PEDIATRIC FACILITY

UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

State of Utah–Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

4110 State Office Building/Salt Lake City, Utah 84114/538-3018

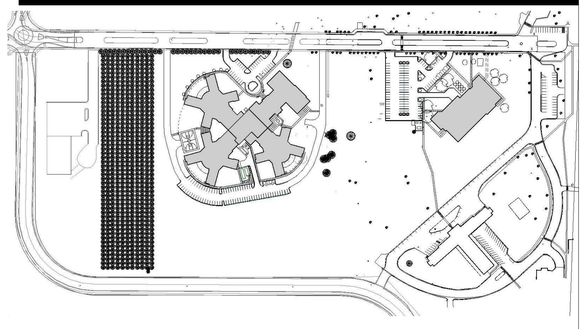
Utah State Hospital

UTAH DEPARTMENT OF HUMAN SERVICES

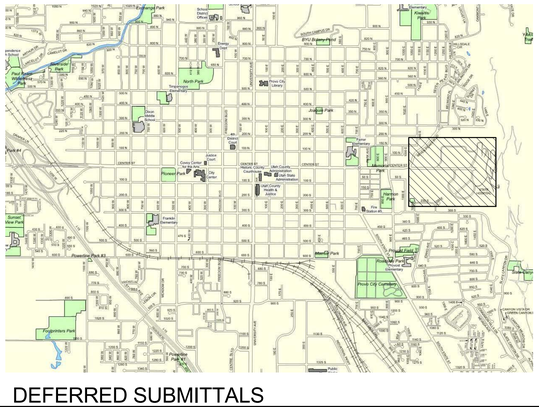
APPROVALS

Keith Davis, Director of Administrative Support	Utah Department of Human Services Bureau of Administative Support	Date
Dallas Earnshaw, Superintendent	Utah State Hospital	Date
Peggy Grusendorf, Asst. Superintendent	Utah State Hospital	Date
Jim Russell, Project Manager	Utah Department of Administative Services Division of Facilities Construction & Management	Date
Enzo Calfa, Building Official	State of Utah	Date

SITE MAP



VICINITY MAP



DEFERRED SUBMITTALS

SPEC SECTION	SPEC SECTION	ESTIMATED DATE OF SUBMITTAL	DATE SUBMITTED
095123	ACOUSTICAL PANEL CEILINGS	November 2013	
211000	FIRE SUPPRESSION	February 2013	
220548	SEISMIC AND VIBRATION CONTROL	March 2013	
230548	SEISMIC AND VIBRATION CONTROL	March 2013	
260548	SEISMIC AND VIBRATION CONTROL	April 2013	
283111	FIRE ALARM	June 2013	

*See additional notes under Deferred Submittal Section on sheet G100

PROJECT TEAM

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ELECTRICAL ENGINEER
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CIVIL ENGINEER
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Salt Lake City, Utah 84111
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SYMBOLS LEGEND

ROOM IDENTIFICATION NUMBER — ROOM NAME / NUM — ROOM NAME / ROOM NUMBER
DOOR NUMBER — XXX
REFERENCE NOTE — XX.XX
GLAZING TYPE — X
PARTITON WALL TYPE — XX
INTERIOR ELEVATION — A1, A2, A3, A4 — SHADE INDICATES ELEVATED WALL / ELEVATION NUMBER / SHEET NUMBER
WALL SECTION — SECTION NUMBER / SHEET NUMBER
BUILDING SECTION — SECTION NUMBER / SHEET NUMBER
EXTERIOR ELEVATION — ELEVATION NUMBER / SHEET NUMBER
DETAIL — DETAIL NUMBER / SHEET NUMBER
DETAIL TITLE — A1 DETAIL SCALE:
REVISION DELTA — 2 — REVISION NUMBER
CASEWORK TAG — MIL-A 28 1/2 32 24 L — MILLWORK TYPE / DIMENSIONS / LOCKABLE

MATERIAL LEGEND

CONCRETE
STUD WALL
GRAVEL
COMPACTED FILL AND/OR EARTH
CMU (CONCRETE MASONRY UNIT)
BATT INSULATION
RIGID INSULATION

ABBREVIATIONS

AFF	ABOVE FINISH FLOOR
B.O.	BOTTOM OF
CJ	CONTROL JOINT
CMU	CONCRETE MASONRY UNIT
EQ	EQUAL
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
O.C.	ON CENTER
OPH	OPPOSITE HAND
SPEC	SPECIFICATION
SIM	SIMILAR
TYP	TYPICAL
T.O.	TOP OF

DRAWING INDEX

GENERAL
G100 GENERAL INFO/CODE
G101 GENERAL INFO/CODE
G102 FIREWALL ANALYSIS
G103 LIFE SAFETY
G104 FGI & UAC ANALYSIS
G106 CODE ALTERNATE DESIGN
G150 BUILDING 1 OCCUPANCY PLAN
G151 BUILDING 2 OCCUPANCY PLAN
G160 MOCK UP PLANS, ELEVATIONS & DETAILS
G161 MOCK UP DETAILS
GS200 SITE LIFE SAFETY

SURVEY
V101 SURVEY
V102 SURVEY
V103 SURVEY
V104 SURVEY
V105 SURVEY

CIVIL
C100 OVERALL SITE UTILITY PLAN
C200 SWPPP PLAN
C501 DETAILS AND SECTIONS
C503 DETAILS
C504 DETAILS
C505 DETAILS
C506 DETAILS
C601 UTILITY PLAN AND PROFILE
C602 UTILITY PLAN AND PROFILE

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L-R101 IRRIGATION PLAN - PEDIATRIC
L-R102 IRRIGATION PLAN - PEDIATRIC
L-R103 IRRIGATION PLAN - PEDIATRIC
L-R104 IRRIGATION PLAN - PEDIATRIC
L-R501 IRRIGATION DETAILS - PEDIATRIC
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L-L100 LANDSCAPE PLAN - OVERALL
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L-L103 LANDSCAPE PLAN - PEDIATRIC
L-L104 LANDSCAPE PLAN - PEDIATRIC
L-L501 LANDSCAPE DETAILS - PEDIATRIC

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S001 GENERAL STRUCTURAL NOTES
S002 GENERAL STRUCTURAL NOTES
S003 GENERAL STRUCTURAL NOTES
S101 OVERALL LEVEL 1 FTG & FDTN PLAN
S101A AREA A FOOTING & FDTN PLAN
S101B AREA B FOOTING & FDTN PLAN
S101C AREA C FOOTING & FDTN PLAN
S101D AREA D FOOTING & FDTN PLAN
S101E AREA E FOOTING & FDTN PLAN
S102 OVERALL LOW ROOF & MEZZ FLOOR FRAMING PLAN
S102A AREA A LOW ROOF FRAMING PLAN
S102B AREA B MEZZ FLOOR & ROOF FRAMING PLAN
S102C AREA C LOW ROOF FRAMING PLAN
S102D AREA D LOW ROOF FRAMING PLAN
S102E AREA E LOW ROOF FRAMING PLAN
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S501 FOOTING & FOUNDATION DETAILS
S502 FOOTING & FOUNDATION DETAILS
S503 FOOTING & FOUNDATION DETAILS
S504 FOOTING & FOUNDATION DETAILS
S511 FLOOR FRAMING DETAILS
S512 FLOOR FRAMING DETAILS

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S522 ROOF FRAMING DETAILS
S523 ROOF FRAMING DETAILS
S524 ROOF FRAMING DETAILS
S601 STRUCTURAL SCHEDULES
S602 STRUCTURAL SCHEDULES
S603 STRUCTURAL SCHEDULES
S604 STEEL STUD SCHEDULES & TYPICAL DETAILS
S605 TYPICAL STEEL STUD DETAILS

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AS001 SITE KEY PLANS
AS201 EXISTING SITE & DEMOLITION PLAN
AS202 SITE PLAN
AS203 ENLARGED SITE PLANS
AS204 SITE DETAILS
AS501 TYPICAL SITE DETAILS

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A101A LEVEL 1 AREA A PLAN
A101B LEVEL 1 AREA B PLAN
A101C LEVEL 1 AREA C PLAN
A101D LEVEL 1 AREA D PLAN
A101E LEVEL 1 AREA E PLAN
A102 LEVEL 2 FLOOR PLAN
A103 ROOF PLAN
A111A LEVEL 1 REFLECTED CEILING PLAN AREA A
A111B LEVEL 1 REFLECTED CEILING PLAN AREA B
A111C LEVEL 1 REFLECTED CEILING PLAN AREA C
A111D LEVEL 1 REFLECTED CEILING PLAN AREA D
A111E LEVEL 1 REFLECTED CEILING PLAN AREA E
A112 LEVEL 2 REFLECTED CEILING PLAN
A201 BUILDING ELEVATIONS
A202 BUILDING ELEVATIONS
A203 BUILDING ELEVATIONS
A301 BUILDING SECTION
A302 PARTIAL BUILDING SECTIONS
A303 PARTIAL BUILDING SECTIONS
A304 WALL SECTIONS
A305 WALL SECTIONS
A306 WALL SECTIONS
A307 WALL SECTIONS
A308 WALL SECTIONS
A312 WALL SECTIONS
A401 ENLARGED LOBBY PLAN & ELEVATIONS
A402 ENLARGED LOBBY PLAN & ELEVATIONS
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A417 ENLARGED PLANS & ELEVATIONS
A418 ENLARGED PLANS & ELEVATIONS
A430 STAIR PLANS AND SECTIONS
A501 PLAN DETAILS
A502 PLAN DETAILS
A510 SECTION DETAILS
A520 CEILING DETAILS
A521 CEILING DETAILS
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A602 PARTITION FIRE- RESISTIVE RATINGS
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A604 FIRE STOP SYSTEMS

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A611 DOOR AND FRAME TYPES
A620 WINDOW SCHEDULE
A621 WINDOW SCHEDULE
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A633 DOOR & WINDOW DETAILS
A634 DOOR & WINDOW DETAILS
A635 DOOR & WINDOW DETAILS
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A801 MILLWORK SCHEDULE & DETAILS
A802 MILLWORK DETAILS
A803 MILLWORK DETAILS
AF001 FINISH SCHEDULE
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AF101A LEVEL 1 FINISH PLAN AREA A
AF101B LEVEL 1 FINISH PLAN AREA B
AF101C LEVEL 1 FINISH PLAN AREA C
AF101D LEVEL 1 FINISH PLAN AREA D
AF101E LEVEL 1 FINISH PLAN AREA E
AF111 ENLARGED CEILING FINISH PLANS
AF401 ENLARGED FINISH PLANS
AF402 ENLARGED FINISH PLANS

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M001 MECHANICAL SYMBOLS & ABBREV. GENERAL NOTES
M101A LEVEL 1 AREA "A" MECHANICAL PLAN
M101B LEVEL 1 AREA "B" MECHANICAL PLAN
M101C LEVEL 1 AREA "C" MECHANICAL PLAN
M101D LEVEL 1 AREA "D" MECHANICAL PLAN
M101E LEVEL 1 AREA "E" MECHANICAL PLAN
M102 LEVEL 2 MECHANICAL PLAN
M401 LARGE SCALE MECHANICAL ROOM PLAN
M402 LARGE SCALE PUMP ROOM PLAN
M501 MECHANICAL DETAILS
M502 MECHANICAL DETAILS
M503 MECHANICAL DETAILS
M601 MECHANICAL SCHEDULES
M602 MECHANICAL SCHEDULES
M701 MECHANICAL SCHEMATICS
MP101A LEVEL 1 AREA "A" MECHANICAL PIPING PLAN
MP101B LEVEL 1 AREA "B" MECHANICAL PIPING PLAN
MP101C LEVEL 1 AREA "C" MECHANICAL PIPING PLAN
MP101D LEVEL 1 AREA "D" MECHANICAL PIPING PLAN
MP101E LEVEL 1 AREA "E" MECHANICAL PIPING PLAN
MP102 LEVEL 2 MECHANICAL PIPING PLAN
MS101 MECHANICAL SITE PLAN
P101 LEVEL 1 FIRE PROTECTION PLAN
P101A LEVEL 1 AREA "A" PLUMBING PLAN
P101B LEVEL 1 AREA "B" PLUMBING PLAN
P101C LEVEL 1 AREA "C" PLUMBING PLAN
P101D LEVEL 1 AREA "D" PLUMBING PLAN
P101E LEVEL 1 AREA "E" PLUMBING PLAN
P102 LEVEL 2 PLUMBING PLAN
P103A ROOF AREA "A" PLUMBING PLAN
P103B ROOF AREA "B" PLUMBING PLAN
P103C ROOF AREA "C" PLUMBING PLAN
P103D ROOF AREA "D" PLUMBING PLAN
P103E ROOF AREA "E" PLUMBING PLAN
P401 LARGE SCALE PLUMBING PLANS
P402 LARGE SCALE PLUMBING PLANS
P403 LARGE SCALE PLUMBING PLANS
P404 LARGE SCALE PUMP ROOM PLUMBING PLAN
P501 PLUMBING DETAILS
P601 PLUMBING SCHEDULES

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EE001 SHEET INDEX, ABBREV, & NOTES
EE501 ELECTRICAL DETAILS
EE502 SEISMIC DETAILS
EE701 TYPICAL MOUNTING HEIGHT DETAILS
ES101A SITE ELECTRICAL DEMO PLAN PHASE 1 AREA A
ES102A SITE ELECTRICAL PLAN PHASE 1 AREA A
ES501 SITE ELECTRICAL DETAILS
EP101A LEVEL 1 POWER PLAN AREA A (NORTH)
EP101B LEVEL 1 POWER PLAN AREA B (CENTER)
EP101C LEVEL 1 POWER PLAN AREA C (EAST)
EP101D LEVEL 1 POWER PLAN AREA D (SOUTH)
EP101E LEVEL 1 POWER PLAN AREA E (WEST)
EP103A ROOF POWER PLAN AREA A (NORTH)
EP103B ROOF POWER PLAN AREA B (CENTER)
EP103C ROOF POWER PLAN AREA C (EAST)
EP103D ROOF POWER PLAN AREA D (SOUTH)
EP103E ROOF POWER PLAN AREA E (WEST)
EP501 FLOOR BOX DETAILS
EP601 ONE LINE DIAGRAM (NORMAL POWER)
EP602 ONE LINE DIAGRAM (STANDBY POWER)
EP603 EQUIPMENT SCHEDULE
EP604 PANEL SCHEDULES
EP605 PANEL SCHEDULES
EP606 PANEL SCHEDULES
EP607 PANEL SCHEDULES
EP608 PANEL SCHEDULES
EP609 PANEL SCHEDULE
EP610 PANEL SCHEDULE
EL101A LEVEL 1 LIGHTING PLAN AREA A (NORTH)
EL101B LEVEL 1 LIGHTING PLAN AREA B (CENTER)
EL101C LEVEL 1 LIGHTING PLAN AREA C (EAST)
EL101D LEVEL 1 LIGHTING PLAN AREA D (SOUTH)
EL101E LEVEL 1 LIGHTING PLAN AREA E (WEST)
EL102 PENTHOUSE/ ROOF LIGHTING PLAN
EL501 LIGHTING DETAILS
EL601 FIXTURE SCHEDULE
EL602 LIGHTING CONTROL PANELS AND DIAGRAMS
ET101A LEVEL 1 TELECOM PLAN AREA A (NORTH)
ET101B LEVEL 1 TELECOM PLAN AREA B (CENTER)
ET101C LEVEL 1 TELECOM PLAN AREA C (EAST)
ET101D LEVEL 1 TELECOM PLAN AREA D (SOUTH)
ET101E LEVEL 1 TELECOM PLAN AREA E (WEST)
ET201 TELECOM MAIN FEEDER PLAN
ET501 CABLE TRAY DETAILS
ET502 TELECOM DETAILS
ET601 TELECOM ROUGH-IN DIAGRAM AND SCHEDULES
ET602 TV DIST. ONE-LINE DIAGRAM
ET603 VOICE-DATA RISER DIAGRAM
EY101A LEVEL 1 AUXILIARY PLAN AREA A (NORTH)
EY101B LEVEL 1 AUXILIARY PLAN AREA B (CENTER)
EY101C LEVEL 1 AUXILIARY PLAN AREA C (EAST)
EY101D LEVEL 1 AUXILIARY PLAN AREA D (SOUTH)
EY101E LEVEL 1 AUXILIARY PLAN AREA E (WEST)
EY601 CARD ACCESS DOOR TYPE SCHEDULE
EY602 SECURITY DETAILS AND SCHEDULES
EJ101A LEVEL 1 AUDIO VISUAL PLAN AREA A (NORTH)
EJ101B LEVEL 1 AUDIO VISUAL PLAN AREA B (CENTER)
EJ101C LEVEL 1 AUDIO VISUAL PLAN AREA C (EAST)
EJ101D LEVEL 1 AUDIO VISUAL PLAN AREA D (SOUTH)
EJ101E LEVEL 1 AUDIO VISUAL PLAN AREA E (WEST)
EJ601 AUDIO VISUAL RISER DIAGRAMS
FA101A LEVEL 1 FIRE ALARM PLAN AREA A (NORTH)
FA101B LEVEL 1 FIRE ALARM PLAN AREA B (CENTER)
FA101C LEVEL 1 FIRE ALARM PLAN AREA C (EAST)
FA101D LEVEL 1 FIRE ALARM PLAN AREA D (SOUTH)
FA101E LEVEL 1 FIRE ALARM PLAN AREA E (WEST)
FA102 PENTHOUSE ROOF FIRE ALARM PLAN
FA601 FIRE ALARM RISER

DFCM APPROVAL STAMP

FFKR ARCHITECTS

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah

PROJECT NUMBER: 11111

DFCM NUMBER: 11065420

CODE ANALYSIS

PROJECT SUMMARY

This project is a new construction of a Pyschiatric Hospital. The project consists a Common Core Area containing E and B nonseparated occupancies and 3 Patient Room Units classified as I-2 occupancy. The project is divided into two separate buildings by a 2-Hour Fire Wall per Section 706 (see A4/G102 for Building Separation Diagram). Building 1 contains the entire Common Core and one of the Patient Room Units. Building 2 contains the remaining 2 Patient Room Units of the project.

APPLICABLE CODES

	Year		Year
International Building Code	2009	National Electrical Code	2008
International Mechanical Code	2009	Uniform Code for Building Conservation	N/A
International Fuel Gas Code	2009	ADA Accessibility Guidelines	2010
International Plumbing Code	2009		
International Fire Code	2009		
International Energy Conservation Code	2009		

BUILDING 1

A. Occupancy and Group: A-3 B E I-2

Change in Use: Yes ___ No X Mixed Occupancy: Yes X No ___

Special Use and Occupancy (e.g. High Rise, Covered Mall): ___

B. Seismic Design Category: D Design Wind Speed: 90 mph

C. Type of Construction (circle one):

I	I	II	II	III	III	IV	V	V
A	B	A	B	A	B	HT	A	B

D. Fire Resistance Rating: Requirements for the Exterior Walls based on the fire separation distance (in hours):

North: 0 South: 2* East: 0 West: 2*

ONLY WALLS W/ < 30 FEET OF SEPARATION DISTANCE REQUIRE RATING
*2-Hour rating based Fire Wall requirements per Table 706.4. See A4/G103.

E. Mixed Occupancies: YES Nonseparated Uses: YES

F: Sprinklers:

Required: YES Provided: YES

Type of Sprinkler System (IBC 903.3.1) NFPA 13

G: Number of Stories: 1 Building Height: 32'-0"

H: Actual Area per Floor (square feet): 48,534

I: Tabular Area (table 503): 11,000 (I-2 Occupancy most restrictive)

J: Area Modifications:

a) $A_a = \{A_t + [A_t \times I_f] + [A_t \times I_s]\}$

A_a = 11,000 + [11,000 x 0.64] + [11,000 x 3]

A_a = 51,040

I_f = [F/P - .025] W/30
I_f = [1552/1740 - .25] [30/30]
I_f = 0.64
I_s = 3 per section 506.3

b) Sum of the Ratio Calculations for Mixed Occupancies: N/A (non-separated occupancies)

c) Total Allowable Area for:

1) One Story: 51,040
2) Two Story: $A_a(2)$ N/A
3) Three Story: $A_a(3)$ N/A

d) Unlimited Area Building: Yes ___ No X Code Section: TABLE 503

K. Fire Resistance Rating Requirements for Building Elements (hours).

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls	0		Floors - Ceiling Floors	0	
Interior Bearing Walls	0		Roofs - Ceiling Roofs	0	
Exterior Non-Bearing Walls	0		Exterior Doors and Windows	0	
Structural Frame	0		Shaft Enclosures	2	
Partitions - Permanent	0		Fire Walls	2	
Fire Barriers	1		Fire Partitions	1	
			Smoke Barriers	1	

L. Design Occupant Load: 984.6

Exit Width Required: 196.92" Exit Width Provided: 432"

M. Minimum Number of Required Plumbing Facilities: (General Occupant Plumbing for Building 1 & 2 combined below. See Building 2 for Patient Requirements)

a) Water Closets - Required (m) 10.92 (f) 11.16 Provided (m) 13 (f) 13
b) Urinals - Required (m) - (f) N/A Provided (m) 3 (f) N/A
c) Lavatories - Required (m) 10.41 (f) 10.41 Provided (m) 11 (f) 11
d) Bath Tubs or Showers - Required - Provided 2
e) Drinking Fountains - Required 10.12 Provided 16
f) Service Sinks - Required 1 Provided 3

BUILDING 2

A. Occupancy and Group: I-2

Change in Use: Yes ___ No X Mixed Occupancy: Yes ___ No X

Special Use and Occupancy (e.g. High Rise, Covered Mall): ___

B. Seismic Design Category: D Design Wind Speed: 90 mph

C. Type of Construction (circle one):

I	I	II	II	III	III	IV	V	V
A	B	A	B	A	B	HT	A	B

D. Fire Resistance Rating: Requirements for the Exterior Walls based on the fire separation distance (in hours):

North: 2* South: 0** East: 2*/0** West: 0**

ONLY WALLS W/ < 30 FEET OF SEPARATION DISTANCE REQUIRE RATING
*2-Hour rating based Fire Wall requirements per Table 706.4. See A4/G103.
**Rated wall will be provided as required by separation distances. See A4/G103.

E. Mixed Occupancies: YES Nonseparated Uses: YES

F: Sprinklers:

Required: YES Provided: YES

Type of Sprinkler System (IBC 903.3.1) NFPA 13

G: Number of Stories: 1 Building Height: 16'-4"

H: Actual Area per Floor (square feet): 39,670

I: Tabular Area (table 503): 11,000

J: Area Modifications:

a) $A_a = \{A_t + [A_t \times I_f] + [A_t \times I_s]\}$

A_a = 11,000 + [11,000 x 0.624] + [11,000 x 3]

A_a = 50,864

I_f = [F/P - .025] W/30
I_f = [788/901 - .25] [30/30]
I_f = 0.624
I_s = 3 per section 506.3

b) Sum of the Ratio Calculations for Mixed Occupancies: N/A

c) Total Allowable Area for:

1) One Story: 50,864
2) Two Story: $A_a(2)$ N/A
3) Three Story: $A_a(3)$ N/A

d) Unlimited Area Building: Yes ___ No X Code Section: TABLE 503

K. Fire Resistance Rating Requirements for Building Elements (hours).

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls	0		Floors - Ceiling Floors	0	
Interior Bearing Walls	0		Roofs - Ceiling Roofs	0	
Exterior Non-Bearing Walls	0		Exterior Doors and Windows	0	
Structural Frame	0		Shaft Enclosures	0	
Partitions - Permanent	0		Fire Walls	2	U905
Fire Barriers	1	U905 / U465	Fire Partitions	1	U905 / U465
			Smoke Barriers	0	

L. Design Occupant Load: 337

Exit Width Required: 67.4" Exit Width Provided: 144"

M. Minimum Number of Required Plumbing Facilities: (Patient Occupant Plumbing for Building 1 & 2 combined below. See Building 1 Information for General Occupant Requirements)

a) Water Closets - Required 36 Provided 40
c) Lavatories - Required 36 Provided 40
d) Bath Tubs or Showers - Required 10 Provided 30

FOOTNOTES:

1) In case of conflict with the U.S. Department of Justice Federal Registers Parts| through V - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.

2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to:
a) Atriums.
b) Performance Based Criteria.
c) Means or Egress Analysis.
d) Fire Assembly Locator Sheet.
e) Exterior and Interior Accessibility Route.
f) Fire Stopping, Including Tested Design Number.

ADDITIONAL APPLICABLE CODES

	Year
Utah Administrative Code: Health Facility Licensing Construction Rules	2012
Guidelines for Design and Construction of Health Care Facilities	2010
NFPA 101 Life Safety Code	2000 & 2009

LIFE SAFETY OCCUPANT LOAD

FUNCTION OF SPACE	AREA	OCCUPANT LOAD FACTOR	# OF OCCUPANTS
BUILDING 1			
ACCESSORY STORAGE	2298 SF	300	7.7
ASSEMBLY (UNCONCENTRATED)	5037 SF	15	335.8
BUSINESS	24163 SF	100	241.6
EDUCATIONAL	6392 SF	20	319.6
IN PATIENT TREATMENT	2126 SF	240	8.9
INSTITUTIONAL SLEEPING	5394 SF	120	45
MECHANICAL	7700 SF	300	25.7
	53111 SF		984.2
BUILDING 2			
ACCESSORY STORAGE	2550 SF	300	8.5
BUSINESS	20618 SF	100	206.2
IN PATIENT TREATMENT	3293 SF	240	13.7
INSTITUTIONAL SLEEPING	12864 SF	120	107.2
MECHANICAL	424 SF	300	1.4
	39749 SF		337
Grand total	92860 SF		1321.2

SUPPLEMENTAL CODE ANALYSIS

DEFERRED SUBMITTALS

Notes:

1) Submittals listed under Deferred Submittals will be submitted to the Building Official for review with a letter from the architect stating that the drawings are in conformance with their design.

2) All work related to the above listed deferred submittals is not to commence until the Building Official has approved of the related submittal.

CHAPTER 4: OCCUPANCY AND GROUP

This project is a new construction of a Pyschiatric Hospital. The project consists a Common Core Area containing E and B nonseparated occupancies and 3 Patient Room Units classified as I-2 occupancy. The project is divided into two separate buildings by a 2-Hour Fire Wall per Section 706 (see A4/G102 for Building Separation Diagram). Building 1 contains the entire Common Core and one of the Patient Room Units. Building 2 contains the remaining 2 Patient Room Units of the project.

MIXED OCCUPANCY (BUILDING 1): **YES**

OCCUPANCY GROUPS: **B**
E
I-2
A-3 (ACCESSORY)

MIXED OCCUPANCY (BUILDING 2): **NO**

OCCUPANCY GROUPS: **I-2**

CHAPTER 5: GENERAL BUILDING HEIGHTS AND AREAS

CONSTRUCTION TYPE: **IIB**

NFPA COMPLIANT SPRINKLER SYSTEM: **YES**

BUILDING HEIGHT (BUILDING 1)		BASE	ALLOWED	ACTUAL
STORIES	PER TABLE 503	2	+1	1*
HEIGHT	PER TABLE 503	55'-0"	+20'-0"	30'-0"
BUILDING AREA (BUILDING 1)		BASE	ALLOWED	ACTUAL
AREA (IN SQUARE FEET)	PER TABLE 503	11,000	51,040	48,534*
SEE CODE ANALYSIS TABLE TO LEFT FOR AREA CALCULATIONS	PER SECTION 506			

**1509.2.2 AREA LIMITATION. THE AGGREGATE AREA OF PENTHOUSES AND OTHER ROOFTOP STRUCTURES SHALL NOT EXCEED ONE-THIRD THE AREA OF THE SUPPORTING ROOF. SUCH PENTHOUSES SHALL NOT CONTRIBUTE TO EITHER THE BUILDING AREA OR NUMBER OF STORIES AS REGULATED BY SECTION 503.1. THE AREA OF THE PENTHOUSE SHALL NOT BE INCLUDED IN DETERMINING THE FIRE AREA DEFINED IN SECTION 902.

BUILDING HEIGHT (BUILDING 2)		BASE	ALLOWED	ACTUAL
STORIES	PER TABLE 503	1	+1	1
HEIGHT	PER TABLE 503	55'-0"	+20'-0"	16'-4"
BUILDING AREA (BUILDING 2)		BASE	ALLOWED	ACTUAL
AREA (IN SQUARE FEET)	PER TABLE 503	11,000	50,864	39,670
SEE CODE ANALYSIS TABLE TO LEFT FOR AREA CALCULATIONS	PER SECTION 506			

SECTION 508 MIXED USE AND OCCUPANCY

INCIDENTAL USES (FOR 'B' OCCUPANCY WITH SPRINKLER SYSTEM)	REQUIRED SEPERATION
FURNACE ROOMS WHERE ANY PIECE OF EQUIPMENT IS OVER 400,000 BTU PER HOUR INPUT	NONE WITH SPRINKLER*
ROOMS WITH BOILERS WHERE THE LARGEST PIECE OF EQUIPMENT IS OVER 15 PSI AND 10 HORSEPOWER	NONE WITH SPRINKLER*
LAUNDRY ROOMS > 100 s.f.	NONE WITH SPRINKLER*
STORAGE ROOMS > 100 s.f.	1-HOUR**
STORAGE ROOMS > 50 s.f. BUT <100 s.f.	NONE WITH SPRINKLER***
PUMP ROOMS (NONHIGH-RISE)	1-HOUR WITH SPRINKLER
GROUP I-2 WASTE AND LINEN ROOMS	1-HOUR

*CONSTRUCTION CAPABLE OF RESISTING THE PASSAGE OF SMOKE PER SECTION 508.2.5.2

**PER NFPA 18.3.2.1

***CLOSER REQUIRED PER NFPA 18.3.2.1

SECTION 508.3.1 - ACCESSORY OCCUPANCIES

SHALL NOT OCCUPY MORE THAN 10% OF THE AREA OF THE STORY. ACCESSORY ASSEMBLY OCCUPANCIES LESS THAN 750 SQUARE FEET ARE NOT CONSIDERED SEPARATE OCCUPANCIES.

SECTION 508.3.2 - NON SEPERATED OCCUPANCIES

508.3.2.1 EACH DIFFERENT OCCUPANCY SHALL BE CLASSIFIED PER SECTION 302.1. CODE REQUIREMENTS SHALL APPLY TO EACH PORTION OF THE BUILDING BASED ON THE OCCUPANCY CLASSIFICATION OF THAT SPACE EXCEPT THAT THE MOST RESTRICTING APPLICABLE PROVISIONS OF SECTION 403 (NOT APPLICABLE) AND CHAPTER 9 SHALL APPLY TO THE ENTIRE BUILDING.

508.3.2.2 ALLOWABLE AREA AND HEIGHT - BASED ON THE MOST RESTRICTIVE ALLOWANCES FOR THE OCCUPANCY GROUPS UNDER CONSIDERATION FOR THE TYPE OF CONSTRUCTION PER SECTION 503.1 AND TABLE 503.

ADDITIONAL REQUIREMENTS

508.2.5.1 FIRE-RESISTANCE-RATED SEPERATION: WHERE TABLE 508.2.5 SPECIFIES A FIRE-RESISTANCE-RATED SEPERATION, THE INCIDENTAL ACCESSORY OCCUPANCIES SHALL BE SEPARATED FROM THE REMAINDER OF THE BUILDING BY A FIRE BARRIER CONSTRUCTED IN ACCORDANCE WITH SECTION 707 OR A HORIZONTAL ASSEMBLY CONSTRUCTED IN ACCORDANCE WITH SECTION 712 OR BOTH. CONSTRUCTION SUPPORTING 1-HOUR FIRE-RESISTANCE-RATED FIRE BARRIERS OR HORIZONTAL ASSEBLIES USED FOR INCIDENTAL ACCESSORY OCCUPANCE SEPARATION IN BUILDINGS OF TYPE IIB, IIIB AND VB CONSTRUCTION ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED UNLESS REQUIRED BY OTHER SECTIONS OF THIS CODE.

508.2.5.2 NONFIRE-RESISTANCE-RATED SEPERATION AND PROTECTION: WHERE TABLE 508.2.5 PERMITS AN AUTOMATIC FIRE-EXTINGUISHING SYSTEM WITHOUT A FIRE BARRIER, THE INCIDENTAL ACCESSORY OCCUPANCIES SHALL BE SEPARATED FROM THE REMAINDER OF THE BUILDING BY CONSTRUCTION CAPABLE OF RESISTING THE PASSAGE OF SMOKE. THE WALLS SHALL EXTEND FROM THE TOP OF THE FOUNDATION OR FLOOR ASSEMBLY BELOW TO THE UNDERSIDE OF THE CEILING THAT IS A COMPONENT OF A FIRE-RESISTANCE-RATED FLOOR ASSEMBLY OR ROOF ASSEMBLY ABOVE OR TO THE UNDERSIDE OF THE FLOOR OR ROOF SHEATHING, DECK OR SLAB ABOVE. DOORS SHALL BE BE SELF- OR AUTOMATIC-CLOSING UPON DETECTION OF SMOKE IN ACCORDANCE WITH SECTION 715.4.8.3. DOORS SHALL NOT HAVE AIR TRANSFER OPENINGS AND SHALL NOT BE UNDERCUT IN EXCESS OF THE CLEARANCE PERMITTED IN ACCORDANCE WITH NFPA 80. WALLS SURROUNDING THE INCIDENTAL ACCESSORY OCCUPANCY SHALL NOT HAVE AIR TRANSFER OPENINGS UNLESS PROVIDED WITH SMOKE DAMPERS IN ACCORDANCE WITH SECTION 711.7.

CHAPTER 6: TYPES OF CONSTRUCTION

TABLE 601 FIRE RESISTANCE RATING FOR BUILDING ELEMENTS

	HOURS
PRIMARY STRUCTURAL FRAME	0
BEARING WALLS: EXTERIOR	0
BEARING WALLS: INTERIOR	0
NONBEARING WALLS AND PARTITIONS: EXTERIOR	0
NONBEARING WALLS AND PARTITIONS: INTERIOR	0
FLOOR CONSTRUCTION AND SECONDARY MEMBERS	0
ROOF CONSTRUCTION AND SECONDARY MEMBERS	0

TABLE 602 REQUIREMENTS FOR THE EXTERIOR WALLS BASED ON THE FIRE SEPERATION DISTANCE

EXTERIOR BEARING WALL RATING BASED ON 5<X≤10 SEPERATION DISTANCE	0
EXTERIOR BEARING WALL RATING BASED ON 10<X<30 SEPERATION DISTANCE	0
EXTERIOR BEARING WALL RATING BASED ON > 30'-0" SEPERATION DISTANCE	0

REFERENCE BUILDING SEPARATION DIAGRAM ON SHEET G103.

CHAPTER 7: FIRE RATED CONSTRUCTION

TABLE 705.8 AREA OF EXTERIOR OPENINGS BASED ON FIRE SEPERATION DISTANCE AND DEGREE OF OPENING PROTECTION

FIRE SEPERATION DISTANCE	DEGREE OF PROTECTION	ALLOWABLE AREA
20 TO LESS THAN 25	UP, S	NO LIMIT
	P	NO LIMIT
25 TO LESS THAN 30	UP, S	NO LIMIT
	P	NO LIMIT
30 OR GREATER	UP, S	NOT REQUIRED

SECTION 706.1 - GENERAL: EACH PORTION OF A BUILDING SEPARATED BY ONE OR MORE FIRE WALLS THAT COMPLY WITH THE PROVISIONS OF THIS SECTION SHALL BE CONSIDERED A SEPARATE BUILDING. THE EXTENT AND LOCATION OF SUCH FIRE WALLS SHALL PROVIDE A COMPLETE SEPARATION. WHERE A FIRE WALL ALSO SEPARATES OCCUPANCIES THAT ARE REQUIRED TO BE SEPARATED BY A FIRE BARRIER WALL, THE MOST RESTRICTIVE REQUIREMENTS OF EACH SEPARATION SHALL APPLY.

SECTION 706.2 - STRUCTURAL STABILITY: FIRE WALLS SHALL HAVE SUFFICIENT STRUCTURAL STABILITY UNDER FIRE CONDITIONS TO ALLOW COLLAPSE OF CONSTRUCTION ON EITHER SIDE WITHOUT COLLAPSE OF THE WALL FOR THE DURATION OF TIME INDICATED BY THE REQUIRED FIRE-RESISTANCE RATING.

TABLE 706.4 - FIRE WALL FIRE-RESISTANCE RATINGS

GROUPS B,E AND I WITH TYPE II CONSTRUCTION: FIRE-RESISTANCE RATING	2-HOUR

SECTION 706.5 HORIZONTAL CONTINUITY - EXCEPTION 3: FIRE WALLS SHALL BE PERMITTED TO TERMINATE AT THE INTERIOR SURFACES OF NONCOMBUSTIVLE EXTERIOR SHEATHING WHERE THE BUILDING ON EACH SIDE OF THE FIRE WALL IS PROTECTED BY AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.1.1 OR 903.3.2.1

CHAPTER 10: MEANS OF EGRESS

TABLE 1004.1.1 - OCCUPANT LOAD

ACTUAL FLOOR AREA - BUILDING 1	48,534
ACTUAL FLOOR AREA - BUILDING 2	39,670
ACTUAL FLOOR AREA (COMBINED TOTAL)	88,204
DESIGN OCCUPANT LOAD - BUILDING 1	984.2
DESIGN OCCUPANT LOAD - BUILDING 2	337

SECTION 1005.1 - EGRESS WIDTH

STAIRWAY WIDTH PER OCCUPANT	0.3"
STAIRWAY WIDTH REQUIRED	N/A
STAIRWAY WIDTH PROVIDED	42"
COMPONENT WIDTH PER OCCUPANT	0.2"
TOTAL COMPONENT WIDTH REQUIRED - BUILDING 1	196.84"
COMPONENT WIDTH REQUIRED PER EXIT - BUILDING 1	24.6"
COMPONENT WIDTH PROVIDED - BUILDING 1	432"
TOTAL COMPONENT WIDTH REQUIRED - BUILDING 2	67.4"
COMPONENT WIDTH REQUIRED PER EXIT - BUILDING 2	8.43"
COMPONENT WIDTH PROVIDED - BUILDING 2	144"

SECTION 1014.3 - COMMON PATH OF EGRESS TRAVEL

E AND I-2 OCCUPANCIES (MOST RESTRICTIVE)	75'-0"

TABLE 1016.1 - EXIT ACCESS TRAVEL DISTANCE

I-2 OCCUPANCY WITH SPRINKLER SYSTEM (MOST RESTRICTIVE)	200'-0"

TABLE 1021.1 - EXITS

REQUIRED (COMMON CORE AND PATIENT UNIT)	4
PROVIDED (COMMON CORE AND PATIENT UNIT)	8
REQUIRED (2 PATIENT UNITS)	4
PROVIDED (2 PATIENT UNITS)	8

ADDITIONAL REQUIREMENTS

1003.6 - THE PATH OF EGRESS TRAVEL ALONG A MEANS OF EGRESS SHALL NOT BE INTERRUPTED BY ANY BUILDING ELEMENT OTHER THAN A MEANS OF EGRESS COMPONENT.
1005.1 - MULTIPLE MEANS OF EGRESS SHALL BE SIZED SUCH THAT THE LOSS OF ANY ONE MEANS OF EGRESS SHALL NOT REDUCE THE AVAILABLE CAPACITY BY MORE THAN 50 PERCENT.
1008.1 - MEANS OF EGRESS DOORS IN I-2 OCCUPANCIES USED FOR MOVEMENT OF BEDS SHALL HAVE A CLEAR WIDTH OF 41.5".
1008.1.3.4 - ACCESS CONTROLLED EGRESS DOORS NOT ALLOWED IN I-2 OCCUPANCY.
1008.1.8.3 - LOCKS AND LATCHES ARE PERMITTED TO PREVENT OPERATIONS OF DOORS IN PLACES OF DETENTION OR RESTRAINT.
STATE OF UTAH AMENDMENTS ADD A SUBPARAGRAPH (5) WHICH ALLOWS ACCESS CONTROLLED EGRESS IN I-2 OCCUPANCIES WHERE THE CLINICAL NEEDS OF THE PATIENTS REQUIRE SPECIALIZED SECURITY MEASURES, WHEN THE LIST OF CRITERIA IS MET.
1015.2.1 - EXCEPTION 2 - IN AREAS WHERE 2 EXITS ARE REQUIRED, THE MINIMUM SEPARATION IS 1/3 OF THE MAXIMUM DIAGONAL OF THE AREA OR FLOOR MEASURED IN A STRAIGHT LINE BETWEEN EXITS OR EXIT ACCESS DOORWAYS
1015.3 - BOILER AND FURNACE ROOMS OVER 500 s.f. AND EQUIPMENT EXCEEDS 400,000 BTU INPUT CAPACITY REQUIRES 2 EXITS.
1018.2 - THE MINIMUM CORRIDOR WIDTH IS 44 INCHES.
EXCEPTION 2 - THE MINIMUM CORRIDOR WIDTH IS 36 INCHES WHERE THE OCCUPANT LOAD IS LESS THAN 50.
1018.5 - CORRIDORS SHALL NOT SERVE AS SUPPLY, RETURN, EXHAUST, RELIEF OR VENTILATION AIR DUCTS OR PLENUMS.
1018.4 - EXCEPTION 2 - WHEN MORE THAN ONE EXIT IS REQUIRED, EXIT ACCESS SHALL BE ARRANGED SUCH THAT THERE ARE NO DEAD ENDS IN CORRIDORS MORE THAN 50 FEET.

CHAPTER 11: ACCESSIBILITY

SECTION 1106 PARKING

TOTAL STALLS (SEE PARKING CALCULATIONS ON GS200)	109
ACCESSIBLE STALLS REQUIRED (SEE PARKING CALCULATIONS ON GS200)	6
ACCESSIBLE STALLS PROVIDED (SEE PARKING CALCULATIONS ON GS200)	6
PERCENTAGE OF ACCESSIBLE STALLS	5.50%
VAN STALLS REQUIRED (SEE PARKING CALCULATIONS ON GS200)	2
VAN STALLS PROVIDED (SEE PARKING CALCULATIONS ON GS200)	2

ADDITIONAL REQUIREMENTS

1106.7.2 - A PASSENGER LOADING ZONE IS REQUIRED FOR MEDICAL FACILITIES.
1107.5.3.1 - 10 PERCENT OF DWELLING AND SLEEPING UNITS SHALL BE ACCESSIBLE UNITS.

CHAPTER 15: ROOFING

TABLE 1505 ROOFING CLASSIFICATIONS

MINIMUM ROOF COVERING CLASSIFICATION FOR TYPES OF CONSTRUCTION (IIB)	B

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (T2902.1)

OCCUPANCY GROUP	OCCUPANCY LOAD	MEN'S WC (1/2 OCC. LOAD)	WOMEN'S WC (1/2 OCC. LOAD)	MEN'S LAVATORIES (1/2 OCC. LOAD)	WOMEN'S LAVATORIES (1/2 OCC. LOAD)	BATHTUBS/ SHOWERS	DRINKING FOUNTAINS	SERVICE SINKS
A-3	336	1:125= 1.34	1:65= 2.58	1:200= 0.84	1:200= 0.84	-	1:500=0.67	
B	448	<50=1:25= 2 >50= 1:50=3.48	<50=1:25= 2 >50= 1:50=3.48	1:40= 5.6	1:40= 5.6	-	1:100= 4.48	
E	320	1:50= 3.20	1:50= 3.20	1:50= 3.20	1:50= 3.20	-	1:100=3.20	
S-2 (incl. Mech)	44	1:100= 0.44	1:100= 0.44	1:100= 0.44	1:100= 0.44	-	1:1,000=0.04	
I-2 In Patient Treatment	23	1:25= 0.46	1:25= 0.46	1:35= 0.33	1:35= 0.33	-	1:100=0.23	
I-2 Sleeping Area	150	See Table Below					1:100=1.50	
Total Required		10.92	12.16	10.41	10.41	-	10.12	1
Total Provided		13[b] (10 W.C., 3 URINALS)	13[b]	11	11	2	16	3

MINIMUM NUMBER OF REQUIRED PATIENT PLUMBING FIXTURES (T2902.1)

PATIENT UNIT	OCCUPANCY LOAD (1/2 SLEEPING)	PATIENT ROOMS	WATER CLOSETS (1 PER 2 ROOMS)[a]	LAVATORIES (1 PER 2 ROOMS)[a]	BATHTUBS/ SHOWERS	DRINKING FOUNTAINS	SERVICE SINKS
Boys Unit	52.5	26	26/2= 13	26/2= 13	1:15= 3.5		
Total Provided			14	14	10		
Girls Unit	52.5	26	26/2= 13	26/2= 13	1:15= 3.5		
Total Provided			14	14	10		
Girls Unit	45	20	20/2= 10	20/2= 10	1:15= 3	See Above	See Above
Total Provided			12	12	10	See Above	See Above

a. A SINGLE-OCCUPANT TOILET ROOM WITH ONE WATER CLOSET AND ONE LAVATORY SERVING NOT MORE THAN TWO ADJACENT PATIENT SLEEPING UNITS SHALL BE PERMITTED WHERE SUCH IS PROVIDED WITH DIRECT ACCESS FROM EACH PATIENT SLEEPING UNIT AND WITH PROVISIONS FOR PRIVACY.
b. 2009 IBC SECTION 2902.3.2 - LOCATION OF TOILET FACILITIES IN OCCUPANCIES OTHER THAN COVERED MALLS. IN OCCUPANCIES OTHER THAN COVERED MALLS, THE REQUIRED PUBLIC AND EMPLOYEE TOILET FACILITIES SHALL BE LOCATED NOT MORE THAN ONE STORY ABOVE OR BELOW THE SPACE REQUIRED TO BE PROVIDED WITH TOILET FACILITIES AND THE PATH OF TRAVEL TO SUCH FACILITIES SHALL NOT EXCEED A DISTANCE OF 500 FT.

DFCM APPROVAL STAMP

FFKR ARCHITECTS
bogue building
730 pacific avenue
salt lake city
Utah 84104
801-521-6186
801-539-1916
ffkr.com

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

GENERAL INFO/CODE

G100

9/11/2012 8:14:45 AM

NONSTRUCTURAL COMPONENT CHECKLIST

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

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.

Revised: 02/15/2010

SPECIAL INSPECTION AND TESTING UNDER THE PROVISIONS OF IBC 1704 AND FOR MISCELLANEOUS AREAS

Indicate required Special inspections for project by checking the appropriate boxes and provide specific instructions as to the inspection requirements and the expectations of the architect, engineer and owner:

FABRICATORS (IBC 1704.2)

☒ Approved Fabricator	Fabricators Name:
☐ Unapproved Fabricator	Fabricators Name:

In-plant inspections
☐ Steel Construction ☐ Welding ☐ Details

STEEL (IBC 1704.3)

Item			Detailed Instructions and Frequencies
High Strength Bolting(1704.3.3)	☒ Continuous	☐ Periodic	Bearing periodic /slip critical continuous
WELDING (1704.3.1)			
Details (1704.3.2)			
Complete & partial penetration groove welds	☒ Continuous	☐ Periodic	1704.3
Multipass fillet welds	☒ Continuous	☐ Periodic	1704.3
Single-pass fillet welds > 5/16"	☒ Continuous	☐ Periodic	1704.3
Single-pass fillet welds < 5/16"	☐ Continuous	☒ Periodic	1704.3
Floor & roof deck welds	☐ Continuous	☒ Periodic	1704.3
REINFORCEMENT STEEL	☒ Continuous		1704.3
Verification of weldability	☐ Continuous	☒ Periodic	1704.3
Shear wall and shear reinforcement	☒ Continuous	☐ Periodic	1704.3
Other reinforcement	☐ Continuous	☒ Periodic	1704.3
Steel frame joint details	☐ Continuous	☒ Periodic	1704.3

CONCRETE CONSTRUCTION (IBC 1704.4)

Item			Detailed Instructions and Frequencies
Materials (1704.4.1)	☐ Continuous	☒ Periodic	IBC 1704.4.1
Steel placement	☐ Continuous	☒ Periodic	ACI 318:3.5, 7.1-7.7 and IBC 1913.4
Steel welding	☐ Continuous	☐ Periodic	Welding Reinforcing Steel not Allowed
Bolts prior & during placement	☐ Continuous	☐ Periodic	Not Applicable
Use of required design mix	☐ Continuous	☒ Periodic	ACI 318: 4, 5.2-5.4 and IBC 1904.2.2, 1913.2, 1913.3
Concrete sampling for strength test, slump, air content, and temperature of concrete	☒ Continuous	☐ Periodic	ASTM C 172, ASTM C 31, ACI 318: 5.6, 5.8 and IBC 1913.10
Concrete & shotcrete placement	☒ Continuous	☐ Periodic	ACI 318: 5.9-5.10 and IBC 1913.6, 1913.7, 1913.8
Curing temperature and techniques	☐ Continuous	☒ Periodic	ACI 318: 5.11-5.13 and IBC 1913.9
Pre-stressed concrete	☐ Continuous	☐ Periodic	Not Applicable
Pre-cast concrete	☐ Continuous	☐ Periodic	Not Applicable
Post tensioned concrete	☐ Continuous	☐ Periodic	Not Applicable
Form work	☐ Continuous	☒ Periodic	ACI 318: 6.1.1

MASONRY CONSTRUCTION (IBC 1704.5)

Item			Detailed Instructions and Frequencies
As masonry construction begins:			
Site prepared mortar	☐ Continuous	☒ Periodic	042113, 042200
Construction of mortar joints	☐ Continuous	☒ Periodic	042113, 042200
Location of reinforcement, connectors, pre-stressing tendons and anchorages	☐ Continuous	☐ Periodic	042113, 042200
Pre-stressing technique	☐ Continuous	☐ Periodic	
Grade and size of pre-stressing tendons and anchorages	☐ Continuous	☐ Periodic	
Inspection program verify:			
Size and location of structural elements	☐ Continuous	☒ Periodic	
Type, size and location of anchors	☐ Continuous	☒ Periodic	
Size, grade and type of reinforcement	☐ Continuous	☒ Periodic	
Welding of reinforcement	☒ Continuous	☐ Periodic	
Cold and hot weather protection	☐ Continuous	☒ Periodic	
Application and measurement of pre-stressing force	☐ Continuous	☒ Periodic	
Prior to grouting verify			
Clean grout space	☐ Continuous	☒ Periodic	
Placement of reinforcement	☐ Continuous	☒ Periodic	
Grout mix	☐ Continuous	☒ Periodic	
Mortar joints	☐ Continuous	☒ Periodic	
Grout placement	☐ Continuous	☒ Periodic	
Grout and mortar specimens and prisms	☒ Continuous	☐ Periodic	
Construction and submittal compliance verification	☐ Continuous	☒ Periodic	
Empirical masonry – Cat. I-III (1708.1.1)	☐ Continuous	☐ Periodic	
Empirical masonry – Cat. IV (1708.1.1)	☐ Continuous	☐ Periodic	
Engineered masonry – Cat. I-III 1708.1.1	☐ Continuous	☐ Periodic	
Engineered masonry – Cat. IV (1708.1.1)	☐ Continuous	☐ Periodic	
Engineering & pre-stressing steel (1708.3)	☐ Continuous	☐ Periodic	
Structural steel (1708.4)	☐ Continuous	☒ Periodic	
Qualification of mechanical & electrical equipment (1708.5)	☐ Continuous	☐ Periodic	
Seismically isolated structures (1708.6)	☒ Continuous	☐ Periodic	
Testing for seismic resistance is	☒ Continuous	☐ Periodic	

SOILS CONSTRUCTION (IBC 1704.7)

Item			Detailed Instructions and Frequencies
Site preparation	☐ Continuous	☒ Periodic	Specification Section 312100: 3.02
Structural fill material	☒ Continuous	☐ Periodic	Specification Section 312100: 2.02
Structural fill lift thickness	☒ Continuous	☐ Periodic	Specification Section 312100: 3.04
Structural fill soil densities	☒ Continuous	☐ Periodic	Specification Section 312100: 3.04
Backfill soils materials	☒ Continuous	☐ Periodic	Specification Section 312100: 3.06 and 3.07
Backfill soil densities	☒ Continuous	☐ Periodic	Specification Section 312100: 3.06 and 3.07

PIER FOUNDATIONS (IBC 1704.9)

Item			Detailed Instructions and Frequencies
Observe drilling operation and reporting	☐ Continuous	☐ Periodic	
Verify placement & installation data	☐ Continuous	☐ Periodic	

SPRAYED FIRE-RESISTANT MATERIALS (IBC 1704.10)

Item			Detailed Instructions and Frequencies
Structural member surface conditions	☐ Continuous	☒ Periodic	IBC 1704.10
Material application	☐ Continuous	☒ Periodic	IBC 1704.10
Material thickness	☐ Continuous	☒ Periodic	IBC 1704.10
Material density	☐ Continuous	☒ Periodic	IBC 1704.10
Bonding strength	☐ Continuous	☒ Periodic	IBC 1704.10

EPOXY (IBC 1704.13)

Item			Detailed Instructions and Frequencies
Material and installation (specify locations)	☐ Continuous	☐ Periodic	

SMOKE CONTROL (IBC 1704.14)

Item			Detailed Instructions and Frequencies
Material	☐ Continuous	☒ Periodic	IBC 1704.14
Installation	☐ Continuous	☒ Periodic	IBC 1704.14

Special inspection for seismic resistance (IBC 1707)

Item			Detailed Instructions and Frequencies
Structural Steel (1707.2)	☐ Continuous	☐ Periodic	
Structural Wood (1707.3)	☐ Continuous	☐ Periodic	
Cold-formed steel framing (1707.4)	☐ Continuous	☒ Periodic	
Pier foundations (1707.5)	☐ Continuous	☐ Periodic	
Storage racks & access floors (1707.6)	☐ Continuous	☐ Periodic	
Architectural components (1707.7)	☐ Continuous	☐ Periodic	
Mechanical & electrical items (1707.8)	☐ Continuous	☐ Periodic	
Designated systems verification (1707.9)	☐ Continuous	☐ Periodic	
Seismic isolation systems (1707.10)	☐ Continuous	☐ Periodic	

MISCELLANEOUS AREAS

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

			Detailed Instructions and Frequencies
Suspended Ceiling Grid Clips	☐ Continuous	☒ Periodic	
Suspended Ceiling wire spacing	☐ Continuous	☒ Periodic	
(Seismic)			
Soils backfill (specify locations and frequency)	☐ Continuous	☐ Periodic	
Soils for curb and gutter (specify locations and frequency)	☒ Continuous	☐ Periodic	
Soils for parking lots (specify locations and frequency)	☒ Continuous	☐ Periodic	
Soils for utility trench backfill	☒ Continuous	☐ Periodic	
Reinforcement for slab on grade sidewalks and drive approaches (specify locations and frequency)	☐ Continuous	☒ Periodic	
Reinforcement for interior slab on grade (specify locations and frequency)	☐ Continuous	☒ Periodic	
Concrete testing for slab on grade sidewalks and drive approaches (specify locations and frequency)	☒ Continuous	☐ Periodic	
Concrete testing for interior slab on grade (specify locations and frequency)	☐ Continuous	☐ Periodic	
Masonry Veneer (specify locations and frequency)	☐ Continuous	☐ Periodic	
Asphalt inspection (specify locations and frequency)	☒ Continuous	☐ Periodic	
Asphalt testing (specify locations and frequency)	☐ Continuous	☐ Periodic	
Inspection of seismic resistance (specify locations and frequency)	☐ Continuous	☐ Periodic	
Steam and water line welding (specify locations and frequency)	☐ Continuous	☐ Periodic	
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	260548
Seismic supports for plumbing lines including gas, water and steam and condensation	☐ Continuous	☐ Periodic	230548
Seismic bracing for mechanical units both on slab and suspended	☐ Continuous	☐ Periodic	230548
TPO Roofing	☐ Continuous	☒ Periodic	075423
Penetration Firestopping	☐ Continuous	☒ Periodic	078413
Fire Resistive Joint Systems	☐ Continuous	☒ Periodic	078446
Smoke Containment Systems for Elevators	☐ Continuous	☒ Periodic	078700
Operable partitions	☐ Continuous	☒ Periodic	102226

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 be submitted to the code consultant, architect, DFCM project manager, and the State of Utah Building Official within 48 hrs. of 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 drawings, specifications and applicable codes. IBC 1704.1.2

DFCM APPROVAL STAMP

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bogue building
730 pacific avenue
salt lake city
Utah 84104
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PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
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DATE	STATUS

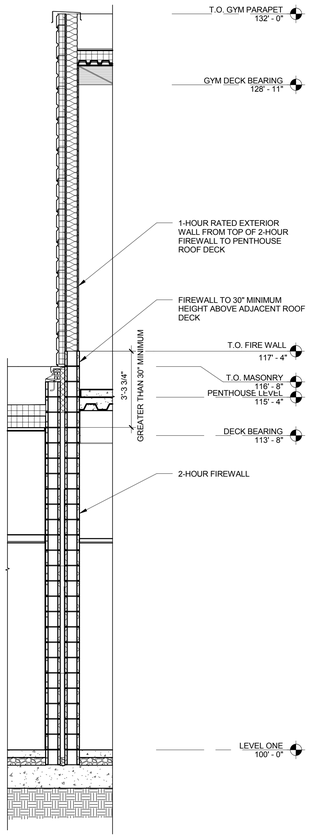
△	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

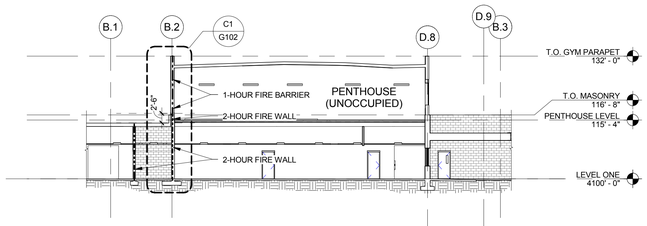
GENERAL INFO/CODE

G101

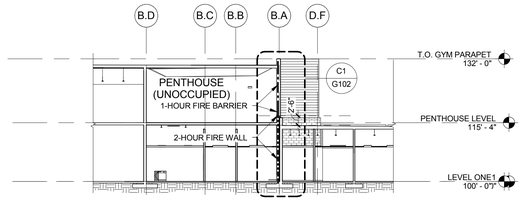
9/11/2012 8:14:46 AM



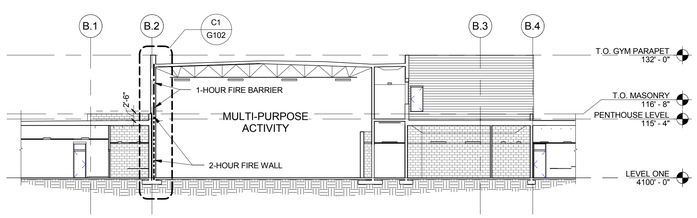
C1 FIREWALL SECTION
SCALE: 3/8" = 1'-0"



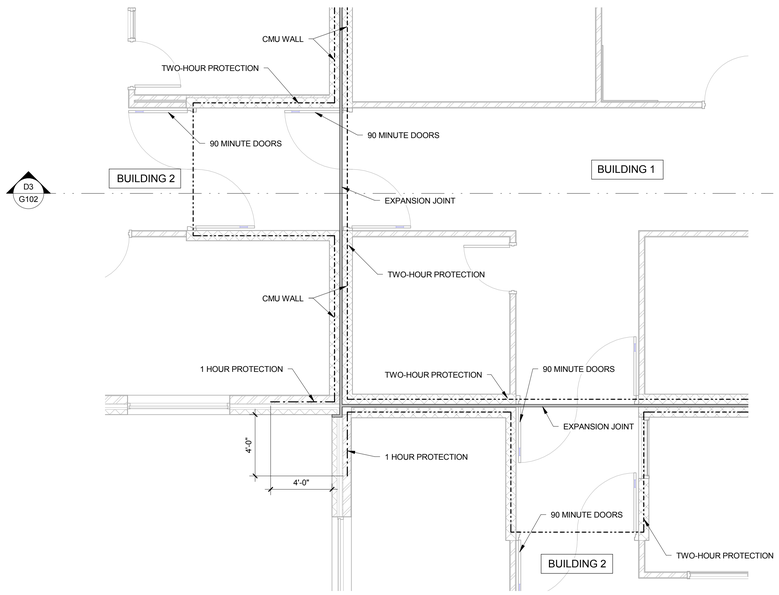
D3 FIRE WALL SECTION
SCALE: 1/16" = 1'-0"



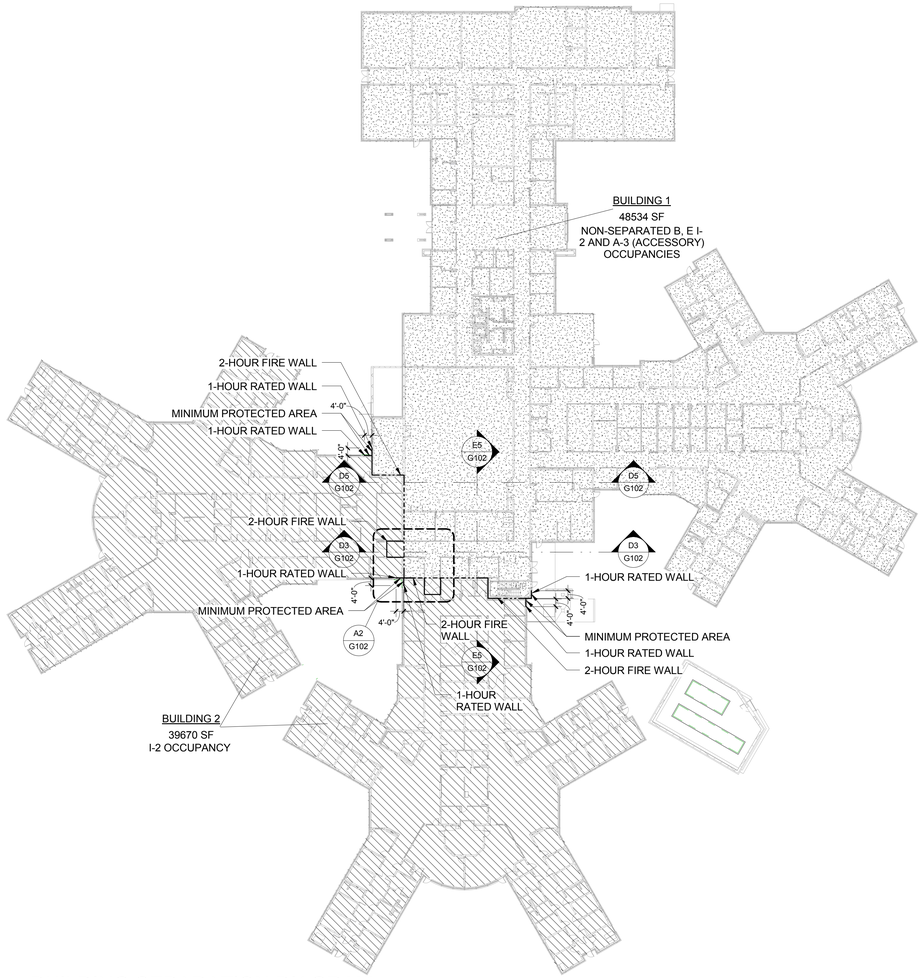
E5 FIRE WALL SECTION
SCALE: 1/16" = 1'-0"



D5 FIRE WALL SECTION
SCALE: 1/16" = 1'-0"



A2 Fire Wall Diagram
SCALE: 1/4" = 1'-0"



A4 BUILDING SEPARATION DIAGRAM
SCALE: 1/32" = 1'-0"

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REFERENCE NOTES

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LIFE SAFETY LEGEND

- ONE-HOUR FIRE BARRIER
- TWO-HOUR FIRE BARRIER
- TWO-HOUR FIRE WALL
- SMOKE PARTITION
- SMOKE BARRIER
- EXIT PATH
- FIRE EXTINGUISHER (FE)

DATE	STATUS

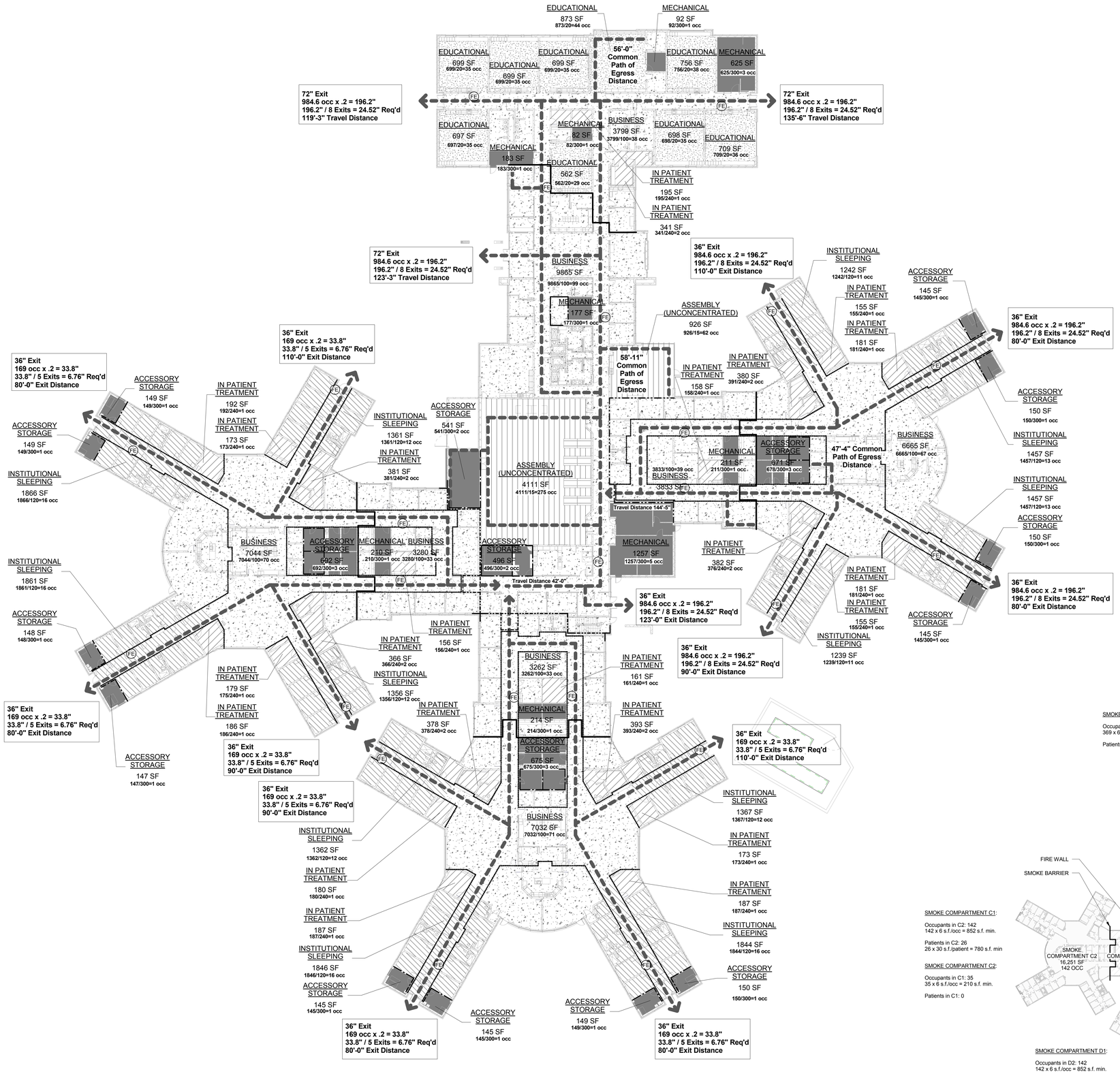
△	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

FIREWALL ANALYSIS

G102

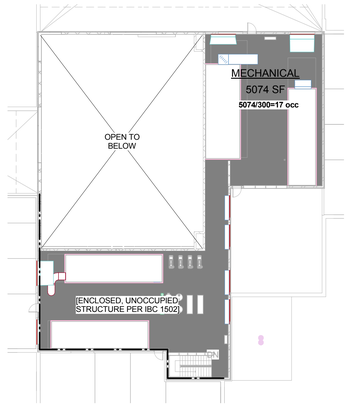
9/11/2012 8:15:04 AM



A1 LEVEL 1 LIFE SAFETY PLAN

SCALE: 3/64" = 1'-0"

0" 16' 32'



C5 PENTHOUSE LIFE SAFETY PLAN

SCALE: 3/64" = 1'-0"

0" 16' 32'

SMOKE COMPARTMENT A:

Occupants in A: 369
369 x 6 s.f./occ = 2214 s.f. min.

Patients in A: 0

SMOKE COMPARTMENT B:

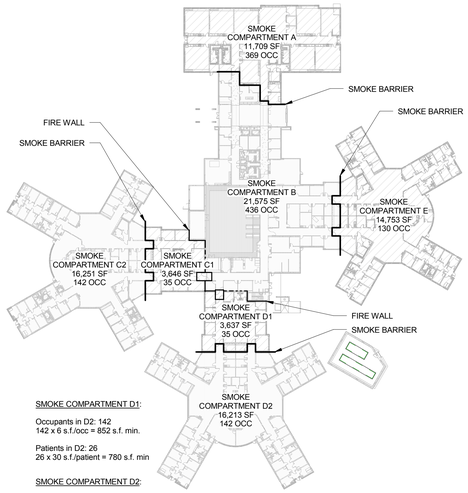
Occupants in B: 369
436 x 6 s.f./occ = 2616 s.f. min.

Patients in B: 0

SMOKE COMPARTMENT E:

Occupants in E: 130
130 x 6 s.f./occ = 780 s.f. min.

Patients in E: 20
20 x 30 s.f./patient = 600 s.f. min.



SMOKE COMPARTMENT C1:

Occupants in C2: 142
142 x 6 s.f./occ = 852 s.f. min.

Patients in C2: 26
26 x 30 s.f./patient = 780 s.f. min

SMOKE COMPARTMENT C2:

Occupants in C1: 35
35 x 6 s.f./occ = 210 s.f. min.

Patients in C1: 0

SMOKE COMPARTMENT D1:

Occupants in D2: 142
142 x 6 s.f./occ = 852 s.f. min.

Patients in D2: 26
26 x 30 s.f./patient = 780 s.f. min

SMOKE COMPARTMENT D2:

Occupants in D1: 35
35 x 6 s.f./occ = 210 s.f. min.

Patients in D1: 0

A5 SMOKE COMPARTMENT DIAGRAM

SCALE: 1/64" = 1'-0"

0" 64' 128'

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REFERENCE NOTES

OCCUPANCY TYPES

A-3	ASSEMBLY
B	BUSINESS
E	EDUCATION
Mech	MECHANICAL
I-2 TREATMENT	INSTITUTIONAL TREATMENT AREA
I-2 SLEEPING	INSTITUTIONAL SLEEPING AREA

LIFE SAFETY LEGEND

- ONE-HOUR FIRE BARRIER
- TWO-HOUR FIRE BARRIER
- TWO-HOUR FIRE WALL
- SMOKE PARTITION
- SMOKE BARRIER
- EXIT PATH
- FIRE EXTINGUISHER (FE)

PEDIATRIC FACILITY
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UTAH STATE HOSPITAL CONSOLIDATION
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PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

LIFE SAFETY

G103

9/11/2012 8:15:29 AM

PATIENT USE AREA CALCULATIONS

RESIDENTIAL UNIT BOYS YOUTH

PATIENT ACTIVITY AREAS

QTY.	DESCRIPTION	AREA	MAX. PATIENTS	AREA PER PATIENT	
2	DAY ROOM (NOISY)	1085 Sq. Ft.	26 PATIENTS	41.7 Sq. Ft. Per Patient	
2	QUIET ACTIVITY ROOM (QUIET)	294 Sq. Ft.	26 PATIENTS	11.3 Sq. Ft. Per Patient	
	TOTAL	1379 Sq. Ft.	26 PATIENTS	**53.0 Sq. Ft. Per Patient**	**25 Sq. Ft. Per Patient is Required**

PATIENT DINING AREAS

	DESCRIPTION	AREA	MAX. PATIENTS	AREA PER PATIENT	
2	DINING ROOM	1222 Sq. Ft.	26 PATIENTS	**47.0 Sq. Ft. Per Patient**	**20 Sq. Ft. Per Patient is Required**

RESIDENTIAL UNIT GIRLS YOUTH

PATIENT ACTIVITY AREAS

QTY.	DESCRIPTION	AREA	MAX. PATIENTS	AREA PER PATIENT	
2	DAY ROOM (NOISY)	1080 Sq. Ft.	26 PATIENTS	41.5 Sq. Ft. Per Patient	
2	QUIET ACTIVITY ROOM (QUIET)	296 Sq. Ft.	26 PATIENTS	11.4 Sq. Ft. Per Patient	
	TOTAL	1376 Sq. Ft.	26 PATIENTS	**52.9 Sq. Ft. Per Patient**	**25 Sq. Ft. Per Patient is Required**

PATIENT DINING AREAS

QTY.	DESCRIPTION	AREA	MAX. PATIENTS	AREA PER PATIENT	
2	DINING ROOM	1230 Sq. Ft.	26 PATIENTS	**47.3 Sq. Ft. Per Patient**	**20 Sq. Ft. Per Patient is Required**

RESIDENTIAL UNIT CHILDREN

PATIENT ACTIVITY AREAS

QTY.	DESCRIPTION	AREA	MAX. PATIENTS	AREA PER PATIENT	
2	DAY ROOM (NOISY)	966 Sq. Ft.	20 PATIENTS	48.3 Sq. Ft. Per Patient	
2	QUIET ACTIVITY ROOM (QUIET)	286 Sq. Ft.	20 PATIENTS	14.3 Sq. Ft. Per Patient	
	TOTAL	1252 Sq. Ft.	20 PATIENTS	**62.6 Sq. Ft. Per Patient**	**35 Sq. Ft. Per Patient is Required**

PATIENT DINING AREAS

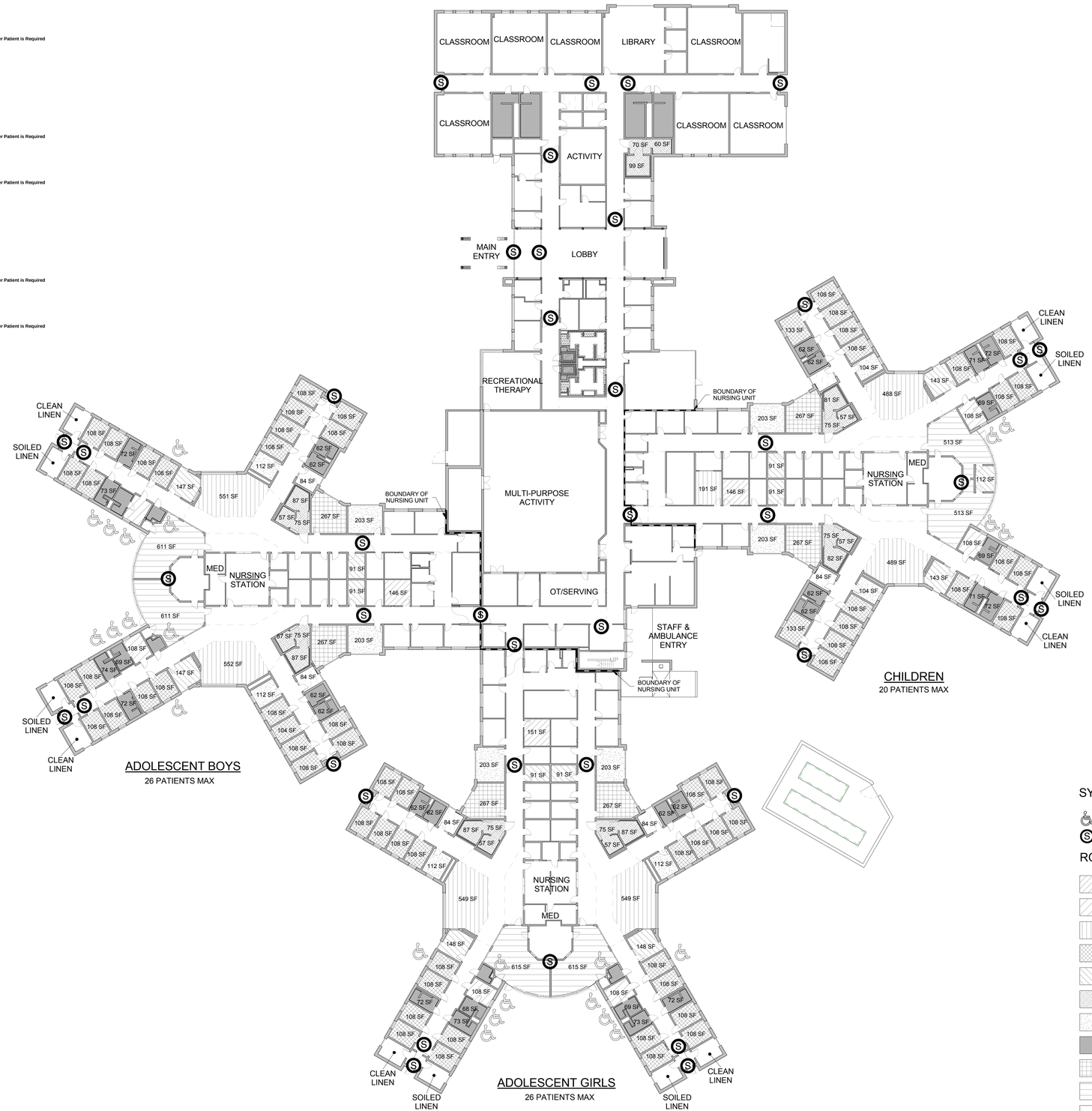
QTY.	DESCRIPTION	AREA	MAX. PATIENTS	AREA PER PATIENT	
2	DINING ROOM	1026 Sq. Ft.	20 PATIENTS	**51.3 Sq. Ft. Per Patient**	**15 Sq. Ft. Per Patient is Required**

SUMMARY

QTY.	DESCRIPTION	AREA	MAX. PATIENTS	AREA PER PATIENT
-	PATIENT ACTIVITY AREAS	4007 Sq. Ft.	72 PATIENTS	55.7 Sq. Ft. Per Patient
-	PATIENT DINING AREAS	3478 Sq. Ft.	72 PATIENTS	48.3 Sq. Ft. Per Patient

PATIENT ROOM COUNT

QTY.	DESCRIPTION	MAX. PATIENTS
RESIDENTIAL UNIT BOYS YOUTH		
24	PRIVATE PATIENT ROOM	24 PATIENTS
2	MEDICAL PATIENT ROOM	2 PATIENTS
	TOTAL	26 PATIENTS
RESIDENTIAL UNIT GIRLS YOUTH		
24	PRIVATE PATIENT ROOM	24 PATIENTS
2	MEDICAL PATIENT ROOM	2 PATIENTS
	TOTAL	26 PATIENTS
RESIDENTIAL UNIT CHILDREN		
18	PRIVATE PATIENT ROOM	18 PATIENTS
2	MEDICAL PATIENT ROOM	2 PATIENTS
	TOTAL	20 PATIENTS
TOTAL		
66	PRIVATE PATIENT ROOM	66 PATIENTS
6	MEDICAL PATIENT ROOM	6 PATIENTS
	TOTAL	72 PATIENTS



A3 FGI/UAC LEVEL 1 PLAN

SCALE: 3/64" = 1'-0"

SYMBOL LEGEND

ADA ACCESSIBLE PATIENT ROOM

SECURED PATIENT SEPARATION

ROOM TYPE LEGEND

- EXAM ROOM
- MEDICAL PATIENT ROOM
- NOISY ACTIVITY ROOM
- PRIVATE PATIENT ROOM
- QUIET ACTIVITY ROOM
- SECLUSION / TIME-OUT ROOM
- CONSULTATION ROOM
- PATIENT TOILET ROOM
- GROUP THERAPY ROOM
- DINING ROOM
- QUIET ROOM

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PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

FGI & UAC ANALYSIS

G104

9/11/2012 8:15:44 AM

State of Utah
GARY R. HERBERT
Governor
GREG BELL
Lieutenant Governor

Utah Department of Health
W. David Patton, Ph.D.
Executive Director

Division of Family Health and Preparedness
Marc E. Babitz, M.D.
Division Director

Bureau of Health Facility Licensing, Certification and Resident Assessment
Joel Hoffman
Bureau Director

Variance # 2314 & 2315

July 3, 2012

Mr. Dallas Earnshaw, Administrator
Utah State Hospital
1300 East Center Street
Provo, UT 84606

Dear Mr. Earnshaw:

Your requests for variances to R432-7-5(1) have been reviewed. The decision has been made to approve both variances regarding toilet rooms, effective June 20, 2012.

A copy of the approved variances must be kept on file at the facility and made available upon request.

If you have questions, you may contact me at (801) 538-6165 or toll free at 1-800-662-4157.

Sincerely,

Joel Hoffman, Director
Bureau of Health Facility Licensing, Certification
and Resident Assessment

UTAH DEPARTMENT OF HEALTH
288 North 1460 West, Salt Lake City, UT
Mailing address: P.O. Box 144103, Salt Lake City, UT 84114-4103
Telephone (801) 538-6158 • Facsimile (801) 538-6163 • www.health.utah.gov

UTAH DEPARTMENT OF HEALTH
BUREAU OF HEALTH FACILITY LICENSING,
CERTIFICATION AND RESIDENT ASSESSMENT

File No. 2314

REQUEST FOR AGENCY ACTION/VARIANCE APPLICATION

In accordance with Title 26, Chapter 21, Utah Code Annotated and Rule 432-2-18, Utah Department of Health Rules for health care facilities, a Request for Agency Action is made for a variance to licensure rule and/or standards.

I. IDENTIFYING INFORMATION:

A. NAME OF FACILITY Utah State Hospital Pediatric Facility TELEPHONE Peggy Grusendorf (801) 344-4204

ADDRESS 1300 East Center Street

CITY, STATE, ZIP Provo, Utah 84603

B. RULE NUMBER (INCLUDE TITLE AND SECTION) FROM WHICH THE VARIANCE IS BEING REQUESTED:
2010 Guidelines 2.5-2.2.2.6 Patient Toilet Room - (1) Each patient shall have access to a toilet room without having to enter a corridor.

C. TIME PERIOD FOR WHICH THE VARIANCE IS REQUESTED:

D. IS THE FACILITY CURRENTLY LICENSED? YES ☐ NO ☒
IF YES, EXPIRATION DATE:
IF NO, ANTICIPATED APPLICATION DATE: December 2013
Psychiatric Hospital - R-432-7

II. FACTS FORMING BASIS FOR VARIANCE:

A. THE SPECIFIC REASON FOR THE REQUEST INCLUDING WHY COMPLIANCE WITH THE RULE CANNOT BE ACCOMPLISHED:

The 2010 Guidelines 2.5-2.2.2.6 (1) requires that each patient shall have access to a toilet room without having to enter a corridor. We are requesting a variance to allow the new Pediatric Facility to access the patient toilet rooms through the corridor of the patient wing. As identified in the hospital's Patient Safety Risk Assessment and echoed in the Guidelines under Environment of Care, the patient bedrooms and patient toilet rooms are the highest level of patient safety risk because the patients spend long periods of time out of direct supervision of the staff. A toilet room that is accessed directly through a patient room and not through the corridor creates an unmanageable situation for the hospital staff and increases the risk of patient harm and/or suicide risk with the patient populations that will be admitted to the new Pediatric Facility.

B. EXPLAIN HOW THE HEALTH AND SAFETY OF THE PATIENTS/RESIDENTS WILL BE MAINTAINED IF THE VARIANCE IS GRANTED:

At the Utah State Hospital, there has been a working precedent set of accessing toilet rooms through a corridor rather than accessing these rooms directly from the patient room. This prototype has been used in each of the other residential psychiatric buildings on the Utah State Hospital campus including the existing Rampton II which was built in 2006. Locating the toilet rooms off of the corridor allows staff to more effectively control and monitor the use of the toilet rooms helping to reduce the risk of patient harm and lowering the patient safety risk. In addition, the guidelines allow for toilet room doors to be equipped with keyed locks that allow staff to control access to the toilet rooms. By locating the toilet rooms off of the corridor and not in the patient rooms, it allows staff to more efficiently manage the locking and unlocking of these spaces while maintaining their awareness of the environment instead of having to go into the patient room which limits their ability to supervise the patient milieu.

C. IF THE VARIANCE INVOLVES THE PHYSICAL STRUCTURE OR EQUIPMENT, DESCRIBE THE SPECIFIC LOCATION WITHIN THE FACILITY IN WHICH THE VARIANCE WILL BE UTILIZED:

III. NOTIFICATION OF INTERESTED PARTIES:

This request for variance has been mailed to the following parties:

Name	Address
Andrew Baxter / Architect	Utah Department of Health Cannon Health Building 288 North 1460 West Salt Lake City, Utah 84116

IV CERTIFICATION OF REQUEST:

Name PEGGY GRUSENDORF Title ASSISTANT SUPERINTENDENT
Signature Peggy Grusendorf Date 5-15-12

THE STATE OF UTAH/DFCM

APPLICATION FOR APPROVAL OF ALTERNATIVE TO OR MODIFICATION OF THE 2009 STATE OF UTAH INTERNATIONAL BUILDING CODES.

Date:_____DFCM Project NO:_____

Project name:_____Address:_____

Owner's Name:_____Phone:_____

Applicant's Name:_____Phone:_____

Applicant's Address:_____

NOTE TO APPLICANT: Sections 104.10 and 104.11 of the International Building Code adopted by the State of Utah grant the Building Official the ability to consider alternatives to or modifications of the Code in unusual cases. It is the policy of DFCM that the use of these sections of the Code be limited, and that individual cases be considered carefully within the context of the requirements of these provisions.

A. IBC Section 104.11: Alternate Materials, Design and Methods of Construction.

1. According to IBC Section 104.11, the undersigned applicant hereby requests approval of an alternative to Section _____ of the Code, which requires that (Cite that portion of the Code from which the Applicant is seeking relief based on the proposed alternative):

_____

2. The undersigned Applicant proposes the following alternative to Section _____of the International Building Code (Provide a detailed description of your proposed alternative).

_____

_____

_____

3. For the following reasons, Applicant believes that the proposed alternative to Section _____ of the International Building Code complies with the provisions of the Code, and that the material, method or work offered is, for the purpose intended, *at least* the equivalent of that prescribed in the Code in suitability, strength, effectiveness, fire resistance durability, safety and sanitation.

_____

B. IBC SECTION 104.10: MODIFICATIONS

1. Pursuant to IBC Section 104.10, the undersigned Applicant requests approval of a modification of Section _____of the Code which requires that (cite that portion of the Code from which the Applicant is seeking relief based on the proposed modification).

_____

2. The undersigned Applicant states the following reason(s) why strict compliance with Section _____ of the Code is impractical or presents extreme difficulty. (provide a detailed, specific statement of the reason for your request).

_____

3. For the following reasons, Applicant believes that the proposed modification to Section _____of the Code meets the intent of the Code, and neither lessens any fire protection requirements of the Code nor compromises the structural integrity of the structure.

_____

Applicant Signature **Date**

APPLICATION DETERMINATION

Upon reasonable consideration, the DFCM Building Official has determined that the above application is:

_____Denied.

_____Approved without conditions.

_____Approved. Subject to the following conditions:

_____

Date: _____Building Official:_____

APPLICANT'S AGREEMENT TO ABIDE BY CONDITIONS

The undersigned expressly acknowledges and agrees that acceptance of this application an any subsequent issuance of a permit based on the proposed alternative or modification, has been made subject to certain conditions which the DFCM Building Official, in its own discretion, deems necessary. The undersigned agrees to comply strictly with all conditions imposed by the Building Department. Failure to comply strictly with all conditions imposed by the Building Department in granting any permit pursuant to this application will render any right to proceed with construction, occupancy or use of any property or premises pursuant to said permit VOID.

Owner's Signature:_____Date:_____

(If Applicant is not the Owner or
Owner's Architect or Engineer0

ApplicantSignature/Title:_____Date:_____

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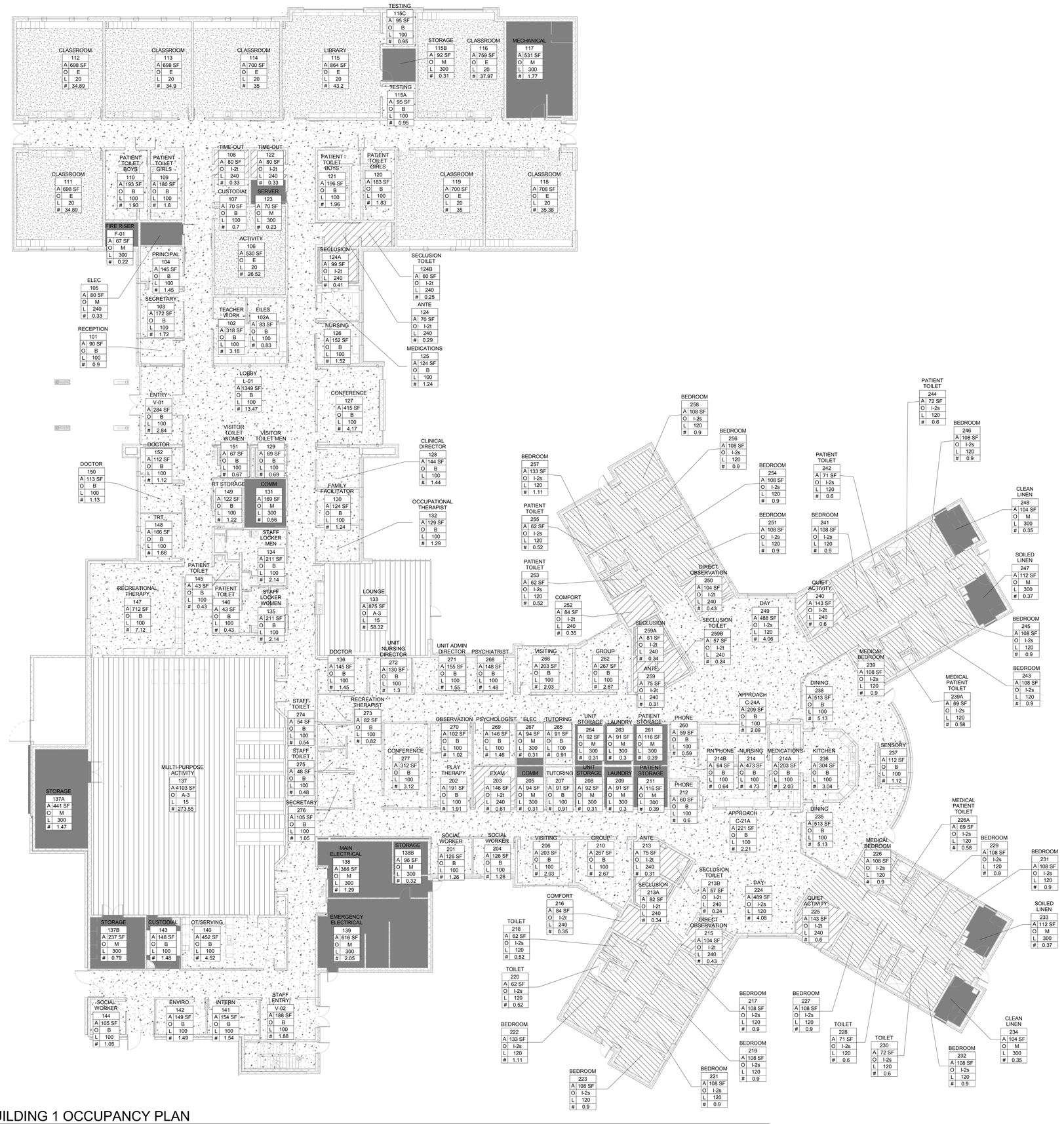
CODE ALTERNATE DESIGN

G106

9/11/2012 8:15:46 AM



A2 BUILDING 1 OCCUPANCY PLAN

SCALE: 1 : 140

DFCM APPROVAL STAMP

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REFERENCE NOTES

OCCUPANCY TAG LEGEND

	ROOM NAME
	RM NO.
A	AREA
O	OCC TYPE
L	OCC LOAD
#	OCC PER ROOM

OCCUPANCY TYPES

- A-3
- B
- E
- Mech(M; INCLUDING ACCESSORY STORAGE)
- I-2 TREATMENT (I-2t)
- I-2 SLEEPING (I-2s)

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PROJECT NUMBER 11111
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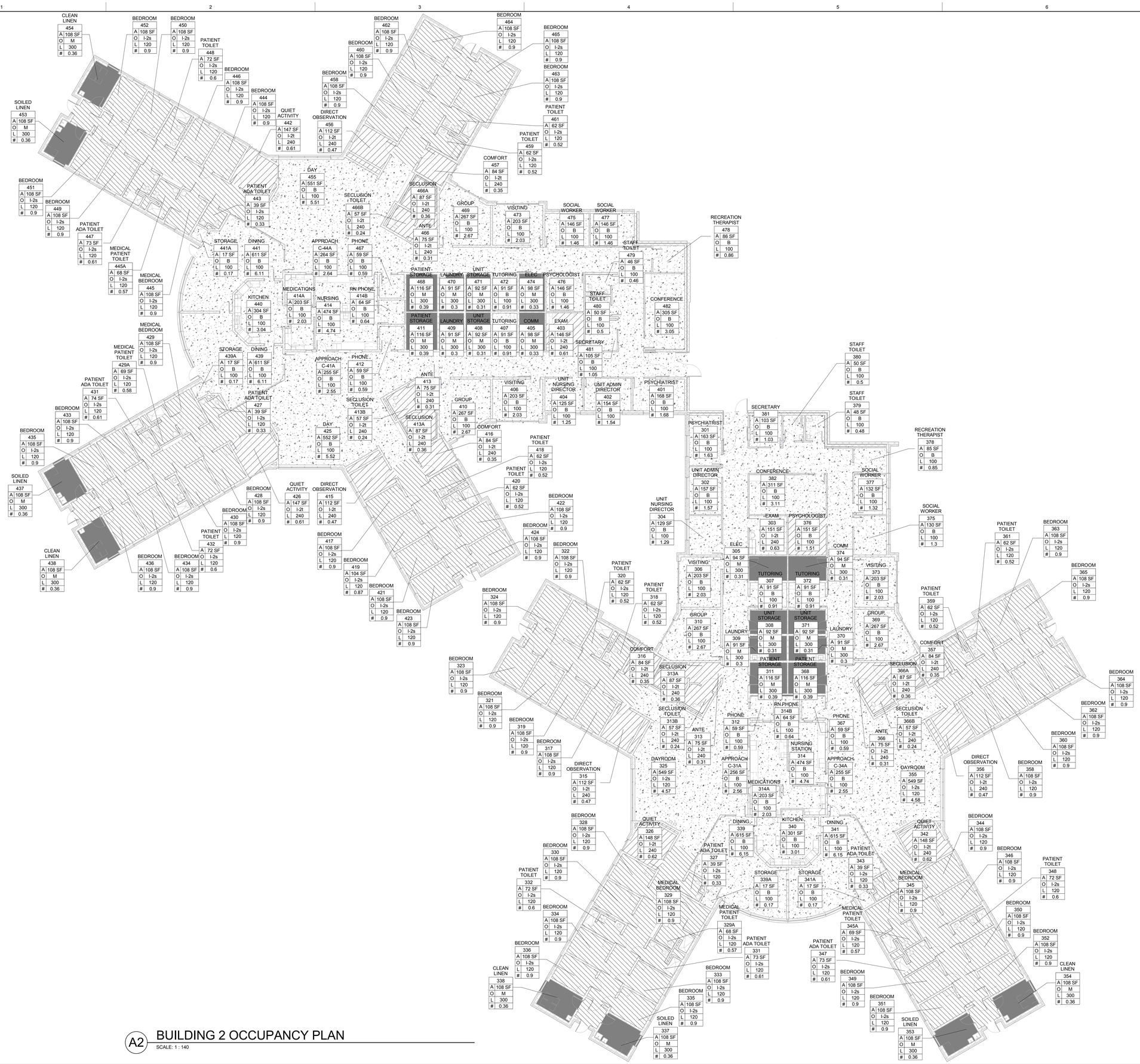
BUILDING 1 OCCUPANCY PLAN

G150

9/11/2012 8:15:55 AM



A2 BUILDING 2 OCCUPANCY PLAN

SCALE: 1 : 140

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REFERENCE NOTES

OCCUPANCY TAG LEGEND

ROOM NAME	
RM NO.	
A	AREA
O	OCC TYPE
L	OCC LOAD
#	OCC PER ROOM

OCCUPANCY TYPES

- B
- Mech (M; INCLUDING ACCESSORY STORAGE)
- I-2 TREATMENT (I-2t)
- I-2 SLEEPING (I-2s)

PEDIATRIC FACILITY
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BUILDING 2 OCCUPANCY PLAN

G151

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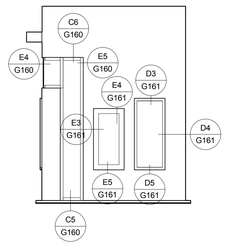
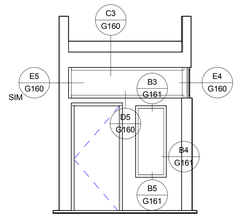
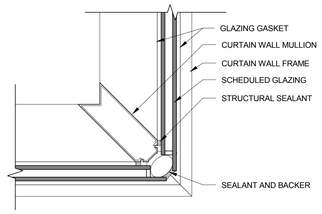


E2 MOCK-UP ELEVATION 2
SCALE: 1/4" = 1'-0"

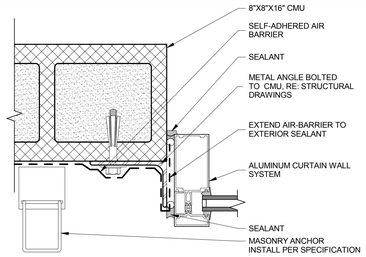


E3 MOCK-UP ELEVATION 3
SCALE: 1/4" = 1'-0"



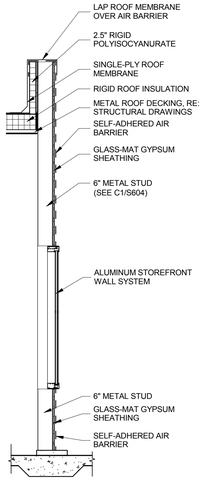
NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL B4/A635

E4 MOCK-UP CLERESTORY CORNER
SCALE: 3" = 1'-0"

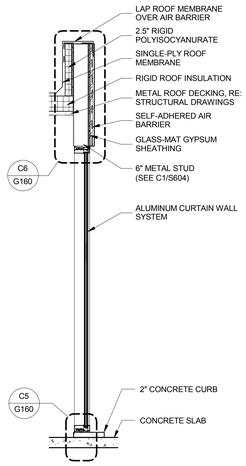


NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL B1/A635

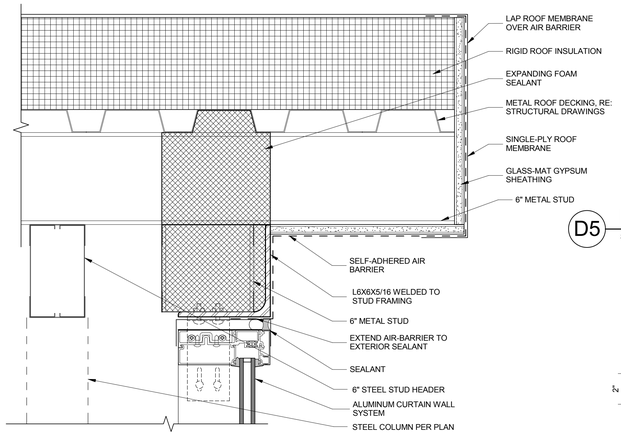
E5 MOCK-UP CURTAINWALL JAMB
SCALE: 3" = 1'-0"



C1 MOCK-UP SECTION 3
SCALE: 1/2" = 1'-0"

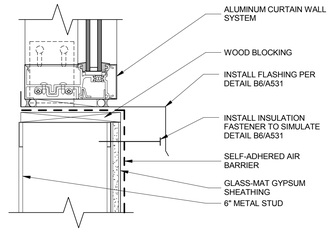


C2 MOCK-UP SECTION 4
SCALE: 1/2" = 1'-0"



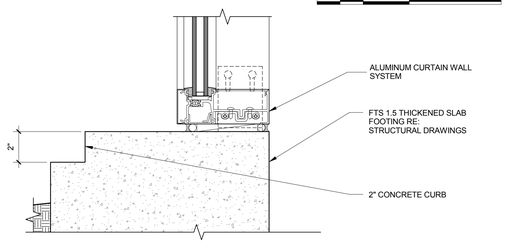
NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL D1/A635

C3 MOCK-UP CLERESTORY HEAD
SCALE: 3" = 1'-0"



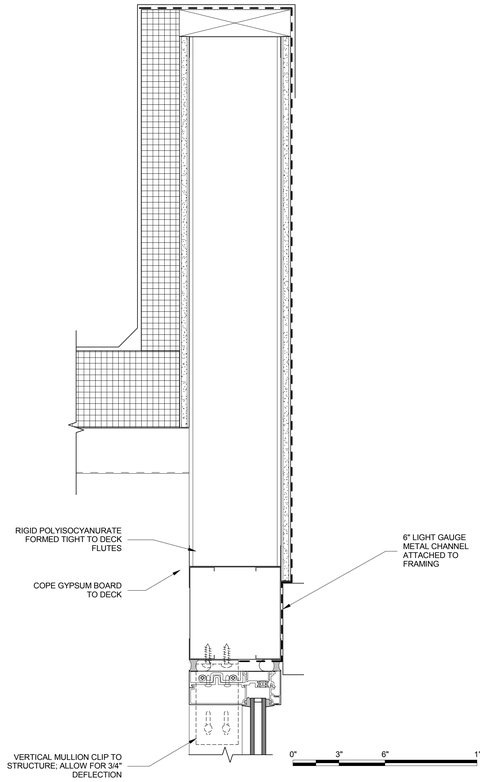
NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL B6/A531

D5 MOCK-UP CLERESTORY SILL
SCALE: 3" = 1'-0"



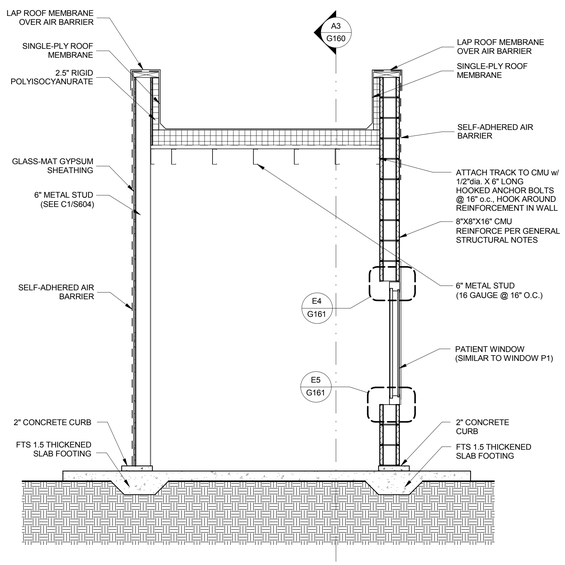
NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL A1/A635

C5 MOCK-UP CURTAINWALL SILL
SCALE: 3" = 1'-0"

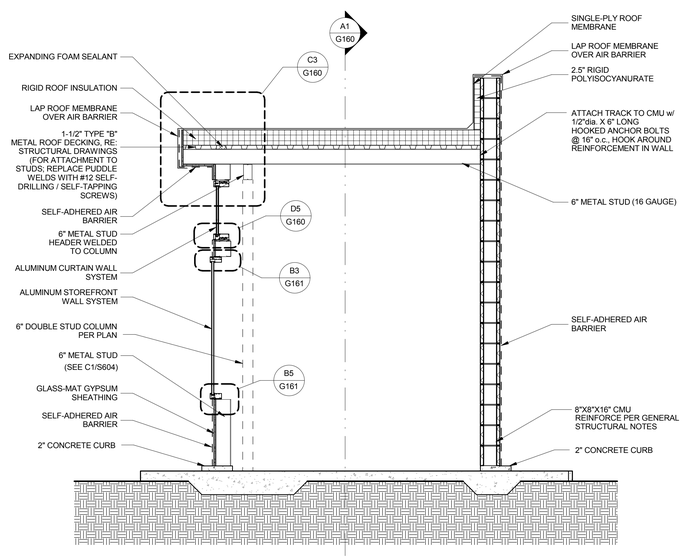


NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL D3/A635

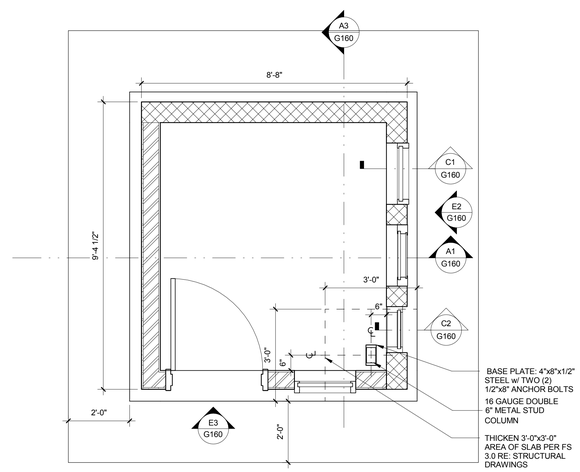
C6 MOCK-UP CURTAIN WALL HEAD
SCALE: 3" = 1'-0"



A1 MOCK-UP SECTION
SCALE: 1/2" = 1'-0"



A3 MOCK-UP SECTION 2
SCALE: 1/2" = 1'-0"



A6 MOCK-UP PLAN
SCALE: 1/2" = 1'-0"

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bogue building
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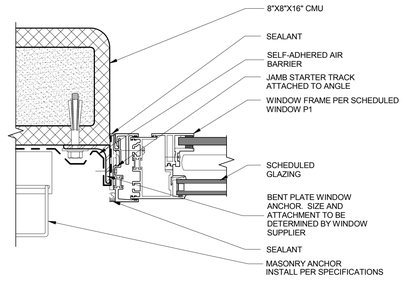
PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

MOCK UP PLANS, ELEVATIONS & DETAILS

G160

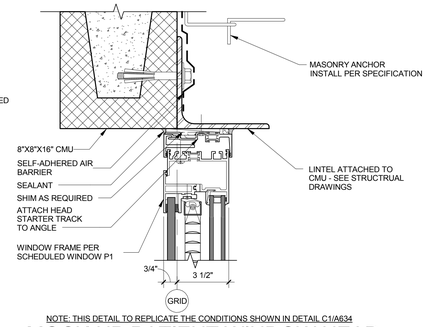
9/11/2012 8:16:11 AM



NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL B1/A634

E3 MOCK-UP PATIENT WINDOW JAMB

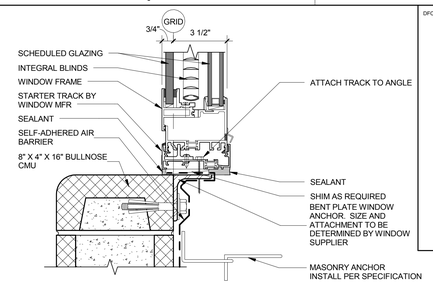
SCALE: 3" = 1'-0"



NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL C1/A634

E4 MOCK-UP PATIENT WINDOW HEAD

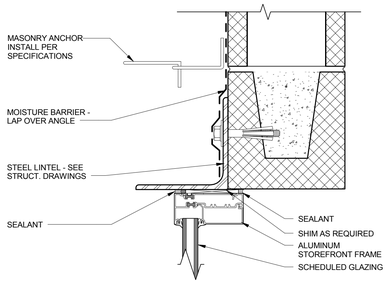
SCALE: 3" = 1'-0"



NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL A1/A634

E5 MOCK-UP PATIENT WINDOW SILL

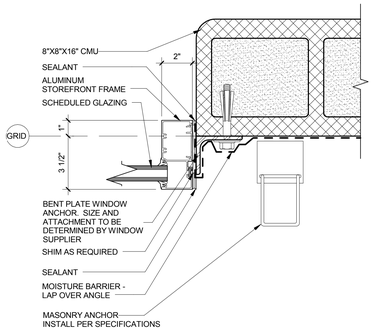
SCALE: 3" = 1'-0"



NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL C1/A633

D3 MOCK-UP STOREFRONT HEAD AT CMU

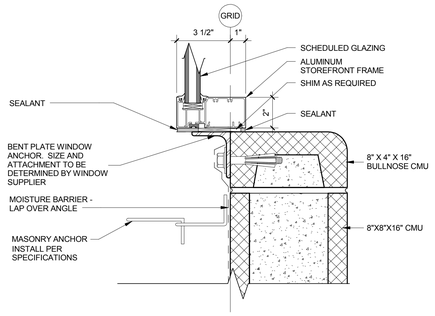
SCALE: 3" = 1'-0"



NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL A4/A633

D4 MOCK-UP STOREFRONT JAMB AT CMU

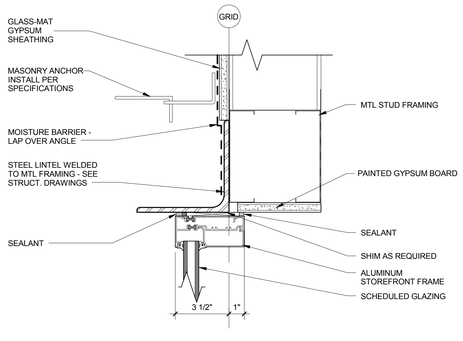
SCALE: 3" = 1'-0"



NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL B1/A633

D5 MOCK-UP STOREFRONT SILL AT CMU

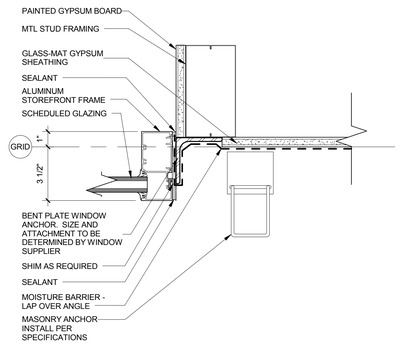
SCALE: 3" = 1'-0"



NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL C2/A633

B3 MOCK-UP STOREFRONT HEAD AT GYP

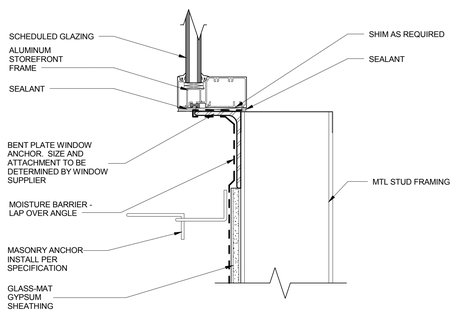
SCALE: 3" = 1'-0"



NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL A5/A633

B4 MOCK-UP STOREFRONT JAMB AT GYP

SCALE: 3" = 1'-0"



NOTE: THIS DETAIL TO REPLICATE THE CONDITIONS SHOWN IN DETAIL B4/A633

B5 MOCK-UP STOREFRONT SILL AT GYP

SCALE: 3" = 1'-0"

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DATE	STATUS

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PROJECT NUMBER 11111
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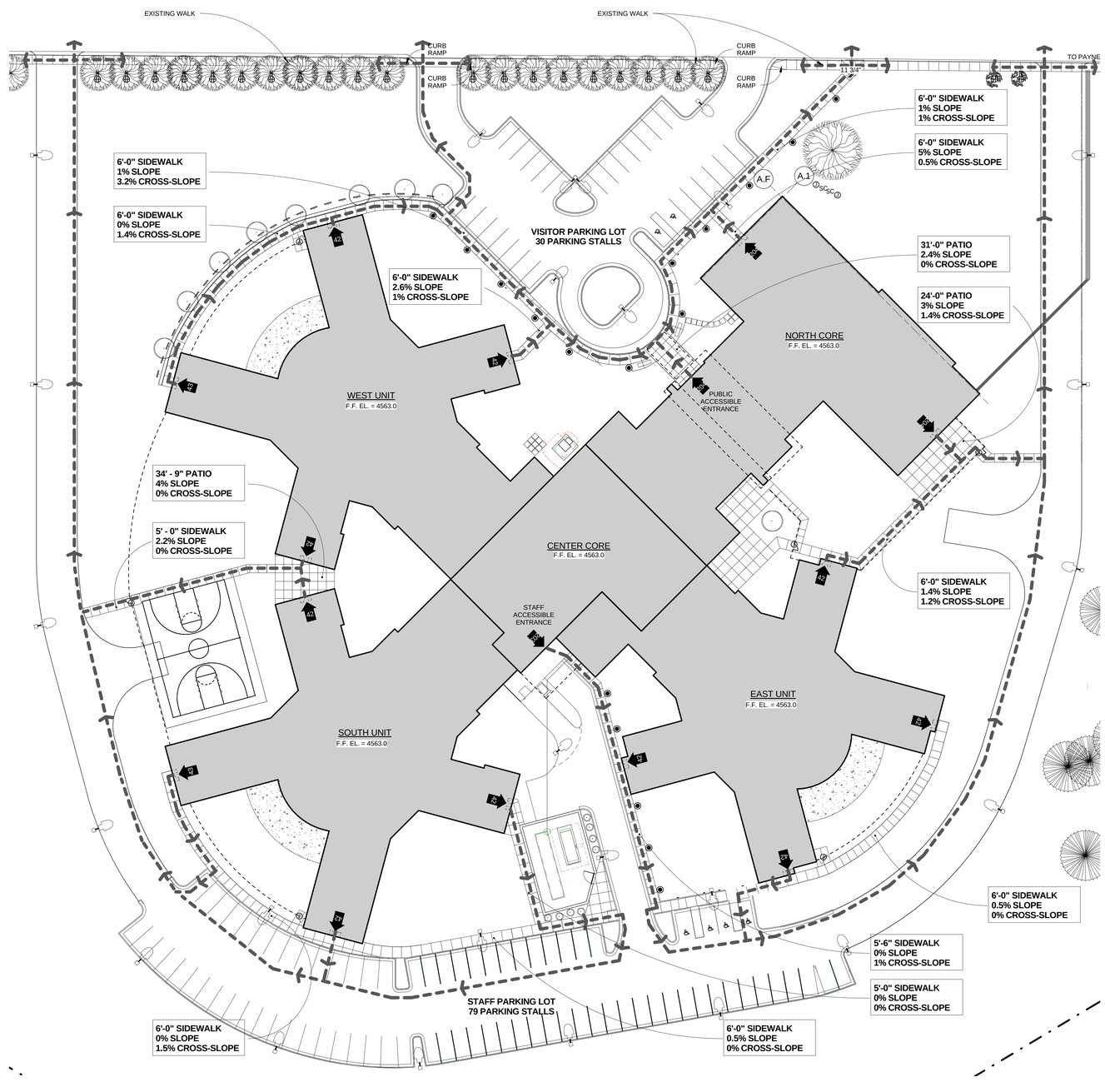
MOCK UP DETAILS

G161

9/11/2012 8:16:14 AM



A2 PEDIATRIC SITE LIFE SAFETY PLAN

SCALE: 1" = 30'-0"

0" 15' 30' 60'

PARKING CALCULATIONS

VISITOR PARKING STALL CALCULATIONS

TOTAL STALLS	30
ACCESSIBLE STALLS REQUIRED (TABLE 1106.1 - 26 to 50 = 2 STALLS REQUIRED)	2
ACCESSIBLE STALLS PROVIDED	2
PERCENTAGE OF ACCESSIBLE STALLS	6.67%
VAN STALLS REQUIRED (1106.5 - 1 VAN PER 6 STALLS = 1 VAN STALL REQUIRED)	1
VAN STALLS PROVIDED	1

STAFF PARKING STALL CALCULATIONS

TOTAL STALLS	79
ACCESSIBLE STALLS REQUIRED (TABLE 1106.1 - 76 to 100 = 4 STALLS REQUIRED)	4
ACCESSIBLE STALLS PROVIDED	4
PERCENTAGE OF ACCESSIBLE STALLS	5.06%
VAN STALLS REQUIRED (1106.5 - 1 VAN PER 6 STALLS = 1 VAN STALL REQUIRED)	1
VAN STALLS PROVIDED	1

ADDITIONAL ACCESSIBLITY REQUIREMENTS

1106.7.2 - A PASSENGER LOADING ZONE IS REQUIRED FOR MEDICAL FACILITIES.

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LEGEND

ACCESSIBLE EXIT DISCHARGE

ACCESS TO PUBLIC WAY

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PROJECT NUMBER 11111

FILE USH-SITE

SITE LIFE SAFETY

GS200

9/10/2012 12:52:57 PM

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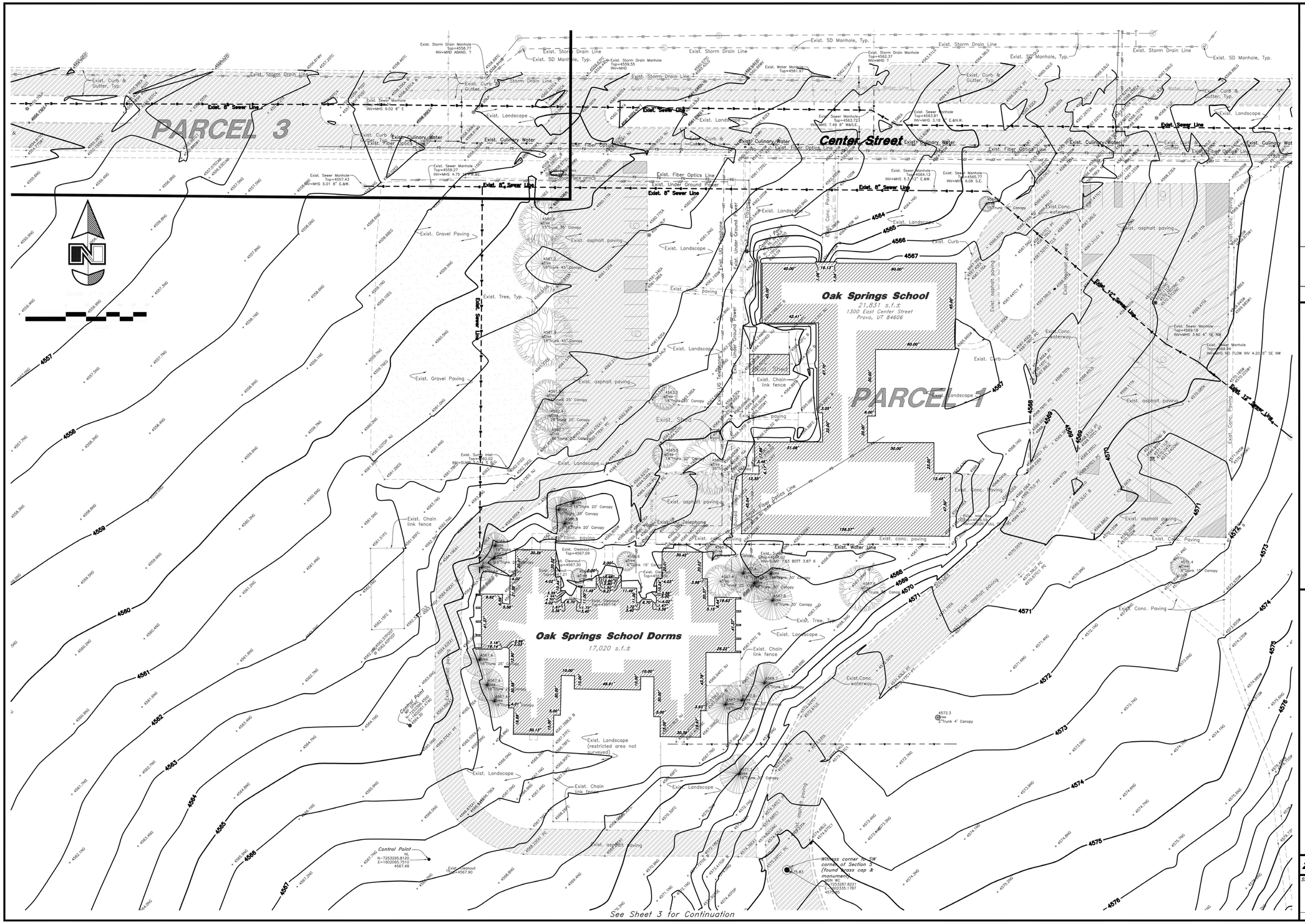

REV	DATE	DESCRIPTION

GREAT BASIN ENGINEERING
5746 SOUTH 1475 EAST OGDEN, UTAH 84403
MAIN (801)394-4515 S.L.C (801)521-0222 FAX (801)392-7544
WWW.GREATBASINENGINEERING.COM

ALTA/ACSM Land Title Survey

Utah State Hospital

A part of the North 1/2 of Section 9 T5N, R1W, SLB&M, U.S. Survey Provo City, Utah County, Utah

27 Sept, 2011

SHEET NO.

11N714

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
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SURVEY

V101

9/10/2012 12:47:30 PM

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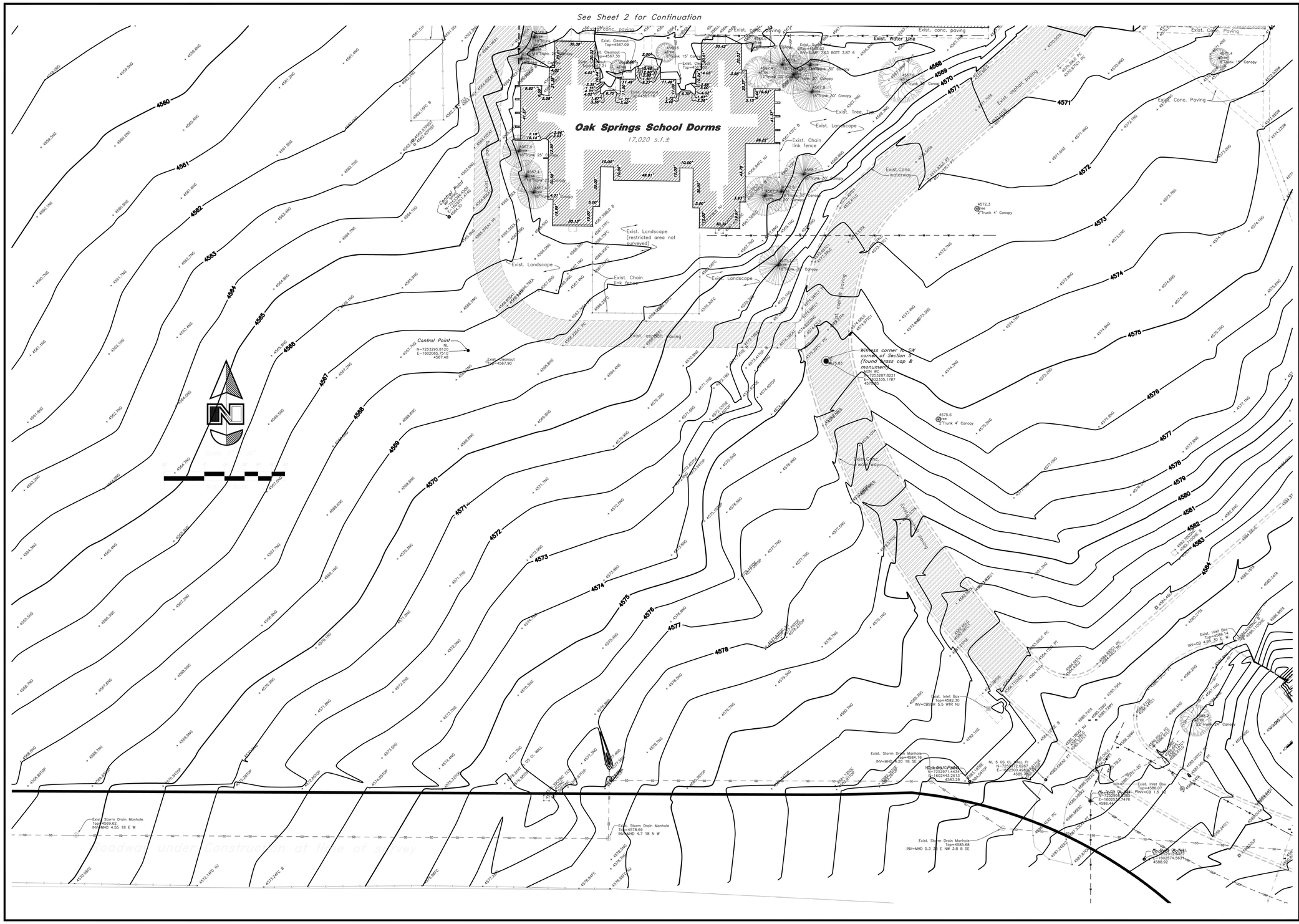

REV	DATE	DESCRIPTION

GREAT BASIN ENGINEERING
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MAIN (801)394-4515 S.L.C (801)521-0222 FAX (801)392-7544
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ALTA/ACSM Land Title Survey

Utah State Hospital

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T3N, R1W, SLB&M, U.S. Survey
Provo City, Utah county, Utah

27 Sept, 2011

SHEET NO.

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PROJECT NUMBER 11111
FILE USH-SITE

SURVEY

V102

9/10/2012 12:48:06 PM

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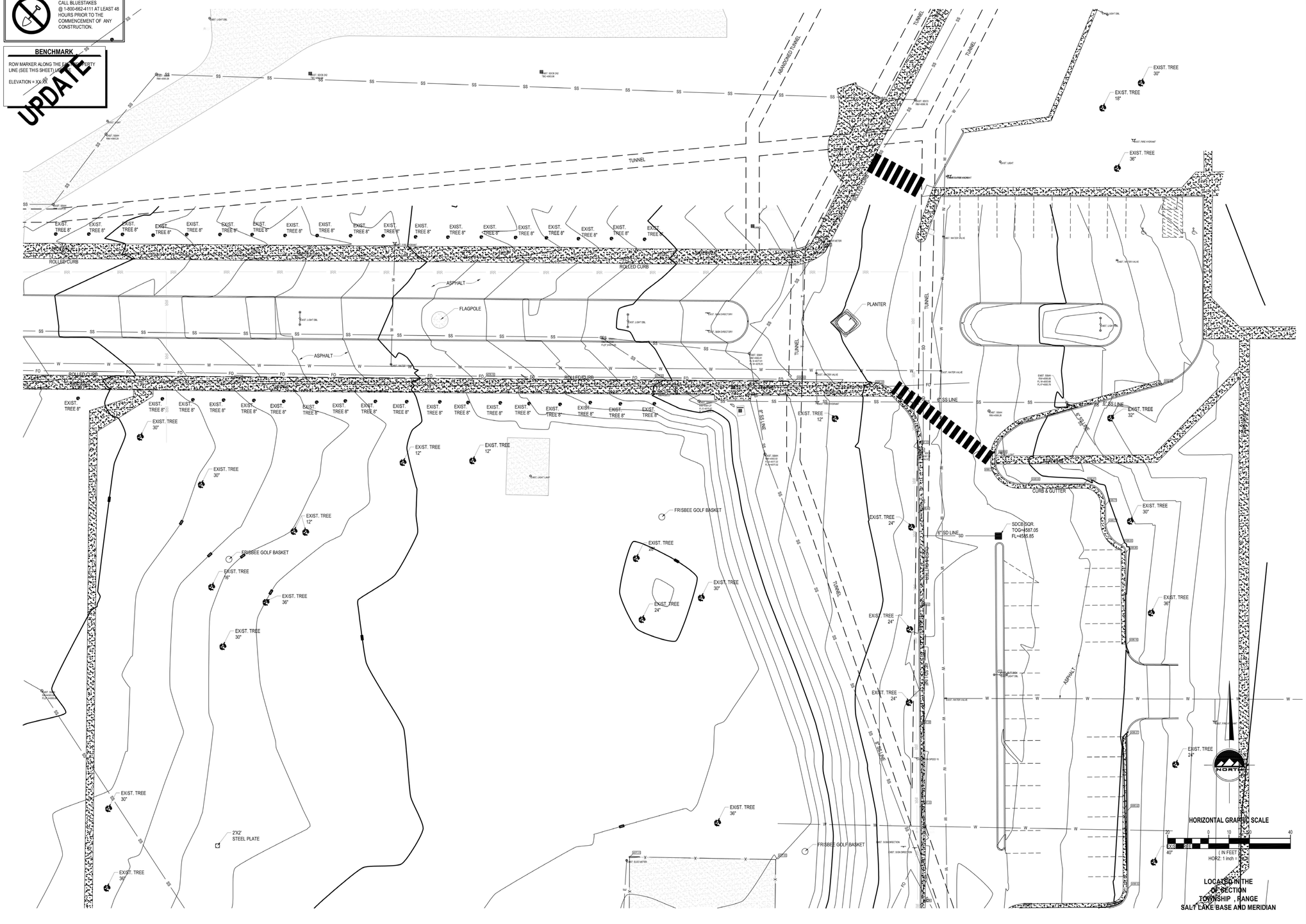
CALL BLUESTAKES @ 1-800-662-4111 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

BENCHMARK

ROW MARKER ALONG THE EAST PROPERTY LINE (SEE THIS SHEET) UPDATE

ELEVATION = XX.XX

UPDATE



LOCATED IN THE
OF SECTION
TOWNSHIP , RANGE
SALT LAKE BASE AND MERIDIAN

ENSIGN

SALT LAKE CITY
45 W. 10000 S., Suite 500
Sandy, UT 84070
Phone: 801.255.0529
Fax: 801.255.4449

LAYTON
Phone: 801.547.1100

TOOELE
Phone: 435.843.3590

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.590.0187

WWW.ENSIGNUTAH.COM

FOR:
CLIENT
CLIENT'S ADDRESS
CLIENT CITY STATE ZIP

CONTACT:
CLIENT CONTACT
PHONE: 801-000-0000
FAX:

PROJECT

STREET
CITY, UTAH

NO.	DATE	REVISION	BY
1		FOR REVIEW	
2			
3			
4			
5			
6			
7			
8			

DRAWING TITLE

PROJECT NUMBER	PRINT DATE
####	7/2/12
DRAWN BY	CHECKED BY
PROJECT MANAGER	

C-1

PEDIATRIC FACILITY
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PROJECT NUMBER 11111
FILE USH-SITE

SURVEY

V103

9/10/2012 12:48:38 PM

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(1-800-662-4111 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

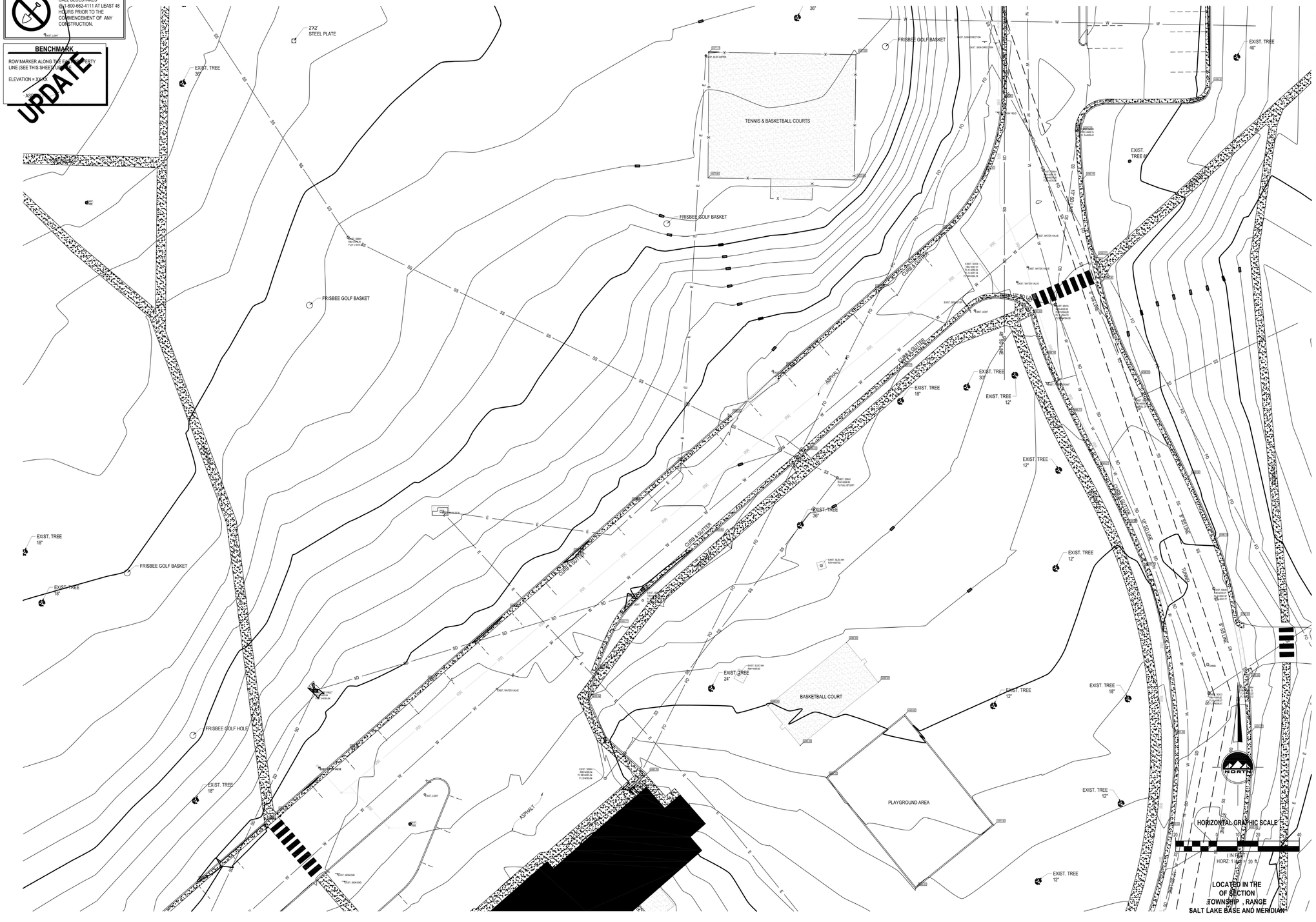
BENCHMARK

ROW MARKER ALONG THE EAST PROPERTY LINE (SEE THIS SHEET FOR LOCATION)

ELEVATION = XXXX

ASSUMED

UPDATE



ENSIGN

SALT LAKE CITY
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Fax: 801.255.4449

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Phone: 801.547.1100

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FOR:
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CLIENT'S ADDRESS
CLIENT CITY STATE ZIP

CONTACT:
CLIENT CONTACT
PHONE: 801-000-0000
FAX:

PROJECT

STREET
CITY, UTAH

NO.	DATE	REVISION	BY
1		FOR REVEW	
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PROJECT NUMBER ####
PRINT DATE 7/2/12
DRAWN BY
CHECKED BY
PROJECT MANAGER

C-1

PEDIATRIC FACILITY
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BID DOCUMENTS - 09/12/2012

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DATE	STATUS
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△	DATE	REVISION

PROJECT NUMBER 11111
FILE USH-SITE

SURVEY

V104

9/10/2012 12:49:01 PM

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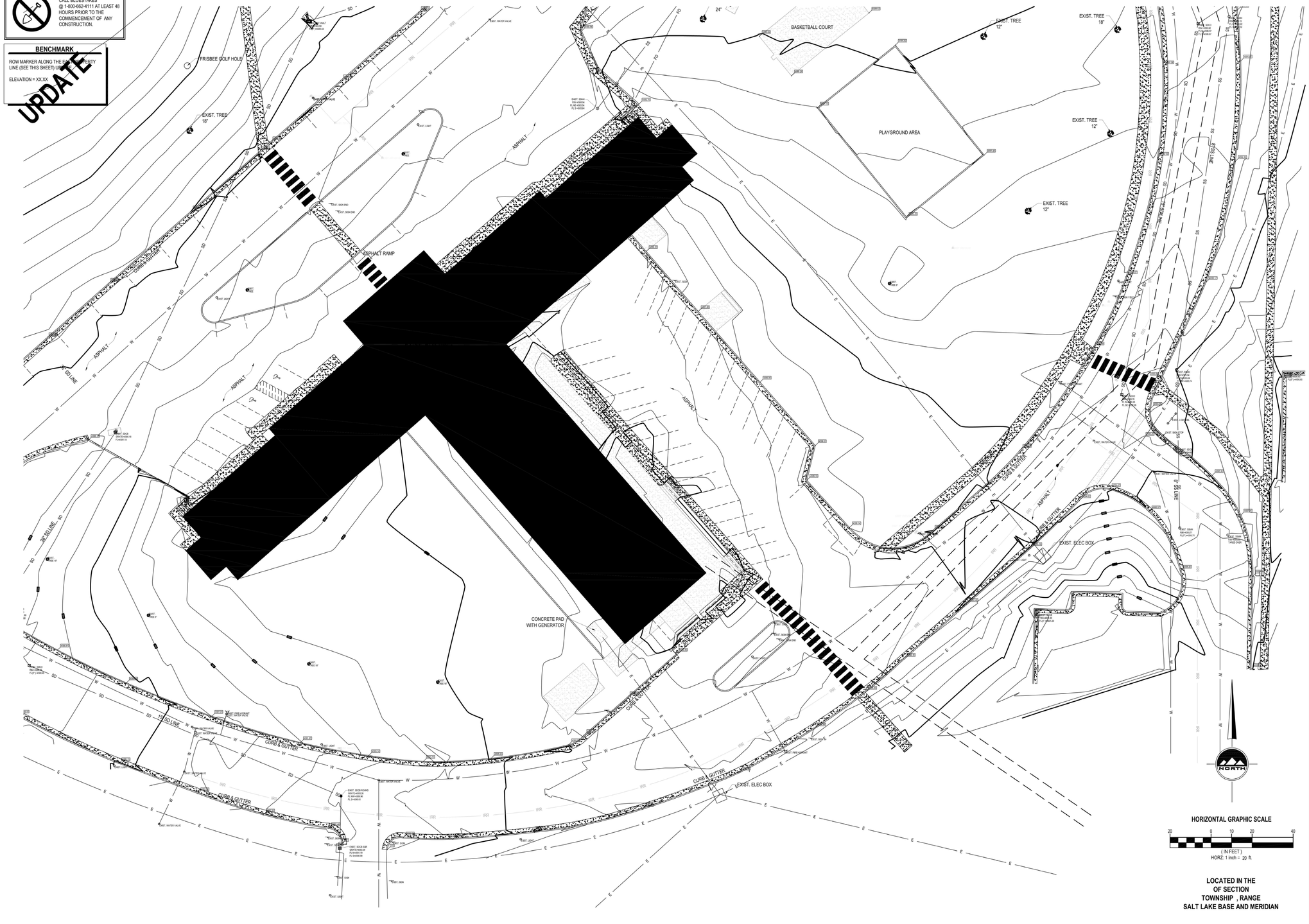
BENCHMARK

ROW MARKER ALONG THE EAST PROPERTY LINE (SEE THIS SHEET) [illegible]

ELEVATION = XX.XX

UPDATE



HORIZONTAL GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
HORZ: 1 inch = 20 ft.

