

- LEGEND**
- EXIST. STRUCTURE
 - - - EXIST. WATERLINE
 - EXIST. ASPHALT
 - EXIST. OVERHEAD ELECTRIC
 - ⊙ EXIST. SEWER MANHOLE
 - ⊕ EXIST. POWER POLE
 - PROPOSED WATER LINE
 - PROPOSED EDGE OF NEW ASPHALT
 - PROPOSED PERIMETER FENCE
 - ▨ NEW ASPHALT PAVEMENT AREA
 - ▤ PROPOSED POND LINER

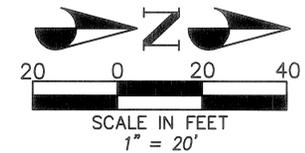
BENCHMARK
 THE BENCHMARK FOR THIS SURVEY IS AN ARBITRARY POINT, THE EXISTING SEWER MANHOLE WITH A LID ELEVATION OF 7499.56 HAS BEEN SHOWN HEREON TO BE USED AS AN APPROXIMATE REFERENCE POINT.

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS
 THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

NOTES:
 1. ALL WORK DONE ON NEW FUEL ISLAND MUST BE COMPLETED BY A CERTIFIED TANK INSTALLER. CONTRACTOR MUST FOLLOW ALL DEQ & EPA PROTOCOLS. CONTRACTOR TO INSTALL FUEL ISLAND MONITOR IN OFFICE, COORDINATE LOCATION WITH OWNER. EQUIPMENT WILL BE PROVIDED BY UTAH FUEL NETWORK. CONTRACTOR TO PROVIDE ALL NECESSARY CONDUITS FROM FUEL ISLAND TO MAINTENANCE BUILDING. CONTACT STEVE CANNING 801-619-7232 OR UTAH FUEL NETWORK
 2. TOPOGRAPHICAL SURVEY INFORMATION USED IN PREPARING THIS DRAWING IS BASED ON ARBITRARY SURVEY CONTROL. PEPG ENGINEERING MAKES NO CLAIMS THAT REGARDING THE ACCURACY OF THE INFORMATION AS IT RELATES TO PUBLIC LAND SURVEY DATA OR RECORD BOUNDARY DESCRIPTIONS. PROPERTY LINE SHOWN HEREON WAS PROVIDED BY CLIENT AND HAS BEEN OVERLAPED ON SITE TOPOGRAPHY BASED ON EXISTING SITE FEATURES.
 3. ALL CONSTRUCTION TO CONFORM TO STATE STANDARDS AND SPECIFICATIONS IN RIGHT OF WAY, IF APPLICABLE.

CAUTION NOTICE TO CONTRACTOR
 THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON DRAWINGS OF RECORD AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE.

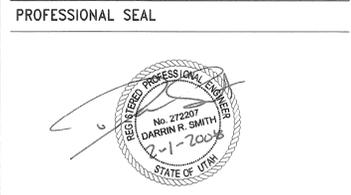
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CLIENT
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 CONNECTING COMMUNITIES
 STATION #3437A
 SR-44 @ M.P. 0.5 +/-
 GREENDALE, UTAH

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 421 W. 12300 S. #400 • DRAPER, UT 84020
 PH: (801) 562-2521 • FAX: (801) 562-2551



ISSUE

MARK	DATE	DESCRIPTION

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DFCM CONTRACT NO:	077325	
DFCM PROJECT NO:	07029900	
ARCHIPLEX PROJECT NO:	0708.01	
PEPG PROJECT NO:	6600.0712	
DRAWN BY:	RSL	
CHECKED BY:	DRS	
SCALE:	1"=20'	
DATE:	FEBRUARY 2008	

SHEET TITLE
SITE & UTILITY PLAN
 C100



STATION #3437A
SR-44 @ M.P. 0.5 +/-
GREENDALE, UTAH



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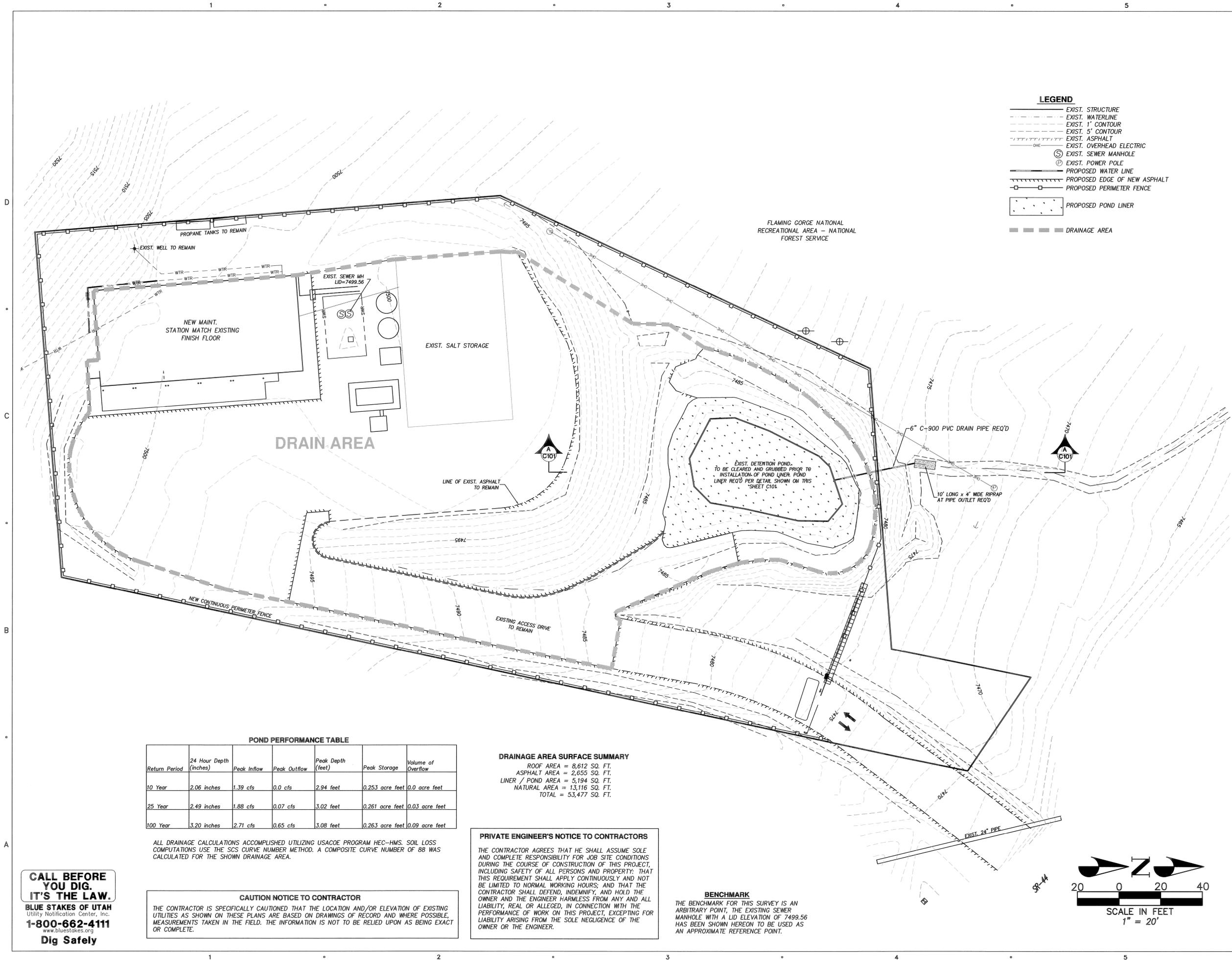


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DRAINAGE PLAN

C201



POND PERFORMANCE TABLE

Return Period	24 Hour Depth (inches)	Peak Inflow	Peak Outflow	Peak Depth (feet)	Peak Storage	Volume of Overflow
10 Year	2.06 inches	1.39 cfs	0.0 cfs	2.94 feet	0.253 acre feet	0.0 acre feet
25 Year	2.49 inches	1.88 cfs	0.07 cfs	3.02 feet	0.261 acre feet	0.03 acre feet
100 Year	3.20 inches	2.71 cfs	0.65 cfs	3.08 feet	0.263 acre feet	0.09 acre feet

DRAINAGE AREA SURFACE SUMMARY

ROOF AREA = 8,612 SQ. FT.
ASPHALT AREA = 2,655 SQ. FT.
LINER / POND AREA = 5,194 SQ. FT.
NATURAL AREA = 13,116 SQ. FT.
TOTAL = 53,477 SQ. FT.

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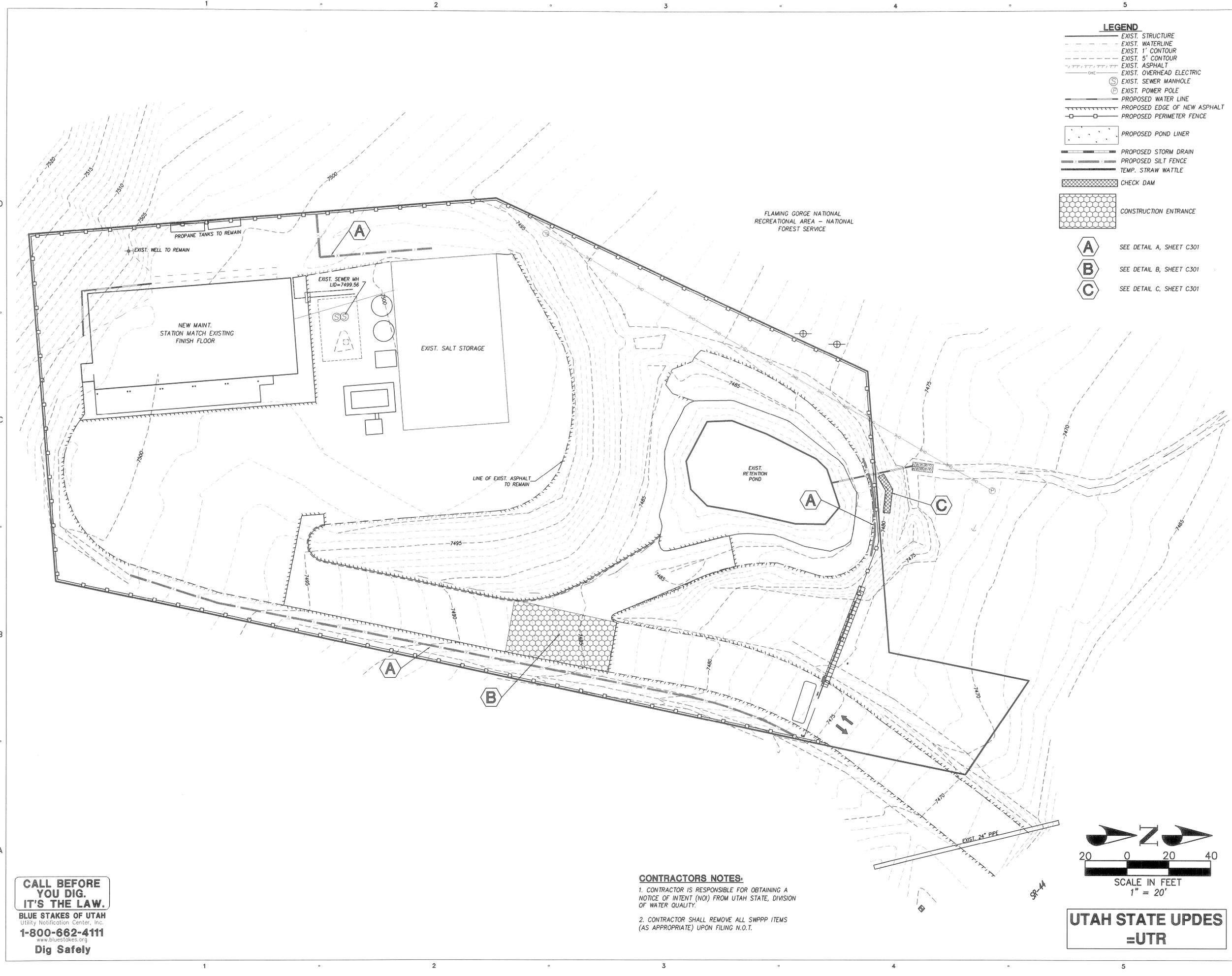
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ALL DRAINAGE CALCULATIONS ACCOMPLISHED UTILIZING USACOE PROGRAM HEC-HMS. SOIL LOSS COMPUTATIONS USE THE SCS CURVE NUMBER METHOD. A COMPOSITE CURVE NUMBER OF 88 WAS CALCULATED FOR THE SHOWN DRAINAGE AREA.

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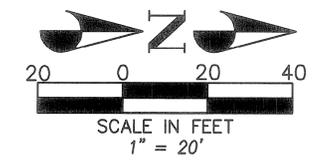


- LEGEND**
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 - EXIST. 1" CONTOUR
 - EXIST. 5' CONTOUR
 - EXIST. ASPHALT
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 - PROPOSED PERIMETER FENCE
 - PROPOSED POND LINER
 - PROPOSED STORM DRAIN
 - PROPOSED SILT FENCE
 - TEMP. STRAW WATTLE
 - CHECK DAM
 - CONSTRUCTION ENTRANCE
- A** SEE DETAIL A, SHEET C301
B SEE DETAIL B, SHEET C301
C SEE DETAIL C, SHEET C301

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CONTRACTORS NOTES:

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A NOTICE OF INTENT (NOI) FROM UTAH STATE, DIVISION OF WATER QUALITY.
- CONTRACTOR SHALL REMOVE ALL SWPPP ITEMS (AS APPROPRIATE) UPON FILING N.O.I.



UTAH STATE UPDES =UTR

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 CONNECTING COMMUNITIES

STATION #3437A
 SR-44 @ M.P. 0.5 +/-
 GREENDALE, UTAH

DESIGNER

ARCHIPLEX GROUP

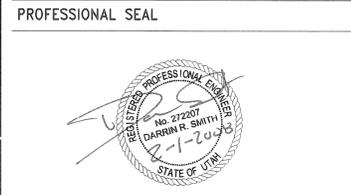
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 DRAWN BY: RSL
 CHECKED BY: DRS
 SCALE: 1"=20'
 DATE: FEBRUARY, 2008

SHEET TITLE

S.W.P.P. PLAN

C300

CEILING SYMBOLS	
	PAINTED GYP. BD. CEILING
	2' x 4' FLUORESCENT LIGHT FIXTURE, SEE ELECT. DRAWINGS FOR TYPE.
	1' x 4' FLUORESCENT LIGHT FIXTURE
	1' x 8' FLUORESCENT LIGHT FIXTURE
	RETURN AIR GRILLE - HORIZONTAL (SEE MECH. DRAWINGS)
	SUPPLY AIR GRILLE - HORIZONTAL (SEE MECH. DRAWINGS)
	RADIANT HEAT SYSTEM (SEE MECH. DRAWINGS)
	EXHAUST FAN (SEE MECH. DRAWINGS)
	EXIT SIGN
	EMERGENCY FLOOD LIGHTS
	EXTERIOR WALL MOUNTED LIGHTS

REFLECTED CEILING PLAN LEGEND	
TYPE A	EXPOSED STRUCTURE - PAINTED
TYPE B	5/8" GYPSUM BOARD ON METAL SUSPENSION SYSTEM - PAINTED
TYPE C	2' X 4' LAY - IN CEILING GRID SYSTEM WITH ACOUSTICAL PANELS

GENERAL NOTES

- SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL LIGHTING AND DIFFUSER INFORMATION.
- CEILING HEIGHT SHOWN IN ROOM TAG INDICATES HEIGHT OF DOMINANT CEILING FINISH. SEE NOTES FOR ADDITIONAL CEILING FINISH INFORMATION.
- SEE DETAIL C1 & C2/AE502 FOR SEISMIC BRACING DETAILS.
- ROOF STRUCTURE NOT SHOWN FOR CLARITY.
- COORDINATE LOCATION OF OVERHEAD DOOR TRACKS WITH LIGHTING FIXTURES TO INSURE PROPER OPERATION OF OVERHEAD DOORS.

KEYNOTES	
08360.B0	3" HEAVY DUTY OVERHEAD SECTIONAL DOOR TRACK
13125.B2	STANDING SEAM METAL CANOPY
13125.F0	METAL WALL PANEL
13125.L4	STEEL COLUMN - PRIMED AND PAINTED
13125.L5	STEEL COLUMN - PRIMED
13125.R0	INSULATION & VAPOR BARRIER (R-VALUE)
15491.C0	OVERHEAD HOSE REELS
15500.A0	RADIANT HEATING SYSTEM
15887.A1	LOUVER WITH BIRD SCREEN
16510.A0	INTERIOR LIGHTS
16510.B0	WALL MOUNTED INTERIOR LIGHTS
16520.B1	EXTERIOR WALL MOUNTED LIGHTS
16520.B2	EXTERIOR WALL MOUNTED FLOOD LIGHTS

CLIENT

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PROFESSIONAL SEAL



ISSUE

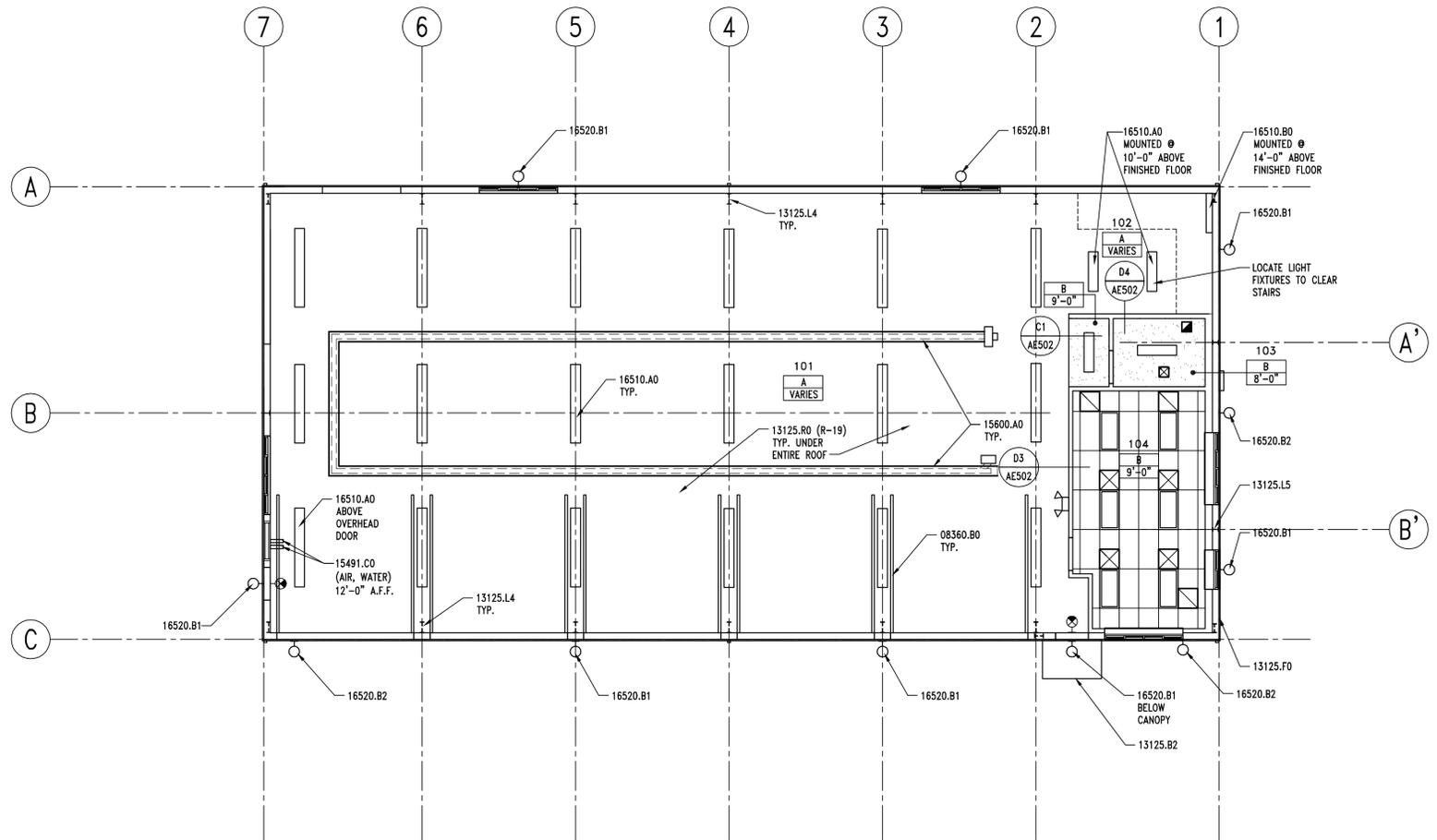
MARK	DATE	DESCRIPTION

02-2008 CONSTRUCTION DOCUMENTS	
MARK	DESCRIPTION
DFCM CONTRACT NO:	077325
DFCM PROJECT NO:	07029900
ARCHIPLEX PROJECT NO:	0708.01
DRAWN BY:	A. PHILLIPS
CHECKED BY:	R. STANISLAW
SCALE:	1/8" = 1'-0"
DATE:	FEBRUARY, 2008

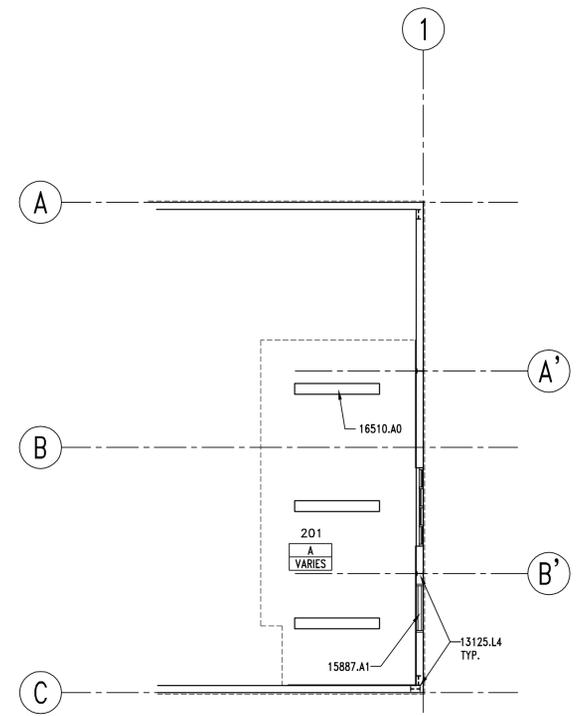
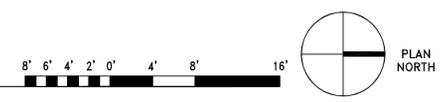
SHEET TITLE

FIRST FLOOR & MEZZANINE REFLECTED CEILING PLANS

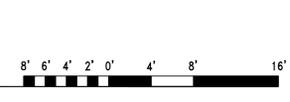
AE121



A2 | FIRST FLOOR REFLECTED CEILING PLAN
AE121 REF. SCALE: 1/8" = 1'-0"



A4 | MEZZ. REFL. CEILING PLAN
AE121 REF. SCALE: 1/8" = 1'-0"



GENERAL STRUCTURAL NOTES

GENERAL

- The structural notes are intended to complement the project specifications. Specific notes and details in the drawings shall govern over the structural notes and typical details.
- Typical details and sections shall apply where specific details are not shown.
- The contractor shall verify all site conditions and dimensions. If actual conditions differ from those shown in the contract drawings, the contractor shall immediately notify the architect/engineer before proceeding with the fabrication or construction of any affected elements.
- Omissions or conflicts between the contract drawings and/or specifications shall be brought to the attention of the architect/engineer before proceeding with any work involved. In case of conflict, follow the most stringent requirement as directed by the architect/engineer at no additional cost to the owner.
- The contractor shall submit a written request to the architect/engineer before proceeding with any changes, substitutions or modifications. Any work done by the contractor before receiving written approval will be at the contractor's risk.
- The contractor shall coordinate with all trades any items that are to be integrated into the structural system such as openings, penetrations, mechanical and electrical equipment, etc. Sizes and locations of mechanical and other equipment that differs from those shown on the contract drawings shall be reported to the architect/engineer.
- The contractor shall provide adequate shoring and bracing as required for his method of erection. Shoring and bracing shall remain in place until final connections for the permanent members are completed. The building shall not be considered stable until all connections are completed. Walls shall not be considered self-supporting and shall be braced until the floor/roof system is completed.
- Site observations by BHB Consulting Engineers, P.C.'s field representative shall not be construed as approval of construction procedures nor special inspection.
- Detailing and shop drawing production for structural elements will require information (including dimensions) contained in the architectural, structural and/or other consultants' drawings. The structural drawings shall be used in conjunction with the architectural and other consultants' drawings. Some dimensions and elements such as elevations, depressions, slopes, mechanical housekeeping pads, etc. are not shown in the structural drawings. All dimensions shown on structural drawings shall be verified by contractor with architectural, mechanical and electrical drawings.
- Review of shop drawing submittals by BHB Consulting Engineers, P.C. is for general compliance only and is not intended for approval. The shop drawing review shall not relieve the contractor from the responsibility of completing the project according to the contract documents.
- Shop drawings made from reproductions of the contract drawings will be rejected unless the contractor signs a release agreement prior to the shop drawings being reviewed.
- Only an authorized representative of BHB Consulting Engineers, P.C. may make changes to these contract drawings. BHB Consulting Engineers, P.C. shall not be held responsible or liable for any claims arising directly or indirectly from changes made without written authorization by an authorized representative of BHB Consulting Engineers, P.C.

