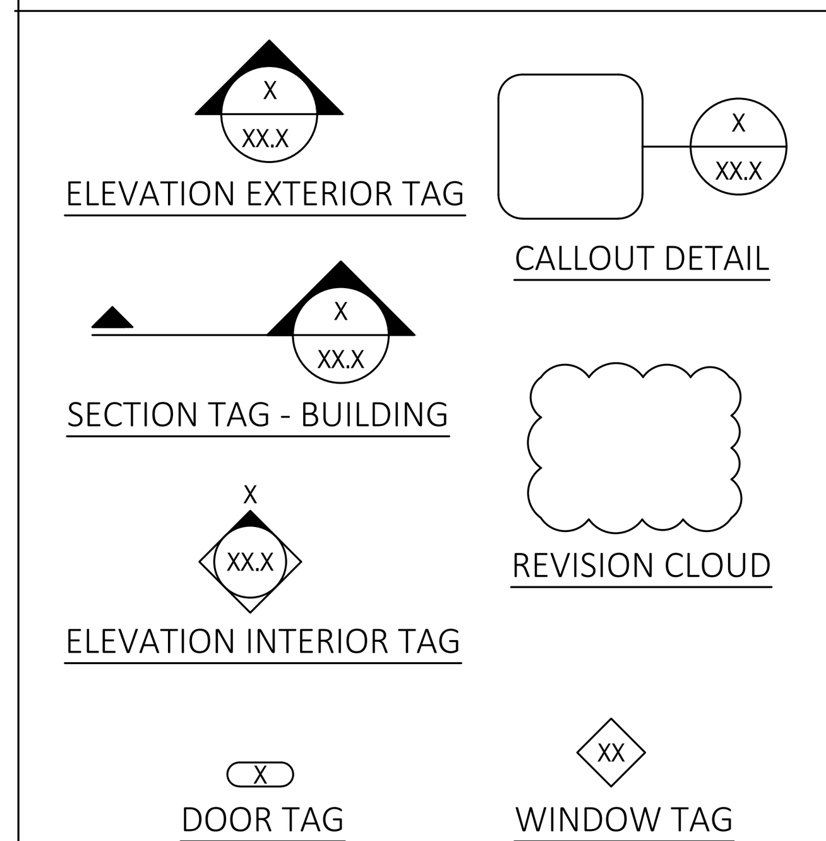
PROPOSED FUEL PUMP INSTALLATION PLANS

CONSTRUCTION DOCUMENTS

1982 W MAIN STREET, NORRISTOWN, PA 19403

GRAPHICS DATA



DRAWING INDEX

SHEET	TITLE	REVISIONS: REV1					
G-1.0	TITLE SHEET & PROJECT INFORMATION						
C-0.0	GENERAL NOTES						
C-1.0	EXISTING SITE PLAN						
C-1.1	PROPOSED SITE PLAN						
C-1.2	MANHOLE & SPILL BUCKET DETAILS						
C-1.3	TANK EXCAVATION & ANCHORING DETAILS						
C-1.4	TANK MAT LAYOUT DETAIL						
C-1.5	PROPOSED GAS PLAN						
C-1.6	PUMP DETAIL						
C-2.0	CANOPY ELEVATION						
S-0.0	STRUCTURAL GENERAL NOTES						
S-0.1	STRUCTURAL GENERAL NOTES						
S-0.2	STRUCTURAL GENERAL NOTES						
S-0.3	STRUCTURAL GENERAL NOTES						
S-1.0	PROPOSED FOUNDATION PLAN						
S-1.1	FOUNDATION DETAILS						
S-2.0	PROPOSED ROOF PLAN						
S-2.1	STRUCTURAL & ROOF DETAILS						

ABBREVIATIONS

ABBREVIATIONS (NOT ALL ABBREVIATIONS USED)

ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
AC	ACOUSTICAL
ADD	ADDENDUM
ADJ	ADJACENT
A/C	AIR CONDITIONING
ALT	ALTERNATE
AL	ALUMINUM
ANC	ANCHOR, ANCHORAGE
AB	ANCHOR BOLT
AD	AREA DRAIN
ASPH	ASPHALT
AUTO	AUTOMATIC
BRG	BEARING
BM	BENCH MARK
BEL	BELOW
BIT	BITUMINOUS
BLKG	BLOCKING
BD	BOARD
BOT	BOTTOM
B/	BOTTOM OF
BRK	BRICK
BLDG	BUILDING
BUR	BUILT UP ROOFING
CPT	CARPET
CSMT	CASEMENT
CI	CAST IRON
CIPC	CAST IN PLACE CONCRETE
CB	CATCH BASIN
CLG	CEILING
CEM	CEMENT
CP	CEMENT PLASTER
CM	CENTIMETER(S)
CT	CERAMIC TILE
CMT	CERAMIC MOSAIC TILE
CLR	CLEAR(ANCE)
COL	COLUMN
COMB	COMBINATION
COMPT	COMPARTMENT
COMPO	COMPOSITION
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONST	CONSTRUCTION
CONT	CONTINUOUS OR CONTINUE
CONTR	CONTRACT(OR)
CJT	CONTROL JOINT
CPR	COPPER
CRS	COURSE(S)
CFT	CUBIC FOOT
CYD	CUBIC YARD
DPR	DAMPER
DL	DEAD LOAD
DTL	DETAIL
DIAG	DIAGONAL
DIAM	DIAMETER
DIM	DOMENSION
DO	DITTO
DIV	DIVISION
DR	DOOR
DH	DOUBLE HUNG
DS	DOWNSPOUT
D	DRAIN
E	EAST
EF	EACH FACE
ELEC	ELECTRIC(AL)
EP	ELECTRICAL PANELBOARD
EWC	ELECTRIC WATER COOLER
ELEV	ELEVATION
EL	ELEVATOR
EMER	EMERGENCY
EQ	EQUAL
EX	EXAMPLE
EXH	EXHAUST
EXG	EXISTING
EB	EXPANSION BOLT
EXJT	EXPANSION JOINT
EXP	EXPOSED
EXT	EXTERIOR
FB	FACE BRICK
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FF	FACTORY FINISH
FAS	FASTEN, FASTENER
FGL	FIBERGLASS
FIN	FINISH(ED)
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHS	FIRE HOSE STATION
FLG	FLASHING
FHMS	FLATHEAD MACHINE SCREW
FHWS	FLATHEAD WOOD SCREW
FLX	FLEXIBLE
FLR	FLOOR(ING)
FD	FLOOR DRAIN
FL	FLUSH
FTG	FOOTING
FND	FOUNDATION
GA	GAGE, GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACT(OR)
GL	GLASS, GLAZING
GB	GRAB BAR
GRN	GRANITE
GVL	GRAVEL
GT	GROUT
GPDW	GYPSUM DRYWALL
HBD	HARDBOARD
HDW	HARDWARE
HW	HARD WOOD
HDR	HEADER
HTG	HEATING
HVAC	HEATING/VENTILATING/ AIR CONDITIONING
HD	HEAVY DUTY
HT	HEIGHT
HP	HIGH POINT
HC	HOLLOW CORE
HM	HOLLOW METAL
HOR	HORIZONTAL
HR	HOUR
HB	HOSE BID
HWH	HOT WATER HEATER
INCL	INCLUDE(D),(ING)
ID	INSIDE DIAMETER
INS	INSULATE(D),(ION)
JC	JANITOR'S CLOSET
JT	JOINT
KIT	KITCHEN
KO	KNOCKOUT
LBL	LABEL
LAM	LAMINATE(D)
LAV	LAVATORY
LH	LEFT HAND
L	LENGTH
LT	LIGHT
LWC	LIGHTWEIGHT CONCRETE
LMS	LIMESTONE
LTL	LINTEL
LL	LIVE LOAD
LVR	LOUVER
LP	LOW POINT
MB	MACHINE BOLT
MH	MANHOLE
MFR	MANUFACTURE(R)
MRB	MARBLE
MAS	MASONRY
MO	MASONRY OPENING
MAX	MAXIMUM
MECH	MECHANIC(AL)
MEMB	MEMBRANE
MM	MILLIMETER(S)
MIN	MINIMUM
MISC	MISCELLANEOUS
MOD	MODULAR, MODULE
MT	MOUNT(ED),(ING)
MULL	MULLION
NAT	NATURAL
NOM	NOMINAL
NFSC	NON FREEZING SILL COCK
N	NORTH
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER(S)
OPG	OPENING
OPP	OPPOSITE
OPH	OPPOSITE HAND
OPS	OPPOSITE SURFACE
OD	OUTSIDE DIAMETER
OA	OVERALL
OH	OVERHEAD
PNT	PAINT(ED)
PNL	PANEL
PBD	PARTICLE BOARD
PTN	PARTITION
PVMNT	PAVEMENT
PERF	PERFORATE(D)
PERI	PERIMETER
PLAS	PLASTER
PLAM	PLASTIC LAMINATE
PL	PLATE
PWD	PLYWOOD
PT	POINT
PVC	POLYVINYL CHLORIDE
PCC	PORTLAND CEMENT CONCRETE
PCF	POUNDS PER CUBIC FOOT
PLF	POUNDS PER LINEAL FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PCC	PRECAST CONCRETE
PFB	PREFABRICATE(D)
QT	QUARRY TILE
RAD	RADIUS
RL	RAIL(ING)
REF	REFERENCE
REFR	REFRIGERATOR
REG	REGISTER
RA	RETURN AIR
REV	REVISION(S),(ED)
RH	RIGHT HAND
ROW	RIGHT OF WAY
R	RISER
RD	ROOF DRAIN
RFG	ROOFING
RM	ROOM
RO	ROUGH OPENING
SCH	SCHEDULE
SECT	SECTION
SIM	SIMILAR
SC	SOLID CORE
S	SOUTH
SPEC	SPECIFICATION(S)
SQ	SQUARE
SST	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
SD	STORM DRAIN
STR	STRUCTURAL
SYM	SYMMETRY(ICAL)
SYS	SYSTEM
TEL	TELEPHONE
TV	TELEVISION
TZ	TERRAZZO
TP	TEXTURED PAINT
THK	THICK
T&G	TONGUE & GROOVE
T/	TOP OF
TB	TOWEL BAR
T	TREAD
TYP	TYPICAL
UC	UNDERCUT
UNF	UNFINISHED
VBR	VAPOR BARRIER
VERT	VERTICAL
VIN	VINYL
VCT	VINYL COMPOSITION TILE
VB	VINYL BASE
VF	VINYL FABRIC
WSCT	WAINSCOT
WIC	WALK IN CLOSET
WTW	WALL TO WALL
WH	WALL HUNG
WC	WATER CLOSET
WP	WATERPROOFING
WR	WATER REPELLENT
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH
W	WEST
WID	WIDE, WIDTH
WIN	WINDOW
W/	WITH
W/O	WITHOUT
WD	WOOD
WPT	WORKING POINT
&	AND
@	AT
#	NUMBER
%	PERCENT