LOCATED IN THE
OF SECTION
TOWNSHIP , RANGE
SALT LAKE BASE AND MERIDIAN

ENSIGN

SALT LAKE CITY
45 W. 10000 S., Suite 500
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CLIENT
CLIENT'S ADDRESS
CLIENT CITY STATE ZIP

CONTACT:
CLIENT CONTACT
PHONE: 801-000-0000
FAX:

PROJECT

STREET
CITY, UTAH

NO.	DATE	REVISION	BY
1		FOR REVEIW	
2			
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8			

DRAWING TITLE

PROJECT NUMBER ####
PRINT DATE 7/2/12
DRAWN BY
CHECKED BY
PROJECT MANAGER

C-1

PEDIATRIC FACILITY
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PROJECT NUMBER 11111
FILE USH-SITE

SURVEY

V105

9/10/2012 12:49:18 PM

REFERENCE NOTES

17. FIRE MAIN. SEE PLUMBING PLAN FOR CONTINUATION.
18. CHILLED WATER SUPPLY AND RETURN LINES TO REMOTE CHILLER. SEE MECHANICAL PLANS.
19. SEE PLUMBING PLAN FOR CONTINUATION OF ROOF DRAIN PIPING.
20. CONNECT TO 6" SOFT WATER MAIN IN TUNNEL WITH ISOLATION VALVE IN TUNNEL.
21. PROVIDE NEW SOFT WATER LINE IN EXITING AND NEW TUNNEL AS SHOWN. USE EXISTING PIPE RACK WITH NEW HANGERS, TYPICAL.

1. ROOF DRAIN CONNECTION. SEE PLUMBING PLAN.
2. FIELD LOCATE EXISTING 6" VCT SANITARY SEWER MAIN. CONSTRUCT NEW MANHOLE TO EXISTING MAIN.
3. REMOVE EXISTING UTILITY AND CONCRETE STRUCTURES.
4. SEE PLUMBING PLAN AND COORDINATE INVERT ELEVATION.
5. SEE PLUMBING PLAN FOR FIRE PROTECTION MAIN AND SPECIAL REQUIREMENTS.
6. SAWCUT PAVEMENT AND REPAIR AND REPLACE WITH EQUIVALENT BASE AND ASPHALT.
7. TAP WATER LINE OR PROVIDE CUT-IN TEE DEPENDING ON SIZE OF LATERAL. SEE DETAILS. PROVIDE GATE VALVE AT CONNECTION.
8. WATER SERVICE TO BUILDING. ENTER TUNNEL AND EXTEND TO MECHANICAL ROOM. SEE MECHANICAL FOR CONTINUATION.
9. FIRE HYDRANT, TYPICAL. SEE DETAIL.
10. THRUST BLOCK ALL FITTINGS, TYPICAL. SEE DETAIL.
11. SEE PLUMBING PLAN FOR SIZE AND INVERT, TYPICAL PEDIATRICS BUILDING.
12. RECONFIGURE WATER LINE CONNECTION TO EXISTING TUNNEL WITH GATE VALVE ON EACH SIDE OF VALVE.
13. OFFSET WATER MAIN TO EXISTING TUNNEL AND CONNECT.
14. EXISTING FDC, PIV, AND FH TO BE REMOVED. CAP IN TUNNEL AT EXISTING YOUTH SERVICES TUNNEL.
15. CAP ALL UTILITIES IN TUNNEL NOT REQUIRED FOR YOUTH SERVICES BUILDING.
16. CONNECT TO 8" WATER IN TUNNEL AND EXTEND 6" LINE TO FIRE HYDRANT OUTSIDE TUNNEL.

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

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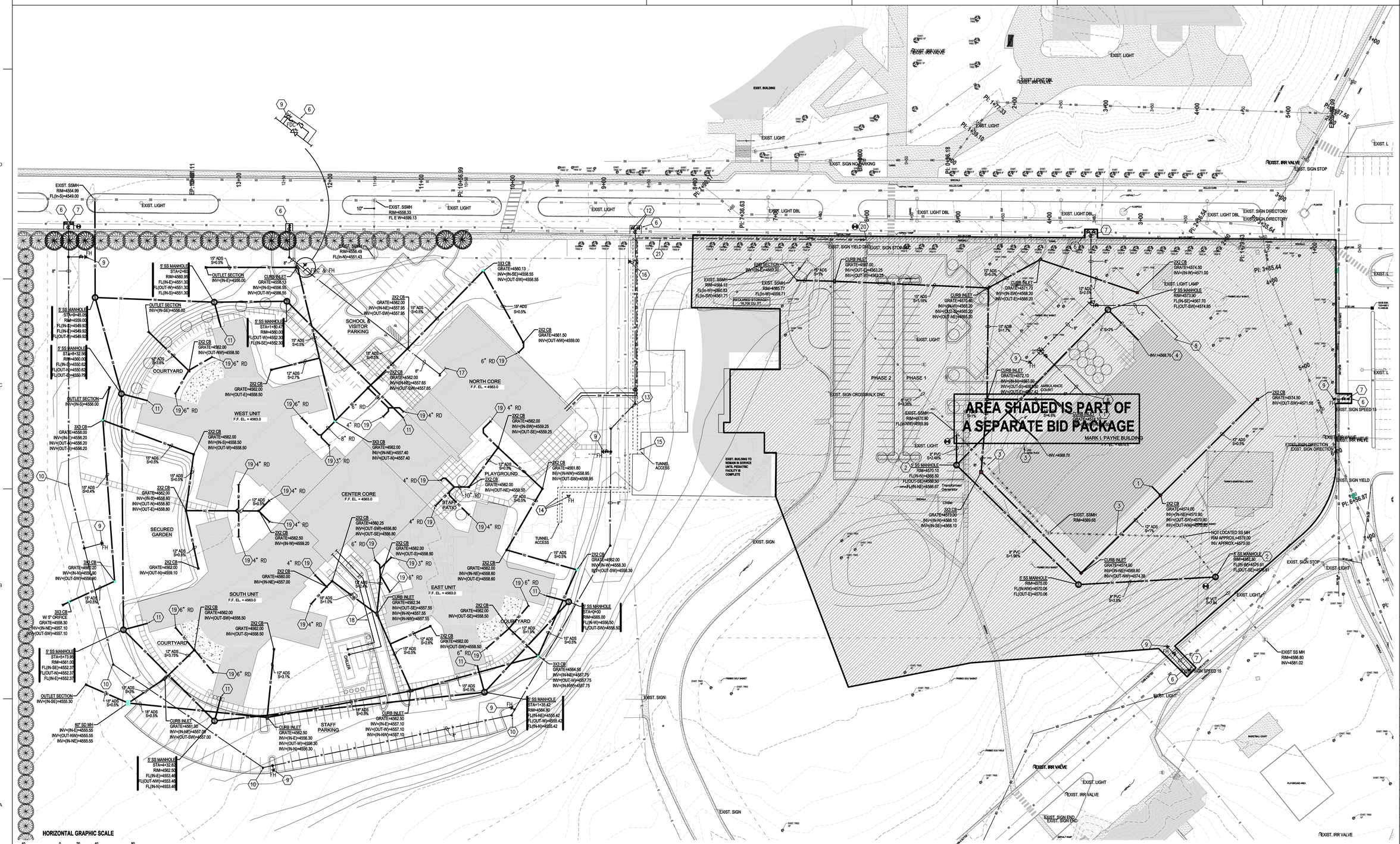
801-539-1916
ffkr.com



LOCATED IN THE
OF SECTION
TOWNSHIP , RANGE
SALT LAKE BASE AND MERIDIAN

OVERALL SITE UTILITY PLAN

SCALE: 1" = 40'-0

TRUE PLAN

VAN BOERUM & FRANK ASSOCIATES, INC.
CONSULTING ENGINEERS
Salt Lake City - Logan - St. George - Tempe
Salt Lake City, UT 84111 801.538.3159 F
VBFA Project Number: 11542

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
Utah State Hospital Consolidation
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS
02.APR.2012	DD 100%
29.JUN.2012	REVIEW SET

△	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatrics
DRAWN BY EJ,TC,MB,RG
CHECKED BY JB,KE,DB,SS
SCALE 1" = 40'

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OVERALL SITE UTILITY PLAN

C100

REFERENCE NOTES

LEGEND

- TEMPORARY SAG INLET PROTECTION PER DETAIL "A"
- SF — TEMPORARY SILT FENCE PER DETAIL "B"
- PROPOSED CONCRETE
- EXISTING CONCRETE
- LOD — LIMITS OF DISTURBANCE
- GRADE BREAK
- EXISTING 5' CONTOUR
- EXISTING 1' CONTOUR
- PROPOSED 5' CONTOUR
- PROPOSED 1' CONTOUR

6. NOT ALL POSSIBLE BMP'S HAVE BEEN SHOWN. CONTRACTOR IS RESPONSIBLE TO APPLY CORRECT MEASURES TO PREVENT POLLUTION OF STORM WATER PER PROJECT SWPPP.
7. PLAN LOCATIONS SHOWN FOR BMP'S ARE APPROXIMATE. ACTUAL LOCATIONS AND CONFIGURATIONS SHALL BE FIELD-DETERMINED BY THE OWNER/OPERATOR.
8. NOT ALL BMP'S SHOWN CAN OR SHOULD BE IMPLEMENTED SIMULTANEOUSLY AND/OR FOR THE DURATION OF CONSTRUCTION. SEE SWPPP FOR BMP IMPLEMENTATION SCHEDULE.
9. EXISTING TOPSOIL IS TO BE HARVESTED WHEN GROUND IS CLEARED. TOPSOIL SHALL THEN BE STOCKPILED ON-SITE FOR USE IN AREAS NOT OTHERWISE TO BE LANDSCAPED, TO ACCELERATE REVEGETATION AND STABILIZATION. AS AN ALTERNATE TO STOCKPILING TOPSOIL ONSITE, OWNER/OPERATOR MAY IMPORT TOPSOIL TO AREAS TO BE STABILIZED FROM OFFSITE.
10. CONTRACTOR TO REMOVE PAVEMENT BEFORE INSTALLING SILT FENCE ONLY IN AREAS WHERE SILT FENCE IS REQUIRED TO CROSS THE EXISTING ASPHALT.

SWPPP NOTES

1. THIS PLAN IS DESIGNED AS A FIRST APPRAISAL OF NECESSARY MEANS TO PROTECT THE WATERS OF THE STATE FROM POTENTIAL POLLUTION. IT IS THE RESPONSIBILITY OF THE OWNER/OPERATOR TO ADD WARRANTED BEST MANAGEMENT PRACTICES (BMP'S) AS NECESSARY, MODIFY THOSE SHOWN AS APPROPRIATE, AND DELETE FROM THE PROJECT THOSE FOUND TO BE UNNECESSARY. FEDERAL AND STATE LAW ALLOWS THESE UPDATES TO BE MADE BY THE OWNER/OPERATOR ONSITE AND RECORDED BY THE OWNER/OPERATOR ON THE COPY OF THE SWPPP KEPT ONSITE.
2. ALL WORK SHALL COMPLY WITH CURRENT APWA PLANS AND SPECIFICATIONS, AND WITH CITY STANDARD PLANS AND SPECIFICATIONS.
3. DISTURBED LAND SHALL BE KEPT TO A MINIMUM - NO SITE CLEARING MORE THAN 14 CALENDAR DAYS AHEAD OF CONSTRUCTION IN ANY GIVEN AREA SHALL BE ALLOWED.
4. RESEED DISTURBED LAND WITH NATIVE GRASS MIXTURE WITHIN 14 CALENDAR DAYS OF ACHIEVEMENT OF FINISH GRADE TO STABILIZE SOILS IF LAND IS NOT TO BE RE-WORKED WITHIN 14 CALENDAR DAYS OF THE CESSATION OF CONSTRUCTION ACTIVITIES AT THAT LOCATION.
5. DETAILS SHOWN ARE TO BE EMPLOYED TO PROTECT RUNOFF AS APPROPRIATE DURING CONSTRUCTION - NOT ALL DETAILS ARE NECESSARY AT ALL PHASES OF THE PROJECT. IT SHALL BE THE RESPONSIBILITY OF THE OWNER/OPERATOR TO USE APPROPRIATE BEST MANAGEMENT PRACTICES.

DFCM APPROVAL STAMP

FFKR ARCHITECTS

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SWPPP PLAN

SCALE: 1" = 40'-0

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VBFA Project Number: 11542

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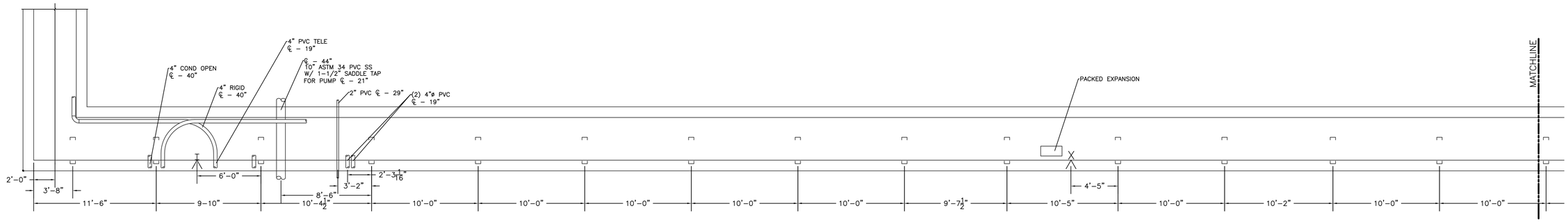
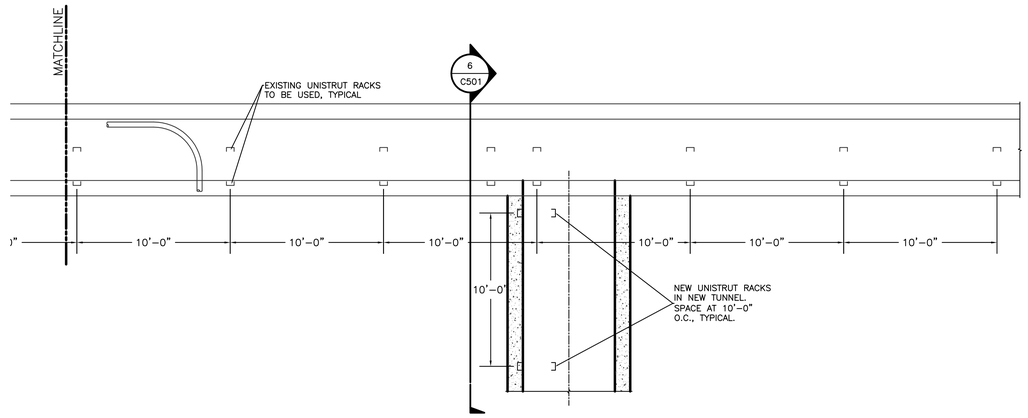
SWPPP PLAN

C200





N

1 C501 EXISTING BEESLEY/YOUTH SERVICES TUNNEL
SCALE: 1/4" = 1'-0"

0' 4' 8'

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SCALE 1/4" = 1'-0"

DETAILS AND SECTIONS

C501

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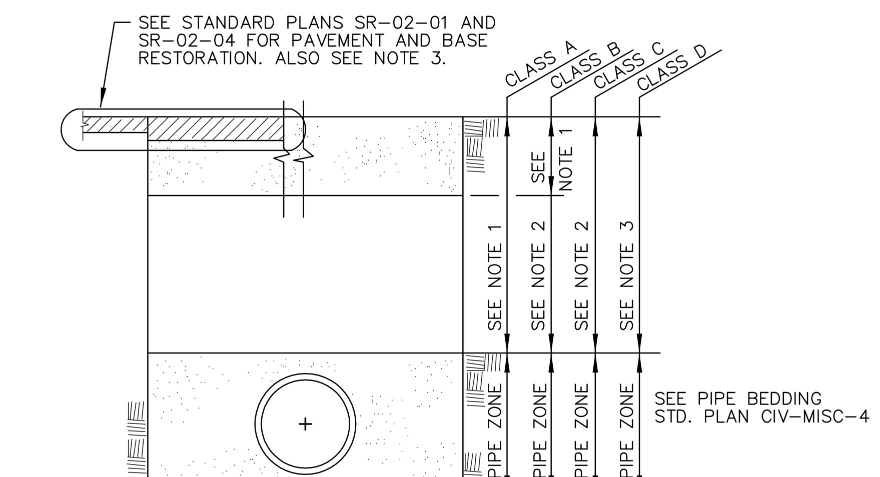
BACKFILL CLASS



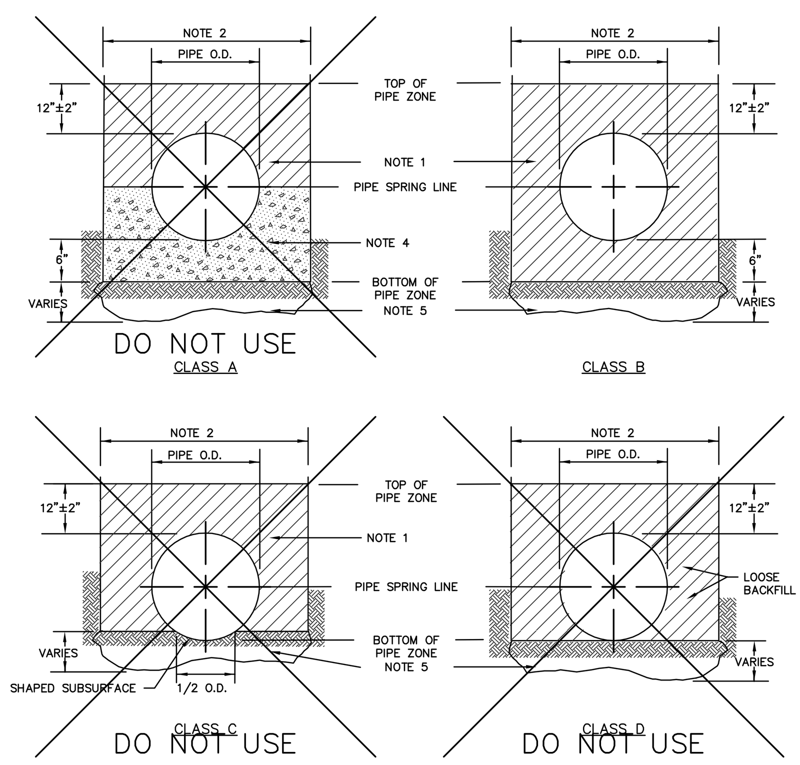
NOTES:

1. BACK FILL WITH 100% IMPORTED GRANULAR BORROW, CONFORMING TO CLASSIFICATION A-1-a, A-1-b OF AASH TO DESIGNATION M-14S. PLACE IN 8" LOOSE LAYERS AND MECHANICALLY COMPACT EACH LAYER TO 96% ASTM D 698 AVERAGE WITH NOTHING LESS THAN 92% OF THE MAXIMUM DRY DENSITY.

   BACK FILL WITH ACCEPTABLE EXCAVATED TRENCH MATERIAL, IF IT CONFORMS TO A-1-a GRANULAR BORROW. PLACE IN 8" LOOSE LAYERS AND MECHANICALLY COMPACT EACH LAYER TO 96% ASTM D 689 AVERAGE WITH NOTHING LESS THAN 92%.

2. BACK FILL WITH EXISTING MATERIAL AND TOPSOIL. COMPACT AND RAKE TO MATCH EXISTING GRADE AND REPLACE VEGETATION TO PRE CONSTRUCTION CONDITIONS.
3. PREPARE THE ASPHALT OR CONCRETE SURFACING IF REQUIRED AFTER TRENCH COMPACTION IS ACCEPTED BY CAMPUS PLANNING.

6 / C503 BACKFILL CLASS
NO SCALE



NOTES:

1 PLACE GRADED GRANULAR BACK FILL (MAXIMUM 2" SIZE) IN PIPE ZONE AT OPTIMUM MOISTURE IN HORIZONTAL 8" DEEP LOOSE LAYERS. IF FLEXIBLE PIPE IS USED, MAXIMUM 3/4" SIZE. COMPACT TO 96% ASTM D698 DRY DENSITY WITH NO DENSITY TEST LESS THAN 92%.

2 MINIMUM WIDTH OF TRENCH MEASURED AT THE SPRING LINE OF THE PIPE, INCLUDING ANY NECESSARY SHEATHING.

PIPE I.D.	WIDTH
LESS THAN 21"	O.D. + 24"
21" TO 44"	O.D. + 24"
GREATER THAN 44"	O.D. + 30"

I.D. MEANS INSIDE DIAMETER OF THE PIPE BARREL
O.D. MEANS THE OUTSIDE DIAMETER OF THE PIPE BARREL.

3 INSTALL PIPE IN THE CENTER OF THE TRENCH.

4 CONCRETE: APWA 03304 CLASS 2000 MINIMUM.

5 FOR FOUNDATION STABILIZATION, USE APWA 02060 2-INCH MINUS SEWER ROCK. MATERIAL MAY NOT CONTAIN SLAG OR RECYCLED ASPHALT.

4 / C503 PIPE ZONE BACKFILLING
NO SCALE

ABBREVIATIONS

AARV = AUTOMATIC AIR RELEASE VALVE
AAVV = AUTOMATIC AIR VACUUM VALVE
ABS = ACRYLONITRILE BUTADIENE STYRENE
ACARV = AUTOMATIC COMBINATION AIR RELEASE VALVE
ACC = ASPHALTIC COATED CONCRETE
ACP = ASBESTOS CEMENT PIPE (TRANSITE)
ADPT. = ADAPTER
AGA = AMERICAN GAS ASSOCIATION
AISI = AMERICAN IRON & STEEL INSTITUTE
ANSI = AMERICAN NATIONAL STANDARDS INSTITUTE
APHA = AMERICAN PUBLIC HEALTH ASSOCIATION
API = AMERICAN PETROLEUM INSTITUTE
ASA = AMERICAN STANDARDS ASSOCIATION
ASCE = AMERICAN SOCIETY OF CIVIL ENGINEERING
ASHRAE = AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS
ASME = AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASPH. = ASPHALT
ASSE = AMERICAN SOCIETY OF SANITARY ENGINEERS
ASSY. = ASSEMBLY
ASTM = AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA = AMERICAN WATER WORKS ASSOCIATION

BD = BEND
BFP = BACKFLOW PREVENTER
BFV = BUTTERFLY VALVE
BOCA = BUILDING OFFICIALS CONFERENCE OF AMERICA
BV = BALL VALVE

C = CENTIGRADE
CB = CATCH BASIN
CDA = COPPER DEVELOPMENT ASSOCIATION
CI = CAST IRON (SEWER PIPE)
CIP = CAST IRON PIPE (BEFORE 1940 PIT CAST)
CISPI = CAST IRON SOIL PIPE INSTITUTE
CKV = CHECK VALVE
CMP CAS = CORRUGATED METAL PIPE CASING
CO = CLEAN OUT
CONC = CONCRETE
COND = CONDENSATE
COTG = CLEAN OUT TO GRADE
CPE = CHLORINATED POLYETHYLENE
CPVC = CHLORINATED POLYVINYL CHLORIDE
CS = CAST STEEL
CU = COPPER
CV = CHECK VALVE
CW = CULINARY WATER

D = DIAMETER OR ø
DC = DOUBLE CHECK VALVE ASSEMBLY (BACKFLOW PREVENTER)
DCDC = DOUBLE CHECK - DETECTOR CHECK VALVE ASSEMBLY (BACKFLOW PREVENTER)
DEG = DEGREE OR °
DIA. - DIAMETER
DIP = DUCTILE IRON PIPE
DWG = DRAWING

EHCI = EXTRA HEAVY CAST IRON
EXT = EXTEND

F = FAHRENHEIT
FC = FACE OF CURB
FE = IRON
FL = FLOW LINE
FL EL = FLOW LINE ELEVATION
FL IN = FLOW LINE ELEVATION IN FLOW
FL OUT = FLOW LINE ELEVATION OUT FLOW
FLG = FLANGED
FTG = FITTING

G = GAS
GALV = GALVANIZED
GI = GALVANIZED IRON
GLBVLV = GLOBE VALVE
GRNBRG = GREENBERG
GV = GATE VALE

HDPE = HIGH DENSITY POLYETHYLENE
HOWE = HOWELL
HTW = HIGH TEMPERATURE WATER
HYD = HYDRANT

IAPMO = INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS
ICBO = INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
INC = INCREASER
INV = INVERT
INV EL = INVERT ELEVATION
INV IN = INVERT ELEVATION IN FLOW
INV OUT = INVERT ELEVATION OUT FLOW
IPS = IRON PIPE SIZE
IS = INSTALLATION STANDARD

KEN = KENNEDY

Lb. = POUND
LB = LARGE BELL
LR = LONG RADIUS

MH = MANHOLE
MJ = MECHANICAL JOINT
MW = MANWAY

NDTS = NOT DRAWN TO SCALE
NIC = NOT IN CONTRACT
No. = NUMBER
NTS = NOT TO SCALE

OB = OPEN BELL

PB = POLYBUTYLENE
PCCP = PRE-STRESSED CONCRETE CYLINDER PIPE
PE = POLYETHYLENE
PIV = POST INDICATOR VALVE
POC = POINT OF CONNECTION
P.S. = PACIFIC STATES
PT = PLUGGED TEE
PVB = PRESSURE VACUUM BREAKER
PVC = POLYVINYL CHLORIDE

R = RADIUS OR RAD
RD = ROOF DRAIN
RED = REDUCER
REG = REGULATOR
RP = REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY
RPDC = REDUCED PRESSURE PRINCIPLE DETECTION ASSEMBLY

SD = STORM DRAIN
SDMH = STORM DRAIN MANHOLE
SPEC = SPECIFICATION
SPIG = SPIGOT
SS = SANITARY SEWER
SSMH = SANITARY SEWER MANHOLE
STD = STANDARD
STM = STEAM

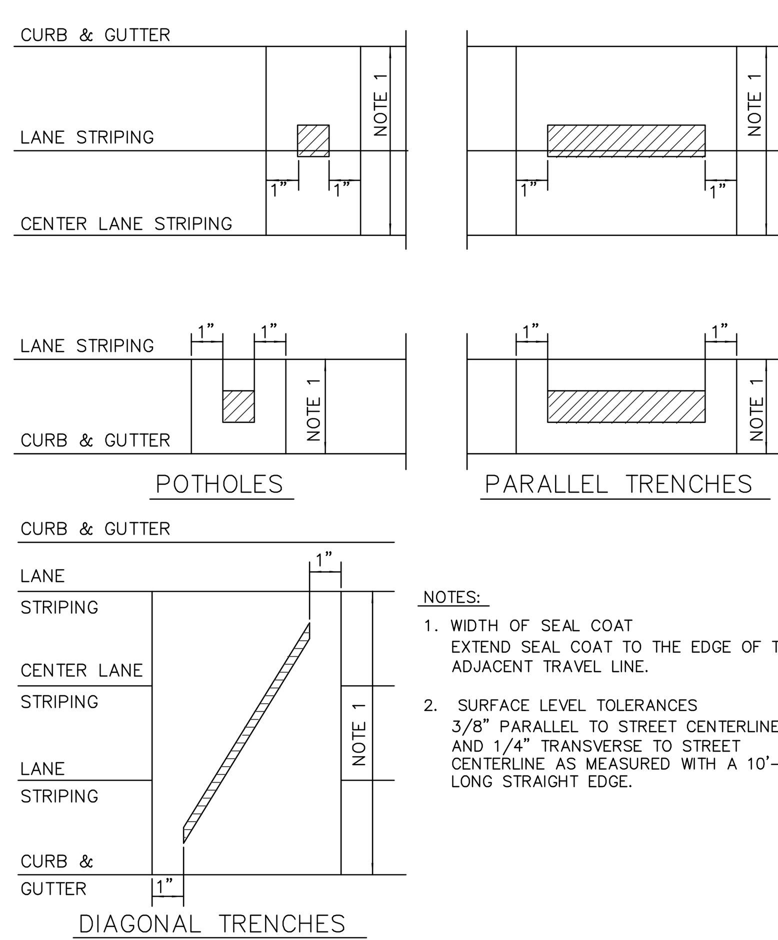
TBC = TOP BACK OF CURB
TD = TRENCH DRAIN
TJ = TYTON JOINT

UL = UNDERWRITERS LABORATORY
UPL = UTAH POWER (ELECTRICAL POWER)
USW = U. S. WEST (TELEPHONE)

VAL = VALVE OR VLV
VB = VACUUM BREAKER
VCP = VITRIFIED CLAY PIPE

WAT = WATROUS
WOV = WASH OUT VALVE
WQA = WATER QUALITY ASSOCIATION

1 / C503 ABBREVIATIONS, LINE TYPES & SYMBOLS
NO SCALE

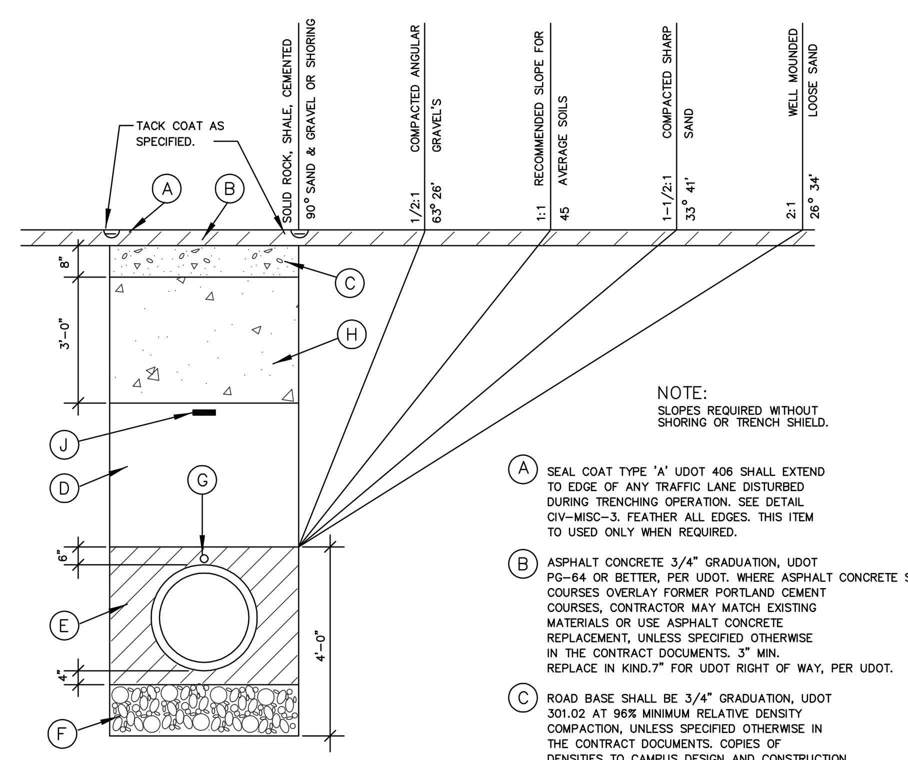


NOTES:

1. WIDTH OF SEAL COAT
   EXTEND SEAL COAT TO THE EDGE OF THE ADJACENT TRAVEL LINE.

2. SURFACE LEVEL TOLERANCES
   3/8" PARALLEL TO STREET CENTERLINE AND 1/4" TRANSVERSE TO STREET CENTERLINE AS MEASURED WITH A 10'-0" LONG STRAIGHT EDGE.

7 / C503 MINIMUM SEAL COAT LIMITS FOR STREET AND PARKING LOT EXCAVATIONS
NO SCALE



NOTE:
SLOPES REQUIRED WITHOUT SHORING OR TRENCH SHIELD.

(A) SEAL COAT TYPE 'A' UDOT 406 SHALL EXTEND TO EDGE OF ANY TRAFFIC LANE DISTURBED DURING TRENCHING OPERATION. SEE DETAIL CIV-MISC-3. FEATHER ALL EDGES. THIS ITEM TO USED ONLY WHEN REQUIRED.

(B) ASPHALT CONCRETE 3/4" GRADUATION, UDOT PG-64 OR BETTER, PER UDOT. WHERE ASPHALT CONCRETE SURFACE COURSES OVERLAY FORMER PORTLAND CEMENT COURSES, CONTRACTOR MAY MATCH EXISTING MATERIALS OR USE ASPHALT CONCRETE REPLACEMENT, UNLESS SPECIFIED OTHERWISE IN THE CONTRACT DOCUMENTS. 3" MIN. REPLACE IN KIND.7" FOR UDOT RIGHT OF WAY, PER UDOT.

(C) ROAD BASE SHALL BE 3/4" GRADUATION, UDOT 301.02 AT 96% MINIMUM RELATIVE DENSITY COMPACTION, UNLESS SPECIFIED OTHERWISE IN THE CONTRACT DOCUMENTS. COPIES OF DENSITIES TO CAMPUS DESIGN AND CONSTRUCTION. NOT REQUIRED WHERE FLOWABLE FILL IS USED.

(D) TRENCH BACK FILL ABOVE PIPE ZONE AND BELOW ROAD BASE WITH APPROVED MATERIAL AT 96% MINIMUM RELATIVE DENSITY COMPACTION. COPIES OF DENSITIES TO CAMPUS DESIGN AND CONSTRUCTION. MINIMUM 2-INCH MINUS GRANULAR BACKFILL BORROW PER APWA 02055. MATERIAL MUST BE FREE OF SLAG OR RECYCLED ASPHALT.

(E) PIPE ZONE SHALL BE BACK FILLED WITH FILL SAND AT 96% MINIMUM RELATIVE DENSITY COMPACTION. FORM TO PROVIDE SUPPORT ALONG ENTIRE BARREL OF PIPE (BOTTOM QUADRANT). PLACE AND COMPACT REMAINDER OF PIPE ZONE MATERIAL IN 6-INCH LIFTS, SO THAT NO VOIDS EXIST AROUND PIPE. SEE CLASS B PIPE ZONE BACKFILL REQUIREMENTS.

(F) TRENCH STABILIZATION MATERIAL SHALL BE 2" MINUS SEWER ROCK. DEPTH AS REQUIRED.

(G) INSTALL MAGNETIC MARKERS TAPED TO TOP OF PIPE AT 50' MAXIMUM SPACING AND AT EVERY BEND. FOR PVC WATER MAINS.

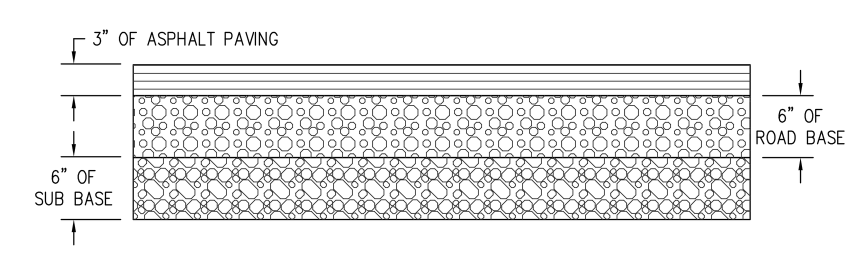
ALL TRENCHES SHALL BE SLOPED PER OSHA REQUIREMENTS, AND/OR GENERAL SAFETY ORDERS OF THE UTAH INDUSTRIAL COMMISSION.

UDOT SHALL MEAN THE 1979 REVISION OF THE STATE OF UTAH STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, AND ADDENDUMS.

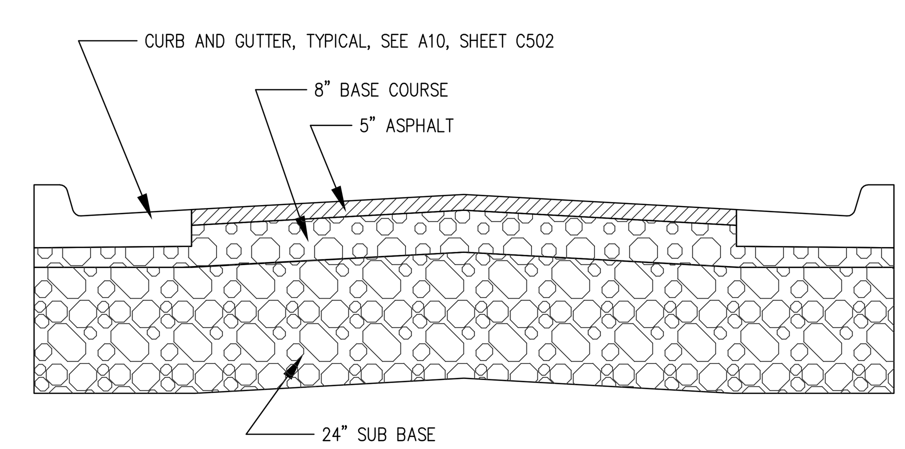
(H) 500 PSI CONCRETE FLOWABLE FILL UNDER PAVEMENT IN UDOT RIGHT OF WAY AND ALL OF NORTH CAMPUS DRIVE. WHERE FLOWABLE FILL IS NOT REQUIRED USE NOTE D.

(J) MAGNETIC MARKING TAPE, MAXIMUM DEPTH 18 INCHES BELOW FINAL SURFACE FOR UDOT RIGHT OF WAY AND ALL OF NORTH CAMPUS DRIVE.

5 / C503 TRENCH BACK FILL & ROAD SURFACE RESTORATION
NO SCALE



2 / C503 PARKING LOT ASPHALT CROSS SECTION
NO SCALE



3 / C503 STREET PAVING DETAIL
NO SCALE

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DETAILS

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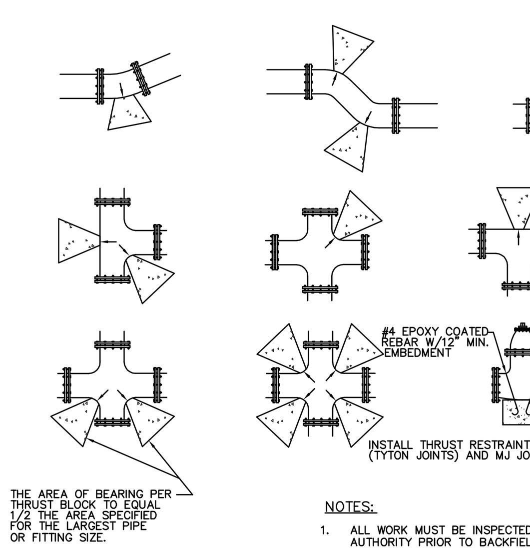
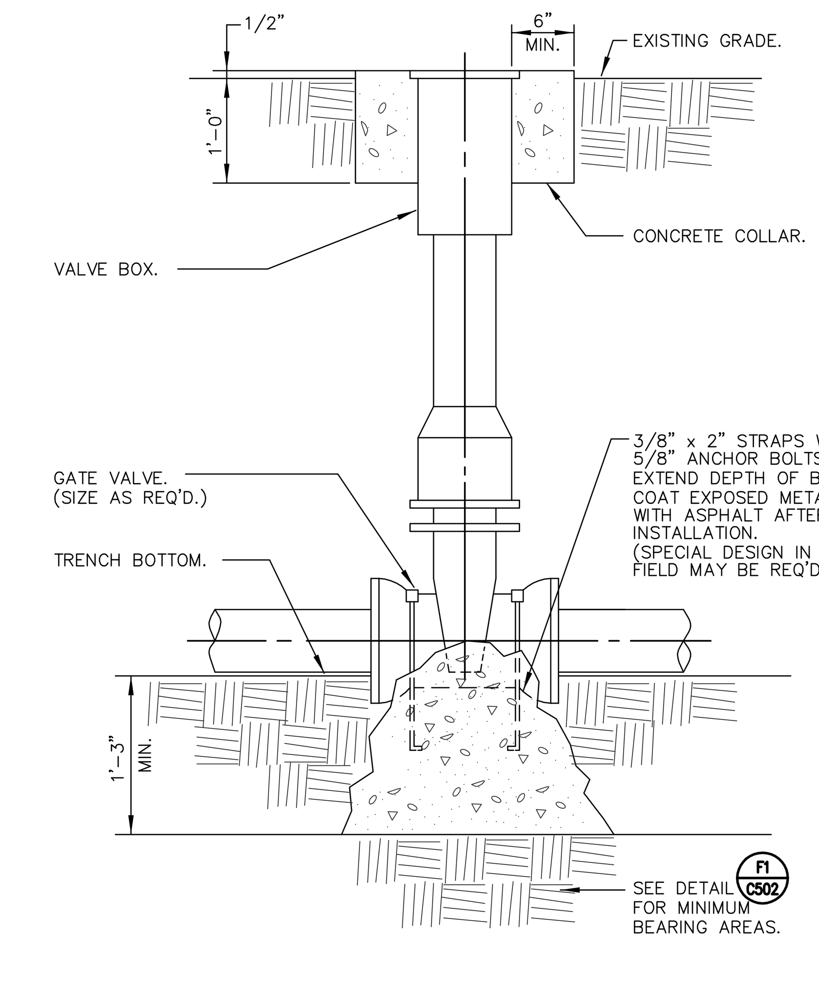


MINIMUM BEARING AREA IN SQ. FT.					
SIZE OF PIPE	TEES, VALVES DEAD ENDS	90° BENDS	45° BENDS	22 1/2° BENDS	11 1/4° BENDS
4"	2	3	2	2	2
6"	4	5.5	3	1.5	1
8"	6.5	9.5	5	2.75	1.5
12"	14	20	11	5.5	3
14"	19	26.5	14.5	7.5	4
16"	24	34	18.5	9.5	6
20"	27	52	28.5	14.5	16
24"	53	74	41	21	53
30"	81	114	62	32	16

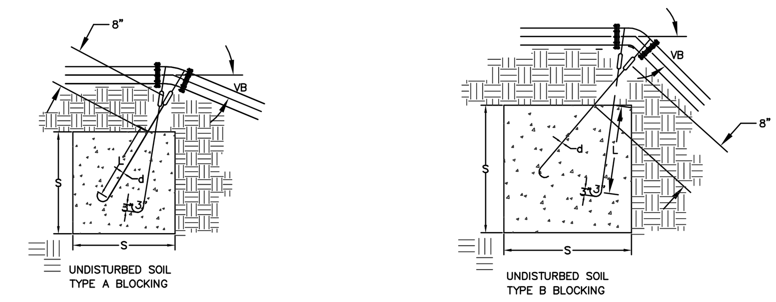
NOTES:

1. ALL WORK MUST BE INSPECTED AND APPROVED BY THE AUTHORIZING AUTHORITY PRIOR TO BACKFIELD.
2. THRUST BLOCKS OR RESTRAINTS MUST BE POURED AGAINST UNDISTURBED SOIL.
3. CONCRETE MUST HAVE A MINIMUM OF 2,000 P.S.I. COMPRESSIVE STRENGTH IN 28 DAYS.
4. CONCRETE MUST BE ALLOWED TO CURE FOR 5 DAYS PRIOR TO PRESSURIZING WATER LINES OR HAVE ADDITIONAL, APPROVED THRUST RESTRAINTS INSTALLED PRIOR TO PRESSURIZATION OF THE WATER LINE.
5. ALL PIPE JOINTS ARE TO BE LEFT ACCESSIBLE.
6. REINFORCING STEEL BARS ARE TO BE EPOXY COATED IN ACCORDANCE WITH AWWA RECOMMENDATIONS. EPOXY IS TO BE A MINIMUM THICKNESS OF 15 MIL.
7. ALL EXPOSED METAL SURFACES ARE TO BE COATED WITH CHEVRON POLY FM-1 GREASE AND WRAPPED WITH 8 MIL. MINIMUM THICKNESS OF POLYETHYLENE SHEETING OR TUBING.
8. THRUST DESIGN FOR PIPE SIZES OR CONFIGURATIONS THAT ARE NOT SHOWN REQUIRE A SPECIAL DESIGN.
9. BEARING AREAS, VOLUMES, AND SPECIAL THRUST BLOCKING OR RESTRAINING DETAILS TAKE PRECEDENCE OVER THIS STANDARD.
10. RESTRAIN SIZING ASSUMES A MAXIMUM OPERATING PRESSURE OF 150 P.S.I., TEST PRESSURE OF 200 P.S.I., AND A 2,000 LBS. SOIL BEARING STRESS. OPERATING PRESSURES IN EXCESS OF 150 P.S.I. OR SOILS WITH LESS THAN A MINIMUM OF 2,000 LBS. BEARING STRESS WILL REQUIRE A SPECIAL DESIGN.
11. MINIMUM YIELD STRENGTH OF THE STEEL TIE DOWNS IS TO BE 70,000 P.S.I.
12. INSTALL APPROPRIATELY SIZED THRUST BLOCKING ON ALL BLIND FLANGES, MJ PLUGS AND CAPS.
13. LOCKING RESTRAINT DEVICES MAY BE USED IN CONJUNCTION WITH CONCRETE THRUST BLOCKING. (AT THE OPTION OF THE ENGINEER)

6 / C504 DIRECT BEARING THRUST RESTRAINTS
NO SCALE



4 / C504 TYPICAL GATE VALVE
NO SCALE



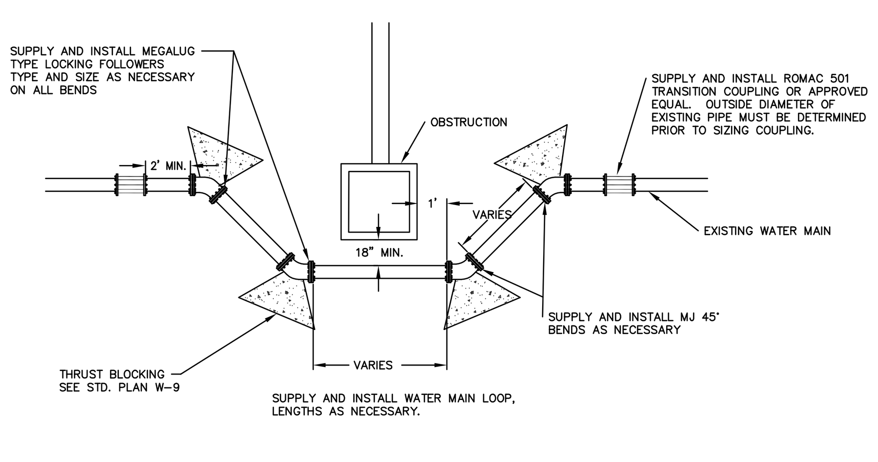
TYPE A BLOCKING FOR 11 1/4° – 22 1/2° VERT. BENDS					
	VB		S	d	L
PIPE SIZE NOMIN. DIAMETER – INCH	VERTICAL BEND DEGREES	NO. OF CU FT. OF CONC. BLOCKING	SIDE OF CUBE FEET	DIAMETER OF SHACK OR REBAR – INCH	DEPTH OF RODS IN CONCRETE FT.
4"	11 1/4°	8	2.0	5/8"	1.5
	22 1/2°	15.6	2.5	#4	2.0
6"	11 1/4°	15.6	2.5	#4	2.0
	22 1/2°	34.3	3.25	#4	
8"	11 1/4°	27	3.0	#4	2.0
	22 1/2°	64	4.0	#4	
12"	11 1/4°	64	4.0	#4	2.0
	22 1/2°	125	5.0	#4	3.0
16"	11 1/4°	107	4.25	#5	3.0
	22 1/2°	216	6.0	#5	4.0
20"	11 1/4°	138	5.17	#5	3.5
	22 1/2°	334	6.94	#5	4.0
24"	11 1/4°	240	6.22	#5	4.0
	22 1/2°	476	7.81	#5	4.0
30"	11 1/4°	369	7.17	#5	4.0
	22 1/2°	733	9.02	#5	4.0

TYPE B BLOCKING FOR 45° VERTICAL BENDS					
	VB		S	d	L
PIPE SIZE NOMIN. DIAMETER – INCH	VERTICAL BEND DEGREES	NO. OF CU FT. OF CONC. BLOCKING	SIDE OF CUBE FEET	DIAMETER OF SHACK OR REBAR – INCH	DEPTH OF RODS IN CONCRETE FT.
4"	45°	1	3.0	5/8" #4	2.0
6"		2.37	4.0	5/8" #4	2.5
8"		3.97	4.75	5/8" #4	2.0
12"		9.04	6.25	5/8" #4	4.0
16"		17.24	7.75	#5 #5	4.0
20"		26.52	5.17	#5 #5	4.0
24"		37.82	10.07	#5 #5	4.0
30"		58.26	11.63	#5 #5	4.0

NOTES:

1. ALL WORK MUST BE INSPECTED AND APPROVED BY THE AUTHORIZING AUTHORITY PRIOR TO BACK FILL.
2. THRUST BLOCKS OR RESTRAINTS MUST BE PLACED ON UNDISTURBED SOIL.
3. CONCRETE MUST HAVE A MINIMUM OF 2,000 P.S.I. COMPRESSIVE STRENGTH IN 28 DAYS.
4. CONCRETE MUST BE ALLOWED TO CURE FOR 5 DAYS PRIOR TO PRESSURIZING THE WATER LINES OR HAVE ADDITIONAL, APPROVED THRUST RESTRAINTS INSTALLED PRIOR TO PRESSURIZATION OF THE WATER LINE.
5. MINIMUM YIELD STRENGTH OF THE STAINLESS STEEL TIE DOWNS ARE TO BE 70,000 P.S.I.
6. REINFORCING STEEL BARS ARE TO BE EPOXY COATED IN ACCORDANCE WITH AWWA RECOMMENDATIONS. THE EPOXY IS TO HAVE A MINIMUM THICKNESS OF 15 MILS.
7. ALL EXPOSED METAL SURFACES ARE TO BE COATED WITH CHEVRON POLY FM-1 GREASE AND WRAPPED WITH A MINIMUM OF 8 MILS. THICKNESS OF POLYETHYLENE SHEETING OR TUBING.
8. THRUST DESIGN FOR PIPE SIZES OR CONFIGURATIONS NOT SHOWN REQUIRE A SPECIAL DESIGN.
9. BEARING AREAS, VOLUMES, AND SPECIAL THRUST BLOCKING OR RESTRAINING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD.
10. RESTRAINT SIZING ASSUMES A MAXIMUM OPERATING PRESSURE OF 150 P.S.I., OPERATING PRESSURE RANGES IN EXCESS OF 150 P.S.I. WILL REQUIRE A SPECIAL DESIGN.

2 / C504 TIE DOWN THRUST RESTRAINTS
NO SCALE



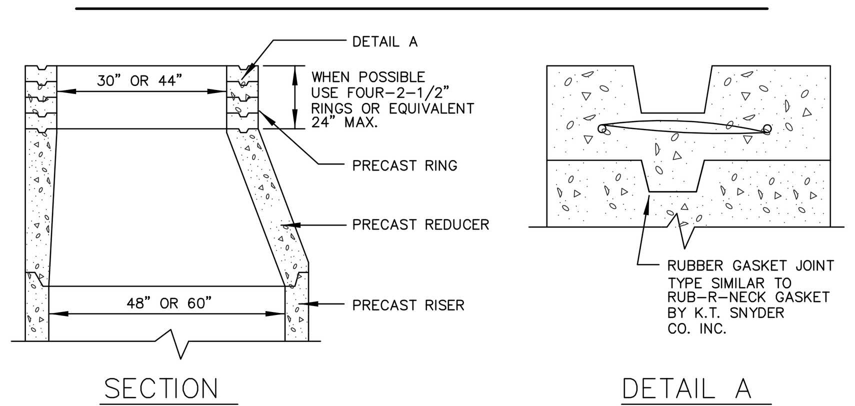
LOOP DETAIL
N.T.S.

NOTES:

1. ALL BENDS, COUPLINGS AND FITTINGS ARE TO BE RATED EQUAL TO, OR BETTER ANSI/AWWA-C110/A21.10 AND ANSI/AWWA-C111/A21.11 STANDARDS @ A MINIMUM PRESSURE RATING OF 250 PSI. FOR CAST IRON, OR 350 PSI. FOR DUCTILE IRON.
2. P.V.C. PIPE IS TO BE RATED TO AWWA C900 CLASS 150 SDR 18 SPECIFICATIONS, OR CLASS 52 DUCTILE IRON.
3. THRUST RESTRAINTS AND BLOCKING IS TO BE INSTALLED ACCORDING TO THE CONDITIONS IN THE FIELD, REFER TO AUTHORIZING AUTHORITIES STANDARD SPECIFICATIONS AND PLANS FOR MINIMUM REQUIREMENTS.
4. ALL PIPE, FITTINGS, COUPLINGS, THRUST RESTRAINTS AND BLOCKING ARE TO BE IN ACCORDANCE WITH AUTHORIZING AUTHORITIES STANDARD PLANS.
5. ALL FITTINGS, COUPLINGS, VALVES AND MECHANICAL JOINTS ARE TO BE COATED WITH CHEVRON FM 1 NON-OXIDE GREASE OR APPROVED EQUAL AND COVERED WITH 8 MIL. MINIMUM POLYETHYLENE SHEETING.
6. CONNECTIONS TO TRANSITE (ASBESTOS CEMENT.) (A.C.) PIPE WILL REQUIRE TRANSITION OR FABRICATED COUPLINGS.
7. FOR P.V.C. PIPE LOOP, INSTALL MEGALUG TYPE LOCKING FOLLOWERS SERIES 2000PV OR 1100PV (OR APPROVED EQUAL) AS NECESSARY ON ALL MJ BENDS.

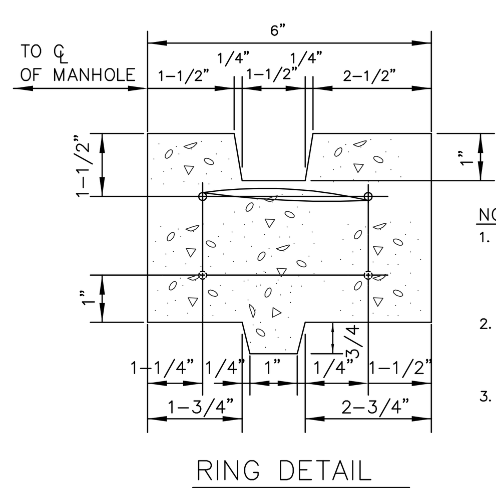
1 / C504 HORIZONTAL LOOP
NO SCALE

MANHOLE REDUCER & RING DETAIL



SECTION

DETAIL A



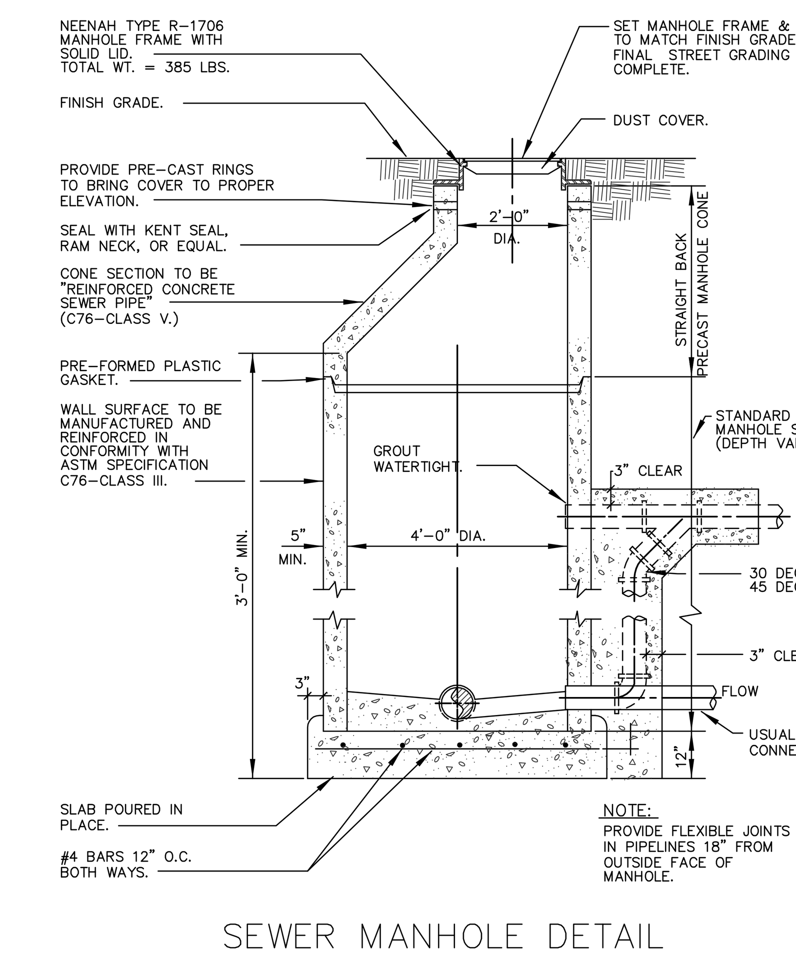
RING DETAIL

NOTES:

1. THE SURFACES OF THE CONES & SHAFTS SHALL BE SMOOTH & NEATLY FINISHED. CONES, SHAFTS & RINGS WITH IMPERFECT MOLDINGS OR HONEYCOMBS WILL NOT BE ACCEPTED.
2. SEAT RINGS, REDUCERS & RISERS WITH A RUBBER GASKET JOINT TYPE SIMILAR BY RUB-R-NECK GASKET BY K.T. SNYDER CO. INC.
3. REINFORCE 2-1/2" RINGS WITH TWO 1/4" ROUND STEEL HOOPS, TIED WITH NO. 14 A.S.& W. GAUGE WIRE, 8" ON CENTER.
   REINFORCE 6" & 8" RINGS WITH FOUR 1/4" ROUND STEEL HOOPS, TIED WITH NO. 14 A.S.& W. GAUGE WIRE, 8" ON CENTER.

NOTE:
CONICAL MANHOLE SECTION IN LIEU OF ECCENTRIC PER SALT LAKE CITY PUBLIC UTILITIES STANDARD PRACTICES.

7 / C504 MANHOLE REDUCER & RING DETAIL
NO SCALE



SEWER MANHOLE DETAIL
NO SCALE:

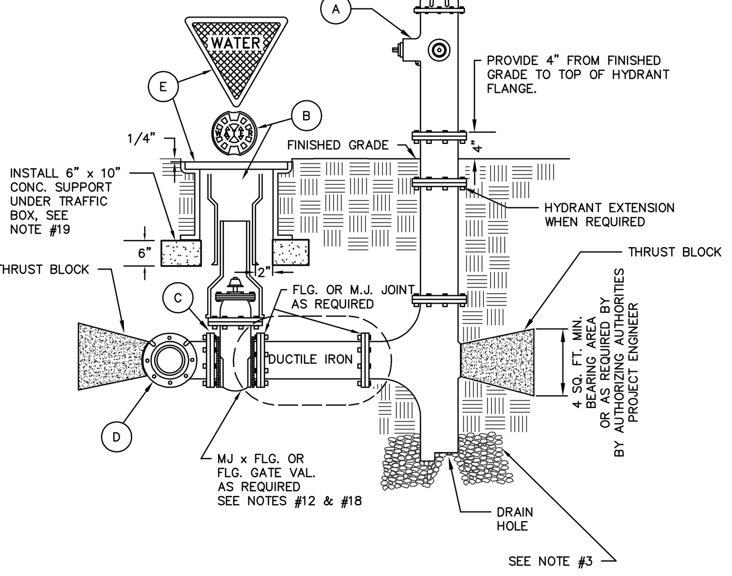
NOTE:
CONICAL MANHOLE SECTION IN LIEU OF ECCENTRIC PER SALT LAKE CITY PUBLIC UTILITIES STANDARD PRACTICES.

5 / C504 SEWER MANHOLE DETAIL
NO SCALE

NOTES:

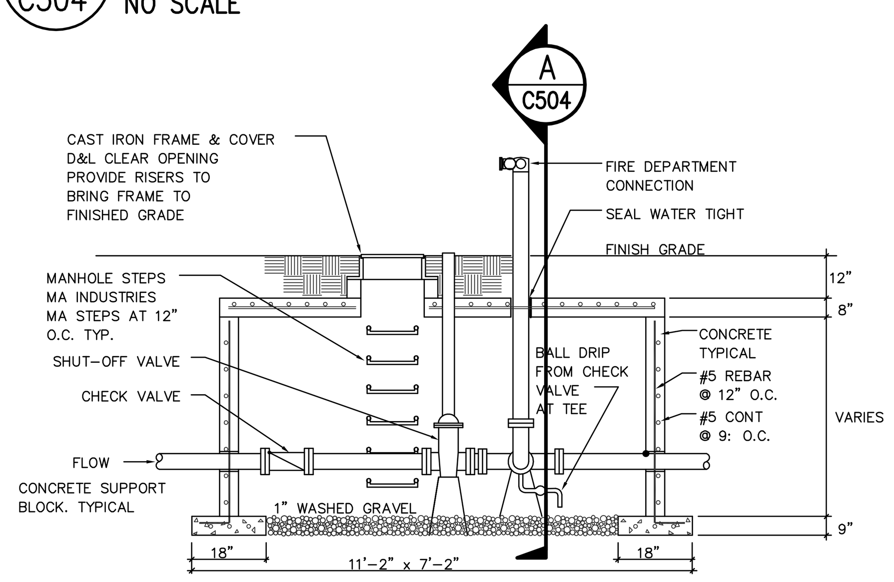
1. ALL WORK MUST BE INSPECTED PRIOR TO BACKFILL.
2. HYDRANT THRUST BLOCK REQUIRED WITH A MINIMUM OF 4 SQUARE FEET BEARING ON UNDISTURBED SOIL.
3. DRAIN HOLES AT BASE OF HYDRANT TO REMAIN CLEAR WITH A MINIMUM OF 1/3 CU. YD. OF CLEAN 1 1/2" MINUS GRAVEL PLACED AROUND HYDRANT BASE AND DRAIN.
4. THE 4-1/2" STREAMER NOZZLE TO FACE THE STREET.
5. FIRE HYDRANTS SHALL BE INSTALLED IN SUCH A MANNER THAT THE HYDRANT FLANGE IS 4 IN. ABOVE FINISHED GRADE.
6. THE APPROPRIATE FIRE DEPARTMENT SHALL BE NOTIFIED AS SOON AS A HYDRANT IS PLACED IN SERVICE.
7. HYDRANT BARREL SHALL BE PAINTED WITH 2 COATS OF C.A. 50 COAL TAR ENAMEL. THE HYDRANT CAPS AND BARREL SHALL BE PAINTED YELLOW WITH BAKELITE BASE PAINT AND TONGUE OIL THINNER. THE PAINT SHALL BE TROPICAL INDUSTRIAL ENAMEL WITH ONE COAT OF A.C.B. PRIMER NO. 525-14 AND ONE COAT OF LEMON YELLOW ENAMEL F-65Y2 SHERWIN WILLIAMS OR EQUAL.
8. STANDARD DRILLING – CAST FLANGES, ANSI/AWWA C110 125#./ A21.10 125#.
9. STANDARD DRILLING – STEEL FLANGES, ASA B 16.5 150#.
10. STEEL PIPE SPOOL-SCH. 40 STEEL PIPE, EPOXY LINED AND EXTERIOR TAPE WRAPPED. EPOXY LINING TO BE IN ACCORDANCE WITH AWWA C210 (MIN. 14 MIL THICKNESS) TAPE COATING TO BE PER AWWA C200 OR C214 (MIN THICKNESS 50 MILS). WELDING TO BE PER AWWA C207, STEEL FLANGES TO BE PER ASA B16.5 AND COMPATIBLE WITH ASA B16.1 CAST FLANGES. INSTALL STEEL SPOOLS WHEN DIRECTED TO DO SO BY AUTHORIZING AUTHORITIES FIELD REPRESENTATIVE OR AS SHOWN OR CALLED FOR ON PROJECT PLANS AND SPECIFICATIONS.
11. SUPPLY AND INSTALL SERIES 1100 MEGALUG JOINT RESTRAINTS OR APPROVED EQUAL, AS REQUIRED ON PVC OR D.I. PIPE.
12. GATE VALVES TO BE IN ACCORDANCE WITH AWWA C509.
13. ALL EXPOSED REBAR, FITTINGS, AND BOLTS TO BE COATED WITH CHEVRON FM GREASE #1 OR EQUAL AND WRAPPED WITH 8 MIL SHEET POLYETHYLENE.
14. SUPPLY AND INSTALL TEE, MJ SLEEVES OR TRANSITION COUPLINGS AS REQUIRED FOR CONNECTION TO EXISTING WATERMAIN.
15. ALL DUCTILE IRON PIPE TO BE IN ACCORDANCE WITH ANSI/AWWA C115/A21.15 CLASS 52.
16. ALL PVC PIPE TO BE IN ACCORDANCE WITH AWWA C900 SDR 18 SPECIFICATIONS (MIN. OPERATING PRESSURE 150 P.S.I.).
17. CAST IRON TRAFFIC BOX TO BE INSTALLED WHEN VALVE IS INSTALLED IN TRAFFIC AREA.
18. WHEN SPOOL LENGTH IS GREATER THAN 16 FT., TWO GATE VALVES WILL BE REQUIRED, ONE AT THE MAIN CONNECTION AND ONE AT THE FIRE HYDRANT BASE.
19. INSURE THAT THERE IN NO DIRECT CONTACT BETWEEN CONCRETE SUPPORT AND THE 2 PIECE CAST IRON VALVE BOX RISER.
20. SUBSTITUTIONS TO BE IN ACCORDANCE WITH APWA SEC. 01630.
21. ALL WORK AND MATERIALS TO BE IN ACCORDANCE WITH ANSI/ AWWA C502 AND THE UPWA GENERAL CONDITIONS AND STANDARD SPECIFICATIONS FOR CONSTRUCTION.

FIRE HYDRANTS

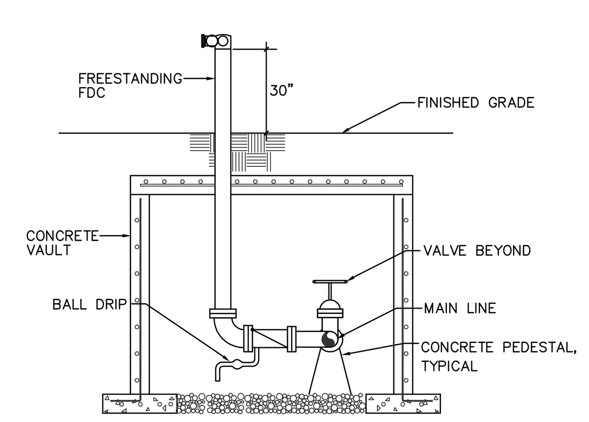


LEGEND					
ITEM	DESCRIPTION	PART NUMBER	ITEM	DESCRIPTION	PART NUMBER
Ⓐ	FLANGE OR MJ FIRE HYDRANT AS REQUIRED	MUELLER CENTURION (5 1/4") AWWA/ANSI C502 DRY BARREL	Ⓒ	GATE VALVE WITH 2" X 2" OPERATING NUT.	MUELLER 6" RESILIENT SEAT GATE VALVE
Ⓑ	2 PIECE CAST IRON VALVE BOX WITH DROP LID	TYLER 6850 (SCREW TYPE RISER)	Ⓓ	MJ x FLANGE TEE WITH ACCESSORIES	MJ x FLG. TEE ANSI/AWWA C110/A21.10 WITH 125 POUND FLANGE
		SFF VBXA 561 SLIP (SLIP TYPE VALVE BOX)	Ⓔ	CAST IRON TRAFFIC BOX (TRAFFIC AREAS ONLY)	SPANISH FORK FOUNDRY SVB 090

3 / C504 FIRE HYDRANTS
NO SCALE



8 / C504 FIRE DEPARTMENT CONNECTION PIT DETAIL
NO SCALE



A / C504 FIRE DEPARTMENT PIT SECTION
NO SCALE

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PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
Utah State Hospital Consolidation
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS
02.APR.2012	DD 100%
29.JUN.2012	REVIEW SET

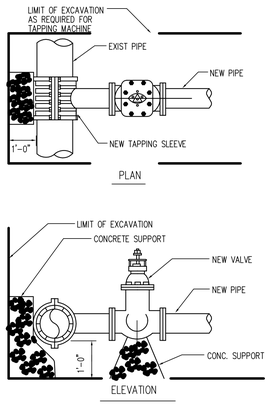
△	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatrics
DRAWN BY EJ,TC,MB,RG
CHECKED BY JB,KE,DB,SS
SCALE NO SCALE

DETAILS

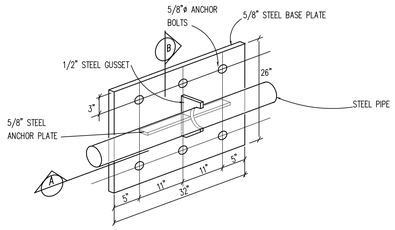
C504

06/26/2012 12:35:00 PM



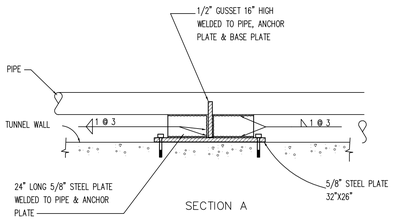
5 / C505 TAPPING SLEEVE & VALVE INSTALLATION DETAIL

NO SCALE



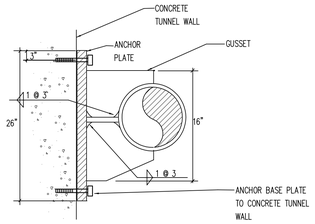
6 / C505 STEEL GUSSET ANCHOR DETAIL

NO SCALE



A / C505 ANCHOR SECTION (TUNNEL)

NO SCALE



B / C505 ANCHOR SECTION (TUNNEL)

NO SCALE

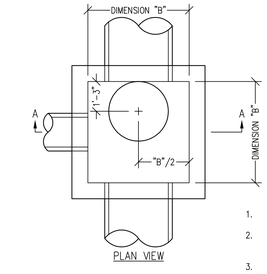
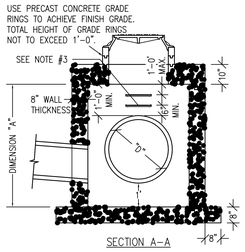


TABLE A

PIPE SIZE	MINIMUM DIMENSION "B"
15"	3'-6"
18"	3'-9"
21"	4'-0"
24"	4'-0"
27"	4'-0"
30"	4'-3"
33"	4'-6"
36"	4'-9"
42"	5'-3"
48"	6'-3"

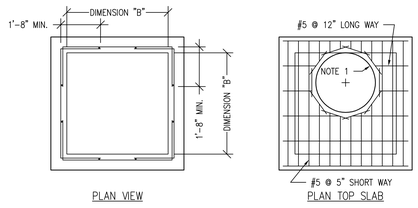


NOTES

1. MINIMUM DIMENSION "B" IS 3'-6".
2. MIN. f'c OF CONCRETE SHALL BE 3000 PSI AT 28 DAYS.
3. LADDER RUNGS ARE REQUIRED IN BOXES OVER 4'-0" DEEP. BOTTOM RUNGS SHALL BE LOCATED 6" ABOVE PIPE. SEE SHEET ST-SD-210.
4. MATERIALS, CONSTRUCTION AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.
5. ALL CONCRETE SHALL BE CLASS 4000 PER SECTION 03304 OF A.P.W.A STANDARD SPECIFICATIONS.
6. A UNIT CLEAN OUT BOX SHALL INCLUDE MANHOLE COVER, FRAME, MANHOLE RUNGS IF REQUIRED, ADJUSTMENT OF MANHOLE TO GRADE, GRADE ADJUSTMENT W/ CONCRETE COLLAR, AND BOX COMPLETE. FOR CONCRETE GRADE RING ADJUSTMENT SEE ST-SD-010.
7. SEE SHEET ST-SD-207 FOR BAR INSTALLATION.
8. SEE SHEET ST-SD-210 FOR MANHOLE STEP DETAIL.

3 / C505 STORM DRAIN CLEAN OUT BOX DETAIL

NO SCALE



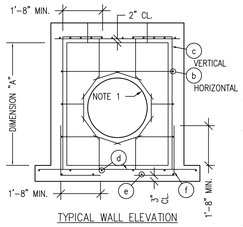


TABLE B

DIMENSION		BAR SIZE AND SPACING					
A	B*	b	c	d	e	f	
2'	3' TO 8'	#5 @ 18"	#5 @ 18"	#5 @ 18"	#5 @ 18"	#5 @ 18"	#5 @ 18"
3'	3' TO 8'	#5 @ 18"	#5 @ 18"	#5 @ 18"	#5 @ 18"	#5 @ 18"	#5 @ 18"
4'	3' TO 8'	#5 @ 18"	#5 @ 18"	#5 @ 18"	#5 @ 18"	#5 @ 18"	#5 @ 18"
5'	3' TO 8'	#5 @ 18"	#5 @ 18"	#5 @ 18"	#5 @ 18"	#5 @ 18"	#5 @ 18"

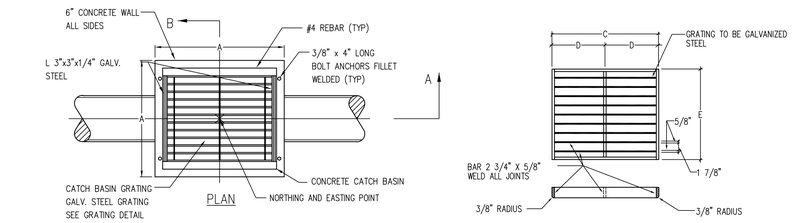
* FOR DIMENSION "B" SEE TABLE A

NOTES

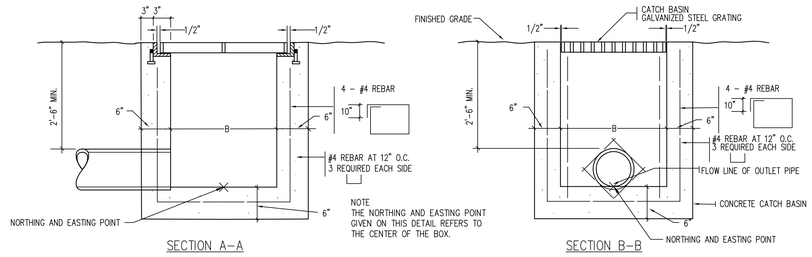
1. BARS USED AROUND OPENINGS MUST BE THE SAME SIZE AS THE LARGEST SIZE BAR IN ADJACENT WALL OR SLAB.
2. MINIMUM EMBEDMENT LENGTH FOR ALL BARS IS 1'-8".
3. ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE f = 60,000 psi (fs = 24,000 psi)
4. FIELD CUT OR BEND REINFORCING STEEL AS NECESSARY TO CLEAR PIPE(S) AND MAINTAIN 2" MINIMUM CLEARANCE.
5. SEE SHEET ST-SD-206 FOR DIMENSIONS.
6. SEE SHEET ST-SD-210 FOR MANHOLE STEP DETAIL.
7. MATERIALS, CONSTRUCTION, AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.
8. ALL BOXES LOCATED UNDER STREET PAVEMENT SHALL BE CONSTRUCTED WITH EPOXY COATED STEEL BARS.

4 / C505 STORM DRAIN CLEAN OUT BOX – BAR INSTALLATION

NO SCALE

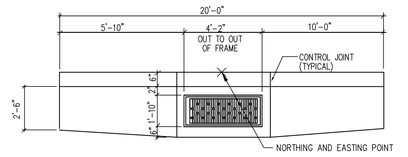


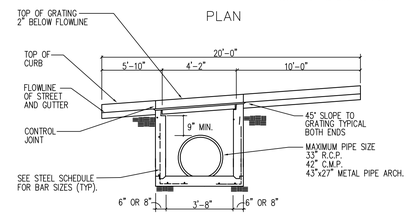
DIMENSION SCHEDULE					
	A	B	C	D	E
2'	3'-0"	2'-0"	2'-4 1/2"	1'-2 1/4"	1'-11 1/8"
3'	4'-0"	3'-0"	3'-4 1/2"	1'-8 1/4"	2'-11 1/8"
4'	5'-0"	4'-0"	4'-4 1/2"	2'-2 1/4"	3'-11 1/8"



1 / C505 2', 3', & 4' CATCH BASIN DETAIL

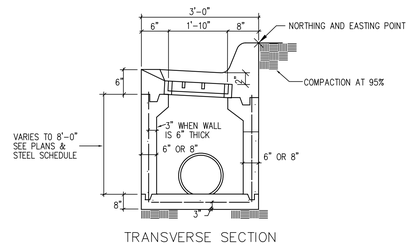
NO SCALE

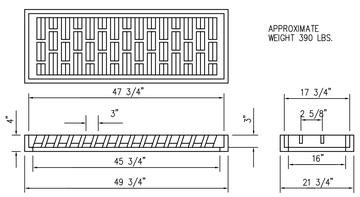




STEEL SCHEDULE			WALL THICKNESS
HEIGHT	VERT. STEEL	HORIZ. STEEL	
0'– 4'	#3 AT 12" O.C.	#3 AT 12" O.C.	6" WALL
4'– 6'	#4 AT 12" O.C.	#4 AT 12" O.C.	6" WALL
6'– 8'	#5 AT 12" O.C.	#4 AT 12" O.C.	8" WALL
8'– 10'	#5 AT 12" O.C.	#4 AT 12" O.C.	8" WALL
10'– 12'	#5 AT 12" O.C.	#4 AT 12" O.C.	8" WALL
12'– 14'	#5 AT 12" O.C.	#4 AT 12" O.C.	8" WALL
14'– 16'	#5 AT 12" O.C.	#4 AT 12" O.C.	8" WALL
16'–0" OR DEEPER, CHECK WITH ENGINEER			

NOTE: INSIDE FACE BARS TO BE STAGGERED WITH OUTSIDE FACE BARS.





2 / C505 CURB AND GUTTER INLET BOX

NO SCALE

FFKR ARCHITECTS

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VBFA Project Number: 11542

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
Utah State Hospital Consolidation
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS
02.APR.2012	DD 100%
29.JUN.2012	REVIEW SET

DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatrics
DRAWN BY EJ,TC,MB,RG
CHECKED BY JB,KE,DB,SS
SCALE NO SCALE

DETAILS

C505

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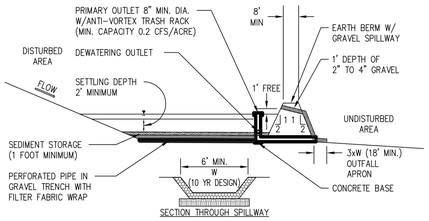
INLET PROTECTION

SEE INDIVIDUAL BMP INFORMATION SHEETS FOR INSTRUCTIONS FOR CONSTRUCTION OF STRAW BALE BARRIER AND SILT FENCE.

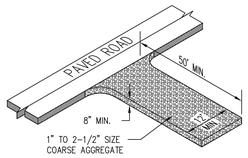
NOTES:
1. RECOMMENDED MAXIMUM CONTRIBUTING DRAINAGE AREA OF ONE ACRE.
2. LIMITED TO INLETS LOCATED IN OPEN UNPAVED AREAS.
3. REQUIRES SHALLOW SLOPES ADJACENT TO INLET.
4. PROVIDE UPGRADIENT SEDIMENT CONTROLS, SUCH AS DIVERSION DIKE DURING CONSTRUCTION OF INLET.
5. WHEN CONSTRUCTION OF INLET IS COMPLETE. ERECT STRAW BALE BARRIER OR SILT FENCE SURROUNDING PERIMETER OF INLET. FOLLOW INSTRUCTIONS AND GUIDELINES ON INDIVIDUAL BMP INFORMATION SHEETS FOR STRAW BALE BARRIER AND SILT FENCE CONSTRUCTION.
6. INSPECT INLET PROTECTION FOLLOWING STORM EVENT AND AT A MINIMUM OF ONCE MONTHLY.
7. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES 4 INCHES IN DEPTH.
8. REPAIR OR REALIGN BARRIER/FENCE AS NEEDED.
9. LOOK FOR BYPASSING OR UNDERCUTTING AND RECOMPACT SOIL AROUND BARRIER/FENCE AS REQUIRED.

5 / C506 INLET PROTECTION – SILT FENCE OR STRAW BALE
NO SCALE



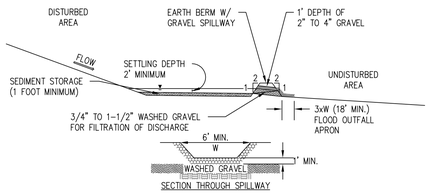
NOTES:
1. SHOULD BE SIZED BASED ON ANTICIPATED RUNOFF, SEDIMENT LOADING AND DRAINAGE AREA SIZE.
2. MAY REQUIRE SILT FENCE AT OUTLET FOR ENTRAPMENT OF VERY FINE SILTS AND CLAYS.
3. MAY REQUIRE SAFETY FENCING TO PREVENT PUBLIC ACCESS.
4. HEIGHT RESTRICTIONS FOR EMBANKMENT REGULATED BY UTAH DIVISION OF DAM SAFETY.
5. DESIGN BASIN FOR SITE SPECIFIC LOCATION, MAINTAIN EFFECTIVE FLOW LENGTH 2 TIMES WIDTH.
6. EXCAVATE BASIN OR CONSTRUCT COMPACTED BERM CONTAINMENT, ENSURE NO DOWN GRADIENT HAZARD IF FAILURE SHOULD OCCUR. (PROVIDE MINIMUM OF 67 CY. PER ACRE OF DRAINAGE AREA).
7. CONSTRUCT DEWATERING AND OUTFALL STRUCTURE AND EMERGENCY SPILLWAY WITH APRON.
8. INSPECT AFTER EACH RAINFALL EVENT AND AT A MINIMUM OF MONTHLY.
9. REPAIR ANY DAMAGE TO BERM, SPILLWAY OR SIDEWALLS.
10. REMOVE ACCUMULATED SEDIMENT AS IT REACHES 2/3 HEIGHT OF AVAILABLE STORAGE.
11. CHECK OUTLET FOR SEDIMENTATION/EROSION OF DOWN GRADIENT AREA AND REMEDIATE AS NECESSARY. INSTALL SILT FENCE IF SEDIMENTATION APPARENT.

3 / C506 SEDIMENT BASIN
NO SCALE



NOTES:
1. CLEAR AND GRUB AREA AND GRADE TO PROVIDE MAXIMUM SLOPE OF 2%.
2. COMPACT SUB GRADE AND PLACE FILTER FABRIC IF DESIRED (RECOMMENDED FOR ENTRANCES TO REMAIN IN USE FOR MORE THAN 3 MONTHS).
3. PLACE COARSE AGGREGATE, 1 TO 2-1/2 INCHES IN SIZE, TO A MINIMUM DEPTH OF 8 INCHES.
4. INSPECT DAILY FOR LOSS OF GRAVEL OR SEDIMENT BUILD UP.
5. INSPECT ADJACENT ROADWAY FOR SEDIMENT DEPOSIT AND CLEAN BY SWEEPING OR SHOVELING.
6. REPAIR ENTRANCE AND REPLACE GRAVEL AS REQUIRED TO MAINTAIN CONTROL IN GOOD WORKING CONDITION.
7. EXPAND STABILIZED AREA AS REQUIRED TO ACCOMMODATE TRAFFIC AND PREVENT EROSION AT DRIVEWAY.

1 / C506 STABILIZED CONSTRUCTION ENTRANCE
NO SCALE



NOTES:
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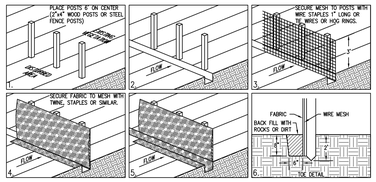
2. MAY REQUIRE SILT FENCE AT OUTLET FOR ENTRAPMENT OF VERY FINE SILTS AND CLAYS.
3. DESIGN BASIN FOR SITE SPECIFIC LOCATION.
4. EXCAVATE BASIN OR CONSTRUCT COMPACTED BERM CONTAINMENT
5. CONSTRUCT OUTFALL SPILLWAY WITH APRON.
6. PROVIDE DOWN STREAM SILT FENCE IF NECESSARY.
7. INSPECT AFTER EACH RAINFALL EVENT AND A MINIMUM OF MONTHLY.
8. REPAIR ANY DAMAGE TO BERM, SPILLWAY OR SIDEWALLS.
9. REMOVE ACCUMULATED SEDIMENT AS IT REACHES 2/3 HEIGHT OF AVAILABLE STORAGE.
10. CHECK OUTLET FOR SEDIMENTATION/EROSION OF DOWN GRADIENT AREA AND REMEDIATE AS NECESSARY. INSTALL SILT FENCE IF SEDIMENTATION APPARENT.

4 / C506 SEDIMENT TRAP
NO SCALE



NOTES:
1. PLACE POSTS 6 FOOT ON CENTER ALONG CONTOUR (OR USE PRE ASSEMBLED UNIT) AND DRIVE 2 FEET MINIMUM INTO GROUND. EXCAVATE AN ANCHOR TRENCH IMMEDIATELY UPGRADIENT OF POSTS.
2. SECURE WIRE MESH (14 GAGE MIN. WITH 6 INCH OPENINGS) TO UP SLOPE SIDE OF POSTS. ATTACH WITH HEAVY DUTY WIRE STAPLES 1 INCH LONG, TIE WIRES OR HOG RINGS.
3. CUT FABRIC TO REQUIRED WIDTH, UNROLL ALONG LENGTH OF BARRIER AND DRAPE OVER BARRIER. SECURE FABRIC TO MESH WITH TWINE, STAPLES, OR SIMILAR, WITH TRAILING EDGE EXTENDING INTO ANCHOR TRENCH.
4. BACK FILL TRENCH OVER FILTER FABRIC TO ANCHOR.
5. INSPECT IMMEDIATELY AFTER ANY RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
6. LOOK FOR RUNOFF BYPASSING ENDS OF BARRIERS OR UNDERCUTTING FENCE.
7. REPAIR OR REPLACE DAMAGED AREAS OF THE FENCE AND REMOVE ACCUMULATED SEDIMENT.
8. RE-ANCHOR FENCE AS NECESSARY TO PREVENT SHORT CUTTING.
9. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES 1/2 THE HEIGHT OF THE FENCE.

2 / C506 SILT FENCE
NO SCALE

FFKR ARCHITECTS
bogue building
730 pacific avenue
salt lake city
Utah 84104
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Salt Lake City - Logan - St. George - Tempe
Salt Lake City, UT 84111 801.539.3159 F
VBFA Project Number: 11542

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
Utah State Hospital Consolidation
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS
02.APR.2012	DD 100%
29.JUN.2012	REVIEW SET

△	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatrics
DRAWN BY EJ,TC,MB,RG
CHECKED BY JB,KE,DB,SS
SCALE NO SCALE

DETAILS

C506

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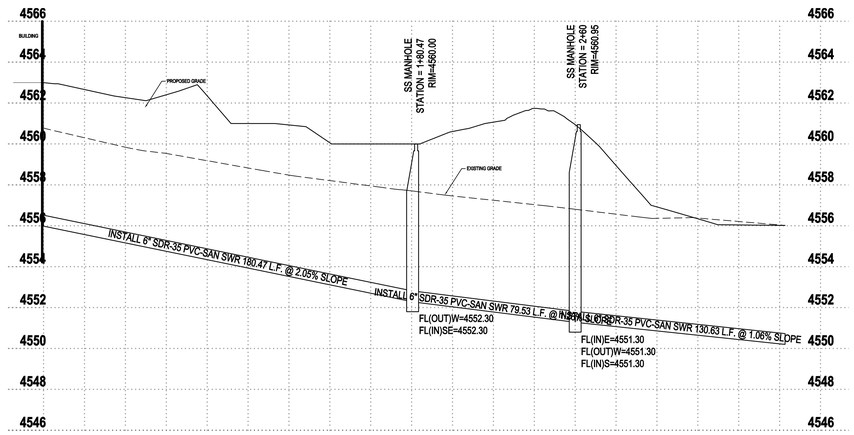

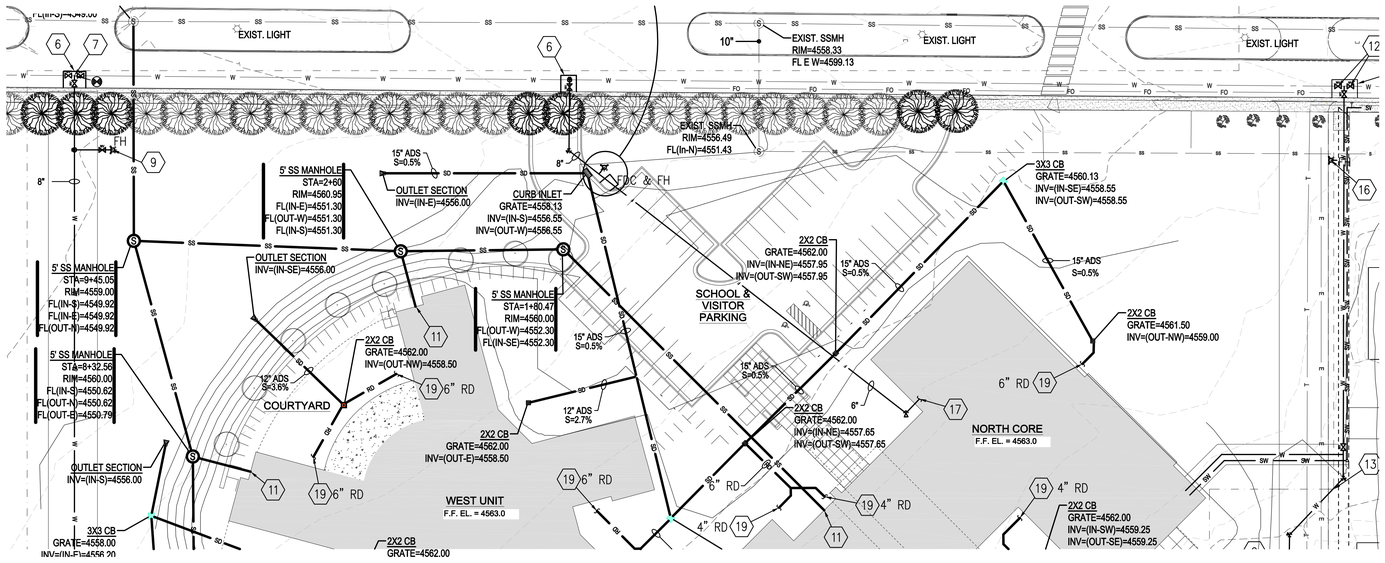

UTILITY PLAN AND PROFILE

SCALE: 1" = 30'-0

0 30' 60'

TRUE PLAN

REFERENCE NOTES

1. ROOF DRAIN CONNECTION. SEE PLUMBING PLAN.
2. FIELD LOCATE EXISTING 6" VCT SANITARY SEWER MAIN. CONSTRUCT NEW MANHOLE TO EXISTING MAIN.
3. REMOVE EXISTING UTILITY AND CONCRETE STRUCTURES.
4. SEE PLUMBING PLAN AND COORDINATE INVERT ELEVATION.
5. SEE PLUMBING PLAN FOR FIRE PROTECTION MAIN AND SPECIAL REQUIREMENTS.
6. SAWCUT PAVEMENT AND REPAIR AND REPLACE WITH EQUIVALENT BASE AND ASPHALT.
7. TAP WATER LINE OR PROVIDE CUT-IN TEE DEPENDING ON SIZE OF LATERAL. SEE DETAILS. PROVIDE GATE VALVE AT CONNECTION.
8. WATER SERVICE TO BUILDING. ENTER TUNNEL AND EXTEND TO MECHANICAL ROOM. SEE MECHANICAL FOR CONTINUATION.
9. FIRE HYDRANT. TYPICAL. SEE DETAIL.
10. THRUST BLOCK ALL FITTINGS. TYPICAL. SEE DETAIL.
11. SEE PLUMBING PLAN FOR SIZE AND INVERT. TYPICAL PEDIATRICS BUILDING.
12. RECONFIGURE WATER LINE CONNECTION TO EXISTING TUNNEL WITH GATE VALVE ON EACH SIDE OF VALVE.
13. OFFSET WATER MAIN TO EXISTING TUNNEL AND CONNECT.
14. EXISTING FDC, PIV, AND FH TO BE REMOVED. CAP IN TUNNEL AT EXISTING YOUTH SERVICES TUNNEL.
15. CAP ALL UTILITIES IN TUNNEL NOT REQUIRED FOR YOUTH SERVICES BUILDING.
16. CONNECT TO 8" WATER IN TUNNEL AND EXTEND 6" LINE TO FIRE HYDRANT OUTSIDE TUNNEL.

LOCATED IN THE
OF SECTION
TOWNSHIP , RANGE
SALT LAKE BASE AND MERIDIAN

CALL BLUESTAKES
@ 1-800-662-4111 AT LEAST 48
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VBFA Project Number: 11542

PEDIATRIC FACILITY
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PROJECT NUMBER	11111
FILE	11111 USH Pediatrics
DRAWN BY	EJ,TC,MB,RG
CHECKED BY	JB,KE,DB,SS
SCALE	1" = 30'-0"

UTILITY PLAN AND PROFILE

C601

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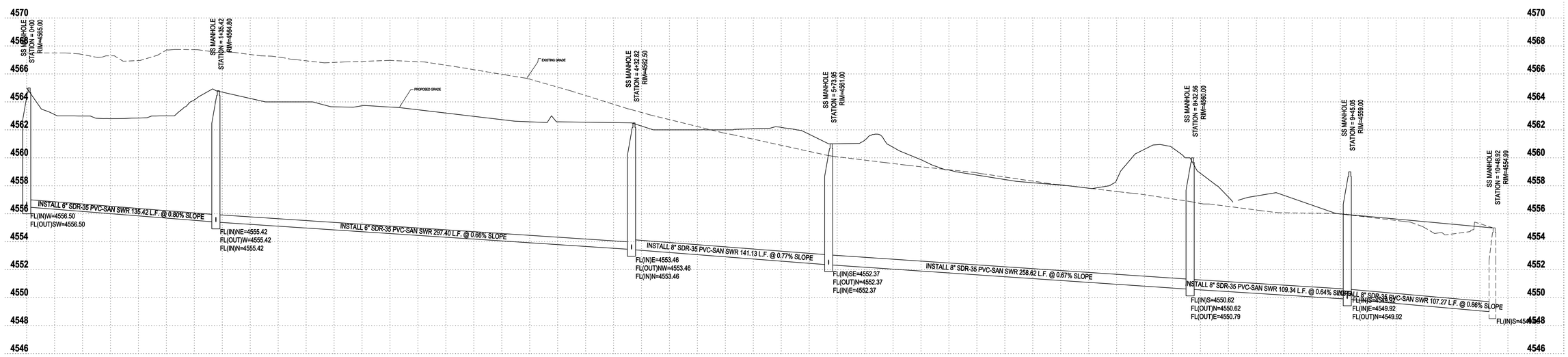

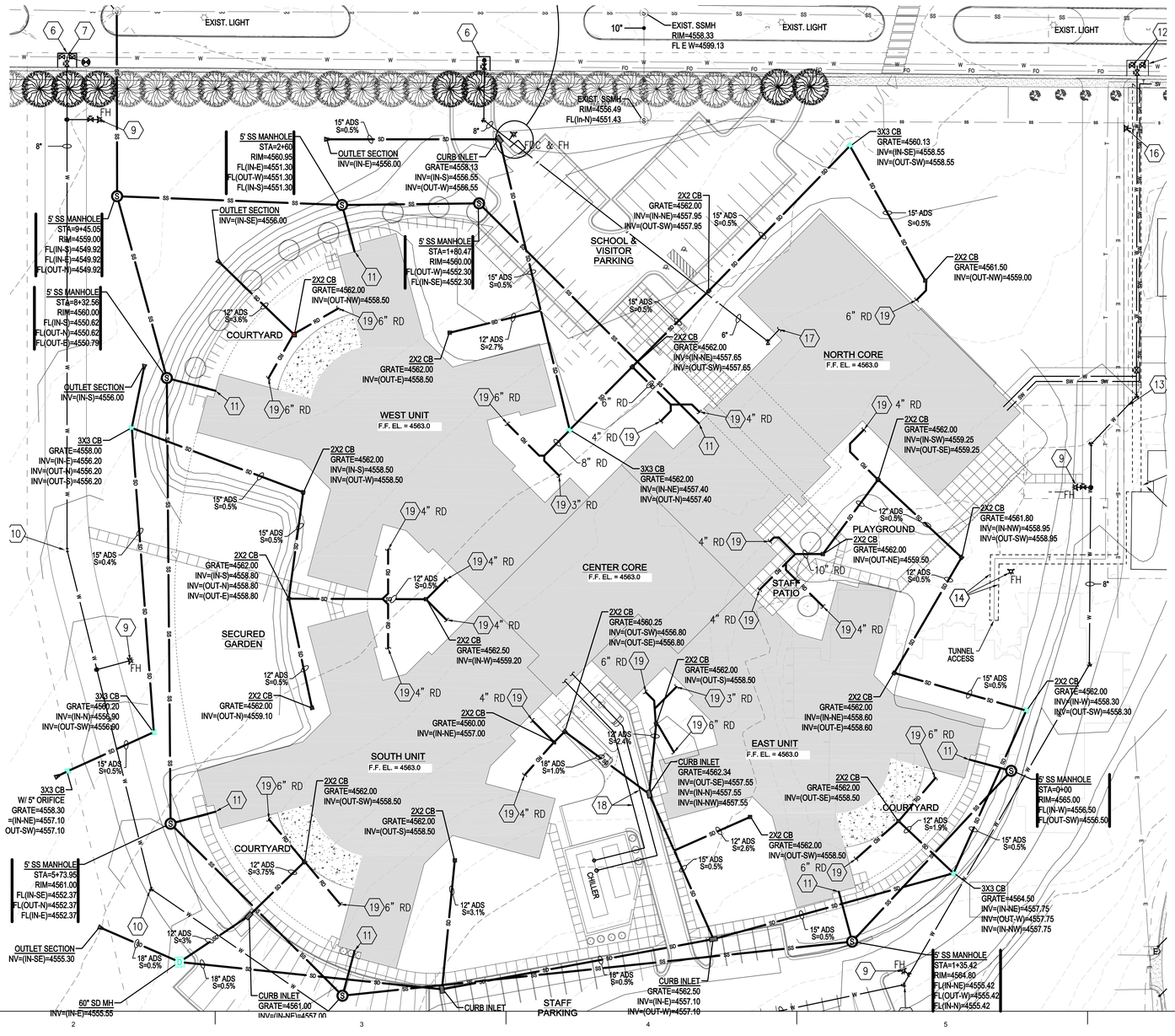

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FILE	11111 USH Pediatrics
DRAWN BY	EJ,TC,MB,RG
CHECKED BY	JB,KE,DB,SS
SCALE	1" = 30'-0"

UTILITY PLAN AND PROFILE

C602

06/26/2012 12:35:00 PM

DFCM APPROVAL STAMP

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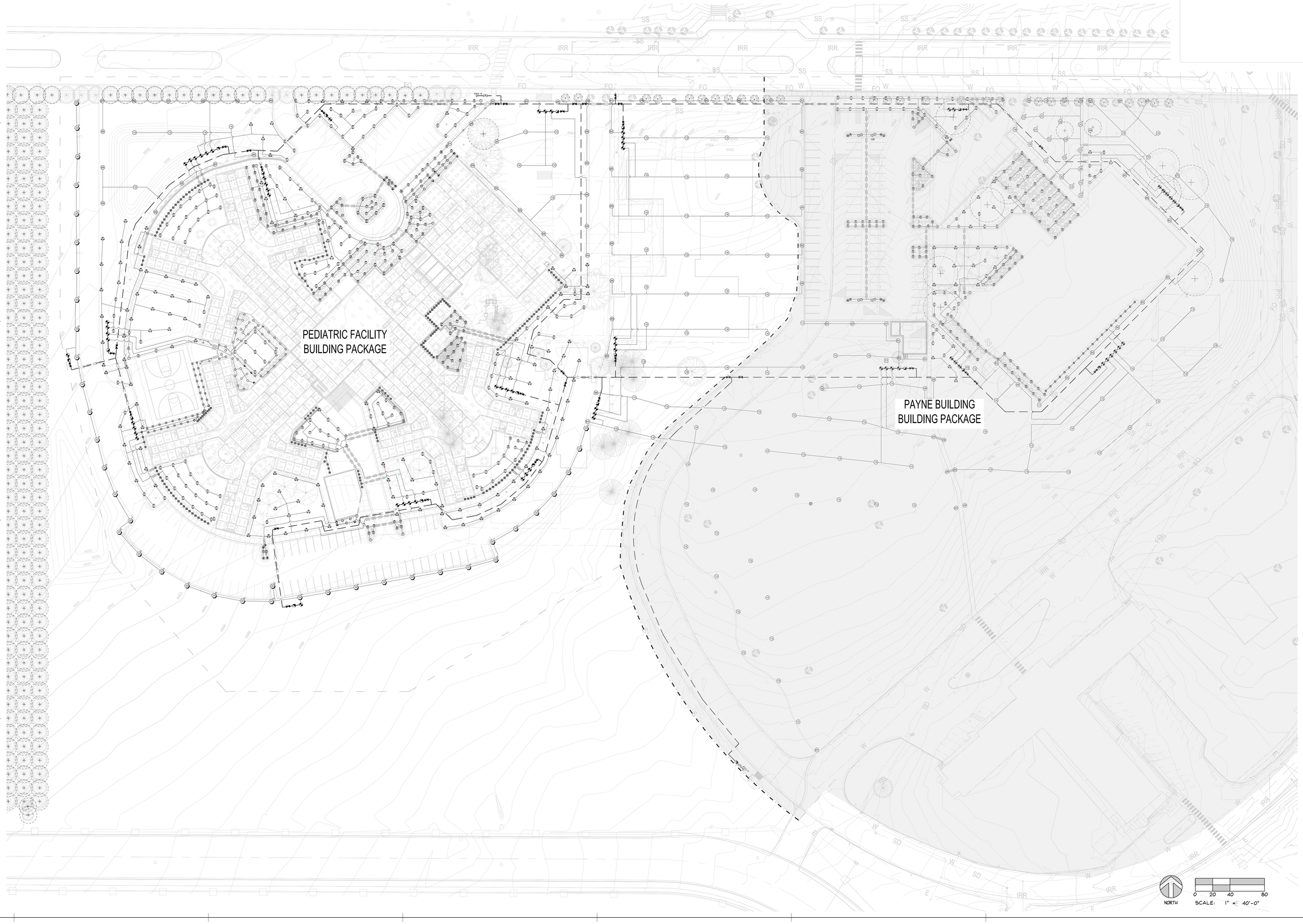

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
Utah State Hospital Consolidation
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

	DATE	REVISION

PROJECT NUMBER
FILE
DRAWN BY EP
CHECKED BY SG
SCALE 1" = 40'-0"

IRRIGATION PLAN - OVERALL

L-R100

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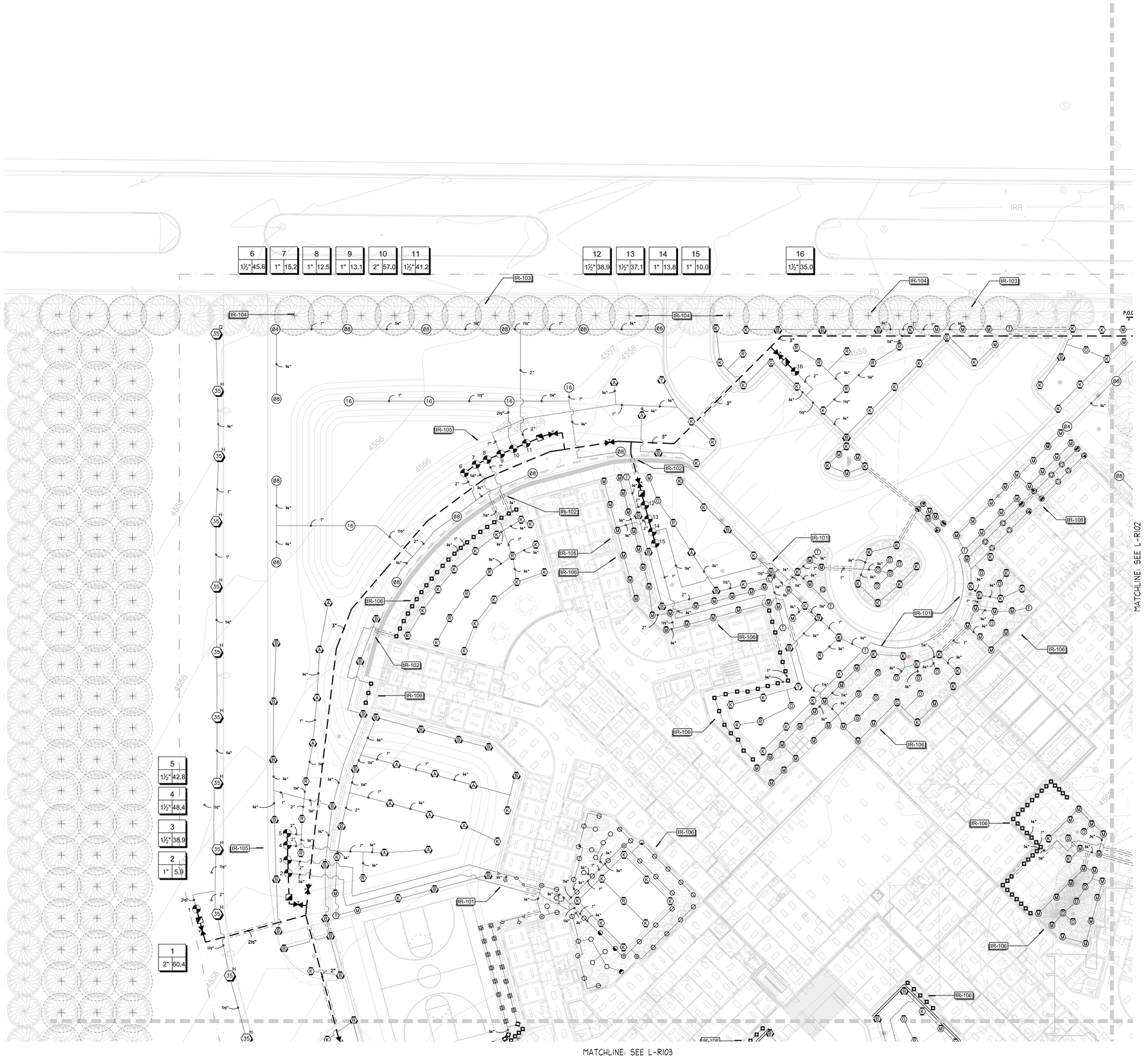

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fax 801 . 466 . 3046
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IRRIGATION SCHEDULE — A

SEE DTL-A SHT L-R501 FOR IRRIGATION SCHEDULE

IRRIGATION NOTES — B

1. IT IS THE INTENT OF THESE IRRIGATION PLANS TO PROVIDE THE CONTRACTOR WITH CONSTRUCTION INFORMATION THAT WILL ENABLE HIM TO PROVIDE AND INSTALL A COMPLETE AND OPERATIONAL IRRIGATION SYSTEM. THE CONTRACTOR SHALL PROVIDE ALL LABOR, PARTS AND MATERIALS REQUIRED.
2. THE CONTRACTOR SHALL VERIFY THE AVAILABLE WATER PRESSURE ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE. IN THE EVENT THE PRESSURE DIFFERENCES ARE NOT REPORTED PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY. CONTRACTOR TO MAINTAIN OPERATING PRESSURE FOR EACH ZONE TO THE LAST HEAD.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, STRUCTURES, WALKS, AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK, HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES AND LATERALS THROUGH WALLS AND UNDER PAVING.
4. DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR GRADING DIFFERENCES MAY NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
5. THIS DESIGN IS DIAGRAMMATIC, ALL IRRIGATION EQUIPMENT, PIPING, VALVES, ETC., SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHEREVER POSSIBLE.
6. PROTECT EXISTING TREE'S ROOT STRUCTURE FROM DAMAGE DURING IRRIGATION TRENCHING OPERATIONS. CONTACT THE LANDSCAPE ARCHITECT IF ROOTS ARE ENCOUNTERED DURING TRENCHING TO DISCUSS ALTERNATE ROUTING FOR IRRIGATION PIPING.
7. IRRIGATION SYSTEM IS TO BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
8. THE CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS AND VALVES FOR OPTIMUM COVERAGE. INSTALL ALL SPRINKLER HEADS WITH NOZZLES OF THE APPROPRIATE DEGREE AND RADIUS FOR THE AREA TO BE COVERED. ADJUST ALL NOZZLES TO PREVENT SPRAYING ONTO WALKS, BUILDINGS, ETC.
9. ALL IRRIGATION EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURES SPECS.
10. ALL PIPE INSTALLED IN PAVING AND WALLS SHALL BE SLEEVED, SEE DETAILS.
11. ALL VALVE BOXES AND LID COVERS SHALL MATCH COLOR OF SURROUNDING MULCH OR GROUNDCOVER. TAN FOR BARK OR ROCK MULCH AND GREEN FOR TURF.

EXISTING IRRIGATION SYSTEM - OVERALL: (COORDINATE ALL WORK WITH THE OWNER)

1. THE CONTRACTOR SHALL MAINTAIN THE EXISTING IRRIGATION SYSTEM IN GOOD WORKING CONDITION TO ENSURE THAT EXISTING PLANT MATERIAL RECEIVES THE PROPER AMOUNT OF WATER DURING ALL PHASES OF CONSTRUCTION.
2. THE CONTRACTOR SHALL MAKE MODIFICATIONS TO THE EXISTING IRRIGATION SYSTEM AS REQUIRED WHERE EXISTING IRRIGATION ZONES WILL BE DISRUPTED DUE TO PROPOSED CONSTRUCTION. MODIFICATIONS MAY INCLUDE BUT IS NOT LIMITED TO RE-ROUTING EXISTING IRRIGATION MAINLINES AND LATERAL LINES, RELOCATING EXISTING CONTROLLERS AND IRRIGATION VALVES AND CONTROL WIRING, AND RELOCATING EXISTING IRRIGATION HEADS.
3. THE CONTRACTOR MAY ALSO BE REQUIRED TO HAND-WATER EXISTING PLANT MATERIAL AS REQUIRED IF THE MODIFICATIONS TO THE EXISTING IRRIGATION SYSTEM AS PREVIOUSLY LISTED ARE NOT MADE.
4. ANY EXISTING HEAD, VALVE, VALVE MARKER, VALVE BOX, OR OTHER EXISTING EQUIPMENT LOCATED WHERE THERE WILL BE A GRADE OR SURFACE MATERIAL CHANGE, SHALL BE ADJUSTED UP OR DOWN TO ITS PROPER POSITION IN RELATION TO THE NEW FINISHED GRADE, AT NO ADDITIONAL COST TO THE OWNER, UNLESS THE PLANS SHOW IT TO BE RELOCATED.

REFERENCE SCHEDULE NOTES — C

SYMBOL	IR IRRIGATION NOTES DESCRIPTION
IR-101	IRRIGATION EQUIPMENT SHOWN OUTSIDE PLANTING AREAS FOR GRAPHIC CLARITY ONLY - LOCATE INSIDE PLANTING AREAS AND AS APPROVED BY THE LANDSCAPE ARCHITECT
IR-102	INSTALL SLEEVE THROUGH WALLS, TYPICAL.
IR-103	ADJUST AND/OR REPAIR EXISTING IRRIGATION SYSTEM TO ENSURE THAT HEAD-TO-HEAD COVERAGE IS MAINTAINED. CONNECT EXISTING VALVES TO REMAIN TO 2-WIRE PATH AND PROPOSED CONTROLLER.
IR-104	HAND-DIG TRENCHES UNDER EXISTING TREES DESIGNATED TO REMAIN, TYPICAL
IR-105	ALIGN VALVE BOXES WITHIN PLANTING AREAS & ALIGN WITH BUILDING, WALL, OR EDGE OF PAVEMENT
IR-106	COORDINATE LOCATION OF IRRIGATION HEADS WITH PLANT MATERIAL TO ENSURE THAT PROPER COVERAGE IS ACHIEVED

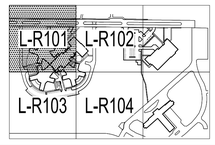
CRITICAL ANALYSIS — D

FLOW AVAILABLE	
Point of Connection Size:	4"
Flow Available:	298.00 gpm
PRESSURE AVAILABLE	
Static Pressure at POC:	98.00 psi
Pressure Available:	98.00 psi
DESIGN ANALYSIS	
Maximum Station Flow:	67.50 gpm
Flow Available at POC:	298.00 gpm
Residual Flow Available:	230.50 gpm
Critical Station:	46
Design Pressure:	40.00 psi
Pipe Loss Critical Head:	5.07 psi
Loss Fitting Factor:	0.51 psi
Loss through Valve:	4.64 psi
Pressure Req. at Critical Station:	50.21 psi
Loss for Fittings:	2.99 psi
Loss for Main Line:	29.86 psi
Critical Station Pressure at POC:	83.08 psi
Pressure Available:	98.00 psi
Residual Pressure Available:	14.92 psi

SCALE — F

0 10 20 40
SCALE: 1" = 20'-0"
NORTH

KEY PLAN — E



PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
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BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

	DATE	REVISION

PROJECT NUMBER
FILE
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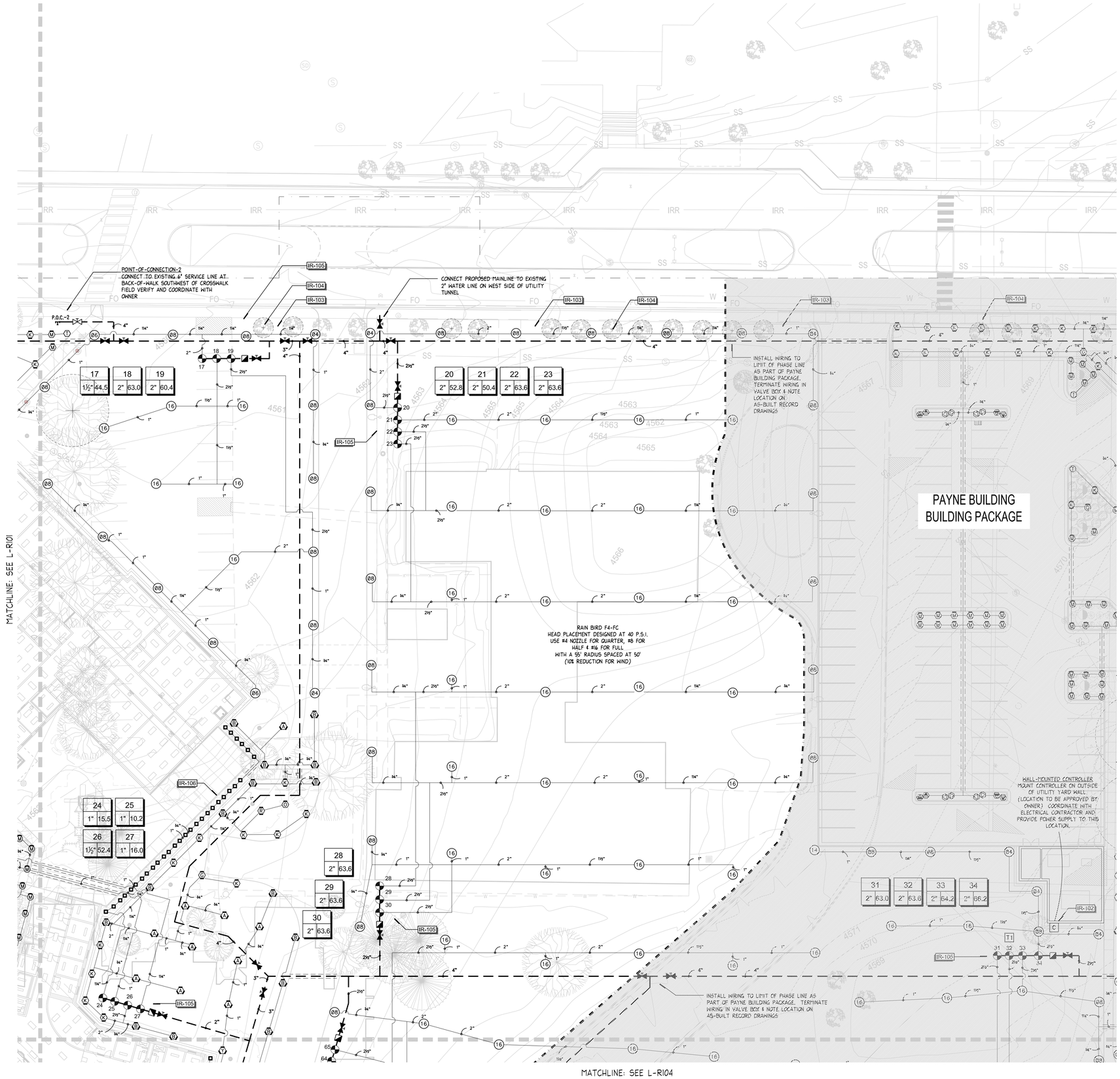
CHECKED BY SG
SCALE 1" = 20'-0"

IRRIGATION PLAN - PEDIATRIC

L-R101

File : E:\11068_Utah State Hospital\Cadd\Irrigation.dwg Sep 07, 2012-10:22am



17	18	19
1½" 44.5	2" 63.0	2" 60.4

20	21	22	23
2" 52.8	2" 50.4	2" 63.6	2" 63.6

24	25
1" 15.5	1" 10.2
26	27
1½" 52.4	1" 16.0

28
2" 63.6
29
2" 63.6
30
2" 63.6

31	32	33	34
2" 63.0	2" 63.6	2" 64.2	2" 66.2

IRRIGATION SCHEDULE — A

SEE DTL-A SHT L-R501 FOR IRRIGATION SCHEDULE

IRRIGATION NOTES — B

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4. DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR GRADING DIFFERENCES MAY NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
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6. PROTECT EXISTING TREE'S ROOT STRUCTURE FROM DAMAGE DURING IRRIGATION TRENCHING OPERATIONS. CONTACT THE LANDSCAPE ARCHITECT IF ROOTS ARE ENCOUNTERED DURING TRENCHING TO DISCUSS ALTERNATE ROUTING FOR IRRIGATION PIPING.
7. IRRIGATION SYSTEM IS TO BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
8. THE CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS AND VALVES FOR OPTIMUM COVERAGE. INSTALL ALL SPRINKLER HEADS WITH NOZZLES OF THE APPROPRIATE DEGREE AND RADIUS FOR THE AREA TO BE COVERED. ADJUST ALL NOZZLES TO PREVENT SPRAYING ONTO WALKS, BUILDINGS, ETC.
9. ALL IRRIGATION EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURES SPECS.
10. ALL PIPE INSTALLED IN PAVING AND WALLS SHALL BE SLEEVED, SEE DETAILS.
11. ALL VALVE BOXES AND LID COVERS SHALL MATCH COLOR OF SURROUNDING MULCH OR GROUNDCOVER. TAN FOR BARK OR ROCK MULCH AND GREEN FOR TURF.

EXISTING IRRIGATION SYSTEM - OVERALL: (COORDINATE ALL WORK WITH THE OWNER)

1. THE CONTRACTOR SHALL MAINTAIN THE EXISTING IRRIGATION SYSTEM IN GOOD WORKING CONDITION TO ENSURE THAT EXISTING PLANT MATERIAL RECEIVES THE PROPER AMOUNT OF WATER DURING ALL PHASES OF CONSTRUCTION.
2. THE CONTRACTOR SHALL MAKE MODIFICATIONS TO THE EXISTING IRRIGATION SYSTEM AS REQUIRED WHERE EXISTING IRRIGATION ZONES WILL BE DISRUPTED DUE TO PROPOSED CONSTRUCTION. MODIFICATIONS MAY INCLUDE BUT IS NOT LIMITED TO: RE-ROUTING EXISTING IRRIGATION MAINLINES AND LATERAL LINES, RELOCATING EXISTING CONTROLLERS AND IRRIGATION VALVES AND CONTROL WIRING, AND RELOCATING EXISTING IRRIGATION HEADS.
3. THE CONTRACTOR MAY ALSO BE REQUIRED TO HAND-WATER EXISTING PLANT MATERIAL AS REQUIRED IF THE MODIFICATIONS TO THE EXISTING IRRIGATION SYSTEM AS PREVIOUSLY LISTED ARE NOT MADE.
4. ANY EXISTING HEAD, VALVE, VALVE MARKER, VALVE BOX, OR OTHER EXISTING EQUIPMENT LOCATED WHERE THERE WILL BE A GRADE OR SURFACE MATERIAL CHANGE, SHALL BE ADJUSTED UP OR DOWN TO ITS PROPER POSITION IN RELATION TO THE NEW FINISHED GRADE, AT NO ADDITIONAL COST TO THE OWNER, UNLESS THE PLANS SHOW IT TO BE RELOCATED.

REFERENCE SCHEDULE NOTES — C

SYMBOL	IR IRRIGATION NOTES DESCRIPTION
IR-101	IRRIGATION EQUIPMENT SHOWN OUTSIDE PLANTING AREAS FOR GRAPHIC CLARITY ONLY - LOCATE INSIDE PLANTING AREAS AND AS APPROVED BY THE LANDSCAPE ARCHITECT
IR-102	INSTALL SLEEVE THROUGH WALLS, TYPICAL.
IR-103	ADJUST AND/OR REPAIR EXISTING IRRIGATION SYSTEM TO ENSURE THAT HEAD-TO-HEAD COVERAGE IS MAINTAINED. CONNECT EXISTING VALVES TO REMAIN TO 2-WIRE PATH AND PROPOSED CONTROLLER.
IR-104	HAND-DIG TRENCHES UNDER EXISTING TREES DESIGNATED TO REMAIN, TYPICAL
IR-105	ALIGN VALVE BOXES WITHIN PLANTING AREAS & ALIGN WITH BUILDING, WALL, OR EDGE OF PAVEMENT
IR-106	COORDINATE LOCATION OF IRRIGATION HEADS WITH PLANT MATERIAL TO ENSURE THAT PROPER COVERAGE IS ACHIEVED

CRITICAL ANALYSIS — D

FLOW AVAILABLE	
Point of Connection Size:	4"
Flow Available:	298.00 gpm
PRESSURE AVAILABLE	
Static Pressure at POC:	98.00 psi
Pressure Available:	98.00 psi
DESIGN ANALYSIS	
Maximum Station Flow:	67.50 gpm
Flow Available at POC:	298.00 gpm
Residual Flow Available:	230.50 gpm
Critical Station:	46
Design Pressure:	40.00 psi
Pipe Loss Critical Head:	5.07 psi
Loss Fitting Factor:	0.51 psi
Loss through Valve:	4.64 psi
Pressure Req. at Critical Station:	50.21 psi
Loss for Fittings:	2.99 psi
Loss for Main Line:	29.88 psi
Critical Station Pressure at POC:	83.08 psi
Pressure Available:	98.00 psi
Residual Pressure Available:	14.92 psi

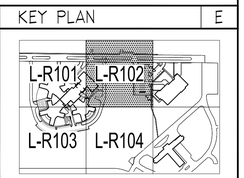
SCALE — F

0 10 20 40

SCALE: 1" = 20'-0"

NORTH

KEY PLAN — E



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PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
Utah State Hospital Consolidation
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

	DATE	REVISION

PROJECT NUMBER
FILE
DRAWN BY EP
CHECKED BY SG
SCALE 1" = 20'-0"

IRRIGATION PLAN - PEDIATRIC

L-R102

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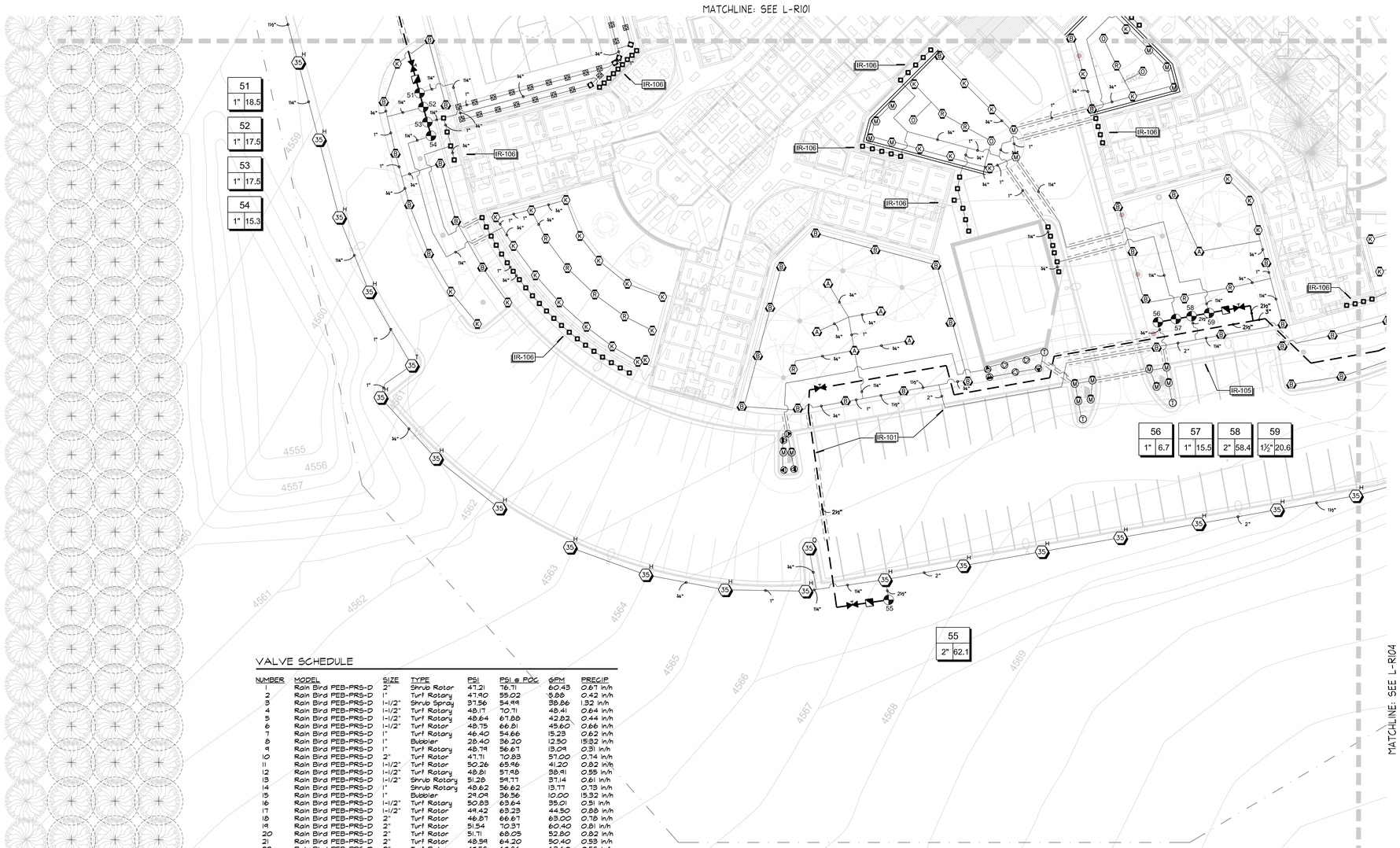

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	PSI	PSI @ POC	GPM	PRECIP
1	Rain Bird PEB-PRS-D	2"	Shrub Rotor	47.21	76.71	60.43	0.67 in/h
2	Rain Bird PEB-PRS-D	1"	Turf Rotary	47.90	55.02	9.88	0.42 in/h
3	Rain Bird PEB-PRS-D	1-1/2"	Shrub Spray	37.56	54.99	38.86	1.32 in/h
4	Rain Bird PEB-PRS-D	1-1/2"	Turf Rotary	48.17	70.71	48.41	0.64 in/h
5	Rain Bird PEB-PRS-D	1-1/2"	Turf Rotary	48.64	67.88	42.82	0.44 in/h
6	Rain Bird PEB-PRS-D	1-1/2"	Turf Rotor	48.75	68.91	45.60	0.66 in/h
7	Rain Bird PEB-PRS-D	1"	Turf Rotary	46.40	54.66	15.23	0.62 in/h
8	Rain Bird PEB-PRS-D	1"	Bubbler	28.40	36.20	12.50	15.32 in/h
9	Rain Bird PEB-PRS-D	1"	Turf Rotary	48.74	56.67	13.09	0.31 in/h
10	Rain Bird PEB-PRS-D	2"	Turf Rotor	47.71	70.83	51.00	0.74 in/h
11	Rain Bird PEB-PRS-D	1-1/2"	Turf Rotor	50.26	65.46	41.20	0.82 in/h
12	Rain Bird PEB-PRS-D	1-1/2"	Turf Rotary	48.81	57.48	38.41	0.55 in/h
13	Rain Bird PEB-PRS-D	1-1/2"	Shrub Rotary	51.28	59.77	37.14	0.61 in/h
14	Rain Bird PEB-PRS-D	1"	Shrub Rotary	48.62	56.62	13.77	0.73 in/h
15	Rain Bird PEB-PRS-D	1"	Bubbler	24.09	36.56	10.00	15.32 in/h
16	Rain Bird PEB-PRS-D	1-1/2"	Turf Rotary	50.83	63.64	35.01	0.51 in/h
17	Rain Bird PEB-PRS-D	1-1/2"	Turf Rotor	49.42	63.23	44.50	0.88 in/h
18	Rain Bird PEB-PRS-D	2"	Turf Rotor	46.87	66.67	63.00	0.78 in/h
19	Rain Bird PEB-PRS-D	2"	Turf Rotor	51.54	70.37	60.40	0.81 in/h
20	Rain Bird PEB-PRS-D	2"	Turf Rotor	51.71	68.05	52.80	0.82 in/h
21	Rain Bird PEB-PRS-D	2"	Turf Rotor	48.54	64.20	50.40	0.53 in/h
22	Rain Bird PEB-PRS-D	2"	Turf Rotor	49.58	64.86	63.60	0.58 in/h
23	Rain Bird PEB-PRS-D	2"	Turf Rotor	50.10	70.47	63.60	0.58 in/h
24	Rain Bird PEB-PRS-D	1"	Bubbler	28.46	36.21	15.50	15.32 in/h
25	Rain Bird PEB-PRS-D	1"	Shrub Rotary	48.91	56.15	10.23	0.68 in/h
26	Rain Bird PEB-PRS-D	1-1/2"	Turf Rotary	48.98	56.19	52.36	0.51 in/h
27	Rain Bird PEB-PRS-D	1"	Bubbler	28.87	36.64	16.00	15.32 in/h
28	Rain Bird PEB-PRS-D	2"	Turf Rotor	50.50	64.10	63.60	0.58 in/h
29	Rain Bird PEB-PRS-D	2"	Turf Rotor	50.07	63.54	63.60	0.54 in/h
30	Rain Bird PEB-PRS-D	2"	Turf Rotor	48.87	62.30	63.60	0.58 in/h
31	Rain Bird PEB-PRS-D	2"	Turf Rotor	49.06	68.13	63.00	0.56 in/h
32	Rain Bird PEB-PRS-D	2"	Turf Rotor	48.20	67.40	63.60	0.63 in/h
33	Rain Bird PEB-PRS-D	2"	Turf Rotor	47.32	66.63	64.20	0.93 in/h
34	Rain Bird PEB-PRS-D	2"	Turf Rotor	48.32	68.19	66.20	0.84 in/h
35	Rain Bird PEB-PRS-D	1-1/2"	Turf Rotary	53.38	62.52	27.74	0.45 in/h
36	Rain Bird PEB-PRS-D	1"	Shrub Rotary	51.97	54.36	11.33	0.50 in/h
37	Rain Bird PEB-PRS-D	2"	Turf Rotor	48.02	71.72	67.50	0.87 in/h
38	Rain Bird PEB-PRS-D	1"	Turf Rotary	46.87	54.03	8.42	0.34 in/h
39	Rain Bird PEB-PRS-D	1"	Shrub Rotary	49.74	58.06	17.88	0.34 in/h
40	Rain Bird PEB-PRS-D	2"	Turf Rotor	44.71	63.05	54.77	0.79 in/h
41	Rain Bird PEB-PRS-D	2"	Turf Rotor	49.14	70.92	63.60	0.61 in/h
42	Rain Bird PEB-PRS-D	1"	Turf Rotary	46.58	54.30	14.80	0.41 in/h
43	Rain Bird PEB-PRS-D	1-1/2"	Turf Rotary	50.38	65.46	48.75	0.58 in/h
44	Rain Bird PEB-PRS-D	1"	Shrub Rotary	47.68	55.06	11.73	0.45 in/h
45	Rain Bird PEB-PRS-D	2"	Turf Rotor	49.34	68.21	57.40	0.84 in/h
46	Rain Bird PEB-PRS-D	2"	Turf Rotor	50.21	71.47	63.60	0.65 in/h
47	Rain Bird PEB-PRS-D	2"	Turf Rotor	48.20	64.30	63.00	0.56 in/h
48	Rain Bird PEB-PRS-D	2"	Turf Rotor	48.57	64.75	63.00	0.51 in/h
49	Rain Bird PEB-PRS-D	2"	Turf Rotor	48.26	66.63	55.60	0.68 in/h
50	Rain Bird PEB-PRS-D	1"	Bubbler	27.38	34.42	12.50	15.32 in/h
51	Rain Bird PEB-PRS-D	1"	Turf Spray	38.23	47.72	18.51	1.82 in/h
52	Rain Bird PEB-PRS-D	1"	Turf Rotary	47.30	56.54	17.47	0.55 in/h
53	Rain Bird PEB-PRS-D	1"	Bubbler	24.13	37.35	17.50	15.32 in/h
54	Rain Bird PEB-PRS-D	1"	Turf Rotary	48.07	56.80	15.24	0.61 in/h
55	Rain Bird PEB-PRS-D	2"	Shrub Rotor	46.95	72.48	62.10	0.75 in/h
56	Rain Bird PEB-PRS-D	1"	Shrub Rotary	47.37	54.41	6.66	0.74 in/h
57	Rain Bird PEB-PRS-D	1"	Bubbler	28.86	36.79	15.50	15.32 in/h
58	Rain Bird PEB-PRS-D	2"	Turf Rotary	50.03	69.79	58.37	0.61 in/h
59	Rain Bird PEB-PRS-D	1-1/2"	Turf Rotary	50.44	59.11	20.60	0.60 in/h
60	Rain Bird PEB-PRS-D	1"	Bubbler	26.72	34.52	16.00	15.32 in/h
61	Rain Bird PEB-PRS-D	1"	Turf Rotary	46.21	53.29	8.00	0.52 in/h
62	Rain Bird PEB-PRS-D	1-1/2"	Turf Rotary	48.88	56.41	51.73	0.55 in/h
63	Rain Bird PEB-PRS-D	2"	Turf Rotor	47.90	61.59	66.30	0.68 in/h
64	Rain Bird PEB-PRS-D	2"	Turf Rotor	48.88	61.05	57.00	0.60 in/h
65	Rain Bird PEB-PRS-D	2"	Turf Rotor	50.04	63.09	63.00	0.50 in/h

IRRIGATION SCHEDULE — A

SEE DTL-A SHT L-R501 FOR IRRIGATION SCHEDULE

IRRIGATION NOTES — B

1. IT IS THE INTENT OF THESE IRRIGATION PLANS TO PROVIDE THE CONTRACTOR WITH CONSTRUCTION INFORMATION THAT WILL ENABLE HIM TO PROVIDE AND INSTALL A COMPLETE AND OPERATIONAL IRRIGATION SYSTEM. THE CONTRACTOR SHALL PROVIDE ALL LABOR, PARTS AND MATERIALS REQUIRED.
2. THE CONTRACTOR SHALL VERIFY THE AVAILABLE WATER PRESSURE ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE. IN THE EVENT THE PRESSURE DIFFERENCES ARE NOT REPORTED PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY. CONTRACTOR TO MAINTAIN OPERATING PRESSURE FOR EACH ZONE TO THE LAST HEAD.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, STRUCTURES, WALKS, AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK, HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES AND LATERALS THROUGH WALLS AND UNDER PAVING.
4. DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR GRADING DIFFERENCES MAY NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
5. THIS DESIGN IS DIAGRAMMATIC, ALL IRRIGATION EQUIPMENT, PIPING, VALVES, ETC., SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHEREVER POSSIBLE.
6. PROTECT EXISTING TREE'S ROOT STRUCTURE FROM DAMAGE DURING IRRIGATION TRENCHING OPERATIONS. CONTACT THE LANDSCAPE ARCHITECT IF ROOTS ARE ENCOUNTERED DURING TRENCHING TO DISCUSS ALTERNATE ROUTING FOR IRRIGATION PIPING.
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11. ALL VALVE BOXES AND LID COVERS SHALL MATCH COLOR OF SURROUNDING MULCH OR GROUNDCOVER. TAN FOR BARK OR ROCK MULCH AND GREEN FOR TURF.

EXISTING IRRIGATION SYSTEM - OVERALL: (COORDINATE ALL WORK WITH THE OWNER)

1. THE CONTRACTOR SHALL MAINTAIN THE EXISTING IRRIGATION SYSTEM IN GOOD WORKING CONDITION TO ENSURE THAT EXISTING PLANT MATERIAL RECEIVES THE PROPER AMOUNT OF WATER DURING ALL PHASES OF CONSTRUCTION.
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3. THE CONTRACTOR MAY ALSO BE REQUIRED TO HAND-WATER EXISTING PLANT MATERIAL AS REQUIRED IF THE MODIFICATIONS TO THE EXISTING IRRIGATION SYSTEM AS PREVIOUSLY LISTED ARE NOT MADE.
4. ANY EXISTING HEAD, VALVE, VALVE MARKER, VALVE BOX, OR OTHER EXISTING EQUIPMENT LOCATED WHERE THERE WILL BE A GRADE OR SURFACE MATERIAL CHANGE, SHALL BE ADJUSTED UP OR DOWN TO ITS PROPER POSITION IN RELATION TO THE NEW FINISHED GRADE, AT NO ADDITIONAL COST TO THE OWNER, UNLESS THE PLANS SHOW IT TO BE RELOCATED.

