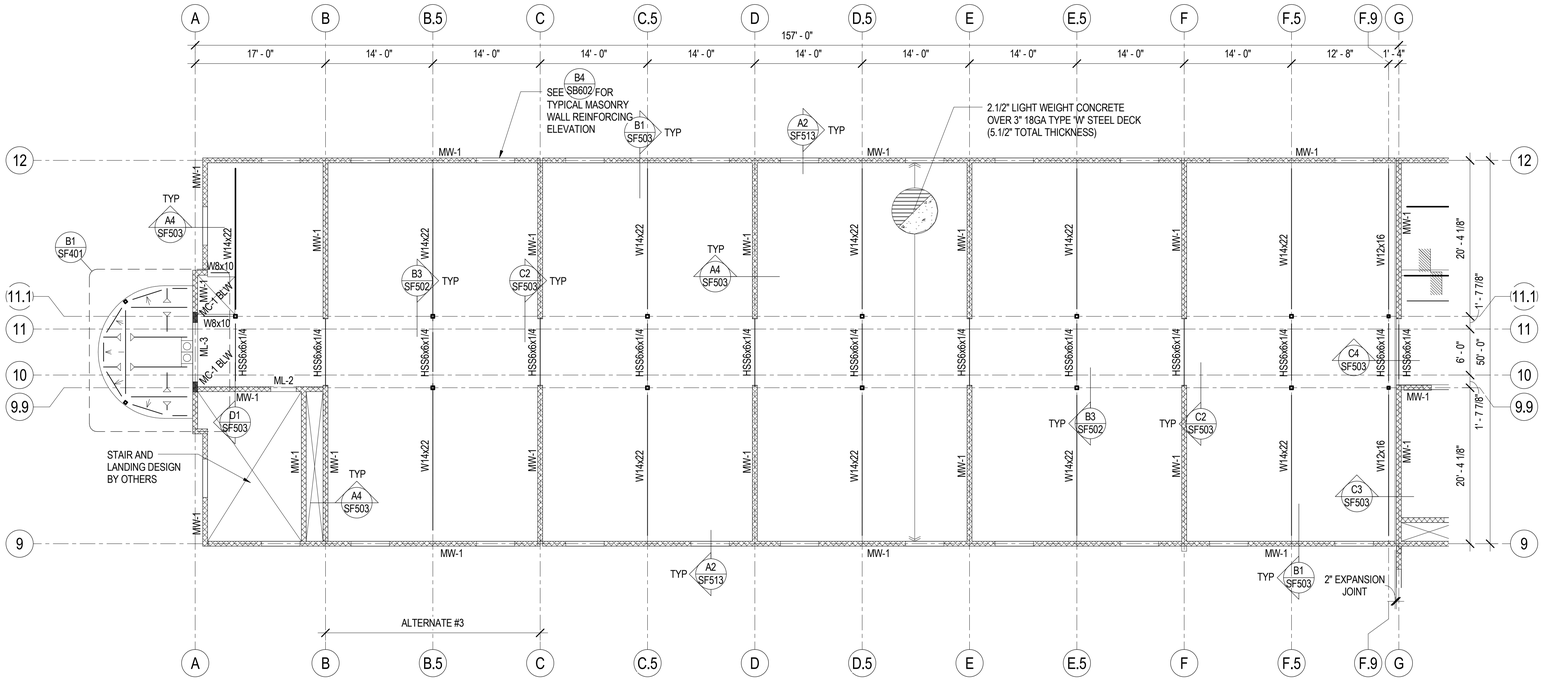
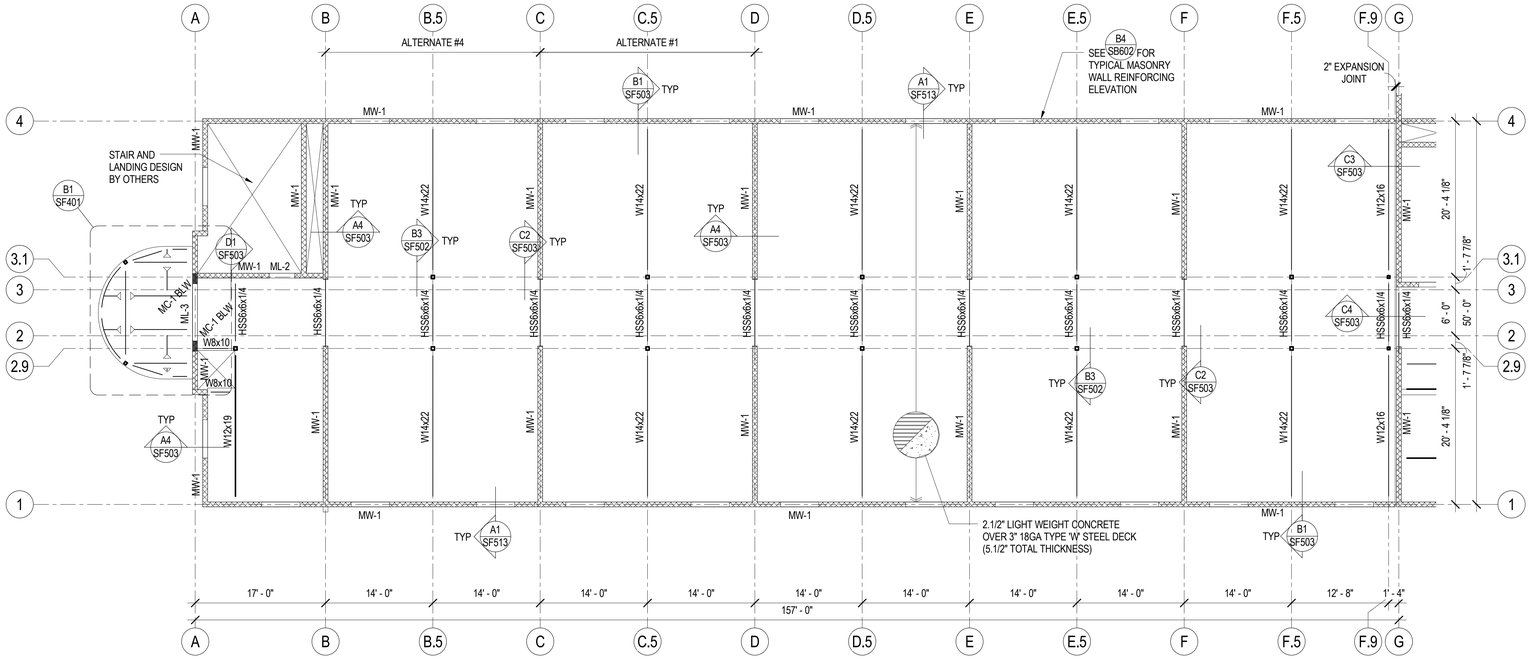


B4 / SF101A/ SECOND LEVEL FLOOR FRAMING PLAN NORTH WING

SCALE: 1/8" = 1'-0"

PLAN NORTH



D4 / SF101A/ SECOND LEVEL FLOOR FRAMING PLAN SOUTH WING

SCALE: 1/8" = 1'-0"

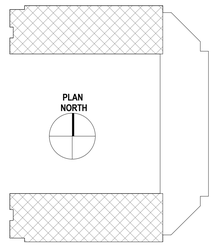
PLAN NORTH

FLOOR FRAMING PLAN LEGEND

- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- CANTILEVER MOMENT CONNECTION
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- 0" CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- SPECIAL DECK AREA
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING

FLOOR FRAMING PLAN NOTES

1. SEE DETAILS A4/SF501 FOR MISCELLANEOUS FLOOR OPENINGS.
2. SEE GENERAL STRUCTURAL NOTE (V.J.7) FOR STEEL DECK REQUIREMENTS WHERE 3-SPAN CONDITIONS ARE NOT POSSIBLE.
3. SEE B4/SB602 FOR TYPICAL EXTERIOR MASONRY WALL REINFORCING ELEVATION.



KEY PLAN

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Consulting Structural Engineers
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F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

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SECOND FLR FRMNG PLAN NORTH & SOUTH WINGS

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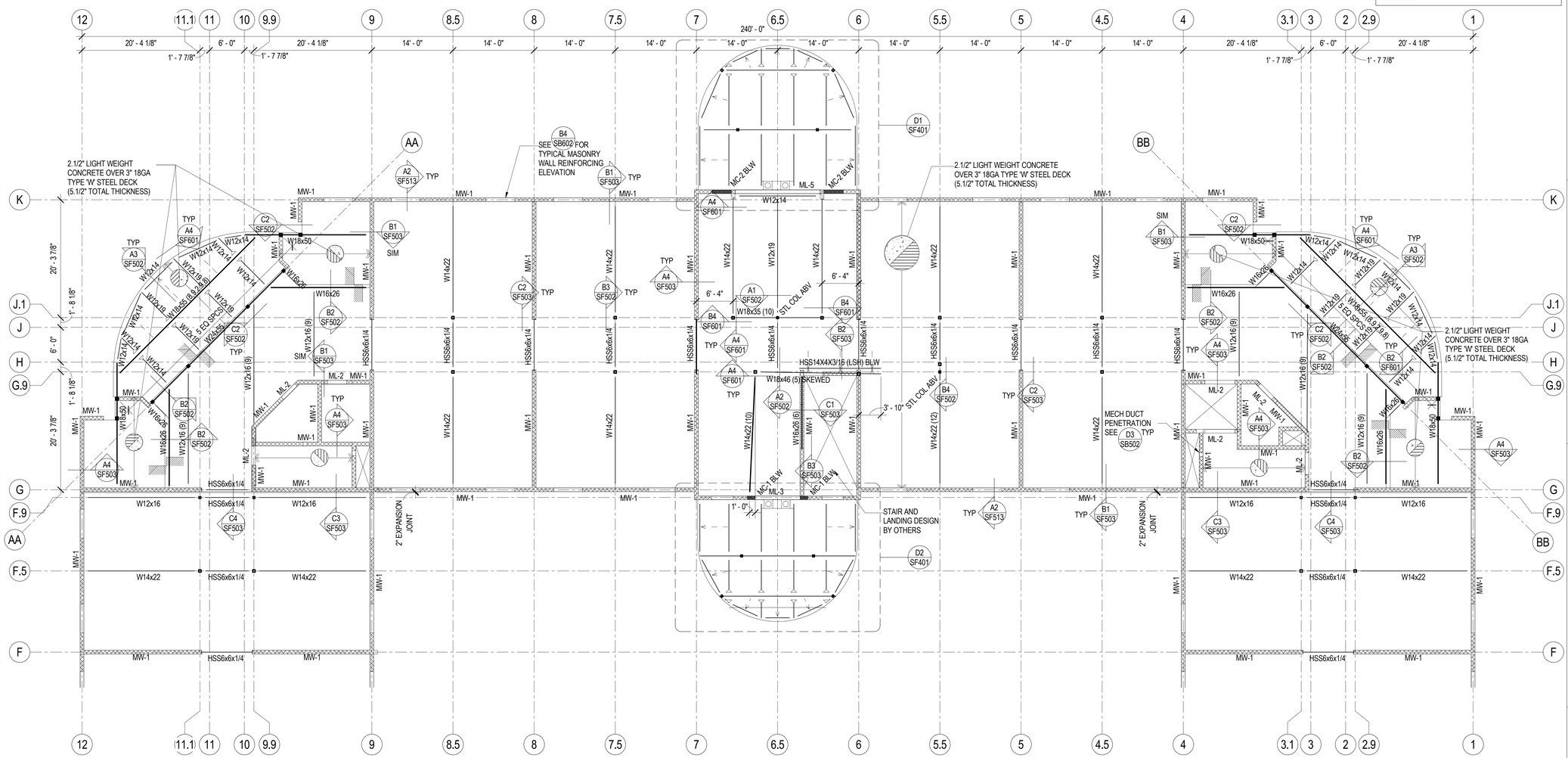
FLOOR FRAMING PLAN LEGEND

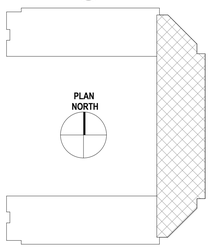
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- CANTILEVER MOMENT CONNECTION
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- 0" CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- SPECIAL DECK AREA
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING



C4 / SF101B — SECOND LEVEL FLOOR FRAMING PLAN EAST WING

SCALE: 1/8" = 1'-0"

PLAN NORTH



KEY PLAN

FLOOR FRAMING PLAN NOTES

1. SEE DETAILS A4/SF501 FOR MISCELLANEOUS FLOOR OPENINGS.
2. SEE GENERAL STRUCTURAL NOTE (V.J.7) FOR STEEL DECK REQUIREMENTS WHERE 3-SPAN CONDITIONS ARE NOT POSSIBLE.
3. SEE B4/SB602 FOR TYPICAL EXTERIOR MASONRY WALL REINFORCING ELEVATION.

SEAL & SIGNATURE

STATE OF UTAH — CERTIFIED STRUCTURAL ENGINEER — NO. 154201 — BRIAN MARK BROWN — 02/15/13

REAVELEY ENGINEERS + ASSOCIATES
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P 801.486.3883
F 801.485.0911
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SECOND FLOOR FRAMING PLAN EAST WING

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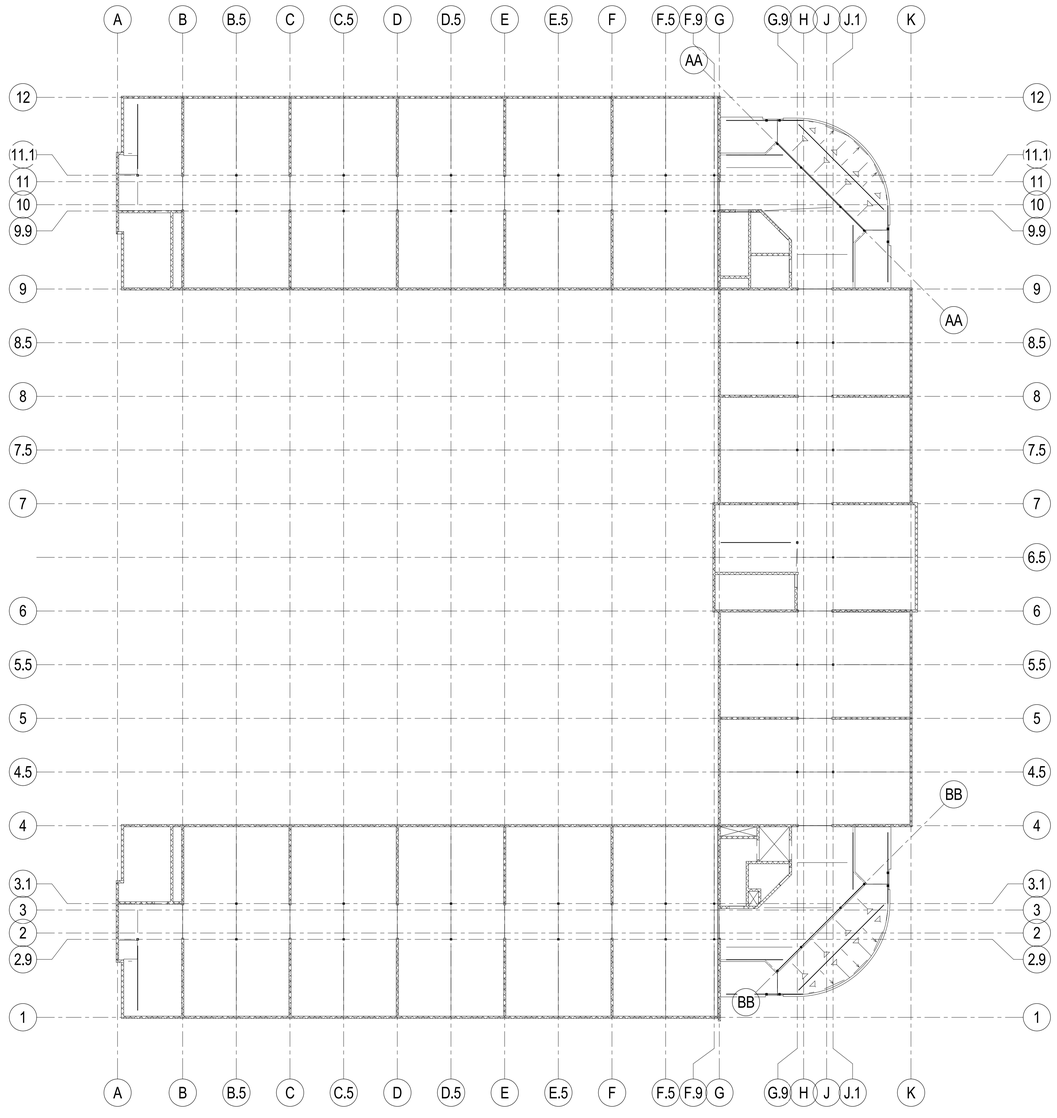

E4 / SF102 OVERALL THIRD LEVEL FLOOR FRAMING PLAN

SCALE: 1/16" = 1'-0"

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SALT LAKE CITY, UTAH 84111-1604
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SEAL & SIGNATURE

LICENSED CERTIFIED STRUCTURAL ENGINEER
NO. 154201
MARK BROWN
UTAH
02/15/13

REAVELEY
ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
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OVERALL THIRD LEVEL FRAMING PLAN

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: YW	CHECKED BY: RM
PROJECT NO.: 11007	DRAWING NO.: SF102
DATE: 02/15/2013	

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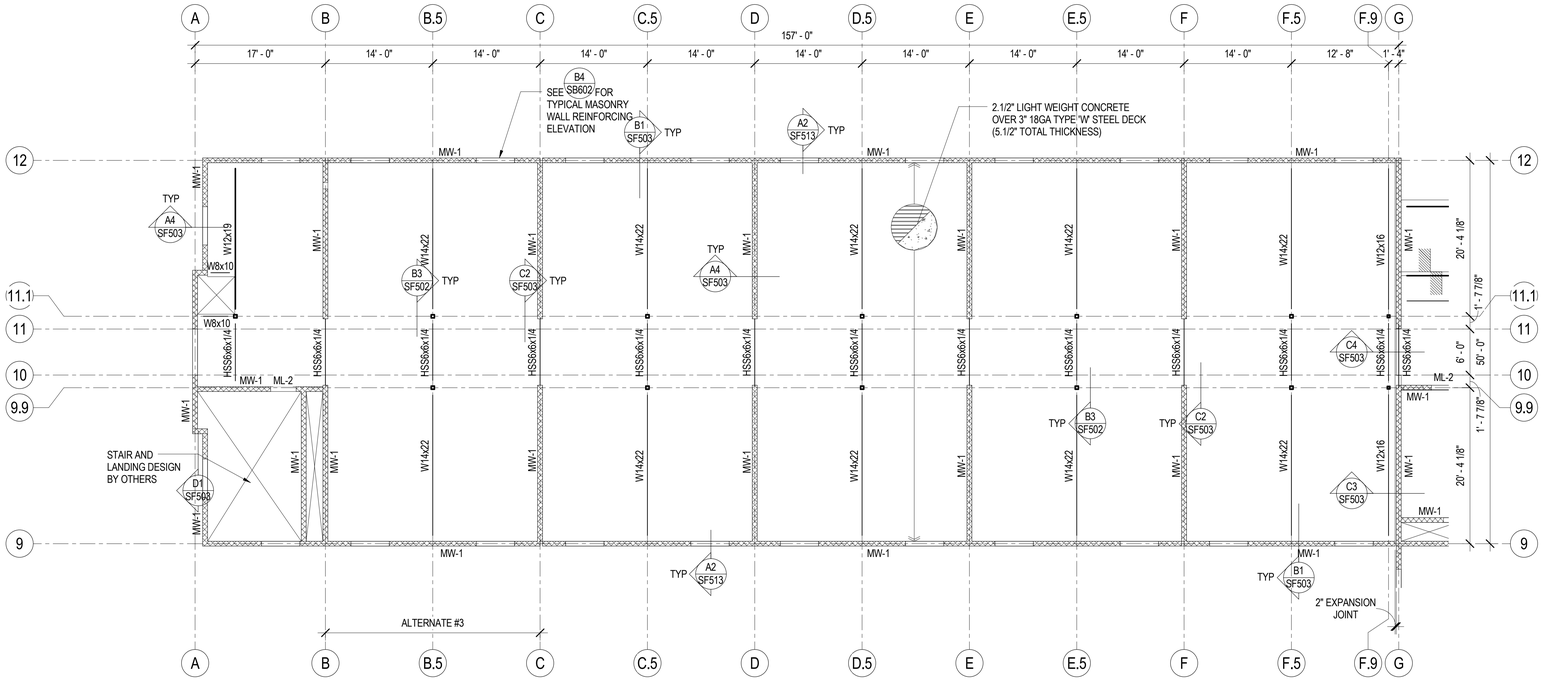
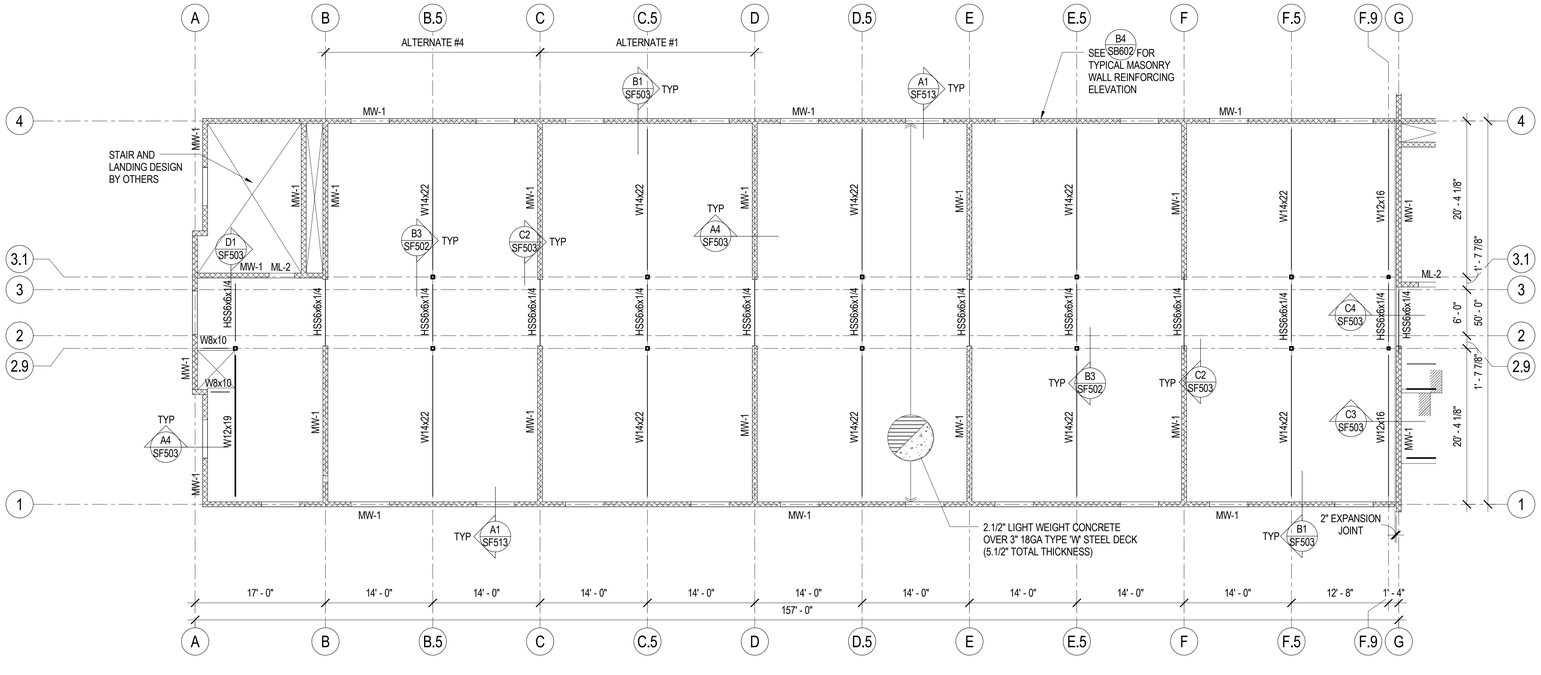


A4 / SF102A THIRD LEVEL FLOOR FRAMING PLAN NORTH WING

SCALE: 1/8" = 1'-0"

PLAN NORTH



D4 / SF102A THIRD LEVEL FLOOR FRAMING PLAN SOUTH WING

SCALE: 1/8" = 1'-0"

PLAN NORTH

FLOOR FRAMING PLAN LEGEND

- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- CANTILEVER MOMENT CONNECTION
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- SPECIAL DECK AREA
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

REGISTERED CERTIFIED STRUCTURAL ENGINEER NO. 154201 BRIAN MARK BROWN UTAH

02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

FLOOR FRAMING PLAN NOTES

1. SEE DETAILS A4/SF501 FOR MISCELLANEOUS FLOOR OPENINGS.

2. SEE GENERAL STRUCTURAL NOTE (V.J.7) FOR STEEL DECK REQUIREMENTS WHERE 3-SPAN CONDITIONS ARE NOT POSSIBLE.

3. SEE B4/SB602 FOR TYPICAL EXTERIOR MASONRY WALL REINFORCING ELEVATION.

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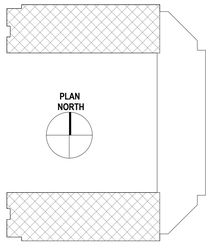

KEY PLAN

THIRD FLOOR FRAMING PLAN NORTH & SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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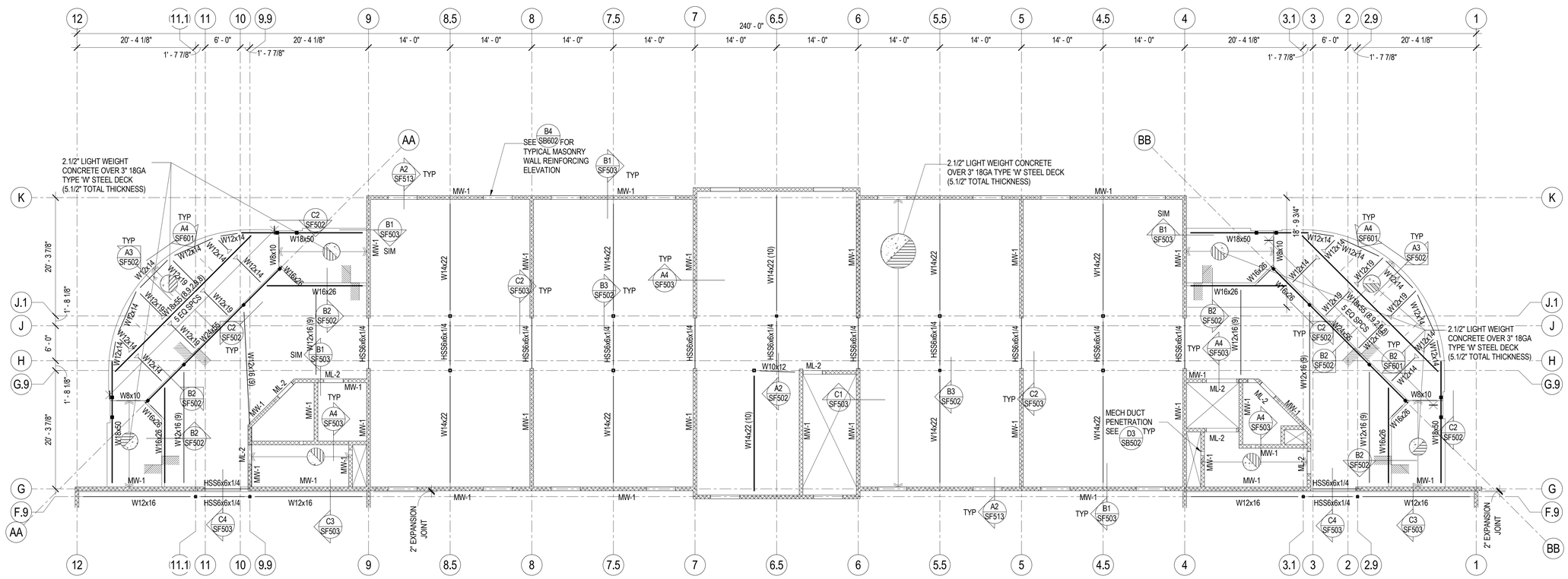
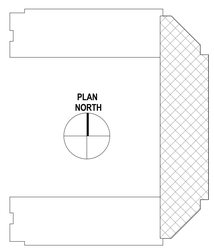
FLOOR FRAMING PLAN LEGEND

- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- CANTILEVER MOMENT CONNECTION
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- 0" CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- SPECIAL DECK AREA
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING



C4 SF102B THIRD LEVEL FLOOR FRAMING PLAN EAST WING
SCALE: 1/8" = 1'-0"

PLAN NORTH



KEY PLAN

FLOOR FRAMING PLAN NOTES

1. SEE DETAILS A4/SF501 FOR MISCELLANEOUS FLOOR OPENINGS.
2. SEE GENERAL STRUCTURAL NOTE (V.J.7) FOR STEEL DECK REQUIREMENTS WHERE 3-SPAN CONDITIONS ARE NOT POSSIBLE.
3. SEE B4/SB602 FOR TYPICAL EXTERIOR MASONRY WALL REINFORCING ELEVATION.

SEAL & SIGNATURE
LICENSED CERTIFIED STRUCTURAL ENGINEER NO. 154201 MARK BROWN UTAH
02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

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THIRD FLOOR FRAMING PLAN EAST WING

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO. 11007
DRAWING NO. SF102B
DATE 02/15/2013

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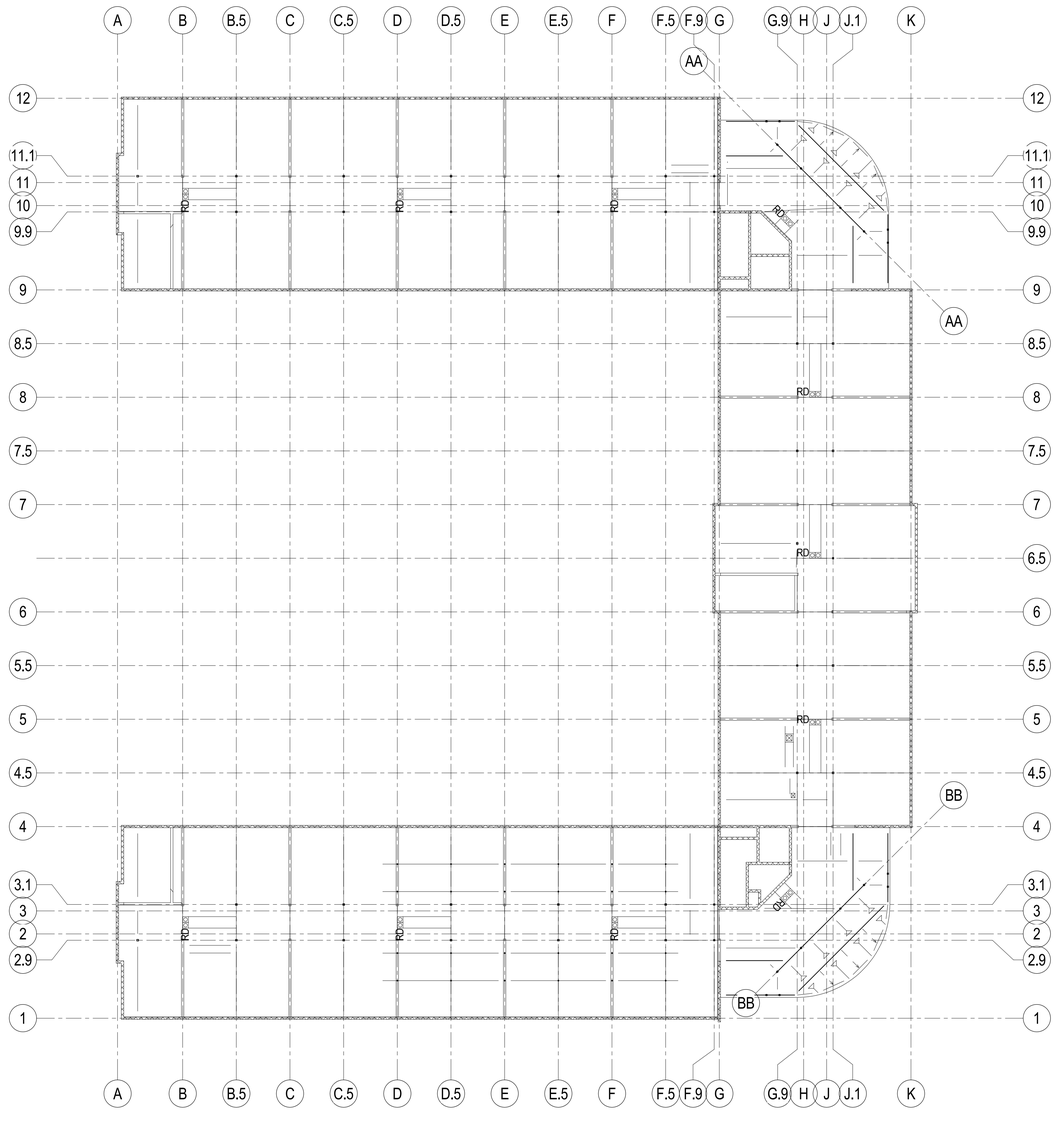

E4 / SF103 OVERALL ROOF FRAMING PLAN

SCALE: 1/16" = 1'-0"

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801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

REGISTERED CERTIFIED STRUCTURAL ENGINEER
NO. 154201
RICHARD MARK BROWN
UTAH
02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

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OVERALL ROOF LEVEL FRAMING PLAN

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007	DRAWING NO.: SF103
DATE: 02/15/2013	

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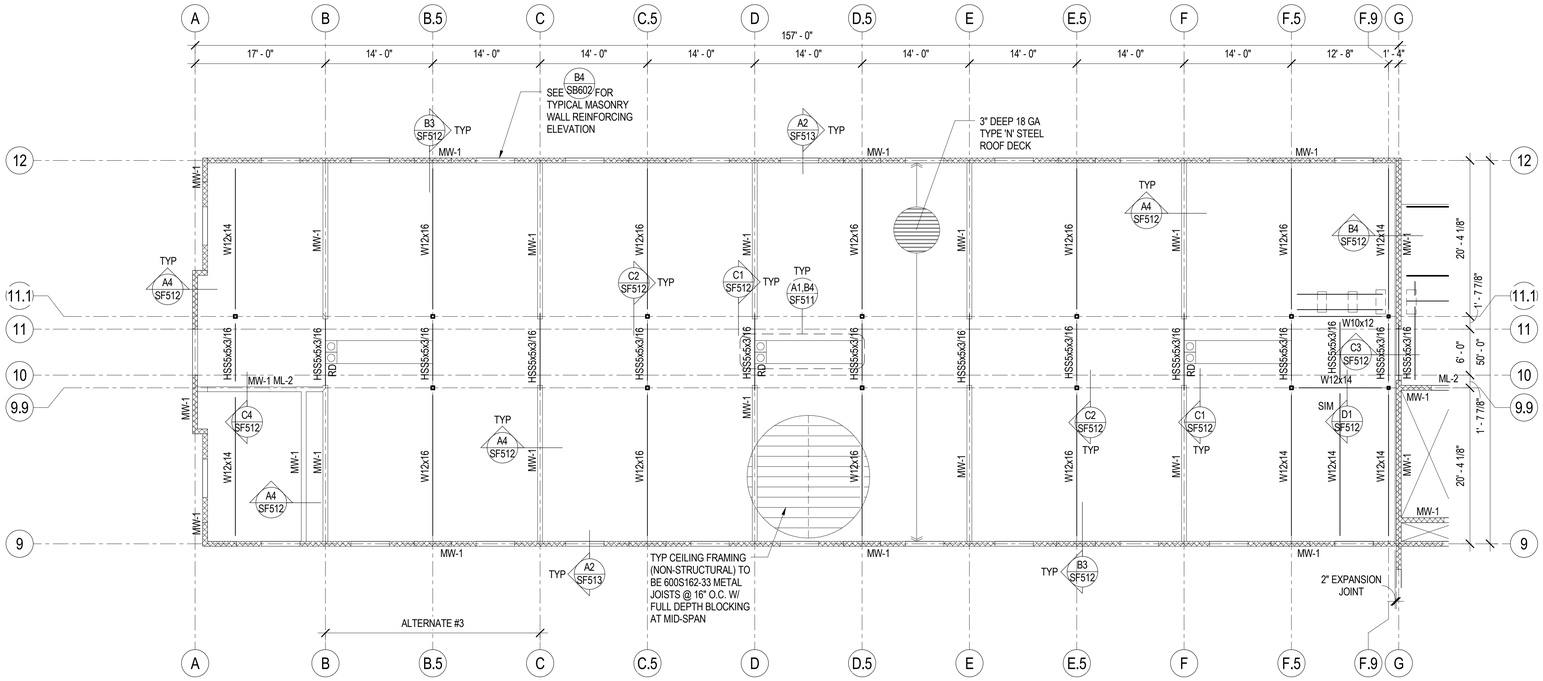
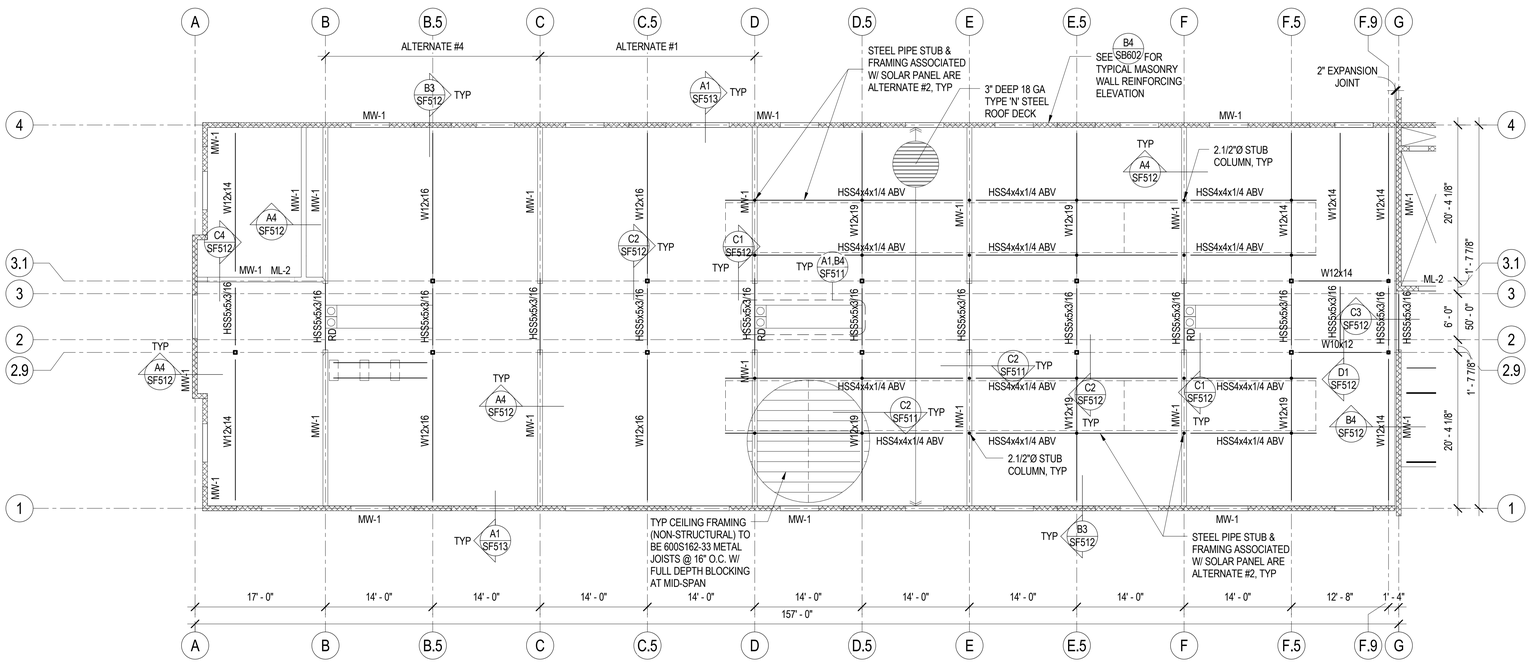


B4 / SF103A — ROOF FRAMING PLAN NORTH WING

SCALE: 1/8" = 1'-0"



D4 / SF103A — ROOF FRAMING PLAN SOUTH WING

SCALE: 1/8" = 1'-0"

ROOF FRAMING PLAN LEGEND

- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- CANTILEVER MOMENT CONNECTION
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- 0" CHANGE IN ELEVATION
- ROOF DECK
- SPECIAL DECK AREA
- OPENING

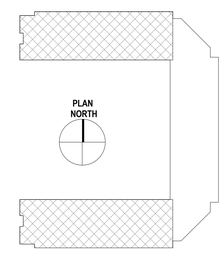
ROOF FRAMING PLAN NOTES

1. VERIFY SIZE, WEIGHT, LOCATION AND CONFIGURATION OF ALL ROOF TOP EQUIPMENT WITH ARCHITECT AND MECHANICAL ENGINEER. PROVIDE STEEL FRAMES FOR SUPPORT OF ROOF TOP EQUIPMENT AS INDICATED IN DETAIL A2/SF511 COORDINATE OPENINGS WITH MECHANICAL AND ELECTRICAL AND GENERAL CONTRACTORS.

2. ALL ROOF OPENINGS SHALL BE FRAMED AS INDICATED IN DETAIL A3/SF511. FOR ROUND OPENINGS WHICH ARE LESS THAN 12" DIA. SEE DETAIL A4/SF511.

3. SEE ARCHITECTURAL FOR ROOF SLOPES AND DRAINS. SEE A1/SF511 OR B4/SF511 FOR ROOF DRAIN OPENING FRAME.

4. SEE B4/SB602 FOR TYPICAL EXTERIOR MASONRY WALL REINFORCING ELEVATION.



KEY PLAN

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SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

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ROOF FRAMING PLAN NORTH & SOUTH WINGS

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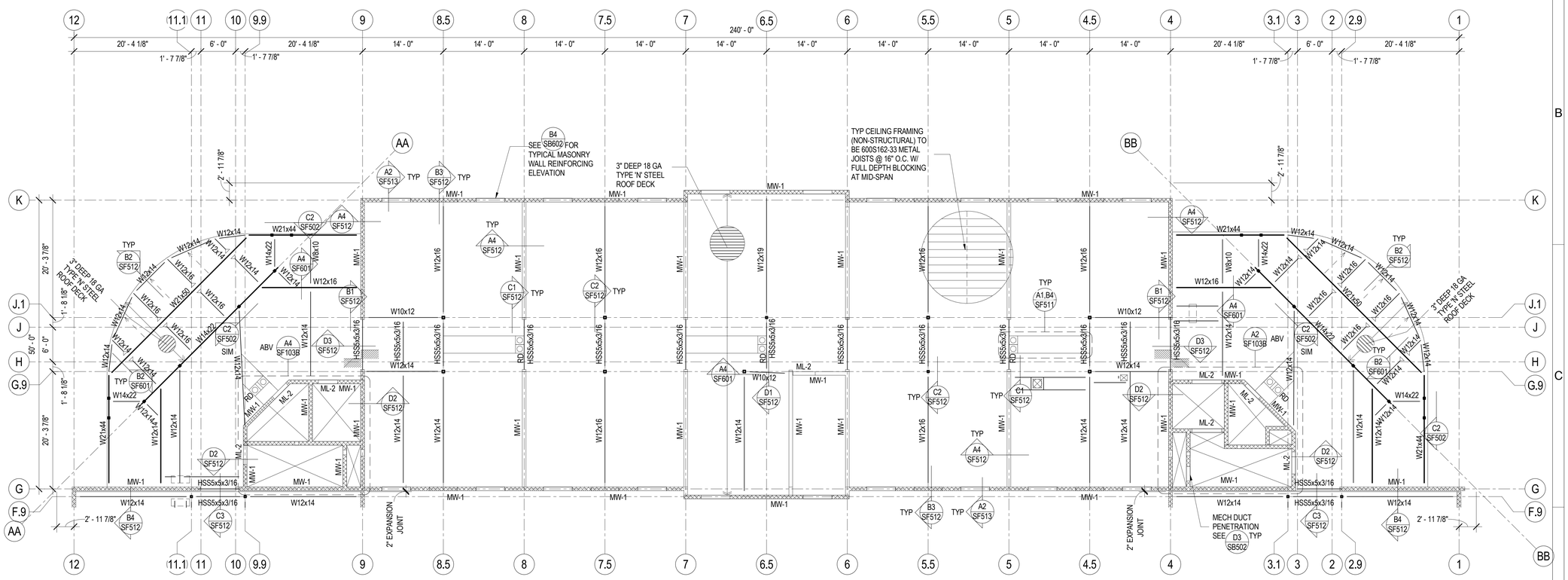
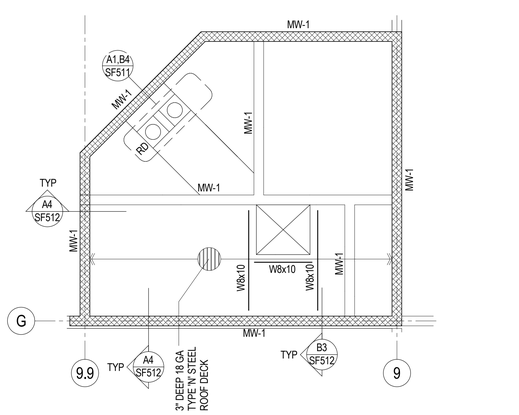
ROOF FRAMING PLAN LEGEND

- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- CANTILEVER MOMENT CONNECTION
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- 0" CHANGE IN ELEVATION
- ROOF DECK
- SPECIAL DECK AREA
- OPENING



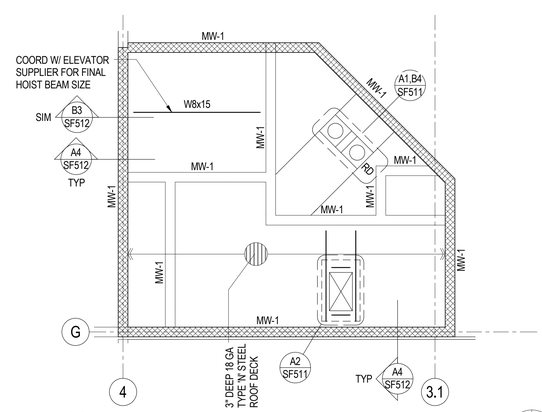
C4 / SF103B ROOF FRAMING PLAN EAST WING

SCALE: 1/8" = 1'-0"



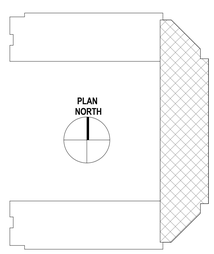
A4 / SF103B HIGH ROOF FRAMING PLAN - NORTH SIDE

SCALE: 1/4" = 1'-0"



A2 / SF103B HIGH ROOF FRAMING PLAN - SOUTH SIDE

SCALE: 1/4" = 1'-0"



KEY PLAN

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801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

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02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
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Salt Lake City, Utah 84102
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ROOF FRAMING PLAN NOTES

1. VERIFY SIZE, WEIGHT, LOCATION AND CONFIGURATION OF ALL ROOF TOP EQUIPMENT WITH ARCHITECT AND MECHANICAL ENGINEER. PROVIDE STEEL FRAMES FOR SUPPORT OF ROOF TOP EQUIPMENT AS INDICATED IN DETAIL A2/SF511 COORDINATE OPENINGS WITH MECHANICAL AND ELECTRICAL AND GENERAL CONTRACTORS.

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3. SEE ARCHITECTURAL FOR ROOF SLOPES AND DRAINS. SEE A1/SF511 OR B4/SF511 FOR ROOF DRAIN OPENING FRAME.

4. SEE B4/SB602 FOR TYPICAL EXTERIOR MASONRY WALL REINFORCING ELEVATION.

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ROOF FRAMING PLAN EAST WING

REVISION	DATE	BY	DESCRIPTION
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DATE 02/15/2013
DRAWING NO. SF103B

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FOOTING & FOUNDATION PLAN LEGEND

LEG-FTNTNG

- FOOTING STEP
- FOOTING - CONTINUOUS
- FOOTING - THICKENED SLAB
- FOOTING - SQUARE FOOTING - RECTANGULAR FOOTING - MAT FOOTING
- CONCRETE WALL, CONCRETE FOUNDATION WALL, OR CONCRETE RETAINING WALL
- CONCRETE FOUNDATION WALL - RECESSED
- CONCRETE PIER IN CONCRETE WALL. TOP OF PIER RECESSED 8" BELOW SLAB. TYP U.N.O.
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY WALL - RECESSED
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- 0" CHANGE IN ELEVATION
- SLAB BLOCK-OUT AT COLUMN
- CJ SLAB CONTROL/CONSTRUCTION JOINT
- SPECIAL SLAB AREA
- RECESSED/DEPRESSED SLAB
- OPENING

FOOTING & FOUNDATION PLAN NOTES

NOTE-FTNTNG

1. SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS ETC.

2. SEE ARCHITECTURAL DRAWINGS AND FINISH SCHEDULE FOR SLAB AREAS TO RECEIVE FLOOR TILE.

3. SEE ARCHITECTURAL DRAWINGS FOR SLAB DEPRESSIONS AND SLOPES TO DRAINS, ETC.

4. SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR ADDITIONAL EXTERIOR CONCRETE RETAINING AND / OR SITE WALLS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

5. SEE TYPICAL STEP DETAIL AT CONTINUOUS FOOTING AND TYPICAL STEP DETAIL AT MAT FOOTING FOR CHANGES IN FOOTING ELEVATIONS.

6. SEE TYPICAL CONCRETE WALL REINFORCING DETAILS FOR REINFORCEMENT AT INTERSECTIONS CORNERS AND ENDS.

7. SEE TYPICAL CONCRETE SLAB ON GRADE DETAILS FOR CONSTRUCTION JOINTS, CONTROL JOINTS AND ADDITIONAL SLAB REINFORCING.

8. SEE TYPICAL CONCRETE SLAB ON GRADE PROFILE DETAIL FOR SUBGRADE REQUIREMENTS.

9. PROVIDE COMPACTED STRUCTURAL FILL UNDER ALL CONCRETE FOOTINGS PER TYPICAL COMPACTED STRUCTURAL FILL DETAIL.

10. SEE TYPICAL HOUSEKEEPING PAD AND CURB DETAILS FOR HOUSEKEEPING PADS AND CURBS.

11. SEE TYPICAL OPENINGS THROUGH CONCRETE WALLS FOR PENETRATIONS IN CONCRETE WALLS.

12. SEE TYPICAL STEEL COLUMN CONNECTION TO CONCRETE FOOTING/CONCRETE PIER FOR STEEL COLUMN BASE CONNECTIONS.

13. SEE TYPICAL CONCRETE SLAB ON GRADE TO EXTERIOR CONCRETE FOUNDATION WALL FOR CONCRETE SLAB TO WALL.

14. SEE TYPICAL CONCRETE WALL CONNECTION TO CONCRETE FOOTING FOR CONCRETE WALL BASE TO FOOTING.

15. SEE B4/SB602 FOR TYPICAL EXTERIOR MASONRY WALL REINFORCING ELEVATION.

16. STEEL COLUMN LOCATION SHALL BE COORDINATED WITH ARCHITECTURAL.

17. SEE TYPICAL RECESS IN 8" MASONRY WALL FOR RECESSES IN MASONRY WALL.

18. SEE TYPICAL CONTROL JOINTS IN 8" MASONRY WALLS FOR CONTROL JOINT INFORMATION.

19. SEE TYPICAL REINFORCING AROUND MISC OR RECESSED MASONRY OPENINGS FOR OPEINGS IN MASONRY WALLS.

ROOF FRAMING PLAN LEGEND

- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- CANTILEVER MOMENT CONNECTION
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- 0" CHANGE IN ELEVATION
- ROOF DECK
- SPECIAL DECK AREA
- OPENING

ROOF FRAMING PLAN NOTES

1. VERIFY SIZE, WEIGHT, LOCATION AND CONFIGURATION OF ALL ROOF TOP EQUIPMENT WITH ARCHITECT AND MECHANICAL ENGINEER. PROVIDE STEEL FRAMES FOR SUPPORT OF ROOF TOP EQUIPMENT AS INDICATED IN DETAIL A2/SF511 COORDINATE OPENINGS WITH MECHANICAL AND ELECTRICAL AND GENERAL CONTRACTORS.

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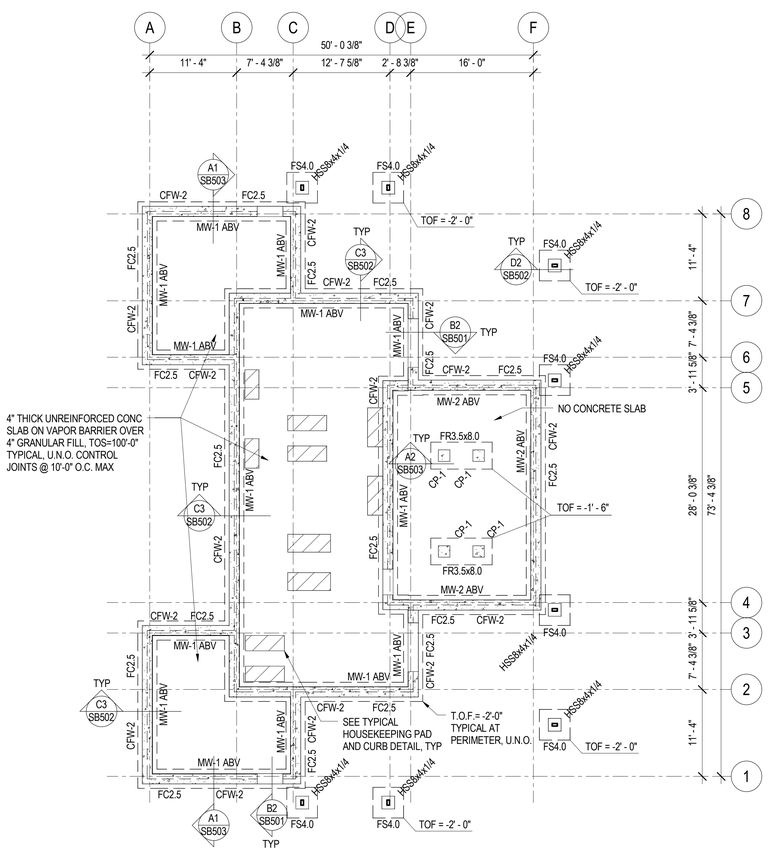
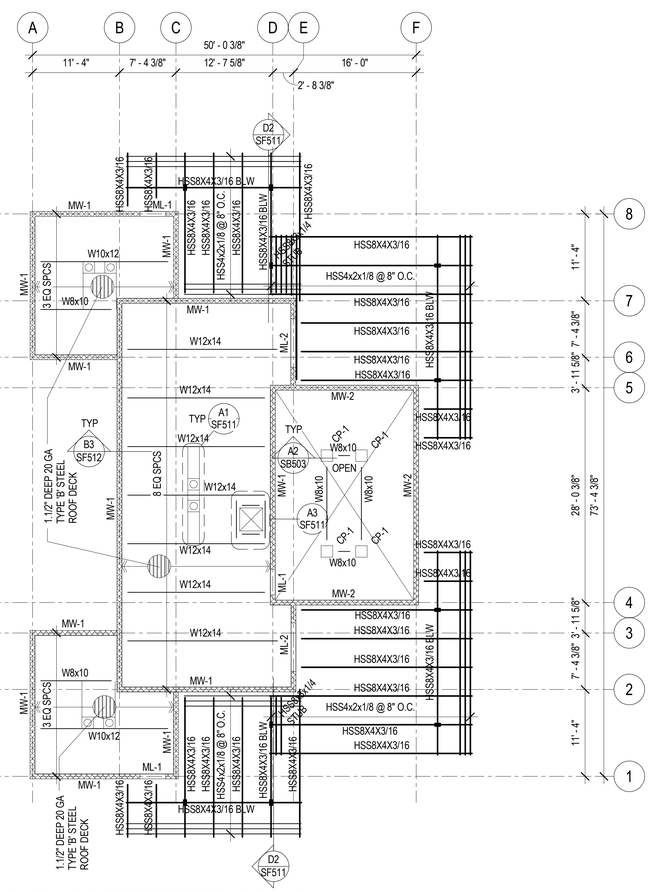


E5 SF104 MECHANICAL BUILDING FOOTING & FOUNDAITON PLAN

SCALE: 1/8" = 1'-0"



E3 SF104 MECHANICAL BUILDING ROOF FRAMING PLAN

SCALE: 1/8" = 1'-0"

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SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

REGISTERED CERTIFIED STRUCTURAL ENGINEER NO. 154201 BRIAN MARK BROWN UTAH

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REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

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MECHANICAL BUILDING PLANS

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DRAWING NO.: SF104
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SALT LAKE CITY, UTAH 84111-1604
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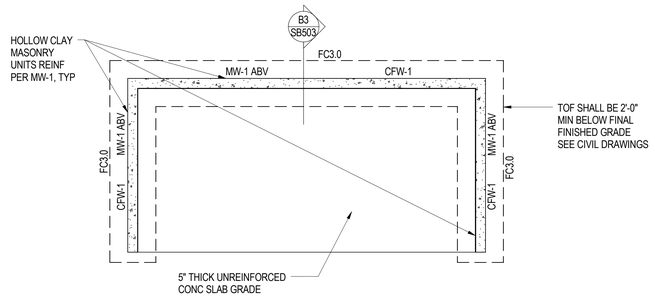
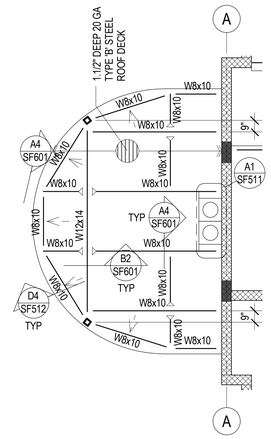


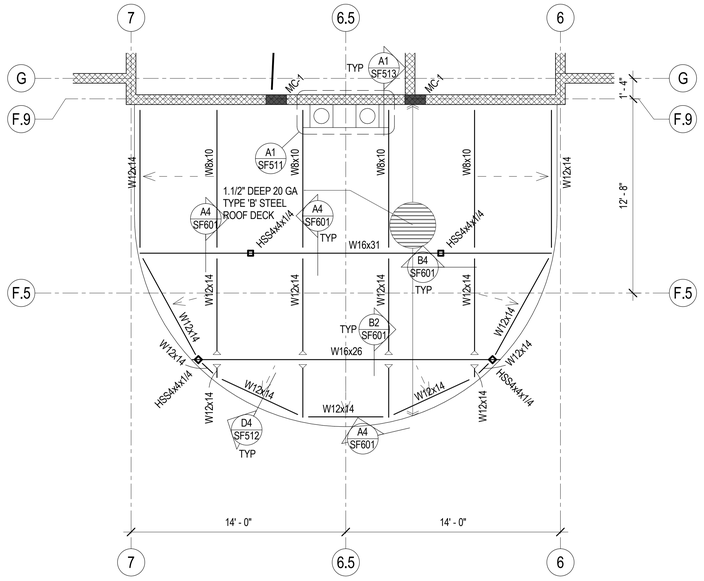
B2 SF401 DUMPSTER ENCLOSURE FOOTING & FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

PLAN NORTH



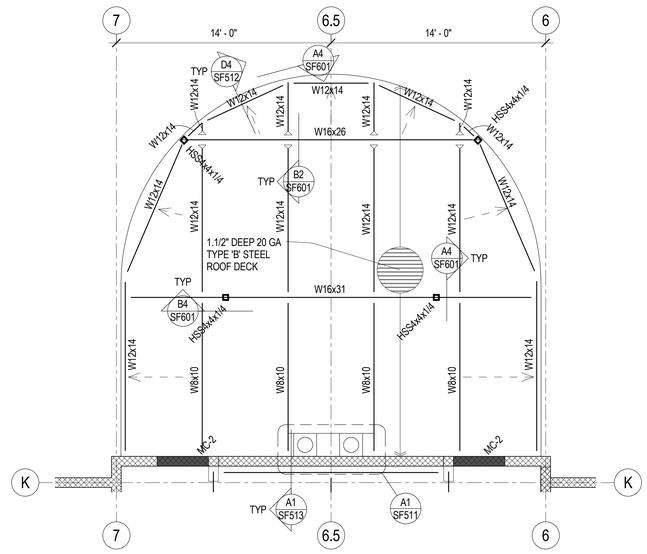
B1 SF401 SECOND LEVEL FLOOR FRAMING PLAN NORTH & SOUTH WING
SCALE: 1/4" = 1'-0"

PLAN NORTH



D2 SF401 SECOND LEVEL CANOPY FRAMING PLAN EAST WING - WEST
SCALE: 1/4" = 1'-0"

PLAN NORTH



D1 SF401 SECOND LEVEL CANOPY FRAMING PLAN EAST WING - EAST
SCALE: 1/4" = 1'-0"

PLAN NORTH

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ENLARGED FRAMING PLANS

REVISION	DATE	BY	DESCRIPTION
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CHECKED BY: RM
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DRAWING NO.: SF401
DATE: 02/15/2013

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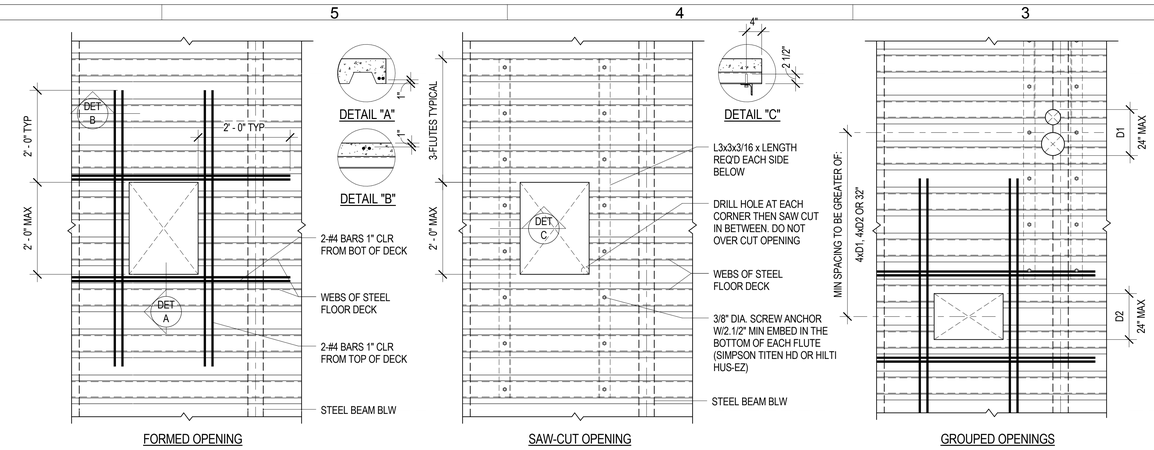


NOTES:

1. UNREINFORCED OPENINGS
A. OPENINGS UP TO 6" DIA. DO NOT REQUIRE REINFORCING PROVIDED THEY ARE NOT SPACED LESS THAN 32" O.C.

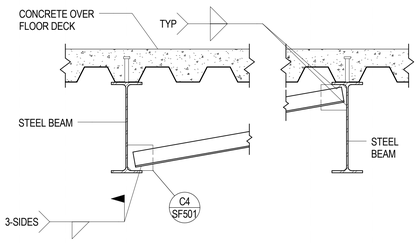
2. FORMED OPENINGS
A. LEAVE METAL DECK INTACT. PLACE REBAR & FORM OPENING. REMOVE METAL DECK ONCE CONCRETE REACHES 2500psi

3. SAW-CUT OPENINGS
A. SHIM GAPS BETWEEN ANGLE AND BOTTOM FLUTE.
B. INSTALL ANCHORS PER ICC REPORT.

4. GROUPED OPENINGS
A. OPENINGS SPACED CLOSER THAN THE MIN SPACING SHALL BE REINFORCED AS A SINGLE OPENING.
B. THE SIZE OF OPENINGS MEASURED PARALLEL TO THE DECK FLUTES IS NOT LIMITED.

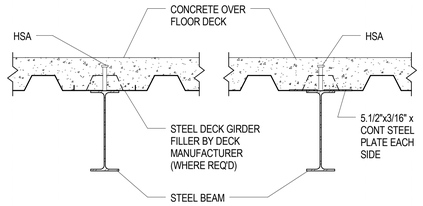
A4 / SF501 — TYPICAL MISCELLANEOUS FLOOR OPENING REINFORCING DETAIL FOR TYPE 'W' DECK (UP TO 24")

NO SCALE



A1 / SF501 — TYPICAL STEEL BEAM BOTTOM FLANGE BRACE DETAIL

NO SCALE

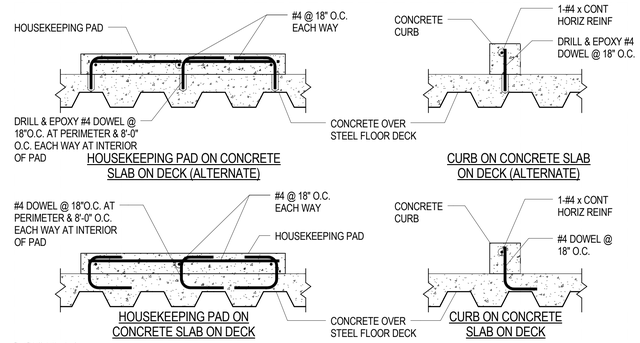


DETAIL AT STEEL BEAM

AT SKEWED BEAM

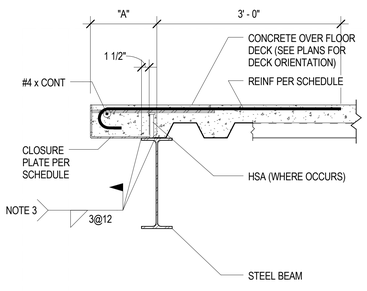
B3 / SF501 — TYPICAL COMPOSITE DECK BEARING DETAIL AT STEEL BEAM (DECK GIRDER FILLER)

NO SCALE



B2 / SF501 — TYPICAL HOUSEKEEPING PAD & CURB DETAILS

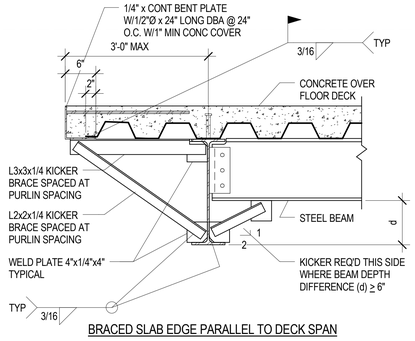
NO SCALE



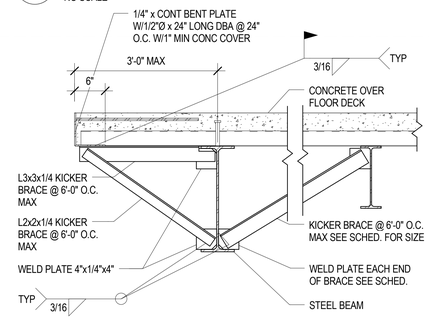
BENT PLATE SLAB EDGE DETAIL

DECK EDGE SCHEDULE			
"A"	DECK CLOSURE PLATE		REINFORCING
	THICKNESS	ANCHORS	
0" TO 6"	1/4"	1/2" Ø x 18" LONG DBA @ 18" O.C.	NONE
6" TO 12"	1/4"	1/2" Ø x 24" LONG DBA @ 18" O.C.	NONE
12" TO 15"	1/4"	1/2" Ø x 24" LONG DBA @ 18" O.C.	#4 @ 12" O.C.
15" TO 18"	5/16"	1/2" Ø x 24" LONG DBA @ 18" O.C.	#4 @ 10" O.C.
18" TO 20"	3/8"	1/2" Ø x 24" LONG DBA @ 18" O.C.	#4 @ 8" O.C.
OVER 20"	USE BRACED SLAB EDGE		

NOTES:
1. CONTRACTOR SHALL VERIFY ALL DECK EDGE DIMENSIONS WITH ARCH. DRAWINGS PRIOR TO DETAILING AND FABRICATION OF CLOSURE PLATES.
2. COORDINATE CLOSURE ANGLES WITH EMBED BLOCKOUTS OR INSERTS THAT ARE REQ'D TO SUPPORT CLADDING, ELEVATOR RAILS & SILLS ETC.
3. CLOSURE PLATE WELD THICKNESS SHALL BE THE PLATE THICKNESS MINUS 1/16" (3/16" MIN)



BRACED SLAB EDGE PARALLEL TO DECK SPAN



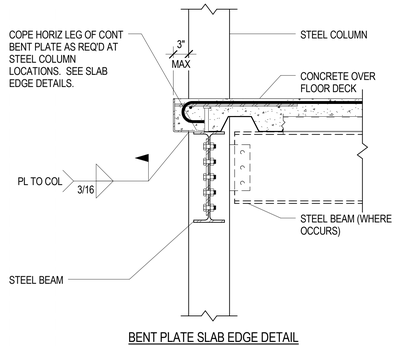
BRACED SLAB EDGE PERPENDICULAR TO DECK SPAN

ANGLE BRACE SCHEDULE		
BRACE LENGTH	ANGLE BRACE SIZE	WELD PLATE SIZE
UP TO 4'-0"	L2x2x1/4	4"x1/4"x4"
4'-0" TO 8'-0"	L3x3x1/4	4"x1/4"x4"
8'-0" TO 12'-0"	2-L2.1/2x2.1/2x1/4	4"x3/8"x4"
OVER 12'-0"	2-L3x3x1/4	5"x3/8"x5"

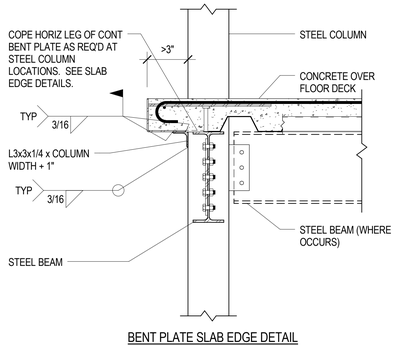
NOTE:
1. WHERE DOUBLE ANGLES ARE USED PROVIDE 3"x3/8" SPACER PLATES AT THIRD POINTS.

C4 / SF501 — TYPICAL CONCRETE OVER STEEL FLOOR DECK SLAB EDGE DETAILS AT STEEL BEAMS

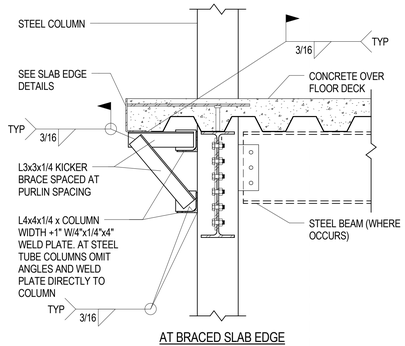
NO SCALE



BENT PLATE SLAB EDGE DETAIL



BENT PLATE SLAB EDGE DETAIL



AT BRACED SLAB EDGE

D4 / SF501 — TYPICAL CONCRETE OVER STEEL FLOOR DECK SLAB EDGE DETAILS AT STEEL COLUMNS

NO SCALE

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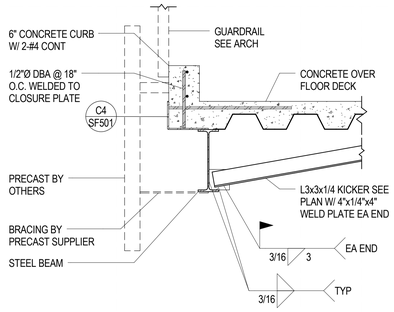
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

TYPICAL CONCRETE OVER STEEL FLOOR DECK DETAILS

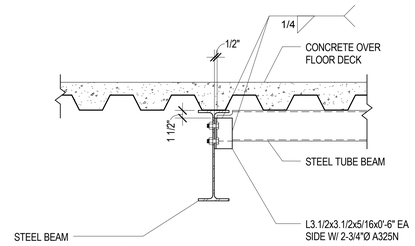
REVISION	DATE	BY	DESCRIPTION

DRAWN BY: YW	CHECKED BY: RM
PROJECT NO.: 11007	DRAWING NO.: SF501
DATE: 02/15/2013	

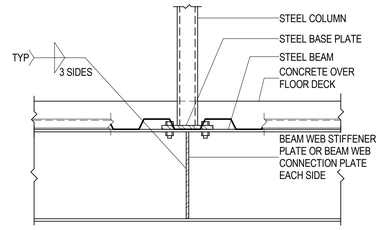
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



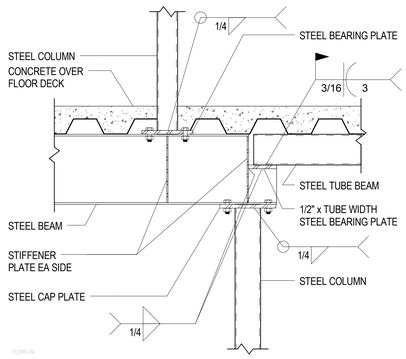
A3 / SF502 STEEL BEAM EDGE CONDITION W/ CONCRETE CURB
NO SCALE



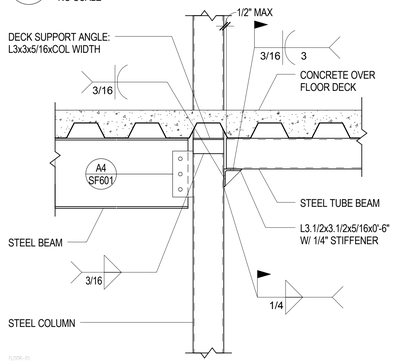
A2 / SF502 STEEL TUBE BEAM CONNECTION TO STEEL BEAM
NO SCALE



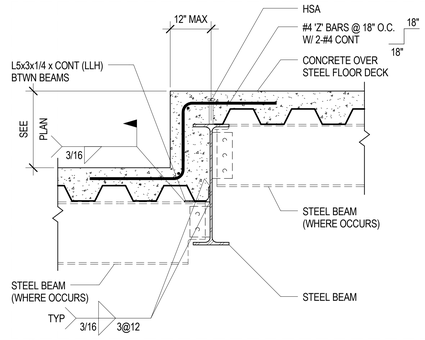
A1 / SF502 STEEL BEAM W/ STEEL COLUMN ABOVE
NO SCALE



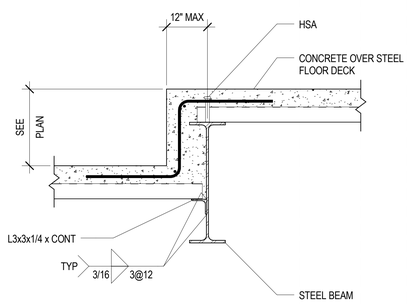
B4 / SF502 TRANSFER GIRDER DETAIL
NO SCALE

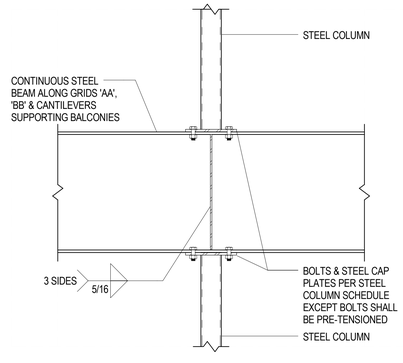


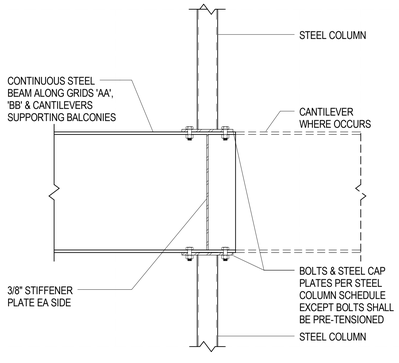
B3 / SF502 TYPICAL STEEL TUBE BEAM CONNECTION TO STEEL COLUMN
NO SCALE



B2 / SF502 TYPICAL DETAIL AT STEP IN COMPOSITE FLOOR DECK
NO SCALE







C2 / SF502 STEEL FRAMING RESISTING PROGRESSIVE COLLAPSE
NO SCALE

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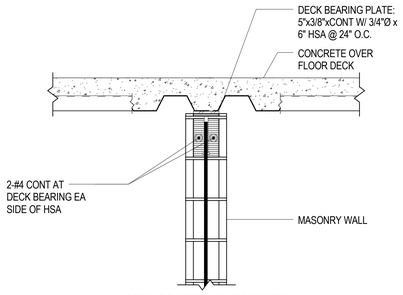
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

TYPICAL FLOOR FRAMING DETAILS

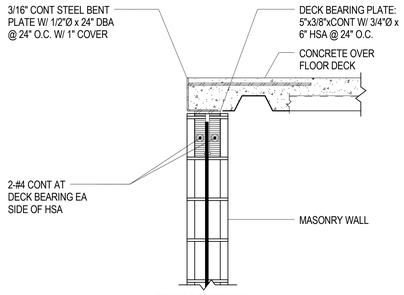
REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: YW
CHECKED BY: RM
PROJECT NO.: 11007
DRAWING NO.: SF502
DATE: 02/15/2013

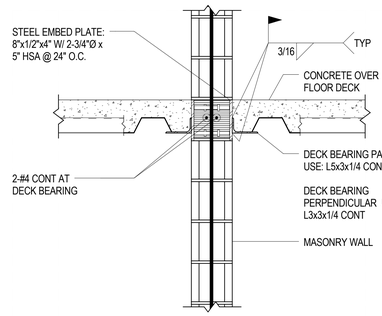
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



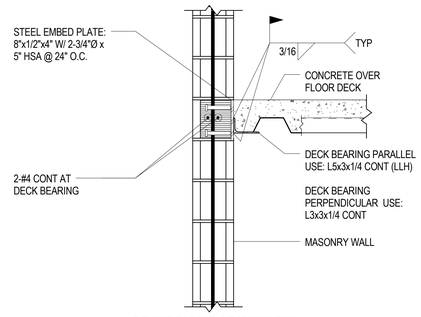
DECK BEARING ON MASONRY WALL - BOTH SIDES



DECK BEARING ON MASONRY WALL - ONE SIDE

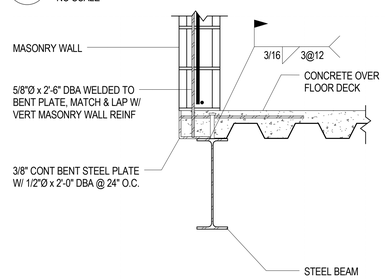


DECK BEARING AT MASONRY WALL FACE - BOTH SIDES

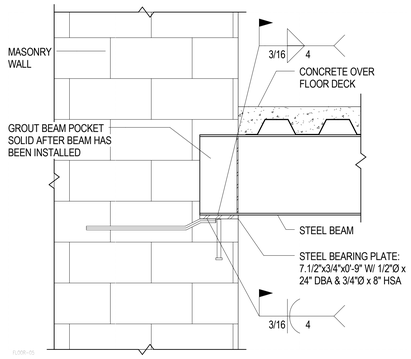


DECK BEARING AT MASONRY WALL FACE - ONE SIDE

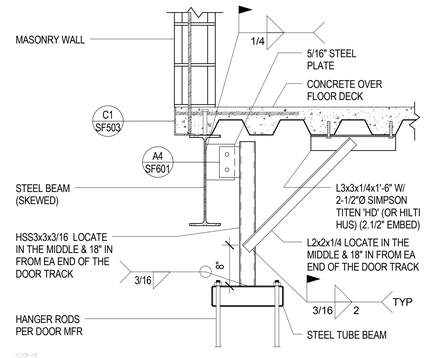
A4 / SF503 TYPICAL FLOOR DECK BEARING AT MASONRY WALL
NO SCALE



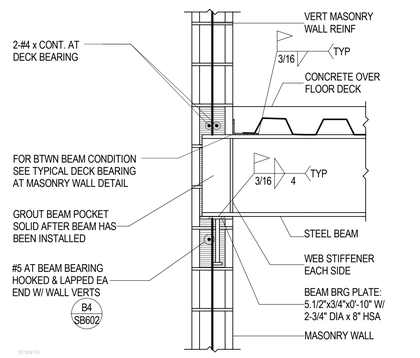
B4 / SF503 MASONRY WALL BEARING ON FLOOR DECK AT STEEL BEAM
NO SCALE



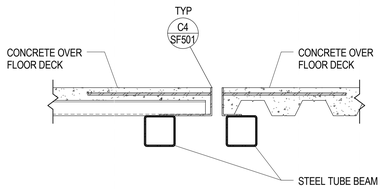
B3 / SF503 STEEL BEAM BEARING AT END OF WALL
NO SCALE



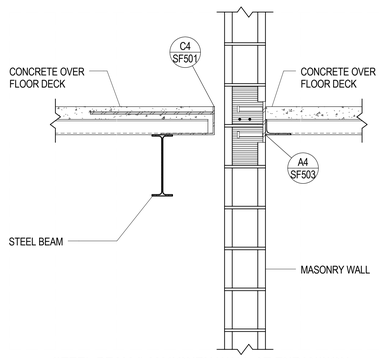
B2 / SF503 FIRE DOOR HANGER DETAIL
NO SCALE



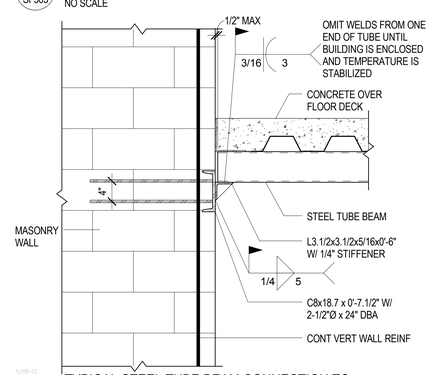
B1 / SF503 TYPICAL BEAM/DECK BEARING AT MASONRY WALL
NO SCALE



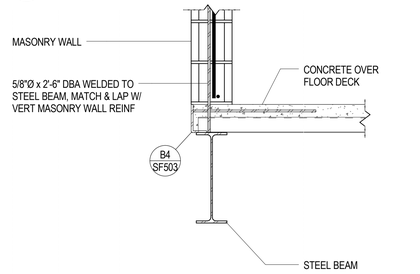
C4 / SF503 STEEL BEAM DECK EDGE AT EXPANSION JOINT
NO SCALE



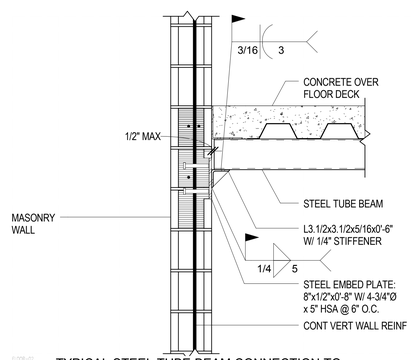
C3 / SF503 STEEL BEAM & MASONRY WALL AT EXPANSION JOINT
NO SCALE



C2 / SF503 TYPICAL STEEL TUBE BEAM CONNECTION TO MASONRY WALL
NO SCALE



C1 / SF503 MASONRY WALL BEARING ON FLOOR DECK AT STEEL BEAM
NO SCALE



D1 / SF503 TYPICAL STEEL TUBE BEAM CONNECTION TO MASONRY WALL
NO SCALE

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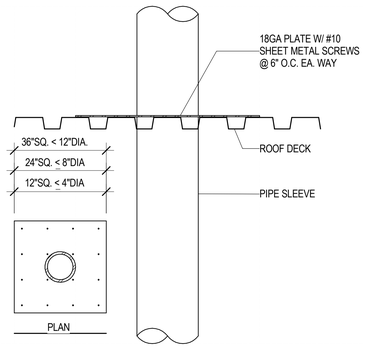
FLOOR FRAMING DETAILS

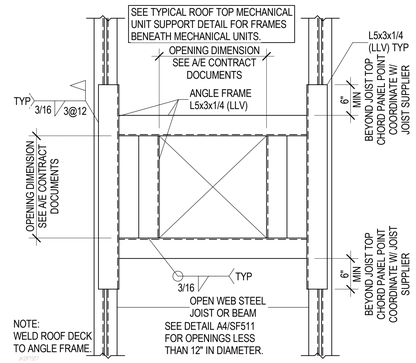
REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY YW	CHECKED BY RM
PROJECT NO. 11007	DRAWING NO. SF503
DATE 02/15/2013	

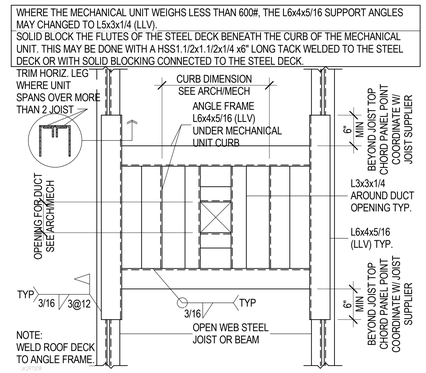
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



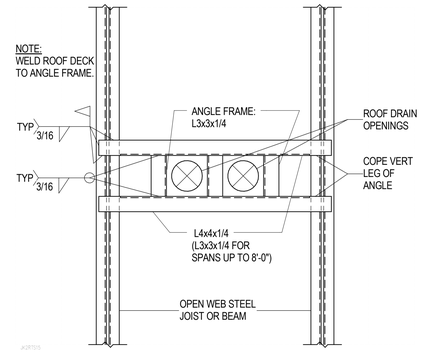
A4 / SF511 TYPICAL PIPE SLEEVE HOLE THRU ROOF DECK
NO SCALE



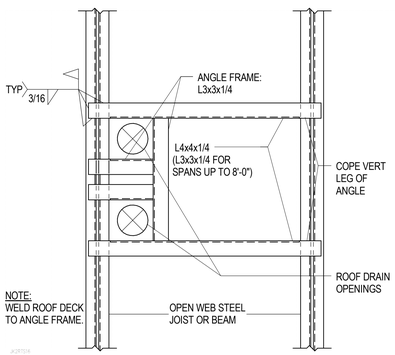
A3 / SF511 TYPICAL ROOF OPENING DETAIL (PLAN VIEW)
NO SCALE



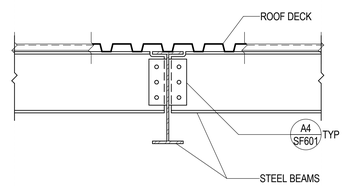
A2 / SF511 TYP ROOF TOP MECHANICAL UNIT SUPPORT DETAIL (PLAN VIEW)
NO SCALE



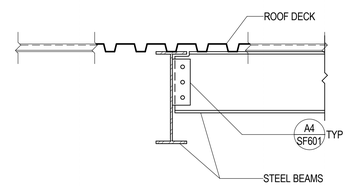
A1 / SF511 TYPICAL ROOF DRAIN OPENING (PLAN VIEW)
NO SCALE



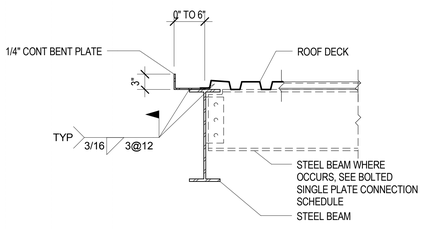
B4 / SF511 TYPICAL ROOF DRAIN OPENING (PLAN VIEW)
NO SCALE



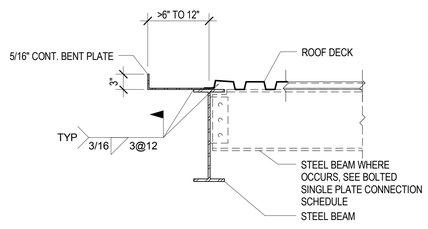
B3 / SF511 TYP STEEL ROOF BEAM CONNECTION - TWO SIDES
NO SCALE



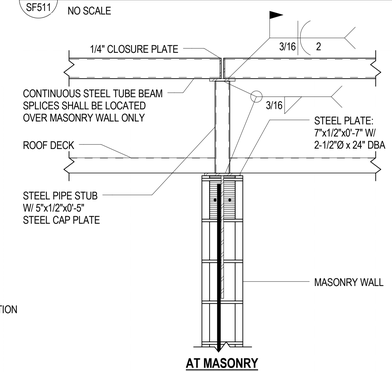
B2 / SF511 TYPICAL STEEL ROOF BEAM CONNECTION - ONE SIDE
NO SCALE



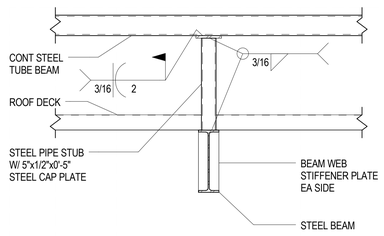
ROOF EDGE FOR 0" UP TO 6"



ROOF EDGE FOR >6" UP TO 12"

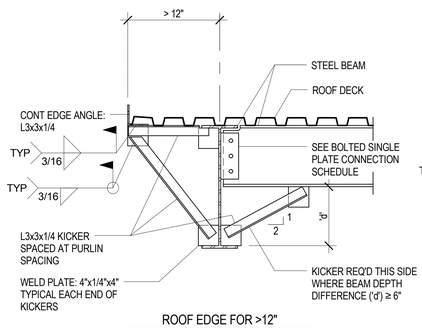


AT MASONRY

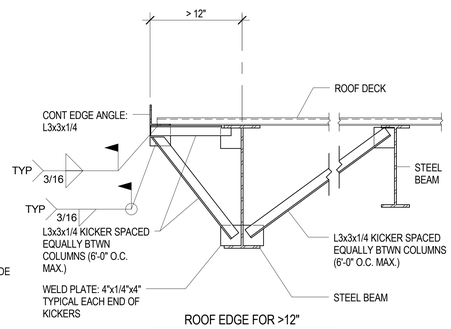


AT STEEL BEAM

C2 / SF511 SOLAR PANEL FRAMING (ALTERNATE #2)
NO SCALE

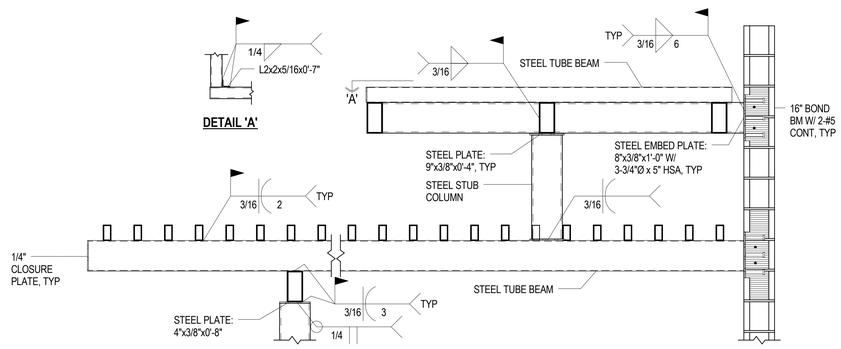


ROOF EDGE FOR >12"



ROOF EDGE FOR >12"

D4 / SF511 TYPICAL ROOF EDGE DETAILS AT STEEL BEAMS
NO SCALE



D2 / SF511 MECHANICAL BUIDLING - CANOPY SECTION
NO SCALE

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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE
CERTIFIED STRUCTURAL ENGINEER
NO. 154201
RICHARD MARK BROWN
UTAH
02/15/13

REAVELEY
ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
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RIVERTON, UT 84062

ROOF FRAMING DETAILS

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: YW	CHECKED BY: RM
PROJECT NO.: 11007	DRAWING NO.: SF511
DATE: 02/15/2013	

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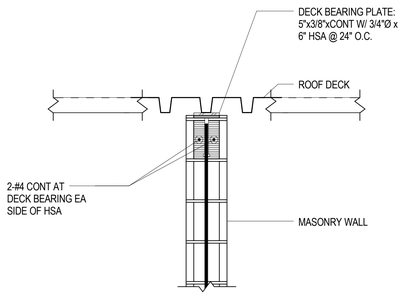
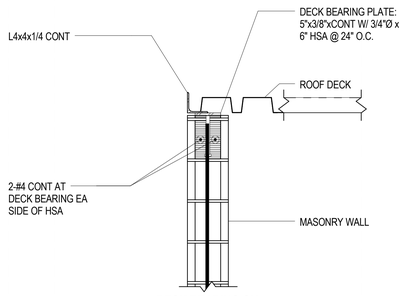
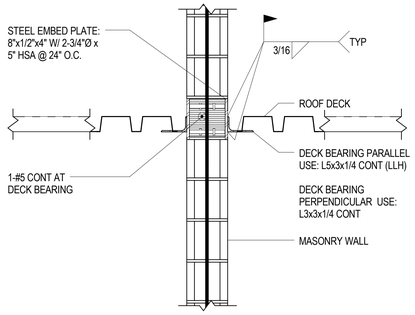


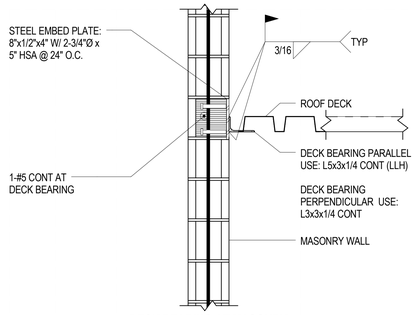
DECK BEARING ON MASONRY WALL - BOTH SIDES



DECK BEARING ON MASONRY WALL - ONE SIDE



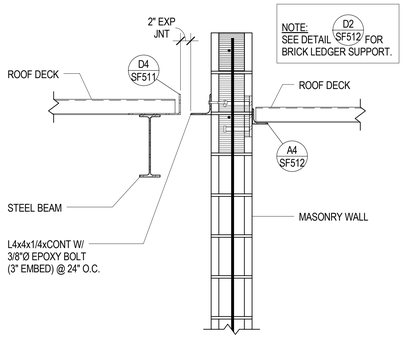
DECK BEARING AT MASONRY WALL FACE - BOTH SIDES



DECK BEARING AT MASONRY WALL FACE - ONE SIDE

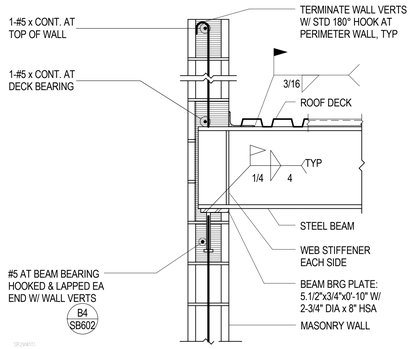
A4 / SF512 TYPICAL ROOF DECK BEARING AT MASONRY WALL

NO SCALE



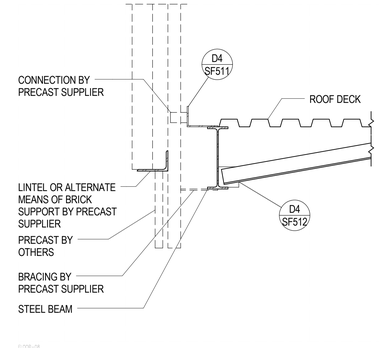
B4 / SF512 EXPANSION JOINT AT STEEL TUBE BEAM

NO SCALE



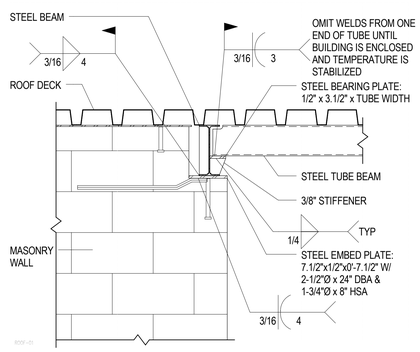
B3 / SF512 TYPICAL STEEL BEAM BEARING AT MASONRY WALL

NO SCALE



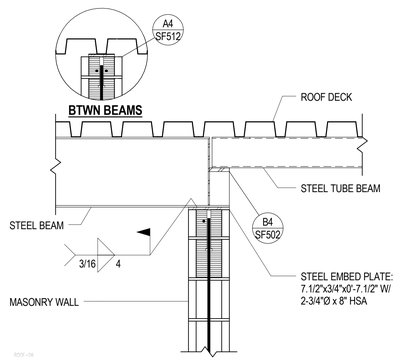
B2 / SF512 STEEL BEAM EDGE AT RADIUSED BRICK

NO SCALE



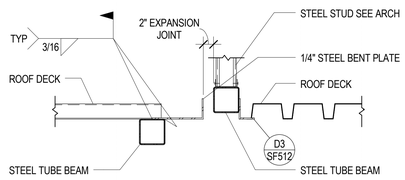
B1 / SF512 STEEL TUBE BEAM TO STEEL BEAM BEARING AT MASONRY WALL

NO SCALE



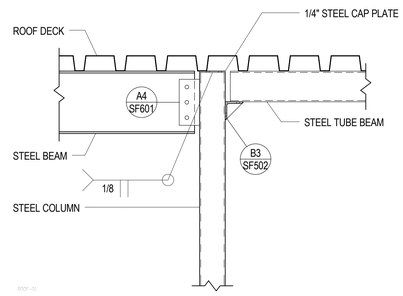
C4 / SF512 STEEL TUBE BEAM BEARING AT MASONRY WALL

NO SCALE



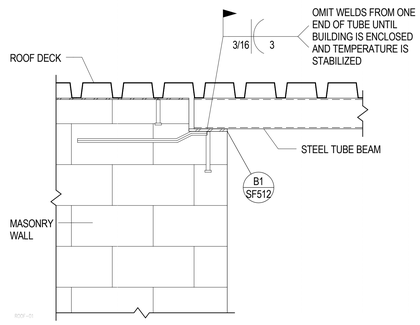
C3 / SF512 EXPANSION JOINT AT STEEL TUBE BEAM

NO SCALE



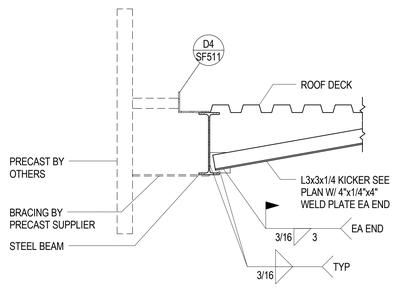
C2 / SF512 STEEL TUBE BEAM & STEEL BEAM BEARING AT STEEL COLUMN

NO SCALE



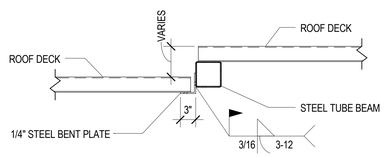
C1 / SF512 STEEL TUBE BEAM BEARING AT MASONRY WALL

NO SCALE



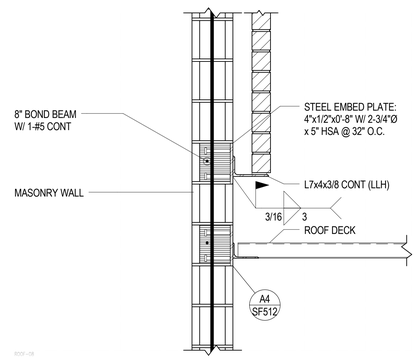
D4 / SF512 STEEL BEAM EDGE AT CANOPY

NO SCALE



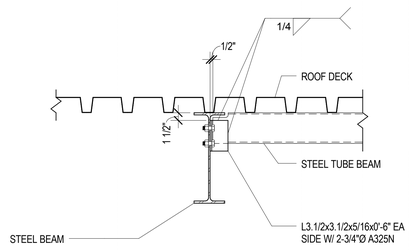
D3 / SF512 ROOF FRAMING DETAIL

NO SCALE



D2 / SF512 STEEL ANGLE BRICK VENEER SUPPORT TO MASONRY WALL

NO SCALE



D1 / SF512 STEEL TUBE BEAM CONNECTION TO STEEL BEAM

NO SCALE

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801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

LICENSED CERTIFIED STRUCTURAL ENGINEER
NO. 154201
MARK BROWN
UTAH
02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

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ROOF FRAMING DETAILS

REVISION	DATE	BY	DESCRIPTION
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△			
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△			

DRAWN BY: YW	CHECKED BY: RM
PROJECT NO.: 11007	DRAWING NO.: SF512
DATE: 02/15/2013	

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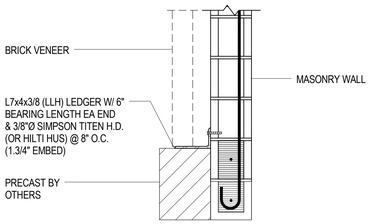
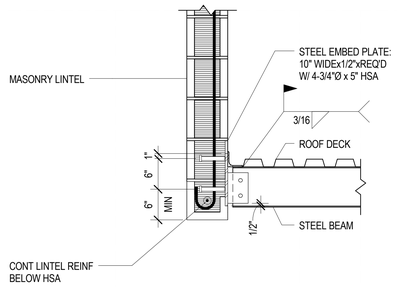


A2 / SF513 STEEL ANGLE LEDGER AT MASONRY WALL

NO SCALE



A1 / SF513 STEEL CANOPY BEAM TO MASONRY LINTEL

NO SCALE

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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

CERTIFIED STRUCTURAL ENGINEER NO. 154201 RICHARD MARK BROWN UTAH

02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
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ROOF FRAMING DETAILS

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY YW	CHECKED BY RM
PROJECT NO. 11007	DRAWING NO. SF513
DATE 02/15/2013	

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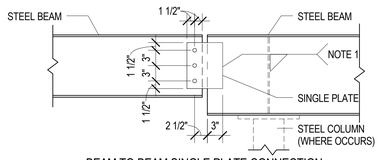
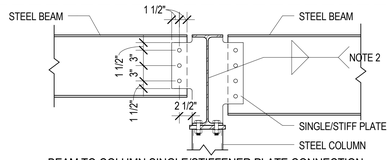
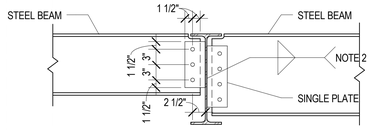


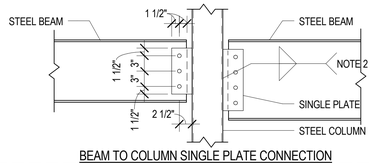
BEAM TO BEAM SINGLE PLATE CONNECTION



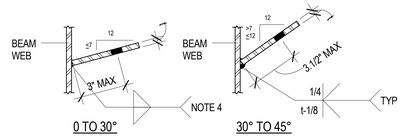
BEAM TO COLUMN SINGLE/STIFFENER PLATE CONNECTION



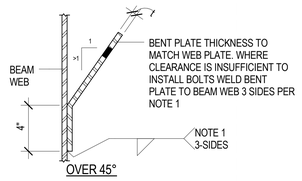
BEAM TO BEAM SINGLE PLATE CONNECTION



BEAM TO COLUMN SINGLE PLATE CONNECTION



0 TO 30° 30° TO 45°



OVER 45°

SKEWED SINGLE PLATE CONNECTION (PLAN VIEW)

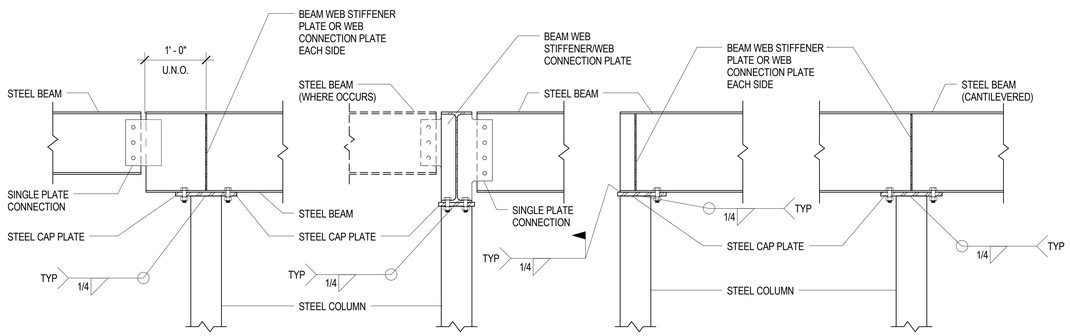
SINGLE PLATE CONNECTION SCHEDULE

BEAM SIZE	WEB PLATE THICKNESS (t)	A325N BOLTS	
		NUMBER	SIZE
W8 AND W10	3/8"	2	3/4"Ø
W12 AND W14	3/8"	3	3/4"Ø
W16	3/8"	4	3/4"Ø
W18	3/8"	5	3/4"Ø
W21	3/8"	6	3/4"Ø

NOTES:
1. FILLET WELDS ONE SIDE SHALL EQUAL THE PLATE THICKNESS MINUS 1/16" (1/4" MIN.)
2. FILLET WELDS TWO SIDES SHALL BE 5/8 THE PLATE THICKNESS (1/4" MIN.) EACH SIDE
3. BOLT EDGE DISTANCE SHALL BE 1.1/2" AT ALL EDGES. BOLT SPACING SHALL BE 3" MIN.
4. AT SKEWED JOINTS PROVIDE AN EQUIVALENT LEG SIZE TO NOTE 2 PER AWS D1.1.

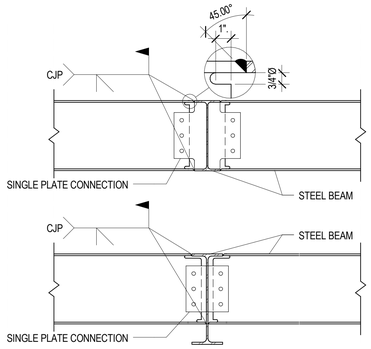
A4 / SF601 TYPICAL SINGLE PLATE CONNECTION DETAILS AND SCHEDULE

NO SCALE



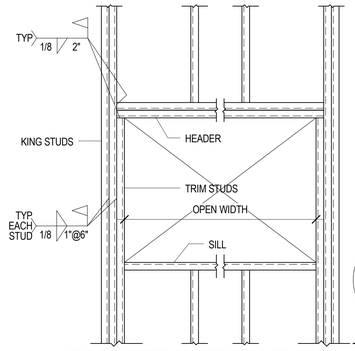
B4 / SF601 TYPICAL STEEL BEAM BEARING ON STEEL COLUMN

NO SCALE



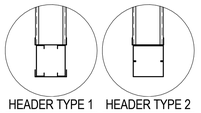
B2 / SF601 TYPICAL CANTILEVERED BEAM FULL PEN CONNECTION TO BEAM

NO SCALE



WIDTH OF OPENING	JAMB			SILL	HEADER	
	SIZE	NO. OF TRIM STUDS	NO. OF KING STUDS	SIZE	SIZE	TYPE
UP TO 3'-4"	600S162-54	1	1	(1)600S162-54	(2)600S162-54	2
3'-4"+" TO 5'-4"	600S162-54	1	2	(2)600S162-54	(2)600S162-54	2
5'-4"+" TO 6'-8"	600S162-54	1	3	(2)600S162-54	(3)600S162-54	2
6'-8"+ TO 9'-4"	600S162-54	2	4	(3)600S162-54	(3)600S162-54	2

NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL OPENINGS IN STUD WALLS.
2. ALL STUD SIZE DESIGNATIONS ARE PER THE STANDARD ESTABLISHED BY THE STEEL STUD MANUFACTURER'S ASSOCIATION (SSMA) AND THE NORTH AMERICAN STEEL FRAMING ALLIANCE (NASFA).



HEADER TYPE 1 HEADER TYPE 2

TYPICAL STUD WALL CONSTRUCTION	
6" STUD WALLS W/ VENEER	600S137-54 @ 16" O.C.

C2 / SF601 TYPICAL EXTERIOR STUD WALL FRAMING SCHEDULE WITH FRAMED OPENING DETAIL

NO SCALE

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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

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LICENSED CERTIFIED STRUCTURAL ENGINEER
NO. 154201
RICHARD MARK BROWN
UTAH
02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

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SCHEDULE SHEET

REVISION	DATE	BY	DESCRIPTION
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△			
△			

DRAWN BY YW	CHECKED BY RM
PROJECT NO. 11007	DRAWING NO. SF601
DATE 02/15/2013	

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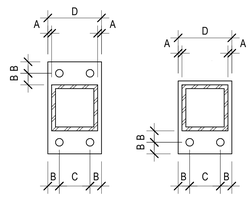
High Parapet														High Parapet
46' - 0" Roof					1/2" SCP-1								1/2" SCP-1	46' - 0" Roof
40' - 0" Mech'l Level														40' - 0" Mech'l Level
36' - 4 1/2" Level 3					HSS4x4x1/4	HSS4x4x1/4				HSS4x4x1/4			HSS4x4x1/4	36' - 4 1/2" Level 3
26' - 0" Level 2	HSS5x5x1/4	HSS5x5x1/4		HSS4x4x1/4	1/2" SCP-1 HSS5x5x1/4			HSS5x5x3/8			HSS4x4x1/4		1/2" SCP-1 HSS4X4X5/16	26' - 0" Level 2
13' - 0" Level 1			HSS4x4x1/4		1/2" SCP-1 HSS6x6x5/16	1/2" SCP-1	HSS6x6x1/4		HSS5x5x3/8	HSS5x5x1/4	1/2" SCP-1	HSS4x4x1/4	1/2" SCP-1 HSS4x4x1/4 HSS5x5x5/16	13' - 0" Level 1
0"	3/4", SBP-1 W/4-3/4"	3/4", SBP-1 W/4-3/4"	3/4", SBP-3 W/4-3/4"	3/4", SBP-1 W/4-3/4"	1", SBP-1 W/4-3/4"		3/4", SBP-1 W/4-3/4"	1", SBP-1 W/4-3/4"	3/4", SBP-1 W/4-3/4"	3/4", SBP-1 W/4-3/4"		3/4", SBP-3 W/4-3/4"	3/4", SBP-3 W/4-3/4"	3/4", SBP-2 W/4-3/4"	0"
Column Locations	A(5' - 3")-2(-1' - 7 7/8"), A(5' - 3")-11(1' - 7 7/8")	B.5-2.9, B.5-3.1, B.5-9.9, B.5-11.1, C.5-2.9, C.5-3.1, C.5-9.9, C.5-11.1, D.5-2.9, D.5-3.1, D.5-9.9, D.5-11.1, E.5-2.9, E.5-3.1, E.5-9.9, E.5-11.1, F.5-2.9, F.5-3.1, F.5-9.9, F.5-11.1, G.9-4.5, G.9-7.5, G.9-8.5, J.1-4.5, J.1-5.5, J.1-7.5, J.1-8.5	F.5(2' - 7 1/8")-6.5(6' - 2 1/2"), F.5(2' - 7 1/8")-6.5(-6' - 2 1/2")	F.9-2.9, F.9-3.1, F.9-8.9, F.9-11.1	G.9(-4' - 7 1/2")-1(6' - 0 1/2"), G.9(-8' - 0 1/4")-1(6' - 0 1/2"), G.9(-4' - 7 1/2")-12(-6' - 0 1/2"), G.9(-8' - 0 1/4")-12(-6' - 0 1/2"), K(-6' - 0 1/2")-3.1(4' - 7 3/4"), K(-6' - 0 1/2")-3.1(8' - 0 1/2"), K(-6' - 0 1/2")-9.9(-4' - 7 3/4"), K(-6' - 0 1/2")-9.9(-8' - 0 1/2")	G.9-5.5	G.9(-4")-6	G.9-6.5(3' - 10 1/4")	H(-4 1/8")-5.5	J(1' - 7 7/8")-6(6' - 4"), J(1' - 7 7/8")-7(-6' - 4")	J.1-6.5	K(12' - 0 7/8")-6(7' - 1 5/8")	K(12' - 0 7/8")-6.5(6' - 10 1/2")	AA-9.9(-5' - 1 3/8"), AA-10(-7"), BB-3(7"), BB-3.1(5' - 1 3/8"), G.9(1' - 0")-AA, G.9(-5' - 2 1/8")-AA, G.9(1' - 0")-BB, G.9(-5' - 2 1/8")-BB	

STEEL COLUMN SCHEDULE

SCALE: 1/8" = 1'-0"

STEEL COLUMN SCHEDULE NOTES

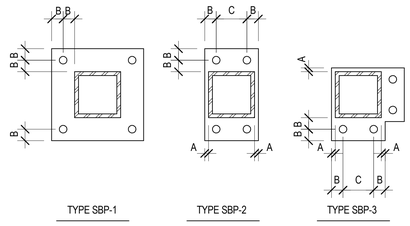
1. UNLESS NOTED OTHERWISE ALL COLUMNS SHALL BE INSTALLED W/ 4-3/4" DIAMETER A.B. W/ 3" (MIN.) HOOKS. PROJECT ANCHOR BOLTS 3" (MIN.) ABOVE THE TOP OF THE BASE PLATE. EMBEDMENT SHALL BE 9" (MIN.). ALL BOLTS SHALL BE INSTALLED W/ HARDENED WASHERS BENEATH THE NUT. ANY BOLT HOLES LARGER THAN THE BOLT DIAMETER PLUS 5/16" SHALL HAVE 5/16" PLATE WASHERS INSTALLED BENEATH THE HARDENED WASHERS.
2. ALL BOLTS IN CAP PLATES SHALL BE 3/4" DIA, A325N BOLTS TYPICAL U.N.O.
3. WELDS SHALL NOT BE MADE TO ANCHOR BOLTS.
4. WHERE A STEEL BEAM DOES NOT BEAR ON TOP OF A COLUMN, SEE C2/SF512 FOR STEEL CAP PLATE, OTHERWISE USE 1/2" THICK SCP-1 OR SCP-2.



A = 1/2" MIN.
B = 1 1/2" MIN.
C = GAGE OF CONNECTED MEMBER
D = COLUMN WIDTH + 1", BEAM OR GIRDER WIDTH + 1", OR BOLT GAGE + 3", WHICHEVER IS GREATER.

C2 / SF602 TYPICAL STEEL CAP PLATES - REFLECTED PLAN VIEW

NO SCALE



A = 1/2" MIN.
B = 1 1/2" (PER TABLE J3.5 OF THE MANUAL OF STEEL CONSTRUCTION FOR BOLTS LARGER THAN 7/8" DIAMETER)
C = 3" MIN.

D2 / SF602 TYPICAL STEEL BASE PLATES - PLAN VIEW

NO SCALE

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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

REGISTERED CERTIFIED STRUCTURAL ENGINEER NO. 154201 RICHARD MARK BROWN UTAH

02/15/13

REAVELEY ENGINEERS + ASSOCIATES
Consulting Structural Engineers
P 801.486.3883
F 801.485.0911
675 E 500 S, Suite 400
Salt Lake City, Utah 84102
www.reaveley.com

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SCHEDULE SHEET

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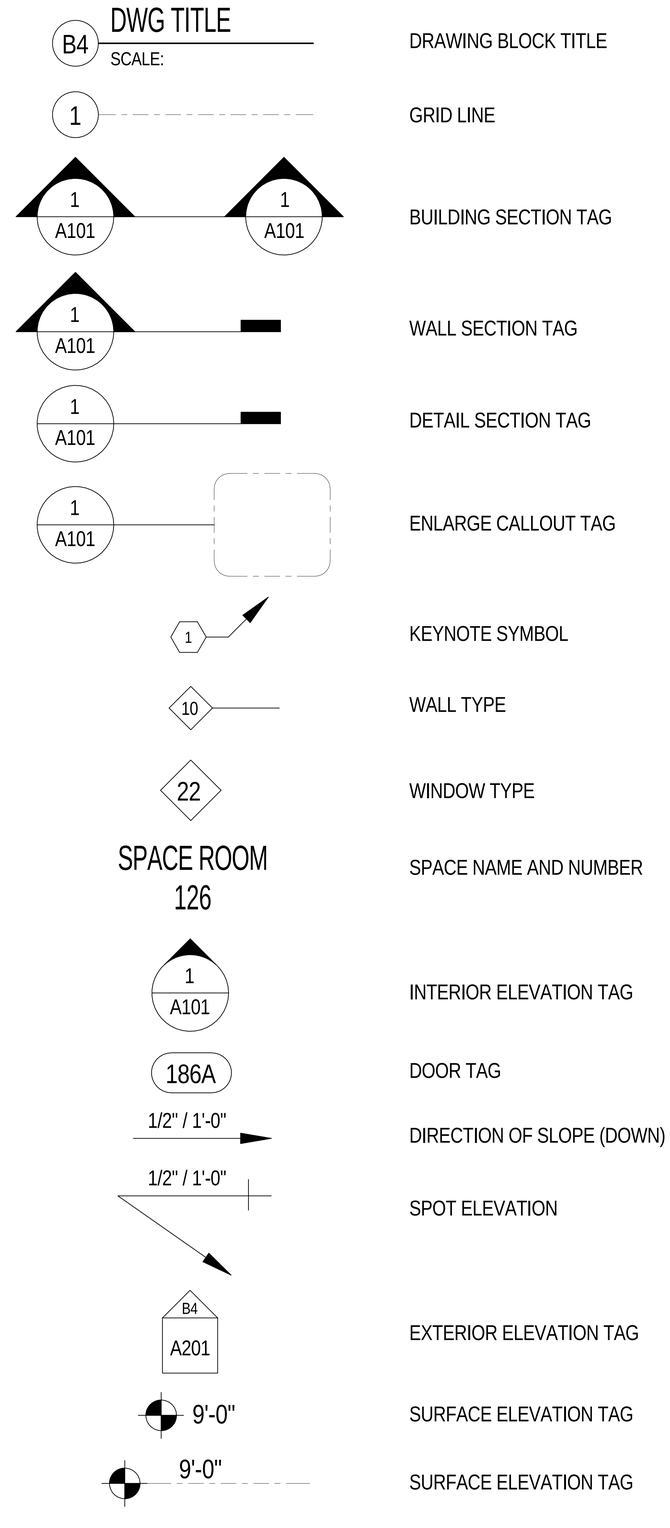
TERMS & ABBREVIATIONS

ADA	AMERICANS WITH DISABILITIES ACT
A.F.F.	ABOVE FINISH FLOOR
ALUM	ALUMINUM
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS
BD	BOARD
BLDG	BUILDING
CMU	CONCRETE MASONRY UNIT
CT	CERAMIC TILE OR TILE
D	DEEP
DAS	DEPARTMENT OF ADMINISTRATIVE SERVICES (STATE OF UTAH)
DFCM	DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT
DWGS	DRAWINGS
FG	FIRE GLASS
FLR	FLOOR
FT	FEET
G	GLASS
GA	GAUGE
GOV	GOVERNMENT
GSF	GROSS SQUARE FEET
GYP	GYPSUM
H	HEIGHT
HM	HOLLOW METAL
IBC	INTERNATIONAL BUILDING CODE
IECC	INTERNATIONAL ENERGY CONSERVATION CODE
IFC	INTERNATIONAL FIRE CODE
IFGC	INTERNATIONAL FUEL GAS CODE
IG	INSULATED GLASS
INC	INCORPORATED
IMC	INTERNATIONAL MECHANICAL CODE
IPC	INTERNATIONAL PLUMBING CODE
L	LONG
LF	LINEAR FEET
MANUF.	MANUFACTURER
MID	MIDDLE
MPH	MILES PER HOUR
N	NO
N/A	NON APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NOM	NOMINAL
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OPP	OPPOSITE
O.T.S.	OPEN TO STRUCTURE
PG	PAINTED GYPSUM
RE:	REFER TO
SF	SQUARE FEET
SIM	SIMILAR
STC	SOUND TRANSMISSION CLASS
T	TEMPERED
TB	TOILET BATH
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES, INC.
U.N.O.	UNLESS NOTED OTHERWISE
U.S.	UNITED STATES
W	WIDE
WD	WOOD
Y	YES

SYMBOLS



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STATE OF UTAH · ERIC R. THOLEN · 129665 · LICENSED ARCHITECT

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SYMBOLS, TERMS & ABBREVIATIONS

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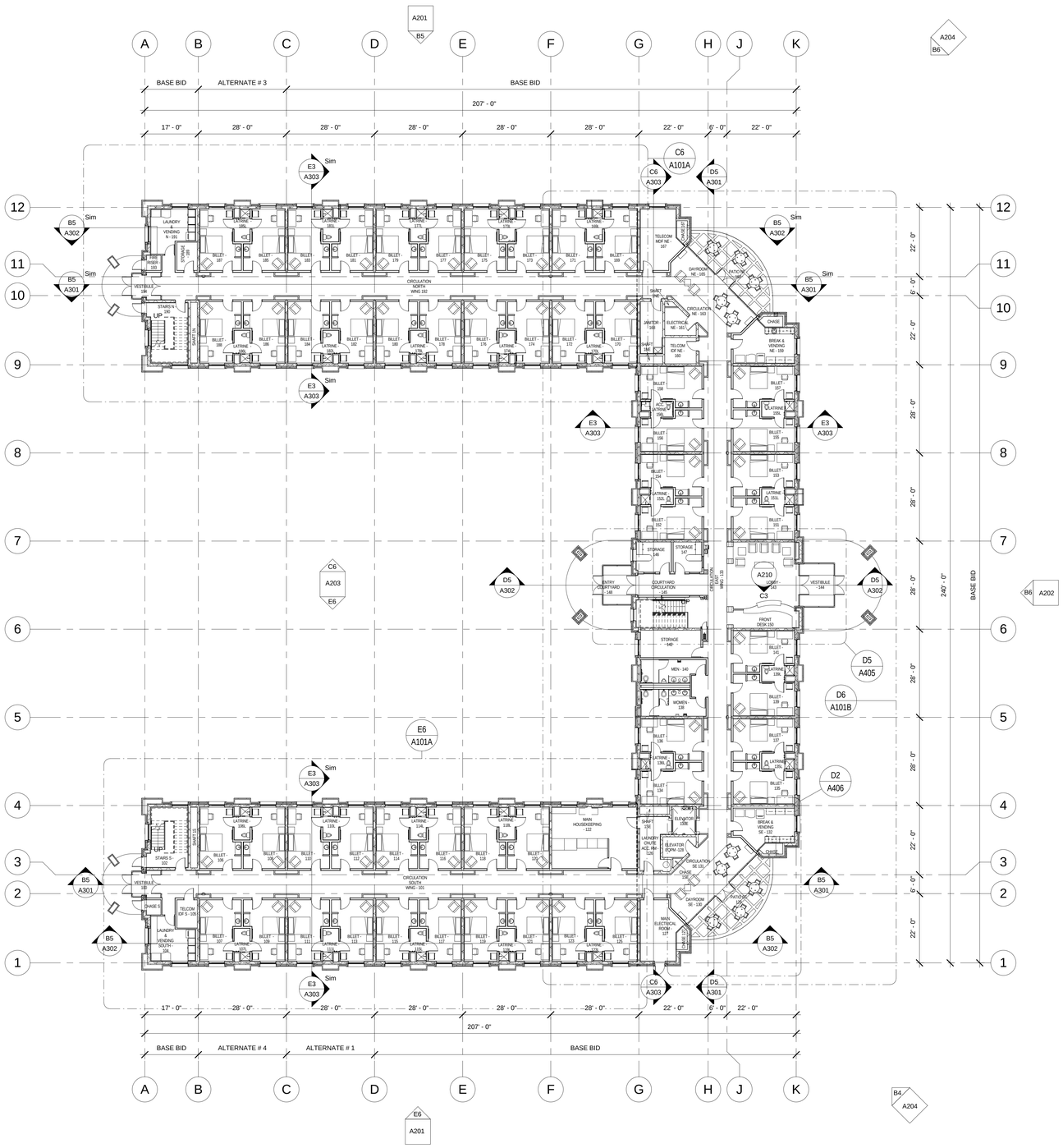

E5 OVERALL FIRST LEVEL PLAN
1/16" = 1'-0"

ALTERNATES DESCRIPTION

1. ALTERNATE BID ITEM No. 1- TWELVE BILLET UNITS: ALL WORK IN CONNECTION WITH BUILDING AND FINISHING 12 BILLET UNITS, INCLUDING ALL ASSOCIATED WORK WITHIN, AROUND AND INCLUDED GRID LINES C TO D BETWEEN GRID LINES 1 TO 4 OF THE CONSTRUCTION DOCUMENTS. THIS BID ITEM NEEDS TO DEDUCT THE WORK ASSOCIATED WITH SITE PREPARATION, GRADING, SIDEWALKS/WALKWAYS, SECURITY LIGHTING, LANDSCAPING AND MISCELANEUOUS NOT REQUIRED BECAUSE OF THE CONSTRUCTION OF THIS BID ALTERNATE.
2. ALTERNATE BID ITEM No. 2- SOLAR PANELS: ALL WORK IN CONNECTION WITH FURNISHING AND INSTALLING SOLAR PANELS TO PROVIDE 30% OF THE ANNUAL DOMESTIC HOT WATER USE, INCLUDING ALL ASSOCIATED OTHER ELEMENTS AND ACCESSORIES TO COMPLETE THE WORK IN PLACE AND READY FOR SERVICE AND IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
3. ALTERNATE BID ITEM No. 3- TWELVE BILLET UNITS: ALL WORK IN CONNECTION WITH BUILDING AND FINISHING 12 BILLET UNITS, INCLUDING ALL ASSOCIATED WORK WITHIN, AROUND AND INCLUDED GRID LINES B TO C BETWEEN GRID LINES 9 TO 12 OF THE CONSTRUCTION DOCUMENTS. THIS BID ITEM NEEDS TO DEDUCT THE WORK ASSOCIATED WITH SITE PREPARATION, GRADING, SIDEWALKS/WALKWAYS, SECURITY LIGHTING, LANDSCAPING AND MISCELANEUOUS NOT REQUIRED BECAUSE OF THE CONSTRUCTION OF THIS BID ALTERNATE.
4. ALTERNATE BID ITEM No. 4- TWELVE BILLET UNITS: ALL WORK IN CONNECTION WITH BUILDING AND FINISHING 12 BILLET UNITS, INCLUDING ALL ASSOCIATED WORK WITHIN, AROUND AND INCLUDED GRID LINES B TO C BETWEEN GRID LINES 1 TO 4 OF THE CONSTRUCTION DOCUMENTS. THIS BID ITEM NEEDS TO DEDUCT THE WORK ASSOCIATED WITH SITE PREPARATION, GRADING, SIDEWALKS/WALKWAYS, SECURITY LIGHTING, LANDSCAPING AND MISCELANEUOUS NOT REQUIRED BECAUSE OF THE CONSTRUCTION OF THIS BID ALTERNATE.

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES.
2. CONSTRUCTION WITHIN GRIDS A TO B IS PART OF THE BASE BID OF THE PROJECT AND IT NEEDS TO BE BUILT IN ACCORDANCE WITH THE FOLLOWING OPTIONS:
   - 2a - WITHOUT ALTERNATES: CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN GRID LINES 1 TO 4 MOVES (INCLUDING CANOPIES)TO ALIGN GRID LINE B WITH GRID LINE D, AND CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN 9 TO 12 MOVES (INCLUDING CANOPIES)TO ALIGN GRID LINE B WITH GRID LINE C.
   - 2b - WITH ALTERNATE # 1: CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN GRID LINES 1 TO 4 MOVES (INCLUDING CANOPIES)TO ALIGN GRID LINE B WITH GRID LINE C, AND CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN 9 TO 12 MOVES (INCLUDING CANOPIES) TO ALIGN GRID LINE B WITH GRID LINE C.
   - 2c - WITH ALTERNATES # 1 AND #2: CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN GRID LINES 1 TO 4 MOVES (INCLUDING CANOPIES)TO ALIGN GRID LINE B WITH GRID LINE C, AND CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN 9 TO 12 MOVES (INCLUDING CANOPIES) TO ALIGN GRID LINE B WITH GRID LINE C. REFER TO NOTE 6 FOR THE DESCRIPTION OF ALTERNATE # 2.
   - 2d - WITH ALTERNATES # 1, #2 AND #3: CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN GRID LINES 1 TO 4 MOVES (INCLUDING CANOPIES) TO ALIGN GRID LINE B WITH GRID LINE C.
   - 2e - WITH ALTERNATES # 1, #2, #3 AND #4: CONSTRUCTION WILL BE BUILT AS PER SHOWN ON CONSTRUCTION DOCUMENTS WITHOUT MOVING THE PORTIONS OF THE BUILDING BETWEEN GRID LINES A AND B (INCLUDING CANOPIES)
3. REFER TO SITE PLAN, DETAILS, CIVIL AND STRUCTURAL DRAWINGS FOR CONSTRUCTION OF EXTERIOR SITE WALLS
4. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION
5. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
6. ALTERNATE # 2 IS: SOLAR PANELS TO PROVIDE 30% OF THE ANNUAL DOMESTIC HOT WATER USE. SOLAR PANELS ARE LOCATED ON THE SOUTH BASE BID ROOFS - REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
7. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION AND VERIFICATION IN THE FIELD OF ALL THE DISTRIBUTION LINES OF UTILITIES AND PROPER SLOPES PRIOR TO POURING, INCLUDING CIVIL, MECHANICAL AND ELECTRICAL ENGINEERS REVIEW AND APPROVAL (TYP), WITH AND WITHOUT ALTERNATES (TYP).

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OVERALL FIRST LEVEL PLAN

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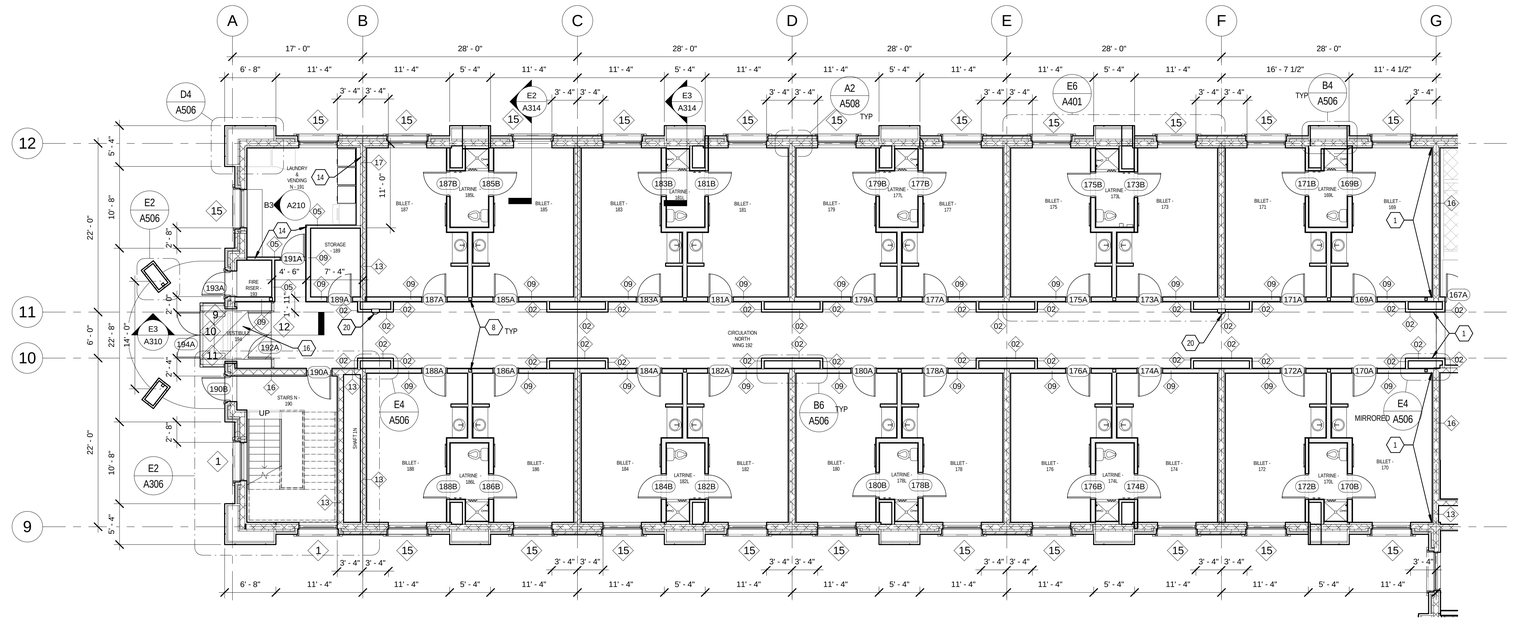
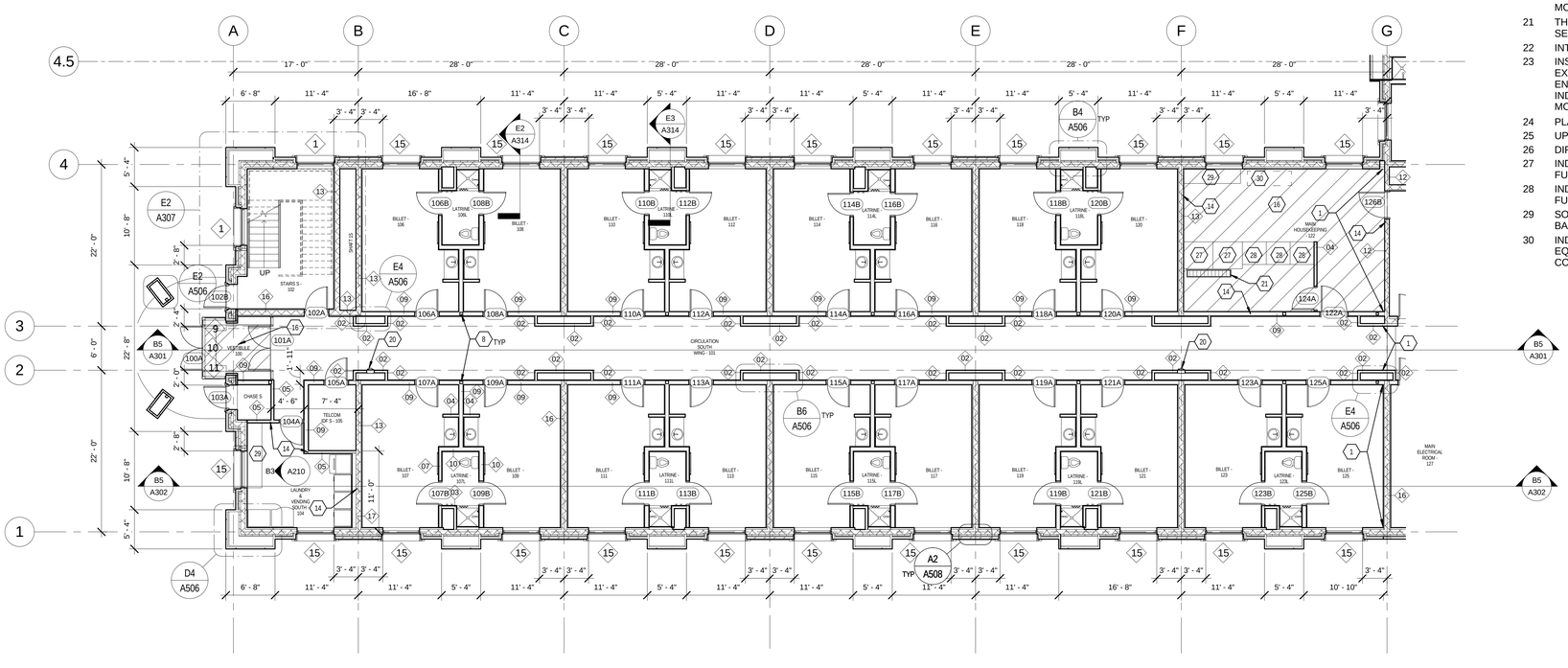


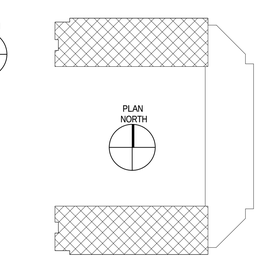
C6 1ST LEVEL PLAN (NORTH WING)
1/8" = 1'-0"



E6 1ST LEVEL PLAN (SOUTH WING)
1/8" = 1'-0"

KEYNOTES

1 EXPANSION JOINT & COVER- REFER TO STRUCTURAL DRAWINGS AND DETAILS
2 COORDINATE ROUGH ELEVATOR OPENINGS W/ ELEVATOR MANUFACTURER & ADJUST ACOORDINGLY (TYP)
3 COORDINATE REMOTE ELEVATOR EQUIPMENT & CONNECTIONS W/ ELEVATOR MANUFACTURER (TYP)
4 COORDINATE ELEVATOR LADDER & LIGHT FIXTUR LOCATION W/ ELEVATOR MANUFACTURER RECOMMENDATIONS & ADJUST ACOORDINGLY (TYP)
5 COORDINATE ROUGH LINEN SHUT OPENINGS W/ LINEN SHUT MANUFACTURER & ADJUST ACOORDINGLY (TYP)
6 STRUCTURAL COLUMN TO FIT WITHIN MULLION AND/OR ALUMINUM COVER - ADJUST EQUAL VISUAL ALIGNMENT ON OPPOSITE SIDE AND UN UPPER/LOWER FLOORS
7 COLORED HONED CMU WALL
8 LOCATE STRUCTURAL COLUMN CENTERED WITHIN THE METAL STUD WIDTH ON BOTH DIRECTIONS (TYP)
9 LOCATE WALLS USING TYPICAL DETAIL- USE DISTANCE FROM ONE GRID TO ONE END- ALIGN WITH CMU OTHER END
10 4'-0" DIAMETER OPENING CENTERED WITHIN WALL LENGTH - CENTER OF CIRCLE AT 5'-4" A.F.F.
11 4'-0" WIDE ARCHED OPENING CENTERED WITHIN WALL LENGTH - CENTER OF CIRCLE AT 5'-4" A.F.F.
12 USE DETAIL E6 ON A504 TO LOCATE CORRIDOR FURRING WALLS
13 FIRE RATED WALL AND BEAM ENCASEMENT ABOVE - SEE CEILING DETAILS
14 ADJUST POCKET CONSTRUCTION AS REQUIRED PER FIRE DOOR MANUFACTURER, MAINTAINING ALIGNMENT OF POCKET WALL WITH GRID LINE H
15 ADJUST POCKET CONSTRUCTION AS REQUIRED PER FIRE DOOR MANUFACTURER, MAINTAINING ALIGNMENT OF POCKET WALL WITH GRID LINE H AND BACK WALL WHERE IS CURRENTLY LOCATED (TYP)
16 RECESS SLAB ON GRADE TO ALLOW OTHER FINISHES & MATCH FINISH FLOOR AT SAME ELEVATIONS OF THOSE NOT RECESSED
17 36" L. X 4 HOOK STRIP @ 4'-0" A.F.F.
18 36" L. X UTILITY TRIP HOLDER @ 4'-0" A.F.F.
19 SERVICE SINK
20 RECESSED FIRE EXTINGUISHER CABINET AND EXTINGUISHER FURNISHED BY OWNER & INSTALLED BY CONTRACTOR- SEE MOUNTING HEIGHTS
21 THROUGH DRAIN FORMED IN CONCRETE - SEE PLUMBING DRAWINGS
22 INTERIOR LADDER TO ROOF HATCH
23 INSTALL SIGNAGE E2/A526 ON THE EXTERIOR WALL OF THE ELEVATOR ENCLOSURE IN ACCORDANCE WITH THE INDICATIONS SHOWN ON ACCESSIBLE MOUNTING HEIGHTS DRAWING
24 PLAQUE & DIRECTORY SIGNAGE WALL
25 UPPER DIRECTIONAL SIGNAGE
26 DIRECTIONAL SIGNAGE
27 INDUSTRIAL WASHER EQUIPMENT- OWNER FURNISHING, CONTRACTOR INSTALLING
28 INDUSTRIAL DRYER EQUIPMENT- OWNER FURNISHING, CONTRACTOR INSTALLING
29 SOLID SURFACE COUNTERTOP W/4" BACKSPLASH
30 INDUSTRIAL PRESSING-ROLLER TYPE EQUIPMENT- OWNER FURNISHING, CONTRACTOR INSTALLING



KEY PLAN

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF BLOCKOUTS & PENETRATIONS OF RATED ASSEMBLIES, MAINTAINING THE REQUIRED FIRE RATINGS.
2. CONSTRUCTION WITHIN GRIDS A TO B IS PART OF THE BASE BID OF THE PROJECT AND IT NEEDS TO BE BUILT IN ACCORDANCE WITH THE DESCRIPTION SHOWN ON OVERALL PLAN DRAWINGS & NOTES.
3. REFER TO SITE PLAN, DETAILS, CIVIL AND STRUCTURAL DRAWINGS FOR CONSTRUCTION OF EXTERIOR SITE WALLS
4. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION.
5. PROVIDE PROPER BACKING BEHIND ALL WALL MOUNTED MILLWORK, AND RESTROOM ACCESSORIES; REFER TO SPECIFICATIONS.
6. REFER TO STRUCTURAL FOR FRAMING REQUIREMENTS AT OPENINGS.
7. ALL WINDOWS ARE TO HAVE BLINDS INSTALLED WITHIN THE WINDOW FRAME.
8. ATTACHMENT OF ANY WALL TO STRUCTURE IS TO ACCOMODATE DEFLECTION PER STRUCTURAL REQUIREMENTS.
9. CONTRACTOR SHALL NOT HANG ANYTHING TO THE DECK UNLESS AUTHORIZED BY STRUCTURAL ENGINEER.
10. TILE INSTALLATION AT FLOORS SHALL BE THIN SET- UNLESS NOTED OTHERWISE -REFER TO SPECIFICATIONS.
11. TILE INSTALLATION AT WALLS SHALL BE THIN SET- REFER TO SPECIFICATIONS.
12. FURNITURE IS FURNISHED AND INSTALLED BY OWNER DIRECTLY- SEE FURNITURE PLANS.
13. PROVIDE FULL HEIGHT CORNER GUARDS AT ALL CORRIDOR AND PUBLIC SPACES WITH FINISHES OR SUBSTRATES OF GYPSUM BOARD.
14. INTERIOR DIMENSIONS ARE FROM GRID LINES TO FACE OF STUD AND/OR INTERIOR FACE OF MASONRY.
15. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
16. FENESTRATION MUST MEET THE REQUIREMENTS OF THE ENVELOPE ENERGY CODE ANALISYS REQUIRED FOR THIS PROJECT.
17. ALL MATERIAL, POWER, LABOR AND ASSOCIATED WORK SHALL BE INCLUDED FOR ALL EQUIPMENT CALLED IN THE CONSTRUCTION DOCUMENTS (TYP)
18. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF ELECTRICAL CONNECTIONS REQUIRED FOR THE OPERATION OF DOOR HARDWARE -NO SURFACE MOUNTED ELECTRICAL CONNECTIONS ARE ALLOWED.
19. CONTRACTOR IS RESPONSIBLE FOR PROPER FOLLOW-UP AND COMPLIANCE OF LEED REQUIREMENTS
20. ALL BILLET ROOMS TO HAVE BLACK-OUT DRAPES (TYP)
21. PROTECT ALL CORNERS OF ENTRANCES TO SERVICE AREAS INCLUDING LAUNDRY ROOMS, BACK OF HOUSE, JANITORIAL, STORAGES, ELEVATOR, STAIRS, ETC. (TYP)
22. REFER TO SIGNAGE DETAILS FOR REQUIRED SIGNAGE AROUND PERIMETER OF BUILDING AND ENTRANCES (TYP)

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FIRST LEVEL PLAN NORTH & SOUTH WINGS

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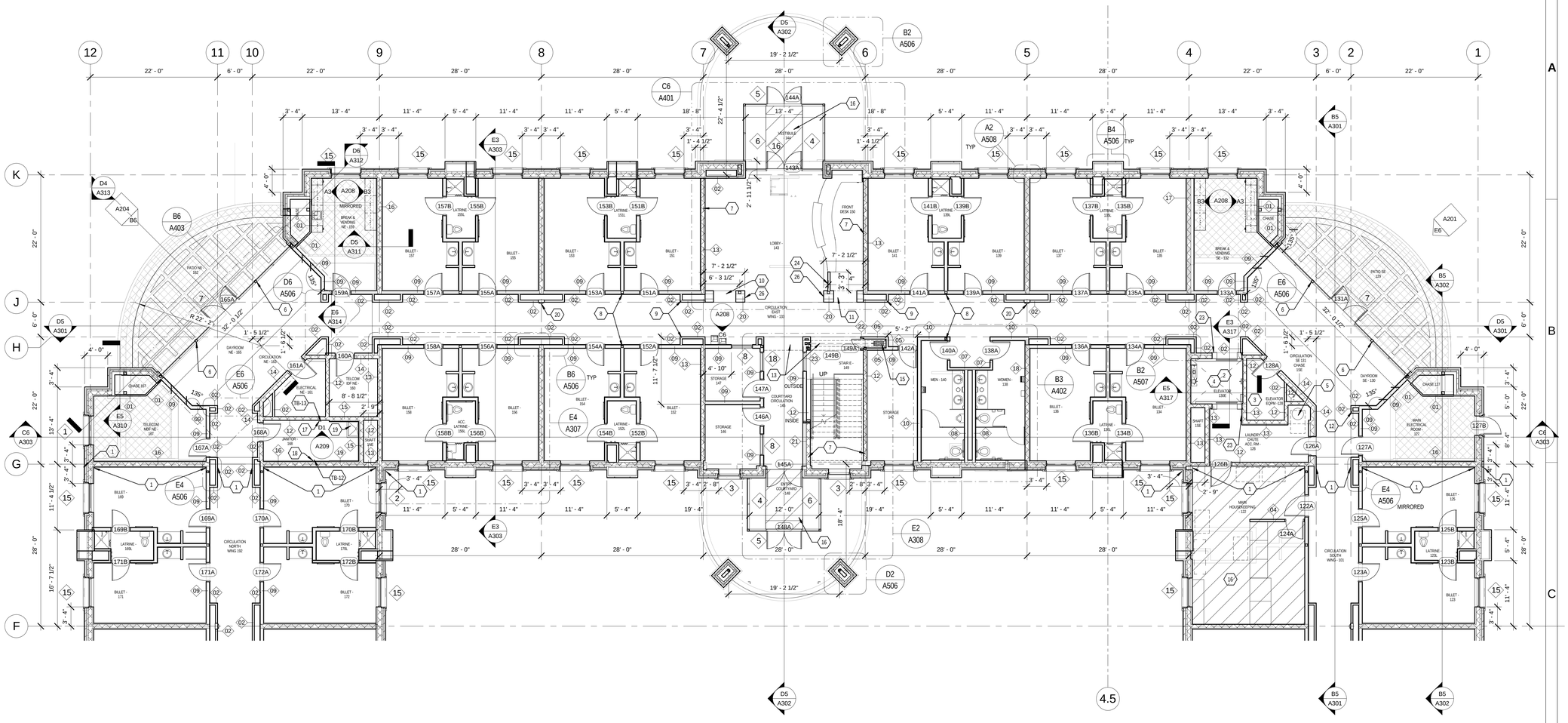

D6 1ST LEVEL PLAN (EAST WING)
1/8" = 1'-0"

ACCESSIBLE BILLET UNITS ARE BILLET NUMBERS: 156, 158

PLAN NORTH

KEYNOTES

1. EXPANSION JOINT & COVER- REFER TO STRUCTURAL DRAWINGS AND DETAILS
2. COORDINATE ROUGH ELEVATOR OPENINGS W/ ELEVATOR MANUFACTURER & ADJUST ACOORDINGLY (TYP)
3. COORDINATE REMOTE ELEVATOR EQUIPMENT & CONNECTIONS W/ ELEVATOR MANUFACTURER (TYP)
4. COORDINATE ELEVATOR LADDER & LIGHT FIXTUR LOCATION W/ ELEVATOR MANUFACTURER RECOMMENDATIONS & ADJUST ACOORDINGLY (TYP)
5. COORDINATE ROUGH LINEN SHUT OPENINGS W/ LINEN SHUT MANUFACTURER & ADJUST ACOORDINGLY (TYP)
6. STRUCTURAL COLUMN TO FIT WITHIN MULLION AND/OR ALUMINUM COVER - ADJUST EQUAL VISUAL ALIGNMENT ON OPPOSITE SIDE AND UN UPPER/LOWER FLOORS
7. COLORED HONED CMU WALL
8. LOCATE STRUCTURAL COLUMN CENTERED WITHIN THE METAL STUD WIDTH ON BOTH DIRECTIONS (TYP).
9. LOCATE WALLS USING TYPICAL DETAIL- USE DISTANCE FROM ONE GRID TO ONE END- ALIGN WITH CMU OTHER END
10. 4'-0" DIAMETER OPENING CENTERED WITHIN WALL LENGTH - CENTER OF CIRCLE AT 5'-4" A.F.F.
11. 4'-0" WIDE ARCHED OPENING CENTERED WITHIN WALL LENGTH - CENTER OF CIRCLE AT 5'-4" A.F.F.
12. USE DETAIL E6 ON A504 TO LOCATE CORRIDOR FURRING WALLS
13. FIRE RATED WALL AND BEAM ENCASEMENT ABOVE - SEE CEILING DETAILS
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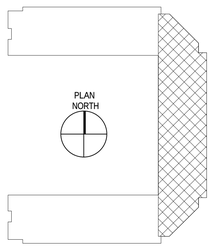

KEY PLAN

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH · ERIC R. THOLEN · 129665 · LICENSED ARCHITECT

GENERAL NOTES

1. REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF BLOCKOUTS & PENETRATIONS OF RATED ASSEMBLIES, MAINTAINING THE REQUIRED FIRE RATINGS.
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BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

FIRST LEVEL PLAN EAST WING

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A101B
DATE: 02/15/2013	

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SALT LAKE CITY, UTAH 84111-1604
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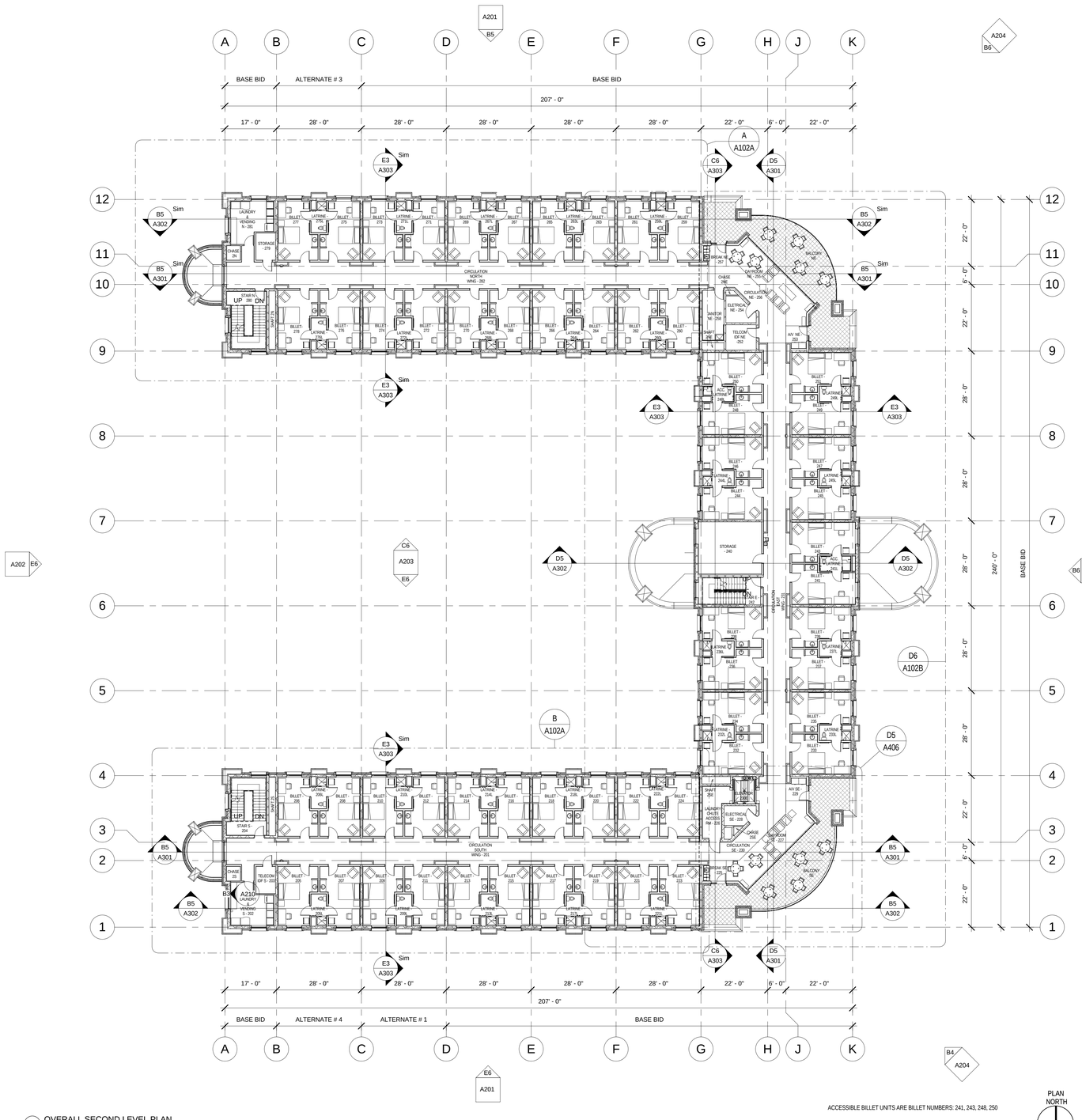

E5 OVERALL SECOND LEVEL PLAN
1/16" = 1'-0"

ALTERNATES DESCRIPTION

1. ALTERNATE BID ITEM No. 1- TWELVE BILLET UNITS: ALL WORK IN CONNECTION WITH BUILDING AND FINISHING 12 BILLET UNITS, INCLUDING ALL ASSOCIATED WORK WITHIN, AROUND AND INCLUDED GRID LINES C TO D BETWEEN GRID LINES 1 TO 4 OF THE CONSTRUCTION DOCUMENTS. THIS BID ITEM NEEDS TO DEDUCT THE WORK ASSOCIATED WITH SITE PREPARATION, GRADING, SIDEWALKS/WALKWAYS, SECURITY LIGHTING, LANDSCAPING AND MISCELANEUOUS NOT REQUIRED BECAUSE OF THE CONSTRUCTION OF THIS BID ALTERNATE.
2. ALTERNATE BID ITEM No. 2- SOLAR PANELS: ALL WORK IN CONNECTION WITH FURNISHING AND INSTALLING SOLAR PANELS TO PROVIDE 30% OF THE ANNUAL DOMESTIC HOT WATER USE, INCLUDING ALL ASSOCIATED OTHER ELEMENTS AND ACCESSORIES TO COMPLETE THE WORK IN PLACE AND READY FOR SERVICE AND IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
3. ALTERNATE BID ITEM No. 3- TWELVE BILLET UNITS: ALL WORK IN CONNECTION WITH BUILDING AND FINISHING 12 BILLET UNITS, INCLUDING ALL ASSOCIATED WORK WITHIN, AROUND AND INCLUDED GRID LINES B TO C BETWEEN GRID LINES 9 TO 12 OF THE CONSTRUCTION DOCUMENTS. THIS BID ITEM NEEDS TO DEDUCT THE WORK ASSOCIATED WITH SITE PREPARATION, GRADING, SIDEWALKS/WALKWAYS, SECURITY LIGHTING, LANDSCAPING AND MISCELANEUOUS NOT REQUIRED BECAUSE OF THE CONSTRUCTION OF THIS BID ALTERNATE.
4. ALTERNATE BID ITEM No. 4- TWELVE BILLET UNITS: ALL WORK IN CONNECTION WITH BUILDING AND FINISHING 12 BILLET UNITS, INCLUDING ALL ASSOCIATED WORK WITHIN, AROUND AND INCLUDED GRID LINES B TO C BETWEEN GRID LINES 1 TO 4 OF THE CONSTRUCTION DOCUMENTS. THIS BID ITEM NEEDS TO DEDUCT THE WORK ASSOCIATED WITH SITE PREPARATION, GRADING, SIDEWALKS/WALKWAYS, SECURITY LIGHTING, LANDSCAPING AND MISCELANEUOUS NOT REQUIRED BECAUSE OF THE CONSTRUCTION OF THIS BID ALTERNATE.

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
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   - 2a - WITHOUT ALTERNATES: CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN GRID LINES 1 TO 4 MOVES (INCLUDING CANOPIES)TO ALIGN GRID LINE B WITH GRID LINE D, AND CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN 9 TO 12 MOVES (INCLUDING CANOPIES)TO ALIGN GRID LINE B WITH GRID LINE C.
   - 2b - WITH ALTERNATE # 1: CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN GRID LINES 1 TO 4 MOVES (INCLUDING CANOPIES)TO ALIGN GRID LINE B WITH GRID LINE C, AND CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN 9 TO 12 MOVES (INCLUDING CANOPIES) TO ALIGN GRID LINE B WITH GRID LINE C.
   - 2c - WITH ALTERNATES # 1 AND #2: CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN GRID LINES 1 TO 4 MOVES (INCLUDING CANOPIES)TO ALIGN GRID LINE B WITH GRID LINE C, AND CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN 9 TO 12 MOVES (INCLUDING CANOPIES) TO ALIGN GRID LINE B WITH GRID LINE C. REFER TO NOTE 6 FOR THE DESCRIPTION OF ALTERNATE # 2.
   - 2d - WITH ALTERNATES # 1, #2 AND #3: CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN GRID LINES 1 TO 4 MOVES (INCLUDING CANOPIES) TO ALIGN GRID LINE B WITH GRID LINE C.
   - 2e - WITH ALTERNATES # 1, #2, #3 AND #4: CONSTRUCTION WILL BE BUILT AS PER SHOWN ON CONSTRUCTION DOCUMENTS WITHOUT MOVING THE PORTIONS OF THE BUILDING BETWEEN GRID LINES A AND B (INCLUDING CANOPIES)
3. REFER TO SITE PLAN, DETAILS, CIVIL AND STRUCTURAL DRAWINGS FOR CONSTRUCTION OF EXTERIOR SITE WALLS
4. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION
5. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
6. ALTERNATE # 2 IS: SOLAR PANELS TO PROVIDE 30% OF THE ANNUAL DOMESTIC HOT WATER USE. SOLAR PANELS ARE LOCATED ON THE SOUTH BASE BID ROOFS - REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
7. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION AND VERIFICATION IN THE FIELD OF ALL THE DISTRIBUTION LINES OF UTILITIES AND PROPER SLOPES PRIOR TO POURING, INCLUDING CIVIL, MECHANICAL AND ELECTRICAL ENGINEERS REVIEW AND APPROVAL (TYP), WITH AND WITHOUT ALTERNATES (TYP).

BUILDING OFFICIAL APPROVAL

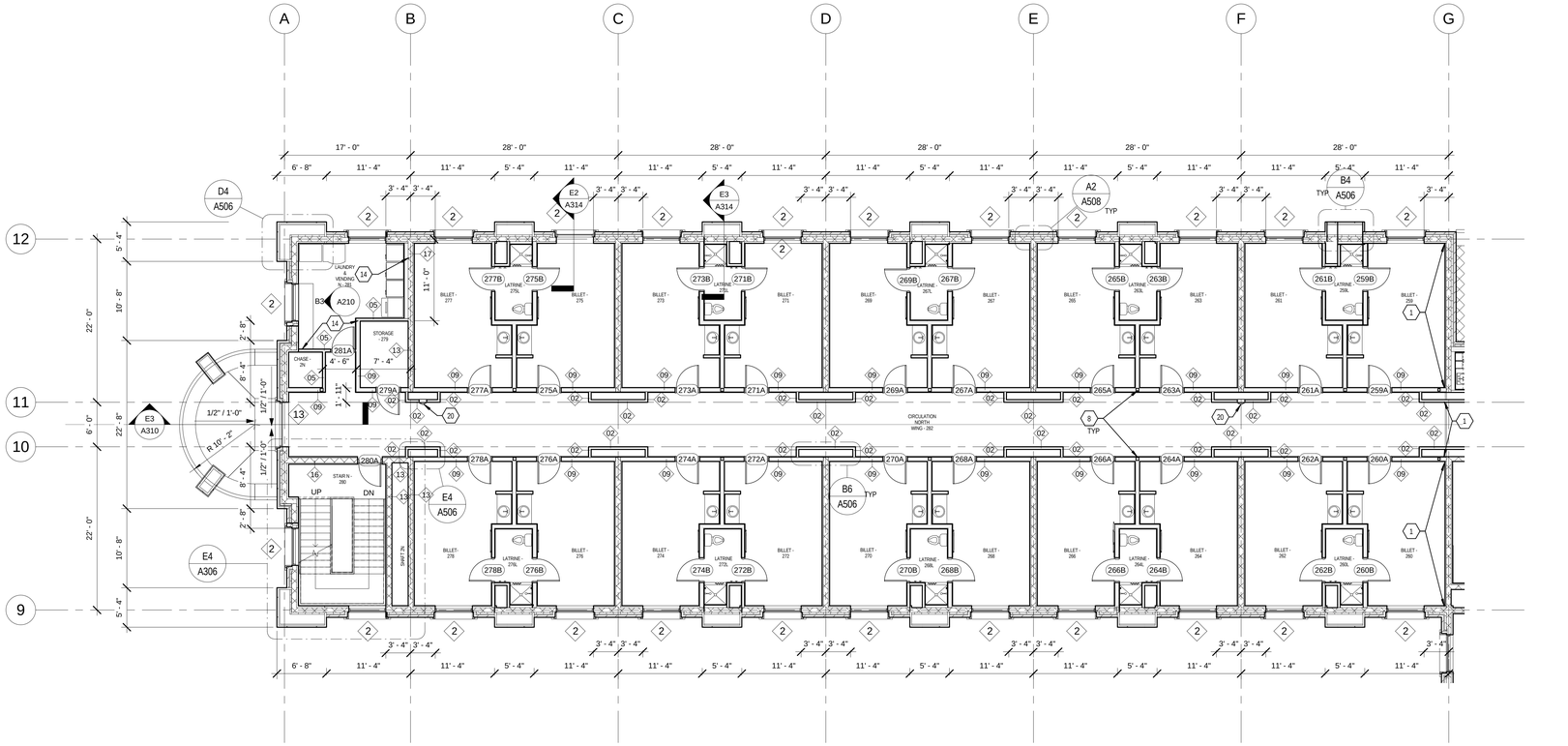
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

OVERALL SECOND LEVEL PLAN

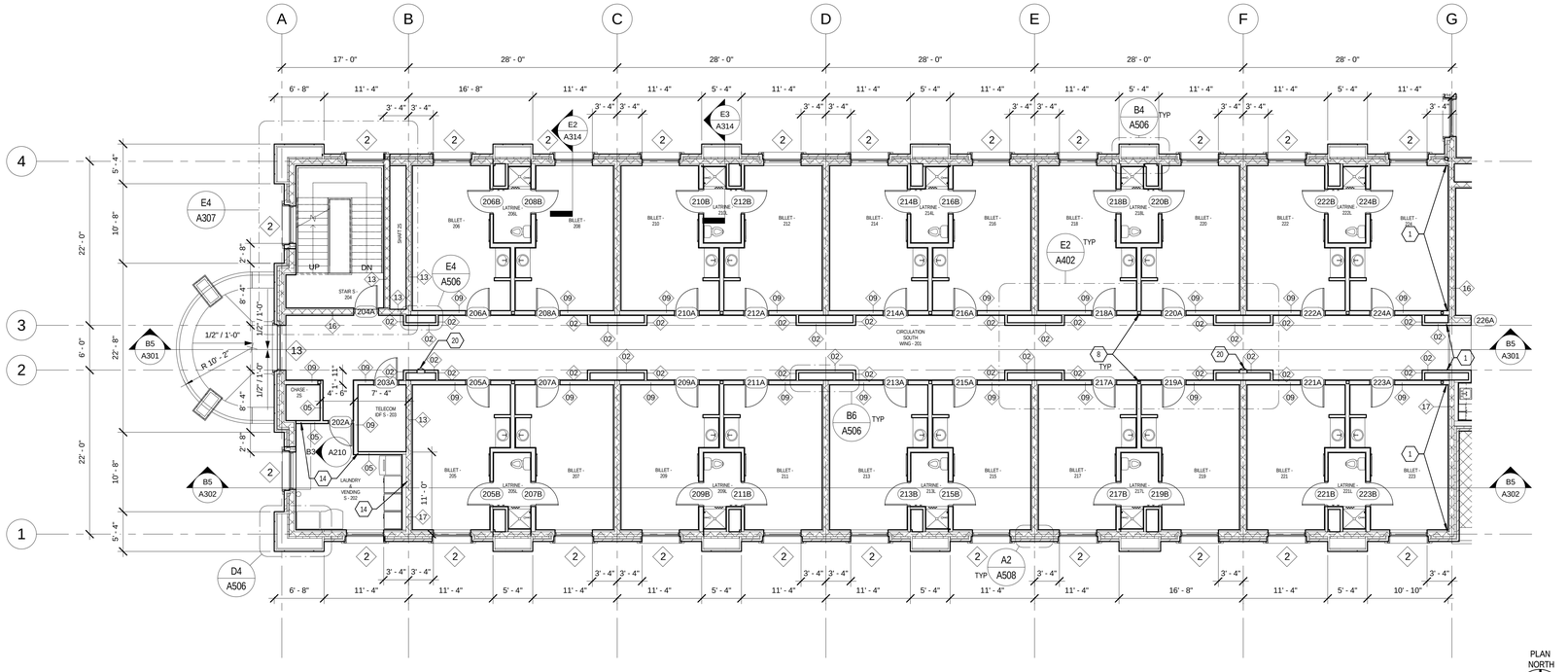
REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A102
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



A 2ND LEVEL PLAN (NORTH WING)
1/8" = 1'-0"



B 2ND LEVEL PLAN (SOUTH WING)
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KEYNOTES

1. EXPANSION JOINT & COVER- REFER TO STRUCTURAL DRAWINGS AND DETAILS
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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
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BUILDING OFFICIAL APPROVAL

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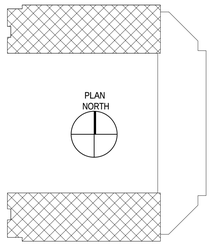

KEY PLAN

SECOND FLOOR PLAN NORTH & SOUTH

REVISION	DATE	BY	DESCRIPTION
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△			
△			
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A102A
DATE: 02/15/2013	

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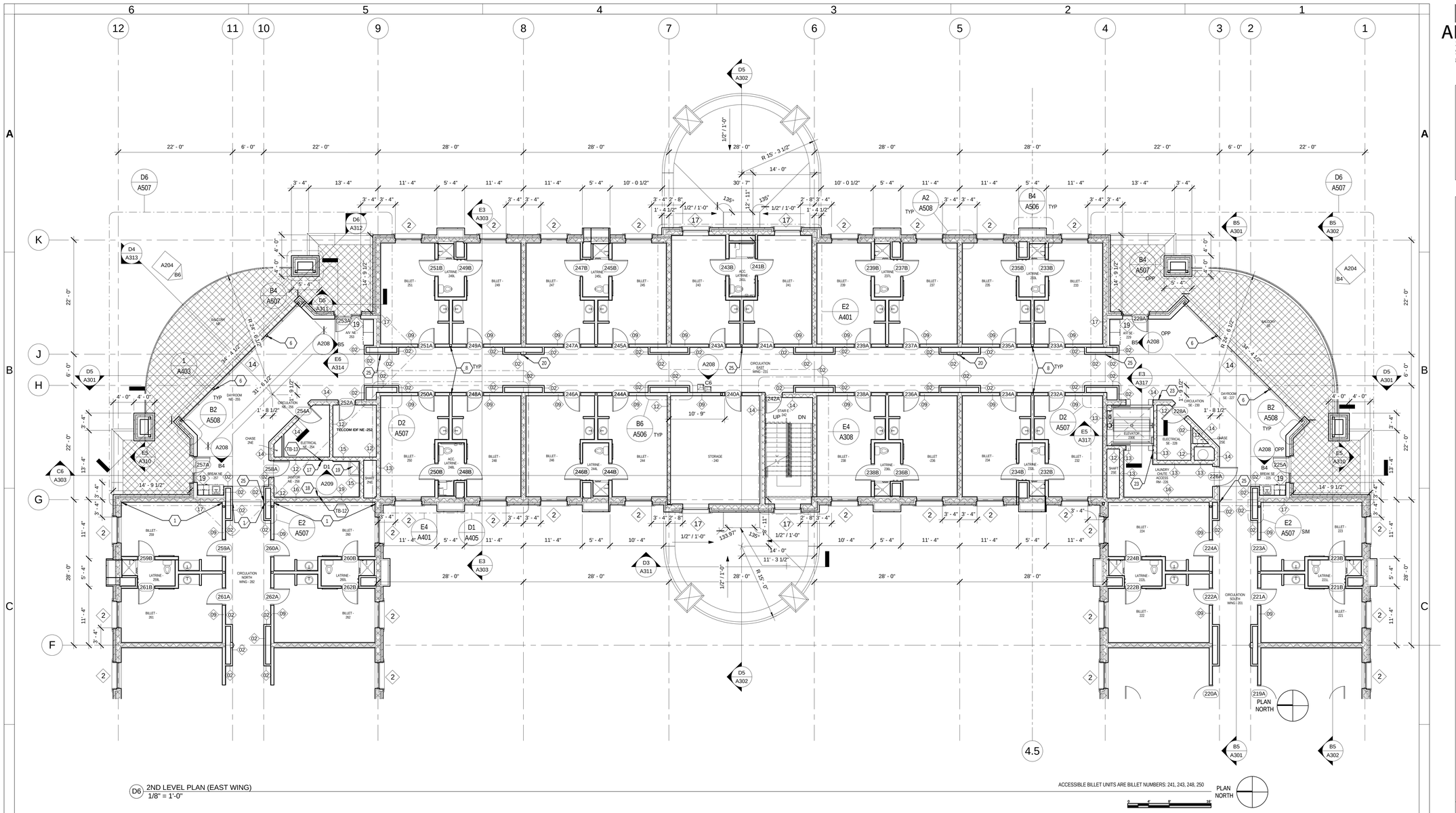

D6 2ND LEVEL PLAN (EAST WING)
1/8" = 1'-0"

KEYNOTES

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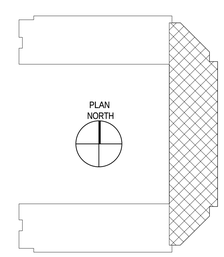

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STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

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17. ALL MATERIAL, POWER, LABOR AND ASSOCIATED WORK SHALL BE INCLUDED FOR ALL EQUIPMENT CALLED IN THE CONSTRUCTION DOCUMENTS (TYP)
18. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF ELECTRICAL CONNECTIONS REQUIRED FOR THE OPERATION OF DOOR HARDWARE -NO SURFACE MOUNTED ELECTRICAL CONNECTIONS ARE ALLOWED.
19. CONTRACTOR IS RESPONSIBLE FOR PROPER FOLLOW-UP AND COMPLIANCE OF LEED REQUIREMENTS
20. ALL BILLET ROOMS TO HAVE BLACK-OUT DRAPES (TYP)
21. PROTECT ALL CORNERS OF ENTRANCES TO SERVICE AREAS INCLUDING LAUNDRY ROOMS, BACK OF HOUSE, JANITORIAL, STORAGES, ELEVATOR, STAIRS, ETC. (TYP)
22. REFER TO SIGNAGE DETAILS FOR REQUIRED SIGNAGE AROUND PERIMETER OF BUILDING AND ENTRANCES (TYP)

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

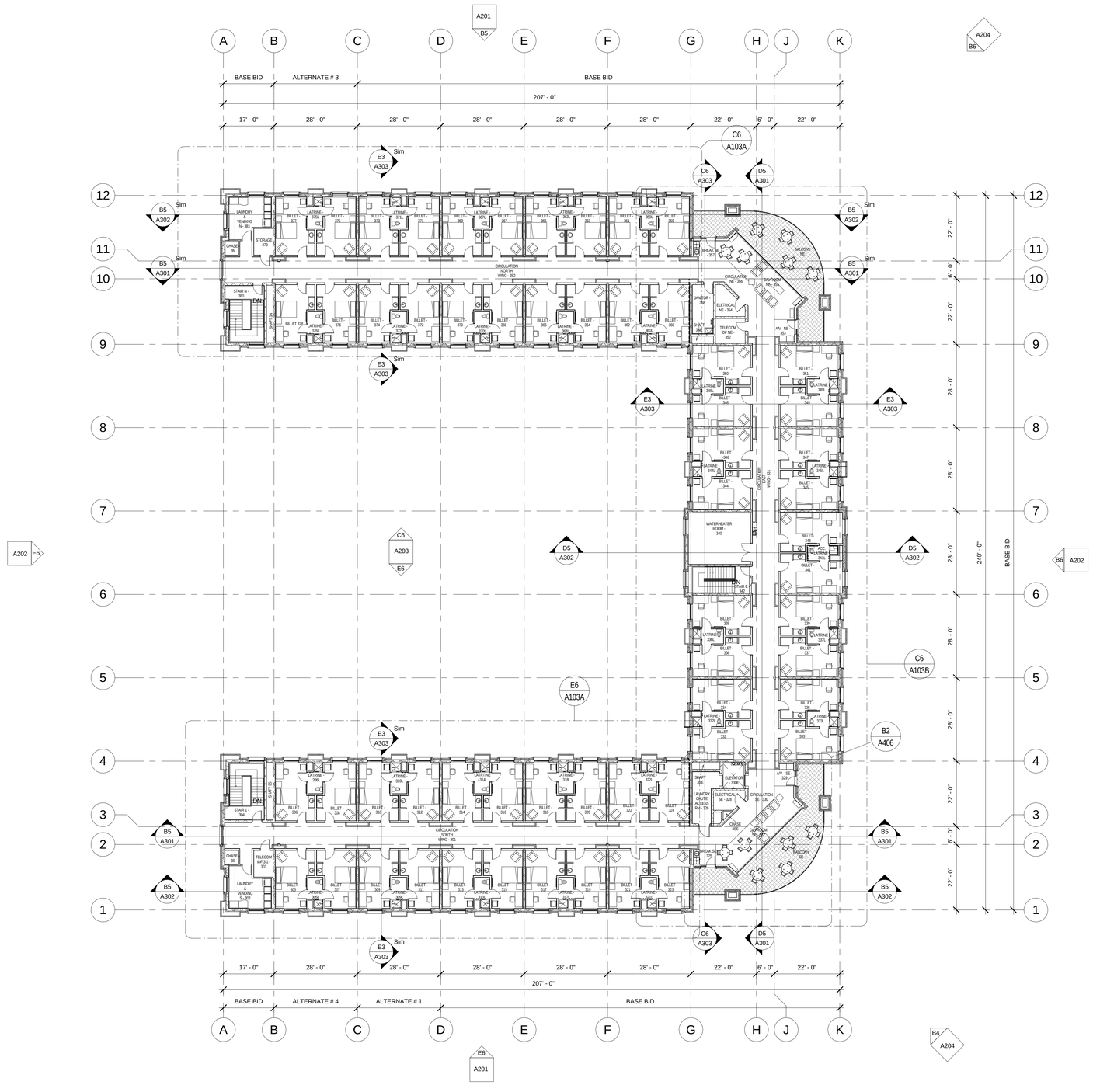
SECOND FLOOR PLAN EAST WING

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A102B
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM



E5 OVERALL THIRD FLOOR PLAN
1/16" = 1'-0"

ACCESSIBLE BILLET UNITS ARE BILLET NUMBERS: 341 & 343

PLAN NORTH

ALTERNATES DESCRIPTION

1. ALTERNATE BID ITEM No. 1- TWELVE BILLET UNITS: ALL WORK IN CONNECTION WITH BUILDING AND FINISHING 12 BILLET UNITS, INCLUDING ALL ASSOCIATED WORK WITHIN, AROUND AND INCLUDED GRID LINES C TO D BETWEEN GRID LINES 1 TO 4 OF THE CONSTRUCTION DOCUMENTS. THIS BID ITEM NEEDS TO DEDUCT THE WORK ASSOCIATED WITH SITE PREPARATION, GRADING, SIDEWALKS/WALKWAYS, SECURITY LIGHTING, LANDSCAPING AND MISCELANEUOUS NOT REQUIRED BECAUSE OF THE CONSTRUCTION OF THIS BID ALTERNATE.
2. ALTERNATE BID ITEM No. 2- SOLAR PANELS: ALL WORK IN CONNECTION WITH FURNISHING AND INSTALLING SOLAR PANELS TO PROVIDE 30% OF THE ANNUAL DOMESTIC HOT WATER USE, INCLUDING ALL ASSOCIATED OTHER ELEMENTS AND ACCESSORIES TO COMPLETE THE WORK IN PLACE AND READY FOR SERVICE AND IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
3. ALTERNATE BID ITEM No. 3- TWELVE BILLET UNITS: ALL WORK IN CONNECTION WITH BUILDING AND FINISHING 12 BILLET UNITS, INCLUDING ALL ASSOCIATED WORK WITHIN, AROUND AND INCLUDED GRID LINES B TO C BETWEEN GRID LINES 9 TO 12 OF THE CONSTRUCTION DOCUMENTS. THIS BID ITEM NEEDS TO DEDUCT THE WORK ASSOCIATED WITH SITE PREPARATION, GRADING, SIDEWALKS/WALKWAYS, SECURITY LIGHTING, LANDSCAPING AND MISCELANEUOUS NOT REQUIRED BECAUSE OF THE CONSTRUCTION OF THIS BID ALTERNATE.
4. ALTERNATE BID ITEM No. 4- TWELVE BILLET UNITS: ALL WORK IN CONNECTION WITH BUILDING AND FINISHING 12 BILLET UNITS, INCLUDING ALL ASSOCIATED WORK WITHIN, AROUND AND INCLUDED GRID LINES B TO C BETWEEN GRID LINES 1 TO 4 OF THE CONSTRUCTION DOCUMENTS. THIS BID ITEM NEEDS TO DEDUCT THE WORK ASSOCIATED WITH SITE PREPARATION, GRADING, SIDEWALKS/WALKWAYS, SECURITY LIGHTING, LANDSCAPING AND MISCELANEUOUS NOT REQUIRED BECAUSE OF THE CONSTRUCTION OF THIS BID ALTERNATE.

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES.
2. CONSTRUCTION WITHIN GRIDS A TO B IS PART OF THE BASE BID OF THE PROJECT AND IT NEEDS TO BE BUILT IN ACCORDANCE WITH THE FOLLOWING OPTIONS:
   - 2a - WITHOUT ALTERNATES: CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN GRID LINES 1 TO 4 MOVES (INCLUDING CANOPIES)TO ALIGN GRID LINE B WITH GRID LINE D, AND CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN 9 TO 12 MOVES (INCLUDING CANOPIES)TO ALIGN GRID LINE B WITH GRID LINE C.
   - 2b - WITH ALTERNATE # 1: CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN GRID LINES 1 TO 4 MOVES (INCLUDING CANOPIES)TO ALIGN GRID LINE B WITH GRID LINE C, AND CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN 9 TO 12 MOVES (INCLUDING CANOPIES) TO ALIGN GRID LINE B WITH GRID LINE C.
   - 2c - WITH ALTERNATES # 1 AND #2: CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN GRID LINES 1 TO 4 MOVES (INCLUDING CANOPIES)TO ALIGN GRID LINE B WITH GRID LINE C, AND CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN 9 TO 12 MOVES (INCLUDING CANOPIES) TO ALIGN GRID LINE B WITH GRID LINE C. REFER TO NOTE 6 FOR THE DESCRIPTION OF ALTERNATE # 2.
   - 2d - WITH ALTERNATES # 1, #2 AND #3: CONSTRUCTION WITHIN AND INCLUDED GRID LINES A TO B BETWEEN GRID LINES 1 TO 4 MOVES (INCLUDING CANOPIES) TO ALIGN GRID LINE B WITH GRID LINE C.
   - 2e - WITH ALTERNATES # 1, #2, #3 AND #4: CONSTRUCTION WILL BE BUILT AS PER SHOWN ON CONSTRUCTION DOCUMENTS WITHOUT MOVING THE PORTIONS OF THE BUILDING BETWEEN GRID LINES A AND B (INCLUDING CANOPIES)
3. REFER TO SITE PLAN, DETAILS, CIVIL AND STRUCTURAL DRAWINGS FOR CONSTRUCTION OF EXTERIOR SITE WALLS
4. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION
5. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
6. ALTERNATE # 2 IS: SOLAR PANELS TO PROVIDE 30% OF THE ANNUAL DOMESTIC HOT WATER USE. SOLAR PANELS ARE LOCATED ON THE SOUTH BASE BID ROOFS - REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
7. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION AND VERIFICATION IN THE FIELD OF ALL THE DISTRIBUTION LINES OF UTILITIES AND PROPER SLOPES PRIOR TO POURING, INCLUDING CIVIL, MECHANICAL AND ELECTRICAL ENGINEERS REVIEW AND APPROVAL (TYP), WITH AND WITHOUT ALTERNATES (TYP).

BUILDING OFFICIAL APPROVAL

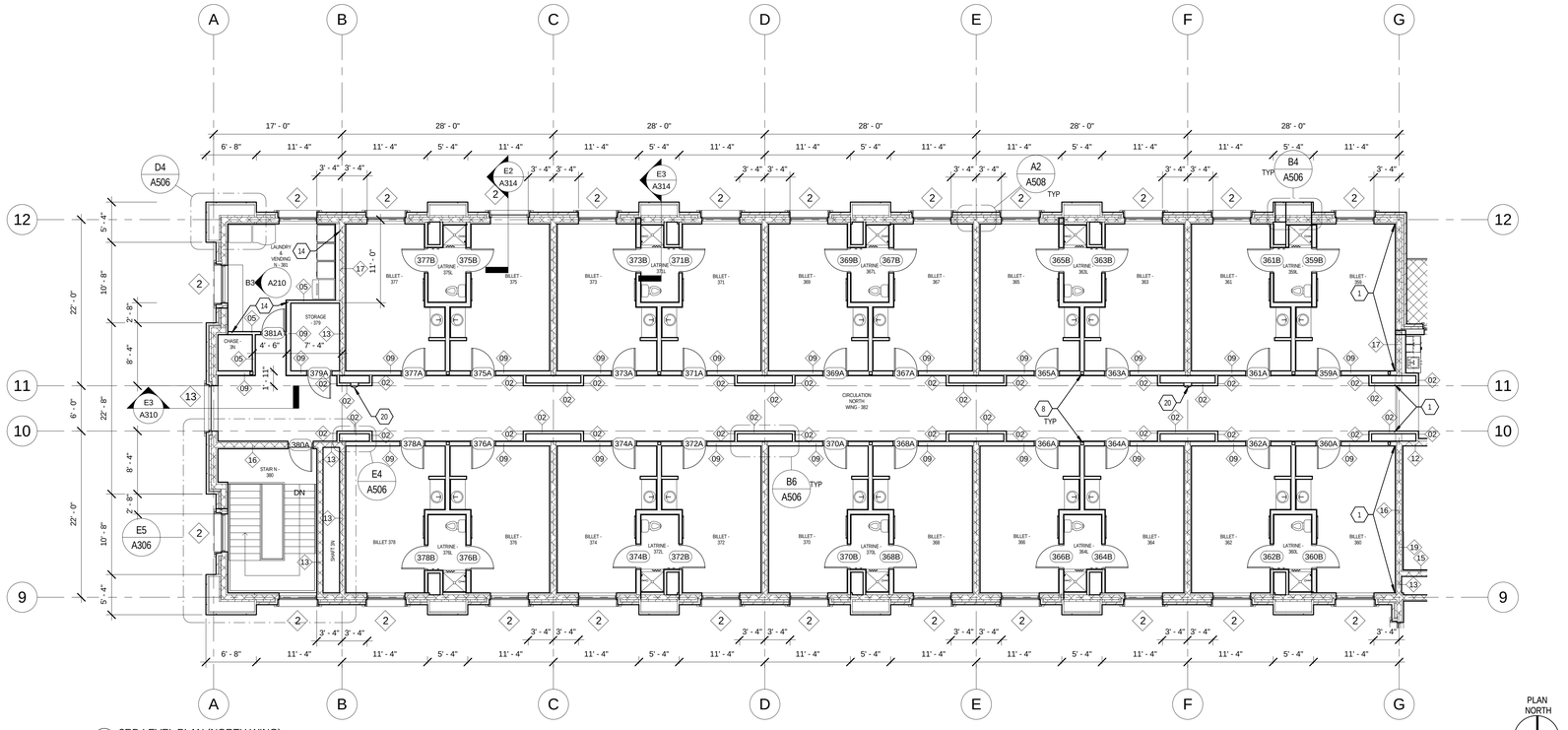
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

OVERALL THIRD LEVEL FLOOR PLAN

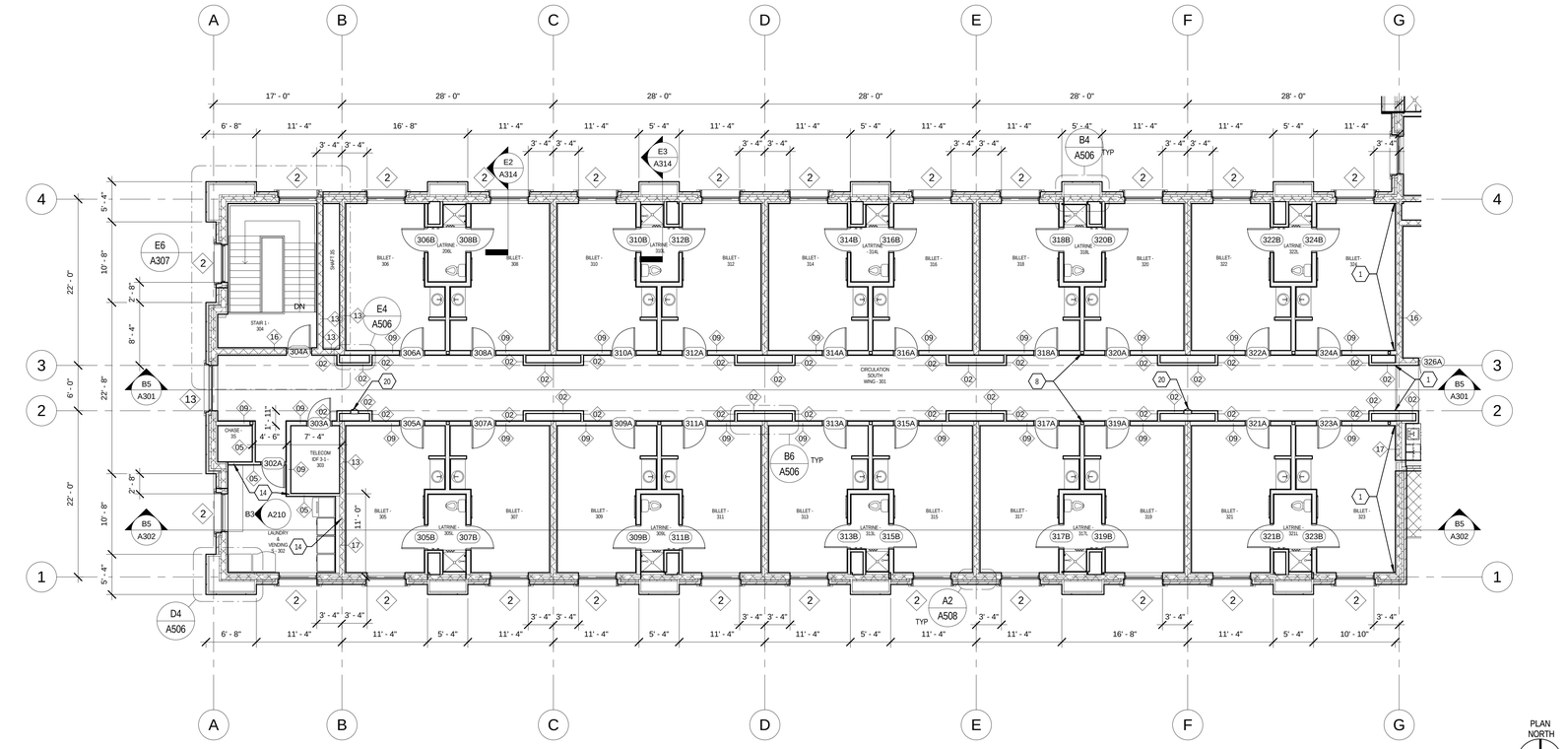
REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A103
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



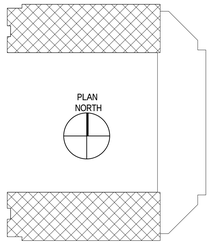
C6 3RD LEVEL PLAN (NORTH WING)
1/8" = 1'-0"



E6 3RD LEVEL PLAN (SOUTH WING)
1/8" = 1'-0"

KEYNOTES

1. EXPANSION JOINT & COVER- REFER TO STRUCTURAL DRAWINGS AND DETAILS
2. COORDINATE ROUGH ELEVATOR OPENINGS W/ ELEVATOR MANUFACTURER & ADJUST ACOORDINGLY (TYP)
3. COORDINATE REMOTE ELEVATOR EQUIPMENT & CONNECTIONS W/ ELEVATOR MANUFACTURER (TYP)
4. COORDINATE ELEVATOR LADDER & LIGHT FIXTUR LOCATION W/ ELEVATOR MANUFACTURER RECOMMENDATIONS & ADJUST ACOORDINGLY (TYP)
5. COORDINATE ROUGH LINEN SHUT OPENINGS W/ LINEN SHUT MANUFACTURER & ADJUST ACOORDINGLY (TYP)
6. STRUCTURAL COLUMN TO FIT WITHIN MULLION AND/OR ALUMINUM COVER - ADJUST EQUAL VISUAL ALIGNMENT ON OPPOSITE SIDE AND UN UPPER/LOWER FLOORS
7. COLORED HONED CMU WALL
8. LOCATE STRUCTURAL COLUMN CENTERED WITHIN THE METAL STUD WIDTH ON BOTH DIRECTIONS (TYP)
9. LOCATE WALLS USING TYPICAL DETAIL- USE DISTANCE FROM ONE GRID TO ONE END-ALIGN WITH CMU OTHER END
10. 4'-0" DIAMETER OPENING CENTERED WITHIN WALL LENGTH - CENTER OF CIRCLE AT 5'-4" A.F.F.
11. 4'-0" WIDE ARCHED OPENING CENTERED WITHIN WALL LENGTH - CENTER OF CIRCLE AT 5'-4" A.F.F.
12. USE DETAIL E6 ON A504 TO LOCATE CORRIDOR FURRING WALLS
13. FIRE RATED WALL AND BEAM ENCASEMENT ABOVE - SEE CEILING DETAILS
14. ADJUST POCKET CONSTRUCTION AS REQUIRED PER FIRE DOOR MANUFACTURER, MAINTAINING ALIGNMENT OF POCKET WALL WITH GRID LINE H
15. ADJUST POCKET CONSTRUCTION AS REQUIRED PER FIRE DOOR MANUFACTURER, MAINTAINING ALIGNMENT OF POCKET WALL WITH GRID LINE H AND BACK WALL WHERE IS CURRENTLY LOCATED (TYP)
16. RECESS SLAB ON GRADE TO ALLOW OTHER FINISHES & MATCH FINISH FLOOR AT SAME ELEVATIONS OF THOSE NOT RECESSED
17. 36" L. X 4 HOOK STRIP @ 4'-0" A.F.F.
18. 36" L. X UTILITY TRIP HOLDER @ 4'-0" A.F.F.
19. SERVICE SINK
20. RECESSED FIRE EXTINGUISHER CABINET AND EXTINGUISHER FURNISHED BY OWNER & INSTALLED BY CONTRACTOR- SEE MOUNTING HEIGHTS
21. THROUGH DRAIN FORMED IN CONCRETE - SEE PLUMBING DRAWINGS
22. INTERIOR LADDER TO ROOF HATCH
23. INSTALL SIGNAGE E2/A526 ON THE EXTERIOR WALL OF THE ELEVATOR ENCLOSURE IN ACCORDANCE WITH THE INDICATIONS SHOWN ON ACCESSIBLE MOUNTING HEIGHTS DRAWING
24. PLAQUE & DIRECTORY SIGNAGE WALL
25. UPPER DIRECTIONAL SIGNAGE
26. DIRECTIONAL SIGNAGE
27. INDUSTRIAL WASHER EQUIPMENT- OWNER FURNISHING, CONTRACTOR INSTALLING
28. INDUSTRIAL DRYER EQUIPMENT- OWNER FURNISHING, CONTRACTOR INSTALLING
29. SOLID SURFACE COUNTERTOP W/4" BACKSPLASH
30. INDUSTRIAL PRESSING-ROLLER TYPE EQUIPMENT- OWNER FURNISHING, CONTRACTOR INSTALLING



KEY PLAN

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF BLOCKOUTS & PENETRATIONS OF RATED ASSEMBLIES, MAINTAINING THE REQUIRED FIRE RATINGS.
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5. PROVIDE PROPER BACKING BEHIND ALL WALL MOUNTED MILLWORK, AND RESTROOM ACCESSORIES; REFER TO SPECIFICATIONS.
6. REFER TO STRUCTURAL FOR FRAMING REQUIREMENTS AT OPENINGS.
7. ALL WINDOWS ARE TO HAVE BLINDS INSTALLED WITHIN THE WINDOW FRAME.
8. ATTACHMENT OF ANY WALL TO STRUCTURE IS TO ACCOMODATE DEFLECTION PER STRUCTURAL REQUIREMENTS.
9. CONTRACTOR SHALL NOT HANG ANYTHING TO THE DECK UNLESS AUTHORIZED BY STRUCTURAL ENGINEER.
10. TILE INSTALLATION AT FLOORS SHALL BE THIN SET- UNLESS NOTED OTHERWISE -REFER TO SPECIFICATIONS.
11. TILE INSTALLATION AT WALLS SHALL BE THIN SET- REFER TO SPECIFICATIONS.
12. FURNITURE IS FURNISHED AND INSTALLED BY OWNER DIRECTLY- SEE FURNITURE PLANS.
13. PROVIDE FULL HEIGHT CORNER GUARDS AT ALL CORRIDOR AND PUBLIC SPACES WITH FINISHES OR SUBSTRATES OF GYPSUM BOARD.
14. INTERIOR DIMENSIONS ARE FROM GRID LINES TO FACE OF STUD AND/OR INTERIOR FACE OF MASONRY.
15. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
16. FENESTRATION MUST MEET THE REQUIREMENTS OF THE ENVELOPE ENERGY CODE ANALISYS REQUIRED FOR THIS PROJECT.
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BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

THIRD LEVEL PLAN NORTH AND SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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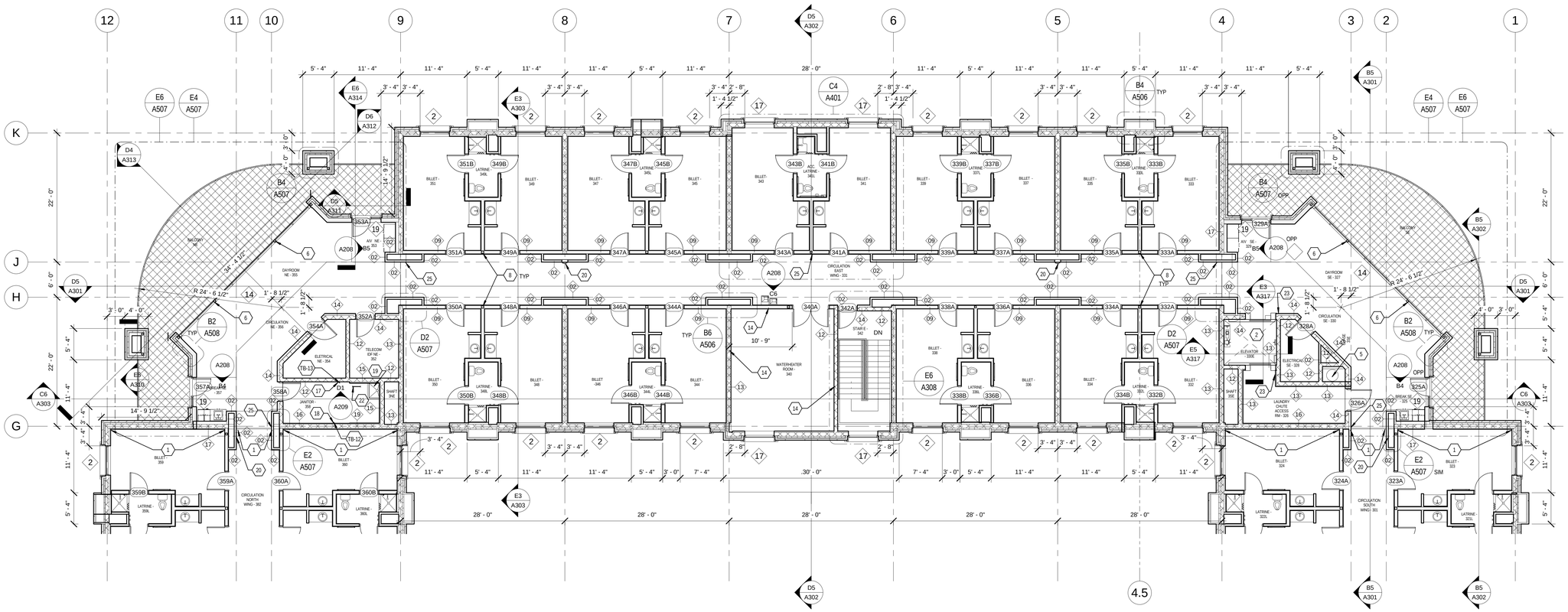
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A103A
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



C6 3RD LEVEL PLAN (EAST WING)
1/8" = 1'-0"

ACCESSIBLE BILLET UNITS ARE BILLET NUMBERS: 341 & 343

PLAN NORTH

KEYNOTES

1. EXPANSION JOINT & COVER- REFER TO STRUCTURAL DRAWINGS AND DETAILS
2. COORDINATE ROUGH ELEVATOR OPENINGS W/ ELEVATOR MANUFACTURER & ADJUST ACOORDINGLY (TYP)
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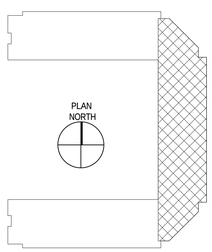

KEY PLAN

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF BLOCKOUTS & PENETRATIONS OF RATED ASSEMBLIES, MAINTAINING THE REQUIRED FIRE RATINGS.
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21. PROTECT ALL CORNERS OF ENTRANCES TO SERVICE AREAS INCLUDING LAUNDRY ROOMS, BACK OF HOUSE, JANITORIAL, STORAGES, ELEVATOR, STAIRS, ETC. (TYP)
22. REFER TO SIGNAGE DETAILS FOR REQUIRED SIGNAGE AROUND PERIMETER OF BUILDING AND ENTRANCES (TYP)

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

THIRD LEVEL PLAN EAST WING

REVISION	DATE	BY	DESCRIPTION
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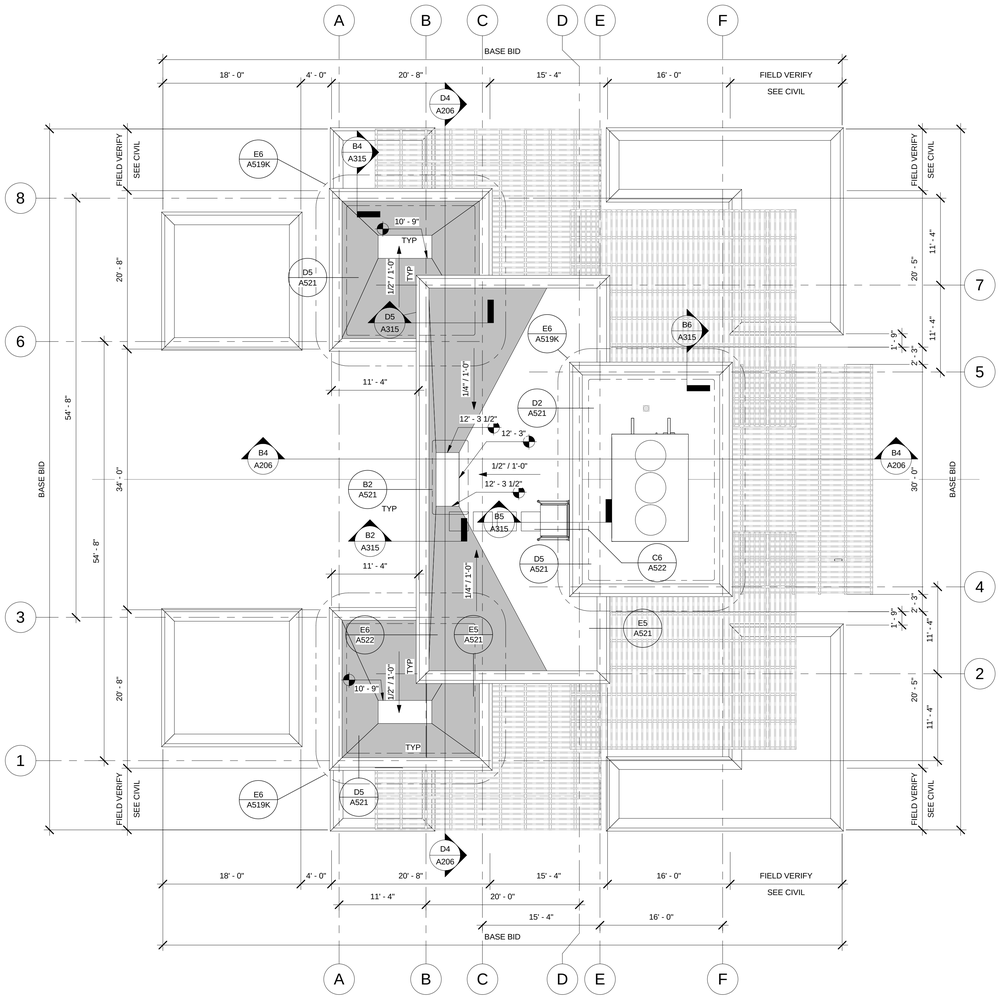
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A103B
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



2 ROOF & PARAPET PLAN
1/8" = 1'-0"

1 1ST LEVEL
1/8" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
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LICENSED ARCHITECT

GENERAL NOTES

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2. REFER TO SITE PLAN, CIVIL AND STRUCTURAL DRAWINGS FOR CONSTRUCTION OF EXTERIOR SITE WALLS
3. REFER TO STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS AT OPENINGS AND LARGE PENETRATIONS.
4. ATTACHMENT OF ANY WALL TO STRUCTURE IS TO ACCOMODATE DEFLECTION PER STRUCTURAL REQUIREMENTS.
5. CONTRACTOR SHALL NOT HANG ANYTHING TO THE DECK UNLESS AUTHORIZED BY STRUCTURAL ENGINEER.
6. ALL EXPOSED STRUCTURE, MECHANICAL & PLUMBING EQUIPMENT TO BE PAINTED, U.N.O.
7. CONTRACTOR SHALL NOT PERFORATE THE DECK UNLESS AUTHORIZED BY STRUCTURAL ENGINEER.
8. ROOF STRUCTURE IS SLOPED- REFER TO STRUCTURAL DRAWINGS
9. MAINTAIN MINIMUM 8" OF INSIDE FACE EXPOSED PARAPET HEIGHT ABOVE ROOF SYSTEMS & CRICKETS BEFORE STARTING THE FLASHING & WALL CAP (TYP).
10. TAPERED CRICKETS ARE OVERBUILT ON TOP OF MAIN ROOF ASSEMBLY.
11. PIPE PENETRATIONS AT ROOF SHALL COMPLY WITH REQUIREMENTS STATED IN MECHANICAL, PLUMBING, ELECTRICAL AND STRUCTURAL DRAWINGS - REFER TO ARCHITECTURAL ROOF DETAILS FOR PROPER FLASHING AND ROOF MEMBRANE TERMINATION.
12. MECHANICAL EQUIPMENT ON ROOF SHALL COMPLY WITH REQUIREMENTS STATED IN MECHANICAL, PLUMBING, ELECTRICAL AND STRUCTURAL DRAWINGS - REFER TO ARCHITECTURAL ROOF DETAILS FOR PROPER FLASHING AND ROOF MEMBRANE TERMINATION.
13. ROOFING MEMBRANE SEAMS SHALL NOT RUN THROUGH DRAIN SUMPS
14. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
15. ALL MATERIAL, POWER, LABOR AND ASSOCIATED WORK SHALL BE INCLUDED FOR ALL EQUIPMENT CALLED IN THE CONSTRUCTION DOCUMENTS (TYP)
16. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF ELECTRICAL CONNECTIONS REQUIRED FOR THE OPERATION OF DOOR HARDWARE -NO SURFACE MOUNTED ELECTRICAL CONNECTIONS ARE ALLOWED.
17. CONTRACTOR IS RESPONSIBLE FOR PROPER FOLLOW-UP AND COMPLIANCE OF LEED REQUIREMENTS
18. PROTECT ALL CORNERS OF SERVICE AREAS INCLUDING MECHANICAL ROOMS AND STORAGES (TYP)

ROOF LEGEND

- SINGLE PLY ROOF SYSTEM OVER STEEL DECK ON RIGID INSULATION SLOPED TO DRAIN PER INDICATED
- RIGID INSULATION CRICKET & SADDLE SLOPED TO DRAIN PER INDICATED
- WALKWAY PADS
- ROOF DRAINS

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SERVICE BLDG FIRST LEVEL PLAN, CEILING & ROOF

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A104
DATE: 02/15/2013	

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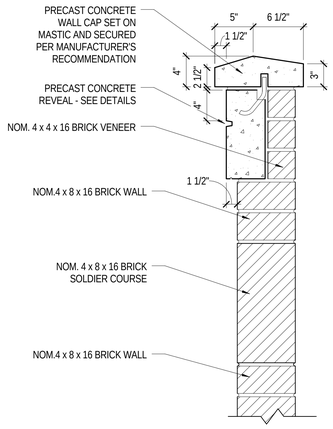
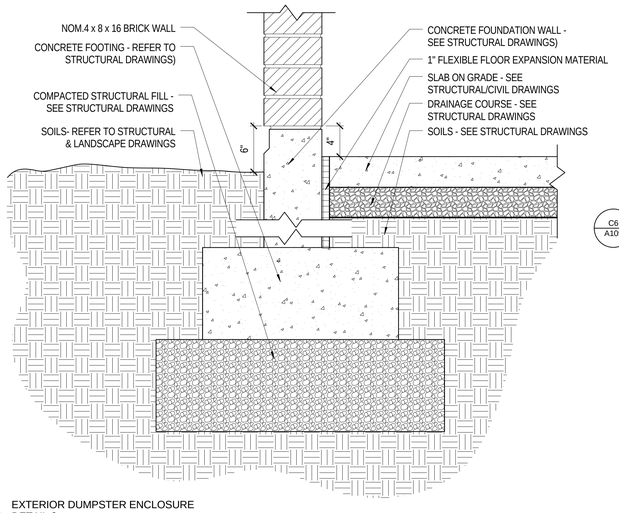
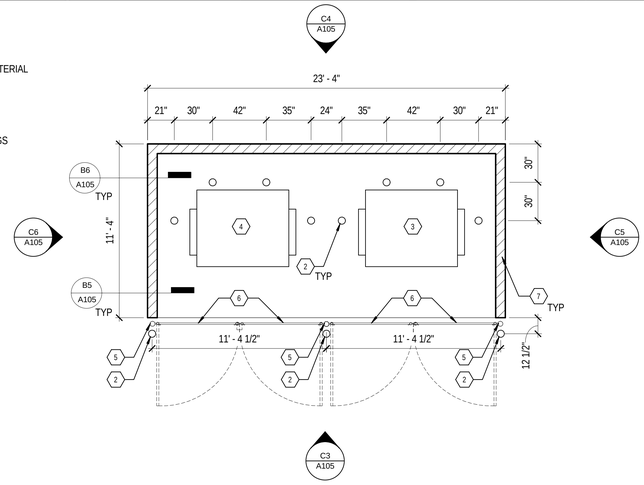


B6 EXTERIOR DUMPSTER ENCLOSURE DETAIL 3
1 1/2" = 1'-0"

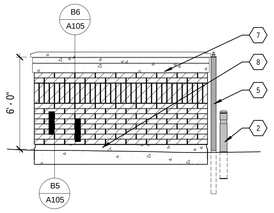


B5 EXTERIOR DUMPSTER ENCLOSURE DETAIL 2
1 1/2" = 1'-0"

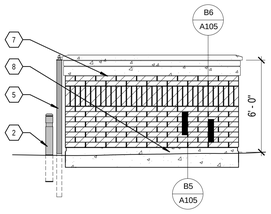


B3 EXTERIOR DUMPSTER ENCLOSURE PLAN
1/4" = 1'-0"

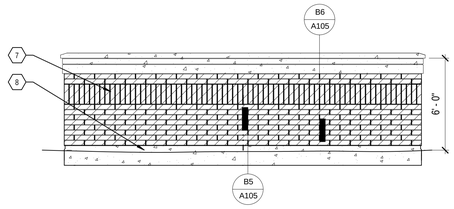
PLAN NORTH



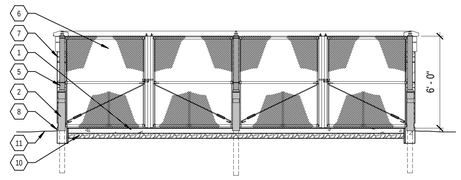
C6 EXTERIOR DUMPSTER ENCLOSURE SIDE 2 ELEVATION
1/4" = 1'-0"



C5 EXTERIOR DUMPSTER ENCLOSURE SIDE 1 ELEVATION
1/4" = 1'-0"



C4 EXTERIOR DUMPSTER ENCLOSURE BACK ELEVATION
1/4" = 1'-0"



C3 EXTERIOR DUMPSTER ENCLOSURE FRONT ELEVATION
1/4" = 1'-0"

KEYNOTES

1. CONCRETE SLAB ON GRADE - SEE CIVIL AND STRUCTURAL DRAWINGS
2. BOLLARD - SEE CIVIL DRAWINGS
3. 8 CY TRASH DUMPSTER BY OWNER
4. 8 CY RECYCLE DUMPSTER BY OWNER
5. 3" O.D. GATE POST WITH STANDARD TOP AND MIN. 3 BRACE BANDS AND 2 TENSION BANDS
6. SWINGING GALVANIZED CHAIN LINK 9 GA- 5/8" MESH SIZE WITH TWIST TOP & BOTTOM TERMINATION, FIN/SLAT PRIVACY GATE WITH TOP AND BOTTOM BRACE RAILS ENDS, RAILS, AND TRUSS ROD WITH TURNBUCKLE
7. NOM. 16 X 8 X 4 BRICK WALL - 6'-0" HIGH, WITH SOLDIER COURSE AND PRECAST CONCRETE BAND AND CAP BACKED WITH BRICK VENEER- SEE DETAILS
8. CONCRETE FOUNDATION WALL - SEE STRUCTURAL DRAWINGS
9. CONCRETE FOOTING - SEE STRUCTURAL DRAWINGS
10. DRAINAGE COURSE - SEE STRUCTURAL DRAWINGS
11. NATURAL SOILS - SEE STRUCTURAL DRAWINGS

EFT ARCHITECTS
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SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR PROPER FOLLOW-UP AND COMPLIANCE OF LEED REQUIREMENTS.
2. CONTRACTOR IS RESPONSIBLE FOR PROPER FOLLOW-UP AND COMPLIANCE OF SECURITY REQUIREMENTS
3. BUILD OTHER EXTERIOR WALLS PER CIVIL AND STRUCTURAL DRAWINGS
4. DIMENSIONAL NUMBERS ARE ROUNDED TO THE NEXT 1/2 INCH DIGIT (TYP)
5. USE NOM. 4 X 8 X 16 BRICK WITH SCORE LINES MATCHING SOLDIER COURSE BRICK INSTALLATION AT SOLDIER LAYOUT, TO ALLOW THE REQUIRED/NECESSARY REINFORCEMENT OF THE WALL
6. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)

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DUMPSTER ENCLOSURE

REVISION	DATE	BY	DESCRIPTION
1			
2			
3			
4			

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PROJECT NO.: 11007	DRAWING NO.: A105
DATE: 02/15/2013	

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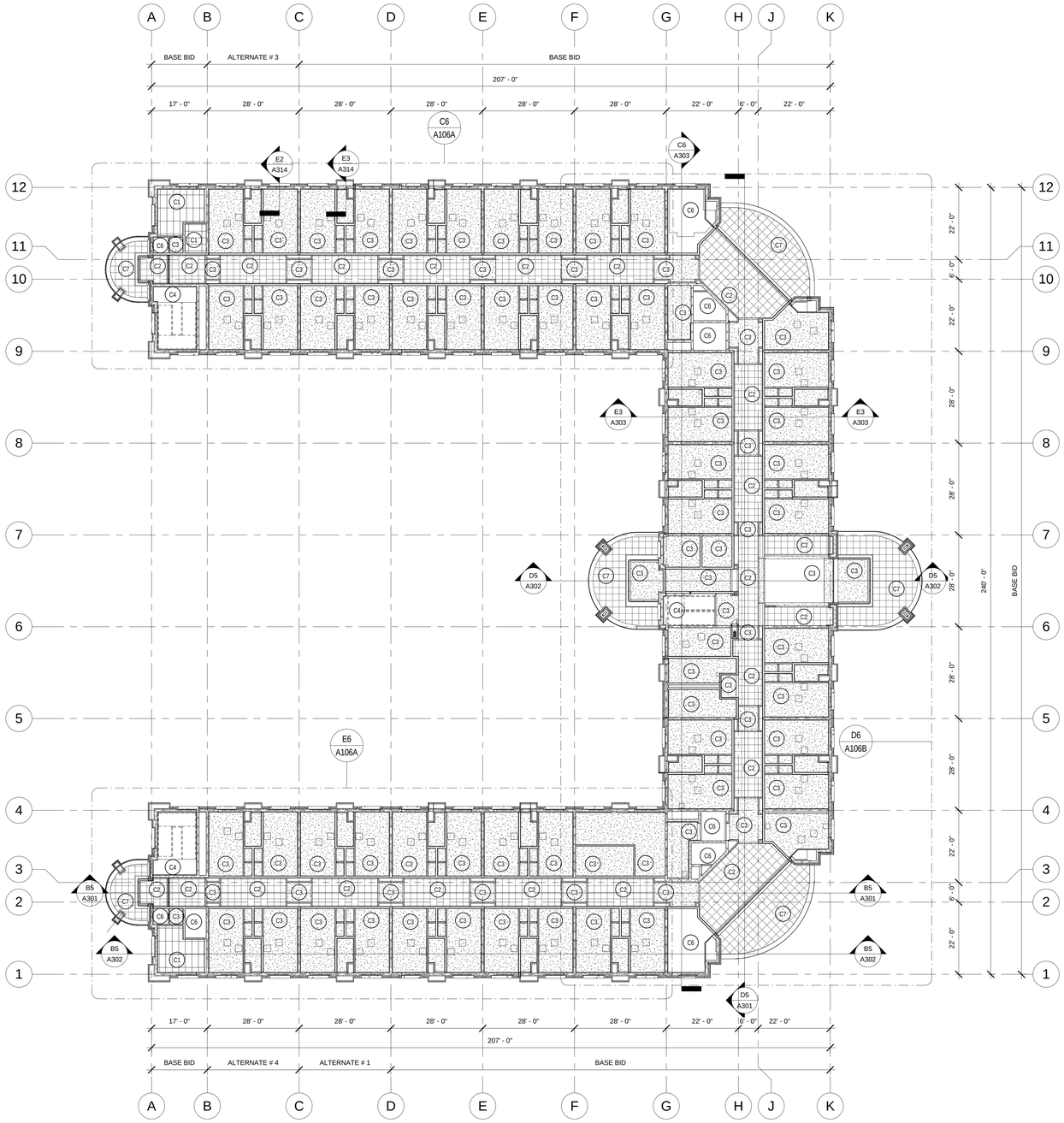

E5 OVERALL FIRST LEVEL CEILING PLAN
1/16" = 1'-0"

RCP LEGEND

C1	2' X 4' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM - APC-2
C2	2' X 2' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM - APC-1
C3	SUSPENDED GYP. BOARD CEILING (PAINTED)
C4	EXPOSED STRUCTURE, MECHANICAL, ELECTRICAL & PLUMBING, PAINTED.
C5	2' X 4' SUSPENDED GRID / VINYL COVERED LAY-INN PANELS - APC-3
C6	EXPOSED STRUCTURE, MECHANICAL, ELECTRICAL & PLUMBING, NOT PAINTED.
C7	2' X 2' EXTERIOR METAL SUSPENDED GRID / ACOUSTICAL METAL PAN SYSTEM.
	EXIT SIGN / WALL-MOUNTED EXIT SIGN
O.T.S.	OPEN TO STRUCTURE - SEE FINISH SCHEDULE
	MOTION SENSOR
	HORN STROBE
	MASS NOTIFICATION HORN STROBE
	SMOKE DETECTOR
	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	ACCESS HATCH
	PENDANT LIGHT FIXTURE
	2'X4' RECESSED LIGHT FIXTURE
	2'X2' RECESSED LIGHT FIXTURE
	PENDANT UTILITY LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	COVE LIGHT FIXTURE

EFT ARCHITECTS
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SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES.

2. CONSTRUCTION WITHIN GRIDS A TO B IS PART OF THE BASE BID OF THE PROJECT AND IT NEEDS TO BE BUILT IN ACCORDANCE WITH THE DESCRIPTION SHOWN ON OVERALL PLAN DRAWINGS & NOTES WITH AND WITHOUT ALTERNATES.

3. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION.

4. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)

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OVERALL FIRST LEVEL CEILING PLAN

REVISION	DATE	BY	DESCRIPTION

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PROJECT NO.: 11007	DRAWING NO.: A106
DATE: 02/15/2013	

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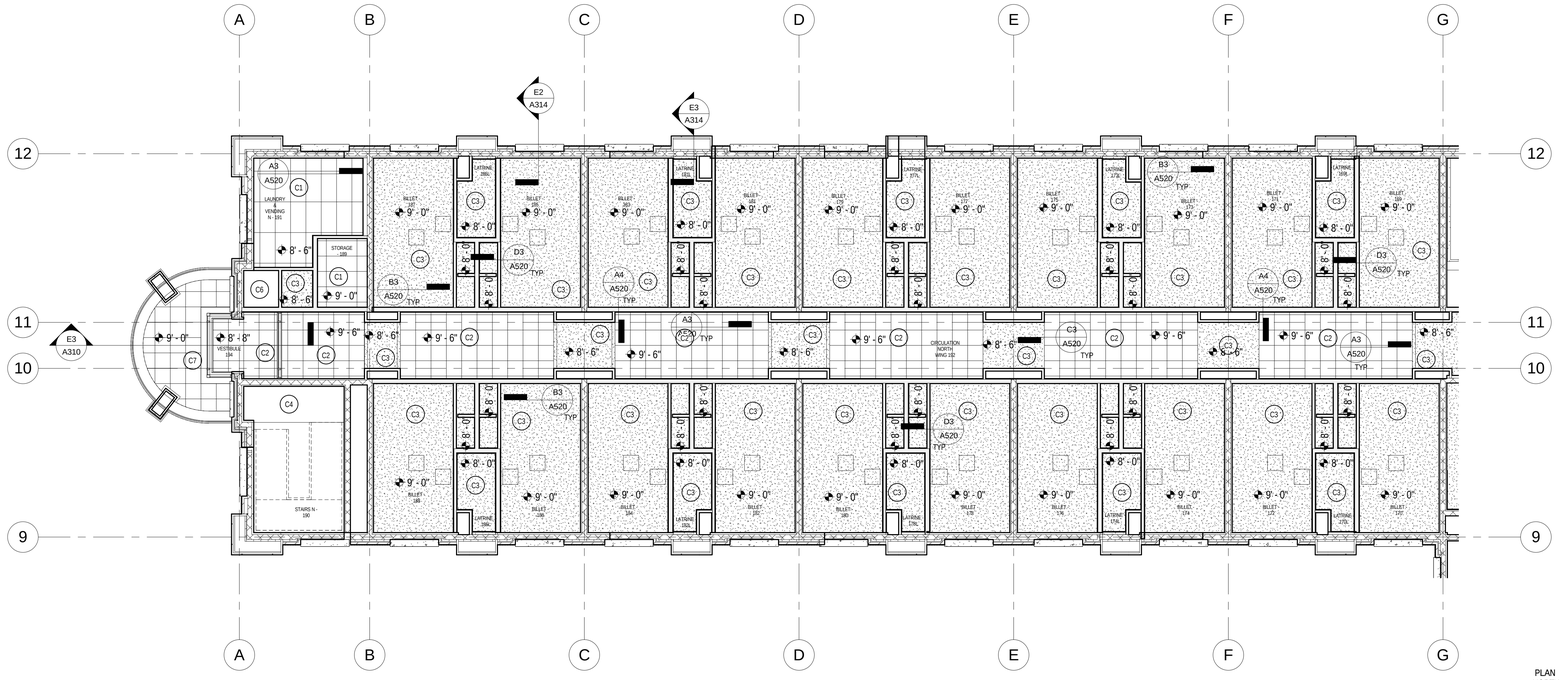
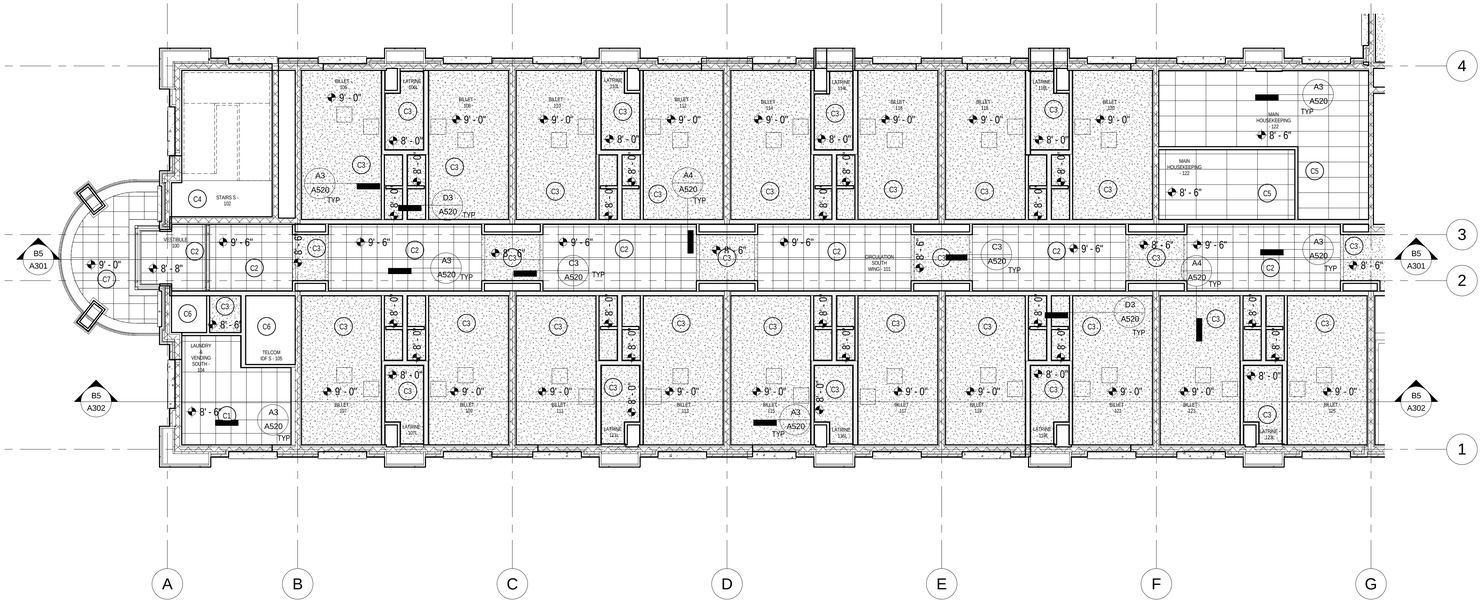


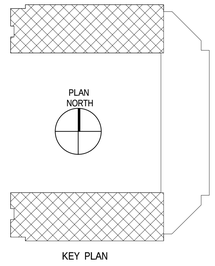
C6 FIRST LEVEL CEILING PLAN - NORTH WING
1/8" = 1'-0"



E6 FIRST LEVEL CEILING PLAN - SOUTH WING
1/8" = 1'-0"

RCP LEGEND

C1	2' X 4' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM - APC-2
C2	2' X 2' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM - APC-1
C3	SUSPENDED GYP. BOARD CEILING (PAINTED)
C4	EXPOSED STRUCTURE, MECHANICAL, ELECTRICAL & PLUMBING, PAINTED.
C5	2' X 4' SUSPENDED GRID / VINYL COVERED LAY-INN PANELS - APC-3
C6	EXPOSED STRUCTURE, MECHANICAL, ELECTRICAL & PLUMBING, NOT PAINTED.
C7	2' X 2' EXTERIOR METAL SUSPENDED GRID / ACOUSTICAL METAL PAN SYSTEM.
	EXIT SIGN / WALL-MOUNTED EXIT SIGN
O.T.S.	OPEN TO STRUCTURE - SEE FINISH SCHEDULE
	MOTION SENSOR
	HORN STROBE
	MASS NOTIFICATION HORN STROBE
	SMOKE DETECTOR
	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	ACCESS HATCH
	PENDANT LIGHT FIXTURE
	2'X4' RECESSED LIGHT FIXTURE
	2'X2' RECESSED LIGHT FIXTURE
	PENDANT UTILITY LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	COVE LIGHT FIXTURE



KEY PLAN

EFT ARCHITECTS
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SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

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3. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION
4. NOTED CEILING HEIGHTS ARE FROM DESIGNATED FINISH FLOOR ELEVATIONS.
5. ALL CEILINGS ARE TO BE SEISMICALLY BRACED. SEE DETAILS & REQUIREMENTS
6. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR ACCESS DOOR INFORMATION AND PRECISE TRADE COORDINATION REQUIRED TO COMPLY WITH DESIGN REQUIREMENTS. ARCHITECTURAL CEILING PLANS SHOWING ROUGH LOCATION ONLY.
7. ALL EXPOSED STRUCTURE, MECHANICAL & PLUMBING EQUIPMENT TO BE PAINTED, U.N.O.
8. CENTER RECESSED LIGHTS, SPRINKLER HEADS, DIFFUSERS, ETC. IN BOTH DIRECTIONS WITHIN CEILING TILES, MAINTAINING ELECTED DISTANCES PER TRADE.
9. FIRE SPRINKLER HEAD LOCATIONS ARE NOT SHOWN AND ARE TO BE DETERMINED BY FIRE PROTECTION SUB-CONTRACTOR. FINAL LOCATION TO BE APPROVED BY ARCHITECT AND LOCAL FIRE AUTHORITY PRIOR TO FABRICATION AND INSTALLATION.
10. ALL WALLS NOT GOING TO DECK AND SOFFITS ARE TO BE BRACED. REFER TO TYPICAL BRACING DETAILS. SEE STRUCTURAL REQUIREMENTS.
11. CEILING GRIDS ARE TO BE CENTERED WITHIN THE SPACE, EXCEPT AT DAY ROOMS.
12. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
13. REFER TO CEILING DETAILS FOR ACOUSTICAL LAY-IN CEILING GRID ATTACHMENT PLAN & BRACING REQUIREMENTS - REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

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FIRST LEVEL CEILING PLAN NORTH & SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A106A
DATE: 02/15/2013	

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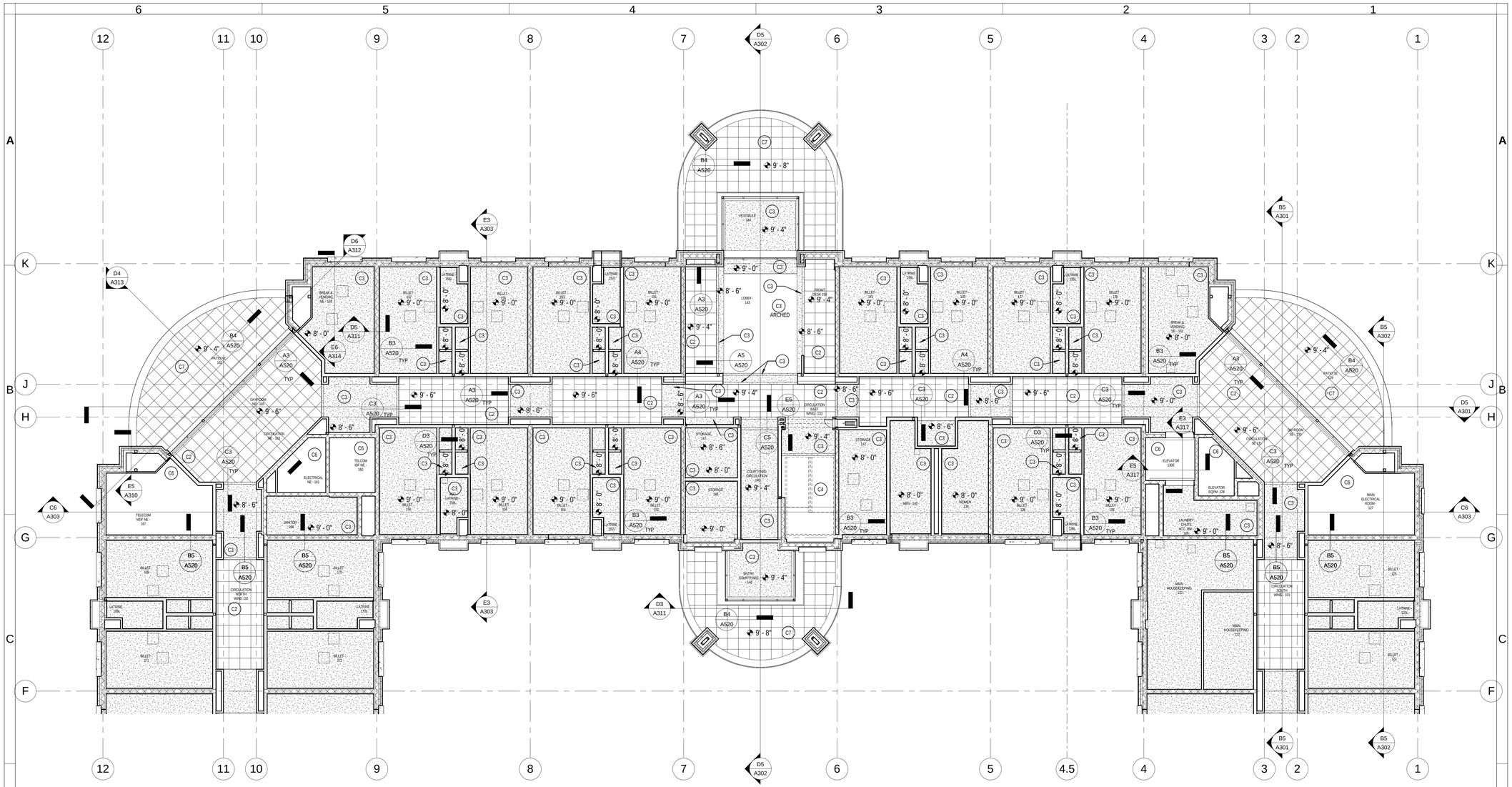


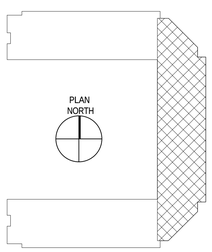
D6 FIRST LEVEL CEILING PLAN - EAST WING
1/8" = 1'-0"

PLAN NORTH

RCP LEGEND

C1	2' X 4' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM - APC-2.
C2	2' X 2' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM- APC-1
C3	SUSPENDED GYP. BOARD CEILING (PAINTED)
C4	EXPOSED STRUCTURE, MECHANICAL, ELECTRICAL & PLUMBING, PAINTED.
C5	2' X 4' SUSPENDED GRID / VINYL COVERED LAY-IN PANELS- APC-3
C6	EXPOSED STRUCTURE, MECHANICAL, ELECTRICAL & PLUMBING, NOT PAINTED.
C7	2' X 2' EXTERIOR METAL SUSPENDED GRID / ACOUSTICAL METAL PAN SYSTEM.

	EXIT SIGN / WALL-MOUNTED EXIT SIGN
O.T.S.	OPEN TO STRUCTURE - SEE FINISH SCHEDULE
	MOTION SENSOR
	HORN STROBE
	MASS NOTIFICATION HORN STROBE
	SMOKE DETECTOR
	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	ACCESS HATCH
	PENDANT LIGHT FIXTURE
	2'X4' RECESSED LIGHT FIXTURE
	2'X2' RECESSED LIGHT FIXTURE
	PENDANT UTILITY LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	COVE LIGHT FIXTURE



KEY PLAN

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES.
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3. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION
4. NOTED CEILING HEIGHTS ARE FROM DESIGNATED FINISH FLOOR ELEVATIONS.
5. ALL CEILINGS ARE TO BE SEISMICALLY BRACED. SEE DETAILS & REQUIREMENTS
6. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR ACCESS DOOR INFORMATION AND PRECISE TRADE COORDINATION REQUIRED TO COMPLY WITH DESIGN REQUIREMENTS. ARCHITECTURAL CEILING PLANS SHOWING ROUGH LOCATION ONLY.
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8. CENTER RECESSED LIGHTS, SPRINKLER HEADS, DIFFUSERS, ETC. IN BOTH DIRECTIONS WITHIN CEILING TILES, MAINTAINING ELECTED DISTANCES PER TRADE.
9. FIRE SPRINKLER HEAD LOCATIONS ARE NOT SHOWN AND ARE TO BE DETERMINED BY FIRE PROTECTION SUB-CONTRACTOR. FINAL LOCATION TO BE APPROVED BY ARCHITECT AND LOCAL FIRE AUTHORITY PRIOR TO FABRICATION AND INSTALLATION.
10. ALL WALLS NOT GOING TO DECK AND SOFFITS ARE TO BE BRACED. REFER TO TYPICAL BRACING DETAILS. SEE STRUCTURAL REQUIREMENTS.
11. CEILING GRIDS ARE TO BE CENTERED WITHIN THE SPACE, EXCEPT AT DAY ROOMS.
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13. REFER TO CEILING DETAILS FOR ACOUSTICAL LAY-IN CEILING GRID ATTACHMENT PLAN & BRACING REQUIREMENTS - REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

BUILDING OFFICIAL APPROVAL

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CAMP WILLIAMS
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RIVERTON, UT 84062

FIRST LEVEL CEILING PLAN EAST WING

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A106B
DATE: 02/15/2013	

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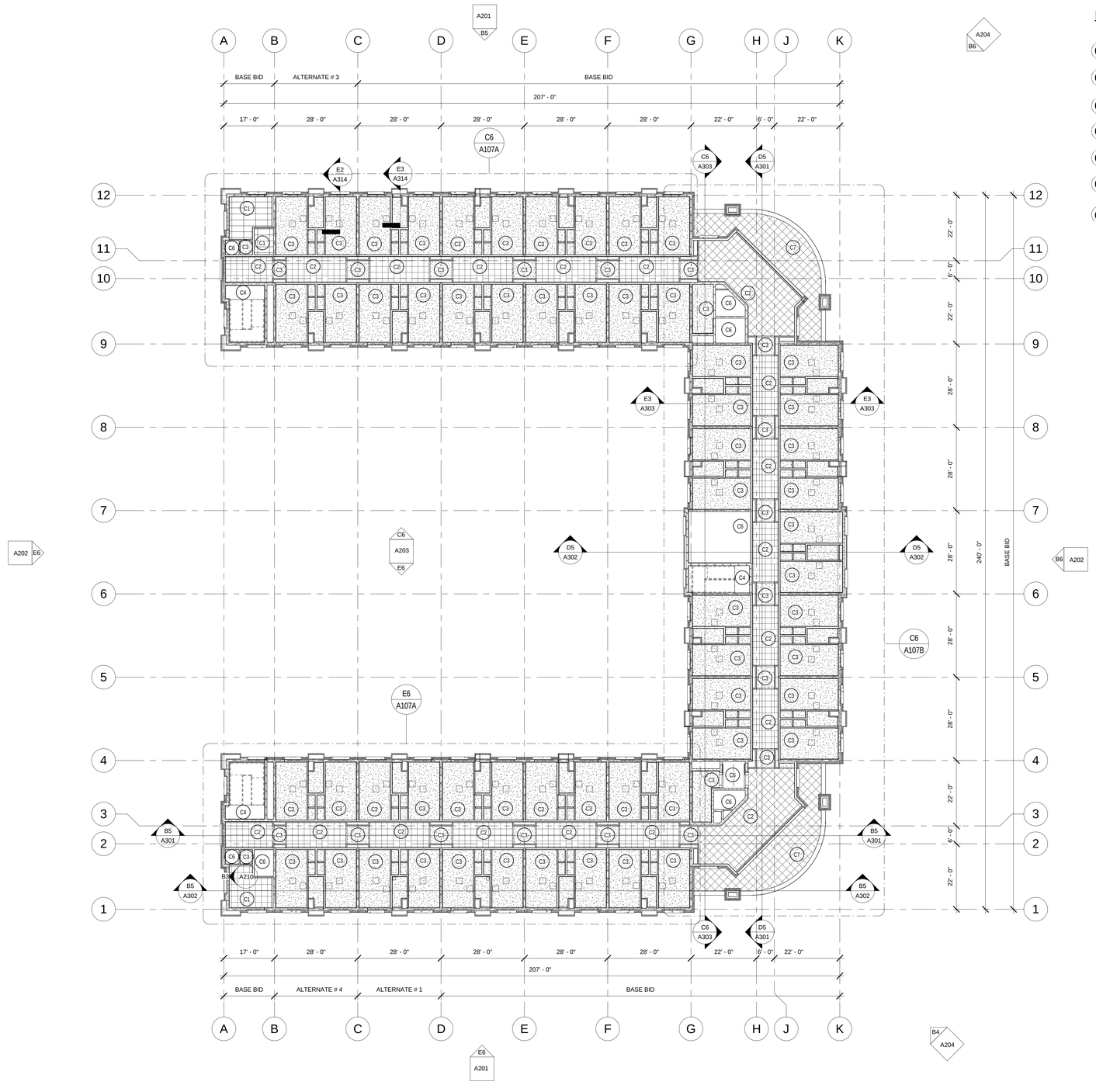

E5 OVERALL SECOND LEVEL CEILING PLAN
1/16" = 1'-0"

RCP LEGEND

C1	2' X 4' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM - APC-2
C2	2' X 2' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM - APC-1
C3	SUSPENDED GYP. BOARD CEILING (PAINTED)
C4	EXPOSED STRUCTURE, MECHANICAL, ELECTRICAL & PLUMBING, PAINTED.
C5	2' X 4' SUSPENDED GRID / VINYL COVERED LAY-INN PANELS - APC-3
C6	EXPOSED STRUCTURE, MECHANICAL, ELECTRICAL & PLUMBING, NOT PAINTED.
C7	2' X 2' EXTERIOR METAL SUSPENDED GRID / ACOUSTICAL METAL PAN SYSTEM.
	EXIT SIGN / WALL-MOUNTED EXIT SIGN
O.T.S.	OPEN TO STRUCTURE - SEE FINISH SCHEDULE
	MOTION SENSOR
	HORN STROBE
	MASS NOTIFICATION HORN STROBE
	SMOKE DETECTOR
	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	ACCESS HATCH
	PENDANT LIGHT FIXTURE
	2'X4' RECESSED LIGHT FIXTURE
	2'X2' RECESSED LIGHT FIXTURE
	PENDANT UTILITY LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	COVE LIGHT FIXTURE

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GENERAL NOTES

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4. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)

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BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

OVERALL SECOND LEVEL CEILING PLAN

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A107
DATE: 02/15/2013	

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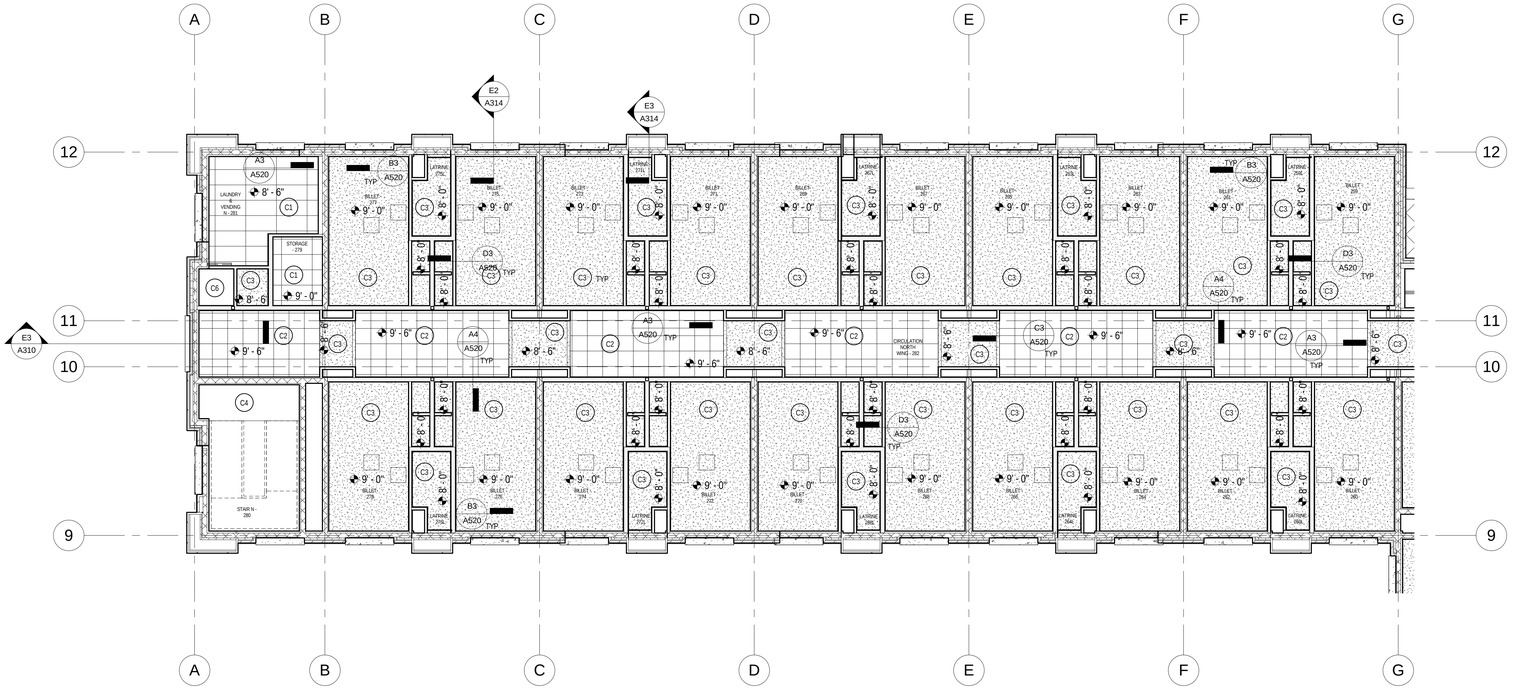

C6 SECOND LEVEL CEILING PLAN - NORTH WING
1/8" = 1'-0"

E6 SECOND LEVEL CEILING PLAN - SOUTH WING
1/8" = 1'-0"

RCP LEGEND

C1	2' X 4' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM - APC-2
C2	2' X 2' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM - APC-1
C3	SUSPENDED GYP. BOARD CEILING (PAINTED)
C4	EXPOSED STRUCTURE, MECHANICAL, ELECTRICAL & PLUMBING, PAINTED.
C5	2' X 4' SUSPENDED GRID / VINYL COVERED LAY-INN PANELS - APC-3
C6	EXPOSED STRUCTURE, MECHANICAL, ELECTRICAL & PLUMBING, NOT PAINTED.
C7	2' X 2' EXTERIOR METAL SUSPENDED GRID / ACOUSTICAL METAL PAN SYSTEM.
	EXIT SIGN / WALL-MOUNTED EXIT SIGN
O.T.S.	OPEN TO STRUCTURE - SEE FINISH SCHEDULE
	MOTION SENSOR
	HORN STROBE
	MASS NOTIFICATION HORN STROBE
	SMOKE DETECTOR
	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	ACCESS HATCH
	PENDANT LIGHT FIXTURE
	2'X4' RECESSED LIGHT FIXTURE
	2'X2' RECESSED LIGHT FIXTURE
	PENDANT UTILITY LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	COVE LIGHT FIXTURE

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

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7. ALL EXPOSED STRUCTURE, MECHANICAL & PLUMBING EQUIPMENT TO BE PAINTED, U.N.O.
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BUILDING OFFICIAL APPROVAL

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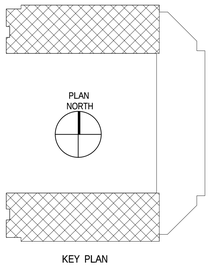
RIVERTON, UT 84062



KEY PLAN

SECOND FLOOR CEILING PLAN NORTH & SOUTH WING

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A107A
DATE: 02/15/2013	

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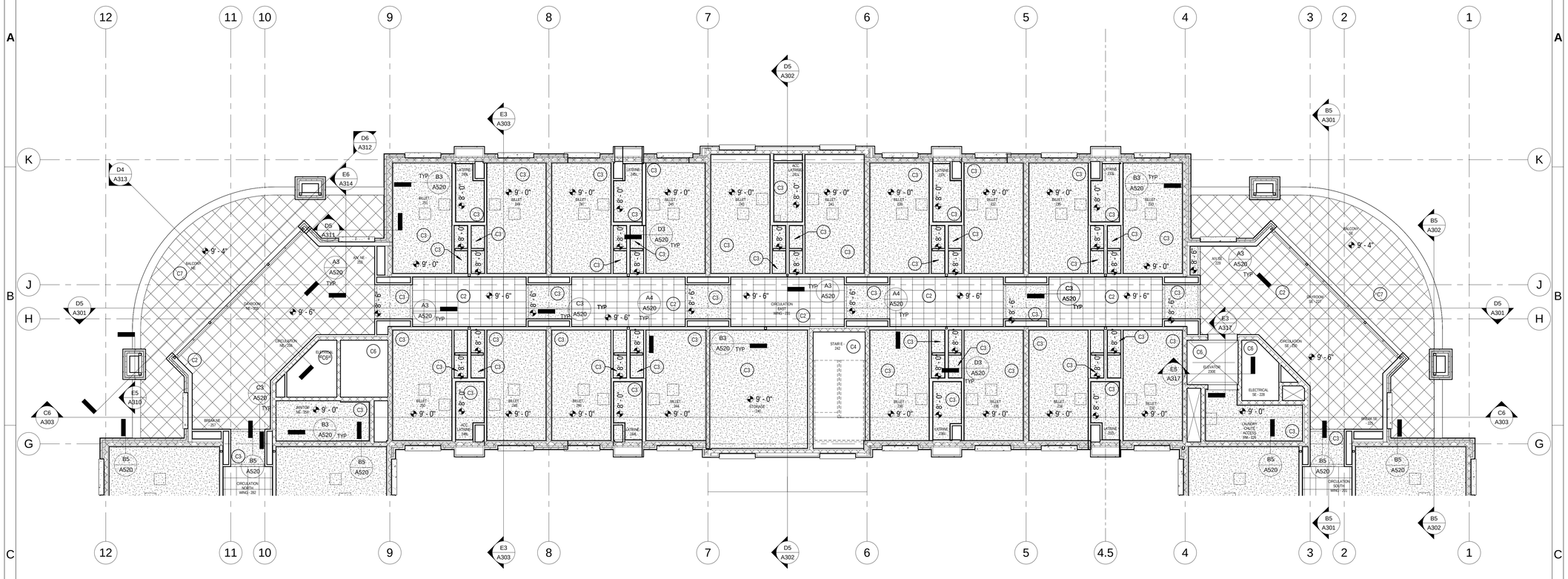


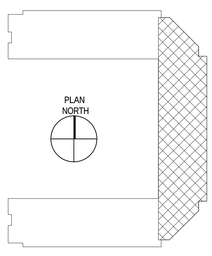
SECOND LEVEL CEILING PLAN - EAST WING
C6 1/8" = 1'-0"

PLAN NORTH

RCP LEGEND

C1	2' X 4' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM - APC-2.
C2	2' X 2' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM- APC-1
C3	SUSPENDED GYP. BOARD CEILING (PAINTED)
C4	EXPOSED STRUCTURE, MECHANICAL, ELECTRICAL & PLUMBING, PAINTED.
C5	2' X 4' SUSPENDED GRID / VINYL COVERED LAY-IN PANELS- APC-3
C6	EXPOSED STRUCTURE, MECHANICAL, ELECTRICAL & PLUMBING, NOT PAINTED.
C7	2' X 2' EXTERIOR METAL SUSPENDED GRID / ACOUSTICAL METAL PAN SYSTEM.

	EXIT SIGN / WALL-MOUNTED EXIT SIGN
O.T.S.	OPEN TO STRUCTURE - SEE FINISH SCHEDULE
	MOTION SENSOR
	HORN STROBE
	MASS NOTIFICATION HORN STROBE
	SMOKE DETECTOR
	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	ACCESS HATCH
	PENDANT LIGHT FIXTURE
	2'X4' RECESSED LIGHT FIXTURE
	2'X2' RECESSED LIGHT FIXTURE
	PENDANT UTILITY LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	COVE LIGHT FIXTURE



KEY PLAN

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SECOND FLOOR CEILING PLAN EAST WING

REVISION	DATE	BY	DESCRIPTION
△			
△			
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DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A107B
DATE: 02/15/2013	

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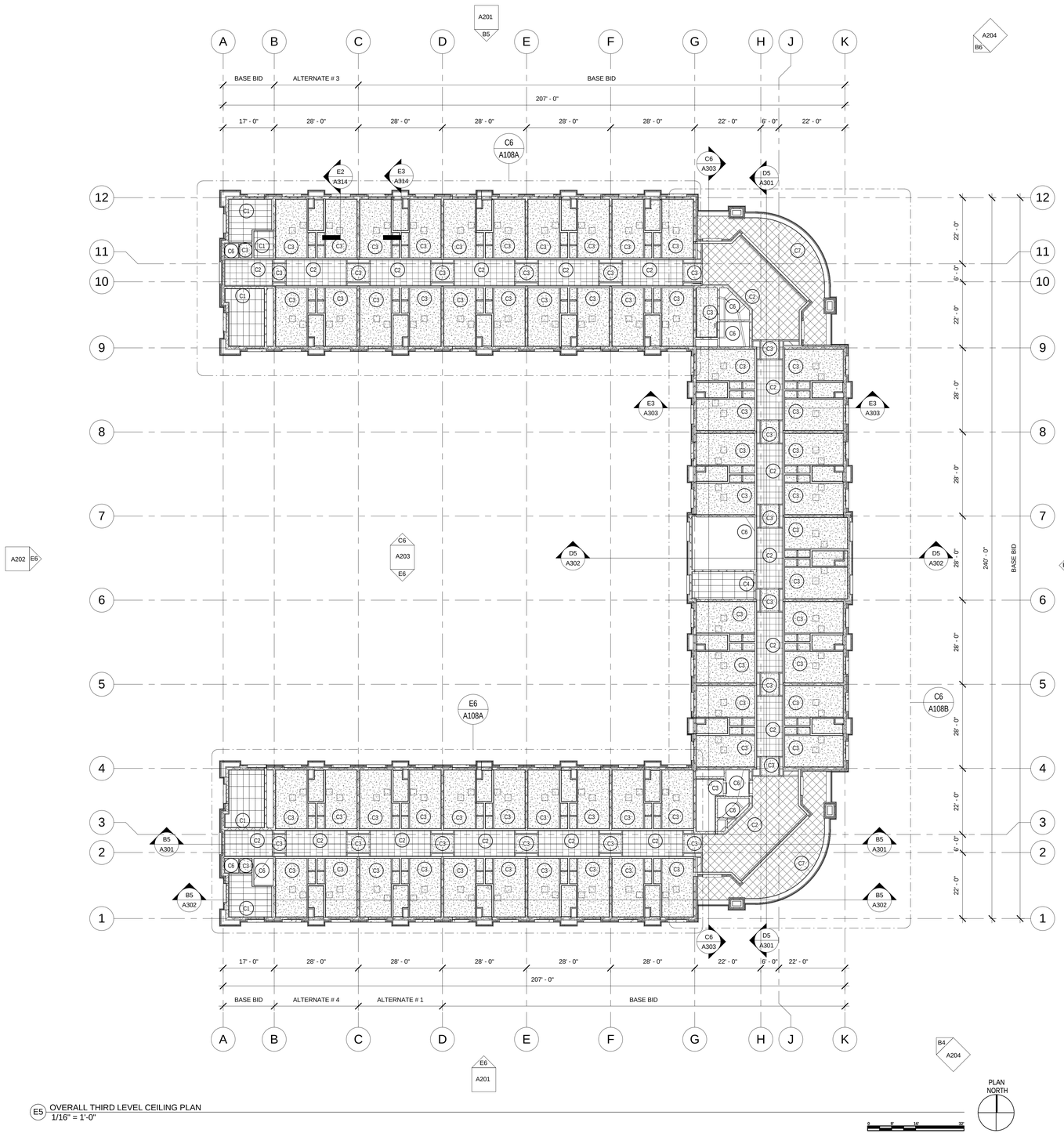

E5 OVERALL THIRD LEVEL CEILING PLAN
1/16" = 1'-0"

RCP LEGEND

C1	2' X 4' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM - APC-2
C2	2' X 2' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM - APC-1
C3	SUSPENDED GYP. BOARD CEILING (PAINTED)
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C7	2' X 2' EXTERIOR METAL SUSPENDED GRID / ACOUSTICAL METAL PAN SYSTEM.
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O.T.S.	OPEN TO STRUCTURE - SEE FINISH SCHEDULE
	MOTION SENSOR
	HORN STROBE
	MASS NOTIFICATION HORN STROBE
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	RETURN AIR GRILLE
	ACCESS HATCH
	PENDANT LIGHT FIXTURE
	2'X4' RECESSED LIGHT FIXTURE
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	PENDANT UTILITY LIGHT FIXTURE
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	RECESSED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
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SEAL & SIGNATURE

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LICENSED ARCHITECT

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OVERALL THIRD LEVEL CEILING PLAN

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A108
DATE: 02/15/2013	

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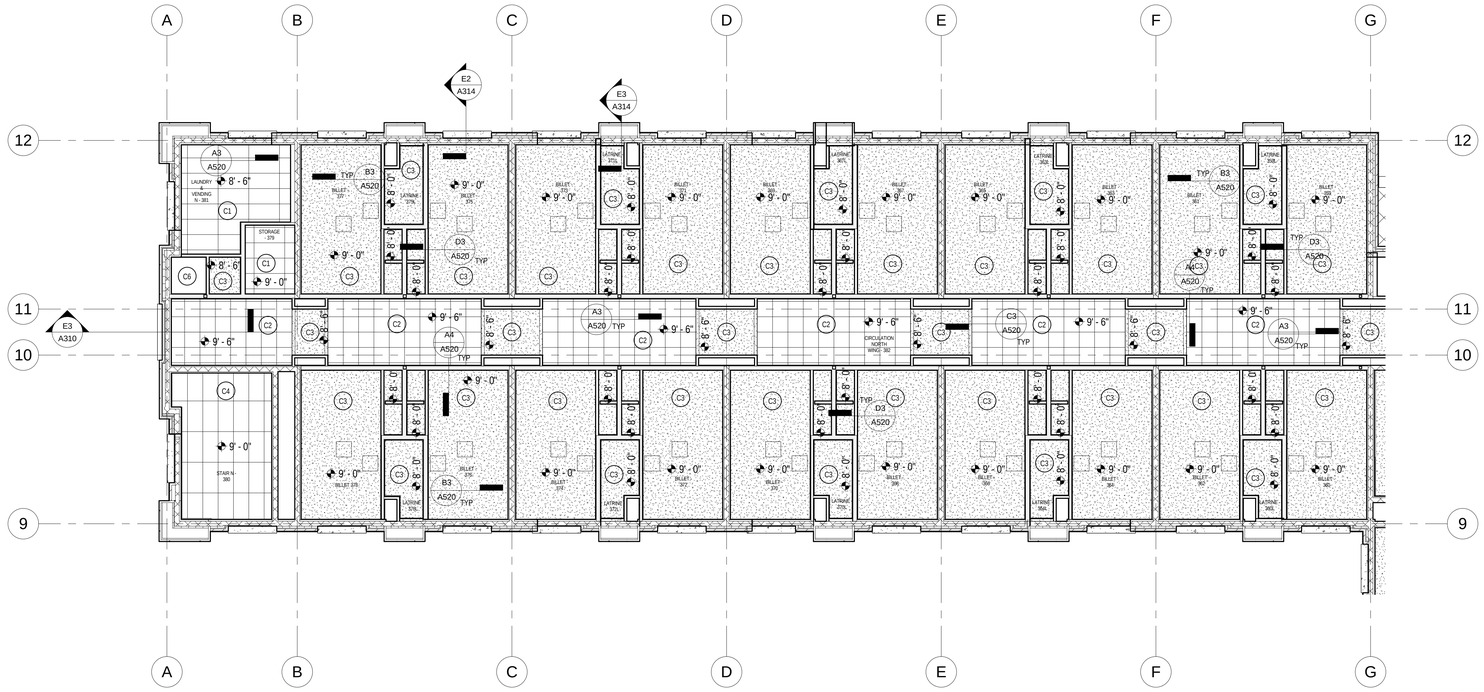
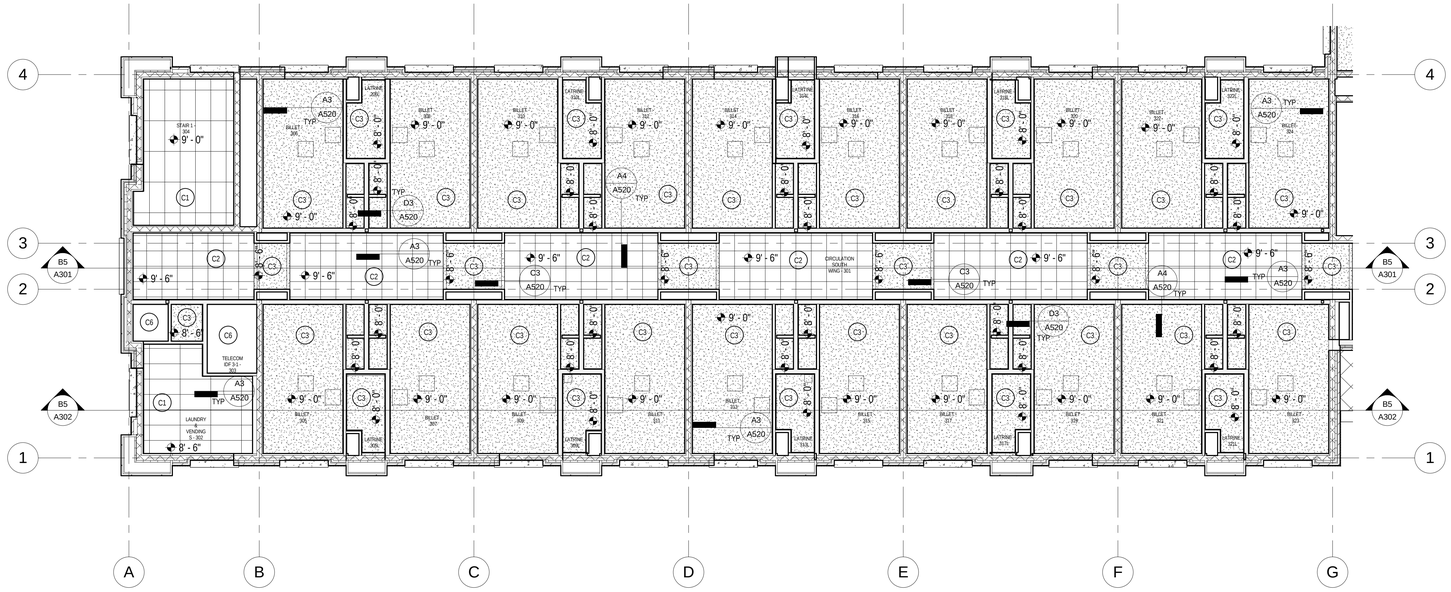


C6 THIRD LEVEL CEILING PLAN - NORTH WING
1/8" = 1'-0"



E6 THIRD LEVEL CEILING PLAN - SOUTH WING
1/8" = 1'-0"

RCP LEGEND

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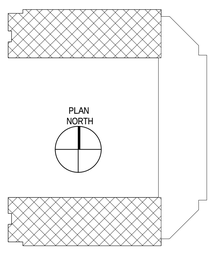

KEY PLAN

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
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THIRD LEVEL CEILING PLAN NORTH & SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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△			
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DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A108A
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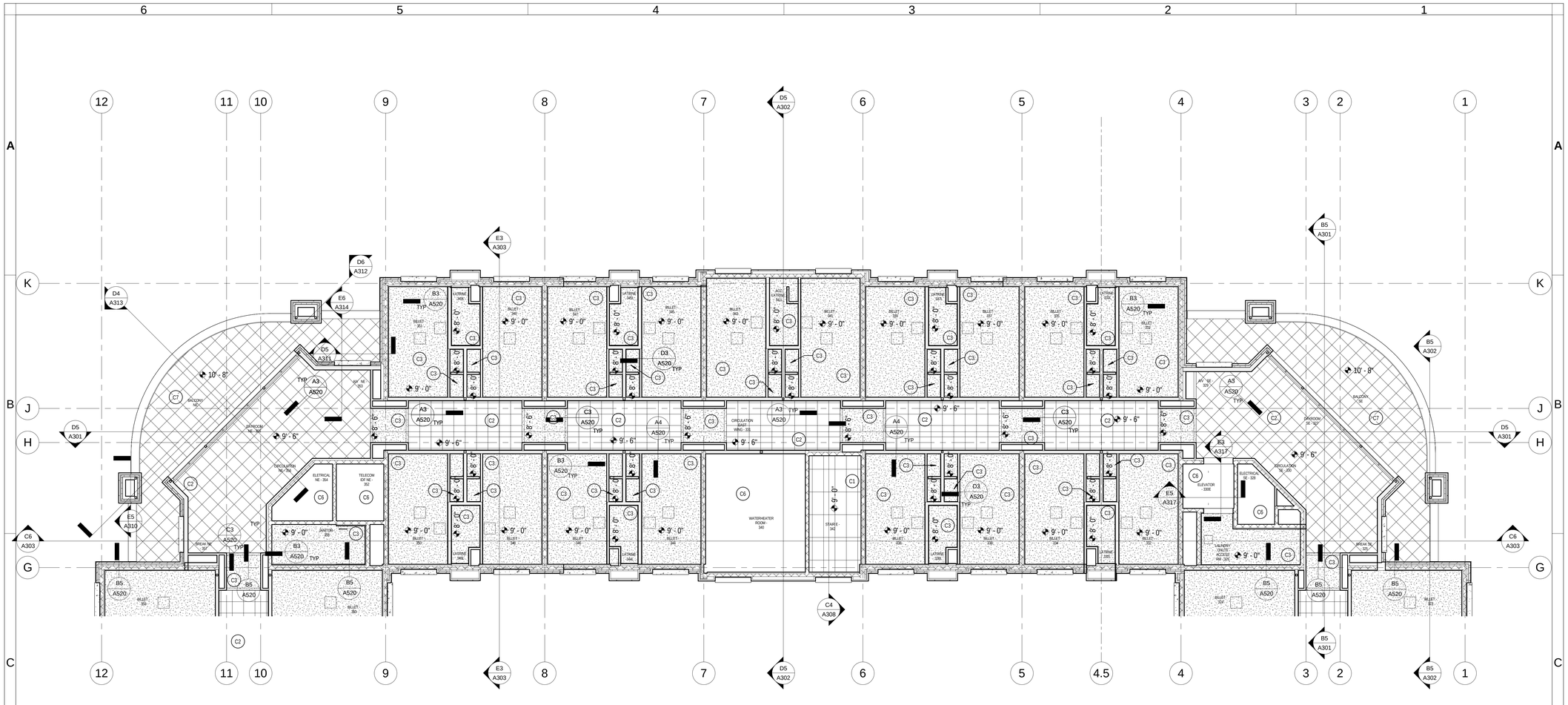

C6 THIRD LEVEL CEILING PLAN - EAST WING
1/8" = 1'-0"

RCP LEGEND

C1	2' X 4' SUSPENDED GRID / ACOUSTICAL TILE SYSTEM - APC-2.
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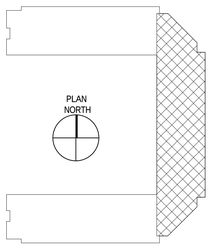

KEY PLAN

EFT ARCHITECTS
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THIRD LEVEL CEILING PLAN EAST WING

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A108B
DATE: 02/15/2013	

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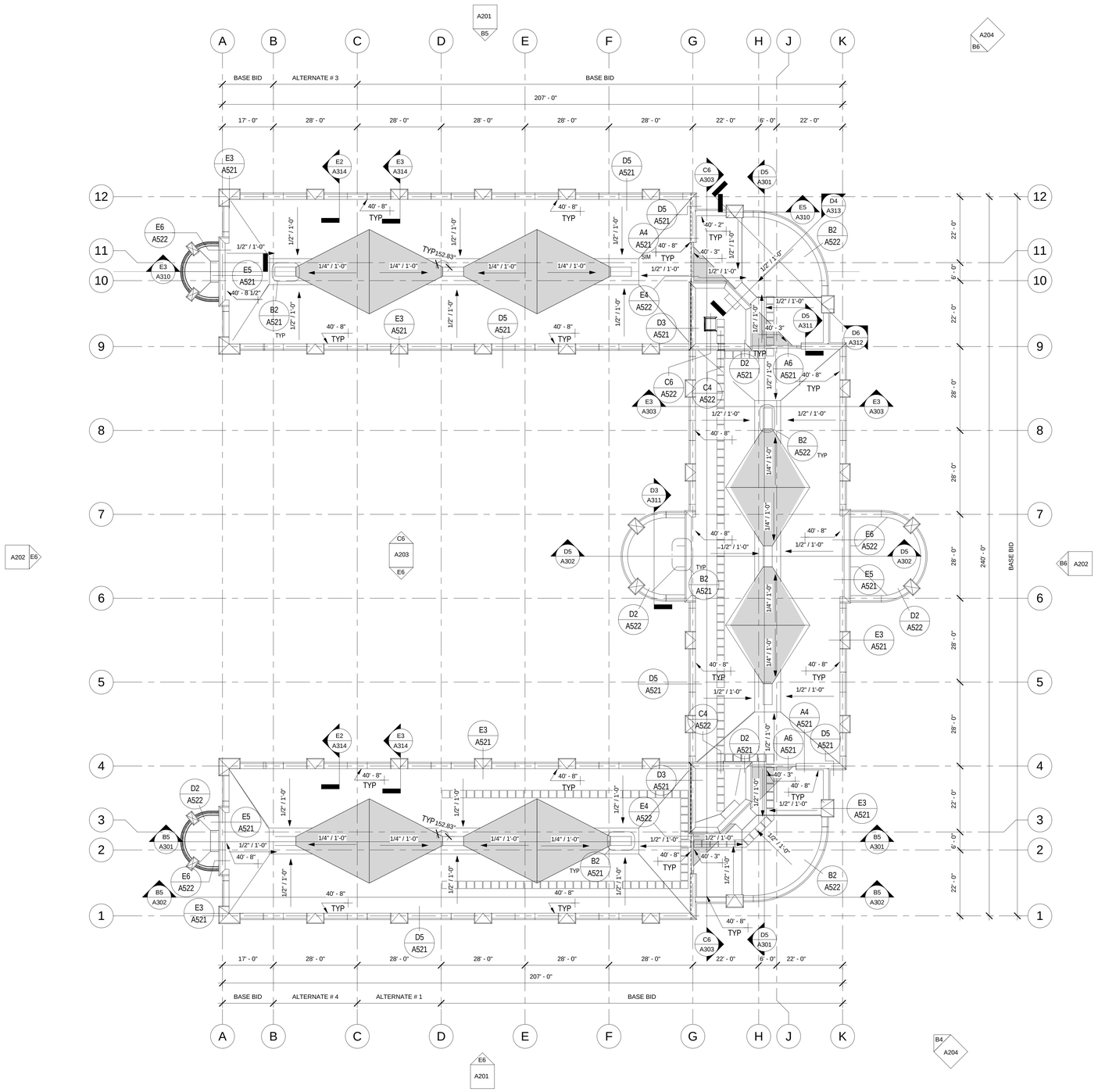

E5 ROOF AND PARAPET
1/16" = 1'-0"

ROOF LEGEND

- SINGLE PLY ROOF SYSTEM OVER STEEL DECK ON RIGID INSULATION SLOPED TO DRAIN PER INDICATED
- RIGID INSULATION CRICKET & SADDLE SLOPED TO DRAIN PER INDICATED
- WALKWAY PADS
- ROOF DRAINS
- SOLAR PANEL TO HEAT DOMESTIC WATER OF THE BUILDING - REFER TO ALTERNATE # 3 INFORMATION AND MECHANICAL DRAWINGS

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129665
LICENSED ARCHITECT

GENERAL NOTES

1. ALL TOP OF DECK, TOP OF WALL, & TOP OF MASONRY ELEVATIONS ARE RELATIVE TO FINISH FLOOR ELEVATION OF 0' - 0" SLAB ON GRADE.
2. CONSTRUCTION WITHIN GRIDS A TO B IS PART OF THE BASE BID OF THE PROJECT AND IT NEEDS TO BE BUILT IN ACCORDANCE WITH THE DESCRIPTION SHOWN ON OVERALL PLAN DRAWINGS & NOTES WITH AND WITHOUT ALTERNATES.
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4. REFER TO STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS AT OPENINGS AND LARGE PENETRATIONS.
5. ATTACHMENT OF ANY OVERBUILT TO STRUCTURE IS TO ACCOMODATE DEFLECTION PER STRUCTURAL REQUIREMENTS.
6. CONTRACTOR SHALL NOT PERFORATE THE DECK UNLESS AUTHORIZED BY STRUCTURAL ENGINEER.
7. ROOF STRUCTURE IS SLOPED- REFER TO STRUCTURAL DRAWINGS
8. MAINTAIN MINIMUM 8" OF INSIDE FACE EXPOSED PARAPET HEIGHT ABOVE ROOF SYSTEMS & CRICKETS BEFORE STARTING THE FLASHING & WALL CAP (TYP).
9. TAPERED CRICKETS ARE OVERBUILT ON TOP OF MAIN ROOF ASSEMBLY
10. PIPE PENETRATIONS AT ROOF SHALL COMPLY WITH REQUIREMENTS STATED IN MECHANICAL, PLUMBING, ELECTRICAL AND STRUCTURAL DRAWINGS - REFER TO ARCHITECTURAL ROOF DETAILS FOR PROPER FLASHING AND ROOF MEMBRANE TERMINATION
11. MECHANICAL EQUIPMENT ON ROOF SHALL COMPLY WITH REQUIREMENTS STATED IN MECHANICAL, PLUMBING, ELECTRICAL AND STRUCTURAL DRAWINGS - REFER TO ARCHITECTURAL ROOF DETAILS FOR PROPER FLASHING AND ROOF MEMBRANE TERMINATION
12. ROOFING MEMBRANE SEAMS SHALL NOT RUN THROUGH DRAIN SUMPS
13. ALTERNATE ROOF PLANS FOR SPECIFIC ROOF CONSTRUCTION SHALL APPLY BASED ON APPROVED ALTERNATE CONSTRUCTION - REFER TO STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION CONCERNING ALTERNATE ROOF CONSTRUCTION.
14. ALTERNATE # 2 IS: SOLAR PANELS TO PROVIDE 30% OF THE ANNUAL DOMESTIC HOT WATER USE. SOLAR PANELS ARE LOCATED ON THE NORTH AND SOUTH BASE BID ROOFS - REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION (NOT SHOWN ON DRAWINGS FOR CLARITY).
15. FOR LOWER ROOFS CONSTRUCTION INFORMATION, REFER TO SECOND FLOOR WING PLANS
16. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)

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MAIN BUILDING ROOF PLAN

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: A111

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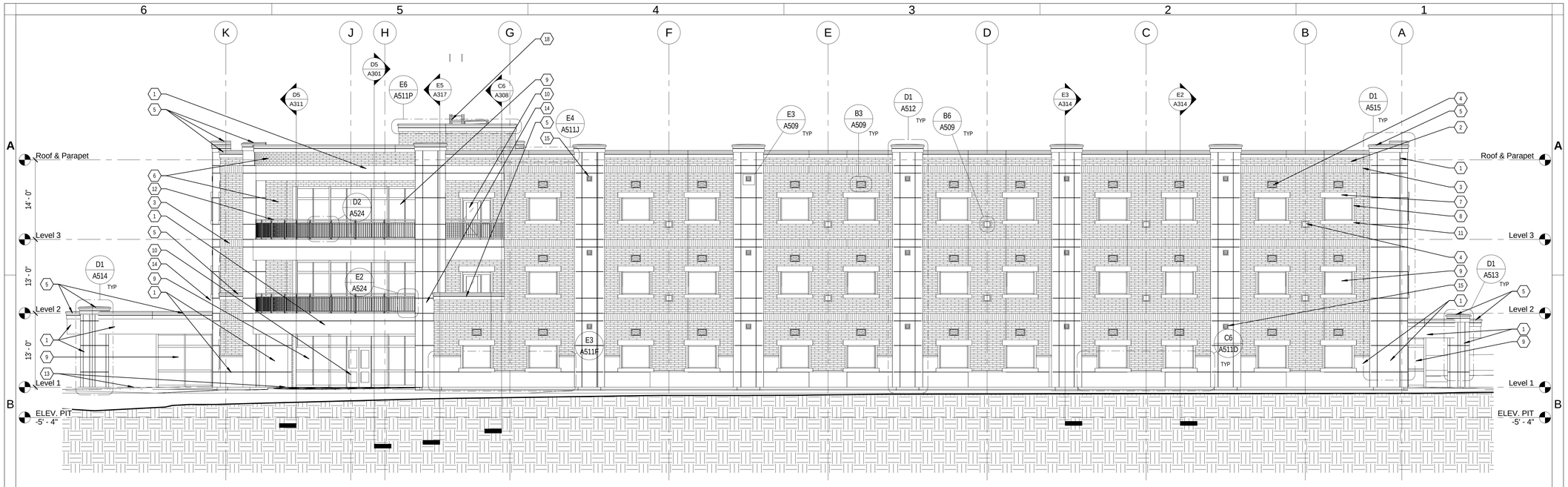
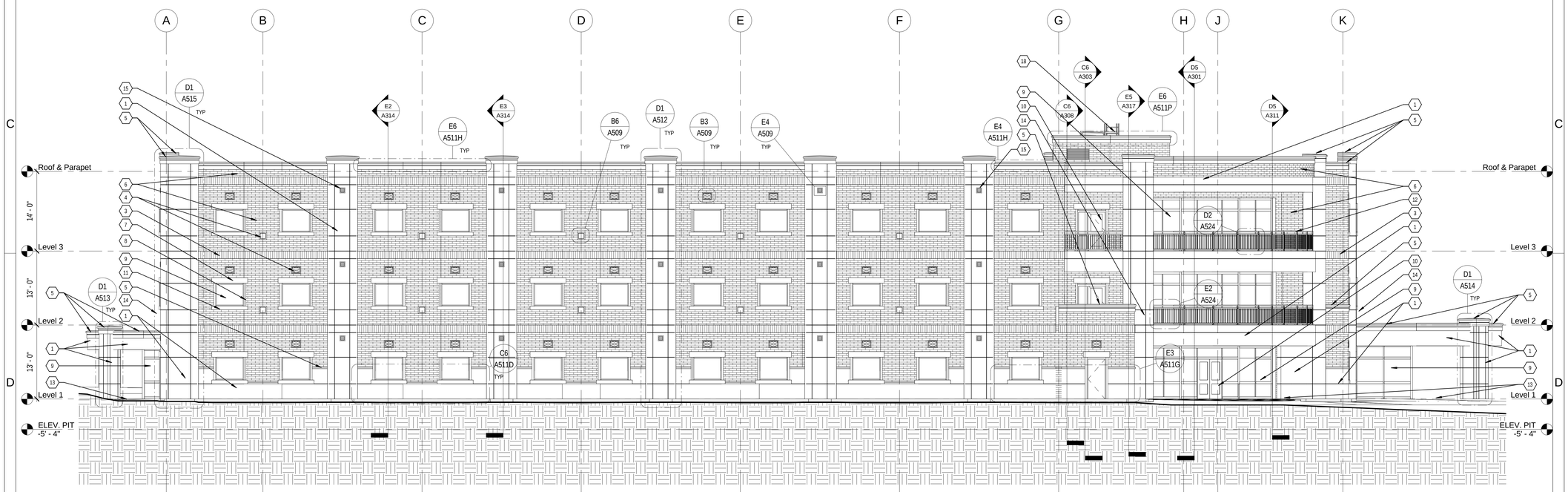


B5 NORTH ELEVATION
1/8" = 1'-0"



E6 SOUTH ELEVATION
1/8" = 1'-0"

EXTERIOR ELEVATION LEGEND

- F1 — NOMINAL 4" X 4" X 16" BRICK VENEER RUNNING BOND
- F2 — PRECAST CONCRETE PANEL
- 1' - 4" X 1' - 4" PRECAST CONCRETE MEDALLION
- 1' - 4" X 1' - 8" PRECAST CONCRETE MEDALLION
- CONSTRUCTION JOINT REVEAL
- PRECAST CONCRETE CAP
- PRECAST CONCRETE SURFACE PLATE
- NOMINAL 4" X 4" X 16" SOLDIER COURSE BRICK VENEER
- PRECAST CONCRETE TRIM
- METAL GUARDRAIL

GENERAL NOTES

1. CONSTRUCTION WITHIN GRIDS 9 TO 12 AND A TO B IS PART OF MAIN BUILDING CONSTRUCTION, AND IT NEEDS TO BE BUILT IN ACCORDANCE WITH THE FOLLOWING OPTIONS:
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   - 2c - WITH ALTERNATES # 1 AND #2: ALL CONSTRUCTION UNDER DESCRIBED ABOVE GRIDS DOES NOT MOVE.
2. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION
3. REFER TO STRUCTURAL DRAWINGS FOR CONSTRUCTION OF STRUCTURAL FRAMING AND MASONRY WALLS.
4. REFER TO STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS AT OPENINGS.
5. ALL WINDOWS ARE TO HAVE BLINDS INSTALLED WITHIN THE WINDOW FRAME.
6. WINDOWS, DOORS, WALL FINISHES AND WALL ASSEMBLIES TO ACCOMODATE DEFLECTION PER STRUCTURAL REQUIREMENTS.
7. ALL GLAZING SHALL MEET REQUIREMENTS OF SOLARBAN 70 OR EQUAL APPROVED.
8. CONTRACTOR IS TO VERIFY COURSE OF STRUCTURAL CMU AND BRICK VENEER CONCURRENTLY (TYP).
9. SOLDIER COURSE AND CONTROL JOINT ALIGNMENTS ARE TYPICAL AND NEED TO BE MAINTAINED AS SHOWN ON ELEVATIONS AND DETAILS.
10. THE CONTRACTOR IS TO ENSURE THAT ALL FACADE, INCLUDING PARAPET WALLS, ARE BUILT TO ENHANCE AIR BARRIER TIGHTNESS AND SEALED WARM ENVELOPE; REFER TO DETAILS.
11. EXPANSION JOINT COVERS ARE TO MATCH THE COLOR OF THE ADJACENT SURFACES BEING COVERED (TYP).
12. PRECAST CONCRETE WAINSCOATS ARE TO START AND STOP AS SHOWN PER DETAILS; DO NOT ADJUST HEIGHTS WITHOUT SPECIFIC AUTHORIZATION FROM ARCHITECT.
13. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
14. FENESTRATION MUST MEET THE REQUIREMENTS OF THE ENVELOPE ENERGY CODE ANALISYS REQUIRED FOR THIS PROJECT.

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

KEYNOTES

1. CONCRETE PRECAST PANELS & REVEALS - SEE WALL SECTIONS AND DETAILS
2. BRICK VENEER ON CMU - SEE WALL SECTIONS
3. SOLDIER COURSE BRICK VENEER - SEE DETAILS
4. PRECAST CONCRETE KEYSTONE - SEE ELEVATIONS & DETAILS
5. PRECAST CONCRETE CAP - SEE DETAILS
6. BRICK VENEER ON STRUCTURAL METAL STUDS - SEE WALL SECTIONS
7. CONCRETE PRECAST HEADER- SEE DETAILS
8. CONCRETE PRECAST JAMB - SEE DETAILS
9. WINDOW SYSTEM - REFER TO FLOOR PLANS & WINDOW ELEVATIONS
10. SCHEDULED DOORS - REFER TO FLOOR PLANS & DOOR SCHEDULES
11. CONCRETE PRECAST SILL - SEE DETAILS
12. GUARDRAIL - SEE DETAILS
13. SCHEDULED FLOOR - REFER TO FLOOR PLANS & FINISH SCHEDULE
14. LIGHT FIXTURE CENTERED WITHIN THE PRECAST CONCRETE WIDTH. HEIGHTS AS SPECIFIED BY ELECTRICAL DRAWINGS - SEE ELECTRICAL DRAWINGS
15. MECHANICAL LOUVER CENTERED WITHIN PRECAST WIDTH. INSIDE OF SILL FRAME AT 10'-4" A.F.F. (TYP)- SEE MECHANICAL DRAWINGS
17. FLIGHTNING PROTECTION - SEE ELECTRICAL DRAWINGS
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ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
2. GENERAL CONTRACTOR MUST ENSURE AND PROVIDE EXTERIOR AESTHETIC SEALANT JOINTS BETWEEN ALL SIDES OF THE FENESTRATION AND THE CLADDING OF THE BUILDING AS NEEDED TO COMPLETELY CONCEAL THE AIR BARRIER (TYPICAL).
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4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
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6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

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CAMP WILLIAMS
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EXTERIOR ELEVATIONS

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007	DRAWING NO.: A201
DATE: 02/15/2013	

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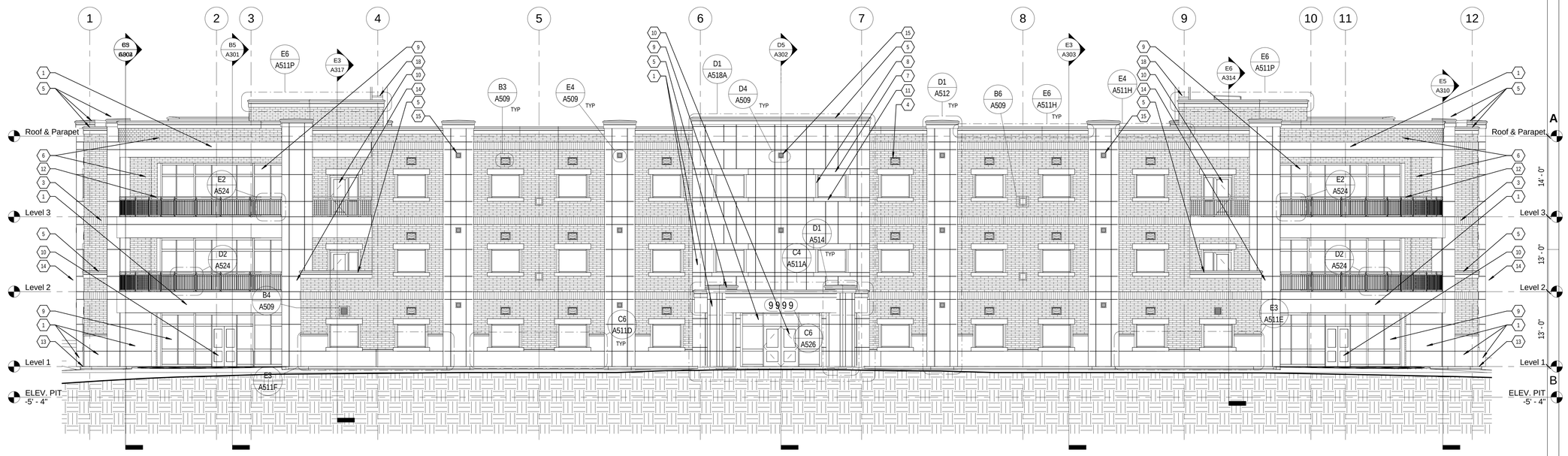
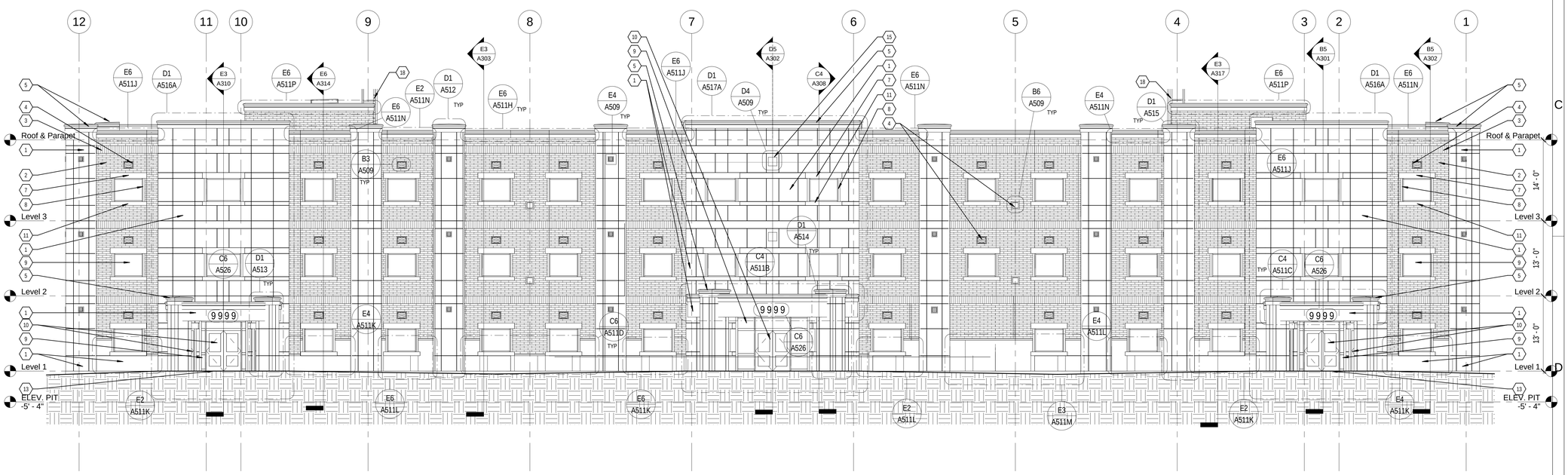


B6 EAST ELEVATION
1/8" = 1'-0"



E6 WEST ELEVATION
1/8" = 1'-0"

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EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

KEYNOTES

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EXTERIOR ELEVATIONS

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PROJECT NO.: 11007	DRAWING NO.: A202
DATE: 02/15/2013	

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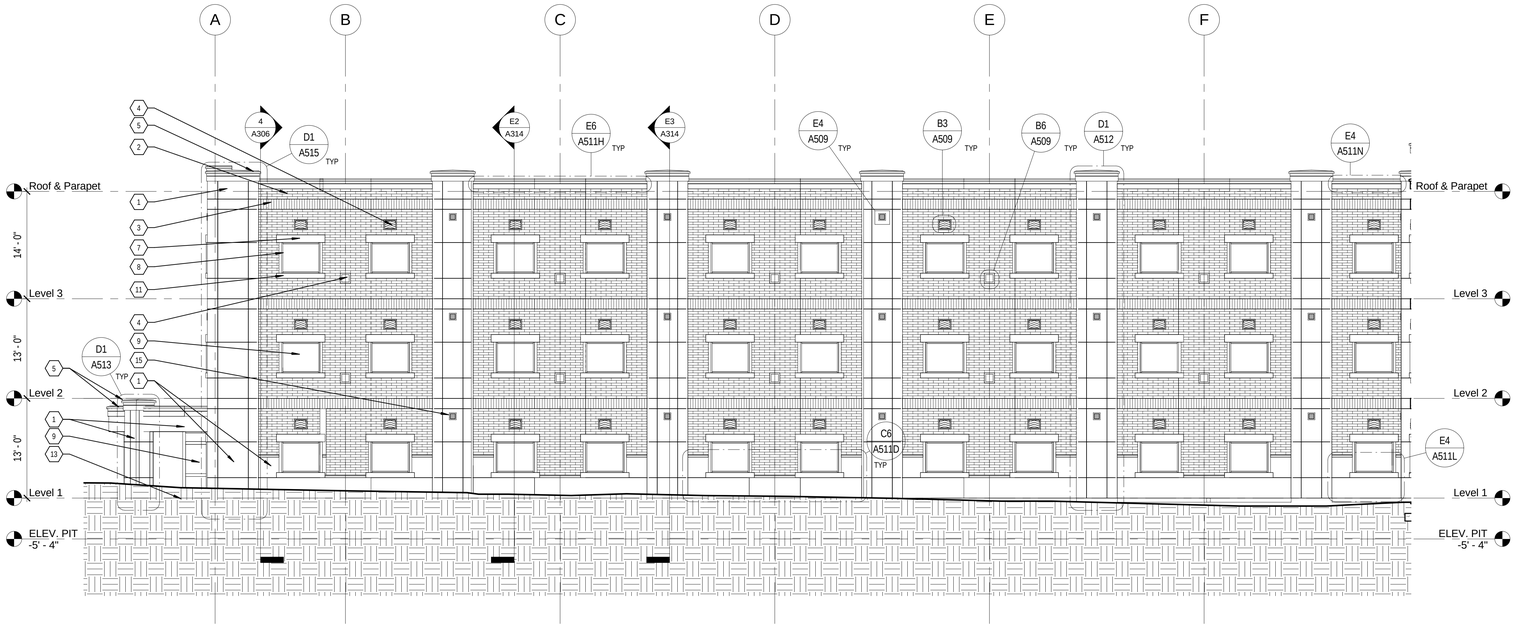
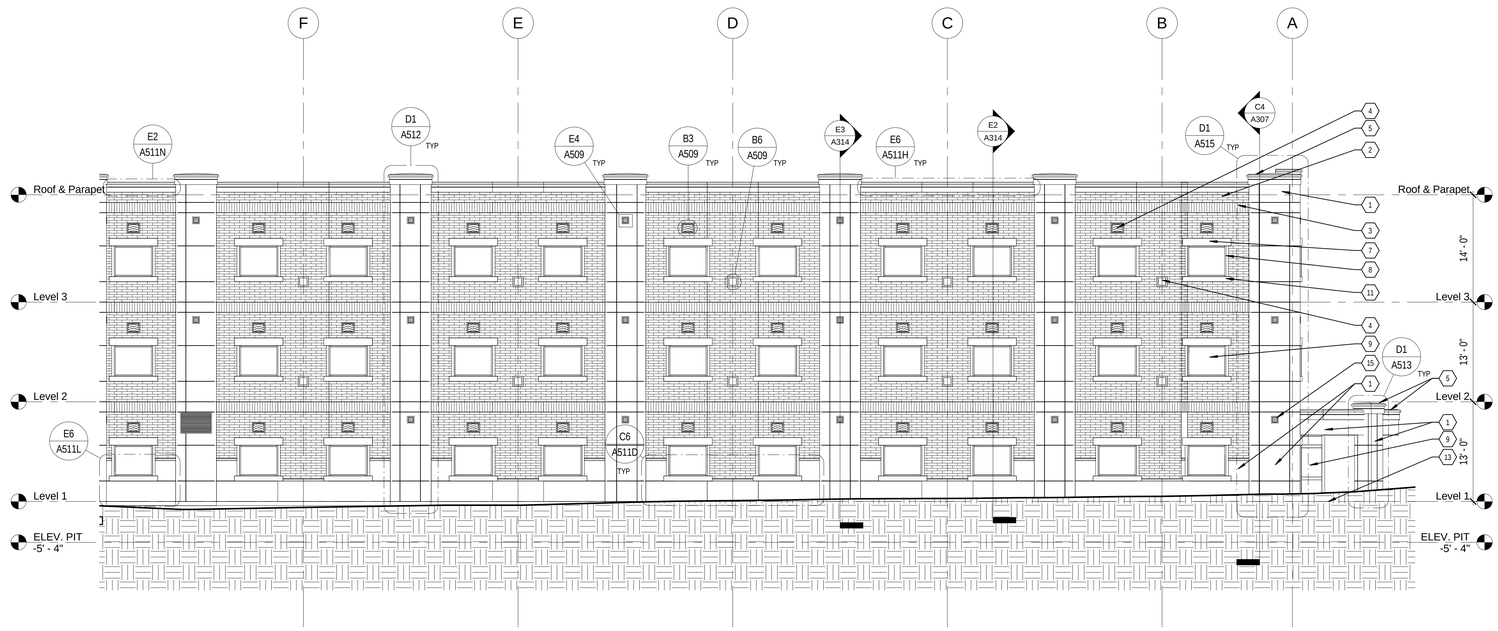


C6 COURTYARD NORTH ELEVATION
1/8" = 1'-0"



E6 COURTYARD SOUTH ELEVATION
1/8" = 1'-0"

EXTERIOR ELEVATION LEGEND

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EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
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SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

KEYNOTES

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RIVERTON, UT 84062

EXTERIOR ELEVATIONS

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PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: A203

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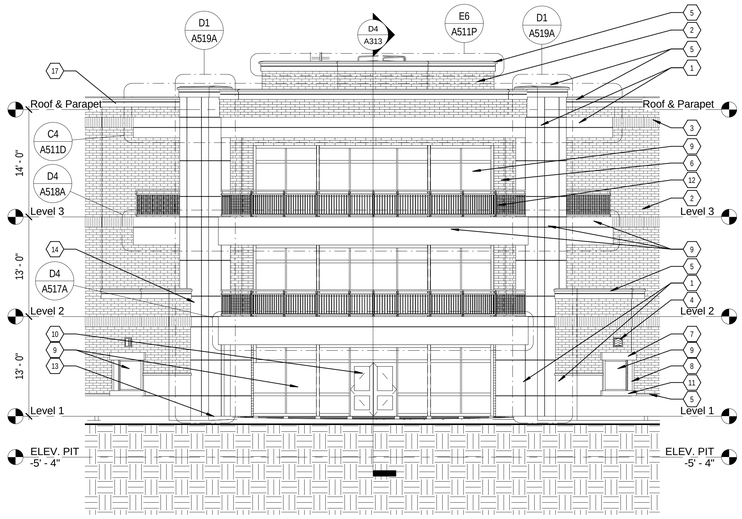
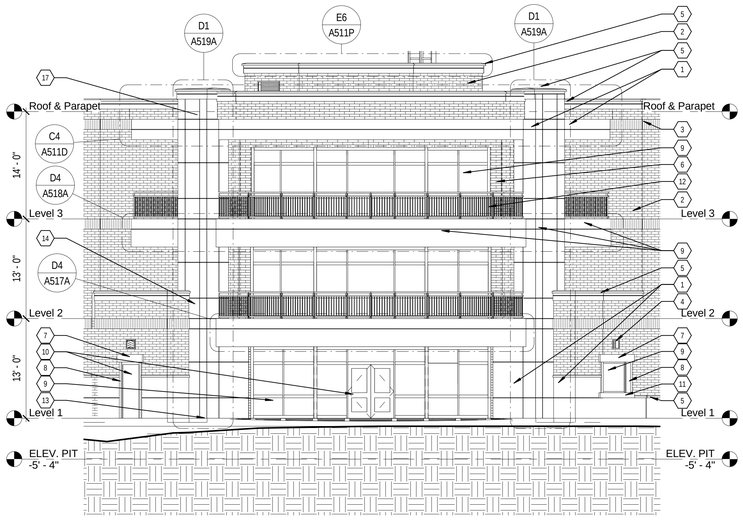


B6 NORTHEAST CORNER ELEVATION
1/8" = 1'-0"



B4 SOUTHEAST CORNER ELEVATION
1/8" = 1'-0"

EXTERIOR ELEVATION LEGEND

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8. CONTRACTOR IS TO VERIFY COURSE OF STRUCTURAL CMU AND BRICK VENEER CONCURRENTLY (TYP).
9. SOLDIER COURSE AND CONTROL JOINT ALIGNMENTS ARE TYPICAL AND NEED TO BE MAINTAINED AS SHOWN ON ELEVATIONS AND DETAILS.
10. THE CONTRACTOR IS TO ENSURE THAT ALL FACADE, INCLUDING PARAPET WALLS, ARE BUILT TO ENHANCE AIR BARRIER TIGHTNESS AND SEALED WARM ENVELOPE; REFER TO DETAILS.
11. EXPANSION JOINT COVERS ARE TO MATCH THE COLOR OF THE ADJACENT SURFACES BEING COVERED (TYP).
12. PRECAST CONCRETE WAINSCOATS ARE TO START AND STOP AS SHOWN PER DETAILS; DO NOT ADJUST HEIGHTS WITHOUT SPECIFIC AUTHORIZATION FROM ARCHITECT.
13. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
14. FENESTRATION MUST MEET THE REQUIREMENTS OF THE ENVELOPE ENERGY CODE ANALISYS REQUIRED FOR THIS PROJECT.

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

KEYNOTES

1. CONCRETE PRECAST PANELS & REVEALS - SEE WALL SECTIONS AND DETAILS
2. BRICK VENEER ON CMU - SEE WALL SECTIONS
3. SOLDIER COURSE BRICK VENEER - SEE DETAILS
4. PRECAST CONCRETE KEYSTONE - SEE ELEVATIONS & DETAILS
5. PRECAST CONCRETE CAP - SEE DETAILS
6. BRICK VENEER ON STRUCTURAL METAL STUDS - SEE WALL SECTIONS
7. CONCRETE PRECAST HEADER- SEE DETAILS
8. CONCRETE PRECAST JAMB - SEE DETAILS
9. WINDOW SYSTEM - REFER TO FLOOR PLANS & WINDOW ELEVATIONS
10. SCHEDULED DOORS - REFER TO FLOOR PLANS & DOOR SCHEDULES
11. CONCRETE PRECAST SILL - SEE DETAILS
12. GUARDRAIL - SEE DETAILS
13. SCHEDULED FLOOR - REFER TO FLOOR PLANS & FINISH SCHEDULE
14. LIGHT FIXTURE CENTERED WITHIN THE PRECAST CONCRETE WIDTH. HEIGHTS AS SPECIFIED BY ELECTRICAL DRAWINGS - SEE ELECTRICAL DRAWINGS
15. MECHANICAL LOUVER CENTERED WITHIN PRECAST WIDTH. INSIDE OF SILL FRAME AT 10'-4" A.F.F. (TYP)- SEE MECHANICAL DRAWINGS
17. FLIGHTNING PROTECTION - SEE ELECTRICAL DRAWINGS
18. EXTERIOR ROOF LADDER - SEE DETAILS

ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
2. GENERAL CONTRACTOR MUST ENSURE AND PROVIDE EXTERIOR AESTHETIC SEALANT JOINTS BETWEEN ALL SIDES OF THE FENESTRATION AND THE CLADDING OF THE BUILDING AS NEEDED TO COMPLETELY CONCEAL THE AIR BARRIER (TYPICAL).
3. GENERAL CONTRACTOR MUST ENSURE A CONTINUOUS AIR BARRIER IS PROVIDED INTO ALL FENESTRATION ROUGH OPENINGS INCLUDING ALL HEAD, JAMB AND SILL CORNERS WITH INTERIOR SEALANT JOINT INSTALLED CONTINUOUSLY BETWEEN FENESTRATION AND AIR BARRIER, AND IN ACCORDANCE WITH FENESTRATION AND AIR BARRIER MANUFACTURERS INSTALLATION PROCEDURES (TYPICAL).
4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

BUILDING OFFICIAL APPROVAL

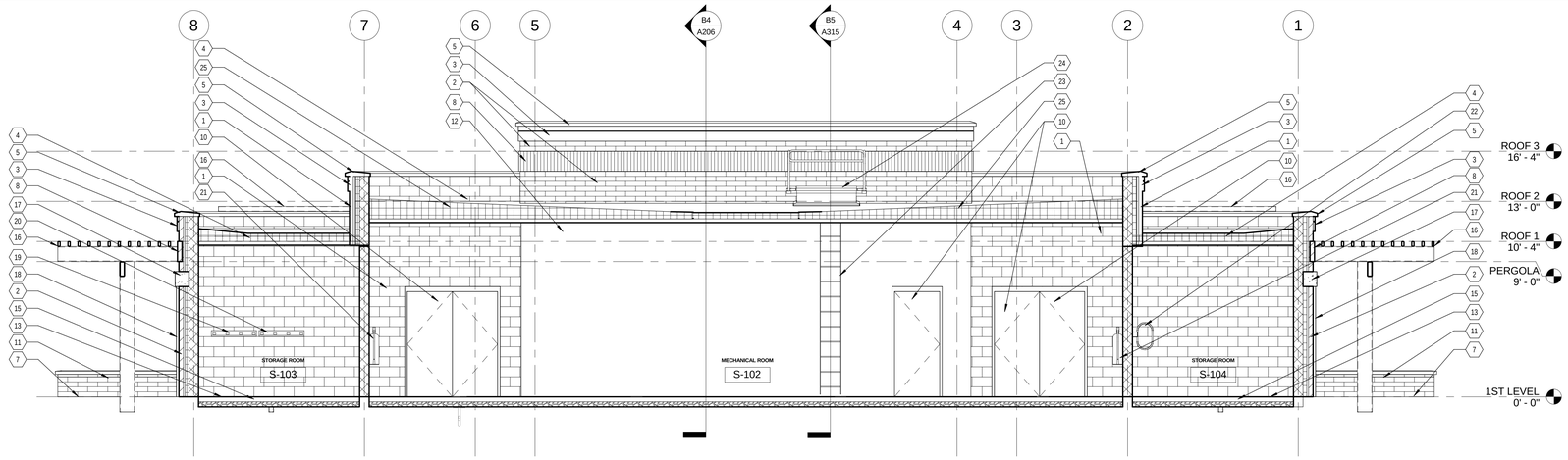
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

EXTERIOR ELEVATIONS

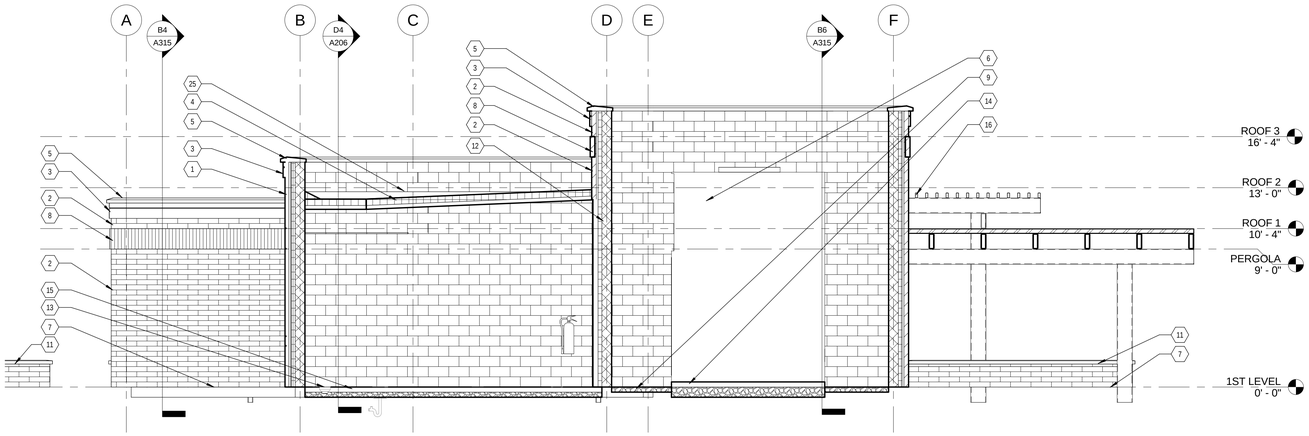
REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A204
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



D4 BUILDING SECTION 2
1/4" = 1'-0"



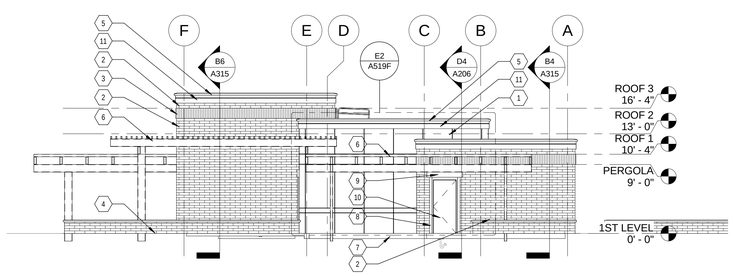
B4 BUILDING SECTION 1
1/4" = 1'-0"

BUILDING SECTIONS KEYNOTES

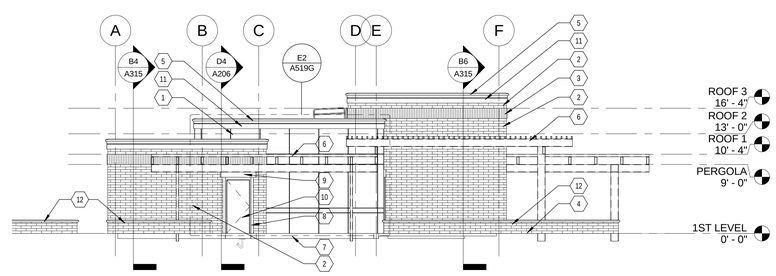
1. PRECAST CONCRETE PANELS & REVEALS ON CMU - SEE WALL SECTIONS AND DETAILS
2. BRICK VENEER ON CMU - SEE WALL SECTIONS
3. PRECAST CONCRETE TRIM - SEE WALL SECTIONS AND DETAILS
4. SINGLE PLY ROOFING MEMBRANE OVER RIGID INSULATION ON METAL DECK
5. PRECAST CONCRETE CAP - SEE DETAILS
6. COOLING TOWER - SEE MECHANICAL DRAWINGS
7. EXTERIOR CONCRETE FLOORING- SEE CIVIL DRAWINGS
8. NOM. 4 X 4 X 16 SOLDIER COURSE BRICK VENEER
9. COURT YARD GRAVEL - SEE SPECIFICATIONS
10. SCHEDULED DOORS - REFER TO FLOOR PLANS & DOOR SCHEDULES
11. RAISED PLANTER WITH SEATING CONCRETE CAP -SEE DETAILS
12. CMU WALL W/ RIGID INSULATION & FURRING - SEE DETAILS
13. SCHEDULED FLOOR - REFER TO FLOOR PLANS & FINISH SCHEDULE
14. MECHANICAL EQUIPMENT CONCRETE PAD - SEE SPECIFICATIONS
15. CONCRETE SLAB ON GRADE - SEE STRUCTURAL DRAWINGS
16. PAINTED STEEL PERGOLA & STRUCTURE - SEE STRUCTURAL & DETAILS
17. PRECAST CONCRETE DOOR HEADER
18. PRECAST CONCRETE DOOR JAMB
19. 36" L. X 4 HOOK STRIP @ 4'-0" A.F.F.
20. 36" L. X UTILITY STRIP HOLDER @ 4'-0" A.F.F.
21. FIRE EXTINGUISHER ON BRACKETS - MOUNTING NECK @ 4'-0" A.F.F.
22. VERTICAL BICYCLE RACK FOR 25 BIKES - REFER TO LEED CREDITS
23. INTERIOR LADDER TO ROOF HATCH
24. ROOF HATCH ACCESS DOOR
25. SINGLE PLY ROOFING MEMBRANE OVER RIGID INSULATION CRICKET & SADDLE

EXTERIOR ELEVATION LEGEND

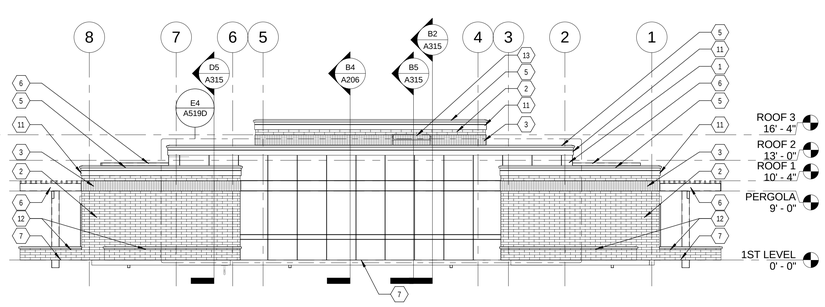
- F1 — NOMINAL 4" X 4" X 16" BRICK VENEER RUNNING BOND
- F2 — PRECAST CONCRETE PANEL
- 1' - 4" X 1' - 4" PRECAST CONCRETE MEDALLION
- 1' - 4" X 1' - 8" PRECAST CONCRETE MEDALLION
- CONSTRUCTION JOINT REVEAL
- PRECAST CONCRETE CAP
- PRECAST CONCRETE SURFACE PLATE
- NOMINAL 4" X 4" X 16" SOLDIER COURSE BRICK VENEER
- PRECAST CONCRETE TRIM
- METAL GUARDRAIL



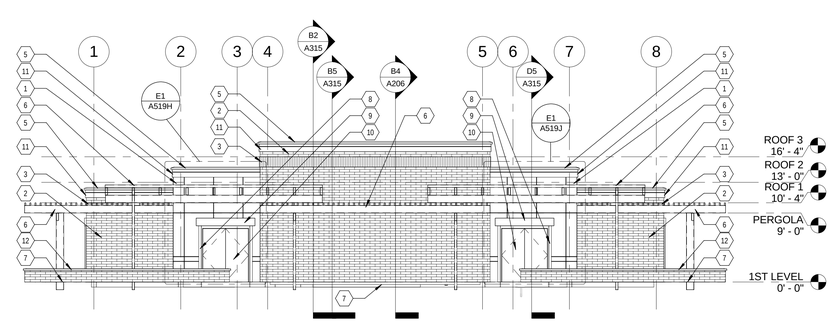
C6 SERVICE BUILDING NORTH ELEVATION
1/8" = 1'-0"



D6 SERVICE BUILDING SOUTH ELEVATION
1/8" = 1'-0"



E6 SERVICE BUILDING WEST ELEVATION
1/8" = 1'-0"



B6 SERVICE BUILDING EAST ELEVATION
1/8" = 1'-0"

EXTERIOR ELEVATIONS KEYNOTES

1. CONCRETE PRECAST PANELS & REVEALS - SEE WALL SECTIONS AND DETAILS
2. BRICK VENEER ON CMU - SEE WALL SECTIONS
3. SOLDIER COURSE BRICK VENEER - SEE DETAILS
4. SCHEDULED FLOOR - REFER TO FLOOR PLANS & FINISH SCHEDULE
5. PRECAST CONCRETE CAP - SEE DETAILS
6. PAINTED STEEL PERGOLA & STRUCTURE -SEE STRUCTURAL DRAWINGS
7. EXTERIOR CONCRETE FLOORING
8. PRECAST CONCRETE DOOR JAMB- SEE DETAILS
9. PRECAST CONCRETE DOOR HEADER- SEE DETAILS
10. SCHEDULED DOORS - REFER TO FLOOR PLANS & DOOR SCHEDULES
11. PRECAST CONCRETE TRIM - SEE DETAILS
12. RAISED PLANTER WITH SEATING CONCRETE CAP - SEE DETAILS
13. ROOF HATCH ACCESS DOOR

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH — ERIC R. THOLEN — 129665 — LICENSED ARCHITECT

GENERAL NOTES

1. REFER TO STRUCTURAL DRAWINGS FOR REQUIREMENTS OF STRUCTURAL STEEL & MASONRY CONSTRUCTION.
2. REFER TO STRUCTURAL DRAWINGS FOR STRUCTURAL REQUIREMENTS AT OPENINGS.
3. DOORS, WALL FINISHES AND WALL ASSEMBLIES TO ACCOMODATE DEFLECTION PER STRUCTURAL REQUIREMENTS.
4. CONTRACTOR IS TO VERIFY COURSE OF STRUCTURAL CMU AND BRICK VENEER CONCURRENTLY (TYP).
5. SOLDIER COURSE AND CONTROL JOINT ALIGNMENTS ARE TYPICAL AND NEED TO BE MAINTAINED AS SHOWN ON ELEVATIONS AND DETAILS.
6. THE CONTRACTOR IS TO ENSURE THAT ALL FACADE, INCLUDING PARAPET WALLS, ARE BUILT TO ENHANCE AIR BARRIER TIGHTNESS AND SEALED WARM ENVELOPE; REFER TO DETAILS.
7. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

SERVICE BLDG EXT. ELEVATIONS & SECTIONS

REVISION	DATE	BY	DESCRIPTION
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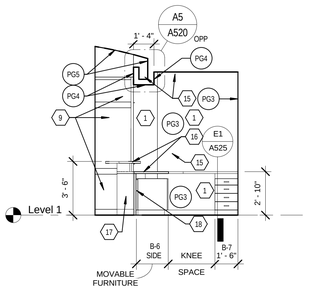
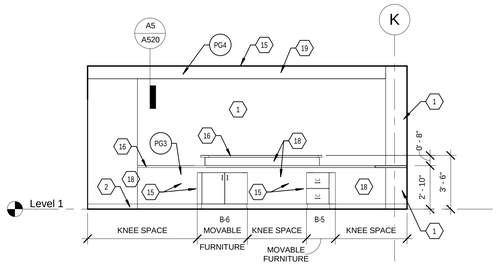
DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A206
DATE: 02/15/2013	

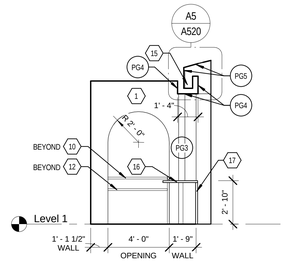
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



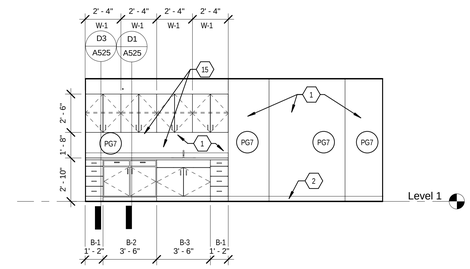
A6 INTERIOR ELEV. FRONT DESK SIDE
1/4" = 1'-0"



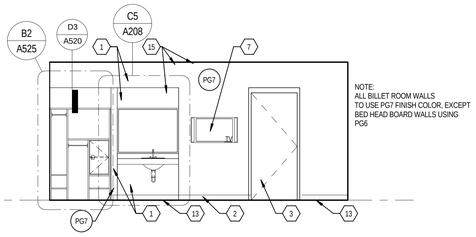
A5 INTERIOR ELEV. FRONT DESK BACK
1/4" = 1'-0"



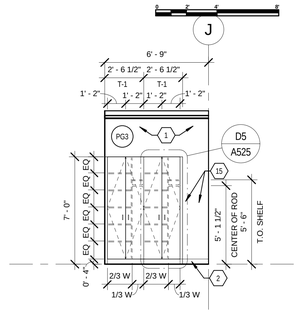
A4 INTERIOR ELEV. FRONT DESK ENTRY
1/4" = 1'-0"



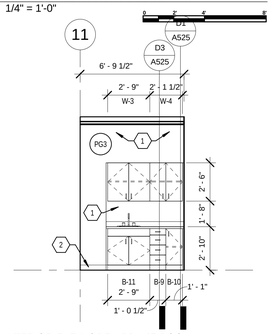
A3 INTERIOR ELEV. BREAK ROOM 1
1/4" = 1'-0"



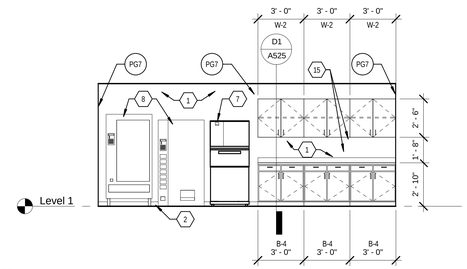
B6 INTERIOR ELEV. BILLET 1
1/4" = 1'-0"



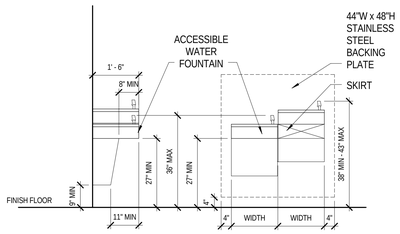
B5 INTERIOR ELEV. @ A/V CABINETS
1/4" = 1'-0"



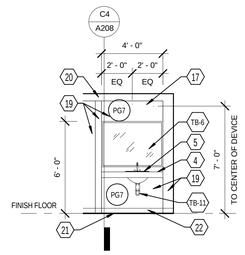
B4 INTERIOR ELEV. OPEN BRAKE ROOM
1/4" = 1'-0"



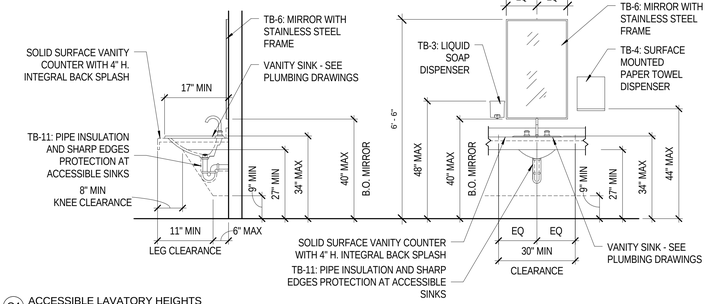
B3 INTERIOR ELEV. BREAK ROOM 2
1/4" = 1'-0"



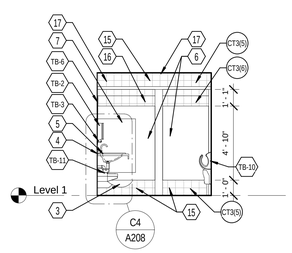
C6 DRINKING FOUNTAINS
1/2" = 1'-0"



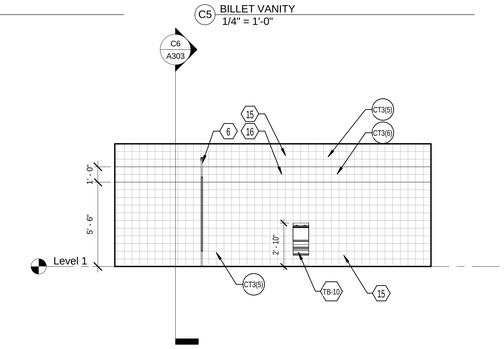
C5 BILLET VANITY
1/4" = 1'-0"



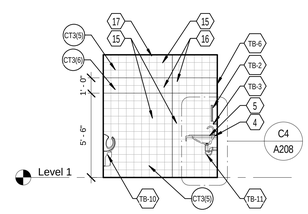
C4 ACCESSIBLE LAVATORY HEIGHTS
1/2" = 1'-0"



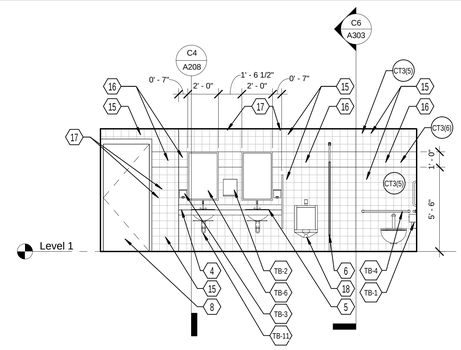
D6 MENS RESTROOM 4
1/4" = 1'-0"



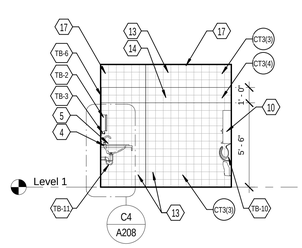
D5 MENS RESTROOM 3
1/4" = 1'-0"



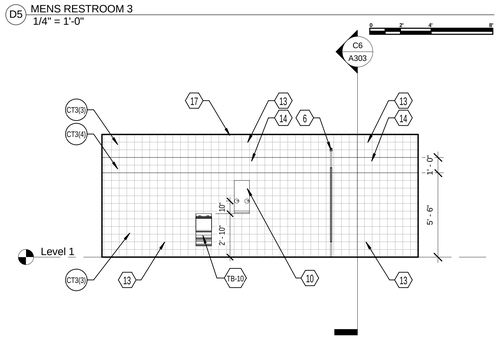
D4 MENS RESTROOM 2
1/4" = 1'-0"



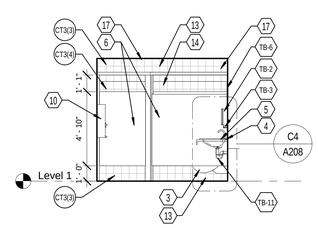
D3 MENS RESTROOM 1
1/4" = 1'-0"



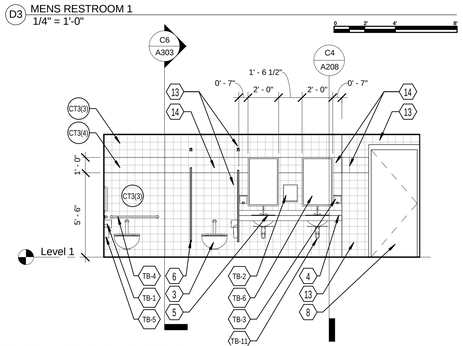
E6 WOMENS PUBLIC RESTROOM 4
1/4" = 1'-0"



E5 WOMENS PUBLIC RESTROOM 3
1/4" = 1'-0"



E4 WOMENS PUBLIC RESTROOM 2
1/4" = 1'-0"



E3 WOMENS PUBLIC RESTROOM 1
1/4" = 1'-0"

INTERIOR ELEVATION KEYNOTES

1 SCHEDULED WALL FINISH - SEE FINISH SCHEDULE
2 SCHEDULED BASE - SEE FINISH SCHEDULE
3 SCHEDULED DOOR -SEE DOOR SCHEDULE
4 CHAIR RAIL - SEE FINISH SCHEDULE
5 8'-10"Lx2'-0"D SOLID SURFACE COUNTERTOP W/4" BACKSPLASH
6 STAINLESS STEEL BRACKET - SEE DETAILS
7 EQUIPMENT - OWNER FURNISHING, CONTRACTOR INSTALLING
8 EQUIPMENT - OWNER FURNISHING AND INSTALLING
9 WINDOW SYSTEM - REFER TO FLOOR PLANS & WINDOW ELEVATIONS
10 HAND RAIL - REFER TO STAIR DETAILS
11 EXTINGUISHER FURNISH BY OWNER & INSTALLED BY CONTRACTOR- SEE MOUNTING HEIGHTS
12 GUARDRAIL - SEE STAIR DETAILS
13 SCHEDULED FLOOR - REFER TO FINISH SCHEDULE
14 IDENTIFICATION SIGNAGE- SEE MOUNTING HEIGHTS
15 ELECTRICAL / MECHANICAL DEVICE- SEE ELECTRICAL / MECHANICAL DRAWINGS
16 FRONT DESK COUNTER
17 FRONT DESK FRONT PANEL
18 FRONT DESK BACK PANEL
19 SCHEDULED CEILING SOFFIT - SEE CEILING DETAILS
20 INTERIOR PRECAST CONCRETE PANELS-SEE DETAILS
21 COLORED HONED CMU WALL
22 SCHEDULED CEILING- SEE CEILING DETAILS
23 DIRECTIONAL SIGNAGE- SEE MOUNTING HEIGHTS
24 DIRECTORY SIGNAGE- SEE MOUNTING HEIGHTS
25 PLAQUE SIGNAGE- SEE DETAILS
26 DEDICATION SIGNAGE- SEE DETAILS

WALL FINISH SCHEDULE

CT3(1)	TILE CT3 COLOR 1
CT3(2)	TILE CT3 COLOR 2
CT3(3)	TILE CT3 COLOR 3
CT3(4)	TILE CT3 COLOR 4
CT3(5)	TILE CT3 COLOR 5
CT3(6)	TILE CT3 COLOR 6
PG1	PAINTED GYPSUM COLOR 1
PG2	PAINTED GYPSUM COLOR 2
PG3	PAINTED GYPSUM COLOR 3
PG4	PAINTED GYPSUM COLOR 4
PG5	PAINTED GYPSUM COLOR 5
PG7	PAINTED GYPSUM COLOR 7

RESTROOM KEYNOTES

1 SCHEDULED TILE FINISH COLOR 1
2 SCHEDULED TILE FINISH COLOR 2
3 WATER CLOSET -SEE ACCESSIBLE MOUNTING HEIGHTS - REFER TO PLUMBING DRAWINGS
4 SOLID SURFACE VANITY COUNTER -SEE TYPICAL MOUNTING HEIGHTS
5 VANITY SINK -SEE TYPICAL MOUNTING HEIGHTS
6 OVERHEAD BRACED TOILET PARTITION
7 URINAL PARTITION
8 SCHEDULED DOOR & FRAME - REFER TO DOOR SCHEDULE
9 SHOWER CURTAIN HOOK, FURNISHED BY OWNER, INSTALLED BY OWNER
10 SURFACE MOUNTED NAPKIN DISPENSER, FURNISHED BY OWNER, INSTALLED BY CONTRACTOR
11 SHOWER CURTAIN, FURNISHED BY OWNER, INSTALLED BY OWNER
12 SHOWER CURTAIN ROD, FURNISHED BY OWNER, INSTALLED BY CONTRACTOR
13 SCHEDULED TILE FINISH COLOR 3
14 SCHEDULED TILE FINISH COLOR 4
15 SCHEDULED TILE FINISH COLOR 5
16 SCHEDULED TILE FINISH COLOR 6
17 ELECTRICAL DEVICE/ LIGHT FIXTURE
18 URINAL -SEE ACCESSIBLE MOUNTING HEIGHTS - REFER TO PLUMBING DRAWINGS
19 SCHEDULED WALL FINISH
20 WALL SOFFIT - SEE CEILING DETAILS
21 SCHEDULED FLOOR FINISH SEE FINISH SCHEDULE
22 SCHEDULED BASE - SEE FINISH SCHEDULE
23 SHOWER CONTROLS - REFER TO PLUMBING DRAWINGS
24 SHOWER HEAD - REFER TO PLUMBING DRAWINGS
25 FLOOR TRANSITION - SEE DETAILS
26 8" DIAMETER COUNTER TRASH HOLE
27 SOAP DISH

RESTROOM ACCESSORY SCHEDULE

TB-1	SURFACE MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER
TB-2	SURFACE MOUNTED PAPER TOWEL DISPENSER
TB-3	LIQUID SOAP DISPENSER
TB-4	ACCESSIBLE GRAB BAR
TB-5	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL
TB-6	CUSTOM MIRROR WITH STAINLESS STEEL FRAME
TB-7	ACCESSIBLE FOLDING SHOWER SEAT
TB-8	CLOTHES / TOWEL HOOK
TB-10	AIR DRYER
TB-11	UNDER LAVATORY GUARD
TB-12	MOP AND BROOM HOLDER
TB-13	HOOK STRIP

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
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UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

INTERIOR & BATHROOM ELEVATIONS

REVISION	DATE	BY	DESCRIPTION
△			
△			
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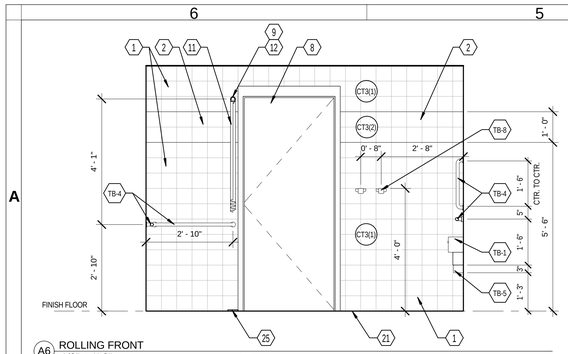
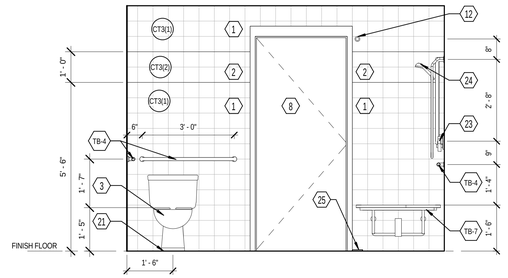
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A208
DATE: 02/15/2013	

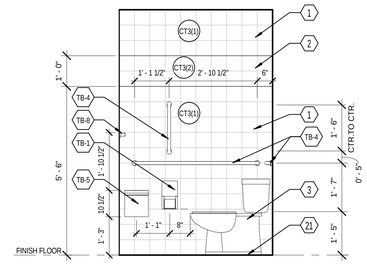
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



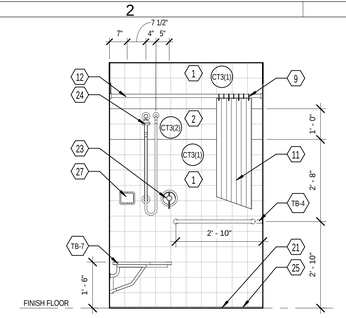
A6 ROLLING FRONT
1/2" = 1'-0"



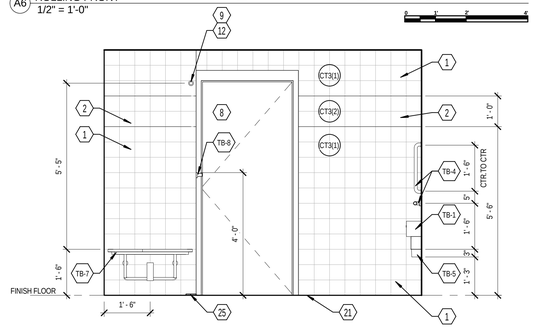
A5 ROLLING TOILET/ F.SEAT BACK WALL
1/2" = 1'-0"



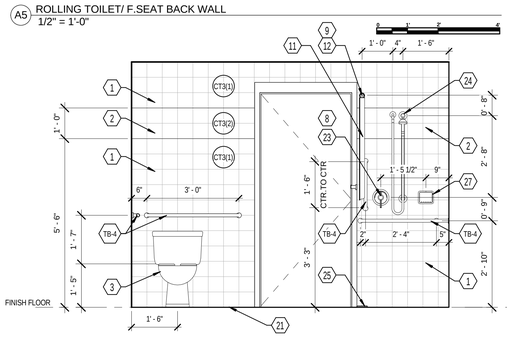
A3 ROLLING TOILET SIDE
1/2" = 1'-0"



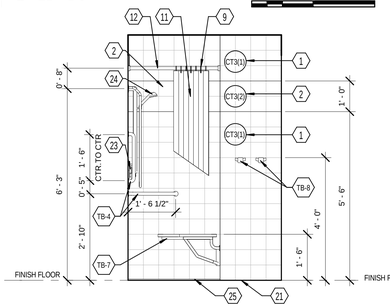
A2 ROLLING SHOWER BACK (CONTROL) WALL
1/2" = 1'-0"



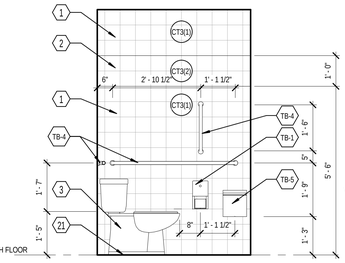
B6 TRANSFER SEAT WALL
1/2" = 1'-0"



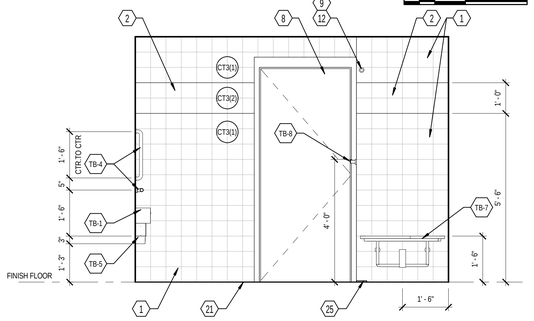
B5 TRANSFER CONTROL & TOILET WALL
1/2" = 1'-0"



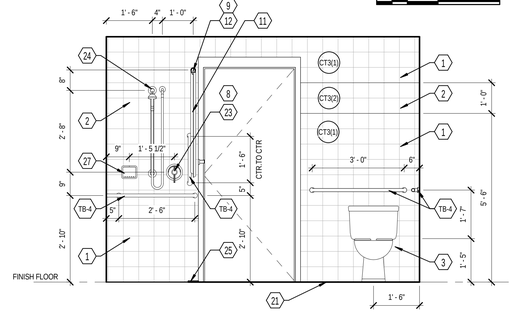
B3 TRANSFER SHOWER SIDE
1/2" = 1'-0"



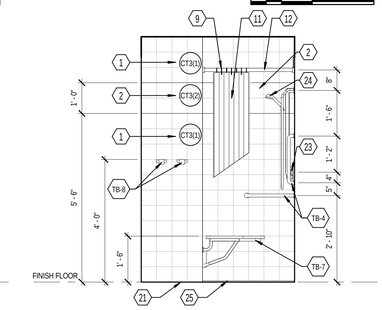
B2 TRANSFER 2 TOILET SIDE
1/2" = 1'-0"



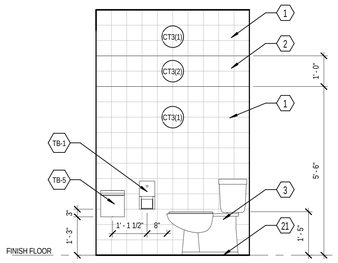
C6 TRANSFER 2 SEAT WALL
1/2" = 1'-0"



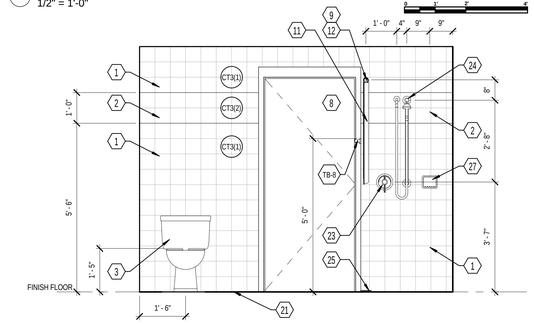
C5 TRANSFER 2 CONTROL & TOILET WALL
1/2" = 1'-0"



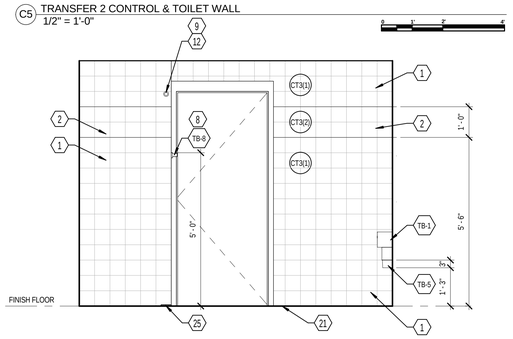
C3 TRANSFER 2 SHOWER SIDE
1/2" = 1'-0"



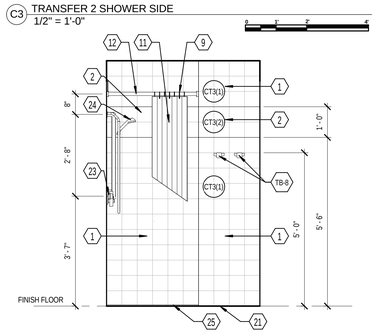
C1 STANDARD AT TOILET SIDE
1/2" = 1'-0"



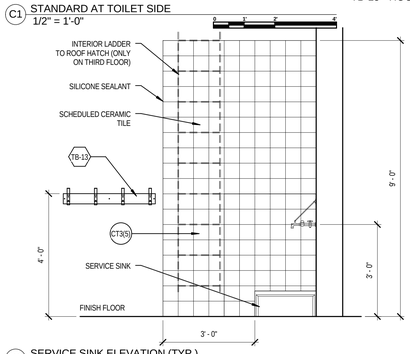
D6 STANDARD AT TOILET & CONTROL WALL
1/2" = 1'-0"



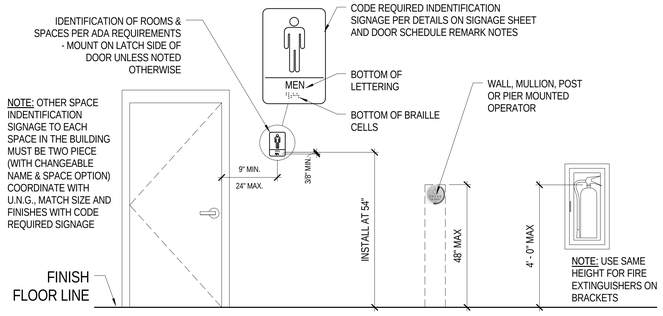
D5 STANDARD AT FRONT WALL
1/2" = 1'-0"



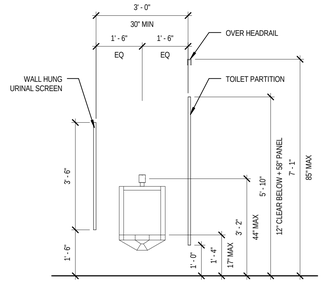
D3 STANDARD AT SHOWER SIDE
1/2" = 1'-0"



D1 SERVICE SINK ELEVATION (TYP.)
1/2" = 1'-0"



E3 MOUNTING HEIGHTS
1/2" = 1'-0"



E1 URINAL FRONT ELEVATION - 2D
1/2" = 1'-0"

RESTROOM KEYNOTES

1 SCHEDULED TILE FINISH COLOR 1
2 SCHEDULED TILE FINISH COLOR 2
3 WATER CLOSET -SEE ACCESSIBLE MOUNTING HEIGHTS - REFER TO PLUMBING DRAWINGS
4 SOLID SURFACE VANITY COUNTER -SEE TYPICAL MOUNTING HEIGHTS
5 VANITY SINK -SEE TYPICAL MOUNTING HEIGHTS
6 OVERHEAD BRACED TOILET PARTITION
7 URINAL PARTITION
8 SCHEDULED DOOR & FRAME - REFER TO DOOR SCHEDULE
9 SHOWER CURTAIN HOOK, FURNISHED BY OWNER, INSTALLED BY OWNER
10 SURFACE MOUNTED NAPKIN DISPENSER, FURNISHED BY OWNER, INSTALLED BY CONTRACTOR
11 SHOWER CURTAIN, FURNISHED BY OWNER, INSTALLED BY OWNER
12 SHOWER CURTAIN ROD, FURNISHED BY OWNER, INSTALLED BY CONTRACTOR
13 SCHEDULED TILE FINISH COLOR 3
14 SCHEDULED TILE FINISH COLOR 4
15 SCHEDULED TILE FINISH COLOR 5
16 SCHEDULED TILE FINISH COLOR 6
17 ELECTRICAL DEVICE/ LIGHT FIXTURE
18 URINAL -SEE ACCESSIBLE MOUNTING HEIGHTS - REFER TO PLUMBING DRAWINGS
19 SCHEDULED WALL FINISH
20 WALL SOFFIT - SEE CEILING DETAILS
21 SCHEDULED FLOOR FINISH SEE FINISH SCHEDULE
22 SCHEDULED BASE - SEE FINISH SCHEDULE
23 SHOWER CONTROLS - REFER TO PLUMBING DRAWINGS
24 SHOWER HEAD - REFER TO PLUMBING DRAWINGS
25 FLOOR TRANSITION - SEE DETAILS
26 8" DIAMETER COUNTER TRASH HOLE
27 SOAP DISH

WALL FINISH SCHEDULE

CT3(1)	TILE CT3 COLOR 1
CT3(2)	TILE CT3 COLOR 2
CT3(3)	TILE CT3 COLOR 3
CT3(4)	TILE CT3 COLOR 4
CT3(5)	TILE CT3 COLOR 5
CT3(6)	TILE CT3 COLOR 6
PG1	PAINTED GYPSUM COLOR 1
PG2	PAINTED GYPSUM COLOR 2
PG3	PAINTED GYPSUM COLOR 3
PG4	PAINTED GYPSUM COLOR 4
PG5	PAINTED GYPSUM COLOR 5
PG7	PAINTED GYPSUM COLOR 7

RESTROOM ACCESSORY SCHEDULE

TB-1	SURFACE MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER
TB-2	SURFACE MOUNTED PAPER TOWEL DISPENSER
TB-3	LIQUID SOAP DISPENSER
TB-4	ACCESSIBLE GRAB BAR
TB-5	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL
TB-6	CUSTOM MIRROR WITH STAINLESS STEEL FRAME
TB-7	ACCESSIBLE FOLDING SHOWER SEAT
TB-8	CLOTHES / TOWEL HOOK
TB-10	AIR DRYER
TB-11	UNDER LAVATORY GUARD
TB-12	MOP AND BROOM HOLDER
TB-13	HOOK STRIP

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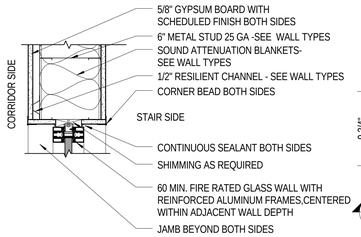
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

BATHROOM & MOUNTING ELEVATIONS

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

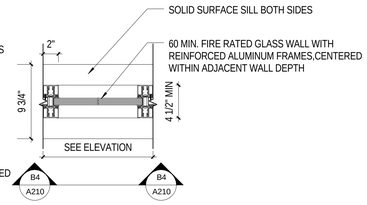
DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A209
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



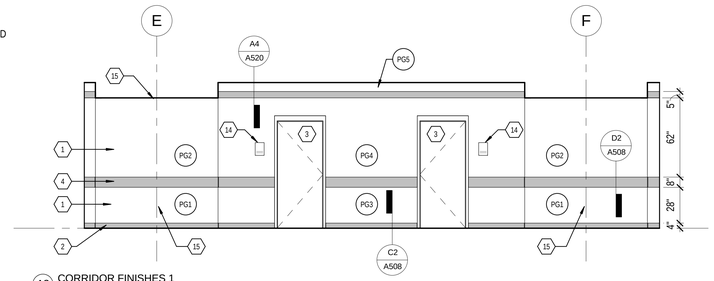
NOTES:
1. STC RATING: 52
2. FIRE RATING: 1 HOUR PER UL-U 545 OR APPROVED EQUAL.

A5 WALL TYPE 23 HEADER
1 1/2" = 1'-0"

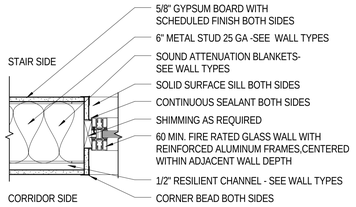


NOTES:
1. STC RATING: 52
2. FIRE RATING: 1 HOUR PER UL-U 545 OR APPROVED EQUAL.

A4 WALL TYPE 23 PLAN
1 1/2" = 1'-0"

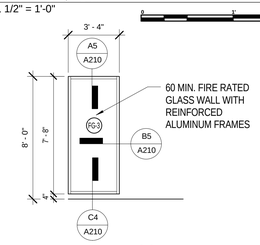


A3 CORRIDOR FINISHES 1
1/4" = 1'-0"



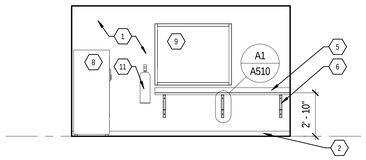
NOTES:
1. STC RATING: 52
2. FIRE RATING: 1 HOUR PER UL-U 545 OR APPROVED EQUAL.

B5 WALL TYPE 23 JAMB
1 1/2" = 1'-0"

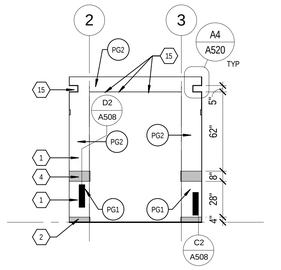


WALL TYPE 23
ALUMINUM-GLASS
2" W x 4 1/2" D
UL ASSEMBLY - U545

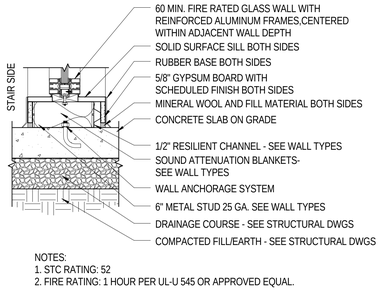
B4 WALL TYPE 23 ELEVATION
1/4" = 1'-0"



B3 CONVENIENT LAUNDRY ELEV 1
1/4" = 1'-0"

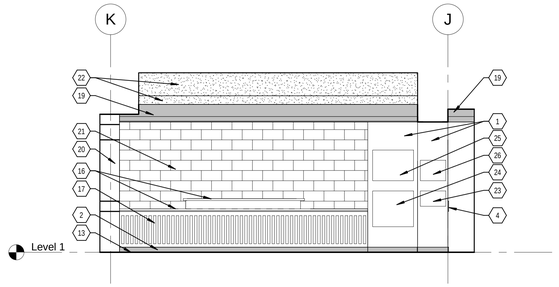


B2 CORRIDOR FINISHES 2
1/4" = 1'-0"



NOTES:
1. STC RATING: 52
2. FIRE RATING: 1 HOUR PER UL-U 545 OR APPROVED EQUAL.

C4 WALL TYPE 23 SILL
1 1/2" = 1'-0"



C3 INTERIOR ELEV FRONT DESK LOBBY
1/4" = 1'-0"

INTERIOR ELEVATION KEYNOTES

1. SCHEDULED WALL FINISH - SEE FINISH SCHEDULE
2. SCHEDULED BASE - SEE FINISH SCHEDULE
3. SCHEDULED DOOR -SEE DOOR SCHEDULE
4. CHAIR RAIL - SEE FINISH SCHEDULE
5. 8'-10"Lx2'-0"D SOLID SURFACE COUNTERTOP W/4" BACKSPLASH
6. STAINLESS STEEL BRACKET - SEE DETAILS
7. EQUIPMENT - OWNER FURNISHING, CONTRACTOR INSTALLING
8. EQUIPMENT - OWNER FURNISHING AND INSTALLING
9. WINDOW SYSTEM - REFER TO FLOOR PLANS & WINDOW ELEVATIONS
10. HAND RAIL - REFER TO STAIR DETAILS
11. EXTINGUISHER FURNISH BY OWNER & INSTALLED BY CONTRACTOR- SEE MOUNTING HEIGHTS
12. GUARDRAIL - SEE STAIR DETAILS
13. SCHEDULED FLOOR - REFER TO FINISH SCHEDULE
14. IDENTIFICATION SIGNAGE- SEE MOUNTING HEIGHTS
15. ELECTRICAL / MECHANICAL DEVICE- SEE ELECTRICAL / MECHANICAL DRAWINGS
16. FRONT DESK COUNTER
17. FRONT DESK FRONT PANEL
18. FRONT DESK BACK PANEL
19. SCHEDULED CEILING SOFFIT - SEE CEILING DETAILS
20. INTERIOR PRECAST CONCRETE PANELS-SEE DETAILS
21. COLORED HONED CMU WALL
22. SCHEDULED CEILING- SEE CEILING DETAILS
23. DIRECTIONAL SIGNAGE- SEE MOUNTING HEIGHTS
24. DIRECTORY SIGNAGE- SEE MOUNTING HEIGHTS
25. PLAQUE SIGNAGE- SEE DETAILS
26. DEDICATION SIGNAGE- SEE DETAILS

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STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

INTERIOR ELEVATIONS

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A210
DATE: 02/15/2013	

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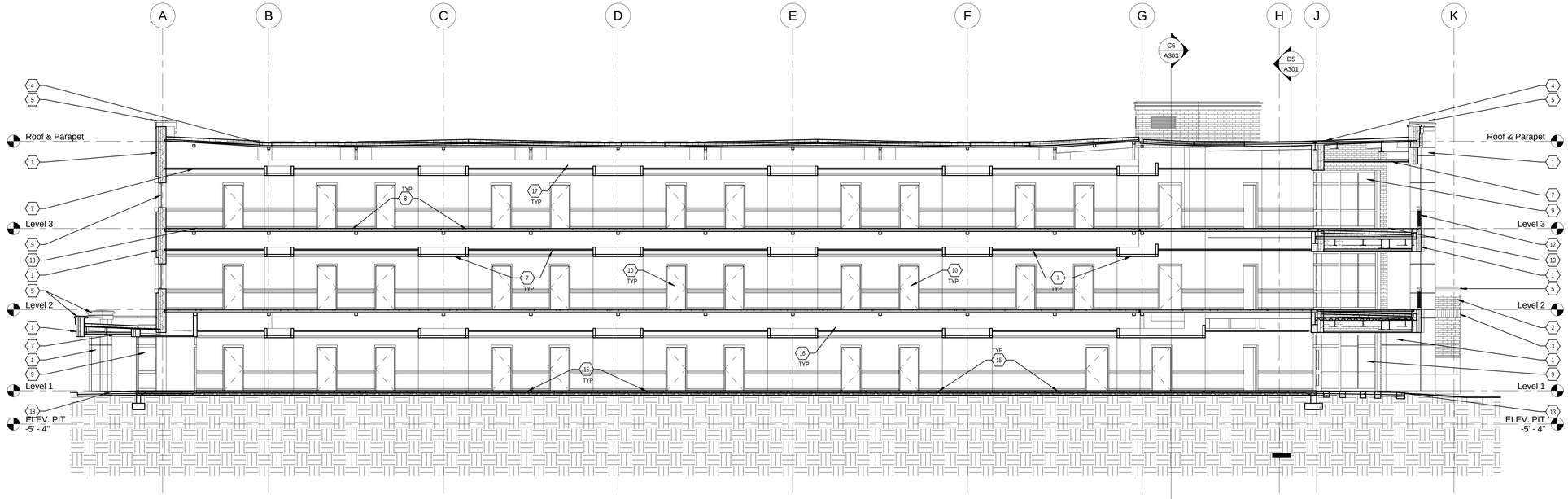
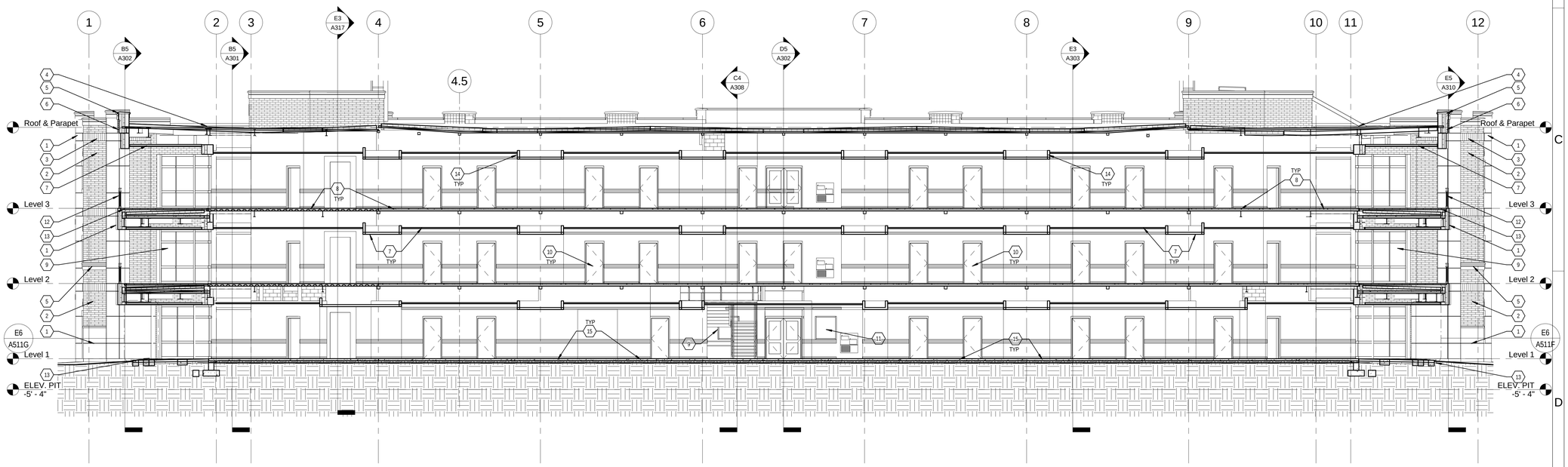


B5 BUILDING SECTION SOUTH HALLWAY
1/8" = 1'-0"



D5 BUILDING SECTION - EAST HALLWAY
1/8" = 1'-0"

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STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. CONSTRUCTION WITHIN GRIDS A TO B IS PART OF THE BASE BID OF THE PROJECT AND IT NEEDS TO BE BUILT IN ACCORDANCE WITH THE DESCRIPTION SHOWN ON OVERALL PLAN DRAWINGS & NOTES WITH AND WITHOUT ALTERNATES.
2. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION
3. LOCATE EXTERIOR WALLS PER WING DRAWINGS INFORMATION AND BUILDING/ WALL SECTIONS
4. LOCATE EXTERIOR WINDOWS PER WING DRAWINGS PLANS & INFORMATION, ENLARGED WINDOW ELEVATIONS AND DETAILS (TYP)
5. LOCATE EXTERIOR DOORS PER WING DRAWINGS INFORMATION AND ENLARGED WINDOW ELEVATIONS.
6. REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF BLOCKOUTS & PENETRATIONS OF RATED ASSEMBLIES, MAINTAINING THE REQUIRED FIRE RATINGS.
7. PROVIDE THRESHOLD/REDUCERS AT ALL ENTRY DOORS, INTERIOR DOORS SERVING TO CHANGE FLOOR FINISHES, EXPANSION JOINTS AND AT TRANSITION BETWEEN FLOOR FINISHES.
8. DIMENSIONAL NUMBERS ARE ROUNDED TO THE NEXT 1/2 INCH DIGIT (TYP)
9. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)

KEYNOTES

1 CONCRETE PRECAST PANELS & REVEALS - SEE WALL SECTIONS AND DETAILS
2 BRICK VENEER ON CMU - SEE WALL SECTIONS
3 SOLDIER COURSE BRICK VENEER - SEE DETAILS
4 SINGLE PLY ROOFING MEMBRANE OVER RIGID INSULATION ON METAL DECK
5 PRECAST CONCRETE CAP - SEE DETAILS
6 BRICK VENEER ON STRUCTURAL METAL STUDS - SEE WALL SECTIONS
7 SCHEDULED CEILING - SEE CEILING PLANS
8 SUSPENDED CONCRETE SLAB - SEE STRUCTURAL DRAWINGS
9 WINDOW SYSTEM - REFER TO FLOOR PLANS & WINDOW ELEVATIONS
10 SCHEDULED DOORS - REFER TO FLOOR PLANS & DOOR SCHEDULES
11 STAIRS - REFER TO STAIR FLOOR PLANS & SECTIONS
12 GUARDRAIL - SEE DETAILS
13 SCHEDULED FLOOR - REFER TO FLOOR PLANS & FINISH SCHEDULE
14 WALL SOFFIT - SEE DETAILS
15 CONCRETE SLAB ON GRADE - SEE STRUCTURAL DRAWINGS
16 MECHANICAL HEAT PUMP - SEE MECHANICAL DRAWINGS
17 MECHANICAL & PLUMBING LINES - SEE MECHANICAL/PLUMBING DRAWINGS
18 ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS

BUILDING OFFICIAL APPROVAL

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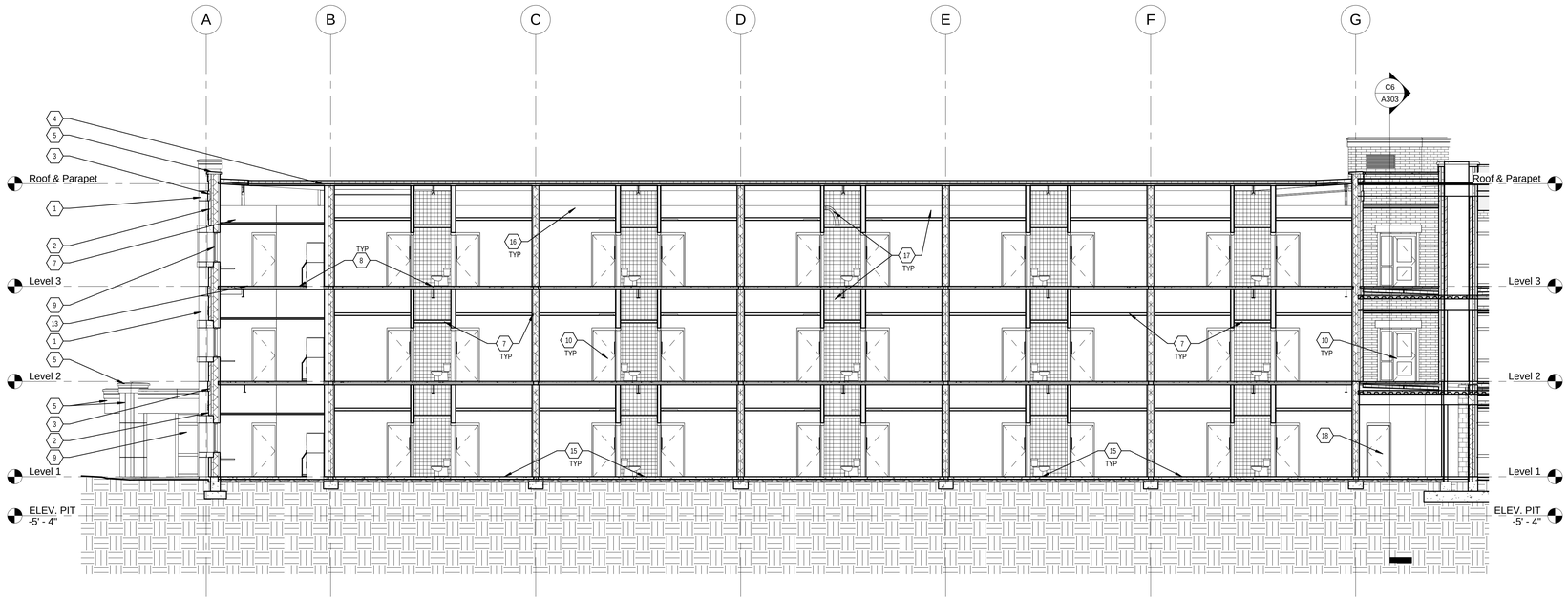
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

BUILDING SECTIONS

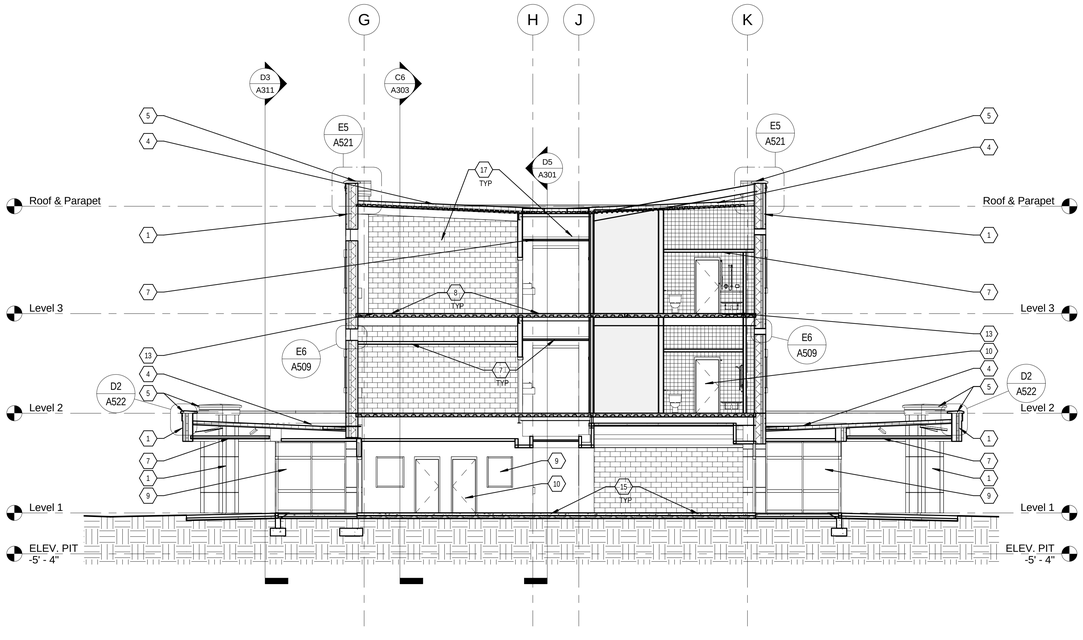
REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A301
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



B5 BUILDING SECTION - SOUTH BILLETS
1/8" = 1'-0"



D5 BUILDING SECTION - LOBBY
1/8" = 1'-0"

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LICENSED ARCHITECT

GENERAL NOTES

1. CONSTRUCTION WITHIN GRIDS A TO B IS PART OF THE BASE BID OF THE PROJECT AND IT NEEDS TO BE BUILT IN ACCORDANCE WITH THE DESCRIPTION SHOWN ON OVERALL PLAN DRAWINGS & NOTES WITH AND WITHOUT ALTERNATES.
2. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION
3. LOCATE EXTERIOR WALLS PER WING DRAWINGS INFORMATION AND BUILDING/ WALL SECTIONS
4. LOCATE EXTERIOR WINDOWS PER WING DRAWINGS PLANS & INFORMATION, ENLARGED WINDOW ELEVATIONS AND DETAILS (TYP)
5. LOCATE EXTERIOR DOORS PER WING DRAWINGS INFORMATION AND ENLARGED WINDOW ELEVATIONS.
6. REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF BLOCKOUTS & PENETRATIONS OF RATED ASSEMBLIES, MAINTAINING THE REQUIRED FIRE RATINGS.
7. PROVIDE THRESHOLD/REDUCERS AT ALL ENTRY DOORS, INTERIOR DOORS SERVING TO CHANGE FLOOR FINISHES, EXPANSION JOINTS AND AT TRANSITION BETWEEN FLOOR FINISHES.
8. DIMENSIONAL NUMBERS ARE ROUNDED TO THE NEXT 1/2 INCH DIGIT (TYP)
9. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)

KEYNOTES

1 CONCRETE PRECAST PANELS & REVEALS - SEE WALL SECTIONS AND DETAILS
2 BRICK VENEER ON CMU - SEE WALL SECTIONS
3 SOLDIER COURSE BRICK VENEER - SEE DETAILS
4 SINGLE PLY ROOFING MEMBRANE OVER RIGID INSULATION ON METAL DECK
5 PRECAST CONCRETE CAP - SEE DETAILS
6 BRICK VENEER ON STRUCTURAL METAL STUDS - SEE WALL SECTIONS
7 SCHEDULED CEILING - SEE CEILING PLANS
8 SUSPENDED CONCRETE SLAB - SEE STRUCTURAL DRAWINGS
9 WINDOW SYSTEM - REFER TO FLOOR PLANS & WINDOW ELEVATIONS
10 SCHEDULED DOORS - REFER TO FLOOR PLANS & DOOR SCHEDULES
11 STAIRS - REFER TO STAIR FLOOR PLANS & SECTIONS
12 GUARDRAIL - SEE DETAILS
13 SCHEDULED FLOOR - REFER TO FLOOR PLANS & FINISH SCHEDULE
14 WALL SOFFIT - SEE DETAILS
15 CONCRETE SLAB ON GRADE - SEE STRUCTURAL DRAWINGS
16 MECHANICAL HEAT PUMP - SEE MECHANICAL DRAWINGS
17 MECHANICAL & PLUMBING LINES - SEE MECHANICAL/PLUMBING DRAWINGS
18 ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

BUILDING SECTIONS

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A302
DATE: 02/15/2013	

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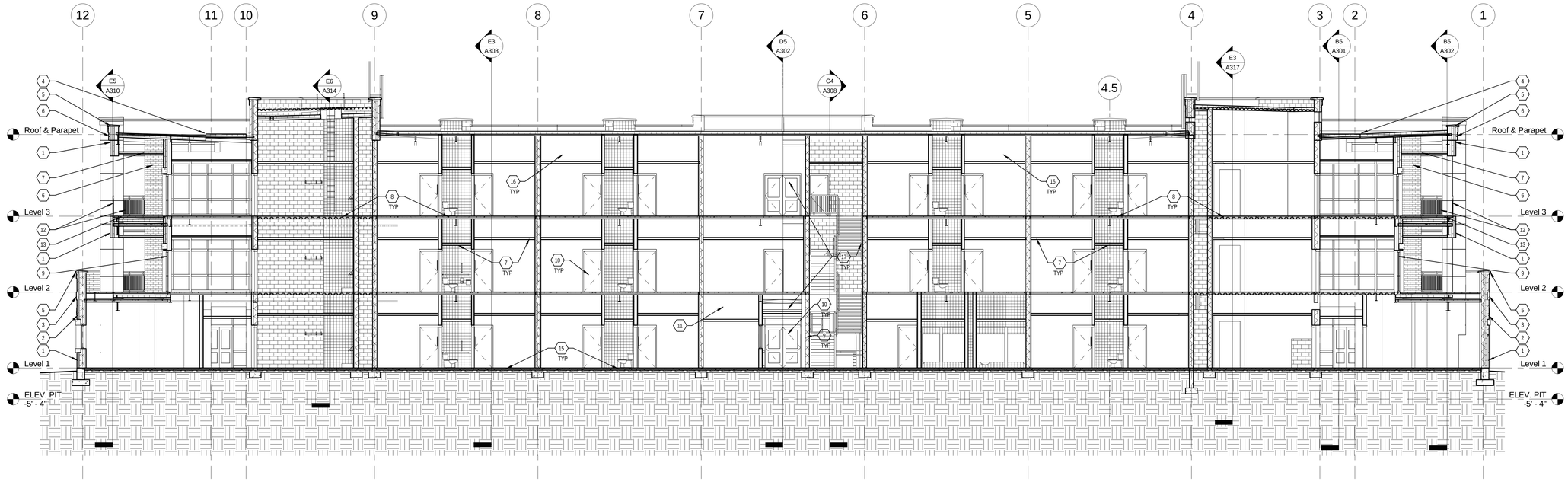
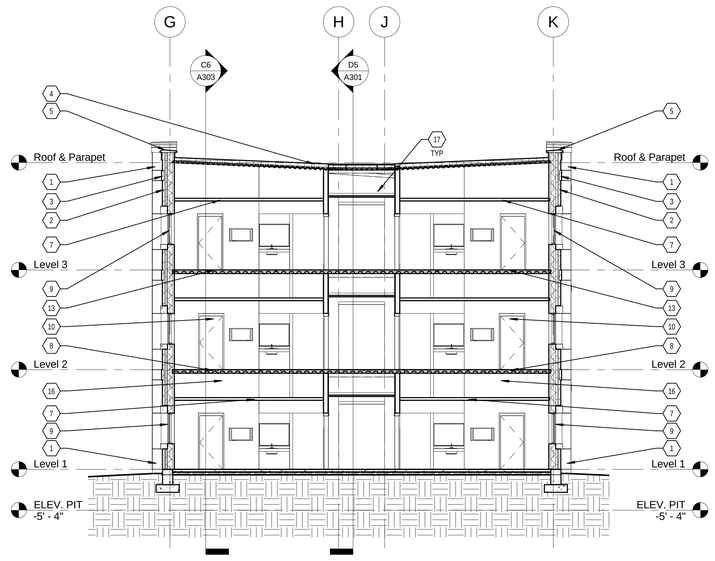


C6 BUILDING SECTION EAST TOWERS
1/8" = 1'-0"



E3 BUILDING SECTION - BILLETS
1/8" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. CONSTRUCTION WITHIN GRIDS A TO B IS PART OF THE BASE BID OF THE PROJECT AND IT NEEDS TO BE BUILT IN ACCORDANCE WITH THE DESCRIPTION SHOWN ON OVERALL PLAN DRAWINGS & NOTES WITH AND WITHOUT ALTERNATES.
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3. LOCATE EXTERIOR WALLS PER WING DRAWINGS INFORMATION AND BUILDING/ WALL SECTIONS
4. LOCATE EXTERIOR WINDOWS PER WING DRAWINGS PLANS & INFORMATION, ENLARGED WINDOW ELEVATIONS AND DETAILS (TYP)
5. LOCATE EXTERIOR DOORS PER WING DRAWINGS INFORMATION AND ENLARGED WINDOW ELEVATIONS.
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7. PROVIDE THRESHOLD/REDUCERS AT ALL ENTRY DOORS, INTERIOR DOORS SERVING TO CHANGE FLOOR FINISHES, EXPANSION JOINTS AND AT TRANSITION BETWEEN FLOOR FINISHES.
8. DIMENSIONAL NUMBERS ARE ROUNDED TO THE NEXT 1/2 INCH DIGIT (TYP)
9. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)

KEYNOTES

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2 BRICK VENEER ON CMU - SEE WALL SECTIONS
3 SOLDIER COURSE BRICK VENEER - SEE DETAILS
4 SINGLE PLY ROOFING MEMBRANE OVER RIGID INSULATION ON METAL DECK
5 PRECAST CONCRETE CAP - SEE DETAILS
6 BRICK VENEER ON STRUCTURAL METAL STUDS - SEE WALL SECTIONS
7 SCHEDULED CEILING - SEE CEILING PLANS
8 SUSPENDED CONCRETE SLAB - SEE STRUCTURAL DRAWINGS
9 WINDOW SYSTEM - REFER TO FLOOR PLANS & WINDOW ELEVATIONS
10 SCHEDULED DOORS - REFER TO FLOOR PLANS & DOOR SCHEDULES
11 STAIRS - REFER TO STAIR FLOOR PLANS & SECTIONS
12 GUARDRAIL - SEE DETAILS
13 SCHEDULED FLOOR - REFER TO FLOOR PLANS & FINISH SCHEDULE
14 WALL SOFFIT - SEE DETAILS
15 CONCRETE SLAB ON GRADE - SEE STRUCTURAL DRAWINGS
16 MECHANICAL HEAT PUMP - SEE MECHANICAL DRAWINGS
17 MECHANICAL & PLUMBING LINES - SEE MECHANICAL/PLUMBING DRAWINGS
18 ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS

BUILDING OFFICIAL APPROVAL

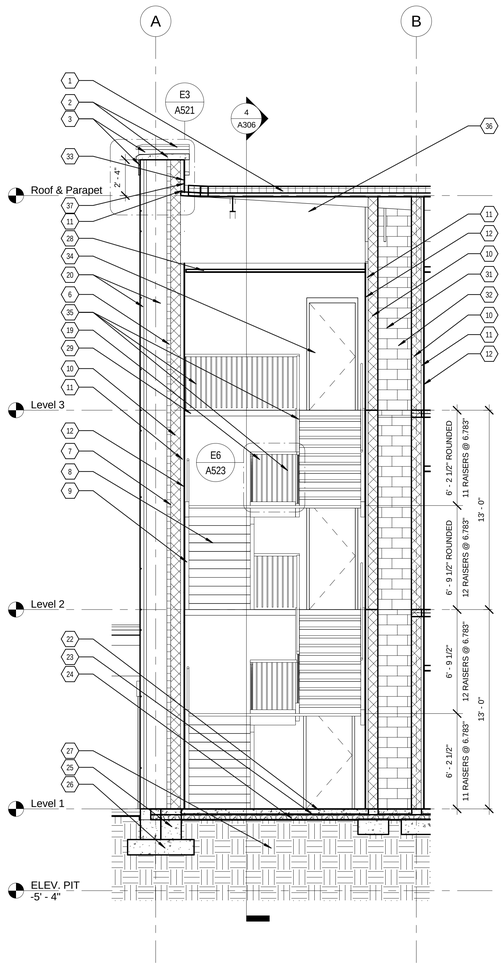
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

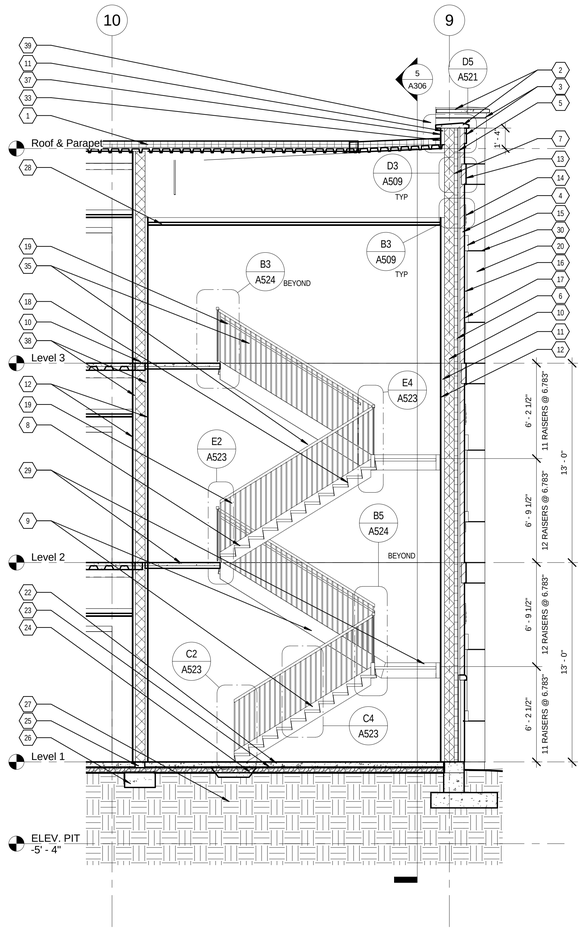
BUILDING SECTIONS

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A303
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS





ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
2. GENERAL CONTRACTOR MUST ENSURE AND PROVIDE EXTERIOR AESTHETIC SEALANT JOINTS BETWEEN ALL SIDES OF THE FENESTRATION AND THE CLADDING OF THE BUILDING AS NEEDED TO COMPLETELY CONCEAL THE AIR BARRIER (TYPICAL).
3. GENERAL CONTRACTOR MUST ENSURE A CONTINUOUS AIR BARRIER IS PROVIDED INTO ALL FENESTRATION ROUGH OPENINGS INCLUDING ALL HEAD, JAMB AND SILL CORNERS WITH INTERIOR SEALANT JOINT INSTALLED CONTINUOUSLY BETWEEN FENESTRATION AND AIR BARRIER, AND IN ACCORDANCE WITH FENESTRATION AND AIR BARRIER MANUFACTURERS INSTALLATION PROCEDURES (TYPICAL).
4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

KEYNOTES

1 SINGLE PLY ROOFING MEMBRANE OVER RIGID INSULATION ON METAL DECK
2 PRECAST CONCRETE CAP WITH METAL FLASHING UNDERNEATH
3 PRECAST CONCRETE SURFACE PLATE
4 NOMINAL 4"x4"x16" BRICK VENEER
5 AIR GAP
6 CONTINUOUS RIGID INSULATION EFFECTIVE 15 R-VALUES- SEE SHEET NOTES
7 AIR AND WEATHER BARRIER
8 POURED IN PLACE CONCRETE TREAD ON STEEL SUBTREAD WELDED TO STAIR STRINGERS - REFER TO STRUCTURAL DRAWINGS
9 3 X 12 STRINGER CHANNEL REFER TO STRUCTURAL DWGS
10 NOMINAL 8X8X16 CMU
11 2 1/2" METAL STUD 25 GA @ 24" O.C.
12 5/8" GYPSUM BOARD
13 NOMINAL 4"x4"x16" SOLDIER COURSE BRICK VENEER
14 PRECAST CONCRETE KEYSTONE - SEE ELEVATIONS & DETAILS
15 PRECAST CONCRETE WINDOW HEADER - SEE ELEVATIONS & DETAILS
16 PRECAST CONCRETE WINDOW JAMB - SEE ELEVATIONS & DETAILS
17 PRECAST CONCRETE WINDOW SILL - SEE ELEVATIONS & DETAILS
18 STEEL RISER - REFER TO STRUCTURAL DRAWINGS
19 1 1/2" O.D. METAL HANDRAIL - REFER TO DETAILS
20 PRECAST CONCRETE PANEL & ANCHORAGE SUPPORT - SEE ELEVATIONS & DETAILS
21 WINDOW SYSTEM - REFER TO WINDOW ELEVATIONS
22 CONCRETE SLAB ON GRADE- REFER TO STRUCTURAL DRAWINGS
23 VAPOR RETARDER
24 DRAINAGE COURSE
25 CONCRETE FOUNDATION WALL- REFER TO STRUCTURAL DRAWINGS
26 CONCRETE FOOTING- REFER TO STRUCTURAL DRAWINGS
27 SOILS- REFER TO STRUCTURAL DRAWINGS
28 SUSPENDED CEILING SYSTEM - REFER TO CEILING PLANS
29 POURED IN PLACE CONCRETE LANDINGS ON METAL DECK & REBAR REINFORCEMENT OVER SUPPORT CHANNELS- REFER TO STRUCTURAL DRAWINGS
30 CONSTRUCTION JOINT-REVEAL - REFER TO ELEVATIONS & DETAILS
31 PIPE - REFER TO MECHANICAL DRAWINGS
32 SHAFT ENCLOSURE
33 5/8" CEMENTITIOUS BOARD
34 DOOR ASSEMBLY - REFER TO DOOR SCHEDULE
35 METAL GUARDRAIL
36 STRUCTURAL ELEMENT - REFER TO STRUCTURAL DRAWINGS
37 SINGLE PLY ROOFING MEMBRANE WRAPPING PARAPET WALL (TYP)
38 1 5/8" METAL STUD - REFER TO WALL TYPES
39 LIGHTNING PROTECTION - SEE ELECTRICAL DRAWINGS
40 NOMINAL 8X8X16 HONED CMU
41 3 5/8" METAL STUD 25 GA @ 24" O.C
42 SUSPENDED CONCRETE SLAB ON METAL DECK - SEE STRUCTURAL DRAWINGS
43 6" METAL STUD 25 GA @ 24" O.C

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

GENERAL NOTES

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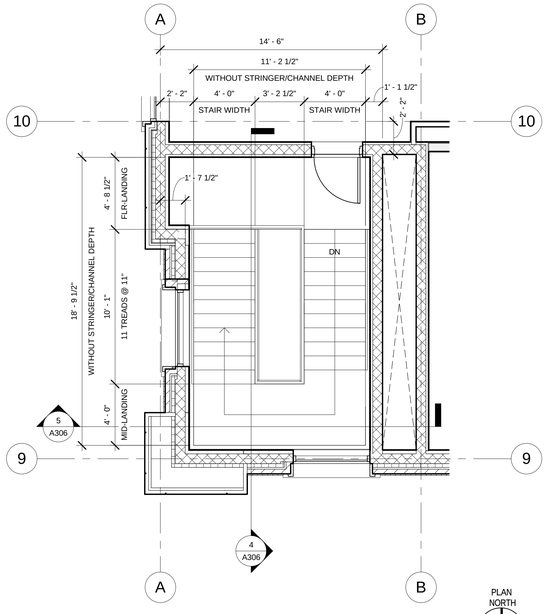
3. LOCATE EXTERIOR WALLS OF STAIR ENCLOSURE PER WING DRAWINGS INFORMATION AND STAIR SECTIONS
4. LOCATE STAIR WINDOWS PER WING DRAWINGS INFORMATION AND ENLARGED WINDOW ELEVATIONS (TYP)
5. FIRST FLOOR STAIR WINDOWS TO HAVE SPANDREL GLAZING (TYP).
6. LOCATE STAIR EXTERIOR DOORS PER WING DRAWINGS INFORMATION.
7. REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF BLOCKOUTS & PENETRATIONS OF RATED ASSEMBLIES, MAINTAINING THE REQUIRED FIRE RATINGS.
8. PROVIDE METAL STAIRS WITH CONCRETE POURED IN PLACE TREADS AND METAL RAISERS, CONCRETE POURED IN PLACE MID & FLOOR LANDINGS AND STEEL CHANNEL STRINGERS - REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS & DETAILS (TYP)
9. GUARDRAILS TO BE SECURED/WELDED TO TOP OF STRINGER (TYP).
10. PROVIDE THRESHOLD TRANSITION AT STAIR DOORS.
11. STAIR CMU STRUCTURAL WALLS OF THE NORTH AND SOUTH WINGS ARE TO BE FULLY FURRED AT INTERIOR SIDE WITH METAL STUDS, GYPSUM BOARD AND PAINT (TYP)
12. STAIR CMU STRUCTURAL WALLS OF THE EAST WING ARE TO BE BUILT WITH EXPOSED HONED CMU AND NATURAL COLOR SEALER (TYP)
13. DIMENSIONAL NUMBERS ARE ROUNDED TO THE NEXT 1/2 INCH DIGIT (TYP)
14. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
15. PROVIDE SAFETY GLAZING AT ALL STAIR WINDOWS, EXCEPT FIRST FLOOR (TYP).

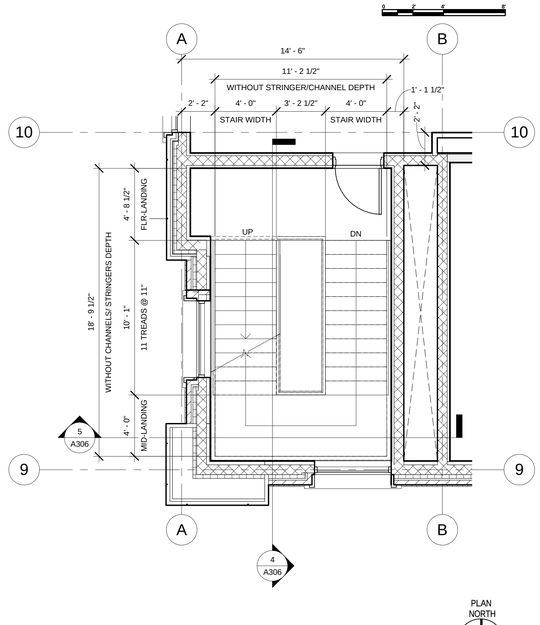
BUILDING OFFICIAL APPROVAL

5 STAIR NORTH TRANSVERSE SECTION
1/4" = 1'-0"

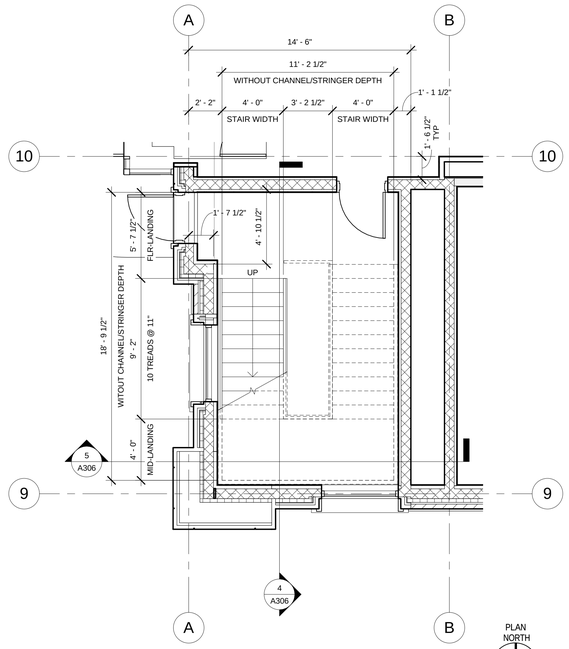


E5 3RD LEVEL STAIR PLAN - NORTH
1/4" = 1'-0"

4 STAIR NORTH LONGITUDINAL SECTION
1/4" = 1'-0"



E4 2ND LEVEL STAIR PLAN - NORTH
1/4" = 1'-0"



E2 1ST LEVEL STAIR PLAN - NORTH
1/4" = 1'-0"

UTAH NATIONAL GUARD
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RIVERTON, UT 84062

STAIR SECTIONS & PLANS

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A306
DATE: 02/15/2013	

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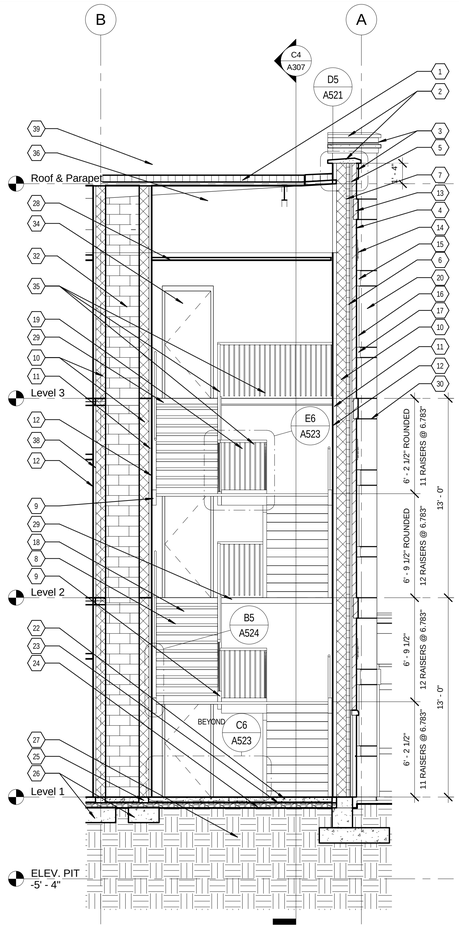
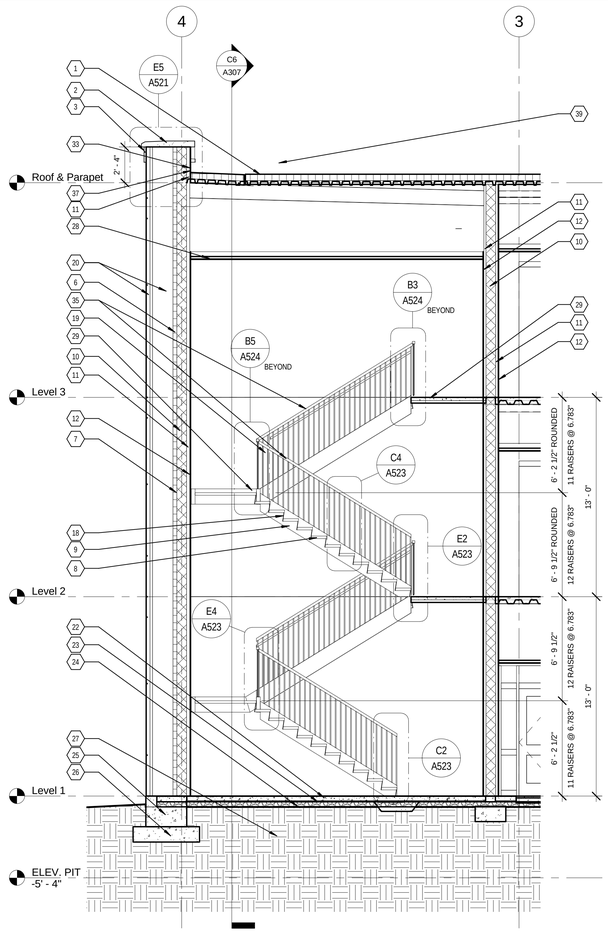


C6 STAIR SOUTH TRANSVERSE SECTION
1/4" = 1'-0"



C4 STAIR SOUTH LONGITUDINAL SECTION
1/4" = 1'-0"

ENVELOPE NOTES

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5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

KEYNOTES

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2 PRECAST CONCRETE CAP WITH METAL FLASHING UNDERNEATH
3 PRECAST CONCRETE SURFACE PLATE
4 NOMINAL 4"x4"x16" BRICK VENEER
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8 POURED IN PLACE CONCRETE TREAD ON STEEL SUBTREAD WELDED TO STAIR STRINGERS - REFER TO STRUCTURAL DRAWINGS
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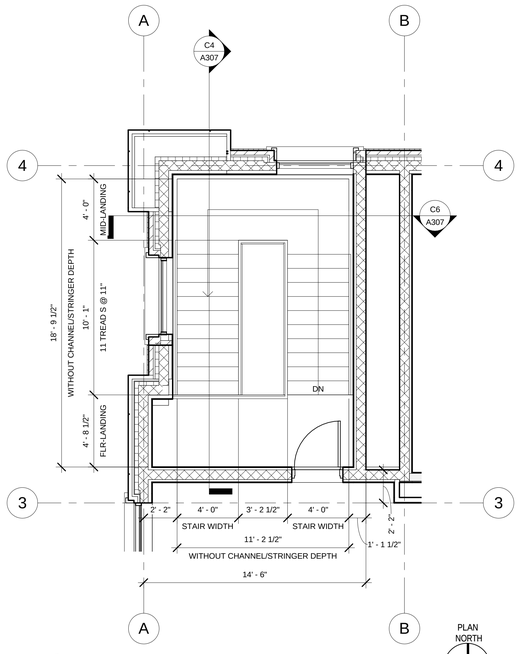
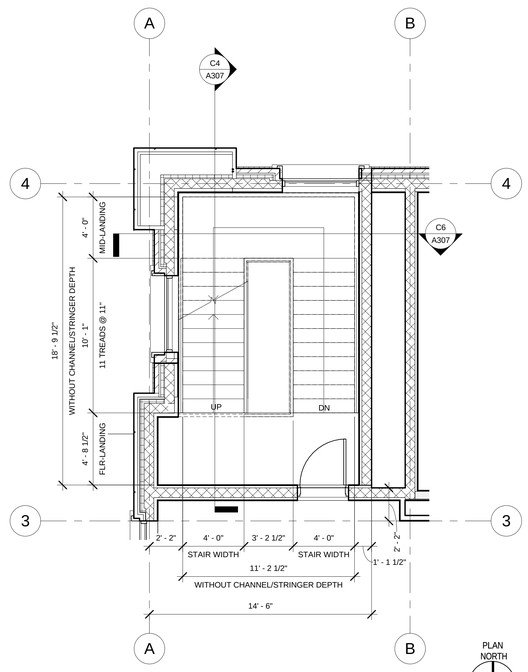
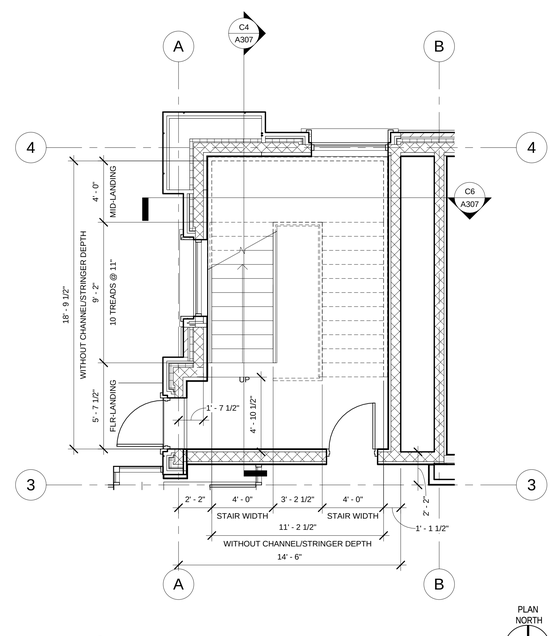


E6 3RD LEVEL STAIR PLAN - SOUTH
1/4" = 1'-0"



E4 2ND LEVEL STAIR PLAN - SOUTH
1/4" = 1'-0"



E2 1ST LEVEL STAIR PLAN - SOUTH
1/4" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

GENERAL NOTES

1. CONSTRUCTION WITHIN GRIDS A TO B IS PART OF THE BASE BID OF THE PROJECT AND IT NEEDS TO BE BUILT IN ACCORDANCE WITH THE DESCRIPTION SHOWN ON OVERALL PLAN DRAWINGS & NOTES WITH AND WITHOUT ALTERNATES.
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4. LOCATE STAIR WINDOWS PER WING DRAWINGS INFORMATION AND ENLARGED WINDOW ELEVATIONS (TYP)
5. FIRST FLOOR STAIR WINDOWS TO HAVE SPANDREL GLAZING (TYP).
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9. GUARDRAILS TO BE SECURED/WELDED TO TOP OF STRINGER (TYP).
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11. STAIR CMU STRUCTURAL WALLS OF THE NORTH AND SOUTH WINGS ARE TO BE FULLY FURRED AT INTERIOR SIDE WITH METAL STUDS, GYPSUM BOARD AND PAINT (TYP)
12. STAIR CMU STRUCTURAL WALLS OF THE EAST WING ARE TO BE BUILT WITH EXPOSED HONED CMU AND NATURAL COLOR SEALER (TYP)
13. DIMENSIONAL NUMBERS ARE ROUNDED TO THE NEXT 1/2 INCH DIGIT (TYP)
14. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
15. PROVIDE SAFETY GLAZING AT ALL STAIR WINDOWS, EXCEPT FIRST FLOOR (TYP).

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

STAIR SECTIONS & PLANS

REVISION	DATE	BY	DESCRIPTION
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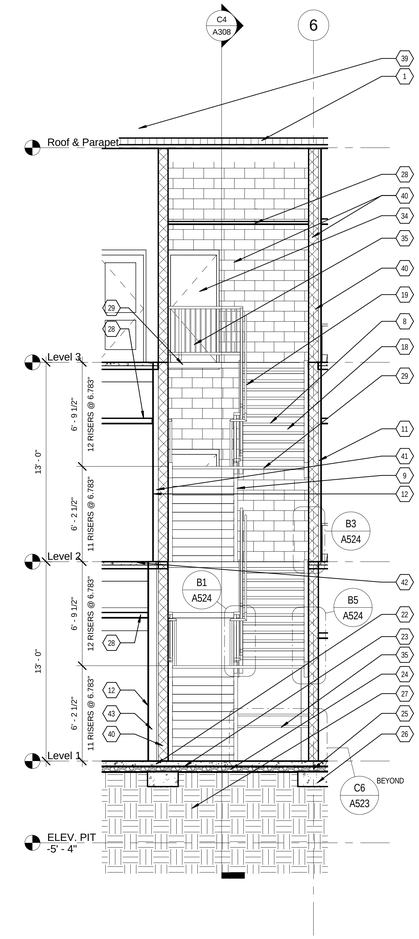
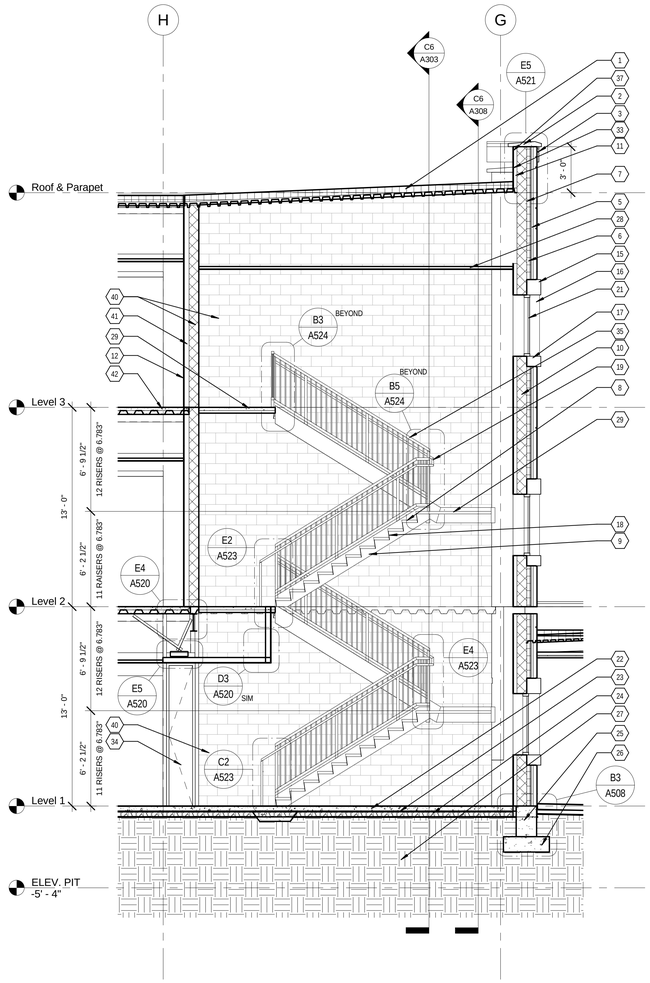
DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: A307

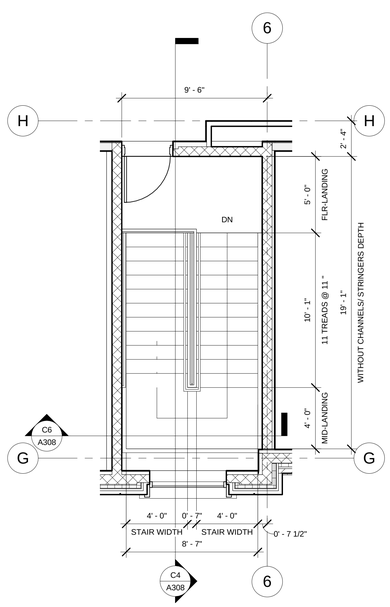
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



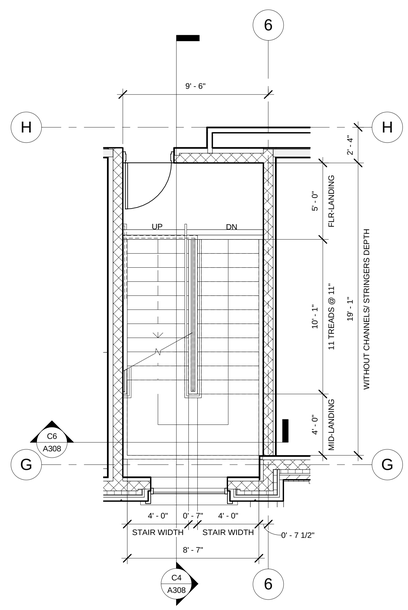
C6 STAIR EAST TRANSVERSE SECTION
1/4" = 1'-0"



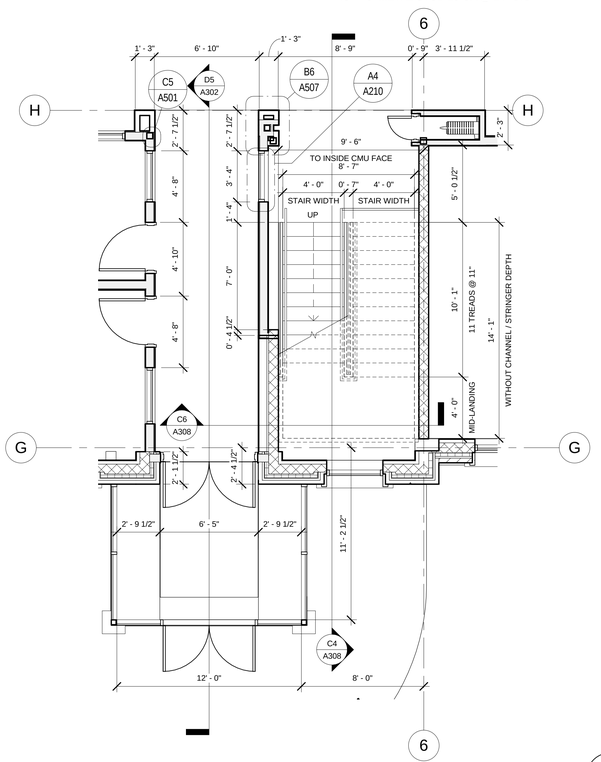
C4 STAIR EAST LONGITUDINAL SECTION
1/4" = 1'-0"



E6 3RD LEVEL STAIR PLAN - EAST
1/4" = 1'-0"



E4 2ND LEVEL STAIR PLAN - EAST
1/4" = 1'-0"



E2 1ST LEVEL STAIR PLAN - EAST
1/4" = 1'-0"

ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
2. GENERAL CONTRACTOR MUST ENSURE AND PROVIDE EXTERIOR AESTHETIC SEALANT JOINTS BETWEEN ALL SIDES OF THE FENESTRATION AND THE CLADDING OF THE BUILDING AS NEEDED TO COMPLETELY CONCEAL THE AIR BARRIER (TYPICAL).
3. GENERAL CONTRACTOR MUST ENSURE A CONTINUOUS AIR BARRIER IS PROVIDED INTO ALL FENESTRATION ROUGH OPENINGS INCLUDING ALL HEAD, JAMB AND SILL CORNERS WITH INTERIOR SEALANT JOINT INSTALLED CONTINUOUSLY BETWEEN FENESTRATION AND AIR BARRIER, AND IN ACCORDANCE WITH FENESTRATION AND AIR BARRIER MANUFACTURERS INSTALLATION PROCEDURES (TYPICAL).
4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

KEYNOTES

1 SINGLE PLY ROOFING MEMBRANE OVER RIGID INSULATION ON METAL DECK
2 PRECAST CONCRETE CAP WITH METAL FLASHING UNDERNEATH
3 PRECAST CONCRETE SURFACE PLATE
4 NOMINAL 4"x4"x16" BRICK VENEER
5 AIR GAP
6 CONTINUOUS RIGID INSULATION EFFECTIVE 15 R-VALUES- SEE SHEET NOTES
7 AIR AND WEATHER BARRIER
8 POURED IN PLACE CONCRETE TREAD ON STEEL SUBTREAD WELDED TO STAIR STRINGERS - REFER TO STRUCTURAL DRAWINGS
9 3 X 12 STRINGER CHANNEL REFER TO STRUCTURAL DWGS
10 NOMINAL 8X8X16 CMU
11 2 1/2" METAL STUD 25 GA @ 24" O.C.
12 5/8" GYPSUM BOARD
13 NOMINAL 4"x4"x16" SOLDIER COURSE BRICK VENEER
14 PRECAST CONCRETE KEYSTONE - SEE ELEVATIONS & DETAILS
15 PRECAST CONCRETE WINDOW HEADER - SEE ELEVATIONS & DETAILS
16 PRECAST CONCRETE WINDOW JAMB - SEE ELEVATIONS & DETAILS
17 PRECAST CONCRETE WINDOW SILL - SEE ELEVATIONS & DETAILS
18 STEEL RISER - REFER TO STRUCTURAL DRAWINGS
19 1 1/2" O.D. METAL HANDRAIL - REFER TO DETAILS
20 PRECAST CONCRETE PANEL & ANCHORAGE SUPPORT - SEE ELEVATIONS & DETAILS
21 WINDOW SYSTEM - REFER TO WINDOW ELEVATIONS
22 CONCRETE SLAB ON GRADE- REFER TO STRUCTURAL DRAWINGS
23 VAPOR RETARDER
24 DRAINAGE COURSE
25 CONCRETE FOUNDATION WALL- REFER TO STRUCTURAL DRAWINGS
26 CONCRETE FOOTING- REFER TO STRUCTURAL DRAWINGS
27 SOILS- REFER TO STRUCTURAL DRAWINGS
28 SUSPENDED CEILING SYSTEM - REFER TO CEILING PLANS
29 POURED IN PLACE CONCRETE LANDINGS ON METAL DECK & REBAR REINFORCEMENT OVER SUPPORT CHANNELS- REFER TO STRUCTURAL DRAWINGS
30 CONSTRUCTION JOINT-REVEAL - REFER TO ELEVATIONS & DETAILS
31 PIPE - REFER TO MECHANICAL DRAWINGS
32 SHAFT ENCLOSURE
33 5/8" CEMENTITIOUS BOARD
34 DOOR ASSEMBLY - REFER TO DOOR SCHEDULE
35 METAL GUARDRAIL
36 STRUCTURAL ELEMENT - REFER TO STRUCTURAL DRAWINGS
37 SINGLE PLY ROOFING MEMBRANE WRAPPING PARAPET WALL (TYP)
38 1 5/8" METAL STUD - REFER TO WALL TYPES
39 LIGHTNING PROTECTION - SEE ELECTRICAL DRAWINGS
40 NOMINAL 8X8X16 HONED CMU
41 3 5/8" METAL STUD 25 GA @ 24" O.C
42 SUSPENDED CONCRETE SLAB ON METAL DECK - SEE STRUCTURAL DRAWINGS
43 6" METAL STUD 25 GA @ 24" O.C

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. CONSTRUCTION WITHIN GRIDS A TO B IS PART OF THE BASE BID OF THE PROJECT AND IT NEEDS TO BE BUILT IN ACCORDANCE WITH THE DESCRIPTION SHOWN ON OVERALL PLAN DRAWINGS & NOTES WITH AND WITHOUT ALTERNATES.
2. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION
3. LOCATE EXTERIOR WALLS OF STAIR ENCLOSURE PER WING DRAWINGS INFORMATION AND STAIR SECTIONS
4. LOCATE STAIR WINDOWS PER WING DRAWINGS INFORMATION AND ENLARGED WINDOW ELEVATIONS (TYP)
5. FIRST FLOOR STAIR WINDOWS TO HAVE SPANDREL GLAZING (TYP).
6. LOCATE STAIR EXTERIOR DOORS PER WING DRAWINGS INFORMATION.
7. REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF BLOCKOUTS & PENETRATIONS OF RATED ASSEMBLIES, MAINTAINING THE REQUIRED FIRE RATINGS.
8. PROVIDE METAL STAIRS WITH CONCRETE POURED IN PLACE TREADS AND METAL RAISERS, CONCRETE POURED IN PLACE MID & FLOOR LANDINGS AND STEEL CHANNEL STRINGERS - REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS & DETAILS (TYP)
9. GUARDRAILS TO BE SECURED/WELDED TO TOP OF STRINGER (TYP).
10. PROVIDE THRESHOLD TRANSITION AT STAIR DOORS.
11. STAIR CMU STRUCTURAL WALLS OF THE NORTH AND SOUTH WINGS ARE TO BE FULLY FURRED AT INTERIOR SIDE WITH METAL STUDS, GYPSUM BOARD AND PAINT (TYP)
12. STAIR CMU STRUCTURAL WALLS OF THE EAST WING ARE TO BE BUILT WITH EXPOSED HONED CMU AND NATURAL COLOR SEALER (TYP)
13. DIMENSIONAL NUMBERS ARE ROUNDED TO THE NEXT 1/2 INCH DIGIT (TYP)
14. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
15. PROVIDE SAFETY GLAZING AT ALL STAIR WINDOWS, EXCEPT FIRST FLOOR (TYP).

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

STAIR SECTIONS & PLANS

REVISION	DATE	BY	DESCRIPTION
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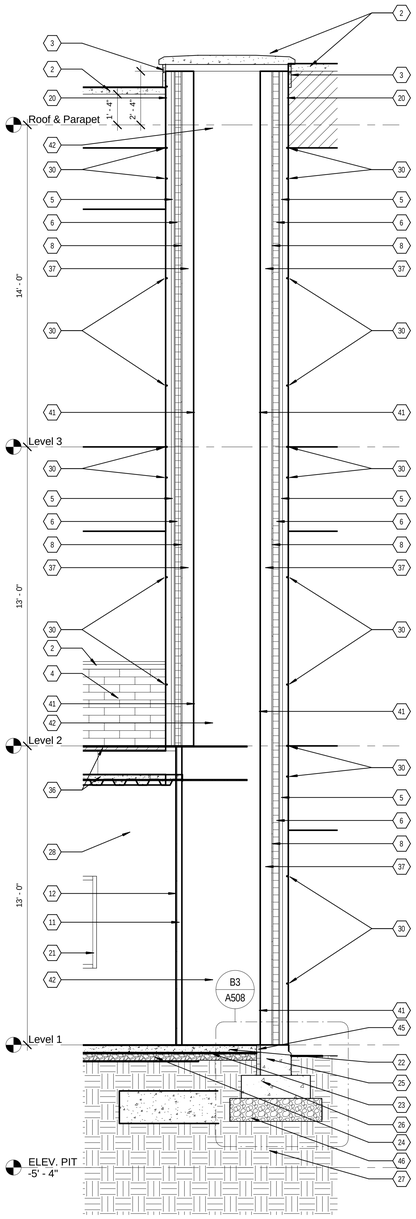
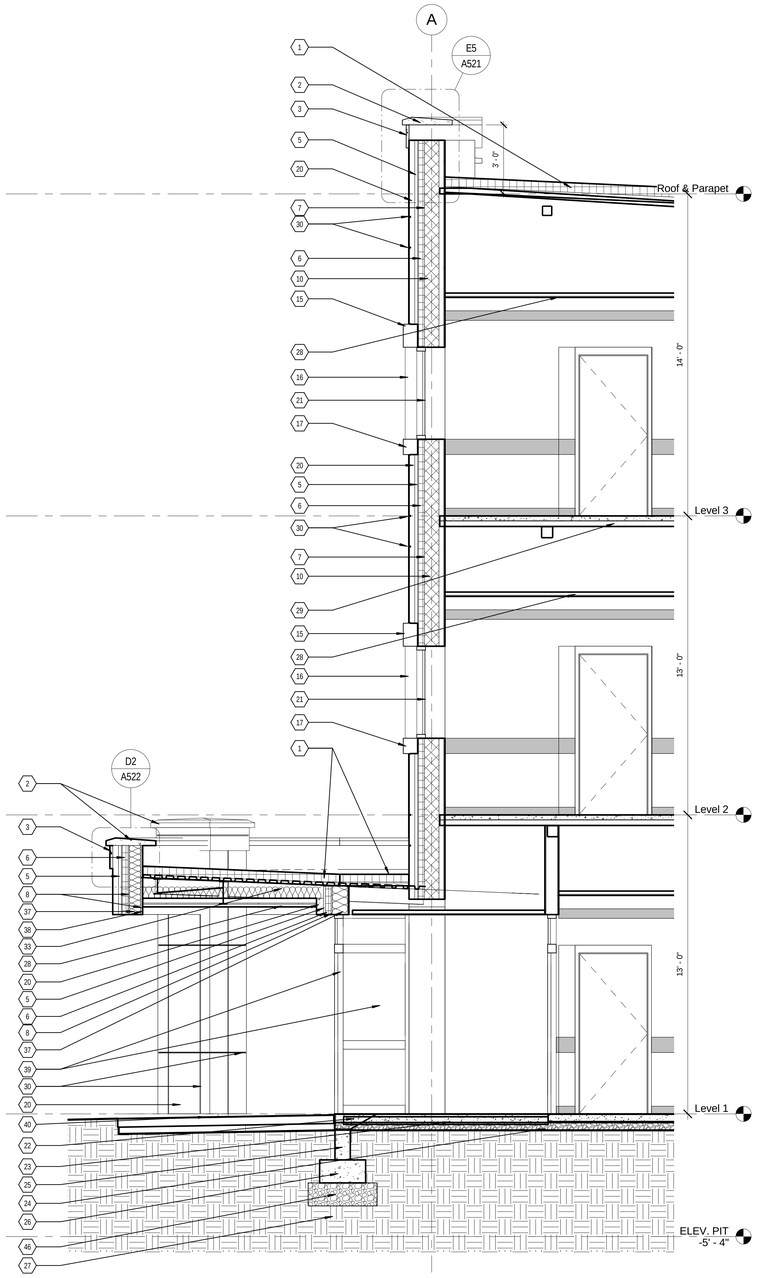
DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: A308

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



E5 WALL SECTION - BALCONY PIER
3/8" = 1'-0"



E3 WALL SECTION - WEST ENTRIES
3/8" = 1'-0"

KEYNOTES

1 SINGLE PLY ROOFING MEMBRANE OVER RIGID INSULATION ON METAL DECK
2 PRECAST CONCRETE CAP WITH METAL FLASHING UNDERNEATH
3 PRECAST CONCRETE SURFACE PLATE
4 NOMINAL 4"x4"x16" BRICK VENEER
5 AIR GAP
6 CONTINUOUS RIGID INSULATION EFFECTIVE 15 R-VALUES- SEE SHEET NOTES
7 AIR AND WEATHER BARRIER
8 5/8" EXTERIOR SHEATHING
9 8" STRUCTURAL METAL STUD AS INDICATED ON STRUCTURAL DWGS
10 NOMINAL 8X8X16 CMU
11 2 1/2" METAL STUD 25 GA @ 24" O.C.
12 5/8" GYPSUM BOARD
13 NOMINAL 4"x4"x16" SOLDIER COURSE BRICK VENEER
14 PRECAST CONCRETE KEYSTONE - SEE ELEVATIONS & DETAILS
15 PRECAST CONCRETE WINDOW HEADER - SEE ELEVATIONS & DETAILS
16 PRECAST CONCRETE WINDOW JAMB - SEE ELEVATIONS & DETAILS
17 PRECAST CONCRETE WINDOW SILL - SEE ELEVATIONS & DETAILS
18 PRECAST CONCRETE DOOR HEADER - SEE ELEVATIONS & DETAILS
19 PRECAST CONCRETE DOOR JAMB - SEE ELEVATIONS & DETAILS
20 PRECAST CONCRETE PANEL & ANCHORAGE SUPPORT - SEE ELEVATIONS & DETAILS
21 WINDOW SYSTEM - REFER TO WINDOW ELEVATIONS
22 CONCRETE SLAB ON GRADE- REFER TO STRUCTURAL DRAWINGS
23 VAPOR RETARDER
24 DRAINAGE COURSE
25 CONCRETE FOUNDATION WALL- REFER TO STRUCTURAL DRAWINGS
26 CONCRETE FOOTING- REFER TO STRUCTURAL DRAWINGS
27 SOILS- REFER TO STRUCTURAL DRAWINGS
28 SUSPENDED CEILING SYSTEM - REFER TO CEILING PLANS
29 CONCRETE SLAB ON METAL DECK - REFER TO STRUCTURAL DRAWINGS
30 CONSTRUCTION JOINT-REVEAL - REFER TO ELEVATIONS & DETAILS
31 LOUVER - REFER TO ENLARGED WINDOW ELEVATIONS & MECHANICAL DRAWINGS
32 TILE OVER 5/8" TILE BACKING PANEL ON 3 5/8" METAL STUD 20 GA @ 16" O.C.
33 R-13 BATT INSULATION AND VAPOR RETARDER
34 DOOR ASSEMBLY - REFER TO DOOR SCHEDULE
35 METAL GUARDRAIL
36 SUSPENDED PAVER FLOORING & ROOFING SYSTEM
37 6" STRUCTURAL METAL STUD AS INDICATED ON STRUCTURAL DWGS
38 3/8" SHAPED METAL CEILING PANEL END
39 STOREFRONT SYSTEM - REFER TO DOOR & WINDOW ELEVATIONS
40 EXTERIOR FLOORING - REFER TO CIVIL DRAWINGS & DETAILS
41 BRACING & PLATES TO SECURE TO STRUCTURE - REFER TO STRUCTURAL DRAWINGS
42 STRUCTURAL ELEMENT - REFER TO STRUCTURAL DRAWINGS
43 SINGLE PLY ROOFING MEMBRANE WRAPPING PARAPET WALL (TYP)
44 5/8" CEMENTITIOUS BOARD
45 CONTINUOUS RIGID INSULATION EFFECTIVE 10 R-VALUES- SEE SHEET NOTES
46 COMPACTED STRUCTURAL FILL - SEE STRUCTURAL DRAWINGS
47 CONCRETE FLOOR STRIPS
48 FLOOR PAVERS

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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. INSTALL FULL HEIGHT VISIBLE TILE FOR WALL TYPES INDICATING TILE FINISH (TYP)
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4. REFER TO STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS AT OPENINGS WITHIN STRUCTURAL ASSEMBLIES.
5. ALL WINDOWS ARE TO HAVE BLINDS INSTALLED WITHIN THE WINDOW FRAME.
6. ATTACHMENT OF ANY WALL TO STRUCTURE IS TO ACCOMODATE DEFLECTION PER STRUCTURAL REQUIREMENTS.
7. CONTRACTOR SHALL NOT HANG ANYTHING TO THE DECK UNLESS AUTHORIZED BY STRUCTURAL ENGINEER.
8. ALL GLAZING SHALL MEET REQUIREMENTS OF SECURITY, LEED AND ENERGY MODEL CONCURRENTLY.
9. EXTERIOR FACE OF CONCRETE FOUNDATION WALL MUST ALIGN WITH EXTERIOR FACE OF VENEER/PRECAST - REFER TO STRUCTURAL DRAWINGS.
10. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
11. REFER TO ENLARGED WINDOW ELEVATIONS FOR WINDOW DIMENSIONS AND DETAIL CALLOUTS (TYP)

ENVELOPE NOTES

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4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
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WALL SECTIONS

REVISION	DATE	BY	DESCRIPTION
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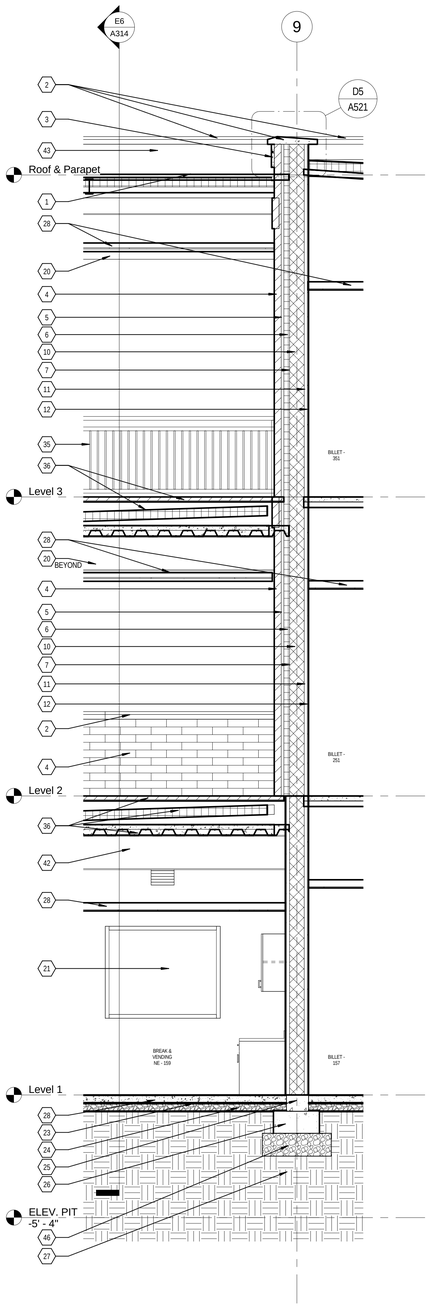
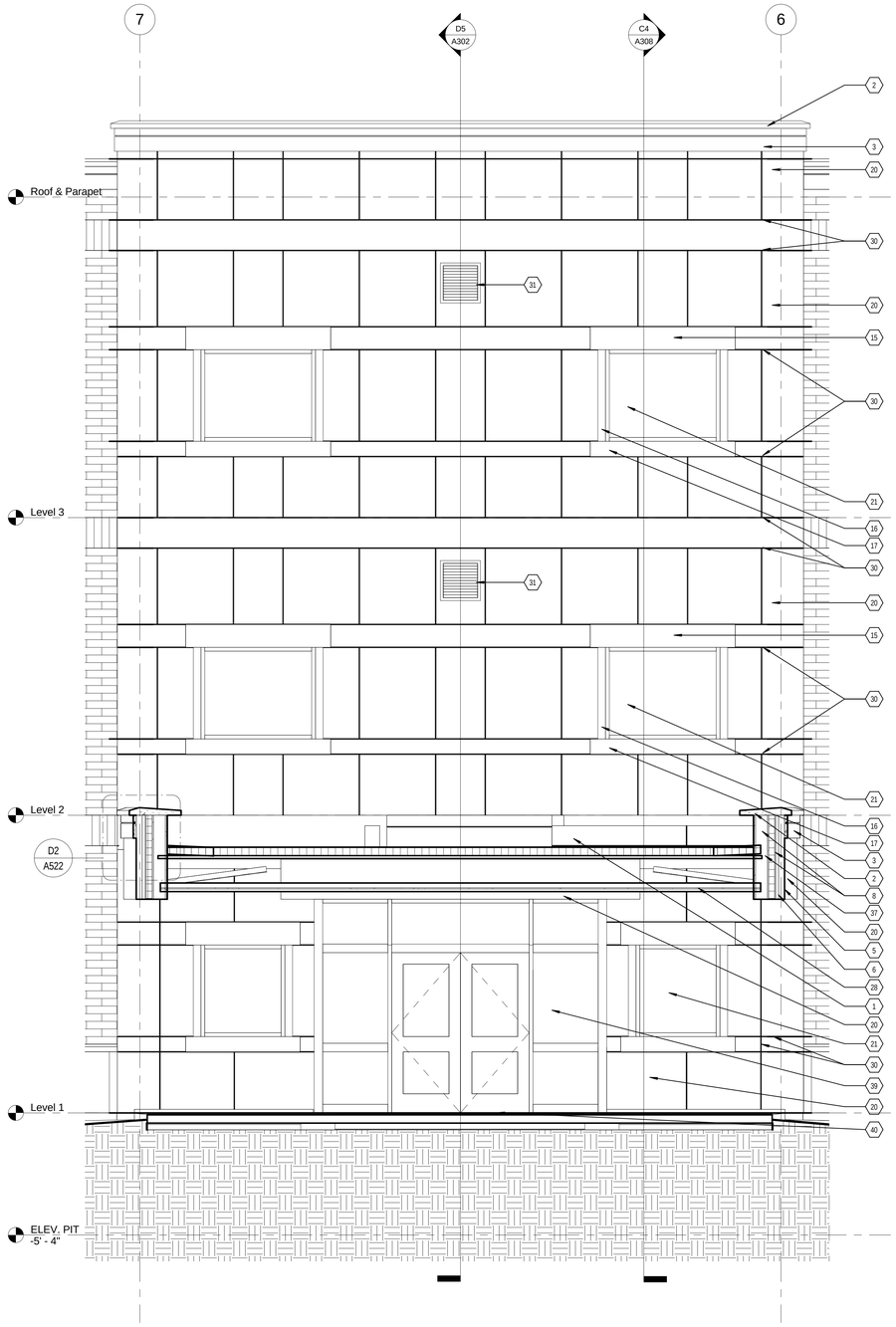
DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DRAWING NO.: A310
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



D5 WALL SECTION - BALCONY & PATIO LONGITUDINAL
3/8" = 1'-0"



D3 WALL SECTION - COURT YARD LONGITUDINAL
3/8" = 1'-0"

KEYNOTES

1 SINGLE PLY ROOFING MEMBRANE OVER RIGID INSULATION ON METAL DECK
2 PRECAST CONCRETE CAP WITH METAL FLASHING UNDERNEATH
3 PRECAST CONCRETE SURFACE PLATE
4 NOMINAL 4"x4"x16" BRICK VENEER
5 AIR GAP
6 CONTINUOUS RIGID INSULATION EFFECTIVE 15 R-VALUES- SEE SHEET NOTES
7 AIR AND WEATHER BARRIER
8 5/8" EXTERIOR SHEATHING
9 8" STRUCTURAL METAL STUD AS INDICATED ON STRUCTURAL DWGS
10 NOMINAL 8X8X16 CMU
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17 PRECAST CONCRETE WINDOW SILL - SEE ELEVATIONS & DETAILS
18 PRECAST CONCRETE DOOR HEADER - SEE ELEVATIONS & DETAILS
19 PRECAST CONCRETE DOOR JAMB - SEE ELEVATIONS & DETAILS
20 PRECAST CONCRETE PANEL & ANCHORAGE SUPPORT - SEE ELEVATIONS & DETAILS
21 WINDOW SYSTEM - REFER TO WINDOW ELEVATIONS
22 CONCRETE SLAB ON GRADE- REFER TO STRUCTURAL DRAWINGS
23 VAPOR RETARDER
24 DRAINAGE COURSE
25 CONCRETE FOUNDATION WALL- REFER TO STRUCTURAL DRAWINGS
26 CONCRETE FOOTING- REFER TO STRUCTURAL DRAWINGS
27 SOILS- REFER TO STRUCTURAL DRAWINGS
28 SUSPENDED CEILING SYSTEM - REFER TO CEILING PLANS
29 CONCRETE SLAB ON METAL DECK - REFER TO STRUCTURAL DRAWINGS
30 CONSTRUCTION JOINT-REVEAL - REFER TO ELEVATIONS & DETAILS
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33 R-13 BATT INSULATION AND VAPOR RETARDER
34 DOOR ASSEMBLY - REFER TO DOOR SCHEDULE
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43 SINGLE PLY ROOFING MEMBRANE WRAPPING PARAPET WALL (TYP)
44 5/8" CEMENTITIOUS BOARD
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46 COMPACTED STRUCTURAL FILL - SEE STRUCTURAL DRAWINGS
47 CONCRETE FLOOR STRIPS
48 FLOOR PAVERS

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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. INSTALL FULL HEIGHT VISIBLE TILE FOR WALL TYPES INDICATING TILE FINISH (TYP)
2. INSTALL TILE USING THIN SET REQUIREMENTS AS PER TCNA (TYP) - REFER TO SPECIFICATIONS.
3. PROVIDE PROPER BACKING/BLOCKING AT ALL BILLET RESTROOM WALLS SUCH THAT THEY CAN BE CONVERTED INTO ACCESSIBLE UNITS BY MOUNTING THE REQUIRED GRAB BARS.
4. REFER TO STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS AT OPENINGS WITHIN STRUCTURAL ASSEMBLIES.
5. ALL WINDOWS ARE TO HAVE BLINDS INSTALLED WITHIN THE WINDOW FRAME.
6. ATTACHMENT OF ANY WALL TO STRUCTURE IS TO ACCOMODATE DEFLECTION PER STRUCTURAL REQUIREMENTS.
7. CONTRACTOR SHALL NOT HANG ANYTHING TO THE DECK UNLESS AUTHORIZED BY STRUCTURAL ENGINEER.
8. ALL GLAZING SHALL MEET REQUIREMENTS OF SECURITY, LEED AND ENERGY MODEL CONCURRENTLY.
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10. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
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ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
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4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
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6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

WALL SECTIONS

REVISION	DATE	BY	DESCRIPTION
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△			
△			
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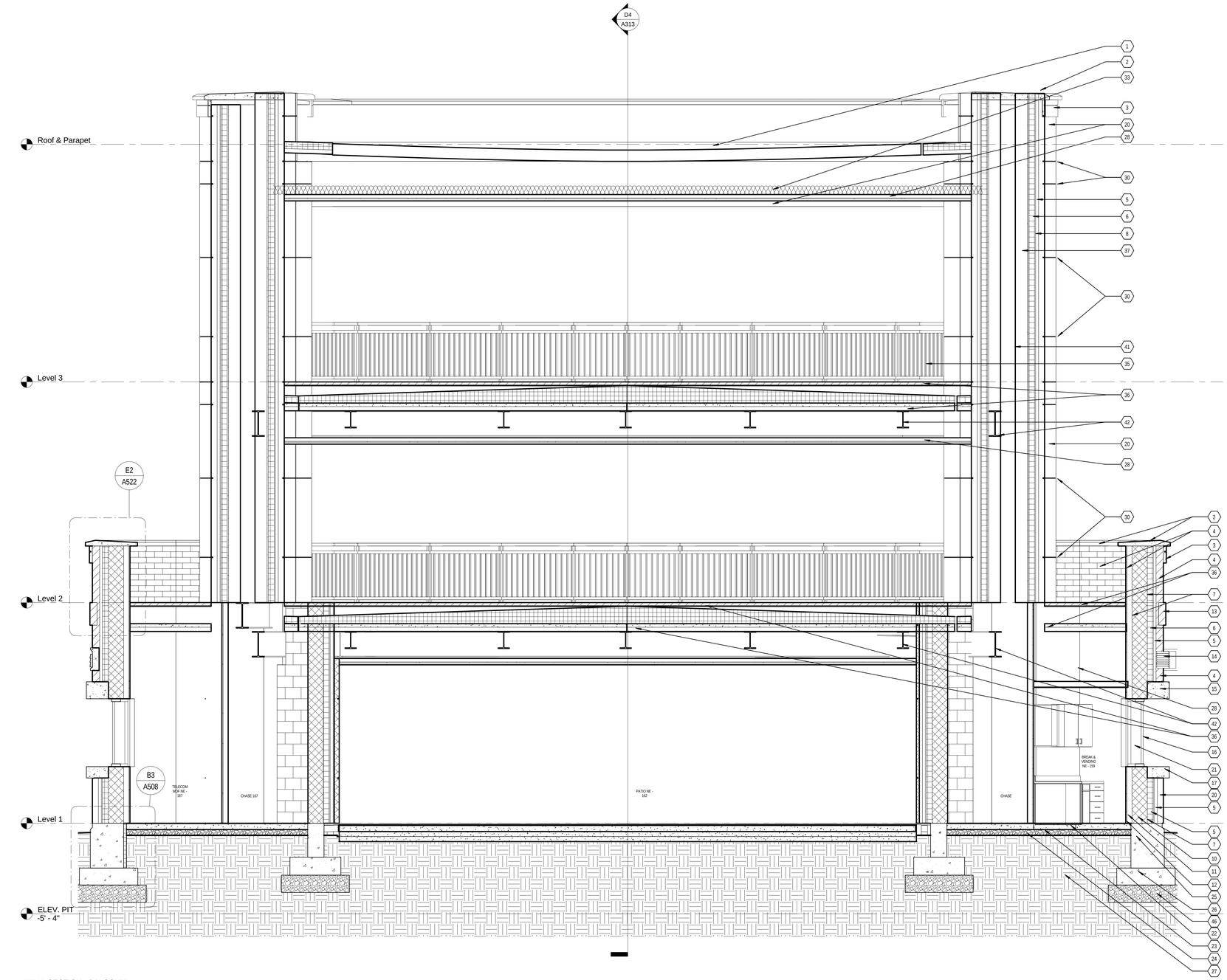
DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A311
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



D6 WALL SECTION - BALCONY LONGITUDINAL
3/8" = 1'-0"

KEYNOTES

1 SINGLE PLY ROOFING MEMBRANE OVER RIGID INSULATION ON METAL DECK
2 PRECAST CONCRETE CAP WITH METAL FLASHING UNDERNEATH
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4 NOMINAL 4"x4"x16" BRICK VENEER
5 AIR GAP
6 CONTINUOUS RIGID INSULATION EFFECTIVE 15 R-VALUES- SEE SHEET NOTES
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13 NOMINAL 4"x4"x16" SOLDIER COURSE BRICK VENEER
14 PRECAST CONCRETE KEYSTONE - SEE ELEVATIONS & DETAILS
15 PRECAST CONCRETE WINDOW HEADER - SEE ELEVATIONS & DETAILS
16 PRECAST CONCRETE WINDOW JAMB - SEE ELEVATIONS & DETAILS
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18 PRECAST CONCRETE DOOR HEADER - SEE ELEVATIONS & DETAILS
19 PRECAST CONCRETE DOOR JAMB - SEE ELEVATIONS & DETAILS
20 PRECAST CONCRETE PANEL & ANCHORAGE SUPPORT - SEE ELEVATIONS & DETAILS
21 WINDOW SYSTEM - REFER TO WINDOW ELEVATIONS
22 CONCRETE SLAB ON GRADE- REFER TO STRUCTURAL DRAWINGS
23 VAPOR RETARDER
24 DRAINAGE COURSE
25 CONCRETE FOUNDATION WALL- REFER TO STRUCTURAL DRAWINGS
26 CONCRETE FOOTING- REFER TO STRUCTURAL DRAWINGS
27 SOILS- REFER TO STRUCTURAL DRAWINGS
28 SUSPENDED CEILING SYSTEM - REFER TO CEILING PLANS
29 CONCRETE SLAB ON METAL DECK - REFER TO STRUCTURAL DRAWINGS
30 CONSTRUCTION JOINT-REVEAL - REFER TO ELEVATIONS & DETAILS
31 LOUVER - REFER TO ENLARGED WINDOW ELEVATIONS & MECHANICAL DRAWINGS
32 TILE OVER 5/8" TILE BACKING PANEL ON 3 5/8" METAL STUD 20 GA @ 16" O.C.
33 R-13 BATT INSULATION AND VAPOR RETARDER
34 DOOR ASSEMBLY - REFER TO DOOR SCHEDULE
35 METAL GUARDRAIL
36 SUSPENDED PAVER FLOORING & ROOFING SYSTEM
37 6" STRUCTURAL METAL STUD AS INDICATED ON STRUCTURAL DWGS
38 3/8" SHAPED METAL CEILING PANEL END
39 STOREFRONT SYSTEM - REFER TO DOOR & WINDOW ELEVATIONS
40 EXTERIOR FLOORING - REFER TO CIVIL DRAWINGS & DETAILS
41 BRACING & PLATES TO SECURE TO STRUCTURE - REFER TO STRUCTURAL DRAWINGS
42 STRUCTURAL ELEMENT - REFER TO STRUCTURAL DRAWINGS
43 SINGLE PLY ROOFING MEMBRANE WRAPPING PARAPET WALL (TYP)
44 5/8" CEMENTITIOUS BOARD
45 CONTINUOUS RIGID INSULATION EFFECTIVE 10 R-VALUES- SEE SHEET NOTES
46 COMPACTED STRUCTURAL FILL - SEE STRUCTURAL DRAWINGS
47 CONCRETE FLOOR STRIPS
48 FLOOR PAVERS

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

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4. REFER TO STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS AT OPENINGS WITHIN STRUCTURAL ASSEMBLIES.
5. ALL WINDOWS ARE TO HAVE BLINDS INSTALLED WITHIN THE WINDOW FRAME.
6. ATTACHMENT OF ANY WALL TO STRUCTURE IS TO ACCOMODATE DEFLECTION PER STRUCTURAL REQUIREMENTS.
7. CONTRACTOR SHALL NOT HANG ANYTHING TO THE DECK UNLESS AUTHORIZED BY STRUCTURAL ENGINEER.
8. ALL GLAZING SHALL MEET REQUIREMENTS OF SECURITY, LEED AND ENERGY MODEL CONCURRENTLY.
9. EXTERIOR FACE OF CONCRETE FOUNDATION WALL MUST ALIGN WITH EXTERIOR FACE OF VENEER/PRECAST - REFER TO STRUCTURAL DRAWINGS.
10. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
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ENVELOPE NOTES

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4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

BUILDING OFFICIAL APPROVAL

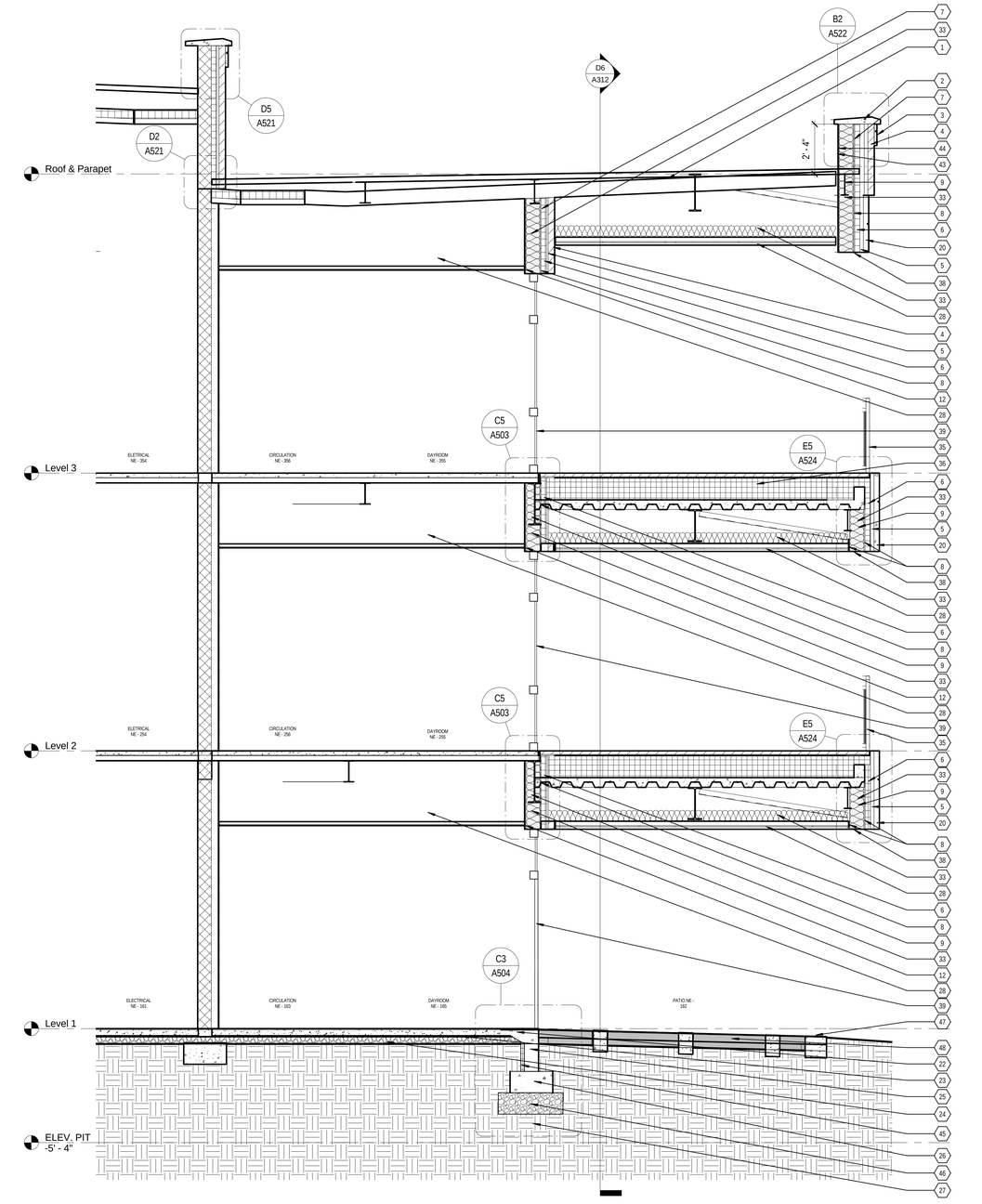
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

WALL SECTIONS

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A312
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



D4 WALL SECTION - BALCONY TRANSVERSAL
3/8" = 1'-0"

KEYNOTES

1 SINGLE PLY ROOFING MEMBRANE OVER RIGID INSULATION ON METAL DECK
2 PRECAST CONCRETE CAP WITH METAL FLASHING UNDERNEATH
3 PRECAST CONCRETE SURFACE PLATE
4 NOMINAL 4"x4"x16" BRICK VENEER
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SEAL & SIGNATURE

STATE OF UTAH
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BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

WALL SECTIONS

REVISION	DATE	BY	DESCRIPTION
△			
△			
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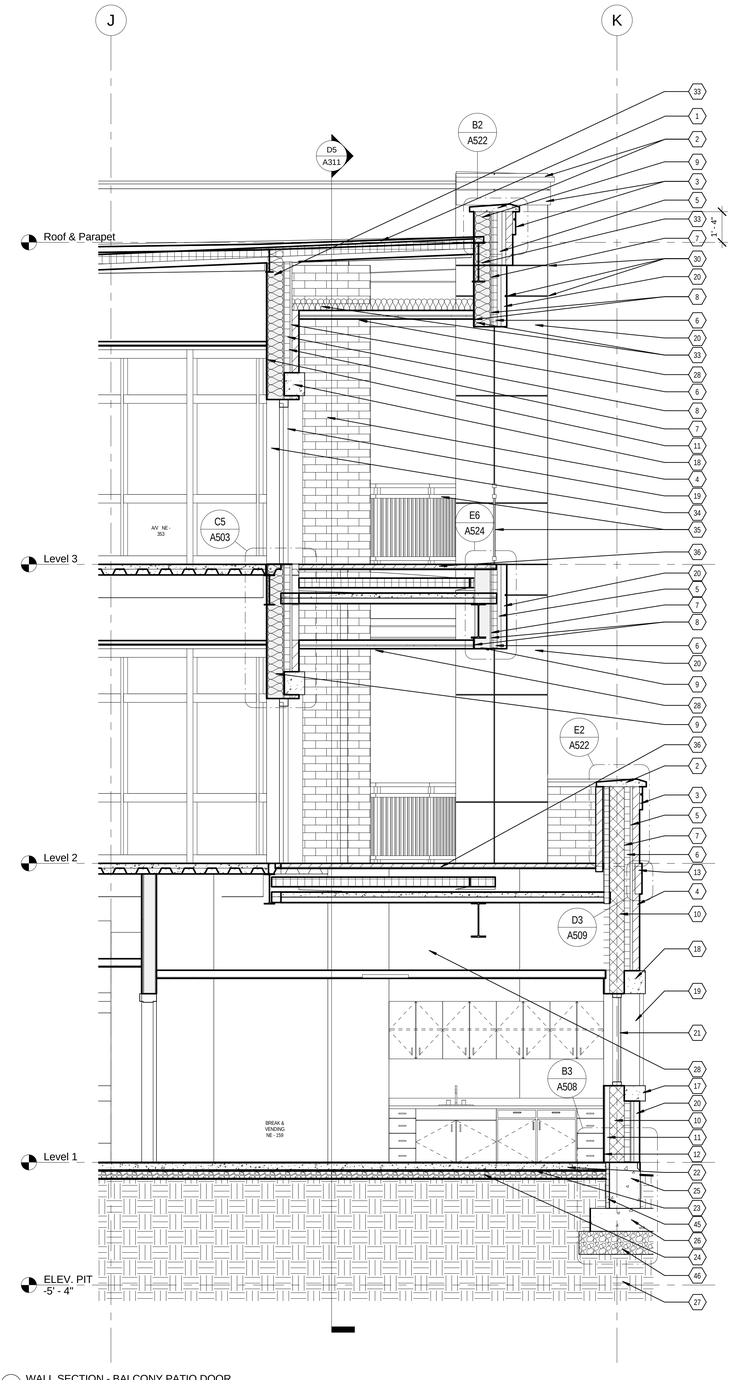
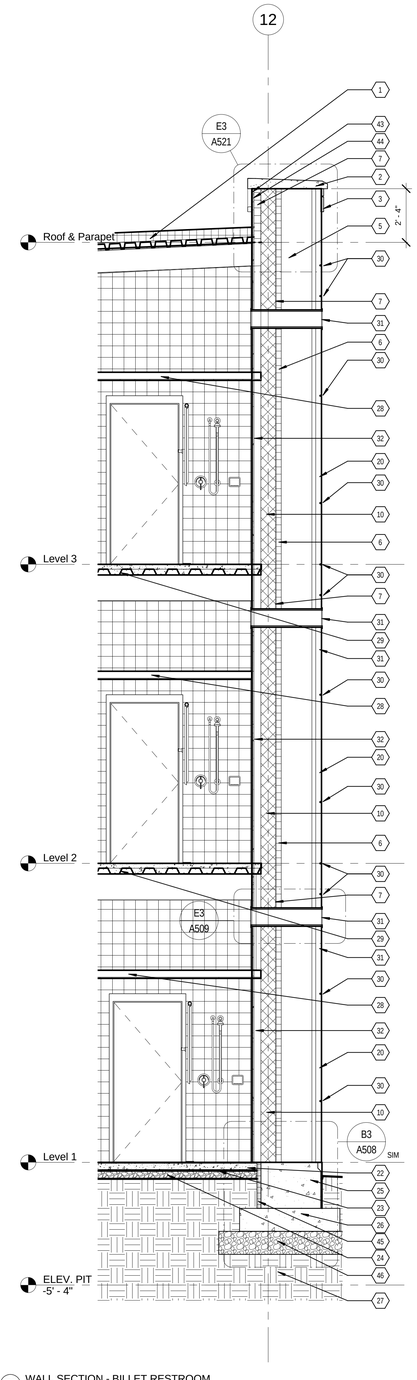
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A313
DATE: 02/15/2013	

