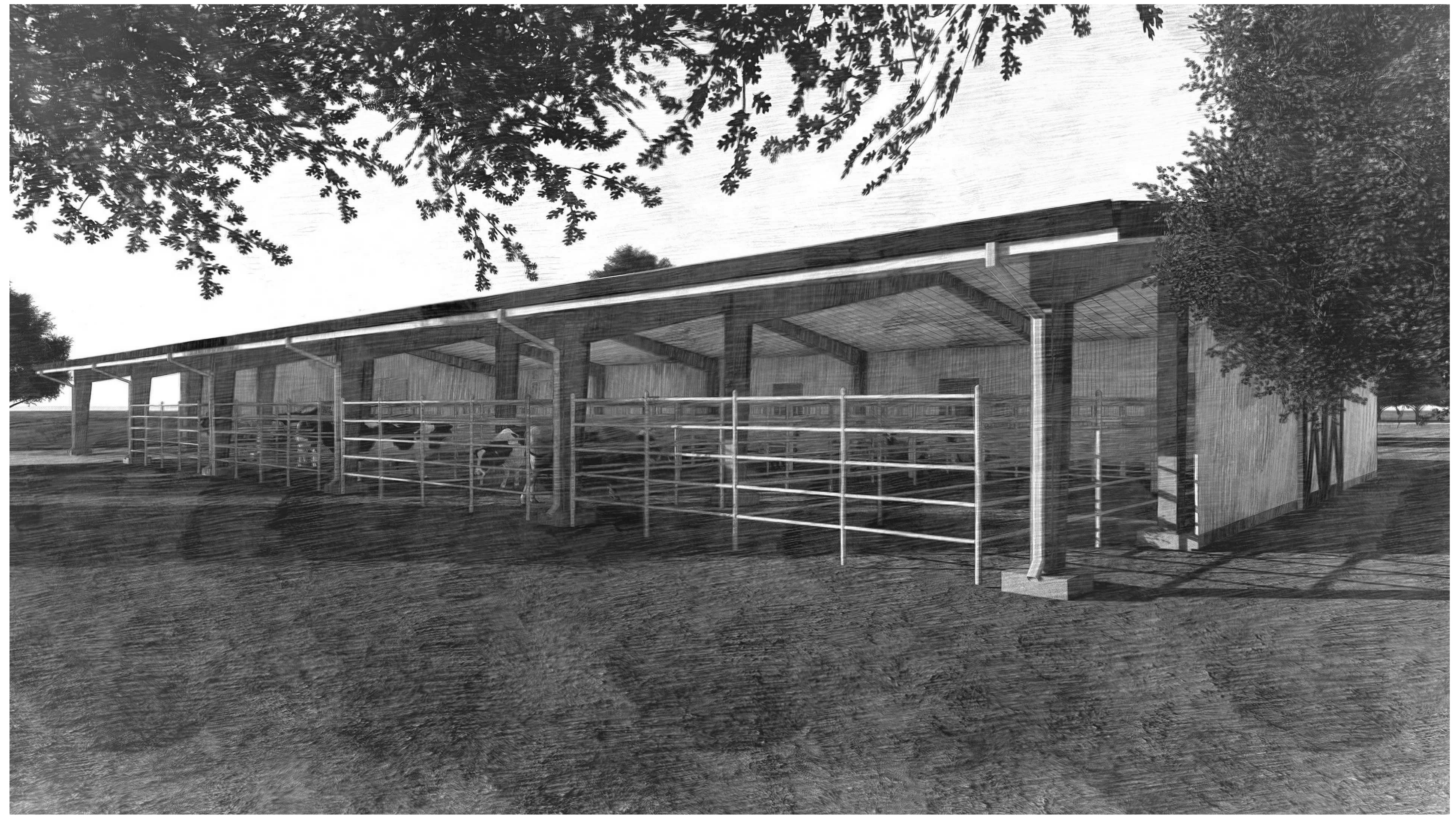
Wimberley Independent School District

951 FM 2325
Wimberley , TX 78676

O'CONNELL ROBERTSON
Architecture - Engineering - Interiors
811 Barton Springs Road , Suite 900
Austin , TX 78704

Structural Company
Datum Engineers
Building 1, 8140 N Mopac Expy #120
AUSTIN , TEXAS 78759

Civil Company
Doucet & Associates
7401 TX-71
AUSTIN , TEXAS 78735



Mission: We believe every project has a mission and strive to design environments that have a purpose that extend far beyond form and function.

AGRICULTURAL BARN

100 CARNEY LN, WIMBERLEY, TX 78676

CONTRACT DOCUMENTS

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WIMBERLEY INDEPENDENT SCHOOL DISTRICT
AGRICULTURAL BARN
100 CARNEY LN, WIMBERLEY, TX 78676

REGISTERED ARCHITECT
JARROD J. STERZINGER
19834
STATE OF TEXAS
1/18/2019

Revisions:

NO.	DESCRIPTION	DATE

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Project No. 1820.05
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COVER SHEET

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DRAWING INDEX

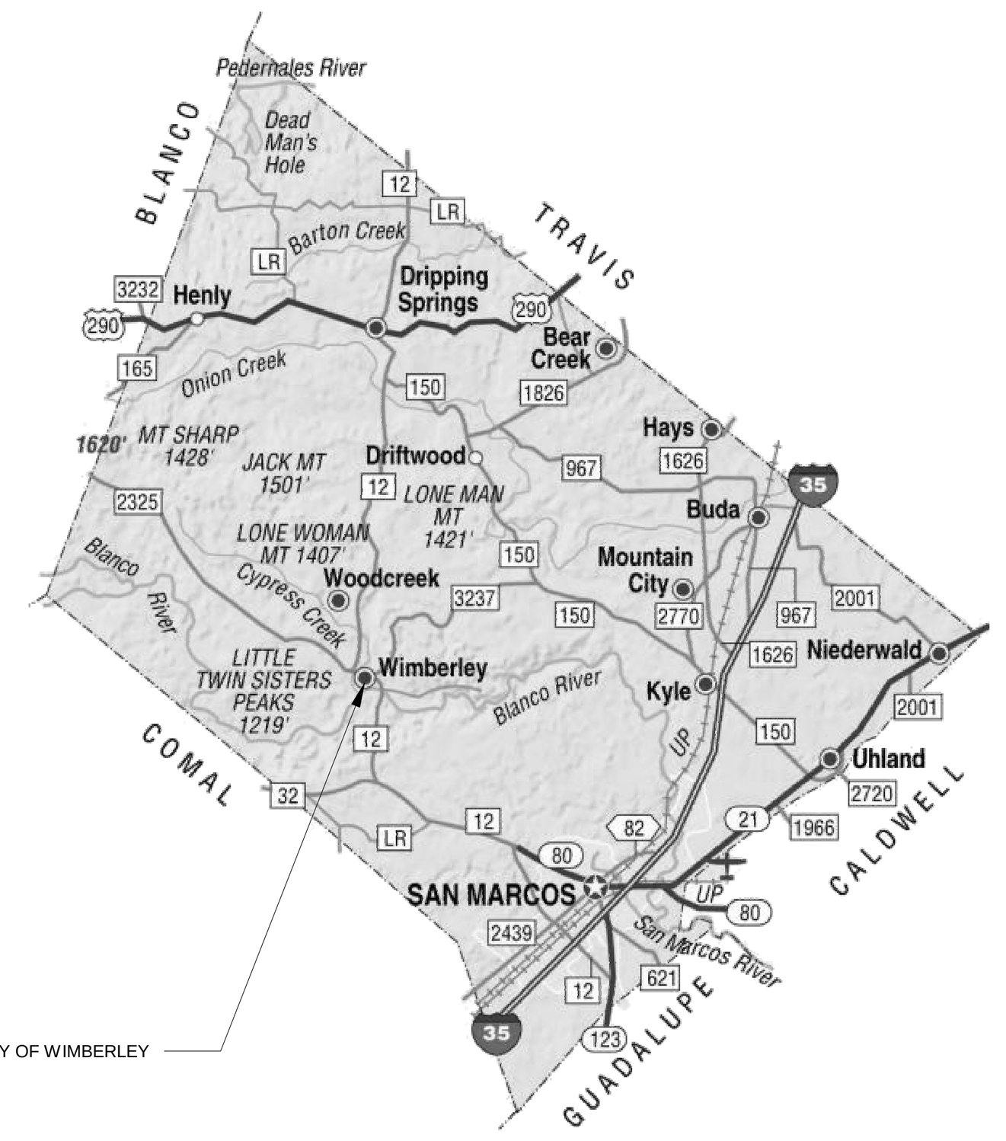
GENERAL PROJECT NOTES

1. GENERAL NOTES APPLY TO ALL SHEETS.
2. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND RELATED ITEMS REQUIRED TO COMPLETE THE DEMOLITION WORK AS INDICATED BY THE CONTRACT DOCUMENTS.
3. CONTRACTOR TO VERIFY ALL DIMENSIONS.
4. ALL ACCESSIBLE ROUTES (OTHER THAN RAMPS) SHALL NOT EXCEED A SLOPE OF 1:20, AND CROSS SLOPES SHALL NOT EXCEED A SLOPE OF 1:50
5. THE DRAWINGS INDICATE BUILDING CONDITIONS PER EXISTING DRAWINGS AND ACTUAL PROJECT INVESTIGATION. THE CONTRACTOR SHALL ANTICIPATE POSSIBLE SLIGHT DEVIATION FROM THESE DRAWINGS. REFER TO ARCHITECTURAL & MEP DRAWINGS AND DETAILS FOR EXTENT OF DEMOLITION.
6. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
7. REMOVAL OF THE BUILDING PARTS SHALL BE PERFORMED IN A SAFE, ORDERLY AND CAREFUL MANNER, WITH THE CONSIDERATION AT ALL TIMES FOR THE SAFETY AND WELFARE OF THE OWNER, BLDG. OCCUPANTS, & PERSONNEL OF THE CONTRACTOR AND/OR SUBCONTRACTOR.
8. ANY QUESTIONS CONCERNING OWNERSHIP OF SALVAGEABLE MATERIAL SHALL BE ANSWERED BY THE OWNER, OR OWNER'S REPRESENTATIVE. ALL ITEMS OTHER THAN FINISH MATERIALS TO BE REMOVED AS PART OF THIS CONTRACT ARE INDICATED WITH DASHED LINES ON DEMOLITION SHEETS. DISPOSE OF THESE MATERIALS AND ITEMS AFTER CHECKING WITH OWNER FOR ITEMS TO BE SALVAGED. SALVAGE ANY ITEMS REQUIRED TO COMPLETE NEW WORK.
9. PROTECT EXISTING VEGETATION, INCLUDING EXISTING TREES DURING CONSTRUCTION. REVEGETATE DAMAGED AREAS ADJACENT TO NEW CONSTRUCTION; CONTRACTOR SHALL MAINTAIN VEGETATED AREAS FOR 3 WEEKS AFTER INITIAL PLANTING
10. REFER TO MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR OTHER WORK.

ALTERNATES

ALTERNATE # 1	BASE BID: NO FANS ALTERNATE BID: (2) HIGH VOLUME, LOW SPEED CEILING FANS

STATE OF TEXAS



HAYS COUNTY

VICINITY MAP

ARCHITECTURAL SYMBOLS

- PARTITION TYPES
- NAME ### — ROOM NUMBER
- ### — DOOR NUMBER
- # — KEYNOTE
- # — DEMOLITION NOTE
- # — EQUIPMENT
- # — COLUMN GRID
- A.F.F. 0'-0" — ELEVATION HEIGHT
- # — REVISION
- # # — ELEVATION
- SIM # # — SECTION
- N — NORTH ARROW

ARCHITECTURAL MATERIALS

- BRICK
- CONCRETE
- CONCRETE BLOCK
- EARTH
- INSULATION, BATT
- INSULATION, RIGID
- METAL
- PLYWOOD
- FINISH GRADE HARDWOOD
- WOOD FRAMING THROUGH MEMBER
- WOOD FRAMING INTERUPTED MEMBER

ARCHITECTURAL LINETYPES

- NEW CONSTRUCTION
- EXISTING CONSTRUCTION
- DEMOLITION
- HIDDEN LINE

ARCHITECTURAL ABBREVIATIONS

ABV	ABOVE
ACOUS	ACOUSTICAL
ADJ	ADJUSTABLE
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
ALT	ALTERNATE
ANOD	ANODIZED
APPROX	APPROXIMATELY
AWP	ACOUSTICAL WALL PANEL
BD	BOARD
BLDG	BUILDING
BOT	BOTTOM
BW	BOTH WAYS
BM	BENCH MARK
C	CHANNEL
CC	CUBICAL CURTAIN
CK	CORK
CAB	CABINET
CB	CHALK BOARD
CFCI	CONTRACTOR FURNISH CONTRACTOR INSTALL
CFOI	CONTRACTOR FURNISH OWNER INSTALL
CFT	CUBIC FOOT
CG	CORNER GUARD
CL, ℄	CENTER LINE
CLG	CEILING
CI	CAST IRON
CLO	CLOSET
CLR	CLEAR
CMP	CROWN MOLDING PAINTED
CMS	CROWN MOLDING STAINED
CMT	CERAMIC MOSAIC TILE
CMTB	CERAMIC MOSAIC TILE BASE
CMTW	CERAMIC MOSAIC TILE WALL
CMU	CONCRETE MASONRY UNIT
CO	CASED OPENING
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CR	CHAIR RAIL
CORR	CORRIDOR
CPT	CARPET
CPTB	CARPET BASE
CT	CERAMIC TILE
CTB	CERAMIC TILE BASE
CTW	CERAMIC TILE WALL
CTSK	COUNTERSINK
CYD	CUBIC YARD

D	DRAIN
DBL	DOUBLE
DEMO	DEMOLISH, DEMOLITION
DEPT	DEPARTMENT
DF	DRINKING FOUNTAIN
DIA or Ø	DIAMETER
DIM	DIMENSION
DIV	DIVISION
DL	DEAD LOAD
DN	DOWN
DS	DOWN SPOUT
DSP	DRY STAND PIPE
DTL	DETAIL
DWG	DRAWING
E	EAST
EA	EACH
EF	EPOXY FLOOR
EFB	EPOXY FLOOR BASE
EJ	EXPANSION JOINT
EG	END GUARD
EL	ELEVATION
ET	EPOXY TERRAZZO FLOOR
ETB	EPOXY TERRAZZO BASE
ELECT	ELECTRICAL
EM	ENTRANCE MAT
EMER	EMERGENCY
ENCL	ENCLOSURE
EP	EPOXY PAINT
EQ	EQUAL
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXP	EXPANSION
EXIST	EXISTING
EXT	EXTERIOR
FA	FIRE ALARM
FBO	FURNISHED BY OTHERS
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FFE	FINISH FLOOR ELEVATION
FHC	FIRE HOSE CABINET
FHVC	FIRE HOSE VALVE CABINET
FE	FINISHED END
FLR	FLOOR
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FPRF	FIREPROOFING

FRT	FIRE RESISTANT TREATED
FT	FOOT
FURR	FURRING
FWC	FABRIC WALL COVERING
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GCLU	GLAZED CMU
GI	GALVANIZED IRON
GL	GLASS
GLB	GLASS BLOCK
GMT	GLASS MOSAIC TILE
GMTW	GLASS MOSAIC TILE WALL
GR	GRADE
GYP	GYPSUM
GYP BD	GYPSUM BOARD
HC	HOLLOW CORE
HDR	HEADER
HDW	HARDWARE
HDWD	HARDWOOD
HGT	HEIGHT
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HR	HANDRAIL
HVAC	HEATING VENTILATION AIR CONDITIONING
ID	INSIDE DIAMETER
INCL	INCLUDING
INSUL	INSULATION
INT	INTERIOR
IPS	IRON PIPE SIZE
J	JOIST
JAN	JANITOR
JT	JOINT
KIT	KITCHEN
KO	KNOCKOUT
L	LENGTH/LONG
LAB	LABORATORY
LAM	LAMINATE
LH	LEFT HAND
LI	LINOLEUM
LIB	LINOLEUM COVED BASE
LIT	LINOLEUM TILE
LL	LIVE LOAD

M	METER
MAS	MASONRY
MAX	MAXIMUM
MDF	MEDIUM DENSITY FIBER BOARD
MED	MEDIUM
MEMB	MEMBRANE
MTL	METAL
MFGR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MM	MILLIMETER
MO	MASONRY OPENING
MOD	MODULAR
MTD	MOUNT(ED) (ING)
MUL	MULLION
N	NORTH
NAT	NATURAL
NIC	NOT IN CONTRACT
NO or #	NUMBER
NOM	NOMINAL
NRC	NOISE REDUCTION COEFFICIENT
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFD	OVERFLOW ROOF DRAIN
OFF	OFFICE
OFOI	OWNER FURNISH OWNER INSTALL
OFCI	OWNER FURNISH CONTRACTOR INSTALL
OVH	OVERHEAD
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
P	PAINT(ED)
PARA	PARALLEL
PBD	PARTICLE BOARD
PCF	POUNDS PER CUBIC FOOT
PERF	PERFORATED
PERI	PERIMETER
PFL	POUNDS PER LINEAR FOOT
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLYWD	PLYWOOD
PP	PORCELAIN PAVER
PPB	PORCELAIN PAVER BASE
PPW	PORCELAIN PAVER WALL
PR	PAIR

PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
QT	QUARRY TILE
QTB	QUARRY TILE BASE
RI	RISER
R	RADIUS
RB	RUBBER BASE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REF	REFERENCE
REFR	REFRIGERATOR
REINF	REINFORCING
REQ	REQUIRE(D) (ING)
REV	REVISION
RH	RIGHT HAND
RM	ROOM(S)
ROW	RIGHT OF WAY
RVWC	RIGID VINYL WALL COVERING
S	SOUTH
SB	SPLASH BLOCK
SC	SOLID CORE
SCHED	SCHEDULE
SECT	SECTION
SHR	SHOWER
SIM	SIMILAR
SPECS	SPECIFICATION(S)
SPK	SPEAKER
SQ	SQUARE
SS	STAINLESS STEEL
ST	STONE
STC	STONE COUNTERTOP
STW	STONE WALL
STB	STONE BASE
STC	STAINED CONCRETE
STD	STANDARD
STL	STEEL
STO	STORAGE
STRUCT	STRUCTURAL
SV	SHEET VINYL
SVB	SHEET VINYL COVED BASE
SYM	SYMMETRICAL
SYS	SYSTEM

TB	TACK BOARD
TOC	TOP OF CURB
TOSC	TOP OF STRUCTURAL STEEL
TEL	TELEPHONE
THK	THICK
TOB	TOP OF BEAM
TOP	TOP OF PAVEMENT
TOM	TOP OF MASONRY
TOS	TOP OF STEEL (BOTTOM OF ROOF DECK)
TP	TOILET PARTITION
TV	TELEVISION
TYP	TYPICAL
TZ	TERRAZZO
TZB	TERRAZZO BASE
UC	UNDERCUT
UNO	UNLESS OTHERWISE NOTED
USC	UNDER SEPARATE CONTRACT
VAR	VARNISH
VB	VAPOR BARRIER
VB	VINYL BASE
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VT	VINYL TILE
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
W	WEST
W/	WITH
WBP	WOOD BASE PAINTED
WBS	WOOD BASE STAINED
WC	WATER CLOSET
WD	WOOD
WDS	WOOD STAINED
WIN	WINDOW
W/O	WITHOUT
WP	WOOD PANELING PREFINISHED
WPP	WOOD PANELING PAINTED
WPS	WOOD PANELING STAINED
WS	WATER STOP
WSCT	WAINSCOT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

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WIMBERLEY INDEPENDENT SCHOOL DISTRICT

AGRICULTURAL BARN

100 CARNEY LN, WIMBERLEY, TX 78676

REGISTERED ARCHITECT JARROD J. STERZINGER 19834 STATE OF TEXAS

1/18/2019

Revisions:

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DRAWING INDEX AND SYMBOLS

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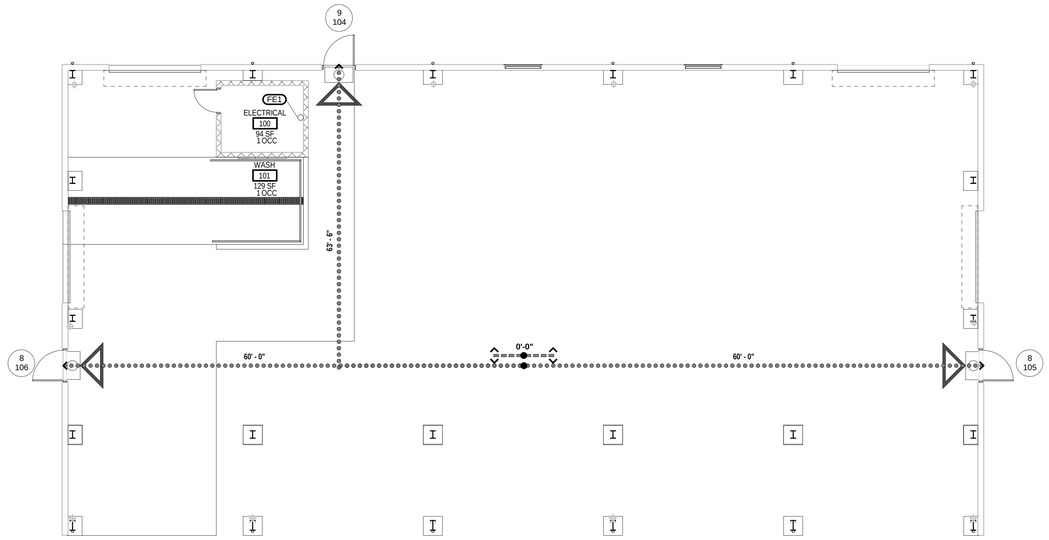


1 FIRST FLOOR LIFE SAFETY PLAN

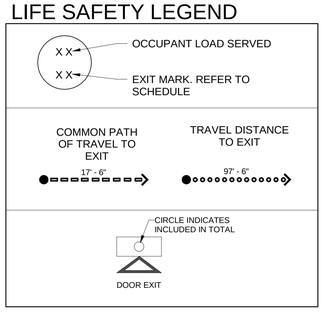
SCALE: 1/8" = 1'-0"

AGRICULTURAL BARN
BUILDING CODE ANALYSIS

FACILITY:	Wimberley Independent School District
OR PROJECT NUMBER:	1820.05
PROJECT :	Agricultural Barn
LOCATION:	Wimberley, TX
JURISDICTION	City of Wimberley
APPLICABLE CODES:	2015 International Building Code
	2015 International Fuel Gas Code
	2015 International Energy Conservation Code
	2015 International Plumbing Code
	2015 International Fire Prevention Code
	2015 International Mechanical Code
	2017 National Electric Code
	2012 Texas Accessibilities Standards
Building Information	
Main Building Area	7,200sf
Number of Stories	1 Story
Building Height	17'-6"

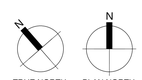
CODE CHAPTER	DESCRIPTION	SECTION
CHAPTER 3: Use & Occupancy Classification		
Occupancy Classifications		
Barn	Utility and Miscellaneous Group U	312
CHAPTER 4: Special Detailed Requirements		
	None required	
CHAPTER 5: General Building Heights and Areas		
Allowable Height and Building Areas		
Group U, Type IIB	Height - 2 story	Table 503
	Area - 8,500 sf per floor	
Height / Story Modifications	No Height or Story Modification Taken	504
Area Modifications	Frontage Increase Not Taken	506
CHAPTER 6: Types of Construction		
Construction Classification	Type IIB	602.2
Fire Resistance Rating Requirements	Type IIB	Table 601
CHAPTER 7: Fire-Resistance-Rated Construction		
Maximum Area of Exterior Wall Openings	Unlimited	Table 705.8
CHAPTER 9: Fire Protection Systems		
Automatic Sprinkler Systems	Group U Not Required	903.2.11
Standpipes	Not Applicable	
Fire Alarm Systems	Not Required	907.2
CHAPTER 10: Means of Egress		
Max. Floor Area Allowances per occupant		
Agricultural Building	300 gross	
Occupant Load	24 occ.	
Egress Width	.2 in/occupant	1005.3.2
Common Path of Egress Travel	75 feet max.	Table 1018.2
Exit Access Travel Distance	300 feet max.	Table 1017.2
Minimum Number of Exits		
min. 1 exit	Max. occupant load of 50	Table 1014.1
min. 2 exits	Occupant load between 51 and 500	Table 1006.3.1
min. 3 exits	Occupant load between 501 and 1000	Table 1006.3.1
min. 4 exits	Occupant load over 1,000	Table 1006.3.1
CHAPTER 29: Plumbing Systems		
Minimum Plumbing Facilities		
Occupancy U	Plumbing Fixtures Not Required	

LIFE SAFETY LEGEND



EXIT CALCULATIONS

MARK	TYPE	LOAD	WIDTH	FACTOR	CAPACITY	IN TOTAL	TOTAL CAPACITY
105	DOOR	8	3' - 8"	0.2	220	Yes	220
106	DOOR	8	3' - 8"	0.2	220	Yes	220
104	DOOR	9	3' - 8"	0.2	220	Yes	220
Grand total		25					660



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LIFE SAFETY INFORMATION

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Sheet List Table	
Sheet Number	Sheet Title
1	EXISTING SITE
2	OVERALL SITE IMPROVEMENTS
3	OVERALL DRAINAGE PLAN
4	EROSION SEDIMENTATION AND TREE PROTECTION PLAN
5	EROSION SEDIMENTATION DETAILS
6	ACCESSIBLE ROUTE
7	PROPOSED WATER SERVICE
8	PROPOSED AG FARM DRIVEWAY
9	AG BARN DOWNSPOUTS SYSTEM
10	STORM DRAINAGE SYSTEM "A"
11	STANDARD DETAILS SHEET 1
12	STANDARD DETAILS SHEET 2

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THOMAS F. CURRAN
61905
LICENSED
PROFESSIONAL ENGINEER

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EXISTING SITE

1

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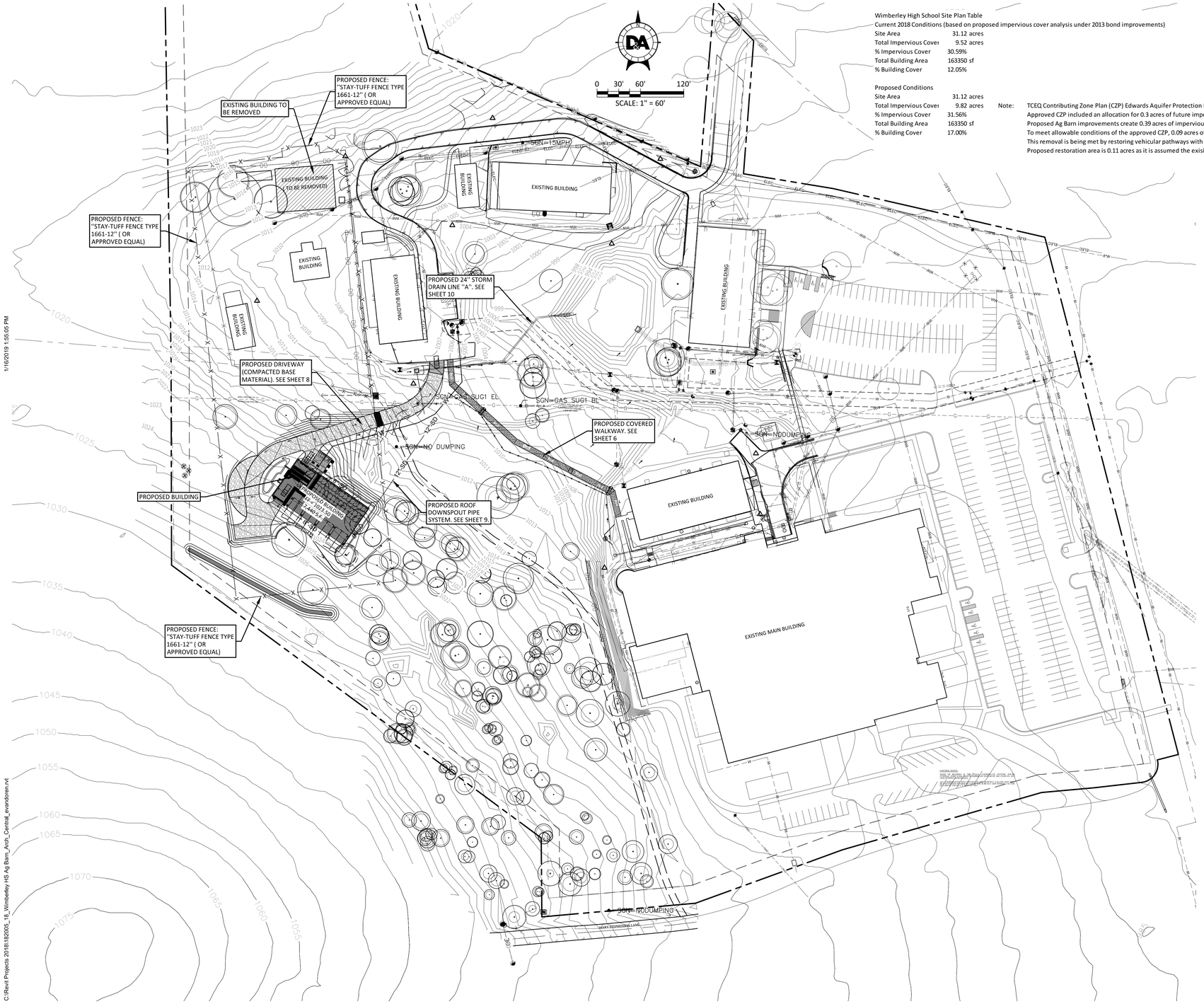

Wimberley High School Site Plan Table
Current 2018 Conditions (based on proposed impervious cover analysis under 2013 bond improvements)

Site Area	31.12 acres
Total Impervious Cover	9.52 acres
% Impervious Cover	30.59%
Total Building Area	163350 sf
% Building Cover	12.05%

Proposed Conditions

Site Area	31.12 acres
Total Impervious Cover	9.82 acres
% Impervious Cover	31.56%
Total Building Area	163350 sf
% Building Cover	17.00%

Note: TCEQ Contributing Zone Plan (CZP) Edwards Aquifer Protection Program ID No. 11-13112105 (February 28, 2014)
Approved CZP included an allocation for 0.3 acres of future impervious cover
Proposed Ag Barn improvements create 0.39 acres of impervious cover
To meet allowable conditions of the approved CZP, 0.09 acres of impervious cover needs to be removed from site
This removal is being met by restoring vehicular pathways with vegetation and blocking off vehicular access to these areas
Proposed restoration area is 0.11 acres as it is assumed the exisitng vehicular pathways are approx. 80% impervious

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

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OVERALL SITE IMPROVEMENTS

2

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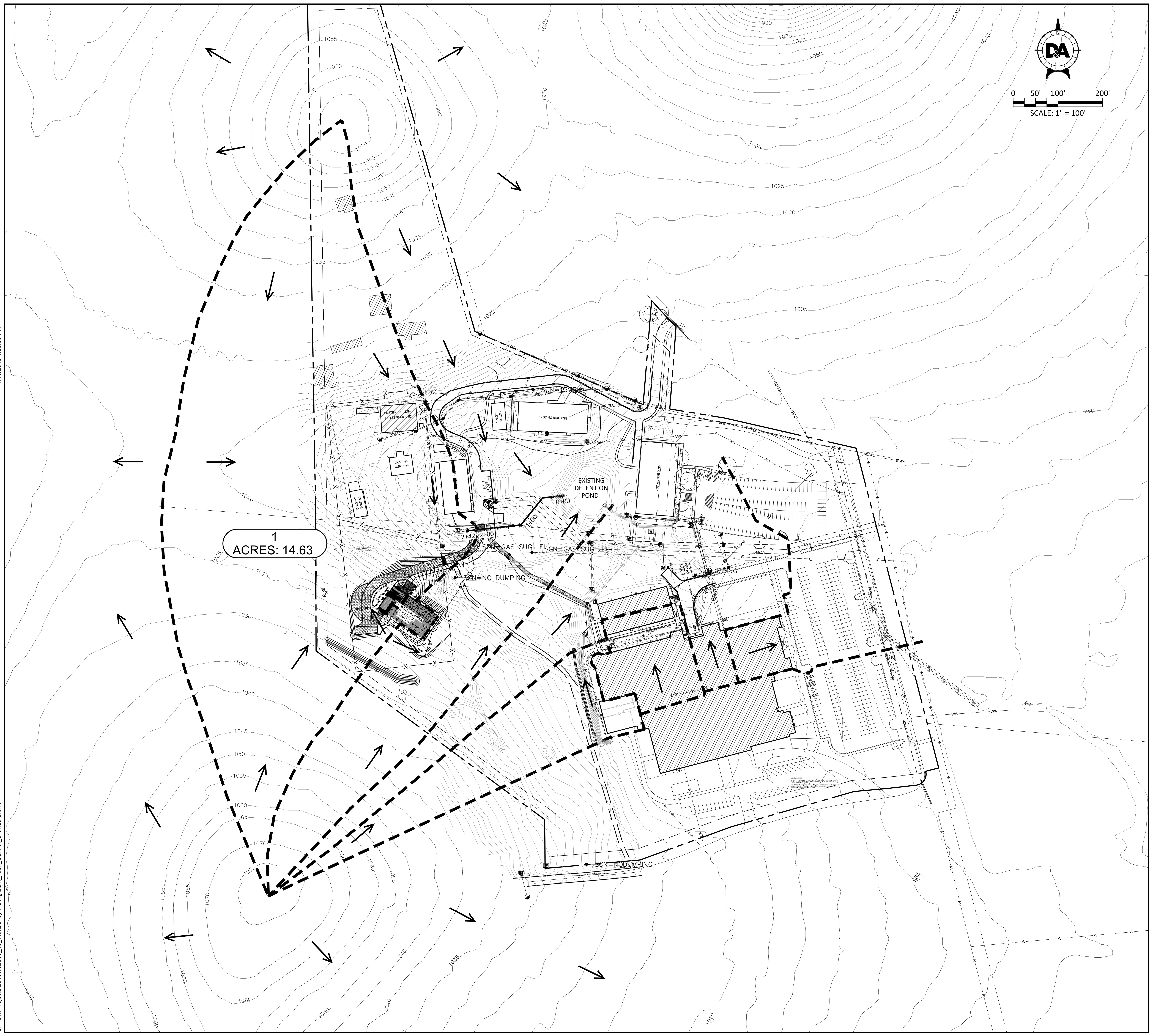

LEGEND

- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING PAVEMENT
- PROPOSED CURB & GUTTER
- EXISTING CREEK/ SWALE
- DRAINAGE BOUNDARY LINE
- DA — DRAINAGE BOUNDARY LABEL
- NO — INLET NUMBER
- DRAINAGE FLOW DIRECTION
- TIME OF CONCENTRATION LINE
- 493 — EX. CONTOURS
- 493 — PROP. CONTOURS
- EX. STORM DRAIN INLET WITH LATERAL
- PROP. STORM DRAIN INLET WITH LATERAL
- 100–YFP — 100-YR FLOODPLAIN
- CWQZ — CRITICAL WATER QUALITY ZONE
- WQTZ — WATER QUALITY TRANSITION ZONE

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OVERALL DRAINAGE PLAN

3

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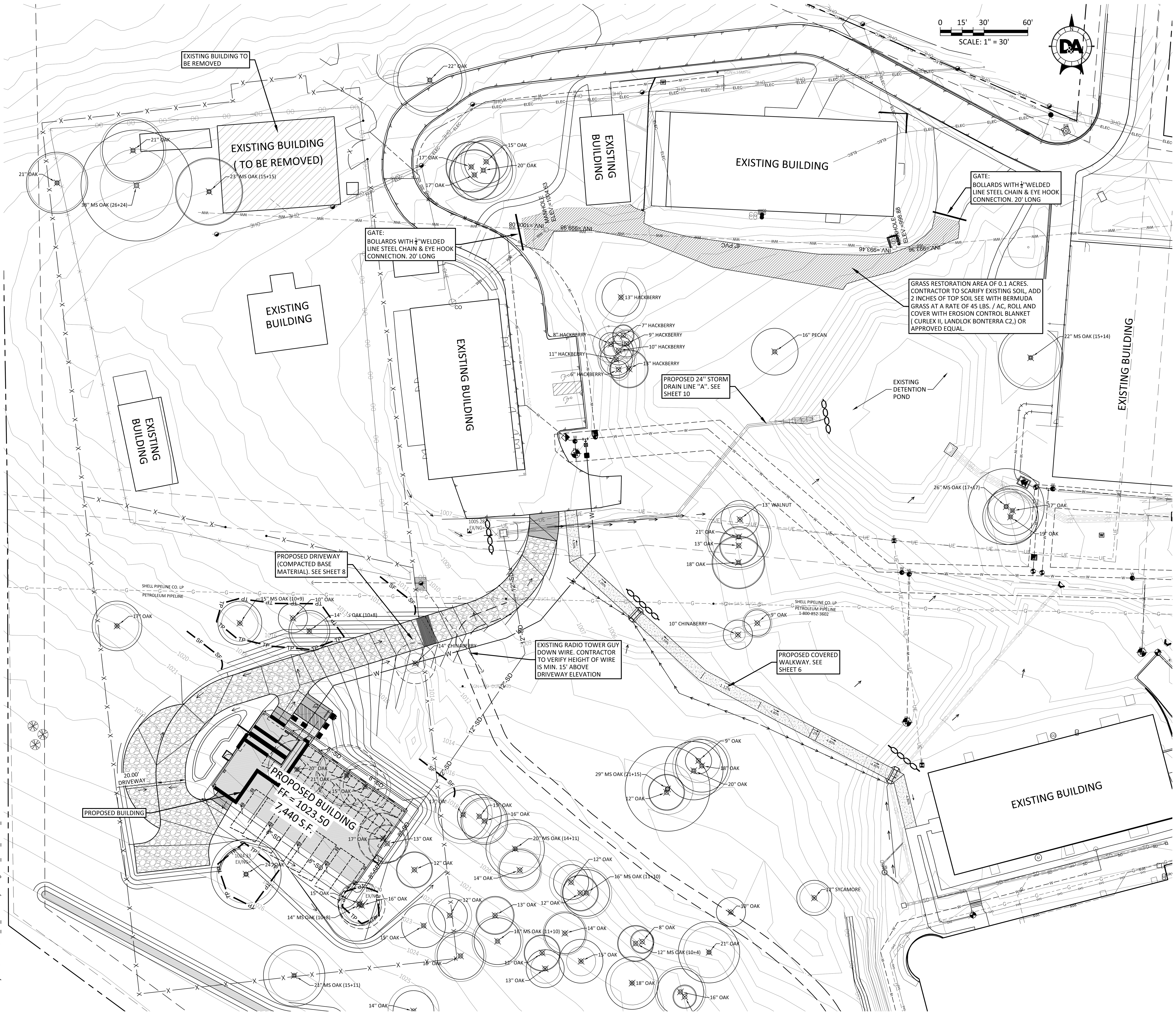

EROSION / SEDIMENTATION AND TREE PROTECTION LEGEND

- LIMITS OF CONSTRUCTION
- DRAINAGE FLOW DIRECTION
- TP — TREE PROTECTION FENCE (C.O.A. DETAIL 610S-1 & 610S-4)
- REINFORCED ROCK BERM (C.O.A. DETAIL 639S-1)
- MULCH SOCK
- OMF — ORANGE MESH SAFETY FENCE
- SF — SILT FENCE
- F — D FILTER DIKE CURB INLET PROTECTION
- TFD — TRIANGULAR FILTER DIKE
- HALF CRITICAL ROOT ZONE
- 1000 EXISTING TREES (TO REMAIN)
- 1000 EXISTING TREES (TO BE REMOVED)
- STABILIZED CONSTRUCTION ENTRANCE (SCE) (C.O.A. DETAIL 641S-1)
- TEMPORARY SPOILS SITE
- CONSTRUCTION STAGING AREA
- EROSION CONTROL BLANKET
- CONCRETE WASHOUT AREA
- DETAIL NUMBER / SHEET NUMBER — X / XX DETAIL NAME — DETAIL CALLOUT REFERENCE
- DETAIL NUMBER → X / XX ← SHEET NUMBER — DETAIL CALLOUT REFERENCE

EROSION / SEDIMENTATION CONTROL NOTES:

1. THE ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/ SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF WIMBERLEY RULES AND REGULATIONS.
2. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(D), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
3. SILT FENCE TYPE AND INSTALLATION SHALL COMPLY WITH ECM 1.4.2(G).
4. ALL DISTURBED AREAS SHALL BE REVEGETATED WITH NATIVE GRASSES (REFER TO NOTE SHEET FOR SPECS). ALL DISTURBED AREAS WITH SLOPES 5:1 OR STEEPER, WHICH ARE NOT ARMORED OTHERWISE, SHALL HAVE A SOIL RETENTION BLANKET (EXCELSIOR II OR APPROVED EQUAL) INSTALLED TO ASSIST WITH REVEGETATION.
5. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTRUBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING. (ECM 1.4.4.B.3, SECTION 5, I.)
6. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY. (ECM 1.4.4.D.4)

NOTE:
TREE SIZES AND SPECIES ARE SHOWN AS LABELED.

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1/17/2019

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WIMBERLEY INDEPENDENT SCHOOL DISTRICT
AGRICULTURAL BARN
100 CARNEY LN, WIMBERLEY, TX 78676

Revisions:

NO.	DESCRIPTION	DATE

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Project No. 1820.05
CONTRACT DOCUMENTS

EROSION SEDIMENTATION AND TREE PROTECTION PLAN

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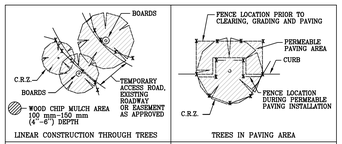
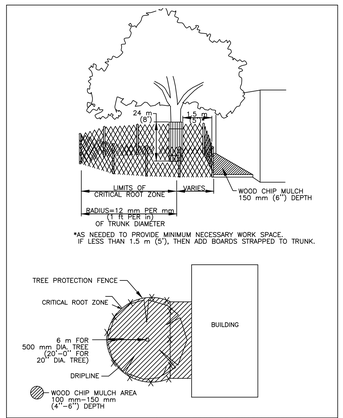
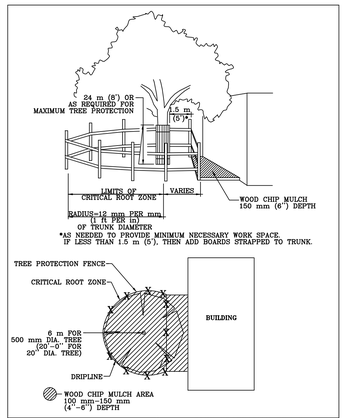


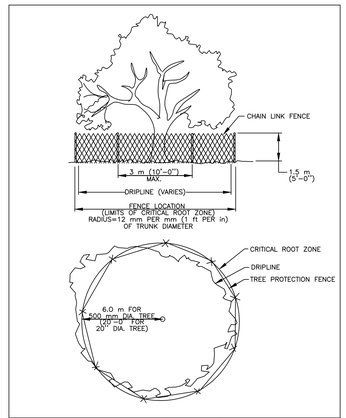
	TREE PROTECTION FENCE LOCATIONS
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S–1



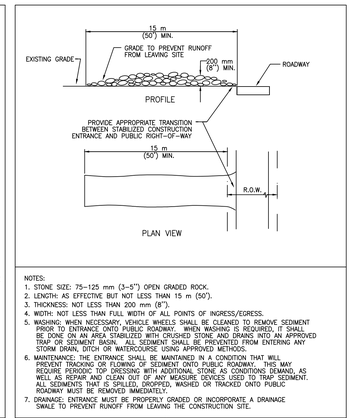
	TREE PROTECTION FENCE MODIFIED TYPE A – CHAIN LINK
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S–4



	TREE PROTECTION FENCE MODIFIED TYPE B – WOOD
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S–5

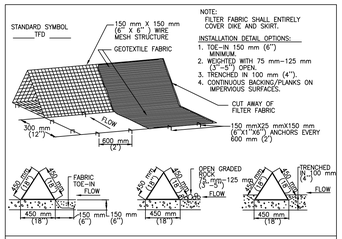


	TREE PROPTECTION FENCE TYPE A – CHAIN LINK
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S–2



NOTES:
1. STONE SIZE: 75–125 mm (3–5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

	STABILIZED CONSTRUCTION ENTRANCE
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S–1

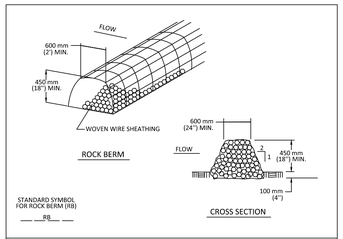


NOTE:
FILTER FABRIC SHALL ENTIRELY COVER DIKE AND SKIRT.

INSTALLATION DETAIL OPTIONS:
1. TOE–IN 150 mm (6") MINIMUM.
2. WEIGHTED WITH 75 mm–125 mm (3"–5") OPEN.
3. TRENCHED IN 100 mm (4").
4. CONTINUOUS BACKING/PLANKS ON IMPERVIOUS SURFACES.

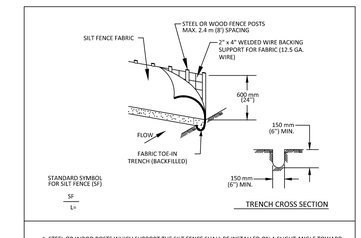
GENERAL NOTES
1. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
2. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
3. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 75–125 mm (3–5") OPEN GRADED ROCK OR TOED–IN 150 mm (6") WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 100 mm (4").
4. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 150 mm (6") WIRE STAPLES ON 600 mm (2') CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 10M (3/8 ") DIAMETER RE–BAR WITH TEE ENDS.
5. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 150 mm (6") TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOAT RINGS.
6. THE DIKE STRUCTURE SHALL BE MWM0–150 mmX150 mm (6 GA. 6"X6") WIRE MESH, 450 mm (18") ON A SIDE.
7. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
8. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6") AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
9. AFTER THE DEVELOPMENT SITE IS COMPLETLY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

	TRIANGULAR SEDIMENT FILTER DIKE
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 628S



NOTES:
1. USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE–WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. IF SEDIMENT REACHES A DEPTH EQUAL TO ONE–THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTION PROBLEM.
5. WHEN THE SITE IS COMPLETELY STABILIZED,THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

	ROCK BERM
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S–1



1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 inches) DEPTH, USE STEEL POSTS.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

	SILT FENCE
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S–1

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WIMBERLEY INDEPENDENT SCHOOL DISTRICT
AGRICULTURAL BARN
100 CARNEY LN, WIMBERLEY, TX 78676

Revisions:
NO. DESCRIPTION DATE

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CONTRACT DOCUMENTS

EROSION SEDIMENTATION DETAILS

5

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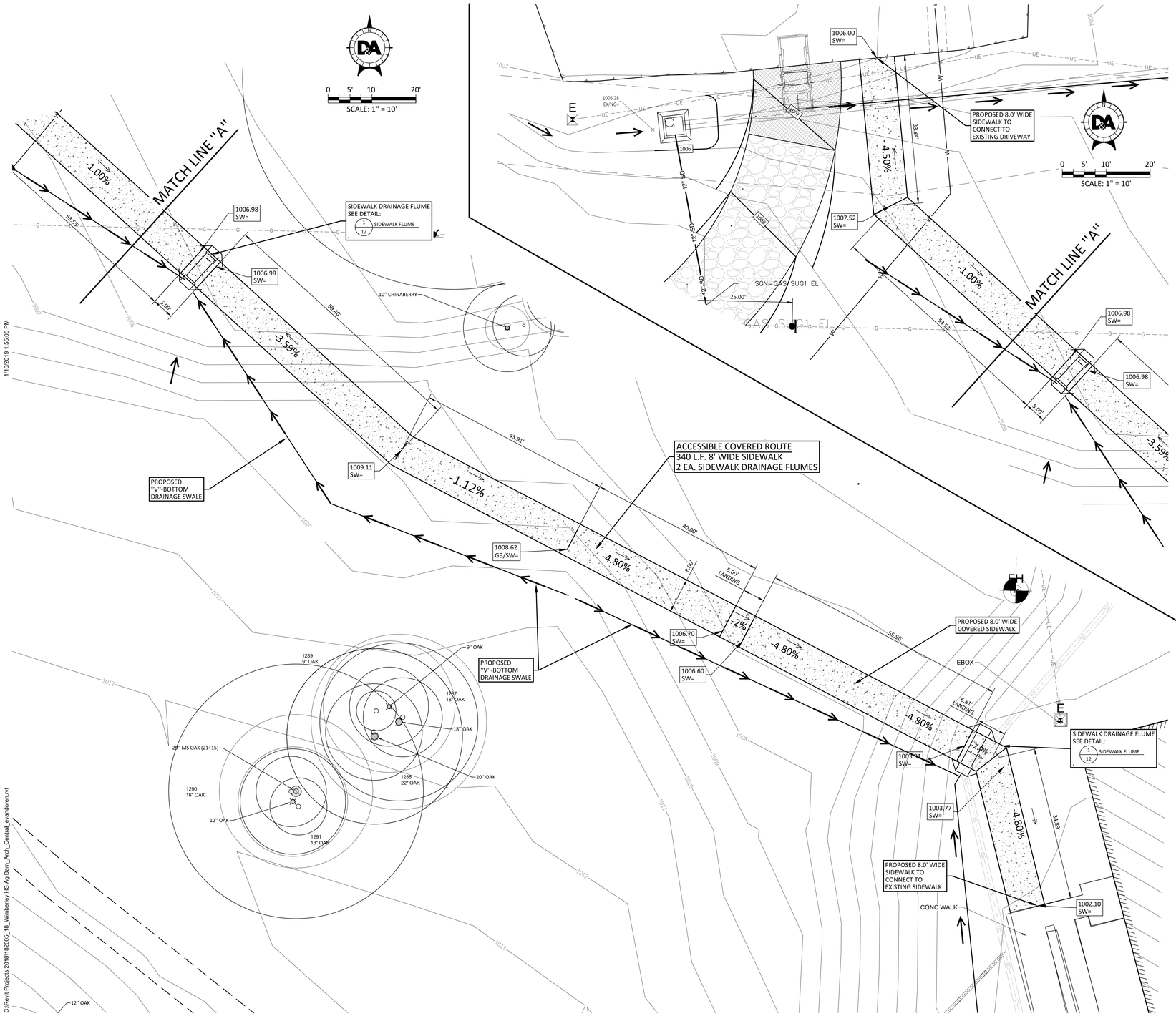

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

GRADING LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING PAVEMENT
- PROPOSED CURB & GUTTER
- PROPOSED LAYDOWN CURB
- DETAIL NUMBER / SHEET NUMBER — DETAIL NAME — DETAIL CALLOUT REFERENCE
- DETAIL NUMBER / SHEET NUMBER — X / XX — DETAIL CALLOUT REFERENCE
- 493 EX. CONTOURS
- 493 PROP. CONTOURS
- SD EX. STORM DRAIN
- SD PROP. STORM DRAIN
- EX. STORM DRAIN INLET WITH LATERAL
- PROP. STORM DRAIN INLET WITH LATERAL
- 100 EXISTING TREE (TO REMAIN)
- 100 EXISTING TREE (TO BE REMOVED)
- 493.00 NG= EXISTING GROUND ELEVATION
- 493.00 PAV= PROPOSED PAVEMENT ELEVATION
- 493.00 EX/PAV= EXISTING EDGE OF PAVEMENT
- 493.00 GUT= PROPOSED GUTTER ELEVATION
- 493.00 EX/GUT= EXISTING GUTTER
- 493.00 TC= PROPOSED TOP OF CURB
- 493.00 EX/TC= EXISTING TOP OF CURB
- 493.00 TW= PROPOSED TOP OF WALL
- 493.00 EX/SW= EXISTING SIDEWALK
- 493.00 SW= PROPOSED TOP OF SIDEWALK
- 493.00 FF= PROPOSED FINISH FLOOR ELEVATION
- 493.00 FL= PROPOSED FLOW LINE
- 493.00 FG= PROPOSED FINISH GRADE
- 1.00% PROPOSED SLOPE (SLOPE DOWN)
- G.B. OR GRADE BREAK — PROPOSED GRADE BREAK ON SURFACE (CNC., PVMT., GRASS, ETC.)
- SPILL SPILL — DENOTES THE CURB & GUTTER SHALL BE A SPILL CURB.
- TREE PROTECTION FENCE (C.O.A. DETAIL 6105-1 & 6105-4)

NOTE: FINISHED GROUND (FG=) SPOT ELEVATION CALLOUTS INDICATE THE ELEVATION OF FINAL GRADING INCLUDING THE INSTALLATION OF GRASS AND/OR REVEGETATION. IF THE CONTRACTOR INSTALLS GRASS SOD AND / OR TOP SOIL, THE THICKNESS OF THE MATERIAL SHOULD BE SUBTRACTED FROM THE FINISHED GROUND ELEVATIONS CALLOUTS.

NOTE: CONTRACTOR SHALL CONSTRUCT ALL TAS ACCESSIBLE ROUTES SIDEWALK, RAMP AND DRIVEWAY CROSSING GRADES AND DIMENSIONS IN ACCORDANCE WITH THE TEXAS ACCESSIBILITY STANDARDS, ARCHITECTURAL BARRIERS GOVERNMENT CODE, ARCHITECTURAL BARRIERS ADMINISTRATIVE RULES AND TECHNICAL MEMORANDUM, LATEST EDITION. THE GRADES SHOWN ON THESE DRAWINGS WERE ESTABLISHED USING THE BEST AVAILABLE EXISTING GROUND INFORMATION AND ARE FOR GENERAL CONSTRUCTION AND BIDDING PURPOSES ONLY. CONTRACTOR SHALL ADJUST GRADES AND DIMENSIONS TO FIELD CONDITIONS AND TO COMPLY WITH TEXAS ACCESSIBILITY STANDARDS.