REFERENCE SCHEDULE NOTES — C

SYMBOL	IR IRRIGATION NOTES DESCRIPTION
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CRITICAL ANALYSIS — D

FLOW AVAILABLE	
Point of Connection Size:	4"
Flow Available:	298.00 gpm
PRESSURE AVAILABLE	
Static Pressure at POC:	98.00 psi
Pressure Available:	98.00 psi
DESIGN ANALYSIS:	
Maximum Station Flow:	67.50 gpm
Flow Available at POC:	298.00 gpm
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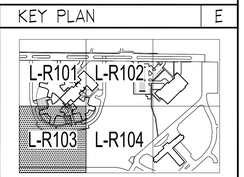
SCALE — F

0 10 20 40

SCALE: 1" = 20'-0"

NORTH

KEY PLAN — E



DFCM APPROVAL STAMP

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PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
Utah State Hospital Consolidation
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

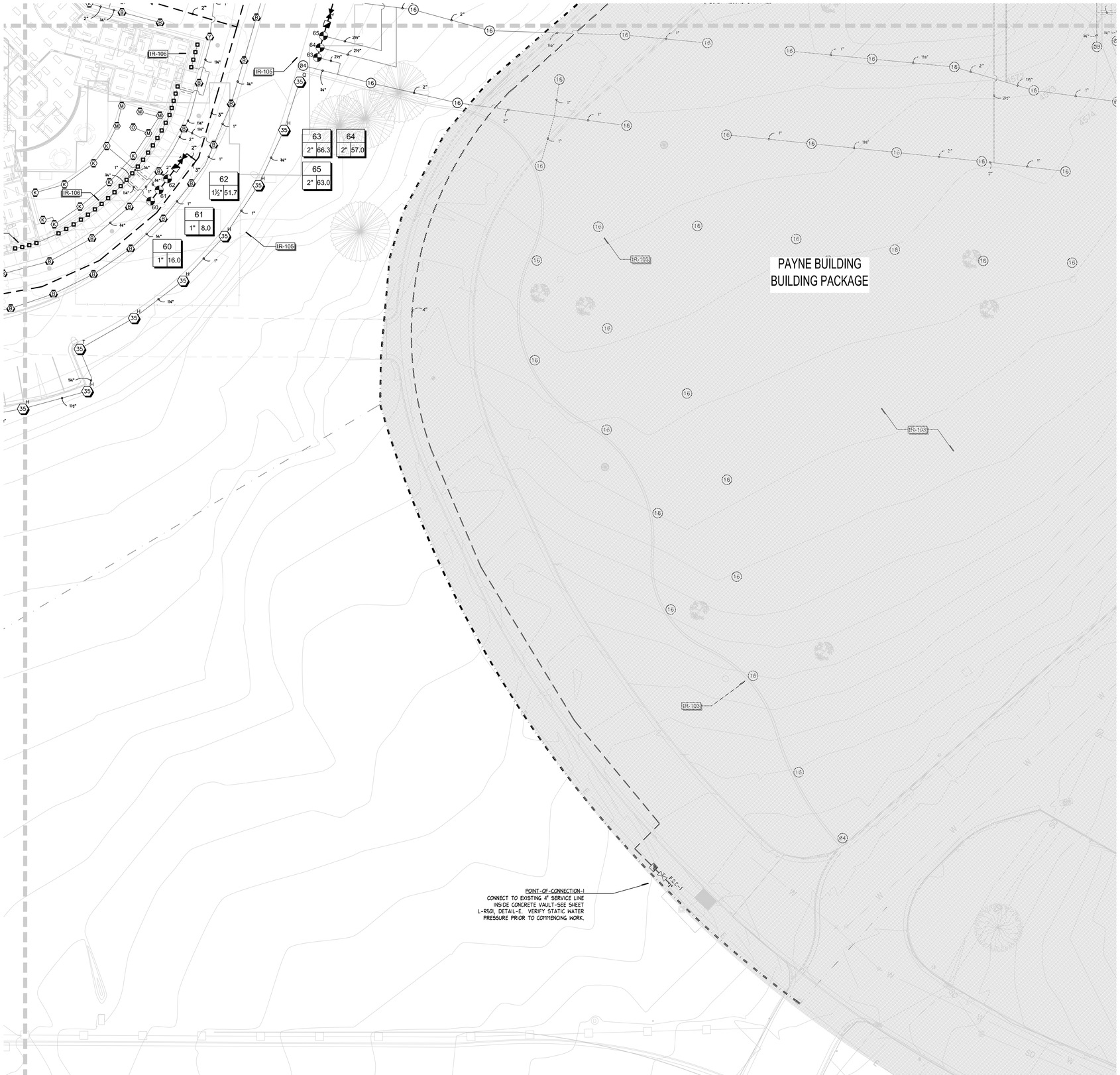
DATE	REVISION

PROJECT NUMBER
FILE
DRAWN BY EP
CHECKED BY SG
SCALE 1" = 20'-0"

IRRIGATION PLAN - PEDIATRIC

L-R103

File : E:\11068_Utah State Hospital\Cadd\Irrigation.dwg Sep 07, 2012-10:25am



DFCM APPROVAL STAMP

IRRIGATION SCHEDULE — A

SEE DTL-A SHT L-R501 FOR IRRIGATION SCHEDULE

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EXISTING IRRIGATION SYSTEM - OVERALL: (COORDINATE ALL WORK WITH THE OWNER)

1. THE CONTRACTOR SHALL MAINTAIN THE EXISTING IRRIGATION SYSTEM IN GOOD WORKING CONDITION TO ENSURE THAT EXISTING PLANT MATERIAL RECEIVES THE PROPER AMOUNT OF WATER DURING ALL PHASES OF CONSTRUCTION.
2. THE CONTRACTOR SHALL MAKE MODIFICATIONS TO THE EXISTING IRRIGATION SYSTEM AS REQUIRED WHERE EXISTING IRRIGATION ZONES WILL BE DISRUPTED DUE TO PROPOSED CONSTRUCTION. MODIFICATIONS MAY INCLUDE BUT IS NOT LIMITED TO: RE-ROUTING EXISTING IRRIGATION MAINLINES AND LATERAL LINES, RELOCATING EXISTING CONTROLLERS AND IRRIGATION VALVES AND CONTROL WIRING, AND RELOCATING EXISTING IRRIGATION HEADS.
3. THE CONTRACTOR MAY ALSO BE REQUIRED TO HAND-WATER EXISTING PLANT MATERIAL AS REQUIRED IF THE MODIFICATIONS TO THE EXISTING IRRIGATION SYSTEM AS PREVIOUSLY LISTED ARE NOT MADE.
4. ANY EXISTING HEAD, VALVE, VALVE MARKER, VALVE BOX, OR OTHER EXISTING EQUIPMENT LOCATED WHERE THERE WILL BE A GRADE OR SURFACE MATERIAL CHANGE, SHALL BE ADJUSTED UP OR DOWN TO ITS PROPER POSITION IN RELATION TO THE NEW FINISHED GRADE, AT NO ADDITIONAL COST TO THE OWNER, UNLESS THE PLANS SHOW IT TO BE RELOCATED.

REFERENCE SCHEDULE NOTES — C

SYMBOL	IR IRRIGATION NOTES DESCRIPTION
IR-101	IRRIGATION EQUIPMENT SHOWN OUTSIDE PLANTING AREAS FOR GRAPHIC CLARITY ONLY - LOCATE INSIDE PLANTING AREAS AND AS APPROVED BY THE LANDSCAPE ARCHITECT
IR-102	INSTALL SLEEVE THROUGH WALLS, TYPICAL.
IR-103	ADJUST AND/OR REPAIR EXISTING IRRIGATION SYSTEM TO ENSURE THAT HEAD-TO-HEAD COVERAGE IS MAINTAINED. CONNECT EXISTING VALVES TO REMAIN TO 2-WIRE PATH AND PROPOSED CONTROLLER.
IR-104	HAND-DIG TRENCHES UNDER EXISTING TREES DESIGNATED TO REMAIN, TYPICAL
IR-105	ALIGN VALVE BOXES WITHIN PLANTING AREAS & ALIGN WITH BUILDING, WALL, OR EDGE OF PAVEMENT
IR-106	COORDINATE LOCATION OF IRRIGATION HEADS WITH PLANT MATERIAL TO ENSURE THAT PROPER COVERAGE IS ACHIEVED

CRITICAL ANALYSIS — D

FLOW AVAILABLE	
Point of Connection Size:	4"
Flow Available:	298.00 gpm
PRESSURE AVAILABLE	
Static Pressure at POC:	98.00 psi
Pressure Available:	98.00 psi
DESIGN ANALYSIS	
Maximum Station Flow:	67.50 gpm
Flow Available at POC:	298.00 gpm
Residual Flow Available:	230.50 gpm
Critical Station:	46
Design Pressure:	40.00 psi
Pipe Loss Critical Head:	5.07 psi
Loss Fitting Factor:	0.51 psi
Loss through Valve:	4.64 psi
Pressure Req. at Critical Station:	50.21 psi
Loss for Fittings:	2.98 psi
Loss for Main Line:	29.88 psi
Critical Station Pressure at POC:	83.08 psi
Pressure Available:	98.00 psi
Residual Pressure Available:	14.92 psi

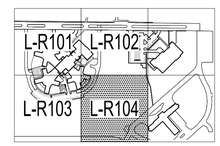
SCALE — F

0 10 20 40

SCALE: 1" = 20'-0"

NORTH

KEY PLAN — E



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PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
Utah State Hospital Consolidation
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

	DATE	REVISION

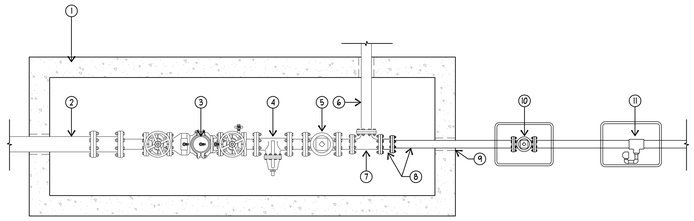
PROJECT NUMBER
FILE
DRAWN BY EP
CHECKED BY SG
SCALE 1" = 20'-0"

IRRIGATION PLAN - PEDIATRIC

L-R104

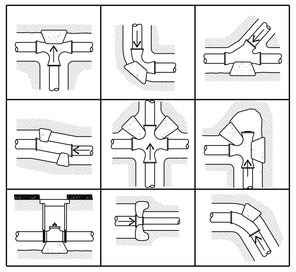
File : E:\11068_Utah State Hospital\Cadd\Irrigation.dwg Sep 07, 2012-10:26am

1. EXISTING CONCRETE VAULT
2. EXISTING 6" MAINLINE
3. EXISTING BACKFLOW PREVENTOR
4. EXISTING GATE VALVE
5. EXISTING PRESSURE REDUCING VALVE
6. EXISTING 4" MAINLINE (TO ORCHARD)
7. EXISTING 4" FLANGED TEE (CAPPED NORTH END)
8. MAINLINE PIPING (SIZE PER PLAN) CONNECT NEW MAINLINE TO NORTH END OF EXISTING FLANGED TEE.
9. CORE DRILL AND INSTALL STLEEVE THROUGH EXISTING VAULT - GROUT VOID BETWEEN SLEEVE AND CONCRETE
10. GATE VALVE - IRRIGATION LEGEND
11. QUICK COUPLER - SEE IRRIG. LEGEND



E POINT OF CONNECTION - A

SCALE: 1/2"=1'-0" PLAN



← DIRECTION OF WATER FLOW (TYP.) INSTALL THRUST BLOCKS ON ALL 3" AND LARGER ON FITTINGS AND VALVES

THRUST BLOCK SIZING PROCEDURES

1. MULTIPLY THE WORKING PRESSURE BY THE APPROPRIATE VALUE SHOWN IN THE FOLLOWING TABLE TO OBTAIN TOTAL THRUST IN N(LB):

PIPELINE THRUST FACTORS (BASED ON THRUST PER KPA (PSI) PRESSURE)

PIPE SIZE IN.	MM	DEAD END OR TEE	90° ELBOW	45° ELBOW	22 1/2° ELBOW
3	89	9.80	13.90	7.51	3.82
4	114	16.20	23.00	12.40	6.31
5	141	24.70	35.00	18.90	9.63
6	168	34.80	49.20	26.70	13.60

2. DETERMINE THE BEARING STRENGTH OF THE SOIL FROM THE TABLE BELOW:

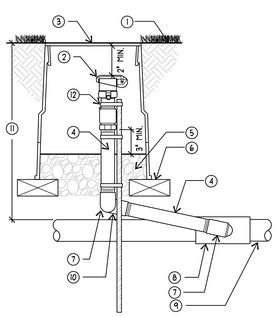
BEARING STRENGTH OF SOILS

SOILS AND SAFE BEARING LOADS:	IB/SQ.FT.	KPA
SOUND SHALE	10,000	500
CEMENTED GRAVEL AND SAND DIFFICULT TO PICK	4,000	200
COARSE AND FINE COMPACT SAND	3,000	100
MEDIUM CLAY CAN BE SPADED	2,000	150
SOFT CLAY	1,000	50
MUCK	0	0

3. DIVIDE THE TOTAL THRUST OBTAINED IN STEP 1 BY THE BEARING STRENGTH OF THE SOIL TO GET THE AREA NEEDED, M/SQ.FT.

F THRUST BLOCK DETAIL

SCALE: NTS SECTIONS

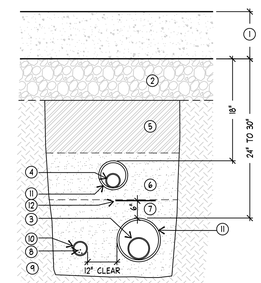


1. SET FLUSH TO FINISH GRADE/TOP OF MULCH
2. QUICK-COUPLING VALVE (SEE IRRIGATION SCEDULE)
3. 10" ROUND VALVE BOX. (LOCATION MUST BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION).
4. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
5. 6-INCH MINIMUM DEPTH OF 3/4-INCH WASHED AGGREGATE
6. BRICK FOUNDATION
7. PVC SCH 80 STREET ELL
8. PVC SCH 80 TEE OR ELL (SAME SIZE AS MAINLINE PIPING)
9. MAINLINE PIPING (SIZE AS PER PLAN)
10. PVC SCH 80 ELL
11. FOR TRENCH DEPTHS (SEE TRENCHING AND SLEEVING DETAIL)
12. PREFABRICATED - QUICK COUPLER STABLIZER - SPEARS, LEEMCO OR APPROVED EQUAL & #4 REBAR - 24" MIN. LENGTH

NOTE:
1. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

G QUICK COUPLER VALVE ASSEMBLY

SCALE: NTS SECTION

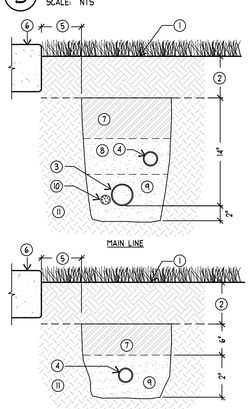


1. HARDSCAPE PAVING
2. COMPACTED AGGREGATE SUB-BASE
3. MAINLINE PIPING
4. LATERAL PIPING
5. CLEAN BACKFILL FREE OF ROCKS 1" DIA. AND LARGER.- SEE SPECS.
6. BEDDING SAND- IN CASES WHERE LATERAL PIPING IS INSTALLED IN MAINLINE TRENCH, USE SAND TO BACKFILL TRENCH
7. BEDDING SAND- USE SAND TO A DEPTH OF 2" BELOW AND TO THE EITHER SIDE OF SLEEVING
8. ELECTRICAL WIRES
9. COMPACTED SUBGRADE
10. ELECTRICAL CONDUIT- SEE SPECS.
11. SLEEVING: -SLEEVES SHALL BE 2" LARGER THAN THE PIPE OR WIRES WITHIN -1" TO 2 1/2" =PVC SCH 80 -4" AND LARGER = PVC CLASS 200
12. USE DETECTABLE WARNING TAPE W/ MAINLINE - PLACE 6" ABOVE - SEE SPECS.

NOTE:
1. SETTLE ALL TRENCHES WITH WATER PRIOR TO INSTALLATION OF TOPSOIL.
2. WHEN MULTIPLE PIPES OCCUR IN ONE TRENCH, ADD REQUIRED SLEEVE SIZES TOGETHER FOR 1 SLEEVE SIZE.
3. EXTEND ALL SLEEVING 18" MIN. BEYOND EDGE OF PAVING.
4. MARK THE LOCATION OF EACH SLEEVE BY INSTALLING A MAGNETIZED MASONRY NAIL, FLUSH WITH THE HARDSCAPE, INDICATING THE LOCATION OF EACH END OF THE SLEEVE.

B SLEEVING

SCALE: NTS SECTION

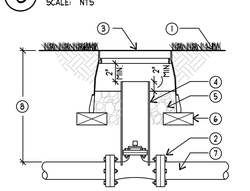


1. FINISH GRADE/TOP OF MULCH
2. TOPSOIL LAYER (6" IN TURF AND 12" IN SHRUB BED)
3. MAINLINE PIPING - MIN. DEPTH 18" TO TOP OF PIPE (SIZE AS PER PLAN)
4. LATERAL PIPING (SIZE AS PER PLAN)
5. LOCATE ALL TRENCHES 12" AWAY FROM ALL BUILDINGS, SIDEWALKS OR ANY HARD SURFACES. 3' FROM ROADS.
6. TOP OF HARDSCAPE
7. USE EXCAVATED TRENCH MATERIAL NOT TO EXCEED 1" DIA. ROCKS
8. BEDDING SAND- IN CASES WHERE LATERAL PIPING IS INSTALLED IN MAINLINE TRENCH, USE SAND TO BACKFILL TRENCH SO THAT THE LATERAL LINE IS 12" BELOW FINISH GRADE.
9. BEDDING SAND- USE SAND TO A DEPTH OF 2" BELOW AND TO THE EITHER SIDE OF PIPING TO BED ALL PVC PIPING AND ELECTRICAL WIRES
10. IRRIGATION CONTROL WIRES - BUNDLE AND TAPE WITH DUCT TAPE EVERY 15 FEET O.C. NO OTHER UTILITIES MAY BE BURIED IN THE SAME TRENCH AS IRRIGATION.
11. COMPACTED SUBGRADE

NOTE:
1. SETTLE ALL TRENCHES WITH WATER PRIOR TO INSTALLATION OF TOPSOIL.
2. MIN. 6" DISTANCE BETWEEN EACH PIPE.

C TRENCHING

SCALE: NTS SECTION



1. SET FLUSH TO FINISH GRADE/TOP OF MULCH
2. GATE VALVE (SEE IRRIGATION SCHEDULE)
3. 10" ROUND VALVE BOX (LOCATION MUST BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION).
4. 6" SCH 40 PVC SLEEVE (LENGTH AS REQUIRED). NOTCH OVER VALVE FOR STABLITY.
5. 6-INCH MINIMUM DEPTH OF 3/4-INCH WASHED AGGREGATE
6. BRICK FOUNDATION
7. MAINLINE PIPING (SIZE AS PER PLAN)
8. FOR TRENCH DEPTHS (SEE TRENCHING AND SLEEVING DETAIL)

D GATE VALVE ASSEMBLY

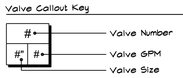
SCALE: NTS SECTION

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS 8 Series MPR Turf Spray 6" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Pressure Regulating.	180	30	0.52	8'
	Rain Bird 1806-SAM-PRS 8 Series MPR Turf Spray 6" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Pressure Regulating.	90	30	0.26	8'
	Rain Bird 1806-SAM-PRS 10 Series VAN Turf Spray 6" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Pressure Regulating.	Adj	30		10'
	Rain Bird 1812-SAM-PRS 5 Series MPR Shrub Spray 12.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Pressure Regulating Device.	180	30	0.20	5'
	Rain Bird 1812-SAM-PRS 5 Series MPR Shrub Spray 12.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Pressure Regulating Device.	90	30	0.10	5'
	Rain Bird 1812-SAM-PRS 8 Series MPR Shrub Spray 12.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Pressure Regulating Device.	360	30	1.05	8'
	Rain Bird 1812-SAM-PRS 8 Series MPR Shrub Spray 12.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Pressure Regulating Device.	180	30	0.52	8'
	Rain Bird 1812-SAM-PRS 8 Series MPR Shrub Spray 12.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Pressure Regulating Device.	90	30	0.26	8'
	Rain Bird 1812-SAM-PRS 10 Series MPR Shrub Spray 12.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Pressure Regulating Device.	180	30	0.79	10'
	Rain Bird 1812-SAM-PRS 10 Series MPR Shrub Spray 12.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Pressure Regulating Device.	90	30	0.39	10'
	Rain Bird 1812-SAM-PRS 8 Series VAN Shrub Spray 12.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Pressure Regulating Device.	Adj	30		8'
L	Hunter MPI1000 w/ RainBird 1806-SAM-PRS Turf Spray 6" 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 RainBird 1804-SAM-PRS 4" pop-up body.	Adj	40		13'
M	Hunter MPI1000 w/ RainBird 1806-SAM-PRS Turf Spray 6" 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 RainBird 1804-SAM-PRS 4" pop-up body.	Adj	40		13'
O	Hunter MPI1000 w/ RainBird 1806-SAM-PRS Turf Spray 6" 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 RainBird 1804-SAM-PRS 4" pop-up body.	360	40	0.75	13'
G	Hunter MP2000 w/ RainBird 1806-SAM-PRS Turf Spray 6" pop-up, MP Rotator nozzle. K=Black adj arc 90-210, G=Green adj arc 210-270, R=Red 360 arc, on RainBird 1804-SAM-PRS 4" pop-up body.	Adj	40		14'
K	Hunter MP2000 w/ RainBird 1806-SAM-PRS Turf Spray 6" pop-up, MP Rotator nozzle. K=Black adj arc 90-210, G=Green adj arc 210-270, R=Red 360 arc, on RainBird 1804-SAM-PRS 4" pop-up body.	Adj	40		14'
R	Hunter MP2000 w/ RainBird 1806-SAM-PRS Turf Spray 6" pop-up, MP Rotator nozzle. K=Black adj arc 90-210, G=Green adj arc 210-270, R=Red 360 arc, on RainBird 1804-SAM-PRS 4" pop-up body.	360	40	1.47	14'
A	Hunter MP3000 w/ RainBird 1806-SAM-PRS Turf Spray 6" pop-up with factory installed check valve, MP Rotator nozzle. B=Blue adj arc 90-210, Y=Yellon adj arc 210-270, A=Gray 360 arc, on RainBird 1804-SAM-PRS 4" pop-up body.	360	40	3.64	30'
B	Hunter MP3000 w/ RainBird 1806-SAM-PRS Turf Spray 6" pop-up with factory installed check valve, MP Rotator nozzle. B=Blue adj arc 90-210, Y=Yellon adj arc 210-270, A=Gray 360 arc, on RainBird 1804-SAM-PRS 4" pop-up body.	Adj	40		30'
Y	Hunter MP3000 w/ RainBird 1806-SAM-PRS Turf Spray 6" pop-up with factory installed check valve, MP Rotator nozzle. B=Blue adj arc 90-210, Y=Yellon adj arc 210-270, A=Gray 360 arc, on RainBird 1804-SAM-PRS 4" pop-up body.	Adj	40		30'
T	Hunter MP Corner w/ RainBird 1806-SAM-PRS Turf Spray 6" pop-up with factory installed check valve, MP Rotator nozzle. T=Turquoise adj arc 45-105, on RainBird 1804-SAM-PRS 4" pop-up body.	Adj	40		13'
LCS	Hunter MP Strip w/ RainBird 1806-SAM-PRS Turf Spray 6" pop-up with factory installed check valve, MP Rotator nozzle. LST=Ivory left strip, SST=Brown side strip, RST=Copper right strip, on RainBird 1804-SAM-PRS 4" pop-up body.	LCS	40	0.22	5'x15'
RCS	Hunter MP Strip w/ RainBird 1806-SAM-PRS Turf Spray 6" pop-up with factory installed check valve, MP Rotator nozzle. LST=Ivory left strip, SST=Brown side strip, RST=Copper right strip, on RainBird 1804-SAM-PRS 4" pop-up body.	RCS	40	0.22	5'x15'
SST	Hunter MP Strip w/ RainBird 1806-SAM-PRS Turf Spray 6" pop-up with factory installed check valve, MP Rotator nozzle. LST=Ivory left strip, SST=Brown side strip, RST=Copper right strip, on RainBird 1804-SAM-PRS 4" pop-up body.	SST	40	0.44	5'x30'
M	Hunter MPI1000 w/ RainBird 1812-SAM-PRS Shrub Spray 12" 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 RainBird 1806-SAM-PRS 6" pop-up body.	Adj	40		13'
O	Hunter MPI1000 w/ RainBird 1812-SAM-PRS Shrub Spray 12" 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 RainBird 1806-SAM-PRS 6" pop-up body.	360	40	0.75	13'
G	Hunter MP2000 w/ RainBird 1812-SAM-PRS Shrub Spray 12" 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 RainBird 1806-SAM-PRS 6" pop-up body.	Adj	40		14'
K	Hunter MP2000 w/ RainBird 1812-SAM-PRS Shrub Spray 12" 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 RainBird 1806-SAM-PRS 6" pop-up body.	Adj	40		14'
T	Hunter MP Corner w/ RainBird 1812-SAM-PRS Shrub Spray 12" pop-up with factory installed check valve, MP Rotator nozzle. T=Turquoise adj arc 45-105, on RainBird 1806-SAM-PRS 6" pop-up body.	Adj	40		13'
LCS	Hunter MP Strip w/ RainBird 1812-SAM-PRS Shrub Spray 12" pop-up with factory installed check valve, MP Rotator nozzle. LST=Ivory left strip, SST=Brown side strip, RST=Copper right strip, on RainBird 1806-SAM-PRS 6" pop-up body.	LCS	40	0.22	5'x15'
RCS	Hunter MP Strip w/ RainBird 1812-SAM-PRS Shrub Spray 12" pop-up with factory installed check valve, MP Rotator nozzle. LST=Ivory left strip, SST=Brown side strip, RST=Copper right strip, on RainBird 1806-SAM-PRS 6" pop-up body.	RCS	40	0.22	5'x15'
SST	Hunter MP Strip w/ RainBird 1812-SAM-PRS Shrub Spray 12" pop-up with factory installed check valve, MP Rotator nozzle. LST=Ivory left strip, SST=Brown side strip, RST=Copper right strip, on RainBird 1806-SAM-PRS 6" pop-up body.	SST	40	0.44	5'x30'
	Rain Bird 1400 Flood Bubbler Flood Bubbler on swing pipe, with RainBirdPA-80 adapter and Hunter HOV check valve	360	20	0.50	1'

SYMBOL	ARC	MANUFACTURER/MODEL/DESCRIPTION	PSI	GPM	RADIUS
25		Rain Bird 5006-PL-MPR-SAM-R Turf Rotor, 6.0" Pop-Up, Plastic Riser, with Flow Shut-Off Device. Matched Precipitation Rotor (MPR Nozzle), Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige. With Seal-A-Matic Check Valve, and In-Stem Pressure Regulator.	35		24'
30	ARC	Rain Bird 5006-PL-MPR-SAM-R Turf Rotor, 6.0" Pop-Up, Plastic Riser, with Flow Shut-Off Device. Matched Precipitation Rotor (MPR Nozzle), Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige. With Seal-A-Matic Check Valve, and In-Stem Pressure Regulator.	35		30'
35	ARC	Rain Bird 5006-PL-MPR-SAM-R Turf Rotor, 6.0" Pop-Up, Plastic Riser, with Flow Shut-Off Device. Matched Precipitation Rotor (MPR Nozzle), Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige. With Seal-A-Matic Check Valve, and In-Stem Pressure Regulator.	35		34'
84		Rain Bird F4-PC, FC Turf Rotor, 4.0" Pop-Up, Plastic Riser, Adjustable and Full Circle. With Removable Seal-A-Matic Check Valve, 1" Female Threaded Inlet.	40	3.30	41'
86		Rain Bird F4-PC, FC Turf Rotor, 4.0" Pop-Up, Plastic Riser, Adjustable and Full Circle. With Removable Seal-A-Matic Check Valve, 1" Female Threaded Inlet.	40	4.90	45'
88		Rain Bird F4-PC, FC Turf Rotor, 4.0" Pop-Up, Plastic Riser, Adjustable and Full Circle. With Removable Seal-A-Matic Check Valve, 1" Female Threaded Inlet.	40	6.60	49'
12		Rain Bird F4-PC, FC Turf Rotor, 4.0" Pop-Up, Plastic Riser, Adjustable and Full Circle. With Removable Seal-A-Matic Check Valve, 1" Female Threaded Inlet.	40	9.70	53'
14		Rain Bird F4-PC, FC Turf Rotor, 4.0" Pop-Up, Plastic Riser, Adjustable and Full Circle. With Removable Seal-A-Matic Check Valve, 1" Female Threaded Inlet.	40	11.3	55'
16		Rain Bird F4-PC, FC Turf Rotor, 4.0" Pop-Up, Plastic Riser, Adjustable and Full Circle. With Removable Seal-A-Matic Check Valve, 1" Female Threaded Inlet.	40	12.6	55'
35	ARC	Rain Bird 5006-PL-SAM-R-MPR Shrub rotor, 6.0" Pop-Up, Plastic Riser, with Flow Shut-Off Device. Matched Precipitation Rotor (MPR Nozzle), Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige. With Seal-A-Matic Check Valve, and In-Stem Pressure Regulator.	35		34'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Rain Bird PEB-PRS-D 1", 1-1/2", 2" Plastic Industrial Valves. Low Flow Operating Capability, Globe Configuration. With Pressure Regulator Module.
	Rain Bird 44-LRC 1" Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Thermoplastic Rubber Cover, and 2-Piece Body.
	NIBCO T-FP-600 Isolation valve. Sized equal to pipe size. Isolation valves shall be used at all vavle manifolds and isolation points.
	Malco-Norca Model 200 RTD Resilient Wedge Gate Valve. Sized equal to pipe size. Use 3" square nut wrench.
C	Rain Bird ESP-LXD-LXMM-125-ETC-LX 125 StationTwo-Wire Decoder Commercial Controller. Wall-mount metal case. Include Rain Bird ETC-LX ET manager cartridge, and Rain Bird LIMRKIT remote control kit. Provide grounding and surge protection per manufacturer's recommendations.
R	Rain Bird 4" Round Rain Gauge Tipping bucket rain gauge measures rainfall in increments of 0.01". Mount exterior as indicated using the included 30 ft.cable.
P.O.C. #1	Point of Connection 4" Secondary Irrigation Line - static water pressure per Bert Beddoes (June 5, 2012)
P.O.C. #2	Point of Connection 4" Secondary Irrigation Line - static water pressure per Bert Beddoes (June 5, 2012)
	Irrigation Lateral Line: PVC Schedule 40
	Irrigation Mainline: PVC Schedule 40
	Pipe Sleeve: PVC Class 200 SDR 21 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 Key



A IRRIGATION SCHEDULE

SCALE: NTS SCHEDULE

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BID DOCUMENTS - 09/12/2012

SEAL

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CHECKED BY SG
SCALE 1" = 20'-0"

IRRIGATION DETAILS - PEDIATRIC

L-R501

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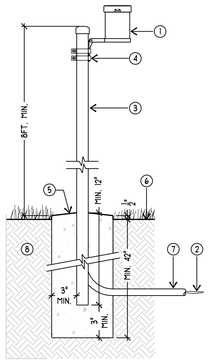
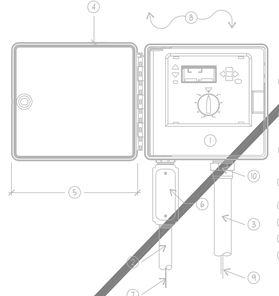


1. RAIN GAUGE - SEE IRRIGATION LEGEND. MOUNT GAUGE A MIN. OF 8ft. ABOVE FINISH GRADE, & IN LOCATION APPROVED BY THE LANDSCAPE ARCHITECT THAT OPTOMIZES RAIN WATER COLLECTION
2. CONTRACTOR SHALL SUPPLY WIRE AS RECOMMENDED BY THE MANUFACTURER AND CONNECT TO CONTROLLER.
3. 1 1/2" GALV. POST. SET IN CONCRETE AND PLUMBED
4. CONDUIT "U" CLAMP
5. CONCRETE FOOTING SLOPED AROUND POST
6. TOP OF FINISH GRADE
7. 1" CONDUIT TO CONTROLLER
8. COMPACTED SUB-GRADE

NOTE:
1. INSTALL PER MANUFACTURE'S SPECIFICATIONS.

I RAIN GAUGE
SCALE: NTS — ELEVATION

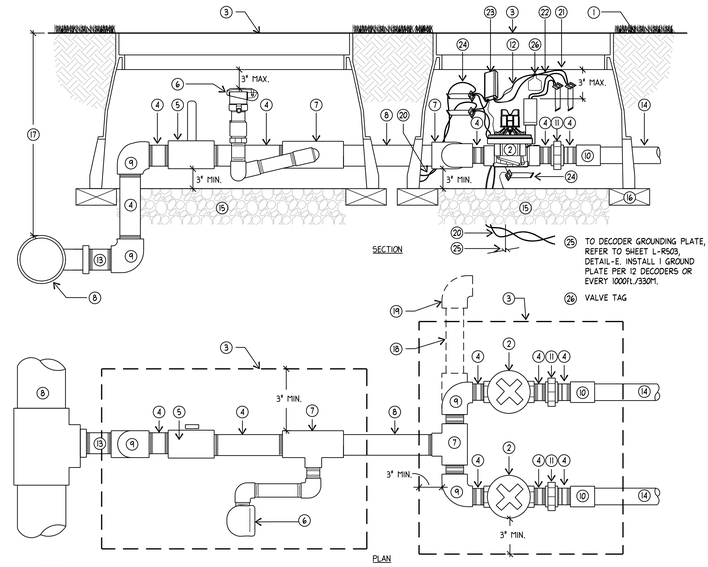
INSTALLED AS PART OF MARK PAYNE BUILDING PHASE



1. WALL MOUNTED IRRIGATION CONTROLLER (SEE IRRIGATION SCHEDULE)
2. 1-INCH GALV. SCH. 40 CONDUIT AND FITTINGS TO POWER SUPPLY
3. 1-1/4", 1-1/2" OR 2" GALV. SCH. 40 CONDUIT AND FITTINGS FOR VALVE WIRES
4. MAINTAIN HINGE PIN CLEARANCE FOR DOOR REMOVAL
5. MAINTAIN CLEARANCE FOR DOOR
6. JUNCTION BOX
7. 120V POWER SUPPLY BY OTHERS
8. MOUNT TO BUILDING WALL BEYOND OR APPROVED STRUCTURE (LOCATION MUST BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION)
9. 2-WIRE PATH TO DECODERS. USE A DIFFERENT CABLE JACKET COLOR FOR EACH PATH.
10. LOCK NUT

NOTE:
1. INSTALL PER MANUFACTURE'S SPECIFICATIONS.
2. ALL CONDUIT ABOVE GROUND SHALL GALV. SCH. 40 PIPE.
3. PROVIDE GROUNDING AND SURGE PROTECTION AS RECOMMENDED BY CONTROLLER MANUFACTURER

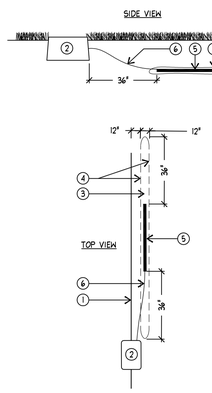
F IRRIGATION CONTROLLER-WALL MOUNTED
SCALE: NTS — ELEVATION



1. SET FLUSH TO FINISH GRADE/TOP OF MULCH
2. ELECTRIC REMOTE-CONTROL VALVE (SEE IRRIGATION SCHEDULE)
3. VALVE BOX (SEE SPECS.) LOCATION MUST BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION).
4. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
5. ISOLATION BALL VALVE WITH HANDLE TURNED UPWARDS (SEE IRRIGATION SCHEDULE) ASSOCIATE WITH VALVE MANIFOLDS AS INDICATED ON THE PLANS
6. QUICK COUPLER VALVE (SEE IRRIGATION LEGEND AND DETAIL - SIMILIAR) ASSOCIATE WITH VALVE MANIFOLDS AS INDICATED ON THE PLANS
7. PVC SCH 80 TEE T X T X S (SAME SIZE AS MAINLINE PIPING)
8. MAINLINE PIPING (SIZE AS PER PLAN)
9. PVC SCH. 80 T X T ELBOW
10. PVC SCH. 80 T X S COUPLING
11. PVC SCH. 80 UNION
12. CONTROL WIRES- 30-INCH LINEAR LENGTH OF WIRE, COILED
13. PVC SCH 80 NIPPLE WITH BUSHING (LENGTH AS REQUIRED)
14. LATERAL PIPING (SIZE AS PER PLAN)
15. 6-INCH MINIMUM DEPTH OF 3/4-INCH WASHED AGGREGATE
16. BRICK FOUNDATION, TYP.
17. FOR TRENCH DEPTHS (SEE TRENCHING AND SLEEVING DETAIL)
18. PVC SCH 80 PIPE (LENGTH AS REQUIRED)
19. EXTEND FOR NUMBER OF VALVES REQUIRED
20. 2-WIRE PATH
21. DBY (2)
22. TWO BLACK WIRES TO VALVE SOLENOID
23. DECODER
24. DBR-6 (3)
25. TO DECODER GROUNDING PLATE, REFER TO SHEET L-R503, DETAIL-E. INSTALL 1 GROUND PLATE PER 12 DECODERS OR EVERY 1000ft./330M.
26. VALVE TAG

NOTES:
1. LOCATE ALL VALVE BOXES IN PLANTER BEDS UNLESS OTHERWISE INDICATED.
2. ALL FITTINGS AND NIPPLES IN MANIFOLD SHALL BE SCH. 80 THREADED PVC USING TEFLON TAPE.
3. VALVE MANIFOLD TO BE INSTALLED GOING AWAY FROM MAIN SUPPLY LINE MINIMUM OF 1 FOOT BEFORE CHANGE IN DIRECTION.
4. CUT ALL VALVE BOXES AS REQUIRED SO BOXES DO NOT SIT ON PIPING.

C ELECTRIC REMOTE-CONTROL VALVE ASSEMBLY
SCALE: NTS — SECTION/PLAN

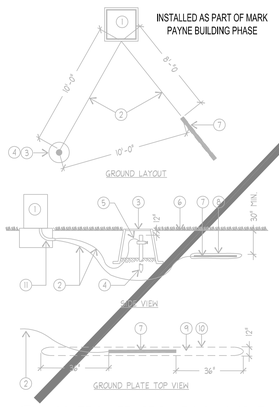


1. TWISTED 2-WIRE PATH
2. VALVE BOX
3. DO NOT INSTALL ANY OTHER WIRES OR CABLE WITHIN THE SPHERE OF INFLUENCE
4. ELECTRODE SPHERE OF INFLUENCE BOUNDARIES
5. COPPER GROUND PLATE (4" X 36" X .0625") ATTACHED TO #6 AWG BARE COPPER WIRE W/ CADWELD CONNECTION OR APPROVED EQUAL
6. #6 AWG SOLID BARE COPPER WIRE, LENGTH AS REQUIRED
7. EARTH CONTACT MATERIAL

NOTE:
1. GROUND DECODERS AS RECOMMENDED BY DECODER MANUFACTURER (I.E. MAX. DISTANCE BETWEEN GROUND PLATES OR NUMBER OF DECODERS PER GROUND PLATE)

J DECODER GROUNDING - GROUND PLATE
SCALE: NTS — SECTION

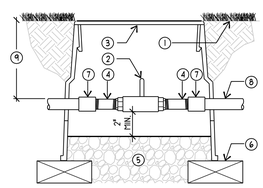
INSTALLED AS PART OF MARK PAYNE BUILDING PHASE



1. IRRIGATION CONTROLLER
2. SOLID BARE COPPER WIRE (#6 AWG) FROM GROUNDING ROD OR GROUNDING PLATE TO CONTROLLER ASSEMBLY. MAKE WIRE AS SHORT AND STRAIGHT AS POSSIBLE
3. COVER GROUNDING ROD WITH #10 ROUND VALVE BOX AS SHOWN
4. 5/8-INCH X 10 FT COPPER CLAD GROUNDING ROD
5. CADWELD CONNECTION
6. FINISH GRADE
7. COPPER GROUND PLATE (4" X 96" X .0625") ATTACHED TO #6 AWG BARE COPPER WIRE W/ CADWELD CONNECTION OR APPROVED EQUAL
8. EARTH CONTACT MATERIAL
9. DO NOT INSTALL ANY OTHER WIRES OR CABLE WITHIN THE SPHERE OF INFLUENCE
10. ELECTRODE SPHERE OF INFLUENCE BOUNDARIES
11. PLASTIC SWEEP ELL (1 1/2" OR LARGER)

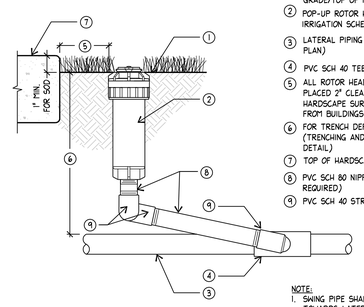
NOTE:
1. INSTALL PER MANUFACTURE'S SPECIFICATIONS.
2. TEST GROUNDING 1 MONTH AFTER INSTALLATION. GROUNDING MUST ACHIEVE RESISTANCE OF TEN (10) OHMS OR LESS.

G CONTROLLER GROUNDING LAYOUT
SCALE: NTS — PLAN/SECTION



1. SET FLUSH TO FINISH GRADE / TOP OF MULCH
2. ISOLATION BALL VALVE W/ HANDLE TURNED UPWARD (SEE IRRIGATION SCHEDULE)
3. VALVE BOX (LOCATION MUST BE APPROVED BY OWNER'S REP. PRIOR TO INSTALL).
4. PVC SCH 80 NIPPLE
5. 6-INCH MINIMUM DEPTH OF 3/4-INCH WASHED AGGREGATE
6. BRICK FOUNDATION
7. PVC SCH 80 SLIP X THREAD COUPLING (SAME SIZE AS MAINLINE PIPING)
8. MAINLINE PIPING
9. FOR TRENCH DEPTHS (SEE TRENCHING AND SLEEVING DETAIL)

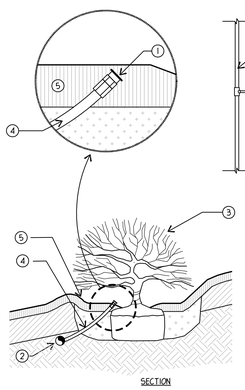
A ISOLATION BALL VALVE ASSEMBLY
SCALE: NTS — SECTION



1. SET HEAD FLUSH WITH FINISH GRADE/TOP OF MULCH
2. POP-UP ROTOR HEAD (SEE IRRIGATION SCHEDULE)
3. LATERAL PIPING (SIZE AS PER PLAN)
4. PVC SCH 40 TEE OR ELL
5. ALL ROTOR HEADS TO BE PLACED 2' CLEAR OF ALL HARDSCAPE SURFACES AND 2'-0" FROM BUILDINGS
6. FOR TRENCH DEPTHS (TRENCHING AND SLEEVING DETAIL)
7. TOP OF HARDSCAPE
8. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
9. PVC SCH 40 STREET ELL

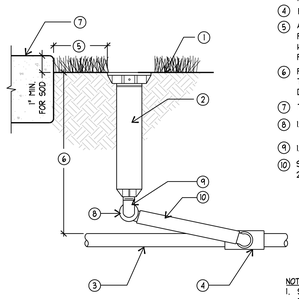
NOTE:
1. SWING PIPE SHALL SLOPE TOWARDS LATERAL PIPE FOR COMPLETE DRAINAGE.

D POP-UP ROTOR HEAD
SCALE: NTS — SECTION



1. RAINBIRD 1400 SERIES FLOOD BUBBLER WITH RAINBIRD PA-80 ADAPTER & HUNTER HCV CHECK VALVE
2. IRRIGATION LATERAL LINE
3. SHRUB/PERENNIAL SEE PLANTING DETAIL.
4. 1/2 " POLYETHYLENE SWING PIPE, LENGTH AS NEEDED
5. MULCH AS SPECIFIED

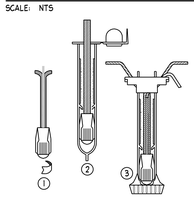
K BUBBLER AT SHRUBS
SCALE: NTS — SECTION/PLAN



1. SET HEAD FLUSH WITH FINISH GRADE/TOP OF MULCH
2. POP-UP SPRAY HEAD (SEE IRRIGATION SCHEDULE)
3. LATERAL PIPING (SIZE AS PER PLAN)
4. PVC SCH 40 TEE OR ELL
5. ALL SPRAY HEADS TO BE PLACED 1' CLEAR OF ALL HARDSCAPE SURFACES AND 2'-0" FROM BUILDINGS
6. FOR TRENCH DEPTHS (SEE TRENCHING AND SLEEVING DETAIL)
7. TOP OF HARDSCAPE
8. 1/2" BARB 90°
9. 1/2" MARLEX 90° ELL
10. SWING ASSEMBLY: FLEX TUBE 24" MAX. LENGTH

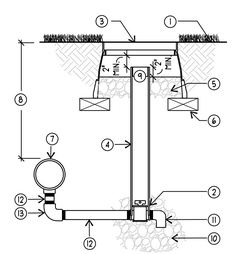
NOTE:
1. SWING PIPE SHALL SLOPE TOWARDS LATERAL PIPE FOR COMPLETE DRAINAGE.

H POP-UP SPRAY HEAD
SCALE: NTS — SECTION



1. STRIP WIRES AND APPLY SCOTCHLOK Y ELECTRICAL SPRING CONNECTOR IN A CLOCKWISE DIRECTION.
2. INSERT SPLICE TO BOTTOM OF GEL FILLED TUBE. VISUALLY CHECK TO MAKE SURE SCOTCHLOK CONNECTOR HAS BEEN PUSHED PAST THE LOCKING FINGERS AND IS SEATED ON THE BOTTOM OF THE TUBE.
3. POSITION WIRES IN WIRE CHANNELS AND CLOSE INSULATOR TUBE COVER.

E 3M DBR-Y DIRECT BURY SPLICE KIT
SCALE: NTS — SECTION



1. SET FLUSH TO FINISH GRADE/TOP OF MULCH
2. 3/4" MAINLINE DRAIN VALVE (SEE IRRIGATION SCHEDULE)
3. VALVE BOX (LOCATION MUST BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION).
4. 4" SCH 40 PVC SLEEVE (LENGTH AS REQUIRED). NOTCH OVER VALVE FOR STABILITY.
5. 6-INCH MINIMUM DEPTH OF 3/4-INCH WASHED AGGREGATE
6. BRICK FOUNDATION
7. MAINLINE PIPING (SIZE AS PER PLAN)
8. FOR TRENCH DEPTHS (SEE TRENCHING AND SLEEVING DETAIL)
9. WEATHERMATIC 90AL LOCKING VALVE CAP WITH A RLK-1 KEY OR EQUAL
10. GRAVEL SUMP- 18" DIA. X 12" DEEP
11. SCH. 80 PVC STREET ELL TURNED DOWNWARDS
12. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
13. PVC SCH 80 ELL

NOTES:
1. ALL LINES SHALL SLOPE TO MANUAL DRAIN. IF FIELD CONDITIONS NECESSITATE ADDITIONAL DRAINS, THESE DRAINS SHALL BE INSTALLED FOR COMPLETE DRAINAGE OF THE ENTIRE SYSTEM.

B MAINLINE DRAIN ASSEMBLY
SCALE: NTS — SECTION

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SCALE 1" = 20'-0"

IRRIGATION DETAILS - PEDIATRIC

L-R502

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LANDSCAPE PLAN - OVERALL

L-L100

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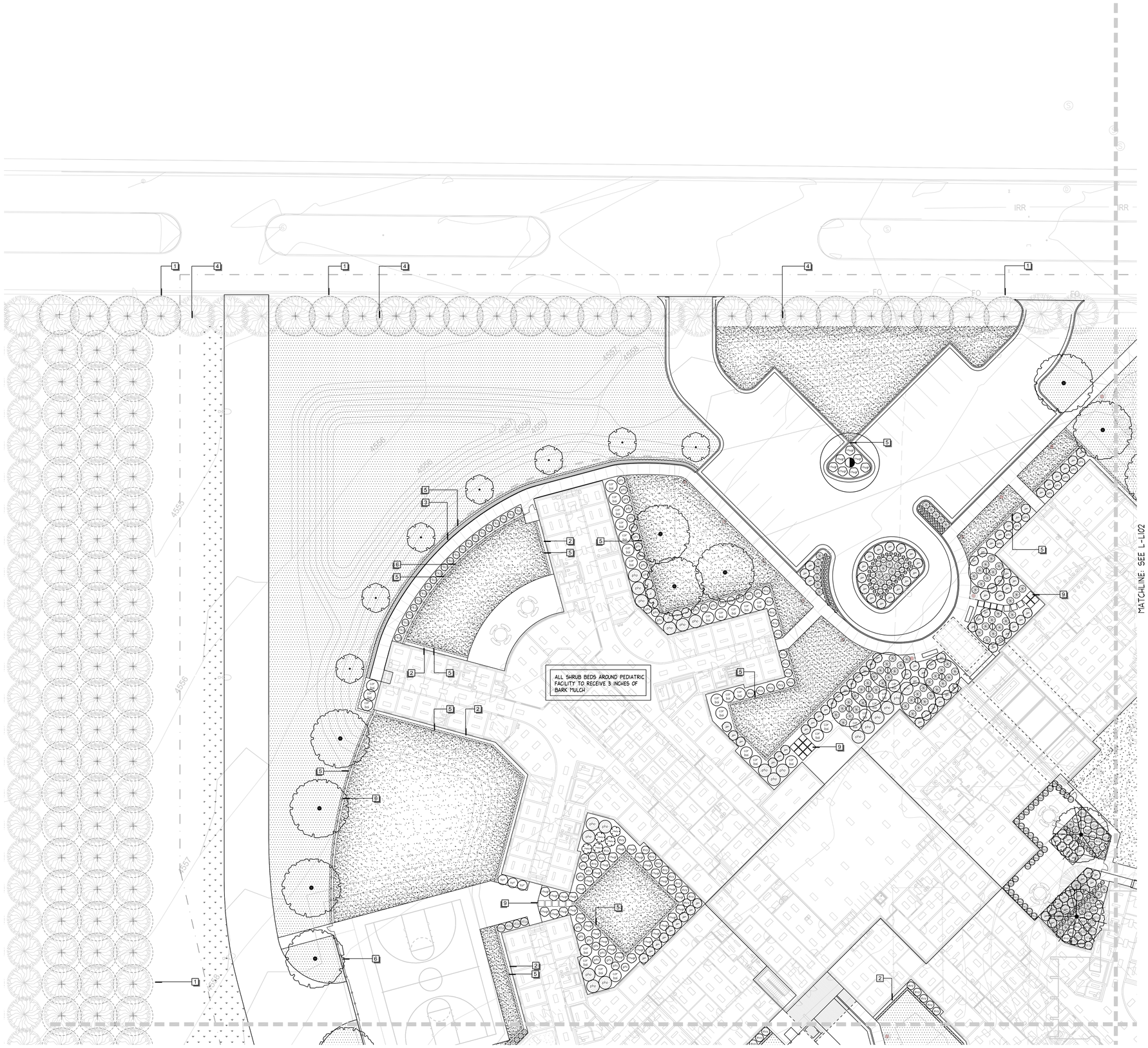

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PLANT SCHEDULE — A

SEE DTL-A SHT L-L501 FOR PLANT SCHEDULE

PLANTING NOTES — B

1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COSTS INCURRED DUE TO DAMAGE OF SAID UTILITIES.
2. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNERS REPRESENTATIVE AND ARCHITECT. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH THE LANDSCAPE CONSTRUCTION FOR THIS PROJECT.
4. SEE SPECIFICATIONS FOR PLANTING REQUIREMENTS, MATERIALS, EXECUTIONS AND MAINTENANCE.
5. ALL PLANT MATERIAL SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE UPON DELIVERY TO THE SITE, AND PRIOR TO INSTALLATION.
6. IF DISCREPANCIES ARISE BETWEEN ACTUAL PLANTING AREA SIZES IN THE FIELD AND THOSE SHOWN ON THE PLANS, CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN WILL RESULT IN CONTRACTOR'S LIABILITY FOR MATERIALS RELOCATION.
7. FINAL LOCATIONS OF ALL PLANT MATERIALS SHALL BE SUBJECT TO APPROVAL OF THE OWNER'S REPRESENTATIVE.
8. TREES SHALL NOT BE PLANTED LESS THAN 5'-0" FROM CURBS OR HARD SURFACE AREAS UNLESS A ROOT BARRIER IS INSTALLED.
9. CONTRACTOR SHALL PROVIDE AN AGRICULTURAL TOPSOIL ANALYSIS AND AMEND SOIL AS RECOMMENDED - REFER TO SPECIFICATIONS..
10. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON THE DRAWINGS.
11. PRUNE TREES IN ACCORDANCE WITH SPECIFICATIONS.
12. ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE ONLY AS APPROVED BY THE OWNER'S REPRESENTATIVE.
13. ALL EVERGREEN TREES 6'-0" AND TALLER SHALL BE GUYED- SEE SHT. L-L501 DTL. B.
14. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE LAST 6 INCHES OF GRADE IN SEED MIX AREAS, 7 INCHES OF GRADE IN TURF SOD AREAS (6 INCHES OF TOPSOIL AND 1 INCH FOR SOD), AND 15 to 16 INCHES IN SHRUB BED AREAS (3 INCHES OF BARK MULCH OR 4 INCHES OF ROCK MULCH AND 12" OF AMENDED TOPSOIL). IF NECESSARY DIG SUBGRADE IN SHRUB BEDS, TURF, AND GRASS SEED MIX AREAS DOWN AS SPECIFIED BEFORE PLACING AMENDED TOPSOIL. THE PLANTING ISLANDS IN THE PARKING LOTS SHALL HAVE ALL ROAD BASE REMOVED PRIOR TO PLACEMENT OF TOPSOIL. REFER TO GRADING PLAN FOR FINISH GRADE AND DRAINAGE.

REFERENCE SCHEDULE NOTES — C

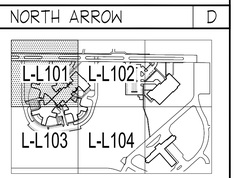
SYMBOL	DESCRIPTION
1	EXISTING TREE - PROTECT IN PLACE, TYP.
2	BARK MULCH (18"-WIDE STRIP) BETWEEN BUILDING AND MOW CURB
3	SITE WALL - SEE ARCH. DRAWINGS
4	PROTECT IN PLACE EXISTING TURF. REPAIR ANY TURF THAT IS DAMAGED IN THE AREA DUE TO CONSTRUCTION, TYP.
5	MOW CURB, TYP. - SEE SHT. L-L501 DTL. H
6	FENCING - SEE ARCHS. PLANS
7	ENGINEERED WOOD FIBER PLAYGROUND SURFACING - SEE SHT. L-L501 DTL.-M
8	ROCK MULCH (18"-WIDE STRIP) BETWEEN BUILDING AND MOW CURB
9	PRE-CAST CONCRETE STEPPING STONES (36" X 36") - SEE SHT. L-L501 DTL.-K
10	PLAY EQUIPMENT (N.I.C.) PROVIDED BY OWNER

SCALE — E

NORTH SCALE: 1" = 20'-0"

0 10 20 40

NORTH ARROW — D



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LANDSCAPE PLAN - PEDIATRIC

L-L101

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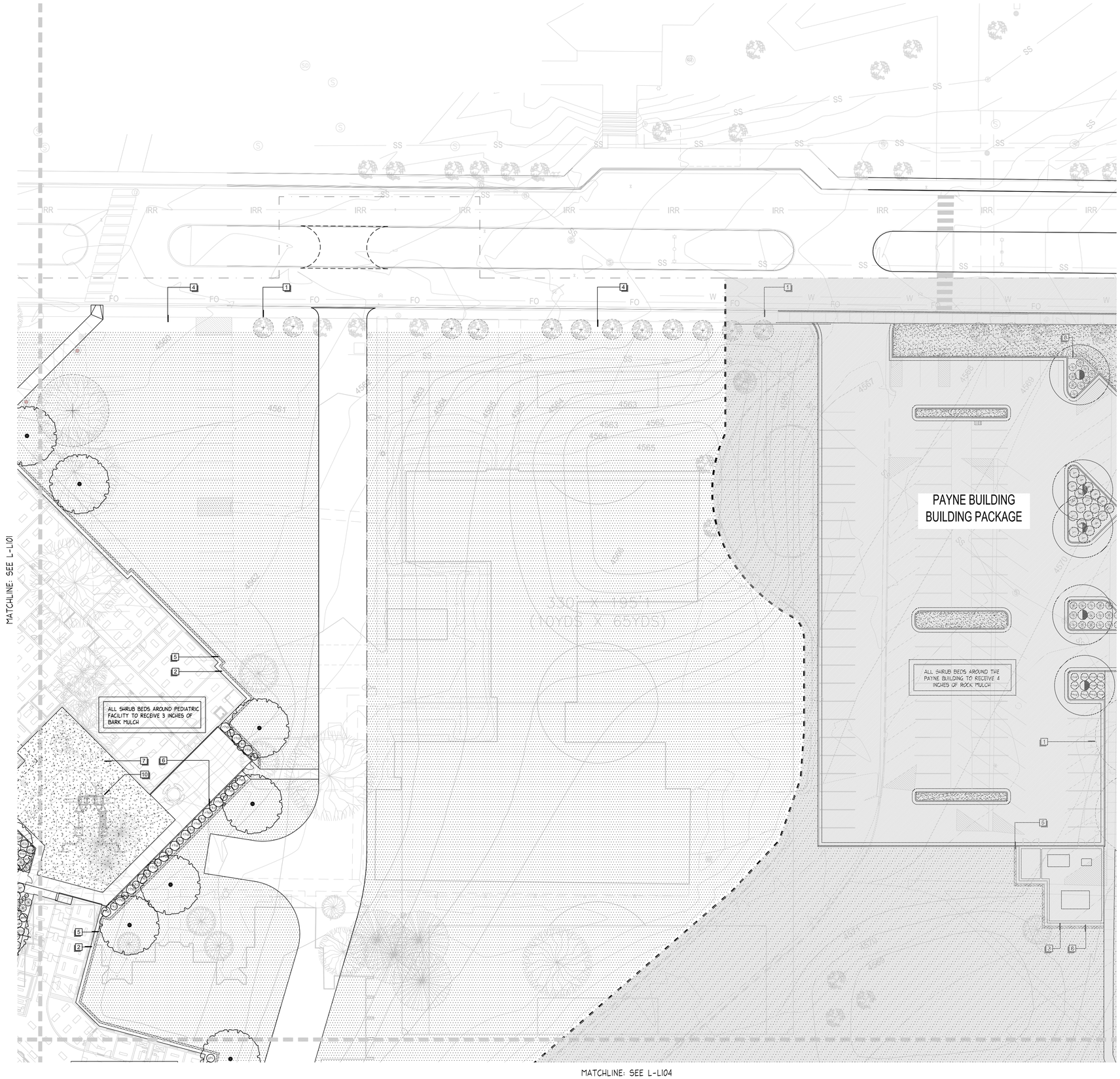

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PLANT SCHEDULE | A

SEE DTL-A SHT L-L501 FOR PLANT SCHEDULE

PLANTING NOTES | B

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4. SEE SPECIFICATIONS FOR PLANTING REQUIREMENTS, MATERIALS, EXECUTIONS AND MAINTENANCE.
5. ALL PLANT MATERIAL SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE UPON DELIVERY TO THE SITE, AND PRIOR TO INSTALLATION.
6. IF DISCREPANCIES ARISE BETWEEN ACTUAL PLANTING AREA SIZES IN THE FIELD AND THOSE SHOWN ON THE PLANS, CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN WILL RESULT IN CONTRACTOR'S LIABILITY FOR MATERIALS RELOCATION.
7. FINAL LOCATIONS OF ALL PLANT MATERIALS SHALL BE SUBJECT TO APPROVAL OF THE OWNER'S REPRESENTATIVE.
8. TREES SHALL NOT BE PLANTED LESS THAN 5'-0" FROM CURBS OR HARD SURFACE AREAS UNLESS A ROOT BARRIER IS INSTALLED.
9. CONTRACTOR SHALL PROVIDE AN AGRICULTURAL TOPSOIL ANALYSIS AND AMEND SOIL AS RECOMMENDED - REFER TO SPECIFICATIONS..
10. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON THE DRAWINGS.
11. PRUNE TREES IN ACCORDANCE WITH SPECIFICATIONS.
12. ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE ONLY AS APPROVED BY THE OWNER'S REPRESENTATIVE.
13. ALL EVERGREEN TREES 6'-0" AND TALLER SHALL BE GUYED- SEE SHT. L-L501 DTL. B.
14. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE LAST 6 INCHES OF GRADE IN SEED MIX AREAS, 7 INCHES OF GRADE IN TURF SOD AREAS (6 INCHES OF TOPSOIL AND 1 INCH FOR SOD), AND 15 to 16 INCHES IN SHRUB BED AREAS (3 INCHES OF BARK MULCH OR 4 INCHES OF ROCK MULCH AND 12" OF AMENDED TOPSOIL). IF NECESSARY DIG SUBGRADE IN SHRUB BEDS, TURF, AND GRASS SEED MIX AREAS DOWN AS SPECIFIED BEFORE PLACING AMENDED TOPSOIL. THE PLANTING ISLANDS IN THE PARKING LOTS SHALL HAVE ALL ROAD BASE REMOVED PRIOR TO PLACEMENT OF TOPSOIL. REFER TO GRADING PLAN FOR FINISH GRADE AND DRAINAGE.

REFERENCE SCHEDULE NOTES | C

SYMBOL	DESCRIPTION
1	EXISTING TREE - PROTECT IN PLACE, TYP.
2	BARK MULCH (18"-WIDE STRIP) BETWEEN BUILDING AND MOW CURB
3	SITE WALL - SEE ARCH. DRAWINGS
4	PROTECT IN PLACE EXISTING TURF. REPAIR ANY TURF THAT IS DAMAGED IN THE AREA DUE TO CONSTRUCTION, TYP.
5	MOW CURB, TYP. - SEE SHT. L-L501 DTL. H
6	FENCING - SEE ARCHS. PLANS
7	ENGINEERED WOOD FIBER PLAYGROUND SURFACING - SEE SHT. L-L501 DTL.-M
8	ROCK MULCH (18"-WIDE STRIP) BETWEEN BUILDING AND MOW CURB
9	PRE-CAST CONCRETE STEPPING STONES (36" X 36") - SEE SHT. L-L501 DTL.-K
10	PLAY EQUIPMENT (N.I.C.) PROVIDED BY OWNER

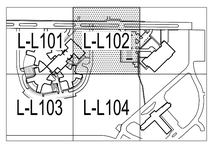
SCALE | E

NORTH

0 10 20 40

SCALE: 1" = 20'-0"

NORTH ARROW | D



PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
Utah State Hospital Consolidation
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

	DATE	REVISION

PROJECT NUMBER
FILE
DRAWN BY EP
CHECKED BY SG
SCALE 1" = 20'-0"

LANDSCAPE PLAN - PEDIATRIC

L-L102

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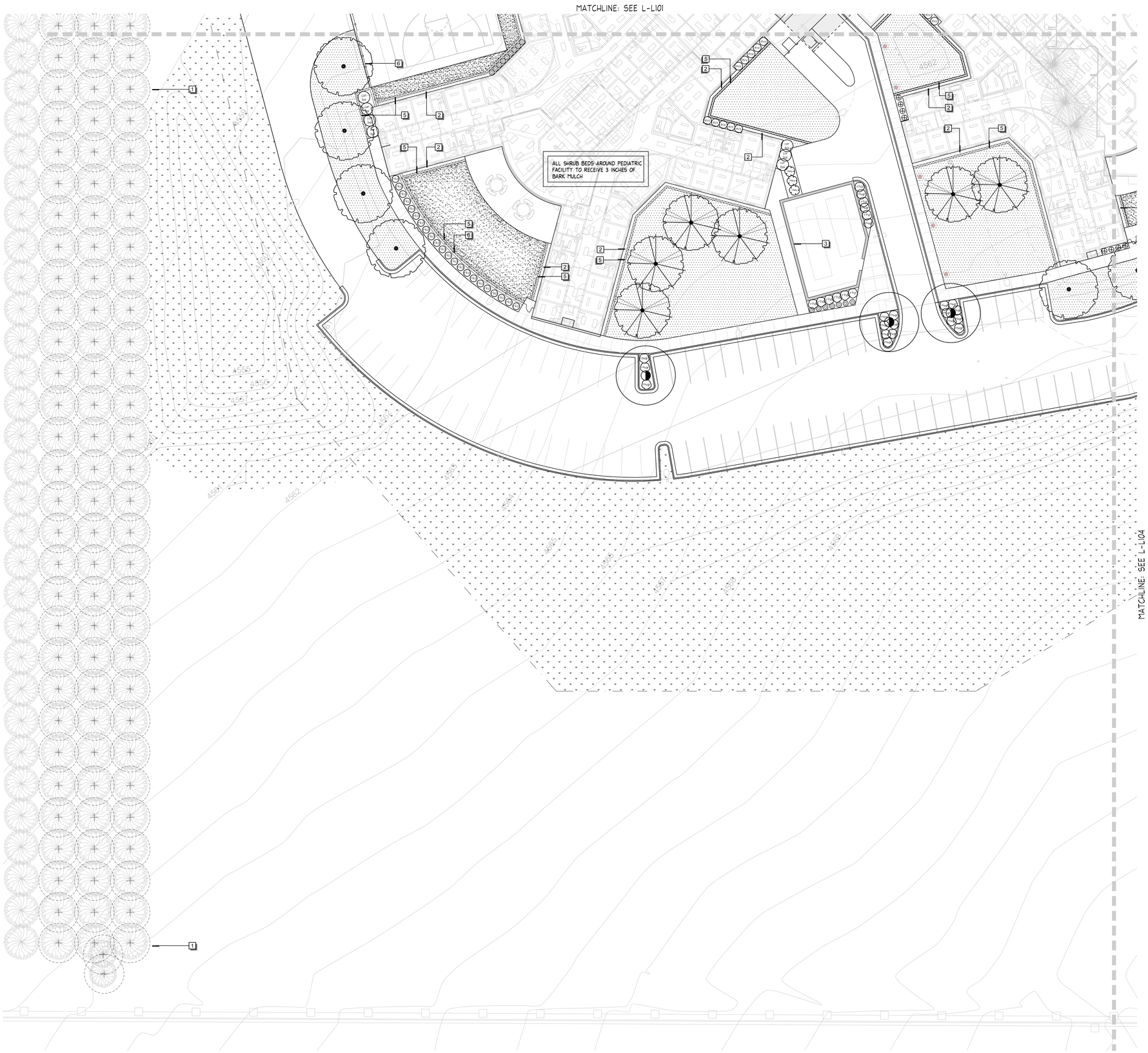

DFCM APPROVAL STAMP

PLANT SCHEDULE | A

SEE DTL-A SHT L-L501 FOR PLANT SCHEDULE

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REFERENCE SCHEDULE NOTES | C

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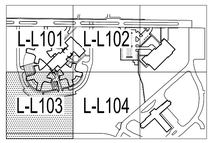
NORTH ARROW | D



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PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
Utah State Hospital Consolidation
BID DOCUMENTS - 09/12/2012

SEAL

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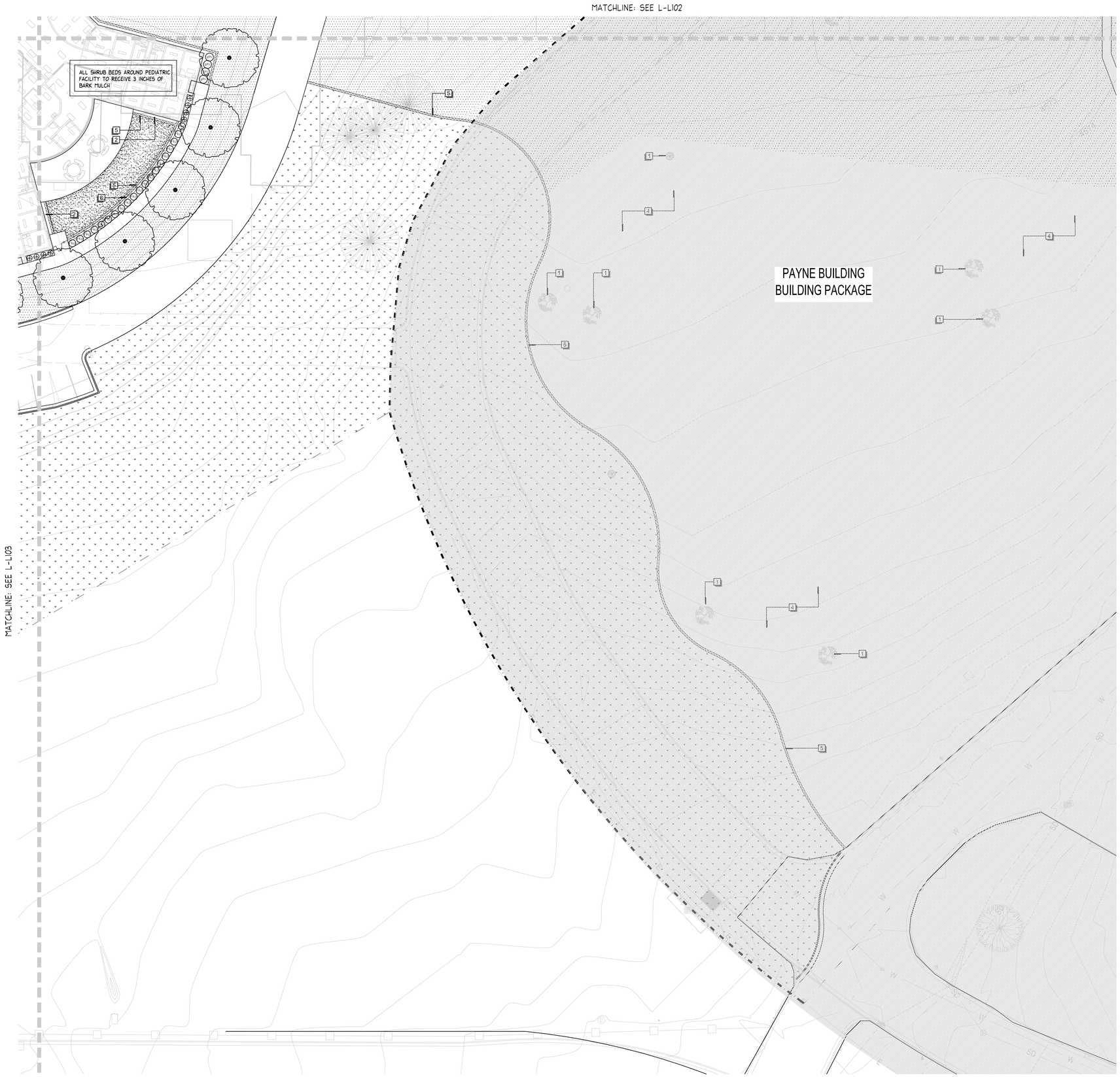
DRAWN BY EP
CHECKED BY SG
SCALE 1" = 20'-0"

LANDSCAPE PLAN - PEDIATRIC

L-L103

File : E:\11068_Utah State Hospital\Cadd\Planting.dwg Sep 07, 2012-10:37am



DFCM APPROVAL STAMP

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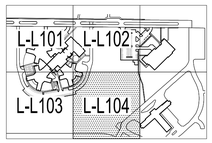
NORTH ARROW | D



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PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
Utah State Hospital Consolidation
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

	DATE	REVISION

PROJECT NUMBER
FILE
DRAWN BY: EP
CHECKED BY: SG
SCALE: 1" = 20'-0"

LANDSCAPE PLAN - PEDIATRIC

L-L104

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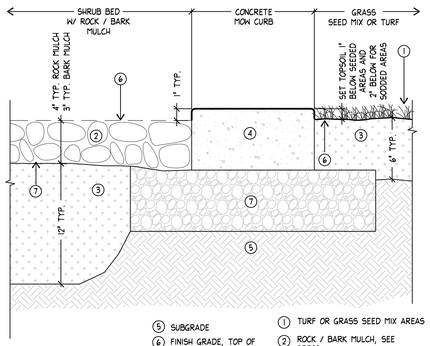
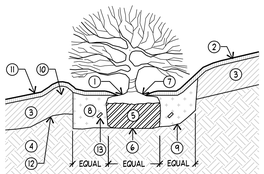


⑤ SUBGRADE
⑥ FINISH GRADE, TOP OF MULCH TO BE LEVEL
⑦ ROAD BASE - REFER TO ARCHS. PLANS

① TURF OR GRASS SEED MIX AREAS
② ROCK / BARK MULCH, SEE SPECS.
③ AMENDED TOPSOIL - SEE SPECS.
④ CONCRETE MOW CURB - REFER TO SHT. L-L501 DTL. H

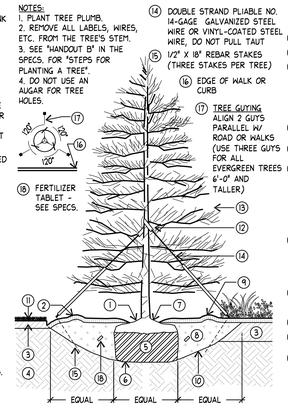
J MULCH IN SHRUB BEDS
SCALE: NTS — SECTION



NOTES:
1. PLANT SHRUB PLUMB.
2. PRUNE DEAD, DISEASED, DAMAGED, OR RUBBING BRANCHES AT PLANTING TIME. DO NOT PRUNE LEADER.
3. REMOVE ALL LABELS, WIRES, ETC. FROM SHRUB.
4. DO NOT USE AN AUGAR FOR TREE HOLES.
5. DEEP WATER WITH HOSE ALL PLANTS.
6. WATER PLANT IN POT PRIOR TO REMOVING PLANT FROM POT. DO NOT PLANT DRY PLANTS. ALL POTTED PLNATS MUST HAVE A MOIST ROOT SYSTEM.

① MULCH 1" TO 2" BACK FROM TRUNK
② MULCH LAYER - SEE SPECS.
③ AMENDED TOPSOIL- SEE SPECS.
④ UNDISTURBED SUBGRADE
⑤ IF THE SHRUB IS BALLED AND BURLAPPED (OR CONTAINED IN A WIRE BASKET), CUT AND REMOVE THE ROPE, STRING, WIRE, AND/OR WIRE BASKET FROM AROUND THE TRUNK AND TOP 1/3 OF THE ROOT BALL
⑥ SET ROOTBALL ON FIRMLY PACKED TOPSOIL TO PREVENT SETTLING
⑦ TRUNK FLAIR- SET 1" TO 2" ABOVE FINISH GRADE
⑧ MAKE THE HOLE WIDE, AS MUCH AS THREE TIMES THE DIAMETER OF THE ROOT BALL, BUT ONLY AS DEEP AS THE ROOT BALL. BACKFILL TOPSOIL BORROW - SEE SPECS. BACKFILL IN 12 INCH LIFTS.
⑨ ROUGHEN SIDES PRIOR TO BACKFILLING. SETTLE W/ WATER IN 12" LIFTS
⑩ CONSTRUCT WATERING DISH AT EACH PLANT USING TOPSOIL
⑪ FINISH GRADE
⑫ EXISTING GRADE
⑬ FERTILIZER TABLET - SEE SPECS.

E SHRUB
SCALE: NTS — SECTION



NOTES:
1. PLANT TREE PLUMB.
2. REMOVE ALL LABELS, WIRES, ETC. FROM THE TREE'S STEM.
3. SEE "HANDOUT B" IN THE SPECS. FOR "STEPS FOR PLANTING A TREE".
4. DO NOT USE AN AUGAR FOR TREE HOLES.

⑭ DOUBLE STRAND PLIABLE NO. 14-GAGE GALVANIZED STEEL WIRE OR VINYL-COATED STEEL WIRE, DO NOT PULL TAUT
⑮ 1/2" X 18" REBAR STAKES (THREE STAKES PER TREE)
⑯ EDGE OF WALK OR CURB
⑰ TREE GUYING ALIGN 2 GUYS PARALLEL W/ ROAD OR WALKS (USE THREE GUYS FOR ALL EVERGREEN TREES 6'-0" AND TALLER)
⑱ FERTILIZER TABLET - SEE SPECS.

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⑨ PREPARE A WATERING CIRCLE OF 2' DIAMETER AROUND THE TRUNK. FOR CONIFERS, EXTEND THE WATERING WELL TO THE DRIP LINE OF THE TREE CANOPY.
⑩ ROUGHEN SIDES PRIOR TO BACKFILLING. SETTLE W/ WATER IN 12" LIFTS
⑪ DO NOT PLANT LAWN IN TREE PIT
⑫ 3" OR WIDER NYLON WEBBING W/ METAL GROMMETS
⑬ PRUNE DEAD, DISEASED, DAMAGED, OR RUBBING BRANCHES AT PLANTING TIME. DO NOT PRUNE LEADER. IMPROPER PRUNING SHALL BE CAUSE FOR REJECTION OF THE PLANT MATERIAL.

B EVERGREEN TREE WITH GUYING
SCALE: NTS — SECTION

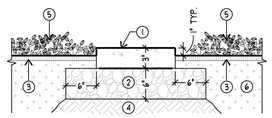
TREES	BOTANICAL NAME	COMMON NAME	CONT	CAL	QTY*
+	Existing Tree	Existing Tree - Protect-in-Place	-		189
DECIDUOUS TREES	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**CAL**	**QTY***
	Acer freemanii 'Jeffersred'	Autumn Blaze Maple	B & B	2.5"	24
	Acer griseum	Paperbark Maple	B & B	2"	7
	Carpinus betulus 'Fastigiata'	Pyramidal European Hornbeam	B & B	2"	7
	Fraxinus pennsylvanica 'Cimmaron'	Cimmaron Seedless Ash	B & B	2.5"	8
	Zelkova serrata 'Green Vase'	Sawleaf Zelkova	B & B	2"	4
SHRUBS	**BOTANICAL NAME**	**COMMON NAME**	**CONT**		**QTY***
BUX	Buxus microphylla koreana 'Green Velvet'	Korean Boxwood	5 gal		32
CORSI	Cornus stolonifera 'Bailey'	Bailey Red Twigged Dogwood	5 gal		40
EVY	Evonymus alatus 'Compactus'	Dwarf Burning Bush	5 gal		54
JH	Juniperus horizontalis 'Wiltoni'	Wilton Juniper	5 gal		6
JPC	Juniperus procumbens 'Green Mound'	Green Mound Juniper	5 gal		110
PHY	Philadelphus vir.'Minnesota Snowflake Nana'	Mockorange	5 gal		49
PHX	Photinia fraseri	Photinia Standard	5 gal		21
PRU	Prunus laurocerasus 'Otto Luyken'	Luykens Laurel	5 gal		19
RHT	Rhamnus frangula 'Columnaris'	Tall-hedge Buckthorn	5 gal		25
RHG	Rhus aromatica 'Gro-Low'	Gro-Lon Fragrant Sumac	5 gal		61
RTE	Rhus typhina 'Tiger Eyes'	Tiger Eyes Sumac	5 gal		8
RX	Rosa x 'Knockout'	Knockout Rose (Red)	5 gal		79
SP	Syringa patula 'Miss Kim'	Miss Kim Lilac	5 gal		3
YF	Yucca filamentosa 'Color Guard'	Adam's Needle	5 gal		16
GRASSES	**BOTANICAL NAME**	**COMMON NAME**	**CONT**		**QTY***
	Calamagrostis acu. 'Karl Foerster'	Feather Grass	1 gal		12
	Miscanthus sinensis 'Gracillimus'	Maiden Grass	1 gal		90
	Pennisetum alopecuroides 'Hamelin'	Hamein Fountain Grass	1 gal		16
PERENNIALS	**BOTANICAL NAME**	**COMMON NAME**	**CONT**		**QTY***
C	Coreopsis grandiflora 'Baby Sun'	Tickseed	1 gal		26
HC	Hemerocallis hybrid 'Stella de Oro'	Stella de Oro Daylily	1 gal		29
SC	Salvia superba 'May Knight'	Perennial Sage	1 gal		54
GROUND COVERS	**BOTANICAL NAME**	**COMMON NAME**	**CONT**		**QTY***
	Seed Mix See Sht. L-L501 Dlt.-L	Seed Mix	seed		88,194 sf
	Turf Grass Seed **	Turf Grass Seed	seed		147,442 sf
	Turf-Grass *** REPAIR TURF AS NEEDED	Turf-Grass	sod		25,532 sf

* QUANTITY INFORMATION PROVIDED FOR REFERENCE ONLY. CONTRACTOR RESPONSIBLE TO VERIFY ALL QUANTITIES.

** USE "BLUE RIBBON SEED BLEND" FROM GRANITE SEED OR APPROVED EQUAL. PROPOSED SUBSTITUTIONS MUST BE SUBMITTED IN WRITTEN FORM BY THE CONTRACTOR AND APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE.

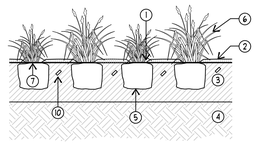
*** USE "RTF" TURF FROM ALL-AMERICAN FARMS, "IMPERIAL BLUE" FROM CHANSHARE FARMS, "BIOBLUE" FROM BIOGRASS TURF FARMS OR APPROVED EQUAL. PROPOSED SUBSTITUTIONS MUST BE SUBMITTED IN WRITTEN FORM BY THE CONTRACTOR AND APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE.

A PLANT SCHEDULE
SCALE: NTS — SCHEDULE

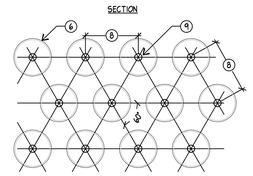


① PRECAST CONCRETE STEPPING STONE 36" X 36" X 3"-THICK. MATCH COLOR OF STEPPING STONE TO BUILDING EXTERIOR - SUBMIT SAMPLES FOR APPROVAL
② COMPACTED ROAD BASE
③ MULCH, SEE SPECS.
④ COMPACTED SUBGRADE
⑤ PLANT MATERIAL, SEE PLANTING PLAN
⑥ AMENDED TOPSOIL

K PRECAST CONCRETE STEPPING STONE
SCALE: NTS — SECTION



SECTION

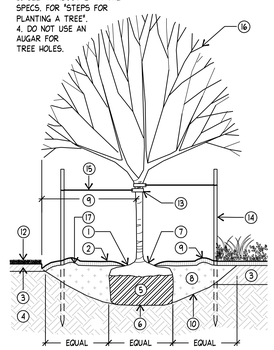


PLAN

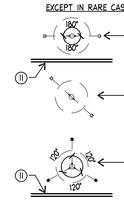
① KEEP MULCH BACK FROM BASE OF PLANT
② MULCH LAYER - SEE SPECS.
③ AMENDED TOPSOIL - SEE SPECS.
④ UNDISTURBED SUBGRADE
⑤ IF PLANTS ARE POT-BOUND AT PLANTING TIME, LOOSEN THE ROOTS AROUND THE BOTTOM AND SIDES OF THE ROOT BALL
⑥ PLANT
⑦ BE SURE THE CROWN OF THE PLANT (THE POINT WHERE ROOTS AND TOP JOIN) IS EVEN WITH THE SOIL SURFACE
⑧ PLANT SPACING VARIES - REFER TO PLANT SCHEDULE OR PLAN
⑨ CENTER OF PLANT
⑩ FERTILIZER TABLET - SEE SPECS.

NOTES:
1. PRUNE DEAD, DISEASED, DAMAGED, OR RUBBING BRANCHES AT PLANTING TIME.
2. REMOVE ALL LABELS, WIRES, ETC. FROM PLANT.
3. WATER PLANTS THOROUGHLY FOLLOWING PLANTING TO SETTLE THE SOIL AROUND THE ROOTS.

F PERENNIAL / GROUNDCOVER
SCALE: NTS — SECTION/PLAN



EXCEPT IN RARE CASES TREES SHOULD NOT BE STAKED



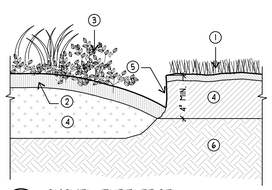
NOTES:
1. IF THERE IS TRENCHING WITHIN THE PRZ, TRENCHES SHALL ONLY BE DUG ON ONE SIDE OF THE TREE AND SHALL BE DONE ONLY DONE WITH APPROVAL FROM THE OWNER'S REPRESENTATIVE. HAND EXCAVATION ONLY.
2. DO NOT STOCKPILE ANY MATERIALS OR LOCATE ANY HEAVY MACHINERY WITHIN THE PRZ. THERE SHALL BE NO TRAFFIC ALLOWED WITHIN THE PRZ.
3. ONLY MOVE BARRIER WITH THE PERMISSION OF THE OWNER'S REPRESENTATIVE.

D TREE PROTECTION
SCALE: NTS — SECTION/PLAN

SYMBOL	BOTANICAL NAME	COMMON NAME	PLS LBS/AC (BROADSCAST)
	Achnatherum hymenoides	Indian Ricegrass	3.0
	Elymus lanceolatus ssp.	Thickspike Wheatgrass	4.0
	Elymus trachycaulus ssp.	Slender Wheatgrass	4.0
	Pascopyrum smithii	Western Wheatgrass	4.0
	Poa ampla	Big Bluegrass	1.0
	Pseudoroegneria spicata ssp.	Bluebunch wheatgrass	4.0
		TOTAL	20.0

1. SEED SHALL BE PLANTED AT THE RATES LISTED ABOVE, CONFIRM RATES WITH SEED SUPPLIER. SEED MIX COMPOSITION (PERCENTAGE OF EACH SPECIES) SHALL BE AS RECOMMENDED BY THE SUPPLIER. SEED MIX SHALL BE SPREAD BY BROADCASTING ONE HALF THE SEED MIX ON THE SURFACE OF THE GROUND AND MIXING THE OTHER HALF OF THE SEED MIX IN THE WOOD FIBER HYDRO MULCH. APPLY HYDRO MULCH OVER THE SEED BED SURFACE AT 1800 LBS. PER ACRE. FOR SLOPE AREAS, PROVIDE A MULCH TACKIFIER MIXED INTO THE HYDRO MULCH.
2. ALL SOIL WASHING AND EROSION PROBLEMS SHALL BE REPAIRED AND RE-SEEDED AS REQUIRED.

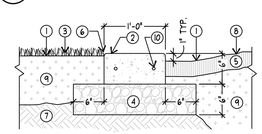
L SEED MIX



① GRASS OR TURF
② MULCH AS SPECIFIED
③ SHRUB BED/TREE WELL
④ TOPSOIL LAYER
⑤ SHOVEL EDGE - USE AROUND TREE WELLS IN TURF
⑥ SUBGRADE

NOTES
1. TO BE USED WITH TREES LOCATED IN AREAS RECEIVING SOD, I.E.

G SHOVEL TURF EDGE
SCALE: NTS — SECTION



NOTE:
1. WHEN MOW CURB IS ADJACENT TO BUILDING OR WALL, USE EXPANSION JOINT AND SLOPE 2% AWAY FROM BUILDING.
2. EXPANSION JOINTS AT 20' O.C. AND A TOOLED JOINT AT 10' O.C.

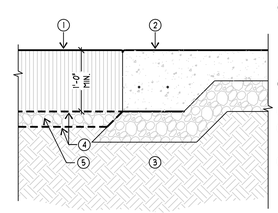
① FINISH GRADE
② CONCRETE MOW CURB. FINISH W/ MED. BROOM PERPENDICULAR TO HEADER RUN.
③ TURF
④ COMPACTED ROAD BASE
⑤ MULCH, SEE SPECS.
⑥ 1/4" RADIUS, TYPICAL
⑦ COMPACTED SUBGRADE
⑧ SHRUB BED
⑨ AMENDED TOPSOIL
⑩ REBAR (2) #4 CONTINUOUS. 2" CLEARANCE @ SIDES, TYP.

H CONCRETE MOW CURB - 12" WIDE
SCALE: NTS — SECTION

EXCEPT IN RARE CASES TREES SHOULD NOT BE STAKED

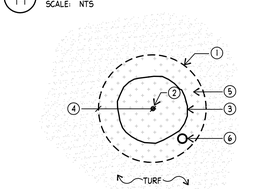
① PROTECTIVE ROOT ZONE (PRZ)- TO CALCULATE CRITICAL ROOT RADIUS, MEASURE THE TREE'S DIAMETER (DBH) 4.5 FEET ABOVE THE GROUND. MEASURE IN INCHES. FOR EACH INCH, ALLOW FOR 1 TO 1.5 FEET OF CRITICAL ROOT RADIUS. IF A TREE'S DBH IS TEN INCHES, ITS CRITICAL ROOT RADIUS IS 10 TO 15 FEET.
② MULCH 1" TO 2" BACK FROM TRUNK WITHIN THE PRZ
③ TREE PROTECTION BARRIER- SEE SPECIFICATIONS. REVIEW DESIGN WITH OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
④ TREE TRUNK

C DECIDUOUS TREE WITH STAKING
SCALE: NTS — SECTION



① ENGINEERED WOOD FIBER PLAYGROUND SURFACING AS MANUFACTURED BY SOFFALL (OR APPROVED EQUAL). 12" MIN. COMPACTED DEPTH. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
② CONCRETE PAVING- SEE CIVIL PLANS
③ COMPACTED SUBGRADE
④ 28 MIL THICK GEOTEXTILE FABRIC MINIMUM PERMEABILITY 26 GAL./SQ. FT. PER MINUTE
⑤ 3/8" WASHED GRAVEL 3" MIN. DEPTH WITH COMPACTED SUB-BASE SLOPE A MIN. 2% TO DRAIN/DRY WELL. ENSURE ADEQUATE DRAINAGE UNDER PLAYGROUND SURFACING.

M ENGINEERED WOOD FIBER PLAYGROUND SURFACING
SCALE: NTS — SECTION



① TURF EDGE (G L-L501)
② TREE TRUNK
③ ROOTBALL
④ REMOVE SOD AT DRIPLINE OF TREE- MIN. WIDTH OF 3'-0" DIA.
⑤ MULCH AS SPECIFIED
⑥ ACCENT LIGHTING- IF USED, LOCATE ACCENT LIGHTS WITHIN THE TURF EDGE

I TREE IN TURF
SCALE: NTS — PLAN

DFCM APPROVAL STAMP

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PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
Utah State Hospital Consolidation
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

	DATE	REVISION

PROJECT NUMBER
FILE
DRAWN BY: EP
CHECKED BY: SG
SCALE: 1" = 20'-0"

LANDSCAPE DETAILS - PEDIATRIC

L-L501

File : E:\11068_Utah State Hospital\Cadd\Planting.dwg Sep 07, 2012-10:39am

GENERAL STRUCTURAL NOTES

1. Design Criteria

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

1.2. Floor Live Loading:
A. Exit Facilities & Corridors: .... 100 psf Live Load
B. Mechanical Rooms: .... 125 psf Live Load or actual weights, if larger

1.3. Roof Live Loading:
A. Roof Live Load: .... 20 psf
B. Roof Snow Load: .... 33 psf + Drift per IBC
1. Ground Snow Load, P_g: .... 43 psf
2. Snow Exposure Factor, C_e: 1.0
3. Importance Factor, I_S: 1.1
4. Thermal Factor, C_t: 1.0

1.4. Earthquake:
A. Occupancy Category: III
B. Seismic Design Category....................................... D
C. Spectral Response Accelerations:
S_S = 1.252 g S_{DS} = 0.834 g
S_1 = 0.525 g S_{D1} = 0.525 g
D. Soil Site Class: .... F (Used Site Class D for design)
F_a = 1.0 F_v = 1.5
E. Basic Seismic-Force-Resisting System: .... Reinforced Masonry Shear Walls
R = 5 C_d = 3.5 Ω_0 = 2.5
F. Importance Factor, I_E: 1.25
G. Analysis Procedure: .... Equivalent Lateral Force (Static)

1.5. Wind:
A. Basic Wind Speed (3-second gust): .... 90 mph
B. Importance Factor, I_W: 1.15
C. Exposure: C
D. Internal Pressure Coefficient, GC_{pi}: 0.18
E. Topographic Factor, K_{zt}: 1.0
F. Components and Cladding Design Pressure:

Design Wind Pressure (psf)

Location		Tributary Area (ft^2) < 10	50	100	> 500
Walls	Within 16 ft of building corner	28.3	23.9	21.9	17.6
	All other areas	22.9	20.7	19.7	17.6
Roof	Within 16 ft of building corner	53.4	32.1	22.9	22.9
	Within 16 ft of building edge	35.4	26.7	22.9	22.9
	All other areas	21.2	19.9	19.3	19.3

1.6. Foundation:
A. 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.
B. Soils Report by GSH Geotechnical Consultants, dated July 22, 2011.
C. Soil Bearing Pressure: ....1500 psf, on suitable natural soils or compacted structural fill extending to natural soils.
D. Lateral Soil Pressure Fluid Equivalent Density.
1. Passive: ....300 pcf
E. Coefficient of Friction: 0.40

1.7. Classification for Fire Rated Construction:
A. For the purpose of determining fire-resistive assemblies, open-web steel framing members shall be considered unrestrained. All other steel floor and roof framing members shall be considered restrained.

2. Earthwork

2.1. Clearing: The entire building area shall be scraped to remove all vegetation, loose, surficial or deleterious soils and debris. Remove any such material from below footings and replace it with compacted structural fill. Remove an area that is the width of the footing plus one foot for each foot of compacted structural fill. Non-native undocumented fills must be removed from the building footprint and 5 feet beyond.

2.2. 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.

2.3. 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 18 percent passing a No. 200 sieve. Compacted structural fill shall have a plasticity index less than 18 percent. 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).

3. Concrete

3.1. Materials shall comply with the Standards specified in American Concrete Institute (ACI) 318-08, "Building Code Requirements for Structural Concrete."
A. 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	3000	0.50	-	1"	F0	S0	C0
Interior Slabs on Grade	3000	0.50	-	1.1/2"	F0	S0	C0
Exterior Walls	4500	0.45	5	¾"	F1	S0	C1
Suspended Slabs and Interior Walls	4000	0.45	-	¾"	F0	S0	C0
Concrete over Steel Deck	4000	0.45	-	¾"	F0	S0	C0
Tunnel Lids, all other site cast concrete	4500	0.45	6	3/4"	F2	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.

B. Cementitious Materials:
1. Portland Cement (ASTM C150):
a. Type I or II for exposure class S0.
2. 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.
C. Concrete Density (Maximum Air Dry Weight):
1. Normal weight concrete shall be approximately 145 to 155 pounds per cubic foot. Aggregate shall be ASTM C33.
D. Reinforcement steel:
1. ASTM A615 Grade 60, fy = 60,000 psi min. unless noted otherwise.
E. Admixtures:
1. Air-entraining admixtures, comply with ASTM C 260 (when used).
a. Tolerance on air content as delivered shall be +/- 1.5%.
b. 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.
2. The use of super plasticizers and water reducers is allowed, but not required.
3. Calcium chloride or admixtures containing calcium chloride shall not be added to the concrete mix.
F. 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.
G. 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.
H. 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.
I. Only one grade or type of concrete shall be poured on the site at any given time.

3.2. 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.
A. Pre-camber forms and screeds with a camber of 1/4" per every 10'-0" of span to compensate for dead load deflection, unless noted otherwise. Post tensioned concrete slabs and beams do not require formwork to be pre-cambered.

3.3. Concrete cover requirements for deformed bar reinforcing steel shall comply with ACI 318, "Building Code Requirements for Structural Concrete".
A. Cast-in-place Concrete: Specified Cover
1. Cast against and permanently exposed to earth: .... 3"
2. Formed concrete exposed to earth or weather:
#6 thru #18 bars .... 2"
#5 and smaller bars.. 1.1/2"
3. 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"

3.4. Construction Joints and Control Joints:
A. 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.
B. 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.
C. 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.
D. Construction joints in suspended concrete pours shall be made at the center of spans.
E. Slabs on grade shall have construction or control joints spaced not to exceed 30 times the slab thickness in any direction.
F. 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.
G. Control joints in visually exposed walls, unless noted otherwise: (Joints shall line up with masonry and architectural joints, see drawings.)
1. Vertical control joints at 10'-0" on center.
2. Reinforcing shall be continuous through control and construction joints, unless noted otherwise.
3. Control joints in concrete foundation walls shall line up with masonry control joints.

3.5. 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.
A. Lap splice lengths shall be detailed to comply with the CONCRETE REINFORCING BAR DEVELOPMENT AND LAP SPLICE SCHEDULE.
B. 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.
C. All embedded elements and dowels shall be securely tied to formwork or to adjacent reinforcing prior to the placement of concrete.
D. 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.
E. See typical details for reinforcing at wall intersections and ends, reinforcing around wall openings and suspended slab openings, vertical wall dowels, concrete column ties and splices in vertical column reinforcing.
F. See typical details for column cross-ties. The 90-degree hooks of two successive crossties engaging the same longitudinal bars shall be alternated end for end.
G. Contractor shall coordinate placement of all openings, curbs, dowels, sleeves, conduits, bolts, inserts and other embedded items prior to concrete placement.
H. 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.

3.6. 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.

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

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

4. Masonry

4.1. Materials, unless noted otherwise:
A. Concrete Masonry Units: ASTM C 90, Lightweight.
B. 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:
1. Prism Test Method, IBC 2105.2.2.1:
a. Concrete Masonry Unit Assembly, f'm = 1500 psi.
2. Unit Strength Method, IBC 2105.2.2.2:
a. Concrete Masonry Units, minimum unit strength of 1900 psi average or better. (f'm = 1500 psi)
C. Mortar: Use Type "S" according to ASTM C270, proportion specification. Admixtures shall not be added to the mortar mix.
D. 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.
E. Reinforcing: Grade 60 reinforcing steel shall comply with ASTM A615. Wire joint reinforcing shall comply with ASTM A951.
F. Deformed Bar Anchors (DBA): All DBAs shall comply with ASTM A496.
G. Anchor Bolts (AB): ASTM A307 with ASTM A563 heavy hex nuts and hardened washers, Grade A, unless noted otherwise.
H. Headed Stud Anchors (HSA): Manufacture all HSAs in conformance with ASTM A108 with dimensions complying with AISC specifications.

4.2. Construction Requirements:
A. Mortar Joints: Joints shall be "concave", "V-joint" or "weathered raked" for structural members unless noted otherwise on architectural drawings.
B. Masonry walls, beams and columns shall be constructed with running bond, unless noted otherwise.
C. 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.
1. Grout Pour Heights that exceed 4 feet shall meet the following requirements:
a. 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.
b. 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.
c. 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.
2. 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.
a. Form a grout key by terminating the grout a minimum of 1.1/2 in. below a mortar joint.
b. Do not form grout keys within beams.
c. 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.
D. 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.
E. 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.
F. Grout all beam and joist pockets solid after installation of beams and joists.
G. Masonry Veneer Attachment and Reinforcing:
1. To steel stud walls: Veneer shall be attached to the studs Dur-O-Wal DA 213S seismic veneer anchors or Hohmann & Barnard DW-10HS seismic veneer anchors (or equal) spaced at 16" o.c. Veneer anchors shall be attached to studs with #10 corrosion resistant self drilling screws. Attach the veneer to the anchors with Dur-O-Wal Seismic Steel Pintles or 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.
2. 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 Dur-O-Wal 16 gage seismic dovetail anchor ties or Hohmann & Barnard #315 BT Flexible 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.
3. 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 Dur-O-Wal DA 3600 S Seismic Ladur-Eye (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 Dur-O-Wal DA 5213 S seismic veneer anchors (or equal) spaced at 16" o.c. maximum in both directions. Attach the veneer to the anchors with Dur-O-Wal Seismic Steel Pintles (or equal) that shall engage 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.
4. Other methods of attachment may be used after written acceptance by the architect and structural engineer.
5. 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.

4.3. Detailing Requirements:
A. Standards: Reinforcing detailing shall comply with American Concrete Institute (ACI) Standard 315, "Details and Detailing of Concrete Reinforcement."
B. Reinforcement Protection (cover):
1. Joint reinforcement shall have not less than 5/8" mortar coverage from the exposed face.
2. Other 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".
C. 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.
D. Lap Splice Lengths: Lap all masonry reinforcing bars per the "Masonry Reinforcing Bar Lap Splice Schedule." Joint reinforcement shall lap a minimum of 6".
E. Corner Bars: Horizontal reinforcement shall be continuous at all corners and at intersecting walls. Provide corner bars with the required lap splice length.
F. 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.
G. 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.
H. 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.
I. 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.
J. All masonry column ties shall terminate with 135 degree hooks plus a 6 bar diameter extension (4" minimum).
K. The exposed face of all embed plates shall be set flush with the face of masonry wall or column.

4.4. 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.
10"	#6 @ 48" o.c.	#6 @ 32" o.c.
12"	2 - #5 @ 48" o.c.	#6 @ 32" o.c.

5. Structural Steel

5.1. Material:
A. W-Shapes: ASTM A992, (F_y = 50 ksi), except as noted otherwise.
B. All Other Shapes and Plates: ASTM A36 (Fy = 36 ksi), except as noted otherwise.
C. Rectangular and Square Hollow Structural Sections (HSS): ASTM A500, Grade B (Fy = 46 ksi).
D. Round HSS: ASTM A500, Grade B (Fy = 42 ksi).
E. Steel Pipe: ASTM A53, Grade B (Fy = 35 ksi).
F. Deformed Bar Anchors (DBA): ASTM A496.
G. Headed Stud Anchors (HSA): ASTM A108, with dimensions complying with AISC specifications.
H. Anchor Rods: ASTM F1554, Grade 36 with ASTM A563 heavy hex nuts and ASTM F436 hardened washers, unless noted otherwise.

5.2. Fabrication and construction shall comply with the following Codes and Standards:
A. American Institute of Steel Construction (AISC) 360-05, "Specification for Structural Steel Buildings," dated March 9, 2005.
B. 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.
1. 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 6. Special Instructions, notes 6.2 and 6.3 on this sheet.
C. AISC/RCSC 2004, "Specification for Structural Joints Using ASTM A325 or A490 Bolts"
D. American Welding Society (AWS) D1.1-04, "Structural Welding Code – Steel" (specific items do not apply when they conflict with the AISC requirements).
E. American Welding Society (AWS) D1.8-05, "Structural Welding Code – Seismic Supplement" (specific items do not apply when they conflict with the AISC requirements).
F. Steel Joist Institute (SJI) 2005, "Standard Specification, Load Tables and Weight Tables for Steel Joists and Joist Girders," and "Recommended Code of Standard Practice."
G. American Iron and Steel Institute (AISI) 2007, "North American Specification for the Design of Cold-Formed Steel Structural Members."

5.3. 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.

5.4. Welding:
A. 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.
B. 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.
C. Electrodes: E-70 XX or as noted otherwise. E60 XX may be used for welding steel floor and roof decks.
D. 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 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.
E. 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).
F. Bolts: Do not apply any welds, including "tack" welds to bolts, including anchor bolts, except as specifically detailed in the drawings.
G. 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.
H. Special Provisions for Welds in the SLRS (Seismic Load Resisting Systems): Welds used in members and connections of collector elements shall comply with these requirements. Welding methods, procedures and quality control shall comply with AISC 341, AWS D1.1, AWS D1.8 and the following.
1. Welding shall be performed in accordance with AISC 341 Appendix W and a welding procedure specification (WPS) as required in AWS D1.1. WPS variables shall be within the parameters established by the filler metal manufacturer. WPS for demand critical welds shall also comply with AWS D1.8 Section 6.1.
2. All welds except for demand critical welds shall be made with a filler metal that can produce welds that have a minimum Charpy V-Notch toughness of 20 ft-lb at 0 degrees Fahrenheit, as determined by the appropriate AWS A5 classification test method or manufacturer certification.
3. Tack welds shall comply with AWS D1.1 Section 5.18 and AWS D1.8 Section 6.16.
4. Unrepaired cracks, gouges, grooves and notches will not be permitted in the joint area. Arc strikes, gouges and other imperfections within or adjacent to the joint, shall be repaired or removed in accordance with AWS D1.8 Section 6.15.4.

5.5. Bolted Connections:
A. 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.
B. Provide pretensioned joints with ASTM A325N Type 1 bolts for all steel to steel connections that are part of the Seismic Load Resisting System (SLRS) or have connections noted as collectors or drag struts. Faying surfaces shall meet the requirements of a slip-critical Class A surface except for faying surfaces of end plate moment connections. Tighten bolts by the turn of the nut, calibrated wrench, or direct tension indicator method. Alternate fastener designs as defined by AISC shall be submitted to the engineer for review and acceptability prior to installation. Provide hardened washers beneath turned element.
C. 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.
D. 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.
E. Bolts, nuts and washers shall not be reused.

5.6. Steel Lintels
A. 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.

5.7. Beam Web Stiffener Plates:
A. 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"
1/2 inch thick	Greater than 12 1/4" and less than 16 1/2"	5/16"
5/8 inch thick	Greater than 16 1/2" and less than 20 3/4"	3/8"

5.8. Composite Beams
A. 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.
B. 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.
C. 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.
D. 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".
E. C= 0.00" on the plans denotes precamber dimension (upward) in inches.

SEE SHEET S002 FOR CONTINUATION OF GENERAL STRUCTURAL NOTES

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

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

STRUCTURAL DRAWING LIST

SHEET NO.	SHEET NAME
S001	GENERAL STRUCTURAL NOTES
S002	GENERAL STRUCTURAL NOTES
S003	GENERAL STRUCTURAL NOTES
S101	OVERALL LEVEL 1 FTG & FDTN PLAN
S101A	AREA A FOOTING & FDTN PLAN
S101B	AREA B FOOTING & FDTN PLAN
S101C	AREA C FOOTING & FOUNDATION PLAN
S101D	AREA D FOOTING & FOUNDATION PLAN
S101E	AREA E FOOTING & FDTN PLAN
S102	OVERALL LOW ROOF & MEZZ FLOOR FRAMING PLAN
S102A	AREA - A LOW ROOF FRAMING PLAN
S102B	AREA - B MEZZ FLOOR & ROOF FRAMING PLAN
S102C	AREA - C LOW ROOF FRAMING PLAN
S102D	AREA - D LOW ROOF FRAMING PLAN
S102E	AREA - E LOW ROOF FRAMING PLAN
S103	HIGH ROOF FRAMING PLAN
S501	FOOTING & FOUNDATION DETAILS
S502	FOOTING & FOUNDATION DETAILS
S503	FOOTING & FOUNDATION DETAILS
S504	FOOTING & FOUNDATION DETAILS
S511	FLOOR FRAMING DETAILS
S512	FLOOR FRAMING DETAILS
S521	ROOF FRAMING DETAILS
S522	ROOF FRAMING DETAILS
S523	ROOF FRAMING DETAILS
S524	ROOF FRAMING DETAILS
S601	STRUCTURAL SCHEDULES
S602	STRUCTURAL SCHEDULES
S603	STRUCTURAL SCHEDULES
S604	STEEL STUD SCHEDULES & TYPICAL DETAILS
S605	TYPICAL STEEL STUD DETAILS

DFCM APPROVAL STAMP

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DATE	STATUS

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PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

GENERAL STRUCTURAL NOTES

S001

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GENERAL STRUCTURAL NOTES-CONT.

5.9. Open Web Steel Joists and Girders:
- A. The steel joist supplier shall be responsible for the design of all open web steel joists and girders. Joists or girders with slopes greater than 1/2 inch per foot shall be designed to meet or exceed the load capacities, listed in the SJI load tables, of the joist or girder sizes indicated on the framing plan, as if the joists or girders were installed level.
- B. Open web joists and girders shall be designed with deflection limits of L/240 for total load and L/360 for live load, where L is the joist span.
- C. Where uplift loads due to wind are indicated, rows of bottom chord bridging shall be provided at the first bottom chord panel points per SJI Specifications. This is in addition to the bridging shown on the framing plans.
- D. Provide special bearing ends to accommodate slopes from sloped joists, sloped girders or sloped bearing conditions.
- E. Camber: All joists shall be cambered as specified in the SJI specifications, unless noted otherwise.
- F. Field Modifications: Do not modify any joist or girder, including holes through the top and bottom chords, without the written consent and direction from the manufacturer.
- G. Shop Drawings and Design Calculations: Shop drawings for all joists and girders used in the project shall be submitted for review. Prior to the fabrication of joists and girders, the open web steel joist and girder manufacturer shall prepare complete joist and girder calculations under the direct supervision of a professional engineer licensed in the State of Utah. Calculations shall be submitted for review for joists and girders designated as SPECIAL or SP and for all joists or girders with axial loads or additional concentrated loads (as noted on the drawings). Submitted calculations shall bear the seal of a professional engineer licensed in the State of Utah.
- H. Stabilizer Plates: Provide steel joist and joist girder stabilizer plates as indicated. Stabilizer plates shall be 6" x 6" with a 13/16" diameter hole with 1.1/2" minimum edge distance, and shall extend 3" minimum below the bottom chord of the joist or girder. Plate thickness shall be equal to the chord gap minus 1/4", or 3/4", whichever is less.
- I. 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 on structural details in the structural drawings. Coordinate openings with the mechanical and general contractor.
- J. All concentrated loads greater than 100 pounds supported by open web steel joists and girders shall be located within 6 inches of joist or girder panel points or the joist or girder shall be reinforced with an additional web member. Refer to the "TYPICAL DETAIL AT ADDITIONAL CONCENTRATED POINT LOAD" in the structural drawings.
- K. Concentrated point loads, single or multiple, totaling 100 pounds or less can be located at any point along the top or bottom chord of an open web steel joist or girder between adjacent panel points without meeting the requirements above. A limit of four concentrated 100# maximum point loads per joist or girder will be permitted on spans of 12' or greater, one concentrated 100# max. load on spans less than 12', unless specifically noted otherwise on the structural drawings.
- L. Joist bridging shall never be used to support hanging loads.
- M. Bracing of miscellaneous items (mechanical, electrical, plumbing, etc.) to the bottom chord of joists or girders will not be allowed in any instance. All lateral braces must connect to the top flange/top chord of the framing member above unless noted otherwise on the structural drawings.
- N. After manufacturing of steel joists is complete, the joist manufacturer shall submit a certificate of compliance per IBC Section 1704.2.2 and IBC Section 2206.5 to the Engineer of Record, Architect, Owner, Contractor, and Building Official.

5.10. Steel Floor Deck:
- A. 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.
- B. Steel floor deck shall be 3" deep X 20 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:

	20 Gauge	18 Gauge
Minimum S (in^3/ft) =	0.534	0.767
Minimum I (in^4/ft) =	0.896	1.203

  Painted deck shall be coated with special paint to receive sprayed-on fire proofing, where required.
- C. A 3 1/2" thick (6 1/2" overall) normal-weight concrete (f'c = 4,000 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.
- D. Steel deck with 3 1/2" thick (6 1/2" overall) concrete slab shall have a minimum diaphragm shear capacity of 2,300 lbs/ft. for a 10'-0" deck span.
- E. 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.):
  1. 12" o.c. to supports perpendicular to deck corrugations (4 welds per 36" wide sheet).
  2. 12" o.c. to all supports parallel to deck corrugations.
  3. Stud welds may take the place of puddle welds where studs are welded through the deck to the top flange of beams.
  4. All welded surfaces shall be dry before welding deck or studs to supports.
- F. 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.
  All deck shall be 3-span continuous minimum where possible. In areas where 3-span conditions are not possible, the deck shall meet the above loading criteria for the span condition. The contractor shall provide heavier gauge deck or provide shoring as required for one or two span conditions to meet the equivalent loading of the above deck under a three span condition.
- G. Deck shall have a minimum bearing length of 2".

5.11. Steel Roof Deck:
- A. 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.
- B. Steel roof deck shall be 1 1/2" deep X 20 Gauge minimum galvanized (G60), type "B" wide rib 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.
- C. Steel roof deck, where indicated, 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)=	0.508	0.731
Minimum I (in^4/ft)=	0.837	1.223

  Painted roof deck shall be coated with special paint to receive sprayed-on fire proofing, where required.
- D. Minimum allowable deck diaphragm shear values for type "B" roof deck shall be 890 lb/ft. for a 6'-0" deck span.
- E. Minimum allowable deck diaphragm shear values for type "N" roof deck shall be 429 lb/ft. for a 11'-0" deck span.
- F. 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.):
  1. 6" o.c. to all supports perpendicular to deck corrugations (7 welds per 36" sheet, 4 welds per 24" sheet).
  2. 6" o.c. to the following supports parallel to deck corrugations: All perimeter supports, all concrete or masonry walls, all joists or joist girders with a "T/C" designation, and all steel beams which are on a grid line with braced frames or moment frames.
  3. 12" o.c. to all other supports parallel to deck corrugations.
  4. All welded surfaces shall be dry before welding deck to supports.
- G. 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.
- H. 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 C) 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.
- I. Provide a 2" minimum bearing and a 4-inch lap at the splice points of all pieces of deck.
- J. 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 equivalent loading of the above deck under a three span condition.
- K. 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.

5.12. Cold-Formed Steel
- A. Load-Bearing Light Gauge Steel Framing :
  1. 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.
  2. 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.
  3. Follow all manufacturers' recommendations for the use of these products.
  4. 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. Welds and damaged coatings on studs shall be repaired with zinc galvanizing repair paint.
  5. Fasteners for steel stud construction shall be self-drilling and self-tapping meeting ASTM C1513. Screw-type fasteners shall penetrate the joined materials with a minimum of three threads exposed. Furnish, install, and tighten screws per the manufacturer's recommendations and per the sizes indicated in the details. The minimum screw-type fastener size shall be #10 for any connection or the manufacturers' minimum recommended size for framing clips and bridging. Wall studs and jamb studs shall receive a minimum of two #12 screws per stud to track connection, one each side
  6. Bridging shall be provided at a maximum spacing of 4'-0" on center, typical at all wall studs. Cold-rolled channel or steel angle bridging shall not be used without suitable full-depth angle clips fastened to the studs and channel or angle to prevent stud roll-over.
  7. Wall studs must seat fully in top and bottom wall track with 1/8" maximum gap between the stud and the track.
- B. Non-Load-Bearing Exterior Light-Gauge Steel Framing:
  1. Requirements 5.12.A.1 through 5.12.A.7 also apply to non-load-bearing exterior light-gauge steel framing.
  2. Wall to roof connections shall use steel clips designed to accommodate vertical deflection of the floor or roof structure. See specific details for further information. Clips shall be welded to the structural steel.
- C. Non-Load-Bearing Interior Light-Gauge Steel Framing:
  1. 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.

5.13. Metal Bar Grating:
- A. Metal bar grating shall comply with the most recent requirements of the National Association of Architectural Metals Manufacturers, Metal Bar Grating Division (NAAMM MBG). Products shall conform to the latest edition of the Metal Bar Grating Manual, ANSI/NAAMM MBG 531, or the Heavy Duty Metal Bar Grating Manual, ANSI/NAAMM MBG 532, as appropriate.
- B. Materials: Unless noted otherwise, metal bar grating of the following types shall conform with the following standards:
  1. Steel: ASTM A569 (allowable fiber unit stress F = 18,000 psi)
  2. Stainless Steel: ASTM A167, alloys 304/316 (allowable fiber unit stress F = 20,000 psi)
  3. Aluminum: ASTM B221, alloys 6063-T6/6061-T6 (allowable fiber unit stress F = 12,000 psi)
- C. Metal bar grating shall be provided with mill finish, unless otherwise noted.
- D. Unless noted otherwise, provide W-19-4 (1.1/2" x 3/16") Steel grating in locations where metal bar grating is specified.
- E. All metal bar grating shall be firmly and positively anchored to supporting members. Unless noted otherwise, weld grating to supporting members with 3/16" fillet welds, 3/4" long. Locate welds at each end of bearing bars approximately 6 in from each side of grating panel. At intermediate supports in panel, locate one weld at middle of panel.

6. Special Instructions

6.1. 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.

6.2. 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.

6.3. 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.

6.4. Shoring and Bracing Requirements:
- A. 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.
- B. Foundation walls must be braced until the complete floor or roof systems is completed. Do not backfill until floor or roof systems are in place.
- C. Walls above grade shall be braced until the structural system is complete. Walls shall not be considered to be self supporting.

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

6.6. 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.

6.7. 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.

6.8. 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.

6.9. 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.

QUALITY ASSURANCE NOTES

1. Quality Assurance

1.1. Quality Assurance Agency Requirements:
- A. The Owner shall engage a qualified Quality Assurance Agency (QAA) to provide all special inspection and quality assurance testing for the project. The QAA shall provide all information necessary for the building official to determine that the agency meets the applicable requirements
  1. The QAA shall be objective, competent and independent from the contractor responsible for the work being inspected. The agency shall also disclose possible conflicts of interest to confirm objectivity.
  2. The QAA shall have adequate equipment to perform required tests.
  3. The QAA shall employ experienced personnel educated in conducting, supervising and evaluating tests and/or inspections. Experience or training shall be considered relevant when the documented experience or training is related in complexity to the same type of special inspection activities for projects of similar complexity and material qualities.
  4. Prior to the start of construction, the QAA shall submit to the building official, the owner architect and engineer copies of the following:
     - a. Current calibration records for all equipment to be used for the work being inspected and/or tested.
     - b. Current certification and training records for each individual performing the inspections and/or testing.
     - c. Sample inspection and testing reports and the distribution list for the records.
     - d. Proposed inspection procedures and frequency for each inspection required by the work.
     - e. Proposed testing methods and frequency of testing required by the work.
  5. The QAA shall send copies of all inspection and testing reports to the building official, owner, architect, engineer and contractor. Reports shall indicate that the work inspected was or was not completed in conformance to the approved construction documents. Discrepancies shall be brought to the immediate attention of the contractor for correction. If they are not corrected, the discrepancies shall be brought to the attention of the building official, architect and engineer.
  6. The QAA shall submit a final report documenting required special inspections and correction of any discrepancies noted in the inspections. The final report shall be distributed to the building official, owner, architect and engineer in a timely manner prior to the completion of the project.

1.2. Contractor Responsibilities:
- A. Each contractor responsible for the construction of a system or component requiring special inspections or testing shall submit a written statement of responsibility to the building official, owner, architect and engineer prior to the commencement of the work. The contractor's statement of responsibility shall contain the following:
  1. Acknowledgement of awareness of the special requirements defined in the statement of special inspections.
  2. Acknowledgement that control will be exercised in order to obtain conformance to the approved construction documents.
  3. Contractor's internal quality control procedures, methods and measures to be used in order to obtain conformance to the approved construction documents. Include copies of quality control reports, frequency of reporting and distribution of reports.
  4. Identification and qualifications of the person(s) responsible for quality control and their position(s) within the organization.
- B. Notification of Engineer: The contractor shall notify the engineer twenty-four hours prior to:
  1. Placing concrete in any footing.
  2. Closing any wall forms.
  3. Placing concrete in any column, beam or suspended slab.
  4. Grouting any masonry.
  5. Completing the welding of major sections of steel decking.
- C. Notification of QAA: The contractor shall notify the QAA in a timely manner so that inspection and testing may be performed as outlined in the statement of special inspections.

1.3. Structural Observations by the Engineer of Record.
- A. The Engineer of Record will perform structural observations at critical phases of the project. Copies of the engineer's report will be directly distributed to the architect, contractor, owner, and building official. The following structural observations are anticipated for the project.
  1. Observations of footings & foundation walls in one to two different areas.
  2. Observation of masonry construction prior to first grout pours and during one or two other stages of masonry construction.
  3. Observations of structural steel erection and steel deck installation in two to three different areas.
  4. Observation of structural steel erection, steel deck installation, and headed stud installation for mezzanine areas.
- B. Observation visits to the site by the Engineer's field representatives shall not be construed as inspection or approval of construction.
- C. At the completion of the project, the contractor shall notify the Engineer of Record of any unresolved or outstanding items in the observation reports.

2. Statement of Special Inspections

2.1. The following materials, systems and components require special inspection or testing per Chapter 17 of the International Building Code (IBC).

2.2. For items requiring continuous inspection, a special inspector must be present onsite during the performance of that task. In most cases, periodic inspections/tests shall be performed prior to commencing the task, intermittently during the task, and at the completion of the task.

Steel Construction per IBC Sections 1704.3, 1707.2 & 1708.3

Item	Frequency	Detailed Instructions
Material Verification (IBC Table 1704.3)		
Material verification of structural steel and cold-formed steel deck	Periodic	Verify identification markings of steel conform to ASTM standards noted in General Structural Notes. Verify manufacturer's certified test reports.
Material verification of high-strength bolts, nuts and washers	Periodic	Verify identification markings to conform to ASTM standards noted in General Structural Notes. Manufacturer's certificate of compliance is required.
Material verification of weld filler materials	Periodic	Verify identification markings to conform to AWS specification. Manufacturer's certificate of compliance is required.
Welding (IBC 1704.3.1)		
Complete & partial penetration groove welds	Continuous	Pre-welding inspections are to be performed to ensure that proper materials, welding procedures, and welding personnel qualifications are appropriate and comply with AWS D1.1.
Multi-pass fillet welds	Continuous	
Single-pass fillet welds > 5/16"	Continuous	
Plug, slot, seam or flange welds	Continuous	
Single-pass fillet welds ≤ 5/16"	Periodic	A visual inspection of all welds must be provided with periodic inspections made of work in progress.
Floor & roof deck welds	Periodic	
Shear connector (i.e. stud) welds	Periodic	
Cold-formed steel welds	Periodic	
Welds of stairs & railing systems	Periodic	
Details of Steel Frame (IBC 1704.3.2)		
Member locations, bracing, gusset plates, stiffeners and other connection components	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 (IBC 1704.3.3)		
Pretensioned & slip-critical joints	Periodic	See steel section of the General Structural Notes and Section 9.2 and 9.3 of the RCSC Specification.
Snug-tightened joints	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 RCSC Specification).
Structural Steel in Seismic-Force-Resisting Systems (IBC 1707.2 & 1708.3 and AISC 341 Appendix Q)		
Visual inspection prior to welding	Continuous	Verify materials, fit-up of groove welds, configuration and finish of access holes and fit-up of fillet welds.
Visual inspection during welding	Continuous	Verify: WPS followed, use of qualified welders, control and handling of welding consumables, environmental conditions, welding techniques and no welding over cracked tacks.
Visual inspection after welding	Periodic	Verify: welds are cleaned; welder identification is legible; size, length and location of welds; verify that welds meet acceptance criteria; placement of reinforcement fillets; removal of backing bars and weld tabs as required; and repair activities.

Item	Frequency	Detailed Instructions
Nondestructive testing of welds Ultrasonic testing		(1) All complete joint penetration (CJP) groove welds in materials 5/16" thick or greater. (2) For base metal thickness greater than 1-1/2" and connected material greater than 3/4" thick containing CJP groove welds loaded in tension in the through thickness direction in tee and corner joints. (3) Where approved by the Engineer and the Building Official, the amount of required ultrasonic testing may be reduced to 25% provided the demonstrated reject rate of a welder or welding operator is 5% or less and at least 40 completed welds have been used to calculate reject rate.
Nondestructive testing of welds Magnetic particle testing (MT)		(1) At welded splices and connections, thermally cut surfaces of beam copes and access holes shall be tested when the flange thickness exceeds 1½" for rolled shapes or when the web thickness exceeds 1½" for built-up shapes. (2) The ends of welds from which the weld tabs have been removed, except for continuity plate weld tabs. (3) Where approved by the Engineer and the Building Official, the amount of required MT on CJP groove welds may be reduced to 10% provided the demonstrated reject rate of a welder or welding operator is 5% or less and at least 20 completed welds have been used to calculate reject rate. This reduction only applies to welds in item (2) above, and is not permitted on other welds requiring MT.
Inspection prior to bolting	Periodic	Verify: proper bolts and bolting procedure are selected for joint details; connecting elements are fabricated properly, including faying surface and hole preparation; pre-installation verification testing of fastener assemblies and methods; and proper storage is provided for bolts, nuts, washers and fastener components.
Inspection during bolting	Periodic	Verify: fastener assemblies placed in all holes and washers are properly positioned, joint brought to snug-tight condition prior to pretensioning, fastener components not turned by the wrench are prevented from rotating, bolts are progressing systematically from most rigid point toward free edges.
Inspection after bolting	Continuous	Document accepted and rejected connections.

Concrete Construction per IBC Sections 1704.4 & 1708.2

Item	Frequency	Detailed Instructions
Reinforcing steel.	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.
Cast-in bolts & embeds	Continuous	
Post-installed anchors or dowels		All post-installed anchors/dowels shall be specially inspected as required by the approved ICC-ES report.
Use of required mix design	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	Samples for strength tests shall be taken in accordance with ASTM C172, cured per ASTM C31 and tested in accordance with ASTM C39. Acceptance criteria for strength tests shall be per ACI 318 Section 5.6.3.3. For each mix placed, samples shall be taken not less than once a day, nor less than once for each 150 yd^3 of concrete, nor less than once for each 5000 ft^2 of surface area for slabs or walls. At the time fresh concrete is is sampled to fabricate specimens for strength tests, perform slump and air content tests and determine the temperature of the concrete.
Concrete & shotcrete placement	Continuous	
Curing temperature and techniques	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.
In-situ strength verification	Periodic	Verify that adequate strength has been achieved prior to the removal of shores and forms or the stressing of post-tensioned tendons.
Formwork	Periodic	Verify that the forms are placed plumb and conform to the shapes, lines, and dimensions of the members as required by the approved construction documents.
Reinforcement in special moment frames, special structural walls and coupling beams	Periodic	Verify that ASTM A 615 reinforcing steel used in these areas complies with ACI 318: 21.1.5.2 by means of certified mill test reports.

SEE SHEET S003 FOR CONTINUATION OF QUALITY ASSURANCE NOTES

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GENERAL STRUCTURAL NOTES

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QUALITY ASSURANCE NOTES-CONT.

Masonry Construction per IBC Section 1704.5

Item	Frequency	Detailed Instructions
Review material certificates, mix designs, test results and construction procedures	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.
Item	Frequency	Detailed Instructions
Verify f'_m prior to construction	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.
Self-consolidating grout	Continuous	
Grout placement	Continuous	
Preparation of required grout specimens, mortar specimens and/or prisms shall be observed	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 C10019 (not required if grout complies with ASTM C476).
Post-installed anchors or dowels		All post-installed anchors/dowels shall be specially inspected as required by the approved ICC-ES report.
Prior to Grouting:		
Grout space is clean	Periodic	Verify that grout space is free of mortar droppings, debris, loose aggregate, and material deleterious to masonry grout.
Placement of reinforcement an connectors	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	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	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	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 and connectors	Periodic	Verify compliance with approved construction documents. Do not place dissimilar metals in contact with each other.
During Construction:		
Size and location of structural elements	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	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.
Item	Frequency	Detailed Instructions
Size, grade and type of reinforcement, and metal accessories	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.
Preparation, construction and protection of masonry during cold or hot weather construction	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.

Soils per IBC Section 1704.7

Item	Frequency	Detailed Instructions
Verify subgrade is adequate to achieve design bearing capacity	Periodic	Prior to placement of concrete.
Verify excavations extend to proper depth and material	Periodic	Prior to placement of compacted fill or concrete.
Verify that subgrade has been appropriately prepared prior to placing compacted fill	Periodic	Prior to placement of compacted fill.
Perform classification and testing of compacted fill materials	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	

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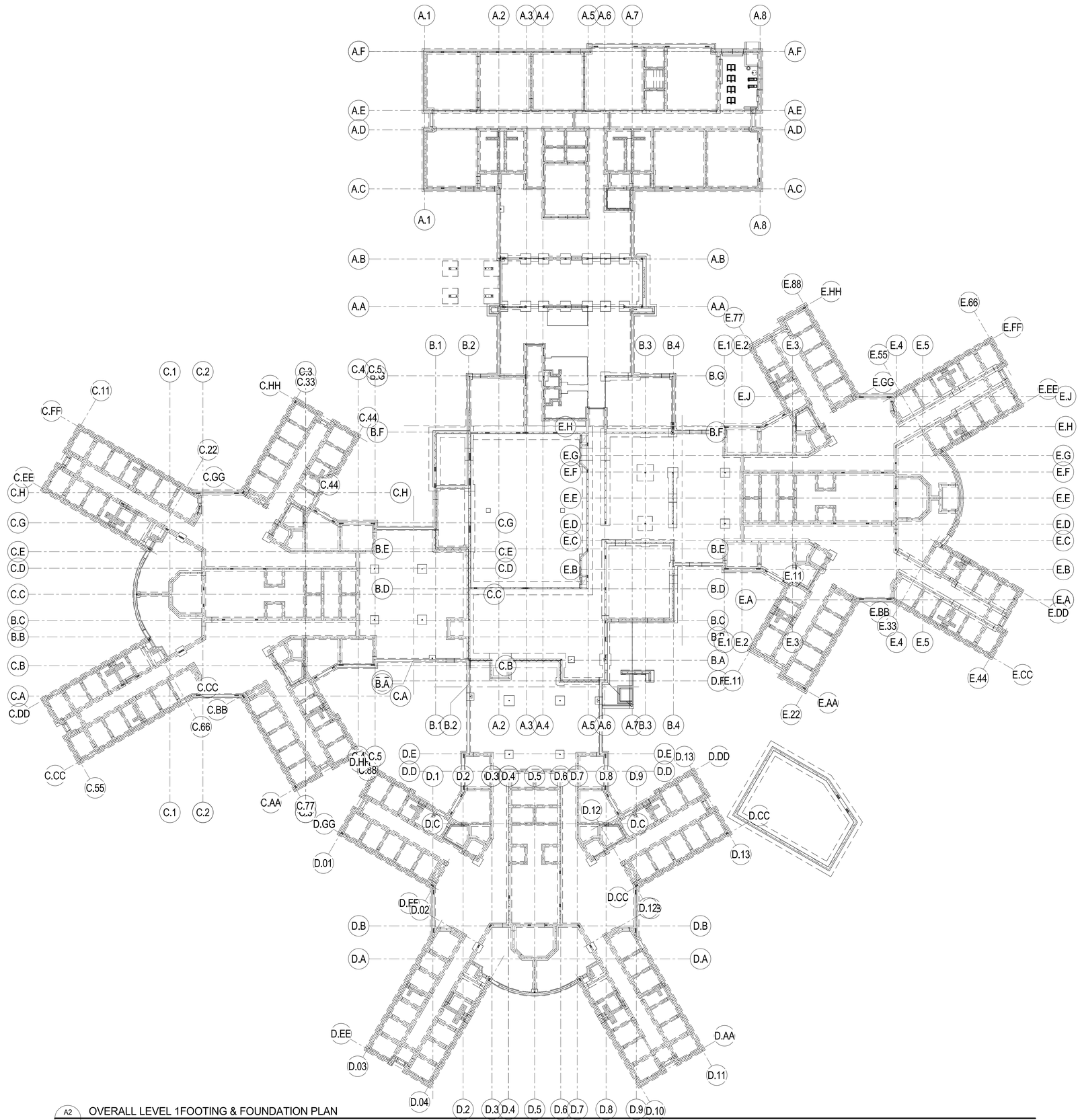

A2 / S101 OVERALL LEVEL 1FOOTING & FOUNDATION PLAN

SCALE: 1" = 20'-0"

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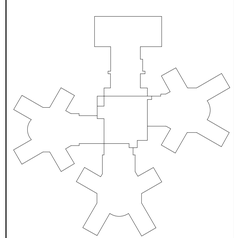

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OVERALL LEVEL 1 FTG & FDTN PLAN

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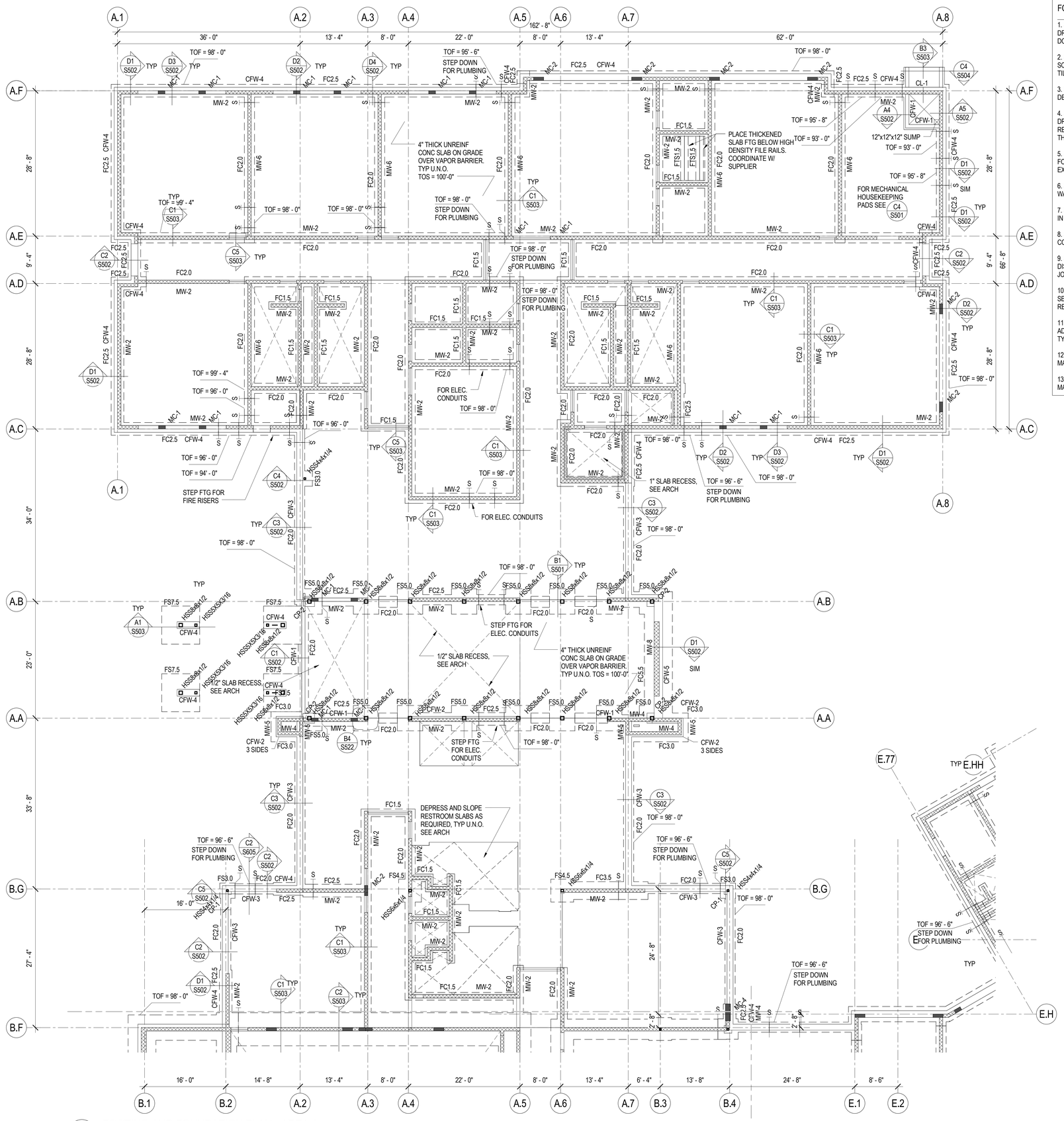

A2 S101A FOOTING AND FOUNDATION PLAN - AREA A

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

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 D1/S501 FOR TYPICAL EXTERIOR CONCRETE FOOTING STEP DETAIL. SEE D4/S502 FOR TYPICAL EXTERIOR TO INTERIOR FOOTING STEP DETAIL.

6. SEE C1/S501 FOR TYPICAL REINFORCEMENT AT WALL CORNERS AND INTERSECTIONS.

7. SEE A2/S501 FOR TYPICAL DETAIL AT SLAB JOINTS IN CONCRETE SLABS ON GRADE.

8. SEE A2/S501 FOR TYPICAL DETAIL AT DEPRESSED CONCRETE SLABS ON GRADE.

9. SEE A2/S501 FOR REINFORCEMENT AT DISCONTINUOUS CONSTRUCTION / CONTROL JOINTS IN CONCRETE SLAB ON GRADE.

10. REFER TO GENERAL STRUCTURAL NOTES AND SEE A5/S501 FOR COMPACTED STRUCTURAL FILL REQUIREMENTS BELOW FOOTINGS.

11. AT ALL MASONRY BEARING WALLS, PROVIDE ADDITIONAL DUCTILITY REINFORCING PER A4/S602, TYP.

12. SEE B1/S502 FOR CONTROL JOINTS IN 8" MASONRY WALLS.

13. SEE B2/S502 FOR TYPICAL RECESS IN 8" MASONRY WALLS.

DFCM APPROVAL STAMP

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 COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY WALL - RECESSED
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- STEEL BRACED FRAME - ABOVE
- 0" CHANGE IN ELEVATION
- SLAB BLOCK-OUT AT COLUMN
- CJ / CJ SLAB CONTROL/CONSTRUCTION JOINT
- VAPOR BARRIER BENEATH SLAB ON GRADE
- RECESSED/DEPRESSED SLAB
- OPENING

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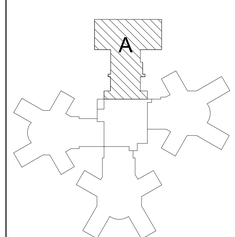
KEY PLAN



DATE	STATUS

DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

AREA A
FOOTING & FDTN PLAN

S101A

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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 D1/S501 FOR TYPICAL EXTERIOR CONCRETE FOOTING STEP DETAIL. SEE D4/S502 FOR TYPICAL EXTERIOR TO INTERIOR FOOTING STEP DETAIL.

6. SEE C1/S501 FOR TYPICAL REINFORCEMENT AT WALL CORNERS AND INTERSECTIONS.

7. SEE A2/S501 FOR TYPICAL DETAIL AT SLAB JOINTS IN CONCRETE SLABS ON GRADE.

8. SEE A2/S501 FOR TYPICAL DETAIL AT DEPRESSED CONCRETE SLABS ON GRADE.

9. SEE A2/S501 FOR REINFORCEMENT AT DISCONTINUOUS CONSTRUCTION / CONTROL JOINTS IN CONCRETE SLAB ON GRADE.

10. REFER TO GENERAL STRUCTURAL NOTES AND SEE A5/S501 FOR COMPACTED STRUCTURAL FILL REQUIREMENTS BELOW FOOTINGS.

11. AT ALL MASONRY BEARING WALLS, PROVIDE ADDITIONAL DUCTILITY REINFORCING PER A4/S602, TYP.

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13. SEE B2/S502 FOR TYPICAL RECESS IN 8" MASONRY WALLS.