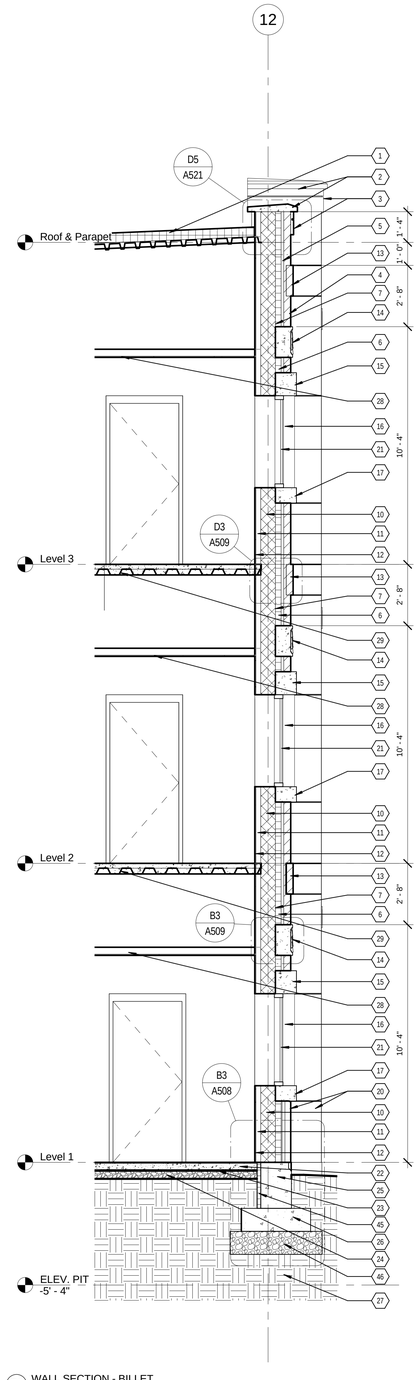
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



E6 WALL SECTION - BALCONY PATIO DOOR
3/8" = 1'-0"



E3 WALL SECTION - BILLET RESTROOM
3/8" = 1'-0"



E2 WALL SECTION - BILLET
3/8" = 1'-0"

KEYNOTES

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BUILDING OFFICIAL APPROVAL

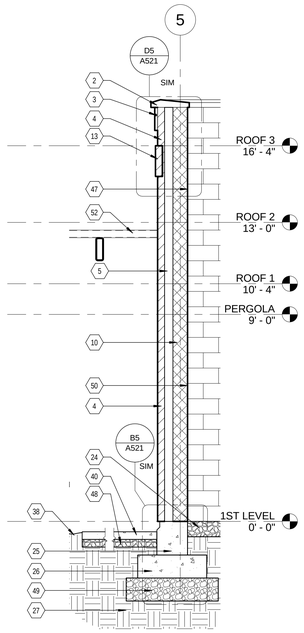
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

WALL SECTIONS

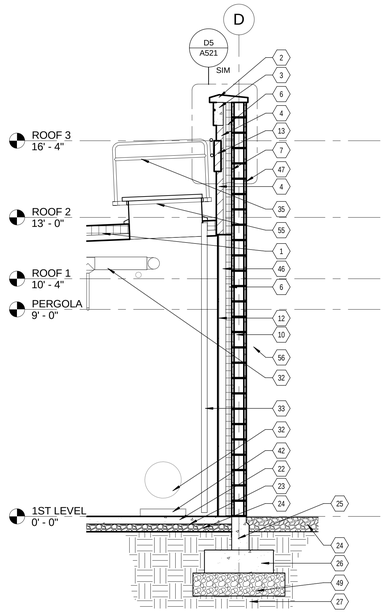
REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A314
DATE: 02/15/2013	

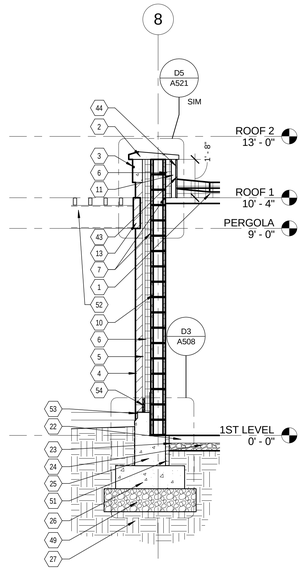
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



B6 SERVICE BLDG WALL SECTION
3/8" = 1'-0"



B5 SERVICE BLDG WALL SECTION
3/8" = 1'-0"



B4 SERVICE BLDG WALL SECTION
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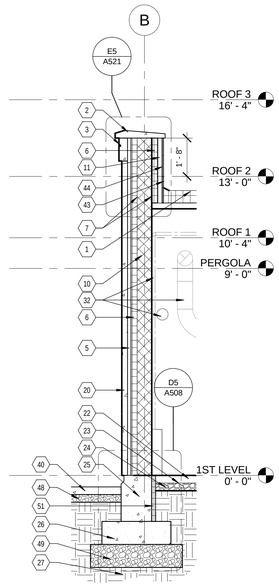
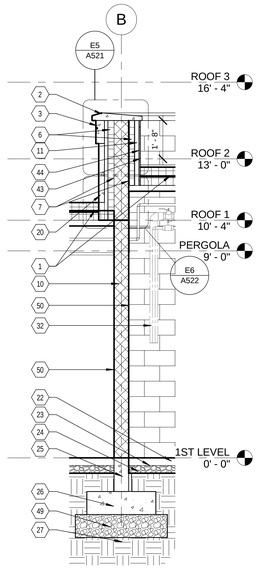


B2 SERVICE BLDG WALL SECTION
3/8" = 1'-0"



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32 MECHANICAL EQUIPMENT/ ELEMENT - REFER TO MECHANICAL DRAWINGS
33 INTERIOR LADDER TO ROOF HATCH
35 METAL GUARDRAIL
38 LANDSCAPE - REFER TO LANDSCAPE DRAWINGS
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52 PAINTED STEEL PERGOLA & STRUCTURE -SEE STRUCTURAL DRAWINGS
53 THRU WALL METAL FLASHING
54 WEEPING SYSTEM
55 ROOF HATCH ACCESS DOOR
56 ELECTRICAL ELEMENT - SEE ELECTRICAL DRAWINGS

SERVICE BLDG DOOR SCHEDULE

DOOR #	DOOR TYPE	LEAVES	WIDTH	HEIGHT	THICKNESS	MATERIAL	FRAME TYPE	FRAME DEPTH	FRAME MATERIAL	JAMB DETAIL	HEAD DETAIL	ELECTRICAL	FIRE RATING	HARDWARE GROUP	REMARKS
S-101A	C	1	3' - 0"	7' - 0"	0' - 2"	HM	1	0' - 5 1/2"	HM	D6/A502	D6/A502	No		7	
S-102A	C	2	3' - 0"	7' - 0"	0' - 2"	HM	1	0' - 5 1/2"	HM	D6/A502	D6/A502	No		6	A3/A526 SIGNAGE LOCATED ON THE RIGTH OF THE RIGHT HAND DOOR
S-102B	C	2	3' - 0"	7' - 0"	0' - 2"	HM	1	0' - 5 1/2"	HM	D6/A502	D6/A502	No		6	A3/A526 SIGNAGE LOCATED ON THE RIGTH OF THE RIGHT HAND DOOR
S-103A	C	1	3' - 0"	7' - 0"	0' - 2"	HM	1	0' - 5 1/2"	HM	D6/A502	D6/A502	No		7.1	A3/A526 SIGNAGE
S-104A	C	1	3' - 0"	7' - 0"	0' - 2"	HM	1	0' - 5 1/2"	HM	D6/A502	D6/A502	Yes		7.2	CARD READER, A3/A526 SIGNAGE

FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	CEILING	WINDOW SILL	WINDOW COVER	COMMENTS
S-101	COOLING TOWER YARD	GR/CN	N/A	PM	PM	PM	PM	N/A	N/A	N/A	EXTERIOR FINISHES
S-102	MECHANICAL ROOM	EP	EPB	PM	GP/PM	PM	PM	PS	N/A	N/A	
S-103	STORAGE ROOM	SH	RBB	PM	PM	PM	PM	PS	N/A	N/A	
S-104	STORAGE ROOM	SH	RBB	PM	PM	PM	PM	PS	N/A	N/A	W/ ACCENT STRIP AT BICYCLE WHEEL HEIGHT

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GENERAL NOTES

1. REFER TO STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS AT OPENINGS WITHIN STRUCTURAL ASSEMBLIES.
2. ATTACHMENT OF ANY WALL TO STRUCTURE IS TO ACCOMODATE DEFLECTION PER STRUCTURAL REQUIREMENTS.
3. CONTRACTOR SHALL NOT HANG ANYTHING TO THE DECK UNLESS AUTHORIZED BY STRUCTURAL ENGINEER.
4. CONCRETE FOUNDATION WALL MUST ALIGN WITH EXTERIOR EXTERIOR FACE OF CMU WALL CARRYING THE EXTERIOR RIDGID INSULATION - REFER TO STRUCTURAL DRAWINGS.
4. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)

FINISH SCHEDULE LEGEND

FLOOR FINISH

CN = CONCRETE PADS
EP = EPOXY COATING FLOORS
GR = GRAVEL
PDP = PLAZA DECK PAVERS
SH = SEALER / HARDNER

BASE FINISH

EPB = EPOXY COATING BASE
RBB = RESILIENT BASE FOR RESILIENT AND CONCRETE FLOORS

WALL FINISH

PM = PAINTED MASONRY

CEILING FINISH

PS = PAINTED OPEN STRUCTURE

OTHER

N/A = NON APPLICABLE

BUILDING OFFICIAL APPROVAL

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SERVICE B. WALL SECTIONS & DOOR SCHEDULE

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DRAWING NO.: A315
DATE: 02/15/2013

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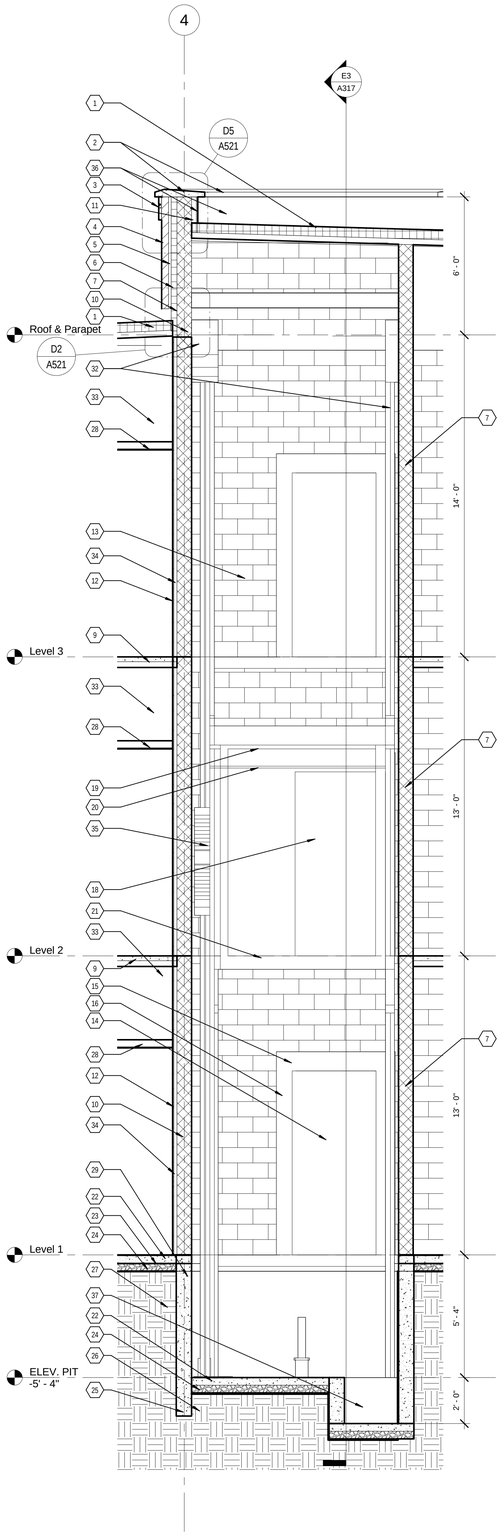
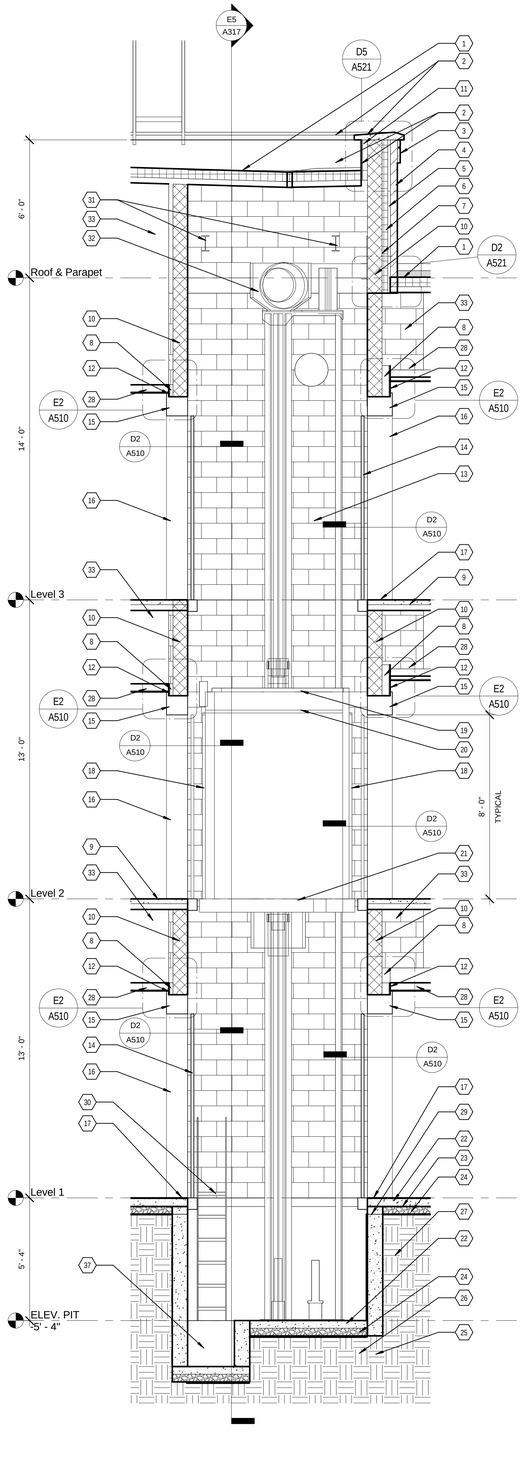


E5 ELEVATOR SECTION 2
3/8" = 1'-0"



E3 ELEVATOR SECTION 1
3/8" = 1'-0"

GENERAL NOTES

1. REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF BLOCKOUTS & PENETRATIONS OF RATED ASSEMBLIES, MAINTAINING THE REQUIRED FIRE RATINGS.
2. NO OTHER PENETRATIONS THAN THOSE NECESSARY FOR THE OPERATION AND FUNCTION OF THE ELEVATOR WILL BE PERMITTED TO PASS THRU THE ELEVATOR SHAFT.
3. CONTRACTOR IS RESPONSIBLE TO PROVIDE THE REQUIRED ELEVATOR TELEPHONE LINE AND HAVE IT ACTIVATED PRIOR TO RECEIVE THE CERTIFICATE OF OCCUPANCY
4. CONTRACTOR IS RESPONSIBLE FOR THE ADEQUATE COORDINATION OF THE FINAL ELEVATOR BRAND IN RELATIONSHIP WITH THE HOISTWAY REQUIRED CLEARANCES AND MAKE THE APROPRIATE ADJUSTMENTS BASED ON THE KEY NOTES AND NOTES PROVIDED WITHIN THE CONSTRUCTION DOCUMENTS. THIS COORDINATION NEEDS TO BE SUBMITTED TO THE ARCHITECT FOR FINAL REVIEW AND APPROVAL PRIOR TO INITIATE ANY WORK OR AGREE IN ANY MATTER WITH FABRICATION, INSTALLATION AND CONSTRUCTION OF THE ELEVATOR AND ITS ENCLOSURE.
5. CONTRACTOR IS RESPONSIBLE FOR THE PROPER COORDINATION OF THE REQUIREMENTS TO CONNECT THE REMOTE ELEVATOR EQUIPMENT ROOM WITH THE ELEVATOR ENCLOSURE, MAINTAINING THE CODES REQUIREMENTS.
6. THE FINAL LOCATION OF THE ELEVATOR VENTING SYSTEM AT THE ROOF SHALL BE COORDINATED WITH THE ELEVATOR MANUFACTURER.
7. THE FINAL LOCATION OF THE ELEVATOR LADDER SHALL BE COORDINATED WITH THE ELEVATOR MANUFACTURER.
8. THE FINAL LOCATION OF THE ELEVATOR SUMP NEEDS TO BE COORDINATED WITH THE ELEVATOR MANUFACTURER, THE STRUCTURAL ENGINEER AND THE PLUMBING ENGINEER.
9. CONTRACTOR SHALL NOT HANG ANYTHING TO THE DECK UNLESS AUTHORIZED BY STRUCTURAL ENGINEER.
10. THE FINAL LOCATION AND SIZE OF THE ELEVATOR BEAMS NEEDS TO BE COORDINATED WITH THE ELEVATOR MANUFACTURER AND THE STRUCTURAL ENGINEER.
11. THE FINAL DEPTH OF THE ELEVATOR PIT SHALL BE COORDINATED WITH THE ELEVATOR MANUFACTURER AND THE STRUCTURAL ENGINEER.
12. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
13. ALL MATERIAL, POWER, LABOR AND ASSOCIATED WORK SHALL BE INCLUDED FOR ALL EQUIPMENT CALLED IN THE CONSTRUCTION DOCUMENTS (TYP)
14. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF ELECTRICAL CONNECTIONS REQUIRED FOR THE PROPER OPERATION OF ELEVATOR

ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
2. GENERAL CONTRACTOR MUST ENSURE AND PROVIDE EXTERIOR AESTHETIC SEALANT JOINTS BETWEEN ALL SIDES OF THE FENESTRATION AND THE CLADDING OF THE BUILDING AS NEEDED TO COMPLETELY CONCEAL THE AIR BARRIER (TYPICAL).
3. GENERAL CONTRACTOR MUST ENSURE A CONTINUOUS AIR BARRIER IS PROVIDED INTO ALL FENESTRATION ROUGH OPENINGS INCLUDING ALL HEAD, JAMB AND SILL CORNERS WITH INTERIOR SEALANT JOINT INSTALLED CONTINUOUSLY BETWEEN FENESTRATION AND AIR BARRIER, AND IN ACCORDANCE WITH FENESTRATION AND AIR BARRIER MANUFACTURERS INSTALLATION PROCEDURES (TYPICAL).
4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

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KEYNOTES

1 SINGLE PLY ROOFING MEMBRANE OVER RIGID INSULATION ON METAL DECK
2 PRECAST CONCRETE CAP WITH METAL FLASHING UNDERNEATH
3 PRECAST CONCRETE SURFACE PLATE
4 NOMINAL 4"x4"x16" BRICK VENEER
5 AIR GAP
6 CONTINUOUS RIGID INSULATION EFFECTIVE 15 R-VALUES- SEE SHEET NOTES
7 AIR AND WEATHER BARRIER
8 3 5/8" METAL STUD 25 GA @ 24" O.C
9 SUSPENDED CONCRETE SLAB ON METAL DECK - SEE STRUCTURAL DRAWINGS
10 NOMINAL 8X8X16 CMU
11 2 1/2" METAL STUD 25 GA @ 24" O.C. WITH 5/8" CEMENTITIOUS BOARD
12 5/8" GYPSUM BOARD
13 ELEVATOR SHAFT ENCLOSURE (HOISTWAY)- REFER TO CODE PLANS FOR FIRE RATING REQUIREMENTS - ADJUST CLEARANCES AS REQUIRED PER MANUFACTURER DIMENSIONS MAINTAINING FIXED THE NORTH AND EAST WALLS OF THE ENCLOSURE
14 FLOOR ELEVATOR DOOR
15 ELEVATOR DOOR HEADER FRAME
16 ELEVATOR DOOR JAMB FRAME
17 ELEVATOR DOOR SILL FRAME & THRESHOLD
18 ELEVATOR CAR DOOR
19 ELEVATOR CAR TOP PANEL
20 ELEVATOR CAR CEILING, FAN & LIGHT
21 ELEVATOR CAR FLOOR & FINISH
22 CONCRETE SLAB ON GRADE- REFER TO STRUCTURAL DRAWINGS
23 VAPOR RETARDER
24 DRAINAGE COURSE
25 CONCRETE FOUNDATION WALL- REFER TO STRUCTURAL DRAWINGS
26 CONCRETE FOOTING- REFER TO STRUCTURAL DRAWINGS
27 SOILS- REFER TO STRUCTURAL DRAWINGS
28 SUSPENDED CEILING SYSTEM - REFER TO CEILING PLANS
29 CONCRETE RETAINING WALL - SEE STRUCTURAL DRAWINGS
30 ELEVATOR LADDER - COORDINATE WITH ELEVATOR MANUFACTURER FINAL LOCATION - SEE DETAIL FOR ANCHORAGE
31 ELEVATOR BEAM - SEE ELEVATOR MANUFACTURER REQUIREMENTS
32 ELEVATOR MECHANISM
33 INTERSTITIAL SPACE
34 1 5/8" METAL STUD, 25 GA @ 12" O.C.
35 ELEVATOR COUNTERWEIGHT PLANKS
36 SINGLE PLY ROOFING MEMBRANE WRAPPING PARAPET (TYP)
37 2'X2'X2' CONCRETE SUMP - SEE STRUCTURAL DRAWINGS

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ELEVATOR SECTIONS

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DRAWING NO.: A317
DATE: 02/15/2013

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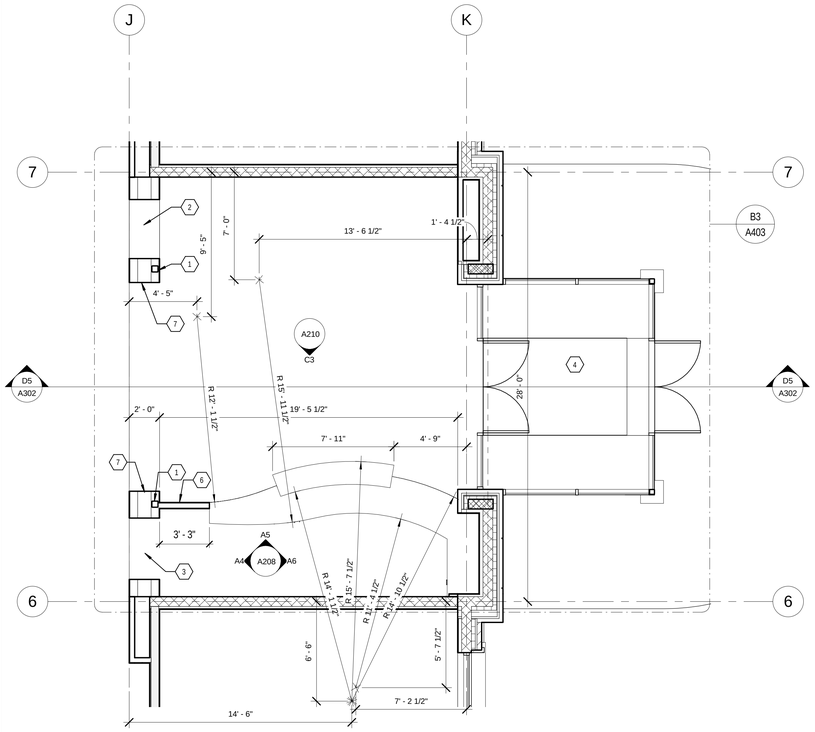
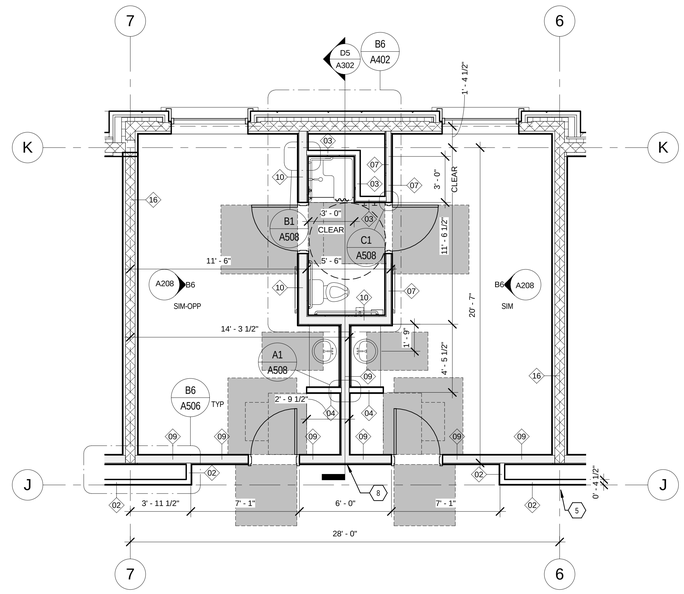


C6 LOBBY, FRONT DESK & VESTIBULE
1/4" = 1'-0"

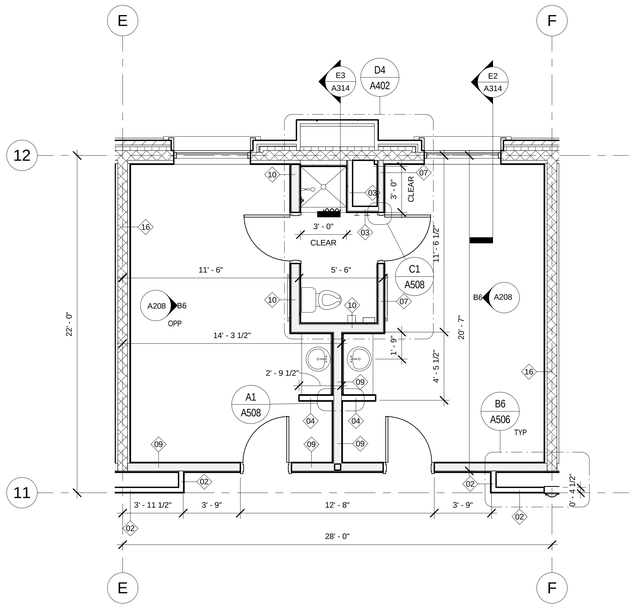
PLAN NORTH



C4 ACCESSIBLE BILLET 3RD LEVEL - TRANSFER
1/4" = 1'-0"

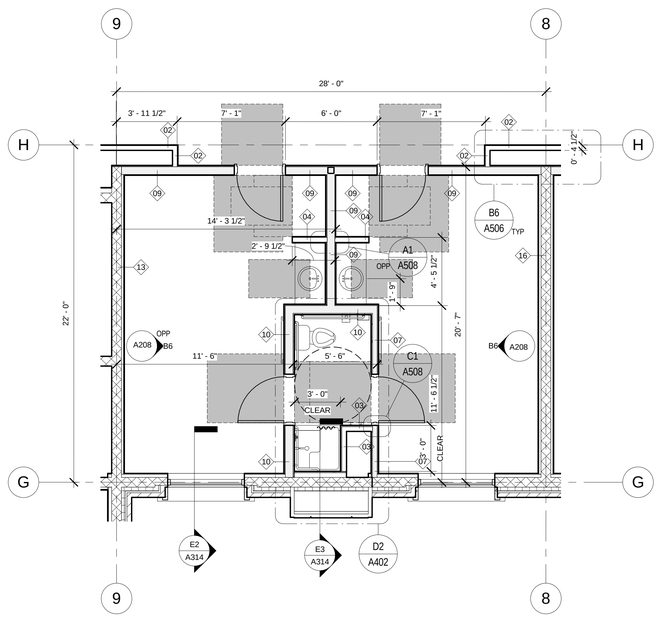
BILLET UNITS 341 & 343

PLAN NORTH



E6 STANDARD BILLET
1/4" = 1'-0"

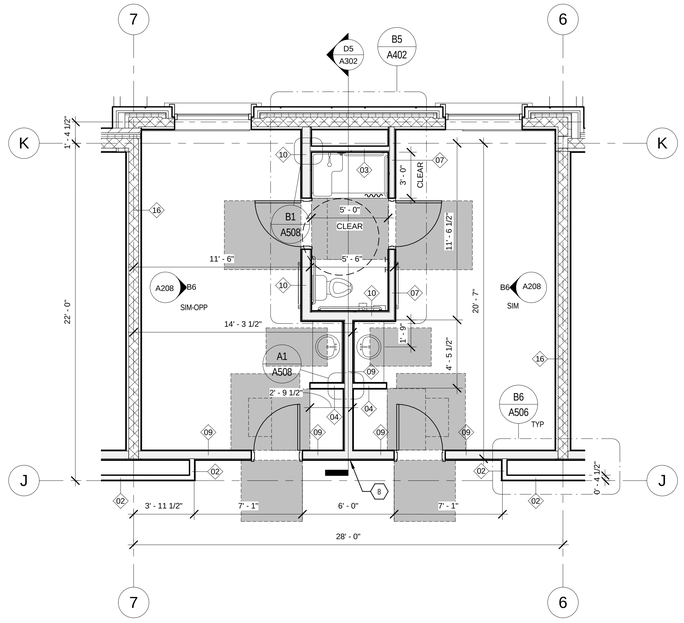
ALL OTHER BILLET UNITS NOT LISTED ON ADJACENT PLANS



E4 ACCESSIBLE BILLET 1ST & 2ND LEVEL - TRANSFER
1/4" = 1'-0"

BILLET UNITS: 156, 158, 248 & 250

PLAN NORTH



E2 ACCESSIBLE BILLET 2ND LEVEL - ROLLING
1/4" = 1'-0"

BILLET UNITS: 241 & 243

PLAN NORTH

KEYNOTES

1. LOCATE STRUCTURAL COLUMN CENTERED WITHIN THE METAL STUD WIDTH ON BOTH DIRECTIONS (TYP)
2. 4'-0" DIAMETER OPENING CENTERED WITHIN WALL LENGTH - CENTER OF CIRCLE AT 5'-4" A.F.F.
3. 4'-0" WIDE ARCHED OPENING CENTERED WITHIN WALL LENGTH - CENTER OF CIRCLE AT 5'-4" A.F.F.
4. RECESS SLAB ON GRADE TO ALLOW OTHER FINISHES & MATCH FINISH FLOOR AT SAME ELEVATIONS OF THOSE NOT RECESSED
5. RECESSED FIRE EXTINGUISHER CABINET- EXTINGUISHER FURNISH BY OWNER & INSTALLED BY CONTRACTOR- SEE MOUNTING HEIGHTS
6. PLAQUE & DIRECTORY SIGNAGE WALL
7. FIRST FLOOR DIRECTIONAL SIGNAGE
8. UPPER FLOORS DIRECTIONAL SIGNAGE

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SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. INSTALL FULL HEIGHT VISIBLE TILE FOR WALL TYPES INDICATING TILE FINISH (TYP)
2. INSTALL TILE USING THIN SET REQUIREMENTS AS PER TCNA (TYP) - REFER TO SPECIFICATIONS.
3. REFER TO CODE PLAN FOR FIRE RATED ASSEMBLIES REQUIREMENTS (TYP)
4. PROVIDE PROPER BACKING/BLOCKING AT ALL BILLET RESTROOM WALLS OF THE EAST WING, SUCH THAT THEY CAN BE CONVERTED INTO ACCESSIBLE UNITS BY MOUNTING THE REQUIRED GRAB BARS AND SHOWER ACCESSORY ELEMENTS.
5. PROVIDE ACCESSIBLE THRESHOLDS AT ALL BILLET RESTROOMS AND SHOWERS SUCH THAT THEY CAN MEET THE FLOOR HEIGHT ACCESSIBILITY REQUIREMENTS.
6. REFER TO STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS AT OPENINGS WITHIN STRUCTURAL ASSEMBLIES.
7. ALL WINDOWS ARE TO HAVE BLINDS INSTALLED WITHIN THE WINDOW FRAME.
8. ATTACHMENT OF ANY WALL TO STRUCTURE IS TO ACCOMODATE DEFLECTION PER STRUCTURAL REQUIREMENTS.
9. CONTRACTOR SHALL NOT HANG ANYTHING TO THE DECK UNLESS AUTHORIZED BY STRUCTURAL ENGINEER.
10. INTERIOR DIMENSIONS ARE FROM GRID LINES TO FACE OF STUD AND/OR INTERIOR FACE OF MASONRY, U.N.O.
11. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)

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ENLARGED PLANS

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007	DRAWING NO.: A401
DATE: 02/15/2013	

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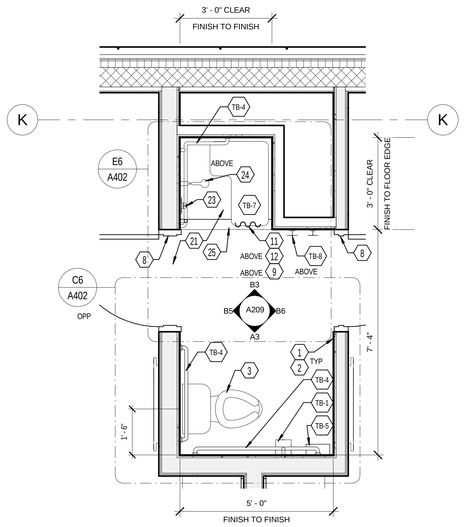
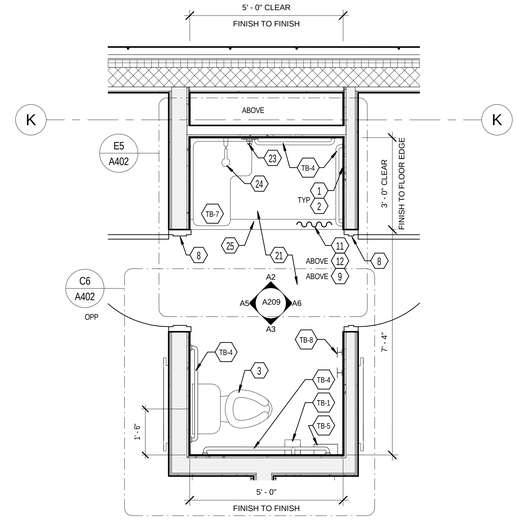
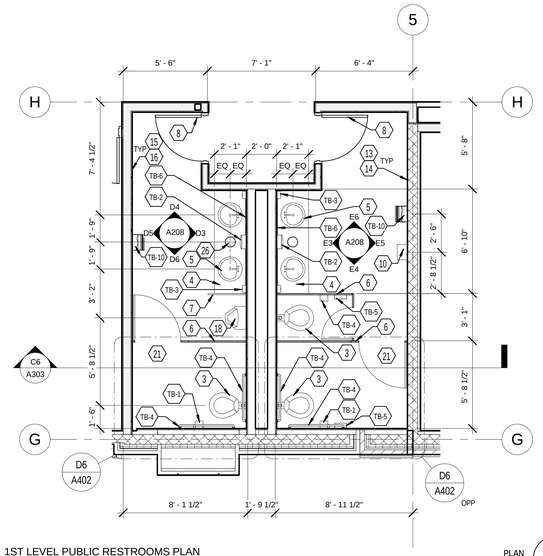


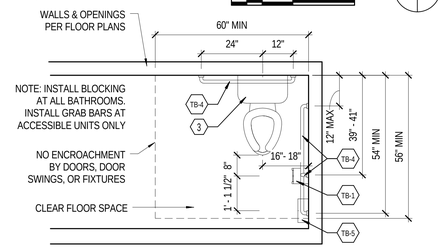
B6 ACCESSIBLE BILLET TRANSFER BATHROOM 1
1/2" = 1'-0"



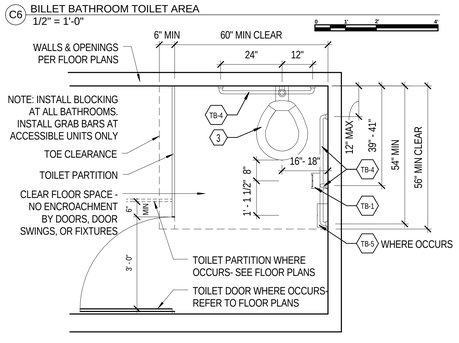
B5 ACCESSIBLE BILLET ROLLING BATHROOM
1/2" = 1'-0"



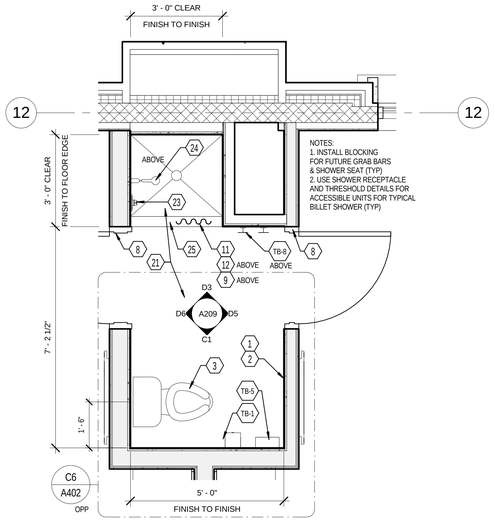
B3 1ST LEVEL PUBLIC RESTROOMS PLAN
1/4" = 1'-0"



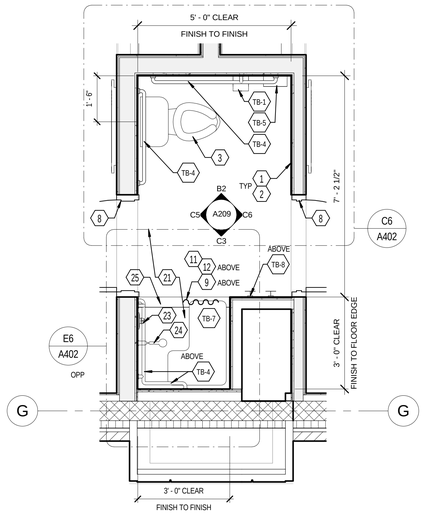
C6 BILLET BATHROOM TOILET AREA
1/2" = 1'-0"



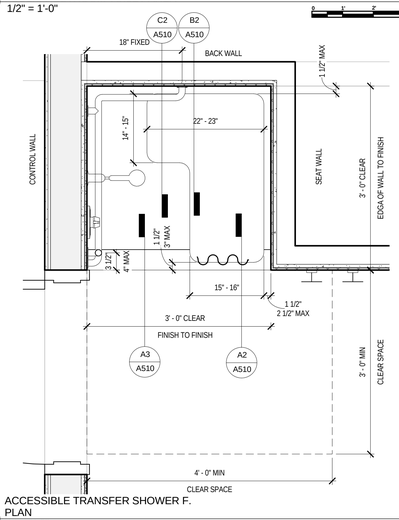
D6 PUBLIC RESTROOM TOILET AREA
1/2" = 1'-0"



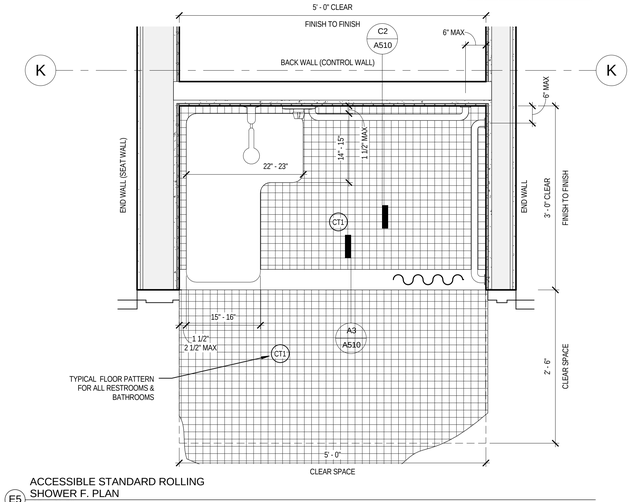
D4 STANDARD BILLET SHOWER BATHROOM
1/2" = 1'-0"



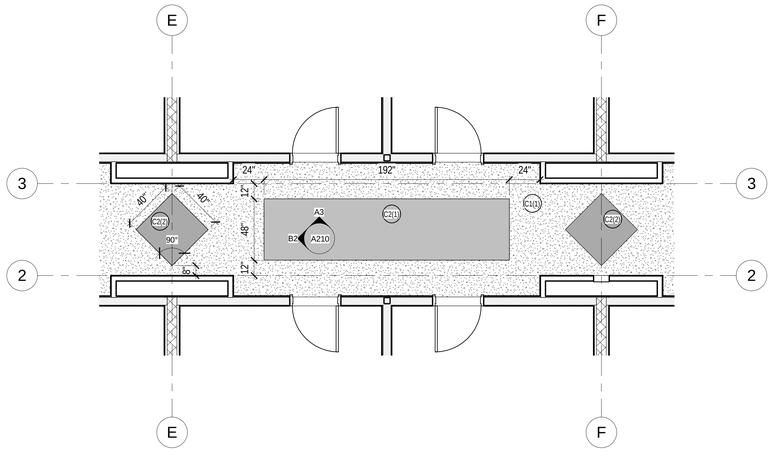
D2 ACCESSIBLE BILLET TRANSFER BATHROOM 2
1/2" = 1'-0"



E6 ACCESSIBLE TRANSFER SHOWER F. PLAN
1" = 1'-0"



E5 ACCESSIBLE STANDARD ROLLING SHOWER F. PLAN
1" = 1'-0"



E2 CORRIDOR TYPICAL FLOOR FINISHES
1/4" = 1'-0"

RESTROOM KEYNOTES

1 SCHEDULED TILE FINISH COLOR 1
2 SCHEDULED TILE FINISH COLOR 2
3 WATER CLOSET -SEE ACCESSIBLE MOUNTING HEIGHTS - REFER TO PLUMBING DRAWINGS
4 SOLID SURFACE VANITY COUNTER -SEE TYPICAL MOUNTING HEIGHTS
5 VANITY SINK -SEE TYPICAL MOUNTING HEIGHTS
6 OVERHEAD BRACED TOILET PARTITION
7 URINAL PARTITION
8 SCHEDULED DOOR & FRAME - REFER TO DOOR SCHEDULE
9 SHOWER CURTAIN HOOK, FURNISHED BY OWNER, INSTALLED BY OWNER
10 SURFACE MOUNTED NAPKIN DISPENSER, FURNISHED BY OWNER, INSTALLED BY CONTRACTOR
11 SHOWER CURTAIN, FURNISHED BY OWNER, INSTALLED BY OWNER
12 SHOWER CURTAIN ROD, FURNISHED BY OWNER, INSTALLED BY CONTRACTOR
13 SCHEDULED TILE FINISH COLOR 3
14 SCHEDULED TILE FINISH COLOR 4
15 SCHEDULED TILE FINISH COLOR 5
16 SCHEDULED TILE FINISH COLOR 6
17 ELECTRICAL DEVICE/ LIGHT FIXTURE
18 URINAL -SEE ACCESSIBLE MOUNTING HEIGHTS - REFER TO PLUMBING DRAWINGS
19 SCHEDULED WALL FINISH
20 WALL SOFFIT - SEE CEILING DETAILS
21 SCHEDULED FLOOR FINISH SEE FINISH SCHEDULE
22 SCHEDULED BASE - SEE FINISH SCHEDULE
23 SHOWER CONTROLS - REFER TO PLUMBING DRAWINGS
24 SHOWER HEAD - REFER TO PLUMBING DRAWINGS
25 FLOOR TRANSITION - SEE DETAILS
26 8" DIAMETER COUNTER TRASH HOLE
27 SOAP DISH

RESTROOM ACCESSORY SCHEDULE

TB-1	SURFACE MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER
TB-2	SURFACE MOUNTED PAPER TOWEL DISPENSER
TB-3	LIQUID SOAP DISPENSER
TB-4	ACCESSIBLE GRAB BAR
TB-5	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL
TB-6	CUSTOM MIRROR WITH STAINLESS STEEL FRAME
TB-7	ACCESSIBLE FOLDING SHOWER SEAT
TB-8	CLOTHES / TOWEL HOOK
TB-10	AIR DRYER
TB-11	UNDER LAVATORY GUARD
TB-12	MOP AND BROOM HOLDER
TB-13	HOOK STRIP

FLOOR FINISH SCHEDULE

C1(1)	CARPET TYPE C1-COLOR 1
C2(1)	CARPET TYPE C2- COLOR 1
C2(2)	CARPET TYPE C2 - COLOR 2
C3(1)	CARPET TYPE C3-COLOR 1
CT1	TILE CT1-RANDOM PATTERN 3 COLORS-COLOR 1=50% COLOR 2=25% COLOR 3=25%
CT2	TILE CT2-RANDOM PATTERN COLORS PER ARCHITECT

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SEAL & SIGNATURE

GENERAL NOTES

1. INSTALL FULL HEIGHT VISIBLE TILE FOR WALL TYPES INDICATING TILE FINISH (TYP)
2. INSTALL TILE USING THIN SET REQUIREMENTS AS PER TCNA (TYP) - REFER TO SPECIFICATIONS.
3. REFER TO CODE PLAN FOR FIRE RATED ASSEMBLIES REQUIREMENTS (TYP)
4. PROVIDE PROPER BACKING/BLOCKING AT ALL BILLET RESTROOM WALLS OF THE EAST WING, SUCH THAT THEY CAN BE CONVERTED INTO ACCESSIBLE UNITS BY MOUNTING THE REQUIRED GRAB BARS AND SHOWER ACCESSORY ELEMENTS.
5. PROVIDE ACCESSIBLE THRESHOLDS AT ALL BILLET RESTROOMS AND SHOWERS SUCH THAT THEY CAN MEET THE FLOOR HEIGHT ACCESSIBILITY REQUIREMENTS.
6. REFER TO STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS AT OPENINGS WITHIN STRUCTURAL ASSEMBLIES.
7. ALL WINDOWS ARE TO HAVE BLINDS INSTALLED WITHIN THE WINDOW FRAME.
8. ATTACHMENT OF ANY WALL TO STRUCTURE IS TO ACCOMODATE DEFLECTION PER STRUCTURAL REQUIREMENTS.
9. CONTRACTOR SHALL NOT HANG ANYTHING TO THE DECK UNLESS AUTHORIZED BY STRUCTURAL ENGINEER.
10. INTERIOR DIMENSIONS ARE FROM GRID LINES TO FACE OF STUD AND/OR INTERIOR FACE OF MASONRY, U.N.O.
11. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)

BUILDING OFFICIAL APPROVAL

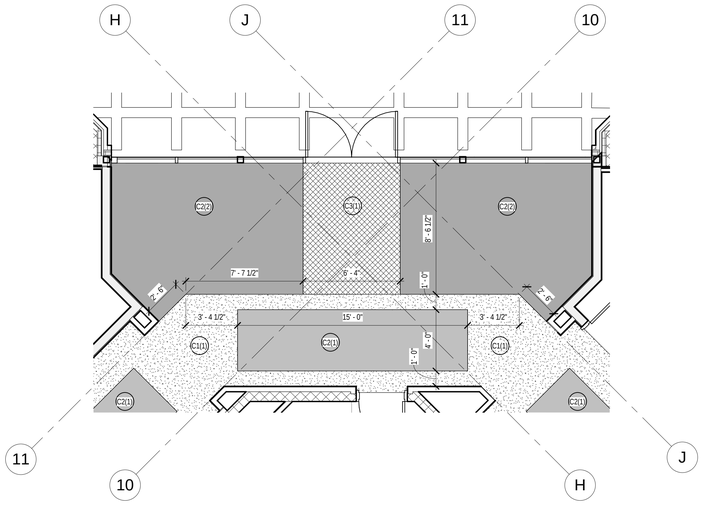
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

ENLARGED PLANS

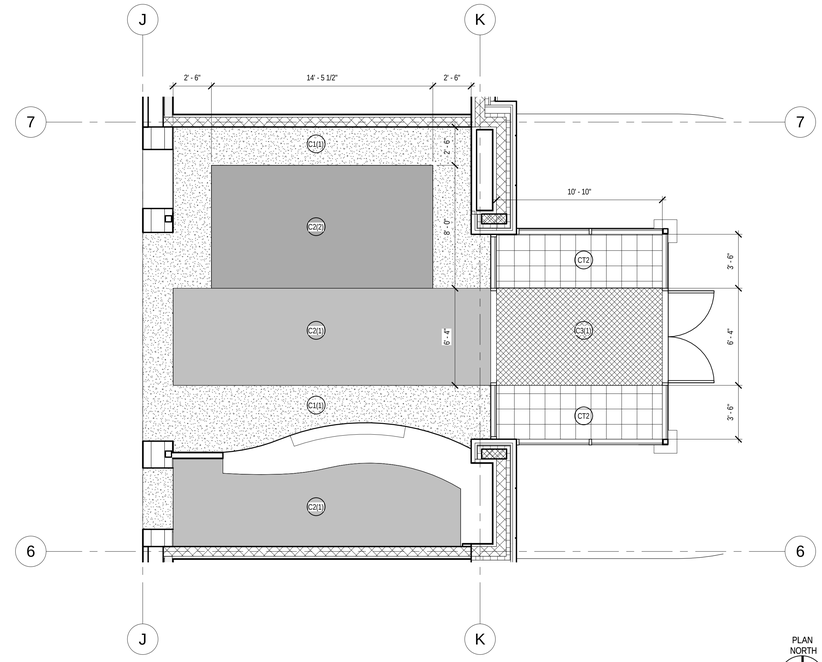
REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: A402

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

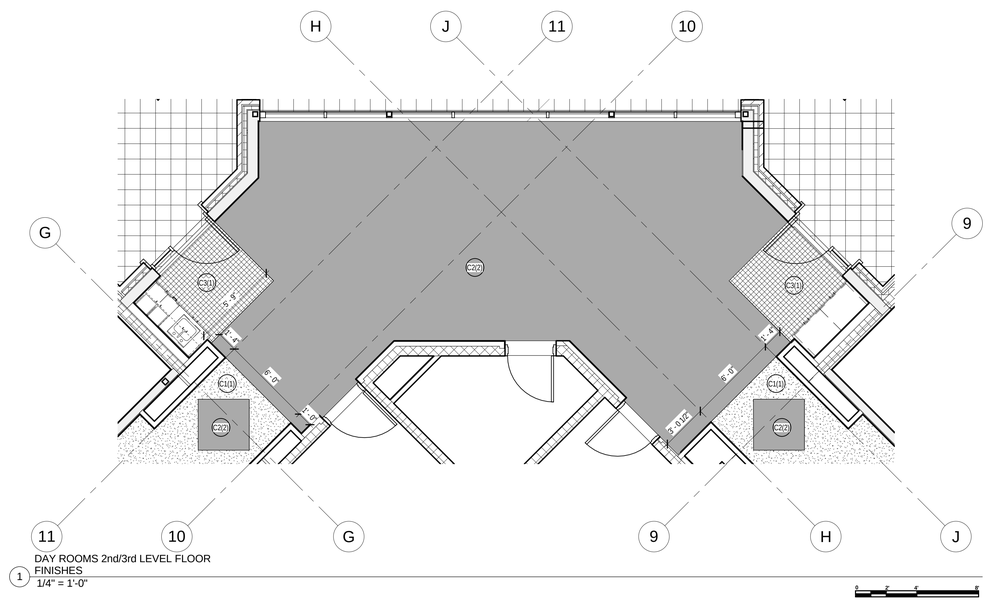


B6 DAY ROOMS 1ST LEVEL FLOOR FINISHES
1/4" = 1'-0"



B3 LOBBY & VESTIBULE FLOOR FINISHES
1/4" = 1'-0"

PLAN NORTH



1 DAY ROOMS 2nd/3rd LEVEL FLOOR FINISHES
1/4" = 1'-0"

FLOOR FINISH SCHEDULE

C1(1)	CARPET TYPE C1-COLOR 1
C2(1)	CARPET TYPE C2- COLOR 1
C2(2)	CARPET TYPE C2 - COLOR 2
C3(1)	CARPET TYPE C3-COLOR 1
CT1	TILE CT1-RANDOM PATTERN 3 COLORS-COLOR 1=50% COLOR 2=25% COLOR 3=25%
CT2	TILE CT2-RANDOM PATTERN COLORS PER ARCHITECT

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

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UTAH NATIONAL GUARD
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QUARTERS
RIVERTON, UT 84062

ENLARGED PLANS

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A403
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. FURNITURE PLANS ARE FOR REFERENCE ONLY.
2. FURNITURE WILL BE FURNISH AND INSTALLED BY THE OWNER.
3. CLEARANCES AND DIMENSIONS PROVIDED ARE TO GUIDE THE OWNER WHEN BUYING THE FURNITURE TO ENSURE THE REQUIRED CLEARANCES AND MINIMUM DIMENSIONS REQUIRED PER CODE.
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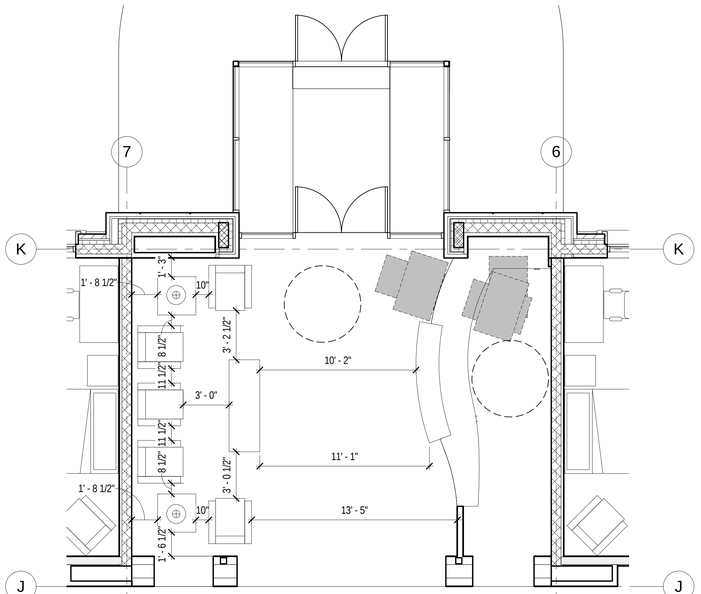
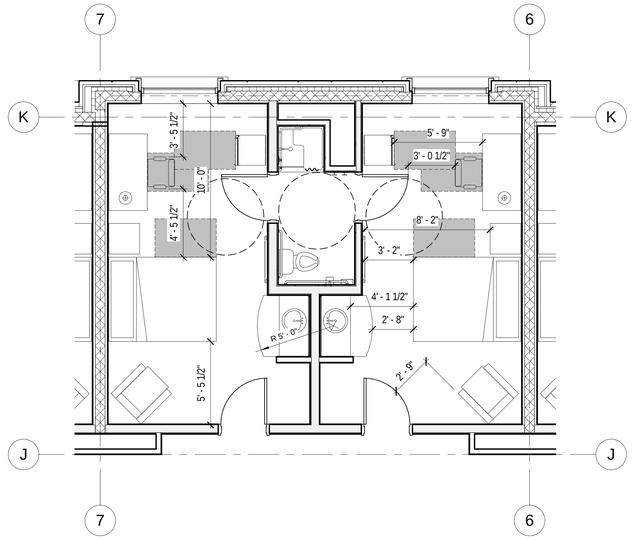
5. CONTRACTOR IS RESPONSIBLE TO PROVIDE & INSTALL PROPER BACKING BEHIND ALL WALL MOUNTED FURNITURE/ART - COORDINATE WITH OWNER FOR LOCATIONS.

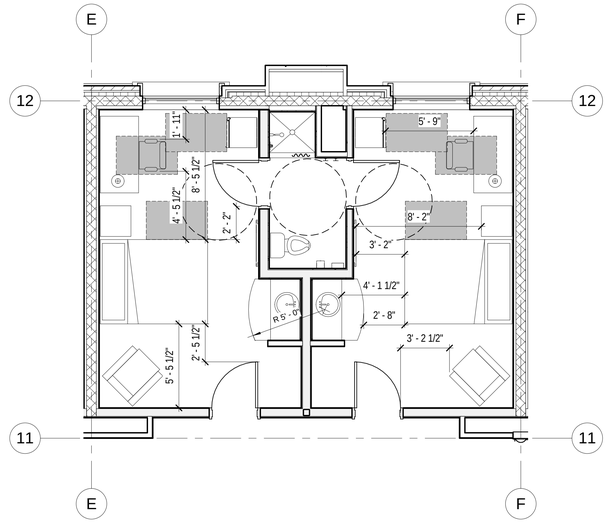


D5 1ST LEVEL LOBBY FURNITURE PLAN
1/4" = 1'-0"



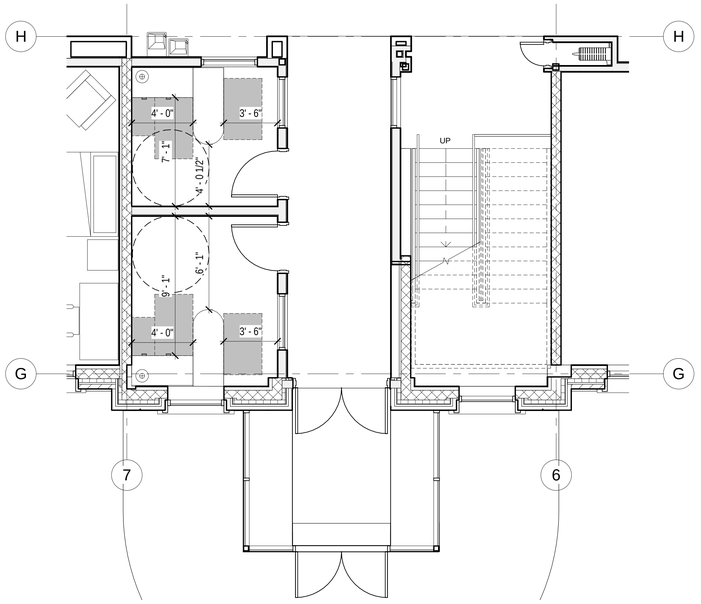
C3 ACCESSIBLE BILLET 3RD LEVEL - TRANSFER - FURNITURE PLAN
1/4" = 1'-0"

BILLET UNITS 341 & 343



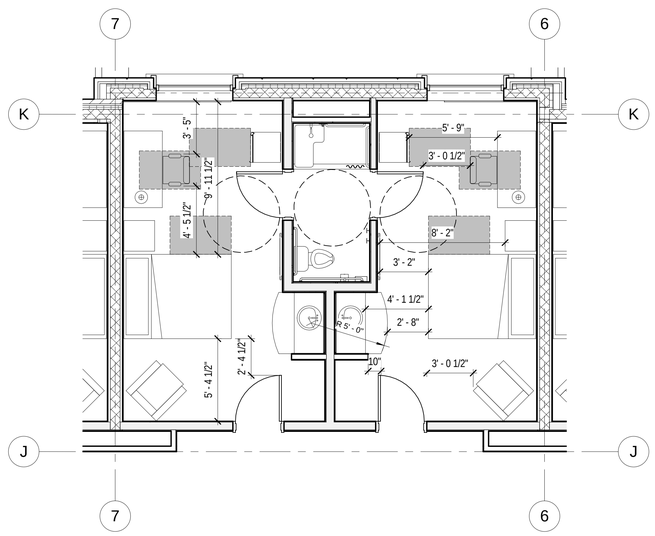
C1 STANDARD BILLET - FURNITURE PLAN
1/4" = 1'-0"

ALL OTHER BILLET UNITS NOT LISTED ON ADJACENT PLANS



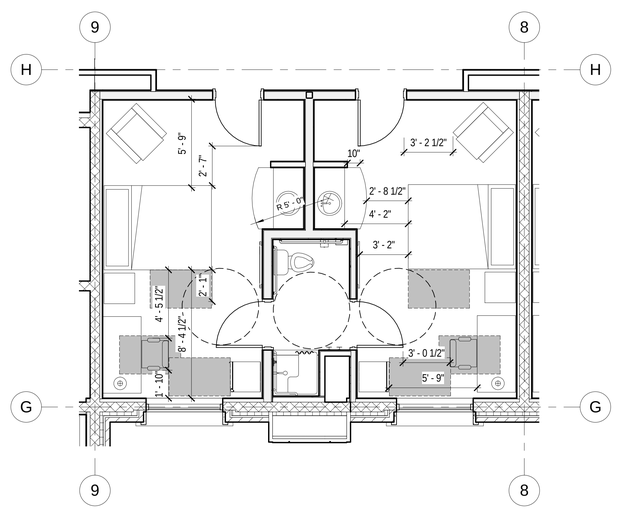
D3 ACCESSIBLE BILLET 2ND LEVEL - ROLLING - FURNITURE PLAN
1/4" = 1'-0"

BILLET UNITS: 241 & 243



D1 ACCESSIBLE BILLET 1ST & 2ND LEVEL - TRANSFER - FURNITURE PLAN
1/4" = 1'-0"

BILLET UNITS: 156, 158, 248 & 250



UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

BUILDING OFFICIAL APPROVAL

ENLARGED FURNITURE PLANS

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A405
DATE: 02/15/2013	

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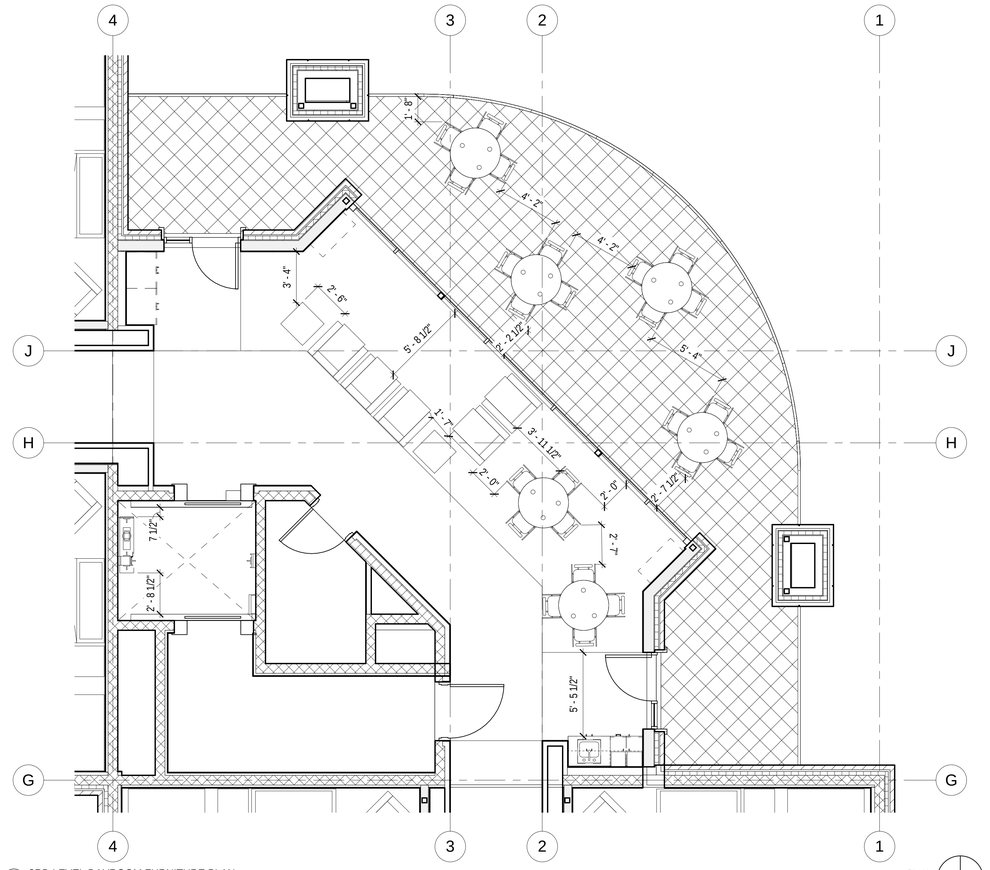
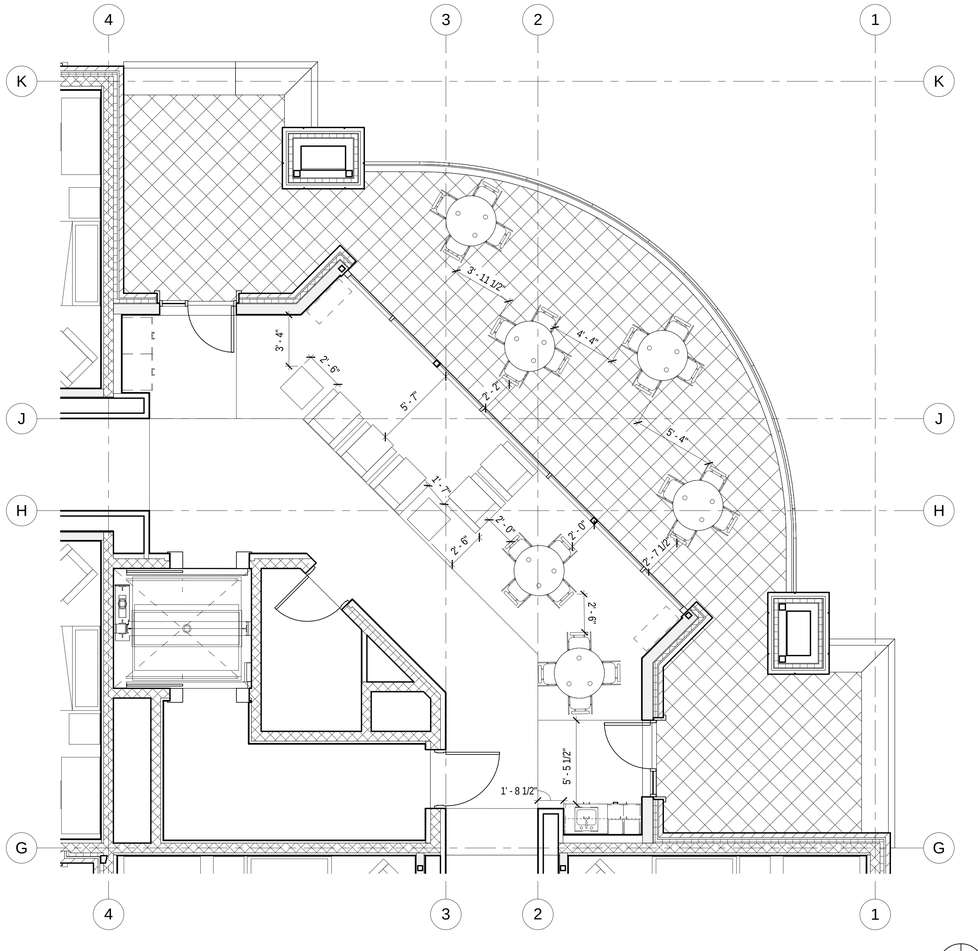
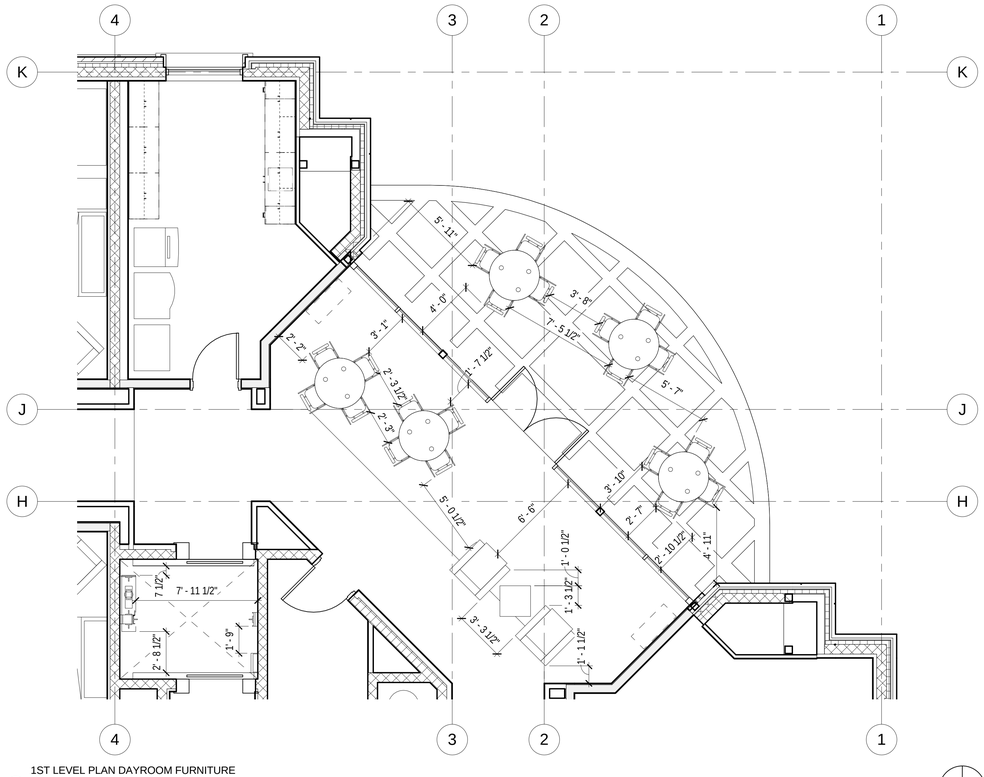
EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM



B2 3RD LEVEL DAYROOM FURNITURE PLAN
1/4" = 1'-0"



D5 2ND LEVEL DAYROOM FURNITURE PLAN
1/4" = 1'-0"



D2 1ST LEVEL PLAN DAYROOM FURNITURE PLAN
1/4" = 1'-0"

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

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BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

ENLARGED FURNITURE PLANS

REVISION	DATE	BY	DESCRIPTION
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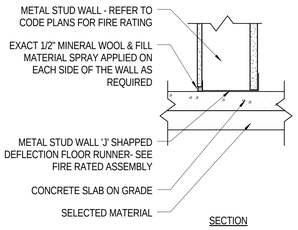
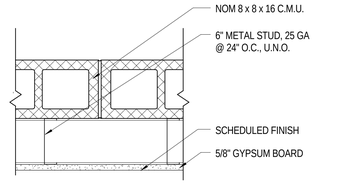
DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A406
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



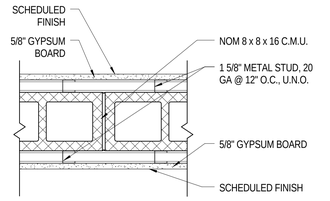
UL SYSTEM No. BW-S-0016 OR APPROVED EQUAL

A6 BASE OF METAL SHAFT WALL
1 1/2" = 1'-0"



NOTES:
1. STC RATING: 55 WITH GROUT- REFER TO STRUCTURAL DRAWINGS
2. STC RATING: 52 SAND FILLED (OR OTHER ACCEPTABLE FILLERS)
3. FIRE RATING ON CMU: 1 HOUR (WHERE REQUIRED) PER UL-U 905 OR APPROVED EQUAL.

21 WALL TYPE 21



NOTES:
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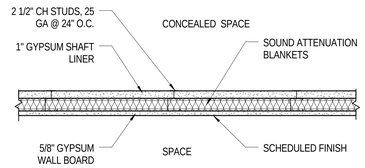
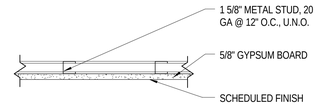
2. STC RATING: 52 SAND FILLED (OR OTHER ACCEPTABLE FILLERS)
3. FIRE RATING ON CMU: 1 HOUR (WHERE REQUIRED) PER UL-U 905 OR APPROVED EQUAL

16 WALL TYPE 16

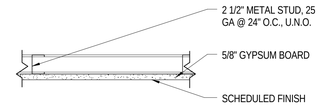


NOTES:
1. STC RATING: 50
2. FIRE RATING: 1 HOUR PER UL-U 415 OR APPROVED EQUAL.

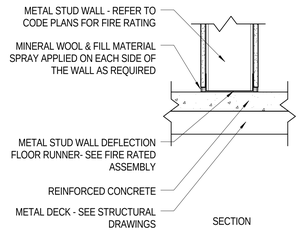
11 WALL TYPE 11



6 WALL TYPE 6

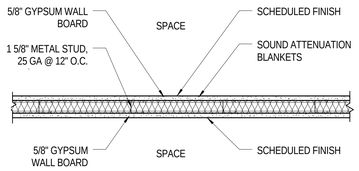


1 WALL TYPE 1



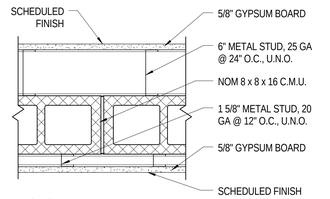
UL SYSTEM No. BW-S-0008 OR APPROVED EQUAL

B6 BASE OF METAL STUD WALL
1 1/2" = 1'-0"



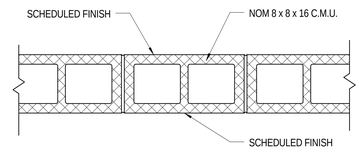
NOTES:
1. STC RATING: 50
2. FIRE RATING: 1 HOUR PER UL-U 419 OR APPROVED EQUAL.

22 WALL TYPE 22



NOTES:
1. STC RATING: 55 WITH GROUT- REFER TO STRUCTURAL DRAWINGS
2. STC RATING: 52 SAND FILLED (OR OTHER ACCEPTABLE FILLERS)
3. FIRE RATING ON CMU: 1 HOUR (WHERE REQUIRED) PER UL-U 905 OR APPROVED EQUAL.

17 WALL TYPE 17



NOTES:
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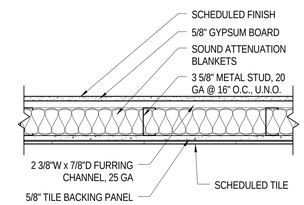
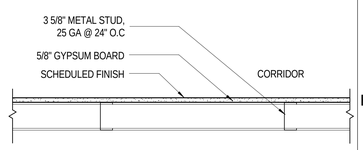
3. FIRE RATING: 1 HOUR (WHERE REQUIRED) PER UL-U 905 OR APPROVED EQUAL.

12 WALL TYPE 12

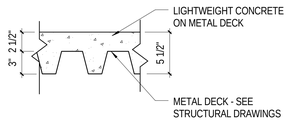


NOTES:
1. STC RATING: 52
2. FIRE RATING: 1 HOUR PER UL-U 473 OR APPROVED EQUAL.

7 WALL TYPE 7

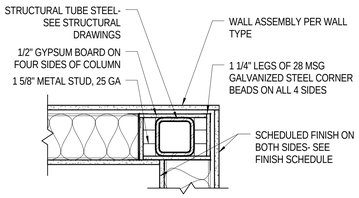


2 WALL TYPE 2



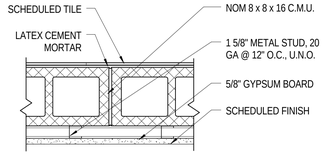
NOTE:
1) 2009 IBC, TABLE 720.1(3), ITEM 4-1.1 FOR ONE HOUR REQUIREMENT OR APPROVED EQUAL.

C6 TOP OF CMU WALL
1 1/2" = 1'-0"



NOTES:
1. COLUMN FIRE RATING: 1 HOUR PER UL-X528 OR APPROVED EQUAL.

C5 FIRE RATED STEEL COLUM ENCLOSURE PLAN DETAIL
1 1/2" = 1'-0"



NOTES:
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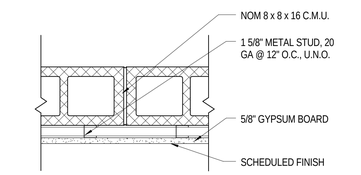
18 WALL TYPE 18



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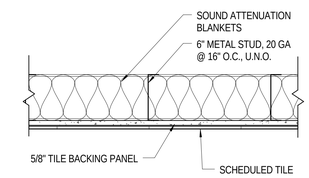
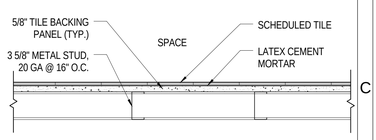
2. STC RATING: 52 SAND FILLED (OR OTHER ACCEPTABLE FILLERS)
3. FIRE RATING ON CMU: 1 HOUR (WHERE REQUIRED) PER UL-U 905 OR APPROVED EQUAL

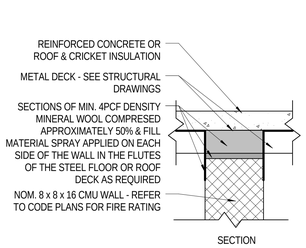
13 WALL TYPE 13



8 WALL TYPE 8

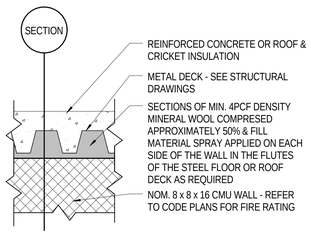


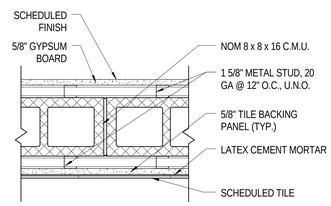
3 WALL TYPE 3



UL SYSTEM No. HW-D-0086 OR APPROVED EQUAL

D6 TOP OF CMU WALL
1 1/2" = 1'-0"





NOTES:
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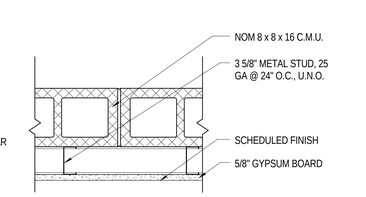
3. FIRE RATING ON CMU: 1 HOUR (WHERE REQUIRED) PER UL-U 905 OR APPROVED EQUAL.

19 WALL TYPE 19



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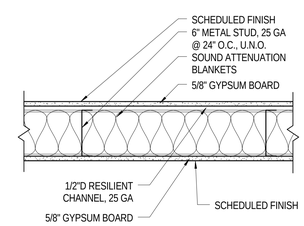
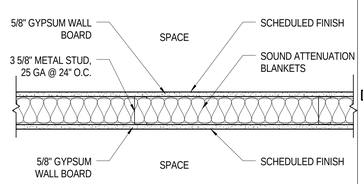
3. FIRE RATING ON CMU: 1 HOUR (WHERE REQUIRED) PER UL-U 905 OR APPROVED EQUAL.

14 WALL TYPE 14

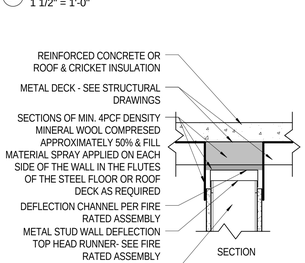


NOTES:
1. STC RATING: 52
2. FIRE RATING: 1 HOUR PER UL-U 419 OR APPROVED EQUAL.

9 WALL TYPE 9

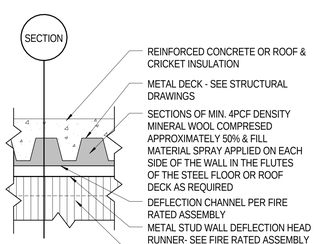


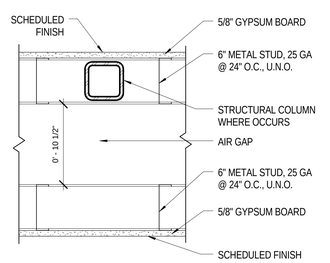
4 WALL TYPE 4



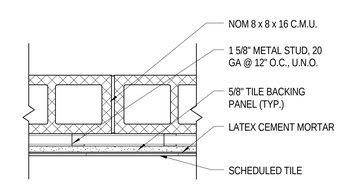
UL SYSTEM No. HW-D-0087 OR APPROVED EQUAL

E6 TOP OF METAL STUD WALL
1 1/2" = 1'-0"



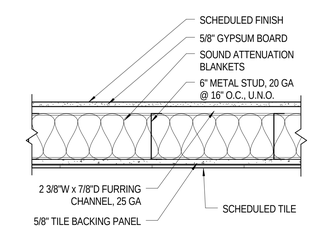


20 WALL TYPE 20



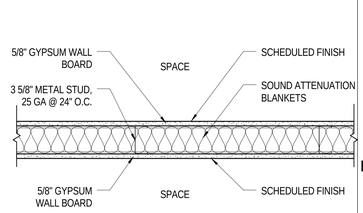
NOTES:
1. STC RATING: 55 WITH GROUT- REFER TO STRUCTURAL DRAWINGS
2. STC RATING: 52 SAND FILLED (OR OTHER ACCEPTABLE FILLERS)
3. FIRE RATING ON CMU: 1 HOUR (WHERE REQUIRED) PER UL-U 905 OR APPROVED EQUAL.

15 WALL TYPE 15



NOTES:
1. STC RATING: 55
2. FIRE RATING: 1 HOUR PER UL-U 473 OR APPROVED EQUAL.

10 WALL TYPE 10



NOTES:
1. STC RATING: 50
2. FIRE RATING: 1 HOUR PER UL-U 419 OR APPROVED EQUAL

5 WALL TYPE 5

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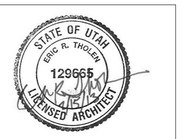


GENERAL NOTES

1. IN ADDITION OF FIRE RATING OF DOORS AS INDICATED WITHIN THE DOOR SCHEDULE, REFER TO THE CODE PLAN FOR WALL TYPE FIRE RATED ASSEMBLIES (FIRE BARRIER OR FIRE PARTITION)
2. IN ADDITION OF FIRE RATING OF WINDOWS AS INDICATED WITHIN THE ENLARGED WINDOW ELEVATIONS, REFER TO THE CODE PLAN FOR WALL TYPE FIRE RATED ASSEMBLIES (FIRE BARRIER OR FIRE PARTITION)
3. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION CONCERNING WALL TYPES. WALL TYPES ARE AFFECTED BY ALTERNATES (TYP).
4. REFER TO STRUCTURAL DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF EXTERIOR WALL TYPES (TYP).
5. REFER TO STRUCTURAL DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF INTERIOR STRUCTURAL WALLS (TYP).
6. WALL ASSEMBLIES SHALL ACCOMODATE THE REQUIRED STRUCTURAL DEFLECTION - REFER TO STRUCTURAL DRAWINGS (TYP).
7. CONTRACTOR MUST REFER TO TOP OF WALL AND BOTTOM OF WALL DETAILS FOR CONSTRUCTION REQUIREMENTS OF FIRE RATED AND SOUND RATED WALL ASSEMBLIES.

11/2" Graphic Scale

BUILDING OFFICIAL APPROVAL

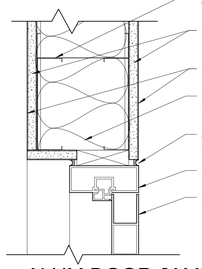
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

WALL TYPES

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

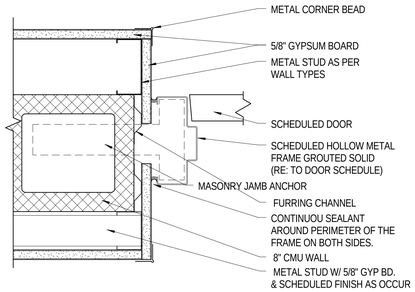
DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A501
DATE: 02/15/2013	

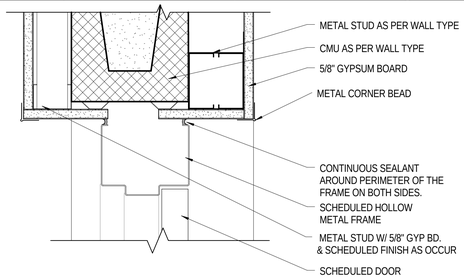
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



ALUM DOOR JAMB & HEADER DETAIL

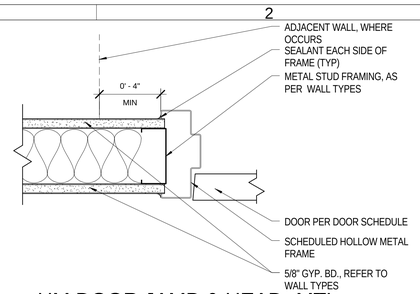
A7 SCALE: 3" = 1'-0"

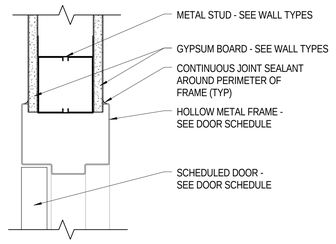




HM DOOR JAMB & HEAD DETAIL

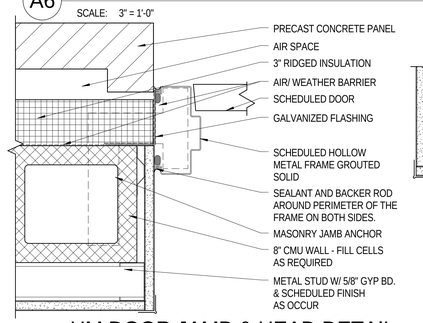
A6 SCALE: 3" = 1'-0"

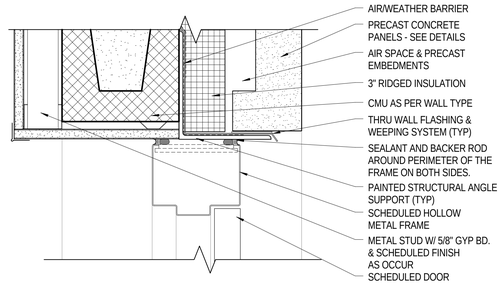




HM DOOR JAMB & HEAD- MTL STUD

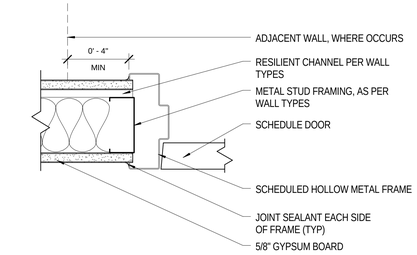
A3 SCALE: 3" = 1'-0"

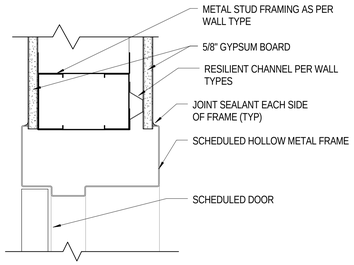




HM DOOR JAMB & HEAD DETAIL

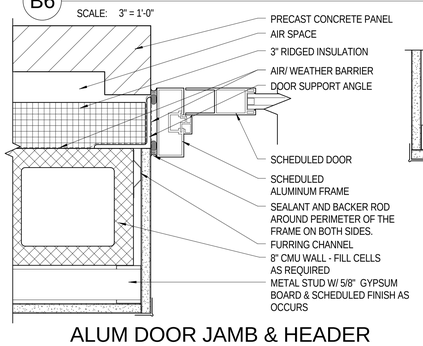
B6 SCALE: 3" = 1'-0"

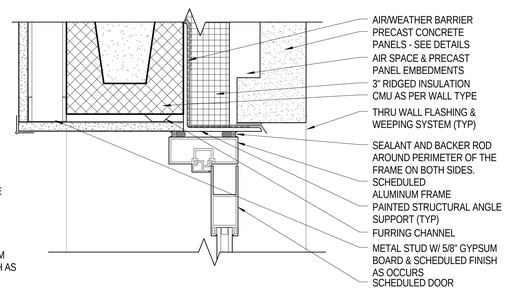




HM DOOR JAMB & HEAD-MTL STUD & RC

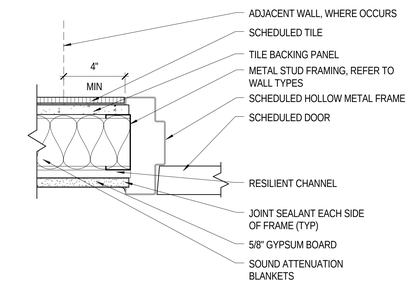
B3 SCALE: 3" = 1'-0"

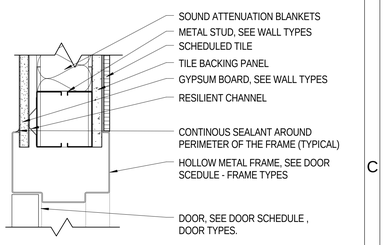




ALUM DOOR JAMB & HEADER DETAIL(EXT)

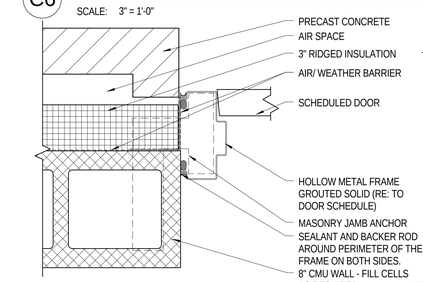
C6 SCALE: 3" = 1'-0"

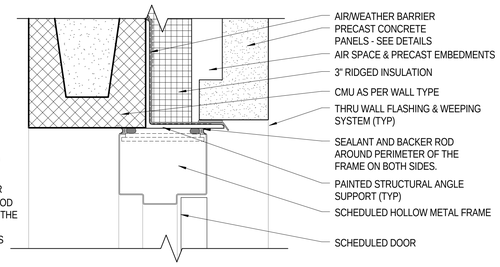




HM DOOR JAMB & HEAD 3-5/8 MTL & TILE

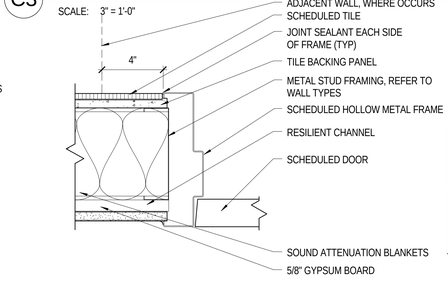
C3 SCALE: 3" = 1'-0"

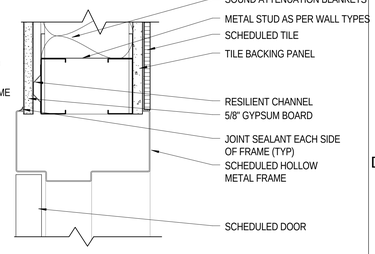




HM DOOR JAMB & HEAD DETAIL-EXT

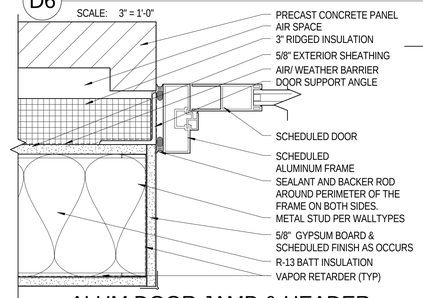
D6 SCALE: 3" = 1'-0"

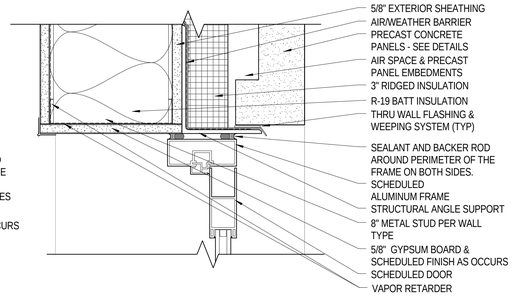




HM DOOR JAMB & HEAD 6 MTL & TILE

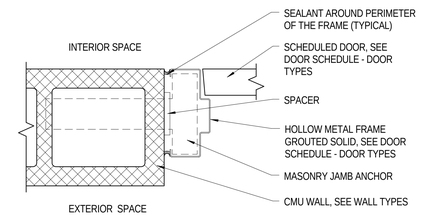
D3 SCALE: 3" = 1'-0"

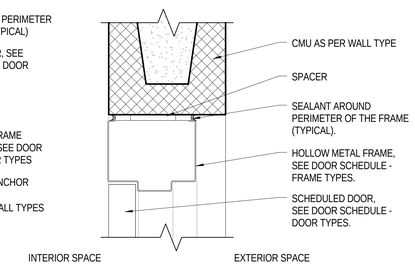




ALUM DOOR JAMB & HEADER DETAIL(EXT)

E6 SCALE: 3" = 1'-0"





HM DOOR JAMB & HEAD DETAIL -CMU

E3 SCALE: 3" = 1'-0"

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SEAL & SIGNATURE

ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
2. GENERAL CONTRACTOR MUST ENSURE AND PROVIDE EXTERIOR AESTHETIC SEALANT JOINTS BETWEEN ALL SIDES OF THE FENESTRATION AND THE CLADDING OF THE BUILDING AS NEEDED TO COMPLETELY CONCEAL THE AIR BARRIER (TYPICAL).
3. GENERAL CONTRACTOR MUST ENSURE A CONTINUOUS AIR BARRIER IS PROVIDED INTO ALL FENESTRATION ROUGH OPENINGS INCLUDING ALL HEAD, JAMB AND SILL CORNERS WITH INTERIOR SEALANT JOINT INSTALLED CONTINUOUSLY BETWEEN FENESTRATION AND AIR BARRIER, AND IN ACCORDANCE WITH FENESTRATION AND AIR BARRIER MANUFACTURERS INSTALLATION PROCEDURES (TYPICAL).
4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

3" Graphic Scale

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

DOOR DETAILS

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A502
DATE: 02/15/2013	

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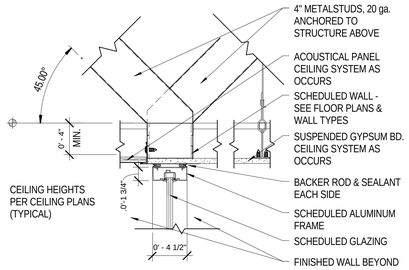
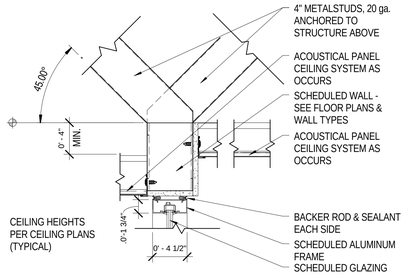


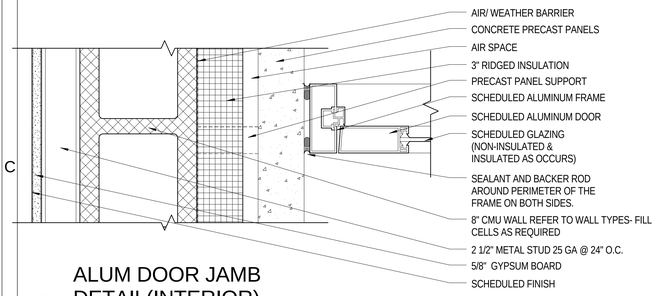
A6 INTERIOR ALUM WINDOW HEAD

SCALE: 1 1/2" = 1'-0"



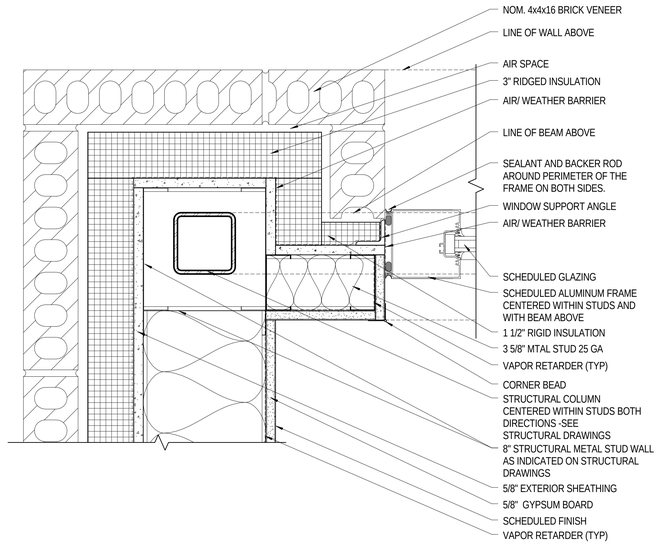
B6 INTERIOR ALUM WINDOW HEAD

SCALE: 1 1/2" = 1'-0"



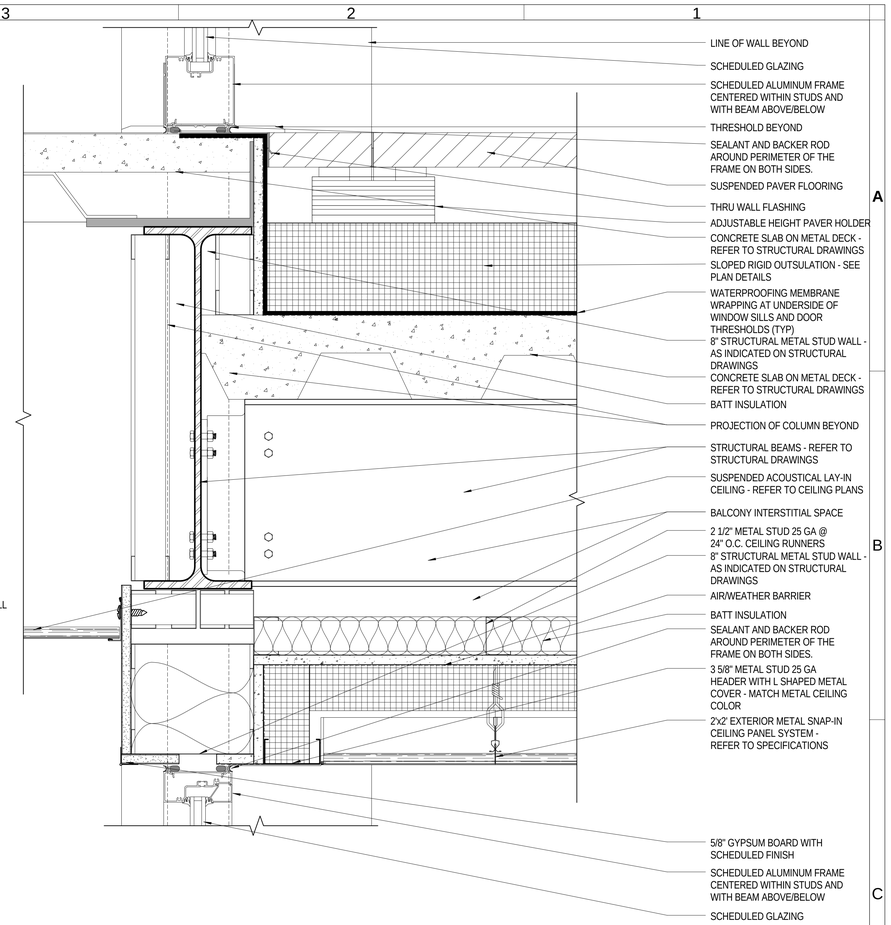
C6 ALUM DOOR JAMB DETAIL(INTERIOR)

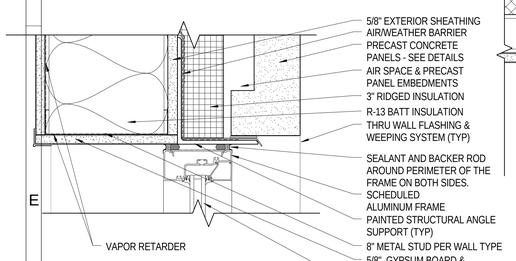
SCALE: 3" = 1'-0"



C5 WINDOW ALUM W/BRICK JAMB, HEADER & SILL DETAIL (EXT)

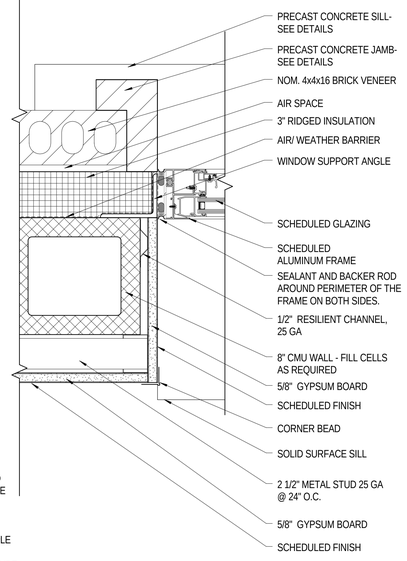
SCALE: 3" = 1'-0"





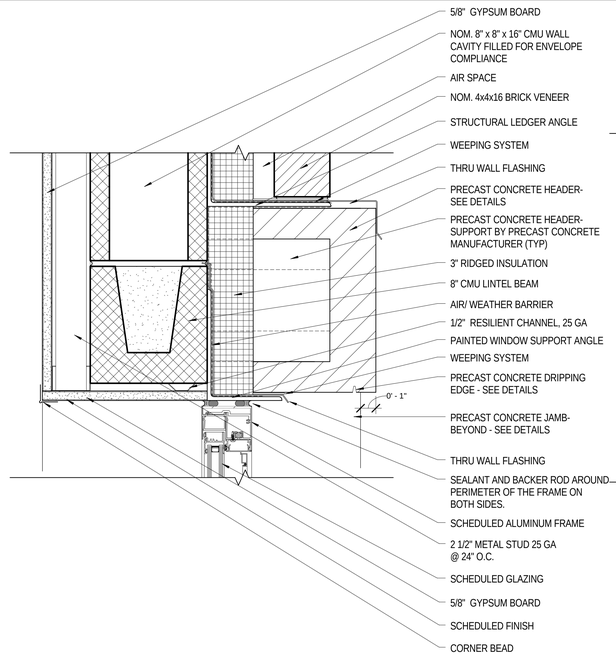
E6 ALUM DOOR JAMB & HEAD DETAIL(EXT)

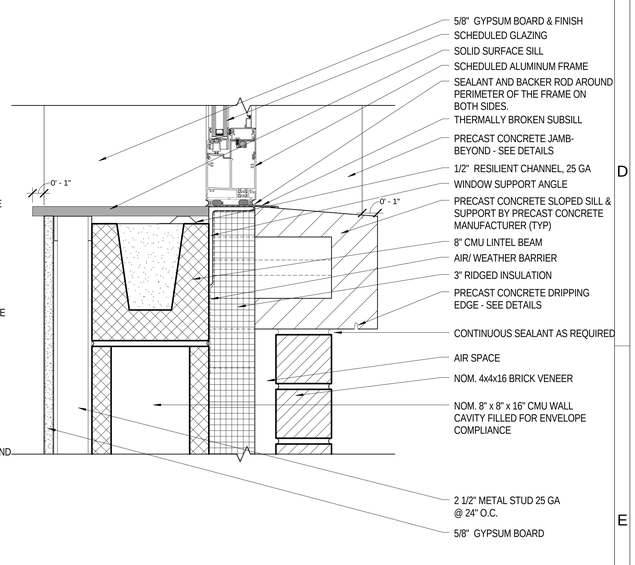
SCALE: 3" = 1'-0"



E5 WINDOW ALUM W/ PRECAST JAMB, HEADER & SILL DETAIL (EXT)

SCALE: 3" = 1'-0"





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SEAL & SIGNATURE

ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
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3. GENERAL CONTRACTOR MUST ENSURE A CONTINUOUS AIR BARRIER IS PROVIDED INTO ALL FENESTRATION ROUGH OPENINGS INCLUDING ALL HEAD, JAMB AND SILL CORNERS WITH INTERIOR SEALANT JOINT INSTALLED CONTINUOUSLY BETWEEN FENESTRATION AND AIR BARRIER, AND IN ACCORDANCE WITH FENESTRATION AND AIR BARRIER MANUFACTURERS INSTALLATION PROCEDURES (TYPICAL).
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5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

3" Graphic Scale

11/2" Graphic Scale

BUILDING OFFICIAL APPROVAL

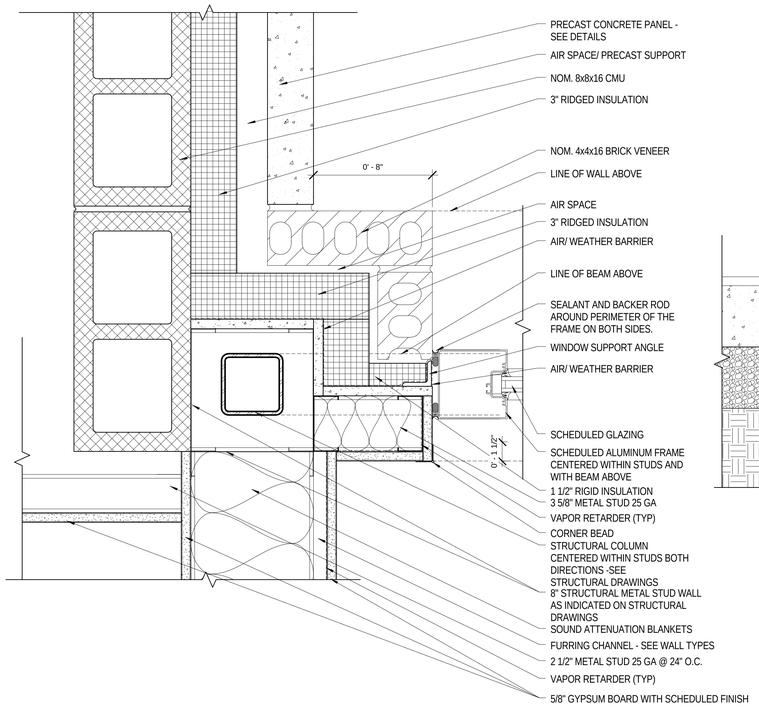
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

DOOR & WINDOW DETAILS

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

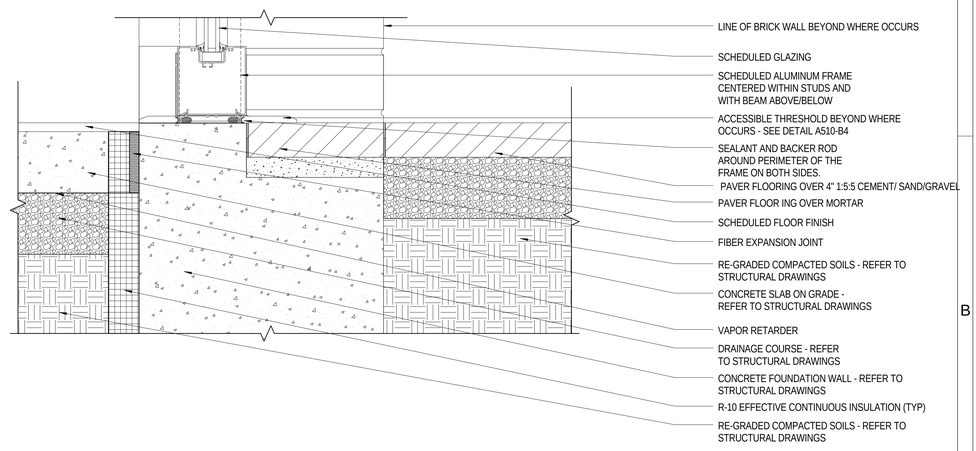
DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A503
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



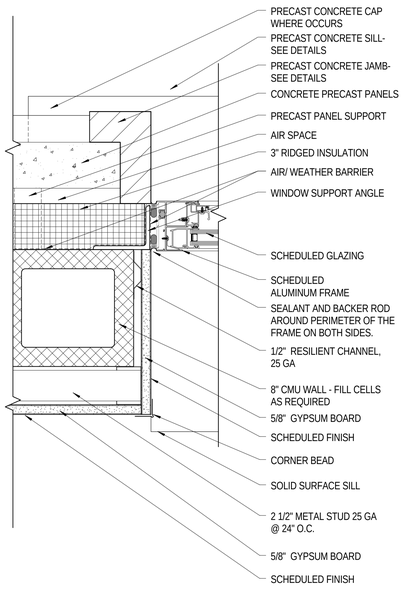
C5 WINDOW ALUM @ PATIO W/PRECAST JAMB DETAIL (EXT)

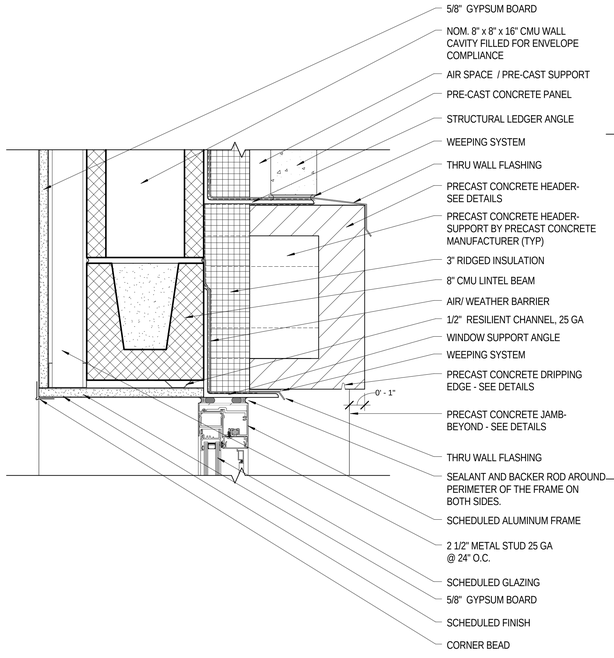
SCALE: 3" = 1'-0"

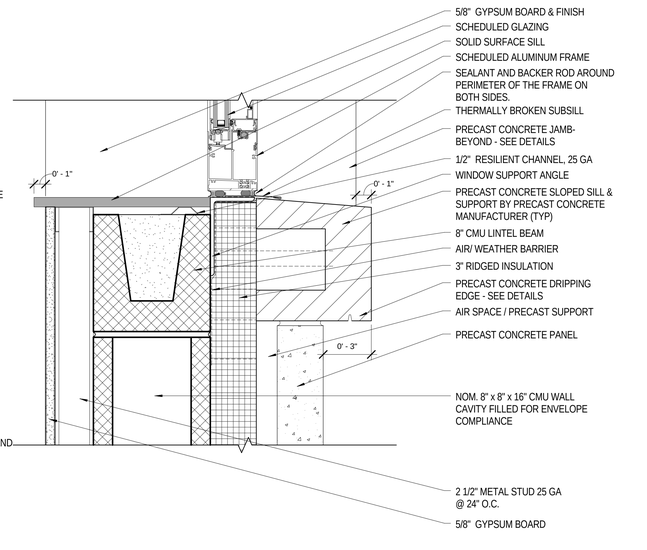


C3 WINDOW ALUM @ 1ST FLOOR SILL DETAIL (EXT)

SCALE: 3" = 1'-0"







E5 WINDOW ALUM W/ PRECAST ALL INCL. JAMB, HEADER & SILL DETAIL (EXT)

SCALE: 3" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
2. GENERAL CONTRACTOR MUST ENSURE AND PROVIDE EXTERIOR AESTHETIC SEALANT JOINTS BETWEEN ALL SIDES OF THE FENESTRATION AND THE CLADDING OF THE BUILDING AS NEEDED TO COMPLETELY CONCEAL THE AIR BARRIER (TYPICAL).
3. GENERAL CONTRACTOR MUST ENSURE A CONTINUOUS AIR BARRIER IS PROVIDED INTO ALL FENESTRATION ROUGH OPENINGS INCLUDING ALL HEAD, JAMB AND SILL CORNERS WITH INTERIOR SEALANT JOINT INSTALLED CONTINUOUSLY BETWEEN FENESTRATION AND AIR BARRIER, AND IN ACCORDANCE WITH FENESTRATION AND AIR BARRIER MANUFACTURERS INSTALLATION PROCEDURES (TYPICAL).
4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

BUILDING OFFICIAL APPROVAL

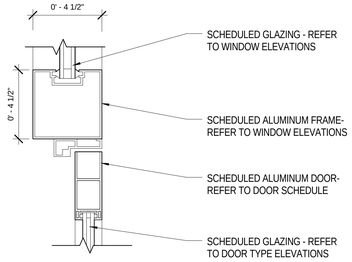
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

WINDOW DETAILS

REVISION	DATE	BY	DESCRIPTION
1			
2			
3			
4			

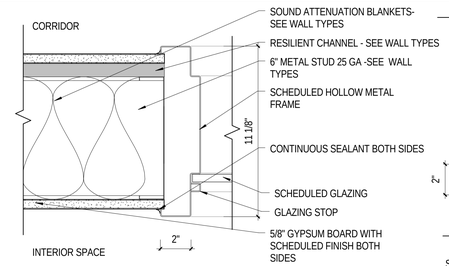
DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A504
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



WINDOW / DOOR ALUM HEAD FRAME - EXT

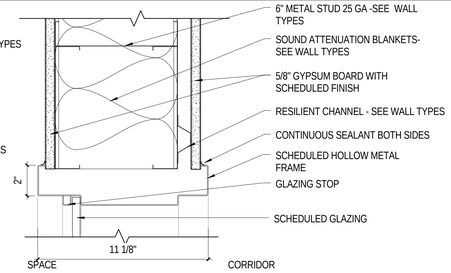
A6 SCALE: 3" = 1'-0"



NOTE: 45 MIN. FIRE RATED WINDOW ASSEMBLY

WINDOW ALUM JAMB DETAIL (INT)

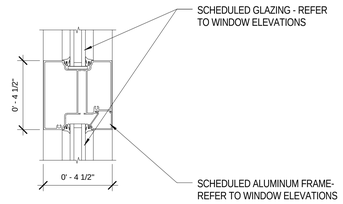
A5 SCALE: 3" = 1'-0"



NOTE: 45 MIN. FIRE RATED WINDOW ASSEMBLY

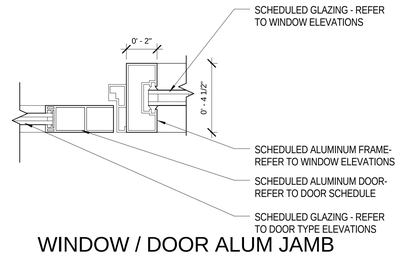
WINDOW ALUM HEAD DETAIL (INT)

A4 SCALE: 3" = 1'-0"



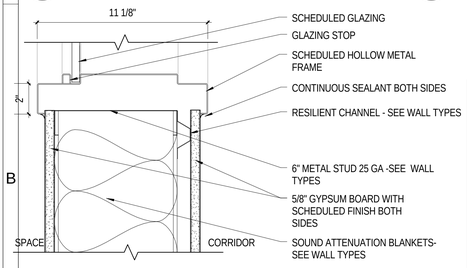
WINDOW ALUM HORIZ 4.5 MULLION EXT

A3 SCALE: 3" = 1'-0"



WINDOW / DOOR ALUM JAMB FRAME - EXT

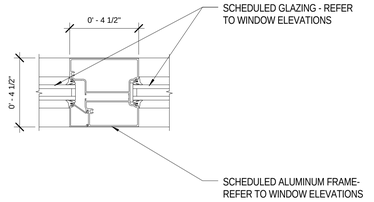
A2 SCALE: 3" = 1'-0"



NOTE: 45 MIN. FIRE RATED WINDOW ASSEMBLY

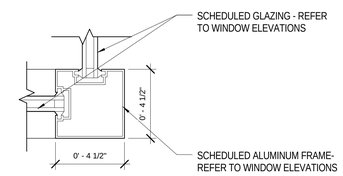
WINDOW ALUM SILL DETAIL (INT)

B6 SCALE: 3" = 1'-0"



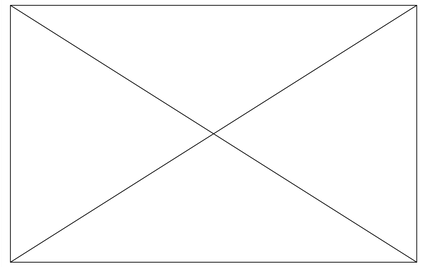
WINDOW ALUM VERTICAL 4.5 MULLION EXT

B3 SCALE: 3" = 1'-0"

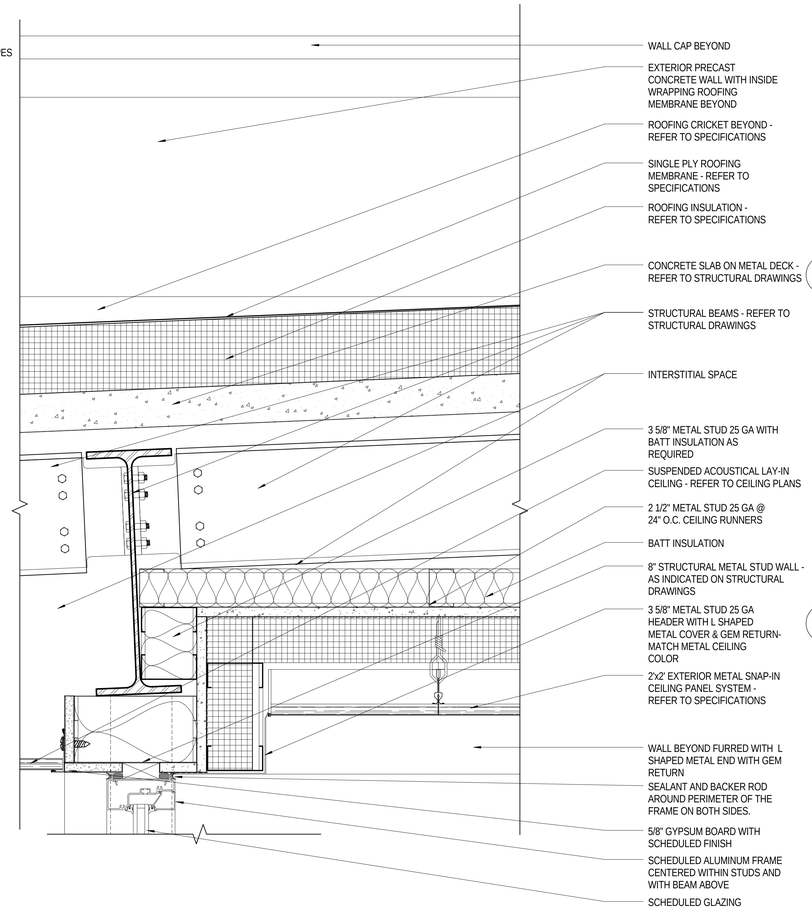


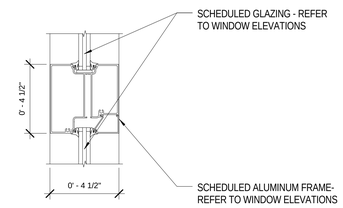
WINDOW ALUM 4.5"x4.5" CORNER

B2 SCALE: 3" = 1'-0"



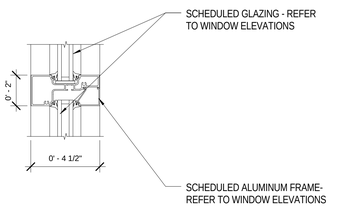
NOT USED





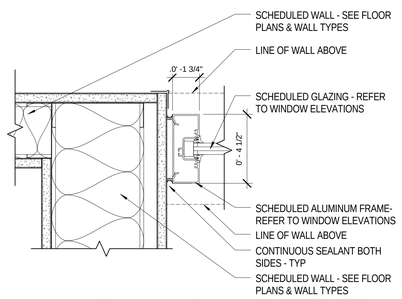
WINDOW ALUM HORIZ 4.5 MULLION INT

C3 SCALE: 3" = 1'-0"



WINDOW ALUM HORIZ MULLION EXT

C2 SCALE: 3" = 1'-0"

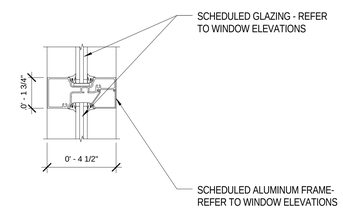


WINDOW ALUM JAMB CORNER DETAIL (INT)

D6 SCALE: 3" = 1'-0"

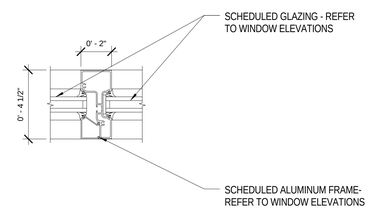
WINDOW ALUM ENTRIES HEADER DETAIL (EXT)

D5 SCALE: 3" = 1'-0"



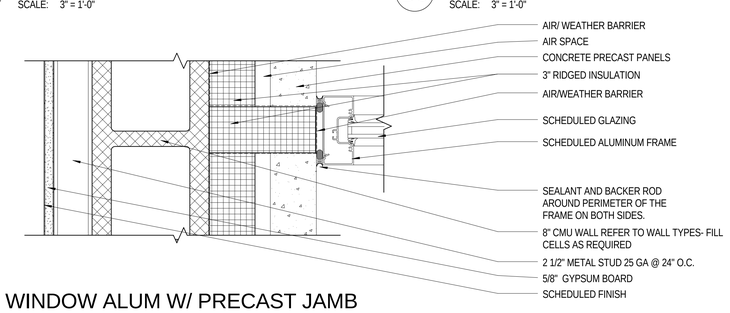
WINDOW ALUM HORIZ MULLION INT

D3 SCALE: 3" = 1'-0"



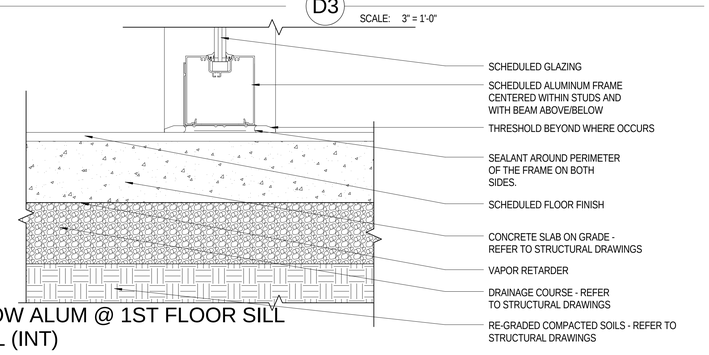
WINDOW ALUM VERTICAL MULLION EXT

D2 SCALE: 3" = 1'-0"



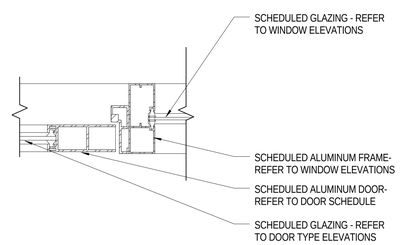
WINDOW ALUM W/ PRECAST JAMB DETAIL (EXTERIOR)

E6 SCALE: 3" = 1'-0"



WINDOW ALUM @ 1ST FLOOR SILL DETAIL (INT)

E4 SCALE: 3" = 1'-0"



WINDOW / DOOR ALUM FRAME - INT

E2 SCALE: 3" = 1'-0"

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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
2. GENERAL CONTRACTOR MUST ENSURE AND PROVIDE EXTERIOR AESTHETIC SEALANT JOINTS BETWEEN ALL SIDES OF THE FENESTRATION AND THE CLADDING OF THE BUILDING AS NEEDED TO COMPLETELY CONCEAL THE AIR BARRIER (TYPICAL).
3. GENERAL CONTRACTOR MUST ENSURE A CONTINUOUS AIR BARRIER IS PROVIDED INTO ALL FENESTRATION ROUGH OPENINGS INCLUDING ALL HEAD, JAMB AND SILL CORNERS WITH INTERIOR SEALANT JOINT INSTALLED CONTINUOUSLY BETWEEN FENESTRATION AND AIR BARRIER, AND IN ACCORDANCE WITH FENESTRATION AND AIR BARRIER MANUFACTURERS INSTALLATION PROCEDURES (TYPICAL).
4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

3" Graphic Scale

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

WINDOW DETAILS

REVISION	DATE	BY	DESCRIPTION
△			
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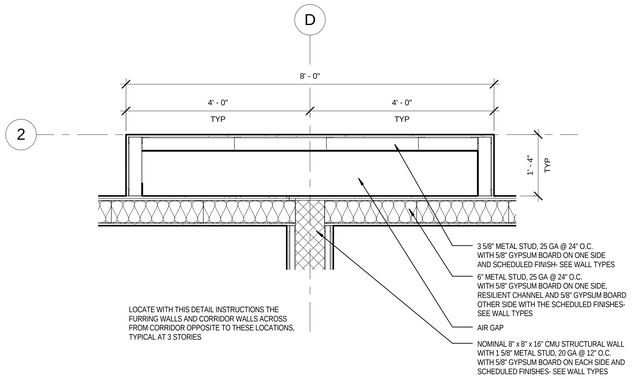
△			

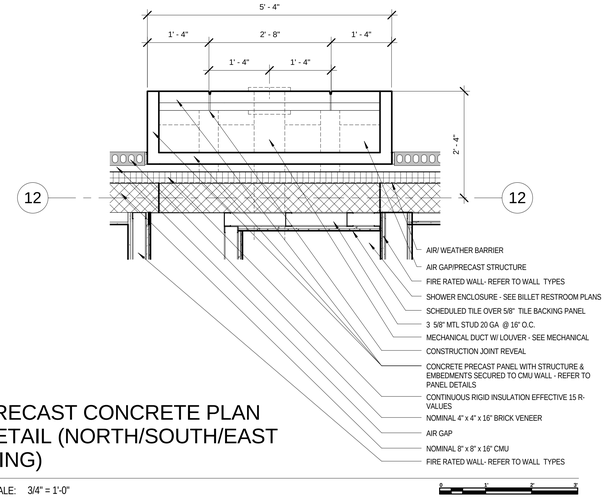
DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A505
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



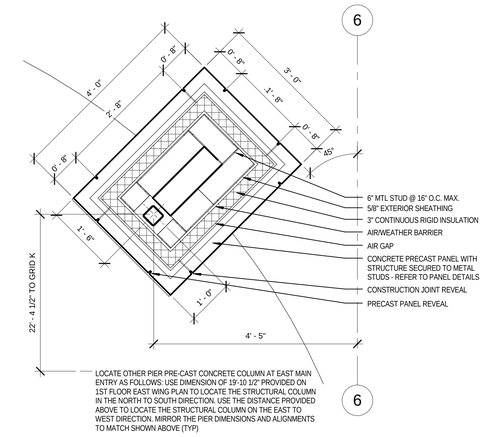
CORRIDOR TYPICAL FURRING WALL PLAN (NORTH/SOUTH/EAST WING)

B6 SCALE: 3/4" = 1'-0"



PRECAST CONCRETE PLAN DETAIL (NORTH/SOUTH/EAST WING)

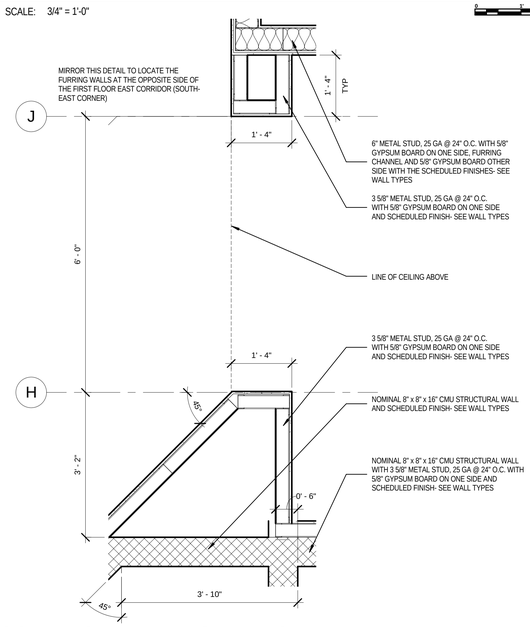
B4 SCALE: 3/4" = 1'-0"



MAIN ENTRY COLUMNS PLAN (EAST WING)

B2 SCALE: 3/4" = 1'-0"

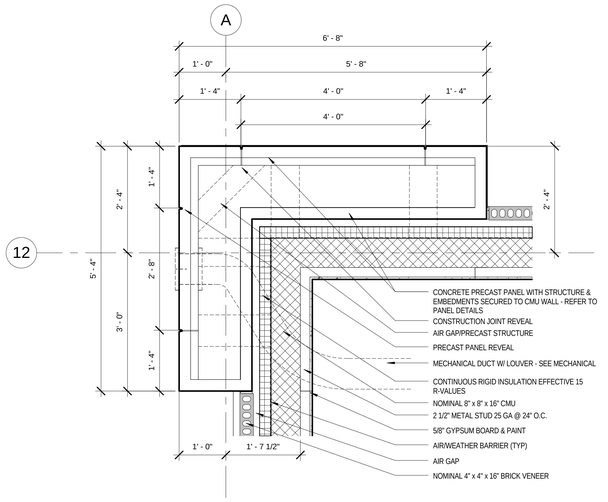
PLAN NORTH



CORRIDOR FURRING WALLS AT EAST WING ENDS

D6 SCALE: 3/4" = 1'-0"

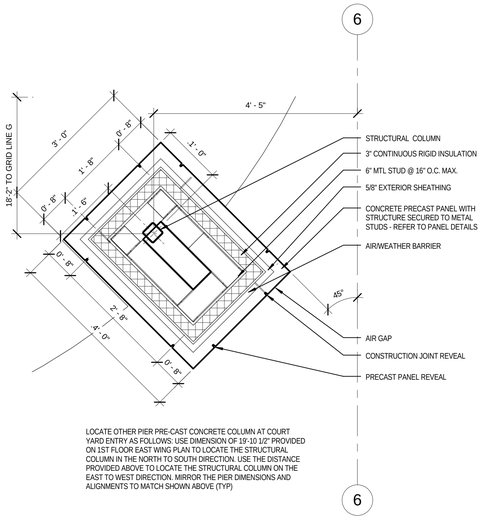
PLAN NORTH



PRECAST CONCRETE PLAN DETAIL AT CORNER (NORTH/SOUTH WING)

D4 SCALE: 3/4" = 1'-0"

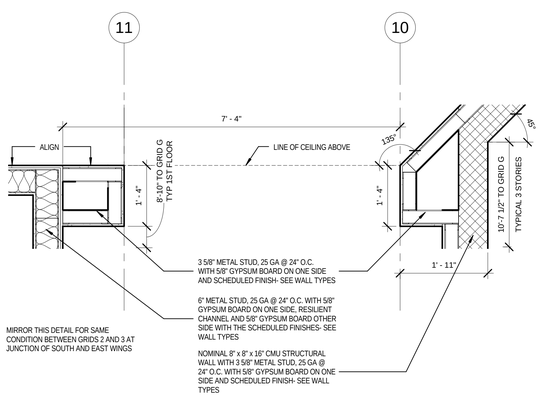
PLAN NORTH



COURT YARD COLUMNS PLAN (EAST WING)

D2 SCALE: 3/4" = 1'-0"

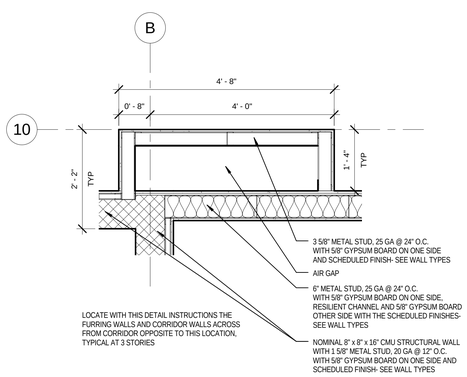
PLAN NORTH



CORRIDOR FURRING WALLS AT JUNCTION OF WINGS

E6 SCALE: 3/4" = 1'-0"

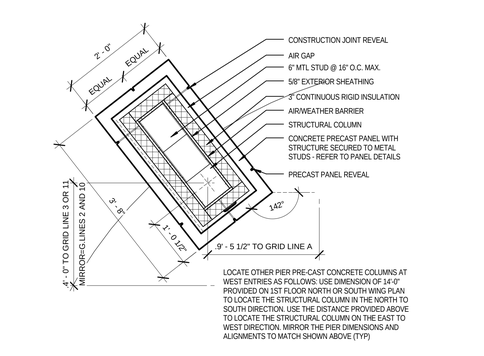
PLAN NORTH



CORRIDOR FURRING WALL PLAN (NORTH/SOUTH WING)

E4 SCALE: 3/4" = 1'-0"

PLAN NORTH



NORTH/SOUTH ENTRY COLUMNS PLANS (NORTH/SOUTH WING)

E2 SCALE: 3/4" = 1'-0"

PLAN NORTH

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265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

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129665
LICENSED ARCHITECT

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PLAN DETAILS

REVISION	DATE	BY	DESCRIPTION
△			
△			
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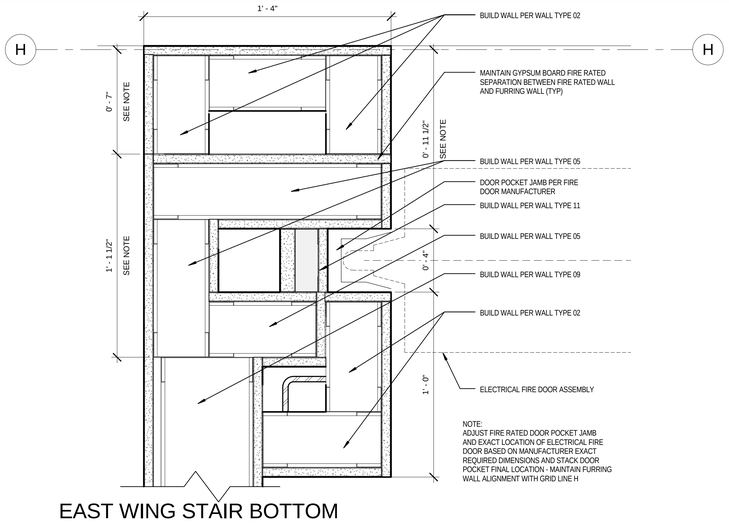
△			

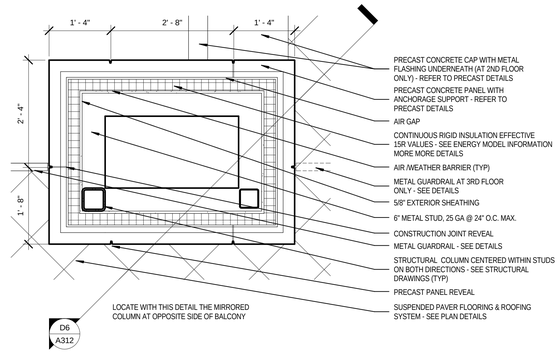
DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A506
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



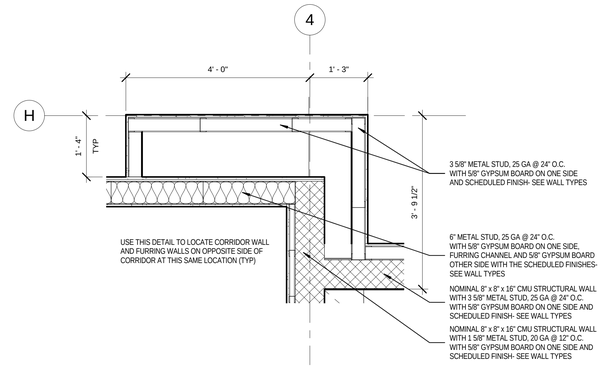
EAST WING STAIR BOTTOM ENCLOSURE

B6 SCALE: 3" = 1'-0"



BALCONY PRECAST CONCRETE PIERS

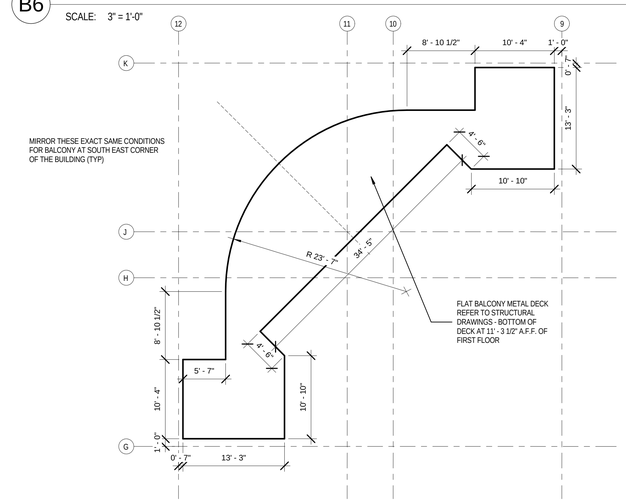
B4 SCALE: 3/4" = 1'-0"



CORRIDOR FURRING WALLS AT EAST WING ENDS-2

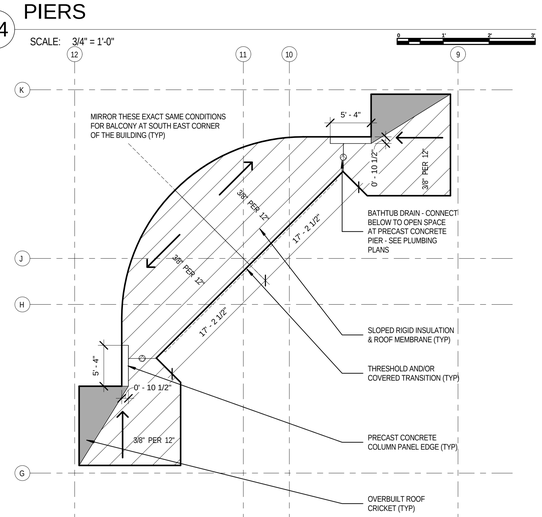
B2 SCALE: 3/4" = 1'-0"

PLAN NORTH



BALCONY 2ND FLOOR FLAT METAL DECK

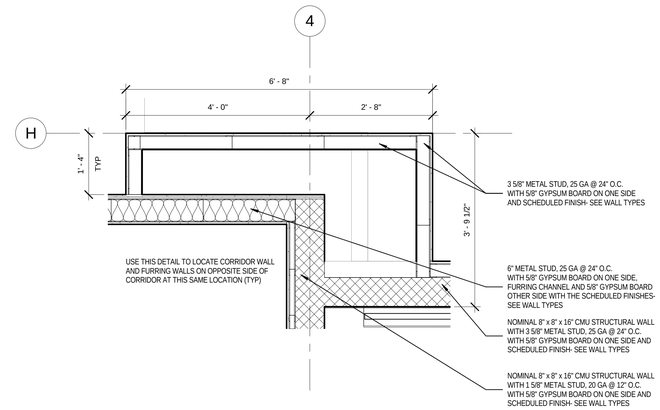
D6 SCALE: 1/8" = 1'-0"



BALCONY 2ND FLOOR SLOPED INSULATION & ROOF MEMBRANE

D4 SCALE: 1/8" = 1'-0"

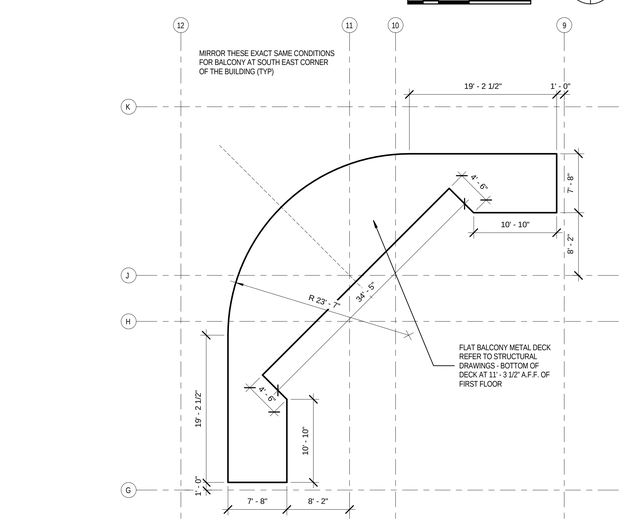
PLAN NORTH



CORRIDOR FURRING WALLS AT EAST WING ENDS-3

D2 SCALE: 3/4" = 1'-0"

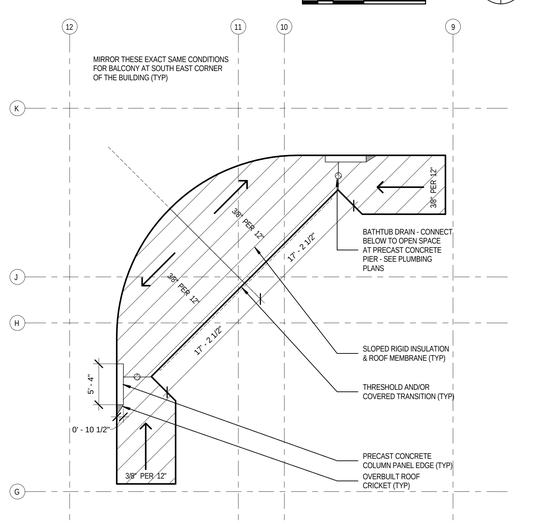
PLAN NORTH



BALCONY 3RD FLOOR FLAT METAL DECK

E6 SCALE: 1/8" = 1'-0"

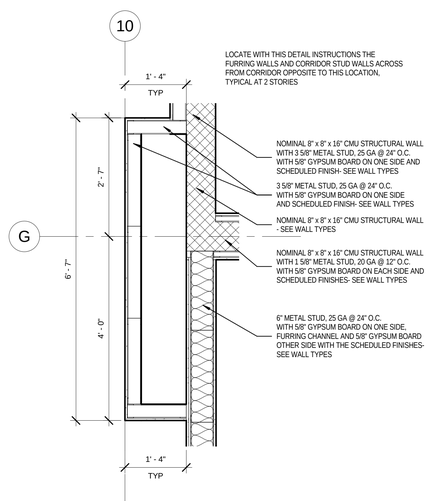
PLAN NORTH



BALCONY 3RD FLOOR SLOPED INSULATION & ROOF MEMBRANE

E4 SCALE: 1/8" = 1'-0"

PLAN NORTH



CORRIDOR FURRING WALLS AT EAST WING ENDS-4

E2 SCALE: 3/4" = 1'-0"

PLAN NORTH

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PLAN DETAILS

REVISION	DATE	BY	DESCRIPTION
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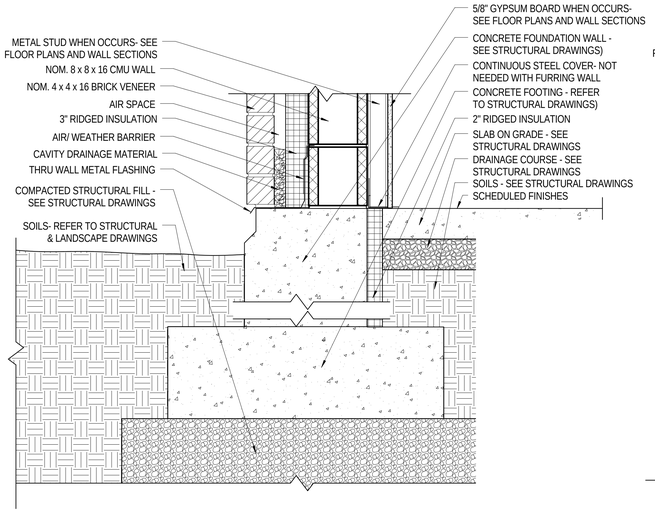
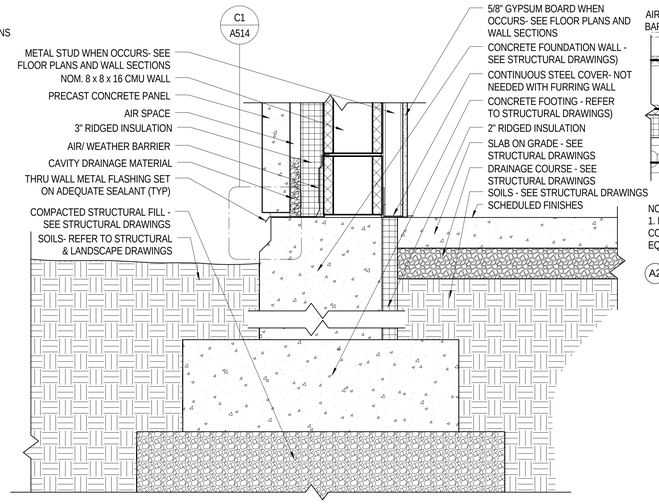
△			
△			
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A507
DATE: 02/15/2013	

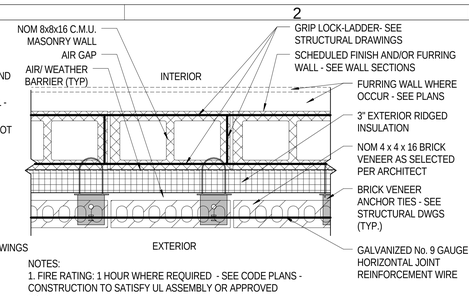
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



B6 EXTERIOR WALL BOTTOM DETAIL 1
1 1/2" = 1'-0"

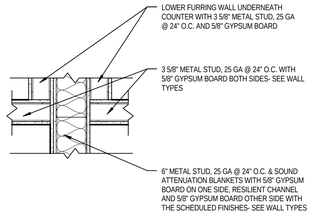


B3 EXTERIOR WALL BOTTOM DETAIL 2
1 1/2" = 1'-0"

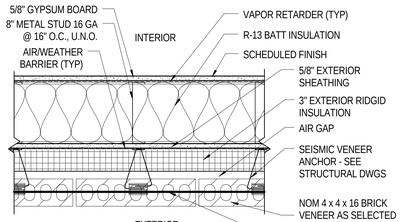


NOTES:
1. FIRE RATING: 1 HOUR WHERE REQUIRED - SEE CODE PLANS - CONSTRUCTION TO SATISFY UL ASSEMBLY OR APPROVED EQUAL

A2 EXTERIOR CMU WALL & VENEER PLAN DETAIL
1 1/2" = 1'-0"

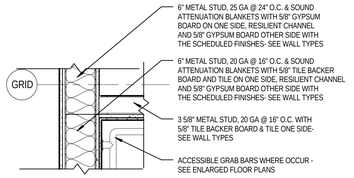


A1 BILLET WALLS PLAN DETAIL 1
1" = 1'-0"

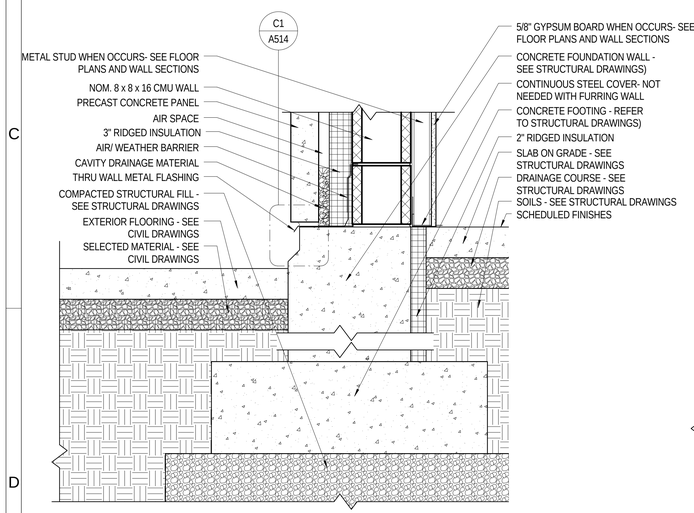


NOTES:
1. FIRE RATING: 1 HOUR WHERE REQUIRED - SEE CODE PLANS - CONSTRUCTION TO SATISFY UL ASSEMBLY OR APPROVED EQUAL

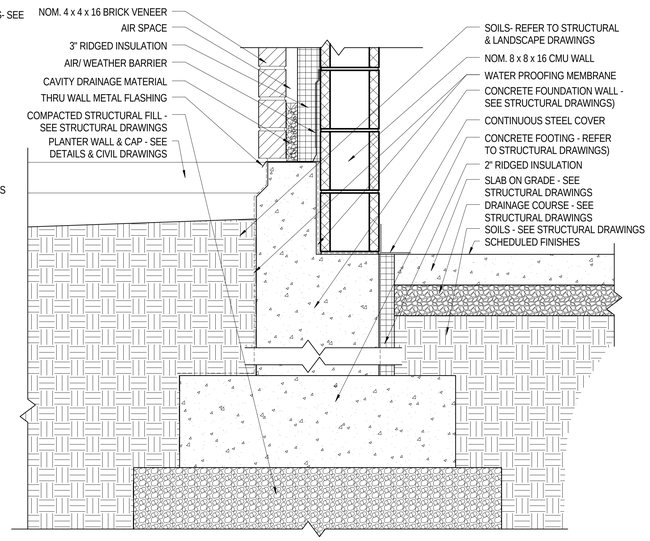
B2 EXTERIOR MTL STUD WALL & BRICK VENEER PLAN DETAIL
1 1/2" = 1'-0"



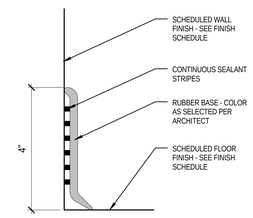
B1 BILLET WALLS PLAN DETAIL 2
1" = 1'-0"



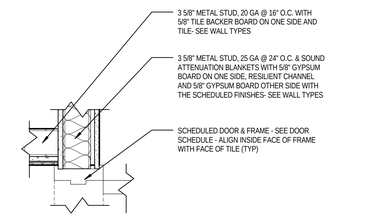
D6 EXTERIOR WALL BOTTOM DETAIL 3
1 1/2" = 1'-0"



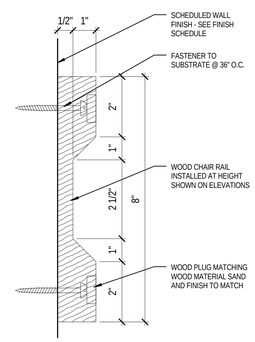
D3 EXTERIOR WALL BOTTOM DETAIL 4
1 1/2" = 1'-0"



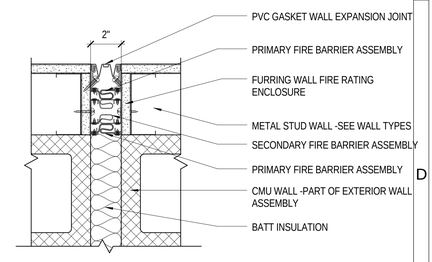
C2 RUBBER BASE DETAIL
6" = 1'-0"



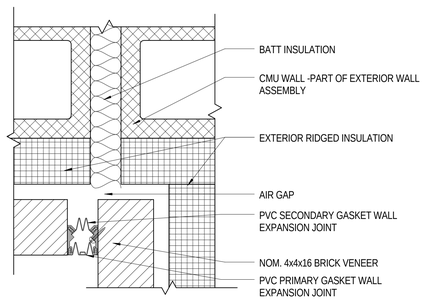
C1 BILLET WALLS PLAN DETAIL 3
1 1/2" = 1'-0"



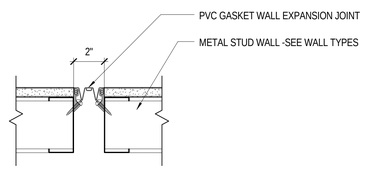
D2 CHAIR RAIL DETAIL
6" = 1'-0"



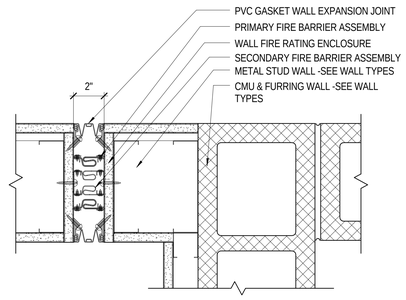
D1 EXPANSION JOINT AT FURRING WALL OF EXTERIOR WALL
3" = 1'-0"



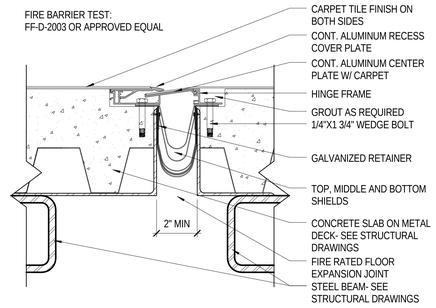
E6 EXPANSION JOINT AT EXTERIOR WALL
3" = 1'-0"



E3 EXPANSION JOINT AT INTERIOR FURRING WALL
3" = 1'-0"



E2 WALL EXPANSION JOINT AT INTERIOR WALL
3" = 1'-0"



E1 SUSPENDED SLAB EXPANSION JOINT
3" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
2. GENERAL CONTRACTOR MUST ENSURE AND PROVIDE EXTERIOR AESTHETIC SEALANT JOINTS BETWEEN ALL SIDES OF THE FENESTRATION AND THE CLADDING OF THE BUILDING AS NEEDED TO COMPLETELY CONCEAL THE AIR BARRIER (TYPICAL).
3. GENERAL CONTRACTOR MUST ENSURE A CONTINUOUS AIR BARRIER IS PROVIDED INTO ALL FENESTRATION ROUGH OPENINGS INCLUDING ALL HEAD, JAMB AND SILL CORNERS WITH INTERIOR SEALANT JOINT INSTALLED CONTINUOUSLY BETWEEN FENESTRATION AND AIR BARRIER, AND IN ACCORDANCE WITH FENESTRATION AND AIR BARRIER MANUFACTURERS INSTALLATION PROCEDURES (TYPICAL).
4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

1" Graphic Scale
3" Graphic Scale
11/2" Graphic Scale

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

INTERIOR & EXTERIOR DETAILS

REVISION	DATE	BY	DESCRIPTION
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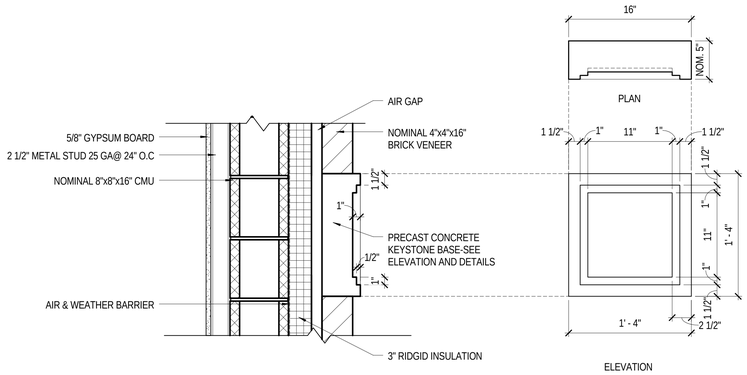
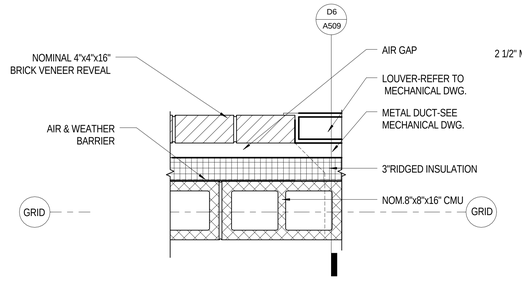
△			
△			
△			

DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: A508

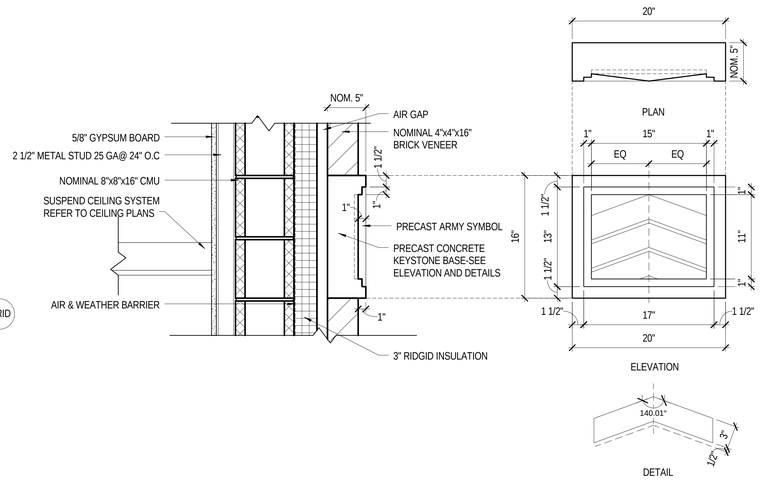
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



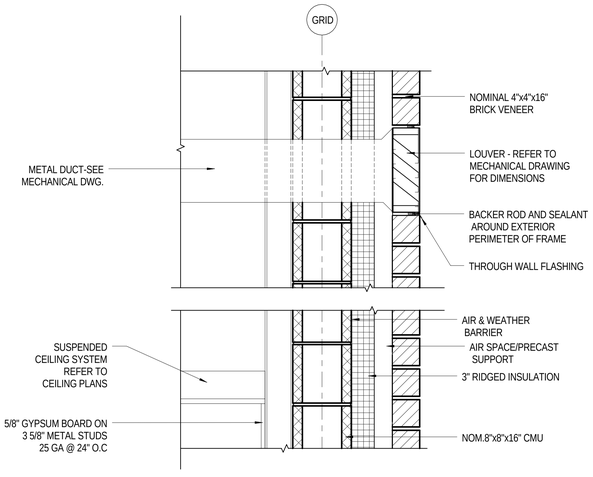
B6 PRECAST CONCRETE KEY STONE 2
1 1/2" = 1'-0"



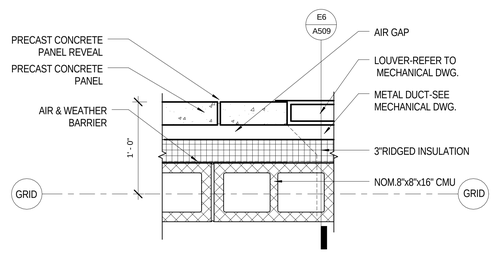
B4 LOUVER PLAN DETAIL 3
1 1/2" = 1'-0"



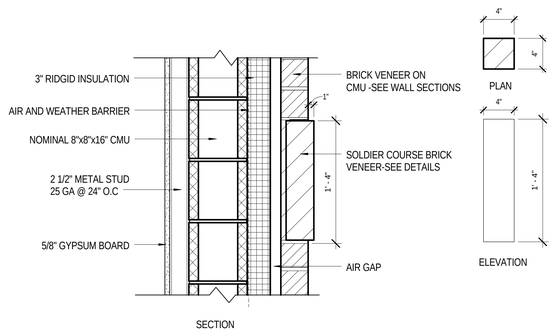
B3 PRECAST CONCRETE KEY STONE 1
1 1/2" = 1'-0"



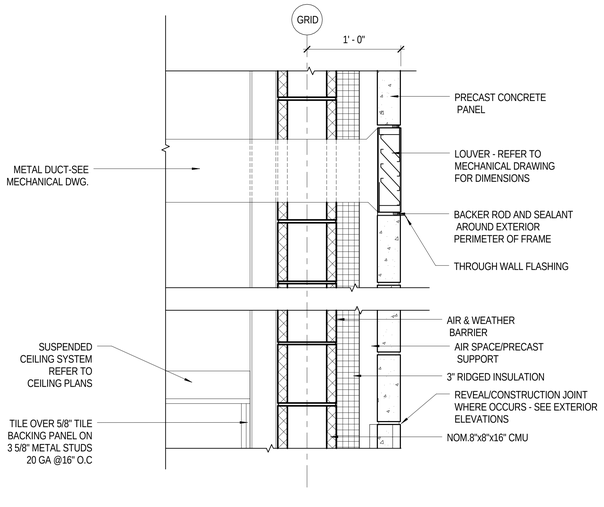
D6 LOUVER SECTION DETAIL 3
1 1/2" = 1'-0"



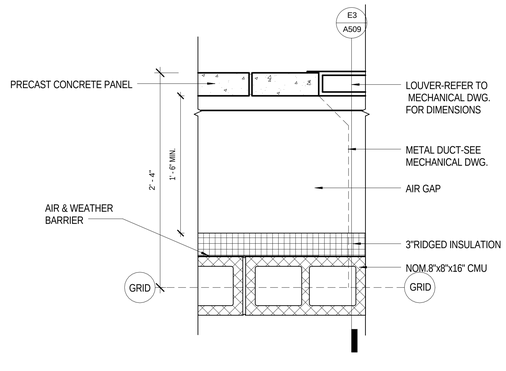
D4 LOUVER PLAN DETAIL 2
1 1/2" = 1'-0"



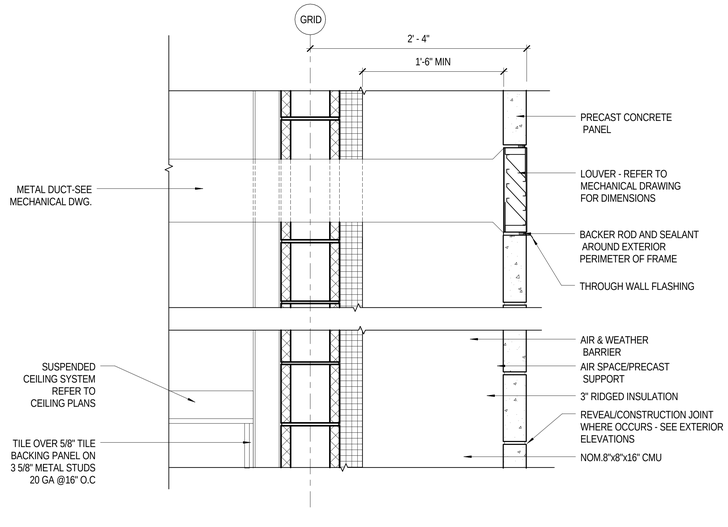
D3 SOLIDER COURSE DETAIL
1 1/2" = 1'-0"



E6 LOUVER SECTION DETAIL 2
1 1/2" = 1'-0"



E4 LOUVER PLAN DETAIL 1
1 1/2" = 1'-0"



E3 LOUVER SECTION DETAIL 1
1 1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
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SEAL & SIGNATURE

ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
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5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

11/2" Graphic Scale

BUILDING OFFICIAL APPROVAL

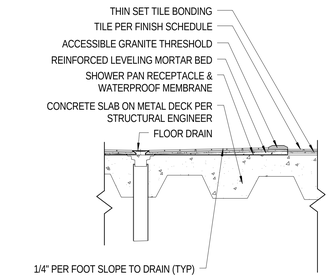
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

EXTERIOR DETAILS

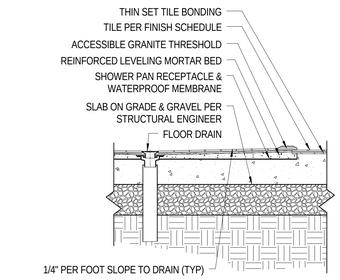
REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A509
DATE: 02/15/2013	

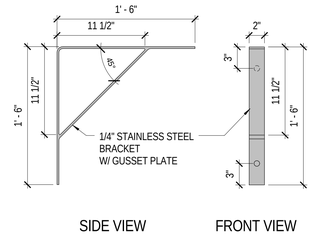
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



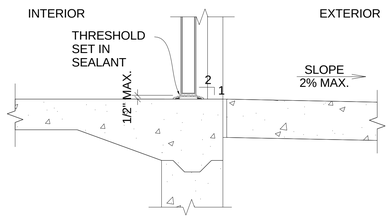
A3 SHOWER THRESHOLD AT UPPER FLOORS
1 1/2" = 1'-0"



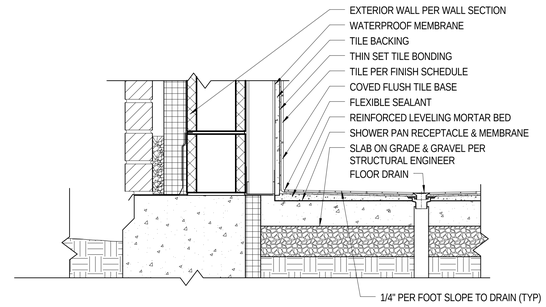
A2 SHOWER THRESHOLD AT 1ST FLOOR
1 1/2" = 1'-0"



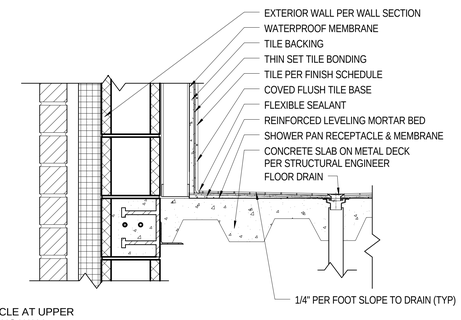
A1 1/4" SS BRACKET DETAIL
1 1/2" = 1'-0"



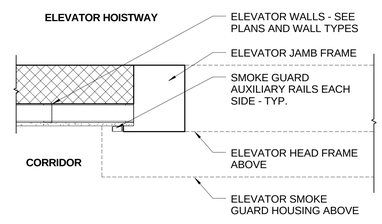
B4 Threshold Detail
1 1/2" = 1'-0"



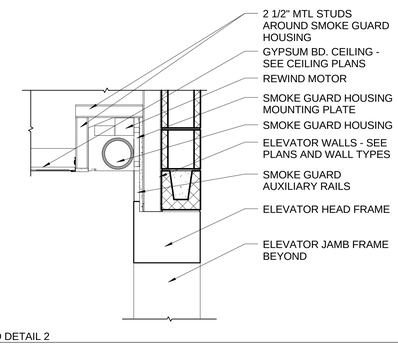
B2 SHOWER RECEPTACLE AT 1ST FLOOR MTL FURRING WALL
1 1/2" = 1'-0"



C2 SHOWER RECEPTACLE AT UPPER FLOORS MTL FURRING WALL
1 1/2" = 1'-0"



D2 ELEVATOR SMOKE GUARD DETAIL 1
1" = 1'-0"



E2 ELEVATOR SMOKE GUARD DETAIL 2
1" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

1" Graphic Scale

11/2" Graphic Scale

BUILDING OFFICIAL APPROVAL

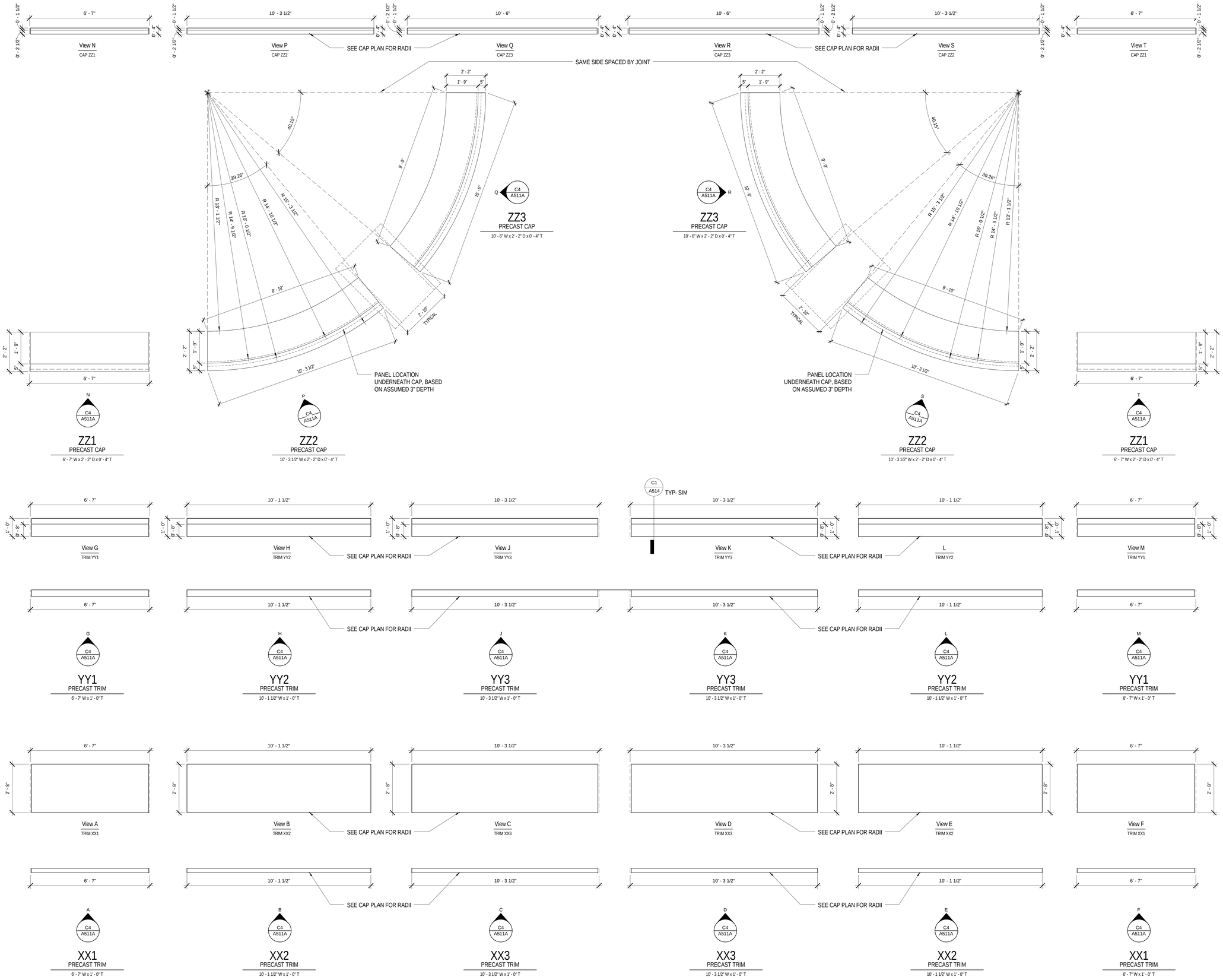
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

OTHER DETAILS

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A510
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



C4 PRECAST CONCRETE CANOPY MAIN EAST ENTRY - ELEVATIONS
1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR DESIGN, CALCULATIONS & SUPPORT OF THE PRECAST CONCRETE PANELS AND THEIR CONNECTION TO THE BUILDING STRUCTURE, INCLUDING THE REQUIRED DEFLECTION AND TOLERANCES NEEDED TO SATISFY THE DESIGN LAYOUT.
2. QUANTITIES OF PANELS ARE AFFECTED BY THE DESIGN ALTERNATES, REFER TO OVERALL PLANS AND NOTES.
3. THICKNESS OF PRECAST ELEMENTS ARE ASSUMED IN THE DESIGN. PRECAST CONCRETE ENGINEER TO DETERMINE FINAL REQUIRED THICKNESS AND ADJUST THE DEPTHS ACCORDINGLY WITHOUT MODIFYING THE OVERALL WIDTHS & HEIGHTS OF PANELS OR REVEALS.
4. PANELS CAN BE MERGED, PROVIDED CONTROL JOINTS & SCORE LINES ARE MAINTAINED. REQUIRED FLASHING AND CAULKING OF PANELS IS TO BE COORDINATED WITH FINAL DESIGN, AND CONTRACTOR MUST INCLUDE THE COST ASSOCIATED WITH THEM FROM THE BEGINNING.
5. CONTRACTOR IS RESPONSIBLE FOR THE PROPER COORDINATION OF ROUGH OPENINGS FOR WINDOWS, DOORS, LOUVERS, AND ANY OTHER OBJECTS PART OF THE FACADE THAT ARE PENETRATING THE PRECAST CONCRETE PANELS.
6. COORDINATE WITH ARCHITECT THE FINAL COLORS OF PRECAST CONCRETE AND TRIMS- ASSUME FOR THE BID A MINIMUM OF TWO COLORS.
7. CONTRACTOR MUST INCLUDE THE CONTINUOUS SEALANT REQUIRED FOR PRECAST CONCRETE ELEMENTS AND WHEN BUTTING AGAINST OTHER MATERIALS OF THE FACADE (TYPICAL).
8. PRECAST CONCRETE PANEL ELEVATIONS ARE NOT SHOWING THE CONCRETE PANEL BEHIND THE DOOR AND WINDOW PRECAST CONCRETE TRIMS. CONTRACTOR NEEDS TO INCLUDE THESE AREAS IN THE DESIGN, SHOP DRAWINGS AND ASSOCIATED COST (TYPICAL) - REFER TO WINDOW AND DOOR DETAILS AND TYPICAL PRECAST CONCRETE CONNECTION DETAILS.
9. CONTRACTOR IS RESPOSIBLE FOR MEASURING AND VERIFYING ALL DIMENSIONS IN THE FIELD. DO NOT INITIATE FABRICATION WITHOUT COMPLYING WITH THE PROPER COORDINATION OF ALL ITEMS AFECTING THE PRECAST CONCRETE PANELS FINAL DESIGN.

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

REVISION	DATE	BY	DESCRIPTION
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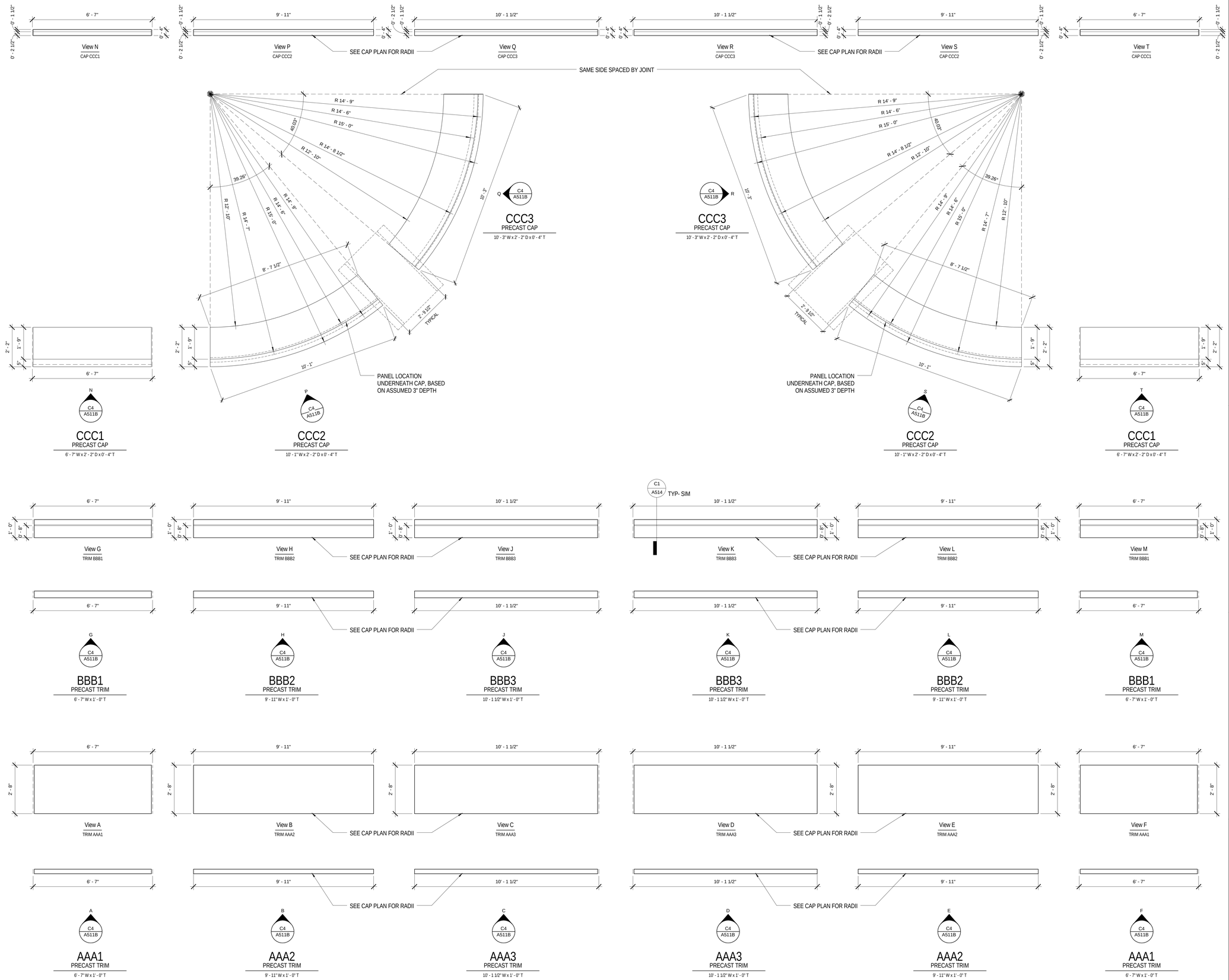
△			
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A511A
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



C4 PRECAST CONCRETE CANOPY COURT YARD ENTRY - ELEVATIONS
1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
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SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR DESIGN, CALCULATIONS & SUPPORT OF THE PRECAST CONCRETE PANELS AND THEIR CONNECTION TO THE BUILDING STRUCTURE, INCLUDING THE REQUIRED DEFLECTION AND TOLERANCES NEEDED TO SATISFY THE DESIGN LAYOUT.
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BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DRAWING NO.: A511B
DATE: 02/15/2013

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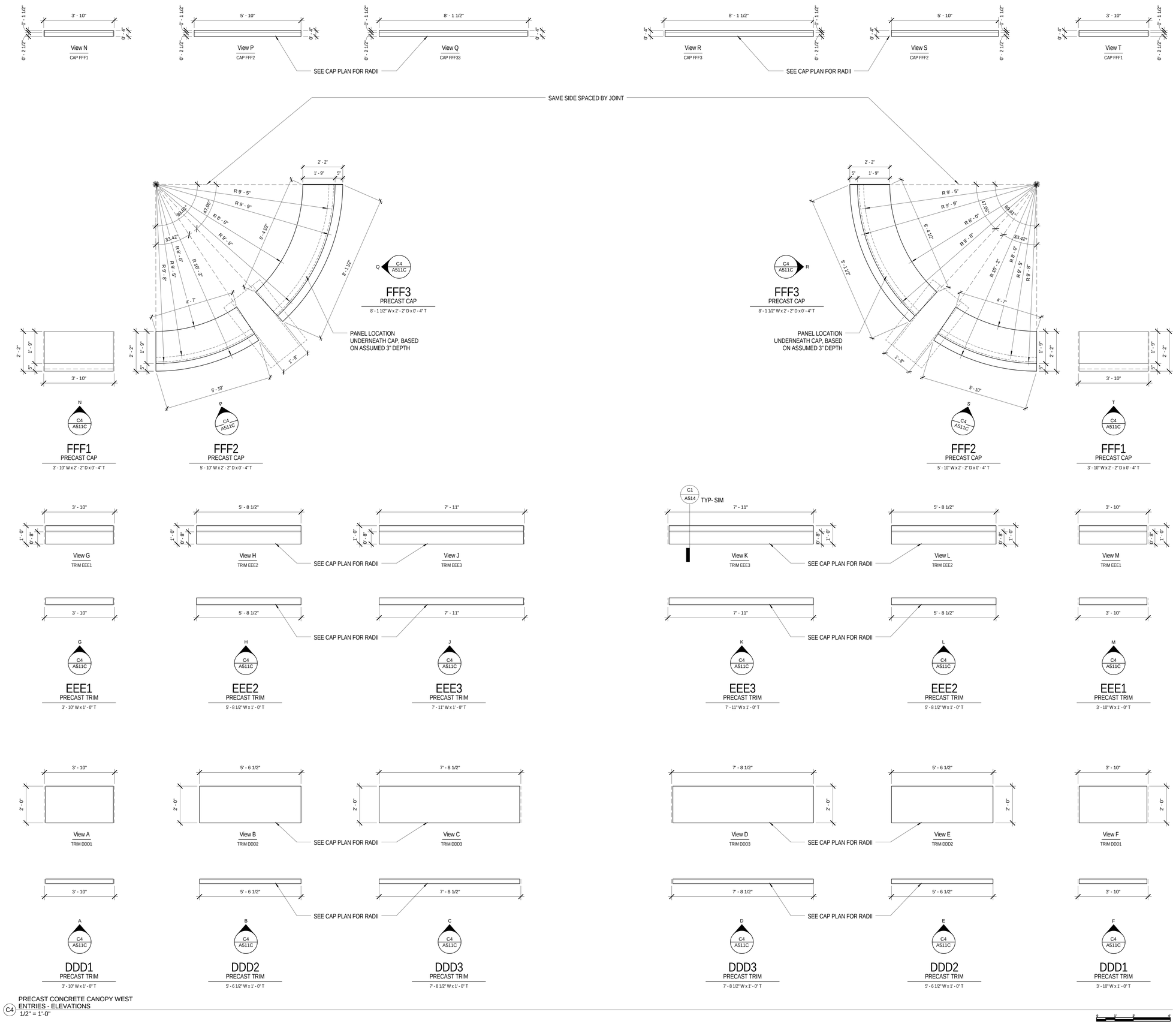

C4 PRECAST CONCRETE CANOPY WEST ENTRIES - ELEVATIONS
1/2" = 1'-0"

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RIVERTON, UT 84062

PRECAST CONCRETE

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DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A511C
DATE: 02/15/2013	

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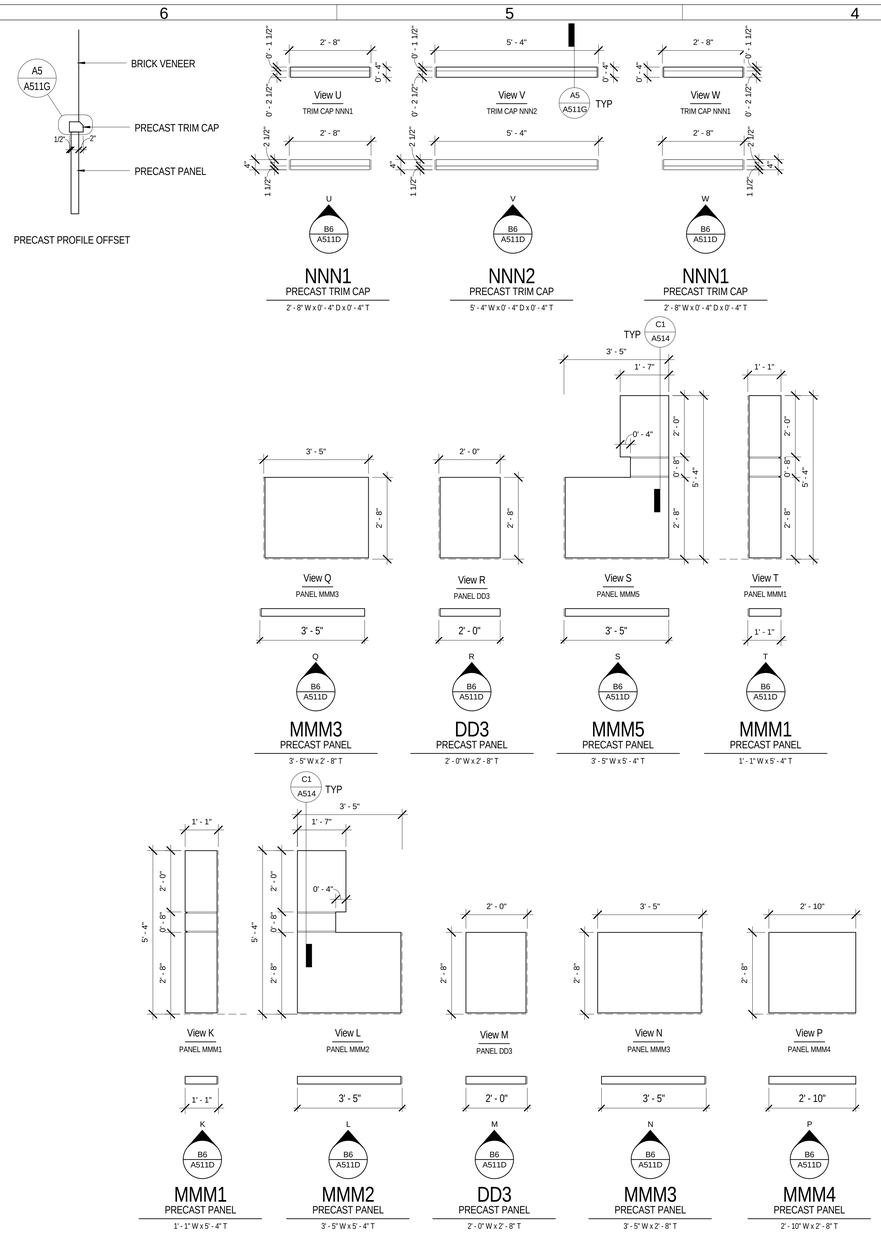
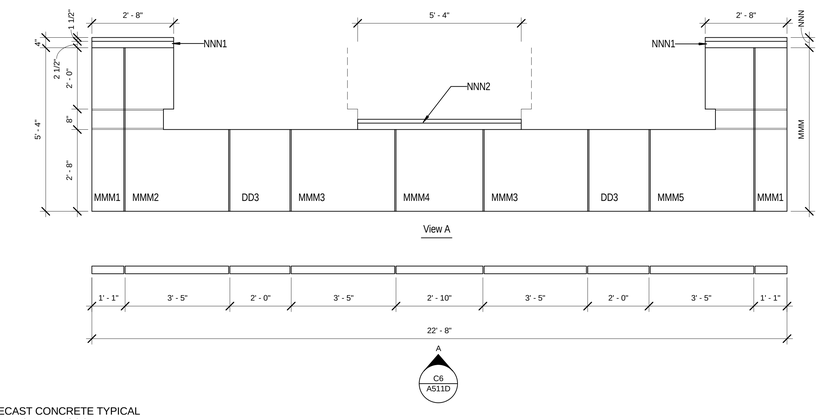
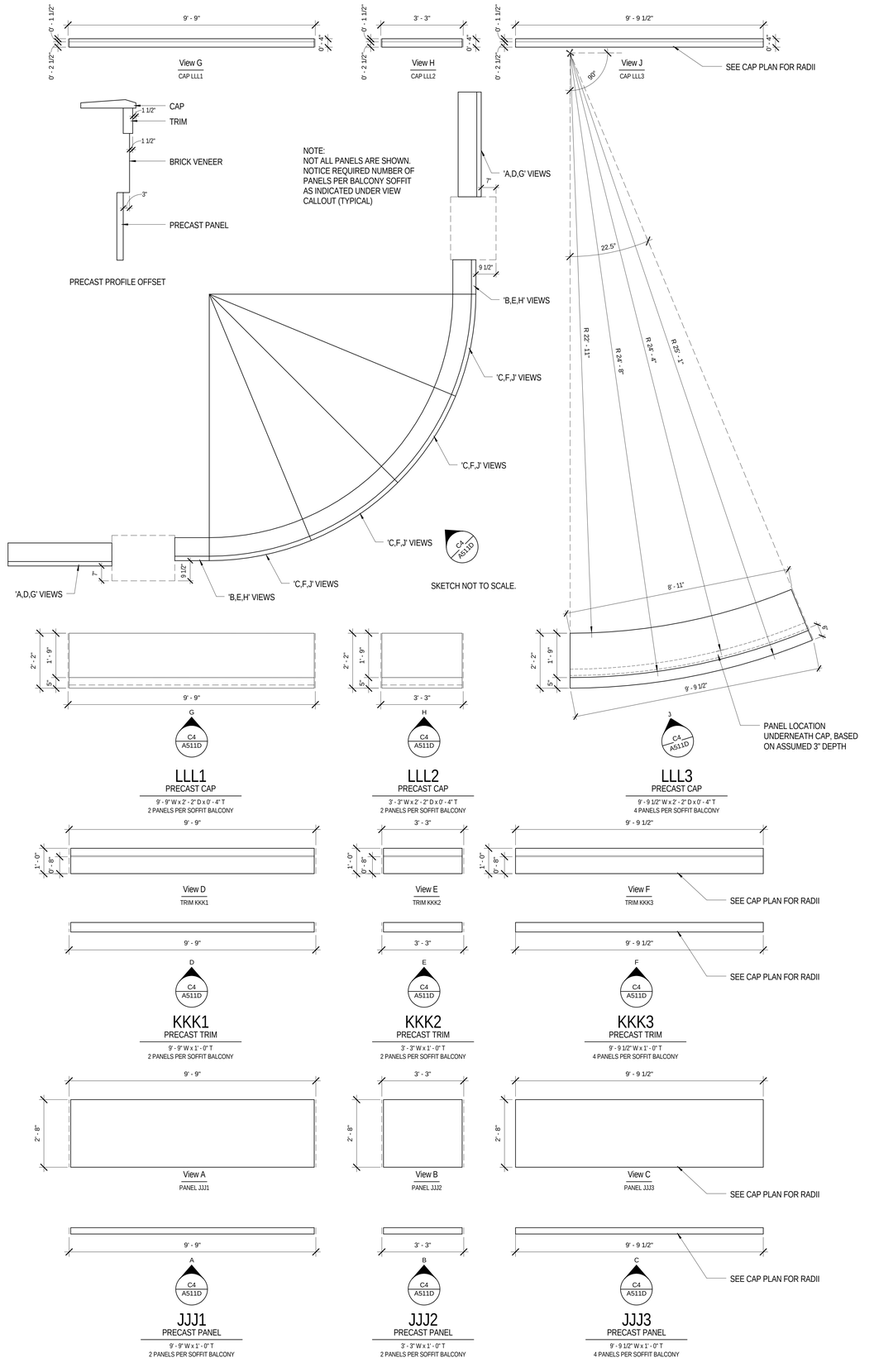


B6 PRECAST CONCRETE TYPICAL
EXTERIOR WAINSCOT- ELEVATIONS
1/2" = 1'-0"



C6 PRECAST CONCRETE TYPICAL
EXTERIOR WAINSCOT- PLAN
1/2" = 1'-0"



C4 PRECAST CONCRETE BALCONY ROOF
SOFFIT- PLAN & ELEVATIONS
1/2" = 1'-0"

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129665
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RIVERTON, UT 84062

PRECAST CONCRETE

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DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A511D
DATE: 02/15/2013	

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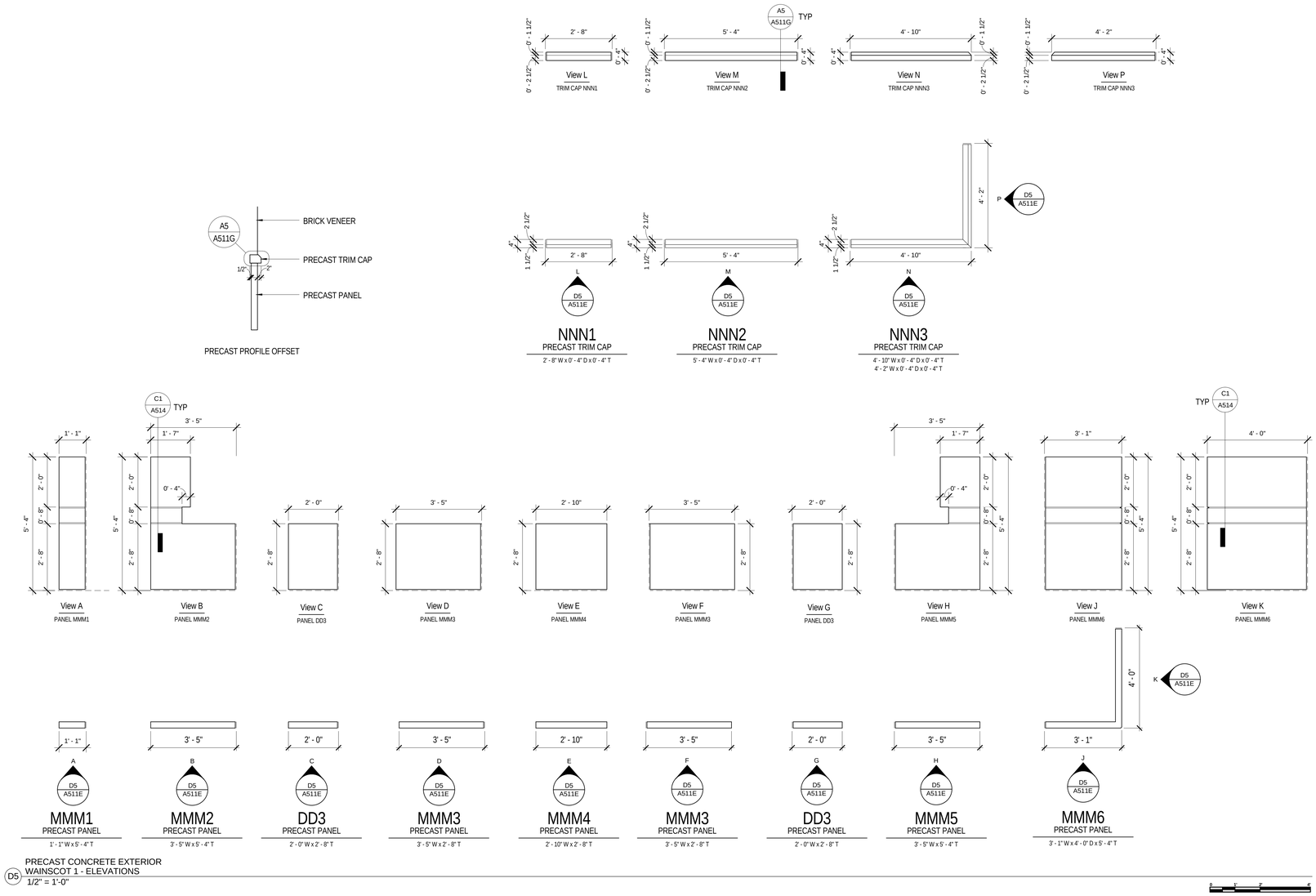
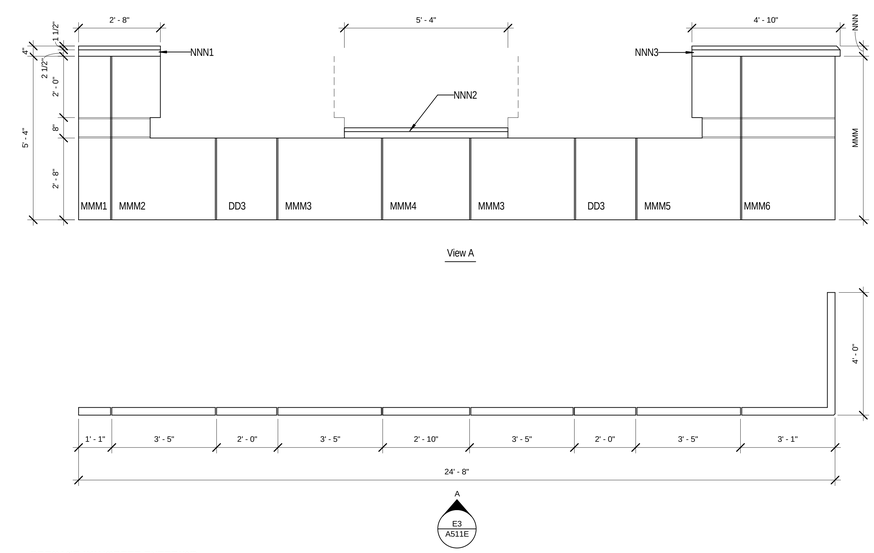


D5 PRECAST CONCRETE EXTERIOR WAINSCOT 1 - ELEVATIONS
1/2" = 1'-0"



E3 PRECAST CONCRETE EXTERIOR WAINSCOT 1 - PLAN
1/2" = 1'-0"

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265 EAST 100 SOUTH SUITE 350
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PRECAST CONCRETE

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PROJECT NO.: 11007	DRAWING NO.: A511E
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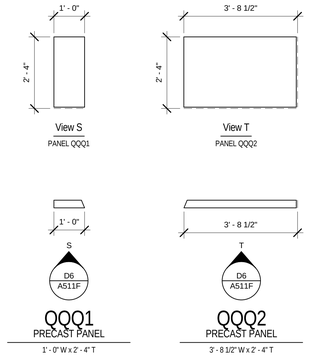
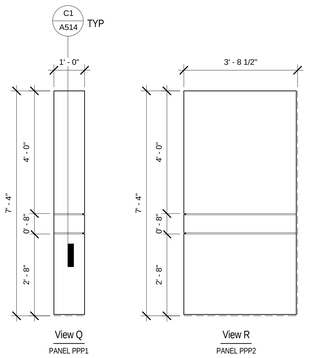
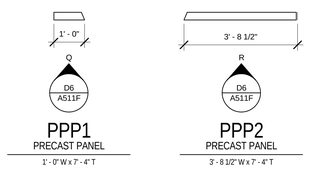
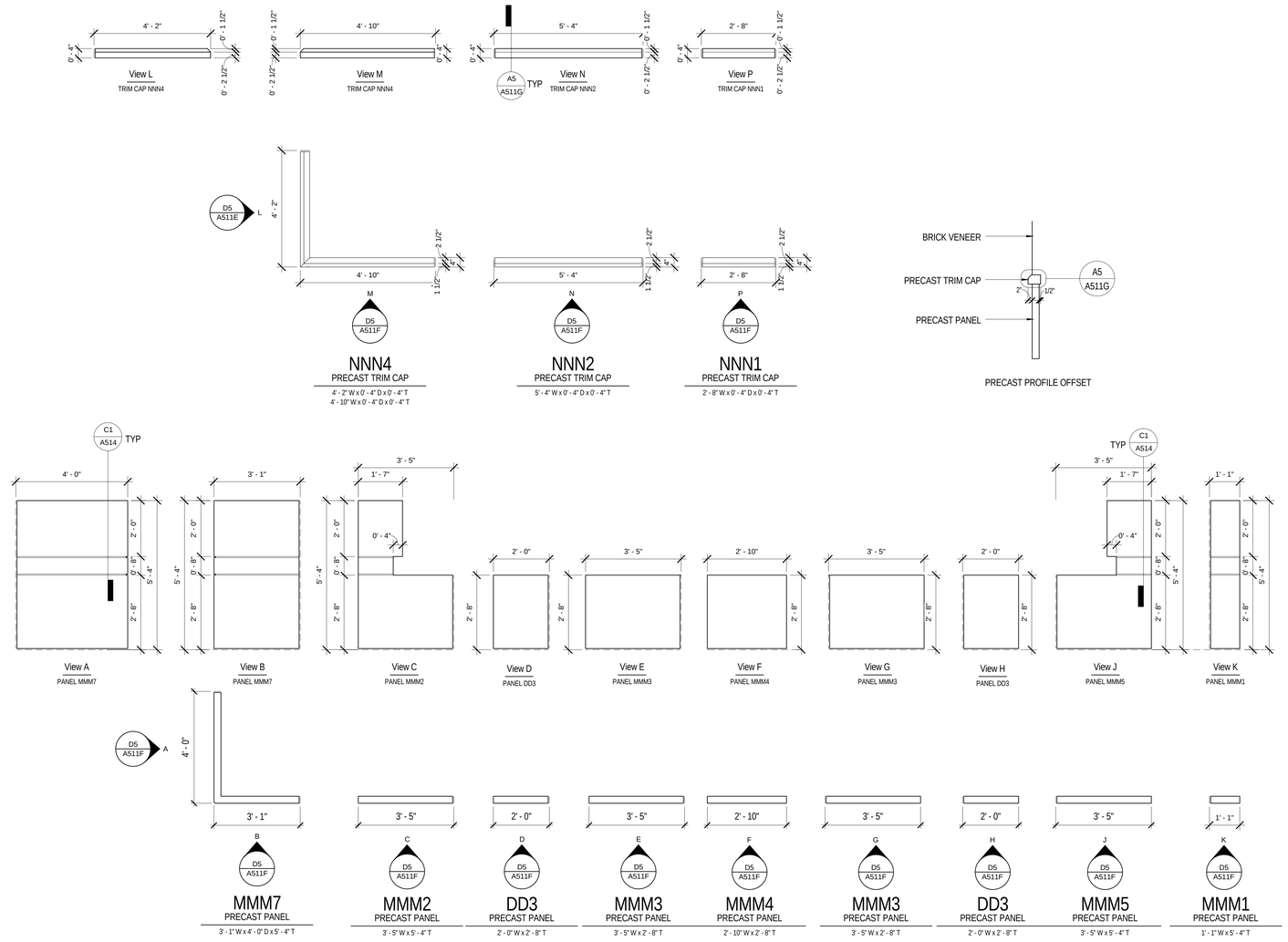


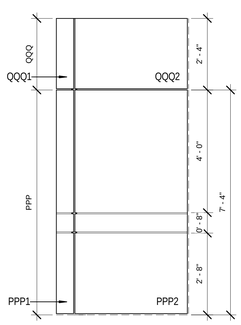


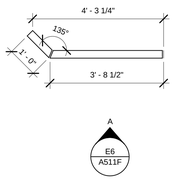


D6 PRECAST CONCRETE EXTERIOR PATIO CLADDING 2 - ELEVATIONS
1/2" = 1'-0"

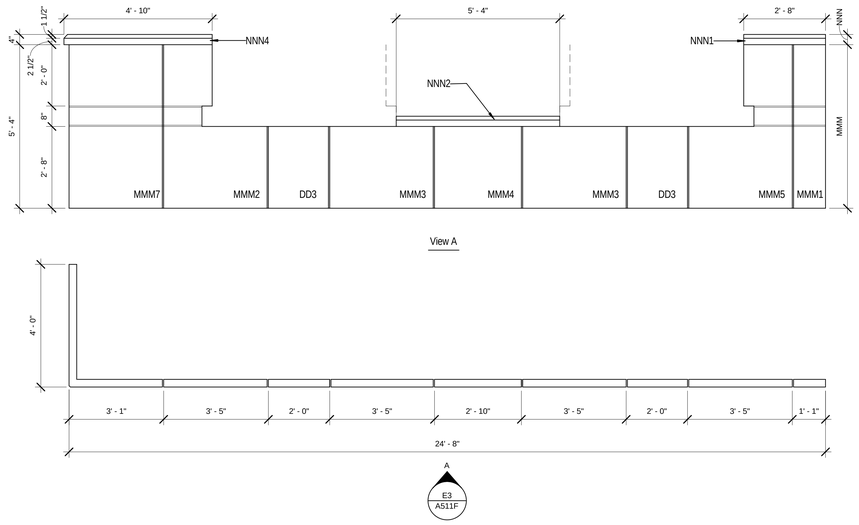


D5 PRECAST CONCRETE EXTERIOR WAINSCOT 2 - ELEVATIONS
1/2" = 1'-0"





E6 PRECAST CONCRETE EXTERIOR PATIO CLADDING 2 - PLAN
1/2" = 1'-0"



E3 PRECAST CONCRETE EXTERIOR WAINSCOT 2 - PLAN
1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
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PRECAST CONCRETE

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PROJECT NO.: 11007	DRAWING NO.: A511F
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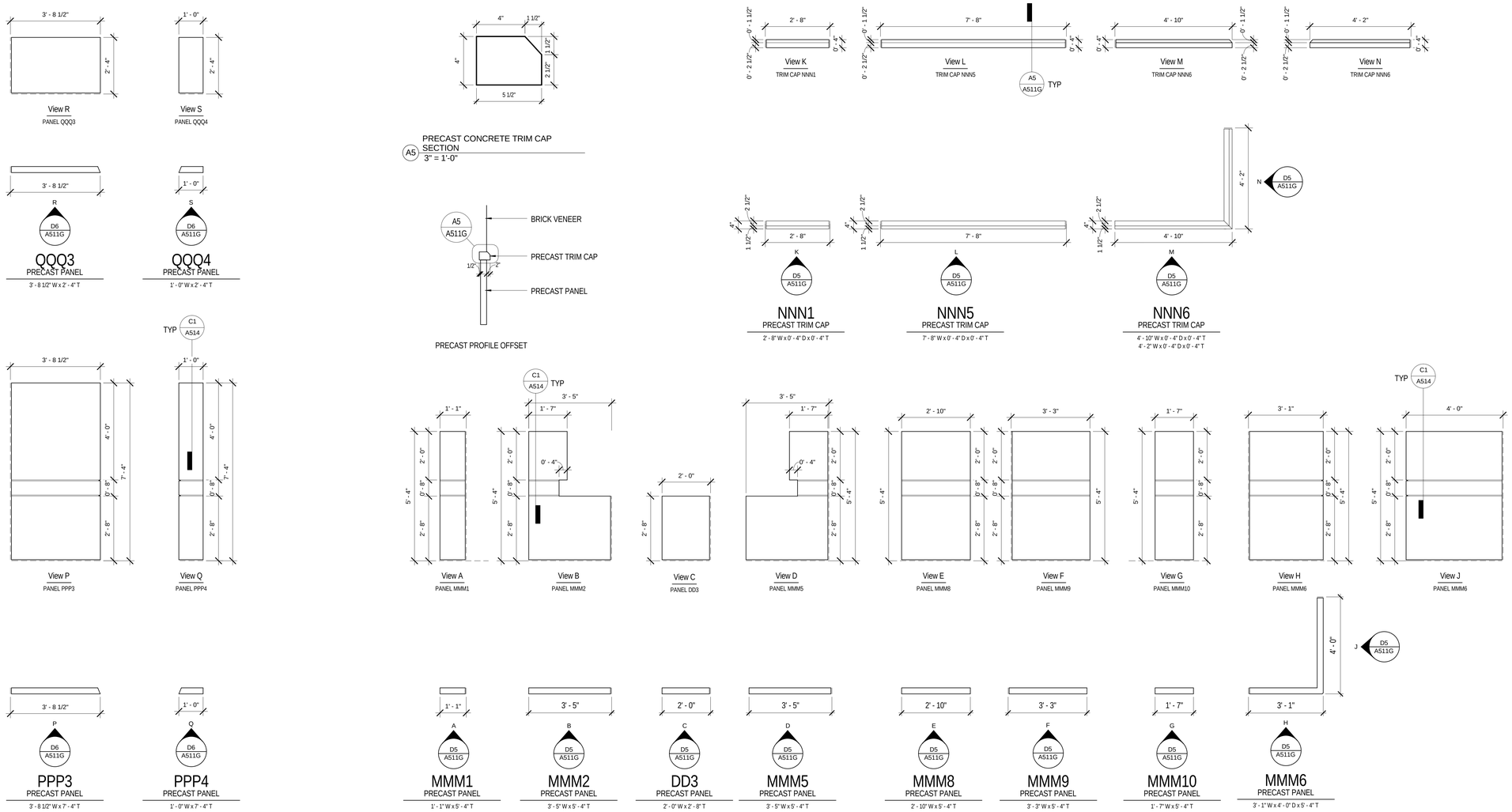
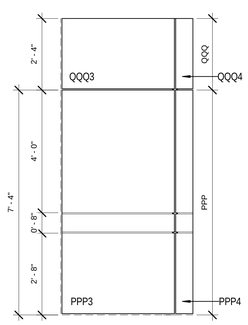
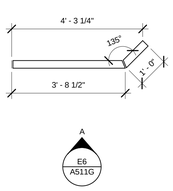


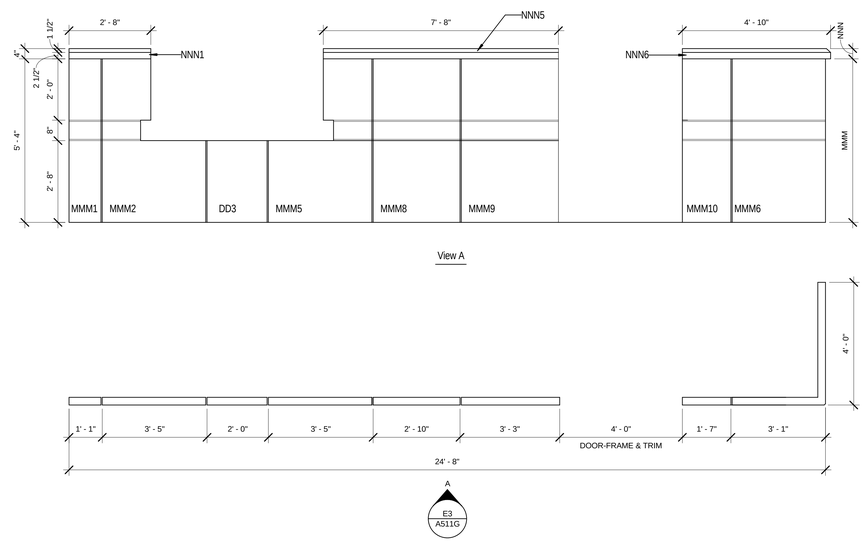
D6 PRECAST CONCRETE EXTERIOR PATIO CLADDING 1 - ELEVATIONS
1/2" = 1'-0"

D5 PRECAST CONCRETE EXTERIOR WAINSCOT 3 - ELEVATIONS
1/2" = 1'-0"





E6 PRECAST CONCRETE EXTERIOR PATIO CLADDING 1 - PLAN
1/2" = 1'-0"



E3 PRECAST CONCRETE EXTERIOR WAINSCOT 3 - PLAN
1/2" = 1'-0"

EFT ARCHITECTS
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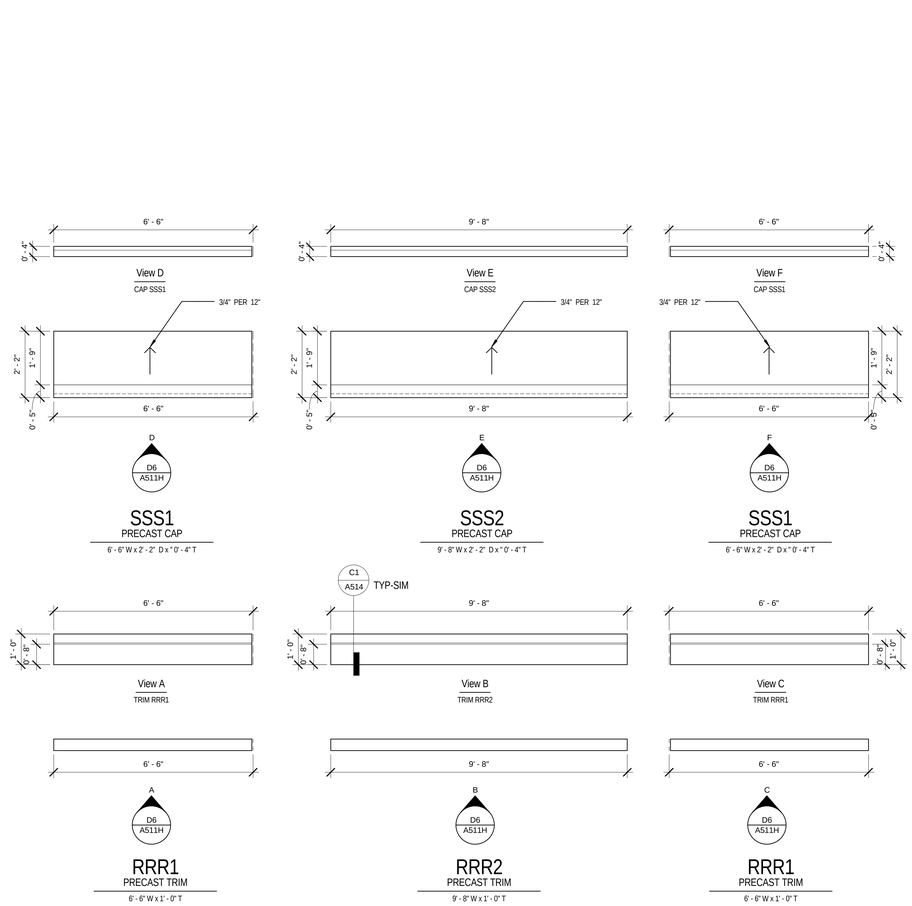
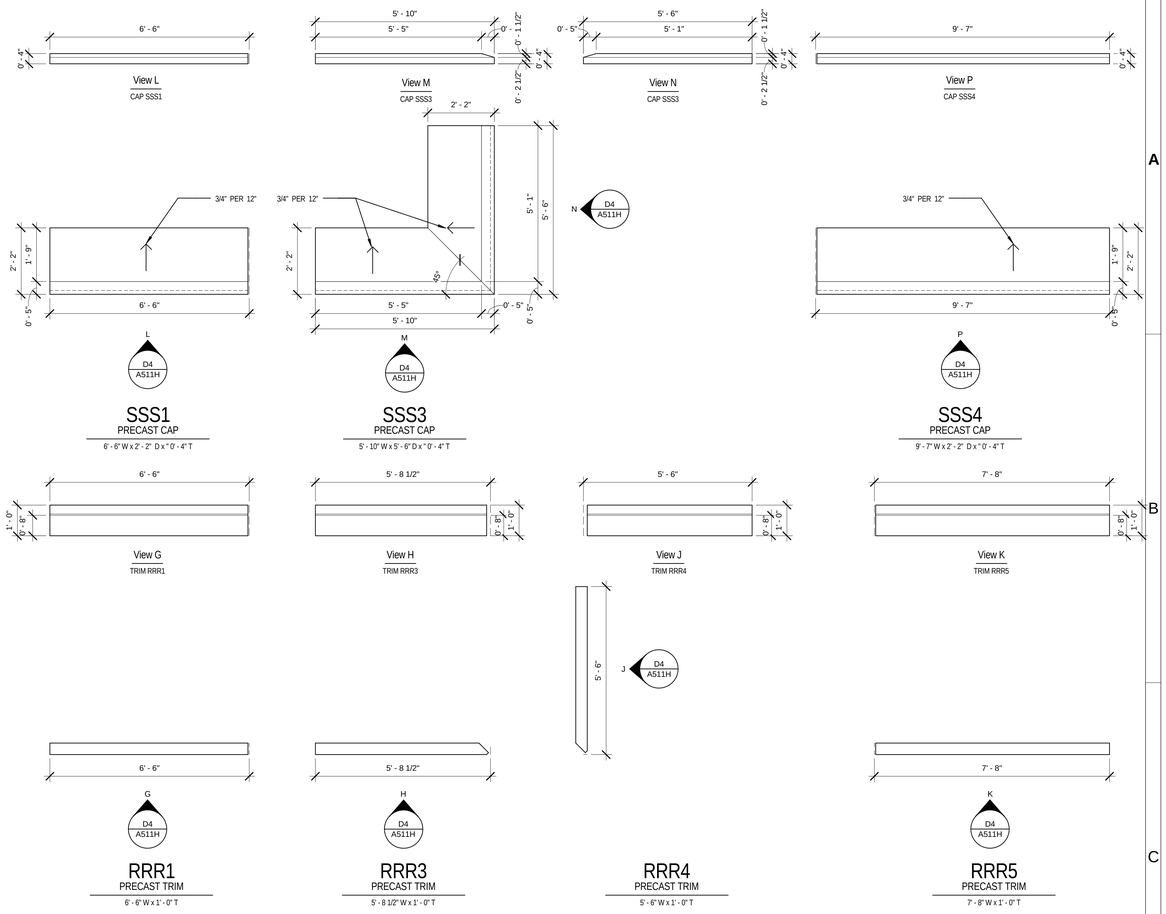
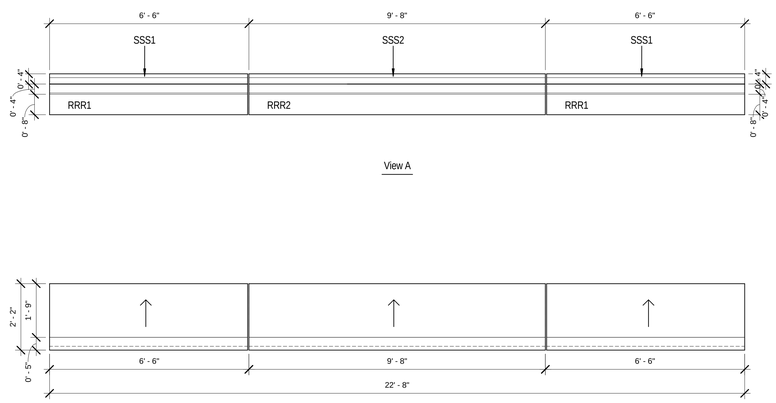


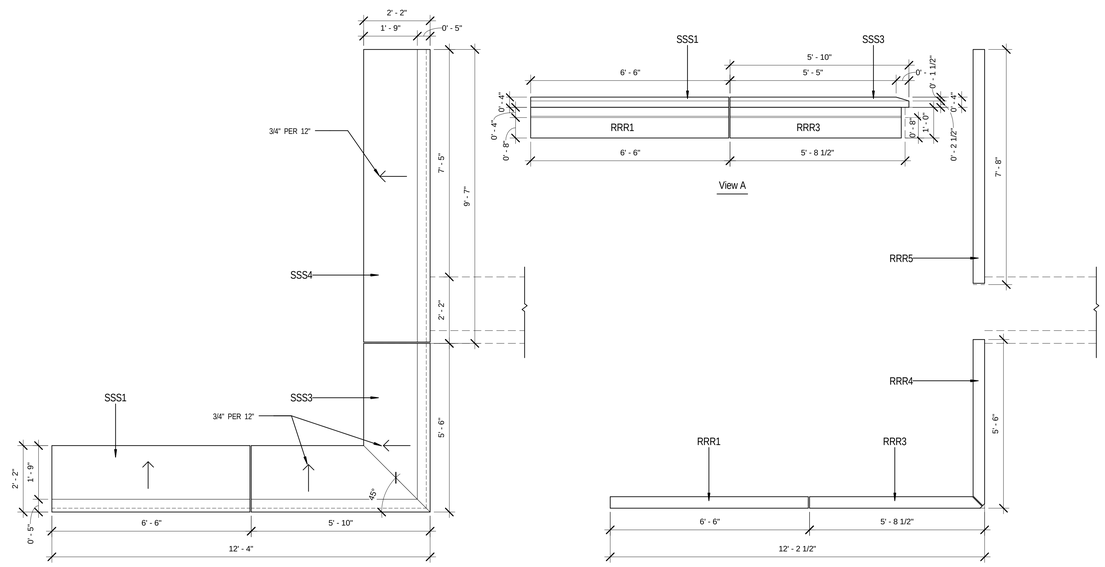
D6 PRECAST CONCRETE MAIN EAST ENTRY - ELEVATIONS
1/2" = 1'-0"



D4 PRECAST CONCRETE MAIN EAST ENTRY - ELEVATIONS
1/2" = 1'-0"



E6 PRECAST CONCRETE TYPICAL EXTERIOR TRIM AND CAP - PLANS
1/2" = 1'-0"



E4 PRECAST CONCRETE TYPICAL EXTERIOR TRIM AND CAP 1 - PLANS
1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
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801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

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6. COORDINATE WITH ARCHITECT THE FINAL COLORS OF PRECAST CONCRETE AND TRIMS- ASSUME FOR THE BID A MINIMUM OF TWO COLORS.
7. CONTRACTOR MUST INCLUDE THE CONTINUOUS SEALANT REQUIRED FOR PRECAST CONCRETE ELEMENTS AND WHEN BUTTING AGAINST OTHER MATERIALS OF THE FACADE (TYPICAL).
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UTAH NATIONAL GUARD
CAMP WILLIAMS
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QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

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DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A511H
DATE: 02/15/2013	

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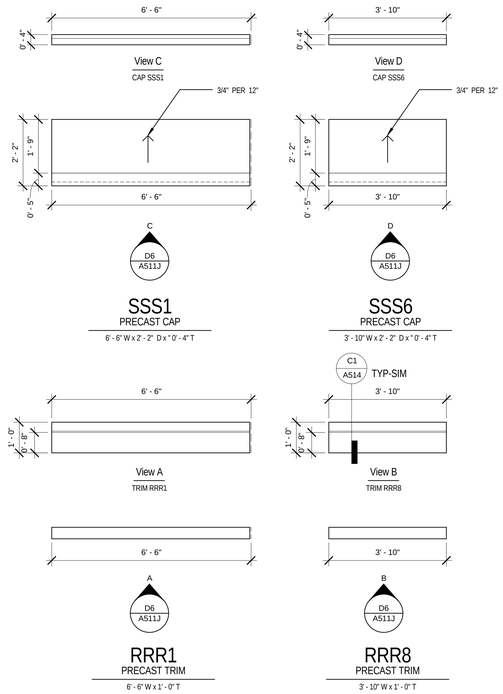
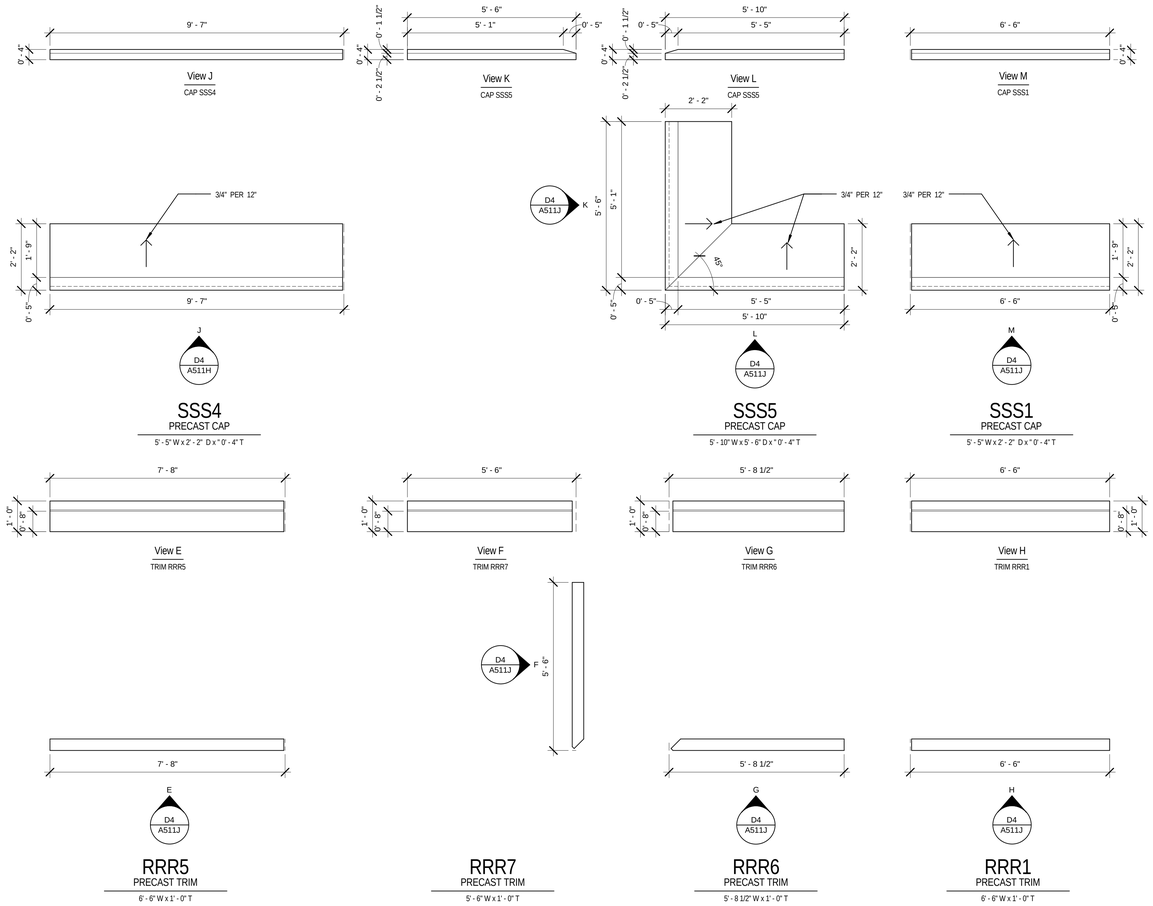
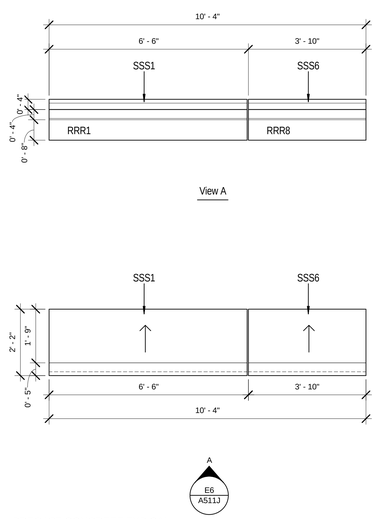