BASIS OF DESIGN

1. Governing Building Code	International Building Code 2006
2. Roof Snow Load	
a. Ground Snow Load	$P_g = 78$ psf
b. Snow Importance Factor	$I_s = 1.0$
c. Snow Exposure Coefficient	$C_e = 1.0$
d. Thermal Exposure Coefficient	$C_t = 1.0$
e. Roof Snow Load	$P_f = 0.7 * C_e * C_t * I_s * P_g = 55$ psf plus Snow Drift
3. Mezzanine Floor Loads	
a. Dead	54 psf
b. Live	125 psf
4. Seismic Loads	
a. Short Period Mapped Spectral Acceleration	$S_S = 0.333$
b. Soil Site Class	B
c. Short Period Site Coefficient	$F_p = 1.0$
d. 5% Damped Design Spectral Response Acceleration	$S_{DS} = 2/3 * F_p * S_S$
e. Seismic Importance Factor	$I_m = 1.00$
f. Response Modification Coefficient	R = 5.0
g. Seismic Response Coefficient	$C_s = S_{DS} * I_m / R$
h. W	Dead Loads of Structure
i. Building Seismic Design Category	D
j. System Overstrength Factor	3.0
k. Deflection Amplification Factor	3.0
l. Base Shear	$V = C_s * W = 0.044 W$ (Strength Design)

4. Wind Loads	
a. Wind Velocity (3 Second Gust)	90 mph
b. Exposure Type	C
c. Wind Importance Factor	1.00

FOUNDATION

- Soils Investigation Report: None.
- Soil bearing pressure: 1500 psf. Assumed by Owner.
- Frost Protection: 48 inches minimum.
- Clear excavations of debris and loose soil prior to placing footings. All footings shall bear on undisturbed natural sub-grade or engineered compacted fill as noted in the soils report.

EARTHWORK

- Clearing: The building area shall be stripped of all vegetation, topsoil and debris. Following stripping, all fill soils and any remaining loose natural soils shall be excavated to expose competent natural soils.
- Proof roll and/or compact the entire building pad area with normal compaction equipment, in the presence of a qualified soils engineer to achieve, or verify the existence of, zero deflection and zero flexure.
- Compacted structural fill: All fill material shall be a well-graded granular material with a maximum size less than 3 inches and with not more than 15 percent passing a No. 200 sieve. It shall be compacted to at least 95 percent of the maximum laboratory density as determined by ASTM D 1557 for fill beneath footings and floor slabs. All fill shall be tested. Compacted structural fill shall be placed in lifts not exceeding 8 inches in uncompacted thickness.
- Floor slabs thicknesses shall be required by the plans and underlain by a granular layer at least 4 inches thick. The granular layer shall have a maximum size less than 1 inch with not more than 5 percent passing a #200 sieve and shall be compacted to at least 90 percent of the maximum laboratory density as determined by ASTM D 1557.
- Consult the project specifications and soils report for further earthwork requirements.

CONCRETE

- Materials, unless noted otherwise:
 - Normal weight aggregates ASTM C 33
 - Reinforcing Steel ASTM 615 Grade 60 (Fy = 60 ksi) Use Grade 40 (Fy = 40 ksi) for field bent dowels with spacings indicated reduced by 1/3.
 - Deformed Bar Anchors (DBA) ASTM A496
 - Admixtures:
 - An-entraining admixtures comply with ASTM C 260 (when used).
 - Calcium chloride shall not be added to the concrete mix.
 - Type I cement complying with ASTM C-150 shall be used for all concrete.
 - The water/cement ratios shall meet the requirements of ACI 318.
 - Provide air entraining as recommended by ACI 318.
 - No aluminum conduit or product containing aluminum or any other material injurious to concrete shall be embedded in concrete.
- Compressive strengths of concrete at 28 days shall be as follows:
 - Footings.....3,000 psi
 - Interior Slabs on Grade.....4,000 psi
 - Walls.....4,000 psi
 - Normal Weight concrete over Steel Deck.....3,500 psi
 - All Site Concrete.....4,000 psi

- 5 1/2" thick (total thickness) normal weight concrete slab shall be poured over the steel deck. Reinforce slab with 6" x 6" W2.1W2.1 welded wire fabric minimum, unless noted otherwise. Welded Wire Fabric shall be placed 1" to 1 1/2" below the top of the slab.
 - At contractor's option, the welded wire fabric may be substituted with 100% virgin polypropylene synthetic fiber containing no reprocessed olefin materials and specifically manufactured to an optimum gradation for use as concrete secondary reinforcement.
 - Application of concrete shall be as follows:
 - Supporting forms and shoring shall not be removed until structural members have acquired sufficient strength to safely support their own weight and any construction load to which they may be subjected. In no case, however, shall forms and shoring be removed in less than 24 hours after concrete placement.
 - Suspended slabs shall be re-supported after form removal until concrete reaches its 28-day specified compressive strength.
 - Reinforcement shall have the following concrete cover:

Cast-in-place Concrete:	Clear Cover
a. Cast against and permanently exposed to earth.....	3"
b. Formed concrete exposed to earth or weather: <ol style="list-style-type: none"> #6 thru #18 bars.....	2"
 - #5 and smaller bars.....
 1-1/2" |
- Concrete not exposed to weather or in contact with ground:
 - Slabs, Walls, Joists; #11 bars and smaller.....
 3/4" |
 - Beams, Columns, Primary Reinf., Ties, Stirrups, Spirals.....
 1-1/2" |
- Construction Joints and Control Joints:
 - Provide a formed and bedded 2 x 4 continuous keyway in all horizontal and vertical construction joints including between top of footing and foundation walls, unless noted otherwise. In addition, all joints shall be intentionally roughened to a full amplitude of approximately 1/4 inch.
 - 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. Control joints may be installed by:
 - Saw cut a depth of 1/4 the thickness of the slab
 - Tooled joints a depth of 1/4 the thickness of the slab
 - Install construction or control joints in slabs on grade at a spacing not to exceed 75 times the slab thickness in any direction for reinforced slabs, unless noted otherwise. Construction joints shall not exceed a distance of 125' o.c. in any direction.
 - In exposed areas, install construction or control joints in concrete over metal deck at a spacing not to exceed 10 feet o.c. Coordinate location with architectural drawings.

- Construction:
 - Use chairs or other support devices recommended by the CRSI to support and tie reinforcement bars and WWF prior to placing concrete. WWF shall be continuously supported at 36" o.c. maximum. Reinforcing steel for slabs on grade shall be adequately supported on precast concrete units. Lifting the reinforcing off the grade during placement of concrete is not permitted.
 - Concrete to be mechanically consolidated during placement per ACI standards.
 - Contractor shall coordinate placement of all openings, curbs, dowels, sleeves, conduits, bolts, inserts and other embedded items prior to concrete placement.
 - All embeds and dowels shall be securely tied to formwork or to adjacent reinforcing prior to the placement of concrete.
 - No pipes, ducts, sleeves, etc shall be placed in structural concrete unless specifically detailed or approved by the structural engineer. Penetrations through walls when approved shall be built into the wall prior to concrete placement. Penetrations will not be allowed in footings or grade beams unless detailed. Piping shall be routed around these elements and footings tested to avoid piping.
 - Reinforcing Bars shall not be welded. Do not substitute reinforcing bars for DBAs or HSAs.
- Detailing:
 - Lap splice lengths shall be detailed to comply with the "Reinforcing Bar Lap Splice Schedule" on sheet S601. Splices may be made with mechanical splices capable of 125% tension capacity of the bar being spliced. Mechanical splices shall be the positive connecting type coupler and shall meet all Uniform Building Code requirements. Use "Coldweld", "Lenton" Standard Couplers, "Bar-Lock" or equal with internal protector. If mechanical splices are used, splices or couplers on adjacent bars shall be staggered a minimum of 24" apart along the longitudinal axis of the reinforcing bars.
 - At joints provide reinforcing dowels to match the member reinforcing, unless noted otherwise.
 - At all discontinuous control or construction slab on grade joints, provide 2 - #4 x 48 inches. Provide corner bars at intersecting wall corners using the same bar size and spacing as the horizontal wall reinforcing.
 - All vertical reinforcing shall be dowelled to footings, or to the structure below with the same size and spacing as the vertical reinforcing for the element above. Dowels extending into footings shall terminate with a 90 degree standard hook and shall extend to within 4" of the bottom of the footing. Footing dowels (#6 bars and smaller) with hooks need not extend more than 20" into footings.
 - All vertical reinforcing shall be dowelled to ends of walls and openings into the far end of the jamb column with a 90 degree standard hook plus a 6 bar diameter extension. Horizontal wall reinforcing shall be continuous through construction and control joints.
 - See detail B2/S501 for reinforcing around miscellaneous openings (8" to 36" wide). For openings wider than 36", contact the engineer. All recesses that interrupt reinforcing shall be reinforced the same as an opening.

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 - At all discontinuous control or construction slab on grade joints, provide 2 - #4 x 48 inches. Provide corner bars at intersecting wall corners using the same bar size and spacing as the horizontal wall reinforcing.
 - All vertical reinforcing shall be dowelled to footings, or to the structure below with the same size and spacing as the vertical reinforcing for the element above. Dowels extending into footings shall terminate with a 90 degree standard hook and shall extend to within 4" of the bottom of the footing. Footing dowels (#6 bars and smaller) with hooks need not extend more than 20" into footings.
 - All vertical reinforcing shall be dowelled to ends of walls and openings into the far end of the jamb column with a 90 degree standard hook plus a 6 bar diameter extension. Horizontal wall reinforcing shall be continuous through construction and control joints.
 - See detail B2/S501 for reinforcing around miscellaneous openings (8" to 36" wide). For openings wider than 36", contact the engineer. All recesses that interrupt reinforcing shall be reinforced the same as an opening.

8. Construction:
 - Use chairs or other support devices recommended by the CRSI to support and tie reinforcement bars and WWF prior to placing concrete. WWF shall be continuously supported at 36" o.c. maximum. Reinforcing steel for slabs on grade shall be adequately supported on precast concrete units. Lifting the reinforcing off the grade during placement of concrete is not permitted.
 - Concrete to be mechanically consolidated during placement per ACI standards.
 - Contractor shall coordinate placement of all openings, curbs, dowels, sleeves, conduits, bolts, inserts and other embedded items prior to concrete placement.
 - All embeds and dowels shall be securely tied to formwork or to adjacent reinforcing prior to the placement of concrete.
 - No pipes, ducts, sleeves, etc shall be placed in structural concrete unless specifically detailed or approved by the structural engineer. Penetrations through walls when approved shall be built into the wall prior to concrete placement. Penetrations will not be allowed in footings or grade beams unless detailed. Piping shall be routed around these elements and footings tested to avoid piping.
 - Reinforcing Bars shall not be welded. Do not substitute reinforcing bars for DBAs or HSAs.
- Detailing:
 - Lap splice lengths shall be detailed to comply with the "Reinforcing Bar Lap Splice Schedule" on sheet S601. Splices may be made with mechanical splices capable of 125% tension capacity of the bar being spliced. Mechanical splices shall be the positive connecting type coupler and shall meet all Uniform Building Code requirements. Use "Coldweld", "Lenton" Standard Couplers, "Bar-Lock" or equal with internal protector. If mechanical splices are used, splices or couplers on adjacent bars shall be staggered a minimum of 24" apart along the longitudinal axis of the reinforcing bars.
 - At joints provide reinforcing dowels to match the member reinforcing, unless noted otherwise.
 - At all discontinuous control or construction slab on grade joints, provide 2 - #4 x 48 inches. Provide corner bars at intersecting wall corners using the same bar size and spacing as the horizontal wall reinforcing.
 - All vertical reinforcing shall be dowelled to footings, or to the structure below with the same size and spacing as the vertical reinforcing for the element above. Dowels extending into footings shall terminate with a 90 degree standard hook and shall extend to within 4" of the bottom of the footing. Footing dowels (#6 bars and smaller) with hooks need not extend more than 20" into footings.
 - All vertical reinforcing shall be dowelled to ends of walls and openings into the far end of the jamb column with a 90 degree standard hook plus a 6 bar diameter extension. Horizontal wall reinforcing shall be continuous through construction and control joints.
 - See detail B2/S501 for reinforcing around miscellaneous openings (8" to 36" wide). For openings wider than 36", contact the engineer. All recesses that interrupt reinforcing shall be reinforced the same as an opening.

EPOXY

- Epoxy shall be "HIT HY 150 MAX" or "HIT RE 500" by Hilti Corporation, "Anchor-It" by Adhesive Technology Corporation, "Epocon Injection System" by Ramset/Rehadeh, "Power-Fast" by Rawl or approved equal.
- All drilled holes shall be 1/8 inch larger than the bar or anchor bolt being installed.
- After drilling the proper size hole, clean the walls and bottom of the hole of all dust and debris using a nylon brush in conjunction with oil free compressed air. The hole shall be free of dust, debris and standing water.
- Follow all manufacturer's recommendations for epoxy installation.

STRUCTURAL STEEL

- Material:
 - Other shapes & Plates ASTM A36
 - Deformed Bar Anchors (DBA) ASTM A496
 - Bolted Connections ASTM A325
- Fabrication and construction shall comply with the latest edition of the following Codes and Standards:
 - American Institute of Steel Construction (AISC), "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings," with "Commentary".
 - AISC "Code of Standard Practice" excluding the following: Section 3.4, Section 4.4, Section 4.4.1.
 - AISC "Specification for Structural Joints Using ASTM A325 or A490 Bolts"
 - American Welding Society (AWS), Structural Welding Code (specific items do not apply when they conflict with the AISC requirements).
 - AISC "Seismic Provision for Structural Steel Buildings"
- Welding:
 - All welding and cutting shall be performed by AWS certified welders.
 - Application shall be 1.5 lbs minimum per cubic yard.
 - Use E-70 XX or as noted otherwise.
 - All intersecting steel shapes which are not bolted shall be connected by a fillet weld all around, unless noted otherwise. Where fillet weld sizes are not shown they 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 part.
 - Reinforcing Bars: Do not weld rebar. Do not substitute reinforcing bars for deformed bar anchors (DBAs), machine bolts, or headed stud anchors (HSAs).
 - Do not weld anchor bolts, including "back" welds.
 - Headed Stud Anchors (HSAs) welding and deformed bar anchor welding shall conform to the manufacturer's specifications.
- Bolted Connections:
 - Use ASTM A325N bolts for steel to steel connections, as noted herein or as noted on the drawings. A325N bolts shall be used in connections for simple span framing and beam (or girder) to bearing plate connections. Tightly bolts to a snug tight condition.
 - Use hardened washers beneath the turned element of all bolts or nuts. Use hardened beveled washers, to compensate for the lack of parallelism, where the outer faces of the bolted parts has a slope greater than one in twenty with respect to the plane normal to the bolt axis. At oversized holes hardened washers or plates shall conform with ASTM F-436 and shall completely cover the slot after installation.
 - Where a steel to steel beam connection is not shown, provide a standard AISC framed connection for one half the total uniform load capacity of the beam for the span and steel specified.
 - Bolts, nuts and washers shall not be reused.

METAL DECKING

- Steel deck shall comply with the latest requirements of the Steel Deck Institute.
- All deck shall be 3-span continuous minimum. In areas where 3-span conditions are not possible, the contractor shall provide heavier gauge deck as required to provide the equivalent loading of the deck under a three span condition.
- All deck supporting members shall be dry before welding.
- Crimp seams before button punching or welding interlocking seams.
- Where deck is to receive sprayed-on fire proofing, deck shall be coated, as required, with special paint that will allow the sprayed-on fire proofing to adhere to the deck.

STEEL FLOOR DECK

- Steel floor deck shall be 3" deep X 18 gauge minimum Non-Composite Formlock deck with interlocking side seams and #10 screws at 8' o.c. with the following properties:

18 Gauge	
Minimum S (in ² /ft)	= 0.767
Minimum I (in ⁴ /ft)	= 1.203
- Steel deck with 5 1/2" thick (overall thickness) normal weight concrete slab shall have a minimum diaphragm shear capacity of 450 lbs/ft. for a 1 deck span.
- Deck Attachment:
 - Frame Fastening: #12 STS @ 36/4 Pattern.
 - Stitch Fastening: (1) #10 STS per plan.
- Attach interlocking seams with 3/16" Ø button punch at 18" o.c. or with 1 1/2" top seam weld at 36" o.c. or with Vercor PunchLok System at 36" o.c. or with ASC DeltaGrip System at 36" o.c. Closer spacings may be used to develop minimum shear requirements.
- Provide a 2-inch minimum bearing at supports.

COLD-FORMED STEEL

- All cold-formed steel shall meet the requirements of "Specifications for the Design of Cold-Formed Steel Structural Members" by American Iron and Steel Institute (AISI).
- Light Gauge Steel Framing:
 - Galvanized steel must meet the minimum requirements of ASTM A446 Grade D (Fy = 50 ksi) for 12, 14 and 16-gauge and ASTM A446 Grade A (Fy = 33 ksi) for 18-gauge and lighter. Galvanized coatings must meet the ASTM A525 specification.
 - Follow all manufacturers' recommendations for the use of these products.
 - Unless noted otherwise, all welded connections shall be done according to AWS standards.
 - All interior non-bearing steel-stud walls that extend above the ceiling but do not attach to the structure above shall be brace with diagonal metal-stud braces (45 degrees). The kiti ratio of the brace shall not exceed 200 and shall not be spaced further apart than 10'-0" o.c. Connect diagonal braces to the top of the steel stud walls and to the top flange of the steel beams with two #10 tek screws minimum. Where a concrete deck occurs above, use two wall reinforcing shall be continuous through construction and control joints.
- Prefabricated Systems: Submit complete shop drawings and calculations of all elements for review. Shop Drawings shall bear the stamp of a Professional Engineer registered in the State of Utah.

PREFABRICATED METAL BUILDING

- The design, fabrication and erection of all prefabricated elements and associated hardware shall comply with the latest requirements of the IBC, AISC, SDI and AISI.
- Prior to fabrication and installation of anchor bolts, the metal building supplier shall submit complete shop drawings and calculations including reactions bearing the stamp of a Registered Design Professional licensed in the State of Utah. Complete calculations shall be submitted with the shop drawings.
- Do not modify any structural element of the prefabricated metal building without the written consent and direction from the manufacturer. Send copies of the consent and modifications to the Architect and Engineer.
- The design of the premanufactured structural roof system including the steel deck, joists, girders, columns, and the lateral force resisting system (including rigid frames) is the responsibility of the premanufactured metal building supplier. Refer to the prefabricated structural roof system supplier's drawings and calculations for the exact gravity roof load values and for the design of the roof and lateral systems.

SPECIAL INSPECTION AND QUALITY ASSURANCE

- Special inspection and quality assurance, as required by section 1704 of the IBC, shall be provided by an independent agency employed by the owner unless waived by the building official. The contractor shall coordinate and cooperate with the required inspections. All testing and inspection reports shall be sent within 24 hours of the test to the architect, engineer and contractor for review. Special inspection during fabrication is not required if the fabricator is registered and approved to perform such work with out special inspection. Items requiring special inspection and quality assurance are:
 - Soils (IBC 1704.7)
 - Prior to placement of the prepared fill, the special inspector shall determine that the site has been prepared in accordance with the soils report.
 - During placement and compaction of the fill material, the special inspector shall determine that the material being used and the maximum lift thickness comply with the soils report.
 - The special inspector shall determine that the in-place dry density of the compacted fill material complies with the soils report.
 - Continuous Footing Backfill: At each compacted backfill layer, at least one test for each 25 linear feet or less of wall length, but no fewer than 2 tests.
 - Spot Footing Backfill: Minimum of one compaction test for each lift for each spot footing.
 - See specifications for further requirements.
- Concrete placement. (IBC Section 1704.4)
 - Continuous special inspection shall be provided
 - Cylinders, slump, temperature and air-entrainment shall be done for every 50 cubic yards or each day's production if less than 50 cubic yards.
 - See specifications for further concrete testing requirements.
- Bolts installed in concrete (IBC Section 1704.4)
 - All bolts shall be inspected prior to and during concrete placement.
- Embeds and Inserts installed in concrete (IBC Section 1704.4)
 - All embeds and inserts shall be inspected prior to and during concrete placement.
- Concrete reinforcing steel placement (IBC Section 1704.4)
 - All Reinforcing shall be inspected prior to concrete placement.
- Structural welding, including steel deck (IBC 1704.3)
 - Periodic special inspection of metal floor prior to concrete placement and roof decks.
 - Periodic special inspection of single pass fillet welds less than or equal to 5/16"
 - Continuous special inspection of single pass fillet welds greater than 5/16" and multi-pass fillet welds.
 - Continuous special inspection of complete and partial penetration welds.
- High Strength bolted connections (IBC Section 1704.3.3)
 - Periodic special inspection of bearing type connections.
 - Continuous special inspection of slip critical connections. Special inspector shall be present to observe the pre-installation testing and calibration procedures.
- Epoxy Anchors (IBC Section 1704.13)
 - Special inspection shall verify all drilled holes' size and depth prior to installation of epoxy and anchor rod.