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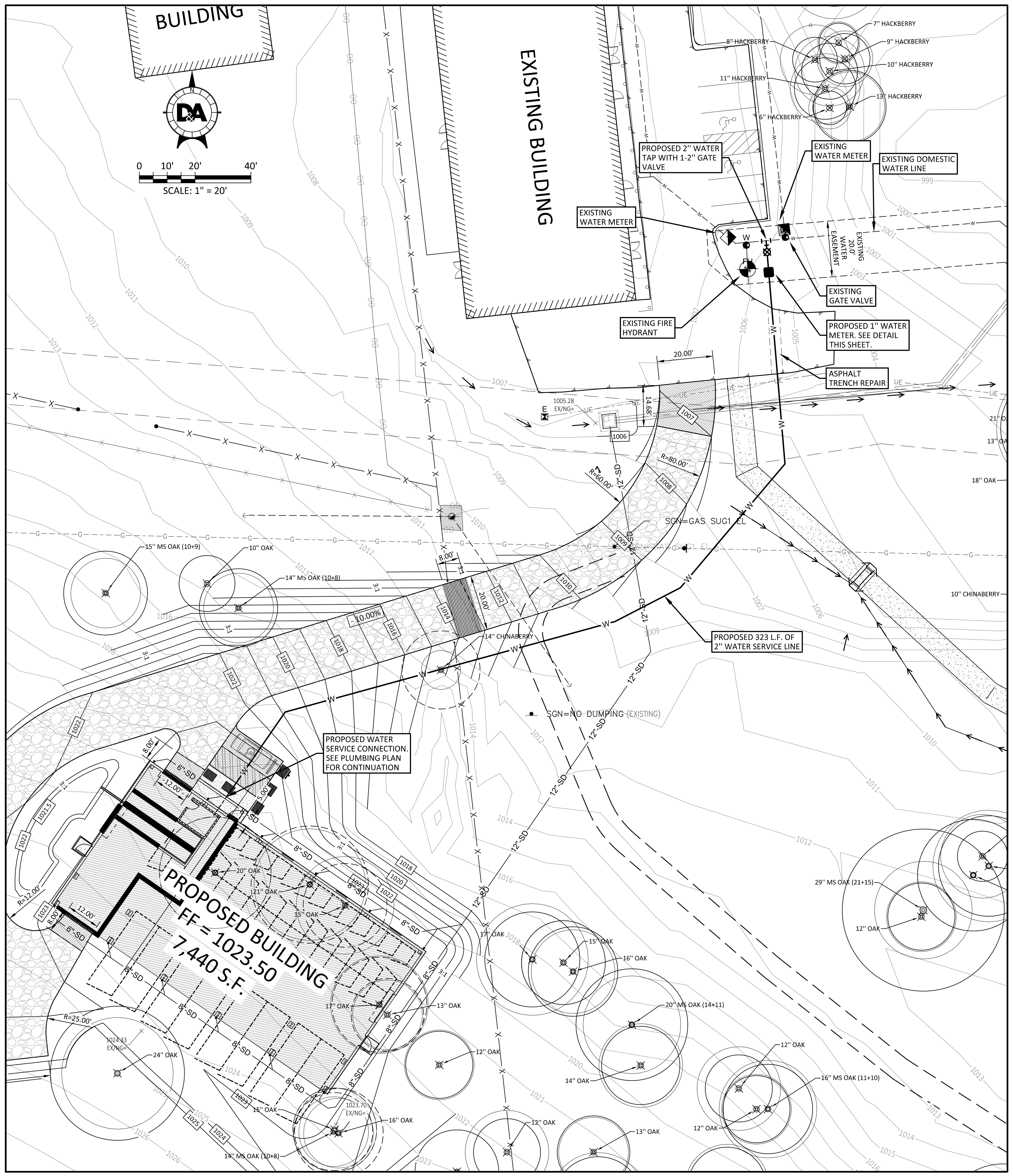
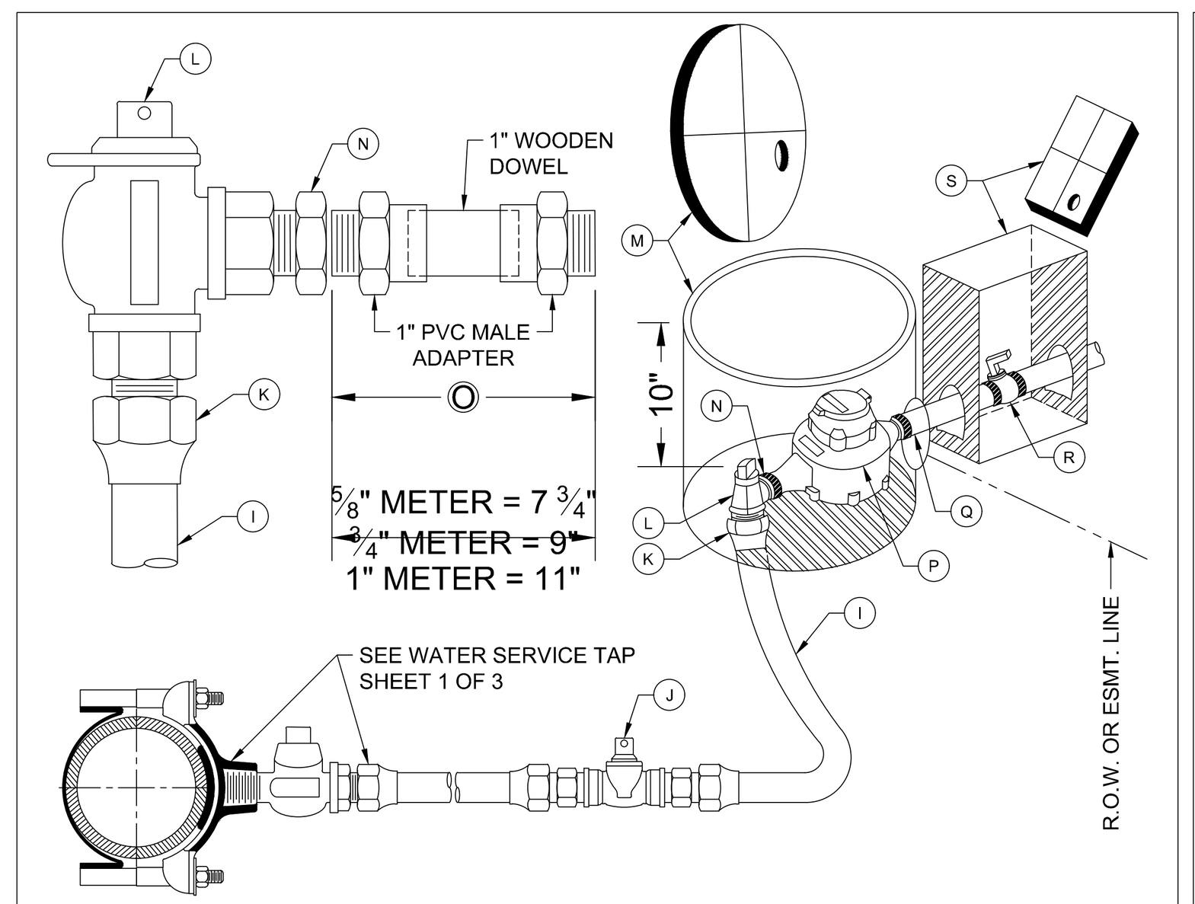


PROPOSED WATER SERVICE TO NEW BARN

SCALE: 1" = 20'



MATERIALS LIST CONT:

E. SERVICE TUBING, (1 ½" COPPER OR 2" HDPE)
F. BRONZE TEE, (SIZE EQUAL TO "E")
G. SERVICE TUBING 1 ½" COPPER OR 1 ½" HDPE FOR ¾" METER, 1" COPPER OR 1 ½" HDPE FOR ⅝" METER. METER SIZES TO BE SHOWN ON PLANS.
H. BRONZE ELBOW, (SIZE EQUAL TO "G"). ALL BRONZE FITTINGS PER SPL WW-68.
I. SERVICE TUBING FOR SINGLE METER, 1 ½" COPPER OR 2" HDPE FOR 1" METER. MIN. 1 ½" COPPER OR 1 ½" HDPE FOR ¾" METER. MIN. 1" COPPER OR 1 ½" HDPE FOR ⅝" METER. METER SIZES TO BE SHOWN ON PLANS.
J. BALL VALVE, SPL WW-275 (SIZE EQUAL TO "I")
K. COUPLING - COMPRESSION TO MALE IPT (SIZE "I" x SIZE "I")
L. ANGLE METER STOP; SERVICE TUBING INLET x SWIVEL COUPLING NUT OUTLET
M. METER BOX AND COVER, SPL WW-145A

TO BE INSTALLED BY PLUMBER:

N. BRASS METER BUSHING - SIZE AS NEEDED TO CONNECT ANGLE STOP TO METER
O. TEMPORARY METER SPACER (REQUIRED TO ASSURE METER WILL FIT APPROPRIATELY)
P. WATER METER PURCHASED FROM AUSTIN WATER (MAY BE INSTALLED BY AUSTIN WATER FOR NEW RESIDENTIAL SERVICE)
Q. BRASS WATER METER COUPLING MALE IPT x SWIVEL COUPLING NUT 8 ½" LONG. ¾" DIA. FOR ⅝" AND ¾" METER OR 1" DIA. FOR 1" METER
R. CUSTOMER CUT-OFF VALVE
S. CUSTOMER VALVE BOX AND LID

WATER SERVICE AND METER INSTALLATION

	WATER SERVICE & METER INSTALLATION - 1" & SMALLER METERS	
	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-02 2 OF 3

NOTES:

1. SERVICE CLAMP SHALL BE WRAPPED COMPLETELY WITH 8 MIL. POLYETHYLENE FILM.
2. BRANCH CONNECTIONS AND ALL ANGLE METER STOPS MUST BE INSTALLED PRIOR TO ANY METER INSTALLATION.
3. TOP OF BOXES SHOULD BE 1" ABOVE GROUND.
4. PIPING AND TUBING IN STREET RIGHT-OF-WAY SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY SECTION 510.3 (14) OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS; BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED BY SECTION 510.3 (25).
5. BOX MUST BE BEHIND CURB NEXT TO PROPERTY LINE OR EASEMENT AND OUT OF VEHICULAR TRAFFIC AREA AND SIDEWALK.
6. BALL VALVE "J" SHALL NOT BE LOCATED UNDER SIDEWALK, CURB, OR PAVEMENT, AND NOT BE LOCATED MORE THAN 24" HORIZONTALLY FROM METER BOX OR 36" BELOW FINAL GRADE.

COPPER:

C1. COPPER SERVICE SHALL BE COPPER TUBING SIZE ANNEALED SEAMLESS TYPE "K" MEETING ASTM B88 WITH NO SWEAT OR SOLDERED JOINTS.

HDPE:

H1. INSTALL METALLIC WARNING TAPE MIN. 1' ABOVE HDPE TUBING FROM TAP CONNECTION TO METER.

H2. TUBING SHALL BE PLACED SO THAT IT IS RELAXED AND "SNAKES" LOOSELY IN THE TRENCH.

H3. TUBING, WHEN BENT, SHALL HAVE A RADIUS NO SMALLER THAN THE VALUE SHOWN IN TABLE 1.

H4. IF A FITTING WILL BE INSTALLED WITHIN A BENT SECTION OF TUBING, THE TUBING SHALL HAVE A RADIUS NO SMALLER THAN THE VALUE SHOWN IN TABLE 2.

H5. INSERT STIFFENERS FOR HDPE TUBING PER SPL WW-65B TO BE INSTALLED INSIDE TUBING AT ALL COMPRESSION FITTINGS.

TABLE 1 (SEE NOTE H3)

NOMINAL TUBING DIA.	BEND RADIUS OF AT LEAST
1"	3'
1 ½"	4'
2"	5'

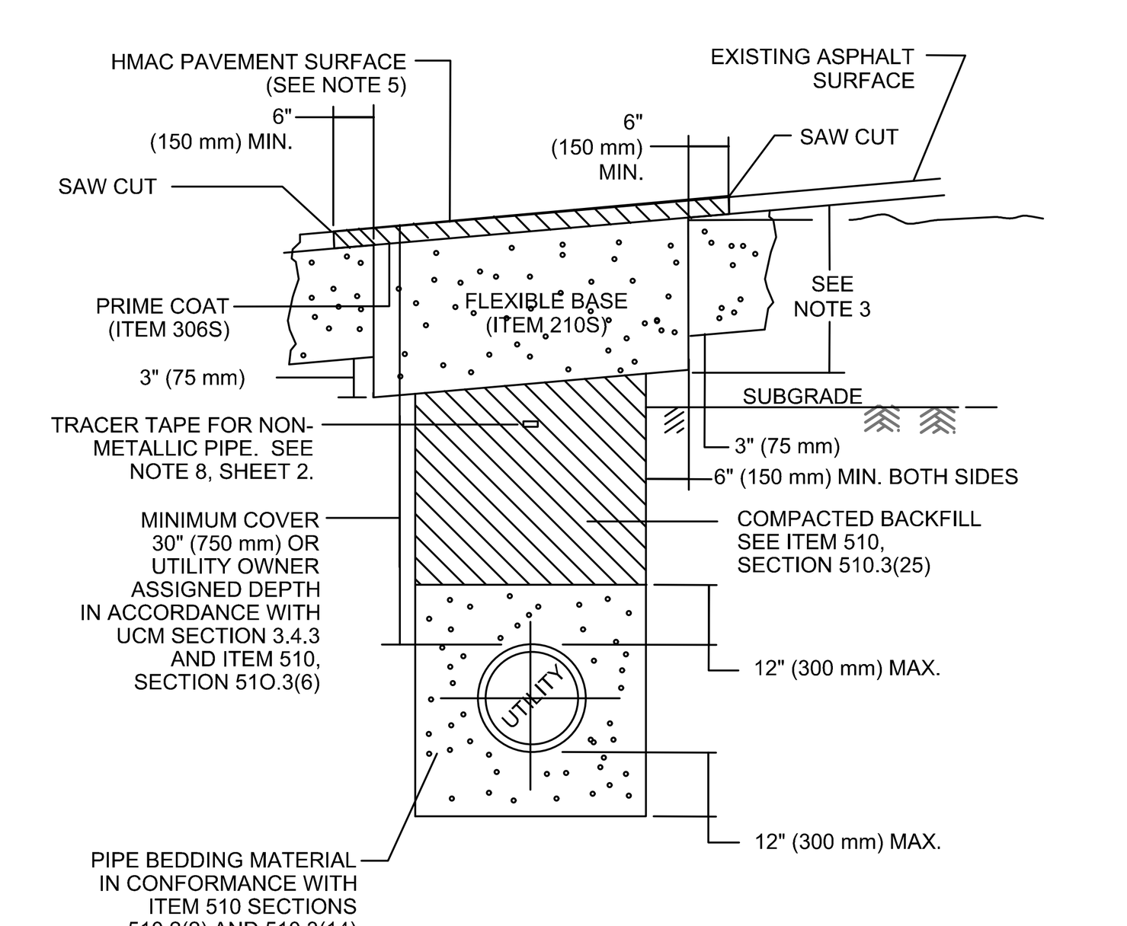
TABLE 2 (SEE NOTE H4)

NOMINAL TUBING DIA.	BEND RADIUS OF AT LEAST
1"	12'
1 ½"	16'
2"	20'

RECLAIMED WATER:

R1. FOR RECLAIMED WATER SERVICES AND METERS, ALL RECLAIMED TUBING SHALL BE MANUFACTURED PURPLE TUBING. HDPE TUBING SHALL BE MANUFACTURED WITH PURPLE STRIPES. ALL OTHER TUBING AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL TUBING AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-27D. ALL COVERS SHALL HAVE **"RECLAIMED WATER"** CAST INTO THEM.

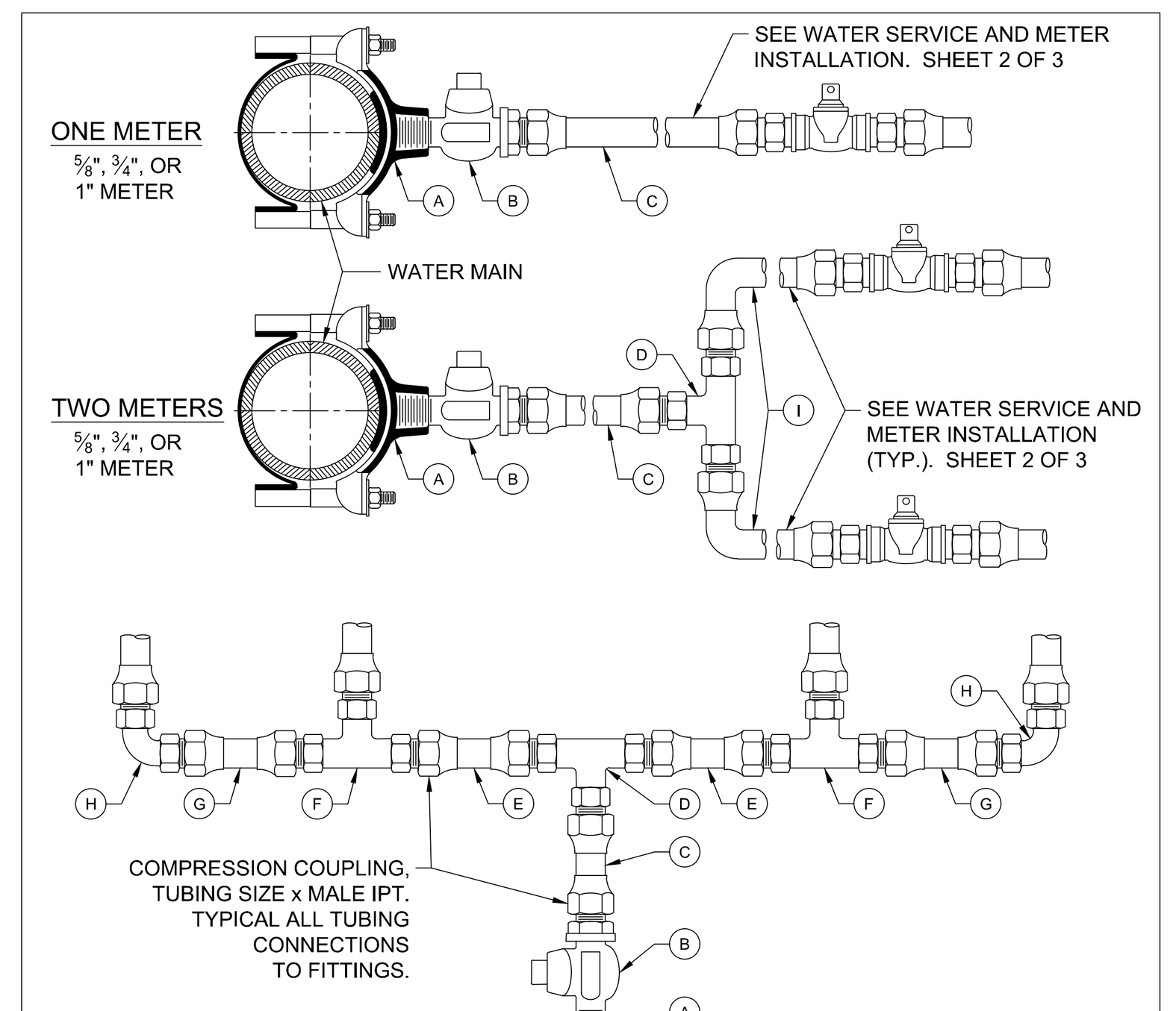
	WATER SERVICE & METER INSTALLATION - 1" & SMALLER METERS	
	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-02 3 OF 3



NOTES:

1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE, A MINIMUM OF 12" (300 mm) WIDER THAN UNDISTURBED SIDES OF THE TRENCH AND SYMMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
2. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX AC OR TEMPORARY HMAC. TEMPORARY MIX SHALL BE PLACED OVER FLEXIBLE BASE.
3. ROAD BASE SHALL BE REPLACED IN KIND WITH BASE THICKNESS EQUAL TO EXISTING BASE THICKNESS PLUS 3" (75 mm), BUT IN NO CASE LESS THAN 12" (300 mm).
4. DAMAGED PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH A BASE THICKNESS OF 10" (250 mm) OR A THICKNESS MATCHING EXISTING, WHICHEVER IS GREATER.
5. REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS.
   SEE ITEM 340S, SECTION 340S.4.
6. CLASS "J" PC CONCRETE (ITEM 403S) OR CONTROLLED LOW STRENGTH MATERIAL (CLSM) MAY BE SUBSTITUTED IN THESE REPAIRS FOR THE FLEXIBLE BASE AND COMPACTED BACKFILL. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
7. TACK COAT ALL EXPOSED EDGES AND SURFACES (SPEC ITEM 307S).
8. AS PER CITY OF AUSTIN STANDARD SPECIFICATION 510, SECTION 510.2(8)(K)5, FOR ALL NON-METALLIC PIPE, DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND A MINIMUM OF 12" (300 mm) BELOW THE SUBGRADE, OR A MINIMUM OF 18" (450 mm) BELOW FINISHED GRADE ON AREAS OUTSIDE THE LIMITS OF PAVEMENT, SHALL BE PLACED INDUCTIVE TRACER TAPE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. THE TAPE SHALL BE ENCASED IN A PROTECTIVE, INERT, PLASTIC JACKET AND COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.

FLEXIBLE BASE WITH ASPHALT SURFACE TRENCH REPAIR-EXISTING PAVEMENT



THREE OR FOUR METERS

⅝" OR ¾" METER

3 METERS: MAX. THREE ¾" METERS

4 METERS: MAX. TWO ⅝" METERS AND TWO ¾" METERS

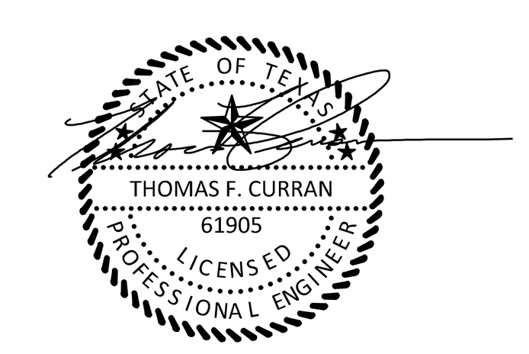
MATERIALS LIST:

A. 2" SERVICE CLAMP
B. 2" CORPORATION STOP MALE THREAD INLET BY COMPRESSION OUTLET.
C. 2" COPPER WATER SERVICE TUBING EXTENDED BEYOND PAVEMENT.
D. TEE FOR THREE OR FOUR METERS ON WATER TAP. TEE OR WYE FOR TWO METERS ON WATER TAP. (2" x SERVICE TUBING SIZE "E") FOR THREE OR FOUR METERS. 2" TUBING BY SIZE "I" FOR TWO METERS.

(MATERIALS LIST CONT ON SHEET 2 OF 3)

WATER SERVICE TAP

	WATER SERVICE & METER INSTALLATION - 1" & SMALLER METERS	
	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-02 1 OF 3



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WIMBERLEY INDEPENDENT SCHOOL DISTRICT
AGRICULTURAL BARN

100 CARNEY LN, WIMBERLEY, TX 78676

Revisions:

NO.	DESCRIPTION	DATE

DOUCET + CHAN

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Project No. 1820.05
CONTRACT DOCUMENTS

PROPOSED WATER SERVICE

7

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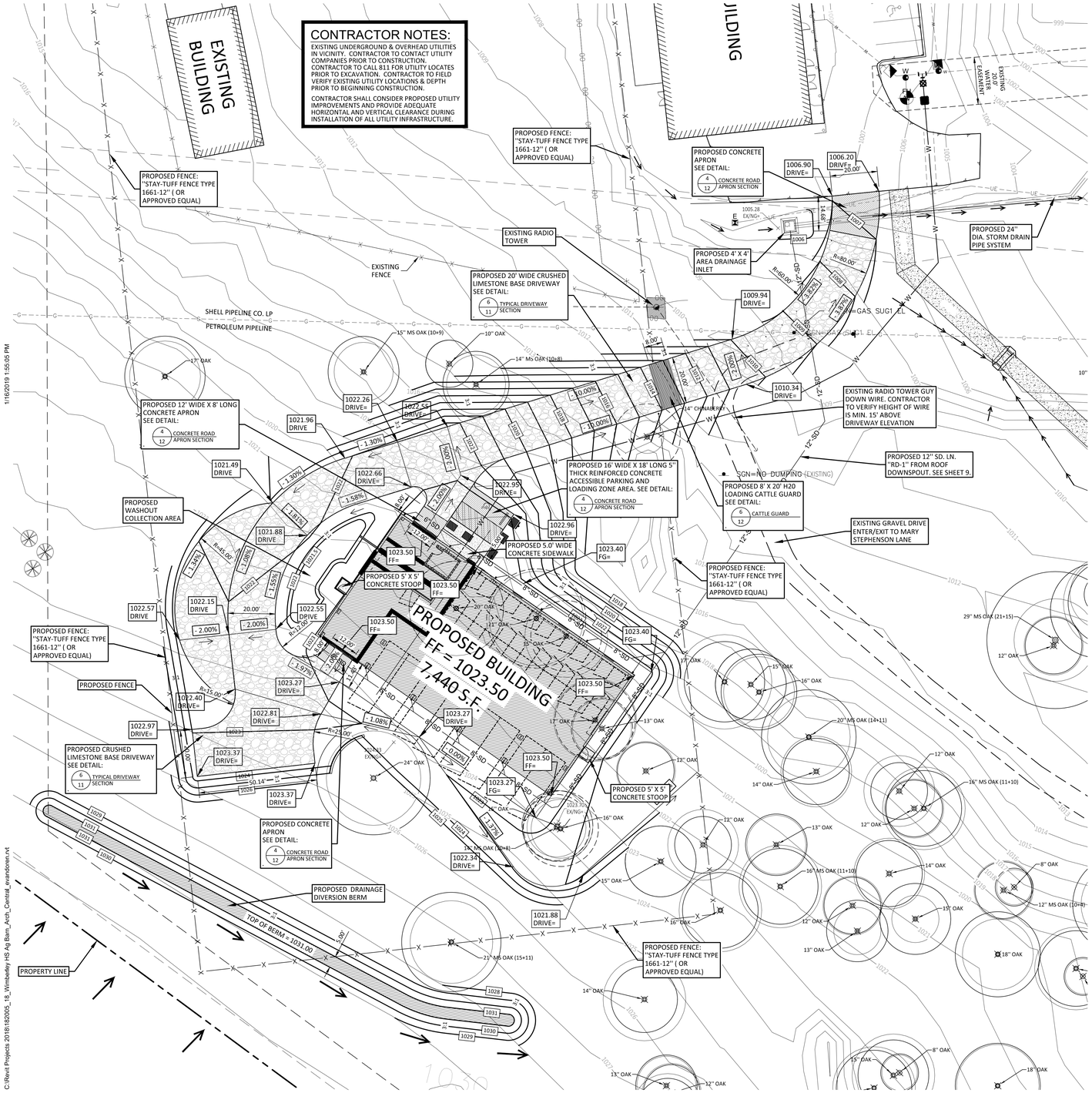
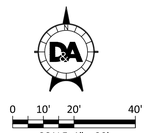


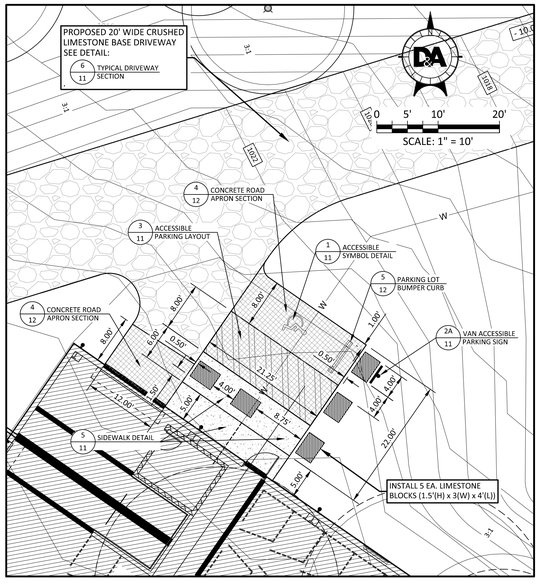


NOTE: FINISHED GROUND (FG=) SPOT ELEVATION CALLOUTS INDICATE THE ELEVATION OF FINAL GRADING INCLUDING THE INSTALLATION OF GRASS AND/OR REVEGETATION. IF THE CONTRACTOR INSTALLS GRASS SOD AND / OR TOP SOIL, THE THICKNESS OF THE MATERIAL SHOULD BE SUBTRACTED FROM THE FINISHED GROUND ELEVATIONS CALLOUTS.

NOTE: CONTRACTOR SHALL CONSTRUCT ALL TAS ACCESSIBLE ROUTES SIDEWALK, RAMP AND DRIVEWAY CROSSING GRADES AND DIMENSIONS IN ACCORDANCE WITH THE TEXAS ACCESSIBILITY STANDARDS, ARCHITECTURAL BARRIERS GOVERNMENT CODE, ARCHITECTURAL BARRIERS ADMINISTRATIVE RULES AND TECHNICAL MEMORANDUM, LATEST EDITION. THE GRADES SHOWN ON THESE DRAWINGS WERE ESTABLISHED USING THE BEST AVAILABLE EXISTING GROUND INFORMATION AND ARE FOR GENERAL CONSTRUCTION AND BIDDING PURPOSES ONLY. CONTRACTOR SHALL ADJUST GRADES AND DIMENSIONS TO FIELD CONDITIONS AND TO COMPLY WITH TEXAS ACCESSIBILITY STANDARDS.

GRADING LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING PAVEMENT
- PROPOSED CURB & GUTTER
- PROPOSED LAYDOWN CURB
- DETAIL NUMBER / SHEET NUMBER — DETAIL NAME — DETAIL CALLOUT REFERENCE
- DETAIL NUMBER / SHEET NUMBER — X / XX — DETAIL CALLOUT REFERENCE
- 493 — EX. CONTOURS
- 493 — PROP. CONTOURS
- SD — EX. STORM DRAIN
- SD — PROP. STORM DRAIN
- EX. STORM DRAIN INLET WITH LATERAL
- PROP. STORM DRAIN INLET WITH LATERAL
- 100 — EXISTING TREE (TO REMAIN)
- 100 — EXISTING TREE (TO BE REMOVED)
- 493.00 NG= — EXISTING GROUND ELEVATION
- 493.00 PAV= — PROPOSED PAVEMENT ELEVATION
- 493.00 EX/PAV= — EXISTING EDGE OF PAVEMENT
- 493.00 GUT= — PROPOSED GUTTER ELEVATION
- 493.00 EX/GUT= — EXISTING GUTTER
- 493.00 TC= — PROPOSED TOP OF CURB
- 493.00 EX/TC= — EXISTING TOP OF CURB
- 493.00 TW= — PROPOSED TOP OF WALL
- 493.00 EX/SW= — EXISTING SIDEWALK
- 493.00 SW= — PROPOSED TOP OF SIDEWALK
- 493.00 FF= — PROPOSED FINISH FLOOR ELEVATION
- 493.00 FL= — PROPOSED FLOW LINE
- 493.00 FG= — PROPOSED FINISH GRADE
- 1.00% — PROPOSED SLOPE (SLOPE DOWN)
- G.B. OR GRADE BREAK — PROPOSED GRADE BREAK ON SURFACE (CNC., PVMT., GRASS, ETC.)
- PROPOSED CONCRETE APRON
- PROPOSED CRUSHED LIMESTONE BASE DRIVEWAY
- PROPOSED CONCRETE SIDEWALK



ACCESSIBLE PARKING PLAN

SCALE: 1" = 10'

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THOMAS F. CURRAN 61909 LICENSED PROFESSIONAL ENGINEER
1/17/2019

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CONTRACT DOCUMENTS

PROPOSED AG FARM DRIVEWAY

8

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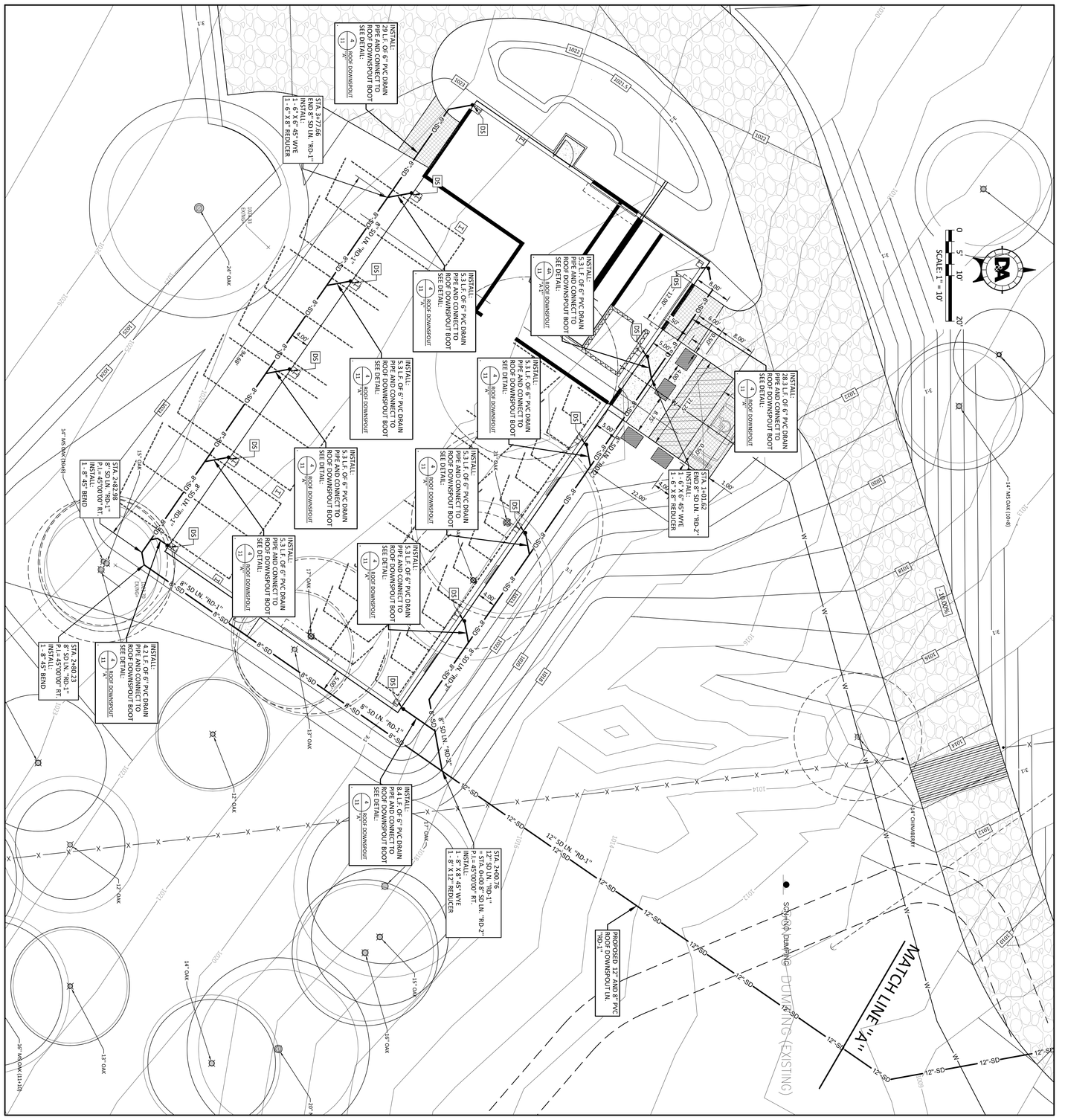

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES FOR EXISTING UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS AND DEPTH PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE TEMPORARY SHORING DURING TRENCHING AND INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

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THOMAS F. CURRAN 63905 LICENSED PROFESSIONAL ENGINEER

1/17/2019

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AGRICULTURAL BARN
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AG BARN DOWNSPOUTS SYSTEM

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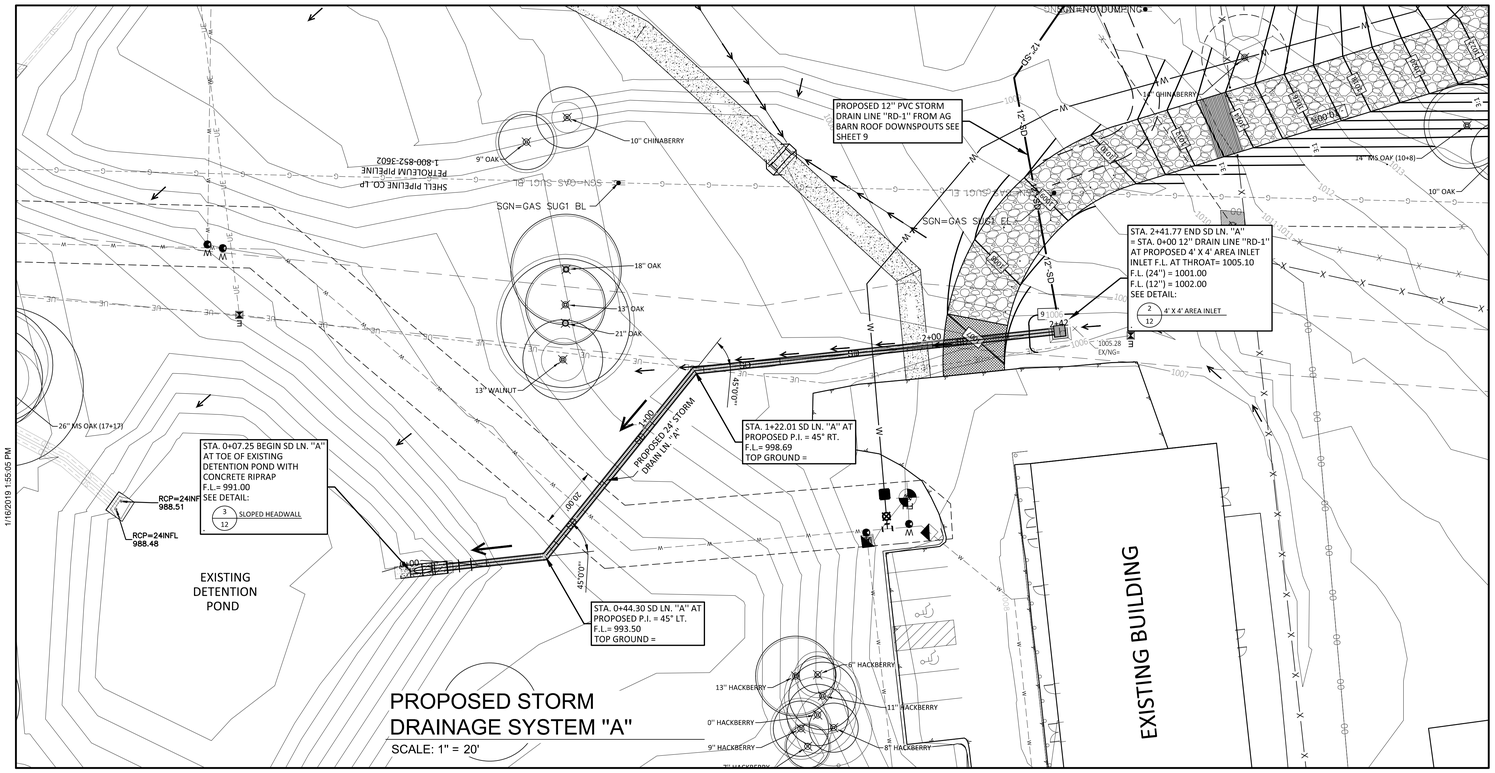

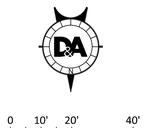

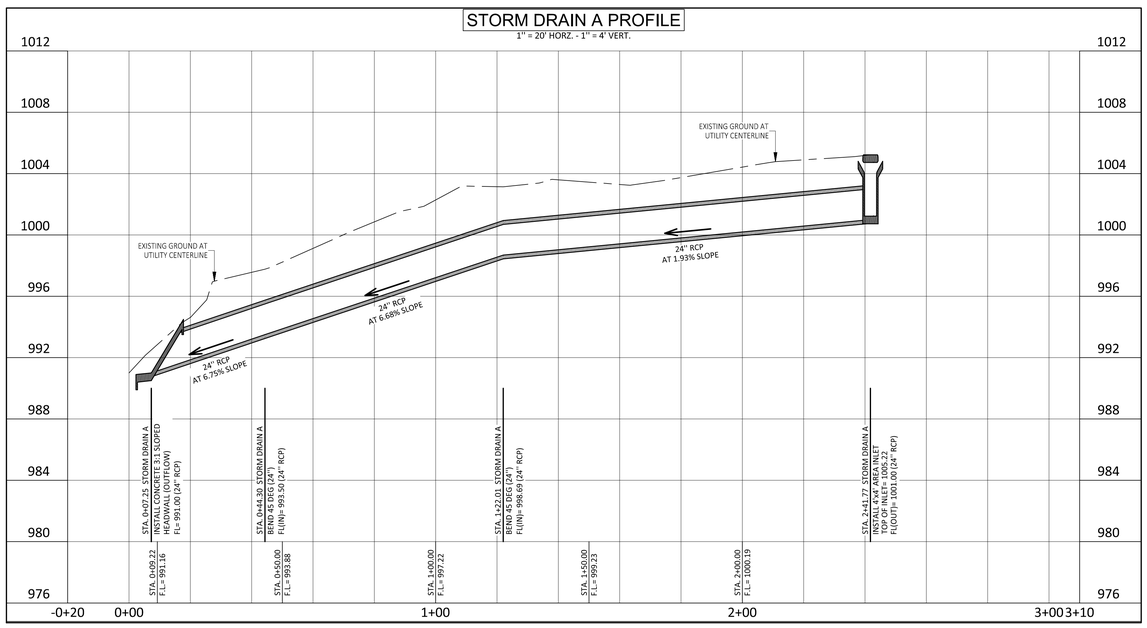

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STORM DRAINAGE SYSTEM "A"

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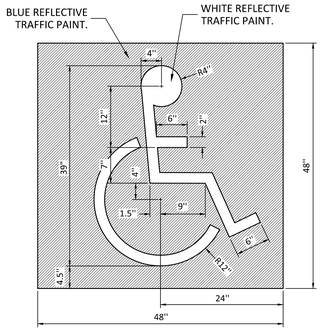
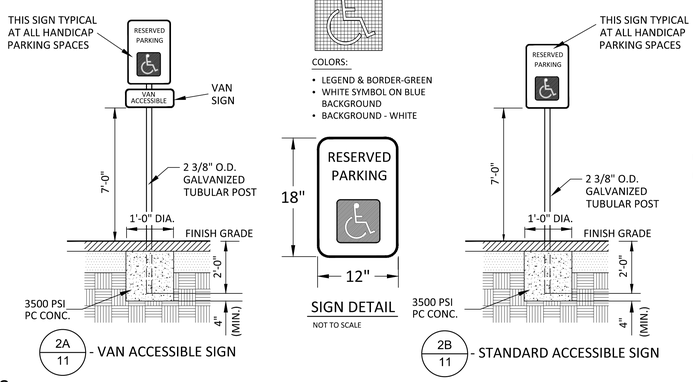


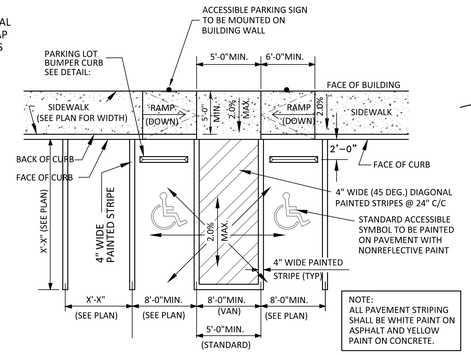
1 / 11 ACCESSIBLE SYMBOL DIMENSIONS

SCALE: NONE CUST-164



2 / 11 VAN AND STANDARD ACCESSIBLE PARKING SIGNS

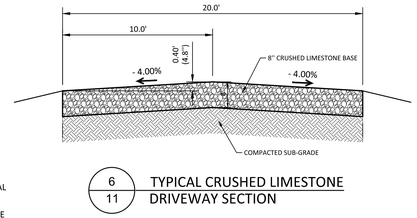
SCALE: NONE CUST- 091



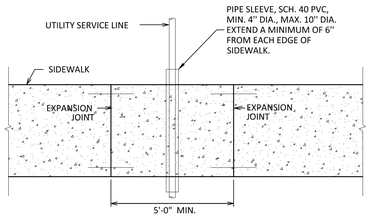
PAINTED STRIPE SHALL CONFORM TO CITY OF AUSTIN STANDARD SPECIFICATIONS.

3 / 11 TYPICAL ACCESSIBLE PARKING SPACE LAYOUT WITH PARALLEL RAMPS CUST-066-A

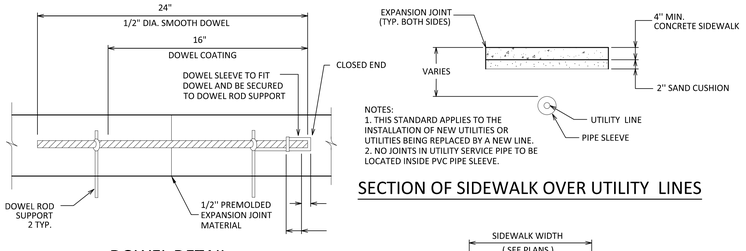
SCALE: NONE



6 / 11 TYPICAL CRUSHED LIMESTONE DRIVEWAY SECTION

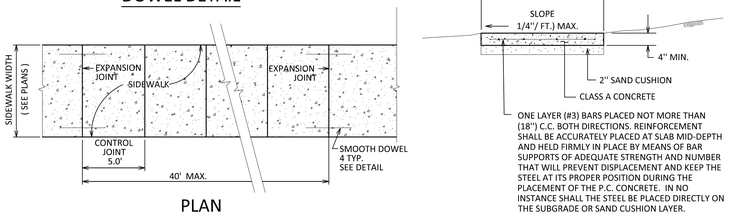


SIDEWALK OVER UTILITY LINE PLAN



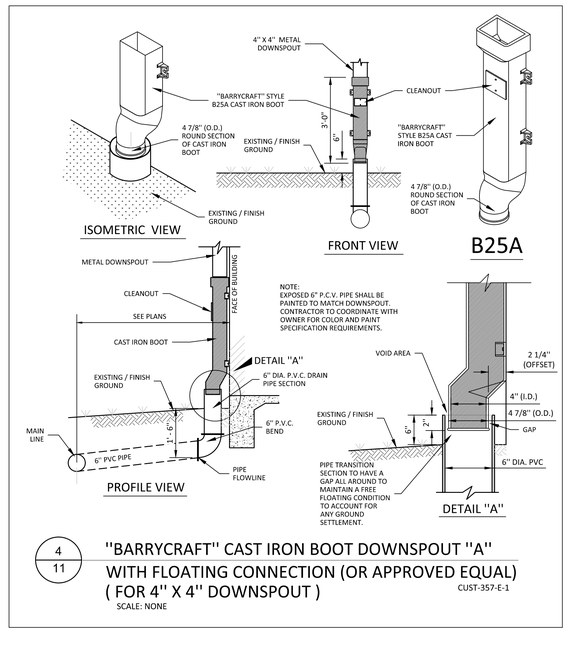
SECTION OF SIDEWALK OVER UTILITY LINES

DOWEL DETAIL



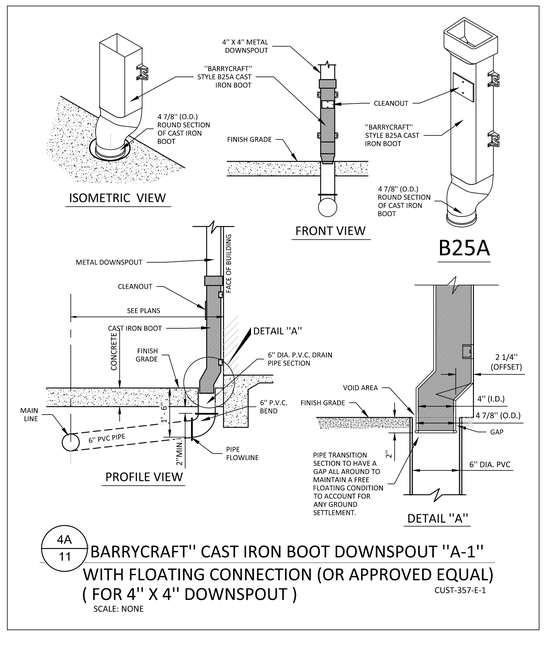
5 / 11 SIDEWALK DETAIL

SCALE: NONE CUST - 444



4 / 11 ''BARRYCRAFT'' CAST IRON BOOT DOWNSPOUT ''A'' WITH FLOATING CONNECTION (OR APPROVED EQUAL) (FOR 4'' X 4'' DOWNSPOUT) CUST-357-E-1

SCALE: NONE



4A / 11 BARRYCRAFT'' CAST IRON BOOT DOWNSPOUT ''A-1'' WITH FLOATING CONNECTION (OR APPROVED EQUAL) (FOR 4'' X 4'' DOWNSPOUT) CUST-357-E-1

SCALE: NONE

WIMBERLEY INDEPENDENT SCHOOL DISTRICT
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STANDARD DETAILS
SHEET 1

11

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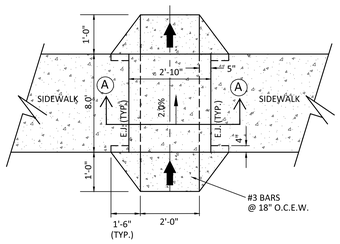
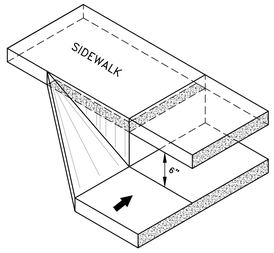
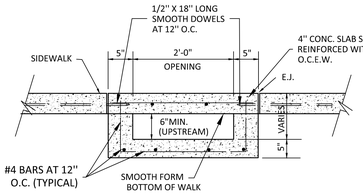


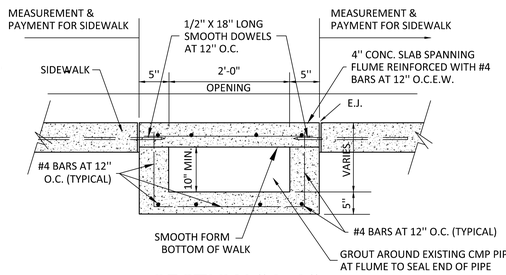
PLAN VIEW



HALF-SECTION ISOMETRIC



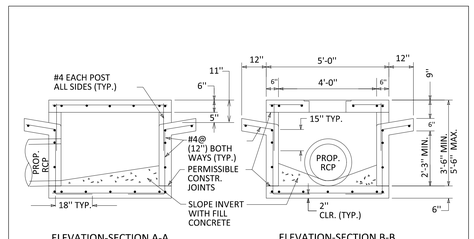
SECTION "A-A"



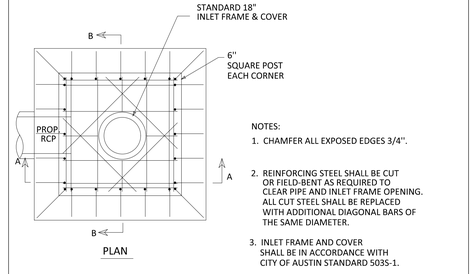
SECTION "A-A"

1 / 12 — 2' WIDE SIDEWALK FLUME WITH CONCRETE TOP CUST-200

SCALE: NONE



ELEVATION-SECTION A-A ELEVATION-SECTION B-B



PLAN

NOTES:

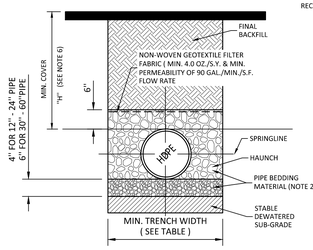
1. CHAMFER ALL EXPOSED EDGES 3/4".
2. REINFORCING STEEL SHALL BE CUT OR FIELD-BENT AS REQUIRED TO CLEAR PIPE AND INLET FRAME OPENING. ALL CUT STEEL SHALL BE REPLACED WITH ADDITIONAL DIAGONAL BARS OF THE SAME DIAMETER.
3. INLET FRAME AND COVER SHALL BE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD 5035-1.
4. CONCRETE COVERAGE OF STEEL SHALL BE 2" MIN. AT ALL SURFACES.

	4-SIDED AREA INLET	
	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-9

2 / 12 — 4.0' X 4.0' AREA INLET

SCALE: NONE

NOTE:
ALL DRAINAGE PIPE SHALL BE HDPE WATERTIGHT PIPE (ADS N-12-WT) OR APPROVED EQUAL.



RECOMMENDED MIN. TRENCH WIDTH

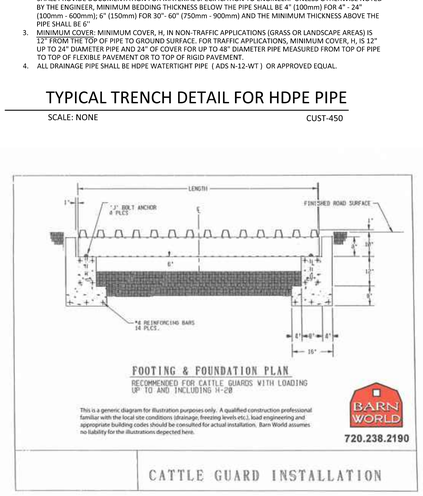
PIPE DIA.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

GENERAL NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION.
2. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, OR II (TXDOT STANDARD SPECIFICATION).THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS BELOW THE PIPE SHALL BE 4" (100mm) FOR 4" - 24" (100mm - 600mm); 6" (150mm) FOR 30"- 60" (750mm - 900mm) AND THE MINIMUM THICKNESS ABOVE THE PIPE SHALL BE 6"
3. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 24" DIAMETER PIPE AND 24" OF COVER FOR UP TO 48" DIAMETER PIPE MEASURED FROM TOP OF PIPE TO TOP OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
4. ALL DRAINAGE PIPE SHALL BE HDPE WATERTIGHT PIPE (ADS N-12-WT) OR APPROVED EQUAL.

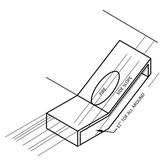
TYPICAL TRENCH DETAIL FOR HDPE PIPE

SCALE: NONE CUST-450



6 / 12 — 20.0' WIDE X 8' LONG "BARN WORLD" CATTLE GUARD (OR APPROVED EQUAL)

SCALE: NONE

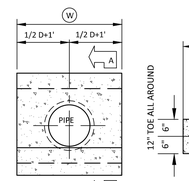


ISOMETRIC VIEW

SCALE: NONE

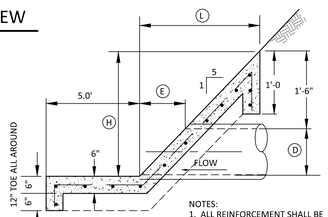
HEADWALL TABLE

PIPE SIZE (D)	5:1 SIDE SLOPE W (FT.)	H (FT.)	L (FT.)	E (FT.)
18"	3.5'	3.0'	15.0'	7.5'
24"	4.0'	3.5'	17.5'	10.0'
30"	4.5'	4.0'	20.0'	12.5'
36"	5.0'	4.5'	22.5'	15.0'
42"	5.5'	5.0'	25.0'	17.5'



SINGLE PIPE

FRONT VIEW

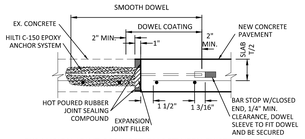


SECTION A-A

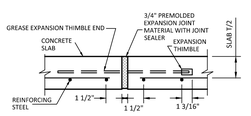
NOTES:
1. ALL REINFORCEMENT SHALL BE GRADE 60 STEEL #3 BAR @ 12" O.C. BOTH WAYS.
2. CONCRETE SHALL BE 3000 PSI STRENGTH @ 28 DAYS.

HEADWALL FOR MITERED PIPE END @ 5:1 SIDE SLOPE

3 / 12 — SCALE: NONE CUST-384-C

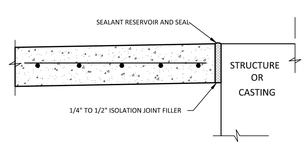


EXPANSION JOINT CONNECTION BETWEEN EXISTING CONCRETE PAVEMENT AND NEW CONCRETE PAVEMENT



NOTES: REFER TO TO GEOTECH REPORT FOR CONCRETE THICKNESS & CLASSIFICATION, REINFORCING SIZE & SPACING, AND EXPANSION/ CONTRACTION JOINT SPACING.