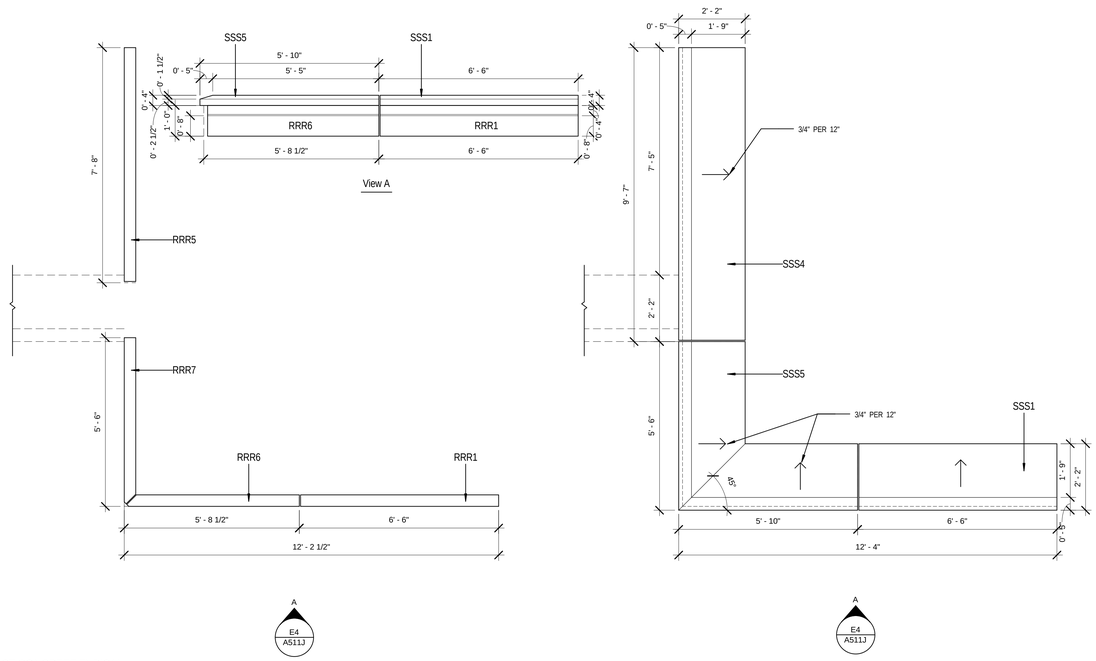
D6 PRECAST CONCRETE TYPICAL EXTERIOR TRIM AND CAP 3 - ELEVATIONS
1/2" = 1'-0"



D4 PRECAST CONCRETE MAIN EAST ENTRY - ELEVATIONS
1/2" = 1'-0"



E6 PRECAST CONCRETE TYPICAL EXTERIOR TRIM AND CAP 3 - PLANS
1/2" = 1'-0"



E4 PRECAST CONCRETE TYPICAL EXTERIOR TRIM AND CAP 2 - PLANS
1/2" = 1'-0"

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265 EAST 100 SOUTH SUITE 350
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SEAL & SIGNATURE

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129665
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GENERAL NOTES

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PRECAST CONCRETE

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A511J
DATE: 02/15/2013	

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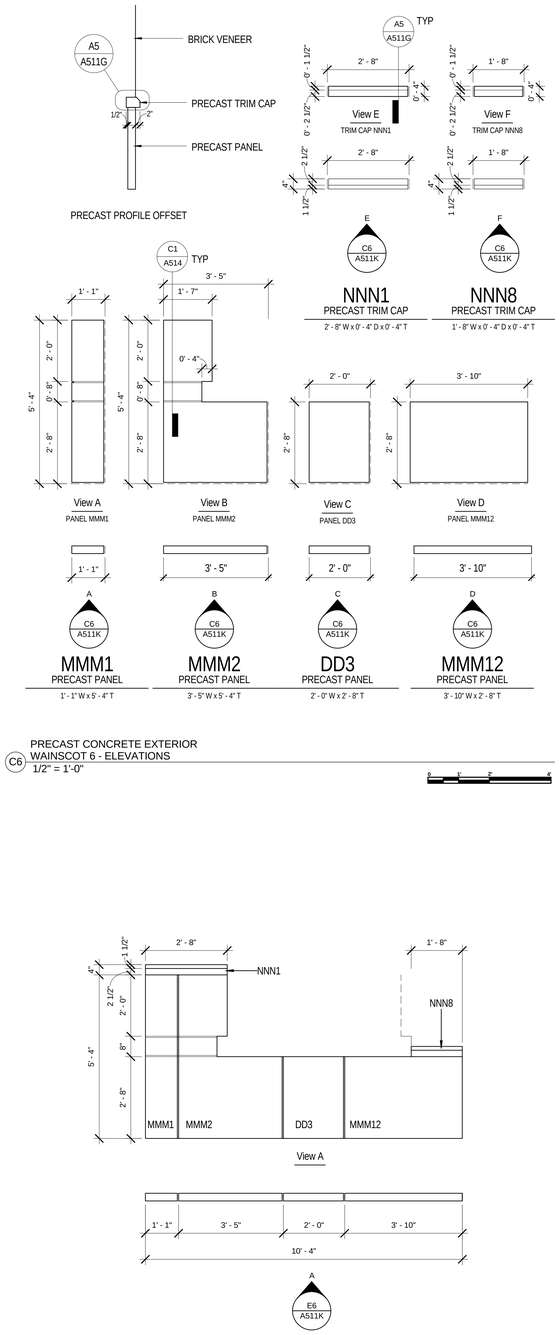
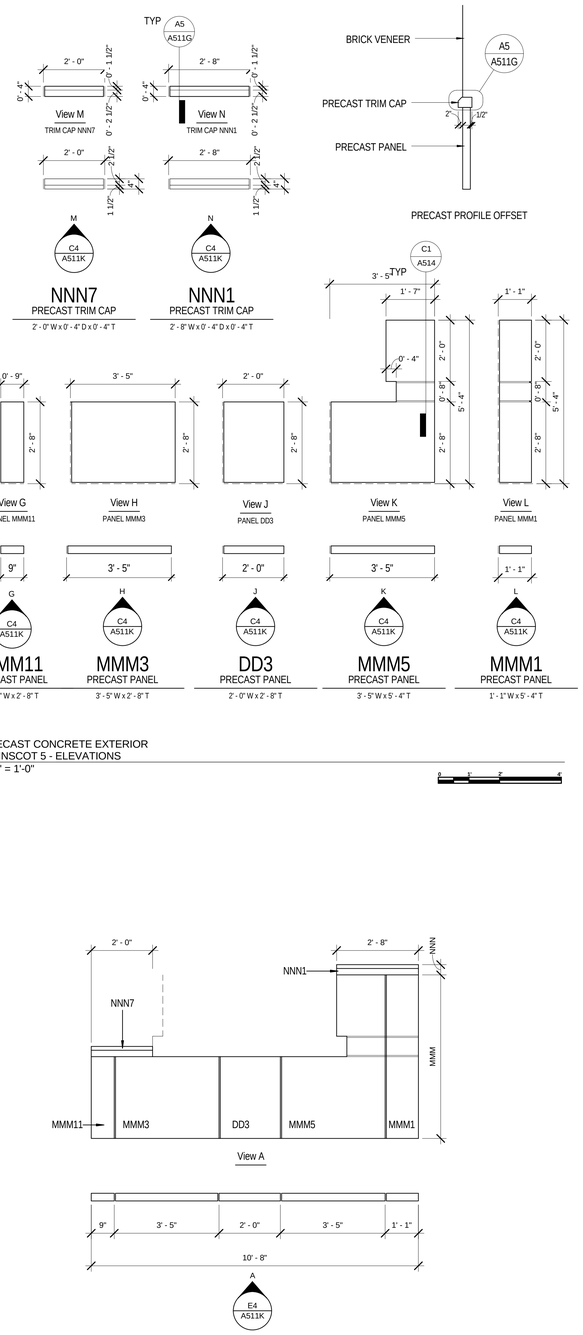
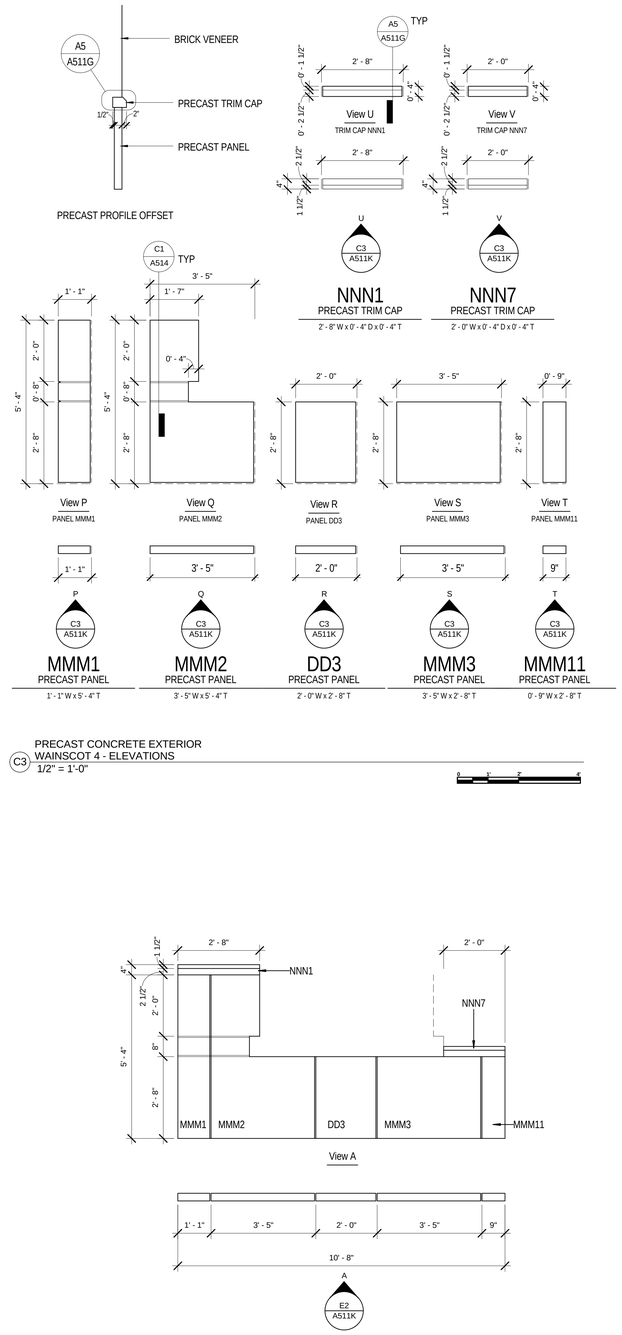


C6 PRECAST CONCRETE EXTERIOR WAINSCOT 6 - ELEVATIONS
1/2" = 1'-0"



C4 PRECAST CONCRETE EXTERIOR WAINSCOT 5 - ELEVATIONS
1/2" = 1'-0"



C3 PRECAST CONCRETE EXTERIOR WAINSCOT 4 - ELEVATIONS
1/2" = 1'-0"

E6 PRECAST CONCRETE EXTERIOR WAINSCOT 6 - PLAN
1/2" = 1'-0"

E4 PRECAST CONCRETE EXTERIOR WAINSCOT 5 - PLAN
1/2" = 1'-0"

E2 PRECAST CONCRETE EXTERIOR WAINSCOT 4 - PLAN
1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
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129665
LICENSED ARCHITECT

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PRECAST CONCRETE

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DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A511K
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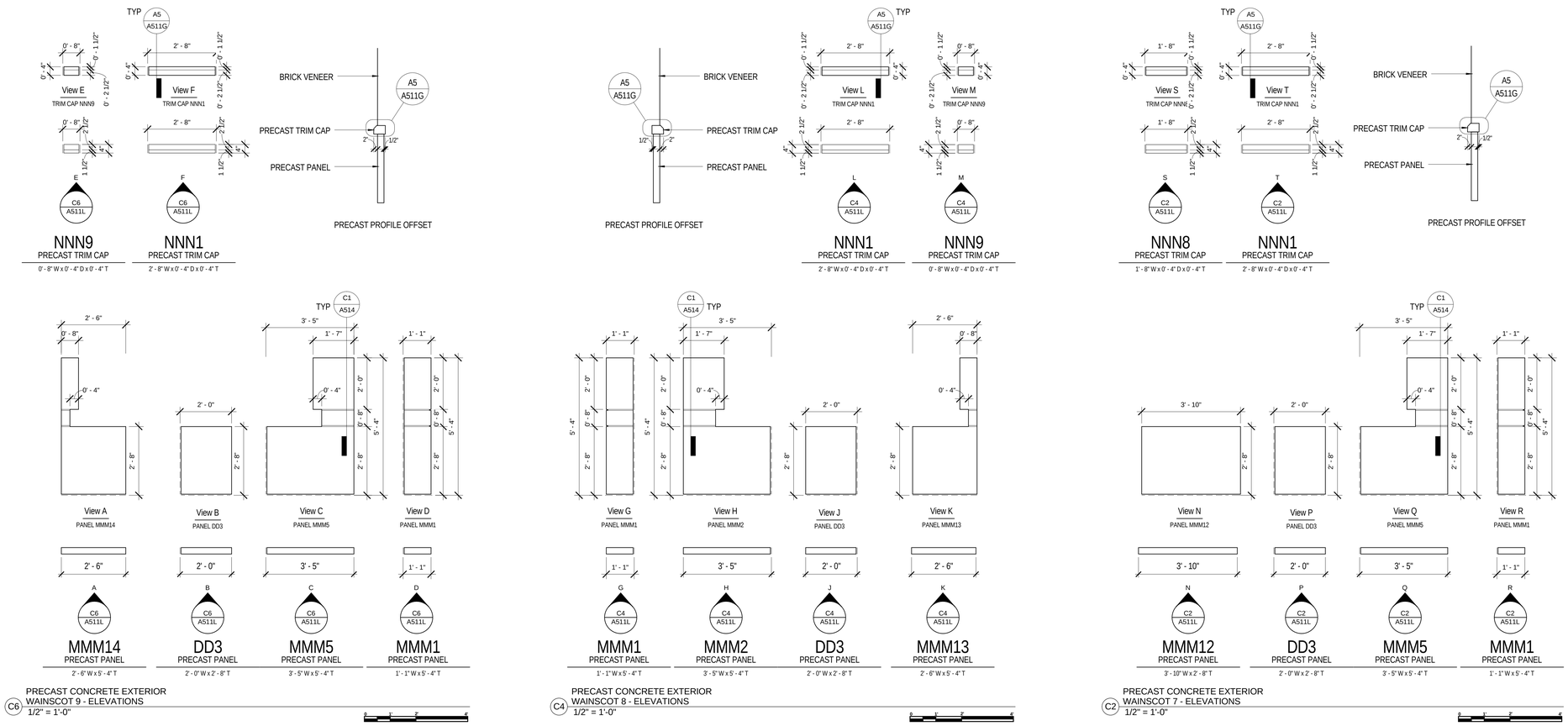
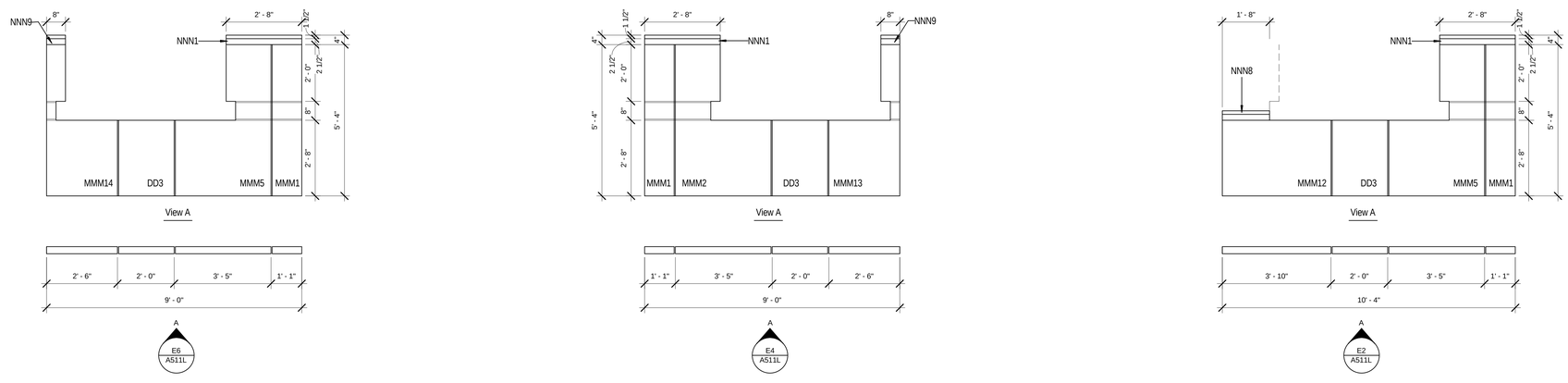


C6 PRECAST CONCRETE EXTERIOR WAINSCOT 9 - ELEVATIONS
1/2" = 1'-0"

C4 PRECAST CONCRETE EXTERIOR WAINSCOT 8 - ELEVATIONS
1/2" = 1'-0"

C2 PRECAST CONCRETE EXTERIOR WAINSCOT 7 - ELEVATIONS
1/2" = 1'-0"



E6 PRECAST CONCRETE EXTERIOR WAINSCOT 9 - PLAN
1/2" = 1'-0"

E4 PRECAST CONCRETE EXTERIOR WAINSCOT 8 - PLAN
1/2" = 1'-0"

E2 PRECAST CONCRETE EXTERIOR WAINSCOT 7 - PLAN
1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

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PRECAST CONCRETE

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007	DRAWING NO.: A511L
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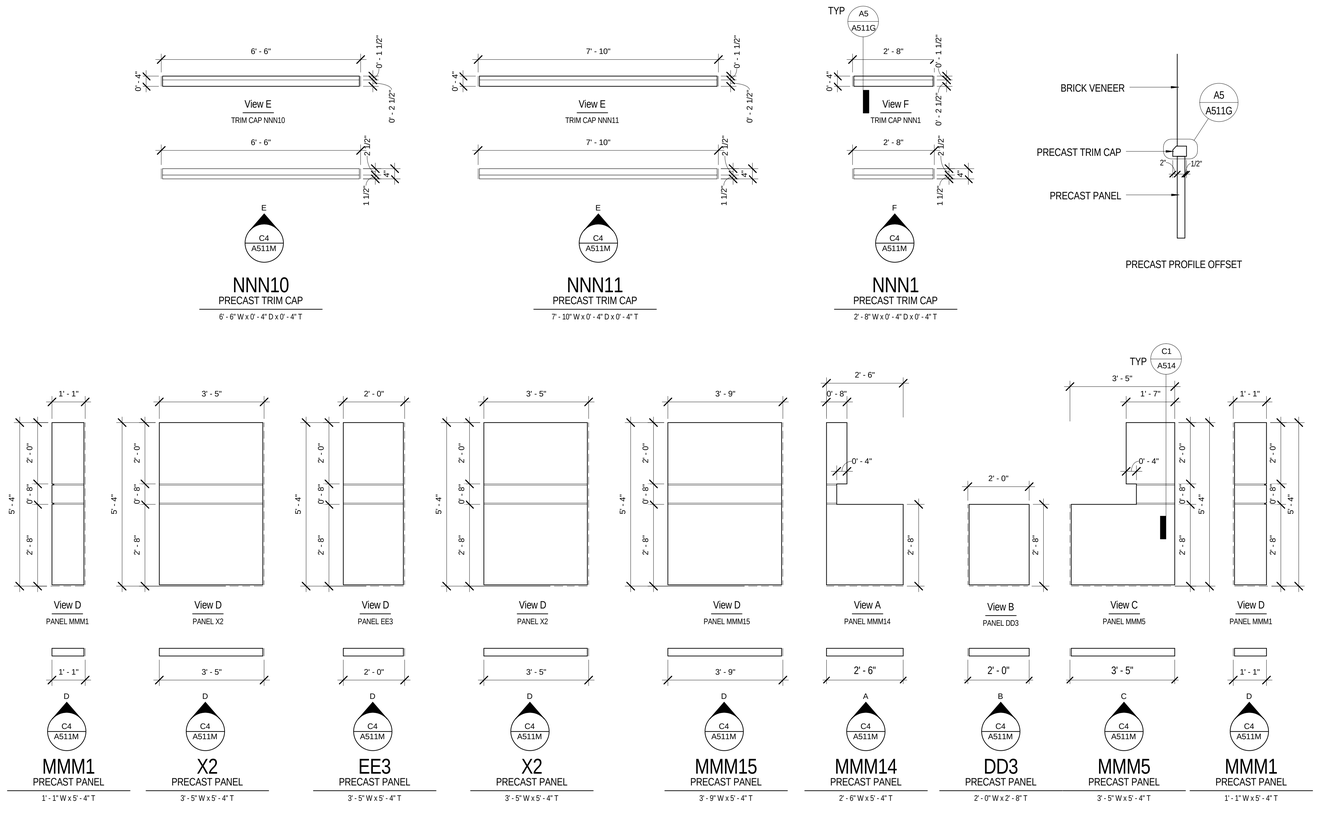
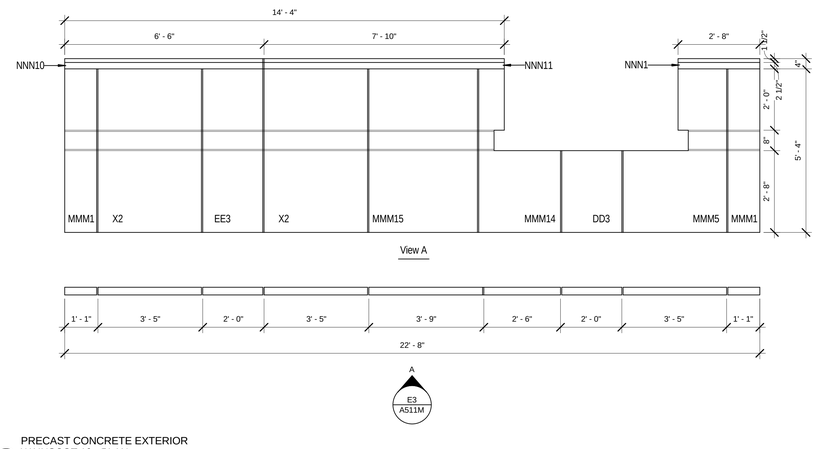


C4 PRECAST CONCRETE EXTERIOR WAINSCOT 10 - ELEVATIONS
1/2" = 1'-0"



E3 PRECAST CONCRETE EXTERIOR WAINSCOT 10 - PLAN
1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
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RIVERTON, UT 84062

PRECAST CONCRETE

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DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A511M
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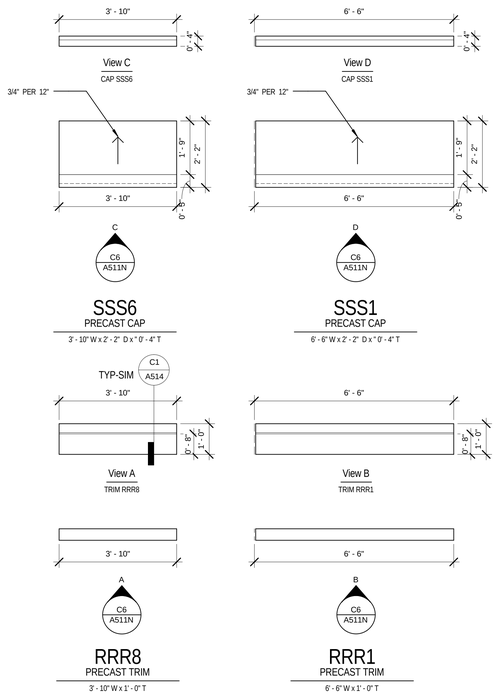
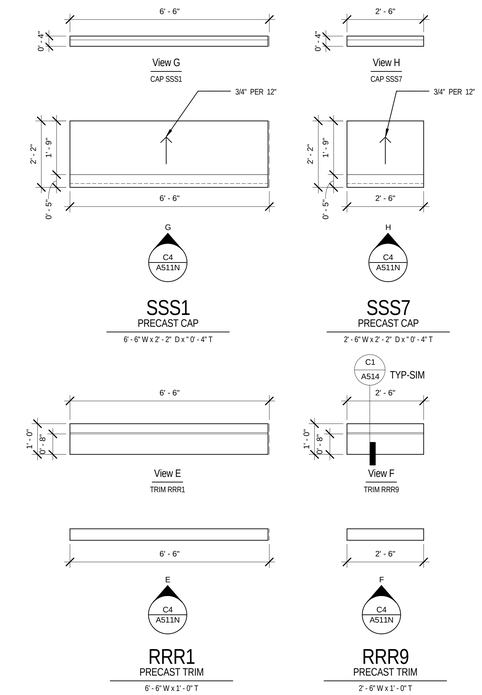
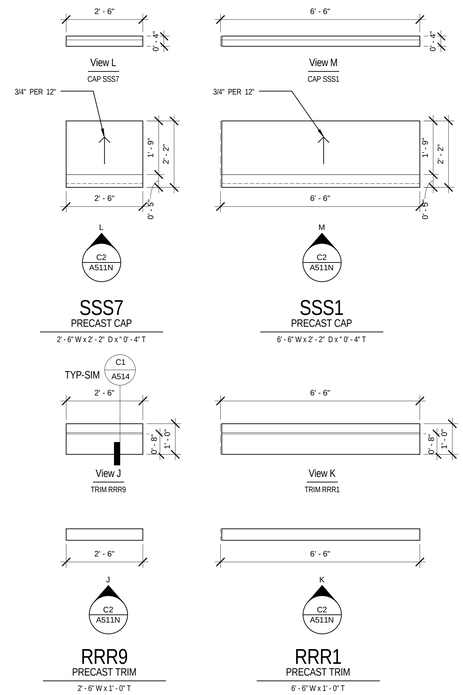
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



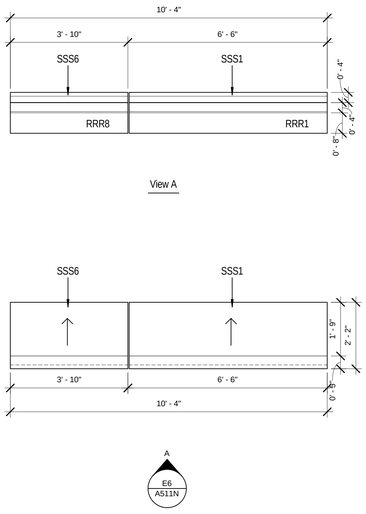
C6 PRECAST CONCRETE TYPICAL EXTERIOR TRIM AND CAP 4 - ELEVATIONS
1/2" = 1'-0"



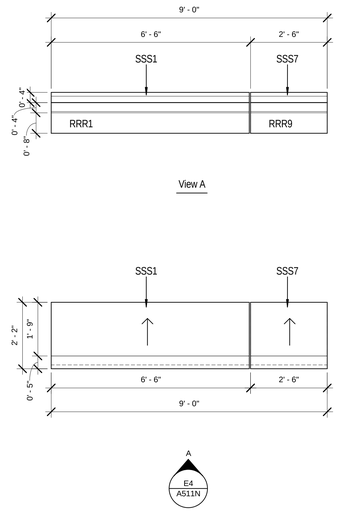
C4 PRECAST CONCRETE TYPICAL EXTERIOR TRIM AND CAP 5 - ELEVATIONS
1/2" = 1'-0"



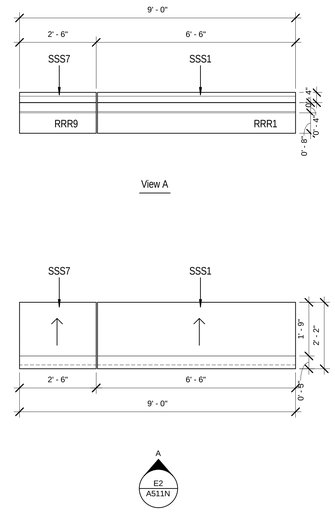
C2 PRECAST CONCRETE TYPICAL EXTERIOR TRIM AND CAP 6 - ELEVATIONS
1/2" = 1'-0"



E6 PRECAST CONCRETE TYPICAL EXTERIOR TRIM AND CAP 4 - PLANS
1/2" = 1'-0"



E4 PRECAST CONCRETE TYPICAL EXTERIOR TRIM AND CAP 5 - PLANS
1/2" = 1'-0"



E2 PRECAST CONCRETE TYPICAL EXTERIOR TRIM AND CAP 6 - PLANS
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EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
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PRECAST CONCRETE

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PROJECT NO.: 11007	DRAWING NO.: A511N
DATE: 02/15/2013	

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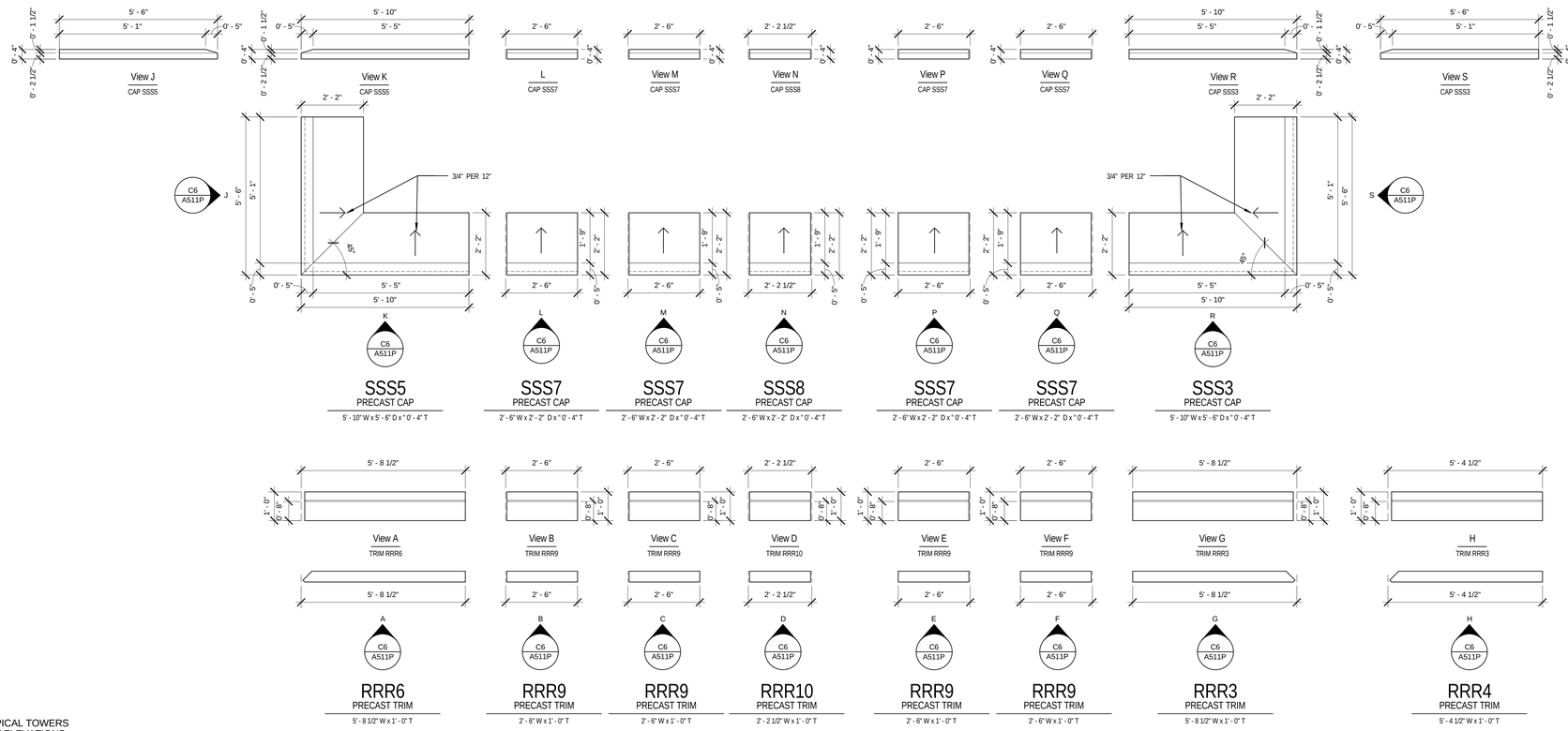
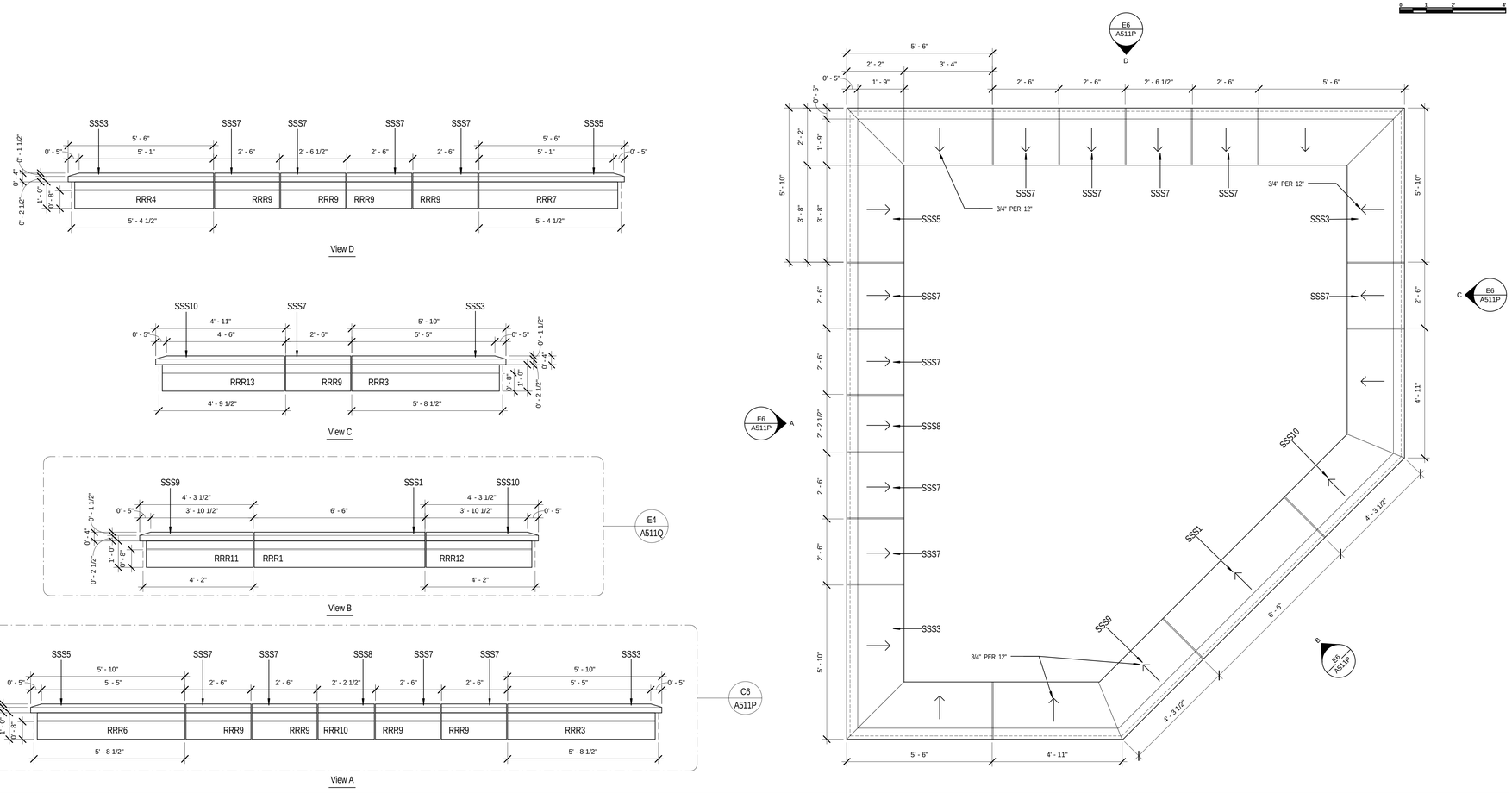


C6 PRECAST CONCRETE TYPICAL TOWERS TRIM AND CAP 1 - 'A' VIEW ELEVATIONS
1/2" = 1'-0"



E6 PRECAST CONCRETE TYPICAL TOWERS TRIM AND CAP 1 - PLANS
1/2" = 1'-0"

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SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

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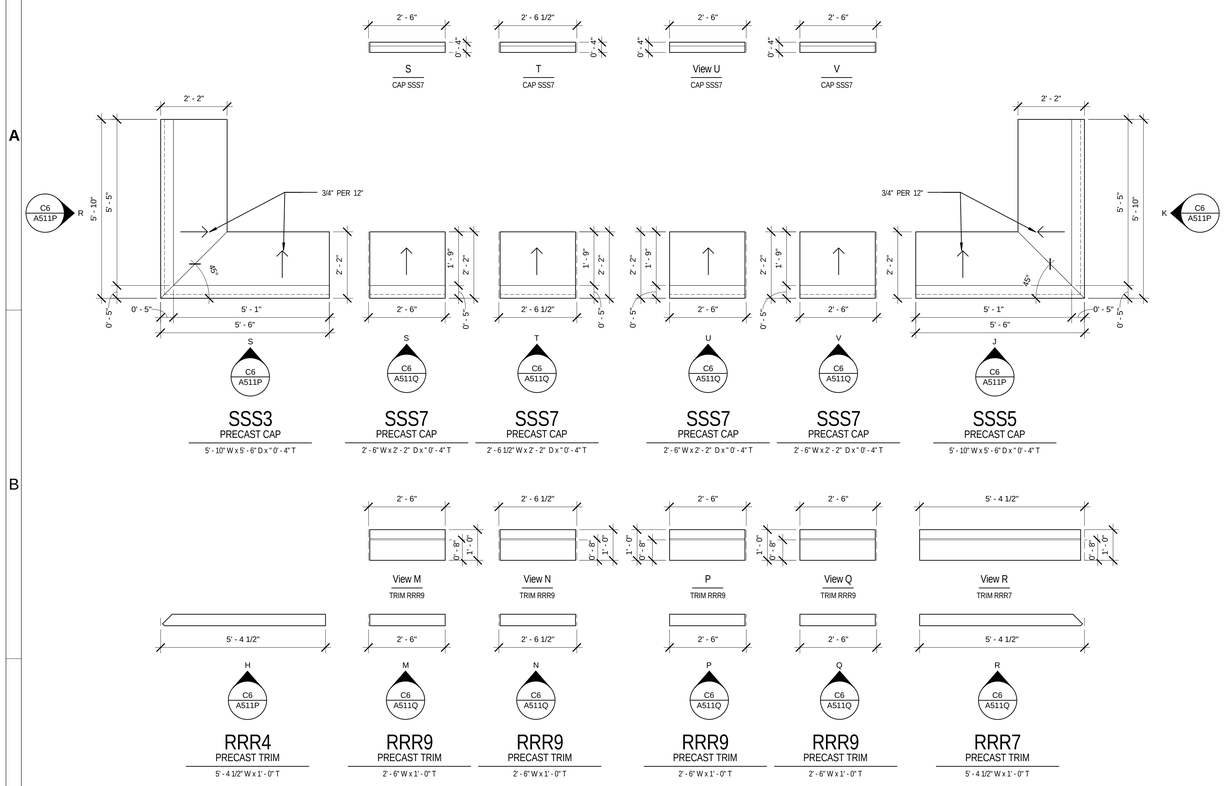
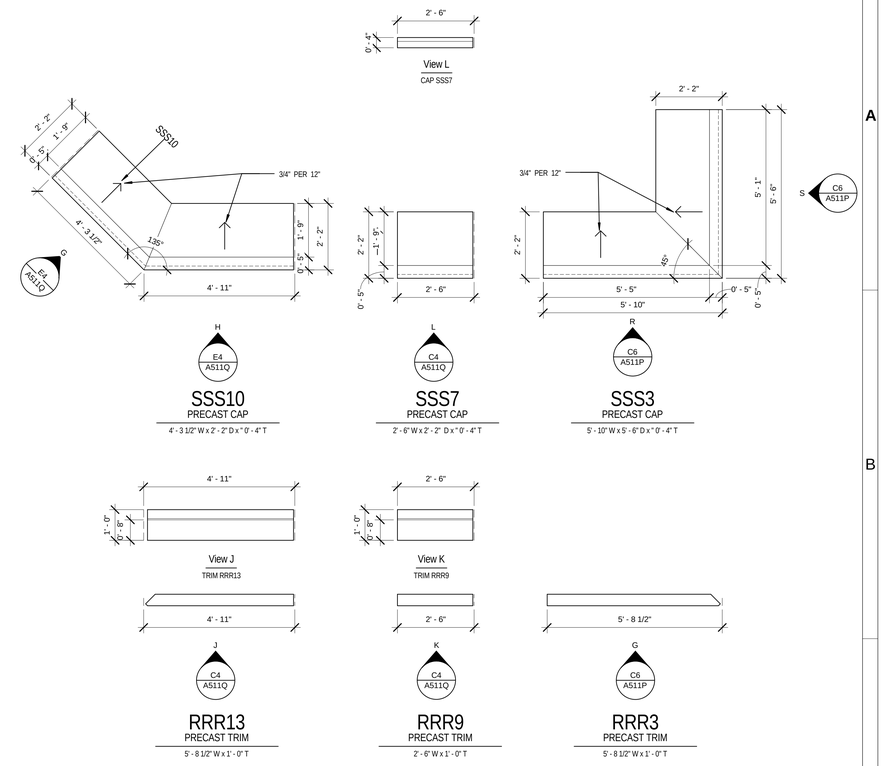
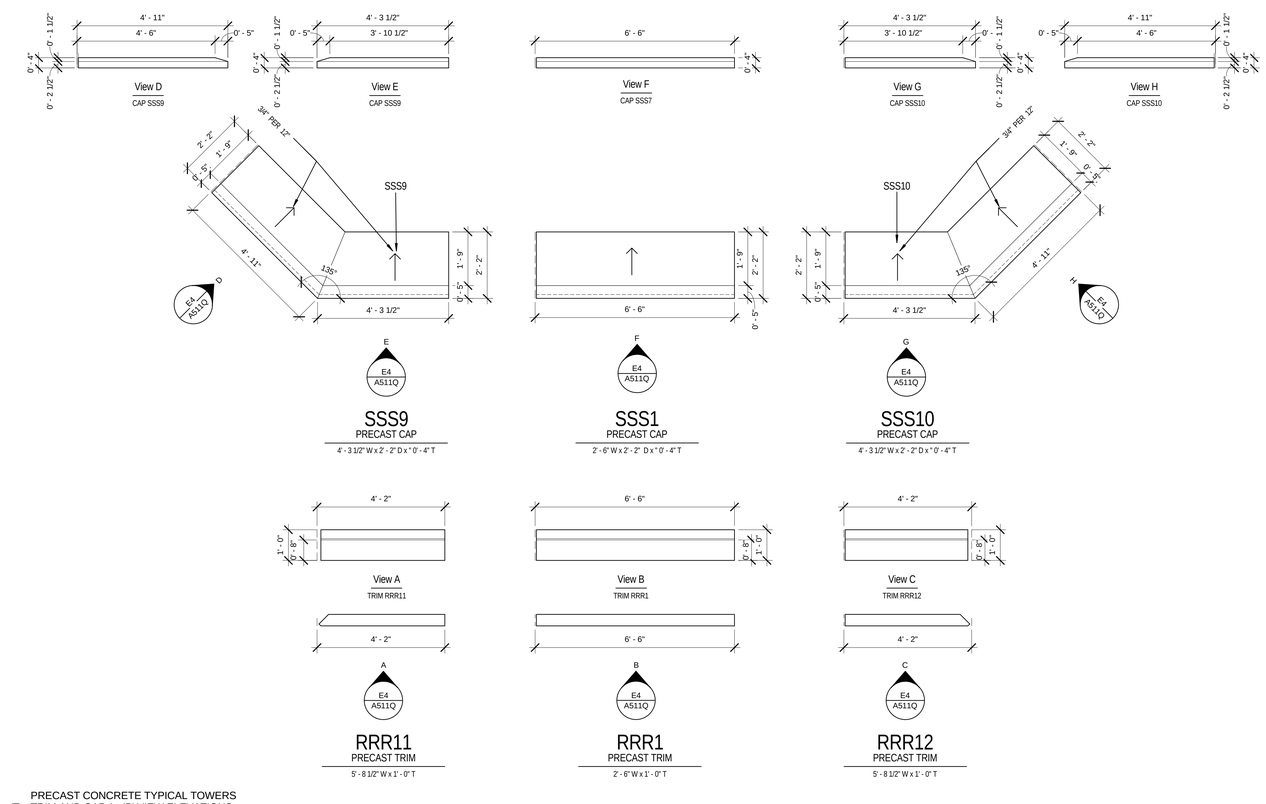


C6 PRECAST CONCRETE TYPICAL TOWERS
TRIM AND CAP 1 - 'D' VIEW ELEVATIONS
1/2" = 1'-0"



C4 PRECAST CONCRETE TYPICAL TOWERS
TRIM AND CAP 1 - 'C' VIEW ELEVATIONS
1/2" = 1'-0"



E4 PRECAST CONCRETE TYPICAL TOWERS
TRIM AND CAP 1 - 'B' VIEW ELEVATIONS
1/2" = 1'-0"

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SEAL & SIGNATURE

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PRECAST CONCRETE

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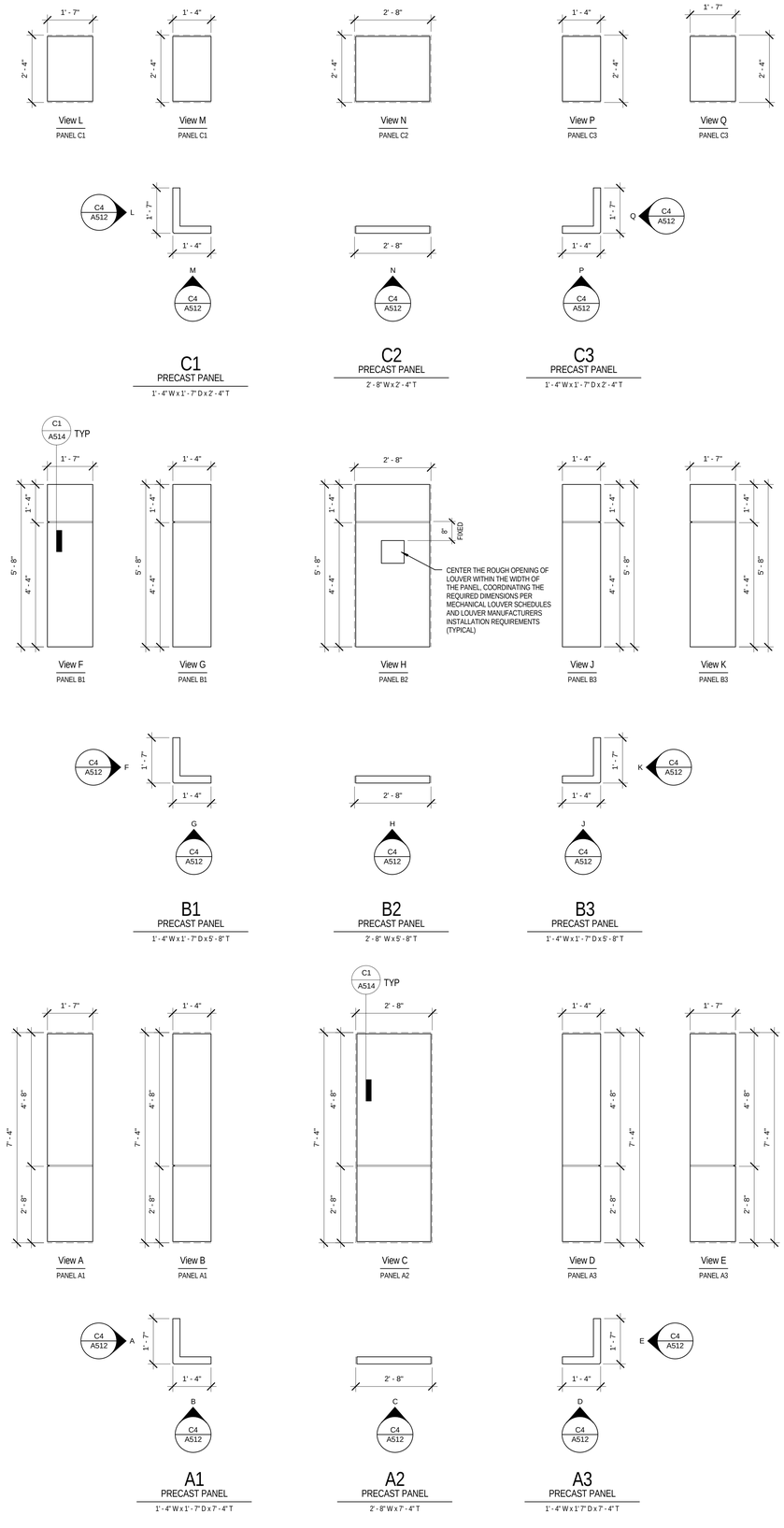
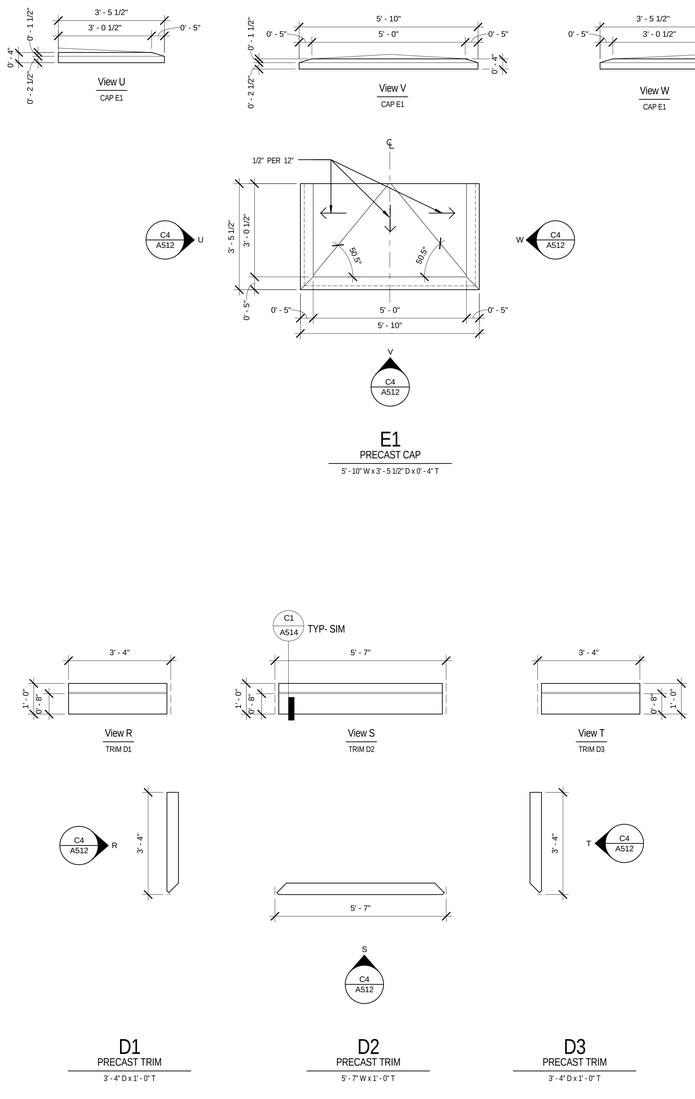
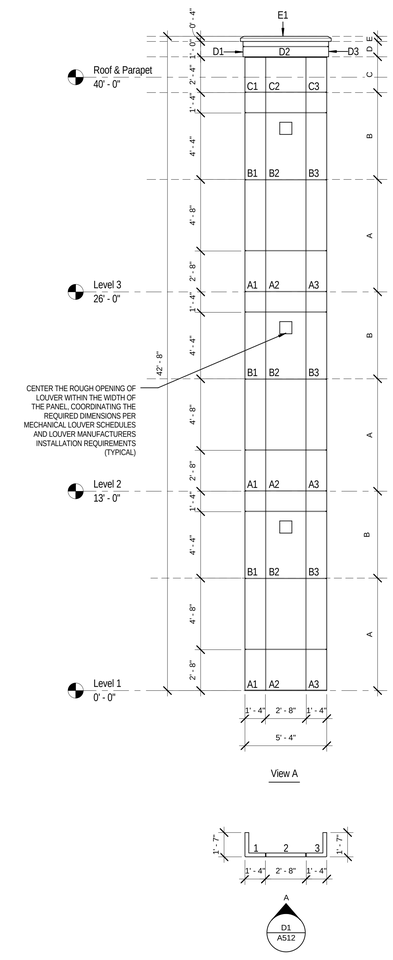


C4 PRECAST ENGAGED COLUMN - ELEVATIONS

SCALE: 1/2" = 1'-0"





D1 PRECAST ENGAGED COLUMN

SCALE: 1/4" = 1'-0"

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PRECAST CONCRETE

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PROJECT NO.: 11007	DRAWING NO.: A512
DATE: 02/15/2013	

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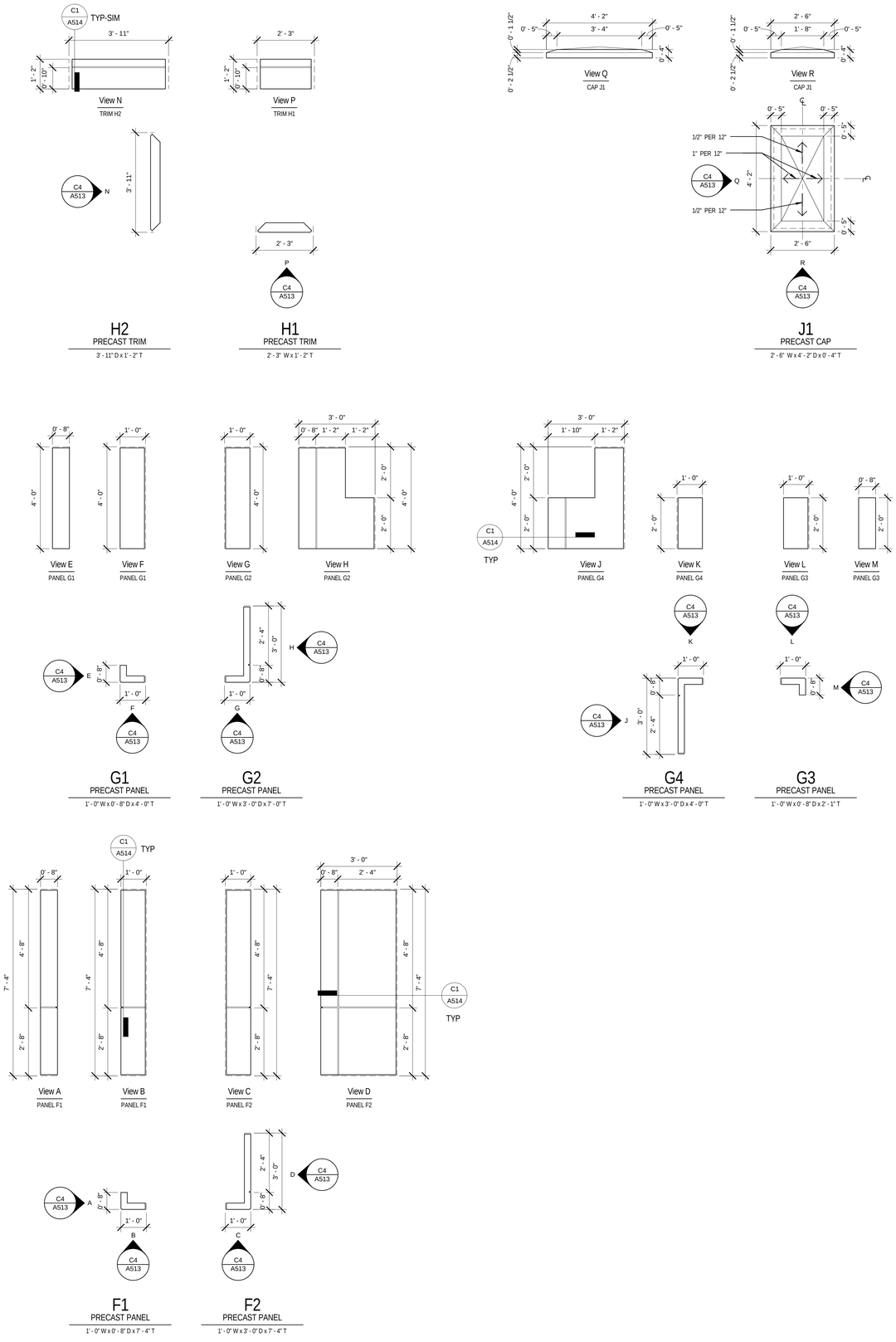
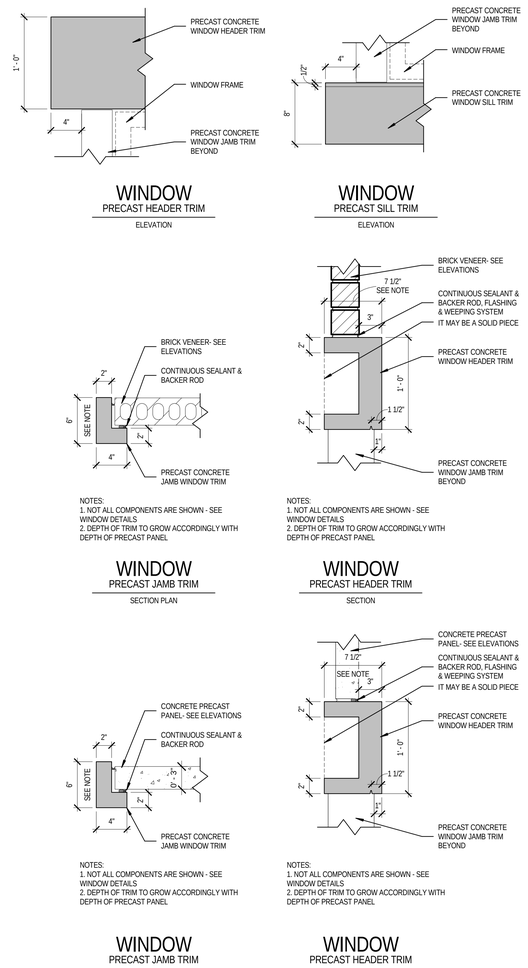
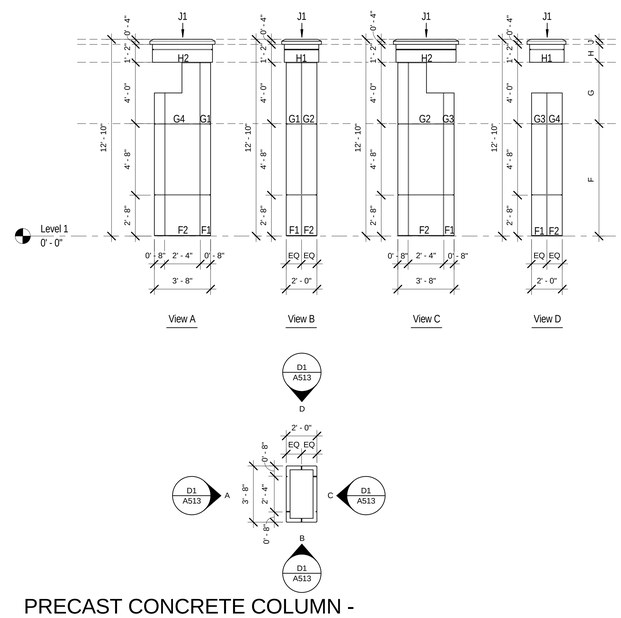


PRECAST CONCRETE COLUMN - WEST ENTRIES - ELEVATIONS

C4 SCALE: 1/2" = 1'-0"



C1 PRECAST CONCRETE TRIMS TYPICAL SETUP TO OTHER FACADE MATERIALS
1 1/2" = 1'-0"



PRECAST CONCRETE COLUMN - WEST ENTRIES

D1 SCALE: 1/4" = 1'-0"

NOTES FOR EXTERIOR DOOR PRECAST CONCRETE TRIMS:

1. THESE SAME DETAILS APPLY FOR EXTERIOR DOORS WITH TRIMS, EXCEPT SILL DETAILS (TYPICAL)
2. CONTRACTOR IS TO INCREASE THE DEPTH OF THE TRIM BASE ON THE ENGINEERED PRECAST PANEL DEPTH (TYPICAL)

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PRECAST CONCRETE

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DRAWING NO.: A513
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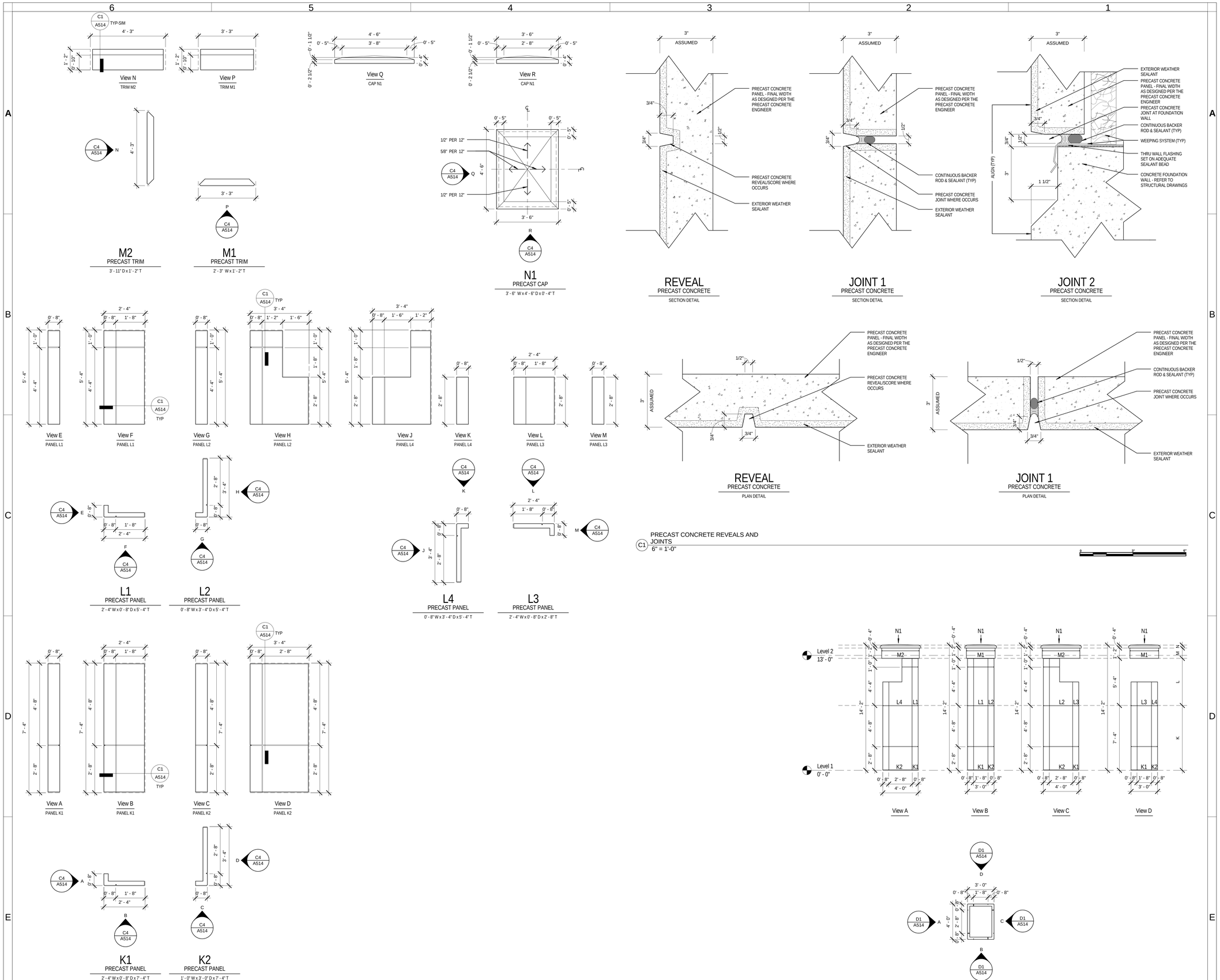

PRECAST CONCRETE REVEALS AND JOINTS
6" = 1'-0"

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PRECAST CONCRETE

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DATE: 02/15/2013
DRAWING NO.: A514

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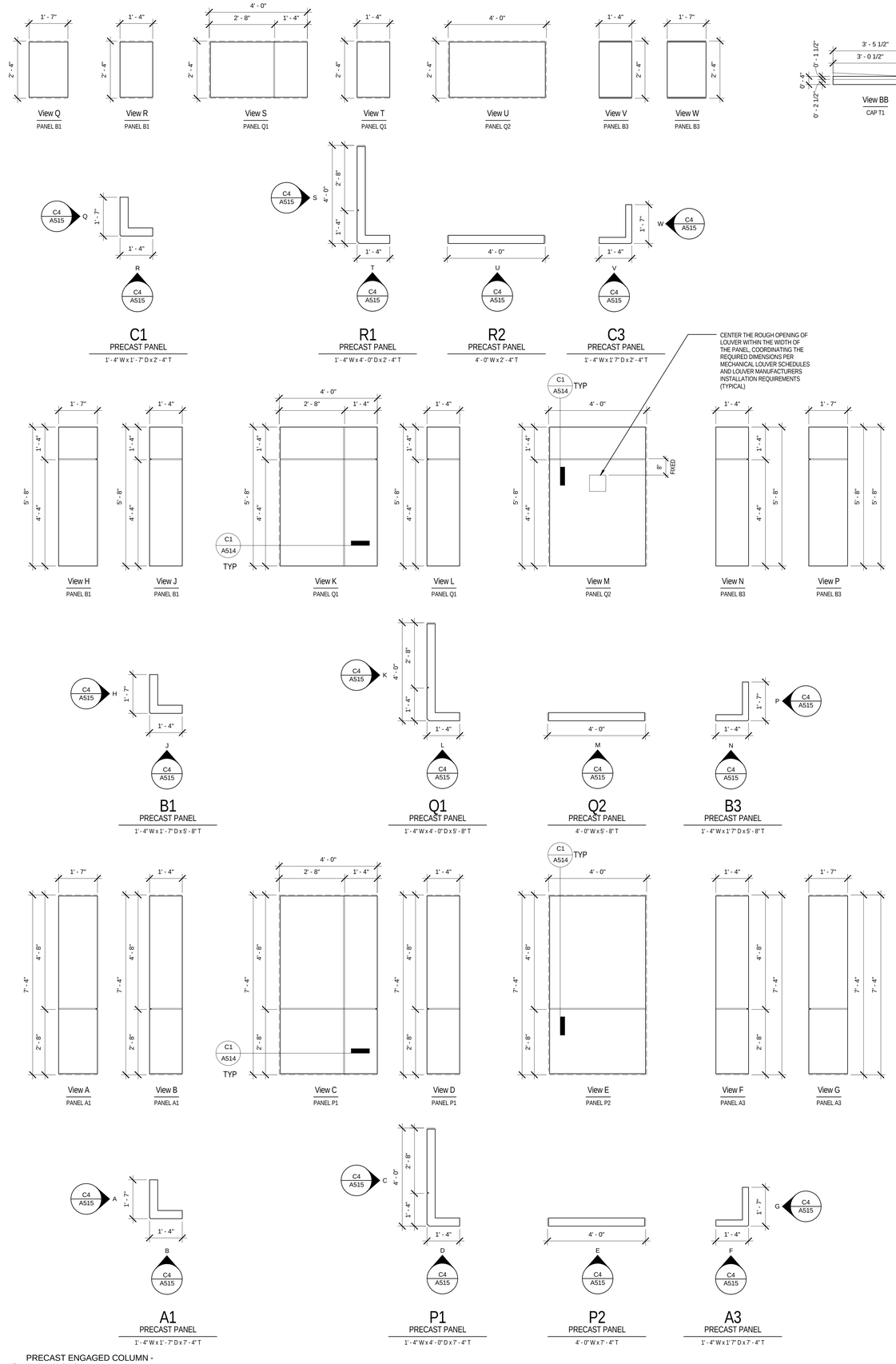
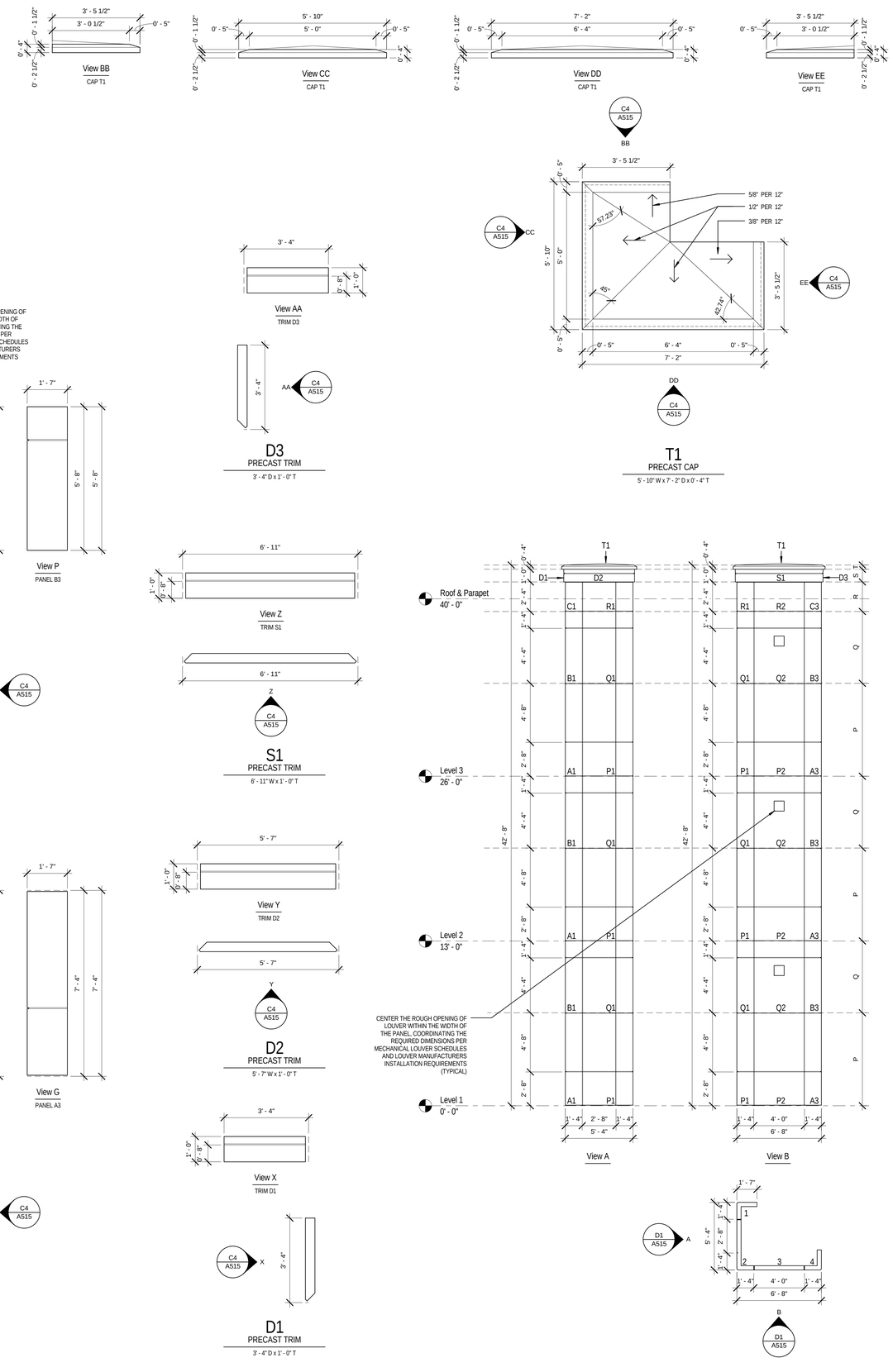


C4 PRECAST ENGAGED COLUMN - ELEVATIONS
1/2" = 1'-0"



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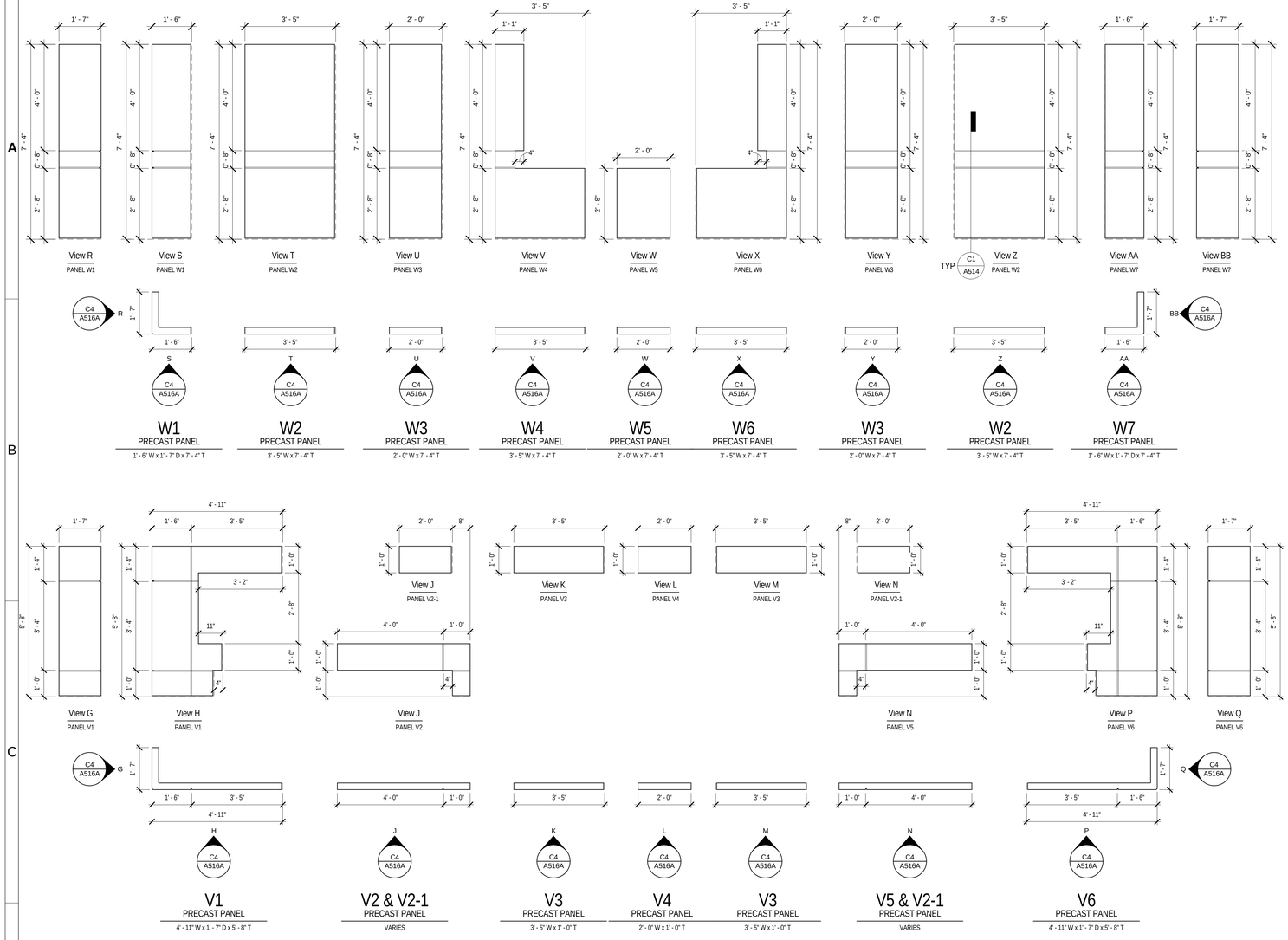
RIVERTON, UT 84062

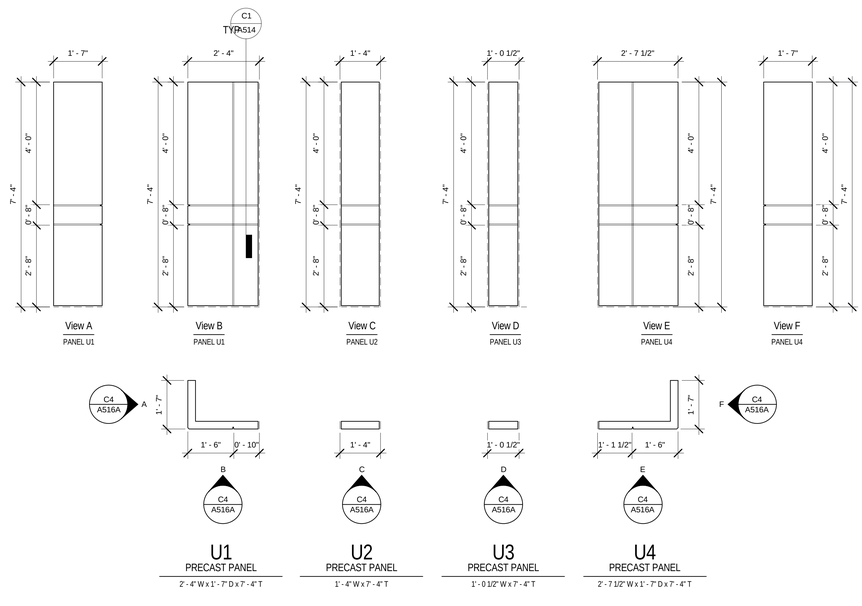
PRECAST CONCRETE

REVISION	DATE	BY	DESCRIPTION

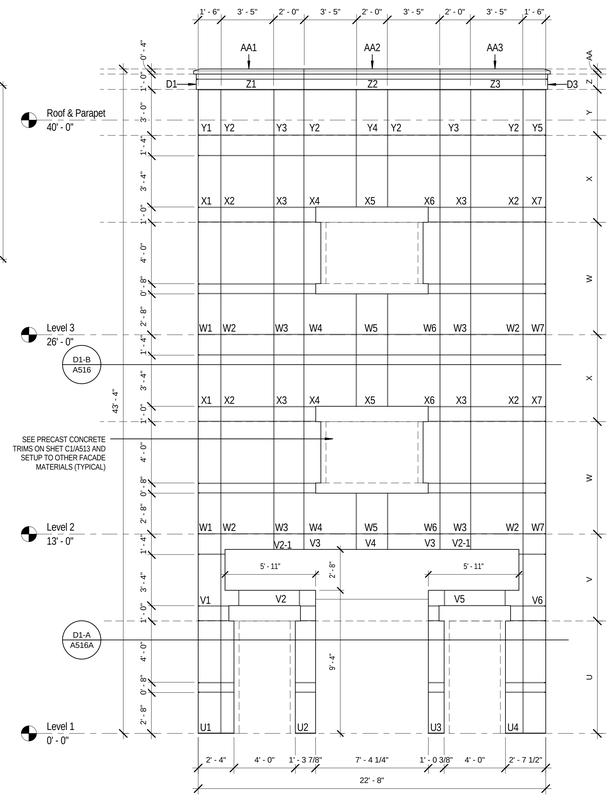
DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A515
DATE: 02/15/2013	

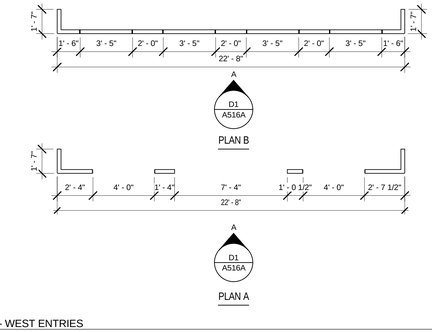
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS





C4 PRECAST CONCRETE - WEST ENTRIES - ELEVATIONS
1/2" = 1'-0"





D1 PRECAST CONCRETE - WEST ENTRIES
1/4" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR DESIGN, CALCULATIONS & SUPPORT OF THE PRECAST CONCRETE PANELS AND THEIR CONNECTION TO THE BUILDING STRUCTURE, INCLUDING THE REQUIRED DEFLECTION AND TOLERANCES NEEDED TO SATISFY THE DESIGN LAYOUT.
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BUILDING OFFICIAL APPROVAL

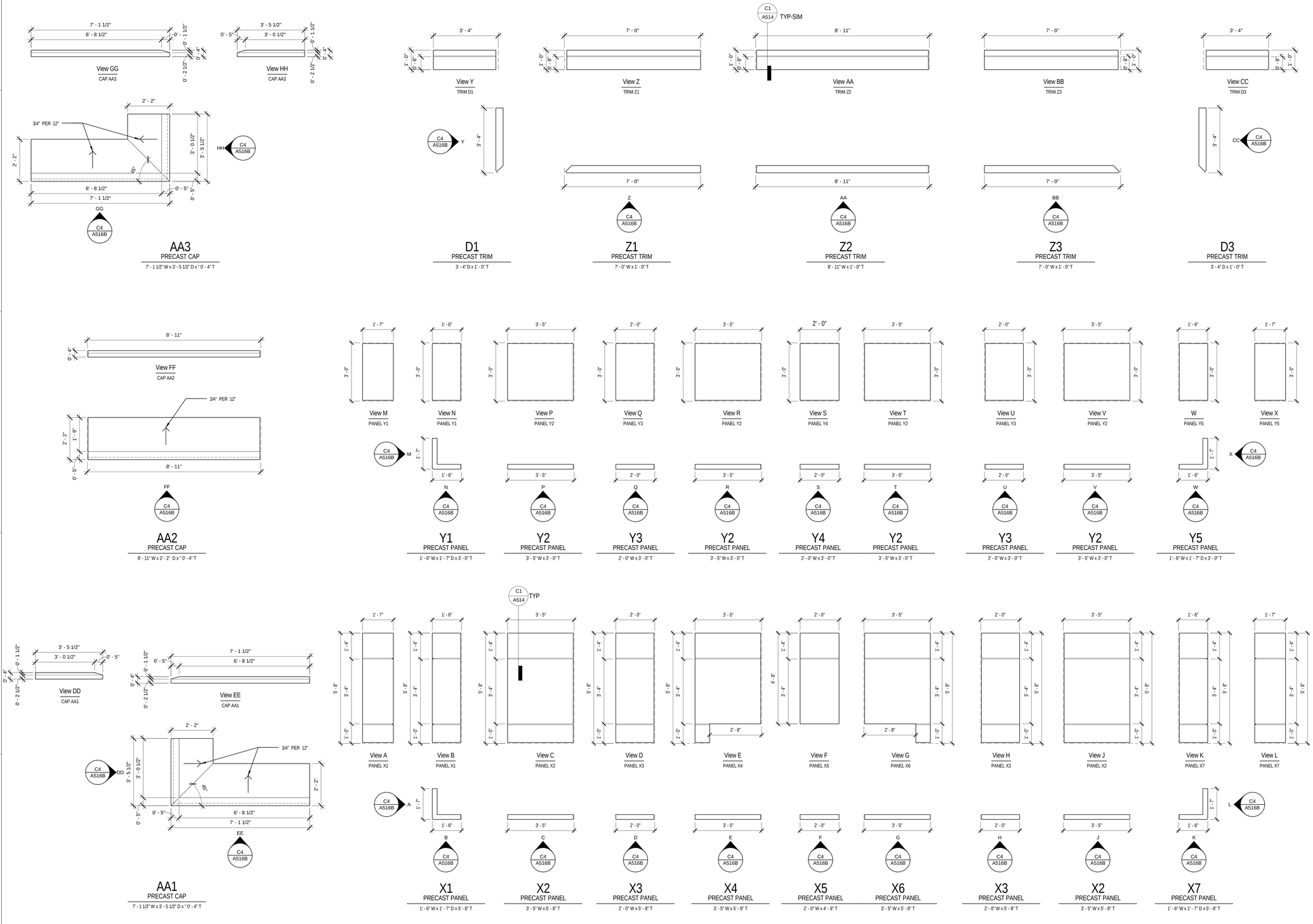
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DRAWING NO.: A516A
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



C4 PRECAST CONCRETE - WEST ENTRIES - ELEVATIONS
1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

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129665
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BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

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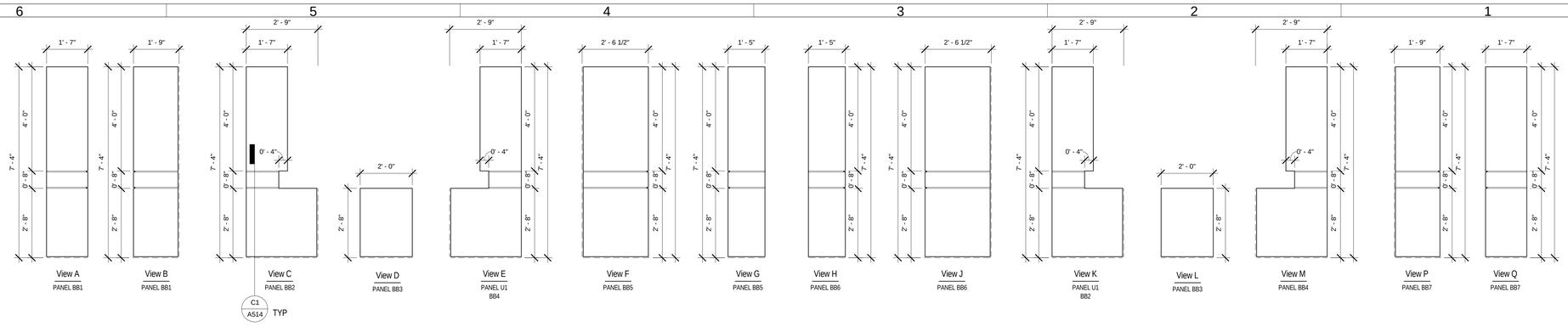
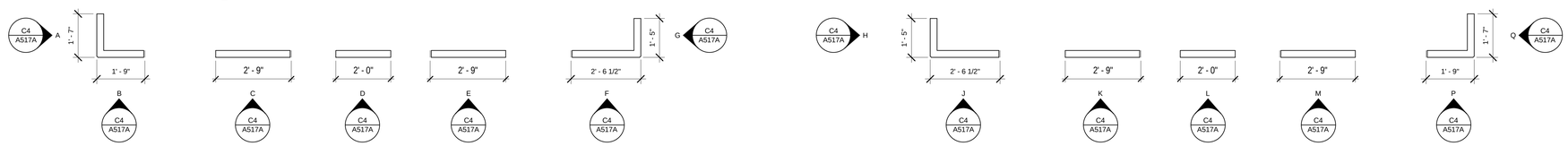
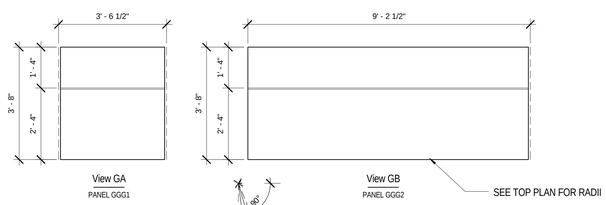
DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DRAWING NO.: A516B
DATE: 02/15/2013

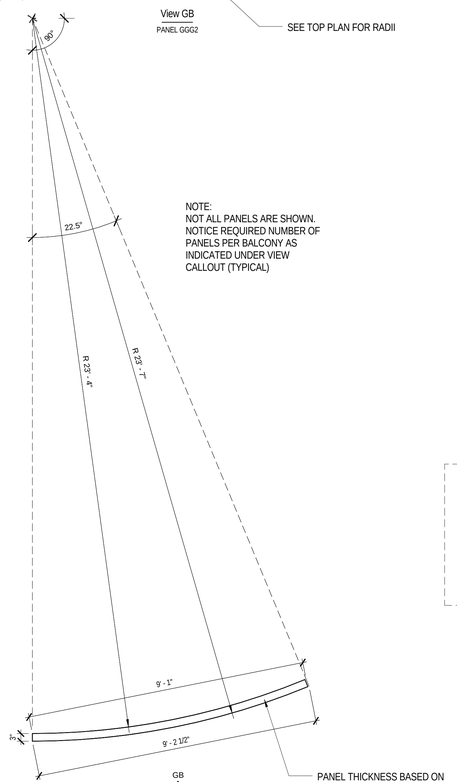
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



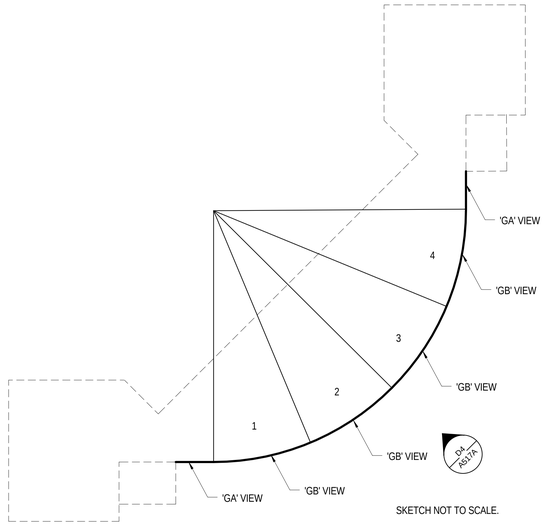


C4 PRECAST CONCRETE COURTYARD ENTRY - ELEVATIONS
1/2" = 1'-0"



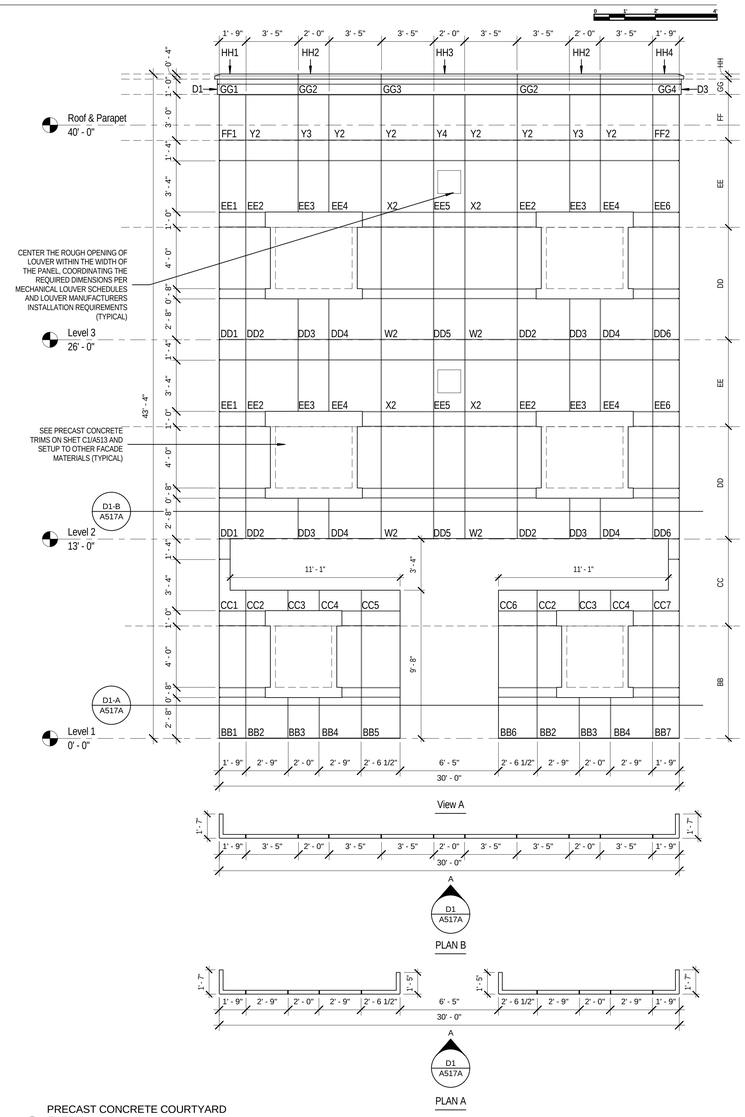


NOTE:
NOT ALL PANELS ARE SHOWN.
NOTICE REQUIRED NUMBER OF PANELS PER BALCONY AS INDICATED UNDER VIEW CALLOUT (TYPICAL)



SKETCH NOT TO SCALE.

D4 PRECAST CONCRETE BALCONY SECOND FLOOR - PLAN & ELEVATIONS
1/2" = 1'-0"



D1 PRECAST CONCRETE COURTYARD ENTRY
1/4" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
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129665
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DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DRAWING NO.: A517A
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

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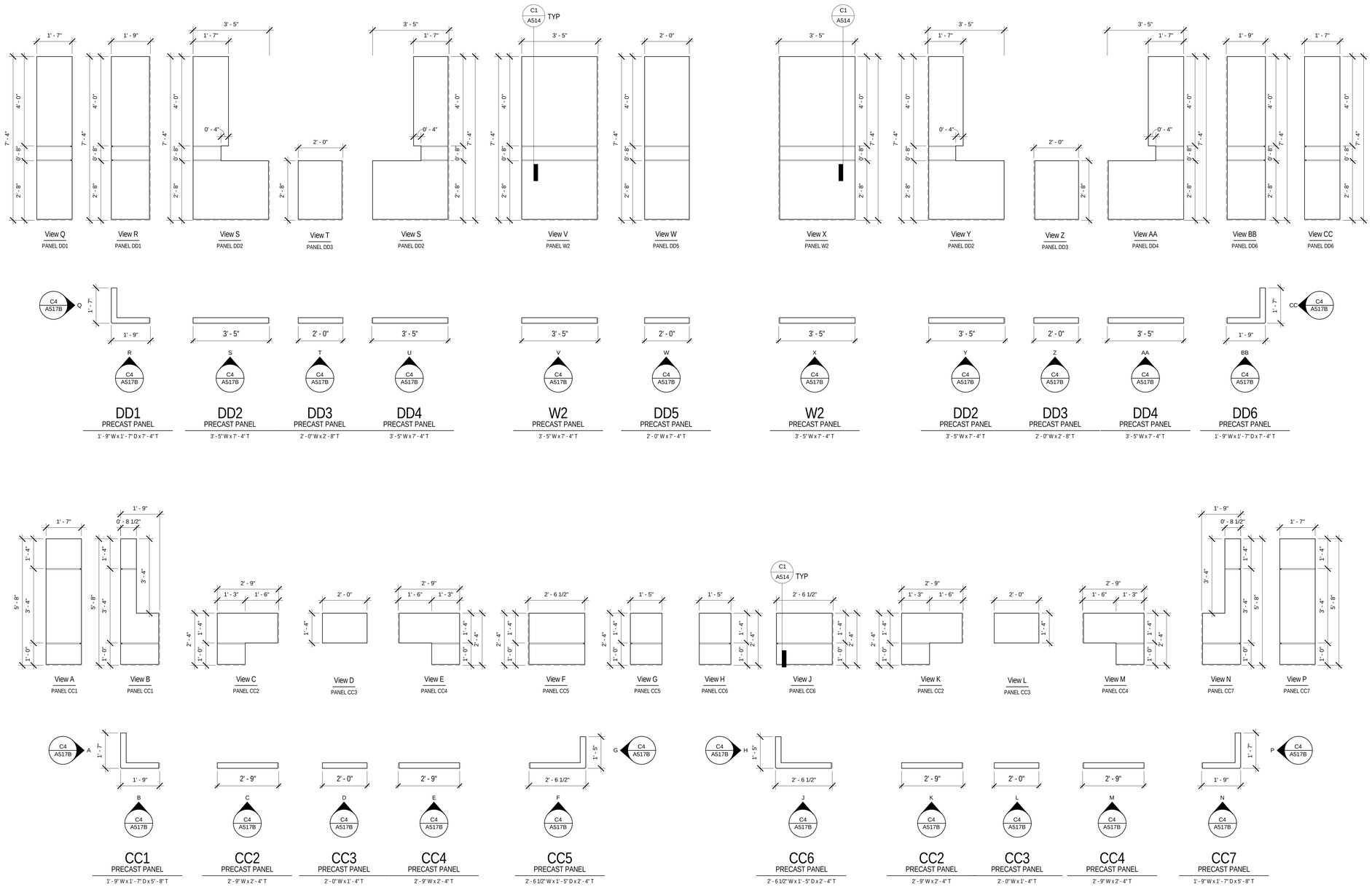

C4 PRECAST CONCRETE COURTYARD ENTRY - ELEVATIONS
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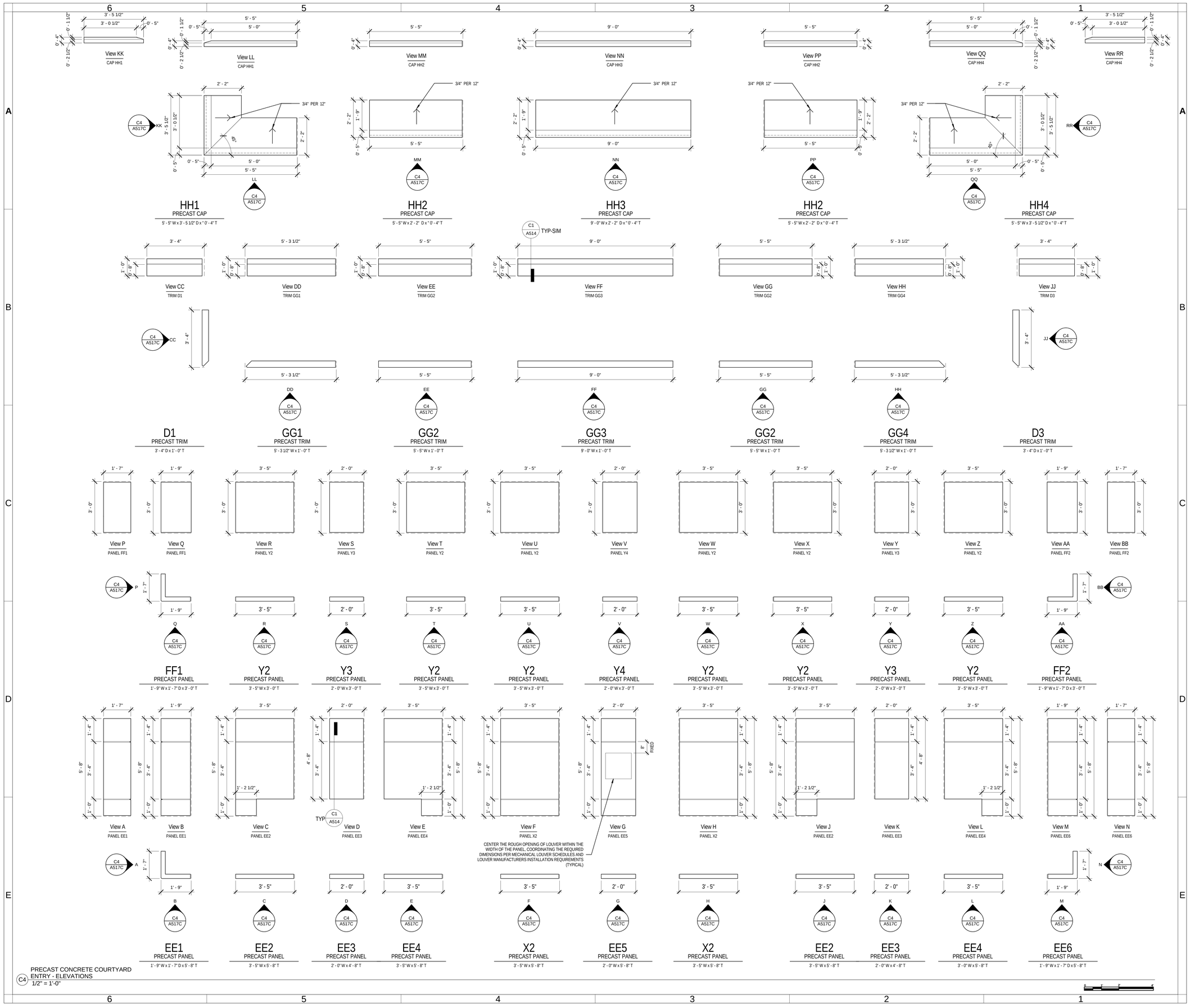
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



C4 PRECAST CONCRETE COURTYARD ENTRY - ELEVATIONS
1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
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129665
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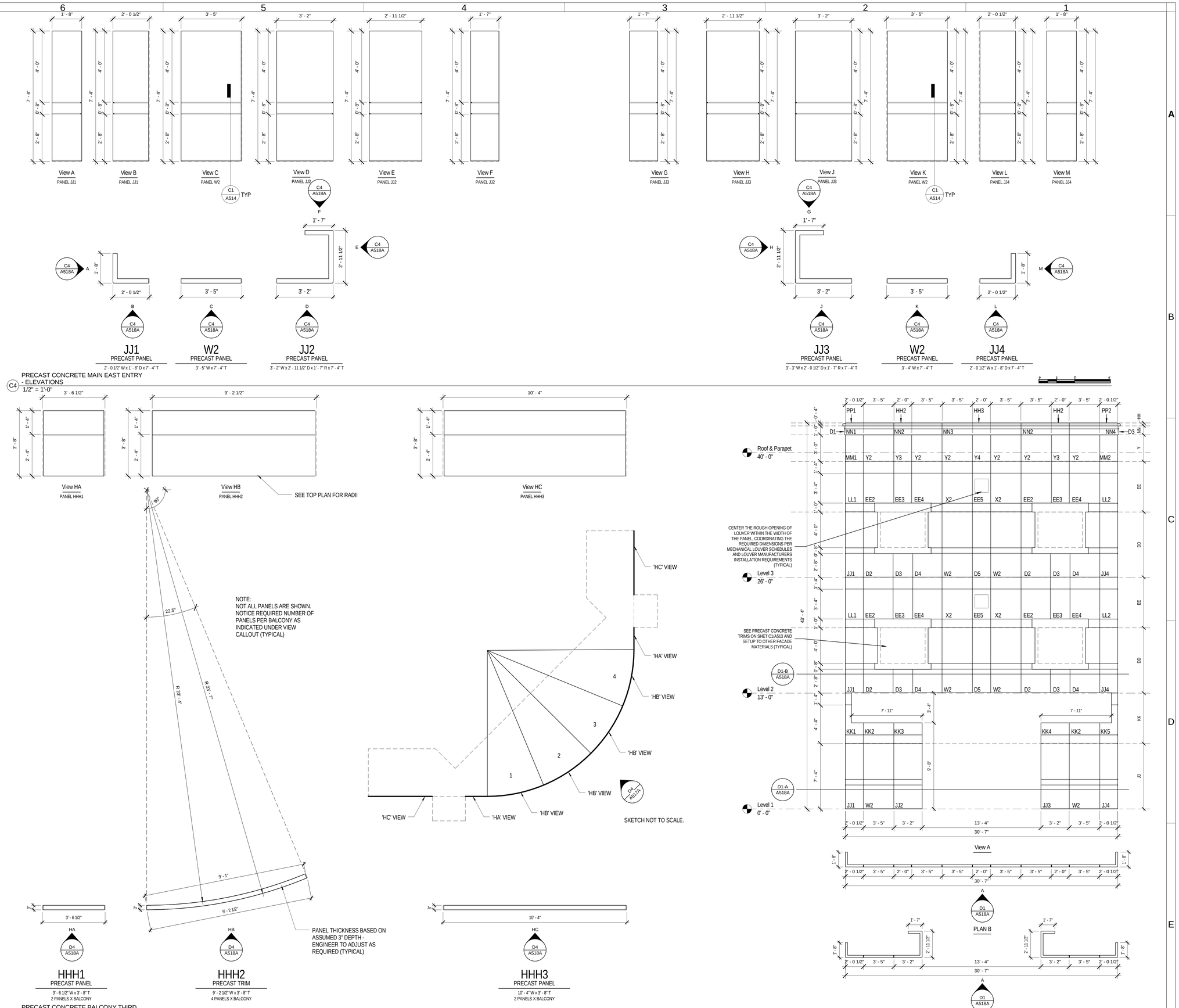
DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: A517C

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



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DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
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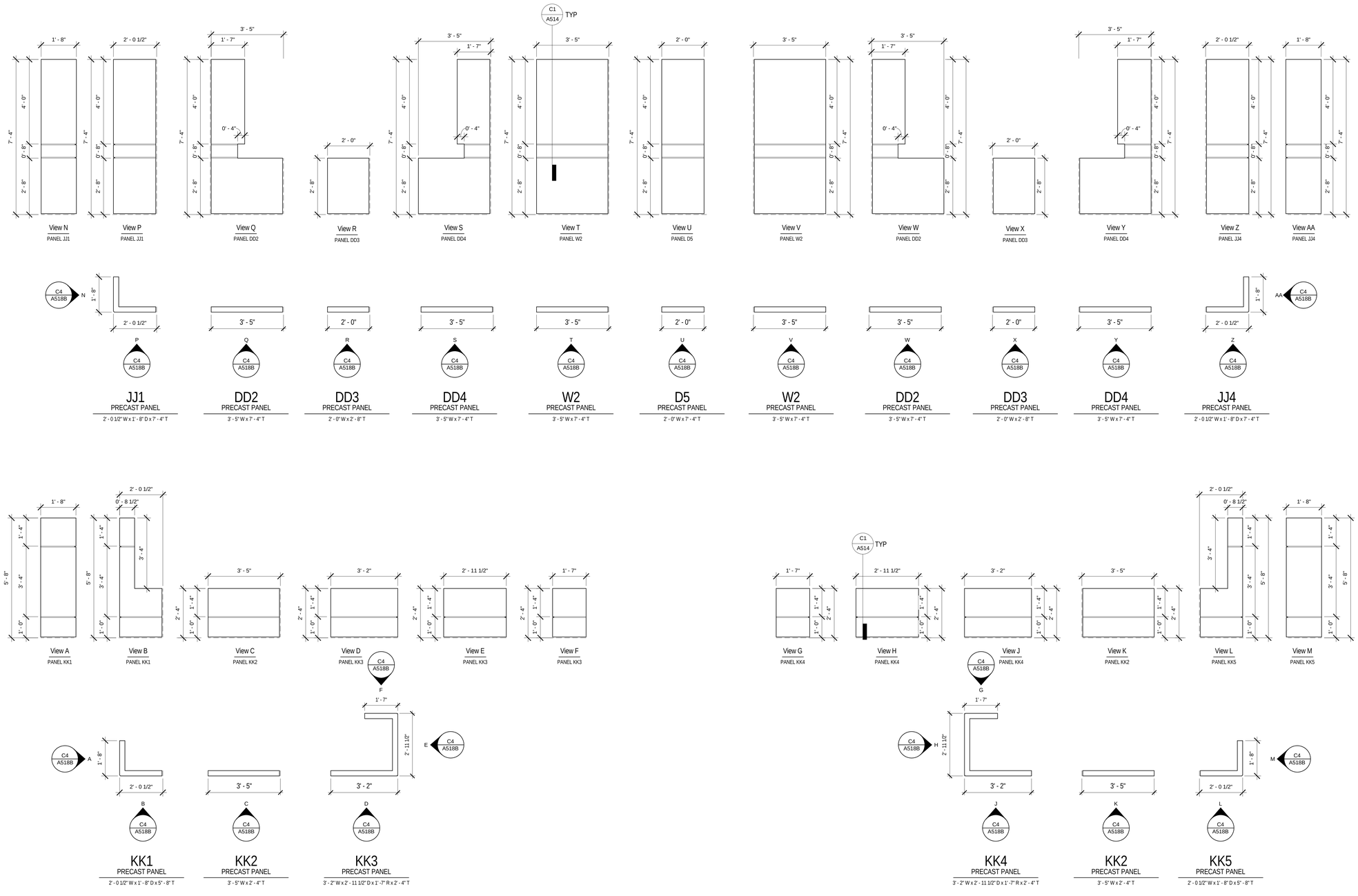

C4 PRECAST CONCRETE MAIN EAST ENTRY - ELEVATIONS
1/2" = 1'-0"

EFT ARCHITECTS
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BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A518B
DATE: 02/15/2013	

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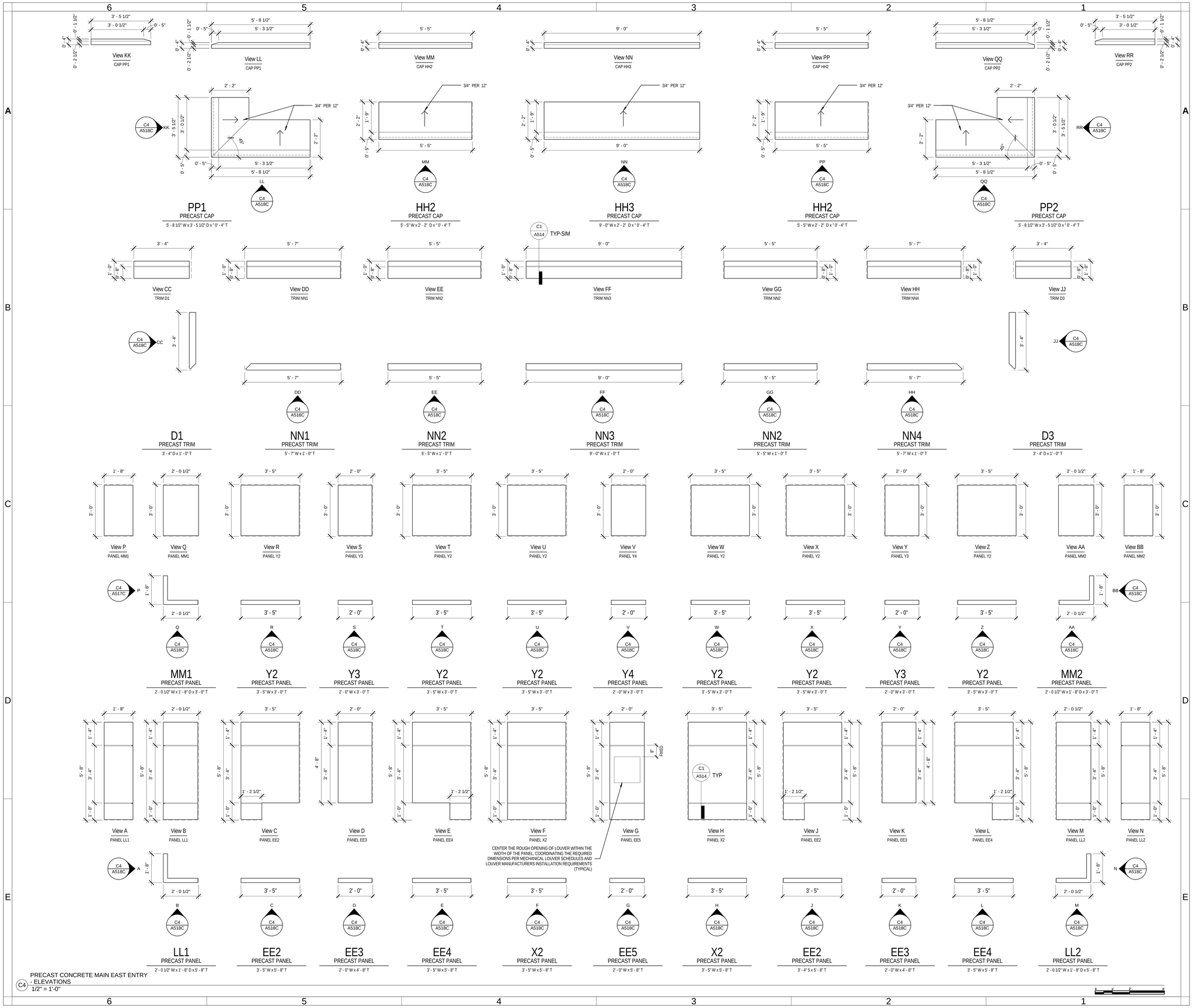

C4 PRECAST CONCRETE MAIN EAST ENTRY - ELEVATIONS
1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR DESIGN, CALCULATIONS & SUPPORT OF THE PRECAST CONCRETE PANELS AND THEIR CONNECTION TO THE BUILDING STRUCTURE, INCLUDING THE REQUIRED DEFLECTION AND TOLERANCES NEEDED TO SATISFY THE DESIGN LAYOUT.
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RIVERTON, UT 84062

PRECAST CONCRETE

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PROJECT NO.: 11007	DRAWING NO.: A518C
DATE: 02/15/2013	

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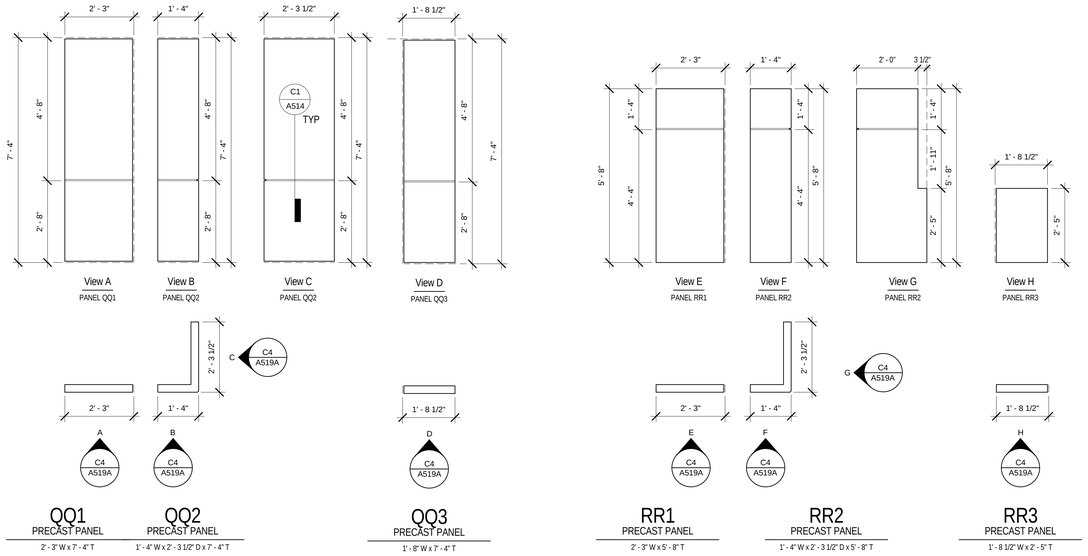
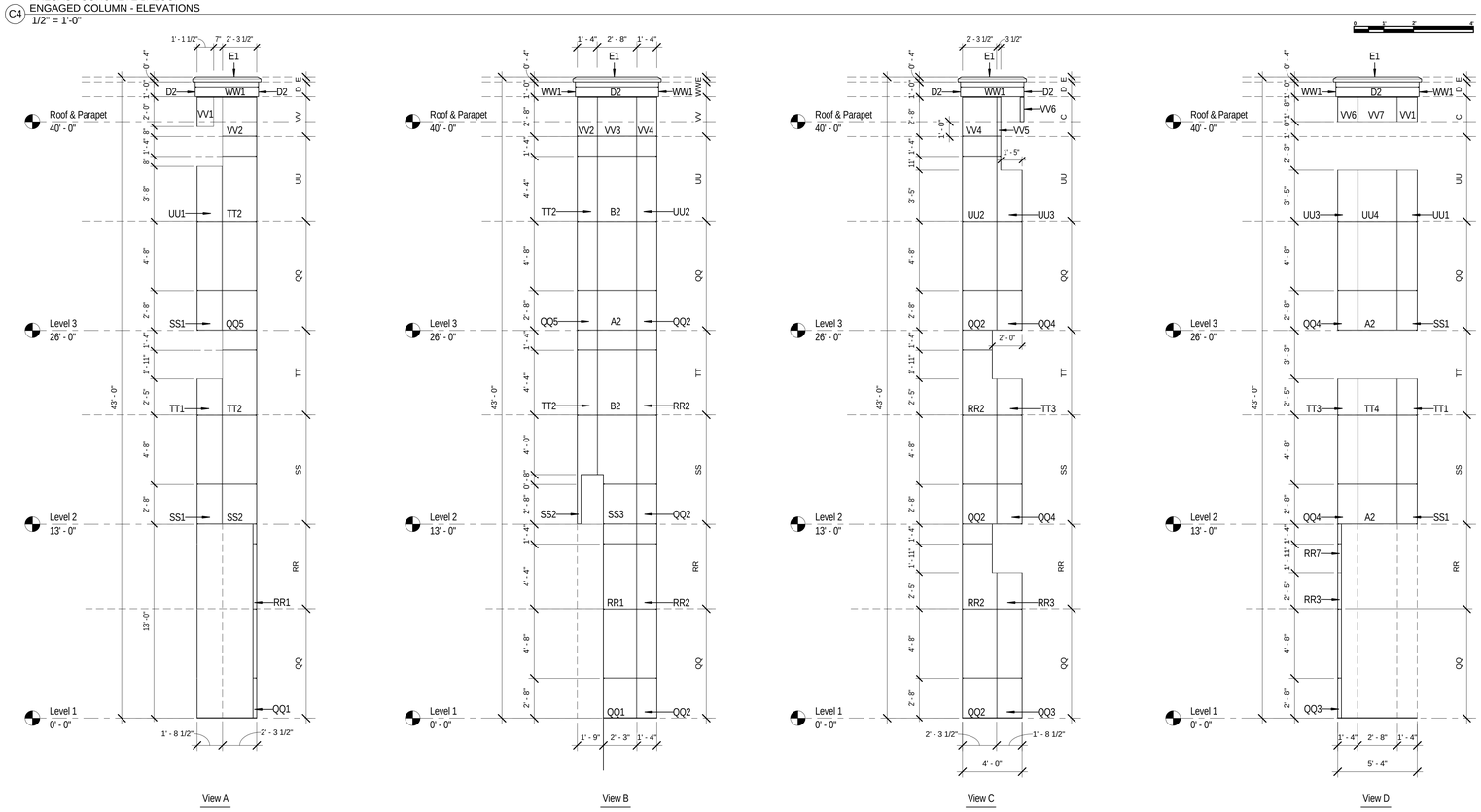
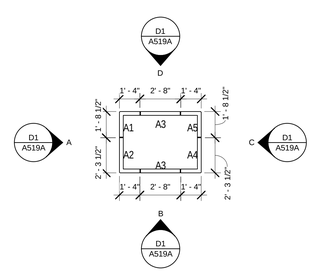


C4 PRECAST CONCRETE BALCONY ENGAGED COLUMN - ELEVATIONS
1/2" = 1'-0"





D1 PRECAST CONCRETE BALCONY ENGAGED COLUMN
1/4" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
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129665
LICENSED ARCHITECT

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QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

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CHECKED BY: CR MM
PROJECT NO.: 11007
DRAWING NO.: A519A
DATE: 02/15/2013

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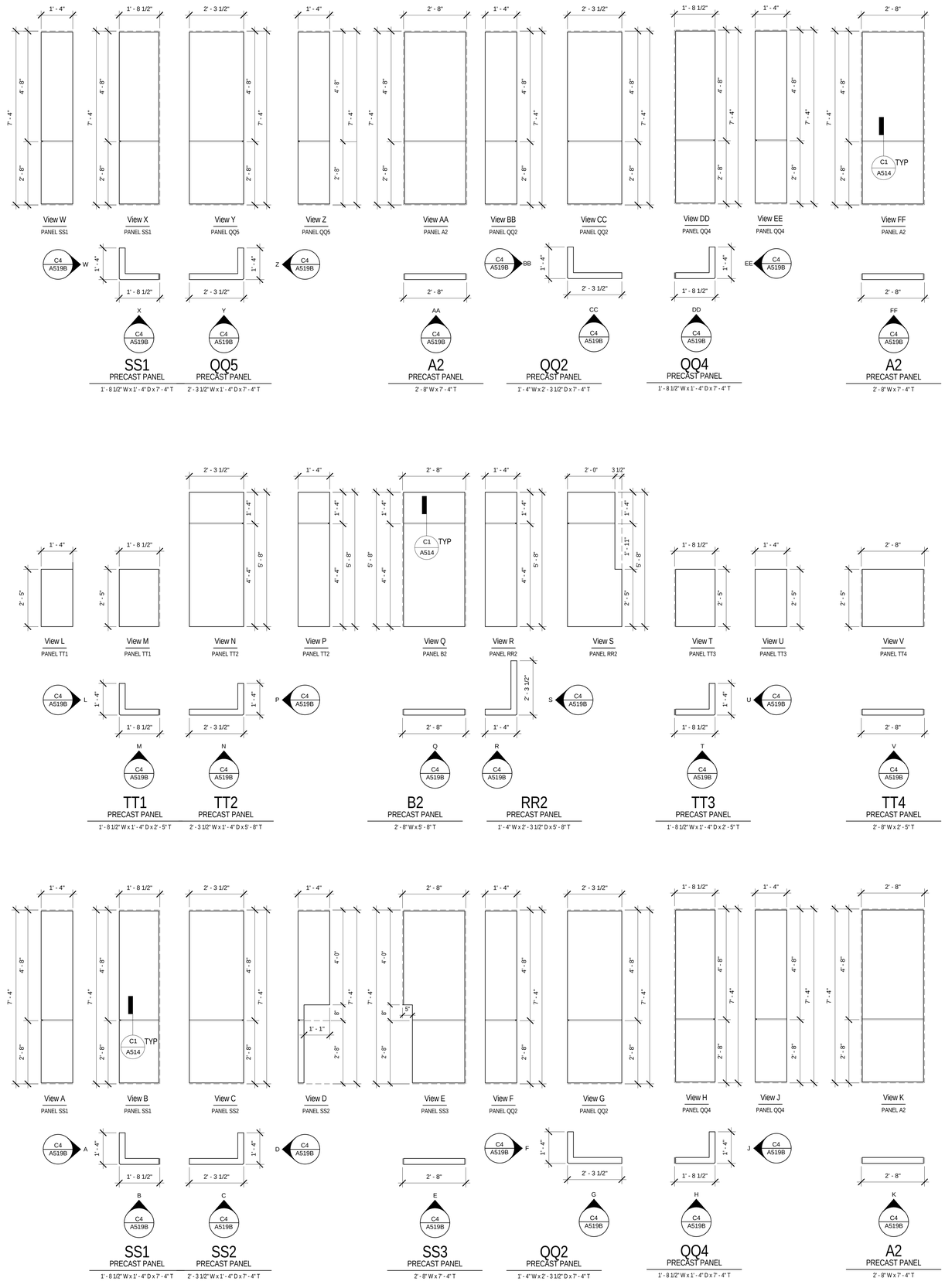

C4 PRECAST CONCRETE BALCONY ENGAGED COLUMN - ELEVATIONS
1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

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129665
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RIVERTON, UT 84062

PRECAST CONCRETE

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PROJECT NO.: 11007	DRAWING NO.: A519B
DATE: 02/15/2013	

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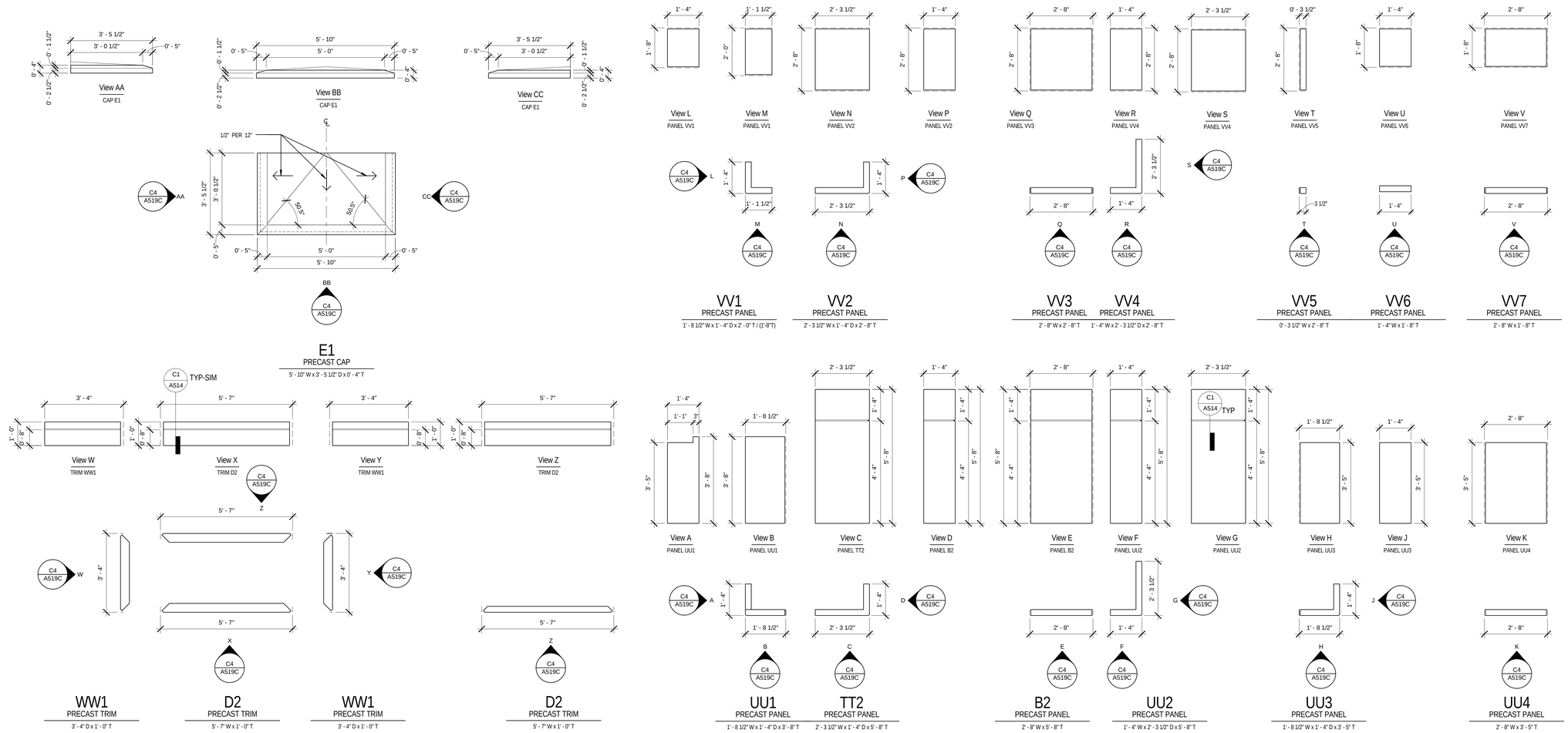

C4 PRECAST CONCRETE BALCONY ENGAGED COLUMN - ELEVATIONS
1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
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129665
LICENSED ARCHITECT

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UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

REVISION	DATE	BY	DESCRIPTION
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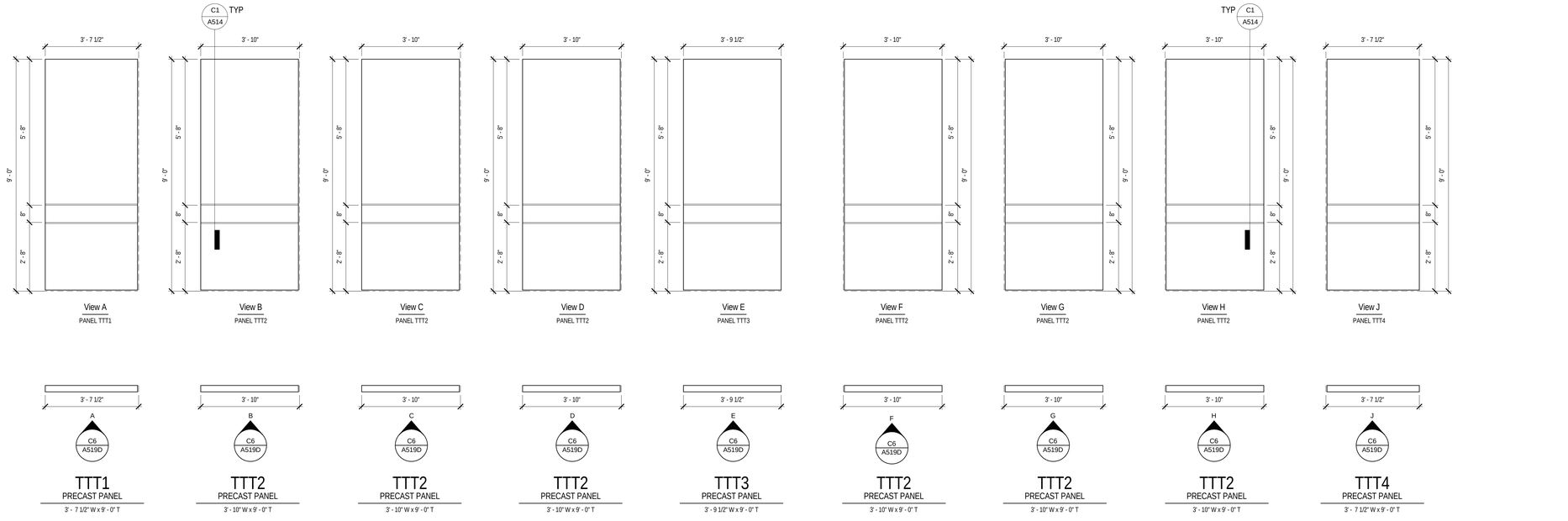
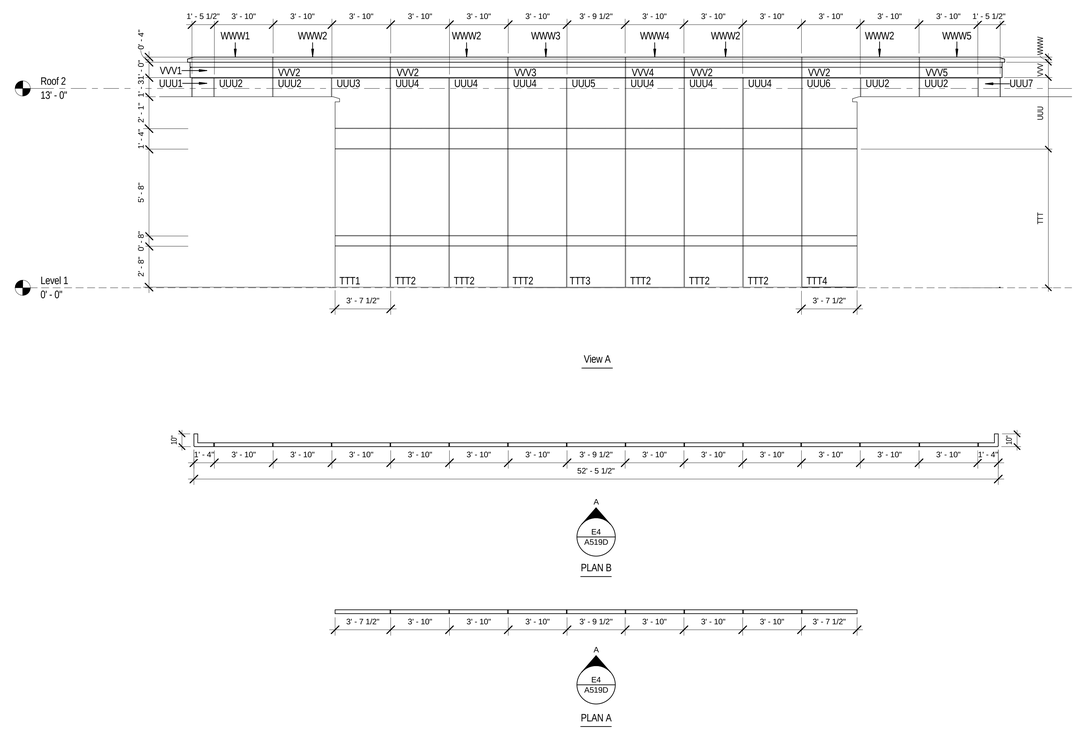
CHECKED BY: CR MM
PROJECT NO.: 11007
DRAWING NO.: A519C
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



C6 PRECAST CONCRETE SERVICE BLDG
WEST - ELEVATIONS A
1/2" = 1'-0"



E4 PRECAST CONCRETE SERVICE BLDG
WEST
1/4" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
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BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
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PRECAST CONCRETE

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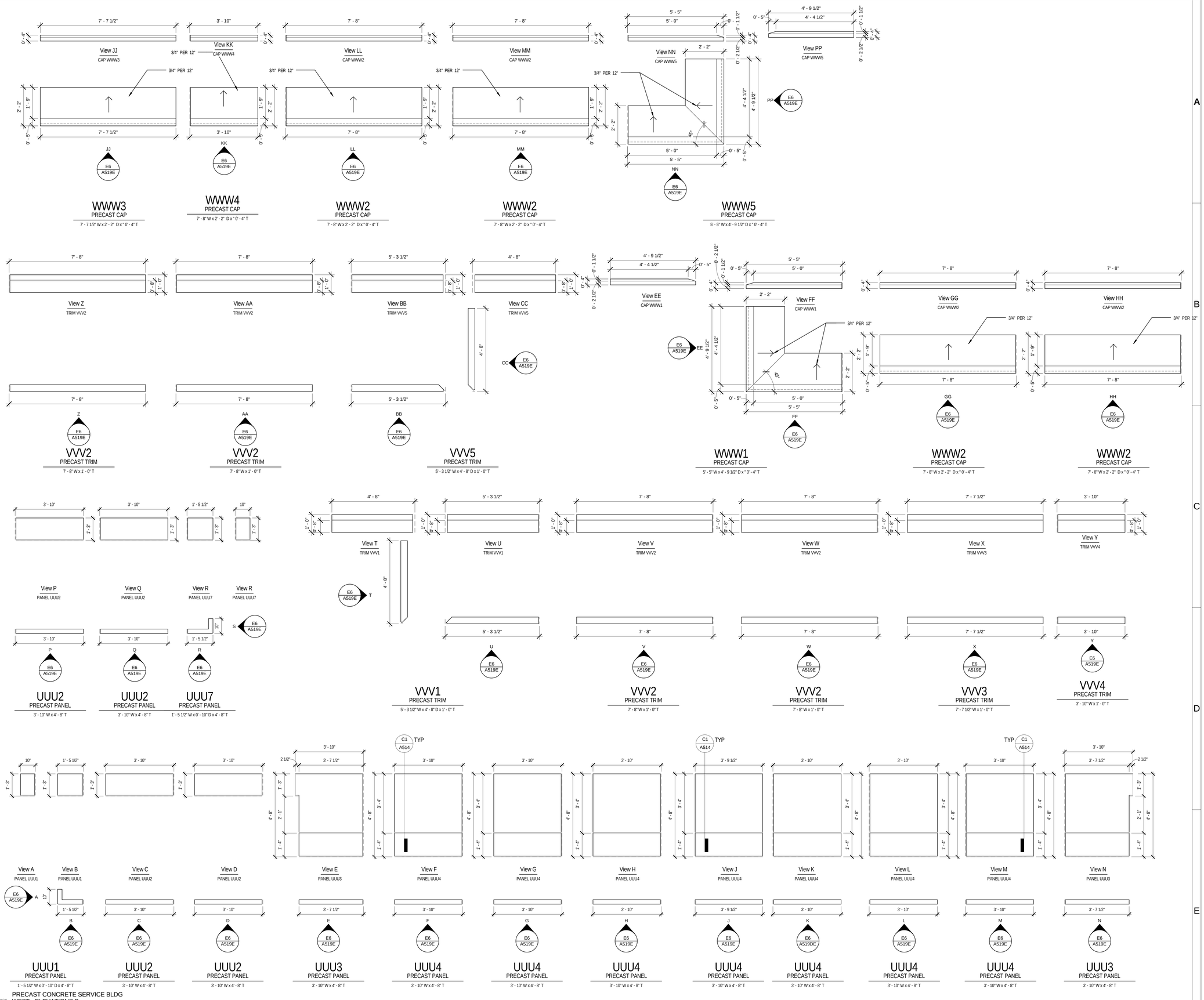
PROJECT NO.: 11007	DRAWING NO.: A519D
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



E6 PRECAST CONCRETE SERVICE BLDG
WEST - ELEVATIONS B
1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

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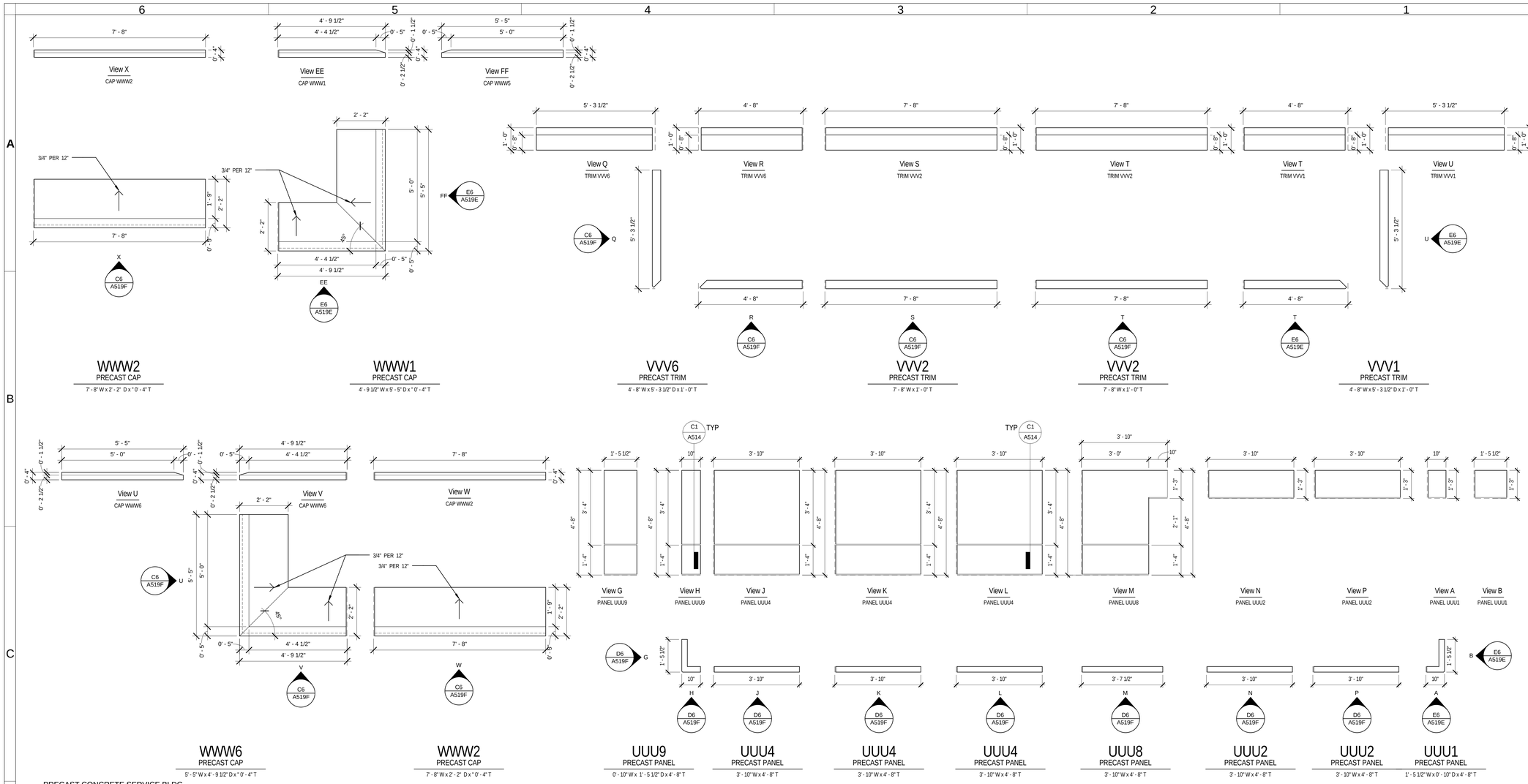
QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

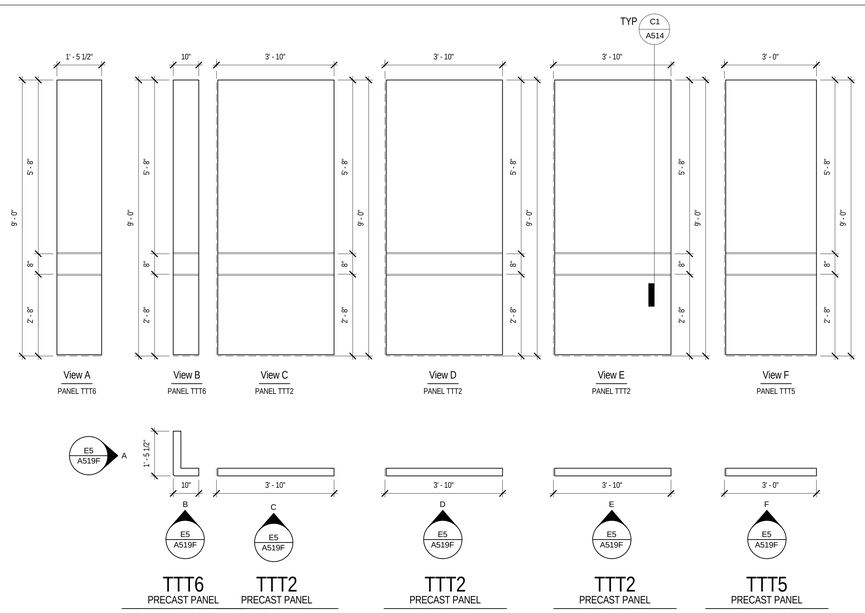
REVISION	DATE	BY	DESCRIPTION

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A519E
DATE: 02/15/2013	

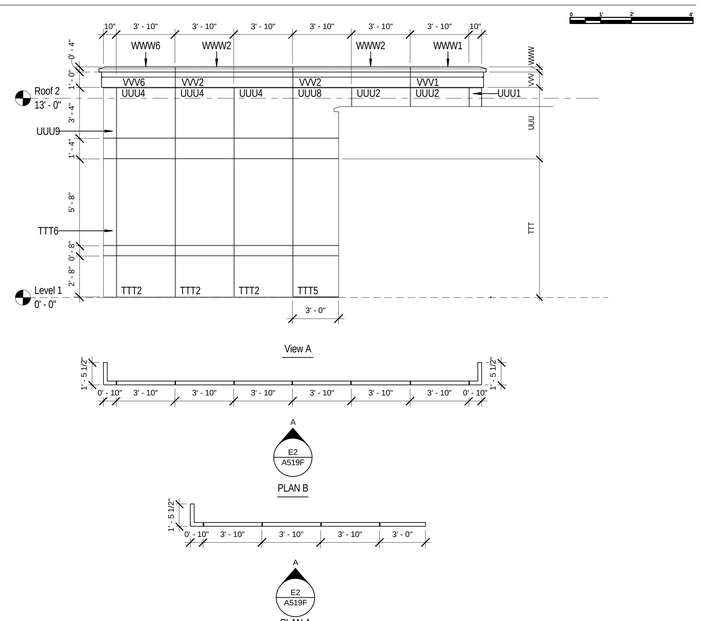
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



D6 PRECAST CONCRETE SERVICE BLDG
NORTH - ELEVATIONS B
1/2" = 1'-0"



E5 PRECAST CONCRETE SERVICE BLDG
NORTH - ELEVATIONS A
1/2" = 1'-0"



E2 PRECAST CONCRETE SERVICE BLDG
NORTH
1/4" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
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SEAL & SIGNATURE

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9. CONTRACTOR IS RESPOSIBLE FOR MEASURING AND VERIFYING ALL DIMENSIONS IN THE FIELD. DO NOT INITIATE FABRICATION WITHOUT COMPLYING WITH THE PROPER COORDINATION OF ALL ITEMS AFECTING THE PRECAST CONCRETE PANELS FINAL DESIGN.

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A519F
DATE: 02/15/2013	

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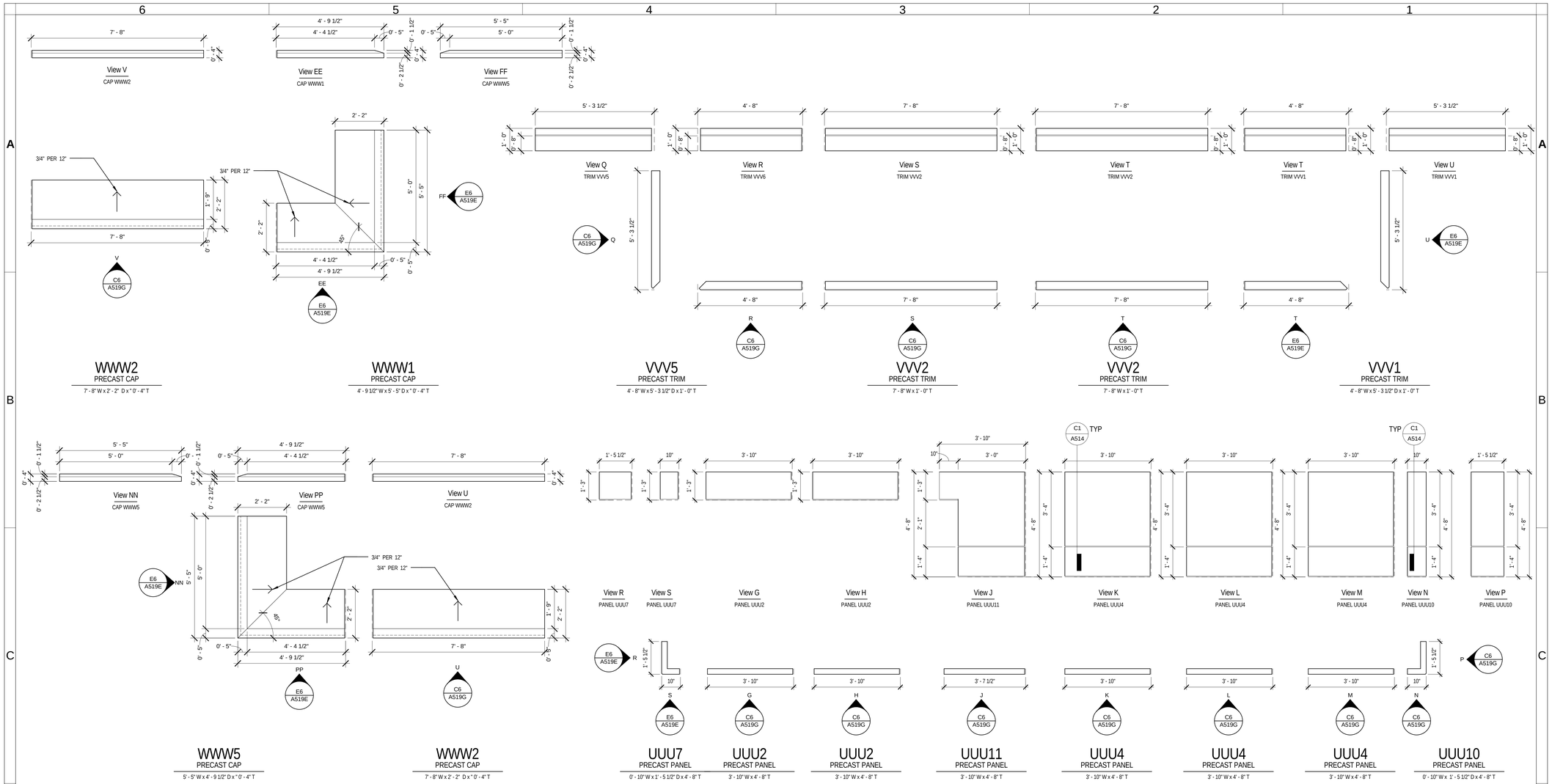
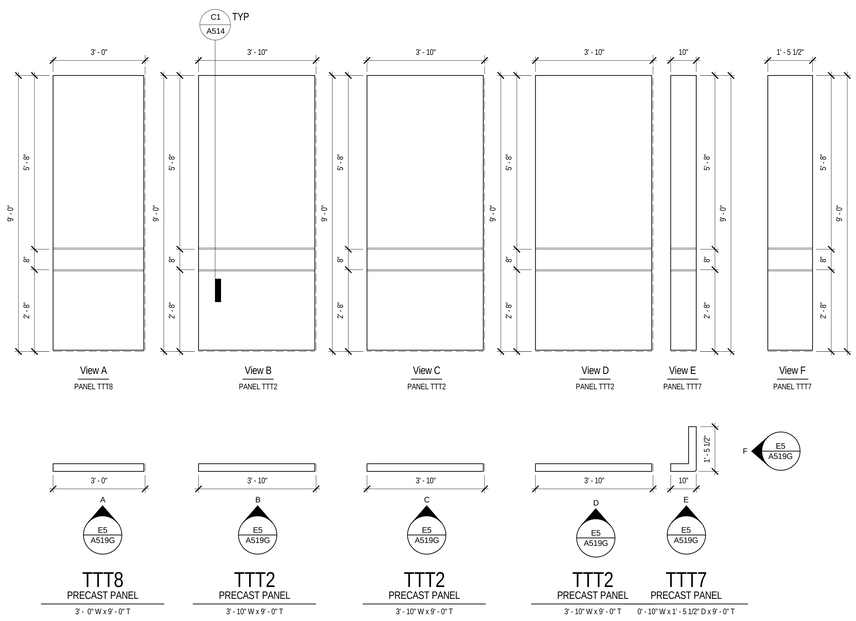
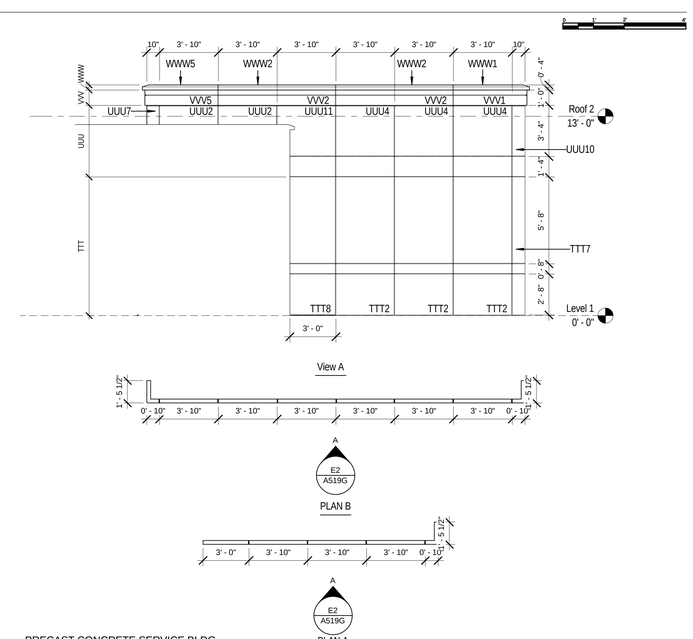


C6 PRECAST CONCRETE SERVICE BLDG
SOUTH - ELEVATIONS B
1/2" = 1'-0"



E5 PRECAST CONCRETE SERVICE BLDG
SOUTH - ELEVATIONS A
1/2" = 1'-0"



E2 PRECAST CONCRETE SERVICE BLDG
SOUTH
1/4" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR DESIGN, CALCULATIONS & SUPPORT OF THE PRECAST CONCRETE PANELS AND THEIR CONNECTION TO THE BUILDING STRUCTURE, INCLUDING THE REQUIRED DEFLECTION AND TOLERANCES NEEDED TO SATISFY THE DESIGN LAYOUT.
2. QUANTITIES OF PANELS ARE AFFECTED BY THE DESIGN ALTERNATES, REFER TO OVERALL PLANS AND NOTES.
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BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

REVISION	DATE	BY	DESCRIPTION
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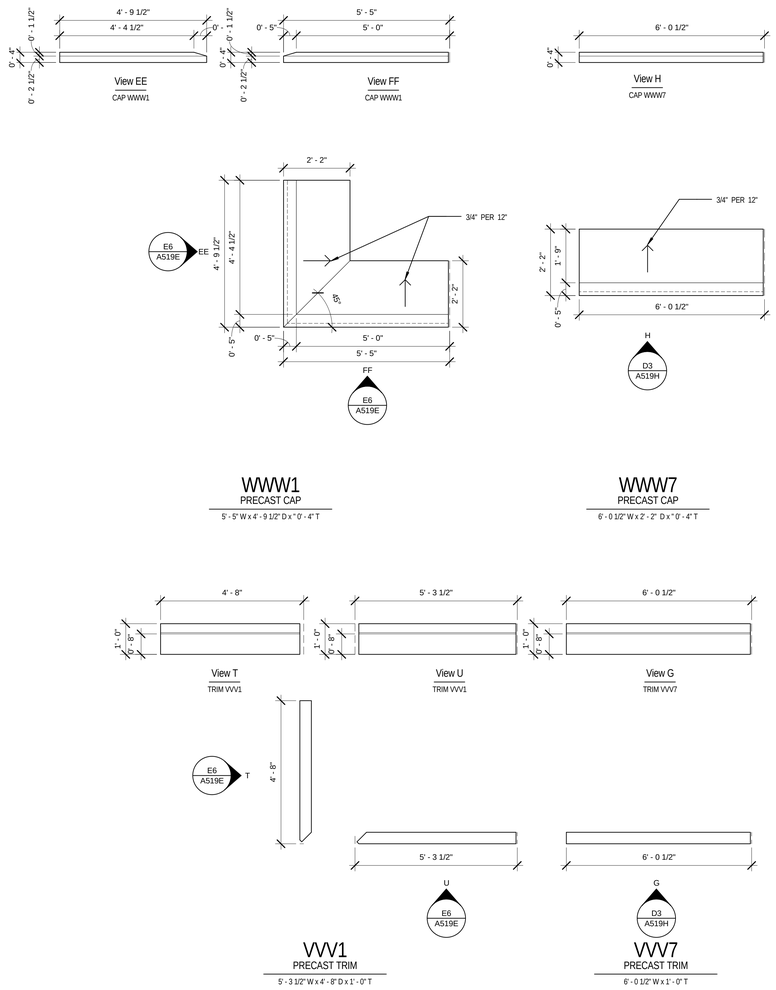
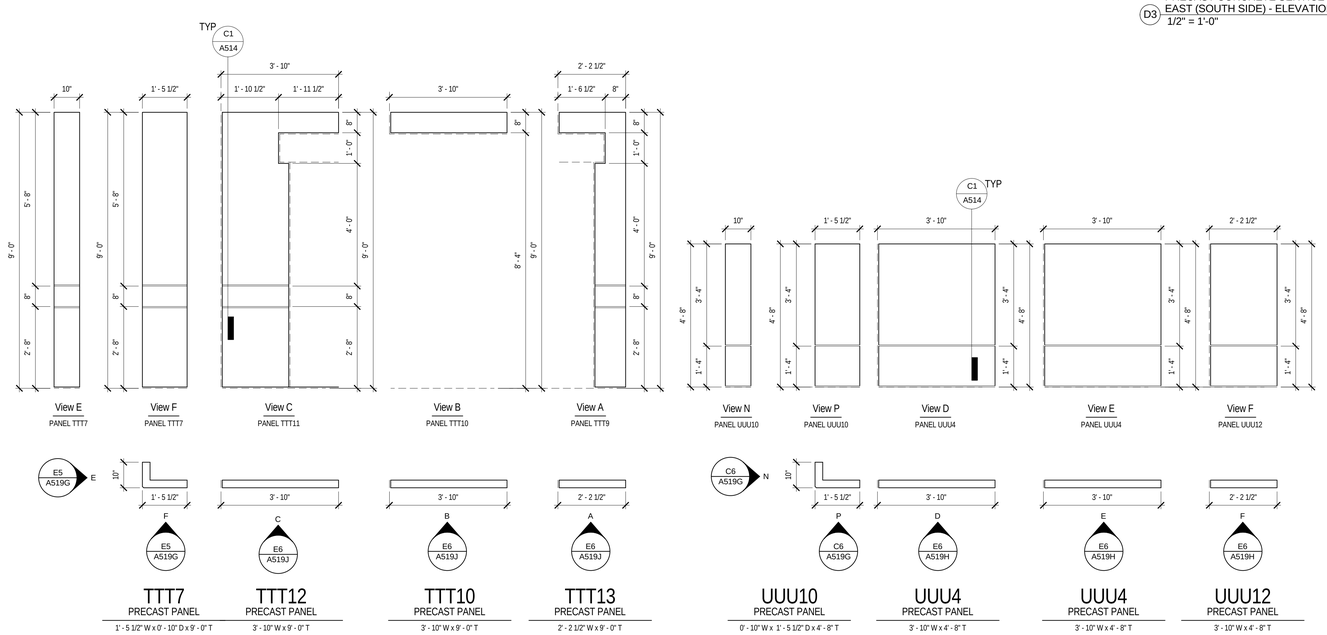
DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A519G
DATE: 02/15/2013	

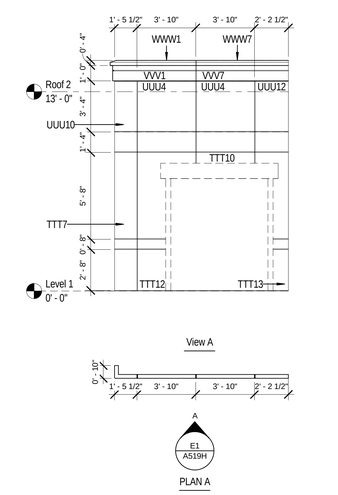
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



D3 PRECAST CONCRETE SERVICE BLDG
EAST (SOUTH SIDE) - ELEVATIONS B
1/2" = 1'-0"



E6 PRECAST CONCRETE SERVICE BLDG
EAST (SOUTH SIDE) - ELEVATIONS A
1/2" = 1'-0"



E1 PRECAST CONCRETE SERVICE BLDG
EAST (SOUTH SIDE)
1/4" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

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BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

REVISION	DATE	BY	DESCRIPTION
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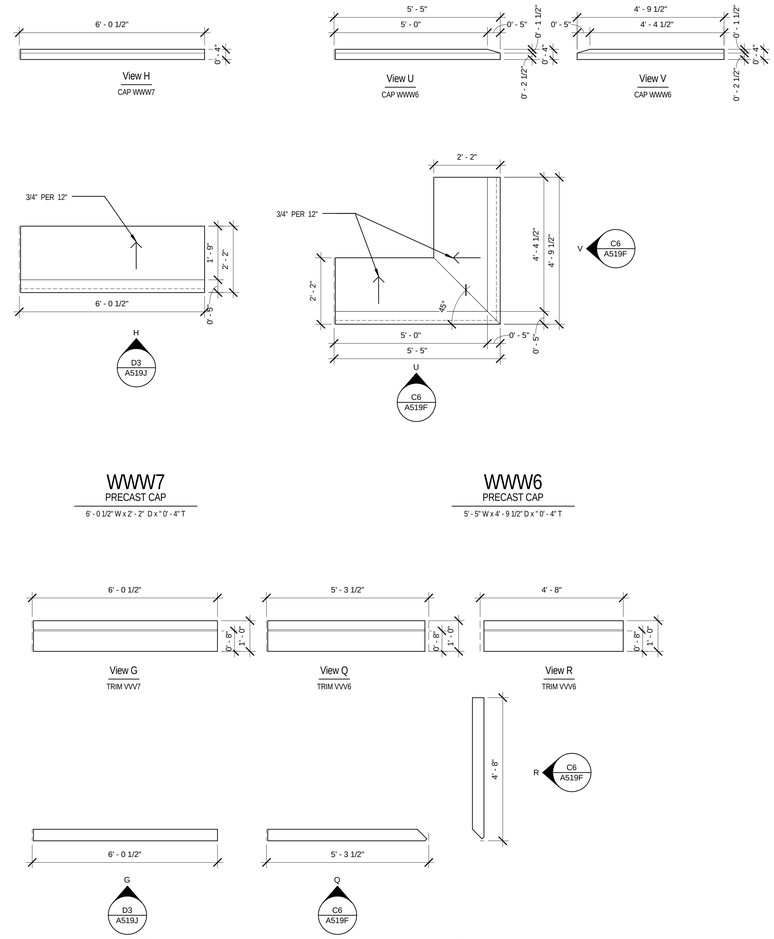
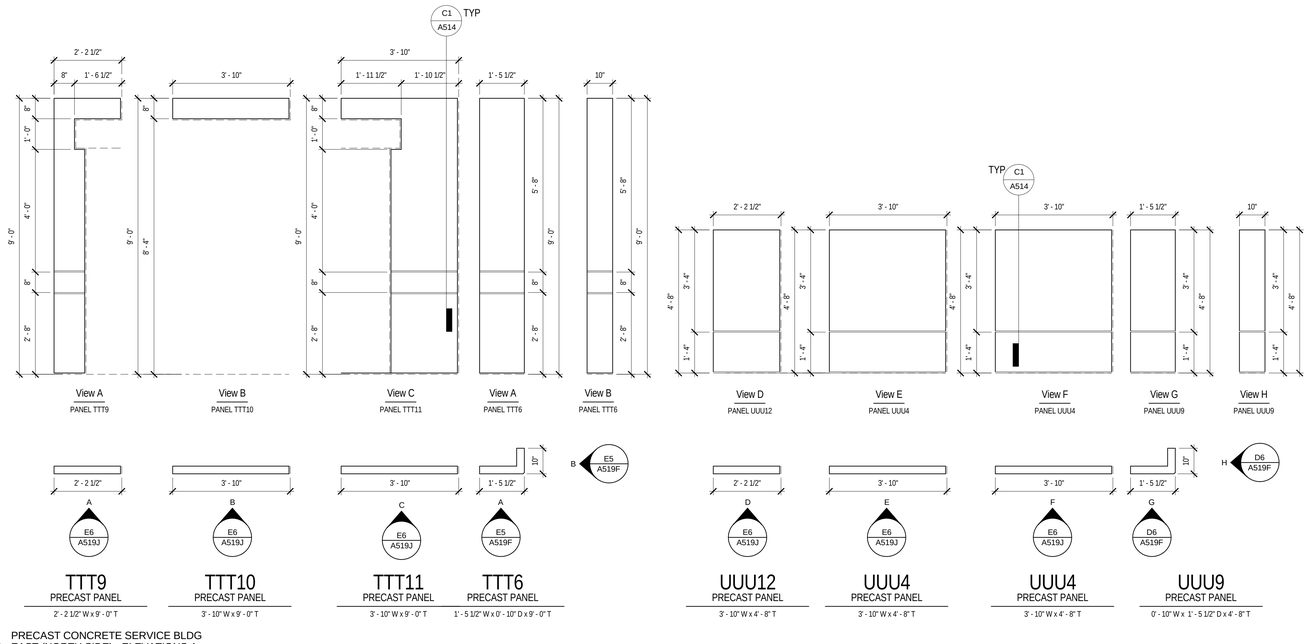
DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A519H
DATE: 02/15/2013	

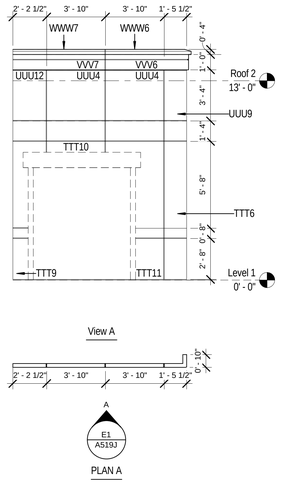
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



D3 PRECAST CONCRETE SERVICE BLDG
EAST (NORTH SIDE) - ELEVATIONS B
1/2" = 1'-0"



E6 PRECAST CONCRETE SERVICE BLDG
EAST (NORTH SIDE) - ELEVATIONS A
1/2" = 1'-0"



E1 PRECAST CONCRETE SERVICE BLDG
EAST (NORTH SIDE)
1/4" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

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UTAH NATIONAL GUARD
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QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

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PROJECT NO.: 11007	DRAWING NO.: A519J
DATE: 02/15/2013	

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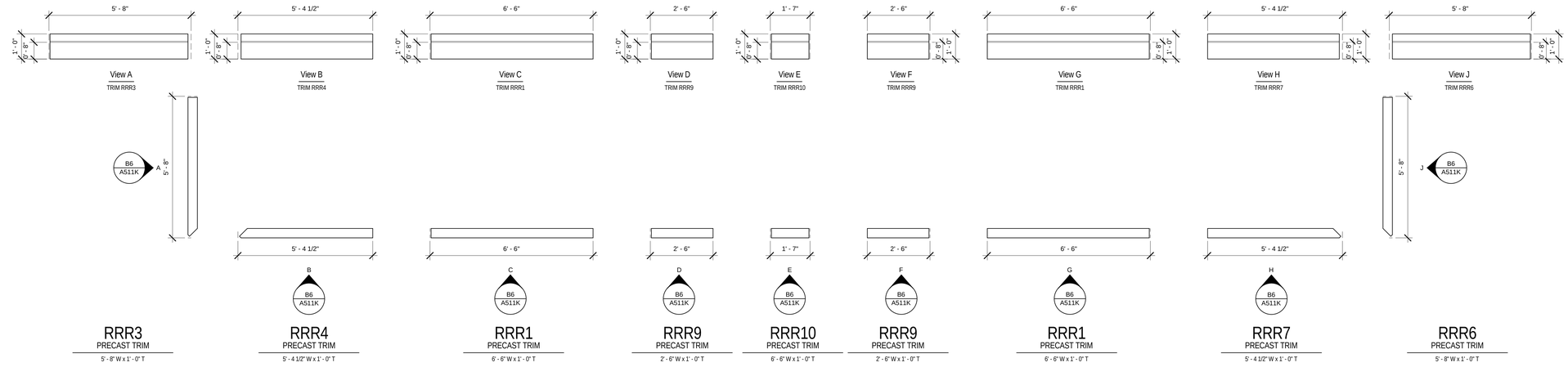
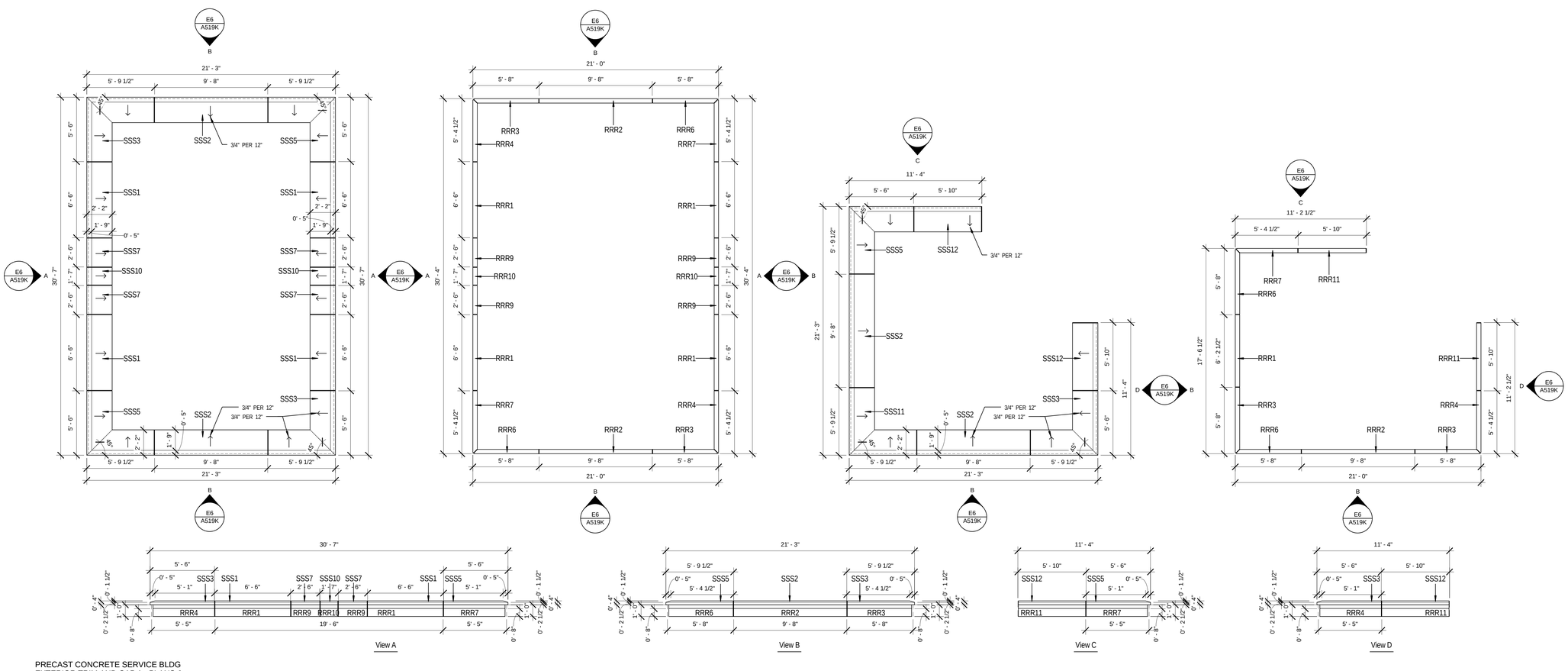


PRECAST CONCRETE SERVICE BLDG
EXTERIOR TRIM 1 - E. PLANS &
ELEVATIONS VIEW A
B6 1/2" = 1'-0"



PRECAST CONCRETE SERVICE BLDG
EXTERIOR TRIM AND CAP 1 - PLANS &
ELEVATIONS
E6 1/4" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
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CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

REVISION	DATE	BY	DESCRIPTION
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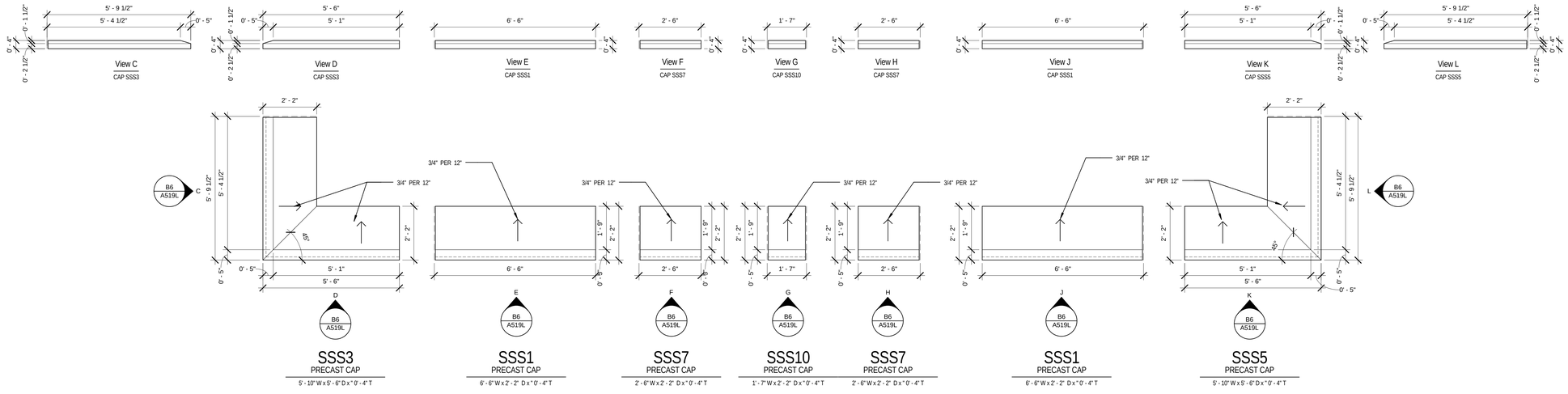
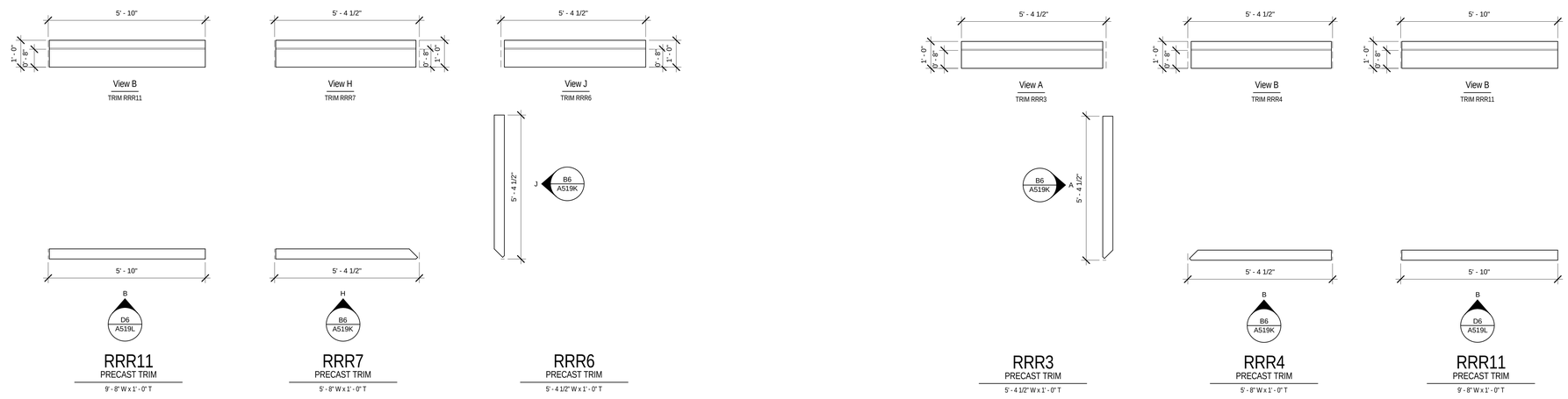
PROJECT NO.: 11007	DRAWING NO.: A519K
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

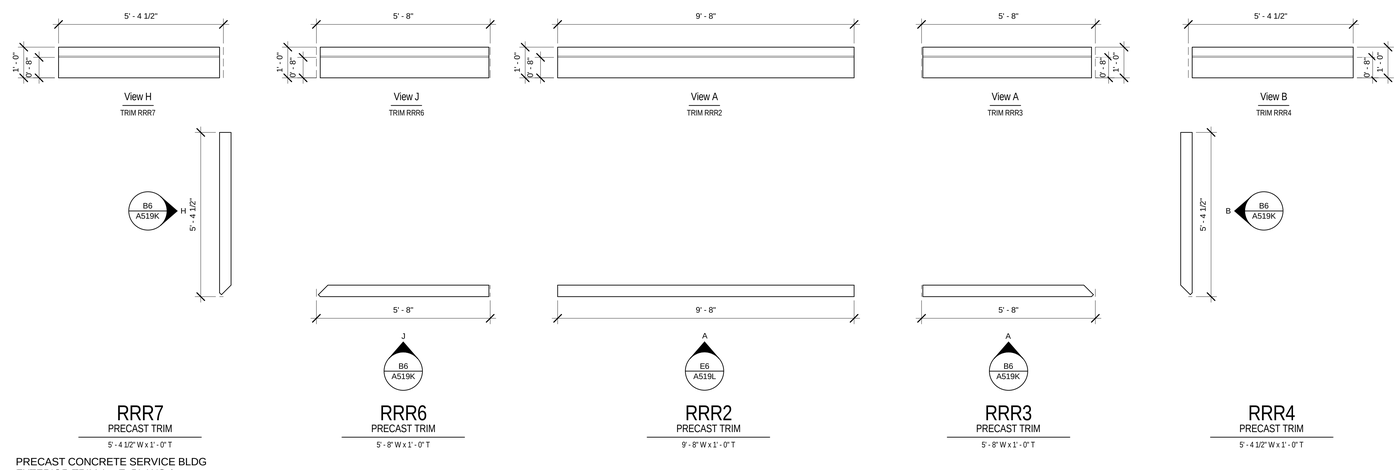


PRECAST CONCRETE SERVICE BLDG
EXTERIOR CAP 1 - E. PLANS &
ELEVATIONS VIEW A
B6 1/2" = 1'-0"



PRECAST CONCRETE SERVICE BLDG
EXTERIOR TRIM 1 - E. PLANS &
ELEVATIONS VIEW C
D6 1/2" = 1'-0"

PRECAST CONCRETE SERVICE BLDG
EXTERIOR TRIM 1 - E. PLANS &
ELEVATIONS VIEW D
D3 1/2" = 1'-0"



PRECAST CONCRETE SERVICE BLDG
EXTERIOR TRIM 1 - E. PLANS &
ELEVATIONS VIEW B
E6 1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

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BUILDING OFFICIAL APPROVAL

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CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

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DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A519L
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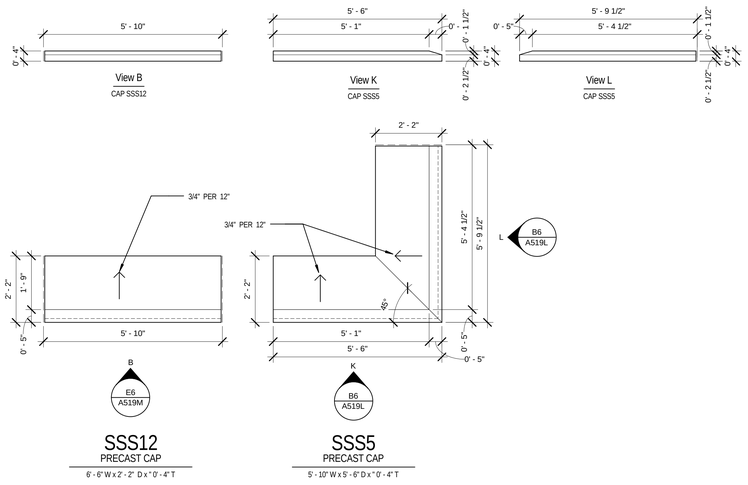
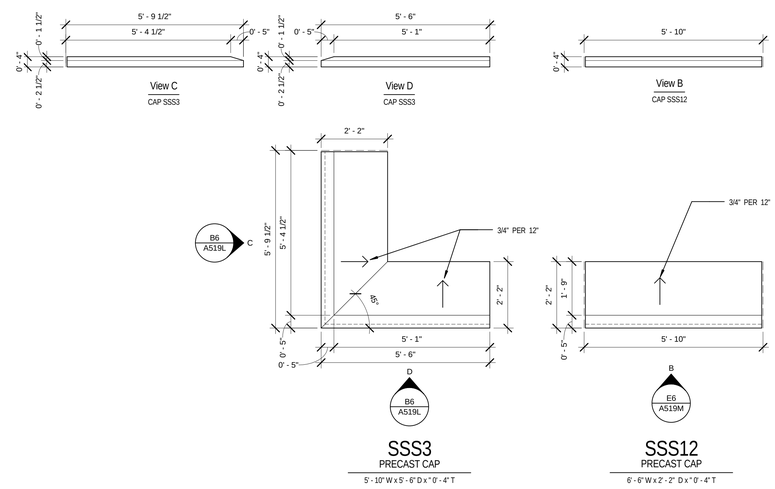
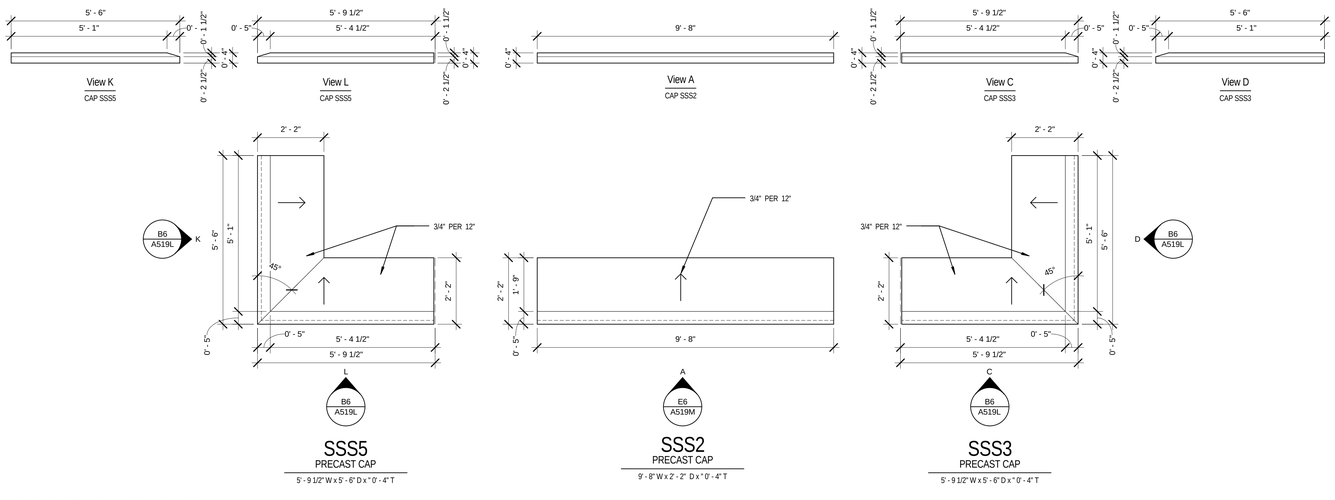


PRECAST CONCRETE SERVICE BLDG
EXTERIOR CAP 1 - E. PLANS &
D6 ELEVATIONS VIEW C
1/2" = 1'-0"



PRECAST CONCRETE SERVICE BLDG
EXTERIOR CAP 1 - E. PLANS &
D3 ELEVATIONS VIEW D
1/2" = 1'-0"



PRECAST CONCRETE SERVICE BLDG
EXTERIOR CAP 1 - E. PLANS &
E6 ELEVATIONS VIEW B
1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

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ERIC R. THOLEN
129665
LICENSED ARCHITECT

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3. THICKNESS OF PRECAST ELEMENTS ARE ASSUMED IN THE DESIGN. PRECAST CONCRETE ENGINEER TO DETERMINE FINAL REQUIRED THICKNESS AND ADJUST THE DEPTHS ACCORDINGLY WITHOUT MODIFYING THE OVERALL WIDTHS & HEIGHTS OF PANELS OR REVEALS.
4. PANELS CAN BE MERGED, PROVIDED CONTROL JOINTS & SCORE LINES ARE MAINTAINED. REQUIRED FLASHING AND CAULKING OF PANELS IS TO BE COORDINATED WITH FINAL DESIGN, AND CONTRACTOR MUST INCLUDE THE COST ASSOCIATED WITH THEM FROM THE BEGINNING.
5. CONTRACTOR IS RESPONSIBLE FOR THE PROPER COORDINATION OF ROUGH OPENINGS FOR WINDOWS, DOORS, LOUVERS, AND ANY OTHER OBJECTS PART OF THE FACADE THAT ARE PENETRATING THE PRECAST CONCRETE PANELS.
6. COORDINATE WITH ARCHITECT THE FINAL COLORS OF PRECAST CONCRETE AND TRIMS- ASSUME FOR THE BID A MINIMUM OF TWO COLORS.
7. CONTRACTOR MUST INCLUDE THE CONTINUOUS SEALANT REQUIRED FOR PRECAST CONCRETE ELEMENTS AND WHEN BUTTING AGAINST OTHER MATERIALS OF THE FACADE (TYPICAL).
8. PRECAST CONCRETE PANEL ELEVATIONS ARE NOT SHOWING THE CONCRETE PANEL BEHIND THE DOOR AND WINDOW PRECAST CONCRETE TRIMS. CONTRACTOR NEEDS TO INCLUDE THESE AREAS IN THE DESIGN, SHOP DRAWINGS AND ASSOCIATED COST (TYPICAL) - REFER TO WINDOW AND DOOR DETAILS AND TYPICAL PRECAST CONCRETE CONNECTION DETAILS.
9. CONTRACTOR IS RESPOSIBLE FOR MEASURING AND VERIFYING ALL DIMENSIONS IN THE FIELD. DO NOT INITIATE FABRICATION WITHOUT COMPLYING WITH THE PROPER COORDINATION OF ALL ITEMS AFECTING THE PRECAST CONCRETE PANELS FINAL DESIGN.

BUILDING OFFICIAL APPROVAL

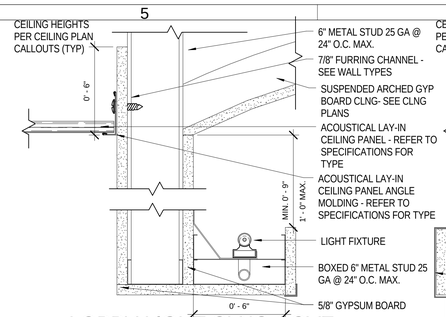
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PRECAST CONCRETE

REVISION	DATE	BY	DESCRIPTION

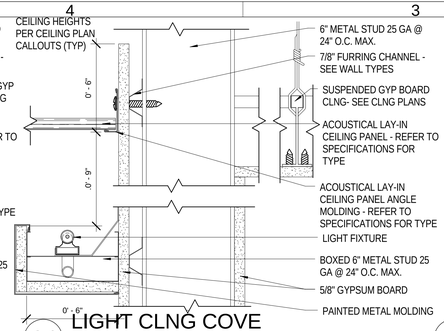
DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: A519M

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



A5 LOBBY LIGHT CLNG COVE

SCALE: 3" = 1'-0"



A4 LIGHT CLNG COVE

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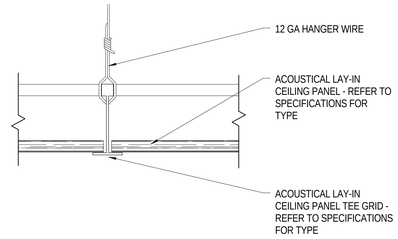
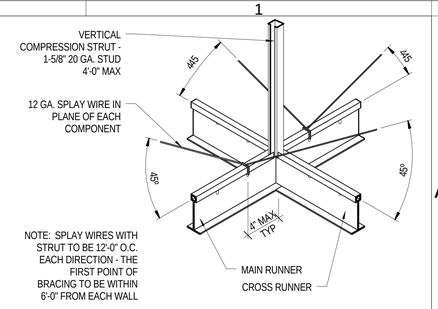


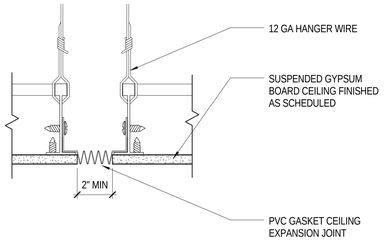
A3 ACOUSTICAL LAY-IN CLNG

SCALE: 3" = 1'-0"



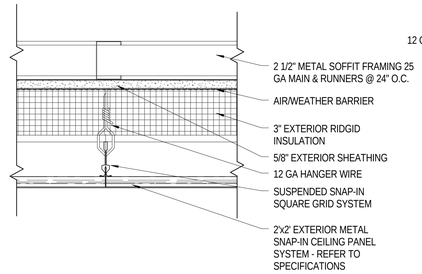
A2 SEISMIC CEILING BRACE

SCALE: 1 1/2" = 1'-0"



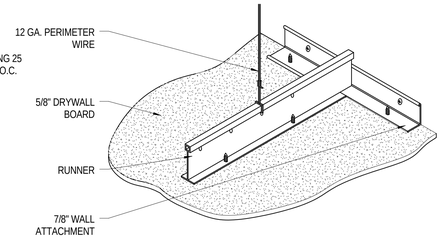
B5 CLNG EXPANSION JOINT

SCALE: 3" = 1'-0"



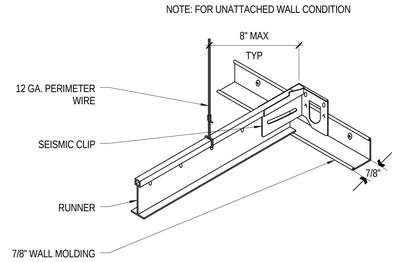
B4 ACOUSTICAL LAY-IN CLNG

SCALE: 3" = 1'-0"



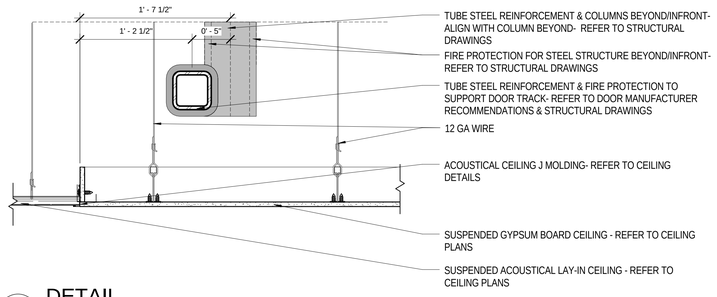
B3 GYPSUM DRYWALL BOARD CLNG

SCALE: 1 1/2" = 1'-0"



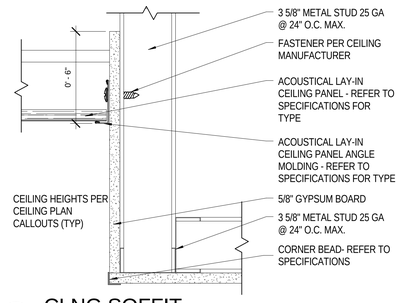
B2 UNATTACHED WALL SEISMIC CLIP

SCALE: 1 1/2" = 1'-0"



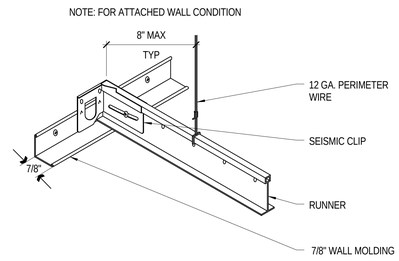
C5 DETAIL

SCALE: 1 1/2" = 1'-0"



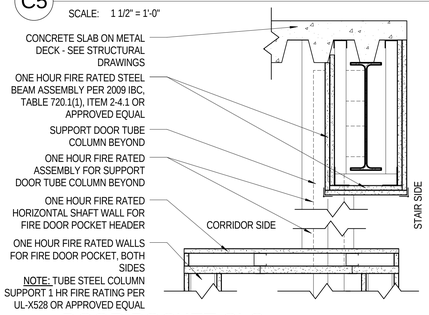
C3 CLNG SOFFIT

SCALE: 3" = 1'-0"



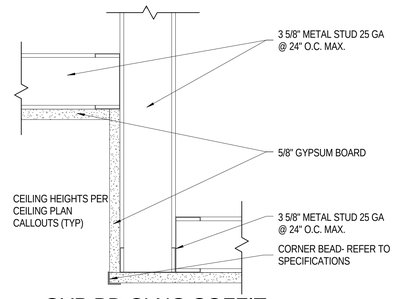
C2 ATTACHED WALL SEISMIC CLIP

SCALE: 1 1/2" = 1'-0"



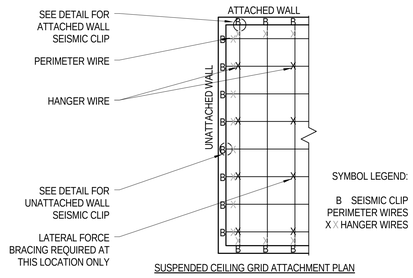
E4 DOOR POCKET CLG

SCALE: 1 1/2" = 1'-0"



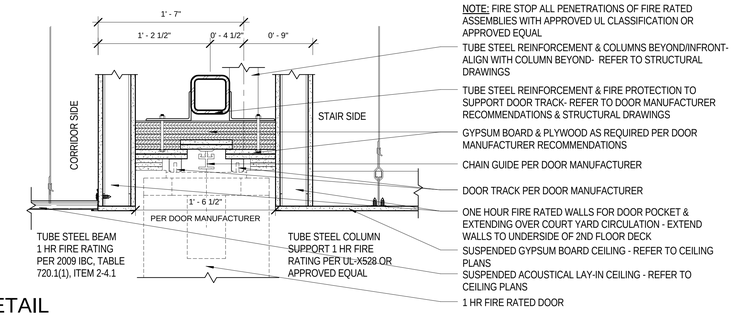
D3 GYP BD CLNG SOFFIT

SCALE: 3" = 1'-0"



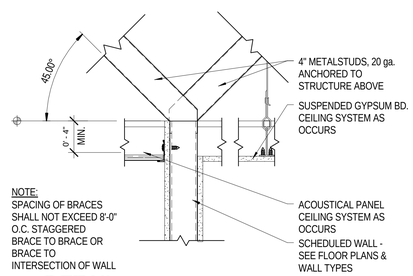
D2 CLNG GRID ATTACHMENT PLAN

SCALE: 1 1/2" = 1'-0"



E5 DETAIL

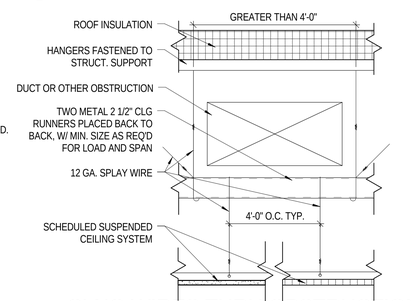
SCALE: 1 1/2" = 1'-0"



NOTE:
SPACING OF BRACES SHALL NOT EXCEED 8'-0" O.C. STAGGERED BRACE TO BRACE OR BRACE TO INTERSECTION OF WALL

E3 DETAIL

SCALE: 1 1/2" = 1'-0"



E2 CLNG WIRES THRU OBSTRUCTION

SCALE: 1 1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

3" Graphic Scale

11/2" Graphic Scale

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

CEILING DETAILS

REVISION	DATE	BY	DESCRIPTION
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△			
△			
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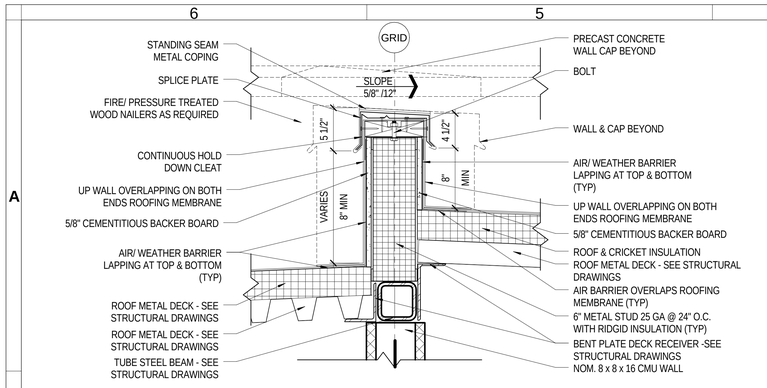
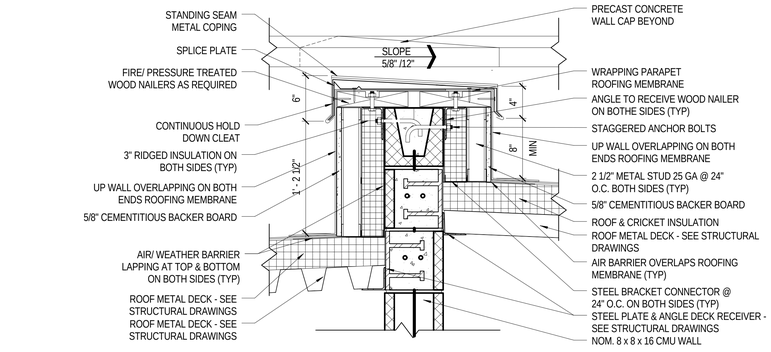
DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: A520

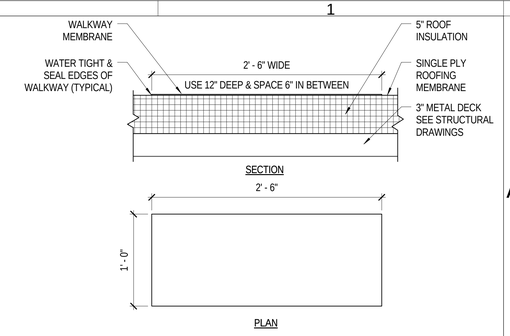
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



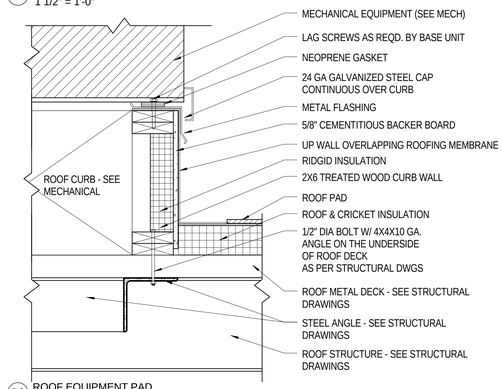
A6 METAL COPING PARAPET DETAIL 2
1 1/2" = 1'-0"



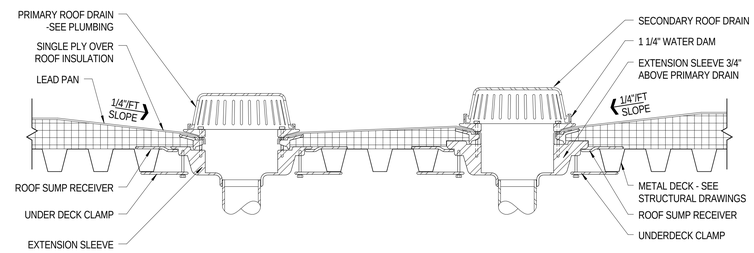
A4 METAL COPING PARAPET DETAIL 1
1 1/2" = 1'-0"



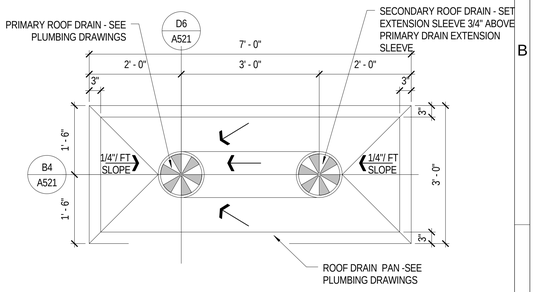
A2 ROOF WALKWAY DETAIL
1 1/2" = 1'-0"



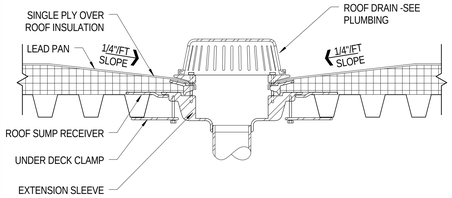
B6 ROOF EQUIPMENT PAD
1 1/2" = 1'-0"



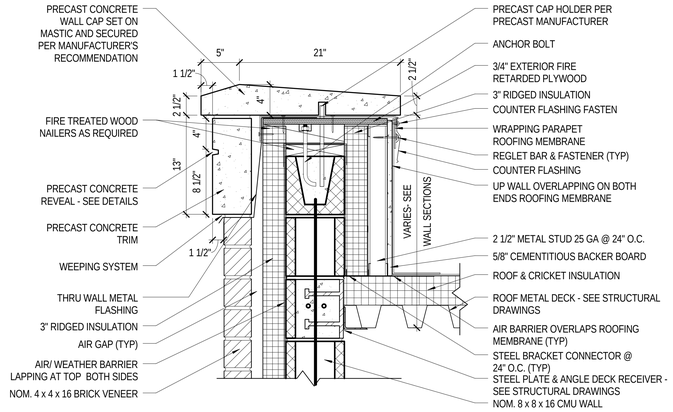
B4 ROOF DRAIN DETAIL
1 1/2" = 1'-0"



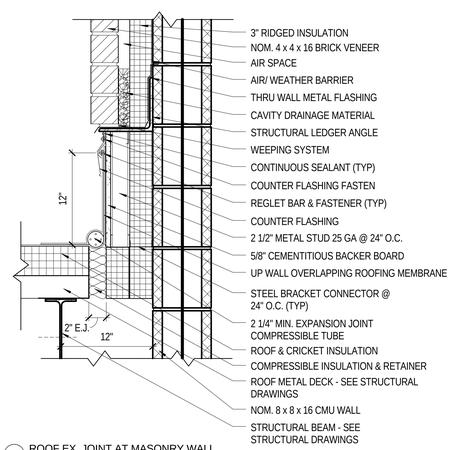
B2 ROOF DRAIN PAN PLAN
3/4" = 1'-0"



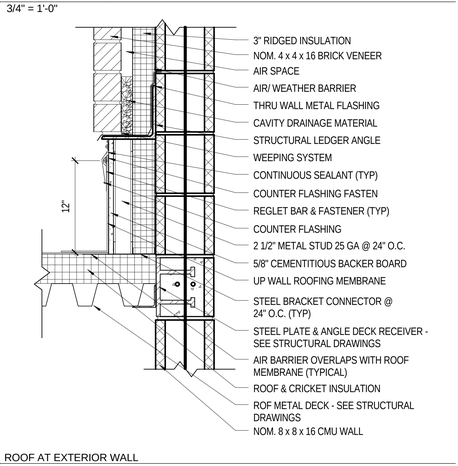
D6 ROOF DRAIN DETAIL
1 1/2" = 1'-0"



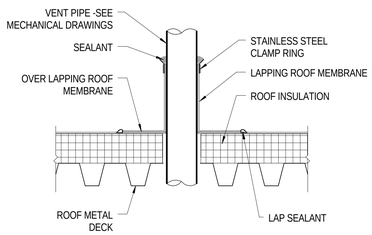
D5 PRECAST CONCRETE CAP PARAPET 2
1 1/2" = 1'-0"



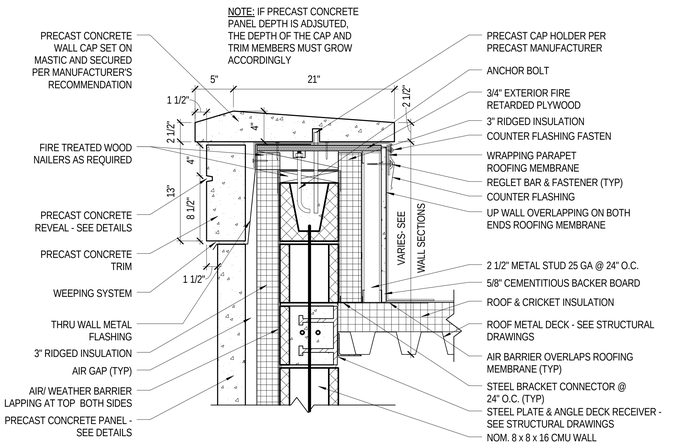
D3 ROOF EX. JOINT AT MASONRY WALL
1 1/2" = 1'-0"



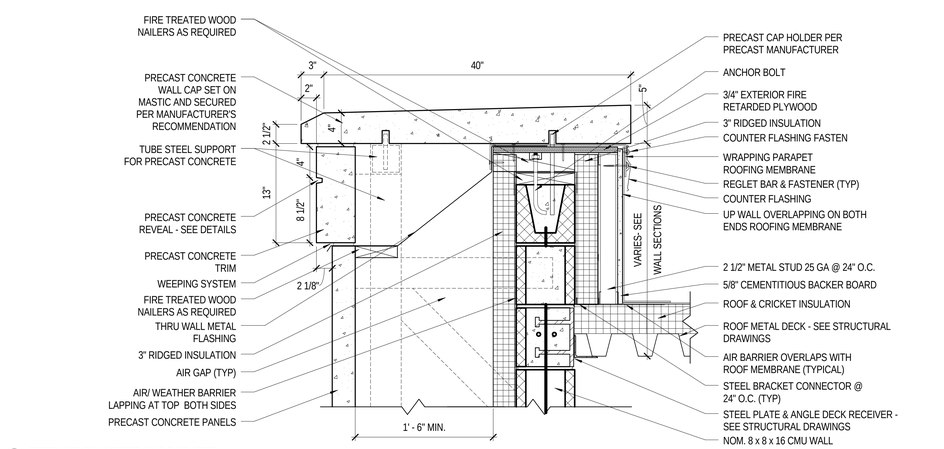
D2 ROOF AT EXTERIOR WALL
1 1/2" = 1'-0"



E6 ROOF PENETRATION < 6" DIA
1 1/2" = 1'-0"



E5 PRECAST CONCRETE CAP PARAPET 3
1 1/2" = 1'-0"



E3 PRECAST CONCRETE CAP PARAPET 1
1 1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
2. GENERAL CONTRACTOR MUST ENSURE AND PROVIDE EXTERIOR AESTHETIC SEALANT JOINTS BETWEEN ALL SIDES OF THE FENESTRATION AND THE CLADDING OF THE BUILDING AS NEEDED TO COMPLETELY CONCEAL THE AIR BARRIER (TYPICAL).
3. GENERAL CONTRACTOR MUST ENSURE A CONTINUOUS AIR BARRIER IS PROVIDED INTO ALL FENESTRATION ROUGH OPENINGS INCLUDING ALL HEAD, JAMB AND SILL CORNERS WITH INTERIOR SEALANT JOINT INSTALLED CONTINUOUSLY BETWEEN FENESTRATION AND AIR BARRIER, AND IN ACCORDANCE WITH FENESTRATION AND AIR BARRIER MANUFACTURERS INSTALLATION PROCEDURES (TYPICAL).
4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

3/4" Graphic Scale

11/2" Graphic Scale

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

ROOF DETAILS

REVISION	DATE	BY	DESCRIPTION
△			
△			
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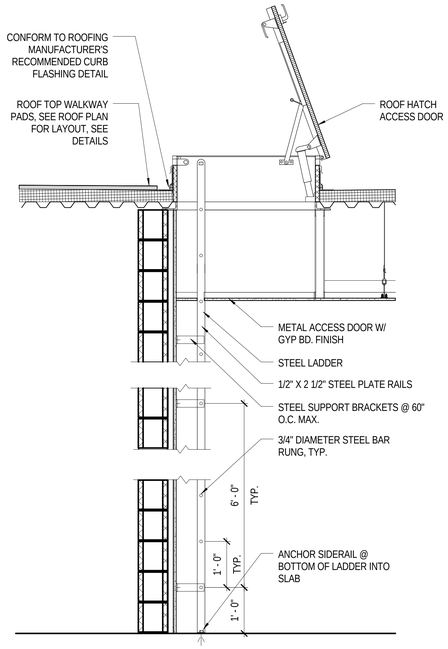
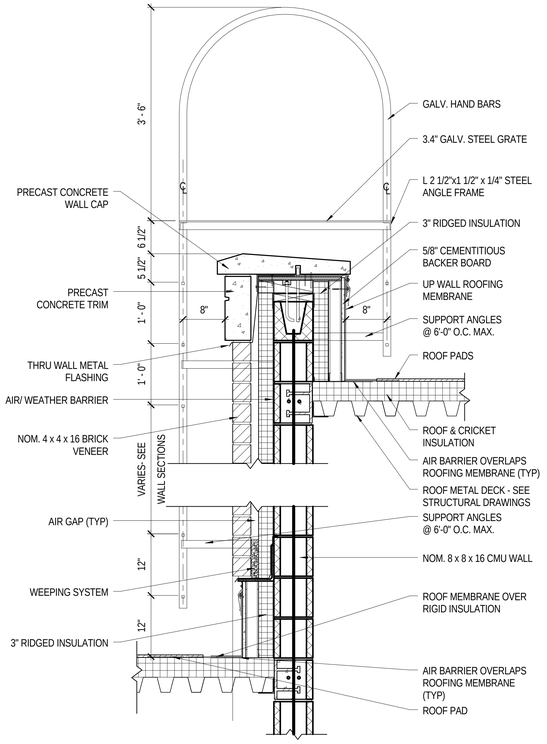
△			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO. 11007	DRAWING NO. A521
DATE 02/15/2013	

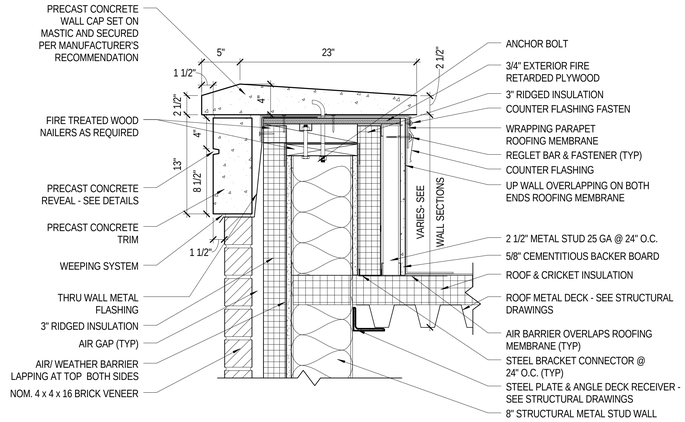
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



C6 ROOF HATCH ACCESS DOOR
3/4" = 1'-0"

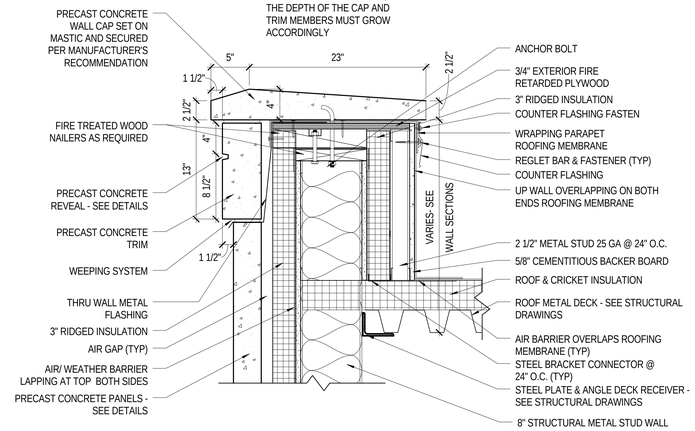


C4 EXTERIOR ROOF LADDER
1" = 1'-0"

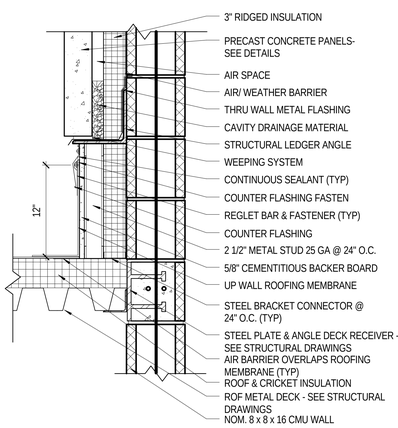


B2 PRECAST CONCRETE CAP PARAPET 4
1 1/2" = 1'-0"

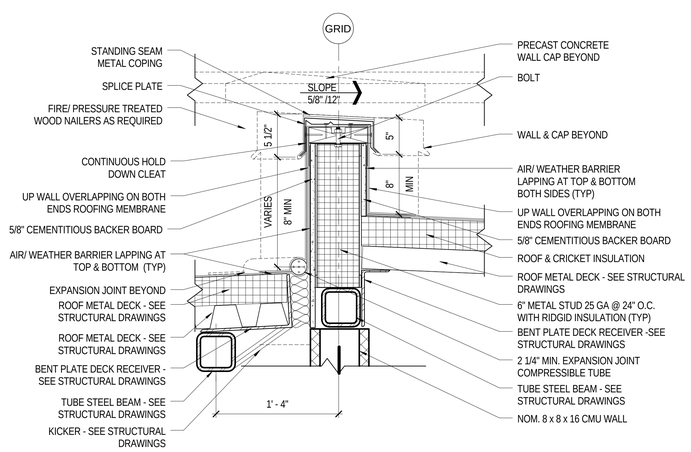
NOTE: IF PRECAST CONCRETE PANEL DEPTH IS ADJSUTED, THE DEPTH OF THE CAP AND TRIM MEMBERS MUST GROW ACCORDINGLY



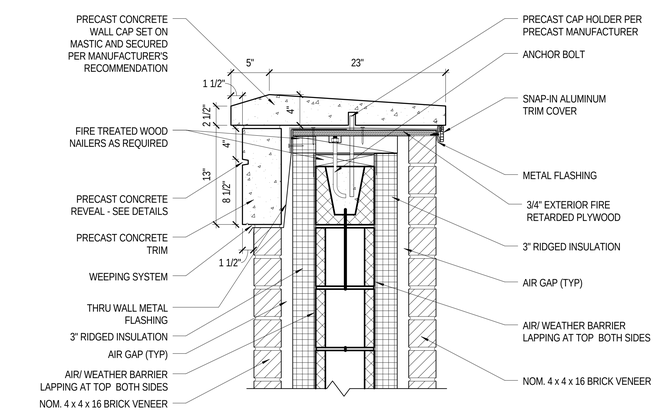
D2 PRECAST CONCRETE CAP PARAPET 5
1 1/2" = 1'-0"



E6 ROOF AT EXTERIOR WALL
1 1/2" = 1'-0"



E4 ROOF EX. JOINT AT STUD WALL 2
1 1/2" = 1'-0"



E2 PRECAST CONCRETE CAP PARAPET 6
1 1/2" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

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ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
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3/4" Graphic Scale

1" Graphic Scale

11/2" Graphic Scale

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

ROOF DETAILS

REVISION	DATE	BY	DESCRIPTION
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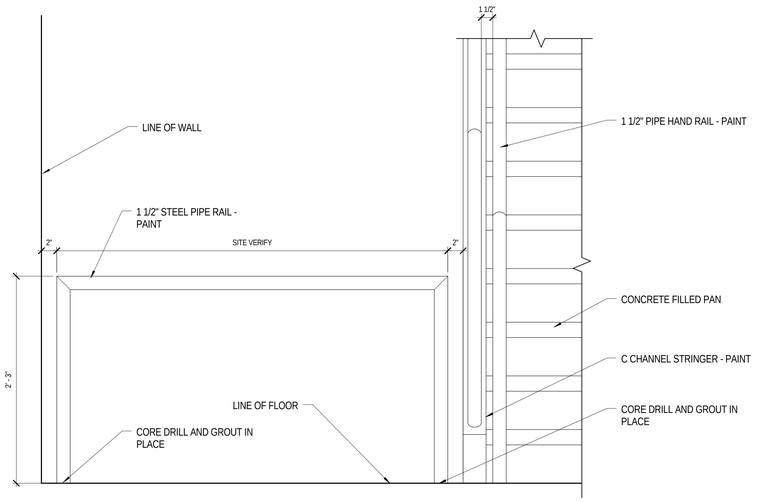
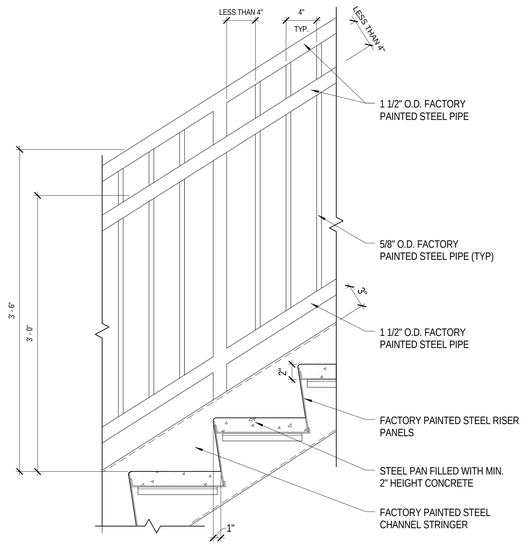
△			
△			
△			

DRAWN BY CO CS CR	CHECKED BY CR MM
PROJECT NO. 11007	DRAWING NO. A522
DATE 02/15/2013	

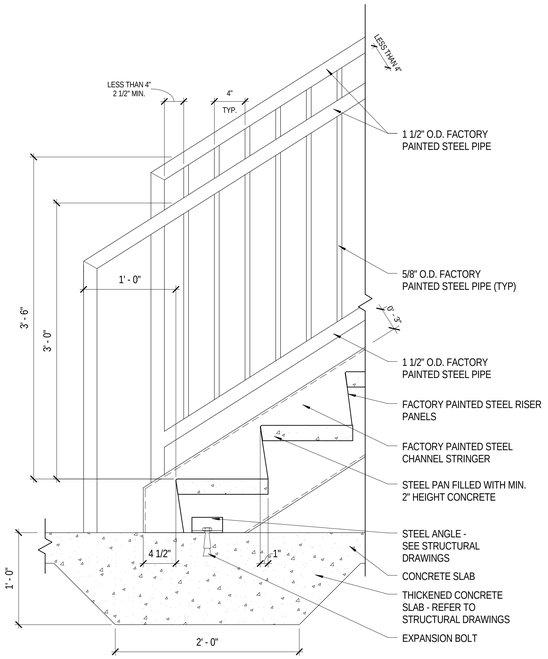
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



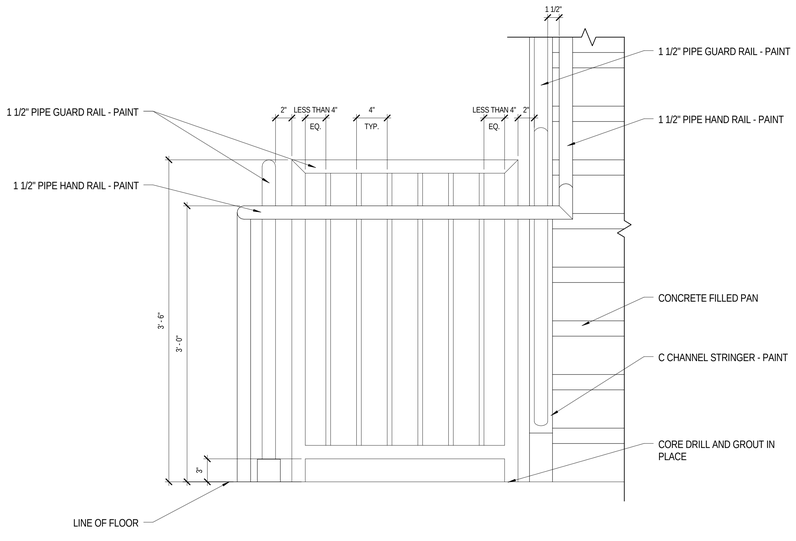
C6 STAIR DETAIL TYP.
1 1/2" = 1'-0"



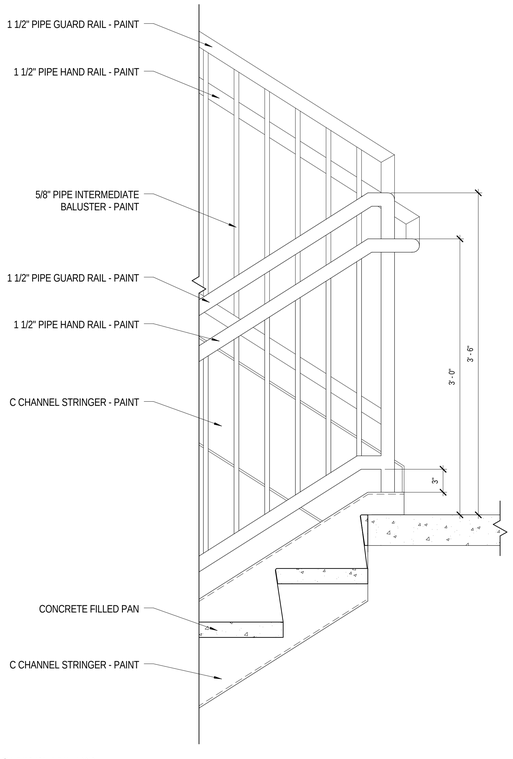
C4 STAIR DETAIL TYP.
1 1/2" = 1'-0"



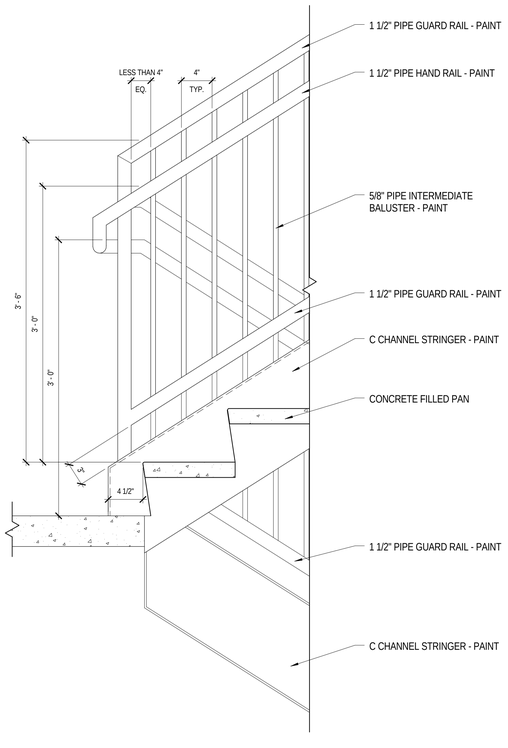
C2 STAIR DETAIL TYP.
1 1/2" = 1'-0"



E6 STAIR DETAIL TYP.
1 1/2" = 1'-0"



E4 STAIR DETAIL TYP.
1 1/2" = 1'-0"



E2 STAIR DETAIL TYP.
1 1/2" = 1'-0"

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265 EAST 100 SOUTH SUITE 350
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SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

11/2" Graphic Scale

BUILDING OFFICIAL APPROVAL

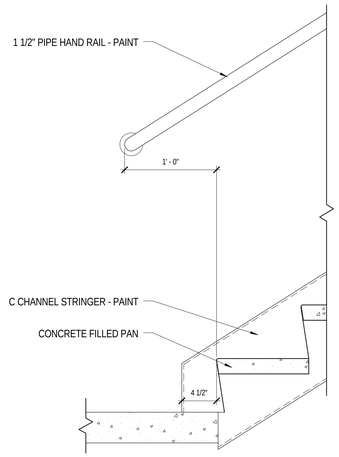
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

STAIR DETAILS

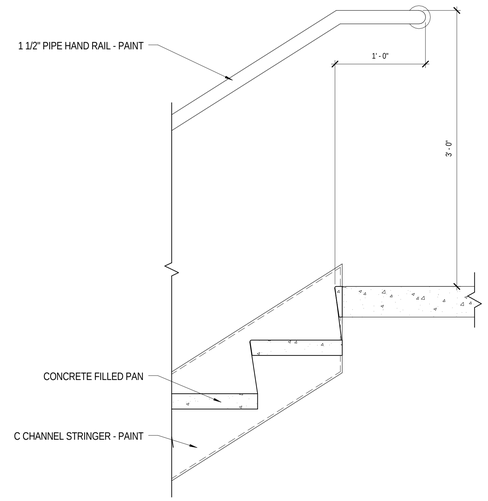
REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: A523

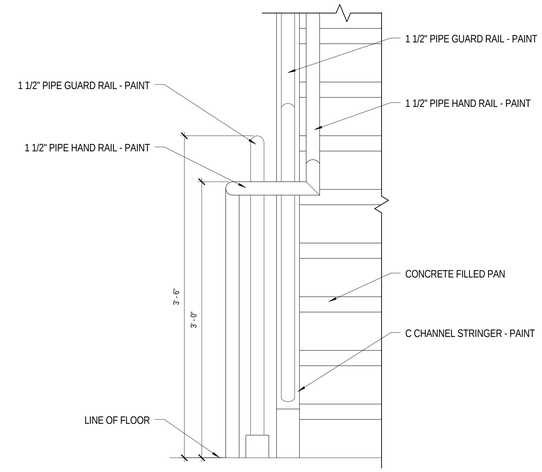
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



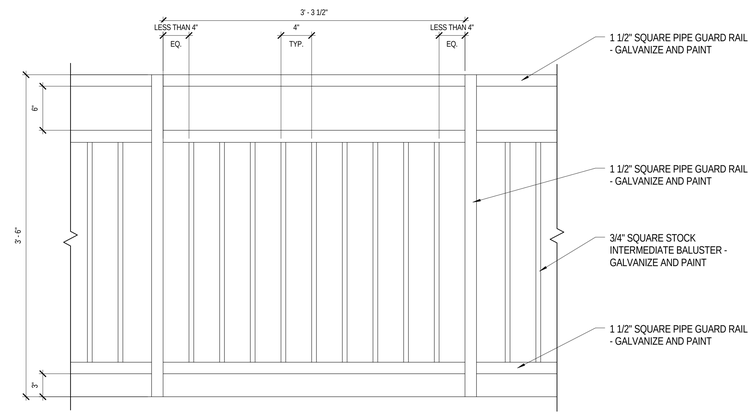
B5 STAIR DETAIL TYP.
1 1/2" = 1'-0"



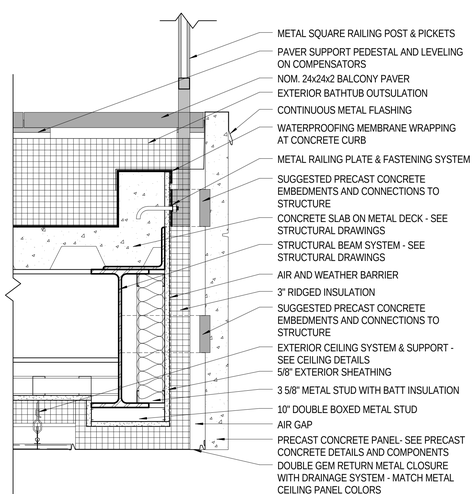
B3 STAIR DETAIL TYP.
1 1/2" = 1'-0"



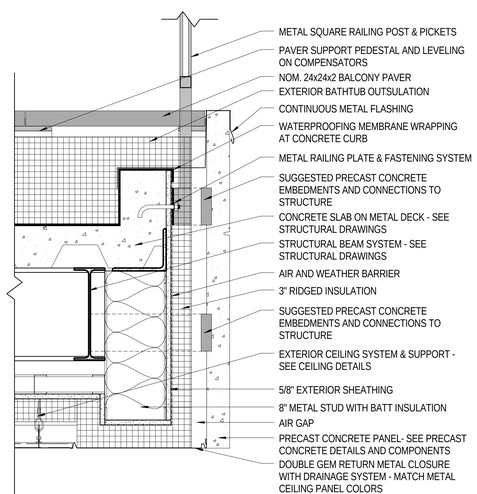
B1 STAIR DETAIL TYP.
1 1/2" = 1'-0"



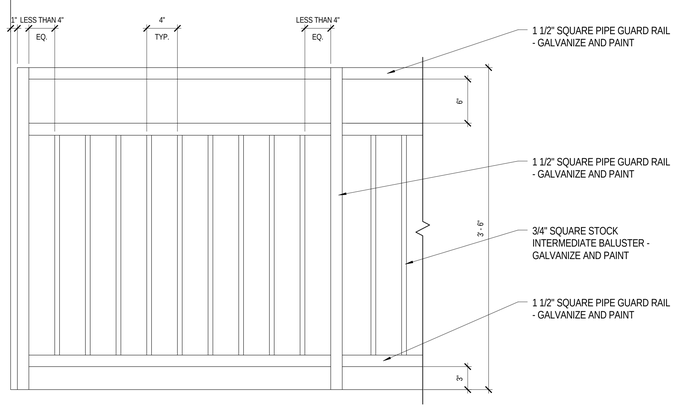
D2 BALCONY RAIL DETAIL TYP.
1 1/2" = 1'-0"



E6 BALCONY EXTERIOR STRAIGHT SIDE SECTION DETAIL
1 1/2" = 1'-0"



E5 BALCONY EXTERIOR SIDE SECTION DETAIL
1 1/2" = 1'-0"



E2 BALCONY RAIL DETAIL TYP.
1 1/2" = 1'-0"

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ERIC R. THOLEN
129665
LICENSED ARCHITECT

ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
2. GENERAL CONTRACTOR MUST ENSURE AND PROVIDE EXTERIOR AESTHETIC SEALANT JOINTS BETWEEN ALL SIDES OF THE FENESTRATION AND THE CLADDING OF THE BUILDING AS NEEDED TO COMPLETELY CONCEAL THE AIR BARRIER (TYPICAL).
3. GENERAL CONTRACTOR MUST ENSURE A CONTINUOUS AIR BARRIER IS PROVIDED INTO ALL FENESTRATION ROUGH OPENINGS INCLUDING ALL HEAD, JAMB AND SILL CORNERS WITH INTERIOR SEALANT JOINT INSTALLED CONTINUOUSLY BETWEEN FENESTRATION AND AIR BARRIER, AND IN ACCORDANCE WITH FENESTRATION AND AIR BARRIER MANUFACTURERS INSTALLATION PROCEDURES (TYPICAL).
4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL. AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

11/2" Graphic Scale

BUILDING OFFICIAL APPROVAL

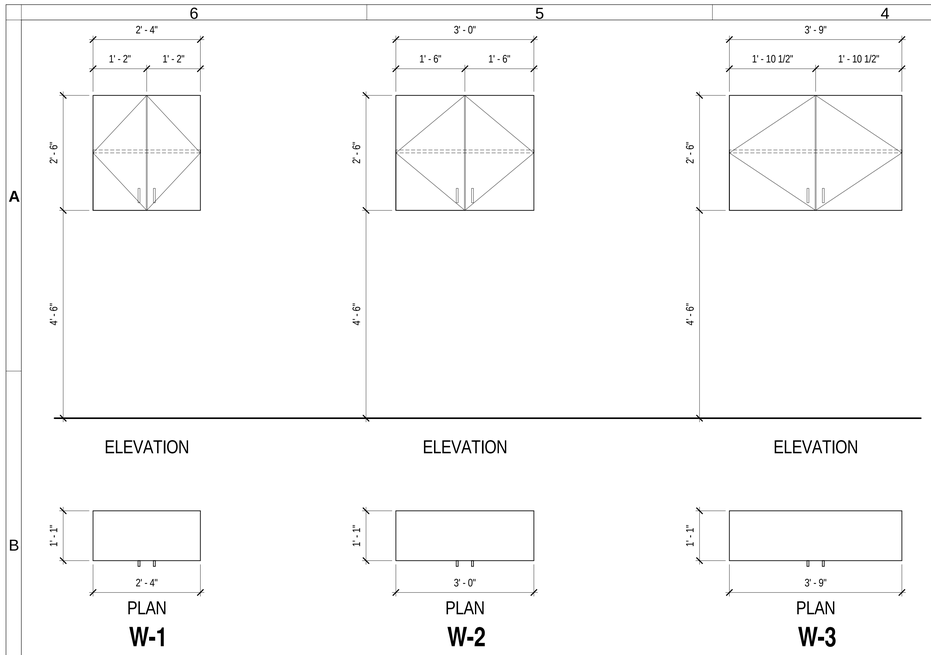
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

STAIR & BALCONY DETAILS

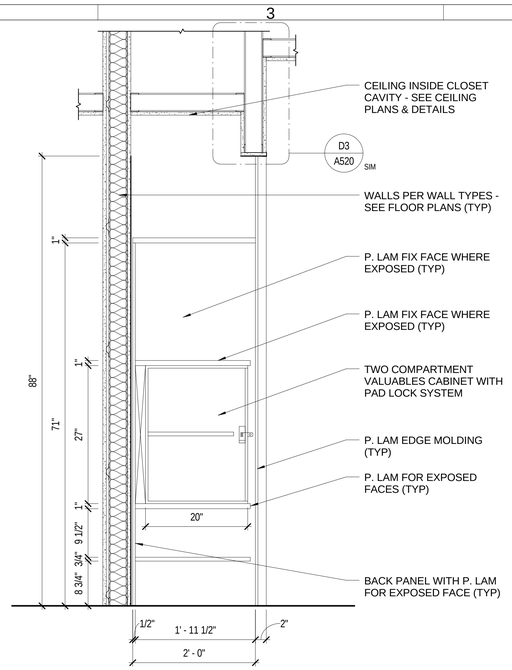
REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: A524

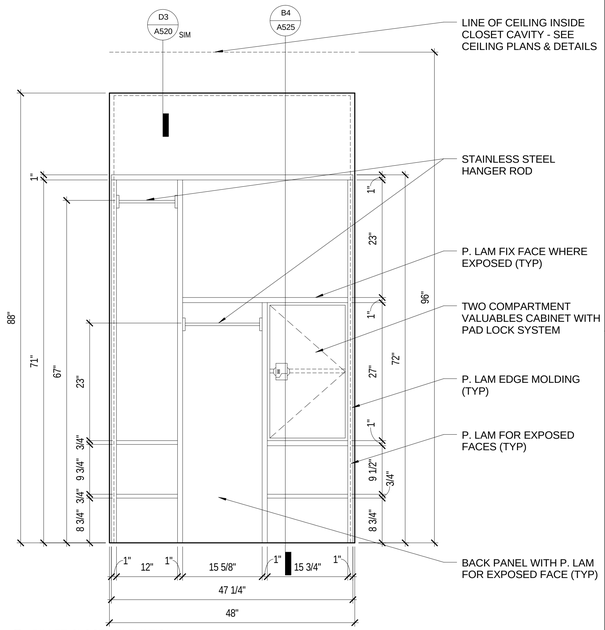
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



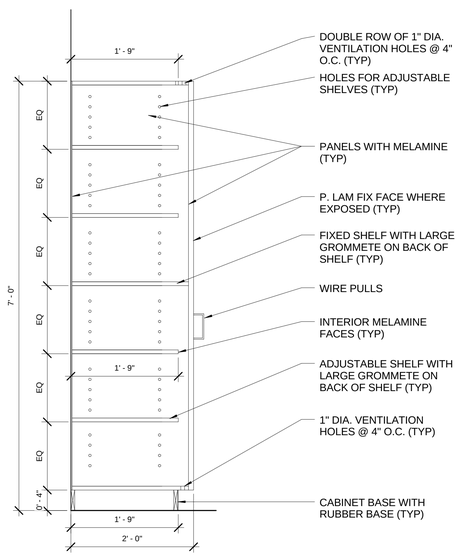
B6 MILLWORK UPPER CABINETS
3/4" = 1'-0"



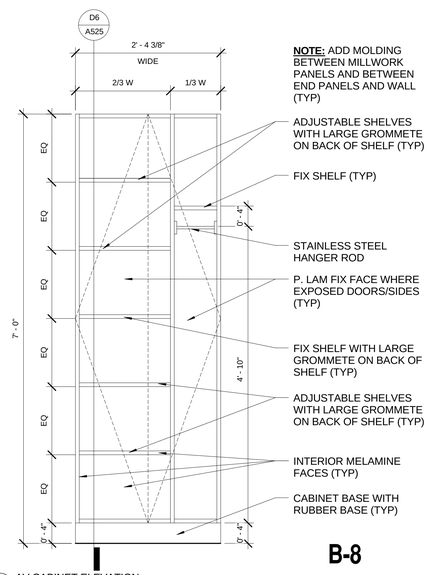
B4 BILLET CLOSET SECTION
1" = 1'-0"



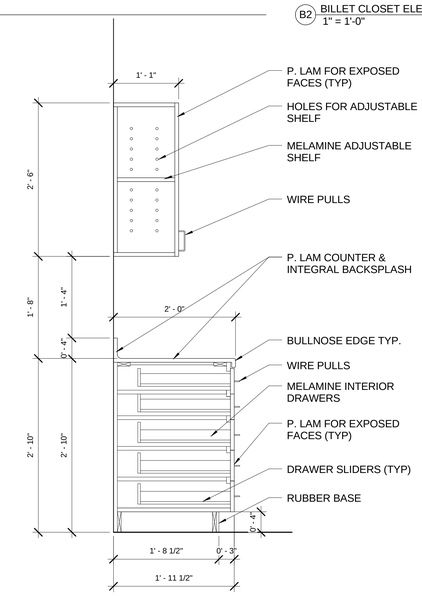
B2 BILLET CLOSET ELEVATION
1" = 1'-0"



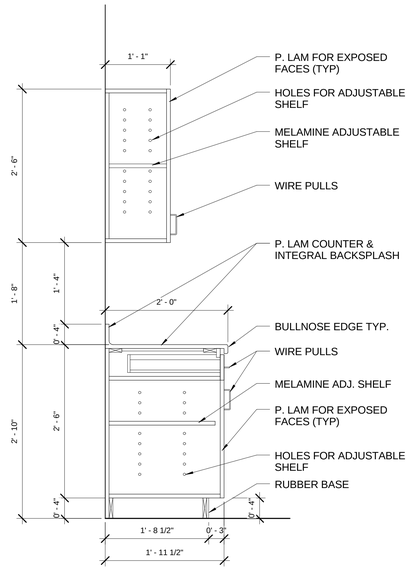
D6 AV CABINET SECTION
1" = 1'-0"



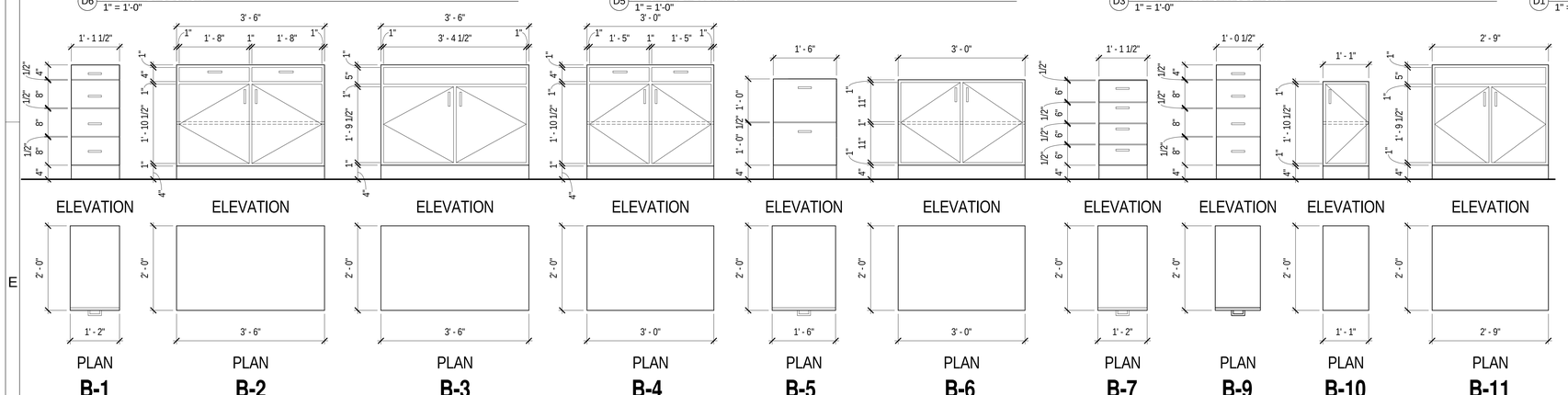
D5 AV CABINET ELEVATION
1" = 1'-0"



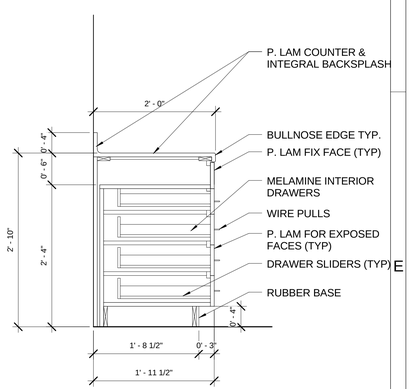
D3 INTERIOR MILLWORK SECTION 1
1" = 1'-0"



D1 INTERIOR MILLWORK SECTION 2
1" = 1'-0"



E6 MILLWORK BASE CABINETS
3/4" = 1'-0"



E1 INTERIOR MILLWORK SECTION 3
1" = 1'-0"

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STATE OF UTAH
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129665
LICENSED ARCHITECT

3/4" Graphic Scale

1" Graphic Scale

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BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

MILLWORK

REVISION	DATE	BY	DESCRIPTION
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△			
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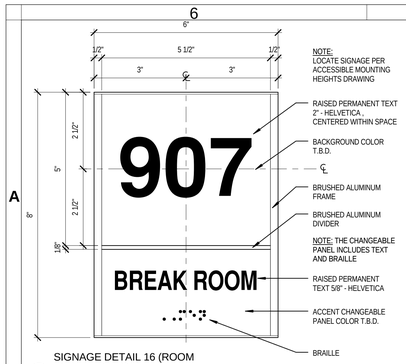
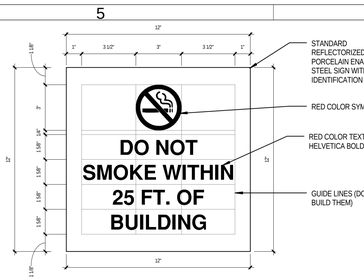
DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: A525

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



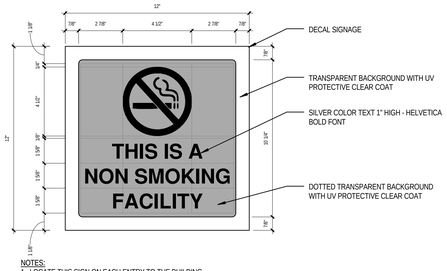
NOTE:
LOCATE SIGNAGE PER ACCESSIBLE MOUNTING HEIGHTS DRAWING

A6 SIGNAGE DETAIL 16 (ROOM IDENTIFICATION)
6" = 1'-0"



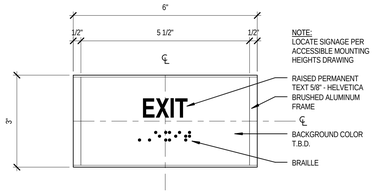
NOTES:
1. LOCATE THIS SIGN BY THE WALKING PATH TO EACH ENTRY TO THE BUILDING AND AT THE PERIMETER OF THE BUILDING TO A DISTANCE EQUAL TO 5'-0" FROM THE FACADE, SEPARATED EACH OTHER NO MORE THAN 50 FT. ENSURE LOCATIONS EQUALLY DISTRIBUTED IN RELATIONSHIP TO THE FACADE PRECAST CONCRETE ELEMENTS .
2. INSTALL THIS SIGN ATTACHED TO A POST OF EQUAL CHARACTERISTICS, SIZES AND REQUIREMENTS AS THOSE USED FOR THE ACCESSIBLE PARKING INDICATED WITHIN THE CIVIL CONSTRUCTION DOCUMENTS.