DEFERRED SUBMITTALS

- For the purpose of this section, deferred submittals are defined as per section 106.3.4.2 of the IBC. Submittal documents for deferred submittal items shall be submitted to the engineer/architect for their review for general conformance with the design of the building. Deferred structural submittals for this project are:
 - Prefabricated Metal Building

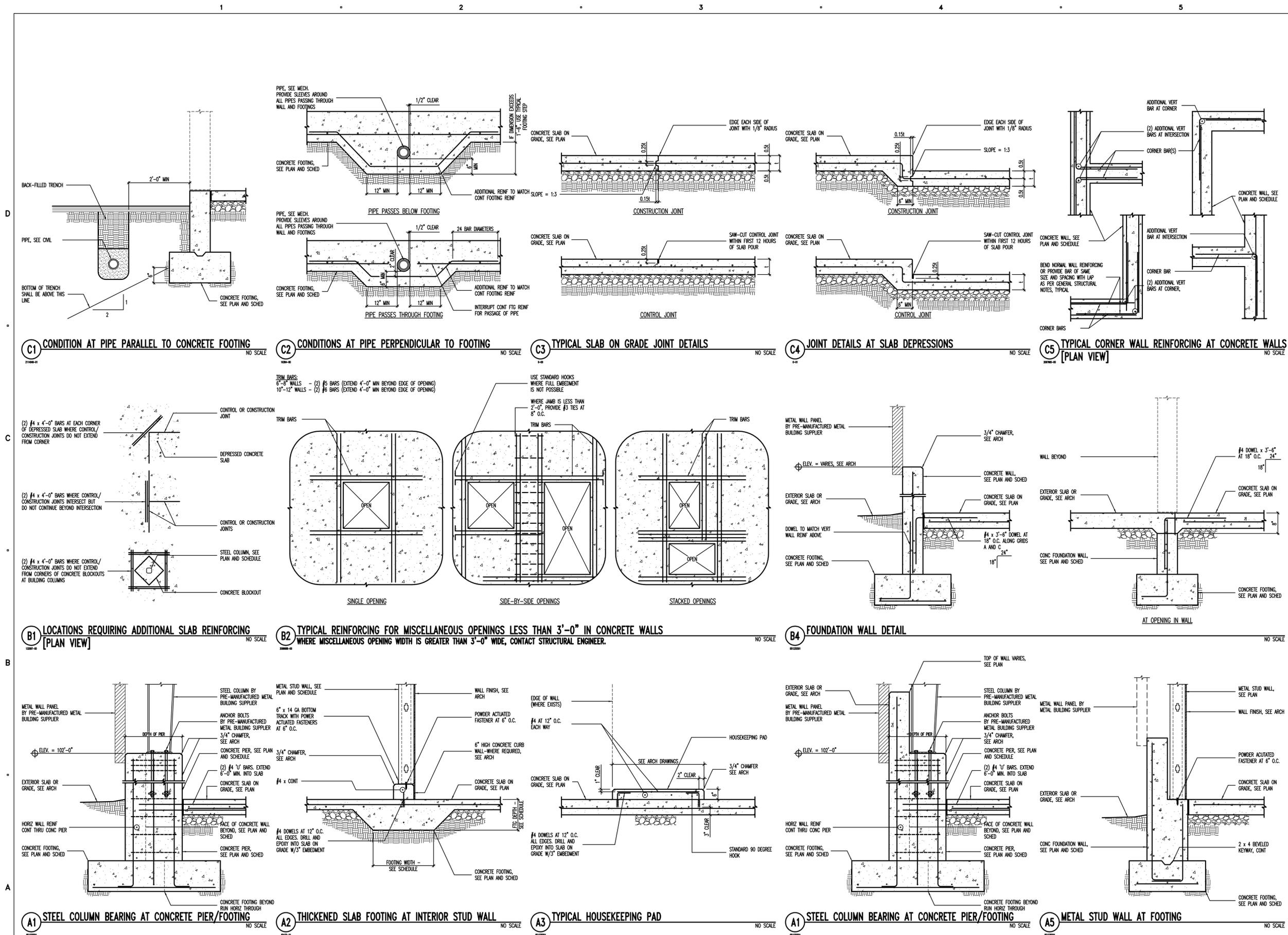
LEGEND OF MARKS AND ABBREVIATIONS

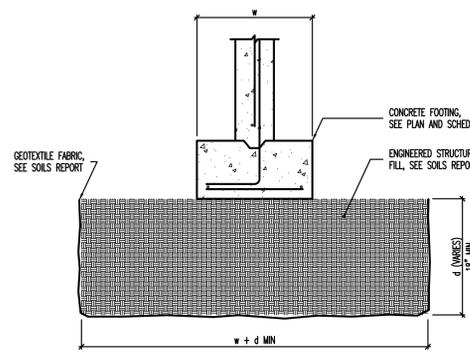
AB	ANCHOR BOLT(S)	JST	JOIST
ABV	ABOVE	K	KIPS (K) = 1000 POUNDS
ALT	ALTERNATE	KLF	KIPS PER LINEAL FOOT
APPROX	APPROXIMATE	KSF	KIPS PER SQUARE FOOT
ARCH	ARCHITECTURAL	LLS	POUNDS
BLDG	BUILDING	LF	LINEAL FOOT
BLW	BELOW	LLH	LONG LEG HORIZONTAL
BM	BEAM	LLV	LONG LEG VERTICAL
BOT	BOTTOM	LSV	LONG SIDE VERTICAL
BRG	BRACING	MAX	MAXIMUM
BTWN	BETWEEN	MECH	MECHANICAL
CC	CENTER-TO-CENTER	MFR	MANUFACTURER
C.J.	CONST CONTROL JOINT	MN	MINIMUM
COL	COLUMN	MISC	MISCELLANEOUS
CONC	CONCRETE	NTS	NOT IN CONTRACT
CONST	CONSTRUCTION	NTS	NOT TO SCALE
CTR	CENTER	O.C.	ON CENTER
CTW-x	CONCRETE WALL	O.F.	OUTSIDE FACE
DBA	DEFORMED BAR ANCHOR	OPNG	OPENING
DBE	DECK BEARING ELEVATION	OPP	OPPOSITE
DBL	DOUBLE	PCF	POUNDS PER CUBIC FOOT
DET	DETAIL	PL	PLATE
DIAM	DIAMETER	PLF	POUNDS PER LINEAL FOOT
DN	DOWN	PSF	POUNDS PER SQUARE FOOT
DWG	DRAWING	PSI	POUNDS PER SQUARE INCH
DWL	DOWEL	PT	POINT
EA	EACH	REIN	REINFORCING
E.F.	EACH FACE	REQD	REQUIRED
ELEV	ELEVATION	SHT	SHEET
EQUIP	EQUIPMENT	SPI	SPECIAL INSPECTION
EQ	EQUAL	SM	SHIMLAR
EACH WAY	EACH WAY	SOG	SLAB-ON-GRADE
EXT	EXTENDING	SQ	SQUARE
EXP	EXPANSION	STAG	STAGGERED
EXT	EXTERIOR	STD	STANDARD
FC-x	CONTINUOUS FOOTING MARK	STL	STEEL
F.D.	FLOOR DRAIN	STR	STRUCTURAL
FDN	FOUNDATION	STS	SELF TAPPING SCREWS
F.F.	FINISHED FLOOR	T&B	TOP AND BOTTOM
FS-x	FINISHED FLOOR SQUARE FOOTING MARK	TEMP	TEMPERATURE
FT	FOOT	THDS	THREADS
FTG	FOOTING	T.O.	TOP OF
FTG-x	THICKEN SLAB MARK	TOC	TOP OF CONCRETE
GA	GAUGE	TOP	TOP OF DECK
GALV	GALVANIZED	TOW	TOP OF FOOTING
GEN	GENERAL	TYP	TYPICAL
GEN	GENERAL STRUCTURAL NOTES	UN	UNLESS NOTED OTHERWISE
HORIZ	HORIZONTAL	VERT	VERTICAL
HT	HEIGHT	W	WITH
ICBO	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS	WWF	WELDED WIRE FABRIC
IBC	INTERNATIONAL BUILDING CODE	WWM	WELDED WIRE MESH
IF	INSIDE FACE		
IN	INCH		
INT	INTERIOR		
JT	JOINT		

8. Construction:
 - Use chairs or other support devices recommended by the CRSI to support and tie reinforcement bars and WWF prior to placing concrete. WWF shall be continuously supported at 36" o.c. maximum. Reinforcing steel for slabs on grade shall be adequately supported on precast concrete units. Lifting the reinforcing off the grade during placement of concrete is not permitted.
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 - Reinforcing Bars shall not be welded. Do not substitute reinforcing bars for DBAs or HSAs.
- Detailing:
 - Lap splice lengths shall

NO.	DATE	DESCRIPTION
02-2008		CONSTRUCTION DOCUMENTS

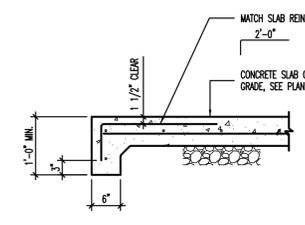
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DFCM PROJECT NO:	07029900
BHB PROJECT NO:	07099
DRAWN BY:	CHRIS B.
CHECKED BY:	GERALD M.
SCALE:	
DATE:	FEBRUARY, 2008



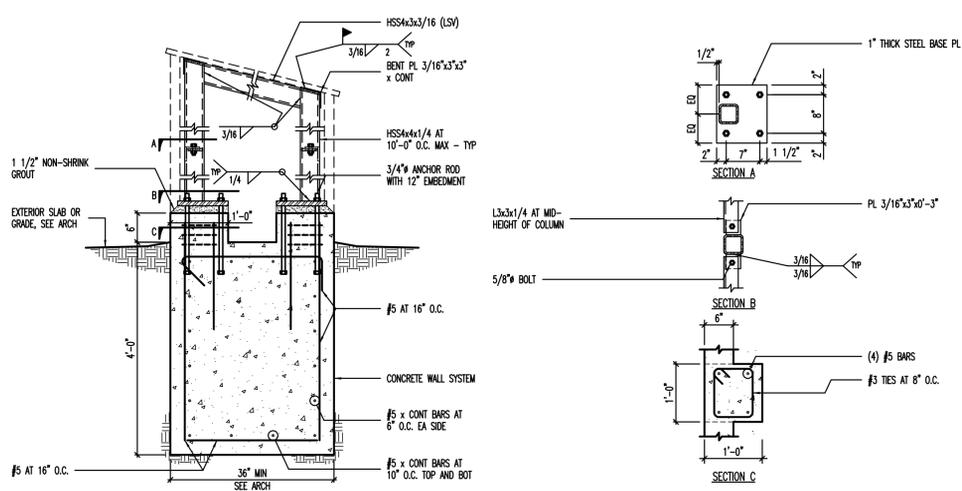


C1 ENGINEERED STRUCTURAL FILL DETAIL NO SCALE

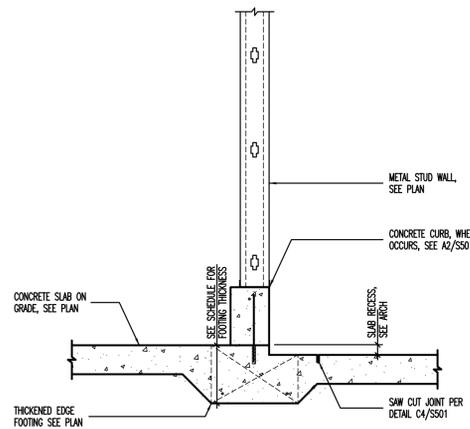
C2 NOT USED



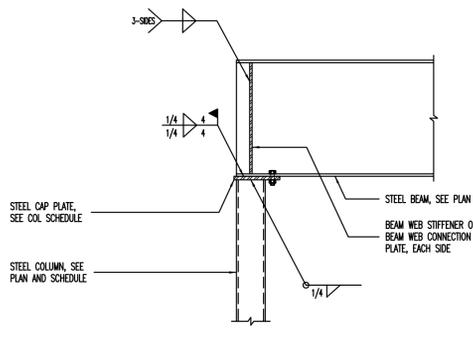
C3 SLAB TURNDOWN DETAIL NO SCALE



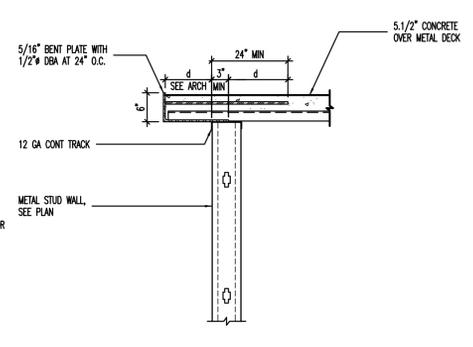
C4 GATE HOUSE SECTION NO SCALE



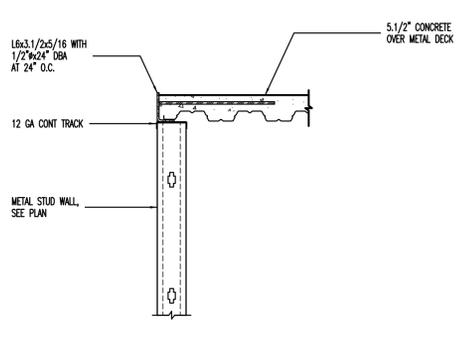
B1 RECESSED SLAB AT FTS1.5



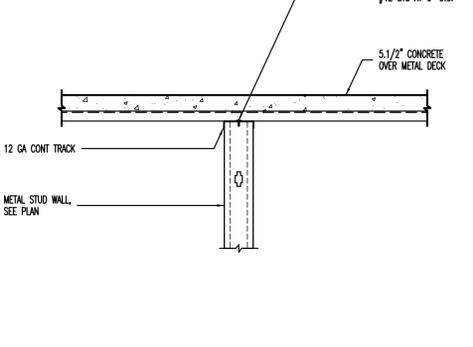
B2 TYPICAL STEEL BEAM BEARING AT STEEL COLUMN NO SCALE



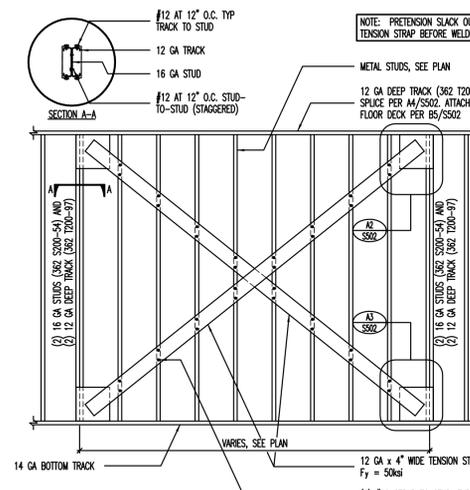
B3 STEEL DECK EDGE DETAIL PERPENDICULAR TO WALL NO SCALE



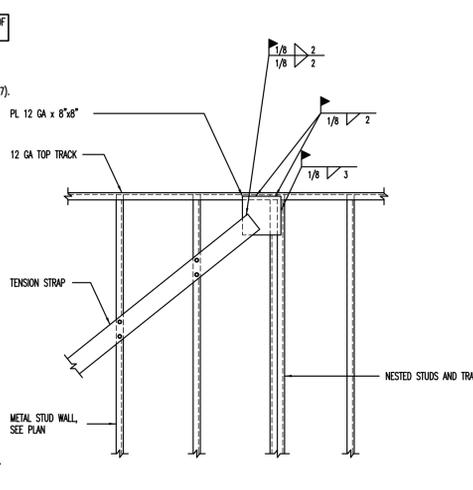
B4 STEEL DECK EDGE DETAIL PERPENDICULAR TO WALL NO SCALE



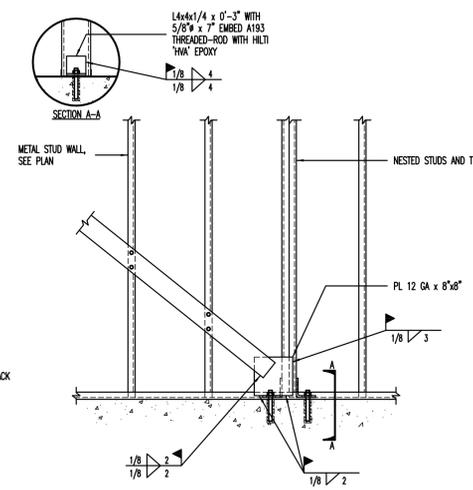
B5 STEEL DECK ON INTERIOR BEARING WALL NO SCALE



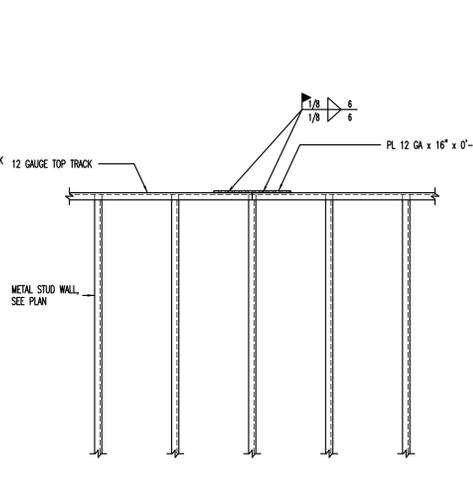
A1 TENSION STRAP BRACE NO SCALE



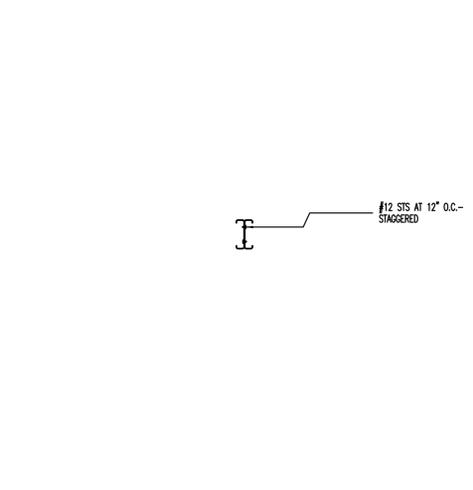
A2 TENSION STRAP BRACE NO SCALE



A3 TENSION STRAP BRACE NO SCALE



A4 TOP TRACK SPLICE DETAIL NO SCALE



A5 TYPICAL HEADER SECTION NO SCALE

CLIENT

STATION #3437A
SR-44 @ M.P. 0.5 ±
GREENDALE UTAH

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Email: bhb@bhbengineers.com

PROFESSIONAL SEAL

ISSUE

MARK	DATE	DESCRIPTION
02-2008		CONSTRUCTION DOCUMENTS

MARK	DATE	DESCRIPTION
DFCM CONTRACT NO:		077325
DFCM PROJECT NO:		07029900
BHB PROJECT NO:		07099
DRAWN BY:		CHRIS B.
CHECKED BY:		GERALD M.
SCALE:		
DATE:		FEBRUARY, 2008

SHEET TITLE

FOOTING AND FOUNDATION DETAILS

S502

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MARK	WIDTH	LENGTH	DEPTH	REINFORCING CROSSWISE				REINFORCING LENGTHWISE				COMMENTS
				No.	SIZE	LENGTH	SPACING	No.	SIZE	LENGTH	SPACING	
F1S1.5	1'-6"	CONT	12"	-	-	-	-	2	#4	CONT	EQ	THICKENED SLAB
FC2.0	2'-0"	CONT	12"	-	-	-	-	3	#4	CONT	EQ	
FC2.5	2'-6"	CONT	12"	-	#5	2'-0"	14"	3	#5	CONT	EQ	
FC3.0	3'-0"	CONT	12"	-	#5	2'-6"	14"	3	#5	CONT	EQ	
FC3.5	3'-6"	CONT	12"	-	#5	3'-0"	14"	3	#5	CONT	EQ	
FC4.0	4'-0"	CONT	12"	-	#5	3'-6"	14"	4	#5	CONT	EQ	
FC4.5	4'-6"	CONT	12"	-	#5	4'-0"	14"	4	#5	CONT	EQ	
FC5.0	5'-0"	CONT	12"	-	#5	4'-6"	14"	5	#5	CONT	EQ	
FS2.5	2'-6"	2'-6"	12"	3	#5	2'-0"	EQ	3	#5	2'-0"	EQ	
FS3.0	3'-0"	3'-0"	12"	3	#5	2'-6"	EQ	3	#5	2'-6"	EQ	
FS3.5	3'-6"	3'-6"	12"	3	#5	3'-0"	EQ	3	#5	3'-0"	EQ	
FS4.0	4'-0"	4'-0"	12"	4	#5	3'-6"	EQ	4	#5	3'-6"	EQ	
FS4.5	4'-6"	4'-6"	12"	4	#5	4'-0"	EQ	4	#5	4'-0"	EQ	
FS5.0	5'-0"	5'-0"	12"	5	#5	4'-6"	EQ	5	#5	4'-6"	EQ	
FS5.5	5'-6"	5'-6"	12"	5	#5	5'-0"	EQ	5	#5	5'-0"	EQ	
FS6.0	6'-0"	6'-0"	12"	6	#5	5'-6"	EQ	6	#5	5'-6"	EQ	
FS7.0	7'-0"	7'-0"	14"	8	#5	6'-6"	EQ	8	#5	6'-6"	EQ	
FS7.5	7'-6"	7'-6"	14"	8	#5	7'-0"	EQ	8	#5	7'-0"	EQ	

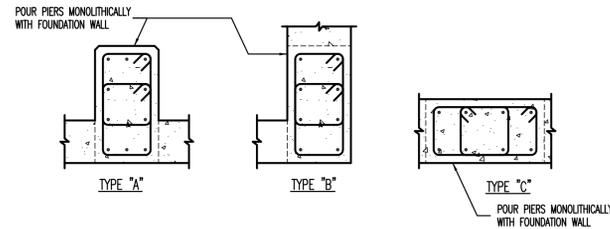
- CONCRETE FOOTING NOTES:**
- PLACE ALL FOOTING REINFORCING IN THE BOTTOM OF THE FOOTING WITH 3" CLEAR CONCRETE COVER (UNO).
 - TOP REINFORCING, WHERE OCCURS, SHALL BE PLACED IN THE TOP OF THE FOOTING WITH 2" MINIMUM CONCRETE COVER.
 - IF FOOTINGS ARE EARTH-FORMED, FOOTINGS SHALL BE 6" LONGER AND WIDER THAN SCHEDULED.
 - SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
 - SOME SCHEDULED FOOTINGS MAY NOT BE USED, SEE FOOTING AND FOUNDATION PLAN FOR FOOTING MARKS.

C1 CONCRETE FOOTING SCHEDULE

NO SCALE

MARK	PIER SIZE	REINFORCING		TYPE	COMMENTS
		VERTICAL	TIES		
CP-1	12" x 22"	(10) #5	(2) #3 AT 8" O.C.	A	
CP-2	12" x 18"	(8) #5	(2) #3 AT 8" O.C.	B	
CP-3	12" x 18"	(8) #5	(2) #3 AT 8" O.C.	C	
CP-4	12" x 18"	(8) #5	(2) #3 AT 8" O.C.	C	

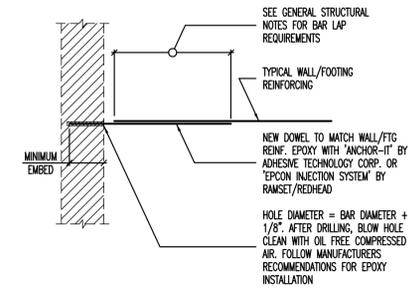
- CONCRETE PIER NOTES:**
- INSTALL (3) SETS OF TIES AT 3" O.C. AT TOP OF ALL PIERS (UNO).
 - RUN HORIZONTAL CONCRETE WALL REINFORCING CONTINUOUS THROUGH PIER WHEN PIER IS POURED MONOLITHICALLY WITH CONCRETE WALL.
 - SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.