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FOOTING & FOUNDATION PLAN LEGEND

- FOOTING STEP
- FOOTING - CONTINUOUS
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- MASONRY WALL - RECESSED
- MASONRY COLUMN IN MASONRY WALL
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- STEEL BRACED FRAME - ABOVE
- 0" CHANGE IN ELEVATION
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- VAPOR BARRIER BENEATH SLAB ON GRADE
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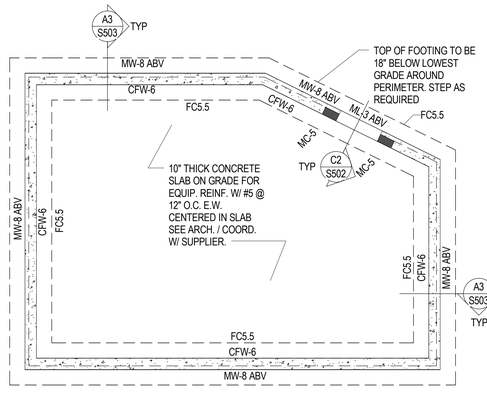
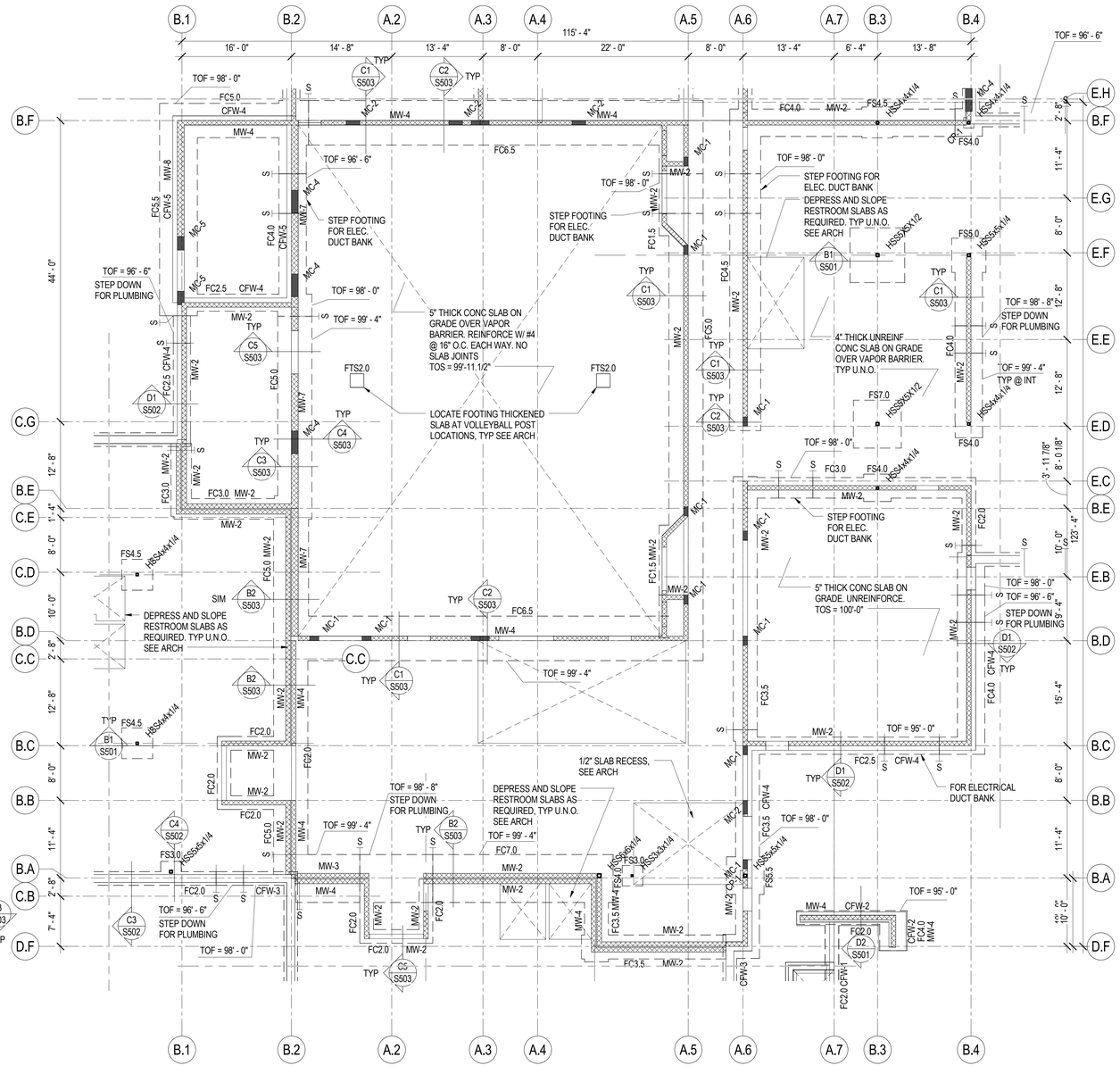


A1 / S101B — GENERATOR ENCLOSURE

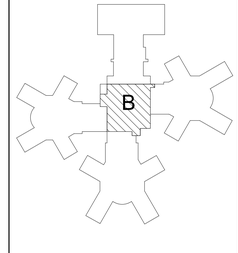
SCALE: 1/8" = 1'-0"



A3 / S101B — FOOTING AND FOUNDATION PLAN - AREA B

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

KEY PLAN



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AREA B FOOTING & FDTN PLAN

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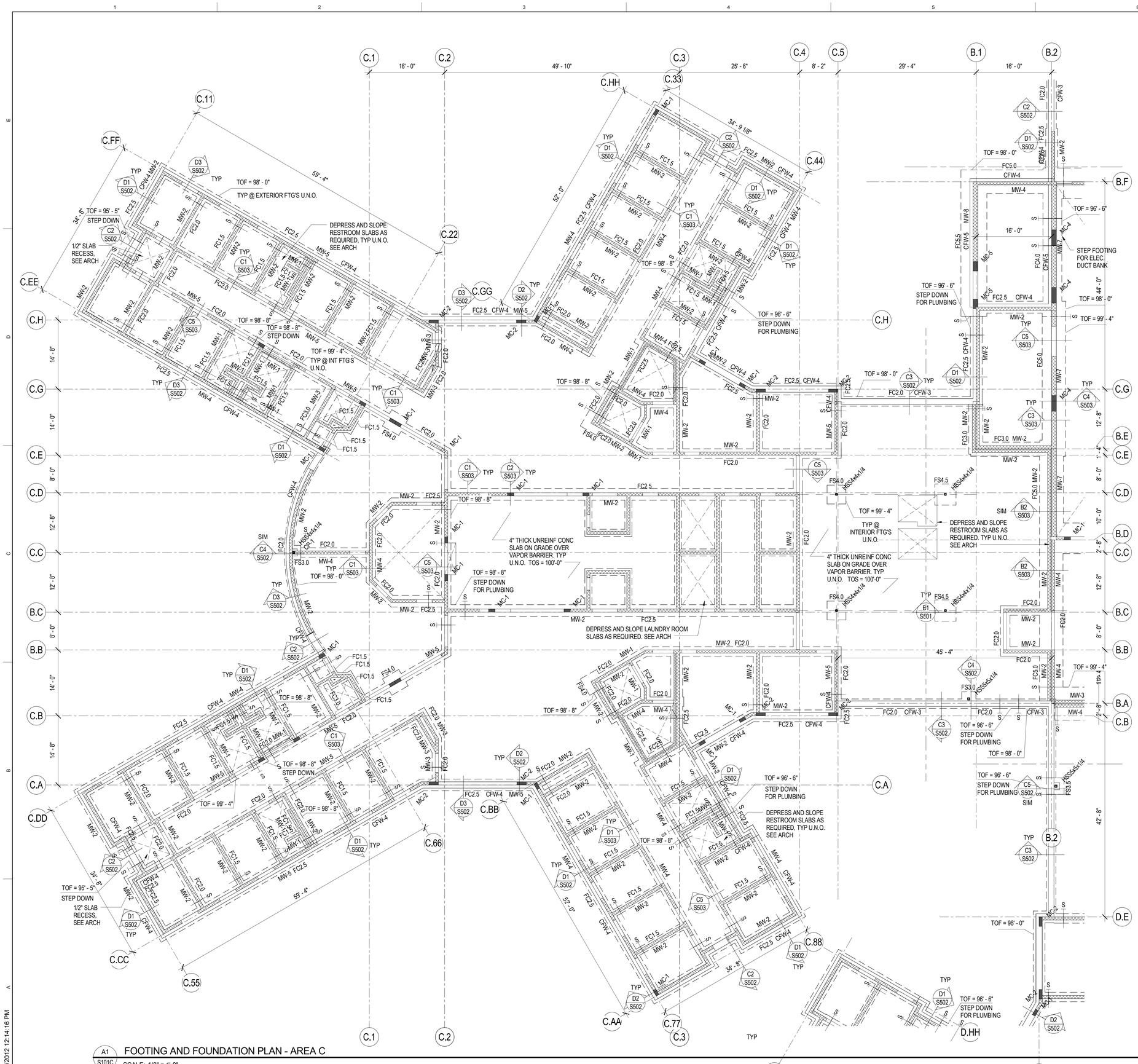

A1 / S101C FOOTING AND FOUNDATION PLAN - AREA C

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

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 D1/S501 FOR TYPICAL EXTERIOR CONCRETE FOOTING STEP DETAIL. SEE D4/S502 FOR TYPICAL EXTERIOR TO INTERIOR FOOTING STEP DETAIL.

6. SEE C1/S501 FOR TYPICAL REINFORCEMENT AT WALL CORNERS AND INTERSECTIONS.

7. SEE A2/S501 FOR TYPICAL DETAIL AT SLAB JOINTS IN CONCRETE SLABS ON GRADE.

8. SEE A2/S501 FOR TYPICAL DETAIL AT DEPRESSED CONCRETE SLABS ON GRADE.

9. SEE A2/S501 FOR REINFORCEMENT AT DISCONTINUOUS CONSTRUCTION / CONTROL JOINTS IN CONCRETE SLAB ON GRADE.

10. REFER TO GENERAL STRUCTURAL NOTES AND SEE A5/S501 FOR COMPACTED STRUCTURAL FILL REQUIREMENTS BELOW FOOTINGS.

11. AT ALL MASONRY BEARING WALLS, PROVIDE ADDITIONAL DUCTILITY REINFORCING PER A4/S602, TYP.

12. SEE B1/S502 FOR CONTROL JOINTS IN 8" MASONRY WALLS.

13. SEE B2/S502 FOR TYPICAL RECESS IN 8" MASONRY WALLS.

DFCM APPROVAL STAMP

FOOTING & FOUNDATION PLAN LEGEND

- FOOTING STEP
- FOOTING - CONTINUOUS
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- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- STEEL BRACED FRAME - ABOVE
- 0" CHANGE IN ELEVATION
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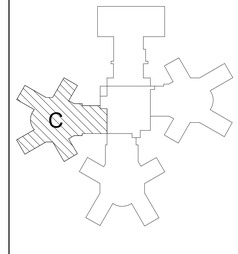

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AREA C FOOTING & FOUNDATION PLAN

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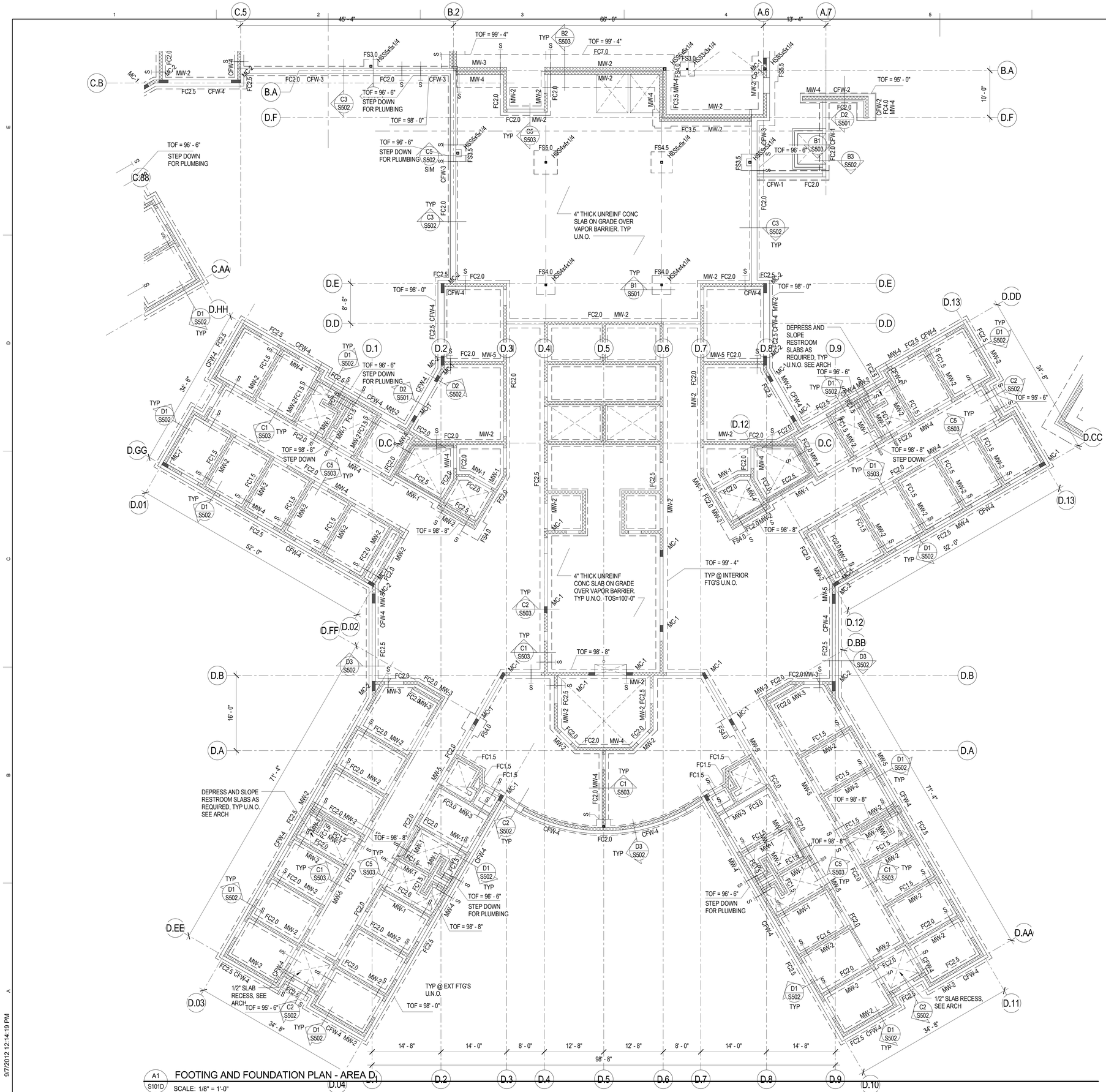

A1 S101D FOOTING AND FOUNDATION PLAN - AREA D

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

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.

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8. SEE A2/S501 FOR TYPICAL DETAIL AT DEPRESSED CONCRETE SLABS ON GRADE.

9. SEE A2/S501 FOR REINFORCEMENT AT DISCONTINUOUS CONSTRUCTION / CONTROL JOINTS IN CONCRETE SLAB ON GRADE.

10. REFER TO GENERAL STRUCTURAL NOTES AND SEE A5/S501 FOR COMPACTED STRUCTURAL FILL REQUIREMENTS BELOW FOOTINGS.

11. AT ALL MASONRY BEARING WALLS, PROVIDE ADDITIONAL DUCTILITY REINFORCING PER A4/S602, TYP.

12. SEE B1/S502 FOR CONTROL JOINTS IN 8" MASONRY WALLS.

13. SEE B2/S502 FOR TYPICAL RECESS IN 8" MASONRY WALLS.

DFCM APPROVAL STAMP

FOOTING & FOUNDATION PLAN LEGEND

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- MASONRY WALL - RECESSED
- MASONRY COLUMN IN MASONRY WALL
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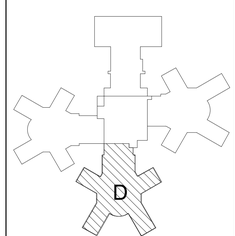
KEY PLAN



AREA D
FOOTING & FOUNDATION PLAN

S101D

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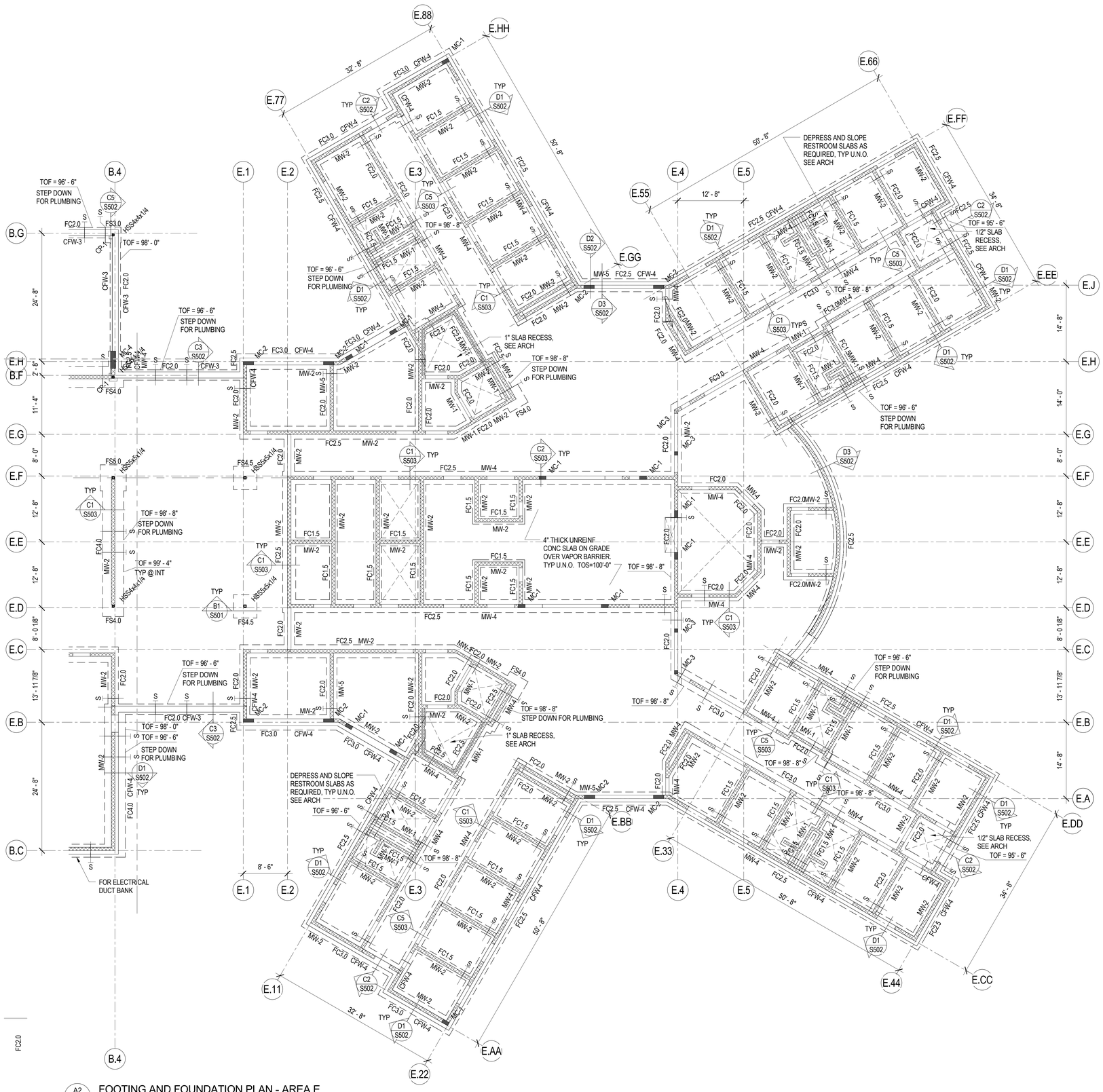

A2 / S101E FOOTING AND FOUNDATION PLAN - AREA E

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

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.

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9. SEE A2/S501 FOR REINFORCEMENT AT DISCONTINUOUS CONSTRUCTION / CONTROL JOINTS IN CONCRETE SLAB ON GRADE.

10. REFER TO GENERAL STRUCTURAL NOTES AND SEE A5/S501 FOR COMPACTED STRUCTURAL FILL REQUIREMENTS BELOW FOOTINGS.

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Utah 84104

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FOOTING & FOUNDATION PLAN LEGEND

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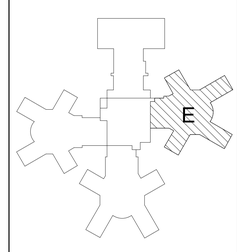

DATE	STATUS

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FILE 11111 USH Pediatric.rvt

AREA E
FOOTING &
FDTN PLAN

S101E

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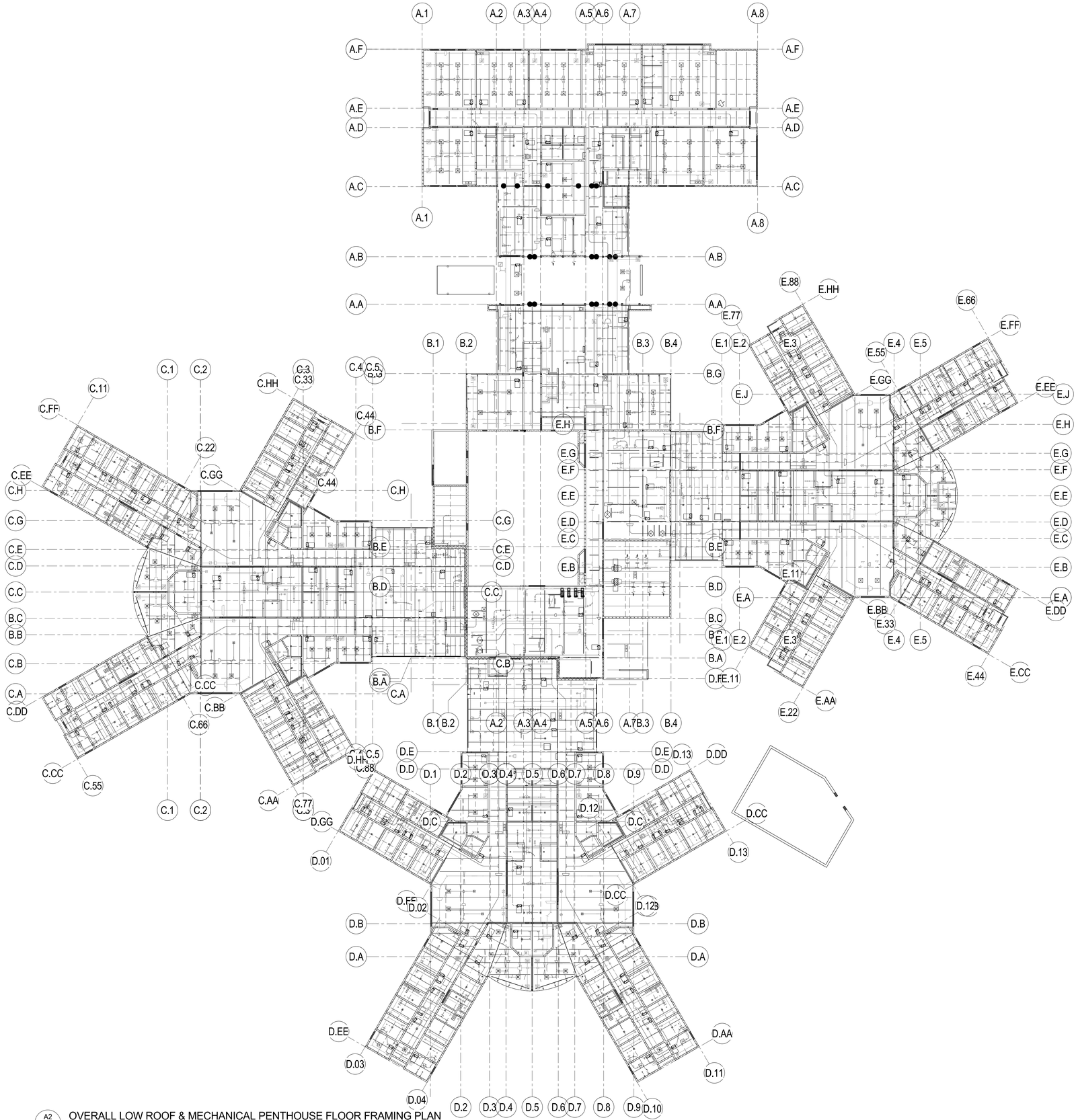

A2 / S102 OVERALL LOW ROOF & MECHANICAL PENTHOUSE FLOOR FRAMING PLAN

SCALE: 1" = 20'-0"

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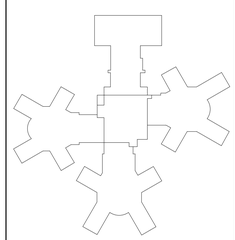

DATE	STATUS

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PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

OVERALL LOW ROOF & MEZZ FLOOR FRAMING PLAN

S102

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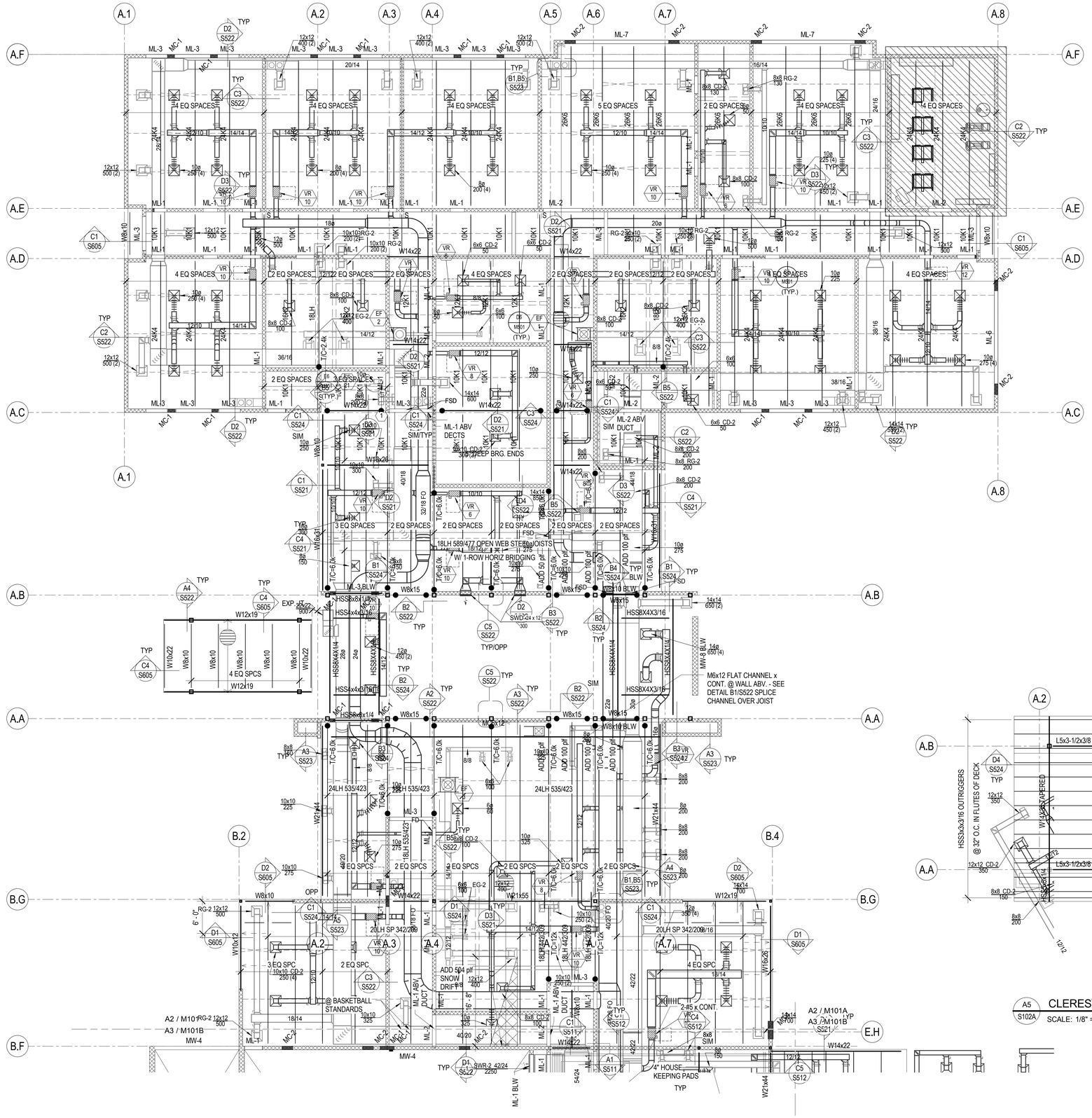
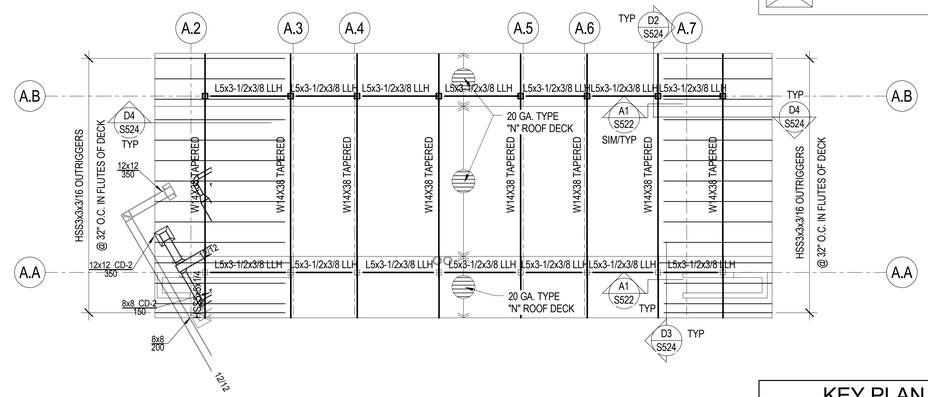


A2 / S102A Low Roof Area A

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



A5 / S102A CLERESTORY ROOF FRAMING PLAN

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

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 B4/S523 COORDINATE OPENINGS WITH MECHANICAL AND ELECTRICAL AND GENERAL CONTRACTORS.

2. ALL ROOF OPENINGS SHALL BE FRAMED AS INDICATED IN DETAIL B3/S523. FOR ROUND OPENINGS WHICH ARE LESS THAN 12" DIA. SEE DETAIL B2/S523.

3. SEE ARCHITECTURAL FOR ROOF SLOPES AND DRAINS. SEE B1/S523 FOR ROOF DRAIN OPENING FRAME.

4. OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE MECHANICAL AND LATERAL LOADS SHOWN ON THE ROOF FRAMING PLANS IN ADDITION TO THE UNIFORM AND POINT LOADS SHOWN.

5. s#:#K ADD - INDICATES ADDITIONAL UPLIFT / DOWNWARD FORCE ON STEEL JOIST IN ADDITION TO REGULAR LOADS.

6. T/C=###K - INDICATES ADDITIONAL TOP CHORD AXIAL FORCE ON STEEL JOIST OR GIRDER IN ADDITION TO REGULAR LOADS. THIS FORCE IS A SEISMIC LRFD LOAD THAT SHALL BE CONSIDERED IN BOTH TENSION AND COMPRESSION; INCLUDES APPLICABLE OVERSTRENGTH FACTORS FROM IBC SECTION 1613 AND ASCE 7 SECTION 12.10. STEEL JOISTS AND GIRDERS WITH T/C FORCE SHALL BE DESIGNED AS COLLECTOR ELEMENTS PER IBC SECTION 1613 AND ASCE 7 SECTION 12.10 WITH STRENGTH TO RESIST APPLICABLE LOAD COMBINATIONS OF IBC SECTION 1605.4 AND ASCE 7 SECTION 12.4.

7. ALL LOADS SUPPORTED BY OPEN WEB STEEL JOISTS AND GIRDERS SHALL BE LOCATED WITHIN 6" OF JOIST OR GIRDER PANEL POINT OR THE JOIST OR GIRDER SHALL BE REINFORCED PER DETAIL B3/S521.

8. SEE DETAIL A2/S523 FOR SUPPORT OF HANGING MECHANICAL UNITS.

9. HORIZONTAL AND CROSS BRIDGING SHALL BE SIZED AND SUPPLIED BY THE JOIST MANUFACTURER. CONNECT TO WALLS AS INDICATED IN DETAILS.

10. WHERE SKYLIGHTS OR MECHANICAL UNITS INTERRUPT HORIZONTAL BRIDGING PROVIDE CROSS BRIDGING AT JOIST SPACES ON EACH SIDE. TYPICAL.

11. ALL JOISTS TO BE DESIGNED FOR:
   A. 2.5k TOP CHORD AXIAL FORCE, CONSIDERED AS EARTHQUAKE OR WIND PER NOTE 6. U.N.O. ON PLAN.
   B. 20psf NET WIND UPLIFT (ASD)

12. AT ALL MASONRY BEARING WALLS, PROVIDE ADDITIONAL DUCTILITY REINFORCING PER A4/S602 TYPICAL.

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Utah 84104

801-521-6186
801-539-1916
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ROOF FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- CONCRETE COLUMN IN CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- MOMENT CONNECTION
- COLLECTOR CONNECTION SEE B2/S603 AND DETAILS
- COLLECTOR/CHORD CONNECTION AT BEAMS PARALLEL TO MARK.
- SLIP CONNECTION SEE C5/SF521
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- CROSS BRIDGING
- HORIZONTAL BRIDGING
- STEEL STUD WALL - STRUCTURAL
- STEEL HEADER IN STEEL STUD WALL
- 0" CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- SPECIAL DECK AREA
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING

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DATE	STATUS

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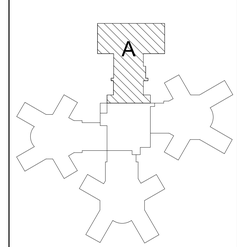
PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

KEY PLAN



AREA - A
LOW ROOF
FRAMING
PLAN

S102A

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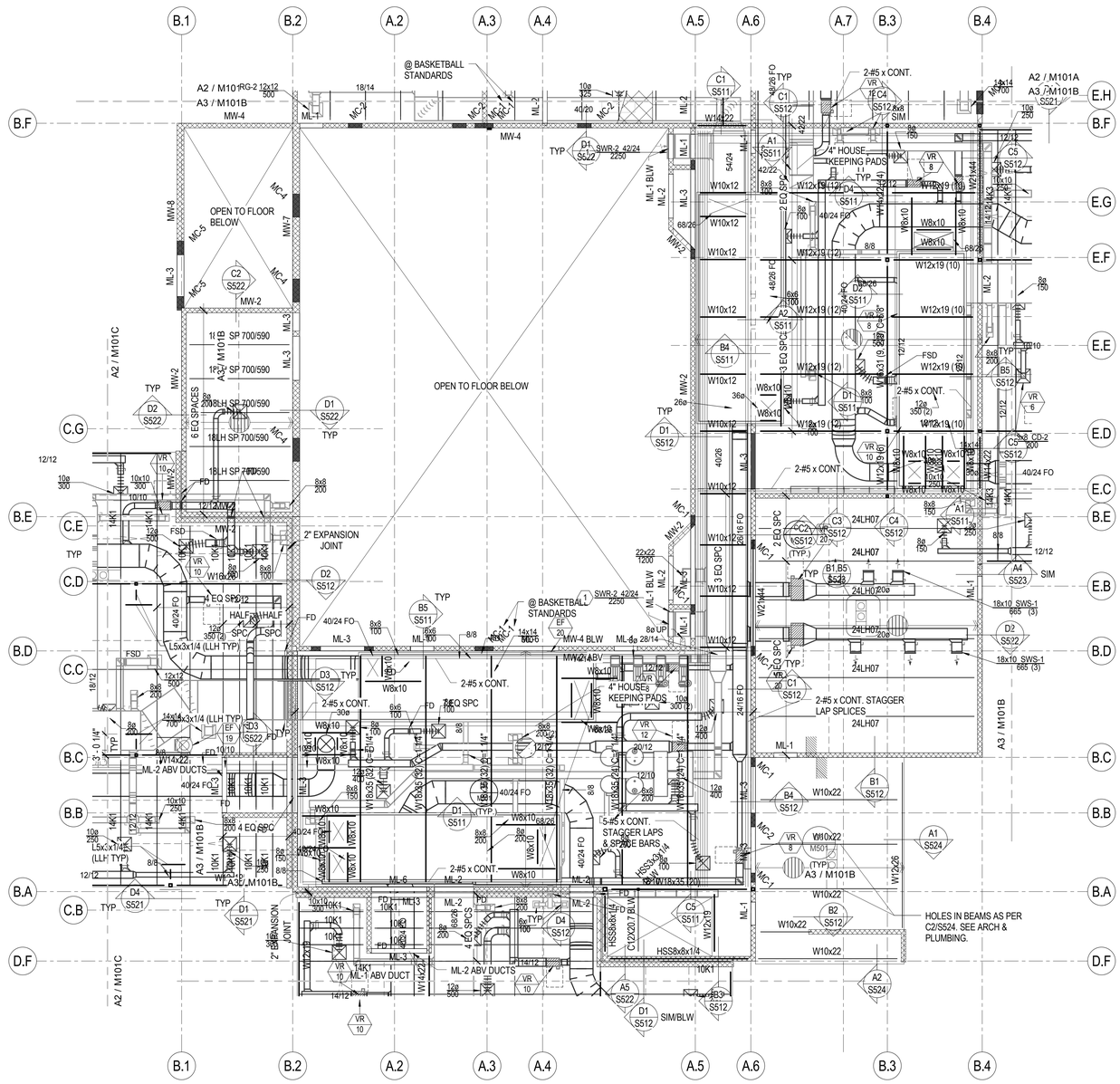

A3 / S102B Low Roof Area B

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

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 B4/S523 COORDINATE OPENINGS WITH MECHANICAL AND ELECTRICAL AND GENERAL CONTRACTORS.

2. ALL ROOF OPENINGS SHALL BE FRAMED AS INDICATED IN DETAIL B3/S523. FOR ROUND OPENINGS WHICH ARE LESS THAN 12" DIA. SEE DETAIL B2/S523.

3. SEE ARCHITECTURAL FOR ROOF SLOPES AND DRAINS. SEE B1/S523 FOR ROOF DRAIN OPENING FRAME.

4. OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE MECHANICAL AND LATERAL LOADS SHOWN ON THE ROOF FRAMING PLANS IN ADDITION TO THE UNIFORM AND POINT LOADS SHOWN.

5. s#.#K ADD - INDICATES ADDITIONAL UPLIFT / DOWNWARD FORCE ON STEEL JOIST IN ADDITION TO REGULAR LOADS.

6. T/C=##K - INDICATES ADDITIONAL TOP CHORD AXIAL FORCE ON STEEL JOIST OR GIRDER IN ADDITION TO REGULAR LOADS. THIS FORCE IS A SEISMIC LRFD LOAD THAT SHALL BE CONSIDERED IN BOTH TENSION AND COMPRESSION; INCLUDES APPLICABLE OVERSTRENGTH FACTORS FROM IBC SECTION 1613 AND ASCE 7 SECTION 12.10. STEEL JOISTS AND GIRDERS WITH T/C FORCE SHALL BE DESIGNED AS COLLECTOR ELEMENTS PER IBC SECTION 1613 AND ASCE 7 SECTION 12.10 WITH STRENGTH TO RESIST APPLICABLE LOAD COMBINATIONS OF IBC SECTION 1605.4 AND ASCE 7 SECTION 12.4.

7. ALL LOADS SUPPORTED BY OPEN WEB STEEL JOISTS AND GIRDERS SHALL BE LOCATED WITHIN 6" OF JOIST OR GIRDER PANEL POINT OR THE JOIST OR GIRDER SHALL BE REINFORCED PER DETAIL B3/S521.

8. SEE DETAIL A2/S523 FOR SUPPORT OF HANGING MECHANICAL UNITS.

9. HORIZONTAL AND CROSS BRIDGING SHALL BE SIZED AND SUPPLIED BY THE JOIST MANUFACTURER. CONNECT TO WALLS AS INDICATED IN DETAILS.

10. WHERE SKYLIGHTS OR MECHANICAL UNITS INTERRUPT HORIZONTAL BRIDGING PROVIDE CROSS BRIDGING AT JOIST SPACES ON EACH SIDE. TYPICAL.

11. ALL JOISTS TO BE DESIGNED FOR:
A. 2.5k TOP CHORD AXIAL FORCE, CONSIDERED AS EARTHQUAKE OR WIND PER NOTE 6. U.N.O. ON PLAN.
B. 20psf NET WIND UPLIFT (ASD)

12. AT ALL MASONRY BEARING WALLS, PROVIDE ADDITIONAL DUCTILITY REINFORCING PER A4/S602 TYPICAL.

FLOOR FRAMING PLAN LEGEND

- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- STEEL BEAM OR GIRDER
- 0" CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- OPENING

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ROOF FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- CONCRETE COLUMN IN CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- MOMENT CONNECTION
- COLLECTOR CONNECTION SEE B2/S603 AND DETAILS
- COLLECTOR/CHORD CONNECTION AT BEAMS PARALLEL TO MARK.
- SLIP CONNECTION SEE C5/SF521
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- CROSS BRIDGING
- HORIZONTAL BRIDGING
- STEEL STUD WALL - STRUCTURAL
- STEEL HEADER IN STEEL STUD WALL
- 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 GENERAL STRUCTURAL NOTE (III.D.8) AND DETAILS A3 & A4/S511 FOR CONTROL JOINTS IN SUSPENDED SLABS OVER STEEL DECK.

2. SEE DETAILS C2 & C3/S511 FOR MISCELLANEOUSFLOOR OPENINGS.

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

4. SEE A5/S511 FOR CONDUITS IN SLAB OVER STEEL DECK.

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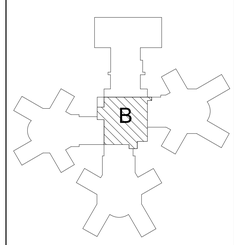
FILE 11111 USH Pediatric.rvt

KEY PLAN



AREA - B
MEZZ FLOOR & ROOF FRAMING PLAN

S102B

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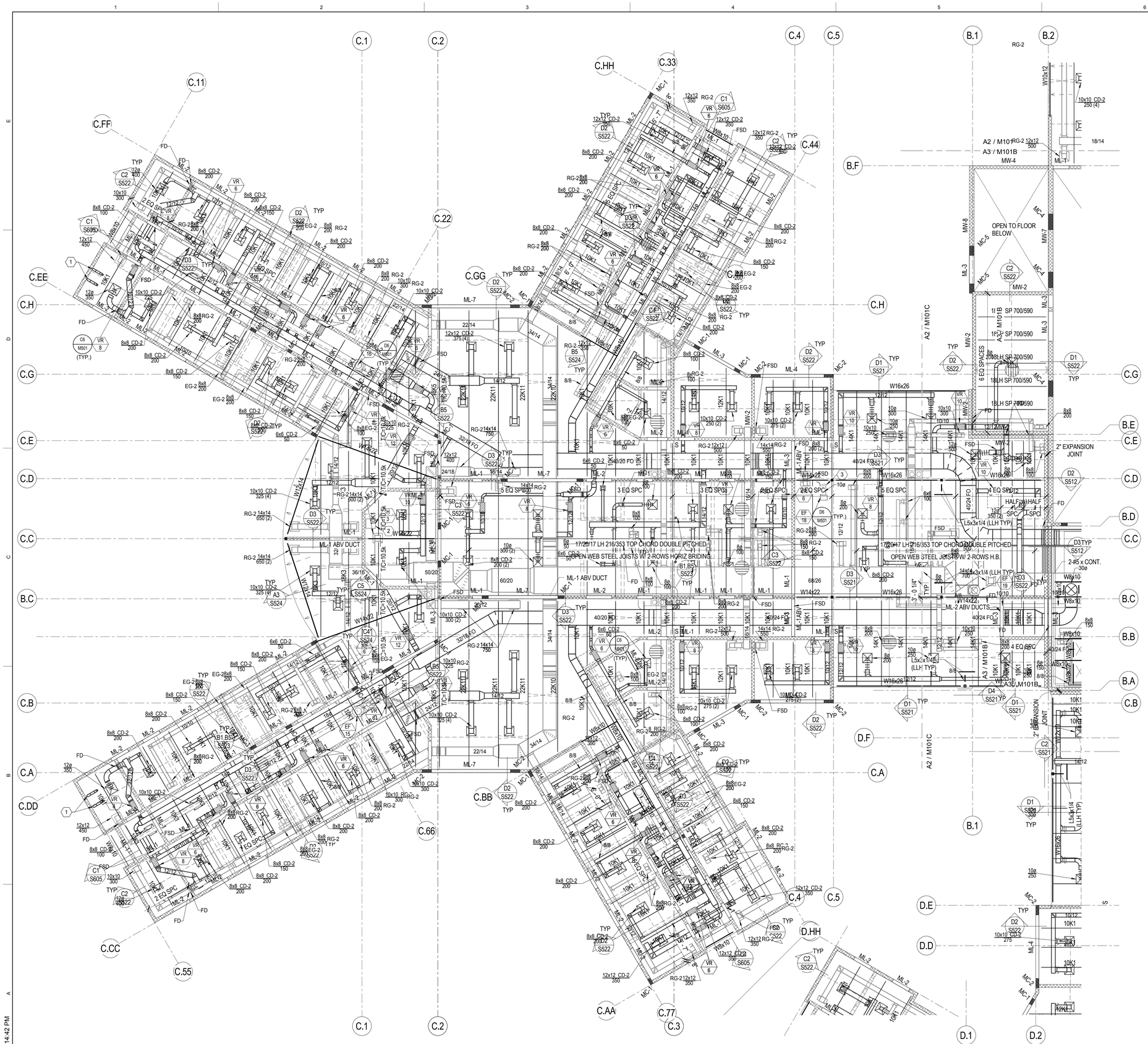

A2 / S102C Low Roof Area C

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

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 B4/S523 COORDINATE OPENINGS WITH MECHANICAL AND ELECTRICAL AND GENERAL CONTRACTORS.

2. ALL ROOF OPENINGS SHALL BE FRAMED AS INDICATED IN DETAIL B3/S523. FOR ROUND OPENINGS WHICH ARE LESS THAN 12" DIA. SEE DETAIL B2/S523.

3. SEE ARCHITECTURAL FOR ROOF SLOPES AND DRAINS. SEE B1/S523 FOR ROOF DRAIN OPENING FRAME.

4. OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE MECHANICAL AND LATERAL LOADS SHOWN ON THE ROOF FRAMING PLANS IN ADDITION TO THE UNIFORM AND POINT LOADS SHOWN.

5. ±#.#K ADD - INDICATES ADDITIONAL UPLIFT / DOWNWARD FORCE ON STEEL JOIST IN ADDITION TO REGULAR LOADS.

6. T/C=###K - INDICATES ADDITIONAL TOP CHORD AXIAL FORCE ON STEEL JOIST OR GIRDER IN ADDITION TO REGULAR LOADS. THIS FORCE IS A SEISMIC LRFD LOAD THAT SHALL BE CONSIDERED IN BOTH TENSION AND COMPRESSION; INCLUDES APPLICABLE OVERSTRENGTH FACTORS FROM IBC SECTION 1613 AND ASCE 7 SECTION 12.10. STEEL JOISTS AND GIRDERS WITH T/C FORCE SHALL BE DESIGNED AS COLLECTOR ELEMENTS PER IBC SECTION 1613 AND ASCE 7 SECTION 12.10 WITH STRENGTH TO RESIST APPLICABLE LOAD COMBINATIONS OF IBC SECTION 1605.4 AND ASCE 7 SECTION 12.4.

7. ALL LOADS SUPPORTED BY OPEN WEB STEEL JOISTS AND GIRDERS SHALL BE LOCATED WITHIN 6" OF JOIST OR GIRDER PANEL POINT OR THE JOIST OR GIRDER SHALL BE REINFORCED PER DETAIL B3/S521.

8. SEE DETAIL A2/S523 FOR SUPPORT OF HANGING MECHANICAL UNITS.

9. HORIZONTAL AND CROSS BRIDGING SHALL BE SIZED AND SUPPLIED BY THE JOIST MANUFACTURER. CONNECT TO WALLS AS INDICATED IN DETAILS.

10. WHERE SKYLIGHTS OR MECHANICAL UNITS INTERRUPT HORIZONTAL BRIDGING PROVIDE CROSS BRIDGING AT JOIST SPACES ON EACH SIDE. TYPICAL.

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B. 20psf NET WIND UPLIFT (ASD)

12. AT ALL MASONRY BEARING WALLS, PROVIDE ADDITIONAL DUCTILITY REINFORCING PER A4/S602 TYPICAL.

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ROOF FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- CONCRETE COLUMN IN CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- MOMENT CONNECTION
- COLLECTOR CONNECTION SEE B2/S603 AND DETAILS
- COLLECTOR/CHORD CONNECTION AT BEAMS PARALLEL TO MARK.
- SLIP CONNECTION SEE C5/SF521
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- CROSS BRIDGING
- HORIZONTAL BRIDGING
- STEEL STUD WALL - STRUCTURAL
- STEEL HEADER IN STEEL STUD WALL
- 0" CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- SPECIAL DECK AREA
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING

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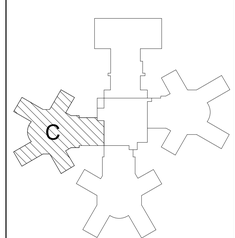
KEY PLAN



AREA - C
LOW ROOF FRAMING PLAN

S102C

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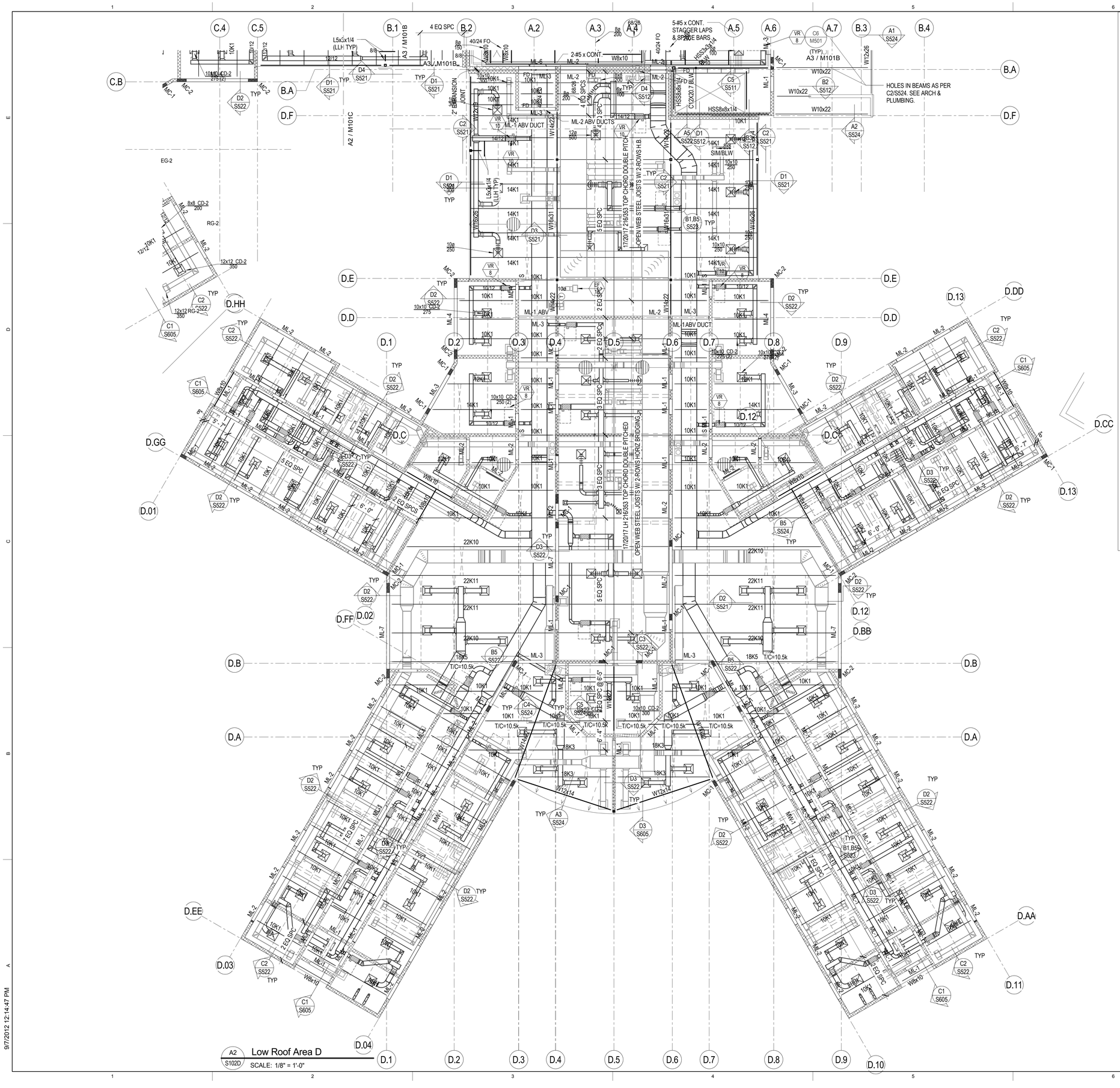

A2 Low Roof Area D
S102D SCALE: 1/8" = 1'-0"

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 B4/S523 COORDINATE OPENINGS WITH MECHANICAL AND ELECTRICAL AND GENERAL CONTRACTORS.

2. ALL ROOF OPENINGS SHALL BE FRAMED AS INDICATED IN DETAIL B3/S523. FOR ROUND OPENINGS WHICH ARE LESS THAN 12" DIA. SEE DETAIL B2/S523.

3. SEE ARCHITECTURAL FOR ROOF SLOPES AND DRAINS. SEE B1/S523 FOR ROOF DRAIN OPENING FRAME.

4. OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE MECHANICAL AND LATERAL LOADS SHOWN ON THE ROOF FRAMING PLANS IN ADDITION TO THE UNIFORM AND POINT LOADS SHOWN.

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7. ALL LOADS SUPPORTED BY OPEN WEB STEEL JOISTS AND GIRDERS SHALL BE LOCATED WITHIN 6" OF JOIST OR GIRDER PANEL POINT OR THE JOIST OR GIRDER SHALL BE REINFORCED PER DETAIL B3/S521.

8. SEE DETAIL A2/S523 FOR SUPPORT OF HANGING MECHANICAL UNITS.

9. HORIZONTAL AND CROSS BRIDGING SHALL BE SIZED AND SUPPLIED BY THE JOIST MANUFACTURER. CONNECT TO WALLS AS INDICATED IN DETAILS.

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ROOF FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- CONCRETE COLUMN IN CONCRETE WALL
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- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
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- MOMENT CONNECTION
- COLLECTOR CONNECTION SEE B2/S603 AND DETAILS
- COLLECTOR/CHORD CONNECTION AT BEAMS PARALLEL TO MARK.
- SLIP CONNECTION SEE C5/SF521
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- CROSS BRIDGING
- HORIZONTAL BRIDGING
- STEEL STUD WALL - STRUCTURAL
- STEEL HEADER IN STEEL STUD WALL
- 9" CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- SPECIAL DECK AREA
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING

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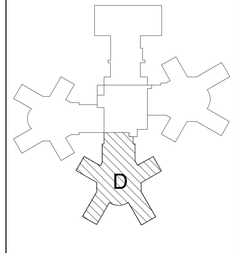
KEY PLAN



AREA - D
LOW ROOF FRAMING PLAN

S102D

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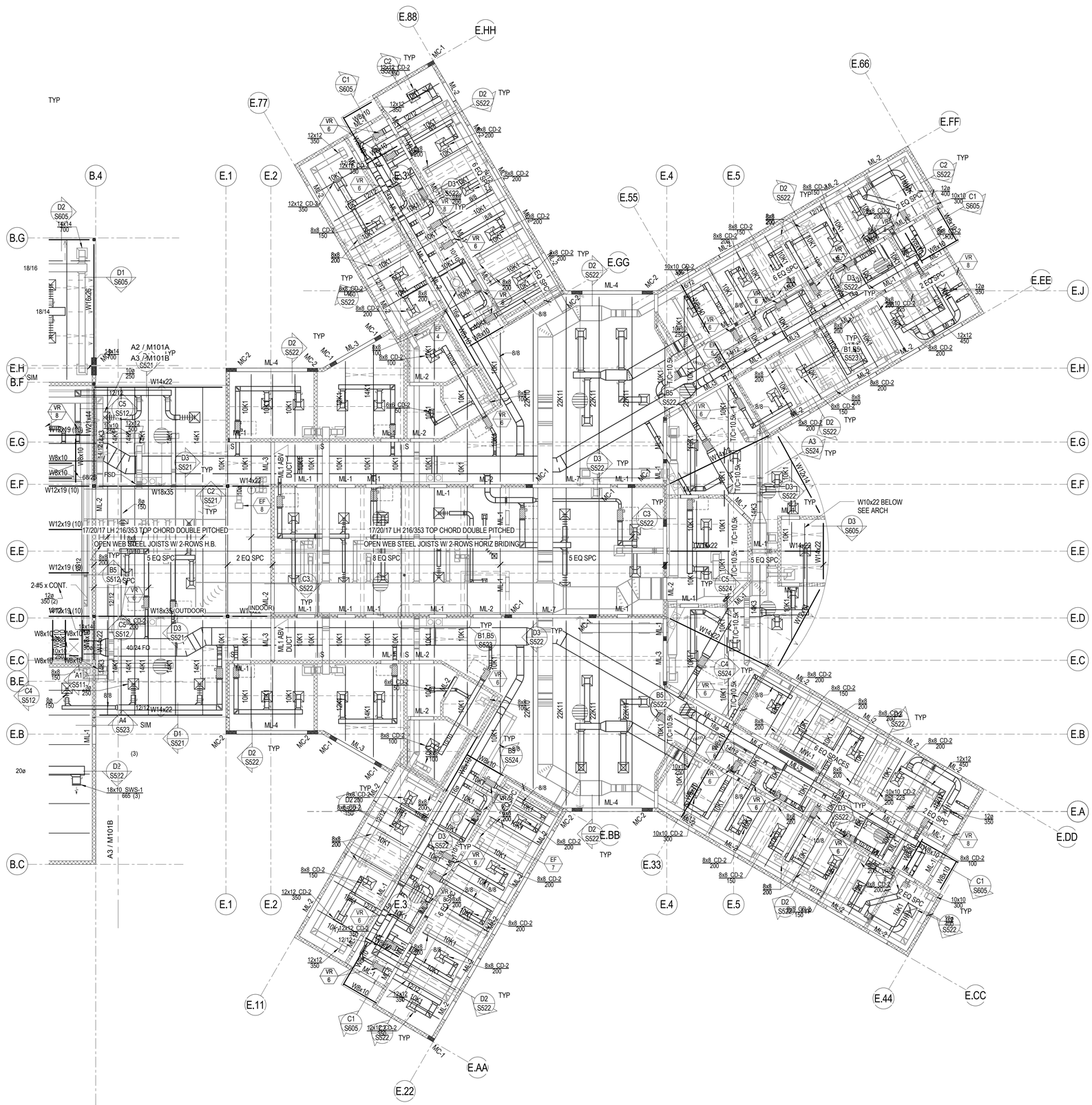

A2 S102E Low Roof Area E

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

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 B4/S523 COORDINATE OPENINGS WITH MECHANICAL AND ELECTRICAL AND GENERAL CONTRACTORS.

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ROOF FRAMING PLAN LEGEND

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- CONCRETE COLUMN
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- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- MOMENT CONNECTION
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- CROSS BRIDGING
- HORIZONTAL BRIDGING
- STEEL STUD WALL - STRUCTURAL
- STEEL HEADER IN STEEL STUD WALL
- CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
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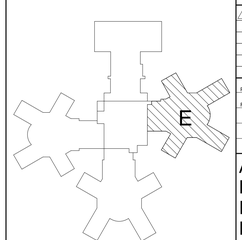
SEAL

KEY PLAN



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	DATE	REVISION

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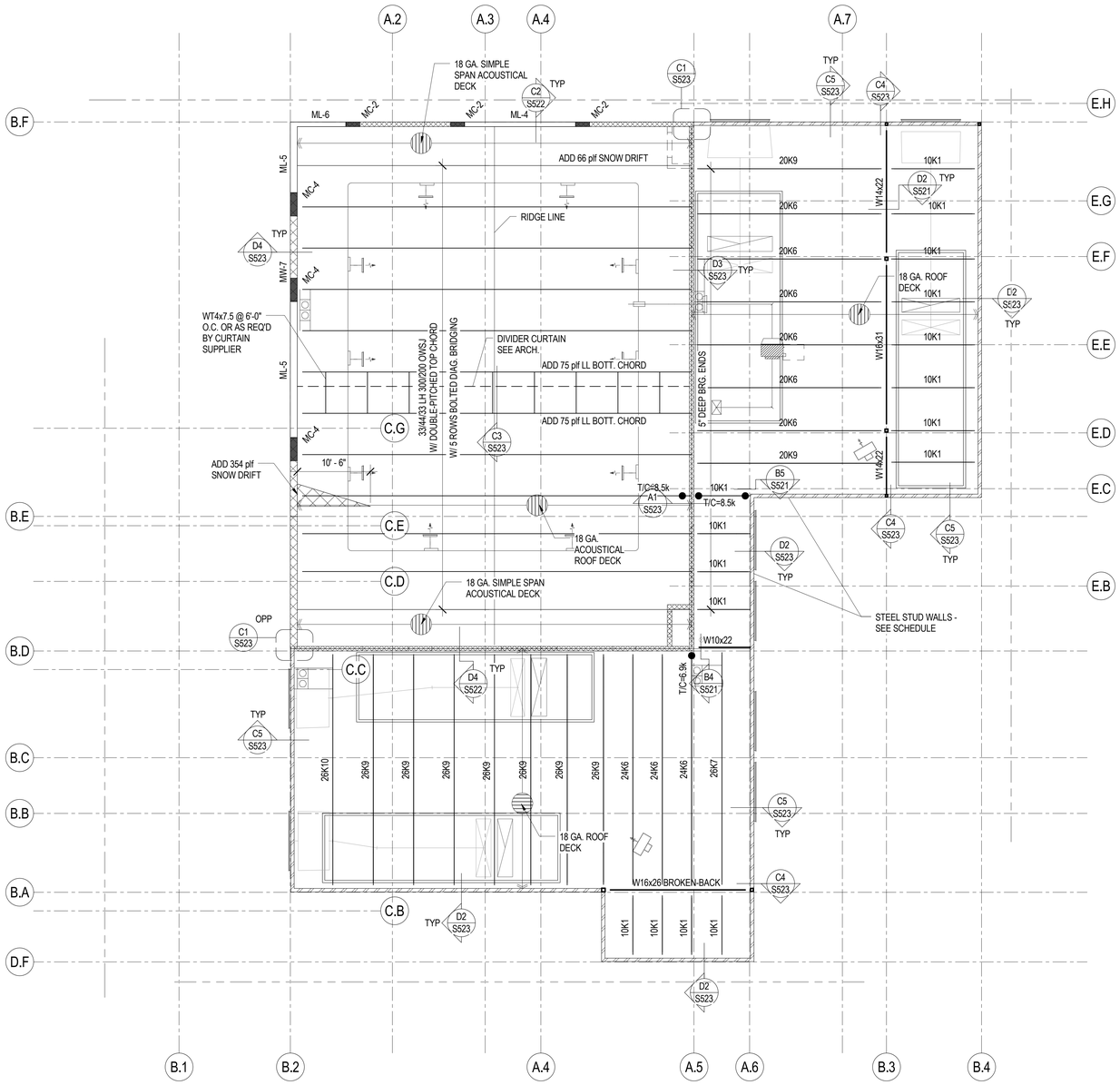
AREA - E
LOW ROOF FRAMING PLAN

S102E

9/7/2012 12:14:53 PM



A3 / S103 HIGH ROOF FRAMING

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

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 B4/S523 COORDINATE OPENINGS WITH MECHANICAL AND ELECTRICAL AND GENERAL CONTRACTORS.

2. ALL ROOF OPENINGS SHALL BE FRAMED AS INDICATED IN DETAIL B3/S523. FOR ROUND OPENINGS WHICH ARE LESS THAN 12" DIA. SEE DETAIL B2/S523.

3. SEE ARCHITECTURAL FOR ROOF SLOPES AND DRAINS. SEE B1/S523 FOR ROOF DRAIN OPENING FRAME.

4. OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE MECHANICAL AND LATERAL LOADS SHOWN ON THE ROOF FRAMING PLANS IN ADDITION TO THE UNIFORM AND POINT LOADS SHOWN.

5. s#.#K ADD - INDICATES ADDITIONAL UPLIFT / DOWNWARD FORCE ON STEEL JOIST IN ADDITION TO REGULAR LOADS.

6. T/C=##K - INDICATES ADDITIONAL TOP CHORD AXIAL FORCE ON STEEL JOIST OR GIRDER IN ADDITION TO REGULAR LOADS. THIS FORCE IS A SEISMIC LRFD LOAD THAT SHALL BE CONSIDERED IN BOTH TENSION AND COMPRESSION; INCLUDES APPLICABLE OVERSTRENGTH FACTORS FROM IBC SECTION 1613 AND ASCE 7 SECTION 12.10. STEEL JOISTS AND GIRDERS WITH T/C FORCE SHALL BE DESIGNED AS COLLECTOR ELEMENTS PER IBC SECTION 1613 AND ASCE 7 SECTION 12.10 WITH STRENGTH TO RESIST APPLICABLE LOAD COMBINATIONS OF IBC SECTION 1605.4 AND ASCE 7 SECTION 12.4.

7. ALL LOADS SUPPORTED BY OPEN WEB STEEL JOISTS AND GIRDERS SHALL BE LOCATED WITHIN 6" OF JOIST OR GIRDER PANEL POINT OR THE JOIST OR GIRDER SHALL BE REINFORCED PER DETAIL B3/S521.

8. SEE DETAIL A2/S523 FOR SUPPORT OF HANGING MECHANICAL UNITS.

9. HORIZONTAL AND CROSS BRIDGING SHALL BE SIZED AND SUPPLIED BY THE JOIST MANUFACTURER. CONNECT TO WALLS AS INDICATED IN DETAILS.

10. WHERE SKYLIGHTS OR MECHANICAL UNITS INTERRUPT HORIZONTAL BRIDGING PROVIDE CROSS BRIDGING AT JOIST SPACES ON EACH SIDE. TYPICAL.

11. ALL JOISTS TO BE DESIGNED FOR:
    A. 2.5k TOP CHORD AXIAL FORCE, CONSIDERED AS EARTHQUAKE OR WIND PER NOTE 6. U.N.O. ON PLAN.
    B. 20psf NET WIND UPLIFT (ASD)

12. AT ALL MASONRY BEARING WALLS, PROVIDE ADDITIONAL DUCTILITY REINFORCING PER A4/S602 TYPICAL.

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ROOF FRAMING PLAN LEGEND

- CONCRETE WALL
- CONCRETE LINTEL IN CONCRETE WALL
- CONCRETE COLUMN IN CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE JAMB COLUMN POURED MONOLITHIC WITH CONCRETE WALL
- MASONRY WALL
- MASONRY LINTEL IN MASONRY WALL
- MASONRY COLUMN IN MASONRY WALL
- STEEL COLUMN - TUBE
- MOMENT CONNECTION
- COLLECTOR CONNECTION SEE B2/S603 AND DETAILS
- COLLECTOR/CHORD CONNECTION AT BEAMS PARALLEL TO MARK.
- SLIP CONNECTION SEE C5/SF521
- STEEL BEAM OR GIRDER
- STEEL JOIST OR PURLIN
- CROSS BRIDGING
- HORIZONTAL BRIDGING
- STEEL STUD WALL - STRUCTURAL
- STEEL HEADER IN STEEL STUD WALL
- CHANGE IN ELEVATION
- CONCRETE ON METAL DECK
- ROOF DECK
- SPECIAL DECK AREA
- RECESSED/DEPRESSED SLAB ON METAL DECK
- OPENING

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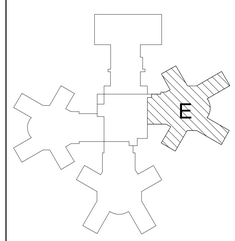

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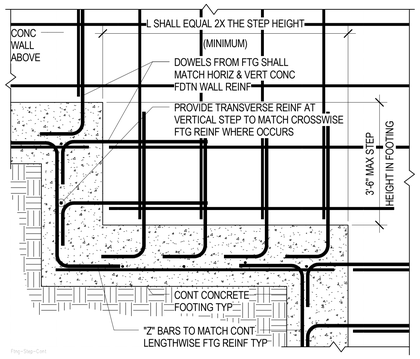
HIGH ROOF FRAMING PLAN

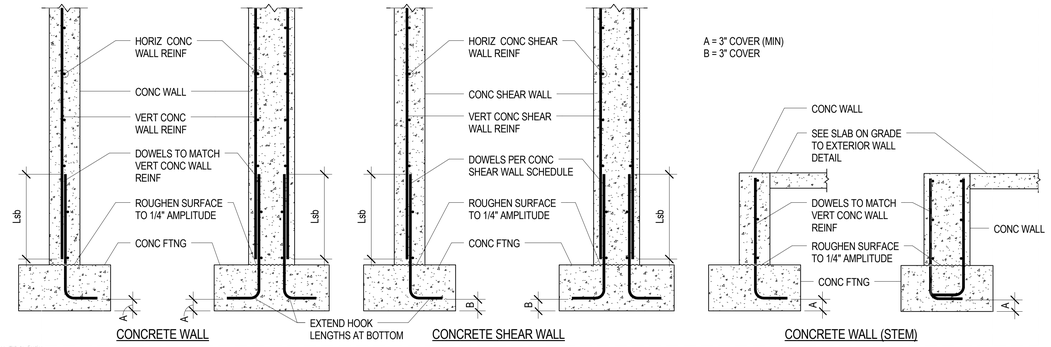
S103

9/7/2012 12:14:55 PM



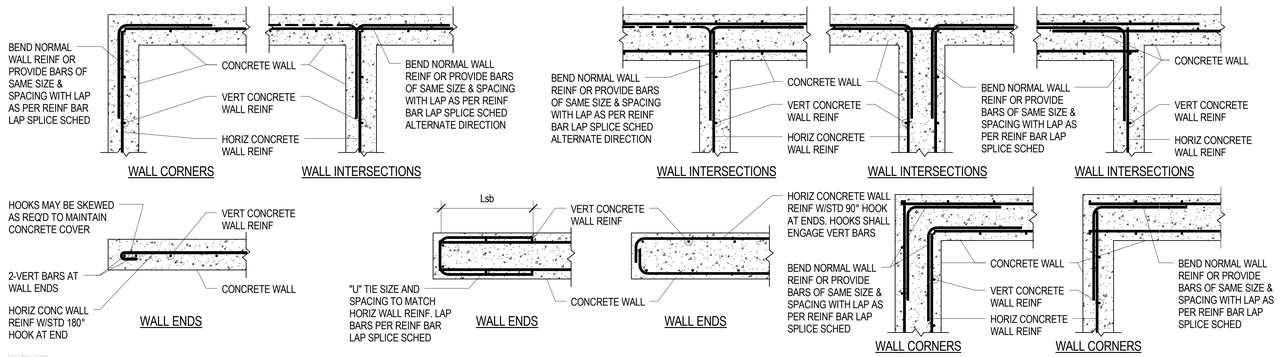
D1 / S501 TYPICAL STEP DETAIL AT CONTINUOUS FOOTING

NO SCALE



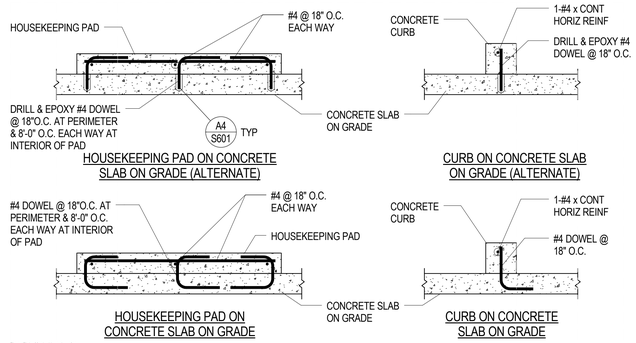
D2 / S501 TYPICAL CONCRETE WALL CONNECTION TO CONCRETE FOOTING

NO SCALE



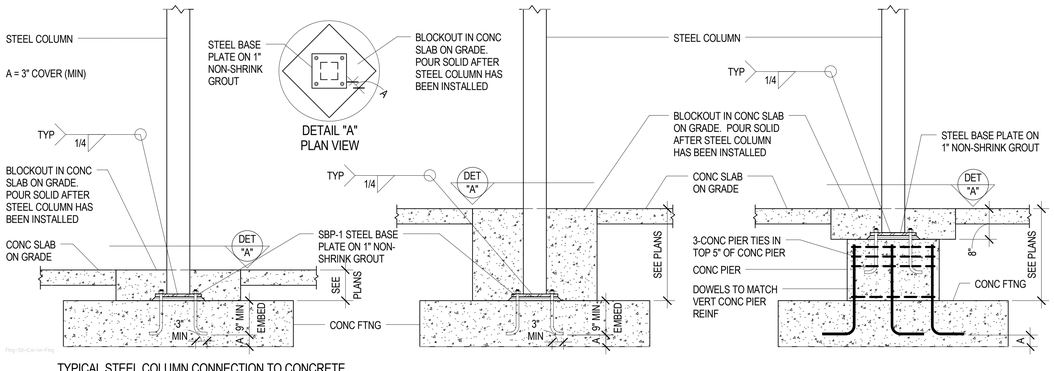
C1 / S501 TYPICAL CONCRETE WALL INTERSECTIONS AND ENDS (PLAN VIEWS)

NO SCALE



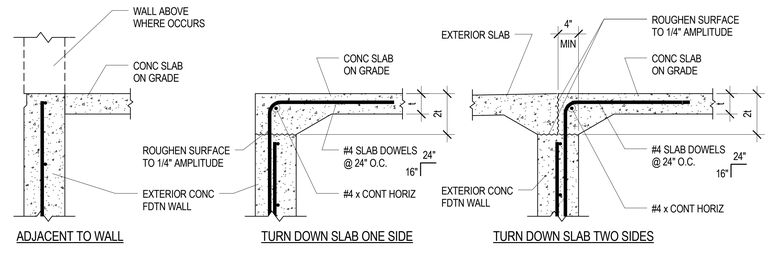
C4 / S501 TYPICAL HOUSEKEEPING PAD & CURB DETAILS

NO SCALE



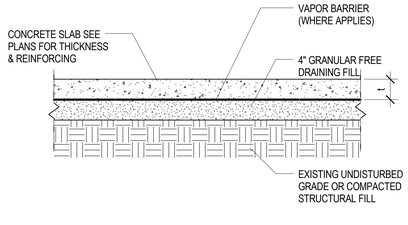
B1 / S501 TYPICAL STEEL COLUMN CONNECTION TO CONCRETE FOOTING/CONCRETE PIER

NO SCALE



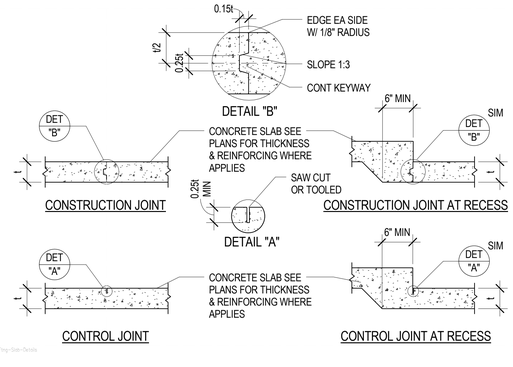
B4 / S501 TYPICAL CONCRETE SLAB ON GRADE TO EXTERIOR CONCRETE FOUNDATION WALL

NO SCALE



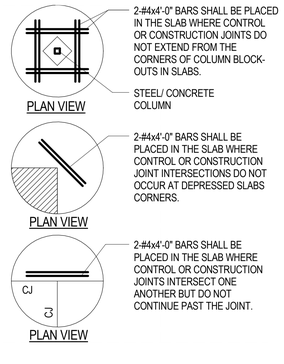
A1 / S501 TYPICAL CONCRETE SLAB ON GRADE PROFILE

NO SCALE



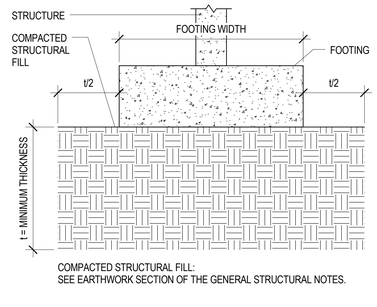
A2 / S501 TYPICAL CONCRETE SLAB ON GRADE DETAILS

NO SCALE



A2 / S501 TYPICAL CONCRETE SLAB ON GRADE DETAILS

NO SCALE



A5 / S501 TYPICAL COMPACTED STRUCTURAL FILL DETAIL

NO SCALE

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FOOTING & FOUNDATION DETAILS

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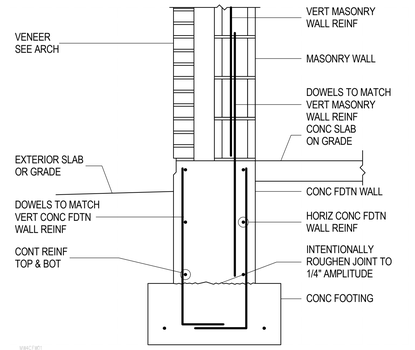
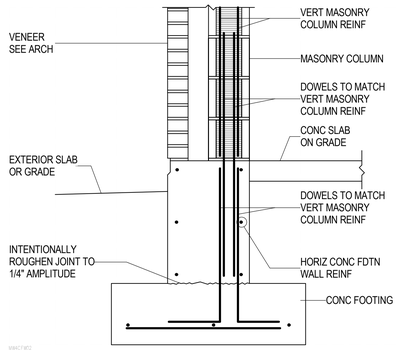
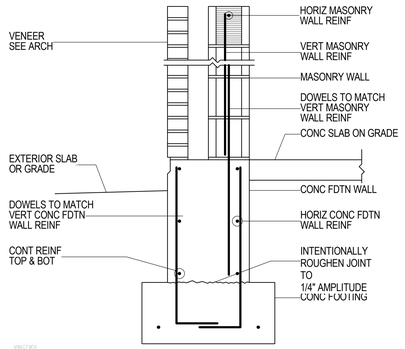


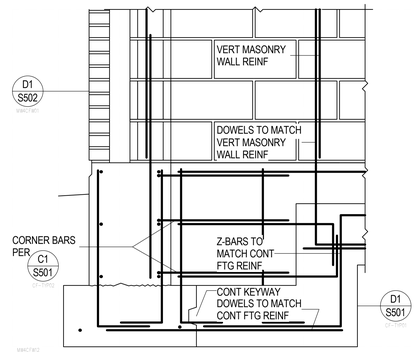
D1 / S502 TYP MASONRY WALL W/ VENEER ON CONCRETE FOUNDATION WALL
NO SCALE



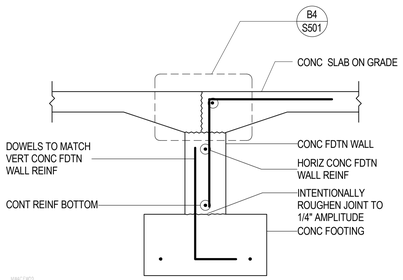
D2 / S502 TYP MASONRY COLUMN W/ VENEER ON CONCRETE FOUNDATION WALL
NO SCALE



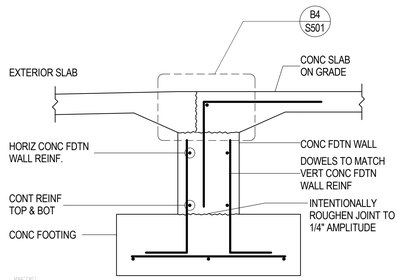
D3 / S502 TYP MASONRY WALL W/ VENEER ON CONCRETE FOUNDATION WALL
NO SCALE



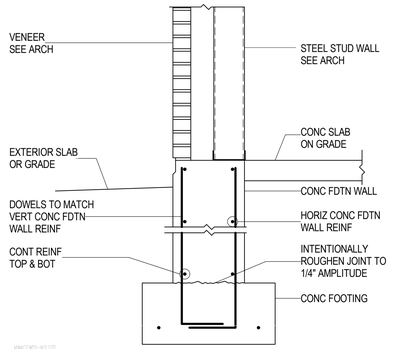
D4 / S502 TYP FOOTING STEP FROM EXTERIOR FDTN WALL TO INTERIOR WALL
NO SCALE



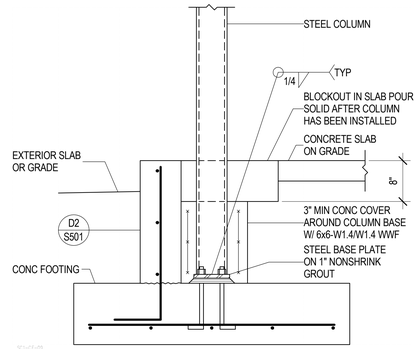
C1 / S502 TYPICAL SLAB AT DOOR OPENING
NO SCALE



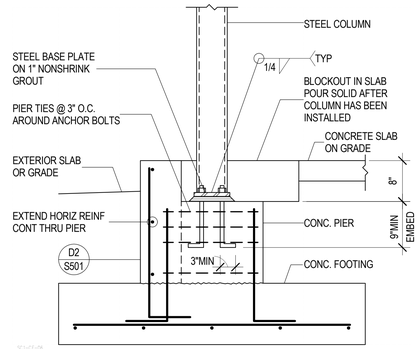
C2 / S502 TYP FLOOR SLAB CONNECTION TO FOUNDATION WALL AT DOORWAY
NO SCALE



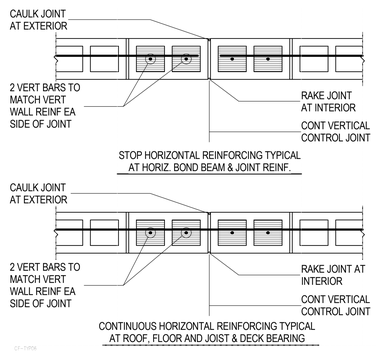
C3 / S502 TYP STEEL STUD WALL W/ VENEER ON CONCRETE FOUNDATION WALL
NO SCALE



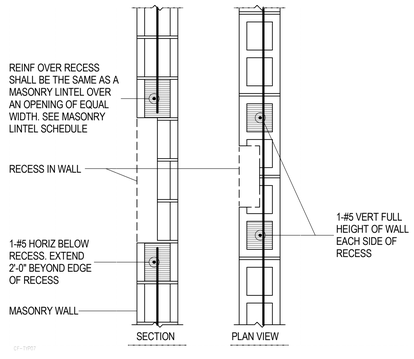
C4 / S502 TYP STEEL COLUMN ON CONC FTG AT CONC FOUNDATION WALL
NO SCALE



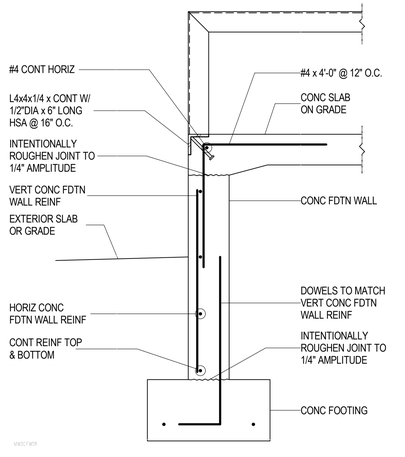
C5 / S502 TYP STEEL COLUMN BASE AT CONC PIER IN FOUNDATION WALL
NO SCALE



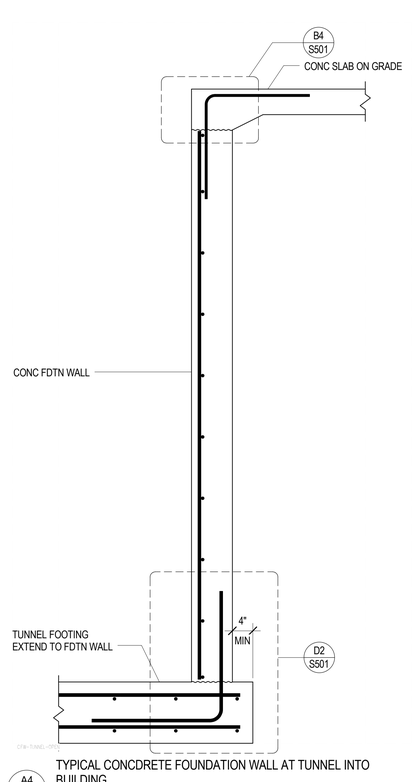
B1 / S502 TYPICAL CONTROL JOINTS IN 8" MASONRY WALLS
NO SCALE



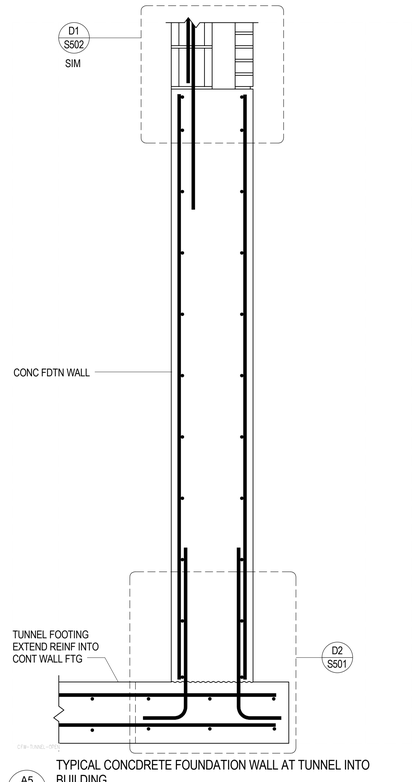
B2 / S502 TYPICAL RECESS IN 8" MASONRY WALL
NO SCALE



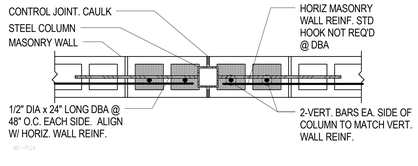
B3 / S502 TYP CONCRETE FOUNDATION WALL AT DOCK LEVELER
NO SCALE



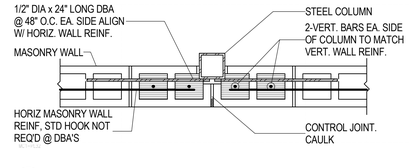
A4 / S502 TYPICAL CONCDRETE FOUNDATION WALL AT TUNNEL INTO BUILDING
NO SCALE



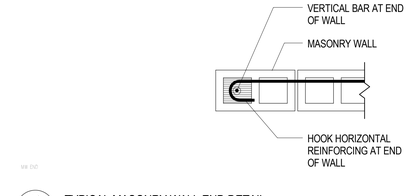
A5 / S502 TYPICAL CONCDRETE FOUNDATION WALL AT TUNNEL INTO BUILDING
NO SCALE



A1 / S502 TYPICAL STEEL COLUMN IN MASONRY WALL
NO SCALE



A2 / S502 TYPICAL STEEL COLUMN IN MASONRY WALL
NO SCALE



A3 / S502 TYPICAL MASONRY WALL END DETAIL
NO SCALE

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S502

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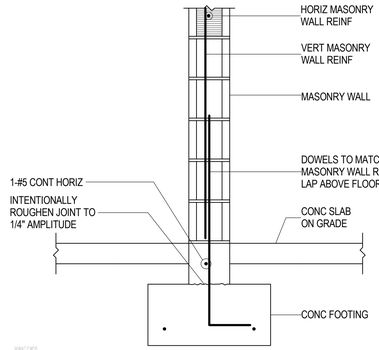
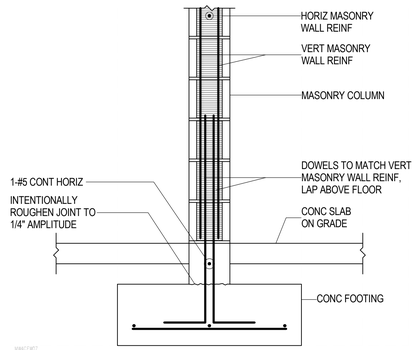
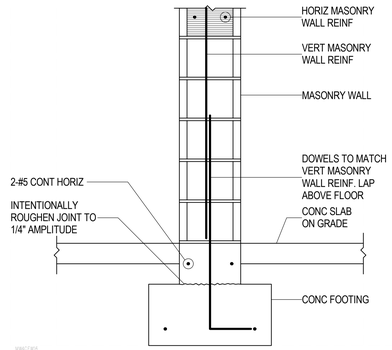


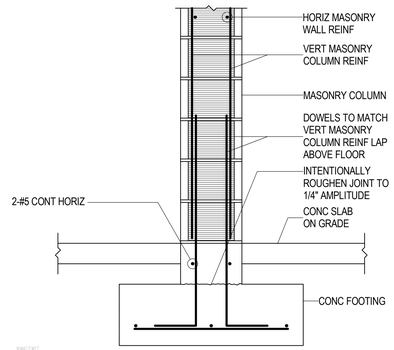
D1 / S503 TYP INTERIOR MASONRY WALL ON CONCRETE CURB WALL
NO SCALE



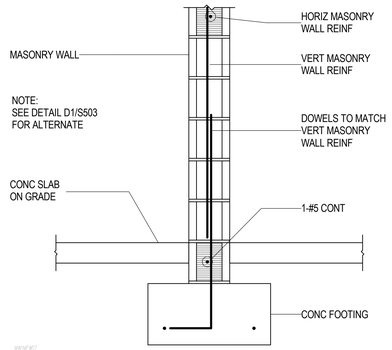
D2 / S503 TYP INTERIOR MASONRY COLUMN ON CONCRETE CURB
NO SCALE



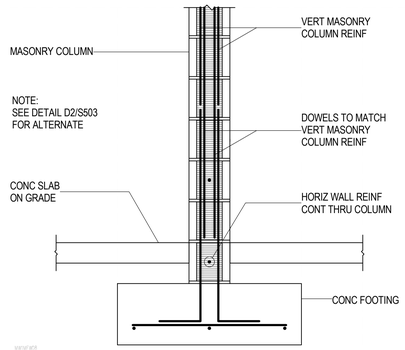
D3 / S503 TYP INTERIOR 12" MASONRY WALL ON CONCRETE CURB WALL
NO SCALE



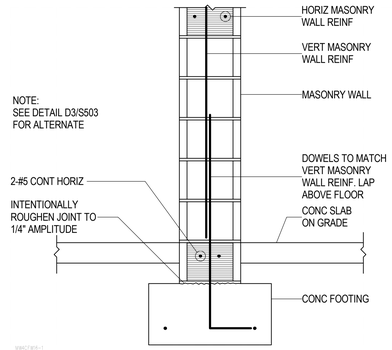
D4 / S503 TYP INTERIOR 12" MASONRY COLUMN ON CONCRETE CURB
NO SCALE



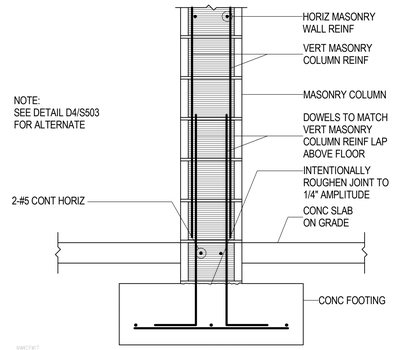
C1 / S503 TYP INTERIOR MASONRY WALL AT MASONRY FOUNDATION WALL
NO SCALE



C2 / S503 TYP INTERIOR MASONRY COLUMN AT MASONRY FOUNDATION WALL
NO SCALE



C3 / S503 TYP INTERIOR 12" MASONRY WALL ON CONCRETE CURB WALL
NO SCALE



C4 / S503 TYP INTERIOR 12" MASONRY COLUMN ON CONCRETE CURB
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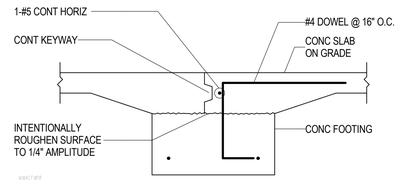
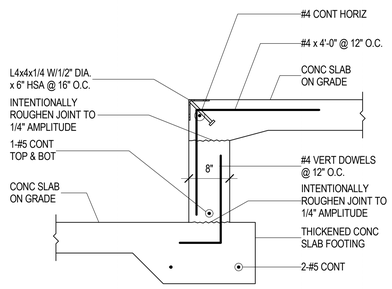
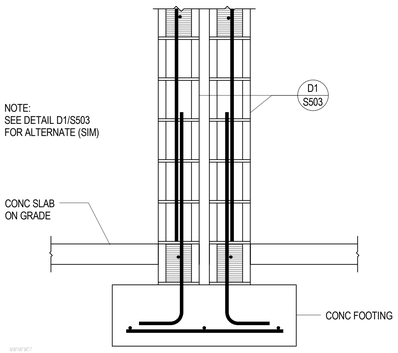


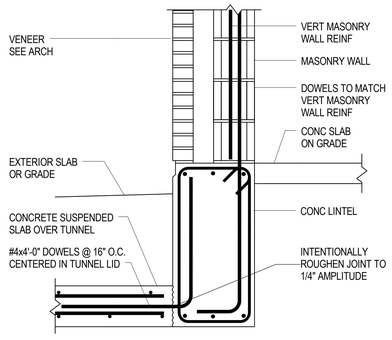
C5 / S503 TYPICAL DOOR OPENING AT INTERIOR
NO SCALE



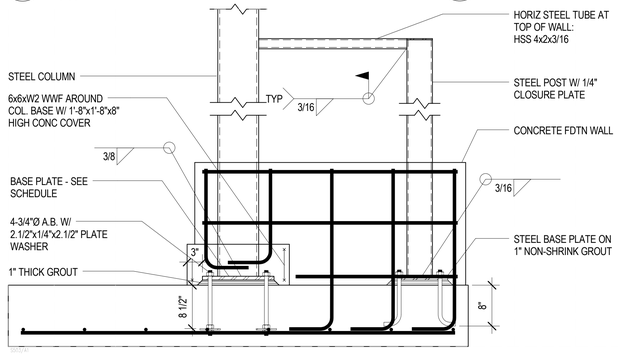
B1 / S503 TYPICAL DOCK LEVELER PIT DETAIL
NO SCALE



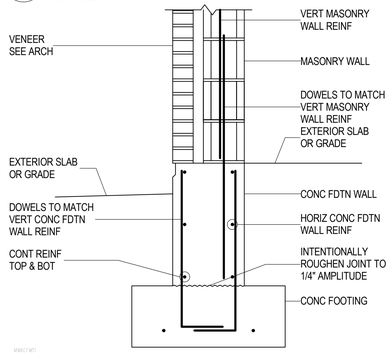
B2 / S503 TYP INTERIOR MASONRY WALL AT MASONRY FOUNDATION WALL
NO SCALE



B3 / S503 TYP MASONRY WALL W/ VENEER ON CONCRETE FOUNDATION WALL OVER TUNNEL OPENING
NO SCALE



A1 / S503 TYPICAL STEEL COLUMN & POST IN CONCRETE FDTN WALL AT ENTRY CANOPY
NO SCALE



A3 / S503 MASONRY WALL W/ VENEER ON CONCRETE FOUNDATION WALL
NO SCALE

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FOOTING & FOUNDATION DETAILS

S503

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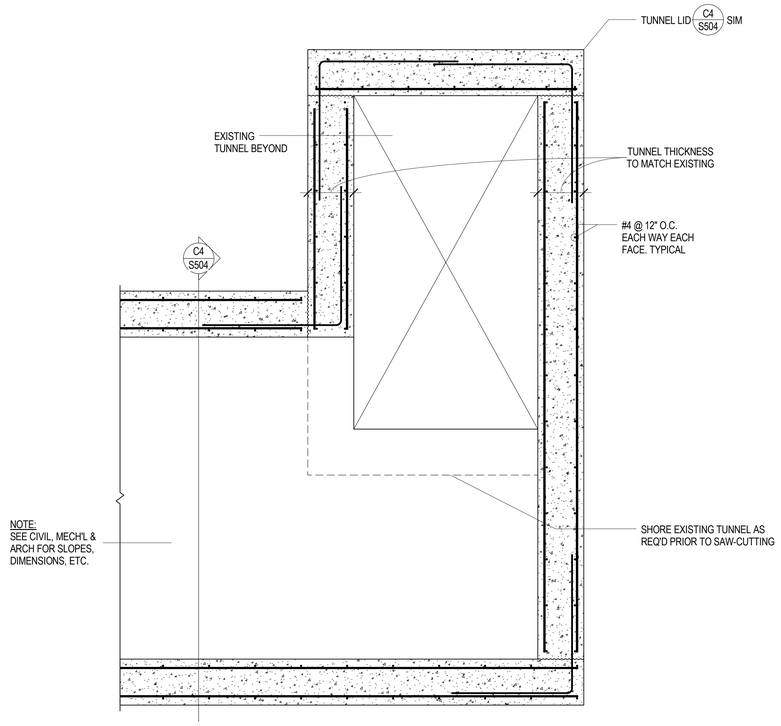
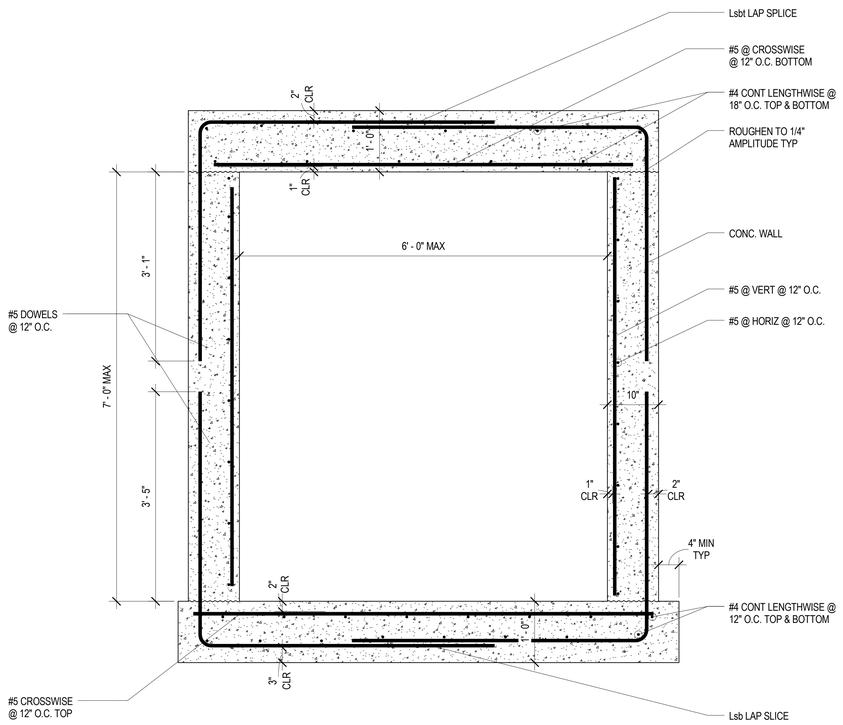


C1 S504 TUNNEL NODE SECTION

NO SCALE



C4 S504 TYPICAL TUNNEL SECTION

NO SCALE

DFCM APPROVAL STAMP

REFERENCE NOTES

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FOOTING & FOUNDATION DETAILS

S504

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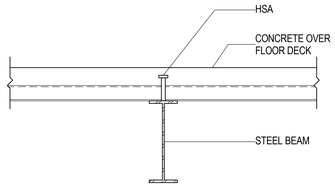
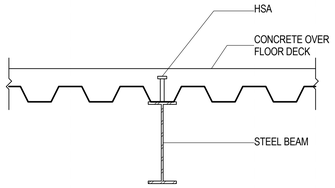
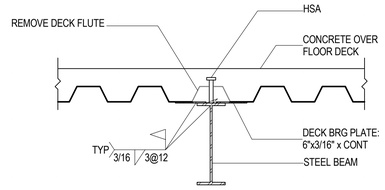


D1 S511 TYPICAL COMPOSITE STEEL BEAM
NO SCALE



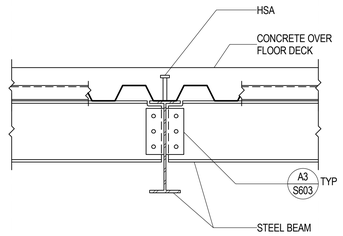
NOTE:
WHERE DECK FLUTES DO NOT ALIGN AS SHOWN, USE DETAIL D3/S511

D2 S511 TYPICAL COMPOSITE STEEL BEAM
NO SCALE

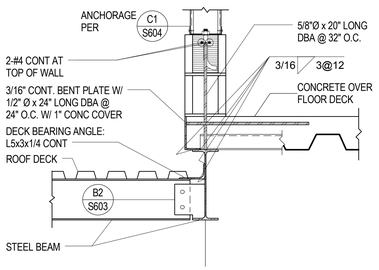


NOTE: THIS DETAIL SHALL APPLY WHEREVER THE DECK FLUTE INTERFERES WITH THE PROPER INSTALLATION OF THE HEADED STUD ANCHOR.

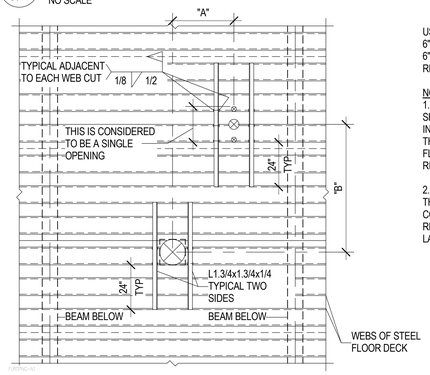
D3 S511 TYPICAL ALTERNATE DECK BEARING AT COMPOSITE STEEL BEAM
NO SCALE



D4 S511 TYPICAL COMPOSITE STEEL BEAM W/ STEEL BEAM TWO SIDES
NO SCALE



C1 S511 TYPICAL COMPOSITE STEEL BEAM AT SLAB EDGE DETAIL FOR UP TO 6"
NO SCALE

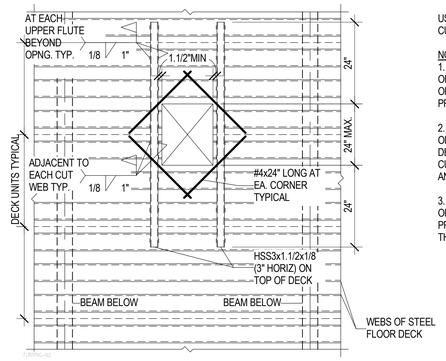


USE THIS DETAIL FOR HOLES LARGER THAN 6" CUTTING 1 TO 3 ADJACENT WEBS. HOLES 6" IN DIAMETER OR LESS NEED NO REINFORCING.

NOTES:
1. PRIOR TO CONCRETE POUR, OPENINGS SHOULD BE BLOCKED OUT AND LEFT INTACT. AFTER THE CONCRETE HAS CURED, THE BLOCKOUT CAN BE REMOVED AND THE FLOOR DECK IN THE AREA OF THE HOLE REMOVED.

2. IF DIMENSIONS "A" AND "B" ARE LESS THAN 32" THE OPENING GROUP MUST BE CONSIDERED AS A SINGLE HOLE, AND REINFORCED AS REQUIRED FOR THE LARGER OPENING. SEE DETAIL __/S___.

C2 S511 TYPICAL MISCELLANEOUS FLOOR OPENING REINFORCING DETAIL FOR TYPE 'N' DECK
NO SCALE



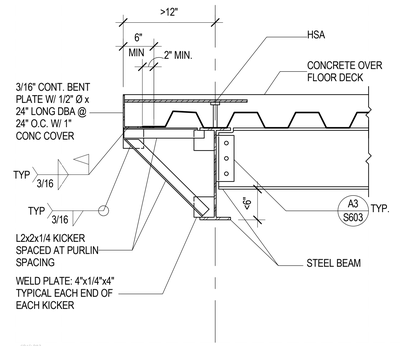
USE THIS DETAIL FOR LARGER HOLES CUTTING 4 TO 8 ADJACENT WEBS.

NOTES:
1. IF THE OPENING OR GROUP OF OPENINGS OCCURS IN ONE DECK UNIT THE OPENING OR OPENING GROUP MAY BE CUT PRIOR TO POURING CONCRETE.

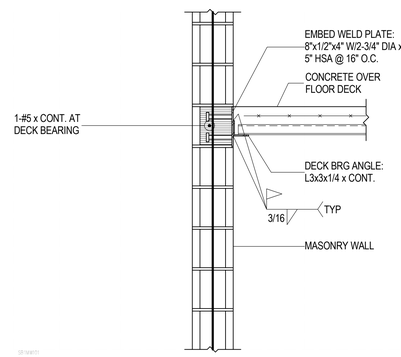
2. IF, AS SHOWN, THE OPENING OR OPENING GROUP CUTS THROUGH TWO DECK UNITS, THE DECKING SHALL NOT BE CUT UNTIL CONCRETE HAS BEEN PLACED AND CURED.

3. WHEN THE MAXIMUM DIMENSION OF AN OPENING OR OPENING GROUP EXCEEDS 24", PROVIDE W8x10 HEADER BEAMS BELOW THE DECK AT ALL SIDES.

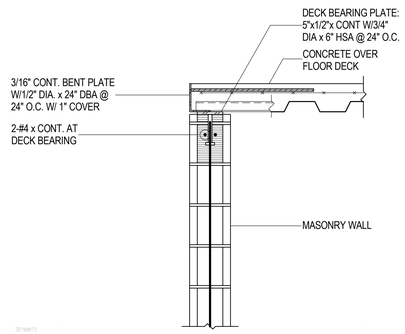
C3 S511 TYPICAL MISCELLANEOUS FLOOR OPENING REINFORCING DETAIL FOR TYPE 'N' DECK
NO SCALE



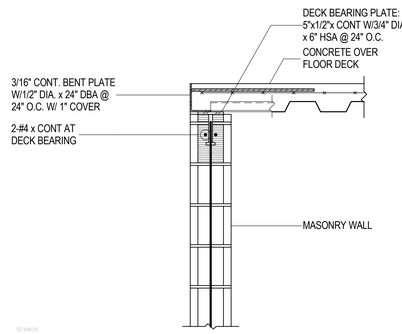
C5 S511 TYPICAL COMPOSITE STEEL BEAM AT SLAB EDGE DISTANCE GREATER THAN 12" FROM BEAM
NO SCALE



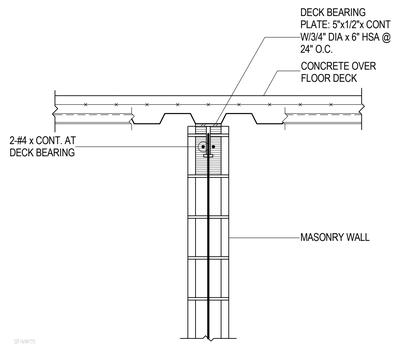
B1 S511 TYPICAL DECK BEARING AT MASONRY WALL
NO SCALE



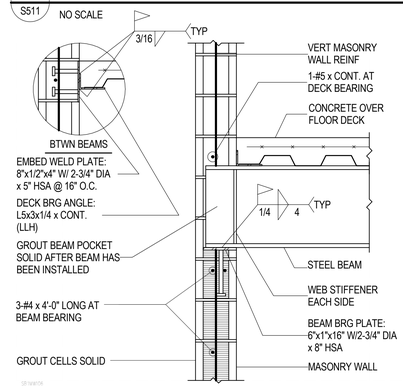
B2 S511 TYPICAL DECK BEARING AT MASONRY WALL
NO SCALE



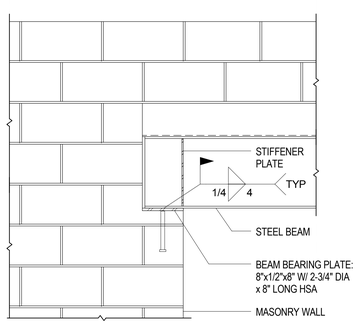
B3 S511 TYPICAL DECK BEARING AT MASONRY WALL
NO SCALE



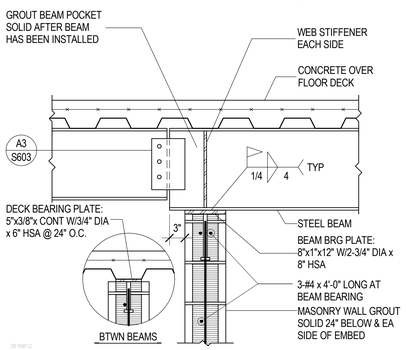
B4 S511 TYPICAL DECK BEARING AT MASONRY WAL
NO SCALE



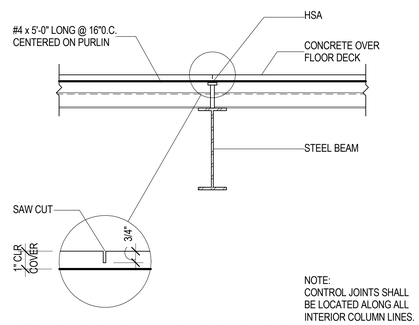
B5 S511 TYP BEAM/DECK BEARING AT MASONRY WALL (GRID B.D)
NO SCALE



A1 S511 TYPICAL STEEL BEAM BEARING AT MASONRY WALL W/ MASONRY PARAPET ABOVE
NO SCALE

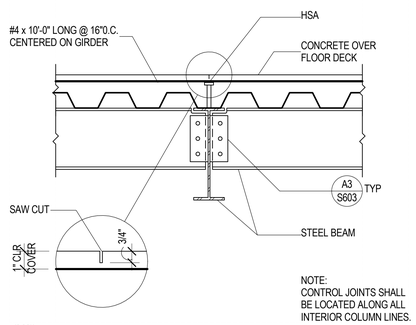


A2 S511 TYPICAL STEEL BEAM AT MASONRY WALL AT DROP-IN STEEL BEAM
NO SCALE



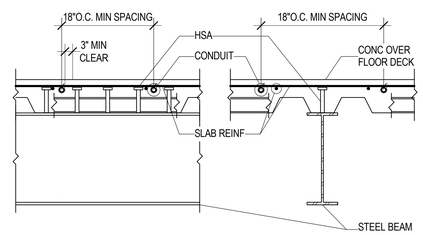
NOTE:
CONTROL JOINTS SHALL BE LOCATED ALONG ALL INTERIOR COLUMN LINES.

A3 S511 TYPICAL COMPOSITE DECK CONTROL JOINT AT STEEL PURLIN
NO SCALE



NOTE:
CONTROL JOINTS SHALL BE LOCATED ALONG ALL INTERIOR COLUMN LINES.

A4 S511 TYPICAL COMPOSITE DECK CONTROL JOINT AT STEEL GIRDER
NO SCALE



NOTES:
1. MAXIMUM CONDUIT SIZE 1" OUTSIDE DIAMETER.
2. CONDUIT SHALL NOT CROSSOVER.
3. CONDUIT SHALL BE CENTERED OVER A LOW FLUTE WHEN PARALLEL TO DECK FLUTES.
4. CONDUIT SHALL BE TIED IN PLACE BENEATH SLAB REINFORCING.
5. CONDUIT SHALL HAVE 3/4" MINIMUM CONCRETE COVER.

A5 S511 TYPICAL CONDUIT PLACEMENT IN COMPOSITE DECK
NO SCALE

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FLOOR FRAMING DETAILS

S511

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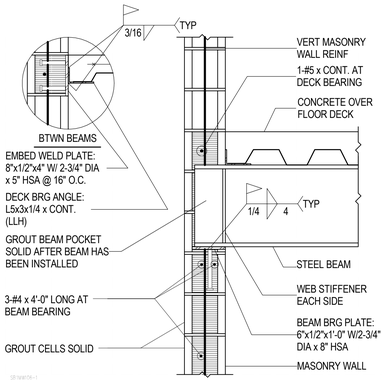
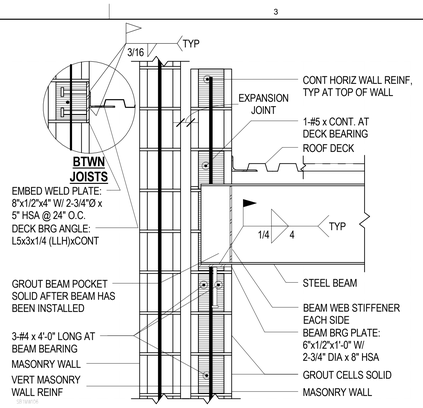
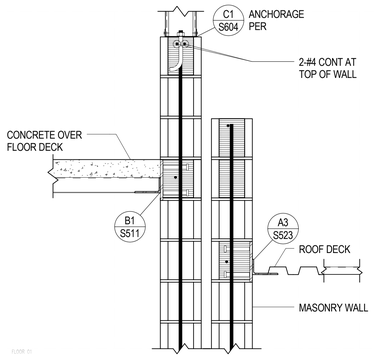


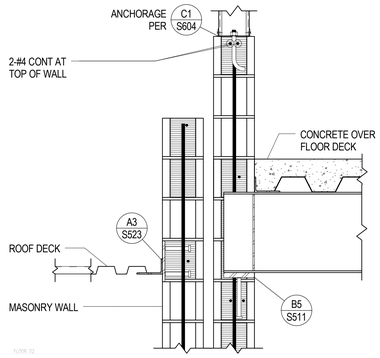
D1 / S512 TYPICAL BEAM/DECK BEARING AT MASONRY WALL
NO SCALE



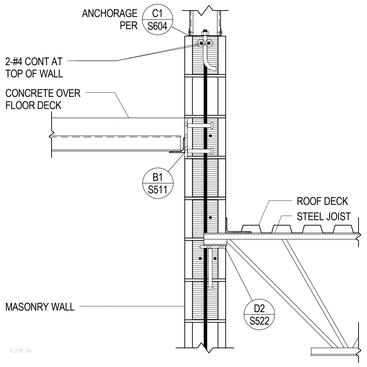
D2 / S512 STEEL BEAM BEARING AT MASONRY WALL
NO SCALE



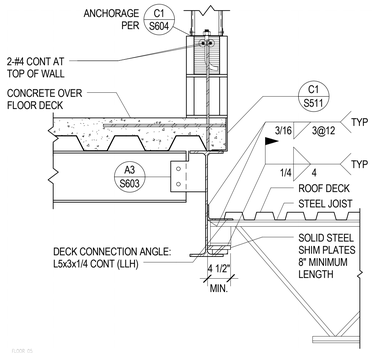
D3 / S512 CONCRETE OVER FLOOR DECK AND ROOF DECK BEARING AT MASONRY WALL AT EXPANSION JOINT
NO SCALE



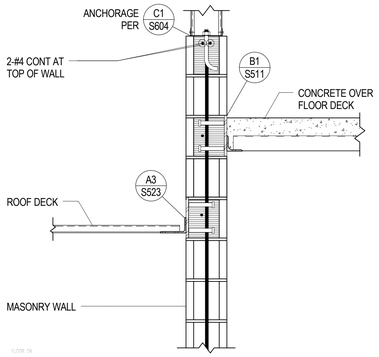
D4 / S512 STEEL BEAM AND ROOF DECK BEARING AT MASONRY WALL AT EXPANSION JOINT
NO SCALE



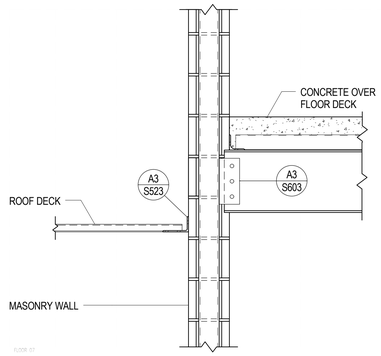
C1 / S512 STEEL JOIST AND CONCRETE OVER FLOOR DECK BEARING AT MASONRY WALL
NO SCALE



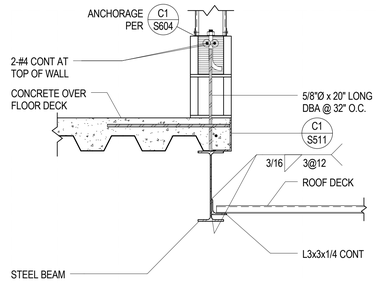
C2 / S512 STEEL JOIST AND STEEL BEAM BEARING AT MASONRY WALL
NO SCALE



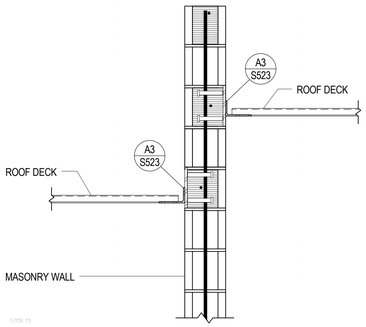
C3 / S512 STEEL JOIST AND STEEL BEAM BEARING AT MASONRY WALL
NO SCALE



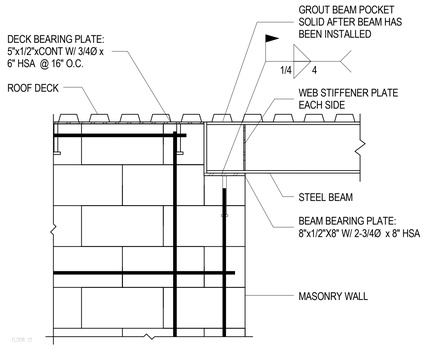
C4 / S512 ROOF DECK AND STEEL BEAM BEARING AT MASONRY WALL
NO SCALE



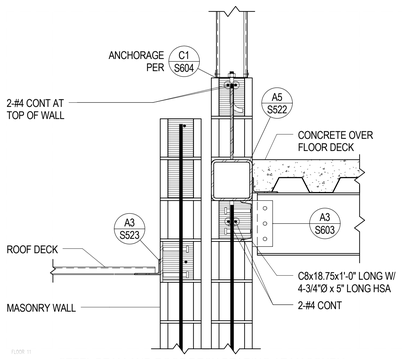
C5 / S512 MASONRY WALL BEARING ON STEEL BEAM
NO SCALE



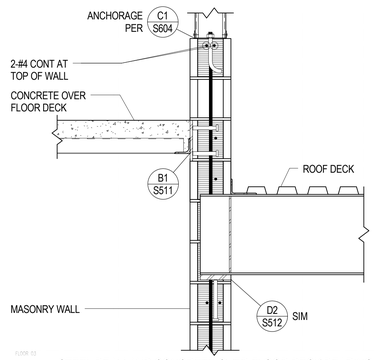
B1 / S512 ROOF DECK BEARING AT MASONRY WALL
NO SCALE



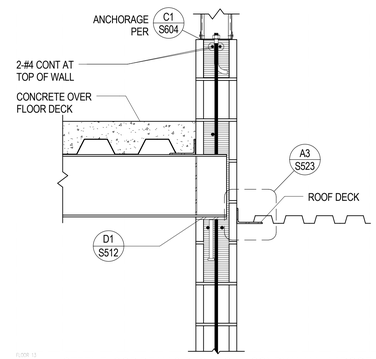
B2 / S512 STEEL BEAM TO MASONRY WALL CONNECTION
NO SCALE



B3 / S512 STEEL BEAM AND ROOF DECK BEARING AT MASONRY WALL AT EXPANSION JOINT
NO SCALE



B4 / S512 STEEL BEAM AND CONCRETE OVER FLOOR DECK BEARING AT MASONRY WALL
NO SCALE



B5 / S512 STEEL FLOOR BEAM & DECK TO MASONRY WALL W/ ROOF DECK ATTACHMENT BELOW
NO SCALE

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FLOOR FRAMING DETAILS

S512

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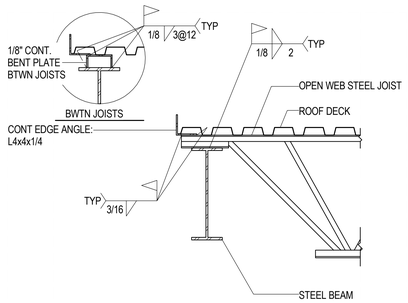
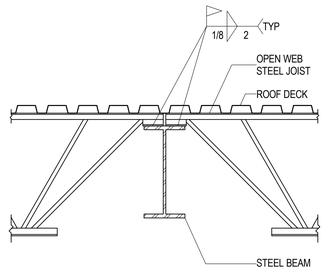
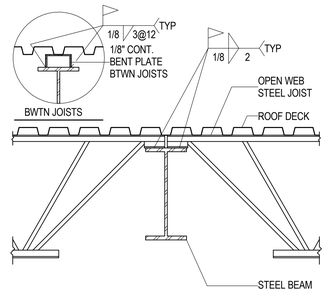


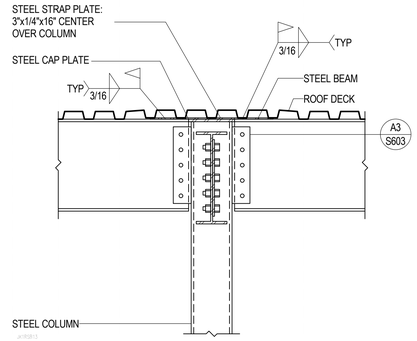
D1 / S521 TYP JOIST BEARING AT STEEL BEAM W/ CHORD TIE/DRAG STRUT
NO SCALE



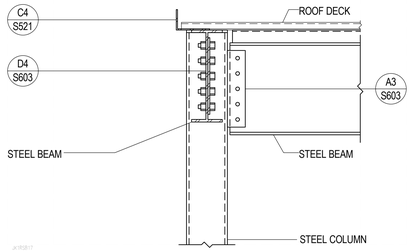
D2 / S521 TYPICAL JOIST BEARING AT STEEL BEAM
NO SCALE



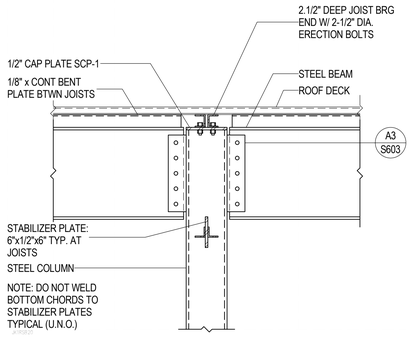
D3 / S521 TYP JOIST BEARING AT STEEL BEAM W/ CHORD TIE/DRAG STRUT
NO SCALE



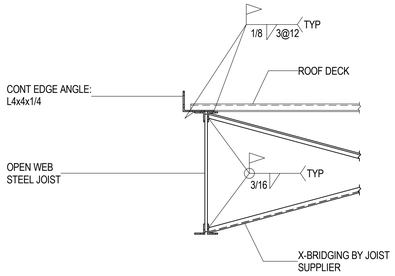
D4 / S521 TYPICAL STEEL BEAM TO STEEL COLUMN CONNECTION W/ DRAG STRUT
NO SCALE



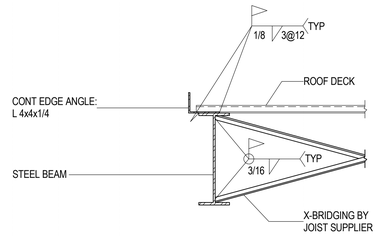
C1 / S521 TYPICAL STEEL BEAM CONNECTION TO STEEL COLUMN
NO SCALE



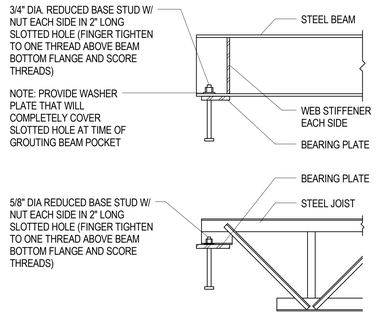
C2 / S521 TYP OPEN WEB STEEL JOIST & STEEL BEAM BEARING AT STEEL COLUMN
NO SCALE



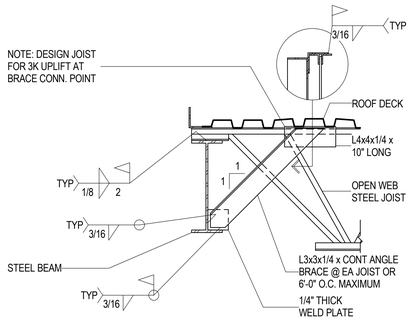
C3 / S521 TYPICAL EDGE JOIST W/ BRIDGING
NO SCALE



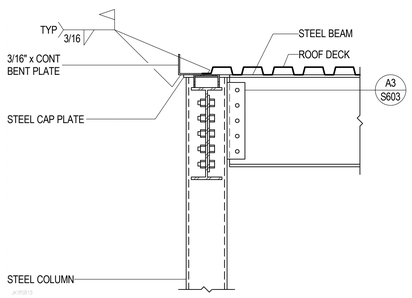
C4 / S521 TYPICAL EDGE BEAM WITH BRIDGING
NO SCALE



C5 / S521 TYPICAL SLIP CONNECTIONS TO MASONRY WALL
NO SCALE

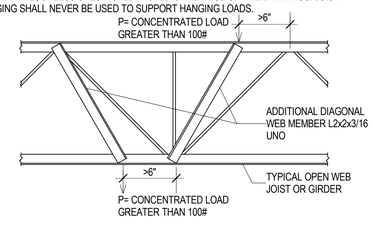


B1 / S521 TYPICAL STEEL BEAM BOTTOM FLANGE BRACE CONNECTION
NO SCALE

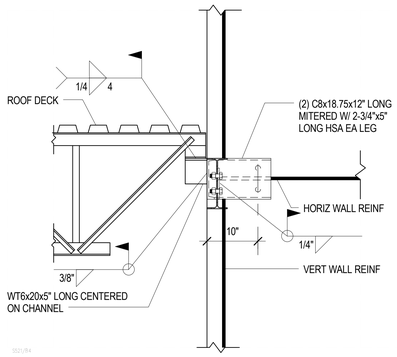


B2 / S521 TYP STEEL BEAM CONNECTION TO STEEL COLUMN
NO SCALE

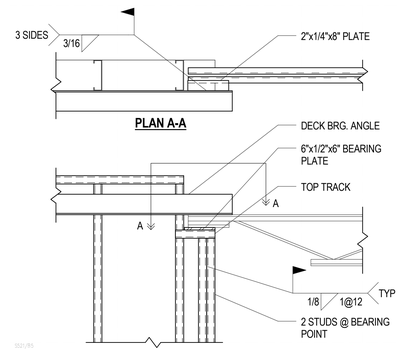
NOTE: WHEN CONCENTRATED LOADS (GREATER THAN 100#) ON OPEN WEB JOISTS OR GIRDERS ARE LOCATED MORE THAN 6 INCHES FROM THE PANEL WORKPOINTS AT EITHER THE TOP OR BOTTOM CHORD ADDITIONAL DIAGONAL WEB MEMBERS SHALL BE FURNISHED AND INSTALLED AT THE LOCATION OF THE CONCENTRATED LOAD BY THE CONTRACTOR. CONCENTRATED POINT LOADS, SINGLE OR MULTIPLE, TOTALING 100# OR LESS CAN BE LOCATED AT ANY POINT ALONG THE TOP OR BOTTOM CHORD OF AN OPEN WEB JOIST OR GIRDER BETWEEN ADJACENT PANEL POINTS WITHOUT MEETING THESE REQUIREMENTS. A LIMIT OF FOUR CONCENTRATED 100# MAX. POINT LOADS PER JOIST OR GIRDER WILL BE PERMITTED ON SPANS OF 12' & GREATER, ONE CONCENTRATED 100# MAX. LOAD ON SPANS LESS THAN 12', UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. JOIST BRIDGING SHALL NEVER BE USED TO SUPPORT HANGING LOADS.