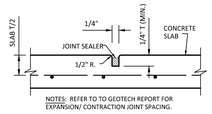
CONCRETE PAVEMENT EXPANSION JOINT WITH DOWEL



ISOLATION JOINT AT STRUCTURE OR CASTING

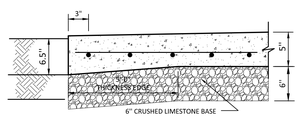
NOTES:

1. REFER TO TO GEOTECH REPORT FOR CONCRETE THICKNESS & CLASSIFICATION, REINFORCING SIZE & SPACING, AND EXPANSION/ CONTRACTION JOINT SPACING.
2. ALL CONTRACTION JOINTS SHALL BE INSTALLED WITHIN 12 HOURS OF CONCRETE POUR.
3. ALL JOINT SEALANT SHALL MEET CITY OF AUSTIN SPEC. ITEM NO. 313S.



NOTES: REFER TO TO GEOTECH REPORT FOR EXPANSION/ CONTRACTION JOINT SPACING.

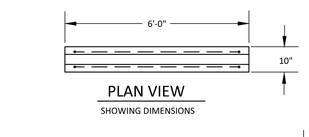
CONTRACTION JOINT DETAIL



PAVEMENT SECTION WITHOUT CURB

4 / 12 — TYPICAL CONCRETE ROAD APRON SECTION AND ACCESSIBLE PARKING AREA CUST-250

SCALE: NONE

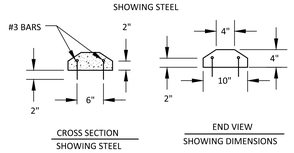


PLAN VIEW

SHOWING DIMENSIONS

LONGITUDINAL SECTION

SHOWING STEEL



CROSS SECTION SHOWING STEEL

END VIEW SHOWING DIMENSIONS

ALL CONCRETE SHALL BE CLASS A

5 / 12 — PARKING LOT BUMPER CURB

SCALE: NONE CUST-161

1/17/2019

DOUCET+CHAN

-A Division of Doucet & Associates, Inc.-

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WIMBERLEY INDEPENDENT SCHOOL DISTRICT
AGRICULTURAL BARN

100 CARNEY LN, WIMBERLEY, TX 78676

Revisions:

NO.	DESCRIPTION	DATE

01/17/2019
Project No. 1820.05
CONTRACT DOCUMENTS

STANDARD DETAILS
SHEET 2

12

1/16/2019 1:55:05 PM

C:\Revit Projects 2018\182005_18_Wimberley HS Ag Barn_Arch_Central_evanderen.rvt

TYPICAL STRUCTURAL ABBREVIATIONS

ALL ABBREVIATIONS SHOWN ARE NOT NECESSARILY USED

Term	Abbreviation
A	
ABOVE FINISH FLOOR	AFF
ADDITIONAL	ADDN'L
ADJACENT	ADJ.
AGGREGATE	AGGR.
ALTERNATE	ALT.
ANCHOR BOLT	A.B.
AND	&
ANGLE	L
APPROVED	APPD.
APPROXIMATE	APPROX.
ARCHITECT	ARCH.
ARCHITECTURAL	ARCH'L.
ARCH'L. FINISH SURFACE	A.F.S.
AT	@
AIR CONDITIONER	A/C
AIR HANDLING UNIT	AHU
B	
BACK FACE	B.F.
BACK TO BACK	B. TO B.
BASEMENT	BSMT.
BEAM	BM.
BEARING	BRG.
BELOW FINISH FLOOR	BFF
BETWEEN	BTWN.
BEVEL (ED)	BEV ('D)
BLOCK	BLK.
BLOCKING	BLKG.
BLOCK-OUT	B.O.
BOTTOM	BOT.
BRACKET	BRKT.
BRICK LEDGE ELEVATION	B.L.E.
BRIDGING	BRDG.
BUILDING	BLDG.
BUILDING LINE	B.L.
C	
CANTILEVER	CANT.
CAST IRON	C.I.
CAST-IN-PLACE	C.I.P.
CEILING	CLG.
CENTER LINE	C.L.
CENTER OF GRAVITY	C.G.
CENTER TO CENTER	C. TO C.
CHANNEL	C
CLEAR OR CLEARANCE	CLR.
COLUMN	COL.
COMPRESSION	C OR COMP.
CONCRETE	CONC.
CONCRETE MASONRY UNIT	CMU
CONNECTION (S)	CONN(S).
CONTINUOUS	CONT.
CONTRACTOR	CONTR.
CONTROL JOINT	CT.J.
CONSTRUCTION	CONST.
CONSTRUCTION JOINT	C.J.
CORNER	COR.
COVER PLATE	COV. PL.
D	
DETAIL	DET.
DEAD LOAD	DL
DEFORMED BAR ANCHOR	D.B.A.
DIAGONAL	DIAG.
DIAMETER	DIA.
DIMENSION(S)	DIM(S).
DOVETAIL	DVTL.
DOWNSPOUT	DS.
DRAWING(S)	DWG(S).
DOUBLE	DBL.
DOWEL(S)	DWL(S).
E	
EACH	EA.
EACH FACE	E.F.
EACH WAY	E.W.
EDGE ANGLE OFFSET	E.A.O.
ELECTRICAL	ELEC.
ELEVATION	EL.
ELEVATOR	ELEV.
ENGINEER	ENGR.
ENTRANCE	ENT.
EQUAL	EQ.
EQUIPMENT	EQUIP.
EXPANSION	EXP.
EXPANSION JOINT	E.J.
EXISTING	EXIST.
EXTERIOR	EXT.
EXTRA STRONG	X-STR.
F	
FACE TO FACE	F. TO F.
FABRICATOR	FABR.
FAR SIDE	F.S.
FIELD VERIFY	(F.V.)
FINISH(ED)	FIN.
FINISHED FLOOR	FIN. FL.
FIREPROOF(ING)	FP.
FLANGE	FLG.
FLOOR	FL.
FLOOR DRAIN	F.D.
FOUNDATION	FDN.
G	
GAGE OR GAUGE	GA.
GALVANIZED	GALV.
GALVANIZED IRON	G.I.
GALVANIZED STEEL	G.S.
GENERAL CONTRACTOR	G.C. GEN. CONTR.
GOVERNMENT	GOVT.
GRADE	GR.
GRADE BEAM	GR. BM.
H	
HEADED STUDS	H.S.
HEIGHT	HT.
HIGH POINT	H.P.
HOLLOW STRUCTURAL SHAPE	HSS
HORIZONTAL	HORIZ.
HOOK	HK.
I	
INFORMATION	INFO.
INSIDE DIAMETER	I.D.
INSIDE FACE	I.F.
INTERIOR	INT.
INTERMEDIATE	INTERM.
J	
JOINT(S)	JT(S).
JOIST(S)	JST(S).
K	
KIPS (1000 LBS)	k
KIP PER LINEAR FOOT	KLF
KIP PER SQUARE FOOT	KSF
L	
LIGHTWEIGHT CONCRETE	LWT. CONC.
LIVE LOAD	LL
LONGITUDINAL	LONG.
LONG LEG HORIZONTAL	LLH
LONG LEG VERTICAL	LLV
LOW POINT	L.P.
M	
MANUFACTURE(R)	MFR.
MASONRY OPENING	M.O.
MATERIAL	MAT.
MAXIMUM	MAX.
MECHANICAL	MECH.
MEZZANINE	MEZZ.
MIDDLE	MID.
MINIMUM	MIN.
MISCELLANEOUS	MISC.
MOMENT	M
MOMENT CONNECTION(S)	M.C. OR
N	
NEAR FACE	N.F.
NOMINAL	NOM.
NON-SHRINK	N.S.
NOT IN CONTRACT	N.I.C.
NOT TO SCALE	N.T.S.
NUMBER	NO. OR #
O	
ON CENTER	O.C.
OPENING(S)	OPNG(S).
OPPOSITE	OPP.
OPPOSITE HAND	O.H.
OUTSIDE FACE	O.F.
OUTSIDE DIAMETER	O.D.
OUTSTANDING	OSTG.
P	
PAN	P
PARALLEL	PAR.
PARTITION	PARTN.
PENETRATION	PEN.
PERPENDICULAR	PERP.
PIECE	PC.
PLATE	PL.
POINT	PT.
POUNDS PER SQUARE FOOT	P.S.F.
POUNDS PER SQUARE INCH	P.S.I.
PRECAST CONCRETE	P/C
PRE-ENGINEERED BUILDING MANUFACTURER	PEBM
PRE-ENGINEERED METAL BUILDING	PEMB
PREFABRICATED	PREFAB.
PRELIMINARY	PRELIM.
PROJECTION	PROJ.
R	
RADIUS	R
REINFORCED CONCRETE PIPE	RCP
REINFORCE(ING) (ED) (MENT)	REINF.
REMAINDER	REM. OR R
REQUIRE	REQ.
RETENTION SYSTEM	RET. SYS.
REQUIRED	REQ'D.
RISER	RIS.
ROOF	RF.
ROOF DRAIN	R.D.
ROOF OPENING	RF. OPNG.
ROOM	RM.
ROUND	RND.
S	
SCHEDULE(D)	SCHED.
SECTION	SECT.
SHEAR	V
SHEET	SHT.
SIDEWALK	SW.
SIMILAR	SIM.
SPACE	SPA.
SPECIFICATION(S)	SPEC(S)
SPECIFIED	SPEC'D.
SQUARE FOOT (FEET)	S.F.
STANDARD	STD.
STEEL	STL.
STIFFENER	STIFF.
STRAIGHT	STR.
STIRRUPS	STIR.
STRUCTURE	STRUCT.
STRUCTURAL	STRUCT'L.
SYMMETRICAL	SYM.
SUBCONTRACTOR	SUBCONTR.
SUPPORT(S)	SUPT(S).
T	
TAPERED BEAM	T.B.
TEMPERATURE	TEMP.
TENSION	T
TERRAZZO	TERR.
THICK	THK.
TONGUE & GROOVE	T & G
TOP AND BOTTOM	T & B
TOP OF	T.O.
TOP OF BEAM	T.O.B.
TOP OF FOOTING	T.O.F.
TOP OF PIER	T.O.P.
TOP OF PIER CAP	T.O.P.C.
TOP OF RETAINING WALL	T.R.W.
TOP OF STEEL	T.O.S.
TOP OF STRUCTURAL CONCRETE	T.O.S.C.
TOP OF WALL	T.O.W.
TREAD	TR.
TUBE STEEL	TS
TYPICAL	TYP.
U	
UNLESS NOTED OTHERWISE	U.N.O.
V	
VERTICAL	VERT.
W	
WATERSTOP	WS.
WATERPROOFING	WPFG.
WELDED WIRE MESH	W.W.M.
WIND BRACE	WB
WIND LOAD	W.L.
WINDOW	WDW.
WITH	W/
WORK POINT	W.P.
WOOD	WD.
WROUGHT IRON	W.I.

TYPICAL SYMBOLS LEGEND

WB-1 — INDICATES WIND BRACE - SEE WIND BRACE ELEVATIONS.

TRUSS — INDICATES TRUSS - SEE TRUSS ELEVATIONS.

INDICATES MOMENT CONNECTION - SEE MOMENT CONNECTION DETAILS.

INDICATES STEEL BEAM SPLICE - SEE STRUCTURAL STEEL SIMPLE BEAM CONNECTION DETAILS SBX-1.

INDICATES STRUCTURE OVER VOID - SEE EXPANSIVE CLAY SOIL DETAILS CES-1.

INDICATES THAT COLUMN STARTS UPWARD FROM THIS LEVEL.

INDICATES THAT COLUMN STOPS AT THIS LEVEL.

STRUCTURAL SYMBOLS

THE FOLLOWING SYMBOLS ARE USED TO REPRESENT THE MATERIALS SHOWN ON THE STRUCTURAL DRAWINGS. SEE SPECIFICATIONS AND GENERAL NOTES FOR MATERIAL QUALITIES REQUIRED.

- A.F.S. — ARCHITECTURAL FINISHED SURFACE
- CAST-IN-PLACE CONCRETE
- STRUCTURAL PRECAST CONCRETE
- SAND GRAVEL, OR LOW P.I. FILL
- EARTH
- ROCK
- ARCHITECTURAL PRECAST CONCRETE
- NON-SHRINK GROUT
- SAND CEMENT GROUT
- STYROFOAM
- EXISTING
- C.M.U.
- BRICK
- STRUCTURAL STEEL
- WOOD (CONTINUOUS)
- WOOD (NON-CONTINUOUS)
- PLYWOOD
- GLUE LAMINATED LUMBER (GLU-LAM)
- MICRO LAMINATED LUMBER (MICRO-LAM)
- RTU — ROOF TOP MECHANICAL UNIT ON PLAN
- BEAM BOTTOM CHORD BRACING ON PLAN

TYPICAL PLAN NOTES:

1. SEE CIVIL DRAWINGS FOR ACTUAL SEA LEVEL ELEVATION RELATED TO DATUM ELEVATION = 100'-0" SHOWN ON DRAWINGS.
2. SHEET INDEX:
   THE DETAILS IN THE DRAWINGS, INCLUDING THOSE DRAWINGS REFERENCED BY THIS INDEX, WHICH ARE DESIGNATED AS "TYPICAL DETAILS", APPLY GENERALLY TO THE CONSTRUCTION IN ALL AREAS WHERE THE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED IN THE DETAILS, REGARDLESS OF WHETHER OR NOT THE DETAILS ARE SPECIFICALLY REFERENCED IN THE DRAWINGS.

SHEET LIST

SHT. NO.	SHEET NAME
S1.0	ABBREVIATION, SYMBOLS & GENERAL NOTES
S1.2	GENERAL NOTES
S3.1	AG BARN FRAMING PLANS & ELEVATIONS
S3.2	CANOPY FOUNDATION FRAMING PLAN
S4.1	BUILDING PAD NOTES & FOUNDATION DETAILS
S4.2	TYPICAL PIER NOTES & DETAILS
S5.1	PEMB SECTIONS & DETAILS

3. SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF FLOOR DROPS, FLOOR SLOPES, CURBS, MISCELLANEOUS ELEVATIONS, DETAILS AND DIMENSIONS NOT SHOWN ON PLAN.
4. C1 — COLUMN MARK, SEE SCHEDULE
   P1, 1D/S3.01 — TOP OF PIER DETAIL; PIER TYPE, SEE PIER SCHEDULE

   CENTERLINE OF PIERS NOT SPECIFICALLY LOCATED ON PLAN BY NOTE OR DIMENSION SHALL BE LOCATED ACCORDING TO THE FOLLOWING INFORMATION, U.N.O.:

   A. FREESTANDING COLUMNS: CENTERLINE OF THE COLUMN
   B. GRADE BEAMS AND WALLS: CENTERLINE OF THE GRADE BEAM OR WALL IN ONE DIRECTION, GRID OR AS NOTED IN THE OTHER DIRECTION. AT CORNER CONDITIONS, CENTERLINES OF INTERSECTING GRADE BEAMS OR WALLS.
   C. COLUMNS EMBEDDED IN GRADE BEAMS OR WALLS (PILASTERS): CENTERLINE OF THE COLUMN
5. REPETITIVE MEMBERS SUCH AS PURLINS AND JOISTS SHALL BE EQUALLY SPACED BETWEEN DIMENSIONED POINTS, U.N.O.
6. NOTE TO CONTRACTOR:
   FIELD VERIFY ALL EXISTING DIMENSIONS & ELEVATIONS PRIOR TO FABRICATION OF MATERIALS AND CONSTRUCTION.

TYPICAL ABBREVIATIONS, SYMBOLS AND PLAN NOTES

GENERAL NOTES

THE FOLLOWING GENERAL NOTES CONSTITUTE A MAJOR PART OF THE PLANS AND SPECIFICATIONS. STRICT COMPLIANCE WITH THESE NOTES IS ESSENTIAL TO THE PROPER CONSTRUCTION OF THE BUILDING.

1. REFER TO THE PLAN NOTES, LOCATED IN THESE GENERAL NOTES, FOR APPLICATION OF DETAILS WHICH ARE DESIGNATED AS "TYPICAL DETAILS" IN THIS SET OF DRAWINGS.
2. SLEEVES AND BLOCKOUTS REQUIRED FOR PASSAGE OF DUCTWORK, PIPING, DRAINS, CONDUIT, ETC., AND ANCHORS REQUIRED FOR ANCHORING EQUIPMENT AND PIPING ARE NOT GENERALLY INDICATED ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL DETERMINE SUCH REQUIREMENTS FROM OTHER SERIES DRAWINGS, SUBCONTRACTORS, AND SUPPLIERS AND SHALL COORDINATE THE LOCATIONS AND DETAILS FOR THESE ITEMS PRIOR TO FABRICATION OR CONSTRUCTION OF THE STRUCTURE. ANY CONFLICTS BETWEEN THESE ITEMS AND THE BUILDING STRUCTURE SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR RESOLUTION.
3. VERIFY, OR ESTABLISH, LOCATIONS AND DIMENSIONS OF ALL FRAMED OPENINGS RELATED TO EQUIPMENT OR DUCTWORK, INCLUDING INSULATION, IF ANY. WHERE SUBSTANTIAL RELOCATION OR RECONFIGURATION IS REQUIRED, SUBMIT A DRAWING TO THE ARCHITECT FOR REVIEW.
4. LOCATE EXISTING REINFORCEMENT, USING APPROPRIATE IMAGING EQUIPMENT, PRIOR TO CUTTING OR DRILLING INTO EXISTING CONCRETE. DO NOT CUT OR DAMAGE EXISTING REINFORCEMENT. IF THE REQUIRED OPERATIONS MAKE DAMAGING EXISTING REINFORCING UNAVOIDABLE, INFORM ARCHITECT SO THAT THE CONDITION MAY BE EVALUATED AND ALTERNATIVE DIRECTIONS GIVEN.
5. MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL WHICH ARE NOT AS SPECIFIED IN THE DOCUMENTS SHALL BE ACCOMPANIED BY A CURRENT ES REPORT (BY ICC EVALUATION SERVICE, INC.) OR ICBO REPORT (BY INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS). MATERIALS OR PRODUCTS THAT DO NOT HAVE AN ES OR ICBO REPORT INDICATING THE SUBSTITUTED MATERIAL OR PRODUCT TO BE EQUAL TO THAT SPECIFIED, WILL NOT BE CONSIDERED.

SUBSTITUTIONS

1. ALL REQUESTS FOR SUBSTITUTIONS OF MATERIALS OR DETAILS SHOWN IN THE CONTRACT DOCUMENTS SHALL BE SUBMITTED FOR APPROVAL DURING THE BIDDING PERIOD. ONCE BIDS ARE ACCEPTED, PROPOSED SUBSTITUTIONS WILL BE CONSIDERED ONLY WHEN THEY ARE OFFICIALLY SUBMITTED WITH AN IDENTIFIED SAVINGS TO BE DEDUCTED FROM THE CONTRACT.

DESIGN LOADS

1. DEAD LOADS INCLUDE THE WEIGHT OF THE STRUCTURAL COMPONENTS AND ALLOWANCES FOR PERMANENT PARTITIONS, PERMANENT FIXTURES, FINISHES, ROOFING, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION MATERIALS SHOWN OR SPECIFIED.
2. LOADINGS FOR MECHANICAL ROOMS ARE BASED ON THE WEIGHTS OF ASSUMED EQUIPMENT, AS INDICATED ON THE MECHANICAL DRAWINGS (INCLUDING THE WEIGHT OF CONCRETE PADS, WHERE INDICATED). ANY CHANGES IN TYPE, SIZE, LOCATION OR NUMBER OF PIECES OF EQUIPMENT SHOULD BE REPORTED TO THE ARCHITECT FOR VERIFICATION OF THE ADEQUACY OF SUPPORTING MEMBERS PRIOR TO THE PLACEMENT OF SUCH EQUIPMENT.
3. DESIGN LIVE LOADING IS AS FOLLOWS:
   ROOF .... 20 PSF
   ALL SLABS ON GRADES.......... 100 PSF
4. LIVE LOAD REDUCTIONS, WHERE PERMISSIBLE, ARE COMPUTED IN ACCORDANCE WITH THE BUILDING CODE.
6. DESIGN WIND LOADING IS AS FOLLOWS (NOTE: PER ASCE 7-10, WIND LOADS ARE ULTIMATE. SERVICE LOADS MAY BE OBTAINED BY DIVIDING THE STATED LOADS BY 1.6.):
   WIND DESIGN OPTION.......... DIRECTIONAL PROCEDURE
   BASIC WIND SPEED (3-SECOND GUST).......... 110 MPH
   RISK CATEGORY.......... II
   NOMINAL WIND SPEED (SERVICE).......... 69 MPH
   EXPOSURE CATEGORY.......... C
   INTERNAL PRESSURE COEFFICIENT.......... 0.55
   ROOF PRESSURE(+)/ SUCTION(-) LOADS (NET – INCLUDING INTERNAL PRESSURE – LOADS MAY BE LINEARLY INTERPOLATED BETWEEN VALUES FOR THE GIVEN TRIBUTARY AREAS, HOWEVER, UTILIZED LOADS SHALL NOT BE LESS THAN 16 PSF, ULTIMATE, IN EITHER DIRECTION, NORMAL TO THE COMPONENT SURFACE.)

   INTERIOR ZONES - MORE THAN **5**' FROM EDGE, HIP, OR RIDGE (ZONE 1)
   - 10 SQ.FT. OF TRIBUTARY AREA.......... +19 / -35 PSF
   - 100 SQ.FT. OF TRIBUTARY AREA.......... +17 / -33 PSF
   - >500 SQ.FT. OF TRIBUTARY AREA.......... +17 / -33 PSF

   END ZONES - WITHIN **5**' OF EDGE, HIP, OR RIDGE (ZONE 2)
   - 10 SQ.FT. OF TRIBUTARY AREA.......... +19 / -53 PSF
   - 100 SQ.FT. OF TRIBUTARY AREA.......... +17 / -37 PSF
   - >500 SQ.FT. OF TRIBUTARY AREA.......... +17 / -37 PSF

   CORNER ZONES - **5**' FROM CORNER OF EDGE, HIP OR RIDGE AT OVERLAPPING EDGES (ZONE 3)
   - 10 SQ.FT. OF TRIBUTARY AREA.......... +19 / -75 PSF
   - 100 SQ.FT. OF TRIBUTARY AREA.......... +17 / -37 PSF
   - >500 SQ.FT. OF TRIBUTARY AREA.......... +17 / -37 PSF

   OVERHANGS AT END ZONES - WITHIN **5**' OF EDGE, HIP OR RIDGE (ZONE 2)
   - 10 SQ.FT. OF TRIBUTARY AREA.......... 0 / -51 PSF
   - 100 SQ.FT. OF TRIBUTARY AREA.......... 0 / -49 PSF
   - >500 SQ.FT. OF TRIBUTARY AREA.......... 0 / -37 PSF

   OVERHANGS AT CORNERS - **5**' FROM CORNER OF EDGE, HIP OR RIDGE AT OVERLAPPING EDGES (ZONE 3)
   - 10 SQ.FT. OF TRIBUTARY AREA.......... 0 / -75 PSF
   - 100 SQ.FT. OF TRIBUTARY AREA.......... 0 / -31 PSF
   - >500 SQ.FT. OF TRIBUTARY AREA.......... 0 / -31 PSF

   CURTAINWALL DESIGN PRESSURE/SUCTION

   INTERIOR ZONES - MORE THAN **5**' FROM EDGE (ZONE 4)
   - 10 SQ.FT. OF TRIBUTARY AREA.......... +33 / -35 PSF
   - 100 SQ.FT. OF TRIBUTARY AREA.......... +29 / -32 PSF
   - >500 SQ.FT. OF TRIBUTARY AREA.......... +27 / -29 PSF

   END ZONES - WITHIN **5**' OF EDGE (ZONE 5)
   - 10 SQ.FT. OF TRIBUTARY AREA.......... +33 / -41 PSF
   - 100 SQ.FT. OF TRIBUTARY AREA.......... +29 / -34 PSF
   - >500 SQ.FT. OF TRIBUTARY AREA.......... +27 / -29 PSF

   * STATED LOAD IS LESS THAN MINIMUM 16 PSF, ULTIMATE – USE FOR INTERPOLATION ONLY
   RELIABLE ROOF DEAD LOAD TO RESIST UPLIFT (SERVICE).......... 5 PSF
   INTERIOR PRESSURE ON STRUCTURAL ELEMENTS (SERVICE).......... 5 PSF
7. SEISMIC DESIGN DATA (IBC):
   - RISK CATEGORY.......... II
   - MAPPED SPECTRAL RESPONSE ACCELERATIONS, SS & S1.......... 0.07g/0.03g
   - SITE CLASS.......... C
   - SPECTRAL RESPONSE COEFFICIENTS SDS /SD1.......... 0.05g/0.04g
   - SEISMIC DESIGN CATEGORY.......... D
   - BASIC SEISMIC-FORCE-RESISTING SYSTEM.......... Steel Ordinary Moment Frame
   - DESIGN BASE SHEAR.......... 61K
   - SEISMIC RESPONSE COEFFICIENT, CS.......... 0.015g
   - RESPONSE MODIFICATION FACTOR, R.......... 3 1/2
   - ANALYSIS PROCEDURE USED .... Equivalent Lateral Force Method
   - DEFLECTION AMPLIFICATION FACTOR.......... 3
8. SNOW LOADING (ASCE 7, SECTION 7):
   GROUND SNOW LOAD.......... 5 PSF
10. STACKS OF MATERIALS OR OTHER CONSTRUCTION LOADS PLACED ON THE STRUCTURE SHALL NOT EXCEED THE STATED DESIGN LIVE LOAD FOR THE AREA AFFECTED UNLESS ADEQUATELY SHORED.

CODES & DESIGN SPECIFICATIONS

1. BUILDING CODE: 2015 IBC.
2. STRUCTURAL STEEL: AISC 360-05 "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS" AND AISC 341-10 "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS."
3. STRUCTURAL CONCRETE: "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE ((ACI 318-14))," THE AMERICAN CONCRETE INSTITUTE.
4. STRUCTURAL MASONRY: "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES ((ACI 530-13))," THE AMERICAN CONCRETE INSTITUTE.
5. DESIGN LOADS: ASCE/SEI 7-10 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES."

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WIMBERLEY HIGH SCHOOL
AGRICULTURAL BARN
100 CARNEY LN, WIMBERLEY, TX 78676

STATE OF TEXAS — JEREMY KLAHORST — 101133 — LICENSED PROFESSIONAL ENGINEER
01/17/2019

Revisions:

NO.	DESCRIPTION	DATE

01/17/19
Project No. 1820.05
100% Contract Documents

ABBREVIATION, SYMBOLS & GENERAL NOTES

S1.0

FIRE RESISTANCE

1. THE STRUCTURAL SYSTEM AND CONSTRUCTION DETAILS ARE DESIGNED TO COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING:

   FLOOR ASSEMBLY: 0 HOURS
   ROOF ASSEMBLY: 0 HOURS
   STRUCTURAL FRAME: 0 HOURS
   EXTERIOR BEARING WALLS: 0 HOURS
   INTERIOR BEARING WALLS: 0 HOURS

2. STRUCTURAL FRAME CONSISTS OF COLUMNS AND MEMBERS FRAMING INTO COLUMNS, INCLUDING GIRDERS, BEAMS, TRUSSES AND BRACING.

SPECIAL INSPECTION REQUIREMENTS

1. PERIODIC SITE OBSERVATIONS BY THE ENGINEER OF RECORD ARE SOLELY FOR THE PURPOSE OF DETERMINING GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS. THOSE LIMITED OBSERVATIONS ARE NOT A SUBSTITUTE FOR INSPECTIONS AND TESTING PERFORMED BY THE OWNER'S QUALIFIED, INDEPENDENT TESTING LABORATORY, NOR ARE THEY INTENDED TO IDENTIFY ALL DEFECTS AND DEFICIENCIES IN THE WORK BY THE CONTRACTOR. THOSE OBSERVATIONS DO NOT FULFILL ANY PART OF THE SPECIAL INSPECTIONS REQUIREMENTS GIVEN IN THE SPECIFICATIONS. THE DESIGNATED SPECIAL INSPECTOR IS SOLELY RESPONSIBLE FOR FULFILLING THE SPECIAL INSPECTION REQUIREMENTS AS OUTLINED HERE AND DEFINED IN THE SPECIFICATIONS

2. REFER TO THE SPECIFICATIONS FOR CODE MANDATED MATERIALS TESTING AND INSPECTION REQUIREMENTS FOR STRUCTURAL WORK.

3. ITEMS OF STRUCTURAL CONSTRUCTION WHICH REQUIRE SPECIAL INSPECTION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

   FOUNDATION EXCAVATIONS AND FILL OPERATIONS
   INSTALLATION OF DRILLED CONCRETE PIERS AND FOOTINGS
   PLACEMENT OF STRUCTURAL CONCRETE
   PLACEMENT OF CONCRETE REINFORCING
   PLACEMENT OF ANCHOR BOLTS PLACED IN CONCRETE OR MASONRY
   INSTALLATION OF DRILLED-IN CONCRETE OR MASONRY ANCHORS (EXPANSION, FRICTION, CEMENTED, OR GROUTED ANCHORS)
   FABRICATION AND ERECTION OF PRE-ENGINEERED METAL BUILDINGS
   FABRICATION AND ERECTION OF STRUCTURAL STEEL
   WELDING AND BOLTING OF STEEL CONNECTIONS

4. ARCHITECTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS REQUIRING SPECIAL INSPECTIONS PER SECTION 1705 OF THE IBC HAVE NOT BEEN LISTED HERE. REFER TO ARCH/MEP FOR SPECIAL INSPECTION REQUIREMENTS FOR THESE COMPONENTS.

CONCRETE MIX

1. PROVIDE CONCRETE HAVING THE FOLLOWING GENERAL CHARACTERISTICS:

CLASS	28-DAY STRENGTH (PSI)	SLUMP (IN)	AGG. TYPE	MAX. SIZE (IN.)	USAGE
A	3000	6-8	HDRK	1 1/2	DRILLED PIERS
B	3000	3-5	HDRK	1	GRADE BEAMS, SLABS-ON-GRADE, FOOTINGS

2. EXCEPT FOR CONCRETE FOR DRILLED PIERS, WHOSE SLUMP LIMITS ARE ABSOLUTE, SLUMP LIMITS ARE BASED ON MIXES WITHOUT WORKABILITY ADMIXTURES, AND MAY BE INCREASED WITH WORKABILITY ADMIXTURES, PROVIDED THAT BATCH PROPORTIONS ARE DETERMINED AND SUBMITTED IN THE MANNER DESCRIBED IN THE SPECIFICATIONS. WHEN A WORKABILITY ADMIXTURE IS USED, SLUMP SHALL CONFORM TO THE REQUIREMENTS OF THE ACCEPTED MIX DESIGN, WHICH SHALL NOT EXCEED 8 INCHES (WITH A TOLERANCE OF +0 AND -2.5 INCHES) AT TIME OF DISCHARGE.

3. SLUMP LIMITS APPLY AT THE TRUCK AT THE TIME OF DISCHARGE EXCEPT THAT PUMPED CONCRETE SHALL BE SAMPLED AT THE DISCHARGE END OF THE HOSE. STRENGTH TESTS SHALL BE MADE ON CONCRETE, AS PLACED, WITH ALL ADDITIVES.

4. FLY ASH MAY BE USED ELSEWHERE, WITHIN THE SPECIFIED PROPORTION LIMITS, BUT THE CONTRACTOR SHALL FIRST VERIFY COMPATIBILITY WITH CURING COMPOUNDS, SEALERS, BOND BREAKER, FLOORING ADHESIVES AND OTHER MATERIALS PROPOSED TO BE IN CONTACT WITH THE CONCRETE.

5. PROVIDE FIVE PERCENT (PLUS OR MINUS 1 1/2 PERCENT) AIR ENTRAINMENT IN CONCRETE PERMANENTLY EXPOSED TO THE WEATHER AND IN ALL LIGHTWEIGHT CONCRETE. USE OF AIR ENTRAINMENT, AND CORRESPONDING REDUCTION OF THE WATER/CEMENT RATIO, MUST BE NOTED ON THE MIX DESIGNS. DO NOT USE AIR IN SLABS WHICH HAVE A TROWEL FINISH.

6. USE OF ACCELERATING OR SET-RETARDING ADMIXTURES REQUIRES PRIOR APPROVAL OF THE ARCHITECT. IN GENERAL, USE OF CALCIUM CHLORIDE WILL NOT BE PERMITTED.

7. CEMENT SHALL BE TYPE I OR TYPE III (ASTM C 150), EXCEPT AS FOLLOWS:

CLASS OF CONCRETE	CEMENT TYPE
A	I/II

8. MAXIMUM WATER-CEMENT RATIO FOR CONCRETE SLABS-ON-GRADE A SHALL BE 0.50. CONTRACTOR SHALL USE LOWER WATER-CEMENT RATIO IF IT IS DETERMINED THAT THIS IS NEEDED TO PLACE FLOORING AS SCHEDULED.

CONCRETE REINFORCEMENT

1. REINFORCING STEEL SHALL BE NEW OR RECYCLED DOMESTIC DEFORMED BILLET STEEL, CONFORMING TO ASTM A 615, GRADE 60.

2. REINFORCING STEEL SHOWN IN SECTIONS OF BEAMS, WALLS AND COLUMNS IS SCHEMATIC INDICATION THAT REINFORCING EXISTS. SEE SCHEDULES, SECTION NOTES, AND GENERAL NOTES FOR ACTUAL REINFORCING REQUIRED.

3. REFER TO DOWEL SCHEDULE, SHEET S4.1, FOR ALL BARS MARKED "DWL" ON THE DRAWINGS.

4. DETAIL REINFORCING BARS AND PROVIDE BAR SUPPORTS AND SPACERS IN ACCORDANCE WITH THE ACI DETAILING MANUAL.

5. WHERE BAR TYPES FROM THE BAR BENDING DIAGRAM ARE SPECIFIED, PROVIDE BARS ACCORDINGLY. OTHERWISE, DETAIL BARS IN BEAMS, COLUMNS, SLABS, AND WALLS AS FOLLOWS:

   A. RUN TOP AND BOTTOM BARS CONTINUOUS, WITH SPLICES AND HOOKS AS DESCRIBED BELOW.

   B. PROVIDE STANDARD 90 DEGREE HOOK ON TOP BARS AT CANTILEVER ENDS.

   C. SPLICE TOP AND INTERMEDIATE BARS AT THE CENTER LINE BETWEEN MEMBER SUPPORTS, UNLESS NOTED OTHERWISE.

   D. SPLICE BOTTOM BARS DIRECTLY OVER MEMBER SUPPORTS, UNLESS NOTED OTHERWISE.

   E. ALL BAR SPLICES IN BEAMS, SLABS, AND WALLS SHALL BE 30 BAR DIAMETERS, EXCEPT THAT SPLICES IN HORIZONTAL WALL BARS AND INTERMEDIATE BEAM BARS SHALL BE 66 BAR DIAMETERS.

   F. PROVIDE CORNER BARS FOR EACH HORIZONTAL BAR AT THE INSIDE AND OUTSIDE FACES OF INTERSECTING BEAMS OR WALLS. REFER TO CORNER BAR DETAILS ON SHEET S4.1.

6. BARS SHOWN IN THE SCHEDULE TO HOOK AT DISCONTINUOUS ENDS SHALL HAVE THE HOOK PLACED HORIZONTALLY AT EXTERIOR CORNERS.

7. PROVIDE NO. 3 DOWELS X 2'-0" AT 1'-6" ON CENTER, WITH A 90 DEGREE HOOK AT ALL EDGES OF CONCRETE SLABS, UNLESS DETAILED OTHERWISE.

8. PROVIDE FOUNDATION DOWELS TO MATCH MASONRY WALL REINFORCEMENT. DOWELS SHALL EXTEND A MINIMUM OF 60 BAR DIAMETERS ABOVE AND 30 BAR DIAMETERS BELOW TOP OF FOUNDATION.

9. CONCRETE COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS, MEASURED TO NEAREST BAR, STIRRUP OR TIE:

   A. AT SLABS-ON-GRADE, BEAM AND WALL SURFACES DEPOSITED AGAINST THE GROUND (WITH OR WITHOUT VAPOR RETARDER): 3".

   B. AT FORMED FACES OF BEAMS, COLUMNS AND WALLS EXPOSED TO RAIN OR IN CONTACT WITH THE GROUND: 2".

   C. AT FORMED FACES OF BEAMS NOT EXPOSED TO RAIN OR SOIL: 1 1/2".

   D. STRUCTURAL SLABS ON LOOSE FILL: 3".

   E. TOP STEEL IN SLABS:

      INTERIOR EXPOSURE: 1"

      EXPOSED TO WEATHER: 2"

   F. TOP STEEL IN BEAMS:

      INTERIOR EXPOSURE: 1 1/2"

      EXPOSED TO WEATHER: 2"

10. MAINTAIN THE SPECIFIED COVER DIMENSION WITHIN A TOLERANCE OF PLUS OR MINUS 3/8" EXCEPT FOR SLABS-ON-GRADE AND SOIL-FORMED MEMBERS, WHERE 5/8" TOLERANCE IS PERMITTED. EXTRA COVER WEAKENS THE MEMBER AND REDUCED COVER LEADS TO CORROSION.

CAST-IN-PLACE CONCRETE

1. CONSTRUCTION JOINTS IN BEAMS, SLABS AND WALLS SHALL ONLY OCCUR WITHIN 2'-0" OF MIDSPAN BETWEEN SUPPORTS. CONSTRUCTION JOINTS IN SOIL SUPPORTED SLABS-ON-GRADE SHALL BE WHERE SHOWN ON PLAN. SEE NOTES ON TYPICAL SLAB-ON-GRADE DETAIL S4.1 FOR LOCATING SLAB JOINTS. COLUMN PILASTERS ON THE SIDES OF GRADE BEAMS AND WALLS SHALL BE CAST MONOLITHICALLY WITH THE GRADE BEAM OR WALL UNLESS SHOWN OTHERWISE. SUBMIT A DIAGRAM OF ALL PROPOSED CONSTRUCTION JOINTS WHICH ARE NOT SPECIFICALLY SHOWN ON THESE DRAWINGS (REFER TO SPECIFICATIONS).

2. SLEEVES, MECHANICAL OPENINGS, CONDUITS, PIPES, RECESSES, DEPRESSIONS, CURBS AND ALL EMBEDDED ITEMS SHALL BE PROVIDED FOR AS SHOWN ON THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND AS REQUIRED BY EQUIPMENT MANUFACTURERS. MINIMUM CONCRETE BETWEEN SLEEVES SHALL BE 6". INSTALLATION OF THESE ITEMS SHALL BE COORDINATED WITH SHOP DRAWINGS OF TRADES REQUIRING THESE ITEMS.

3. SET FORMS TO FOLLOW SLOPES AND GRADES DEFINED ON PLAN, KEEPING MEMBER DEPTHS CONSTANT AT DEPTHS DETAILED OR SCHEDULED, UNLESS NOTED OTHERWISE. SLOPE UNIFORMLY BETWEEN ELEVATIONS GIVEN. BUILD IN CAMBER WHERE SPECIFIED.

4. ALL CONDUITS AND PIPES EMBEDDED IN CONCRETE SHALL COMPLY WITH ALL PROVISIONS SPECIFIED IN ACI 318, SECTION 6.3, WITH THE FOLLOWING SPECIFIC REQUIREMENTS:

   A. NONE PERMITTED IN SLABS-ON-GRADE WHICH WILL BE PERMANENTLY EXPOSED OR SCHEDULED TO RECEIVE THIN SET TILE. PLACE ALL PIPES AND CONDUITS IN THE FILL BENEATH THE VAPOR RETARDER. RECOMPACT AS SPECIFIED.

   B. DO NOT DISPLACE REINFORCING STEEL FROM ITS PROPER POSITION.

5. SLEEVES OR PIPES PASSING HORIZONTALLY THROUGH BEAMS OR JOISTS MUST BE LOCATED IN THE MIDDLE THIRD OF THE SPAN AND WITHIN THE MIDDLE THIRD OF THE BEAM DEPTH. MAXIMUM DIAMETER SHALL BE ONE THIRD OF THE MEMBER DEPTH. SPACE AT LEAST 3 DIAMETERS CLEAR APART AND ADD ONE STIRRUP EACH SIDE OF EACH SLEEVE.

6. PROVIDE SHEAR KEYS IN ALL CONSTRUCTION JOINTS IN BEAMS AND WALLS, IN ACCORDANCE WITH THE TYPICAL CONCRETE DETAILS.

7. PLACE WATERSTOPS IN ALL EXTERIOR CONSTRUCTION JOINTS BELOW GRADE AND ELSEWHERE AS CALLED FOR.

8. THE HOUSEKEEPING PADS UNDER MECHANICAL EQUIPMENT ARE SHOWN AND SPECIFIED ON THE MECHANICAL DRAWINGS. REINFORCE HOUSEKEEPING PAD WITH #3@8" ON CENTER EACH WAY, UNLESS SHOWN OTHERWISE ON MECHANICAL DRAWINGS.

9. WHERE GRADE BEAMS ARE TRENCH FORMED, THE TOP OF THE EXTERIOR FACE SHALL BE WOOD FORMED TO AT LEAST 1'-0" BELOW EXTERIOR FINISHED GRADE LEVEL.

FIELD DRILLED DOWELS AND ANCHOR RODS IN CONCRETE

1. FIELD DRILLED DOWELS AND ANCHOR RODS TO BE SET IN HARDENED CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS.

2. DOWELS AND THREADED RODS, OF THE SIZE, TYPE, AND EMBEDMENT SHOWN ON THE DRAWINGS, SHALL BE INSTALLED BY PERSONNEL TRAINED TO INSTALL ADHESIVE ANCHORS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) AND AS INDICATED ON THE DRAWINGS. A MANUFACTURER'S REPRESENTATIVE SHALL BE PRESENT DURING INITIAL INSTALLATION TO PROVIDE ONSITE TRAINING OF INSTALLERS.

3. WHERE INSTALLATION OF ADHESIVE ANCHORS IS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS, THE INSTALLING PERSONNEL SHALL BE CERTIFIED IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT.

4. AT CORED HOLES, WET HOLES, OR HOLES DEEPER THAN 18 INCHES, SUBSTITUTE A SLOW CURE EPOXY ADHESIVE OR OTHER APPROPRIATE PRODUCT RECOMMENDED BY THE MANUFACTURER FOR THE SPECIAL APPLICATION.

5. ALL POST-INSTALLED ANCHORS SHALL BE INSPECTED BY A SPECIAL INSPECTOR IN ACCORDANCE WITH THE BUILDING CODE. INSTALLATION OF GROUTED DOWELS AND RODS SHALL BE CONTINUOUSLY INSPECTED BY THE TESTING LABORATORY, TO ENSURE THAT HOLES ARE OF PROPER DIAMETER AND LENGTH, ARE PROPERLY CLEANED, AND THAT DOWELS AND RODS ARE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).

6. ANCHORS SHALL BE INSTALLED PERPENDICULAR TO THE FACE OF THE CONCRETE, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

7. THE CONTRACTOR SHALL CREATE A TEMPLATE FOR EACH ANCHOR ROD GROUP PRIOR TO FABRICATING HOLES IN CONNECTION PLATES. TEMPLATES SHALL BE MADE AFTER LOCATING EXISTING REINFORCING STEEL WITH FERROSCAN OR SIMILAR NON-DESTRUCTIVE REINFORCING IMAGING DEVICE. POSITION ANCHOR HOLES SO AS NOT TO CONFLICT WITH THE EXISTING REINFORCING. ANCHOR POSITIONS MAY BE ADJUSTED IN THE FIELD A MAXIMUM OF 1 1/2" FROM THE DIMENSIONS SHOWN ON THE DETAILS, TO AVOID CONFLICT WITH THE EXISTING REINFORCING STEEL.

8. SUBMIT DRAWINGS OF TEMPLATES FOR ANCHOR ROD GROUPS SHOWING HOLE LOCATIONS PRIOR TO FABRICATION OF CONNECTION PLATES.

9. HOLES SHALL BE DRILLED WITH A HAMMER DRILL. CORED HOLES ARE NOT PERMITTED. DIAMETER OF HOLES DRILLED IN THE CONCRETE SHALL BE THE SIZE RECOMMENDED BY THE MANUFACTURER FOR THE RESPECTIVE ANCHOR SIZE.

10. IMPORTANT: AFTER DRILLING, ALL DUST AND OTHER FOREIGN MATTER SHALL BE BLOWN OUT OF THE HOLE WITH COMPRESSED AIR. DO NOT FLUSH WITH WATER. CLEAN SIDES OF HOLE AS RECOMMENDED BY MANUFACTURER. HOLES MUST BE DRY.

11. ALL ABANDONED HOLES DRILLED IN THE CONCRETE SHALL BE COMPLETELY FILLED WITH NONSHRINK GROUT.

12. HOLES IN CONNECTION PLATES SHALL BE NO MORE THAN 1/16" LARGER THAN THE ANCHOR DIAMETER. IF LARGER DIAMETER HOLES ARE NECESSARY FOR ERECTION PURPOSES, THE CONTRACTOR SHALL PROVIDE PLATE WASHERS SUFFICIENTLY WELDED TO THE CONNECTION PLATE TO TRANSFER THE SPECIFIED LOAD.

PRE-ENGINEERED METAL BUILDING

1. THE FOLLOWING ARE TO BE DESIGNED AND FURNISHED BY A QUALIFIED METAL BUILDING MANUFACTURER WHO IS CURRENTLY AISC CERTIFIED:

   A. ALL ROOF FRAMING.

   B. ALL RIGID FRAMES AND PORTAL FRAMES.

   C. ALL PURLINS.

   D. WALL GIRTS AND RELATED BRACING.

   E. ROOF AND WALL BRACING.

   F. ALL PIPE OR TUBE COLUMNS SUPPORTING METAL BUILDING FRAMES NOTED AS RF-___. (COLUMNS SUPPORTING ONLY CONVENTIONAL STEEL BEAM FRAMING ARE TO BE FURNISHED BY THE CONVENTIONAL STEEL FABRICATOR.)

   G. STEEL WIDE FLANGE COLUMNS AT END WALLS ARE TO BE SUPPLIED BY THE PRE-ENGINEERED METAL BUILDING MANUFACTURER. SOME OF THESE END WALL COLUMNS MAY SUPPORT CONVENTIONAL STEEL BEAM FRAMING AS WELL. REFER TO THE FRAMING PLANS.

2. GENERAL CONTRACTOR SHALL PROVIDE AND SET ANCHOR BOLTS, DESIGNED BY THE PRE-ENGINEERED BUILDING MANUFACTURER, PER PRE-ENGINEERED BUILDING MANUFACTURER'S DRAWINGS. ANCHOR BOLTS TO BE A307 WITH STANDARD HEX HEADS OR A36 THREADED RODS WITH STANDARD NUTS ON BOTTOM WITH THREADS FULLY ENGAGED. J-BOLTS NOT ALLOWED.

3. DESIGN LOADS SHALL BE APPLIED IN THE FOLLOWING COMBINATIONS:

DL + CL + LL + 1/2 WL	DL = BUILDING DEAD LOAD
DL + CL + LL	LL = ROOF LIVE LOAD OR SNOW
DL + WL	WHERE:CL = COLLATERAL LOADS
DL + CL + WL + 1/2 LL	WL = WIND LOAD
DL + CL + E + LL	E = SEISMIC LOAD

4. FOR THE PURPOSE OF CALCULATING WIND FORCES ON THE METAL BUILDING SYSTEM, ALL BUILDINGS SHALL BE CONSIDERED PARTIALLY ENCLOSED EXCEPT FOR__.

5. SUBMIT DESIGN CALCULATIONS, SEALED BY A PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF TEXAS FOR FRAMING PLANS, ERECTION DRAWINGS, ETC., TO THE ARCHITECT AS SPECIFIED.

6. PROVIDE WASHERS AT BOLTED CONNECTION IF CALIBRATED TORQUE WRENCH IS USED FOR TIGHTENING OF NUTS. COORDINATE WITH ERECTOR.

PRE-ENGINEERED METAL BUILDING CONT'D

7. **THE METAL BUILDING MANUFACTURER'S ENGINEER SHALL PERFORM SITE OBSERVATIONS DURING THE COURSE OF THE METAL BUILDING CONSTRUCTION TO CONFIRM THAT THE WORK IS PROGRESSING IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SHOP DRAWINGS. A PROJECT OBSERVATION REPORT SHALL BE PROVIDED TO THE OWNER AND ARCHITECT. THE CONTRACTOR SHALL MAKE ALL CORRECTIVE WORK REQUIRED TO MAKE ALL NON-COMPLIANT ITEMS ACCEPTABLE TO THE ENGINEER PRIOR TO CONTINUING WITH ANY FINISH WORK. AT THE END OF THE JOB, THE MANUFACTURER'S PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF TEXAS, SHALL SUBMIT A SEALED LETTER TO THE OWNER AND ARCHITECT STATING THAT THE DESIGN AND CONSTRUCTION OF THE METAL BUILDING IS IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, THE PROJECT SHOP DRAWINGS, AND ALL APPLICABLE BUILDING CODES.**

8. PRE-ENGINEERED STEEL STRUCTURE AND CONNECTIONS, ETC., SHALL ALSO BE SUBJECT TO INSPECTION BY AN INDEPENDENT LABORATORY, AS SPECIFIED.

9. THE FOLLOWING SHALL APPLY TO ALL ROOF PLANS IN THESE DRAWINGS:

   A. CONTRACTOR SHALL COORDINATE SIZE, WEIGHT AND SUPPORT METHODS, AND LOCATION OF MISC EQUIPMENT SUPPORTED BY THE ROOF WITH THE METAL BUILDING MANUFACTURER, WHO SHALL DESIGN TO ACCOMMODATE HANGING EQUIPMENT, INCLUDING FRAMING TO DIRECTLY SUPPORT THE EQUIPMENT AND TO FRAME ROOF OPENINGS REQUIRED. REFER TO STRUCTURAL AND MEP FOR EQUIPMENT ON THE ROOF.

   B. WIND BRACING SHOWN IN THE PLANE OF THE ROOF IS SCHEMATIC AND IS PROVIDED TO BRACE THE BUILDING UNDER WIND PERPENDICULAR TO PRIMARY RIGID FRAMES. DIAGONAL ROD BRACING WITH TURNBUCKLES OR CLEVISES SHALL BE USED.

   C. WALL WIND BRACING MUST BE PROVIDED AT LOCATIONS SHOWN, EXCEPT AS NOTED BELOW. FOR BRACES RUNNING PARALLEL TO PRIMARY RIGID FRAMES ONLY, BRACES MAY BE OMITTED IF METAL WALL PANELS ACTING AS A DIAPHRAGM CAN RESIST THE REQUIRED WIND FORCES, UNLESS NOTED AS "REQUIRED" ON PLAN.

   D. WALL WIND BRACING SHALL CONSIST OF EITHER DIAGONAL ROD BRACING OR PINNED-BASE PORTAL FRAMES, UNLESS NOTED OTHERWISE. REFER TO PLAN LOCATIONS NOTED "PORTAL FRAME" FOR ANTICIPATED LOCATIONS OF BRACING.

   E. REFER TO SPECIFICATIONS FOR LATERAL DRIFT OF PRIMARY FRAMES. LATERAL DRIFT LIMIT FOR WIND PERPENDICULAR TO PRIMARY FRAMES SHALL BE HEIGHT TO ROOF (IN INCHES) /300.

   F. PROVIDE TEMPORARY WIND BRACING AS REQUIRED UNTIL FINAL BRACING IS IN PLACE.

10. ROOF PURLINS SUPPORTING THE STANDING SEAM METAL DECK SHALL BE STANDARD ROLL-FORMED "Z" SECTIONS OR EQUIVALENT SHAPES COMPATIBLE WITH THE ROOF DECK SYSTEM. MATERIAL, GAUGE, SPLICING AND CROSS-SECTION ARE TO BE DETERMINED BY THE METAL BUILDING MANUFACTURER.

11. DESIGN LIGHT-GAUGE STEEL MEMBERS IN ACCORDANCE WITH AISI "SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS," LIVE LOAD DEFLECTIONS LIMITED TO L/240 TYPICAL AND L/360 OVER AREAS WITH PLASTER CEILINGS. WHERE HOLES ARE REQUIRED IN PURLIN BOTTOM FLANGE FOR MECHANICAL AND ELECTRICAL HANGERS, REDUCTION OF SECTION SHALL BE ACCOUNTED FOR IN DESIGN.

12. LOCATE ROOF PURLINS WHERE INDICATED ON THE ARCHITECTURAL DRAWINGS AT GUTTERS, RIDGES, ETC., AND WHERE INDICATED ON THE STRUCTURAL DRAWINGS FOR INTERFACE WITH THE STRUCTURAL STEEL ROOF BRACING. PROVIDE ADDITIONAL PURLINS WHERE CLOSER SPACING AT PERIMETER IS REQUIRED BY LOADING OR FACTORY MUTUAL, OTHERWISE ROOF PURLIN SPACING SHALL NOT EXCEED 5'-0".

13. BASIC DESIGN LOADS AND COLLATERAL LOADS SHALL BE AS FOLLOWS:

   A. BASIC DESIGN LOADS, IN ADDITION TO DEAD LOAD, INCLUDE LIVE LOAD AND WIND LOAD.

   B. COLLATERAL LOADS INCLUDE ADDITIONAL DEAD LOADS OVER AND ABOVE WEIGHT OF METAL BUILDING SYSTEM SUCH AS MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION SYSTEMS, AND CEILING SYSTEMS. INSULATION WEIGHT IS CONSIDERED PART OF METAL BUILDING SYSTEM.

   C. DESIGN EACH MEMBER TO WITHSTAND FORCES RESULTING FROM COMBINATIONS OF LOADS THAT PRODUCE MAXIMUM STRESSES IN THAT MEMBER, AS FOLLOWS:

      1) ROOF LIVE LOAD: 20 PSF

      2) ROOF DEAD LOAD: WEIGHT OF PURLINS, DECK, AND INSULATION CALCULATED BY MANUFACTURER.

      3) COLLATERAL LOAD:

         a) MECHANICAL, ELECTRICAL, PLUMBING 5 PSF. CONCENTRATED LOADS GREATER THAN 200 POUNDS REQUIRE SPECIAL DESIGN.

         b) CEILING: WHERE CEILINGS ARE SCHEDULED DETERMINE LOADS BASED UPON CEILING MATERIALS USED; 3 PSF MINIMUM FOR GYP BOARD OR LAY-IN CEILINGS, 10 PSF MINIMUM FOR PLASTER CEILINGS.

         c) ADDITIONAL LOADS: ADDITIONAL ROOF PURLINS MAY BE REQUIRED. REFER TO THE DRAWINGS FOR LOCATIONS OF ADDITIONAL EQUIPMENT. THE CONTRACTOR/MANUFACTURER SHALL COORDINATE PURLIN DESIGNS WITH ALL MECHANICAL, ELECTRICAL, OR OTHER EQUIPMENT REGARDLESS OF WHETHER IT IS LOCATED ON DRAWINGS. REVIEW PIPE HANGER CLAMPS TO BE USED TO MINIMIZE TORSION ON THE PURLINS.

      4) WIND LOADS: REFER TO SPECIFICATIONS FOR WIND LOADS.

14. DESIGN BRIDGING OR OTHER LATERAL BRACING AS REQUIRED TO PREVENT BUCKLING AND TWISTING DUE TO UPLIFT PRESSURE AND OTHER LOADS.