A5 SIGNAGE DETAIL 12 (25' SMOKING)
3" = 1'-0"



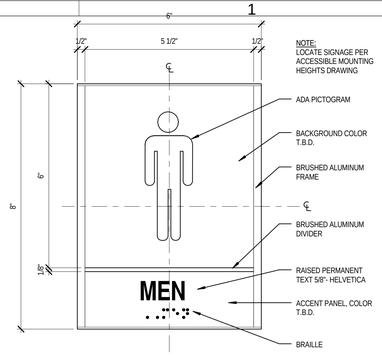
NOTES:
1. LOCATE THIS SIGN ON EACH ENTRY TO THE BUILDING.
2. INSTALL THIS SIGN TO THE INTERIOR PANE OF THE GLAZING, CENTERED IN THE WIDTH OF THE RIGHT HAND DOOR GLAZING, BOTTOM OF SIGN 0'-2" ABOVE TOP OF CENTER DOOR RAIL

A4 SIGNAGE DETAIL 11 (NON-SMOKING)
3" = 1'-0"



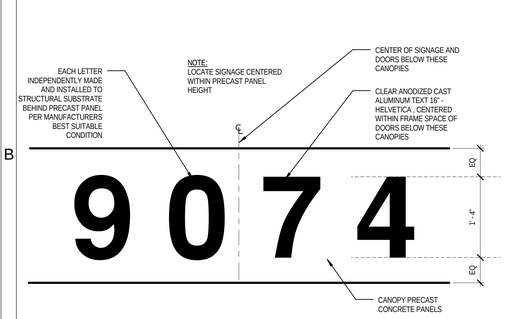
NOTE:
LOCATE SIGNAGE PER ACCESSIBLE MOUNTING HEIGHTS DRAWING

A3 SIGNAGE DETAIL 5 (EXIT)
6" = 1'-0"



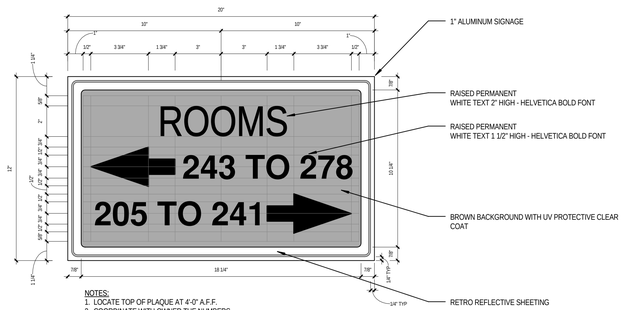
NOTE:
LOCATE SIGNAGE PER ACCESSIBLE MOUNTING HEIGHTS DRAWING

A2 SIGNAGE DETAIL 1 (MEN)
6" = 1'-0"



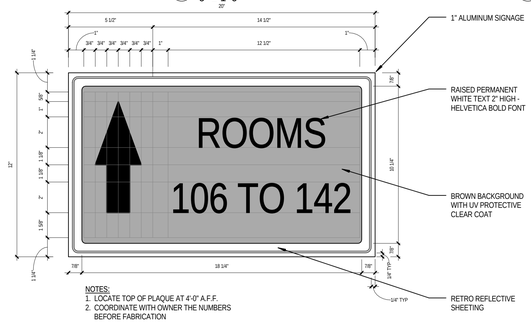
NOTE:
LOCATE SIGNAGE CENTERED WITHIN PRECAST PANEL HEIGHT

C6 SIGNAGE DETAIL 17 (EXTERIOR SIGNAGE)
1" = 1'-0"



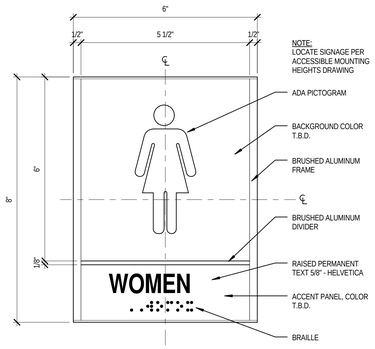
NOTES:
1. LOCATE TOP OF PLAQUE AT 4'-0" A.F.F.
2. COORDINATE WITH OWNER THE NUMBERS BEFORE FABRICATION

C5 SIGNAGE DETAIL 10 (DIRECTIONAL UPPERS)
3" = 1'-0"



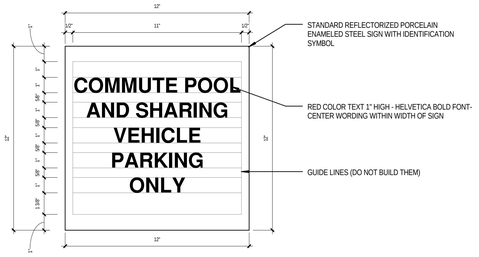
NOTES:
1. LOCATE TOP OF PLAQUE AT 4'-0" A.F.F.
2. COORDINATE WITH OWNER THE NUMBERS BEFORE FABRICATION

C4 SIGNAGE DETAIL 7 (DIRECTIONAL)
3" = 1'-0"



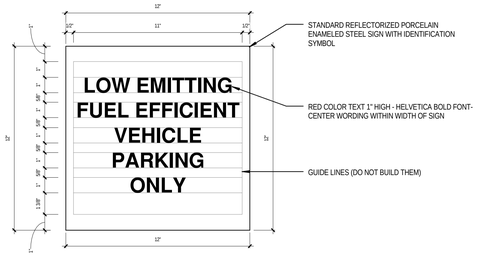
NOTE:
LOCATE SIGNAGE PER ACCESSIBLE MOUNTING HEIGHTS DRAWING

C2 SIGNAGE DETAIL 2 (WOMEN)
6" = 1'-0"



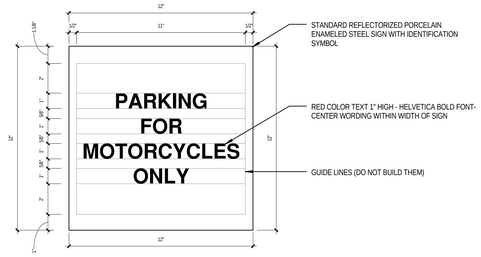
NOTES:
1. LOCATE THIS SIGN IN FRONT OF EACH MARKED COMMUTE POOL AND SHARING PARKING (SEE CS101 DRAWING), 1'-6" BEHIND THE SIDEWALK.
2. INSTALL THIS SIGN ATTACHED TO A POST OF EQUAL CHARACTERISTICS, SIZES AND REQUIREMENTS AS THOSE USED FOR THE ACCESSIBLE PARKING INDICATED WITHIN THE CIVIL CONSTRUCTION DOCUMENTS.

D6 SIGNAGE DETAIL 15 (COMMUTE POOL AND SHARING PARKING)
3" = 1'-0"



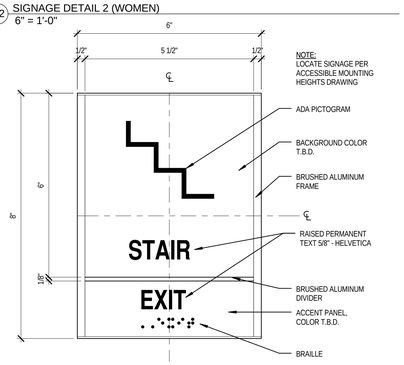
NOTES:
1. LOCATE THIS SIGN IN FRONT OF EACH MARKED LOW-EMITTING/ FUEL EFFICIENT PARKING (SEE CS101 DRAWING), 1'-6" BEHIND THE SIDEWALK.
2. INSTALL THIS SIGN ATTACHED TO A POST OF EQUAL CHARACTERISTICS, SIZES AND REQUIREMENTS AS THOSE USED FOR THE ACCESSIBLE PARKING INDICATED WITHIN THE CIVIL CONSTRUCTION DOCUMENTS.

D5 SIGNAGE DETAIL 14 (LOW EMITTING & FULL EFFICIENT PARKING)
3" = 1'-0"



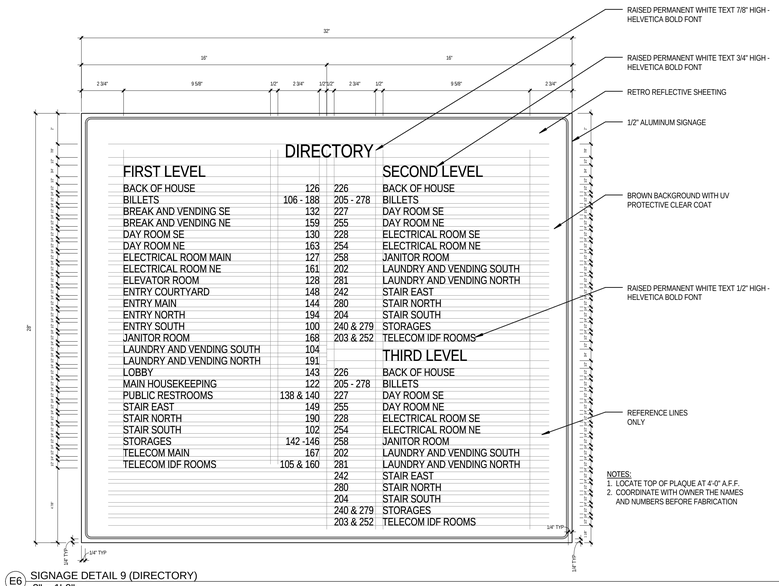
NOTES:
1. LOCATE THIS SIGN IN FRONT OF EACH MARKED MOTOCYCLE PARKING (SEE CS101 DRAWING), 1'-6" BEHIND THE CURB.
2. INSTALL THIS SIGN ATTACHED TO A POST OF EQUAL CHARACTERISTICS, SIZES AND REQUIREMENTS AS THOSE USED FOR THE ACCESSIBLE PARKING INDICATED WITHIN THE CIVIL CONSTRUCTION DOCUMENTS.

D4 SIGNAGE DETAIL 13 (MOTORCYCLE PARKING)
3" = 1'-0"



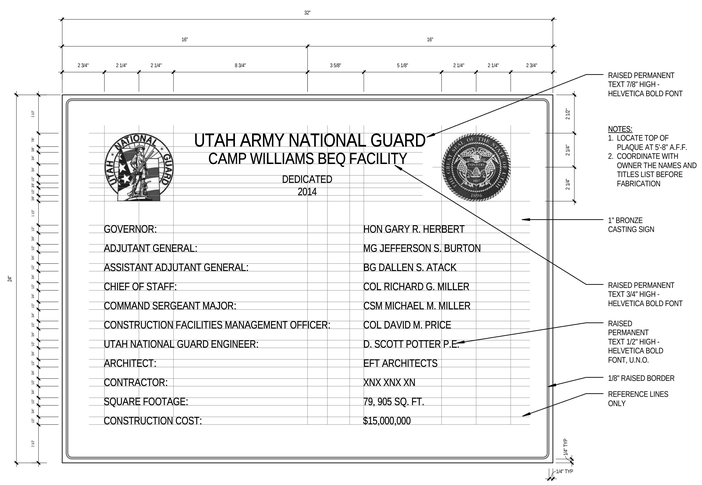
NOTE:
LOCATE SIGNAGE PER ACCESSIBLE MOUNTING HEIGHTS DRAWING

D2 SIGNAGE DETAIL 3 (STAIR)
6" = 1'-0"



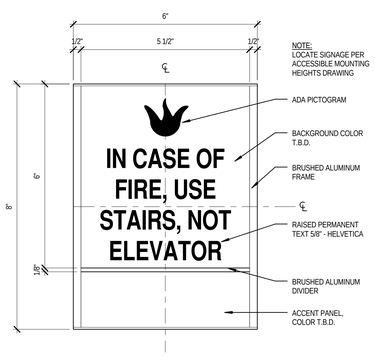
NOTES:
1. LOCATE TOP OF PLAQUE AT 4'-0" A.F.F.
2. COORDINATE WITH OWNER THE NAMES AND NUMBERS BEFORE FABRICATION

E6 SIGNAGE DETAIL 9 (DIRECTORY)
3" = 1'-0"



NOTES:
1. LOCATE TOP OF PLAQUE AT 5'-8" A.F.F.
2. COORDINATE WITH OWNER THE NAMES AND TITLES LIST BEFORE FABRICATION

E4 SIGNAGE DETAIL 6 (PLAQUE)
3" = 1'-0"



NOTE:
LOCATE SIGNAGE PER ACCESSIBLE MOUNTING HEIGHTS DRAWING

E2 SIGNAGE DETAIL 4 (IN CASE OF FIRE)
6" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

3" Graphic Scale

6" Graphic Scale

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

SIGNAGE DETAILS

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO. 11007
DRAWING NO. A526
DATE 02/15/2013

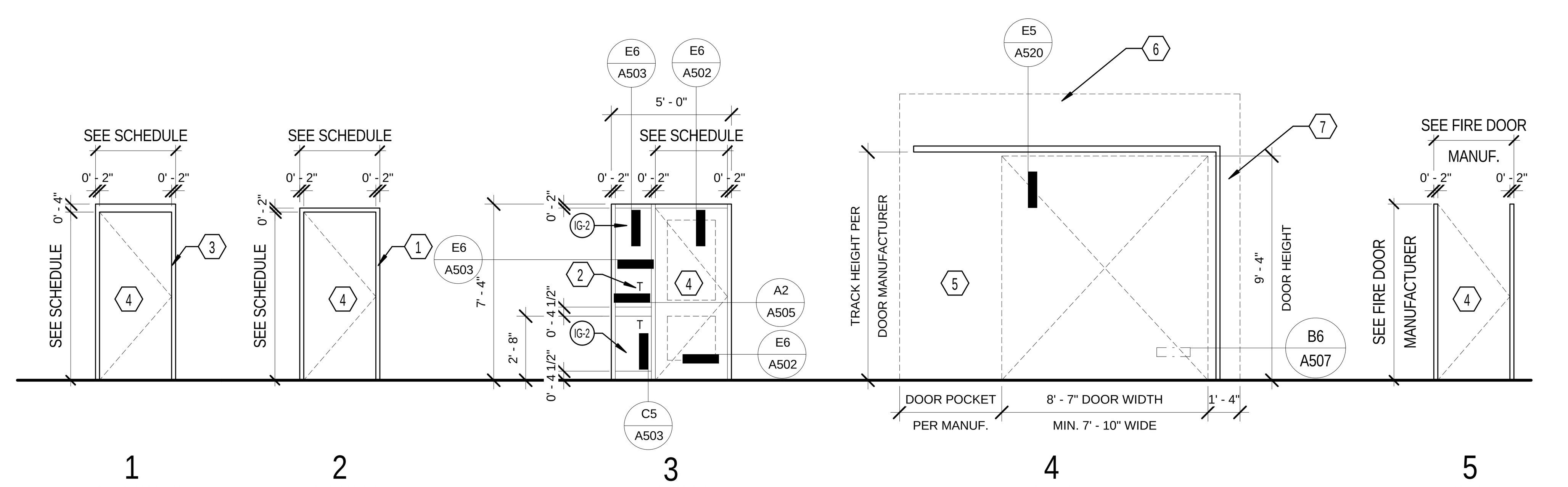
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

1ST FLOOR DOOR SCHEDULE

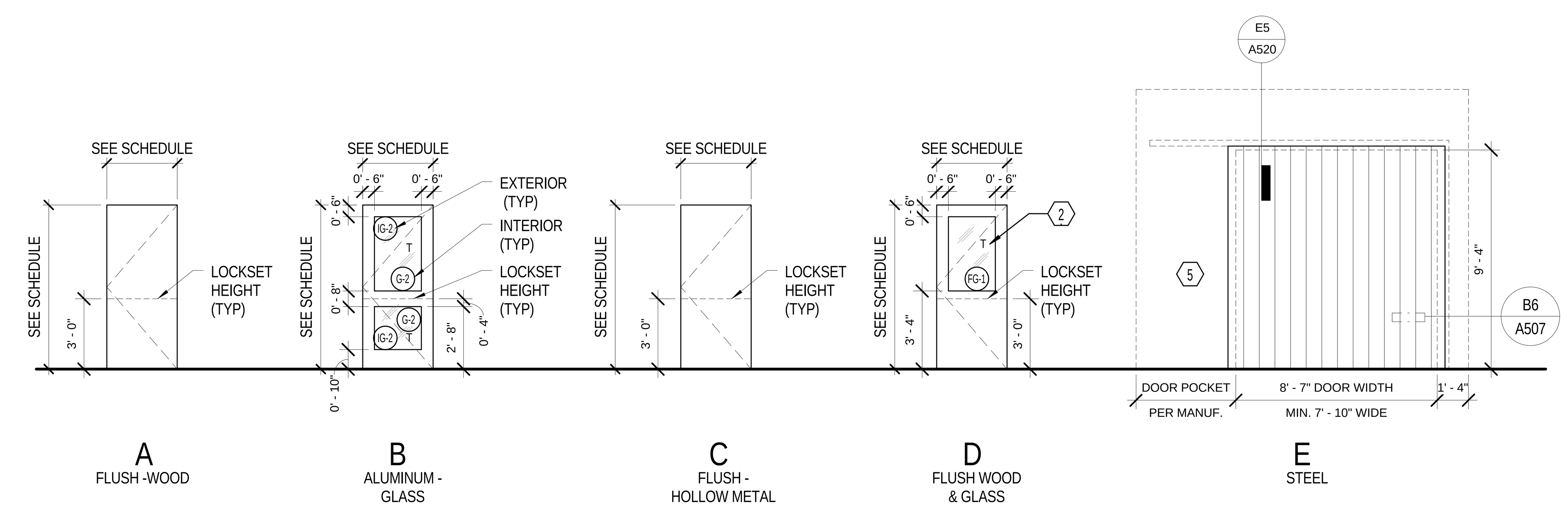
DOOR #	DOOR TYPE	DOOR LEAVES	DOOR WIDTH	DOOR HEIGHT	DOOR THICKNESS	DOOR MATERIAL	FRAME TYPE	FRAME DEPTH	FRAME MATERIAL	JAMB DETAIL	HEAD DETAIL	ELECTRICAL	FIRE RATING	HARDWARE GROUP	REMARKS
100A	B	2	6' - 0"	7' - 0"	0' - 2"	ALUM	2	0' - 4 1/2"	ALUM	A2/A505	A6/A505	Yes		1	A3/A526 SIGNAGE INSTALLED ON THE RIGHT OF THE RIGHT HAND DOOR
101A	B	2	6' - 0"	7' - 0"	0' - 2"	ALUM	2	0' - 4 1/2"	ALUM	E2/A505	A6/A505 SIM	Yes		10	A3/A526 SIGNAGE INSTALLED ON THE RIGHT OF THE RIGHT HAND DOOR
102A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502	No	60 MIN	12	D2/A526 SIGNAGE
102B	C	1	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	0' - 5 3/4"	HM	B6/A502	B6/A502		20 MIN	5	EXIT DOOR ONLY, A3/A526 SIGNAGE
103A	C	1	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	0' - 5 3/4"	HM	D6/A502	D6/A502		20 MIN	8	A6/A526 SIGNAGE
104A	D	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	A3/A502	A3/A502	Yes	20 MIN	13	A6/A526 SIGNAGE
105A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	16	A6/A526 SIGNAGE
106A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
106B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
107A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
107B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
108A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
108B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
109A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
109B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
110A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
110B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
111A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
111B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
112A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
112B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
113A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
113B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
114A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
114B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
115A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
115B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
116A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
116B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
117A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
117B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
118A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
118B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
119A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
119B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
120A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
120B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
121A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
121B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
122A	A	1	3' - 6"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	14.1	A6/A526 SIGNAGE
123A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
123B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
124A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A3/A502	A3/A502		20 MIN	16	A6/A526 SIGNAGE
125A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
125B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
126A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502	Yes	60 MIN	14	A6/A526 SIGNAGE
126B	A	1	3' - 6"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	E3/A502	E3/A502	Yes	60 MIN	14.1	A6/A526 SIGNAGE
127A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502		20 MIN	11	A6/A526 SIGNAGE
127B	C	1	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	0' - 5 3/4"	HM	D6/A502	D6/A502			4	
128A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502	No	60 MIN	16	A6/A526 SIGNAGE
131A	B	2	6' - 0"	7' - 0"	0' - 2"	ALUM	2	0' - 4 1/2"	ALUM	A2/A505	A6/A505	Yes		1.1	
133A	D	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502		20 MIN	19	A6/A526 SIGNAGE
134A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
134B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
135A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
135B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
136A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
136B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
137A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
137B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
138A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502	Yes	20 MIN	21	C2/A526 SIGNAGE INSTALLED ON THE ADJACENT ALCOVE WALL
139A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
139B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
140A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502	Yes	20 MIN	21	A2/A526 SIGNAGE INSTALLED ON THE ADJACENT ALCOVE WALL
141A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
141B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
142A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502		20 MIN	18	A6/A526 SIGNAGE
143A	B	2	6' - 0"	7' - 0"	0' - 2"	ALUM	2	0' - 4 1/2"	ALUM	E2/A505	A7/A502	Yes		9	UNIT HEATER ABOVE-A3/A526 SIGNAGE INSTALLED ON THE RIGHT OF THE RIGHT HAND DOOR
144A	B	2	6' - 0"	7' - 0"	0' - 2"	ALUM	2	0' - 4 1/2"	ALUM	A2/A505	A6/A505	Yes		2	A3/A526 SIGNAGE INSTALLED ON THE RIGHT OF THE RIGHT HAND DOOR
145A	B	2	3' - 0"	7' - 0"	0' - 1 3/4"	ALUM	2	0' - 4 1/2"	ALUM	C6/A503	A7/A502	Yes		10	UNIT HEATER ABOVE-A3/A526 SIGNAGE INSTALLED ON THE RIGHT OF THE RIGHT HAND DOOR
146A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502		20 MIN	16.1	A6/A526 SIGNAGE
147A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502		20 MIN	16.1	A6/A526 SIGNAGE

1ST FLOOR DOOR SCHEDULE

DOOR #	DOOR TYPE	DOOR LEAVES	DOOR WIDTH	DOOR HEIGHT	DOOR THICKNESS	DOOR MATERIAL	FRAME TYPE	FRAME DEPTH	FRAME MATERIAL	JAMB DETAIL	HEAD DETAIL	ELECTRICAL	FIRE RATING	HARDWARE GROUP	REMARKS
148A	B	2	6' - 0"	7' - 0"	0' - 2"	ALUM	2	0' - 4 1/2"	ALUM	A2/A505	A6/A505	Yes		1	A3/A526 SIGNAGE INSTALLED ON THE RIGHT OF THE RIGHT HAND DOOR
149A	A	1	1' - 6 1/2"	9' - 2"	0' - 1 3/4"	WOOD	5	0' - 5 3/8"	HM	SEE NOTE	SEE NOTE	Yes	60 MIN	17	ADJUST JAMB & HEAD PER FIRE DOOR MANUFACTURER
149B	E	1	11' - 11 1/2"	9' - 4"	0' - 8"	Steel	4	1' - 6"	STEEL	B6/A507	E5/A508	Yes	60 MIN	22	ADJUST HEAD AND JAMB DETAILS PER DOOR MANUFACTURER REQUIREMENTS
151A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
151B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
152A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
152B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
153A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
153B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
154A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
154B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
155A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
155B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
156A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
156B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
157A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
157B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
158A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
158B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
159A	D	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502		20 MIN	19	A6/A526 SIGNAGE
160A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502	Yes	20 MIN	16	A6/A526 SIGNAGE
161A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502		20 MIN	16	A6/A526 SIGNAGE
165A	B	2	6' - 0"	7' - 0"	0' - 2"	ALUM	2	0' - 4 1/2"	ALUM	A2/A505	A6/A505	Yes		1.1	
167A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	16	A6/A526 SIGNAGE
168A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502	Yes	20 MIN	18.2	A6/A526 SIGNAGE
169A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
169B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
170A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
170B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
171A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
171B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
172A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
172B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
173A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
173B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
174A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
174B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
175A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
175B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
176A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
176B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
177A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
177B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
178A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
178B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
179A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
179B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
180A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
180B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
181A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
181B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
182A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
182B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
183A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
183B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
184A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
184B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
185A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
185B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
186A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
186B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
187A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
187B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
188A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
188B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
189A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502		20 MIN	18	A6/A526 SIGNAGE
190A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502		60 MIN	12	D2/A526 SIGNAGE
190B	C	1	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	0' - 5 3/4"	HM	B6/A502	B6/A502			5	EXIT DOOR ONLY, A3/A526 SIGNAGE
191A	D	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A3/A502	A3/A502	Yes	20 MIN	13	A6/A526 SIGNAGE
192A	B	2	6' - 0"	7' - 0"	0' - 2"	ALUM	2	0' - 4 1/2"	ALUM	E2/A505	A6/A505 SIM	Yes		10	A3/A526 SIGNAGE INSTALLED ON THE RIGHT OF THE RIGHT HAND DOOR
193A	C	1	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	0' - 5 3/4"	HM	D6/A502	D6/A502			8	A6/A526 SIGNAGE
194A	B	2	6' - 0"	7' - 0"	0' - 2"	ALUM	2	0' - 4 1/2"	ALUM	A2/A505	A6/A505	Yes		1	A3/A526 SIGNAGE INSTALLED ON THE RIGHT OF THE RIGHT HAND DOOR



E6 FRAME TYPES
1/4" = 1'-0"



E3 DOOR TYPES
1/4" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH ERIC R. THOLEN 129665 LICENSED ARCHITECT

GENERAL NOTES

1. IN ADDITION OF FIRE RATING OF DOORS AS INDICATED WITHIN THE DOOR SCHEDULE, REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES REQUIREMENTS AFFECTING DOOR CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION. DOORS ASSEMBLIES ARE AFFECTED BY ALTERNATES (TYP)
3. REFER TO STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS AT OPENINGS WITHIN STRUCTURAL ASSEMBLIES (TYP).
4. SAFETY GLAZING MUST COMPLY WITH LABELING AS PER IBC 2009 (TYPICAL).
5. FRAME EXTENSIONS ADJUSTING TO WALL DEPTH ARE PER DOOR SCHEDULE (TYP) AND NOT PER DOOR DETAILS AS DETAILS ARE SOMEWHAT GENERIC.
6. DOOR DIMENSIONS ARE NOMINAL - MANUFACTURER PROVIDING THE DOORS TO DETERMINE THE ROUGH OPENINGS (TYP). AT EXTERIOR MAINTAIN BRICK COURSE.
7. THICKNESS OF GLAZING WITHIN DOORS BY DOOR MANUFACTURER'S STANDARDS, PROVIDED THEY MEET THE REQUIREMENTS OF THE ENVELOPE ENERGY CODE ANALISYS REQUIRED FOR THIS PROJECT.
8. GLAZING AS NOTED ON DOOR ELEVATIONS - REFER TO SPECIFICATIONS FOR GLAZING TYPES AND REQUIREMENTS
9. DOORS TO OPERATE (SWING) AS SHOWN ON THE CONSTRUCTION DOCUMENTS FLOOR PLANS.
10. USE TEMPERED GLAZING AS INDICATED. (TYP).
11. GENERAL CONTRACTOR SHALL COORDINATE ALL TRADES INVOLVED RELATED TO DOOR FABRICATION, INSTALLATION AND PERFORMANCE, PRIOR TO START ANY PORTION OF THIS WORK, SPECIALLY ELECTRICAL TRADES.
12. CONTRACTOR TO COORDINATE DOORS & GATES OUTSIDE OF BUILDING AS INDICATED AND SHOWN ON SITE PLAN.
13. JAMB, HEAD AND SILL DETAILS AS PER CALL OUTS ON DOOR SCHEDULES (TYP)
14. HARDWARE GROUP No. 23 = ELEVATOR BACK DOOR CARD READER.
15. HARDWARE GROUP No. 24 = FRONT DESK UNIT AND 500 KEYCARDS.

KEYED NOTES

1 FRAME CAN BE PART OF STOREFRONT WINDOW SYSTEM - REFER TO DETAILED WINDOW ELEVATIONS
2 FT=TEMPERED- REFER TO GLAZING SPECIFICATIONS
3 FULLY GROUTED AT CMU WALLS
4 DOORS AS PER SHOWN ON DOOR SCHEDULES AND DOOR TYPES
5 ADJUST FIRE RATED DOOR POCKET SPACE PER DOOR MANUFACTURER INSTRUCTIONS
6 ADJUST FIRE RATED DOOR HEAD SPACE PER DOOR MANUFACTURER INSTRUCTIONS
7 ADJUST FIRE RATED DOOR JAMB SPACE & STRIKER PER DOOR MANUFACTURER INSTRUCTIONS

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

DOOR SCHEDULE FIRST FLOOR

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DRAWING NO.: A701
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

2ND FLOOR DOOR SCHEDULE

DOOR #	DOOR TYPE	LEAVES	WIDTH	HEIGHT	THICKNESS	MATERIAL	FRAME TYPE	FRAME DEPTH	FRAME MATERIAL	JAMB DETAIL	HEAD DETAIL	ELECTRICAL	FIRE RATING	HARDWARE GROUP	REMARKS
202A	D	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6"	HM	A3/A502	A3/A502	Yes	20 MIN	13	A6/A526 SIGNAGE
203A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502		20 MIN	16	A6/A526 SIGNAGE
204A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502		60 MIN	12	D2/A526 SIGNAGE
205A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
205B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
206A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
206B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
207A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
207B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
208A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
208B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
209A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
209B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
210A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
210B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
211A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
211B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
212A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
212B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
213A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
213B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
214A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
214B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
215A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
215B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
216A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
216B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
217A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
217B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
218A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
218B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
219A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
219B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
220A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
220B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
221A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
221B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
222A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
222B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
223A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
223B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
224A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
224B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
225A	B	1	3' - 0"	7' - 2"	0' - 2"	ALUM	3	0' - 4 1/2"	ALUM	E6/A502	E6/A502			3	
226A	A	1	3' - 6"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502	Yes	60 MIN	14	A6/A526 SIGNAGE
228A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502		20 MIN	16	A6/A526 SIGNAGE
229A	B	1	3' - 0"	7' - 2"	0' - 2"	ALUM	3	0' - 4 1/2"	ALUM	E6/A502	E6/A502			3	
232A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
232B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
233A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
233B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
234A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
234B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
235A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
235B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
236A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
236B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
237A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
237B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
238A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
238B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
239A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
239B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
240A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	18.1	A6/A526 SIGNAGE
241A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
241B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
242A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502		60 MIN	12.1	D2/A526 SIGNAGE
243A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
243B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	

2ND FLOOR DOOR SCHEDULE

DOOR #	DOOR TYPE	LEAVES	WIDTH	HEIGHT	THICKNESS	MATERIAL	FRAME TYPE	FRAME DEPTH	FRAME MATERIAL	JAMB DETAIL	HEAD DETAIL	ELECTRICAL	FIRE RATING	HARDWARE GROUP	REMARKS
244A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
244B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
245A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
245B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
246A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
246B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
247A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
247B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
248A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
248B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
249A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
249B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
250A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
250B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
251A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
251B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
252A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502	Yes	20 MIN	16	A6/A526 SIGNAGE
253A	B	1	3' - 0"	7' - 2"	0' - 2"	ALUM	3	0' - 4 1/2"	ALUM	E6/A502	E6/A502			3	
254A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502		20 MIN	16	A6/A526 SIGNAGE
257A	B	1	3' - 0"	7' - 2"	0' - 2"	ALUM	3	0' - 4 1/2"	ALUM	E6/A502	E6/A502			3	
258A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502	Yes	20 MIN	18.2	A6/A526 SIGNAGE
259A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
259B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
260A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
260B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
261A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
261B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
262A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
262B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
263A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
263B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
264A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
264B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
265A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
265B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
266A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
266B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
267A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
267B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
268A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
268B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
269A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
269B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
270A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
270B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
271A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
271B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
272A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
272B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
273A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
273B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
274A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
274B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
275A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
275B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
276A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
276B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
277A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
277B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
278A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
278B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
279A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502		20 MIN	16	A6/A526 SIGNAGE
280A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502		60 MIN	12	D2/A526 SIGNAGE
281A	D	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6"	HM	A3/A502	A3/A502		20 MIN	13	A6/A526 SIGNAGE

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. IN ADDITION OF FIRE RATING OF DOORS AS INDICATED WITHIN THE DOOR SCHEDULE, REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES REQUIREMENTS AFFECTING DOOR CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION. DOORS ASSEMBLIES ARE AFFECTED BY ALTERNATES (TYP)
3. REFER TO STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS AT OPENINGS WITHIN STRUCTURAL ASSEMBLIES (TYP).
4. SAFETY GLAZING MUST COMPLY WITH LABELING AS PER IBC 2009 (TYPICAL).
5. FRAME EXTENSIONS ADJUSTING TO WALL DEPTH ARE PER DOOR SCHEDULE (TYP) AND NOT PER DOOR DETAILS AS DETAILS ARE SOMEWHAT GENERIC.
6. DOOR DIMENSIONS ARE NOMINAL - MANUFACTURER PROVIDING THE DOORS TO DETERMINE THE ROUGH OPENINGS (TYP). AT EXTERIOR MAINTAIN BRICK COURSE.
7. THICKNESS OF GLAZING WITHIN DOORS BY DOOR MANUFACTURER'S STANDARDS, PROVIDED THEY MEET THE REQUIREMENTS OF THE ENVELOPE ENERGY CODE ANALISY'S REQUIRED FOR THIS PROJECT.
8. GLAZING AS NOTED ON DOOR ELEVATIONS - REFER TO SPECIFICATIONS FOR GLAZING TYPES AND REQUIREMENTS
9. DOORS TO OPERATE (SWING) AS SHOWN ON THE CONSTRUCTION DOCUMENTS FLOOR PLANS.
10. USE TEMPERED GLAZING AS INDICATED. (TYP).
11. GENERAL CONTRACTOR SHALL COORDINATE ALL TRADES INVOLVED RELATED TO DOOR FABRICATION, INSTALLATION AND PERFORMANCE, PRIOR TO START ANY PORTION OF THIS WORK, SPECIALLY ELECTRICAL TRADES.
12. CONTRACTOR TO COORDINATE DOORS & GATES OUTSIDE OF BUILDING AS INDICATED AND SHOWN ON SITE PLAN.
13. JAMB, HEAD AND SILL DETAILS AS PER CALL OUTS ON DOOR SCHEDULES (TYP)
14. HARDWARE GROUP No. 23 = ELEVATOR BACK DOOR CARD READER.
15. HARDWARE GROUP No. 24 = FRONT DESK UNIT AND 500 KEYCARDS.

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

DOOR SCHEDULE SECOND FLOOR

REVISION	DATE	BY	DESCRIPTION
1			
2			
3			
4			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A702
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

3RD FLOOR DOOR SCHEDULE

DOOR #	DOOR TYPE	LEAVES	WIDTH	HEIGHT	THICKNESS	MATERIAL	FRAME TYPE	FRAME DEPTH	FRAME MATERIAL	JAMB DETAIL	HEAD DETAIL	ELECTRICAL	FIRE RATING	HARDWARE GROUP	REMARKS
302A	D	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6"	HM	A3/A502	A3/A502	Yes	20 MIN	13	A6/A526 SIGNAGE
303A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	No	20 MIN	16	A6/A526 SIGNAGE
304A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502		60 MIN	12	D2/A526 SIGNAGE
305A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
305B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
306A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
306B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
307A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
307B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
308A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
308B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
309A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
309B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
310A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
310B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
311A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
311B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
312A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
312B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
313A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
313B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
314A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
314B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
315A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
315B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
316A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
316B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
317A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
317B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
318A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
318B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
319A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
319B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
320A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
320B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
321A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
321B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
322A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
322B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
323A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
323B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
324A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
324B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
325A	B	1	3' - 0"	7' - 2"	0' - 2"	ALUM	3	0' - 4 1/2"	ALUM	A6/A502	A6/A502			3	
326A	A	1	3' - 6"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502	Yes	60 MIN	14	A6/A526 SIGNAGE
328A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502		20 MIN	16	A6/A526 SIGNAGE
329A	B	1	3' - 0"	7' - 2"	0' - 2"	ALUM	3	0' - 4 1/2"	ALUM	A6/A502	A6/A502			3	
332A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
332B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
333A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
333B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
334A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
334B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
335A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
335B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
336A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
336B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
337A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
337B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
338A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
338B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
339A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
339B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
340A	A	2	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	No	20 MIN	18.1	A6/A526 SIGNAGE
341A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
341B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
342A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502		60 MIN	12.1	D2/A526 SIGNAGE
343A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
343B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	

3RD FLOOR DOOR SCHEDULE

DOOR #	DOOR TYPE	LEAVES	WIDTH	HEIGHT	THICKNESS	MATERIAL	FRAME TYPE	FRAME DEPTH	FRAME MATERIAL	JAMB DETAIL	HEAD DETAIL	ELECTRICAL	FIRE RATING	HARDWARE GROUP	REMARKS
344A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
344B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
345A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
345B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
346A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
346B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
347A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
347B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
348A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
348B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
349A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
349B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
350A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
350B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
351A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
351B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
352A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502	Yes	20 MIN	16	A6/A526 SIGNAGE
353A	B	1	3' - 0"	7' - 2"	0' - 2"	ALUM	3	0' - 4 1/2"	ALUM	A6/A502	A6/A502			3	
354A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502		20 MIN	16	A6/A526 SIGNAGE
357A	B	1	3' - 0"	7' - 2"	0' - 2"	ALUM	3	0' - 4 1/2"	ALUM	A6/A502	A6/A502			3	
358A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502	Yes	20 MIN	18.2	A6/A526 SIGNAGE
359A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
359B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
360A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
360B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
361A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
361B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
362A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
362B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
363A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
363B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
364A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
364B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
365A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
365B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
366A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
366B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
367A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
367B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
368A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
368B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
369A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
369B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
370A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
370B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
371A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
371B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
372A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
372B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
373A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
373B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
374A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
374B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
375A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
375B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
376A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
376B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	D3/A502	D3/A502		20 MIN	20	
377A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
377B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
378A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502	Yes	20 MIN	15	A6/A526 SIGNAGE
378B	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6 3/8"	HM	C3/A502	C3/A502		20 MIN	20	
379A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 8 3/4"	HM	B3/A502	B3/A502		20 MIN	16	A6/A526 SIGNAGE
380A	A	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 5 3/4"	HM	A6/A502	A6/A502		60 MIN	12	D2/A526 SIGNAGE
381A	D	1	3' - 0"	7' - 0"	0' - 1 3/4"	WOOD	1	0' - 6"	HM	A3/A502	A3/A502	Yes	20 MIN	13	A6/A526 SIGNAGE

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. IN ADDITION OF FIRE RATING OF DOORS AS INDICATED WITHIN THE DOOR SCHEDULE, REFER TO THE CODE PLAN FOR FIRE RATED ASSEMBLIES REQUIREMENTS AFFECTING DOOR CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION. DOORS ASSEMBLIES ARE AFFECTED BY ALTERNATES (TYP)
3. REFER TO STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS AT OPENINGS WITHIN STRUCTURAL ASSEMBLIES (TYP).
4. SAFETY GLAZING MUST COMPLY WITH LABELING AS PER IBC 2009 (TYPICAL).
5. FRAME EXTENSIONS ADJUSTING TO WALL DEPTH ARE PER DOOR SCHEDULE (TYP) AND NOT PER DOOR DETAILS AS DETAILS ARE SOMEWHAT GENERIC.
6. DOOR DIMENSIONS ARE NOMINAL - MANUFACTURER PROVIDING THE DOORS TO DETERMINE THE ROUGH OPENINGS (TYP). AT EXTERIOR MAINTAIN BRICK COURSE.
7. THICKNESS OF GLAZING WITHIN DOORS BY DOOR MANUFACTURER'S STANDARDS, PROVIDED THEY MEET THE REQUIREMENTS OF THE ENVELOPE ENERGY CODE ANALISY'S REQUIRED FOR THIS PROJECT.
8. GLAZING AS NOTED ON DOOR ELEVATIONS - REFER TO SPECIFICATIONS FOR GLAZING TYPES AND REQUIREMENTS
9. DOORS TO OPERATE (SWING) AS SHOWN ON THE CONSTRUCTION DOCUMENTS FLOOR PLANS.
10. USE TEMPERED GLAZING AS INDICATED. (TYP).
11. GENERAL CONTRACTOR SHALL COORDINATE ALL TRADES INVOLVED RELATED TO DOOR FABRICATION, INSTALLATION AND PERFORMANCE, PRIOR TO START ANY PORTION OF THIS WORK, SPECIALLY ELECTRICAL TRADES.
12. CONTRACTOR TO COORDINATE DOORS & GATES OUTSIDE OF BUILDING AS INDICATED AND SHOWN ON SITE PLAN.
13. JAMB, HEAD AND SILL DETAILS AS PER CALL OUTS ON DOOR SCHEDULES (TYP)
14. HARDWARE GROUP No. 23 = ELEVATOR BACK DOOR CARD READER.
15. HARDWARE GROUP No. 24 = FRONT DESK UNIT AND 500 KEYCARDS.

BUILDING OFFICIAL APPROVAL

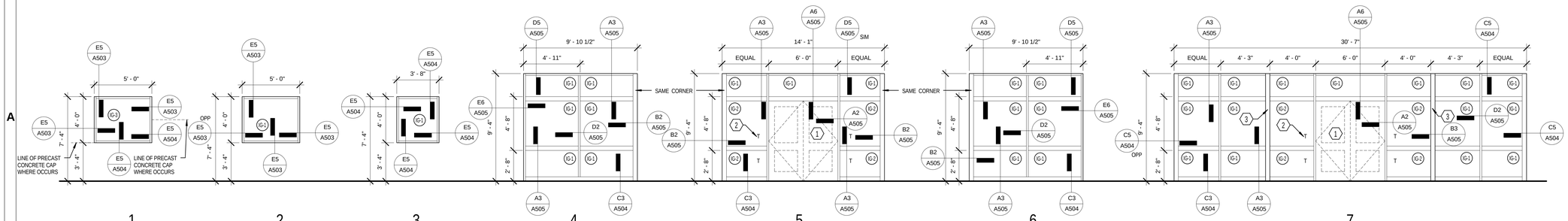
UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

DOOR SCHEDULE THIRD FLOOR

REVISION	DATE	BY	DESCRIPTION
1			
2			
3			
4			

DRAWN BY: CO CS CR	CHECKED BY: CR MM
PROJECT NO.: 11007	DRAWING NO.: A703
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



1
ALUMINUM
2" W x 4 1/2" D FRAME

2
ALUMINUM
2" W x 4 1/2" D FRAME

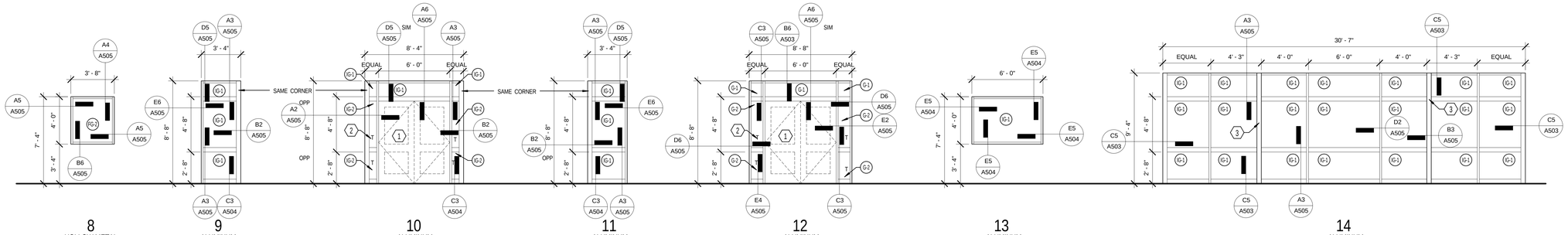
3
ALUMINUM
2" W x 4 1/2" D FRAME

4
ALUMINUM
2" W x 4 1/2" D AND 4 1/2" W x 4 1/2" D FRAME EXTRUSION

5
ALUMINUM
2" W x 4 1/2" D AND 4 1/2" W x 4 1/2" D FRAME EXTRUSION

6
ALUMINUM
2" W x 4 1/2" D AND 4 1/2" W x 4 1/2" D FRAME EXTRUSION

7
ALUMINUM
2" W x 4 1/2" D AND 4 1/2" W x 4 1/2" D FRAME EXTRUSION



8
HOLLOW METAL
1 3/4" W x 4 1/2" D FRAME
45 MIN. FIRE RATED FENESTRATION

9
ALUMINUM
2" W x 4 1/2" D AND 4 1/2" W x 4 1/2" D FRAME EXTRUSION

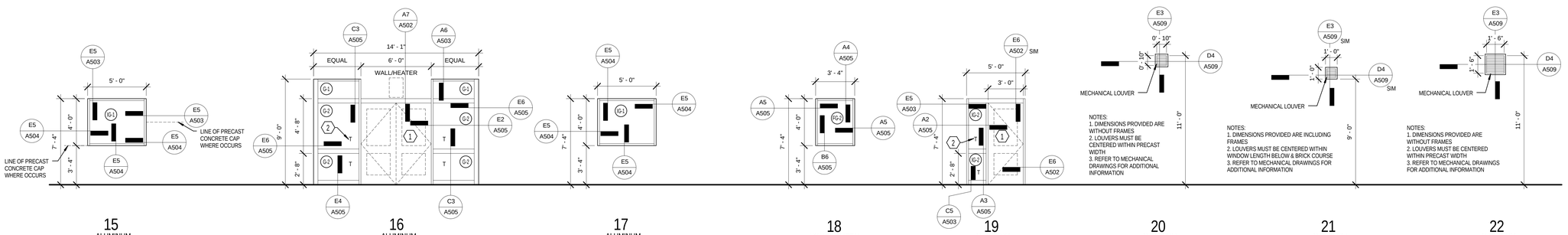
10
ALUMINUM
2" W x 4 1/2" D AND 4 1/2" W x 4 1/2" D FRAME EXTRUSION

11
ALUMINUM
2" W x 4 1/2" D AND 4 1/2" W x 4 1/2" D FRAME EXTRUSION

12
ALUMINUM
1 3/4" W x 4 1/2" D AND 4 1/2" W x 4 1/2" D FRAME EXTRUSION

13
ALUMINUM
1 3/4" W x 4 1/2" D FRAME

14
ALUMINUM
2" W x 4 1/2" D AND 4 1/2" W x 4 1/2" D FRAME EXTRUSION



15
ALUMINUM
2" W x 4 1/2" D FRAME

16
ALUMINUM
1 3/4" W x 4 1/2" D AND 4 1/2" W x 4 1/2" D FRAME EXTRUSION

17
ALUMINUM
2" W x 4 1/2" D FRAME

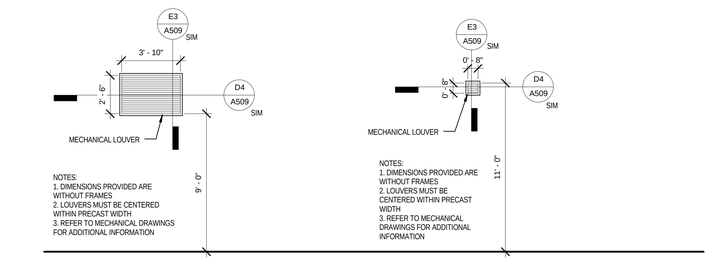
18
HOLLOW METAL
1 3/4" W x 4 1/2" D FRAME
45 MIN. FIRE RATED FENESTRATION

19
ALUMINUM
2" W x 4 1/2" D AND 4 1/2" W x 4 1/2" D FRAME EXTRUSION

20
ALUMINUM
SEE MECHANICAL FRAME
LOCATION: PUBLIC RESTROOMS & CONVENIENT LAUNDRY PRECAST CONCRETE

21
ALUMINUM
SEE MECHANICAL FRAME
LOCATION: BRAKE ROOM BRICK VENEER

22
ALUMINUM
SEE MECHANICAL FRAME
LOCATION: PUBLIC RESTROOMS & CONVENIENT LAUNDRY PRECAST CONCRETE



23
ALUMINUM
SEE MECHANICAL FRAME
LOCATION: MAIN LAUNDRY PRECAST CONCRETE

24
ALUMINUM
SEE MECHANICAL FRAME
LOCATION: ALL BILLET RESTROOMS PRECAST CONCRETE

E6 WINDOW ELEVATIONS
1/4" = 1'-0"

ENVELOPE NOTES

1. GENERAL CONTRACTOR MUST COORDINATE APPROPRIATELY WITH THE FENESTRATION AND AIR BARRIER CONTRACTORS TO ENSURE CONTINUOUS PRIMARY SEALANT JOINT (INTERFACE) BETWEEN AIR BARRIER AND FENESTRATION, MEETING THE REQUIREMENTS OF FENESTRATION AND AIR BARRIER MANUFACTURERS (TYPICAL).
2. GENERAL CONTRACTOR MUST ENSURE AND PROVIDE EXTERIOR AESTHETIC SEALANT JOINTS BETWEEN ALL SIDES OF THE FENESTRATION AND THE CLADDING OF THE BUILDING AS NEEDED TO COMPLETELY CONCEAL THE AIR BARRIER (TYPICAL).
3. GENERAL CONTRACTOR MUST ENSURE A CONTINUOUS AIR BARRIER IS PROVIDED INTO ALL FENESTRATION ROUGH OPENINGS INCLUDING ALL HEAD, JAMB AND SILL CORNERS WITH INTERIOR SEALANT JOINT INSTALLED CONTINUOUSLY BETWEEN FENESTRATION AND AIR BARRIER, AND IN ACCORDANCE WITH FENESTRATION AND AIR BARRIER MANUFACTURERS INSTALLATION PROCEDURES (TYPICAL).
4. USE VAPOR-RETARDING MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER MASONRY SUBSTRATES (TYPICAL).
5. USE VAPOR PERMEABLE MEMBRANE AIR BARRIERS, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, OVER METAL STUD WITH EXTERIOR SHEATHING SUBSTRATES (TYPICAL).
6. INSTALL VAPOR RETARDER, MEETING ALL REQUIREMENTS STATED WITHIN THE SPECIFICATION MANUAL, AT ALL WALLS USING VAPOR PERMEABLE MEMBRANE AIR BARRIERS ONLY (TYPICAL).

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

GENERAL NOTES

1. REFER TO STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS AT OPENINGS WITHIN STRUCTURAL ASSEMBLIES.
2. ALL WINDOWS ARE TO HAVE BLINDS INSTALLED WITHIN THE WINDOW FRAME.
3. OVERALL DIMENSIONS SHOWN NEED TO ACCOMMODATE BACKER ROD/ SEALANT AS NECESSARY MAINTAINING FIXED DIMENSIONS PROVIDED.
4. ALL EXTERIOR PUNCHED WINDOWS HAVE A PRECAST CONCRETE HEAD, JAMB AND SILL AROUND THE PERIMETER - REFER TO EXTERIOR ELEVATIONS AND WINDOW DETAILS
5. KEYNOTES SHOWN ARE THE KEYNOTES USED PER THE DRAWINGS SHOWN PER SHEET (TYP)
6. CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF BOUNDARIES AND SCOPE OF WORK INVOLVED WITH AND WITHOUT ALTERNATE CONSTRUCTION. WINDOW ASSEMBLIES ARE AFFECTED BY ALTERNATES (TYP)
7. SAFETY GLAZING MUST COMPLY WITH LABELING AS PER IBC 2009 (TYPICAL).
8. EXTERIOR WINDOW FRAMES SHOWN ON CMU SUBSTRATE WALL SHALL BE LOCATED CENTERED WITHIN THE OVERALL GAP BETWEEN THE BRICK VENEER AND THE CMU MASONRY (TYP).
9. EXTERIOR WINDOW FRAMES SHOWN ON METAL STUD SUBSTRATE WALL SHALL BE LOCATED CENTERED WITHIN THE OVERALL GAP BETWEEN THE EXTERIOR SHEATHING AND THE BRICK VENEER (TYP).
10. INTERIOR WINDOW FRAMES SHOWN ON METAL STUD WALLS SHALL BE LOCATED CENTERED WITHIN THE STUD DEPTH (TYP).
11. WINDOW DIMENSIONS ARE NOMINAL - MANUFACTURER PROVIDING THE FENESTRATION TO DETERMINE THE ROUGH OPENINGS MAINTAINING THE VENEER COURSE AND PRECAST DETAILED DIMENSIONS (TYP).
12. REFER TO SPECIFICATIONS FOR GLAZING CLASSIFICATION AND REQUIREMENTS. GLAZING AS NOTED ON WINDOW ELEVATIONS.
13. REFER TO NOTES FOR ENVELOPE REQUIREMENTS (TYP).
14. DOORS TO OPERATE (SWING) AS SHOWN ON THE CONSTRUCTION DOCUMENTS FLOOR PLANS.
15. GENERAL CONTRACTOR SHALL COORDINATE ALL TRADES INVOLVED AND RELATED TO WINDOW AND DOOR FABRICATION, INSTALLATION AND PERFORMANCE, PRIOR TO START ANY PORTION OF THIS WORK, SPECIALLY ELECTRICAL TRADES.
16. FENESTRATION MUST MEET THE REQUIREMENTS OF THE ENVELOPE ENERGY CODE ANALISYS REQUIRED FOR THIS PROJECT.
17. PROVIDE SAFETY GLAZING AT ALL STAIR WINDOWS, EXCEPT FIRST FLOOR (TYP).

KEYNOTES

1 FRAME CAN BE PART OF STOREFRONT WINDOW SYSTEM - REFER TO DETAILED WINDOW ELEVATIONS
2 FT=TEMPERED- REFER TO GLAZING SPECIFICATIONS
3 STRUCTURAL COLUMN INSIDE MULLION-ADJUST MULLION SIZE (OR COVER) FROM 4'-3" SIDE - SEE STRUCTURAL DRAWINGS

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84062

WINDOW ELEVATIONS

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DRAWING NO.: A706
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

1ST FLOOR FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	CEILING	WINDOW SILL	WINDOW COVER	COMMENTS
100	VESTIBULE 100	CT-2/C3	RBA/RBB	PG	PG	PG	PG	APC-1	N/A	N/A	
101	CIRCULATION SOUTH WING - 101	C1/C2	RBA	PG	N/A	PG	PG	PG/APC-1	N/A	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE
102	STAIRS S - 102	SH	RBB	PG	PG	PG	PG	N/A	SS	N/A	WITH PAINTED STEEL STAIR, STAIR GUARDRAIL & HANDRAIL
104	LAUNDRY & VENDING SOUTH - 104	CT-2	CT-3B	PG	PG	PG	PG	APC-2	SS	BD	
105	TELCOM IDF S - 105	EP	EPB	PG	PM	PG	PG	PS	N/A	N/A	
106	BILLET - 106	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
106L	LATRINE - 106L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
107	BILLET - 107	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
107L	LATRINE - 107L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
108	BILLET - 108	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
109	BILLET - 109	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
110	BILLET - 110	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
110L	LATRINE - 110L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
111	BILLET - 111	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
111L	LATRINE - 111L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
112	BILLET - 112	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
113	BILLET - 113	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
114	BILLET - 114	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
114L	LATRINE - 114L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
115	BILLET - 115	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
115L	LATRINE - 115L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
116	BILLET - 116	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
117	BILLET - 117	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
118	BILLET - 118	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
118L	LATRINE - 118L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
119	BILLET - 119	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
119L	LATRINE - 119L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
120	BILLET - 120	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
121	BILLET - 121	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
122	MAIN HOUSEKEEPING - 122	EP	EPB	PG	PM	PG	PM	APC-3	SS	BD	INTERIOR WALLS: PG AND CHAIR RAIL-BASE: EPB
123	BILLET - 123	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
123L	LATRINE - 123L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
125	BILLET - 125	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
126	LAUNDRY CHUTE ACC. RM - 126	SH	RBB	PG	PG/PM	PG	PM	PG	N/A	N/A	
127	MAIN ELECTRICAL ROOM - 127	EP	EPB	PG	PG	PG	PG	PS	N/A	N/A	
128	ELEVATOR EQPM -128	EP	EPB	PM	PM	PG/PM	PM	PS	N/A	N/A	
129	PATIO SE 129	PDP	N/A	EF	N/A	N/A	EF	MP	N/A	N/A	SEE WALL SECTIONS & DETAILS
130	CIRCULATION SE 131	C1/C2	RBA	PG	PG	PG	PG	PG/APC-1	N/A	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE
130E	ELEVATOR 130E	C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
131	DAYROOM SE - 130	C1/C2/C3	RBA	PG	PG	PG	PG	PG	N/A	BD	
132	BREAK & VENDING SE - 132	CT-2	CT-3B	PG	PG	PG	PG	PG	SS	BD	
133	CIRCULATION EAST WING - 133	C1/C2	RBA	N/A	PG	N/A	PG	PG/APC-1	SS	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE
134	BILLET - 134	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
135	BILLET - 135	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
135L	LATRINE - 135L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
136	BILLET - 136	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
136L	LATRINE - 136L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
137	BILLET - 137	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
138	WOMEN - 138	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
139	BILLET - 139	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
139L	LATRINE - 139L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
140	MEN - 140	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
141	BILLET - 141	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
142	STORAGE 142	SH	RBB	SM	PG	PG	PG	PG	SS	N/A	

1ST FLOOR FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	CEILING	WINDOW SILL	WINDOW COVER	COMMENTS
143	LOBBY - 143	C1/C2	RBA	SM/EF	PG/EF	PG/EF	PG	PG/APC-1	N/A	N/A	
144	VESTIBULE - 144	CT-2/C3	RBB	EF	N/A	EF	PG	PG	N/A	N/A	
145	COURTYARD CIRCULATION - 145	C1/C2	RBA	PG	N/A	PG	PG	PG	N/A	N/A	
146	STORAGE 146	C1	RBA	PM	PG	PG	PG	PG	SS	BD	
147	STORAGE 147	C1	RBA	PM	PG	PG	PG	PG	SS	BD	
148	ENTRY COURTYARD - 148	CT-2/C3	RBB	N/A	PG/EF	N/A	N/A	PG	N/A	N/A	
149	STAIR E - 149	SH	RBB	SM	N/A	SM	PG	N/A	SS	N/A	WITH PAINTED STEEL STAIR, STAIR GUARDRAIL & HANDRAIL
150	FRONT DESK 150	C1	RBA	PG	PG/EF	SM	PG	PG/APC-1	N/A	N/A	SEE MILLWORK FOR FRONT DESK
151	BILLET - 151	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
151L	LATRINE - 151L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
152	BILLET - 152	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
152L	LATRINE - 152L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
153	BILLET - 153	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
154	BILLET - 154	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
155	BILLET - 155	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
155L	LATRINE - 155L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
156	BILLET - 156	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
156L	ACC. LATRINE - 156L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
157	BILLET - 157	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
158	BILLET - 158	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
159	BREAK & VENDING NE - 159	CT-2	CT-3B	PG	PG	PG	PG	PG	SS	BD	
160	TELCOM IDF NE - 160	EP	EPB	PM	PM	PM	PM	PS	N/A	N/A	
161	ELECTRICAL NE - 161	EP	EPB	PG	PM	PM	PM	PS	N/A	N/A	
162	PATIO NE - 162	PDP	N/A	N/A	N/A	EF	EF	MP	N/A	N/A	SEE WALL SECTIONS & DETAILS
163	CIRCULATION NE - 163	C1/C2	RBA	PG	PG	PG	PG	PG/APC-1	N/A	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE
165	DAYROOM NE - 165	C1/C2/C3	RBA	PG	PG	PG	PG	APC-1	N/A	BD	
167	TELECOM MDF NE - 167	EP	EPB	PG	PG	PG	PG	PS	SS	N/A	
168	JANITOR - 168	EP	EPB	PM	CT-3/PM	CT-3	PG/CT-3	PG	N/A	N/A	
169	BILLET - 169	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
169L	LATRINE - 169L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
170	BILLET - 170	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
170L	LATRINE - 170L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
171	BILLET - 171	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
172	BILLET - 172	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
173	BILLET - 173	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
173L	LATRINE - 173L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
174	BILLET - 174	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
174L	LATRINE - 174L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
175	BILLET - 175	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
176	BILLET - 176	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
177	BILLET - 177	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
177L	LATRINE - 177L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
178	BILLET - 178	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
178L	LATRINE - 178L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
179	BILLET - 179	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
180	BILLET - 180	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
181	BILLET - 181	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
181L	LATRINE - 181L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
182	BILLET - 182	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
182L	LATRINE - 182L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
183	BILLET - 183	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
184	BILLET - 184	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
185	BILLET - 185	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
185L	LATRINE - 185L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
186	BILLET - 186	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
186L	LATRINE - 186L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
187	BILLET - 187	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
188	BILLET - 188	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
189	STORAGE - 189	SH	RBB	PG	PM	PG	PG	APC-2	N/A	N/A	
190	STAIRS N - 190	SH	RBB	PG	PG	PG	PG	N/A	SS	N/A	WITH PAINTED STEEL STAIR, STAIR GUARDRAIL & HANDRAIL
191	LAUNDRY & VENDING N - 191	CT-2	CT-3B	PG	PG	PG	PG	APC-2	SS	BD	
192	CIRCULATION NORTH WING 192	C1/C2	RBA	PG	N/A	PG	PG	PG/APC-1	N/A	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE
193	FIRE RISER - 193	EP	EPB	PG	PG	PG	PG	PS	N/A	N/A	
194	VESTIBULE 194	CT-2/C3	RBA/RBB	PG	PG	PG	PG	APC-1	N/A	N/A	

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

FINISH SCHEDULE LEGEND

FLOOR FINISH

C1 = CARPET TILE 1 (FILL COLOR)
C2 = CARPET TILE 2 (ACCENT COLORS)
C3 = CARPET TILE 3 (WALK-OFF)
CT-1 = MOSAIC TILE
CT-2 = PAVER TILE
EP = EPOXY COATING FLOORS
PDP = PLAZA DECK PAVERS
SH = SEALER / HARDNER
SV = SHEET VINYL

BASE FINISH

CT-3B = COVED FLUSH TILE BASE
EPB = EPOXY COATING BASE
RBA = RESILIENT BASE FOR CARPET/WALK-OFF
RBB = RESILIENT BASE FOR RESILIENT AND CONCRETE FLOORS

WALL FINISH

AW = ACCENT WALL - PAINTED WITH ACCENT COLOR
CT-3 = GLAZED TILE
EF = EXTERIOR FINISH
PG = PAINTED GYPSUM BOARD
PM = PAINTED MASONRY
SM = SEALED MASONRY

CEILING FINISH

APC-1 = 2' x 2' ACCUSTICAL PANEL CEILING
APC-2 = 2' x 4' ACCUSTICAL PANEL CEILING
APC-3 = 2' x 4' VINYL ACCUSTICAL PANEL CEILING
PG = PAINTED GYPSUM BOARD
PS = PAINTED OPEN STRUCTURE
MP = METAL PANEL PREFINISHED

WIDOW SILL FINISH

SS = SOLID SURFACE

WINDOW COVER

BD = BLINDS
DR = DRAPES

OTHER

N/A = NON APPLICABLE

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

FINISH SCHEDULE

REVISION	DATE	BY	DESCRIPTION
△			
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△			
△			

DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DRAWING NO.: A707
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

2ND FLOOR FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	CEILING	WINDOW SILL	WINDOW COVER	COMMENTS
201	CIRCULATION SOUTH WING - 201	C1/C2	RBA	PG	N/A	PG	PG	PG/APC-1	SS	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE
202	LAUNDRY & VENDING S - 202	CT-2	CT3-B	PG	PG	PG	PG	APC-2	SS	BD	
203	TELECOM IDF S - 203	EP	EPB	PG	PM	PG	PG	PS	N/A	N/A	
204	STAIR S - 204	SH	RBB	PG	PG	PG	PG	N/A	SS	N/A	WITH PAINTED STEEL STAIR, STAIR GUARDRAIL & HANDRAIL
205	BILLET - 205	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
205L	LATRINE - 205L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
206	BILLET - 206	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
206L	LATRINE - 206L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
207	BILLET - 207	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
208	BILLET - 208	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
209	BILLET - 209	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
209L	LATRINE - 209L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
210	BILLET - 210	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
210L	LATRINE - 210L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
211	BILLET - 211	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
212	BILLET - 212	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
213	BILLET - 213	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
213L	LATRINE - 213L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
214	BILLET - 214	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
214L	LATRINE - 214L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
215	BILLET - 215	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
216	BILLET - 216	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
217	BILLET - 217	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
217L	LATRINE - 217L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
218	BILLET - 218	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
218L	LATRINE - 218L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
219	BILLET - 219	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
220	BILLET - 220	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
221	BILLET - 221	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
221L	LATRINE - 221L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
222	BILLET - 222	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
222L	LATRINE - 222L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
223	BILLET - 223	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
224	BILLET - 224	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
225	BREAK SE - 225	C3	RBA	PG	N/A	PG	PG	APC-1	N/A	N/A	
226	LAUNDRY CHUTE ACCESS RM - 226	SH	RBB	PG	PG	PG	PG	PG	N/A	N/A	
227	DAYROOM SE - 227	C1/C2	RBA	N/A	PG	PG	N/A	APC-1	N/A	BD	
228	ELECTRICAL SE - 228	EP	EPB	PM	PM	PG/PM	PM	PS	N/A	N/A	
229	A/V SE - 229	CT	RB	PG	PG	N/A	PG	AP	N/A	N/A	
230	CIRCULATION SE - 230	C1/C2	RBA	PG	N/A	N/A	PG	APC-1	N/A	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE
230E	ELEVATOR 230E	C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
231	CIRCULATION EAST WING - 231	C1/C2	RBA	N/A	PG	N/A	PG	PG/APC-1	N/A	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE
232	BILLET - 232	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
232L	LATRINE - 232L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
233	BILLET - 233	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
233L	LATRINE - 233L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
234	BILLET - 234	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
235	BILLET - 235	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
236	BILLET -236	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
236L	LATRINE - 236L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
237	BILLET - 237	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
237L	LATRINE 237L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
238	BILLET - 238	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
239	BILLET - 239	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
240	STORAGE - 240	SH	RBB	PM	PG	PG	PG	APC-2	SS	N/A	
241	BILLET - 241	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
241L	ACC. LATRINE - 241L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	

2ND FLOOR FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	CEILING	WINDOW SILL	WINDOW COVER	COMMENTS
242	STAIR E - 242	SH	RBB	SM	SM	SM	PG	N/A	SS	N/A	WITH PAINTED STEEL STAIR, STAIR GUARDRAIL & HANDRAIL
243	BILLET - 243	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
244	BILLET - 244	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
244L	LATRINE - 244L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
245	BILLET - 245	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
245L	LATRINE - 245L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
246	BILLET - 246	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
247	BILLET - 247	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
248	BILLET - 248	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
248L	ACC. LATRINE - 248L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
249	BILLET - 249	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
249L	LATRINE - 249L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
250	BILLET - 250	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
251	BILLET - 251	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
252	TELCOM IDF NE -252	EP	EPB	PM	PM	PM	PM	PS	N/A	N/A	
253	A/V NE - 253	C3	RBA	N/A	PG	PG	PG	APC-1	N/A	N/A	
254	ELETRICAL NE - 254	EP	EPB	PG	PM	PM	PM	PS	N/A	N/A	
255	DAYROOM NE - 255	C1/C2	RBA	PG	PG	PG	N/A	APC-1	N/A	BD	
256	CIRCULATION NE - 256	C1/C2	RBA	N/A	N/A	PG	PG	APC-1	N/A	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE
257	BREAK NE - 257	C3	RBA	PG	N/A	PG	PG	APC-1	N/A	BD	
258	JANITOR NE - 258	SH	RBB	PM	CT-3/PM	CT-3	PG/CT-3	PG	N/A	N/A	
259	BILLET - 259	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
259L	LATRINE - 259L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
260	BILLET - 260	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
260L	LATRINE - 260L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
261	BILLET - 261	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
262	BILLET - 262	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
263	BILLET - 263	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
263L	LATRINE - 263L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
264	BILLET - 264	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
264L	LATRINE - 264L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
265	BILLET - 265	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
266	BILLET - 266	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
267	BILLET - 267	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
267L	LATRINE - 267L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
268	BILLET - 268	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
268L	LATRINE - 268L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
269	BILLET- 269	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
270	BILLET - 270	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
271	BILLET - 271	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
271L	LATRINE - 271L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
272	BILLET - 272	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
272L	LATRINE 272L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
273	BILLET - 273	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
274	BILLET - 274	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
275	BILLET - 275	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
275L	LATRINE - 275L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
276	BILLET - 276	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
276L	LATRINE - 276L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
277	BILLET - 277	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
278	BILLET- 278	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
279	STORAGE - 279	CT-2	RBB	PG	PM	PG	PG	APC-2	N/A	N/A	
280	STAIR N - 280	SH	RBB	PG	PG	PG	PG	N/A	SS	N/A	WITH PAINTED STEEL STAIR, STAIR GUARDRAIL & HANDRAIL
281	LAUNDRY & VENDING N - 281	CT-2	CT-3B	PG	PG	PG	PG	APC-2	SS	BD	
282	CIRCULATION NORTH WING - 282	C1/C2	RBA	PG	N/A	PG	PG	PG/APC-1	SS	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

FINISH SCHEDULE LEGEND

FLOOR FINISH

C1 = CARPET TILE 1 (FILL COLOR)
C2 = CARPET TILE 2 (ACCENT COLORS)
C3 = CARPET TILE 3 (WALK-OFF)
CT-1 = MOSAIC TILE
CT-2 = PAVER TILE
EP = EPOXY COATING FLOORS
PDP = PLAZA DECK PAVERS
SH = SEALER / HARDNER
SV = SHEET VINYL

BASE FINISH

CT-3B = COVED FLUSH TILE BASE
EPB = EPOXY COATING BASE
RBA = RESILIENT BASE FOR CARPET/WALK-OFF
RBB = RESILIENT BASE FOR RESILIENT AND CONCRETE FLOORS

WALL FINISH

AW = ACCENT WALL - PAINTED WITH ACCENT COLOR
CT-3 = GLAZED TILE
EF = EXTERIOR FINISH
PG = PAINTED GYPSUM BOARD
PM = PAINTED MASONRY
SM = SEALED MASONRY

CEILING FINISH

APC-1 = 2' x 2' ACCUSTICAL PANEL CEILING
APC-2 = 2' x 4' ACCUSTICAL PANEL CEILING
APC-3 = 2' x 4' VINYL ACCUSTICAL PANEL CEILING
PG = PAINTED GYPSUM BOARD
PS = PAINTED OPEN STRUCTURE
MP = METAL PANEL PREFINISHED

WIDOW SILL FINISH

SS = SOLID SURFACE

WINDOW COVER

BD = BLINDS
DR = DRAPES

OTHER

N/A = NON APPLICABLE

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

FINISH SCHEDULE

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: A708

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

3RD FLOOR FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	CEILING	WINDOW SILL	WINDOW COVER	COMMENTS
301	CIRCULATION SOUTH WING - 301	C1/C2	RBA	PG	N/A	PG	PG	PG/APC-1	SS	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE
302	LAUNDRY & VENDING S - 302	CT-2	CT3-B	PG	PG	PG	PG	APC-2	SS	BD	
303	TELECOM IDF 3-1 - 303	EP	EPB	PG	PM	PG	PG	PS	N/A	N/A	
304	STAIR 1 - 304	SH	RBB	PG	PG	PG	PG	APC-2	SS	N/A	WITH PAINTED STEEL STAIR, STAIR GUARDRAIL & HANDRAIL
305	BILLET - 305	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
305L	LATRINE - 305L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
306	BILLET - 306	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
307	BILLET - 307	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
308	BILLET - 308	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
309	BILLET - 309	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
309L	LATRINE - 309L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
310	BILLET - 310	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
310L	LATRINE - 310L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
311	BILLET - 311	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
312	BILLET - 312	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
313	BILLET - 313	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
313L	LATRINE - 313L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
314	BILLET - 314	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
314L	LATRTINE - 314L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
315	BILLET - 315	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
316	BILLET - 316	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
317	BILLET - 317	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
317L	LATRINE - 317L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
318	BILLET - 318	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
318L	LATRINE - 318L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
319	BILLET - 319	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
320	BILLET - 320	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
321	BILLET - 321	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
321L	LATRINE - 321L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
322	BILLET- 322	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
322L	LATRINE - 322L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
323	BILLET - 323	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
324	BILLET- 324	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
325	BREAK SE - 325	C3	RBA	PG	N/A	PG	PG	APC-1	N/A	BD	
326	LAUNDRY CHUTE ACCESS RM - 326	SH	RBB	PG	PG	PM	PG	PG	N/A	N/A	
327	DAYROOM SE - 327	C1/C2	RBA	N/A	PG	PG	N/A	APC-1	N/A	BD	
328	ELECTRICAL SE - 328	EP	EPB	PM	PM	PG/PM	PM	PS	N/A	N/A	
329	A/V SE - 329	C3	RBA	PG	PG	N/A	PG	APC-1	N/A	BD	
330	CIRCULATION SE - 330	C1/C2	RBA	PG	N/A	N/A	PG	APC-1	N/A	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE
330E	ELEVATOR - 330E	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
331	CIRCULATION EAST WING - 331	C1/C2	RBA	N/A	PG	N/A	PG	PG/APC-1	N/A	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE
332	BILLET - 332	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
332L	LATRINE - 332L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
333	BILLET - 333	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
333L	LATRINE - 333L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
334	BILLET - 334	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
335	BILLET - 335	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
336	BILLET - 336	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
336L	LATRINE - 336L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
337	BILLET - 337	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
337L	LATRINE - 337L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
338	BILLET - 338	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
339	BILLET - 339	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
340	WATERHEATER ROOM - 340	EP	EPB	PM	PG	PM	PG	PS	SS	N/A	
341	BILLET - 341	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
341L	ACC. LATRINE - 341L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	

3RD FLOOR FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	BASE	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	CEILING	WINDOW SILL	WINDOW COVER	COMMENTS
342	STAIR E - 342	SH	RBB	SM	SM	SM	PG	APC-2	SS	N/A	
343	BILLET- 343	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
344	BILLET - 344	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
344L	LATRINE - 344L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
345	BILLET - 345	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
345L	LATRINE - 345L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
346	BILLET -346	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
347	BILLET - 347	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
348	BILLET - 348	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
348L	LATRINE - 348L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
349	BILLET - 349	C1/SV	RBA/RBB	PG	PG	PG/AW	PG	PG	SS	BD/DR	
349L	LATRINE - 349L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
350	BILLET - 350	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
351	BILLET - 351	C1/SV	RBA/RBB	PG/AW	PG	PG	PG	PG	SS	BD/DR	
352	TELECOM IDF NE - 352	EP	EPB	PM	PM	PM	PM	PS	N/A	N/A	
353	A/V NE - 353	C3	RBA	N/A	PG	PG	PG	APC-1	N/A	N/A	
354	ELETRICAL NE - 354	EP	EPB	PM	PM	PM	PM	PS	N/A	N/A	
355	DAYROOM NE - 355	C1/C2	RBA	PG	PG	N/A	N/A	APC-1	N/A	BD	
356	CIRCULATION NE - 356	C1/C2	RBA	N/A	N/A	PG	PG	APC-1	N/A	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE
357	BREAK NE - 357	C3	RBA	PG	N/A	PG	PG	APC-1	N/A	BD	
358	JANITOR - 358	SH	RBB	PM	CT-3/PM	CT-3	PG/CT-3	PG	N/A	N/A	
359	BILLET - 359	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
359L	LATRINE - 359L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
360	BILLET - 360	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
360L	LATRINE - 360L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
361	BILLET - 361	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
362	BILLET - 362	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
363	BILLET - 363	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
363L	LATRINE - 363L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
364	BILLET - 364	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
364L	LATRINE - 364L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
365	BILLET - 365	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
366	BILLET - 366	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
367	BILLET - 367	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
367L	LATRINE - 367L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
368	BILLET - 368	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
369	BILLET - 369	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
370	BILLET - 370	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
370L	LATRINE - 370L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
371	BILLET - 371	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
371L	LATRINE - 371L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
372	BILLET - 372	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
372L	LATRINE - 372L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
373	BILLET - 373	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
374	BILLET - 374	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
375	BILLET - 375	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
375L	LATRINE - 375L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
376	BILLET - 376	C1/SV	RBA/RBB	PG	PG/AW	PG	PG	PG	SS	BD/DR	
376L	LATRINE - 376L	CT-1	CT-3B	CT-3	CT-3	CT-3	CT-3	PG	N/A	N/A	
377	BILLET - 377	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
378	BILLET 378	C1/SV	RBA/RBB	PG	PG	PG	PG/AW	PG	SS	BD/DR	
379	STORAGE - 379	SH	RBB	PG	PM	PG	PG	APC-2	N/A	N/A	
380	STAIR N - 380	SH	RBB	PG	PG	PG	PG	APC-2	N/A	N/A	WITH PAINTED STEEL STAIR, STAIR GUARDRAIL & HANDRAIL
381	LAUNDRY & VENDING N - 381	CT-2	CT-3B	PG	PG	PG	PG	APC-2	SS	BD	
382	CIRCULATION NORTH WING - 382	C1/C2	RBA	PG	N/A	PG	PG	PG/APC-1	SS	N/A	WITH WOOD CHAIR RAIL & PAINTED METAL MOLDING COVE

SEAL & SIGNATURE

STATE OF UTAH
ERIC R. THOLEN
129665
LICENSED ARCHITECT

FINISH SCHEDULE LEGEND

FLOOR FINISH

C1 = CARPET TILE 1 (FILL COLOR)
C2 = CARPET TILE 2 (ACCENT COLORS)
C3 = CARPET TILE 3 (WALK-OFF)
CT-1 = MOSAIC TILE
CT-2 = PAVER TILE
EP = EPOXY COATING FLOORS
PDP = PLAZA DECK PAVERS
SH = SEALER / HARDNER
SV = SHEET VINYL

BASE FINISH

CT-3B = COVED FLUSH TILE BASE
EPB = EPOXY COATING BASE
RBA = RESILIENT BASE FOR CARPET/WALK-OFF
RBB = RESILIENT BASE FOR RESILIENT AND CONCRETE FLOORS

WALL FINISH

AW = ACCENT WALL - PAINTED WITH ACCENT COLOR
CT-3 = GLAZED TILE
EF = EXTERIOR FINISH
PG = PAINTED GYPSUM BOARD
PM = PAINTED MASONRY
SM = SEALED MASONRY

CEILING FINISH

APC-1 = 2' x 2' ACCUSTICAL PANEL CEILING
APC-2 = 2' x 4' ACCUSTICAL PANEL CEILING
APC-3 = 2' x 4' VINYL ACCUSTICAL PANEL CEILING
PG = PAINTED GYPSUM BOARD
PS = PAINTED OPEN STRUCTURE
MP = METAL PANEL PREFINISHED

WIDOW SILL FINISH

SS = SOLID SURFACE

WINDOW COVER

BD = BLINDS
DR = DRAPES

OTHER

N/A = NON APPLICABLE

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

FINISH SCHEDULE

REVISION	DATE	BY	DESCRIPTION
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△			
△			

DRAWN BY: CO CS CR
CHECKED BY: CR MM
PROJECT NO.: 11007
DRAWING NO.: A709
DATE: 02/15/2013

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LEGEND OF MECHANICAL SYMBOLS AND ABBREVIATIONS

DUCTWORK/GRILLES

- POSITIVE PRESSURE DUCT - RISE
- POSITIVE PRESSURE DUCT - DROP
- NEGATIVE PRESSURE DUCT - RISE
- NEGATIVE PRESSURE DUCT - DROP
- ROUND DUCT - RISE
- ROUND DUCT - DROP
- UNDER FLOOR DUCT
- TURNING VANES
- FRESH AIR LOUVER
- RELIEF AIR OR EXHAUST AIR LOUVER
- 12X12 200 — CEILING SUPPLY DIFFUSER
- 22X22 200 — CEILING RETURN REGISTER
- 12X12 200 — CEILING EXHAUST REGISTER, (BALANCE TO MATCH SUPPLY IF RETURN CFM IS NOT SHOWN)
- 24X10 200 — SIDEWALL SUPPLY REGISTER
- 24X10 200 — SIDEWALL EXHAUST OR RETURN REGISTER
- 12X12 200 — CEILING SUPPLY DIFFUSER WITH FLEXIBLE DUCT
- 12X12 200 — CEILING AIR GRILLE WITH FLEXIBLE DUCT

(TOP FIGURES INDICATE NECK SIZE. BOTTOM FIGURE INDICATES CFM.)

- CEILING RETURN AIR GRILE W/ SOUND BOOT
- 3-1" SLOTS @ 48" 400 — LINEAR DIFFUSER WITH PLENUM AND FLEXIBLE DUCT CONNECTION. NO. OF SLOTS & SIZE OF SLOT ON TOP, ACTIVE LENGTH AND CFM ON BOTTOM
- FLEXIBLE DUCT CONNECTION
- FLEXIBLE DUCT
- 12/8 FO — FLAT OVAL DUCT WITH NET INSIDE DIMENSIONS SHOWN IN INCHES.
- 12/8 — RECTANGULAR DUCT WITH NET INSIDE DIMENSIONS SHOWN IN INCHES.
- 12ø — ROUND DUCT WITH NET INSIDE DIMENSIONS SHOWN IN INCHES.
- UP — INCLINED RISE
- DN — INCLINED DROP

(WITH RESPECT TO AIR FLOW 15° NOMINAL INCLINE WITH RADIUS TURNS=DEPTH OF DUCT.)

- W R — R/W=1. ROUND DUCT SIMILAR TO RECTANGULAR
- 12/12 8/8 — RECTANGULAR TO RECTANGULAR OR ROUND TO ROUND DUCT TRANSFORMATION MAXIMUM 15° INCLUDED ANGLE EXCEPT WHERE SHOWN OTHERWISE.
- 12/12 12ø — RECTANGULAR TO ROUND DUCT TRANSFORMATION
- R 6 — BRANCH DUCT SPLIT WITH 6" WIDTH AND MIN. R=WIDTH OF BRANCH DUCT DOWNSTREAM. ELBOW TURNING VANE OPTIONAL.
- 45° 1.5D 1.25D 1.5D D — TAP ENTRY AREA EQUALS 150% OF BRANCH AREA
- 12ø 12/12 — HIGH EFFICIENCY FITTING
- MANUAL VOLUME DAMPER
- FD — FIRE DAMPER IN DUCT, W/ ACCESS PANEL REQD.
- FSD — COMBINATION FIRE/SMOKE DAMPER W/ ACCESS PANEL
- SD — SMOKE DAMPER W/ ACCESS PANEL
- BDD — BACK DRAFT DAMPER
- ATC OR — ATC DAMPER
- AD — ACCESS PANEL IN DUCT OR PLENUM
- HEATING OR COOLING COIL IN DUCT
- SINGLE DUCT AIR TERMINAL BOX VARIABLE OR CONSTANT VOLUME. MIN. 1-1/2 TERMINAL INLET SIZE STRAIGHT DUCT AT TERMINAL INLET.
- 4-WAY BLOW PATTERN
- 3-WAY BLOW PATTERN
- 2-WAY BLOW PATTERN
- 2-WAY BLOW PATTERN
- 1-WAY BLOW PATTERN
- SD — DUCT SMOKE DETECTOR

PIPING

- SHUT OFF VALVE
- OR — BALL VALVE
- OR — BUTTERFLY VALVE
- BALANCING VALVE
- OR — GATE VALVE
- GATE VALVE - NON RISING STEM
- OR — ANGLE VALVE
- OR — GLOBE VALVE
- OR — PLUG VALVE
- SHUT OFF PLUG VALVE FOR FOR USE WITH PRESSURE GAUGE
- OR — CHECK VALVE
- OR — LATERAL STRAINER WITH BLOW-OFF VALVE, PROVIDE HOSE END WITH CAP WHERE DISCHARGE IS NOT PIPED TO DRAIN
- F&T — F&T=FLOAT & THERMOSTATIC
- RPBP — REDUCED PRESSURE BACKFLOW PREVENTOR W/ DRAIN PAN
- OR — PRESSURE REDUCING VALVE EXTERNAL PRESSURE
- OR — PRESSURE REDUCING VALVE SELF CONTAINED
- OR — ATC - 2 WAY VALVE
- OR — ATC - 3 WAY VALVE
- SOLENOID VALVE
- 0.0 GPM OR — CALIBRATED BALANCING VALVE WITH GPM INDICATED
- VENTURI FLOW METER
- GPM LB/HR. — FLOW METER ORIFICE
- OR — RELIEF VALVE
- AIR VENT-MANUAL
- A — AIR VENT-AUTO
- FLOW SWITCH
- PS — PRESSURE SWITCH
- OR — TEMPERATURE AND PRESSURE TEST PORT
- THERMOMETER WELL
- THERMOMETER - TEMP RANGE AS INDICATED
- PRESSURE GAUGE WITH SHUT OFF PLUG VALVE
- PRESSURE GAUGE WITH PIGTAIL
- OR — UNION
- OR — FLANGE
- OR — FLEXIBLE EXPANSION JOINT
- REDUCER
- ECCENTRIC REDUCER
- BRANCH - BOTTOM CONNECTION
- BRANCH - TOP CONNECTION
- BRANCH - SIDE CONNECTION
- RISE OR DROP
- RISER - DOWN (ELBOW)
- RISER - UP (ELBOW)
- PIPE CAP
- ARROW INDICATES DIRECTION OF FLOW IN PIPE
- DN — LEADER INDICATES DOWNWORD SLOPE
- VALVE IN RISE
- OR — 90° ELBOW
- 45° ELBOW
- ALIGNMENT GUIDE
- ANCHOR

PLUMBING

- THERMOSTATIC MIXING VALVE
- HOSE BIBB
- FLOOR SINK
- FLOOR DRAIN
- FCO COTG — FLOOR CLEAN-OUT OR CLEAN-OUT TO GRADE
- ROOF DRAIN
- DOWNSPOUT NOZZLE
- VTR — VENT THRU ROOF
- WATER HAMMER ARRESTOR
- CLEAN-OUT
- FILL PORT
- DRAIN PAN AND P-TRAP
- (NAME) — FIXTURE FROM LEVEL ABOVE
- DEMOLITION

EQUIPMENT

- UNIT HEATER
- INLINE PUMP
- INLINE PUMP
- FAN

FIRE

- HOSE VALVE
- NRS GATE VALVE WITH SUPERVISION
- FLOW SWITCH
- FIRE RISER
- SPRINKLER HEAD
- F — FIRE SPRINKLER WATER

ANNOTATIONS

- P-1 — PLUMBING FIXTURES
- POINT OF CONNECTION
- A M-101 — SECTION TAG - TOP FIGURE IS SECTION NO. BOTTOM FIGURE IS SHEET NO.
- A M101 — DETAIL TAG - TOP FIGURE IS DETAIL NO. BOTTOM FIGURE IS SHEET NO.
- EF 1 — EQUIPMENT IDENTIFICATION
- HP101 048 — EQUIPMENT IDENTIFICATION: EXAMPLE
  HP - ACRONYM USED FOR A PIECE OF EQUIPMENT.
  101 - #IDENTIFYING THE UNIT AND DISTINGUISHING IT FROM OTHERS.
  048 - SYMBOL USED TO IDENTIFY THE EQUIPMENT ON THE PLANS WITH THAT IN THE SCHEDULES.
- 1 — KEYED NOTE IDENTIFICATION
- S — SWITCH
- S — SENSOR
- T — THERMOSTAT
- TS — TEMPERATURE SENSOR

LINETYPES

- BBD — BOILER BLOW DOWN
- BF — BOILER FEED WATER
- CF — CHEMICAL FEED
- CHWS — CHILLED WATER SUPPLY
- CHWR — CHILLED WATER RETURN
- CS — CONDENSER WATER SUPPLY
- CR — CONDENSER WATER RETURN
- DOMESTIC COLD WATER (DCW)
- DOMESTIC SOFT COLD WATER (DSCW)
- DOMESTIC HOT WATER (DHW)
- DOMESTIC HOT WATER RETURN (DHWR)
- S — HEAT PUMP LOOP SUPPLY
- R — HEAT PUMP LOOP RETURN
- GHR — GLYCOL HEAT RECOVERY PIPING
- G(NAME) — GLYCOL PIPING SOLUTION
- G — NATURAL GAS
- HWR — HEATING HOT WATER RETURN
- HWS — HEATING HOT WATER SUPPLY
- ICW — INDUSTRIAL COLD WATER
- IHW — INDUSTRIAL HOT WATER
- IHWR — INDUSTRIAL HOT WATER RETURN
- ISCW — INDUSTRIAL SOFT COLD WATER
- LPC — LOW PRESSURE CONDENSATE
- LPG — LIQUIFIED PETROLEUM GAS
- MPC — MEDIUM PRESSURE CONDENSATE
- SHWS — SOLAR HOT WATER SUPPLY
- SHWR — SOLAR HOT WATER RETURN

LINETYPES CONT.

- MUW — MAKE UP WATER
- PC — PUMPED CONDENSATE
- RD — ROOF DRAIN
- RDO — ROOF DRAIN OVERFLOW
- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- SEWER (BELOW GRADE)
- SEWER (ABOVE GRADE)
- SW — SOFT DOMESTIC WATER
- TW — TEMPERED WATER
- TWR — TEMPERED WATER RETURN
- VENT (SEWER)

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

PROFESSIONAL ENGINEER 7705747-2202 BRADLEY J. WELCH 11-12-12 STATE OF UTAH

VAN BOERUM & FRANK ASSOCIATES, INC.
CONSULTING ENGINEERS
WWW.VBFA.COM
Salt Lake City • Logan • St. George • Tempe
330 South 300 East 801.530.3148 T
Salt Lake City, UT 84111 801.530.3150 F
VBFA Project Number: 11038

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MECHANICAL LEGEND

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: GR	CHECKED BY: BW
PROJECT NO.: 11007	DRAWING NO.: P001
DATE: 02/15/2013	

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EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

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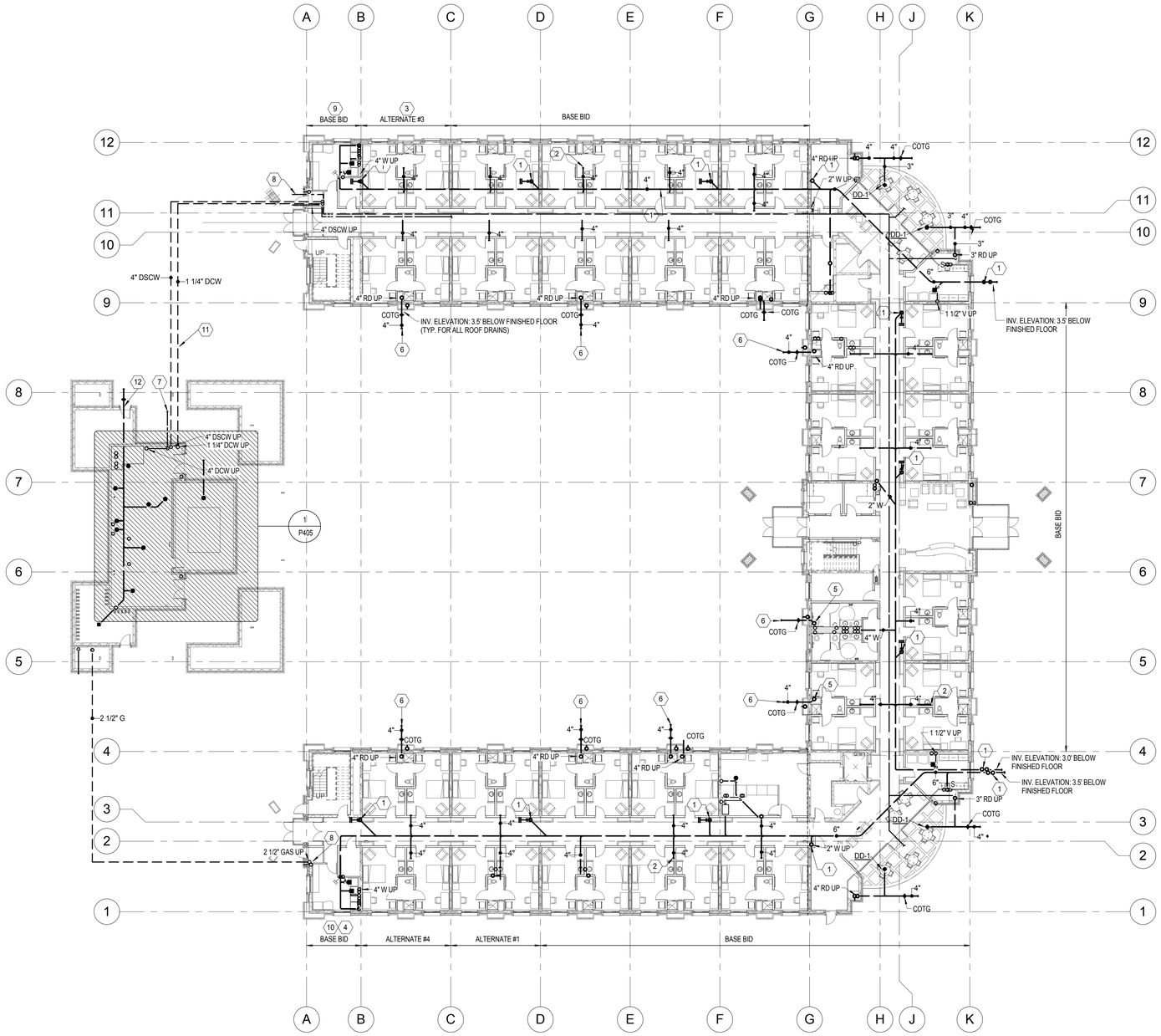

1 FIRST LEVEL OVERALL PLUMBING PLAN
SCALE: 1/16" = 1'-0"

N

0' 16' 32'

SHEET KEYNOTES

1 RISE TO CLEAN OUT. SEE FIRST FLOOR PLUMBING PLAN.

2 TAKE-OFF FOR BILLET RISER, TYPICAL.

3 ALTERNATE ASSOCIATED WITH THE NORTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

4 IF ALTERNATE #4 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

5 SEE FIRST LEVEL PLUMBING PLANS FOR CONTINUATION, TYPICAL.

6 SEE CIVIL PLANS FOR CONINTUATION.

7 SEE CIVIL PLANS FOR CONTINUATION OF WATER MAIN.

8 BASED ON WHICH ALTERNATES ARE ACCEPTED, EXTEND PIPING AS NEEDED INTO BUILDING AS SHOWN.

9 IF ALTERNATE #3 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 9 TO 12 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

10 IF ALTERNATE #1 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO C IS TO MOVE SUCH THAT GRID C IS ALIGNED WITH GRID D. COORDINATE WITH ARCHITECTURAL PLANS.

11 INSTALL PIPING 5' BELOW GRADE. COORDINATE WITH CIVIL.

12 INVERT ELEVATION: 3'-0" BELOW FINISHED FLOOR.

GENERAL NOTE:
ALL PIPE ROUTING AND HEAD PLACEMENT THAT AFFECTS THE AESTHETIC ELEMENTS OF THIS PROJECT IS TO BE COORDINATED AND APPROVED BY THE ARCHITECT. PARTICULARLY, THE DROPPED CEILINGS IN THE CORRIDORS AND THE EAST ENTRY LOBBY WILL REQUIRE CLOSE COORDINATION.

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FIRST LEVEL OVERALL PLUMBING PLAN

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: GR
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PROJECT NO.: 11007
DRAWING NO.: P100
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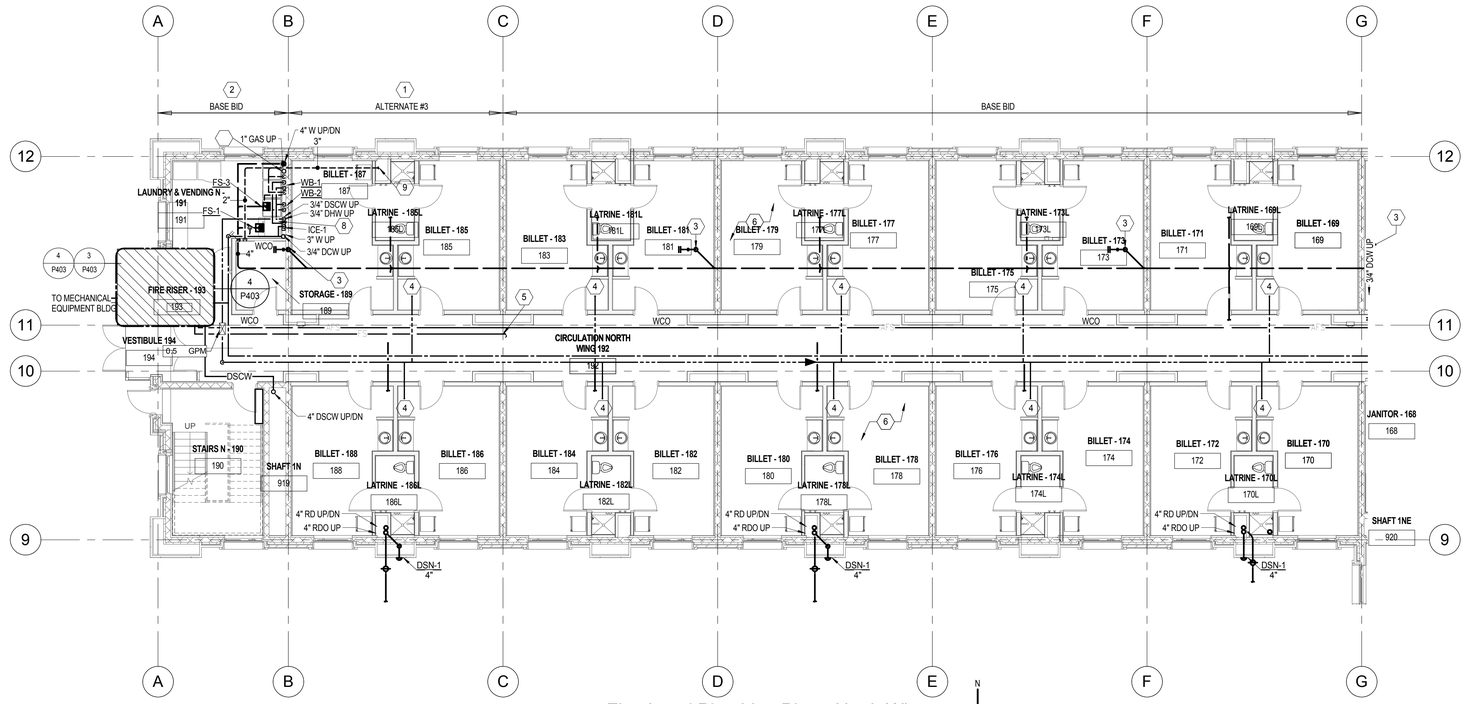
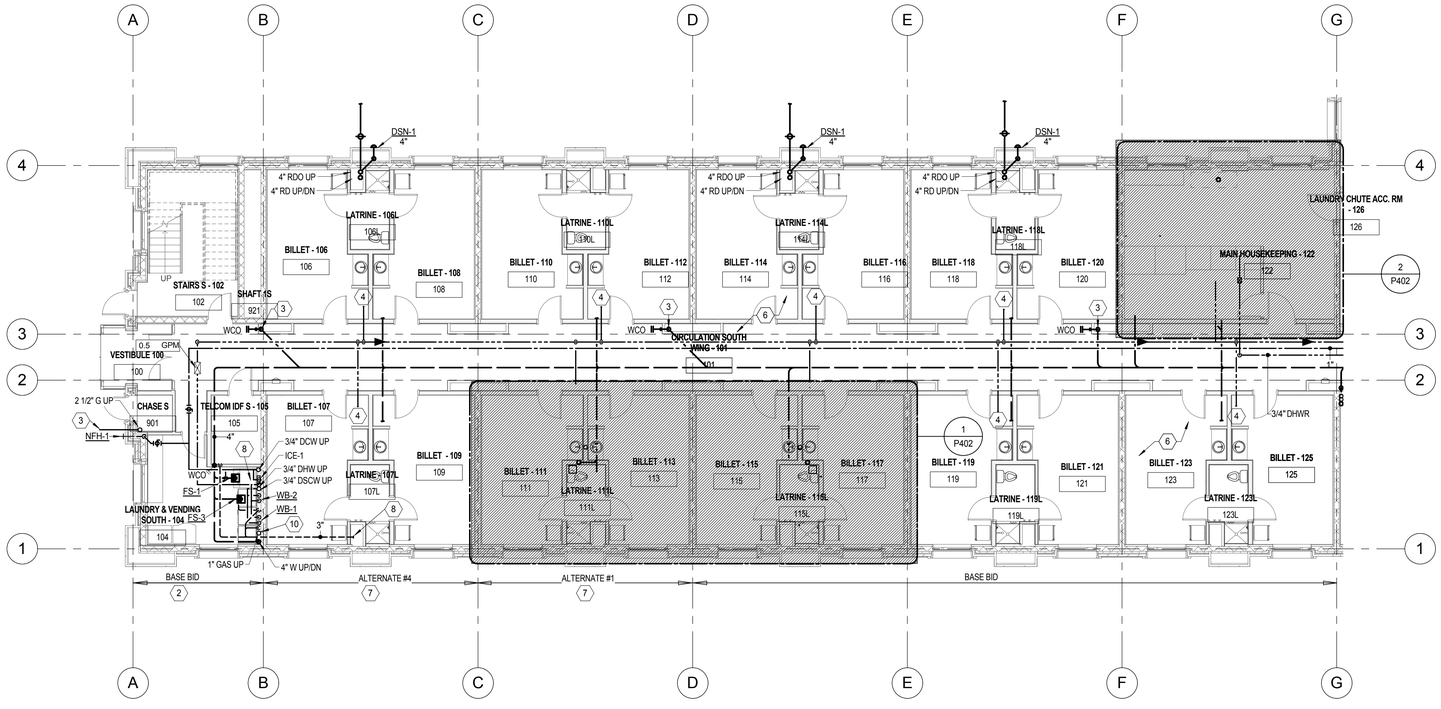
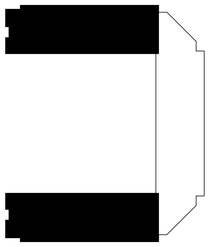


1 First Level Plumbing Plan - North Wing
SCALE: 1/8" = 1'-0"



2 First Level Plumbing Plan - South Wing
SCALE: 1/8" = 1'-0"



KEY PLAN

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SHEET KEYNOTES

1. ALTERNATE ASSOCIATED WITH THE NORTH WING. COORDINATE WITH ARCHITECTURAL PLANS.
2. IF ALTERNATE #3 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 9 TO 12 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.
3. SEE LEVEL 1 OVERALL PLUMBING PLAN FOR CONTINUATION.
4. SEE LARGE SCALE PLANS FOR CONTINUATION.
5. FIRE SPRINKLER MAIN TO FIRE SPRINKLERS ON THIS FLOOR
6. ALL FIRE SPRINKLERS ARE TO BE THE CONCEALED TYPE, TYPICAL.
7. ALTERNATE ASSOCIATED WITH THE SOUTH WING. COORDINATE WITH ARCHITECTURAL PLANS.
8. 3/4" DSCW AND DHW FROM RISERS. PROVIDE ISOLATION VALVES AND 12"X12" ACCESS DOOR FOR VALVE ACCESS.
9. TIE VENT LINE INTO BILLET TOILET ROOM VENT. SEE LARGE SCALE PLANS.
10. STUB 3/4" GAS LINE BEHIND DRYER. PROVIDE GAS COCK.

GENERAL NOTE:
ALL PIPE ROUTING AND HEAD PLACEMENT THAT AFFECTS THE AESTHETIC ELEMENTS OF THIS PROJECT IS TO BE COORDINATED AND APPROVED BY THE ARCHITECT. PARTICULARLY, THE DROPPED CEILINGS IN THE CORRIDORS AND THE EAST ENTRY LOBBY WILL REQUIRE CLOSE COORDINATION.

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FIRST LEVEL PLUMBING PLAN - NORTH & SOUTH WINGS

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PROJECT NO.: 11007	DRAWING NO.: P101A
DATE: 02/15/2013	

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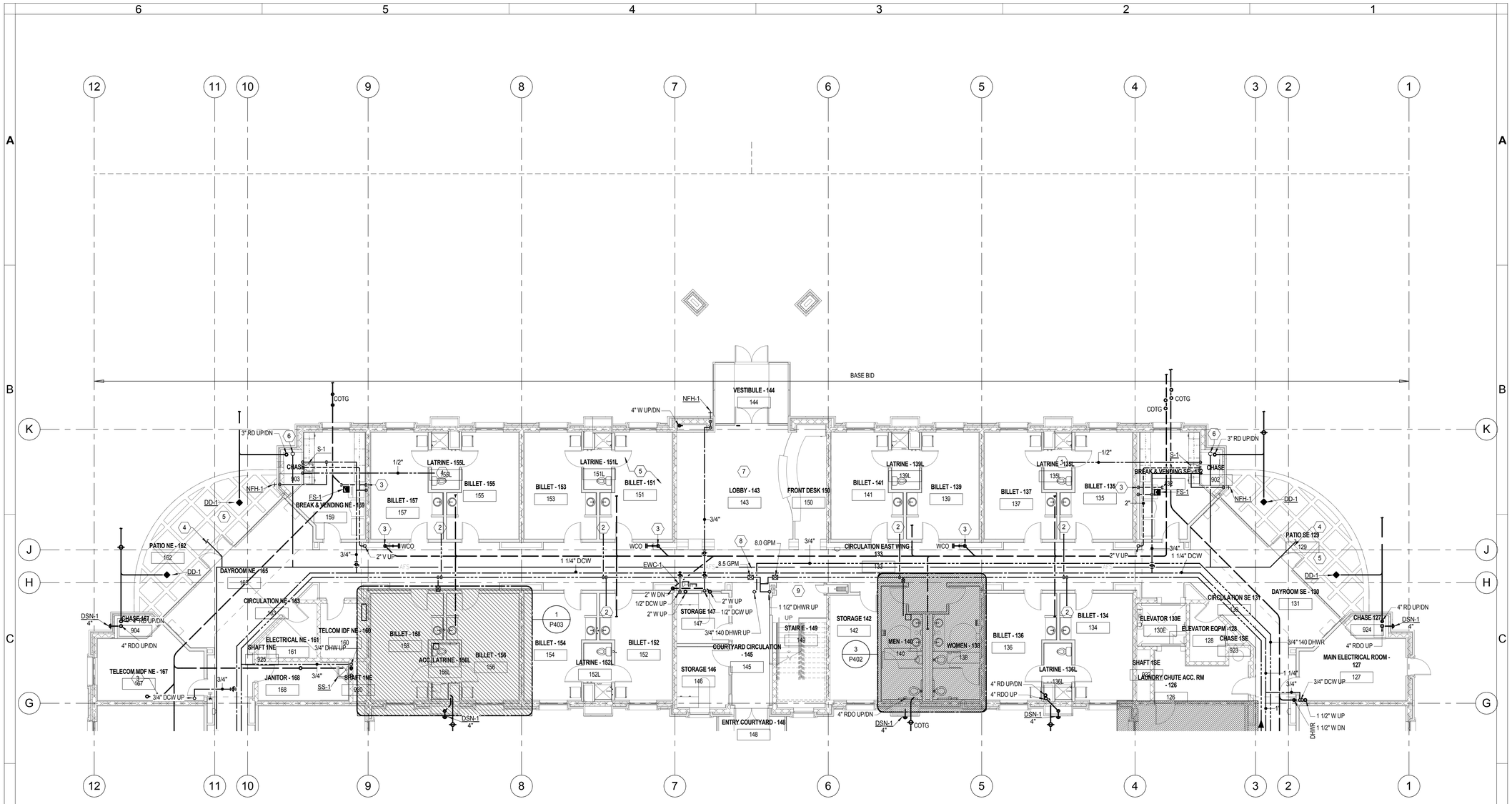
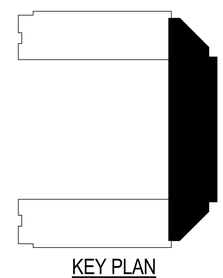


1 First Level Plumbing Plan - East Wing
SCALE: 1/8" = 1'-0"



KEY PLAN

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SHEET KEYNOTES

1. TIE DHW LINE INTO BILLET TOILET ROOM HOT WATER SUPPLY. SEE LARGE SCALE PLANS.
2. SEE LARGE SCALE PLANS FOR CONTINUATION.
3. SEE LEVEL 1 OVERALL PLUMBING PLAN FOR CONTINUATION.
4. PROVIDE FIRE SPRINKLERS FOR THE PATIO AREAS FROM THE ANTI-FREEZE SYSTEM MAIN.
5. ALL FIRE SPRINKLERS ARE TO BE THE CONCEALED TYPE, TYPICAL.
6. ANTI-FREEZE MAIN RISES TO SERVE SPRINKLERS ON THE BALCONIES ABOVE.
7. IF FIRE SPRINKLERS ARE REQUIRED IN THE DOMED CEILING, THEY ARE TO BE CONCEALED SIDEWALLS LOCATED ON THE EAST AND/OR WEST VERTICAL WALLS.
8. ANTI-FREEZE MAIN TO THE FIRE SPRINKLERS ON THE PATIOS.
9. COORDINATE SPRINKLER HEAD LOCATIONS WITH THE FIRE-RATED POCKET DOOR FOR THE STAIR.

GENERAL NOTE:
ALL PIPE ROUTING AND HEAD PLACEMENT THAT AFFECTS THE AESTHETIC ELEMENTS OF THIS PROJECT IS TO BE COORDINATED AND APPROVED BY THE ARCHITECT. PARTICULARLY, THE DROPPED CEILINGS IN THE CORRIDORS AND THE EAST ENTRY LOBBY WILL REQUIRE CLOSE COORDINATION.

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FIRST LEVEL PLUMBING PLAN - EAST WING

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PROJECT NO.: 11007	DRAWING NO.: P101B
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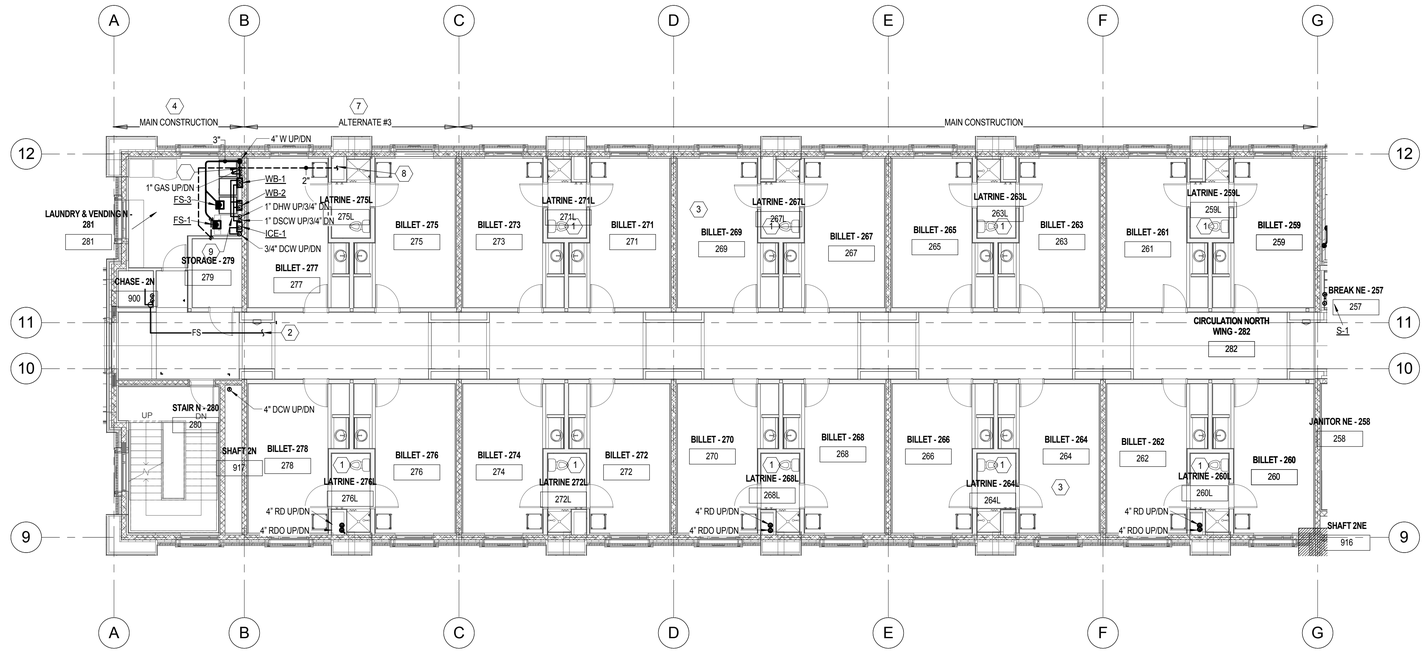
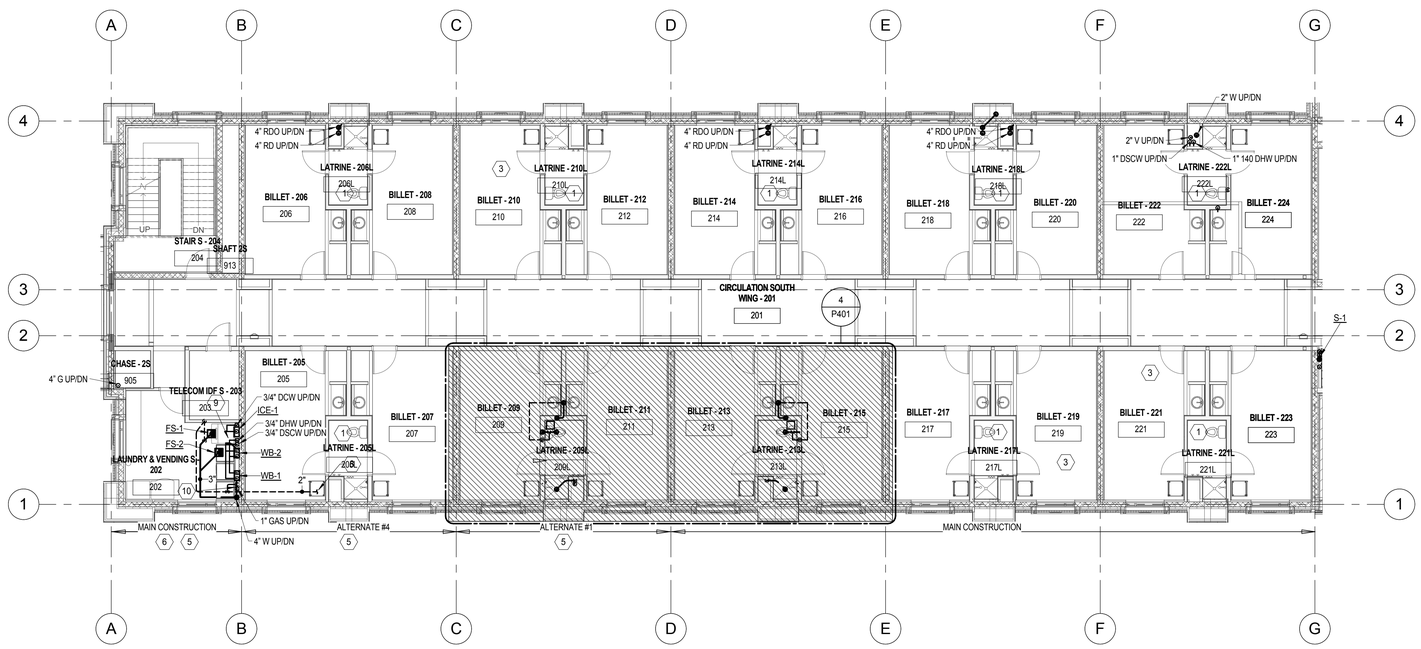


1 Second Level Plumbing Plan - North Wing
SCALE: 1/8" = 1'-0"



2 Second Level Plumbing Plan - South Wing
SCALE: 1/8" = 1'-0"

KEY PLAN

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SHEET KEYNOTES

1. SEE LARGE SCALE PLANS FOR PLUMBING LAYOUT IN THIS ROOM.
2. FIRE SPRINKLER MAIN TO FIRE SPRINKLERS ON THIS FLOOR
3. ALL FIRE SPRINKLERS ARE TO BE THE CONCEALED TYPE, TYPICAL.
4. IF ALTERNATE #3 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 9 TO 12 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.
5. ALTERNATE ASSOCIATED WITH THE SOUTH WING. COORDINATE WITH ARCHITECTURAL PLANS.
6. IF ALTERNATE #4 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.
7. ALTERNATE ASSOCIATED WITH THE NORTH WING. COORDINATE WITH ARCHITECTURAL PLANS.
8. TIE VENT LINE INTO BILLET TOILET ROOM VENT. SEE LARGE SCALE PLANS.
9. 3/4" DSCW AND DHW FROM RISERS. PROVIDE ISOLATION VALVES AND 12"X12" ACCESS DOOR FOR VALVE ACCESS.
10. STUB 3/4" GAS LINE BEHIND DRYER. PROVIDE GAS COCK.

GENERAL NOTE:
ALL PIPE ROUTING AND HEAD PLACEMENT THAT AFFECTS THE AESTHETIC ELEMENTS OF THIS PROJECT IS TO BE COORDINATED AND APPROVED BY THE ARCHITECT. PARTICULARLY, THE DROPPED CEILINGS IN THE CORRIDORS AND THE EAST ENTRY LOBBY WILL REQUIRE CLOSE COORDINATION.

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SECOND LEVEL PLUMBING PLAN - NORTH & SOUTH WINGS

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11-12-12
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1 Second Level Plumbing Plan - East Wing
SCALE: 1/8" = 1'-0"

SHEET KEYNOTES

1 SEE LARGE SCALE PLANS FOR PLUMBING LAYOUT IN THIS ROOM.

2 ALL FIRE SPRINKLERS ARE TO BE THE CONCEALED TYPE, TYPICAL.

3 PROVIDE FIRE SPRINKLERS FOR THE BALCONY AREAS FROM THE ANTI-FREEZE SYSTEM MAIN.

GENERAL NOTE:
ALL PIPE ROUTING AND HEAD PLACEMENT THAT AFFECTS THE AESTHETIC ELEMENTS OF THIS PROJECT IS TO BE COORDINATED AND APPROVED BY THE ARCHITECT. PARTICULARLY, THE DROPPED CEILINGS IN THE CORRIDORS AND THE EAST ENTRY LOBBY WILL REQUIRE CLOSE COORDINATION.

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KEY PLAN

SECOND LEVEL PLUMBING PLAN - EAST WING

REVISION	DATE	BY	DESCRIPTION
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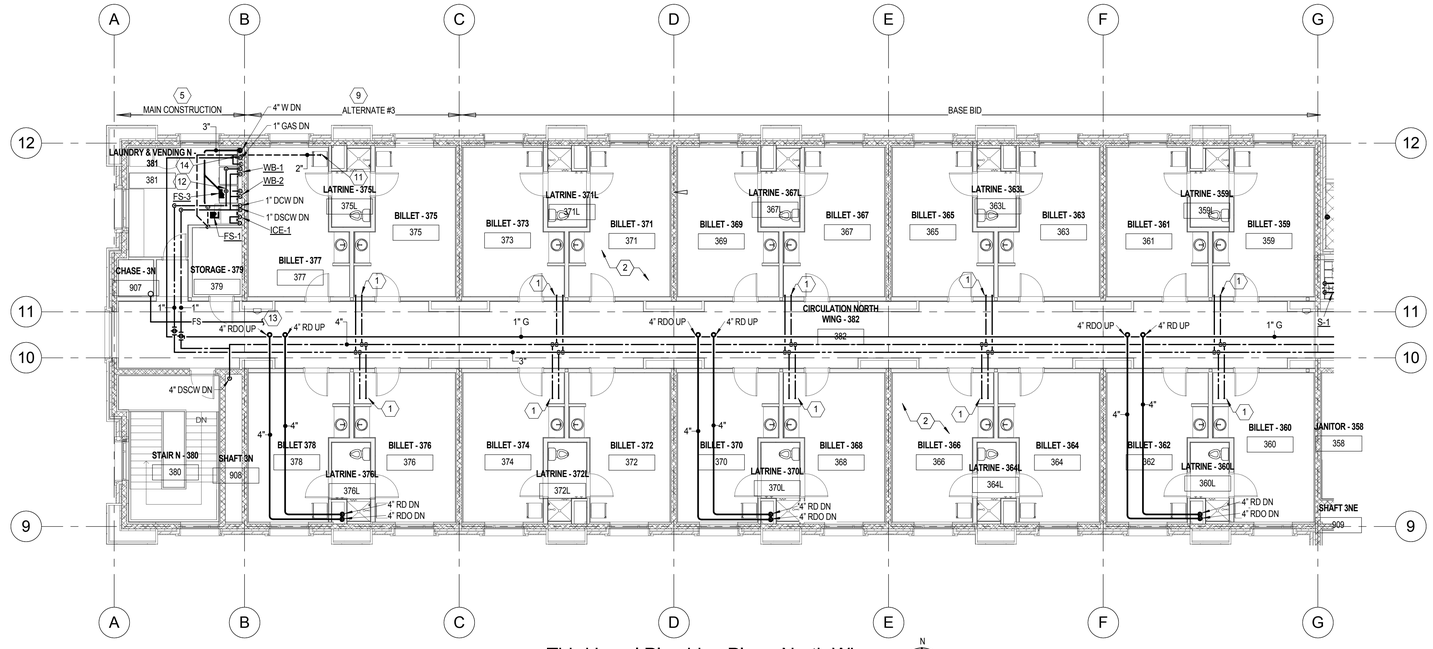
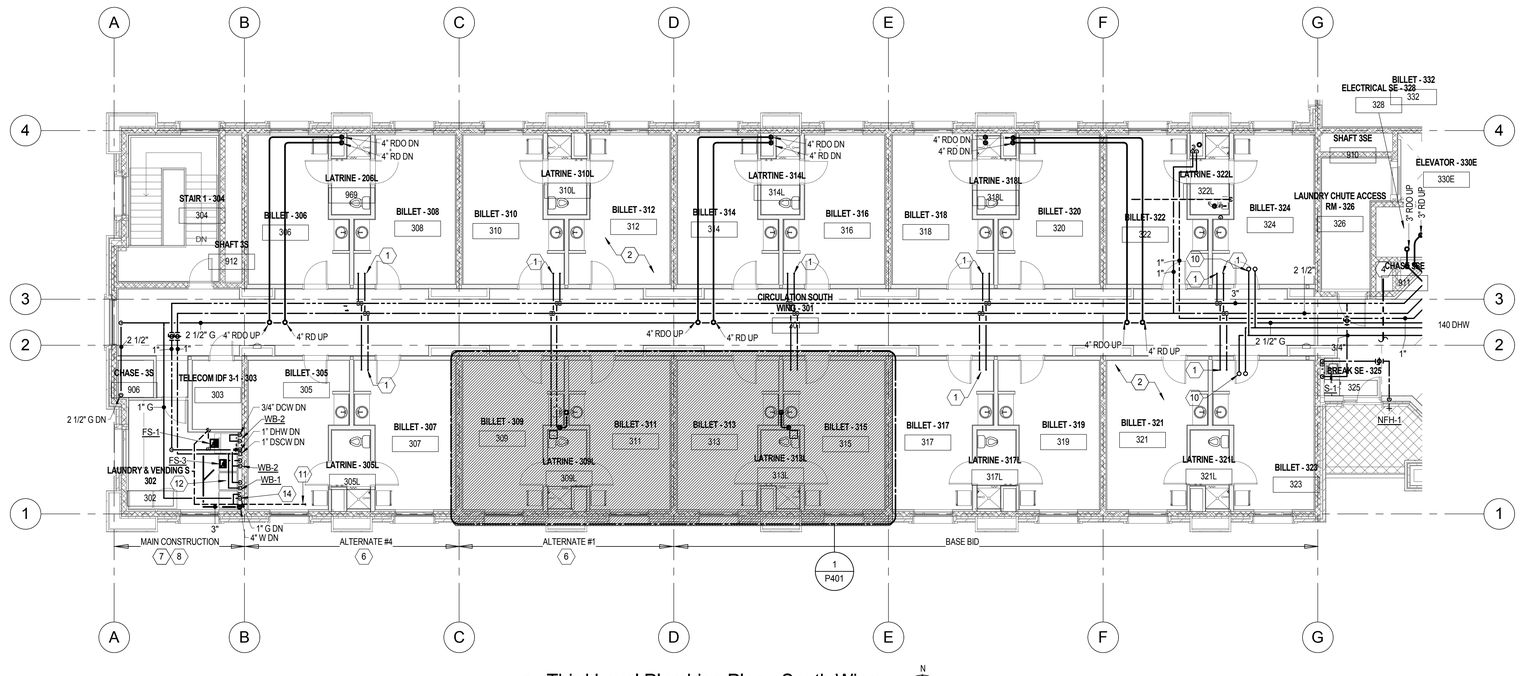


1 Third Level Plumbing Plan - North Wing
SCALE: 1/8" = 1'-0"



2 Third Level Plumbing Plan - South Wing
SCALE: 1/8" = 1'-0"

KEY PLAN

SHEET KEYNOTES

1. SEE LARGE SCALE PLANS FOR PLUMBING LAYOUT IN THIS ROOM.
2. ALL FIRE SPRINKLERS ARE TO BE THE CONCEALED TYPE, TYPICAL.
3. SEE LARGE SCALE PLANS FOR CONTINUATION.
4. CONNECT THE FIRE SPRINKLER MAIN TO THE SPRINKLER CONNECTION POINT IN THE LAUNDRY CHUTE.
5. IF ALTERNATE #3 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 9 TO 12 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.
6. ALTERNATE ASSOCIATED WITH THE SOUTH WING. COORDINATE WITH ARCHITECTURAL PLANS.
7. IF ALTERNATE #4 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.
8. IF ALTERNATE #1 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO C IS TO MOVE SUCH THAT GRID C IS ALIGNED WITH GRID D. COORDINATE WITH ARCHITECTURAL PLANS.
9. ALTERNATE ASSOCIATED WITH THE NORTH WING. COORDINATE WITH ARCHITECTURAL PLANS.
10. SOLAR HEATING WATER RETURN AND SUPPLY PIPING UP TO SOLAR PANELS ON ROOF. THIS PIPING IS PART OF ALTERNATE #1.
11. TIE VENT LINE INTO BILLET TOILET ROOM VENT. SEE LARGE SCALE PLANS.
12. 3/4" DSCW AND DHW FROM MAIN. PROVIDE ISOLATION VALVES AND 12"x12" ACCESS DOOR FOR VALVE ACCESS.
13. TO FIRE SPRINKLERS ON THIS FLOOR.
14. STUB 3/4" GAS LINE BEHIND DRYER. PROVIDE GAS COCK.

GENERAL NOTE:
ALL PIPE ROUTING AND HEAD PLACEMENT THAT AFFECTS THE AESTHETIC ELEMENTS OF THIS PROJECT IS TO BE COORDINATED AND APPROVED BY THE ARCHITECT. PARTICULARLY, THE DROPPED CEILINGS IN THE CORRIDORS AND THE EAST ENTRY LOBBY WILL REQUIRE CLOSE COORDINATION.

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THIRD LEVEL PLUMBING PLAN - NORTH & SOUTH WINGS

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PROJECT NO.: 11007	DRAWING NO.: P103A
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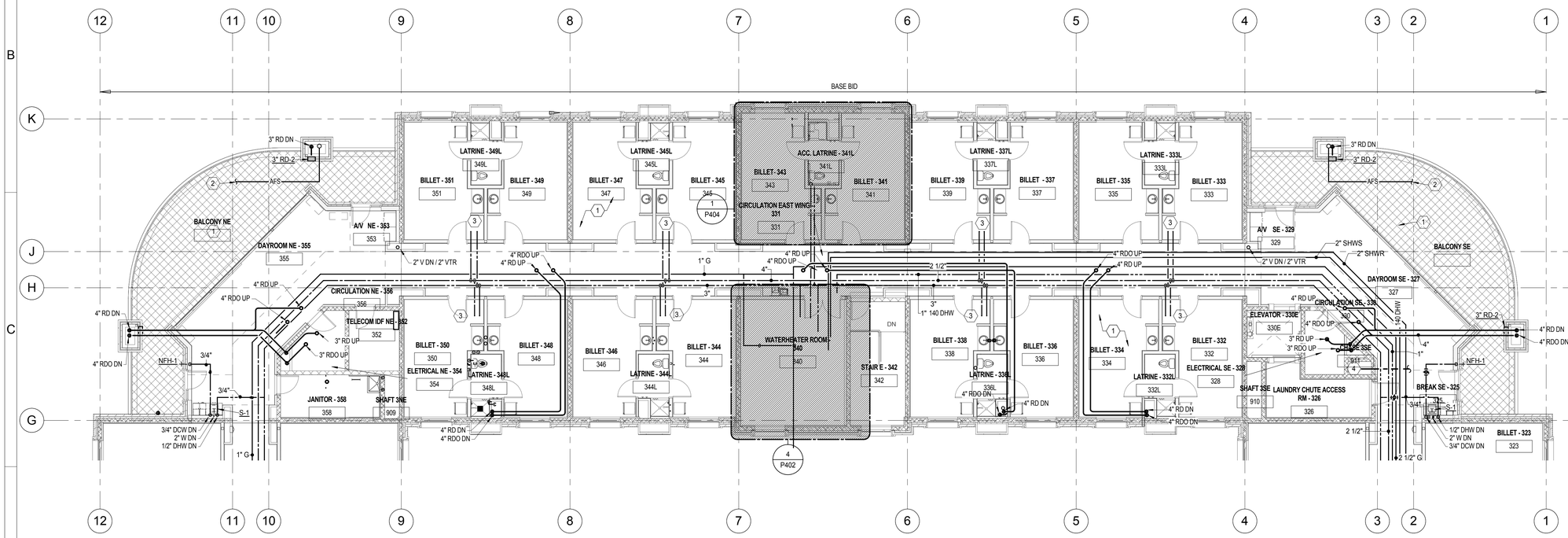
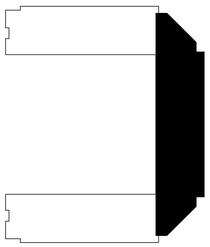


1 Third Level Plumbing Plan - East Wing

SCALE: 1/8" = 1'-0"



KEY PLAN

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SHEET KEYNOTES

1. ALL FIRE SPRINKLERS ARE TO BE THE CONCEALED TYPE, TYPICAL.
2. PROVIDE FIRE SPRINKLERS FOR THE BALCONY AREAS FROM THE ANTI-FREEZE SYSTEM MAIN.
3. SEE LARGE SCALE PLANS FOR CONTINUATION.
4. CONNECT THE FIRE SPRINKLER MAIN TO THE SPRINKLER CONNECTION POINT IN THE LAUNDRY CHUTE.

GENERAL NOTE:
ALL PIPE ROUTING AND HEAD PLACEMENT THAT AFFECTS THE AESTHETIC ELEMENTS OF THIS PROJECT IS TO BE COORDINATED AND APPROVED BY THE ARCHITECT. PARTICULARLY, THE DROPPED CEILINGS IN THE CORRIDORS AND THE EAST ENTRY LOBBY WILL REQUIRE CLOSE COORDINATION.

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THIRD LEVEL PLUMBING PLAN - EAST WING

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007
DRAWING NO.: P103B
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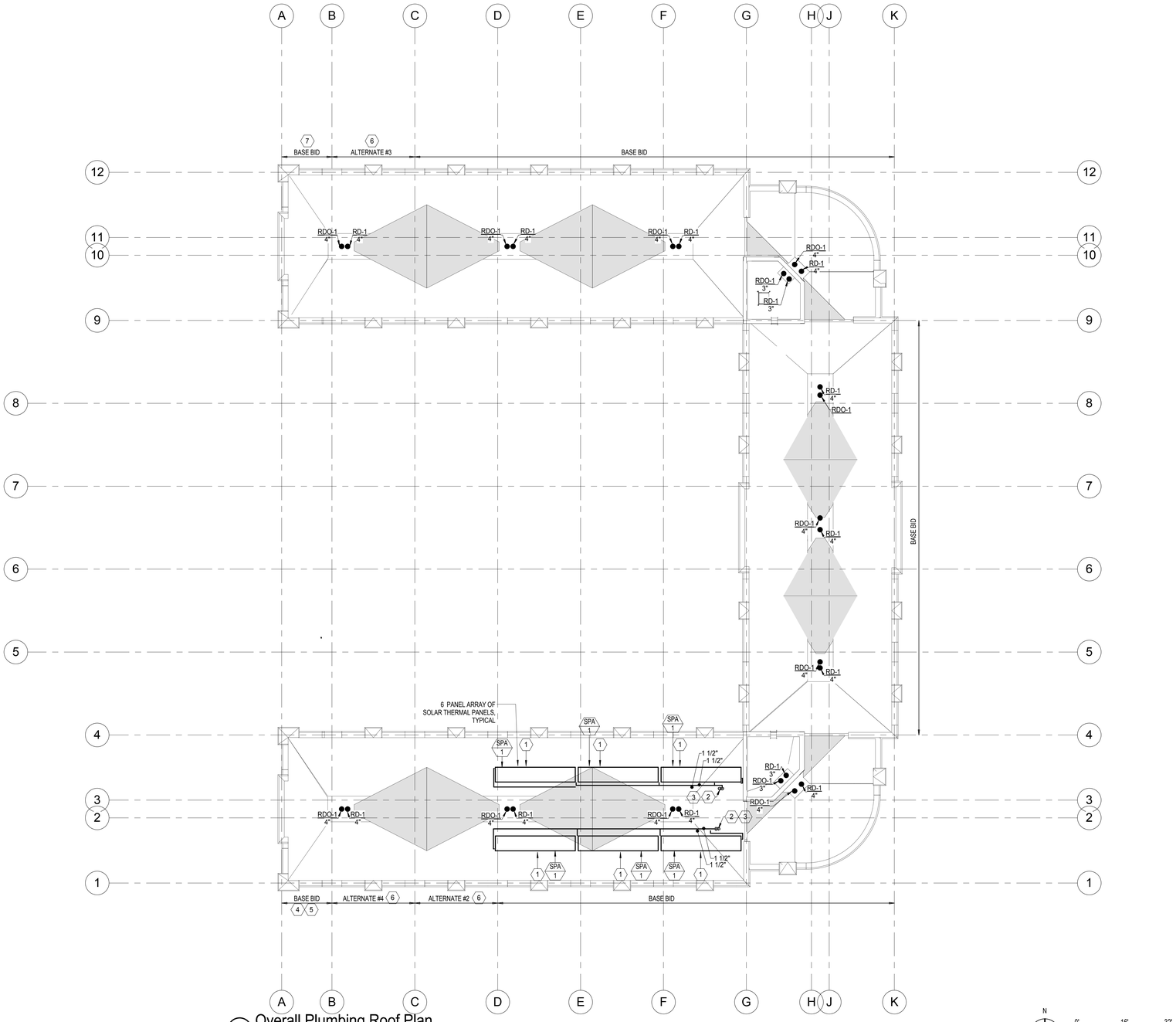

1 Overall Plumbing Roof Plan
SCALE: 1/16" = 1'-0"

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SHEET KEYNOTES

1 SOLAR PANEL ARRAYS AND RELATED PIPING ARE PART OF ALTERNATE #2.

2 SOLAR HEATING WATER SUPPLY AND RETURN PIPING DOWN.

3 SOLAR PANEL ARRAY WITH SIX SOLAR PANELS. 1" INLET AND OUTLET CONNECTION ON EACH ARRAY.

4 IF ALTERNATE #1 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO C IS TO MOVE SUCH THAT GRID C IS ALIGNED WITH GRID D. COORDINATE WITH ARCHITECTURAL PLANS.

5 IF ALTERNATE #4 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

6 ALTERNATE ASSOCIATED WITH THE SOUTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

7 IF ALTERNATE #3 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 9 TO 12 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

GENERAL NOTE:
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OVERALL PLUMBING ROOF PLAN

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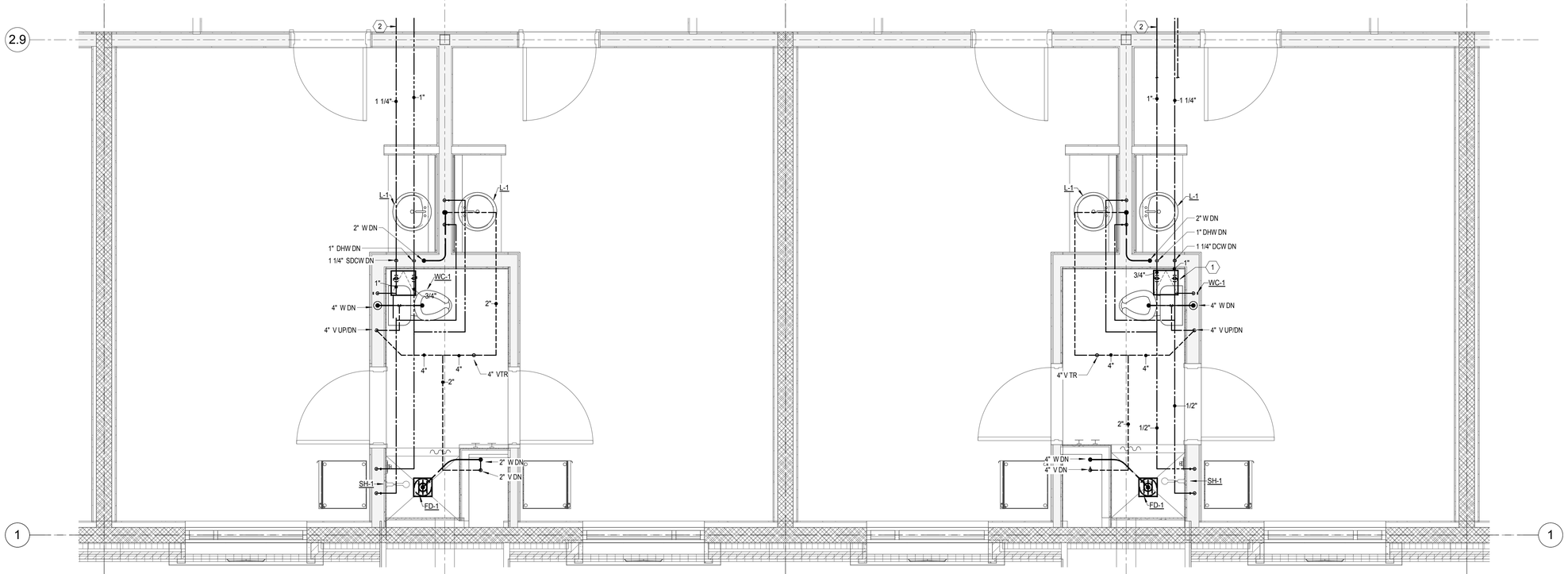
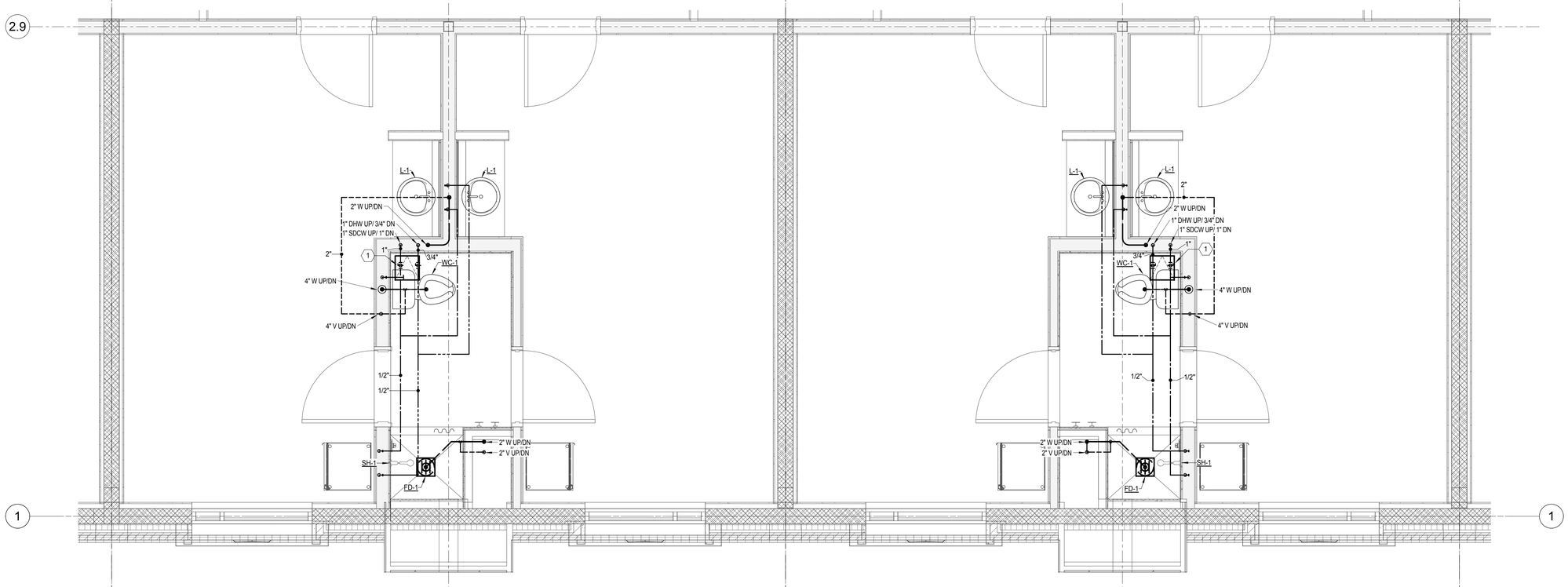


1 Third Level Typical Billet Enlarged Plumbing Plans
SCALE: 1/2" = 1'-0"



4 Second Level Typical Billet Enlarged Plumbing Plans
SCALE: 1/2" = 1'-0"

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SHEET KEYNOTES

1 12"X12" ACCESS DOOR.

2 SEE LEVEL 3 PLUMBING PLANS FOR CONTINUATION.

GENERAL NOTE:
ALL PIPE ROUTING AND HEAD PLACEMENT THAT AFFECTS THE AESTHETIC ELEMENTS OF THIS PROJECT IS TO BE COORDINATED AND APPROVED BY THE ARCHITECT. PARTICULARLY, THE DROPPED CEILINGS IN THE CORRIDORS AND THE EAST ENTRY LOBBY WILL REQUIRE CLOSE COORDINATION.

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ENLARGED PLUMBING PLANS

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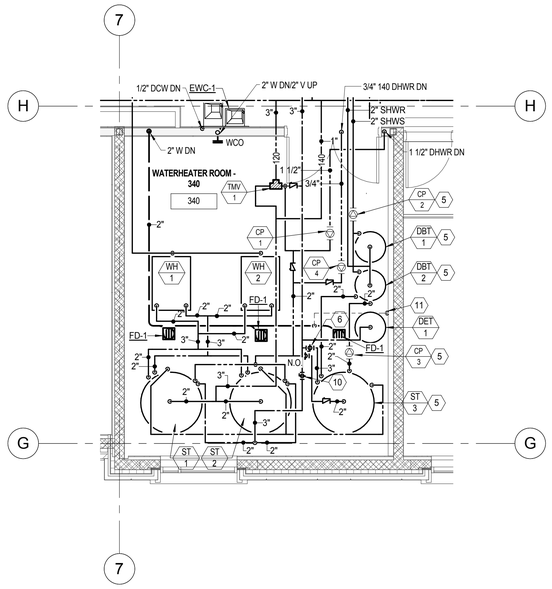
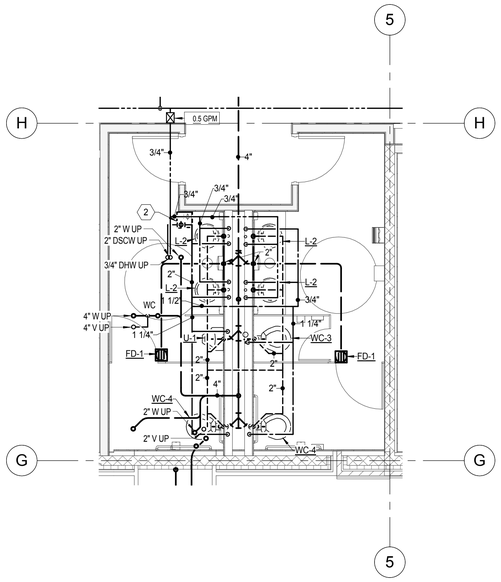
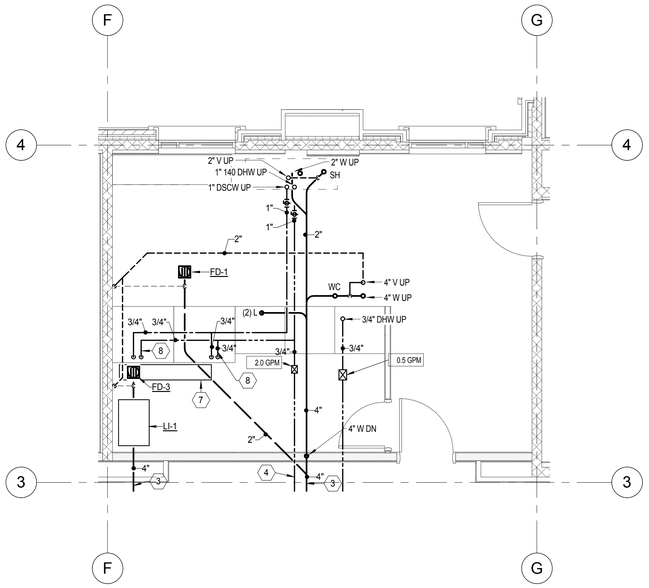


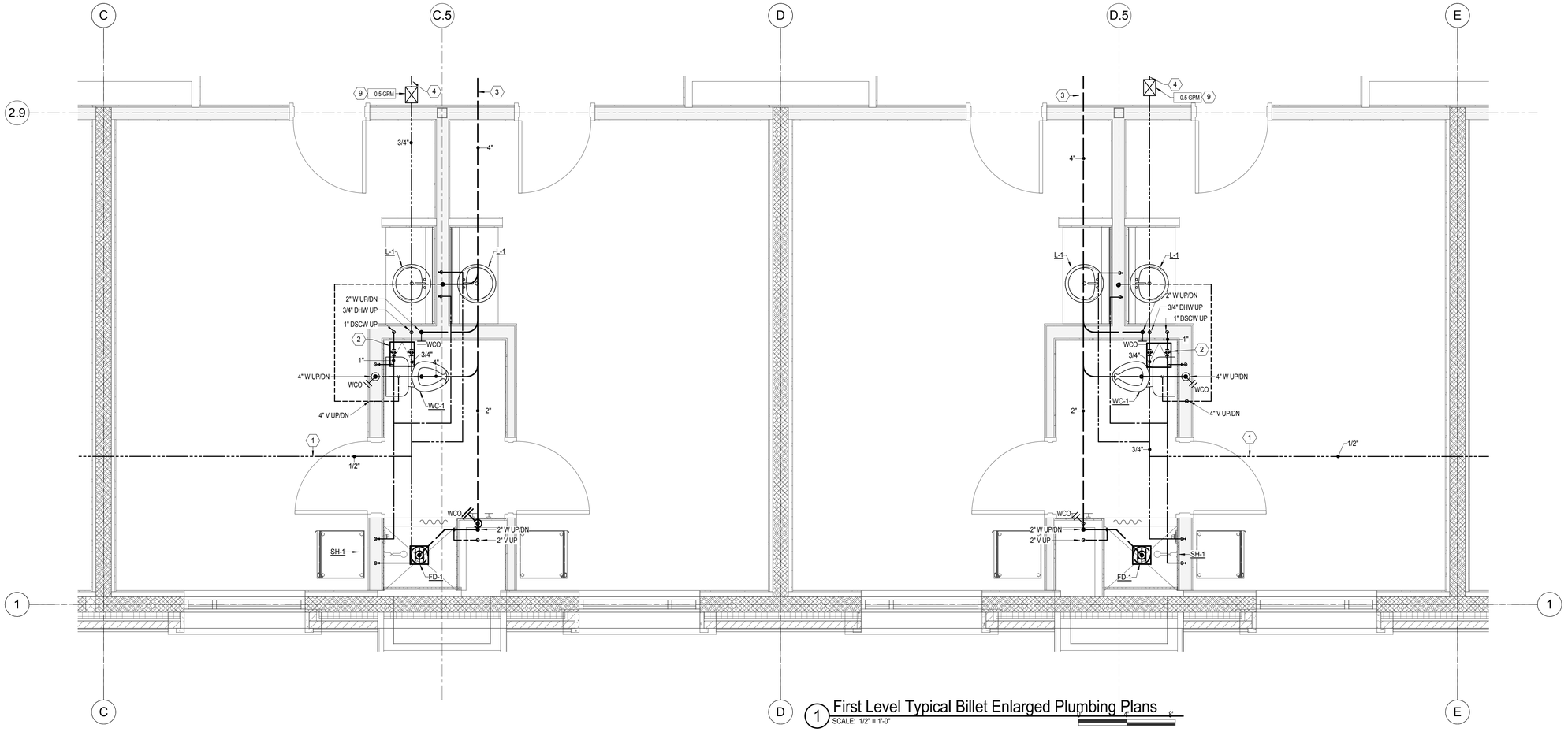
4 Water Heater Room - 340 Enlarged Plumbing Plan
SCALE: 1/4" = 1'-0"



3 Mens - 140 & Womens - 138 Enlarged Plumbing Plans
SCALE: 1/4" = 1'-0"



2 Main Housekeeping - 122 Enlarged Plumbing Plan
SCALE: 1/4" = 1'-0"



1 First Level Typical Billet Enlarged Plumbing Plans
SCALE: 1/2" = 1'-0"

SEAL & SIGNATURE

PROFESSIONAL ENGINEER 7705747-2202 BRADLEY J. WELCH 11-12-12 STATE OF UTAH

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SHEET KEYNOTES

1 THIS LINE TO ONLY BE INSTALLED ON THOSE BILLETS BORDERING THE BREAKROOMS IN THE NORTHEAST AND SOUTHEAST CORNERS OF THE BUILDING.

2 12"X12" ACCESS DOOR.

3 SEE OVERALL PLUMBING FLOOR PLAN FOR CONTINUATION.

4 SEE LEVEL 1 PLUMBING FLOOR PLANS FOR CONTINUATION.

5 THIS EQUIPMENT IS PART OF ATERNATE #1.

6 NORMALLY OPEN VALVE AND BRANCH PIPING PART OF ALTERNATE #1.

7 6'x1'x1' TROUGH. COORDINATE LOCATION WITH ARCHITECTURAL & STRUCTURAL.

8 PROVIDE BALL VALVE SHUT-OFF AND HOSE THREAD CONNECTION WITHIN 3 FT OF WASHER CONNECTION. COORDINATE DROP LOCATION WITH WASHER CONNECTION LAYOUT.

9 CIRCUIT SETTER CALIBRATE BALANCING VALVE. LOCATE ABOVE HALL CEILING. VALVE MUST BE ACCESSIBLE.

10 NORMALLY CLOSED VALVE IF ALTERNATE #1 IS ACCEPTED.

11 VENT. RISE TO CEILING SPACE AND PROVIDE AIR ADMITTANCE VALVE.

GENERAL NOTE:
ALL PIPE ROUTING AND HEAD PLACEMENT THAT AFFECTS THE AESTHETIC ELEMENTS OF THIS PROJECT IS TO BE COORDINATED AND APPROVED BY THE ARCHITECT. PARTICULARLY, THE DROPPED CEILINGS IN THE CORRIDORS AND THE EAST ENTRY LOBBY WILL REQUIRE CLOSE COORDINATION.

BUILDING OFFICIAL APPROVAL

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ENLARGED PLUMBING PLANS

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: GR	CHECKED BY: BW
PROJECT NO.: 11007	DRAWING NO.: P402
DATE: 02/15/2013	

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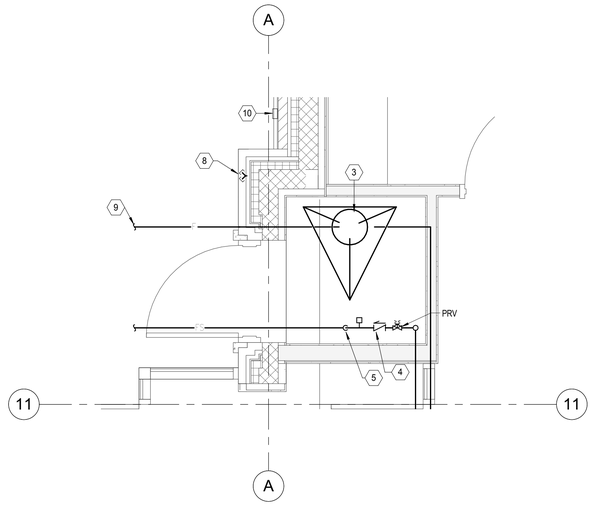
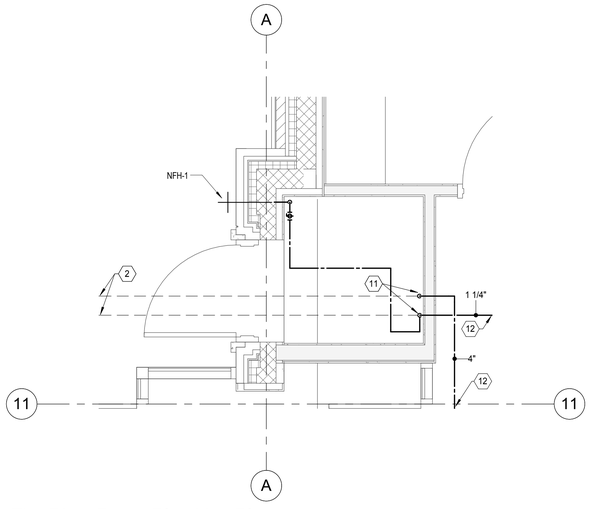
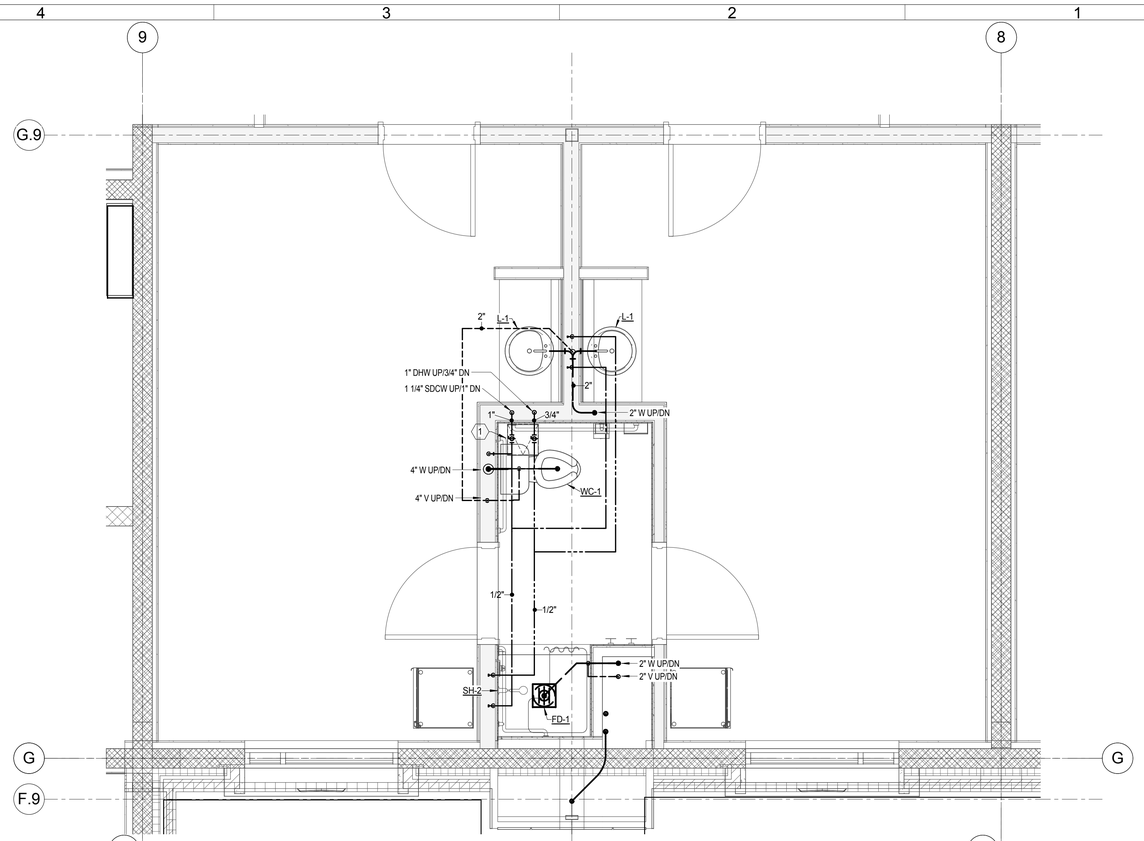


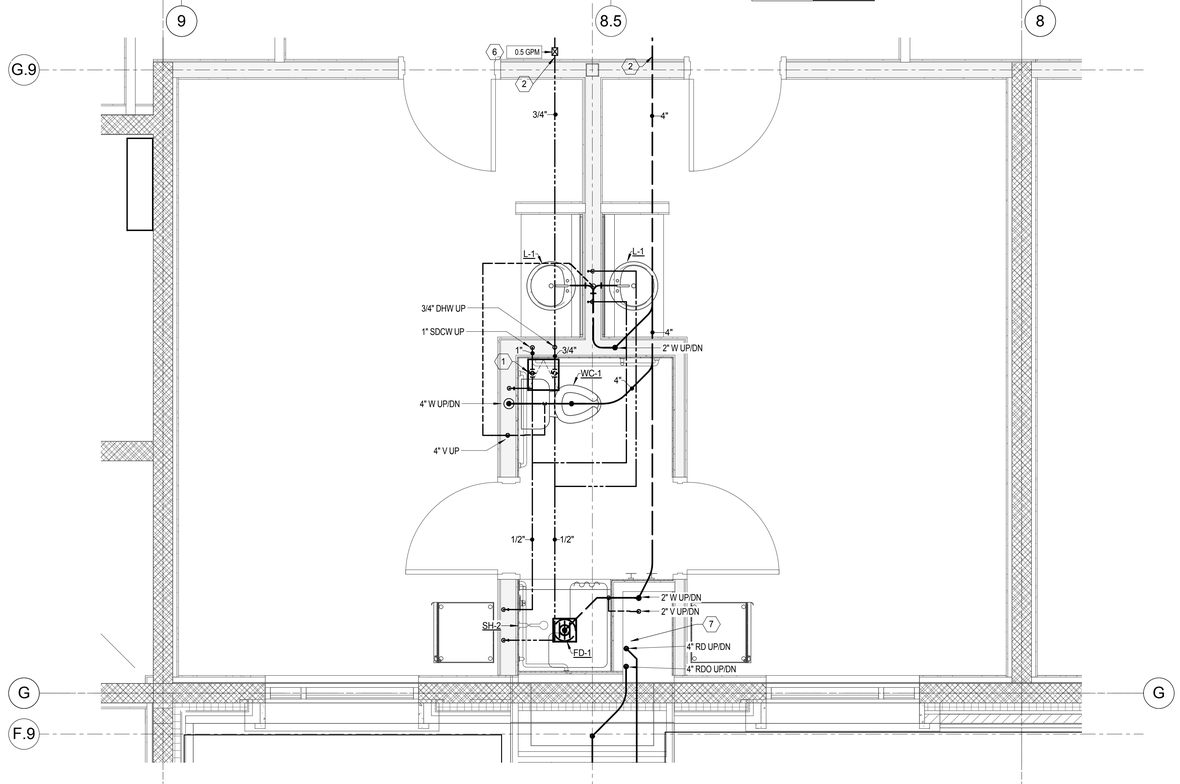
3 Fire Riser Room Fire Sprinkler System Plan
SCALE: 1/2" = 1'-0"



4 Fire Riser Room Plumbing Plan
SCALE: 1/2" = 1'-0"



2 Second Level Accessible Billet Enlarged Plumbing Plan
SCALE: 1/2" = 1'-0"



1 First Level Typical Billet Enlarged Plumbing Plan
SCALE: 1/2" = 1'-0"

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SHEET KEYNOTES

1 12"X12" ACCESS DOOR.

2 SEE LEVEL 1 OVERALL PLUMBING PLAN FOR CONTINUATION.

3 FIRE SPRINKLER RISER WITH ANTI-FREEZE MANIFOLD. SEE DETAIL. FIRE SPRINKLER MAIN FOR THE FLOORS ABOVE RISES IN THE CHASE ABOVE.

4 PROVIDE A CONTROL VALVE WITH TAMPER SWITCH, CHECK VALVE, AND FLOW SWITCH IN THE 4" FIRE SPRINKLER MAIN TO THE BOILER BUILDING.

5 THE 4" FIRE SPRINKLER MAIN DROPS 60" BELOW GRADE.

6 CIRCUIT SETTER CALIBRATE BALANCING VALVE. LOCATE ABOVE HALL CEILING. VALVE MUST BE ACCESSIBLE.

7 COORDINATE ROOF DRAIN RISER LOCATIONS WITH PLUMBING FLOOR PLANS.

8 2-WAY FLUSH-MOUNTED FIRE DEPARTMENT CONNECTION.

9 8" FIRE MAIN AND FLANGED SPIGOT – SEE DETAIL. SEE SITE UTILITIY PLAN FOR CONTINUATION.

10 ELECTRONIC BELL/HORNSTROBE FOR WATERFLOW ALARM FROM THE FIRE ALARM CONTROL PANEL. COORDINATE WIRING WITH ELECTRICAL.

11 PROVIDE VALVE AND PRESSURE GAGE IN RISE.

12 SEE LEVEL 1 PLUMBING FLOOR PLANS FOR CONTINUATION.

GENERAL NOTE:
ALL PIPE ROUTING AND HEAD PLACEMENT THAT AFFECTS THE AESTHETIC ELEMENTS OF THIS PROJECT IS TO BE COORDINATED AND APPROVED BY THE ARCHITECT. PARTICULARLY, THE DROPPED CEILINGS IN THE CORRIDORS AND THE EAST ENTRY LOBBY WILL REQUIRE CLOSE COORDINATION.

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ENLARGED PLUMBING PLANS

REVISION	DATE	BY	DESCRIPTION
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DRAWING NO.: P403
DATE: 02/15/2013

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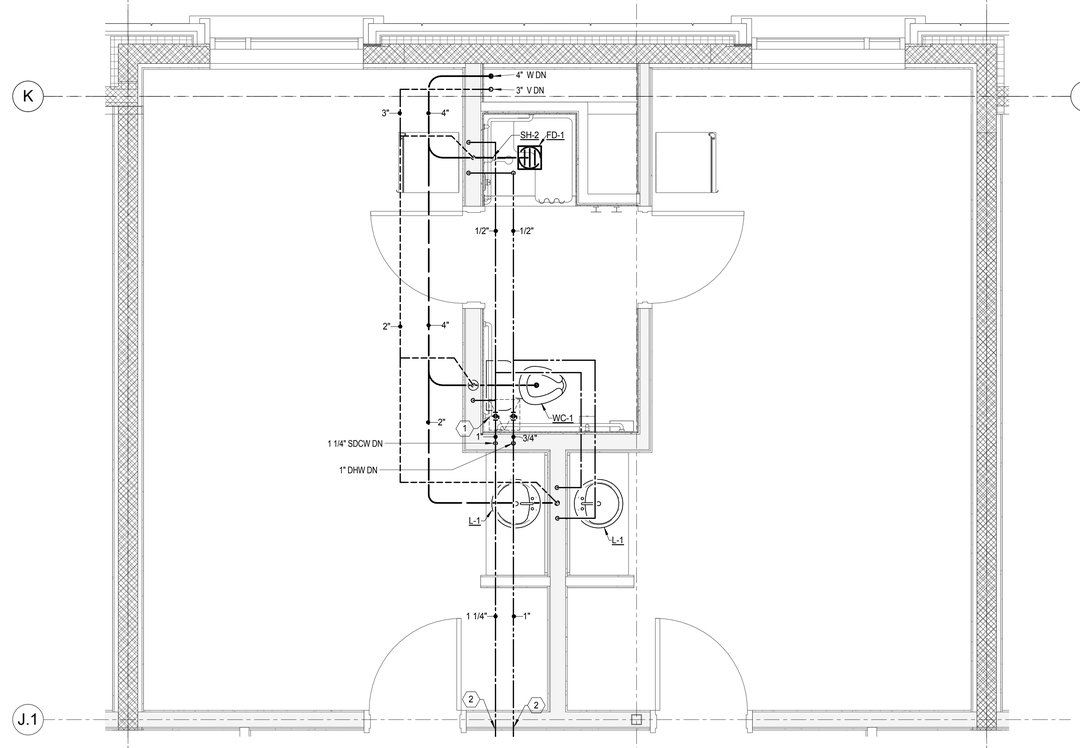
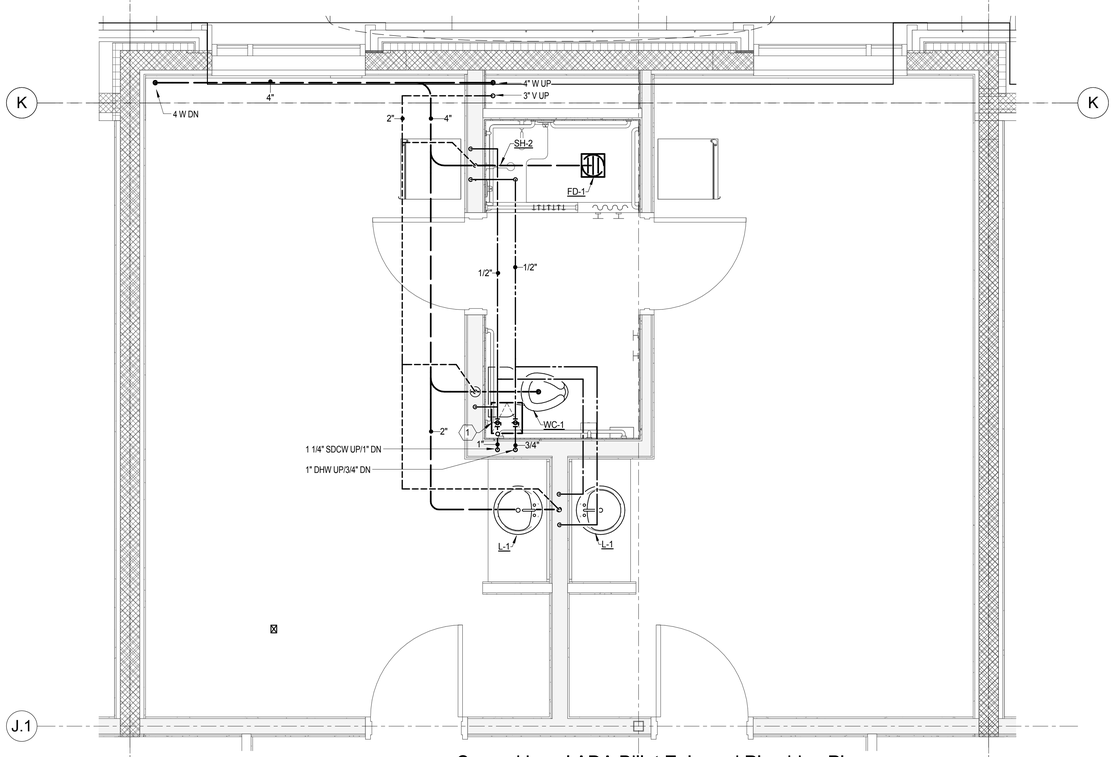


1 Third Level Accessible Billet Enlarged Plumbing Plan
SCALE: 1/2" = 1'-0"



2 Second Level ADA Billet Enlarged Plumbing Plan
SCALE: 1/2" = 1'-0"

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SHEET KEYNOTES

1 12"X12" ACCESS DOOR.

2 SEE LEVEL 3 PLUMBING PLANS FOR CONTINUATION.

GENERAL NOTE:
ALL PIPE ROUTING AND HEAD PLACEMENT THAT AFFECTS THE AESTHETIC ELEMENTS OF THIS PROJECT IS TO BE COORDINATED AND APPROVED BY THE ARCHITECT. PARTICULARLY, THE DROPPED CEILINGS IN THE CORRIDORS AND THE EAST ENTRY LOBBY WILL REQUIRE CLOSE COORDINATION.

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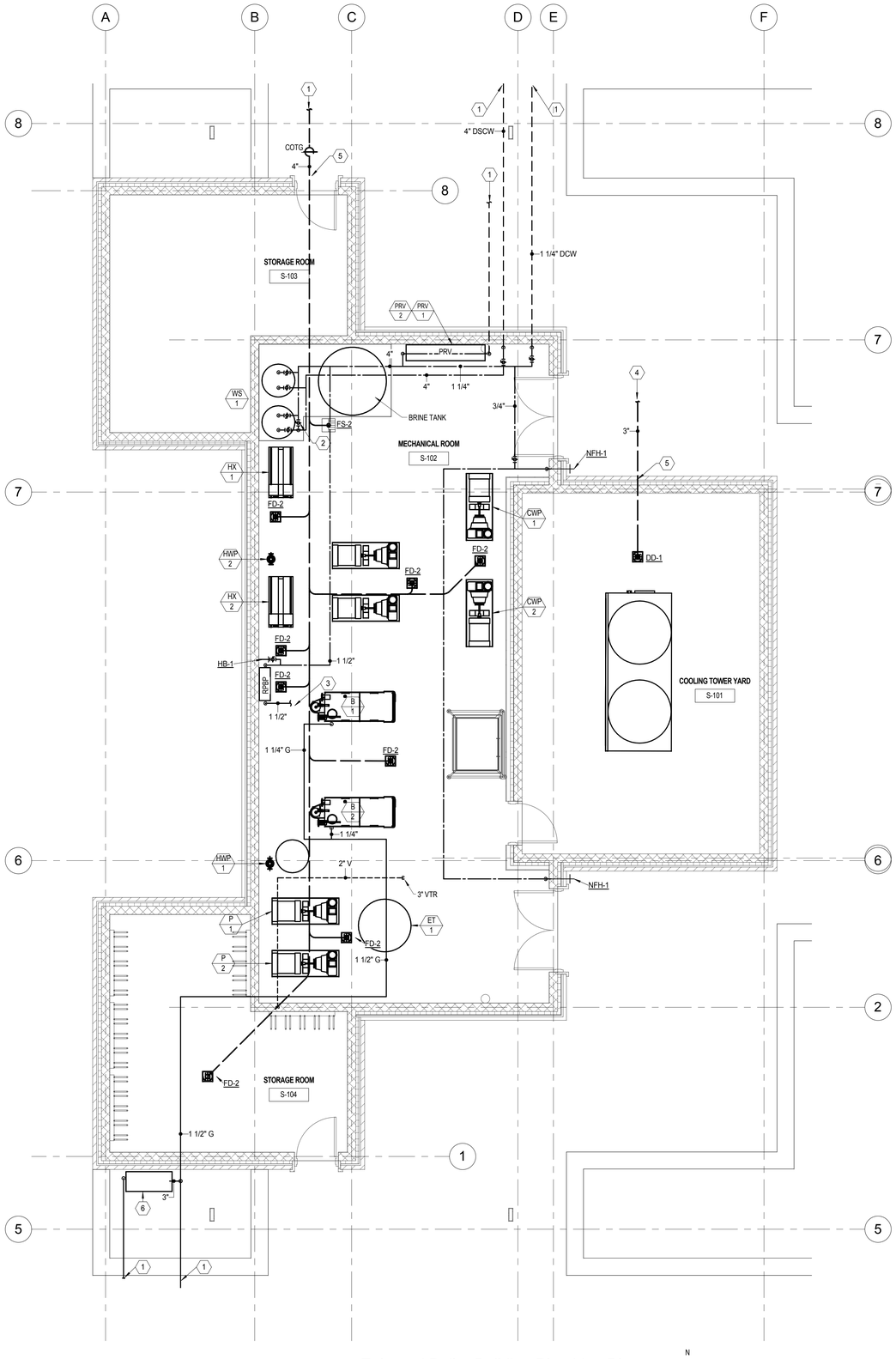

1 Enlarged Boiler Building Plumbing Plan
SCALE: 1/4" = 1'-0"

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SHEET KEYNOTES

1 SEE CIVIL FOR CONTINUATION.

2 NORMALLY CLOSED VALVE.

3 BOILER MAKE-UP LINE. EXTEND AND CONNECT TO BOILERS.

4 SEE CIVIL PLANS FOR CONINTUATION.

5 INVERT ELEVATION: 3'-0" BELOW FINISHED FLOOR.

6 GAS METER AND PRESSURE REGULATOR. SIZE REGULATOR FOR 2 PSI OUTLET PRESSURE AND 6401 CFH. METER SHALL BE AMERICAN METER, SINGER OR ROCKWELL.

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Enlarged Boiler Building Plumbing Plan

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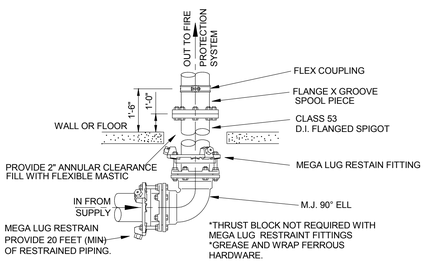
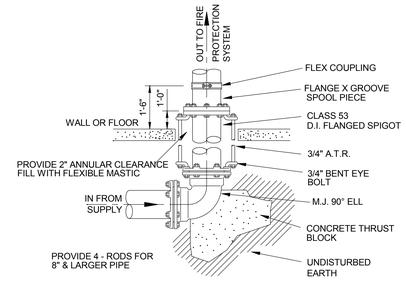


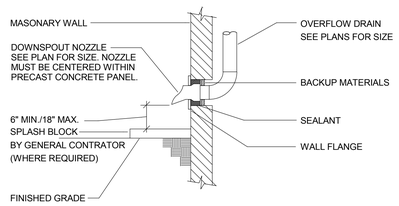
11 P501 FLANGED SPIGOT THROUGH FLOOR DETAIL

NO SCALE



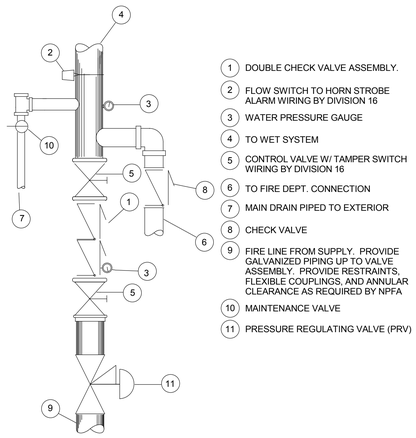
12 P501 ANTI-FREEZE W/ EXPANSION TANK DETAIL

NO SCALE



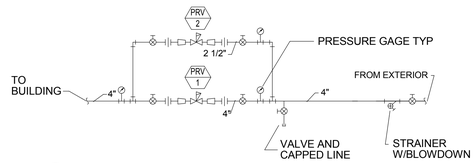
8 P501 DOWNSPOUT NOZZLE DETAIL

NO SCALE



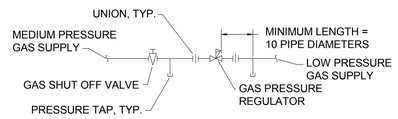
9 P501 FIRE SPRINKLER RISER DETAIL

NO SCALE



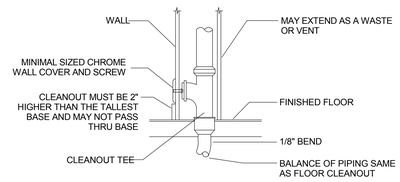
4 P501 PRV DETAIL

NO SCALE



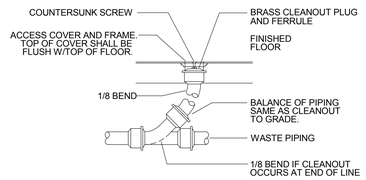
5 P501 GAS PRV DETAIL

NO SCALE



6 P501 WALL CLEANOUT DETAIL

NO SCALE



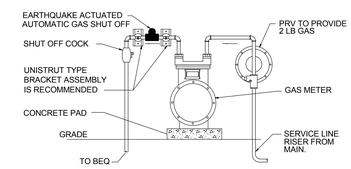
1 P501 FLOOR CLEANOUT DETAIL

NO SCALE

BRANCH WATER LINE SCHEDULE

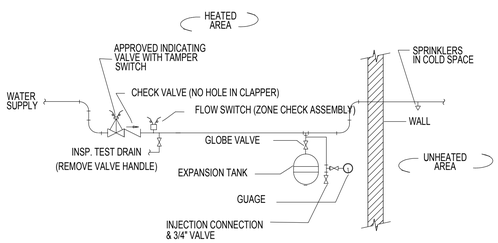
FIXTURE	FIXTURE UNITS	QUANTITY OF FIXTURES SERVED BY					
		1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
WATER CLOSET (FLUSH VALVE)	10	---	---	1	3	5	15
WATER CLOSET (TANK TYPE)	3	1	2	4	10	---	---
URINAL	5	---	1	2	6	10	30
LAVATORY	2	1	3	6	15	25	---
SERVICE SINK	4	---	1	3	---	---	---
QUANTITY OF FIXTURE UNITS SERVED BY	---	3	6	12	30	50	150

NOTE:
WHERE PIPING IS SIZED ON DRAWINGS IT SHALL BE FOLLOWED. OTHERWISE INSTALL ACCORDING TO TABLE. WHERE FIXTURES ON A BRANCH ARE MIXED. TAKE THE SUM OF FIXTURE UNITS TO DETERMINE SIZING. THE BRANCHES SHALL BE REDUCED AS THE LOAD IS TAKEN OFF. MINIMUM SIZE TO ONE (1) FIXTURE SHALL BE 1/2".



2 P501 GAS METER DETAIL

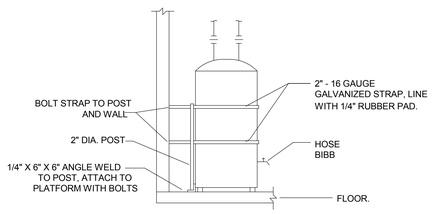
NO SCALE



1. PRIOR TO INSTALLATION EXPANSION TANK SHALL BE PRESSURIZED (66 PSI) EQUAL TO SYSTEM STATIC PRESSURE.
2. PRESSURE RELIEF VALVE ON ANTIFREEZE SYSTEM SET AT 150 PSI . PIPE TO DISCHARGE TO EXTERIOR (MAIN DRAIN PIPING)
3. PROVIDE EXPANSION TANK PER CALCULATION. PRE-PRESSURIZE TANK EQUAL TO STATIC WATER PRESSURE.
4. FILL SYSTEM WITH PROPYLENE GLYCOL SOLUTION ONLY. AT 50% MIXTURE PERCENT AND QUANTITIES NOTED (280 GALLONS-TOTAL SOLUTION CAPACITY).
5. LOCATE TANK IN HEATED RISER ROOM.

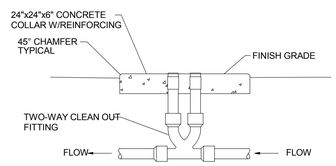
12 P501 ANTI-FREEZE W/ EXPANSION TANK DETAIL

NO SCALE



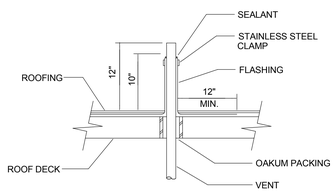
10 P501 DOMESTIC WATER HEATER ANCHORAGE

NO SCALE



7 P501 CLEANOUT TO GRADE DETAIL (COTG)

NO SCALE



3 P501 VENT THRU ROOF FLASHING & SLEEVING DETAIL

NO SCALE

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PLUMBING FIXTURE SCHEDULE

ID	FIXTURE	CW (IN)	HW (IN)	W (IN)	V (IN)	NOTES	SPECIFICATIONS
WC-1	WATER CLOSET	1	-.-	4	2	FLOOR MOUNTED, DUAL FLUSH TANK	WATER CLOSET (FLOOR MOUNT, DUAL FLUSH TANK): ZURN Z5572 VITREOUS CHINA, ELONGATED BOWL, PRESSURE ASSIST, DUAL FLUSH TANK TYPE TOILET, WITH 1.6 GPF FULL FLUSH AND 1.0 GPF PARTIAL FLUSH; BEMIS 3155C "DURAGUARD" WHITE, SOLID PLASTIC, OPEN FRONT SEAT, LESS COVER; FLEXIBLE STAINLESS STEEL SUPPLY WITH LOOSE KEYANGLE STOP.
WC-2	WATER CLOSET	1	-.-	4	2	ADA, FLOOR MOUNTED, DUAL FLUSH TANK	WATER CLOSET (FLOOR MOUNT, DUAL FLUSH TANK, ADA): ZURN Z5562 ADA, VITREOUS CHINA, ELONGATED BOWL, PRESSURE ASSIST, DUAL FLUSH TANK TYPE TOILET, WITH 1.6 GPF FULL FLUSH AND 1.0 GPF PARTIAL FLUSH; BEMIS 3155C "DURAGUARD" WHITE, SOLID PLASTIC, OPEN FRONT SEAT, LESS COVER; FLEXIBLE STAINLESS STEEL SUPPLY WITH LOOSE KEYANGLE STOP.
WC-3	WATER CLOSET	1	-.-	4	2	WALL MOUNTED, DUAL FLUSH VALVE	WATER CLOSET: KOHLER K-4330 KINGSTON VITREOUS CHINA, WALL MOUNTED, ELONGATED BOWL TOILET WITH K-4670-C LUSTRA OPEN FRONT SEAT; SLOAN ECOS 8111-1.6/1.1 ELECTRONIC DUAL FLUSH, BATTERY POWERED, SIDE MOUNT SENSOR OPERATED, 1.6 GPF AND 1.1 GPF FLUSH VALVE; SMITH 0210 HORIZONTAL (LEFT OR RIGHT HAND AS REQUIRED) OR SMITH 0230 VERTICAL ADJUSTABLE CARRIER WITH FOOT SUPPORT; INSTALL ACTUATOR ON WIDE SIDE OF FIXTURE; SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS.
WC-4	WATER CLOSET	1	-.-	4	2	ADA, WALL MOUNTED, DUAL FLUSH VALVE	WATER CLOSET: KOHLER K-4330 KINGSTON VITREOUS CHINA, WALL MOUNTED, ELONGATED BOWL TOILET WITH K-4670-C LUSTRA OPEN FRONT SEAT; SLOAN ECOS 8111-1.6/1.1 ELECTRONIC DUAL FLUSH, BATTERY POWERED, SIDE MOUNT SENSOR OPERATED, 1.6 GPF AND 1.1 GPF FLUSH VALVE; SMITH 0210 HORIZONTAL (LEFT OR RIGHT HAND AS REQUIRED) OR SMITH 0230 VERTICAL ADJUSTABLE CARRIER WITH FOOT SUPPORT; INSTALL ACTUATOR ON WIDE SIDE OF FIXTURE; SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS.
U-1	URINAL	3/4	-.-	2	2	WALL HUNG, 1/8 GPF, ADA	URINAL: ZURN Z5798.235 VITREOUS CHINA ADA URINAL WITH 3/4" TOP SPUD, WITH ZURN ZER6003AV-ULF-CPM 0.125 GPF BATTERY POWERED SENSOR FLUSH VALVE; SMITH 0637 URINAL SUPPORT. SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS.
L-1	LAVATORY	1/2	1/2	1 1/2	1 1/2	COUNTER MOUNTED	LAVATORY (COUNTER MOUNTED): KOHLER K-2196-4 PENNINGTON SELF RIMMING VITREOUS CHINA OVAL LAVATORY WITH 4" FAUCET CENTERS; K-7715 OPEN GRID STRAINER; CHICAGO 802-VE2805-244CP TWO HANDLE FAUCET WITH LEVER HANDLES AND VANDAL PROOF 0.5 GPM PRESSURE COMPENDATING SPRAY OUTLET, WATTS MMV THERMOSTATIC MIXING VALVE. PROVIDE WATTS NO. 7 DUAL CHECKS IN HOT AND COLD SUPPLIES. EXTEND TEMPERED SUPPLY FROM MIXING VALVE OUTLET TO HOT WATER INLET OF FAUCET. PROVIDE LOOSE KEY ANGLE STOPS AND CHROME PLATED COPPER SUPPLIES AND 17 GA. CAST BRASS, CHROME PLATED "P" TRAP. COVER ALL EXPOSED PIPING WITH WHITE "HANDI-LAV GUARD" PROTECTOR TO MEET ADA REQUIREMENTS.
L-2	LAVATORY	1/2	1/2	1 1/2	1 1/2	COUNTER MOUNTED	LAVATORY (COUNTER MOUNTED): KOHLER K-2196-4 PENNINGTON SELF RIMMING VITREOUS CHINA OVAL LAVATORY WITH 4" FAUCET CENTERS; K-7715 OPEN GRID STRAINER; TECHNICAL CONCEPTS 500484 MILANO WITH 0.5 GPM MAXIMUM FLOW AND WITH AC POWER ADAPTER FOR HARD WIRE INSTALLATION. FAUCET TO BE PROVIDED WITH WATTS MMV THERMOSTATIC MIXING VALVE WITH 3/8" COMPRESSION CONNECTIONS AND IN-LINE CHECKS. PROVIDE WATTS NO. 7 DUAL CHECKS IN HOT AND COLD SUPPLIES. EXTEND TEMPERED SUPPLY FROM MIXING VALVE OUTLET TO HOT WATER INLET OF FAUCET. PROVIDE VANDAL RESISTANT AERATOR. PROVIDE LOOSE KEY ANGLE STOPS AND CHROME PLATED COPPER SUPPLIES AND 17 GA. CAST BRASS, CHROME PLATED "P" TRAP. COVER ALL EXPOSED PIPING WITH WHITE "HANDI-LAV GUARD" PROTECTOR AS NEEDED TO MEET ADA REQUIREMENTS.
S-1	SINK	1/2	1/2	1 1/2	1 1/2	COUNTER MOUNTED	SINK (COUNTER MOUNTED): JUST SL-1921-A-GR 18 GA. TYPE 304 STAINLESS STEEL SINK 14" x 18" x 7.5" ID BASIN WITH 8" FAUCET CENTERS; J-35 STAINLESS STEEL CUP STRAINER; SYMMONS SYMMETRIX S23-IPS-1.5 SINGLE HANDLE FAUCET WITH PRESSURE COMPENDATING SPRAY OUTLET. PROVIDE LOOSE KEY ANGLE STOPS AND CHROME PLATED COPPER SUPPLIES AND 17 GA. CAST BRASS, CHROME PLATED "P" TRAP. COVER ALL EXPOSED PIPING WITH WHITE "HANDI-LAV GUARD" PROTECTOR AS NEEDED TO MEET ADA REQUIREMENTS.
SH-1	SHOWER	1/2	1/2	2	1 1/2	-.-	SHOWER: SYMMONS S-4701-1.5 ALLURA SHOWER SYSTEM WITH PRESSURE BALANCING MIXING VALVE WITH LEVER HANDLE, ADJUSTBABLE STOP SCREW, INTEGRAL SERVICE STOPS AND SHOWER HEAD WITH ARM AND FLANGE AND 1.5 GPM FLOW RATE RESTRICTOR; SMITH FIGURE 2005Y FLOOR DRAIN WITH CAST IRON BODY AND FLASHING COLLAR WITH ROUND CHROME PLATED ADJUSTABLE STRAINER HEAD WITH SECURED GRATE.
SH-2	SHOWER	1/2	1/2	2	1 1/2	ADA, HAND SHOWER	SHOWER: SYMMONS 4705 ALLURA SHOWER SYSTEM WITH PRESSURE BALANCING MIXING VALVE WITH LEVER HANDLE, ADJUSTBABLE STOP SCREW, INTEGRAL SERVICE STOPS, SHOWER HEAD WITH ARM AND FLANGE AND 1.5 GPM FLOW RESTRICTOR, LEVER DIVERTER WITH INTEGRAL VOLUME CONTROL, WALL/HAND SHOWER WITH 1.5 GPM FLOW RESTRICTOR, 5' FLEXIBLE METAL HOSE, INLINE BREAKER, WALL CONNECTION AND FLANGE AND 30" SLIDE BAR FOR HAND SHOWER MOUNTING; SMITH FIGURE 2005Y FLOOR DRAIN WITH CAST IRON BODY AND FLASHING COLLAR WITH ROUND CHROME PLATED ADJUSTABLE STRAINER HEAD WITH SECURED GRATE.
SS-1	SERVICE SINK	3/4	3/4	3	2	-.-	JANITOR SINK (FLOOR MOUNTED, CORNER): KOHLER K6710, WHITBY, 28 X 28-INCH, ENAMELED CAST IRON FLOOR-MOUNTED CORNER MODEL, K9146-3" DRAIN WITH STRAINER, NO. K8940 REMOVABLE VINYL-COATED RIM GUARD, CHICAGO 897 FAUCET WITH VACUUM BREAKER, SCREWDRIVER STOPS IN SHANKS, 5 FOOT RUBBER HOSE AND WALL HOOK, 853.
EWC-1	ELECTRIC WATER COOLER	3/4	-.-	1 1/2	1 1/2	DUAL HEIGHT, BARRIER FREE	ELECTRIC WATER COOLER (ADA, DUAL LEVEL): ELKAY EZSTL8C WHEELCHAIR ACCESSIBLE, DUAL LEVEL, WALL-MOUNTED COOLER. STAINLESS STEEL BOWLS, AND APRON. ARI CERTIFIED, SELF-CLOSING PUSH BUTTON CONTROL MOUNTED ON FRONT, LEFT AND RIGHT OR UNIT, 1/5 HP COMPRESSOR MOTOR, 9.7 GPH OF 50-DEGREE F WATER; 1-1/2 INCH CAST BRASS CHROME-PLATED P-TRAPS. ADA COMPLIANT.
WB-1	WASHER BOX	1/2	1/2	2	1 1/2	-.-	WASHER BOX: WATER TITE W4700-HA WASHING MACHINE OUTLET BOX WITH WATER HAMMER ARRESTORS, 2" CENTER DRAIN PIPE, 6-1/4" X 8-1/4" X 3-5/8" BOX INSIDE DIMENSIONS, ¼ TURN VALVES WITH ARRESTORS INSTALLED,1/2" SWEAT CONNECTION.
WB-2	WASHER BOX	1/2	1/2	2	1 1/2	-.-	WASHER BOX: WATER TITE W4700-HA WASHING MACHINE OUTLET BOX WITH WATER HAMMER ARRESTORS, BLANK OFF 2" CENTER DRAIN , 6-1/4" X 8-1/4" X 3-5/8" BOX INSIDE DIMENSIONS, ¼ TURN VALVES WITH ARRESTORS INSTALLED,1/2" SWEAT CONNECTION.
ICE-1	WATER OUTLET - ICE MACHINE					-.-	ICE MACHINE OUTLET: WATER TITE W9700 ICE MAKER BOX WITH SINGLE QUARTER TURN ADAPTER BALL VALVE.
HB-1	HOSE BIB	3/4	-.-	-.-	-.-	-.-	HOSE BIBB: ACORN 8121 HOSE VALVE WITH VACUUM BREAKER, 3/4" MALE HOSE THREAD AND LOOSE KEY HANDLE.
NFH-1	NON FREEZE WALL HYDRANT	3/4	-.-	-.-	-.-	-.-	NON-FREEZE HYDRANT: SMITH 5609QT NON-FREEZE WALL HYDRANT FOR WALL THICKNESS SHOWN ON PLAN. BRONZE HYDRANT, 3/4-INCH CONNECTION WITH BRASS CASING, INTEGRAL SELF-DRAINING VACUUM BREAKER, AND LOOSE KEY.
LI-1	LINT INTERCEPTOR	-.-	-.-	4	2	MAIN HOUSEKEEPING	LINT INTERCEPTOR: SMITH 8910-25 STEEL WITH GRAY DUCO COATING AND STAINLESS STEEL LINT SCREENS WITH SECURED AND GASKETED DIAMOND PLATE COVER. UNIT SHALL BE RECESSED AND SHALL BE PROVIDED WITH EXTENSIONS. FIELD VERIFY EXTENSION LENGTHS.
FD-1	FLOOR DRAIN	-.-	-.-	2	2	RESTROOM	FLOOR DRAIN (RESTROOM): SMITH FIGURE 2005Y FLOOR DRAIN WITH CAST IRON BODY AND FLASHING COLLAR WITH ROUND NICKEL BRONZE ADJUSTABLE STRAINER HEAD WITH SECURED GRATE AND DEEP SEAL P-TRAP.
FD-2	FLOOR DRAIN	-.-	-.-	2	2	MECHANICAL ROOM	FLOOR DRAIN (MECHANICAL ROOM): SMITH 2220Y-P050 FLOOR DRAIN WITH CAST IRON BODY AND FLASHING COLLAR WITH 8" CAST IRON GRATE AND SEDIMENT BUCKET, NO-HUB CONNECTION; PROVIDE DEEP SEAL P-TRAP.
FD-3	FLOOR DRAIN	-.-	-.-	4	2	MAIN HOUSEKEEPING	FLOOR DRAIN (LAUNDRY TROUGH DRAIN): SMITH FIGURE 2005Y-D FLOOR DRAIN WITH CAST IRON BODY AND FLASHING COLLAR WITH ADJUSTABLE STRAINER HEAD WITH DOME GRATE AND DEEP SEAL P-TRAP.WITH DOME GRATE.
FS-1	FLOOR SINK	-.-	-.-	2	1 1/2	LAUNDRY & VENDING ROOMS	FLOOR SINK: SMITH 3100Y-12 CAST IRON 8-1/2" SQUARE 6" DEEP RECEPTOR WITH ACID RESISTANT ENAMEL INTERIOR AND NICKEL BRONZE RIM WITH 1/2 GRATE. DEEP SEAL TRAP. DOME SUMP RECEIVER WITH STRAINER. FLASHING COLLAR
FS-2	FLOOR SINK	-.-	-.-	4	2	MECHANICAL ROOM	FLOOR SINK: SMITH 3160Y-11 CAST IRON 12-1/2" SQUARE 10" DEEP RECEPTOR WITH ACID RESISTANT ENAMEL INTERIOR AND NICKEL BRONZE RIM LESS GRATE. DOME SUMP RECEIVER WITH STRAINER. FLASHING COLLAR
FS-3	FLOOR SINK	-.-	-.-	4	2	LAUNDRY & VENDING ROOMS	FLOOR SINK: SMITH 3160Y-13 CAST IRON 12-1/2" SQUARE 10" DEEP RECEPTOR WITH ACID RESISTANT ENAMEL INTERIOR AND NICKEL BRONZE RIM WITH 3/4 GRATE. DOME SUMP RECEIVER WITH STRAINER. FLASHING COLLAR
DD-1	DECK DRAIN	-.-	-.-	3	-.-	L-1 PATIO	DECK DRAIN: ZURN Z-158 10" SQUARE TOP PROMENADE DECK DRAIN WITH HEEL PROOF GRATE. CAST IRON BODY WITH SQUARE ROTATABLE FRAME AND POLISHED BRONZE TOP.
RD-1	ROOF DRAIN	-.-	-.-	-.-	-.-	SEE PLANS FOR SIZE	ROOF DRAIN: SMITH FIGURE 1010Y CAST IRON BODY WITH COMBINED FLASHING CLAMP AND CAST IRON GRAVEL STOP, CAST IRON DOME, SUMP RECEIVER AND UNDERDECK CLAMP.
RD-2	ROOF DRAIN	-.-	-.-	-.-	-.-	SEE PLANS FOR SIZE	ROOF DRAIN: SMITH FIGURE 1540Y CAST IRON BODY WITH COMBINED FLASHING CLAMP, USED AT ROOF/PARAPET JUNCTION, FLUSH GRATE WITH 45O OUTLET DRAIN.
RDO-1	ROOF DRAIN OVERFLOW	-.-	-.-	-.-	-.-	SEE PLANS FOR SIZE	ROOF DRAIN OVERFLOW: SMITH FIGURE 1080Y CAST IRON BODY WITH COMBINED FLASHING CLAMP AND CAST IRON GRAVEL STOP, CAST IRON DOME, 2" HIGH WATER COLLAR, SUMP RECEIVER AND UNDERDECK CLAMP.
DSN-1	DOWNSPOUT NOZZLE	-.-	-.-	-.-	-.-	SEE PLANS FOR SIZE	DOWNSPOUT NOZZLE: SMITH 1770 DOWNSPOUT NOZZLE WITH CAST BRONZE BODY AND FLANGE.