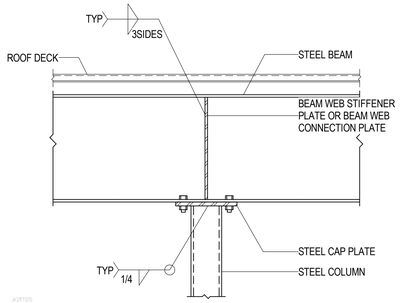
B3 / S521 TYPICAL DETAIL AT ADDITIONAL CONCENTRATED POINT LOAD
NO SCALE



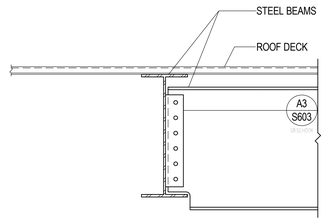
B4 / S521 JOIST BEARING AT COLLECTOR
NO SCALE



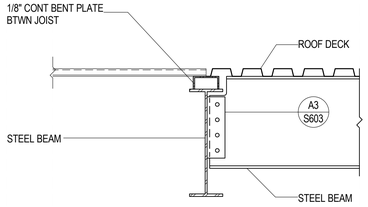
B5 / S521 JOIST BEARING AT STEEL STUD WALL
SCALE: 1" = 1'-0"



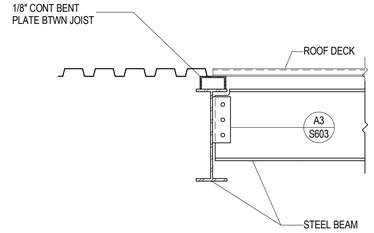
A1 / S521 TYPICAL STEEL BEAM TO STEEL COLUMN
NO SCALE



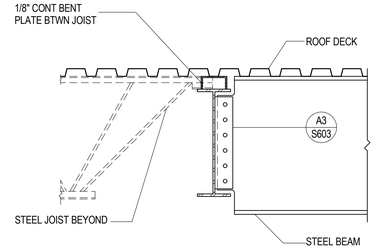
A2 / S521 STEEL BEAM BEARING AT STEEL BEAM
NO SCALE



A3 / S521 TYPICAL STEEL BEAM TO BEAM CONNECTION
NO SCALE



A4 / S521 TYPICAL STEEL BEAM TO BEAM CONNECTION
NO SCALE



A5 / S521 TYPICAL STEEL BEAM TO BEAM CONNECTION
NO SCALE

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UTAH STATE HOSPITAL
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

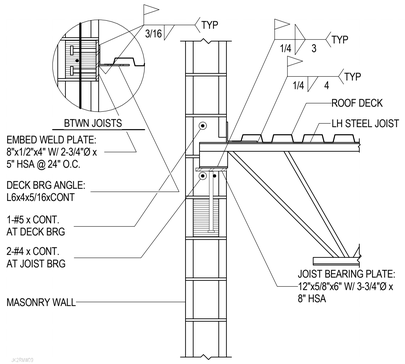
DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

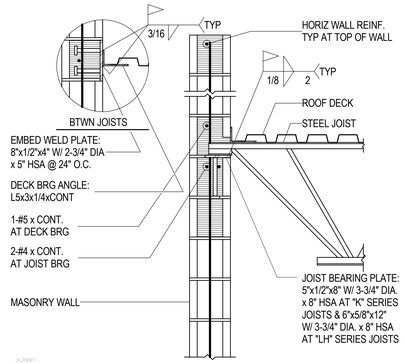
ROOF FRAMING DETAILS

S521

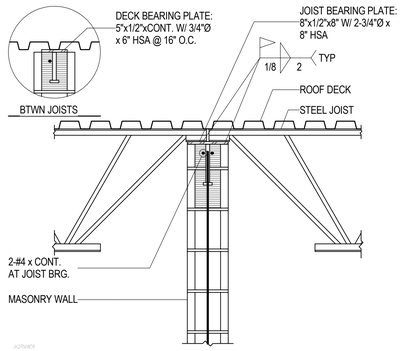
9/7/2012 12:15:11 PM



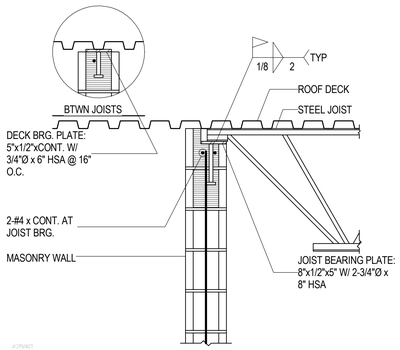
D1 / S522 TYPICAL JOIST/DECK BEARING AT MASONRY WALL
NO SCALE



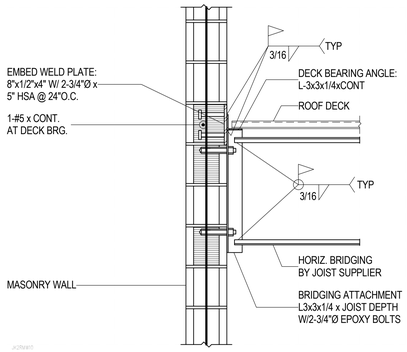
D2 / S522 TYPICAL JOIST/DECK BEARING AT MASONRY WALL
NO SCALE



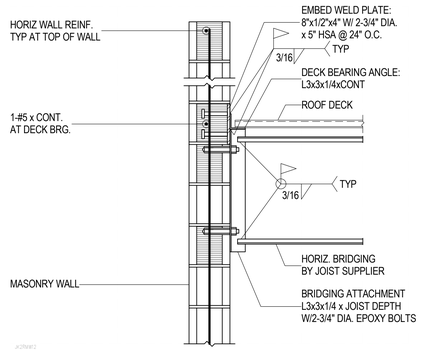
D3 / S522 TYPICAL JOIST/DECK BEARING AT MASONRY WALL
NO SCALE



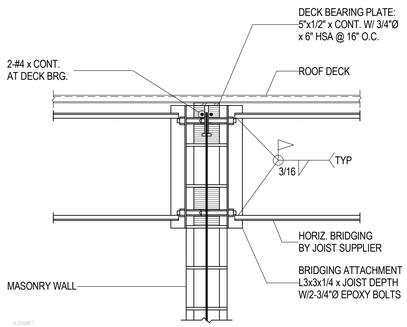
D4 / S522 TYPICAL JOIST/DECK BEARING AT MASONRY WALL
NO SCALE



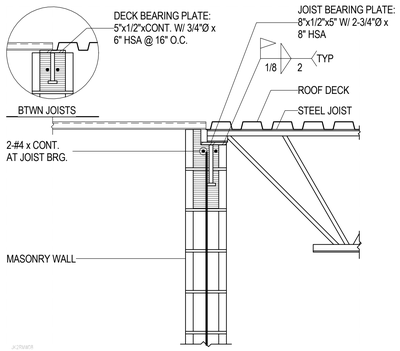
C1 / S522 TYP DECK BEARING AT MASONRY WALL WITH BRIDGING ATTACHMENT
NO SCALE



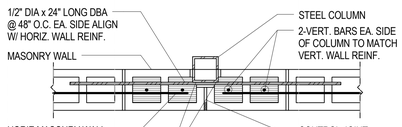
C2 / S522 TYP DECK BEARING AT MASONRY WALL WITH BRIDGING ATTACHMENT
NO SCALE



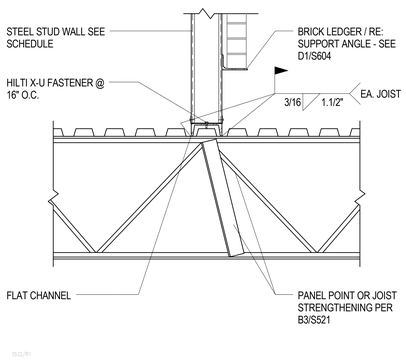
C3 / S522 TYP DECK BEARING AT MASONRY WALL WITH BRIDGING ATTACHMENT
NO SCALE



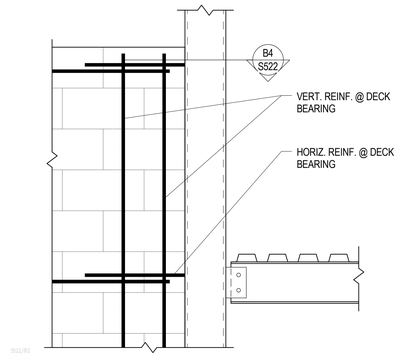
C4 / S522 TYPICAL JOIST/DECK BEARING AT MASONRY WALL
NO SCALE



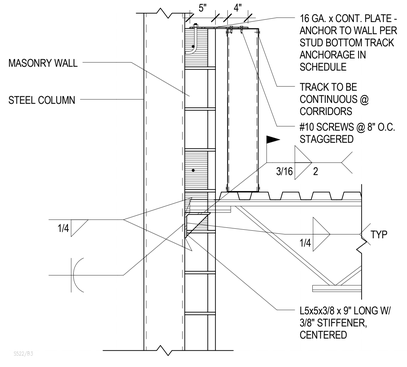
C5 / S522 TYPICAL STEEL COLUMN IN MASONRY WALL
NO SCALE



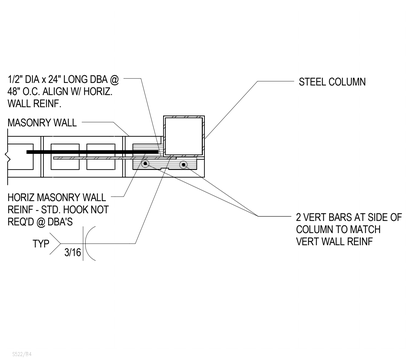
B1 / S522 STEEL STUD WALL ABOVE ROOF DECK
NO SCALE



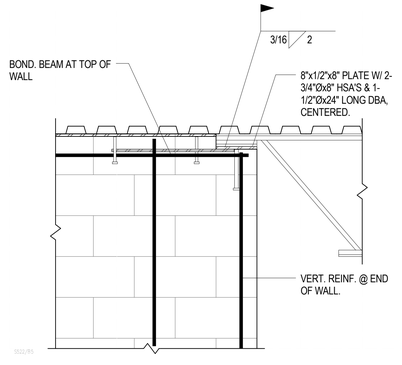
B2 / S522 STEEL COLUMN AT MASONRY WALL END
NO SCALE



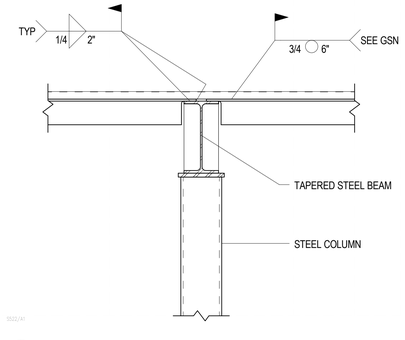
B3 / S522 JOIST BRG. AT STEEL COLUMN AT END OF MASONRY WALL
NO SCALE



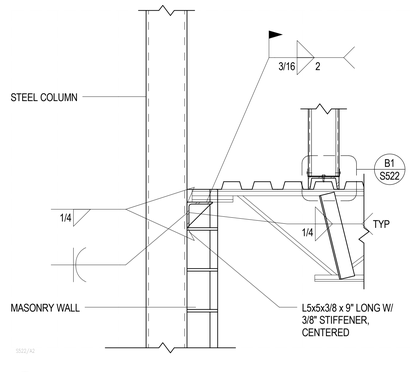
B4 / S522 TYPICAL STEEL COLUMN IN MASONRY WALL
NO SCALE



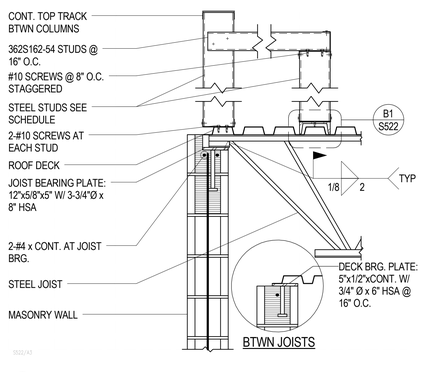
B5 / S522 JOIST BRG. AT END OF MASONRY WALL
NO SCALE



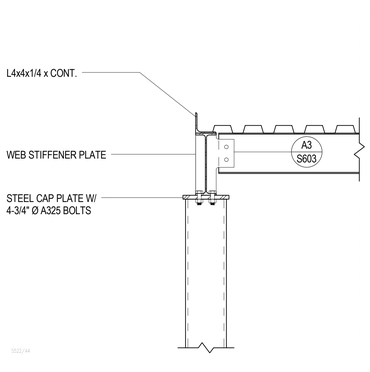
A1 / S522 STEEL BEAM TO STEEL COLUMN
NO SCALE



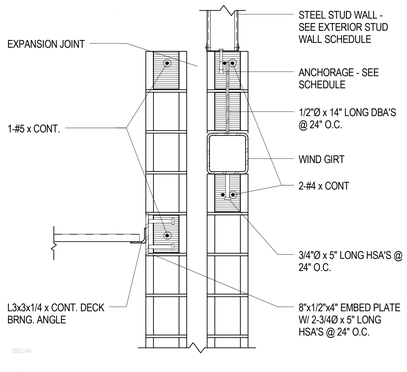
A2 / S522 JOIST BRG. AT STEEL COLUMN AT END OF MASONRY WALL
NO SCALE



A3 / S522 TYP JOIST/DECK BEARING AT MASONRY WALL
NO SCALE



A4 / S522 STEEL BEAM TO STEEL COLUMN
NO SCALE



A5 / S522 EXPANSION JOINT @ MASONRY WALL
NO SCALE

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BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

	DATE	REVISION

PROJECT NUMBER: 11111
FILE: 11111 USH Pediatric.rvt

ROOF FRAMING DETAILS

S522

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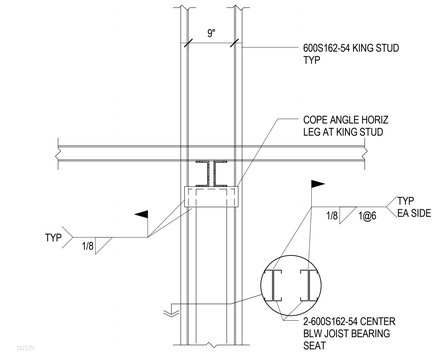
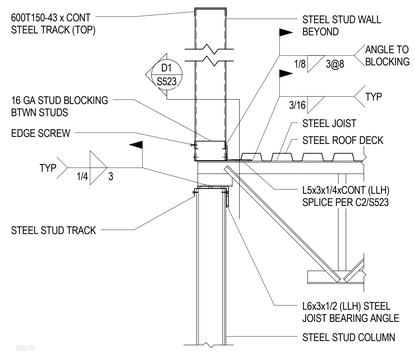
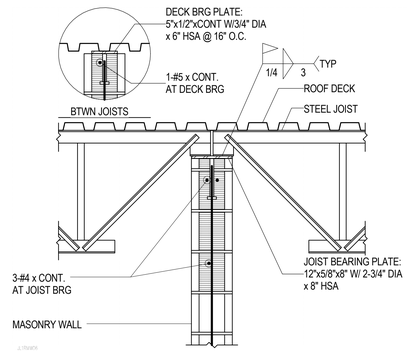


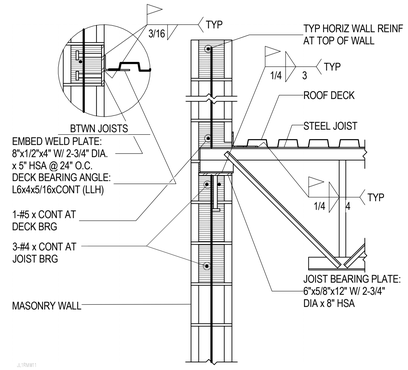
D1 S523 STEEL JOIST BEARING AT STEEL STUD WALL
NO SCALE



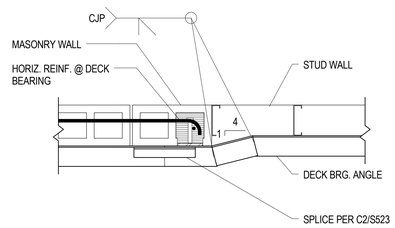
D2 S523 STEEL JOIST BEARING AT STEEL STUD WALL W/ PARAPET
NO SCALE



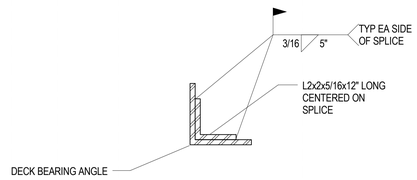
D3 S523 TYP JOIST/DECK BEARING AT MASONRY WALL
NO SCALE



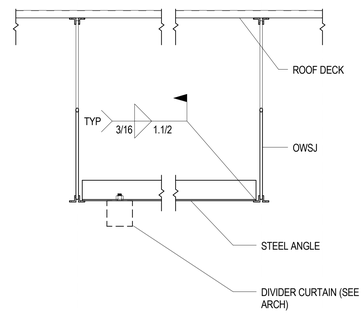
D4 S523 TYP JOIST/DECK BEARING AT MASONRY WALL
NO SCALE



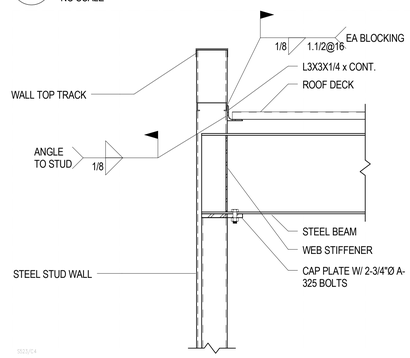
C1 S523 DECK BEARING ANGLE AT WALL STEP - PLAN VIEW
NO SCALE



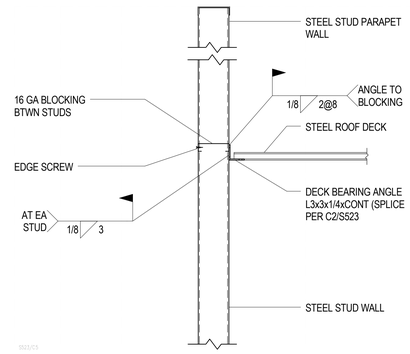
C2 S523 TYPICAL DECK BEARING ANGLE SPLICE DETAIL
NO SCALE



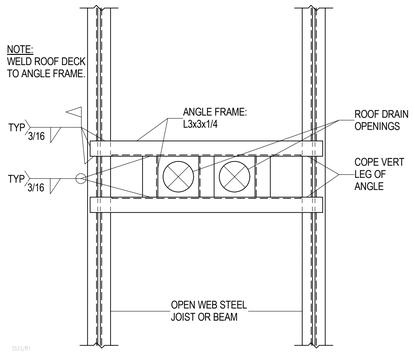
C3 S523 DIVIDER CURTAIN SUPPORT
NO SCALE



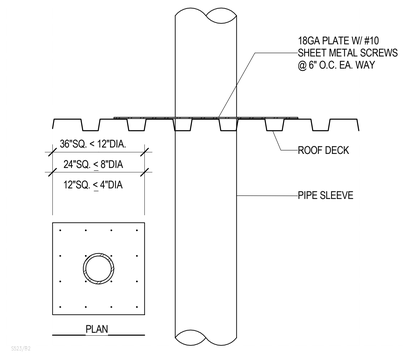
C4 S523 STEEL BEAM TO STEEL STUD WALL
NO SCALE



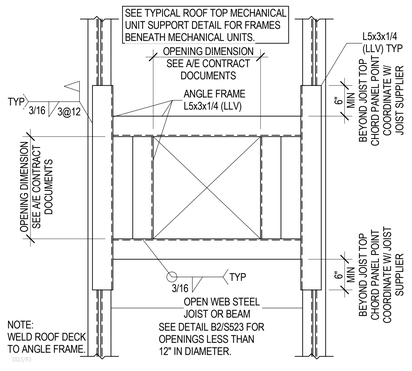
C5 S523 TYPICAL STEEL FLOOR DECK BEARING AT STEEL STUD WALL W/BRIDGING CONNECTION
NO SCALE



B1 S523 TYPICAL ROOF DRAIN OPENING (PLAN VIEW)
NO SCALE

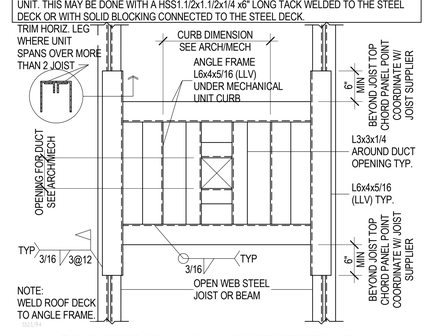


B2 S523 TYPICAL PIPE SLEEVE HOLE THRU ROOF DECK
NO SCALE

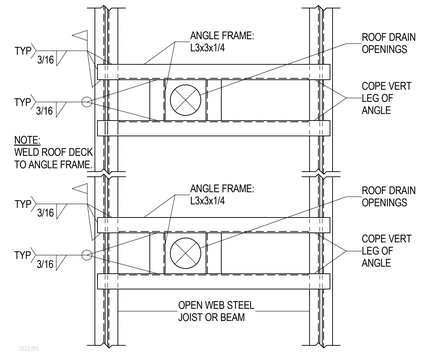


B3 S523 TYPICAL ROOF OPENING DETAIL (PLAN VIEW)
NO SCALE

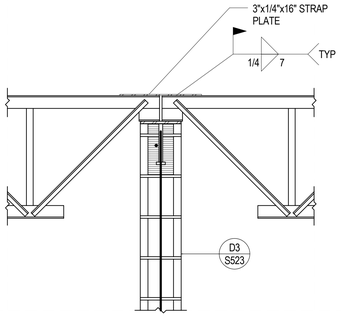
WHERE THE MECHANICAL UNIT WEIGHS LESS THAN 600#, THE L6x4x5/16 SUPPORT ANGLES MAY CHANGED TO L5x3x1/4 (LLV).
SOLID BLOCK THE FLUTES OF THE STEEL DECK BENEATH THE CURB OF THE MECHANICAL UNIT. THIS MAY BE DONE WITH A HSS1.1/2x1.1/2x1/4 x6" LONG TACK WELDED TO THE STEEL DECK OR WITH SOLID BLOCKING CONNECTED TO THE STEEL DECK.



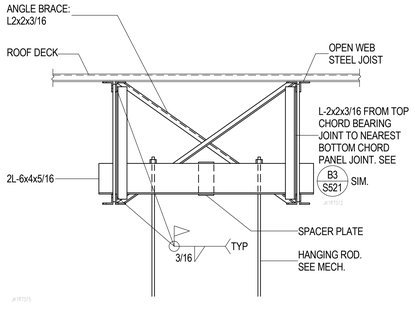
B4 S523 TYP ROOF TOP MECHANICAL UNIT SUPPORT DETAIL (PLAN VIEW)
NO SCALE



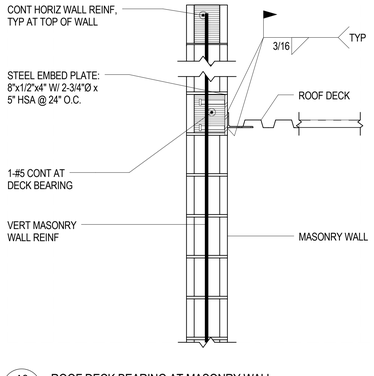
B5 S523 TYPICAL ROOF DRAIN OPENING (PLAN VIEW)
NO SCALE



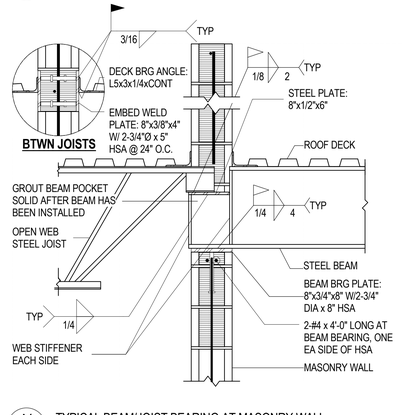
A1 S523 STRAP PLATE DETAIL
NO SCALE



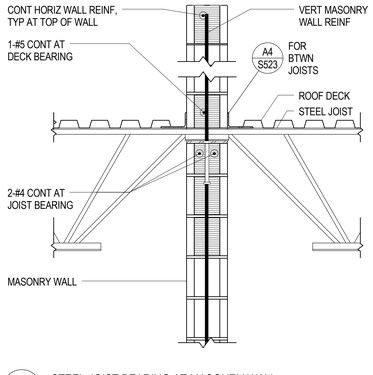
A2 S523 TYPICAL HANGING MECHANICAL UNIT SUPPORT DETAIL
NO SCALE



A3 S523 ROOF DECK BEARING AT MASONRY WALL
NO SCALE



A4 S523 TYPICAL BEAM/JOIST BEARING AT MASONRY WALL
NO SCALE



A5 S523 STEEL JOIST BEARING AT MASONRY WALL
NO SCALE

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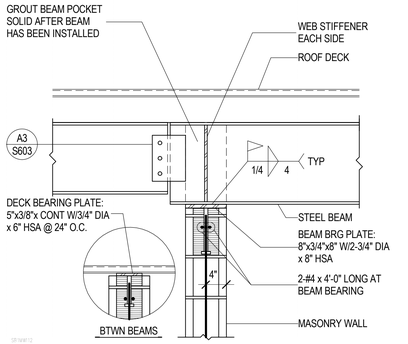
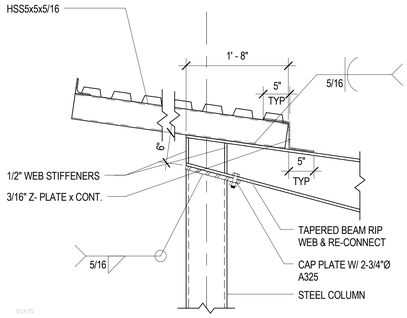
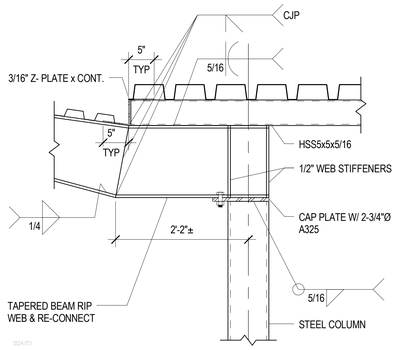


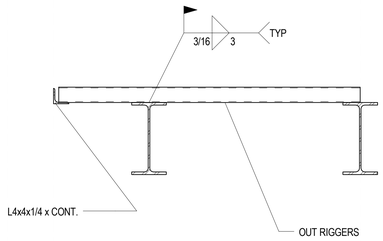
D1 / S524 TYPICAL STEEL BEAM AT MASONRY WALL AT DROP-IN STEEL BEAM
NO SCALE



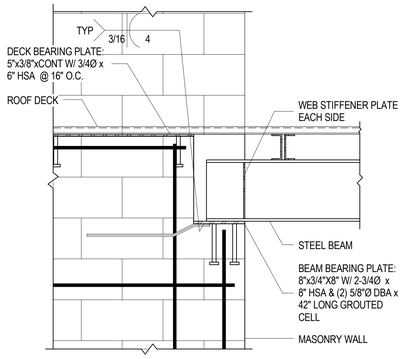
D2 / S524 TAPERED STEEL BEAM TO STEEL COLUMN
NO SCALE



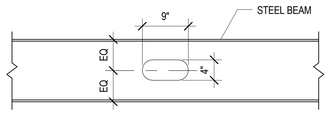
D3 / S524 TAPERED STEEL BEAM TO STEEL COLUMN
NO SCALE



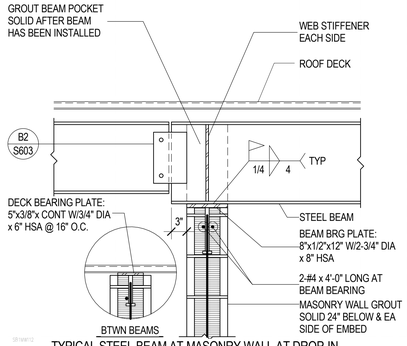
D4 / S524 OUTRIGGERS TO STEEL BEAM
NO SCALE



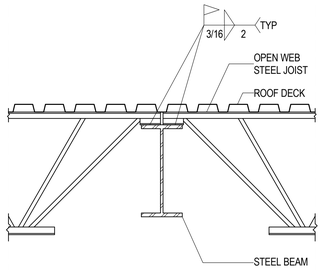
C1 / S524 STEEL BEAM TO MASONRY WALL CONNECTION
NO SCALE



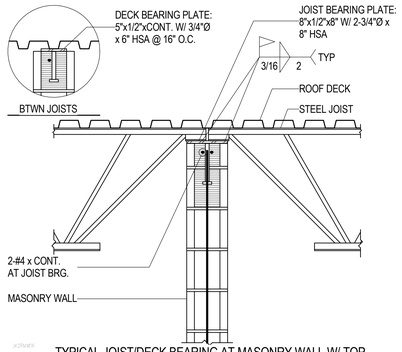
C2 / S524 STEEL BEAM AT CANOPY WITH HOLE IN WEB
NO SCALE



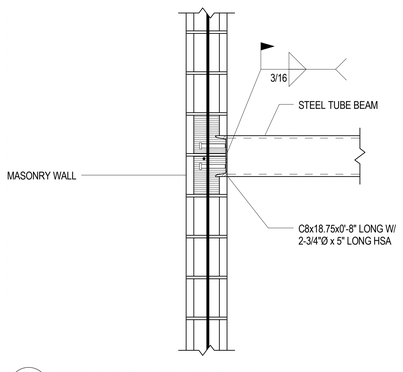
C3 / S524 TYPICAL STEEL BEAM AT MASONRY WALL AT DROP-IN STEEL BEAM
NO SCALE



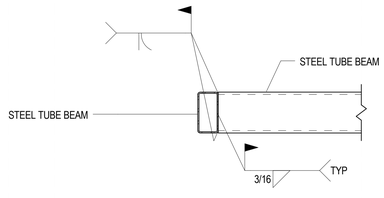
C4 / S524 TYPICAL JOIST BEARING AT STEEL BEAM W/ TOP CHORD AXIAL LOAD
NO SCALE



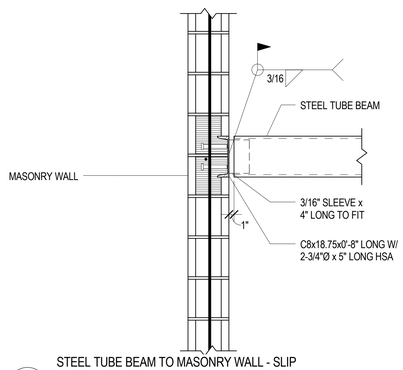
C5 / S524 TYPICAL JOIST/DECK BEARING AT MASONRY WALL W/ TOP CHORD AXIAL LOAD
NO SCALE



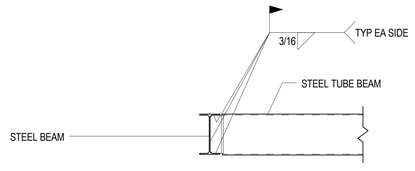
B1 / S524 STEEL TUBE BEAM TO MASONRY WALL
NO SCALE



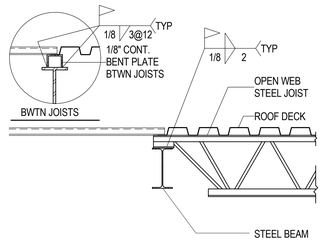
B2 / S524 STEEL TUBE BEAM TO STEEL TUBE BEAM CONNECTION
NO SCALE



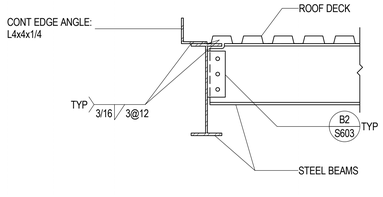
B3 / S524 STEEL TUBE BEAM TO MASONRY WALL - SLIP CONNECTION
NO SCALE



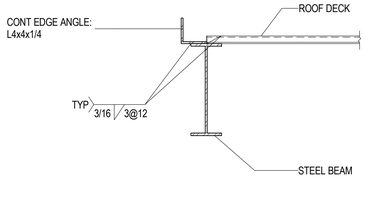
B4 / S524 STEEL TUBE BEAM TO STEEL TUBE BEAM CONNECTION
NO SCALE



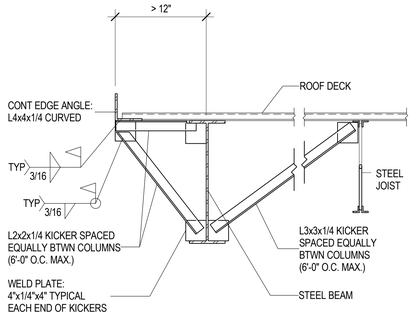
B5 / S524 TYP JOIST BEARING AT STEEL BEAM AT CHANGE OF DECK DIRECTION
NO SCALE



A1 / S524 TYPICAL STEEL ROOF BEAM AT ROOF EDGE
NO SCALE



A2 / S524 TYPICAL STEEL ROOF BEAM AT ROOF EDGE
NO SCALE



A3 / S524 TYPICAL STEEL BEAM AT ROOF EDGE DETAIL FOR > 12" DIMENSION
NO SCALE

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CONCRETE FOOTING SCHEDULE

MARK	WIDTH	LENGTH	THICK	CROSSWISE REINFORCING				LENGTHWISE REINFORCING				REMARKS
				NO.	SIZE	LENGTH	SPACE	NO.	SIZE	LENGTH	SPACE	
FTS2.0	2'-0"	CONT.	12"	--	NONE	REQ'D	--	3	#4	CONT.	9"	
FC1.5	1'-6"	CONT.	12"	--	NONE	REQ'D	--	3	#4	CONT.	6"	
FC2.0	2'-0"	CONT.	12"	--	NONE	REQ'D	--	3	#4	CONT.	9"	
FC2.5	2'-6"	CONT.	12"	--	#5	2'-0"	14"	3	#5	CONT.	12"	
FC3.0	3'-0"	CONT.	12"	--	#5	2'-6"	14"	3	#5	CONT.	15"	
FC3.5	3'-6"	CONT.	12"	--	#5	3'-0"	14"	3	#5	CONT.	18"	
FC4.0	4'-0"	CONT.	12"	--	#5	3'-6"	14"	4	#5	CONT.	14"	
FC4.5	4'-6"	CONT.	12"	--	#5	4'-0"	14"	4	#5	CONT.	16"	
FC5.0	5'-0"	CONT.	12"	--	#5	4'-6"	14"	5	#5	CONT.	13.5"	
FC5.5	5'-6"	CONT.	12"	--	#5	5'-0"	14"	5	#5	CONT.	15"	
FC6.0	6'-0"	CONT.	12"	--	#5	5'-6"	14"	6	#5	CONT.	13.2"	
FC6.5	6'-6"	CONT.	12"	--	#5	6'-0"	14"	6	#5	CONT.	14.4"	
FC7.0	7'-0"	CONT.	12"	--	#5	6'-6"	14"	7	#5	CONT.	13"	
FS3.0	3'-0"	3'-0"	12"	4	#4	2'-6"	10"	4	#4	2'-6"	10"	
FS3.5	3'-6"	3'-6"	12"	5	#4	3'-0"	9"	5	#4	3'-0"	9"	
FS4.0	4'-0"	4'-0"	12"	6	#4	3'-6"	8.4"	6	#4	3'-6"	8.4"	
FS4.5	4'-6"	4'-6"	12"	6	#4	4'-0"	9.6"	6	#4	4'-0"	9.6"	
FS5.0	5'-0"	5'-0"	12"	5	#5	4'-6"	13.5"	5	#5	4'-6"	13.5"	
FS5.5	5'-6"	5'-6"	12"	5	#5	5'-0"	15"	5	#5	5'-0"	15"	
FS6.0	6'-0"	6'-0"	12"	6	#5	5'-6"	13.2"	6	#5	5'-6"	13.2"	
FS6.5	6'-6"	6'-6"	12"	7	#5	6'-0"	12"	7	#5	6'-0"	12"	
FS7.0	7'-0"	7'-0"	13"	8	#5	6'-6"	11.2"	8	#5	6'-6"	11.2"	
FS7.5	7'-6"	7'-6"	14"	9	#5	7'-0"	10.5"	9	#5	7'-0"	10.5"	
FS8.0	8'-0"	8'-0"	15"	10	#5	7'-6"	10"	10	#5	7'-6"	10"	

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.

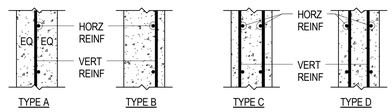
4. ALL FOOTINGS SHALL BE FORMED. FOOTINGS SHALL NOT BE EARTH FORMED OR OVERSIZED WITHOUT WRITTEN PERMISSION FROM THE STRUCTURAL ENGINEER.

CONCRETE FOUNDATION WALL SCHEDULE

MARK	THICK	VERTICAL REINFORCING	HORIZONTAL REINFORCING	TOP & BOTTOM HORIZONTAL BARS	PLACEMENT
CFW-1	8"	#4 @ 16" O.C.	#5 @ 15" O.C.	1-#5	TYPE A
CFW-2	12"	#4 @ 18" O.C.E.F.	#4 @ 12" O.C.E.F.	1-#4 E.F.	TYPE C or D
CFW-3	14"	#4 @ 18" O.C.E.F.	#4 @ 11" O.C.E.F.	1-#4 E.F.	TYPE C or D
CFW-4	16"	#4 @ 16" O.C.E.F.	#5 @ 15" O.C.E.F.	1-#5 E.F.	TYPE C or D
CFW-5	20"	#4 @ 12" O.C.E.F.	#5 @ 12" O.C.E.F.	1-#5 E.F.	TYPE C or D
CFW-6	18"	#4 @ 12" O.C.E.F.	#5 @ 12" O.C.E.F.	1-#5 E.F.	TYPE C

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



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

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.

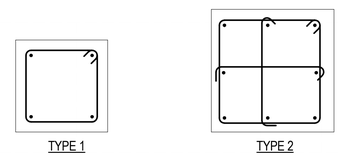
5. a. FOR BUNDLED BARS OF THREE OR LESS MULTIPLY LENGTHS BY 1.2.
   b. FOR BUNDLED BARS OF FOUR OR MORE MULTIPLY LENGTHS BY 1.33.
   c. INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP. ENTIRE BUNDLES SHALL NOT BE LAP SPLICED.

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 PIER SCHEDULE

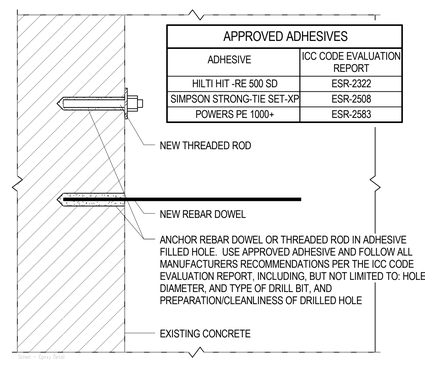
MARK	DIMENSIONS		REINFORCING		REMARKS
	DEPTH	WIDTH	VERTICAL	TIES	
CP-1	1' - 6"	1' - 6"	4-#8	#3@12" O.C.	
CP-2	2' - 0"	2' - 0"	8-#8	#3@12" O.C.	TYPE 2



C5 / S601 CONCRETE PIER REINFORCING
NO SCALE

CONCRETE LINTEL SCHEDULE

MARK	LINTEL THICKNESS	LINTEL DEPTH	LINTEL		REMARKS
			HORIZONTAL	STIRRUPS	
CL-1	16"	24"	3-#6 TOP & BOT	#3 @ 11" O.C.	



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

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.

A4 / S601 ADHESIVE ANCHORING SCHEDULE
NO SCALE

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STRUCTURAL SCHEDULES

S601

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MASONRY WALL SCHEDULE

MARK	THICK	MATERIALS	REINFORCING VERTICAL	REINFORCING HORIZONTAL	REINFORCING JOINTS	NOTES
MW-1	6"	CMU	1-#5 @ 32" O.C.	1-#4 @ 48" O.C.	-	-
MW-2	8"	CMU	1-#5 @ 32" O.C.	1-#5 @ 48" O.C.	-	-
MW-3	8"	CMU	1-#5 @ 32" O.C.	1-#4 @ 24" O.C.	-	SOLID GROUT
MW-4	8"	CMU	1-#5 @ 24" O.C.	1-#4 @ 24" O.C.	-	SOLID GROUT
MW-5	8"	CMU	1-#5 @ 16" O.C.	1-#4 @ 24" O.C.	-	SOLID GROUT
MW-6	8"	CMU	1-#5 @ 24" O.C.	1-#5 @ 48" O.C.	-	SOLID GROUT
MW-7	12"	CMU	2-#5 @ 24" O.C.	1-#6 @ 24" O.C.	-	SOLID GROUT
MW-8	12"	CMU	2-#4 @ 24" O.C.	1-#6 @ 32" O.C.	-	-

NOTES:

1. PROVIDE SCHEDULED VERTICAL REINFORCING BARS AT ALL CORNERS, JAMBS OF DOORS AND WINDOWS, 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. SEE A3/S502.

4. SEE PLANS, DETAILS, DETAIL C5/S602, 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"	6",8",10" OR 12"	CMU	1- #5 CONT.	-----	3'-4"	
ML-2	16"	6",8",10" OR 12"	CMU	1- #4 CONT. TOP & BOT.	-----	5'-4"	
ML-3	24"	6",8",10" OR 12"	CMU	1- #5 CONT. TOP & BOT.	#3 @ 8" O.C.	8'-0"	
ML-4	32"	6",8",10" OR 12"	CMU	1- #7 CONT. TOP & BOT.	#3 @ 8" O.C.	10'-0"	
ML-5	48"	12"	CMU	2- #6 CONT. TOP & BOT.	#3 @ 8" O.C.	-	
ML-6	48"	8"	CMU	1- #7 CONT. TOP & BOT.	#3 @ 8" O.C.	-	
ML-7	40"	8"	CMU	2- #5 CONT. TOP & BOT.	#3 @ 8" 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.

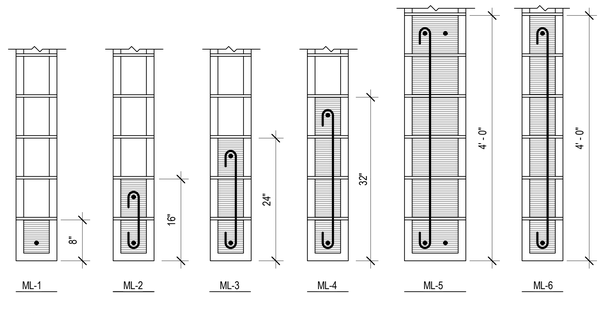
5. GROUT MASONRY LINTELS MONOLITHICALLY WITH THE SUPPORT WALL OR COLUMN AT EACH END.

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.



A1 / S602 TYPICAL MASONRY LINTEL DETAILS

NO SCALE

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:

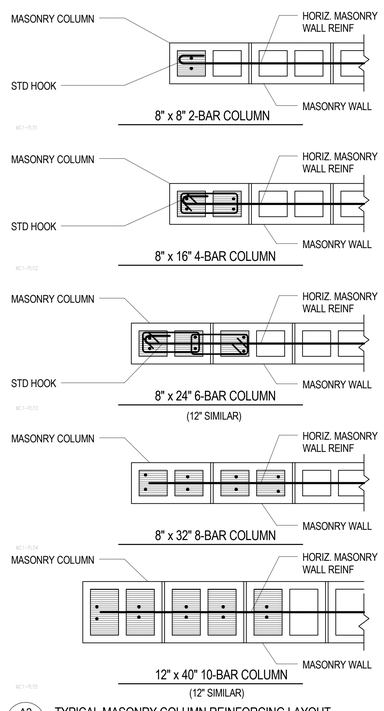
1. CLASS A SPLICES MAY BE USED WHEN ONLY ONE BAR IS CONTINUOUS IN THE MASONRY CELL OR COURSE.
2. CLASS B SPLICES SHALL BE USED WHEN TWO BARS ARE CONTINUOUS IN THE MASONRY CELL OR COURSE.
3. ** INDICATES THAT A LAP SPLICE IS NOT ALLOWED AND MECHANICAL BAR COUPLERS ARE REQUIRED FOR THE BAR SPLICES.
4. 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	SIZE	REINFORCING VERTICAL	REINFORCING TIES	REMARKS
MC-1	8" x 16"	4 - #4	#2 @ 8" O.C.	
MC-2	8" x 24"	6 - #4	#2 @ 8" O.C.	
MC-3	8" x 8"	2 - #4	-	
MC-4	12" x 40"	10 - #5	-	
MC-5	12" x 24"	6 - #5	-	

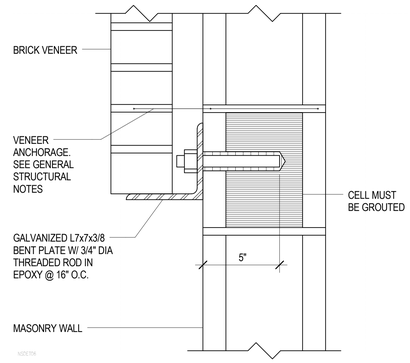
NOTES:

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.



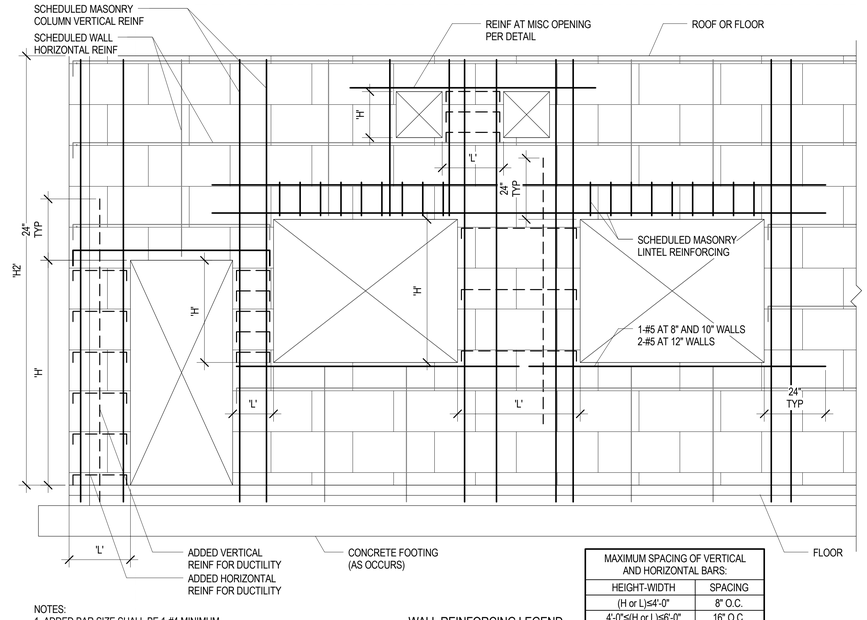
A2 / S602 TYPICAL MASONRY COLUMN REINFORCING LAYOUT

NO SCALE



C4 / S602 TYPICAL BRICKLEDGER DETAIL AT MASONRY WALL

NO SCALE



NOTES:
1. ADDED BAR SIZE SHALL BE 1-#4 MINIMUM.
2. ALL ADDED BARS SHALL BE EMBEDDED IN GROUT.
3. ALL ADDED HORIZONTAL REINFORCING SHALL BE TERMINATED WITH A 90° OR 180° STANDARD HOOK AROUND THE VERTICAL REINFORCING.
4. FOR WALLS WITH 'H2' AND 'L' 12'-0" OR LARGER ADDITIONAL REINFORCING FOR DUCTILITY IS NOT REQUIRED.

WALL REINFORCING LEGEND

- SCHEDULED WALL REINF
- SCHEDULED OPENING REINF
- ADD'L REINF FOR DUCTILITY

MAXIMUM SPACING OF VERTICAL AND HORIZONTAL BARS: HEIGHT-WIDTH	SPACING
(H or L)≤4'-0"	8" O.C.
4'-0"≤(H or L)≤6'-0"	16" O.C.
6'-0"≤(H or L)≤8'-0"	24" O.C.
8'-0"≤(H or L)≤10'-0"	32" O.C.
10'-0"≤(H or L)≤12'-0"	40" O.C.
12'-0"≤(H or L)	48" O.C.

A4 / S602 MASONRY WALL OPENINGS WITH ADDITIONAL DUCTILITY REINFORCING; FOR LOAD BEARING MASONRY WALLS

NO SCALE

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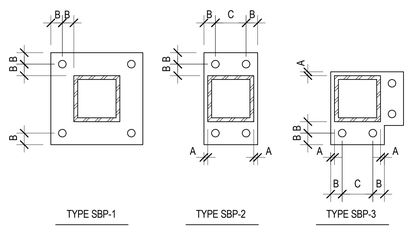
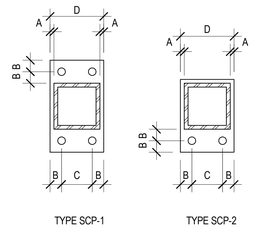
STEEL BASE PLATE SCHEDULE			
COLUMN LOCATION	SIZE	BASE PLATE	CAP PLATE
A.2(1' - 9 7/8")-A.A	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.2(1' - 10")-A.B	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.2(5' - 0")-D.F(-9' - 6 1/2")	HSS4x4x1/4	3/4", SBP-1	1/2", SCP-1
A.2(11")-A.C(-9' - 9 1/2")	HSS4x4x1/4	3/4", SBP-2	--
A.2(-3' - 5")-A.A(5' - 0")	HSS8x8x1/2	1", SBP-1	1/2", SCP-1
A.2(-3' - 5")-A.B(-4' - 8")	HSS8x8x1/2	1", SBP-1	1/2", SCP-1
A.2(-6' - 5")-A.A(5' - 0")	HSS5X5X3/16	3/4", SBP-1	--
A.2(-6' - 5")-A.B(-4' - 8")	HSS5X5X3/16	3/4", SBP-1	--
A.2(-20' - 6 1/2")-A.A(5' - 0")	HSS5X5X3/16	3/4", SBP-1	--
A.2(-20' - 6 1/2")-A.B(-4' - 8")	HSS5X5X3/16	3/4", SBP-1	--
A.2(-23' - 6 1/2")-A.A(5' - 0")	HSS8x8x1/2	1", SBP-1	1/2", SCP-1
A.2(-23' - 6 1/2")-A.B(-4' - 8")	HSS8x8x1/2	1", SBP-1	1/2", SCP-1
A.3-A.A	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.3-A.B	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.4(4")-A.A	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.4(4")-A.B	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.4(4")-B.G(-4")	HSS6x6x1/4	3/4", SBP-1	1/2", SCP-2
A.4(8' - 4 1/4")-D.F(-9' - 6 1/2")	HSS5x5x1/4	3/4", SBP-1	1/2", SCP-1
A.4(8' - 11 7/8")-B.A(4")	HSS6x6x1/4	7/8", SBP-1	1/2", SCP-1
A.4(11' - 0")-A.A	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.4(11' - 0")-A.B	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.5(-8' - 2 1/2")-B.A(4")	HSS3x3x1/4	1/2", SBP-1	1/2", SCP-2
A.5-A.A	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.5-A.B	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.6(4")-A.A	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.6(4")-A.B	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.6(4")-B.A(4 1/8")	HSS5x5x1/4	3/4", SBP-1	1/2", SCP-2
A.6(4")-B.G(-4")	HSS6x6x1/4	3/4", SBP-1	1/2", SCP-2
A.6(-2' - 10 1/2")-D.F(-9' - 6 1/2")	HSS5x5x1/4	3/4", SBP-2	1/2", SCP-2
A.7(4' - 8 1/2")-A.A	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.7(4' - 8 1/2")-A.B	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.7(-3' - 9")-A.A	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
A.7(-3' - 9")-A.B	HSS8x8x1/2	3/4", SBP-1	1/2", SCP-2
B.1(-1' - 7 1/8")-B.A(11")	HSS5x5x1/4	3/4", SBP-2	--
B.1(-6' - 6 1/2")-B.C(4")	HSS4x4x1/4	3/4", SBP-1	1/2", SCP-1
B.1(-6' - 6 1/2")-C.D(-4")	HSS4x4x1/4	3/4", SBP-1	1/2", SCP-1
B.2(4")-B.G(-4")	HSS4x4x1/4	3/4", SBP-3	--
B.2(11")-D.F(-7' - 7 1/8")	HSS5x5x1/4	3/4", SBP-2	--
B.3-B.F(-4")	HSS4x4x1/4	3/4", SBP-1	3/4", SCP-2
B.3-E.C(-1' - 0 3/8")	HSS4x4x1/4	3/4", SBP-1	3/4", SCP-2
B.3-E.D(4")	HSS5X5X1/2	1", SBP-1	--
B.3-E.F(-4")	HSS5X5X1/2	1", SBP-1	--
B.4(-3 7/8")-E.D(3 7/8")	HSS4x4x1/4	7/8", SBP-1	--
B.4(-3 7/8")-E.F(-4 1/8")	HSS5x5x1/4	7/8", SBP-1	--
B.4(-4")-B.F(-4")	HSS4x4x1/4	3/4", SBP-1	--
B.4(-4")-B.G(-4")	HSS4x4x1/4	3/4", SBP-3	--
B.C(4")-C.5(-4")	HSS4x4x1/4	3/4", SBP-1	1/2", SCP-1
C.1(-16' - 0 3/8")-C.C	HSS4x4x1/4	3/4", SBP-2	--
C.5(-4")-C.D(-4")	HSS4x4x1/4	3/4", SBP-1	1/2", SCP-1
D.4(4")-D.C(33' - 8")	HSS4x4x1/4	3/4", SBP-1	--
D.5-D.A(-16' - 1 3/8")	HSS4x4x1/4	3/4", SBP-2	--
D.6(-3 7/8")-D.C(33' - 8")	HSS4x4x1/4	3/4", SBP-1	1/2", SCP-1
E.1(4")-E.D(3 7/8")	HSS5x5x1/4	3/4", SBP-1	1/2", SCP-1
E.1(4")-E.F(-4 1/8")	HSS5x5x1/4	3/4", SBP-1	1/2", SCP-1



TYPE SBP-1 TYPE SBP-2 TYPE SBP-3

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.

C2 / S603 TYPICAL STEEL BASE PLATES - PLAN VIEW
NO SCALE

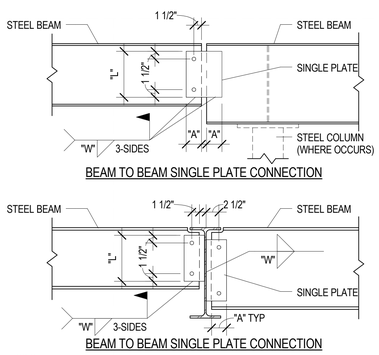


TYPE SCP-1 TYPE SCP-2

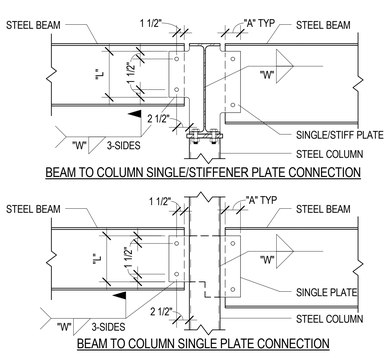
A = 1/2" MIN.
B = 1 1/2" MIN.
C = GAGE OF CONNECTED MEMBER
D = COLUMN WIDTH + 1", BEAM OR GIRDER WIDTH + 1", OR BOLT GAGE + 3", WHICHEVER IS GREATER.

C3 / S603 TYPICAL STEEL CAP PLATES - REFLECTED PLAN VIEW
NO SCALE

STEEL ANGLE LINTEL SCHEDULE			
BEARING EQUALS 1" PER FOOT OF OPENING OR 6" MINIMUM TYPICAL			
	OPENING SIZE	ANGLE SIZE	NOTES: LINTELS ARE DESIGNED TO SUPPORT UNIFORM LOADS CONSISTING ONLY OF WEIGHT OF WALL WITHIN A 60 DEGREE ISOSCELES TRIANGLE AREA ABOVE OPENING.
	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	
			ALL STEEL LINTELS ARE TO HAVE LONG LEG VERTICAL.
			LINTEL SCHEDULE FOR 4" VENEER
			ALL ANGLE LINTELS SHALL BE GALVANIZED.
			SEE TYPICAL BRICK LEDGER DETAILS FOR SPANS GREATER THAN 10'-0".



BEAM TO BEAM SINGLE PLATE CONNECTION
BEAM TO BEAM SINGLE PLATE CONNECTION

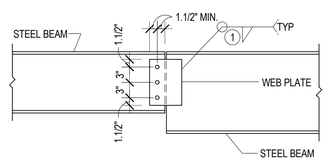


BEAM TO COLUMN SINGLE/STIFFENER PLATE CONNECTION
BEAM TO COLUMN SINGLE PLATE CONNECTION

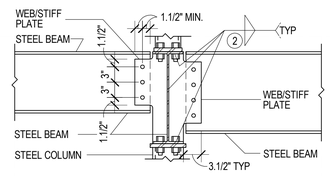
SINGLE PLATE COLLECTOR/CHORD CONNECTION SCHEDULE					
BEAM SIZE	WEB PLATE				ERECTION BOLTS
	"L"	"A"	WELD "W"	THICKNESS	
W8	6"	3"	1/4"	3/8"	2
W14	9"	3"	1/4"	3/8"	2

NOTES:
1. ERECTION BOLT SHALL BE 7/8"Ø A325N BOLTS.
2. FILLET WELDS TWO SIDES SHALL BE 3/4 THE PLATE THICKNESS (1/4" MIN.) EACH SIDE
3. BOLT EDGE DISTANCE SHALL BE 1.1/2" AT ALL EDGES U.N.O.

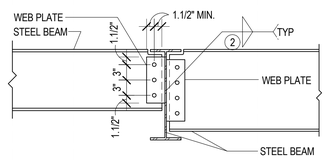
B2 / S603 TYPICAL WELDED SINGLE PLATE COLLECTOR/CHORD CONNECTION DETAILS & SCHEDULE
NO SCALE



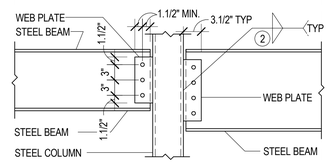
BEAM TO BEAM WEB PLATE CONNECTION



BEAM TO COLUMN WEB/STIFFENER PLATE CONNECTION



BEAM TO BEAM WEB PLATE CONNECTION



BEAM TO COLUMN WEB PLATE CONNECTION

A3 / S603 TYP BOLTED WEB PLATE CONN. W/ BOLT SCHED. (SINGLE SHEAR)
NO SCALE

A325 BOLT SCHEDULE			
MAXIMUM BEAM SIZE IN EACH BEAM DEPTH GROUP	WEB PLATE THICKNESS	A325N BOLTS	
		NUMBER	SIZE
W8, W10	3/8"	2	3/4"
W12, W14	3/8"	3	3/4"
W16	3/8"	4	3/4"
W18	3/8"	5	3/4"
W21, W24	3/8"	6	3/4"
W27	1/2"	7	3/4"
W30	1/2"	8	3/4"

NOTES:
1. FILLET WELDS ONE SIDE SHALL EQUAL THE PLATE THICKNESS MINUS 1/16" (1/4" MIN.)
2. FILLET WELDS TWO SIDES SHALL BE 3/4 THE PLATE THICKNESS (1/4" MIN.) EACH SIDE
3. BOLT EDGE DISTANCE SHALL BE 1.1/2" MIN. AT ALL EDGES. BOLT SPACING SHALL BE 3" MIN.
4. THICKNESS EQUALS BEAM FLANGE THICKNESS OF BEAM FRAMING INTO COLUMN WEB. (3/8" MIN.)

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STRUCTURAL SCHEDULES

S603

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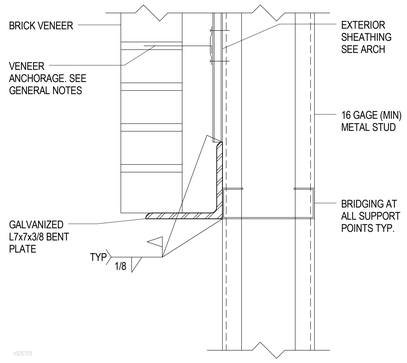
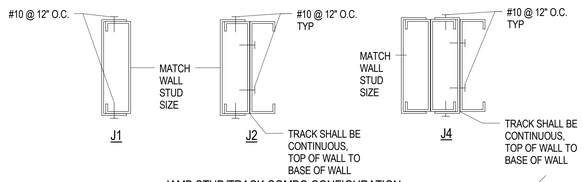


D1 / S604 TYPICAL BRICK LEDGER DETAIL AT METAL STUD WALL

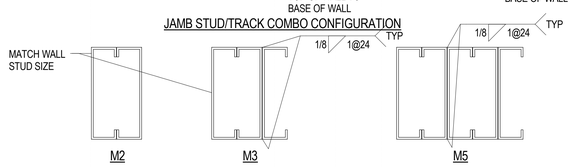
NO SCALE

WALL						JAMB						HEADER	SILL	
HEIGHT	WALL STUD/SIZE SPACING	TOP & BOTTOM TRACKS	BOTTOM TRACK CONNECTION	TRACK/TOP OF WALL CONNECTION	WALL STUD BRIDGING	OPENING WIDTH	SINGLE STUD	STUD/TRACK COMBO (2)	MULTIPLE STUDS (3)	JAMB CONNECTION		TYPE	TYPE	HEADER & SILL CONNECTION
							SIZE	TYPE	TYPE	TOP	BASE (6) (7) (8)			
UP TO 15'-0" TO ROOF CONNECTION WITH 3'-0" PARAPET	600S162-54 @ 16" O.C. MAX	600T125-54	TYPICAL PER NOTE 7	VERTICLIP DSLB600 (5)	COLD-ROLLED CHANNEL @ 4'-0" O.C. CAPABLE OF RESISTING A MOMENT OF M=0.22 KIP-IN ADD VERTICAL BOXED STUDS PER A4/S604 @ MEZZANINE	UP TO 3'-6"	600S200-54	J1	M2	VERTICLIP SLB600 (5)	-	H1	S1	C1
						3'-7" TO 6'-6"	600S350-54	J1	M2	VERTICLIP SLB600 (5)	-	H2	S1	C2
						6'-7" TO 10'-0"	NOT AVAILABLE	J2	M3	VERTICLIP SLB600 (5)	STIFFCLIP CL600 PATTERN 5 (AT DOORS ONLY)	H2	S1	C2
						10'-1" TO 12'-0"	NOT AVAILABLE	J2	M3	VERTICLIP SLB600 (5)	STIFFCLIP CL600 PATTERN 5 (AT DOORS ONLY)	H3	S2	C2
						12'-1" TO 14'-8"	NOT AVAILABLE	J4	M5	2-VERTICLIP SLB600 (5)	STIFFCLIP CL600 PATTERN 5 (AT DOORS ONLY)	H4	S2	C2

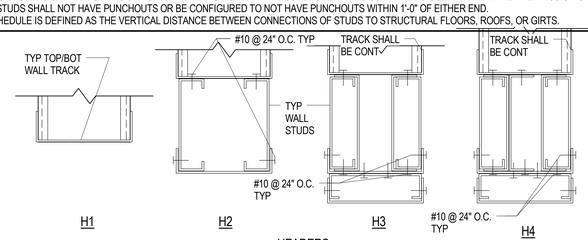
NOTES:
1. THREE JAMB OPTIONS ARE LISTED, BUT ONLY ONE SHALL BE USED FOR THE JAMBS OF THE SAME OPENING. EQUIVALENT PROPRIETARY JAMB STUDS MAY BE SUBMITTED & USED WITH WRITTEN PERMISSION OF ENGINEER
2. JAMB STUD/TRACK COMBINATION MUST BE FASTENED TOGETHER PER TYPICAL JAMB CONFIGURATION DETAILS.
3. MULTIPLE STUDS SHALL BE STITCH WELDED TOGETHER PER DETAILS.
4. CONNECTION HARDWARE LISTED IS THE BASIS OF DESIGN. EQUIVALENT ALTERNATIVE HARDWARE MAY BE SUBMITTED & USED WITH WRITTEN PERMISSION OF ENGINEER.
5. FILL ALL HOLES IN CONNECTION HARDWARE WITH APPROPRIATE SCREWS UNLESS NOTED OTHERWISE. CONNECTION HARDWARE TO BE ATTACHED TO SUBSTRATE WITH (2) HILTI X-U FASTENERS TO STEEL DECK EDGE ANGLE, UNLESS NOTED OTHERWISE.
6. WHERE NO BASE CONNECTION CLIP IS SPECIFIED, THE JAMB SHALL BE ATTACHED TO THE BASE TRACK W/ A MINIMUM OF TWO #10 SCREWS PER STUD. FOR STIFFCLIP CONNECTION, SEE TYPICAL BASE CONNECTION DETAILS.
7. BOTTOM TRACK ANCHORAGE SHALL BE ONE OF THE FOLLOWING, UNLESS NOTED OTHERWISE IN SCHEDULE:
   a. 1/2" DIAMETER J-BOLTS WITH 6" EMBEDMENT & 1.1/2" PROJECTION AT 32" O.C.
   b. 1/2" DIAMETER SIMPSON TITEN HD WITH 4" EMBEDMENT AT 32" O.C.
   c. 1/2" DIAMETER THREADED ROD IN SIMPSON SET-XP EPOXY, 6" EMBEDMENT AT 32" O.C.
8. STIFFCLIP JAMB CONNECTION SHALL USE TYPICAL BOTTOM TRACK ANCHORAGE LISTED ABOVE.
9. ALTERNATE BRIDGING SYSTEMS CAPABLE OF RESISTING THE MOMENTS LISTED IN THE SCHEDULE MAY BE SUBMITTED & USED WITH WRITTEN PERMISSION OF ENGINEER.
10. HEADER VERTICAL STUDS SHALL NOT HAVE PUNCHOUTS OR BE CONFIGURED TO NOT HAVE PUNCHOUTS WITHIN 1'-0" OF EITHER END.
11. WALL HEIGHT IN SCHEDULE IS DEFINED AS THE VERTICAL DISTANCE BETWEEN CONNECTIONS OF STUDS TO STRUCTURAL FLOORS, ROOFS, OR GIRTS.

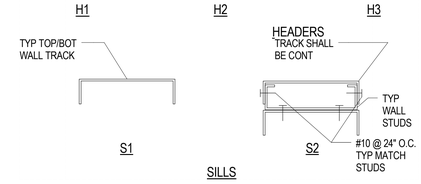


JAMB STUD/TRACK COMBO CONFIGURATION

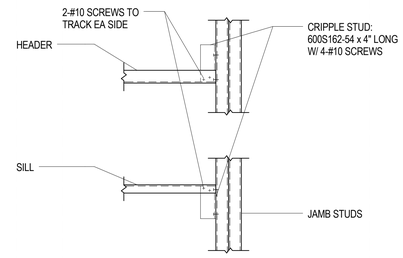


JAMB WELDED MULTIPLE STUD CONFIGURATION

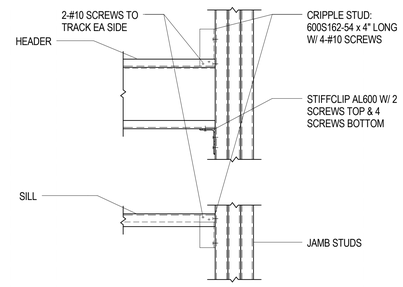




SILLS



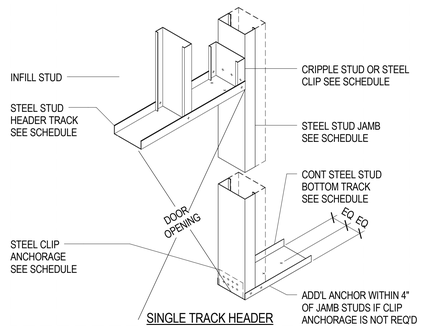
C1
(HEADER & SILL CONNECTIONS)



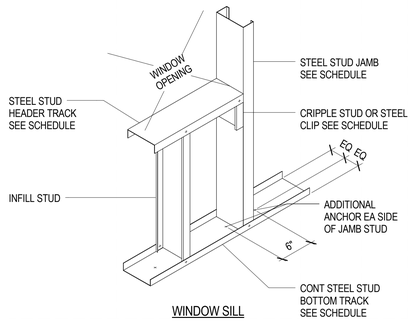
C2
(HEADER & SILL CONNECTIONS)

C1 / S604 TYPICAL EXTERIOR STEEL STUD FRAMING SCHEDULE

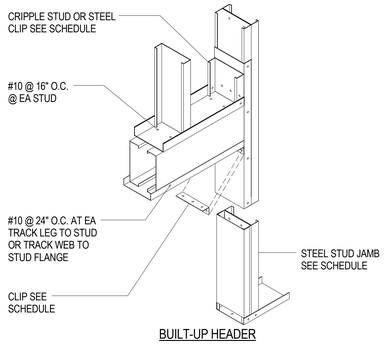
NO SCALE



SINGLE TRACK HEADER



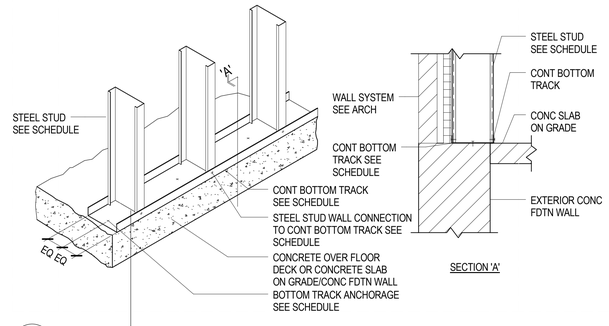
WINDOW SILL



BUILT-UP HEADER

B1 / S604 TYPICAL NON-BEARING STEEL STUD WALL WINDOW & DOOR OPENING

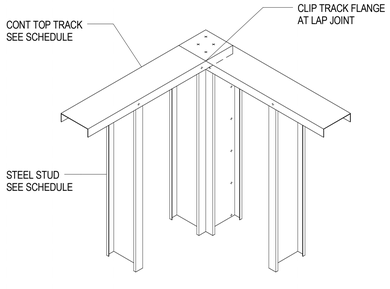
NO SCALE



SECTION 'A'

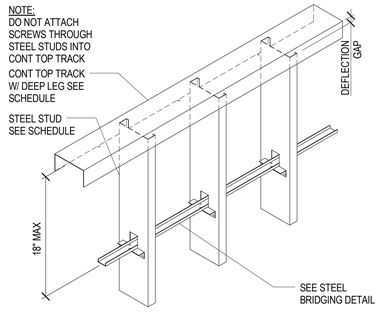
B4 / S604 TYPICAL BOTTOM TRACK ANCHORAGE

NO SCALE

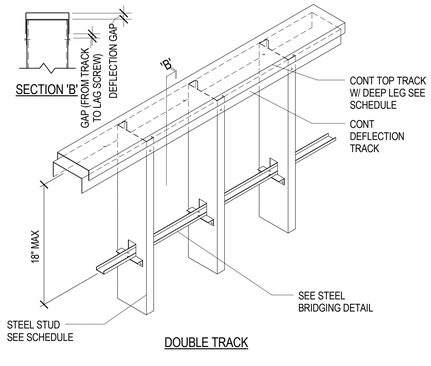


A1 / S604 TYPICAL WALL FRAMING AT CORNER TRACK LAP CONNECTION

NO SCALE



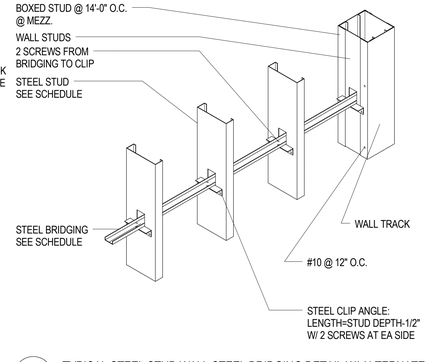
SINGLE TRACK

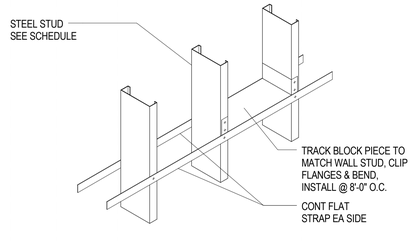


DOUBLE TRACK

A2 / S604 TYPICAL STEEL STUD WALL DEFLECTION TRACK ASSEMBLY DETAIL - SINGLE & DOUBLE TRACK

NO SCALE





A4 / S604 TYPICAL STEEL STUD WALL STEEL BRIDGING DETAIL W/ ALTERNATE

NO SCALE

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STEEL STUD SCHEDULES & TYPICAL DETAILS

S604

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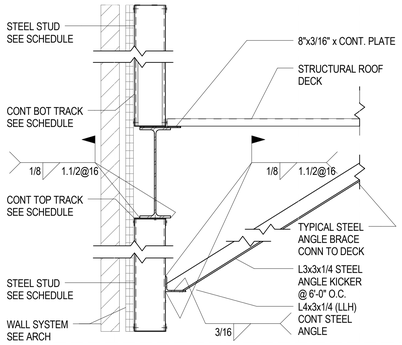
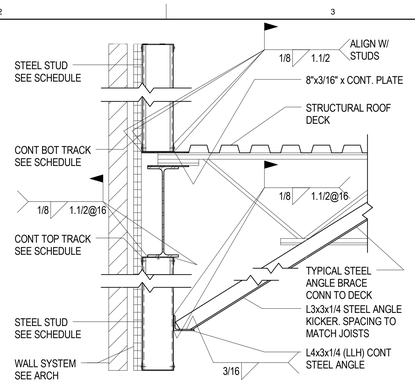


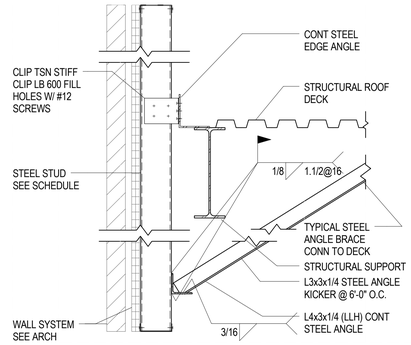
D1 / S605 TYPICAL STEEL STUD WALL BYPASS ABOVE FRAMED OPENING BRACED TO DECK

NO SCALE



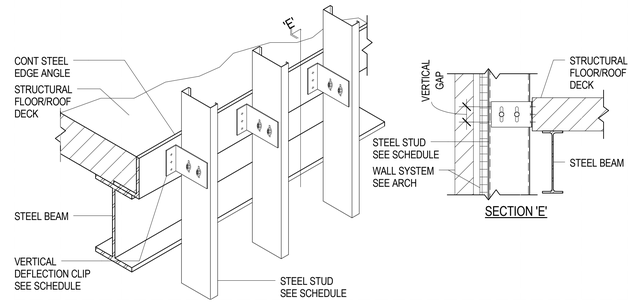
D2 / S605 TYPICAL STEEL STUD WALL BYPASS ABOVE FRAMED OPENING BRACED TO DECK

NO SCALE



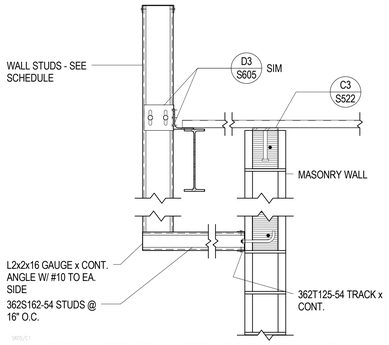
D3 / S605 TYPICAL STEEL STUD WALL BYPASS ABOVE FRAMED OPENING BRACED TO DECK

NO SCALE



D4 / S605 TYPICAL STEEL STUD WALL BYPASS W/ VERTICAL DEFLECTION

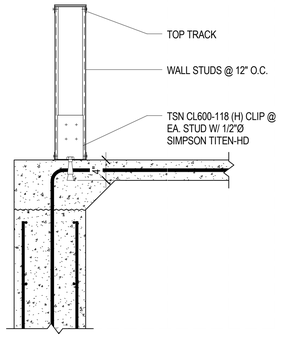
NO SCALE



S605/C1

C1 / S605 TYPICAL STEEL STUD SOFFIT AND PARAPET WALL AT MASONRY WALL

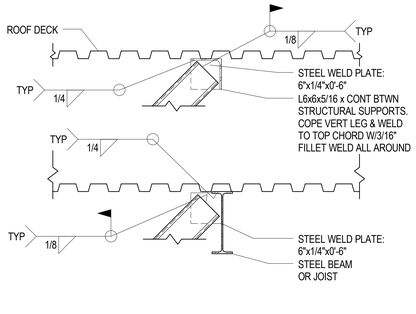
NO SCALE



S605/C2

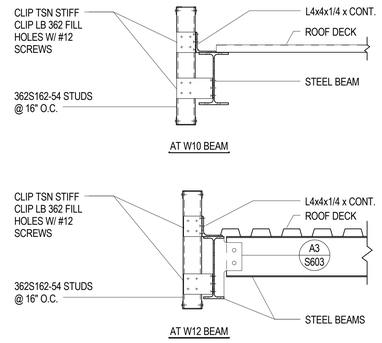
C2 / S605 TYPICAL STEEL STUD SOFFIT AND PARAPET WALL AT MASONRY WALL

NO SCALE



C3 / S605 TYPICAL STEEL STUD BRACE CONNECTION TO FLOOR/ROOF DECK

NO SCALE



S605/C4

C4 / S605 TYPICAL STEEL STUDS AT CANOPY EDGE BEAMS

NO SCALE

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TYPICAL
STEEL STUD
DETAILS

S605

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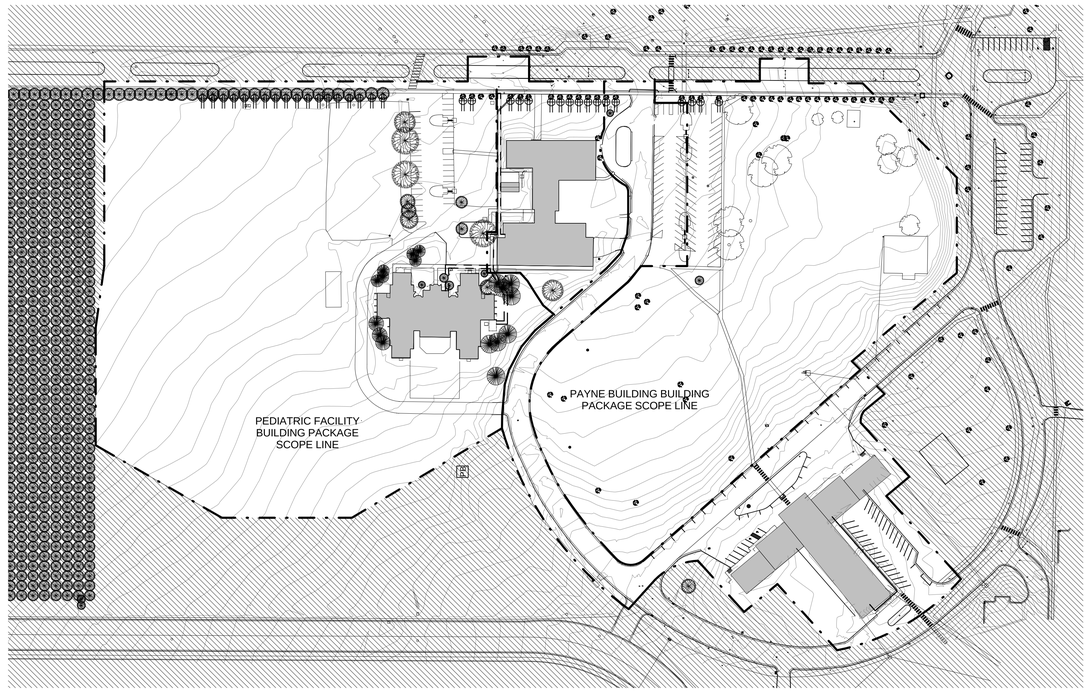
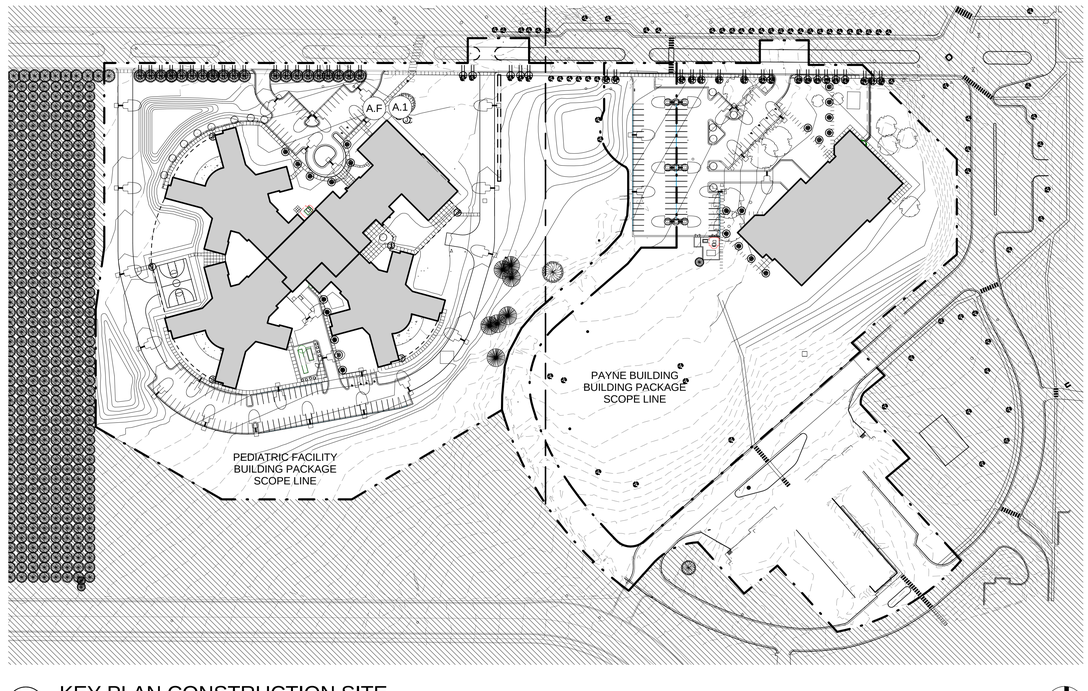


C3 KEY PLAN EXISTING SITE
SCALE: 1" = 100'-0"

0" 100' 200'



A3 KEY PLAN CONSTRUCTION SITE
SCALE: 1" = 100'-0"

0" 100' 200'

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PROJECT NUMBER 11111
FILE USH-SITE

SITE KEY PLANS

AS001

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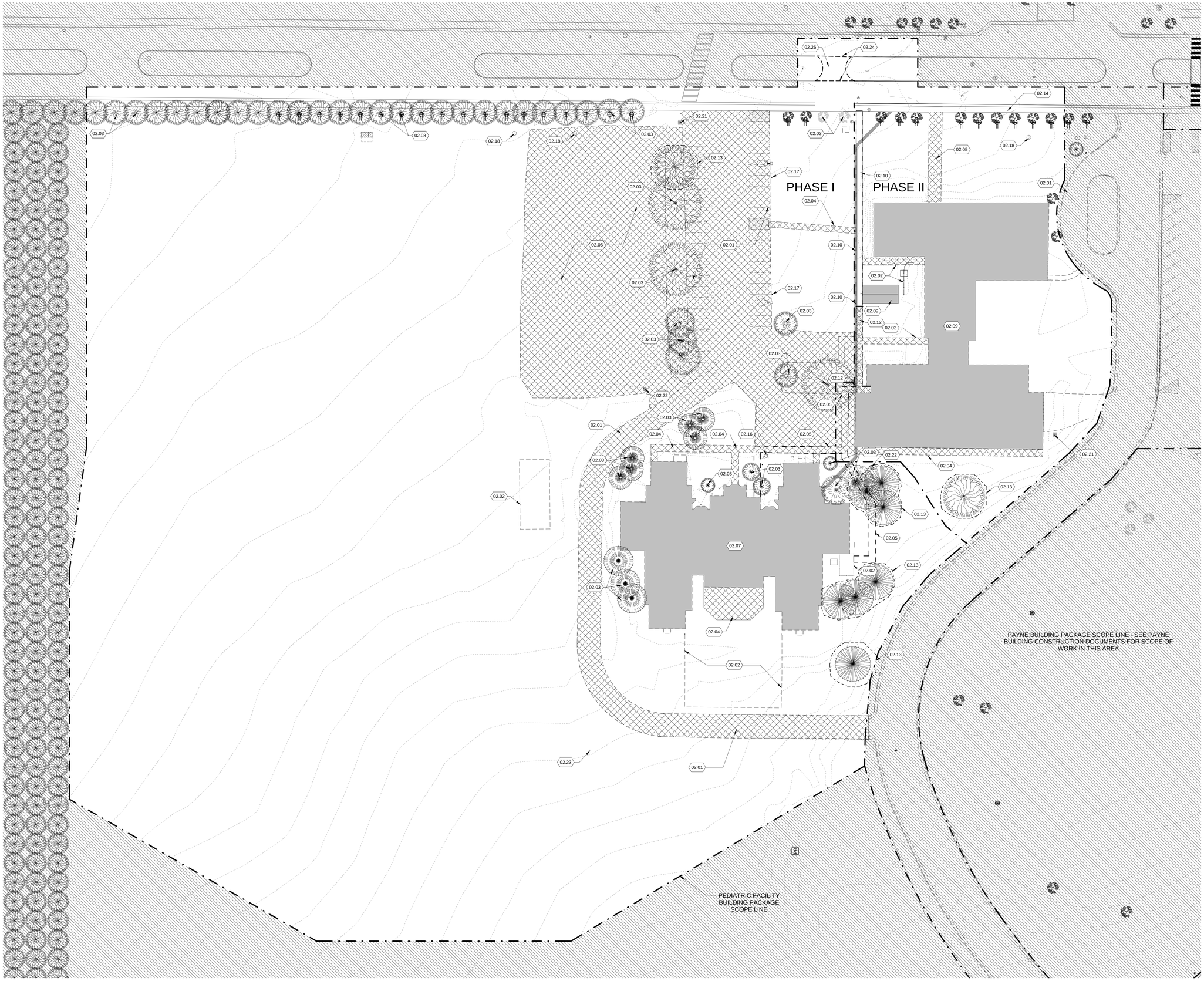

A1 EXISTING PEDIATRIC SITE & DEMOLITION PLAN

SCALE: 1" = 30'-0"

0' 30' 60'

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REFERENCE NOTES

02.01	REMOVE EXISTING ASPHALT PAVING / CURB AND GUTTER
02.02	REMOVE EXISTING CHAIN LINK FENCE
02.03	REMOVE EXISTING TREES
02.04	REMOVE EXISTING CONCRETE PAVING
02.05	REMOVE EXISTING UTILITY TUNNEL
02.06	REMOVE EXSITING GRAVEL PAVING
02.07	DEMO EXISTING BUILDING
02.09	EXISTING BUILDING TO REMAIN IN OPERATION UNTIL COMPLETION OF CONSTRUCTION. BUILDING TO BE DEMOLISHED AFTER CONSTRUCTION IS COMPLETE
02.10	EXISTING UTILITY TUNNEL AND CONCRETE WALK TO REMAIN AND BE PROTECTED DURING CONSTRUCTION
02.12	EXISTING UTILITY TUNNEL TO REMAIN IN OPERATION UNTIL COMPLETION OF CONSTRUCTION. TUNNEL TO BE DEMOLISHED AFTER CONSTRUCTION IS COMPLETE
02.13	PROTECT EXISTING TREES WITH RIGID CONSTRUCTION FENCING AS SHOWN. PROVIDE TEMPORARY IRRIGATION
02.14	EXISTING CONCRETE WALK TO REMAIN
02.16	REMOVE EXISTING FIRE HYDRANT, RE: CIVIL DRAWINGS
02.17	REMOVE EXISTING LIGHT FIXTURE, RE: ELECTRICAL DRAWINGS
02.18	EXISTING SEWER MANHOLE, RE: CIVIL DRAWINGS
02.21	EXISTING INLET BOX, RE: CIVIL DRAWINGS
02.22	EXISTING SUMP INLET, RE: CIVIL DRAWINGS
02.23	EXISTING CLEANOUT, RE: CIVIL DRAWINGS
02.24	REMOVE EXISTING CURB AND GUTTER
02.26	REMOVE EXISTING LANDSCAPE MEDIAN AREA

GENERAL NOTES

1. ALL EXISTING TREES ALONG CENTER ST. ARE TO REMAIN IN THE FINAL PROJECT, EXCEPT AS NOTED ON THIS SHEET. PROTECT TREES DURING CONSTRUCTION.

- DEMOLITION

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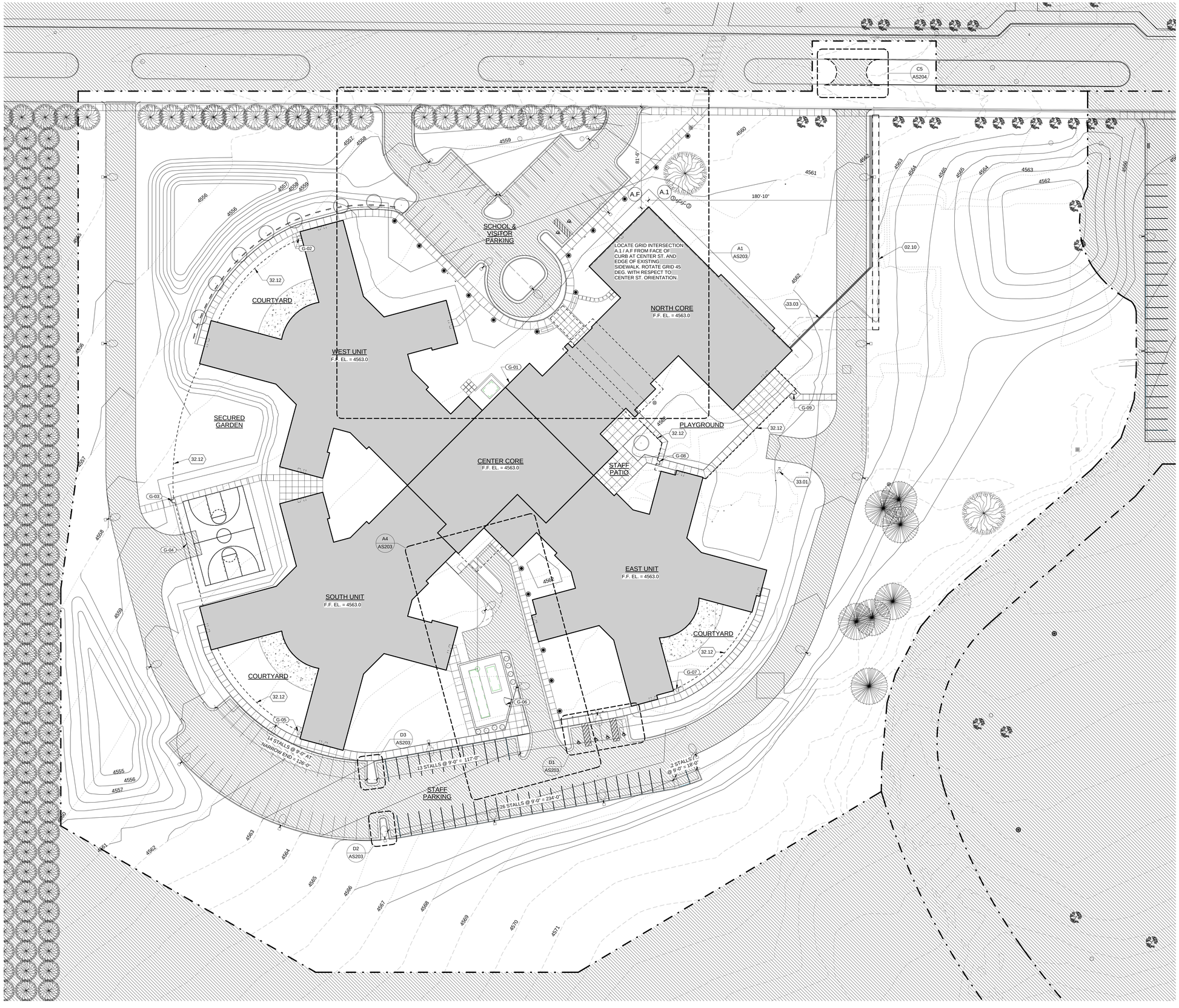
PROJECT NUMBER 11111
FILE USH-SITE

EXISTING SITE & DEMOLITION PLAN

AS201

9/10/2012 2:45:31 PM



A1 PEDIATRIC SITE PLAN

SCALE: 1" = 30'-0"

0' 30' 60'

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

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REFERENCE NOTES

02.10	EXISTING UTILITY TUNNEL AND CONCRETE WALK TO REMAIN AND BE PROTECTED DURING CONSTRUCTION
32.12	SECURITY CHAIN LINK FENCE
33.01	FIRE HYDRANT RE: CIVIL DRAWINGS
33.03	TIE INTO EXISTING TUNNEL

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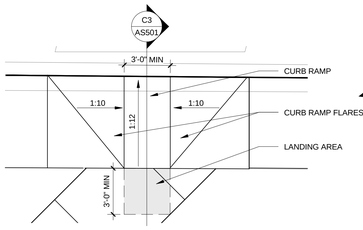
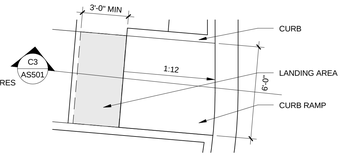
SITE PLAN

AS202

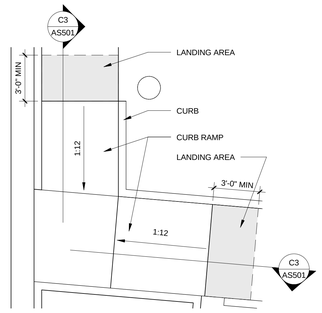
9/10/2012 2:45:47 PM



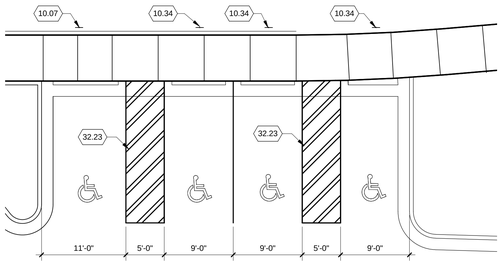
E1 ACCESSIBLE CURB RAMP
SCALE: 1/4" = 1'-0"



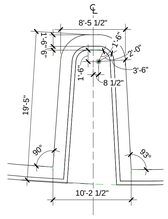
E2 ACCESSIBLE CURB RAMP
SCALE: 1/4" = 1'-0"



E3 ACCESSIBLE CURB RAMP
SCALE: 1/4" = 1'-0"



D1 SITE DETAIL
SCALE: 1/8" = 1'-0"



D2 SITE DETAIL
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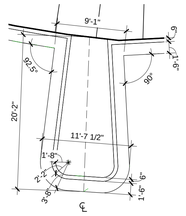

D3 SITE DETAIL
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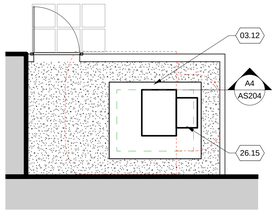
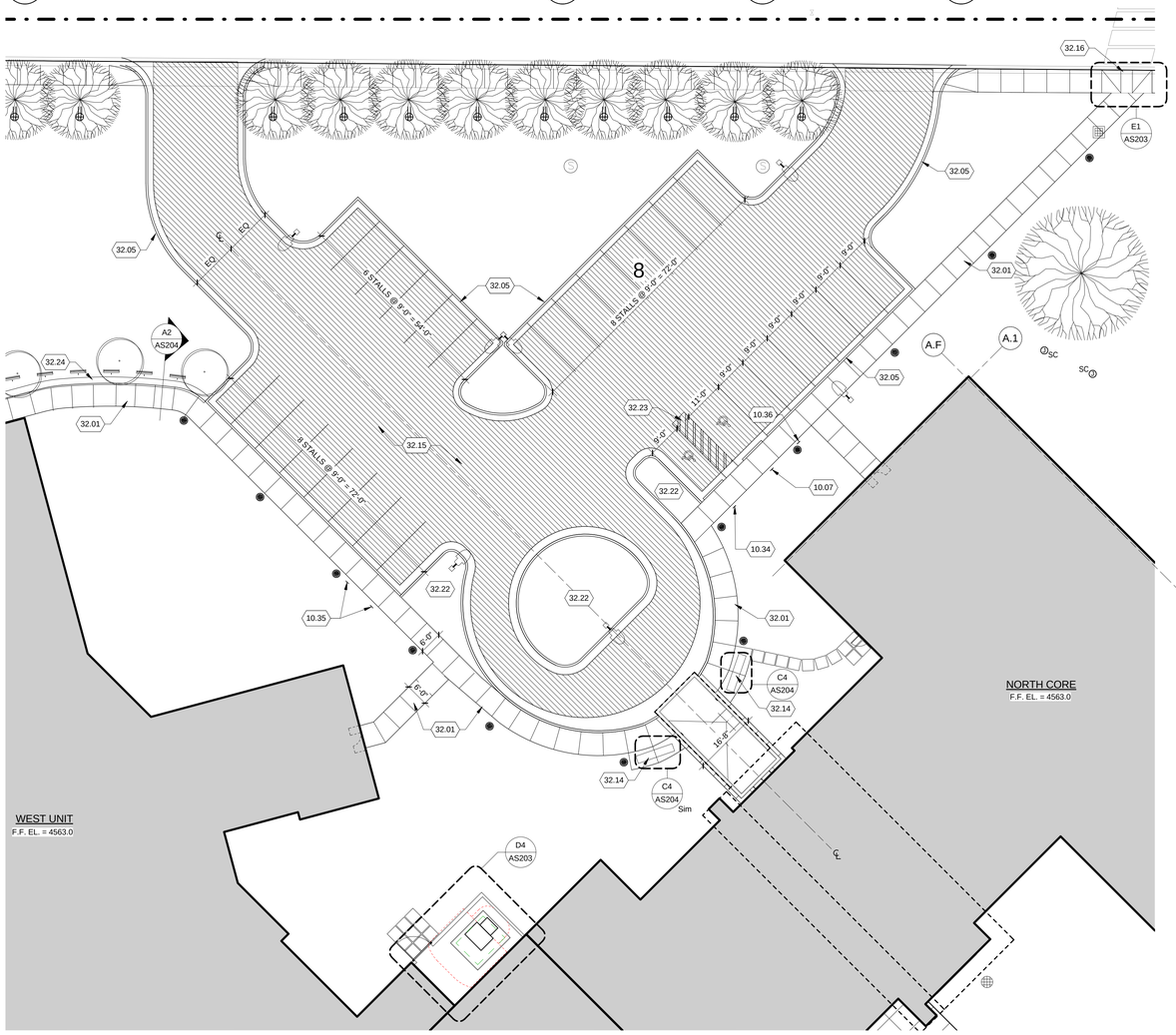
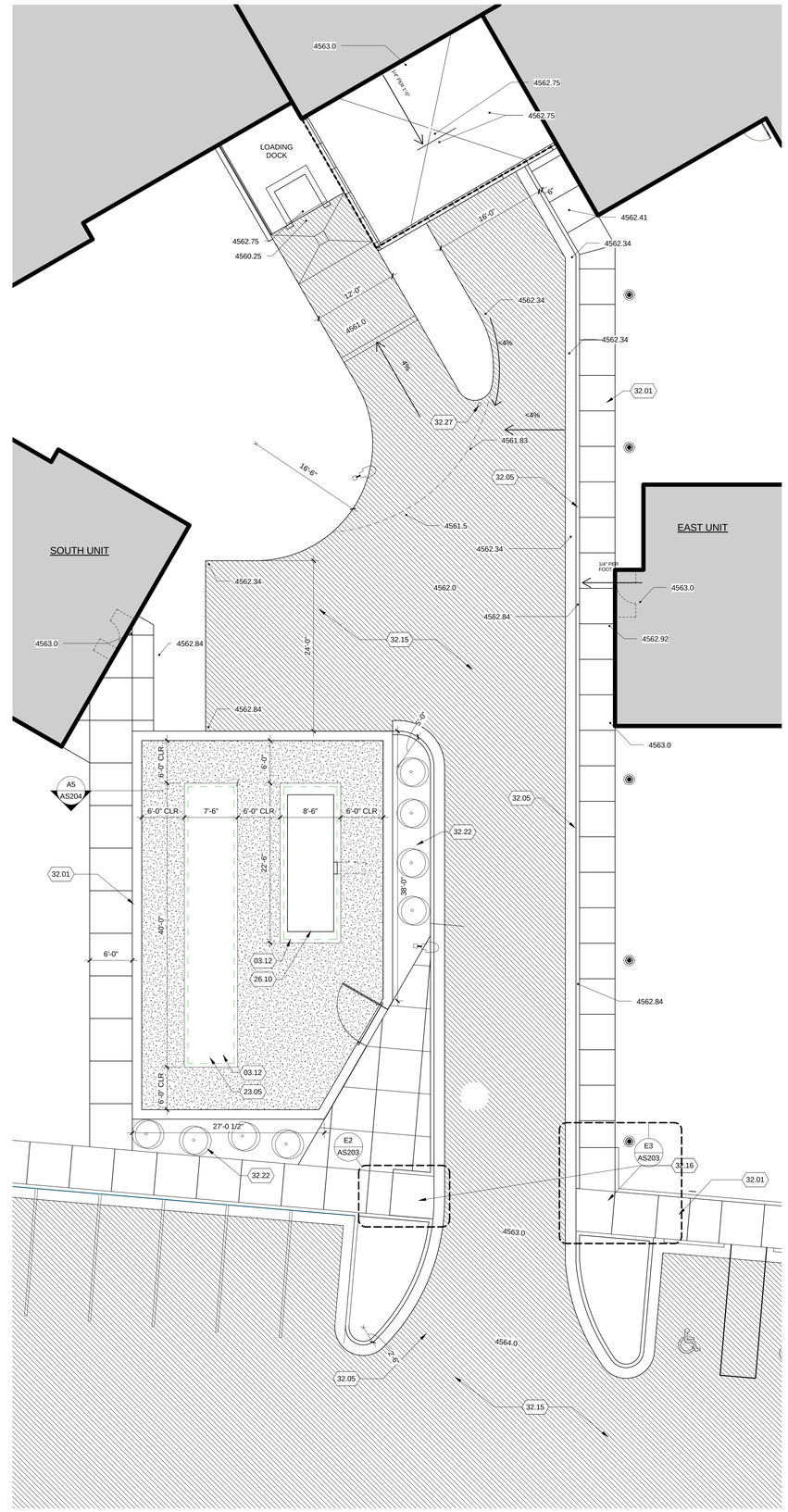


D4 SITE DETAIL
SCALE: 1/8" = 1'-0"



A1 PEDIATRIC ENTRANCE
SCALE: 1/16" = 1'-0"



A4 PEDIATRIC DOCK
SCALE: 1/8" = 1'-0"

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REFERENCE NOTES

03.12	CONCRETE EQUIPMENT PAD
10.07	VAN ACCESSIBLE PARKING SIGN
10.34	ACCESSIBLE PARKING SIGN
10.35	LOW EMITTING VEHICLE SIGN
10.36	CARPOOL SIGN
23.05	CHILLER, RE: MECHANICAL DRAWINGS
26.10	EMERGENCY GENERATOR, RE: ELECTRICAL DRAWINGS
26.15	TRANSFORMER, RE: ELECTRICAL
32.01	CONCRETE SIDEWALK
32.05	CONCRETE CURB AND GUTTER, RE: DETAIL A5/AS501
32.14	BENCHES 10'-0" X 2'-0"
32.15	ASPHALT PAVING OVER ROAD BASE
32.16	NEW CURB RAMP, RE: DETAIL C3/AS501
32.22	LANDSCAPE AREA. RE: LANDSCAPE
32.23	PAINTED PARKING STRIPING
32.24	STONE WALL
32.27	6" CONCRETE-FILLED STEEL PIPE BOLLARD, RE: C5/AS501

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ENLARGED SITE PLANS

AS203

9/10/2012 2:46:15 PM

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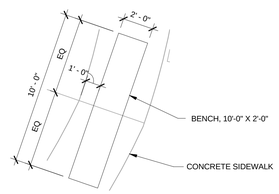
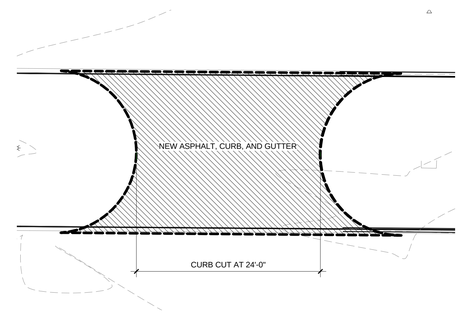
REFERENCE NOTES

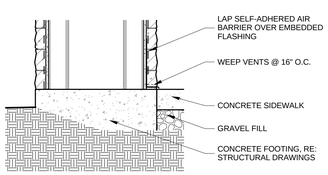
03.03	CONCRETE FOOTING, RE: STRUCTURAL DRAWINGS
03.12	CONCRETE EQUIPMENT PAD
03.13	GRAVEL FILL
03.14	PRECAST CONCRETE CAP SET IN CONTINUOUS BED OF MORTAR, SLOPE TOP FOR DRAINAGE
04.01	BRICK VENEER
04.10	8"X8"X16" CMU
04.11	CAVITY AIR SPACE, DO NOT FILL WITH GROUT
04.12	12" X 8" X 16" CMU
04.43	WEEP VENTS @ 16" O.C.
04.45	STONE VENEER (CUSTOM-CUT, FIVE SIDES, BLEND OF 40% 4" X 8", 40% 4" X 16", AND 20% 4" X 24" NOMINAL STONE VENEER MODULES) RE: AS/A203
05.04	3 5/8" METAL STUD
06.04	WOOD BLOCKING
06.06	GLASS-MAT GYPSUM SHEATHING
07.02	METAL FLASHING
07.07	SELF-ADHERED AIR BARRIER
07.21	LAP SELF-ADHERED AIR BARRIER OVER EMBEDDED FLASHING
32.01	CONCRETE SIDEWALK



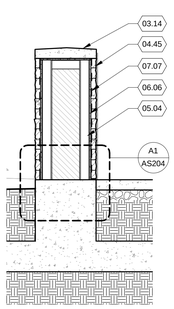
C4 SITE BENCH
SCALE: 1/4" = 1'-0"



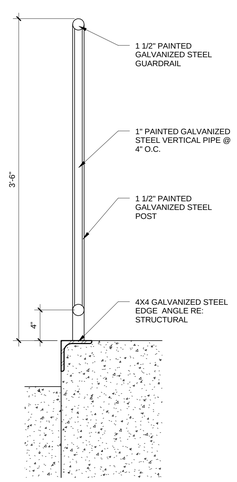
C5 PEDIATRIC BUILDING MEDIAN
SCALE: 1/8" = 1'-0"



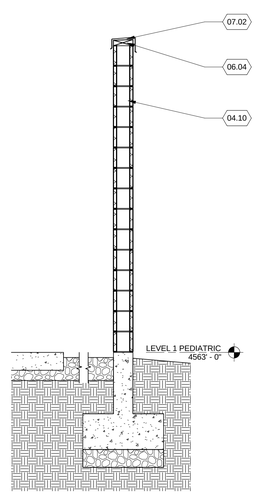
A1 STONE SITE WALL BASE
SCALE: 1" = 1'-0"



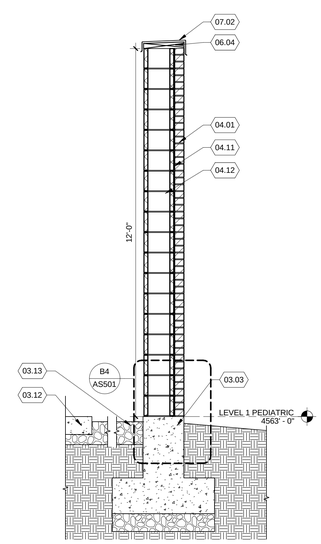
A2 STONE SITE WALL
SCALE: 1/2" = 1'-0"



A3 GUARDRAIL DETAIL
SCALE: 1 1/2" = 1'-0"



A4 TRANSFORMER ENCLOSURE WALL SECTION
SCALE: 1/2" = 1'-0"



A5 EQUIPMENT ENCLOSURE WALL SECTION
SCALE: 1/2" = 1'-0"

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SITE DETAILS

AS204

9/10/2012 2:46:24 PM

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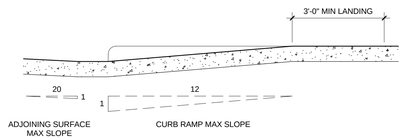
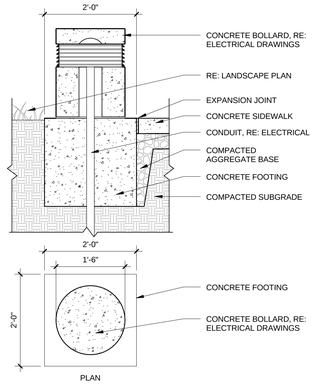
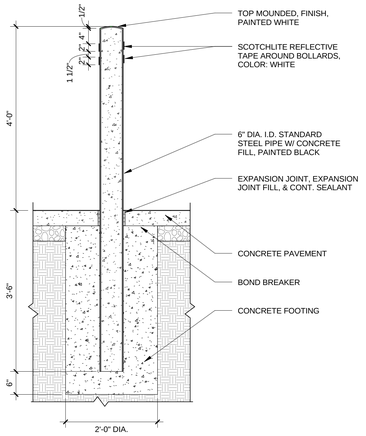


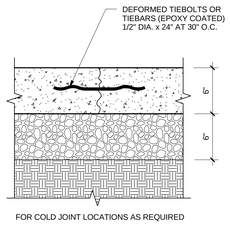
C3 ACCESSIBLE CURB RAMP
SCALE: 1/2" = 1'-0"



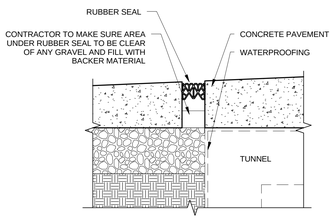
C4 PRECAST CONCRETE LIGHT BOLLARD
SCALE: 3/4" = 1'-0"



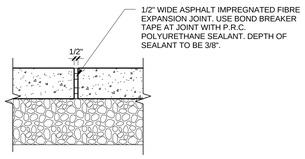
C5 CONCRETE-FILLED STEEL PIPE BOLLARD
SCALE: 3/4" = 1'-0"



B1 CONSTRUCTION JOINT
SCALE: 1 1/2" = 1'-0"



B2 EXPANSION JOINT
SCALE: 1 1/2" = 1'-0"



B3 EXPANSION JOINT
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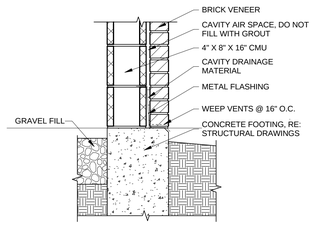
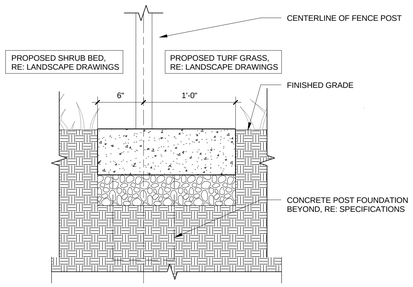
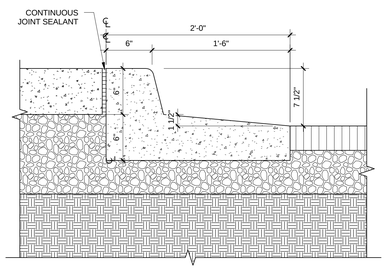


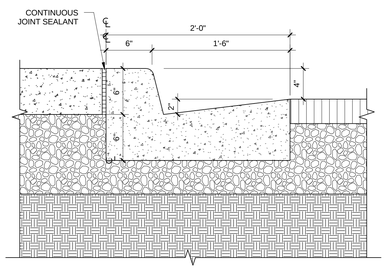
B4 EQUIPMENT ENCLOSURE BASE DETAIL
SCALE: 1" = 1'-0"



B5 TYP MOW STRIP @ PEDIATRIC FENCE
SCALE: 1 1/2" = 1'-0"



A1 OUTFLOW SLOPE CURB DETAIL
SCALE: 1 1/2" = 1'-0"



A2 CURB DETAIL
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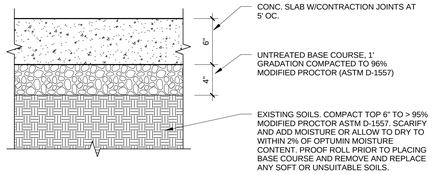
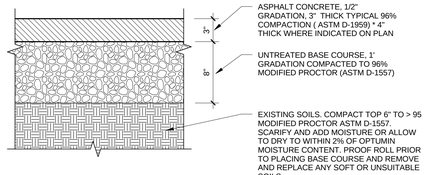
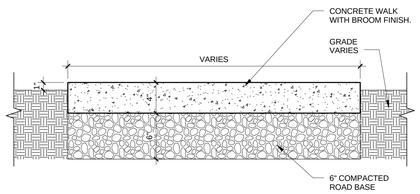


A3 CONCRETE PAVEMENT SECTION
SCALE: 1 1/2" = 1'-0"



A4 ASPHALT CONCRETE PAVEMENT SECTION
SCALE: 1 1/2" = 1'-0"



A5 SIDEWALK CROSS SECTION
SCALE: 1 1/2" = 1'-0"

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PROJECT NUMBER 11111
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TYPICAL SITE DETAILS

AS501

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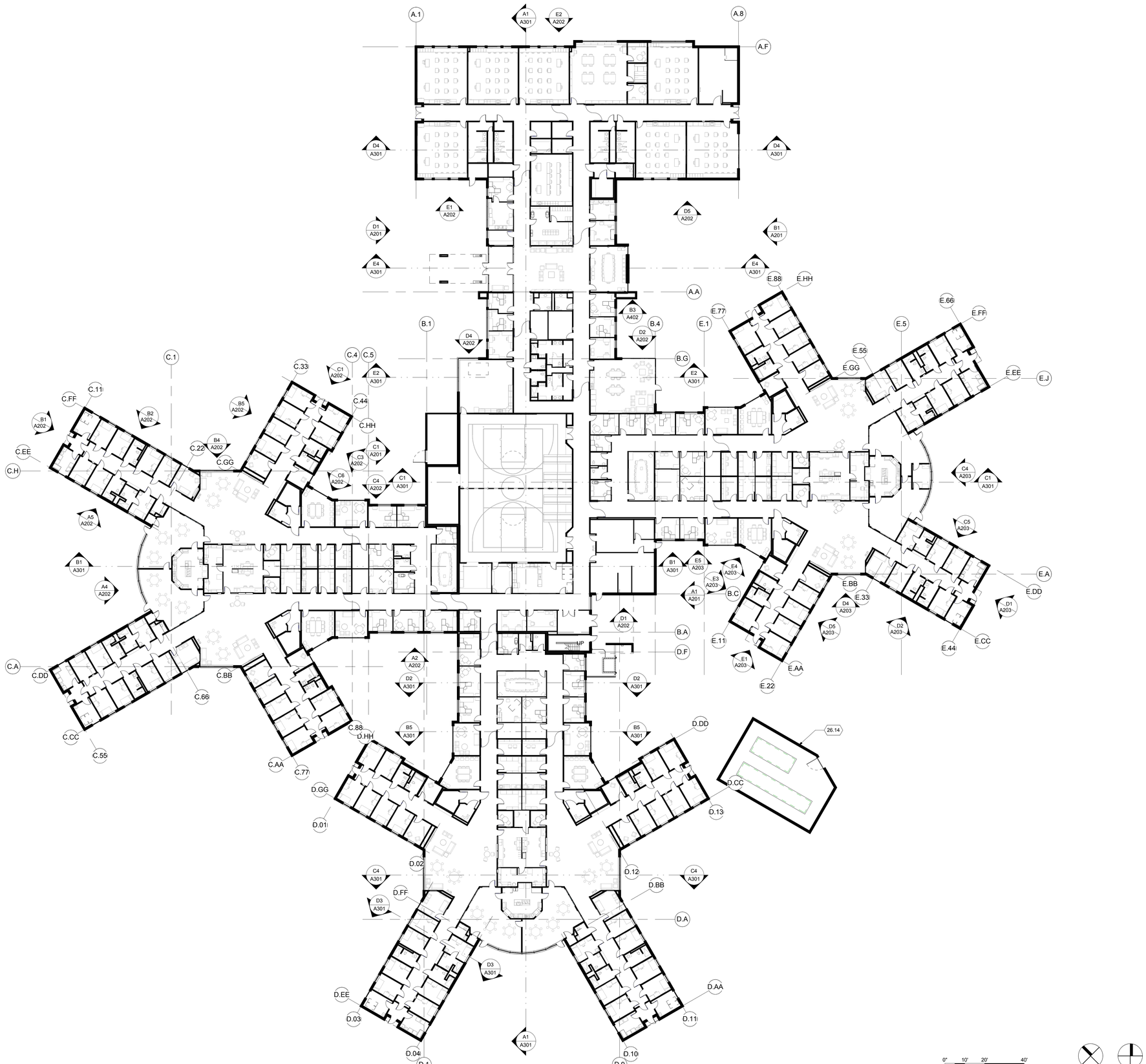

A1 LEVEL 1 - OVERALL FLOOR PLAN

SCALE: 1" = 20'-0"

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FFKR ARCHITECTS

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730 pacific avenue
salt lake city
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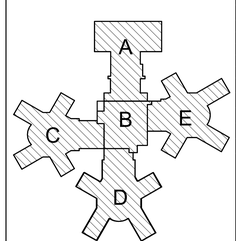
REFERENCE NOTES

26.14 GENERATOR ENCLOSURE AND EQUIPMENT, RE: SITE PLANS

GENERAL NOTES

1. ALL EXPOSED OUTSIDE CMU CORNERS SHALL BE BULL-NOSED
2. ALL CONDUIT AND BOXES FOR ELECTRICAL, DATA, SECURITY, AND FIRE ALARM SHALL BE RECESSED INTO CMU WHEN EXPOSED
3. PROVIDE PLYWOOD BLOCKING BEHIND ALL WALL-MOUNTED VIDEO DISPLAYS SHOWN INSTALLED ON METAL STUD WALLS
4. ALL DIMENSIONS SHOWN FOR STUD WALLS ARE TO FACE OF FINISHED WALL. ALL MASONRY DIMENSIONS SHOWN ARE NOMINAL. ACTUAL DIMENSIONS AT WALL OPENINGS ARE DIMENSION SHOWN PLUS 3/8". DIMENSIONS AT WALL SEGMENTS ARE DIMENSION SHOWN MINUS 3/8".
5. PROVIDE BLOCKING IN WALLS FOR ALL WALL-MOUNTED ITEMS, RE: INTERIOR ELEVATIONS
6. ALL DOOR JAMBS IN STUD WALLS ARE TO BE 4" CLEAR FROM CORNER OF ROOM, U.N.O. ALL DOOR JAMBS IN CMU WALLS ARE DIMENSIONED

KEY PLAN



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FILE 11111 USH Pediatric.rvt

LEVEL 1
FLOOR PLAN

A101

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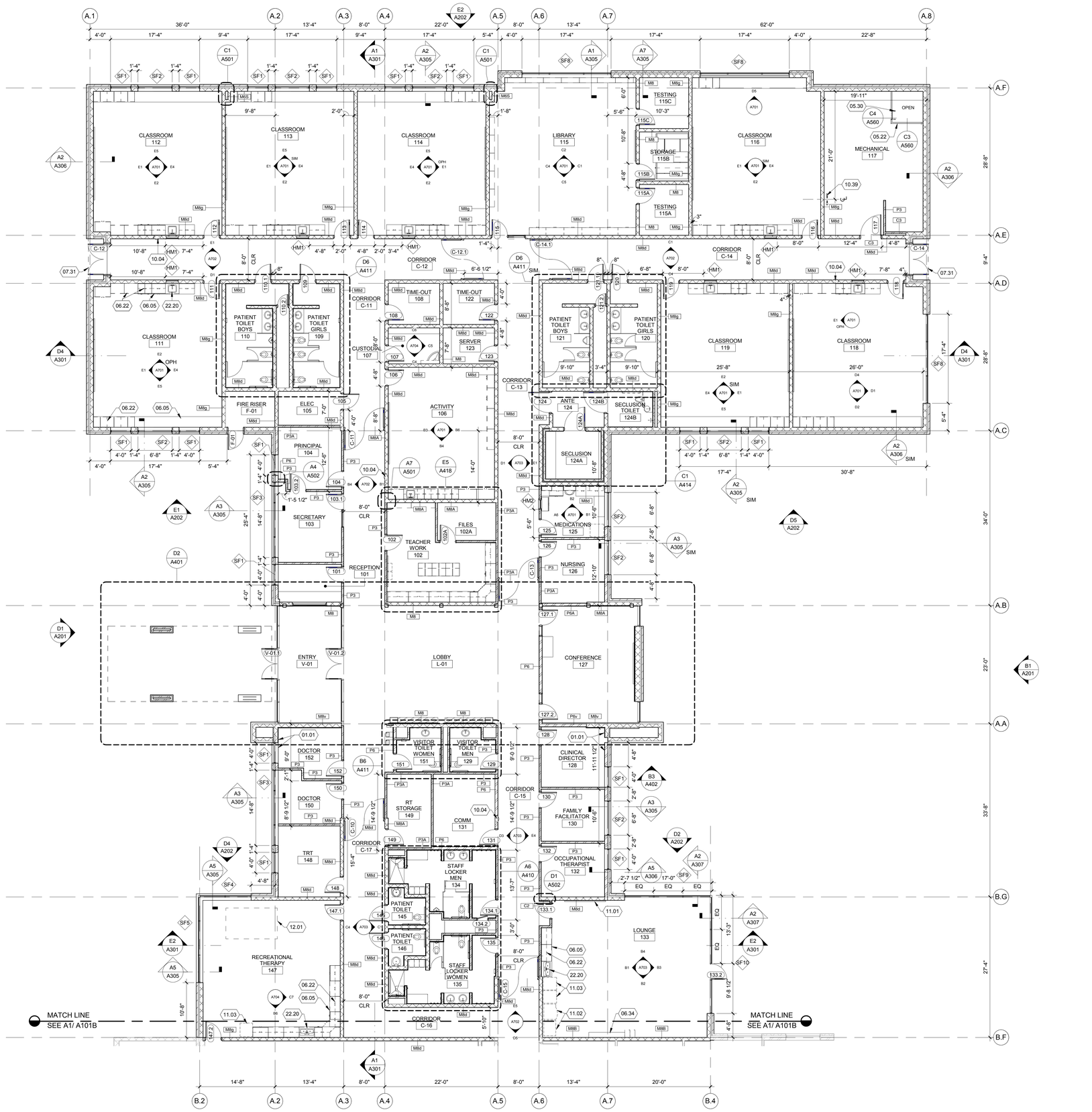

A1 FLOOR PLAN AREA A

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

TRUE PLAN

DFCM APPROVAL STAMP

FFKR ARCHITECTS

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730 pacific avenue
salt lake city
Utah 84104

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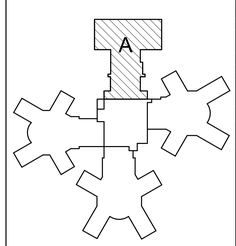
REFERENCE NOTES

01.01	ALIGN
05.01	STRUCTURAL COLUMN, RE: STRUCTURAL DRAWINGS
05.22	GUARDRAIL AND ACCESS GATE
05.30	TUNNEL ACCESS LADDER
06.05	COUNTERTOP
06.22	MILLWORK, RE: INTERIOR ELEVATIONS
06.34	COAT ROD WITH SHELF
07.31	LINE OF CANOPY ABOVE
10.04	FIRE EXTINGUISHER CABINET
10.39	ROOF ACCESS LADDER
11.01	INTERACTIVE BOARD BY OWNER
11.02	VENDING MACHINE BY OWNER
11.03	REFRIGERATOR BY OWNER
12.01	FURNITURE BY OWNER
22.20	SINK, RE: PLUMBING DRAWINGS

GENERAL NOTES

1. ALL EXPOSED OUTSIDE CMU CORNERS SHALL BE BULL-NOSED
2. ALL CONDUIT AND BOXES FOR ELECTRICAL, DATA, SECURITY, AND FIRE ALARM SHALL BE RECESSED INTO CMU WHEN EXPOSED
3. PROVIDE PLYWOOD BLOCKING BEHIND ALL WALL-MOUNTED VIDEO DISPLAYS SHOWN INSTALLED ON METAL STUD WALLS
4. ALL DIMENSIONS SHOWN FOR STUD WALLS ARE TO FACE OF FINISHED WALL. ALL MASONRY DIMENSIONS SHOWN ARE NOMINAL. ACTUAL DIMENSIONS AT WALL OPENINGS ARE DIMENSION SHOWN PLUS 3/8". DIMENSIONS AT WALL SEGMENTS ARE DIMENSION SHOWN MINUS 3/8"
5. PROVIDE BLOCKING IN WALLS FOR ALL WALL-MOUNTED ITEMS, RE: INTERIOR ELEVATIONS
6. ALL DOOR JAMBS IN STUD WALLS ARE TO BE 4" CLEAR FROM CORNER OF ROOM, U.N.O. ALL DOOR JAMBS IN CMU WALLS ARE DIMENSIONED

KEY PLAN



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1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

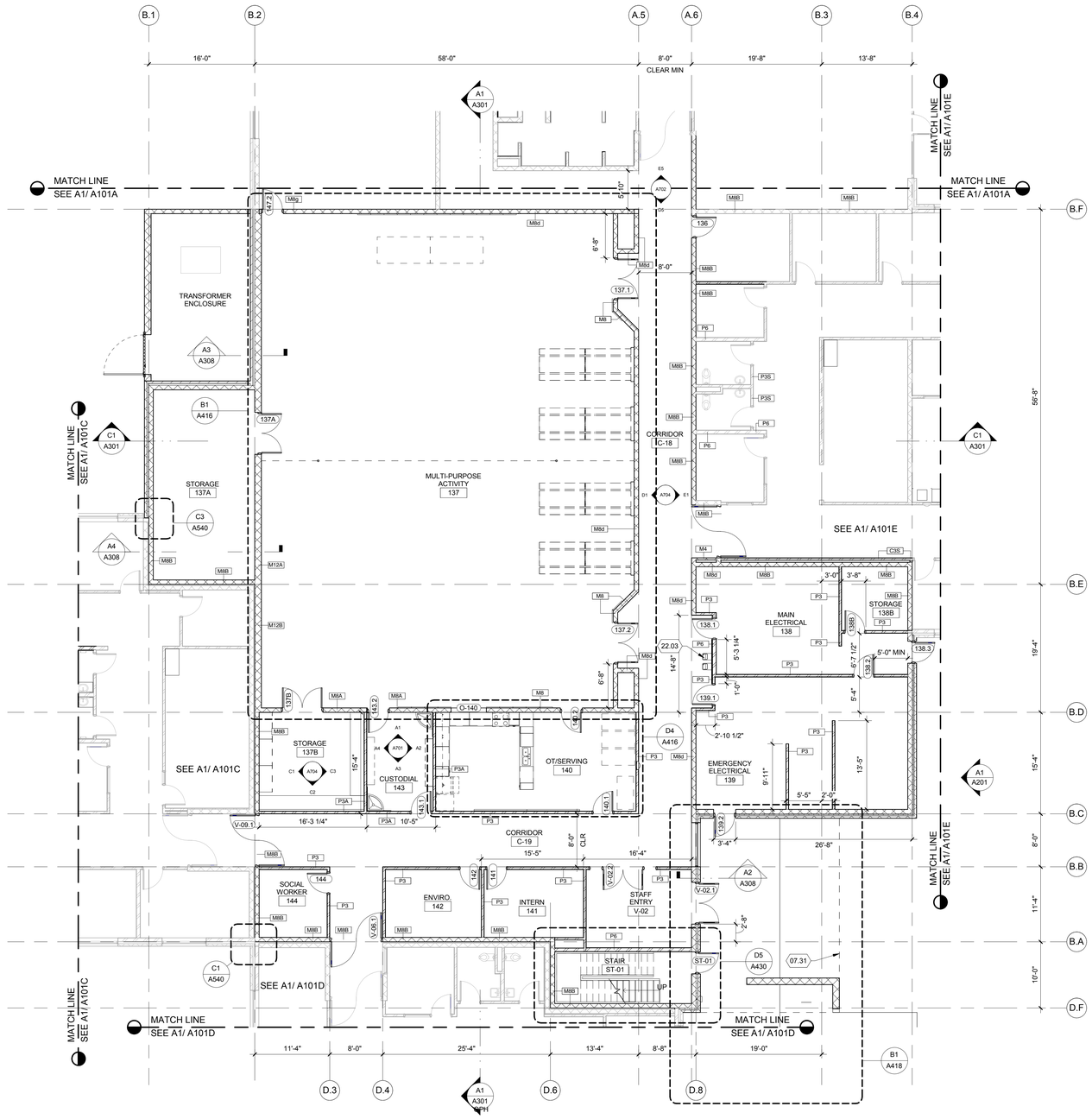
	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

LEVEL 1
AREA A PLAN

A101A

9/10/2012 7:43:08 PM



A1 FLOOR PLAN AREA B

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

0" 8' 16'

TRUE PLAN

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

801-521-6186
801-539-1916
ffkr.com

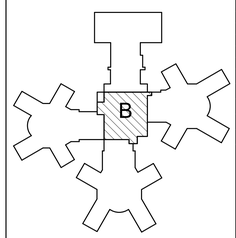
REFERENCE NOTES

05.01	STRUCTURAL COLUMN, RE: STRUCTURAL DRAWINGS
06.16	MILLWORK AND COUNTERTOP, RE: INTERIOR ELEVATIONS
07.31	LINE OF CANOPY ABOVE
11.01	INTERACTIVE BOARD BY OWNER
22.03	DRINKING FOUNTAIN, RE: PLUMBING DRAWINGS

GENERAL NOTES

1. ALL EXPOSED OUTSIDE CMU CORNERS SHALL BE BULL-NOSED
2. ALL CONDUIT AND BOXES FOR ELECTRICAL, DATA, SECURITY, AND FIRE ALARM SHALL BE RECESSED INTO CMU WHEN EXPOSED
3. PROVIDE PLYWOOD BLOCKING BEHIND ALL WALL-MOUNTED VIDEO DISPLAYS SHOWN INSTALLED ON METAL STUD WALLS
4. ALL DIMENSIONS SHOWN FOR STUD WALLS ARE TO FACE OF FINISHED WALL. ALL MASONRY DIMENSIONS SHOWN ARE NOMINAL. ACTUAL DIMENSIONS AT WALL OPENINGS ARE DIMENSION SHOWN PLUS 3/8". DIMENSIONS AT WALL SEGMENTS ARE DIMENSION SHOWN MINUS 3/8"
5. PROVIDE BLOCKING IN WALLS FOR ALL WALL-MOUNTED ITEMS, RE: INTERIOR ELEVATIONS
6. ALL DOOR JAMBS IN STUD WALLS ARE TO BE 4" CLEAR FROM CORNER OF ROOM, U.N.O. ALL DOOR JAMBS IN CMU WALLS ARE DIMENSIONED

KEY PLAN



PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

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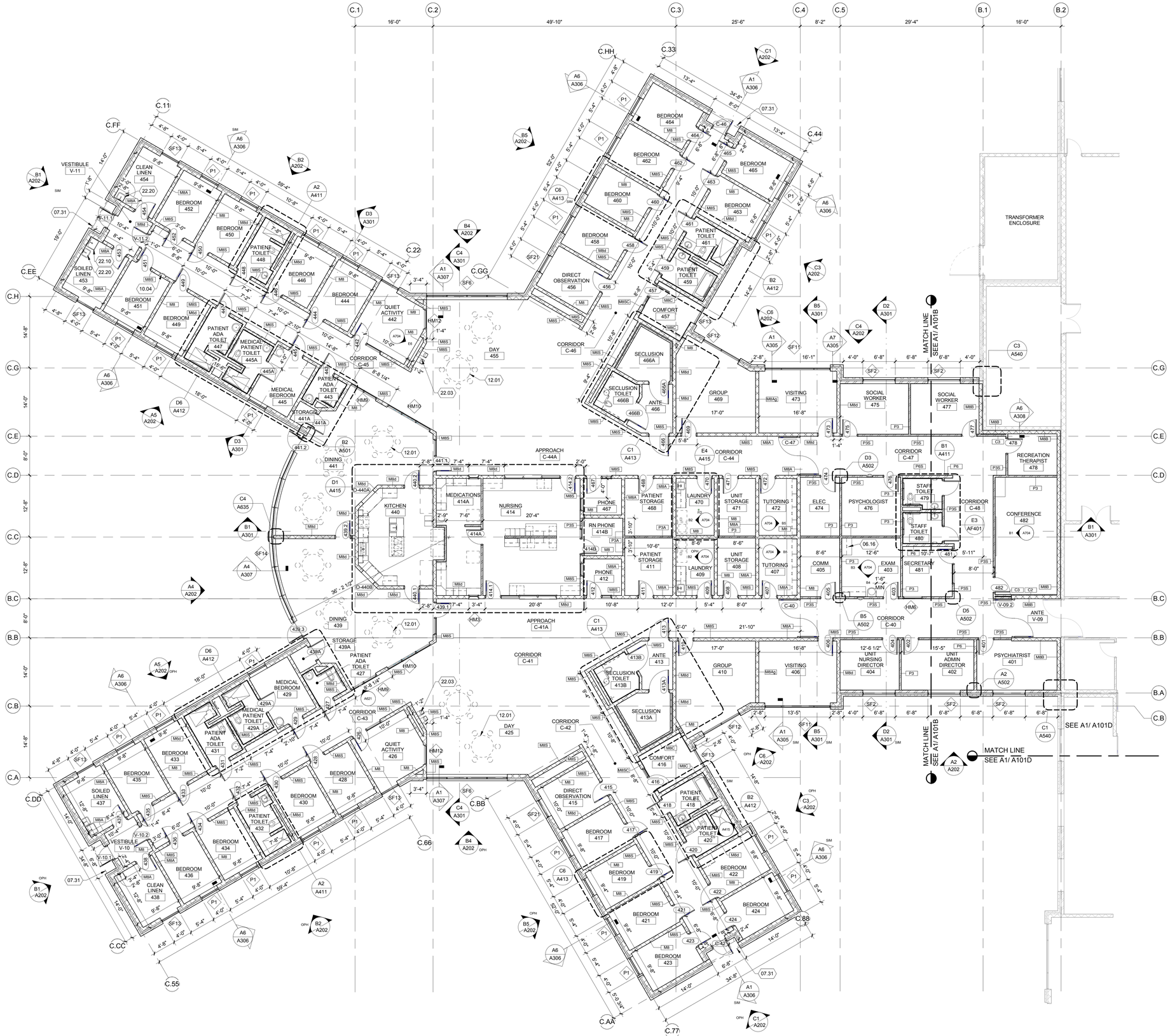
PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

LEVEL 1
AREA B PLAN

A101B

9/10/2012 7:43:14 PM



A1 FLOOR PLAN AREA C

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

TRUE PLAN

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

801-521-6186
801-539-1916
ffkr.com

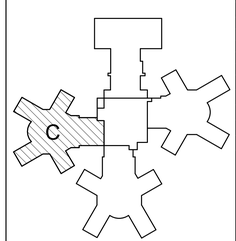
REFERENCE NOTES

05.01	STRUCTURAL COLUMN, RE: STRUCTURAL DRAWINGS
06.16	MILLWORK AND COUNTERTOP, RE: INTERIOR ELEVATIONS
07.31	LINE OF CANOPY ABOVE
10.04	FIRE EXTINGUISHER CABINET
12.01	FURNITURE BY OWNER
22.03	DRINKING FOUNTAIN, RE: PLUMBING DRAWINGS
22.10	HOSE BIBB, RE: PLUMBING DRAWINGS
22.20	SINK, RE: PLUMBING DRAWINGS

GENERAL NOTES

1. ALL EXPOSED OUTSIDE CMU CORNERS SHALL BE BULL-NOSED
2. ALL CONDUIT AND BOXES FOR ELECTRICAL, DATA, SECURITY, AND FIRE ALARM SHALL BE RECESSED INTO CMU WHEN EXPOSED
3. PROVIDE PLYWOOD BLOCKING BEHIND ALL WALL-MOUNTED VIDEO DISPLAYS SHOWN INSTALLED ON METAL STUD WALLS
4. ALL DIMENSIONS SHOWN FOR STUD WALLS ARE TO FACE OF FINISHED WALL. ALL MASONRY DIMENSIONS SHOWN ARE NOMINAL. ACTUAL DIMENSIONS AT WALL OPENINGS ARE DIMENSION SHOWN PLUS 3/8". DIMENSIONS AT WALL SEGMENTS ARE DIMENSION SHOWN MINUS 3/8"
5. PROVIDE BLOCKING IN WALLS FOR ALL WALL-MOUNTED ITEMS, RE: INTERIOR ELEVATIONS
6. ALL DOOR JAMBS IN STUD WALLS ARE TO BE 4" CLEAR FROM CORNER OF ROOM, U.N.O. ALL DOOR JAMBS IN CMU WALLS ARE DIMENSIONED

KEY PLAN



PEDIATRIC FACILITY
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UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

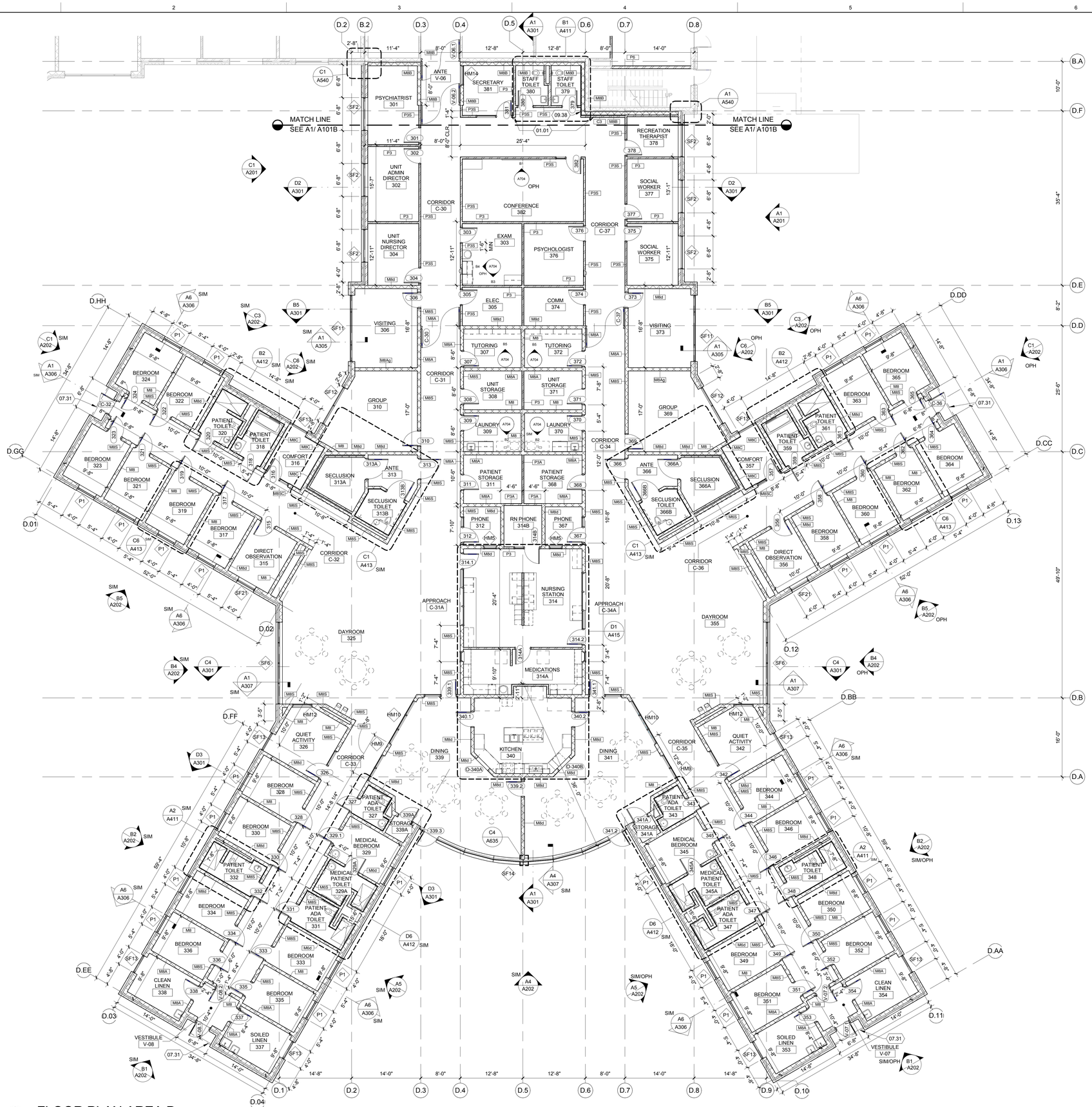
	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

LEVEL 1
AREA C PLAN

A101C

9/10/2012 7:43:20 PM



A1 FLOOR PLAN AREA D

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

0" 8' 16'

TRUE PLAN

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

801-521-6186
801-539-1916
ffkr.com

REFERENCE NOTES

01.01	ALIGN
07.31	LINE OF CANOPY ABOVE
09.38	5/8" GYPSUM BOARD OVER 7/8" FURRING HAT CHANNEL

GENERAL NOTES

1. ALL EXPOSED OUTSIDE CMU CORNERS SHALL BE BULL-NOSED
2. ALL CONDUIT AND BOXES FOR ELECTRICAL, DATA, SECURITY, AND FIRE ALARM SHALL BE RECESSED INTO CMU WHEN EXPOSED
3. PROVIDE PLYWOOD BLOCKING BEHIND ALL WALL-MOUNTED VIDEO DISPLAYS SHOWN INSTALLED ON METAL STUD WALLS
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5. PROVIDE BLOCKING IN WALLS FOR ALL WALL-MOUNTED ITEMS, RE: INTERIOR ELEVATIONS
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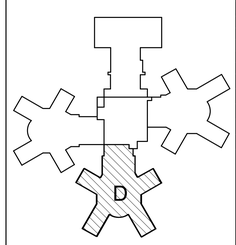
KEY PLAN



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1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

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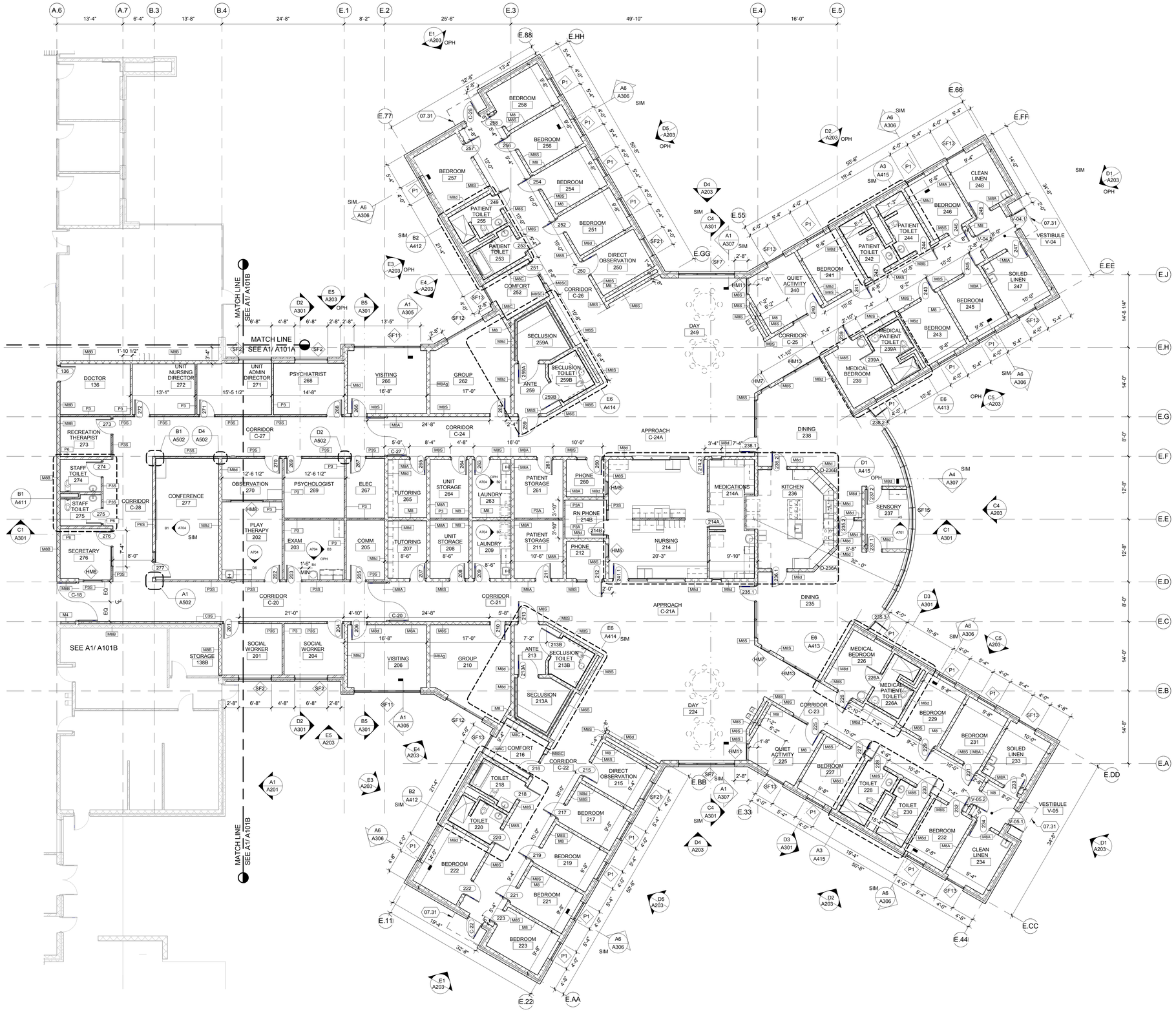
PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

LEVEL 1
AREA D PLAN

A101D

9/10/2012 7:43:27 PM



A1 FLOOR PLAN AREA E

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

0" 8' 16'

TRUE PLAN

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

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801-539-1916
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REFERENCE NOTES

05.01 STRUCTURAL COLUMN, RE: STRUCTURAL DRAWINGS

07.31 LINE OF CANOPY ABOVE

GENERAL NOTES

1. ALL EXPOSED OUTSIDE CMU CORNERS SHALL BE BULL-NOSED
2. ALL CONDUIT AND BOXES FOR ELECTRICAL, DATA, SECURITY, AND FIRE ALARM SHALL BE RECESSED INTO CMU WHEN EXPOSED
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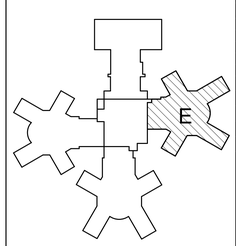
KEY PLAN