15. PROVIDE CROSS BRIDGING OR BLOCKING BETWEEN PURLINS AT HANGERS SUPPORTING MORE THAN 75 POUNDS.

16. THE MANUFACTURER IS RESPONSIBLE FOR ALL PURLIN MEMBER DESIGN, CONNECTIONS, BRACING AND ATTACHMENTS TO THE STRUCTURAL FRAME. SUBMIT CALCULATIONS WITH ENGINEER'S SEAL FOR ALL DESIGNS.

17. RIGID BENTS ELEVATIONS SHOWN ARE A SCHEMATIC REPRESENTATION AND MAY OR MAY NOT REFLECT ACTUAL GEOMETRIC CONFIGURATION OF BEAMS AND COLUMNS. WHERE INDICATED, MEMBER SIZE LIMITS MUST BE ADHERED TO. ALSO REFER TO ARCHITECTURAL PLAN DETAILS FOR MAXIMUM FRAME AND WIND BENT COLUMN DIMENSIONS. INCREASE THICKNESS OF FLANGES AND WEBS AS REQUIRED TO MAINTAIN THESE DIMENSIONS.

18. WALL GIRTS ARE TO BE DESIGNED TO SPAN AND BRACE THE TOP OF EXTERIOR STUD WALLS AS DEFINED ON THE ARCHITECTURAL WALL SECTIONS. LIMIT DEFLECTION OF GIRTS TO THE FOLLOWING WHEN SUBJECTED TO 70 PERCENT OF FULL DESIGN WIND PRESSURE OR SUCTION:

    IF BRACING MASONRY VENEER L/600

    IF BRACING FINISHED DRYWALL INTERIOR L/360

    WITH FLEXIBLE SHEATHING L/240

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GENERAL NOTES

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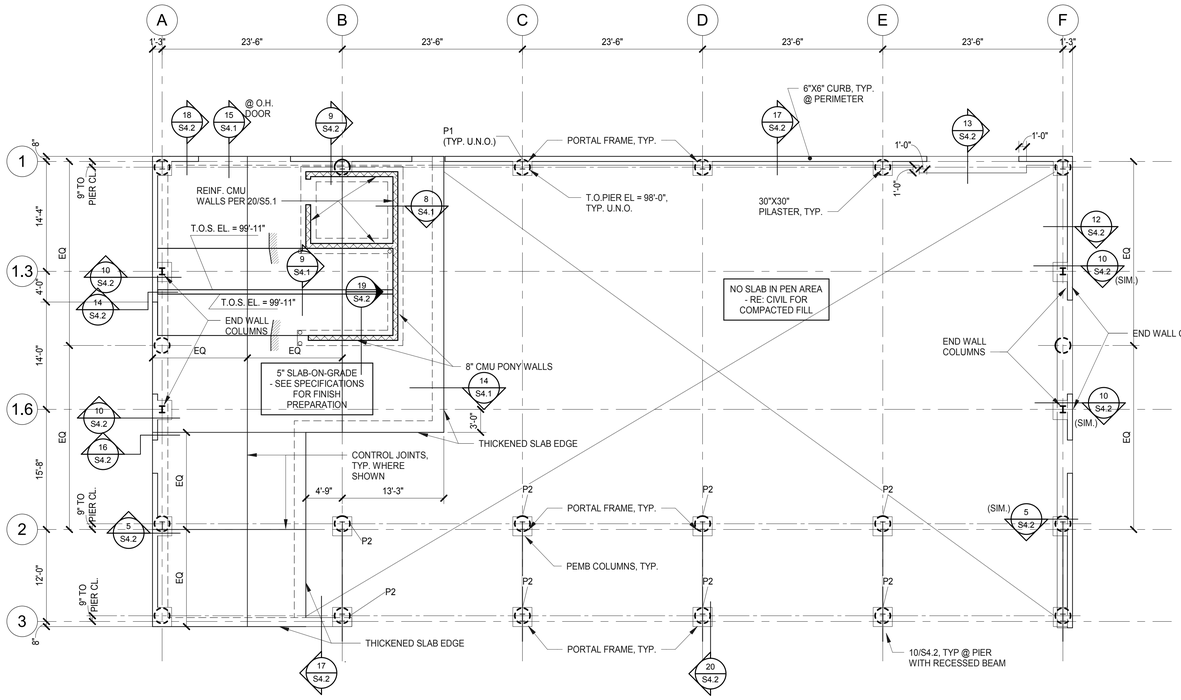
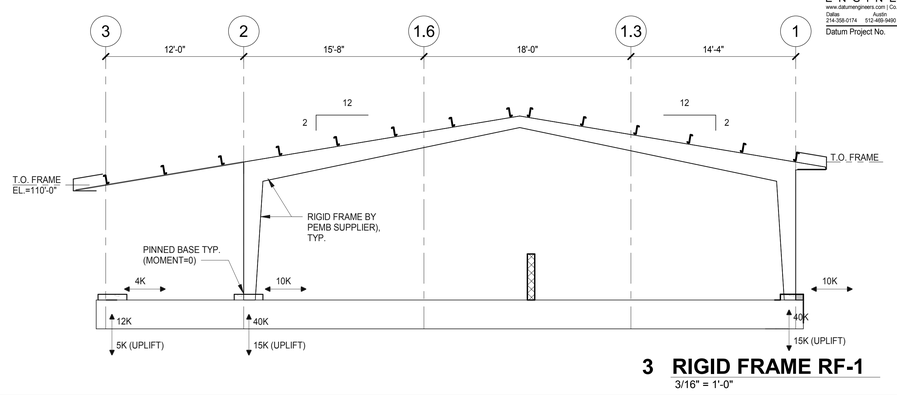
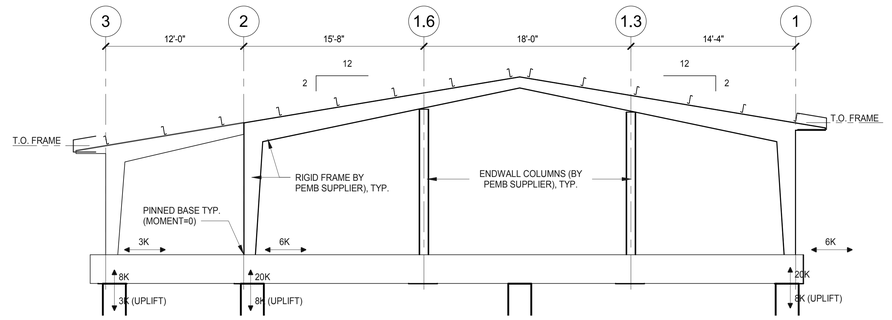


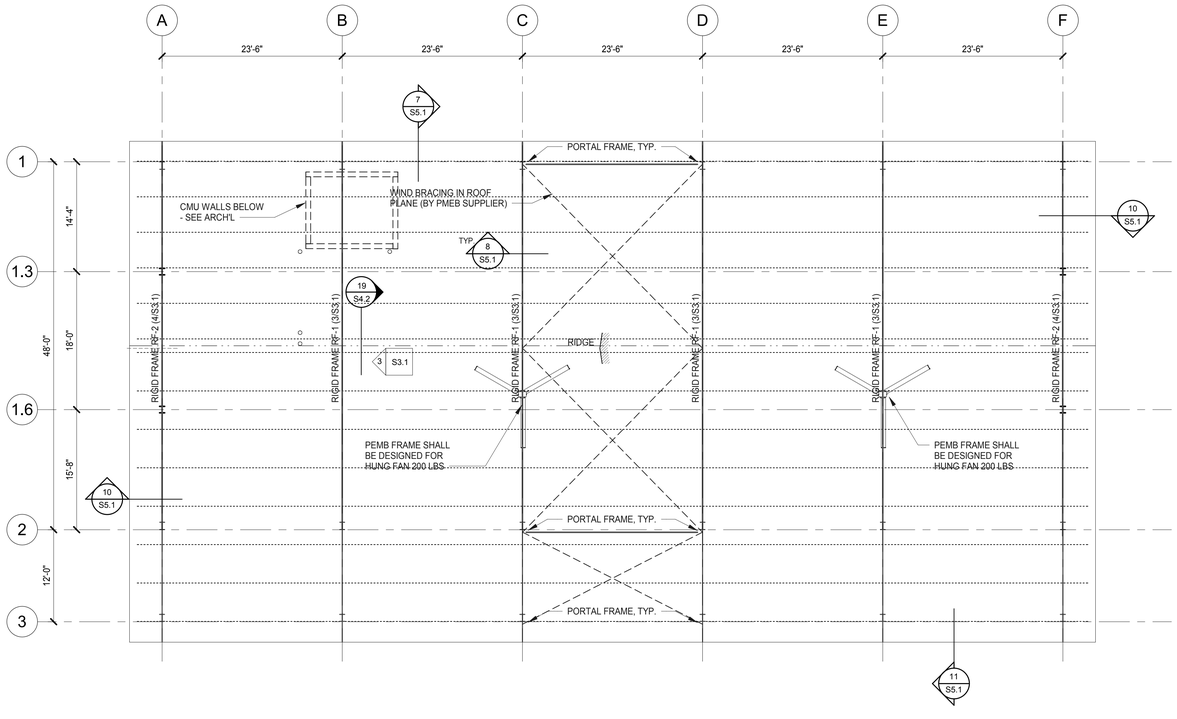
1 AG BARN FOUNDATON FRAMING PLAN
1/8" = 1'-0"



3 RIGID FRAME RF-1
3/16" = 1'-0"



4 RIGID FRAME RF-2
3/16" = 1'-0"



2 AG BARN ROOF FRAMING PLAN
1/8" = 1'-0"

RIGID FRAME ELEVATION NOTES:
1. RIGID FRAME ELEVATIONS SHOWN ARE A SCHEMATIC REPRESENTAION AND MAY OR MAY NOT REFLECT ACTUAL GEOMETRIC CONFIGURATION OF BEAMS AND COLUMNS. WHERE INDICATED, MEMBER SIZE LIMITS MUST BE ADHERED TO.
2. REACTIONS SHOWN ON RIGID FRAME ELEVATION ARE THE MAXIMUM SERVICE REACTIONS ALLOWED UNDER ANY SPECIFIED LOAD COMBINATION. SEE GENERAL NOTES FOR LOAD COMBINATIONS.
3. PRE-ENGINEERED BUILDING MANUFACTURER SHALL PROVIDE FRAMES WITH REACTIONS LESS THAN OR EQUAL TO REACTIONS SHOWN.
4. REACTIONS SHOWN INCLUDE LIVE LOAD REDUCTIONS ALLOWED BY CODE.

WIMBERLEY HIGH SCHOOL
AGRICULTURAL BARN
100 CARNEY LN, WIMBERLEY, TX 78676

01/17/2019

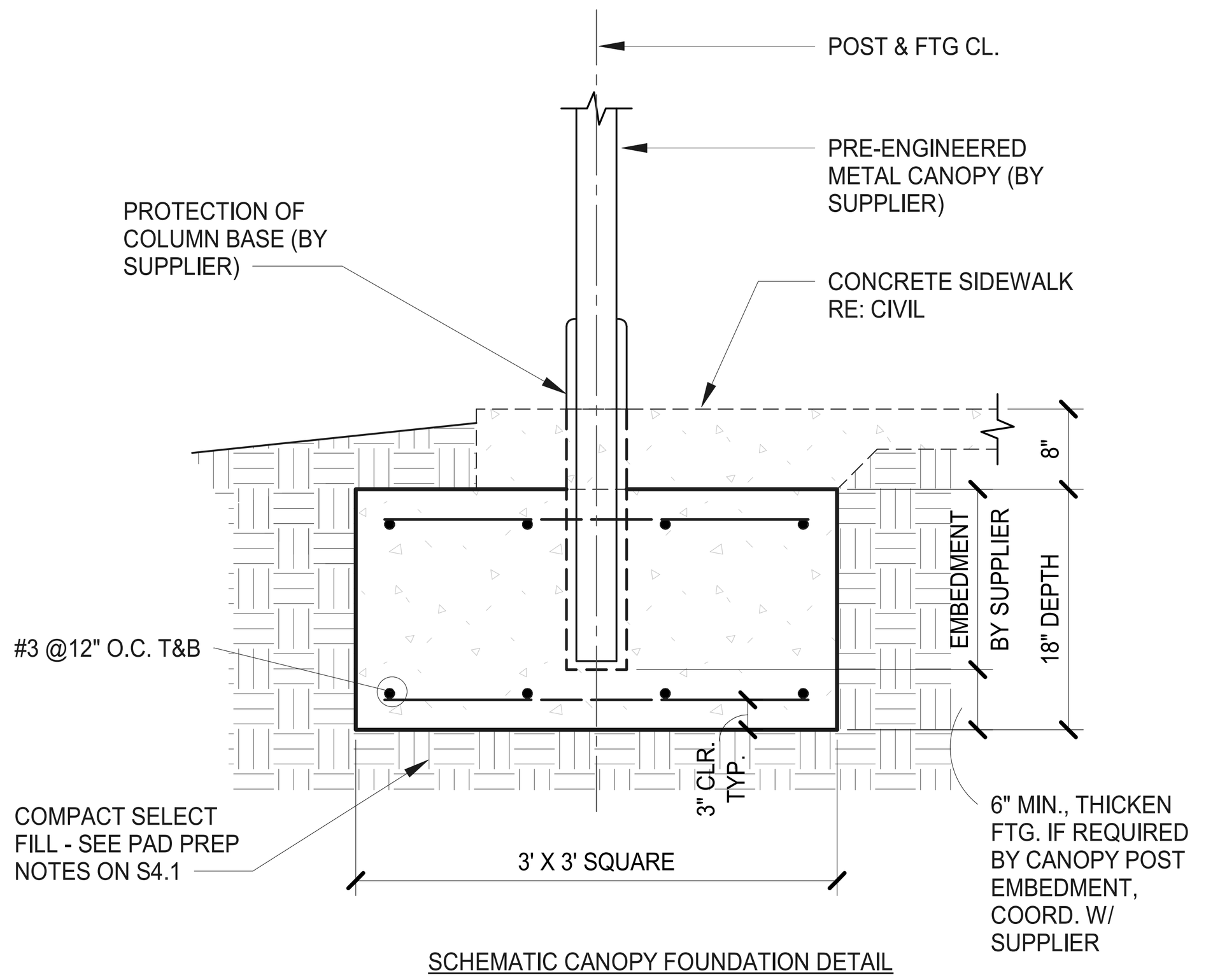
Revisions:

NO.	DESCRIPTION	DATE

01/17/19
Project No. 1820.05
100% Contract Documents

AG BARN FRAMING PLANS & ELEVATIONS

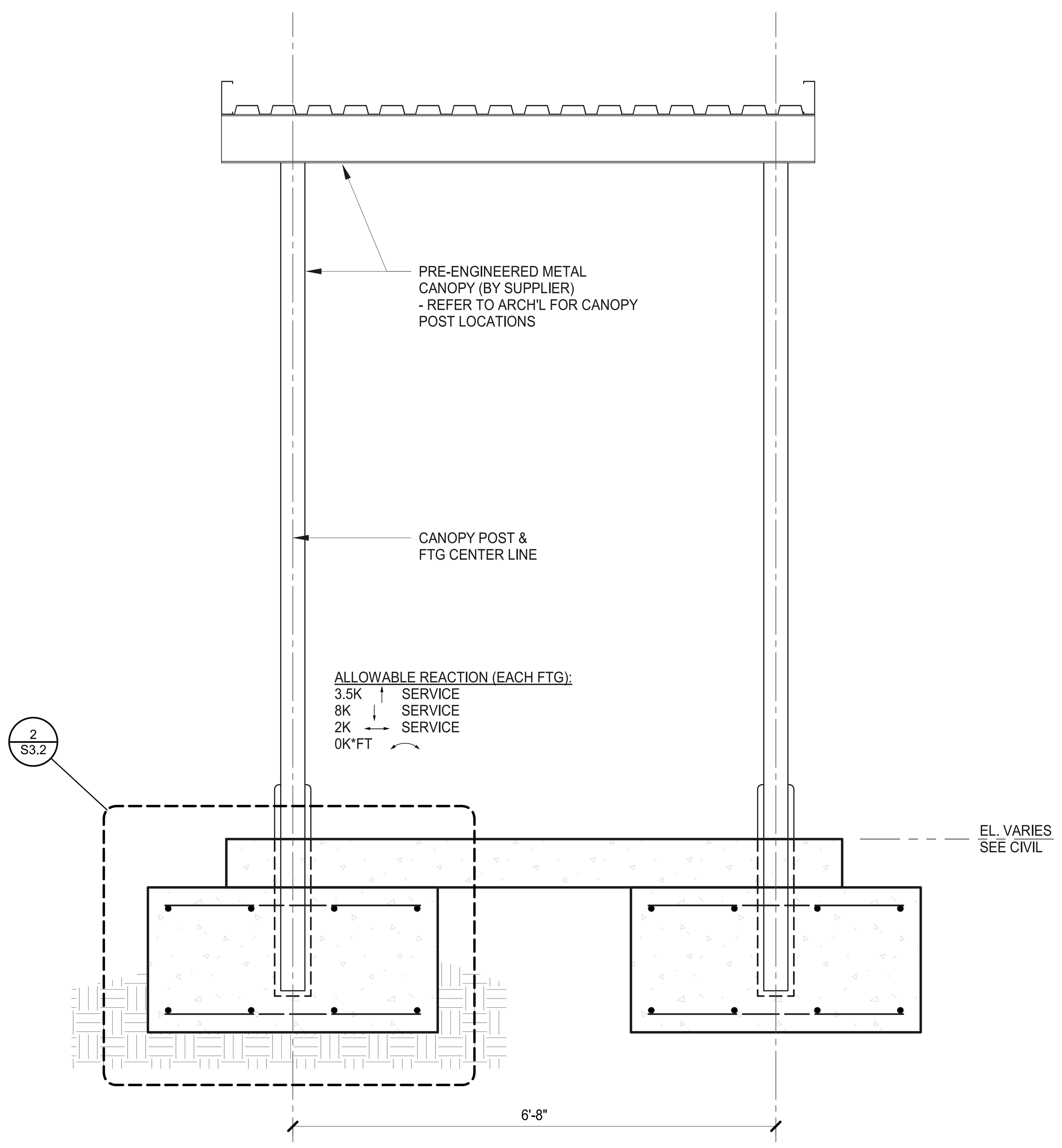
S3.1



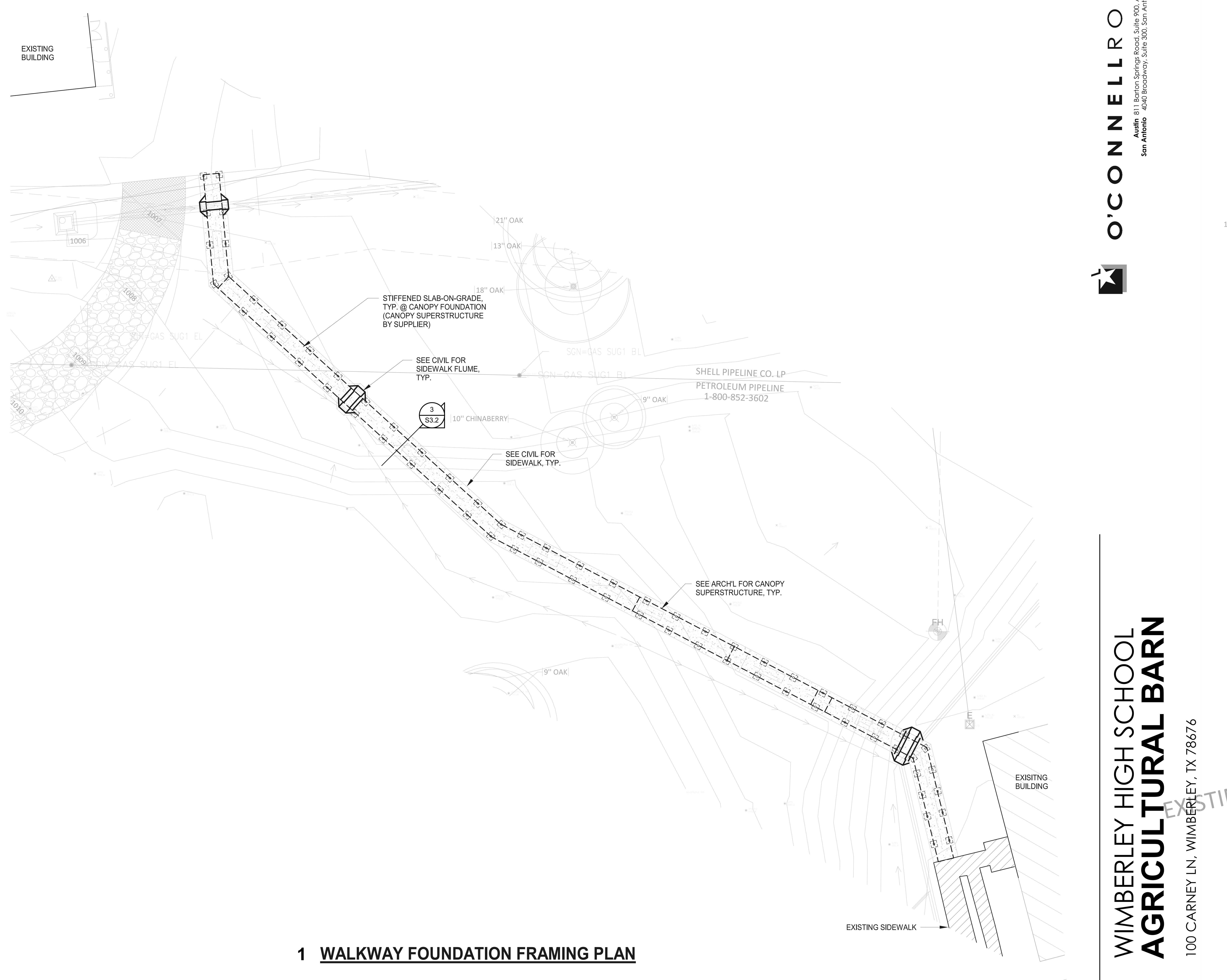
SCHEMATIC CANOPY FOUNDATION DETAIL

TYPICAL DETAIL

3/4" = 1'-0" **2**



NO SCALE **3**



1 WALKWAY FOUNDATION FRAMING PLAN

DATUM ENGINEERS
Datum Project No. 18088

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Austin 811 Barton Springs Road, Suite 900, Austin, Texas 78704 p: 512.478.7286 f: 512.478.7441
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WIMBERLEY HIGH SCHOOL
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100 CARNEY LN, WIMBERLEY, TX 78676

01/18/2019

Revisions:

NO	DESCRIPTION	DATE

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100% Contract Documents

CANOPY FOUNDATION FRAMING PLAN

S3.2

BUILDING PAD PREPARATION

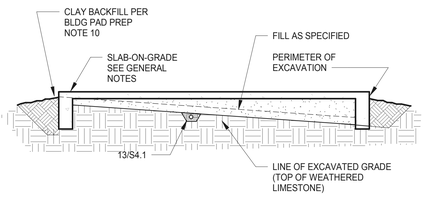
1. THE BUILDING PAD PREPARATION REQUIREMENTS ARE BASED ON THE GEOTECHNICAL REPORT PREPARED BY KLEINFELDER, DATED JANUARY 14, 2019.
2. REMOVE ALL SURFICIAL SOILS TO TOP OF WEATHERED LIMESTONE, WITHIN THE BUILDING FOOTPRINT AND A DISTANCE OF 5 FEET BEYOND THE BUILDING'S PERIMETER, AS WELL AS WITHIN WALKWAY CANOPY FOOTPRINT AND 5 FEET BEYOND.
3. JUST PRIOR TO FILL PLACEMENT, THE EXPOSED SUBGRADE SHALL BE PROOFROLLED TO DETECT SOFT SPOTS OR PUMPING SUBGRADE AREAS. PROOFROLLING SHALL BE PERFORMED USING A HEAVY PNEUMATIC TIRED ROLLER, LOADED DUMP TRUCK, OR SIMILAR PIECE OF EQUIPMENT WEIGHING AT LEAST 25 TONS. SOFT SPOTS OR AREAS OF PUMPING SUBGRADE SHALL BE UNDERCUT AND REWORKED.
4. PLACE AND COMPACT SELECT FILL TO THE UNDERSIDE OF BUILDING FLOOR SLAB AND WALKWAY CANOPY SLAB(REFER TO CIVIL FOR FILL REQUIREMENTS WITHIN OPEN-PEN AREA). SELECT FILL SHALL HAVE A PLASTICITY INDEX BETWEEN 7 AND 15, WITH A LIQUID LIMIT LESS THAN 35, LESS THAN 70 PERCENT PASSING THE #200 SIEVE, AND LESS THAN 2% ORGANICS. PLACE FILL IN LIFTS NOT TO EXCEED 8" (LOOSE MEASURE), COMPACTING EACH LIFT TO 98 PERCENT OF MAXIMUM DENSITY AT A MOISTURE CONTENT OF -1 TO +3 PERCENT ABOVE OPTIMUM. SPECIFIED MOISTURE CONTENT SHALL BE MAINTAINED UNTIL COMPACTION OF THE OVERLYING LIFT, OR CONSTRUCTION OF THE OVERLYING FLATWORK. SELECT FILL MATERIAL PLACEMENT SHALL MEET TEST METHOD ASTM D698.
5. CONTRACTOR SHALL CONTACT THE OWNER'S GEOTECHNICAL ENGINEER AT LEAST 7 DAYS BEFORE THE START OF FILLING OPERATIONS FOR THE BUILDING PAD. COMPACTION AND MOISTURE CONTENT OF SUBGRADE AND EACH LIFT OF FILL SHALL BE TESTED BY THE GEOTECHNICAL ENGINEER (OR HIS DESIGNATED REPRESENTATIVE) AND APPROVED BEFORE PLACING NEXT LIFT. ADJUST MOISTURE CONTENT AND RECOMPACT WHERE REQUIRED.
6. SELECT FILL PLACED OUTSIDE THE GRADE BEAM LINES SHALL BE REMOVED AND REPLACED WITH ON-SITE CLAY BACKFILL.
7. SELECT FILL MATERIAL WHICH IS NOT PURCHASED FROM AN APPROVED PLANT, SUCH AS PRIVATELY OWNED PIT MATERIAL, MUST BE CONTINUOUSLY MONITORED BY AN APPROVED TESTING LABORATORY HIRED AND PAID BY CONTRACTOR.
8. SELECT FILL MATERIAL MUST PROVIDE A SOLID WORKING PAD FOR OTHER TRADES DURING WET WEATHER. ALL SOFT SPOTS MUST BE RECOMPACTED PRIOR TO CONCRETE PLACEMENT.
9. ANY TRENCHES OR OTHER DISTURBANCES TO THE BUILDING PAD PREPARATION BY OTHER TRADES SHALL BE REPAIRED IN ACCORDANCE WITH DETAIL 13/S4.1.

1

SLAB-ON-GRADE

1. FLOOR SLAB SHALL BE 5-INCH THICK CONCRETE SLAB-ON-GRADE OVER PREPARED FILL PER BUILDING PAD PREPARATION NOTES.
2. REINFORCE SLAB WITH #3@12" O.C., E.W., PLACED 1 1/4" CLEAR FROM TOP OF SLAB.
3. PROVIDE ONE OF THE FOLLOWING JOINTS ON THE CENTER LINES OF ALL COLUMNS AND AT A MAXIMUM SPACING OF10'-0" ON CENTER, EACH WAY,SEE 4/S4.1.
   A. CONSTRUCTION JOINTS WHERE DETAILED ON DRAWINGS.
   B. SAW-CUT CONTROL JOINTS ELSEWHERE. DEPTH SHALL BE A MINIMUM OF 1/4 OF THE SLAB THICKNESS. SAW CUTS SHALL BE MADE AS SOON AS SLAB CAN SUPPORT WORKERS AND EQUIPMENT AND BEFORE SHRINKAGE CRACKS OCCUR.
4. A METAL CONSTRUCTION JOINT FORM MAY BE USED. REMOVE METAL FORMS BEFORE PLACING SECOND POUR.

6



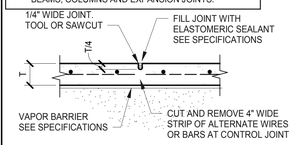
SUBGRADE PROFILE BELOW SLAB-ON-GRADE

TYPICAL DETAIL

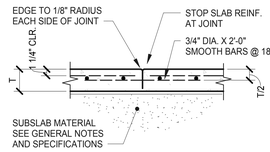
NO SCALE

2

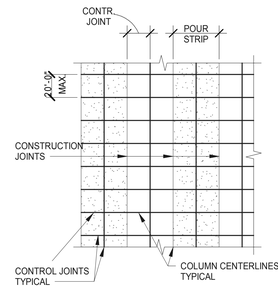
SLAB-ON-GRADE NOTES:
1. SEE PLAN AND GENERAL NOTES FOR THICKNESS OF SLAB (T) AND REINFORCING.
2. REINFORCING TO BE LAPPED 30 BAR DIA. MINIMUM OR TWO CROSSTIES FOR WIRE MESH.
3. SEE SPECIFICATIONS FOR SUPPORT OF REINFORCING.
4. SEE OTHER DETAILS FOR CONDITIONS AT GRADE BEAMS, COLUMNS AND EXPANSION JOINTS.



CONTROL JOINT (CT.J.)



CONSTRUCTION JOINT (C.J.)



SCHEMATIC POUR STRIP LAYOUT

NOTES:
1. SLABS SHALL BE POURED IN A STRIP PATTERN WITH WIDTHS NOT EXCEEDING THAT SHOWN IN NOTES.
2. IF METAL FORMS ARE USED, REMOVE THEM BEFORE POURING ADJACENT SLAB.

NOTES:
1. PROVIDE A CONSTRUCTION OR A CONTROL JOINT ON THE CENTERLINES OF COLUMNS, ONLY IF DIAMOND BLOCKOUTS ARE USED.
2. INFILL STRIPS CAN BE PLACED AFTER INITIAL SLAB STRIPS HAVE CURED FOR 3 DAYS.

EXPOSED SLAB-ON-GRADE TYPICAL DETAIL

NO SCALE

4

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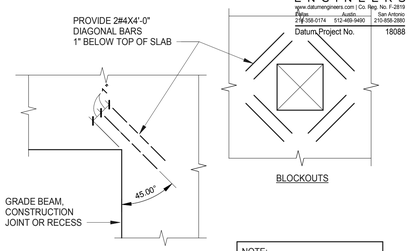


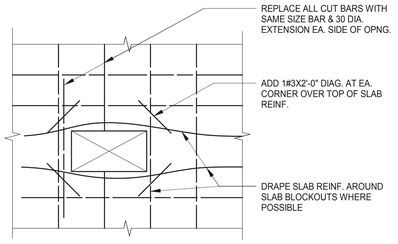
NOTE:
FABRICATOR TO LOCATE THESE BARS ON THE SHOP DRAWINGS.

RE-ENTRANT CORNER REINFORCING

TYPICAL DETAIL

NO SCALE

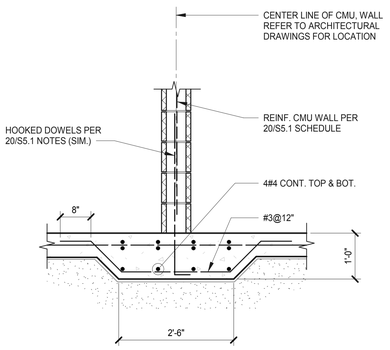
5



SMALL SLAB-ON-GRADE BLOCKOUT

TYPICAL DETAIL

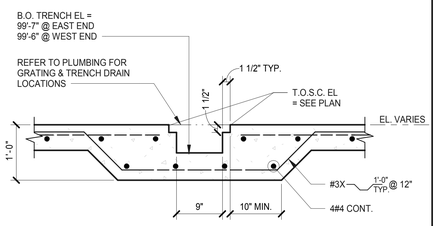
7



STIFFENER BEAM AT CMU WALL

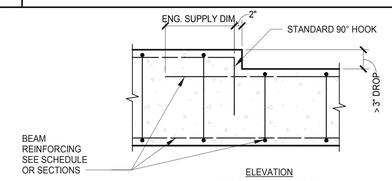
TYPICAL DETAIL

8



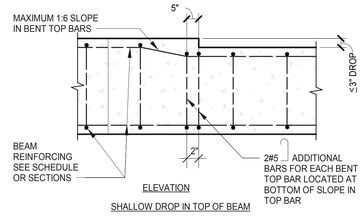
1" = 1'-0"

9



ELEVATION

DEEP DROP IN TOP OF BEAM



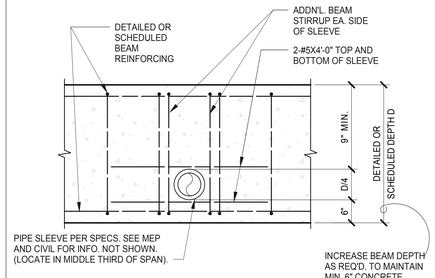
ELEVATION

SHALLOW DROP IN TOP OF BEAM

TYPICAL DETAIL

NO SCALE

10



NOTES:
1. CONDUIT AND PIPING MAY NOT BE PLACED PARALLEL TO AND INSIDE OF BEAM FORMS OR TRENCHES.
2. IF PIPE IS BEING CAST INTO A GRADE BEAM, SLEEVE MAY BE OMITTED IF PIPE IS WRAPPED WITH 1/2" THICK COMPRESSABLE MATERIAL.
3. NOTIFY ENGINEER IF DIMENSIONED CONDITIONS CANNOT BE MET.

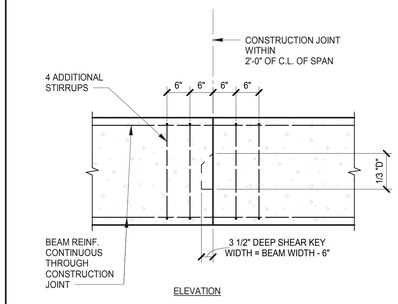
SLEEVE THROUGH GRADE BEAM

TYPICAL DETAIL

NO SCALE

3/4" = 1'-0"

11



ELEVATION

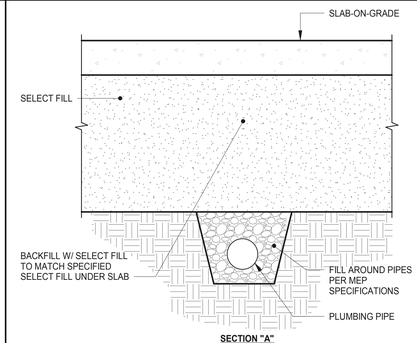
BEAM VERTICAL CONSTRUCTION JOINT

TYPICAL DETAIL

NO SCALE

3/4" = 1'-0"

12



SECTION "A"

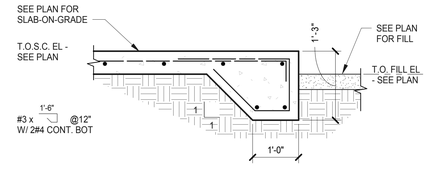
SOIL PREPARTION FOR TRENCHES UNDER SLAB-ON-GRADE

TRENCH BACKFILL SECTION @ EDGE OF BUILDING PAD

TYPICAL DETAIL

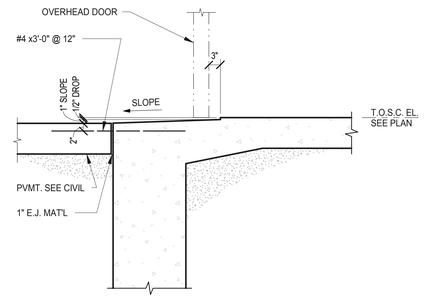
3/4" = 1'-0"

13



3/4" = 1'-0"

14

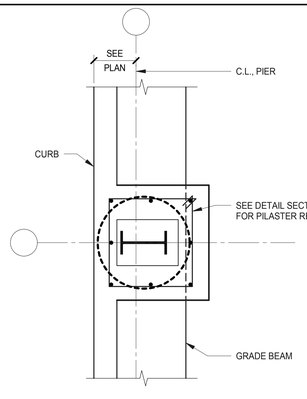


RECESS FOR OVERHEAD DOOR

TYPICAL DETAIL

NO SCALE

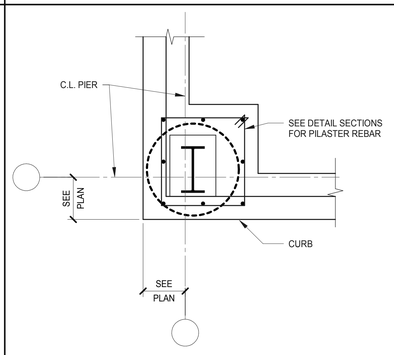
15



EXTERIOR PIER AT W/F COLUMNS

TYPICAL DETAIL

16

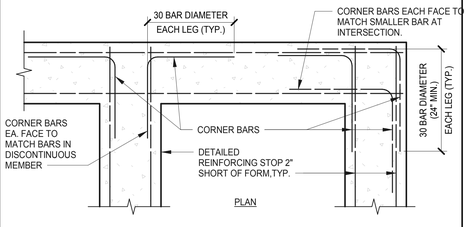


OUTSIDE CORNER PIER AT W/F COLUMN

TYPICAL DETAIL

17

NOTES:
1. PROVIDE CORNER BARS TO MATCH SIZE AND LOCATION OF ALL HORIZONTAL GRADE BEAM AND WALL BARS EXCEPT HOOKED TOP AND BOTTOM BARS.
2. CORNER BARS ARE NOT REQUIRED WHEN BEAM OR WALL BARS HAVE HOOKED ENDS. TURN HOOKS SIDEWAYS.



PLAN

CORNER BARS AT WALL OR GRADE BEAM INTERSECTION

TYPICAL DETAIL

NO SCALE

19

A B C

DOWEL SCHEDULE

MARK	SIZE	A	B	C
DWL. A	#4	8"	3'-0"	---
DWL. B	#4	3'-0"	3'-0"	---
DWL. C	#4	---	4'-0"	---
DWL. D	#6 THD.	---	4'-0"	---
DWL. E	#4 THD.	---	3'-0"	---
DWL. F	#4 THD.	---	6'-0"	---

NOTES:
1. SCHEDULED DOWELS ARE MARKED "DWL." ON THE SECTIONS AND DETAILS.
2. DOWEL SPACING TO BE THE SAME AS VERTICAL BEAM OR WALL REINFORCEMENT, UNLESS OTHERWISE NOTED ON DETAILS.
3. DOWELS WITH "THD" IN "SIZE" COLUMN SHALL BE THREADED DOWELS WITH APPROVED DOWEL BAR ANCHORS PER SPECIFICATIONS

20

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WIMBERLEY HIGH SCHOOL
AGRICULTURAL BARN

100 CARNEY LN, WIMBERLEY, TX 78676

01/17/2019

Revisions:

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100% Contract Documents

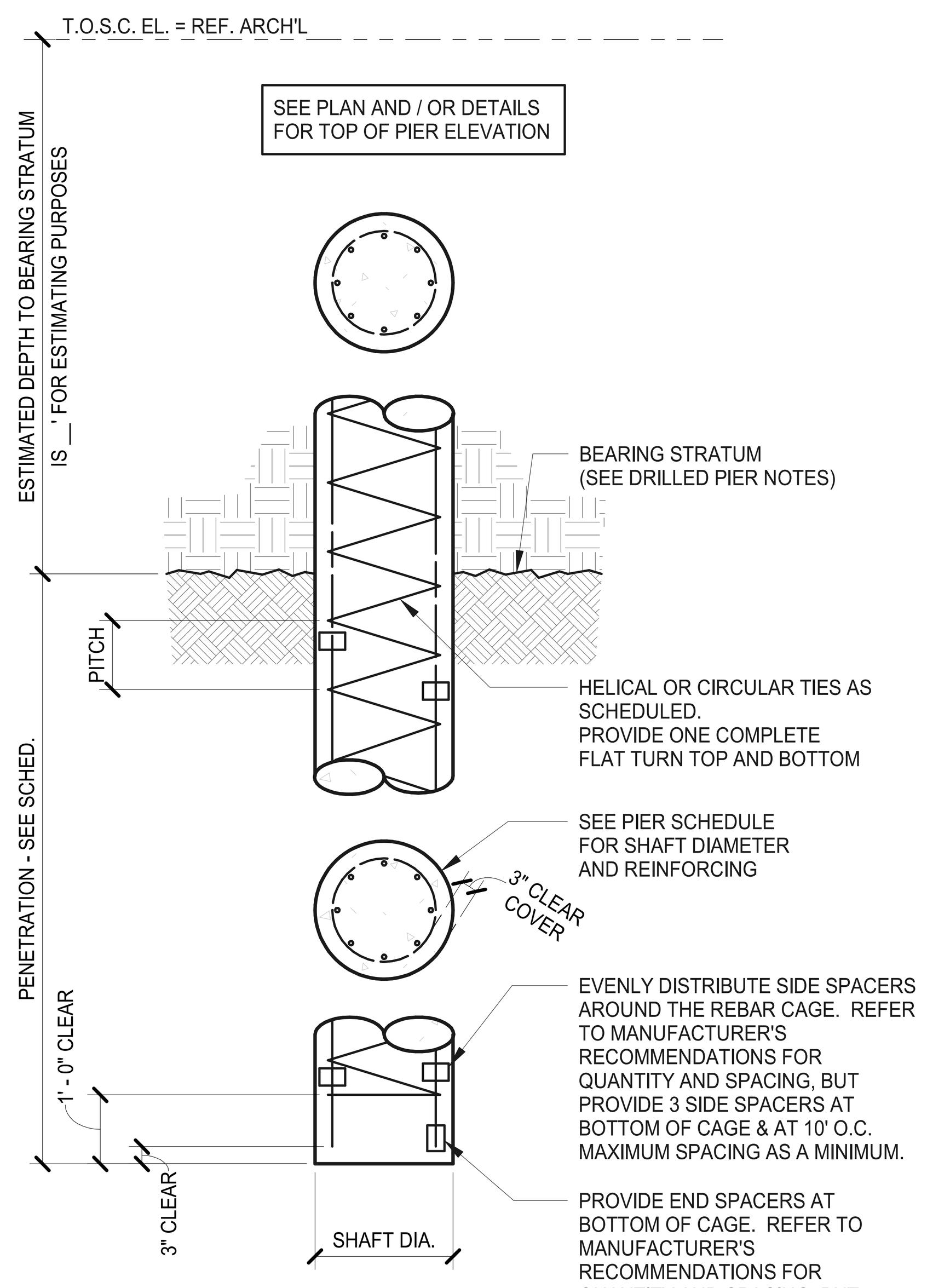
BUILDING PAD NOTES & FOUNDATION DETAILS

S4.1

DRILLED PIER NOTES:

1. PIER DRILLING MUST BE INSPECTED BY THE OWNER'S GEOTECHNICAL ENGINEER. CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER AT LEAST 2 DAYS IN ADVANCE OF DRILLING TO COORDINATE INSPECTION.
2. FOUNDATION DESIGN IS BASED ON AN ALLOWABLE VALUE OF 30,000 POUNDS PER SQUARE FOOT IN END BEARING AND 1,500 POUNDS PER SQUARE FOOT IN SKIN FRICTION IN THE LIGHT BROWN WEATHERED LIMESTONE. IN THE GRAY LIMESTONE, AN ALLOWABLE VALUE OF 40,000 POUNDS PER SQUARE FOOT IN END BEARING AND 1,800 POUNDS PER SQUARE FOOT IN SKIN FRICTION IS USED. THESE VALUES ARE AS RECOMMENDED IN THE SOIL REPORT, PREPARED BY KLEINFELDER, DATED JANUARY 14, 2019.
3. BEARING STRATUM SHOWN ON THE PIER DETAILS IS LIGHT BROWN WEATHERED LIMESTONE.
4. DISTRIBUTION OF THE VARIOUS PIER TYPES IS INDICATED ON THE PIER PLAN.
5. PIER SIZES, REINFORCING, AND DEPTHS ARE SHOWN IN THE PIER SCHEDULE ON SHEET S4.2.
6. THE CONTRACTOR SHALL VERIFY DEPTHS OF PIERS BEFORE PIER STEEL IS CUT. PIER STEEL SHALL BE DELIVERED TO THE JOBSITE IN STANDARD STOCK LENGTHS AND CUT AS REQUIRED BY THE ACTUAL FIELD MEASURED DEPTH OF THE PIER. SPLICES IN VERTICAL REINFORCING SHALL BE 22 BAR DIAMETERS, AND REINFORCING SHALL EXTEND TO 3 INCHES FROM BOTTOM OF HOLE, UNLESS SHOWN OTHERWISE.
7. THE CONTRACTOR SHALL TAKE ACCURATE MEASUREMENTS OF THE DEPTH OF PENETRATION INTO THE BEARING STRATUM, TO BE ASSURED OF CONFORMANCE WITH THE DEPTH OF PENETRATION REQUIRED BY THE PIER SCHEDULE, AND SUBMIT A REPORT OF DEPTHS OF PENETRATION DRILLED TO THE ENGINEER.
8. REINFORCING STEEL SHOP DRAWINGS SHALL INCLUDE DRAWINGS FOR PLACING OF TEMPLATES TO SET DOWELS IN PIERS.
9. PIER HOLES SHALL BE COMPLETED AND FILLED WITH CONCRETE WITHIN 8 HOURS AFTER THE START OF ANY DRILLING IN THE PENETRATION ZONE.
10. ELEVATION OF TOP OF PIERS, WHERE NOT GIVEN, IS AT THE BOTTOM OF THE DEEPEST INTERSECTING BEAM OR WALL SUPPORTED BY THE PIER. CONTRACTOR SHALL CALCULATE ALL TOP OF PIER ELEVATIONS BEFORE PROCEEDING WITH THE PIER DRILLING OPERATION.
11. REMOVE EXCESS CONCRETE AT THE TOP OF THE PIER BEYOND THE LIMITS OF THE PIER DIAMETER. FORM SIDES OF PIER EXTENSIONS TO THE SAME DIAMETER AS SHAFT BELOW, AVOIDING OVERHANGS IN EXPANSIVE CLAY. USE SUREVOID COMMERCIAL SURETOP OR SONOTUBE COLLAR FORMS AT TOP OF EACH HOLE TO MAINTAIN SHAPE.
12. DRILL PIERS AFTER ALL SOIL TREATMENT, FILLING, AND COMPACTION HAVE BEEN COMPLETED IN THE AREA TO BE DRILLED. DISTURBED AREAS SHALL BE RECOMPACTED.
13. CONTRACTOR SHALL PROVIDE ADDITIONAL PIER REINFORCING STEEL (CIRCULAR TIES, HELICAL TIES, AND/OR VERTICAL REINFORCING), AS REQUIRED TO FACILITATE PLACEMENT OF THE REINFORCING CAGE WITHOUT BUCKLING, COLLAPSING OR EXCESSIVE DEFLECTION.
14. PIERS SHALL NOT BE LARGER THAN THE DIAMETER SHOWN (PLUS 2-INCH TOLERANCE) IN ORDER TO LIMIT SURFACE AREA IN CONTACT WITH EXPANSIVE CLAY.
15. WHERE TWO PIERS ARE CLOSER TOGETHER THAN 1.5 TIMES THE DIAMETER OF THE LARGER PIER (CLEAR DISTANCE), WAIT AT LEAST 24 HOURS AFTER CASTING THE FIRST PIER BEFORE DRILLING THE SECOND.

6



DRILLED PIER
TYPICAL DETAIL
NO SCALE

7

PIER SCHEDULE

MARK	SHAFT DIAMETER	VERTICAL BARS	HELICAL TIES	PENETRATION	CAPACITY
P1	24"	SEE SCHEDULE	SEE SCHEDULE	13'-0	113K
P2	24"	SEE SCHEDULE	SEE SCHEDULE	15'-0	113K

3

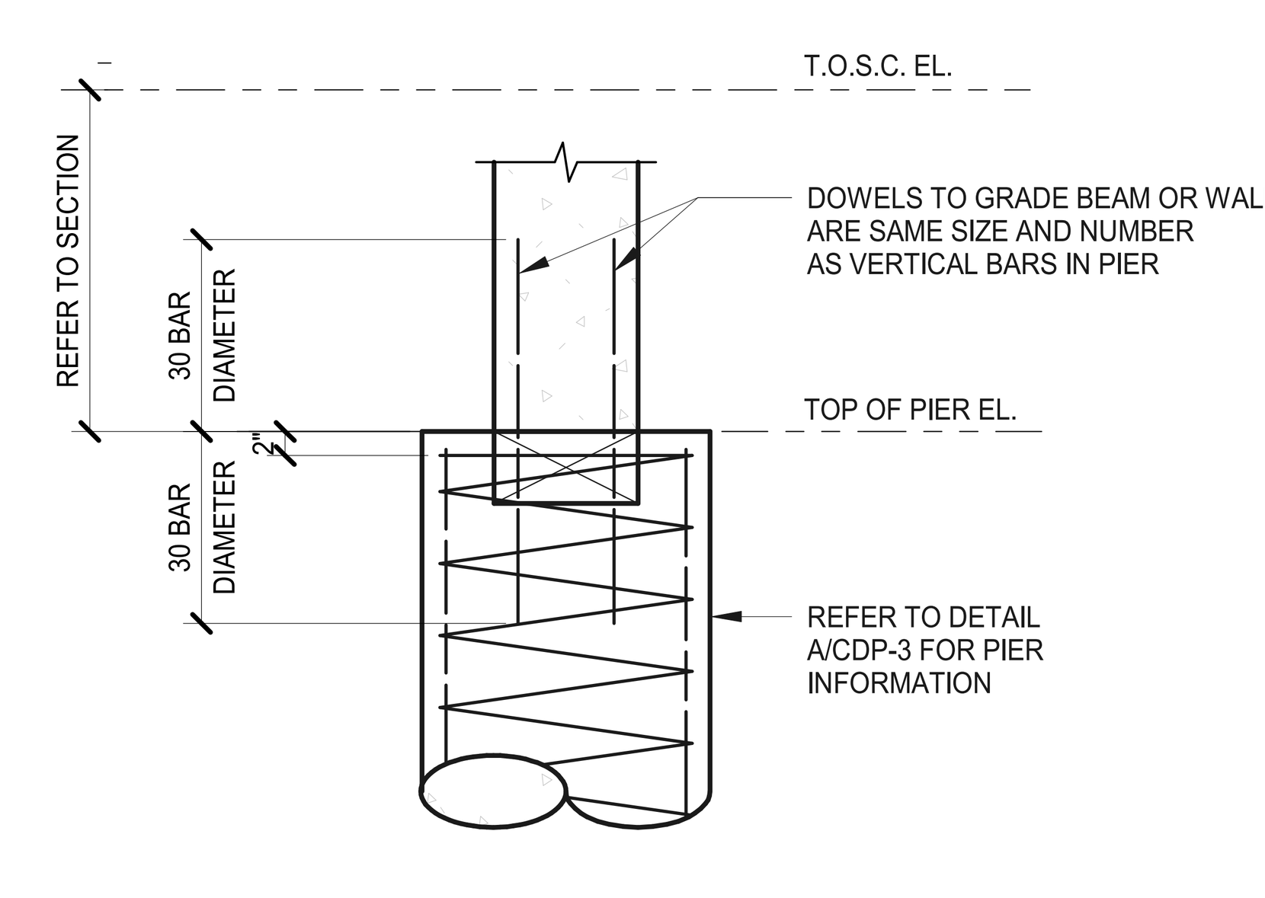
NOTE: CIRCULAR TIES THUS: (BAR LAP) MAY BE USED IN LIEU OF HELICAL TIES. BAR SIZE WILL REMAIN THE SAME. SPACING OF THE TIES SHALL BE 12" O.C. BAR LAP SHALL BE 48 BAR DIAMETERS. (PROVIDE 48 BAR DIA. LAP SPLICE)

STANDARD PIER REINFORCING SCHEDULE

SHAFT DIAMETER	VERTICAL BARS	HELICAL TIES
12"	1#9	-
18"	6#5	#3@6
24"	6#6	#3@6
30"	6#7	#3@12
36"	6#9	#3@12
42"	7#9	#4@12
48"	9#9	#4@12
54"	9#10	#4@12
60"	9#11	#5@18
66"	12#11	#5@18
72"	13#11	#5@18

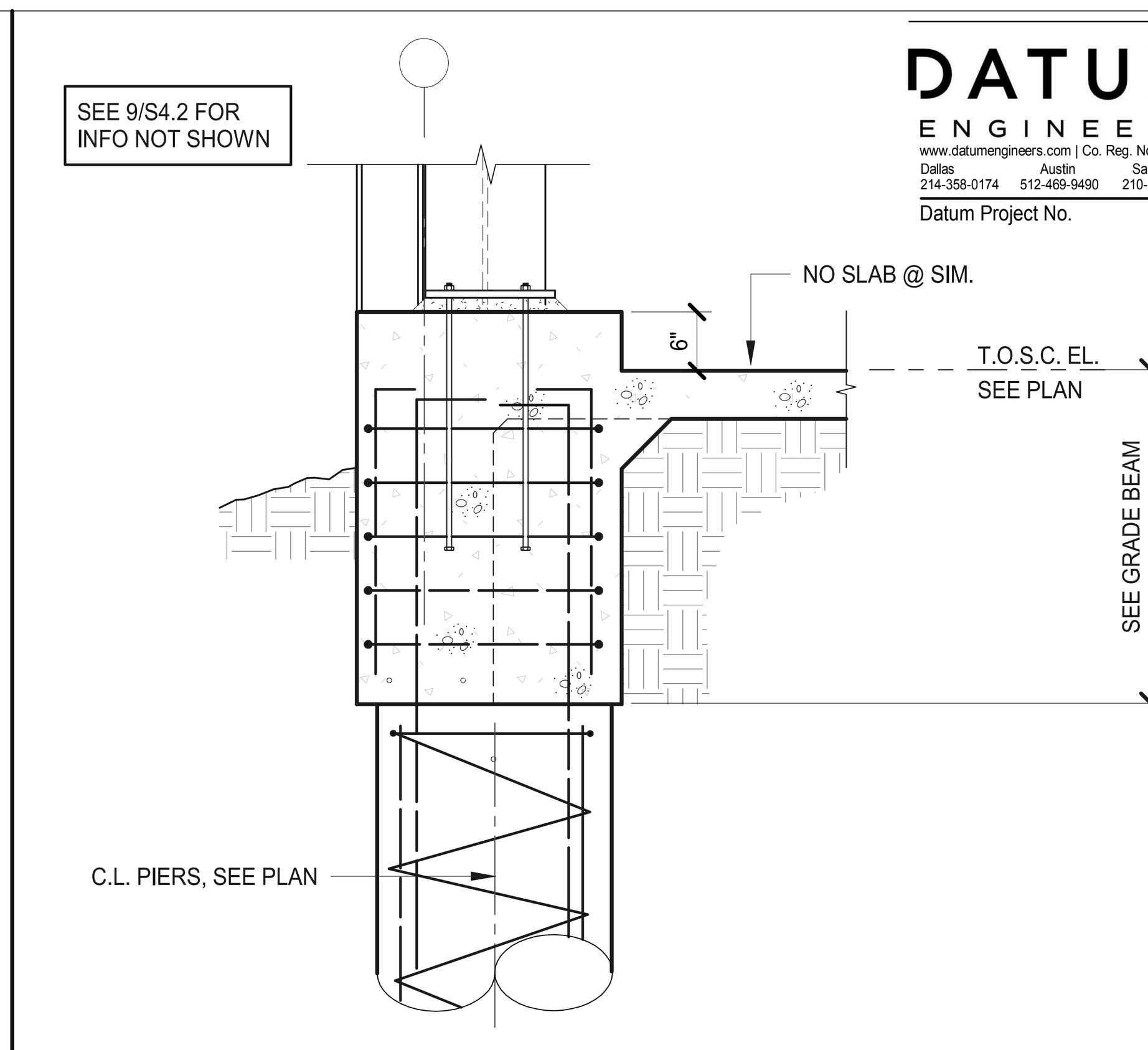
NOTE:
SEE PIER SCHEDULE FOR SIZE OF PIERS USED ON THIS PROJECT.