1. ALL UNDER GROUND WASTE AND VENT SHALL BE 2" OR GREATER PER DRAWINGS.

DOMESTIC EXPANSION TANK SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	WORKING FLUID	PHYSICAL TANK SIZE (GAL)	RELIEF VALVE (PSIG)	DIA./ HEIGHT (IN)	NPT FITTING (IN)	NOTES
DET-1	AMTROL ST-80V	MECHANICAL ROOM	BUTYL DIAPHRAGM	DOMESTIC HOT WATER	44	125	22/36	1 1/4	1

1. TANK LINER SUITABLE FOR POTABLE WATER

DOMESTIC PUMP SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FLUID FLOW RATE (GPM)	FLUID WORKING FLUID	FLUID HEAD LOSS (FT)	PUMP CONSTRUCTION	ELECTRICAL MOTOR SIZE (HP/W)	ELECTRICAL MOTOR SPEED (RPM)	ELECTRICAL VOLT/PH/HZ	NOTES
CP-1	B&G 90 1 1/4AA	MECHANICAL ROOM	CIRCULATION	30	120 DOMESTIC HOT WATER	20	BRONZE	1/3/-.-	1750	120/1/60	-.-
CP-2	GRUNDFOS MAGNA 40-120 FN	MECHANICAL ROOM	CIRCULATION	36	SOLAR HEATING WATER	28	BRONZE	-.-/450	-.-	230/1/60	1
CP-3	GRUNDFOS MAGNA 32-100 FN	MECHANICAL ROOM	CIRCULATION	20	SOLAR HEATED WATER	15	BRONZE	-.-/180	-.-	230/1/60	1
CP-4	B&G PL-30	MECHANICAL ROOM	CIRCULATION	2	140 DOMESTIC HOT WATER	18	BRONZE	1/12/-.-	2650	120/1/60	-.-

1. THIS PUMP IS PART OF ALTERNATE #1.

THERMOSTATIC MIXING VALVE

SYMBOL	MANUF. AND MODEL NO.	LOCATION	LEAVING TEMP (DEG F)	MIN FLOW (GPM)	MAX FLOW (GPM)	PRESS DROP @ MAX FLOW (PSI)	INLET SIZE (IN)	OUTLET SIZE (IN)	REMARKS
TMV-1	LEONARD TM-2020-2P-TC	MECH ROOM	120	1	100	20	2	2	1

1. VALVE ASSEMBLY SHALL BE ASSE 1017 LISTED.

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PLUMBING SCHEDULES

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DATE 02/15/2013
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DOMESTIC PRV SCHEDULE

ID	MANUF. AND MODEL NO.	LOCATION	SERVICE	TYPE	CAPACITY (GPM)	INLET PRESSURE (PSIG)	OUTLET PRESSURE (PSIG)	SIZE (IN)	NOTES
PRV-1	WATTS ACV 115-2	MECH BLDG.	DOMESTIC WATER	PILOT	147	60	55	2	1
PRV-2	WATTS ACV 115-2	MECH BLDG.	DOMESTIC WATER	PILOT	60	60	60	1 1/4	2

1. PRV SIZED FOR 2/3 TOTAL SYSTEM CAPACITY
2. PRV SIZED FOR 1/3 TOTAL SYSTEM CAPACITY

DOMESTIC HOT WATER SOLAR HEATING SYSTEM

ID	PANEL MANUFACTURER AND MODEL NUMBER	EQUIPMENT DESCRIPTION	LOCATION	CLEAR DAY PANEL BTU/DAY	PANELS PER ARRAY	PANEL FLOW RATE GPM	VOLUME PER PANEL GAL	PANEL SIZE (FT x FT)	COLLECTOR AREA/PANEL (FT2)	PANEL WEIGHT (LBS)	TANK SIZE (GAL)	HEIGHT/ DIAMETER (IN)	NOTES
SPA-1	HTP FP-27SC	SOLAR PANEL ARRAY	SOUTH WING ROOF	22,900	6	1.0	0.9	4 x 6.5	25.35	90	-.-	-.-	1
DBT-1	HTP SSU-119DBX	DRAIN BACK TANK	MECH. RM.	-.-	-.-			-.-	-.-	-.-	119	73/27	1
DBT-2	HTP SSU-119DBX	DRAIN BACK TANK	MECH. RM.	-.-	-.-			-.-	-.-	-.-	119	73/27	1

1. THIS EQUIPMENT IS PART OF ALTERNATE #1.

HOT WATER STORAGE TANK SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	SERVICE	CAPACITY (GAL)	WORKING PRESSURE (PSI)	DIAMETER/ LENGTH (IN)	NOTES
ST-1	AO SMITH TJVT-500	DOMESTIC HOT WATER	500	125	48/100	-.-
ST-2	AO SMITH TJVT-500	DOMESTIC HOT WATER	500	125	48/100	-.-
ST-3	AO SMITH TJVT-500	DOMESTIC HOT WATER	500	125	48/100	1

1. THIS STORAGE TANK IS PART OF ALTERNATE #1.

GAS FIRED WATER HEATER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	SERVICE	INPUT LOAD (BTUH)	EFFICIENCY (%)	TYPE	RECOVERY RATE @ 90 F DELTA T	FLUE SIZE (IN)	COMBUSTION AIR SIZE (IN)	LENGTH/ WIDTH/ HEIGHT (IN)	STORAGE TANK	ELECTRICAL AMP	ELECTRICAL V/PH	NOTES
WH-1	AO SMITH VW-1000	DOMESTIC HOT WATER	1,000,000	88	GAS FIRED BOILER	1127	6	4	38/30/71	ST-1A	30	120/1	1,2
WH-2	AO SMITH VW-500	DOMESTIC HOT WATER	500,000	88	GAS FIRED BOILER	563	6	4	38/30/56	ST-1B	30	120/1	1,3

1. WATER HEATER TO BE SUPPLIED WITH FACTORY MOUNTED, SIZED AND WIRED ALL BRONZE CIRCULATING PUMP.
2. PUMP SHALL BE 56 GPM 120V/1PH WITH 3 FEET HEAD.
3. PUMP SHALL BE 28 GPM 120V/1PH WITH 2 FEET HEAD.

WATER SOFTENER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	TOTAL (GRAINS)	WATER* FLOW/UNIT @ 7 PSI LOSS	BACKWASH FLOW RATE (GPM)	RESIN QUANTITY (FT^3)	RESIN TANK HGHT/DIA (IN/IN)	BRINE TANK HGHT/DIA (IN/IN)	ELECTRICAL (VOLT/PH)	NOTES
WS-1	WATER SPECIALTIES A959TA-300	MECH. BLDG.	PROGRESSIVE ALTERNATING	300,000	158	20	10	72/30	48/39	120/1	1,2

1. PACKAGED EQUIPMENT.
2. SET CONTROLLER TO BRING SECOND TANK ONLINE AT 60 GPM.

*BOTH UNITS ONLINE.

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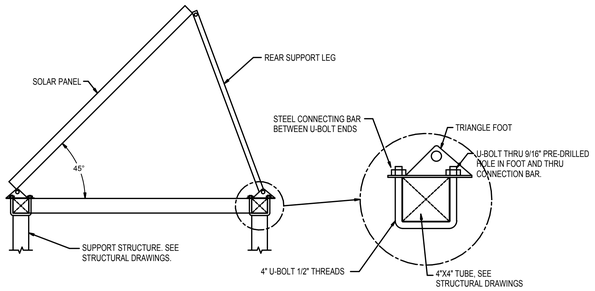
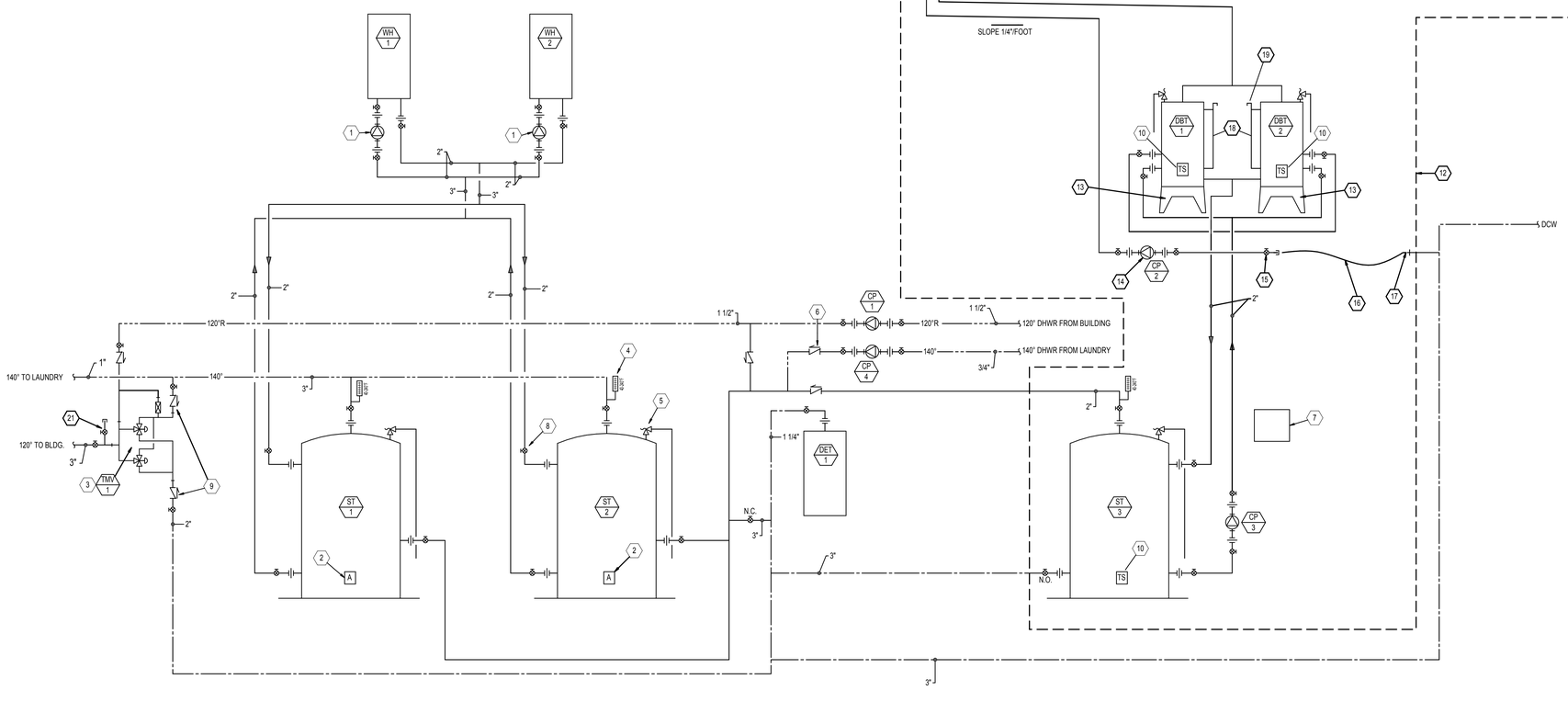


SOLAR COLLECTOR SUPPORT DETAIL

NO SCALE



DOMESTIC HOT WATER SYSTEM SCHEMATIC

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KEYED NOTES

1. PUMPS SUPPLIED WITH HOT WATER HEATERS.
2. AQUASTAT, TIED TO BOILER PUMP.
3. THERMOSTATIC MIXING VALVE, SEE SCHEDULE.
4. THERMOMETER, PROVIDE RANGE AS INDICATED, TYPICAL.
5. RELIEF VALVE, TYPICAL.
6. CHECK VALVE, TYPICAL.
7. SOLAR HOT WATER SYSTEM CONTROLLER, PROVIDED WITH SYSTEM.
8. BALL VALVE, TYPICAL ON SIZES 2" AND BELOW.
9. PROVIDE INLINE CHECK VALVES IN SUPPLIES TO MIXING VALVE IN ADDITION TO INTEGRAL CHECKS PROVIDED WITH THE VALVE.
10. TEMPERATURE SENSOR, COORDINATE WITH SYSTEM SUPPLIER.
11. SOLAR PANEL ARRAY ON ROOF, TYPICAL.
12. ALL EQUIPMENT SHOWN WITHIN DASHED LINE IS ALTERNATE #2.
13. 2' TALL TANK STAND.
14. PUMP TO BE INSTALLED 1' BELOW BOTTOM OF DRAINBACK TANK.
15. ¾" FULL PORT BALL VALVE FOR SYSTEM FILL. PROVIDE HOSE THREAD CONNECTION AND CAP
16. ¾" RUBBER HOSE FOR SYSTEM FILL.
17. ¾" HOSE BIBB.
18. SIGHT GLASS.
19. AIR VENT, TYPICAL.
20. INDIVIDUAL PANELS CONNECTED IN PANEL ARRAY WITH UNIONS. TYPICAL.
21. 1" TEST PORT FOR WITH BALL VALVE AND CAP FOR SYSTEM SET UP.

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DOMESTIC HOT WATER SYSTEM SCHEMATIC

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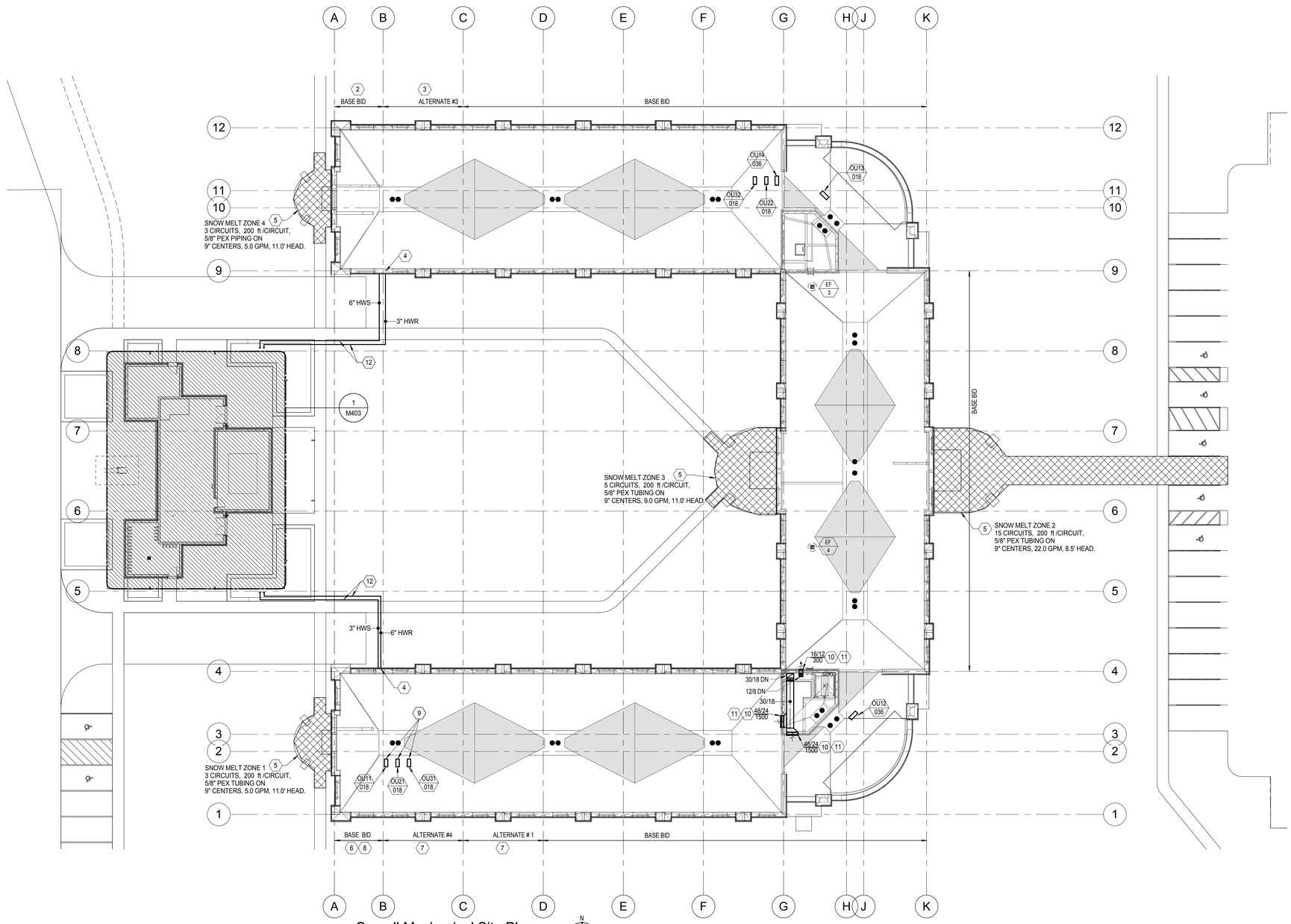

1 Overall Mechanical Site Plan
SCALE: 1/16" = 1'-0"

N

0' 16' 32'

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GENERAL NOTES

1. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.

2. COORDINATE EXACT LOCATION OF DUCTS WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING, CABLE TRAY, PLUMBING, MECHANICAL PIPING, ETC.

3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK SIZE OF THE DIFFUSER, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE.

4. INSTALL EQUIPMENT WITH CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS. MAINTAIN PROPER SPACE FOR COIL PULL, CONTROLS, AND MAINTENANCE ACCESS.

5. INSTALL TURNING VANES IN ALL SQUARE AND RECTANGULAR LOW PRESSURE DUCTWORK.

6. DO NOT ROUTE DUCTS OR PIPES ABOVE ELECTRICAL PANELS. DO NOT ROUTE DUCTS OR PIPES IN ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM.

7. PROVIDE CEILING ACCESS PANELS AS REQUIRED WHERE MECHANICAL EQUIPMENT, VALVES, VAV BOXES, FIRE DAMPERS, ETC, ARE LOCATED ABOVE INACCESSIBLE CEILINGS.

8. ALL WALL/FLOOR PENETRATIONS WITH PIPES, DUCTS, ETC. NEED TO MAINTAIN THE REQUIRED FIRE RATING.

SHEET KEYNOTES

1 SHADING INDICATES EXTENT OF SNOWMELT AREA.

2 IF ALTERNATE #3 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 9 TO 12 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

3 ALTERNATE ASSOCIATED WITH THE NORTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

4 BASED ON WHICH ALTERNATES ARE INCLUDED IN THE PROJECT, EXTEND PIPING AS NEEDED TO ENTER THE BUILDING IN THE CHASE TO THE EAST OF THE STAIR.

5 HATCHING INDICATES EXTENT OF SNOWMELT ZONE.

6 IF ALTERNATE #4 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

7 ALTERNATE ASSOCIATED WITH THE SOUTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

8 IF ALTERNATE #1 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO C IS TO MOVE SUCH THAT GRID C IS ALIGNED WITH GRID D. COORDINATE WITH ARCHITECTURAL PLANS.

9 EQUIPMENT IS TO BE INCLUDED IN THE BASE BID AND IS TO MOVE AS NEEDED DEPENDING ON WHICH ALTERNATES ARE INCLUDED IN THE PROJECT.

10 LOUVER TO BE SIZE SHOWN, SEE SPECIFICATIONS.

11 LOUVER TO BE LOCATED, 18" MINIMUM ABOVE LOWER ROOF SURFACE.

12 COORDINATE EXACT ROUTING WITH CIVIL PLANS.

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OVERALL MECHANICAL SITE PLAN

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PROJECT NO. 11007	DRAWING NO. M100
DATE 02/15/2013	

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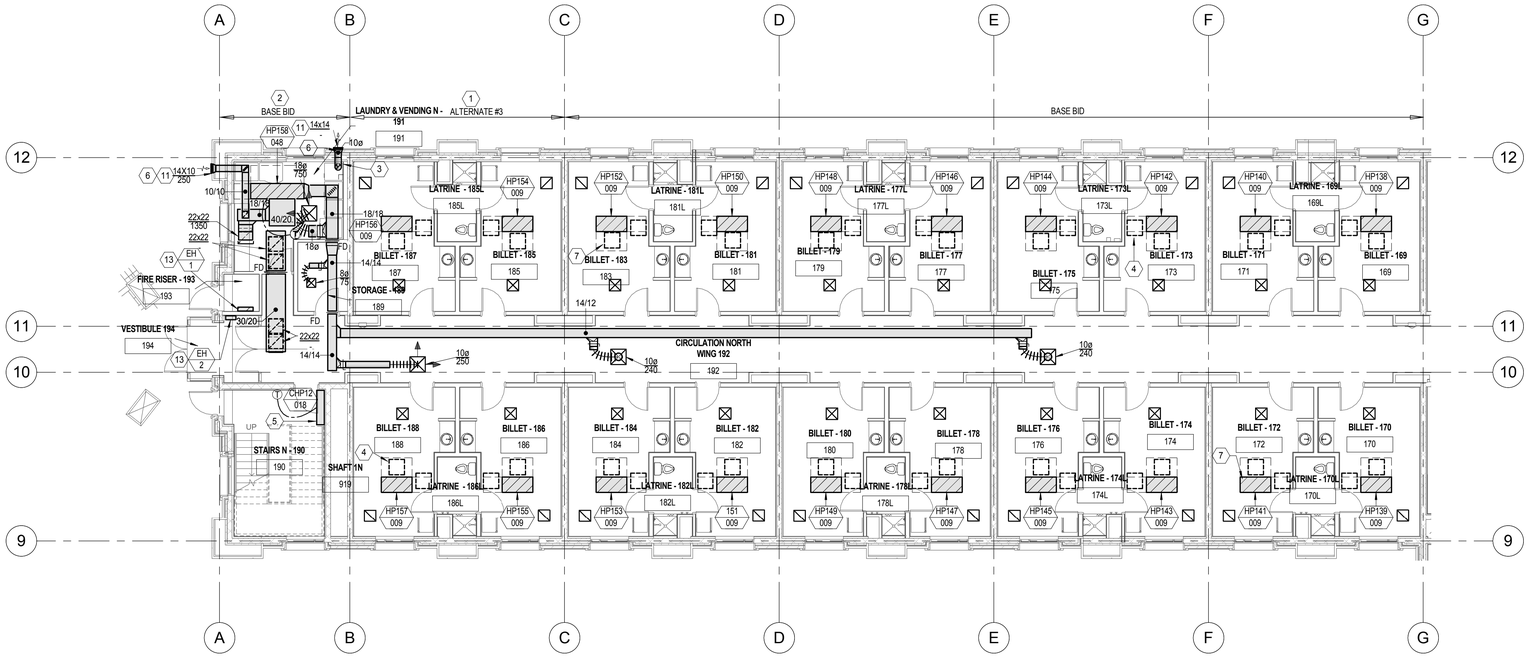
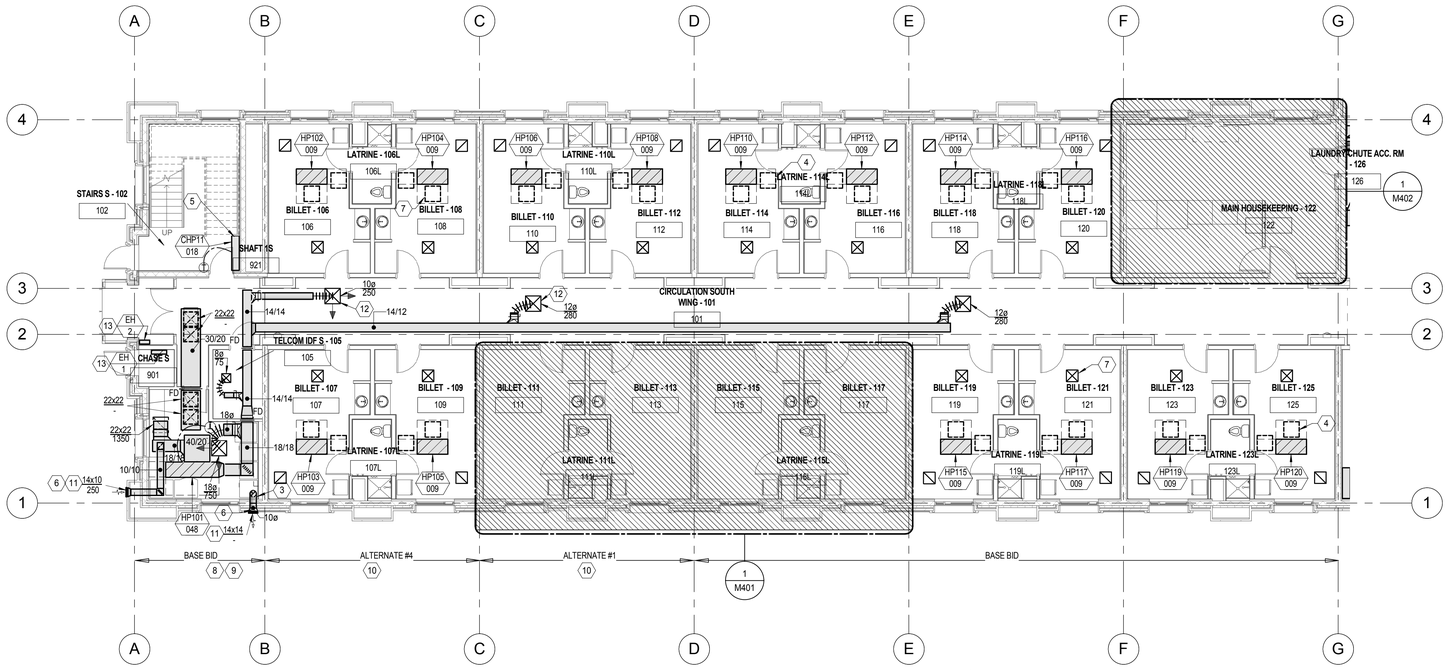
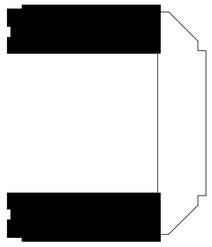


1 First Level Mechanical Plan - North Wing
SCALE: 1/8" = 1'-0"



2 First Level Mechanical Plan - South Wing
SCALE: 1/8" = 1'-0"



KEY PLAN

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

PROFESSIONAL ENGINEER 7705747-2202 BRADLEY J. WELCH 11-12-12 STATE OF UTAH

VAN BOERUM & FRANK ASSOCIATES, INC.
CONSULTING ENGINEERS
WWW.VBFA.COM
Salt Lake City • Logan • St. George • Tempe
330 South 300 East 801.530.3148 T
Salt Lake City, UT 84111 801.530.3150 F
VBFA Project Number: 11038

GENERAL NOTES

1. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.

2. COORDINATE EXACT LOCATION OF DUCTS WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING, CABLE TRAY, PLUMBING, MECHANICAL PIPING, ETC.

3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK SIZE OF THE DIFFUSER, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE.

4. INSTALL EQUIPMENT WITH CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS. MAINTAIN PROPER SPACE FOR COIL PULL, CONTROLS, AND MAINTENANCE ACCESS.

5. INSTALL TURNING VANES IN ALL SQUARE AND RECTANGULAR LOW PRESSURE DUCTWORK.

6. DO NOT ROUTE DUCTS OR PIPES ABOVE ELECTRICAL PANELS. DO NOT ROUTE DUCTS OR PIPES IN ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM.

7. PROVIDE CEILING ACCESS PANELS AS REQUIRED WHERE MECHANICAL EQUIPMENT, VALVES, VAV BOXES, FIRE DAMPERS, ETC, ARE LOCATED ABOVE INACCESSIBLE CEILINGS.

8. ALL WALL/FLOOR PENETRATIONS WITH PIPES, DUCTS, ETC. NEED TO MAINTAIN THE REQUIRED FIRE RATING.

SHEET KEYNOTES

1 ALTERNATE ASSOCIATED WITH THE NORTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

2 IF ALTERNATE #3 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 9 TO 12 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

3 EXHAUST DUCT TO DROP TO DRYER CONNECTION. COORDINATE EXACT CONNECTION WITH EQUIPMENT.

4 24" X 24" ACCESS PANEL. TYPICAL UNLESS NOTED OTHERWISE.

5 CONSOLE HEAT PUMP TO BE MOUNTED 8" AFF.

6 TOP OF GRILLE TO BE 11'-2" A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECTURAL PLANS.

7 EQUIPMENT AND GRILLES SHOWN FOR REFERENCE. SEE TYPICAL BILLET ENLARGED PLAN FOR EXACT LOCATIONS, TYPICAL.

8 IF ALTERNATE #4 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

9 IF ALTERNATE #1 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO C IS TO MOVE SUCH THAT GRID C IS ALIGNED WITH GRID D. COORDINATE WITH ARCHITECTURAL PLANS.

10 ALTERNATE ASSOCIATED WITH THE SOUTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

11 LOUVER TO BE SIZE SHOWN, SEE SPECIFICATIONS.

12 DIFFUSER IS TO BE INCLUDED IN THE BASE BID AND IS TO MOVE AS NEEDED DEPENDING ON WHICH ALTERNATES ARE INCLUDED IN THE PROJECT.

13 COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECT.

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84065

FIRST LEVEL MECHANICAL PLAN - NORTH & SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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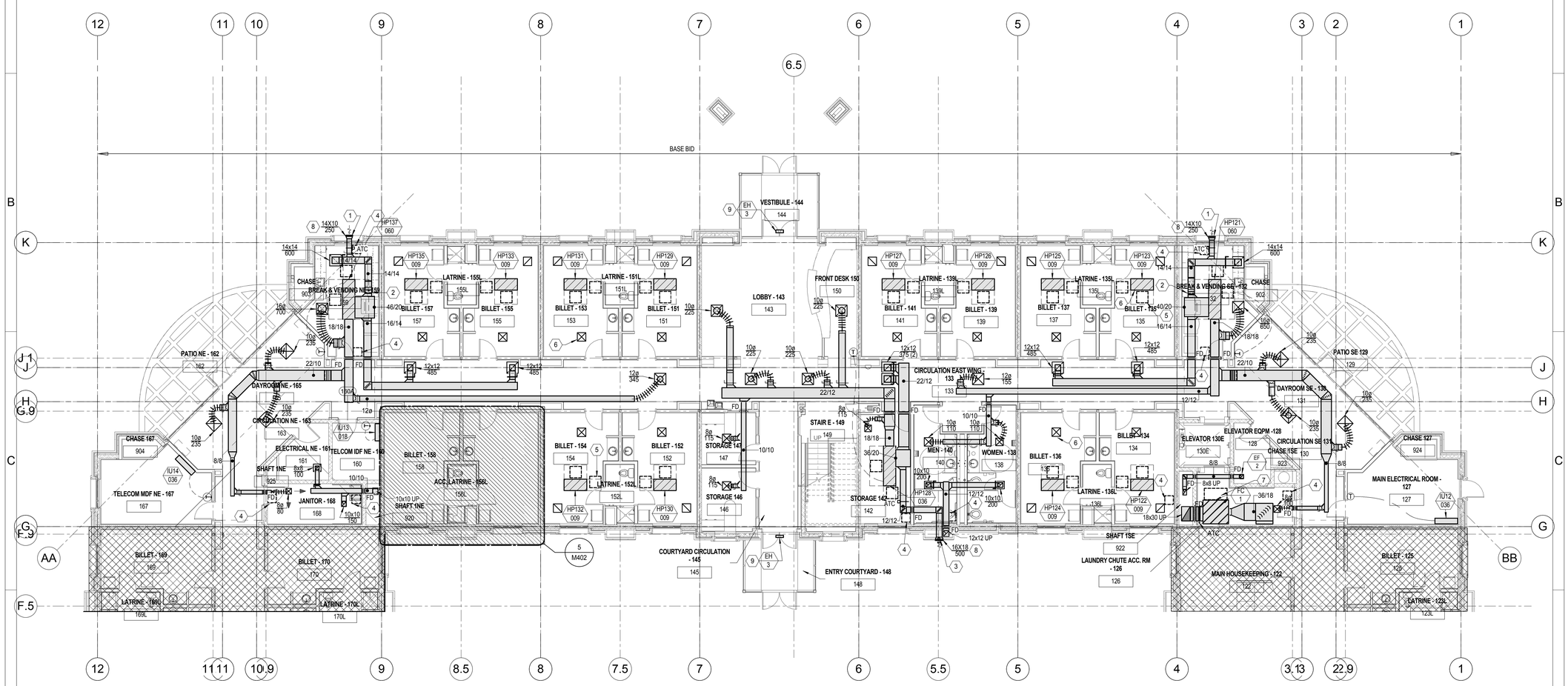
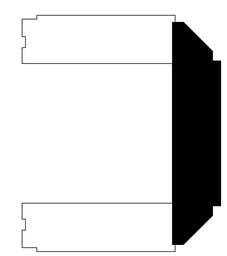
DRAWN BY GR	CHECKED BY BW
PROJECT NO. 11007	DRAWING NO. M101A
DATE 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM



1 First Level Mechanical Plan - East Wing
SCALE: 1/8" = 1'-0"



KEY PLAN

SEAL & SIGNATURE

PROFESSIONAL ENGINEER 7705747-2202 BRADLEY J. WELCH 11-12-12 STATE OF UTAH

VAN BOERUM & FRANK ASSOCIATES, INC.
CONSULTING ENGINEERS
WWW.VBFA.COM
Salt Lake City • Logan • St. George • Tempe
330 South 300 East 801.530.3148 T
Salt Lake City, UT 84111 801.530.3150 F
VBFA Project Number: 11038

GENERAL NOTES

1. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.

2. COORDINATE EXACT LOCATION OF DUCTS WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING, CABLE TRAY, PLUMBING, MECHANICAL PIPING, ETC.

3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK SIZE OF THE DIFFUSER, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE.

4. INSTALL EQUIPMENT WITH CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS. MAINTAIN PROPER SPACE FOR COIL PULL, CONTROLS, AND MAINTENANCE ACCESS.

5. INSTALL TURNING VANES IN ALL SQUARE AND RECTANGULAR LOW PRESSURE DUCTWORK.

6. DO NOT ROUTE DUCTS OR PIPES ABOVE ELECTRICAL PANELS. DO NOT ROUTE DUCTS OR PIPES IN ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM.

7. PROVIDE CEILING ACCESS PANELS AS REQUIRED WHERE MECHANICAL EQUIPMENT, VALVES, VAV BOXES, FIRE DAMPERS, ETC, ARE LOCATED ABOVE INACCESSIBLE CEILINGS.

8. ALL WALL/FLOOR PENETRATIONS WITH PIPES, DUCTS, ETC. NEED TO MAINTAIN THE REQUIRED FIRE RATING.

SHEET KEYNOTES

1 TOP OF GRILLE TO BE 15'-8" A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECTURAL PLANS

2 DROP DUCT BELOW BEAM AS NEEDED. COORDINATE WITH STRUCTURAL PLANS.

3 TOP OF GRILLE TO BE 11'-2" A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECTURAL PLANS.

4 18" X 18" ACCESS PANEL.

5 24" X 24" ACCESS PANEL. TYPICAL UNLESS NOTED OTHERWISE.

6 EQUIPMENT AND GRILLES SHOWN FOR REFERENCE. SEE TYPICAL BILLET ENLARGED PLAN FOR EXACT LOCATIONS, TYPICAL.

7 48" X 24" ACCESS PANEL.

8 LOUVER TO BE SIZE SHOWN, SEE SPECIFICATIONS.

9 UNIT HEATER TO BE CENTERD ABOVE DOOR COORDINATE EXASCT MOUNTING HEIGHT WITH ARCHITECT.

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84065

FIRST LEVEL MECHANICAL PLAN - EAST WING

REVISION	DATE	BY	DESCRIPTION
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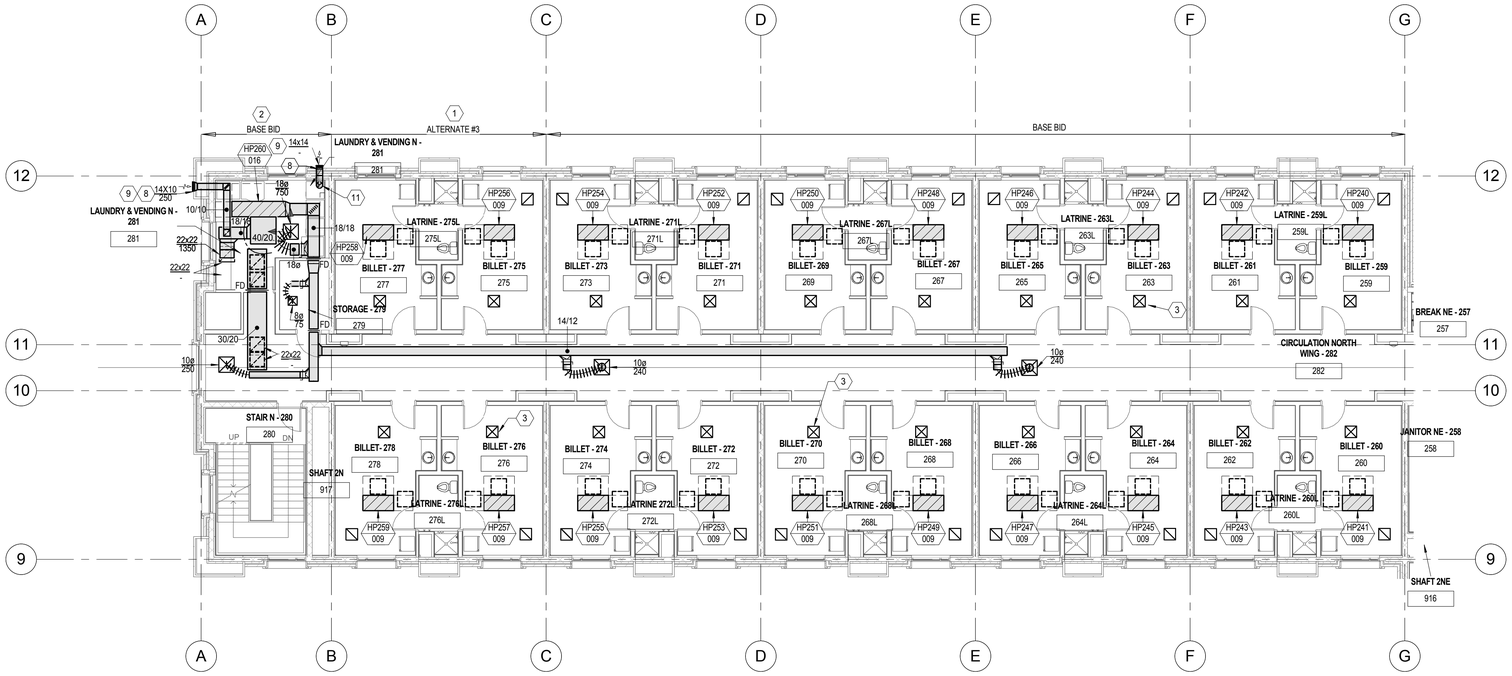
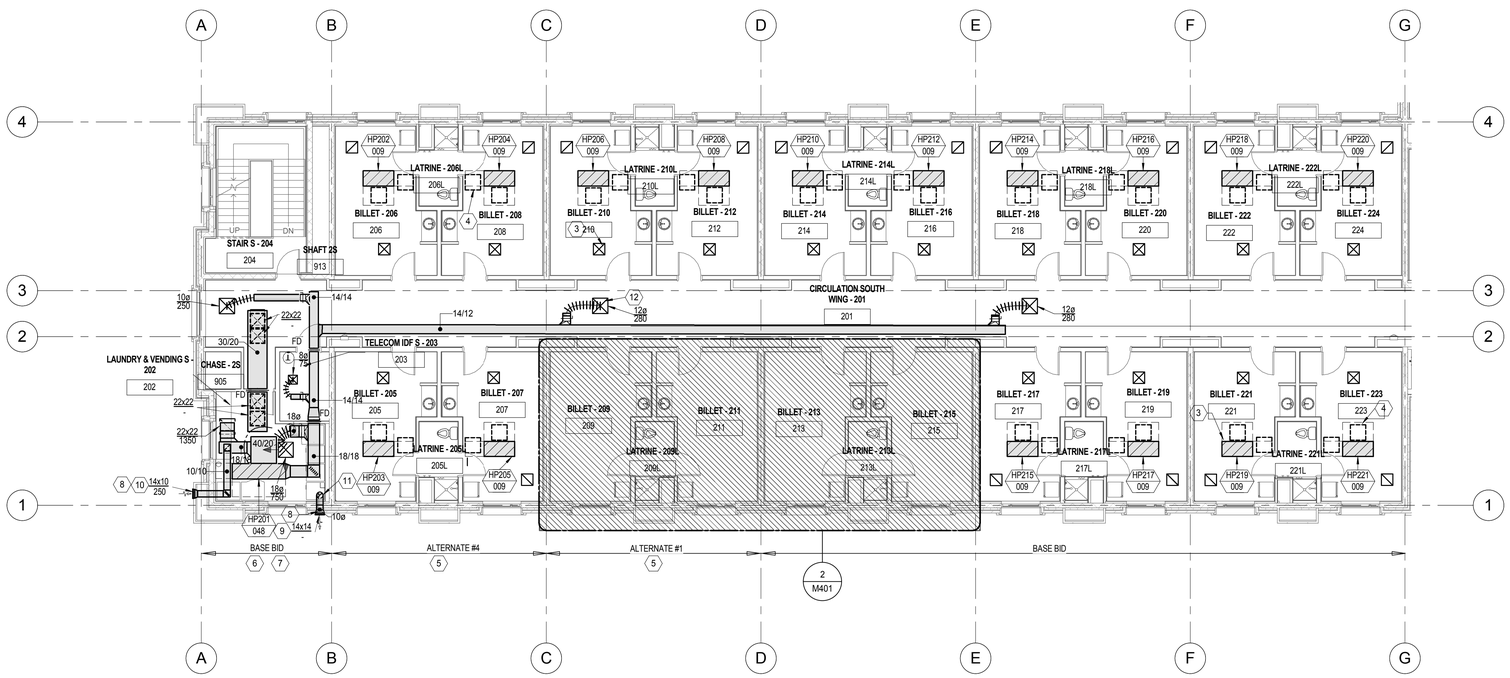
DRAWN BY GR
CHECKED BY BW
PROJECT NO. 11007
DATE 02/15/2013
DRAWING NO. M101B

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



1 Second Level Mechanical Plan - North Wing
SCALE: 1/8" = 1'-0"



2 Second Level Mechanical Plan - South Wing
SCALE: 1/8" = 1'-0"

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KEY PLAN

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE
PROFESSIONAL ENGINEER 7705747-2202 BRADLEY J. WELCH 11-12-12 STATE OF UTAH

VAN BOERUM & FRANK ASSOCIATES, INC.
CONSULTING ENGINEERS
WWW.VBFA.COM
Salt Lake City • Logan • St. George • Tempe
330 South 300 East 801.530.3148 T
Salt Lake City, UT 84111 801.530.3150 F
VBFA Project Number: 11038

GENERAL NOTES

1. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.
2. COORDINATE EXACT LOCATION OF DUCTS WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING, CABLE TRAY, PLUMBING, MECHANICAL PIPING, ETC.
3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK SIZE OF THE DIFFUSER, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE.
4. INSTALL EQUIPMENT WITH CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS. MAINTAIN PROPER SPACE FOR COIL PULL, CONTROLS, AND MAINTENANCE ACCESS.
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6. DO NOT ROUTE DUCTS OR PIPES ABOVE ELECTRICAL PANELS. DO NOT ROUTE DUCTS OR PIPES IN ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM.
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8. ALL WALL/FLOOR PENETRATIONS WITH PIPES, DUCTS, ETC. NEED TO MAINTAIN THE REQUIRED FIRE RATING.

SHEET KEYNOTES

1 ALTERNATE ASSOCIATED WITH THE NORTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

2 IF ALTERNATE #3 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 9 TO 12 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

3 EQUIPMENT AND GRILLES SHOWN FOR REFERENCE. SEE TYPICAL BILLET ENLARGED PLAN FOR EXACT LOCATIONS, TYPICAL.

4 24" X 24" ACCESS PANEL. TYPICAL UNLESS NOTED OTHERWISE.

5 ALTERNATE ASSOCIATED WITH THE SOUTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

6 IF ALTERNATE #4 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

7 IF ALTERNATE #1 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO C IS TO MOVE SUCH THAT GRID C IS ALIGNED WITH GRID D. COORDINATE WITH ARCHITECTURAL PLANS.

8 TOP OF GRILLE TO BE 11'-2" A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECTURAL PLANS.

9 LOUVER TO BE SIZE SHOWN, SEE SPECIFICATIONS.

10 LOUVER TO BE LOCATED, 18" MINIMUM ABOVE LOWER ROOF SURFACE.

11 EXHAUST DUCT TO DROP TO DRYER CONNECTION. COORDINATE EXACT CONNECTION WITH EQUIPMENT.

12 DIFFUSER IS TO BE INCLUDED IN THE BASE BID AND IS TO MOVE AS NEEDED DEPENDING ON WHICH ALTERNATES ARE INCLUDED IN THE PROJECT.

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84065

SECOND LEVEL MECHANICAL PLAN - NORTH & SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO. 11007	DRAWING NO. M102A
DATE 02/15/2013	

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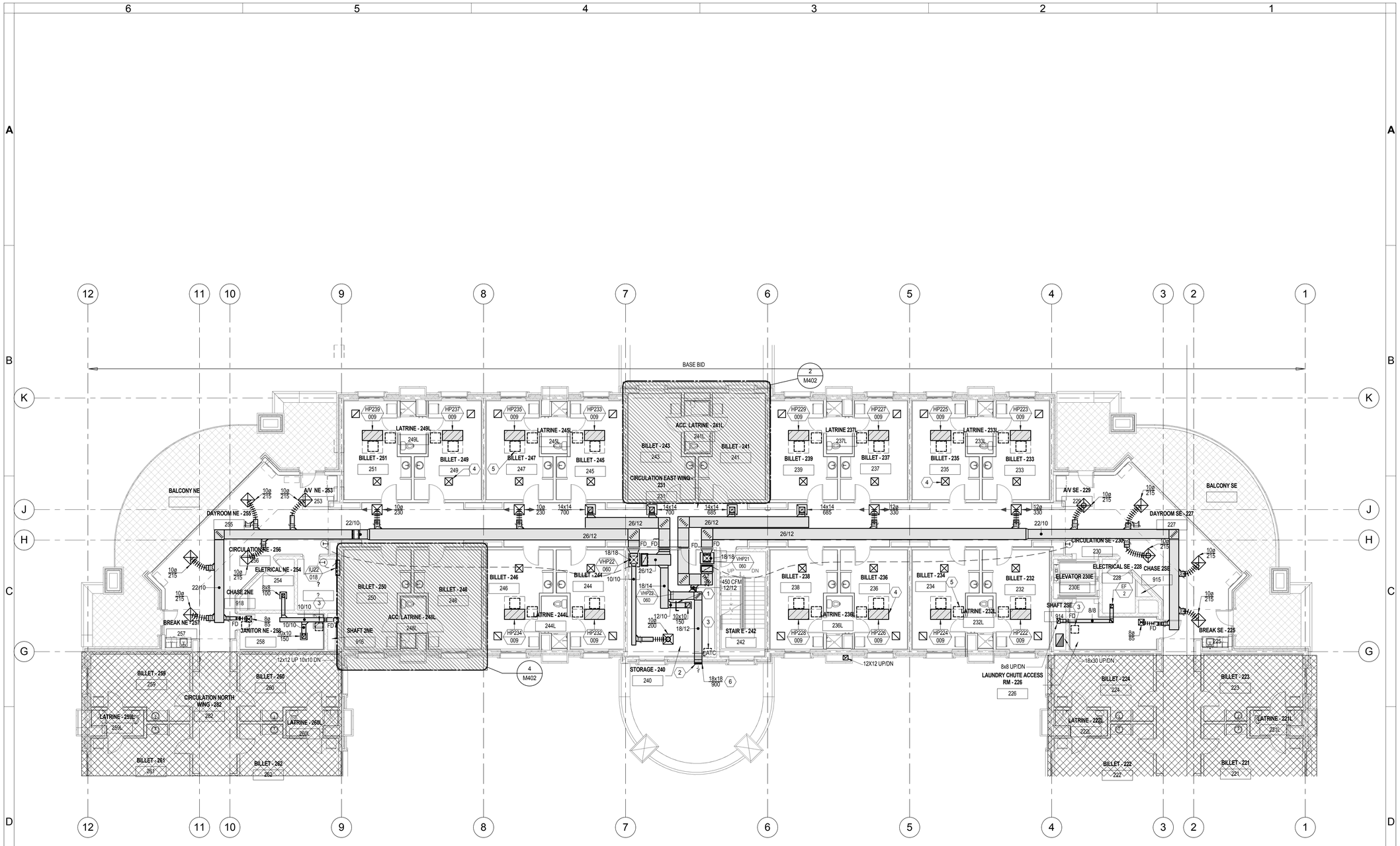

1 Second Level Mechanical Plan - East Wing

SCALE: 1/8" = 1'-0"

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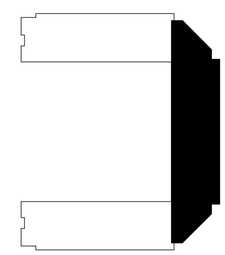
0' 8' 16'



KEY PLAN

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

PROFESSIONAL ENGINEER 7705747-2202 BRADLEY W. WELCH 11-12-12 STATE OF UTAH

VAN BOERUM & FRANK ASSOCIATES, INC.
CONSULTING ENGINEERS
WWW.VBFA.COM
Salt Lake City • Logan • St. George • Tempe
330 South 300 East 801.530.3148 T
Salt Lake City, UT 84111 801.530.3150 F
VBFA Project Number: 11038

GENERAL NOTES

1. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.

2. COORDINATE EXACT LOCATION OF DUCTS WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING, CABLE TRAY, PLUMBING, MECHANICAL PIPING, ETC.

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8. ALL WALL/FLOOR PENETRATIONS WITH PIPES, DUCTS, ETC. NEED TO MAINTAIN THE REQUIRED FIRE RATING.

SHEET KEYNOTES

1 MANUAL VOLUME DAMPER. BALANCE TO CFM SHOWN.

2 TOP OF GRILLE TO BE 11'-2" A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECTURAL PLANS.

3 18" X 18" ACCESS PANEL.

4 EQUIPMENT AND GRILLES SHOWN FOR REFERENCE. SEE TYPICAL BILLET ENLARGED PLAN FOR EXACT LOCATIONS, TYPICAL.

5 24" X 24" ACCESS PANEL. TYPICAL UNLESS NOTED OTHERWISE.

6 LOUVER TO BE SIZE SHOWN, SEE SPECIFICATIONS.

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84065

SECOND LEVEL MECHANICAL PLAN - EAST WING

REVISION	DATE	BY	DESCRIPTION
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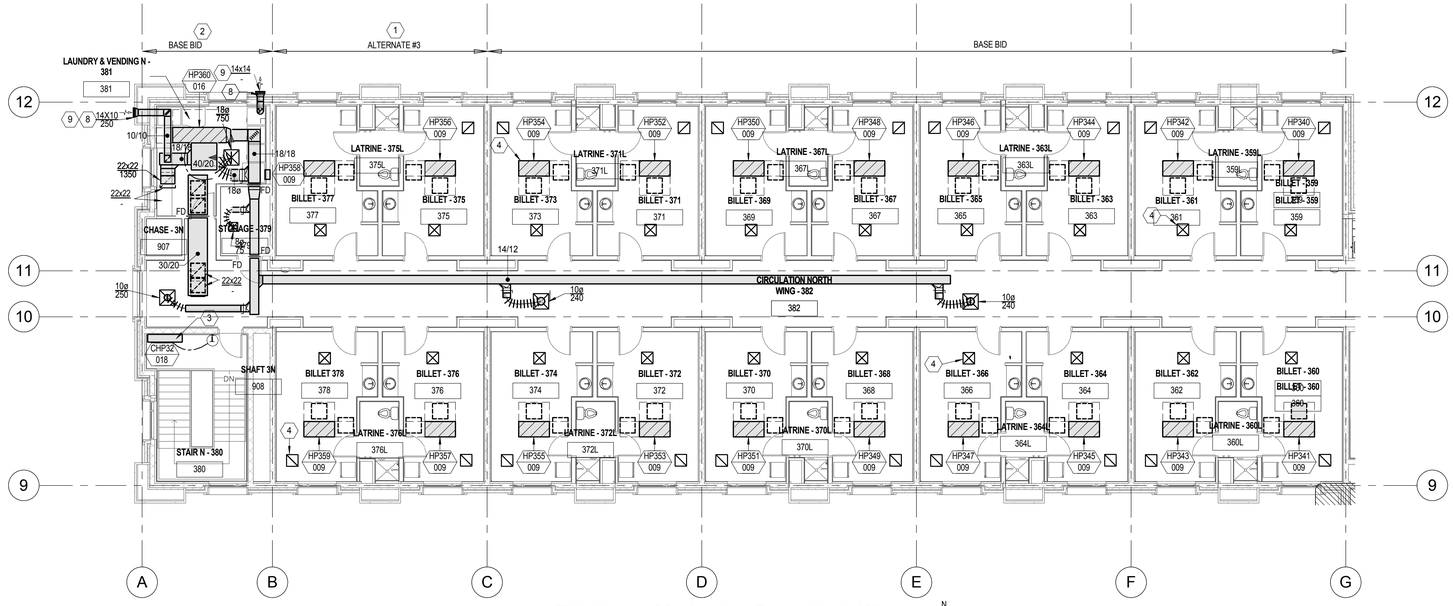
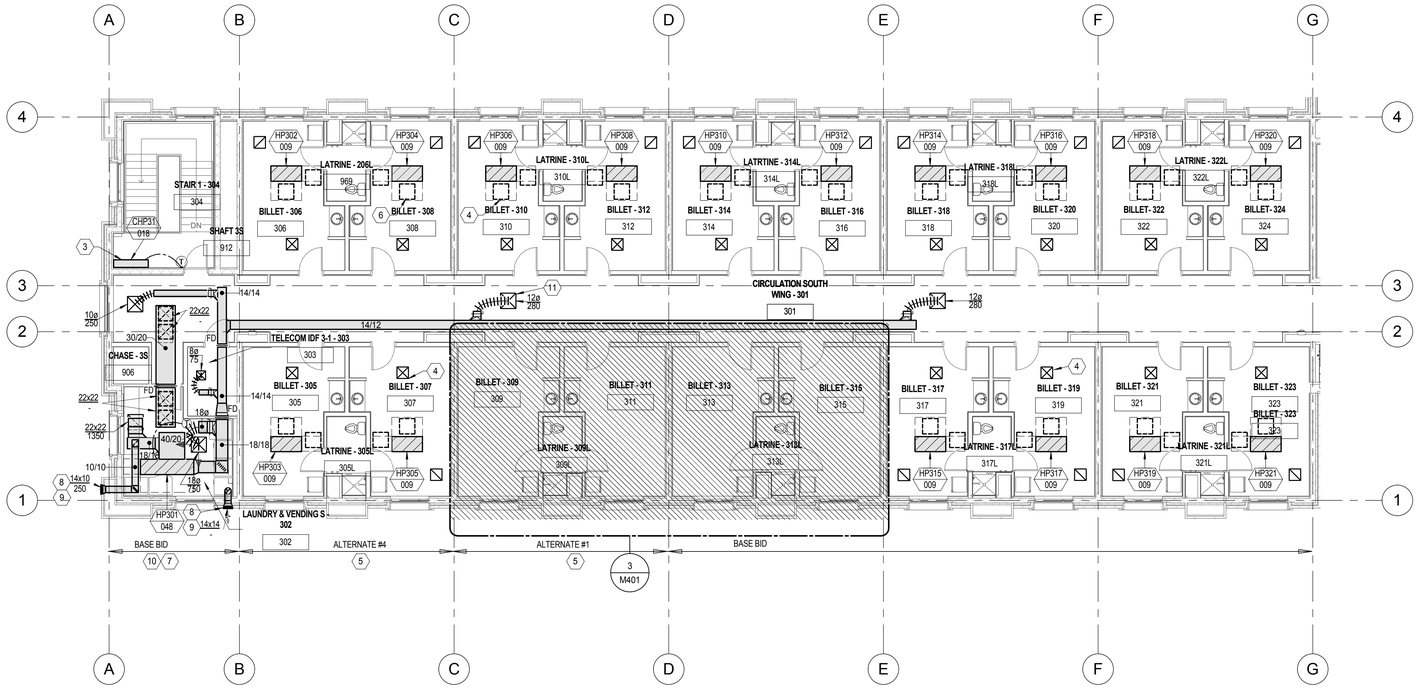
DRAWN BY GR	CHECKED BY BW
PROJECT NO. 11007	DRAWING NO. M102B
DATE 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM



1 Third Level Mechanical Plan - North Wing
SCALE: 1/8" = 1'-0"



2 Third Level Mechanical Plan - South Wing
SCALE: 1/8" = 1'-0"

KEY PLAN

SEAL & SIGNATURE

PROFESSIONAL ENGINEER 7705747-2202 BRADLEY J. WELCH 11-12-12 STATE OF UTAH

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VBFA Project Number: 11038

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SHEET KEYNOTES

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2 IF ALTERNATE #3 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 9 TO 12 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

3 CONSOLE HEAT PUMP TO BE MOUNTED 8" AFF.

4 EQUIPMENT AND GRILLES SHOWN FOR REFERENCE. SEE TYPICAL BILLET ENLARGED PLAN FOR EXACT LOCATIONS, TYPICAL.

5 ALTERNATE ASSOCIATED WITH THE SOUTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

6 24" X 24" ACCESS PANEL. TYPICAL UNLESS NOTED OTHERWISE.

7 IF ALTERNATE #1 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO C IS TO MOVE SUCH THAT GRID C IS ALIGNED WITH GRID D. COORDINATE WITH ARCHITECTURAL PLANS.

8 TOP OF GRILLE TO BE 11'-2" A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECTURAL PLANS.

9 LOUVER TO BE SIZE SHOWN, SEE SPECIFICATIONS.

10 IF ALTERNATE #4 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

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BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84065

THIRD LEVEL MECHANICAL PLAN - NORTH & SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY GR	CHECKED BY BW
PROJECT NO. 11007	DRAWING NO. M103A
DATE 02/15/2013	

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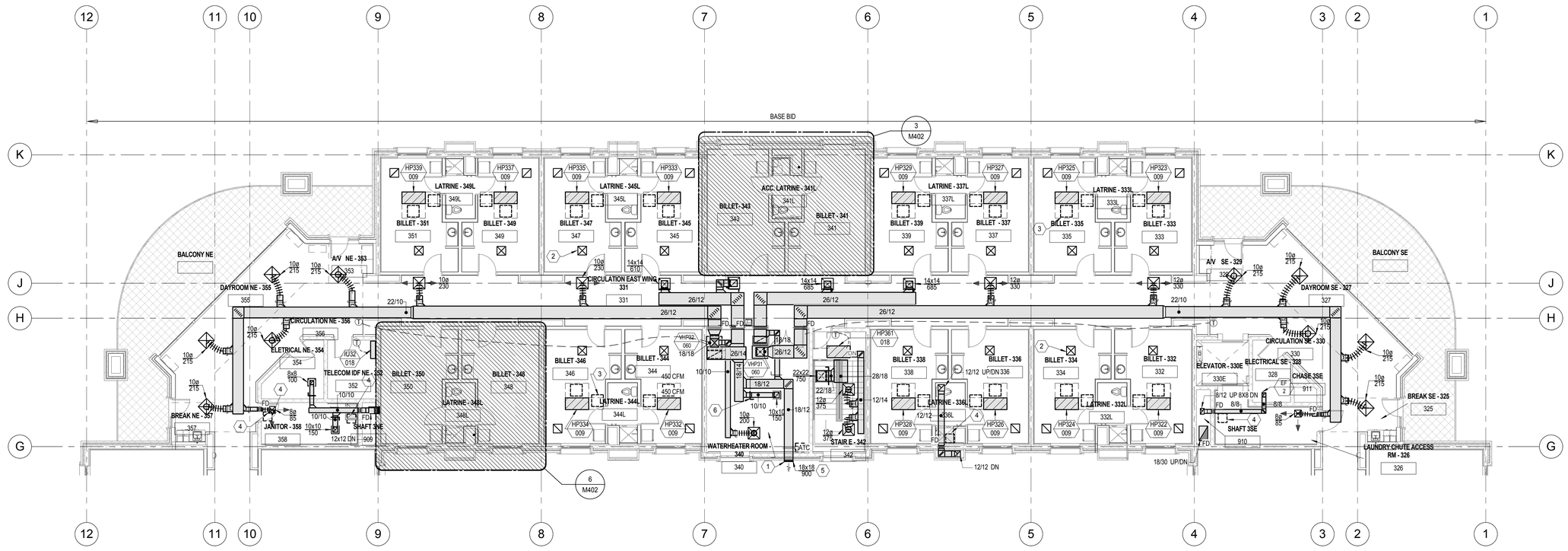
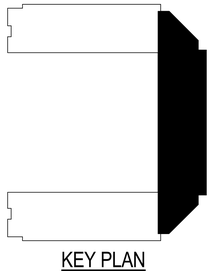


1 Third Level Mechanical Plan - East Wing
SCALE: 1/8" = 1'-0"



KEY PLAN

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
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SEAL & SIGNATURE

PROFESSIONAL ENGINEER
7705747-2202
BRADLEY W. WELCH
11-12-12
STATE OF UTAH

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VBFA Project Number: 11038

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8. ALL WALL/FLOOR PENETRATIONS WITH PIPES, DUCTS, ETC. NEED TO MAINTAIN THE REQUIRED FIRE RATING.

SHEET KEYNOTES

1. TOP OF GRILLE TO BE 11'-2" A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECTURAL PLANS.
2. EQUIPMENT AND GRILLES SHOWN FOR REFERENCE. SEE TYPICAL BILLET ENLARGED PLAN FOR EXACT LOCATIONS, TYPICAL.
3. 24" X 24" ACCESS PANEL. TYPICAL UNLESS NOTED OTHERWISE.
4. 18" X 18" ACCESS PANEL.
5. LOUVER TO BE SIZE SHOWN, SEE SPECIFICATIONS.
6. MANUAL VOLUME DAMPER. BALANCE TO CFM SHOWN.

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THIRD LEVEL MECHANICAL PLAN - EAST WING

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: GR
CHECKED BY: BW
PROJECT NO.: 11007
DATE: 02/15/2013
DRAWING NO.: M103B

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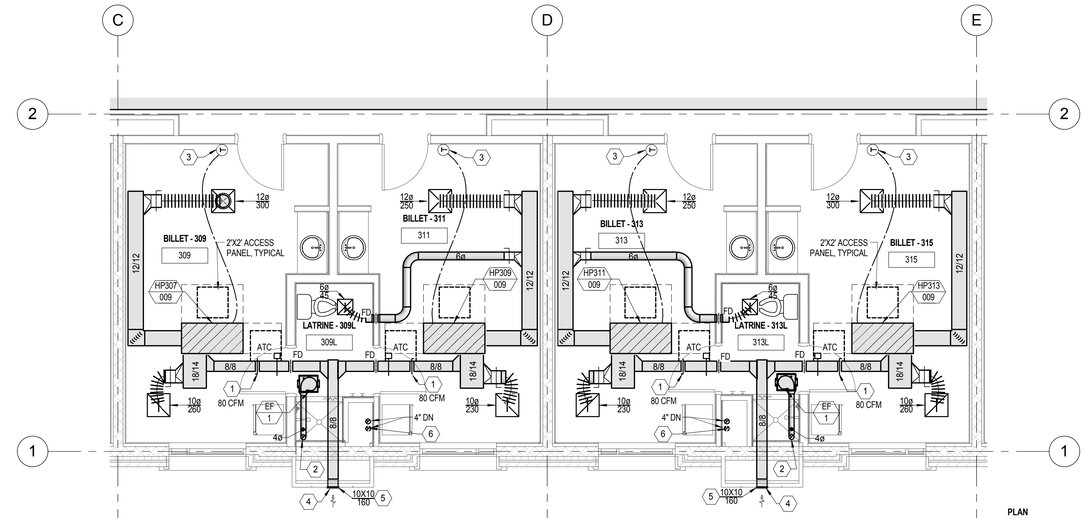
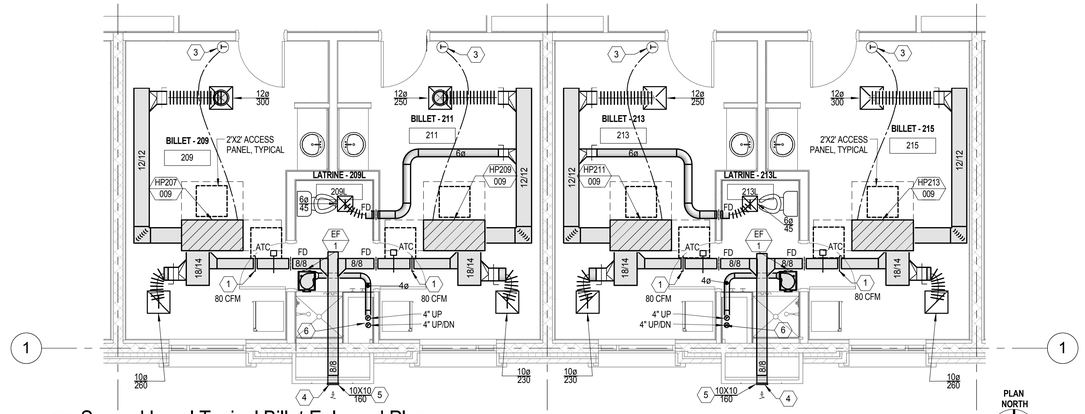
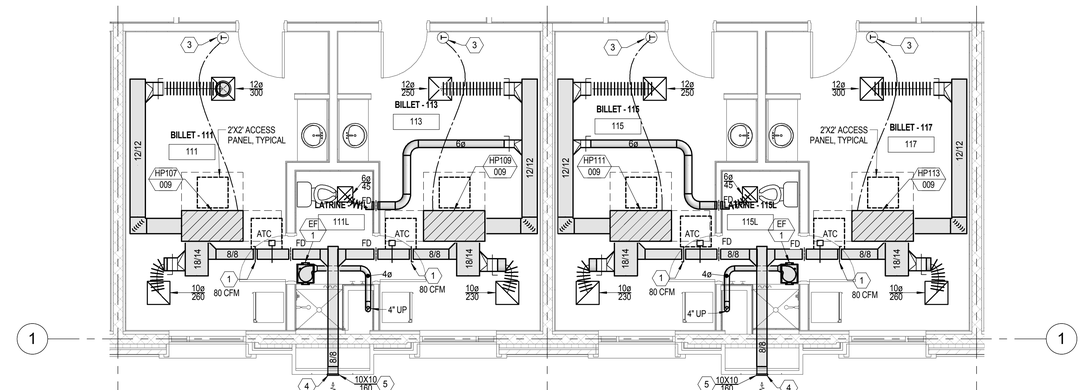


3 Third Level Typical Billet Enlarged Plans
SCALE: 1/4" = 1'-0"



2 Second Level Typical Billet Enlarged Plans
SCALE: 1/4" = 1'-0"



1 First Level Typical Billet Enlarged Plans
SCALE: 1/4" = 1'-0"

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
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GENERAL NOTES

1. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.

2. COORDINATE EXACT LOCATION OF DUCTS WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING, CABLE TRAY, PLUMBING, MECHANICAL PIPING, ETC.

3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK SIZE OF THE DIFFUSER, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE.

4. INSTALL EQUIPMENT WITH CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS. MAINTAIN PROPER SPACE FOR COIL PULL, CONTROLS, AND MAINTENANCE ACCESS.

5. INSTALL TURNING VANES IN ALL SQUARE AND RECTANGULAR LOW PRESSURE DUCTWORK.

6. DO NOT ROUTE DUCTS OR PIPES ABOVE ELECTRICAL PANELS. DO NOT ROUTE DUCTS OR PIPES IN ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM.

7. PROVIDE CEILING ACCESS PANELS AS REQUIRED WHERE MECHANICAL EQUIPMENT, VALVES, VAV BOXES, FIRE DAMPERS, ETC, ARE LOCATED ABOVE INACCESSIBLE CEILINGS.

8. ALL WALL/FLOOR PENETRATIONS WITH PIPES, DUCTS, ETC. NEED TO MAINTAIN THE REQUIRED FIRE RATING.

SHEET KEYNOTES

1 MANUAL VOLUME DAMPER. BALANCE TO CFM SHOWN.

2 EXHAUST DUCT TO RISE THROUGH ROOF AND TERMINATE 14" ABOVE DECK WITH WEATHERPROOF HOOD.

3 THERMOSTAT TO BE LOCATED NEXT TO LIGHT SWITCH OPPOSITE THE DOOR. COORDINATE WITH ELECTRICAL PLANS AND ARCHITECT.

4 TOP OF GRILLE TO BE 11'-2" A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECTURAL PLANS.

5 LOUVER TO BE SIZE SHOWN, SEE SPECIFICATIONS.

6 NO EXHAUST FROM LEVEL 1 IN BILLETS ABOVE HOUSEKEEPING OR MAIN TOILET ROOMS.

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ENLARGED MECHANICAL PLANS

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DRAWING NO.: M401
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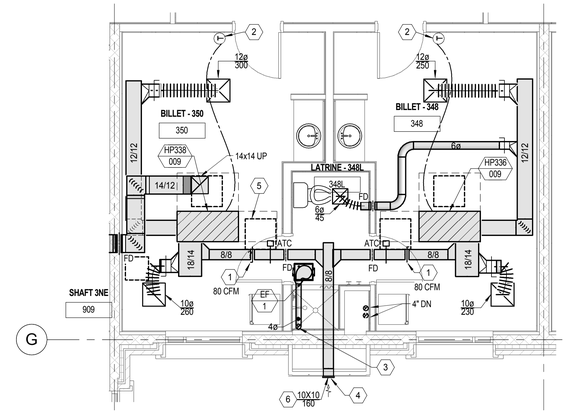
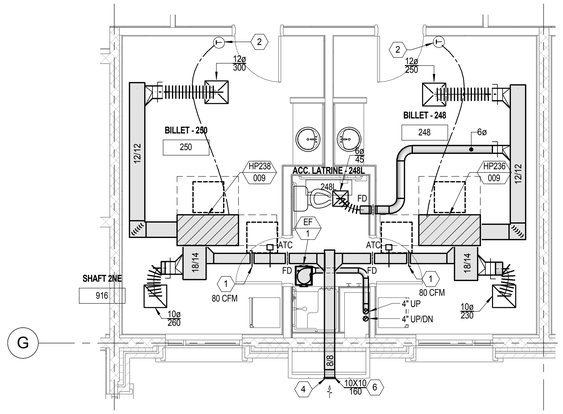
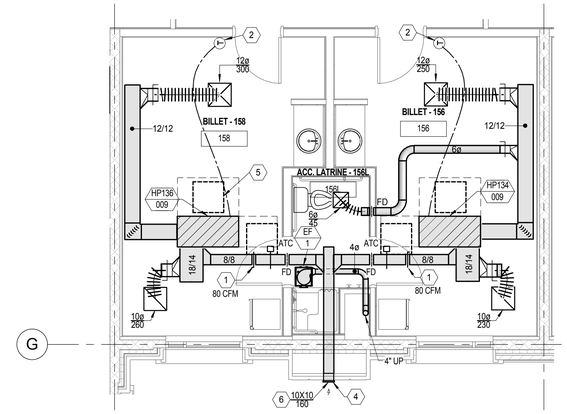


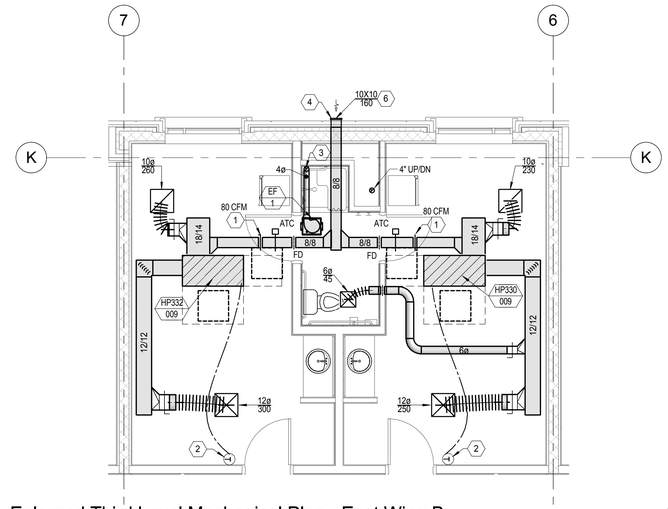
6 Enlarged Third Level Mechanical Plan - East Wing A
SCALE: 1/4" = 1'-0"



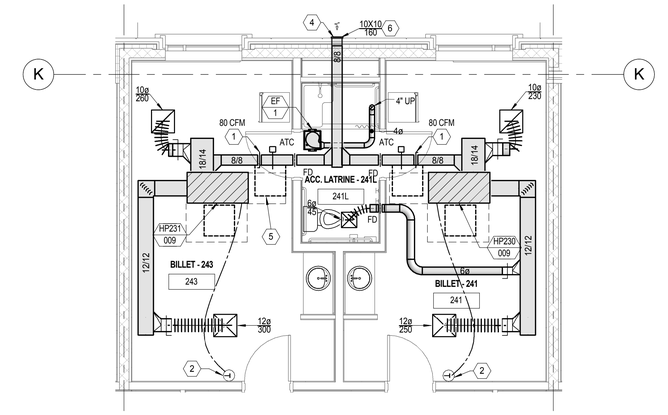
4 Enlarged Second Level Mechanical Plan - East Wing A
SCALE: 1/4" = 1'-0"



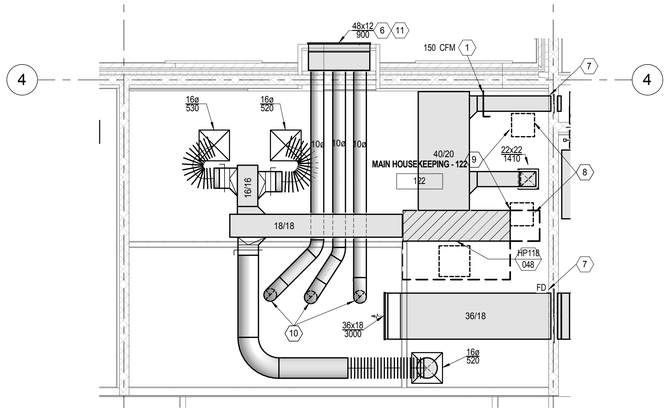
5 Enlarged First Level Mechanical Plan - East Wing A
SCALE: 1/4" = 1'-0"



3 Enlarged Third Level Mechanical Plan - East Wing B
SCALE: 1/4" = 1'-0"



2 Enlarged Second Level Mechanical Plan - East Wing B
SCALE: 1/4" = 1'-0"



1 Main Housekeeping - 122 First Level Mechanical Plan
SCALE: 1/4" = 1'-0"

SEAL & SIGNATURE

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GENERAL NOTES

1. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.

2. COORDINATE EXACT LOCATION OF DUCTS WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING, CABLE TRAY, PLUMBING, MECHANICAL PIPING, ETC.

3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK SIZE OF THE DIFFUSER, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE.

4. INSTALL EQUIPMENT WITH CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS. MAINTAIN PROPER SPACE FOR COIL PULL, CONTROLS, AND MAINTENANCE ACCESS.

5. INSTALL TURNING VANES IN ALL SQUARE AND RECTANGULAR LOW PRESSURE DUCTWORK.

6. DO NOT ROUTE DUCTS OR PIPES ABOVE ELECTRICAL PANELS. DO NOT ROUTE DUCTS OR PIPES IN ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM.

7. PROVIDE CEILING ACCESS PANELS AS REQUIRED WHERE MECHANICAL EQUIPMENT, VALVES, VAV BOXES, FIRE DAMPERS, ETC, ARE LOCATED ABOVE INACCESSIBLE CEILINGS.

8. ALL WALL/FLOOR PENETRATIONS WITH PIPES, DUCTS, ETC. NEED TO MAINTAIN THE REQUIRED FIRE RATING.

SHEET KEYNOTES

1 MANUAL VOLUME DAMPER. BALANCE TO CFM SHOWN.

2 THERMOSTAT TO BE LOCATED NEXT TO LIGHT SWITCH OPPOSITE THE DOOR. COORDINATE WITH ELECTRICAL PLANS AND ARCHITECT.

3 EXHAUST DUCT TO RISE THROUGH ROOF AND TERMINATE 14" ABOVE DECK WITH WEATHERPROOF HOOD.

4 TOP OF GRILLE TO BE 11'-2" A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECTURAL PLANS.

5 24" X 24" ACCESS PANEL. TYPICAL UNLESS NOTED OTHERWISE.

6 LOUVER TO BE SIZE SHOWN, SEE SPECIFICATIONS.

7 PROVIDE FLEXIBLE CONNECTION AT BUILDING EXPANSION JOINT. COORDINATE WITH ARCHITECTURAL PLANS.

8 COORDINATE EXACT LOCATION WITH BUILDING EXPANSION JOINT.

9 18" X 18" ACCESS PANEL.

10 EXHAUST DUCT TO DROP TO DRYER CONNECTION. COORDINATE EXACT CONNECTION WITH EQUIPMENT.

11 COORDINATE EXACT DRYER EXHAUST DISCHARGE WITH MANUFACTURER'S RECOMMENDATIONS.

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DRAWING NO. M402
DATE 02/15/2013

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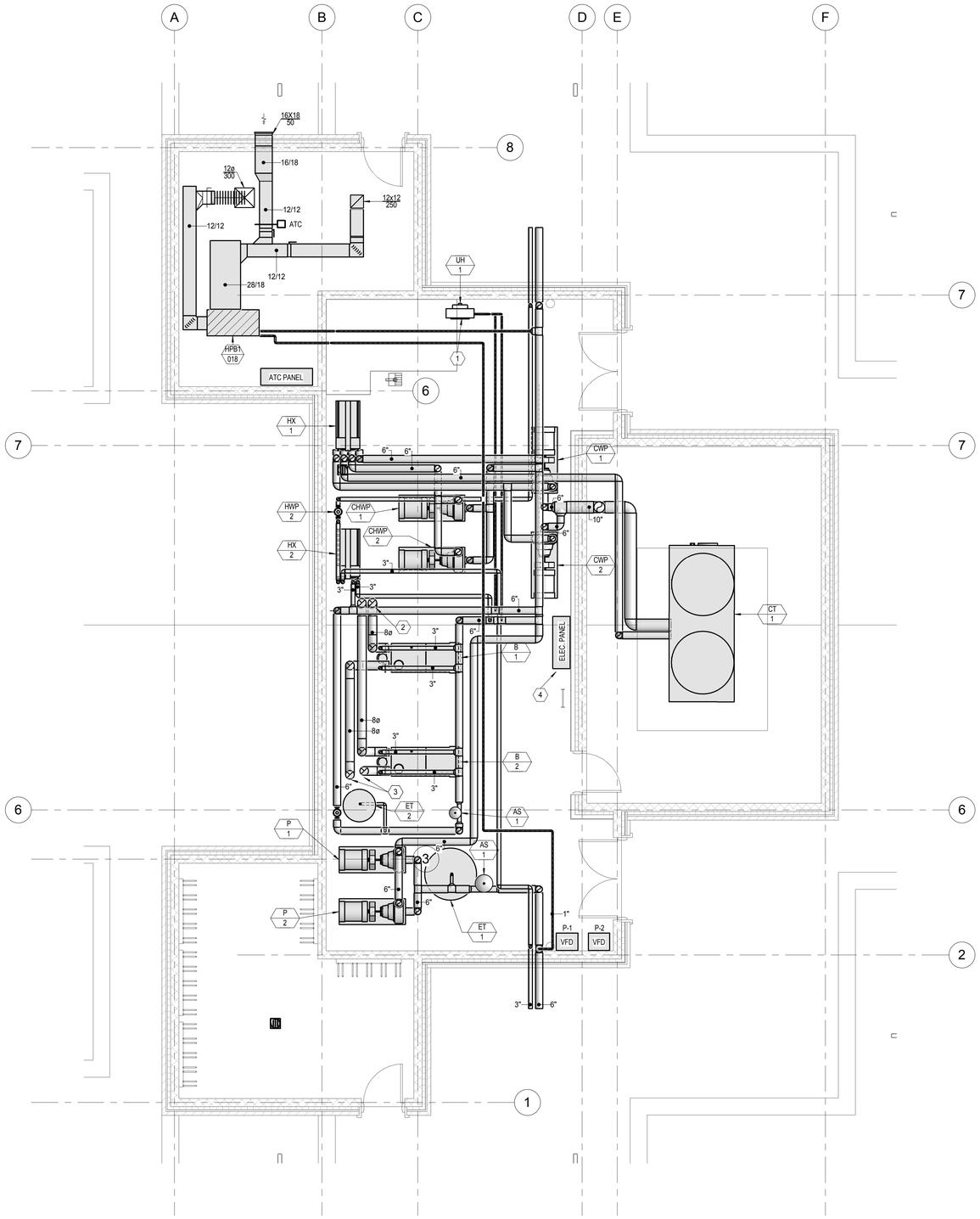

1 Enlarged Boiler Building Mechanical Plan
SCALE: 1/4" = 1'-0"

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GENERAL NOTES

1. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.

2. COORDINATE EXACT LOCATION OF DUCTS WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING, CABLE TRAY, PLUMBING, MECHANICAL PIPING, ETC.

3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK SIZE OF THE DIFFUSER, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE.

4. INSTALL EQUIPMENT WITH CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS. MAINTAIN PROPER SPACE FOR COIL PULL, CONTROLS, AND MAINTENANCE ACCESS.

5. INSTALL TURNING VANES IN ALL SQUARE AND RECTANGULAR LOW PRESSURE DUCTWORK.

6. DO NOT ROUTE DUCTS OR PIPES ABOVE ELECTRICAL PANELS. DO NOT ROUTE DUCTS OR PIPES IN ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM.

7. PROVIDE CEILING ACCESS PANELS AS REQUIRED WHERE MECHANICAL EQUIPMENT, VALVES, VAV BOXES, FIRE DAMPERS, ETC, ARE LOCATED ABOVE INACCESSIBLE CEILINGS.

8. ALL WALL/FLOOR PENETRATIONS WITH PIPES, DUCTS, ETC. NEED TO MAINTAIN THE REQUIRED FIRE RATING.

SHEET KEYNOTES

1 UNIT HEATER TO BE MOUNTED 10' AFF.

2 BOILER FLUE TO RISE THROUGH ROOF TO VENT CAP AND TERMINATE NO LESS THAN 24" ABOVE THE ROOF DECK. INSTALL PER THE MANUFACTURER'S RECOMMENDATIONS, MAINTAINING PROPER CLEARANCES AND MATERIALS.

3 BOILER COMBUSTION AIR TO RISE THROUGH ROOF AND TERMINATE WITH A GOOSENECK NO LESS THAN 12" ABOVE THE ROOF DECK. INSTALL PER THE MANUFACTURER'S RECOMMENDATIONS, MAINTAINING PROPER CLEARANCES AND MATERIALS.

4 NO EXHAUST FROM LEVEL 1 IN BILLETS ABOVE HOUSEKEEPING OR MAIN TOILET ROOMS.

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Enlarged Boiler Building Mechanical Plan

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PROJECT NO. 11007
DRAWING NO. M403
DATE 02/15/2013

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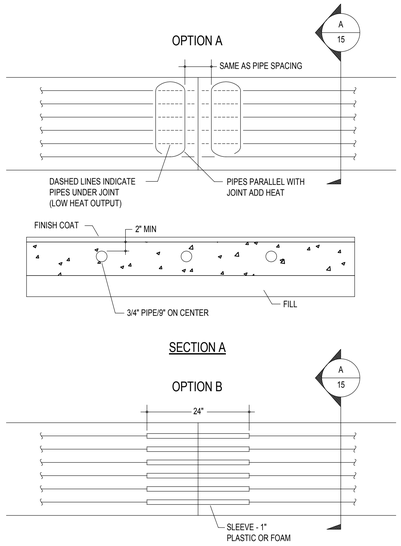
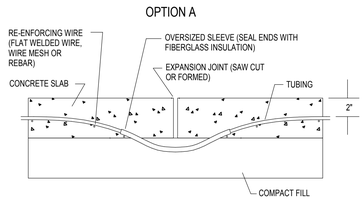
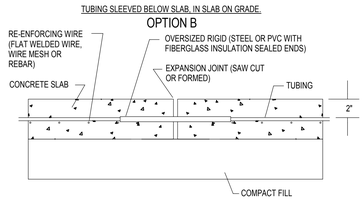
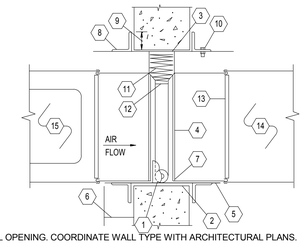


14 M501 SNOW MELT SYSTEM JOINT DETAIL
NO SCALE



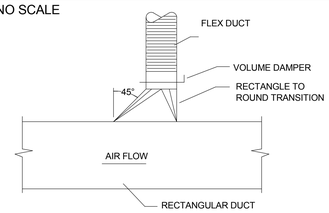


15 M501 SNOW MELT TUBING IN SLAB
NO SCALE



1. WALL OPENING. COORDINATE WALL TYPE WITH ARCHITECTURAL PLANS.
2. INTERIOR OF OPENING LINED WITH U.L. LISTED MATERIAL HAVING SAME FIRE RESISTIVE RATING AS WALL.
3. CLEARANCE FOR THERMAL EXPANSION 1/8 INCH PER FOOT OF DUCT DIMENSION. MAX. 1/2 INCH. HALF FOR EACH SIDE.
4. FIRE DAMPER-U.L. OR SMACNA LABEL.
5. STEEL SLEEVE. MINIMUM 14 GAGE.
6. SLEEVE TO EXTEND A MINIMUM OF 3 INCHES BEYOND WALL LINE.
7. BOLT OR WELD DAMPER TO SLEEVE. MINIMUM 1/4 INCH BOLTS OR 1/2 INCH WELDS 12 INCHES O.C.. BEGIN 2 INCHES FROM CORNERS.
8. RETAINING ANGLES MINIMUM 1-1/2"x1-1/2"x12 GA. FOR DUCTS 0-48", 2"x2"x1/8" FOR DUCT 48" ALL SIDES.
9. REGARDLESS OF DUCT SIZE. MIN. OVERLAP OF PREPARED OPENING FRAMEWORK BY RETAINING ANGLES SHALL BE 1 INCH.
10. RETAINING ANGLES ATTACHED TO SLEEVES WITH 1/4 INCH BOLTS OR 1/2 INCH WELDS 6 INCHES O.C. BEGIN 2 INCHES FROM CORNERS.
11. FIRE DAMPER BLADES.
12. U.L. FUSIBLE LINK.
13. BREAKAWAY CONNECTION. SLIP TYPE. ONE #10 S.M. SCREW OR DRIVE SLIPS MAY BE USED FOR SECURING SIDES.
14. DUCT
15. ACCESS DOOR.

10 M501 FIRE DAMPER DETAIL
NO SCALE



11 M501 HIGH EFFICIENCY TAKE-OFF DETAIL
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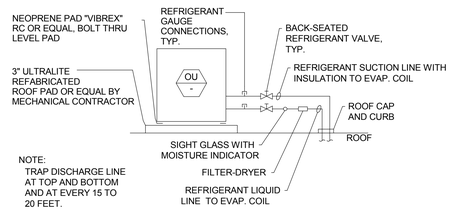
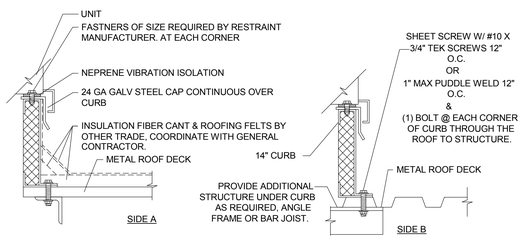
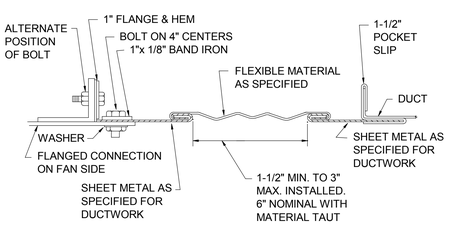


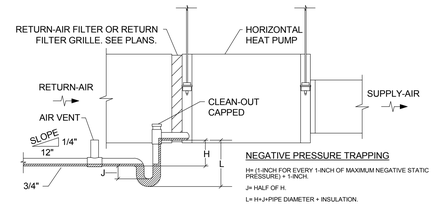
12 M501 ROOF MOUNTED DUCTLESS CONDENSING UNIT
NO SCALE



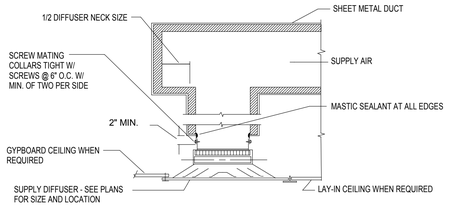
16 M501 ROOF CURB INSTALLED ON METAL ROOF DECK DETAIL



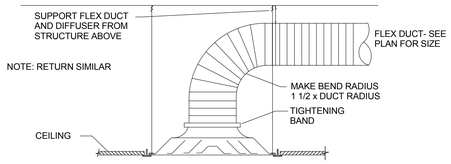
13 M501 RECTANGULAR FLEXIBLE CONNECTION
NO SCALE



5 M501 HEAT PUMP CONDENSATE P-TRAP DETAIL
NO SCALE



6 M501 TYPICAL CEILING DIFFUSER DETAIL
NO SCALE



7 M501 DIFFUSER CONNECTION DETAIL - A
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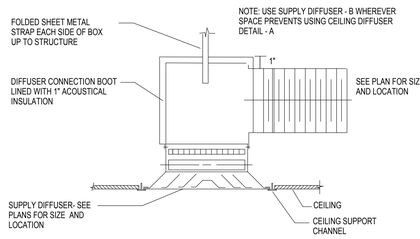

8 M501 DIFFUSER CONNECTION DETAIL - B
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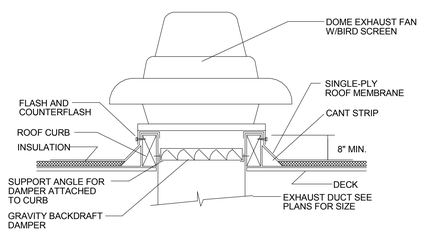
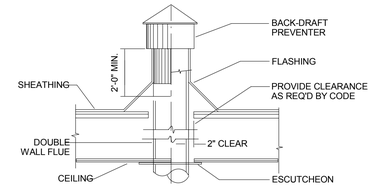
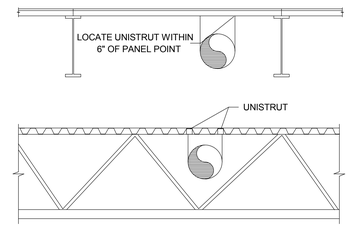


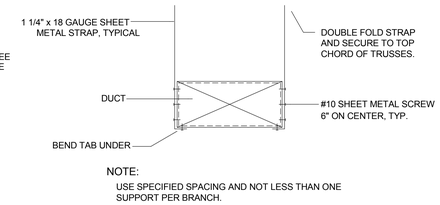
9 M501 EXHAUST FAN DETAIL
NO SCALE



1 M501 FLUE THRU ROOF DETAIL
NO SCALE



2 M501 DUCT SUPPORT DETAIL
NO SCALE



3 M501 RECTANGULAR DUCT SUPPORT DETAIL
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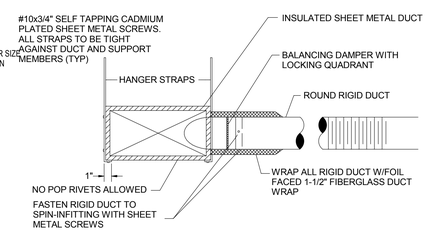

4 M501 FLEX DUCT / SPIN-IN FITTING
NO SCALE

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265 EAST 100 SOUTH SUITE 350
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VBFA Project Number: 11038

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84065

MECHANICAL DETAILS

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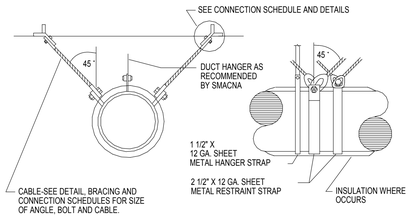
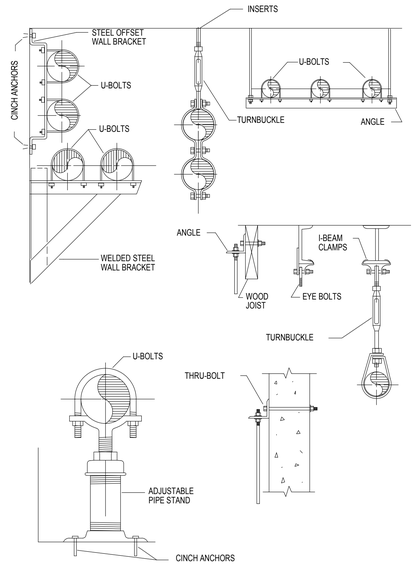
PROJECT NO. 11007
DATE 02/15/2013
DRAWING NO. M501

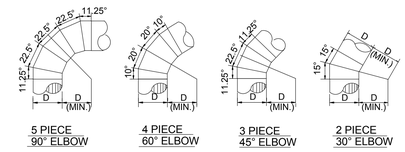
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



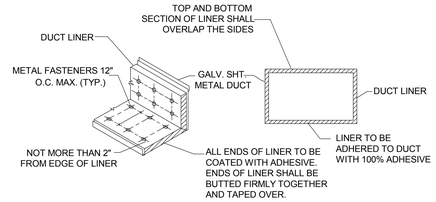
9 / M502 CABLE BRACING FOR ROUND AND OVAL DUCTS
NO SCALE



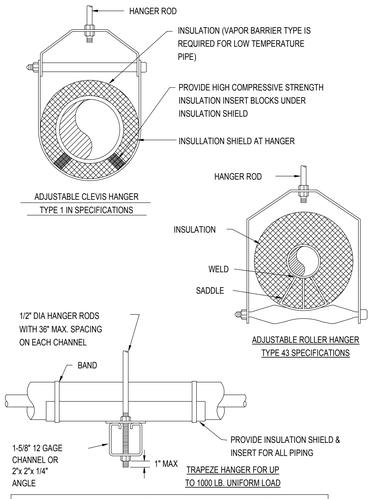
7 / MH503 TYPICAL PIPE SUPPORT DETAIL
NO SCALE



4 / M501 ROUND DUCT ELBOW DETAILS
NO SCALE

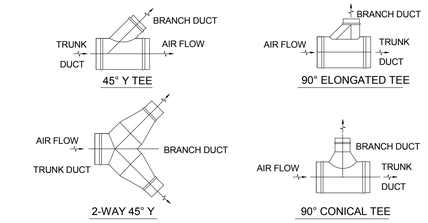


1 / M502 DUCT LINER DETAIL
NO SCALE

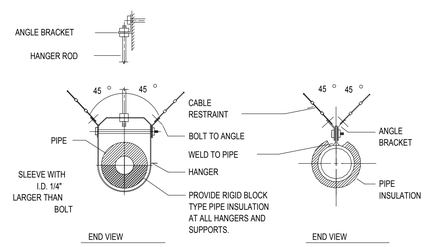


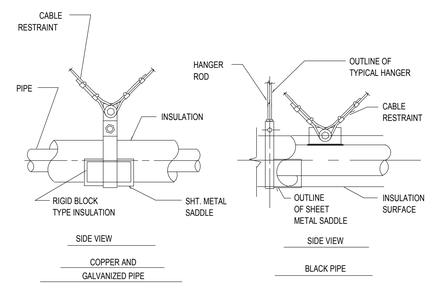
MAXIMUM PIPE/TUBING SUPPORT SPACING, FEET																	
NOM. SIZE	THRU 3/4"	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8	10	12	16	18	20	24
PIPING	7 FT	7	7	9	10	11	12	14	16	17	19	22	23	25	27	28	32
TUBING	5 FT	6	7	8	8	9	10	12	13	14	16	--	--	--	--	--	--
NOTE:FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE																	

5 / M502 TYPICAL PIPE HANGERS
NO SCALE

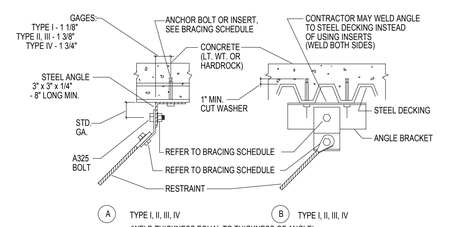


2 / M502 ROUND DUCT BRANCH TAKE-OFF DETAILS
NO SCALE



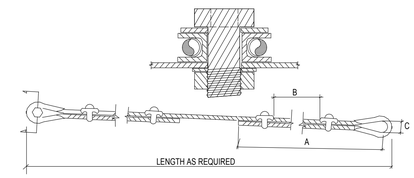


8 / M502 PIPING RESTRAINT DETAIL
NO SCALE



CONNECTIONS TO METAL DECK REQUIRE AN "IN WRITING AUTHORIZATION" FROM THE STRUCTURAL ENGINEER

6 / M502 RESTRAINT CONNECTIONS TO STEEL
NO SCALE



NOTES:

1. CABLES, THIMBLES, CLIPS, GROMMETS & FLAT WASHERS ARE TO BE FURNISHED BY RESTRAINT MANUFACTURER. ALL OTHER HARDWARE TO BE PROVIDED BY CONTRACTOR.
2. ENTIRE SYSTEM TO BE EQUAL TO AMBER BOOTH.
3. CABLE CLIPS MUST BE ORIENTED AS SHOWN WITH SHORT END OF CABLE ON THE CURVED PART OF THE CLIP.

CABLE SCHEDULE							
CABLE DIA.	CABLE DESIGN	A	B	C	BOLT SIZE	ALLOWABLE LOAD (lbf)	BREAKING STRENGTH (lbf)
1/8"	7X19 GALV.	5-1/4"	1-5/8"	5/8"	3/8"	660	2000
3/16"	7X19 GALV.	5-3/4"	1-7/8"	5/8"	3/8"	1400	4200
1/4"	7X19 GALV.	6-3/4"	2-3/8"	11/16"	3/8"	2330	7000
5/16"	7X19 GALV.	7-3/8"	2-5/8"	13/16"	5/8"	3260	9800
3/8"	7X19 GALV.	8-7/8"	3-1/4"	1"	5/8"	4800	14400
7/16"	6X19 IWRC	17"	3-5/8"	1"	5/8"	5920	17800
1/2"	6X19 IWRC	18"	3-7/8"	1-1/8"	3/4"	7660	23000

3 / M502 CABLE RESTRAINT DETAIL
NO SCALE

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE
PROFESSIONAL ENGINEER 7705747-2202 BRADLEY J. WELCH 11-12-12 STATE OF UTAH

VAN BOERUM & FRANK ASSOCIATES, INC.
CONSULTING ENGINEERS
WWW.VBFA.COM
Salt Lake City • Logan • St. George • Tempe
330 South 300 East 801.530.3148 T
Salt Lake City, UT 84111 801.530.3150 F
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UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84065

MECHANICAL DETAILS

REVISION	DATE	BY	DESCRIPTION
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UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

PIPE SEISMIC BRACING SCHEDULE

PIPE SIZE	HANGER ROD SIZE	MAX. ROD LENGTH	HANGER TYPE	BOLTS TO ANGLE	ANGLE CLIP	ANGLE BRACE	ANCHOR CONN. TYPE	ANCHOR BOLT OR INSERT
1-1/2"	1/2"	25"	CLEVIS	3/8"	3x3x1/4	2x2x16GA	I	3/8"
2"	1/2"	25"	CLEVIS	3/8"	3x3x1/4	2x2x16GA	I	3/8"
2-1/2"	5/8"	31"	CLEVIS	3/8"	3x3x1/4	2x2x16GA	I	3/8"
3"	5/8"	31"	CLEVIS	3/8"	3x3x1/4	2-1/2x2-1/2x 16 GA	II	1/2"
3-1/2"	5/8"	31"	CLEVIS	3/8"	3x3x1/4	2-1/2x2-1/2x 16 GA	II	1/2"
4"	3/4"	37"	CLEVIS	3/8"	3x3x1/4	2-1/2x2-1/2x 16 GA	II	1/2"
5"	3/4"	37"	CLEVIS	1/2"	5x3x1/2	2-1/2x2-1/2x 16 GA	III	3/4"
6"	3/4"	37"	CLEVIS	5/8"	5x3x1/2	2-1/2x2-1/2x 16 GA	IV	3/4"
8"	7/8"	43"	CLEVIS	5/8"	2-5x3x1/2	3x3x12 GA	V	2-5/8"
10"	7/8"	43"	CLEVIS	3/4"	2-5x3x1/2	3x3x12 GA	VI	2-5/8"

FOR ANCHOR CONNECTIONS SEE LIST.

SEE PIPE BRACING DETAIL

*1-5/8"x1-5/8"x12 GA CHANNEL MAY BE USED

DUCT BRACING GENERAL NOTES

1 DETAILS SHOWN PROVIDE GENERAL GUIDELINES FOR A LATERAL BRACING SYSTEM. A TYPICAL VERTICAL SUPPORT SYSTEM MUST ALSO BE USED.

2 BRACE ALL RECTANGULAR DUCTS OF AREA 6 SQ. FT. AND LARGER. BRACE ALL ROUND DUCTS 28" IN DIAMETER AND LARGER.

3 CABLE RESTRAINTS AND BRACING NOT TO EXCEED 30'-0" CENTERS AND SHALL BE PROVIDED AT EACH TURN, AT THE END OF EACH DUCT RUN, AND ON EACH SIDE OF FLEXIBLE CONNECTIONS. BRACE POINTS SHALL NOT EXCEED 15'-0" FROM FLEXIBLE CONNECTION.

4 WHEN COMBINING DUCT GROUPS ON COMMON BRACING SYSTEMS, USE WEIGHTS AND DIMENSIONS FROM BRACING LIST.

5 ALL HOLES IN ANGLES ARE TO BE 1/16 INCH OVERSIZED. PLACE STANDARD CUT WASHERS BETWEEN SHEET METAL ANGLES AND NUT.

6 DUCTS NOT BRACED SHALL BE INSTALLED WITH A 6" MIN. CLEARANCE TO VERTICAL CEILING HANGER WIRES.

7 REHEAT BOXES AND OTHER ITEMS WHICH ATTACH TO THE DUCT SYSTEM SHALL BE BRACED INDEPENDENTLY OF THE DUCTS.

8 ALL SHEET METAL FOR BRACING TO BE FY = 33 KSI MINIMUM. GAUGE FOR SHEET METAL BRACING SHALL BE AS FOLLOWS:

16 GA = (0.0598 INCH)
14 GA = (0.0747 INCH)
12 GA = (0.1046 INCH)

9 MINIMUM DISTANCE FROM EDGE OF ANGLE TO BOLTS SHALL BE AS FOLLOWS:

BOLT DIAMETER	DISTANCE FROM EDGE
1/4" TO 1/2"	1"
5/8"	1 1/8"
3/4"	1 1/4"
7/8"	1 1/2"

10 DO NOT FASTEN RESTRAINT SYSTEM TO TWO DISSIMILAR PARTS OF A BUILDING THAT MAY RESPOND IN A DIFFERENT MODE DURING AN EARTHQUAKE. FOR EXAMPLE, A WALL AND A ROOF.

11 ALTERNATE EVERY OTHER CABLE RESTRAINT IN OPPOSITE DIRECTION (SHOWN DOTTED).

PIPE BRACING GENERAL NOTES

1 DETAILS SHOWN PROVIDE GENERAL GUIDELINES FOR A LATERAL BRACING SYSTEM. A TYPICAL VERTICAL SUPPORT SYSTEM MUST ALSO BE USED.

2 BRACE ALL PIPES 4" I.D. AND LARGER.

3 CABLE RESTRAINTS AND BRACING NOT TO EXCEED 30'-0" CENTERS AND SHALL BE PROVIDED AT ALL CHANGES IN DIRECTION OF PIPE, ALL DROPS TO EQUIPMENT, AND ON EACH SIDE OF FLEXIBLE CONNECTIONS. BRACE POINTS SHALL NOT EXCEED 15'-0" FROM FLEXIBLE CONNECTION.

4 ALL HOLES IN ANGLES ARE TO BE 1/16 INCH OVERSIZED. PLACE STANDARD CUT WASHERS BETWEEN SHEET METAL ANGLES AND NUT.

5 EQUIPMENT WHICH ATTACHES TO THE PIPING SYSTEM SHALL BE BRACED INDEPENDENTLY OF THE PIPES.

6 ALL SHEET METAL FOR BRACING TO BE FY=33 KSI MINIMUM. GAUGE FOR SHEET METAL BRACING SHALL BE AS FOLLOWS:

16 GA = (0.0598 INCH)
14 GA = (0.0747 INCH)
12 GA = (0.1046 INCH)

7 MINIMUM DISTANCE FROM EDGE OF ANGLE TO BOLTS SHALL BE AS FOLLOWS:

BOLT DIAMETER	DISTANCE FROM EDGE
1/4" TO 1/2"	1"
5/8"	1 1/8"
3/4"	1 1/4"
7/8"	1 1/2"

8 DO NOT FASTEN RESTRAINT SYSTEM TO TWO DISSIMILAR PARTS OF A BUILDING THAT MAY RESPOND IN A DIFFERENT MODE DURING AN EARTHQUAKE. FOR EXAMPLE, A WALL AND A ROOF.

9 PROVIDE LARGE ENOUGH PIPE SLEEVES THROUGH WALLS OR FLOORS TO ALLOW FOR ANTICIPATED DIFFERENTIAL MOVEMENTS.

10 DO NOT FASTEN ONE RIGID PIPING SYSTEM TO TWO DISSIMILAR PARTS OF A BUILDING THAT MAY RESPOND IN A DIFFERENT MODE DURING AN EARTHQUAKE. FOR EXAMPLE, A WALL AND A ROOF.

11 BRACING DETAILS, SCHEDULE AND NOTES ARE TO BE USED WITH THE FOLLOWING TYPES OF PIPE: STEEL PIPE SCHEDULE 40 AND 80, COPPER PIPE TYPE K,L,M (ONLY SILVER SOLDERED BRAZED JOINTS TO BE USED WITH COPPER PIPE).

12 FOR GAS PIPING, THE BRACING DETAILS, SCHEDULES AND NOTES MAY BE USED EXCEPT THAT RESTRAINTS SHALL BE INSTALLED AT EVERY 20'-0" O.C. ALSO ALL PIPE 1 INCH AND LARGER SHALL BE BRACED. PER THE CODE.

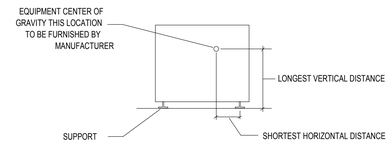
13 WASTE, VENT AND ROOF DRAINAGE PIPING SYSTEMS ARE EXCLUDED FROM THE RESTRAINT GUIDELINES.

14 ALTERNATE EVERY OTHER CABLE RESTRAINT IN OPPOSITE DIRECTION (SHOWN DOTTED).

EQUIPMENT ANCHORAGE TO CONCRETE FLOOR LIST

EQUIPMENT WEIGHT PER ANCHOR BOLT	MINIMUM ANCHOR DIAMETER (INCHES)	MINIMUM DEPTH OF EMBEDMENT (INCHES)	ICBO ALLOWABLE SHEAR PER BOLT (LBF)	ICBO ALLOWABLE TENSION PER BOLT (LBF)
UP TO 150#	1/4"	1-1/2"	380	215
300#	3/8"	2-1/2"	860	355
600#	1/2"	3"	1710	665
900#	5/8"	4-1/2"	2500	855
1300#	3/4"	6"	3050	1585
2000#	1"	6"	6280	2020

1 THE SIZES AND EMBEDMENT ARE FOR ANCHORS INSTALLED IN STONE AGGREGATE CONCRETE HAVING A FC = 2000 PSI ULTIMATE COMPRESSIVE STRENGTH AT THE TIME OF INSTALLATION. ALL BOLTS ARE TO BE INSTALLED PER MANUFACTURER INSTRUCTIONS AND TO BE INSTALLED NO CLOSER THAN 12 DIAMETERS ON CENTER AND WITH A MINIMUM EDGE DISTANCE OF 6 DIAMETERS.
2 EACH EQUIPMENT SUPPORT LEG WILL BE ANCHORED AND ALL EQUIPMENT WILL BE ANCHORED AT ALL CORNERS. A MINIMUM OF TWO ANCHORS WILL BE REQUIRED FOR ALL EQUIPMENT.
3 EQUIPMENT WEIGHT PER ANCHOR IS THE TOTAL OPERATING OF EQUIPMENT PLUS BASES AND SUPPORTS DIVIDED BY THE NUMBER OF ANCHORS.
4 ANCHORAGE IS TO PREVENT HORIZONTAL MOVEMENT. IF EQUIPMENT GEOMETRY IS SUCH THAT THE VERTICAL DISTANCE FROM SUPPORT LEG TO CENTER OF GRAVITY IS GREATER THAN FOUR TIMES THE SHORTEST DISTANCE FROM A SUPPORT LEG TO THE CENTER OF GRAVITY, ADDITIONAL ANCHORAGE AND RESTRAINTS WILL BE REQUIRED TO PREVENT OVERTURNING.



HEAT PUMP CABLE BRACING SCHEDULE

BOX WEIGHT	BOLT SIZE	*CABLE DIA.	**CABLE DESIGN	ANCHOR CONN. TYPE
UP TO 300#	3/8"	1/8"	7 X 19 GALV	I
400#	3/8"	1/8"	7 X 19 GALV	I
600#	3/8"	3/16"	7 X 19 GALV	II
800#	3/8"	3/16"	7 X 19 GALV	II

1. *FOUR CABLES REQUIRED, ONE AT EACH CORNER. EACH CABLE TO BE INSTALLED 45 TO HORIZONTAL AND 45 TO LONGITUDINAL DIRECTION.

2. **CABLE SYSTEMS TO BE EQUAL TO AMBER BOOT C/W THIMBLES, CLAMPS AND GROMMETS.

DUCT CABLE BRACING LIST

DUCT SIZE (MAX.)	*WT/ LIN FT (MAX)	BOLT SIZE	HORIZONTAL ANGLE	VERTICAL ANGLE	CABLE DIA.**	CABLE DES.	ANCHOR CONN. TYPE
12"	5#	3/8"	2 X 2 X 16 GA	2 X 2 X 12 GA	1/8"	7x19 GALV	I
18"	8#	3/8"	2 X 2 X 16 GA	2-1/2 X 2-1/2 X 12 GA	1/8"	7x19 GALV	I
24"	10#	3/8"	2 X 2 X 16 GA	2-1/2 X 2-1/2 X 12 GA	1/8"	7x19 GALV	I
30"	13#	3/8"	2 X 2 X 16 GA	2-1/2 X 2-1/2 X 12 GA	1/8"	7x19 GALV	I
42"	20#	3/8"	2-1/2 X 2-1/2 X 16 GA	4 X 4 X 12 GA	3/16"	7x19 GALV	II
54"	27#	3/8"	2-1/2 X 2-1/2 X 16 GA	4 X 4 X 12 GA	3/16"	7x19 GALV	II
60"	36#	3/8"	3 X 3 X 16 GA	4 X 4 X 12 GA	3/16"	7x19 GALV	II
84"	53#	3/8"	4 X 4 X 14 GA	4 X 4 X 1/4	1/4"	7x19 GALV	III
96"	80#	1/2"	4 X 4 X 12 GA	5 X 3 X 1/4	5/16"	7x19 GALV	IV

* MAXIMUM WEIGHT OF DUCTS OR COMBINATIONS OF DUCTS PER LINEAR FOOT. THE DUCTS MAXIMUM DIMENSION SHALL GOVERN WHAT BRACING IS REQUIRED. FOR ANCHOR CONNECTIONS SEE LIST. SEE DUCT BRACING DETAILS.

** TWO CABLES REQUIRED AT EACH RESTRAINT POINT, EACH CABLE TO BE INSTALLED 45° TO HORIZONTAL AND 45° TO LONGITUDINAL DIRECTION OF DUCT.

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

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330 South 300 East 801.530.3148 T
Salt Lake City, UT 84111 801.530.3150 F
VBFA Project Number: 11038

GENERAL NOTE:
THE MOUNTINGS FOR ALL OVERHEAD EQUIPMENT WEIGHING MORE THAN 30 lbs. SHALL BE ABLE TO RESIST FORCES OF 0.5 TIMES THE EQUIPMENT WEIGHT IN ANY HORIZONTAL DIRECTION AND 1.5 TIMES THE EQUIPMENT WEIGHT IN THE DOWNWARD DIRECTION. THIS REQUIREMENT DOES NOT PRECLUDE THE NEED TO DESIGN EQUIPMENT MOUNTINGS FOR SEISMIC REQUIREMENTS.

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UTAH NATIONAL GUARD
CAMP WILLIAMS
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QUARTERS
RIVERTON, UT 84065

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SPLIT AIR CONDITIONING SYSTEM

		COMBINED SYSTEM						INDOOR UNIT					OUTDOOR UNIT							
ID	MANUFACTURER AND MODEL	TOTAL AIR FLOW RATE (CFM)	NOMINAL COOLING CAPACITY (BTUH)	NOMINAL HEATING CAPACITY (BTUH)	REFRIG.	MINIMUM SEER @ ARI	HSPF	ID	PART NUMBER	WIDTH/ DEPTH/ HEIGHT (IN)	MCA	FAN MOTOR FLA	ID	PART NUMBER	WIDTH/ DEPTH/ HEIGHT (IN)	VOLT/PH	MCA	MOCP	FAN MOTOR FLA	NOTES
IU-018/OU-018	MITSUBISHI MR. SLIM	350	18,000	19,000	R-410A	15.0	9.5	IU-018	PKA-A18HAL	36/10/12	1.0	0.33	OU-018	PUZ-A18NHA3	32/14/24	208/1	13.0	20.0	0.35	1,2,3,4
IU-036/OU-036	MITSUBISHI MR. SLIM	800	34,200	37,000	R-410A	14.0	9.3	IU-036	PKA-A36KAL	47/12/15	1.0	0.57	OU-036	PUZ-A36NHA3	38/15/38	208/1	25.0	40.0	0.75	1,2,3,4

1. PROVIDE REFRIGERANT PIPING LINE SET SIZED AS PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE FACTORY MOUNTING STAND FOR CONDENSING UNIT
3. CONDENSING UNIT TO BE SIZE MATCHED TO INDOOR UNIT AND TO BE BY SAME MANUFACTURER AS FAN COIL UNIT.
4. PROVIDE WITH LOW AMBIENT KIT.

BOILER SCHEDULE

							FLUID				ELECTRICAL					PHYSICAL			WATER CONNECTION			
											BOILER PUMP			POWER SUPPLY								
ID	MANUFACTURER AND MODEL NUMBER	THERMAL EFFICIENCY AT FULL RATE (%)	ELECTRIC MODULATION	FUEL TYPE	INPUT CAPACITY (BTU/H)	MINIMUM OUTPUT LOAD (BTU/H)	FLOW RATE (GPM)	ENTERING/ LEAVING TEMP. (°F)	WORKING FLUID	MAXIMUM PRESSURE DROP (FT)	MOTOR QUAN.	MOTOR SIZE (HP)	AMPS	MOTOR VOLT/PH	AMPS	FLUE DIAMETER (IN)	COMBUSTION AIR DIAMETER (IN)	LENGTH/ WIDTH/ HEIGHT (IN)	INLET (IN)	OUTLET (IN)	GAS CONNECTION (IN)	NOTES
B-1	RAYPAK XTHERM H7-1505	96	4:1	NAT. GAS	1,500,000	1,440,000	70	80/147	WATER	10	1	0.5	14	120/1	26	8	8	50/32/68	2.5	2.5	1.25	1,2,3
B-2	RAYPAK XTHERM H7-1505	96	4:1	NAT. GAS	1,500,000	1,440,000	70	120/160	WATER	10	1	0.5	14	120/1	26	8	8	50/32/68	2.5	2.5	1.25	1,2,3

1. SUPPLY BREAKER MUST HAVE DELATED TRIP.
2. BOILER PUMP PRE-PIPED AND WIRED FROM THE FACTORY
3. SINGLE POINT POWER CONNECTION.

FAN COIL SCHEDULE

			AIR				FLUID				COIL			ELECTRICAL					PHYSICAL	
ID	MANUFACTURER AND MODEL NUMBER	TYPE	MAXIMUM AIRFLOW RATE (CFM)	MINIMUM LOAD (BTUH)	ENTERING/ LEAVING TEMP. (°F)	EXTERNAL STATIC PRESSURE (IN. WATER)	FLOW RATE (GPM)	ENTERING/ LEAVING TEMP. (°F)	WORKING FLUID	HEAD LOSS (FT)	NUMBER OF ROWS	FINS PER INCH	MINIMUM FACE AREA (FT^2)	FAN QUANTITY	MOTOR SIZE (HP)	MOTOR RPM	FLA	VOLT/PH/HZ	LENGTH/ WIDTH/ HEIGHT (IN)	NOTES
FC-1	GREENHECK LFC-65-FC-20	HEATING	3,000	214,500	0/70	0.5	25	150/130	40% GLYCOL	7.0	2.0	10.0	6.5	1	2	1725	7.5	208/3/60	55/50/26	1

1. FAN COIL TO BE PROVIDED WITH VFD.

HEAT EXCHANGER SCHEDULE

					SOURCE SIDE				LOAD SIDE				PHYSICAL		
ID	MANUFACTURER AND MODEL NUMBER	TYPE	SYSTEM SERVED	LOAD (BTU/H)	FLOW RATE (GPM)	ENTERING HX/ LEAVING HX TEMP. (°F)	WORKING FLUID	HEAD LOSS (FT)	FLOW RATE (GPM)	ENTERING HX/ LEAVING HX TEMP. (°F)	WORKING FLUID	HEAD LOSS (FT)	LENGTH / WIDTH / NO. PLATES (IN/IN)	SURFACE AREA (FT^2)	NOTES
HX-1	SONDEX S47-IS10-150-TMTL69	PLATE & FRAME	CONDENSER WATER	2,540,000	510	78/88	WATER	25	510	90/80	WATER	25	53/20/150	819	1
HX-2	SONDEX PHE-S19A-IG10-38-TLA	PLATE & FRAME	BOILER SYSTEM	884,000	60	160/130	WATER	10	50	110/150	40% P. GLYCOL	10	18/16/38	86.3	1

1. ASME CERTIFIED.

FLUID-TO-AIR HEAT PUMP SCHEDULE

			AIR SIDE					FLUID					ELECTRICAL						PHYSICAL	
ID	MANUFACTURER AND MODEL NUMBER	ARRANGEMENT	TOTAL AIRFLOW RATE (CFM)	TOTAL COOLING LOAD (MBH)	SENSIBLE COOLING LOAD (MBH)	HEATING LOAD (MBH)	STATIC PRESSURE (IN H2O)	WORKING FLUID	FLOW RATE (GPM)	MAXIMUM WATER PRESSURE DROP (FT)	WATER CONNECTION SIZE (IN)	CONDENSATE CONNECTION SIZE (IN)	EER	COP	FLA	MCA	MOCP	VOLT/PH	WIDTH / LENGTH / HEIGHT (IN)	NOTES
HP-009	CLIMATEMASTER TSH009	HORIZONTAL	300	9.9	6.8	11.6	0.3	WATER	2.1	15	0.5	0.75	15.3	4.8	4.3	5.3	15	208/1	25/43/18	1,2,3,4,5,6
HP-018	CLIMATEMASTER TSH018	HORIZONTAL	750	19.9	15.4	23.0	0.5	WATER	4.1	15	0.75	0.75	16.5	5.9	11.6	13.7	20	208/3	25/63/20	1,2,3,4,5,7
HP-036	CLIMATEMASTER TSH036	HORIZONTAL	1250	35.2	26.4	41.5	0.5	WATER	6.8	15	0.75	0.75	17.6	5.8	14.3	16.9	25	208/3	28/72/21	1,2,3,4,5,7
HP-048	CLIMATEMASTER TSH048	HORIZONTAL	1550	50.4	36.4	62.4	0.5	WATER	9.0	15	1.0	0.75	15.9	5.2	21.5	25.2	35	208/3	28/76/21	1,2,3,4,5,7
HP-060	CLIMATEMASTER TSH060	HORIZONTAL	1825	64.3	46.8	72.9	0.5	WATER	11.3	15	1.0	0.75	16.4	5.2	24.5	28.9	45	208/3	28/82/21	1,2,3,4,5,7
VHP-060	CLIMATEMASTER TSV060	VERTICAL	1825	60.8	45.5	72.9	0.5	WATER	11.3	15	1.0	0.75	16.4	5.2	24.5	28.9	45	208/3	28/82/21	1,2,3,4,5,7
CHP-018	CLIMATEMASTER TRC018	CONSOLE	620	15.3	11.8	19.7	0.15	WATER	3.4	15	0.8	0.75	13.0	4.5	7.5	9.2	15	208/1	54/12/21	1,2,3,4,6

1. COOLING CAPACITIES BASED ON 80°F ENTERING WATER TEMPERATURE, 80°F DRYBULB ENTERING AIR TEMPERATURE AND 67° WETBULB ENTERING AIR TEMPERATURE.
2. HEATING CAPACITIES BASED ON 68°F ENTERING WATER TEMPERATURE AND 68°F DRYBULB ENTERING AIR TEMPERATURE.
3. BALANCE UNITS TO THE CFM LISTED UNLESS NOTED OTHERWISE.
4. EER AND COP ARE LISTED AT ARI CONDITIONS.
5. PROVIDE WITH FLEXIBLE DUCT CONNECTORS AT UNIT INLET AND OUTLET.
6. PROVIDE UNIT WITH PSC MOTOR.
7. PROVIDE UNIT WITH ECM MOTOR.

EXPANSION TANK SCHEDULE

				FLUID		PHYSICAL				
ID	MANUFACTURER AND MODEL NUMBER	SYSTEM SERVED	TYPE	WORKING FLUID	MIN. TANK/ ACCEPTANCE (GAL)	TANK SIZE (GAL)	RELIEF VALVE (PSIG)	DIA./ HEIGHT (IN)	NPT FITTING (IN)	NOTES
ET-1	B&G B-1600	HEAT PUMP LOOP	VERTICAL, BLADDER	WATER	422	422	30	48/70	1.5	-
ET-2	B&G B-600	HOT WATER LOOP	VERTICAL, BLADDER	40% P. GLYCOL	158	158	30	30/64	1.5	-

GRILLES, REGISTERS AND DIFFUSERS

MANUFACTURER	MODEL	MAX NC	APPLICATION	DESCRIPTION
EH PRICE	SMD	30	CEILING MOUNTED SUPPLY AIR	LOUVERED FACE DIRECTIONAL CEILING DIFFUSERS. REMOVABLE FACE, WITH O.B.D. FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24" x 24", 24" x 12" OR 12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE. PROVIDE ROUND NECK ADAPTER
EH PRICE	PDDR	30	CEILING MOUNTED RETURN AIR	PERFORATED FACE RETURN AIR UNIT, REMOVABLE FACE & CORE. FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24" x 24", 24" x 12" OR 12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE.
EH PRICE	PDDR	30	CEILING MOUNTED EXHAUST AIR	PERFORATED FACE RETURN AIR UNIT, REMOVABLE FACE & CORE. FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24" x 24", 24" x 12" OR 12" x 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE.

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MECHANICAL SCHEDULES

REVISION	DATE	BY	DESCRIPTION

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HOOD SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	TYPE	AIR: MAXIMUM AIRFLOW RATE (CFM)	AIR: STATIC PRESSURE (IN. WATER)	PHYSICAL: INLET HEIGHT ABOVE ROOF (IN)	PHYSICAL: TOTAL HEIGHT (IN)	PHYSICAL: THROAT LENGTH / WIDTH (IN)	PHYSICAL: HOOD LENGTH / WIDTH (IN)	NOTES
RH-1	COOK GI	INTAKE	3150	0.1	24	40	16/30	30/48	-.-

PUMP SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	SYSTEM SERVED	TYPE	FLUID: FLOW RATE (GPM)	FLUID: WORKING FLUID	FLUID: HEAD LOSS (FT)	PUMP: EFFICIENCY (%)	ELECTRICAL: MOTOR SIZE (HP)	ELECTRICAL: MOTOR BHP (HP)	ELECTRICAL: MOTOR SPEED (RPM)	ELECTRICAL: VOLT/PH	NOTES
P-1	B&G 1510 4E	HEAT PUMP LOOP	BASE MOUNTED	510	WATER	80	80	15	12.9	1750	208/3	1
P-2	B&G 1510 4E	HEAT PUMP LOOP	BASE MOUNTED	510	WATER	80	80	15	12.9	1750	208/3	1
BP-1	PRE-PACKAGED WITH BOILER	B-1	INLINE	70	WATER	-	-	0.5	-	-	120/1	2
BP-2	PRE-PACKAGED WITH BOILER	B-2	INLINE	70	WATER	-	-	0.5	-	-	120/1	2
CWP-1	B&G 1510 3BC	CONDENSER WATER	BASE MOUNTED	510	WATER	60	79	15	9.9	1750	208/3	-
CWP-2	B&G 1510 3BC	CONDENSER WATER	BASE MOUNTED	510	WATER	60	79	15	9.9	1750	208/3	-
CHWP-1	B&G 1510 3BC	HX-1	BASE MOUNTED	510	WATER	45	75	10	7.9	1750	208/3	-
CHWP-2	B&G 1510 3BC	HX-1	BASE MOUNTED	510	WATER	45	75	10	7.9	1750	208/3	-
HWP-1	B&G 90 2A	HOT WATER LOOP	INLINE	100	WATER	45	65	3	1.8	1750	208/3	-
HWP-2	B&G 90 1-1/4AA	HOT WATER LOOP	INLINE	50	40% P. GPYCOL	60	55	2	1.4	3450	208/3	-
SMP-1	GRUNDFOS CR 1-2	SNOWMELT ZONE 1	INLINE	5	40% P. GPYCOL	15	50	0.33	-	3450	208/3	-
SMP-2	GRUNDFOS CR 5-3	SNOWMELT ZONE 2	INLINE	22	40% P. GPYCOL	15	43	1	-	3450	208/3	-
SMP-3	GRUNDFOS CR 3-4	SNOWMELT ZONE 3	INLINE	9	40% P. GPYCOL	15	46	0.75	-	3450	208/3	-
SMP-4	GRUNDFOS CR 10-2	SNOWMELT ZONE 4	INLINE	5	40% P. GPYCOL	15	50	0.33	-	3450	208/3	-

1. PROVIDE PUMP WITH VFD.
2. BOILER PUMP TO BE PRE-PIPED AND WIRED WITH THE BOILER FROM THE FACTORY. BOILER PACKAGE TO BE PROVIDED WITH A SINGLE POINT CONNECTION.

HOT WATER UNIT HEATER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	AIR: AIRFLOW RATE (CFM)	AIR: LOAD (BTU/H)	AIR: ENTERING/ LEAVING TEMP. DB (°F)	FLUID: FLOW RATE (GPM)	FLUID: ENTERING/ LEAVING TEMP. (°F)	FLUID: WORKING FLUID	FLUID: HEAD LOSS (FT)	ELECTRICAL: MOTOR SIZE (HP)	ELECTRICAL: MOTOR SPEED (RPM)	ELECTRICAL: AMPS	ELECTRICAL: VOLT/PH/HZ	NOTES
UH-1	MODINE HSB-86	MECHANICAL ROOM	2010	60,000	60/92	6.0	160/140	WATER	1	1/8	1625	2.3	115/1/60	-.-

ELECTRIC UNIT HEATER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	TYPE	USAGE	AIRFLOW RATE (CFM)	LOAD (BTU/H)	KW	VOLT/PH/HZ	NOTES
EH-1	MODINE E3322TD-RP	WALL MOUNTED	HEATING	175	3,400	1.0	120/1/60	1
EH-2	MODINE F4420TRP	WALL MOUNTED	HEATING	70	6,800	2.0	208/1/60	1
EH-3	MODINE E3327TD-RP	WALL MOUNTED	HEATING	175	16,560	4.8	208/1/60	1

1. PROVIDE UNIT WITH INTEGRAL THERMOSTAT AND DICSONNECT SWITCH.

COOLING TOWER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	FAN HEAT REJECTION (BTUH)	AMBIENT TEMP. DB/WB (°F)	FLUID: FLOW RATE (GPM)	FLUID: ENTERING/ LEAVING TEMP. (°F)	FLUID: WORKING FLUID	FLUID: MAXIMUM PRESSURE DROP (FT)	ELECTRICAL, FAN: MOTOR QUAN.	ELECTRICAL, FAN: MOTOR SIZE (HP)	ELECTRICAL, FAN: MOTOR SPEED (RPM)	ELECTRICAL, FAN: TOWER CIRCUIT VOLT/PH	ELECTRICAL, FAN: CONTROL CIRCUIT VOLT/PH	PHYSICAL: OPERATING WEIGHT (LB)	PHYSICAL: LENGTH/ WIDTH/ HEIGHT (IN)	NOTES
CT-1	BAC VT0-145-M	2,550,000	97/62	510	88/78	WATER	10	1	20	1750	208/3	120/1	6,500	144/60/144	1,2,3,4,5,6

1. OVERSIZED BOTTOM OUTLET CONNECTION.
2. PROVIDE WITH 8 KW ELECTRIC BASIN HEATER.
3. CONDENSER WATER DISCHARGE PIPE TO BE WRAPPED WITH HEAT TRACE TAPE, SEE SPECIFICATIONS.
4. PROVIDE UNIT ON A 72" TALL STAND.
5. BASIN HEATER REQUIRES SEPARATE ELECTRICAL CONNECTION AND CIRCUIT BY ELECTRICAL CONTRACTOR.
6. COOLING TOWER FAN TO BE PROVIDED WITH VFD.

FAN SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	TYPE	AIR TYPE	AIR: MAXIMUM AIRFLOW RATE (CFM)	AIR: STATIC PRESSURE (IN. WATER)	FAN: FAN SPEED (RPM)	FAN: FAN WHEEL DIAMETER (IN)	ELECTRICAL: MOTOR SIZE (HP)	ELECTRICAL: VOLT/PH	PHYSICAL: LENGTH/ WIDTH/ HEIGHT (IN)	NOTES
EF-1	COOK GC-144	CEILING	EXHAUST	60	0.50	925	-	98 WATTS	120/1	16/16/9	2,3
EF-2	COOK GC-162	CEILING	EXHAUST	100	0.50	1100	-	103 WATTS	120/1	16/16/9	2,4
EF-3	COOK ACED 120	ROOF MOUNTED	EXHAUST	750	0.50	1200	12	1/4	120/1	29/29/27	1,4
EF-4	COOK ACED 100	ROOF MOUNTED	EXHAUST	400	0.50	1450	10	1/8	120/1	19/19/17	1,4

1. FAN TO BE PROVIDED WITH BACKDRAFT DAMPER, BIRD SCREEN AND INTEGRAL SPEED CONTROL.
2. FAN TO BE PROVIDED WITH BACKDRAFT DAMPER AND INTEGRAL SPEED CONTROL.
3. FAN CONTROL TO BE TIED TO LIGHT SWITCH.
4. FAN CONTROL TO BE TIED TO OCCUPANCY SCHEDULE.

AIR SEPARATOR SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	SYSTEM SERVED	FLUID: FLOW RATE (GPM)	FLUID: WORKING FLUID	FLUID: MAXIMUM WORKING PRESSURE (PSI)	PHYSICAL: DIA./ HEIGHT (IN)	NOTES
AS-1	B&G R-6	HEAT PUMP LOOP	510	WATER	150	18/43	-
AS-2	B&G R-4	BOILER SYSTEM	125	WATER	150	13/31	-

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MECHANICAL SCHEDULES

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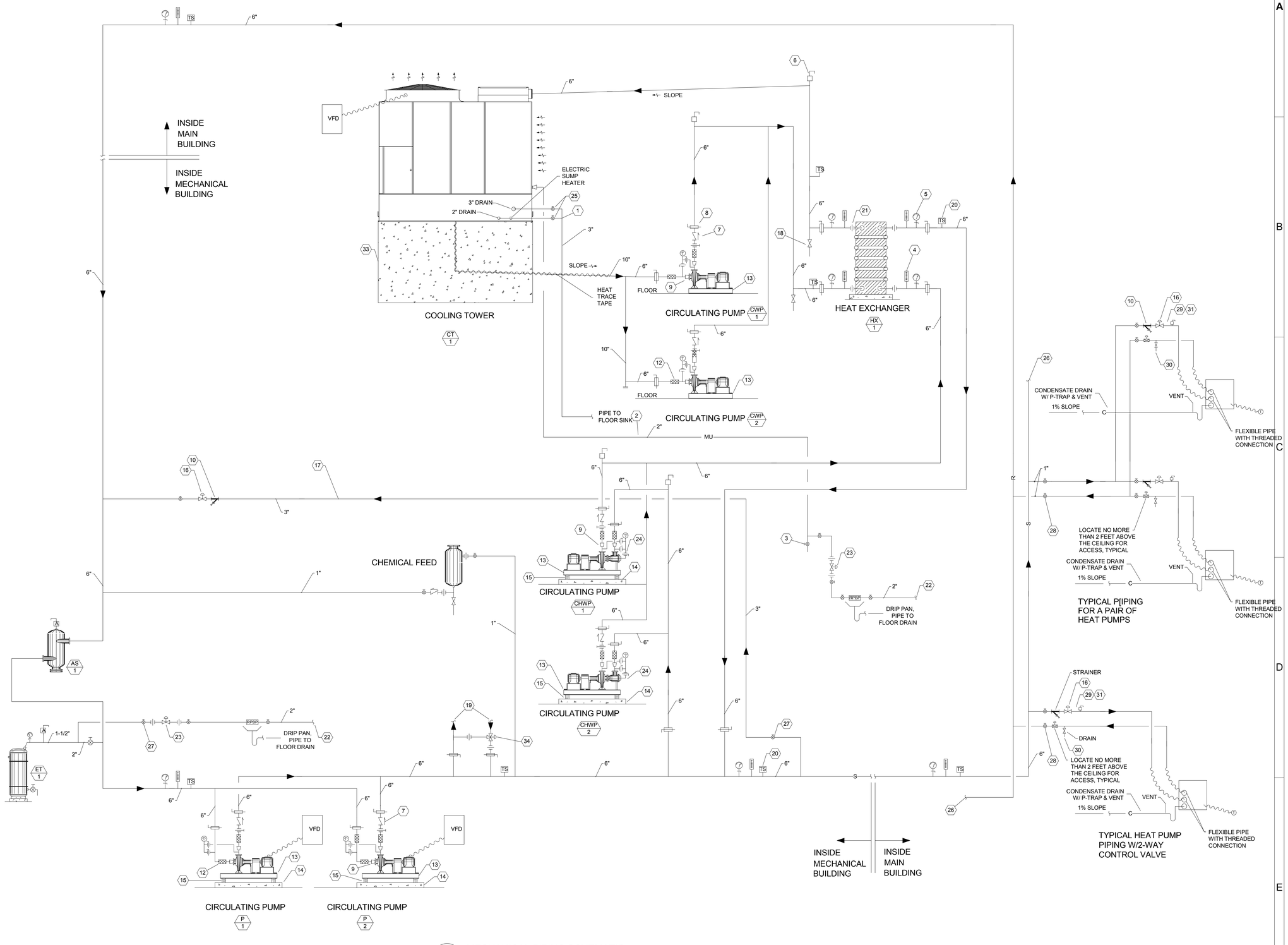

1 / M701 MECHANICAL PIPING SCHEMATIC
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KEYED NOTES

1. BASIN DRAIN AND OVERFLOW DRAIN. INSTALL TO THE FLOOR SINK IN THE MECHANICAL ROOM.
2. COOLING TOWER MAKE UP WATER.
3. MAKE UP WATER DRAIN. INSTALL TO THE FLOOR SINK IN THE MECHANICAL ROOM.
4. THERMOMETER, TYPICAL.
5. PRESSURE GAGE, TYPICAL. LIQUID FILLED.
6. AIR VENT, TYPICAL. LOCATED AT ALL HIGH POINTS.
7. CHECK VALVE, TYPICAL. NON SLAM.
8. BUTTERFLY VALVE, TYPICAL.
9. REDUCER, TYPICAL.
10. STRAINER, TYPICAL.
11. BALANCING VALVE, TYPICAL.
12. ELASTOMERIC VIBRATION ELIMINATOR, TYPICAL.
13. PUMP FRAME, TYPICAL.
14. 4" CONCRETE HOUSEKEEPING PAD, TYPICAL.
15. PUMP INERTIA BASE WITH VIBRATION ISOLATORS, TYPICAL.
16. 2-WAY AUTOMATIC TEMPERATURE CONTROL VALVE, TYPICAL.
17. BYPASS.
18. DRAIN SHUTOFF VALVE, TYPICAL.
19. FOR CONTINUATION SEE BOILER SCHEMATIC.
20. TEMPERATURE SENSOR BY ATC CONTRACTOR, TYPICAL.
21. UNION, TYPICAL.
22. FROM BUILDING'S WATER SUPPLY. SEE PLUMBING PLANS FOR CONTINUATION.
23. MAKE UP WATER CONTROL VALVE BY ATC CONTRACTOR.
24. PUMP TO BE INCLUDED WITH SUCTION DIFFUSER.
25. DRAIN VALVE. PIPE TO FLOOR SINK INSIDE THE BUILDING.
26. SEE FLOOR PLANS FOR PIPING LOOP TO OTHER HEAT PUMPS, TYPICAL.
27. SHUTOFF VALVE, TYPICAL.
28. FLOW CONTROL VALVE. SEE SPECIFICATIONS, TYPICAL.
29. INSTALL CONTROLS, VALVES, ACCESSORIES WITHIN 24" OF ANY CEILING, TYPICAL.
30. SHUTOFF VALVE WITH DRAIN. CAPPED.
31. HEAT PUMP HOSE KITS ARE SHIPPED PRE-ASSEMBLED. DIS-ASSEMBLE IN THE FIELD AND RE-ASSEMBLE PER THE PLANS. SEE THE SPECIFICATIONS, TYPICAL.
32. TEMPERATURE SENSOR BY ATC CONTRACTOR, TYPICAL.
33. CONCRETE PIERS WITH FOOTINGS UNDER THE COOLING TOWER. SEE STRUCTURAL PLANS AND COORDINATE WITH STRUCTURAL CONTRACTOR. PIERS TO BE 7'-0" ABOVE FINISHED MAIN LEVEL FLOOR.
34. 3-WAY CONTROL VALVE, TYPICAL.

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MECHANICAL PIPING SCHEMATIC

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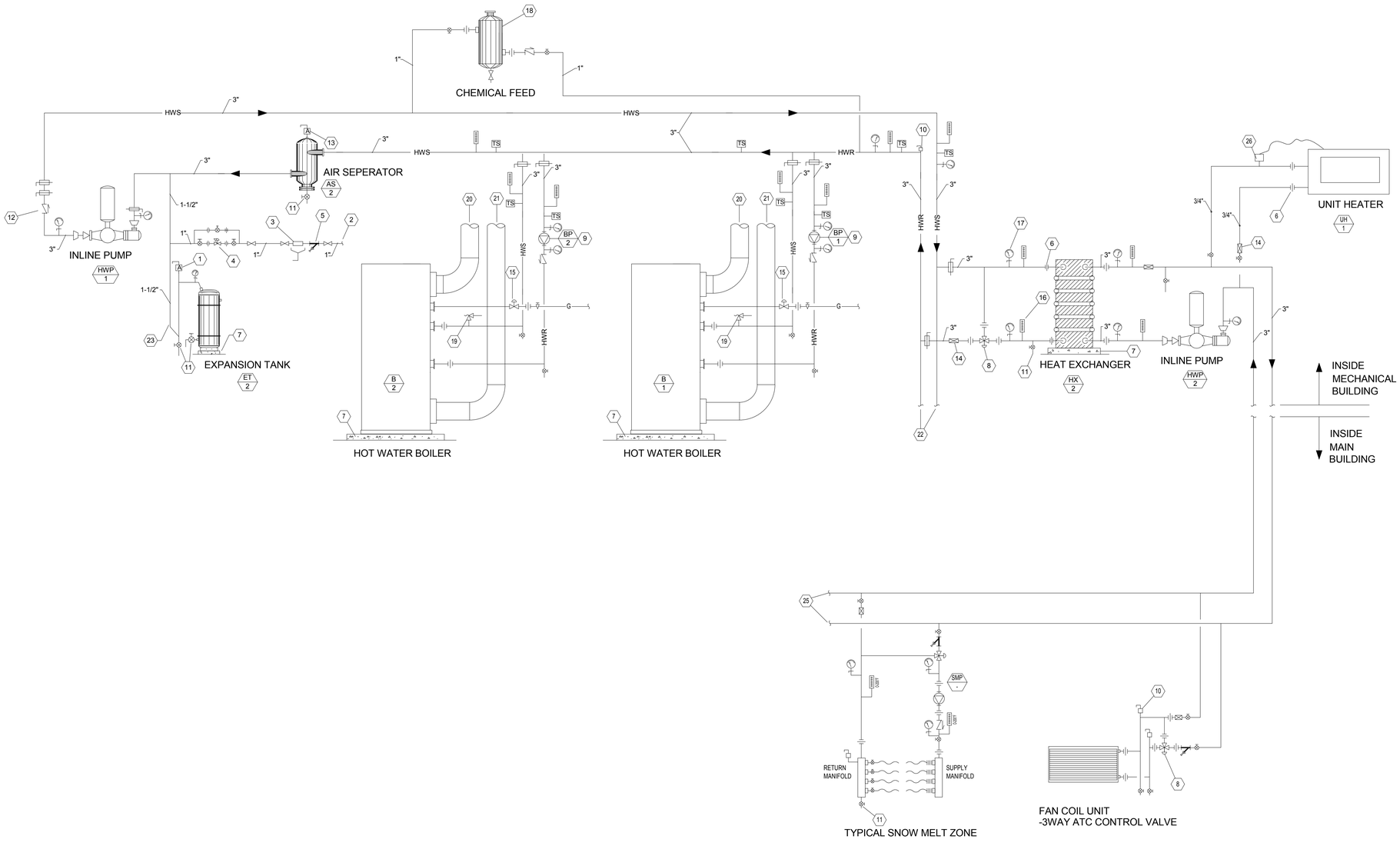

1 M702 BOILER SCHEMATIC

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KEYED NOTES

1. AIR VENT.
2. FROM BUILDING'S WATER SUPPLY, SEE PLUMBING PLANS.
3. REDUCED PRESSURE BACKFLOW PREVENTOR. PROVIDE FUNNEL AND DRAIN LINE FROM BACKFLOW PREVENTORS TO NEAREST FLOOR DRAIN.
4. PRV AND SELF FILL VALVE SET A 15 PSI ABOVE WORKING PRESSURE OF 15 PSI.
5. Y-STRAINER. PROVIDE DRAIN VALVE WITH THREADED HOSE CONNECTION AND CAP.
6. UNION OR FLANGE, TYPICAL.
7. 4" HOUSEKEEPING PAD, TYPICAL.
8. 3-WAY CONTROL VALVE, TYPICAL.
9. BOILER PUMP TO BE INCLUDED WITH THE BOILER.
10. MANUAL AIR VENT, TYPICAL. PROVIDE ADDITIONAL MANUAL AIR VENTS AT ALL HIGH POINTS IN SYSTEM.
11. DRAIN VALVE, TYPICAL. PROVIDE WITH HOSE CONNECTION AND CAP.
12. NON-SLAM CHECK VALVE, TYPICAL.
13. HIGH CAPACITY AUTOMATIC AIR VENT.
14. CIRCUIT SETTER. BALANCE TO GPM SHOWN, TYPICAL.
15. BOILER GAS TRAIN.
16. THERMOMETER, TYPICAL.
17. PRESSURE GAUGE WITH SHUT-OFF COCK, TYPICAL.
18. 5 GAL. CHEMICAL FEED TANK WITH REMOVABLE SCREW-TOP LID.
19. PIPE DISCHARGE FROM SAFETY RELIEF VALVE TO FLOOR DRAIN.
20. COMBUSTION AIR DUCT.
21. FLUE.
22. FOR CONTINUATION SEE MECHANICAL PIPING SCHEMATIC.
23. INSTALL PIPE DOWN TO WITHIN 18" OF THE FLOOR THEN UP TO EXPANSION TANK FOR A HEAT TRAP.
24. BALANCING BUTTERFLY VALVE, TYPICAL.
25. FOR CONTINUATION SEE MECHANICAL PIPING PLANS.
26. AQUASTAT.

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BOILER SCHEMATIC

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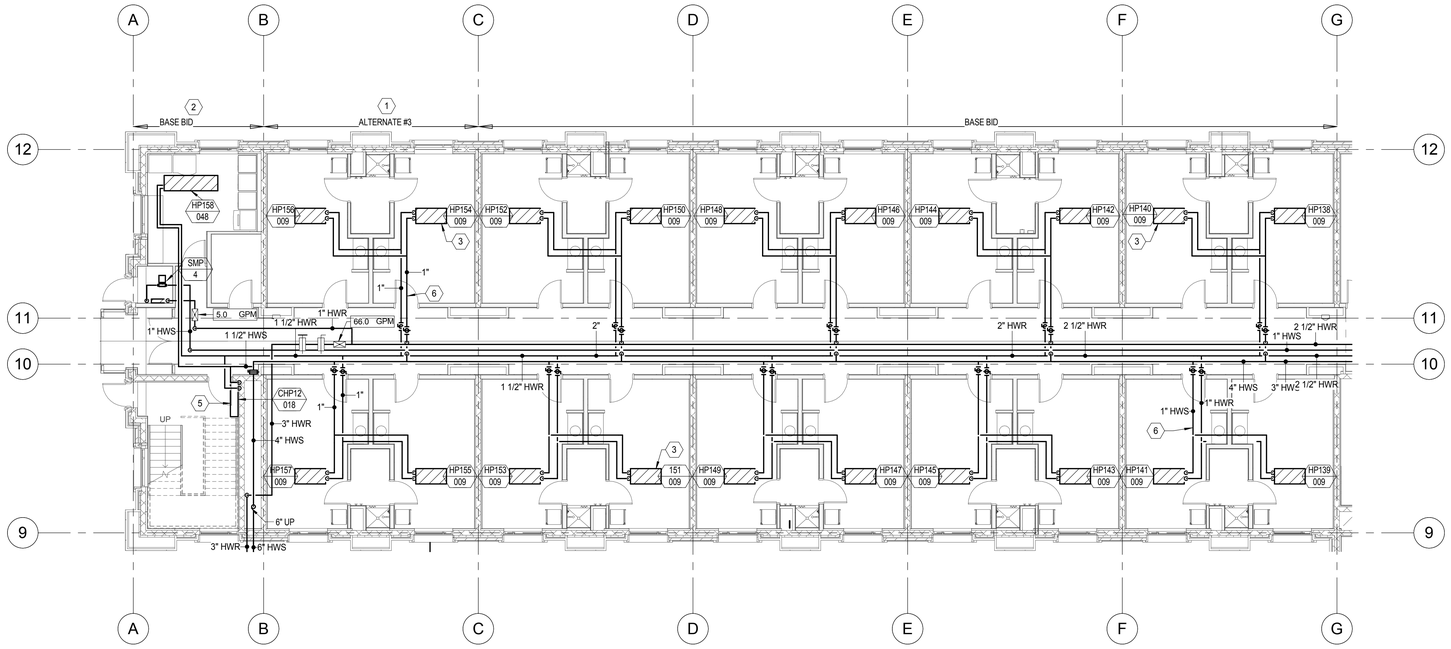
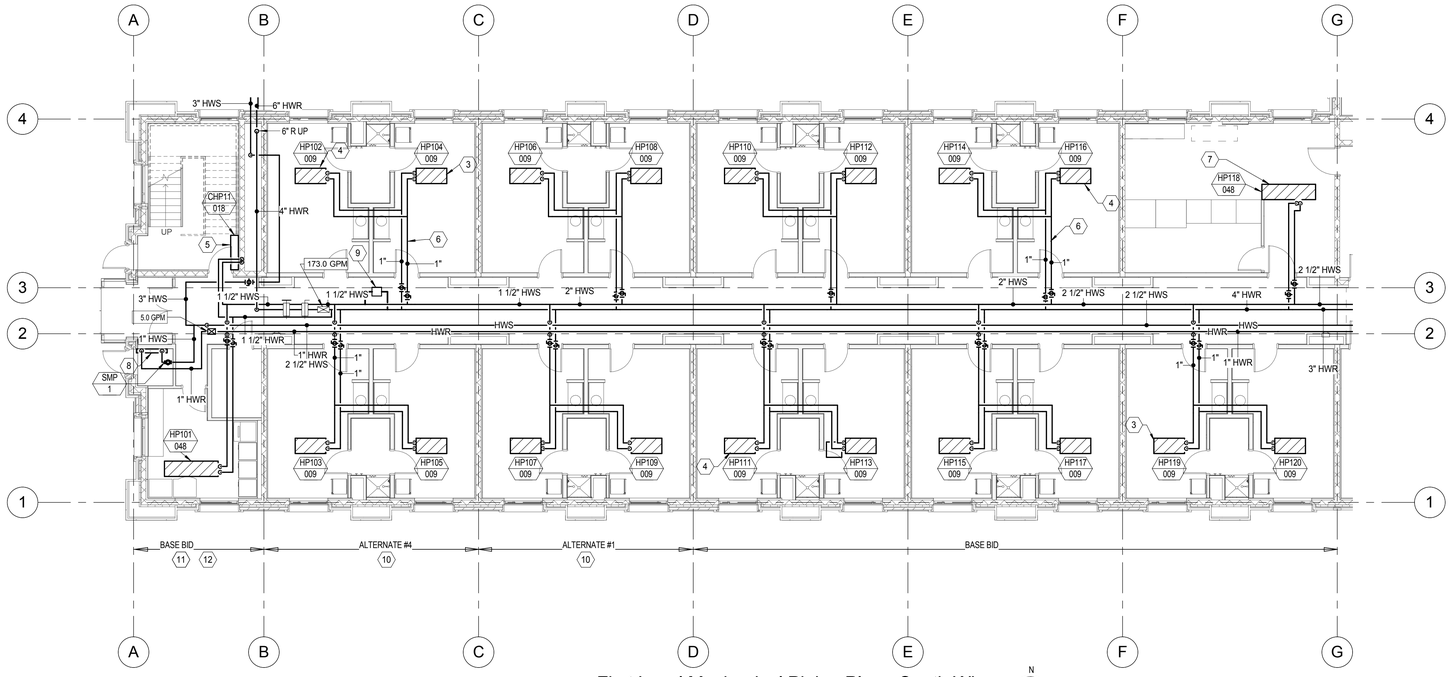


1 First Level Mechanical Piping Plan - North Wing
SCALE: 1/8" = 1'-0"



2 First Level Mechanical Piping Plan - South Wing
SCALE: 1/8" = 1'-0"

[redacted]

KEY PLAN

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GENERAL NOTES

1. DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY ALL ROUTING AND COORDINATE WITH ALL OTHER TRADES.
2. INSTALL MANUAL AIR VENTS AT ALL HYDRONIC SYSTEM HIGH POINTS.
3. MECHANICAL PIPING TO BE INSTALLED ABOVE DUCTWORK AND EQUIPMENT EXCEPT WHERE SHOWN.
4. FIELD VERIFY ALL EQUIPMENT LOCATIONS.

SHEET KEYNOTES

1 ALTERNATE ASSOCIATED WITH THE NORTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

2 IF ALTERNATE #3 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 9 TO 12 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

3 ROUTE CONDENSATE LINE TO BILLET SINK TAILPIECE, TYPICAL FOR ALL BILLET HEAT PUMPS.

4 EQUIPMENT AND GRILLES SHOWN FOR REFERENCE. SEE TYPICAL BILLET ENLARGED PLAN FOR EXACT LOCATIONS, TYPICAL.

5 PROVIDE UNIT WITH CONDENSATE PUMP. ROUTE PUMPED CONDENSATE LINE TO FLOOR SINK IN LAUNDRY & VENDING ROOM.

6 PIPE SIZE TYPICAL FOR BRANCH SERVING TWO BILLET HEAT PUMPS.

7 ROUTE CONDENSATE LINE TO TRENCH BEHIND LAUNDRY EQUIPMENT.

8 SNOWMELT ZONE HEADER.

9 DIFFERENTIAL PRESSURE TRANSMITTER.

10 ALTERNATE ASSOCIATED WITH THE SOUTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

11 IF ALTERNATE #4 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

12 IF ALTERNATE #1 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO C IS TO MOVE SUCH THAT GRID C IS ALIGNED WITH GRID D. COORDINATE WITH ARCHITECTURAL PLANS.

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FIRST LEVEL MECH PIPING PLAN - NORTH & SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY GR	CHECKED BY BW
PROJECT NO. 11007	DRAWING NO. MP101A
DATE 02/15/2013	

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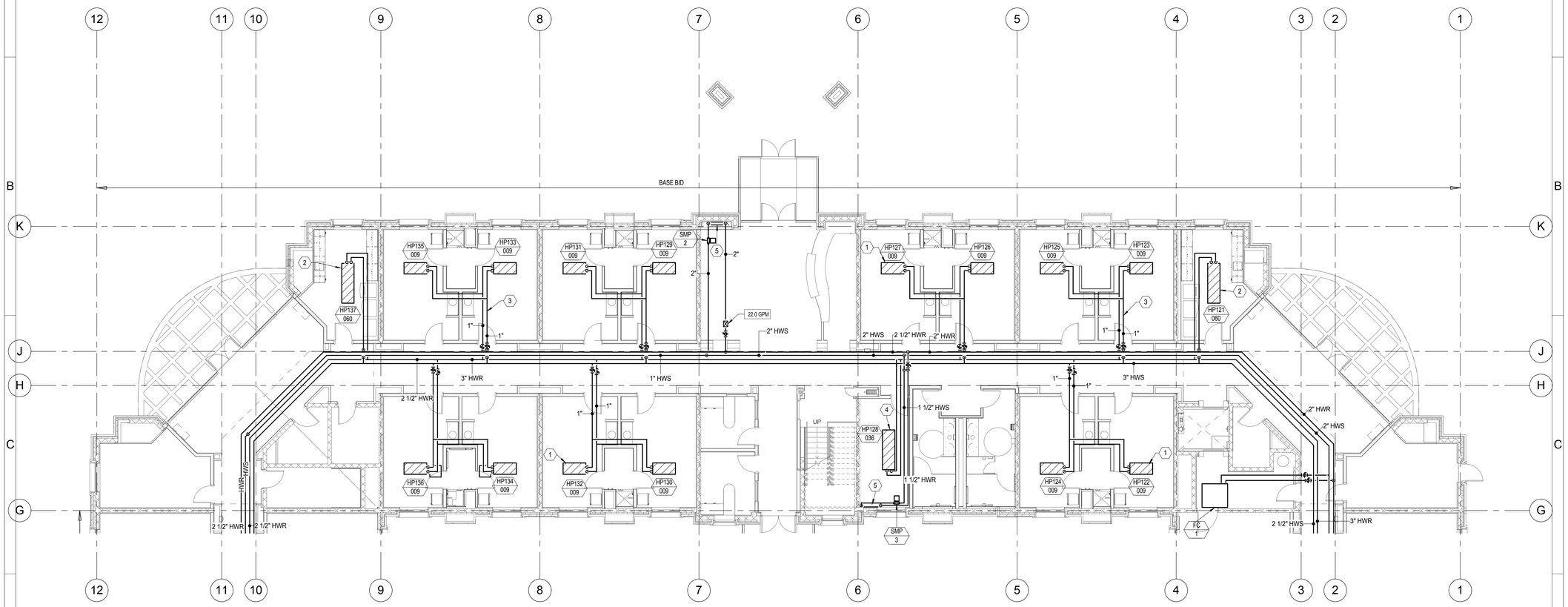
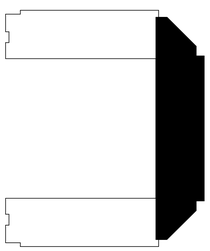


1 First Level Mechanical Piping Plan - East Wing
SCALE: 1/8" = 1'-0"



KEY PLAN

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

PROFESSIONAL ENGINEER 7705747-2202 BRADLEY W. WELCH 11-12-12 STATE OF UTAH

VAN BOERUM & FRANK ASSOCIATES, INC.
CONSULTING ENGINEERS
WWW.VBFA.COM
Salt Lake City • Logan • St. George • Tempe
330 South 300 East 801.530.3148 T
Salt Lake City, UT 84111 801.530.3150 F
VBFA Project Number: 11038

GENERAL NOTES

1. DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY ALL ROUTING AND COORDINATE WITH ALL OTHER TRADES.
2. INSTALL MANUAL AIR VENTS AT ALL HYDRONIC SYSTEM HIGH POINTS.
3. MECHANICAL PIPING TO BE INSTALLED ABOVE DUCTWORK AND EQUIPMENT EXCEPT WHERE SHOWN.
4. FIELD VERIFY ALL EQUIPMENT LOCATIONS.

SHEET KEYNOTES

1 EQUIPMENT AND GRILLES SHOWN FOR REFERENCE. SEE TYPICAL BILLET ENLARGED PLAN FOR EXACT LOCATIONS, TYPICAL.

2 ROUTE CONDENSATE LINE TO FLOOR SINK NEAR ICE MACHINE.

3 PIPE SIZE TYPICAL FOR BRANCH SERVING TWO BILLET HEAT PUMPS.

4 ROUTE CONDENSATE LINE TO LAVATORY TAILPIECE IN MENS RESTROOM.

5 SNOWMELT ZONE HEADER.

BUILDING OFFICIAL APPROVAL

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FIRST LEVEL MECH PIPING PLAN - EAST WING

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO. 11007	DRAWING NO. MP101B
DATE 02/15/2013	

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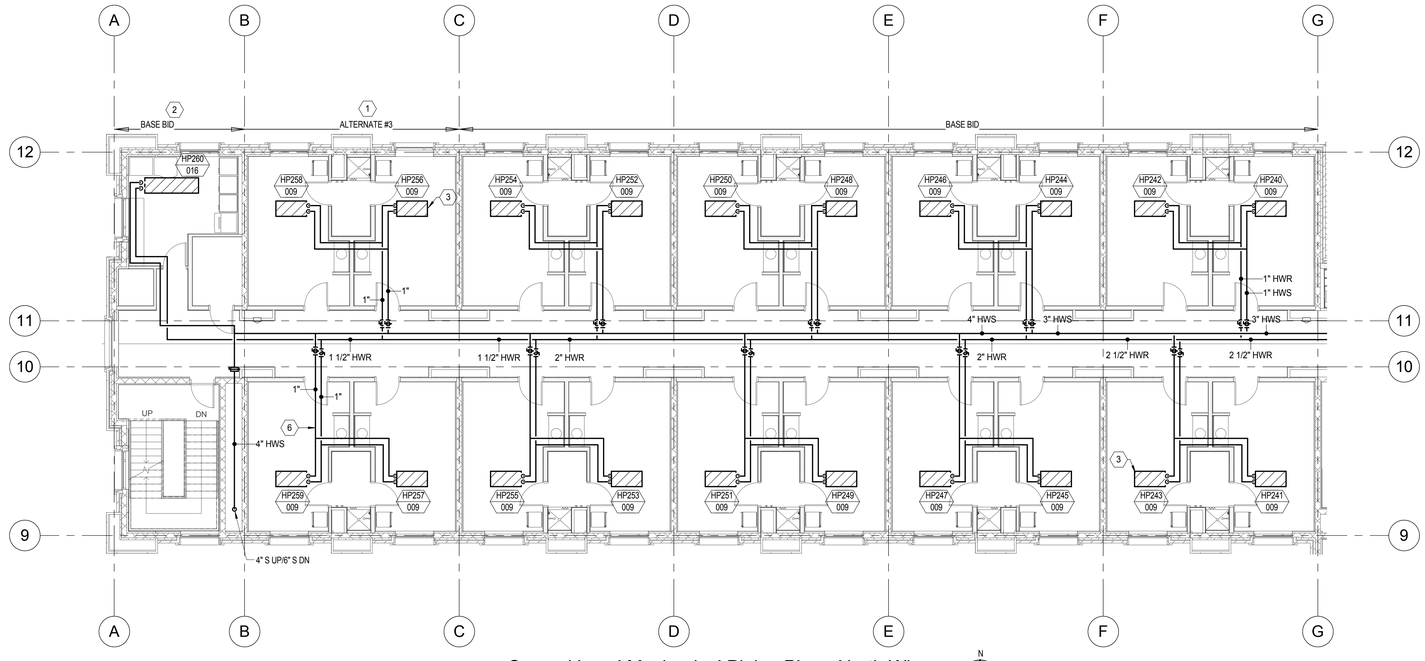
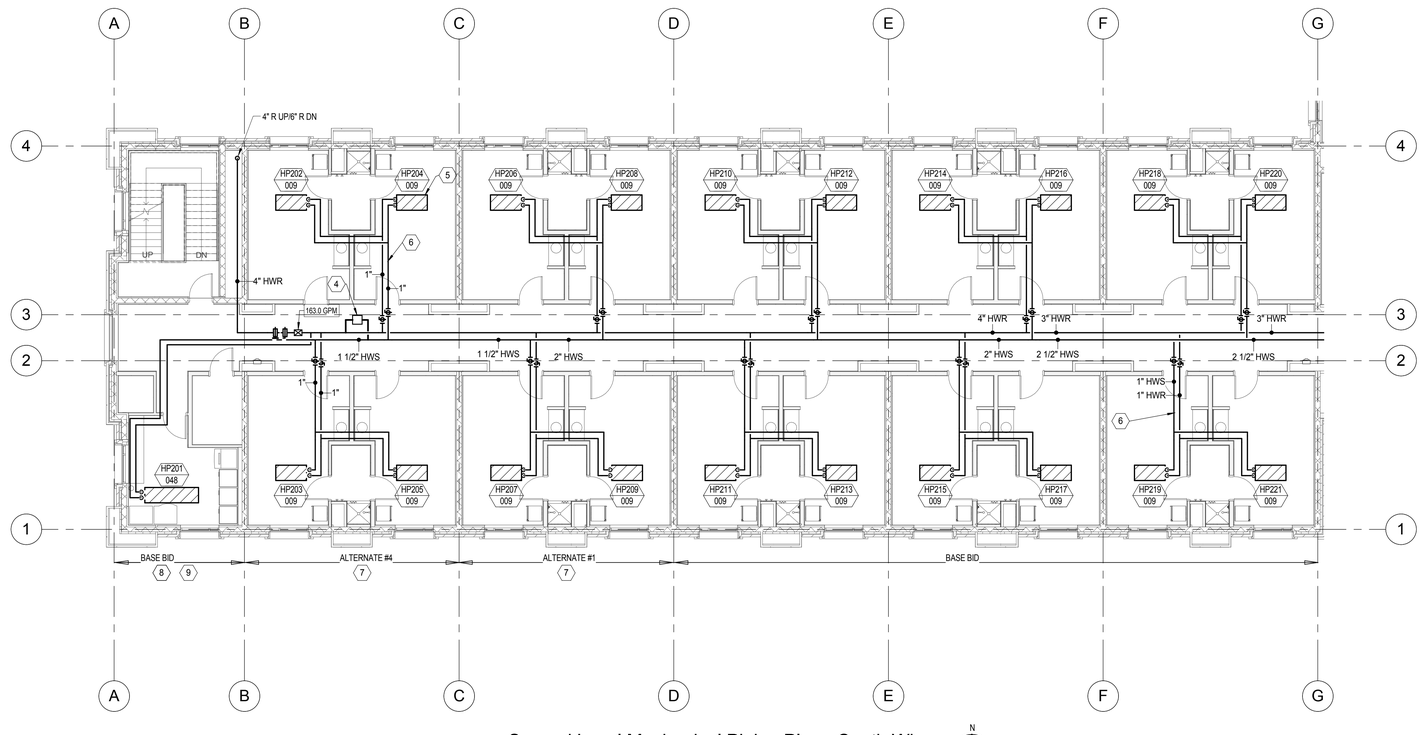


1 Second Level Mechanical Piping Plan - North Wing
SCALE: 1/8" = 1'-0"



2 Second Level Mechanical Piping Plan - South Wing
SCALE: 1/8" = 1'-0"

[redacted]

KEY PLAN

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

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4. FIELD VERIFY ALL EQUIPMENT LOCATIONS.

SHEET KEYNOTES

1 ALTERNATE ASSOCIATED WITH THE NORTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

2 IF ALTERNATE #3 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 9 TO 12 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

3 ROUTE CONDENSATE LINE TO BILLET SINK TAILPIECE, TYPICAL FOR ALL BILLET HEAT PUMPS.

4 DIFFERENTIAL PRESSURE TRANSMITTER.

5 ROUTE CONDENSATE LINE TO FLOOR SINK NEAR ICE MACHINE.

6 PIPE SIZE TYPICAL FOR BRANCH SERVING TWO BILLET HEAT PUMPS.

7 ALTERNATE ASSOCIATED WITH THE SOUTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

8 IF ALTERNATE #4 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

9 IF ALTERNATE #1 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO C IS TO MOVE SUCH THAT GRID C IS ALIGNED WITH GRID D. COORDINATE WITH ARCHITECTURAL PLANS.

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SECOND LEVEL MECH PIPING PLAN - NORTH & SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007	DRAWING NO.: MP102A
DATE: 02/15/2013	

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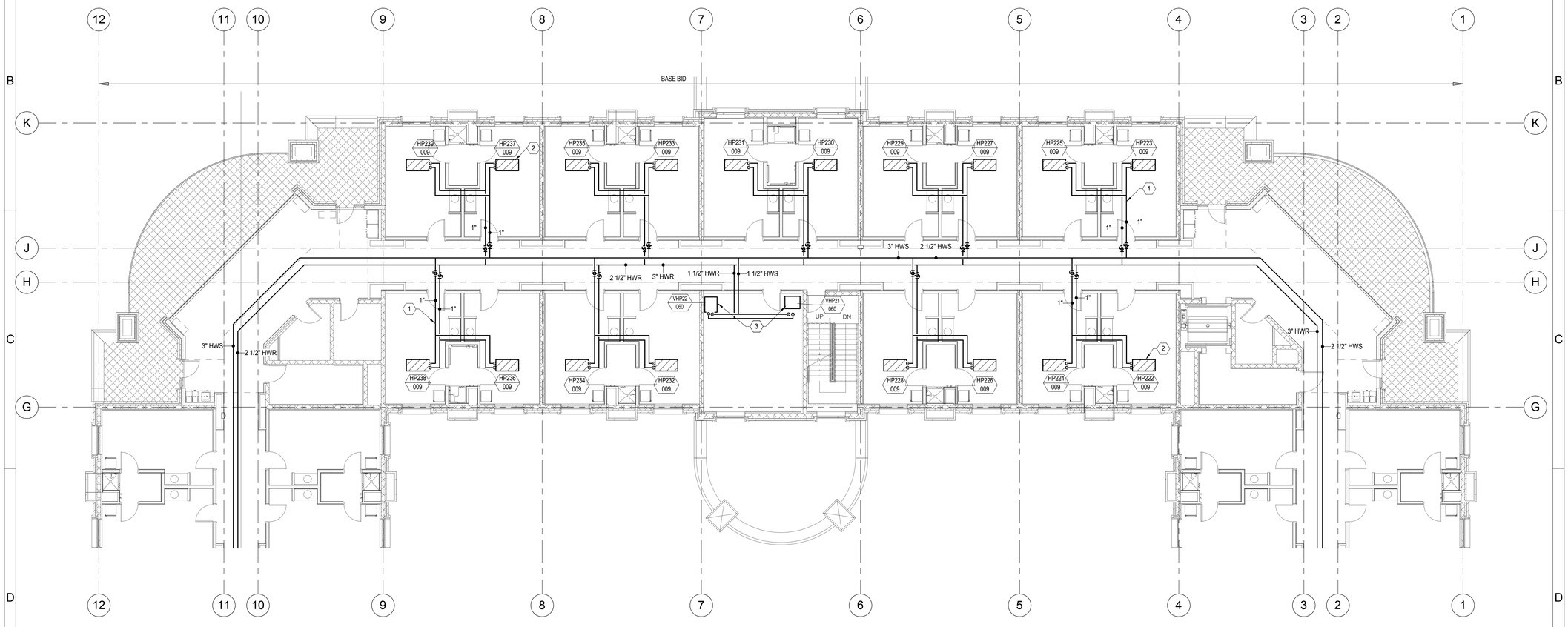
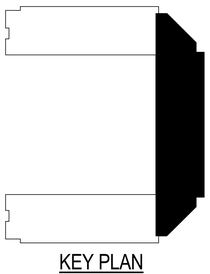


1 Second Level Mechanical Piping Plan - East Wing
SCALE: 1/8" = 1'-0"



KEY PLAN

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SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

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7705747-2202
BRADLEY J. WELCH
11-12-13
STATE OF UTAH

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1 PIPE SIZE TYPICAL FOR BRANCH SERVING TWO BILLET HEAT PUMPS.

2 ROUTE CONDENSATE LINE TO BILLET SINK TAILPIECE, TYPICAL FOR ALL BILLET HEAT PUMPS.

3 ROUTE CONDENSATE LINE THROUGH FLOOR TO LAVATORY TAILPIECE IN MENS RESTROOM BELOW.

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UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84065

SECOND LEVEL MECH PIPING PLAN - EAST WING

REVISION	DATE	BY	DESCRIPTION
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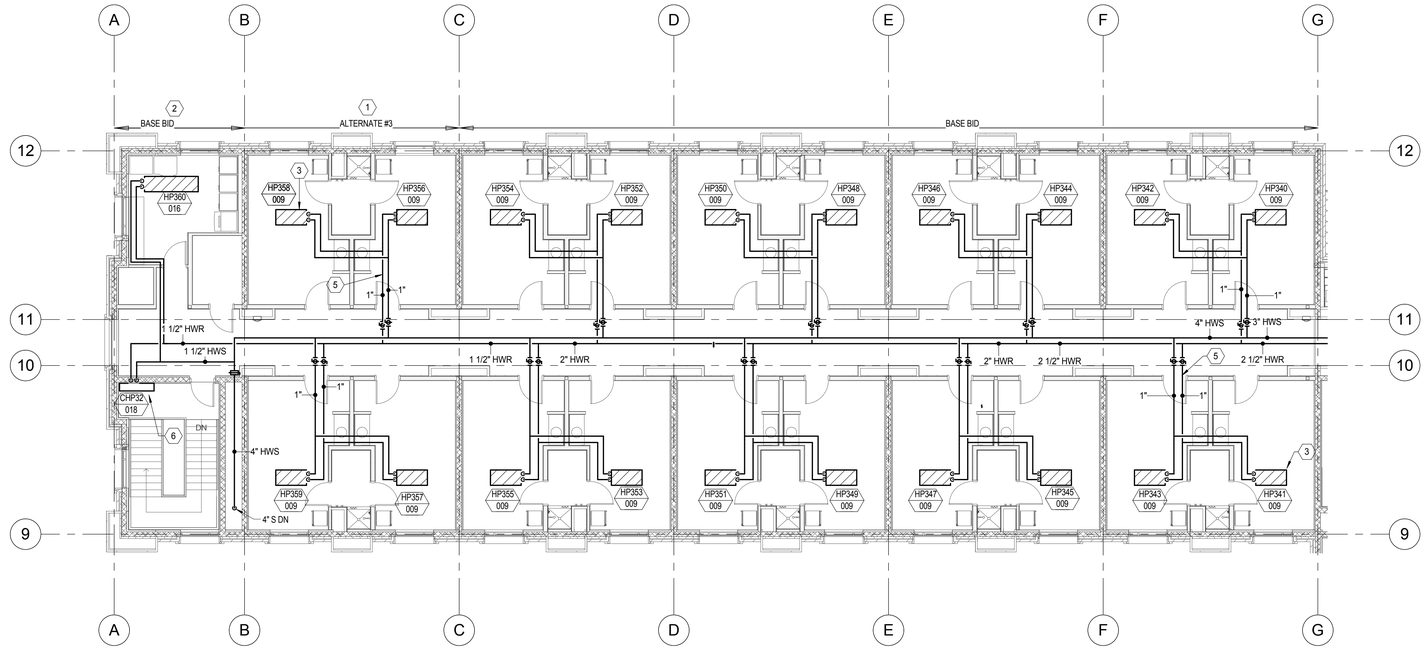
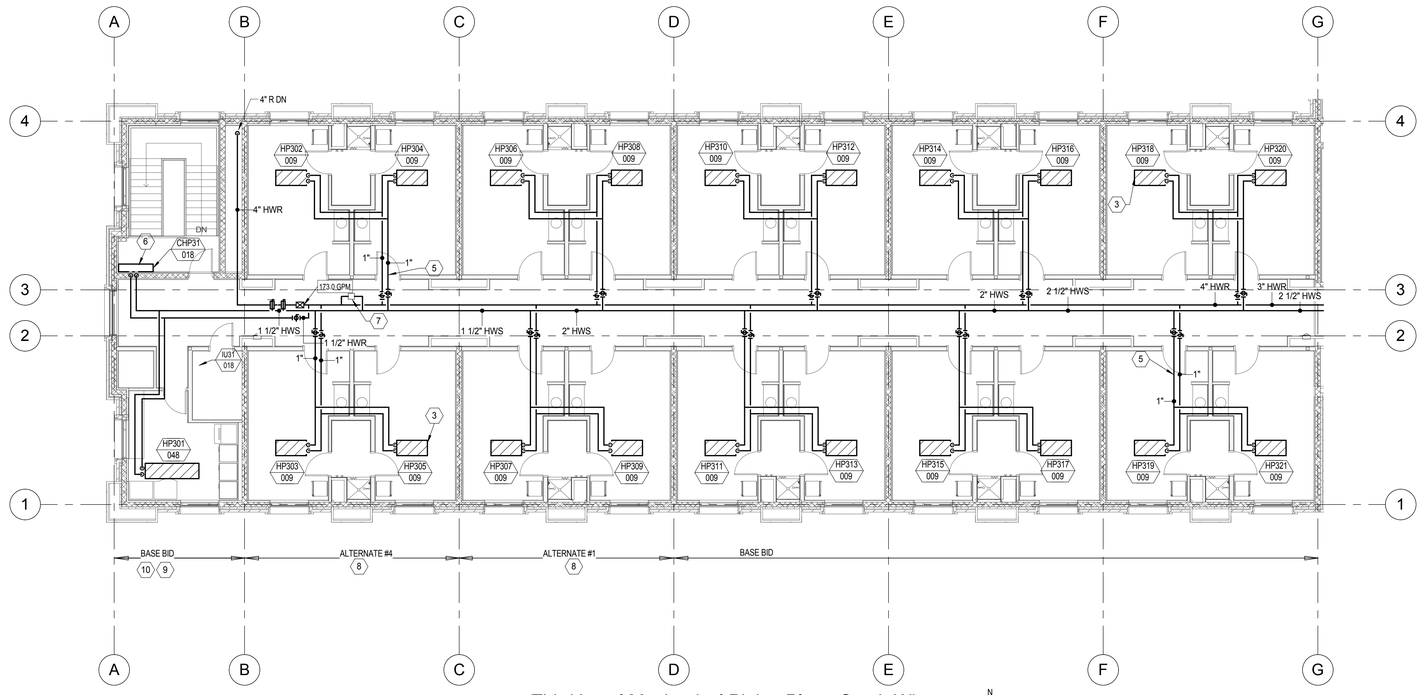
DRAWN BY: GR	CHECKED BY: BW
PROJECT NO.: 11007	DRAWING NO.: MP102B
DATE: 02/15/2013	

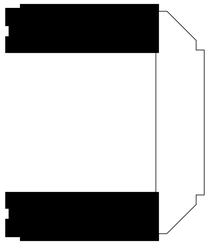
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



1 Third Level Mechanical Piping Plan - North Wing
SCALE: 1/8" = 1'-0"



2 Third Level Mechanical Piping Plan - South Wing
SCALE: 1/8" = 1'-0"



KEY PLAN

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

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SHEET KEYNOTES

1 ALTERNATE ASSOCIATED WITH THE NORTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

2 IF ALTERNATE #3 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 9 TO 12 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

3 ROUTE CONDENSATE LINE TO BILLET SINK TAILPIECE, TYPICAL FOR ALL BILLET HEAT PUMPS.

4 SOLAR HEATING WATER RETURN AND SUPPLY PIPING UP TO SOLAR PANELS ON ROOF. THIS PIPING IS PART OF ALTERNATE #1.

5 PIPE SIZE TYPICAL FOR BRANCH SERVING TWO BILLET HEAT PUMPS.

6 ROUTE CONDENSATE LINE THROUGH FLOOR TO FLOOR SINK IN LAUNDRY & VENDING ROOM ON LEVEL BELOW.

7 DIFFERENTIAL PRESSURE TRANSMITTER.

8 ALTERNATE ASSOCIATED WITH THE SOUTH WING. COORDINATE WITH ARCHITECTURAL PLANS.

9 IF ALTERNATE #1 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO C IS TO MOVE SUCH THAT GRID C IS ALIGNED WITH GRID D. COORDINATE WITH ARCHITECTURAL PLANS.

10 IF ALTERNATE #4 IS NOT INCLUDED IN THE PROJECT, ALL CONSTRUCTION WITHIN GRIDS 1 TO 4 AND A TO B IS TO MOVE SUCH THAT GRID B IS ALIGNED WITH GRID C. COORDINATE WITH ARCHITECTURAL PLANS.

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
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BACHELOR ENLISTED
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RIVERTON, UT 84065

THIRD LEVEL MECH PIPING PLAN - NORTH & SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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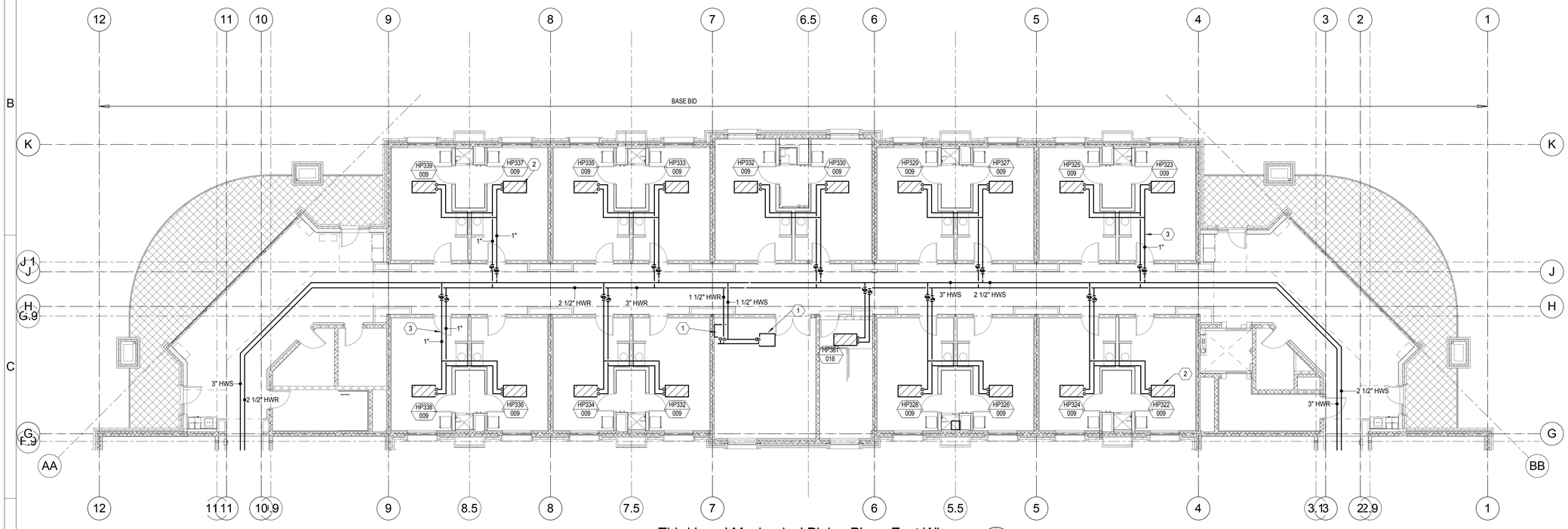
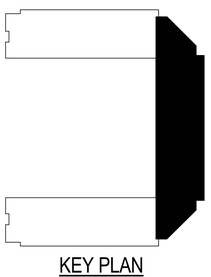
DRAWN BY	GR
CHECKED BY	BW
PROJECT NO.	11007
DRAWING NO.	MP103A
DATE	02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



1 Third Level Mechanical Piping Plan - East Wing
SCALE: 1/8" = 1'-0"



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EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
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SHEET KEYNOTES

1 ROUTE CONDENSATE LINE TO NEAREST FLOOR DRAIN.

2 ROUTE CONDENSATE LINE TO BILLET SINK TAILPIECE, TYPICAL FOR ALL BILLET HEAT PUMPS.

3 PIPE SIZE TYPICAL FOR BRANCH SERVING TWO BILLET HEAT PUMPS.

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UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED QUARTERS
RIVERTON, UT 84065

THIRD LEVEL MECH PIPING PLAN - EAST WING

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UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

1P	SINGLE POLE
1PH	SINGLE-PHASE
1WAY	ONE-WAY
2/C	TWO-CONDUCTOR
2WAY	TWO-WAY
3/C	THREE-CONDUCTOR
3WAY	THREE-WAY
4OUT	QUADRUPLE RECEPTACLE OUTLET
4PDT	FOUR-POLE DOUBLE THROW
4PST	FOUR-POLE SINGLE THROW
4W	FOUR-WIRE
4WAY	FOUR-WAY
A	ABOVE COUNTER
AC	ARMORED CABLE
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
ALUM	ALUMINUM
AMP	AMPERE
ANN	ANNUNCIATOR
AP	ACCESS POINT (WIRELESS DATA)
AR	AS REQUIRED
ASC	AMPS SHORT CIRCUIT
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAGE
BB XFMR	BUCK-BOOST TRANSFORMER
C	CEILING MOUNTED
CATV	COMMUNITY ANTENNA TELEVISION
CB	CIRCUIT BREAKER
CCBA	CUSTOM COLOR AS SELECTED BY ARCHITECT
CCTV	CLOSED CIRCUIT TELEVISION
CF/CI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/ OWNER INSTALLED
CFBA	CUSTOM FINISH AS SELECTED BY ARCHITECT
CKT	CIRCUIT
CM	CONSTRUCTION MANAGER
CND	CONDUIT
CO	CONVENIENCE OUTLET
COR	CONTRACTING OFFICER'S REPRESENTATIVE
CP	CONTROL PANEL
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CU	COPPER
dBA	UNIT OF SOUND LEVEL
DPDT	DOUBLE THROW DOUBLE THROW
DS	DISCONNECT SWITCH
EA	EACH
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRIC NONMETALLIC TUBING
EPO	EMERGENCY POWER OFF
EQUIP	EQUIPMENT
EX	EXISTING
F	FURNITURE MOUNTED
FA	FIRE ALARM
FCP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
FMC	FLEXIBLE METAL CONDUIT
FOB	FREIGHT ON BOARD
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
G	GROUND
GEN	GENERATOR
GFCI	GROUND FAULT INTERRUPTER
GFP	GROUND FAULT PROTECTION
HD	HEAVY DUTY
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSE POWER
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HV	HIGH VOLTAGE
HZ	HERTZ
I/O	INPUT/ OUTPUT
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IN/IS	INSULATED/ ISOLATED
IR	INFRARED
J-BOX	JUNCTION BOX
kV	KILOVOLT
kVA	KILOVOLT AMPERE
kVAR	KILOVOLT AMPERE REACTIVE
kW	KILOWATT
kWh	KILOWATT HOUR
LED	LIGHT EMITTING DIODE
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
LFNC	LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT
LPS	LOW PRESSURE SODIUM
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
LV	LOW VOLTAGE
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MC	METAL CLAD
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTION
MDP	MAIN DISTRIBUTION PANEL
MG	MOTOR GENERATOR
MH	MANHOLE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIOANL ELECTRICAL MANUFACTURERS ASSOCIATION
NFC	NATIONAL FIRE CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OCP	OVER CURRENT PROTECTION
OF/CI	OWNER FURNISHED/ CONTRACTOR INSTALLED
OF/OI	OWNER FURNISHED/ OWNER INSTALLED
OFP	OBTAIN FROM PLANS
OH DR	OVERHEAD (COILING) DOOR
OL	OVERLOAD
PB	PUSHBUTTON
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PT	POTENTIAL TRANSFORMER
PTZ	PAN/TILT/ZOOM
QTY	QUANTITY
R	REMOVE
RCP	REFLECTED CEILING PLAN
RMC	RIGID METAL CONDUIT
RNC	RIGID NONMETAL CONDUIT
RPM	REVOLUTIONS PER MINUTE
RR	REMOVE AND RELOCATE
S/S	START/STOP
SCA	SHORT CIRCUIT AMPS
SCBA	STANDARD COLOR AS SELECTED BY ARCHITECT
SF	SQUARE FOOT (FEET)
SFBA	STANDARD FINISH AS SELECTED BY ARCHITECT
SPDT	SINGLE POLE, DOUBLE THROW
SPEC	SPECIFICATION
SPST	SINGLE POLE, SINGLE THROW
ST	SINGLE THROW
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TL	TWIST LOCK
TP	TELEPHONE POLE
TP	TWISTED PAIR
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP	TYPICAL
UF	UNDERFLOOR
UGND	UNDERGROUND
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VA	VOLT AMPERE
VFC/VFD	VARIABLE FREQUENCY MOTOR CONTROLLER
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF
XFMR	TRANSFORMER

FIRE CODE COMPLIANCE

CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH THE FIRE CODE (2009) SECTION 510, AS IT PERTAINS TO THIS FACILITY. IF REQUIRED, SCOPE OF WORD IS FOUND IN SPECIFICATION SECTION 275319.

ALTERNATES

REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR DESCRIPTION AND SCOPE CONCERNING ALL (4) ALTERNATES. COORDINATE BID WITH ALTERNATES

LEED

CONTRACTOR SHALL PROVIDE ALL REQUIRED DOCUMENTATION WITH RESPECT TO THE INSTALLATION FOR THE PROJECT TO ACHIEVE LEED SILVER CERTIFICATION.

DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

TECHNOLOGY SYSTEMS: THE TERM "TECHNOLOGY SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...

ELECTRICAL SHEET INDEX

EE001	ABBREVIATIONS, SHEET INDEX & GENERAL NOTES
EE002	SYMBOLS LEGEND
EE601	GROUND RISER DIAGRAM
EE701	TYPICAL MOUNTING HEIGHT DETAILS
ES101	ELECTRICAL SITE PLAN
ES102	SITE LIGHTING CALCULATIONS
ES103	SITE ELECTRICAL DEMOLITION PLAN
ES501	ELECTRICAL SITE DETAILS
EJ101	LIGHTNING PROTECTION PLAN
EJ401	LIGHTNING PROTECTION ELEVATIONS - MAIN BUILDING
EJ402	LIGHTNING PROTECTION ELEVATIONS - SERVICE BUILDING
EJ601	LIGHTNING PROTECTION DETAILS
EP101A	1ST LEVEL POWER PLANS NORTH & SOUTH WINGS
EP101B	1ST LEVEL POWER PLAN EAST WING
EP101C	1ST LEVEL - MECHANICAL POWER
EP102A	2ND LEVEL POWER PLANS NORTH & SOUTH WINGS
EP102B	2ND LEVEL POWER PLAN EAST WING
EP102C	2ND LEVEL - MECHANICAL POWER
EP103A	3RD LEVEL POWER PLANS NORTH & SOUTH WINGS
EP103B	3RD LEVEL POWER PLAN EAST WING
EP103C	3RD LEVEL - MECHANICAL POWER
EP104	ROOF MECHANICAL POWER PLAN
EP110	SERVICE BUILDING ELECTRICAL PLANS
EP401	ENLARGED POWER PLANS
EP402	ENLARGED POWER PLANS
EP403	ENLARGED PLANS AND ELEVATIONS
EP404	ELECTRICAL ELEVATIONS
EP601	ONE-LINE DIAGRAM
EP602	PANEL SCHEDULES
EP603	PANEL SCHEDULES
EP604	PANEL SCHEDULES
EP605	PANEL SCHEDULES
EP606	PANEL SCHEDULES
EP607	PANEL SCHEDULES
EP608	PANEL SCHEDULES
EP609	PANEL SCHEDULES
EP610	EQUIPMENT SCHEDULE
EL101A	1ST LEVEL LIGHTING PLANS NORTH & SOUTH WINGS
EL101B	1ST LEVEL LIGHTING PLAN EAST WING
EL102A	2ND LEVEL LIGHTING PLANS NORTH & SOUTH WINGS
EL102B	2ND LEVEL LIGHTING PLAN EAST WING
EL103A	3RD LEVEL LIGHTING PLANS NORTH & SOUTH WINGS
EL103B	3RD LEVEL LIGHTING PLAN EAST WING
EL110	LIGHTING CALCULATIONS
EL401	LIGHTING ELEVATIONS - NORTH WING
EL402	LIGHTING ELEVATIONS - SOUTH WING
EL403	LIGHTING ELEVATIONS - EAST WING
EL601	LIGHTING FIXTURE SCHEDULE
EL602	LIGHTING RELAY CONTROL SCHEDULES
EL603	LIGHTING CONTROL DIAGRAMS
ET101A	1ST LEVEL COMMUNICATIONS PLANS NORTH & SOUTH WINGS
ET101B	1ST LEVEL COMMUNICATIONS AND AUXILIARY PLAN EAST WING
ET102A	2ND LEVEL COMMUNICATIONS PLANS NORTH & SOUTH WINGS
ET102B	2ND LEVEL COMMUNICATIONS PLAN EAST WING
ET103A	3RD LEVEL COMMUNICATIONS PLANS NORTH & SOUTH WINGS
ET103B	3RD LEVEL COMMUNICATIONS PLAN EAST WING
ET601	COMMUNICATIONS RISER DIAGRAM AND DETAILS
ET602	TV DISTRIBUTION DIAGRAM
ET603	TELECOMMUNICATIONS DIAGRAMS
FA101A	1ST LEVEL FIRE ALARM PLANS NORTH & SOUTH WINGS
FA101B	1ST LEVEL FIRE ALARM PLAN EAST WING
FA102A	2ND LEVEL FIRE ALARM PLANS NORTH & SOUTH WINGS
FA102B	2ND LEVEL FIRE ALARM PLAN EAST WING
FA103A	3RD LEVEL FIRE ALARM PLANS NORTH & SOUTH WINGS
FA103B	3RD LEVEL FIRE ALARM PLAN EAST WING
FA601	FIRE ALARM RISER

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER No. 7083854 DAVID L. AFFLECK STATE OF UTAH 02-15-2013

GENERAL ELECTRICAL NOTES

1. CLARIFICATION METHODS: AT THE TIME OF BIDDING, BIDDERS SHALL FAMILIARIZE THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS, MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS, CATALOG NUMBER DISCREPANCIES, DISCREPANCIES BETWEEN THE EQUIPMENT SUPPLIED AND THE INTENT OR FUNCTION OF THE EQUIPMENT, ETC, SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER IN WRITING FOR CLARIFICATION PRIOR TO ISSUANCE OF THE FINAL ADDENDUM AND BIDDING OF THE PROJECT. WHERE DISCREPANCIES OR MULTIPLE INTERPRETATIONS OCCUR, THE MOST STRINGENT (WHICH IS GENERALLY RECOGNIZED AS THE MOST COSTLY) THAT MEETS THE INTENT OF THE DOCUMENTS SHALL BE ENFORCED.
   - A. THE INSTALLER'S RESPONSIBILITIES ARE THE SAME AS IF THE INSTALLER FURNISHED THE MATERIALS OR EQUIPMENT.
   - B. THE OWNER WILL ARRANGE AND PAY FOR DELIVERY OF OWNER FURNISHED ITEMS FREIGHT ON BOARD JOB SITE AND THE INSTALLER WILL INSPECT DELIVERIES FOR DAMAGE. IF OWNER FURNISHED ITEMS ARE DAMAGED, DEFECTIVE OR MISSING, DOCUMENT DAMAGED ITEMS WITH THE TRANSPORT COMPANY AND THE OWNER WILL ARRANGE FOR REPLACEMENT. THE OWNER WILL ALSO ARRANGE FOR MANUFACTURER'S FIELD SERVICES, AND THE DELIVERY OF MANUFACTURER'S WARRANTIES AND BONDS TO THE INSTALLER.
   - C. THE INSTALLER IS RESPONSIBLE FOR DESIGNATING THE DELIVERY DATES OF OWNER FURNISHED ITEMS AND FOR RECEIVING, UNLOADING AND HANDLING OWNER FURNISHED ITEMS AT THE SITE.THE INSTALLER IS RESPONSIBLE FOR PROTECTING OWNER FURNISHED ITEMS FROM DAMAGE, INCLUDING DAMAGE FROM EXPOSURE TO THE ELEMENTS, AND TO REPAIR OR REPLACE ITEMS DAMAGED AS A RESULT OF HIS OPERATIONS.
2. OWNER FURNISHED ITEMS: THE OWNER WILL FURNISH MATERIAL AND EQUIPMENT AS INDICATED IN THE CONTRACT DOCUMENTS TO BE INCORPORATED INTO THE WORK. THESE ITEMS ARE ASSIGNED TO THE INSTALLER AND COSTS FOR RECEIVING, HANDLING, STORAGE, IF REQUIRED, AND INSTALLATION ARE INCLUDED IN THE CONTRACT SUM.
3. EXPOSED STRUCTURE AREAS (EXCLUDING MECHANICAL, ELECTRICAL, AND COMMUNICATION SPACES): INSTALL RACEWAYS BETWEEN DECK AND STRUCTURE WHEREVER POSSIBLE IN EXPOSED STRUCTURE CEILING AREAS. ROUTE RACEWAYS IN CONCEALED AREAS WHEREVER POSSIBLE. REFER ALL CONDITIONS WHERE RACEWAYS MUST BE INSTALLED WHICH CANNOT COMPLY WITH THESE REQUIREMENTS TO THE ARCHITECT.
4. SUBMITTALS: PROVIDE SUBMITTALS IN THREE RING BINDERS WITH JOB NAME, SUBCONTRACTOR, AND VOLUME ON THE BINDING. PREPARE TABS FOR EACH SPECIFICATION SECTION REQUIRING SUBMITTALS. PREPARE INDEX OF EQUIPMENT SUBMITTED IN EACH TAB.
5. REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.

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ABBREVIATIONS, SHEET INDEX & GENERAL NOTES

REVISION	DATE	BY	DESCRIPTION
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DATE: 02/15/2013	

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SYMBOLS LEGEND

SYMBOL	DESCRIPTION
REFERENCE AND LINE SYMBOLS	
A5 / E-501	DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
A5 / E-201	ELEVATION OR SECTION INDICATOR, EXTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
A5 / E-201	ELEVATION OR SECTION INDICATOR, INTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
ROOM NAME 100	ROOM IDENTIFIER WITH ROOM NAME AND NUMBER.
1	KEYNOTE INDICATOR.
1	REVISION INDICATOR.
CU-1	EQUIPMENT INDICATOR.
	BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING
	BREAK, ROUND
MATCH LINE SEE X/A-XX	MATCH LINE INDICATOR: CENTER, EXTRA WIDE LINE.
	NEW LINE: MEDIUM LINE.
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE
	EXISTING TO REMAIN LINE: THIN LINE.
	DEMOLITION LINE: DASHED, MEDIUM LINE
	PROPERTY LINE: DASHED, WIDE LINE.
	CONTRACT LIMIT LINE: DASHDOT, WIDE LINE.
WIRING METHODS	
	WIRING.
	WIRING TURNED UP OR TOWARDS OBSERVER.
	WIRING TURNED DOWN OR AWAY FROM OBSERVER.
A-1,3,5	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN THE ELECTRICAL SPECIFICATIONS.
1 A-1,3,5	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. NUMBER IN BOX REFERS TO THE CONDUCTOR AND CONDUIT SCHEDULE. FOR BRANCH WIRING USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN THE ELECTRICAL SPECIFICATIONS.
A-1,3,5	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. SMALL CROSS LINES INDICATE NUMBER OF CONDUCTORS OR CABLES. LARGER CROSS LINE INDICATES EQUIPMENT GROUND. WAVY CROSS LINE INDICATES INSULATED/ ISOLATED GROUND. FOR BRANCH WIRING, CROSS LINES INDICATE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN THE ELECTRICAL SPECIFICATIONS.
	FLEXIBLE WIRING.
— X —	WIRING AND/OR RACEWAY: THIN LINE. WHERE "X" = : CATV = CABLE TELEVISION; CCTV = CLOSED CIRCUIT TELEVISION; FA = FIRE ALARM; FO = FIBER OPTICS; I = INTERCOM; NC = NURSE CALL; P = POWER; RC = RIGID CONDUIT; S = SOUND; T = TELEPHONE; TV = TELEVISION OTHERS AS NOTED IN OTHER SCHEDULES. RACEWAYS AND WIRING SHALL BE SIZED AS SHOWN AND/OR SPECIFIED.
	LOW VOLTAGE WIRING: DIVIDE, MEDIUM LINE.
	CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK.
1	CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER TO ONE-LINE DIAGRAM.
1	CONDUCTOR RUN IDENTIFICATION.
	JUNCTION BOX.
SC	JUNCTION BOX, SYSTEMS FURNITURE COMMUNICATION CONNECTION.
SP	JUNCTION BOX, SYSTEMS FURNITURE POWER CONNECTION.
PB	PULL BOX.
C C	CABLE TRAY ABOVE ACCESSIBLE CEILING.
	EARTH GROUND (ONE-LINE DIAGRAM).
C	JUNCTION BOX, CEILING.
	LADDER RACK.
WIRING DEVICES	
	RECEPTACLE, DUPLEX: NEMA 5-20R.
A	RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R.
C	RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R.
DF	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, DRINKING FOUNTAIN: CONCEAL WATER COOLER RECEPTACLE BEHIND WATER COOLER. SEE MECHANICAL/PLUMBING SHOP DRAWINGS FOR INSTALLATION REQUIREMENTS.
W	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WET LABEL, "WEATHERPROOF IN USE": NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
WP	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WEATHERPROOF: NEMA 5-20R.
	RECEPTACLE, QUADRAPLEX: NEMA 5-20R.
	RECEPTACLE, SPECIAL PURPOSE. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG.
D	RECEPTACLE, DRYER: NEMA 10-30R.
	SWITCH, DIMMER.
X $	SWITCH, SINGLE POLE ("x" INDICATES FIXTURES CONTROLLED).
X $3	SWITCH, THREE-WAY ("x" INDICATES FIXTURES CONTROLLED).
X $4	SWITCH, FOUR-WAY ("x" INDICATES FIXTURES CONTROLLED).
DB	DOOR BELL
WPB	WIRELESS PUSH BUTTON

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
SITE ELECTRICAL AND COMMUNICATIONS UTILITIES	
—3ØUP—	ELECTRIC LINE: THIN LINE. 1Ø = SINGLE PHASE, 2Ø = 2-PHASE, 3Ø = 3-PHASE, O = OVERHEAD, U = UNDERGROUND, P = PRIMARY, S = SECONDARY
	UTILITY POLE.
E	UTILITY, PRIMARY ELECTRICAL HAND HOLE.
M	UTILITY SERVICES, MANHOLE.
C	UTILITY, COMMUNICATIONS MANHOLE.
E	UTILITY, ELECTRICAL MANHOLE.
LIGHTING (REFER TO FIXTURE SCHEDULE FOR SYMBOLS)	
(W-3)	FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
(W-3)	FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
EM	EMERGENCY.
NL	NIGHT LIGHT: DO NOT SWITCH.
↑	EGRESS DIRECTION ARROW.
LV	LOW VOLTAGE LIGHTING TRANSFORMER.
LIGHTING CONTROL	
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING.
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, WALL.
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, DIRECTIONAL.
U	OCCUPANCY SENSOR, ULTRASONIC, OMNI-DIRECTIONAL, CEILING.
R	OCCUPANCY SENSOR CONTROL RELAY.
P	PHOTOCELL.
TC	TIME CLOCK.
HR 1	HOUSE RELAY SCHEDULE INDICATOR.
101 1-1-1	LITE TOUCH STATION INDICATOR.
SP	OCCUPANCY SENSOR, SWITCH PACK.
STRUCTURED CABLING	
W	TELEPHONE, WALL MOUNTED: WALL PHONE.
X	OUTLET, DATA COMMUNICATION ("X" INDICATES QUANTITY OF CABLES).
	OUTLET, BUILDING STANDARD COMBINATION TELEPHONE/ DATA COMMUNICATION.
	TELEPHONE TERMINAL BOARD, FIRE TREATED PLYWOOD PAINTED.
	LAN RACK, FLOOR STANDING.
—D—	DATA CABLE, CATEGORY 6 (ONE-LINE DIAGRAM).
—V—	VOICE CABLE, CATEGORY 6 (ONE-LINE DIAGRAM).
ELECTRICAL POWER AND DISTRIBUTION	
	FUSE WITH RATING (ONE-LINE DIAGRAM).
	DISCONNECT, FUSED (ONE-LINE DIAGRAM).
	DISCONNECT, NONFUSED (ONE-LINE DIAGRAM).
	DISCONNECT WITH FUSE AND MOTOR STARTER COMBINATION (ONE-LINE DIAGRAM).
	OVERLOAD RELAY (ONE-LINE DIAGRAM).
	STARTER (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOLDED CASE (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOLDED CASE WITH SHUNT TRIP (ONE-LINE DIAGRAM).
MCP	CIRCUIT BREAKER, MOTOR CIRCUIT PROTECTION (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, SOLID STATE (ONE-LINE DIAGRAM).
GFP	CIRCUIT BREAKER, SOLID STATE WITH GROUND FAULT PROTECTION (ONE-LINE DIAGRAM).
	MOTOR.
	TRANSFORMER (ONE-LINE DIAGRAM).
	DELTA CONNECTION (ONE-LINE DIAGRAM).
	WYE CONNECTION (ONE-LINE DIAGRAM).
"1H"	PANELBOARD (ONE-LINE DIAGRAM).
225/3 "1H"	PANELBOARD WITH MAIN LUGS ONLY. BUS SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
ELECTRICAL POWER AND DISTRIBUTION	
225/3 "1H"	PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
225/3 "1H" 60/3	PANELBOARD WITH MAIN AND SUB FEED CIRCUIT BREAKER (ONE-LINE DIAGRAM).
225/3 "1H" 25/3	PANELBOARD WITH MAIN LUGS ONLY AND SURGE PROTECTION WITH CIRCUIT BREAKER (ONE-LINE DIAGRAM).
	CT CABINET PER UTILITY'S REQUIREMENTS (ONE-LINE DIAGRAM).
	TRANSFER SWITCH (ONE-LINE DIAGRAM).
DMM	DIGITAL MULTIMETER (ONE-LINE DIAGRAM).
	SERVICE ENTRANCE SURGE PROTECTION (ONE-LINE DIAGRAM).
G	GENERATOR, ANNUNCIATOR (ONE-LINE DIAGRAM).
G	GENERATOR, POWER (ONE-LINE DIAGRAM).
M	METER.
BBF	BROAD BAND FILTER (ONE-LINE DIAGRAM).
VFC VFD	VARIABLE FREQUENCY MOTOR CONTROLLER (ONE-LINE DIAGRAM).
	DIODE (ONE-LINE DIAGRAM).
	AERIAL SERVICE WEATHER HEAD (ONE-LINE DIAGRAM).
	DISCONNECT SWITCH, FUSED.
	DISCONNECT SWITCH, UNFUSED.
	STARTER OR MOTOR CONTROLLER.
	PUSHBUTTON.
	PUSHBUTTONS, MOTOR CONTROL.
	PANELBOARD CABINET, FLUSH MOUNTED.
	PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.
	PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.
DP#	DISTRIBUTION PANEL OR SWITCHBOARD.
LP	LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE.
	LIGHTING CONTROL STATION.
	DIMMING ENTRY STATION OR CONTROL STATION, FLUSH MOUNTED.
	CENTRAL PROCESSOR UNIT.
$ST	SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD PROTECTION.
75	TRANSFORMER: NUMBER INDICATES kVA.
B B	BUSWAY.
	RELAY CONTACT, NORMALLY CLOSED (ONE-LINE DIAGRAM).
	RELAY CONTACT, NORMALLY OPEN (ONE-LINE DIAGRAM).
HC	ACCESSIBLE DOOR ENTRY PUSH PLATE OPERATOR.
SECURITY	
X	SECURITY CABLE. SEE EQUIPMENT SCHEDULE FOR CABLE TYPE.
ACC	ACCESS CONTROL HEADEND EQUIPMENT.
CTR	SECURITY CONTROL PANEL.
SEC	INTRUSION DETECTION HEADEND EQUIPMENT.
#1	CARD ACCESS DOOR TYPE #1 OR AS NOTED. SEE SCHEDULE.
CR	CARD READER.
KCR	KEYPAD/CARD READER COMBINATION.
FIRE ALARM	
FSA	FIRE SYSTEM ANNUNCIATOR.
FACP	FIRE ALARM/ MASS NOTIFICATION CONTROL PANEL, SEMI-RECESSED.
FPS	FIRE ALARM NOTIFICATION POWER SUPPLY.
LOC	LOCABLE OPERATOR'S CONSOLE MASS NOTIFICATION SYSTEM.
CM	CONTROL MODULE.
MM	MONITOR MODULE.
P	FIRE ALARM MANUAL PULL STATION.
R	SHUT DOWN RELAY: INSTALL RELAY IN CONTROL CIRCUIT OF EQUIPMENT TO BE CONTROLLED IN THE EVENT OF A FIRE.
	MAGNETIC DOOR HOLDER.
	DETECTOR, SMOKE.
E	DETECTOR, SMOKE, ELEVATOR RECALL DESIGNATION.
R	DETECTOR, SMOKE, RESIDENTIAL.
	DETECTOR, SMOKE, DUCT WITH HOUSING AND SAMPLING TUBE.
	DETECTOR, HEAT.
ED	EMERGENCY DIALER - ELEVATOR LOBBY.

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
FIRE ALARM	
	STROBE.
75	STROBE ONLY. SUBSCRIPT INDICATES CANDELA RATING. WALL MOUNTED
LS	MASS NOTIFICATION LOUD SPEAKER - WEATHERPROOF.
	ALARM, HORN/STROBE, ONE ASSEMBLY.
75	ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING. (WP - WEATHER PRROF)
	SPEAKER, MASS NOTIFICATION STROBE. WALL MOUNTED.
	DETECTOR, FLOW SWITCH: FLOW SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
	DETECTOR, TAMPER SWITCH WITH VALVE: TAMPER SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
SD	SMOKE DAMPER.
FSD	FIRE AND SMOKE DAMPER.
	BELL (GONG).
	MASS NOTIFICATION. SPEAKER/STROBE - CEILING MOUNTED
	MASS NOTIFICATION SPEAKER - CEILING MOUNTED.
75	ALARM, STROBE, CEILING MOUNTED. SUBSCRIPT INDICATES CANDELA RATING.
TV DISTRIBUTION	
T	TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.
TR	TV DISTRIBUTION CABLE, TRUNK.
CMB	COMBINER.
DC	DIRECTIONAL COUPLER.
DA	DISTRIBUTION AMPLIFIER (ONE-LINE DIAGRAM).
SPL	SPLITTER (ONE-LINE DIAGRAM).
	TV OUTLET.
	TV ANTENNA (ONE-LINE DIAGRAM).
	TERMINATOR, 75 OHM (TV DISTRIBUTION).

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

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SPECTRUM ENGINEERS

REGISTERED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH
02-15-2013

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BACHELOR ENLISTED
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SYMBOLS LEGEND

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EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

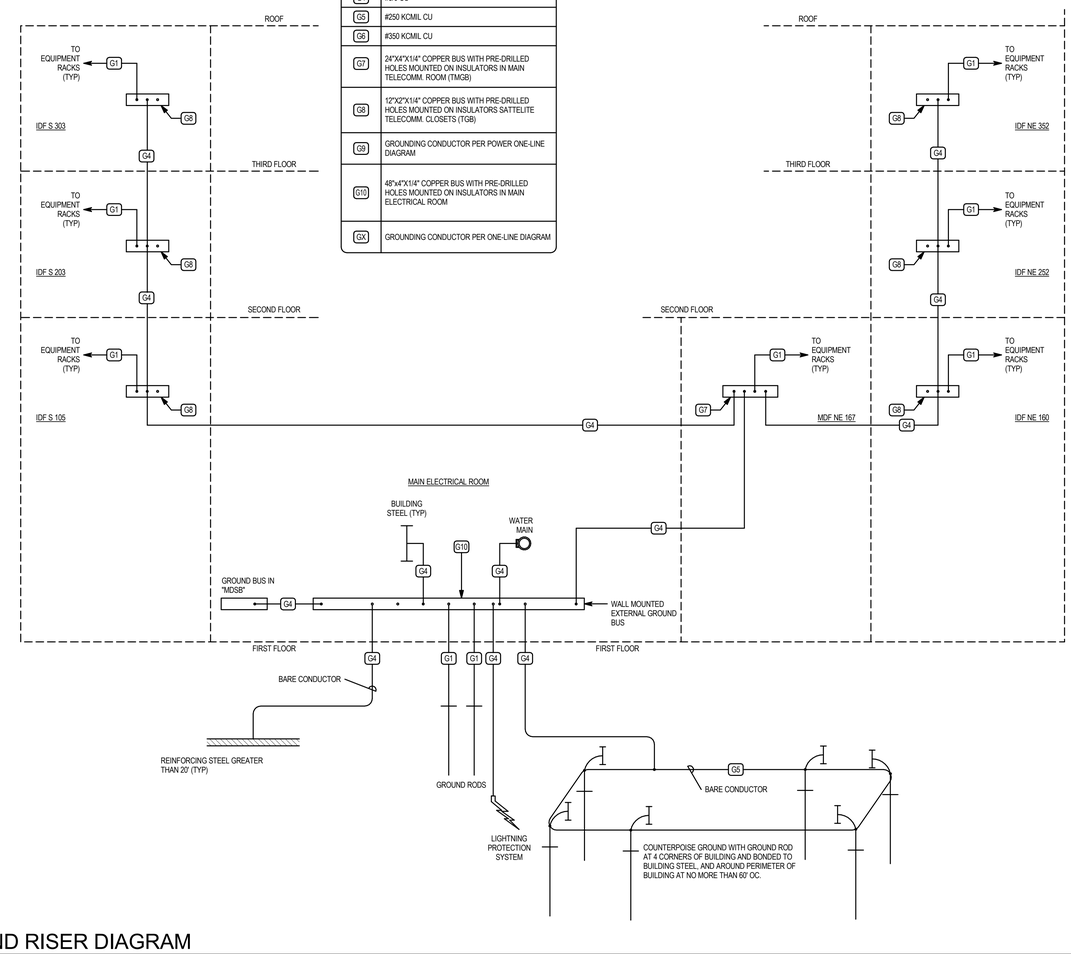
SPECTRUM ENGINEERS

REGISTERED PROFESSIONAL ENGINEER
No. 163854
DAVID L. AFFLECK
STATE OF UTAH
02-15-2013

GROUNDING SCHEDULE

ALL CONDUCTORS ARE INSULATED UNLESS INDICATED OTHERWISE

SYM	SIZE
G1	#6 CU
G2	#4 CU
G3	#1/0 CU
G4	#3/0 CU
G5	#250 KCMIL CU
G6	#350 KCMIL CU
G7	24"X4"X1/4" COPPER BUS WITH PRE-DRILLED HOLES MOUNTED ON INSULATORS IN MAIN TELECOMM. ROOM (TMGB)
G8	12"X2"X1/4" COPPER BUS WITH PRE-DRILLED HOLES MOUNTED ON INSULATORS SATTELITE TELECOMM. CLOSETS (TGB)
G9	GROUNDING CONDUCTOR PER POWER ONE-LINE DIAGRAM
G10	48"x4"X1/4" COPPER BUS WITH PRE-DRILLED HOLES MOUNTED ON INSULATORS IN MAIN ELECTRICAL ROOM
GX	GROUNDING CONDUCTOR PER ONE-LINE DIAGRAM



E6 GROUND RISER DIAGRAM
SCALE: NTS

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GROUND RISER DIAGRAM

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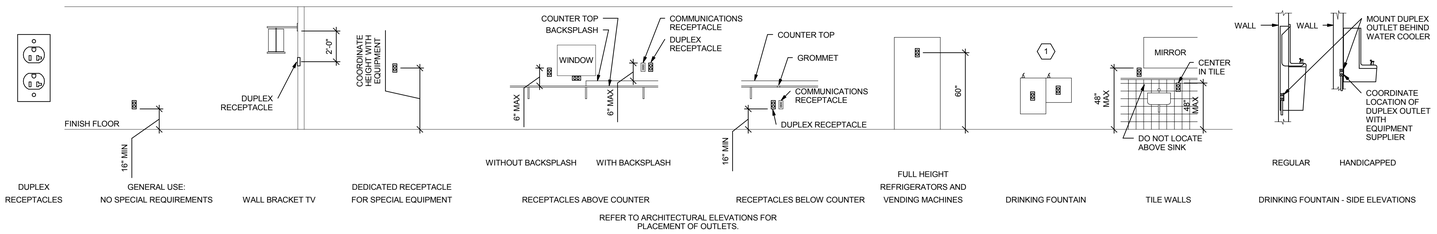
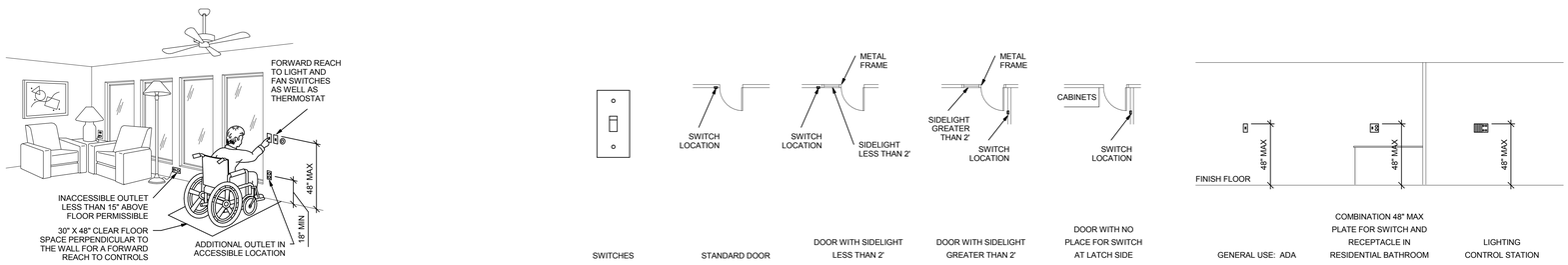
BOXES ON OPPOSITE SIDES OF WALL

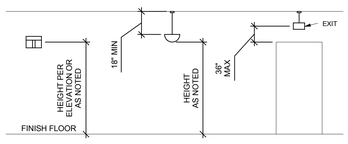
A6 BOX MOUNTING DETAILS
SCALE: NTS



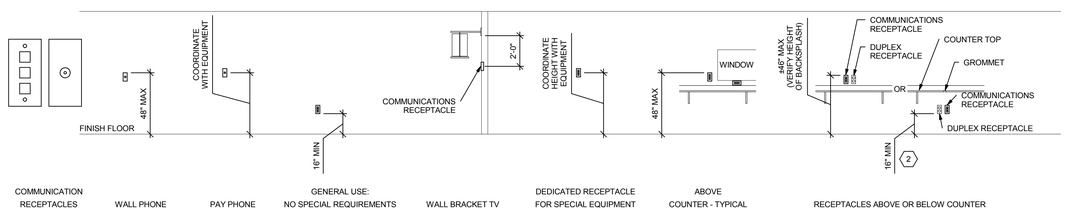
B6 RECEPTACLE MOUNTING DETAILS
SCALE: NTS



C6 ADA DETAIL
SCALE: NTS

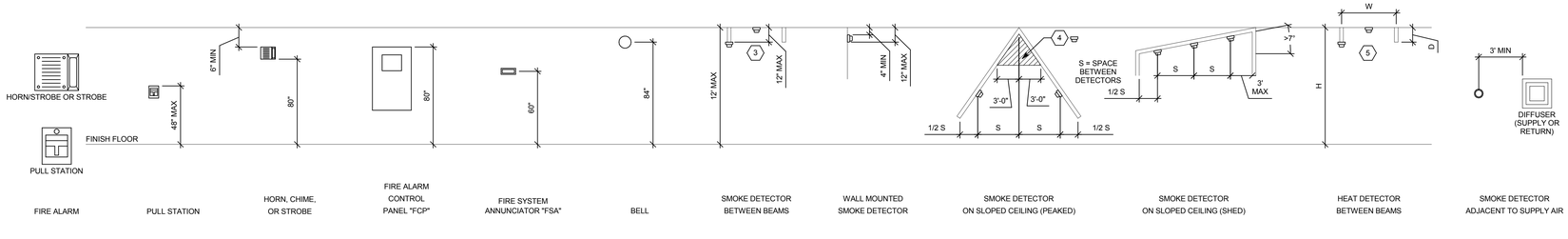


C5 SWITCH MOUNTING DETAILS
SCALE: NTS



D6 LIGHTING MOUNTING DETAILS
SCALE: NTS

D5 COMMUNICATIONS MOUNTING DETAILS
SCALE: NTS



E6 FIRE ALARM MOUNTING DETAILS
SCALE: NTS

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SPECTRUM ENGINEERS

REGISTERED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH
02-15-2013

GENERAL SHEET NOTES

1. DETERMINE MOUNTING HEIGHTS OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE FOLLOWING ORDER OF PRIORITY:

   1 - ELEVATIONS (ARCHITECTURAL, ELECTRICAL, MECHANICAL, ETC).

   2 - EQUIPMENT SHOP DRAWINGS.

   3 - FIELD INSTRUCTIONS.
2. LOCATE RECEPTACLES SERVING THE SAME TYPE OF USE AT A UNIFORM HEIGHT UNLESS DIRECTED OTHERWISE.
3. MECHANICAL, ELECTRICAL, AND COMMUNICATION ROOMS: COORDINATE LOCATION OF LIGHTING AND POWER RECEPTACLES WITH EQUIPMENT, PIPING, AND DUCTWORK. DO NOT INSTALL RECEPTACLES BEHIND EQUIPMENT OR WHERE OTHERWISE INACCESSIBLE. POSITION LIGHTING REGARDLESS OF WHERE SHOWN ON DRAWING TO PROVIDE PROPER ILLUMINATION.
4. MOUNT RECEPTACLE BOXES FOR SWITCHES AND RECEPTACLES WITH LONG AXIS OF THE DEVICE VERTICAL UNLESS OTHERWISE INDICATED.
5. SET BOXES WITH PLASTER RINGS FLUSH WITH FINISHED SURFACE.
6. LOCATE BOX COVERS OR DEVICE PLATES SO THEY WILL NOT SPAN DIFFERENT TYPES OF BUILDING FINISHES EITHER VERTICALLY OR HORIZONTALLY.
7. VERIFY ALL DOOR CONDITIONS ON ARCHITECTURAL DRAWINGS PRIOR TO INSTALLING SWITCHES.
8. LOCATE WIREING DEVICES WHICH ARE ADJACENT AND ARE COMPATIBLE VOLTAGES IN ONE PLATE.

SHEET KEYNOTES

1. LOCATE RECEPTACLES BEHIND DRINKING FOUNTAINS.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.
3. LOCATE AT BOTTOM OF BEAMS (OR JOISTS) OR AT CEILING. (REDUCE SPACING BY .5 PERPENDICULAR TO BEAM OR JOIST DIRECTION.) FOR OTHER CONDITIONS, REFER TO NFPA 72.
4. LOCATE DETECTOR ANYWHERE IN SHADED AREA BUT NOT IN TOP 4" OF PEAK.
5. LOCATE AT BOTTOM OF BEAMS IF D/H < .1 OR W/H < .4; OTHERWISE, LOCATE IN BEAM POCKET. FOR D > 4 REDUCE SPACING .33 PERPENDICULAR TO BEAMS.