C2 CONCRETE PIER SCHEDULE

NO SCALE

EPOXY DOWEL EMBED SCHEDULE	
DOWEL SIZE	MINIMUM EMBEDMENT INTO EXISTING CONCRETE
#4	6 1/2"
#5	7 1/2"
#6	10"
#7	1'-1"
#8	1'-4"



C3 EPOXY DOWEL EMBED SCHEDULE

NO SCALE

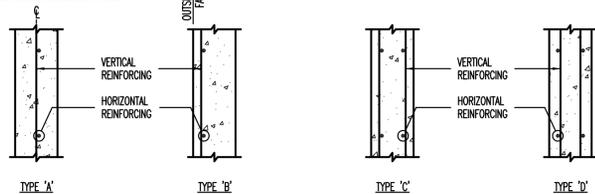
MARK	THICKNESS	REINFORCING				WALL TYPE	COMMENTS
		VERTICAL	HORIZONTAL	TOP AND BOTTOM			
CW-1	12"	#5 AT 16" O.C. E.F.	#4 AT 12" O.C. E.F.	(2) #5	C		
CW-2	12"	#4 AT 18" O.C. E.F.	#4 AT 12" O.C. E.F.	(2) #4	C		
CW-3	12"	#4 AT 18" O.C. E.F.	#4 AT 12" O.C. E.F.	(2) #4	C		
CW-4	12"	#4 AT 18" O.C.	#4 AT 12" O.C.	(1) #4	A	ABV. ELEV. 100'-0"	
	20"	#4 AT 18" O.C. E.F.	#4 AT 12" O.C. E.F.	(2) #4	C	BELOW ELEV. 100'-0"	
CW-5	8"	#4 AT 18" O.C.	#4 AT 12" O.C.	(1) #4	A	ABV. ELEV. 100'-0"	
	16"	#4 AT 18" O.C. E.F.	#4 AT 12" O.C. E.F.	(2) #4	C	BELOW ELEV. 100'-0"	
CW-6	8"	#4 AT 18" O.C.	#4 AT 12" O.C.	(1) #4	A		
CW-7	8"	#5 AT 15" O.C.	#4 AT 12" O.C.	(1) #5	B		
CW-8	8"	#5 AT 18" O.C.	#4 AT 12" O.C.	(1) #4	B		

- CONCRETE FOUNDATION WALL NOTES:**
- SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
 - CONCRETE FOUNDATION WALLS NOT DESIGNATED ON PLANS SHALL BE REINFORCED AS FOLLOWS:

ABBREVIATIONS:
 E.F. EACH FACE
 I.F. INSIDE FACE
 O.F. OUTSIDE FACE

THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
6"	#4 BARS AT 18" O.C.	#4 BARS AT 16" O.C.
8"	#4 BARS AT 18" O.C.	#4 BARS AT 12" O.C.
10"	#4 BARS AT 18" O.C.	#5 BARS AT 15" O.C.
12"	#4 BARS AT 18" O.C. E.F.	#4 BARS AT 18" O.C. E.F.

WALL REINFORCING PLACEMENT TYPES:



A1 CONCRETE WALL SCHEDULE

NO SCALE

BAR SIZE	f'c = 3000psi				f'c = 4000psi				f'c = 5000psi				f'c = 6000psi			
	REGULAR CLASS		TOP CLASS		REGULAR CLASS		TOP CLASS		REGULAR CLASS		TOP CLASS		REGULAR CLASS		TOP CLASS	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
#3	13"	17"	17"	21"	12"	16"	16"	21"	12"	16"	16"	21"	12"	16"	16"	21"
#4	17"	22"	22"	28"	15"	19"	19"	25"	13"	17"	17"	22"	12"	16"	16"	21"
#5	21"	27"	27"	35"	18"	24"	24"	31"	16"	21"	21"	27"	15"	19"	19"	25"
#6	27"	36"	36"	46"	24"	31"	31"	40"	21"	28"	28"	36"	20"	25"	25"	33"
#7	37"	48"	48"	63"	32"	42"	42"	54"	29"	38"	38"	49"	27"	34"	34"	44"
#8	49"	64"	64"	82"	42"	55"	55"	71"	38"	49"	49"	64"	35"	45"	45"	58"
#9	62"	80"	80"	104"	54"	70"	70"	90"	48"	62"	62"	81"	44"	57"	57"	74"
#10	78"	102"	102"	132"	68"	88"	88"	115"	61"	79"	79"	102"	56"	72"	72"	94"
#11	96"	125"	125"	162"	83"	108"	108"	141"	76"	97"	97"	126"	68"	88"	88"	115"

- CONCRETE REINFORCING BAR LAP SPlice NOTES:**
- THIS SCHEDULE SHALL BE USED FOR ALL BAR SPLICES IN CONCRETE WALLS, UNLESS NOTED OTHERWISE.
 - CLASS 'A' SPLICES MAY BE USED ONLY IN CASES WHERE 50% OR LESS OF THE BARS ARE SPLICED WITHIN THE LAP SPlice LENGTH.
 - CLASS 'B' SPLICES SHALL BE USED FOR ALL SPLICES UNLESS THE REQUIREMENTS OF NOTE NO. 2 ABOVE ARE MET.
 - TIES AND STIRRUPS SHALL NOT BE SPLICED.
 - SPLICES FOR BUNDLED BARS:
 - FOR BUNDLED BARS OF THREE OR LESS, LAP SPlice LENGTHS SHALL BE MULTIPLIED BY 1.2.
 - FOR BUNDLED BARS OF FOUR OR MORE, LAP SPlice LENGTHS SHALL BE MULTIPLIED BY 1.33.
 - INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP.
 - ENTIRE BUNDLES SHALL NOT BE LAP SPLICED.
 - FOR ALL LIGHTWEIGHT CONCRETE, LAP LENGTHS SHALL BE MULTIPLIED BY 1.3.
 - FOR ALL EPOXY COATED BARS, LAP LENGTHS SHALL BE MULTIPLIED BY 1.3 FOR TOP BARS AND 1.5 FOR REGULAR BARS.
 - TOP BARS ARE CLASSIFIED AS HORIZONTAL BARS WHERE 12" OR MORE OF FRESH CONCRETE IS CAST BELOW THE REINFORCING BAR.
 - SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

A2 CONCRETE REINFORCING BAR LAP SPlice SCHEDULE

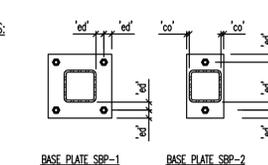
NO SCALE

STEEL COLUMN SCHEDULE				
MARK	SIZE	STEEL BASE PLATE	STEEL CAP PLATE	COMMENTS
SC-1	HSS3x3x1/4	1/2" (SBP-1)	1/2" (SCP-1)	
SC-2	HSS3x3x1/4	1/2" (SBP-2)	1/2" (SCP-1)	
SC-3	HSS3x3x1/4	1/2" (SBP-3)	1/4" SEE DETAIL B1/SS03	
SC-4	HSS3x3x1/4	1/2" (SBP-1)	1/4" SEE DETAIL A4/SS03	

- STEEL COLUMN NOTES:**
- UNLESS NOTED OTHERWISE, ALL COLUMNS SHALL BE INSTALLED WITH (4) 3/4" ANCHOR BOLTS WITH 3" MINIMUM HOOKS. PROJECT ANCHOR BOLTS 3" MINIMUM ABOVE THE TOP OF THE BASE PLATE. EMBEDMENT SHALL BE 3" MINIMUM. ALL BOLTS SHALL BE INSTALLED WITH HARDENED WASHERS BENEATH THE NUT. ANY BOLT HOLES LARGER THAN THE BOLT DIAMETER PLUS 5/16" SHALL HAVE 5/16" PLATE WASHERS INSTALLED BENEATH THE HARDENED WASHERS.
 - ALL CAP PLATE BOLTS SHALL BE 3/4" A325N BOLTS, TYPICAL UNLESS NOTED OTHERWISE.
 - ANCHOR BOLTS SHALL NOT BE WELDED (INCLUDING TACK WELDS).
 - SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

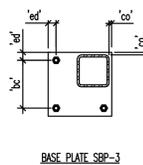
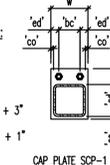
STEEL BASE PLATE TYPES:

BASE PLATE LEGEND:
 co = 1/2" MINIMUM
 ed = 1 1/2" MINIMUM
 bc = 3" MINIMUM



STEEL CAP PLATE TYPES:

CAP PLATE LEGEND:
 co = 1/2" MINIMUM
 ed = 1 1/2" MINIMUM
 bc = BEAM OR GIRDER GAGE
 w = BEAM OR GIRDER WIDTH + 3"
 OR
 BEAM OR GIRDER WIDTH + 1"
 OR
 COLUMN WIDTH + 1"
 WHICHEVER IS GREATER



A3 STEEL COLUMN SCHEDULE

NO SCALE

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PROFESSIONAL SEAL

ISSUE

02-2008 CONSTRUCTION DOCUMENTS

MARK DATE DESCRIPTION

DFCM CONTRACT NO: 077325

DFCM PROJECT NO: 07029900

BHB PROJECT NO: 07099

DRAWN BY: CHRIS B.

CHECKED BY: GERALD M.

SCALE:

DATE: FEBRUARY, 2008

SHEET TITLE

STRUCTURAL SCHEDULES

S601

SYMBOL SCHEDULE	
	SPECIFIED MECHANICAL EQUIPMENT (SEE SCHEDULE)
	SPECIFIED REGISTER OR GRILLE & DESIGN CFM (SEE SCHEDULE)
	REFERENCE TO GENERAL NOTES FOR CLARIFICATION
	DUCTWORK INSIDE DIMENSION (ROUND)
	DUCTWORK INSIDE DIMENSIONS (RECTANGULAR - WIDTH/HEIGHT)
	SUPPLY AIR TOWARDS
	SUPPLY AIR AWAY
	RETURN AIR OR EXHAUST AIR TOWARDS
	RETURN AIR OR EXHAUST AIR AWAY
	DIRECTION OF AIR FLOW
	REFRIGERATION PIPE SIZE (SUCTION)
	REFRIGERATION PIPE SIZE (LIQUID)
	CEILING GRILLE
	VOLUME DAMPER
	FIRE DAMPER
	SMOKE DETECTOR
	UNDERCUT DOOR
	SENSOR
	THERMOSTAT
	SWITCH

FURNACE												
MARK	MANUFACTURER CATALOG No.	CFM	INPUT BTU	OUTPUT BTU	V	PHASE	HP	S.P.	RPM	DRIVE	FILTER SIZE	NOTES
	TRANE #TUX1B080A421A	800	80,000	74,000	115	1	1/2	0.5	1075	DIRECT	14"x20"x1"	(1)

(1) AFUE = 95, R-22, PROVIDE WTXK050C4HFD EVAPORATOR, CONCENTRIC VENT KIT, CONDENSER, EVAPORATOR AND FURNACE BY SAME MANUFACTURER, PROPANE.

EXHAUST FAN SCHEDULE											
MARK	SERVES	CFM	STATIC PRESS.	HP	RPM	V	PHASE	SONES	WEIGHT	MAKE & MODEL	NOTES
	RESTROOM	120	0.15	30W	1200	120	1	1.7	22	COOK #SC-240	(4) (5) (6)
	VEHICLE SVC BAY	6,000	0.25	1.0	701	208	1	14.7	299	COOK XLP 30	(1) (2) (3) (1) (2) (4)

(1) PROVIDE WALL FAN AS PACKAGED UNIT
 (2) CONTROL WITH CARBON MONOXIDE DETECTOR THROUGH ON/AUTO SWITCH
 (3) INNER LOCK LOUVER MOTOR WITH FAN MOTOR
 (4) CEILING GRILLE
 (5) COOK #CA-2 HALL CAP AND DAMPER
 (6) CONTROL WITH MOTION DETECTOR
 (7) INTEGRAL EXHAUST SHUTTER
 (8) MOTORIZED INLET LOUVER. INTERLOCK LOUVER WITH FAN MOTOR SEE PLANS FOR LOCATION
 (9) SAFETY INLET SCREEN

CONDENSING UNIT SCHEDULE											
MARK	MANUFACTURER CATALOG No.	NOM. TONS	AMB. TEMP.	V	PHASE	MCA	MOCP	FLA	SEER	SUCTION TEMP.	NOTES
	TRANE #2TB8024A100	2.0	96	208/230	1	12	20	8.7	13	45	(1)

(1) PROVIDE WITH FUSED DISCONNECT, CONNECT TO EVAPORATOR COIL IN F-1, ANTI-SHORT CYCLE, PROGRAMMABLE THERMOSTAT, HIGH/LOW PRESSURE SWITCH, FACTORY INSTALLED ACCUMULATOR, CRANKCASE HEATER, LOW AMBIENT COOLING, CONDENSER, EVAPORATOR AND FURNACE BY SAME MANUFACTURER.

GAS-FIRED RADIANT HEATERS										
MARK	MODEL	MANUFACTURER	INPUT BTUH	UNIT WEIGHT	AFUE RATING	GAS CONNECTION	ELEG. REQ.	AMPS	FLUE SIZE	REMARKS
	REP-100	ROBERTS GORDON	80,000	35	80%	1/2"	120/160	1.0	4"	(1) (2) (3)

(1) ROBERTS GORDON REP-100 VACUUM PUMP, 1/3HP, 120 VOLT, PROVIDE FRESH AIR INTAKE, 7-DAY PROGRAMMABLE THERMOSTAT, HEAT TREATED ALUMINIZED STEEL TUBE AND POLISHED ALUMINUM REFLECTOR, PROPANE GAS.
 (2) 7 DAY PROGRAMMING THERMOSTAT
 (3) PROVIDE ULTRA RAYVAC CONTROLLER 120V/20A.
 (4) COORDINATE ALL LOCATIONS WITH ARCHITECT.

REGISTER, LOUVER & GRILLE SCHEDULE						
MARK	TYPE	NECK/SIZE	SERVICE	MAX CFM	NOMINAL SIZE	REMARKS
	CEILING DIFFUSER	6"	SUPPLY	176	12X12	PRICE #5GDA (1) (3) (4) (6)
	CEILING DIFFUSER	8"	SUPPLY	280	24X24	PRICE #5GDA (2) (5) (4) (6)
	TRANSFER GRILLE	12" X 12"	TRANSFER	N.A.	12X12	PRICE #B0D (6)
	RETURN GRILLE	12" X 12"	RETURN	630	12X12	PRICE #B0D (6)
	INLET LOUVER	48" X 66"	TRANSFER	N.A.	48X66	RUSKIN ELC-445D (5) (6)
	EXHAUST LOUVER	54" X 54"	TRANSFER	N.A.	54X54	RUSKIN ELF-8115 (6)
	INLET LOUVER	16" X 16"	TRANSFER	N.A.	16X16	RUSKIN ELF-811DD (6)

(1) 12" X 12" FACE MODULE.
 (2) 24" X 24" FACE MODULE.
 (3) 3 CONCENTRIC CONES.
 (4) SET FOR HORIZONTAL DISCHARGE.
 (5) PROVIDE WITH TWO ACTUATORS NO. 66D221, 115V, 150VA RUNNING, 10 VA HOLDING.
 (6) COORDINATE ALL LOCATIONS WITH ARCHITECT.

GENERAL NOTES CONTINUED

24. ALL ROOF MOUNTED EQUIPMENT CURBS FOR EQUIPMENT PROVIDED BY THE MECHANICAL CONTRACTOR SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR.

25. LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS SHALL BE COORDINATED WITH ALL OTHER TRADES INVOLVED.

26. ALL OPENINGS IN FIRE WALLS DUE TO DUCTWORK, PIPING, CONDUIT, ETC. SHALL BE FIRE STOPPED WITH A PRODUCT SIMILAR TO SM OR APPROVED EQUAL.

27. ALL AIR CONDITIONING CONDENSATE DRAIN LINES FROM EACH AIR HANDLING UNIT AND ROOFTOP UNIT SHALL BE PIPED FULL SIZE OF THE UNIT DRAIN OUTLET WITH "P" TRAP, AND PIPED TO NEAREST DRAIN. SEE DETAILS SHOWN ON THE DRAWINGS OR THE CONTRACT SPECIFICATIONS FOR DEPTH OF AIR CONDITIONING CONDENSATE TRAP.

28. REFER TO TYPICAL DETAILS FOR DUCTWORK, PIPING, AND EQUIPMENT INSTALLATION.

29. DO NOT INSTALL EXPOSED PIPING ABOVE OR WITHIN THE CODE REQUIRED WORKING CLEARANCES OF ANY ELECTRICAL PANEL BOARD OR SWITCH GEAR (30" WIDE OR THE WIDTH OF THE PANEL, WHICHEVER IS GREATER AND 36" IN FRONT - FLOOR TO CEILING.) COORDINATE WITH ELECTRICAL CONTRACTOR.

30. ALL LOUVERS AND EXHAUST FANS TO BE WHITE.

GENERAL NOTES

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.

2. CONTRACT DOCUMENT DRAWINGS FOR MECHANICAL WORK (HVAC AND PLUMBING) ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY.

3. INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.

4. PROVIDE VIBRATION ISOLATION FOR ALL MECHANICAL EQUIPMENT TO PREVENT TRANSMISSION OF VIBRATION TO BUILDING STRUCTURE.

5. PROVIDE VIBRATION ISOLATORS FOR ALL PIPING SUPPORTS CONNECTED TO AND WITHIN 50 FEET OF ISOLATED EQUIPMENT (EXCEPT AT BASE ELBOW SUPPORTS AND ANCHOR POINTS) THROUGHOUT MECHANICAL EQUIPMENT ROOMS.

6. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS SHOWN IN AN APPROXIMATE MANNER ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PAY FOR AND REPAIR ALL DAMAGES CAUSED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES UNLESS OTHERWISE INDICATED.

7. COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL WORK, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.

8. MAINTAIN A MINIMUM OF 6"-8" CLEARANCE TO UNDERSIDE OF PIPES, DUCTS, CONDUITS, SUSPENDED EQUIPMENT, ETC., THROUGHOUT ACCESS ROUTES IN MECHANICAL ROOMS.

9. ALL TESTS SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT OR PIPING INSULATION IS APPLIED.

10. LOCATE ALL TEMPERATURE, PRESSURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE OR DUCT UP- AND DOWNSTREAM AS RECOMMENDED BY THE MANUFACTURER FOR GOOD ACCURACY.

11. TESTING, ADJUSTING, AND BALANCING AGENCY SHALL BE A MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). TESTING, ADJUSTING, AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH THE AABC STANDARDS.

12. WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURER SHALL BE USED.

13. REINFORCEMENT, DETAILING, AND PLACEMENT OF CONCRETE SHALL CONFORM TO ASTM 315 AND ACI 318. CONCRETE SHALL CONFORM TO ASTM C44. CONCRETE WORK SHALL CONFORM TO ACI 318, PART ENTITLED "CONSTRUCTION REQUIREMENTS." COMPRESSIVE STRENGTH IN 28 DAYS SHALL BE 3,000 PSI. TOTAL AIR CONTENT OF EXTERIOR CONCRETE SHALL BE BETWEEN 5 AND 7 PERCENT BY VOLUME. SLUMP SHALL BE BETWEEN 3 AND 4 INCHES. CONCRETE SHALL BE CURED FOR 7 DAYS AFTER PLACEMENT.

14. COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURERS' CERTIFIED DRAWINGS. COORDINATE AND PROVIDE ALL DUCT AND PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DUCT AND PIPING DIMENSIONS BEFORE FABRICATION.

15. ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE AND DIVISION 16 OF THE SPECIFICATION.

16. CONCRETE HOUSEKEEPING PADS TO SUIT MECHANICAL EQUIPMENT SHALL BE SIZED AND LOCATED BY THE MECHANICAL CONTRACTOR. MINIMUM CONCRETE PAD THICKNESS SHALL BE 6 INCHES. PAD SHALL EXTEND BEYOND THE EQUIPMENT A MINIMUM OF 6 INCHES ON EACH SIDE. CONCRETE HOUSEKEEPING PADS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE SIZE AND LOCATION OF CONCRETE HOUSEKEEPING PADS WITH GENERAL CONTRACTOR.

17. WHEN MECHANICAL WORK (HVAC, PLUMBING, SHEET METAL, FIRE PROTECTION ETC.) IS SUBCONTRACTED, IT SHALL BE THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE SUBCONTRACTORS AND THE ASSOCIATED CONTRACTS. WHEN DISCREPANCIES ARISE PERTAINING TO WHICH CONTRACTOR PROVIDES A PARTICULAR ITEM OF THE MECHANICAL CONTRACT OR WHICH CONTRACTOR PROVIDES FINAL CONNECTION FOR A PARTICULAR ITEM OF THE MECHANICAL CONTRACT, IT SHALL BE BROUGHT TO THE ATTENTION OF THE MECHANICAL CONTRACTOR, WHOSE DECISION SHALL BE FINAL.

18. THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.

19. ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION AND AS SHOWN IN DETAILS FOR PIPING, DUCTWORK, AND EQUIPMENT (UNLESS OTHERWISE NOTED) SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.

20. PROVIDE ACCESS PANELS FOR INSTALLATION IN WALLS AND CEILINGS, WHERE REQUIRED, TO SERVICE DAMPERS, VALVES, SMOKE DETECTORS, AND OTHER CONCEALED MECHANICAL EQUIPMENT. ACCESS PANELS SHALL BE TURNED OVER TO GENERAL CONTRACTOR FOR INSTALLATION.

21. ALL EQUIPMENT, PIPING, DUCTWORK, ETC. SHALL BE SUPPORTED AS DETAILED, SPECIFIED, AND REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.

22. PROVIDE ACCESS PANELS FOR INSTALLATION IN WALLS AND CEILINGS, WHERE REQUIRED, TO SERVICE DAMPERS, VALVES, SMOKE DETECTORS, AND OTHER CONCEALED MECHANICAL EQUIPMENT. ACCESS PANELS SHALL BE TURNED OVER TO GENERAL CONTRACTOR FOR INSTALLATION.

23. ALL EQUIPMENT, PIPING, DUCTWORK, ETC. SHALL BE SUPPORTED AS DETAILED, SPECIFIED, AND REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.