PROJECT CONTACTS

CONTRACTOR INFORMATION

MASSIE CONSTRUCTION COMPANY
97-24 ATLANTIC AVE
OZONE PARK, NY 11416
LOUIS GUADAGNO
(516) 760-7067

DESIGNER

REFLECT DESIGN GROUP LLC
306 S. NEW STREET
BETHLEHEM, PA 18015
JOSE MORALES, CEO
(484) 866-1266

STRUCTURAL ENGINEER

REFLECT DESIGN GROUP LLC
306 S. NEW STREET
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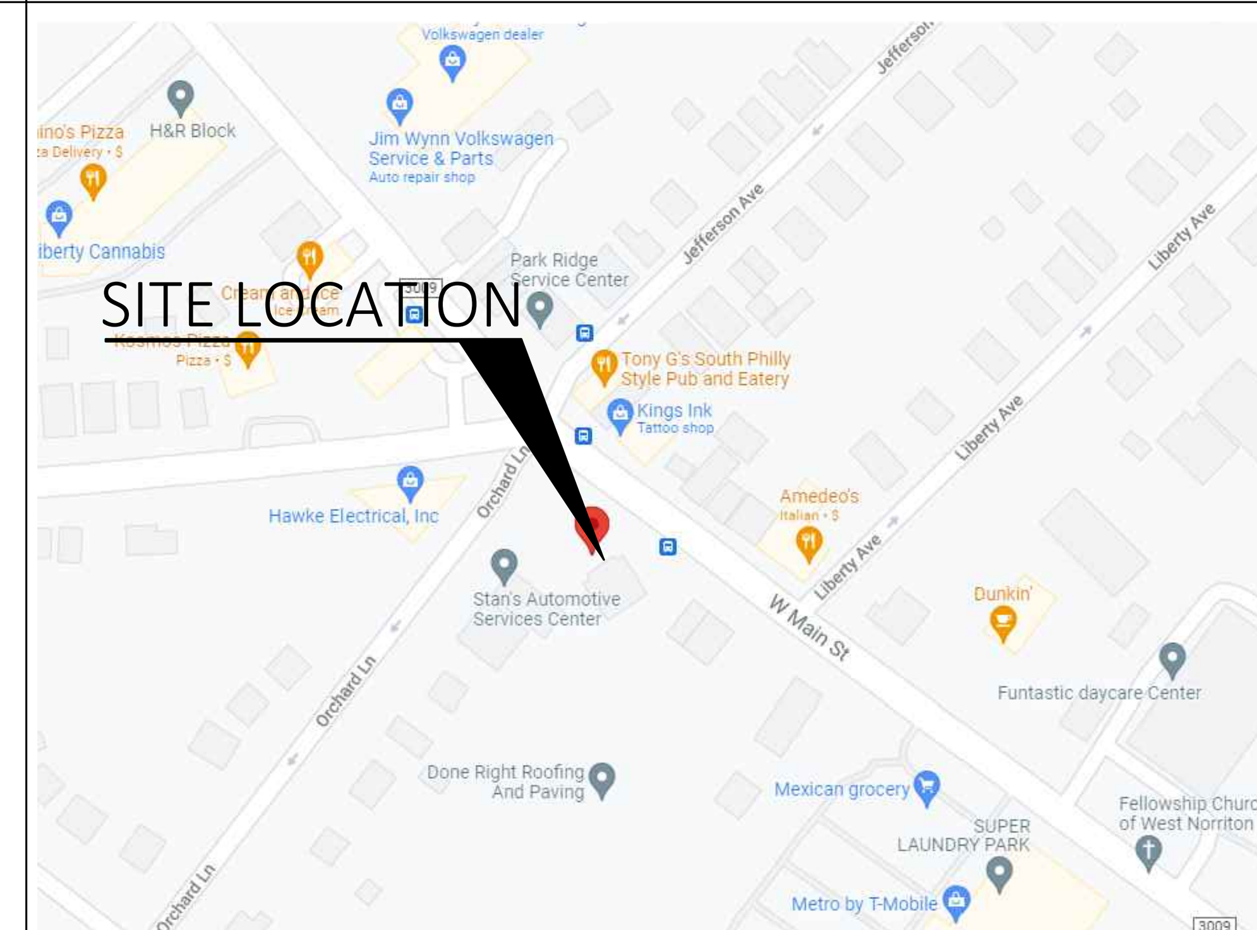
JERRY ROGERS, PE

MEP ENGINEER

REFLECT DESIGN GROUP LLC
306 S. NEW STREET
BETHLEHEM, PA 18015
PAUL JONES, PE

KEY PLAN

VICINITY MAP



PROJECT SCOPE

- PROPOSED PLANS FOR INSTALLATION OF FUEL PUMP STATIONS & CANOPY

CODE INFORMATION

BUILDING SUMMARY

STATE:	STATE OF PENNSYLVANIA
COUNTY:	MONTGOMERY COUNTY
JURISDICTIONAL MUNICIPALITY:	MUNICIPALITY OF NORRISTOWN
OCCUPANCY GROUP:	M (MERCANTILE)
FLOOR AREA:	N/A
CONSTRUCTION TYPE:	N/A
STORY:	N/A

APPLICABLE CODES

THIS PROJECT SHALL BE IN COMPLIANCE WITH THE FOLLOWING CODES FOR MUNICIPALITY OF NORRISTOWN, PENNSYLVANIA:

BUILDING CODE OF THE CITY OF JERSEY CITY
2015 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL MECHANICAL CODE
2018 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL FUEL GAS CODE
2017 NATIONAL ELECTRIC CODE

GENERAL NOTES

1. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH FEDERAL, STATE, AND LOCAL CODES.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND PROMPTLY NOTIFY THE DESIGN PROFESSIONAL OF RECORD SHOULD CONDITIONS ENCOUNTERED VARY FROM THE DRAWINGS.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CARE REGARDING PUBLIC SAFETY IN THE PERFORMANCE OF THE WORK, AND SHALL NOT IMPEDE ANY ONGOING OPERATIONS AT THE OVERALL SITE.
4. ACCESS BY PERSONNEL, PARKING AND MATERIAL STORAGE SHALL BE ONLY IN AREAS DESIGNATED BY THE OWNER'S REPRESENTATIVE.
5. DURING CONSTRUCTION, CLEAN AND PROTECT WORK IN PROGRESS. PROMPTLY REMOVE ANY DEBRIS FROM THE SITE. NO TRASH ACCUMULATION IS PERMITTED. TRANSPORT AND LEGALLY DISPOSE OF MATERIALS OFF SITE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF HIS WORK WITH THE WORK OF OTHER CONTRACTORS DURING CONSTRUCTION, INCLUDING ALL ONGOING SITE ACTIVITIES.
7. THE CONTRACTOR SHALL PROVIDE TEMPORARY BARRICADES AND ANY OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT PERSONNEL AND GENERAL PUBLIC FROM INJURY.
8. TERMINATE APPLIED FINISHES ABOVE FINISH CEILING WHERE SPECIFIED. (U.N.O.)
9. PROPOSED ALTERNATES, WITH SUPPORTING INFORMATION, SAMPLES, AND PRICE REDUCTIONS, SUBMITTED WITH BIDS, WILL BE CONSIDERED AND REVIEWED BY THE ARCHITECT AND OWNER. ALL PROPOSED EQUIVALENTS MUST BE APPROVED BY THE ARCHITECT BEFORE ACCEPTANCE.
10. ALL DRAWINGS AND NOTES ARE COMPLEMENTARY, AND WHAT IS CALLED FOR BY ANY WILL BE BINDING AS IF CALLED FOR BY ALL. DO NOT SCALE ANY DRAWINGS; USE WRITTEN DIMENSIONS ONLY. REVIEW LAYOUTS WITH DESIGN PROFESSIONAL BEFORE CONSTRUCTION.
11. EACH CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, TEMPORARY PROTECTION AND TEMPORARY SUPPORTS, AND PROPER SAFETY PRECAUTIONS.
12. CONTRACTORS SHALL EACH CARRY LIABILITY INSURANCE, TERMS AND LIMITS AS DIRECTED BY THE OWNER, AND SHALL FURNISH THE CERTIFICATES OF INSURANCE, NAMING THE OWNER AS CERTIFICATE HOLDER, UPON BID ACCEPTANCE.
13. BY ACCEPTING THIS WORK, THE CONTRACTORS AGREE THAT THE OWNER, ARCHITECT, AND ENGINEERS SHALL BE HELD HARMLESS AND NOT LIABLE FOR ANY INJURIES OR PROPERTY DAMAGE RESULTING FROM ANY OF THE CONTRACTORS' OPERATIONS.
14. APPLY AND CONSTRUCT ALL SYSTEMS AND MATERIALS ACCORDING TO EACH MANUFACTURERS' WRITTEN SPECIFICATIONS, INSTRUCTIONS AND RECOMMENDATIONS.
15. 15.CONTRACTOR SHALL WARRANT ALL WORK FOR ONE (1) YEAR AGAINST DEFECTS IN MATERIALS AND LABOR (EXCEPT LONGER, WHERE LONGER MANUFACTURER WARRANTIES EXIST). PROVIDE WRITTEN WARRANTIES AT WORK COMPLETION.