PEDIATRIC FACILITY
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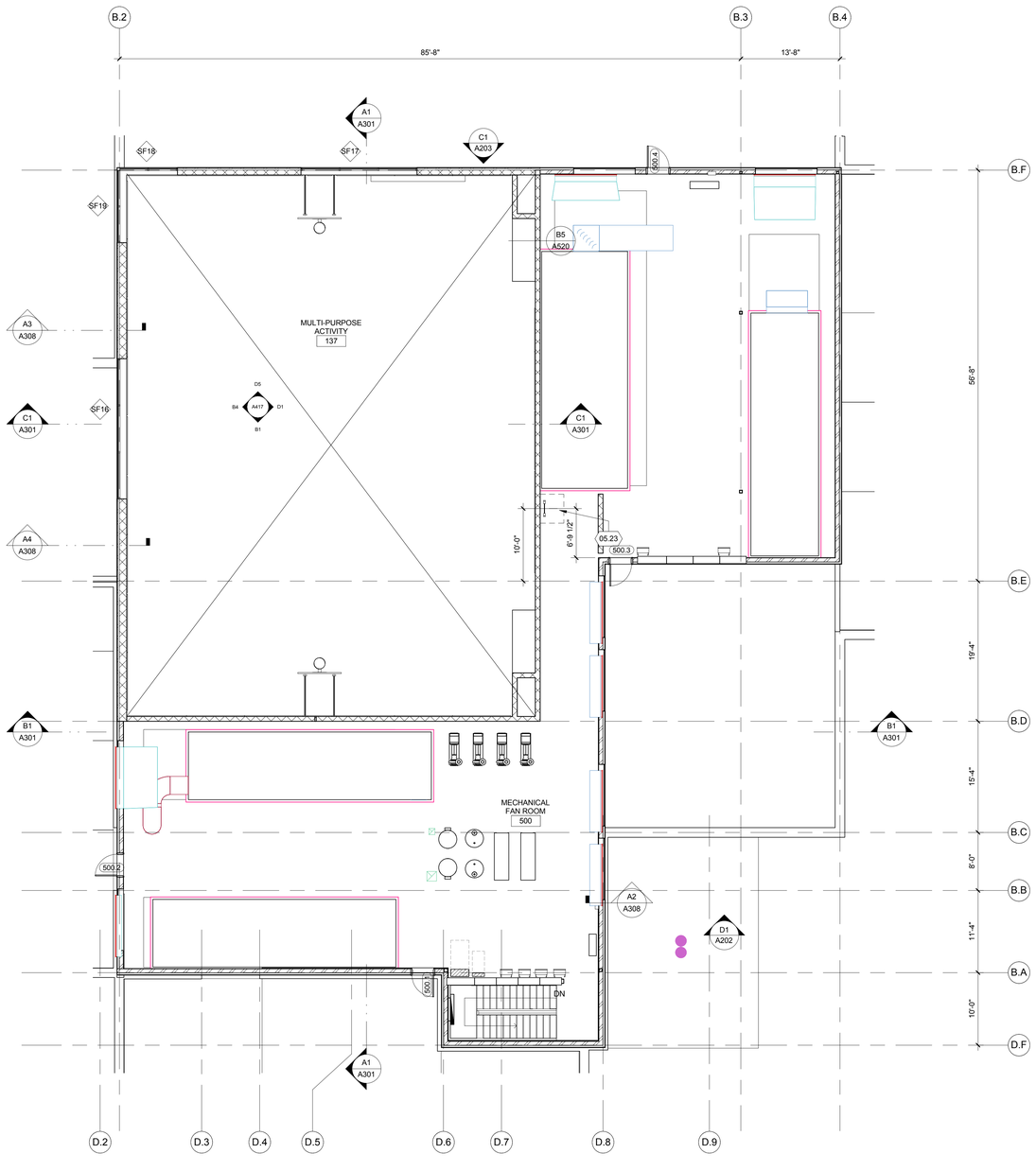
FILE 11111 USH Pediatric.rvt

LEVEL 1
AREA E PLAN

A101E

9/10/2012 7:43:34 PM



A1 PENTHOUSE FLOOR PLAN

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

0" 8' 16'

TRUE PLAN

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
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REFERENCE NOTES

05.23 ROOF ACCESS LADDER WITH HATCH ABOVE

GENERAL NOTES

1. ALL EXPOSED OUTSIDE CMU CORNERS SHALL BE BULL-NOSED
2. ALL CONDUIT AND BOXES FOR ELECTRICAL, DATA, SECURITY, AND FIRE ALARM SHALL BE RECESSED INTO CMU WHEN EXPOSED
3. PROVIDE PLYWOOD BLOCKING BEHIND ALL WALL-MOUNTED VIDEO DISPLAYS SHOWN INSTALLED ON METAL STUD WALLS
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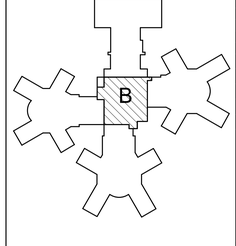
6. ALL DOOR JAMBS IN STUD WALLS ARE TO BE 4" CLEAR FROM CORNER OF ROOM, U.N.O. ALL DOOR JAMBS IN CMU WALLS ARE DIMENSIONED

KEY PLAN



PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

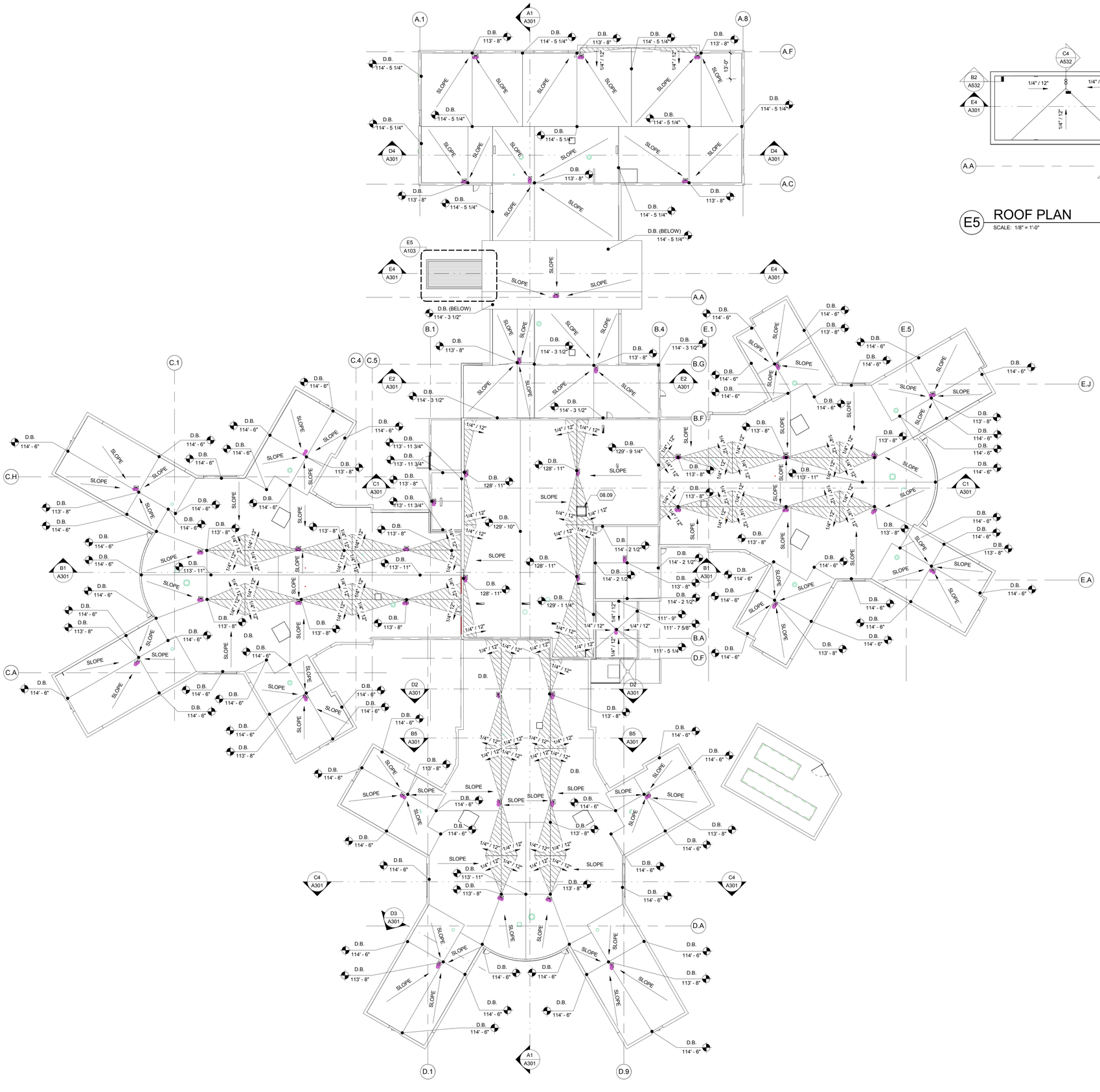
	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

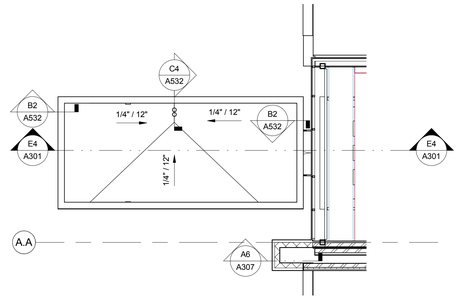
LEVEL 2
FLOOR PLAN

A102

9/10/2012 7:43:42 PM



A1 ROOF PLAN
SCALE: 1" = 20'-0"



E5 ROOF PLAN
SCALE: 1/8" = 1'-0"

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

801-521-6186
801-539-1916
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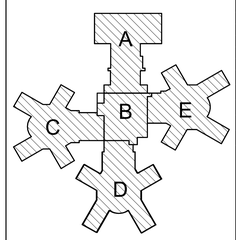
REFERENCE NOTES

08.09 ROOF ACCESS HATCH

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

KEY PLAN



DATE	STATUS

	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

ROOF PLAN

A103

9/10/2012 7:44:07 PM

A1 REFLECTED CEILING PLAN AREA A

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

0" 8' 16'

TRUE PLAN

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

801-521-6186
801-539-1916
ffkr.com

REFERENCE NOTES

01.01 ALIGN
01.04 ALIGN EDGE OF SOFFIT WITH EDGE OF CASEWORK BELOW
11.05 CEILING MOUNTED PROJECTOR BY OWNER
11.07 RECESSED MOTORIZED PROJECTION SCREEN
12.18 RECESSED MOTORIZED ROLLER SHADE
12.19 WALL-MOUNTED MANUAL ROLLER SHADE
12.20 RECESSED MANUAL ROLLER SHADE

CEILING LEGEND

- GYPSUM BOARD CEILING
- ACOUSTIC PANEL CEILING
- CERAMIC TILE CEILING
- WOOD PANEL SYSTEM
- METAL PANEL SOFFIT
- METAL PANEL SYSTEM
- CEILING-MOUNTED PROJECTOR
- 2 X 4 RECESSED FIXTURE
- 1 X 4 RECESSED FIXTURE
- WALL-MOUNTED FIXTURE
- PENDANT FIXTURE
- RECESSED CAN FIXTURE
- MECHANICAL SUPPLY
- MECHANICAL RETURN
- ACCESS PANEL
- ROLLER SHADES

GENERAL NOTES

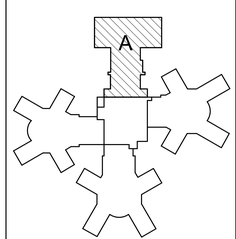
1. CENTER CEILING TILE PATTERN IN ROOM AND SUCH THAT NO TILE DIMENSION IS LESS THAN 4", U.N.O.
2. CENTER LIGHT WITHIN ROOMS WITH NON-GRID CEILINGS, U.N.O.
3. CENTER ALL SPRINKLER HEADS IN CEILING TILES
4. CENTER OBJECTS IN BOTH DIRETIONS WITHIN RECTANGLE THEY OCCUR, U.N.O.
5. ROOMS WITH NO CEILING PATTERN ARE EXPOSED TO STRUCTURE, RE: FINISH SCHEDULE PAINT REQUIREMENTS
6. REFER TO ELECTRICAL FOR SPECIFIC FIXTURE TYPE AND MOUNTING HEIGHT
7. REFER TO MECHANICAL FOR SPECIFIC FIXTURE AND DEVICE TYPES

CEILING TAG LEGEND

HEIGHT ABOVE FINISHED FLOOR → RM NO. / HT C — C = CEILING TYPE

CEILING TYPE	
A	GYPSUM BOARD
B	IMPACT RESISTANT GYPSUM BOARD
C	IMPACT RESISTANT GYPSUM BOARD W/ SECLUSION PADDING
E	EXPOSED STRUCTURE W/ SOUND ABSORPTION
F	GYPSUM BOARD W/ SOUND ABSORPTION
M	METAL PANEL FLUSH SOFFIT PANEL SYSTEM
P	METAL PANEL SYSTEM
R	ACOUSTICAL PANEL
V	ACOUSTICAL PANEL - VINYL LAMINATED
S	OPEN TO STRUCTURE
T	TILE
W	WOOD PANEL SYSTEM

KEY PLAN



PEDIATRIC FACILITY
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UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

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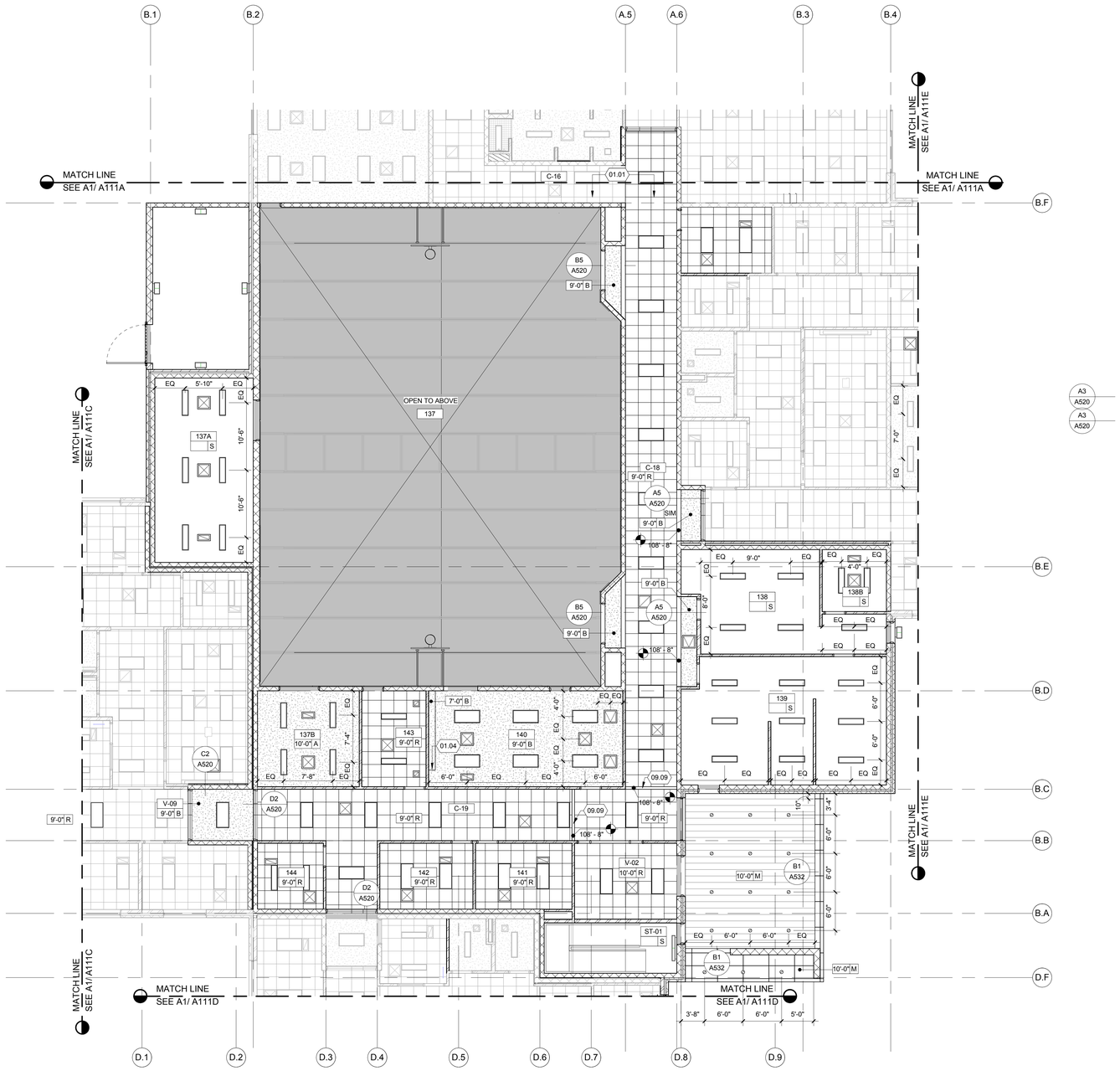
FILE 11111 USH Pediatric.rvt

LEVEL 1 REFLECTED CEILING PLAN AREA A

A111A

9/10/2012 7:44:16 PM



A1 REFLECTED CEILING PLAN AREA B

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

0" 8' 16'

TRUE PLAN

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

801-521-6186
801-539-1916
ffkr.com

REFERENCE NOTES

01.01	ALIGN
01.04	ALIGN EDGE OF SOFFIT WITH EDGE OF CASEWORK BELOW
09.09	GYPSUM BOARD HEADER
11.05	CEILING MOUNTED PROJECTOR BY OWNER
11.07	RECESSED MOTORIZED PROJECTION SCREEN
12.18	RECESSED ROLLER SHADE
12.19	WALL MOUNTED MANUAL ROLLER SHADE

CEILING LEGEND

- GYPSUM BOARD CEILING
- ACOUSTIC PANEL CEILING
- CERAMIC TILE CEILING
- WOOD PANEL SYSTEM
- METAL PANEL SOFFIT
- METAL PANEL SYSTEM
- CEILING-MOUNTED PROJECTOR
- 2 X 4 RECESSED FIXTURE
- 1 X 4 RECESSED FIXTURE
- WALL-MOUNTED FIXTURE
- PENDANT FIXTURE
- RECESSED CAN FIXTURE
- MECHANICAL SUPPLY
- MECHANICAL RETURN
- ACCESS PANEL
- ROLLER SHADES

GENERAL NOTES

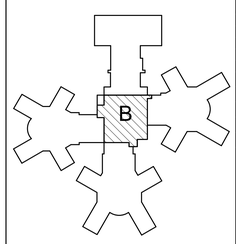
1. CENTER CEILING TILE PATTERN IN ROOM AND SUCH THAT NO TILE DIMENSION IS LESS THAN 4", U.N.O.
2. CENTER LIGHT WITHIN ROOMS WITH NON-GRID CEILINGS, U.N.O.
3. CENTER ALL SPRINKLER HEADS IN CEILING TILES
4. CENTER OBJECTS IN BOTH DIRETIONS WITHIN RECTANGLE THEY OCCUR, U.N.O.
5. ROOMS WITH NO CEILING PATTERN ARE EXPOSED TO STRUCTURE, RE: FINISH SCHEDULE PAINT REQUIREMENTS
6. REFER TO ELECTRICAL FOR SPECIFIC FIXTURE TYPE AND MOUNTING HEIGHT
7. REFER TO MECHANICAL FOR SPECIFIC FIXTURE AND DEVICE TYPES

CEILING TAG LEGEND

HEIGHT ABOVE FINISHED FLOOR — RM NO. / HT / C — C = CEILING TYPE

CEILING TYPE	
A	GYPSUM BOARD
B	IMPACT RESISTANT GYPSUM BOARD
C	IMPACT RESISTANT GYPSUM BOARD W/ SECLUSION PADDING
E	EXPOSED STRUCTURE W/ SOUND ABSORPTION
F	GYPSUM BOARD W/ SOUND ABSORPTION
M	METAL PANEL FLUSH SOFFIT PANEL SYSTEM
P	METAL PANEL SYSTEM
R	ACOUSTICAL PANEL
V	ACOUSTICAL PANEL - VINYL LAMINATED
S	OPEN TO STRUCTURE
T	TILE
W	WOOD PANEL SYSTEM

KEY PLAN



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PROJECT NUMBER 11111
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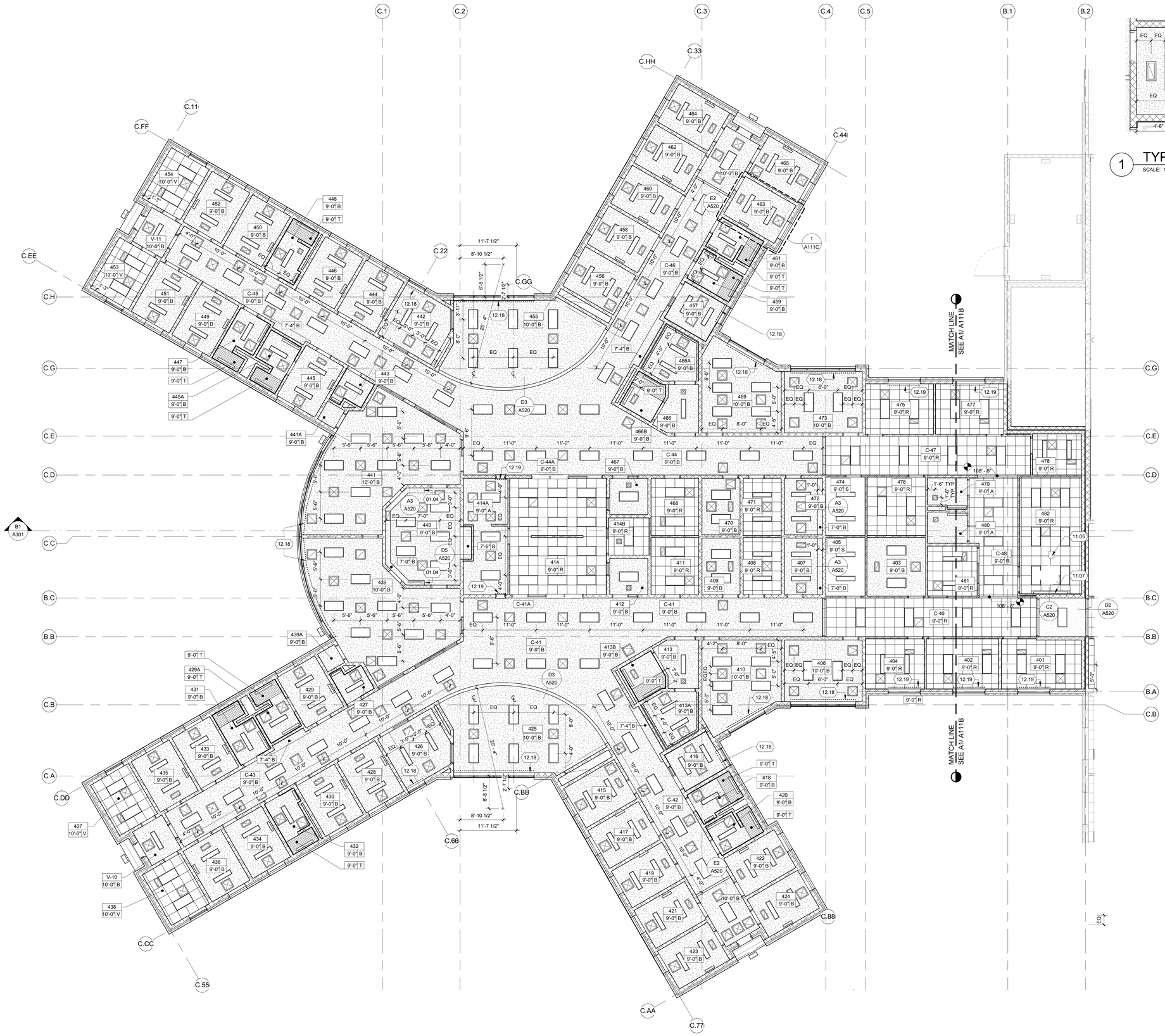
LEVEL 1 REFLECTED CEILING PLAN AREA B

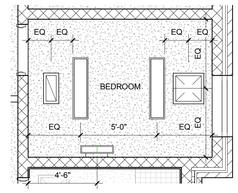
A111B

9/10/2012 7:44:22 PM



A1 REFLECTED CEILING PLAN AREA C

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



1 TYP PATIENT RCP

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

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

801-521-6186
801-539-1916
ffkr.com

REFERENCE NOTES

01.04	ALIGN EDGE OF SOFFIT WITH EDGE OF CASEWORK BELOW
11.05	CEILING MOUNTED PROJECTOR BY OWNER
11.07	RECESSED MOTORIZED PROJECTION SCREEN
12.18	RECESSED MOTORIZED ROLLER SHADE
12.19	WALL-MOUNTED MANUAL ROLLER SHADE

CEILING LEGEND

- GYPSUM BOARD CEILING
- ACOUSTIC PANEL CEILING
- CERAMIC TILE CEILING
- WOOD PANEL SYSTEM
- METAL PANEL SOFFIT
- METAL PANEL SYSTEM
- CEILING-MOUNTED PROJECTOR
- 2 X 4 RECESSED FIXTURE
- 1 X 4 RECESSED FIXTURE
- WALL-MOUNTED FIXTURE
- PENDANT FIXTURE
- RECESSED CAN FIXTURE
- MECHANICAL SUPPLY
- MECHANICAL RETURN
- ACCESS PANEL
- ROLLER SHADES

GENERAL NOTES

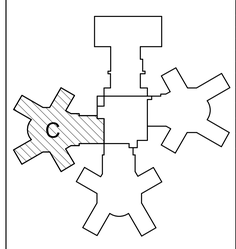
1. CENTER CEILING TILE PATTERN IN ROOM AND SUCH THAT NO TILE DIMENSION IS LESS THAN 4", U.N.O.
2. CENTER LIGHT WITHIN ROOMS WITH NON-GRID CEILINGS, U.N.O.
3. CENTER ALL SPRINKLER HEADS IN CEILING TILES
4. CENTER OBJECTS IN BOTH DIRETIONS WITHIN RECTANGLE THEY OCCUR, U.N.O.
5. ROOMS WITH NO CEILING PATTERN ARE EXPOSED TO STRUCTURE, RE: FINISH SCHEDULE PAINT REQUIREMENTS
6. REFER TO ELECTRICAL FOR SPECIFIC FIXTURE TYPE AND MOUNTING HEIGHT
7. REFER TO MECHANICAL FOR SPECIFIC FIXTURE AND DEVICE TYPES

CEILING TAG LEGEND

HEIGHT ABOVE FINISHED FLOOR → RM NO. / HT | C = CEILING TYPE

CEILING TYPE	
A	GYPSUM BOARD
B	IMPACT RESISTANT GYPSUM BOARD
C	IMPACT RESISTANT GYPSUM BOARD W/ SECLUSION PADDING
E	EXPOSED STRUCTURE W/ SOUND ABSORPTION
F	GYPSUM BOARD W/ SOUND ABSORPTION
M	METAL PANEL FLUSH SOFFIT PANEL SYSTEM
P	METAL PANEL SYSTEM
R	ACOUSTICAL PANEL
V	ACOUSTICAL PANEL - VINYL LAMINATED
S	OPEN TO STRUCTURE
T	TILE
W	WOOD PANEL SYSTEM

KEY PLAN



PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

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PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

LEVEL 1 REFLECTED CEILING PLAN AREA C

A111C

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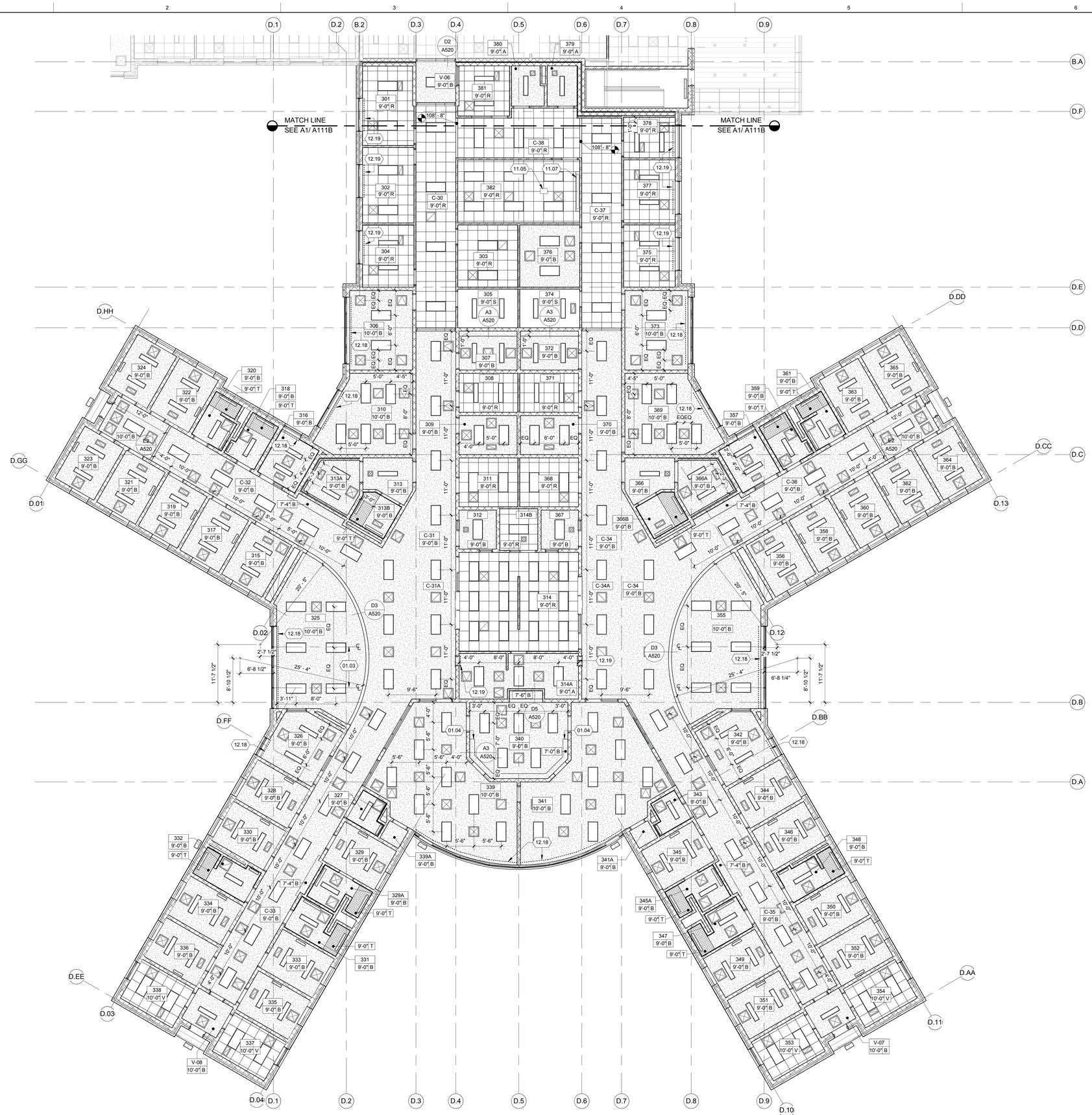


A1 REFLECTED CEILING PLAN AREA D

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

0" 8' 16'

TRUE PLAN

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

801-521-6186
801-539-1916
ffkr.com

REFERENCE NOTES

01.03	ALIGN CENTERLINE OF FIXTURE WITH CENTERLINE OF MULLION
01.04	ALIGN EDGE OF SOFFIT WITH EDGE OF CASEWORK BELOW
11.05	CEILING MOUNTED PROJECTOR BY OWNER
11.07	RECESSED MOTORIZED PROJECTION SCREEN
12.18	RECESSED MOTORIZED ROLLER SHADE
12.19	WALL-MOUNTED MANUAL ROLLER SHADE

CEILING LEGEND

- GYPSUM BOARD CEILING
- ACOUSTIC PANEL CEILING
- CERAMIC TILE CEILING
- WOOD PANEL SYSTEM
- METAL PANEL SOFFIT
- METAL PANEL SYSTEM
- CEILING-MOUNTED PROJECTOR
- 2 X 4 RECESSED FIXTURE
- 1 X 4 RECESSED FIXTURE
- WALL-MOUNTED FIXTURE
- PENDANT FIXTURE
- RECESSED CAN FIXTURE
- MECHANICAL SUPPLY
- MECHANICAL RETURN
- ACCESS PANEL
- ROLLER SHADES

GENERAL NOTES

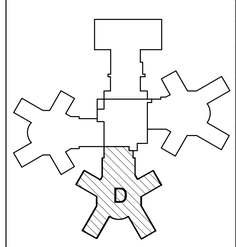
1. CENTER CEILING TILE PATTERN IN ROOM AND SUCH THAT NO TILE DIMENSION IS LESS THAN 4", U.N.O.
2. CENTER LIGHT WITHIN ROOMS WITH NON-GRID CEILINGS, U.N.O.
3. CENTER ALL SPRINKLER HEADS IN CEILING TILES
4. CENTER OBJECTS IN BOTH DIRETIONS WITHIN RECTANGLE THEY OCCUR, U.N.O.
5. ROOMS WITH NO CEILING PATTERN ARE EXPOSED TO STRUCTURE, RE: FINISH SCHEDULE PAINT REQUIREMENTS
6. REFER TO ELECTRICAL FOR SPECIFIC FIXTURE TYPE AND MOUNTING HEIGHT
7. REFER TO MECHANICAL FOR SPECIFIC FIXTURE AND DEVICE TYPES

CEILING TAG LEGEND

HEIGHT ABOVE FINISHED FLOOR → RM NO. / HT | C — C = CEILING TYPE

CEILING TYPE	
A	GYPSUM BOARD
B	IMPACT RESISTANT GYPSUM BOARD
C	IMPACT RESISTANT GYPSUM BOARD W/ SECLUSION PADDING
E	EXPOSED STRUCTURE W/ SOUND ABSORPTION
F	GYPSUM BOARD W/ SOUND ABSORPTION
M	METAL PANEL FLUSH SOFFIT PANEL SYSTEM
P	METAL PANEL SYSTEM
R	ACOUSTICAL PANEL
V	ACOUSTICAL PANEL - VINYL LAMINATED
S	OPEN TO STRUCTURE
T	TILE
W	WOOD PANEL SYSTEM

KEY PLAN



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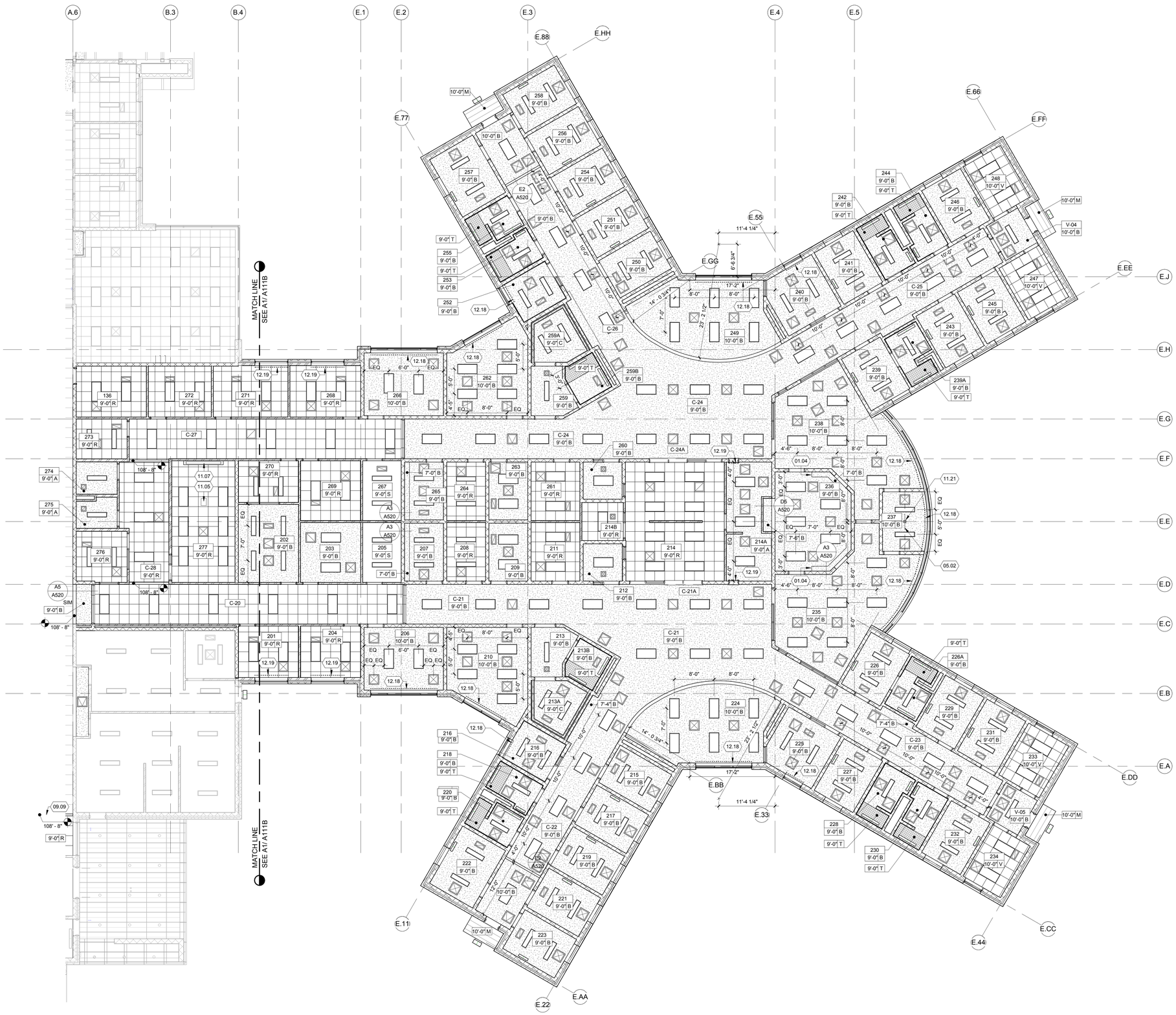
LEVEL 1
REFLECTED
CEILING
PLAN AREA D

A111D

9/10/2012 7:44:41 PM



A1 REFLECTED CEILING PLAN AREA E

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

0" 8' 16'

TRUE PLAN

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

801-521-6186
801-539-1916
ffkr.com

REFERENCE NOTES

01.01	ALIGN
01.04	ALIGN EDGE OF SOFFIT WITH EDGE OF CASEWORK BELOW
05.02	STRUCTURAL BEAM, RE: STRUCTURAL DRAWINGS
09.09	GYPSUM BOARD HEADER
11.05	CEILING MOUNTED PROJECTOR BY OWNER
11.07	RECESSED MOTORIZED PROJECTION SCREEN
11.21	SWING ANCHOR. SEE DETAIL D7/A520.
12.18	RECESSED MOTORIZED ROLLER SHADE
12.19	WALL-MOUNTED MANUAL ROLLER SHADE

CEILING LEGEND

- GYPSUM BOARD CEILING
- ACOUSTIC PANEL CEILING
- CERAMIC TILE CEILING
- WOOD PANEL SYSTEM
- METAL PANEL SOFFIT
- METAL PANEL SYSTEM
- CEILING-MOUNTED PROJECTOR
- 2 X 4 RECESSED FIXTURE
- 1 X 4 RECESSED FIXTURE
- WALL-MOUNTED FIXTURE
- PENDANT FIXTURE
- RECESSED CAN FIXTURE
- MECHANICAL SUPPLY
- MECHANICAL RETURN
- ACCESS PANEL
- ROLLER SHADES

GENERAL NOTES

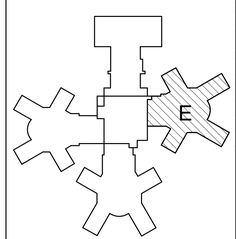
1. CENTER CEILING TILE PATTERN IN ROOM AND SUCH THAT NO TILE DIMENSION IS LESS THAN 4", U.N.O.
2. CENTER LIGHT WITHIN ROOMS WITH NON-GRID CEILINGS, U.N.O.
3. CENTER ALL SPRINKLER HEADS IN CEILING TILES
4. CENTER OBJECTS IN BOTH DIRETIONS WITHIN RECTANGLE THEY OCCUR, U.N.O.
5. ROOMS WITH NO CEILING PATTERN ARE EXPOSED TO STRUCTURE, RE: FINISH SCHEDULE PAINT REQUIREMENTS
6. REFER TO ELECTRICAL FOR SPECIFIC FIXTURE TYPE AND MOUNTING HEIGHT
7. REFER TO MECHANICAL FOR SPECIFIC FIXTURE AND DEVICE TYPES

CEILING TAG LEGEND

HEIGHT ABOVE FINISHED FLOOR — RM NO. / HT C — C = CEILING TYPE

CEILING TYPE	
A	GYPSUM BOARD
B	IMPACT RESISTANT GYPSUM BOARD
C	IMPACT RESISTANT GYPSUM BOARD W/ SECLUSION PADDING
E	EXPOSED STRUCTURE W/ SOUND ABSORPTION
F	GYPSUM BOARD W/ SOUND ABSORPTION
M	METAL PANEL FLUSH SOFFIT PANEL SYSTEM
P	METAL PANEL SYSTEM
R	ACOUSTICAL PANEL
V	ACOUSTICAL PANEL - VINYL LAMINATED
S	OPEN TO STRUCTURE
T	TILE
W	WOOD PANEL SYSTEM

KEY PLAN



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LEVEL 1 REFLECTED CEILING PLAN AREA E

A111E

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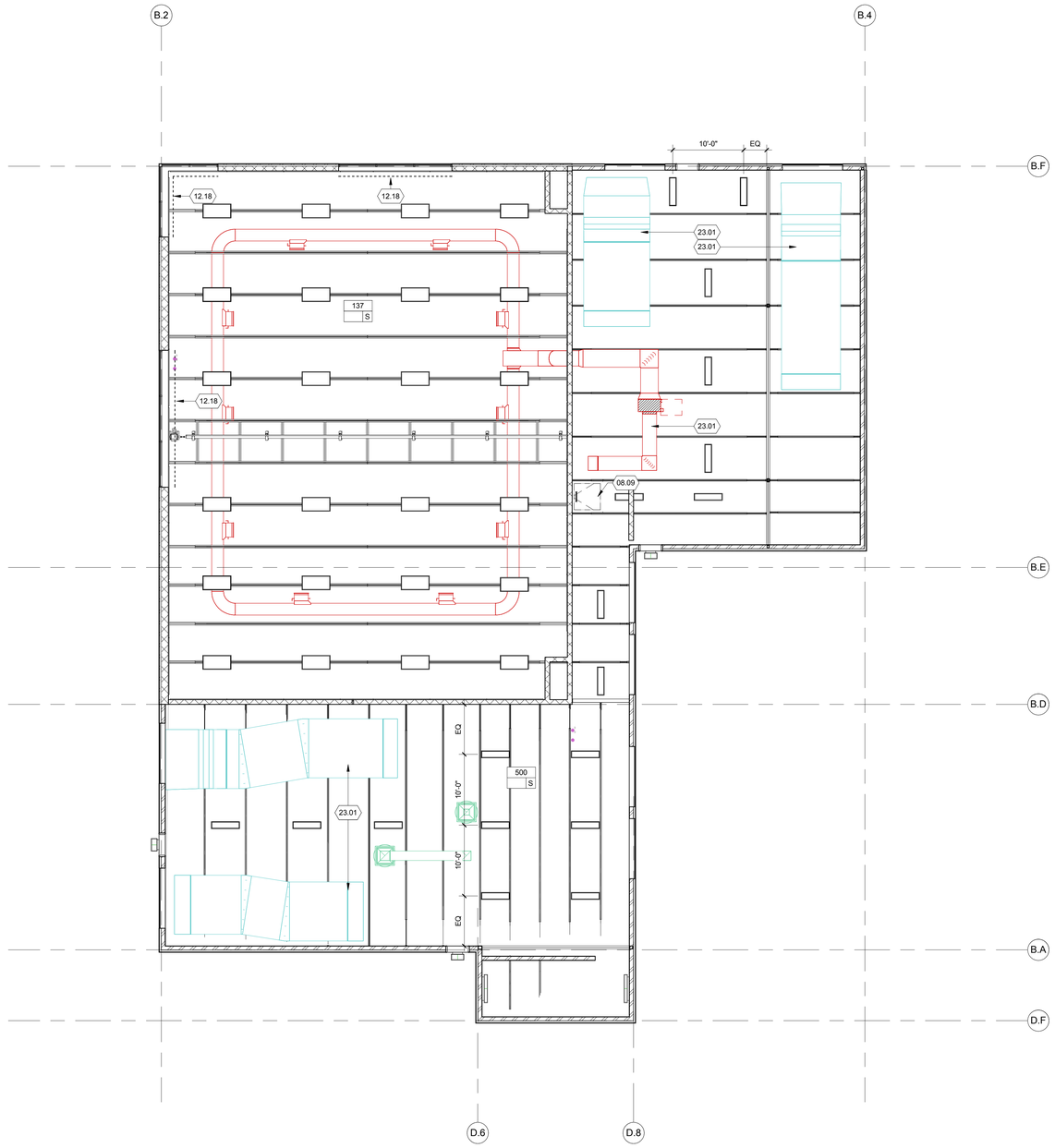

A1 REFLECTED CEILING PLAN LEVEL 2

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

0" 8' 16'

TRUE PLAN

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

801-521-6186
801-539-1916
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REFERENCE NOTES

08.09	ROOF ACCESS HATCH
12.18	RECESSED MOTORIZED ROLLER SHADE
23.01	DUCT, RE: MECHANICAL DRAWINGS

CEILING LEGEND

- GYPSUM BOARD CEILING
- ACOUSTIC PANEL CEILING
- CERAMIC TILE CEILING
- WOOD PANEL SYSTEM
- METAL PANEL SOFFIT
- METAL PANEL SYSTEM
- CEILING-MOUNTED PROJECTOR
- 2 X 4 RECESSED FIXTURE
- 1 X 4 RECESSED FIXTURE
- WALL-MOUNTED FIXTURE
- PENDANT FIXTURE
- RECESSED CAN FIXTURE
- MECHANICAL SUPPLY
- MECHANICAL RETURN
- ACCESS PANEL
- ROLLER SHADES

GENERAL NOTES

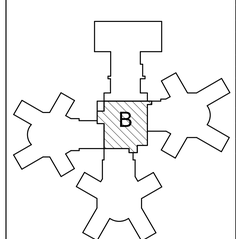
1. CENTER CEILING TILE PATTERN IN ROOM AND SUCH THAT NO TILE DIMENSION IS LESS THAN 4", U.N.O.
2. CENTER LIGHT WITHIN ROOMS WITH NON-GRID CEILINGS, U.N.O.
3. CENTER ALL SPRINKLER HEADS IN CEILING TILES
4. CENTER OBJECTS IN BOTH DIRETIONS WITHIN RECTANGLE THEY OCCUR, U.N.O.
5. ROOMS WITH NO CEILING PATTERN ARE EXPOSED TO STRUCTURE, RE: FINISH SCHEDULE PAINT REQUIREMENTS
6. REFER TO ELECTRICAL FOR SPECIFIC FIXTURE TYPE AND MOUNTING HEIGHT
7. REFER TO MECHANICAL FOR SPECIFIC FIXTURE AND DEVICE TYPES

CEILING TAG LEGEND

HEIGHT ABOVE FINISHED FLOOR → RM NO. / HT | C — C = CEILING TYPE

CEILING TYPE	
A	GYPSUM BOARD
B	IMPACT RESISTANT GYPSUM BOARD
C	IMPACT RESISTANT GYPSUM BOARD W/ SECLUSION PADDING
E	EXPOSED STRUCTURE W/ SOUND ABSORPTION
F	GYPSUM BOARD W/ SOUND ABSORPTION
M	METAL PANEL FLUSH SOFFIT PANEL SYSTEM
P	METAL PANEL SYSTEM
R	ACOUSTICAL PANEL
V	ACOUSTICAL PANEL - VINYL LAMINATED
S	OPEN TO STRUCTURE
T	TILE
W	WOOD PANEL SYSTEM

KEY PLAN



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LEVEL 2 REFLECTED CEILING PLAN

A112

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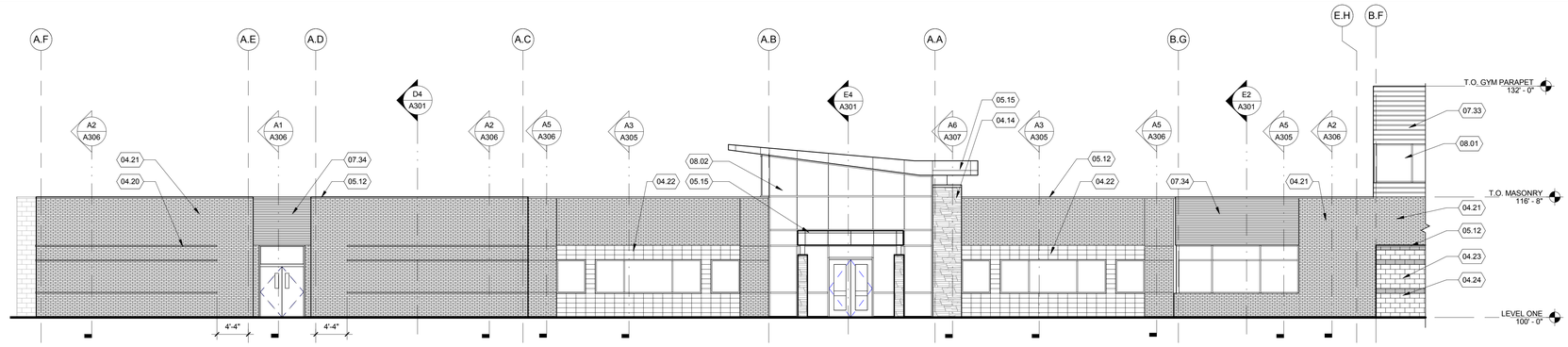
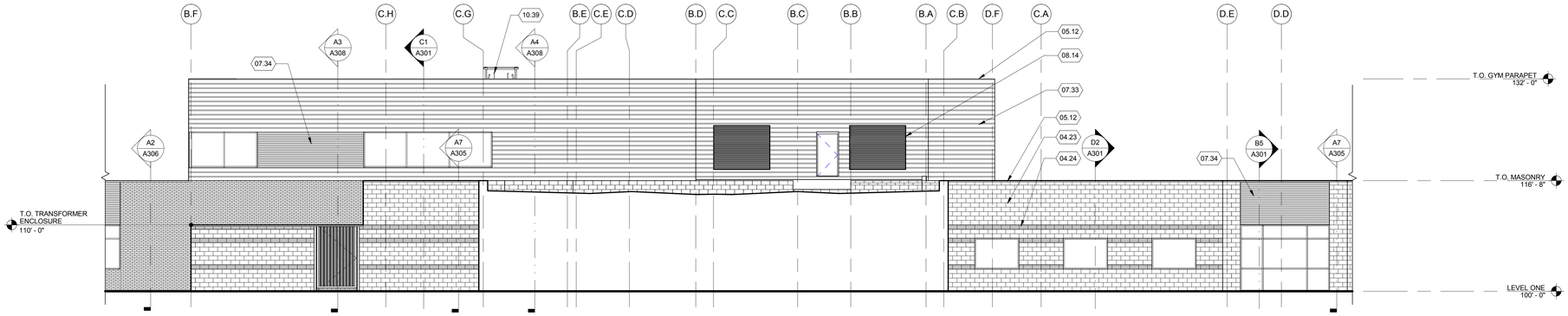


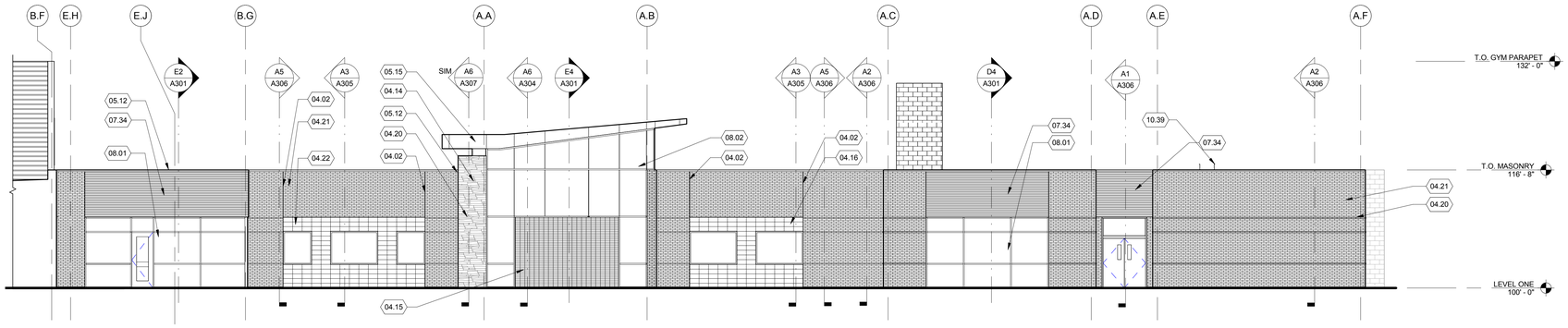
D1 PARTIAL WEST ELEVATION

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



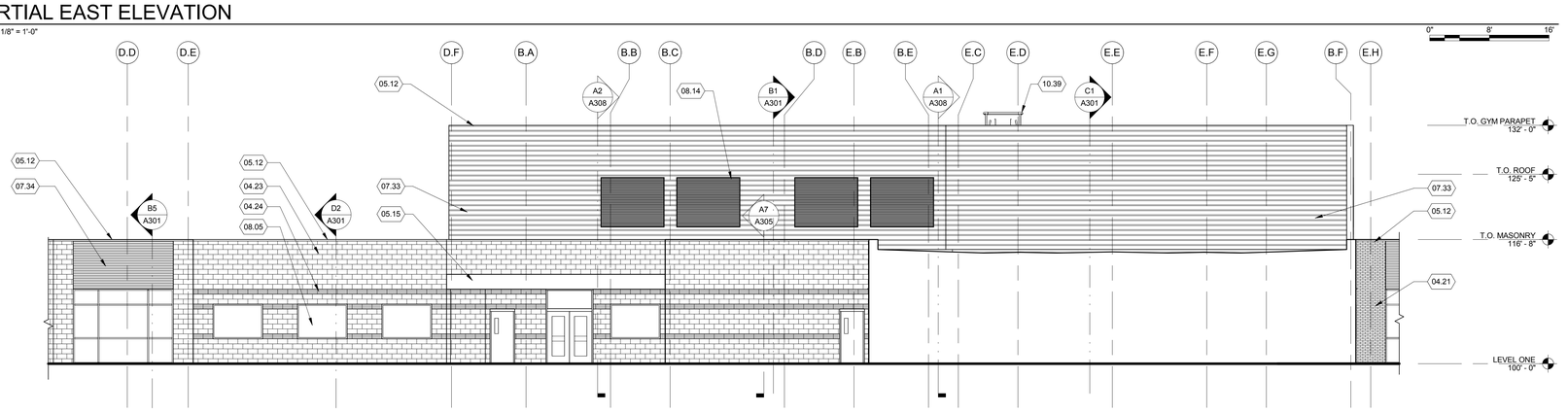
C1 PARTIAL WEST ELEVATION

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



B1 PARTIAL EAST ELEVATION

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



A1 PARTIAL EAST ELEVATION

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

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

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REFERENCE NOTES

04.02	BRICK VENEER CONTROL JOINT
04.14	STONE VENEER, RE: A5/A203 FOR PATTERN
04.15	BRICK VENEER, STACK BOND
04.16	CMU VENEER, STACK BOND
04.20	BRICK REVEAL, OUTSET 1/2" FROM PLANE
04.21	BRICK VENEER, RUNNING BOND
04.22	HONED FACE CMU VENEER, STACKED BOND, INSET 1/2" FROM BRICK PLANE
04.23	HONED FACE CMU VENEER, RUNNING BOND
04.24	SPLIT FACE CMU REVEAL, OUTSET 1/2" FROM CMU PLANE. B.O. LOWER PROJECTION @ 3'-4", T.O. UPPER PROJECTIONS @ 8'-0" AND 10'-0"
05.12	SHEET METAL PARAPET COPING
05.15	ALUMINUM PLATE PANEL SYSTEM
07.33	METAL PANEL, 8" RIB TO RIB
07.34	METAL PANEL, 4" RIB TO RIB
08.01	ALUMINUM STOREFRONT WALL SYSTEM
08.02	ALUMINUM CURTAIN WALL SYSTEM
08.05	WINDOW PER SCHEDULE
08.14	LOUVER
10.39	ROOF ACCESS LADDER

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
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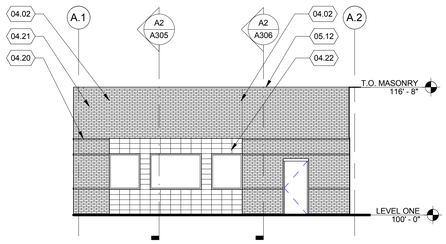
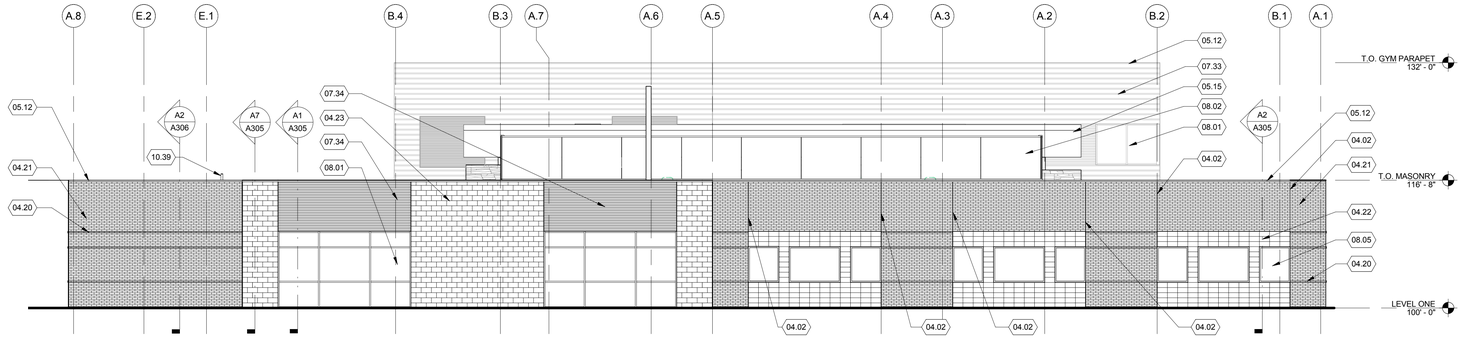
BUILDING ELEVATIONS

A201

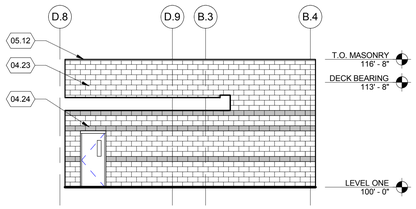
9/10/2012 7:45:12 PM



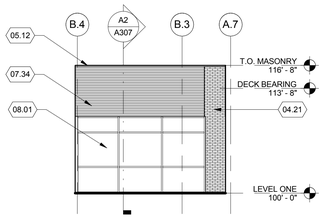
E1 EDUCATION SOUTH WEST ELEVATION
SCALE: 1/8" = 1'-0"



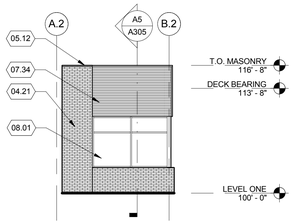
E2 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



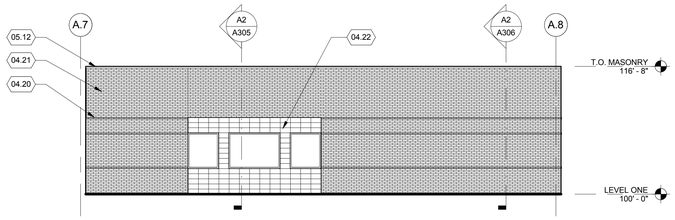
D1 AREA B ELECTRICAL SOUTH
SCALE: 1/8" = 1'-0"



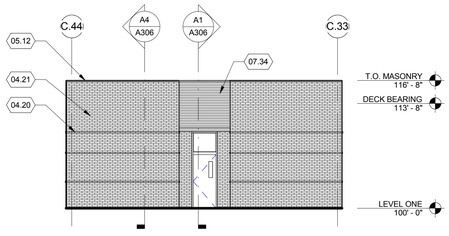
D2 AREA A LOUNGE NORTH
SCALE: 1/8" = 1'-0"



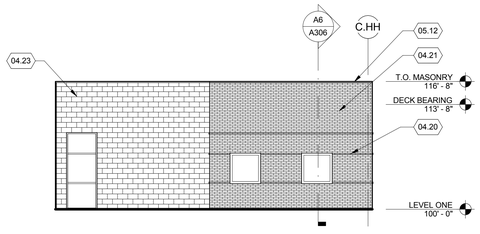
D4 AREA A RT NORTH
SCALE: 1/8" = 1'-0"



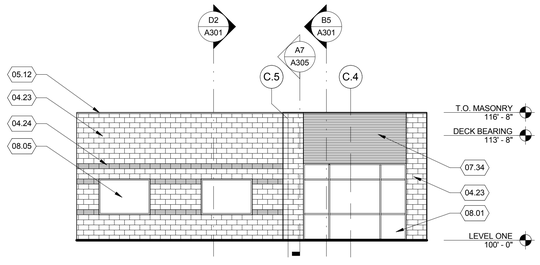
D5 EDUCATION SOUTH EAST ELEVATION
SCALE: 1/8" = 1'-0"



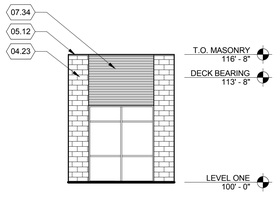
C1 AREAS C/D PATIENT 2
SCALE: 1/8" = 1'-0"



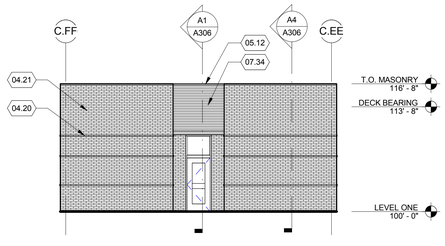
C3 AREAS C/D PATIENT 1
SCALE: 1/8" = 1'-0"



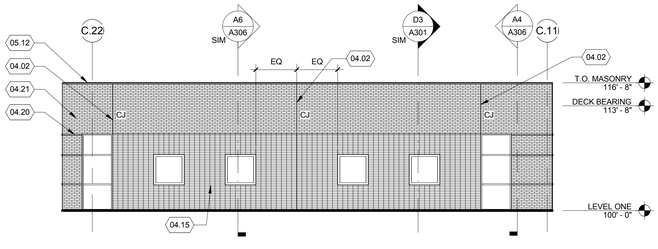
C4 AREAS C/D VISITING/OFFICES
SCALE: 1/8" = 1'-0"



C6 AREAS C/D GROUP
SCALE: 1/8" = 1'-0"



B1 AREAS C/D PATIENT 5
SCALE: 1/8" = 1'-0"



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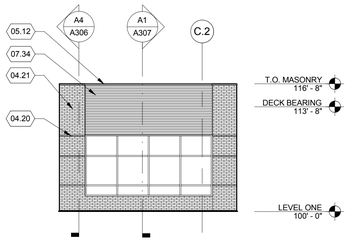
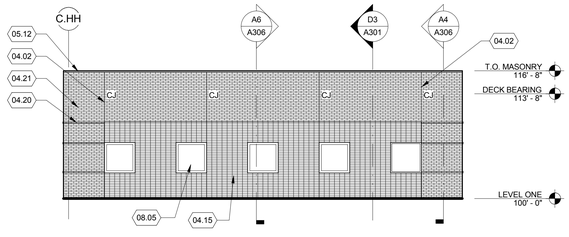
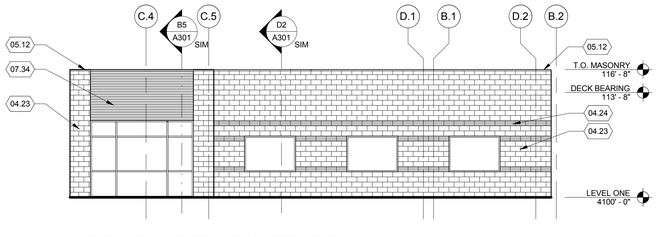
SCALE: 1/8" = 1'-0"



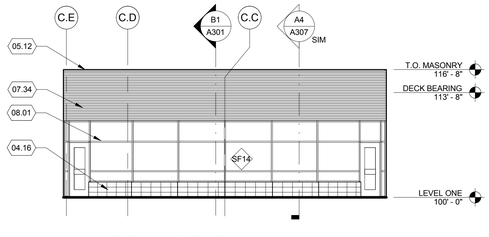
B4 AREAS C/D PATIENT DAY
SCALE: 1/8" = 1'-0"



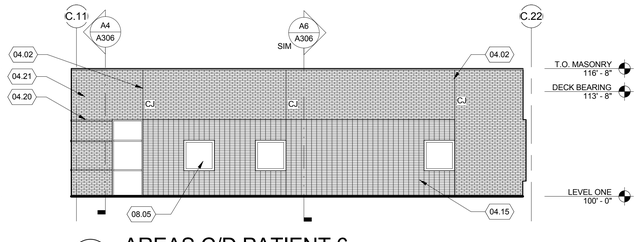
B5 AREAS C/D PATIENT 3
SCALE: 1/8" = 1'-0"



A2 AREA C VISITING/OFFICES
SCALE: 1/8" = 1'-0"



A4 AREAS C/D DINING
SCALE: 1/8" = 1'-0"



A5 AREAS C/D PATIENT 6
SCALE: 1/8" = 1'-0"

DFCM APPROVAL STAMP

FFKR ARCHITECTS
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730 pacific avenue
salt lake city
Utah 84104
801-521-6186
801-539-1916
ffkr.com

REFERENCE NOTES

04.02	BRICK VENEER CONTROL JOINT
04.15	BRICK VENEER, STACK BOND
04.16	CMU VENEER, STACK BOND
04.20	BRICK REVEAL, OUTSET 1/2" FROM PLANE
04.21	BRICK VENEER, RUNNING BOND
04.22	HONED FACE CMU VENEER, STACKED BOND, INSET 1/2" FROM BRICK PLANE
04.23	HONED FACE CMU VENEER, RUNNING BOND
04.24	SPLIT FACE CMU REVEAL, OUTSET 1/2" FROM CMU PLANE, B.O. LOWER PROJECTION @ 3'-4", T.O. UPPER PROJECTIONS @ 8'-0" AND 10'-0"
05.12	SHEET METAL PARAPET COPING
05.15	ALUMINUM PLATE PANEL SYSTEM
07.33	METAL PANEL, 8" RIB TO RIB
07.34	METAL PANEL, 4" RIB TO RIB
08.01	ALUMINUM STOREFRONT WALL SYSTEM
08.02	ALUMINUM CURTAIN WALL SYSTEM
08.05	WINDOW PER SCHEDULE
10.39	ROOF ACCESS LADDER

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
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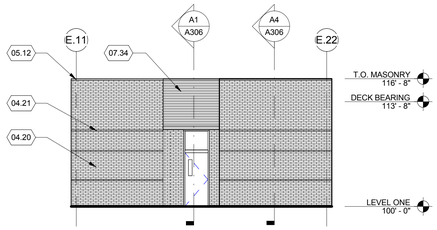
PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

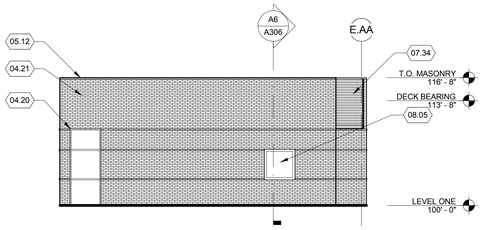
BUILDING ELEVATIONS

A202

9/10/2012 7:45:27 PM



E1 AREA E PATIENT 2
SCALE: 1/8" = 1'-0"



E3 AREA E PATIENT 1
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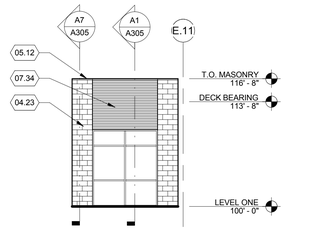

E4 AREA E GROUP
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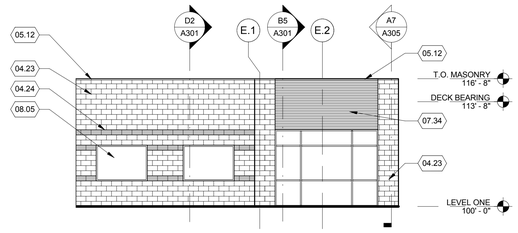
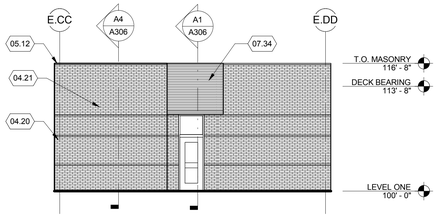
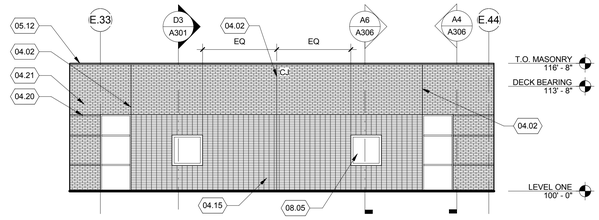


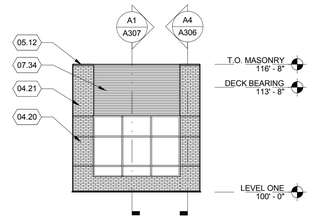
E5 AREA E VISITING/OFFICES
SCALE: 1/8" = 1'-0"



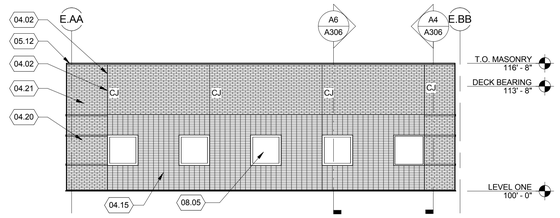
D1 AREA E PATIENT 5
SCALE: 1/8" = 1'-0"



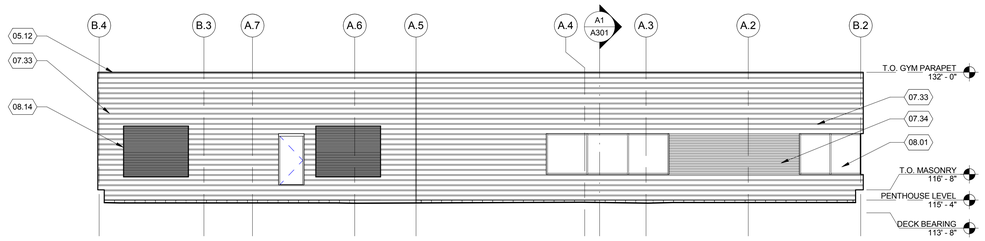
D2 AREA E PATIENT 4
SCALE: 1/8" = 1'-0"



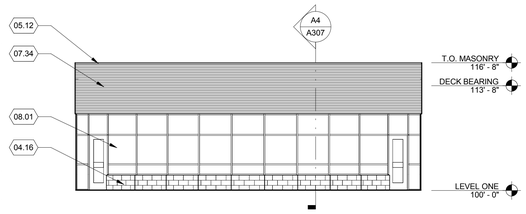
D4 AREA E PATIENT DAY
SCALE: 1/8" = 1'-0"



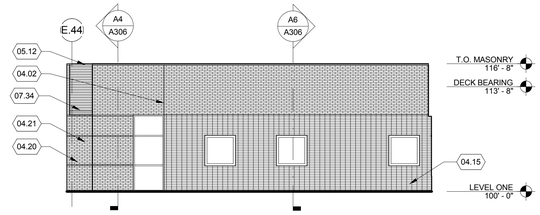
D5 AREA E PATIENT 3
SCALE: 1/8" = 1'-0"



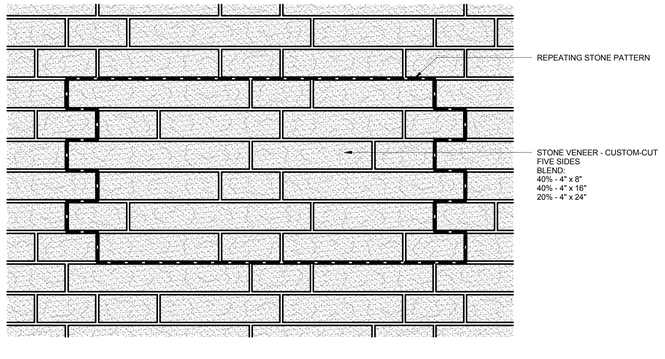
C1 PARTIAL NORTH ELEVATION
SCALE: 1/8" = 1'-0"



C4 AREA E DINING
SCALE: 1/8" = 1'-0"



C5 AREA E PATIENT 6
SCALE: 1/8" = 1'-0"



A5 STONE VENEER PATTERN
SCALE: 1 1/2" = 1'-0"

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REFERENCE NOTES

04.02	BRICK VENEER CONTROL JOINT
04.15	BRICK VENEER, STACK BOND
04.16	CMU VENEER, STACK BOND
04.20	BRICK REVEAL, OUTSET 1/2" FROM PLANE
04.21	BRICK VENEER, RUNNING BOND
04.23	HONED FACE CMU VENEER, RUNNING BOND
04.24	SPLIT FACE CMU REVEAL, OUTSET 1/2" FROM CMU PLANE, B.O. LOWER PROJECTION @ 3'-4", T.O. UPPER PROJECTIONS @ 8'-0" AND 10'-0"
05.12	SHEET METAL PARAPET COPING
07.33	METAL PANEL, 8" RIB TO RIB
07.34	METAL PANEL, 4" RIB TO RIB
08.01	ALUMINUM STOREFRONT WALL SYSTEM
08.05	WINDOW PER SCHEDULE
08.14	LOUVER

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BUILDING ELEVATIONS

A203

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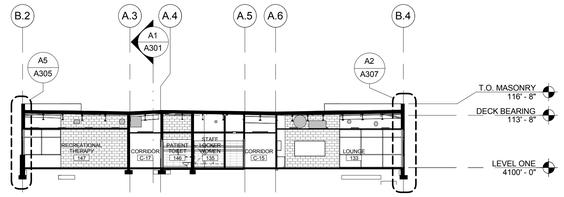
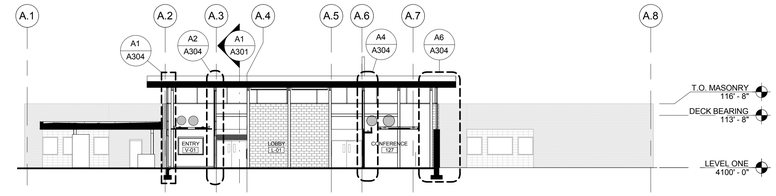
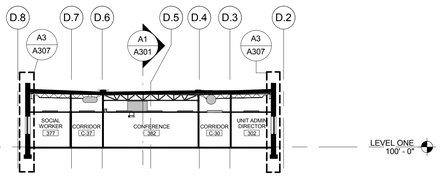


E2 E-W AREA A
SCALE: 1/16" = 1'-0"



E4 E-W LOBBY SECTION
SCALE: 1/16" = 1'-0"



D2 TYP SECTION @ UNIT OFFICES
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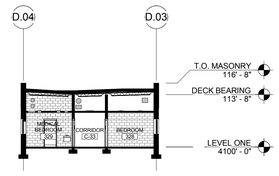
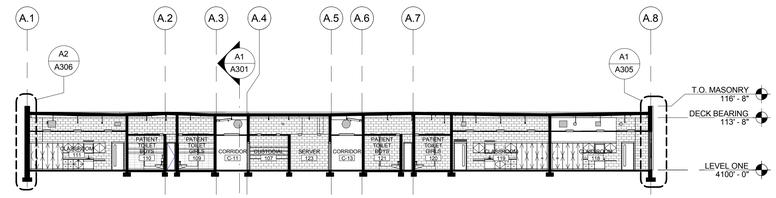
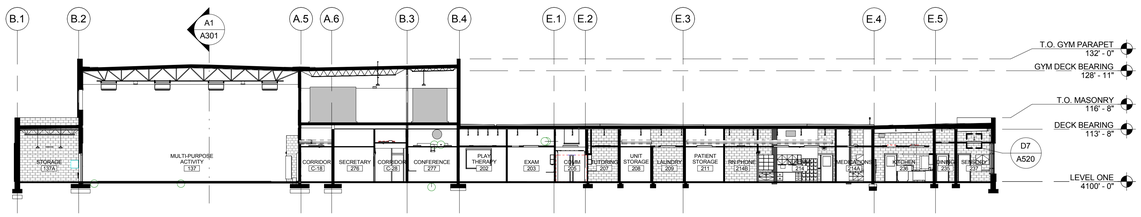


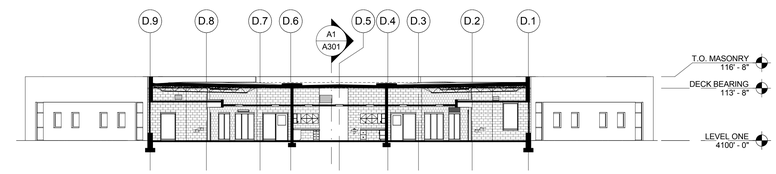
D3 TYP SECTION @ PATIENT WING
SCALE: 1/16" = 1'-0"



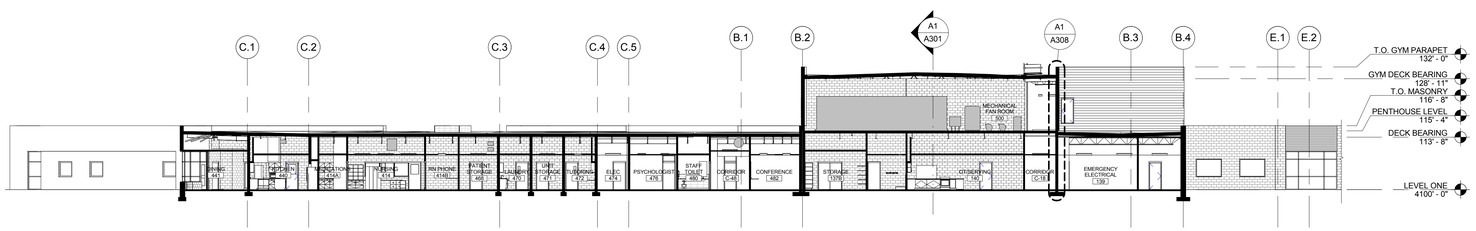
D4 E-W SCHOOL
SCALE: 1/16" = 1'-0"



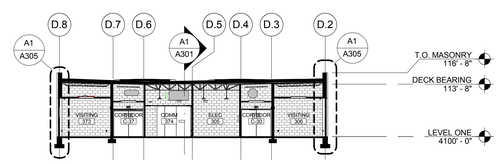
C1 E-W AREAS B & E
SCALE: 1/16" = 1'-0"



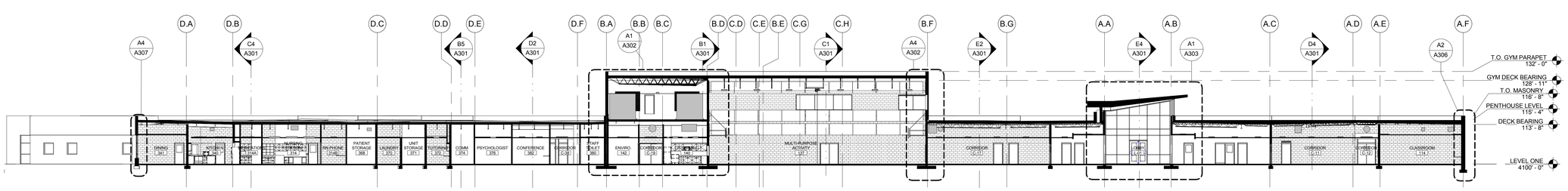
C4 TYPICAL SECTION @ PATIENT UNIT COMMONS
SCALE: 1/16" = 1'-0"



B1 E-W AREA C
SCALE: 1/16" = 1'-0"



B5 TYP SECTION @ UNIT VISITING
SCALE: 1/16" = 1'-0"



A1 N-S BUILDING SECTION
SCALE: 1/16" = 1'-0"

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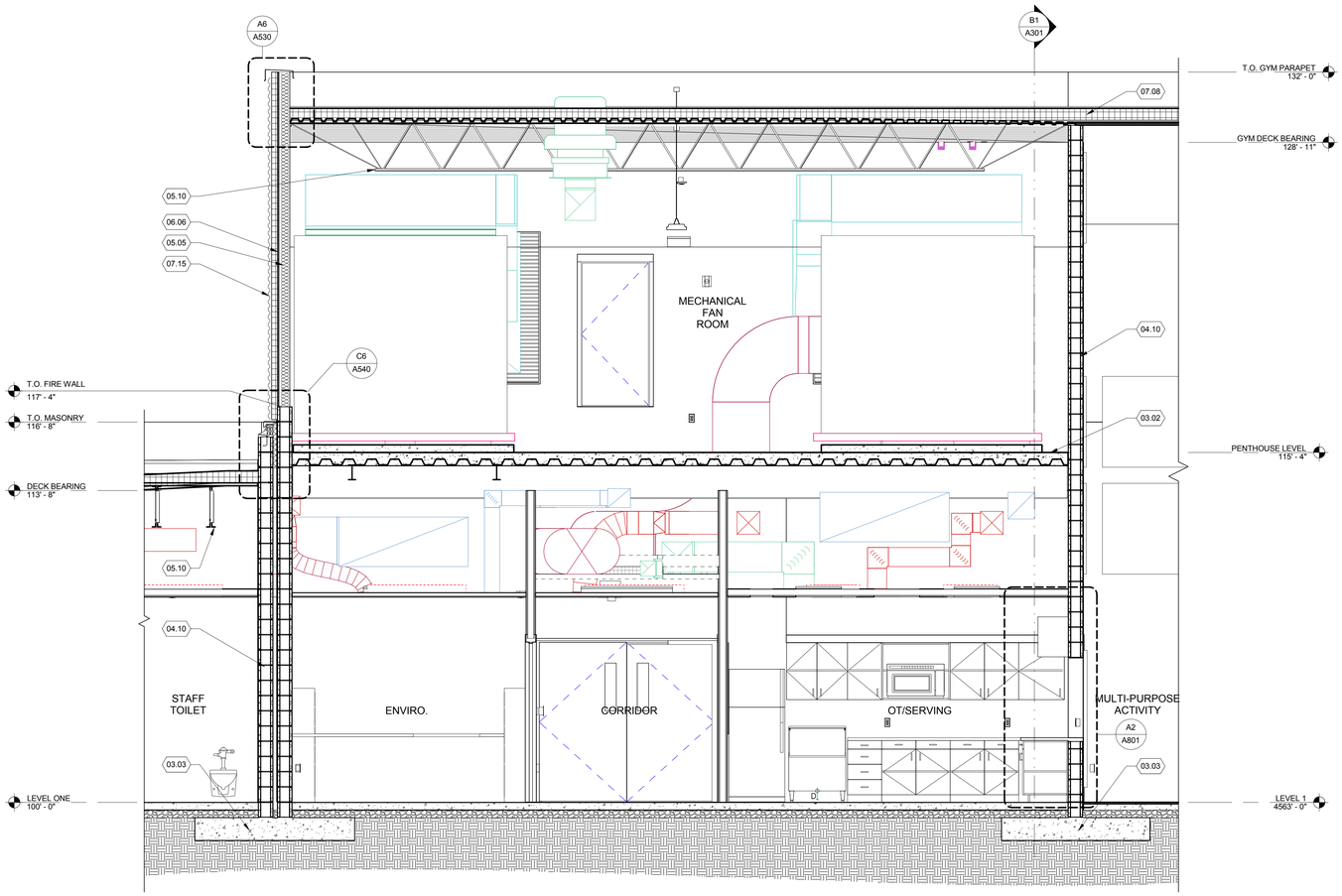
BUILDING SECTION

A301

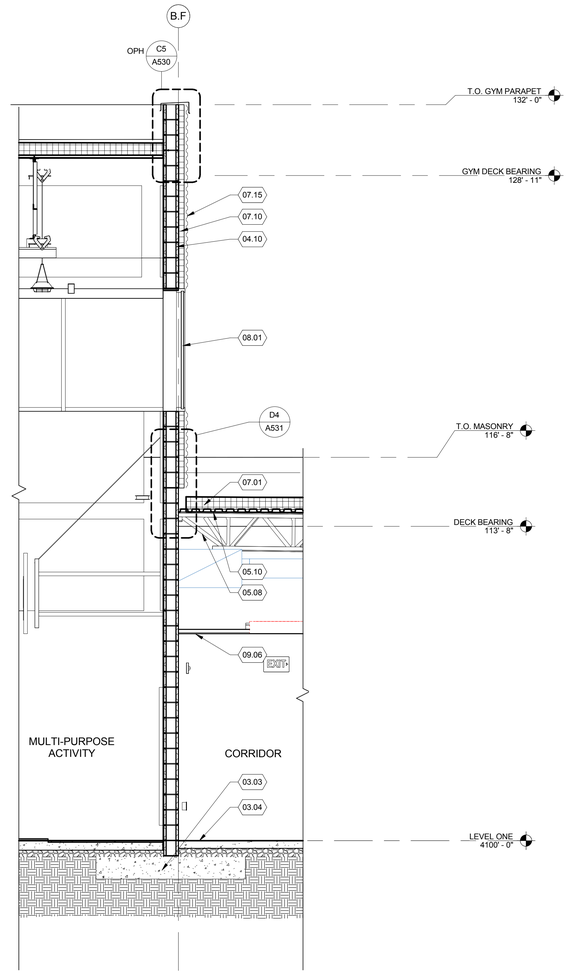
9/10/2012 7:46:01 PM



A1 PENTHOUSE SECTION

SCALE: 3/8" = 1'-0"

0" 3' 6'



A4 GYM WALL SECTION

SCALE: 3/8" = 1'-0"

0" 3' 6'

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REFERENCE NOTES

03.02	CONCRETE FLOOR, RE: STRUCTURAL DRAWINGS
03.03	CONCRETE FOOTING, RE: STRUCTURAL DRAWINGS
03.04	CONCRETE SLAB ON GRADE, RE: STRUCTURAL DRAWINGS
04.10	8"X8"X16" CMU
05.05	6" METAL STUD
05.08	METAL ROOF DECKING, RE: STRUCTURAL DRAWINGS
05.10	STEEL JOIST, RE: STRUCTURAL DRAWINGS
06.06	GLASS-MAT GYPSUM SHEATHING
07.01	RIGID ROOF INSULATION
07.08	SINGLE-PLY ROOF MEMBRANE
07.10	LAP ROOF MEMBRANE OVER AIR BARRIER
07.15	METAL PANEL
08.01	ALUMINUM STOREFRONT WALL SYSTEM
09.06	CEILING PER REFLECTED CEILING PLANS

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PARTIAL BUILDING SECTIONS

A302

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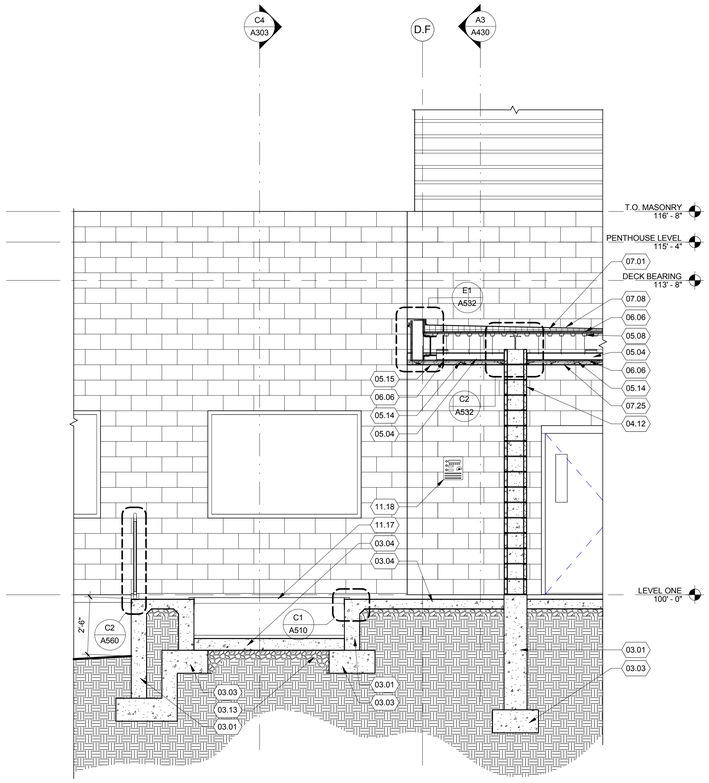
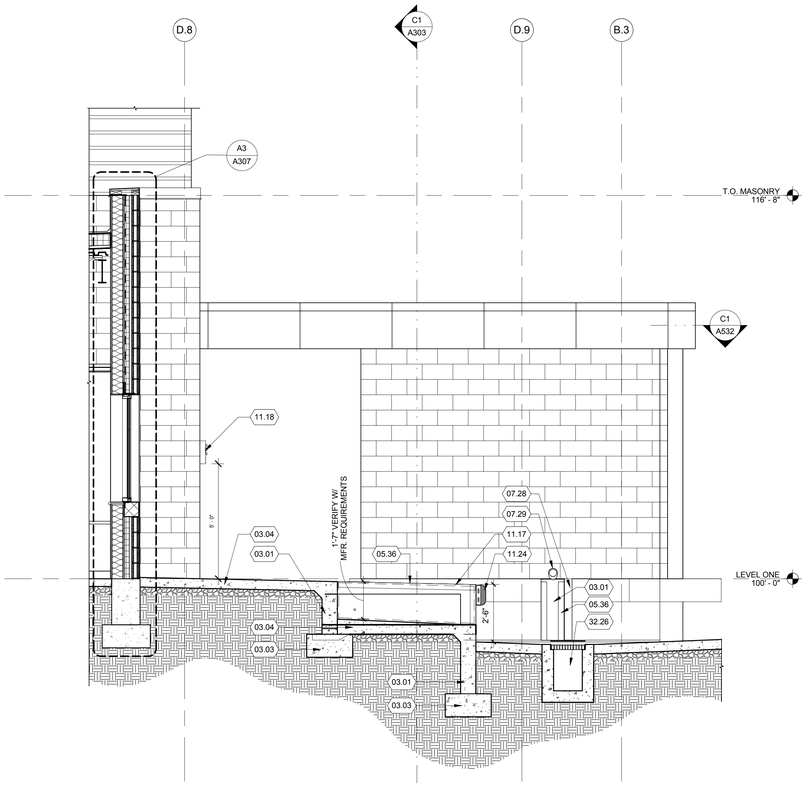


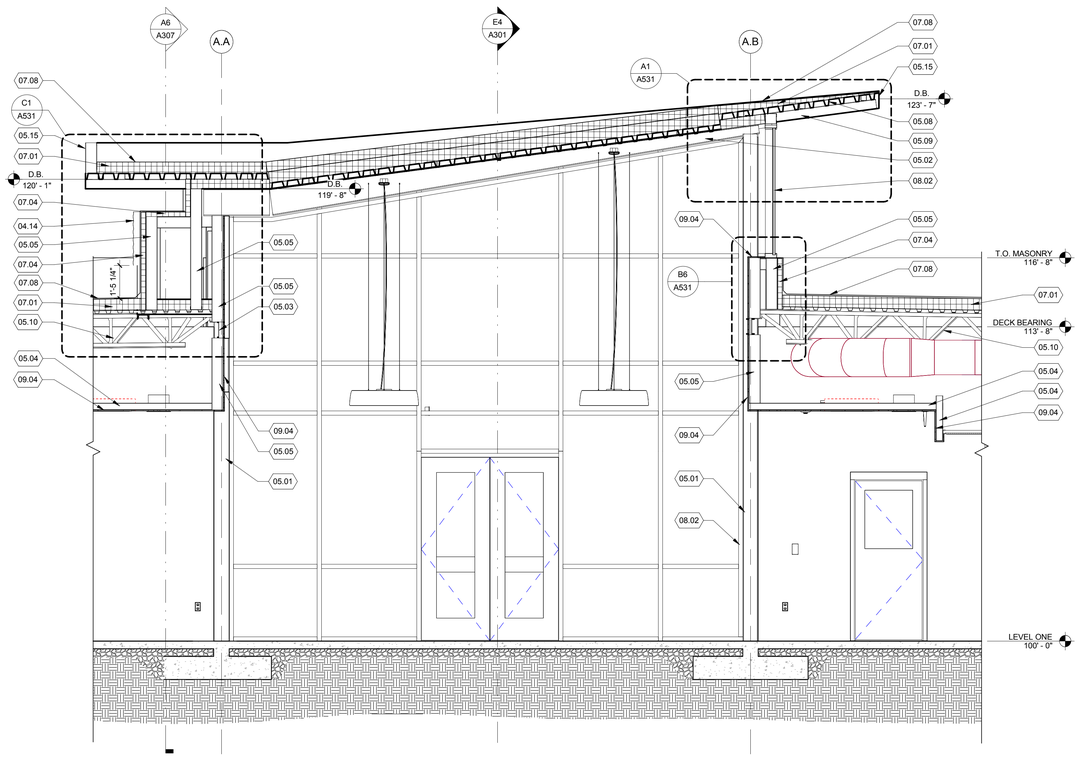
C1 LOADING DOCK SECTION

SCALE: 3/8" = 1'-0"



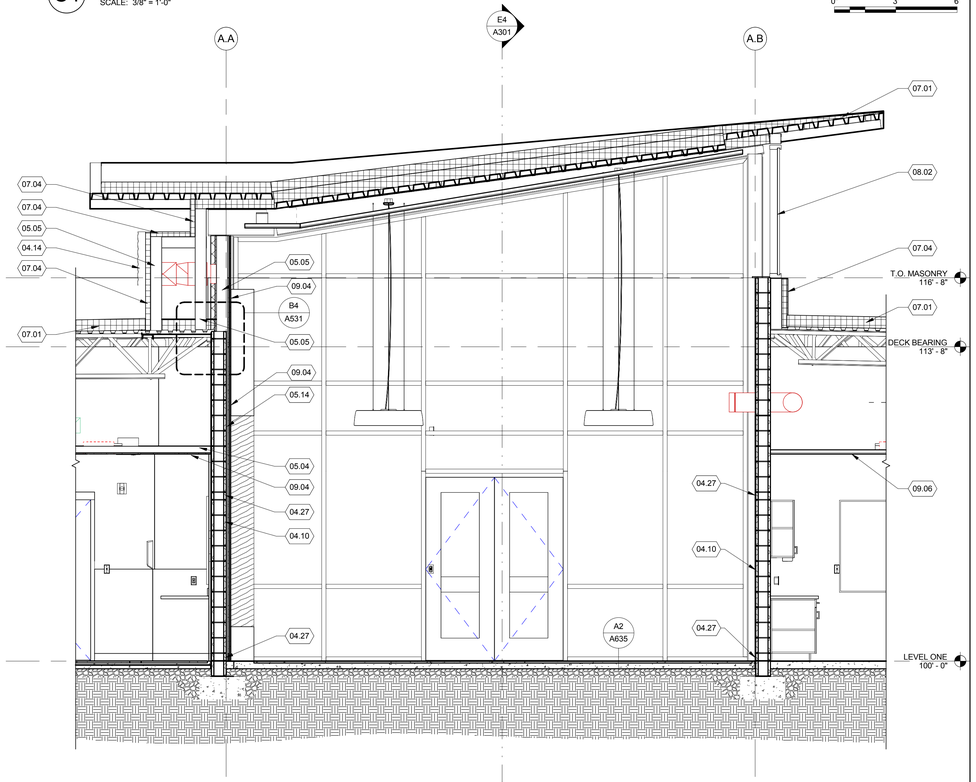
C4 LOADING DOCK SECTION

SCALE: 3/8" = 1'-0"



A1 LOBBY SECTION

SCALE: 3/8" = 1'-0"



A4 LOBBY SECTION

SCALE: 3/8" = 1'-0"

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REFERENCE NOTES

03.01	CONCRETE WALL, RE: STRUCTURAL DRAWINGS
03.03	CONCRETE FOOTING, RE: STRUCTURAL DRAWINGS
03.04	CONCRETE SLAB ON GRADE, RE: STRUCTURAL DRAWINGS
03.13	GRAVEL FILL
04.10	8"X8"X16" CMU
04.12	12" X 8" X 16" CMU
04.14	STONE VENEER, RE: A5/A203 FOR PATTERN
04.27	8" X 4" X 16" CMU COURSE, B.O. UNIT AT BASE & 7'-0" AFF
05.01	STRUCTURAL COLUMN, RE: STRUCTURAL DRAWINGS
05.02	STRUCTURAL BEAM, RE: STRUCTURAL DRAWINGS
05.03	2 1/2" METAL STUD
05.04	3 5/8" METAL STUD
05.05	6" METAL STUD
05.08	METAL ROOF DECKING, RE: STRUCTURAL DRAWINGS
05.09	STEEL TUBE, RE: STRUCTURAL DRAWINGS
05.10	STEEL JOIST, RE: STRUCTURAL DRAWINGS
05.14	7/8" METAL FURRING CHANNEL
05.15	ALUMINUM PLATE PANEL SYSTEM
05.36	METAL ANGLE EMBEDDED IN EDGE OF SLAB, RE: STRUCTURAL DRAWINGS AND DOCK LEVELER REQUIREMENTS
06.06	GLASS-MAT GYPSUM SHEATHING
07.01	RIGID ROOF INSULATION
07.04	2.5" RIGID POLYISOCYANURATE
07.08	SINGLE-PLY ROOF MEMBRANE
07.25	METAL SOFFIT SYSTEM
07.28	PRIMARY DRAIN PIPE
07.29	OVERFLOW DRAIN PIPE
08.02	ALUMINUM CURTAIN WALL SYSTEM
09.04	PAINTED GYPSUM BOARD
09.06	CEILING PER REFLECTED CEILING PLANS
11.17	RECESSED DOCK LEVELER
11.18	DOCK LEVELER CONTROL PANEL
11.24	DOCK BUMPER
32.26	CATCHMENT BASIN, RE: CIVIL DRAWINGS

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PARTIAL BUILDING SECTIONS

A303

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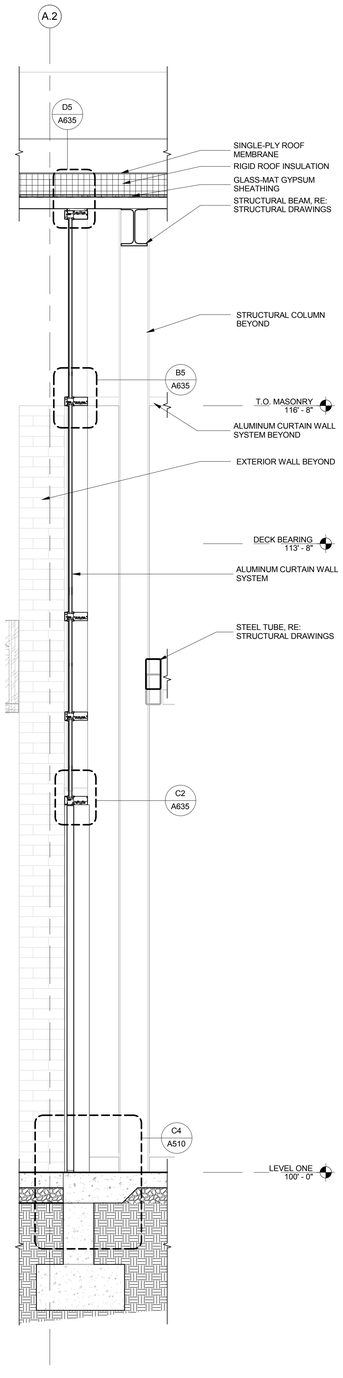
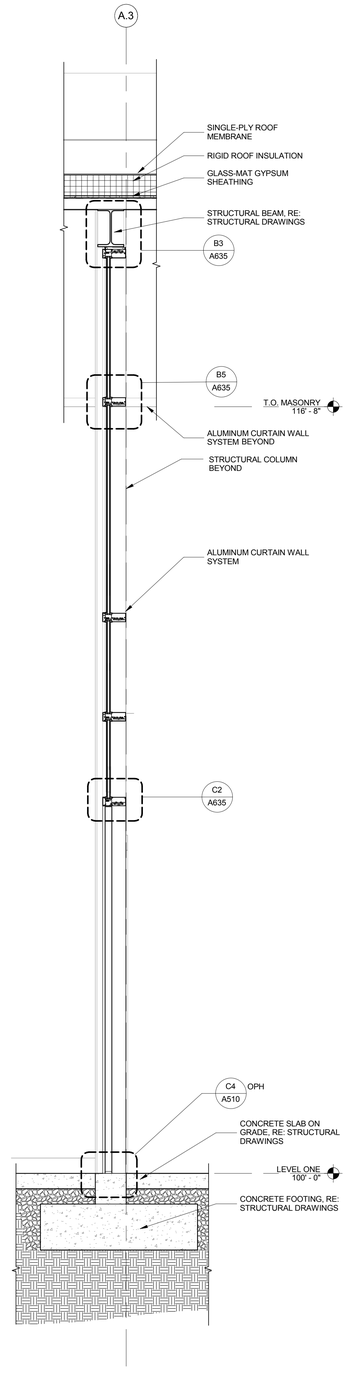
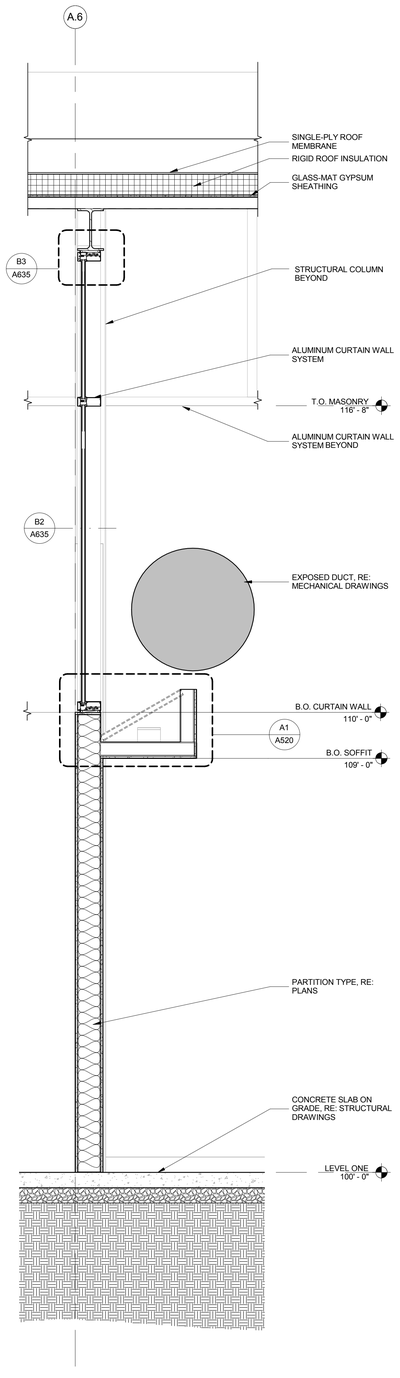


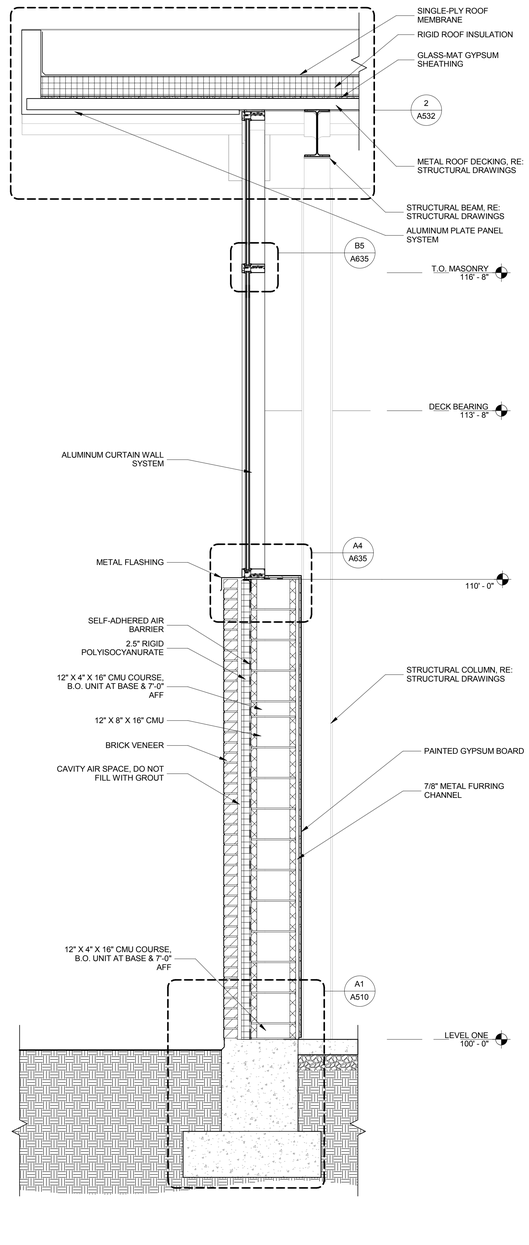
A1 WALL SECTION - A
SCALE: 3/4" = 1'-0"



A2 WALL SECTION - B
SCALE: 3/4" = 1'-0"



A4 WALL SECTION - C
SCALE: 3/4" = 1'-0"



A6 WALL SECTION - D
SCALE: 3/4" = 1'-0"

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WALL SECTIONS

A304

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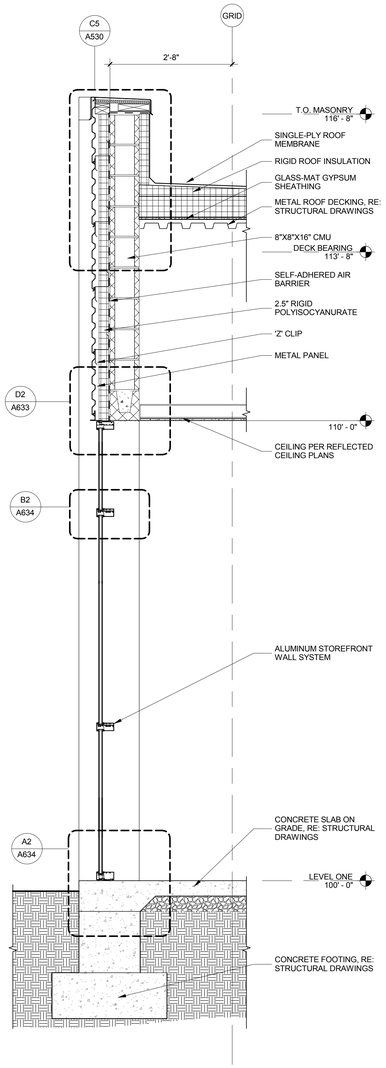

A1 WALL SECTION - E
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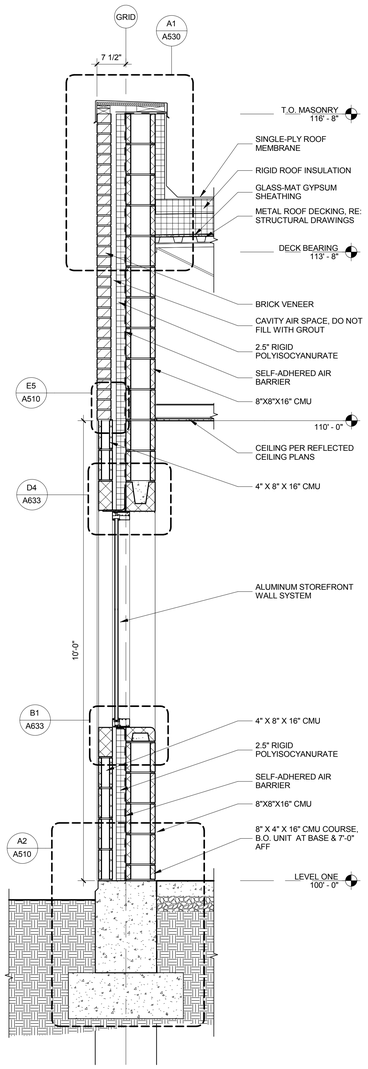

A2 WALL SECTION - F
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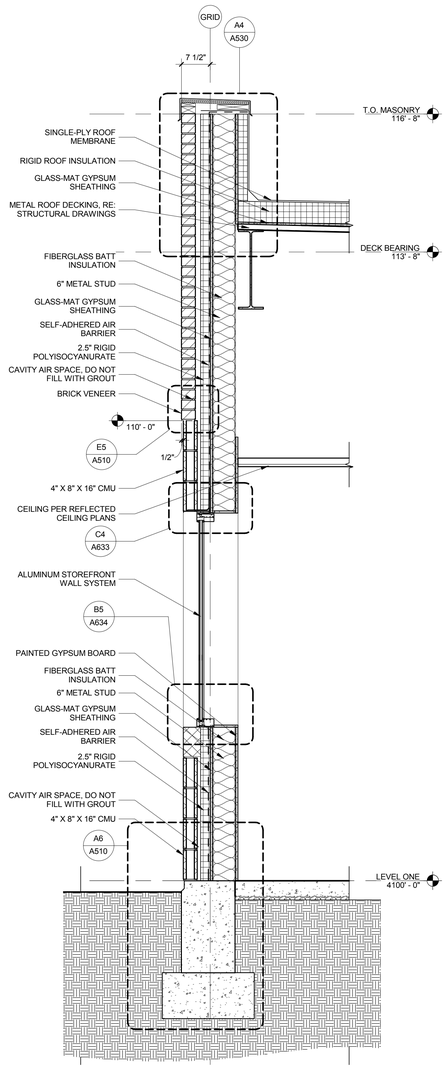

A3 WALL SECTION - G
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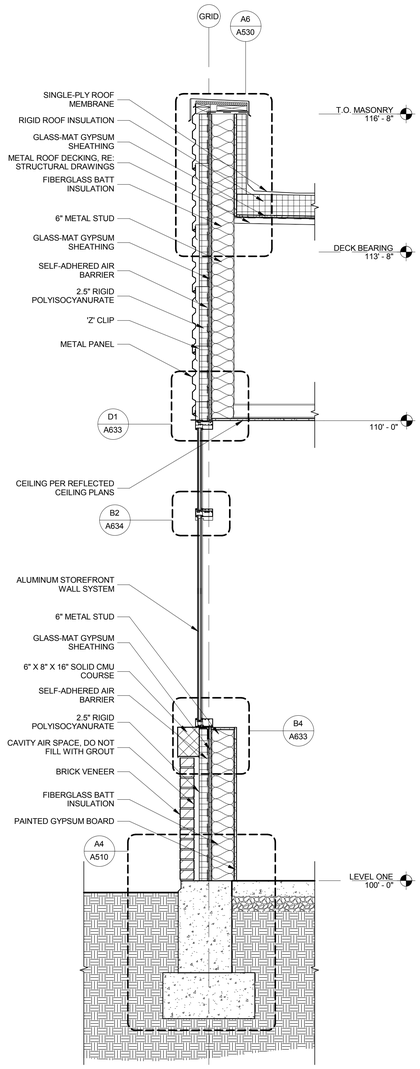

A5 WALL SECTION - H
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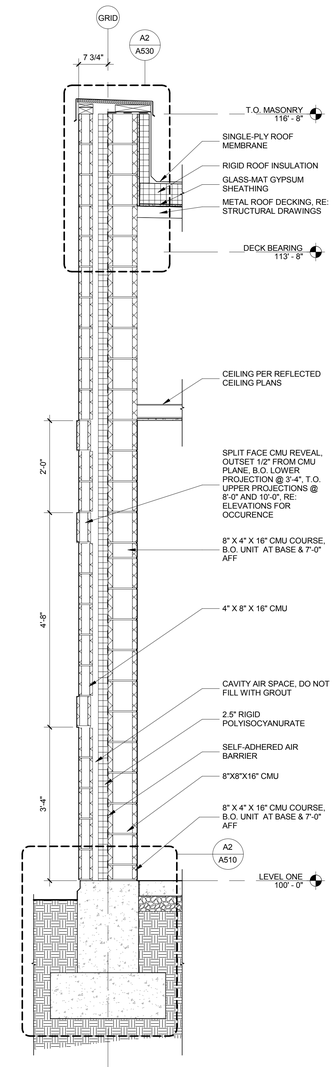

A7 WALL SECTION - J
SCALE: 3/4" = 1'-0"

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WALL SECTIONS

A305

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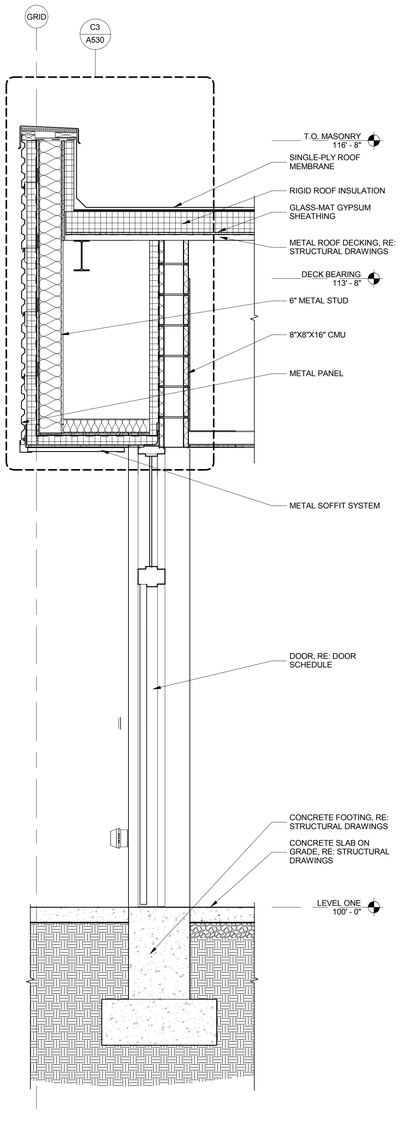
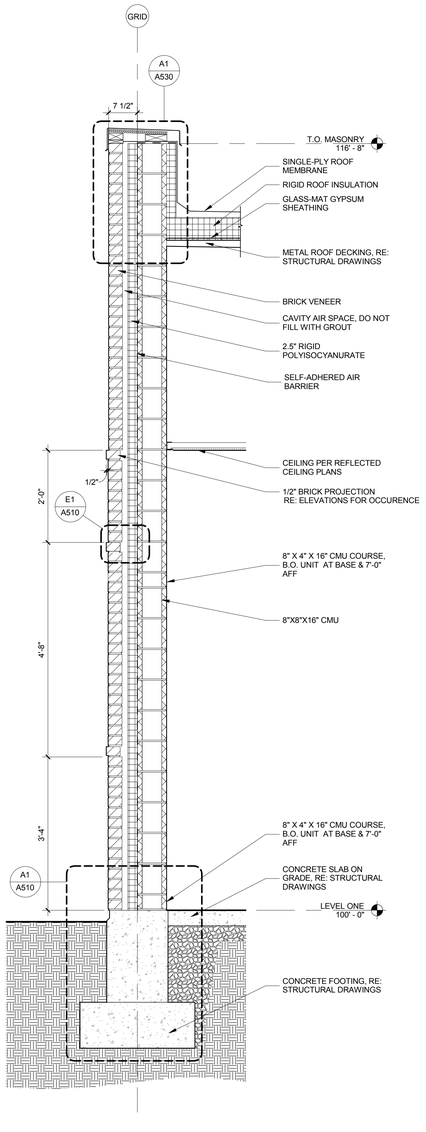
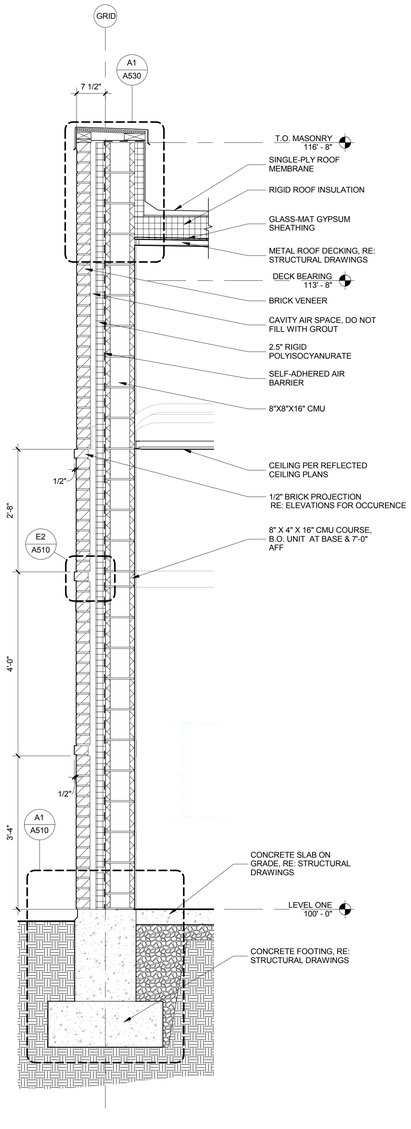


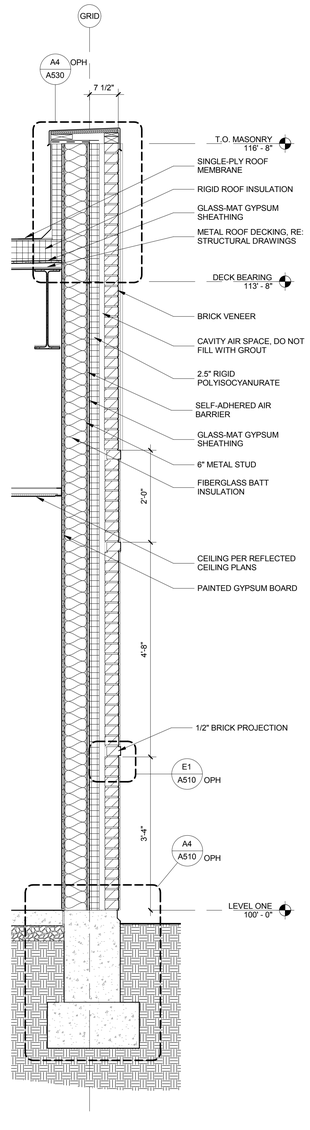
A1 WALL SECTION - K
SCALE: 3/4" = 1'-0"



A2 WALL SECTION - L
SCALE: 3/4" = 1'-0"



A4 WALL SECTION - M
SCALE: 3/4" = 1'-0"



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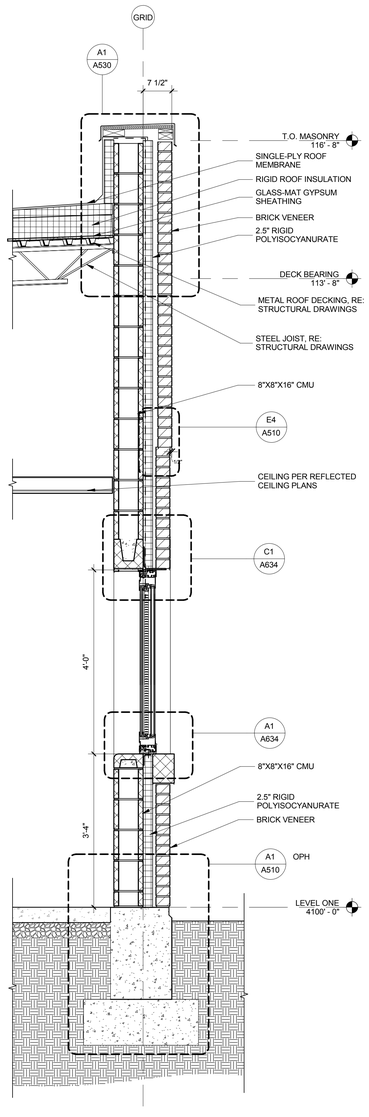

A6 WALL SECTION - P
SCALE: 3/4" = 1'-0"

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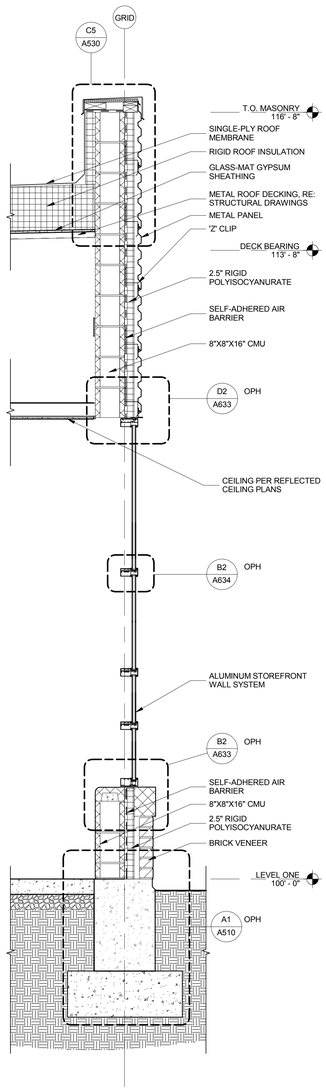
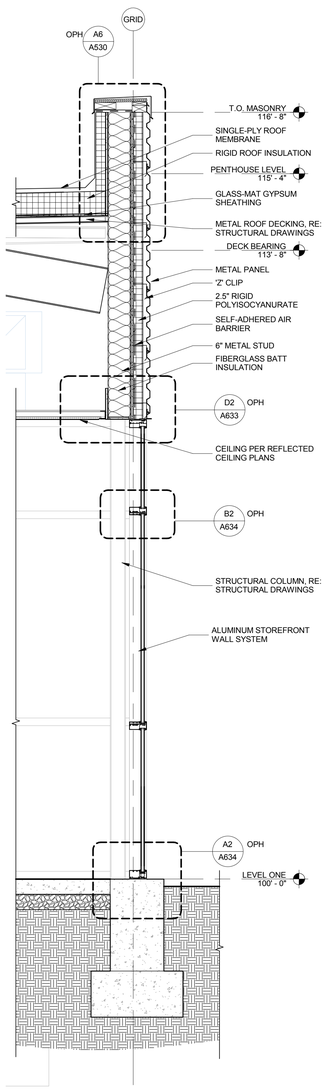
WALL SECTIONS

A306

9/10/2012 7:46:40 PM



A1 WALL SECTION - Q
SCALE: 3/4" = 1'-0"



A2 WALL SECTION - R
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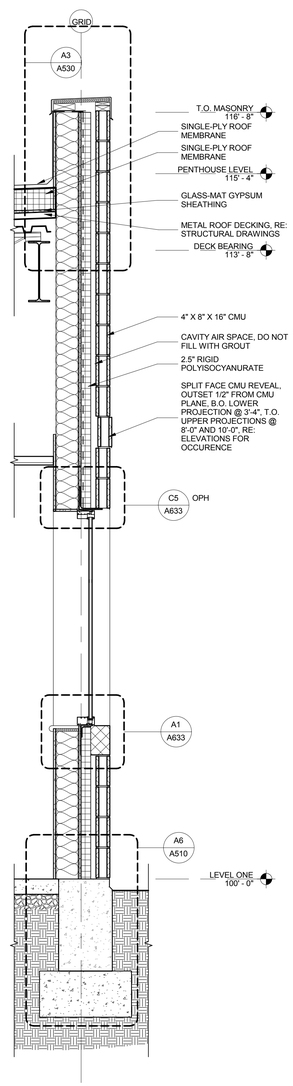

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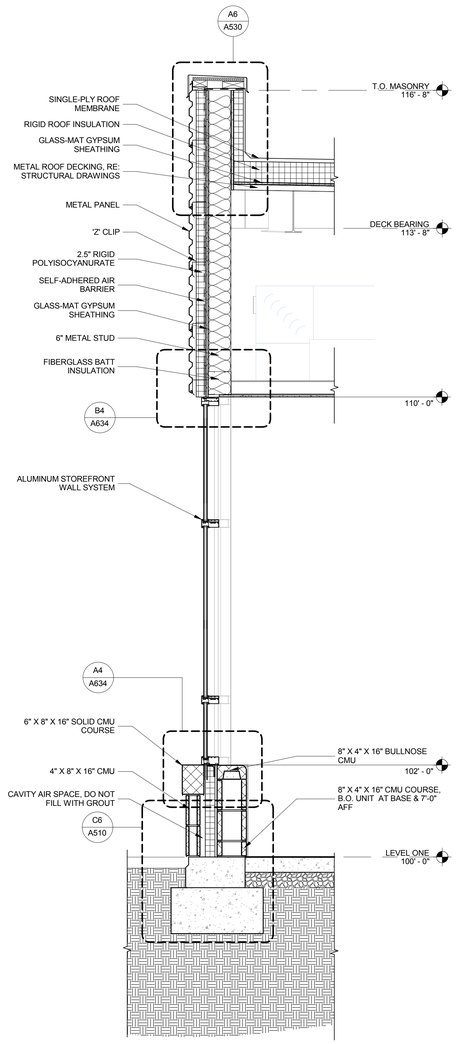

A4 WALL SECTION - T
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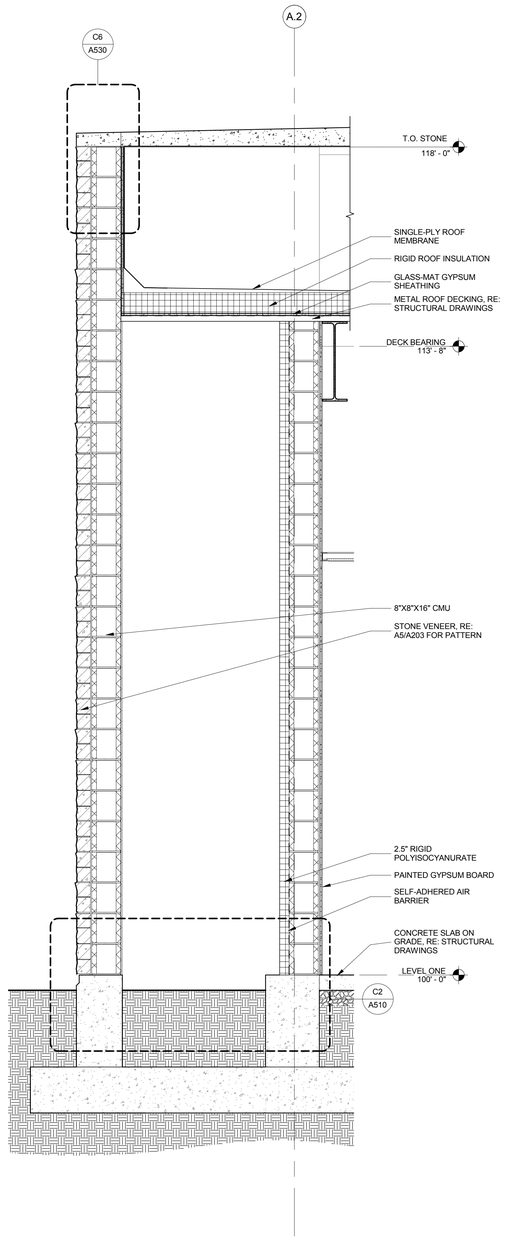

A6 WALL SECTION - U
SCALE: 3/4" = 1'-0"

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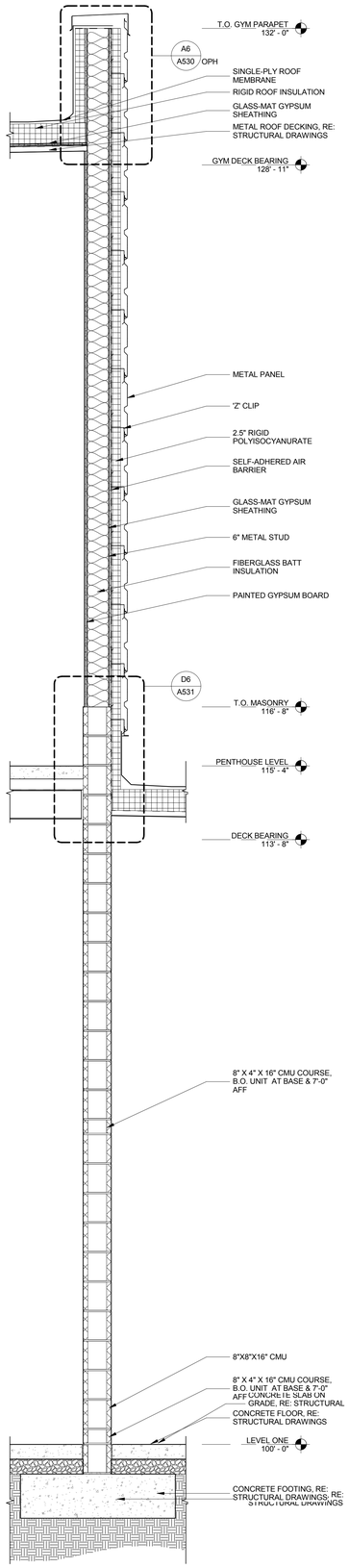
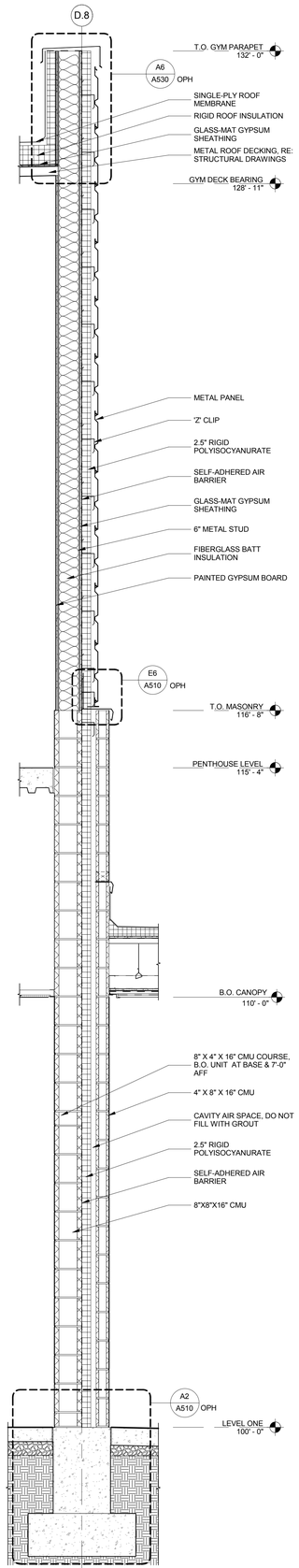
WALL SECTIONS

A307

9/10/2012 7:46:49 PM



A1 WALL SECTION - V
SCALE: 3/4" = 1'-0"



A2 WALL SECTION - W
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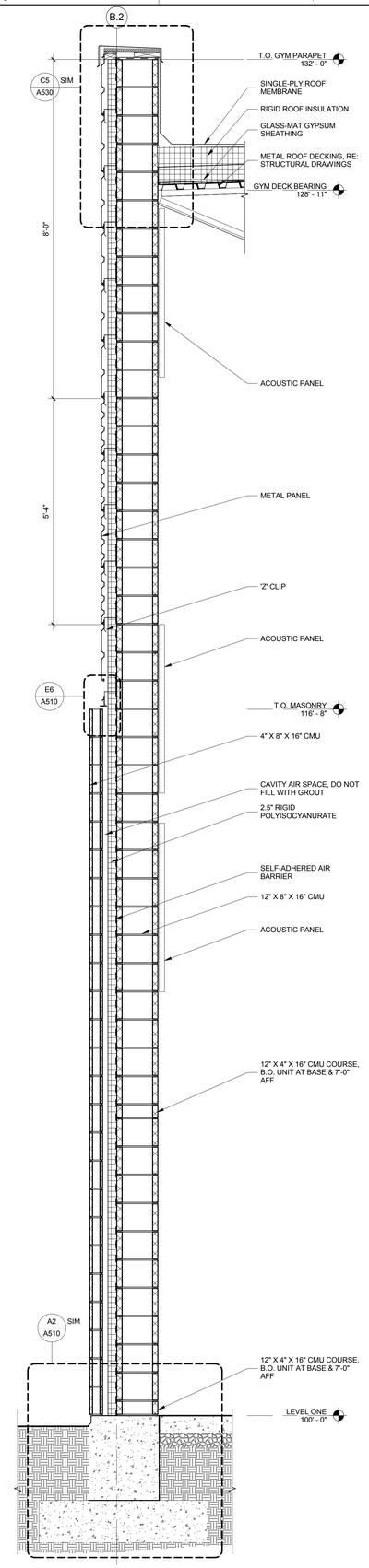

A3 WALL SECTION - X
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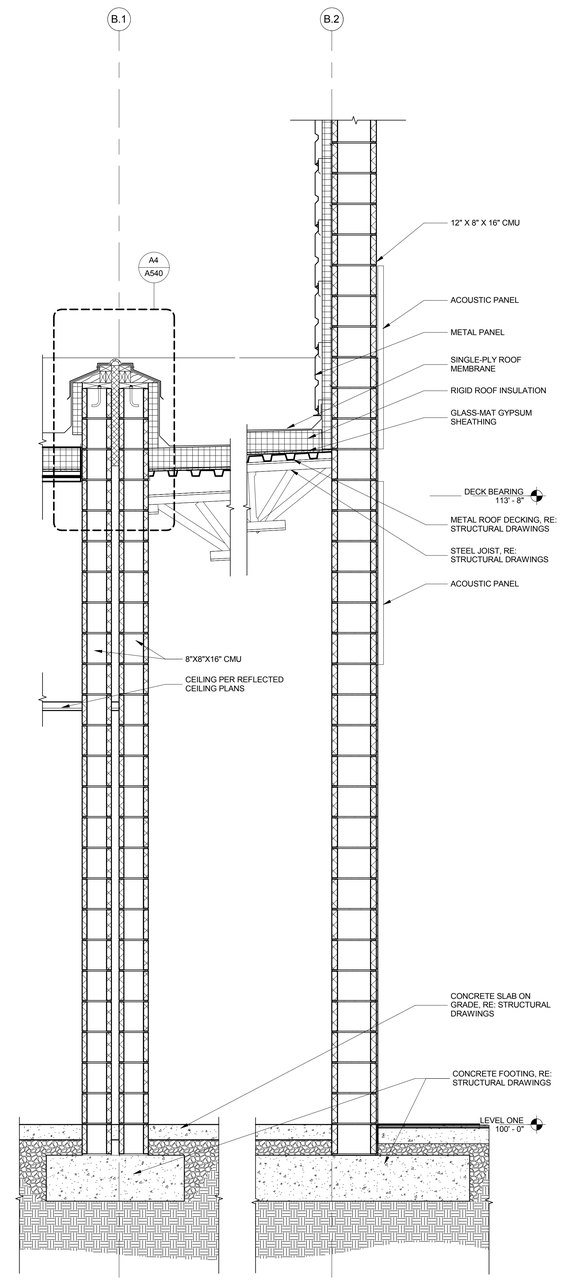
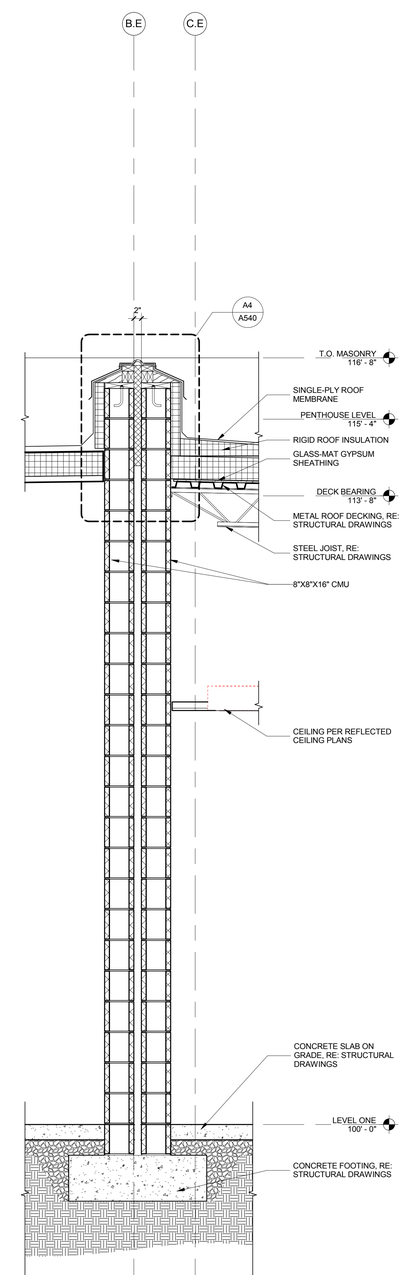


A4 WALL SECTION - Y
SCALE: 3/4" = 1'-0"



A6 WALL SECTION - Z
SCALE: 3/4" = 1'-0"

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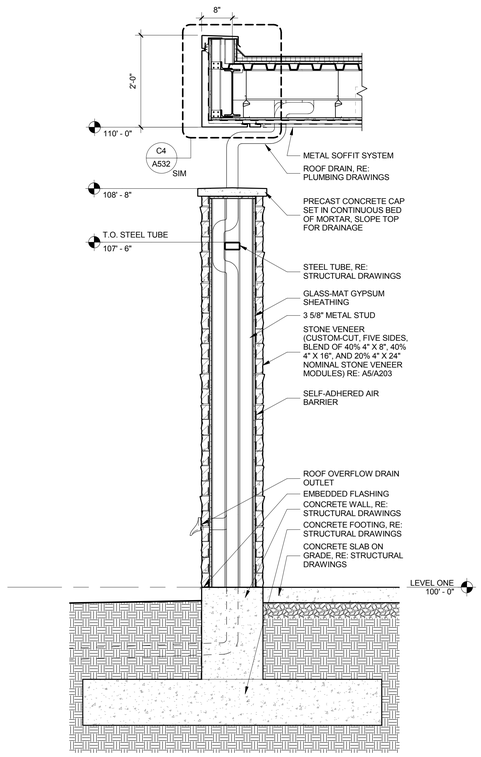
WALL SECTIONS

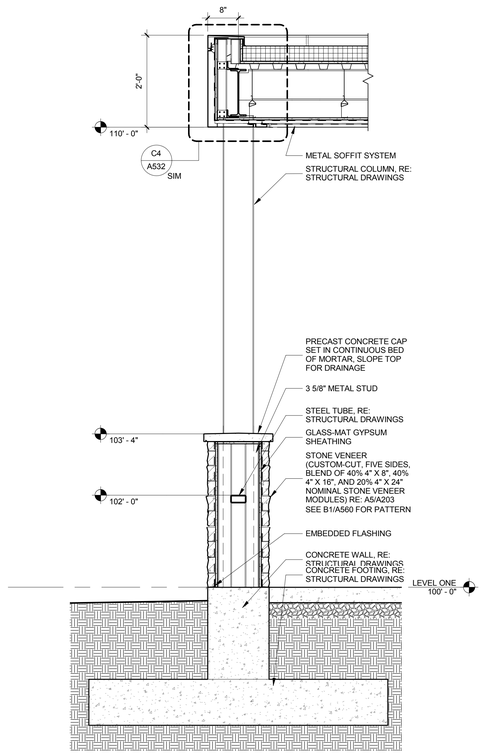
A308

9/10/2012 7:46:56 PM



A1 WALL SECTION @ MAIN CANOPY

SCALE: 3/4" = 1'-0"



A2 WALL SECTION @ MAIN CANOPY

SCALE: 3/4" = 1'-0"

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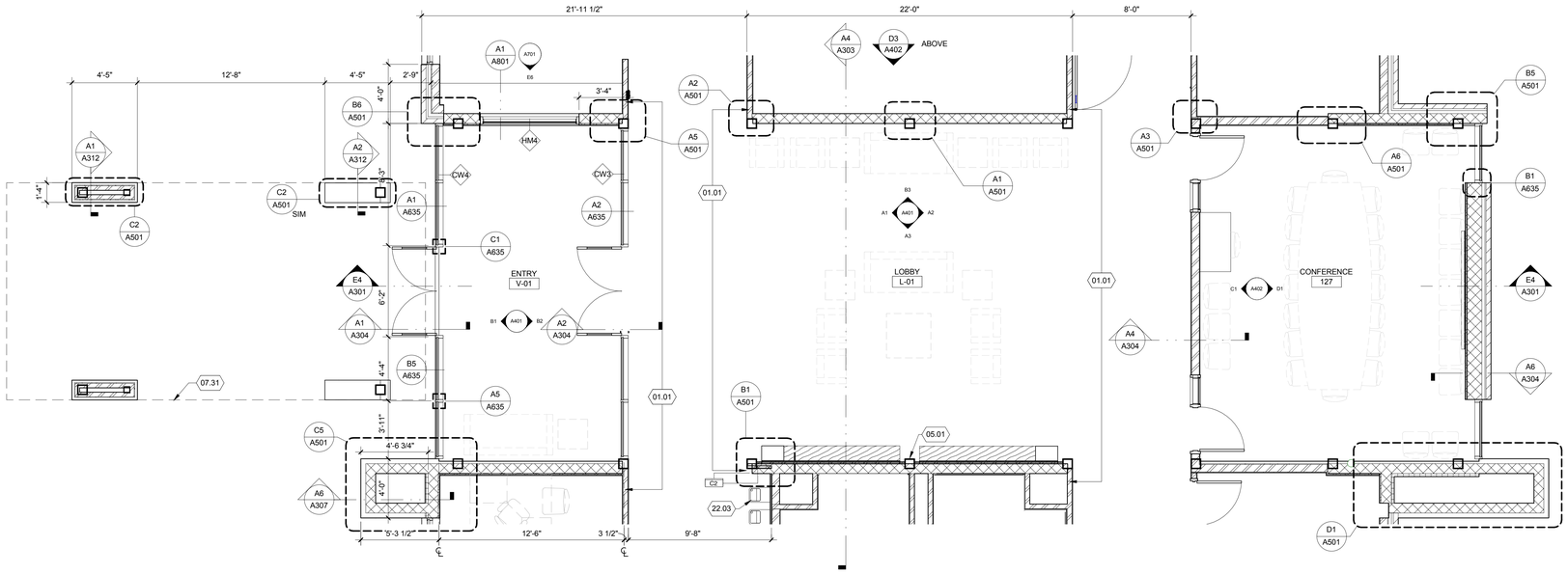
WALL SECTIONS

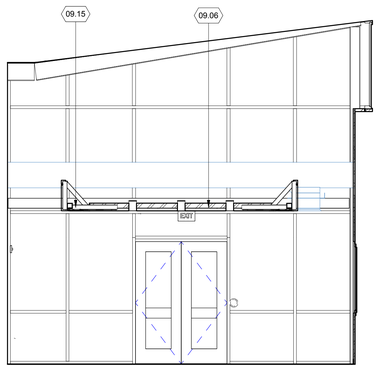
A312

9/10/2012 7:47:00 PM



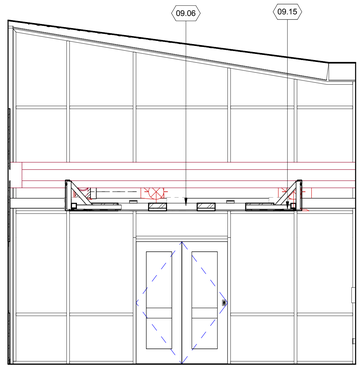
D2 ENLARGED LOBBY PLAN

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



B1 ENTRY WEST

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



B2 ENTRY EAST

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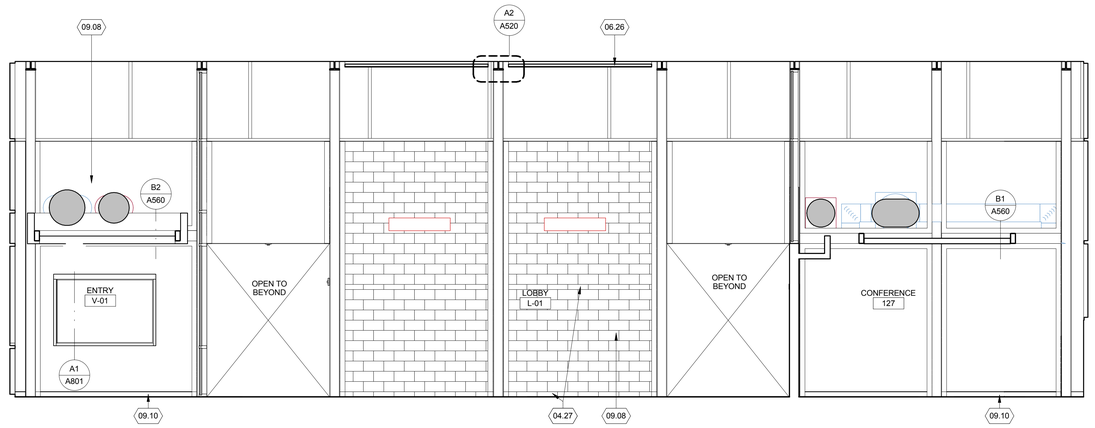
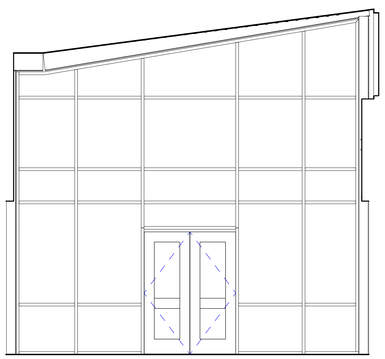


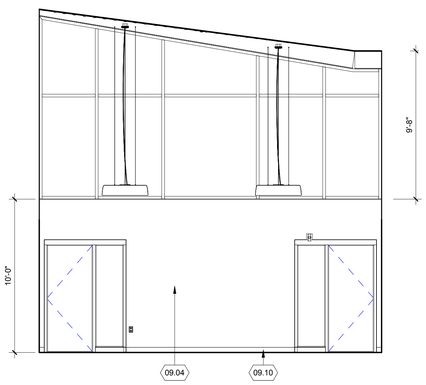
B3 ENTRY/LOBBY/CONFERENCE NORTH

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



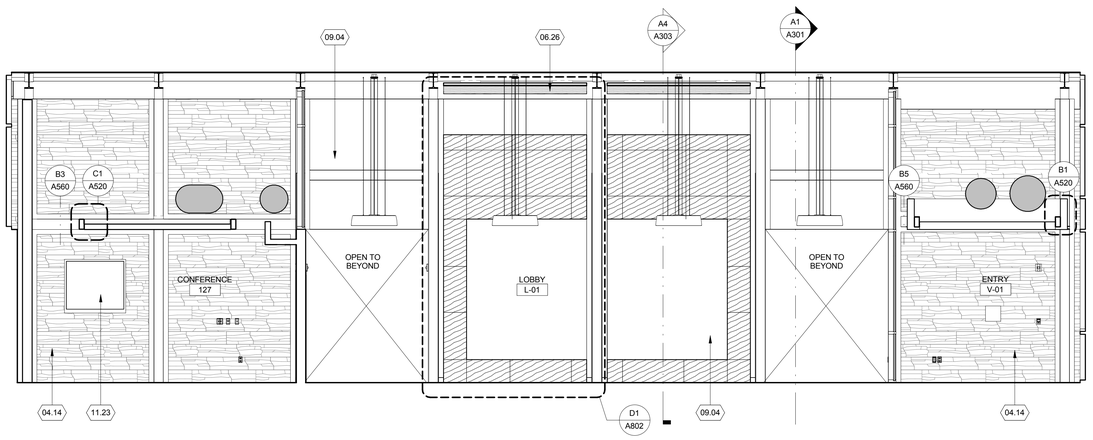
A1 LOBBY WEST

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



A2 LOBBY EAST

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



A3 ENTRY/LOBBY/CONFERENCE SOUTH

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

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REFERENCE NOTES

01.01	ALIGN
04.14	STONE VENEER, RE: A5/A203 FOR PATTERN
04.27	8" X 4" X 16" CMU COURSE, B.O. UNIT AT BASE & 7'-0" AFF
05.01	STRUCTURAL COLUMN, RE: STRUCTURAL DRAWINGS
06.26	WOOD CEILING SYSTEM PER SCHEDULE
07.31	LINE OF CANOPY ABOVE
09.04	PAINTED GYPSUM BOARD
09.06	CEILING PER REFLECTED CEILING PLANS
09.08	CMU WALL
09.10	WALL BASE PER FINISH SCHEDULE
09.15	TONGUE AND GROOVE WOOD CEILING
11.23	TELEVISION/MONITOR BY OWNER, PROVIDE BACKING.
22.03	DRINKING FOUNTAIN, RE: PLUMBING DRAWINGS

GENERAL NOTES

1. ALL DIMENSIONS SHOWN ARE TO FINISH FACE. CLEARANCES AND OTHER DIMENSIONS SHOWN IN 'FIXTURE & ACCESSORY MOUNTING SCHEDULE' ARE ABSOLUTE. SHOULD PLAN DIMENSIONS OR FIELD CONDITIONS RESULT IN INADEQUATE CLEARANCE, NOTIFY ARCHITECT BEFORE PROCEEDING WITH WORK.
2. ALL GROUT AT WET LOCATIONS SHALL BE EPOXY GROUT.
3. CENTER TRANSITION BETWEEN THRESHOLD AND TILE AT RESTROOMS ON DOOR IN CLOSED POSITION.
4. CENTER MIRROR ON SINKS, TYP.
5. SEE SPECIFICATIONS FOR ALL OWNER-FURNISHED, OWNER-INSTALLED TOILET ACCESSORIES. CONTRACTOR IS TO PROVIDE BACKING FOR ALL TOILET ACCESSORIES.
6. FURNITURE PROVIDED BY OWNER, SHOWN DASHED FOR INFORMATION ONLY.
7. ACCENT TILES ON WALLS SHOWN SHADED, RE: AF401 FOR WALL ACCENT TILE COLOR LOCATIONS.
8. PROVIDE HOSE BIB AND ACCESS PANEL BELOW SINK AT ALL RESTROOMS.
9. ALL WHITEBOARDS TO BE MOUNTED 3'-0" AFF AND CENTERED ON WALL, WHERE APPLICABLE.