CLIENT

STATION #3437A
 SR-44 @ M.P. 0.5 ±
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PROFESSIONAL SEAL

ISSUE

MARK	DATE	DESCRIPTION
	02-2008	CONSTRUCTION DOCUMENTS

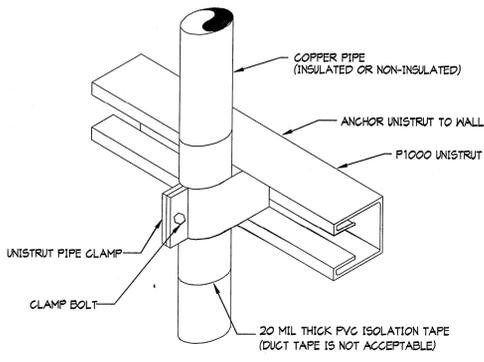
DFCM CONTRACT NO: 077325
 DFCM PROJECT NO: 07029900
 ARCHIPLEX PROJECT NO: 0708.01
 DRAWN BY: LCM
 CHECKED BY: CDH
 SCALE: NONE
 DATE: FEBRUARY, 2008

SHEET TITLE

MECHANICAL SYMBOLS AND SCHEDULES

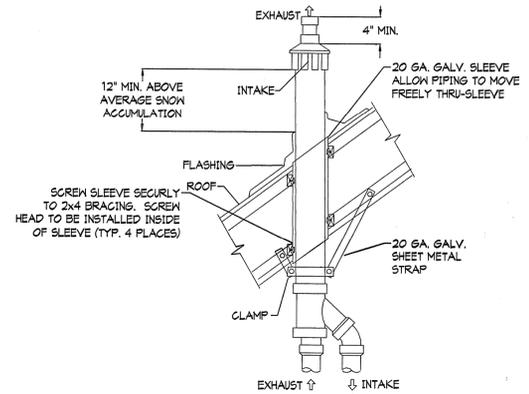
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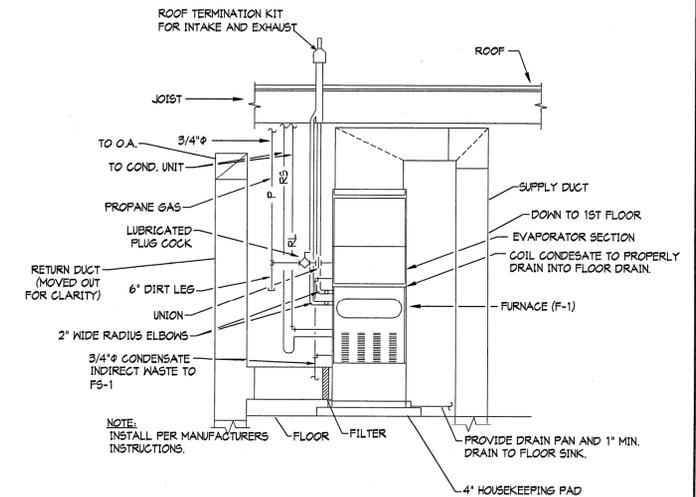
PIPE SUPPORT DETAIL

SCALE
NO SCALE 6



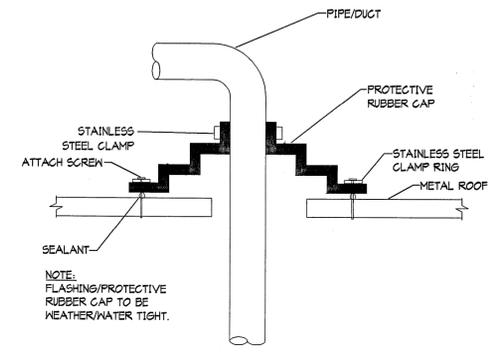
CONCENTRIC ROOF TERMINATION DETAIL

SCALE
NO SCALE 3



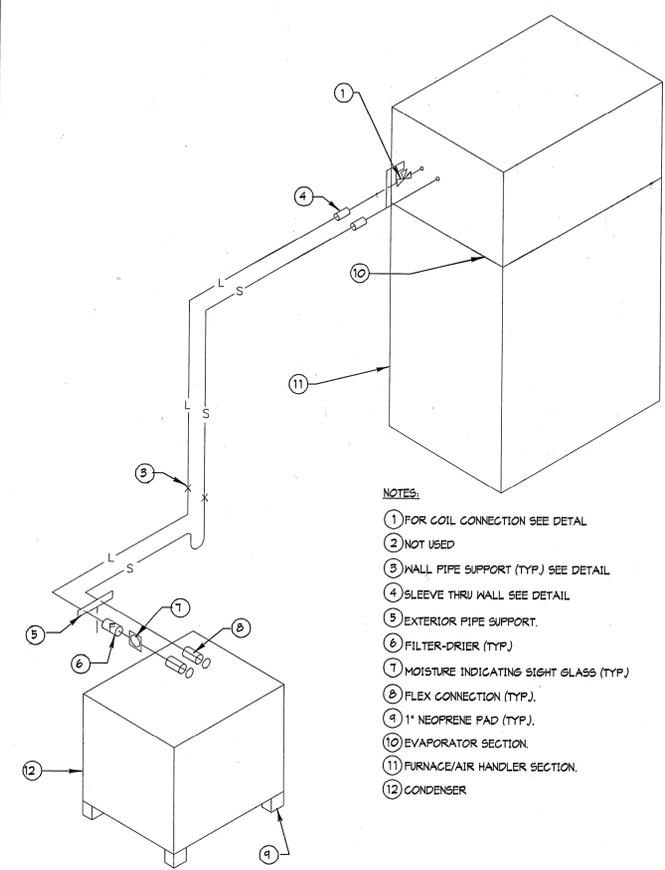
90% EFFICIENT FURNACE DETAIL

SCALE
NO SCALE 7



METAL ROOF PENETRATION DETAIL

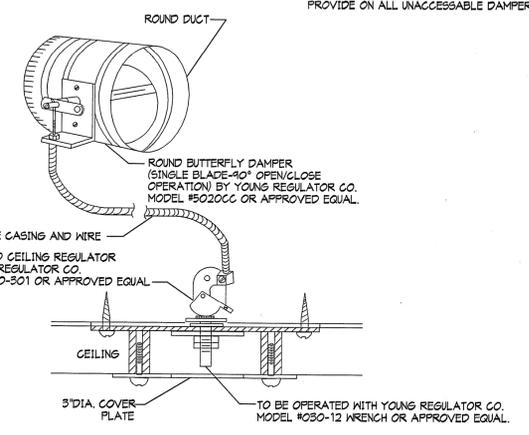
SCALE
NO SCALE 4



REFRIGERANT PIPING SCHEMATIC DETAIL

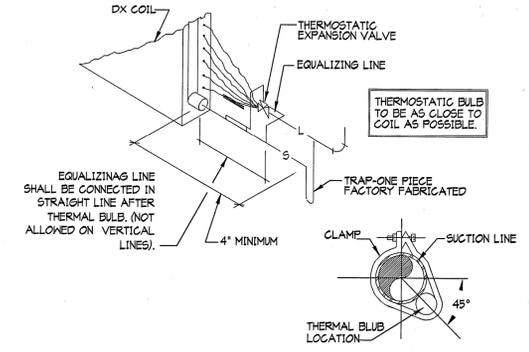
SCALE
NO SCALE 1

- NOTES:
- 1) FOR COIL CONNECTION SEE DETAIL
 - 2) NOT USED
 - 3) WALL PIPE SUPPORT (TYP.) SEE DETAIL
 - 4) SLEEVE THRU WALL SEE DETAIL
 - 5) EXTERIOR PIPE SUPPORT.
 - 6) FILTER-DRIER (TYP.)
 - 7) MOISTURE INDICATING SIGHT GLASS (TYP.)
 - 8) FLEX CONNECTION (TYP.)
 - 9) 1\"/>



DAMPER AND REGULATOR DETAIL

SCALE
NO SCALE 5



REFRIGERANT COIL CONNECTION DETAIL

SCALE
NO SCALE 2

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CONNECTING COMMUNITIES

STATION #3437A
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PROFESSIONAL SEAL

ISSUE

MARK	DATE	DESCRIPTION
	02-2008	CONSTRUCTION DOCUMENTS

DFCM CONTRACT NO: 077325
DFCM PROJECT NO: 07029900
ARCHIPLEX PROJECT NO: 0708.01
DRAWN BY: LCM
CHECKED BY: CDH
SCALE: NONE
DATE: FEBRUARY, 2008

SHEET TITLE

MECHANICAL DETAILS

M601

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GENERAL NOTES TO ALL SHEETS

- INSULATE PIPING WITH FIBERGLASS PIPE COVERING WITH ALL SERVICE JACKET AND SELF-CAP SEAL. FITTINGS SHALL BE MITERED PIPING COVERING OF GLASS FIBER MOLDED FITTINGS FOR USE IN A RETURN AIR FLENUM. THERMAL CONDUCTIVITY SHALL BE A MAXIMUM OF .25/INCH THICKNESS AT 75°F.
- EACH TRADE IS RESPONSIBLE THEIR OWN FIRE CAULKING.
- HOUSEKEEPING PADS FOR ALL EQUIPMENT IS PROVIDED AND INSTALLED BY GENERAL CONTRACTOR. COORDINATE LOCATION WITH MECHANICAL CONTRACTOR.
- DIVISION 15 SUBMIT TO ENGINEER ALL AS-BUILTS OF BUILDINGS MECHANICAL AND PLUMBING SYSTEMS FROM TO JOB COMPLETION AND FINAL PAYMENT.

GENERAL NOTES TO ALL SHEETS

- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PLUMBING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
- RUN ALL SOIL WASTE AND VENT PIPING WITH 2% MINIMUM GRADE UNLESS OTHERWISE NOTED. HORIZONTAL VENT PIPING SHALL BE GRADED TO DRIP BACK TO THE SOIL OR WASTE PIPE BY GRAVITY.
- ELEVATIONS AS SHOWN ON THE DRAWINGS ARE TO THE CENTERLINE OF ALL PRESSURE PIPING AND TO THE INVERT OF ALL GRAVITY PIPING.
- ADJUST SEWER INVERTS TO KEEP TOPS OF PIPE IN LINE WHERE PIPE SIZE CHANGES.
- MAINTAIN A MINIMUM OF 6'-0" OF GROUND COVER OVER ALL UNDERGROUND WATER MAINS AND A MINIMUM OF 3'-0" OF GROUND COVER OVER ALL UNDERGROUND SEWERS AND DRAINS.
- PROVIDE SHUTOFF VALVES IN ALL DOMESTIC WATER PIPING SYSTEM BRANCHES IN WHICH BRANCH PIPING SERVES TWO OR MORE FIXTURES.
- UNLESS OTHERWISE NOTED, ALL PIPING IS OVERHEAD, TIGHT TO UNDERSIDE OF STRUCTURE, WITH SPACE FOR INSULATION IF REQUIRED.
- INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNION, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
- WHERE DOMESTIC COLD AND HOT WATER PIPING DROPS INTO A PIPE CHASE, THE SIZE SHOWN FOR THE PIPE DROPS SHALL BE USED TO THE LAST FIXTURE.
- INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING.
- ALL PIPING SHALL CLEAR DOORS AND WINDOWS.
- ALL PIPING SHALL GRADE TO LOW POINTS, PROVIDE HOSE END DRAIN VALVES AT THE BOTTOM OF ALL RISERS AND LOW POINTS.
- UNIONS AND/OR FLANGES SHALL BE INSTALLED AT EACH PIECE OF EQUIPMENT, IN BYPASSES, AND IN LONG PIPING RUNS (100 FEET OR MORE) TO PERMIT DISASSEMBLY FOR ALTERATION AND REPAIRS.
- ALL VALVES SHALL BE ADJUSTED FOR SMOOTH AND EASY OPERATION.
- ALL VALVES (EXCEPT CONTROL VALVES) AND STRAINERS SHALL BE FULL SIZE OF PIPE BEFORE REDUCING SIZE TO MAKE CONNECTIONS TO EQUIPMENT AND CONTROLS.
- PROVIDE ALL PLUMBING FIXTURES AND EQUIPMENT WITH ACCESSIBLE STOPS.
- UNLESS OTHERWISE NOTED, DRAINS SHALL BE INSTALLED AT THE LOW POINT OF ROOFS, AREAWAYS, FLOORS, ETC.
- PROVIDE CLEANOUTS IN SANITARY AND STORM DRAINAGE SYSTEMS AT ENDS OF RUNS, AT CHANGES IN DIRECTION, NEAR THE BASE OF STACKS, EVERY 100 FEET IN HORIZONTAL RUNS AND ELSEWHERE AS INDICATED.
- ALL CLEANOUTS SHALL BE FULL SIZE OF PIPE FOR PIPE SIZES 6 INCHES AND SMALLER AND SHALL BE 6 INCHES FOR PIPE SIZES LARGER THAN 6 INCHES.
- ALL BALANCING VALVES AND BUTTERFLY VALVES SHALL BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).
- ALL VALVES SHALL BE INSTALLED SO THAT VALVE REMAINS IN SERVICE WHEN EQUIPMENT OR PIPING ON EQUIPMENT SIDE OF VALVE IS REMOVED.
- ALL PIPING WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- PROVIDE FLEXIBLE CONNECTION IN ALL PIPING SYSTEMS CONNECTED TO PUMPS AND OTHER EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AS CLOSE TO THE EQUIPMENT AS POSSIBLE OR AS INDICATED ON THE DRAWINGS.
- DO NOT INSTALL EXPOSED PIPING ABOVE OR WITHIN THE CODE REQUIRED WORKING CLEARANCES OF ANY ELECTRICAL PANEL BOARD OR SWITCH GEAR (30" WIDE OR THE WIDTH OF THE PANEL, WHICHEVER IS GREATER AND 36" IN FRONT - FLOOR TO CEILING) COORDINATE WITH ELECTRICAL CONTRACTOR.
- COORDINATE ALL AIR DEVICE LOCATIONS WITH REFLECTED CEILING PLANS AND ELECTRICAL DRAWINGS.
- DUCTWORK AND PIPE ROUTING AS SHOWN ON DRAWINGS IS DIAGRAMMATIC AND IS NOT TO BE SCALED, WHERE ALTERNATE ROUTING, OFFSETS AND TRANSITIONS ARE REQUIRED FOR COORDINATION OF WORK, THIS CONTRACTOR SHALL MAKE CHANGES WITHOUT ADDITIONAL COSTS.
- THIS CONTRACTOR SHALL CLOSELY COORDINATE NEW MECHANICAL WITH NEW ELECTRICAL, ARCHITECTURAL, AND BUILDING STRUCTURE.
- THIS CONTRACTOR SHALL FIELD VERIFY ALL MECHANICAL ITEMS PRIOR TO STARTING NEW WORK. ADDITIONAL COST WILL NOT BE ALLOWED FOR CONTRACTOR'S FAILURE TO BECOME FAMILIAR WITH SITE CONDITIONS.
- ALL MECHANICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT ADOPTED EDITION OF THE BUILDING CODES, MECHANICAL CODES AND PLUMBING CODES.
- THIS CONTRACTOR SHALL PROVIDE SUBMITTALS ON ITEMS IN MECHANICAL EQUIPMENT LIST TO THE ENGINEER FOR REVIEW PRIOR TO THE ORDER, PURCHASE OR INSTALLATION.
- ALL DOMESTIC COLD AND DOMESTIC HEATING WATER PIPING SHALL BE TYPE "L" COPPER. ALL WASTE AND VENT PIPING SHALL BE CAST IRON ALL ROOF AND OVERFLOW DRAINAGE PIPING TO BE CAST IRON.
- PROVIDE INSULATION FOR THE FOLLOWING: A. DOMESTIC HOT WATER PIPING: 1" THICK FOR ALL PIPE SIZES. B. DOMESTIC COLD WATER PIPING: 1/2" THICK FOR PIPE SIZES 1/2" TO 6". (PROVIDE CONTINUOUS VAPOR BARRIER.)

PLUMBING FIXTURE SCHEDULE

EQUIPMENT AND INSTALLATION BY PLUMBING CONTRACTOR PROVIDE SPECIFIED ITEMS OR APPROVED EQUALS, (REFER TO SPECIFICATIONS)					
MARK	DESCRIPTION	W	V	CH HW	
(P1)	WATER CLOSET (ADA) - FLOOR MOUNTED TANK TYPE, CRANE - HYDRA 491055, 18 INCH RIM HEIGHT, MAXIMUM WATER USAGE OF 1.6 GALLONS PER FLUSH, TANK TO HAVE PRESSURE ASSISTED FLUSH SEAT - PROVIDE SPLIT FRONT TYPE WITH CHECK HINGE, BEMIS #1455C PROVIDE CHROME PLATED SUPPLY AND STOP.	4"	2"	1/2"	-
(P2)	LAVATORY - WALL MOUNTED, CRANE #1412V, HANDICAP TYPE, VITREOUS CHINA, SELF SUPPORTING FIXTURE, SIZE 24"x21", FAUCET AND DRAIN - SYMMONS 5-6080 WITH DRAIN GRID, BATTERY OPERATED WITH BATTERY INSIDE BODY OF FAUCET, PROVIDE CHROME PLATED SUPPLIES AND STOPS. DEARBORN 17 GA TUBE 1" TRAP, CHROME PLATED, FITTINGS AND TRAP TO BE INSULATED TO MEET ADA REQUIREMENTS PROVIDE MCGUIRES PROWRAP, PROVIDE WITH CARRIER.	1 1/2"	1 1/2"	1/2"	1/2"
(P3)	UTILITY SINK - ELKAY E56W 2520-C, WALL MOUNTED 304 14 GAUGE STAINLESS STEEL SERVICE SINK WITH HOSE THREAD, VACUUM BREAKER, WALL BRACKET AND PAIL HOOK, SPOUT AND 1 1/2" CAST IRON P-TRAP.	3"	2"	3/4"	3/4"
(P4)	NOT USED	-	-	-	-
(P5)	NOT USED	-	-	-	-
(P6)	2 COMPARTMENT SINK - JUST #DL-ADA-2293-A-GR, STAINLESS STEEL DOUBLE COMPARTMENT, SELF RIMMING, SIZE 22"x23" OD WITH TWO COMPARTMENTS THAT ARE 16"x14"x8" DEEP. MATERIAL - 18 GAUGE TYPE 304 STAINLESS STEEL, SEAMLESS DIE DRAWN INTERIOR SURFACES POLISHED TO A NON-POROUS FINISH. UNDERSIDE TO BE FULLY COATED INSULATED FOR SOUND AND CONDENSATION REDUCTION. FAUCET AND DRAIN - GOOSENECK WITH SPRAY, JUST JWF-201 WITH TEAR DROP HANDLES AND 1/2" DRAIN OR APPROVED EQUAL. PROVIDE WITH CHROME PLATED SUPPLY AND STOPS. DEARBORN 17 GA TUBE 1" TRAP, CHROME PLATED.	2"	1 1/2"	1/2"	1/2"
(P7)	URINAL - WALL MOUNTED URINAL CRANE #1197, 1.0 GPF, VITREOUS CHINA, MOUNT 11" A.F.F. TO MEET ADA REQUIREMENTS. PROVIDE WITH SLOAN #8186 G2 OPTIMA PLUS BATTERY OPERATED FLUSH-METER, FLUSH-METER TO HAVE MANUAL OVERRIDE (URINAL SHALL FIT SPACE AVAILABLE.) PROVIDE CARRIER.	2"	1 1/2"	3/4"	-
(P8)	TRAP PRIMER - TRAP PRIMER MIFAB #500 COMPLETE WITH MIFAB MIF-500 AIR GAP FITTING AND STAINLESS STEEL ACCESS DOOR.	-	-	1/2"	-
(P9)	DRINKING FOUNTAIN - ADA COMPLIANT WATER COOLER 12 GPH, SEMI-RECESSED, 115 VOLTS, 400 WATTS, 4.8 AMPS, ELKAY #E5RVK-15.	2"	1 1/2"	1/2"	-
(TD)	TRENCH DRAIN - TRENCH DRAIN JR. SMITH #8931, COMPLETE WITH HEAVY DUTY FRAME, LOAD CLASS C CAST IRON SLOTTED GRATE, FULLY SLOPED CHANNELS.	3"	2"	-	-
(HB1)	HOSE BIB - SINGLE SPOUT WITH HOSE CONNECTION PROVIDE WITH VACUUM BREAKER AND METAL HANDLE (PLASTIC HANDLES ARE NOT ACCEPTABLE). CHICAGO MODEL NO. 243 WITH E21 VACUUM BREAKER.	-	-	3/4"	-
(NH1)	WALL HYDRANT - MADE #8600/175, NON-FREEZE WALL HYDRANT WITH NICKEL BRONZE BOX, COMPLETE WITH CHROME PLATED LOCKING COVER AND BOX WITH INTEGRAL VACUUM BREAKER. WALL HYDRANT TO BE SIZED FOR WALL THICKNESS.	-	-	3/4"	-
(FD1)	FLOOR DRAIN - FLOOR DRAIN JR. SMITH #2005-A, WITH NICKEL BRONZE STRAINER, TRAP PRIMER CONNECTION AND DEEP SEAL TRAP.	3"	1 1/2"	-	-
(FD2)	FLOOR DRAIN - SMITH #2340 NB, FLOOR DRAIN WITH SEDIMENT BUCKET, DEEP SEAL P-TRAP, AND NICKEL BRONZE TOP.	4"	2"	-	-
(FS1)	FLOOR SINK - FLOOR SINK JR. SMITH #8020, COMPLETE WITH ACID RESISTANT COATED INTERIOR AND POLISHED ALUMINUM DOME BOTTOM STRAINER.	2"	2"	-	-

PLUMBING SYMBOL SCHEDULE

SYMBOL	ABBREVIATION	DESCRIPTION
---	CH	COLD WATER LINE
---	HW	HOT WATER LINE
---	HHR	HM REGULATION LINE
---	CH	CH LINE UNDER FLOOR
---	HW	HW LINE UNDER FLOOR
---	HHR	HHR LINE UNDER FLOOR
---	SAN	SANITARY WASTE LINE (BELOW FLOOR OR GRADE)
---	SAN	SANITARY WASTE LINE (ABOVE FLOOR OR GRADE)
---	SAN(E)	EXISTING SANITARY WASTE LINE
---	V	VENT LINE
---	COND	A/C CONDENSATE LINE (SIZED TO DISCHARGE)
---	UP	PIPE RISER UP (VIEWED CEILING TO FLOOR)
---	DN	PIPE RISER DOWN (VIEWED CEILING TO FLOOR)
---	SOV / OV	SHUT-OFF VALVE / GATE VALVE
---	SOV / BV	SHUT-OFF VALVE / BALL VALVE
---	SOV / OV (NC)	SHUT-OFF VALVE / GATE VALVE (NORMALLY CLOSED)
---	SOV / BV (NC)	SHUT-OFF VALVE / BALL VALVE (NORMALLY CLOSED)
---	SOV / OG	SHUT-OFF VALVE / GAS COCK
---	CK V	CHECK VALVE
---	UN	UNION
---	PRV	PRESSURE REGULATING VALVE
---	PRV	PRESS. & TEMP. RELIEF VALVE
---	STR	Y-STRAINER
---	FR GA	FRESH AIR
---	MTR	METER
---	MTR	GAS METER
---	RA	RAIN WATER LINE (ABOVE FLOOR)
---	G	NATURAL GAS LINE
---	LP	LIQUID PROPANE LINE
---	F	FIRE SPRINKLER LINE
---	SH	SOFT WATER LINE
---	CA	COMPRESSED AIR LINE
---	CA	COMPRESSED AIR LINE (BELOW FLOOR)
---	DM	DEDICATED WASTE LINE
---	SOV IN YB	SHUT-OFF VALVE IN YARD BOX
---	WH	FIRE HYDRANT
---	FDG	FIRE DEPT. CONNECTION
---	WMS	WATER MOTOR SONG
---	PIV	POINT INDICATOR VALVE
---	POC	POINT OF CONNECTION
---	N	UTILITY WATER MAIN - SIZE
---	SAN	SANITARY SEWER MAIN - SIZE
---	G	UTILITY GAS MAIN - SIZE
---	SD	UTILITY STORM DRAIN - SIZE
---	OC	AIR CONNECTION

ABBREVIATION SCHEDULE

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
A/C	AIR CONDITIONING	HB	HOSE BIBB
ASR	AUTOMATIC SPRINKLER RISER	HD	HUB DRAIN
AVG	AVERAGE	HTR	HEATER
BFP	BACKFLOW PREVENTER	IE	INVERT ELEVATION
BTU	BRITISH THERMAL UNITS	IN	INDIRECT WASTE
CB	CATCH BASIN	MAX	MAXIMUM
CFH	CUBIC FEET PER HOUR	M&B	THOUSAND BTU'S PER HOUR
CL	CENTERLINE	MC	MECHANICAL CONTRACTOR
CO	CLEANOUT	MECH	MECHANICAL
CONC	CONCRETE	MH	MANHOLE
CONTD	CONTINUED	MIN	MINIMUM
CONTR	CONTRACTOR	(N)	NEW
COTG	CLEANOUT TO GRADE	NIC	NOT IN CONTRACT
DN	DOWN	OD	OVERFLOW DRAIN
DS	DOWNSPOUT	PC	PLUMBING CONTRACTOR
(E)	EXISTING	PIV	POINT INDICATOR VALVE
(ER)	EXISTING TO BE REMOVED	POC	POINT OF CONNECTION
EC	ELECTRICAL CONTRACTOR	PSI	POUNDS PER SQUARE INCH
ELEV	ELEVATION	PSIL	PSI LOSS
EXIST	EXISTING	RD	ROOF DRAIN
FCO	FLOOR CLEANOUT	REG	REGULATOR
FD	FLOOR DRAIN	REQD	REQUIRED
FE	FIRE EXTINGUISHER	R1 & C	ROUGH-IN AND CONNECT
PEC	FE & CABINET	STA	STATION
FHB	FLOOR HOSE BOX	VEL	VELOCITY
FHC	FIRE HOSE AND CABINET	VTR	VENT THRU ROOF
FL	FLOOR	W	WITH
FPS	FEET PER SECOND	W/O	WALL CLEANOUT
FS	FLOOR SINK	WF	WALL FAUCET
FTHD	FEET OF HEAD	WTR	WATER
FTR	FLUE THRU ROOF		
FU	FIXTURE UNIT		
GC	GENERAL CONTRACTOR		
GPM	GALLONS PER MINUTE		
GR	GRADE		

GAS FIRED WATER HEATER SCHEDULE

MARK	MFR. CATALOG NO.	SERVICE	CAPACITY GALLONS	FUEL GAS	INRIT BTU	RECOV GPH	TANK SIZE	TEMP F IN/OUT	FLUE SIZE	REMARKS
(WH)	BRADFORD WHITE #M-1-40TEEN (LP)	HOT WATER	40	PROPANE	40,000	41	20"	40°/140°	2"	(1) (2)