8



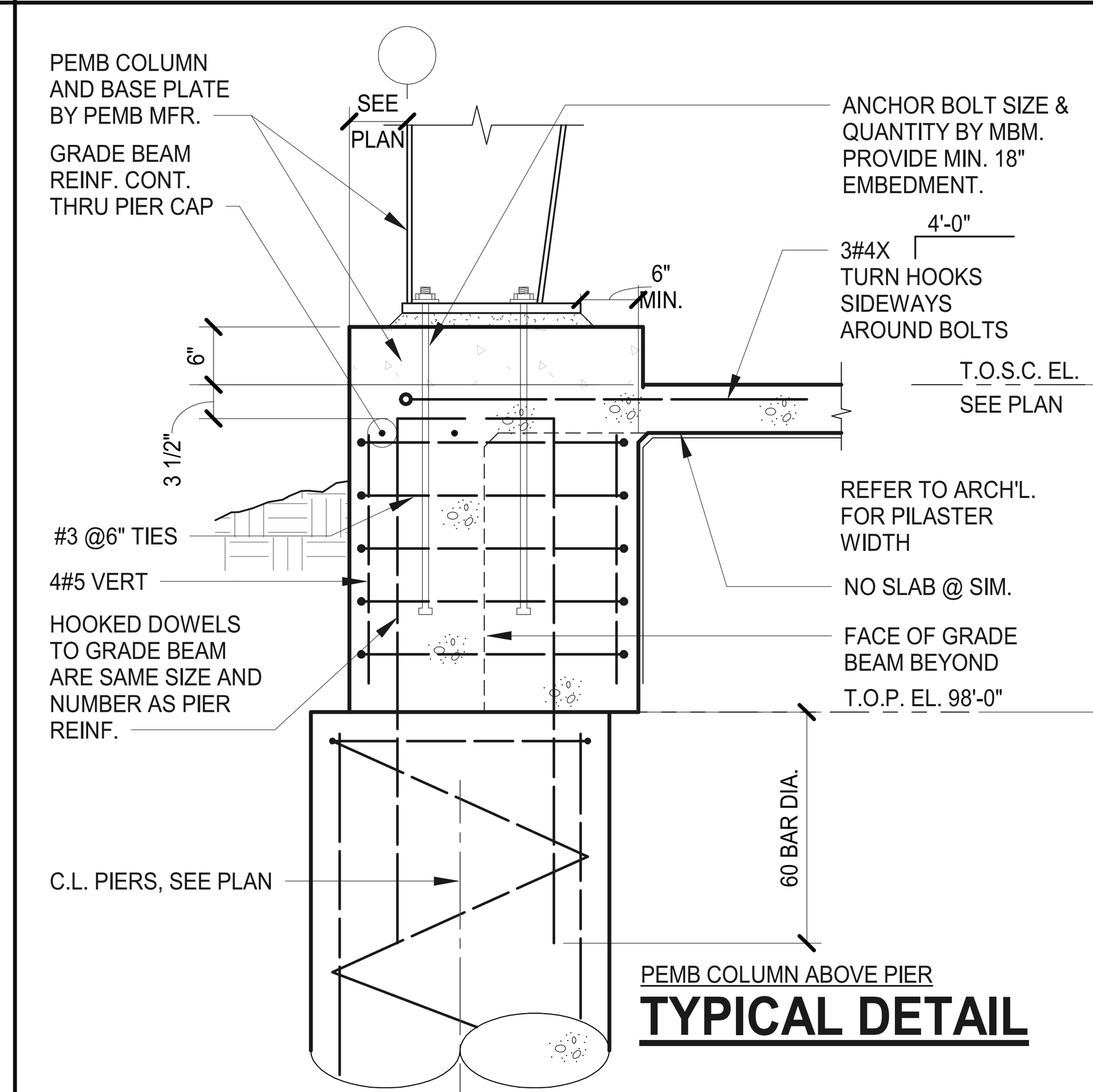
GRADE BEAM OR WALL TO PIER
TYPICAL DETAIL
NO SCALE

4



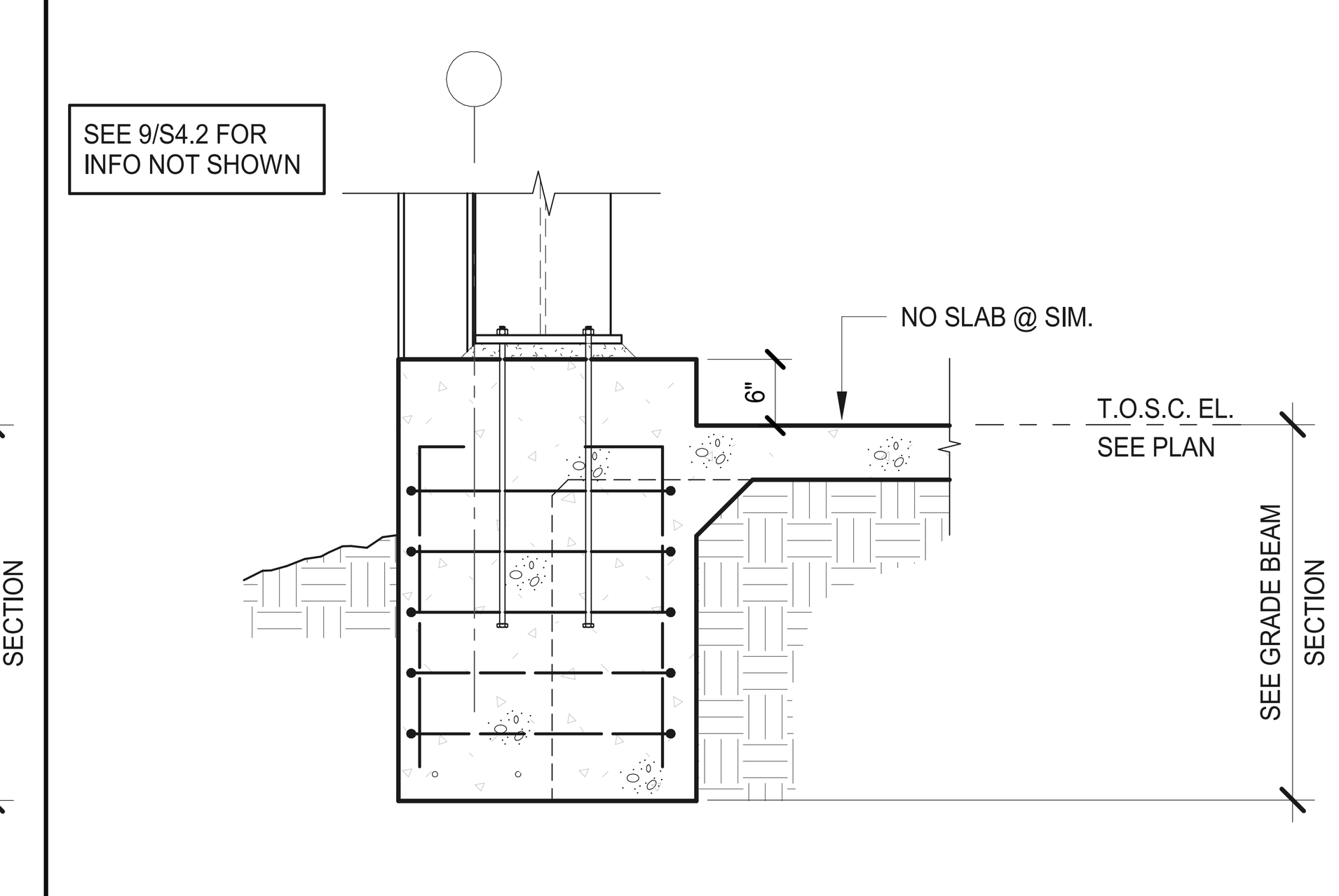
END WALL COLUMN ABOVE PIER

3/4" = 1'-0" 5



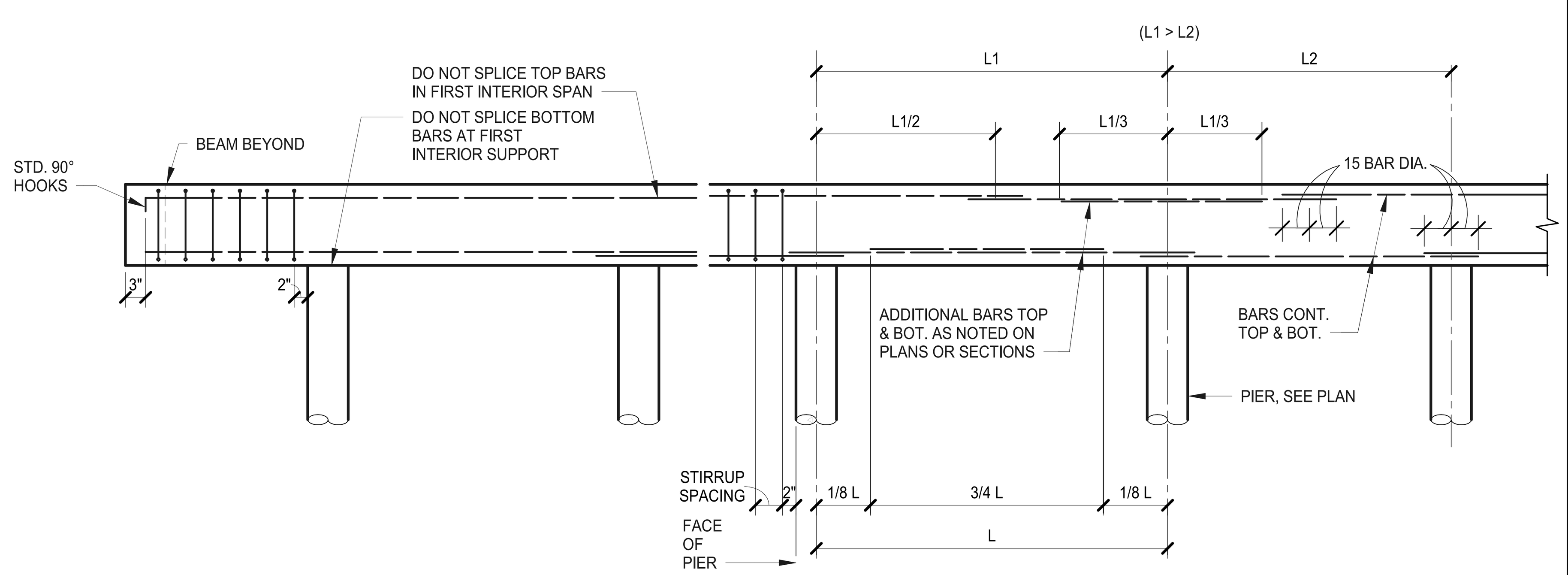
PEMB COLUMN ABOVE PIER
TYPICAL DETAIL

9



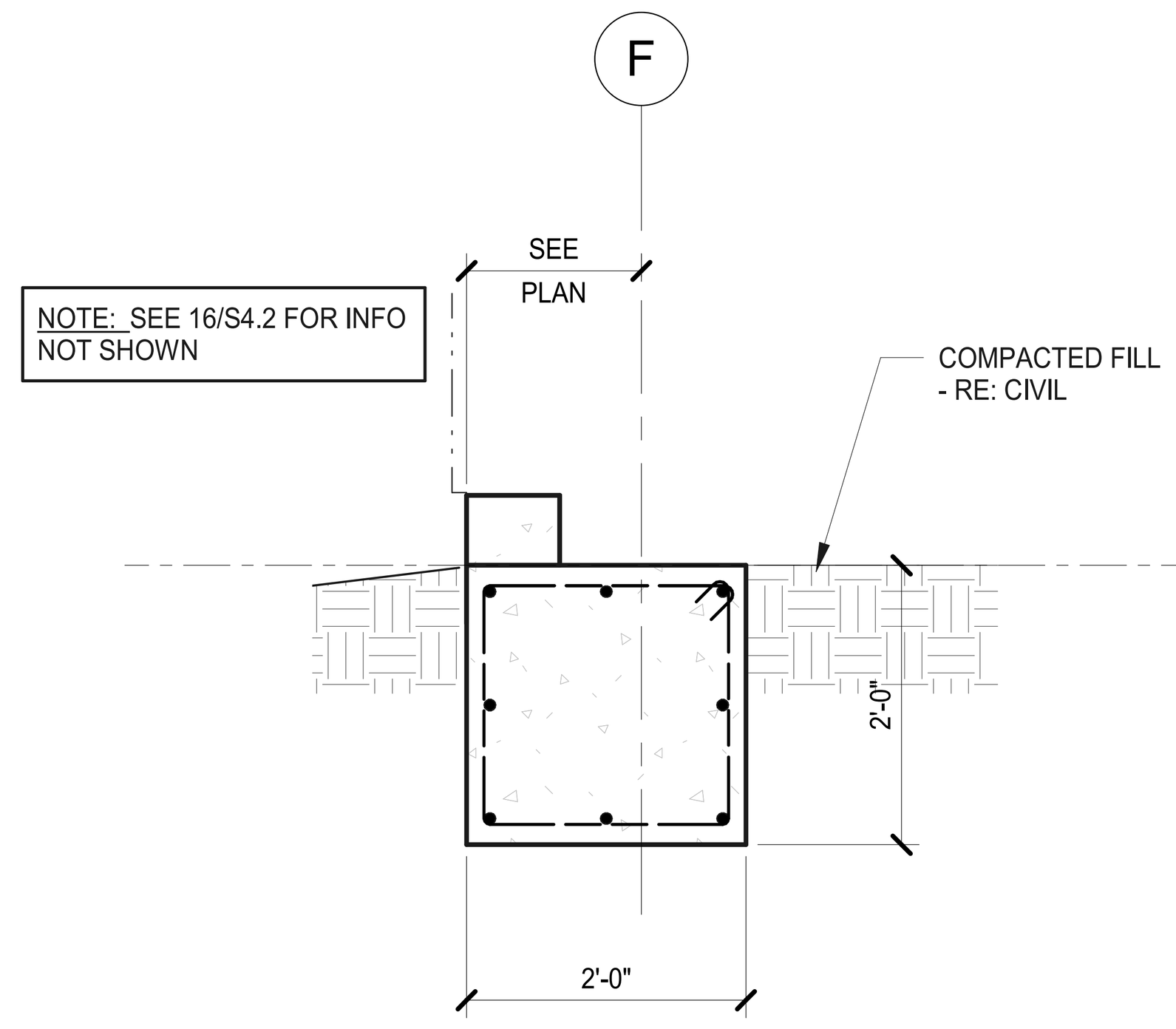
END WALL COLUMN ABOVE GRADE BEAM

3/4" = 1'-0" 10

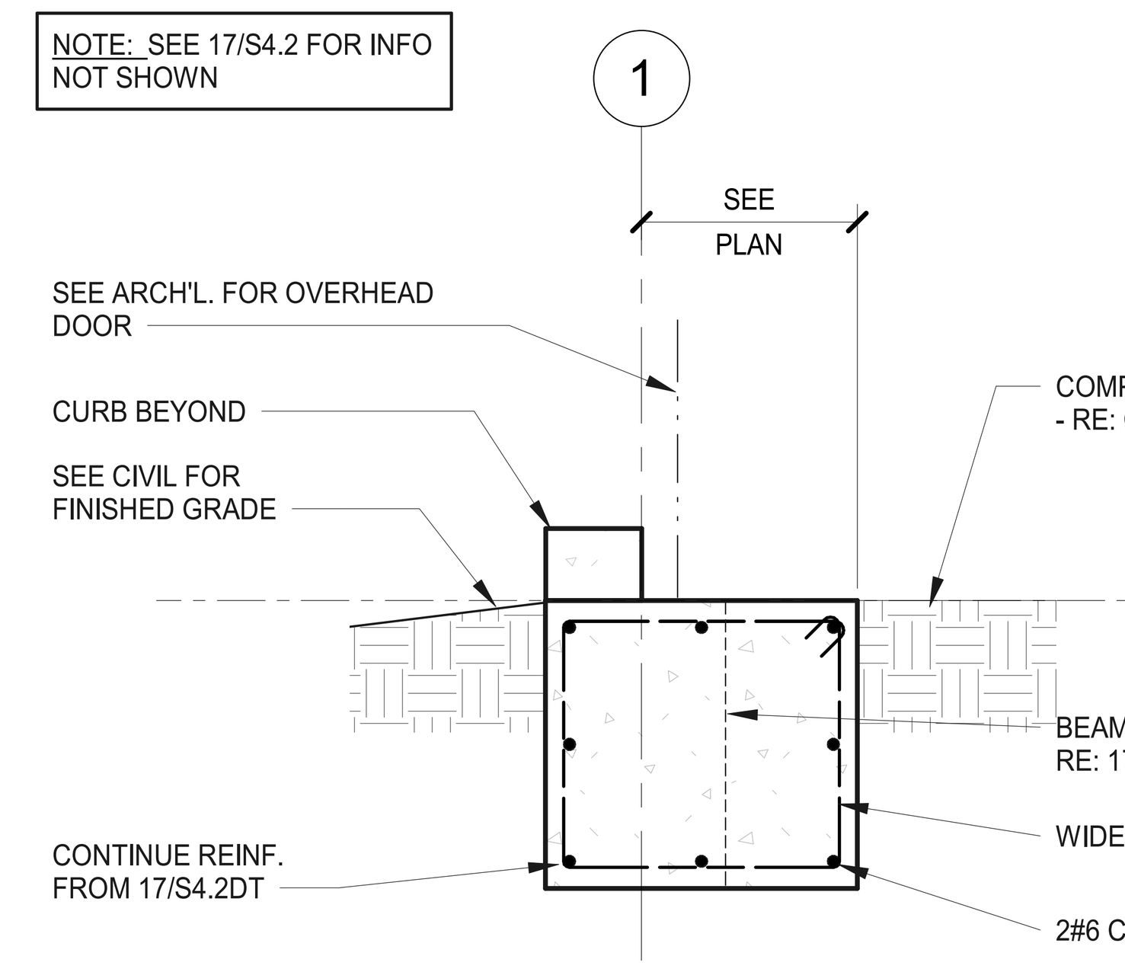


GRADE BEAM ELEVATION
TYPICAL DETAIL
NO SCALE

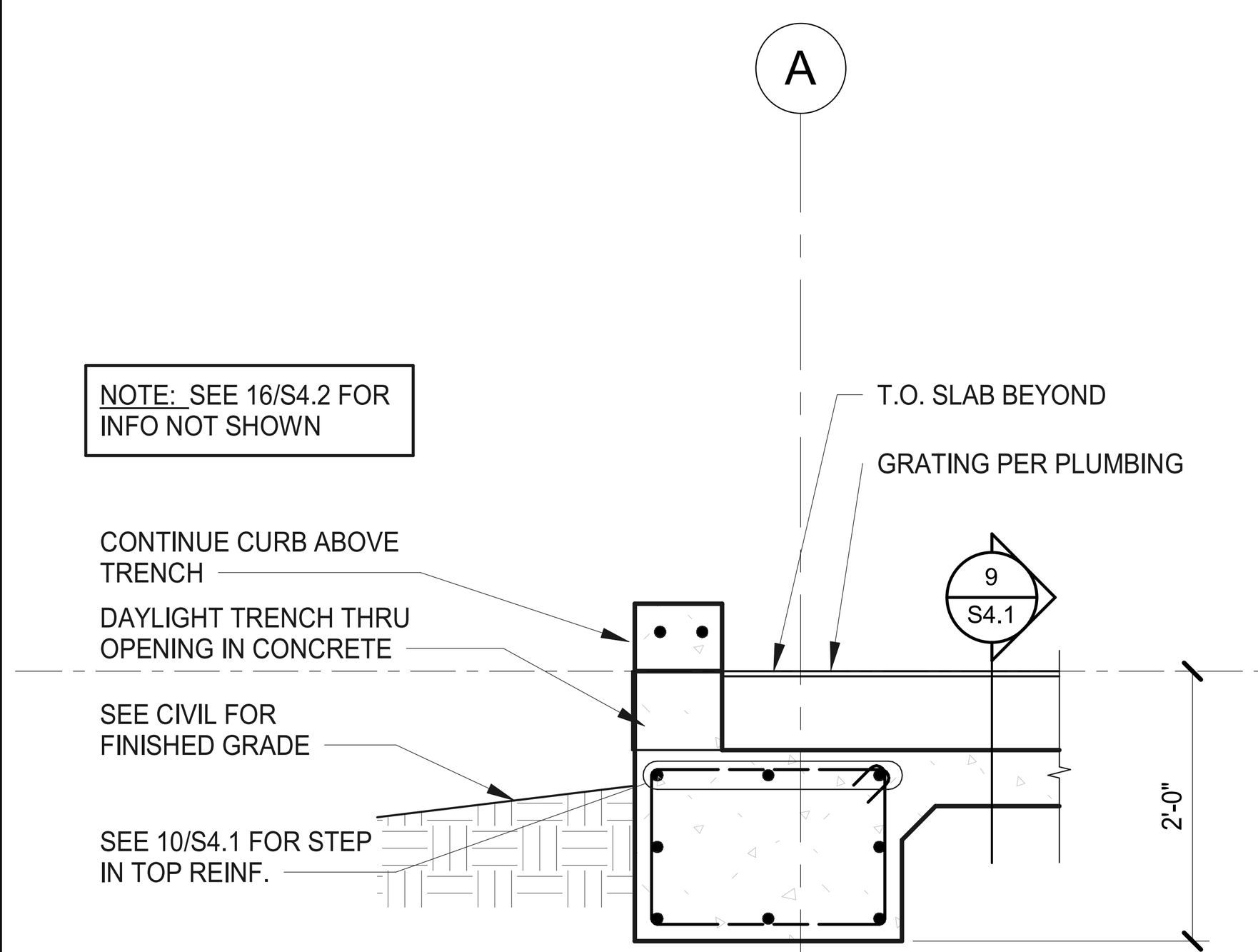
11



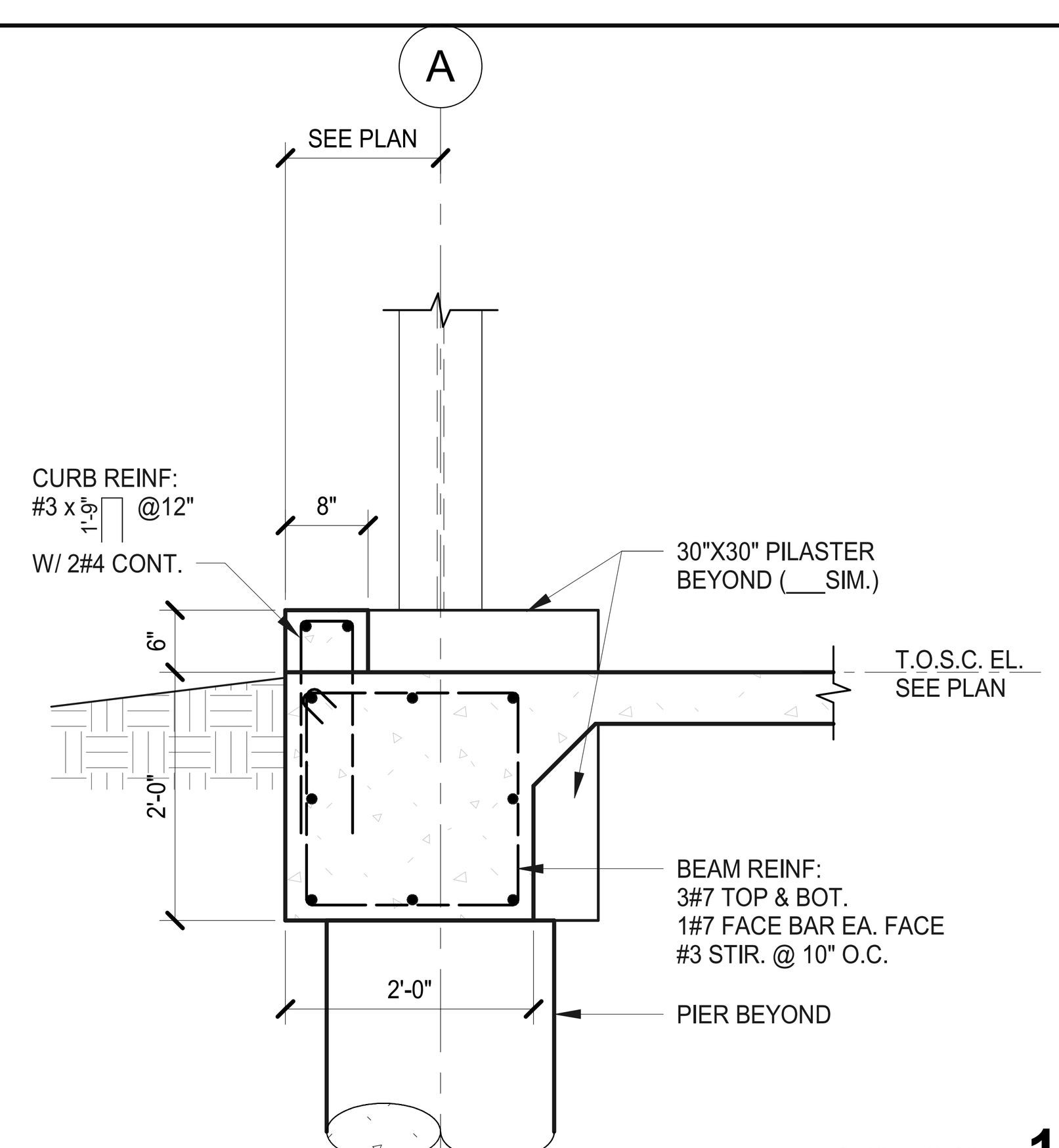
3/4" = 1'-0" 12



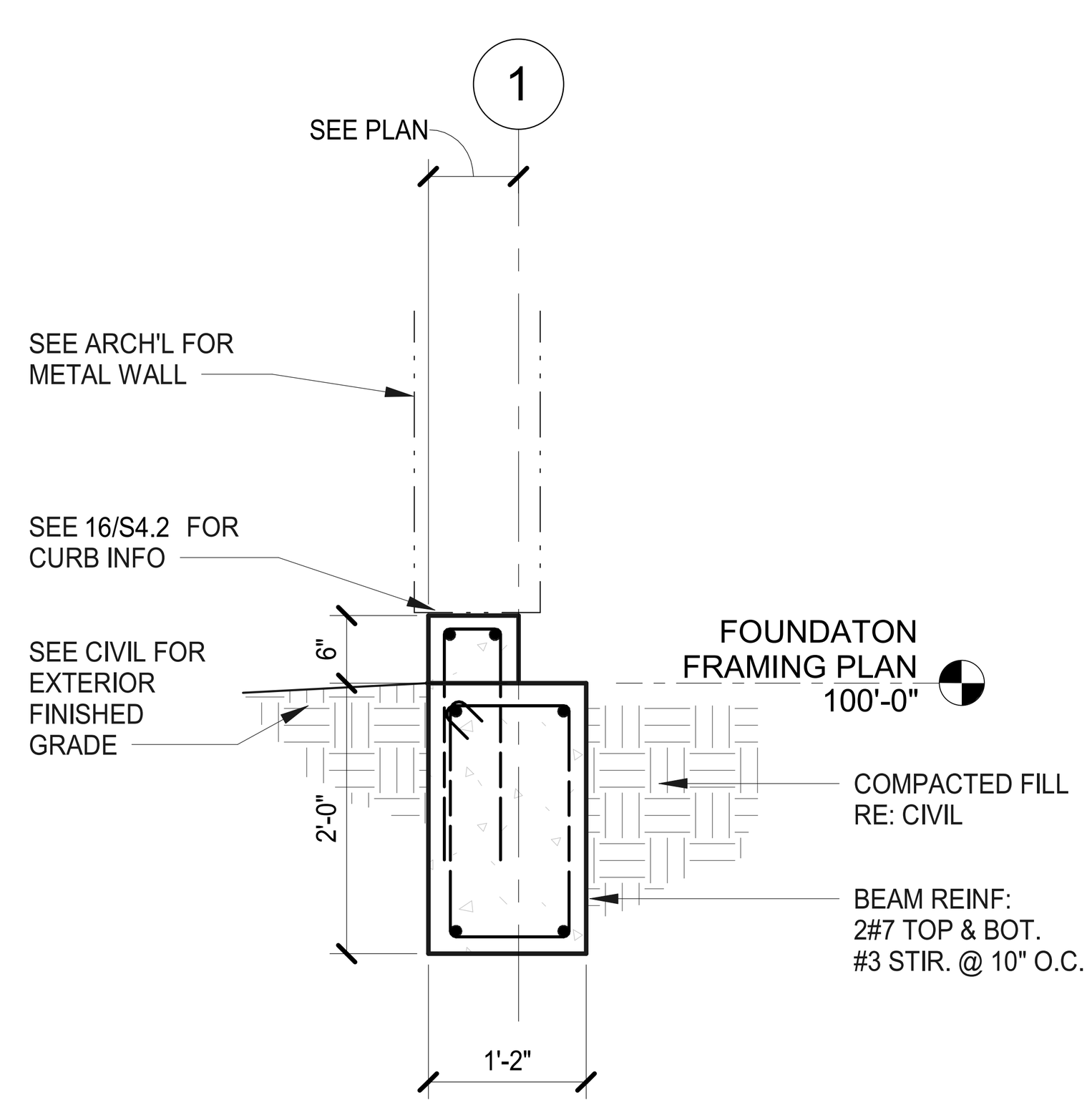
3/4" = 1'-0" 13



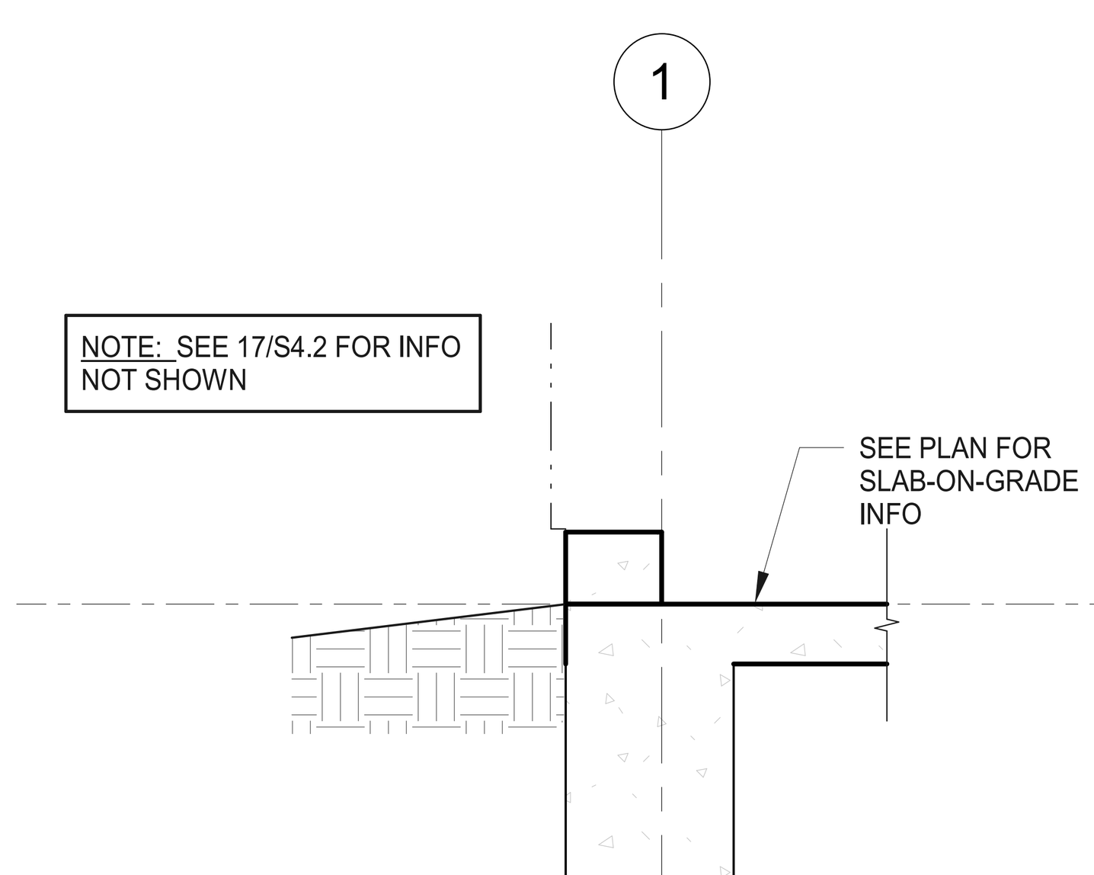
3/4" = 1'-0" 14



3/4" = 1'-0" 16



3/4" = 1'-0" 17



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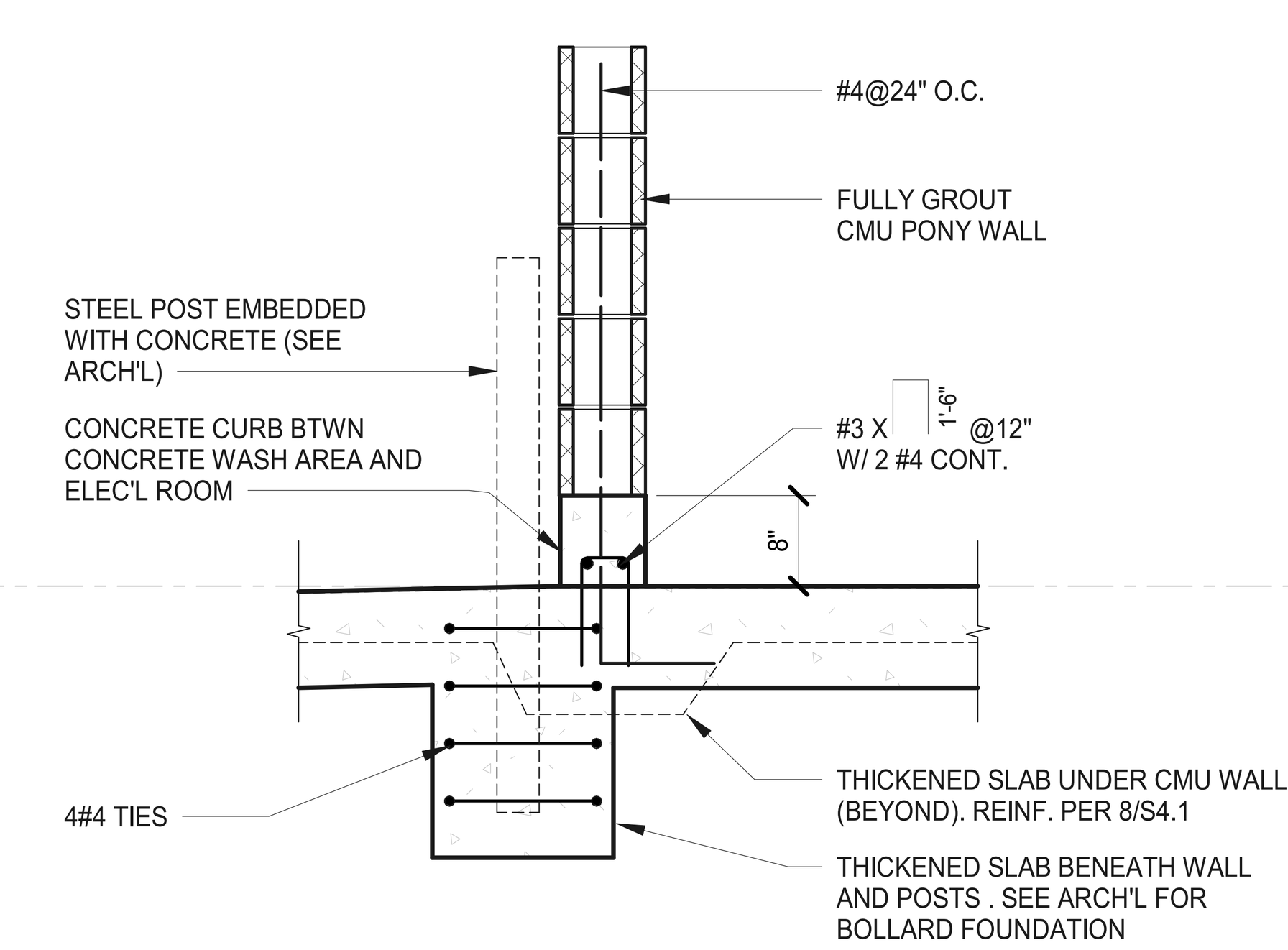

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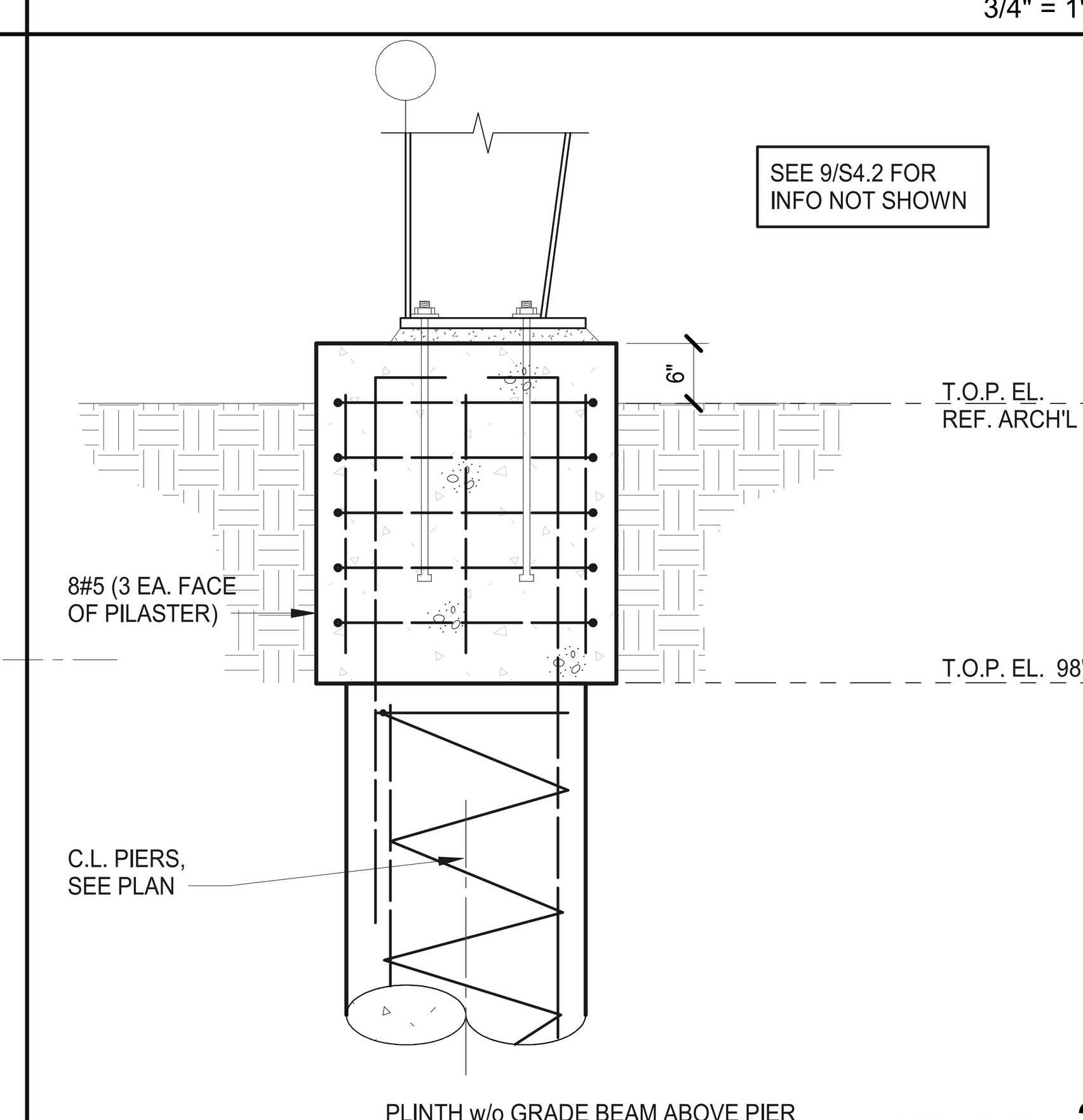


PLINTH w/o GRADE BEAM ABOVE PIER

3/4" = 1'-0" 20

DATUM ENGINEERS
www.datumengineers.com | Co. Reg. No. F-2819
Dallas 214.358.0174 | Austin 512.469.9490 | San Antonio 210.858.2880
Datum Project No. 18088

O'CONNELL ROBERTSON
Austin 811 Barton Springs Road, Suite 900, Austin, Texas 78704 p: 512.478.7286 f: 512.478.7441
San Antonio 4040 Broadway, Suite 300, San Antonio, Texas 78209 p: 210.224.6032 f: 210.224.6453

WIMBERLEY HIGH SCHOOL
AGRICULTURAL BARN
100 CARNEY LN, WIMBERLEY, TX 78676

01/17/2019

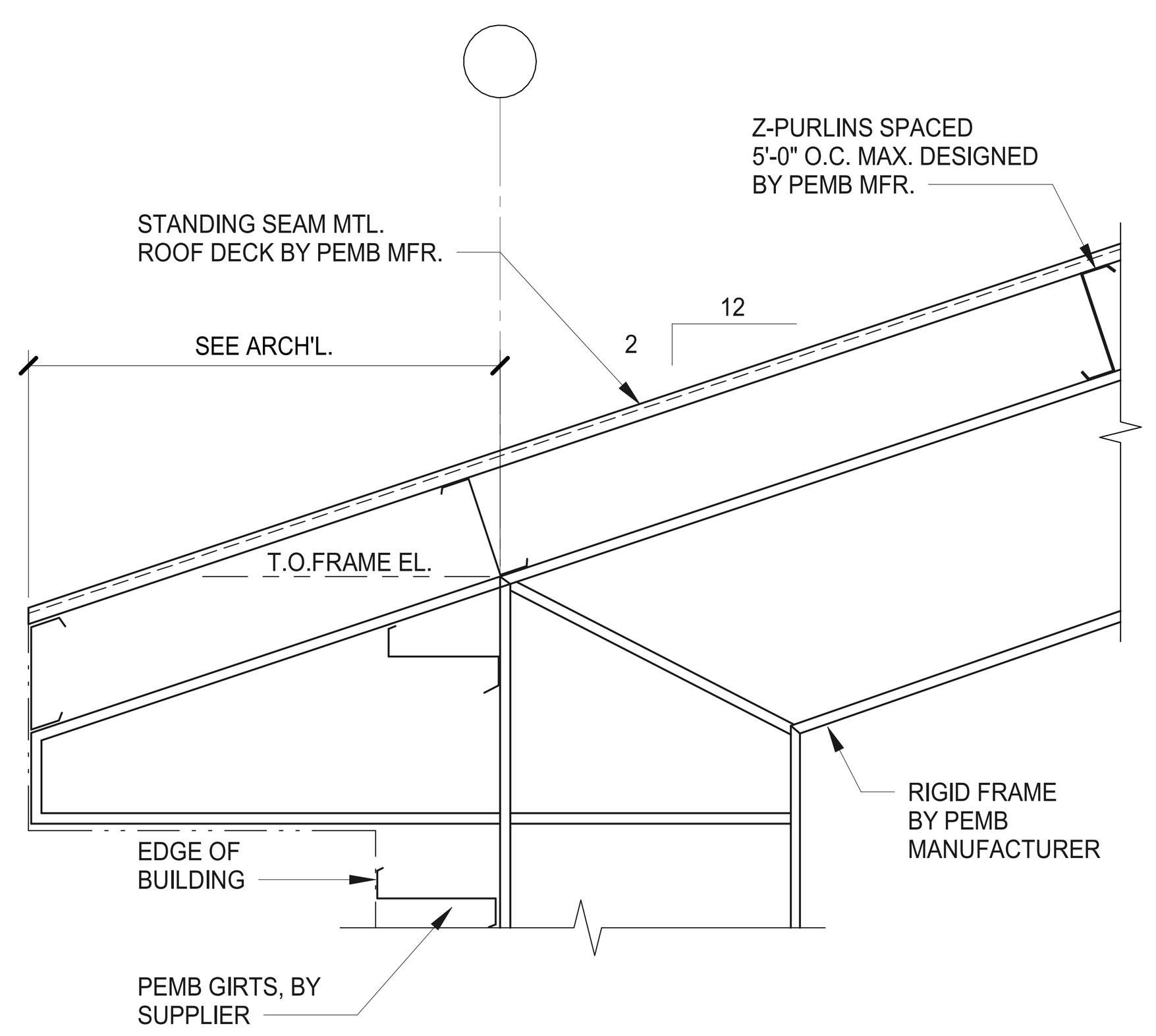
Revisions:

NO.	DESCRIPTION	DATE

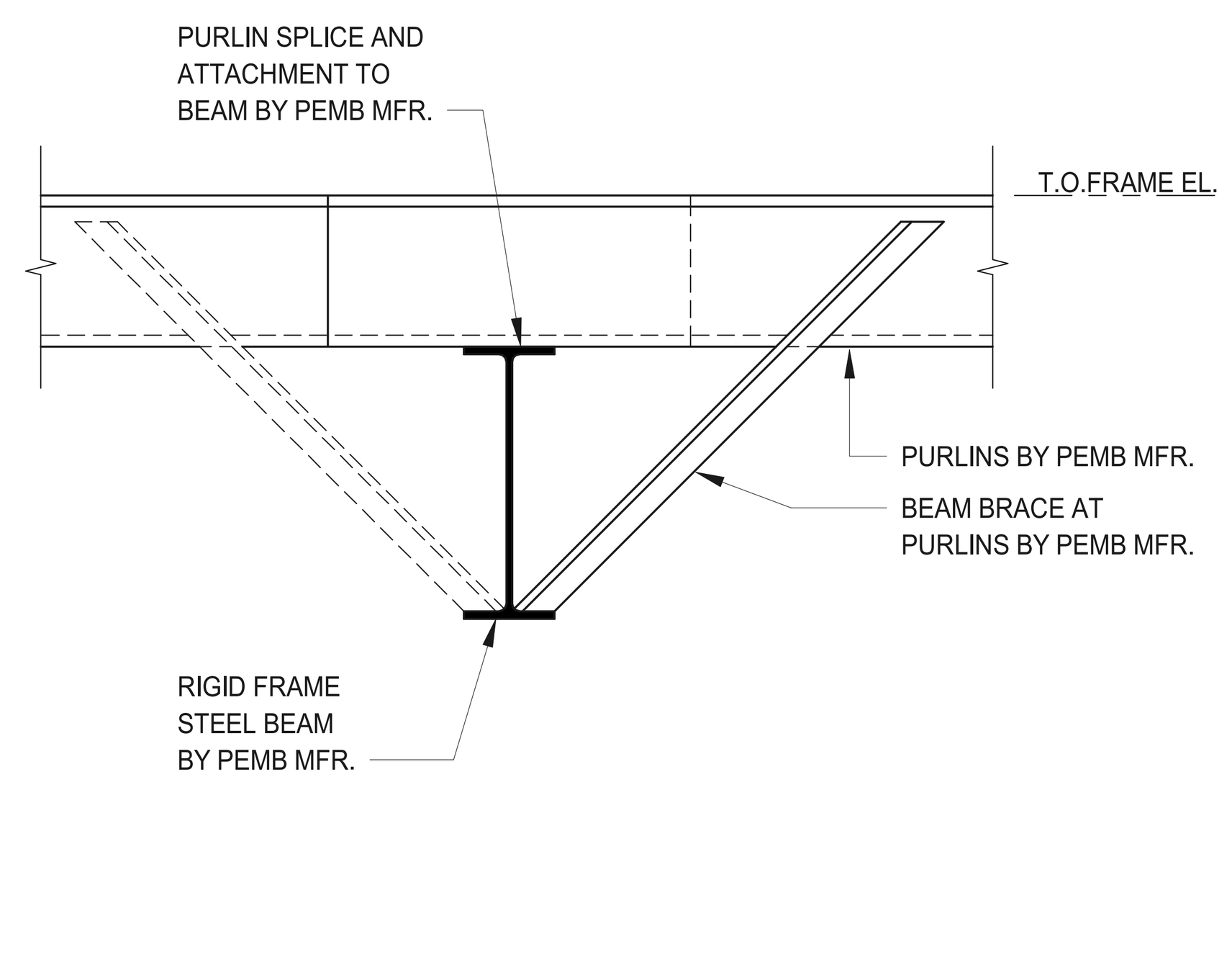
01/17/19
Project No. 1820.05
100% Contract Documents

TYPICAL PIER NOTES & DETAILS

S4.2

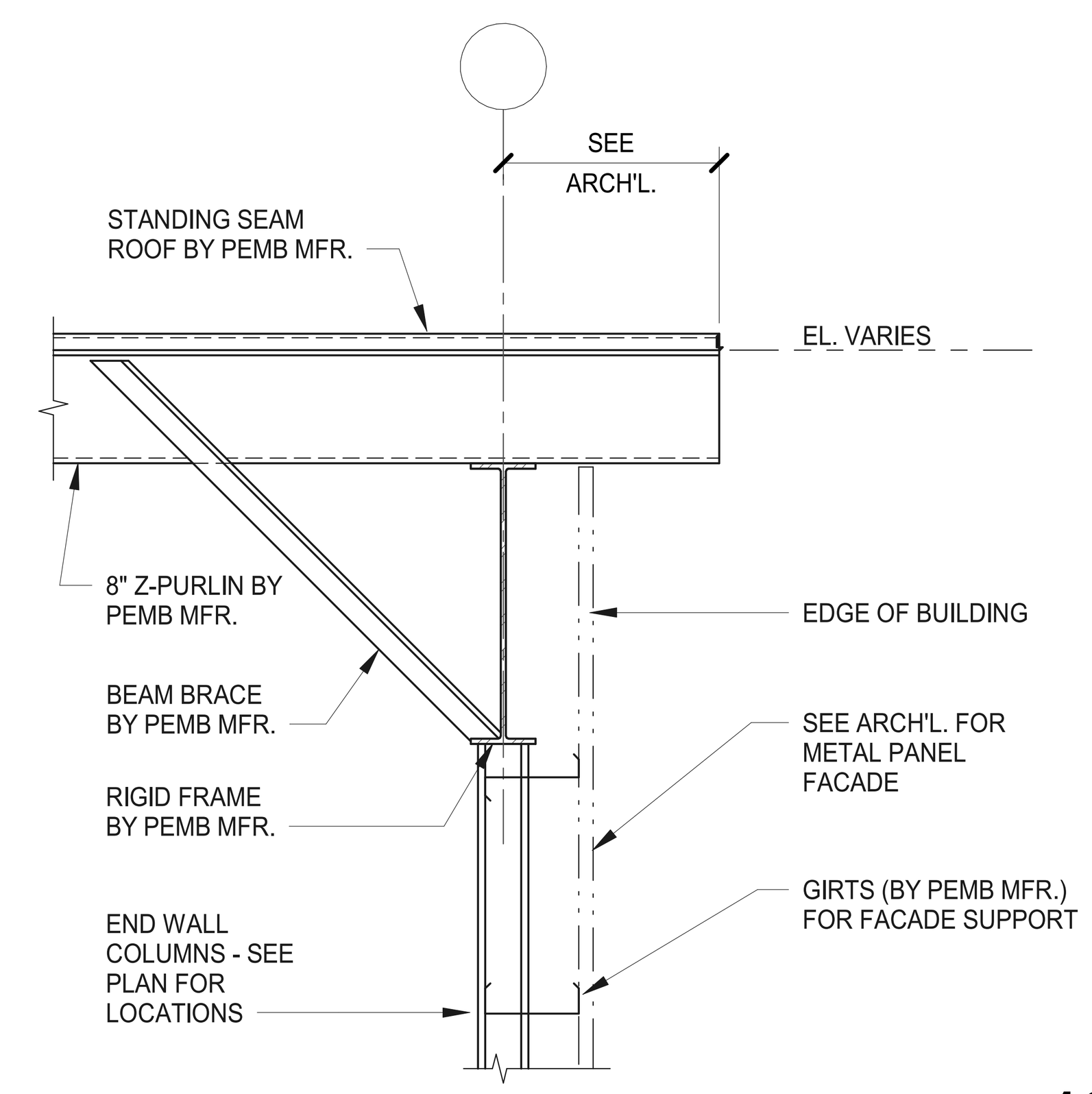


1" = 1'-0" **7**

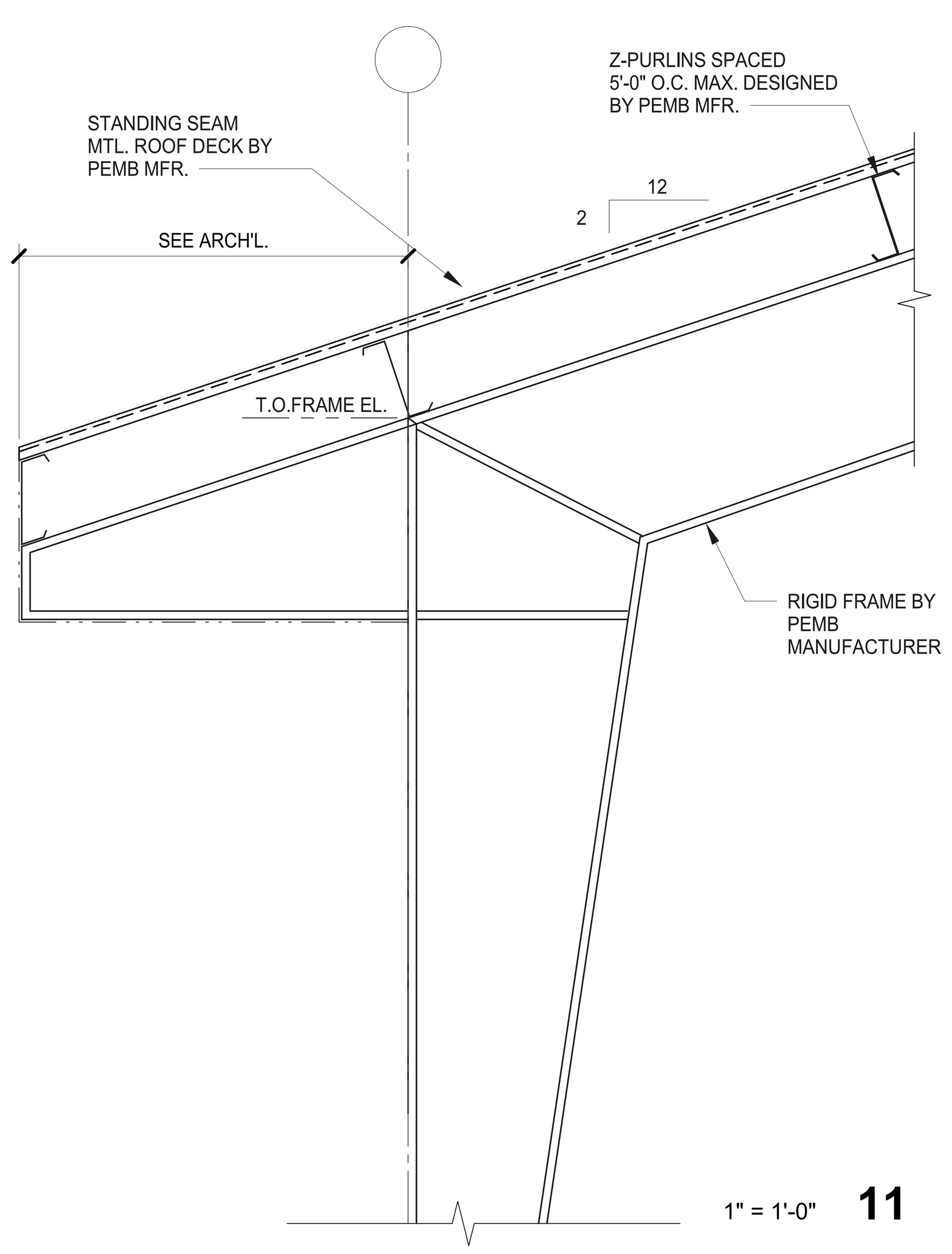


PURLIN BRACE
TYPICAL DETAIL

1" = 1'-0" **8**

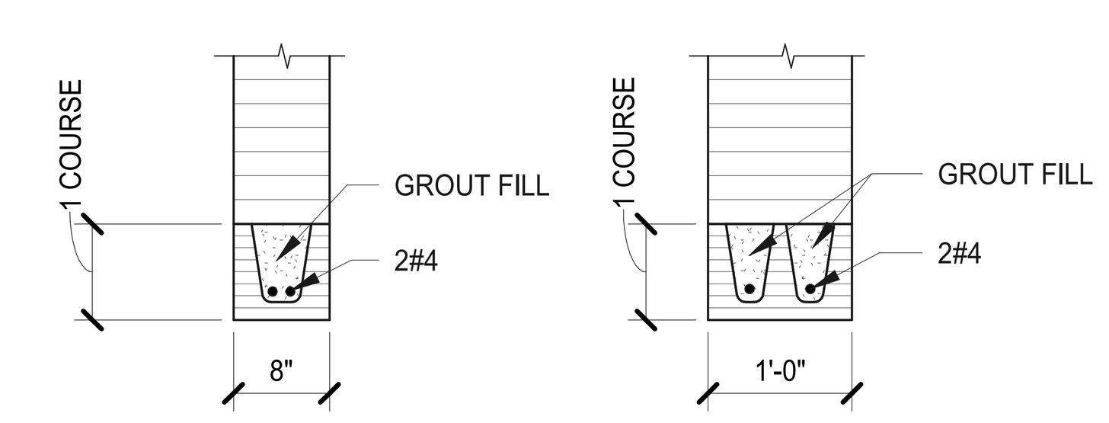


1" = 1'-0" **10**



1" = 1'-0" **11**

NOTES:
1. PROVIDE BLOCK LINTELS FOR ALL OPENINGS IN INTERIOR BLOCK PARTITION.
2. SEE ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.
3. PROVIDE 8" MINIMUM BEARING AT EACH END.
4. LINTEL SHALL REMAIN SHORED UNTIL MASONRY CONSTRUCTION ABOVE HAS CURED A MINIMUM OF 14 DAYS.
5. THIS DETAIL APPLIES TO NON-LOAD BEARING WALLS ONLY.
6. OPENINGS WIDER THAN 5'-0" SHALL HAVE THE FIRST VERTICAL CELL EACH SIDE REINFORCED WITH 1#4 AND GROUTED UP TO THE LINTEL BEARING LEVEL.
7. SEE ARCHITECTURAL DRAWINGS FOR OTHER LOCATIONS OF CONTINUOUS BOND BEAMS



OPENINGS LESS THAN 5'-0" WIDE

LINTEL BLOCKS
TYPICAL DETAIL
NO SCALE

19

C.M.U. WALL AND REINFORCING SCHEDULE

NOMINAL WALL THICKNESS	MAXIMUM HORIZONTAL OR VERTICAL SPAN UN-REINFORCED	ALLOWABLE HEIGHT RANGE WITH REINFORCING	VERT. REINF. IN GROUTED CELLS (TYPICAL)	VERT. REINF. IN GROUTED CELLS (END ZONES)
6"	0' TO 9'-0" #4 @ 48"	9'-1" TO 11'-0"	#4@32"	#4@24"
		11'-1" TO 13'-8"	#5@32"	#5@16"
		13'-9" TO 14'-4"	#5@24"	#4@8"
8"	0' TO 12'-0" #4 @ 48"	12'-1" TO 13'-0"	#5@48"	#5@40"
		13'-1" TO 15'-6"	#6@48"	#6@40"
		15'-7" TO 18'-8"	#6@32"	#7@24"

NOTES:

1. SCHEDULE APPLIES TO ALL NON LOAD-BEARING CMU WALLS.
2. CROSS WALLS AND CORNERS ARE CONSIDERED BRACE POINTS FOR HORIZONTAL SPAN OF UNREINFORCED WALLS IF WALLS ARE TIED TOGETHER WITH HORIZONTAL TRUSS TYPE REINFORCEMENT.
3. REFER TO DETAILS FOR BRACING AT TOP OF WALLS. CONTRACTOR SHALL PROVIDE TEMPORARY WALL BRACING UNTIL PERMANENT BRACING CONDITIONS HAVE BEEN COMPLETED.
4. IN REINFORCED WALLS WHERE OPENINGS ARE NO WIDER THAN TWICE THE SPACING OF THE SCHEDULED REINFORCING, PLACE TWO BARS OF THE SCHEDULED SIZE IN THE FIRST CELL ADJACENT TO THE OPENING ON EACH SIDE OF THE OPENING. WHERE OPENINGS ARE WIDER THAN TWO TIMES THE SPACING OF THE SCHEDULED REINFORCING, REFER TO THE ARCHITECT FOR INSTRUCTIONS.
5. PROVIDE FOUNDATION DOWELS TO MATCH MASONRY WALL REINFORCEMENT. DOWELS SHALL EXTEND A MINIMUM OF 60 BAR DIAMETERS ABOVE AND 30 BAR DIAMETERS BELOW TOP OF FOUNDATION. DOWELS FOR INTERIOR WALLS MAY BE DRILLED AND GROUTED IN CLEAN HOLES. SEE GENERAL NOTES.
6. REFER TO SPECIFICATIONS FOR MASONRY AND MORTAR TYPES AND STRENGTHS.