DISCLAIMER

REFLECT DESIGN GROUP
306 S NEW STREET ©2021
BETHLEHEM, PA 18015

2021.11.23

PROJECT:
PROPOSED FUEL PUMP INSTALLATION PLANS

1982 W MAIN ST.
NORRISTOWN, PA 19403

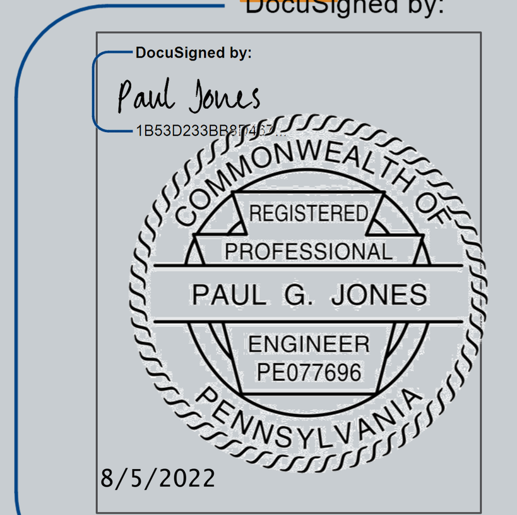
DATE: 11/23/2021
PROJECT NO.: 21-0051

REVISION	DATE

NOTES:

NOT FOR CONSTRUCTION

DocuSigned by:



PROFESSIONAL ENGINEER SEAL
STATE OF PENNSYLVANIA

TITLE SHEET & PROJECT INFORMATION

SCALE: AS NOTED

G-1.0

DRAWN BY: JM
CHECKED BY: JM

DEMOLITION NOTES

1. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN STRICT ADHERENCE TO ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
2. PROCEED WITH DEMOLITION IN A SYSTEMATIC MANNER , FROM THE TOP OF THE STRUCTURE(S) TO THE GROUND.
3. COMPLETE DEMOLITION WORK ABOVE EACH FLOOR OR TIER BEFORE DISTURBING ANY OF THE SUPPORTING MEMBERS OF THE LOWER LEVELS.
4. DEMOLISH CONCRETE AND MASONRY IN SMALL SECTIONS.
5. REMOVE STRUCTURAL FRAMING MEMBERS AND LOWER THEM TO THE GROUND BY MEANS OF HOISTS, DERRICKS OR OTHER SUITABLE METHODS
6. BREAK UP CONCRETE SLABS-ON-GRADE, UNLESS OTHERWISE DIRECTED BY OWNER. ALL CONCRETE TO BE DISPOSED/ RECYCLED OFF-SITE PER NJTA.
7. LOCATE DEMOLITION EQUIPMENT THROUGH THE STRUCTURE AND REMOVE MATERIALS SO AS TO NOT IMPOSE EXCESSIVE LO0ADS ON SUPPORTING WALLS , FLOORS , OR FRAMING .
8. PROVIDE INTERIOR AND EXTERIOR SHORING , BRACING AND SUPPORTS TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF STRUCTURES TO BE DEMOLISHED (AND ADJACENT FACILITIES , IF APPLICABLE)
9. DEMOLISH AND REMOVE ALL FOUNDATION WALLS, FOOTINGS AND OTHER MATERIALS WITHIN THE AREA OF THE DESIGNATED FUTURE BUILDING. ALL OTHER FOUNDATION SYSTEMS, INCLUDING BASEMENTS, SHALL BE DEMOLISHED TO A DEPTH OF NOT LESS THAN TWO FOOT BELOW PROPOSED PAVEMENT OR, BREAK BASEMENT FLOOR SLABS , SEAL ALL OPEN UTILITY LINES WITH CONCRETE. CONTRACTOR TO REVIEW STRUCTURE PRIOR TO DEMOLITION TO DETERMINE IF BASEMENT, CRAWL SPACE OR ANY SUB-STRUCTURE EXISTS . ANY SUB-STRUCTURE , INCLUDING BASEMENTS SHALL BE REMOVED IN ITS ENTIRETY OR AS DIRECTED BY OWNER.
10. ERECT AND MAINTAIN COVERED PASSAGEWAYS IN ORDER TO PROVIDE SAFE PASSAGE FOR PERSONS AROUND THE AREA OF DEMOLITION. CONDUCT ALL DEMOLITION OPERATIONS IN A MANNER THAT WILL PREVENT DAMAGE AND PERSONAL INJURY TO STRUCTURES , ADJACENT BUILDINGS AND ALL PERSONS.
11. NO EXPLOSIVES ARE REQUIRED OR PERMITTED PER NJTA.
12. CONDUCT DEMOLITION SERVICES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALLS , AND OTHER ADJACENT FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER OCCUPIED FACILITIES WITHOUT PRIOR WRITTEN PERMISSION OF OWNER AND ANY APPLICABLE GOVERNMENTAL AUTHORITIES. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY APPLICABLE GOVERNMENTAL REGULATIONS.
13. USE WATERING, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS , AS NECESSARY TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. RETURN ALL ADJACENT AREAS TO THE CONDITIONS EXISTING PRIOR TO THE START OF WORK.
14. ACCOMPLISH AND PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE UNAUTHORIZED ENTRY OF PERSONS AT ANY TIME.
15. COMPLETELY FILL BELOW GRADE AREAS AND VOIDS RESULTING FROM THE DEMOLITION OF STRUCTURES AND FOUNDATIONS WITH SOIL MATERIALS IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, CONSISTING OF STONE, GRAVEL AND SAND, FREE FROM DEBRIS, TRASH, FROZEN MATERIALS , ROOTS AND OTHER ORGANIC MATTER. STONES USED WILL NOT BE ANY LARGER THAN 6 INCHES IN DIMENSION. MATERIAL FROM DEMOLITION MAY NOT BE USED AS FILL. PRIOR TO PLACEMENT OF MATERIALS, UNDERTAKE ALL NECESSARY ACTION IN ORDER TO ENSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH, AND DEBRIS. GRADE THE SURFACE TO MEET ADJACENT CONTOURS AND TO PROVIDE SURFACE DRAINAGE. SINCE THIS IS AN NJDEP SITE REMEDIATION PROGRAM (SRP) SITE, ALL IMPORTED FILL MATERIAL MUST BE CERTIFIED AND APPROVED BY THE AUTHORITY'S LSRP PRIOR TO IMPORT.
16. REMOVE FROM THE DESIGNATED SITE, AT THE EARLIEST POSSIBLE TIME, ALL DEBRIS, RUBBISH, SALVAGEABLE ITEMS, HAZARDOUS AND COMBUSTIBLE SERVICES. REMOVED MATERIALS MAY NOT BE STORED , SOLD OR BURNED ON THE SITE. REMOVAL OF HAZARDOUS AND COMBUSTIBLE MATERIALS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROCEDURES AS AUTHORIZED BY THE FIRE DEPARTMENT OR OTHER APPROPRIATE REGULATORY AGENCIES AND AUTHORITIES.
17. DISCONNECT, SHUT OFF AND SEAL IN CONCRETE ALL UTILITIES SERVING THE STRUCTURE(S) TO BE DEMOLISHED BEFORE THE COMMENCEMENT OF THE DESIGNATED DEMOLITION. MARK FOR POSITION ALL UTILITY DRAINAGE AND SANITARY LINES AND PROTECT ALL ACTIVE LINES. CLEARLY IDENTIFY BEFORE THE COMMENCEMENT OF DEMOLITION SERVICES THE REQUIRED INTERRUPTION OF ACTIVE SYSTEMS THAT MAY AFFENT OTHER PARTIES, AND NOTIFY ALL APPLICABLE UTILITY COMPANIES TO ENSURE THE CONTINUATION OF SERVICE.
18. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL PROCEDURES ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS NECESSARY.