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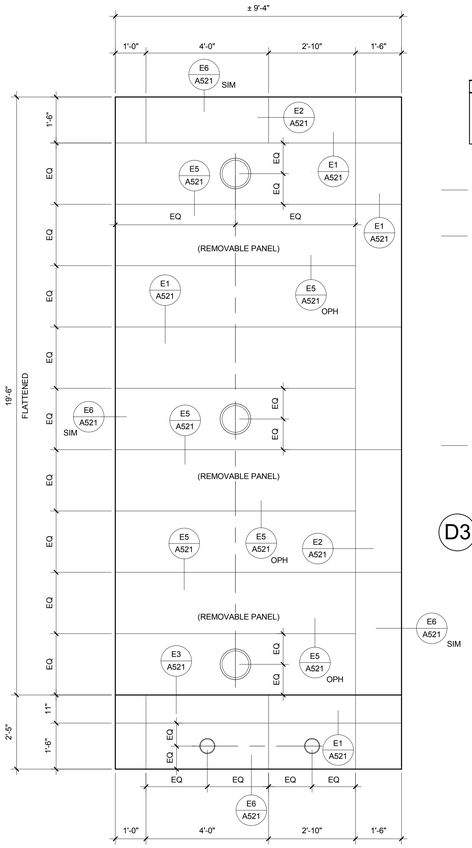
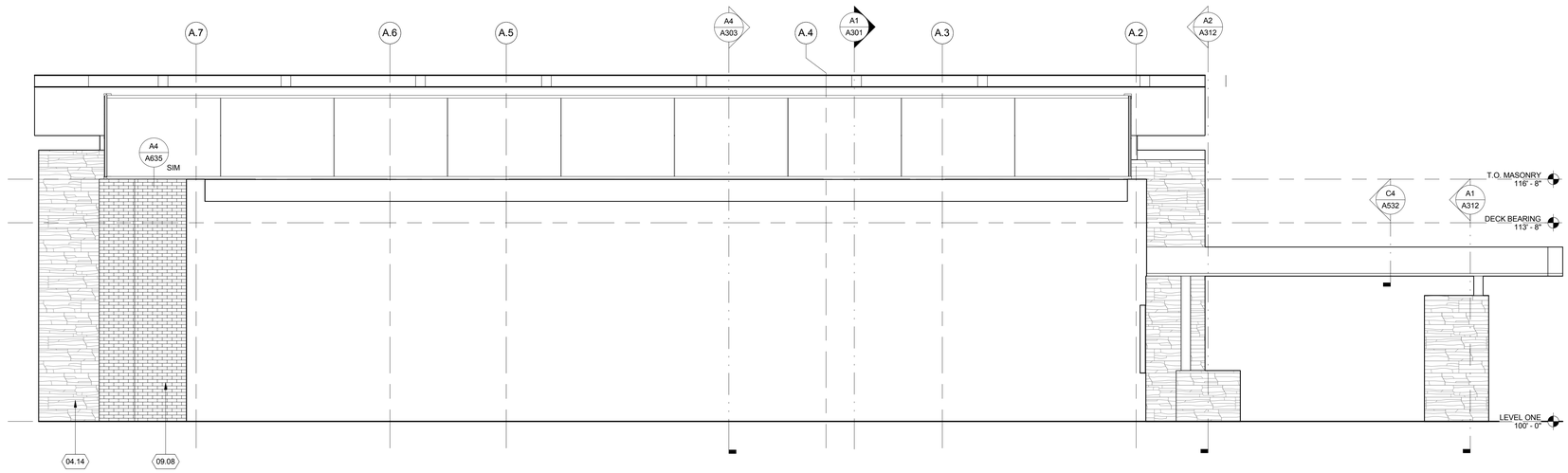
ENLARGED LOBBY PLAN & ELEVATIONS

A401

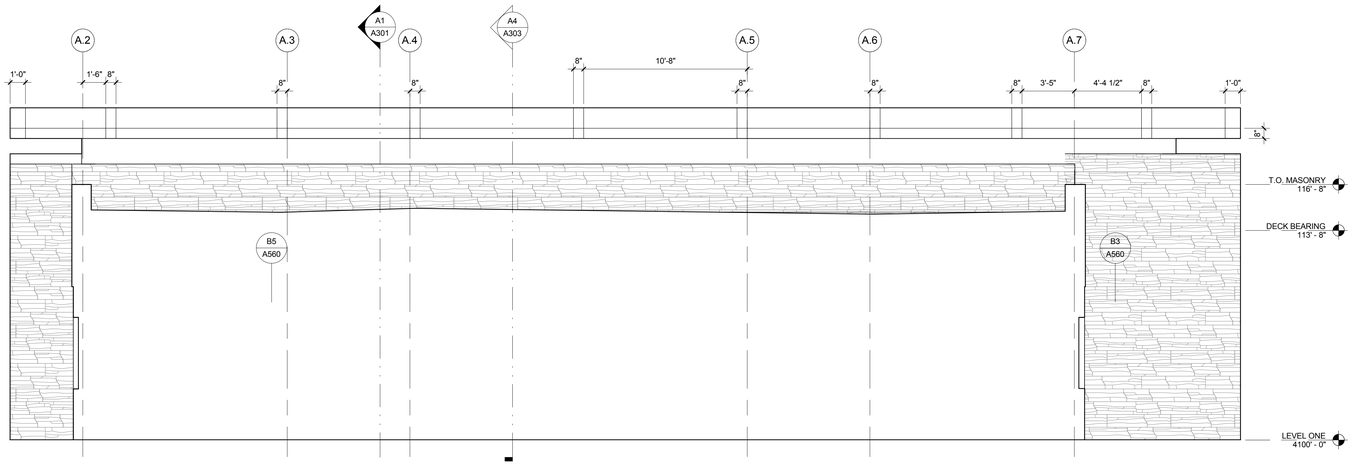
9/11/2012 9:29:19 AM



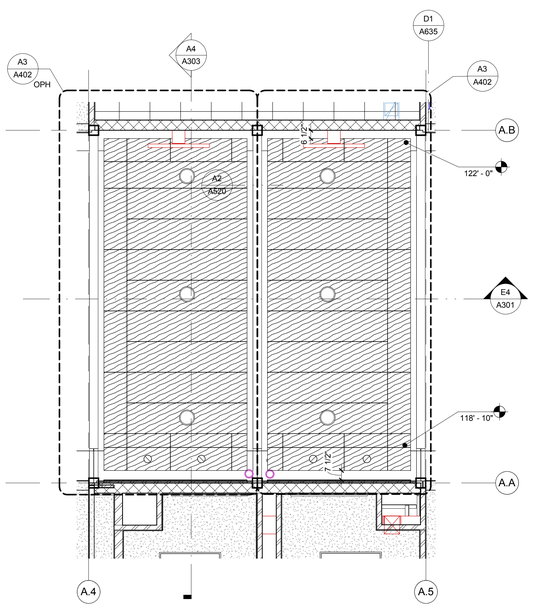
A3 LOBBY CEILING PLAN (FLATTENED)
SCALE: 1/2" = 1'-0"



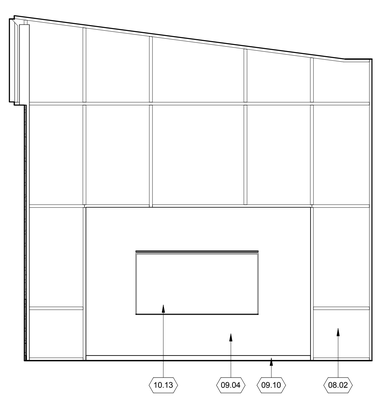
D3 PARTIAL LOBBY ELEVATION
SCALE: 1/4" = 1'-0"



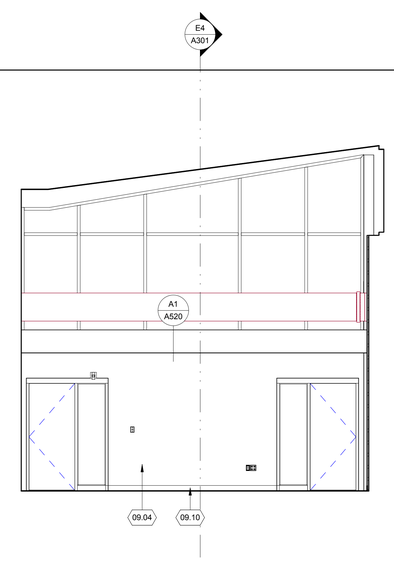
B3 AREA A CONFERENCE SOUTH
SCALE: 1/4" = 1'-0"



A2 ENLARGED LOBBY CEILING PLAN
SCALE: 1/4" = 1'-0"



D1 CONFERENCE EAST
SCALE: 1/4" = 1'-0"



C1 CONFERENCE WEST
SCALE: 1/4" = 1'-0"

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REFERENCE NOTES

04.14	STONE VENEER, RE: A5/A203 FOR PATTERN
06.05	COUNTERTOP
08.02	ALUMINUM CURTAIN WALL SYSTEM
09.04	PAINTED GYPSUM BOARD
09.08	CMU WALL
09.10	WALL BASE PER FINISH SCHEDULE
10.13	WHITEBOARD

GENERAL NOTES

1. ALL DIMENSIONS SHOWN ARE TO FINISH FACE. CLEARANCES AND OTHER DIMENSIONS SHOWN IN 'FIXTURE & ACCESSORY MOUNTING SCHEDULE' ARE ABSOLUTE. SHOULD PLAN DIMENSIONS OR FIELD CONDITIONS RESULT IN INADEQUATE CLEARANCE, NOTIFY ARCHITECT BEFORE PROCEEDING WITH WORK.
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4. CENTER MIRROR ON SINKS, TYP.
5. SEE SPECIFICATIONS FOR ALL OWNER-FURNISHED, OWNER-INSTALLED TOILET ACCESSORIES. CONTRACTOR IS TO PROVIDE BACKING FOR ALL TOILET ACCESSORIES.
6. FURNITURE PROVIDED BY OWNER. SHOWN DASHED FOR INFORMATION ONLY.
7. ACCENT TILES ON WALLS SHOWN SHADED, RE: AF401 FOR WALL ACCENT TILE COLOR LOCATIONS.
8. PROVIDE HOSE BIB AND ACCESS PANEL BELOW SINK AT ALL RESTROOMS.
9. ALL WHITEBOARDS TO BE MOUNTED 3'-0" AFF AND CENTERED ON WALL, WHERE APPLICABLE.

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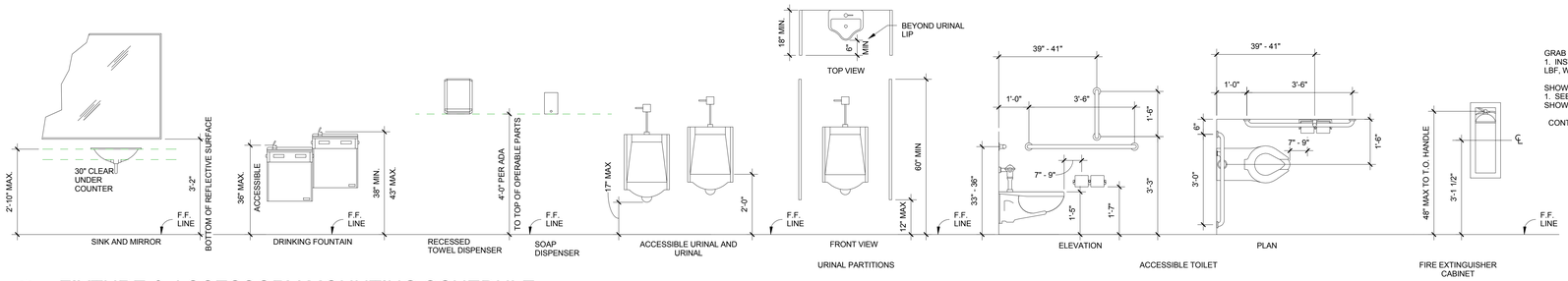
ENLARGED LOBBY PLAN & ELEVATIONS

A402

9/11/2012 9:37:34 AM

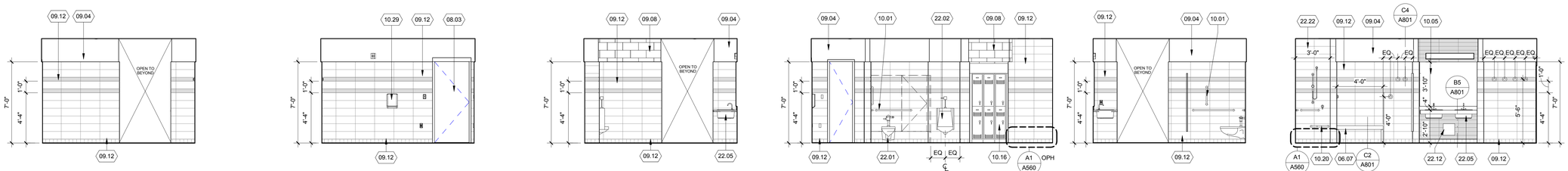


GRAB BAR NOTES:
1. INSTALL TO WITHSTAND A DOWNWARD LOAD OF AT LEAST 250 LBF, WHEN TESTED ACCORDING TO ASTM F446.

SHOWER NOTES:
1. SEE DETAIL A4/A418 FOR TYPICAL ALTERNATE ROLL-IN TYPE SHOWER DETAILS AND FIXTURES.

CONTROLS AND HANDSHOWER LOCATION PER ANSI SECTION 608.5.3

E1 FIXTURE & ACCESSORY MOUNTING SCHEDULE
SCALE: N.T.S.



D1 STAFF LOCKER MEN 6
SCALE: 1/4" = 1'-0"

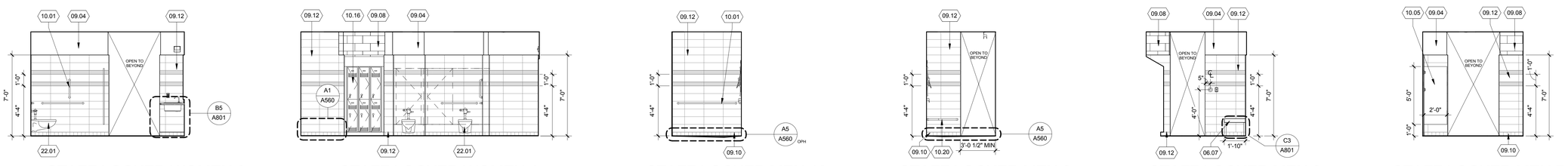
D2 STAFF LOCKER MEN 5
SCALE: 1/4" = 1'-0"

D3 STAFF LOCKER MEN 4
SCALE: 1/4" = 1'-0"

D4 STAFF LOCKER MEN 3
SCALE: 1/4" = 1'-0"

D5 STAFF LOCKER MEN 2
SCALE: 1/4" = 1'-0"

D6 STAFF LOCKER MEN 1
SCALE: 1/4" = 1'-0"



C1 STAFF LOCKER WOMEN 2
SCALE: 1/4" = 1'-0"

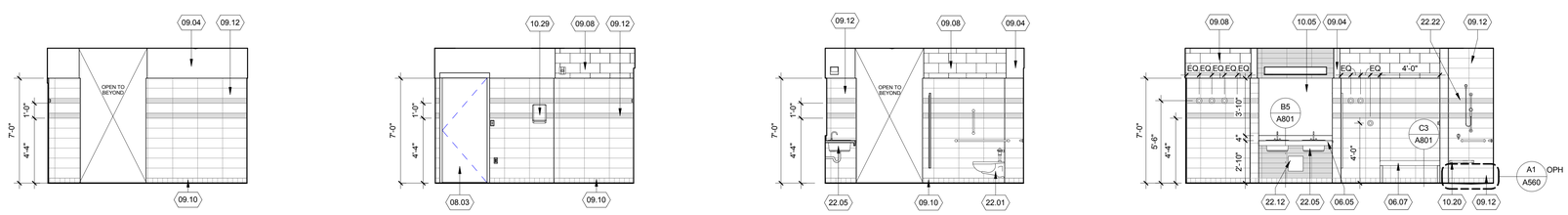
C2 STAFF LOCKER WOMEN 1
SCALE: 1/4" = 1'-0"

C3 STAFF LOCKER MEN 10
SCALE: 1/4" = 1'-0"

C4 STAFF LOCKER MEN 9
SCALE: 1/4" = 1'-0"

C5 STAFF LOCKER MEN 8
SCALE: 1/4" = 1'-0"

C6 STAFF LOCKER MEN 7
SCALE: 1/4" = 1'-0"

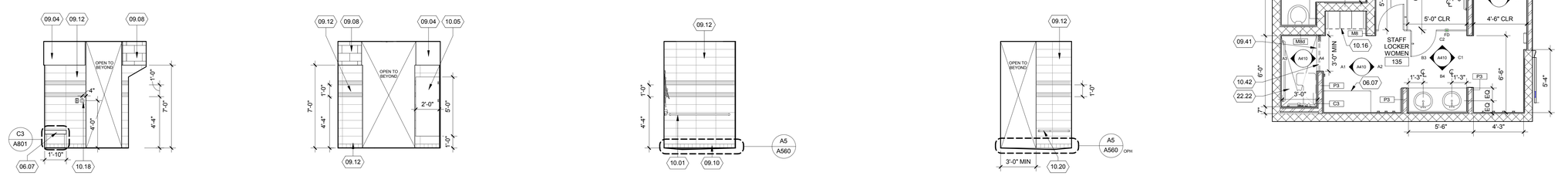


B1 STAFF LOCKER WOMEN 6
SCALE: 1/4" = 1'-0"

B2 STAFF LOCKER WOMEN 5
SCALE: 1/4" = 1'-0"

B3 STAFF LOCKER WOMEN 4
SCALE: 1/4" = 1'-0"

B4 STAFF LOCKER WOMEN 3
SCALE: 1/4" = 1'-0"



A1 STAFF LOCKER WOMEN 10
SCALE: 1/4" = 1'-0"

A2 STAFF LOCKER WOMEN 9
SCALE: 1/4" = 1'-0"

A3 STAFF LOCKER WOMEN 8
SCALE: 1/4" = 1'-0"

A4 STAFF LOCKER WOMEN 7
SCALE: 1/4" = 1'-0"

A6 MAIN STAFF TOILETS/PATIENT TOILETS
SCALE: 1/4" = 1'-0"

REFERENCE NOTES

06.05	COUNTERTOP
06.07	MILLWORK BENCH
08.03	DOOR, RE: DOOR SCHEDULE
09.04	PAINTED GYPSUM BOARD
09.08	CMU WALL
09.10	WALL BASE PER FINISH SCHEDULE
09.12	CERAMIC WALL TILE
09.41	ADA SHOWER FLOOR TRANSITION, RE: A1/A560
10.01	GRAB BARS, RE: FIXTURE ELEVATION
10.05	MIRROR
10.16	LOCKER
10.17	ADA ACCESSIBLE LOCKER
10.18	HOOK, RE: DETAIL
10.20	ADA SHOWER SEAT
10.29	PAPER TOWEL DISPENSER
10.42	SHOWER CURTAIN, ROD, & HOOKS
22.01	WATER CLOSET RE: PLUMBING DRAWINGS
22.02	URINAL RE: PLUMBING DRAWINGS
22.05	LAVATORY, RE: PLUMBING DRAWINGS
22.12	RECESSED HOSE BIBB AND ACCESS PANEL, RE: PLUMBING DRAWINGS
22.22	ADA SHOWER, RE: A4/A418

GENERAL NOTES

1. ALL DIMENSIONS SHOWN ARE TO FINISH FACE. CLEARANCES AND OTHER DIMENSIONS SHOWN IN 'FIXTURE & ACCESSORY MOUNTING SCHEDULE' ARE ABSOLUTE. SHOULD PLAN DIMENSIONS OR FIELD CONDITIONS RESULT IN INADEQUATE CLEARANCE, NOTIFY ARCHITECT BEFORE PROCEEDING WITH WORK.
2. ALL GROUT AT WET LOCATIONS SHALL BE EPOXY GROUT.
3. CENTER TRANSITION BETWEEN THRESHOLD AND TILE AT RESTROOMS ON DOOR IN CLOSED POSITION.
4. CENTER MIRROR ON SINKS, TYP.
5. SEE SPECIFICATIONS FOR ALL OWNER-FURNISHED, OWNER-INSTALLED TOILET ACCESSORIES. CONTRACTOR IS TO PROVIDE BACKING FOR ALL TOILET ACCESSORIES.
6. FURNITURE PROVIDED BY OWNER, SHOWN DASHED FOR INFORMATION ONLY.
7. ACCENT TILES ON WALLS SHOWN SHADED, RE: AF401 FOR WALL ACCENT TILE COLOR LOCATIONS.
8. PROVIDE HOSE BIB AND ACCESS PANEL BELOW SINK AT ALL RESTROOMS.
9. ALL WHITEBOARDS TO BE MOUNTED 3'-0" AFF AND CENTERED ON WALL, WHERE APPLICABLE.

DFCM APPROVAL STAMP

FFKR ARCHITECTS
bogue building
730 pacific avenue
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801-521-6186
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PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

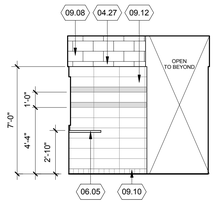
	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

ENLARGED PLANS & ELEVATIONS

A410

9/11/2012 9:37:53 AM



E1 SCHOOL GIRLS TOILET 1
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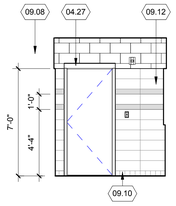

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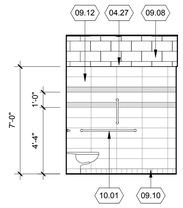

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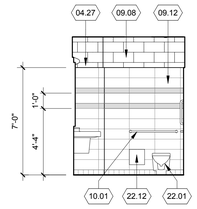

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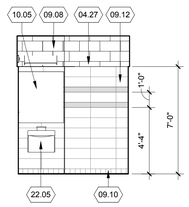

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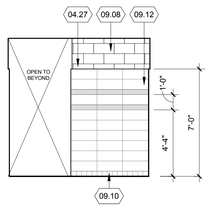

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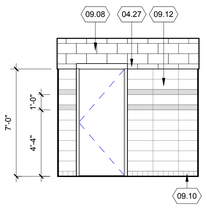

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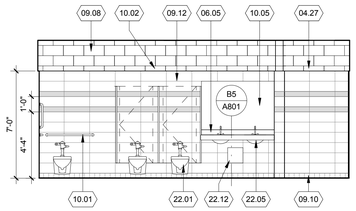

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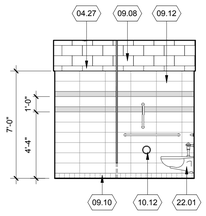

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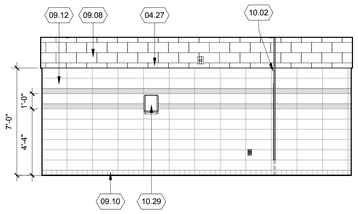

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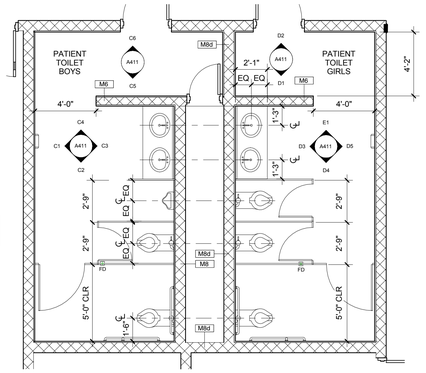

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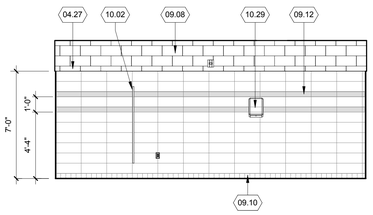

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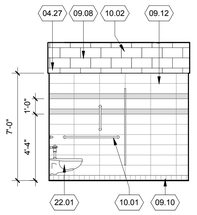

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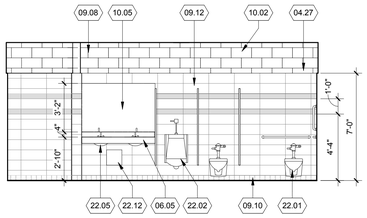

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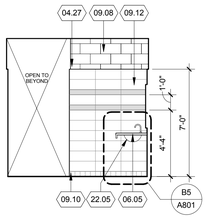
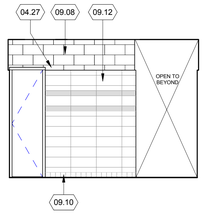
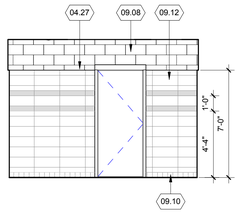
SCALE: 1/4" = 1'-0"



C4 SCHOOL BOYS TOILET 3
SCALE: 1/4" = 1'-0"



C5 SCHOOL BOYS TOILET 2
SCALE: 1/4" = 1'-0"



C6 SCHOOL BOYS TOILET 1
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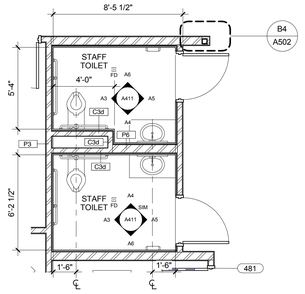

B1 TYP SUITE STAFF TOILETS
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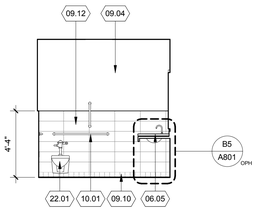

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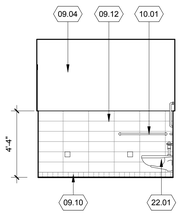

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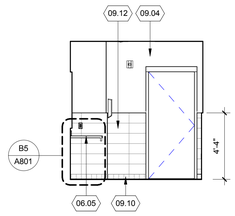

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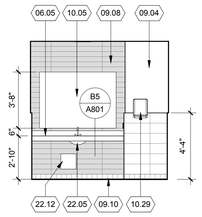

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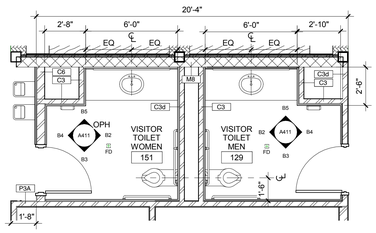
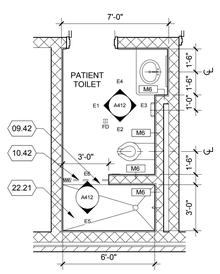


B6 PUBLIC TOILETS
SCALE: 1/4" = 1'-0"



A2 TYP SUITE PATIENT TOILET
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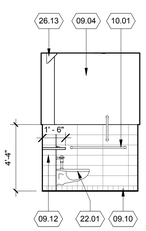

A3 STAFF TOILET 4
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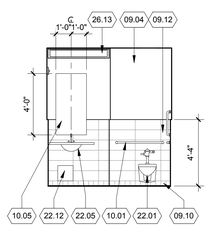
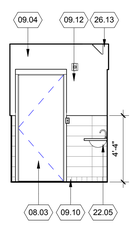


A4 STAFF TOILET 3
SCALE: 1/4" = 1'-0"



A5 STAFF TOILET 2
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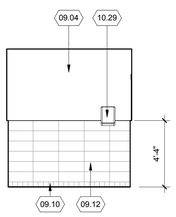


A6 STAFF TOILET 1
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. ALL DIMENSIONS SHOWN ARE TO FINISH FACE. CLEARANCES AND OTHER DIMENSIONS SHOWN IN 'FIXTURE & ACCESSORY MOUNTING SCHEDULE' ARE ABSOLUTE. SHOULD PLAN DIMENSIONS OR FIELD CONDITIONS RESULT IN INADEQUATE CLEARANCE, NOTIFY ARCHITECT BEFORE PROCEEDING WITH WORK.
2. ALL GROUT AT WET LOCATIONS SHALL BE EPOXY GROUT.
3. CENTER TRANSITION BETWEEN THRESHOLD AND TILE AT RESTROOMS ON DOOR IN CLOSED POSITION.
4. CENTER MIRROR ON SINKS, TYP.
5. SEE SPECIFICATIONS FOR ALL OWNER-FURNISHED, OWNER-INSTALLED TOILET ACCESSORIES. CONTRACTOR IS TO PROVIDE BACKING FOR ALL TOILET ACCESSORIES.
6. FURNITURE PROVIDED BY OWNER, SHOWN DASHED FOR INFORMATION ONLY.
7. ACCENT TILES ON WALLS SHOWN SHADED, RE: AF401 FOR WALL ACCENT TILE COLOR LOCATIONS.
8. PROVIDE HOSE BIB AND ACCESS PANEL BELOW SINK AT ALL RESTROOMS.
9. ALL WHITEBOARDS TO BE MOUNTED 3'-0" AFF AND CENTERED ON WALL, WHERE APPLICABLE.

DFCM APPROVAL STAMP

FFKR ARCHITECTS
bogue building
730 pacific avenue
salt lake city
Utah 84104
801-521-6186
801-539-1916
ffkr.com

REFERENCE NOTES

04.27	8" X 4" X 16" CMU COURSE, B.O. UNIT AT BASE & 7'-0" AFF
06.05	COUNTERTOP
08.03	DOOR, RE: DOOR SCHEDULE
09.04	PAINTED GYPSUM BOARD
09.08	CMU WALL
09.10	WALL BASE PER FINISH SCHEDULE
09.12	CERAMIC WALL TILE
09.42	SHOWER FLOOR CURB, RE: A3/A560
10.01	GRAB BARS, RE: FIXTURE ELEVATION
10.02	TOILET PARTITION
10.05	MIRROR
10.12	RECESSED TOILET PAPER DISPENSER
10.29	PAPER TOWEL DISPENSER
10.42	SHOWER CURTAIN, ROD, & HOOKS
22.01	WATER CLOSET RE: PLUMBING DRAWINGS
22.02	URINAL RE: PLUMBING DRAWINGS
22.05	LAVATORY, RE: PLUMBING DRAWINGS
22.12	RECESSED HOSE BIBB AND ACCESS PANEL, RE: PLUMBING DRAWINGS
22.21	NON-ADA SHOWER, RE: B4/A418
26.13	ELECTRICAL LIGHT FIXTURE RE: ELECTRICAL DRAWINGS

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

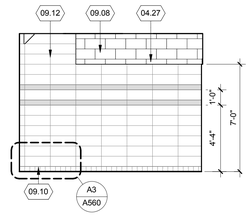
	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

ENLARGED PLANS & ELEVATIONS

A411

9/11/2012 9:38:17 AM



E1 SUITE PATIENT TOILET 6
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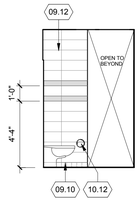

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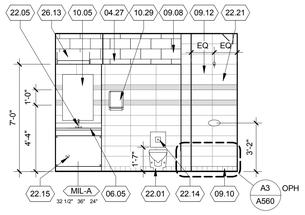

E3 SUITE PATIENT TOILET 4
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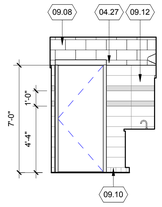

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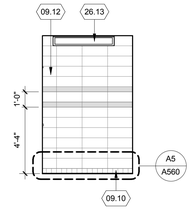

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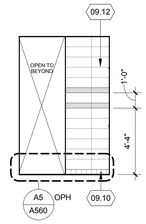

E6 SUITE PATIENT TOILET 1
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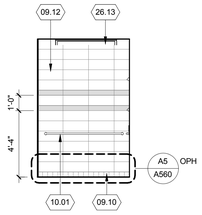
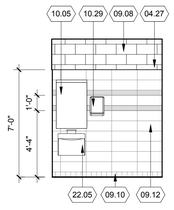


D1 TYP MED/ADA TOILET 5
SCALE: 1/4" = 1'-0"

D2 TYP MEDICAL TOILET 4
SCALE: 1/4" = 1'-0"



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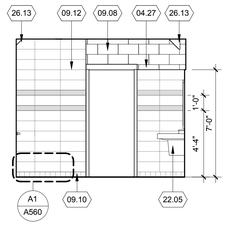

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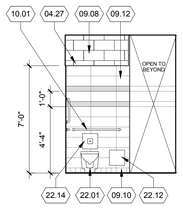
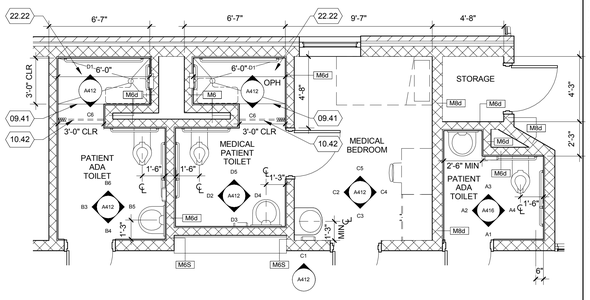
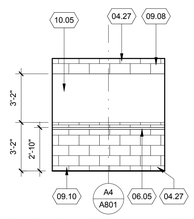


D5 TYP MEDICAL TOILET 1
SCALE: 1/4" = 1'-0"



D6 TYP SUITE ADA PATIENT TOILETS/ MEDICAL BEDROOM
SCALE: 1/4" = 1'-0"



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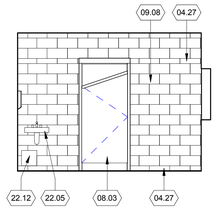

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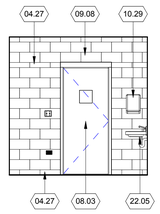
SCALE: 1/4" = 1'-0"



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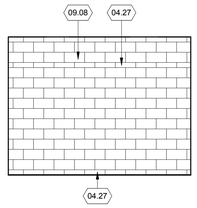
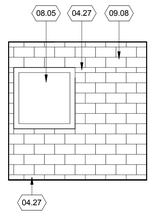
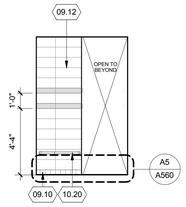


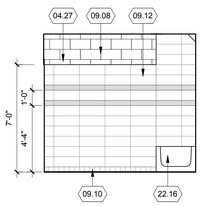
C4 TYP MEDICAL BEDROOM 2
SCALE: 1/4" = 1'-0"



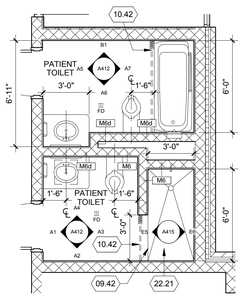
C5 TYP MEDICAL BEDROOM 1
SCALE: 1/4" = 1'-0"



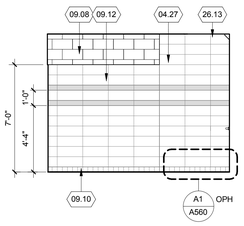
C6 TYP MED/ADA TOILET 6
SCALE: 1/4" = 1'-0"



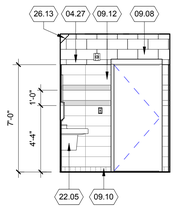
B1 TYP SUITE TUB 1
SCALE: 1/4" = 1'-0"



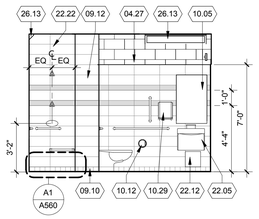
B2 TYP SUITE PATIENT TOILETS
SCALE: 1/4" = 1'-0"



B3 TYP PATIENT ADA TOILET 4
SCALE: 1/4" = 1'-0"



B4 TYP PATIENT ADA TOILET 3
SCALE: 1/4" = 1'-0"



B5 TYP PATIENT ADA TOILET 2
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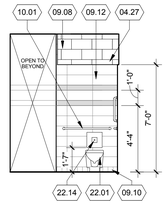

B6 TYP PATIENT ADA TOILET 1
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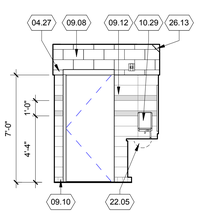
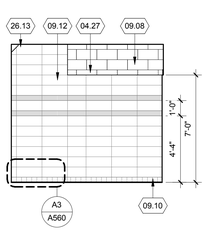


A1 TYP SUITE SHOWER 4
SCALE: 1/4" = 1'-0"



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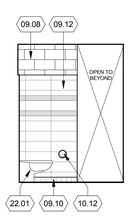

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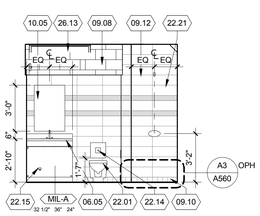

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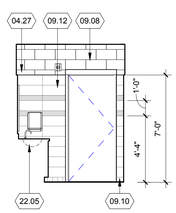
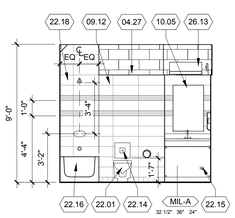
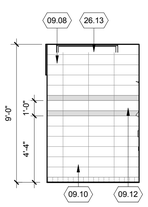


A5 TYP SUITE TUB 4
SCALE: 1/4" = 1'-0"



A6 TYP SUITE TUB 3
SCALE: 1/4" = 1'-0"



A7 TYP SUITE TUB 2
SCALE: 1/4" = 1'-0"

REFERENCE NOTES

04.27	8" X 4" X 16" CMU COURSE, B.O. UNIT AT BASE & 7'-0" AFF
06.05	COUNTERTOP
08.03	DOOR, RE: DOOR SCHEDULE
08.05	WINDOW PER SCHEDULE
09.08	CMU WALL
09.10	WALL BASE PER FINISH SCHEDULE
09.12	CERAMIC WALL TILE
09.41	ADA SHOWER FLOOR TRANSITION, RE: A1/A560
09.42	SHOWER FLOOR CURB, RE: A3/A560
10.01	GRAB BARS, RE: FIXTURE ELEVATION
10.05	MIRROR
10.12	RECESSED TOILET PAPER DISPENSER
10.20	ADA SHOWER SEAT
10.29	PAPER TOWEL DISPENSER
10.42	SHOWER CURTAIN, ROD, & HOOKS
22.01	WATER CLOSET RE: PLUMBING DRAWINGS
22.05	LAVATORY, RE: PLUMBING DRAWINGS
22.12	RECESSED HOSE BIBB AND ACCESS PANEL, RE: PLUMBING DRAWINGS
22.14	RECESSED FLUSH VALVE AND ACCESS PANEL, RE: PLUMBING
22.15	HOSE BIBB BEYOND, RE: PLUMBING DRAWINGS
22.16	TUB, RE: PLUMBING DRAWINGS
22.18	CONTROL WALL, RE: PLUMBING DRAWINGS
22.21	NON-ADA SHOWER, RE: B4/A418
22.22	ADA SHOWER, RE: A4/A418
26.13	ELECTRICAL LIGHT FIXTURE RE: ELECTRICAL DRAWINGS

GENERAL NOTES

1. ALL DIMENSIONS SHOWN ARE TO FINISH FACE. CLEARANCES AND OTHER DIMENSIONS SHOWN IN 'FIXTURE & ACCESSORY MOUNTING SCHEDULE' ARE ABSOLUTE. SHOULD PLAN DIMENSIONS OR FIELD CONDITIONS RESULT IN INADEQUATE CLEARANCE, NOTIFY ARCHITECT BEFORE PROCEEDING WITH WORK.
2. ALL GROUT AT WET LOCATIONS SHALL BE EPOXY GROUT.
3. CENTER TRANSITION BETWEEN THRESHOLD AND TILE AT RESTROOMS ON DOOR IN CLOSED POSITION.
4. CENTER MIRROR ON SINKS, TYP.
5. SEE SPECIFICATIONS FOR ALL OWNER-FURNISHED, OWNER-INSTALLED TOILET ACCESSORIES. CONTRACTOR IS TO PROVIDE BACKING FOR ALL TOILET ACCESSORIES.
6. FURNITURE PROVIDED BY OWNER, SHOWN DASHED FOR INFORMATION ONLY.
7. ACCENT TILES ON WALLS SHOWN SHADED, RE: AF401 FOR WALL ACCENT TILE COLOR LOCATIONS.
8. PROVIDE HOSE BIB AND ACCESS PANEL BELOW SINK AT ALL RESTROOMS.
9. ALL WHITEBOARDS TO BE MOUNTED 3'-0" AFF AND CENTERED ON WALL, WHERE APPLICABLE.

DFCM APPROVAL STAMP

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801-539-1916
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PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

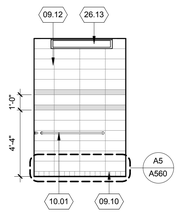
	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

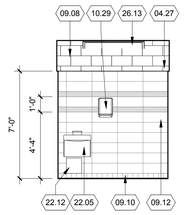
ENLARGED PLANS & ELEVATIONS

A412

9/11/2012 9:38:43 AM



E1 AREA E MEDICAL TOILET 5
SCALE: 1/4" = 1'-0"



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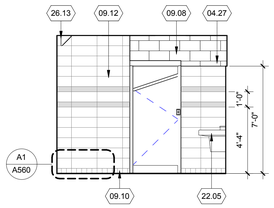

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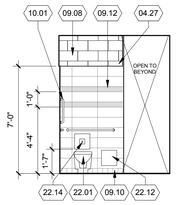

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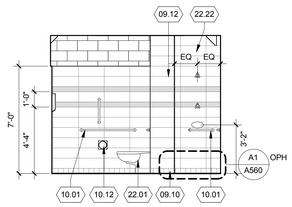

E5 AREA E MEDICAL TOILET 1
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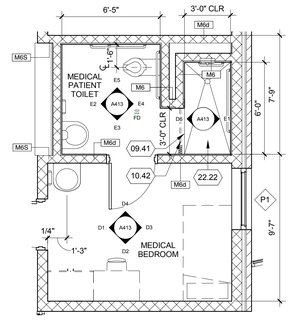

E6 AREA E MEDICAL
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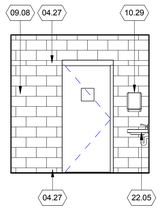

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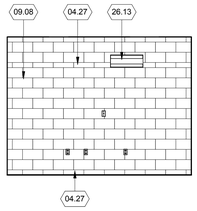

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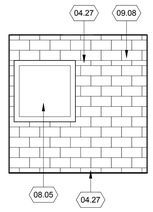

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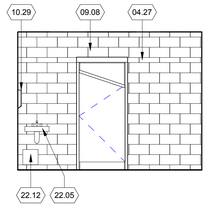

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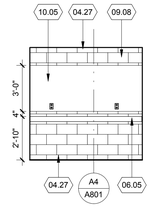

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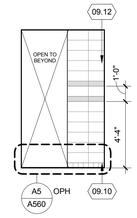

D6 AREA E MEDICAL TOILET 6
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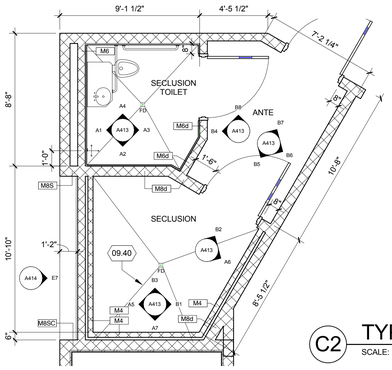

C1 TYP SUITE SECLUSION
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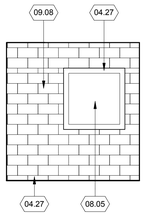

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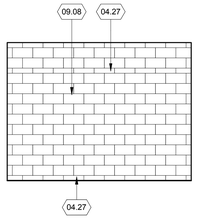

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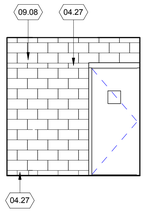

C4 TYP SUITE BEDROOM 2
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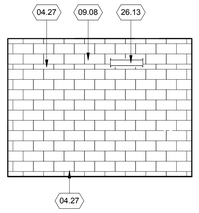

C5 TYP SUITE BEDROOM 1
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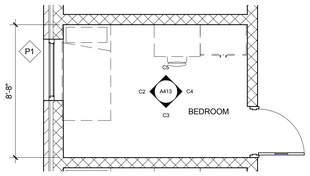

C6 TYP SUITE PATIENT BEDROOM
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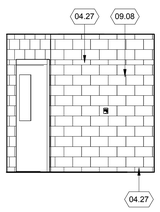

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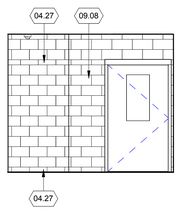

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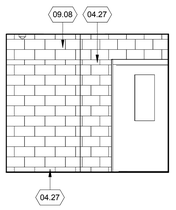

B3 TYP SECLUSION 1
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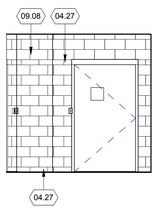

B4 TYP ANTE 5
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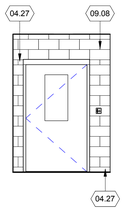

B5 TYP ANTE 4
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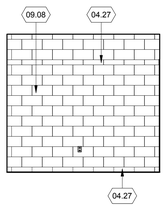

B6 TYP ANTE 3
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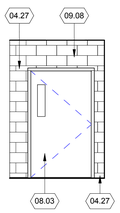

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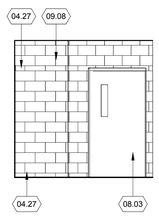
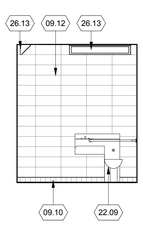
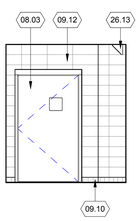


B8 TYP ANTE 1
SCALE: 1/4" = 1'-0"



A1 TYP SECLUSION TOILET 4
SCALE: 1/4" = 1'-0"

A2 TYP SECLUSION TOILET 3
SCALE: 1/4" = 1'-0"



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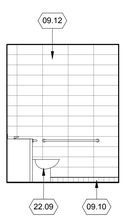

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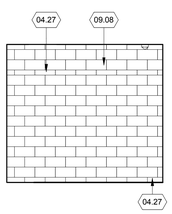

A5 TYP SECLUSION 6
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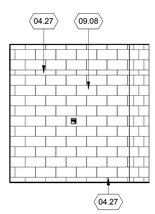

A6 TYP SECLUSION 5
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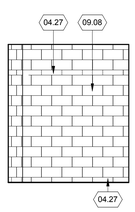

A7 TYP SECLUSION 4
SCALE: 1/4" = 1'-0"

DFCM APPROVAL STAMP

FFKR ARCHITECTS
bogue building
730 pacific avenue
salt lake city
Utah 84104
801-521-6186
801-539-1916
ffkr.com

REFERENCE NOTES

04.27	8" X 4" X 16" CMU COURSE, B.O. UNIT AT BASE & 7'-0" AFF
06.05	COUNTERTOP
08.03	DOOR, RE: DOOR SCHEDULE
08.05	WINDOW PER SCHEDULE
09.08	CMU WALL
09.10	WALL BASE PER FINISH SCHEDULE
09.12	CERAMIC WALL TILE
09.40	SLOPE FLOOR TO DRAIN
09.41	ADA SHOWER FLOOR TRANSITION, RE: A1/A560
10.01	GRAB BARS, RE: FIXTURE ELEVATION
10.05	MIRROR
10.12	RECESSED TOILET PAPER DISPENSER
10.29	PAPER TOWEL DISPENSER
10.42	SHOWER CURTAIN, ROD, & HOOKS
22.01	WATER CLOSET RE: PLUMBING DRAWINGS
22.05	LAVATORY, RE: PLUMBING DRAWINGS
22.09	INSTITUTIONAL COMBINATION TOILET / LAVATORY, RE: PLUMBING DRAWINGS
22.12	RECESSED HOSE BIBB AND ACCESS PANEL, RE: PLUMBING DRAWINGS
22.14	RECESSED FLUSH VALVE AND ACCESS PANEL, RE: PLUMBING
22.22	ADA SHOWER, RE: A4/A418
26.13	ELECTRICAL LIGHT FIXTURE RE: ELECTRICAL DRAWINGS

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PEDIATRIC FACILITY
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BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

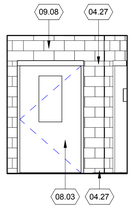
	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

ENLARGED PLANS & ELEVATIONS

A413

9/11/2012 9:39:11 AM



E1 AREA E ANTE 5
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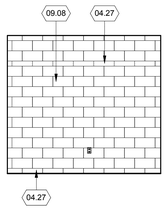

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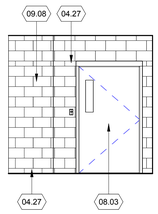

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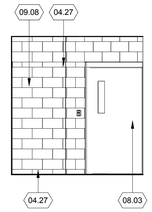

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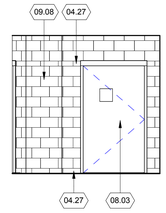

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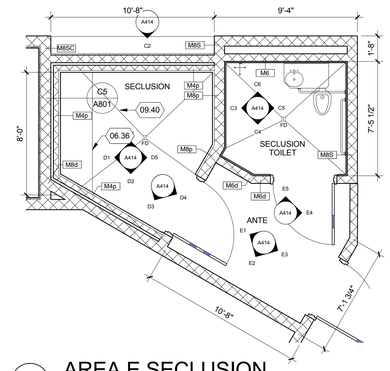

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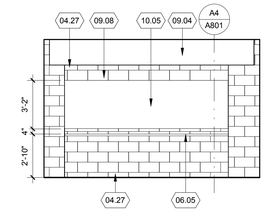

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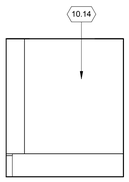

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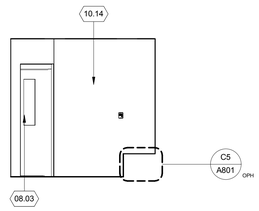

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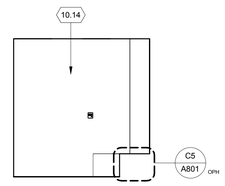

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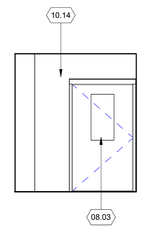

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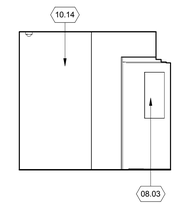

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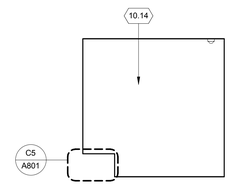

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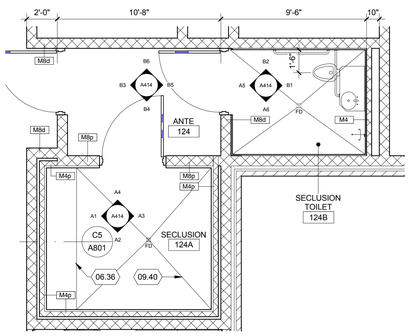

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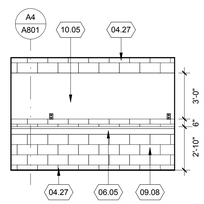

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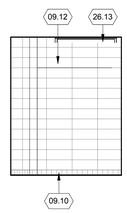

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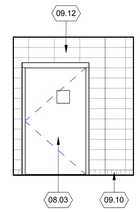

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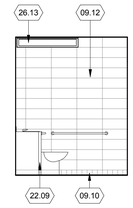

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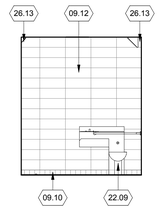

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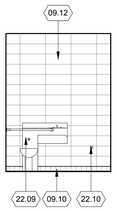

B1 SCHOOL SECLUSION TOILET 2
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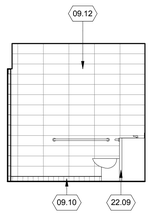

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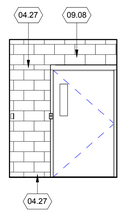

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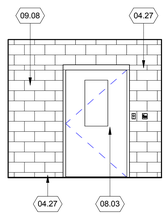

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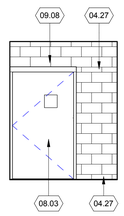

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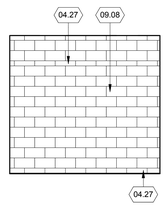

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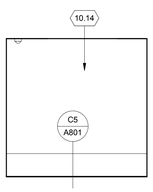

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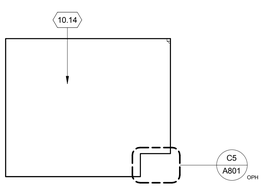

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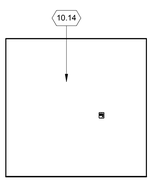

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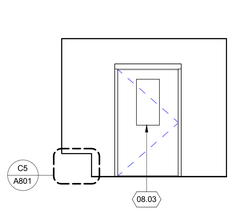

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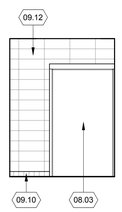

A5 SCHOOL SECLUSION TOILET 4
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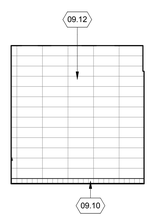

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SCALE: 1/4" = 1'-0"

DFCM APPROVAL STAMP

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1300 East Center St. Provo, Utah
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SEAL

DATE	STATUS

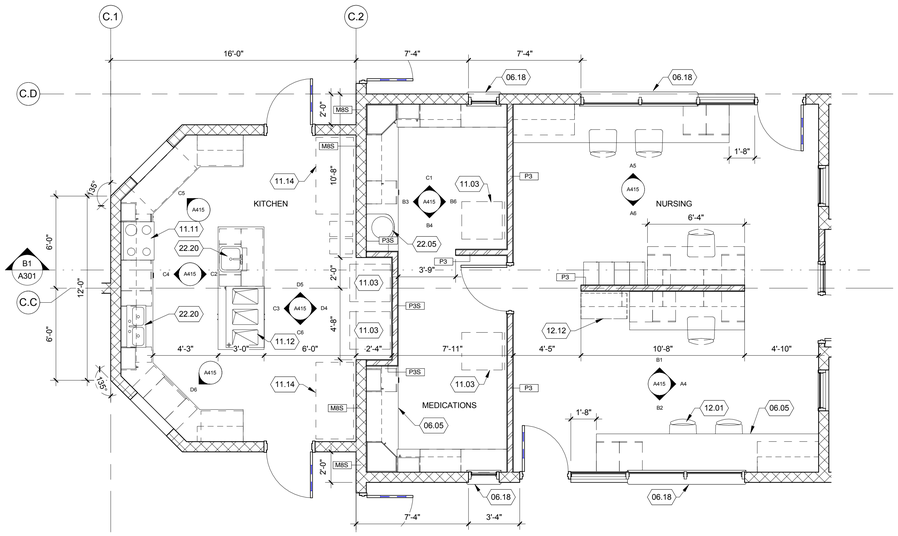
△	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

ENLARGED PLANS & ELEVATIONS

A414

9/11/2012 9:39:35 AM



D1 TYP KITCHEN AND NURSING STATION
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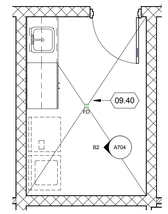

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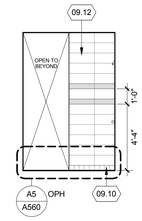

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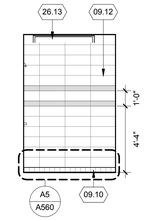

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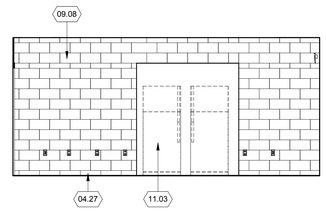

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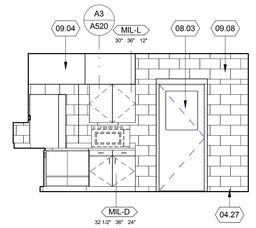

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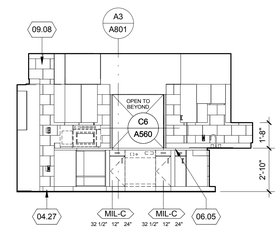

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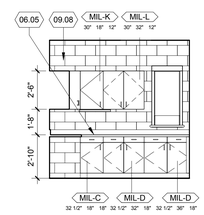

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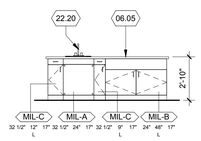

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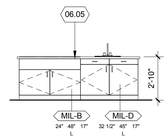
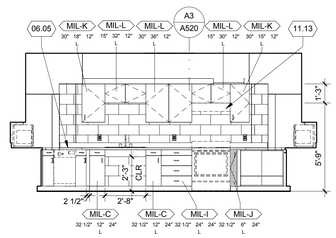


C3 TYP SUITE KITCHEN 7
SCALE: 1/4" = 1'-0"



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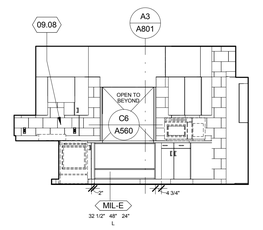
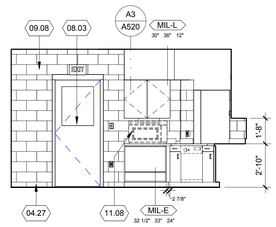
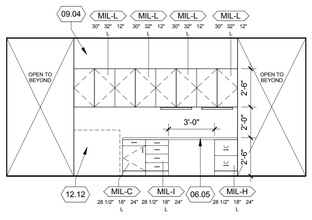
SCALE: 1/4" = 1'-0"



C5 TYP SUITE KITCHEN 5
SCALE: 1/4" = 1'-0"



C6 TYP SUITE KITCHEN 4
SCALE: 1/4" = 1'-0"



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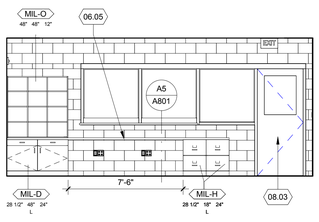

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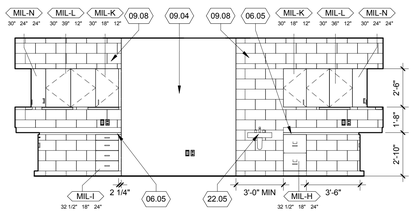

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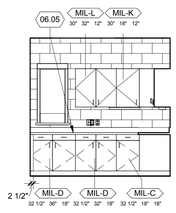
SCALE: 1/4" = 1'-0"



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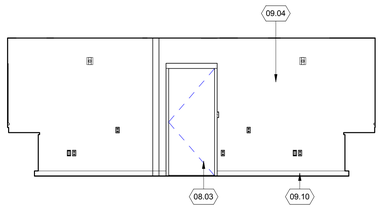
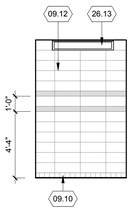


B6 TYP SUITE MED 2
SCALE: 1/4" = 1'-0"



A1 AREA E TOILET 2
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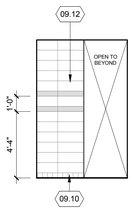

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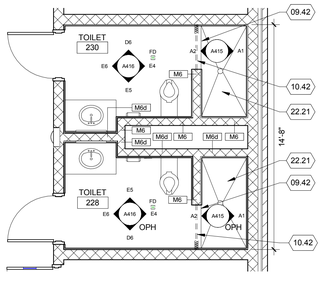
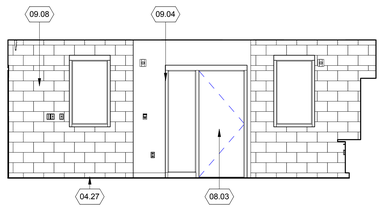


A3 AREA E TOILET
SCALE: 1/4" = 1'-0"



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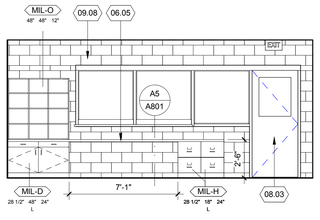
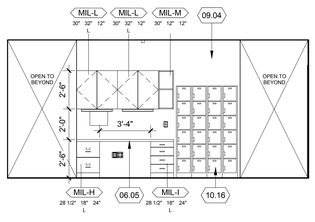


A5 TYP SUITE NURSING 4
SCALE: 1/4" = 1'-0"



A6 TYP SUITE NURSING 5
SCALE: 1/4" = 1'-0"

DFCM APPROVAL STAMP

FFKR ARCHITECTS
bogue building
730 pacific avenue
salt lake city
Utah 84104
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801-539-1916
ffkr.com

REFERENCE NOTES

04.27	8" X 4" X 16" CMU COURSE, B.O. UNIT AT BASE & 7'-0" AFF
06.05	COUNTERTOP
06.18	SOLID SURFACE
08.03	DOOR, RE: DOOR SCHEDULE
09.04	PAINTED GYPSUM BOARD
09.08	CMU WALL
09.10	WALL BASE PER FINISH SCHEDULE
09.12	CERAMIC WALL TILE
09.40	SLOPE FLOOR TO DRAIN
09.42	SHOWER FLOOR CURB, RE: A3/A560
10.16	LOCKER
10.42	SHOWER CURTAIN, ROD, & HOOKS
11.03	REFRIGERATOR BY OWNER
11.08	MICROWAVE BY OWNER
11.11	RANGE BY OWNER
11.12	WARMING/SERVING TRAYS BY OWNER
11.13	VENTILATION HOOD BY OWNER
11.14	WARMING CART BY OWNER
12.01	FURNITURE BY OWNER
12.12	CRASH CART STORAGE AREA
22.05	LAVATORY, RE: PLUMBING DRAWINGS
22.20	SINK, RE: PLUMBING DRAWINGS
22.21	NON-ADA SHOWER, RE: B4/A418
26.13	ELECTRICAL LIGHT FIXTURE RE: ELECTRICAL DRAWINGS

GENERAL NOTES

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5. SEE SPECIFICATIONS FOR ALL OWNER-FURNISHED, OWNER-INSTALLED TOILET ACCESSORIES. CONTRACTOR IS TO PROVIDE BACKING FOR ALL TOILET ACCESSORIES.
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7. ACCENT TILES ON WALLS SHOWN SHADED, RE: AF401 FOR WALL ACCENT TILE COLOR LOCATIONS.
8. PROVIDE HOSE BIB AND ACCESS PANEL BELOW SINK AT ALL RESTROOMS.
9. ALL WHITEBOARDS TO BE MOUNTED 3'-0" AFF AND CENTERED ON WALL, WHERE APPLICABLE.

PEDIATRIC FACILITY
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UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

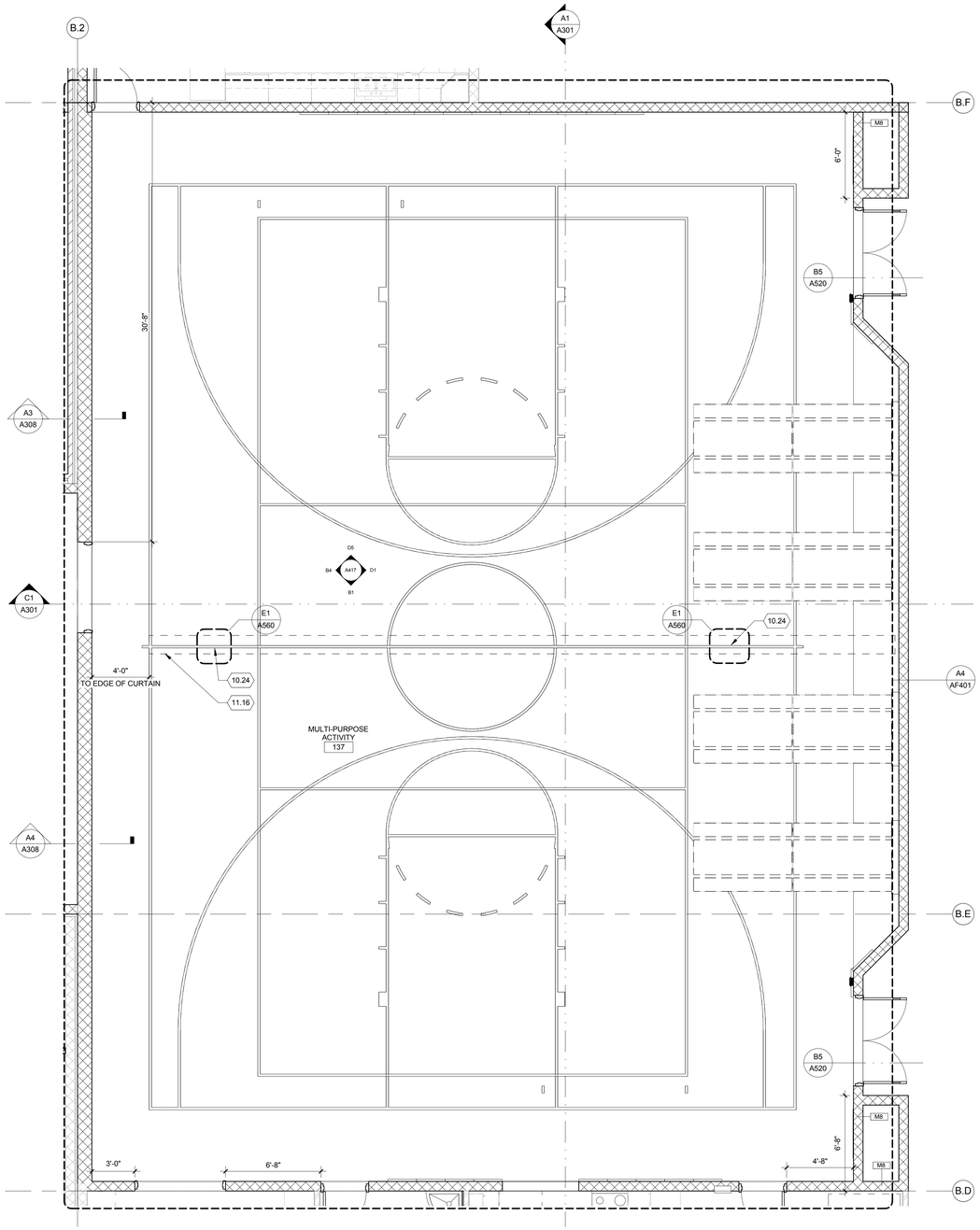
DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

ENLARGED PLANS & ELEVATIONS

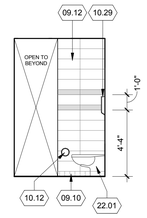
A415

9/11/2012 9:39:54 AM



B1 MULTI-PURPOSE ROOM

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



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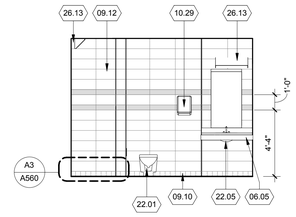

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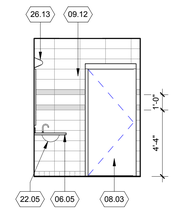
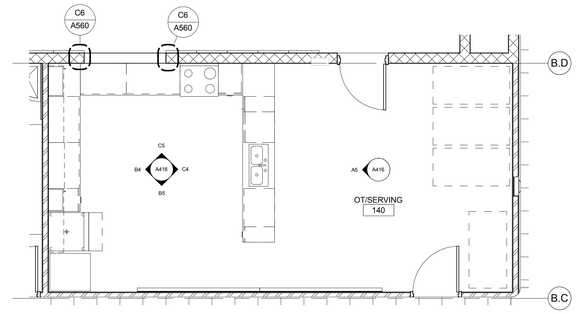


E6 AREA E TOILET 3

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



D4 ENLARGED OT/SERVING PLAN

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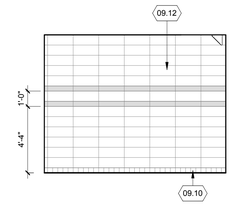
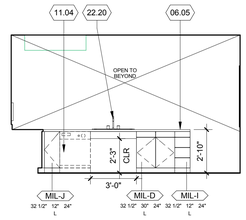


D6 AREA E TOILET 6

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



C4 OT/SERVING E

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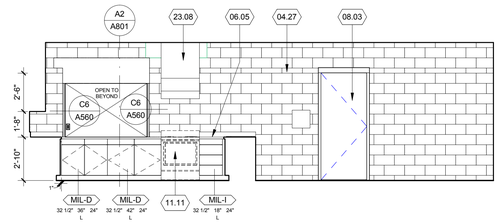

C5 OT/SERVING N

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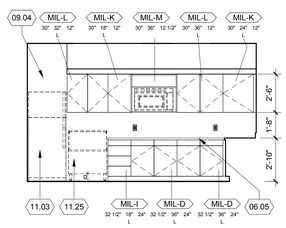

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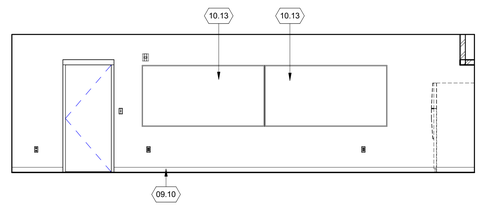

B5 OT SERVING S

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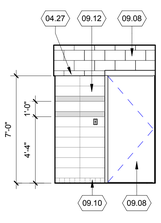

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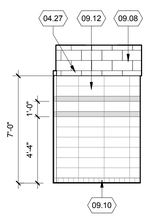

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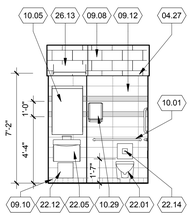

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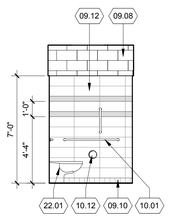
SCALE: 1/4" = 1'-0"



A4 TYP ADA TOILET 4

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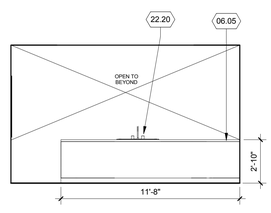

A5 OT SERVING W 2

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

DFCM APPROVAL STAMP

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ARCHITECTS

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730 pacific avenue
salt lake city
Utah 84104

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801-539-1916
ffkr.com

REFERENCE NOTES

04.27	8" X 4" X 16" CMU COURSE, B.O. UNIT AT BASE & 7'-0" AFF
06.05	COUNTERTOP
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09.08	CMU WALL
09.10	WALL BASE PER FINISH SCHEDULE
09.12	CERAMIC WALL TILE
10.01	GRAB BARS, RE: FIXTURE ELEVATION
10.05	MIRROR
10.12	RECESSED TOILET PAPER DISPENSER
10.13	WHITEBOARD
10.24	VOLLEYBALL INSERT
10.29	PAPER TOWEL DISPENSER
11.03	REFRIGERATOR BY OWNER
11.04	DISHWASHER BY OWNER
11.11	RANGE BY OWNER
11.16	TOP-ROLL GYMNASIUM DIVIDER
11.25	ICE-MACHINE BY OWNER
22.01	WATER CLOSET RE: PLUMBING DRAWINGS
22.05	LAVATORY, RE: PLUMBING DRAWINGS
22.12	RECESSED HOSE BIBB AND ACCESS PANEL, RE: PLUMBING DRAWINGS
22.14	RECESSED FLUSH VALVE AND ACCESS PANEL, RE: PLUMBING
22.20	SINK, RE: PLUMBING DRAWINGS
23.08	HOOD, RE: MECHANICAL DRAWINGS
26.13	ELECTRICAL LIGHT FIXTURE RE: ELECTRICAL DRAWINGS

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PEDIATRIC FACILITY
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UTAH STATE HOSPITAL CONSOLIDATION
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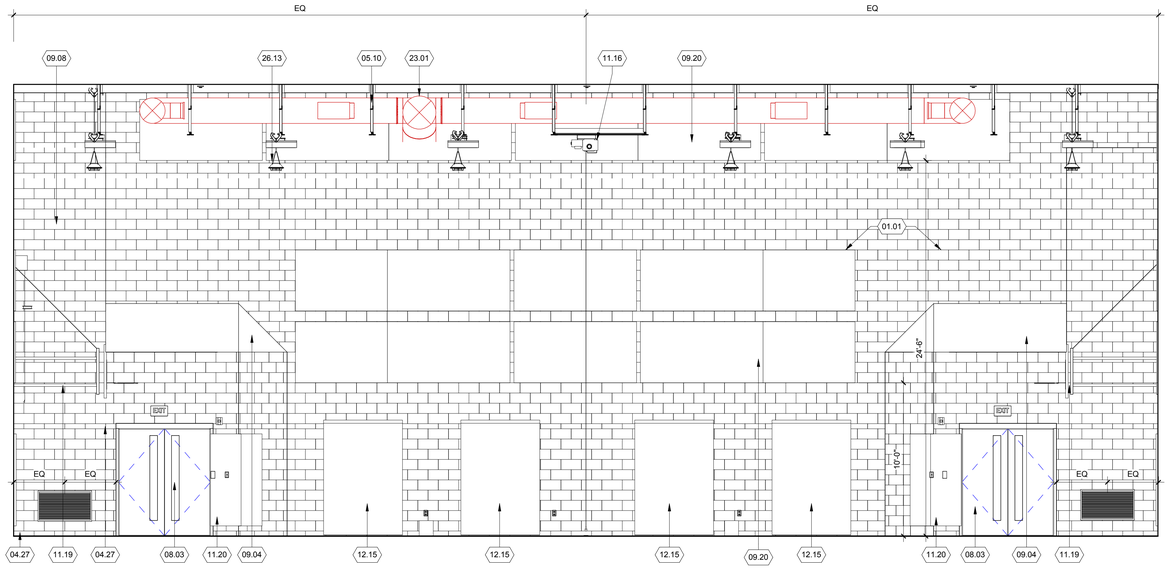
PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

ENLARGED PLANS & ELEVATIONS

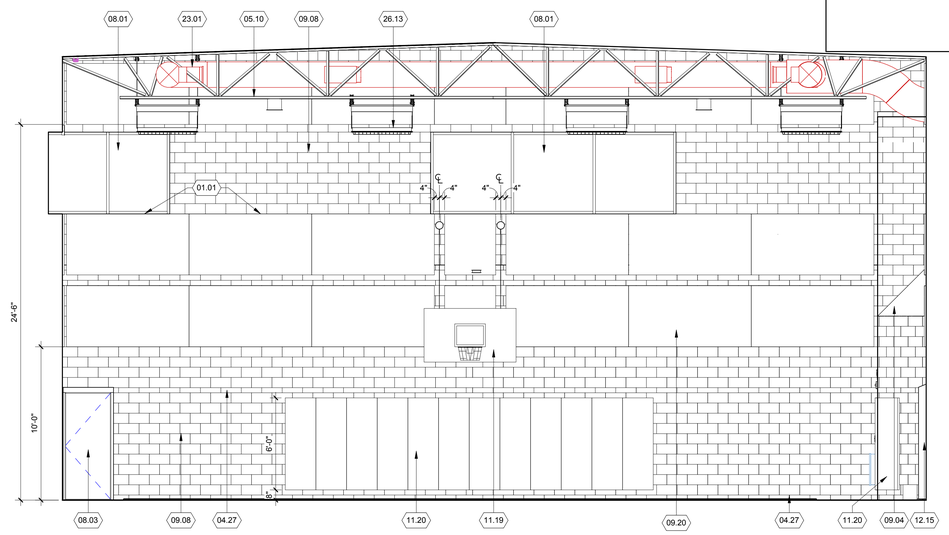
A416

9/11/2012 9:40:08 AM



D1 MULTI-PURPOSE E

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



D5 MULTI-PURPOSE N

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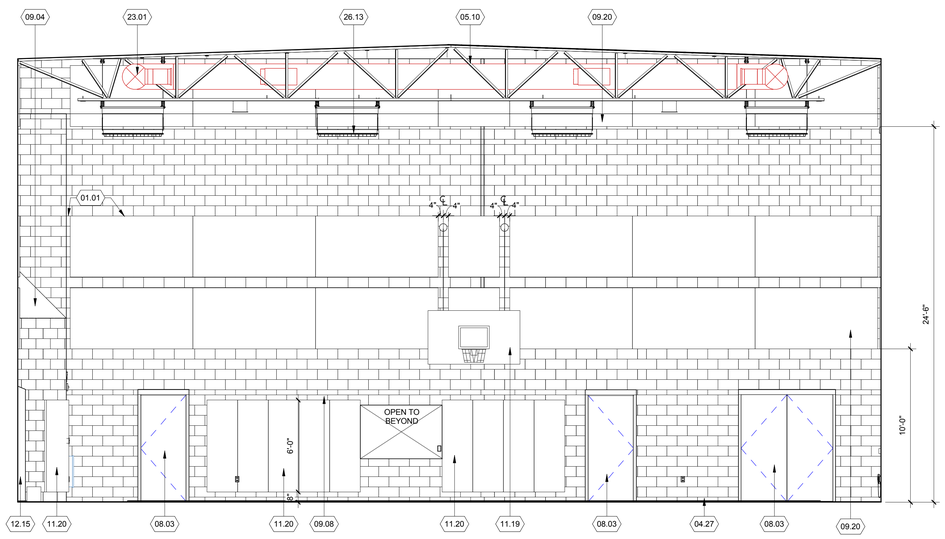

B1 MULTI-PURPOSE S

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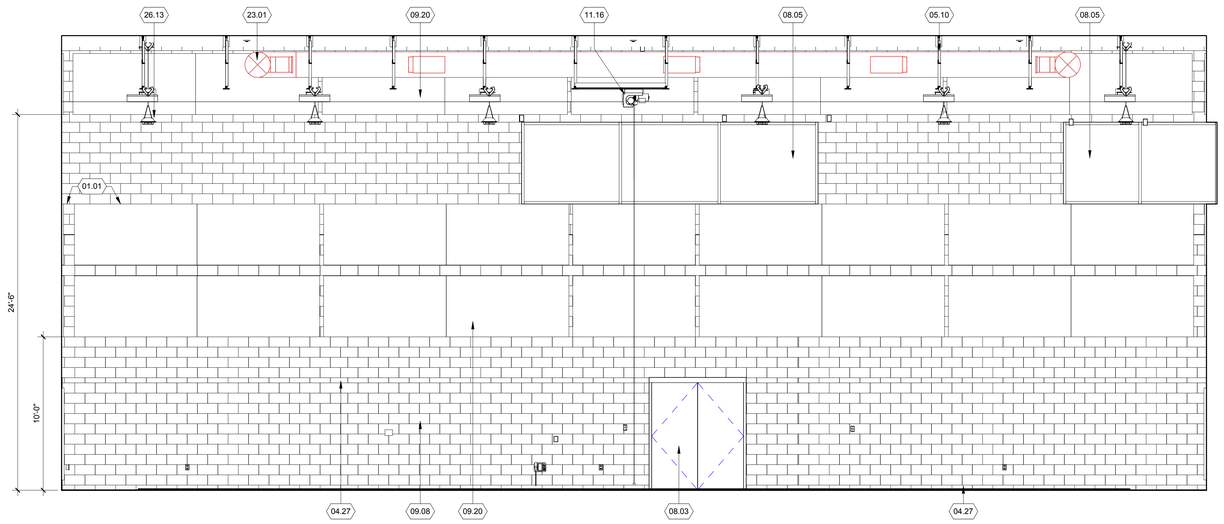

B4 MULTI-PURPOSE W

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

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

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PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

REFERENCE NOTES

01.01	ALIGN
04.27	8" X 4" X 16" CMU COURSE, B.O. UNIT AT BASE & 7'-0" AFF
05.10	STEEL JOIST, RE: STRUCTURAL DRAWINGS
08.01	ALUMINUM STOREFRONT WALL SYSTEM
08.03	DOOR, RE: DOOR SCHEDULE
08.05	WINDOW PER SCHEDULE
09.04	PAINTED GYPSUM BOARD
09.08	CMU WALL
09.20	ACOUSTIC PANEL
11.16	TOP-ROLL GYMNASIUM DIVIDER
11.19	WALL MOUNTED STATIONARY BASKETBALL STANDARD
11.20	GYM PADDING
12.15	WALL POCKET FOLDING TABLE
23.01	DUCT, RE: MECHANICAL DRAWINGS
26.13	ELECTRICAL LIGHT FIXTURE RE: ELECTRICAL DRAWINGS

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DATE	STATUS

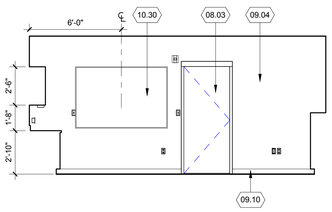
△	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

ENLARGED PLANS & ELEVATIONS

A417

9/11/2012 9:40:17 AM



E1 TEACHER WORK W
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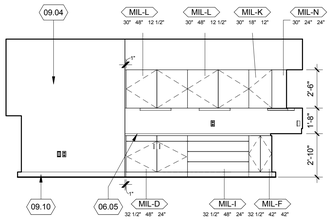

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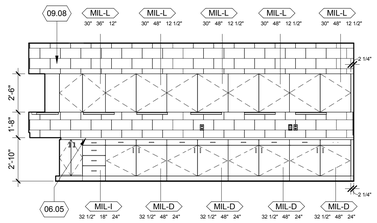
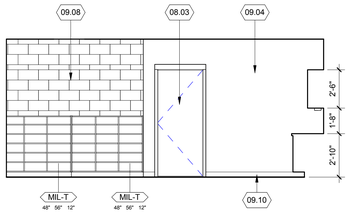


E3 TEACHER WORK S
SCALE: 1/4" = 1'-0"



E4 TEACHER WORK N
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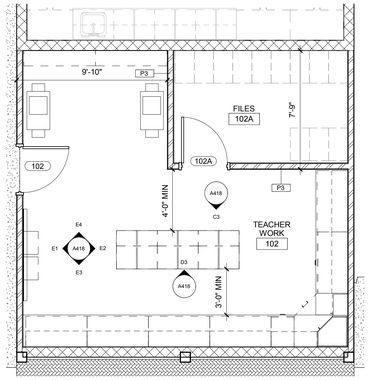
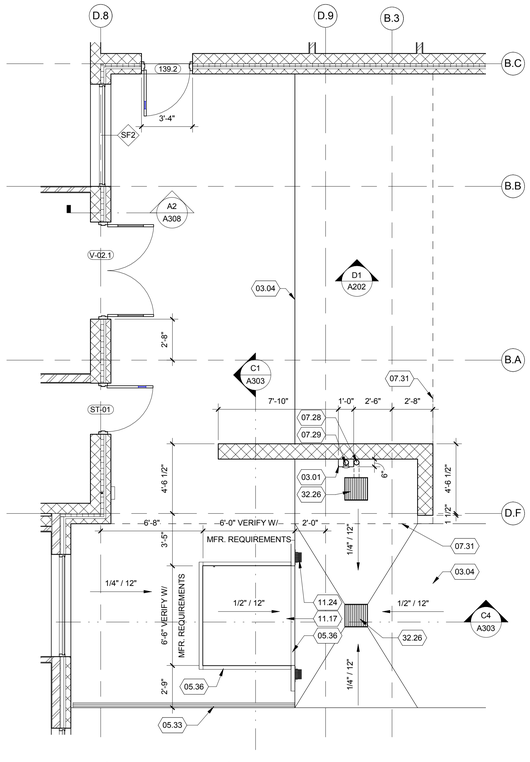


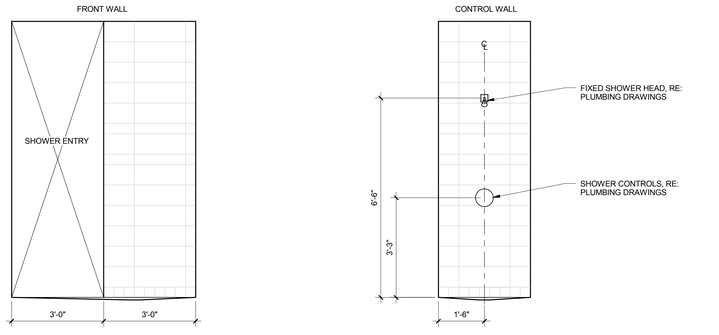
E5 TEACHER WORK
SCALE: 1/4" = 1'-0"



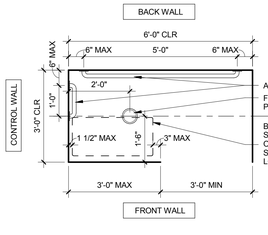
B1 ENLARGED PLAN - STAFF ENTRY
SCALE: 1/4" = 1'-0"

D3 TEACHER WORK ISLAND S
SCALE: 1/4" = 1'-0"

C3 TEACHER WORK ISLAND N
SCALE: 1/4" = 1'-0"



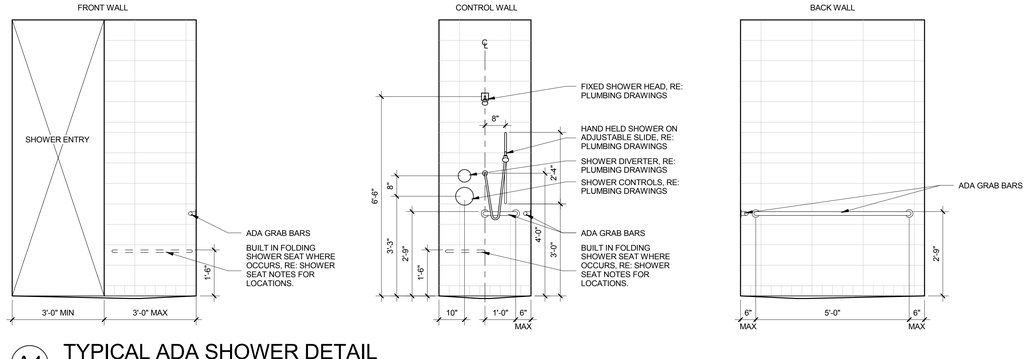
B4 TYPICAL NON-ADA SHOWER DETAIL
SCALE: 1/2" = 1'-0"



SHOWER NOTES:
1. ALL ACCESSIBLE SHOWERS ARE ALTERNATE ROLL-IN TYPE SHOWER COMPARTMENTS AND ARE TO COMPLY WITH ALL ANSI AND ADAAG REQUIREMENTS.
2. REFERENCE MECHANICAL DRAWINGS FOR ALL PLUMBING FIXTURE TYPES, MOUNTING REQUIREMENTS AND CONFIGURATION.

SHOWER SEAT NOTES:
1. PROVIDE BACKING IN METAL STUD WALLS FOR ADA COMPLIANT SHOWER COMPARTMENT SEATS IN ALL ACCESSIBLE SHOWER STALLS.
2. PROVIDE ADA COMPLIANT FOLDING SHOWER COMPARTMENT SEATS IN THE ACCESSIBLE SHOWER STALLS IN STAFF LOCKER MEN 134 AND STAFF LOCKER WOMEN 135. ALL OTHER ACCESSIBLE SHOWERS ARE PATIENT SHOWERS AND WILL RECEIVE A PORTABLE SHOWER SEAT PROVIDED BY THE OWNER.
3. INSTALL SHOWER SEATS TO WITHSTAND A DOWNWARD LOAD OF AT LEAST 250 LBF, WHEN TESTED ACCORDING TO ASTM F446.

GRAB BAR NOTES:
1. INSTALL TO WITHSTAND A DOWNWARD LOAD OF AT LEAST 250 LBF, WHEN TESTED ACCORDING TO ASTM F446.



A4 TYPICAL ADA SHOWER DETAIL
SCALE: 1/2" = 1'-0"

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REFERENCE NOTES

03.01	CONCRETE WALL, RE: STRUCTURAL DRAWINGS
03.04	CONCRETE SLAB ON GRADE, RE: STRUCTURAL DRAWINGS
05.33	PAINTED 1-1/2" DIAMETER STEEL PIPE GUARDRAIL
05.36	METAL ANGLE EMBEDDED IN EDGE OF SLAB, RE: STRUCTURAL DRAWINGS AND DOCK LEVELER REQUIREMENTS
06.05	COUNTERTOP
07.28	PRIMARY DRAIN PIPE
07.29	OVERFLOW DRAIN PIPE
07.31	LINE OF CANOPY ABOVE
08.03	DOOR, RE: DOOR SCHEDULE
09.04	PAINTED GYPSUM BOARD
09.08	CMU WALL
09.10	WALL BASE PER FINISH SCHEDULE
10.30	TACK/NOTICE BOARD
11.17	RECESSED DOCK LEVELER
11.24	DOCK BUMPER
32.26	CATCHMENT BASIN, RE: CIVIL DRAWINGS

GENERAL NOTES

1. ALL DIMENSIONS SHOWN ARE TO FINISH FACE. CLEARANCES AND OTHER DIMENSIONS SHOWN IN 'FIXTURE & ACCESSORY MOUNTING SCHEDULE' ARE ABSOLUTE. SHOULD PLAN DIMENSIONS OR FIELD CONDITIONS RESULT IN INADEQUATE CLEARANCE, NOTIFY ARCHITECT BEFORE PROCEEDING WITH WORK.
2. ALL GROUT AT WET LOCATIONS SHALL BE EPOXY GROUT.
3. CENTER TRANSITION BETWEEN THRESHOLD AND TILE AT RESTROOMS ON DOOR IN CLOSED POSITION.
4. CENTER MIRROR ON SINKS, TYP.
5. SEE SPECIFICATIONS FOR ALL OWNER-FURNISHED, OWNER-INSTALLED TOILET ACCESSORIES. CONTRACTOR IS TO PROVIDE BACKING FOR ALL TOILET ACCESSORIES.
6. FURNITURE PROVIDED BY OWNER, SHOWN DASHED FOR INFORMATION ONLY.
7. ACCENT TILES ON WALLS SHOWN SHADED, RE: AF401 FOR WALL ACCENT TILE COLOR LOCATIONS.
8. PROVIDE HOSE BIB AND ACCESS PANEL BELOW SINK AT ALL RESTROOMS.
9. ALL WHITEBOARDS TO BE MOUNTED 3'-0" AFF AND CENTERED ON WALL, WHERE APPLICABLE.

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ENLARGED PLANS & ELEVATIONS

A418

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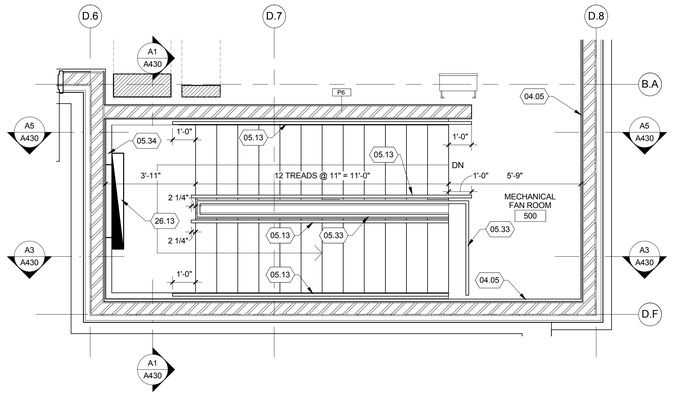
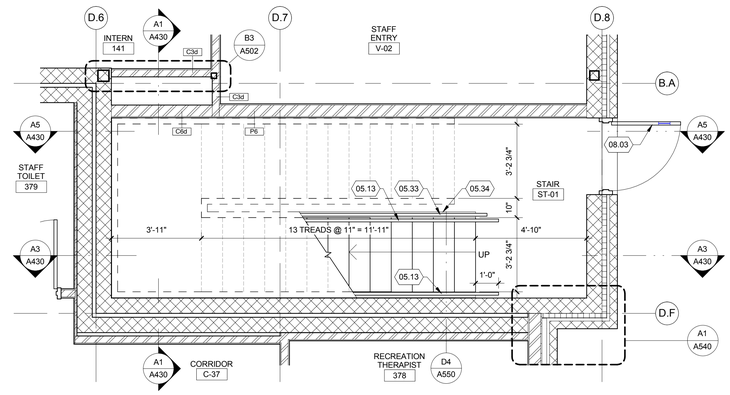


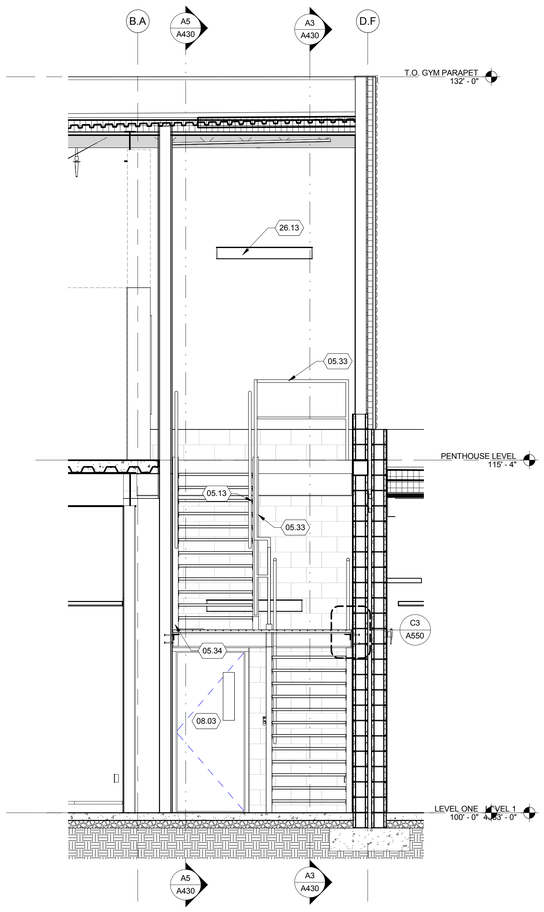
D3 STAIR 1 LEVEL 2 PLAN

SCALE: 3/8" = 1'-0"



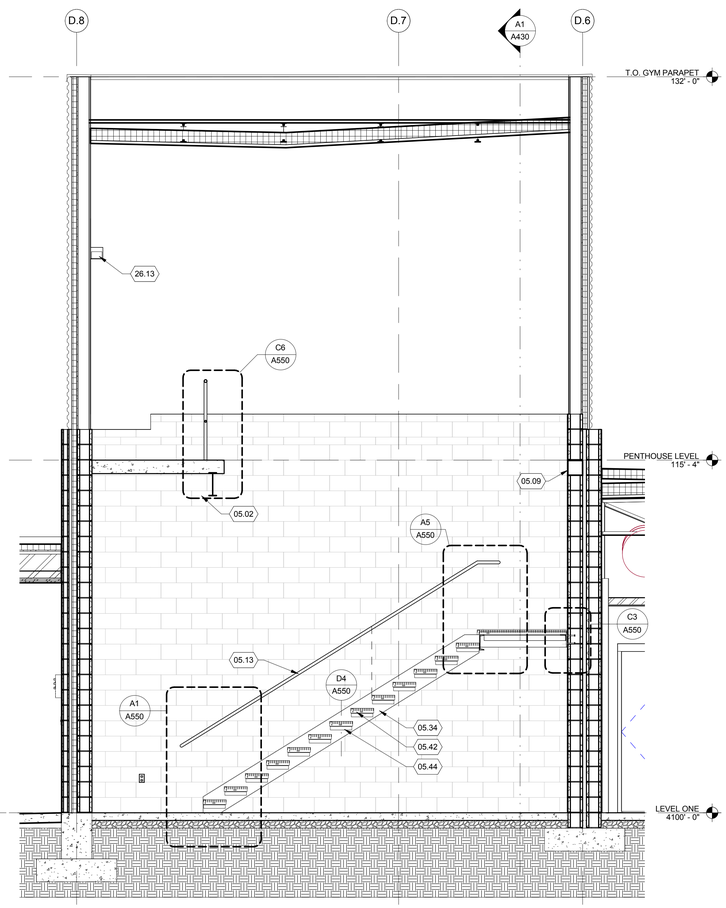
D5 STAIR 1 LEVEL 1 PLAN

SCALE: 3/8" = 1'-0"



A1 STAIR 1 SECTION 1

SCALE: 3/8" = 1'-0"



A3 STAIR 1 SECTION 2

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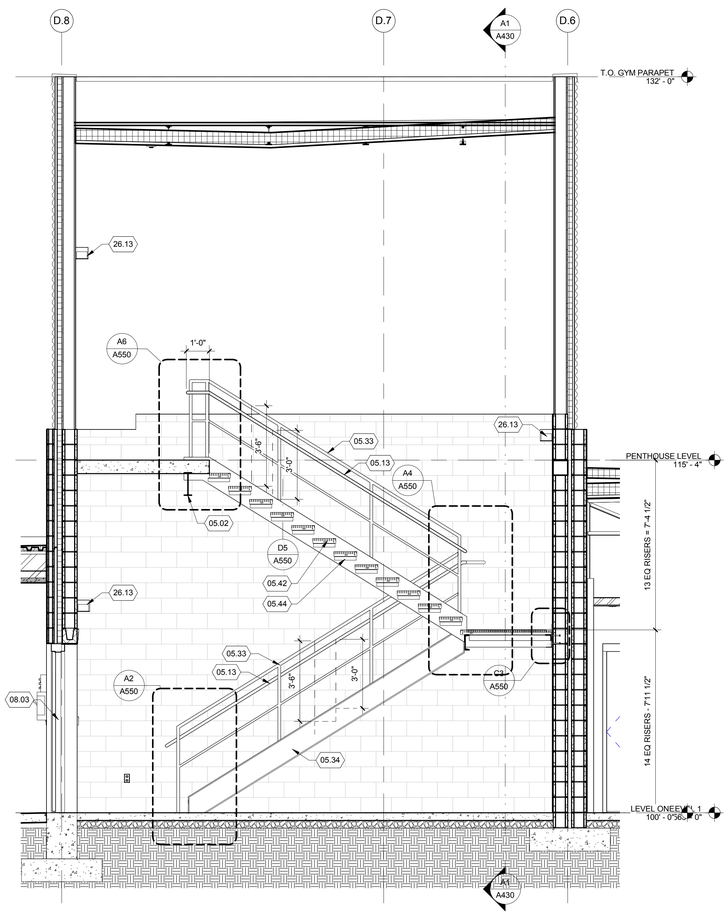

A5 STAIR 1 SECTION 3

SCALE: 3/8" = 1'-0"

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REFERENCE NOTES

04.05	LINE OF CMU BELOW
05.02	STRUCTURAL BEAM, RE: STRUCTURAL DRAWINGS
05.09	STEEL TUBE, RE: STRUCTURAL DRAWINGS
05.13	PAINTED 1-1/2" DIAMETER STEEL PIPE HANDRAIL
05.33	PAINTED 1-1/2" DIAMETER STEEL PIPE GUARDRAIL
05.34	C12 X 20.7 STAIR STRINGER
05.42	BAR GRATING TREAD/LANDING WITH INTEGRAL NOSING, RE: STRUCTURAL DRAWINGS
05.44	L2 X 2 X 3/16" AT EACH STAIR TREAD
08.03	DOOR, RE: DOOR SCHEDULE
26.13	ELECTRICAL LIGHT FIXTURE RE: ELECTRICAL DRAWINGS

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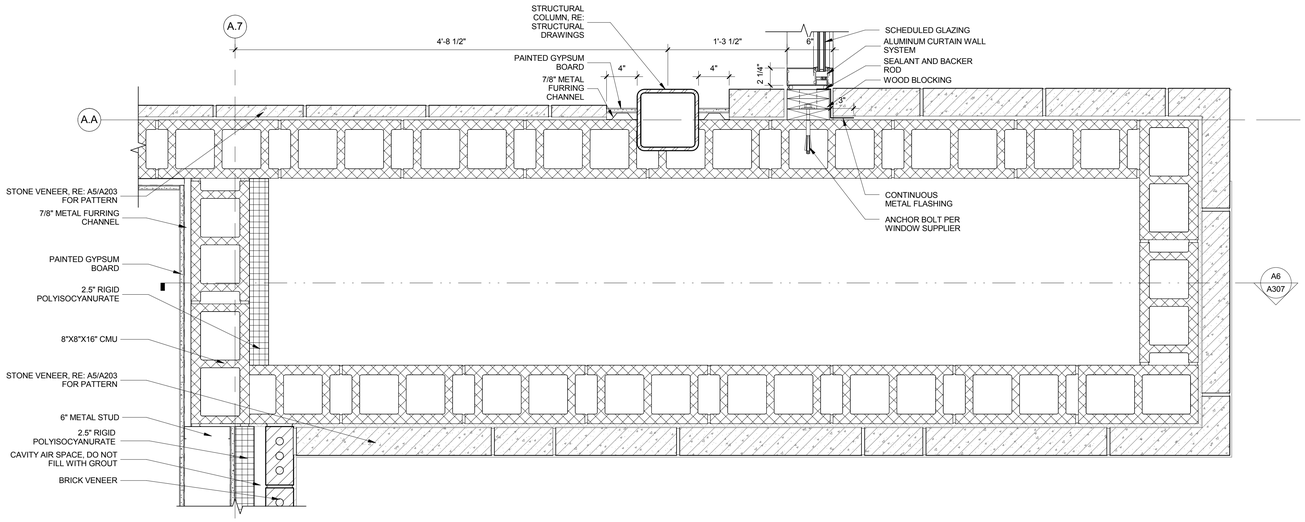
STAIR PLANS AND SECTIONS

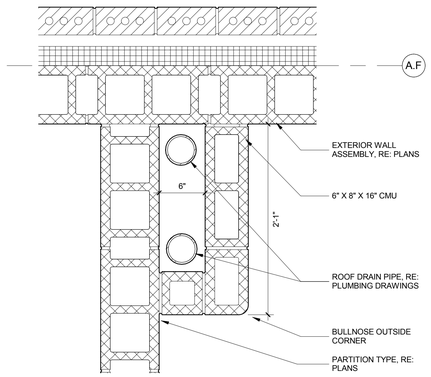
A430

9/11/2012 7:08:55 AM



D1 EXTERIOR WING WALL DETAIL

SCALE: 1 1/2" = 1'-0"



C1 TYP CHASE @ SCHOOL AREA

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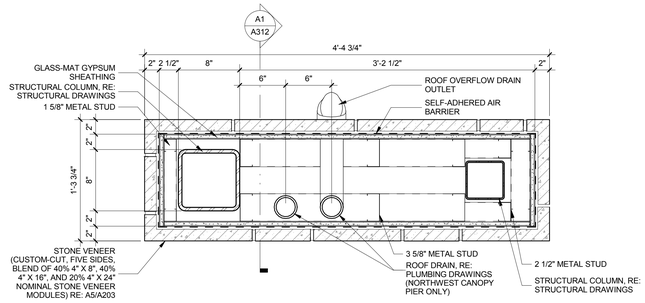

C2 DETAIL - CANOPY PIER

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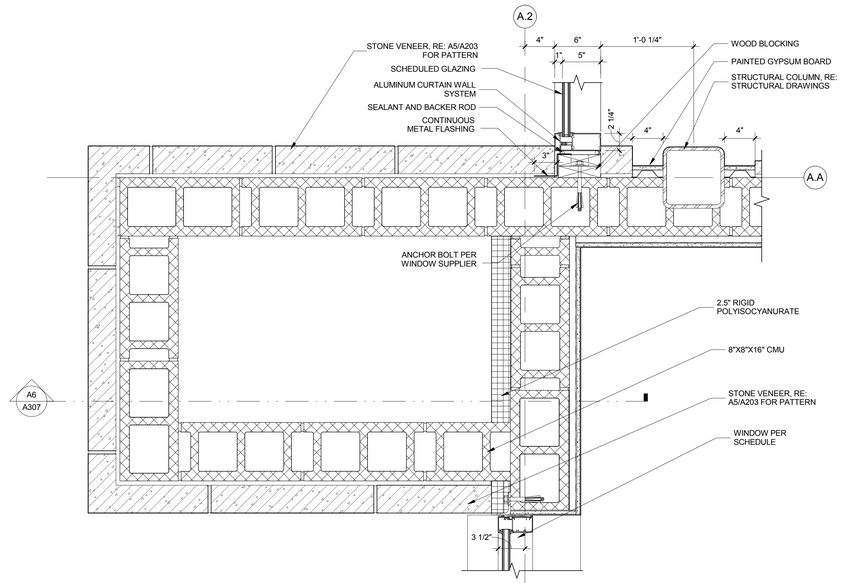
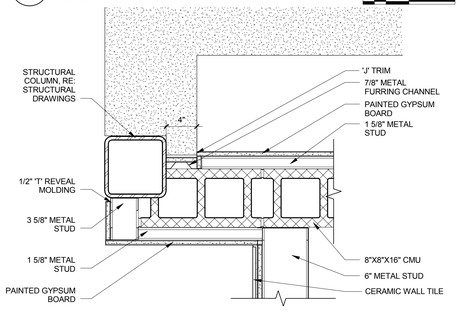


C5 EXTERIOR WING WALL WEST

SCALE: 1 1/2" = 1'-0"



B1 LOBBY COLUMN DETAIL 3

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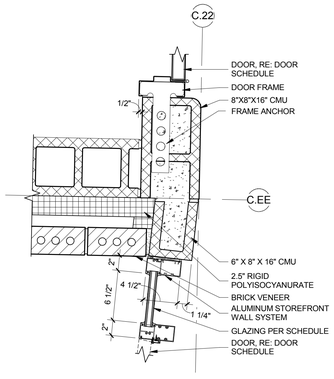

B2 JAMB AT CURVED STOREFRONT

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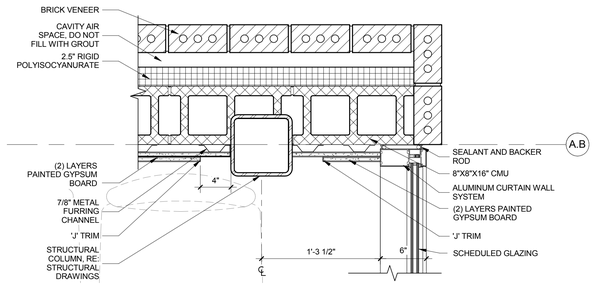
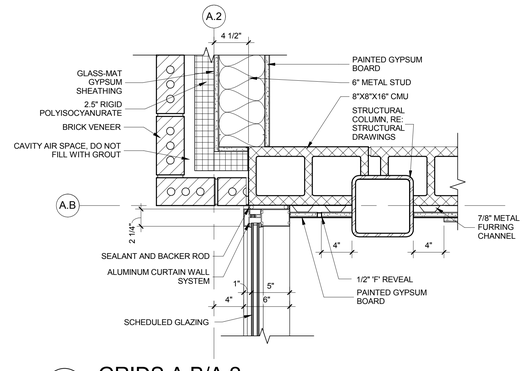


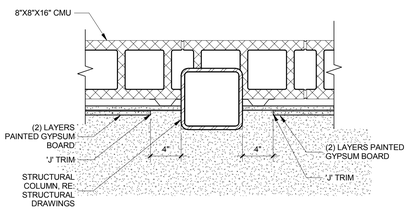
B5 WING WALL COLUMN DETAIL

SCALE: 1 1/2" = 1'-0"



B6 GRIDS A.B/A.2

SCALE: 1 1/2" = 1'-0"



A1 LOBBY COLUMN DETAIL 4

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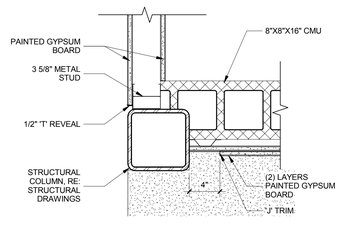

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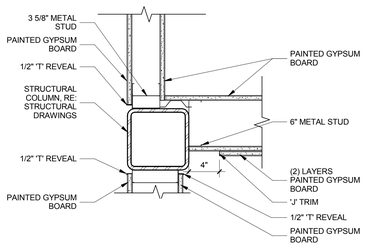

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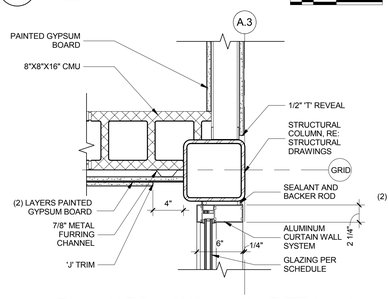
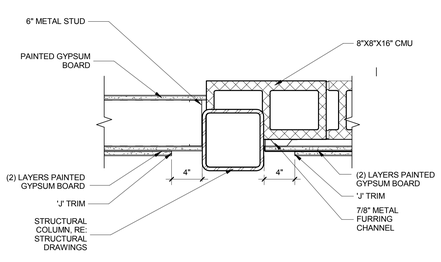


A5 LOBBY COLUMN DETAIL 1

SCALE: 1 1/2" = 1'-0"



A6 LOBBY COLUMN DETAIL 6

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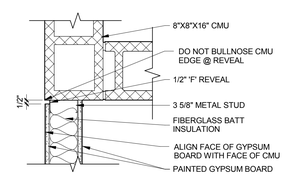

A7 TYP CMU TO GB WALL

SCALE: 1 1/2" = 1'-0"

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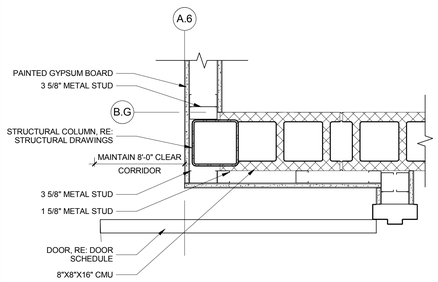
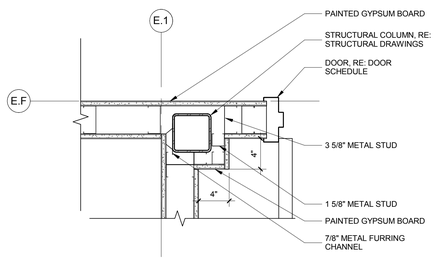
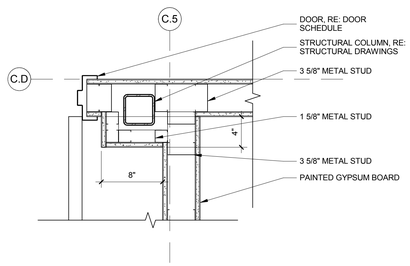


D1 COLUMN DETAIL 1
SCALE: 1 1/2" = 1'-0"



D2 COLUMN DETAIL @ E.F/E.1
SCALE: 1 1/2" = 1'-0"



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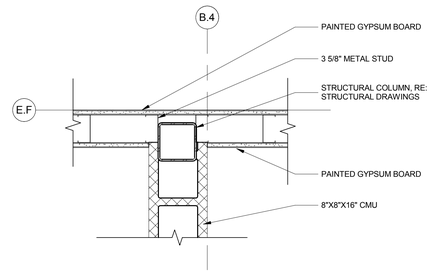

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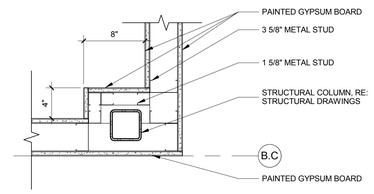

D5 COLUMN DETAIL @ B.C/B.1
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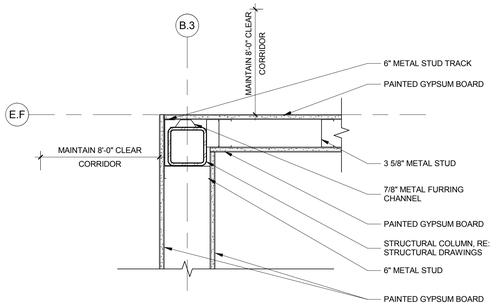

B1 COLUMN DETAIL @ E.F/B.3
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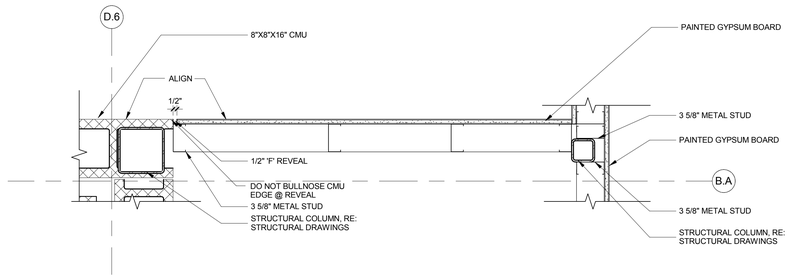

B3 COLUMN DETAIL @ B.A/D.6
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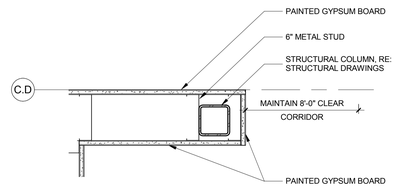

B4 COLUMN DETAIL @ C.D/B.1
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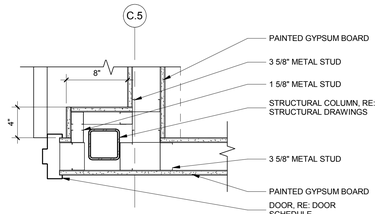

B5 COLUMN DETAIL @ B.C./C.5
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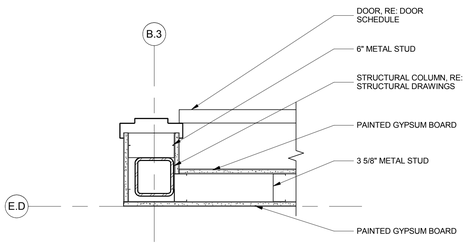

A1 COLUMN DETAIL @ E.D/B.3
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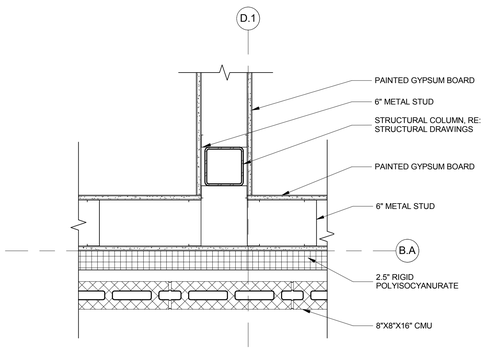

A2 COLUMN DETAIL @ B.A/B.1
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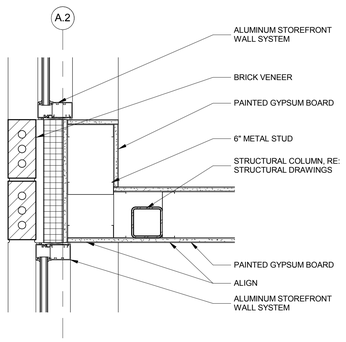

A4 COLUMN DETAIL @ ROOM 103
SCALE: 1 1/2" = 1'-0"

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A502

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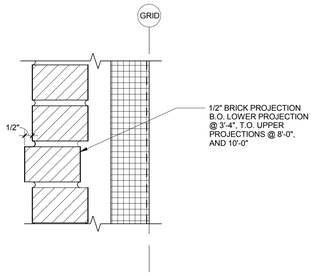
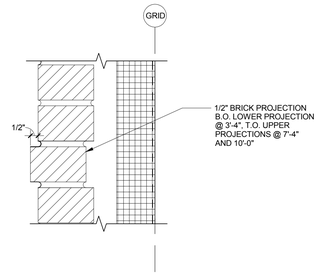
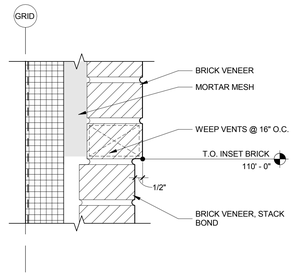


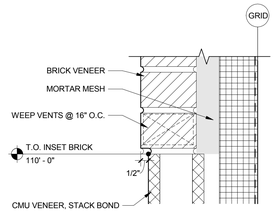
E1 BRICK REVEAL @ WALL SECTION L
SCALE: 3" = 1'-0"



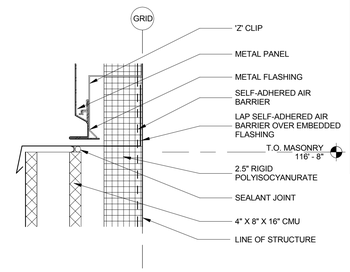
E2 BRICK REVEAL @ WALL SECTION M
SCALE: 3" = 1'-0"



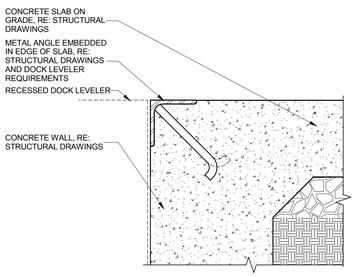
E4 INSET BRICK TO BRICK
SCALE: 3" = 1'-0"



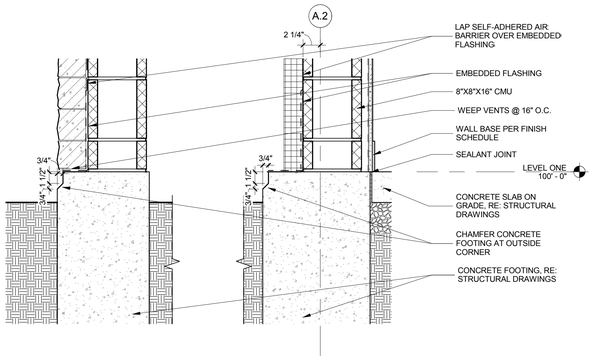
E5 INSET CMU TO BRICK
SCALE: 3" = 1'-0"



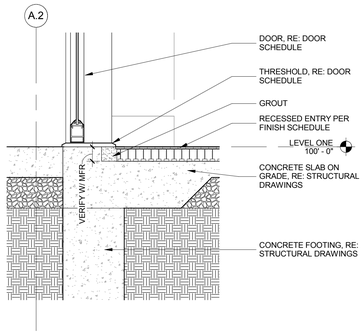
E6 METAL PANEL @ BRICK SILL
SCALE: 3" = 1'-0"



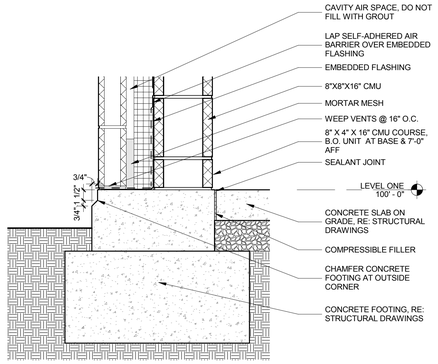
C1 SLAB @ DOCK LEVELER
SCALE: 3" = 1'-0"



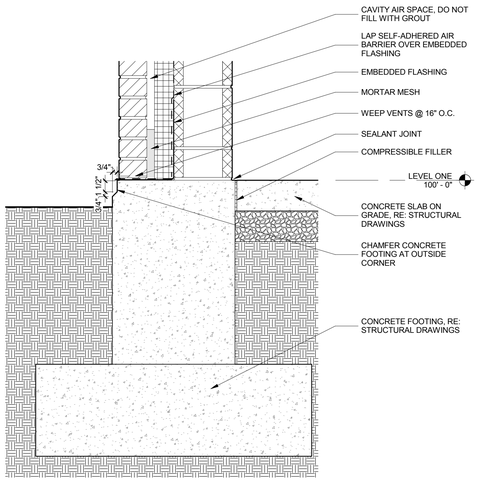
C2 FOUNDATION @ CMU W/ STONE VENEER
SCALE: 1 1/2" = 1'-0"



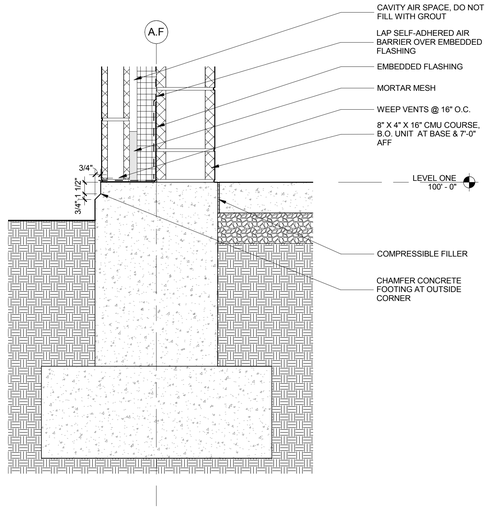
C4 FOUNDATION @ MAIN ENTRY THRESHOLD
SCALE: 1 1/2" = 1'-0"



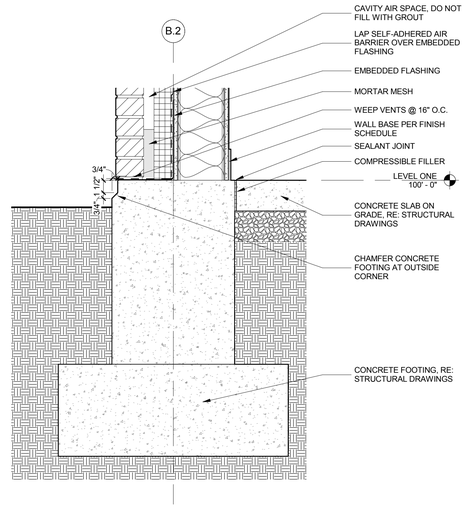
C6 FOUNDATION @ DINING CMU W/ CMU VENEER
SCALE: 1 1/2" = 1'-0"



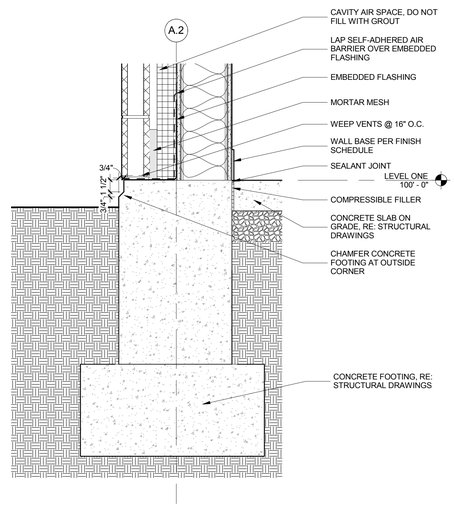
A1 FOUNDATION @ CMU W/ BRICK VENEER
SCALE: 1 1/2" = 1'-0"



A2 FOUNDATION @ CMU W/ CMU VENEER
SCALE: 1 1/2" = 1'-0"



A4 FOUNDATION @ STUD W/ BRICK VENEER
SCALE: 1 1/2" = 1'-0"



A6 FOUNDATION @ STUD W/ CMU VENEER
SCALE: 1 1/2" = 1'-0"

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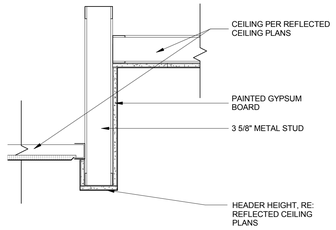
PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

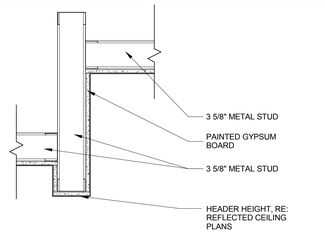
SECTION DETAILS

A510

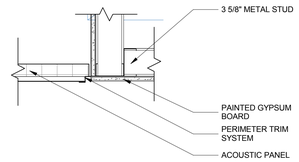
9/11/2012 7:30:35 AM



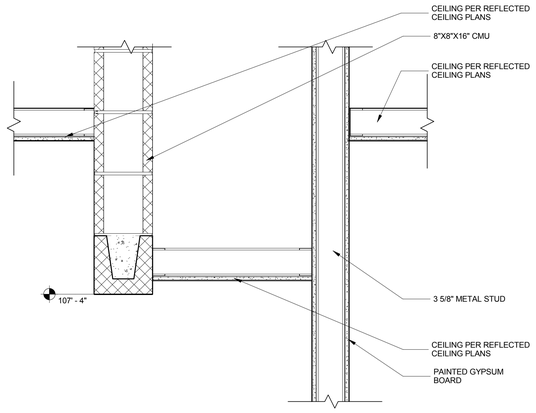
E1 CEILING DETAIL
SCALE: 1 1/2" = 1'-0"



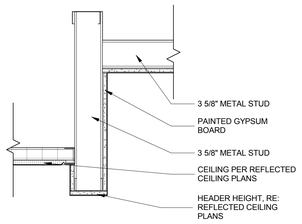
E2 CEILING DETAIL
SCALE: 1 1/2" = 1'-0"



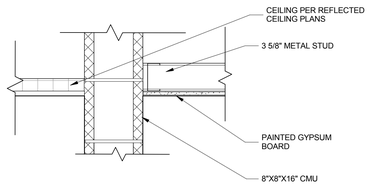
E3 CEILING DETAIL
SCALE: 1 1/2" = 1'-0"



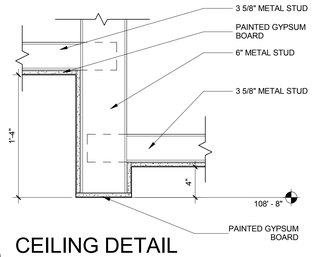
D5 CEILING DETAIL
SCALE: 1 1/2" = 1'-0"



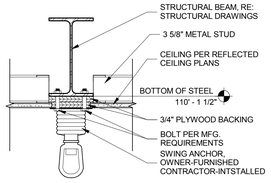
D1 CEILING DETAIL
SCALE: 1 1/2" = 1'-0"



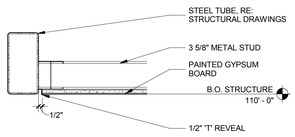
D2 CEILING DETAIL
SCALE: 1 1/2" = 1'-0"



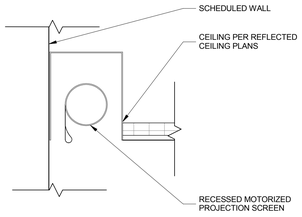
D3 CEILING DETAIL
SCALE: 1 1/2" = 1'-0"



D7 Swing Anchor Detail
SCALE: 1 1/2" = 1'-0"



C1 EDGE @ CONF CLOUD
SCALE: 1 1/2" = 1'-0"



C2 CEILING DETAIL
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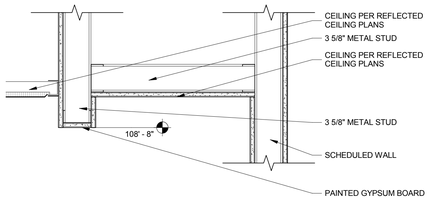

C3 CEILING DETAIL
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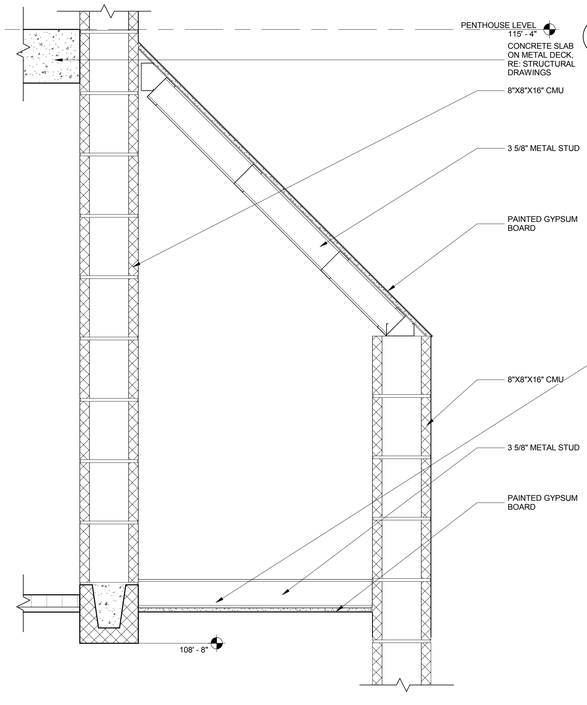
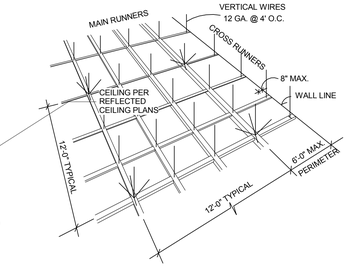


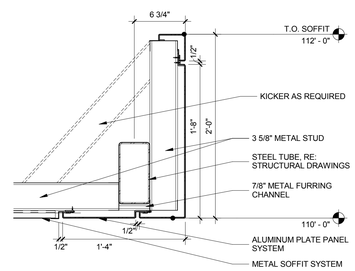
B5 CEILING DETAIL 7
SCALE: 1 1/2" = 1'-0"



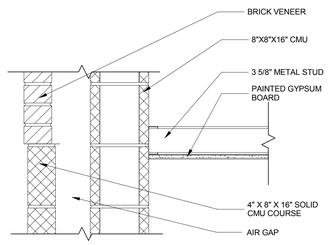
NOTES:

1. A CEILING AREA OF 144 SF OR LESS SURROUNDED BY WALLS THAT CONNECT DIRECTLY TO STRUCTURE ABOVE SHALL BE EXEMPT FROM THE FOLLOWING LATERAL DESIGN REQUIREMENTS.
2. IN EACH ORTHOGONAL DIRECTION, ONE END OF THE CEILING GRID SHALL BE ATTACHED TO THE CLOSURE ANGLE. THE OTHER END IN EACH DIRECTION SHALL BE ATTACHED WITH AN ICC EVALUATED & APPROVED SEISMIC CLIP SYSTEM AND 0.75" OF CLEARANCE TO ALLOW FREE HORIZONTAL MOVEMENT.
3. LATERAL CEILING BRACING IS REQUIRED @ 12'-0" O.C. IN BOTH DIRECTIONS FOR ALL CEILINGS GREATER THAN 1,000 SF.
4. CEILING AREAS OVER 2,500 SF MUST HAVE SIESMIC SEPARATION JOINTS.
5. LIGHT FIXTURES, MECHANICAL EQUIPMENT, ETC. MUST BE SUPPORTED INDEPENDENT OF THE CEILING SUPPORT SYSTEM.