- PROVIDE WITH EXPANSION TANK, A.O. SMITH-AMTRLO ST-5-2 GAL, 8'x1'2"
- INSTALL PER MANUFACTURERS REQUIREMENTS

AIR COMPRESSOR

MARK	DUTY	ACFM @ 135 PSI	RECEIVER CAP. (GAL)	ELECTRICAL		MANUFACTURER & MODEL NO
				VOLT/PH	HP	
(AC)	SHOP AIR	10.3	60	230/1	3.0	SPEED AIR WM GRANGER # 4B236
(CA)	COMPRESSED AIR CONNECTION					

* START/STOP, WITH PROVISION FOR NO LOAD START. INCLUDE MAGNETIC STARTER

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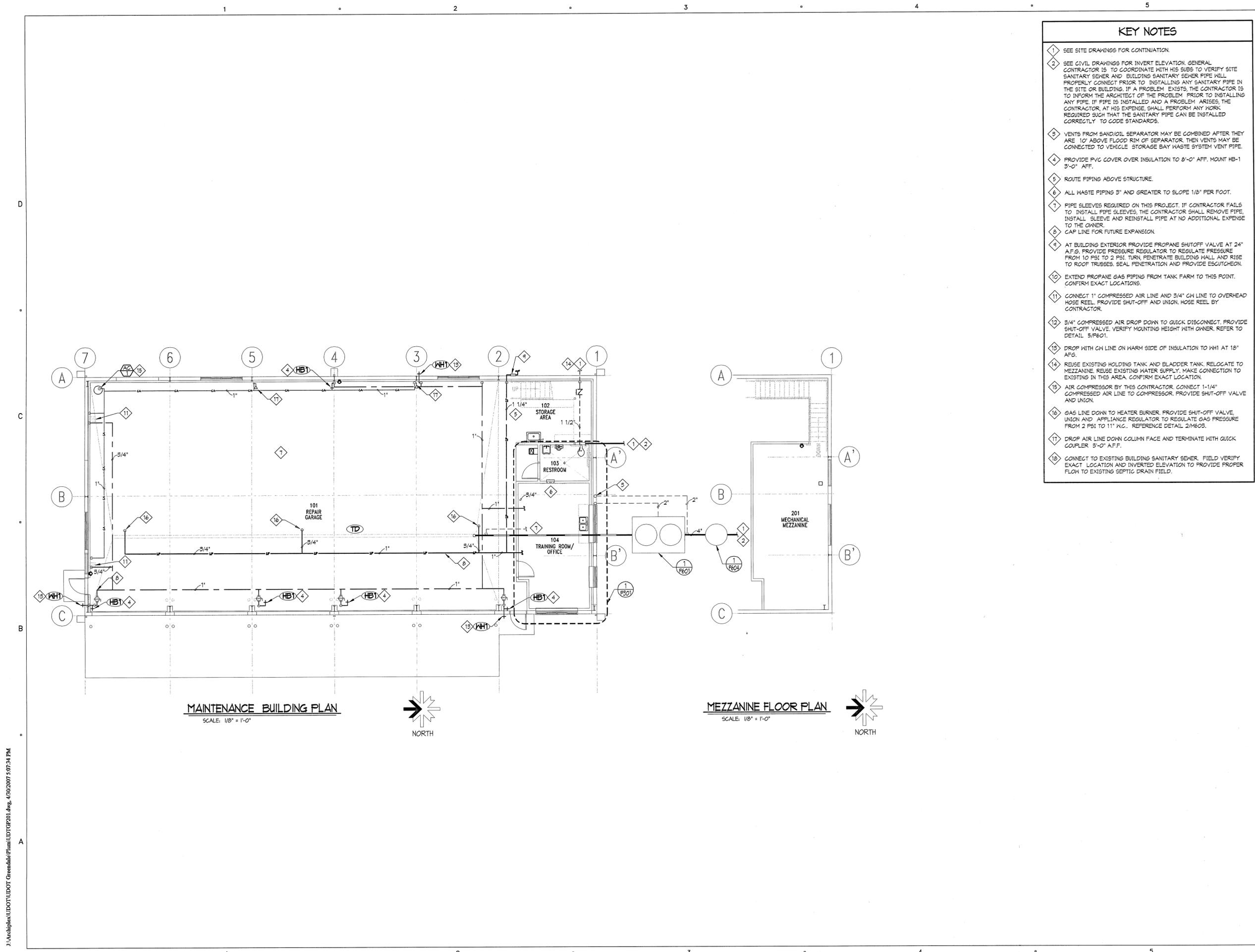
MARK	DATE	DESCRIPTION
	05/01/07	CONSTRUCTION DOCUMENTS

DFCM PROJECT NO:	07029900
ARCHIPLEX PROJECT NO:	0708.01
DRAWN BY:	LCM
CHECKED BY:	CDW
SCALE:	1/8"=1'-0"
DATE:	MAY 1, 2007

SHEET TITLE

PLUMBING SYMBOLS AND SCHEDULES

P001



- ### KEY NOTES
- 1 SEE SITE DRAWINGS FOR CONTINUATION.
 - 2 SEE CIVIL DRAWINGS FOR INVERT ELEVATION. GENERAL CONTRACTOR IS TO COORDINATE WITH HIS SUBS TO VERIFY SITE SANITARY SEWER AND BUILDING SANITARY SEWER PIPE WILL PROPERLY CONNECT PRIOR TO INSTALLING ANY SANITARY PIPE IN THE SITE OR BUILDING. IF A PROBLEM EXISTS, THE CONTRACTOR IS TO INFORM THE ARCHITECT OF THE PROBLEM PRIOR TO INSTALLING ANY PIPE. IF PIPE IS INSTALLED AND A PROBLEM ARISES, THE CONTRACTOR, AT HIS EXPENSE, SHALL PERFORM ANY WORK REQUIRED SUCH THAT THE SANITARY PIPE CAN BE INSTALLED CORRECTLY TO CODE STANDARDS.
 - 3 VENTS FROM SAND/OIL SEPARATOR MAY BE COMBINED AFTER THEY ARE 10' ABOVE FLOOD RIM OF SEPARATOR. THEN VENTS MAY BE CONNECTED TO VEHICLE STORAGE BAY WASTE SYSTEM VENT PIPE.
 - 4 PROVIDE PVC COVER OVER INSULATION TO 8'-0" AFF. MOUNT HB-1 3'-0" AFF.
 - 5 ROUTE PIPING ABOVE STRUCTURE.
 - 6 ALL WASTE PIPING 3" AND GREATER TO SLOPE 1/8" PER FOOT.
 - 7 PIPE SLEEVES REQUIRED ON THIS PROJECT. IF CONTRACTOR FAILS TO INSTALL PIPE SLEEVES, THE CONTRACTOR SHALL REMOVE PIPE, INSTALL SLEEVE AND REINSTALL PIPE AT NO ADDITIONAL EXPENSE TO THE OWNER.
 - 8 CAP LINE FOR FUTURE EXPANSION.
 - 9 AT BUILDING EXTERIOR PROVIDE PROPANE SHUTOFF VALVE AT 24" A.F.G. PROVIDE PRESSURE REGULATOR TO REGULATE PRESSURE FROM 10 PSI TO 2 PSI. TURN, PENETRATE BUILDING WALL AND RISE TO ROOF TRUSSES. SEAL PENETRATION AND PROVIDE ESCUTCHEON.
 - 10 EXTEND PROPANE GAS PIPING FROM TANK FARM TO THIS POINT. CONFIRM EXACT LOCATIONS.
 - 11 CONNECT 1" COMPRESSED AIR LINE AND 3/4" CW LINE TO OVERHEAD HOSE REEL. PROVIDE SHUT-OFF AND UNION. HOSE REEL BY CONTRACTOR.
 - 12 3/4" COMPRESSED AIR DROP DOWN TO QUICK DISCONNECT. PROVIDE SHUT-OFF VALVE. VERIFY MOUNTING HEIGHT WITH OWNER. REFER TO DETAIL 5/P601.
 - 13 DROP WITH CW LINE ON WARM SIDE OF INSULATION TO WH1 AT 18" A.F.G.
 - 14 REUSE EXISTING HOLDING TANK AND BLADDER TANK. RELOCATE TO MEZZANINE. REUSE EXISTING WATER SUPPLY. MAKE CONNECTION TO EXISTING IN THIS AREA. CONFIRM EXACT LOCATION.
 - 15 AIR COMPRESSOR BY THIS CONTRACTOR. CONNECT 1-1/4" COMPRESSED AIR LINE TO COMPRESSOR. PROVIDE SHUT-OFF VALVE AND UNION.
 - 16 GAS LINE DOWN TO HEATER BURNER. PROVIDE SHUT-OFF VALVE, UNION AND APPLIANCE REGULATOR TO REGULATE GAS PRESSURE FROM 2 PSI TO 11" W.C.. REFERENCE DETAIL 2/M603.
 - 17 DROP AIR LINE DOWN COLUMN FACE AND TERMINATE WITH QUICK COUPLER 3'-0" A.F.F.
 - 18 CONNECT TO EXISTING BUILDING SANITARY SEWER. FIELD VERIFY EXACT LOCATION AND INVERTED ELEVATION TO PROVIDE PROPER FLOW TO EXISTING SEPTIC DRAIN FIELD.

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MARK	DATE	DESCRIPTION
	05/01/07	CONSTRUCTION DOCUMENTS

DFCM PROJECT NO: 07029900
ARCHIPLEX PROJECT NO: 0708.01
DRAWN BY: LCM
CHECKED BY: CDW
SCALE: 1/8" = 1'-0"
DATE: MAY 1, 2007

SHEET TITLE

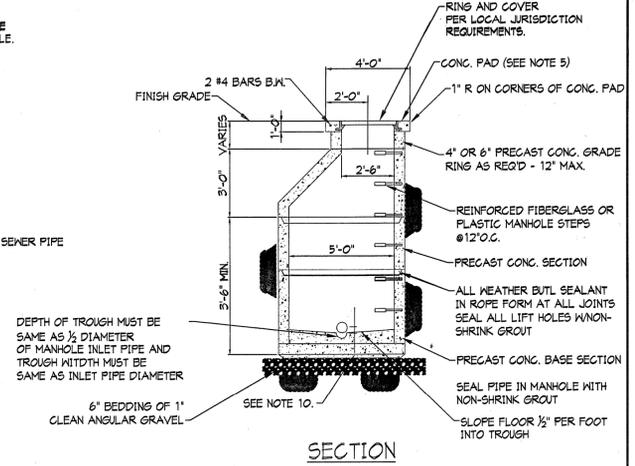
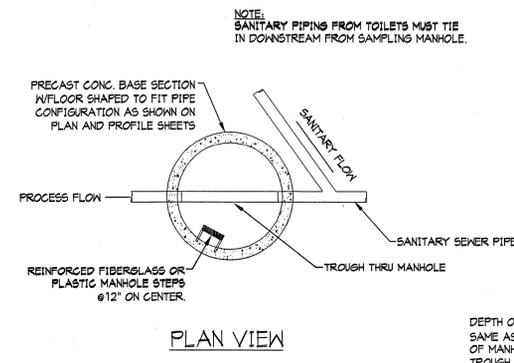
PLUMBING PLAN

P201

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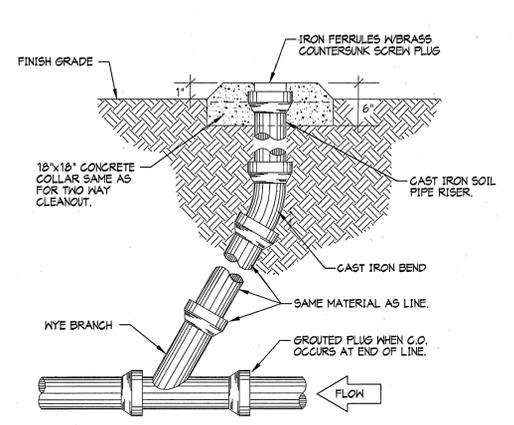
- 1 PIPING, CLEANOUT CONFIGURATION, SIZE AND TYPE OF PIPING MATERIAL AS PER CITY OR SANITARY DISTRICT. INSPECTION BY SANITARY DISTRICT PRIOR TO BACKFILLING.
- 2 WIDTH OF TROUGH IN MANHOLE MUST BE SAME SIZE AS THE INLET PIPE INTO MANHOLE. DEPTH OF TROUGH MUST BE THE SAME AS 1/2 OF INLET PIPE DIAMETER.
- 3 CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
- 4 REINFORCEMENT STEEL SHALL BE ASTM A615 GRADE 60.
- 5 THE CONCRETE COVER OVER REINFORCEMENT STEEL SHALL BE A MINIMUM OF 1-1/2 INCHES.
- 6 THE STRUCTURE SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF UTAH.
- 7 THE STRUCTURE SHALL BE DESIGNED FOR THE FOLLOWING LOADING CRITERIA:
 - A) WALLS DESIGNED FOR A SATURATED EQUIVALENT FLUID AT-REST SOIL PRESSURE OF 90 PCF PLUS TRUCK SURCHARGES
 - B) TRUCK LOADING USING AN AASHTO H-20 TRUCK LOAD.
- 8 MANHOLES WILL HAVE STAINLESS OR PLASTIC STEPS.
- 9 ALL MANHOLES MUST HAVE ROUND NOTCHED COVERS WITH PICK HOLE FOR REMOVAL.
- 10 FOR NEW CONSTRUCTION BOTTOM OF INLET PIPE INTO MANHOLE MUST BE AT LEAST 3 INCHES ABOVE THE BOTTOM OF THE TROUGH THRU THE MANHOLE.



SAMPLING MANHOLE DETAIL

SCALE
NO SCALE

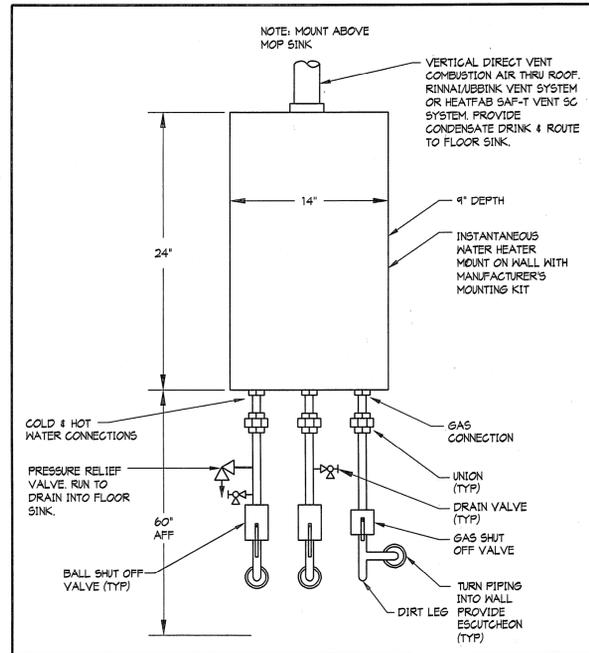
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EXTERIOR CLEANOUT DETAIL

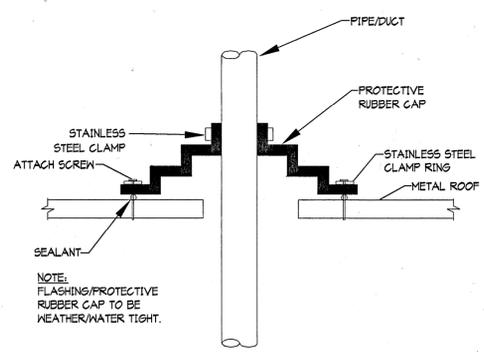
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1



GAS INSTANTANEOUS WATER HEATER

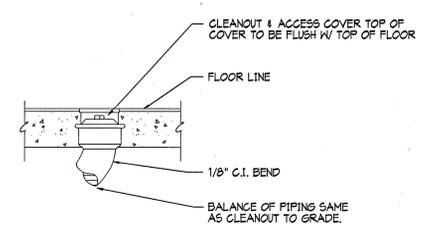
5



METAL ROOF PENETRATION DETAIL

SCALE
NO SCALE

2



FLOOR CLEANOUT

SCALE
NO SCALE

3

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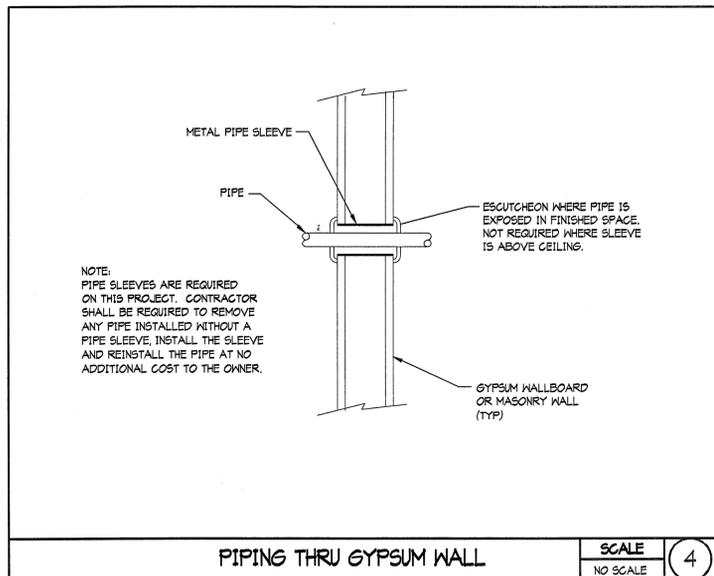
MARK	DATE	DESCRIPTION

DFCM CONTRACT NO: 077325
DFCM PROJECT NO: 07029900
ARCHIPLEX PROJECT NO: 0708.01
DRAWN BY: LCM
CHECKED BY: CDH
SCALE: NONE
DATE: FEBRUARY, 2008

SHEET TITLE

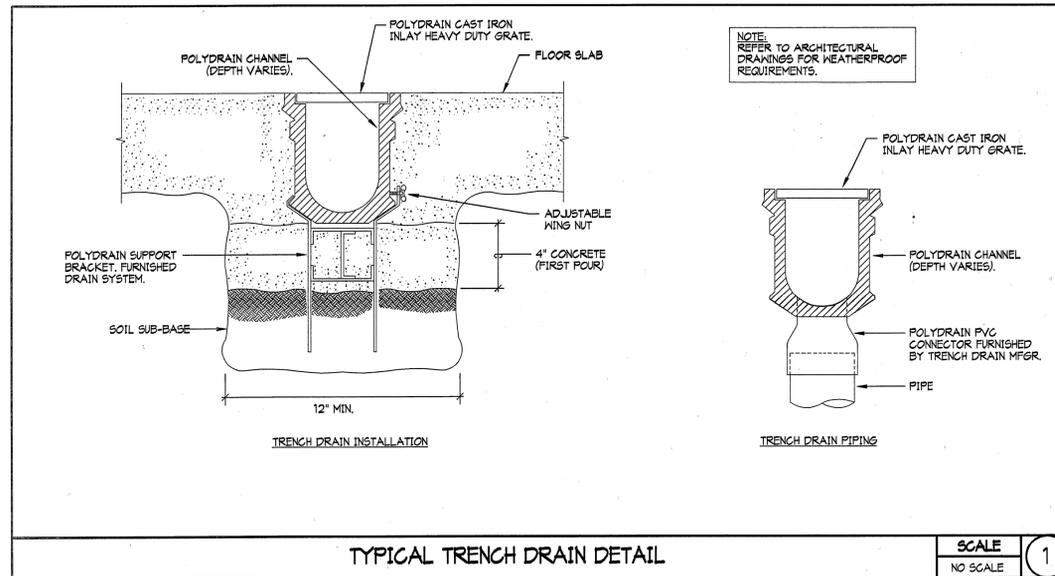
PLUMBING DETAILS

P601



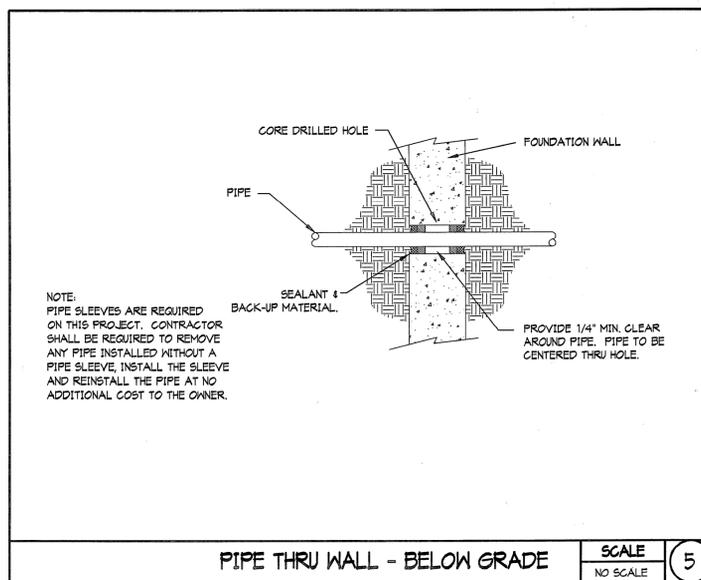
PIPING THRU GYPSUM WALL

SCALE
NO SCALE 4



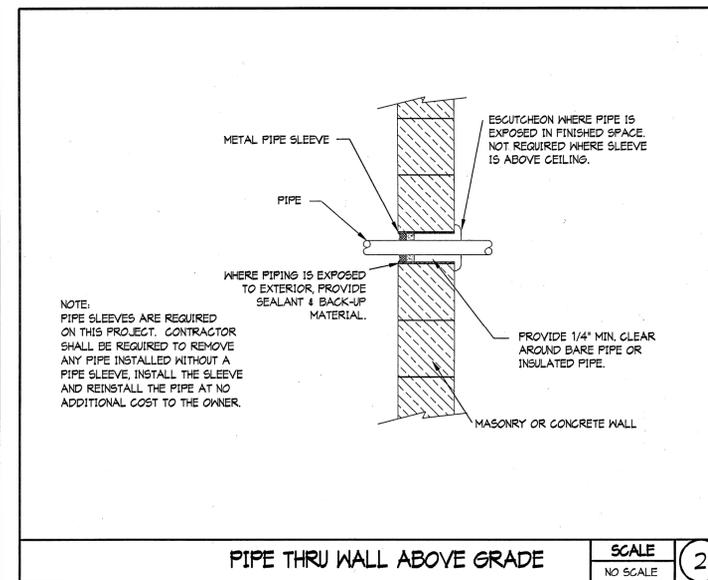
TYPICAL TRENCH DRAIN DETAIL

SCALE
NO SCALE 1



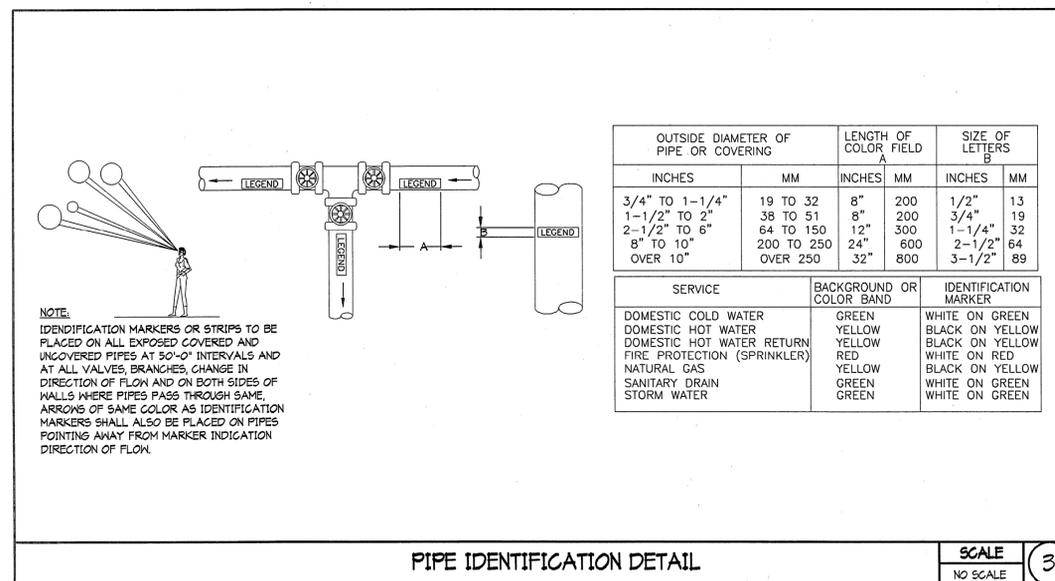
PIPE THRU WALL - BELOW GRADE

SCALE
NO SCALE 5



PIPE THRU WALL ABOVE GRADE

SCALE
NO SCALE 2



PIPE IDENTIFICATION DETAIL

SCALE
NO SCALE 3

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ISSUE

MARK	DATE	DESCRIPTION
	02-2008	CONSTRUCTION DOCUMENTS

DFCM CONTRACT NO: 077325

DFCM PROJECT NO: 07029900

ARCHIPLEX PROJECT NO: 0708.01

DRAWN BY: LCM

CHECKED BY: CDH

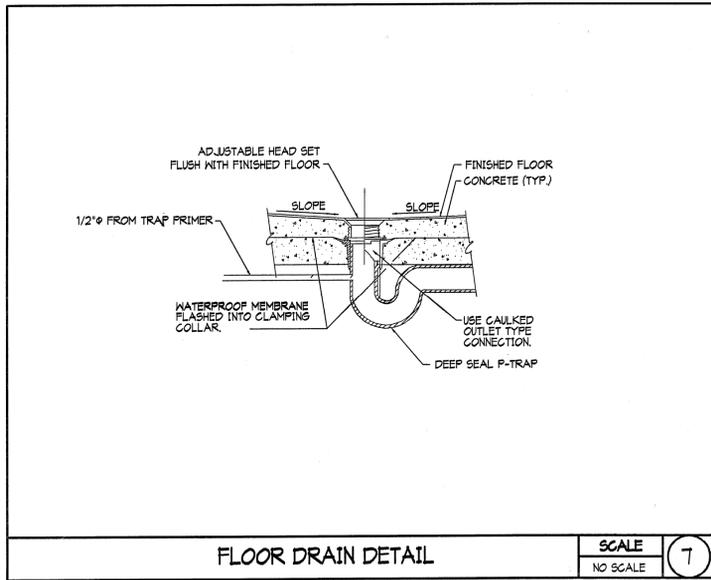
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DATE: FEBRUARY, 2008