CMU WALL AND REINFORCING SCHEDULE
TYPICAL DETAIL

20

DATUM ENGINEERS
Datum Project No. 18088

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WIMBERLEY HIGH SCHOOL
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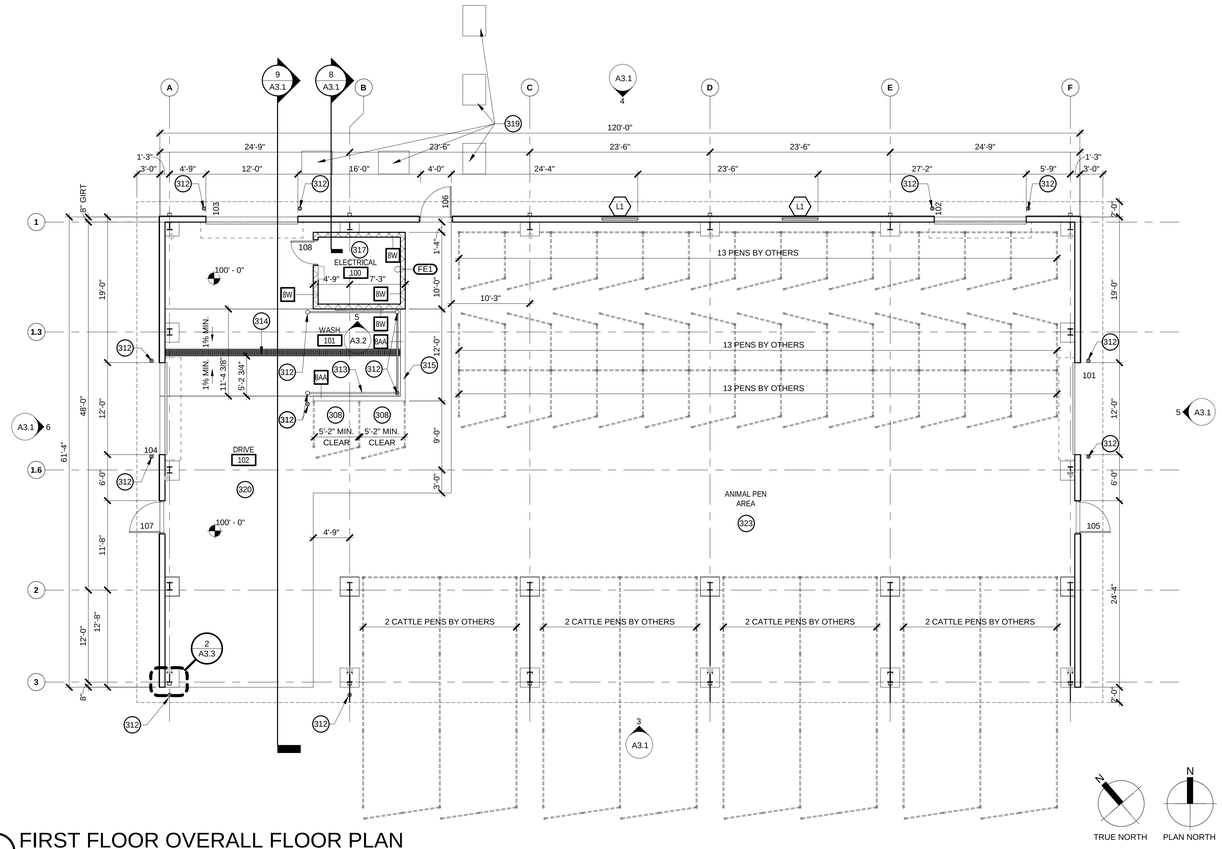
PEMB SECTIONS & DETAILS

S5.1

1/17/2019 1:15:45 PM



1 FIRST FLOOR OVERALL FLOOR PLAN

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

KEYNOTE LEGEND

303 PRE-FINISHED METAL PANEL WALL SYSTEM.

304 PRE-FINISHED METAL ROOFING SYSTEM.

305 FIXED LOUVER.

306 PRE-FINISHED METAL GUTTER

308 ADA ACCESSIBLE PEN AREA. PEN BY OTHERS.

310 CONTINUOUS RIDGE VENT

311 PRE-FINISHED 3" X 4" METAL DOWNSPOUT. CONNECT TO UNDERGROUND STORM DRAIN SYSTEM. REFER TO CIVIL FOR CONTINUATION.

312 BOLLARD, TYP. REFER TO 1/A3.3

313 2" DIAM. SCHEDULE 40 GALVANIZED PIPE

314 TRENCH DRAIN REFER TO DETAIL 4/A3.3. SLOPE TO EXTERIOR WALL. REFER TO CIVIL FOR CONTINUATION.

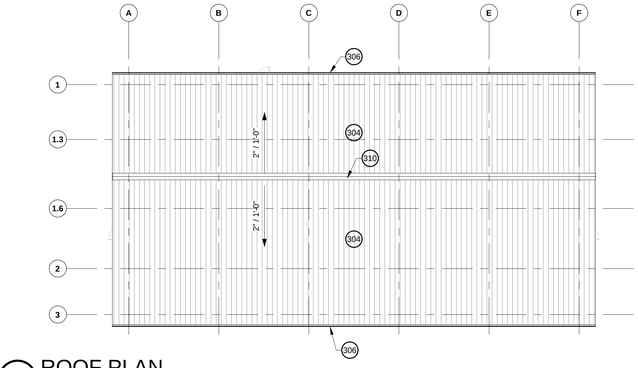
315 4" CMU CAP. SIM TO BORAL CONCRETE BEVELED SILL.

317 PROVIDE 3/4" FRT PLYWOOD FOR ELECTRICAL PANEL BACKBOARDS THIS ROOM.

319 LIMESTONE BLOCKS 1.5' H X 3' W X 4' L, SPACED WITH 6 FT WIDE OPENINGS BETWEEN BLOCKS.

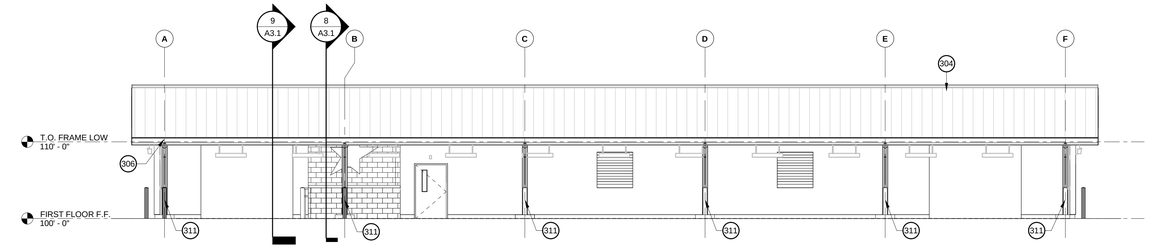
320 MOISTURE CURE FINISH WITH ANTI-SLIP ADDITIVE IN WASH AREA AND DRIVE.

323 ANIMAL PEN AREA FLOOR MATERIALS- PREPARE AREA PER STRUCTURAL NOTES ON BUILDING PAD PREPARATION AND GEOTECHNICAL REQUIREMENTS. PROVIDE A MINIMUM OF 8" CONCRETE SAND OVER A CRUSHED LIMESTONE BASE MATERIAL.



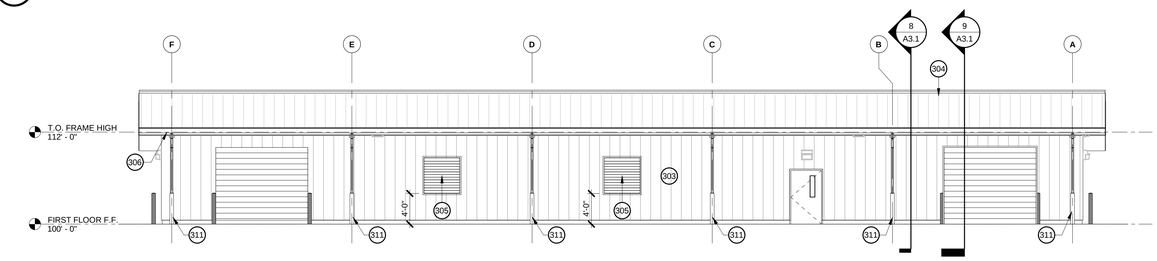
2 ROOF PLAN

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



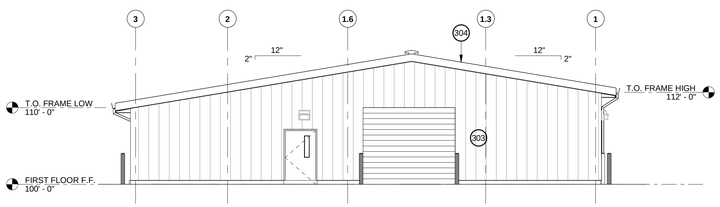
3 SOUTH EXTERIOR ELEVATION

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



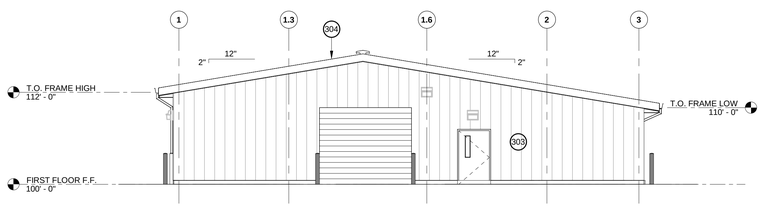
4 NORTH EXTERIOR ELEVATION

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



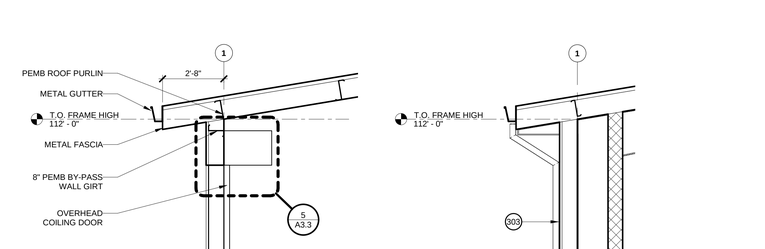
5 EAST EXTERIOR ELEVATION

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



6 WEST EXTERIOR ELEVATION

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

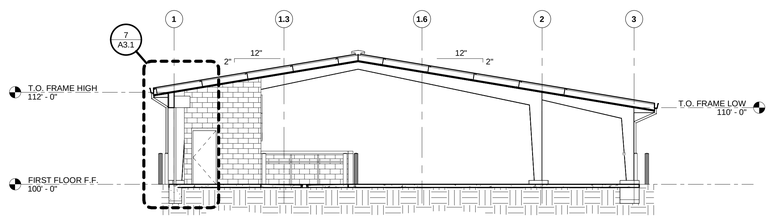


7 WALL SECTION

SCALE: 3/8" = 1'-0"

8 WALL SECTION

SCALE: 3/8" = 1'-0"



9 BUILDING SECTION

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

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Austin 811 Barton Springs Road, Suite 900, Austin, Texas 78704 t: 512.478.7284 f: 512.478.7441
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WIMBERLEY INDEPENDENT SCHOOL DISTRICT
AGRICULTURAL BARN

100 CARNEY LN, WIMBERLEY, TX 78676

1/18/2019

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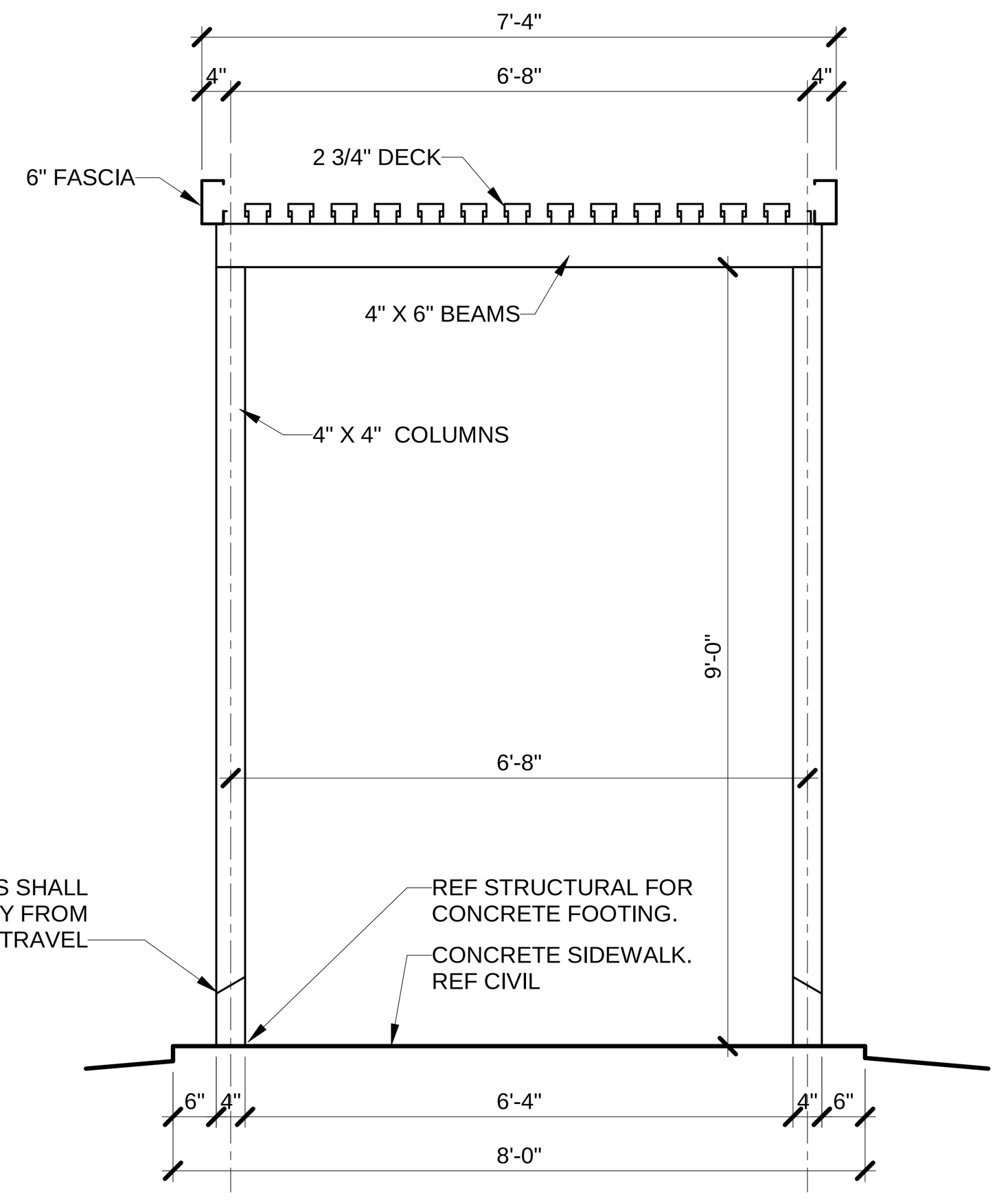
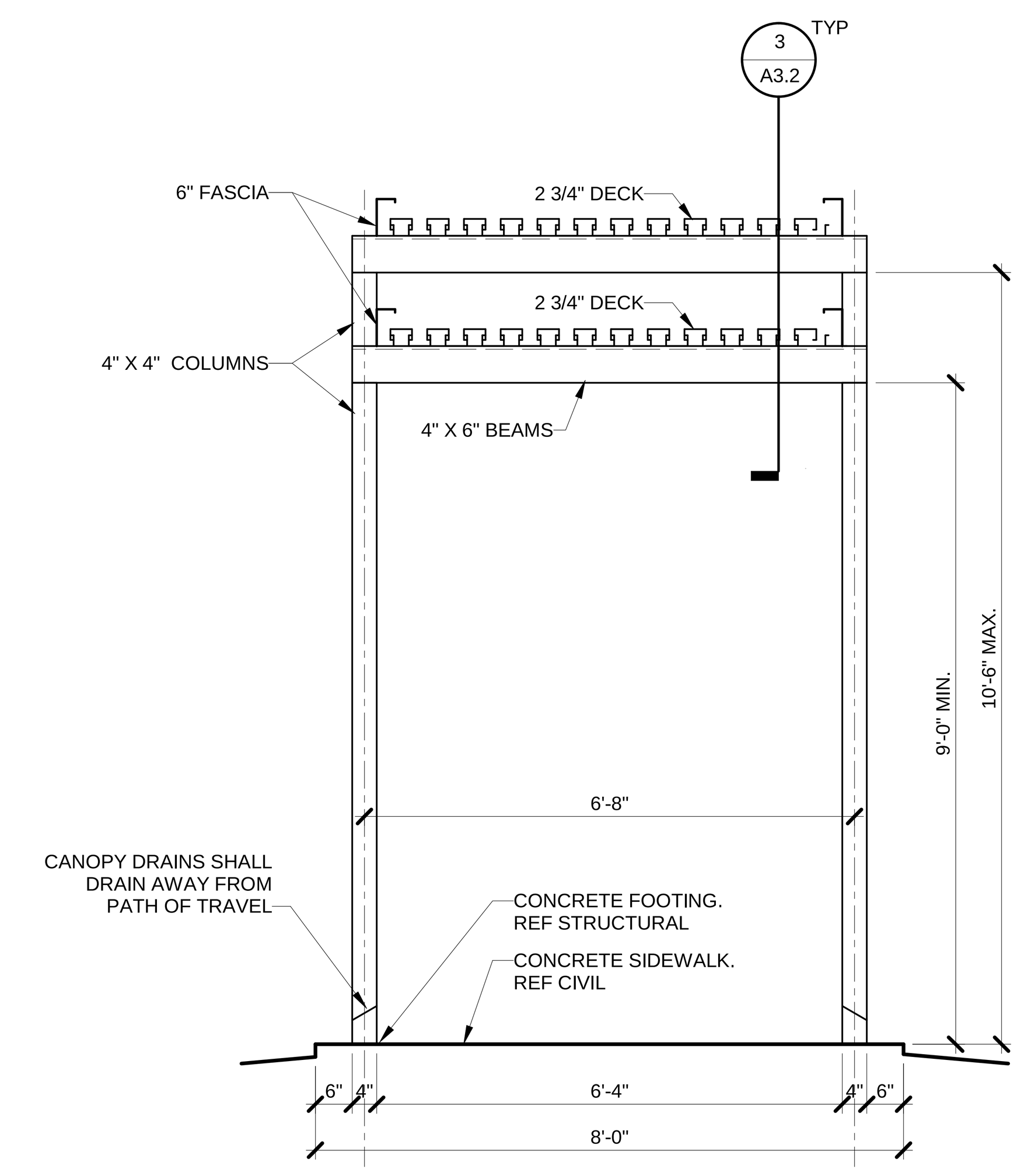
Project No. 1820.05
CONTRACT DOCUMENTS

BUILDING PLANS, ELEVATIONS AND SECTIONS

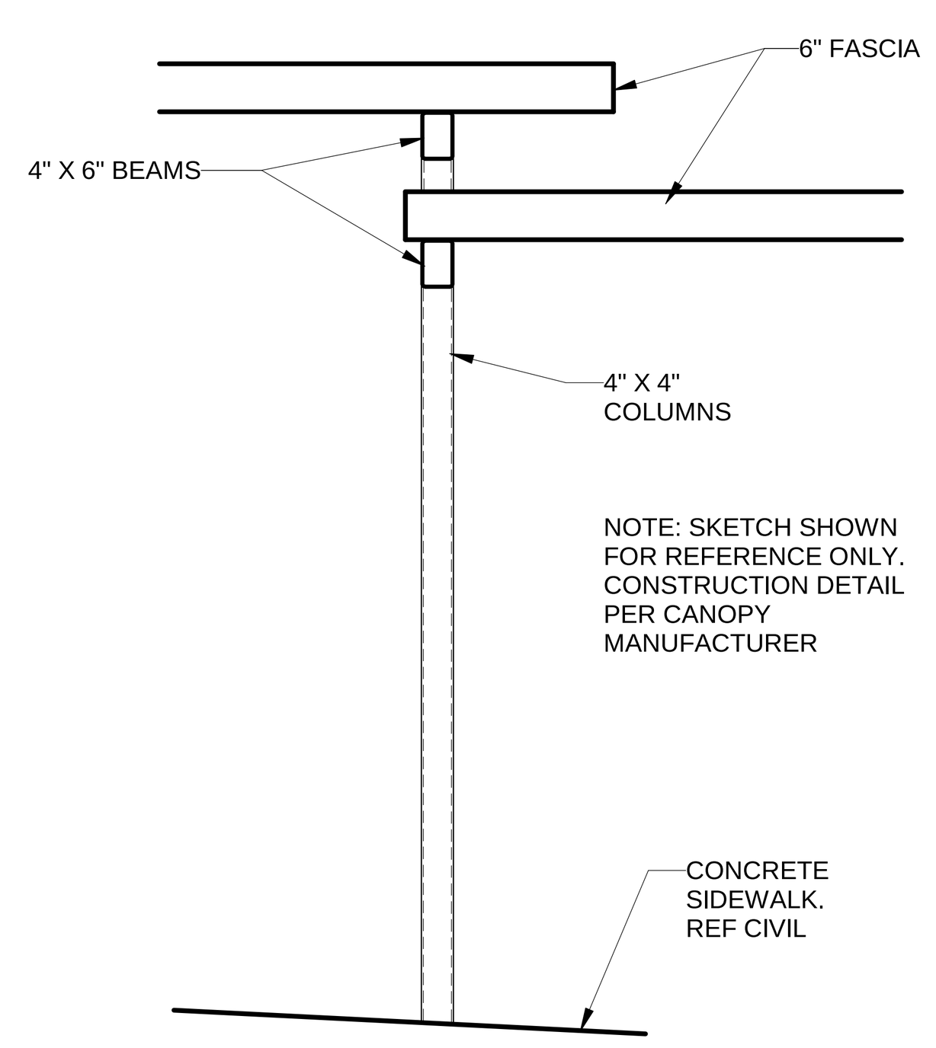
A3.1



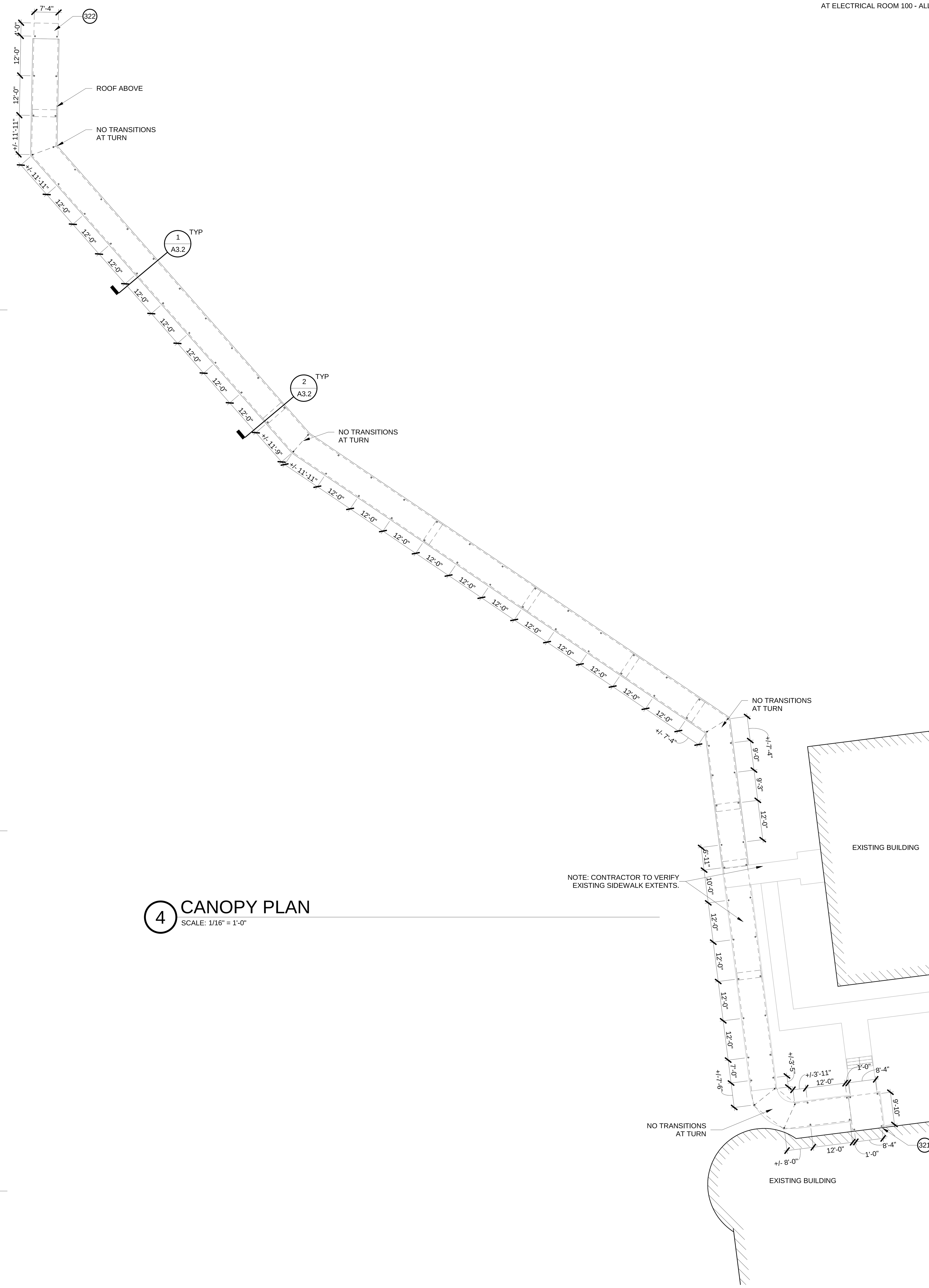
1 CANOPY SECTION
SCALE: 1/2" = 1'-0"



2 CANOPY SECTION @ TRANSITION TYP.
SCALE: 1/2" = 1'-0"



3 CANOPY TRANSITION ELEVATION
SCALE: 1/2" = 1'-0"



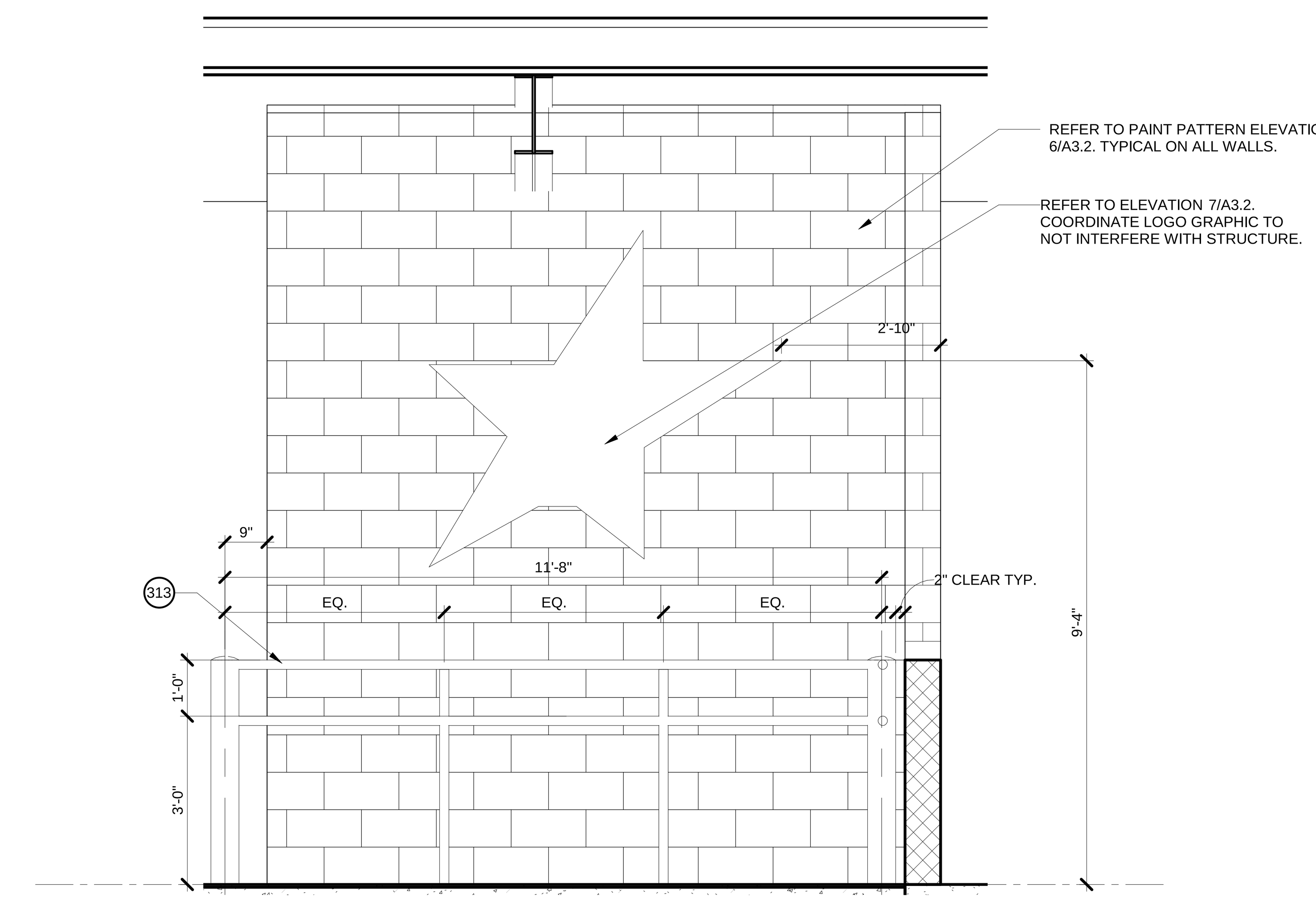
4 CANOPY PLAN
SCALE: 1/16" = 1'-0"

LIST OF FINISHES				
KEY	DESCRIPTION	MANUFACTURER	COLOR/NAME	PATTERN/STYLE
PT- PAINT				
PT1	PAINT	PER SPEC	SW7006 EXTRA WHITE	PER SPEC
PT2	PAINT	PER SPEC	SW6510 LOYAL BLUE	PER SPEC
PT3	PAINT	PER SPEC	SW6866 HEARTTHROB	PER SPEC

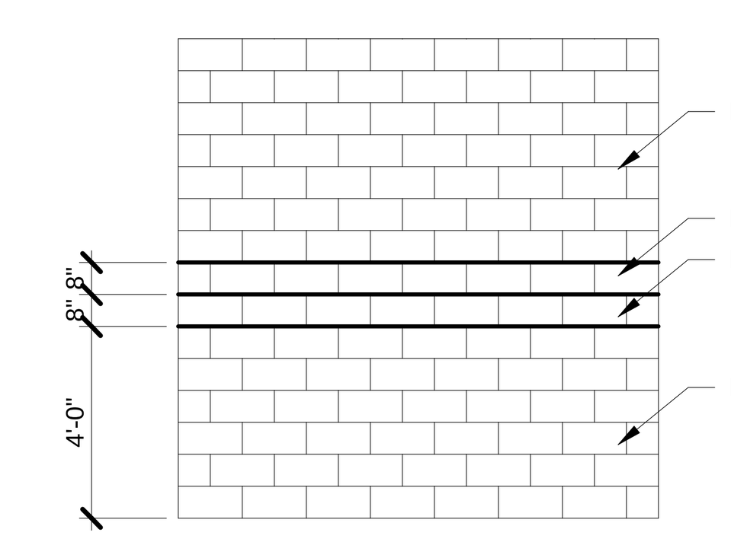
AT ELECTRICAL ROOM 100 - ALL WALLS TO BE PT1

KEYNOTE LEGEND

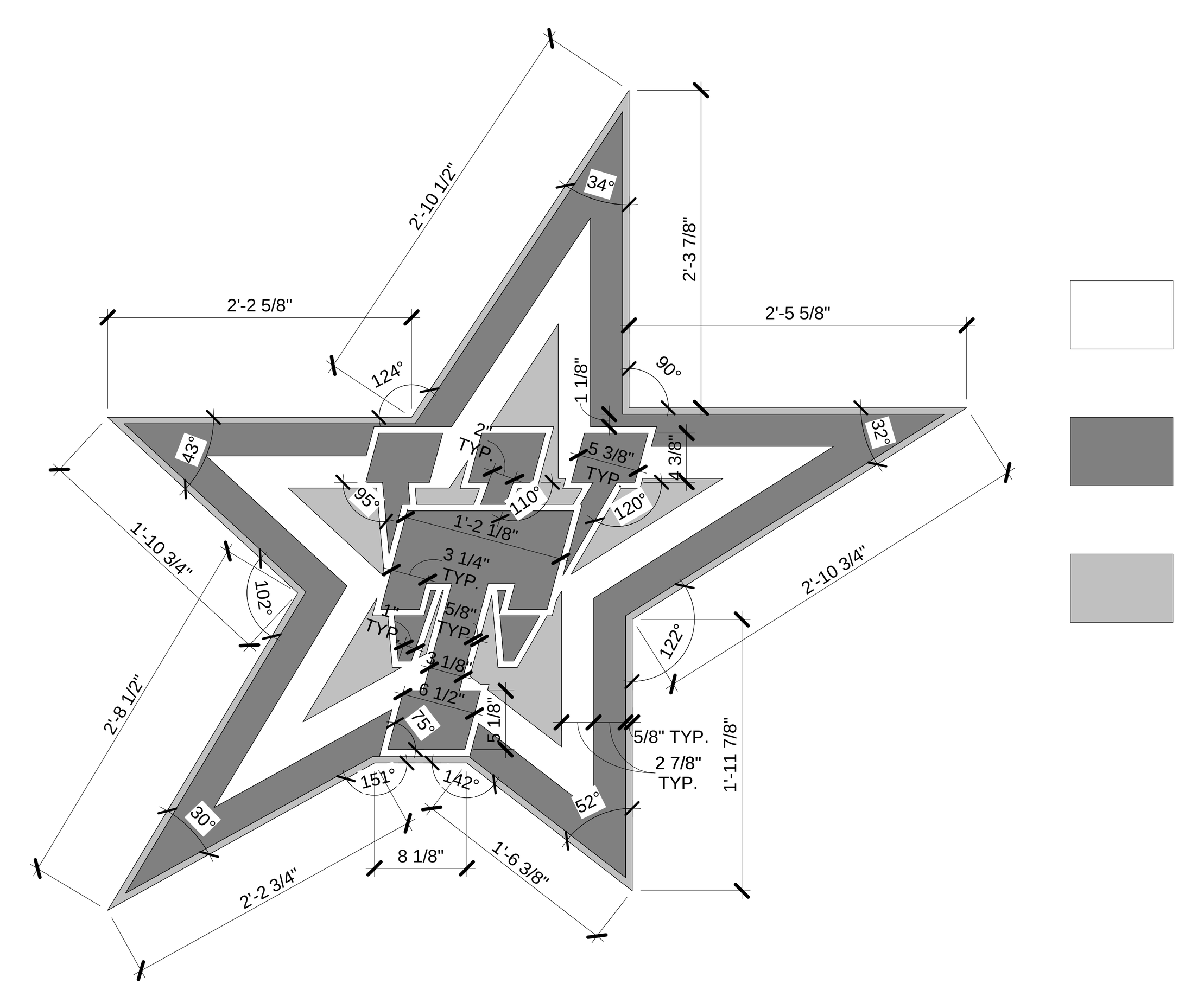
313 2" DIAM. SCHEDULE 40 GALVANIZED PIPE



5 WASH WALL ELEVATION
SCALE: 1/2" = 1'-0"



6 PAINT PATTERN
SCALE: 1/4" = 1'-0"



7 LOGO ELEVATION
SCALE: 1" = 1'-0"

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WIMBERLEY INDEPENDENT SCHOOL DISTRICT
AGRICULTURAL BARN
100 CARNEY LN, WIMBERLEY, TX 78676

REGISTERED ARCHITECT
JARROD J. STERZINGER
19834
STATE OF TEXAS
1/18/2019

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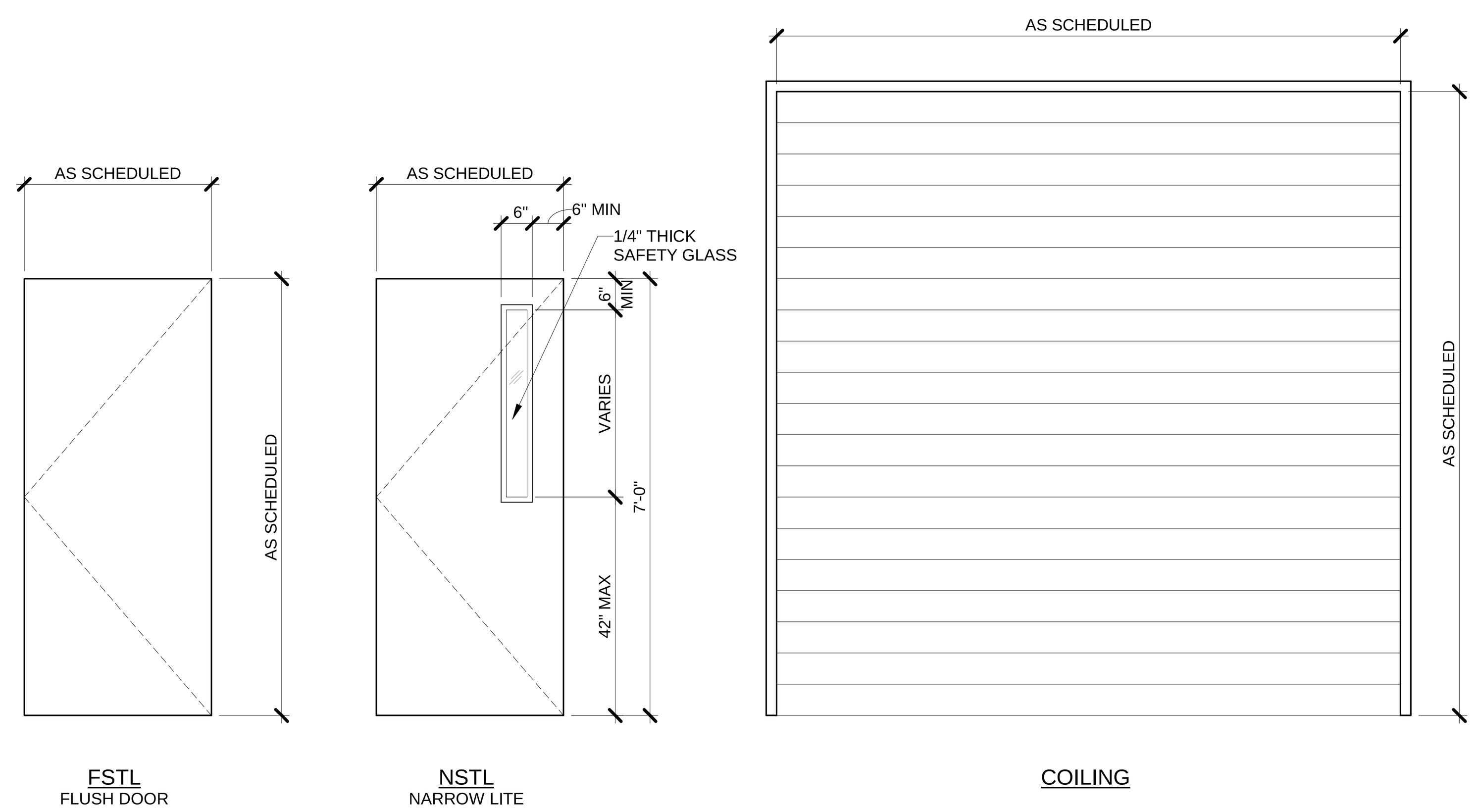
CANOPY PLANS & INTERIOR DETAILS

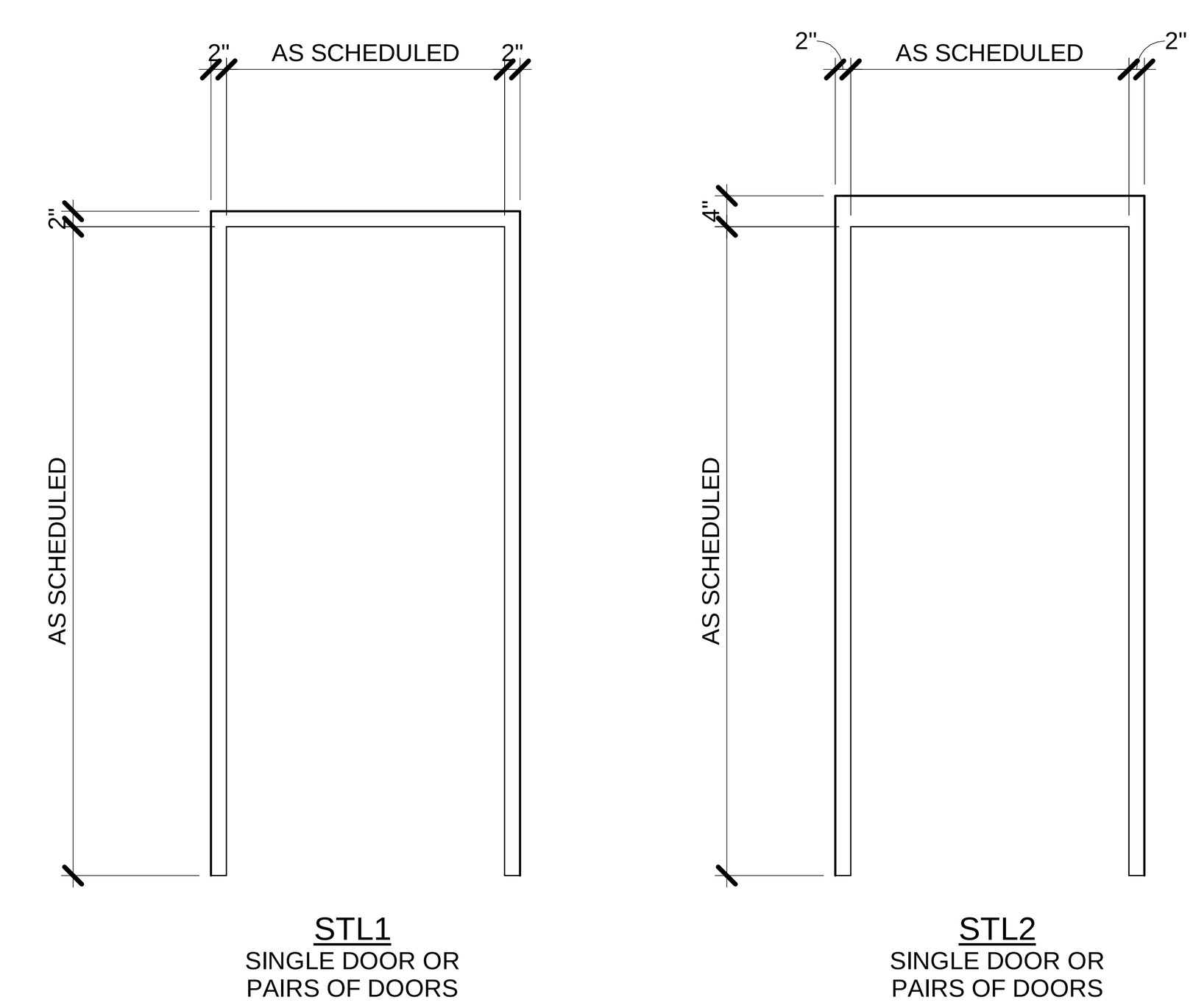
A3.2

DOOR AND FRAME SCHEDULE

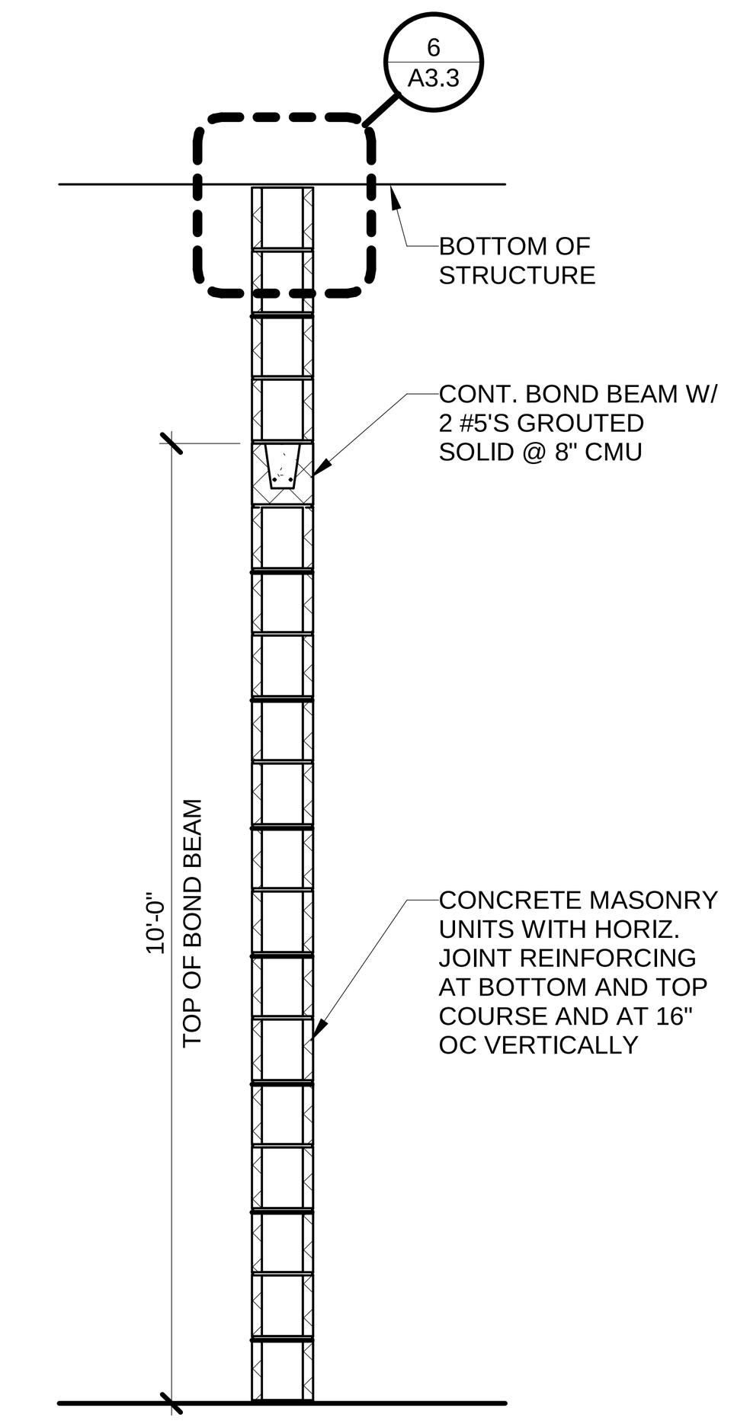
		DOOR						FRAME			
		SIZE									
			WIDTH								
MARK	DESCRIPTION	WIDTH	PANEL 1	PANEL 2	HEIGHT	MAT'L	TYPE	MAT'L	TYPE	FIRE RATING MINUTES	NOTES
101		12' - 0"			10' - 0"	STL	-	STL	-	-	OVERHEAD COILING
102		12' - 0"			10' - 0"	STL	-	STL	-	-	OVERHEAD COILING
103		12' - 0"			10' - 0"	STL	-	STL	-	-	OVERHEAD COILING
104		12' - 0"			10' - 0"	STL	-	STL	-	-	OVERHEAD COILING
105	SINGLE	4' - 0"	4' - 0"		7' - 0"	STL	NSTL	STL	STL1	-	
106	SINGLE	4' - 0"	4' - 0"		7' - 0"	STL	NSTL	STL	STL1	-	
107	SINGLE	4' - 0"	4' - 0"		7' - 0"	STL	NSTL	STL	STL1	-	
108	SINGLE	3' - 0"	3' - 0"		7' - 0"	STL	FSTL	STL	STL2		



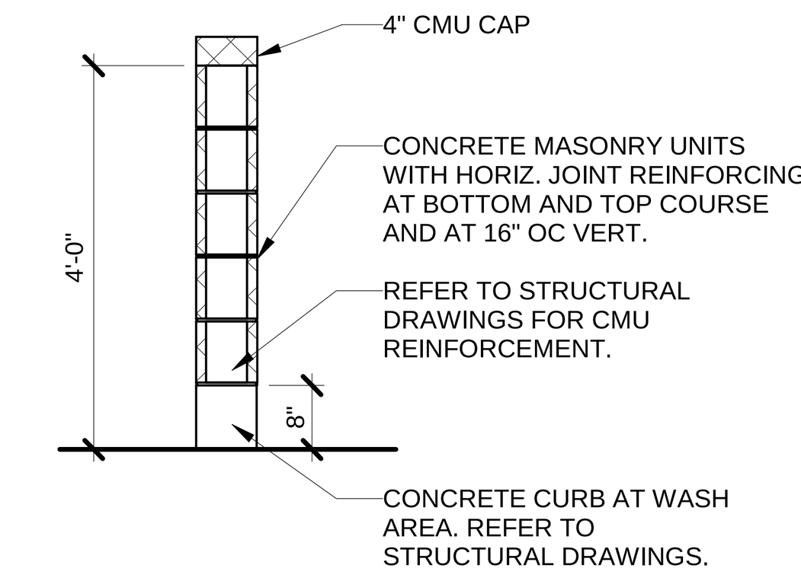
STEEL DOOR TYPES (STL)



STEEL FRAME TYPES



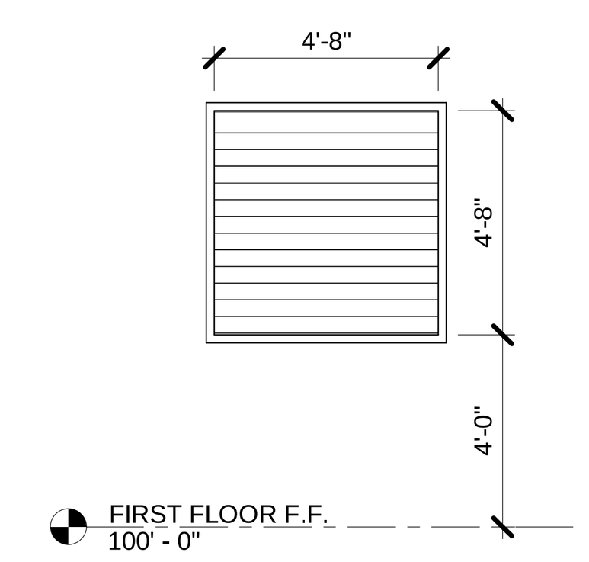
8W CMU NON RATED



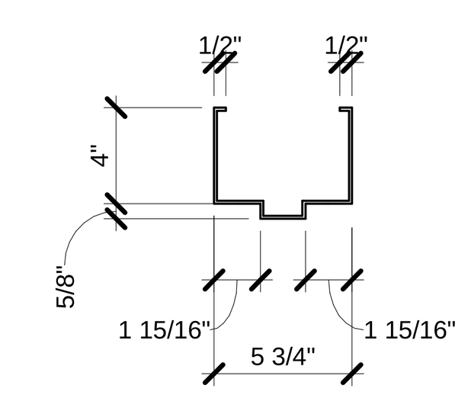
8AA NOMINAL 8" KNEE WALL

GENERAL PARTITION NOTES

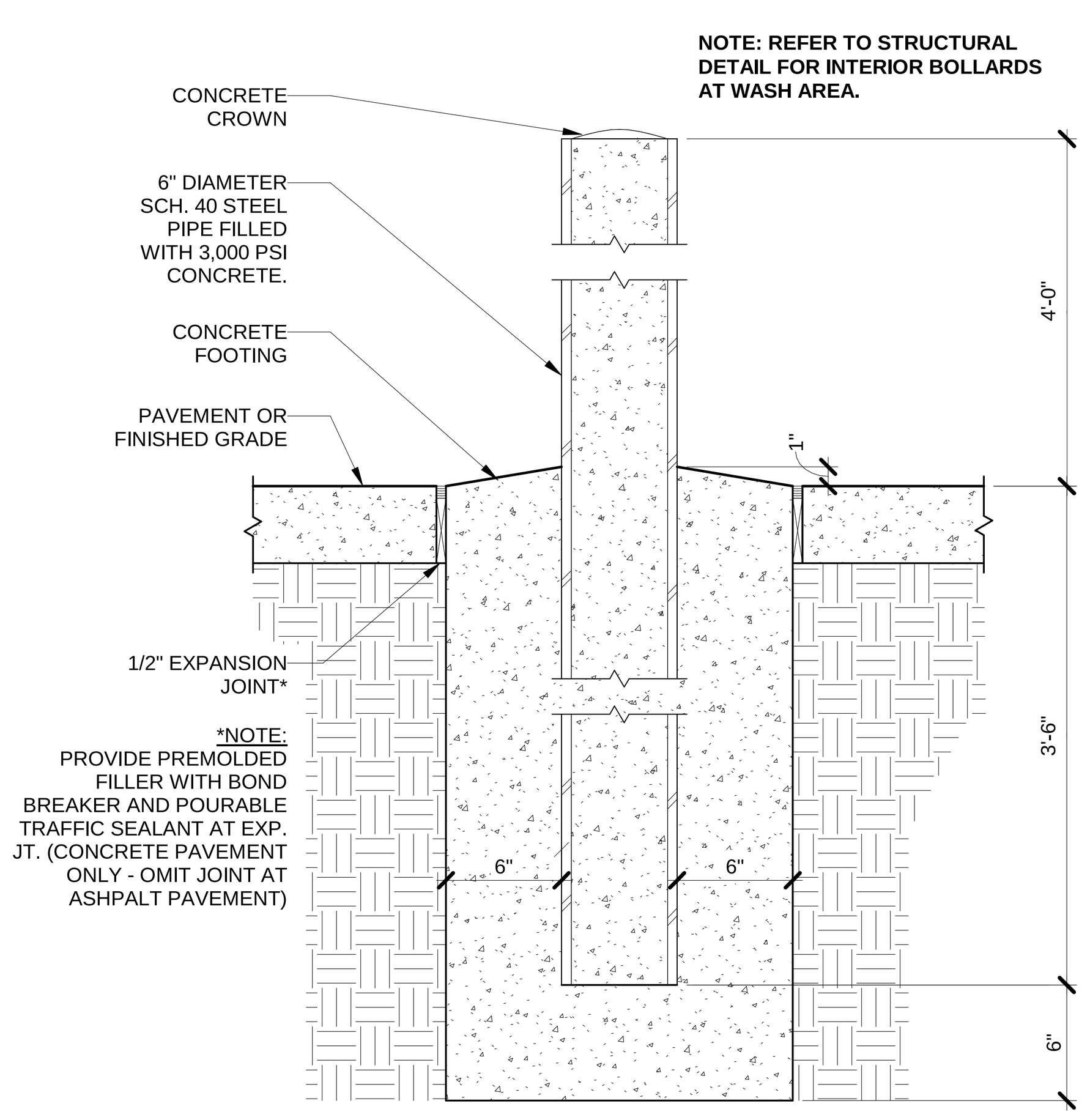
1. ALL CMU WALLS TO BE PAINTED, COLOR TO BE SELECTED FROM SHERWIN-WILLIAMS STANDARD COLORS.
2. BOTTOM OF STRUCTURE REFERS TO BOTTOM OF METAL ROOF.
3. BOTTOM OF STRUCTURAL FRAMING REFERS TO BOTTOM OF: STEEL PURLIN OR PEMB FRAME WHICHEVER IS APPLICABLE.
4. NUMBERS IN FRONT OF THE CONCRETE BLOCK PARTITION LETTER INDICATES THE NOMINAL WIDTH OF THE CONCRETE BLOCK.