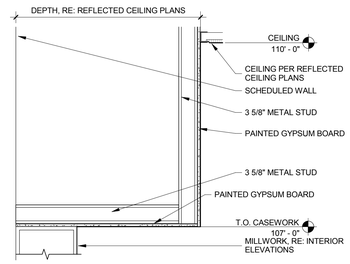
B7 SEISMIC BRACING DETAIL
SCALE: N.T.S.



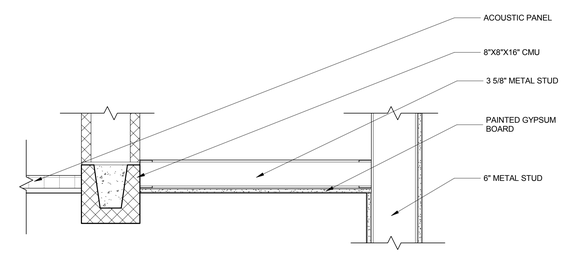
B1 EDGE @ VESTIBULE CLOUD
SCALE: 1 1/2" = 1'-0"



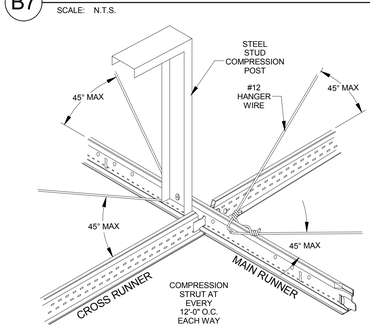
B2 CEILING DETAIL
SCALE: 1 1/2" = 1'-0"



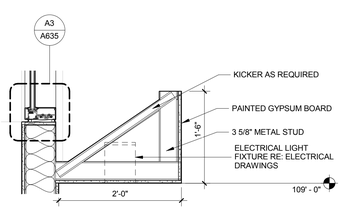
B3 TYP SOFFIT @ CLASSROOMS
SCALE: 1" = 1'-0"



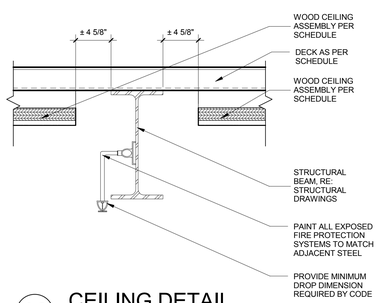
A5 CEILING DETAIL
SCALE: 1 1/2" = 1'-0"



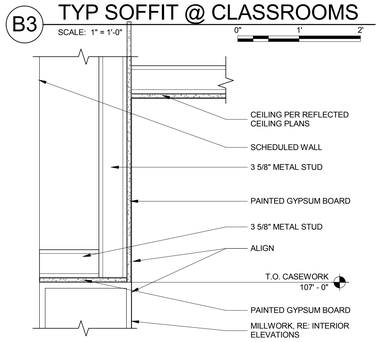
A7 SEISMIC BRACING DETAIL
SCALE: N.T.S.



A1 SOFFIT @ CONFERENCE 127
SCALE: 1" = 1'-0"



A2 CEILING DETAIL
SCALE: 1 1/2" = 1'-0"



A3 TYP SOFFIT @ WALL-HUNG CASEWORK
SCALE: 1 1/2" = 1'-0"

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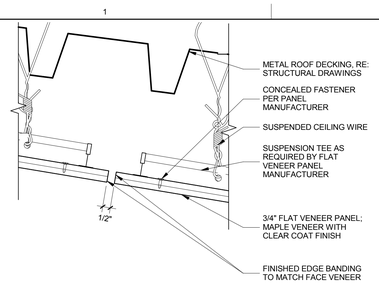
CEILING DETAILS

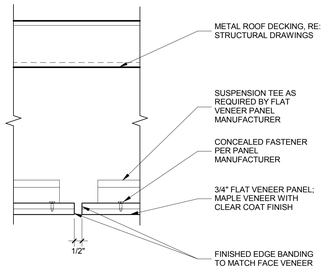
A520

9/11/2012 7:11:02 AM



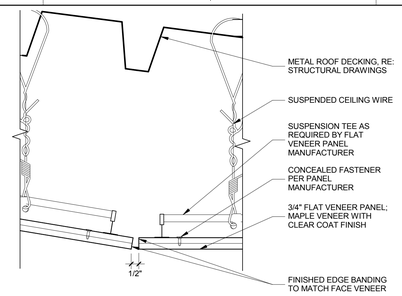
E1 FLAT PANEL REVEAL DETAIL

SCALE: 3" = 1'-0"



E2 FLAT PANEL REVEAL DETAIL

SCALE: 3" = 1'-0"



E3 FLAT PANEL REVEAL DETAIL

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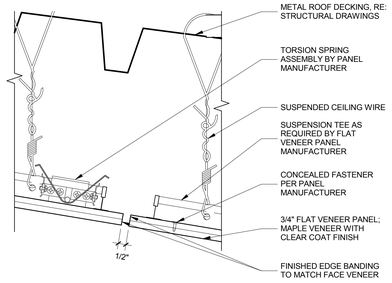
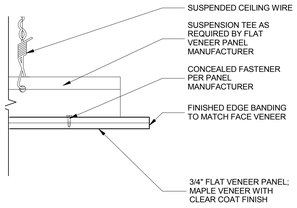


E5 FLAT PANEL REMOVABLE DETAIL

SCALE: 3" = 1'-0"



E6 FLAT PANEL EDGE DETAIL

SCALE: 3" = 1'-0"

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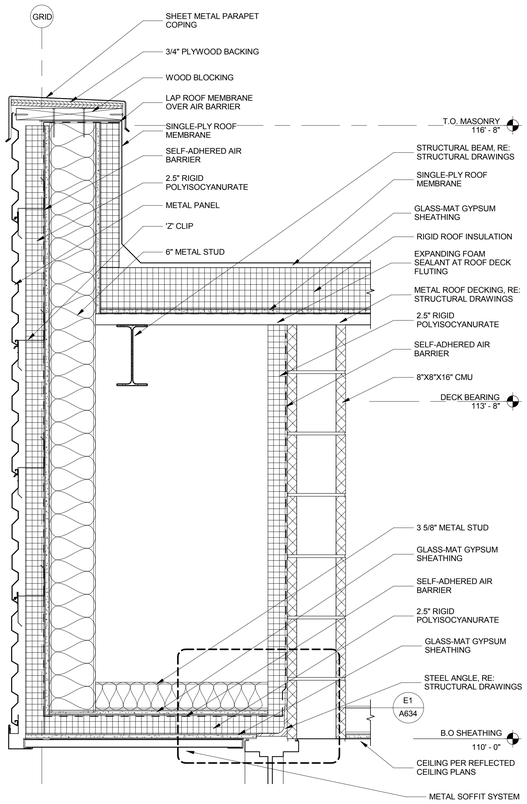
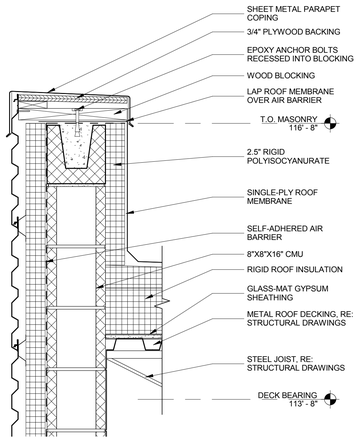
CEILING DETAILS

A521

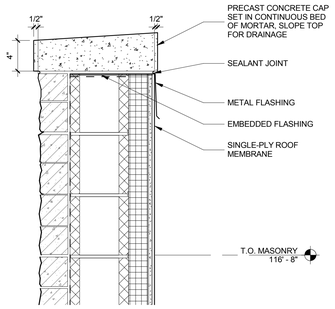
9/11/2012 7:11:08 AM



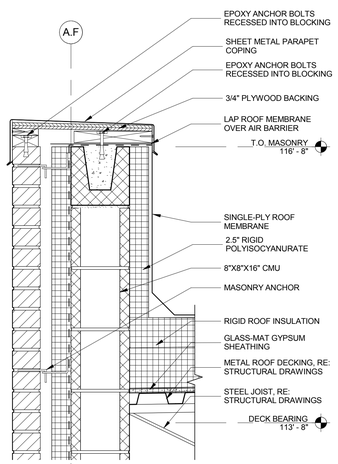
C3 STUD W/ METAL PANEL SOFFIT @ EXT DOOR
SCALE: 1 1/2" = 1'-0"



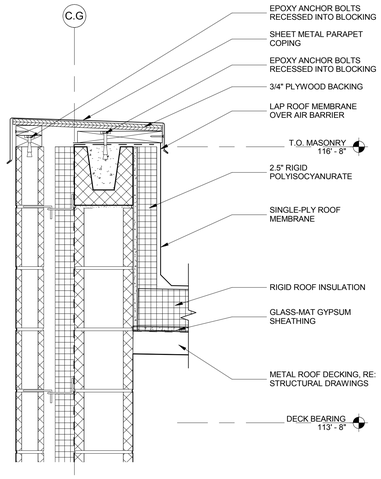
C5 PARAPET @ CMU W/ METAL PANEL VENEER
SCALE: 1 1/2" = 1'-0"



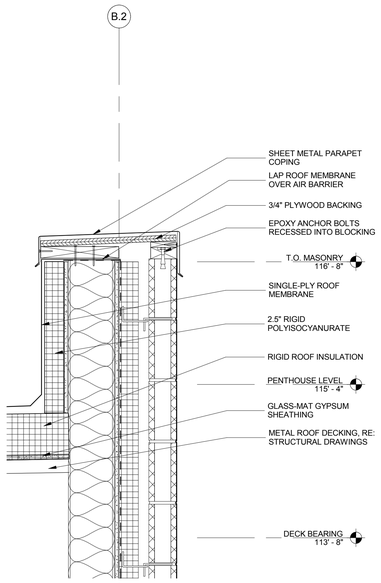
C6 PARAPET @ CMU W/ STONE VENEER
SCALE: 1 1/2" = 1'-0"



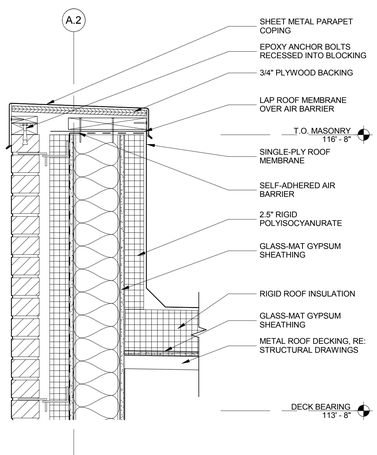
A1 PARAPET @ CMU W/ BRICK VENEER
SCALE: 1 1/2" = 1'-0"



A2 PARAPET @ CMU W/ CMU VENEER
SCALE: 1 1/2" = 1'-0"



A3 PARAPET @ STUD W/ CMU VENEER
SCALE: 1 1/2" = 1'-0"



A4 PARAPET @ STUD W/ BRICK VENEER
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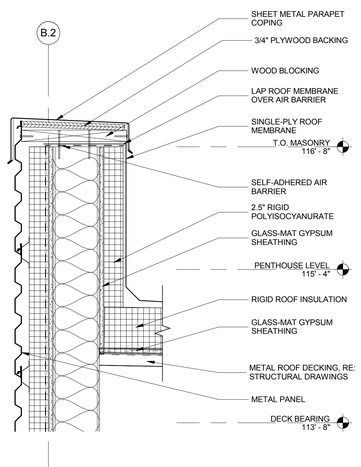

A6 PARAPET @ STUD W/ METAL PANEL VENEER
SCALE: 1 1/2" = 1'-0"

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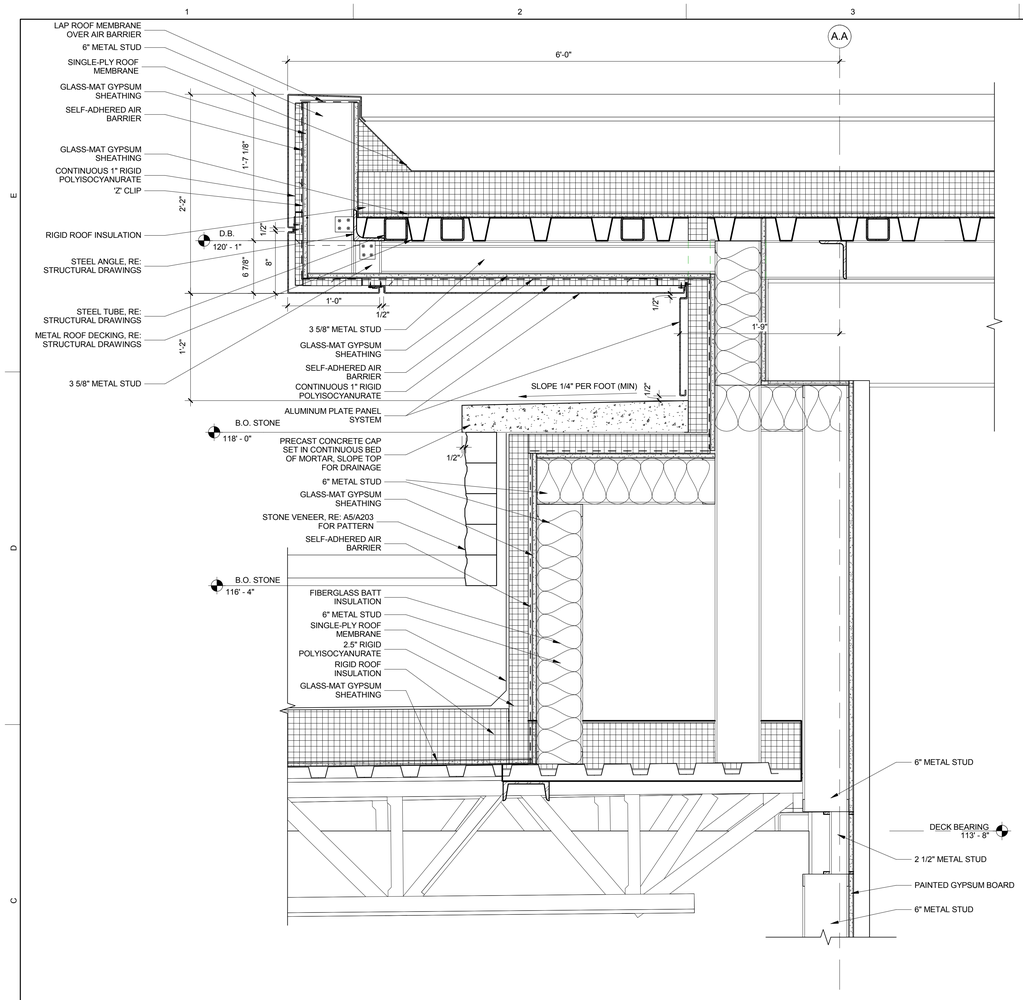
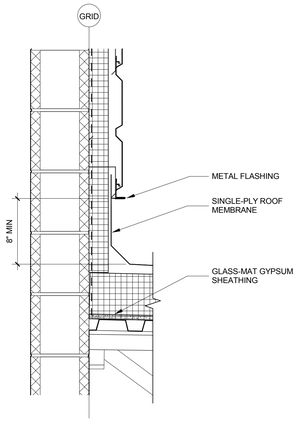
ROOF DETAILS

A530

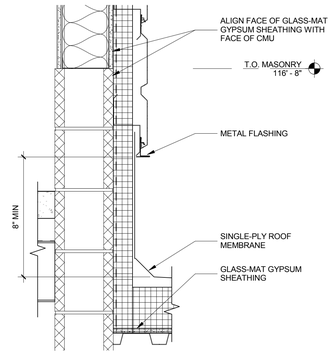
9/11/2012 8:53:44 AM



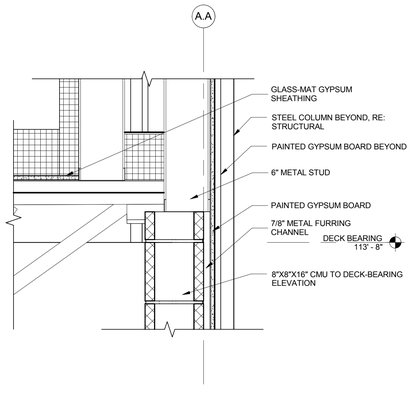
C1 LOW ROOF EDGE @ LOBBY SOUTH WALL
SCALE: 1 1/2" = 1'-0"



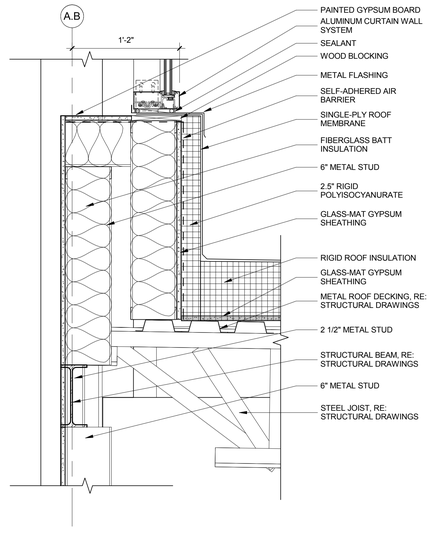
D4 LOW ROOF TO CMU W/ METAL PANEL
SCALE: 1 1/2" = 1'-0"



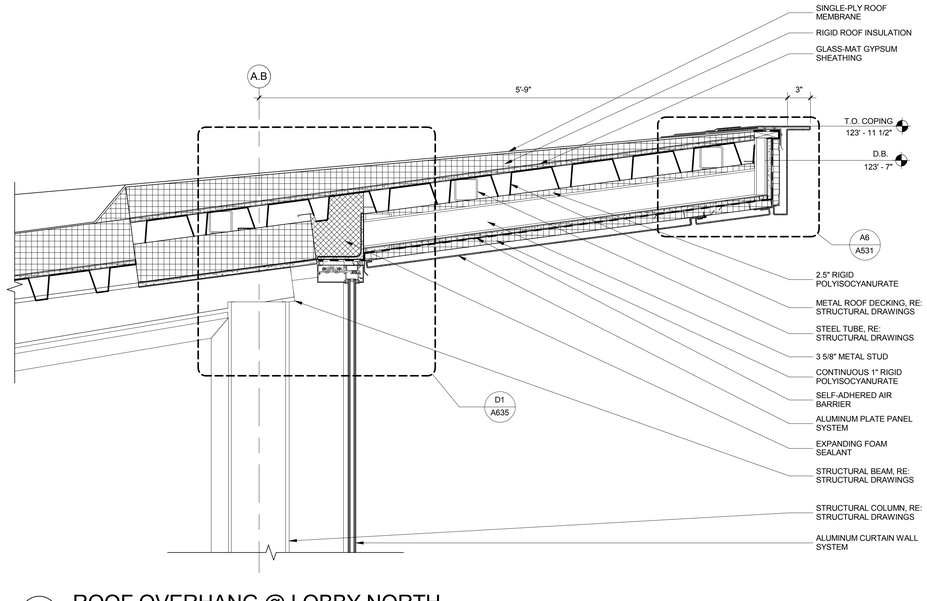
D6 LOW ROOF TO STUD W/ METAL PANEL
SCALE: 1 1/2" = 1'-0"



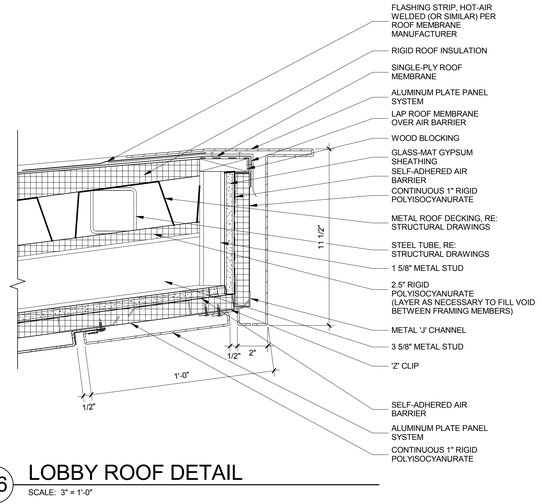
B4 CMU TO STUD @ LOBBY SOUTH WALL
SCALE: 1 1/2" = 1'-0"



B6 LOW ROOF EDGE @ LOBBY NORTH WALL
SCALE: 1 1/2" = 1'-0"



A1 ROOF OVERHANG @ LOBBY NORTH
SCALE: 1 1/2" = 1'-0"



A6 LOBBY ROOF DETAIL
SCALE: 3" = 1'-0"

DFCM APPROVAL STAMP

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bogue building
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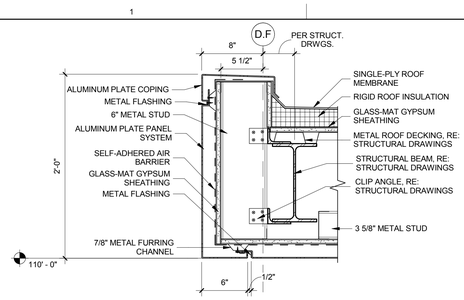
PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

ROOF DETAILS

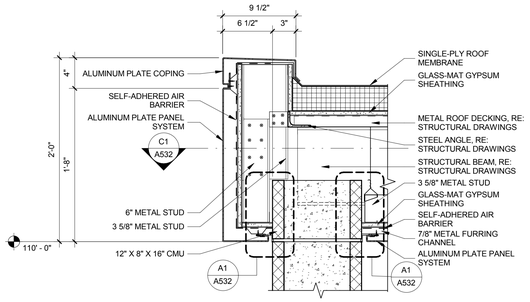
A531

9/11/2012 8:53:50 AM



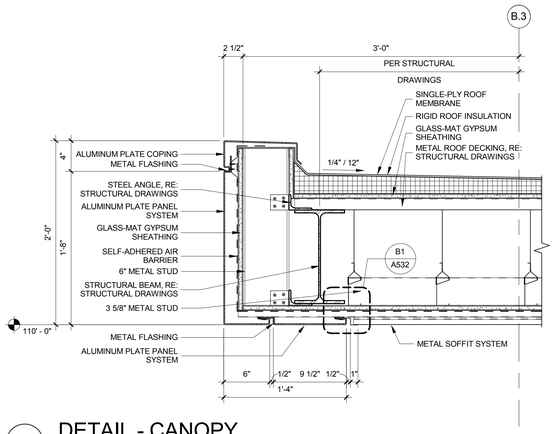
E1 DETAIL - CANOPY PARAPET

SCALE: 1 1/2" = 1'-0"



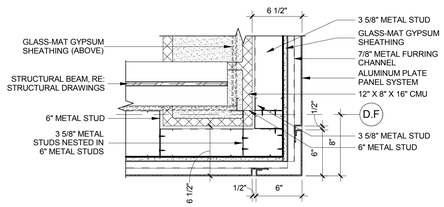
D1 DETAIL - CANOPY @ CMU

SCALE: 1 1/2" = 1'-0"



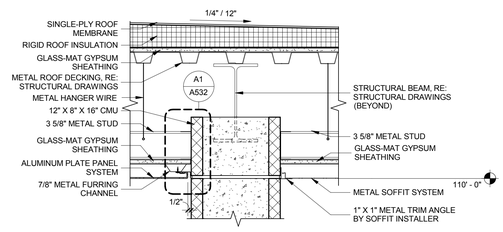
D2 DETAIL - CANOPY

SCALE: 1 1/2" = 1'-0"



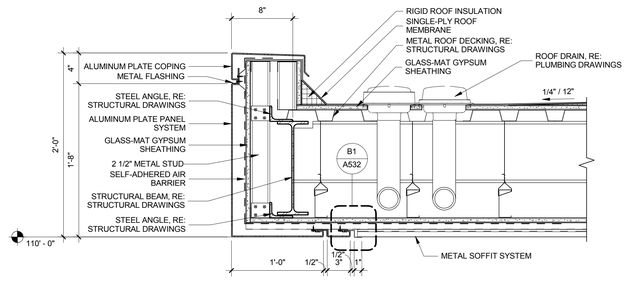
C1 DETAIL - CANOPY CORNER

SCALE: 1 1/2" = 1'-0"



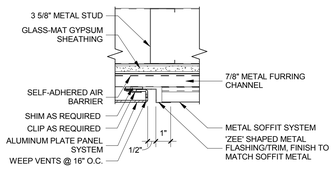
C2 DETAIL - CMU @ CANOPY

SCALE: 1 1/2" = 1'-0"



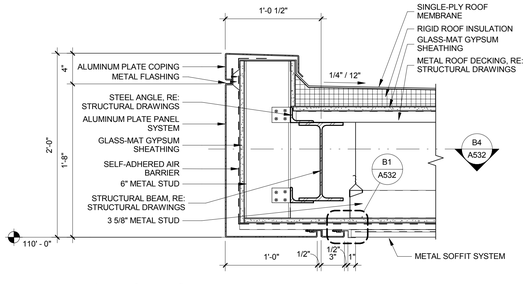
C4 DETAIL - CANOPY

SCALE: 1 1/2" = 1'-0"



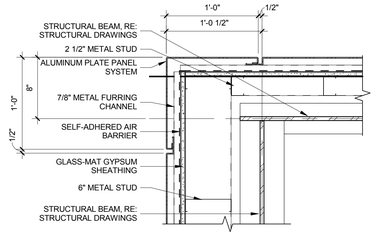
B1 METAL PLATE @ METAL SOFFIT

SCALE: 3" = 1'-0"



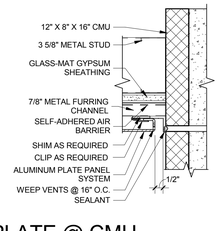
B2 DETAIL - CANOPY

SCALE: 1 1/2" = 1'-0"



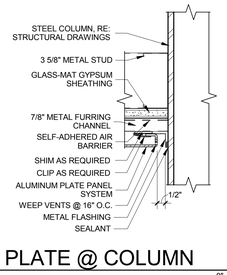
B4 DETAIL - CANOPY CORNER

SCALE: 1 1/2" = 1'-0"



A1 METAL PLATE @ CMU

SCALE: 3" = 1'-0"



A2 METAL PLATE @ COLUMN

SCALE: 3" = 1'-0"

DFCM APPROVAL STAMP

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REFERENCE NOTES

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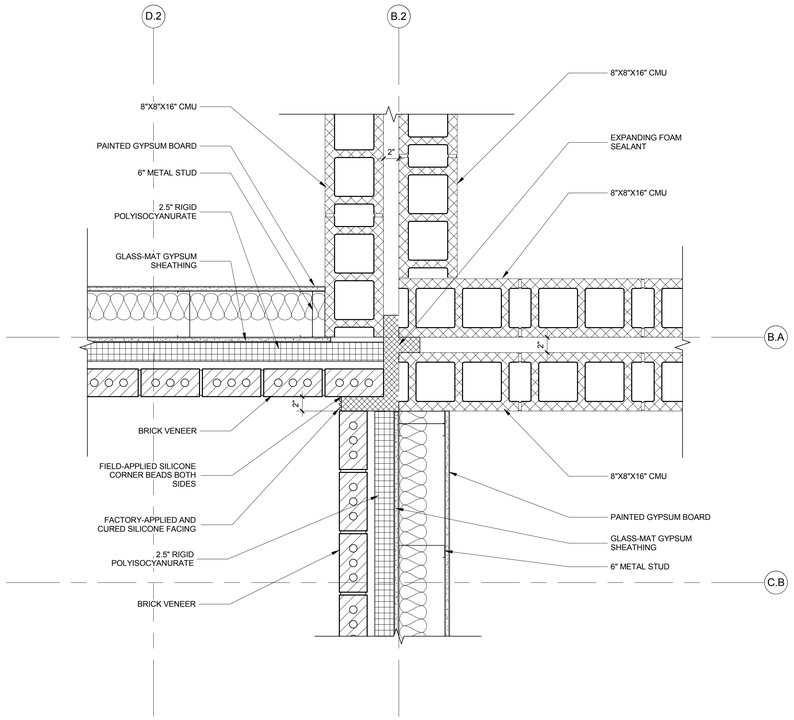
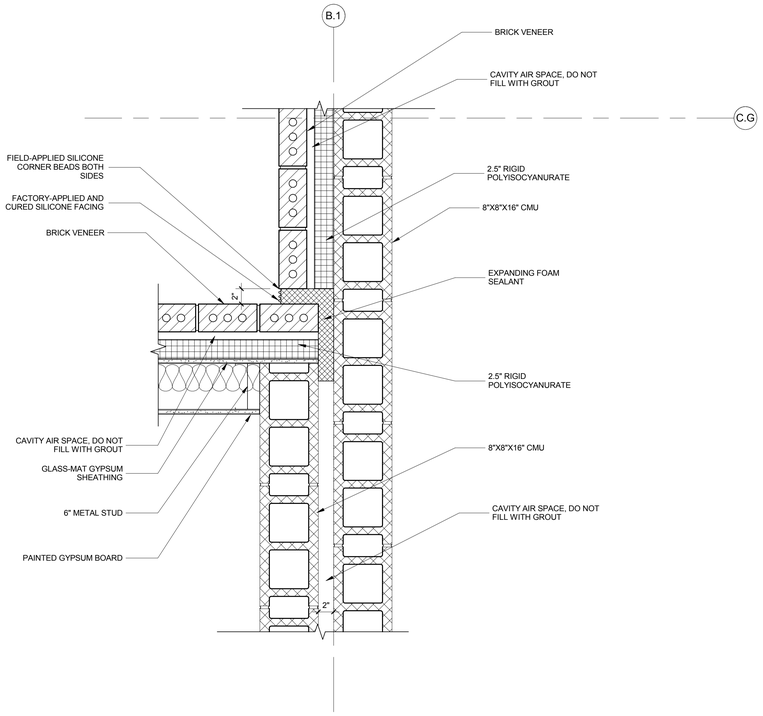
ROOF DETAILS

A532

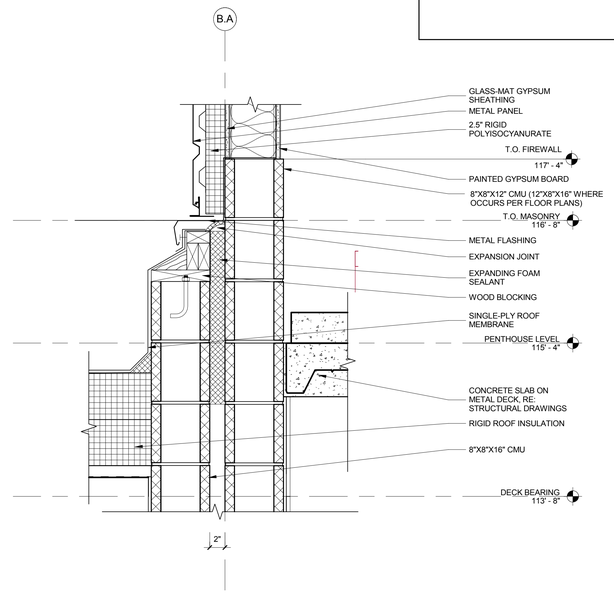
9/11/2012 9:11:26 AM



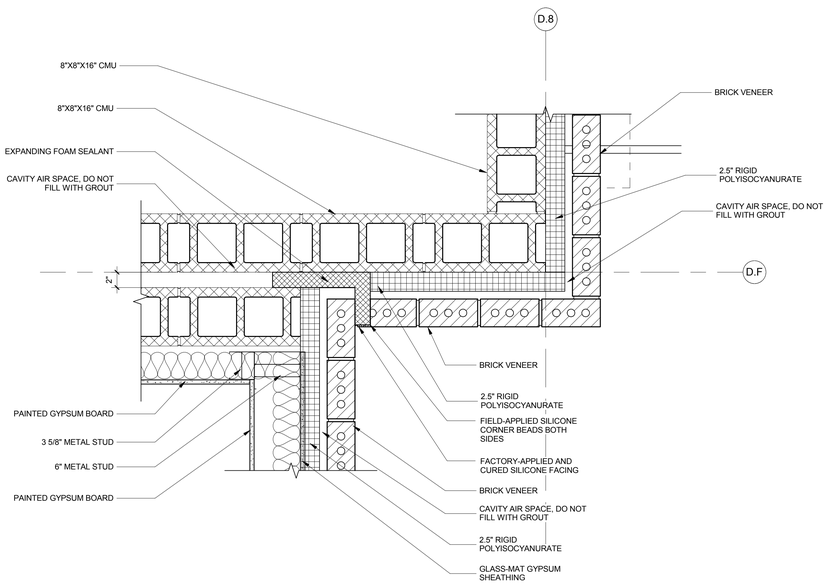
C1 DETAIL @ B.A/B.2
SCALE: 1 1/2" = 1'-0"



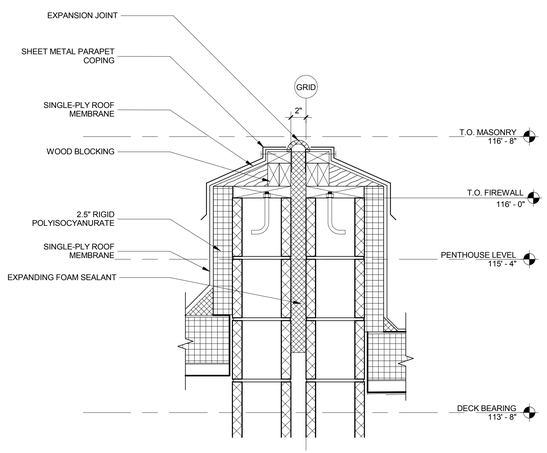
C3 DETAIL @ C.G/B.1
SCALE: 1 1/2" = 1'-0"



C6 EXPANSION JOINT ROOF DETAIL
SCALE: 1 1/2" = 1'-0"



A1 DETAIL @ D.8/D.F
SCALE: 1 1/2" = 1'-0"



A4 EXPANSION JOINT @ ROOF
SCALE: 1 1/2" = 1'-0"

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EXPANSION JOINT DETAILS

A540

9/11/2012 8:53:55 AM

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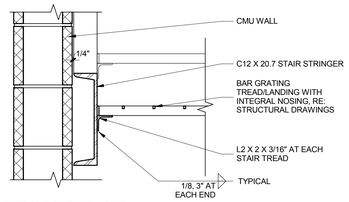
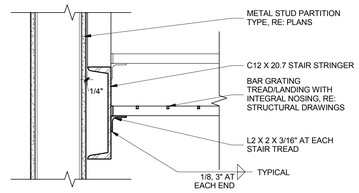
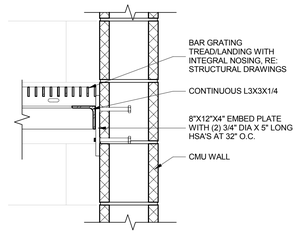


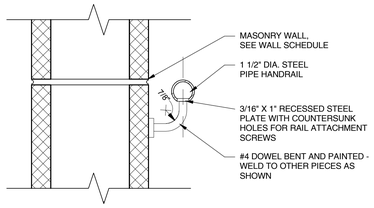
D4 STRINGER AT CMU WALL
SCALE: 1 1/2" = 1'-0"



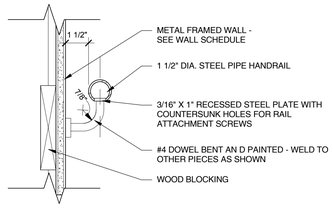
D5 STRINGER AT STUD WALL
SCALE: 1 1/2" = 1'-0"



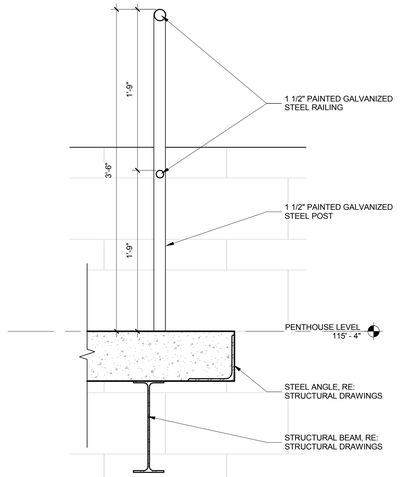
C3 STRINGER DETAIL AT LANDING
SCALE: 1 1/2" = 1'-0"



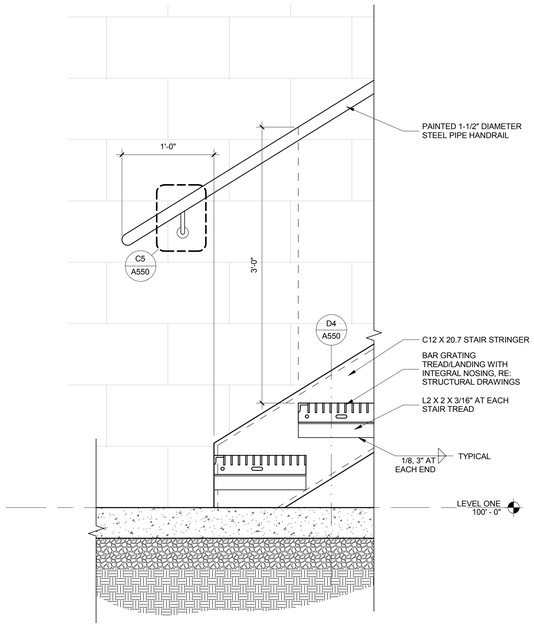
C4 HANDRAIL DETAIL AT CMU WALL
SCALE: 3" = 1'-0"



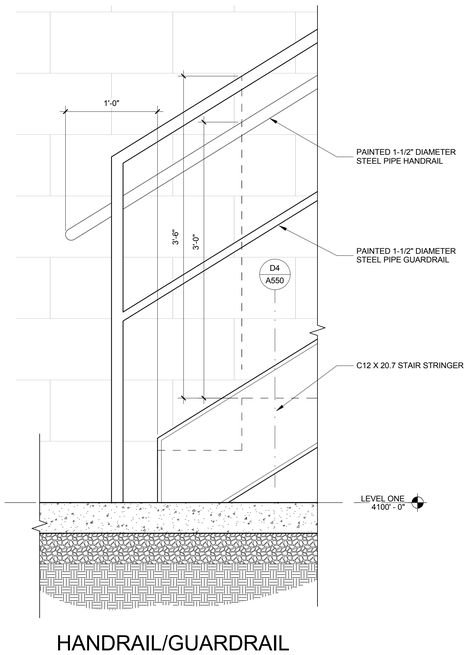
C5 HANDRAIL DETAIL AT STUD WALL
SCALE: 3" = 1'-0"



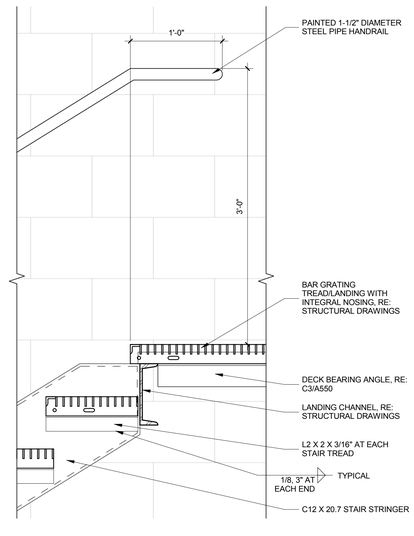
C6 GUARDRAIL AT PENTHOUSE LEVEL
SCALE: 1 1/2" = 1'-0"



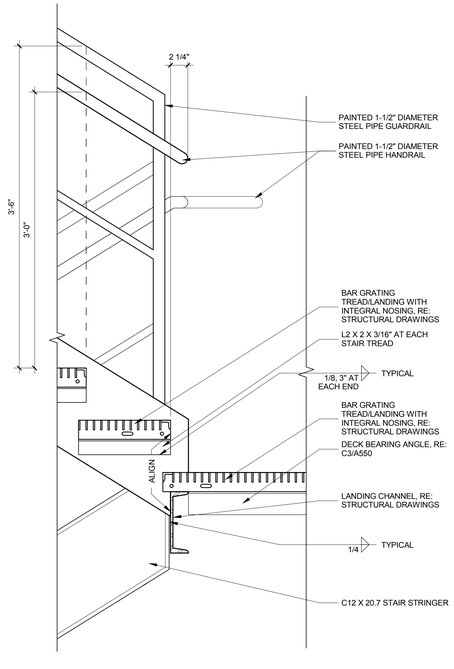
A1 HANDRAIL AT MAIN LEVEL
SCALE: 1 1/2" = 1'-0"



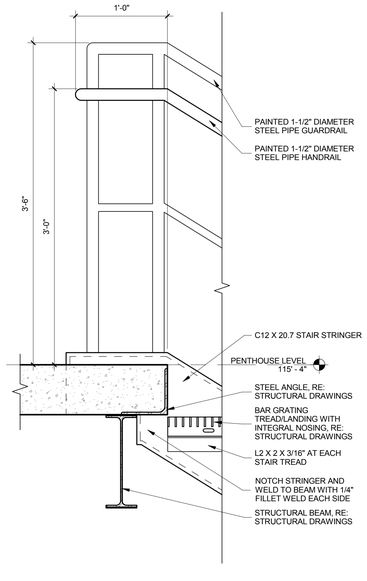
A2 HANDRAIL/GUARDRAIL AT MAIN LEVEL
SCALE: 1 1/2" = 1'-0"



A5 HANDRAIL AT LANDING LEVEL
SCALE: 1 1/2" = 1'-0"



A4 HANDRAIL/GUARDRAIL AT LANDING LEVEL
SCALE: 1 1/2" = 1'-0"



A6 HANDRAIL/GUARDRAIL AT PENTHOUSE LEVEL
SCALE: 1 1/2" = 1'-0"

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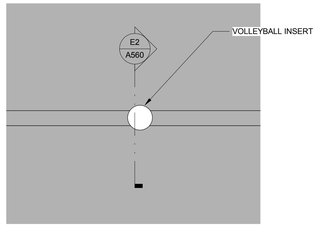
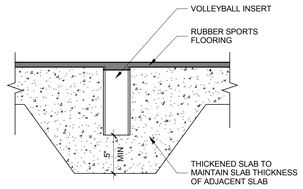
STAIR DETAILS

A550

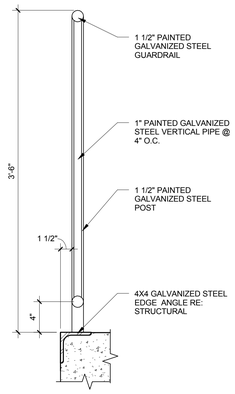
9/11/2012 7:11:52 AM



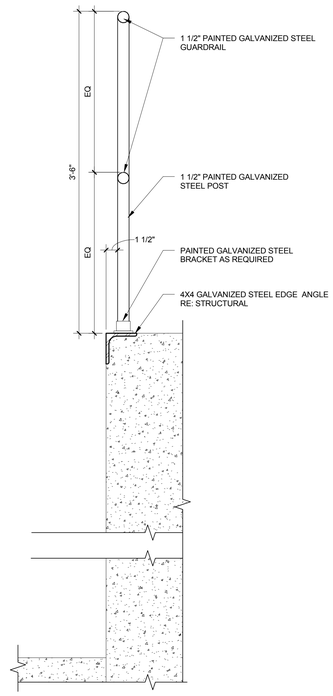
E1 VOLLEYBALL INSERT - PLAN
SCALE: 1 1/2" = 1'-0"



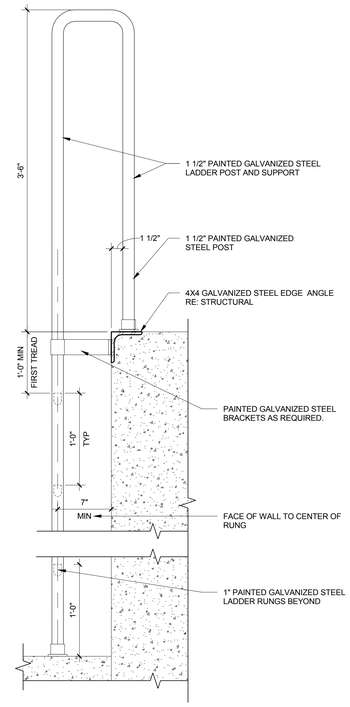
E2 VOLLEYBALL INSERT - SECTION
SCALE: 1 1/2" = 1'-0"



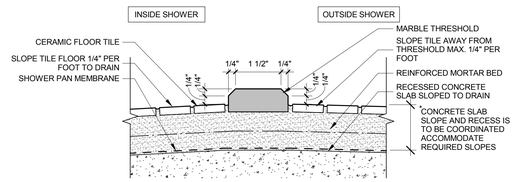
C2 DETAIL - GUARDRAIL
SCALE: 1 1/2" = 1'-0"



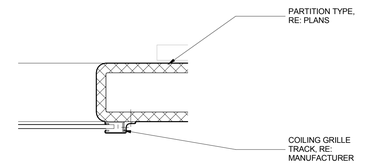
C3 GUARD RAIL - PIT
SCALE: 1 1/2" = 1'-0"



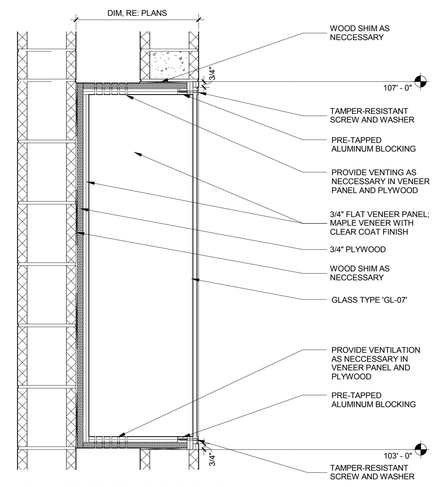
C4 LADDER RAIL - PIT
SCALE: 1 1/2" = 1'-0"



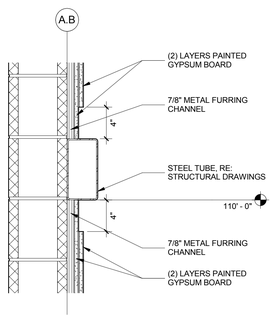
D6 ADA SHOWER THRESHOLD DETAIL
SCALE: 6" = 1'-0"



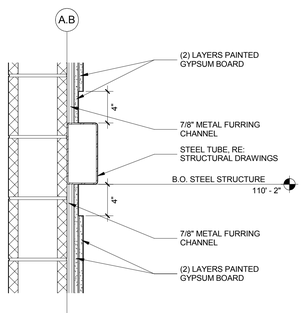
C6 OH COILING DOOR TRACK
SCALE: 1 1/2" = 1'-0"



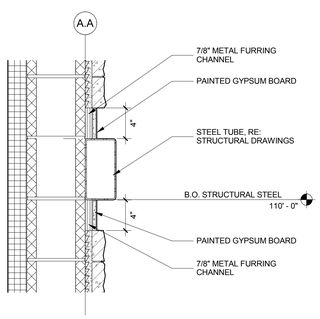
B6 TYP TV RECESS
SCALE: 1 1/2" = 1'-0"



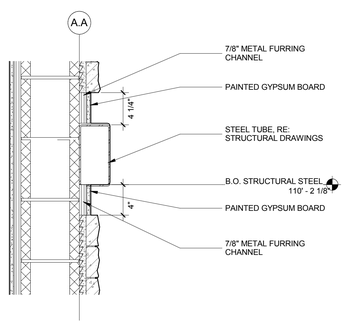
B1 REVEAL @ CONF 127 NORTH
SCALE: 1 1/2" = 1'-0"



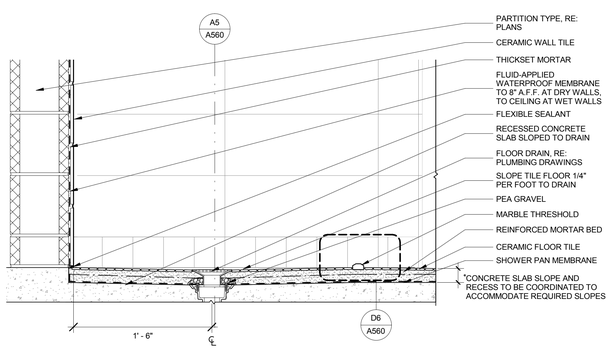
B2 REVEAL @ VEST V-01 NORTH
SCALE: 1 1/2" = 1'-0"



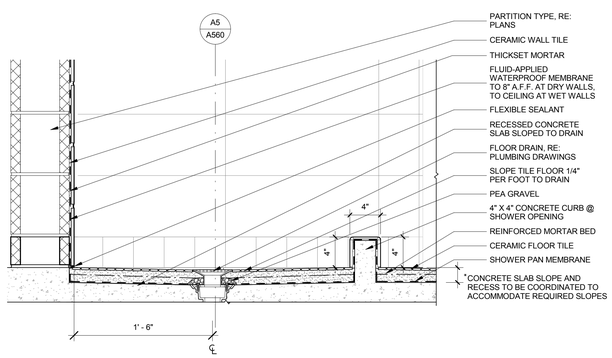
B3 REVEAL @ CONF 127 SOUTH
SCALE: 1 1/2" = 1'-0"



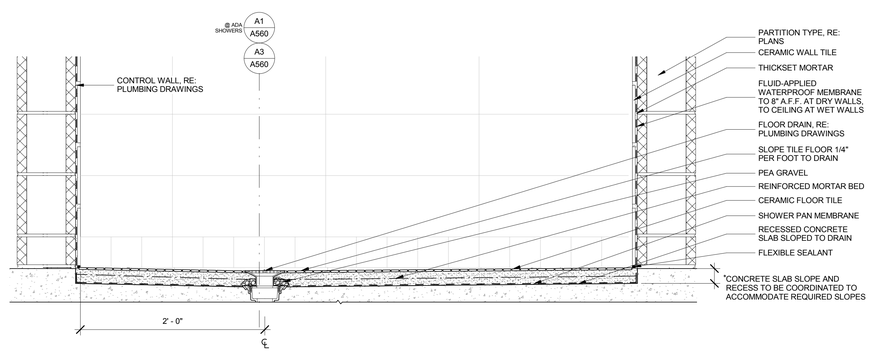
B5 REVEAL @ VEST V-01 SOUTH
SCALE: 1 1/2" = 1'-0"



A1 SHOWER FLOOR CURB - ADA
SCALE: 1 1/2" = 1'-0"



A3 SHOWER FLOOR CURB
SCALE: 1 1/2" = 1'-0"



A5 SHOWER FLOOR SLOPE
SCALE: 1 1/2" = 1'-0"

DFCM APPROVAL STAMP

FFKR ARCHITECTS
bogue building
730 pacific avenue
salt lake city
Utah 84104
801-521-6186
801-539-1916
ffkr.com

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

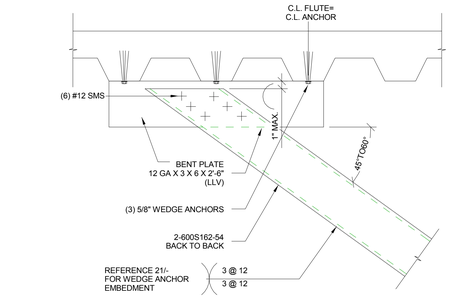
	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

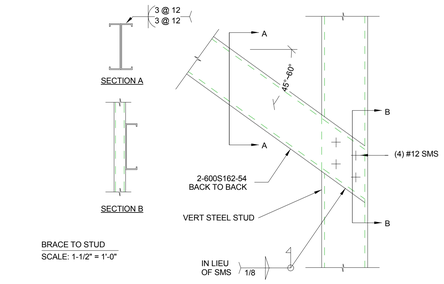
TYPICAL DETAILS

A560

9/11/2012 7:12:05 AM



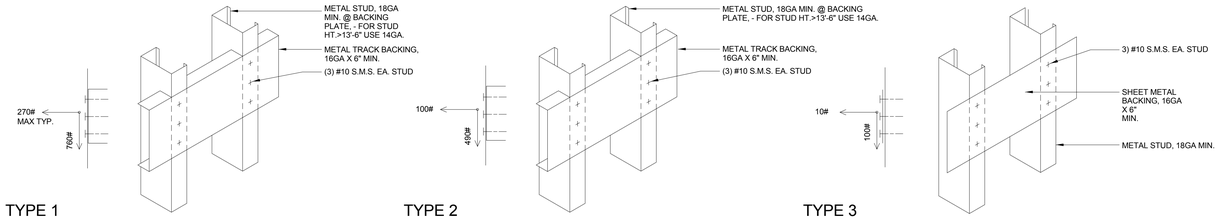
BRACE TO FLOOR (PERP TO FLUTE)
SCALE: 1-1/2" = 1'-0"



BRACE TO STUD
SCALE: 1-1/2" = 1'-0"

D1 WALL BRACING

SCALE: 1 1/2" = 1'-0"

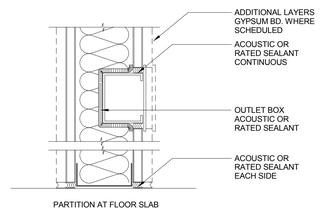


NOTES:

1. EXTEND BACKING PLATE TO NEXT STUD BEYOND SIDE OF FIXTURE OR ACCESSORY.
2. PROVIDE MET. SLEEVES THROUGH WALL FINISH AT FIXTURE AND EQUIPMENT FASTENING.
3. MAX. LOADS SHOWN ARE MAX.ALLOWABLE LOADS FOR THE DIRECTION SHOWN. VERTICAL AND HORIZONTAL LOADS ARE NOT CUMULATIVE. E.I.: MAX. ALLOWABLE LOADS ARE FOR SHEAR-TENSION INTERACTION CALCULATION.
4. AS INDICATED, STUD GAUGES SHOWN ARE MINIMUM. METAL STUDS AND THEIR CONNECTIONS ARE TO BE DESIGNED PER THE PERFORMANCE REQUIREMENTS IN SPECIFICATION SECTION 09100.
5. MAXIMUM SPACING OF METAL STUDS SUPPORTING BACKING IS 16".

E2 BACKING PLATE SCHEDULE

SCALE: N.T.S.

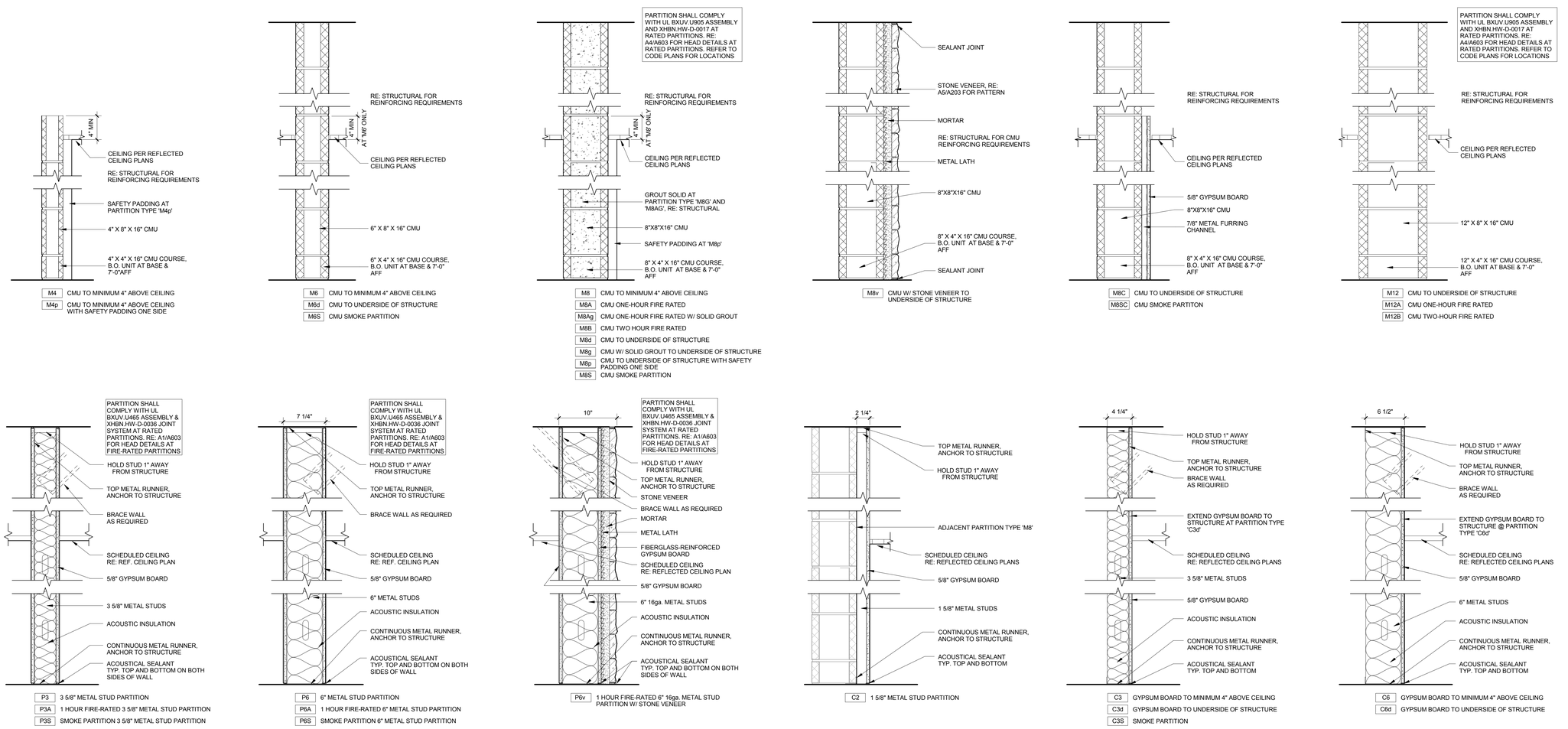


PARTITION AT FLOOR SLAB

D2 ELECTRICAL BOX @ STUD PARTITION

SCALE: 3" = 1'-0"

0" 3" 6" 1'



A1 PARTITION TYPES

SCALE: N.T.S

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ARCHITECTS
bogue building
730 pacific avenue
salt lake city
Utah 84104
801-521-6186
801-539-1916
ffkr.com

REFERENCE NOTES

GENERAL NOTES

1. REINFORCEMENT FOR WALL-HUNG CABINETS & DEVICES: PROVIDE 6" HIGH 16 GA CONTINUOUS SHEET METAL BACKING AT LOCATIONS OF ATTACHMENT OF WALL-HUNG CABINETS AT METAL STUD WALLS, RE: INTERIOR ELEVATIONS, COORDINATE WITH CABINET INSTALLER
2. ALL METAL STUD PARTITIONS ARE TO HAVE 3-1/2" ACOUSTIC BATT INSULATION WITHIN THE STUD CAVITY. INSULATION TO MATCH RATING OF ASSEMBLY, WHERE OCCURS.
3. ALL FIRE PARTITIONS, SMOKE PARTITIONS, SMOKE BARRIERS, ACOUSTIC PARTITIONS AND THOSE NOTED, SHALL BE CONSTRUCTED TO DECK AND SEALED ACCORDINGLY.
4. SEE SHEETS A602 - A605 FOR UL JOINT SYSTEMS, UL FIRE RESISTIVE RATINGS AND UL THROUGH-PENETRATION FIRE STOP SYSTEMS.
5. SEAL ALL PENETRATIONS IN PARTITIONS AIR-TIGHT. WHERE PARTITION IS FIRE-RATED, USE FIRE-RATED SEALANT.
6. ALL FIRE AND SMOKE RATED WALLS, PARTITIONS AND BARRIERS ARE TO BE LABELED PER THE SPECIFICATIONS.
7. IMPACT-RESISTANT GYPSUM BOARD IS TO BE INSTALLED WHERE INDICATED ON THE FINISH PLANS AND IN THE FINISH SCHEDULE. SEE AF SHEETS FOR LOCATIONS AND EXTENT OF IMPACT-RESISTANT GYPSUM BOARD.
8. MASONRY WALLS INDICATED TO BE SOLID GROUT BY ARCHITECTURAL WALL TYPE ARE IN ADDITION TO SOLID GROUT MASONRY WALLS THAT ARE SHOWN ON THE STRUCTURAL DRAWINGS.
9. SEE STRUCTURAL DRAWINGS FOR STEEL STUD SCHEDULES AND TYPICAL DETAILS INCLUDING HEADER CONDITIONS AND WALL BRACING.

PARTITION LEGEND

A. PARTITION TYPE LEGEND:

FIRST LETTER DESIGNATES PARTITION TYPE:

C	CAVITY WALL (GB ONLY ON ONE SIDE)
M	MASONRY PARTITION
P	TYPICAL METAL STUD PARTITION

METAL STUD WALLS - SECOND DIGIT DESIGNATES STUD SIZE:

C	7/8" FURRING CHANNEL
2	1 5/8" METAL STUD
3	3 5/8" METAL STUD
6	6" METAL STUD

MASONRY WALLS - SECOND DIGIT DESIGNATES MASONRY SIZE:

4	3 5/8" CMU
6	5 5/8" CMU
8	7 5/8" CMU
12	11 5/8" CMU

CODE/FIRE RATING IS DESIGNATED BY:

A	ONE-HOUR FIRE RATED
B	TWO-HOUR FIRE RATED
S	SMOKE PARTITION

SOLID GROUT IS DESIGNATED BY:

g	SOLID GROUT

PARTITION TO UNDERSIDE OF STRUCTURE:

d	CMU/GYPSUM BOARD TO UNDERSIDE OF STRUCTURE

STONE VENEER INDICATED BY:

v	STONE VENEER

SAFETY PADDING INDICATED BY:

p	SAFETY PADDING

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

	DATE	REVISION
A	2012 08 15	Code Related Changes

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

PARTITION TYPES

A601

9/11/2012 7:12:08 AM

ONLINE CERTIFICATIONS DIRECTORY

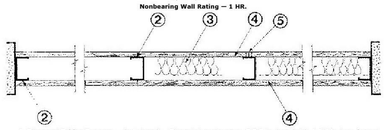
BXUV.U465
Fire Resistance Ratings - ANSI/UL 263
Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Fire Resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - ANSI/UL 263

Design No. U465
April 27, 2010
Nonbearing Wall Rating — 1 HR.



1. **Floor and Ceiling Runners —** (not shown) — Channel shaped runners, 3-5/8 in. deep (min), 1-1/4 in. legs, formed from min No. 25 MSG galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1A. **Framing Members*— Floor and Ceiling Runners —** (Not shown) — As an alternate to Item 1 - Channel shaped, min 3-5/8 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.

ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME Framing System
CONSOLIDATED FABRICATORS CORP,
BUILDING PRODUCTS DIV — Type SUPREME Framing System
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME Framing System
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System
STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME Framing System

1B. **Framing Members* - Floor and Ceiling Runners —** Not shown - In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

CRACO MFG INC — SmarterTrack20™, SmartTrack20™
MARINO\WARE A DIV OF WARE INDUSTRIES
INC — Viper20S™ Track, Viper20D™ Track

1C. **Floor and Ceiling Runners —** (Not shown)—For use with Item 2C- Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1D. **Framing Members*— Floor and Ceiling Runners —** Not shown - In lieu of Items 1 through 1C — For use with Item 2D and 4G only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.015 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

CLARKWESTERN BUILDING SYSTEMS INC — CW ProTRAK
DIETRICH INDUSTRIES INC — DIETRICH ProTRAK
DMFCWBS L L C — ProTRAK

2. **Steel Studs —** Channel shaped, 3-5/8 in. deep (min), formed from min No. 25 MSG galv steel spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.

2A. **Framing Members*— Steel Studs —** As an alternate to Item 2 - Channel shaped studs, min 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME Framing System
CONSOLIDATED FABRICATORS CORP,
BUILDING PRODUCTS DIV — Type SUPREME Framing System
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME Framing System
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System
STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME Framing System

2B. **Framing Members* - Steel Studs —** Not shown - In lieu of Item 2 — For use with Item 1B, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.

CRACO MFG INC — SmarterStud20™, SmartStud20™
MARINO\WARE A DIV OF WARE INDUSTRIES
INC — Viper20S™, Viper20D™

2C. **Steel Studs —** (As an alternate to Item 2, For use with Item 4E) Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2D. **Framing Members*— Steel Studs —** As an alternate to Items 2 through 2C- For use with Item 1D and 4G only, channel shaped studs, min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.

CLARKWESTERN BUILDING SYSTEMS INC — CW ProSTUD
DIETRICH INDUSTRIES INC — DIETRICH ProSTUD
DMFCWBS L L C — ProSTUD

3. **Batts and Blankets* —** (Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity.

See **Batts and Blankets** (BZJZ) category for names of Classified companies.

3A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 3.0 lb/ft^3. Alternate application method: The fiber is applied with U.S. Greenfiber LLC Type AD100 hot melt adhesive at a nominal ratio of one part adhesive to 6.6 parts fiber to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 2.5 lb/ft^3.

U S GREENFIBER L L C — Cocoon2 Stabilized or Cocoon-FRM (Fire Rated Material)

3B. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) and Item 3A - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

NU-WOOL CO INC — Cellulose Insulation

3C. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft^3.

INTERNATIONAL CELLULOSE CORP — Celbar-RL

4. **Gypsum Board* —** 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC, along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When attached to item 6 (resilient channels) or 6A (furring channels), gypsum board is screw attached to furring channels with 1 in. long, Type S steel screws spaced 12 in. OC.

AMERICAN GYPSUM CO — Types AG-C, AGX-1
BEIJING NEW BUILDING MATERIALS PUBLIC
LTD CO — Type DSX-1.
CANADIAN GYPSUM COMPANY — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.
CERTAINTEED GYPSUM INC — Types 1, EGRG, GlasRoc, ProRoc Type X, ProRoc Type C.
CERTAINTEED GYPSUM CANADA INC — ProRoc Type C, ProRoc Type X or ProRoc Type Abuse-Resistant.
GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6.
LAFARGE NORTH AMERICA INC — Types LGFC2, LGFC2A, LGFC6, LGFC6A, LGFC-C, LGFC-C/A, LGFC-WD.
NATIONAL GYPSUM CO — Types FSK, FSK-C, FSK-G, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6.
PABCO BUILDING PRODUCTS L L C, DBA
PABCO GYPSUM — Type PG-C, PG-11 or PG-9.
PANEL REY S A — Type PRX.
SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1
TEMPLE-INLAND — Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, TG-C, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board.
UNITED STATES GYPSUM CO — Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX).
USG MEXICO S A DE C V — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.

4A. **Gypsum Board* —** (As alternate to Item 4) - Nom 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 8 in. OC when applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. When used in widths other than 48 in., gypsum panels to be installed horizontally.

CANADIAN GYPSUM COMPANY — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.
CERTAINTEED GYPSUM INC — ProRoc Type X, ProRoc Type C.
CERTAINTEED GYPSUM CANADA INC — ProRoc Type X, ProRoc Type C.
GEORGIA-PACIFIC GYPSUM L L C — Types DAP, DAPC, DGG, DS.
LAFARGE NORTH AMERICA INC — Type LGFC6A, LGFC-C/A
UNITED STATES GYPSUM CO — T type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX, , USGX (Joint tape and compound, Item 5, optional for use with Type USGX).
USG MEXICO S A DE C V — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.

4B. **Gypsum Board* —** (As an alternate to Items 4 or 4A) — Nom 3/4 in. thick, 4 ft wide, installed as described in Item 4A with screw length increased to 1-1/4 in.

CANADIAN GYPSUM COMPANY — Types AR, IP-AR.
UNITED STATES GYPSUM CO — Types AR, IP-AR.
USG MEXICO S A DE C V — Types AR, IP-AR.

4C. **Gypsum Board* —** As an alternate to Items 4, 4A, and 4B - Nom. 5/8 in. thick gypsum panels, with square edges, applied horizontally. Gypsum panels fastened to framing with 1 in. long bugle head steel screws spaced a max 8 in. OC, with last 2 screws 3/4 in. and 4 in. from each edge of board. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs on interior walls need not be staggered or backed by steel framing.

TEMPLE-INLAND — GreenGlass Type X.

4D. **Gypsum Board* —** As an alternate to Items 4, 4A, 4B, and 4C - Nom. 5/8 in. thick gypsum panels applied horizontally. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Gypsum panels fastened to framing with 1 in. long Type S steel screws 1-1/2 in. from board edges, 3 in. from board edge and every 8 in. OC in the field. Screws spaced a max 12 in. along the top and bottom edges of the wall.

NATIONAL GYPSUM CO — Types FSK, FSK-C, FSK-G, FSW-C, FSW-G, FSW.

4E. **Gypsum Board* —** (As an alternate to Items 4 through 4D) - Installed as described in Item 4. 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically only and fastened to the studs and plates with 1 in. long, Type S steel screws spaced, 8 in. OC. Not to be used with Item 6.

NATIONAL GYPSUM CO — Soundbreak XP Type X Gypsum Board

4F. **Gypsum Board* —** (Not Shown) - (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs (Item 2C) - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.

RAY-BAR ENGINEERING CORP — Type RB-LBG

4G. **Gypsum Board* —** (As an alternate to Items 4 through 4F) — For use with Items 1C and 2C only, 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly.

NATIONAL GYPSUM CO — Types FSW
UNITED STATES GYPSUM CO — Type SCX

4H. **Wall and Partition Facings and Accessories* —** (As an alternate to Items 4 through 4G) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.

QUIET SOLUTION INC — Types QuietRock ES, QuietRock 527.

5. **Joint Tape and Compound —** Vinyl, dry or premixed joint compound, applied in two coats to joints and screw heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nominal 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges.

6. **Resilient Channel —** (Optional-Not Shown) — 25 MSG galv steel resilient channels spaced vertically max 24 in. OC, flange portion attached to each intersecting stud with 1/2 in. long type S-12 pan head steel screws. May not be used with Item 4F.

6A. **Steel Framing Members (Not Shown)* —** As an alternate to Item 3, furring channels and resilient sound isolation clip as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel.

b. **Framing Members* —** Used to attach furring channels (Item a) to studs (Item 1). Clips spaced 48 in. OC., and secured to studs with 1-5/8 in. wafer or hex head Type S steel screw through the center grommet. Furring channels are friction fitted into clips.

PAC INTERNATIONAL INC — Type RSIC-1.

6B. **Framing Members* —** Optional - Not Shown - Used as an alternate method to attach resilient channels (Item 6). Clips attached at each intersection of the resilient channel and the steel studs (Item 2). Resilient channels are friction fitted into clips, and then clips are secured to the stud with min. 1 in. long Type S-12 pan head steel screws through the center hole of the clip and the resilient channel flange.

KEENE BUILDING PRODUCTS CO INC — Type RC Assurance.

7. **Wall and Partition Facings and Accessories* —** (Optional, Not shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-510 panel is installed between the steel framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

QUIET SOLUTION INC — Type QuietRock QR-510.

8. **Lead Batten Strips —** (Not Shown, For Use With Item 4E) - Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum board (Item 4E) and optional at remaining stud locations. Required behind vertical joints.

9. **Lead Discs or Tabs —** (Not Shown, For Use With Item 4E) - Used in lieu of or in addition to the lead batten strips (Item 8) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4E) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

*Bearing the UL Classification Mark

Last Updated on 2010-04-27

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A3 BXUV.U465
SCALE: 12" = 1'-0"

ONLINE CERTIFICATIONS DIRECTORY

Design No. U905
BXUV.U905
Fire Resistance Ratings - ANSI/UL 263

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

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Fire Resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - ANSI/UL 263

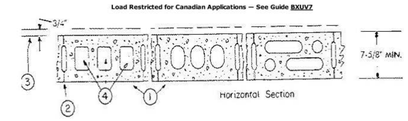
Design No. U905

September 30, 2010

Bearing Wall Rating — 2 HR.

Nonbearing Wall Rating — 2 HR

Load Restricted for Canadian Applications — See Guide BXUV7



1. **Concrete Blocks*** — Various designs. Classification D-2 (2 hr).

See **Concrete Blocks** category for list of eligible manufacturers.

2. **Mortar —** Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

3. **Portland Cement Stucco or Gypsum Plaster —** Add 1/2 hr to classification if used. Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1).

4. **Loose Masonry Fill —** If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.

5. **Foamed Plastic* —** (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).
THE DOW CHEMICAL CO — Type Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel and Thermax Heavy Duty Plus (HDP)

*Bearing the UL Classification Mark

Last Updated on 2010-09-30

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A6 BXUV.U905
SCALE: 12" = 1'-0"

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salt lake city
Utah 84104

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ffkr.com

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1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

△	DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

PARTITION FIRE-RESISTIVE RATINGS

A602

9/11/2012 7:12:11 AM

ONLINE CERTIFICATIONS DIRECTORY

System No. HW-D-0036
XHBN.HW-D-0036
Joint Systems

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Design/System/Construction/Assembly Usage Disclaimer

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Joint Systems

See General Information for Joint Systems

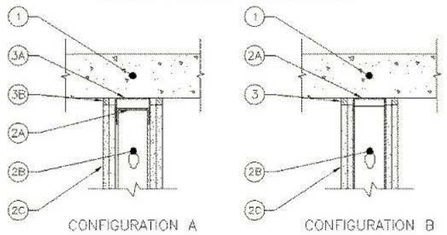
System No. HW-D-0036

June 23, 2011

Assembly Rating - 1 and 2 Hr (See Item 2)

Nominal Joint Width - 3/4 In.

Class II Movement Capabilities - 33% Compression or Extension



1. **Floor Assembly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow core **Precast Concrete Units*.**

See **Precast Concrete Units** (CFTV) category in the Fire Resistance Directory for names of manufacturers.

CONFIGURATION A

2. **Wall Assembly —** The 1 or 2 hr fire rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor And Ceiling Runners —** Floor and Ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 2B). Ceiling runner to be installed within the deflection channel such that a 1 in. (25 mm) gap is maintained between the top of ceiling runner and top of deflection channel. Deflection channel is secured to floor with steel masonry anchors spaced a max of 24 in. (610 mm) OC.

B. **Studs —** Steel studs to be min 3-5/8 in. (92 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height. Studs attached to ceiling runner with sheet metal screws a min of 1/2 in. (13 mm) below bottom of deflection channel. Stud spacing not to exceed 24 in. (610 mm) OC.

C. **Gypsum Board* —** Gypsum board sheets to be installed to a min total thickness of 5/8 or 1-1/4 in. (16 or 32 mm) on each side of the wall for a 1 or 2 hr fire rated assemblies, respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that a nom 3/4 in. (19 mm) gap shall be maintained between the top of the gypsum board and the lower surface of the floor. The screws attaching the wallboard to studs at the top of the wall shall be located 1in. (25 mm) below the bottom of the U-shaped deflection channel (Item 3A).

The hourly fire rating of the joint system is dependent on the hourly fire rating of the wall.

3. **Joint System — Max separation between bottom of floor and top of wall is 3/4 in. (19 mm). The joint system is designed to accommodate a max 33 percent compression or extension from its installed width.** The joint system consists of a deflection channel and a fill material, as follows:

A. **Deflection Channel —** A nom 3-5/8 in. (92 mm) wide by min 2 in. (51 mm) deep min 24 gauge (or heavier) steel U-shaped channel. Deflection channel secured to floor assembly with steel fasteners, spaced max 24 in. (610 mm) OC. The ceiling runner (Item 2A) is installed within the deflection channel to maintain a 1 in. (25 mm) gap between the top of the ceiling runner and the top of the deflection channel. The ceiling runner is not fastened to the deflection channel.

B. **Fill, Void or Cavity Material* — Sealant —** Min 5/8 in. (16 mm) thickness of fill material installed on each side of the wall between the top of the gypsum board and the bottom of floor, flush with each surface of gypsum board.

PASSIVE FIRE PROTECTION PARTNERS — 4100NS, 4800DW or 3600EX

CONFIGURATION B

2. **Wall Assembly —** The 1 or 2 hr fire rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor and Ceiling Runners —** Floor and Ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 2B). Ceiling runner is secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC.

A1. **Light Gauge Framing* - Slotted Ceiling Runner —** As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner is secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC.

BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK

CALIFORNIA EXPANDED METAL PRODUCTS CO — CST

CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT

METAL-LITE INC — The System

SCAFCO STEEL STUD MANUFACTURING CO

STEELER INC — Steeler Slotted Ceiling Runner

TELLING INDUSTRIES L L C — True-Action Deflection Track

A2. **Light Gauge Framing* — Vertical Deflection Ceiling Runner —** As an alternate to the ceiling runner in Items 2A, 2A1 or 2A2, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Vertical deflection ceiling runner secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC.

THE STEEL NETWORK INC — VertiTrack VTD362, VTD400, VTD600 and VTD800

A3. **Light Gauge Framing*- Notched Ceiling Runner —** As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC. When notched ceiling runner is used, deflection channel (Item 3A) shall not be used.

OLMAR SUPPLY INC — Type SCR

B. **Studs —** Steel studs to be min 3-5/8 in. (92 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height. Steel studs shall not be secured to ceiling runner. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel crews at mid-height of slot on each side of wall. When vertical deflection ceiling runner (Item 2A3) is used, steel studs secured to slotted vertical deflection clips, through bushings, with steel screws at mid-height of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.

C. **Gypsum Board* —** Gypsum board sheets to be installed to a min total thickness of 5/8 or 1-1/4 in. (16 or 32 mm) on each side of the wall for a 1 or 2 hr fire rated assemblies, respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that a nom 3/4 in. (19 mm) gap shall be maintained between the top of the gypsum board and the lower surface of the floor. The screws attaching the gypsum board to studs at the top of the wall shall be located 1in. (25 mm) below the bottom of the ceiling runner.

The hourly fire rating of the joint system is dependent on the hourly fire rating of the wall.

3. **Fill, Void or Cavity Material* — Sealant - Max separation between bottom of floor and top of wall is 3/4 in. (19 mm). The joint system is designed to accommodate a max 33 percent compression or extension from its installed width.** Min 5/8 in. (16 mm) thickness of fill material installed on each side of the wall between the top of the gypsum board and the bottom of floor, flush with each surface of gypsum board.

PASSIVE FIRE PROTECTION PARTNERS — 4100NS, 4800DW or 3600EX

*Bearing the UL Classification Mark

Last Updated on 2011-06-23

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A1 XHBN.HW-D-0036
SCALE: 12" = 1'-0"

ONLINE CERTIFICATIONS DIRECTORY

System No. HW-D-0017
XHBN.HW-D-0017
Joint Systems

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Design/System/Construction/Assembly Usage Disclaimer

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Joint Systems

See General Information for Joint Systems

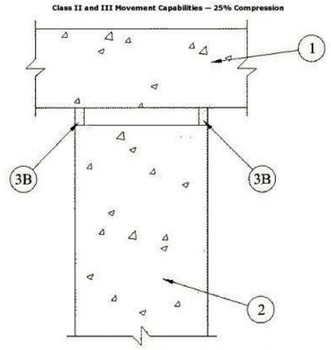
System No. HW-D-0017

March 12, 2004

Assembly Rating — 2 Hr

Nominal Joint Width — 1 In.

Class II and III Movement Capabilities — 25% Compression



1. **Floor Assembly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf (1600-2400 kg/cu meter)) structural concrete.

2. **Wall Assembly —** Min 5 in. (127 mm) thick reinforced lightweight or normal weight (100-150 pcf (1600-2400 kg/cu meter)) structural concrete. Wall may also be contructed of any UL Classified **Concrete Blocks*.**

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

3. **Joint System — Max separation between bottom of floor and top of wall (at time of installation of joint system) is 1 in. (25 mm). The joint system is designed to accommodate a max 25 percent compression from its installed width. —** — The joint system consists of a packing or forming material and a fill material between the top of the wall and the bottom of the floor, as follows:

A. **Packing Material —** (Optional - Not Shown) — Polyurethane foam backer rod firmly packed into joint opening as a permanent form and recessed from each surface of wall to accommodate the required thickness of fill material.

A1. **Forming Material* —** (Optional - Not Shown) —Min 3/4 in. (19 mm) width of 4 pcf (64 kg/cu meter) mineral wool batt insulation compressed 50 percent and packed into the gap between the top of the wall and bottom of the floor on both sides of the wall.

IIG MINWOOL L L C — MinWool-1200 Safing

ROCK WOOL MANUFACTURING CO — Delta Board or Delta-8

ROCKWOOL MALAYSIA SDN BHD — Type Safe

ROXUL INC — Type Safe

THERMAFIBER INC — Type SAF

B. **Fill, Void or Cavity Material* —** A min 1/2 in. (13 mm) thickness of fill material installed on each side of the wall between the top of the wall and bottom of the concrete floor.

TREMCO INC — TREMstop Acrylic or Fyre-Sil

*Bearing the UL Classification Mark

Last Updated on 2004-03-12

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A4 XHBN.HW-D-0017
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730 pacific avenue
salt lake city
Utah 84104
801-521-6186
801-539-1916
ffkr.com

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1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

	DATE	REVISION
A	2012 08 15	Code Related Changes

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

PARTITION JOINT SYSTEMS

A603

9/11/2012 7:12:13 AM

ONLINE CERTIFICATIONS DIRECTORY

System No. C-AJ-3180
XHEZ.C-AJ-3180
Through-penetration Firestop Systems

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Through-penetration Firestop Systems

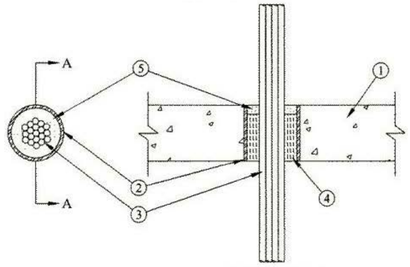
See General Information for Through-penetration Firestop Systems

System No. C-AJ-3180

October 23, 2006

F Rating — 3 Hr

T Rating — 0 Hr



SECTION A-A

1. **Floor or Wall Assembly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600 2400 kg/m^3) concrete floor or min 4-3/4 in. (121 mm) thick reinforced lightweight or normal weight concrete wall. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 6 in.(152 mm).

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Steel Sleeve —** (Optional) — Nom 6 in. (152 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe cast or grouted into floor or wall assembly, flush with floor or wall surfaces.

3. **Cables —** Aggregate cross-sectional area of cables in opening to be max 45 percent of the aggregate cross-sectional area of the opening. Cables to be rigidly supported on both sides of floor or wall assembly. Any combination of the following types and sizes of metallic conductor or fiber optic cable may be used:

A. Max 500 kcmil single copper connector power cable with thermoplastic insulation and polyvinyl chloride (PVC) jacket.

B. Max 300 pair No. 24 AWG copper conductor telecommunication cables with polyvinyl chloride (PVC) insulation and jacket material.

C. Max 7/C copper conductor No. 12 AWG multiconductor power and control cables with polyvinyl chloride (PVC) or cross-linked polyethylene (XLPE) insulation and PVC jacket.

D. Multiple fiber optical communication cables jacketed with PVC and having a max outside diam of 1/2 in. (13 mm).

E. Max 3/C copper conductor No. 12 AWG with bare aluminum ground, polyvinyl chloride (PVC) insulated steel, Metal-clad cable.

F. Max 3/C with ground 2/0 AWG copper conductor SER cable with cross-linked polyethylene (XLPE) insulation and polyvinyl chloride (PVC) jacket.

G. RG/U coaxial cable with polyethylene (PE) insulation and polyvinyl chloride (PVC) jacket having a max outside diameter of ½ in. (13 mm)

H. Fire Resistive Cables* - Max 1-1/4 in. (32 mm) diam single conductor or multi conductor Type MI cable. A min 1/8 in. (3 mm) separation shall be maintained between MI cables and any other types of cable.

4. **Packing Material —** Min 4-1/4 in. (108 mm) thickness of min 4 pcf (64 kg/m^3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor to accommodate the required thickness of fill material.

5. **Fill, Void or Cavity Material* — Sealant —** Min 1/4 in. (6.4 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant.

*Bearing the UL Classification Mark

Last Updated on 2006-10-23

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A1 XHEZ.C-AJ-3180
SCALE: 12" = 1'-0"

ONLINE CERTIFICATIONS DIRECTORY

System No. C-AJ-1291
XHEZ.C-AJ-1291
Through-penetration Firestop Systems

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Through-penetration Firestop Systems

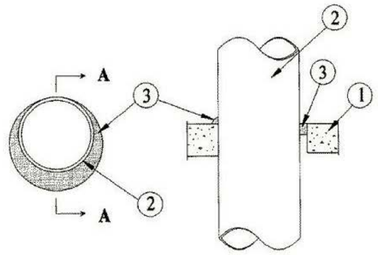
See General Information for Through-penetration Firestop Systems

System No. C-AJ-1291

December 04, 2001

F Rating — 2 Hr

T Rating — 0 Hr



SECTION A-A

1. **Floor or Wall Assembly —** Min 2-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 30-7/8 in.

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Through-Penetrant —** One metallic pipe or conduit to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe or conduit and periphery of opening shall be min 0 in. to max 7/8 in. Pipe or conduit to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes or conduits may be used:

A. **Steel Pipe —** Nom 30 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe —** Nom 30 in. diam (or smaller) cast or ductile iron pipe.

C. **Copper Pipe —** Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

D. **Copper Tubing —** Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.

E. **Conduit —** Nom 6 in. diam (or smaller) steel conduit.

F. **Conduit —** Nom 4 in. diam (or smaller) steel electrical metallic tubing (EMT).

3. **Fill, Void or Cavity Material* — Sealant —** Min 1/2 in. thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall. At the point contact location between pipe and concrete, a min 1/4 in. diam bead of fill material shall be applied at the concrete/pipe interface on the top surface of floor and on both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS — ONE Sealant

*Bearing the UL Classification Mark

Last Updated on 2001-12-04

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A2 XHEZ.C-AJ-1291
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ONLINE CERTIFICATIONS DIRECTORY

System No. W-L-3065
XHEZ.W-L-3065
Through-penetration Firestop Systems

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Through-penetration Firestop Systems

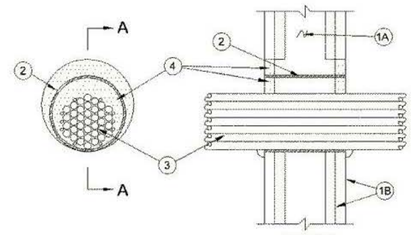
See General Information for Through-penetration Firestop Systems

System No. W-L-3065

March 15, 2012

F Ratings — 1 and 2 Hr (See Item 1)

T Rating — 0 and ¾ Hr (See Item 3)



SECTION A-A

1. **Wall Assembly —** The 1 or 2 fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs —** Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.

B. **Gypsum Board*** — Nom 5/8 in. (16 mm) thick gypsum board, with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300, U400 or V400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 5-1/2 in. (138 mm) when sleeve (Item 2) is employed. Max diam of opening is 4 in. (102 mm) when sleeve (Item 2) is not employed.

The F Rating of the firestop system is equal to the fire rating of the wall assembly.

2. **Metallic Sleeve —** (Optional) - Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or Schedule 5 (or heavier) steel pipe or min 0.016 in. thick (0.41 mm, No. 28 ga) galv steel sleeve installed flush with wall surfaces. The annular space between steel sleeve and periphery of opening shall be min 0 in. (0 mm, point contact) to max 1 in. (25mm). When Schedule 5 steel pipe or EMT is used, sleeve may extend up to 18 in. (457 mm) beyond the wall surfaces. As an option when Schedule 5 steel pipe or EMT is used, sleeve may extend continuously beyond one wall surfaces. When cable bundle penetrates wall assembly at an angle of 45 degrees, no metallic sleeve is used.

3. **Cables —** Aggregate cross-sectional area of cable in opening to be max 45 percent of the cross-sectional area of the opening. The annular space between the cable bundle and the periphery of the opening to be min 0 in. (0 mm, point contact) to max 1 in. (25 mm) Cables to be rigidly supported on both sides of the wall assembly. Cable bundle, using cables described below, may penetrate the wall at an angle not greater than 45 degrees. Any combination of the following types and sizes of copper conductor cables may be used:

A. Max 7/C No. 12 AWG with polyvinyl chloride (PVC) insulation and jacket.

B. Max 25 pair No. 24 AWG telephone cable with PVC insulation and jacket.

B1. Max 4 pr No. 22 AWG Cat 5 or Cat 6 computer cables.

C. Type RG/U coaxial cable with polyethylene (PE) insulation and PVC jacket having a max outside diameter of ½ in. (13 mm).

C1. Max RG 6/U coaxial cable with fluorinated ethylene insulation and jacketing.

D. Multiple fiber optical communication cable jacketed with PVC and having a max OD of 5/8 in. (16 mm).

E. Through Penetrating Products*— Max three copper conductor No. 8 AWG .**Metal-Clad Cable+**.

AFC CABLE SYSTEMS INC

F. Max 3/C (with ground)(or smaller) No. 8 AWG copper conductor cable with PVC insulation and jacketing.

G. Max 3/4 in. (19 mm) diam copper ground cable with or without a PVC jacket.

H. Fire Resistive Cables* - Max 1-1/4 in. (32 mm) diam single conductor or multi conductor Type MI cable. A min 1/8 in. (3 mm) separation shall be maintained between MI cables and any other types of cable.

I. Max 4/C with ground 300 kcmil (or smaller) aluminum SER cable with PVC insulation and jacket.

J. **Through Penetrating Product*** - Any cables, **Metal-Clad Cable+** or **Armored Cable+** currently Classified under the **Through Penetrating Products** category.

K. Maximum 3/C No. 8 AWG metal-clad cable.

L. Maximum 5/8 diam fiber-optic cable with PVC jacket.

For cable bundle penetrating the wall assembly at an angle of 45 degrees, the T rating is ¾ hr for a 2 hr wall assembly.

See **Through Penetrating Product** (XHLY) category in the Fire Resistance Directory for names of manufacturers.

4. **Fill, Void or Cavity Material* — Sealant or Putty —** Fill material applied within the annulus, flush with each end of the steel sleeve or wall surface. Fill material installed symmetrically on both sides of the wall. A min 5/8 in. (16 mm) thickness of sealant is required for the 1 or 2 hr F Rating . An additional 1/2 in. (13 mm) diam bead of fill material shall be applied around the perimeter of sleeve on both sides of the wall when sleeve extends beyond surface of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP6015, CP606, FS-One Sealants or CP618 Putty

*Bearing the UL Classification Mark

+Bearing the UL Listing Mark

Last Updated on 2012-03-15

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A4 XHEZ.W-L-3065
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ONLINE CERTIFICATIONS DIRECTORY

System No. W-L-1054
XHEZ.W-L-1054
Through-penetration Firestop Systems

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Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems

System No. W-L-1054

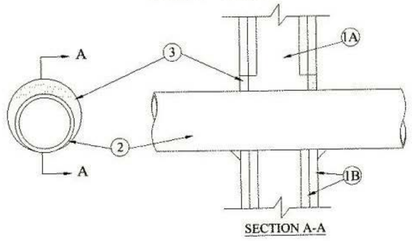
December 04, 2002

F Ratings — 1 and 2 Hr (See Items 1 and 3)

T Rating — 0 Hr

L Rating At Ambient — Less Than 1 CFM/Sq Ft

L Rating At 400 F — 4 CFM/Sq Ft



SECTION A-A

1. **Wall Assembly —** The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs —** Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. wider and 4 to 6 in. higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. clearance is present between the penetrating item and the framing on all four sides.

B. **Gypsum Board*** — 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. for steel stud walls. Max diam of opening is 14-1/2 in. for wood stud walls.

The F Rating of the firestop system is equal to the fire rating of the wall assembly.

2. **Through-Penetrants —** One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. Pipe may be installed with continuous point contact. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. **Steel Pipe —** Nom 30 in diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe —** Nom 30 in. diam (or smaller) cast or ductile iron pipe.

C. **Conduit —** Nom 4 in diam (or smaller) steel electrical metallic tubing or 6 in. diam steel conduit.

D. **Copper Tubing —** Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.

E. **Copper Pipe —** Nom 6 in. diam (or smaller) regular (or heavier) copper pipe.

3. **Fill, Void or Cavity Material* — Sealant —** Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall .

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant

*Bearing the UL Classification Mark

Last Updated on 2002-12-04

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DATE	STATUS

	DATE	REVISION
A	2012 08 15	Code Related Changes

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

FIRE STOP SYSTEMS

A604

9/11/2012 7:12:16 AM

ONLINE CERTIFICATIONS DIRECTORY

System No. WW-S-0048
XHBN.WW-S-0048
Joint Systems

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XHBN - Joint Systems

XHBN7 - Joint Systems Certified for Canada

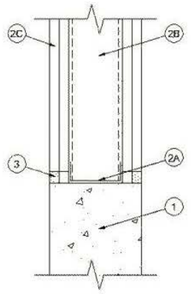
See General Information for Joint Systems

See General Information for Joint Systems Certified for Canada

System No. WW-S-0048

December 07, 2011

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Items 1 and 2)	F Ratings — 1 and 2 Hr (See Items 1 and 2)
Joint Width - 3/4 In. Max	FT Ratings — 1 and 2 Hr (See Items 1 and 2)
L Rating At Ambient — Less Than 1 CFM/sq ft (See Item 3)	FH Ratings — 1 and 2 Hr (See Items 1 and 2)
L Rating At 400 F — Less Than 1 CFM/sq ft (See Item 3)	FTH Ratings — 1 and 2 Hr (See Items 1 and 2)
	Joint Width - 3/4 In. Max
	L Rating At Ambient — Less Than 1 CFM/sq ft (See Item 3)
	L Rating At 400 F — Less Than 1 CFM/sq ft (See Item 3)



1. **Concrete Wall Assembly** — Min 4-3/4 in. (121 mm) and 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-24-kg/m^3) structural concrete for 1 and 2 hr rated assemblies, respectively. Additionally, thickness of the concrete wall shall be equal to or greater than thickness of gypsum wall. Wall may also be constructed of any UL Classified **Concrete Blocks***. Top course of concrete blocks shall be either solid or filled with concrete.

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Gypsum Wall Assembly** — The 1 or 2 hr fire rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor Runners** — Floor runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Runners to be provided with min 1-1/4 in. (32 mm) flanges. Runners secured to concrete wall assembly with steel concrete fasteners spaced max 24 in. (610 mm) OC.

B. **Studs** — Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom resting in, resting on and fastened to the floor runner with sheet metal screws. Stud spacing not to exceed 24 in. (610 mm) OC.

C. **Gypsum Board*** — For 1 hr assembly, single layer of 5/8 in. (16 mm) thick gypsum board is required on each side of wall as specified in the individual Wall and Partition Design. For 2 hr assembly, two layers of 5/8 in. (16 mm) thick gypsum board are required on each side of the wall as specified in the individual Wall and Partition Design. Wall to be constructed as specified in the individual U400, V400 or W400 Series Design except that a max 3/4 in. (19 mm) gap shall be maintained between the bottom of the gypsum board and the top of the concrete wall assembly.

The hourly fire rating of the joint system is equal to the hourly fire rating of the gypsum wall assembly.

3. **Fill, Void or Cavity Material* Sealant — Max separation between bottom of gypsum board and top of concrete wall assembly is 3/4 in. (19 mm).** Min 5/8 in. (16 mm) thickness of fill material installed on each side of the wall between the bottom of the gypsum board and the top of the concrete wall assembly, flush with each surface of the gypsum wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S Elastomeric Firestop Sealant or CP606 Flexible Firestop Sealant. L Ratings apply only when CP606 Sealant is used.

4. **Forming Material** — (Optional, Not Shown) - Mineral wool insulation, fiberglass batt insulation or polyurethane/polyethylene foam backer rod. Forming material to be recessed from both surfaces of the 2 hr fire rated wall to accommodate the required thickness of fill material.

*Bearing the UL Classification Mark

Last Updated on 2011-12-07

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A1 XHBN.WW-S-0048
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ONLINE CERTIFICATIONS DIRECTORY

System No. W-L-7155
XHEZ.W-L-7155
Through-penetration Firestop Systems

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XHEZ - Through-penetration Firestop Systems

XHEZ7 - Through-penetration Firestop Systems Certified for Canada

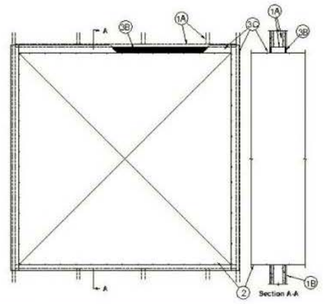
See General Information for Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems Certified for Canada

System No. W-L-7155

August 14, 2012

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 0 Hr	FT Ratings — 0 Hr
L Rating at Ambient — Less Than 1 CFM/sq ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating at 400 F — Less Than 1 CFM/sq ft	FTH Ratings — 0 Hr
	L Rating at Ambient — Less Than 1 CFM/sq ft
	L Rating at 400 F — Less Than 1 CFM/sq ft



1. **Wall Assembly** — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** — Wall framing shall consist of min 3-1/2 in. (89 mm) wide steel channel studs spaced max 24 in. (610 mm) OC. Additional steel studs shall be used to completely frame the opening.

B. **Gypsum Board*** — 5/8 in. (16 mm) thick, 4 ft (1.22 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory. Max area of opening is 73.7 sq ft (6.85 m^2) with a max dimension of 104 in. (2.64 m).

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. **Steel Duct** — Max 100 in. by 100 in. (2.5 by 2.5 m) galv steel duct to be installed either concentrically or eccentrically within the firestop system. The duct shall be constructed and reinforced in accordance with SMACNA construction standards. The space between the steel duct and periphery of opening shall be min 0 in. (point contact) to max 2 in. (51 mm). Steel duct to be rigidly supported on both sides of the wall assembly.

2A1. **Through-Penetrating Product*** — As an alterate to Item 2. Fiber cement with galvanized steel facing, 3/8 in.(10 mm) thick composite metallic duct, with a max cross-sectional area of 43.0 sq ft. (4 m^2) and a max individual dimension of 78 3/4 in. (2 m). Duct to be installed either concentrically or eccentrically within the firestop system such that the annular space is min 0 in. (point contact) to max 2 in. (51 mm). Duct to be rigidly supported on both sides of wall assembly. Refer to Ventilation Duct Assemblies in Vol. 2 of the Fire Resistance Directory.

DURASYSTEMS BARRIERS INC — Type DuraDuct HP.

2A2. **Through-Pentrating Product*** — As an alterate to Item 2. Fiber cement with galvanized steel facing, 1/4 in. (6 mm) thick, with a max cross-sectional area of 1764 sq in. (1.14 m^2), and a max individual dimension of 42 in. (1067 mm). Duct to be installed either concentrically or eccentrically within the firestop system such that the annular space is min 0 in. (point contact) to max 2 in. (51 mm). Duct to be rigidly supported on both sides of wall assembly and installed in accordance. Refer to Ventilation Duct Assemblies in Vol. 2 of the Fire Resistance Directory.

DURASYSTEMS BARRIERS INC — Type DuraDuct SD.

2A3. **Through-Pentrating Product*** — As an alterate to Item 2. Galvanized steel faced duct panel, with a max cross-sectional area of 2450 sq in. (1.58 m^2), and a max individual dimension of 49-1/2 in. (1258 mm) Duct to be installed either concentrically or eccentrically within the firestop system such that the annular space is min 0 in. (point contact) to max 2 in. (51 mm). Duct to be rigidly supported on both sides wall assembly. Refer to Ventilation Duct Assemblies in Vol. 2 of the Fire Resistance Directory.

DURASYSTEMS BARRIERS INC — Type DuraDuct GNX.

3 **Firestop System** — The firestop system shall consist of the following:

A. **Packing Material** — (Optional, Not Shown) — Polyethylene backer rod, mineral wool batt insulation or fiberglass batt insulation friction fitted into annular space. Packing material to be recessed from both surfaces of wall to accommodate the required thickness of fill material.

A1. **Packing Material** — Required as specified in Table below. Min 3-3/4 in. (95 mm) or 5 in. (127 mm) thickness of min 4 pcf (64 kg/m^3) mineral wool batt insulation firmly packed into opening as a permanent form for 1 and 2 hr rated assemblies, respectively. Packing material to be recessed from both surfaces of wall to accommodate the required thickness of fill material.

B. **Fill, Void or Cavity Material* — Sealant** — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of fill material shall be applied at the point contact location between the steel duct and the gypsum board.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or CP606 Flexible Firestop Sealant

C. **Steel Retaining Angles** — Min No. 16 gauge galv steel angles sized to lap steel duct a min of 2 in. (51 mm) and to lap wall surfaces a min of 1 in. (25 mm). When max duct dimension does not exceed 48 in. (122 cm) and duct area does not exceed 1300 in^2 (8387 cm^2), angles may be min No. 18 gauge galv steel. Angles attached to steel duct on both sides of wall with min No. 10 by 1/2 in. (13 mm) long steel sheet metal screws located a max of 1 in. (25 mm) from each end of steel duct and spaced a max of 6 in. (152 mm) OC. Steel angles are optional for those sides of duct that do not exceed the dimension specified in Table below, dependent on packing material and annular space as specified.

Max Duct Dimension	Duct Thickness	Annular Space	Packing Material	Angle (Item 3C) Required
24 in. (610 mm)	24 ga or heavier	½ in. min to 1 in. max (13 to 25 mm)	Item 3A1	No

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Last Updated on 2012-08-14

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ONLINE CERTIFICATIONS DIRECTORY

System No. W-J-7109
XHEZ.W-J-7109
Through-penetration Firestop Systems

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Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems

System No. W-J-7109

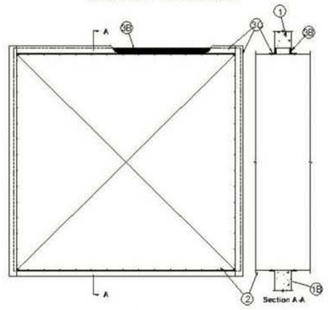
August 27, 2010

F Rating — 2 Hr

T Rating — 0 Hr

L Rating at Ambient — Less Than 1 CFM/sq ft

L Rating at 400 F — Less Than 1 CFM/sq ft



1. **Wall Assembly** — Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max area of opening is 73.7 sq ft (6.85 m^2) with a max dimension of 104 in. (2.64 m).

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Steel Duct** — Max 100 in. by 100 in. (2.5 by 2.5 m) galv steel duct to be installed either concentrically or eccentrically within the firestop system. The duct shall be constructed and reinforced in accordance with SMACNA construction standards. The space between the steel duct and periphery of opening shall be min 0 in. (point contact) to max 2 in. (51 mm). Steel duct to be rigidly supported on both sides of the wall assembly.

3. **Firestop System** — The firestop system shall consist of the following:

A. **Packing Material** — (Optional, Not Shown) — Polyethylene backer rod, mineral wool batt insulation or fiberglass batt insulation friction fitted into annular space. Packing material to be recessed from both surfaces of wall to accommodate the required thickness of fill material.

A1. **Packing Material** — Required as specified in Table below. Min 3-3/4 in. (95 mm) thickness of min 4 pcf (64 kg/m^3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from both surfaces of wall to accommodate the required thickness of fill material.

B. **Fill, Void or Cavity Material* — Sealant** — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of fill material shall be applied at the point contact location between the steel duct and the wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or CP606

C. **Steel Retaining Angles** — Min No. 16 gauge galv steel angles sized to lap steel duct a min of 2 in. (51 mm) and to lap wall surfaces a min of 1 in. (25 mm). When max duct dimension does not exceed 48 in. and duct area does not exceed 1300 in^2, angles may be min No. 18 gauge galv steel. Angles attached to steel duct on both sides of wall with min No. 10 by 1/2 in. (13 mm) long steel sheet metal screws located a max of 1 in. (25 mm) from each end of steel duct and spaced a max of 6 in. (152 mm) OC. Steel angles are optional for those sides of duct that do not exceed the dimension specified in Table below, dependent on packing material and annular space as specified.

Max Duct Dimension	Duct Thickness	Annular Space	Packing Material	Angle (Item 3C) Required
24 in. (610 mm)	24 ga or heavier	½ in. min to 1 in. max (13 to 25 mm)	Item 3A1	No

*Bearing the UL Classification Mark

Last Updated on 2010-08-27

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A4 XHEZ.W-J-7109
SCALE: 12" = 1'-0"

ONLINE CERTIFICATIONS DIRECTORY

System No. W-L-4011
XHEZ.W-L-4011
Through-penetration Firestop Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

XHEZ - Through-penetration Firestop Systems

XHEZ7 - Through-penetration Firestop Systems Certified for Canada

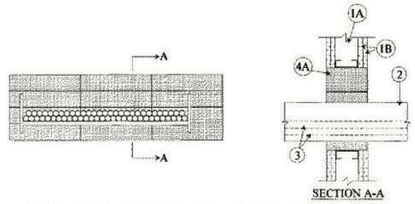
See General Information for Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems Certified for Canada

System No. W-L-4011

December 13, 2011

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient — 5 CFM/sq ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating At 400 F — 2 CFM/sq ft	FTH Rating — 0 Hr
	L Rating At Ambient — 5 CFM/sq ft
	L Rating At 400 F — 2 CFM/sq ft



1. **Wall Assembly** — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 in. (51 mm) by 4 in. (102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. Additional framing member shall be installed in stud cavity containing through-penetrating item to form a rectangular box around penetrant.

B. **Gypsum Board*** — 5/8 in. (16 mm) thick, 4 ft (1219 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300, U400, V400 or W400 Series Design in the UL Fire Resistance Directory. Max size of opening 9 in. (229 mm) by 30 in. (762 mm).

The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.

Min finished wall thickness is 5 in. (127 mm).

2. **Cable Tray*** — Max 24 in. (610 mm) wide by max 6 in. (152 mm) deep open-ladder or solid-back cable tray with channel-shaped side rails formed of 0.10 in. (2.54 mm) thick aluminum or 0.060 in. (1.54 mm) thick steel and with 1-1/2 in. (38 mm) wide by 1 in. (25 mm) channel shape rungs spaced 9 in. (229 mm) OC or a 0.029 in. (0.74 mm) thick steel solid back, respectively. The annular space between the cable tray and the periphery of the opening shall be min 0 in. (point contact) to max 4 in. (102 mm). Cable tray to be rigidly supported on both sides of floor or wall assembly.

3. **Cables** — Aggregate cross-sectional area of cables in cable tray to be max 45 percent of the cross-sectional area of the cable tray based on a max 5 in. (127 mm) cable loading depth. Any combination of the following types and sizes of copper conductor cables may be used:

A. 1/C, 750 kcmil (or smaller) power cable with EPR insulation and PVC jacket.

B. 300 pair — No. 24 AWG cable with PVC insulation and jacket

C. Twenty-four fiberoptic cable with PVC subunit and jacket.

D. Max three 1/C, No. 12 AWG wire, insulated with polyvinyl chloride, in a nom 3/4 in. (19 mm) **Flexible Metal Conduit+.**

4. **Firestop System** — The firestop system shall consist of the following:

A. **Fill, Void or Cavity Material* - Fire Blocks** — For walls incorporating max 3-5/8 in. (92 mm) steel studs or max 2 in. (51 mm) by 4 in. (102 mm) wood studs, fire block installed with 5 in. (127 mm) dimension projecting through and centered in opening. For walls constructed of larger steel or wood studs, fire block installed with long dimension passing through and centered in opening. Blocks may or may not be cut flush with both surfaces of wall. When multiple layers of gypsum board are used, blocks may be recessed 1/2 in. (13 mm) from surface of wall. Blocks firmly packed within opening. Either one or a combination of the block types specified below may be used.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-657 Fire Block or CFS-BL Firestop Block

B. **Fill, Void or Cavity Material* - Sealant or Putty (Not shown)** — Fill material to be forced into interstices of cables and between cables and cable trays to max extent possible on both surfaces of the penetration.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or CP618 Firestop Putty Stick (Note: L Ratings apply only when FS-One Sealant is used)

+Bearing the UL Listing Mark

*Bearing the UL Classification Mark

Last Updated on 2011-12-13

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A6 XHEZ.W-L-4011
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DFCM APPROVAL STAMP

FFKR ARCHITECTS

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salt lake city
Utah 84104

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801-539-1916
ffkr.com

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

	DATE	REVISION
A	2012 08 15	Code Related Changes

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

FIRE STOP SYSTEMS

A605

9/11/2012 7:12:19 AM

DOOR AND FRAME SCHEDULE

DOOR NUMBER	HARDWARE GROUP	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICK	DOOR LEAF 1 TYPE	DOOR LEAF 2 TYPE	DOOR MATERIAL	FRAME TYPE	FRAME MATERIAL	FIRE RATING	GLAZING TYPE	NOTES
101	23	3' - 0"	7' - 0"	1 3/4"	P20		Wood	F00	HM01	0	GL-07	
102	27	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
102A	12	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
103.1	23	3' - 0"	7' - 0"	1 3/4"	P20		Wood	F21	HM01	0	GL-07	
103.2	24	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
104	23	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
105	27	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
106	23	3' - 0"	7' - 0"	1 3/4"	P22		HM02	F00	HM02	0	GL-07	
107	27	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
108	28	3' - 0"	7' - 0"	1 3/4"	P24		HM02	F00	HM02	0	GL-07	
109	36	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
110.1	36	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
110.2	38	2' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
111	23	3' - 0"	7' - 0"	1 3/4"	P22		HM02	F00	HM02	0	GL-07	
112	23	3' - 0"	7' - 0"	1 3/4"	P22		HM02	F00	HM02	0	GL-07	
113	23	3' - 0"	7' - 0"	1 3/4"	P22		HM02	F00	HM02	0	GL-07	
114	23	3' - 0"	7' - 0"	1 3/4"	P22		HM02	F00	HM02	0	GL-07	
115	23	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F21	HM02	0	GL-07	
115A	34	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
115B	34	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
115C	34	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
116	23	3' - 0"	7' - 0"	1 3/4"	P22		HM02	F00	HM02	0	GL-07	
117	16	4' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
118	23	3' - 0"	7' - 0"	1 3/4"	P22		HM02	F00	HM02	0	GL-07	
119	23	3' - 0"	7' - 0"	1 3/4"	P22		HM02	F00	HM02	0	GL-07	
120	36	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
121.1	36	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
121.2	38	2' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
122	28	3' - 0"	7' - 0"	1 3/4"	P24		HM02	F00	HM02	0	GL-07	
123	12	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
124	20	4' - 0"	7' - 0"	1 3/4"	P21		HM03	F00	HM03	0	GL-13	
124A	22	4' - 0"	7' - 0"	1 3/4"	P25		HM03	F00	HM03	0	GL-13	
124B	21	4' - 0"	7' - 0"	1 3/4"	P23		HM03	F00	HM03	0	GL-13	
125	12	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
126	23	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
127.1	37	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F20	HM01	0	GL-07	
127.2	37	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F20	HM01	0	GL-07	
128	23	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
129	39	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
130	23	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
131	12	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
132	23	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
133.1	43	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
133.2	AL-05	3' - 0"	7' - 11"	1 3/4"	P30		ALUM		ALUM	0	GL-03, GL-02	2
134.1	27.1	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
134.2	38	2' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
135	27.1	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
136	23.1	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F11	HM02	90		
137.1	41	3' - 0"	7' - 0"	1 3/4"	P22	P22	HM02	F00	HM02	0		
137.2	42	3' - 0"	7' - 0"	1 3/4"	P22	P22	HM02	F00	HM02	0		
137A	17	3' - 0"	7' - 0"	1 3/4"	P00	P00	HM02	F00	HM02	45		
137B	17	3' - 0"	7' - 0"	1 3/4"	P00	P00	HM02	F00	HM02	45		
138.1	43	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
138.2	43	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
138.3	43	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	0	GL-03	
138B	27	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
139.1	43	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
139.2	09	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	0	GL-03	
140.1	26	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
140.2	25	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
141	24	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
142	24	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
143.1	16	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	45		
143.2	16	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	45		
144	24	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
145	27	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
146	27	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
147.1	26	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
147.2	20	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
148	34	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
149	18	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	45		
150	31	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
151	39	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
152	34	3' - 0"	7' - 0"	1 3/4"	P00		Wood	F00	HM01	0		
201	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
202	27	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F11	HM02	0		
203	37	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F11	HM02	0		
204	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
205	12	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
206	37	3' - 0"	7' - 0"	1 3/4"	P20		HM01	F00	HM01	0	GL-07	
207	19	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F00	HM02	20	GL-09	
208	31	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
209	28	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F00	HM02	0	GL-07	
210	35	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0	GL-07	
211	12	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	45		
212	31	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F20	HM02	0	GL-07	
213	20	4' - 0"	7' - 0"	1 3/4"	P21		HM03	F00	HM03	0	GL-13	
213A	22	4' - 0"	7' - 0"	1 3/4"	P25		HM03	F00	HM03	0	GL-13	
213B	21	4' - 0"	7' - 0"	1 3/4"	P23		HM03	F00	HM03	0	GL-13	
214.2	31	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F31	HM02	0	GL-07	
214A	12	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
214B	37	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F20	HM01	0	GL-07	
215	29	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
216	29	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F20	HM02	0	GL-07	
217	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
218	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
219	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
220	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
221	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
222	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
223	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
225	29	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F21	HM02	0	GL-07	
226	32.1	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
226A	33.1	3' - 0"	7' - 0"	1 3/4"	P40		HM02	F00	HM02	0		1
227	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
228	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
229	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
230	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
231	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
232	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0		
233	16	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	45	GL-10	
234	16	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	45	GL-10	
235.1	30	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F22	HM02	0	GL-07	
235.2	10	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0	GL-07	
235.3	02	3' - 0"	7' - 4"	1 3/4"	P30		ALUM		ALUM	0	GL-03, GL-02	2
236.1	31	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0	GL-07	
236.2	31	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0	GL-07	
237.1	34	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
237.2	34	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
238.1	30	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F22	HM02	0	GL-07	
238.2	02	3' - 0"	7' - 4"	1 3/4"	P30		ALUM		ALUM	0	GL-03, GL-02	2
239	32.1	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
239A	33.1	3' - 0"	7' - 0"	1 3/4"	P40		HM02	F00	HM02	0		1
240	29	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F21	HM02	0	GL-07	
241	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
241.1	31	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F31	HM02	0	GL-07	
242	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
243	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
244	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
245	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
246	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
247	16	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	45	GL-10	
248	16	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	45	GL-10	
249	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
250	29	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
251	29	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F20	HM02	0	GL-07	
252	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
253	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
254	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
256	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
257	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
258	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
259	20	4' - 0"	7' - 0"	1 3/4"	P21		HM03	F00	HM03	0	GL-13	
259A	22	4' - 0"	7' - 0"	1 3/4"	P25		HM03	F00	HM03	0	GL-13	
259B	21	4' - 0"	7' - 0"	1 3/4"	P23		HM03	F00	HM03	0	GL-13	
260	31	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F20	HM02	0	GL-07	
261	12	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	45		
262	35	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0		
263	28	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F00	HM02	0	GL-07	
264	31	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		

DOOR AND FRAME SCHEDULE

DOOR NUMBER	HARDWARE GROUP	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICK	DOOR LEAF 1 TYPE	DOOR LEAF 2 TYPE	DOOR MATERIAL	FRAME TYPE	FRAME MATERIAL	FIRE RATING	GLAZING TYPE	NOTES
265	19	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F00	HM02	20	GL-09	
266	37	3' - 0"	7' - 0"	1 3/4"	P20		HM01	F00	HM01	0	GL-07	
267	27	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
268	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
269	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
270	27	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
271	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
272	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
273	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
274	40	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
275	40	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
276	24	3' - 0"	7' - 0"	1 3/4"	P20		HM01	F30	HM01	0	GL-07	
277	37	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F20	HM01	0	GL-07	
301	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
302	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
303	37	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
304	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
305	27	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
306	37	3' - 0"	7' - 0"	1 3/4"	P20		HM01	F00	HM01	0	GL-07	
307	19	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F00	HM02	20	GL-09	
308	31	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
309	28	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F00	HM02	0	GL-07	
310	35	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0	GL-07	
311	12	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	45	GL-10	
312	31	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F20	HM02	0	GL-07	
313	20	4' - 0"	7' - 0"	1 3/4"	P21		HM03	F00	HM03	0	GL-13	
313A	22	4' - 0"	7' - 0"	1 3/4"	P25		HM03	F00	HM03	0	GL-13	
313B	21	4' - 0"	7' - 0"	1 3/4"	P23		HM03	F00	HM03	0	GL-13	
314.1	31	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F31	HM02	0	GL-07	
314.2	31	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F31	HM02	0	GL-07	
314A	12	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
314B	37	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F20	HM01	0	GL-07	
315	29	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
316	29	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F20	HM02	0	GL-07	
317	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
318	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
319	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
320	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
321	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
322	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
323	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
324	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
326	29	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F21	HM02	0	GL-07	
327	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
328	32.1	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
329.1	32.1	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
329A	33.1	3' - 0"	7' - 0"	1 3/4"	P40		HM02	F00	HM02	0		1
330	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
331	33.2	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
332	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
333	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
334	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
335	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
336	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
337	16	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	45	GL-10	
338	16	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	45	GL-10	
339.1	30	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F21	HM02	0	GL-07	
339.2	10	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0	GL-07	
339.3	02	3' - 0"	7' - 2"	1 3/4"	P30		ALUM		ALUM	0	GL-03	2
339A	34	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
340.1	31	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0	GL-07	
340.2	31	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0	GL-07	
341.1	30	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F21	HM02	0	GL-07	
341.2	02	3' - 0"	7' - 2"	1 3/4"	P30		ALUM		ALUM	0	GL-03	2
341A	34	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
342	29	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F21	HM02	0	GL-07	
343	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
344	32.1	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
345	32.1	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
345A	33.1	3' - 0"	7' - 0"	1 3/4"	P40		HM02	F00	HM02	0		1
346	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
347	33.2	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
348	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
349	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
350	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
351	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
352	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
353	16	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	45	GL-10	
354	16	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	45	GL-10	
356	29	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
357	29	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F20	HM02	0	GL-07	
358	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
359	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
360	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
361	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
362	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
363	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
364	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
365	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
366	20	4' - 0"	7' - 0"	1 3/4"	P21		HM03	F00	HM03	0	GL-13	
366A	22	4' - 0"	7' - 0"	1 3/4"	P25		HM03	F00	HM03	0	GL-13	
366B	21	4' - 0"	7' - 0"	1 3/4"	P23		HM03	F00	HM03	0	GL-13	
367	31	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F20	HM02	0	GL-07	
368	12	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	45		
369	35	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0	GL-07	
370	28	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F00	HM02	0	GL-07	
371	31	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
372	19	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F00	HM02	20	GL-09	
373	37	3' - 0"	7' - 0"	1 3/4"	P20		HM01	F00	HM01	0	GL-07	
374	12	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
375	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
376	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
377	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
378	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
379	40	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
380	40	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
381	24	3' - 0"	7' - 0"	1 3/4"	P20		HM01	F30	HM01	0	GL-07	
382	37	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F20	HM01	0	GL-07	
401	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
402	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
403	37	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F11	HM02	0		
404	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
405	12	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
406	37	3' - 0"	7' - 0"	1 3/4"	P20		HM01	F00	HM01	0	GL-07	
407	19	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F00	HM02	20	GL-09	
408	31	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
409	28	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F00	HM02	0	GL-07	
410	35	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0	GL-07	
411	12	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	45		
412	31	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F20	HM02	0	GL-07	
413	20	4' - 0"	7' - 0"	1 3/4"	P21		HM03	F00	HM03	0	GL-13	
413A	22	4' - 0"	7' - 0"	1 3/4"	P25		HM03	F00	HM03	0	GL-13	
413B	21	4' - 0"	7' - 0"	1 3/4"	P23		HM03	F00	HM03	0	GL-13	
414.1	31	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F31	HM02	0	GL-07	
414.2	31	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F31	HM02	0	GL-07	
414A	12	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
414B	37	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F20	HM01	0	GL-07	
415	29	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
416	29	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F20	HM02	0	GL-07	
417	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
418	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
419	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
420	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
421	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
422	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
423	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
424	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
426	29	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F21	HM02	0	GL-07	
427	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
428	32.1	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
429	32.1	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
429A	33.1	3' - 0"	7' - 0"	1 3/4"	P40		HM02	F00	HM02	0		1
430	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
431	33.2	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
432	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
433	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
434	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
435	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
436	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
437	33.2	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	45	GL-10	

DOOR & FRAME MATERIAL LEGEND

ALUM	ALUMINUM DOOR AND FRAME
HM01	HOLLOW METAL: HEAVY-DUTY DOOR AND FRAME
HM02	HOLLOW METAL: EXTRA-HEAVY-DUTY DOOR AND FRAME
HM03	HOLLOW METAL: MAXIMUM-DUTY DOOR AND FRAME
WOOD	WOOD DOOR

DOOR AND FRAME SCHEDULE

DOOR NUMBER	HARDWARE GROUP	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICK	DOOR LEAF 1 TYPE	DOOR LEAF 2 TYPE	DOOR MATERIAL	FRAME TYPE	FRAME MATERIAL	FIRE RATING	GLAZING TYPE	NOTES
438	16	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	45	GL-10	
439.1	30	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F21	HM02	0	GL-07	
439.2	10	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0	GL-07	
439.3	02	3' - 0"	7' - 2"	1 3/4"	P30		ALUM		ALUM	0	GL-03	2
439A	34	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
440.1	31	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0	GL-07	
440.2	31	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0	GL-07	
441.1	30	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F21	HM02	0	GL-07	
441.2	02	3' - 0"	7' - 2"	1 3/4"	P30		ALUM		ALUM	0	GL-03	2
441A	34	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
442	29	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F21	HM02	0	GL-07	
443	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
444	32.1	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
445	32.1	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
445A	33.1	3' - 0"	7' - 0"	1 3/4"	P40		HM02	F00	HM02	0		1
446	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
447	33.2	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
448	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
449	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
450	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
451	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
452	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
453	16	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	45	GL-10	
454	16	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	45	GL-10	
456	29	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
457	29	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F20	HM02	0	GL-07	
458	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
459	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
460	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
461	33	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		1
462	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
463	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
464	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
465	32	3' - 0"	7' - 0"	1 3/4"	P23		HM02	F00	HM02	0	GL-07	
466	20	4' - 0"	7' - 0"	1 3/4"	P21		HM03	F00	HM03	0	GL-13	
466A	22	4' - 0"	7' - 0"	1 3/4"	P25		HM03	F00	HM03	0	GL-13	
466B	21	4' - 0"	7' - 0"	1 3/4"	P23		HM03	F00	HM03	0	GL-13	
467	31	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F20	HM02	0	GL-07	
468	12	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	45	GL-10	
469	35	3' - 0"	7' - 0"	1 3/4"	P20		HM02	F00	HM02	0	GL-07	
470	28	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F00	HM02	0	GL-07	
471	31	3' - 0"	7' - 0"	1 3/4"	P00		HM02	F00	HM02	0		
472	19	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F00	HM02	20	GL-09	
473	37	3' - 0"	7' - 0"	1 3/4"	P20		HM01	F00	HM01	0	GL-07	
474	27	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
475	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
476	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
477	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F11	HM01	0		
478	24	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
479	40	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
480	40	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
481	24	3' - 0"	7' - 0"	1 3/4"	P20		HM01	F30	HM01	0	GL-07	
482	37	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F20	HM01	0	GL-07	
500.1	06.1	3' - 0"	6' - 4"	1 3/4"	P00		HM01	F00	HM01	45		
500.2	08	3' - 0"	6' - 4"	1 3/4"	P00		HM01	F00	HM01	45		
500.3	06	3' - 0"	6' - 4"	1 3/4"	P00		HM01	F00	HM01	0		
500.4	08.1	3' - 0"	6' - 4"	1 3/4"	P00		HM01	F00	HM01	0		
C-10	11	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	0	GL-07	
C-11	14	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	20	GL-09	
C-12	05	3' - 0"	7' - 0"	1 3/4"	P21	P21	HM02	F10	HM02	0	GL-03, GL-02	
C-12.1	11	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	0	GL-07	
C-13	14	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	20	GL-09	
C-14	01	3' - 0"	7' - 0"	1 3/4"	P21	P21	HM02	F10	HM02	0	GL-03, GL-02	
C-14.1	11	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	0	GL-07	
C-15	11	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	0	GL-07	
C-18	14	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	90	GL-07	
C-20	14	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	20	GL-09	
C-22	04	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F10	HM02	0	GL-03, GL-02	
C-26	03	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F10	HM02	0	GL-03, GL-02	
C-27	14	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	20	GL-09	
C-30	14	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	20	GL-09	
C-32	03	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F10	HM02	0	GL-03, GL-02	
C-36	04	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F10	HM02	0	GL-03, GL-02	
C-37	14	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	20	GL-09	
C-40	14	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	20	GL-09	
C-42	03	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F10	HM02	0	GL-03, GL-02	
C-46	04	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F10	HM02	0	GL-03, GL-02	
C-47	14	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	20	GL-09	
F-01	07	3' - 0"	7' - 0"	1 3/4"	P00		HM01	F00	HM01	0		
ST-01	06	3' - 0"	7' - 0"	1 3/4"	P21		HM01	F00	HM01	0	GL-03	
V-01.1	AL-01	3' - 0"	8' - 0"	1 3/4"	P30	P30	ALUM		ALUM	0	GL-03, GL-02	2, 3
V-01.2	AL-02	3' - 0"	8' - 0"	1 3/4"	P30	P30	ALUM		ALUM	0	GL-03, GL-02	2, 3
V-02.1	AL-03	3' - 0"	7' - 0"	1 3/4"	P30	P30	ALUM	F10	ALUM	0	GL-03, GL-02	3
V-02.2	13	3' - 0"	7' - 0"	1 3/4"	P30	P30	HM02	F40	HM02	0	GL-07, GL-05	
V-04.1	AL-04	3' - 0"	7' - 0"	1 3/4"	P30		ALUM	F10	ALUM	0	GL-03, GL-02	
V-04.2	10	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F11	HM02	0	GL-07, GL-05	
V-05.1	AL-04	3' - 0"	7' - 0"	1 3/4"	P30		ALUM	F10	ALUM	0	GL-03, GL-02	
V-05.2	10	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F11	HM02	0	GL-07, GL-05	
V-06.1	14	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	90	GL-09	
V-06.2	15	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	90	GL-09	
V-07.1	AL-04	3' - 0"	7' - 0"	1 3/4"	P30		ALUM	F10	ALUM	0	GL-03, GL-02	
V-07.2	10	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F11	HM02	0	GL-07, GL-05	
V-08.1	AL-04	3' - 0"	7' - 0"	1 3/4"	P30		ALUM	F10	ALUM	0	GL-03, GL-02	
V-08.2	10	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F11	HM02	0	GL-07, GL-05	
V-09.1	14	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	90	GL-10	
V-09.2	15	3' - 10"	7' - 0"	1 3/4"	P21	P21	HM02	F01	HM02	90	GL-10	
V-10.1	AL-04	3' - 0"	7' - 0"	1 3/4"	P30		ALUM	F10	ALUM	0	GL-03, GL-02	
V-10.2	10	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F11	HM02	0	GL-07, GL-05	
V-11.1	AL-04	3' - 0"	7' - 0"	1 3/4"	P30		ALUM	F10	ALUM	0	GL-03, GL-02	
V-11.2	10	3' - 0"	7' - 0"	1 3/4"	P21		HM02	F11	HM02	0	GL-07, GL-05	

OVERHEAD DOOR SCHEDULE

NUMBER	HARDWARE GROUP	OPENING WIDTH	OPENING HEIGHT	OPERATION	FIRE RATING	NOTES
O-140	SEE SPEC.	5' - 4"	3' - 6"	ELECTRIC	0	COORDINATE DOOR SIZE AND ROLL SHROUD LOCATION WITH INTERIOR ELEVATIONS
O-236A	SEE SPEC	3' - 4"	3' - 6"	MANUAL	0	COORDINATE DOOR SIZE AND ROLL SHROUD LOCATION WITH INTERIOR ELEVATIONS
O-236B	SEE SPEC	3' - 4"	3' - 6"	MANUAL	0	COORDINATE DOOR SIZE AND ROLL SHROUD LOCATION WITH INTERIOR ELEVATIONS
O-340A	SEE SPEC.	3' - 4"	3' - 6"	MANUAL	0	COORDINATE DOOR SIZE AND ROLL SHROUD LOCATION WITH INTERIOR ELEVATIONS
O-340B	SEE SPEC.	3' - 4"	3' - 6"	MANUAL	0	COORDINATE DOOR SIZE AND ROLL SHROUD LOCATION WITH INTERIOR ELEVATIONS
O-440A	SEE SPEC.	3' - 4"	3' - 6"	MANUAL	0	COORDINATE DOOR SIZE AND ROLL SHROUD LOCATION WITH INTERIOR ELEVATIONS
O-440B	SEE SPEC.	3' - 4"	3' - 6"	MANUAL	0	COORDINATE DOOR SIZE AND ROLL SHROUD LOCATION WITH INTERIOR ELEVATIONS

EXTERIOR GATE SCHEDULE

GATE NUMBER	HARDWARE GROUP	SIZE WIDTH	SIZE HEIGHT	NOTES
G-01		4' - 0"	8' - 0"	
G-02		4' - 0"	8' - 0"	
G-03		4' - 0"	8' - 0"	
G-04		20' - 0"	12' - 0"	SLIDING GATE
G-05		4' - 0"	8' - 0"	
G-06		6' - 0"	8' - 0"	
G-07		4' - 0"	8' - 0"	
G-08		4' - 0"	8' - 0"	
G-09		4' - 0"	8' - 0"	

REFERENCE NOTES

1. FULL DEPTH FRAME - RE: JAMB DETAIL E4/A634
2. SEE WINDOW SCHEDULE FOR FRAME TYPE
3. POWERED DOOR OPENER

DFCM APPROVAL STAMP

FFKR
ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

o 801-521-6186
f 801-539-1916
ffkr.com

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
BID DOCUMENTS - 09/12/2012

SEAL

DATE	STATUS

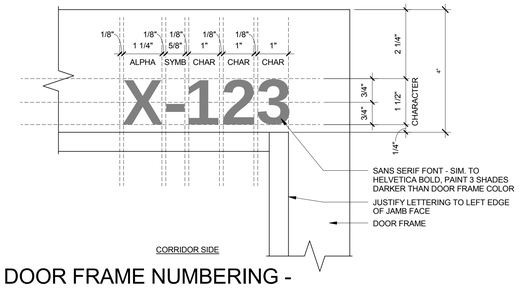
DATE	REVISION

PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

DOOR SCHEDULE

A610

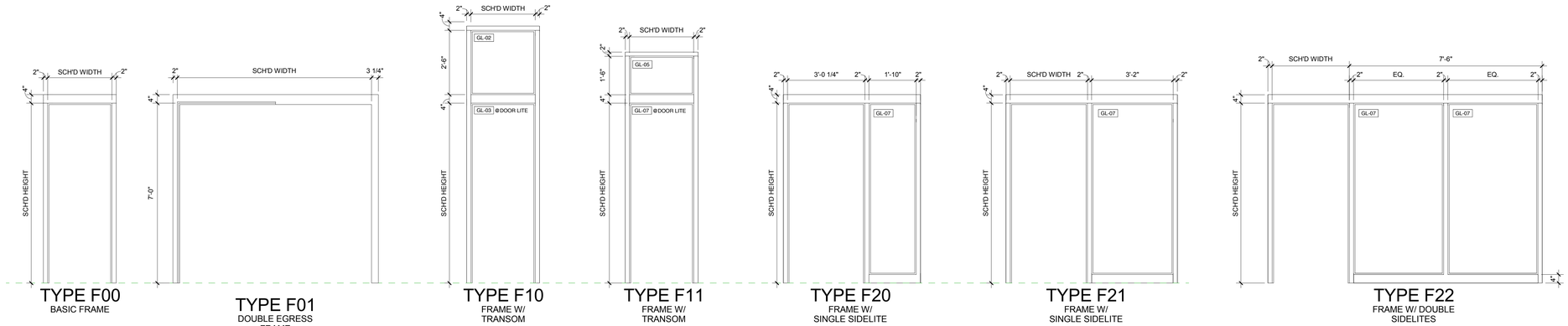
9/11/2012 7:12:25 AM

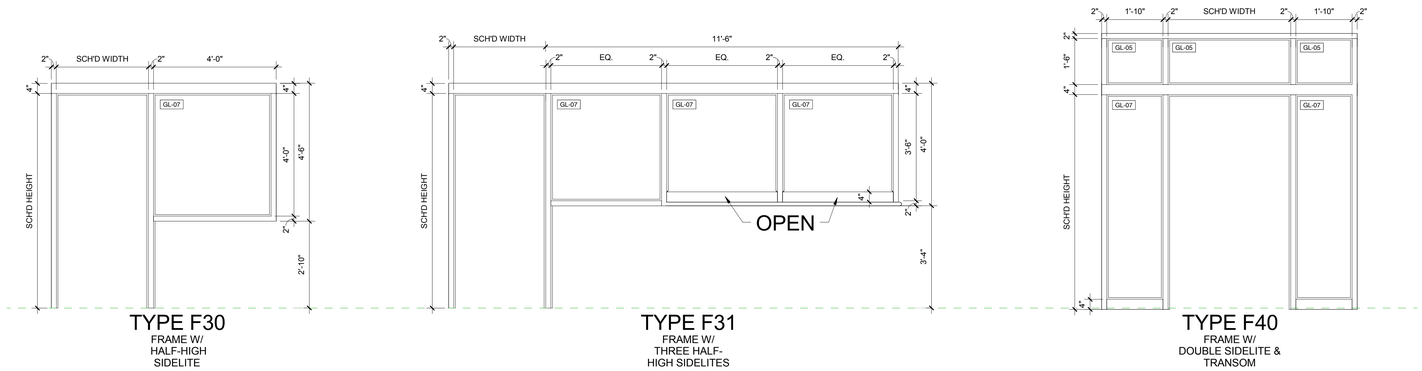


DOOR FRAME NUMBERING - ALL INTERIOR DOORS

E1

SCALE: 6" = 1'-0"

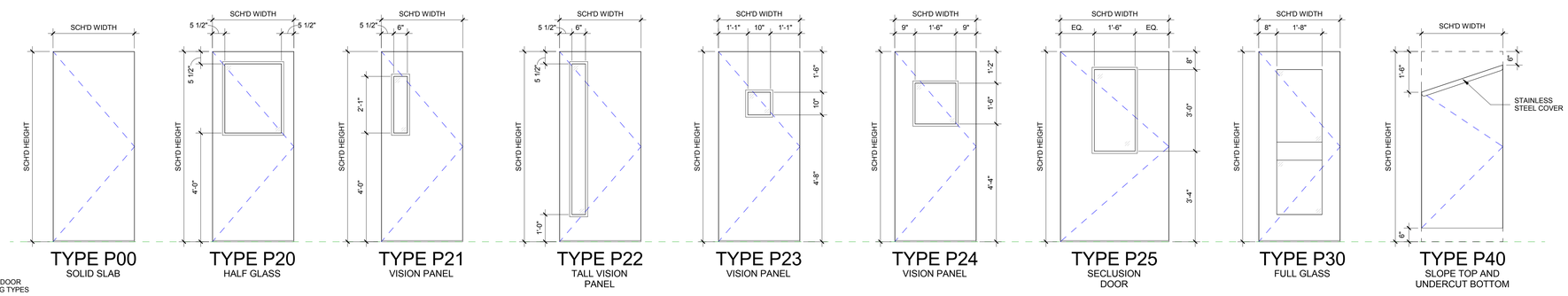




DOOR FRAMES TYPES

B1

SCALE: N.T.S.



NOTE: SEE SHEET A610-DOOR SCHEDULE FOR GLAZING TYPES

DOOR PANEL TYPES

A1

SCALE: N.T.S.

DFCM APPROVAL STAMP

FFKR ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

801-521-6186
801-539-1916
ffkr.com

REFERENCE NOTES

GLAZING SCHEDULE

GL-01	LOW-E-COATED, TINTED, HEAT-STRENGTHENED INSULATING GLASS
GL-02	LOW-E-COATED, TINTED, TEMPERED INSULATING GLASS
GL-03	LOW-E-COATED, TINTED INSULATING LAMINATED GLASS
GL-04	CLEAR FLOAT GLASS
GL-04A	OBSCURE FLOAT GLASS
GL-05	CLEAR FULLY TEMPERED FLOAT GLASS
GL-05A	OBSCURE FULLY TEMPERED FLOAT GLASS
GL-06	CLEAR ANTI-MAR, ANTI-SCRATCH, POLYCARBONATE SHEET
GL-07	CLEAR LAMINATED GLASS
GL-08	REFLECTIVE-COATED, LAMINATED VISION GLASS
GL-09	20-MINUTE FIRE RATED GLAZING
GL-10	45-MINUTE FIRE RATED GLAZING
GL-11	90-MINUTE FIRE RATED GLAZING
GL-12	SPANDREL GLASS
GL-13	GLASS-CLAD POLYCARBONATE

GENERAL NOTES

1. ALL INTERIOR DOOR FRAMES TO RECEIVE PAINT-ON NUMBERING - SEE E1/A611

PEDIATRIC FACILITY
1300 East Center St. Provo, Utah
UTAH STATE HOSPITAL CONSOLIDATION
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SEAL

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PROJECT NUMBER 11111
FILE 11111 USH Pediatric.rvt

DOOR AND FRAME TYPES

A611

9/11/2012 7:12:28 AM