SHEET TITLE

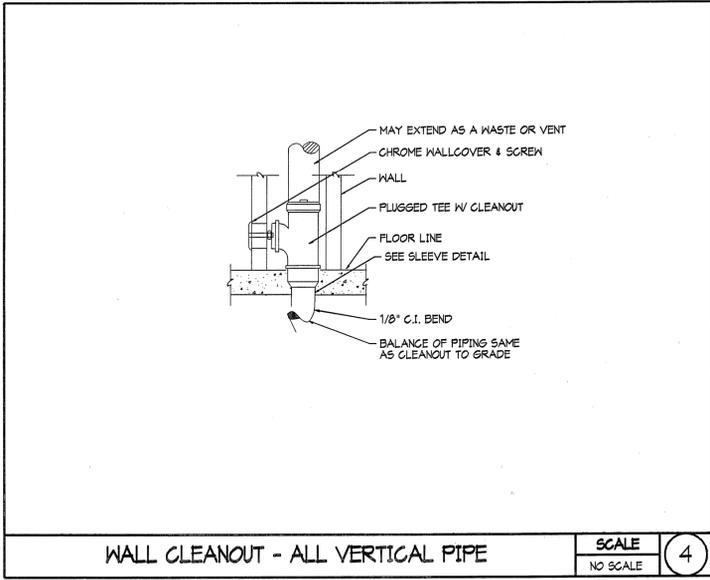
PLUMBING DETAILS

P602



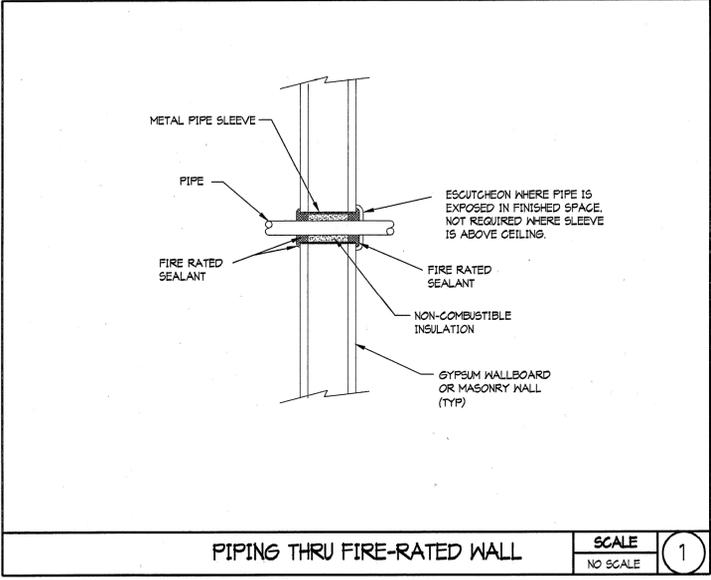
FLOOR DRAIN DETAIL

SCALE NO SCALE 7



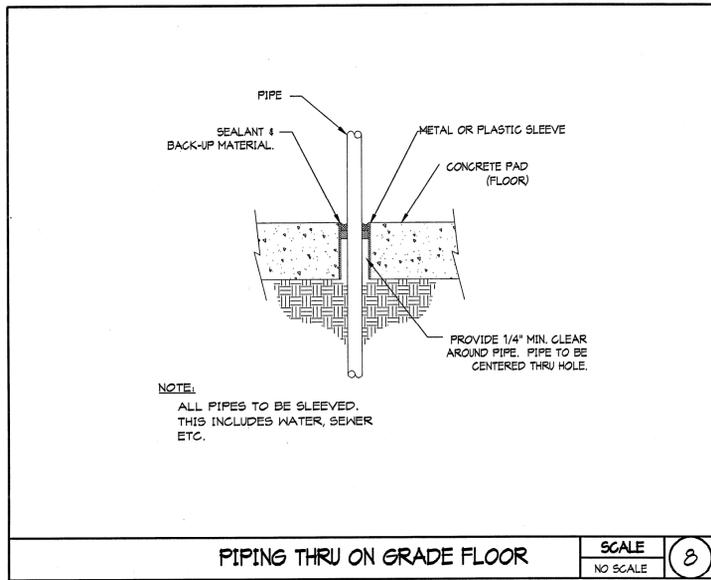
WALL CLEANOUT - ALL VERTICAL PIPE

SCALE NO SCALE 4



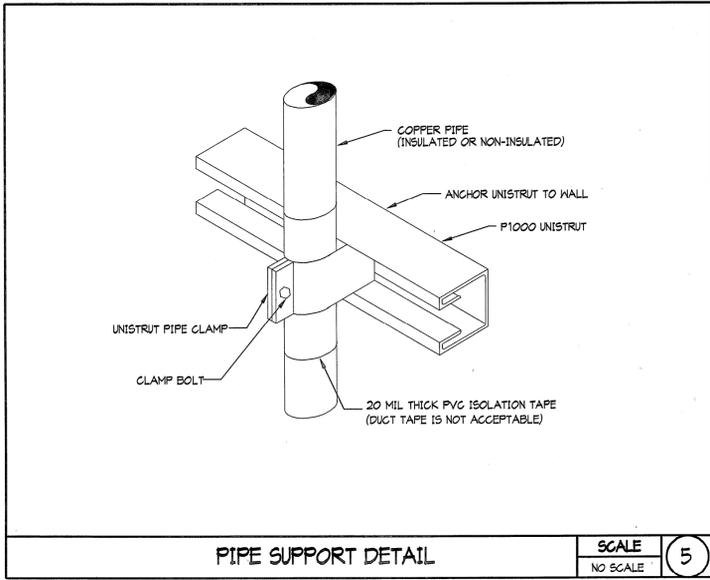
PIPING THRU FIRE-RATED WALL

SCALE NO SCALE 1



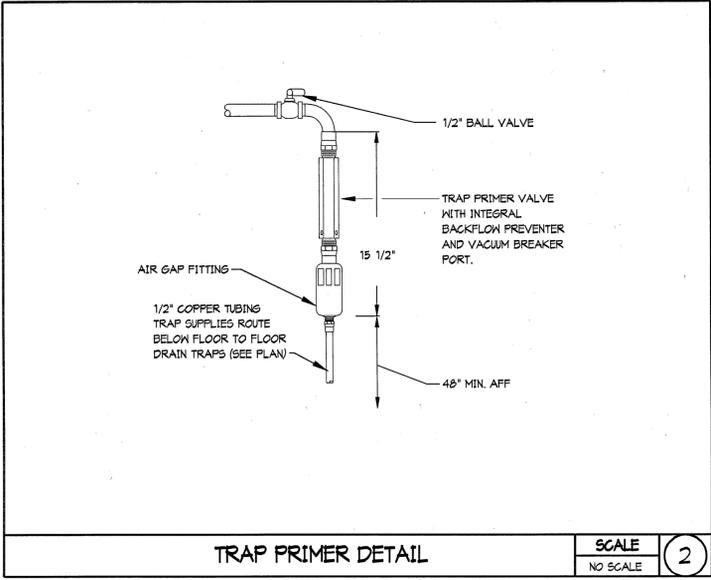
PIPING THRU ON GRADE FLOOR

SCALE NO SCALE 8



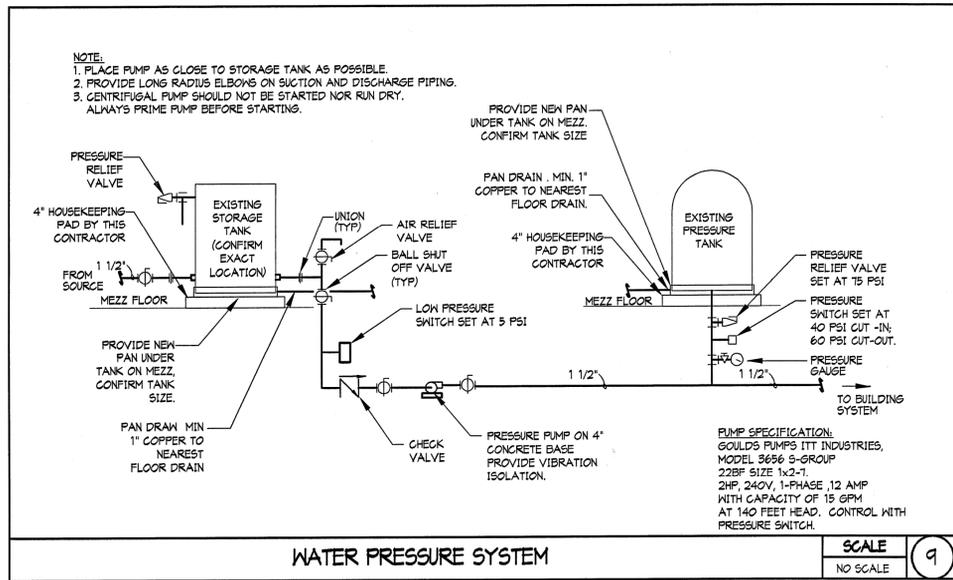
PIPE SUPPORT DETAIL

SCALE NO SCALE 5



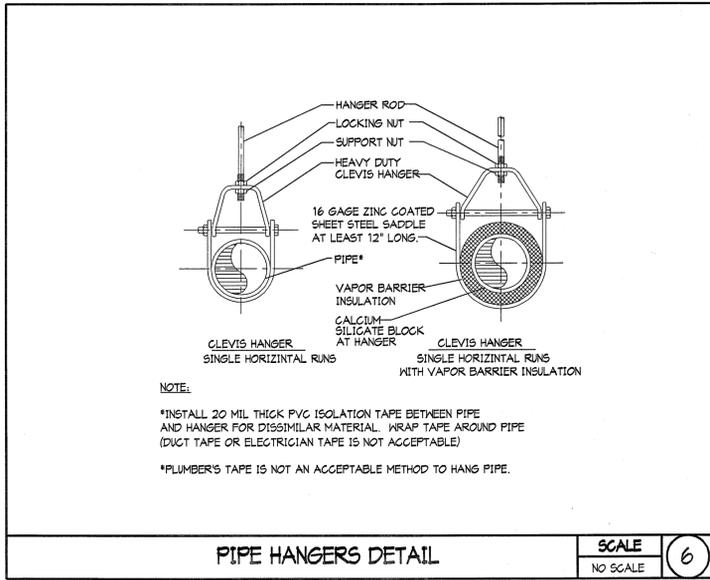
TRAP PRIMER DETAIL

SCALE NO SCALE 2



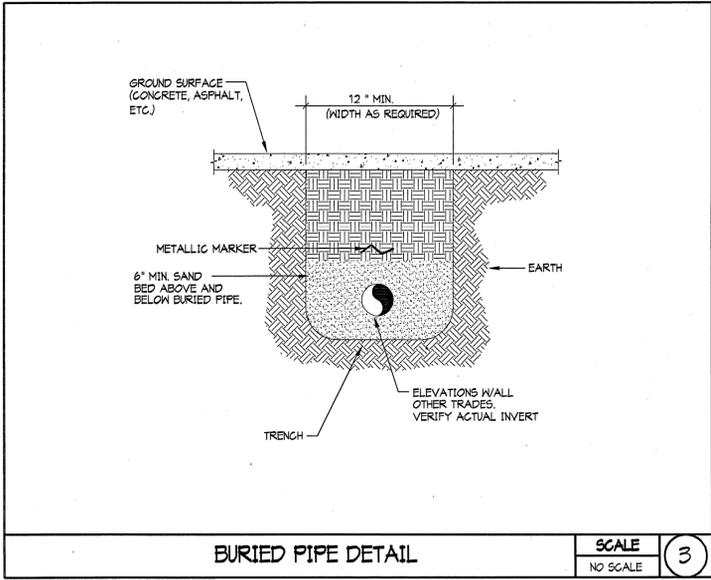
WATER PRESSURE SYSTEM

SCALE NO SCALE 9



PIPE HANGERS DETAIL

SCALE NO SCALE 6



BURIED PIPE DETAIL

SCALE NO SCALE 3

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02-2008 CONSTRUCTION DOCUMENTS

MARK DATE DESCRIPTION

DFCM CONTRACT NO:	077325
DFCM PROJECT NO:	07029900
ARCHIPLEX PROJECT NO:	0708.01
DRAWN BY:	LCM
CHECKED BY:	CDH
SCALE:	NONE
DATE:	FEBRUARY, 2008

SHEET TITLE

PLUMBING DETAILS

P603

P:\Archiplex\UDOT\UDOT Greendale\Plan\UDT\CP603.dwg, 1/25/2008 4:15:39 PM

ELECTRICAL SYMBOL SCHEDULE

SYMBOL	DEVICE/FIXTURE DESCRIPTION	MOUNTING	NOTES																								
○	FLUORESCENT LIGHT FIXTURE		(1) (2) (3)																								
⊖	EXIT LIGHT FIXTURE - WALL MOUNT		(1) (2) (4) (5)																								
○	WALL LIGHT FIXTURE		(1) (2)																								
⚡	SINGLE POLE SWITCH		(6)																								
⚡	THREE WAY SWITCH		(6)																								
⚡	MOTION SENSING SWITCH		(7)																								
⊖	THERMOSTAT																										
⊖	DUPLEX CONVENIENCE OUTLET - GROUNDING TYPE		(6)																								
⊖	DUPLEX CONVENIENCE OUTLET - GFI		(6)																								
⊖	SINGLE CONVENIENCE OUTLET		(6)																								
⊖	DOUBLE DUPLEX OUTLET		(6)																								
⊖	SINGLE PHASE SPECIAL OUTLET		(6)																								
<table border="1"> <thead> <tr> <th colspan="4">NEMA - SUBSCRIPT MARKS TYPE (6)</th> </tr> <tr> <th>VOLTS</th> <th>AMPS</th> <th>OUTLET</th> <th>PLUG</th> </tr> </thead> <tbody> <tr> <td>125</td> <td>30</td> <td>5-30R</td> <td>5-30P</td> </tr> <tr> <td>250</td> <td>20</td> <td>6-20R</td> <td>6-20P</td> </tr> <tr> <td>250</td> <td>30</td> <td>10-30R</td> <td>10-30P</td> </tr> <tr> <td>250</td> <td>60</td> <td></td> <td></td> </tr> </tbody> </table>				NEMA - SUBSCRIPT MARKS TYPE (6)				VOLTS	AMPS	OUTLET	PLUG	125	30	5-30R	5-30P	250	20	6-20R	6-20P	250	30	10-30R	10-30P	250	60		
NEMA - SUBSCRIPT MARKS TYPE (6)																											
VOLTS	AMPS	OUTLET	PLUG																								
125	30	5-30R	5-30P																								
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250	60																										
⊖	JUNCTION BOX		(12)																								
⊖	JUNCTION BOX		(12) MOUNT AS NOTED																								
⊖	FAN MOTOR OUTLET - CEILING OR AS NOTED																										
⊖	TELEPHONE OUTLET		(6)																								
⊖	VEHICLE EXHAUST FAN SWITCH																										
⊖	CARBON MONOXIDE SENSOR																										
⊖	DISCONNECT SWITCH		(7)																								
⊖	FUSED DISCONNECT SWITCH		(8) (13)																								
⊖	MAGNETIC STARTER WITH DISCONNECT		(7)																								
⊖	MULTI-MEDIA STRUCTURED CABLING OUTLET																										
⊖	MAIN POWER PANEL																										
⊖	PANEL BOARD																										
⊖	EMERGENCY LIGHT FIXTURE		(1) (2)																								
⊖	OVERHEAD DOOR CONTROL																										

SYMBOL	DESCRIPTION	NOTES
---	WIRING IN CND IN CEILING OR WALL	---
---	WIRING IN CND IN GROUND OR FLOOR	---
→	CONDUIT TURNED UP	→
→	CONDUIT TURNED DOWN	→
→	CIRCUIT HOME RUN TO PANEL. 3 CONDUCTORS INCLUDING THE EQUIPMENT GROUND CONDUCTOR.	
→	CIRCUIT HOME RUN TO PANEL. NUMBER OF ARROW HEADS INDICATE NUMBER OF CIRCUITS. SLASH MARKS INDICATE NUMBER OF CONDUCTORS. EX. TWO CIRCUITS, FOUR CONDUCTORS, COMMON NEUTRAL AND THREE CIRCUITS WITH 1 CONDUCTOR (SEPERATE NEUTRAL PER CIRCUIT). BOTH EX. INCLUDE AN EQUIP. GROUND.	

INSTALL CONDUIT AS DRAWN ON THE PLANS. THE ONLY EXCEPTIONS ARE THOSE AUTHORIZED IN WRITING BY THE ENGINEER. ALL CONDUITS SHALL INCLUDE AN EQUIPMENT GROUND CONDUCTOR SIZED PER NEG.

ABBREVIATIONS/NOTES

AFF - ABOVE FINISHED FLOOR, AFG - ABOVE FINISHED GRADE, AIG - AMPS INTERRUPTING CAPACITY, BC - BARE COPPER, BFG - BELOW FINISHED CEILING, BFG - BELOW FINISHED GRADE, CND. OR C. - CONDUIT, CT - CURRENT TRANSUCER, DFA - DROP FROM ABOVE, EC - ELECTRICAL CONTRACTOR, GC - GENERAL CONTRACTOR, MC - MECHANICAL CONTRACTOR, MCA - MINIMUM CIRCUIT AMPS, FC - PLUMBING CONTRACTOR, POC - POINT OF CONNECTION, POS - POINT OF SALES, RMC - RIGID METAL CONDUIT, SCA - SHORT CIRCUIT AMPERES, TC - TEMP. CONTROL CONTRACTOR, VA - VOLT/AMPS, VIF - VERIFY IN FIELD, WP - WEATHER PROOF/NEMA 3R

- SEE LIGHTING FIXTURE SCHEDULE FOR TYPE AND SPECIFICS.
- SEE LIGHTING FIXTURE SCHEDULE FOR MOUNTING OF FIXTURE.
- WIRE FIXTURE FROM ADJACENT J-BOX
- DO NOT SWITCH
- PROVIDE DIRECTIONAL ARROWS AS SHOWN ON THE DRAWINGS BY THE DARKENED AREA
- ACCEPTABLE EQUALS ARE P4S, LEVITON, COOPER, HUBBELL
- ACCEPTABLE EQUALS ARE GENERAL ELECTRIC, ALLEN-BRADLEY, SQUARE D
- ACCEPTABLE EQUALS ARE LEVITON, P4S, HUBBELL, COOPER
- PROVIDE MUD RINGS AND/OR BOX COVER APPROPRIATE FOR DEVICE/FIXTURE SERVED
- USE HEAVY DUTY FOR 480 VOLT
- ACCEPTABLE EQUALS ARE HUBBELL, ORTRONICS, SIEMON
- SWITCH WITH LIGHTS UNLESS INDICATED OTHERWISE
- PROVIDE RECEPTACLE CONFIGURATION AND NUMBER OF CONDUCTORS REQUIRED BY EQUIPMENT.

LIGHT-FIXTURE SCHEDULE

DESCRIPTION	TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS		VOLTS	MOUNTING	REMARKS
				No	TYPE			
L1	8' 4-LAMP INDUSTRIAL FLUORESCENT FIXTURE	METALUX	8TDM292-120V-EB02	4	F32T80P35	120	PENDENT	(1)
L2	RECESSED FLANGED 2'X4' 3-LAMP FLUORESCENT FIXTURE	METALUX	2FC8-382A-120VEB02	3	F32T80P35	120	RECESSED	(1)
L3	SURFACE MOUNTED FLUORESCENT WRAP AROUND FIXTURE	METALUX	MS292A-120VEB01	2	F32T80P35	120	SURFACE	
L4	EMERGENCY BATTERY PACK	SURELITES	CGTNCSD-5M	2	C/M UNIT	120	SURFACE	
L5	LED EXIT SIGN W/ REMOTE CAPACITY	SURELITES	LPXTODGWH	-	LED	120	UNV.	
L6	OUTDOOR 250W METAL HALIDE WALLPACK	LUMARK	MHAL250-120V-WHT	1	250W MH	120	SURFACE	
L7	OUTDOOR 400W METAL HALIDE FLOOD LIGHT	McGRAM EDISON	AMF-Y-400MH-120-T6-WH	1	400W MH	120	WALL	
L8	100W METAL HALIDE FIXTURE	LUMARK	MHIP-T-100-120V-EM/SG/12V-F1-FE	1	15TDC	120	WALL	(2)
L9	4' 2-LAMP FLUORESCENT WALL FIXTURE	METALUX	BC292-120V-EB01	2	F32T80P35			
L10	POLE LIGHT - 30' POLE	McGRAM EDISON	GLM-AM-400MH-240-35-FGAP/MA100T-AP-R356MB05V	1	400W MH	240	POLE	
L11	BATTERY PACK	SURE-LITES	XRO			120	WALL 7'-6"	

NOTE: THE FIXTURES LISTED IN THIS SCHEDULE REPRESENT THE QUALITY AND TYPE OF FIXTURES DESIRED. EQUALS OF THOSE MANUFACTURERS NOTED IN THE REMARKS ARE ACCEPTED. FOR THOSE FIXTURES WITHOUT A MANUFACTURE DESIGNATION IN THE REMARK COLUMN THE SUPPLIER MAY SUBMIT A FIXTURE THEY BELIEVE TO BE EQUAL TO THE ONE SPECIFIED. TO BE ACCEPTABLE THE FIXTURES SUBMITTED MUST BE OF THE SAME TYPE AND MATERIAL AS THAT SPECIFIED AND MUST RECEIVE APPROVAL FROM THE ENGINEER BY ADDENDUM PRIOR TO BID.