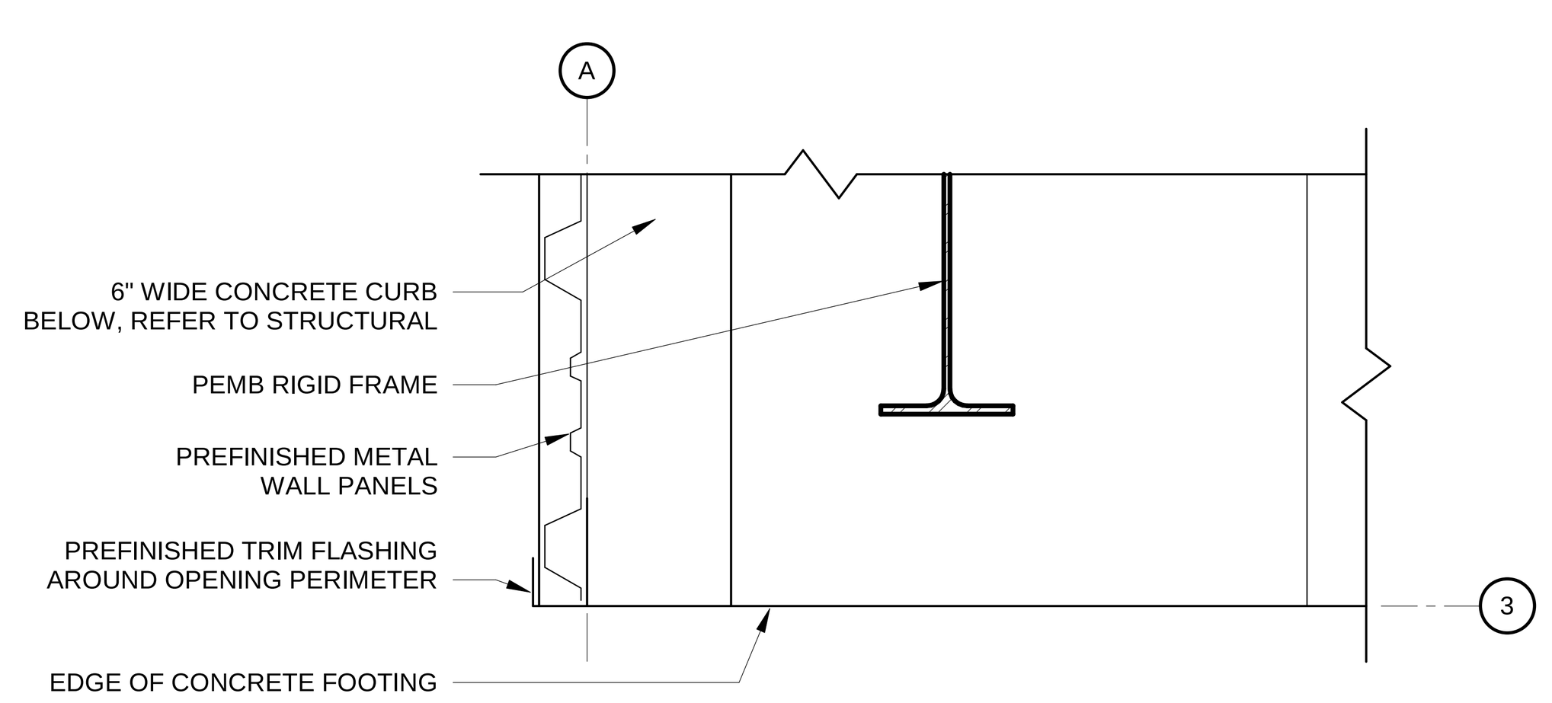
L1 - LOUVER



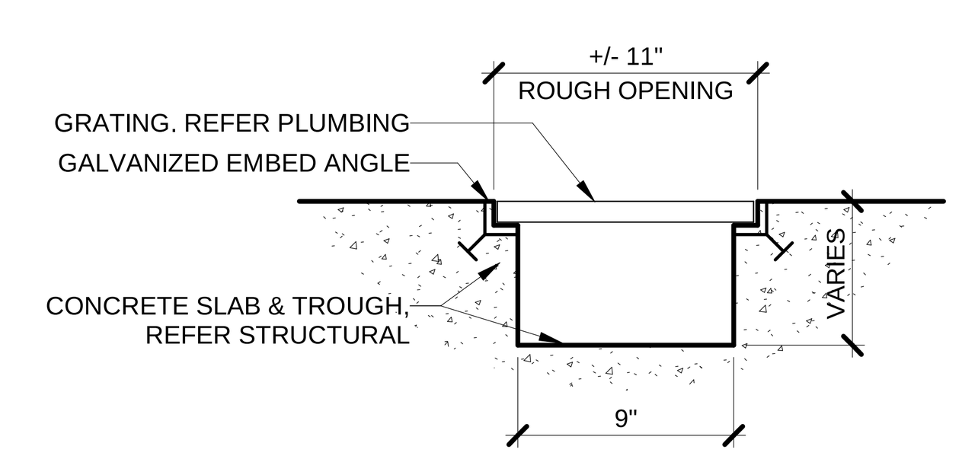
3 DOOR 108 INT. STEEL DOOR FRAME
SCALE: 1 1/2" = 1'-0"



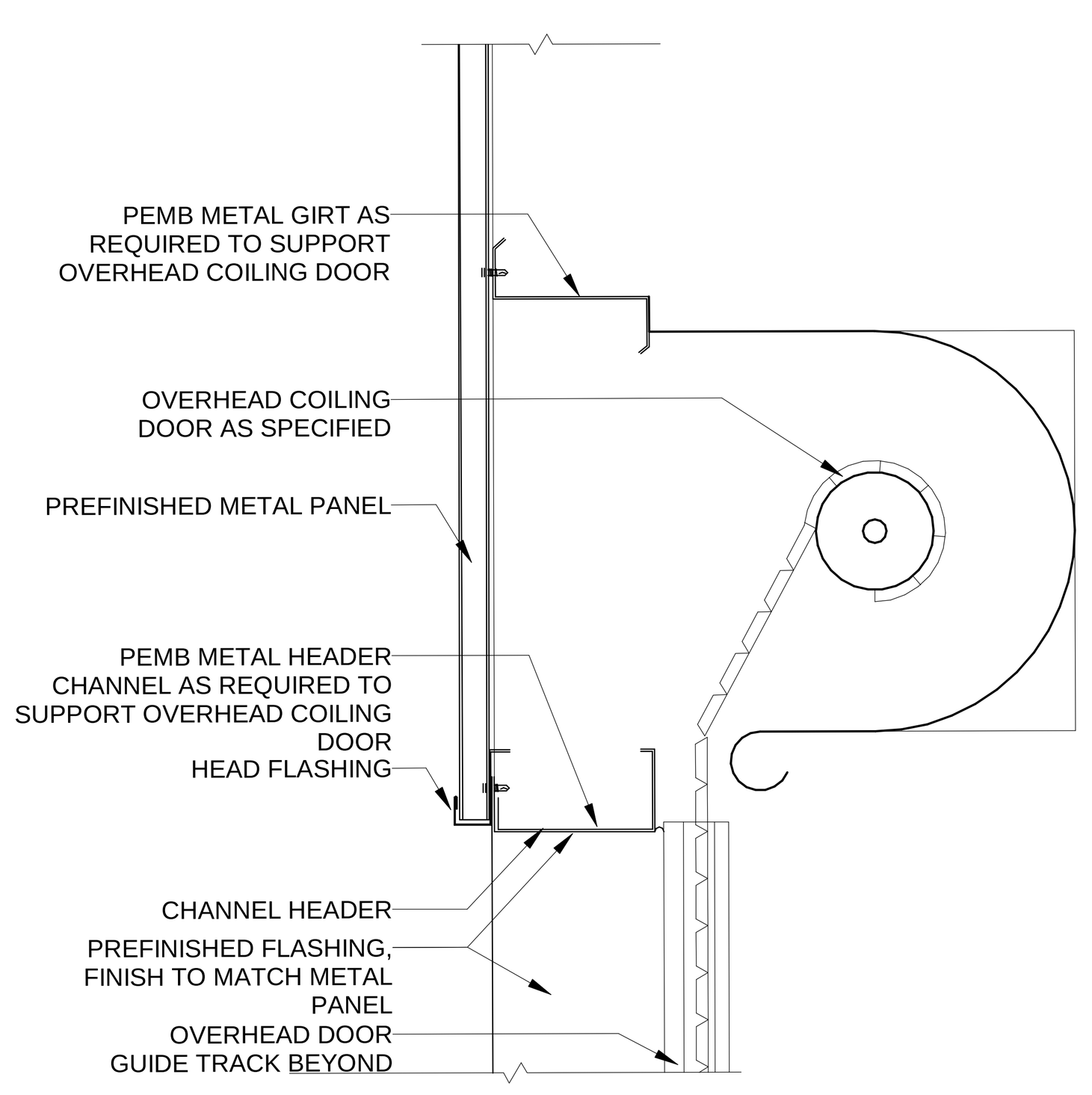
1 EXTERIOR BOLLARDS
SCALE: 1 1/2" = 1'-0"



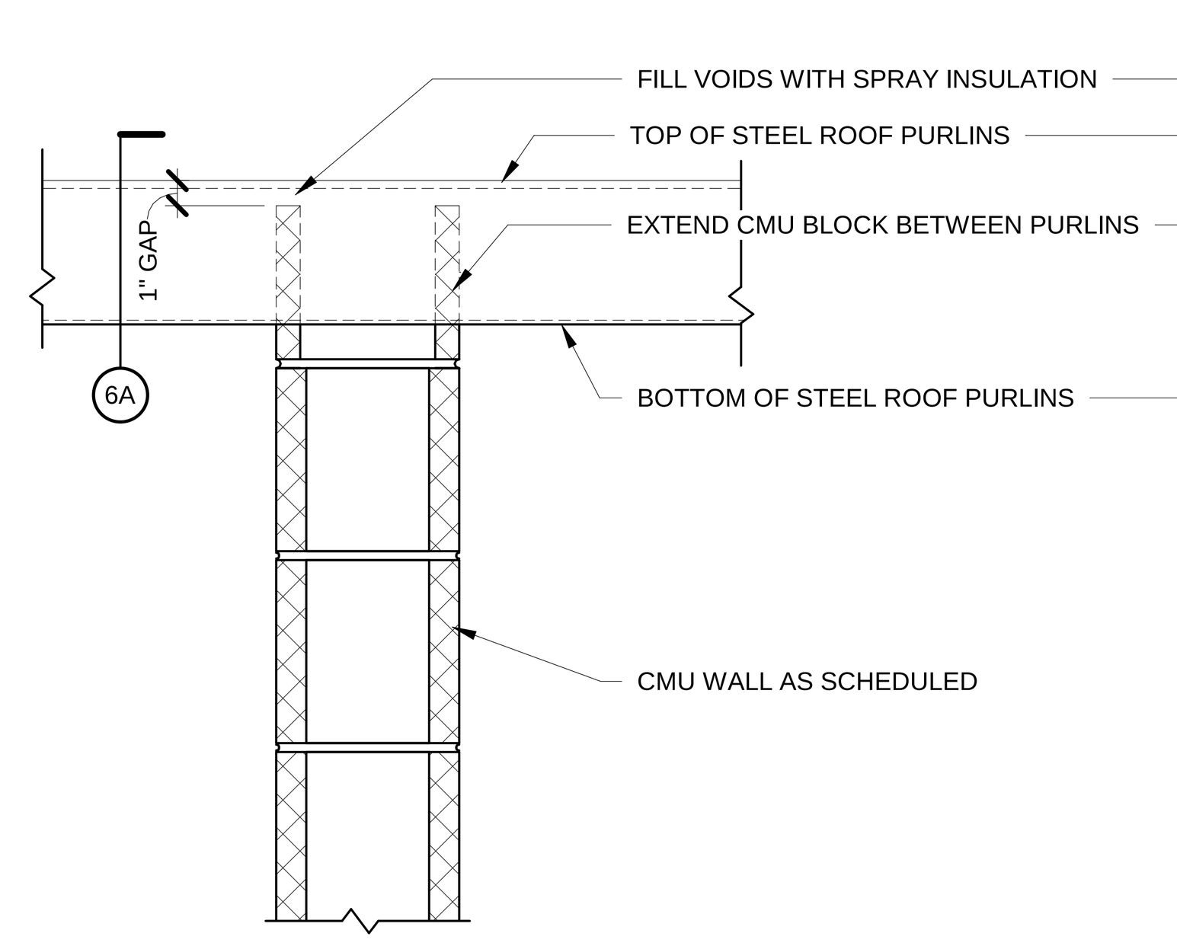
2 METAL PANEL END DETAIL
SCALE: 1 1/2" = 1'-0"

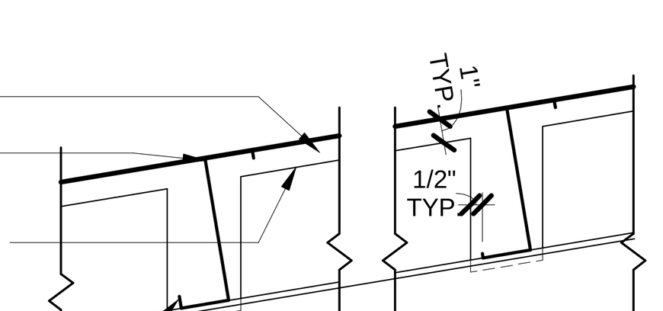


4 CONCRETE TRENCH DETAIL
SCALE: 1 1/2" = 1'-0"



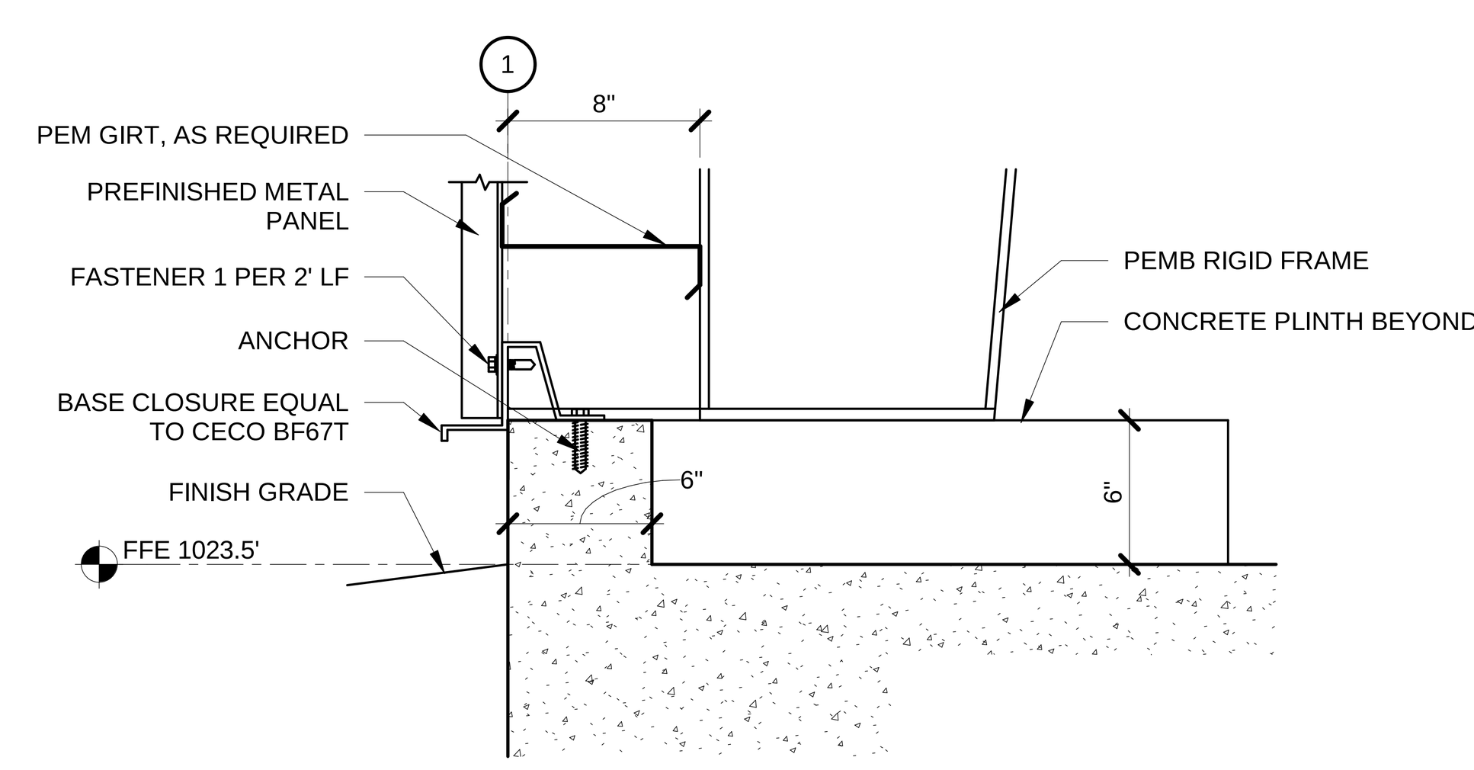
5 COILING DOOR HEAD
SCALE: 1 1/2" = 1'-0"





DETAIL 6A

6 PARTITION HEAD AT CMU
SCALE: 1 1/2" = 1'-0"



7 BASE DETAIL
SCALE: 1 1/2" = 1'-0"

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WIMBERLEY INDEPENDENT SCHOOL DISTRICT
AGRICULTURAL BARN
100 CARNEY LN, WIMBERLEY, TX 78676

1/18/2019
Revisions:

NO.	DESCRIPTION	DATE

01/17/2019
Project No. 1820.05
CONTRACT DOCUMENTS

DETAILS

A3.3

PLUMBING ABBREVIATIONS

NOT ALL WILL APPEAR ON THE DRAWINGS

A	COMPRESSED AIR	G	GAS, NATURAL (LOW PRESSURE)
AAV	AUTOMATIC AIR VENT	GAL	GALLON
AC	ABOVE CEILING	GALV	GALVANIZED
AD	AREA DRAIN	GC	GAUGE COCK
AFF	ABOVE FINISHED FLOOR	G.C.	GENERAL CONTRACTOR
ANC	ANCHOR	GLV	GLOBE VALVE
ANV	ANGLE VALVE	GPH	GALLONS PER HOUR
AP	ACCESS PANEL	GPM	GALLONS PER MINUTE
AQ	AQUASTAT	GPR	GAS PRESSURE REGULATOR
ATC	AUTOMATIC TEMPERATURE CONTROL	GV	GATE VALVE
ATV	ATMOSPHERIC VENT (STEAM OR HOT WATER)	HB	HOSE BIB
AV	ACID VENT PIPING, CHEMICAL RESISTANT	HD	HUB DRAIN
AW	ACID WASTE PIPING, CHEMICAL RESISTANT	HPG	HIGH PRESSURE GAS, NATURAL
BF	BELOW FLOOR	HW	HOT WATER, DOMESTIC
BFP	BACKFLOW PREVENTER	HWC	HOT WATER CIRCULATING, DOMESTIC
BFV	BUTTERFLY VALVE	HWR	HOT WATER RETURN, DOMESTIC
BG	BELOW GRADE	IPS	INTERNATIONAL PIPE STANDARD
BLDG	BUILDING	INV	INVERT (ELEV/FLOW LINE)
BOP	BOTTOM OF PIPE	LAV	LAVATORY
BR	BRANCH	MH	MANHOLE
BS	BELL AND SPIGOT	MPH	MEDIUM PRESSURE GAS, NATURAL
BTC	BRANCH TO CONNECTION	MPT	MALE PIPE THREAD
BTM	BOTTOM OF PIPE	MSB	MOP SERVICE BASIN
BV	BALLVALVE	N.C.	NORMALLY CLOSED
BWV	BACKWATER VALVE	NH	NO-HUB (CAST IRON)
CD	CONDENSATE DRAIN	N.O.	NORMALLY OPEN
CFH	CUBIC FEET PER HOUR	NOM	NOMINAL
CI	CAST IRON	OSD	OPEN SITE DRAIN
CLG	CEILING	OS&Y	OUTSIDE SCREW & YOKE
CO	CLEANOUT	OFD	OVERFLOW DRAIN
COTG	CLEANOUT TO GRADE	PD	PRESSURE DROP
CSS	CLINICAL SERVICE SINK	PLBG	PLUMBING
CW	COLD WATER, DOMESTIC	PRV	PRESSURE REDUCING VALVE
D	DRAIN	PS	PRESSURE SWITCH
DCO	DOUBLE CLEANOUT	RD	ROOF DRAIN
DCOTG	DOUBLE CLEANOUT TO GRADE	RV	RELIEF VALVE
DFU	DRAINAGE FIXTURE UNIT	SAN	SANITARY WASTE
DI	DE-IONIZED WATER	SD	STORM DRAIN
DIA	DIAMETER	SHR	SHOWER
DN	DOWN	SS	SERVICE SINK
DS	DOWNSPOUT (EXTERIOR)	S.S.	STAINLESS STEEL
DW	DISTILLED WATER	SSD	SUB SOIL (FRENCH) DRAIN
(E)	EXISTING	SV	SOLENOID VALVE
ECC	ELECTRICAL CONTROL CENTER	T	THERMOSTAT
ELEV	ELEVATION	TPR	TEMPERATURE AND PRESSURE RELIEF
EMER	EMERGENCY	TDH#	TOTAL DYNAMIC HEAD (PSIG)
EWC	ELECTRIC WATER COOLER	TDH'	TOTAL DYNAMIC HEAD (FEET)
EWH	ELECTRIC WATER HEATER	TH	THERMOMETER
EXIST.	EXISTING	TMV	THERMOSTATIC MIXING VALVE
EX. JT.	EXPANSION JOINT	UN	UNION
FC	FLEXIBLE CONNECTION	V	SANITARY VENT
FCO	FINISHED FLOOR CLEANOUT	VTR	VENT THROUGH ROOF
FD	FLOOR DRAIN	WC	WATER CLOSET
FL	FLOW LINE	WCO	WALL CLEANOUT, FINISHED
FLR	FLOOR	WHA	WATER HAMMER ARRESTOR
FPM	FEET PER MINUTE	WB	WALL BOX
FPT	FEMALE PIPE THREAD		
FS	FLOW SWITCH		
FT	FEET		
FTG	FITTING		
FV	FLUSH VALVE		

PLUMBING SYMBOL SCHEDULE

NOT ALL WILL APPEAR ON THE DRAWINGS

	COLD WATER PIPE		BALL VALVE
	COLD WATER PIPE, EXISTING		CHECK VALVE
O	EQUIPMENT DRAIN		GAS COCK
	EXISTING PIPE TO BE REMOVED		GATE VALVE
G	GAS PIPE		GLOBE VALVE
G	GAS PIPE, EXISTING		OUTSIDE SCREW & YOKE VALVE
	HOT WATER PIPE		PRESS. REDUCING VALVE (PRV)
	HOT WATER PIPE, EXISTING		PRESS./TEMP. RELIEF VALVE
	HOT WATER RETURN PIPE		VALVE IN BOX (VIB)
	HOT WATER RETURN PIPE, EXISTING		THERMOSTATIC RECIRCULATION VALVE
	SANITARY SOIL/WASTE		AUTOMATIC FLOW REGULATOR
	SANITARY SOIL/WASTE, EXISTING		BRANCH OUT OF TOP
	SANITARY VENT PIPE		DROP OR RISE
	SANITARY VENT PIPE, EXISTING		BRANCH OUT OF BOTTOM
SD	STORM DRAIN PIPE		BRANCH OUT OF TOP
SD	STORM DRAIN PIPE, EXISTING		CAP OR PLUG
	NEW CONNECTION TO EXISTING		CLEANOUT (EXPOSED) (CO)
AV	ACID VENT		FLOOR CLEANOUT (FCO)
AW	ACID WASTE		UNION
	REMOVE TO THIS POINT		CLEANOUT TO GRADE (COTG)
O	MEDICAL OXYGEN PIPE		DOUBLE CLEANOUT TO GRADE (DCOTG)
MA	MEDICAL AIR PIPE		FIRE HYDRANT
MV	MEDICAL VACUUM PIPE		FLOOR DRAIN (FD)
GW	GREASE WASTE		FLOOR SINK (FS)
CA	COMPRESSED AIR	HB	HOSE BIB
PWS	PURIFIED WATER SUPPLY		ROOF DRAIN (RD)
PWR	PURIFIED WATER RETURN		VENT THROUGH ROOF (VTR)
			GAS REGULATOR
			CONTROL VALVE
		FPHB	FREEZE PROOF HOSE BIB
		V	VACUUM OUTLET
		O	OXYGEN OUTLET
		S	SLIDER OUTLET
		NO	NITROUS OXIDE OUTLET
		A	AIR OUTLET
		B	BLANK OUTLET
			CARBON DIOXIDE/NITROGEN OUTLET
		EV	EVACUATION OUTLET

CODE COMPLIANCE

1. INTERNATIONAL BUILDING CODE (2015 EDITION) AND INTERNATIONAL MECHANICAL, PLUMBING, CODES (2015 EDITION) AND ANY APPLICABLE LOCAL AMENDMENTS
2. INTERNATIONAL ENERGY CONSERVATION CODE, 2015 EDITION, AND ANY APPLICABLE LOCAL AMENDMENTS.
3. ARCHITECTURAL BARRIERS TEXAS ACESSIBILITY STANDARDS, 2012 ED

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE CODES LISTED BELOW AND ALL LOCAL AMENDMENTS AND REGULATIONS AS ADOPTED BY THE AUTHORITY HAVING JURISDICTION. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS AND SHALL BE PERFORMED WITH THE LATEST INDUSTRY ACCEPTED STANDARDS.
2. ALL WATER PIPING ON PLANS ARE SHOWN SCHEMATICALLY FOR CLARITY. CONTRACTOR IS TO ROUTE PIPING IN WALLS AND ABOVE CEILING IN CONCEALED SPACES. WHERE PIPING IS EXPOSED ROUTE INLINE WITH STRUCTURE AND HOLD TIGHT TO ROOF STRUCTURE.
3. COORDINATE SLEEVES AND BLOCKOUTS THROUGH GRADE BEAMS, FOUNDATION BEAMS, AND JOISTS WITH GENERAL CONTRACTOR.
4. COORDINATE FLOOR/ROOF PENETRATIONS OF PLUMBING, ETC., WITH STRUCTURAL TO AVOID STRUCTURAL BEAMS AND JOISTS.
5. REFER TO ARCHITECT/ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR MOUNTING INFORMATION AND EXACT LOCATION FOR ALL PLUMBING FIXTURES AND TRIM. OFFSET ROUGH-INS AS REQUIRED. COORDINATE WITH GENERAL CONTRACTOR ACCORDINGLY.
6. PLUMBING CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIAL, LABOR, ETC. NECESSARY TO PROVIDE A COMPLETE WORKABLE PLUMBING SYSTEM. ALL FIXTURES SHALL COME COMPLETE WITH NECESSARY TRIM, CHROME PLATED ESCUTCHEONS, P-TRAPS, TAIL PIECE CONNECTIONS, AND CARRIERS. PROVIDE ANGLE SUPPLY STOPS FOR DOMESTIC HOT AND COLD WATER CONNECTIONS TO PLUMBING FIXTURES. INSTALL SHOCK-STOP ASSEMBLIES AS REQUIRED TO PREVENT WATER HAMMER.
7. PROVIDE AND INSTALL FIXTURES FULLY OPERATIONAL FOR FIXTURE TYPES SCHEDULED.
8. FURNISH AND INSTALL VALVES AND UNIONS AT EACH PIECE OF EQUIPMENT TO ALLOW THE ITEM TO BE ISOLATED AND REMOVED FROM THE SYSTEM, AS REQUIRED, WITHOUT DISTURBING THE REMAINING SYSTEM.
9. THE CONTRACTOR SHALL CLEAN AND DISINFECT WATER LINES. REFER TO SPECIFICATIONS. DISINFECTION OF WATER LINES SHALL OCCUR WITHIN A MAXIMUM OF 3 WEEKS PRIOR TO OCCUPANCY. IF MORE THAN 3 WEEKS PASS BEFORE OCCUPANCY THE DOMESTIC WATER SHALL BE DISINFECTED AGAIN AT THE CONTRACTOR'S EXPENSE.
10. INSTALLATION OF BACKFLOW PREVENTERS SHALL BE IN ACCORDANCE WITH IPC AND AWWA M14 "RECOMMENDED PRACTICE FOR BACKFLOW PREVENTION AND CROSS CONTROL." TESTING OF BACKFLOW PREVENTERS SHALL OCCUR UPON INSTALLATION TESTING SHALL BE CONDUCTED BY A TCEQ LICENSED BACKFLOW. PREVENTION ASSEMBLY TESTER REGISTERED WITH THE AUTHORITY HAVING JURISDICTION.

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STATE OF TEXAS
DAVID N. MEYER
92665
LICENSED
PROFESSIONAL ENGINEER
01/17/2019

Engineering Firm:
O'CONNELL ROBERTSON
Firm Registration No. F-2708

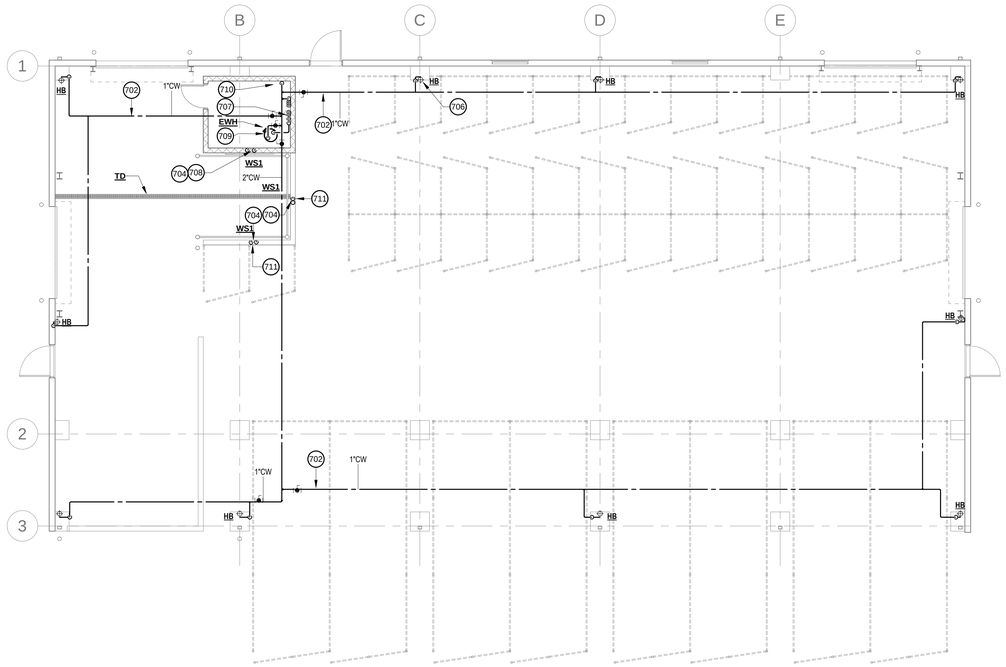
Revisions:

NO.	DESCRIPTION	DATE

01/17/19
Project No. 1820.05
CONTRACT DOCUMENTS

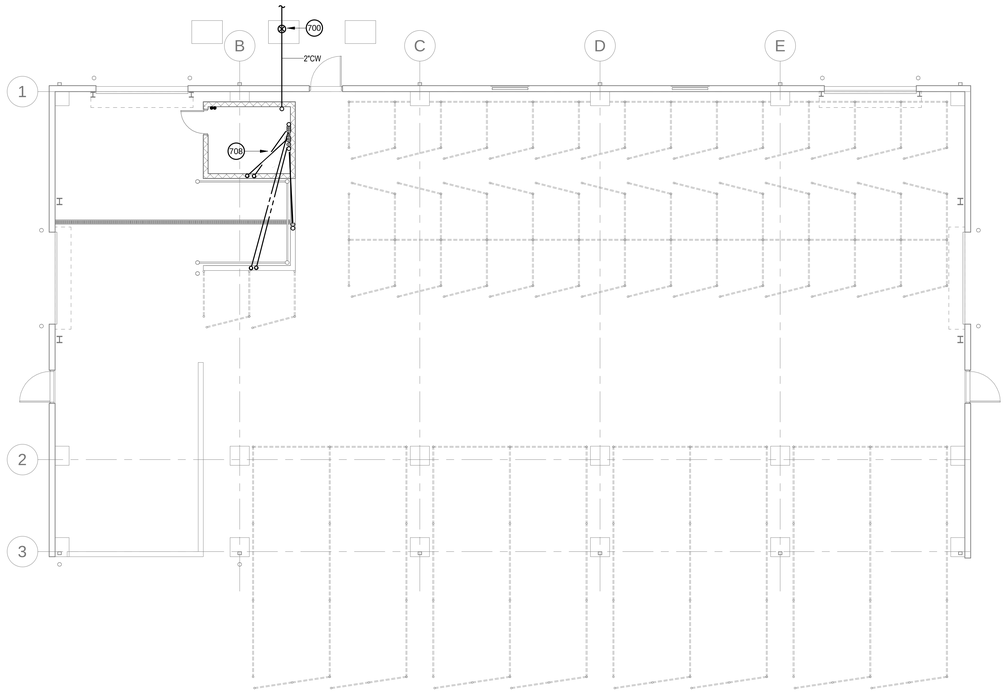
PLUMBING NOTES, SYMBOLS AND ABBREVIATIONS

P1.1



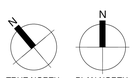
2 FIRST FLOOR PLUMBING PLAN

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



1 UNDERFLOOR PLUMBING PLAN

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



NORTH

GENERAL NOTES

1. REFER TO SHEET P1.1 FOR GENERAL PLUMBING NOTES THAT SHALL APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN THE KEYED NOTES.
2. ALL EXISTING PIPING SIZES AND LOCATIONS ARE TAKEN FROM AVAILABLE RECORD DOCUMENTS AND SITE OBSERVATIONS. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

KEYNOTE LEGEND

700 2" SHUT OFF VALVE IN VALVE IN BOX.

702 PROVIDE HEAT TRACE SYSTEM FOR ALL ABOVE GRADE WATER PIPING TO PREVENT PIPES FORM FREEZING. PROVIDE 1" THICK FIBERGLASS PIPE WITH ALUMINUM JACKET ON ALL EXPOSED & HEAT-TRACED PIPING.

704 PROVIDE WASH STATION ON WALL ~40 A.F.F.

706 PROVIDE HOSE RACK.

707 PROVIDE UPONOR DISTRIBUTION HEADER FOR HOT WATER AND COLD WATER SUPPLY TO WASH STATIONS. MOUNT ON WALL ~30" AFF.

708 PROVIDE 1/2" PEX FROM DISTRIBUTION FROM HOT WATER AND COLD WATER HEADER, UNDERFLOOR AND UP, TO WASH STATION; TYPICAL OF 3 WASH STATIONS.

709 ELECTRIC WATER HEATER: PROVIDE STAND AND DRAIN PAN. EXTEND DRAIN LINES FROM DRAIN PAN, WATER HEATER, AND PRESSURE RELIEF VALVE SEPARATELY THROUGH SOUTH WALL AND TERMINATE WITH AN ELBOW ~ 18" ABOVE WASH BASIN FLOOR. PAINT EXPOSED PIPE.

710 PROVIDE 2" BACKFLOW PREVENTER MOUNTED ON WALL ~ 40" AFF. PROVIDE SHUT OFF VALVES, EXTEND DRAIN THROUGH EXTERIOR OF THE NORTH WALL AND TERMINATE WITH AN ELBOW. PAINT EXPOSED PIPE. BACKFLOW TO BE WATTS 009LF OR EQUAL. PROVIDE WITH STRAINER AND AIR GAP FITTING.

711 PROVIDE 8"X 8" ACCESS PANEL ON WALL TO ACCESS HEAT TRACE WIRE.

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STATE OF TEXAS
DAVID N. MEYER
92685
LICENSED
PROFESSIONAL ENGINEER
1/17/2019

Engineering Firm:
O'CONNELL ROBERTSON
Firm Registration No. F-2708
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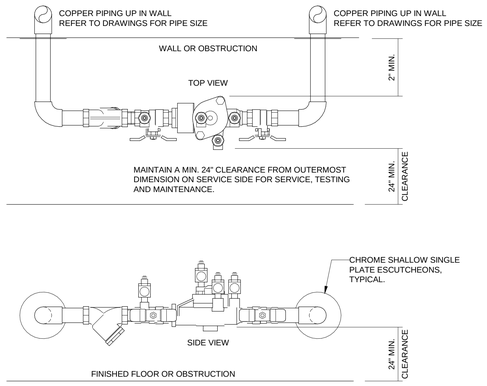
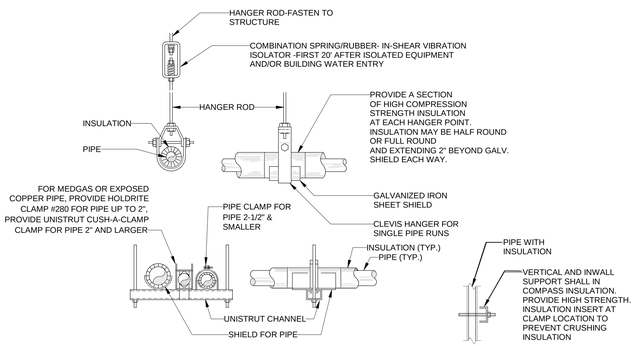
PLUMBING FLOOR PLANS
P3.1



1. REDUCED PRESSURE ZONE VALVE ASSEMBLY WITH BRONZE STRAINER, VERTICAL TEST COCKS AND CAPS.
2. PROVIDE AIR-GAP-FITTING, ROUTE DRAIN TO HUB DRAIN OR NEAREST FLOOR DRAIN.
3. BACKFLOW PREVENTION DEVICES SHALL NOT BE INSTALLED ABOVE 5 FT AFF.

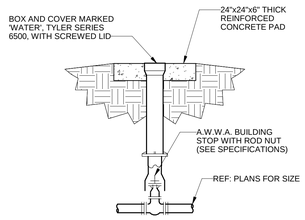
4 REDUCED PRESSURE ZONE VALVE ASSEMBLY DETAIL

NOT TO SCALE



3 PIPING HANGERS AND SUPPORTS DETAIL

NOT TO SCALE



2 BUILDING WATER VALVE IN BOX

NOT TO SCALE

PLUMBING EQUIPMENT SCHEDULE

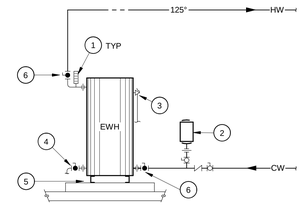
MARK	FIXTURE / TRIM & ACCESSORIES	MFR./ SUPPLIER	MODEL NO.	REMARKS
HB	3/4" ANGLE SILL COCK WITH CAST IRON WHEEL HANDLE AND VANDAL RESISTANT VACUUM BREAKER	WATTS	SC8	
TD	FRAME AND GRATE SYSTEM: HEAVY DUTY, 12" WIDE, LENGTH 24FT SECTIONS - DUCT IRON ADA/TAS COMPLIANT SLOTTED GRATE WIDE GRATE , CLASS C; HEAVY DUTY DUCTILE FRAME WITH ANCHOR STUDS; STAINLESS STEEL BOLTS NAD WASHERS. PROVIDE THE NUMBER OF GRATE AND FRAME TO COVER ENTIRE TRENCH.	EAST JORDON	V7320-1 / V7383-20 ASSEMBLY	REFER TO STRUCTURAL AND ARCHITECTURAL DRAWINGS FOR EXACT LENGTH
WS1	WASH STATION FAUCET: 8" WALL MOUNTED FAUCET WITH ROUGH CHROME PLATED BRASS SPOUT WITH VACUUM BREAKER, PAIL HOOK AND GARDEN HOSE MALE OUTLET, COMPRESSION CARTRIDGES WITH SPRING CHECKS, LEVER HANDLES, 1/2" NPT FEMALE INLETS AND BUILT-IN SERVICE STOPS IN THE BODY. ASME a112.18.1. NSF 61; MEETS ADA.	T&S BRASS	B-0674-BSTR	MOUNT AT 36" A.F.F.
	HOSE RACK: STAINLESS STEEL HOSE HANGER; 304 STAINLESS STEEL FOR HEAVY DUTY HOSE SUPPORT. 8" REEL, 200LBS CAPACITY.	ACCU-BRAND	DURO LOOP	MOUNT AT 30" A.F.F.
	HOSE SPRAYER: HEAVY DUTY METAL MULTI FUNCTION ADJUSTABLE HOSE NOZZLE WITH SMART THROTTEL	SUN JOE	AJHN102	

WATER HEATING EQUIPMENT SCHEDULE

MARK	FIXTURE / TRIM & ACCESSORIES	MFR.	MODEL NO.	ELEC REQ	REMARKS
EWH	ELECTRIC WATER HEATER: 1 ELEMENT, RECOVERY CAPACITY OF 41 GPH AT 90°F TEMPERATURE RISE. UL LISTED, NSF COMPLIANT, MAXIMUM WORKING PRESSURE OF 150 PSI, NOMINAL STORAGE TANK CAPACITY OF 80 GALLONS WITH A 3/4" RELIEF VALVE OPENING. ASME TEMPERATURE AND PRESSURE RELIEF VALVE. 1 1/4" INLET AND OUTLET.	A.O. SMITH	DSE-80-9	208V / 3 PHASE / 25 Amps	SET STORAGE TEMP AT 125F; SET ON WATER HEATER STAND; PROVIDE DRAIN PAN
	WATER HEATER STAND	HOLDRITE	QUICK STAND	#40-S-30	
	DRAIN PAN	HOLDRITE	QUICK PAN	QP-30	
ET	EXPANSION TANK: 5 GALLON CAPACITY TANK WITH ACCEPTANCE VOLUME OF 2 GAL FIELD ADJUST CARBON STEEL TANK, WITH PRIME PAINTED EXTERIOR, FDA-APPROVED AND FIXED BUTYL RUBBER BLADDER, STAINLESS STEEL NPT MALE INLET CONNECTION AND A .301"-32 CHARGING VALVE CONNECTION (STANDARD TIRE VALVE) FOR ON-SITE CHARGING OF THE TANK. PRE-PRESSURIZED AND PRECHARGED TO 40 PSI. ASME SECTION VIII CONSTRUCTION MAXIMUM DESIGN PRESSURE OR 150 PSI.	ELBI	DTS-8		

WATER HEATING EQUIPMENT SCHEDULE NOTES

1. UNLESS SCHEDULED OTHERWISE, ALL ELECTRIC WATER HEATERS SHALL BE THE PRODUCT OF ONE MANUFACTURER. ACCEPTABLE MANUFACTURERS SHALL BE A.O. SMITH, HEAT TRANSFER PRODUCTS, LOCHINVAR, AND STAT INDUSTRIES.
2. UNLESS SCHEDULED OTHERWISE, ALL POTABLE WATER THERMAL EXPANSION TANKS SHALL BE THE PRODUCTS OF ONE MANUFACTURER. ACCEPTABLE MANUFACTURERS SHALL BE ELBI OF AMERICA, TACO, AND WATTS REGULATOR COMPANY.
3. UNLESS SCHEDULED OTHERWISE, ALL HOT WATER CIRCULATION PUMPS SHALL BE THE PRODUCT OF ONE MANUFACTURER. ACCEPTABLE MANUFACTURERS SHALL BE BELL & GOSSETT, GOULDS PUMPS, GRUNDFOS, AND TACO.



1. THERMOMETER - INSTALL WITHIN 12" OF HOT WATER OUTLET.
2. ASME THERMAL EXPANSION TANK.
3. ROUTE T&P RELIEF VALVE DISCHARGE FULL SIZE THROUGH WALL TO WASH AREA. MOUNT ~18" A.F.F AND ELBOW DOWN. MAINTAIN MINIMUM 2" AIR GAP AT TERMINATION POINT.
4. PROVIDE FULL-PORT DRAIN VALVE AND ROUTE TO THROUGH WALL TO WASH AREA. MAINTAIN MINIMUM 2" AIR GAP AT TERMINATION POINT.
5. PROVIDE WATER HEATER STAND AND DRAIN PAN. EXTEND DRAIN TO THROUGH WALL TO WASH AREA ~18" A.F.F AND ELBOW DOWN. MINIMUM 2" AIR GAP AT TERMINATION POINT.
6. PROVIDE ACCESSIBLE SHUT OFF WATER VALVES TO WATER HEATER.

1 WATER HEATER PIPING DETAIL

NOT TO SCALE

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PLUMBING SCHEDULES AND DETAILS

P6.1

HVLS FAN SCHEDULE

MARK	HVLSF-1	HVLSF-2	
TYPE	INDUSTRIAL HVLS FAN	INDUSTRIAL HVLS FAN	
SERVES	AG BARN	AG BARN	
BLADE SWEEP (IN.)	168	168	
DRIVE	DIRECT	DIRECT	
MAX FRPM	118	118	
MOTOR SIZE (HP)	1.5	1.5	
MAX AMP DRAW (A)	4.3	4.3	
MOCP (A)	5	5	
V / PH / CYC	208 / 1 / 60	208 / 1 / 60	
LOCATION	I BEAM	I BEAM	
INTERLOCK W/	CONTROLLER	CONTROLLER	
WEIGHT LBS.	140	140	
MODEL	14' AIRVOLUTION-D3	14' AIRVOLUTION-D3	
MANUFACTURER	MACROAIR	MACROAIR	
NOTES	1, 2, 3, 4	1, 2, 3, 4	

NOTES:

1. COLOR AND FINISH OPTIONS TO BE CHOSEN BY ARCHITECT AT TIME OF SUBMITTAL REVIEW.
2. PROVIDE WITH EXTENSION TUBE LENGTH AS NECESSARY TO PROVIDE MANUFACTURER'S REQUIRED CLEARANCES.
3. PROVIDE WITH FAN CONTROLLER POWERED FROM FAN. CONTROLLER SHALL INCLUDE DIAL-ON/OFF SWITCH WITH VARIABLE SPEED CONTROL AND REVERSIBLE DIRECTION.
4. PROVIDE WITH FIXED ANGLE MOUNT WITH I-BEAM HARDWARE KIT, AND GUY WIRES.