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TYPICAL MOUNTING HEIGHT DETAILS

REVISION	DATE	BY	DESCRIPTION
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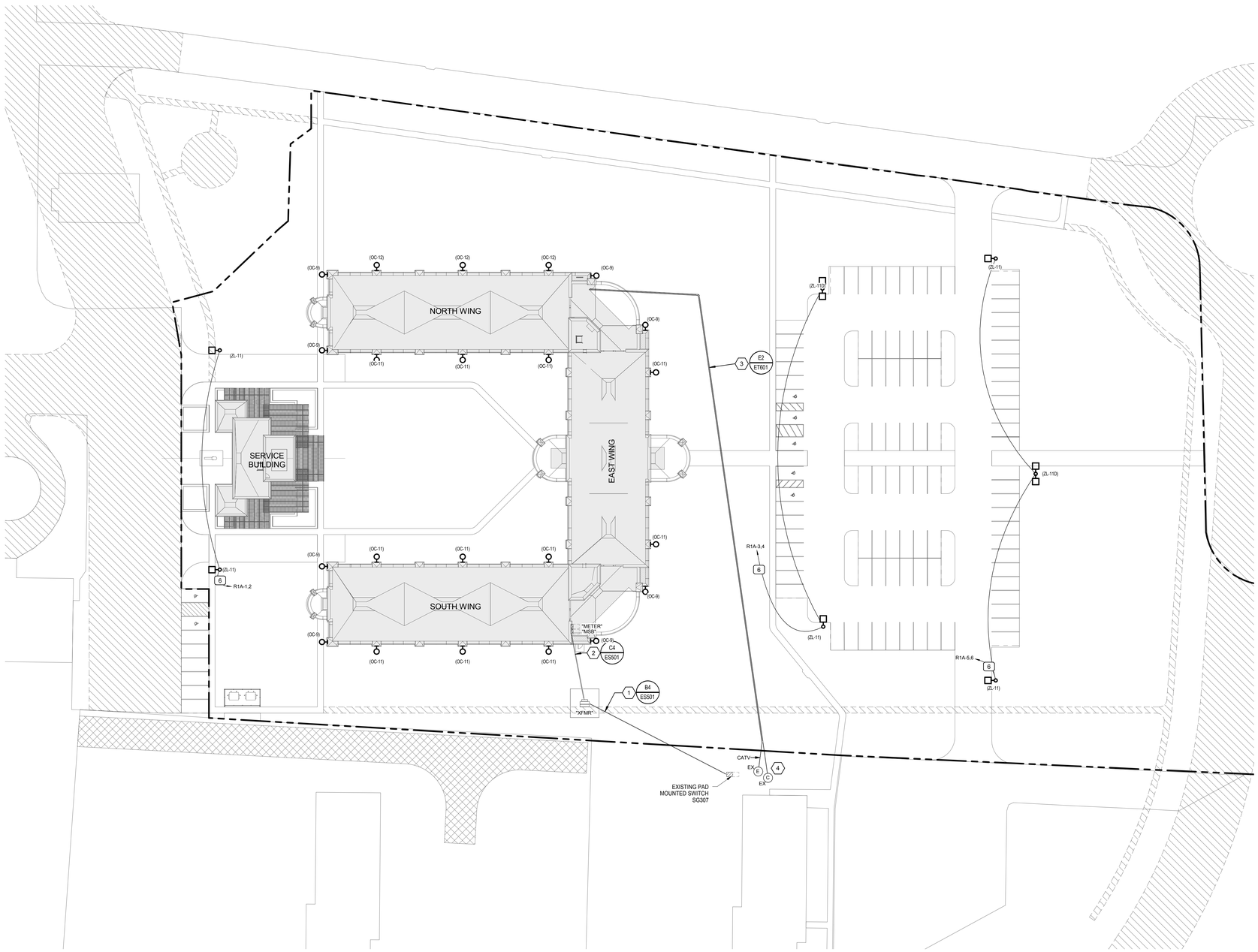

E6 SITE ELECTRICAL PLAN

SCALE: 1" = 30'-0"

SHEET KEYNOTES

1 UNDERGROUND PRIMARY. SEE ONE-LINE DIAGRAM.

2 UNDERGROUND SECONDARY. SEE ONE-LINE DIAGRAM.

3 UNDERGROUND COMMUNICATIONS CONDUITS.

4 CONNECT TO EXISTING COMMUNICATIONS MANHOLE.

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ELECTRICAL SITE PLAN

REVISION	DATE	BY	DESCRIPTION
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DATE: 02/15/2013	

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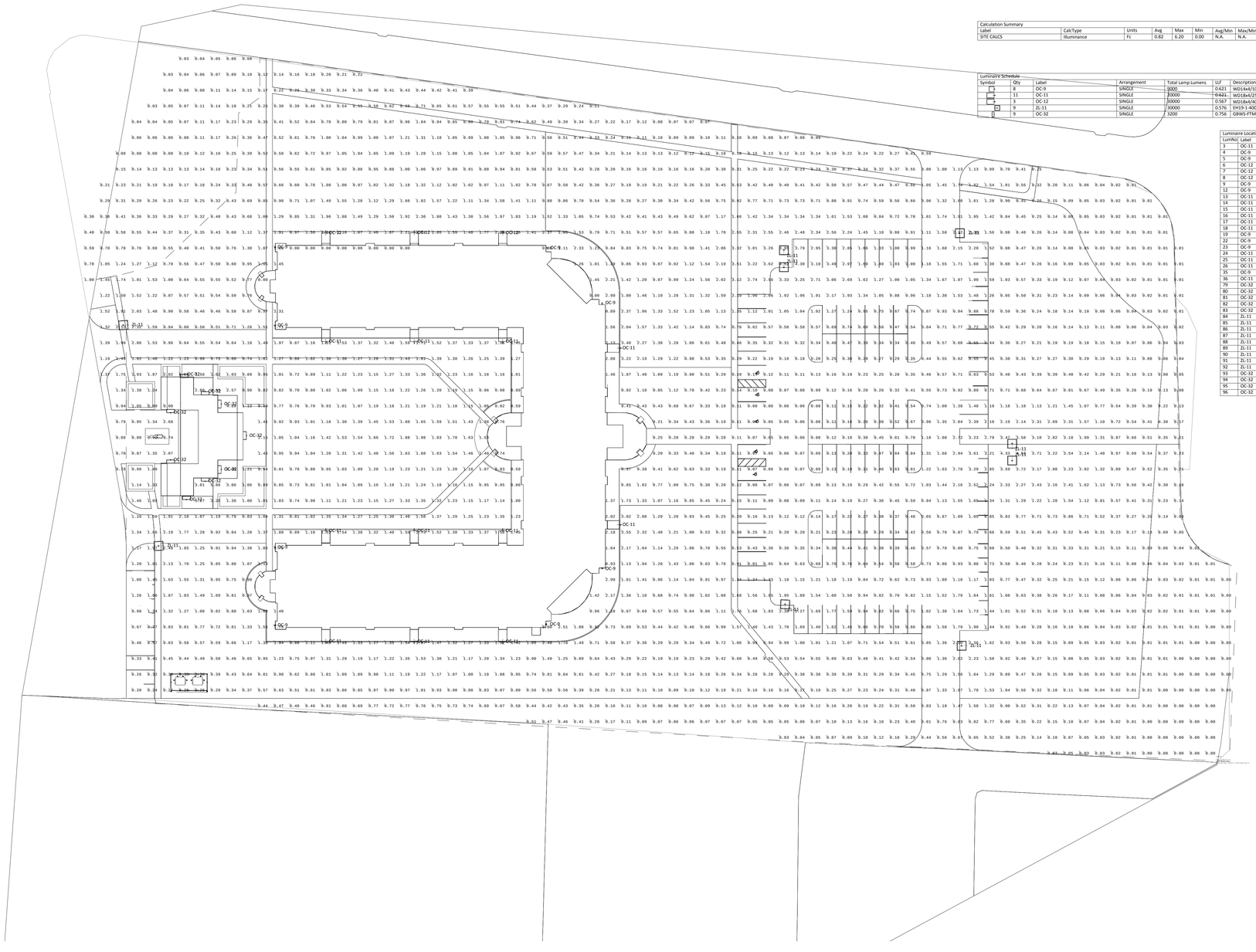

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE CALCS	Illuminance	Fc	0.82	6.20	0.00	N.A.	N.A.

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	8	OC-9	SINGLE	2000	0.621	WD14x4/100MH-ED17
	11	OC-11	SINGLE	20000	0.621	WD18x4/250PMH-ED28
	3	OC-12	SINGLE	30000	0.567	WD18x4/400PMH-ED28
	9	ZL-11	SINGLE	50000	0.576	EH19-1-400PSMH
	9	OC-32	SINGLE	3200	0.756	G8WS-FTM-42-CFL-F

Luminaire Location Summary						
LumNo	Label	X	Y	Z	Orient	Tilt
3	OC-11	8.461	102.868	18	0	0
4	OC-9	-37.192	166.25	14	0	0
5	OC-9	-2.468	131.48	14	90.025	0
6	OC-12	-65.457	175.825	30	90.025	0
7	OC-12	-121.459	175.883	30	90.025	0
8	OC-12	-177.478	175.845	30	90.025	0
9	OC-9	-209.997	166.686	18	180	0
12	OC-9	-210.008	117.131	18	180	0
13	OC-11	-177.451	107.062	30	270	0
14	OC-11	-121.45	107.036	30	270	0
15	OC-11	-65.457	107.039	30	270	0
16	OC-11	-177.479	-82.937	30	270	0
17	OC-11	-121.527	-83.04	30	270	0
18	OC-11	-65.474	-83.053	30	270	0
19	OC-9	-2.415	-36.988	14	270	0
22	OC-9	-209.98	-72.716	18	180	0
23	OC-9	-209.998	-23.453	18	180	0
24	OC-11	-65.463	-12.917	30	90.025	0
25	OC-11	-121.472	-12.893	30	90.025	0
26	OC-11	-177.447	-12.896	30	90.025	0
35	OC-9	-37.552	-72.156	14	0	0
36	OC-11	8.424	-9.057	18	0	0
79	OC-32	-275.773	61.98	8	270	0
80	OC-32	-275.773	32.016	8	90	0
81	OC-32	-253.871	18.578	8	270	0
82	OC-32	-253.871	75.281	8	90	0
83	OC-32	-227.804	47.468	8	0	0
84	ZL-11	-302.103	117.599	30	182.855	0
85	ZL-11	-279.752	-22.303	30	182.382	0
86	ZL-11	112.591	157.73	30	270	0
87	ZL-11	112.601	161.331	30	90	0
88	ZL-11	113.202	-63.024	30	87.274	0
89	ZL-11	257.143	38.759	30	90	0
90	ZL-11	257.143	35.232	30	270	0
91	ZL-11	227.582	175.646	30	180	0
92	ZL-11	228.758	-85.699	30	180	0
93	OC-32	-243.752	67.446	8	0	0
94	OC-32	-243.752	25.953	8	0	0
95	OC-32	-267.168	86.215	8	90	0
96	OC-32	-265.697	6.97	8	270	0

PLAN NORTH

0 15' 30' 60'

E6 SITE LIGHTING CALCULATIONS
SCALE: 1" = 30'-0"

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SITE LIGHTING CALCULATIONS

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DATE: 02/15/2013	

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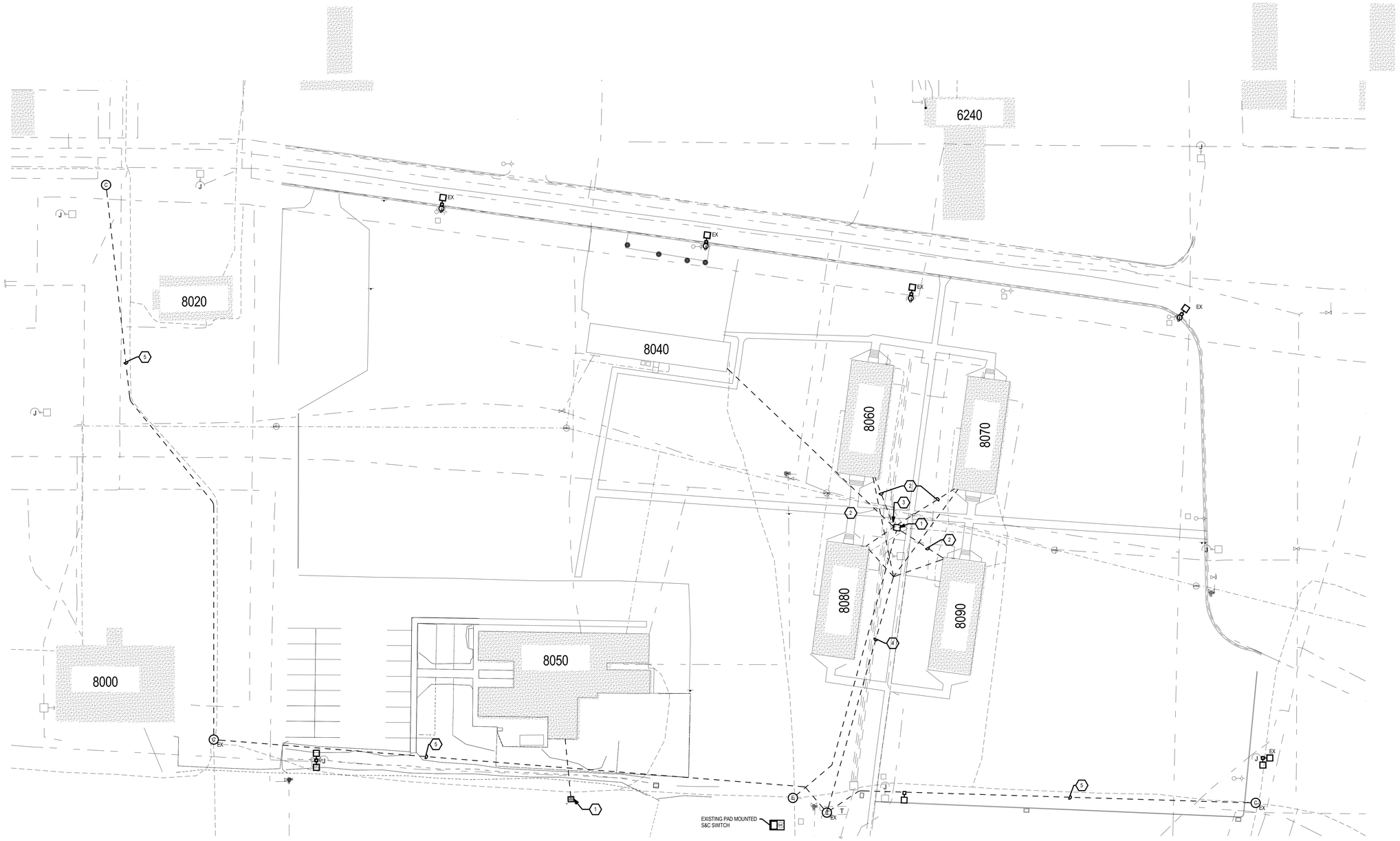

A1 SITE ELECTRICAL DEMOLITION PLAN
SCALE: 1" = 30'-0"

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SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH
02-15-2013

GENERAL SHEET NOTES

1 COORDINATE ALL WORK REQUIRED FOR DEMOLITION OF BUILDINGS 8040, 8050, 8060, 8070, 8080, AND 8090.

SHEET KEYNOTES

1. EXISTING TRANSFORMER TO BE REMOVED. DEMOLISH PRIMARY CONDUCTORS BACK TO PRIMARY CONNECTION POINT. SALVAGE SINGLE PHASE TRANSFORMER BACK TO UTAH NATIONAL GUARD. FIELD VERIFY PRIMARY CONNECTION POINT.
2. REMOVE EXISTING UNDERGROUND SECONDARY CONDUIT AND CONDUCTORS.
3. REMOVE EXISTING MAIN DISTRIBUTION PANEL "MDP".
4. EXISTING UNDERGROUND COMMUNICATIONS DUCT BANK AND CABLING TO BE REMOVED. REMOVE ALL CABLING IN EXISTING DUCT BANK TO REMAIN BACK TO BUILDING 6170 NORTHWEST OF THE SITE. FIELD VERIFY.
5. EXISTING COMMUNICATIONS DUCT BANK TO REMAIN.

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SITE ELECTRICAL DEMOLITION PLAN

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PROJECT NO. 11007
DRAWING NO. ES103
DATE 02/15/2013

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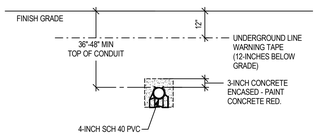
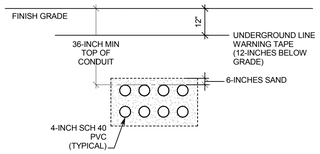


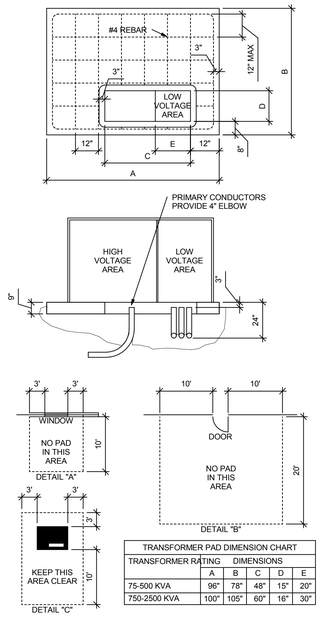
B4 PRIMARY POWER CONDUIT DETAIL

SCALE: NTS



C4 UNDERGROUND SECONDARY CONDUIT DETAIL

SCALE: NTS



TRANSFORMER PAD DIMENSION CHART					
TRANSFORMER RATING	DIMENSIONS				
	A	B	C	D	E
75-500 KVA	96"	78"	48"	15"	20"
750-2500 KVA	100"	105"	60"	16"	30"

C2 TRANSFORMER PAD DETAIL

SCALE: NTS

CONTRACTOR GENERAL NOTES:

1. SITE PREPARATION. ALL SOIL BENEATH THE PAD SITE MUST BE COMPACTED AND LEVEL PRIOR TO SETTING OR POURING THE PAD TO PREVENT SETTLING.

2. CONCRETE. STEEL REINFORCEMENT SHALL BE #4 BARS, PLACED ACCORDING TO THE DRAWING. THE PAD MUST BE POURED AT LEAST SEVEN FULL DAYS PRIOR TO SETTING THE TRANSFORMER. THE FINISHED SURFACE MUST BE COMPLETELY FLAT AND LEVEL. SEE STANDARD 73 036 FOR CONCRETE SPECIFICATIONS.

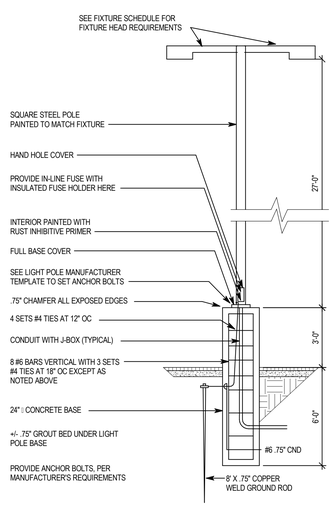
3. PREFABRICATION. THE PAD MAY EITHER BE CONSTRUCTED ON THE SITE OR PREFABRICATED ACCORDING TO SPECIFICATIONS.

4. CONDUIT WINDOW LAYOUT. LOW VOLTAGE CONDUITS SHALL BE FORMED AS TIGHTLY AS POSSIBLE AGAINST THE RIGHT SIDE OF THE OPENING AND SHALL IN NO CASE EXTEND FURTHER THAN 20" FROM THE RIGHT SIDE OF THE CONDUIT WINDOW ON THE SMALL PAD OR 30" ON THE LARGE PAD. NO MORE THAN 8 CONDUITS WILL BE USED ON THE LOW VOLTAGE SIDE (NOT INCLUDING THE METERING CONDUIT). DO NOT PUT ANY CONCRETE IN OR UNDER THE CONDUIT WINDOW. USE SOIL TO SEPARATE CONDUITS. BELL ENDS ARE REQUIRED FOR ALL METAL CONDUIT, BUT NOT FOR PLASTIC CONDUIT.

5. CLEARANCES. THE FRONT OF THE PAD SHOULD ALWAYS FACE AWAY FROM ADJACENT STRUCTURES AND BE FREE OF OBSTRUCTIONS. AT LEAST 3 FEET MUST SEPARATE THE EDGES OF THE PAD FROM ANY ADJACENT STRUCTURE. THE EDGES OF THE PAD MUST BE AT LEAST 10 FEET FROM ANY COMBUSTIBLE STRUCTURE. IF AN ADJACENT STRUCTURE HAS ANY OVERHANG OR EAVE WITHIN 27 VERTICAL FEET OF THE TOP OF THE PAD, CLEARANCES MUST BE MEASURED FROM THE OUTSIDE OF THE OVERHANG. THE PAD MUST NOT BE PLACED IN AN AREA 10 FEET IN LINE WITH OR 3 FEET TO EITHER SIDE OF ANY WINDOW IN AN ADJACENT STRUCTURE (SEE DETAIL "A"). CLEARANCE FOR A DOOR MUST BE 20 FEET IN LINE WITH IT AND 10 FEET ON THE SIDES (SEE DETAIL "B"). PADS MUST NOT BE PLACED WITHIN 15 FEET OF ANY VALVE OR WITHIN 20 FEET OF ANY PLUMBING OR STORAGE FACILITY CONTAINING FLAMMABLE MATERIAL. NO WALLS, FENCES, OR ANY OTHER OBSTRUCTIONS WILL BE PLACED WITHIN 3 FEET OF THE SIDES OR BACK OF THE PAD, OR WITHIN 10 FEET OF THE FRONT OF THE PAD (SEE DETAIL "C"). THE AREA IN FRONT OF THE PAD MUST HAVE 10 FEET OF CLEAR, LEVEL WORKING AREA FOR MAINTENANCE OF THE TRANSFORMER. THE PAD MAY NOT BE PLACED IN LINE WITH AN AIR INTAKE WITHIN 32 VERTICAL FEET OF THE SURFACE PAD. ALSO VERTICALLY, IT MUST NOT BE PLACED WITHIN 12 FEET OF A DOOR OR WINDOW.

6. BARRIERS. IF THE TRANSFORMER PAD IS TO BE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC, (PARKING LOTS, DRIVEWAYS, ETC) PROVIDE PROTECTIVE BOLLARDS.

7. IF THE TRANSFORMER WILL NOT COVER THE CABLE OPENINGS ON THESE STANDARD PADS, SEAL THE SIDES OF THE CABLE OPENING TO FIT THE TRANSFORMER USING SAKRETE OR COMPARABLE.



E2 PARKING LOT LIGHT POLE BASE DETAIL (ZL-11)

SCALE: NTS

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02-15-2013

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ELECTRICAL SITE DETAILS

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007
DRAWING NO.: ES501
DATE: 02/15/2013

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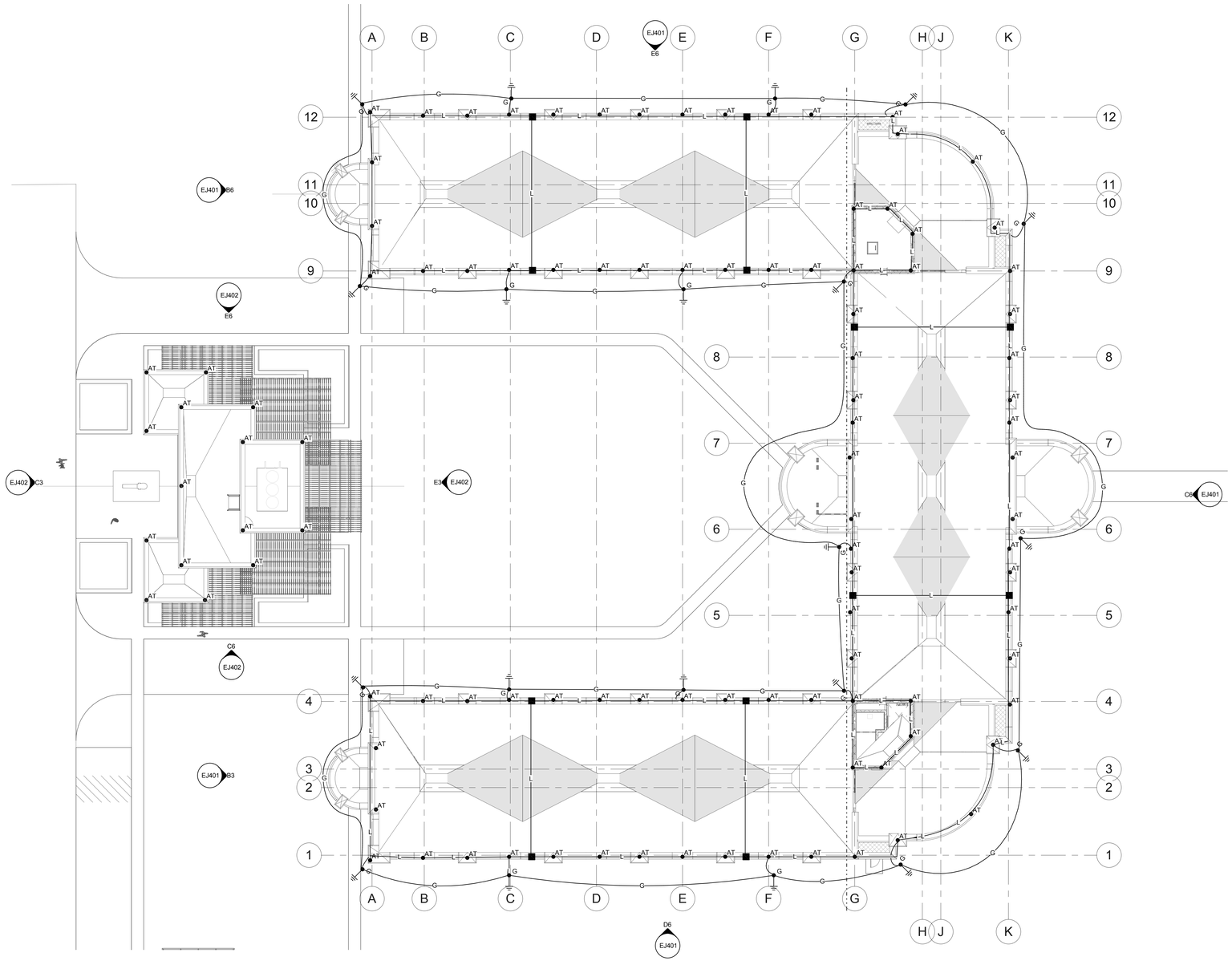
SYMBOL LEGEND	
SYMBOL	DESCRIPTION
—— L ——	LIGHTNING PROTECTION CONDUCTOR
—— G ——	GROUND LOOP WIRE #4/0 CU, BURIED 36" BELOW GRADE.
● AT	AIR TERMINAL (24")
■ P	PARALLEL CLAMP
G	GROUND ROD
G TW	GROUND ROD W/ TEST WELL



PLAN NORTH

0 8' 16' 32'

E4 LIGHTNING PROTECTION PLAN

SCALE: 1/16" = 1'-0"

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SHEET KEYNOTES

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LIGHTNING PROTECTION PLAN

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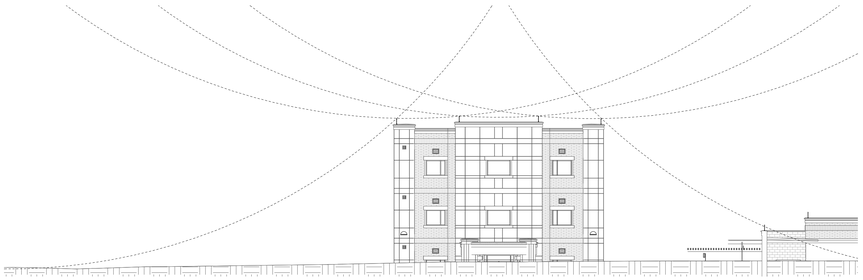
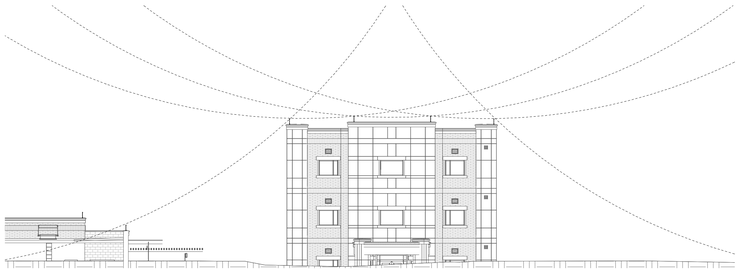
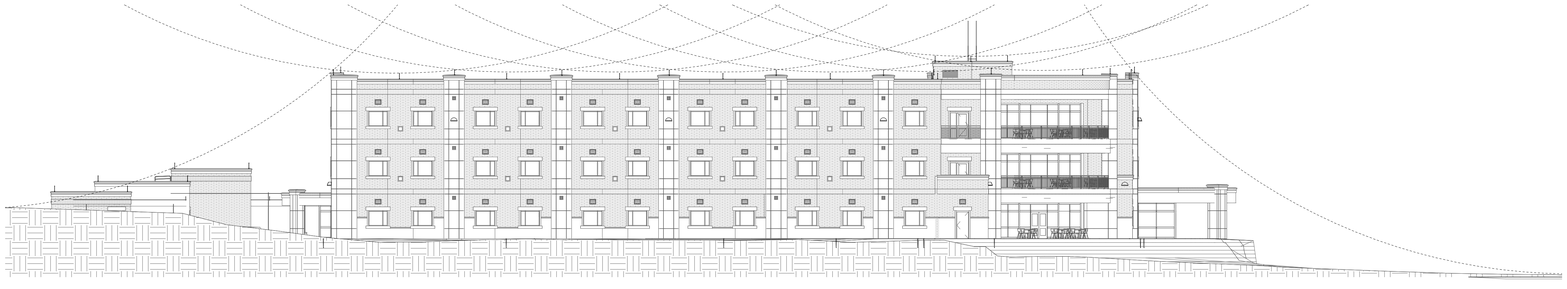


B6 LIGHTNING PROTECTION - WEST ELEVATION - NORTH WING
SCALE: 1/16" = 1'-0"

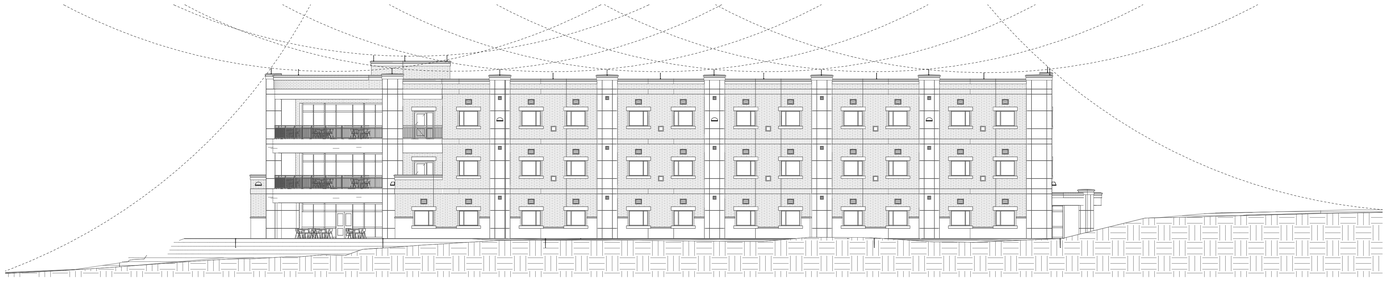


B3 LIGHTNING PROTECTION - WEST ELEVATION - SOUTH WING
SCALE: 1/16" = 1'-0"

C6 LIGHTNING PROTECTION - EAST ELEVATION
SCALE: 1/16" = 1'-0"



D6 LIGHTNING PROTECTION - SOUTH ELEVATION
SCALE: 1/16" = 1'-0"



E6 LIGHTNING PROTECTION - NORTH ELEVATION
SCALE: 1/16" = 1'-0"

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LIGHTNING PROTECTION ELEVATIONS - MAIN BUILDING

REVISION	DATE	BY	DESCRIPTION
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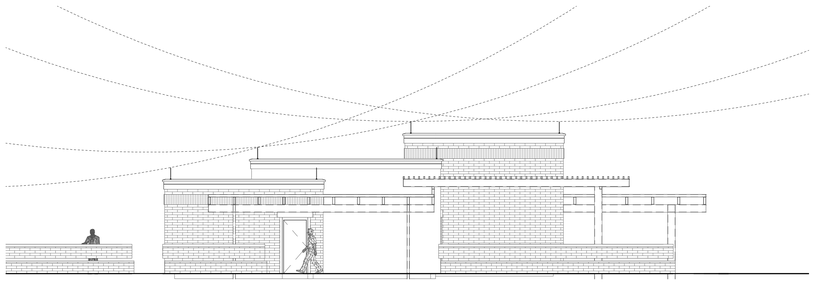
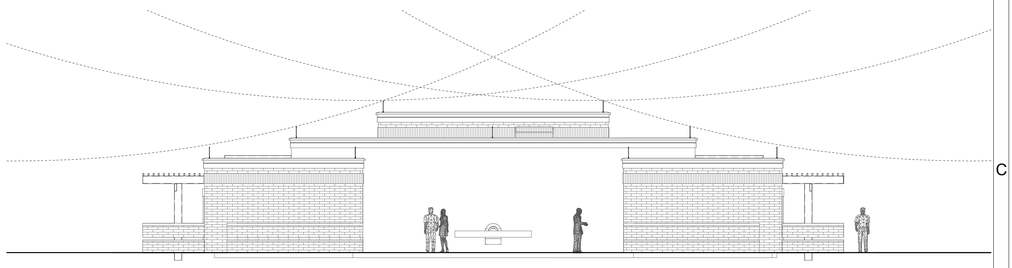


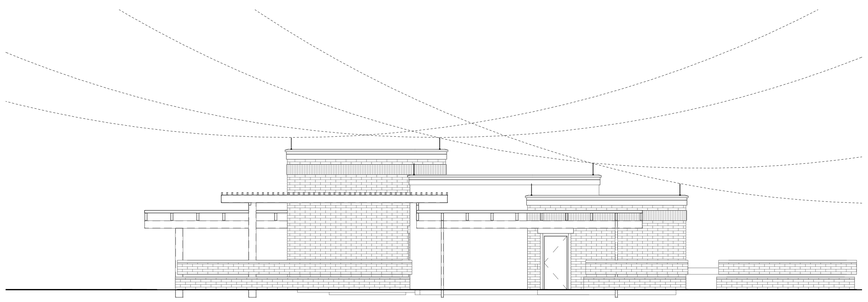
C6 LIGHTNING PROTECTION - MECH BUILDING - SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

0 4' 8' 16'



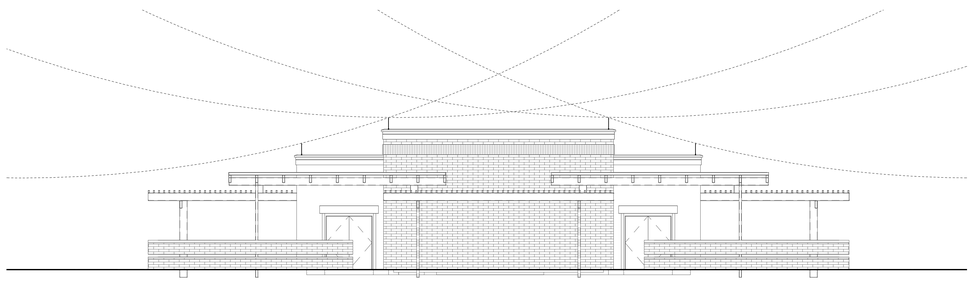
C3 LIGHTNING PROTECTION - MECH BUILDING - WEST ELEVATION
SCALE: 1/8" = 1'-0"

0 4' 8' 16'



E6 LIGHTNING PROTECTION - MECH BUILDING - NORTH ELEVATION
SCALE: 1/8" = 1'-0"

0 4' 8' 16'



E3 LIGHTNING PROTECTION - MECH BUILDING - EAST ELEVATION
SCALE: 1/8" = 1'-0"

0 4' 8' 16'

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SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER
No. 163854
DAVID L. AFFLECK
STATE OF UTAH
02-15-2013

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RIVERTON, UT 84062

LIGHTNING PROTECTION ELEVATIONS - SERVICE BUILDING

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007	DRAWING NO.: EJ402
DATE: 02/15/2013	

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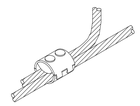
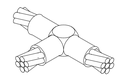
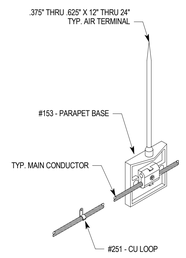


B3 #204 - PARALLEL CLAMP
SCALE: NTS

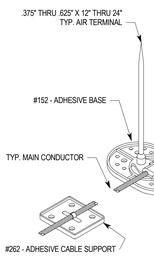


B2 TAC - CADWELD MOLD
SCALE: NTS

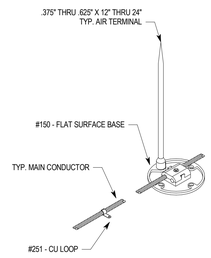
B1 GTC - CADWELD MOLD
SCALE: NTS



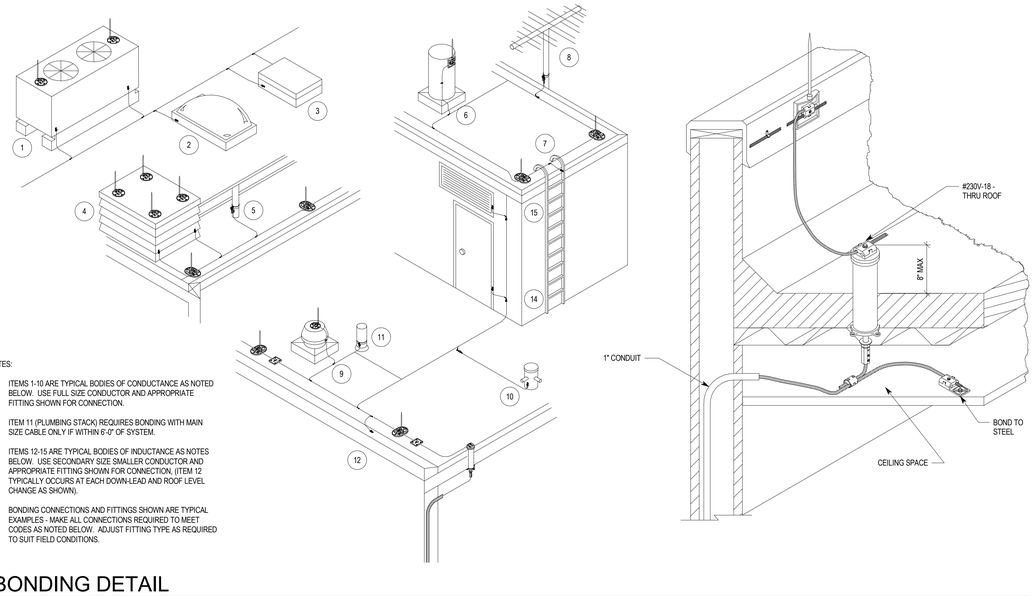
C3 153 - PARAPET BASE
SCALE: NTS



C2 152 - ADHESIVE BASE
SCALE: NTS



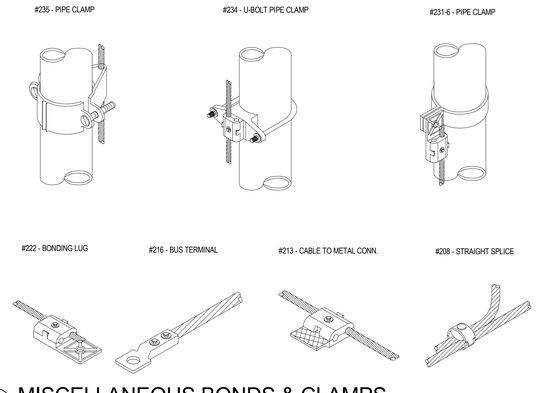
C1 150 - FLAT SURFACE BASE
SCALE: NTS



NOTES:

1. ITEMS 1-10 ARE TYPICAL BODIES OF CONDUCTANCE AS NOTED BELOW. USE FULL SIZE CONDUCTOR AND APPROPRIATE FITTING SHOWN FOR CONNECTION.
2. ITEM 11 (PLUMBING STACK) REQUIRES BONDING WITH MAIN SIZE CABLE ONLY IF WITHIN 6'-0" OF SYSTEM.
3. ITEMS 12-15 ARE TYPICAL BODIES OF INDUCTANCE AS NOTES BELOW. USE SECONDARY SIZE SMALLER CONDUCTOR AND APPROPRIATE FITTING SHOWN FOR CONNECTION, (ITEM 12 TYPICALLY OCCURS AT EACH DOWN-LEAD AND ROOF LEVEL CHANGE AS SHOWN).
4. BONDING CONNECTIONS AND FITTINGS SHOWN ARE TYPICAL EXAMPLES - MAKE ALL CONNECTIONS REQUIRED TO MEET CODES AS NOTED BELOW. ADJUST FITTING TYPE AS REQUIRED TO SUIT FIELD CONDITIONS.

E5 BONDING DETAIL
SCALE: NTS



E2 MISCELLANEOUS BONDS & CLAMPS
SCALE: NTS

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SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER
No. 163854
DAVID L. AFFLECK
STATE OF UTAH
02-15-2013

GENERAL & INSTALLATION NOTES

1. LOCATE AIR TERMINALS AS SHOWN. TAKE CARE TO INSURE THAT ALL POINTS ARE WITHIN 2'-0" OF OUTSIDE BUILDING EDGE, OUTSIDE CORNERS, AND RIDGE ENDS, AND THAT MAXIMUM SPACING DOES NOT EXCEED 20'-0", AND THAT MINIMUM PROJECTION ABOVE OBJECT PROTECTED IS 10", (POINTS PROJECTING 24" MAY BE SPACED @ 25' MAX).
2. MAINTAIN HORIZONTAL OR DOWNWARD COURSING OF MAIN CONDUCTOR AND INSURE THAT ALL BENDS HAVE AT LEAST AND 8" RADIUS AND DO NOT EXCEED 90 DEGREES.
3. ATTACH ALL EXPOSED ROOF, DOWNLEAD AND BONDING CABLES AT 3"-0" ON CENTER MAXIMUM. VERIFY COMPATIBILITY OF ADHESIVE ON MEMBRANE ROOF APPLICATION PRIOR TO INSTALLATION.
4. GROUND ELECTRODES SHALL BE INSTALLED AS SHOWN BUT IN NO INSTANCE SHALL THEY BE LESS THAN 1'-0" BELOW GRADE AND 2'-0" FROM FOUNDATION WALL. DRIVEN RODS SHALL PENETRATE EARTH AT LEAST 10'-0".
5. BOND TO WATER SERVICE AND OTHER PIPING SYSTEMS AS SHOWN AND AS REQUIRED BY CODES.
6. INTERCONNECT LIGHTNING PROTECTION GROUND TO ELECTRIC, TELEPHONE, AND OTHER BUILDING GROUND SYSTEMS AS SHOWN OR AS REQUIRED BY CODE.
7. SYSTEM SHALL BE INSTALLED AS SHOWN TO INSURE PROPER CODE COMPLIANCE AND SYSTEM CERTIFICATION. ANY MAJOR VARIANCE SHALL ENTAIL RESUBMITTAL AND NEW APPROVAL.
8. "AS BUILT" DRAWINGS SHALL BE SUBMITTED IN ACCORDANCE WITH CERTIFICATION PROCEDURES.
9. ALL MATERIALS TO BE UNDERWRITER'S LABORATORIES APPROVED WITH "A" LABELS ON CONDUCTORS @ 10'-0" INTERVALS AND "B" LABELS ON ALL AIR TERMINALS.
10. COMPLETED INSTALLATION AS SHOWN SHALL BEAR U.L. MASTER LABEL "C" TO BE SECURED BY SYSTEM INSTALLER PER UL96A.
11. INSTALLATION SHALL COMPLY IN ALL RESPECTS TO L.P.I CODE 175. INSTALLATION SHALL BE MADE OR UNDER THE SUPERVISION OF AN L.P.I CERTIFIED MASTER INSTALLER.

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
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RIVERTON, UT 84062

LIGHTNING PROTECTION DETAILS

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007	DRAWING NO.: EJ601
DATE: 02/15/2013	

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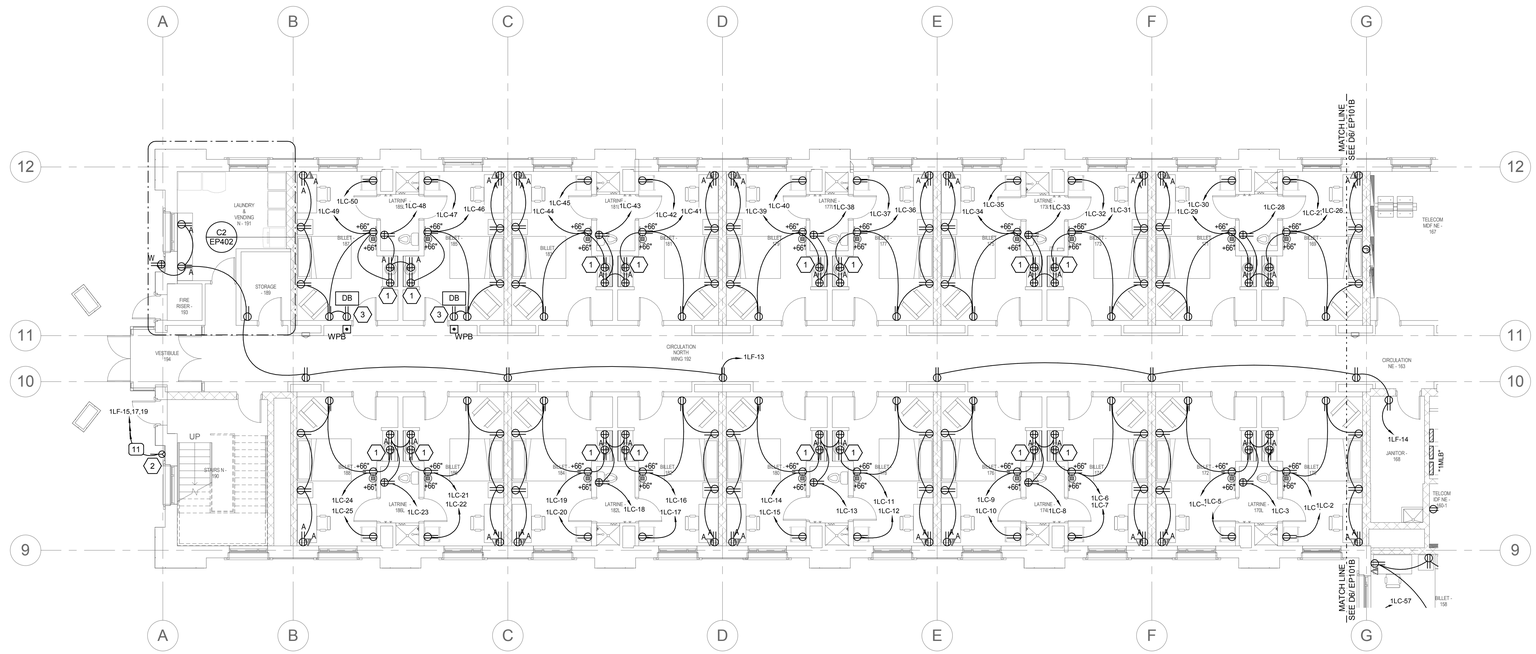
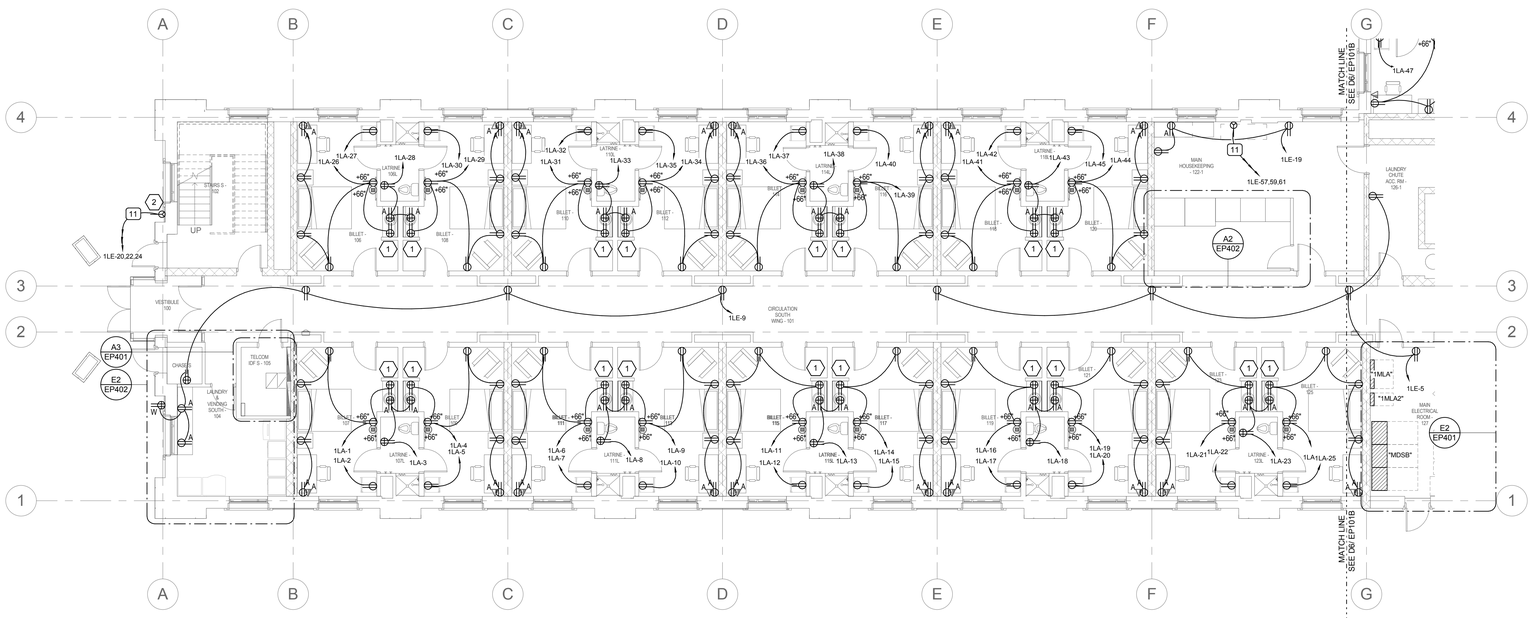
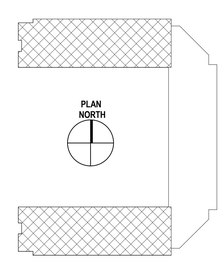


C6 LEVEL 1 POWER PLAN - NORTH WING
SCALE: 1/8" = 1'-0"



E6 LEVEL 1 POWER PLAN - SOUTH WING
SCALE: 1/8" = 1'-0"



KEY PLAN

EFT ARCHITECTS
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SEAL & SIGNATURE

SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH
02-15-2013

GENERAL SHEET NOTES

1. COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH HARD LID CEILING ACCESS PANELS INFIELD PRIOR TO ROUGH-IN.
2. ALL OUTLETS IN BILLET ROOMS AND BILLET LATRINES SHALL BE LISTED TAMPER RESISTANT DEVICES IN ACCORDANCE WITH NEC 406.13.

SHEET KEYNOTES

1. OUTLET IS IN WALL BELOW SINK. SEE SECTION B5/EP402.
2. RECEPTACLE FOR PRESENTATION EQUIPMENT POWER. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
3. PROVIDE OUTLET AT +84" FOR ADA DOOR CHIME/STROBE DEVICE. PROVIDE CARLON #RC3270 WITH PHONE INTERFACE DEVICE OR APPROVED EQUAL.

BUILDING OFFICIAL APPROVAL

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1ST LEVEL POWER PLANS NORTH & SOUTH WINGS

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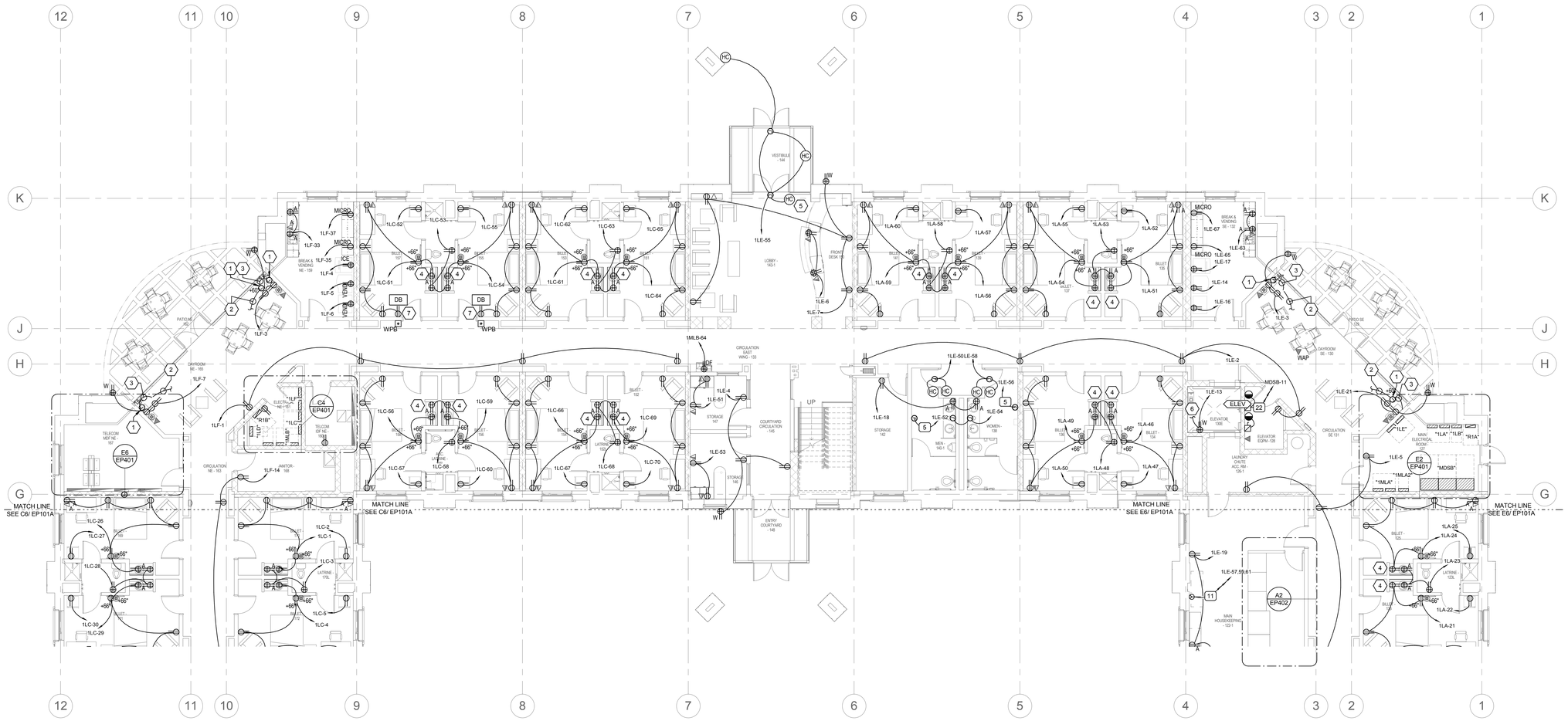
SPECTRUM ENGINEERS

REGISTERED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH
02-15-2013

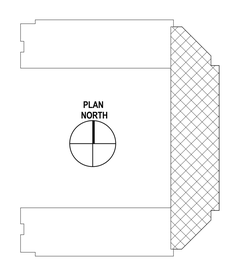


D6 LEVEL 1 POWER PLAN - EAST WING

SCALE: 1/8" = 1'-0"

PLAN NORTH

0 4' 8' 16'



KEY PLAN

GENERAL SHEET NOTES

1 COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH HARD LID CEILING ACCESS PANELS INFIELD PRIOR TO ROUGH-IN.

2 ALL OUTLETS IN BILLET ROOMS AND BILLET LATRINES SHALL BE LISTED TAMPER RESISTANT DEVICES IN ACCORDANCE WITH NEC 406.13.

SHEET KEYNOTES

1 PROVIDE 4"X4"X4" BOX FOR A/V CABLING.

2 PROVIDE 2-INCH CONDUIT STUB TO ABOVE THE ACCESSIBLE CEILING.

3 PROVIDE 2-INCH CONDUIT WITH PULL STRING FOR A/V CABLING.

4 OUTLET IS IN WALL BELOW SINK. SEE SECTION B5/EP402.

5 MOUNT IN MULLION. COORDINATE WITH DOOR OPERATOR INSTALLER.

6 CIRCUIT TO LIGHTING FIXTURE LOCATED IN ELEVATOR PIT. REFER TO ASSOCIATED 'EL' LIGHTING SHEET FOR ADDITIONAL INFORMATION.

7 PROVIDE OUTLET AT +84" FOR ADA DOOR CHIME/STROBE DEVICE. PROVIDE CARLON #RC3270 WITH PHONE INTERFACE DEVICE OR APPROVED EQUAL.

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1ST LEVEL POWER PLAN EAST WING

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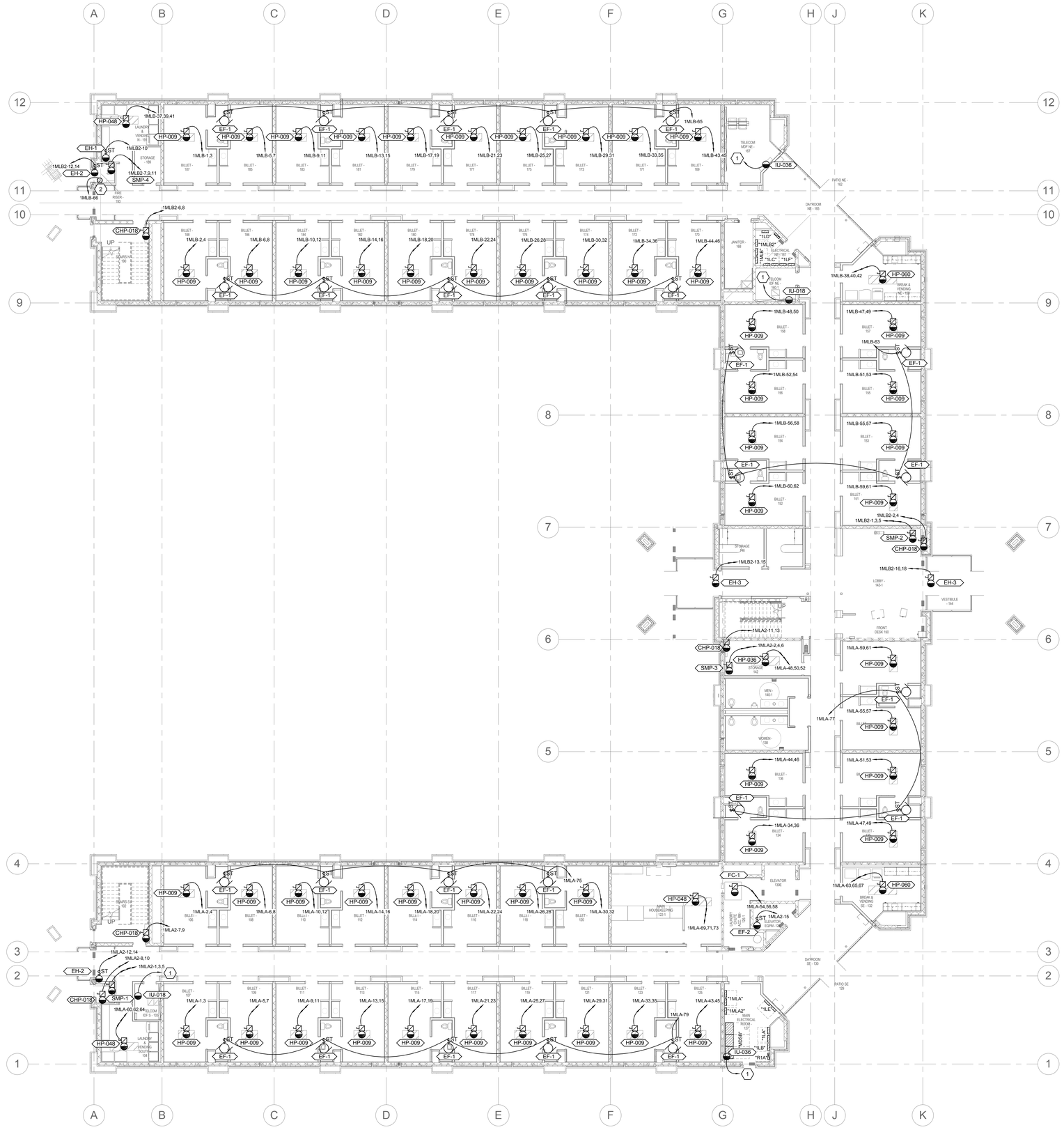

E6 LEVEL 1 - OVERALL MECHANICAL POWER PLAN
SCALE: 3/32" = 1'-0"

PLAN NORTH

0 6' 12' 24'

SEAL & SIGNATURE

SPECTRUM ENGINEERS

REGISTERED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH 02-15-2013

GENERAL SHEET NOTES

1. LOCATIONS OF MECHANICAL EQUIPMENT SHOWN IS APPROXIMATE. COORDINATE EXACT LOCATIONS OF EQUIPMENT IN FIELS WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.
2. MOUNT DISCONNECT SWITCHES SHOWN IN ACCESSIBLE LOCATION.

SHEET KEYNOTES

1. CONNECT TO ASSOCIATED OUTDOOR CONDENSING UNIT LOCATED ON ROOF. PROVIDE CONDUIT AND CONTROL WIRING AS REQUIRED BY MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. JUNCTION BOX FOR CONNECTION TO FIRE RISER FLOW AND TAMPER SWITCH. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT PRIOR TO ROUGH-IN.

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1ST LEVEL - MECHANICAL POWER

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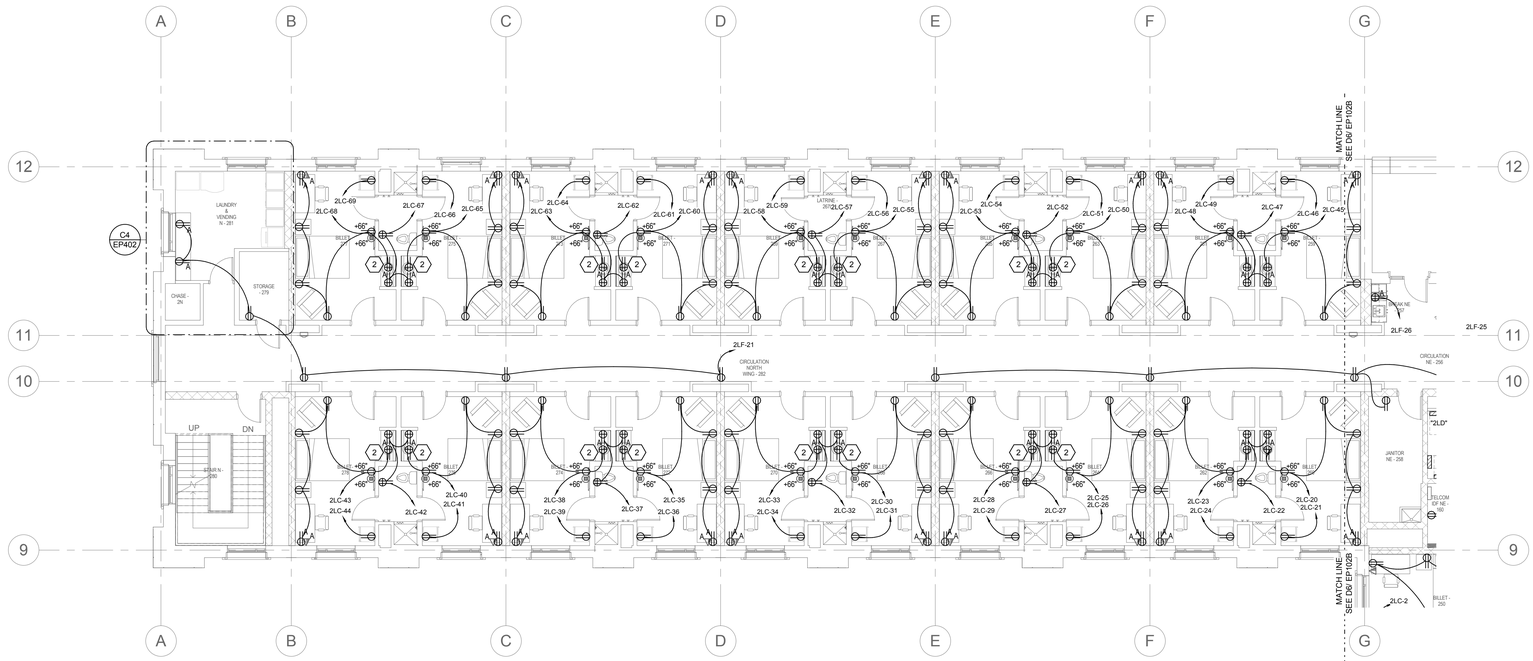
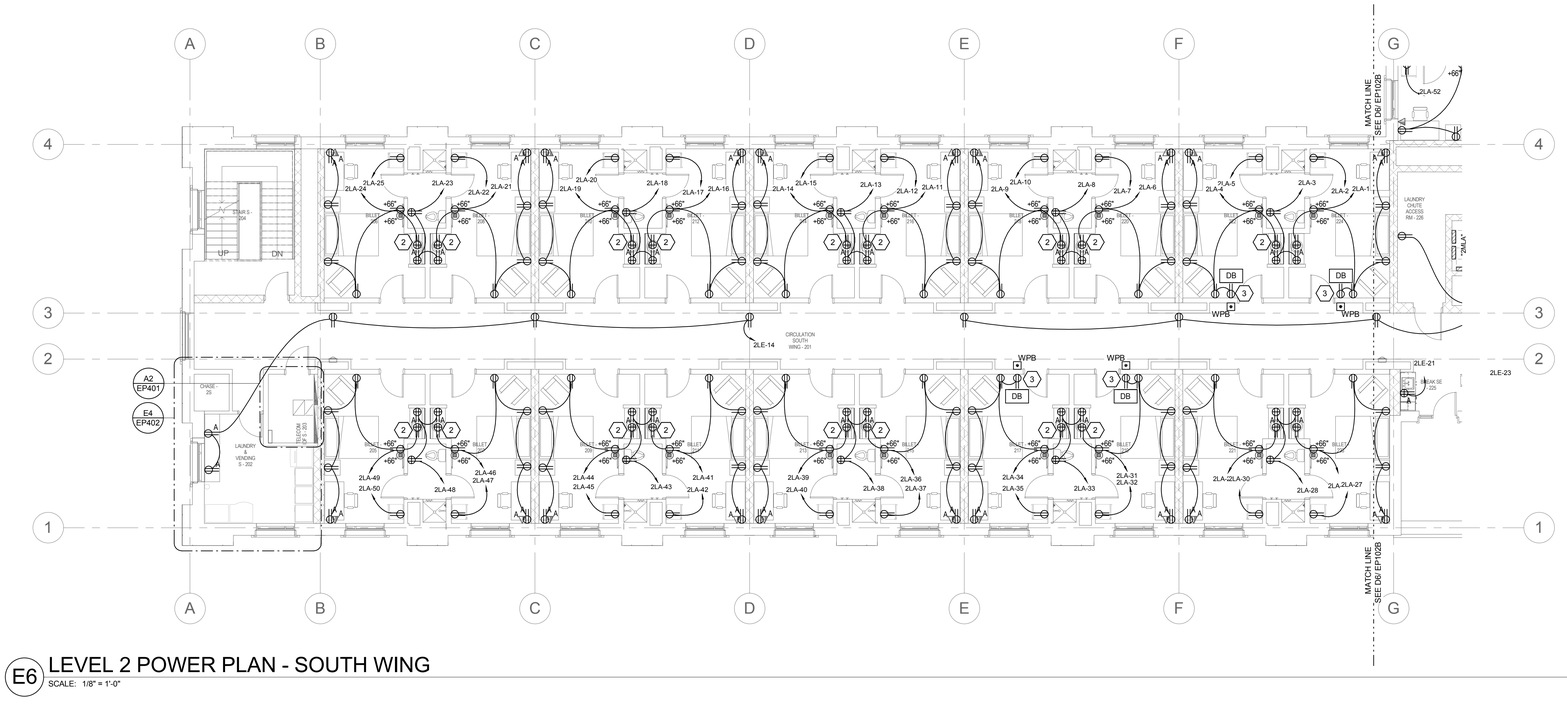
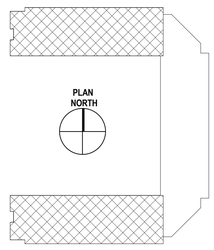
02-15-2013



C6 LEVEL 2 POWER PLAN - NORTH WING
SCALE: 1/8" = 1'-0"



E6 LEVEL 2 POWER PLAN - SOUTH WING
SCALE: 1/8" = 1'-0"



KEY PLAN

GENERAL SHEET NOTES

1. COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH HARD LID CEILING ACCESS PANELS INFIELD PRIOR TO ROUGH-IN.
2. ALL OUTLETS IN BILLET ROOMS AND BILLET LATRINES SHALL BE LISTED TAMPER RESISTANT DEVICES IN ACCORDANCE WITH NEC 406.13.

SHEET KEYNOTES

1. PROVIDE 4"X4"X4" BOX FOR A/V CABLING.
2. OUTLET IS IN WALL BELOW SINK. SEE SECTION B5/EP402.
3. PROVIDE OUTLET AT +84" FOR ADA DOOR CHIME/STROBE DEVICE. PROVIDE CARLON #RC3270 WITH PHONE INTERFACE DEVICE OR APPROVED EQUAL.

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2ND LEVEL POWER PLANS NORTH & SOUTH WINGS

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DATE: 02/15/2013	

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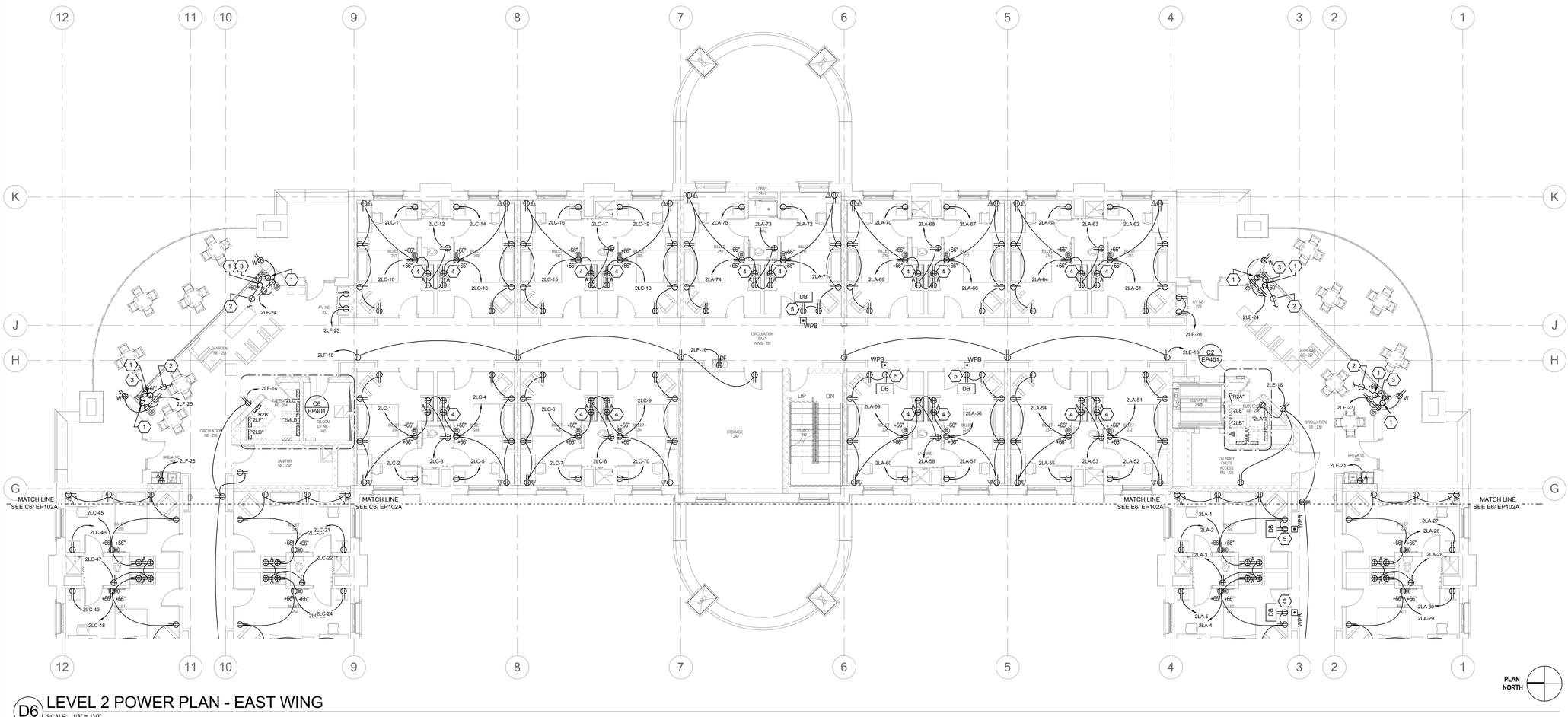
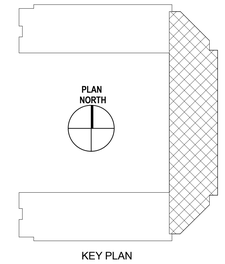


D6 LEVEL 2 POWER PLAN - EAST WING

SCALE: 1/8" = 1'-0"



KEY PLAN

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SEAL & SIGNATURE

SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH

02-15-2013

GENERAL SHEET NOTES

1. COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH HARD LID CEILING ACCESS PANELS INFIELD PRIOR TO ROUGH-IN.
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4. OUTLET IS IN WALL BELOW SINK. SEE SECTION B5/EP402.
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BUILDING OFFICIAL APPROVAL

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2ND LEVEL POWER PLAN EAST WING

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DATE: 02/15/2013	

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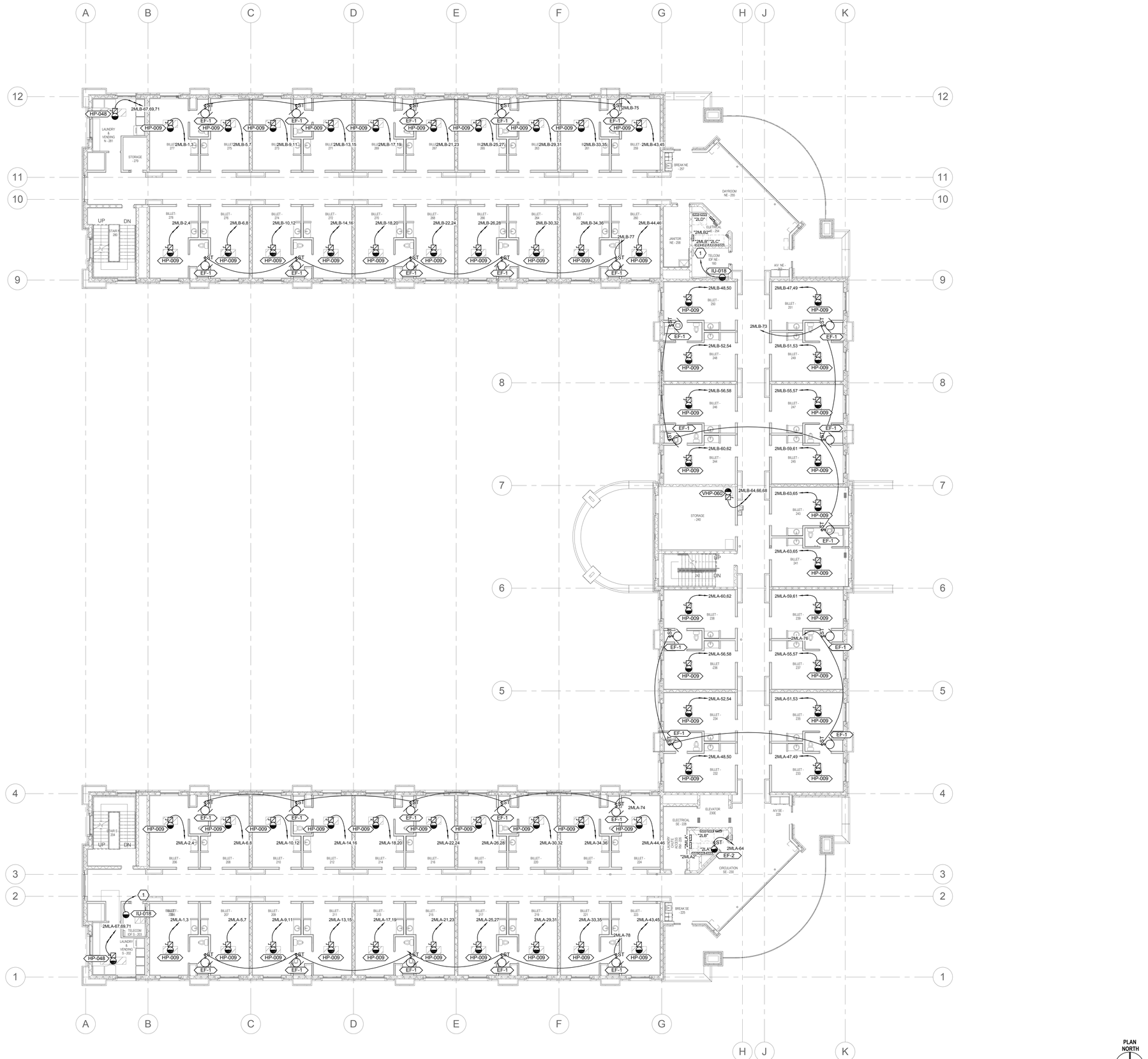

E6 LEVEL 2 - OVERALL MECHANICAL POWER PLAN

SCALE: 3/32" = 1'-0"

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SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH

02-15-2013

GENERAL SHEET NOTES

1. LOCATIONS OF MECHANICAL EQUIPMENT SHOWN IS APPROXIMATE. COORDINATE EXACT LOCATIONS OF EQUIPMENT IN FIELS WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.
2. MOUNT DISCONNECT SWITCHES SHOWN IN ACCESSIBLE LOCATION.

SHEET KEYNOTES

1. CONNECT TO ASSOCIATED OUTDOOR CONDENSING UNIT LOCATED ON ROOF. PROVIDE CONDUIT AND CONTROL WIRING AS REQUIRED BY MANUFACTURER'S INSTALLATION INSTRUCTIONS.

BUILDING OFFICIAL APPROVAL

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2ND LEVEL - MECHANICAL POWER

REVISION	DATE	BY	DESCRIPTION
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DATE: 02/15/2013	

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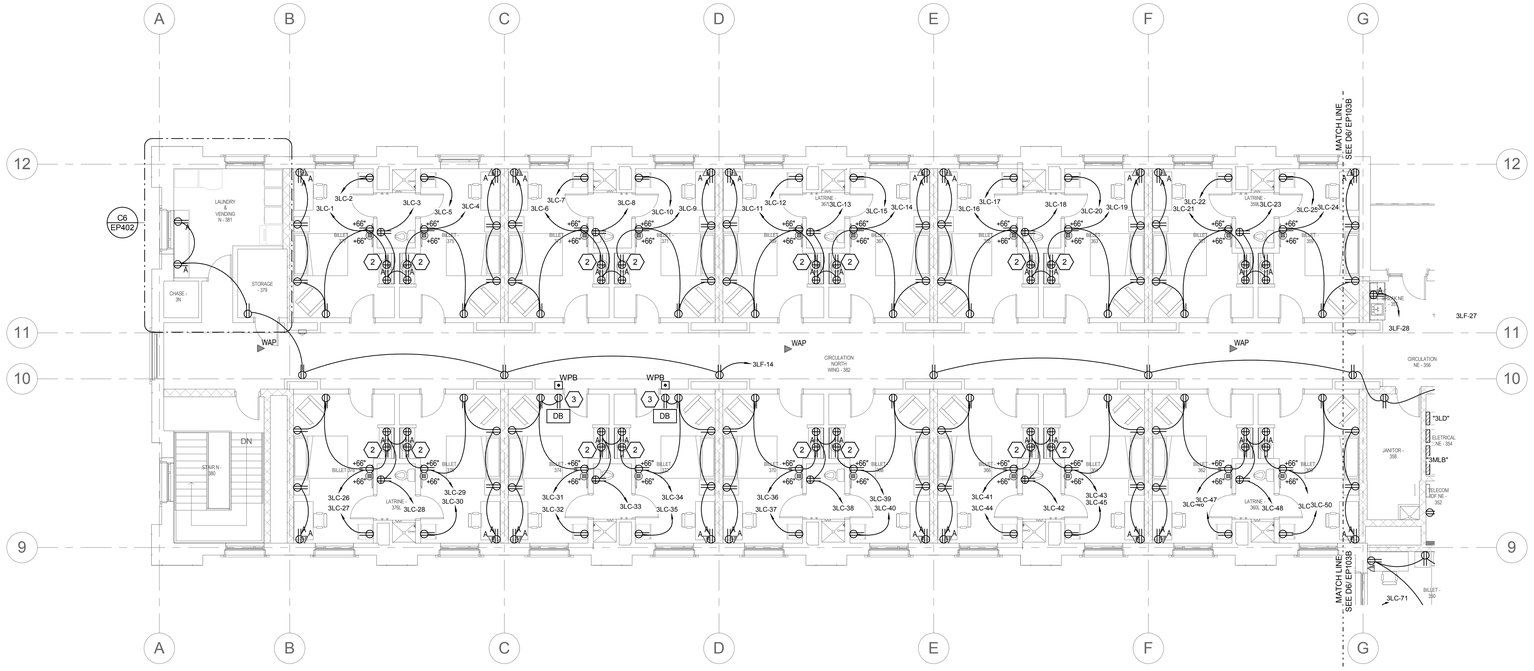
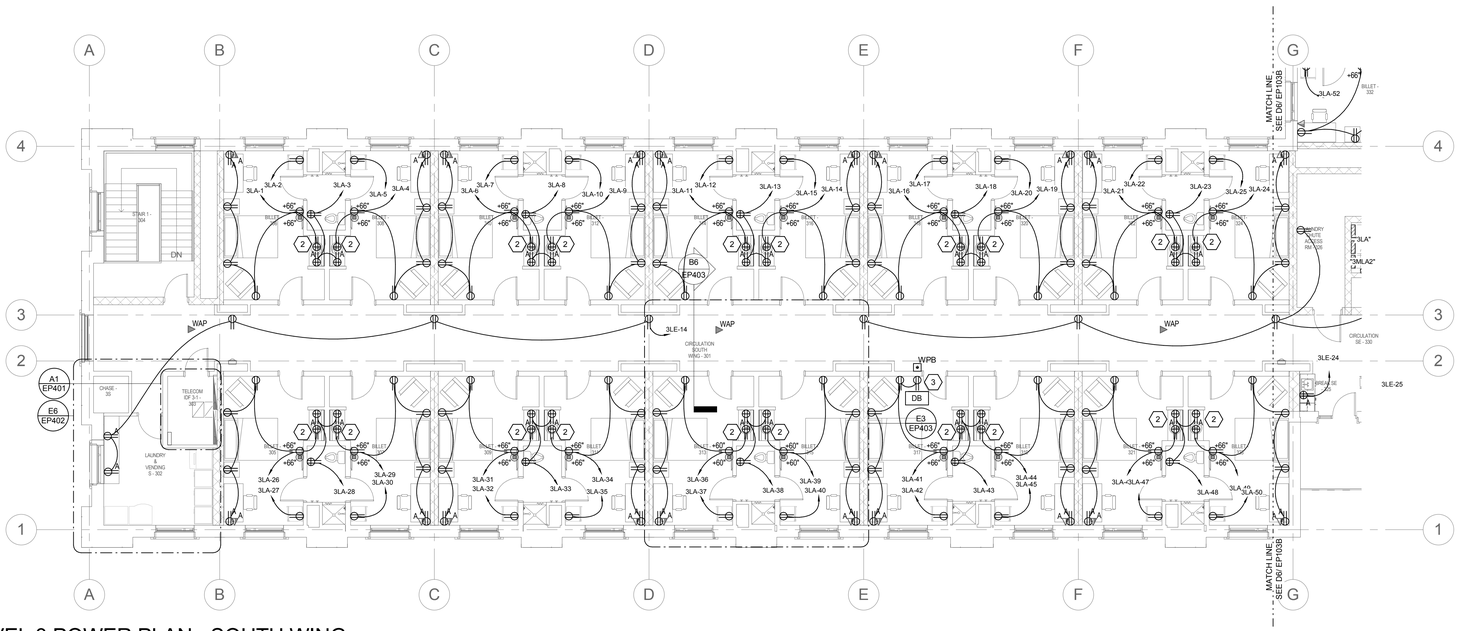


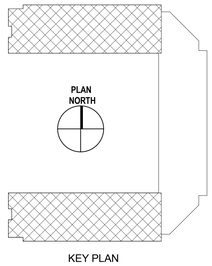
C6 LEVEL 3 POWER PLAN - NORTH WING

SCALE: 1/8" = 1'-0"



E6 LEVEL 3 POWER PLAN - SOUTH WING

SCALE: 1/8" = 1'-0"



KEY PLAN

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SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH

02-15-2013

GENERAL SHEET NOTES

1. COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH HARD LID CEILING ACCESS PANELS INFIELD PRIOR TO ROUGH-IN.
2. ALL OUTLETS IN BILLET ROOMS AND BILLET LATRINES SHALL BE LISTED TAMPER RESISTANT DEVICES IN ACCORDANCE WITH NEC 406.13.

SHEET KEYNOTES

1. PROVIDE 4"X4"X4" BOX FOR A/V CABLING.
2. OUTLET IS IN WALL BELOW SINK. SEE SECTION B5/EP402.
3. PROVIDE OUTLET AT +84" FOR ADA DOOR CHIME/STROBE DEVICE. PROVIDE CARLON #RC3270 WITH PHONE INTERFACE DEVICE OR APPROVED EQUAL.

BUILDING OFFICIAL APPROVAL

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CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
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3RD LEVEL POWER PLANS NORTH & SOUTH WINGS

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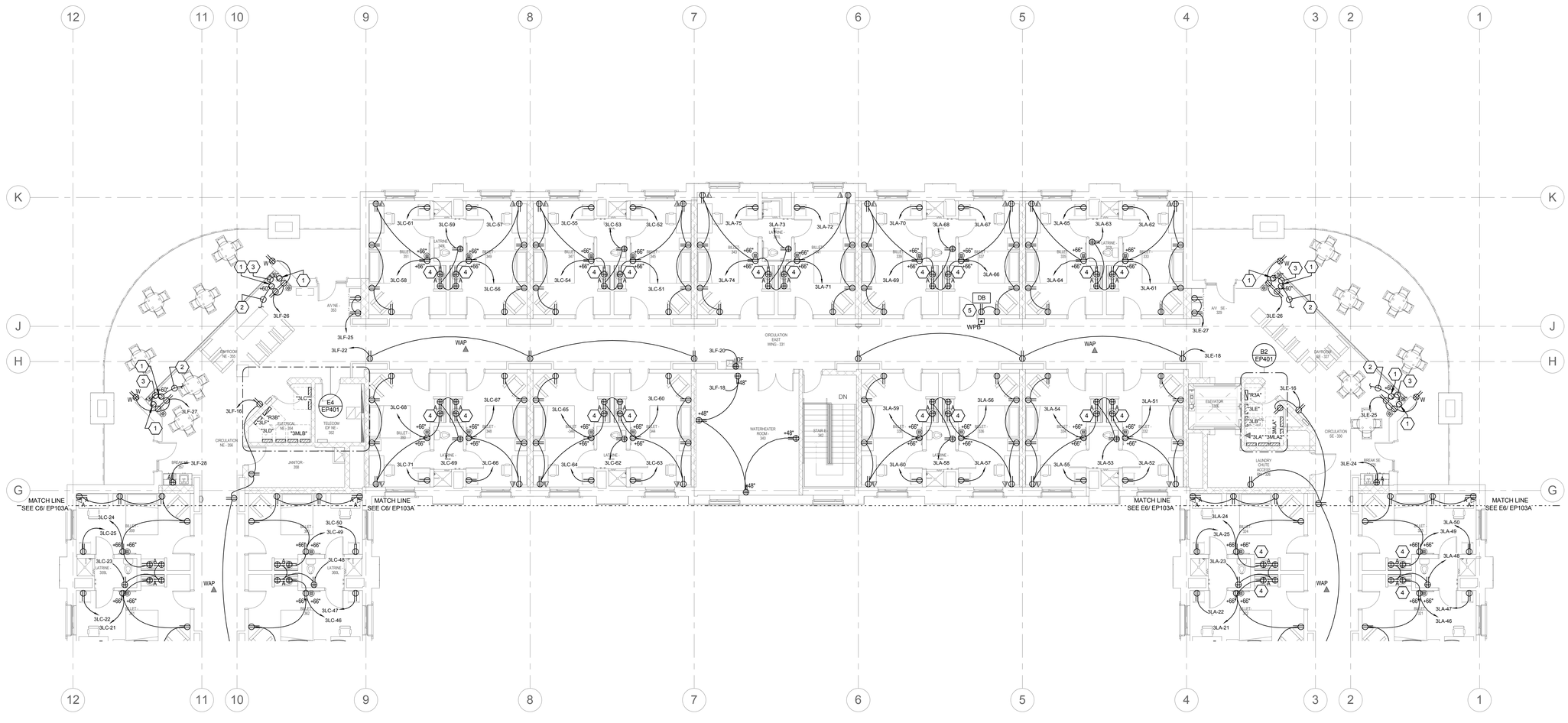
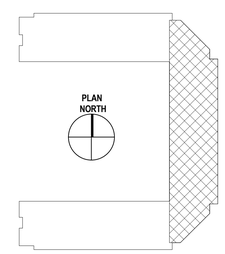
CHECKED BY: DLA
PROJECT NO.: 11007
DRAWING NO.: EP103A
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



D6 LEVEL 3 POWER PLAN - EAST WING

SCALE: 1/8" = 1'-0"



KEY PLAN

EFT
ARCHITECTS
265 EAST 100 SOUTH SUITE 350
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SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH

02-15-2013

GENERAL SHEET NOTES

1. COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH HARD LID CEILING ACCESS PANELS INFIELD PRIOR TO ROUGH-IN.
2. ALL OUTLETS IN BILLET ROOMS AND BILLET LATRINES SHALL BE LISTED TAMPER RESISTANT DEVICES IN ACCORDANCE WITH NEC 406.13.

SHEET KEYNOTES

1. PROVIDE 4"X4"X4" BOX FOR A/V CABLING.
2. PROVIDE 2-INCH CONDUIT STUB TO ABOVE THE ACCESSIBLE CEILING.
3. PROVIDE 2-INCH CONDUIT WITH PULL STRING FOR A/V CABLING.
4. OUTLET IS IN WALL BELOW SINK. SEE SECTION B5/EP402.
5. PROVIDE OUTLET AT +84" FOR ADA DOOR CHIME/STROBE DEVICE. PROVIDE CARLON #RC3270 WITH PHONE INTERFACE DEVICE OR APPROVED EQUAL.

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3RD LEVEL POWER PLAN EAST WING

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007	DRAWING NO.: EP103B
DATE: 02/15/2013	

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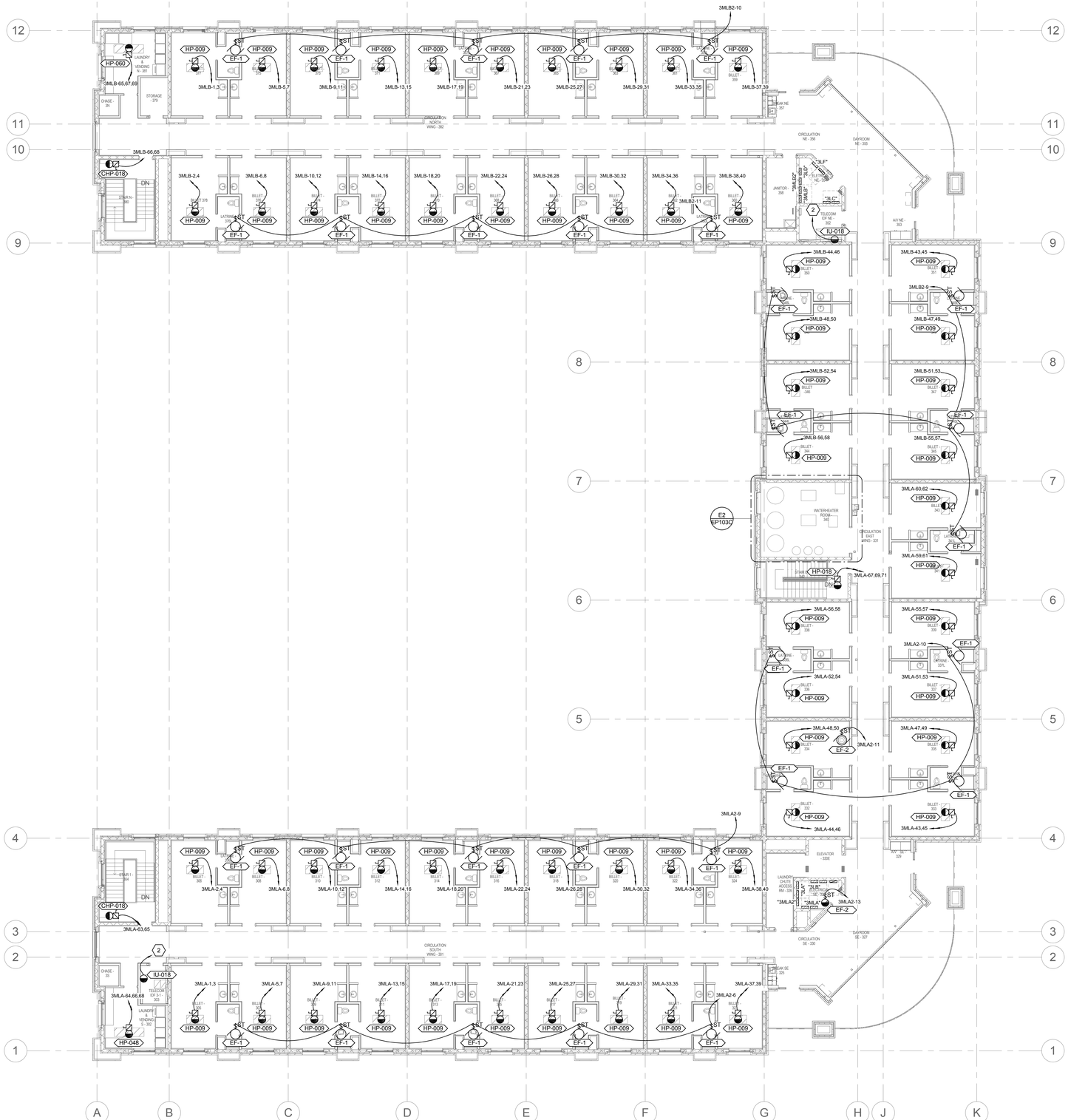
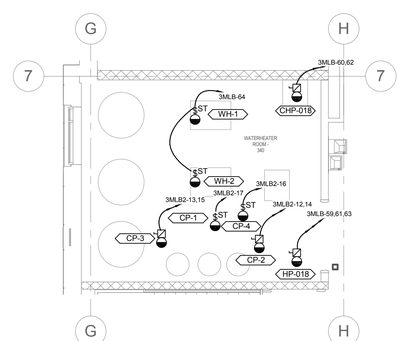


E6 LEVEL 3 - OVERALL MECHANICAL POWER PLAN
SCALE: 3/32" = 1'-0"



E2 ENLARGED ROOM 340 MECH EQUIP POWER PLAN
SCALE: 3/16" = 1'-0"

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SPECTRUM ENGINEERS

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02-15-2013

GENERAL SHEET NOTES

1. LOCATIONS OF MECHANICAL EQUIPMENT SHOWN IS APPROXIMATE. COORDINATE EXACT LOCATIONS OF EQUIPMENT IN FIELS WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.
2. MOUNT DISCONNECT SWITCHES SHOWN IN ACCESSIBLE LOCATION.

SHEET KEYNOTES

1. PROVIDE 4"X4"X4" BOX FOR A/V CABLING.
2. CONNECT TO ASSOCIATED OUTDOOR CONDENSING UNIT LOCATED ON ROOF. PROVIDE CONDUIT AND CONTROL WIRING AS REQUIRED BY MANUFACTURER'S INSTALLATION INSTRUCTIONS.

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3RD LEVEL - MECHANICAL POWER

REVISION	DATE	BY	DESCRIPTION
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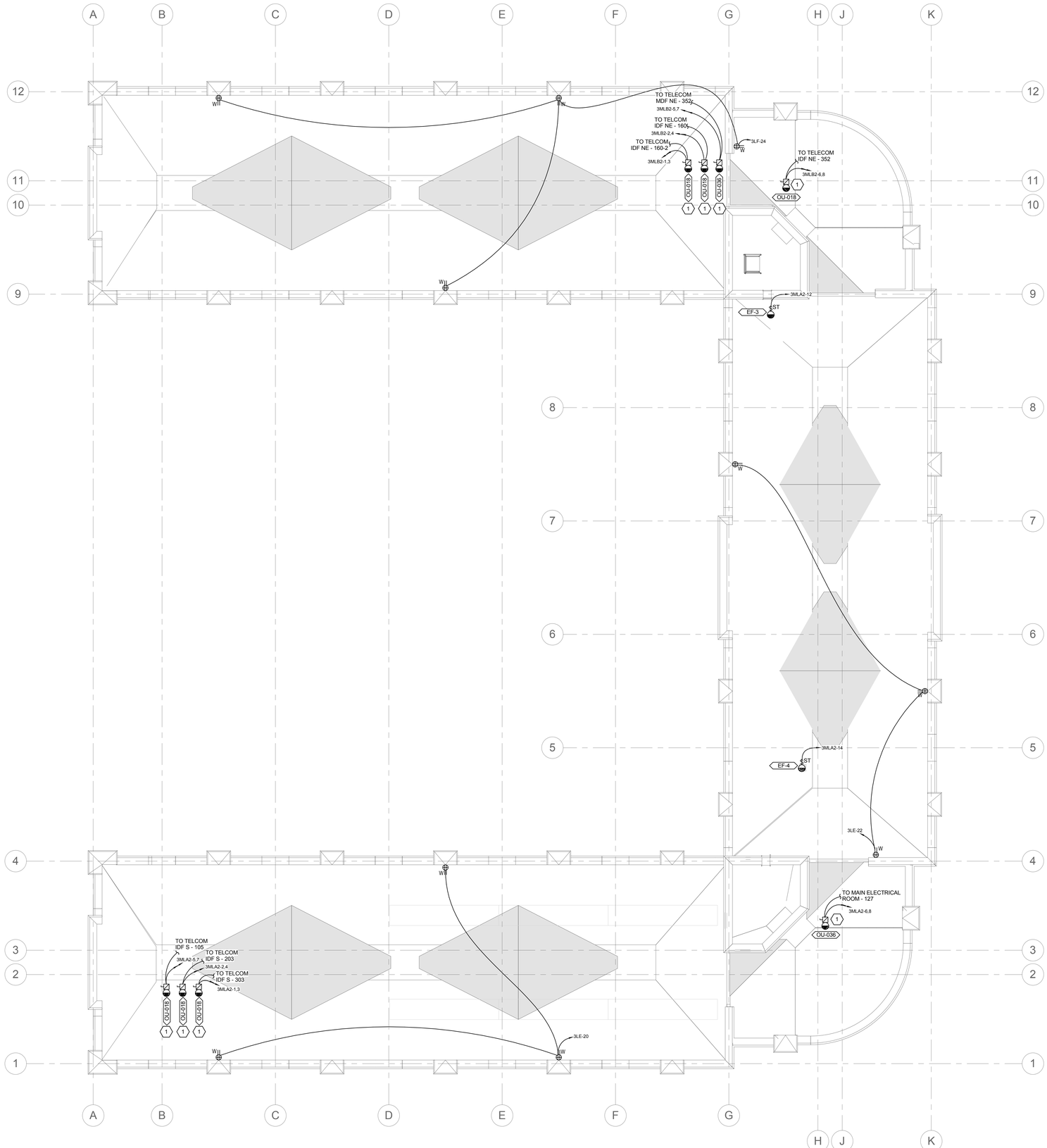
PROJECT NO.: 11007	DRAWING NO.: EP103C
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



E6 ROOF MECHANICAL POWER PLAN

SCALE: 3/32" = 1'-0"

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GENERAL SHEET NOTES

1 LOCATIONS OF MECHANICAL EQUIPMENT SHOWN IS APPROXIMATE. COORDINATE EXACT LOCATIONS OF EQUIPMENT IN FIELS WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.

2 MOUNT DISCONNECT SWITCHES SHOWN IN ACCESSIBLE LOCATION.

SHEET KEYNOTES

1 CONNECT TO ASSOCIATED INDOOR CONDENSING UNIT LOCATED IN BUILDING. PROVIDE CONDUIT AND CONTROL WIRING AS REQUIRED BY MANUFACTURER'S INSTALLATION INSTRUCTIONS.

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ROOF MECHANICAL POWER PLAN

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SPECTRUM ENGINEERS

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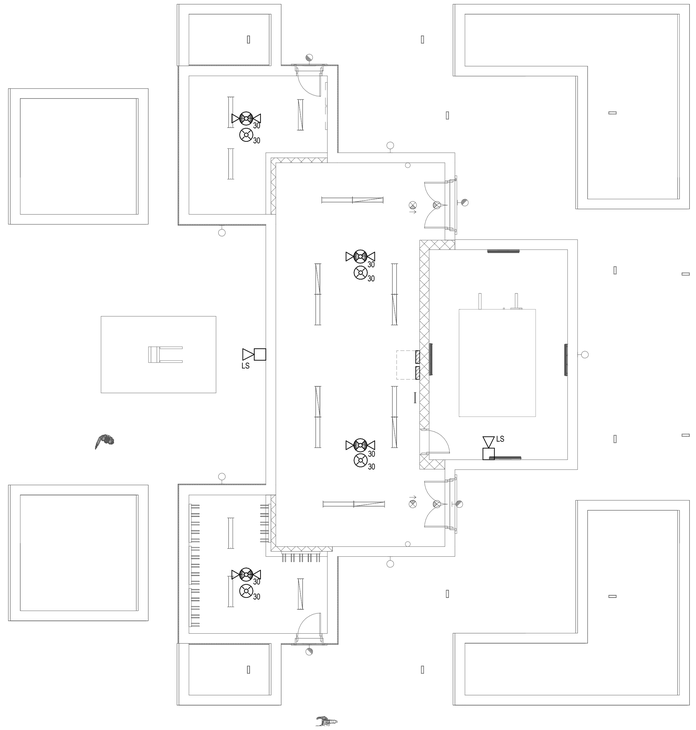
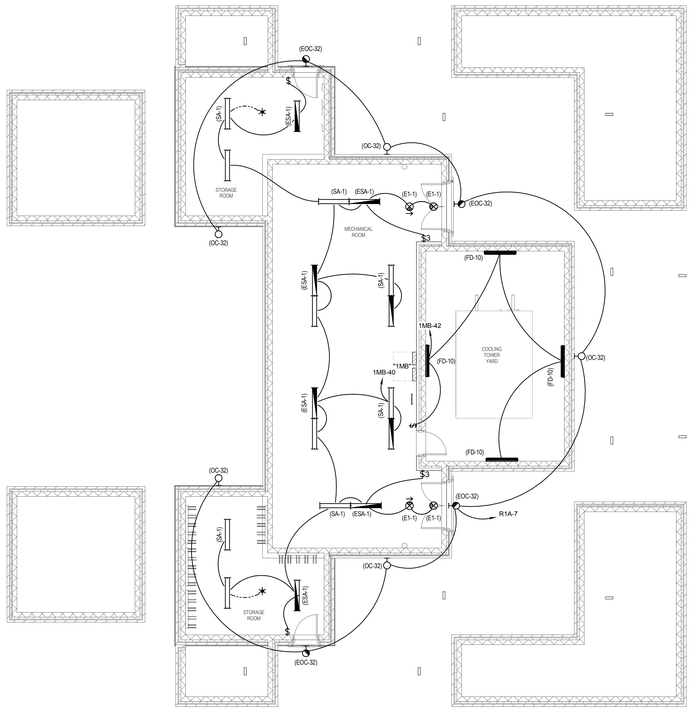
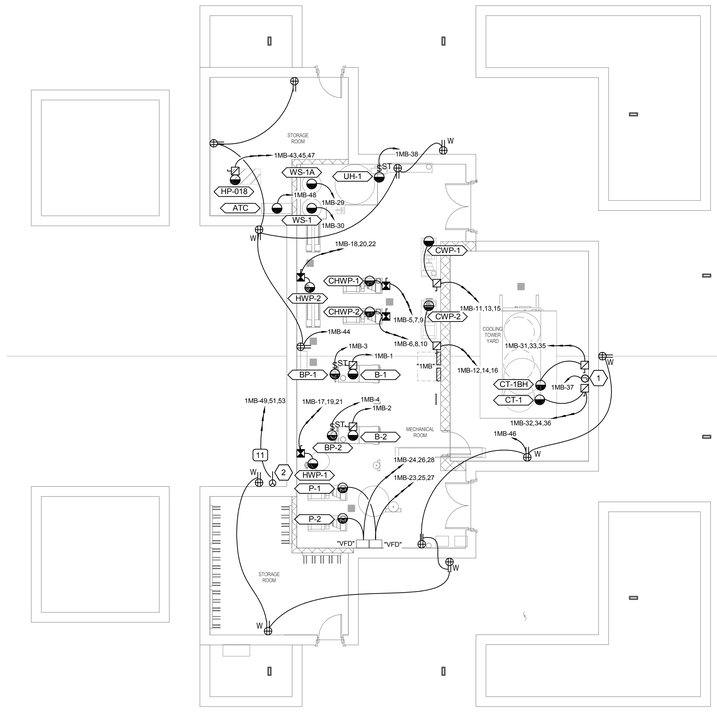


C3 SERVICE BUILDING FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"



E6 SERVICE BUILDING LIGHTING PLAN
SCALE: 1/8" = 1'-0"



E3 SERVICE BUILDING POWER & MECHANICAL POWER PLAN
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

1 LOCATIONS OF MECHANICAL EQUIPMENT SHOWN IS APPROXIMATE. COORDINATE EXACT LOCATIONS OF EQUIPMENT IN FIELS WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.

2 MOUNT DISCONNECT SWITCHES SHOWN IN ACCESSIBLE LOCATION.

SHEET KEYNOTES

1 JUNCTION BOX FOR COOLING TOWER CONTROLS CIRCUIT. COORDINATE EXACT LOCATION WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.

2 RECEPTACLE FOR PRESENTATION EQUIPMENT POWER. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.

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SERVICE BUILDING ELECTRICAL PLANS

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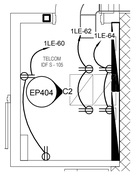
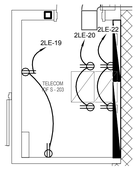
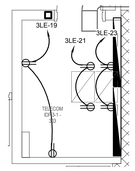


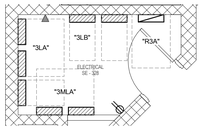
A3 ENLARGED IDF S-105
SCALE: 1/4" = 1'-0"



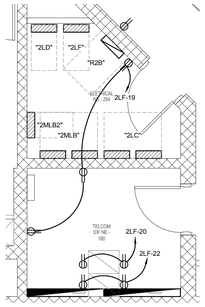
A2 ENLARGED IDF S-203
SCALE: 1/4" = 1'-0"



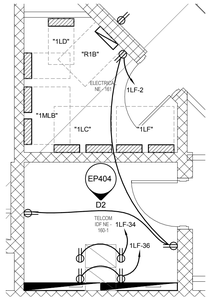
A1 ENLARGED IDF 3-1-303
SCALE: 1/4" = 1'-0"



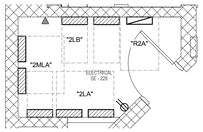
B2 ENLARGED ELECTRICAL ROOM SE-328
SCALE: 1/4" = 1'-0"



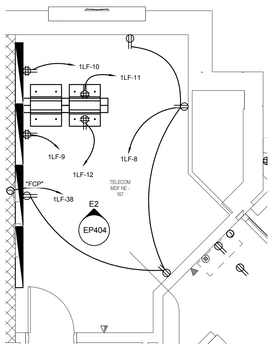
C6 ENLARGED IDF NE-252 AND NE-254
SCALE: 1/4" = 1'-0"



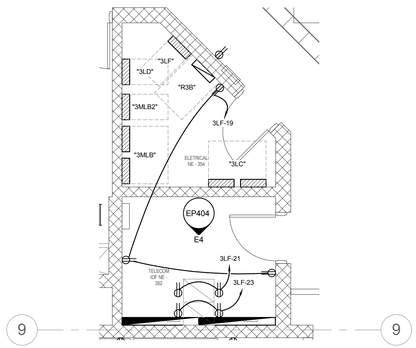
C4 ENLARGED IDF NE-160 AND NE-161
SCALE: 1/4" = 1'-0"



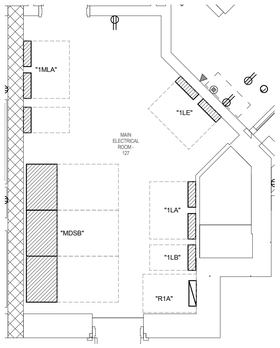
C2 ENLARGED ELECTRICAL ROOM SE-228
SCALE: 1/4" = 1'-0"



E6 ENLARGED MDF NE-167
SCALE: 1/4" = 1'-0"



E4 ENLARGED IDF NE-352 AND NE-354
SCALE: 1/4" = 1'-0"



E2 ENLARGED MAIN ELECTRICAL ROOM 127
SCALE: 1/4" = 1'-0"

PLAN NORTH

0 2' 4' 8'

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SPECTRUM ENGINEERS

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ENLARGED POWER PLANS

REVISION	DATE	BY	DESCRIPTION
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DRAWING NO. EP401
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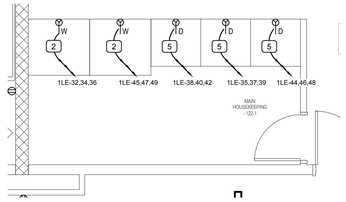
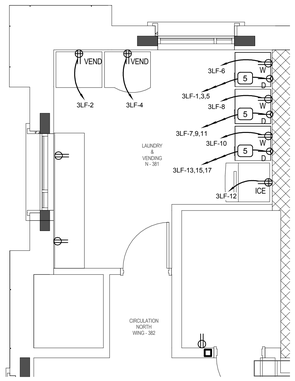


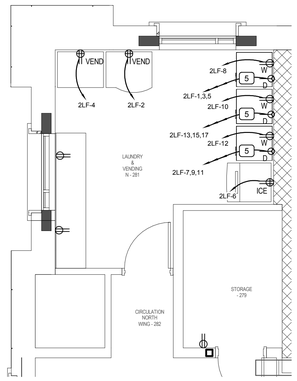
A2 PARTIAL ENLARGED ROOM 122
SCALE: 1/4" = 1'-0"

0 2' 4' 8'



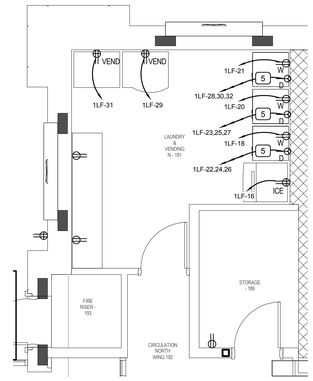
C6 ENLARGED ROOM 381
SCALE: 1/4" = 1'-0"

0 2' 4' 8'



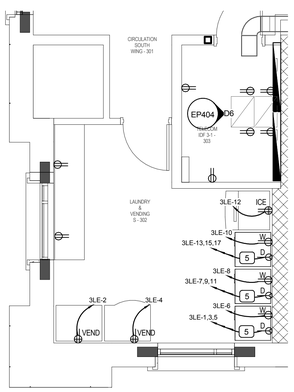
C4 ENLARGED ROOM 281
SCALE: 1/4" = 1'-0"

0 2' 4' 8'



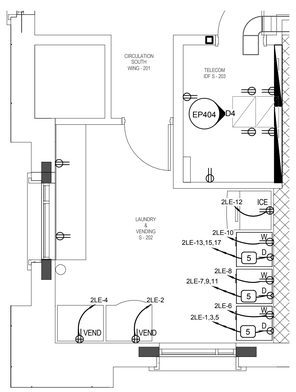
C2 ENLARGED ROOM 191
SCALE: 1/4" = 1'-0"

0 2' 4' 8'



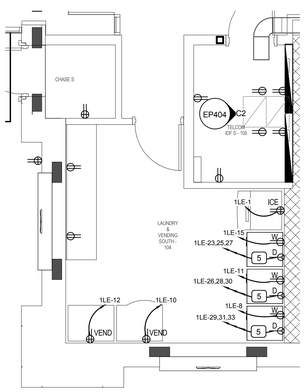
E6 ENLARGED ROOM 302
SCALE: 1/4" = 1'-0"

0 2' 4' 8'



E4 ENLARGED ROOM 202
SCALE: 1/4" = 1'-0"

0 2' 4' 8'



E2 ENLARGED ROOM 104
SCALE: 1/4" = 1'-0"

0 2' 4' 8'

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ENLARGED POWER PLANS

REVISION	DATE	BY	DESCRIPTION
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DRAWING NO.: EP402
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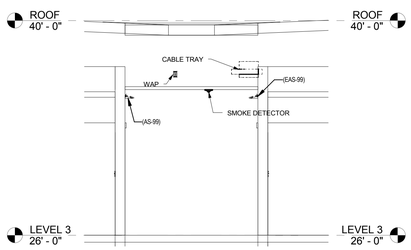
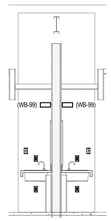


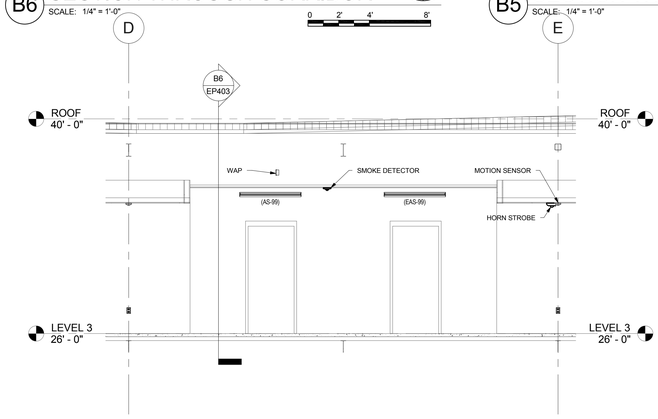


B6 SECTION THROUGH CORRIDOR

SCALE: 1/4" = 1'-0"

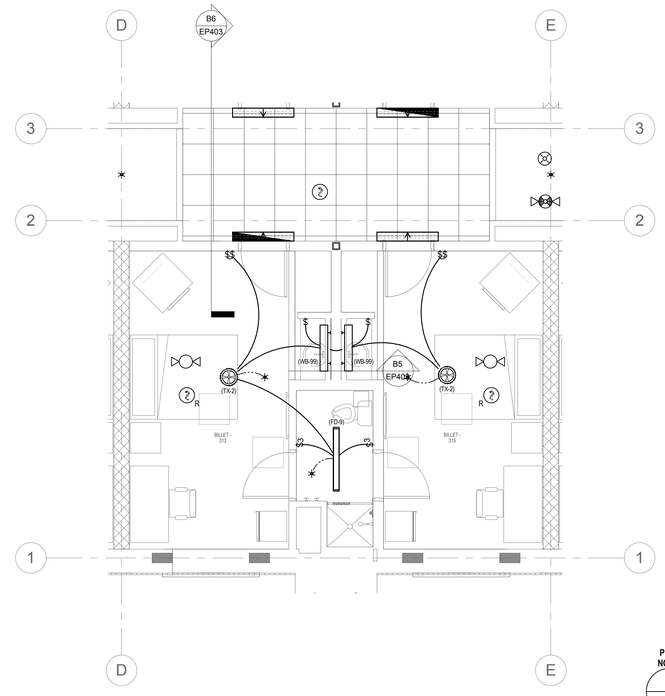
B5 SECTION THROUGH BILLET VANITIES

SCALE: 1/4" = 1'-0"



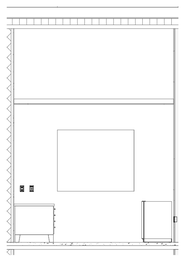
C6 CORRIDOR ELEVATION

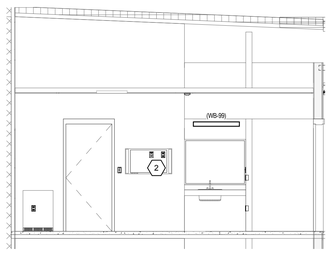
SCALE: 1/4" = 1'-0"



C3 ENLARGED UNIT 313, 315 LIGHTING AND FIRE ALARM PLANS

SCALE: 1/4" = 1'-0"



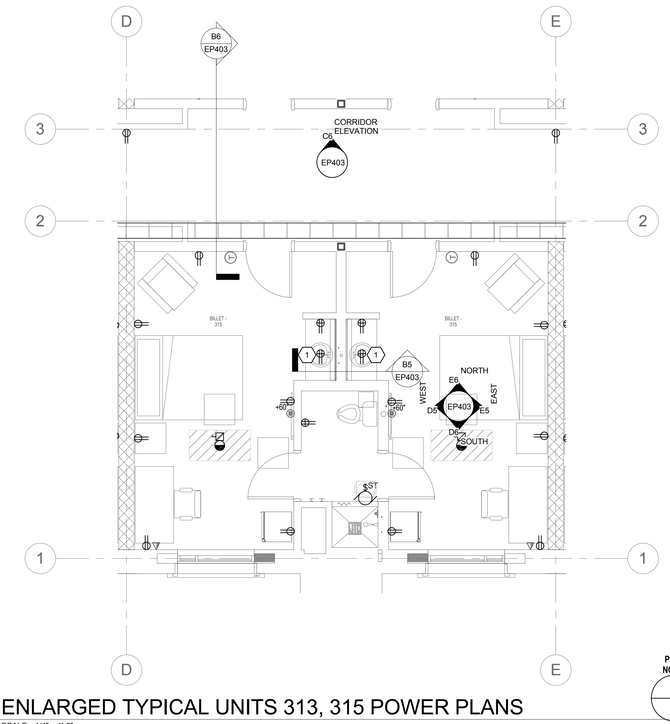


D6 SOUTH ELEVATION

SCALE: 1/4" = 1'-0"

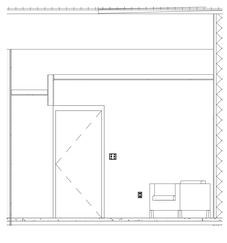
D5 WEST ELEVATION

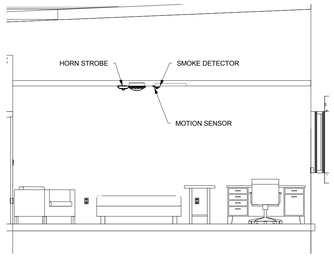
SCALE: 1/4" = 1'-0"



E3 ENLARGED TYPICAL UNITS 313, 315 POWER PLANS

SCALE: 1/4" = 1'-0"





E6 NORTH ELEVATION

SCALE: 1/4" = 1'-0"

E5 EAST ELEVATION

SCALE: 1/4" = 1'-0"

EFT ARCHITECTS
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SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH

02-15-2013

SHEET KEYNOTES

1 OUTLET IS IN WALL BELOW SINK. SEE SECTION B5/EP402.

2 CABLE TV AND POWER OUTLETS FOR TELEVISION MUST BE HIDDEN BEHIND EQUIPMENT. ALLOW FOR INSTALLATION OF TV BRACKET. (TYPICAL FOR ALL BILLET UNITS)

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

ENLARGED PLANS AND ELEVATIONS

REVISION	DATE	BY	DESCRIPTION
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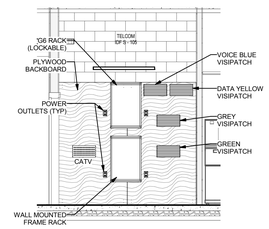
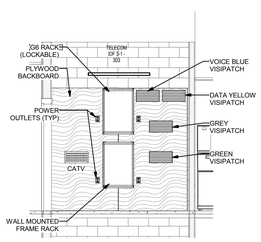
DRAWN BY: WRT	CHECKED BY: DLA
PROJECT NO.: 11007	DRAWING NO.: EP403
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS



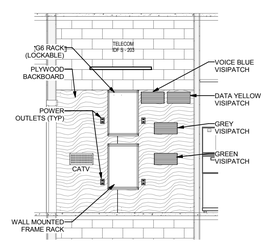
C2 ELEVATION - TELCOM IDF S - 105
SCALE: 1/4" = 1'-0"

0 2' 4' 8'



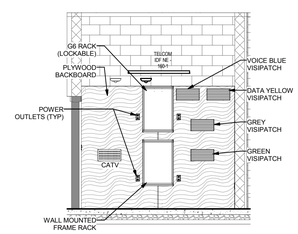
D6 ELEVATION - TELECOM IDF 3-1 - 303
SCALE: 1/4" = 1'-0"

0 2' 4' 8'



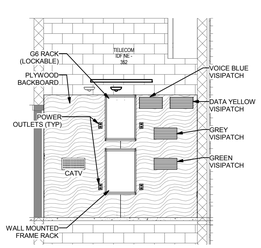
D4 ELEVATION - TELECOM IDF S - 203
SCALE: 1/4" = 1'-0"

0 2' 4' 8'



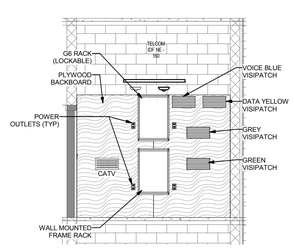
D2 ELEVATION - TELCOM IDF NE - 160-1
SCALE: 1/4" = 1'-0"

0 2' 4' 8'



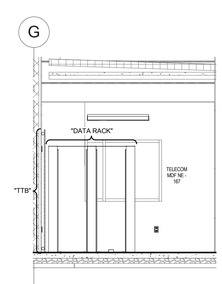
E6 ELEVATION - TELECOM IDF NE - 352
SCALE: 1/4" = 1'-0"

0 2' 4' 8'



E4 ELEVATION - TELCOM IDF NE - 160-2
SCALE: 1/4" = 1'-0"

0 2' 4' 8'



E2 ELEVATION - TELECOM MDF NE - 167
SCALE: 1/4" = 1'-0"

0 2' 4' 8'

EFT
ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

SPECTRUM
ENGINEERS

LICENSED PROFESSIONAL ENGINEER
No. 163854
DAVID L. AFFLECK
STATE OF UTAH
02-15-2013

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

ELECTRICAL ELEVATIONS

REVISION	DATE	BY	DESCRIPTION
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△			
△			
△			

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PROJECT NO.: 11007	DRAWING NO.: EP404
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

FAULT CURRENT TABLE

BUS	FAULT CURRENT
1LA	37,240 SCA
1LB	33,197 SCA
1LC	14,901 SCA
1LD	7,044 SCA
1LE	38,987 SCA
1LF	14,950 SCA
1MB	13,360 SCA
1MLA	38,362 SCA
1MLA2	26,252 SCA
1MLB	14,901 SCA
1MLB2	13,592 SCA
2LA	23,925 SCA
2LB	23,150 SCA
2LC	13,012 SCA
2LD	6,341 SCA
2LE	19,218 SCA
2LF	10,546 SCA
2MLA	24,355 SCA
2MLA2	18,078 SCA
2MLB	13,012 SCA
2MLB2	11,955 SCA
3LA	21,555 SCA
3LB	15,204 SCA
3LC	11,512 SCA
3LD	5,265 SCA
3LE	13,120 SCA
3LF	8,468 SCA
3MLA	20,954 SCA
3MLA2	18,225 SCA
3MLB	11,081 SCA
3MLB2	10,273 SCA
MDSB	42,939 SCA

PROVIDE FULLY RATED CIRCUIT BREAKERS IN PANELBOARDS FOR THE FAULT CURRENT SHOWN. SERIES RATINGS WITH NEXT LEVEL UPSTREAM OVERCURRENT PROTECTIVE DEVICES ARE PERMITTED SUBJECT TO FACTORY UL DOCUMENTATION OF SERIES RATING SUBMITTED TO ENGINEER. IF DEVICE OR EQUIPMENT FAULT CURRENT RATING IS NOT SHOWN, ASSUME 100,000 AIC.

UTNG BEQ Camp Williams
Electrical Service Calculation 100% Submittal

Load Item	Description	QTY	Load	Total
220.12	2VA/SF General Lighting and General Use Receptacles - NEC 220.12			
		79,905	2	159810
220.84(C)(3)	Appliances - Nameplate rating of applicances that are fastened in place, permanently connected, or located to be on a specific circuit, ranges, wall-mounted ovens, counter-mounted cooking units, clothes dryers, and water heaters.			
	Microwave (not fixed in place - included in general lighting load)	0	1200	0
	Clothes Dryer - Small	18	5000	90000
	Clothes Washer - Small	18	1200	21600
	Clothes Dryer - Large	3	7500	22500
	Clothes Washer - Large	2	5000	10000
	Ironer	1	12000	12000
	Vending Machines	16	1500	24000
	Coffee Maker	12	1600	19200
	Common Area Microwave	12	1600	19200
	Refrigerator Common Area	12	950	11400
	Ice Machine	8	800	6400
	Mechanical and Other Equipment			
	Mechanical Equipment	1	455900	455900
	Service Building	1	15100	15100
	Site Lighting	1	10920	10920
	Lighting other than the units	1	4720	4720
	Service Size Calculation Sumnary			
	Total General Lighting Load (NEC 220.12)	159810		
	First 20kVA of General Lighting Load at 50% (NEC 220.42)	10000		
	Second 80 kVA of General Lighting Load at 40% (NEC 220.42)	32000		
	Remainder at 30% (NEC 220.42)	17943		
	Reduced General Lighting Load	59943		
	Other Loads	267040		
	Total Mechanical Load 220.84(C)	455900		
	25% of the largest motor	5000		
	Net Computed Load in kVA	787.88		
	Net Computed Load in Amps	2188.56		
	Net Computed Load in Amps with 25% Spare capacity	2735.70		
	Recommended Service Size	3000.00		

CONDUCTOR AND CONDUIT SCHEDULE

SCHEDULE NUMBER
SUBSCRIPT (NOTE 5)
(E.G., 5 IG)

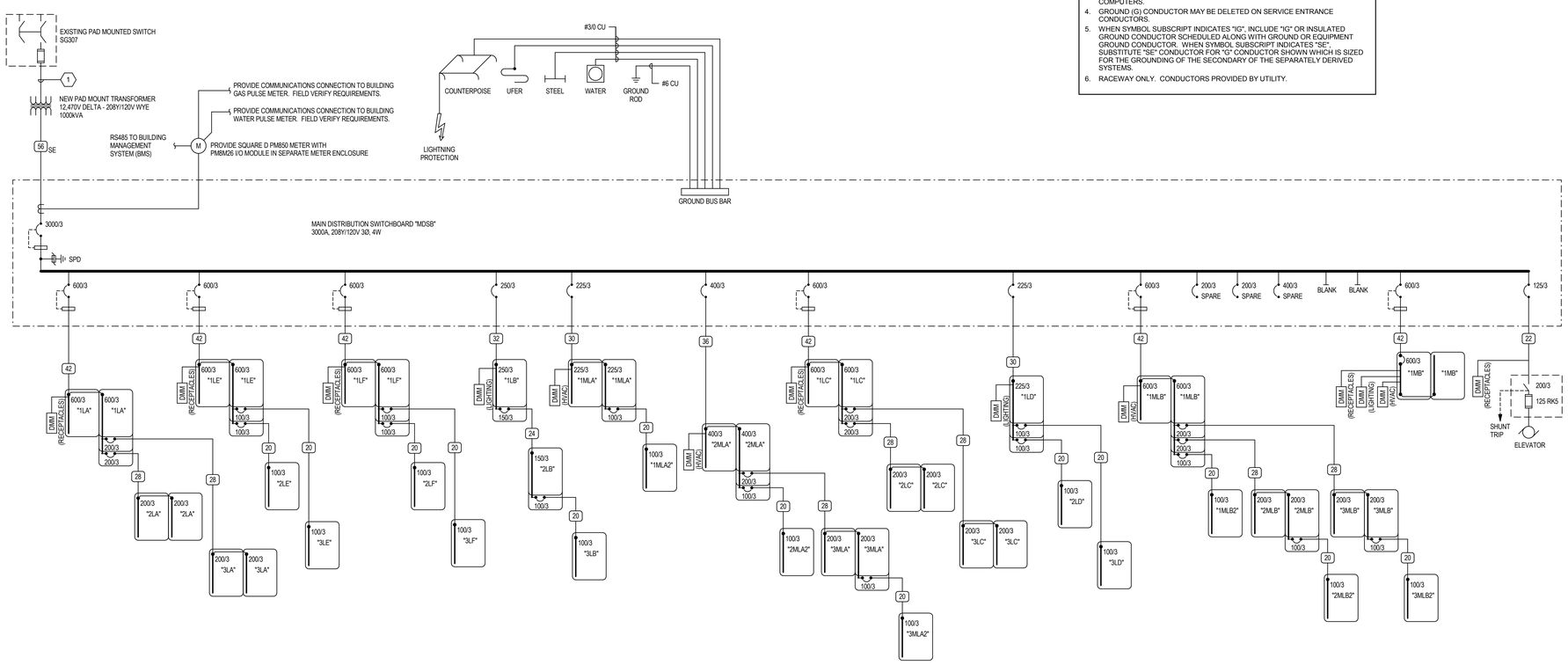
SYM	AMP	CONDUIT SIZE	CONDUCTOR (NOTE 1) QTY	SIZE	G	IG	SE	NOTES
1	20	.75	2	12	12	12	8	2
2	20	.75	3	12	12	12	8	2,3
3	20	.75	4	12	12	12	8	2,3
4	30	.75	2	10	10	10	8	2
5	30	.75	3	10	10	10	8	2
6	30	.75	4	10	10	10	8	2
7	40	1	2	8	10	8	6	2
8	40	1	3	8	10	8	6	2
9	40	1	4	8	10	8	6	2
10	55	1	2	6	10	8	4	2
11	55	1	3	6	10	8	4	2
12	55	1.25	4	6	10	8	4	2
13	70	1	2	4	8	4	2	2
14	70	1.25	3	4	8	4	2	2
15	70	1.25	4	4	8	4	2	2
16	85	1.25	2	3	8	3	2	2
17	85	1.25	3	3	8	3	2	2
18	85	1.25	4	3	8	3	2	2
19	95	1.25	3	2	8	2	2	2
20	95	1.50	4	2	8	2	2	2
21	130	1.50	3	1	6	2	2	2
22	130	1.50	4	1	6	2	2	2
23	150	2	3	1/0	6	2	1/0	2
24	150	2	4	1/0	6	2	1/0	2
25	175	2	3	2/0	6	2	2/0	2
26	175	2	4	2/0	6	2	2/0	2
27	200	2	3	3/0	6	2	2/0	2
28	200	2.50	4	3/0	6	2	2/0	2
29	230	2.50	3	4/0	4	2	2/0	2
30	230	2.50	4	4/0	4	2	2/0	2
31	255	2.50	3	250	4	1	2/0	2
32	255	2.50	4	250	4	1	2/0	2
33	310	3	3	350	3	1/0	3/0	2
34	310	3	4	350	3	1/0	3/0	2
35	380	3.50	3	500	3	3/0	3/0	2
36	380	4	4	500	3	3/0	3/0	2
37	400	2 EA 2	3	3/0	3	3/0	3/0	2
38	400	2 EA 2.50	4	3/0	3	3/0	3/0	2
39	510	2 EA 2.50	3	250	1	4/0	3/0	2
40	510	2 EA 3	4	250	1	4/0	3/0	2
41	620	2 EA 3	3	350	1/0	4/0	3/0	2,4
42	620	2 EA 3	4	350	1/0	4/0	3/0	2,4
43	780	2 EA 3.50	3	500	1/0	4/0	3/0	2,4
44	780	2 EA 4	4	500	1/0	4/0	3/0	2,4
45	855	3 EA 3	3	300	2/0	4/0	3/0	2,4
46	855	3 EA 3	4	300	2/0	4/0	3/0	2,4
47	1000	3 EA 3.50	3	400	2/0	4/0	3/0	4
48	1000	3 EA 3.50	4	400	2/0	4/0	3/0	4
49	1140	3 EA 4	3	500	3/0	4/0	3/0	4
50	1140	3 EA 4	4	500	3/0	4/0	3/0	4
51	1240	4 EA 3	3	350	3/0	4/0	3/0	4
52	1240	4 EA 3	4	350	3/0	4/0	3/0	4
53	1675	5 EA 3.50	4	400	4/0	4/0	4/0	4
54	2010	6 EA 3.50	4	400	250	250	250	4
55	2660	7 EA 4	4	500	350	350	350	4
56	3040	8 EA 4	4	500	500	500	500	4
57	4180	11 EA 4	4	500	500	500	500	4
58		5 EA 4						6
59		5						6
60		10 EA 4						6

CONDUCTOR AND CONDUIT SCHEDULE NOTES

1. CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
2. PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
3. PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
4. GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.
5. WHEN SYMBOL SUBSCRIPT INDICATES "IG", INCLUDE "IG" OR INSULATED GROUND CONDUCTOR SCHEDULED ALONG WITH GROUND OR EQUIPMENT GROUND CONDUCTOR. WHEN SYMBOL SUBSCRIPT INDICATES "SE", SUBSTITUTE "SE" CONDUCTOR FOR "G" CONDUCTOR SHOWN WHICH IS SIZED FOR THE GROUNDING OF THE SECONDARY OF THE SEPARATELY DERIVED SYSTEMS.
6. RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.

GENERAL SHEET NOTES

1. PROVIDE NEMA 3R ENCLOSURES FOR EQUIPMENT LOCATED OUTDOORS. REFER TO PLANS FOR EQUIPMENT LOCATIONS.
2. REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION.
3. ALL EQUIPMENT SHALL BE CONSTRUCTED AND BRACED FOR THE SEISMIC CONDITIONS OF THE PROJECT. REFER TO SPECIFICATIONS SECTION 16071 FOR REQUIREMENTS.



E6 ONE-LINE DIAGRAM
SCALE: NTS

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH
02-15-2013

SHEET KEYNOTES

1. PROVIDE 4-INCH CONDUIT WITH 3-EACH, SHIELDED #2 CU, TYPE MV105, 133% INSULATION, AND 1-EACH #2 CU, 600-VOLT, TYPE XHHW NEUTRAL.

BUILDING OFFICIAL APPROVAL

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QUARTERS
RIVERTON, UT 84062

ONE-LINE DIAGRAM

REVISION	DATE	BY	DESCRIPTION
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DRAWN BY: WRT
CHECKED BY: DLA
PROJECT NO.: 11007
DRAWING NO.: EP601
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

VOLTAGE DROP TABLE

BASIS: 120–VOLT, 15–AMP LOAD WITHOUT SHARED NEUTRAL

BRANCH CIRCUIT DISTANCE	REQUIRED WIRE SIZE
UNDER 60 FEET	#12 AWG CU
BETWEEN 60 AND 100 FEET	#10 AWG CU
BETWEEN 100 AND 153 FEET	#8 AWG CU
BETWEEN 153 AND 245 FEET	#6 AWG CU
BETWEEN 245 AND 387 FEET	#4 AWG CU

REQUIRED WIRE SIZE IS FOR TOTAL DISTANCE OF THE RUN WITHIN THE CONDUIT AND SHALL BE CALCULATED FOR THE TOTAL DISTANCE OF THE PULL AND NOT THE PLAN DISTANCE. CALCULATIONS ARE BASED ON A 120-VOLT BRANCH CIRCUIT LOAD WITHOUT A SHARED NEUTRAL AND A 3% MAXIMUM VOLTAGE DROP ON A 15-AMP NOMINAL LOAD. CONTRACTOR SHALL VERIFY DESIGN CIRCUIT LOAD AND SHALL SIZE THE CONDUCTORS BASED ON THE LOAD'S RESPECTIVE TABLE

VOLTAGE DROP TABLE

BASIS: 120–VOLT, 12–AMP LOAD WITHOUT SHARED NEUTRAL

BRANCH CIRCUIT DISTANCE	REQUIRED WIRE SIZE
UNDER 75 FEET	#12 AWG CU
BETWEEN 75 AND 125 FEET	#10 AWG CU
BETWEEN 125 AND 192 FEET	#8 AWG CU
BETWEEN 192 AND 306 FEET	#6 AWG CU
BETWEEN 306 AND 483 FEET	#4 AWG CU

REQUIRED WIRE SIZE IS FOR TOTAL DISTANCE OF THE RUN WITHIN THE CONDUIT AND SHALL BE CALCULATED FOR THE TOTAL DISTANCE OF THE PULL AND NOT THE PLAN DISTANCE. CALCULATIONS ARE BASED ON A 120-VOLT BRANCH CIRCUIT LOAD WITHOUT A SHARED NEUTRAL AND A 3% MAXIMUM VOLTAGE DROP ON A 12-AMP NOMINAL LOAD. CONTRACTOR SHALL VERIFY DESIGN CIRCUIT LOAD AND SHALL SIZE THE CONDUCTORS BASED ON THE LOAD'S RESPECTIVE TABLE

VOLTAGE DROP TABLE

BASIS: 120–VOLT, 9–AMP LOAD WITHOUT SHARED NEUTRAL

BRANCH CIRCUIT DISTANCE	REQUIRED WIRE SIZE
UNDER 100 FEET	#12 AWG CU
BETWEEN 100 AND 166 FEET	#10 AWG CU
BETWEEN 166 AND 256 FEET	#8 AWG CU
BETWEEN 256 AND 408 FEET	#6 AWG CU
BETWEEN 408 AND 644 FEET	#4 AWG CU

REQUIRED WIRE SIZE IS FOR TOTAL DISTANCE OF THE RUN WITHIN THE CONDUIT AND SHALL BE CALCULATED FOR THE TOTAL DISTANCE OF THE PULL AND NOT THE PLAN DISTANCE. CALCULATIONS ARE BASED ON A 120-VOLT BRANCH CIRCUIT LOAD WITHOUT A SHARED NEUTRAL AND A 3% MAXIMUM VOLTAGE DROP ON A 9-AMP NOMINAL LOAD. CONTRACTOR SHALL VERIFY DESIGN CIRCUIT LOAD AND SHALL SIZE THE CONDUCTORS BASED ON THE LOAD'S RESPECTIVE TABLE

VOLTAGE DROP TABLE

BASIS: 120–VOLT, 6–AMP LOAD WITHOUT SHARED NEUTRAL

BRANCH CIRCUIT DISTANCE	REQUIRED WIRE SIZE
UNDER 150 FEET	#12 AWG CU
BETWEEN 150 AND 249 FEET	#10 AWG CU
BETWEEN 249 AND 384 FEET	#8 AWG CU
BETWEEN 384 AND 612 FEET	#6 AWG CU
BETWEEN 612 AND 967 FEET	#4 AWG CU

REQUIRED WIRE SIZE IS FOR TOTAL DISTANCE OF THE RUN WITHIN THE CONDUIT AND SHALL BE CALCULATED FOR THE TOTAL DISTANCE OF THE PULL AND NOT THE PLAN DISTANCE. CALCULATIONS ARE BASED ON A 120-VOLT BRANCH CIRCUIT LOAD WITHOUT A SHARED NEUTRAL AND A 3% MAXIMUM VOLTAGE DROP ON A 6-AMP NOMINAL LOAD. CONTRACTOR SHALL VERIFY DESIGN CIRCUIT LOAD AND SHALL SIZE THE CONDUCTORS BASED ON THE LOAD'S RESPECTIVE TABLE

DISTRIBUTION PANELBOARD "MDSB"

VOLTS/PHASE/WIRE:	MAIN SIZE & TYPE:	LOCATION:	NOTES:
120/208V, 3 PH, 4 WIRE	3000 AMPERE MAIN CIRCUIT BREAKER	MAIN ELECTRICAL ROOM -	

ACCESSORIES: AIC RATING:

CKT NO	AMP	POLE	CO	PWR	LTG	PANEL / EQUIPMENT	A	B	C
1	600	3	0.0	0.0	0.0	PANEL" 1LA"	50.8	49.3	48.7
2	600	3	0.0	0.0	0.1	PANEL" 1LE"	47.5	47.3	42.0
3	250	3	0.0	0.0	31.6	PANEL" 1LB"	12.7	9.0	9.9
4	225	3	0.0	40.1	0.0	PANEL" 1MLA"	25.2	22.9	22.4
5	400	3	0.0	20.4	0.0	PANEL" 2MLA"	32.2	29.6	29.6
6	600	3	0.0	0.0	0.0	PANEL"1LF"	32.6	28.3	28.4
7	600	3	0.0	0.0	0.0	PANEL" 1LC"	50.3	50.8	47.4
8	600	3	0.0	130.4	2.0	PANEL" 1MB"	54.0	50.4	48.7
9	225	3	0.0	0.0	25.6	PANEL" 1LD"	9.9	8.3	7.5
10	600	3	0.0	50.4	0.0	PANEL" 1MLB"	57.3	56.2	52.9
11	125	3	0.0	33.1	0.0	PWR: ELEV EQPM -128	11.0	11.0	11.0
12	200	3	--	--	--	SPARE	0.0	0.0	0.0
13	200	3	--	--	--	SPARE	0.0	0.0	0.0
14	--	--	--	--	--	SPACE	0.0		
15	--	--	--	--	--	SPACE	0.0		
16	--	--	--	--	--	SPACE	0.0		
						CONNECTED kVA PER PHASE:	**383.6**	**363.1**	**348.4**
						CONNECTED AMPS PER PHASE:	**3216**	**3044**	**2903**

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS LOADS: **59.3 kVA kVA @ 125% = 74.1**
RECEPTACLES:
ALL OTHER LOADS @ 100%: **282.7 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER

CONNECTED TOTAL kVA: **1095.1**
CONNECTED AVERAGE AMPS PER PHASE: **3040**
TOTAL DIVERSIFIED kVA: **1005.4**
AVERAGE AMPS PER PHASE: **2791**

PANEL "1LB"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	250 AMPERE MAIN LUGS	MAIN ELECTRICAL ROOM - 127	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	0.7	0.0	0.0	LTG: Rm 135, 137, 135L, 139,	0.7	0.8					LTG: Break & Vending SE - 133	0.0	0.0	0.8	1	20	2
3	20	1	0.2	0.0	0.0	LTG: Patio SE - 129			0.2	0.5			LTG: Room 130	0.0	0.0	0.5	1	20	4
5	20	1	0.7	0.0	0.0	LTG: Billet - 109					0.7	0.7	LTG: Billet - 108	0.0	0.0	0.7	1	20	6
7	20	1	0.7	0.0	0.0	LTG: Billet - 116	0.7	0.8					LTG: Billet - 120	0.0	0.0	0.8	1	20	8
9	20	1	0.7	0.0	0.0	LTG: Billet - 117			0.7	0.7			LTG: Billet - 125	0.0	0.0	0.7	1	20	10
11	20	1	0.8	0.0	0.0	LTG: Storage 146					0.8	0.8	LTG: Room 140-1, 138, 136, 134	0.0	0.0	0.8	1	20	12
13	20	2	0.7	0.0	0.0	R1A-1,2	0.4	0.8					R1A-9	0.0	0.0	0.8	1	20	14
15	--	--	--	--	--	--			0.4	0.7			R1A-10	0.0	0.0	0.7	1	20	16
17	20	2	1.1	0.0	0.0	R1A-3,4					0.6	0.8	R1A-11	0.0	0.0	0.8	1	20	18
19	--	--	--	--	--	--	0.6	0.5					R1A-12	0.0	0.0	0.5	1	20	20
21	20	2	1.5	0.0	0.0	R1A-5,6			0.7	0.5			R1A-13	0.0	0.0	0.5	1	20	22
23	--	--	--	--	--	--					0.7	0.7	R1A-14	0.0	0.0	0.7	1	20	24
25	20	1	0.5	0.0	0.0	R1A-7	0.5	0.7					R1A-15	0.0	0.0	0.7	1	20	26
27	20	1	0.2	0.0	0.0	R1A-8			0.2	0.0			SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	36
37	150	3	7.6	0.0	0.0	PANEL" 2LB"	3.3	3.3					PANEL "3LB"	0.0	0.0	7.5	3	100	38
39	--	--	--	--	--	--			2.2	2.2			--	--	--	--	--	--	40
41	--	--	--	--	--	--					2.1	2.0	--	--	--	--	--	--	42
TOTALS:						CONNECTED kVA PER PHASE	**13**		**9**		**10**		CONNECTED TOTAL kVA	**31.6**					
						CONNECTED AMPS PER PHASE	**107**		**75**		**83**		CONNECTED AVERAGE AMPS PER PHASE	**88**					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS **31.6 kVA @ 125% = 39.5 kVA**
RECEPTACLES:
ALL OTHER LOADS @100%= **0.0 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **39.5**
AVERAGE AMPS PER PHASE **110**

PANEL "1LA"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	600 AMPERE MAIN LUGS	MAIN ELECTRICAL ROOM - 127	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	0.0	0.2	0.9	CO BILLET - 107	1.1	0.4					PWR: FRIGE. BILLET 107	0.0	0.4	0.0	1	20	2
3	20	1	0.0	0.0	0.5	CO Room 109, 107, 107L			0.5	1.1			CO BILLET - 109 109	0.9	0.2	0.0	1	20	4
5	20	1	0.0	0.4	0.0	PWR: FRIGE. BILLET 109					0.4	1.1	CO BILLET - 111	0.9	0.2	0.0	1	20	6
7	20	1	0.0	0.4	0.0	CO	0.4	0.5					CO Room 113, 111	0.5	0.0	0.0	1	20	8
9	20	1	0.0	0.2	0.9	CO BILLET - 113			1.1	0.4			CO	0.0	0.4	0.0	1	20	10
11	20	1	0.0	0.2	0.9	CO BILLET - 115					1.1	0.4	CO	0.0	0.4	0.0	1	20	12
13	20	1	0.0	0.0	0.5	CO LATRINE - 115L	0.5	1.1					CO Room 117	0.9	0.2	0.0	1	20	14
15	20	1	0.0	0.4	0.0	CO			0.4	1.1			CO BILLET - 119	0.9	0.2	0.0	1	20	16
17	20	1	0.0	0.4	0.0	CO					0.4	0.5	CO Room 121, 119	0.5	0.0	0.0	1	20	18
19	20	1	0.0	0.2	0.9	CO BILLET - 121	1.1	0.4					CO	0.0	0.4	0.0	1	20	20
21	20	1	0.0	0.2	0.9	BILLET - 123			1.1	0.4			CO	0.0	0.4	0.0	1	20	22
23	20	1	0.0	0.0	0.5	CO Room 125, 123, 123L					0.5	1.1	CO BILLET - 125	0.9	0.2	0.0	1	20	24
25	20	1	0.0	0.4	0.0	CO	0.4	1.1					CO BILLET - 106	0.9	0.2	0.0	1	20	26
27	20	1	0.0	0.4	0.0	CO			0.4	0.5			CO Room 108, 106, 106L	0.5	0.0	0.0	1	20	28
29	20	1	0.0	0.2	0.9	CO BILLET - 108					1.1	0.4	CO	0.0	0.4	0.0	1	20	30
31	20	1	0.0	0.2	0.9	CO BILLET - 110	1.1	0.4					CO	0.0	0.4	0.0	1	20	32
33	20	1	0.0	0.0	0.5	CO Room 112, 110			0.5	1.1			CO BILLET - 112	0.9	0.2	0.0	1	20	34
35	20	1	0.0	0.4	0.0	CO					0.4	1.1	CO Room 114	0.9	0.2	0.0	1	20	36
37	20	1	0.0	0.4	0.0	CO	0.4	0.5					CO Room 116, 114, 114L	0.5	0.0	0.0	1	20	38
39	20	1	0.0	0.2	0.9	CO BILLET - 116			1.1	0.4			CO	0.0	0.4	0.0	1	20	40
41	20	1	0.0	0.2	0.9	CO BILLET - 118					1.1	0.4	CO	0.0	0.4	0.0	1	20	42
43	20	1	0.0	0.0	0.5	CO Room 120, 118	0.5	1.1					CO BILLET - 120	0.9	0.2	0.0	1	20	44
45	20	1	0.0	0.4	0.0	CO			0.4	1.1			CO BILLET - 134	0.9	0.2	0.0	1	20	46
47	20	1	0.0	0.4	0.0	CO					0.4	0.5	CO Room 136, 134	0.5	0.0	0.0	1	20	48
49	20	1	0.0	0.2	0.9	CO BILLET - 136	1.1	0.4					CO	0.0	0.4	0.0	1	20	50
51	20	1	0.0	0.2	0.9	CO BILLET - 135 135			1.1	0.4			PWR: FRIGE. BILLET 135	0.0	0.4	0.0	1	20	52
53	20	1	0.0	0.0	0.5	CO Room 137, 135					0.5	1.1	CO BILLET - 137	0.9	0.2	0.0	1	20	54
55	20	1	0.0	0.4	0.0	CO	0.4	1.1					CO BILLET - 139	0.9	0.2	0.0	1	20	56
57	20	1	0.0	0.0	0.2	CO			0.2	0.5			CO Room 139L, 141, 139	0.5	0.0	0.0	1	20	58
59	20	1	0.0	0.2	0.9	CO BILLET - 141					1.1	0.2	CO	0.2	0.0	0.0	1	20	60
61	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	62
63	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	64
65	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	66
67	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	68
69	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	70
71	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	72
73	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	74
75	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	76
77	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	78
79	200	3	0.0	17.4	35.1	PANEL" 2LA"	18.8	18.0					PANEL " 3LA"	35.6	16.9	0.0	3	200	80
81	--	--	--	--	--	--			18.0	17.5			--	--	--	--	--	--	82
83	--	--	--	--	--	--					17.5	17.5	--	--	--	--	--	--	84
TOTALS:						CONNECTED kVA PER PHASE	**51**		**49**		**49**		CONNECTED TOTAL kVA	**148.8**					
						CONNECTED AMPS PER PHASE	**424**		**411**		**406**		CONNECTED AVERAGE AMPS PER PHASE	**414**					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES: **99.2 kVA @ 55% = 54.6 kVA**
ALL OTHER LOADS @100%= **47.4 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **104.2**
AVERAGE AMPS PER PHASE **289**

PANEL "1LC"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	600 AMPERE MAIN LUGS	ELECTRICAL NE - 161	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	0.0	0.2	0.9	CO BILLET - 170	1.1	0.4					CO	0.0	0.4	0.0	1	20	2
3	20	1	0.0	0.0	0.5	CO LATRINE - 170L			0.5	1.1			CO BILLET - 172	0.9	0.2	0.0	1	20	4
5	20	1	0.0	0.4	0.0	CO					0.4	1.1	CO BILLET - 174	0.9	0.2	0.0	1	20	6
7	20	1	0.0	0.4	0.0	CO	0.4	0.5					CO Room 174, 176	0.5	0.0	0.0	1	20	8
9	20	1	0.0	0.2	0.9	CO BILLET - 176			1.1	0.4			CO	0.0	0.4	0.0	1	20	10
11	20	1	0.0	0.2	0.9	CO BILLET - 178					1.1	0.4	CO	0.0	0.4	0.0	1	20	12
13	20	1	0.0	0.0	0.5	CO Room 178, 180	0.5	1.1					CO BILLET - 180	0.9	0.2	0.0	1	20	14
15	20	1	0.0	0.4	0.0	CO			0.4	1.1			CO BILLET - 182	0.9	0.2	0.0	1	20	16
17	20	1	0.0	0.4	0.0	CO					0.4	0.5	CO Room 182, 184	0.5	0.0	0.0	1	20	18
19	20	1	0.0	0.2	0.9	CO BILLET - 184	1.1	0.4					CO	0.0	0.4	0.0	1	20	20
21	20	1	0.0	0.2	0.9	CO BILLET - 186			1.1	0.4			CO	0.0	0.4	0.0	1	20	22
23	20	1	0.0	0.0	0.5	CO Room 186, 188, 186L					0.5	1.1	CO BILLET - 188	0.9	0.2	0.0	1	20	24
25	20	1	0.0	0.4	0.0	CO	0.4	1.1					CO BILLET - 169	0.9	0.2	0.0	1	20	26
27	20	1	0.0	0.4	0.0	CO			0.4	0.5			CO Room 169, 171, 169L	0.5	0.0	0.0	1	20	28
29	20	1	0.0	0.2	0.9	CO BILLET - 171					1.1	0.4	CO	0.0	0.4	0.0	1	20	30
31	20	1	0.0	0.2	0.9	CO BILLET - 173	1.1	0.4					CO	0.0	0.4	0.0	1	20	32
33	20	1	0.0	0.0	0.5	CO Room 173, 175			0.5	1.1			CO BILLET - 175	0.9	0.2	0.0	1	20	34
35	20	1	0.0	0.4	0.0	CO					0.4	1.1	CO BILLET - 177	0.9	0.2	0.0	1	20	36
37	20	1	0.0	0.4	0.0	CO	0.4	0.5					CO Room 177, 179, 177L	0.5	0.0	0.0	1	20	38
39	20	1	0.0	0.2	0.9	CO BILLET - 179			1.1	0.4			CO	0.0	0.4	0.0	1	20	40
41	20	1	0.0	0.2	0.9	CO BILLET - 181					1.1	0.4	CO	0.0	0.4	0.0	1	20	42
43	20	1	0.0	0.0	0.5	CO Room 181, 183	0.5	1.1					CO BILLET - 183	0.9	0.2	0.0	1	20	44
45	20	1	0.0	0.4	0.0	CO			0.4	1.3			CO BILLET - 185	0.9	0.2	0.0	1	20	46
47	20	1	0.0	0.4	0.0	CO					0.4	0.5	CO Room 185, 187, 185L	0.5	0.0	0.0	1	20	48
49	20	1	0.0	0.2	0.9	CO BILLET - 187	1.3	0.4					CO	0.0	0.4	0.0	1	20	50
51	20	1	0.0	0.2	0.9	CO BILLET - 157			1.3	0.4			CO	0.0	0.4	0.0	1	20	52
53	20	1	0.0	0.0	0.5	CO Room 155L-1, 157, 155					0.5	1.3	CO BILLET - 155	0.9	0.2	0.0	1	20	54
55	20	1	0.0	0.4	0.0	CO	0.4	1.1					CO BILLET - 158	0.9	0.2	0.0	1	20	56
57	20	1	0.0	0.4	0.0	CO			0.4	0.5			CO Room 156L, 158, 156	0.5	0.0	0.0	1	20	58
59	20	1	0.0	0.2	0.9	CO BILLET - 156					1.1	0.4	CO	0.0	0.4	0.0	1	20	60
61	20	1	0.0	0.2	0.9	CO BILLET - 153	1.1	0.4					CO	0.0	0.4	0.0	1	20	62
63	20	1	0.0	0.0	0.5	CO Room 153, 151			0.5	1.1			CO BILLET - 151	0.9	0.2	0.0	1	20	64
65	20	1	0.0	0.4	0.0	CO					0.4	1.1	CO BILLET - 154	0.9	0.2	0.0	1	20	66
67	20	1	0.0	0.4	0.0	CO	0.4	0.5					CO Room 154, 152	0.5	0.0	0.0	1	20	68
69	20	1	0.0	0.2	0.9	CO BILLET - 152			1.1	0.4			CO	0.0	0.4	0.0	1	20	70
71	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	72
73	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	74
75	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	76
77	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	78
79	200	3	0.0	16.2	32.8	PANEL "2LC"	16.4	17.2					PANEL "3LC"	32.9	16.1	0.0	3	200	80
81	--	--	--	--	--	--			17.1	16.1			--	--	--	--	--	--	82
83	--	--	--	--	--	--					15.5	16.2	--	--	--	--	--	--	84
TOTALS:						CONNECTED kVA PER PHASE	**50**		**51**		**47**		CONNECTED TOTAL kVA	**148.5**					
						CONNECTED AMPS PER PHASE	**423**		**427**		**395**		CONNECTED AVERAGE AMPS PER PHASE	**413**					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES: **98.5 kVA @ 55% = 54.2 kVA**
ALL OTHER LOADS @100%= **48.5 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **104.3**
AVERAGE AMPS PER PHASE **289**

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
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SEAL & SIGNATURE

SPECTRUM ENGINEERS

REGISTERED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH 02-15-2013

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PANEL SCHEDULES

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: WRT	CHECKED BY: DLA
PROJECT NO.: 11007	DRAWING NO.: EP602
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

PANEL "1LD"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	225 AMPERE MAIN LUGS	ELECTRICAL NE - 161	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	0.7	0.0	0.0	LTG: Laundry & Vending N - 191	0.7	0.7					LTG: Billet - 177	0.0	0.0	0.7	1	20	2
3	20	1	0.7	0.0	0.0	LTG: Billet - 169			0.7	0.7			LTG: Billet - 186	0.0	0.0	0.7	1	20	4
5	20	1	0.7	0.0	0.0	LTG: Billet - 178					0.7	0.7	LTG: Billet - 170	0.0	0.0	0.7	1	20	6
7	20	1	0.7	0.0	0.0	LTG: Room 154, 156L, 156, 158,	0.7	0.7					LTG: Rm 151, 153, 151L, 157, 155L-1,	0.0	0.0	0.7	1	20	8
9	20	1	0.2	0.0	0.0	LTG: Patio NE - 162			0.2	0.8			LTG: Break & Vending NE - 159	0.0	0.0	0.8	1	20	10
11	20	1	0.5	0.0	0.0	LTG: Room 163					0.5	0.0	SPARE	--	--	--	1	0	12
13	20	1	0.7	0.0	0.0	R1B-1	0.7	0.0					SPARE	--	--	--	1	0	14
15	20	1	1.1	0.0	0.0	R1B-2			1.1	0.0			SPARE	--	--	--	1	0	16
17	20	1	0.8	0.0	0.0	R1B-3					0.8	0.0	SPARE	--	--	--	1	0	18
19	20	1	0.7	0.0	0.0	R1B-4	0.7	0.3					R1B-5	0.0	0.0	0.3	1	20	20
21	20	1	0.4	0.0	0.0	R1B-7			0.4	0.7			R1B-6	0.0	0.0	0.7	1	20	22
23	20	1	0.5	0.0	0.0	R1B-8					0.5	0.0	SPARE	--	--	--	1	20	24
25	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	26
27	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	36
37	100	3	6.8	0.0	0.0	PANEL "2LD"	2.8	2.8					PANEL "3LD"	0.0	0.0	6.8	3	100	38
39	--	--	--	--	--	--			2.1	1.6			--	--	--	--	--	--	40
41	--	--	--	--	--	--					2.0	2.5	--	--	--	--	--	--	42
TOTALS:						CONNECTED kVA PER PHASE	10		8		7		CONNECTED TOTAL kVA	25.6					
						CONNECTED AMPS PER PHASE	83		70		62		CONNECTED AVERAGE AMPS PER PHASE	71					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS **25.6 kVA @ 125% = 32.0 kVA**
RECEPTACLES:
ALL OTHER LOADS @100%= **0.0 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **32.0**
AVERAGE AMPS PER PHASE **89**

PANEL "1LE"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	600 AMPERE MAIN LUGS	MAIN ELECTRICAL ROOM - 127	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	0.0	0.8	0.0	PWR: ICE MAKER ROOM 104	0.8	0.9					CO Room 130, 128	0.9	0.0	0.0	1	20	2
3	20	1	0.0	0.0	0.5	CO Room 129, 131, 132			0.5	0.7			CO Room 145, 146, 147	0.7	0.0	0.0	1	20	4
5	20	1	0.0	0.0	0.9	CO Room 101, 126-1, 127					0.9	0.7	CO FRONT DESK 150	0.7	0.0	0.0	1	20	6
7	20	1	0.0	0.0	0.9	CO Room 143-1, 150	0.9	1.2					PWR: WASHER ROOM 104	0.0	1.2	0.0	1	20	8
9	20	1	0.0	0.0	1.3	CO Room 101, 901			1.3	1.5			PWR: VENDING ROOM 104	0.0	1.5	0.0	1	20	10
11	20	1	0.0	1.2	0.0	PWR: WASHER ROOM 104					1.2	1.5	PWR: VENDING ROOM 104	0.0	1.5	0.0	1	20	12
13	20	1	0.1	0.0	0.2	CO ELEVATOR 130E 130E	0.3	1.5					PWR BREAK & VENDING SE - 132	0.0	1.5	0.0	1	20	14
15	20	1	0.0	1.2	0.0	PWR: WASHER ROOM 104			1.2	1.5			PWR BREAK & VENDING SE - 132	0.0	1.5	0.0	1	20	16
17	20	1	0.0	0.8	0.0	PWR BREAK & VENDING SE - 132					0.8	0.5	CO Room 142, 140-1, 138	0.5	0.0	0.0	1	20	18
19	20	1	0.0	0.0	0.5	CO MAIN HOUSEKEEPING - 122-1	0.5	3.3					PWR: PRES. EQUIPMENT	0.0	10.0	0.0	3	50	20
21	20	1	0.0	0.0	0.5	CO Room 129, 131			0.5	3.3			--	--	--	--	--	--	22
23	30	3	0.0	3.0	0.0	PWR: DRYER ROOM 104					1.0	3.3	--	--	--	--	--	--	24
25	--	--	--	--	--	--	1.0	1.0					PWR: DRYER ROOM 104	0.0	3.0	0.0	3	30	26
27	--	--	--	--	--	--			1.0	1.0			--	--	--	--	--	--	28
29	30	3	0.0	3.0	0.0	PWR: DRYER ROOM 104					1.0	1.0	--	--	--	--	--	--	30
31	--	--	--	--	--	--	1.0	1.7					PWR: WASHER ROOM 122	0.0	5.0	0.0	3	20	32
33	--	--	--	--	--	--			1.0	1.7			--	--	--	--	--	--	34
35	30	3	0.0	7.5	0.0	PWR: DRYER ROOM 122					2.5	1.7	--	--	--	--	--	--	36
37	--	--	--	--	--	--	2.5	2.5					PWR: DRYER ROOM 122	0.0	7.5	0.0	3	30	38
39	--	--	--	--	--	--			2.5	2.5			--	--	--	--	--	--	40
41	20	1	--	--	--	SPARE					0.0	2.5	--	--	--	--	--	--	42
43	20	1	--	--	--	SPARE	0.0	2.5					PWR: DRYER ROOM 122	0.0	7.5	0.0	3	30	44
45	20	3	0.0	5.0	0.0	PWR: WASHER ROOM 122			1.7	2.5			--	--	--	--	--	--	46
47	--	--	--	--	--	--					1.7	2.5	--	--	--	--	--	--	48
49	--	--	--	--	--	--	1.7	0.2					PWR: ADA DOORS	0.0	0.2	0.0	1	20	50
51	20	1	0.0	0.0	0.4	CO STORAGE 147			0.4	1.5			PWR: HAND DRYER MEN - 140	0.0	1.5	0.0	1	20	52
53	20	1	0.0	0.0	0.4	CO STORAGE 146 146					0.4	0.4	PWR: PT DISP. ROOM 138, 140-1	0.0	0.4	0.0	1	20	54
55	20	1	0.0	0.3	0.0	PWR: ADA DOORS VEST. 144	0.3	1.5					PWR: HAND DRYER WMN - 138	0.0	1.5	0.0	1	20	56
57	50	3	0.0	12.0	0.0	PWR: FLATWORK IRONER			4.0	0.2			PWR: ADA DOORS	0.0	0.2	0.0	1	20	58
59	--	--	--	--	--	--					4.0	0.4	CO: TELCOM IDF S - 105	0.4	0.0	0.0	1	20	60
61	--	--	--	--	--	--	4.0	0.6					PWR: TELCOM IDF S - 105	0.0	0.6	0.0	1	20	62
63	20	1	0.0	0.0	0.4	CO: BREAK & VENDING SE - 132			0.4	0.6			PWR: TELCOM IDF S - 105	0.0	0.6	0.0	1	20	64
65	20	1	0.0	0.0	0.0	PWR: MICROWAVE BREAK &					1.1	0.0	SPARE	--	--	--	1	20	66
67	20	1	0.0	0.0	0.0	PWR: MICROWAVE BREAK &	1.1	0.0					SPARE	--	--	--	1	20	68
69	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	70
71	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	72
73	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	74
75	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	76
77	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	78
79	100	3	0.0	17.6	4.5	PANEL" 2LE"	7.9	8.6					PANEL" 3LE"	5.6	17.6	0.0	3	100	80
81	--	--	--	--	--	--			7.6	8.3			--	--	--	--	--	--	82
83	--	--	--	--	--	--					6.6	6.3	--	--	--	--	--	--	84
TOTALS:						CONNECTED kVA PER PHASE	47		47		42		CONNECTED TOTAL kVA	136.7					
						CONNECTED AMPS PER PHASE	402		401		350		CONNECTED AVERAGE AMPS PER PHASE	380					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS **0.1 kVA @ 125% = 0.1 kVA**
RECEPTACLES: **19.3 kVA @ 76% = 14.6 kVA**
ALL OTHER LOADS @100%= **115.2 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **132.1**
AVERAGE AMPS PER PHASE **367**

PANEL "1LF"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	600 AMPERE MAIN LUGS	ELECTRICAL NE - 161	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	0.0	0.0	0.7	CO Room 163	0.7	0.5					CO Room 161, 160	0.5	0.0	0.0	1	20	2
3	20	1	0.0	0.0	0.5	CO Room 162, 165, 159			0.5	0.8			PWR BREAK & VENDING NE - 159	0.0	0.8	0.0	1	20	4
5	20	1	0.0	1.5	0.0	PWR BREAK & VENDING NE - 159					1.5	1.5	PWR BREAK & VENDING NE - 159	0.0	1.5	0.0	1	20	6
7	20	1	0.0	0.0	0.5	CO Room 162, 165	0.5	0.7					CO TELECOM MDF NE - 167	0.7	0.0	0.0	1	20	8
9	20	1	0.0	0.5	0.0	CO TELECOM MDF NE - 167			0.5	0.5			CO TELECOM MDF NE - 167	0.0	0.5	0.0	1	20	10
11	20	1	0.0	0.5	0.0	CO TELECOM MDF NE - 167					0.5	0.5	CO TELECOM MDF NE - 167	0.0	0.5	0.0	1	20	12
13	20	1	0.0	0.0	1.3	CO Room 192, 189, 191	1.3	0.7					CO Room 192, 168	0.7	0.0	0.0	1	20	14
15	50	3	0.0	10.0	0.0	PWR: PRES. EQUIPMENT			3.3	0.8			PWR: ICE MAKER ROOM 191	0.0	0.8	0.0	1	20	16
17	--	--	--	--	--	--					3.3	1.2	PWR: WASHER ROOM 191	0.0	1.2	0.0	1	20	18
19	--	--	--	--	--	--	3.3	1.2					PWR: WASHER ROOM 191	0.0	1.2	0.0	1	20	20
21	20	1	0.0	1.2	0.0	PWR: WASHER ROOM 191			1.2	1.0			PWR: DRYER ROOM 191	0.0	3.0	0.0	3	20	22
23	20	3	0.0	3.0	0.0	PWR: DRYER ROOM 191					1.0	1.0	--	--	--	--	--	--	24
25	--	--	--	--	--	--	1.0	1.0					--	--	--	--	--	--	26
27	--	--	--	--	--	--			1.0	1.0			PWR: DRYER ROOM 191	0.0	3.0	0.0	3	20	28
29	20	1	0.0	1.5	0.0	PWR: VENDING ROOM 191					1.5	1.0	--	--	--	--	--	--	30
31	20	1	0.0	1.5	0.0	PWR: VENDING ROOM 191	1.5	1.0					--	--	--	--	--	--	32
33	20	1	0.0	0.0	0.4	CO: BREAK & VENDING NE - 159			0.4	0.6			PWR: TELCOM IDF NE - 160-1	0.0	0.6	0.0	1	20	34
35	20	1	0.0	0.0	0.0	PWR: MICROWAVE BREAK &					1.1	0.6	PWR: TELCOM IDF NE - 160-1	0.0	0.6	0.0	1	20	36
37	20	1	0.0	0.0	0.0	PWR: MICROWAVE BREAK &	1.1	0.5					PWR: FCP	0.0	0.5	0.0	1	20	38
39	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	42
43	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	44
45	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	46
47	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	48
49	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	50
51	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	52
53	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	54
55	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	56
57	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	58
59	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	60
61	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	62
63	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	64
65	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	66
67	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	68
69	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	70
71	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	72
73	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	74
75	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	76
77	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	78
79	100	3	0.0	18.4	4.9	PANEL" 2LF"	8.5	9.0					PANEL" 3LF"	6.1	18.4	0.0	3	100	80
81	--	--	--	--	--	--			8.2	8.5			--	--	--	--	--	--	82
83	--	--	--	--	--	--					6.6	7.0	--	--	--	--	--	--	84
TOTALS:						CONNECTED kVA PER PHASE	33		28		28		CONNECTED TOTAL kVA	89.3					
						CONNECTED AMPS PER PHASE	272		236		237		CONNECTED AVERAGE AMPS PER PHASE	248					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES: **16.4 kVA @ 81% = 13.2 kVA**
ALL OTHER LOADS @100%= **70.7 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **86.1**
AVERAGE AMPS PER PHASE **239**

PANEL "1MB"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	600 AMPERE CIRCUIT BREAKER	MECHANICAL ROOM	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	40	1	0.0	3.1	0.0	BOILER (B-1)	3.1	3.1					BOILER (B-2)	0.0	3.1	0.0	1	40	2
3	20	1	0.0	0.7	0.0	BOILER PUMP (BP-1)			0.7	0.7			BOILER PUMP (BP-2)	0.0	0.7	0.0	1	20	4
5	40	3	0.0	11.1	0.0	PUMP (CHWP-1					3.7	3.7	PUMP (CHWP-2)	0.0	11.1	0.0	3	40	6
7	--	--	--	--	--	--	3.7	3.7					--	--	--	--	--	--	8
9	--	--	--	--	--	--			3.7	3.7			--	--	--	--	--	--	10
11	100	3	0.0	16.6	0.0	PUMP (CWP-1)					5.5	5.5	PUMP (CWP-2)	0.0	16.6	0.0	3	100	12
13	--	--	--	--	--	--	5.5	5.5					--	--	--	--	--	--	14
15	--	--	--	--	--	--			5.5	5.5			--	--	--	--	--	--	16
17	20	3	0.0	3.8	0.0	PUMP (HWP-1)					1.3	0.9	PUMP (HWP-2)	0.0	2.7	0.0	3	20	18
19	--	--	--	--	--	--	1.3	0.9					--	--	--	--	--	--	20
21	--	--	--	--	--	--			1.3	0.9			--	--	--	--	--	--	22
23	100	3	0.0	16.6	0.0	PUMP (P-1)					5.5	5.5	PUMP (P-2)	0.0	16.6	0.0	3	100	24
25	--	--	--	--	--	--	5.5	5.5					--	--	--	--	--	--	26
27	--	--	--	--	--	--			5.5	5.5			--	--	--	--	--	--	28
29	20	1	0.0	0.5	0.0	PWR: WATER SOFTENER					0.5	0.5	PWR: WATER SOFTENER (WS-1B)	0.0	0.5	0.0	1	20	30
31	150	3	0.0	8.0	0.0	CT-1BH BASIN HEATER	2.7	7.1					COOLING TOWER (CT-1)	0.0	21.4	0.0	3	150	32
33	--	--	--	--	--	--			2.7	7.1			--	--	--	--	--	--	34
35	--	--	--	--	--	--					2.7	7.1	--	--	--	--	--	--	36
37	20	1	0.0	0.2	0.0	CT-1 CONTROL CIRCUIT	0.2	0.3					UNIT HEATER (UH-1)	0.0	0.3	0.0	1	20	38
39	20	1	--	--	--	SPARE			0.0	1.7			LTG: MECH/COOLING TWR/STOR	0.0	0.0	1.7	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.3	LTG: COOLING TOWER YARD	0.0	0.0	0.3	1	20	42
43	20	3	0.0	4.2	0.0	HEAT PUMP (HP-018) STOR. RM	1.4	1.1					CO: STORAGE/MECH ROOM	1.1	0.0	0.0	1	20	44
45	--	--	--	--	--	--			1.4	1.1			CO: STORAGE/MECH ROOM	1.1	0.0	0.0	1	20	46
47	--	--	--	--	--	--					1.4	1.2	PWR: ATC PANEL STOR. RM	0.0	1.2	0.0	1	20	48
49	50	3	0.0	10.0	0.0	PWR: PRES. EQUIPMENT	3.3	0.0					SPARE	--	--	--	1	20	50
51	--	--	--	--	--	--			3.3	0.0			SPARE	--	--	--	1	20	52
53	--	--	--	--	--						3.3	0.0	SPARE	--	--	--	1	20	54
55	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	56
57	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	58
59	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	60
61	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	62
63	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	64
65	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	66
67	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	68
69	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	70
71	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	72
73	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	74
75	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	76
77	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	78
79	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	80
81	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	82
83	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	84
TOTALS:						CONNECTED kVA PER PHASE	54		50		49		CONNECTED TOTAL kVA	153.2					
						CONNECTED AMPS PER PHASE	452		422		406		CONNECTED AVERAGE AMPS PER PHASE	426					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS **2.0 kVA @ 125% = 2.5 kVA**
RECEPTACLES: **2.2 kVA @ 100% = 2.2 kVA**
ALL OTHER LOADS @100%= **18.6 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **159.0**
AVERAGE AMPS PER PHASE **441**

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
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BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PANEL SCHEDULES

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: WRT
CHECKED BY: DLA
PROJECT NO.: 11007
DRAWING NO.: EP603
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

PANEL "1MLA"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	225 AMPERE MAIN LUGS	MAIN ELECTRICAL ROOM - 127	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 107	0.4	0.4					HEAT PUMP (HP-009) RM - 106	0.0	0.9	0.0	2	20	2
3	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	4
5	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 109					0.4	0.4	HEAT PUMP (HP-009) RM - 108	0.0	0.9	0.0	2	20	6
7	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	8
9	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 111			0.4	0.4			HEAT PUMP (HP-009) RM - 110	0.0	0.9	0.0	2	20	10
11	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	12
13	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 113	0.4	0.4					HEAT PUMP (HP-009) RM - 112	0.0	0.9	0.0	2	20	14
15	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	16
17	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 115					0.4	0.4	HEAT PUMP (HP-009) RM - 114	0.0	0.9	0.0	2	20	18
19	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	20
21	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 117			0.4	0.4			HEAT PUMP (HP-009) RM - 116	0.0	0.9	0.0	2	20	22
23	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	24
25	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 119	0.4	0.4					HEAT PUMP (HP-009) RM - 118	0.0	0.9	0.0	2	20	26
27	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	28
29	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 121					0.4	0.4	HEAT PUMP (HP-009) RM - 120	0.0	0.9	0.0	2	20	30
31	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	32
33	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 123			0.4	0.4			HEAT PUMP (HP-009) RM - 134	0.0	0.9	0.0	2	20	34
35	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	36
37	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	42
43	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 125	0.4	0.4					HEAT PUMP (HP-009) RM - 136	0.0	0.9	0.0	2	20	44
45	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	46
47	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 135					0.4	1.7	HEAT PUMP (HP-036) RM. 142	0.0	5.1	0.0	3	30	48
49	--	--	--	--	--	--	0.4	1.7					--	--	--	--	--	--	50
51	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 137			0.4	1.7			--	--	--	--	--	--	52
53	--	--	--	--	--	--					0.4	2.9	FAN COIL UNIT (FC-1) RM 126	0.0	8.7	0.0	3	40	54
55	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 139	0.4	2.9					--	--	--	--	--	--	56
57	--	--	--	--	--	--			0.4	2.9			--	--	--	--	--	--	58
59	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 141					0.4	2.6	HEAT PUMP (HP-048) RM 104	0.0	7.7	0.0	3	30	60
61	--	--	--	--	--	--	0.4	2.6					--	--	--	--	--	--	62
63	40	3	0.0	8.8	0.0	HEAT PUMP (HP-060) RM 132			2.9	2.6			--	--	--	--	--	--	64
65	--	--	--	--	--	--					2.9	0.0	SPARE	--	--	--	1	20	66
67	--	--	--	--	--	--	2.9	0.0					SPARE	--	--	--	1	20	68
69	30	3	0.0	7.7	0.0	HEAT PUMP (HP-048) RM 122			2.6	0.0			SPARE	--	--	--	1	20	70
71	--	--	--	--	--	--					2.6	0.0	SPARE	--	--	--	1	20	72
73	--	--	--	--	--	--	2.6	0.0					SPARE	--	--	--	1	20	74
75	20	1	0.0	0.7	0.0	EXHAUST FAN Room 106L, 110L,			0.7	0.0			SPARE	--	--	--	1	20	76
77	20	1	0.0	0.5	0.0	EXHAUST FAN Room 135L, 139L					0.5	0.0	SPARE	--	--	--	1	20	78
79	20	1	0.0	0.9	0.0	EXHAUST FAN Room 111L, 115L,	0.9	4.0					PANEL "1MLA2"	0.0	8.7	0.0	3	100	80
81	20	1	--	--	--	SPARE			0.0	2.3			--	--	--	--	--	--	82
83	20	1	--	--	--	SPARE					0.0	2.4	--	--	--	--	--	--	84
TOTALS:						CONNECTED kVA PER PHASE	25		23		22		CONNECTED TOTAL kVA					70.4	
						CONNECTED AMPS PER PHASE	211		191		186		CONNECTED AVERAGE AMPS PER PHASE					196	

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES:
ALL OTHER LOADS @100%= **30.3 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **72.6**
AVERAGE AMPS PER PHASE **202**

PANEL "1MLB"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	600 AMPERE MAIN LUGS	ELECTRICAL NE - 161	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 187	0.4	0.4					HEAT PUMP (HP-009) RM - 188	0.0	0.9	0.0	2	20	2
3	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	4
5	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 185					0.4	0.4	HEAT PUMP (HP-009) RM - 186	0.0	0.9	0.0	2	20	6
7	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	8
9	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 183			0.4	0.4			HEAT PUMP (HP-009) RM - 184	0.0	0.9	0.0	2	20	10
11	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	12
13	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 181	0.4	0.4					HEAT PUMP (HP-009) RM - 182	0.0	0.9	0.0	2	20	14
15	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	16
17	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 179					0.4	0.4	HEAT PUMP (HP-009) RM - 180	0.0	0.9	0.0	2	20	18
19	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	20
21	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 177			0.4	0.4			HEAT PUMP (HP-009) RM - 178	0.0	0.9	0.0	2	20	22
23	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	24
25	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 175	0.4	0.4					HEAT PUMP (HP-009) RM - 176	0.0	0.9	0.0	2	20	26
27	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	28
29	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 173					0.4	0.4	HEAT PUMP (HP-009) RM - 174	0.0	0.9	0.0	2	20	30
31	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	32
33	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 171			0.4	0.4			HEAT PUMP (HP-009) RM - 172	0.0	0.9	0.0	2	20	34
35	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	36
37	40	3	0.0	7.7	0.0	HEAT PUMP (HP-048) RM - 191	2.6	2.9					HEAT PUMP (HP-060) RM - 159	0.0	8.8	0.0	3	50	38
39	--	--	--	--	--	--			2.6	2.9			--	--	--	--	--	--	40
41	--	--	--	--	--	--					2.6	2.9	--	--	--	--	--	--	42
43	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 169	0.4	0.4					HEAT PUMP (HP-009) RM - 170	0.0	0.9	0.0	2	20	44
45	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	46
47	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 157					0.4	0.4	HEAT PUMP (HP-009) RM - 158	0.0	0.9	0.0	2	20	48
49	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	50
51	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 155			0.4	0.4			HEAT PUMP (HP-009) RM - 156	0.0	0.9	0.0	2	20	52
53	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	54
55	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 153	0.4	0.4					HEAT PUMP (HP-009) RM - 154	0.0	0.9	0.0	2	20	56
57	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	58
59	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 151					0.4	0.4	HEAT PUMP (HP-009) RM - 152	0.0	0.9	0.0	2	20	60
61	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	62
63	20	1	0.0	0.7	0.0	(EF-1) RMS. 156L, 152L, 151L			0.7	0.8			PWR: DRK FNT. CIRC EAST - 133	0.0	0.8	0.0	1	20	64
65	20	1	0.0	0.9	0.0	(EF-1) RMS. 185L, 181L, 177L,					0.9	0.5	PWR: FA RISER	0.0	0.5	0.0	1	20	66
67	20	1	0.0	0.9	0.0	(EF-1) RMS. 182L, 174L, 170L,	0.9	0.0					SPARE	--	--	--	1	20	68
69	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	70
71	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	72
73	20	1	--	--	--	SPARE	0.0	5.7					PANEL "1MLB2"	0.0	18.0	0.0	3	100	74
75	20	1	--	--	--	SPARE			0.0	7.4			--	--	--	--	--	--	76
77	20	1	--	--	--	SPARE					0.0	4.9	--	--	--	--	--	--	78
79	200	3	0.0	45.2	0.0	PANEL "2MLB"	15.4	20.9					PANEL "3MLB"	0.0	57.8	0.0	3	200	80
81	--	--	--	--	--	--			14.9	18.9			--	--	--	--	--	--	82
83	--	--	--	--	--	--					14.9	18.0	--	--	--	--	--	--	84
TOTALS:						CONNECTED kVA PER PHASE	57		56		53		CONNECTED TOTAL kVA					166.4	
						CONNECTED AMPS PER PHASE	482		473		440		CONNECTED AVERAGE AMPS PER PHASE					463	

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES:
ALL OTHER LOADS @100%= **116.0 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **168.6**
AVERAGE AMPS PER PHASE **468**

PANEL "1MLA2"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN LUGS	MAIN ELECTRICAL ROOM - 127	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	3	0.0	0.7	0.0	SUMP PUMP (SMP-1)	0.2	0.4					SUMP PUMP (SMP-2) RM 142	0.0	1.3	0.0	3	20	2
3	--	--	--	--	--	--			0.2	0.4			--	--	--	--	--	--	4
5	--	--	--	--	--	--					0.2	0.4	--	--	--	--	--	--	6
7	20	2	0.0	1.6	0.0	HEAT PUMP (CHP-018) STR S -	0.8	0.8					HEAT PUMP (CHP-018)	0.0	1.6	0.0	2	20	8
9	--	--	--	--	--	--			0.8	0.8			--	--	--	--	--	--	10
11	20	2	0.0	1.6	0.0	HEAT PUMP (CHP-018) RM - 142					0.8	1.0	ELEC. HEATER (EH-2)	0.0	2.0	0.0	2	30	12
13	--	--	--	--	--	--	0.8	1.0					--	--	--	--	--	--	14
15	20	1	0.0	0.1	0.0	EXHAUST FAN (EF-2) ELEV.			0.1	0.0			SPARE	--	--	--	1	20	16
17	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	18
19	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	20
21	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	22
23	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	24
25	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	26
27	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	36
37	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	42
TOTALS:						CONNECTED kVA PER PHASE	4		2		2		CONNECTED TOTAL kVA					8.7	
						CONNECTED AMPS PER PHASE	33		19		20		CONNECTED AVERAGE AMPS PER PHASE					24	

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES:
ALL OTHER LOADS @100%= **6.7 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **9.0**
AVERAGE AMPS PER PHASE **25**

PANEL "1MLB2"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN LUGS	ELECTRICAL NE - 161	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	3	0.0	1.7	0.0	SUMP PUMP (SMP-2) RM 143	0.6	0.8					HEAT PUMP (CHP-018) LOBBY 143	0.0	1.6	0.0	2	20	2
3	--	--	--	--	--	--			0.6	0.8			--	--	--	--	--	--	4
5	--	--	--	--	--	--					0.6	0.8	HEAT PUMP (CHP-018) STRS N - 190	0.0	1.6	0.0	2	20	6
7	20	3	0.0	0.7	0.0	SUMP PUMP (SMP-4) FR - 193	0.2	0.8					--	--	--	--	--	--	8
9	--	--	--	--	--	--			0.2	1.0			PWR: ELEC HTR (EH-1) FR - 193	0.0	1.0	0.0	1	20	10
11	--	--	--	--	--	--					0.2	1.0	ELEC. HEATER (EH-2)	0.0	2.0	0.0	2	30	12
13	30	2	0.0	4.8	0.0	ELEC. HEATER (EH-3)	2.4	1.0					--	--	--	--	--	--	14
15	--	--	--	--	--	--			2.4	2.4			ELEC. HEATER (EH-3)	0.0	4.8	0.0	2	30	16
17	20	1	--	--	--	SPARE					0.0	2.4	--	--	--	--	--	--	18
19	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	20
21	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	22
23	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	24
25	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	26
27	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	36
37	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	42
TOTALS:						CONNECTED kVA PER PHASE	6		7		5		CONNECTED TOTAL kVA					18.0	
						CONNECTED AMPS PER PHASE	49		62		41		CONNECTED AVERAGE AMPS PER PHASE					50	

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES:
ALL OTHER LOADS @100%= **15.7 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **18.4**
AVERAGE AMPS PER PHASE **51**

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
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SEAL & SIGNATURE

SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH 02-15-2013

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PANEL SCHEDULES

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: WRT
CHECKED BY: DLA
PROJECT NO.: 11007
DRAWING NO.: EP604
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

PANEL "2LA"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	200 AMPERE MAIN LUGS	ELECTRICAL SE - 228	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A	B	C	DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	0.0	0.2	0.9	CO BILLET - 224	1.3 0.4			CO	0.0	0.4	0.0	1	20	2
3	20	1	0.0	0.0	0.5	CO Room 224, 222		0.5 1.3		CO BILLET - 222	0.9	0.2	0.0	1	20	4
5	20	1	0.0	0.4	0.0	CO			0.4 1.1	CO BILLET - 220	0.9	0.2	0.0	1	20	6
7	20	1	0.0	0.4	0.0	CO	0.4 0.5			CO Room 220, 218	0.5	0.0	0.0	1	20	8
9	20	1	0.0	0.2	0.9	CO BILLET - 218		1.1 0.4		CO	0.0	0.4	0.0	1	20	10
11	20	1	0.0	0.2	0.9	CO BILLET - 216			1.1 0.4	CO	0.0	0.4	0.0	1	20	12
13	20	1	0.0	0.0	0.5	CO Room 216, 214	0.5 1.1			CO BILLET - 214	0.9	0.2	0.0	1	20	14
15	20	1	0.0	0.4	0.0	CO		0.4 1.1		CO BILLET - 212	0.9	0.2	0.0	1	20	16
17	20	1	0.0	0.4	0.0	CO			0.4 0.5	CO Room 212, 210	0.5	0.0	0.0	1	20	18
19	20	1	0.0	0.2	0.9	CO BILLET - 210	1.1 0.4			CO	0.0	0.4	0.0	1	20	20
21	20	1	0.0	0.2	0.9	CO BILLET - 208		1.1 0.4		CO	0.0	0.4	0.0	1	20	22
23	20	1	0.0	0.0	0.5	CO Room 208, 206			0.5 1.1	CO BILLET - 206	0.9	0.2	0.0	1	20	24
25	20	1	0.0	0.4	0.0	CO	0.4 1.1			CO BILLET - 223	0.9	0.2	0.0	1	20	26
27	20	1	0.0	0.4	0.0	CO		0.4 0.5		CO	0.5	0.0	0.0	1	20	28
29	20	1	0.0	0.2	0.9	CO BILLET - 221			1.1 0.4	CO	0.0	0.4	0.0	1	20	30
31	20	1	0.0	0.2	0.9	CO BILLET - 219	1.3 0.4			CO	0.0	0.4	0.0	1	20	32
33	20	1	0.0	0.0	0.5	CO		0.5 1.3		CO BILLET - 217	0.9	0.2	0.0	1	20	34
35	20	1	0.0	0.4	0.0	CO			0.4 1.1	CO BILLET - 215	0.9	0.2	0.0	1	20	36
37	20	1	0.0	0.4	0.0	CO	0.4 0.5			CO	0.5	0.0	0.0	1	20	38
39	20	1	0.0	0.2	0.9	CO BILLET - 213		1.1 0.4		CO	0.0	0.4	0.0	1	20	40
41	20	1	0.0	0.2	0.9	CO BILLET - 211			1.1 0.4	CO	0.0	0.4	0.0	1	20	42
43	20	1	0.0	0.0	0.5	CO	0.5 1.1			CO BILLET - 209	0.9	0.2	0.0	1	20	44
45	20	1	0.0	0.4	0.0	CO		0.4 1.1		CO BILLET - 207	0.9	0.2	0.0	1	20	46
47	20	1	0.0	0.4	0.0	CO			0.4 0.5	CO	0.5	0.0	0.0	1	20	48
49	20	1	0.0	0.2	0.9	CO BILLET - 205	1.1 0.4			CO	0.0	0.4	0.0	1	20	50
51	20	1	0.0	0.2	0.9	CO BILLET - 232		1.1 0.4		CO	0.0	0.4	0.0	1	20	52
53	20	1	0.0	0.0	0.5	CO Room 234, 232			0.5 1.1	CO BILLET - 234	0.9	0.2	0.0	1	20	54
55	20	1	0.0	0.4	0.0	CO	0.4 1.3			CO BILLET - 236	0.9	0.2	0.0	1	20	56
57	20	1	0.0	0.4	0.0	CO		0.4 0.5		CO Room 236L, 238, 236	0.5	0.0	0.0	1	20	58
59	20	1	0.0	0.2	0.9	CO BILLET - 238			1.3 0.4	CO	0.0	0.4	0.0	1	20	60
61	20	1	0.0	0.2	0.9	CO BILLET - 233	1.1 0.4			CO	0.0	0.4	0.0	1	20	62
63	20	1	0.0	0.0	0.5	CO Room 235, 233		0.5 1.1		CO BILLET - 235	0.9	0.2	0.0	1	20	64
65	20	1	0.0	0.4	0.0	CO			0.4 1.1	CO BILLET - 237	0.9	0.2	0.0	1	20	66
67	20	1	0.0	0.4	0.0	CO	0.4 0.5			CO Room 239, 237	0.5	0.0	0.0	1	20	68
69	20	1	0.0	0.2	0.9	CO BILLET - 239		1.1 0.4		CO	0.0	0.4	0.0	1	20	70
71	20	1	0.0	0.2	0.9	CO BILLET - 241			1.3 0.4	CO	0.0	0.4	0.0	1	20	72
73	20	1	0.0	0.0	0.5	CO Room 241L, 243, 241	0.5 1.1			CO BILLET - 243	0.9	0.2	0.0	1	20	74
75	20	1	0.0	0.4	0.0	CO		0.4 0.0		SPARE	--	--	--	1	20	76
77	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	78
79	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	80
81	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	82
83	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	84

TOTALS:	A	B	C		
CONNECTED kVA PER PHASE	19	18	17	CONNECTED TOTAL kVA	54.3
CONNECTED AMPS PER PHASE	157	151	146	CONNECTED AVERAGE AMPS PER PHASE	151

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES: **35.1 kVA @ 64% = 22.6 kVA**
ALL OTHER LOADS @100%= **17.4 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **41.7**
AVERAGE AMPS PER PHASE **116**

PANEL "2LB"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	150 AMPERE MAIN LUGS	ELECTRICAL SE - 228	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A	B	C	DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	0.7	0.0	0.0	LTG: Room 241, 243, 241L, 240	0.7 0.7			LTG: Room 233, 235, 237, 239	0.0	0.0	0.7	1	20	2
3	20	1	0.7	0.0	0.0	LTG: Room 234, 232, 236L, 238,		0.7 0.3		LTG: SE PATIO	0.0	0.0	0.3	1	20	4
5	20	1	0.3	0.0	0.0	LTG: Room 227, 225, 229			0.3 0.5	LTG: Room 226-230	0.0	0.0	0.5	1	20	6
7	20	1	0.6	0.0	0.0	LTG: Room 207, 205, 203, 202	0.6 0.3			LTG: Room 206, 208, 201	0.0	0.0	0.3	1	20	8
9	20	1	0.7	0.0	0.0	LTG: Room 210, 216, 214, 201,		0.7 0.7		LTG: Room 218, 224, 222, 201, 220	0.0	0.0	0.7	1	20	10
11	20	1	0.7	0.0	0.0	LTG: Room 209, 215, 213, 211			0.7 0.7	LTG: Room 217, 223, 221, 219	0.0	0.0	0.7	1	20	12
13	20	1	0.7	0.0	0.0	R2A-1	0.7 0.3			R2A-2	0.0	0.0	0.3	1	20	14
15	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	16
17	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	18
19	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	20
21	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	22
23	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	24
25	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	26
27	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	36
37	20	1	--	--	--	SPARE	0.0									38
39	20	1	--	--	--	SPARE		0.0								40
41	20	1	--	--	--	SPARE			0.0							42

TOTALS:	A	B	C		
CONNECTED kVA PER PHASE	3	2	2	CONNECTED TOTAL kVA	7.6
CONNECTED AMPS PER PHASE	28	19	17	CONNECTED AVERAGE AMPS PER PHASE	21

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS **7.6 kVA @ 125% = 9.5 kVA**
RECEPTACLES:
ALL OTHER LOADS @100%= **0.0 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **9.5**
AVERAGE AMPS PER PHASE **26**

PANEL "2LC"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	200 AMPERE MAIN LUGS	ELETRICAL NE - 254	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A	B	C	DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	0.0	0.2	0.9	CO BILLET - 250	1.1 0.4			CO	0.0	0.4	0.0	1	20	2
3	20	1	0.0	0.0	0.5	CO Room 250, 248		0.5 1.1		CO BILLET - 248	0.9	0.2	0.0	1	20	4
5	20	1	0.0	0.4	0.0	CO			0.4 1.1	CO BILLET - 246	0.9	0.2	0.0	1	20	6
7	20	1	0.0	0.4	0.0	CO	0.4 0.5			CO Room 246, 244	0.5	0.0	0.0	1	20	8
9	20	1	0.0	0.2	0.9	CO BILLET - 244		1.1 1.1		CO BILLET - 251	0.9	0.4	0.0	1	20	10
11	20	1	0.0	0.4	0.0	CO			0.4 0.5	CO Room 249L, 251, 249	0.5	0.0	0.0	1	20	12
13	20	1	0.0	0.2	0.9	CO BILLET - 249	1.1 0.4			CO	0.0	0.4	0.0	1	20	14
15	20	1	0.0	0.2	0.9	CO BILLET - 247		1.1 0.4		CO	0.0	0.4	0.0	1	20	16
17	20	1	0.0	0.0	0.5	CO Room 247, 245			0.5 1.1	CO BILLET - 245	0.9	0.2	0.0	1	20	18
19	20	1	0.0	0.4	0.0	CO	0.4 1.1			CO BILLET - 260	0.9	0.2	0.0	1	20	20
21	20	1	0.0	0.4	0.0	CO		0.4 0.5		CO Room 260, 262	0.5	0.0	0.0	1	20	22
23	20	1	0.0	0.2	0.9	CO BILLET - 262			1.1 0.4	CO	0.0	0.4	0.0	1	20	24
25	20	1	0.0	0.2	0.9	CO BILLET - 264	1.1 0.4			CO	0.0	0.4	0.0	1	20	26
27	20	1	0.0	0.0	0.5	CO Room 264, 266		0.5 1.1		CO BILLET - 266	0.9	0.2	0.0	1	20	28
29	20	1	0.0	0.4	0.0	CO			0.4 1.1	CO BILLET - 268	0.9	0.2	0.0	1	20	30
31	20	1	0.0	0.4	0.0	CO	0.4 0.5			CO Room 268, 270	0.5	0.0	0.0	1	20	32
33	20	1	0.0	0.2	0.9	CO BILLET - 270		1.1 0.4		CO	0.0	0.4	0.0	1	20	34
35	20	1	0.0	0.2	0.9	CO BILLET - 272			1.1 0.4	CO	0.0	0.4	0.0	1	20	36
37	20	1	0.0	0.0	0.5	CO Room 272, 274	0.5 1.1			CO BILLET - 274	0.9	0.2	0.0	1	20	38
39	20	1	0.0	0.4	0.0	CO		0.4 1.1		CO BILLET - 276	0.9	0.2	0.0	1	20	40
41	20	1	0.0	0.4	0.0	CO			0.4 0.5	CO Room 276, 278	0.5	0.0	0.0	1	20	42
43	20	1	0.0	0.2	0.9	CO BILLET- 278	1.1 0.4			CO	0.0	0.4	0.0	1	20	44
45	20	1	0.0	0.2	0.9	CO BILLET - 259		1.1 0.4		CO	0.0	0.4	0.0	1	20	46
47	20	1	0.0	0.0	0.5	CO Room 259, 261, 259L			0.5 1.1	CO BILLET - 261	0.9	0.2	0.0	1	20	48
49	20	1	0.0	0.4	0.0	CO	0.4 1.1			CO BILLET - 263	0.9	0.2	0.0	1	20	50
51	20	1	0.0	0.4	0.0	CO		0.4 0.5		CO Room 263, 265	0.5	0.0	0.0	1	20	52
53	20	1	0.0	0.2	0.9	CO BILLET - 265			1.1 0.4	CO	0.0	0.4	0.0	1	20	54
55	20	1	0.0	0.2	0.9	CO BILLET - 267	1.1 0.4			CO	0.0	0.4	0.0	1	20	56
57	20	1	0.0	0.0	0.5	CO Room 267, 269, 267L		0.5 1.1		CO BILLET- 269	0.9	0.2	0.0	1	20	58
59	20	1	0.0	0.4	0.0	CO			0.4 1.1	CO BILLET - 271	0.9	0.2	0.0	1	20	60
61	20	1	0.0	0.4	0.0	CO	0.4 0.5			CO Room 271, 273	0.5	0.0	0.0	1	20	62
63	20	1	0.0	0.2	0.9	CO BILLET - 273		1.1 0.4		CO	0.0	0.4	0.0	1	20	64
65	20	1	0.0	0.2	0.9	CO BILLET - 275			1.1 0.4	CO	0.0	0.4	0.0	1	20	66
67	20	1	0.0	0.0	0.5	CO Room 275, 277	0.5 1.1			CO BILLET - 277	0.9	0.2	0.0	1	20	68
69	20	1	0.0	0.4	0.0	CO		0.4 0.4		CO	0.0	0.4	0.0	1	20	70
71	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	72
73	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	74
75	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	76
77	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	78
79	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	80
81	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	82
83	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	84

TOTALS:	A	B	C		
CONNECTED kVA PER PHASE	16	17	15	CONNECTED TOTAL kVA	49.0
CONNECTED AMPS PER PHASE	138	144	129	CONNECTED AVERAGE AMPS PER PHASE	136

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES: **32.8 kVA @ 65% = 21.4 kVA**
ALL OTHER LOADS @100%= **16.2 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **37.6**
AVERAGE AMPS PER PHASE **104**

PANEL "2LD"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN LUGS	ELETRICAL NE - 254	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A	B	C	DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	0.7	0.0	0.0	LTG: Room 245, 247, 245L, 249,	0.7 0.7			LTG: Room 246, 244, 250, 248	0.0	0.0	0.7	1	20	2
3	20	1	0.3	0.0	0.0	LTG: NE PATIO		0.3 0.5		LTG: Room 253, 256, 257, 254, 252,	0.0	0.0	0.5	1	20	4
5	20	1	0.3	0.0	0.0	LTG: DAYROOM NE - 255 255			0.3 0.3	LTG: Room 276, 278	0.0	0.0	0.3	1	20	6
7	20	1	0.6	0.0	0.0	LTG: Room 277, 275, 282, 279,	0.6 0.7			LTG: Room 273, 271, 282, 267, 269,	0.0	0.0	0.7	1	20	8
9	20	1	0.7	0.0	0.0	LTG: Room 268, 272, 274, 270		0.7 0.7		LTG: Room 265, 263, 282, 259, 261,	0.0	0.0	0.7	1	20	10
11	20	1	0.7	0.0	0.0	LTG: Room 260, 264, 266, 262			0.7 0.7	R2B-1	0.0	0.0	0.7	1	20	12
13	20	1	--	--	--	SPARE	0.0 0.2			R2B-2	0.0	0.0	0.2	1	20	14
15	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	16
17	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	18
19	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	20
21	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	22
23	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	24
25	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	26
27	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	36
37	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	42

TOTALS:	A	B	C		
CONNECTED kVA PER PHASE	3	2	2	CONNECTED TOTAL kVA	6.8
CONNECTED AMPS PER PHASE	23	18	16	CONNECTED AVERAGE AMPS PER PHASE	19

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS **6.8 kVA @ 125% = 8.5 kVA**
RECEPTACLES:
ALL OTHER LOADS @100%= **0.0 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **8.5**
AVERAGE AMPS PER PHASE **24**

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SPECTRUM ENGINEERS

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02-15-2013

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PANEL SCHEDULES

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: WRT
CHECKED BY: DLA
PROJECT NO.: 11007
DRAWING NO.: EP605
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

PANEL "2LE"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN LUGS	ELECTRICAL SE - 228	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	3	0.0	3.0	0.0	PWR: DRYER ROOM 202	1.0	1.5					PWR: VENDING ROOM 202	0.0	1.5	0.0	1	20	2
3	--	--	--	--	--	--			1.0	1.5			PWR: VENDING ROOM 202	0.0	1.5	0.0	1	20	4
5	--	--	--	--	--	--					1.0	1.2	PWR: WASHER ROOM 202	0.0	1.2	0.0	1	20	6
7	20	3	0.0	3.0	0.0	PWR: DRYER ROOM 202	1.0	1.2					PWR: WASHER ROOM 202	0.0	1.2	0.0	1	20	8
9	--	--	--	--	--	--			1.0	1.2			PWR: WASHER ROOM 202	0.0	1.2	0.0	1	20	10
11	--	--	--	--	--	--					1.0	0.8	PWR: ICE MAKER ROOM 202	0.0	0.8	0.0	1	20	12
13	20	3	0.0	3.0	0.0	PWR: DRYER ROOM 202	1.0	0.9					CO: CIRC SOUTH	0.9	0.0	0.0	1	20	14
15	--	--	--	--	--	--			1.0	1.1			CO: CIRC SOUTH/ELEC	1.1	0.0	0.0	1	20	16
17	--	--	--	--	--	--					1.0	0.5	CO: CIRC. EAST WING	0.5	0.0	0.0	1	20	18
19	20	1	0.0	0.0	0.4	CO: TELECOM IDF S - 203	0.4	0.6					PWR: TELECOM IDF S - 203	0.0	0.6	0.0	1	20	20
21	20	1	0.0	0.0	0.2	CO: BREAK SE - 225			0.2	0.6			PWR: TELECOM IDF S - 203	0.0	0.6	0.0	1	20	22
23	20	1	0.0	0.0	0.5	CO: ROOM ,					0.5	0.5	CO: ROOM ,	0.5	0.0	0.0	1	20	24
25	20	1	--	--	--	SPARE	0.0	0.4					CO: A/V SE - 229	0.4	0.0	0.0	1	20	26
27	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	36
37	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	42
TOTALS:						CONNECTED kVA PER PHASE	8		8		7		CONNECTED TOTAL kVA					22.1	
						CONNECTED AMPS PER PHASE	67		64		55		CONNECTED AVERAGE AMPS PER PHASE					61	

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES: **4.5 kVA @ 100% = 4.5 kVA**
ALL OTHER LOADS @100%= **17.6 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **22.1**
AVERAGE AMPS PER PHASE **61**

PANEL "2LF"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN LUGS	ELETRICAL NE - 254	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	3	0.0	3.0	0.0	PWR: DRYER ROOM 281	1.0	1.5					PWR: VENDING ROOM 281	0.0	1.5	0.0	1	20	2
3	--	--	--	--	--	--			1.0	1.5			PWR: VENDING ROOM 281	0.0	1.5	0.0	1	20	4
5	--	--	--	--	--	--					1.0	0.8	PWR: ICE MAKER ROOM 281	0.0	0.8	0.0	1	20	6
7	20	3	0.0	3.0	0.0	PWR: DRYER ROOM 281	1.0	1.2					PWR: WASHER ROOM 281	0.0	1.2	0.0	1	20	8
9	--	--	--	--	--	--			1.0	1.2			PWR: WASHER ROOM 281	0.0	1.2	0.0	1	20	10
11	--	--	--	--	--	--					1.0	1.2	PWR: WASHER ROOM 281	0.0	1.2	0.0	1	20	12
13	20	3	0.0	3.0	0.0	PWR: DRYER ROOM 281	1.0	0.9					CO: CIRC. NORTH	0.9	0.0	0.0	1	20	14
15	--	--	--	--	--	--			1.0	0.8			PWR: DRINK. FOUNT.	0.0	0.8	0.0	1	20	16
17	--	--	--	--	--	--					1.0	0.7	CO: CIRC. EAST WING	0.7	0.0	0.0	1	20	18
19	20	1	0.0	0.0	0.5	CO: ELETRICAL NE - 254	0.5	0.6					PWR: TELCOM IDF NE - 160	0.0	0.6	0.0	1	20	20
21	20	1	0.0	0.0	1.1	CO: Room , ,			1.1	0.6			PWR: TELCOM IDF NE - 160	0.0	0.6	0.0	1	20	22
23	20	1	0.0	0.0	0.4	CO A/V NE - 253					0.4	0.5	CO ROOM ,	0.5	0.0	0.0	1	20	24
25	20	1	0.0	0.0	0.5	CO ROOM ,	0.5	0.2					CO BREAK NE - 257	0.2	0.0	0.0	1	20	26
27	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	36
37	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	42
TOTALS:						CONNECTED kVA PER PHASE	8		8		7		CONNECTED TOTAL kVA					23.3	
						CONNECTED AMPS PER PHASE	73		70		55		CONNECTED AVERAGE AMPS PER PHASE					65	

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES: **4.9 kVA @ 100% = 4.9 kVA**
ALL OTHER LOADS @100%= **18.4 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **23.3**
AVERAGE AMPS PER PHASE **65**

PANEL "2MLA"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	400 AMPERE MAIN LUGS	ELECTRICAL SE - 228	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 205	0.4	0.4					HEAT PUMP (HP-009) RM - 206	0.0	0.9	0.0	2	20	2
3	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	4
5	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 207					0.4	0.4	HEAT PUMP (HP-009) RM - 208	0.0	0.9	0.0	2	20	6
7	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	8
9	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 209			0.4	0.4			HEAT PUMP (HP-009) RM - 210	0.0	0.9	0.0	2	20	10
11	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	12
13	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 211	0.4	0.4					HEAT PUMP (HP-009) RM - 212	0.0	0.9	0.0	2	20	14
15	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	16
17	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 213					0.4	0.4	HEAT PUMP (HP-009) RM - 214	0.0	0.9	0.0	2	20	18
19	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	20
21	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 215			0.4	0.4			HEAT PUMP (HP-009) RM - 216	0.0	0.9	0.0	2	20	22
23	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	24
25	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 217	0.4	0.4					HEAT PUMP (HP-009) RM - 218	0.0	0.9	0.0	2	20	26
27	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	28
29	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 219					0.4	0.4	HEAT PUMP (HP-009) RM - 220	0.0	0.9	0.0	2	20	30
31	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	32
33	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 221			0.4	0.4			HEAT PUMP (HP-009) RM - 222	0.0	0.9	0.0	2	20	34
35	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	36
37	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	42
43	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 223	0.4	0.4					HEAT PUMP (HP-009) RM - 224	0.0	0.9	0.0	2	20	44
45	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	46
47	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 233					0.4	0.4	HEAT PUMP (HP-009) RM - 232	0.0	0.9	0.0	2	20	48
49	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	50
51	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 235			0.4	0.4			HEAT PUMP (HP-009) RM - 234	0.0	0.9	0.0	2	20	52
53	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	54
55	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 237	0.4	0.4					HEAT PUMP (HP-009) RM - 236	0.0	0.9	0.0	2	20	56
57	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	58
59	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 239					0.4	0.4	HEAT PUMP (HP-009) RM - 238	0.0	0.9	0.0	2	20	60
61	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	62
63	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 241			0.4	0.1			EXHAUST FAN (EF-2) ELEC SE - 228	0.0	0.1	0.0	1	20	64
65	--	--	--	--	--	--					0.4	0.0	SPARE	--	--	--	1	20	66
67	40	3	0.0	7.7	0.0	HEAT PUMP (HP-048) RM 202	2.6	0.0					SPARE	--	--	--	1	20	68
69	--	--	--	--	--	--			2.6	0.0			SPARE	--	--	--	1	20	70
71	--	--	--	--	--	--					2.6	0.0	SPARE	--	--	--	1	20	72
73	20	1	--	--	--	SPARE	0.0	0.9					EXHAUST FANS	0.0	0.9	0.0	1	20	74
75	20	1	--	--	--	SPARE			0.0	0.7			EXHAUST FANS Room 236L	0.0	0.7	0.0	1	20	76
77	20	1	--	--	--	SPARE					0.0	0.9	EXHAUST FANS	0.0	0.9	0.0	1	20	78
79	100	3	0.0	0.0	0.0	PANEL "2MLA2"	0.0	19.8					PANEL "3MLA"	0.0	55.1	0.0	3	200	80
81	--	--	--	--	--	--			0.0	17.7			--	--	--	--	--	--	82
83	--	--	--	--	--	--					0.0	17.6	--	--	--	--	--	--	84
TOTALS:						CONNECTED kVA PER PHASE	32		30		30		CONNECTED TOTAL kVA					91.4	
						CONNECTED AMPS PER PHASE	269		247		247		CONNECTED AVERAGE AMPS PER PHASE					254	

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES:
ALL OTHER LOADS @100%= **71.0 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **93.3**
AVERAGE AMPS PER PHASE **259**

PANEL "2MLA2"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN LUGS	ELECTRICAL SE - 228	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	2
3	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	4
5	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	6
7	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	8
9	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	10
11	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	12
13	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	14
15	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	16
17	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	18
19	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	20
21	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	22
23	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	24
25	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	26
27	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	36
37	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	42
TOTALS:						CONNECTED kVA PER PHASE	0		0		0		CONNECTED TOTAL kVA					0.0	
						CONNECTED AMPS PER PHASE	0		0		0		CONNECTED AVERAGE AMPS PER PHASE					0	

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES:
ALL OTHER LOADS @100%= **0.0 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **0.0**
AVERAGE AMPS PER PHASE **0**

EFT ARCHITECTS
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SEAL & SIGNATURE

SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH
02-15-2013

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PANEL SCHEDULES

REVISION	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY	CHECKED BY
WRT	DLA
PROJECT NO. 11007	DRAWING NO. EP606
DATE 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

PANEL "2MLB"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	200 AMPERE MAIN LUGS	ELETRICAL NE - 254	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 277	0.4	0.4					HEAT PUMP (HP-009) RM - 278	0.0	0.9	0.0	2	20	2
3	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	4
5	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 275					0.4	0.4	HEAT PUMP (HP-009) RM - 276	0.0	0.9	0.0	2	20	6
7	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	8
9	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 273			0.4	0.4			HEAT PUMP (HP-009) RM - 274	0.0	0.9	0.0	2	20	10
11	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	12
13	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 271	0.4	0.4					HEAT PUMP (HP-009) RM - 272	0.0	0.9	0.0	2	20	14
15	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	16
17	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 269					0.4	0.4	HEAT PUMP (HP-009) RM - 270	0.0	0.9	0.0	2	20	18
19	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	20
21	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 267			0.4	0.4			HEAT PUMP (HP-009) RM - 268	0.0	0.9	0.0	2	20	22
23	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	24
25	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 265	0.4	0.4					HEAT PUMP (HP-009) RM - 266	0.0	0.9	0.0	2	20	26
27	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	28
29	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 263					0.4	0.4	HEAT PUMP (HP-009) RM - 264	0.0	0.9	0.0	2	20	30
31	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	32
33	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 261			0.4	0.4			HEAT PUMP (HP-009) RM - 262	0.0	0.9	0.0	2	20	34
35	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	36
37	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	42
43	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 259	0.4	0.4					HEAT PUMP (HP-009) RM - 260	0.0	0.9	0.0	2	20	44
45	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	46
47	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 251					0.4	0.4	HEAT PUMP (HP-009) RM - 250	0.0	0.9	0.0	2	20	48
49	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	50
51	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 249			0.4	0.4			HEAT PUMP (HP-009) RM - 248	0.0	0.9	0.0	2	20	52
53	--	--	--	--	--	--					0.4	0.4	--	--	--	--	--	--	54
55	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 247	0.4	0.4					HEAT PUMP (HP-009) RM - 246	0.0	0.9	0.0	2	20	56
57	--	--	--	--	--	--			0.4	0.4			--	--	--	--	--	--	58
59	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 245					0.4	0.4	HEAT PUMP (HP-009) RM - 244	0.0	0.9	0.0	2	20	60
61	--	--	--	--	--	--	0.4	0.4					--	--	--	--	--	--	62
63	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 243			0.4	2.9			HEAT PUMP (VHP-060)	0.0	8.8	0.0	3	50	64
65	--	--	--	--	--	--					0.4	2.9	--	--	--	--	--	--	66
67	40	3	0.0	7.7	0.0	HEAT PUMP (HP-048) RM - 281	2.6	2.9					--	--	--	--	--	--	68
69	--	--	--	--	--	--			2.6	0.0			SPARE	--	--	--	1	20	70
71	--	--	--	--	--	--					2.6	0.0	SPARE	--	--	--	1	20	72
73	20	1	0.0	0.9	0.0	EXHAUST FANS Room 249L,	0.9	0.0					SPARE	--	--	--	1	20	74
75	20	1	0.0	0.9	0.0	EXHAUST FANS Room 267L			0.9	0.0			SPARE	--	--	--	1	20	76
77	20	1	0.0	0.9	0.0	EXHAUST FANS					0.9	0.0	SPARE	--	--	--	1	20	78
79	20	1	--	--	--	SPARE	0.0	0.0					PANEL "2MLB2"	0.0	0.0	0.0	3	100	80
81	20	1	--	--	--	SPARE			0.0	0.0			--	--	--	--	--	--	82
83	20	1	--	--	--	SPARE					0.0	0.0	--	--	--	--	--	--	84

TOTALS:	A	B	C		
CONNECTED kVA PER PHASE	15	15	15	CONNECTED TOTAL kVA	45.2
CONNECTED AMPS PER PHASE	128	124	124	CONNECTED AVERAGE AMPS PER PHASE	126

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES:
ALL OTHER LOADS @100%= **28.6 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **47.4**
AVERAGE AMPS PER PHASE **132**

PANEL "3LA"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	200 AMPERE MAIN LUGS	ELECTRICAL SE - 328	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	0.0	0.2	0.9	CO BILLET - 306	1.1	0.4					CO	0.0	0.4	0.0	1	20	2
3	20	1	0.0	0.0	0.5	CO Room 308, 306, 969			0.5	1.1			CO BILLET - 308	0.9	0.2	0.0	1	20	4
5	20	1	0.0	0.4	0.0	CO					0.4	1.1	CO BILLET - 310	0.9	0.2	0.0	1	20	6
7	20	1	0.0	0.4	0.0	CO	0.4	0.5					CO Room 312, 310	0.5	0.0	0.0	1	20	8
9	20	1	0.0	0.2	0.9	CO BILLET - 312			1.1	0.4			CO	0.0	0.4	0.0	1	20	10
11	20	1	0.0	0.2	0.9	CO BILLET - 314					1.1	0.4	CO	0.0	0.4	0.0	1	20	12
13	20	1	0.0	0.0	0.5	CO Room 316, 314	0.5	1.1					CO BILLET - 316	0.9	0.2	0.0	1	20	14
15	20	1	0.0	0.4	0.0	CO			0.4	1.1			CO BILLET - 318	0.9	0.2	0.0	1	20	16
17	20	1	0.0	0.4	0.0	CO					0.4	0.5	CO Room 320, 318	0.5	0.0	0.0	1	20	18
19	20	1	0.0	0.2	0.9	CO BILLET - 320	1.1	0.4					CO	0.0	0.4	0.0	1	20	20
21	20	1	0.0	0.2	0.9	CO BILLET- 322			1.1	0.4			CO	0.0	0.4	0.0	1	20	22
23	20	1	0.0	0.0	0.5	CO Room 324, 322					0.5	1.1	CO BILLET- 324	0.9	0.2	0.0	1	20	24
25	20	1	0.0	0.4	0.0	CO	0.4	1.1					CO BILLET - 305	0.9	0.2	0.0	1	20	26
27	20	1	0.0	0.4	0.0	CO			0.4	0.5			CO	0.5	0.0	0.0	1	20	28
29	20	1	0.0	0.2	0.9	CO BILLET - 307					1.1	0.4	CO	0.0	0.4	0.0	1	20	30
31	20	1	0.0	0.2	0.9	CO BILLET - 309	1.1	0.4					CO	0.0	0.4	0.0	1	20	32
33	20	1	0.0	0.0	0.5	CO			0.5	1.1			CO BILLET - 311	0.9	0.2	0.0	1	20	34
35	20	1	0.0	0.4	0.0	CO					0.4	1.1	CO BILLET - 313	0.9	0.2	0.0	1	20	36
37	20	1	0.0	0.4	0.0	CO	0.4	0.5					CO	0.5	0.0	0.0	1	20	38
39	20	1	0.0	0.0	1.1	CO BILLET - 315			1.1	0.4			CO	0.0	0.4	0.0	1	20	40
41	20	1	0.0	0.2	0.9	CO BILLET - 317					1.3	0.4	CO	0.0	0.4	0.0	1	20	42
43	20	1	0.0	0.0	0.5	CO	0.5	1.1					CO BILLET - 319	0.9	0.2	0.0	1	20	44
45	20	1	0.0	0.4	0.0	CO			0.4	1.1			CO BILLET - 321	0.9	0.2	0.0	1	20	46
47	20	1	0.0	0.4	0.0	CO					0.4	0.5	CO	0.5	0.0	0.0	1	20	48
49	20	1	0.0	0.2	0.9	CO BILLET - 323	1.1	0.4					CO	0.0	0.4	0.0	1	20	50
51	20	1	0.0	0.2	0.9	CO BILLET - 332			1.1	0.4			CO	0.0	0.4	0.0	1	20	52
53	20	1	0.0	0.0	0.5	CO Room 334, 332					0.5	1.1	CO BILLET - 334	1.1	0.0	0.0	1	20	54
55	20	1	0.0	0.4	0.0	CO	0.4	1.1					CO BILLET - 336	0.9	0.2	0.0	1	20	56
57	20	1	0.0	0.4	0.0	CO			0.4	0.5			CO Room 336L, 338, 336	0.5	0.0	0.0	1	20	58
59	20	1	0.0	0.2	0.9	CO BILLET - 338					1.1	0.4	CO	0.0	0.4	0.0	1	20	60
61	20	1	0.0	0.2	0.9	CO BILLET - 333	1.1	0.4					CO	0.0	0.4	0.0	1	20	62
63	20	1	0.0	0.0	0.5	CO Room 335, 333			0.5	1.1			CO BILLET - 335	1.1	0.0	0.0	1	20	64
65	20	1	0.0	0.4	0.0	CO					0.4	1.3	CO BILLET - 337	0.9	0.2	0.0	1	20	66
67	20	1	0.0	0.4	0.0	CO	0.4	0.5					CO Room 337L, 339, 337	0.5	0.0	0.0	1	20	68
69	20	1	0.0	0.2	0.9	CO BILLET - 339			1.1	0.4			CO	0.0	0.4	0.0	1	20	70
71	20	1	0.0	0.2	0.9	CO BILLET - 341					1.1	0.4	CO	0.0	0.4	0.0	1	20	72
73	20	1	0.0	0.0	0.5	CO Room 341L, 343, 341	0.5	1.1					CO BILLET- 343	0.9	0.2	0.0	1	20	74
75	20	1	0.0	0.4	0.0	CO			0.4	0.0			SPARE	--	--	--	1	20	76
77	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	78
79	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	80
81	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	82
83	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	84

TOTALS:	A	B	C		
CONNECTED kVA PER PHASE	18	18	17	CONNECTED TOTAL kVA	53.0
CONNECTED AMPS PER PHASE	150	146	146	CONNECTED AVERAGE AMPS PER PHASE	147

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES: **35.6 kVA @ 64% = 22.8 kVA**
ALL OTHER LOADS @100%= **16.9 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **40.2**
AVERAGE AMPS PER PHASE **112**

PANEL "2MLB2"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN LUGS	ELETRICAL NE - 254	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	2
3	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	4
5	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	6
7	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	8
9	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	10
11	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	12
13	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	14
15	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	16
17	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	18
19	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	20
21	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	22
23	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	24
25	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	26
27	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	36
37	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	42

TOTALS:	A	B	C		
CONNECTED kVA PER PHASE	0	0	0	CONNECTED TOTAL kVA	0.0
CONNECTED AMPS PER PHASE	0	0	0	CONNECTED AVERAGE AMPS PER PHASE	0

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES:
ALL OTHER LOADS @100%= **0.0 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **0.0**
AVERAGE AMPS PER PHASE **0**

PANEL "3LB"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN LUGS	ELECTRICAL SE - 328	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	0.3	0.0	0.0	LTG: Room 306, 308, 969, 301	0.3	0.7					LTG: Room 310, 316, 314, 301, 312	0.0	0.0	0.7	1	20	2
3	20	1	0.7	0.0	0.0	LTG: Room 318, 324, 322, 301,			0.7	0.6			LTG: Room 305, 307, 303, 302	0.0	0.0	0.6	1	20	4
5	20	1	0.7	0.0	0.0	LTG: Room 309, 315, 313, 311					0.7	0.7	LTG: Room 317, 319, 323, 321	0.0	0.0	0.7	1	20	6
7	20	1	0.7	0.0	0.0	LTG: Room 341, 343, 341L, 340	0.7	0.7					LTG: Room 337, 339, 337L, 333, 335,	0.0	0.0	0.7	1	20	8
9	20	1	0.7	0.0	0.0	LTG: Room 336L, 338, 336, 334,			0.7	0.3			LTG: Room 327, 325, 329	0.0	0.0	0.3	1	20	10
11	20	1	0.5	0.0	0.0	LTG: Room 329, 330, 325, 326,					0.5	0.3	LTG: SE PATIO	0.0	0.0	0.3	1	20	12
13	20	1	0.7	0.0	0.0	R3A-1	0.7	0.3					R3A-2	0.0	0.0	0.3	1	20	14
15	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	16
17	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	18
19	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	20
21	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	22
23	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	24
25	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	26
27	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	36
37	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	42

TOTALS:	A	B	C		
CONNECTED kVA PER PHASE	3	2	2	CONNECTED TOTAL kVA	7.5
CONNECTED AMPS PER PHASE	28	19	17	CONNECTED AVERAGE AMPS PER PHASE	21

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS **7.5 kVA @ 125% = 9.4 kVA**
RECEPTACLES:
ALL OTHER LOADS @100%= **0.0 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **9.4**
AVERAGE AMPS PER PHASE **26**

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SPECTRUM ENGINEERS

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02-15-2013

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PANEL SCHEDULES

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: WRT	CHECKED BY: DLA
PROJECT NO.: 11007	DRAWING NO.: EP607
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