(1) PROVIDE TWO BALLASTS AND WIRE FOR INBOARD/OUTBOARD SWITCHING.
 (2) ORDER WITH MR16, 35W LAMP FOR 12V EMERGENCY CIRCUIT.

MECHANICAL EQUIPMENT SCHEDULE

MARK	DESCRIPTION	ELECTRICAL						REMARKS
		V/PH	MCA	MOCP	LMHP	DISCONNECT SIZE/POLE	FUSE SIZE	
B-1	RADIANT HEATER	120/1	1.0					
CU-1	CONDENSER	230/1	12.0	20.0				(1)
EF-1	EXHAUST FAN	120/1	0.4					(2)
EF-2	EXHAUST FAN	230/1	8.0	15.0	1.0			(4) (5)
F-1	FURNACE	120/1	9.8	15.0	1/2	20A SWITCH/1	NF	(6)
VP-1	VACUUM PUMP	120/1	4.8	15.0	1/3	20A SWITCH/1	NF	(6)
WELL	WELL PUMP	240/1	11.0	35.0	3	60/2	25AF	
LM	LOUVER MOTOR	120/1	1.5					(4)
GATE	AUTO GATE	240/1	8.0	20.0	1	30/2	20AF	(7)
WH-1	WATER HEATER	120/1	0.8					
	PRESSURE PUMP	240/1	6.8		2	30/2		(3)

V/PH/Hz = VOLTAGE / PHASE / HERTZ
 MCA = MINIMUM CIRCUIT AMPACITY
 MOCP = MAXIMUM OVER CURRENT PROTECTION LISTED BY THE MANUFACTURER
 NF = NON-FUSED
 LMHP = LARGEST MOTOR HORSE POWER

NOTES:
 (1) UNIT FURNISHED WITH DISCONNECT INSTALLED BY EC.
 (2) SWITCH WITH LIGHT FIXTURE
 (3) PROVIDE NEMA 1 DISCONNECT. FUSE TO MAX FUSE SIZE AS LISTED BY MANUFACTURER
 (4) INTERLOCK LOUVER MOTOR WITH FAN MOTOR. COORDINATE WITH MC.
 (5) PROVIDE COMBINATION STARTER (SQUARE D 8538-9E661V02-CF15X20Y14)
 (6) PROVIDE DISCONNECT DEVICE AS REQUIRED BY UNIT.
 (7) ASSUMED LOAD AND VOLTAGE. E.C. SHALL CONFIRM LOAD AND VOLTAGE.

CONDUIT/CONDUCTOR SCHEDULE

MARK	AMPS	CONDUIT CABLE QTY	CONDUCTOR SIZE	INSUL	REMARKS
(2) (2)	20	3/4"	2	12	(1) (2)
(4) (2)	20	3/4"	4	12	(1) (2)
(2) (2)	30	3/4"	2	10	(1) (2)
(2) (2)	30	1"	2	10	(1) (2)
(2) (2)	50	3/4"	2	8	(1) (2)
(2) (2)	65	1"	2	6	(1) (2)
(2) (2)	100	1 1/4"	3	3	(1) (2)
(2) (2)	335	3"	3	400	(1) (2)
(2) (2)	200	2 1/2"	3	3/0	(1) (2)

NOTE:
 (1) THHN/THWN-2
 (2) ALL CONDUIT SHALL CONTAIN A SEPARATE EQUIPMENT GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH THE NEG. ACCOUNT FOR PARALLEL RUNS.
 SUFFIX:
 "A" INDICATES ALUMINUM CONDUCTORS
 "N" INDICATES YELLOW ISOLATED GROUND CONDUCTOR IN ADDITION TO THE GROUND CONDUCTOR IN NOTE ABOVE.

GENERAL NOTES

- THE ELECTRICAL SYSTEMS DEFINED BY THESE PLANS AND SPECIFICATIONS ARE TO BE CONSTRUCTED AS COMPLETE AND OPERABLE SYSTEMS AND SHALL BE BID WITH THIS INTENT. THE CONTRACTOR SHALL VISIT THE SITE, READ ALL THE RELEVANT DOCUMENTS AND BECOME FAMILIAR WITH THE TYPE OF CONSTRUCTION AND WORK TO BE ACCOMPLISHED. SHOULD ANY ERROR, OMISSION OR CONFLICT EXIST IN EITHER THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING BEFORE SUBMITTING HIS BID PRICE SO A CHANGE CAN BE ISSUED IN A PRE-BID ADDENDUM. OTHERWISE, THE CONTRACTOR AND/OR EQUIPMENT SUPPLIER SHALL SUPPLY THE PROPER MATERIALS AND LABOR TO INSTALL COMPLETE AND OPERABLE SYSTEMS AT THEIR OWN EXPENSE. WHEN EACH ELECTRICAL SYSTEM IS COMPLETE, THE CONTRACTOR SHALL TEST AND CONFIRM ITS PROPER OPERATION. ANY INCOMPLETE SYSTEM SHALL BE MADE COMPLETE AND OPERABLE.
- THE ARCHITECTURAL AND MECHANICAL PLANS ARE CONSIDERED A PART OF THE ELECTRICAL DOCUMENTS SO FAR AS THEY APPLY. THE ELECTRICAL CONTRACTOR SHALL REFER TO AND COORDINATE WITH THEM. NO EXTRA COST SHALL BE ALLOWED FOR FAILURE TO COORDINATE THE CONTRACT DOCUMENTS WITH OTHER TRADES AND/OR IF EQUIPMENT DIMENSIONS ARE GREATER THAN SPECIFIED AND/OR DIMENSIONED ON THE PLANS.
- NO ADDITIONS TO THE CONTRACTOR BID WILL BE ALLOWED FOR CHANGES MADE NECESSARY BY INTERFERENCE WITH OTHER WORK.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE EQUIPMENT, MATERIALS AND LABOR FOR THE CONNECTIONS OF ALL EQUIPMENT SHOWN ON THE PLANS - ARCHITECTURAL, MECHANICAL, ETC.
- THIS PROJECT IS TO BE INSTALLED IN STRICT ACCORDANCE WITH LOCAL AND STATE CODES AND THE NEG. IF AT ANY TIME DURING CONSTRUCTION OR AFTER SOMETHING IS FOUND TO BE INSTALLED IN VIOLATION OF THE CODES LISTED ABOVE, IT SHALL BE CORRECTED AT THE CONTRACTORS EXPENSE.
- ELECTRICAL CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF THE POWER COMPANY SERVICE TRANSFORMER, BEFORE INSTALLING THE SERVICE CONDUIT.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE SERVICE FEEDER TO THE BUILDING WITH THE LOCAL UTILITY. PROVIDE LABOR AND CONDUIT, CONDUCTORS, WEATHER HEAD (IF AERIAL FEED), WIRE WAYS, TRANSFORMER LOGS, METER BASES, METER CONDUIT, CONDUCTORS, ETC. AS NEEDED FOR A COMPLETE ELECTRIC SERVICE TO THIS FACILITY.
- THE EC SHALL INSTALL A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN EACH CONDUIT RUN. CONDUIT SHALL NOT BE USED AS AN EQUIPMENT GROUNDING CONDUCTOR. THE EC SHALL GROUND THE ELECTRICAL SYSTEM IN ACCORDANCE WITH LOCAL AND NATIONAL CODES.
- THE CONTRACTOR SHALL NOTIFY THE MANUFACTURER THAT THE LAYOUT AND DIMENSIONS ARE CRITICAL FOR ALL PANELS, SWITCHGEAR, ETC. AND NO PIECE OF EQUIPMENT SHALL EXCEED THE PHYSICAL SIZE INDICATED ON THE PLANS.
- ELECTRICAL CONTRACTOR SHALL CONFIRM MINIMUM CODE (NEG) WORKING CLEARANCE BEFORE INSTALLING ANY ELECTRICAL PANELS OR CABINETS AND SHALL MOVE THE PANELS AT HIS EXPENSE IF REQUESTED BY AN INSPECTOR. IF CLEARANCE IS NOT POSSIBLE, THE DESIGNER SHALL BE NOTIFIED IMMEDIATELY IN WRITING.
- THE CONTRACTOR SHALL ALLOW THE MOVEMENT, BEFORE ROUGH-IN, OF ANY ELECTRICAL PANEL, DEVICE LIGHT FIXTURE, ETC. A DISTANCE OF 10 FEET WITHOUT REQUIRING ADDITIONAL COST TO THE PROJECT.
- THE ELECTRICAL CONTRACTOR SHALL SECURE ALL CONDUIT TO THE STRUCTURE AS IT IS SET IN PLACE USING INDUSTRY STANDARD METHODS AND PRACTICES.
- TO ASSURE ALL DEVICES ARE RIGIDLY SET, THE ELECTRICAL CONTRACTOR SHALL SECURE ALL DEVICE BOXES WITH BRACKETS, HANGERS, ETC. DESIGNED FOR THE APPLICATION. ANY DEVICE BOXES NOT SECURED WILL BE MADE SECURE AT THE CONTRACTORS EXPENSE.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE TELEPHONE SERVICE CONDUIT WITH A NYLON PULL CORD. INSTALLED. EC SHALL CONFIRM ROUTING, SIZE, AND LOCATION OF THE TELEPHONE SERVICE CONDUIT, AND THE MAIN TELEPHONE BOARD WITH THE TELEPHONE COMPANY AND EACH TELEPHONE OUTLET WITH OWNER PRIOR TO ROUGH-IN.
- EC SHALL INSTALL A 3/4" CONDUIT WITH (1) #6 BARE COPPER CONDUCTOR FROM TELEPHONE DEMARK TO THE MAIN GROUNDING BUS.
- BEFORE ANY ELECTRICAL CONDUIT, BOXES, ETC. ARE COVERED (FLOOR, CEILING, WALLS, ETC.), THEY SHALL BE APPROVED BY THE INSPECTING OFFICER (INSPECTOR). THE UNCOVERING AND REPLACEMENT OF ELECTRICAL WORK FOR THE INSPECTION PURPOSES WILL BE AT THE COST OF THE ELECTRICAL CONTRACTOR.
- LIGHT FIXTURES INSTALLED IN THE MECHANICAL ROOM SHALL BE PLACED SO THAT ALL EQUIPMENT IS ADEQUATELY ILLUMINATED AFTER THE MECHANICAL EQUIPMENT IS IN PLACE.
- ALL FIXTURES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE AND NOT THE CEILING GRID.
- ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT WITH FULL GIRD, FROM ALL HEATING/COOLING EQUIPMENT TO THE THERMOSTAT, FOR THE AUTOMATIC TEMPERATURE SYSTEM CONTROL. CONFIRM AND COORDINATE WITH THE MECHANICAL CONTRACTOR.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL THE STRUCTURED CABLING FROM EACH TELEPHONE OR MULTIMEDIA OUTLET TO THE TELEPHONE/DATA BOARD/RACK. THE CABLE SHALL BE LABELED ON EACH END FOR PROPER IDENTIFICATION BEFORE THE CABLE ENDS ARE TERMINATED. THE ELECTRICAL CONTRACTOR SHALL TERMINATE THE CABLES IN THE OUTLET AND IN THE PATCH PANEL OR BLOCK IN THE TELECOMMUNICATIONS CLOSET.
- AFTER THE FACILITY IS COMPLETE AND BEEN IN FULL OPERATION FOR TWO WEEKS THE ELECTRICAL CONTRACTOR SHALL OBTAIN THE UTILITY DEMAND, THE SYSTEM VOLTAGE (PHASE TO PHASE AND PHASE TO GROUND) AND AN AMMETER READINGS (EACH PHASE) ON THE MAIN FEEDERS. THESE READINGS SHALL BE OBTAINED DURING NORMAL OPERATING HOURS FOR THE FACILITY AND SHALL BE RECORDED AND A COPY SENT TO THE ENGINEER.
- DURING CONSTRUCTION, THE ELECTRICAL CONTRACTOR SHALL REMOVE, REROUTE, AND/OR RELOCATE ANY EXISTING ELECTRICAL EQUIPMENT THAT CONFLICTS WITH THE REMODEL OR ADDITION. ALL SYSTEMS SHALL BE OPERABLE AT THE COMPLETION OF THE PROJECT.
- THE ELECTRICAL CONTRACTOR SHALL MAINTAIN ELECTRICAL CONTINUITY TO REMAINING EQUIPMENT WHEN ANY EXISTING ELECTRICAL EQUIPMENT IS REMOVED.

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ISSUE

MARK	DATE	DESCRIPTION
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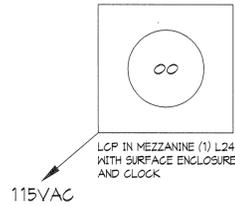
DFCM CONTRACT NO: 077325
 DFCM PROJECT NO: 07029900
 ARCHIPIXEL PROJECT NO: 0708.01
 DRAWN BY: LCM
 CHECKED BY: SWJ
 SCALE: NONE
 DATE: FEBRUARY, 2008

SHEET TITLE

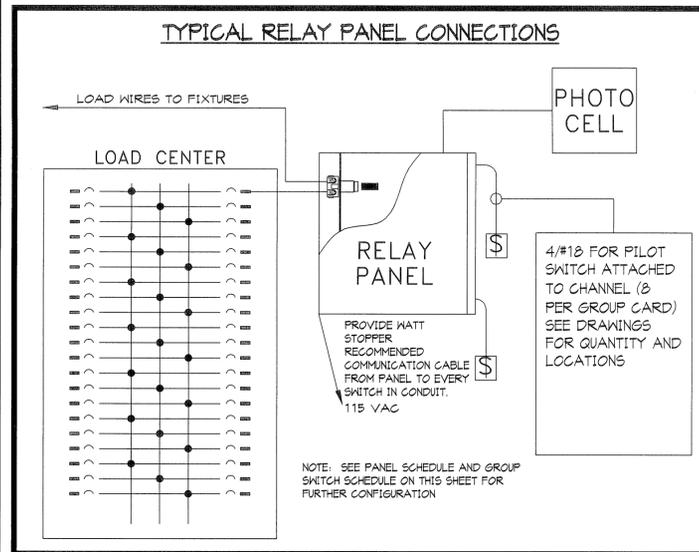
GENERAL NOTES, SCHEDULES

E001

EC SHALL PROVIDE A COMPLETE LIGHTING CONTROL SYSTEM WITH ALL CABLING, SWITCHES, CABINETS, PHOTO CELLS ETC.



TYPICAL RELAY PANEL CONNECTIONS



PANEL SCHEDULE - LCP

RELAY	CIRCUIT	DESCRIPTION	SWITCH/SENSOR
1	A-3	SHOP LIGHTS	WALL SWITCH
2	A-3	SHOP LIGHTS	WALL SWITCH
3	A-3	SHOP LIGHTS	WALL SWITCH
4	A-3	SHOP LIGHTING	WALL SWITCH
5	A-5	SHOP LIGHTING	WALL SWITCH
6	A-5	SHOP LIGHTING	WALL SWITCH
7	A-9	L6 WALL LIGHTS	PHOTOCELL
8	A-19	L6 WALL LIGHTS	PHOTOCELL
9	A-11	L7 WALL LIGHTS	WALL SWITCH
10	A-11	L7 WALL LIGHTS	WALL SWITCH
11	M-32	GATE LIGHTING	PHOTOCELL
12	A-19	SPARE	
13		SPARE	

LCP ID: 0
LOCATION: MEZZANINE
SUPPLY CIRCUIT: A-2

GROUP SWITCH SCHEDULE - LCP

CHANNEL	DESCRIPTION	FUNCTION	LOADS CONTROLLED
A	SHOP	ON/OFF	LCP O: 1-5
B	LIGHTS	ON/OFF	LCP O: 6,7
C	FLOOD LIGHTS	ON/OFF	LCP O: 8,9
D	OPEN STORAGE	ON/OFF	LCP O: 9

LCP ID: 0
LOCATION: MEZZANINE

LIGHTING CONTROL PANEL CONFIGURATION

SCALE
NONE

1

KEY NOTES

- SERVICE DISCONNECT. PROVIDE A 400 AMP, TWO POLE, NEMA 3R, FUSED DISCONNECT, FUSED 350 AMPS. INSTALL THE DISCONNECT ON THE SIDE OF THE BUILDING. SEE SHEET E201.
- PROVIDE A MAST, WEATHERHEAD AND CONDUCTORS ON THE POLE DOWN TO THE METER BASE AS REQUIRED BY THE POWER COMPANY.
- PROVIDE A 320 AMP METER BASE THAT COMPLIES WITH ALL REQUIREMENTS OF THE POWER COMPANY. INSTALL THE METER BASE ON THE POWER COMPANY POLE AND INSTALL THE NEW SERVICE DROP AND SERVICE ENTRANCE CONDUCTORS AS SHOWN. GROUND THE METER BASE AS REQUIRED BY THE POWER COMPANY.
- EC SHALL PROVIDE 30' OF #4 AWG BARE COPPER ENCASED IN AT LEAST 2" OF CONCRETE LOCATED WITHIN AND NEAR THE BOTTOM OF A CONCRETE FOUNDATION OR FOOTING THAT IS IN DIRECT CONTACT WITH THE EARTH PER 2005 NEC SECTION 250.52 (A)(3).
- POWER COMPANY EXISTING POLE AND NEW POLE MOUNTED TRANSFORMER. COORDINATE WITH THE POWER COMPANY FOR THE REQUIREMENTS AND PROVIDE A COMPLETE ELECTRICAL SERVICE TO THE FACILITY.
- DO NOT PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN THIS CONDUIT FROM THE METER TO THE SERVICE DISCONNECT.

PANEL	M	VOLTAGE	120 / 240	MOUNTING	FEED	MAINS	DIMS.	SPECIAL EQUIPMENT					
									NOOD	PHASE 1 WIRES	FLUSH	TOP	400 AMP
MEZZANINE						X LUGS	5.75' D	X SUB-FEED BRKR					
LOCATION							62" H	NEMA 3R					
								SURGE PROTECTOR					
CIR NO.	CIRCUIT DESCRIPTION	CODE	OUTLETS	BRKR	WIRE SIZE	CIRCUIT LOAD	COMBINED PHASES	CIRCUIT LOAD	WIRE SIZE	BRKR	OUTLETS	CIRCUIT DESCRIPTION	CIR NO.
1	PANEL A	13	1	2	200	12024	A	12855	420	20	2	GATE	2
3						11853		1480	250	20	1	GATE LIGHT	6
5	OVERHEAD DOOR		1	1	20	1200		1200	20	1	1	SPARE	10
7	OVERHEAD DOOR		1	1	20	1200		1200	20	1		SPARE	12
11	OVERHEAD DOOR		1	1	20	1200		1200	20	1		SPARE	14
13	OVERHEAD DOOR		1	1	20	1200		1200	20	1		SPARE	16
15	HEAT CABLE	6	1	1	20	1200		1200	20	1		SPARE	18
17	HEAT CABLE	6	1	1	20	1200		1200	20	1		SPARE	20
19	HEAT CABLE	6	1	1	20	1200		1200	20	1		SPARE	22
21	HEAT CABLE	6	1	1	20	1200		1200	20	1		SPARE	24
23	VEHICLE PLUG		1	1	20	1200		1200	1176	12	15	F-1	26
25	VEHICLE PLUG		1	1	20	1200		1200	35	2		SPARE	28
27	VEHICLE PLUG		1	1	20	1200		1200					30
29	VEHICLE PLUG		1	1	20	1200		1200					32
31	VEHICLE PLUG		1	1	20	1200		1200					34
33	ROOF HEAT CABLE	6	1	1	20	1200		2640	2040	35	2	WELL PUMP	36
35	ROOF HEAT CABLE	6	1	1	20	1200		2640	2040	20	2	CU-1	38
37	SPARE		1	2	20	1440		1440					40
39	SPARE		1	2	20	1440		4800	4800	50	2	WELDER	42
41	SPARE		1	2	20	1440		4800	4800				44
43	SPARE		1	2	20	1440		4800	4800				46
45	SPARE		1	2	20	1440		4800	4800				48
47	SPARE		1	2	20	1440		4800	4800				50
49	SPARE		1	2	20	1440		4800	4800				52
51	SPARE		1	2	20	1440		4800	4800				54
53	SPARE		1	2	20	1440		4800	4800				56
55	SPARE		1	2	20	1440		4800	4800				58
57	SPARE		1	2	20	1440		4800	4800				60
59	SPARE		1	2	20	1440		4800	4800				62
61	SPARE		1	2	20	1440		4800	4800				64
63	SPARE		1	2	20	1440		4800	4800				66
65	SPARE		1	2	20	1440		4800	4800				68
67	SPARE		1	2	20	1440		4800	4800				70
69	SPARE		1	2	20	1440		4800	4800				72
71	SPARE		1	2	20	1440		4800	4800				74
73	SPARE		1	2	20	1440		4800	4800				76
75	SPARE		1	2	20	1440		4800	4800				78
77	SPARE		1	2	20	1440		4800	4800				80
79	SPARE		1	2	20	1440		4800	4800				82
81	SPARE		1	2	20	1440		4800	4800				84
83	SPARE		1	2	20	1440		4800	4800				86
85	SPARE		1	2	20	1440		4800	4800				88
87	SPARE		1	2	20	1440		4800	4800				90
89	SPARE		1	2	20	1440		4800	4800				92
91	SPARE		1	2	20	1440		4800	4800				94
93	SPARE		1	2	20	1440		4800	4800				96
95	SPARE		1	2	20	1440		4800	4800				98
97	SPARE		1	2	20	1440		4800	4800				100
99	SPARE		1	2	20	1440		4800	4800				102
101	SPARE		1	2	20	1440		4800	4800				104
103	SPARE		1	2	20	1440		4800	4800				106
105	SPARE		1	2	20	1440		4800	4800				108
107	SPARE		1	2	20	1440		4800	4800				110
109	SPARE		1	2	20	1440		4800	4800				112
111	SPARE		1	2	20	1440		4800	4800				114
113	SPARE		1	2	20	1440		4800	4800				116
115	SPARE		1	2	20	1440		4800	4800				118
117	SPARE		1	2	20	1440		4800	4800				120
119	SPARE		1	2	20	1440		4800	4800				122
121	SPARE		1	2	20	1440		4800	4800				124
123	SPARE		1	2	20	1440		4800	4800				126
125	SPARE		1	2	20	1440		4800	4800				128
127	SPARE		1	2	20	1440		4800	4800				130
129	SPARE		1	2	20	1440		4800	4800				132
131	SPARE		1	2	20	1440		4800	4800				134
133	SPARE		1	2	20	1440		4800	4800				136
135	SPARE		1	2	20	1440		4800	4800				138
137	SPARE		1	2	20	1440		4800	4800				140
139	SPARE		1	2	20	1440		4800	4800				142
141	SPARE		1	2	20	1440		4800	4800				144
143	SPARE		1	2	20	1440		4800	4800				146
145	SPARE		1	2	20	1440		4800	4800				148
147	SPARE		1	2	20	1440		4800	4800				150
149	SPARE		1	2	20	1440		4800	4800				152
151	SPARE		1	2	20	1440		4800	4800				154
153	SPARE		1	2	20	1440		4800	4800				156
155	SPARE		1	2	20	1440		4800	4800				158
157	SPARE		1	2	20	1440		4800	4800				160
159	SPARE		1	2	20	1440		4800	4800				162
161	SPARE		1	2	20	1440		4800	4800				164
163	SPARE		1	2	20	1440		4800	4800				166
165	SPARE		1	2	20	1440		4800	4800				168
167	SPARE		1	2	20	1440		4800	4800				170
169	SPARE		1	2	20	1440		4800	4800				172
171	SPARE		1	2	20	1440		4800	4800				174
173	SPARE		1	2	20	1440		4800	4800				176
175	SPARE		1	2	20	1440		4800	4800				178
177	SPARE		1	2	20	1440		4800	4800				180
179	SPARE		1	2	20	1440		4800	4800				182
181	SPARE		1	2	20	1440		4800	4800				184
183	SPARE		1	2									