UNIT HEATER SCHEDULE

MARK	UH-1		
SERVICE	WATER ROOM		
KW	3		
CFM	400		
MOTOR HP	1 / 125		
V / PH / CYC	208 / 1 / 60		
TYPE	ELECTRIC		
MODEL	UHEC		
MFR. REF.	TRANE		
NOTES	1		

NOTES:

1. PROVIDE WITH UNIT MOUNTED LINE VOLTAGE THERMOSTAT, DUST SHIELD, WALL BRACKET, AND FAN GUARD.

HVAC EQUIPMENT

NOT ALL WILL APPEAR ON THE DRAWINGS

AC	AIR CONTROL
ACC	AIR COOLED CHILLER
AP	ACCESS PANEL
AHU	AIR HANDLING UNIT
AS	AIR SEPARATOR
B	BOILER
BDD	BACKDRAFT DAMPER
BV	BALANCING VALVE
CH	CHILLER
CC	DX COOLING COIL
CHP	CHILLED WATER PUMP
CRU	CONDENSATE RETURN UNIT
CT	COOLING TOWER
CU	CONDENSING UNIT
CV	CONSTANT VOLUME TERMINAL UNIT
CWP	CONDENSER WATER PUMP
DHP	DUCT HEAT PIPE
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
ERU	ENERGY RECOVERY UNIT
ERV	ENERGY RECOVERY VENTILATOR
ESG	ELECTRIC STEAM GENERATOR
ET	EXPANSION TANK
FCU	FAN COIL UNIT
FCV	FLOW CONTROL VALVE
FF	FILTER FEEDER
FFU	FAN FILTER UNIT
FH	FUME HOOD
GEF	GENERAL EXHAUST FAN
H	HUMIDIFIER
HCU	HUMIDITY CONTROL UNIT
HC	HEATING COIL
HP	HEAT PUMP
HRU	HEAT RECOVERY UNIT
HWP	HEATING WATER PUMP
HVLSF	HIGH VOLUME LOW SPEED FAN
KEF	KITCHEN EXHAUST FAN
IU	VARIABLE REFRIGERANT FLOW INDOOR UNIT
OU	VARIABLE REFRIGERANT FLOW OUTDOOR UNIT
KH	KITCHEN EXHAUST HOOD
KSF	KITCHEN SUPPLY FAN
L	LOUVER
LEF	LAB EXHAUST FAN
MAU	MAKE-UP AIR UNIT
MASF	MAKE-UP AIR SUPPLY FAN
MB	MIXING BOX
ML	MIXING LATERAL
OAI	OUTSIDE AIR INTAKE
OAU	OUTSIDE AIR UNIT
OAF	OUTSIDE AIR FAN
PACU	PACKAGED AIR CONDITIONING UNIT
PCHP	PRIMARY CHILLED WATER PUMP
PF	PURGE FAN
PTHP	PACKAGED TERMINAL HEAT PUMP
PTAC	PACKAGED TERMINAL AIR CONDITIONING UNIT
PV	PENTHOUSE VENTILATOR
RH	RADIANT HEATER
RF	RELIEF FAN
RPZ	REDUCED PRESSURE BACK FLOW PREVENTER
RTU	SINGLE PACKAGED (ROOFTOP) AIR CONDITIONING UNIT
SAF	SUPPLY AIR FAN
SCHP	SECONDARY CHILLED WATER PUMP
SEF	SMOKE EVACUATION FAN
SF	SUPPLY FAN
SPF	SMOKE PURGE FAN
UH	UNIT HEATER
VAV	VARIABLE VOLUME AIR TERMINAL UNIT
WSHP	WATER SOURCE HEAT PUMP

HVAC SYMBOL SCHEDULE

NOT ALL WILL APPEAR ON THE DRAWINGS

SYMBOL	IDENTIFICATION	SYMBOL	IDENTIFICATION
	GENERAL		DUCTWORK
	NEW POINT OF CONNECTION TO EXISTING	20x8	EXTERNALLY INSULATED OR INTERNALLY LINED DUCT. SIZE INDICATES INSIDE FREE AIRWAY WIDTH (SIDE SHOWN) X DEPTH
	REMOVE BACK TO HERE		SUPPLY AIR RISE UP
	PIPING		RETURN/EXHAUST AIR RISE UP
	DIRECTION OF SLOPE (OR PITCH)		SUPPLY AIR DROP DOWN
	DIRECTION OF FLOW		RETURN/EXHAUST AIR DROP DOWN
	UNION		FLEXIBLE DUCT
	TOP CONNECTION (45° OR 90°)		SUPPLY AIR DIFFUSER (CEILING) (4-WAY THROW U.N.O.)
	BOTTOM CONNECTION (45° OR 90°)		RETURN/EXHAUST AIR REGISTER OR GRILLE (CEILING)
	SIDE CONNECTION (TEE)	6"	VANE TURN ELBOW & AIR SPLIT DUCT TAKE-OFF (DIMENSION AT SPLIT INDICATES SMALLER SIDE OF SPLIT)
	CAPPED OUTLET (TOP CONNECTION)	DN UP	INCLINED RISE OR DROP
	DROP (OR RISE) IN PIPE		MITERED ELBOW (WITH TURNING VANES)
	ELL TURNED UP (RISER)		MITERED ELBOW (NO TURNING VANES)
	ELL TURNED DOWN		RADIUS ELBOW
	BALL VALVE	DD	DUCT MOUNTED SMOKE DETECTOR
	GATE VALVE	VD	MANUAL VOLUME DAMPER
	BALANCING VALVE	FD	DUCT MOUNTED FIRE DAMPER
	BUTTERFLY VALVE	FSD	DUCT MOUNTED FIRE/SMOKE DAMPER
	CHECK VALVE	SD	DUCT MOUNTED SMOKE DAMPER
	STRAINER	M	MOTORIZED DAMPER
	TRIPLE DUTY VALVE	SPS	DUCT MOUNTED STATIC PRESSURE SENSOR
	PRESSURE RELIEF VALVE		SENSORS
	PRESSURE REDUCING VALVE	T#	THERMOSTAT OR TEMP SENSOR (#= ZONE CONTROLLED)
	2-WAY CONTROL VALVE	F#	FAN SPEED CONTROLLER (#= ZONE CONTROLLED)
	3-WAY CONTROL VALVE	CO_2#	CARBON DIOXIDE SENSOR (#= ZONE CONTROLLED)
	PLUG VALVE	CO#	CARBON MONOXIDE SENSOR (#= ZONE CONTROLLED)
	THERMOMETER	SP	SPACE STATIC PRESSURE SENSOR
	PRESSURE GAUGE	PM	ROOM PRESSURE MONITOR
	STEAM TRAP		
	THERMOWELL		
	GAUGE TAP (PETE'S PLUG)		
	PUMP		

GENERAL ABBREVIATIONS

ABV.	ABOVE	LG.	LONG/LENGTH
A.F.F.	ABOVE FINISH FLOOR	MAT'L.	MATERIAL
AHU	AIR HANDLING UNIT	MFR.	MANUFACTURER
ALUM.	ALUMINUM	MAX.	MAXIMUM
APPROX.	APPROXIMATELY	MECH.	MECHANICAL
ARCH.	ARCHITECT/ARCHITECTURAL	MIN.	MINIMUM
BD.	BOARD	MISC.	MISCELLANEOUS
B.O.	BOTTOM OF	MTD.	MOUNTED
B.O.D.	BOTTOM OF DUCT	MTL.	METAL
B.O.P.	BOTTOM OF PIPE	N.C.	NORMALLY CLOSED
BLDG.	BUILDING/BUILDINGS	N.I.C.	NOT IN CONTRACT
BMS	BUILDING MANAGEMENT SYSTEM	NO.	NUMBER
CLG.	CEILING	N.O.	NORMALLY OPEN
C.L.	CENTERLINE	N.T.S.	NOT TO SCALE
COL.	COLUMN	O.C.	ON CENTER
CONC.	CONCRETE	OAF	OUTSIDE AIR FAN
CV	CONSTANT VOLUME	O.D.	OUTSIDE DIAMETER
CONST.	CONSTRUCTION	OPN'G.	OPENING
CONT.	CONTINUOUS	PL.	PLATE
CORR.	CORRIDOR	PL.	PLATE
CSA	COLD SUPPLY AIR	PVC	POLYVINYLCHLORIDE
DEMO.	DEMOLITION	RAD.	RADIUS
DIA.	DIAMETER	REINF.	REINFORCE/REINFORCING
DIM.	DIMENSION	REQ'D.	REQUIRED
DDC	DIRECT DIGITAL CONTROLS	RA	RETURN AIR
DWG.	DRAWING/DRAWINGS	RAF	RETURN AIR FAN
DN.	DOWN	RTU	ROOFTOP UNIT
EA.	EACH	SCHED.	SCHEDULE
ELEC.	ELECTRICAL	SECT.	SECTION
ELEV.	ELEVATION	SHT.	SHEET
EQ.	EQUAL	SIM.	SIMILAR
EQUIP.	EQUIPMENT	SPECS.	SPECIFICATIONS
EXP.	EXPANSION	STL.	STEEL
EXIST.	EXISTING	STRUCT.	STRUCTURAL
EXH.	EXHAUST	SA	SUPPLY AIR
FOB	FLAT ON BOTTOM	SUSP.	SUSPENDED
FOT	FLAT ON TOP	T.O.	TOP OF
FT.	FOOT/FEET	T.O.D.	TOP OF DUCT
GA.	GAUGE	T.O.P.	TOP OF PIPE
GALV.	GALVANIZED	TYP.	TYPICAL
GYP.	GYPSUM	U.N.O.	UNLESS NOTED OTHERWISE
HT.	HEIGHT	VAV	VARIABLE AIR VOLUME
HORIZ.	HORIZONTAL	VERT.	VERTICAL
HSA	HOT SUPPLY AIR	VFD	VARIABLE FREQUENCY DRIVE
I.D.	INSIDE DIAMETER	VRF	VARIABLE REFRIGERANT FLOW
IN.	INCH/INCHES	W/	WITH
INSUL.	INSULATE/INSULATION	W/O	WITHOUT

GENERAL NOTES

1. ALL CONSTRUCTION/DEMOLITION INDICATED ON THE DRAWINGS REFLECTS ASSUMPTIONS CONCERNING EXISTING CONDITIONS BASED ON THE AVAILABLE INFORMATION. VISITS TO THE JOB SITE, AND LOCATIONS/ARRANGEMENTS OF EXISTING FACILITIES. IT SHALL BE INCUMBENT UPON EACH CONTRACTOR TO VISIT THE SITE PRIOR TO BIDDING AND SATISFY THEMSELVES AS TO THE EXISTING CONDITIONS.
2. VERIFY ALL DIMENSIONS AFFECTING EACH ITEM OF THE WORK.
3. REVIEW ALL GENERAL NOTES ON THE ARCHITECTURAL, CIVIL & STRUCTURAL DRAWINGS.
4. FOR CLARITY PURPOSES, NOT ALL EQUIPMENT, DUCTWORK, PIPING, ETC. MAY BE SHOWN IN EACH VIEW.
5. COORDINATE THE LOCATION OF ROOF & WALL PENETRATIONS WITH STRUCTURAL ELEMENTS. PROVIDE AT NEW WALL PENETRATIONS SLEEVES 1" LARGER IN DIAMETER THAN THE PIPE INSULATION & EXTENDING 1-1/2" BEYOND FINISHED SURFACES. FILL ANNULAR SPACE WITH FIRESTOPPING INSULATION & CAULK.

CODE COMPLIANCE

1. INTERNATIONAL BUILDING CODE (2015 EDITION) WITH ANY APPLICABLE LOCAL AMENDMENTS
2. INTERNATIONAL PLUMBING CODE AND INTERNATIONAL FUEL GAS CODE (2015 EDITIONS) WITH ANY APPLICABLE LOCAL AMENDMENTS.
3. INTERNATIONAL ENERGY CONSERVATION CODE (2015 EDITION) WITH ANY APPLICABLE LOCAL AMENDMENTS.
4. NFPA 90A-2015: STANDARD FOR INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS.
5. NFPA 96-2014 - STANDARD FOR VENTILATION CONTROL AND FIRE PROTECTION OF COMMERCIAL COOKING OPERATIONS.

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WIMBERLEY HIGH SCHOOL
AGRICULTURAL BARN
100 CARNEY LN, WIMBERLEY, TX 78676

Engineering Firm:
O'CONNELL ROBERTSON
Firm Registration No. F-2708
Revisions:

NO.	DESCRIPTION	DATE

01/17/19
Project No. 1820.05
CONTRACT DOCUMENTS

MECHANICAL NOTES, SYMBOLS, ABBREVIATIONS & SCHEDULES

M1.1

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GENERAL NOTES

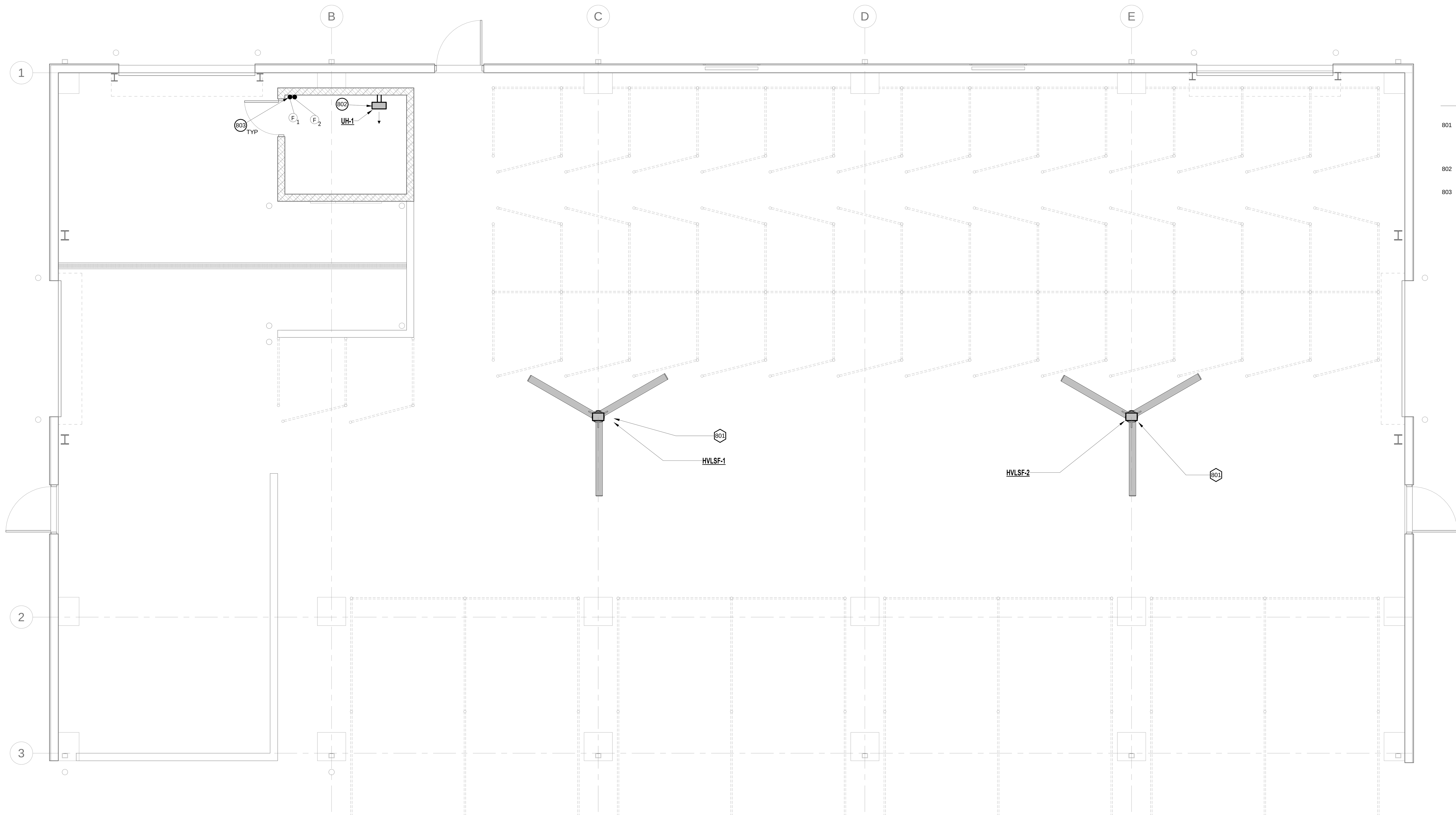
1. REFER TO SHEET M1.1 FOR GENERAL MECHANICAL NOTES THAT SHALL APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN THE KEYED NOTES.
2. ALL EXISTING DUCTWORK, PIPING SIZES & LOCATIONS ARE TAKEN FROM BEST AVAILABLE RECORD DOCUMENTS & SITE OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

KEYNOTE LEGEND

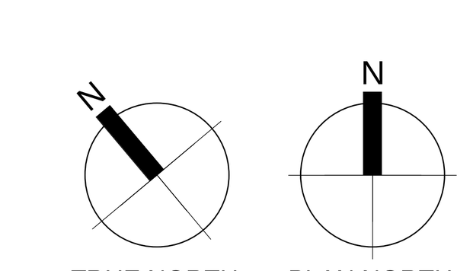
801 AS PART OF ALTERNATE BID #1, PROVIDE HIGH VOLUME LOW SPEED FAN AS SCHEDULED. SUSPEND FROM I-BEAM ABOVE USING MANUFACTURER RECOMMENDED MOUNT. MOUNT FAN AT APPROXIMATELY 11' A.F.F. COORDINATE MOUNTING LOCATION WITH LIGHTS.

802 PROVIDE UNIT HEATER AS SCHEDULED AT 8' A.F.F. IN THIS VICINITY MOUNTED TO WALL.

803 AS PART OF ALTERNATE BID #1, PROVIDE FAN CONTROLLER AT 48" A.F.F. IN THIS VICINITY. PROVIDE ENGRAVED SIGN ON WALL SHOWING "SHUT OFF FANS IN EVENT OF HIGH WINDS".



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



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Engineering Firm:
O'CONNELL ROBERTSON
Firm Registration No. F-2708
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MECHANICAL PLAN
M2.1

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POWER

MOUNT ALL RECEPTACLES AT 16" A.F.F. U.N.O.

	SINGLE RECEPTACLE
	DUPLEX RECEPTACLE
	FOURPLEX (QUADPLEX) RECEPTACLE
	CEILING DUPLEX RECEPTACLE
L-20R	POWER RECEPTACLE W/NEMA CONFIGURATION AS INDICATED
	DUPLEX RECEPTACLE WITH INTEGRAL "GFCI" PROTECTION
	SPLIT-WIRED RECEPTACLE
EDF	GFCI RECEPTACLE FOR ELECTRIC DRINKING FOUNTAIN. MOUNT PER MANUFACTURER'S INSTRUCTIONS.
IG	ISOLATED GROUND DUPLEX RECEPTACLE
-	MINUS SIGN INDICATES SPECIAL MOUNTING. CENTER RECEPTACLE IN KNEE SPACE AT 24" A.F.F.
+	PLUS SIGN INDICATES SPECIAL MOUNTING HEIGHT. UNLESS SHOWN OTHERWISE ON ARCHITECTURAL ELEVATIONS, OR U.N.O., INSTALL HORIZONTALLY WITH BOTTOM OF PLATE 2" ABOVE BACKSPLASH OR 6" ABOVE COUNTER TOP IF NO BACKSPLASH.
	CORD DROP ASSEMBLY
PP	POWER POLE. RECEPTACLE TYPES NOTED ON PLAN.
	FLOOR BOX. SIZE & RECEPTACLE TYPES NOTED ON PLAN.
A	ACCESS FLOOR BOX
	MULTI-OUTLET ASSEMBLY. SIZE, RECEPTACLE TYPES & MTG. HT. NOTED ON PLAN.
J J J	JUNCTION BOXES (CEILING/WALL/FLOOR)
E DDC	EQUIPMENT OR MOTOR CONNECTION. FURNISH AND INSTALL ALL MATERIALS REQUIRED TO CONNECT PER MANUFACTURER'S REQUIREMENTS (INCLUDES FLEX CONNECTION, DISCONNECT SWITCH, RELAY, OR RECEPTACLE, IF REQUIRED). SUFFIX DENOTES TYPE OF EQUIPMENT: DDC = DIRECT DIGITAL CONTROLS, SEC = SECURITY CONTROLS, ETC.
5	MOTOR (HORSEPOWER NOTED)
	PUSH BUTTON
$M	MOTOR-RATED SWITCH
CB CB	ENCLOSED CIRCUIT BREAKER (SURFACE/FLUSH)
3/30/1	DISCONNECT SWITCH (3 POLE/ 30 AMP / NEMA 1)
3/30/20/1	FUSED DISCONNECT SWITCH (3 POLE/ 30 AMP / 20 AMP FUSES/ NEMA 1)
3/30/2/1	COMBINATION STARTER - (3 POLE/ 30 AMP/ SIZED 2/ NEMA 1)
3	MOTOR STARTER (NEMA SIZE NOTED)
	VARIABLE SPEED DRIVE (HANDLE INDICATES INTERNAL DISCONNECT FURNISHED)
'N1H'	PANELBOARD W/DESIGNATION (FLUSH-MOUNTED, SURFACE-MOUNTED)
E11	EQUIPMENT NUMBER

CIRCUITING

NOT ALL SYMBOLS WILL APPEAR ON THE DRAWINGS

	CIRCUIT CONCEALED IN CEILING OR WALL
	SWITCHED LIGHTING
	CIRCUIT UNDER SLAB OR UNDER GROUND
	CIRCUIT HOMERUN
J	J-HOOK PATHWAY FOR CABLING WITH J-HOOKS AT 4' O.C. MAXIMUM
CT	APPROXIMATE CABLE TRAY ROUTING - COORDINATE ACTUAL LOCATIONS WITH OBSTRUCTIONS

EMERGENCY POWER SYSTEMS

NOT ALL SYMBOLS WILL APPEAR ON THE DRAWINGS

FSAP	FUEL SYSTEM ALARM PANEL
EGA	EMERGENCY GENERATOR ANNUNCIATOR
EGS	EMERGENCY GENERATOR STOP STATION
	SWITCHED OPTIONAL STANDBY FIXTURES.
	SWITCHED EMERGENCY FIXTURE (ON CRITICAL BRANCH IN HEALTH CARE OCCUPANCIES, U.N.O.)
	NON-SWITCHED EMERGENCY FIXTURE (ON LIFE SAFETY BRANCH IN HEALTH CARE OCCUPANCIES, U.N.O.)
	RECEPTACLE(S) ON EMERGENCY CIRCUIT W/ (ON CRTICAL BRANCH IN HEALTH CARE OCCUPANCIES). RED DEVICE, RED WALL PLATE.
	JUNCTION BOX/EQUIPMENT CONNECTION ON EMERGENCY SYSTEM

SITE ELECTRICAL

NOT ALL SYMBOLS WILL APPEAR ON THE DRAWINGS

OHP	OVERHEAD ELECTRICAL PRIMARY
OHS	OVERHEAD ELECTRICAL SECONDARY
OHT	OVERHEAD TELEPHONE
OHE	OVERHEAD ELECTRICAL - GENERAL
UGP	UNDERGROUND ELECTRICAL PRIMARY
UGS	UNDERGROUND ELECTRICAL SECONDARY
UGT	UNDERGROUND TELEPHONE
UGE	UNDERGROUND ELECTRICAL - GENERAL
UP	UTILITY POLE

LIGHTING

MOUNT ALL SWITCHES & OCCUPANCY SENSORS AT 48" A.F.F. U.N.O.

A1 a	CEILING LIGHT FIXTURE. LOWER CASE SUBSCRIPT INDICATES SWITCH SERVING FIXTURE OR SUBSCRIPT 'NL' INDICATES NON-SWITCHED NIGHT LIGHT.
	CEILING-MOUNTED FIXTURE (ARROW INDICATES WALL WASHER OR SPOT AIMING DIRECTION),
	INDUSTRIAL STRIP FIXTURE
	ENCLOSED LINEAR LIGHT
	WALL-MOUNTED FIXTURE
	BATTERY POWERED EMERGENCY LIGHT
	EXIT LIGHT FIXTURES (CEILING, WALL). SHADING INDICATES ILLUMINATED FACE(S). ARROWS INDICATE CHEVRONS.
	SIDE-MOUNTED SITE LIGHTING FIXTURE AND POLE
	TOP-MOUNTED SITE LIGHTING FIXTURE AND POLE
	LIGHTED BOLLARD
CKT #1	DENOTES CIRCUIT NO. FOR ALL LIGHTS IN ROOM/AREA
$	SINGLE-POLE SWITCH, LINE-VOLTAGE
$3	THREE-WAY SWITCH
$4	FOUR-WAY SWITCH
$D	DIMMER SWITCH
$O	OCCUPANCY SENSOR SWITCH
$P	SWITCH WITH PILOT LIGHT (WHEN ON)
$V	VACANCY/MANUAL-ON SWITCH
S	LOW-VOLTAGE SWITCH. SUBSCRIPT, IF USED, INDICATES NUMBER OF ZONES OR SUBSCRIPT 'D' INDICATES DIMMER SWITCH.
O O	OCCUPANCY SENSOR (WALL, CEILING)
	VACANCY/ MANUAL-ON SENSOR (WALL, CEILING).
DS	DAY/ AMBIENT LIGHT SENSOR
LR	LOW VOLTAGE LIGHTING RELAY
PC	LIGHT CONTROL PHOTO CELL
TC1	TIME CLOCK, NUMBER INDICATES NAMING CONVENTION
LC1	LIGHTING CONTACTOR, NUMBER INDICATES NAMING CONVENTION

LINE TYPE LEGEND

EXISTING TO REMAIN

NEW WORK

GENERAL ABBREVIATIONS

OTHER ABBREVIATIONS MAY BE USED. NOTIFY ENGINEER IF CLARIFICATIONS ARE REQUIRED.

ABV	ABOVE	GEC	GROUNDING ELECTRODE CONDUCTOR
AFF	ABOVE FINISH FLOOR	GFI	GROUND FAULT CIRCUIT INTERRUPTER
AFG	ABOVE FINAL GRADE	IG	ISOLATED GROUND
AHJ	AUTHORITY HAVING JURISDICTION	MTG. HT.	MOUNTING HEIGHT
AL	ALUMINUM	N	GROUNDED CIRCUIT CONDUCTOR (NEUTRAL)
ATS	AUTOMATIC TRANSFER SWITCH	N1,N3R,N...	NEMA 1, NEMA 3R, NEMA RATING (AS NOTED)
BLW	BELOW	NL	NIGHT LIGHT
C	CONDUIT	NTS	NOT TO SCALE
CB	CIRCUIT BREAKER	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
CKT	CIRCUIT	OFOI	OWNER FURNISHED, OWNER INSTALLED
CLG	CEILING	PB	PULL BOX
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED	PH,W	PHASE, WIRE
CT	CURRENT TRANSFORMER	RCPT	RECEPTACLE
CU	COPPER	SC	SPLIT CIRCUIT
(E)	EXISTING	SDE	SERVICE DISTRIBUTION ENCLOSURE
EC	EMPTY CONDUIT	SPD	SURGE PROTECTIVE DEVICE
EDF	ELECTRIC DRINKING FOUNTAIN	ST	SHUNT TRIP
EM	EMERGENCY	TR	TAMPER RESISTANT
EOMH	ELECTRICAL OPERATED, MECHANICALLY HELD	U.N.O.	UNLESS NOTED OTHERWISE
ER	EXISTING RELOCATED	UG	UNDERGROUND
EXR	EXISTING TO REMAIN	VFD	VARIABLE FREQUENCY DRIVE
F/A	FIRE ALARM	WR	WEATHER-RESISTANT
G	GROUND	XFMR	TRANSFORMER

ELECTRICAL GENERAL REQUIREMENTS & RESTRICTIONS

1. NO WIRING SHALL BE INSTALLED IN STAIRWELLS, EXIT PASSAGEWAYS, HOISTWAYS OR ELEVATOR MACHINE ROOMS EXCEPT THAT EXCLUSIVELY USED TO SERVE THOSE AREAS.
2. ALL PENETRATIONS THROUGH FIRE RATED CONSTRUCTION SHALL BE FIRE-STOPPED USING METHODS & MATERIALS COMPLYING WITH THE SPECIFICATIONS FOR THIS PROJECT.
3. LIGHT SWITCHES AND RECEPTACLES FROM EMERGENCY POWER SYSTEMS AND NORMAL POWER SYSTEMS SHALL NOT BE COMBINED IN THE SAME BOXES OR RACEWAY SYSTEMS.
4. ALL CIRCUITS TO ROOF MOUNTED EQUIPMENT SHALL BE INSTALLED ABOVE CEILING THEN UP THROUGH ROOF CURBS UNLESS NOTED OTHERWISE. NO CONDUITS SHALL BE RUN ON, ACROSS OR ABOVE ROOF, EXCEPTING FINAL CONNECTIONS TO EQUIPMENT NOT EXCEEDING 3 FEET MAXIMUM IN LENGTH.
5. WHERE POSSIBLE AVOID BACK-TO-BACK INSTALLATION OF OUTLETS. DO NOT USE THROUGH THE WALL BOXES WHERE BACK-TO-BACK CONDITIONS CANNOT BE AVOIDED.

ELECTRICAL CIRCUITING

1. UNLESS OTHERWISE INDICATED, ALL BRANCH CIRCUIT WIRING SHALL BE A MINIMUM OF 3/4" CONDUIT CONTAINING 2#12 CONDUCTORS AND 1#12 GROUNDING CONDUCTOR.
2. WHERE HOME RUN LENGTH ON 20A SINGLE PHASE CIRCUITS EXCEEDS 75' ON 120 VOLT CIRCUITS OR 150' ON 277 VOLT CIRCUITS, THE CONDUCTOR SIZES IN HOME RUNS SHALL BE INCREASED TO #10 MINIMUM FROM SERVING PANEL TO FIRST OUTLET.
3. 20A SINGLE PHASE CIRCUITS MAY BE COMBINED IN COMMON RACEWAYS AS ALLOWED BY THE NEC. COMMON NEUTRAL CONDUCTORS SHALL NOT BE USED.
4. NEC CODE SIZED EQUIPMENT GROUNDING CONDUCTORS SHALL BE PROVIDED IN ALL BRANCH CIRCUITS & FEEDERS.
5. DEDICATED HOME RUNS SHALL BE PROVIDED FROM OUTLET TO PANEL WHERE SINGLE OUTLET CIRCUITS ARE SHOWN. DO NOT COMBINE WITH WIRING FOR OTHER OUTLETS.
6. SEE INDIVIDUAL FLOOR PLANS FOR SERVING PANELBOARD INFORMATION. CIRCUIT ALL OUTLETS WITH SAME NUMBERS ON SAME CIRCUIT.
7. LIGHT SWITCHES SHOWN IN A ROOM CONTROL ALL LIGHTS IN THAT ROOM, UNLESS NOTED OTHERWISE. SWITCHLEGS FOR LIGHTING OR OTHER NON-LIGHTING EQUIPMENT ARE SHOWN ONLY WHERE REQUIRED TO INDICATE THE INTENDED CONTROL. SWITCHING MAY ALSO BE INDICATED BY THE USE OF LOWER CASE LETTERS ADJACENT TO CORRESPONDING SWITCHES & FIXTURES.

COORDINATION WITH OTHER WORK

1. WHERE HEIGHTS OF ELECTRICAL OUTLETS ARE SHOWN ON DRAWINGS, THEY ARE GIVEN AS AN AID TO THE CONTRACTOR IN BIDDING & TO INDICATE GENERAL POSITION. COORDINATE FINAL EXACT LOCATION OF ALL DEVICES AND EQUIPMENT WITH ARCHITECTURAL & MECHANICAL PLANS, ELEVATIONS & CONSTRUCTION DETAILS.
2. WHEN OUTLET LOCATIONS ARE SPECIFICALLY INDICATED ON ARCHITECTURAL ELEVATIONS, THE OUTLETS SHALL BE INSTALLED AT THE LOCATION SHOWN.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR COORDINATION OF CEILING SYSTEMS AND MECHANICAL- ELECTRICAL SYSTEM COMPONENTS.
4. REVISE AND COORDINATE LOCATION OF ALL LIGHTING FIXTURES IN MECHANICAL ROOMS WITH PIPING, DUCTWORK AND EQUIPMENT BEFORE ROUGH IN. FIXTURES SHALL BE MOUNTED AS NOTED AND SPECIFIED. GENERALLY, ALL SUSPENDED FIXTURES SHALL BE MOUNTED 8' A.F.F. U.N.O. ARRANGE FIXTURES TO OBTAIN BEST USABLE LIGHTING COVERAGE.
5. COORDINATE EXACT PLACEMENT OF ALL MOTOR CONTROLLERS AND DISCONNECTS WITH THE SPACE AVAILABLE AND WITH THE TRADE PROVIDING THE EQUIPMENT SERVED.

MISCELLANEOUS REQUIREMENTS

1. EACH LAY-IN GRID MOUNTED LIGHTING FIXTURE SHALL BE FED FROM JUNCTION BOXES MOUNTED TO THE STRUCTURE (EXCEPT AS NOTED) USING A MAXIMUM OF 6' OF 3/8" FLEXIBLE METALLIC CONDUIT, SUCH THAT ANY FIXTURE MAY BE RELOCATED INTO ANY ADJACENT CEILING TILE SPACE. FLEX OR CABLE SHALL NOT BE RUN DIRECTLY FROM FIXTURE TO FIXTURE.
2. AT EACH FLUSH MOUNTED BRANCH CIRCUIT PANELBOARD, PROVIDE A MINIMUM OF THREE 1" EMPTY CONDUITS TO ABOVE CEILING OR OTHER ACCESSIBLE SPACE FOR FUTURE USE.

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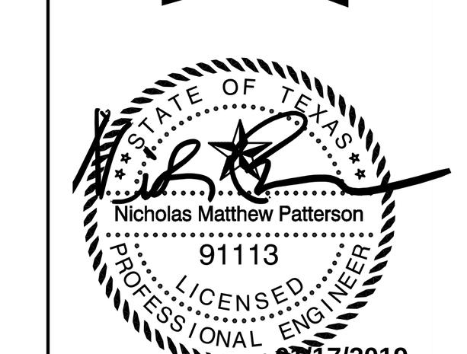

Engineering Firm:
O'CONNELL ROBERTSON
Firm Registration No. F-2708

Revisions:

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ELECTRICAL NOTES AND SYMBOLS

E1.1

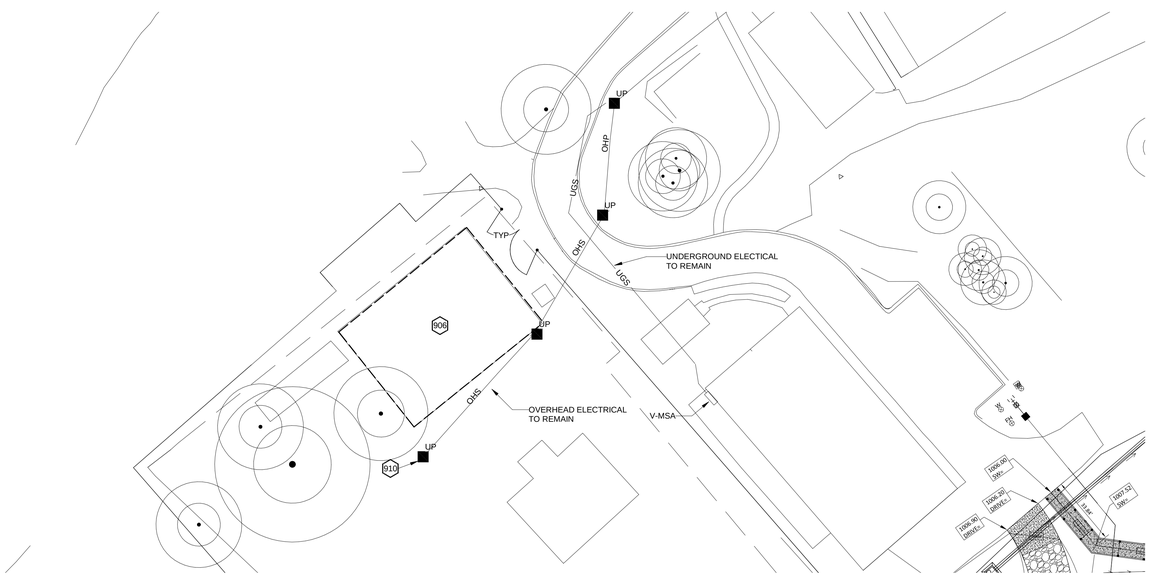
GENERAL NOTES

1. REFER TO SHEET E1.1 FOR GENERAL ELECTRICAL NOTES THAT SHALL APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN THE KEYED NOTES.
2. EXISTING ELECTRICAL WORK & LOCATIONS ARE TAKEN FROM AVAILABLE RECORD DOCUMENTS & SITE OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

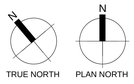
KEYNOTE LEGEND

906 EXISTING BUILDING TO BE DEMOLISHED. REMOVE EXISTING ELECTRICAL ITEMS AND CIRCUITS TO THE PANEL MOUNTED ON THE POWER POLE.

910 EXISTING POWER POLE AND POWER PANEL TO REMAIN.



1 ELECTRICAL DEMO SITE PLAN
SCALE: 1" = 30'-0"



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WIMBERLEY HIGH SCHOOL
AGRICULTURAL BARN
100 CARNEY LN. WIMBERLEY, TX 78676

01/17/2019
Engineering Firm:
O'CONNELL ROBERTSON
Firm Registration No. F-2708
Revisions:

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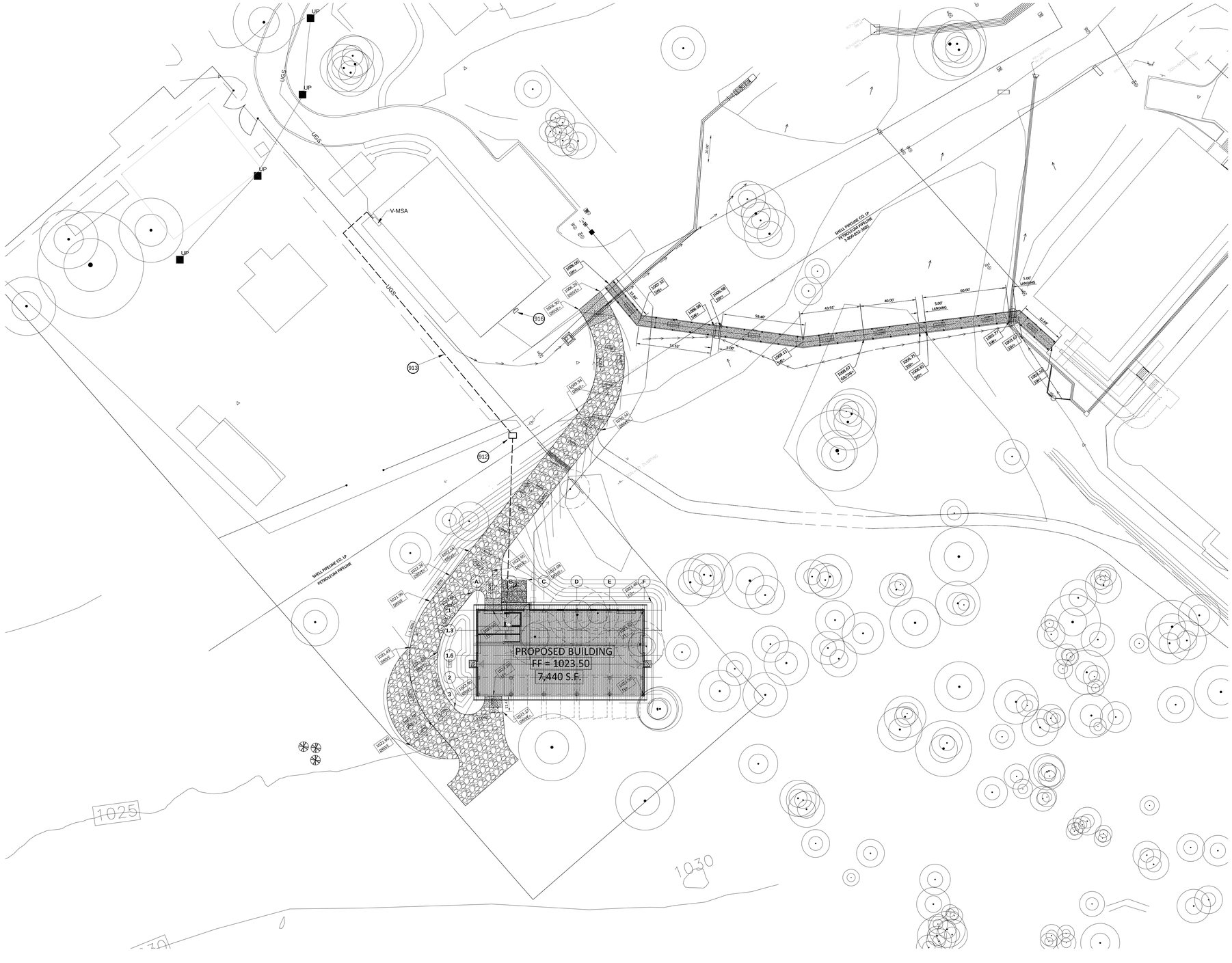
ELECTRICAL DEMO SITE PLAN

E2.1



1 ELECTRICAL NEW SITE PLAN
SCALE: 1" = 30'-0"

TRUE NORTH PLAN NORTH

NORTH

GENERAL NOTES

1. REFER TO SHEET E1.1 FOR GENERAL ELECTRICAL NOTES THAT SHALL APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN THE KEYED NOTES.
2. EXISTING ELECTRICAL WORK & LOCATION/S ARE TAKEN FROM AVAILABLE RECORD DOCUMENTS & SITE OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

KEYNOTE LEGEND

912 PROVIDE NEW PULL BOX.

913 SEE ONE-LINE DIAGRAM FOR CONDUIT AND CABLING SIZES.

916 PROVIDE NEW LIGHT FIXTURE ON EXISTING BUILDING. PROVIDE TYPE 'WP1' AND CONNECT TO EXISTING EXTERIOR LIGHTING CIRCUIT AND CONTROL. PROVIDE FIXTURE VOLTAGE TO MATCH EXISTING CIRCUIT.

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ELECTRICAL NEW SITE PLAN

E2.2

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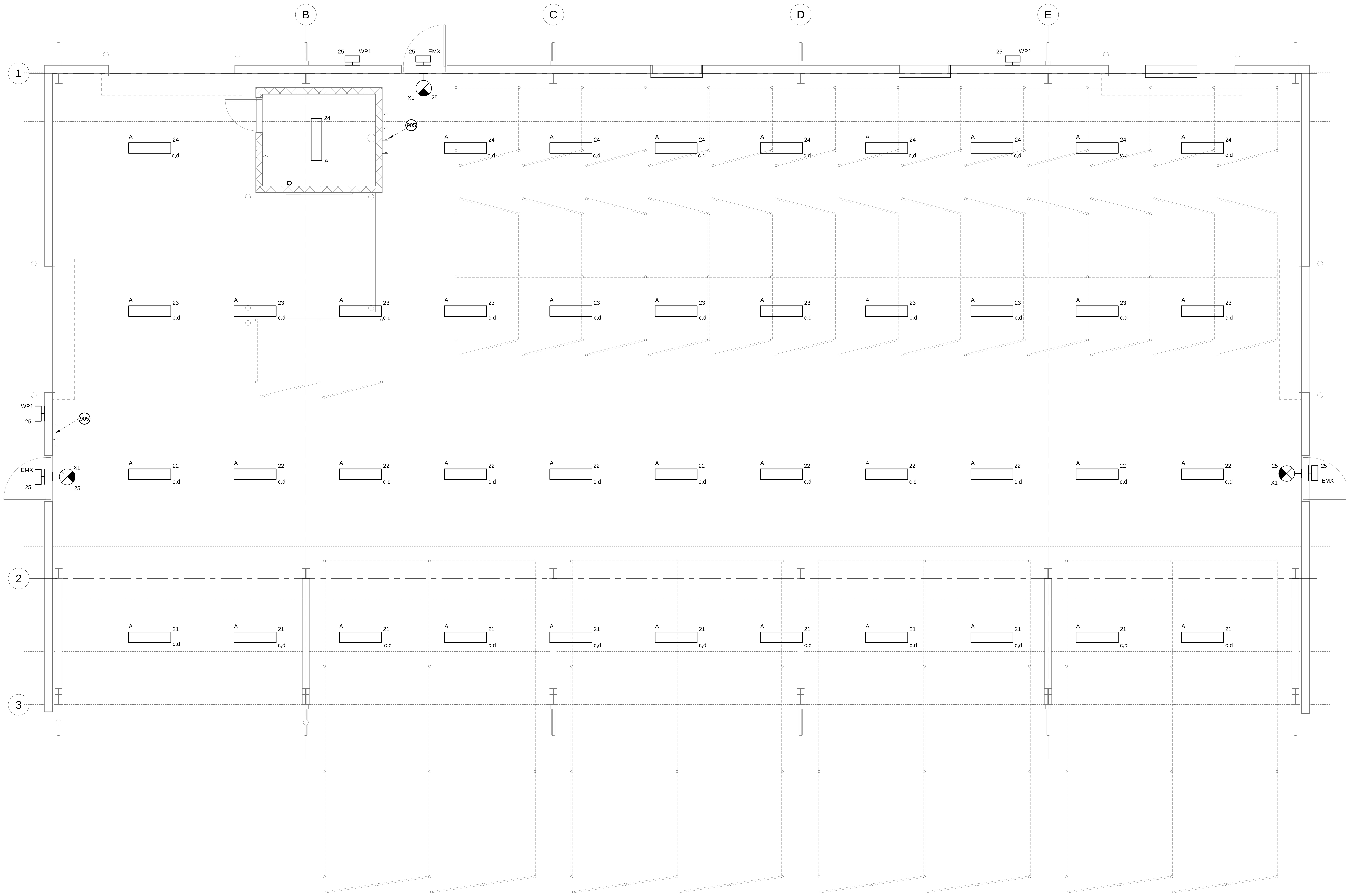


1 ELECTRICAL LIGHTING PLAN

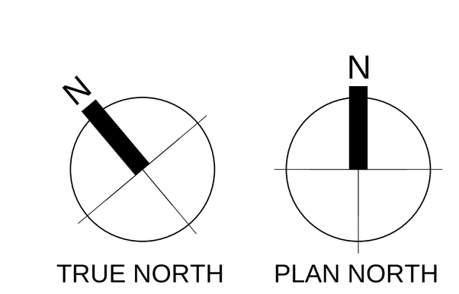
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET E1.1 FOR GENERAL ELECTRICAL NOTES THAT SHALL APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN THE KEYED NOTES.
2. THIS SHEET GENERALLY DEPICTS EQUIPMENT AND DEVICES FOR FLOOR LEVEL TO APPROXIMATELY 48" AFF. SEE LIGHTING/CEILING SHEETS FOR ADDITIONAL DEVICES MOUNTED ABOVE THIS LEVEL.

KEYNOTE LEGEND

905 PROVIDE WATTSTOPPER #TS-400 TIMER SWITCHES FOR INTERIOR LIGHTING CONTROL. WIRE FOR 3-WAY CONTROL.



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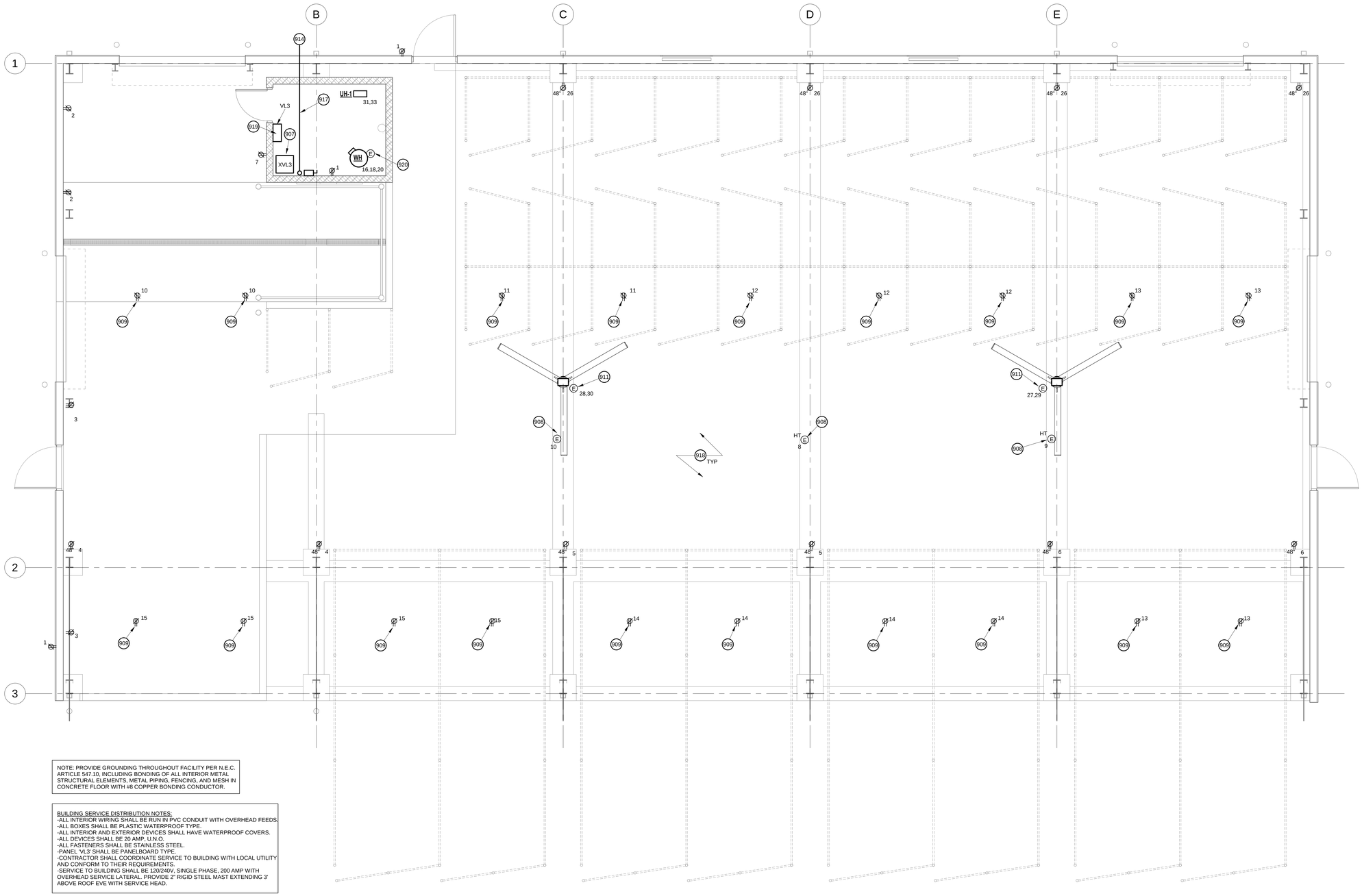
ELECTRICAL LIGHTING PLAN

E3.1



NOTE: PROVIDE GROUNDING THROUGHOUT FACILITY PER N.E.C. ARTICLE 547.10, INCLUDING BONDING OF ALL INTERIOR METAL STRUCTURAL ELEMENTS, METAL PIPING, FENCING, AND MESH IN CONCRETE FLOOR WITH #8 COPPER BONDING CONDUCTOR.

BUILDING SERVICE DISTRIBUTION NOTES:
-ALL INTERIOR WIRING SHALL BE RUN IN PVC CONDUIT WITH OVERHEAD FEEDS.
-ALL BOXES SHALL BE PLASTIC WATERPROOF TYPE.
-ALL INTERIOR AND EXTERIOR DEVICES SHALL HAVE WATERPROOF COVERS.
-ALL DEVICES SHALL BE 20 AMP, U.N.O.
-ALL FASTENERS SHALL BE STAINLESS STEEL.
-PANEL 'VL3' SHALL BE PANELBOARD TYPE.
-CONTRACTOR SHALL COORDINATE SERVICE TO BUILDING WITH LOCAL UTILITY AND CONFORM TO THEIR REQUIREMENTS.
-SERVICE TO BUILDING SHALL BE 120/240V, SINGLE PHASE, 200 AMP WITH OVERHEAD SERVICE LATERAL. PROVIDE 2" RIGID STEEL MAST EXTENDING 3' ABOVE ROOF EVE WITH SERVICE HEAD.

GENERAL NOTES

1. REFER TO SHEET E1.1 FOR GENERAL ELECTRICAL NOTES THAT SHALL APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN THE KEYED NOTES.
2. THIS SHEET GENERALLY DEPICTS EQUIPMENT AND DEVICES FROM APPROXIMATELY 48" AFF TO CEILING LEVEL, INCLUDING LIGHTING, SWITCHING, AND SOME CEILING MOUNTED AND WALL MOUNTED DEVICES NECESSARY FOR COORDINATION WITH CEILING MOUNTED DEVICES - e.g. FIRE ALARM VISUAL DEVICES.

KEYNOTE LEGEND

907 MOUNT TRANSFORMER ON 4" HOUSEKEEPING PAD.

908 PROVIDE CONNECTION TO DOMESTIC WATER HEAT TRACING.

909 MOUNT RECEPTACLE ABOVE DIRECTLY TO ROOF PURLIN.

911 POWER CONNECTION TO HVLS FANS SHALL BE INCLUDED IN ALTERNATE #1. PROVIDE 2/30/3 DISCONNECT AT CONNECTION.

914 SEE SITE PLAN ON E2.2.

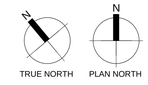
917 UNDERGROUND CONDUIT.

918 ROUTE ALL POWER AND LIGHTING CIRCUITS TO PANEL 'VL3'.

919 PROVIDE 150A, 125A MCB, 208/3, 42 CIRCUIT SURFACE MOUNTED PANEL. PROVIDE (1) 30/3 BREAKER FOR WATER HEATER, (2) 20/2 BREAKERS FOR FANS, (1) 20/2 BREAKER UH, AND (33) 20/1 BREAKERS FOR LIGHTS, RECEPTACLES, AND SPARE.

920 PROVIDE (3) #10, #10G IN 1" C TO PANEL.

1 FIRST FLOOR ENLARGED POWER PLAN
SCALE: 1/4" = 1'-0"



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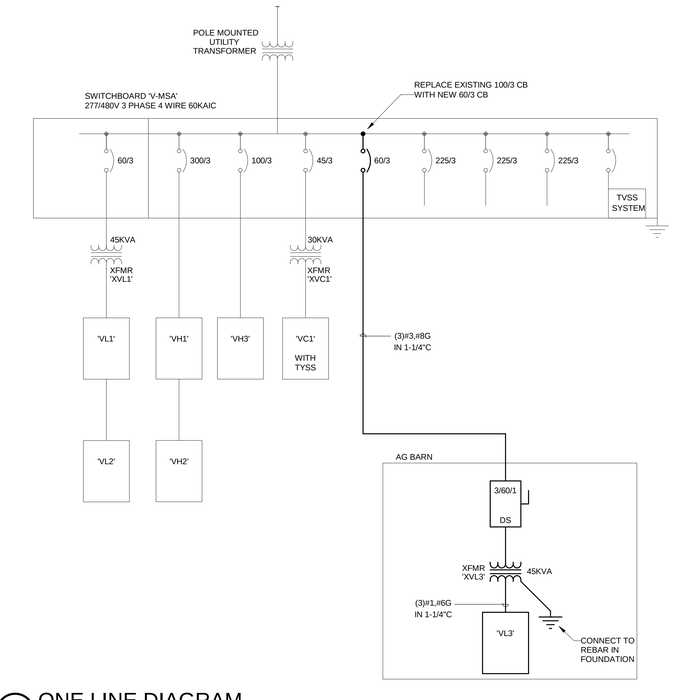
ELECTRICAL POWER PLAN
E4.1

LIGHTING FIXTURE SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	CATALOG NO.	MOUNTING	WATTS	LUMENS	VOLTS	NOTES
A	4' GASKETED LED FIXTURE	WILLIAMS	#EGL2-4-L107/840-HIAFR-SS-120	SURFACE	89 W		120V	
EMX	EXTERIOR EGRESS LED LIGHT	LITHONIA	AFN-BN-EX	WALL	70 W		120V	1,2
WP1	LARGE HOUSING EXTERIOR LED FIXTURE	SPAULDING	CIMARRON CL1 SERIES	WALL	131 W	15,000	120V	2,3
X1	SINGLE FACE EXIT LED LIGHT	LITHONIA	LQC-W-1-R	PER PLANS	2 W		120V	1

NOTES:
1. PROVIDE WITH INTEGRAL BATTERY AND CHARGER.
2. FIXTURE SHALL BE WET LOCATION LISTED.
3. PROVIDE WITH IES DISTRIBUTION PATTERN INDICATED ON PLANS.



1 ONE LINE DIAGRAM
NOT TO SCALE

ONE-LINE LEGEND

- EXISTING TO REMAIN
- EXISTING TO BE DEMOLISHED
- NEW WORK
- FUTURE
- FDR1 — CIRCUIT TAG

DISTRIBUTION EQUIPMENT DESIGNATIONS

SYSTEM: N = NORMAL
E = EMERGENCY (NEC ART 700)
S = LEGALLY REQD STANDBY (NEC ART 701)
O = OPTIONAL STANDBY (NEC ART 702)
G = ALTERNATE SUPPLY (GENERATOR)
C = CRITICAL (NEC ART 517)
X = LIFE SAFETY (NEC ART 517)
Q = EQUIPMENT (NEC ART 517)

VOLTAGE LEVEL: H = 277/480
L = 120/208

FLOOR: M = MEZZANINE
6 = ROOF
7 = UPPER ROOF
ETC.

SUFFIX(ES) TO PROVIDE LOCATION INFORMATION OR TO AVOID DUPLICATION.

NOTE:TRANSFORMER DESIGNATIONS SIMILAR EXCEPT "H"/"L" VOLTAGE DESIGNATIONS OMITTED.

NH1X

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ELECTRICAL
SCHEDULES/DETAILS
E5.1