PANEL "3LC"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	200 AMPERE MAIN LUGS	ELETRICAL NE - 354	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	0.0	0.2	0.9	CO BILLET - 377	1.1	0.4					CO	0.0	0.4	0.0	1	20	2
3	20	1	0.0	0.0	0.5	CO Room 375, 377			0.5	1.1			CO BILLET - 375	0.9	0.2	0.0	1	20	4
5	20	1	0.0	0.4	0.0	CO					0.4	1.1	CO BILLET - 373	0.9	0.2	0.0	1	20	6
7	20	1	0.0	0.4	0.0	CO	0.4	0.5					CO Room 371, 373	0.5	0.0	0.0	1	20	8
9	20	1	0.0	0.0	1.1	CO BILLET - 371			1.1	0.4			CO	0.0	0.4	0.0	1	20	10
11	20	1	0.0	0.2	0.9	CO BILLET - 369					1.1	0.4	CO	0.0	0.4	0.0	1	20	12
13	20	1	0.0	0.0	0.5	CO Room 367, 369, 367L	0.5	1.1					CO BILLET - 367	0.9	0.2	0.0	1	20	14
15	20	1	0.0	0.4	0.0	CO			0.4	1.1			CO BILLET - 365	0.9	0.2	0.0	1	20	16
17	20	1	0.0	0.4	0.0	CO					0.4	0.5	CO Room 363, 365	0.5	0.0	0.0	1	20	18
19	20	1	0.0	0.2	0.9	CO BILLET - 363	1.1	0.4					CO	0.0	0.4	0.0	1	20	20
21	20	1	0.0	0.2	0.9	CO BILLET - 361			1.1	0.4			CO	0.0	0.4	0.0	1	20	22
23	20	1	0.0	0.0	0.5	CO Room 359, 361, 359L					0.5	1.1	CO BILLET - 359	0.9	0.2	0.0	1	20	24
25	20	1	0.0	0.4	0.0	CO	0.4	1.1					CO BILLET 378	0.9	0.2	0.0	1	20	26
27	20	1	0.0	0.4	0.0	CO			0.4	0.5			CO Room 376, 378, 376L	0.5	0.0	0.0	1	20	28
29	20	1	0.0	0.2	0.9	CO BILLET - 376					1.1	0.4	CO	0.0	0.4	0.0	1	20	30
31	20	1	0.0	0.2	0.9	CO BILLET - 374	1.3	0.4					CO	0.0	0.4	0.0	1	20	32
33	20	1	0.0	0.0	0.5	CO Room 372, 374			0.5	1.3			CO BILLET - 372	0.9	0.2	0.0	1	20	34
35	20	1	0.0	0.4	0.0	CO					0.4	1.1	CO BILLET - 370	0.9	0.2	0.0	1	20	36
37	20	1	0.0	0.4	0.0	CO	0.4	0.5					CO Room 368, 370	0.5	0.0	0.0	1	20	38
39	20	1	0.0	0.2	0.9	CO BILLET - 368			1.1	0.4			CO	0.0	0.4	0.0	1	20	40
41	20	1	0.0	0.2	0.9	CO BILLET - 366					1.1	0.5	CO Room 364, 366	0.5	0.0	0.0	1	20	42
43	20	1	0.0	0.2	0.9	CO BILLET - 364	1.1	0.4					CO	0.0	0.4	0.0	1	20	44
45	20	1	0.0	0.4	0.0	CO			0.4	1.1			CO BILLET - 362	0.9	0.2	0.0	1	20	46
47	20	1	0.0	0.4	0.0	CO					0.4	0.5	CO Room 360, 362, 360L	0.5	0.0	0.0	1	20	48
49	20	1	0.0	0.2	0.9	CO BILLET - 360	1.1	0.4					CO	0.0	0.4	0.0	1	20	50
51	20	1	0.0	0.2	0.9	CO BILLET - 345			1.1	0.4			CO	0.0	0.4	0.0	1	20	52
53	20	1	0.0	0.0	0.5	CO Room 347, 345					0.5	1.1	CO BILLET - 347	0.9	0.2	0.0	1	20	54
55	20	1	0.0	0.4	0.0	CO	0.4	1.1					CO BILLET - 349	0.9	0.2	0.0	1	20	56
57	20	1	0.0	0.4	0.0	PWR			0.4	1.1			CO BILLET - 351	0.9	0.2	0.0	1	20	58
59	20	1	0.0	0.0	0.5	CO Room 349L, 351, 349					0.5	1.1	CO BILLET - 344	0.9	0.2	0.0	1	20	60
61	20	1	0.0	0.4	0.0	CO	0.4	0.5					CO Room 346, 344	0.5	0.0	0.0	1	20	62
63	20	1	0.0	0.4	0.0	CO			0.4	0.4			CO	0.0	0.4	0.0	1	20	64
65	20	1	0.0	0.2	0.9	CO BILLET -346					1.1	0.4	CO	0.0	0.4	0.0	1	20	66
67	20	1	0.0	0.2	0.9	CO BILLET - 348	1.1	1.1					CO BILLET 350	0.9	0.2	0.0	1	20	68
69	20	1	0.0	0.0	0.5	CO Room 348L, 350, 348			0.5	0.0			SPARE	--	--	--	1	20	70
71	20	1	0.0	0.4	0.0	CO					0.4	0.0	SPARE	--	--	--	1	20	72
73	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	74
75	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	76
77	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	78
79	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	80
81	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	82
83	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	84
TOTALS:						CONNECTED kVA PER PHASE	17		16		16		CONNECTED TOTAL kVA	49.5					
						CONNECTED AMPS PER PHASE	143		134		135		CONNECTED AVERAGE AMPS PER PHASE	138					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES: **32.9 kVA @ 65% = 21.5 kVA**
ALL OTHER LOADS @100%= **16.1 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **38.0**
AVERAGE AMPS PER PHASE **106**

PANEL "3LD"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN LUGS	ELETRICAL NE - 354	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	1	0.6	0.0	0.0	LTG: Room 377, 375, 382, 381,	0.6	0.7					LTG: Room 373, 371, 382, 367, 369,	0.0	0.0	0.7	1	20	2
3	20	1	0.7	0.0	0.0	LTG: Room 365, 363, 382, 359,			0.7	0.3			LTG: Room 378, 376, 376L	0.0	0.0	0.3	1	20	4
5	20	1	0.7	0.0	0.0	LTG: Room 374, 372, 368, 370					0.7	0.7	LTG: Room 366, 364, 360, 362, 360L	0.0	0.0	0.7	1	20	6
7	20	1	0.7	0.0	0.0	LTG: 349, 351, 349L, 345, 347,	0.7	0.7					LTG: Room 348L, 350, 348, 344L,	0.0	0.0	0.7	1	20	8
9	20	1	0.3	0.0	0.0	LTG: A/V NE - 353 353			0.3	0.3			LTG: Room 353, 355, 357	0.0	0.0	0.3	1	20	10
11	20	1	0.5	0.0	0.0	LTG: Room 357, 356, 353, 354,					0.5	0.7	R3B-1	0.0	0.0	0.7	1	20	12
13	20	1	--	--	--	SPARE	0.0	0.2					R3B-2	0.0	0.0	0.2	1	20	14
15	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	16
17	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	18
19	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	20
21	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	22
23	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	24
25	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	26
27	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	36
37	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	42
TOTALS:						CONNECTED kVA PER PHASE	3		2		3		CONNECTED TOTAL kVA	6.8					
						CONNECTED AMPS PER PHASE	24		13		22		CONNECTED AVERAGE AMPS PER PHASE	19					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS **6.8 kVA @ 125% = 8.5 kVA**
RECEPTACLES:
ALL OTHER LOADS @100%= **0.0 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **8.5**
AVERAGE AMPS PER PHASE **24**

PANEL "3LE"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN LUGS	ELECTRICAL SE - 328	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	3	0.0	3.0	0.0	PWR: DRYER ROOM - 302	1.0	1.5					PWR: VENDING ROOM - 302	0.0	1.5	0.0	1	20	2
3	--	--	--	--	--	--			1.0	1.5			PWR: VENDING ROOM - 302	0.0	1.5	0.0	1	20	4
5	--	--	--	--	--	--					1.0	1.2	PWR: WASHER ROOM - 302	0.0	1.2	0.0	1	20	6
7	20	3	0.0	3.0	0.0	PWR: DRYER ROOM - 302	1.0	1.2					PWR: WASHER ROOM - 302	0.0	1.2	0.0	1	20	8
9	--	--	--	--	--	--			1.0	1.2			PWR: WASHER ROOM - 302	0.0	1.2	0.0	1	20	10
11	--	--	--	--	--	--					1.0	0.8	PWR: ICE MAKER ROOM - 302	0.0	0.8	0.0	1	20	12
13	20	3	0.0	3.0	0.0	PWR: DRYER ROOM - 302	1.0	0.9					CO: CIRCULATION SOUTH	0.9	0.0	0.0	1	20	14
15	--	--	--	--	--	--			1.0	1.1			CO: CIRC. SOUTH/ELEC	1.1	0.0	0.0	1	20	16
17	--	--	--	--	--	--					1.0	0.5	CO: CIRCULATION EAST WING - 331	0.5	0.0	0.0	1	20	18
19	20	1	0.0	0.0	0.4	CO: TELECOM IDF 3-1 - 303	0.4	0.5					CO: ROOF TOP	0.5	0.0	0.0	1	20	20
21	20	1	0.0	0.6	0.0	PWR: TELECOM IDF 3-1 - 303			0.6	0.5			CO: ROOF TOP	0.5	0.0	0.0	1	20	22
23	20	1	0.0	0.6	0.0	PWR: TELECOM IDF 3-1 - 303					0.6	0.2	CO BREAK SE - 325	0.2	0.0	0.0	1	20	24
25	20	1	0.0	0.0	0.5	CO ROOM	0.5	0.5					CO ROOM	0.5	0.0	0.0	1	20	26
27	20	1	0.0	0.0	0.4	CO A/V SE - 329			0.4	0.0			SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	36
37	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	42
TOTALS:						CONNECTED kVA PER PHASE	9		8		6		CONNECTED TOTAL kVA	23.2					
						CONNECTED AMPS PER PHASE	74		72		53		CONNECTED AVERAGE AMPS PER PHASE	64					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES: **5.6 kVA @ 100% = 5.6 kVA**
ALL OTHER LOADS @100%= **17.6 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **23.2**
AVERAGE AMPS PER PHASE **64**

PANEL "3LF"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN LUGS	ELETRICAL NE - 354	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	3	0.0	3.0	0.0	PWR: DRYER ROOM - 381	1.0	1.5					PWR: VENDING ROOM - 381	0.0	1.5	0.0	1	20	2
3	--	--	--	--	--	--			1.0	1.5			PWR: VENDING ROOM - 381	0.0	1.5	0.0	1	20	4
5	--	--	--	--	--	--					1.0	1.2	PWR: WASHER ROOM - 381	0.0	1.2	0.0	1	20	6
7	20	3	0.0	3.0	0.0	PWR: DRYER ROOM - 381	1.0	1.2					PWR: WASHER ROOM - 381	0.0	1.2	0.0	1	20	8
9	--	--	--	--	--	--			1.0	1.2			PWR: WASHER ROOM - 381	0.0	1.2	0.0	1	20	10
11	--	--	--	--	--	--					1.0	0.8	PWR: ICE MAKER ROOM - 381	0.0	0.8	0.0	1	20	12
13	20	3	0.0	3.0	0.0	PWR: DRYER ROOM - 381	1.0	1.1					CO: CIRCULATION NORTH WING	1.1	0.0	0.0	1	20	14
15	--	--	--	--	--	--			1.0	0.9			CO: CIRCULATION NORTH WING	0.9	0.0	0.0	1	20	16
17	--	--	--	--	--	--					1.0	0.7	CO: WATERHEATER ROOM - 340	0.7	0.0	0.0	1	20	18
19	20	1	0.0	0.0	0.5	CO: ELEC/IDF	0.5	0.8					PWR: DRK FOUNT. CIRC EAST	0.0	0.8	0.0	1	20	20
21	20	1	0.0	0.6	0.0	PWR: TELECOM IDF NE - 352			0.6	0.5			CO: CIRCULATION EAST WING - 331	0.5	0.0	0.0	1	20	22
23	20	1	0.0	0.6	0.0	PWR: TELECOM IDF NE - 352					0.6	0.7	CO: ROOF TOP	0.7	0.0	0.0	1	20	24
25	20	1	0.0	0.0	0.4	CO A/V NE - 353	0.4	0.5					CO ROOM	0.5	0.0	0.0	1	20	26
27	20	1	0.0	0.0	0.5	CO ROOM			0.5	0.2			CO BREAK NE - 357	0.2	0.0	0.0	1	20	28
29	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	36
37	20	1	--	--	--	SPARE	0.0	0.0					SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE			0.0	0.0			SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE					0.0	0.0	SPARE	--	--	--	1	20	42
TOTALS:						CONNECTED kVA PER PHASE	9		8		7		CONNECTED TOTAL kVA	24.5					
						CONNECTED AMPS PER PHASE	77		72		59		CONNECTED AVERAGE AMPS PER PHASE	68					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES: **6.1 kVA @ 100% = 6.1 kVA**
ALL OTHER LOADS @100%= **18.4 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **24.5**
AVERAGE AMPS PER PHASE **68**

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
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SPECTRUM ENGINEERS

REGISTERED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH
02-15-2013

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PANEL SCHEDULES

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: WRT
CHECKED BY: DLA
PROJECT NO.: 11007
DRAWING NO.: EP608
DATE: 02/15/2013

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

PANEL "3MLA"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	200 AMPERE MAIN LUGS	ELECTRICAL SE - 328	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A	B	C	DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 305	0.4 0.4			HEAT PUMP (HP-009) RM - 306	0.0	0.9	0.0	2	20	2
3	--	--	--	--	--	--		0.4 0.4		--	--	--	--	--	--	4
5	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 307			0.4 0.4	HEAT PUMP (HP-009) RM - 308	0.0	0.9	0.0	2	20	6
7	--	--	--	--	--	--	0.4 0.4			--	--	--	--	--	--	8
9	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 309		0.4 0.4		HEAT PUMP (HP-009) RM - 310	0.0	0.9	0.0	2	20	10
11	--	--	--	--	--	--			0.4 0.4	--	--	--	--	--	--	12
13	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 311	0.4 0.4			HEAT PUMP (HP-009) RM - 312	0.0	0.9	0.0	2	20	14
15	--	--	--	--	--	--		0.4 0.4		--	--	--	--	--	--	16
17	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 313			0.4 0.4	HEAT PUMP (HP-009) RM - 314	0.0	0.9	0.0	2	20	18
19	--	--	--	--	--	--	0.4 0.4			--	--	--	--	--	--	20
21	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 315		0.4 0.4		HEAT PUMP (HP-009) RM - 316	0.0	0.9	0.0	2	20	22
23	--	--	--	--	--	--			0.4 0.4	--	--	--	--	--	--	24
25	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 317	0.4 0.4			HEAT PUMP (HP-009) RM - 318	0.0	0.9	0.0	2	20	26
27	--	--	--	--	--	--		0.4 0.4		--	--	--	--	--	--	28
29	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 319			0.4 0.4	HEAT PUMP (HP-009) RM - 320	0.0	0.9	0.0	2	20	30
31	--	--	--	--	--	--	0.4 0.4			--	--	--	--	--	--	32
33	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 321		0.4 0.4		HEAT PUMP (HP-009) RM - 322	0.0	0.9	0.0	2	20	34
35	--	--	--	--	--	--			0.4 0.4	--	--	--	--	--	--	36
37	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 323	0.4 0.4			HEAT PUMP (HP-009) RM - 324	0.0	0.9	0.0	2	20	38
39	--	--	--	--	--	--		0.4 0.4		--	--	--	--	--	--	40
41	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	42
43	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 333	0.4 0.4			HEAT PUMP (HP-009) RM - 332	0.0	0.9	0.0	2	20	44
45	--	--	--	--	--	--		0.4 0.4		--	--	--	--	--	--	46
47	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 335			0.4 0.4	HEAT PUMP (HP-009) RM - 334	0.0	0.9	0.0	2	20	48
49	--	--	--	--	--	--	0.4 0.4			--	--	--	--	--	--	50
51	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 337		0.4 0.4		HEAT PUMP (HP-009) RM - 336	0.0	0.9	0.0	2	20	52
53	--	--	--	--	--	--			0.4 0.4	--	--	--	--	--	--	54
55	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 339	0.4 0.4			HEAT PUMP (HP-009) RM - 338	0.0	0.9	0.0	2	20	56
57	--	--	--	--	--	--		0.4 0.4		--	--	--	--	--	--	58
59	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 341			0.4 0.4	HEAT PUMP (HP-009) RM - 343	0.0	0.9	0.0	2	20	60
61	--	--	--	--	--	--	0.4 0.4			--	--	--	--	--	--	62
63	20	2	0.0	1.6	0.0	HEAT PUMP (CHP-018) STR S -		0.8 2.6		HEAT PUMP (HP-048) RM - 302	0.0	7.7	0.0	3	40	64
65	--	--	--	--	--	--			0.8 2.6	--	--	--	--	--	--	66
67	20	3	0.0	4.2	0.0	HEAT PUMP (HP-018) STR E - 342	1.4 2.6			--	--	--	--	--	--	68
69	--	--	--	--	--	--		1.4 0.0		SPARE	--	--	--	1	20	70
71	--	--	--	--	--	--			1.4 0.0	SPARE	--	--	--	1	20	72
73	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	74
75	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	76
77	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	78
79	20	1	--	--	--	SPARE	0.0 6.0			PANEL "3MLA2"	0.0	14.8	0.0	3	100	80
81	20	1	--	--	--	SPARE		0.0 4.0		--	--	--	--	--	--	82
83	20	1	--	--	--	SPARE			0.0 4.8	--	--	--	--	--	--	84

TOTALS:	A	B	C		
CONNECTED kVA PER PHASE	20	18	18	CONNECTED TOTAL kVA	55.1
CONNECTED AMPS PER PHASE	165	147	147	CONNECTED AVERAGE AMPS PER PHASE	153

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES:
ALL OTHER LOADS @100%= **42.6 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **57.1**
AVERAGE AMPS PER PHASE **158**

PANEL "3MLB"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	200 AMPERE MAIN LUGS	ELETRICAL NE - 354	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A	B	C	DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 377	0.4 0.4			HEAT PUMP (HP-009) RM - 378	0.0	0.9	0.0	2	20	2
3	--	--	--	--	--	--		0.4 0.4		--	--	--	--	--	--	4
5	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 375			0.4 0.4	HEAT PUMP (HP-009) RM - 376	0.0	0.9	0.0	2	20	6
7	--	--	--	--	--	--	0.4 0.4			--	--	--	--	--	--	8
9	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 373		0.4 0.4		HEAT PUMP (HP-009) RM - 374	0.0	0.9	0.0	2	20	10
11	--	--	--	--	--	--			0.4 0.4	--	--	--	--	--	--	12
13	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 371	0.4 0.4			HEAT PUMP (HP-009) RM - 372	0.0	0.9	0.0	2	20	14
15	--	--	--	--	--	--		0.4 0.4		--	--	--	--	--	--	16
17	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 369			0.4 0.4	HEAT PUMP (HP-009) RM - 370	0.0	0.9	0.0	2	20	18
19	--	--	--	--	--	--	0.4 0.4			--	--	--	--	--	--	20
21	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 367		0.4 0.4		HEAT PUMP (HP-009) RM - 368	0.0	0.9	0.0	2	20	22
23	--	--	--	--	--	--			0.4 0.4	--	--	--	--	--	--	24
25	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 365	0.4 0.4			HEAT PUMP (HP-009) RM - 366	0.0	0.9	0.0	2	20	26
27	--	--	--	--	--	--		0.4 0.4		--	--	--	--	--	--	28
29	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 363			0.4 0.4	HEAT PUMP (HP-009) RM - 364	0.0	0.9	0.0	2	20	30
31	--	--	--	--	--	--	0.4 0.4			--	--	--	--	--	--	32
33	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 361		0.4 0.4		HEAT PUMP (HP-009) RM - 362	0.0	0.9	0.0	2	20	34
35	--	--	--	--	--	--			0.4 0.4	--	--	--	--	--	--	36
37	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 359	0.4 0.4			HEAT PUMP (HP-009) RM - 360	0.0	0.9	0.0	2	20	38
39	--	--	--	--	--	--		0.4 0.4		--	--	--	--	--	--	40
41	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	42
43	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 351	0.4 0.4			HEAT PUMP (HP-009) RM - 350	0.0	0.9	0.0	2	20	44
45	--	--	--	--	--	--		0.4 0.4		--	--	--	--	--	--	46
47	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 349			0.4 0.4	HEAT PUMP (HP-009) RM - 348	0.0	0.9	0.0	2	20	48
49	--	--	--	--	--	--	0.4 0.4			--	--	--	--	--	--	50
51	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 347		0.4 0.4		HEAT PUMP (HP-009) RM - 346	0.0	0.9	0.0	2	20	52
53	--	--	--	--	--	--			0.4 0.4	--	--	--	--	--	--	54
55	20	2	0.0	0.9	0.0	HEAT PUMP (HP-009) RM - 345	0.4 0.4			HEAT PUMP (HP-009) RM - 344	0.0	0.9	0.0	2	20	56
57	--	--	--	--	--	--		0.4 0.4		--	--	--	--	--	--	58
59	20	3	0.0	4.2	0.0	HEAT PUMP (HP-018) RM- 340			1.4 0.8	HEAT PUMP (CHP-018) RM- 340	0.0	1.6	0.0	2	20	60
61	--	--	--	--	--	--	1.4 0.8			--	--	--	--	--	--	62
63	--	--	--	--	--	--		1.4 1.4		WATER HEATERS (WH-1,2) RM 340	0.0	1.4	0.0	1	20	64
65	50	3	0.0	8.8	0.0	HEAT PUMP (HP-060) RM - 381			2.9 0.8	HEAT PUMP (CHP-018) STR N- 380	0.0	1.6	0.0	2	20	66
67	--	--	--	--	--	--	2.9 0.8			--	--	--	--	--	--	68
69	--	--	--	--	--	--		2.9 0.0		SPARE	--	--	--	1	20	70
71	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	72
73	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	74
75	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	76
77	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	78
79	20	1	--	--	--	SPARE	0.0 6.1			PANEL "3MLB2"	0.0	15.3	0.0	3	100	80
81	20	1	--	--	--	SPARE		0.0 4.2		--	--	--	--	--	--	82
83	20	1	--	--	--	SPARE			0.0 5.0	--	--	--	--	--	--	84

TOTALS:	A	B	C		
CONNECTED kVA PER PHASE	21	19	18	CONNECTED TOTAL kVA	57.8
CONNECTED AMPS PER PHASE	175	158	150	CONNECTED AVERAGE AMPS PER PHASE	161

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES:
ALL OTHER LOADS @100%= **42.8 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **60.0**
AVERAGE AMPS PER PHASE **167**

PANEL "3MLA2"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN LUGS	ELECTRICAL SE - 328	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A	B	C	DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	30	2	0.0	2.4	0.0	SPLIT AC (OU/IU-018)	1.2 1.2			SPLIT AC (OU/IU-018)	0.0	2.4	0.0	2	30	2
3	--	--	--	--	--	--		1.2 1.2		--	--	--	--	--	--	4
5	30	2	0.0	2.4	0.0	SPLIT AC (OU/IU-018)			1.2 0.9	EXHAUST FANS RMS 307L, 311L,	0.0	0.9	0.0	1	20	6
7	--	--	--	--	--	--	1.2 2.2			--	--	--	--	--	--	8
9	20	1	0.0	0.9	0.0	EXHAUST FANS RMS 308L, 312L,		0.9 0.7		EXHAUST FANS RMS333L, 337L,	0.0	0.7	0.0	1	20	10
11	20	1	0.0	0.2	0.0	EXHAUST FAN (EF-2) Rm - 334			0.2 0.4	EXHAUST FAN (EF-3) ROOF	0.0	0.4	0.0	1	20	12
13	20	1	0.0	0.1	0.0	EXHST FAN (EF-2) ELEC SE - 328	0.1 0.2			EXHAUST FAN (EF-4) ROOF	0.0	0.2	0.0	1	20	14
15	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	16
17	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	18
19	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	20
21	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	22
23	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	24
25	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	26
27	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	36
37	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE			0.0							42

TOTALS:	A	B	C		
CONNECTED kVA PER PHASE	6	4	5	CONNECTED TOTAL kVA	14.8
CONNECTED AMPS PER PHASE	51	33	41	CONNECTED AVERAGE AMPS PER PHASE	41

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES:
ALL OTHER LOADS @100%= **14.2 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **14.9**
AVERAGE AMPS PER PHASE **41**

PANEL "3MLB2"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	LOCATION:	CABINET:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN LUGS	ELETRICAL NE - 354	SURFACE	

ACCESSORIES: AIC RATING:

CKT	AMP	POLE	LTG	PWR	CO	DESCRIPTION	A	B	C	DESCRIPTION	CO	PWR	LTG	POLE	AMP	CKT
1	30	2	0.0	2.4	0.0	SPLIT AC (OU/IU-018)	1.2 1.2			SPLIT AC (OU/IU-018)	0.0	2.4	0.0	2	30	2
3	--	--	--	--	--	--		1.2 1.2		--	--	--	--	--	--	4
5	30	2	0.0	4.6	0.0	SPLIT AC (OU/IU-036)			2.3 1.1	SPLIT AC (OU/IU-018)	0.0	2.2	0.0	2	30	6
7	--	--	--	--	--	--	2.3 1.1			--	--	--	--	--	--	8
9	20	1	0.0	0.7	0.0	EXHAUST FANS Room 348L,		0.7 0.9		EXHAUST FANS Room 367L, 359L	0.0	0.9	0.0	1	20	10
11	20	1	0.0	0.9	0.0	EXHAUST FANS Room 360L, 376L			0.9 0.2	SOLAR CIRC PUMP (CP-2) RM 340	0.0	0.5	0.0	2	20	12
13	20	2	0.0	0.2	0.0	SOLAR CIRC PUMP (CP-3) RM	0.1 0.2			--	--	--	--	--	--	14
15	--	--	--	--	--	--		0.1 0.2		DWH CIRC PUMP (CP-4) RM 340	0.0	0.2	0.0	1	20	16
17	20	1	0.0	0.5	0.0	DWH CIRC PUMP (CP-1) RM 340			0.5 0.0	SPARE	--	--	--	1	20	18
19	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	20
21	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	22
23	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	24
25	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	26
27	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	28
29	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	30
31	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	32
33	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	34
35	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	36
37	20	1	--	--	--	SPARE	0.0 0.0			SPARE	--	--	--	1	20	38
39	20	1	--	--	--	SPARE		0.0 0.0		SPARE	--	--	--	1	20	40
41	20	1	--	--	--	SPARE			0.0 0.0	SPARE	--	--	--	1	20	42

TOTALS:	A	B	C		
CONNECTED kVA PER PHASE	6	4	5	CONNECTED TOTAL kVA	15.3
CONNECTED AMPS PER PHASE	51	35	42	CONNECTED AVERAGE AMPS PER PHASE	42

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS
RECEPTACLES:
ALL OTHER LOADS @100%= **14.6 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

TOTAL DIVERSIFIED kVA **15.4**
AVERAGE AMPS PER PHASE **43**

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SEAL & SIGNATURE

SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH
02-15-2013

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

PANEL SCHEDULES

REVISION	DATE	BY	DESCRIPTION

DRAWN BY: WRT	CHECKED BY: DLA
PROJECT NO.: 11007	DRAWING NO.: EP609
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

EQUIPMENT SCHEDULE

MARK	ITEM DESCRIPTION	LOAD DATA HP	LOAD DATA kW	LOAD DATA MCA	LOAD DATA FLA	LOAD DATA VOLT	LOAD DATA PH	LOAD DATA Hz	WIRE AND CONDUIT SIZE (CC-INDICATES CONDUCTOR AND CONDUIT SCHEDULE)	OVERCURRENT PROTECTION FURN BY	SWITCH TYPE	DISCONNECT SWITCH NEMA RATING	FUSED SWITCH	FUSE RATING	FUSE CLASS	CIRCUIT BREAKER CB	PANEL	RATING	NOTES	MARK
B-1	BOILER				26	120	1	60	CC#7	E	60/2	3R	YES	35A	RK5	40/1		HACR	1	B-1
B-2	BOILER				26	120	1	60	CC#7	E	60/2	3R	YES	35A	RK5	40/1		HACR	1	B-2
BP-1	PUMP (BOILER)	1/2			7	120	1	60	CC#1	E	THERMAL SWITCH					20/1		HACR	1,6	BP-1
BP-2	PUMP (BOILER)	1/2			7	120	1	60	CC#1	E	THERMAL SWITCH					20/1		HACR	1,6	BP-2
CHP-018	CONSOLE HEAT PUMP			9.2	7.5	208	1	60	CC#4	E	30/2	3R	YES	15A	RK5	20/2		HACR	1,2	CHP-018
CHWP-1	PUMP	10			30.8	208	3	60	CC#8	E	60/3	3R	YES	40A	RK5	40/3		HACR	1,4	CHWP-1
CHWP-2	PUMP	10			30.8	208	3	60	CC#8	E	60/3	3R	YES	40A	RK5	40/3		HACR	1,4	CHWP-2
CP-1	CIRCULATION PUMP	1/3			7.2	120	1	60	CC#1	E	THERMAL SWITCH					20/1		HACR	1,6	CP-1
CP-2	CIRCULATION PUMP					208	3	60	CC#5	E	30/3	3R	YES	30A	RK5	20/3		HACR	1,2	CP-2
CP-3	CIRCULATION PUMP					208	3	60	CC#5	E	30/3	3R	YES	30A	RK5	20/3		HACR	1,2	CP-3
CP-4	CIRCULATION PUMP	1/12				120	1	60	CC#1	E	THERMAL SWITCH					20/1		HACR	1,6	CP-4
CT-1	COOLING TOWER	20			59.4	208	3	60	CC#21	E	200/3	3R	YES	125A	RK5	150/3		HACR	1,5	CT-1
CT-1BH	COOLING TOWER BASIN HEATER		8.00		22.2	208	3	60	CC#5	E	30/3	3R	YES	30A	RK5	150/3		HACR	1,5	CT-1BH
CWP-1	PUMP	15			46.2	208	3	60	CC#19	E	100/3	3R	YES	100A	RK5	100/3		HACR	1,5	CWP-1
CWP-2	PUMP	15			46.2	208	3	60	CC#19	E	100/3	3R	YES	100A	RK5	100/3		HACR	1,5	CWP-2
EF-1	EXHAUST FAN		98W		0.5	120	1	60	CC#1	E	THERMAL SWITCH					20/1		HACR	1,6	EF-1
EF-2	EXHAUST FAN		130W		1.1	120	1	60	CC#1	E	THERMAL SWITCH					20/1		HACR	1,6	EF-2
EF-3	EXHAUST FAN	1/4			5.8	120	1	60	CC#1	E	THERMAL SWITCH					20/1		HACR	1,6	EF-3
EF-4	EXHAUST FAN	1/8			4.4	120	1	60	CC#1	E	THERMAL SWITCH					20/1		HACR	1,6	EF-4
EH-1	ELECTRIC UNIT HEATER		1.00		8.3	120	1	60	CC#4	E	THERMAL SWITCH					20/1		HACR	1	EH-1
EH-2	ELECTRIC UNIT HEATER		2.00		9.61	208	1	60	CC#4	E	30/2	3R	YES	30A	RK5	30/2		HACR	1	EH-2
EH-3	ELECTRIC UNIT HEATER		4.80		23.1	208	1	60	CC#4	E	30/2	3R	YES	30A	RK5	30/2		HACR	1	EH-3
FC-1	FAN COIL	2			7.5	208	3	60	CC#5	E	30/3	3R	YES	15A	RK5	20/3		HACR	1,5	FC-1
HP-009	FLUID TO AIR HEAT PUMP			5.3	4.3	208	1	60	CC#4	E	30/2	3R	YES	15A	RK5	20/2		HACR	1	HP-009
HP-018	FLUID TO AIR HEAT PUMP			13.7	11.6	208	3	60	CC#4	E	30/3	3R	YES	15A	RK5	20/3		HACR	1	HP-018
HP-036	FLUID TO AIR HEAT PUMP			16.9	14.3	208	3	60	CC#4	E	30/3	3R	YES	25A	RK5	30/3		HACR	1	HP-036
HP-048	FLUID TO AIR HEAT PUMP			25.2	21.5	208	3	60	CC#8	E	60/3	3R	YES	35A	RK5	40/3		HACR	1	HP-048
HP-060	FLUID TO AIR HEAT PUMP			28.9	24.5	208	3	60	CC#11	E	60/3	3R	YES	45A	RK5	50/3		HACR	1	HP-060
HWP-1	PUMP	3			10.6	208	3	60	CC#5	E	30/3	3R	YES	15A	RK5	20/3		HACR	1,2	HWP-1
HWP-2	PUMP	2			7.5	208	3	60	CC#5	E	30/3	3R	YES	15A	RK5	20/3		HACR	1,3	HWP-2
IU-018	SPLIT AC SYSTEM -INDOOR UNIT			1	.33	208	1	60	CC#4	E	30/2	3R	YES	5A	RK5			HACR	1,7	IU-018
IU-036	SPLIT AC SYSTEM -INDOOR UNIT			1	.57	208	1	60	CC#4	E	30/2	3R	YES	5A	RK5			HACR	1,7	IU-036
OU-018	SPLIT AC SYSTEM -OUTDOOR UNIT				13	208	1	60	CC#4	E	30/2	3R	YES	25A	RK5	30/2		HACR	1	OU-018
OU-036	SPLIT AC SYSTEM -OUTDOOR UNIT				25	208	1	60	CC#4	E	30/2	3R	YES	30A	RK5	30/2		HACR	1	OU-036
P-1	PUMP	15			46.2	208	3	60	CC#19	E	100/3	3R	YES	100A	RK5	100/3		HACR	1,5	P-1
P-2	PUMP	15			46.2	208	3	60	CC#19	E	100/3	3R	YES	100A	RK5	100/3		HACR	1,5	P-2
SMP-1	SNOW MELT PUMP	1/3			2	208	3	60	CC#5	E	30/3	3R	YES	15A	RK5	20/3		HACR	1,2	SMP-1
SMP-2	SNOW MELT PUMP	1			4.6	208	3	60	CC#5	E	30/3	3R	YES	15A	RK5	20/3		HACR	1,2	SMP-2
SMP-3	SNOW MELT PUMP	3/4			3.5	208	3	60	CC#5	E	30/3	3R	YES	15A	RK5	20/3		HACR	1,2	SMP-3
SMP-4	SNOW MELT PUMP	1/3			2	208	3	60	CC#5	E	30/3	3R	YES	15A	RK5	20/3		HACR	1,2	SMP-4
UH-1	UNIT HEATER	1/8			2.3	120	1	60	CC#1	E	THERMAL SWITCH					20/1		HACR	1	UH-1
VHP-060	VERTICAL FLUID TO AIR HEAT PUMP			28.9	24.5	208	3	60	CC#11	E	60/3	3R	YES	45A	RK5	50/3		HACR	1	VHP-060
WH-1	WATER HEATER					120	1	60	CC#4	E	THERMAL SWITCH					30/1		HACR	1	WH-1
WH-2	WATER HEATER					120	1	60	CC#4	E	THERMAL SWITCH					30/1		HACR	1	WH-2
WS-2	WATER SOFTENER					120	1	60	CC#1	E	THERMAL SWITCH					20/1		HACR	1	WS-2

NOTES:
1. LOCATE DISCONNECT ADJACENT TO UNIT.
2. PROVIDE WITH SIZE 0, FVNR STARTER WITH HOA SWITCH, RED AND GREEN PILOT LIGHTS, 2 NORMALLY OPEN CONTACTS AND 2 NORMALLY CLOSED CONTACTS
3. PROVIDE WITH SIZE 1, FVNR STARTER WITH HOA SWITCH, RED AND GREEN PILOT LIGHTS, 2 NORMALLY OPEN CONTACTS AND 2 NORMALLY CLOSED CONTACTS
4. PROVIDE WITH SIZE 2, FVNR STARTER WITH HOA SWITCH, RED AND GREEN PILOT LIGHTS, 2 NORMALLY OPEN CONTACTS AND 2 NORMALLY CLOSED CONTACTS
5. PROVIDE WITH VFD TO MATCH MOTOR HORSPOWER AND RATING.
6. PROVIDE WITH STARTER RATED THERMAL OVERLOAD SWITCH.
7. INDOOR UNIT POWERED FROM OUTDOOR UNIT. PROVIDE ALL REQUIRED CONNECTIONS FOR POWER.

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02-15-2013

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UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

EQUIPMENT SCHEDULE

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PROJECT NO. 11007	DRAWING NO. EP610
DATE 02/15/2013	

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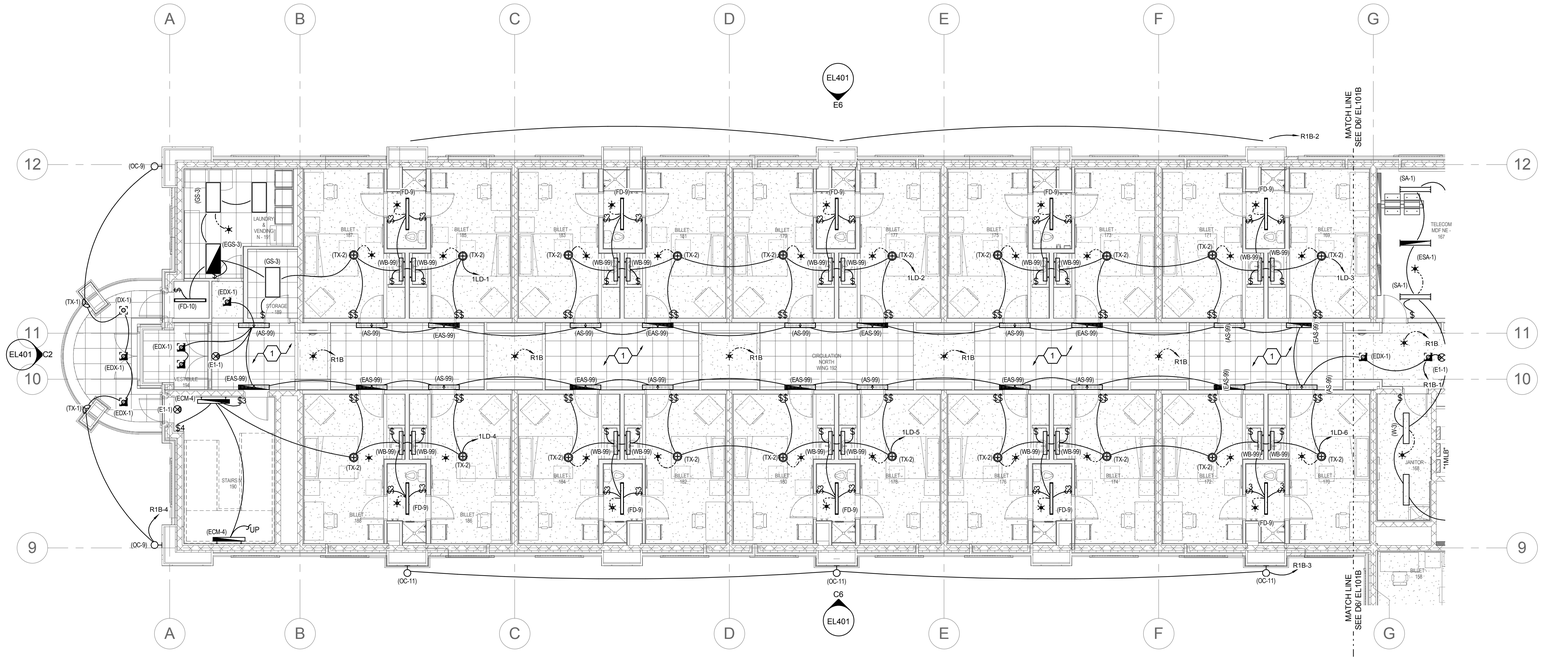
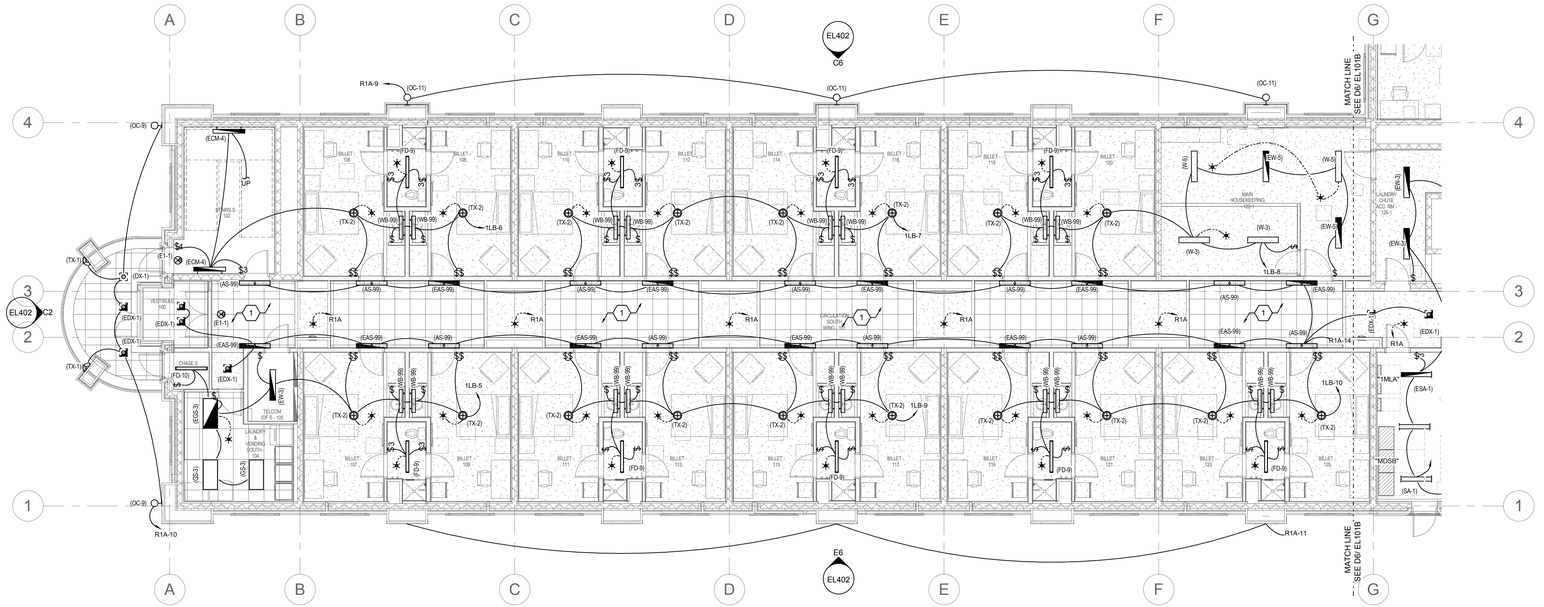
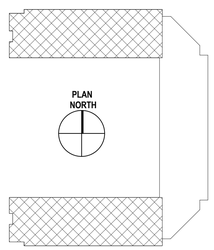


C6 LEVEL 1 LIGHTING PLAN - NORTH WING
SCALE: 1/8" = 1'-0"



E6 LEVEL 1 LIGHTING PLAN - SOUTH WING
SCALE: 1/8" = 1'-0"



KEY PLAN

GENERAL SHEET NOTES

1. CIRCUIT EXIT SIGNS TO UNSWITCHED LEG OF ASSOCIATED BRANCH CIRCUIT.
2. COORDINATE EXACT LOCATIONS OF ALL LIGHT FIXTURES AND OTHER CEILING MOUNTED DEVICES WITH HARD LID CEILING ACCESS PANELS INFIELD PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1. LIGHT FIXTURES MOUNTED IN ARCHITECTURAL COVE. COORDINATE WITH ARCHITECTURAL DETAILS PRIOR TO ROUGH-IN.
2. LIGHT FIXTURE CIRCUITED TO RECEPTACLE LOCATED IN ELEVATOR PIT. REFER TO ASSOCIATED 'EP' POWER SHEET FOR ADDITIONAL INFORMATION.

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1ST LEVEL LIGHTING PLANS NORTH & SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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DATE: 02/15/2013
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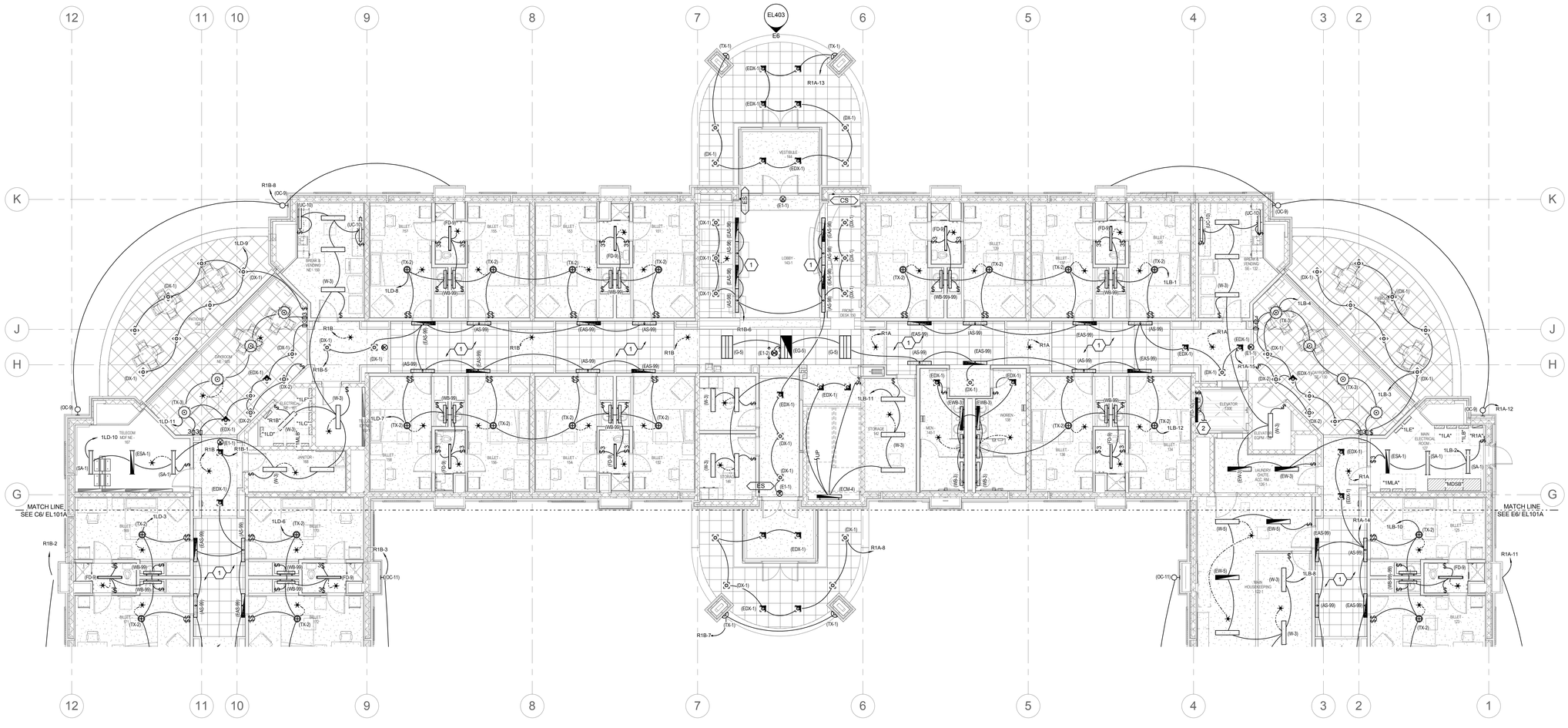
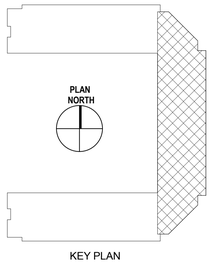


D6 LEVEL 1 LIGHTING PLAN - EAST WING

SCALE: 1/8" = 1'-0"

PLAN NORTH

0 4' 8' 16'



KEY PLAN

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02-15-2013

GENERAL SHEET NOTES

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1ST LEVEL LIGHTING PLAN EAST WING

REVISION	DATE	BY	DESCRIPTION
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DRAWING NO.: EL101B
DATE: 02/15/2013

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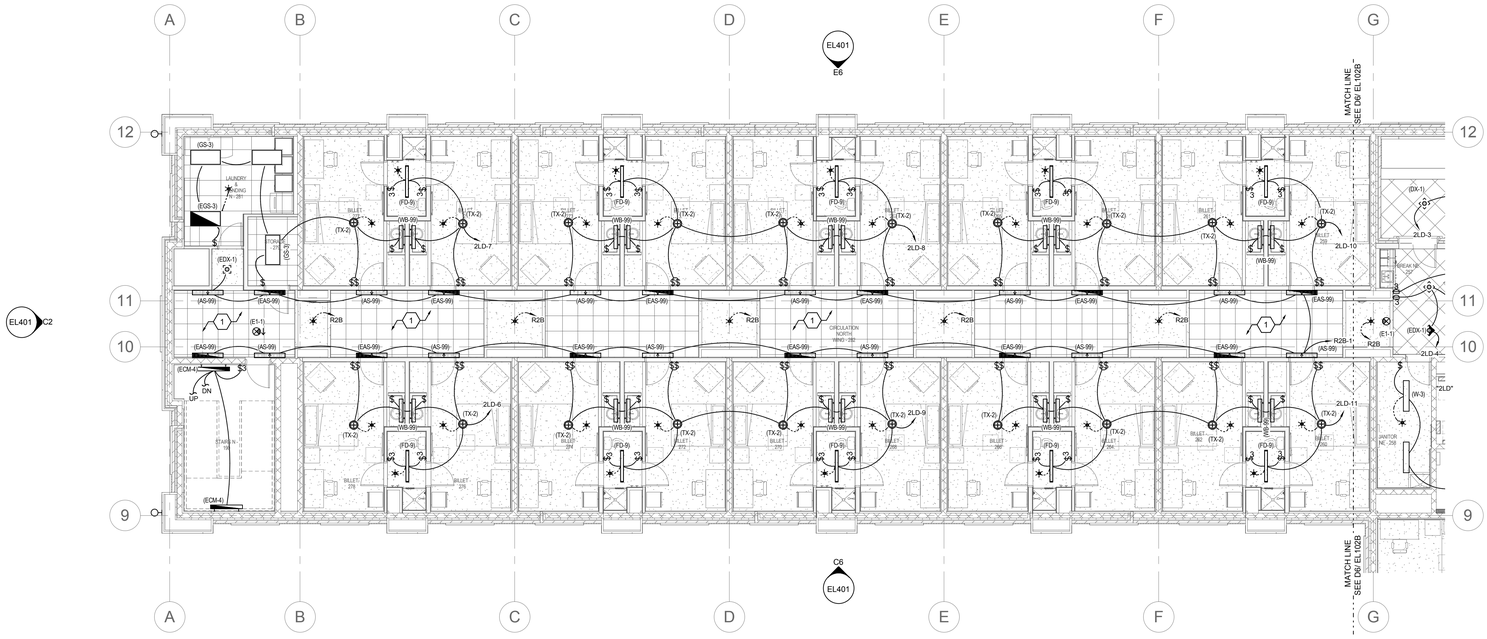
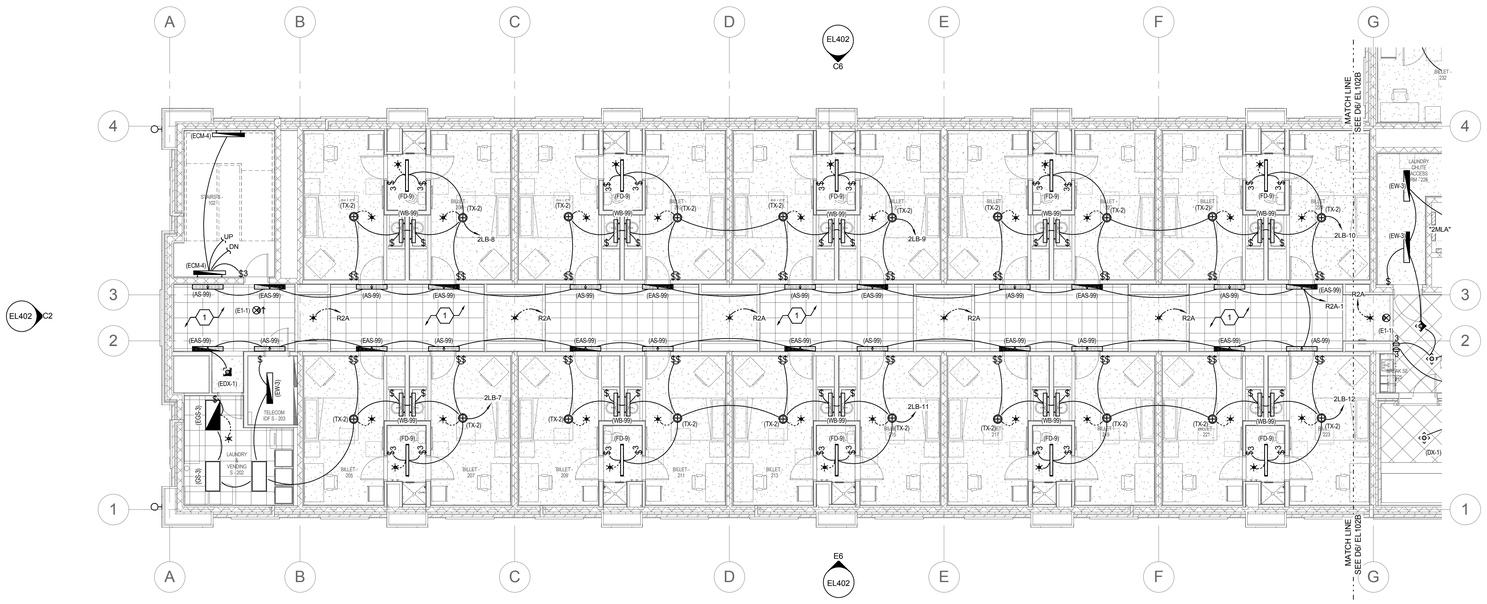
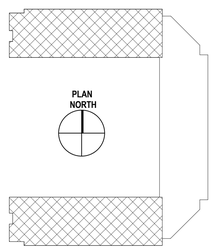


C6 LEVEL 2 LIGHTING PLAN - NORTH WING
SCALE: 1/8" = 1'-0"



E6 LEVEL 2 LIGHTING PLAN - SOUTH WING
SCALE: 1/8" = 1'-0"



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02-15-2013

GENERAL SHEET NOTES

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SHEET KEYNOTES

1. LIGHT FIXTURES MOUNTED IN ARCHITECTURAL COVE. COORDINATE WITH ARCHITECTURAL DETAILS PRIOR TO ROUGH-IN.

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2ND LEVEL LIGHTING PLANS NORTH & SOUTH WINGS

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DATE: 02/15/2013	

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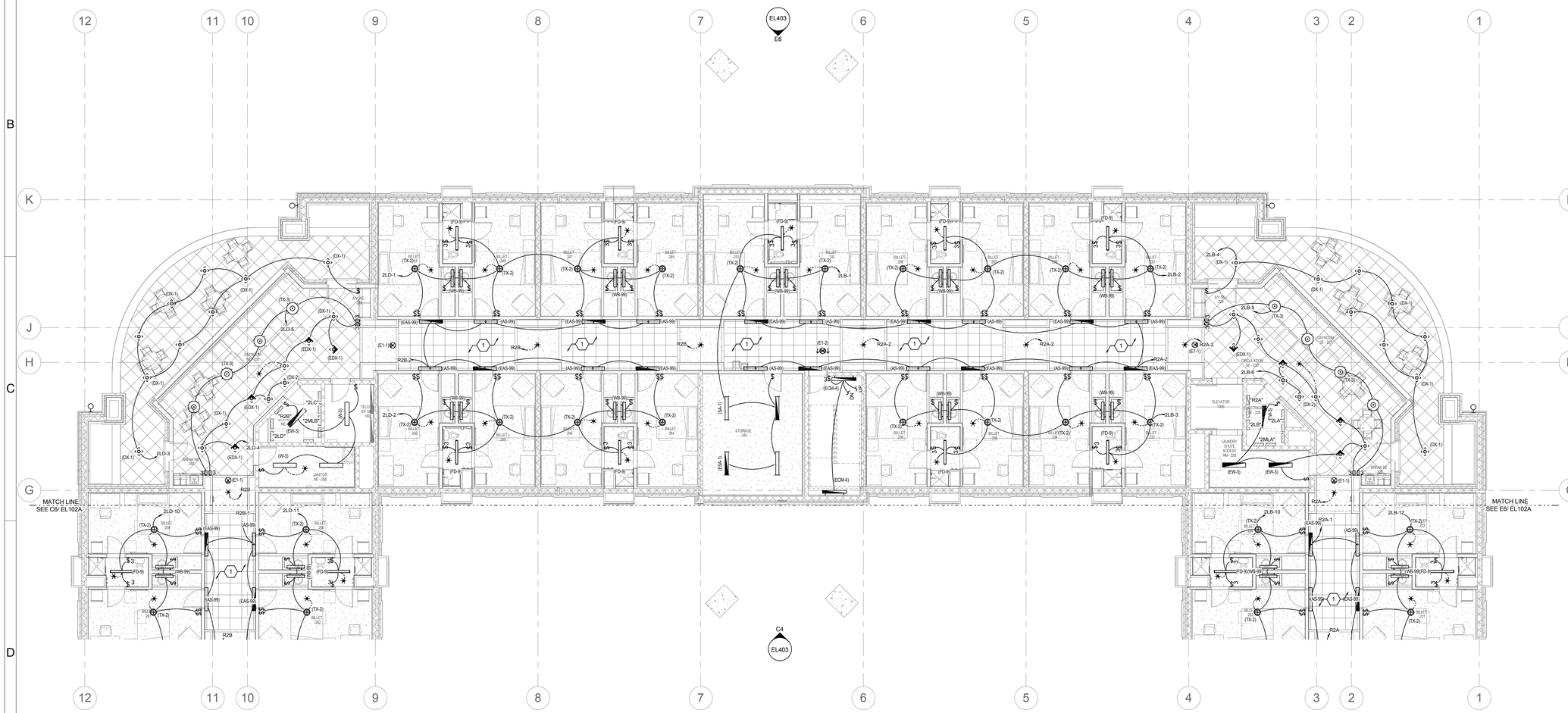
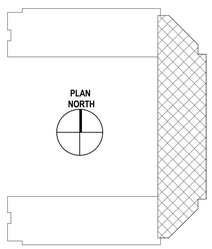


D6 LEVEL 2 LIGHTING PLAN - EAST WING

SCALE: 1/8" = 1'-0"

PLAN NORTH

0 4' 8' 16'



KEY PLAN

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GENERAL SHEET NOTES

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2ND LEVEL LIGHTING PLAN EAST WING

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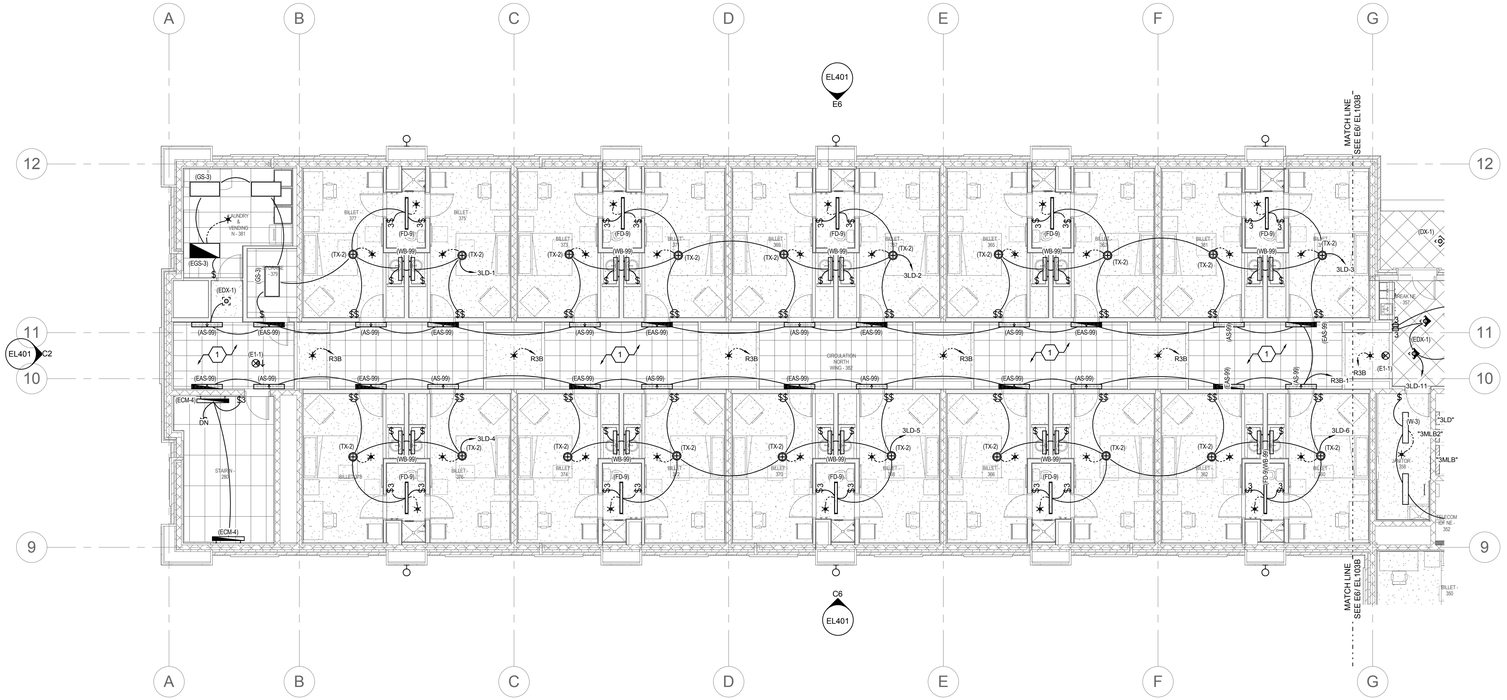
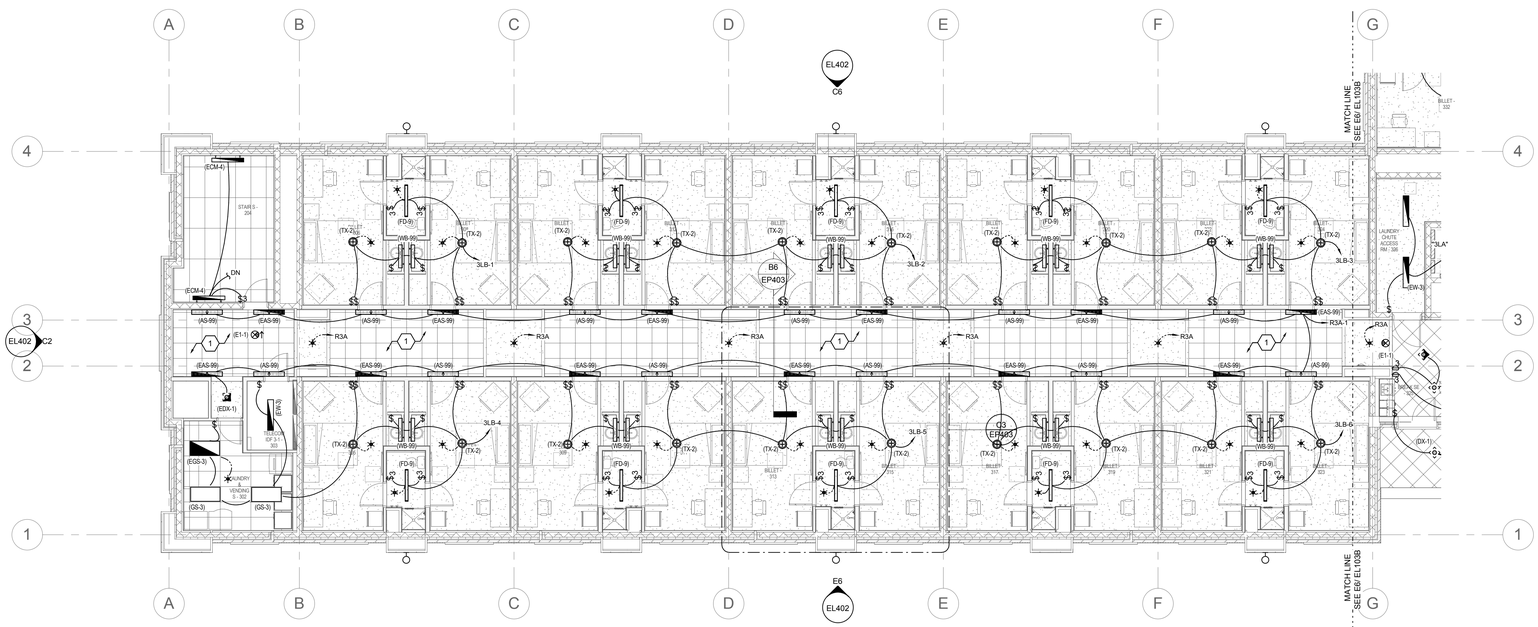
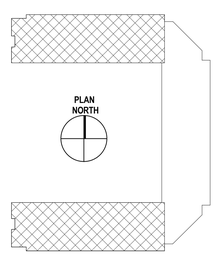
02-15-2013



C6 LEVEL 3 LIGHTING PLAN - NORTH WING
SCALE: 1/8" = 1'-0"



E6 LEVEL 3 LIGHTING PLAN - SOUTH WING
SCALE: NTS



KEY PLAN

GENERAL SHEET NOTES

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3RD LEVEL LIGHTING PLANS NORTH & SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO. 11007	DRAWING NO. EL103A
DATE 02/15/2013	

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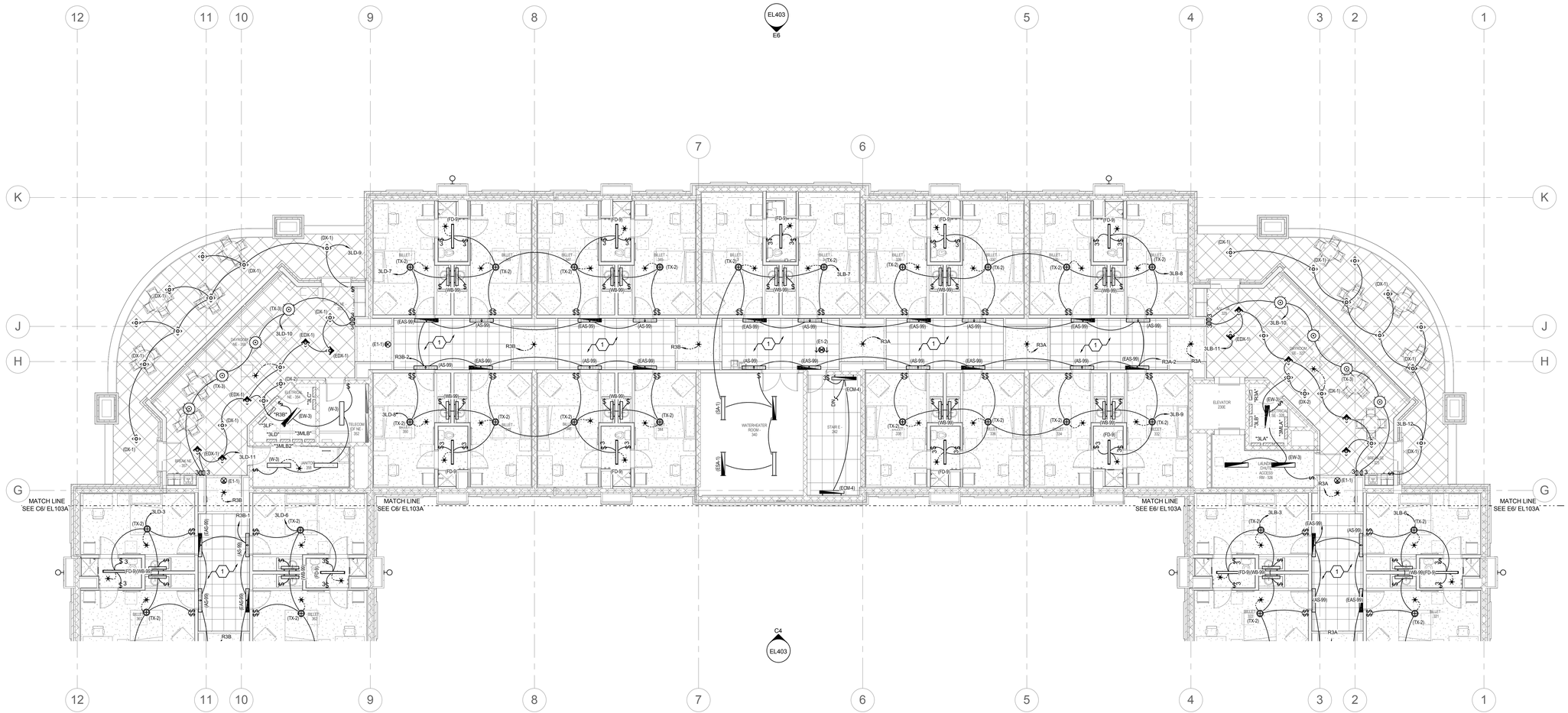
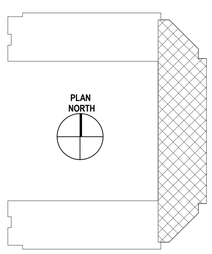


E6 LEVEL 3 LIGHTING PLAN - EAST WING

SCALE: 1/8" = 1'-0"

PLAN NORTH

0 4' 8' 16'



KEY PLAN

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02-15-2013

GENERAL SHEET NOTES

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3RD LEVEL LIGHTING PLAN EAST WING

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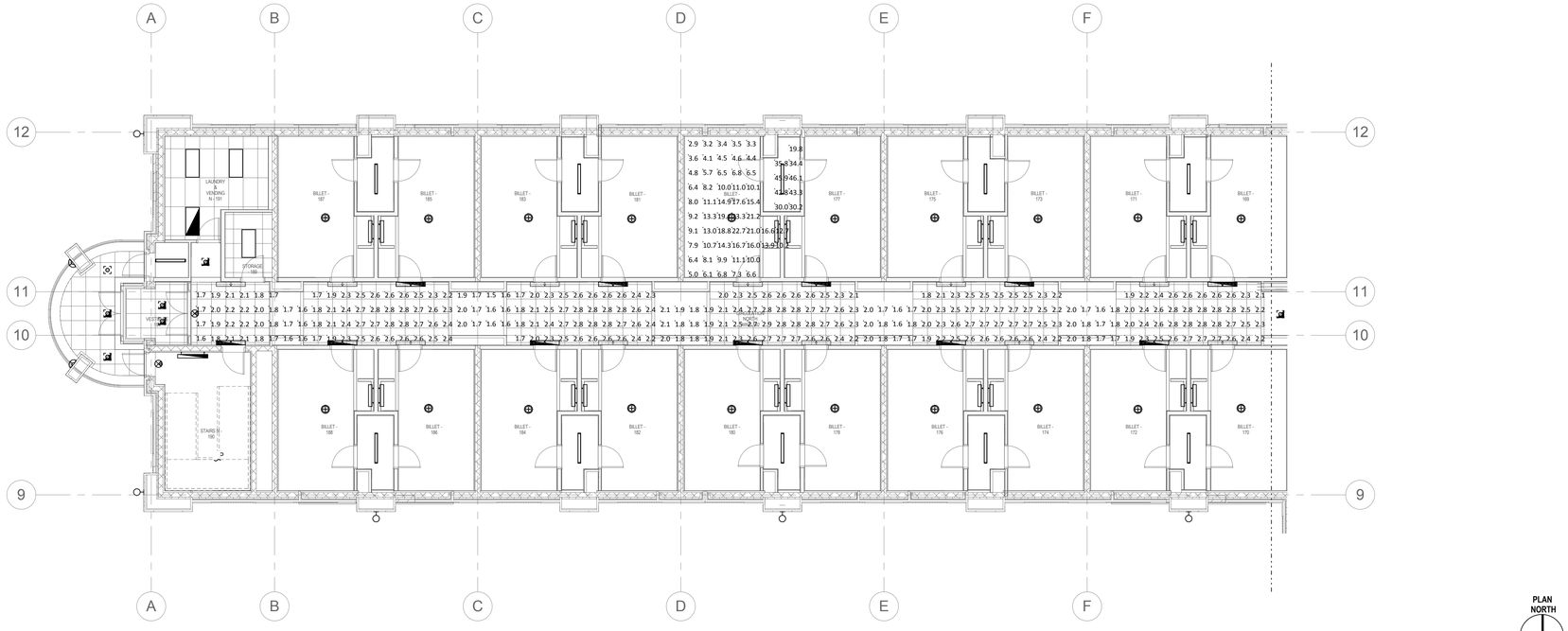
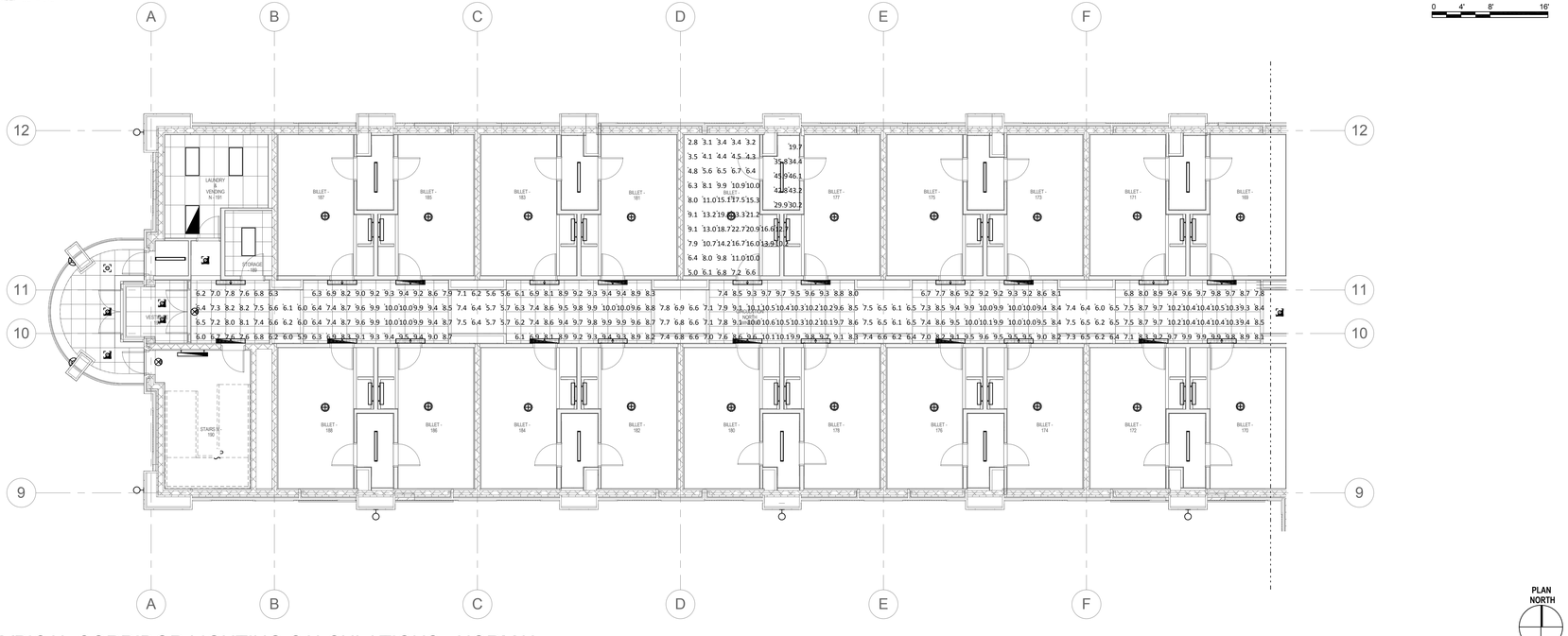


C6 TYPICAL CORRIDOR LIGHTING CALCULATIONS - EMERGENCY

SCALE: 1/8" = 1'-0"



E6 TYPICAL CORRIDOR LIGHTING CALCULATIONS - NORMAL

SCALE: 1/8" = 1'-0"

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LIGHTING CALCULATIONS

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DRAWING NO.	EL110
DATE	02/15/2013

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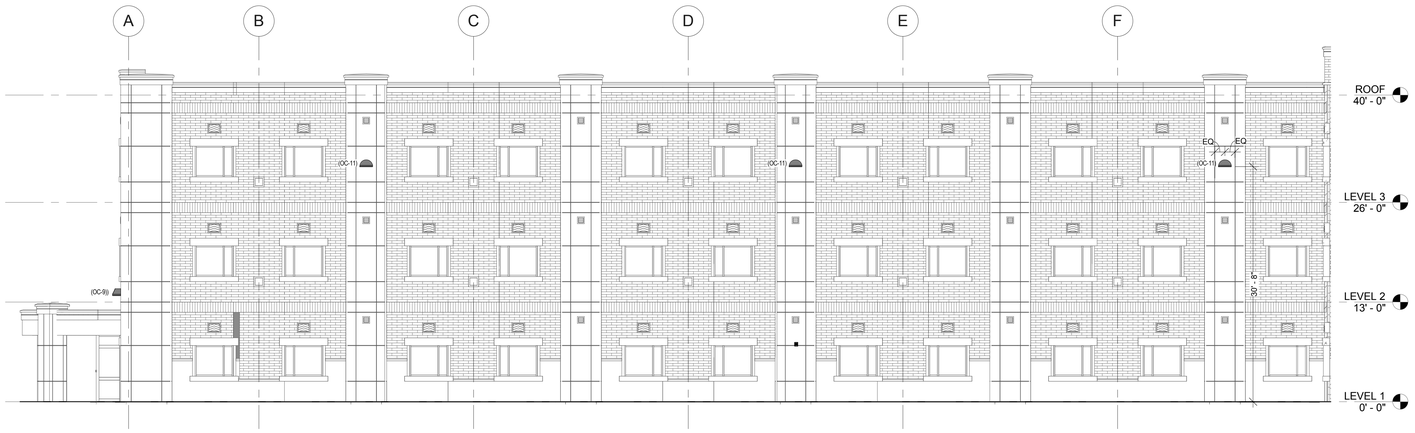
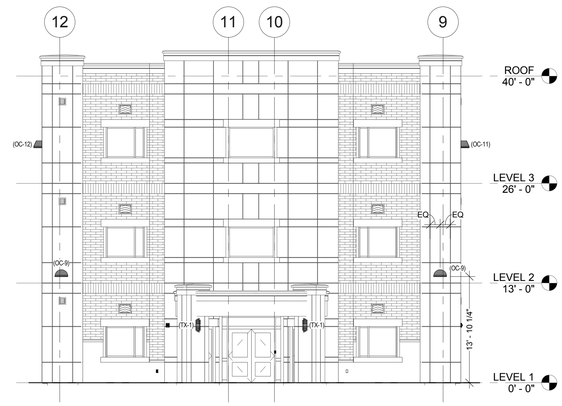
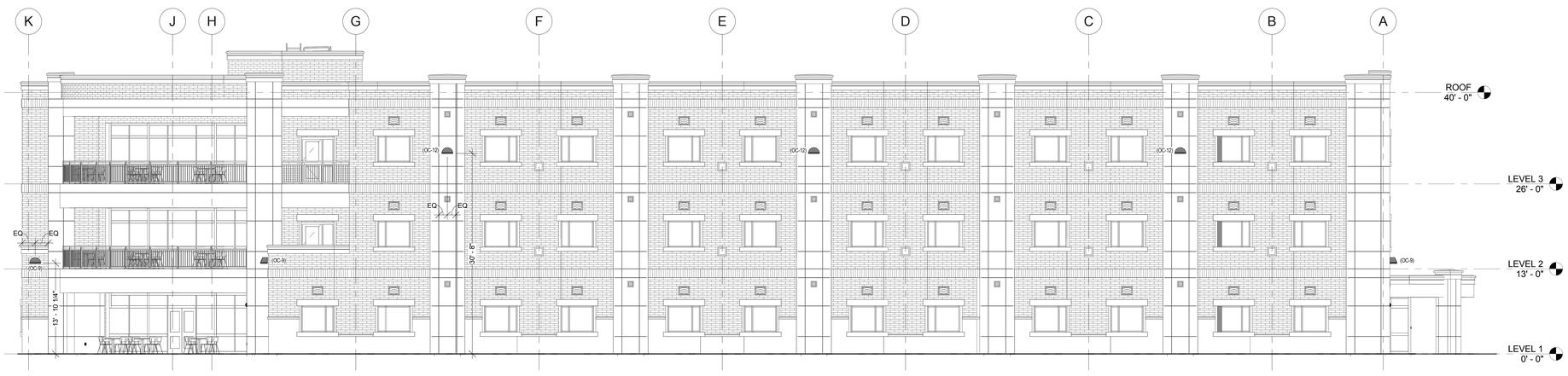


C6 NORTH WING - SOUTH LIGHTING ELEVATION
SCALE: 1/8" = 1'-0"



C2 NORTH WING - WEST LIGHTING ELEVATION
SCALE: 1/8" = 1'-0"



E6 NORTH WING - NORTH LIGHTING ELEVATION
SCALE: 1/8" = 1'-0"

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LIGHTING ELEVATIONS - NORTH WING

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007	DRAWING NO.: EL401
DATE: 02/15/2013	

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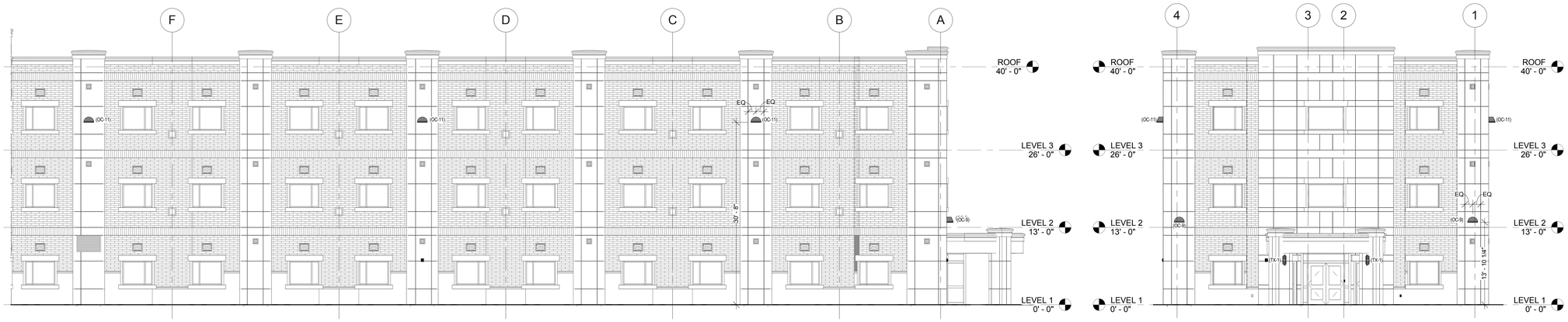
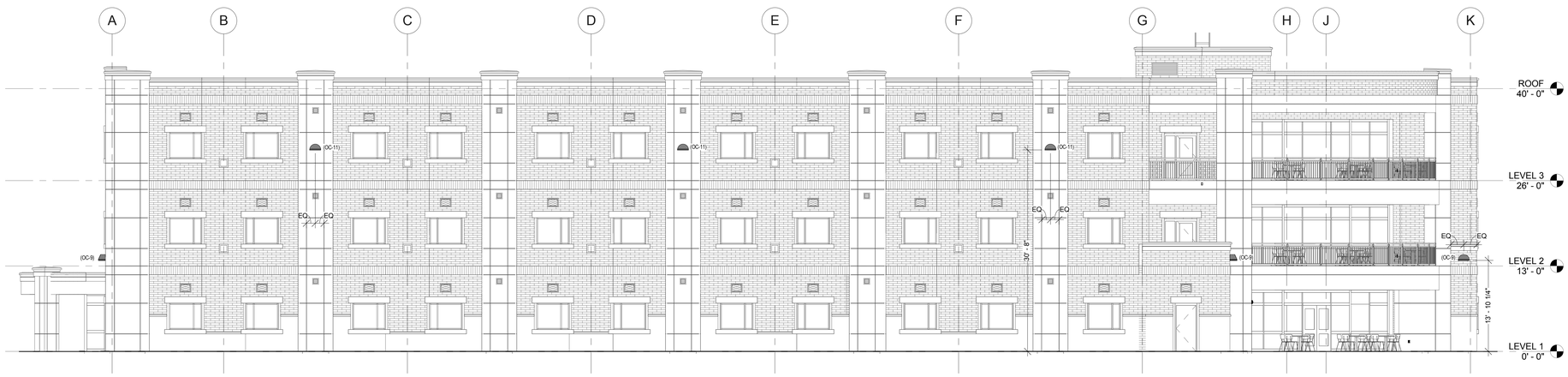


C6 SOUTH WING - NORTH LIGHTING ELEVATION
SCALE: 1/8" = 1'-0"

C2 SOUTH WING - WEST LIGHTING ELEVATION
SCALE: 1/8" = 1'-0"



E6 SOUTH WING - SOUTH LIGHTING ELEVATION
SCALE: 1/8" = 1'-0"

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02-15-2013

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LIGHTING ELEVATIONS - SOUTH WING

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007	DRAWING NO.: EL402
DATE: 02/15/2013	

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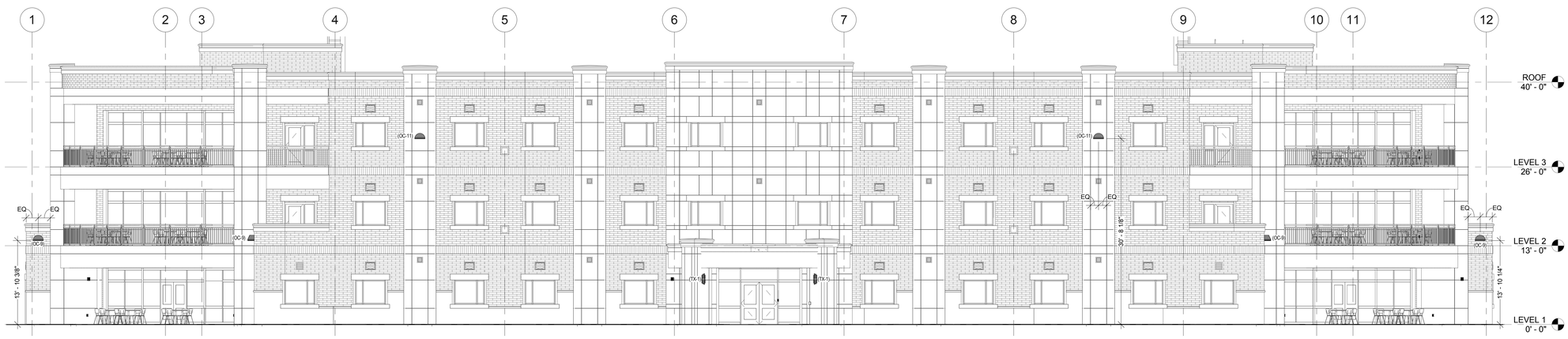
C4 EAST WING - WEST LIGHTING ELEVATION
SCALE: 1/8" = 1'-0"



E6 EAST WING - EAST LIGHTING ELEVATION
SCALE: 1/8" = 1'-0"

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LIGHTING ELEVATIONS - EAST WING

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DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

LIGHTING FIXTURE SCHEDULE

NOTE TO BIDDERS: COMPLY WITH THE SPECIFICATIONS.
REFER TO SPECIFICATIONS FOR IMPORTANT TECHNICAL REQUIREMENTS FOR LIGHTING FIXTURES, BALLASTS, AND LAMPS. THE CATALOG NUMBERS LISTED BELOW HAVE BEEN CAREFULLY PREPARED TO ASSIST BIDDERS IN SELECTING PRODUCTS TO ACHIEVE THE DESIGN CONCEPT, HOWEVER, PRIOR TO BIDDING, EACH MANUFACTURER SHALL COMPARE THE CATALOG NUMBERS SHOWN WITH THE DESCRIPTION AND REQUIREMENTS ON THE DRAWINGS, AND SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES. SPECIFICALLY INCLUDED IN THIS EVALUATION SHALL BE THE VERIFYING OF PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS. NO ALLOWANCE OR REDRESS WILL BE ALLOWED FOR DISCREPANCIES THAT WERE NOT REPORTED TO THE ARCHITECT/ENGINEER IN TIME FOR CORRECTION OR CLARIFICATION BEFORE THE BID. THE REPORTING OF ANY AMBIGUITY IS THE RESPONSIBILITY OF THE BIDDER. PROVIDE UNIT PRICES AND FIXTURE BRAND SELECTED FOR ADD/DELETE CHANGES FOR EACH FIXTURE TYPES SHOWN WITHIN 48 BUSINESS HOURS OF THE BID DATE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY DISQUALIFY THE PRODUCTS AND EMPOWER THE ENGINEER TO DETERMINE FAIR VALUE FOR FIXTURE AND INSTALLATION CHANGES, WITHOUT FURTHER INPUT FROM THE CONTRACTOR OR INSTALLER. SUBMITTAL PACKAGE SHALL INCLUDE LAMP MANUFACTURER AND CATALOG NUMBER ON EACH FIXTURE SHEET. ON ALL PENDANT MOUNTED FIXTURES, PROVIDE A SECOND SET OF PENDANTS, OF A DIFFERENT LENGTH, AS DIRECTED BY THE ARCHITECT/ENGINEER, PROVIDED AND INSTALLED AT NO ADDITIONAL CHARGE. ALL FIXTURES SHALL BE APPROVED BY UL OR ANOTHER ACCEPTABLE TESTING LAB FOR THE PURPOSE INTENDED AND WITH THE LAMP AND BALLAST PROPOSED. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED. CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES. UNIVERSAL VOLTAGE (120/277) BALLASTS REQUIRED UNLESS NOTED OTHERWISE. DIMENSION SEQUENCE = (LENGTH X WIDTH X DEPTH) IN INCHES.

SYMBOL	MARK	FIXTURE CHARACTERISTICS BODY / AIR / MOUNTING / DOOR LENS/LOUVER/REFLECTOR/OTHER	LAMP	WATTS	VOLTS	MANUFACTURER	CATALOG NUMBER	NOTES
	AS	INDIRECT LIGHT. ASYMMETRIC OPTICS. ALUMINUM REFLECTOR; WHITE PAINTED FINISH; MOUNTING AS SHOWN; REMOTE BALLASTS (FLUORESCENT - PROGRAMMED RAPID START ELECTRONIC, METAL HALIDE - PULSE START HPF MAGNETIC), UNLESS INDICATED INTEGRAL BALLAST (IB); ONE BALLAST PER FIXTURE WHERE POSSIBLE.						
	AS-98	4' LINEAR FLUORESCENT, COVE MOUNT. MUST FIT ARCHITECTURAL SPACE PROVIDED. 7" X 4" NOMINAL. 0.71 BALLAST FACTOR	2-F32T8 RE835 0.71 BF	50W	277/120V	LIGHTCONTROL ELLIPTIPAR NATIONAL MARK LAM PEERLESS	CC-AI-28S-24T8-EPS-120/277-0.71BF F301-A232-S-00-X-00-0.71BF CV64-232OCT-120/277-0.71BF A-11814-0.71BF HPDA-232T8-4-DT-0.71BF ECX-020002-Y00-04-PROGRAM START-0.71BF	
	AS-99	4' LINEAR FLUORESCENT, COVE MOUNT. MUST FIT ARCHITECTURAL SPACE PROVIDED. 7" X 4" NOMINAL. 0.71 BALLAST FACTOR	1-F32T8 RE835 0.71 BF	25W	277/120V	ELLIPTIPAR PEERLESS ALERA NATIONAL LAM	F306-A132-S-00-X-00-0.71BF HCM5-1-32T8-U4-PROGRAM START-0.71BF PIC-1T8-EB5120/277P.S.-X-X-0.71BF CV64-132T8-120/277V-0.71BF HPDA-132T8-4-DT-0.71BF	
	CM	STEEL LINEAR FIXTURES: LENGTHS AND CONFIGURATIONS SHOWN ON THE DRAWINGS; LAMPS FOUR FOOT WHERE POSSIBLE; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; INTERNAL CONCEALED FASTENERS; COLOR AS NOTED AND/OR APPROVED BY ARCHITECT; ORIENT FIXTURE ACCORDING TO ARCHITECTS/ ENGINEER'S INSTRUCTIONS. SWIVEL STEM MOUNT UNLESS NOTED OTHERWISE. INSTALL LEVEL AND STRAIGHT WITH INVISIBLE SPLICES. PROVIDE ALL REQUIRED HANGERS, SPLICERS, END CAPS, JOINTS, FEEDS, ETC., FOR A COMPLETE INSTALLATION.						
	CM-4	6"X 6 1/2" PROFILE, WALL MOUNT, OPEN UPLIGHT, LOUVERED DOWNLIGHT, DIRECT/INDIRECT, 4' MODULE. 0.71 BALLAST FACTOR	2-F32T8 RE835 0.71 BF	60W/4'	277/120V	LITECONTROL MARK NEORAY PRUDENTIAL PMC NATIONAL	W-ID-66N24T8-PBSS-CVMI-PST8-120/277-0.71BF 66W-DI-232T8-ET8PRS-UNIV-PLSS-MW-4'-0.71BF 88/2T8-S72-4-120/277PSEB-0.71BF P 60 D5 M5 2 04 T8 PROG START BLA UNIVOLT-0.71BF S66-DIA-W-2/OCT-4-P8L-WHT-EBSPEC-12/27-0.71BF S66-ID/D-232OCT-CB-W-UEB-CBA-0.71BF	
	DX	RECESSED LED DOWNLIGHT. POWER SUPPLY INCLUDED CAPABLE OF DIMMING WITH STANDARD ELECTRONIC FLOURESCENT OR INCANDESCENT DIMMERS TO AT LEAST 15%, MINIMUM 80 CRI, COLOR TEMPERATURE AS INDICATED. COMPLIANT WITH LM70 RATED FOR MIN. 50,000 HOURS						
	DX-1	RECESSED LED DOWNLIGHT NOMINAL 1500 DELIVERED LUMENS, CLEAR REFLECTOR, WHITE TRIM, 3500K, 6"-7" APERATURE, DAMP LABEL	LED	30W	277V	LIGHTOLIER GOTHAM VANTAGE FOCAL POINT FOCAL POINT	C6L1520DL35KWCLW/C6L15N1 EVO35/186ARWD-120 A6VLED1/2-A2000L-3500K-L6060SCL FL6D-20LED-L35-120-RO-T-L6-RO-CL-CD-WP FL6D-20LED-L35-120-RO-T-L6-RO-CL-CD-WP	
	DX-2	RECESS LED DOWNLIGHT WALL WASHER NOMINAL 1000 DELIVERED LUMENS, CLEAR REFLECTOR, WHITE TRIM, 3500K, 4-6" APERATURE, DAMP LABEL	LED	20W	277V	LIGHTOLIER GOTHAM VANTAGE FOCAL POINT	C4L10WW35KCLW/C4L10N1 EVOWW35/104AR-120 A6VLED1/2-A1100L-3500K-L6160SCL FL4W-11LED-L35-120-RO-T-L4-RO-WW-CD-WP	
	EDX-1	RECESSED LED DOWNLIGHT NOMINAL 1500 DELIVERED LUMENS, CLEAR REFLECTOR, WHITE TRIM, 3500K, 6"-7" APERATURE, DAMP LABEL, EM BATTERY	LED	30W	277V	LIGHTOLIER GOTHAM VANTAGE FOCAL POINT	C6L1520DL35KWCLWEM/C6L15N1EM EVO35/186ARWD-120EL A6VLED1/2-A2000L-3500K-EM-L6060SCL FL6D-20LED-L35-120-RO-T-EM-L6EM-RO-CL-CD-WP	
	E	E PREFIX INDICATES THAT FIXTURE IS PROVIDED WITH AN EMERGENCY BATTERY PACK TO PROVIDE POWER TO ANY 2, 3, 4 OR 8 FOOT FLOURESCENT LAMP COMPATIBLE WITH ALL STANDARD AND ELECTRONIC BALLASTS; COMPLETELY SELF-CONTAINED TO PROVIDE 90 MINUTES OF EMERGENCY POWER TO FIXTURE BALLAST; MINIMUM LIGHT OUTPUT FOR TYPICAL 4' LAMP SHALL BE 1100 LUMENS OR HIGHER;UNIVERSAL TRANSFORMER FOR 120 OR 277 VOLTS; LOW VOLTAGE PROTECTION, COMBINATION TEST SWITCH AND AC "ON" INDICATOR; 10 YEAR PRO-RATA WARRANTY; INSTALL TEST SWITCH IN A MANNER THAT REQUIRES NO DISASSEMBLY FOR TESTING.						
	E	EMERGENCY BATTERY PACK.		120/277V	3W	IOTA BODINE LITHONIA PRESCOLITE EELP CHLORIDE LIGHTOLIER SIDELITE	I-80 B50 PS-1400 EFPS-5 EB1400 (CONTRACTOR INSTALLED) CFP841 FBP50 S60F	
	E1	EXIT SIGN: THERMOPLASTIC HOUSING; UNIVERSAL MOUNTING; UNIVERSAL ARROWS PER PLANS; EMERGENCY BATTERY PACK WITH 10 YEAR PRO-RATA WARRANTY; LED, DIFFUSE LENS PANEL; GREEN LETTERS ON WHITE BACKGROUND. MUST MEET NFPA ILLUMINATION STANDARDS.						
	E1-1	SINGLE FACE:	LED	1W	120/277V	MCPHILBEN DUAL-LITE EELP LITHONIA SURE-LITES DAY-BRITE CHLORIDE LIGHTOLIER	CXXL-1-GW LXSGWE XE 1 GW EM LQM S W 1 G 120/277 ELN LPX70DGW CXL-1-GW-EM SLN1GW LTN1GW	
	E1-2	DUAL FACE:	LED	2W	120/277V	DUAL-LITE EELP LITHONIA SURE-LITES DAY-BRITE CHLORIDE LIGHTOLIER MCPHILBEN	LXUGWE XE 2 GW EM LQM S W 3 G 120/277 ELN LPX70DGW CXL-3-GW-EM SLN2GW LTN2GW CXXL-3-GW	
	FD	WET LOCATION FLUORESCENT; PLASTIC HOUSING; IMPACT RESISTANT ACRYLIC LENS.						
	FD-9	4' 1 T8 FLUORESCENT LAMP; PROGRAM START BALLASTS; 0 DEGREE STARTING TEMPERATURE. 0.71 BALLAST FACTOR	1-F32T8 RE835	35W	277/120V	LITHONIA METALUX HUBBELL COLUMBIA DAYBRITE LIGHTOLIER	DMW 132T8 AR 120/277 PROGRAM START VT2-132T8/DR-PROG-WL EWLO41-SPDR-U LUN4-132T8-EB120/277 PROG V2WAB132T8-EB-LT STW-132T-U-SO	
	FD-10	4' 2 T8 FLUORESCENT LAMP; PROGRAM START BALLASTS; 0 DEGREE STARTING TEMPERATURE. 0.71 BALLAST FACTOR	2-F32T8 RE835	70W	277/120V	LITHONIA METALUX HUBBELL COLUMBIA DAYBRITE LIGHTOLIER	DMW 232T8 AR 120/277 PROGRAM START VT2-232T8/DR-PROG-WL EWLO42-SPDR-U LUN4-232T8-EB120/277 PROG V2WAB232T8-1/2EB-LT STW-232-U-SO	
	G	INDIRECT TROFFERS: RECESSED FOR LAY-IN GRID; HINGED FLUSH STEEL DOOR WITH LATCH; EARTHQUAKE CLIPS, PROGRAM START ELECTRONIC BALLASTS; LONG COMPACT FLUORESCENT LAMPS; ONE BALLAST PER FIXTURE, 100-10% DIMMING BALLAST WHERE SHOWN.						
	G-5	2X4, 2-LAMP. PERF SIDE BASKET STYLE 0.71 BALLAST FACTOR	2-F32T8 RE835	63W	120/ 277V	FOCAL POINT PRUDENTIAL PMC VISTA LSI LITHONIA LIGHTOLIER COLUMBIA	FBX-24-B-2T8-SP-120/277-G-PS-WH CL6038-24-2T8-X1-UNIVOLT-PROGRAM START SS24-RDI-T-2T8-4-PERF-WHT-12/27 S971120-2T8 2X4 EB PS 2LLGS 2T8 SSO10PS RPIV UE T2AVG 2T8 MDR SMD MVOLT TUBRHP SIS2GPF232-UNV-HI STS24-232G-MPO-EPU	
	GS	TROFFERS: RECESSED FOR LAY-IN GRID; STATIC; HINGED AND LATCHED STEEL DOOR; .125 ACRYLIC PRISMATIC LENS, MINIMUN 1/8"; EARTHQUAKE CLIPS; MAX 5" DEEP; SPECIFICATION GRADE; PROGRAM START ELECTRONIC BALLASTS, T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.						
	GS-3	2X4, 2 LAMP. 0.71 BALLAST FACTOR	2-F32T8 RE835	65W	277/120V	LITHONIA METALUX DAYBRITE LSI LIGHTOLIER COLUMBIA	2 SP8G 232 A12125 MVOLT TUBRHP (4-1/2" DEPTH) 2GP-232A125-UNV-EBS1-PROGRAM START (3-3/4" DEPTH) 2DPG232-FS21-UNV-1/2EB-SPEC (4-3/8" DEPTH) LA125 232 SD SSO10PS UE (4" DEPTH) XT2GV232-UNV-SOP (3-5/8" DEPTH) STS24-232G-FSA12.125-EB8LHPRUNV (3-3/4" DEPTH)	
	OC	WALL PACK: ADJUSTABLE CUT OFF; FULL PERIMETER GASKETING: WET LOCATION; STAINLESS STEEL HINGES AND LATCHES; PROJECTING LENS; HPF BALLAST; SEE ELEVATION FOR MOUNTING HEIGHT, COLOR AS SPECIFIED BY ARCHITECT.						
	OC-9	100 PSMH, RECESSED J BOX. TYPE 4 CUTOFF OPTICS, DECORATIVE	100PSMH	119W	277/120V	KIM LSI GREENLEE GE MCGRAW-ED	WD14D4/100PSMH120/XX WDRS-FT-100MH-F-MT-XXX-NO VWS-100MH-MT-FT-CBA-PSB CCSX10M0H1BDKBZD VWS-100-MH-MT-4S-XX	
	OC-11	200 PSMH, RECESSED J BOX. TYPE 4 CUTOFF OPTICS, DECORATIVE	200PSMH	240W	277/120V	KIM LSI GREENLEE GE MCGRAW-ED	WD18D4/200PSMH120/XX WDRS-FT-200MH-F-MT-XXX-NO WVM-250MH-MT-FT-CBA-PSB CCSX20P0H1BDKBZD VWM-200-MH-MT-4S-XX	
	OC-12	320 PSMH, RECESSED J BOX. TYPE 4 CUTOFF OPTICS, DECORATIVE	320PSMH	369W	277/120V	KIM LSI GREENLEE GE MCGRAW-ED	WD18D4/320PSMH120/XX N/A WVM-320MH-MT-FT-CBA-PSB CCMX32P0H1BDKBZD VWM-320-MH-MT-4S-XX	
	OC-32	CF42, RECESSED J BOX. MEDIUM THROW, SQUARE, DECORATIVE	CF42 RE835	50W	277/120V	MCPHILBEN LSI LITHONIA LUMARK LSI	101MT-42TRF-CBA-DT GBWS-FTM-42CFL-F-120/277-XX-NO WST 42TRT MD MVOLT PLIP-T-42-MT-XX GBWS FTM 42CFL F UE XXX W/LAMP	
	EOC-32	CF42, RECESSED J BOX. MEDIUM THROW, SQUARE, DECORATIVE, EMERGENCY BATTERY PACK	CF42 RE835	50W	277/120V	MCPHILBEN LSI LITHONIA LUMARK LSI	101MT-42TRF-CBA-DT-EM GBWS-FTM-42CFL-F-120/277-XX-NO-EM WST 42TRT MD MVOLT-EM PLIP-T-42-MT-XX-EM GBWS FTM 42CFL F UE XXX W/LAMP-EM	
	SA	GENERAL PURPOSE INDUSTRIAL: WHITE ENAMEL, APERTURED REFLECTOR; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE; UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS; STEM MOUNTED WITH TONG HANGERS.						
	SA-1	4', 2-LAMP. 0.71 BALLAST FACTOR	2-F32T8 RE835	65W	277/120V	LITHONIA LIGHTOLIER METALUX HUBBELL COLUMBIA DAYBRITE	EJA232-M/VOLT-TUBRHP-THUN KWA232-U-SOP IA-232-UNV-PROGRAM START IG142R-PP10-UPS CSR4-232U-EB8120/277 PROG-CSTH IA232-UNV-1/2-EB-SPEC	
	TX	SPECIAL FIXTURES AS INDICATED. MEET ALL REQUIREMENTS OF SPECIFICATIONS AND FIXTURE SCHEDULE. VISUAL AND FINISH APPROVAL REQUIRED.						
	TX-1	EXTERIOR DECORATIVE WALL SCONCE, ADA COMPLIANT, COMPACT FLUORESCENT			277/120V		TO BE SELECTED BY ARCHITECT/ENGINEER PROVIDE CONTRACTOR ALLOWANCE OF: $550.00 PER FIXTURE	
	TX-2	DECORATIVE CEILING FIXTURE COMPACT FLUORESCENT	2-CF-39W RE830	80W	277/120V	FORECAST	F2061-12U OR APPROVED EQUAL	
	TX-3	DECORATIVE PENDANT FIXTURE COMPACT FLUORESCENT 18"-24" DIAMETER WHITE OPAL BOWL 18" MAXIMUM TOTAL HEIGHT	4-CF-39W RE830	160W	277/120V		TO BE SELECTED BY ARCHITECT/ENGINEER PROVIDE CONTRACTOR ALLOWANCE OF: $650.00 PER FIXTURE	
	UC	UNDERCABINET LIGHT: LOW PROFILE X 5 1/4"DEEP X LENGTH AS NOTED; ACRYLIC DIFFUSER.						
	UC-10	48 1/8" LONG, WHITE.	F32T8	40W	120V	NULITE FSC LIGHTOLIER CREATIVE DURAY LSI	112 32 ELB10 3148-T8-EL TCU32WSO120 UC-132-T8 HUC 132 PSEB120 SL1 32 SSO 120	
	W	LOW PROFILE WRAPAROUND: SURFACE MOUNTED SUITABLE FOR MOUNTING ON LOW DENSITY CEILINGS WRAPAROUND ACRYLIC PRISMATIC DIFFUSER; WHITE ENAMEL ENDPLATES; MINIMUM CU OF 70 @ 80/50/20 AND RCR=1; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.						
	W-3	NARROW BODY WRAPAROUND; 2-LAMP, APPROX, 3" X 10" X 48"..	2-F32T8 RE835	65W	277/120V	LITHONIA DAYBRITE METALUX LIGHTOLIER LSI COLUMBIA	LB232-MVOLT-TUBPHP CAN232-UNV-1/2-EB-SPEC WS-232A-UNV-PROGRAM START WA232-U-SOP PR 232 SSO10PRS UE WC4-232-EBPS120/277	
	W-5	WIDE BODY WRAPAROUND; 3-LAMP, APPROX; 3" X 16" X 48".	3-F32T8 RE835	95W	277/120V	LITHONIA DAYBRITE METALUX LIGHTOLIER LSI COLUMBIA	LB332-1/3MVOLT-TUBPHP CAW332-UNV-1/3-EB-SPEC WSA-332A-UNV-PROGRAM START WB332-U-03P PR 332 SSO10PRS UE WCW4-332-3EBPS120/277	
	WB	WALL MOUNTED FLUORESCENT LOCATED ABOVE WALL ELEMENT (MIRROR/WHITEBOARD, ETC.): AS INDICATED ON DRAWINGS; WITH ACRYLIC INJECTION MOLDED; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.						
	WB-3	2-LAMP, WALL MOUNT 48", STEEL ENCLOSURE, DOWNLIGHT ONLY; ACRYLIC INJECTION MOLDED PRISMATIC DIFFUSER.	2-F32T8 RE835	65W	277/120V	DAYBRITE LIGHTOLIER METALUX L.A.L. COLUMBIA LITHONIA LSI	CD232W-UNV-1/2-EB-SPEC CWB232-WB-U-SOP BI-232-UNV-PROGRAM START BSQ100-2-4R-INJ-WHT-T8EB-120/277-UPS WAL4-232-EBPS120/277 WP 232 DO M/VOLT-TUBPHP WB 232 SSO10PRS UE	
	WB-99	2-LAMP, WALL MOUNT, 24", DECORATIVE LENS, SATIN NICKEL TRIM	2-32TRT RE835	65W	277/120V		TO BE SELECTED BY ARCHITECT/ENGINEER PROVIDE CONTRACTOR ALLOWANCE OF: $450.00 PER FIXTURE	
	ZL	LIGHT POLES: TOTALLY ENCLOSED RAINTIGHT, DUST-TIGHT AND CORROSION RESISTANT; POLE AS SHOWN IN DETAIL WITH HANDHOLE, COVER, BOLT COVER, AND BASE; PAINTED (COLOR TO BE SELECTED BY ARCHITECT / ENGINEER WHICH MAY DIFFER FROM CATALOG NUMBER SHOWN). MTB= 120,208,240,277 VOLT MULTI-TAP BALLAST. ALL BALLASTS HPF. ARM MOUNT. HORIZONTAL LAMP; SEGMENTED OPTICS.						
	ZL-3	SHOEBOX STYLE, CUTOFF LUMINAIRE SINGLE HEAD, MULTI-TAP BALLAST; TYPE III DISTRIBUTION. 100PSMH SEGMENTED REFLECTOR	100PSMH	200W	MTB	LITHONIA GARDCO SPERO HUBBELL WIDELITE SPAULDING LSI	KSF1 100M R3 TB SP04 SCWA H-14-1-3-100PSMH-MT-CBA S6S-100PSMH-3M-A-MT-CBA MSS-A100W-3P8-1 S10P-100-3-QV-S-XXX CM-PM5-M100PS-III-MT-SCBA CHHM-3-100PSMH-F-MT-XXX	
	ZL-11	SHOEBOX STYLE, CUTOFF LUMINAIRE SINGLE HEAD, MULTI-TAP BALLAST; TYPE III DISTRIBUTION.320PSMH SEGMENTED REFLECTOR	320PSMH	375W	MTB	GARDCO SPERO HUBBELL WIDELITE SPAULDING LITHONIA LSI	H-19-1-3-320PSMH-MT-CBA S6M-320PSMH-3M-A-MT-CBA MSQ-A320W-HP8-1 S10P-320-3-QV-S-XXX CM-PM5-M320PS-III-MT-SCBA KSF2 320M R3 TB SP04 SCWA CHHM-3-320PSMH-F-MT-XXX	
	ZL-11D	SHOEBOX STYLE, CUTOFF LUMINAIRE SINGLE HEAD, MULTI-TAP BALLAST; TYPE III DISTRIBUTION.320PSMH SEGMENTED REFLECTOR DUAL HEAD	2-320PSMH	850W	MTB	GARDCO SPERO HUBBELL WIDELITE SPAULDING LITHONIA LSI	H-19-1-3-320PSMH-MT-CBA S6M-320PSMH-3M-A-MT-CBA MSQ-A320W-HP8-1 S10P-320-3-QV-S-XXX CM-PM5-M320PS-III-MT-SCBA KSF2 320M R3 TB SP04 SCWA CHHM-3-320PSMH-F-MT-XXX	

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BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

LIGHTING FIXTURE SCHEDULE

REVISION	DATE	BY	DESCRIPTION
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△			
△			

DRAWN BY: WRT	CHECKED BY: DLA
PROJECT NO.: 11007	DRAWING NO.: EL601
DATE: 02/15/2013	

UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

RELAY PANEL SCHEDULE:

RELAY "R1A"

RELAY #	LOCATION	DESCRIPTION	PANEL CIRCUIT #	LOAD (WATTS)	CS	OCC SES	TIME CLOCK	PHOTO CELL
1	SITE	POLE LIGHTING - MH	**1LB-13,15**	740			X	X
2	--	--	--	--	--	--	--	--
3	SITE	POLE LIGHTING - MH	**1LB-17,19**	1110			X	X
4	--	--	--	--	--	--	--	--
5	SITE	POLE LIGHTING - MH	**1LB-21,23**	1480			X	X
6	--	--	--	--	--	--	--	--
7	BLDG 2 EXTR WALL	WALL SCONCE - CF	**1LB-25**	477			X	
8	WEST CANOPY	DOWNLIGHTS - CF	**1LB-27**	240			X	
9	SW EXTR WALL	WALL SCONCE - MH	**1LB-14**	750			X	
10	WEST EXTR WALL/CANOPY	WALL SCONCE/DL - MH/CF	**1LB-16**	722			X	
11	SOUTH EXTR WALL	WALL SCONCE - MH	**1LB-18**	750			X	
12	SE EXTR WALL	WALL SCONCE - MH	**1LB-20**	490			X	
13	EAST CANOPY	WALL SCONCE/DL - MH/CF	**1LB-22**	496			X	
14	CIRCULATION SOUTH	COVE/DOWNLIGHTS - CF	**1LB-24**	733		X	X	
15	CIRCULATION EAST WING	COVE/DOWNLIGHTS - CF	**1LB-26**	697		X	X	
16	--	--	--	--	--	--	--	--
17	--	--	--	--	--	--	--	--
18	--	--	--	--	--	--	--	--
19	--	--	--	--	--	--	--	--
20	--	--	--	--	--	--	--	--
21	--	--	--	--	--	--	--	--
22	--	--	--	--	--	--	--	--
23	--	--	--	--	--	--	--	--
24	--	--	--	--	--	--	--	--

RELAY PANEL SCHEDULE:

RELAY "R1B"

RELAY #	LOCATION	DESCRIPTION	PANEL CIRCUIT #	LOAD (WATTS)	CS	OCC SES	TIME CLOCK	PHOTO CELL
1	CIRCULATION NORTH	COVE/DOWNLIGHTS - CF	**1LD-13**	735		X	X	
2	N. WING NORTH EXTR	WALL SCONCE - MH	**1LD-15**	1140			X	
3	N. WING SOUTH EXTR	WALL SCONCE - MH	**1LD-17**	750			X	
4	N. WING WEST EXTR	WALL SCONCE/DL - MH/CF	**1LD-19**	722			X	
5	CIRCULATION EAST WING	COVE/DL/TROFFERS - CF	**1LD-20**	272		X	X	
6	LOBBY	COVE/DOWNLIGHTS - CF	**1LD-22**	684	X	X	X	
7	EAST WING EXTR WALL	WALL SCONCE - MH/CF	**1LD-21**	392			X	
8	EAST WING EXTR WALL	WALL SCONCE - MH/CF	**1LD-23**	490			X	
9	--	--	--	--	--	--	--	--
10	--	--	--	--	--	--	--	--
11	--	--	--	--	--	--	--	--
12	--	--	--	--	--	--	--	--
13	--	--	--	--	--	--	--	--
14	--	--	--	--	--	--	--	--
15	--	--	--	--	--	--	--	--
16	--	--	--	--	--	--	--	--
17	--	--	--	--	--	--	--	--
18	--	--	--	--	--	--	--	--

RELAY PANEL SCHEDULE:

RELAY "R2A"

RELAY #	LOCATION	DESCRIPTION	PANEL CIRCUIT #	LOAD (WATTS)	CS	OCC SES	TIME CLOCK	PHOTO CELL
1	CIRCULATION SOUTH	COVE/DOWNLIGHTS - CF	**2LB-13**	666		X	X	
2	CIRCULATION EAST WING	COVE LIGHTS - CF	**2LB-14**	346		X	X	
3	--	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--	--
6	--	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--

RELAY PANEL SCHEDULE:

RELAY "R2B"

RELAY #	LOCATION	DESCRIPTION	PANEL CIRCUIT #	LOAD (WATTS)	CS	OCC SES	TIME CLOCK	PHOTO CELL
1	CIRCULATION NORTH	COVE/DOWNLIGHTS - CF	**2LD-12**	666		X	X	
2	CIRCULATION EAST WING	COVE - CF	**2LD-14**	212		X	X	
3	--	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--	--
6	--	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--

RELAY PANEL SCHEDULE:

RELAY "R3A"

RELAY #	LOCATION	DESCRIPTION	PANEL CIRCUIT #	LOAD (WATTS)	CS	OCC SES	TIME CLOCK	PHOTO CELL
1	CIRCULATION SOUTH	COVE/DOWNLIGHTS - CF	**3LB-13**	666		X	X	
2	CIRCULATION EAST WING	COVE LIGHTS - CF	**3LB-14**	318		X	X	
3	--	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--	--
6	--	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--

RELAY PANEL SCHEDULE:

RELAY "R3B"

RELAY #	LOCATION	DESCRIPTION	PANEL CIRCUIT #	LOAD (WATTS)	CS	OCC SES	TIME CLOCK	PHOTO CELL
1	CIRCULATION NORTH	COVE/DOWNLIGHTS - CF	**3LD-12**	666		X	X	
2	CIRCULATION EAST WING	COVE LIGHTS - CF	**3LD-14**	212		X	X	
3	--	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--	--
6	--	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--

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LIGHTING RELAY CONTROL SCHEDULES

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007	DRAWING NO.: EL602
DATE: 02/15/2013	

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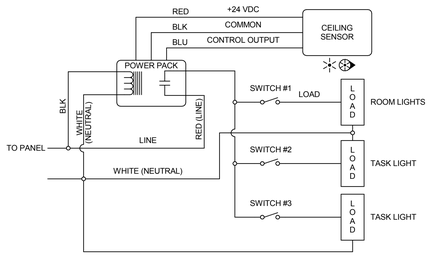
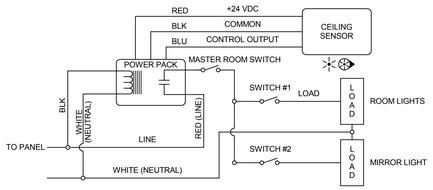


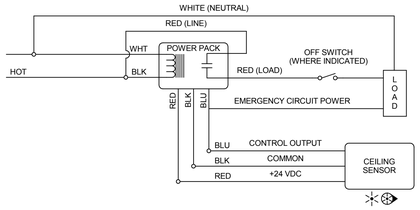
TYPICAL ROOM WITH ONE CEILING SENSOR, ONE CIRCUIT AND MULTIPLE SWITCHED LOADS

C4 SCALE: NTS



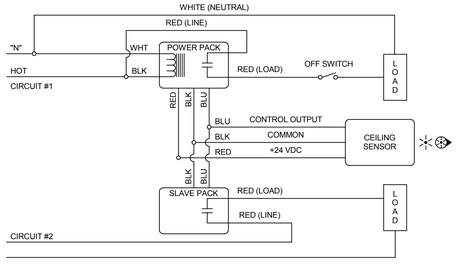
TYPICAL BILLET ROOM WITH ONE CEILING SENSOR, ONE CIRCUIT AND MULTIPLE SWITCHED LOADS

B2 SCALE: NTS



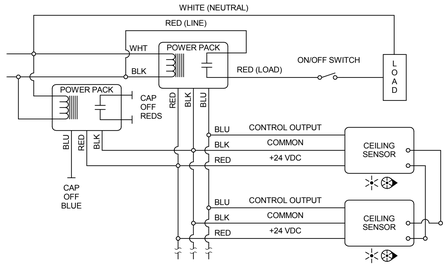
TYPICAL ROOM WITH ONE CEILING SENSOR, WITH OR WITHOUT WALL SWITCH

C2 SCALE: NTS



TYPICAL ROOM WITH ONE CEILING SENSOR, CONTROLLING TWO CIRCUITS

E4 SCALE: NTS



TYPICAL ROOM WITH MULTIPLE CEILING SENSORS

E2 SCALE: NTS

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LIGHTING CONTROL DIAGRAMS

REVISION	DATE	BY	DESCRIPTION
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DRAWING NO.: EL603
DATE: 02/15/2013

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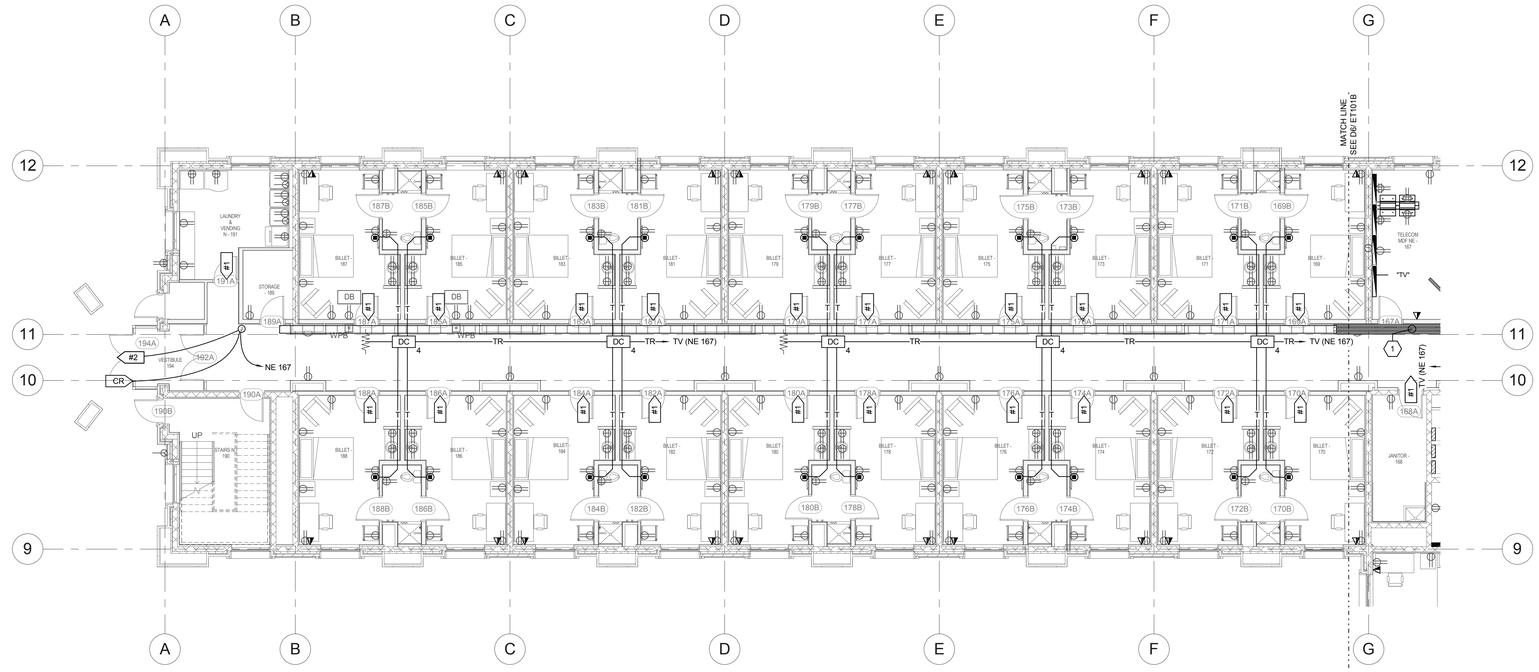
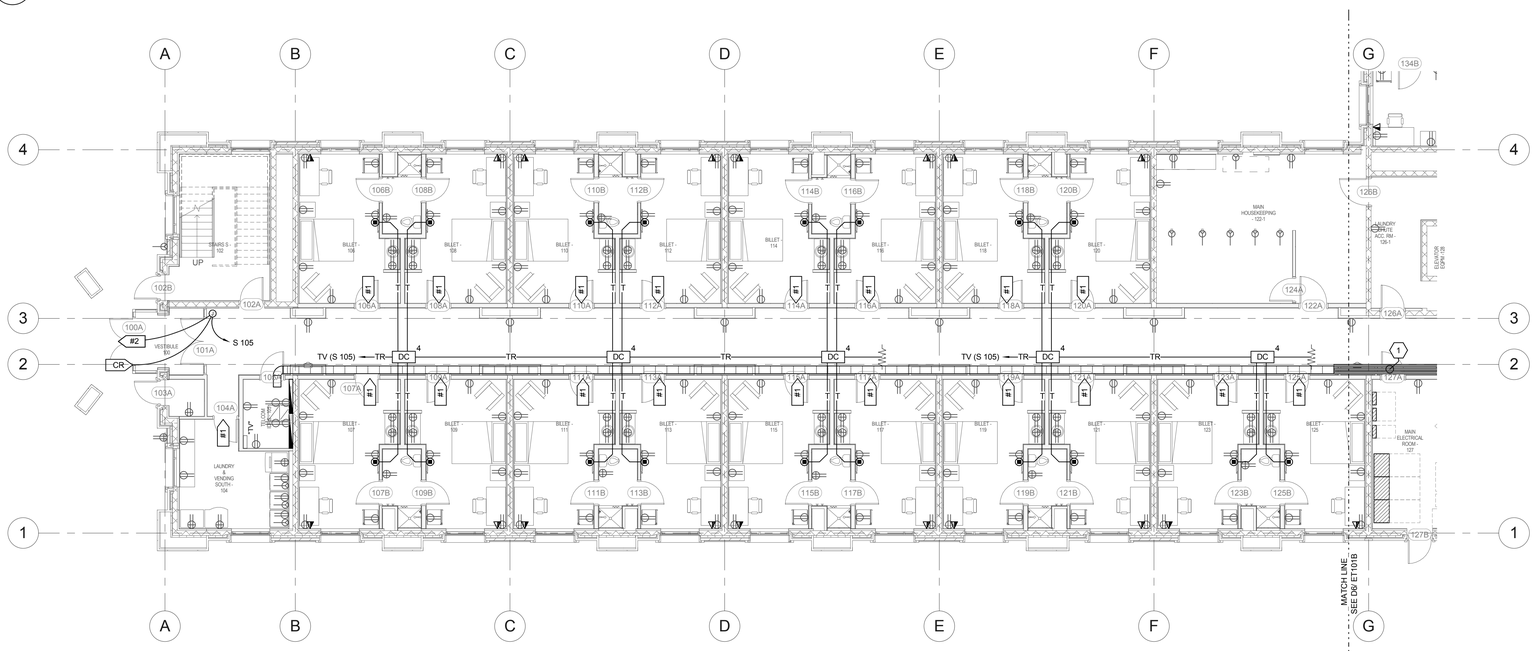
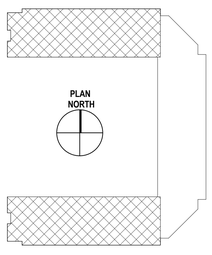


C6 LEVEL 1 COMMUNICATIONS AND AUXILIARY PLAN - NORTH WING
SCALE: 1/8" = 1'-0"



E6 LEVEL 1 COMMUNICATIONS AND AUXILIARY PLAN -SOUTH WING
SCALE: 1/8" = 1'-0"



KEY PLAN

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02-15-2013

GENERAL SHEET NOTES

1 COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH HARD LID CEILING ACCESS PANELS INFIELD PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1 3-EACH 4-INCH CONDUITS WITH PULL STRINGS.

2 4-EACH 4-INCH CONDUITS WITH PULL STRINGS.

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1ST LEVEL COMMUNICATIONS PLANS
NORTH & SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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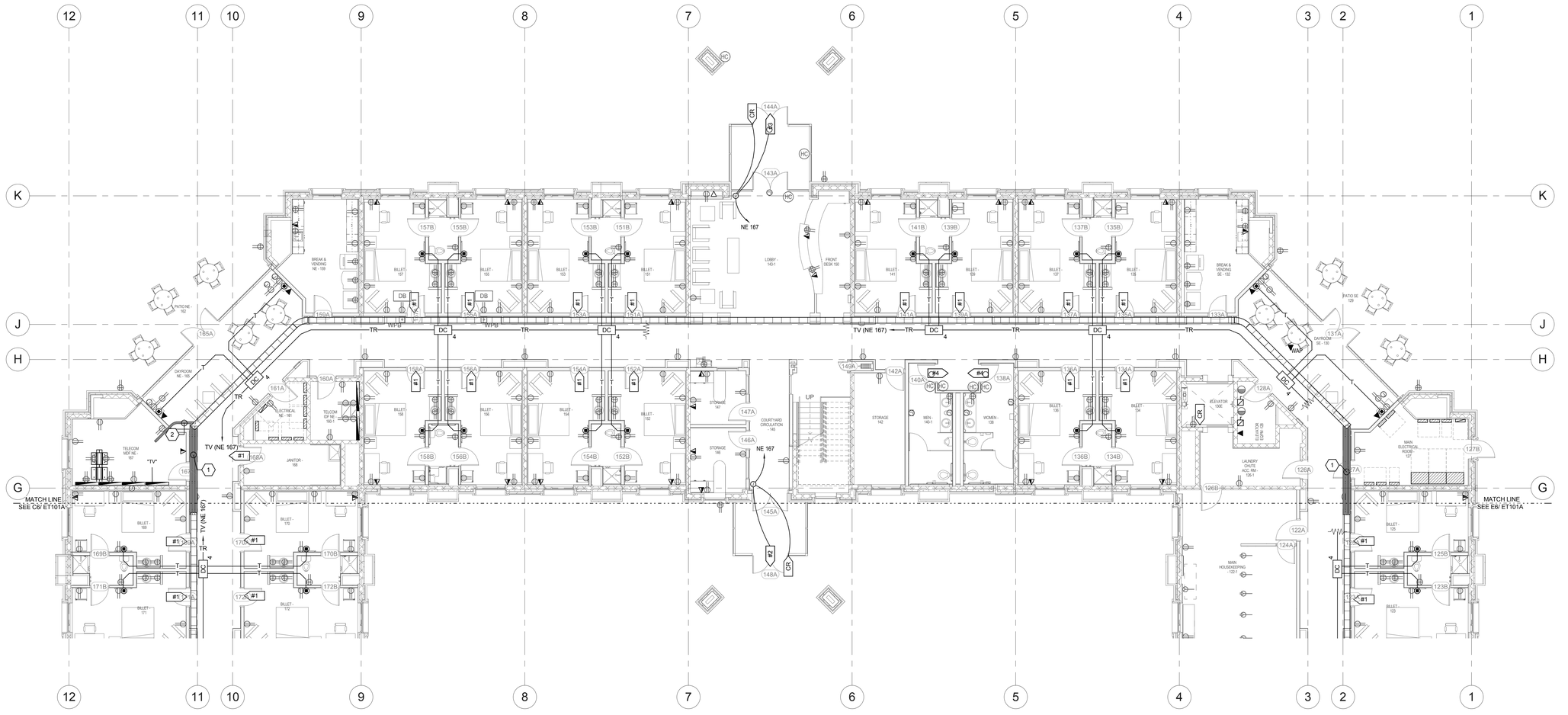
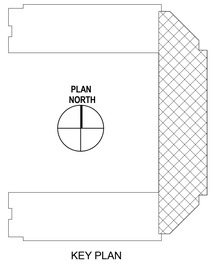


D6 LEVEL 1 COMMUNICATIONS AND AUXILIARY PLAN - EAST WING

SCALE: 1/8" = 1'-0"

PLAN NORTH

0 4' 8' 16'



KEY PLAN

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SPECTRUM ENGINEERS

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02-15-2013

GENERAL SHEET NOTES

1 COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH HARD LID CEILING ACCESS PANELS INFIELD PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1 3-EACH 4-INCH CONDUITS WITH PULL STRINGS.

2 4-EACH 4-INCH CONDUITS WITH PULL STRINGS.

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1ST LEVEL COMMUNICATIONS AND AUXILIARY PLAN EAST WING

REVISION	DATE	BY	DESCRIPTION
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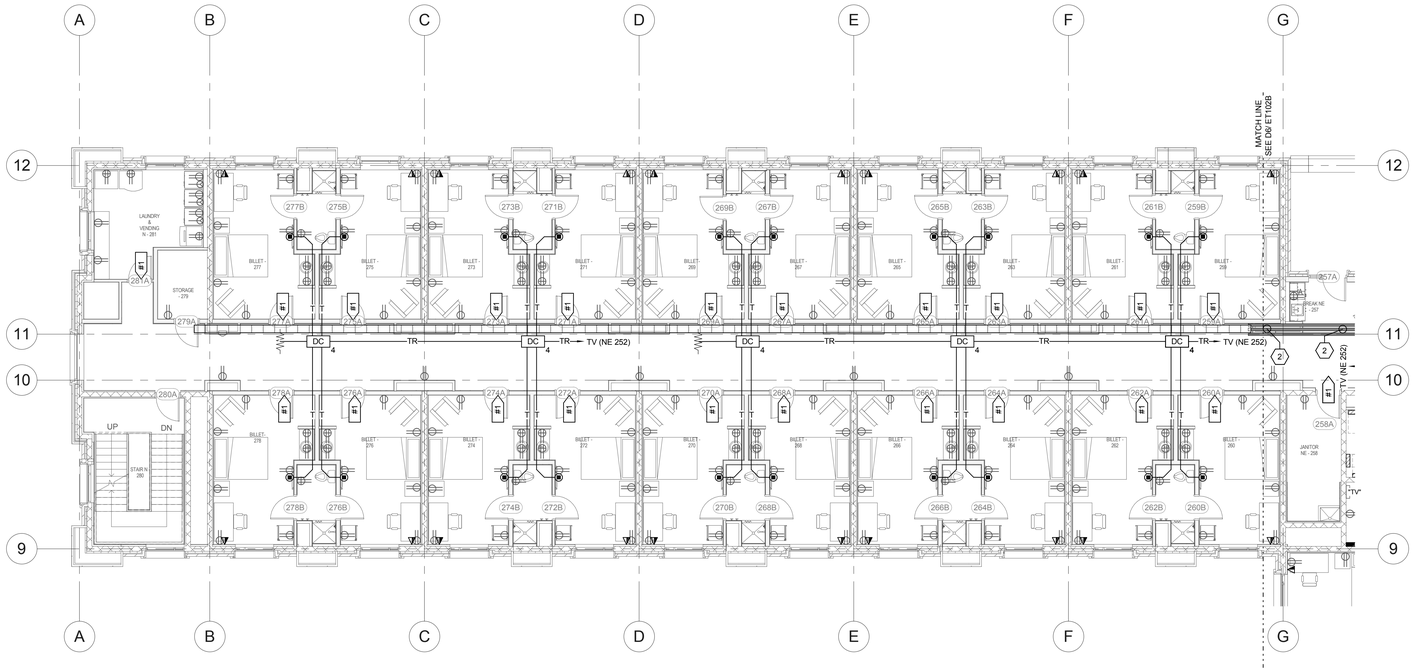
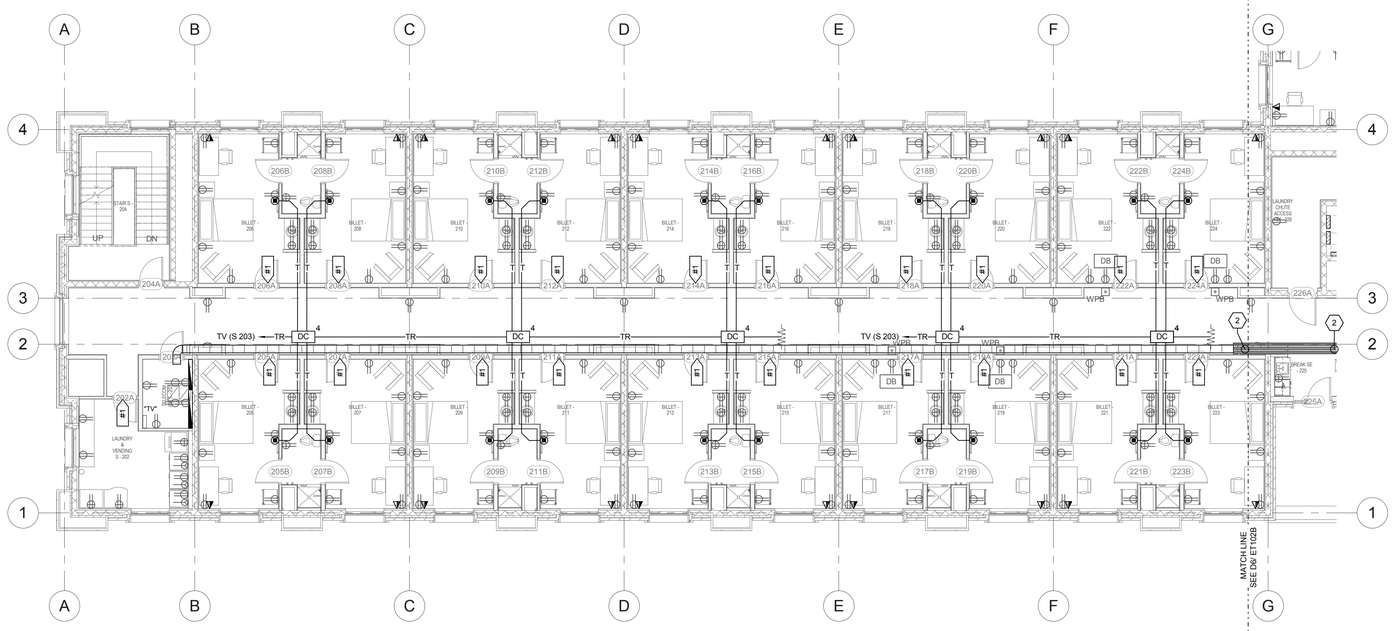


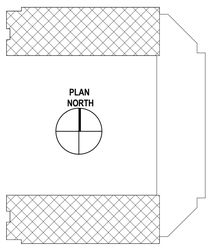
C6 LEVEL 2 COMMUNICATIONS AND AUXILIARY PLAN - NORTH WING

SCALE: 1/8" = 1'-0"



E6 LEVEL 2 COMMUNICATIONS AND AUXILIARY PLAN - SOUTH WING

SCALE: 1/8" = 1'-0"



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GENERAL SHEET NOTES

1 COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH HARD LID CEILING ACCESS PANELS INFIELD PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1 PROVIDE 4"X4"X4" BOX FOR A/V CABLING.

2 3-EACH 4-INCH CONDUITS WITH PULL STRINGS.

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2ND LEVEL COMMUNICATIONS PLANS
NORTH & SOUTH WINGS

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007
DRAWING NO.: ET102A
DATE: 02/15/2013

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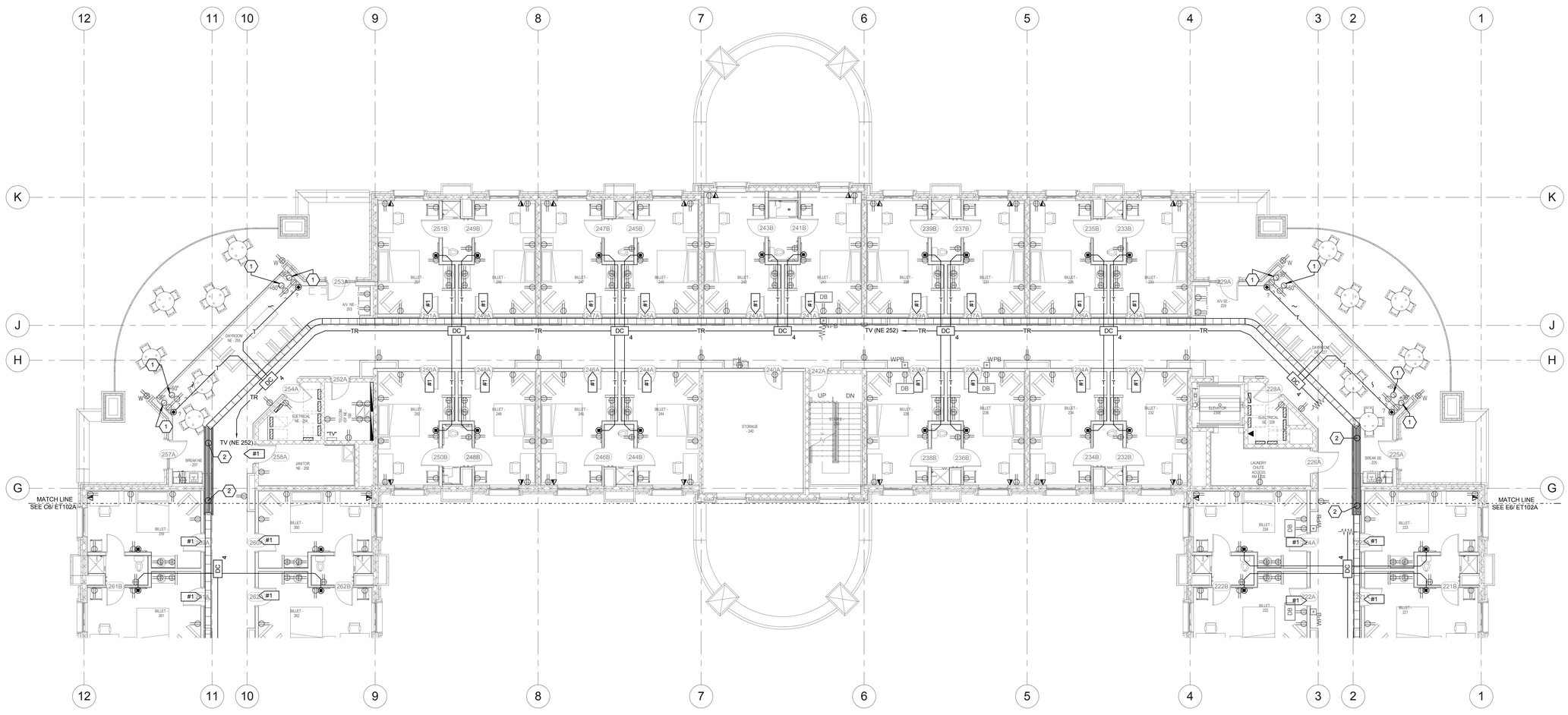
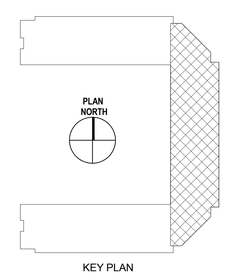


D6 LEVEL 2 COMMUNICATIONS AND AUXILIARY PLAN - EAST WING

SCALE: 1/8" = 1'-0"



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GENERAL SHEET NOTES

1 COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH HARD LID CEILING ACCESS PANELS INFIELD PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1 PROVIDE 4"X4"X4" BOX FOR A/V CABLING.

2 3-EACH 4-INCH CONDUITS WITH PULL STRINGS.

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2ND LEVEL COMMUNICATIONS PLAN
EAST WING

REVISION	DATE	BY	DESCRIPTION
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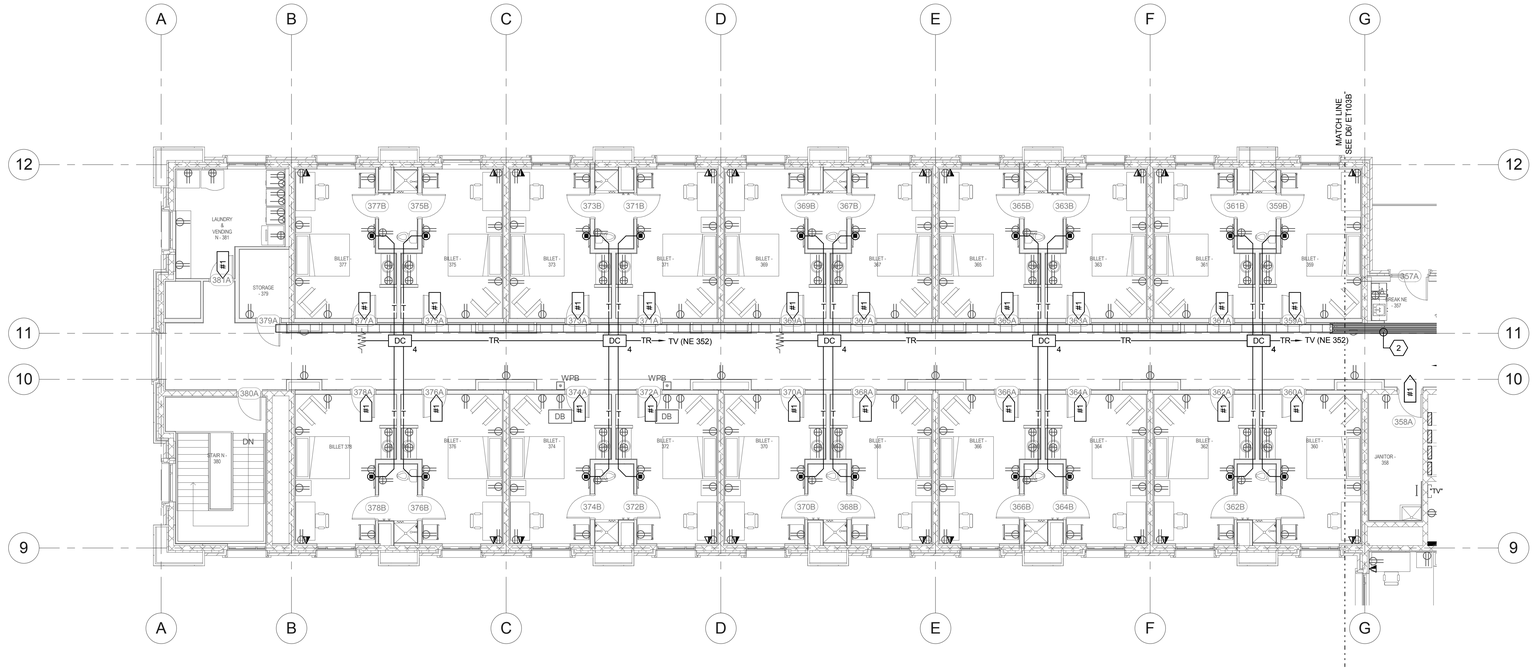
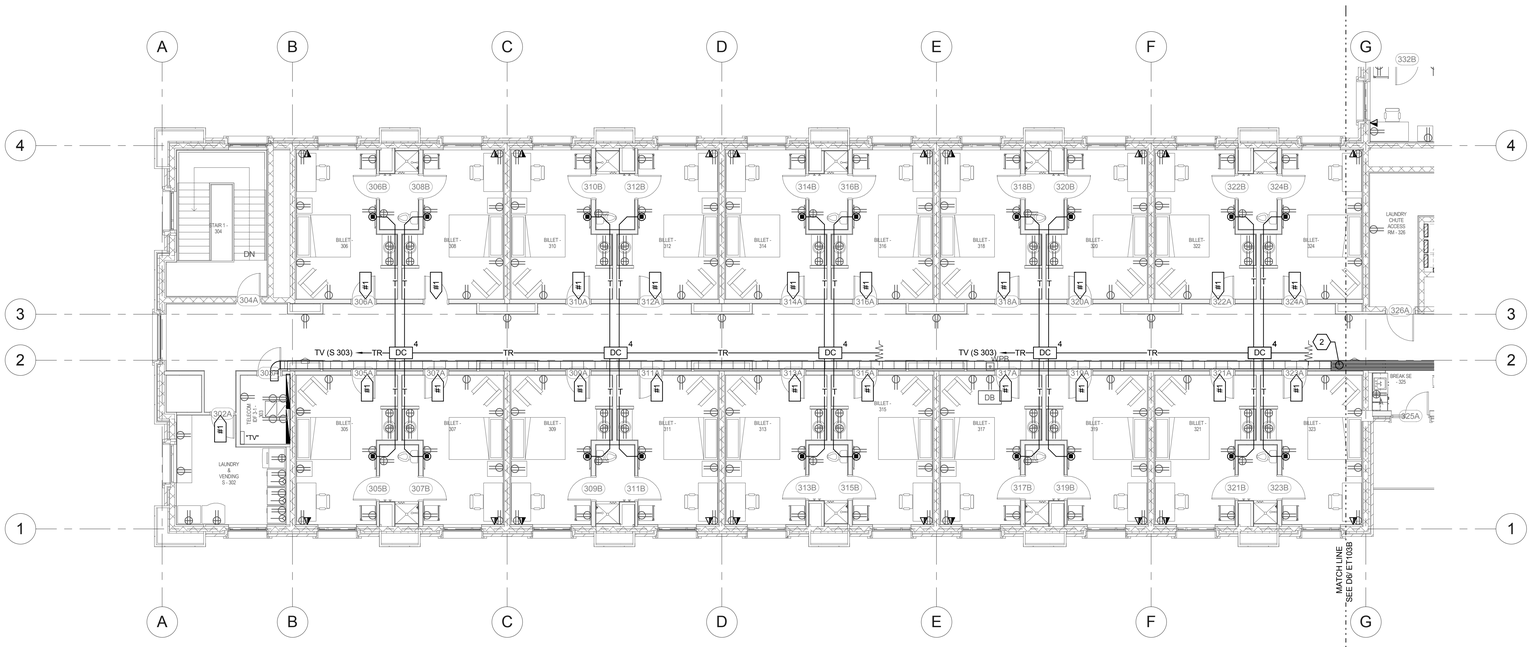
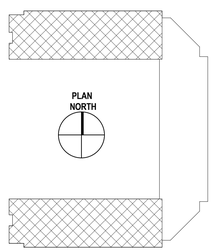


C6 LEVEL 3 COMMUNICATIONS AND AUXILIARY PLAN - NORTH WING
SCALE: 1/8" = 1'-0"



E6 LEVEL 3 COMMUNICATIONS AND AUXILIARY PLAN - SOUTH WING
SCALE: 1/8" = 1'-0"



KEY PLAN

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02-15-2013

GENERAL SHEET NOTES

1 COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH HARD LID CEILING ACCESS PANELS INFIELD PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1 PROVIDE 4"X4"X4" BOX FOR A/V CABLING.

2 3-EACH 4-INCH CONDUITS WITH PULL STRINGS.

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3RD LEVEL COMMUNICATIONS PLANS
NORTH & SOUTH WINGS

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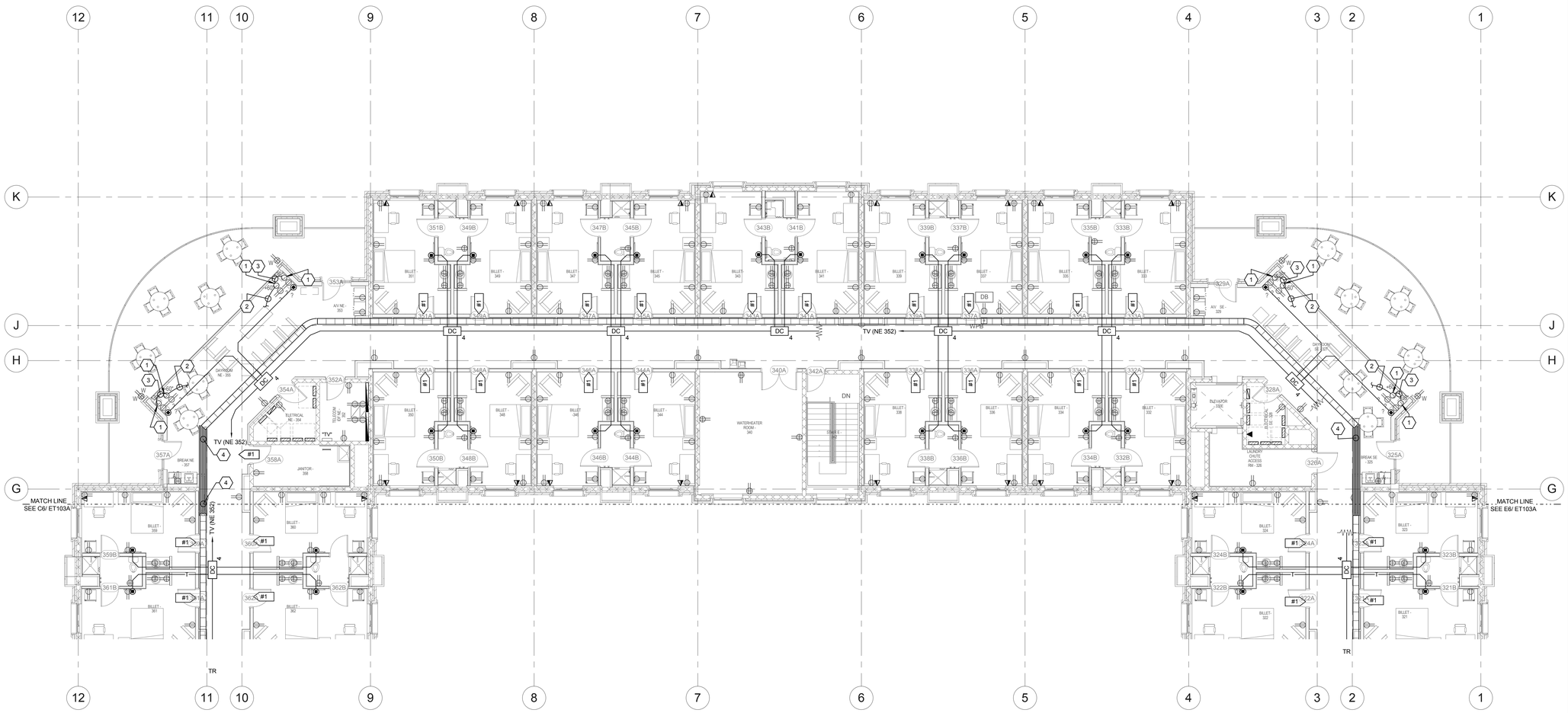
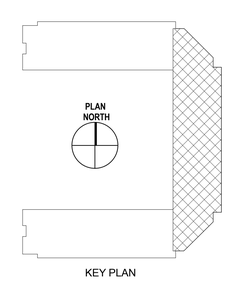


D6 LEVEL 3 COMMUNICATIONS AND AUXILIARY PLAN - EAST WING

SCALE: 1/8" = 1'-0"



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GENERAL SHEET NOTES

1 COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH HARD LID CEILING ACCESS PANELS INFIELD PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1 PROVIDE 4"X4"X4" BOX FOR A/V CABLING.

2 PROVIDE 2-INCH CONDUIT STUB TO ABOVE THE ACCESSIBLE CEILING.

3 PROVIDE 2-INCH CONDUIT WITH PULL STRING FOR A/V CABLING.

4 3-EACH 4-INCH CONDUITS WITH PULL STRINGS.

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3RD LEVEL COMMUNICATIONS PLAN
EAST WING

REVISION	DATE	BY	DESCRIPTION
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PROJECT NO.: 11007	DRAWING NO.: ET103B
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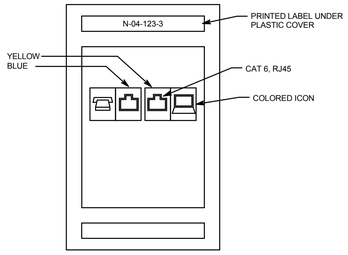
UTAH NATIONAL GUARD - CAMP WILLIAMS - BACHELOR ENLISTED QUARTER - CONSTRUCTION DOCUMENTS

VOICE/DATA EQUIPMENT/CABLE LIST

SYMBOL	ITEM DESCRIPTION	MANUFACTURERS
X C6 VOICE	VOICE CABLING, CATEGORY 6	SEE SPECIFICATIONS (CAT6 BLUE PLENUM RATED) (X' INDICATES QUANTITY)
X C6 DATA	DATA CABLING, CATEGORY 6	SEE SPECIFICATIONS (CAT6 YELLOW PLENUM RATED) (X' INDICATES QUANTITY)
V	BLUE METAL BACKBOARD (VOICE)	M183-B1 (VAR)
D	YELLOW METAL BACKBOARD (DATA)	M183-B5 (VAR)
LIU	LIGHT INTERFACE UNIT	SECOR CCH03U
SB	FULL SPOOL BOARDS	M187-B1 (VAR)
PB	PROTECTION BLOCKS	
	BUS BAR, 10", 20", W/ LUGS & MOUNTING ACCESSORIES	CHATSWORTH 10622-010/020
	HORIZONTAL WIRE MANAGERS, BLACK, 2 RU	SEE SPECIFICATIONS
	COPPER CATEGORY 6 PATCH CABLES	SEE SPECIFICATIONS
	CAT 6 J-HOOKS	CADDY CAT32Z34
	CABLE TRAY	SEE SPECIFICATIONS
	UTNG (G6) VOICE/DATA OUTLET	CAT 6 CABLE (VOICE BLUE, DATA YELLOW); SEE SPECIFICATIONS
W	UTNG (G6) NIPRNET VOICE OUTLET; "#" INDICATES QUANTITY OF CABLES	CAT 6 CABLE (BLUE); SEE SPECIFICATIONS

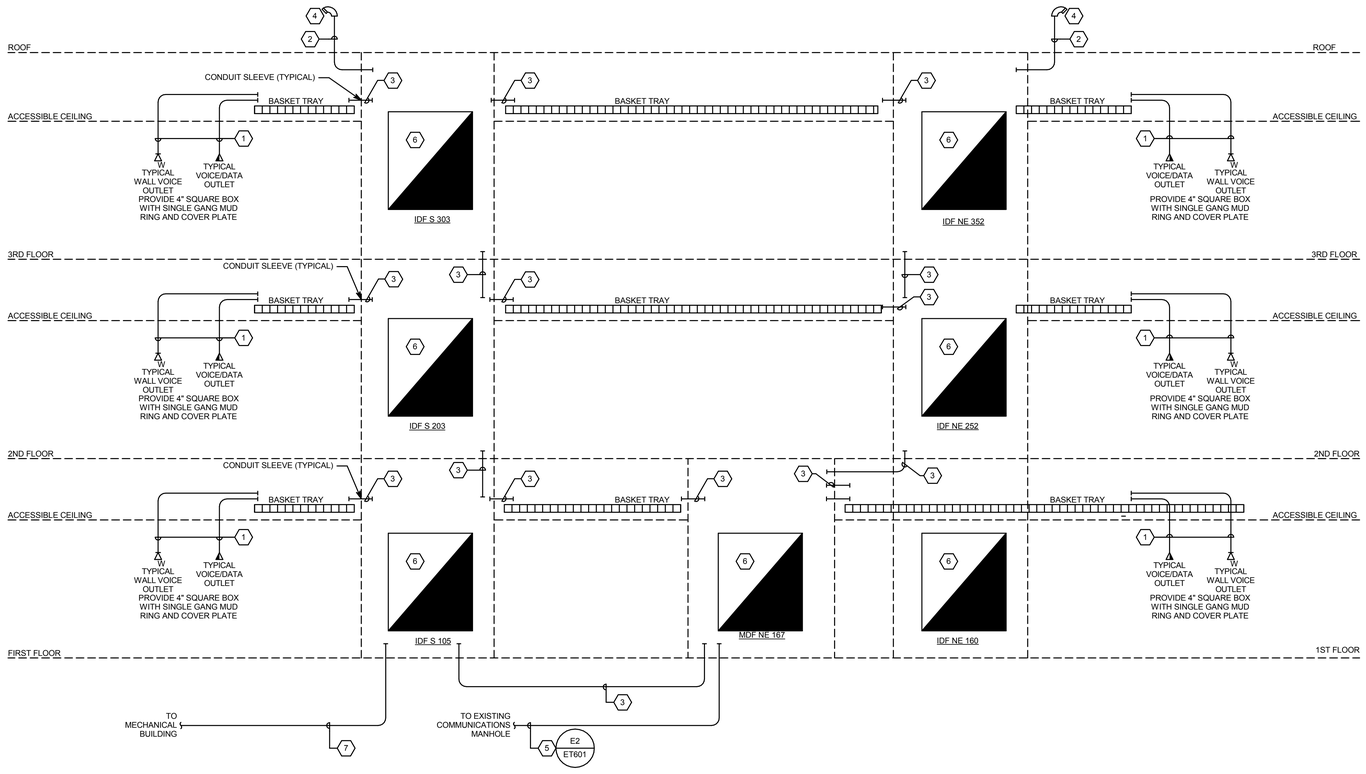
NOTE: ALL RACKS, LADDER, PATCH PANELS, AND ACCESSORIES SHALL BE BLACK IN COLOR.



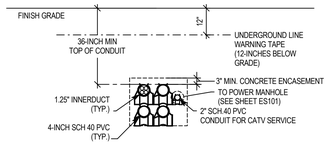
C5 G6 VOICE/DATA PLATE
NTS

CARD ACCESS DOOR TYPE SCHEDULE

DOOR TYPE #	SYMBOL	DESCRIPTION	PROTECTED SIDE ELEVATION	UNPROTECTED SIDE ELEVATION	LOCK TYPE(S)	DIVISION OF WORK AND COMMENTS:
TYPE 1:	TO ACS; #1; HARDWARE GROUPS: *****	SINGLE DOOR, 1 CARD READER MOUNTED ON DOOR (FREE EGRESS).	4SQ J-BOX ABOVE ACC CEILING; .75" C (TYP); POWER TRANSFER 4SQ BOX W/1G RING AND COVER; CONTACT INDICATOR 1G BOX IN FRAME	ELECTRONIC LOCK W/ CARD READER	ELECTRONIC LOCK W/ CARD READER	SECURITY CONTRACTOR PROVIDES: • L/PS; HARDWARE CONTRACTOR PROVIDES: • EL, CR, EPT, CI; LOCK CONTROLLED BY: • CR; SPECIAL NOTES: • L/PS-6A @ 24V
TYPE 2:	TO ACS; #2; CR; HARDWARE GROUPS: *****	DOUBLE DOOR, 1 CARD READER (FREE EGRESS); HARDWARE GROUP 28	4SQ J-BOX ABOVE ACC CEILING; .75" C (TYP); CONTACT INDICATORS 1G BOXES IN FRAME; TRANSFER HINGES 1G BOXES IN FRAME; SWITCHED EXIT HARDWARE	4SQ J-BOX ABOVE ACC CEILING; .75" C (TYP); CARD READER 4SQ BOX W/1G RING; 40"	ELECTRIFIED EXIT DEVICE W/ REX SWITCH (LATCH RETRACTION)	SECURITY CONTRACTOR PROVIDES: • L/PS, CONTROLLER; HARDWARE CONTRACTOR PROVIDES: • PH, CI, REX, EPT; LOCK CONTROLLED BY: • CR; SPECIAL NOTES: SC SHALL PROVIDE ALARM INPUT ON AC.
TYPE 3:	TO ACS; #2; CR; HARDWARE GROUPS: *****	DOUBLE DOOR, 1 CARD READER; AUTO OPENER, DOORS ARE DOGGED DURING NORMAL HOURS; (SEE DOOR OPERATION DESCRIPTION IN HARDWARE SPECIFICATIONS)	AUTO OPENER; 4SQ J-BOX ABOVE ACC CEILING; .75" C (TYP); CONTACT INDICATORS 1G BOXES IN FRAME; TRANSFER HINGES 1G BOXES IN FRAME; (EGRESS SIDE); SWITCHED EXIT HARDWARE	4SQ J-BOX ABOVE ACC CEILING; .75" C (TYP); CARD READER 4SQ BOX W/1G RING; 40"	PANIC HARDWARE	SECURITY CONTRACTOR PROVIDES: • CR; HARDWARE CONTRACTOR PROVIDES: • EPT, PH, L/PS, CI; LOCK CONTROLLED BY: • TLC, CR, AO
TYPE 4:	TO ACS; CR; #4; HARDWARE GROUPS: *****	SINGLE DOOR, 1 CARD READER, (FREE EGRESS)	4SQ J-BOX ABOVE ACC CEILING; .75" C (TYP); CONTACT INDICATOR, 1G BOX IN FRAME	4SQ J-BOX ABOVE ACC CEILING; .75" C (TYP); CARD READER 4SQ BOX W/1G RING; ELECTRIC STRIKE 1G BOX IN FRAME; 40"	ELECTRIC STRIKE W/ REX SWITCH	SECURITY CONTRACTOR PROVIDES: • L/PS; HARDWARE CONTRACTOR PROVIDES: • ES, REX, CI, CR; LOCK CONTROLLED BY: • CR



E6 TELECOMMUNICATIONS CONDUIT RISER DIAGRAM
SCALE: NTS



E2 COMMUNICATIONS CONDUIT DETAIL
SCALE: NTS

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265 EAST 100 SOUTH SUITE 350
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801.521.8564 WWW.EFTARCH.COM

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SHEET KEYNOTES

1. 1-INCH CONDUIT WITH PULL STRING AND GROUND BUSHINGS.
2. 1-EACH, 2-INCH CONDUITS WITH PULL STRING.
3. 4-EACH 4-INCH CONDUIT WITH PULL STRING.
4. WEATHERHEAD ON ROOF.
5. 4-EACH, 4-INCH CONDUITS AND 1-EACH, 2-INCH CONDUIT WITH PULL STRINGS. PROVIDE 4-EACH 1.5-INCH INNERDUCT IN ONE OF THE 4-INCH CONDUITS.
6. 4' X 8' X 3/4" FIRE TREATED PLYWOOD BACKBOARD. PAINT TO MATCH WALL. PROVIDE QUANTITY AS INDICATED ON DRAWINGS.
7. 2-EACH 4-INCH CONDUITS WITH PULL STRINGS.

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COMMUNICATIONS RISER DIAGRAM AND DETAILS

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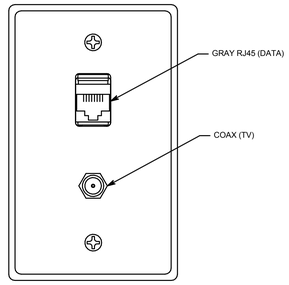
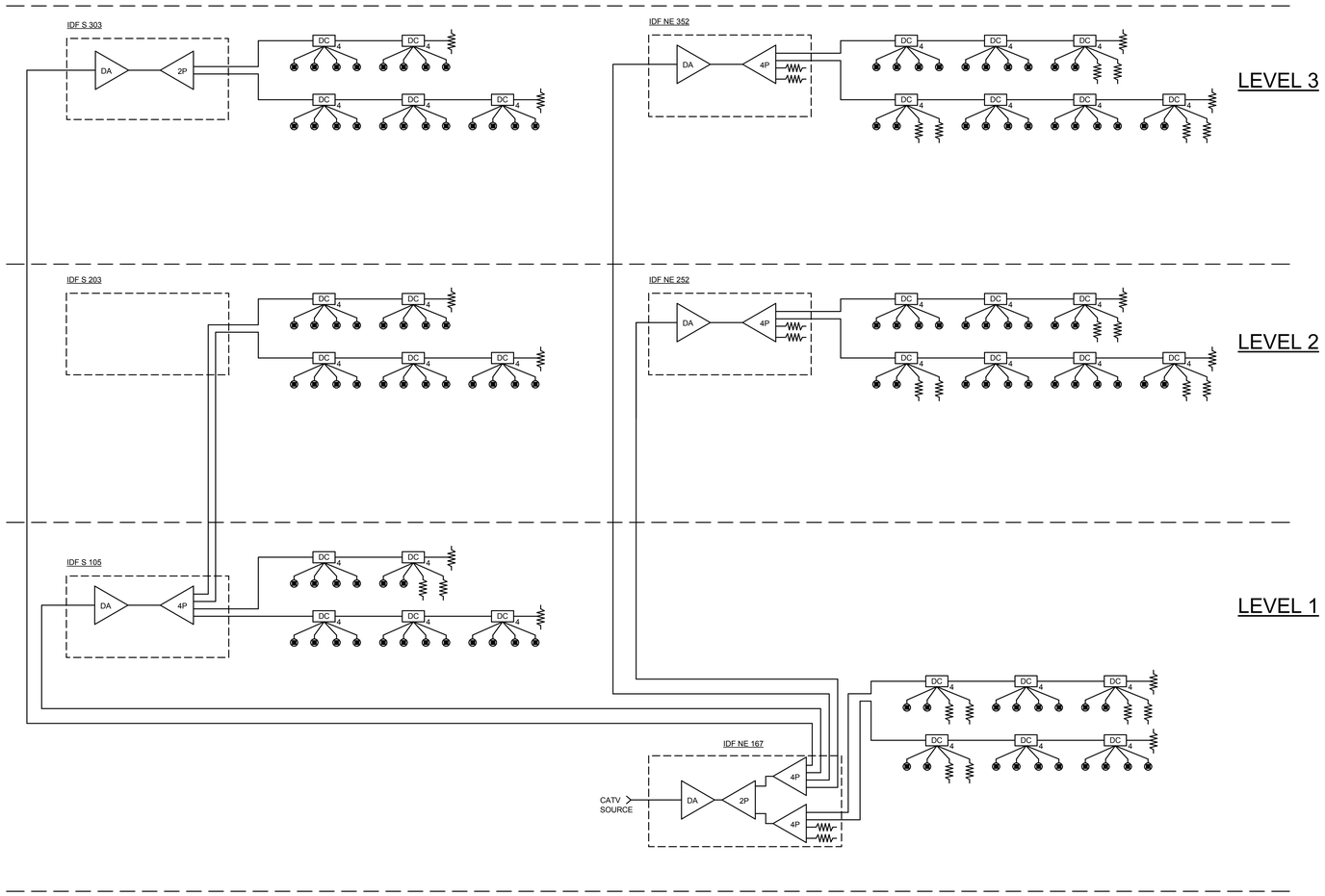


A1 TV OUTLET CONNECTOR
SCALE: NTS

SYMBOL SCHEDULE

TV DISTRIBUTION: REFER TO SECTION 275321 FOR DEVICE SELECTION AND INSTALLATION REQUIREMENTS IF NOT OTHERWISE NOTED. REFER TO RELATED SPECIFICATIONS, AND ARCHITECTURAL ELEVATIONS, FOR ACTUAL LOCATIONS.

SYM	DESCRIPTION	QUANTITY	ACCEPTIBLE TYPES
2P / 4P	MULTI PORT SPLITTER 2 PORT 4 PORT	OFP	BLONDER TONGUE SXRS SERIES
DA	BROADBAND DISTRIBUTION AMPLIFIER	OFP	BLONDER TONGUE BIDA 75A-43
DC (4)	DIRECTIONAL COUPLER (MULTI PORT)	OFP	BLONDER TONGUE SRT, SRT-2A, SRT-4A
	TV OUTLET, FEED THROUGH	OFP	SEE DETAIL
	RF TERMINATOR	OFP	75 OHM TERMINATOR



E4 TV DISTRIBUTION SYSTEM SINGLE LINE DIAGRAM
SCALE: NTS

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TV DISTRIBUTION DIAGRAM

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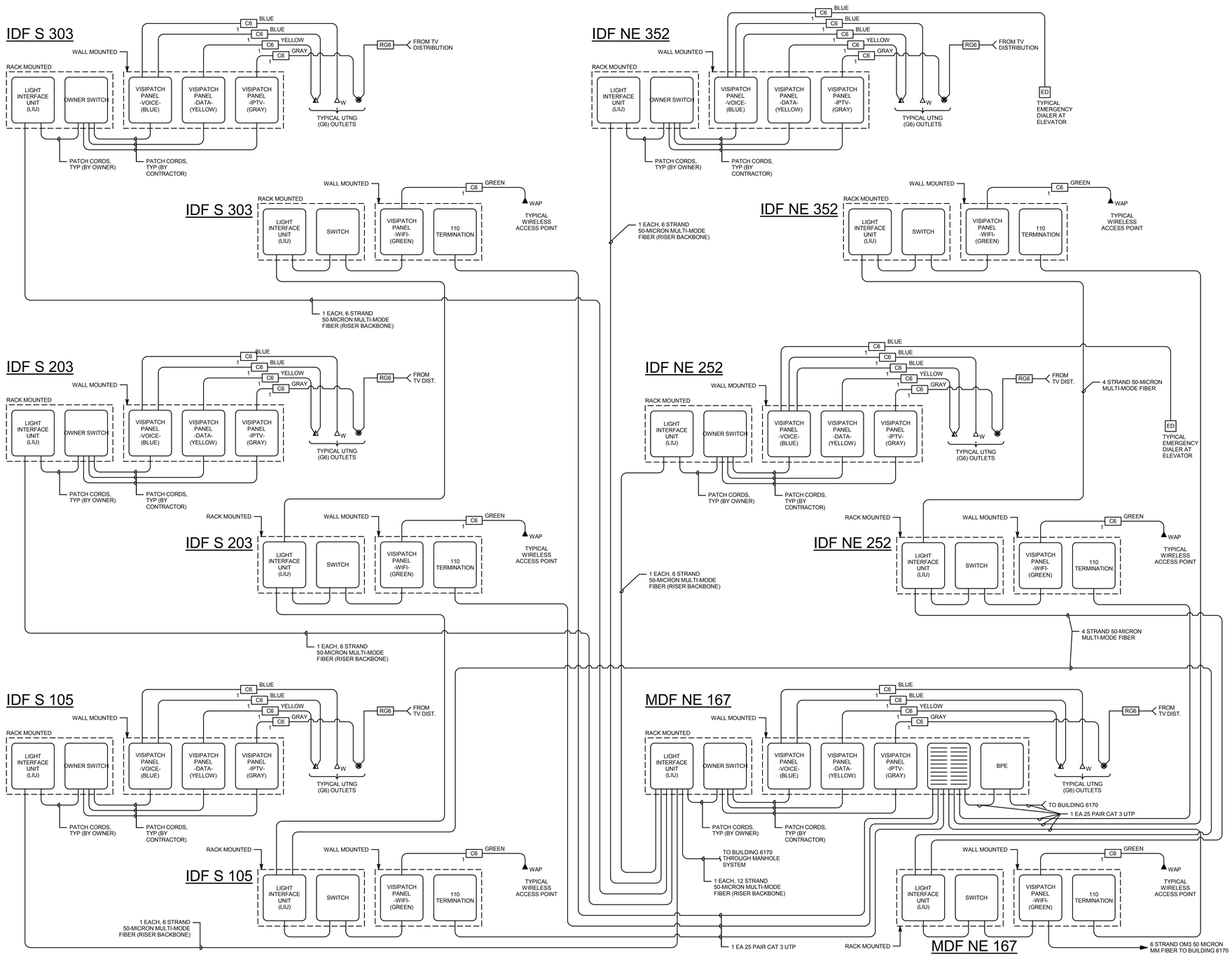

E6 TELECOMMUNICATIONS CABLING RISER DIAGRAM

SCALE: NTS

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TELECOMMUNICATIONS DIAGRAMS

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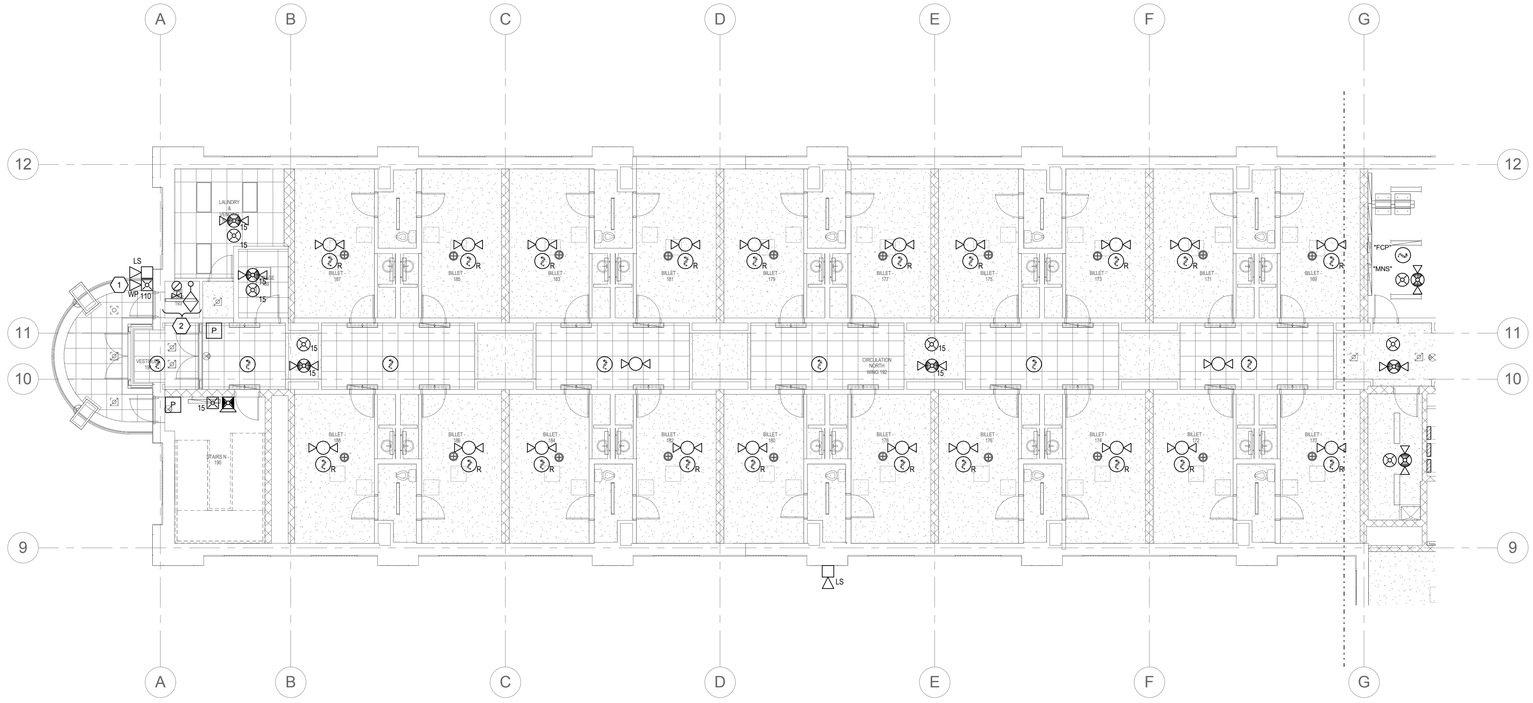
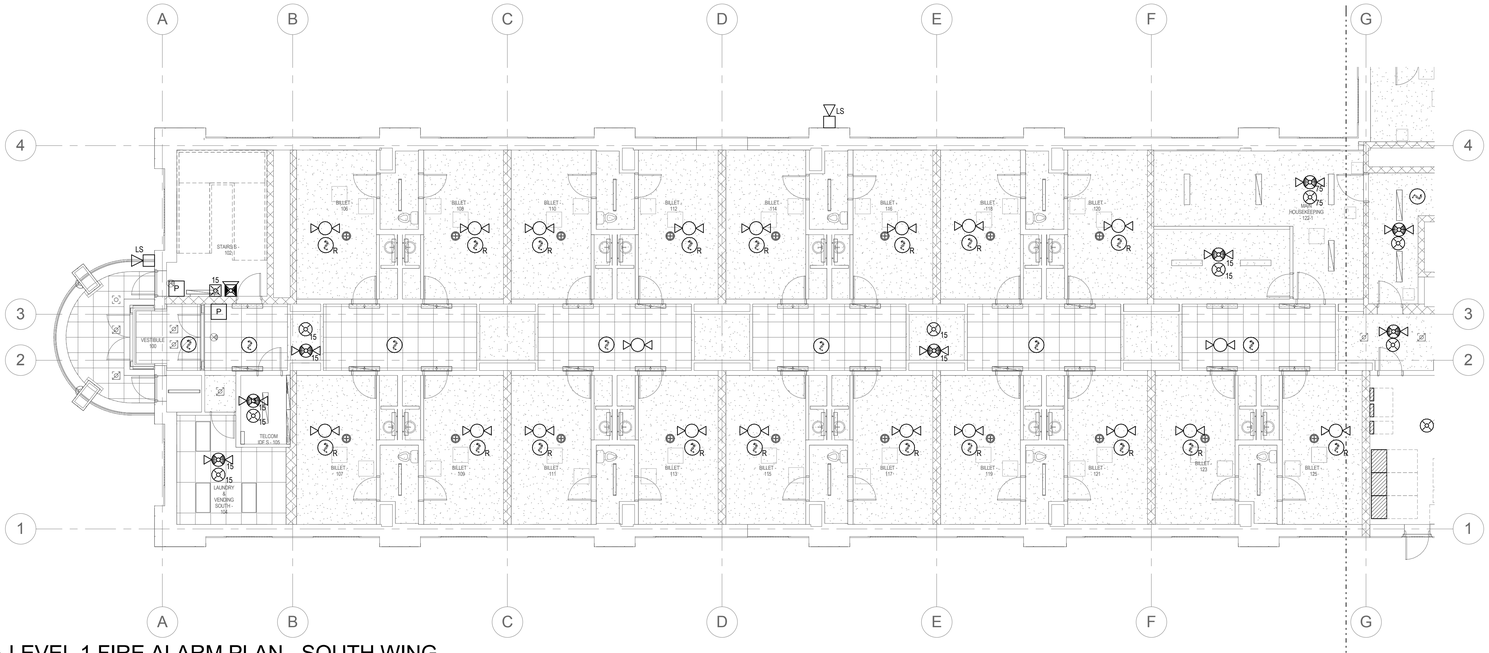
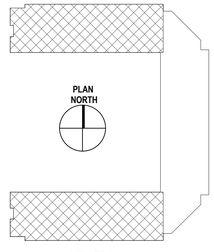


C6 LEVEL 1 FIRE ALARM PLAN - NORTH WING
SCALE: 1/8" = 1'-0"



E6 LEVEL 1 FIRE ALARM PLAN - SOUTH WING
SCALE: 1/8" = 1'-0"



KEY PLAN

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SPECTRUM ENGINEERS

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02-15-2013

GENERAL SHEET NOTES

1 COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED FIRE ALARM DEVICES DEVICES WITH HARD LID CEILING ACCESS PANELS AND LIGHT FIXTURES INFIELD PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1 PROVIDE WEATHERPROOF HORN/STROBE DIRECTLY ABOVE THE FIRE DEPARTMENT CONNECTION (F.D.C.) POINT.

2 PROVIDE MONITORING OF FLOW AND TAMPER SWITCHES. COORDINATE WITH FIRE SPRINKLER CONTRACTOR. ASSUME 5 TAMPER SWITCHES AND 3 FLOW SWITCHES.

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1ST LEVEL FIRE ALARM PLANS NORTH & SOUTH WINGS

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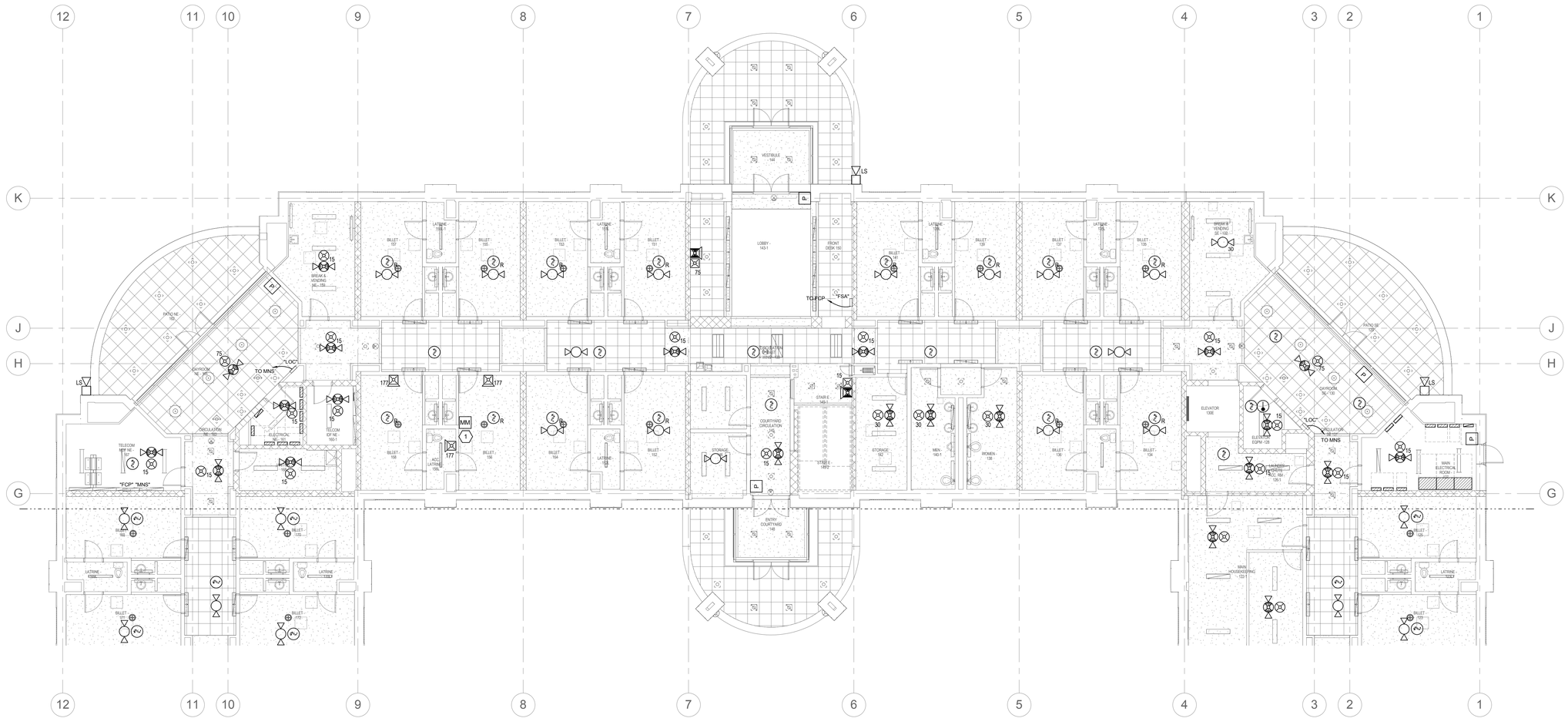
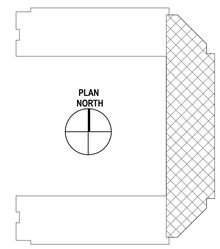


D6 LEVEL 1 FIRE ALARM PLAN - EAST WING

SCALE: 1/8" = 1'-0"



KEY PLAN

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GENERAL SHEET NOTES

1 COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED FIRE ALARM DEVICES DEVICES WITH HARD LID CEILING ACCESS PANELS AND LIGHT FIXTURES INFIELD PRIOR TO ROUGH-IN.

SHEET KEYNOTES

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1ST LEVEL FIRE ALARM PLAN EAST WING

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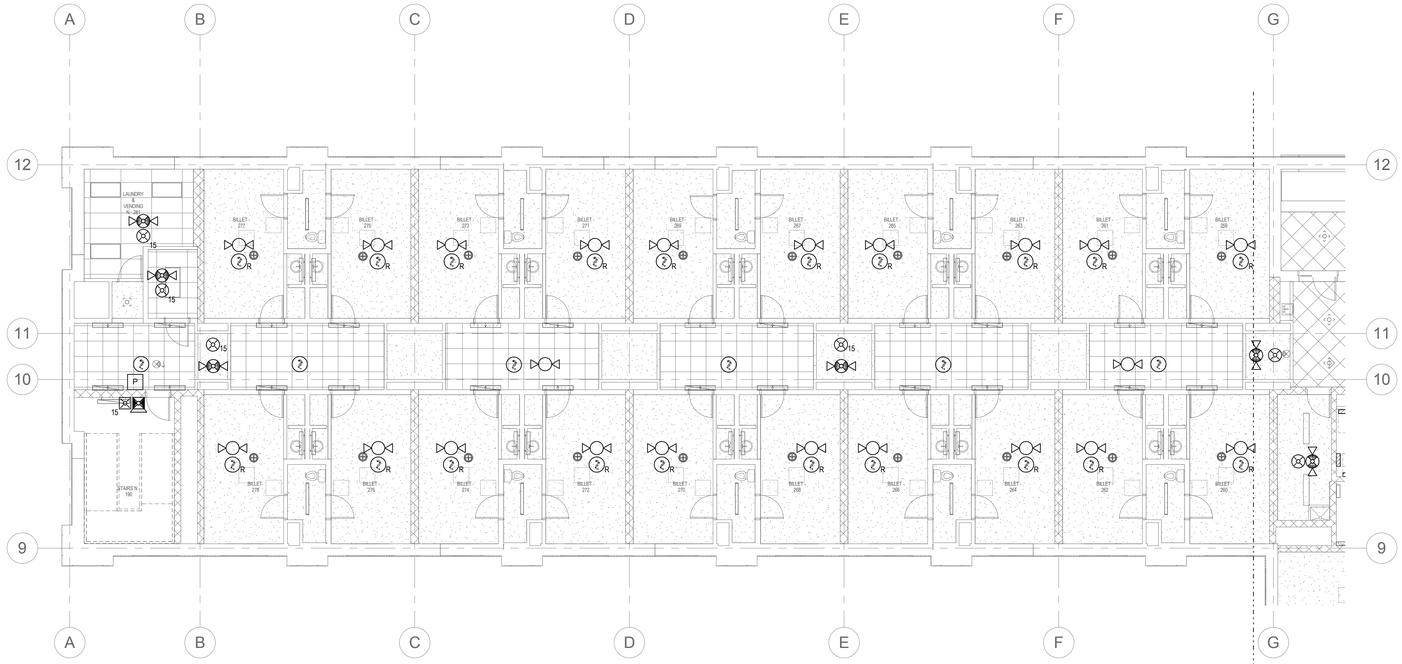
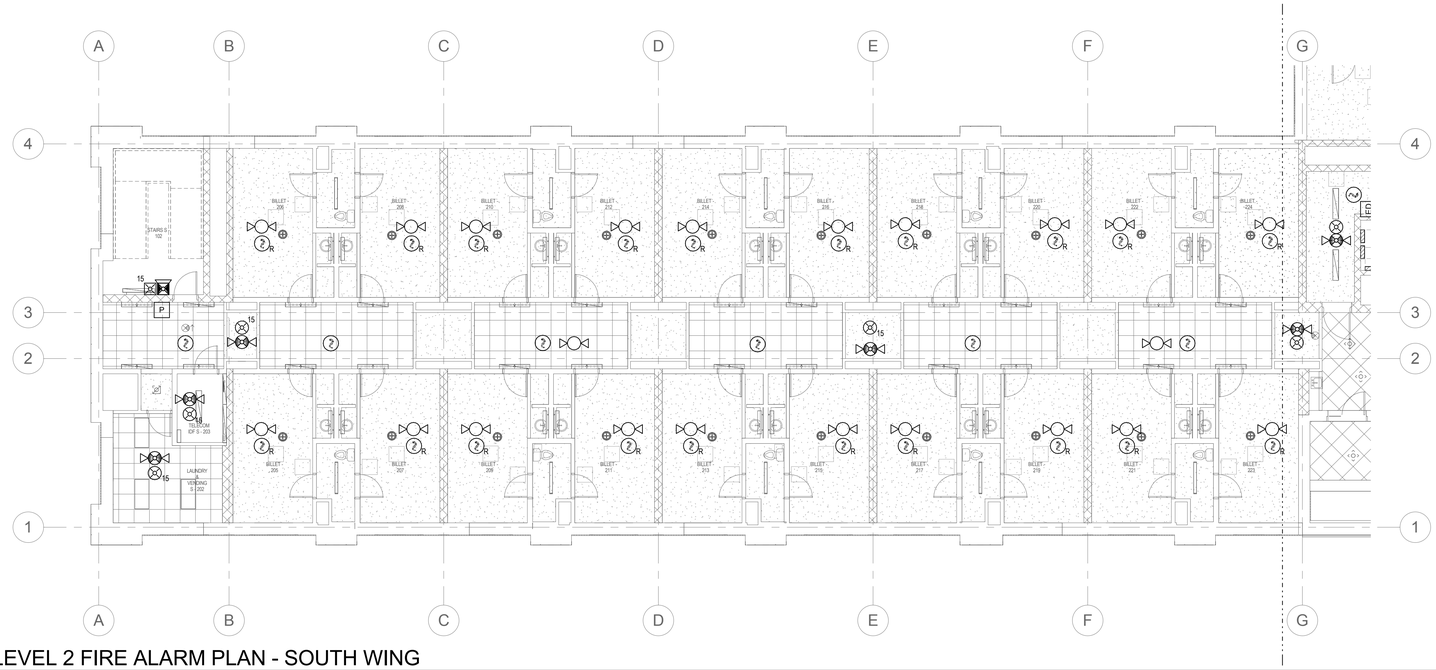
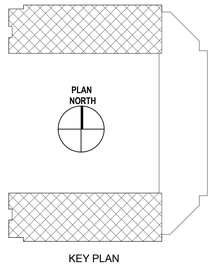


C6 LEVEL 2 FIAME ALARM PLAN - NORTH WING
SCALE: 1/8" = 1'-0"



E6 LEVEL 2 FIAME ALARM PLAN - SOUTH WING
SCALE: 1/8" = 1'-0"



KEY PLAN

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GENERAL SHEET NOTES

1 COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED FIRE ALARM DEVICES DEVICES WITH HARD LID CEILING ACCESS PANELS AND LIGHT FIXTURES INFIELD PRIOR TO ROUGH-IN.

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2ND LEVEL FIRE ALARM PLANS
NORTH & SOUTH WINGS

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DATE 02/15/2013	

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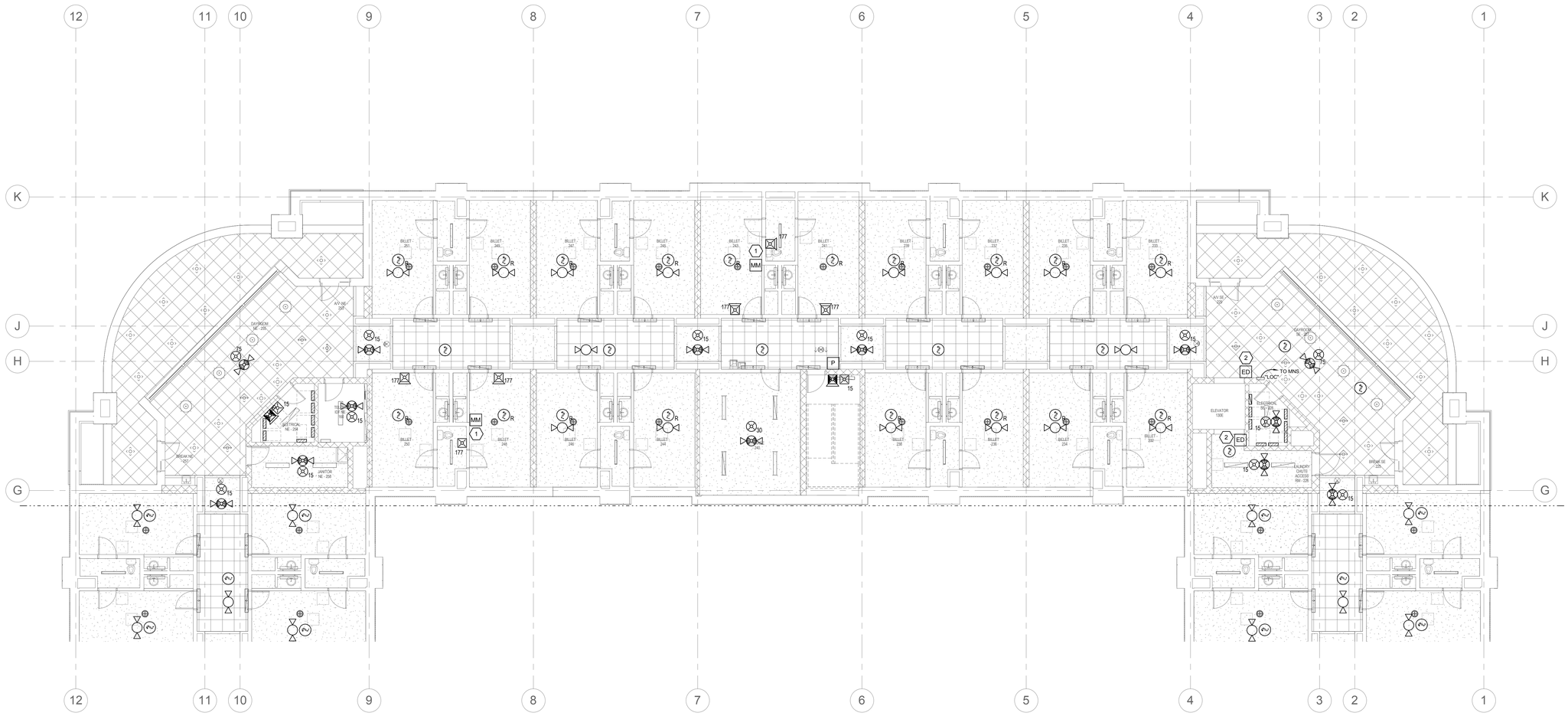
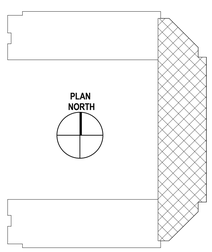


D6 LEVEL 2 FIRE ALARM PLAN - EAST WING

SCALE: 1/8" = 1'-0"

PLAN NORTH

0 4' 8' 16'



KEY PLAN

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GENERAL SHEET NOTES

1 COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED FIRE ALARM DEVICES DEVICES WITH HARD LID CEILING ACCESS PANELS AND LIGHT FIXTURES INFIELD PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1 PROVIDE MONITOR MODULE FOR ACCESSIBLE UNIT. BOTH ACCESSIBLE UNIT STROBE DEVICES SHALL ACTIVATE BASED ON SMOKE DETECTION IN EITHER UNIT.

2 PROVIDE EMERGENCY PUSH BUTTON STATION WITH DIALER. PROVIDE CONNECTION TO BUILDING PHONE SYSTEM AS REQUIRED.

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2ND LEVEL FIRE ALARM PLAN EAST WING

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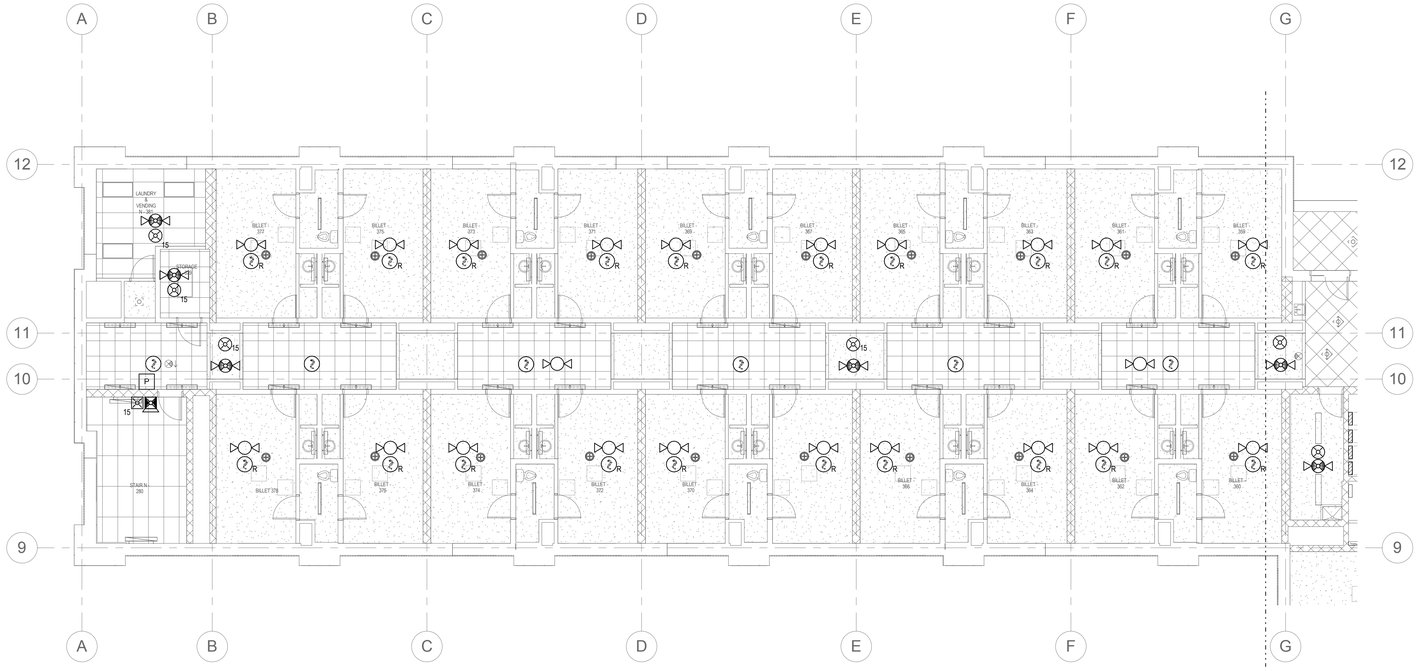
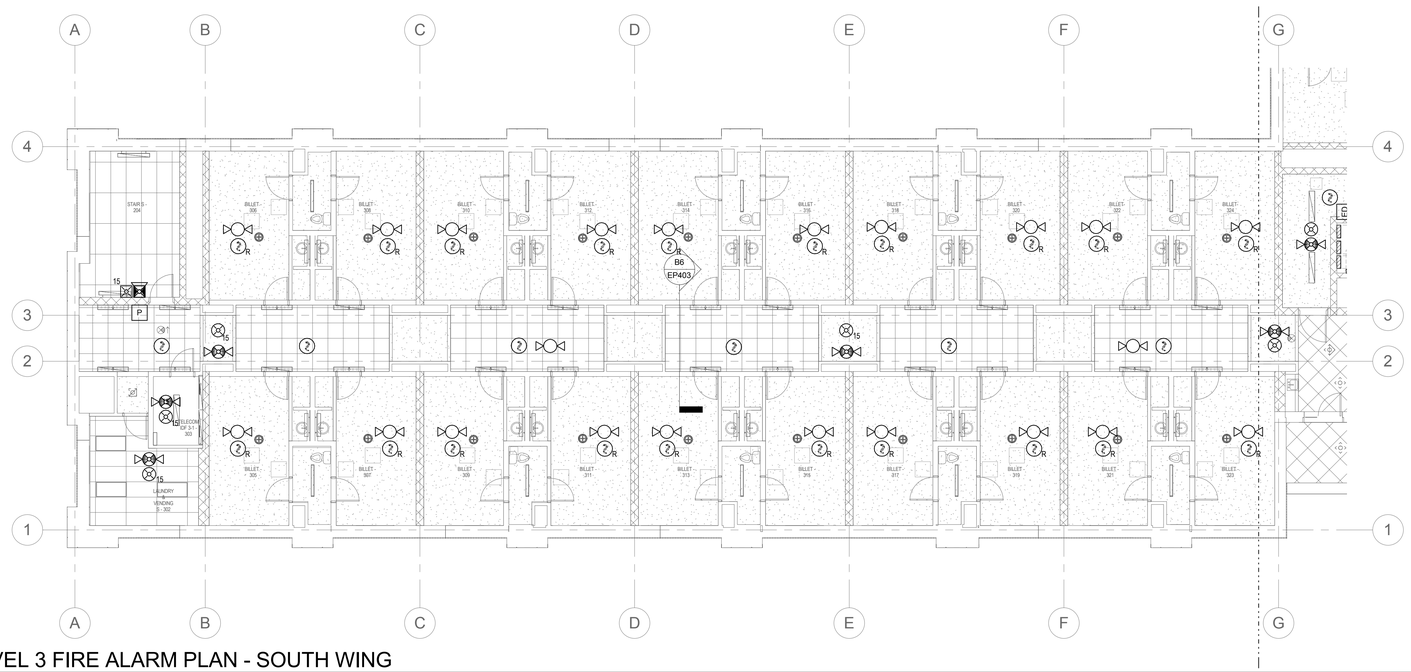
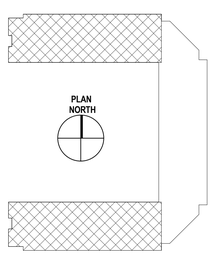


C6 LEVEL 3 FIRE ALARM PLAN - NORTH WING
SCALE: 1/8" = 1'-0"



E6 LEVEL 3 FIRE ALARM PLAN - SOUTH WING
SCALE: 1/8" = 1'-0"



KEY PLAN

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02-15-2013

GENERAL SHEET NOTES

1 COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED FIRE ALARM DEVICES DEVICES WITH HARD LID CEILING ACCESS PANELS AND LIGHT FIXTURES INFIELD PRIOR TO ROUGH-IN.

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3RD LEVEL FIRE ALARM PLANS
NORTH & SOUTH WINGS

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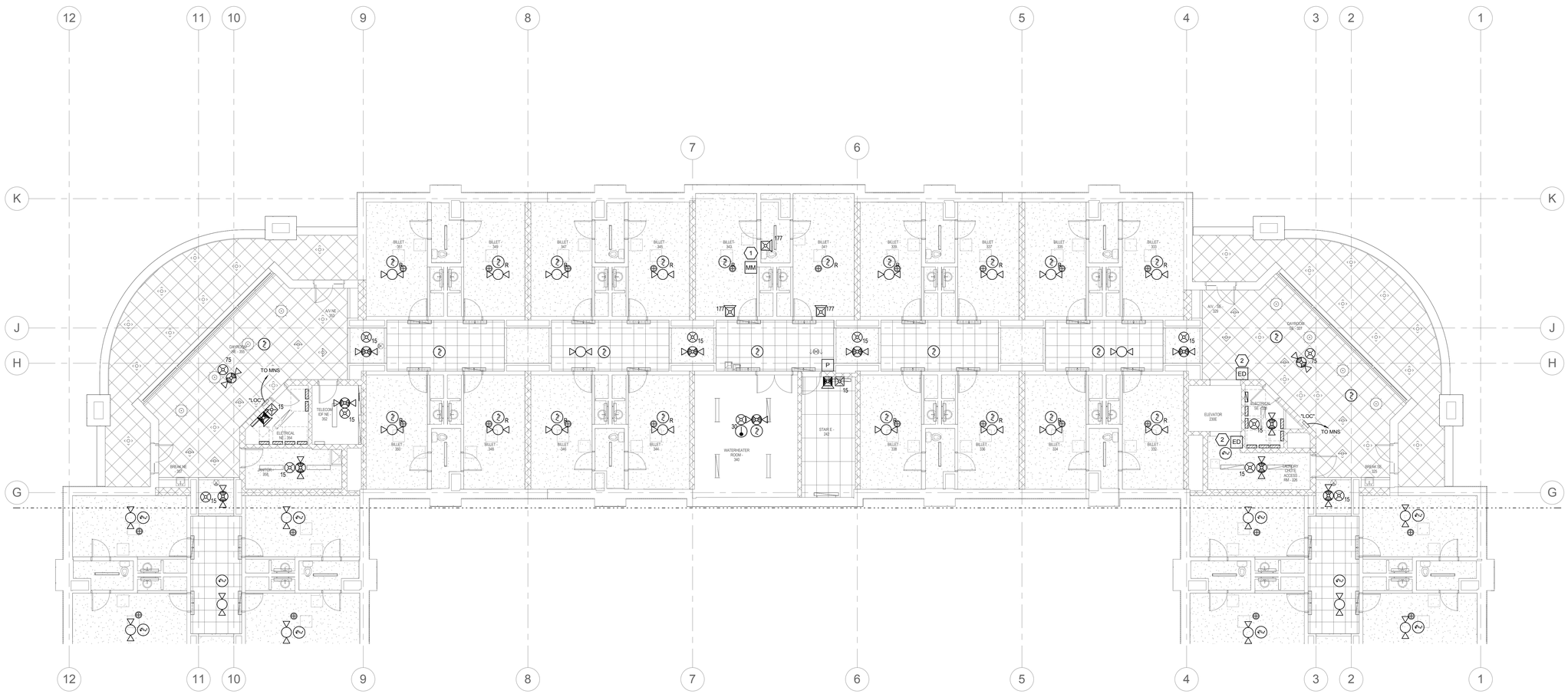
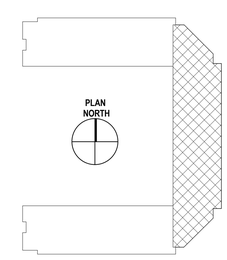


E6 LEVEL 3 FIRE ALARM PLAN - EAST WING

SCALE: 1/8" = 1'-0"

PLAN NORTH

0 4' 8' 16'



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02-15-2013

GENERAL SHEET NOTES

1 COORDINATE EXACT LOCATIONS OF ALL CEILING MOUNTED FIRE ALARM DEVICES DEVICES WITH HARD LID CEILING ACCESS PANELS AND LIGHT FIXTURES INFIELD PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1 PROVIDE MONITOR MODULE FOR ACCESSIBLE UNIT. BOTH ACCESSIBLE UNIT STROBE DEVICES SHALL ACTIVATE BASED ON SMOKE DETECTION IN EITHER UNIT.

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3RD LEVEL FIRE ALARM PLAN EAST WING

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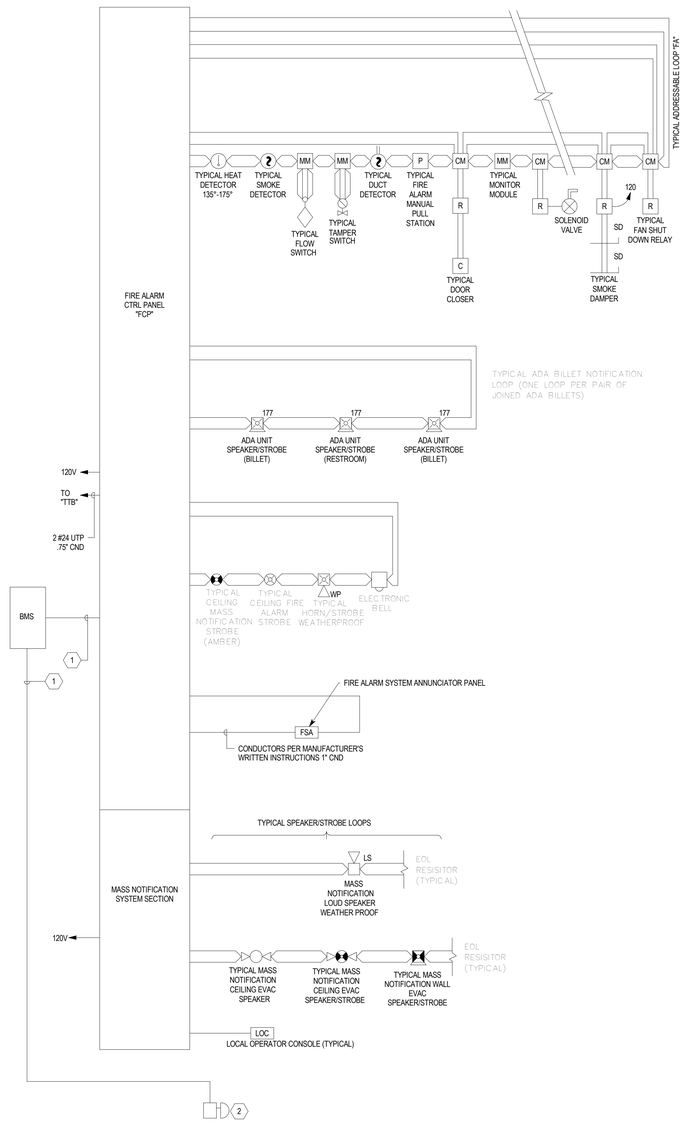
FIRE ALARM/MASS NOTIFICATION INPUT/OUTPUT MATRIX

SYSTEM INPUTS		ANNUNCIATION AT LOCAL PANELS				TRANSMIT SIGNALS TO CENTRAL FIRE PANEL AT THE GUARD SHACK						EVACUATION SIGNALS		
		AUDIO/VISUAL TROUBLE INDICATION BY ZONE/MODULE	AUDIO/VISUAL SUPERVISORY TROUBLE INDICATION	AUDIO/VISUAL ALARM INDICATION BY DEVICE	MASS NOTIFICATION SYSTEM OPERATION	COMMON TROUBLE SIGNAL PER BUILDING	COMMON SUPERVISORY SIGNAL PER BUILDING	COMMON FIRE ALARM PER GENERAL AREA	SPRINKLER WATER FLOW PER GENERAL AREA	MASS NOTIFICATION SYSTEM OPERATION		FACILITY FIREWINS EVACUATION AUDIO VISUAL SIGNAL	AUDIO-VISUAL APPLIANCES - ADA UNIT	AUDIBLE SOUNDER WITHIN DETECTOR
FIRE ALARMS		A	B	C	D	E	F	G	H	I	J	K	L	M
1.	MANUAL FIRE ALARM STATIONS			X				X				X		
2.	SPOT-TYPE SMOKE DETECTORS			X				X				X		
3.	SPRINKLER FLOW SWITCHES	X							X			X		
4.	DUCT SMOKE DETECTORS			X				X				X		
5.	MANUAL OPERATION OF THE MASS NOTIFICATION SYSTEM				X					X		X		
6.	INDIVIDUAL ROOM SMOKE DETECTOR WITH SOUNDER		X			X								X
7.	ADA UNIT SMOKE DETECTOR WITH SOUNDER		X			X							X	
SUPERVISORY SIGNALS														
8.	VALVE SUPERVISORY SWITCHES - SPRINKLERS	X					X							
9.	TAMPER SWITCHES	X					X							
TROUBLE CONDITIONS														
10.	LOW BATTERY VOLTAGE			X		X								
11.	CIRCUIT FAULT		X	X		X								
12.	SUPERVISED COMPONENT FAILURE			X		X								
13.	AC POWER FAILURE			X		X								

NOTES:
1. PROVIDE SYSTEM EQUIPMENT MODULES AND/OR OPTIONS TO DIVIDE SPEAKER/STROBE LOOPS INTO INDIVIDUAL ZONES.
2. SPEAKER/STROBE LOOPS SHALL BE SUPERVISED.
3. MASS NOTIFICATION SYSTEM SHALL INTERFACE WITH FIRE ALARM SYSTEM TO PROVIDE THE FOLLOWING FUNCTIONS:
   3.a. PROVIDE INPUT CLOSURE FOR ACTIVATION OF THE MASS NOTIFICATION SYSTEM IN THE EVENT OF A FIRE ALARM.
   3.b. PROVIDE THE MEANS TO "SILENCE" THE FIRE ALARM HORN SIGNAL AND DEACTIVATE THE FIRE ALARM (WHITE) STROBES DURING THE TIME VOICE ANNOUNCEMENTS ARE MADE THROUGH THE MASS NOTIFICATION SYSTEM. RESTORE HORN SIGNAL WHEN VOICE MESSAGES HAVE BEEN COMPLETED.
4. MASS NOTIFICATION SYSTEM SHALL COMPLY WITH UFC 04-021-01 FOR INTERCONNECTION TO SILENCE FIRE ALARM NOTIFICATION MESSAGES UPON ACTIVATION OF MASS NOTIFICATION MESSAGES.
5. COORDINATE REQUIRED INPUT MESSAGES FOR THE MASS NOTIFICATION SYSTEM WITH UTAH NATIONAL GUARD AND THE STATE FIRE MARSHAL.
6. IN THE EVENT THAT A MASS NOTIFICATION MESSAGE IS REQUIRED DURING A FIRE ALARM THE MASS NOTIFICATION SYSTEM WILL OVERRIDE THE FIRE ALARM SYSTEM AND WILL AUTOMATICALLY END AFTER 10 MINUTES, AT WHICH TIME THE FIRE ALARM SIGNAL WILL CONTINUE



E4 FIRE ALARM RISER DIAGRAM
SCALE: NTS

GENERAL SHEET NOTES

1. PLANS ARE BASED UPON 99 MONITOR AND CONTROL DEVICES PER ADDRESSABLE LOOP. OTHER CONFIGURATIONS ARE ACCEPTABLE SUBJECT TO CONTRACTOR ALLOWING FOR INCREASED WIRING REQUIREMENTS AND SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION. MAXIMUM INITIAL DEVICES PER LOOP SHALL NOT EXCEED 75% MAXIMUM ALLOWABLE.
2. PLANS ARE BASED UPON THE WIRING SCHEDULE SHOWN. WHERE MANUFACTURER'S REQUIREMENTS EXCEED REQUIREMENTS SHOWN, INCLUDE ADDITIONAL ASSOCIATED COSTS AND SUBMITTAL DRAWINGS INDICATING NEW WIRING CONFIGURATION.
3. PLANS ARE BASED UPON 2 AMPS AT 24 VDC, NOT TO EXCEED 75% (1.50 AMPS AVAILABLE), POWER SUPPLY CAPACITY PER NOTIFICATION CIRCUIT. NOTIFICATION DEVICE LOADS ARE BASED UPON NOTIFICATION DEVICE SCHEDULE SHOWN. INCLUDE ADDITIONAL ASSOCIATED COSTS FOR INCREASED WIRING AND POWER SUPPLY CAPACITY IF LOADS OF ACTUAL DEVICES PROVIDED EXCEED CIRCUIT CAPACITY, OR IF LOAD OUTPUT OF ACTUAL POWER SUPPLIES PROVIDED IS SIZED DIFFERENTLY. PROVIDE SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION.
4. FLOW AND TAMPER CONFIGURATION BASED UPON FIRE SPRINKLER DESIGN CONCEPT. FIELD VERIFY ACTUAL REQUIREMENTS. INCLUDE ANY ADDITIONAL MONITOR MODULES REQUIRED BY ACTUAL DESIGN REQUIREMENTS.
5. HEAT DETECTORS WHEN INSTALLED IN ELEVATOR SHAFTS OR MECHANICAL ROOMS FOR ELEVATOR SHUT DOWN SHALL HAVE HEAT DETECTOR WITH LOWER RESPONSE TIME INDEX THAN SPRINKLER HEAD.
6. PROVIDE POWER SUPPLY CAPACITY AS REQUIRED FOR DOOR HOLD OPENS SHOWN.
7. BATTERY CAPACITY TO BE ADEQUATE TO OPERATE 15 MINUTES AFTER 24 HOURS PLUS 25% SPARE CAPACITY.
8. VFD REQUIRES TWO RELAYS, ONE FOR SMOKE CONTROL, ONE SPARE.
9. RUN SPARE LOOPS IN SAME CONDUIT. DO NOT EXCEED 40% AREA FILL OF CONDUITS.
10. PROVIDE DUCT DETECTORS FOR SUPPLY AND RETURN AIR SYSTEMS OVER 2000 CFM. INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.
11. PROVIDE DUCT DETECTOR AT EACH FLOOR, PRIOR TO CONNECTION TO A COMMON RETURN AND PRIOR TO RECIRCULATING OR FRESH AIR INLET IN AIR RETURN SYSTEMS OVER 15,000 CFM CAPACITY AND SERVING MORE THAN ONE STORY.
12. PROVIDE MANUAL PULL STATIONS IN BOILER ROOMS AND KITCHENS.
13. PROVIDE ONE YEAR OFF SITE MONITORING INCLUDING ALL INTERFACE DEVICES AND MONITORING CHARGES. COORDINATE WITH BUILDING OWNER'S OFF SITE MONITORING COMPANY.
14. LOCATE SMOKE DETECTORS MINIMUM 3' FROM AIR SUPPLY AND RETURN LOUVERS.
15. PROVIDE SYNCHRONIZED STROBES THROUGHOUT FACILITY. PROVIDE SYNCHRONIZATION MODULES PER MANUFACTURER'S REQUIREMENTS. INCLUDE ADDITIONAL WIRING, IF REQUIRED.
16. INITIATING AND INDICATING LOOPS SHALL NOT SERVE AN AREA OF GREATER THAN 22,500 SQUARE FEET. PROVIDE ADDITIONAL LOOPS FOR AREAS LARGER THAN THIS.
17. ALL OUTPUT DEVICES ARE DESIGNED ON SYSTEMS WITH 2 AMP POWER SUPPLY.
18. HORN/STROBE BASED ON 120 MILLIAMPS, DOOR HOLDERS BASED ON 70 MILLIAMPS.
19. INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.

EFT ARCHITECTS
265 EAST 100 SOUTH SUITE 350
SALT LAKE CITY, UTAH 84111-1604
801.521.8564 WWW.EFTARCH.COM

SEAL & SIGNATURE

SPECTRUM ENGINEERS

LICENSED PROFESSIONAL ENGINEER No. 163854 DAVID L. AFFLECK STATE OF UTAH
02-15-2013

SHEET KEYNOTES

1. PROVIDE CONNECTION TO EMCS PANEL FOR HVAC EQUIPMENT SHUTDOWN. COORDINATE REQUIREMENTS WITH EMCS INSTALLER.
2. CONNECT HVAC SHUTDOWN PUSHBUTTON TO EMCS PANEL IN MECHANICAL ROOM. FIELD VERIFY.

BUILDING OFFICIAL APPROVAL

UTAH NATIONAL GUARD
CAMP WILLIAMS
BACHELOR ENLISTED
QUARTERS
RIVERTON, UT 84062

FIRE ALARM RISER

REVISION	DATE	BY	DESCRIPTION
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△			
△			

DRAWN BY: WRT	CHECKED BY: DLA
PROJECT NO.: 11007	DRAWING NO.: FA601
DATE: 02/15/2013	

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