NOTES

1. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL BE REQUIRED TO CALL THE BOARD OF PUBLIC UTILITIES ONE CALL DAMAGE PROTECTION SYSTEM OR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION.
2. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING SITE IMPROVEMENTS AND UTILITIES. ALL DISCREPANCIES SHALL BE IDENTIFIED TO THE ENGINEER IN WRITING.
3. ALL EXISTING UTILITIES TO BE ABANDONED SHALL BE DISCONNECTED AND CAPPED AT THE MAIN FOR WATER , AT THE CLEAN-OUT FOR SEWER AND THE SHUT-OFF VALVE OR MAIN FOR GAS IN ACCORDANCE WITH MUNICIPAL AND LOCAL UTILITY COMPANY REQUIREMENTS
4. ALL EXISTING DEBRIS SHALL BE REMOVED BY CONTRACTOR IN ACCORDANCE WITH MUNICIPAL AND LOCAL UTILITY COMPANY REQUIREMENTS.

GRADING NOTES

1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED OF PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITHIN THE STATE WHERE WORK IS BEING PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MIN. SLOPE AGAINST ALL ISLAND GUTTERS, CURBS , AND 1.0% ON ALL CONCRETE SURFACES, AND 1-1/2% MIN. ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY EFFECT THE PUBLIC SAFETY OR PROJECT COST, MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE S AT THE CONTRACTOR'S OWN RISK.
3. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MIN. OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
4. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE , SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD.)
5. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
6. IN CASE OF DISCREPANCIES BETWEEN PLANS, THE SITE PLAN WILL SUPERCEDE IN ALL CASES. CONTRACTOR MUST NOTIFY ENGINEER OF RECORD OF ANY CONFLICT IMMEDIATELY.
7. MAXIMUM CROSS SLOPE OF 2% ON ALL SIDEWALKS.
8. CONTRACTOR TO ENSURE A MAXIMUM OF 2% SLOPE IN ALL DIRECTIONS IN ADA PARKING SPACES AND ADA ACCESS AISLES. CONTRACTOR TO ENSURE A MAXIMUM OF 5% RUNNING SLOPE AND 2% CROSS SLOPE ALONG ALL OTHER PORTIONS OF ACCESSIBLE ROUTE, WITH THE EXCEPTION OF RAMPS AND CURB RAMPS. CONTRACTOR SHALL CLARIFY ANY QUESTIONS CONCERNING CONSTRUCTION IN ADA AREAS WITH THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
9. THE OWNER SHALL RETAIN DYNAMIC EARTH, LLC (908-879-7095) OR ALTERNATE QUALIFIED GEOTECHNICAL ENGINEER TO TEST SOIL PERMEABILITY AND PROVIDE CONSTRUCTION PHASE INSPECTIONS OF THE BASIN BOTTOM SOILS AND ANY FILL MATERIALS WITHIN ANY PROPOSED INFILTRATION OR RETENTION BASIN TO SOMPARE RESULTS TO DESIGN CRITERIA.
10. CONTRACTOR IS TO REMOVE EXISTING UNSUITABLE OR OVERLY COMPACT SOIL OR ROCK AS NEEDED TO ACHIEVE REQUIRED PERMEABILITY AS DIRECTED BY THE OWNERS GEOTECHNICAL ENGINEER, AND NEW FILL , IF NEEDED, SHALL HAVE AN IN PLACE PERMEABILITY GRATER THAN OR EQUAL TO THE DESIGN CRITERIA.
11. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE OWNER'S GEOTECHNICAL ENGINEER PRIOR TO ONSET OF CONSTRUCTION TO SUBMIT AND CONFIRM THE CONTRACTOR'S PROPOSED MEANS AND MATERIALS AND TO SCHEDULE INSPECTIONS FOR BOTTOM OF BASIN, REMOVAL OF UNSUITABLE SOIL, FILL PLACEMENT, AND FINAL BASIN PERMEABILITY TESTING.
12. THE CONTRACTOR IS RESPONSIBLE FOR AS-BUILT PLANS AND GRADE CONTROL UNLESS DEFINED OTHERWISE ELSEWHERE IN THE CONTRACT DOCUMENTS.

ADA NOTES

ALL SLOPES INDICATED ARE ACTUAL. CONTRACTOR TO REFER TO LATEST ADA GUIDELINES AND NJ BARRIER FREE SUBCODE (NJAC 5:23-7) FOR SLOPE LIMITS. AT THE TIME OF PLAN DESIGN, THESLOPE LIMITS ARE AS FOLLOWS:

SIDEWALKS/ ACCESSIBLE ROUTES

-RUNNING SLOPE: 1:20 (5%) MAX. (4.5% MAX. FOR NEW CONSTRUCTION)
- CROSS SLOPE: 1:48 (2.08%) MAX., 1.0% MIN. (1.5% MAX. FOR NEW CONSTRUCTION)
-INTERSECTION SLOPE: 1:48 (2.08%) MAX. IN ALL DIRECTIONS (1.5% MAX. FOR NEW CONSTRUCTION)
-CHANGE IN LEVELS : $\frac{1}{4}$" MAX. HEIGHT OR $\frac{1}{2}$" MAX. HEIGHT WITH BEVELED EDGE BEVELED EDGE SLOPE OF 1:2 (50%) MAX.
-GAPS: $\frac{1}{2}$" MAX. WIDTH ELONGATED OPENINGS SHALL BE PLACED SO LONG DIMENSION IS PERPENDICULAR TO PATH OF TRAVEL

CURB RAMP

-SLOPE 1:12 (8.3%) MAX. (7.4% MAX. FOR NEW CONSTRUCTION)
-SIDE FLARE SLOPE: 1:10 (10%) MAX. (WHERE PEDS CROSS RAMP)
-BOTTOM LANDING: 48" MIN. LENGTH; WIDTH TO MATCH CURB RAMP; 1:48 MAX. (2.08%) IN ALL DIRECTIONS (1.5% MAX. FOR NEW CONSTRUCTION)
-TOP LANDING : 36" MIN. LENGTH; WIDTH TO MATCH CURB RAMP; 1:48 MAX. (2.08%) CROSS SLOPE (1.5% MAX. FOR NEW CONSTRUCTION) AND 1:20 (5%) RUNNING SLOPE (4.5% MAX FOR NEW CONSTRUCTION)

ACCESSIBILITY PARKING SPACES

-SPACE AND ACCESS AISLE SLOPE: 1:48 MAX. (2.08%) IN ALL DIRECTIONS (1.5% MAX. FOR NEW CONSTRUCTION)

CROSSWALKS

-RUNNING SLOPE: 1:20 (5%) MAX. (4.5% MAX. FOR NEW CONSTRUCTION)
-CROSS SLOPE: 1:48 (2.08%) MAX. (1.5% MAX FOR NEW CONSTRUCTION)
-CHANGE IN LEVELS: $\frac{1}{4}$" MAX. HEIGHT OR $\frac{1}{2}$" MAX. HEIGHT WITH BEVELED EDGE BEVELED EDGE SLOPE OF 1:2 (50%) MAX.
-GAPS: $\frac{1}{2}$" MAX. WIDTH ELONGATED OPENINGS SHALL BE PLACED SO LONG DIMENSION IS PERPENDICULAR TO PATH OF TRAVEL

RAMPS

-SLOPE: 1:12 (8.3%) MAX. (7.4% MAX. FOR NEW CONSTRUCTION)
-EXISTING RAMPS; SLOPE: 1:10 (10%) MAX. FOR RISE OF 6"; 1:8 (12.5%) MAX. FOR MAX. RISE OF 3"
-MAX. RISE: 30"
-MIN. CLEAR WIDTH: 36"
-MIN. LANDING CLEAR LENGTH: 60"
-MAX. CROSS SLOPE: 1:48 (2.08%) (1.5% MAX. FOR NEW CONSTRUCTION)

EXISTING UTILITY NOTES

EXISTING WATER SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING WATER SERVICE CONNECTION IF FEASIBLE. OTHERWISE REMOVE EXISTING WATER SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL WATER COMPANY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL WATER COMPANY PRIOR TO COMPLETION . IF THE EXISTING WATER SERVICE CAN NOT BE UTILIZED, THE NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL WATER COMPANY. CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OR EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

EXISTING GAS SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING GAS SERVICE CONNECTION IF FEASIBLE. OTHERWISE REMOVE EXISTING GAS SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL GAS COMPANY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL GAS COMPANY PRIOR TO COMPLETION. ANY NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL GAS COMPANY. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

SANITARY SEWER SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING SEWER SERVICE CONNECTION IF OF ADEQUATE SIZE AND INTEGRITY AND ACCEPTABLE TO LOCAL SEWER AUTHORITY. OTHERWISSE CONTRACTOR TO REMOVE EXISTING SEWER SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL SEWER AUTHORITY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL SEWER AUTHORITY PRIOR TO COMPLETION. IF EXISTING SEWER SERVICE CAN NOT BE UTILIZED THEN THEN NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL SEWER AUTHORITY. CONTRACTOR SHALL OBTAIN REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

UTILITY NOTES

1. LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE SPPROXIMATE AND MUST ME CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE ENGINEER. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY THE TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER & SEWER DEPARTMENTS TO MARK OUT THEIR UTILITIES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME. SERVICE SIZES TO BE DETERMINED BY ARCHITECT.
4. WATER SERVICE MATERIALS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTORS PRICE FOR WATER SERVICE SHALL INCLUDE ALL FEES AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE A COMPLETE WORKING SERVICE.
5. ALL WATER MAIN SHALL BE CEMENT-LINED, CLASS 52 DUCTILE IRON PIPE, UNLESS OTHERWISE DESIGNATED.
6. THE MINIMUM DIAMETER FOR DOMESTIC WATER SERVICES SHALL BE 1 INCH.
7. SEWER MAINS SHALL BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. WHERE THIS IS NOT POSSIBLE, THE PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SEWER MAIN AT LEAST 18 INCHES BELOW THE WATER MAIN. ALL SEWER MAINS SHALL BE SDR-35 PVC PIPE UNLESS OTHERWISE DESIGNATED.
8. ALL SEWER PIPE INSTALLED WITH LESS THAN 3 FEET OF COVER, GREATER THAN 20 FEET OF COVER OR WITHING 18 INCHES OF A WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE. ALL DUCTILE IRON SEWER PIPE SHALL BE CEMENT-LINED, CLASS 52 PIPE, FURNISHED WITH SEWER COAT, OR APPROVED EQUAL.
9. WHERE SANITARY SEWER LATERALS ARE GREATER THAN 10' DEEP AT CONNECTION TO THE SEWER MAIN, CONCRETE DEEP LATER CONNECTIONS ARE TO BE UTILIZED.
10. LOCATION &LAYOUT OF GAS, ELECTRIC, & TELECOMMUNICATION UTILITY LINES AND SERVICES SHOWN ON THESE PLANS ARE SCHEMATIC IN NATURE. ACTUAL LOCATION & LAYOUT OF THESE UTILITIES & SERVICES ARE TO BE APPROPRIATE UTILITY PROVIDER.
11. ROOF LEADER COLLECTION PIPING ARE CONCEPTUAL IN NATURE AND ARE NOT FOR CONSTRUCTION. ACTUAL ROOF LEADER COLLECTION PIPING IS TO BE COORDINATED W/ ARCHITECTURAL PLANS FOR EACH INDIVIDUAL BUILDING. ALL ROOF LEADER COLLECTION PIPING SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE DESIGNATED.
12. ALL SEWER AND WATER FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATORY AUTHORITY'S RULES AND REGULATIONS.
13. ALL PROPOSED UTILITIES TO BE INSTALLED UNDERGROUND UNLESS OTHERWISE NOTED.
14. MANUFACTURED REINFORCED CONCRETE STORM PIPE TO CONFORM TO ASTM C-76, CLASS III, UNLESS OTHERWISE DESIGNATED. MANUFACTURED REINFORCED CONCRETE ELLIPTICAL STORM PIPE TO CONFORM TO ASTM C-507, CLASS HE-III, UNLESS OTHERWISE DESIGNATED. REINFORCED CONCRETE STORMWATER PIPE TO BE INSTALLED IN ACCORDANCE WITH AMERICAN CONCRETE PIPE ASSOCIATION INSTALLATION GUIDELINES AND MORTAR OR PREFORMED FLEXIBLE JOINT SEALANTS IN SHALL BE WATERTIGHT A ND CONFORM TO ASTM C-443.
15. HDPE DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2306. SOLID PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM D3212. PERFORATED PIPE SHALL HAVE GASKETED SILT-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTMF477. HDPE PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HDPE PIPE AND INSTALLED WITH PIPE MANUFACTURE RECOMMENDATIONS.
16. HP DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2736 (12"-30" PIPE) AND ASTM F2881 (36"-60" PIPE). PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM D3212 AND ASTM F477. FIELD WATERTIGHTNESS PERFORMANCE VERIFICATION MAY BE ACCOMPLISHED IN ACCORDANCE WITH ASTM F2487. HP PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HP STORM PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER RECOMMENDATIONS.
17. PIPE LENGTHS ON THIS PLAN HAVE BEEN MEASURED AS THE DISTANCE BETWEEN THE CENTER POINT OF THE 2 CONNECTED STRUCTURES. ACTUAL PHYSICAL PIPE LENGTH FOR INSTALLATION IS EXPECTED TO BE LESS AND SHOULD BE ACCOUNTED FOR BY THE CONTRACTOR ACCORDINGLY.

NEW JERSEY TURNPIKE AUTHORITY NOTES

1. ALL EXISTING MONITORING WELLS WILL BE SEALED BY THE AUTHORITY'S LSRP WITH THE EXCEPTION OF MW-19 AND MW-23 WHICH ARE TO BE PRESERVED AND PROTECTED (REFER TO HMS HOST PLANS SHEET C1.30)
2. ANY AND ALL CONCRETE TO BE RECYCLED/DISPOSED OF OFF-SITE. ALL REQUIRED ANALYSIS FOR OFF-SITE DISPOSAL SHOULD BE INCLUDED IN SUNOCO'S BID.
3. THIS SITE IS AN NJDEP SITE REMEDIATION PROGRAM (SRP) PROJECT. THEREFORE, ANY IMPORTED FILL MATERIAL MUST BE "CERTIFIED" CLEAN FILL AND APPROVED BEFOREHAND BY THE AUTHORITY'S LSRP. SPECIFIC BACKFILL SIZE MAY BE REQUIRED FOR USE IN REMEDIAL EXCAVATIONS.
4. DEWATERING OF POTENTIALLY CONTAMINATED GROUNDWATER MAY BE REQUIRED AND SHOULD BE INCLUDED IN THE SUNOCO BID. CONTAMINATED GROUNDWATER DURING DEWATERING ACTIVITIES SHOULD BE TREATED PRIOR TO DISCHARGE. ALL APPLICABLE LOCAL AND STATE PERMITS RELATIVE TO DEWATERING WILL NEED TO BE OBTAINED.

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1982 W MAIN ST.
NORRISTOWN, PA 19403

DATE: 11/23/2021
PROJECT NO.: 21-0051

REVISION	DATE

NOTES:

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
PAUL G. JONES
PE077696

8/5/2022

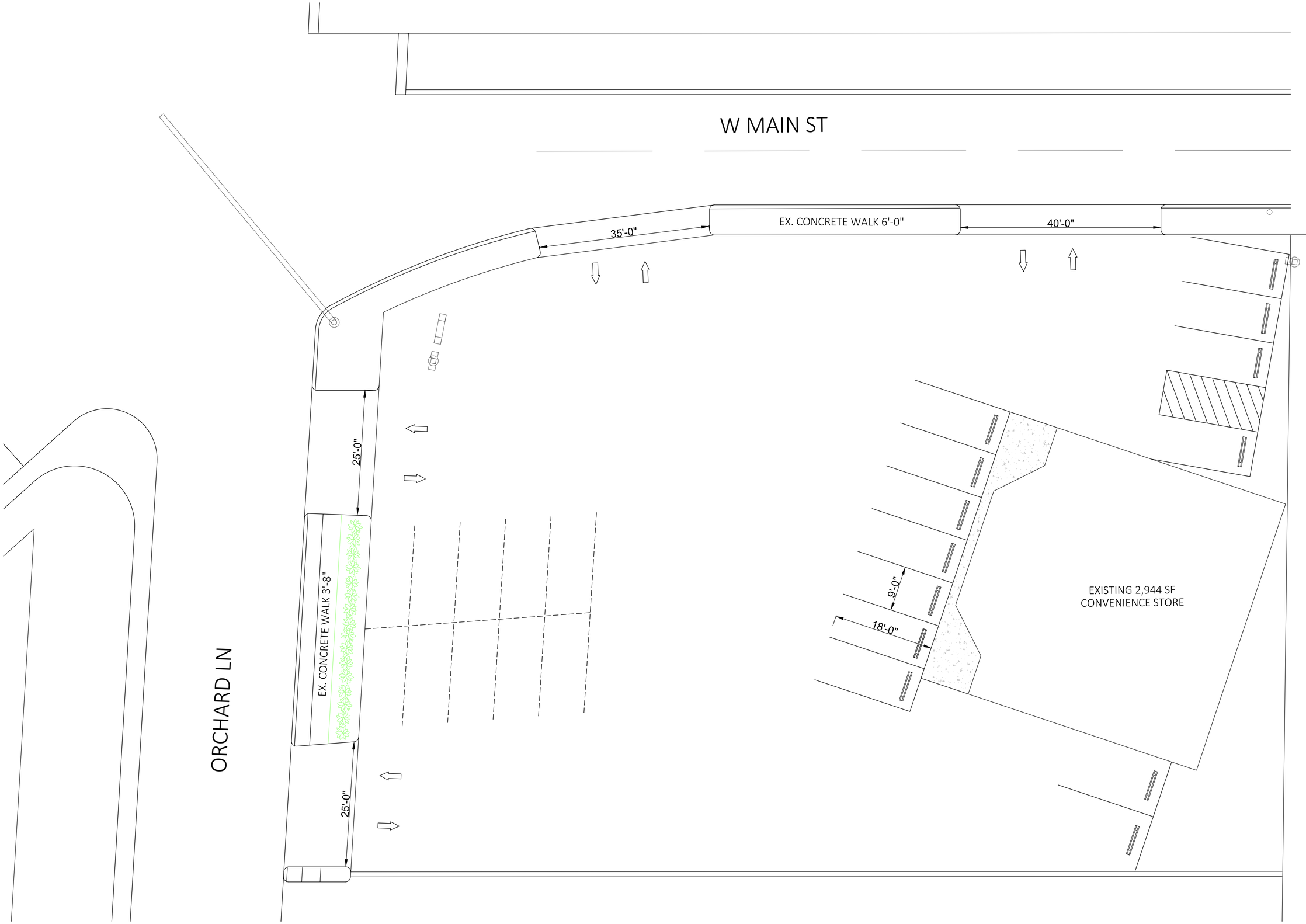
PROFESSIONAL ENGINEER SEAL
STATE OF PENNSYLVANIA

GENERAL NOTES

SCALE: AS NOTED

C-0.0

DRAWN BY: JM
CHECKED BY: JM



1 EXISTING SITE PLAN

SCALE: 1:100

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8/5/2022

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EXISTING SITE PLAN

SCALE: AS NOTED

C-1.0

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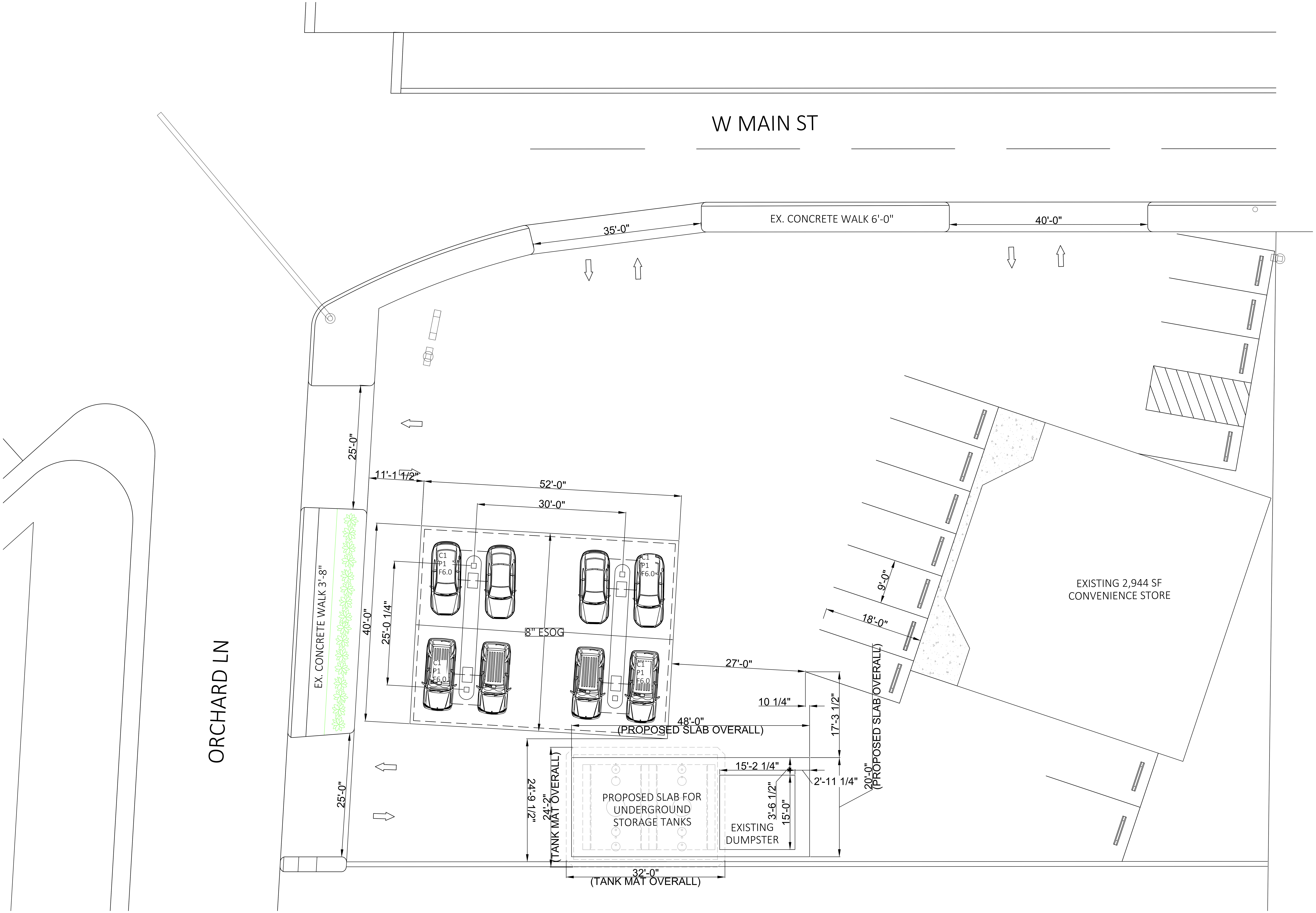

1 PROPOSED SITE PLAN
SCALE: 1:100

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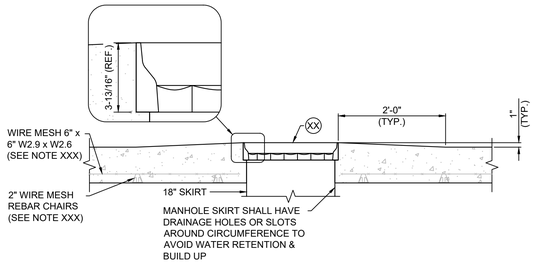
PROPOSED SITE PLAN

SCALE: AS NOTED

C-1.1

DRAWN BY: JM
CHECKED BY: JM

MANHOLE COVER DETAIL



SECTIONAL DETAIL FOR MANHOLE COVER (42" FIBERLITE FL-100)

NOTES:
1) ALL MANHOLES TO BE LOCATED A MIN. OF 1'-4" FROM NEAREST EDGE OF MAT.

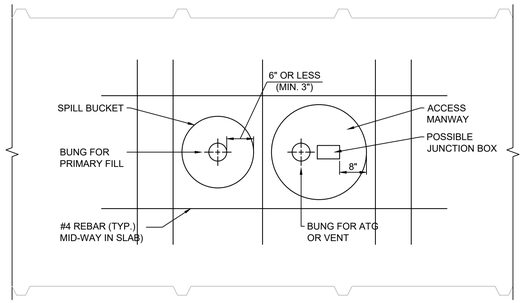
2) DURING CONCRETE POUR, LID SHOULD BE IN PLACE TO PREVENT THE RIM FROM BECOMING "OUT-OF-ROUND". LID SHOULD REMAIN IN SHRINK WRAP DURING POUR.

3) ALL EQUIPMENT/FITTINGS TO CLEAR BOTTOM OF MANHOLE COVERS BY MIN. 4"- MAX. 6" & LOCATED PER TANK & PIPING DRAWINGS.

4) SAME GRADING DETAIL FOR FL-90 (ITEM # 237).

5) WIRE MESH TO BE ASTM A-185 ELECTRIC WELDED WIRE FABRIC (6" x 6" W2.9 x W2.9).

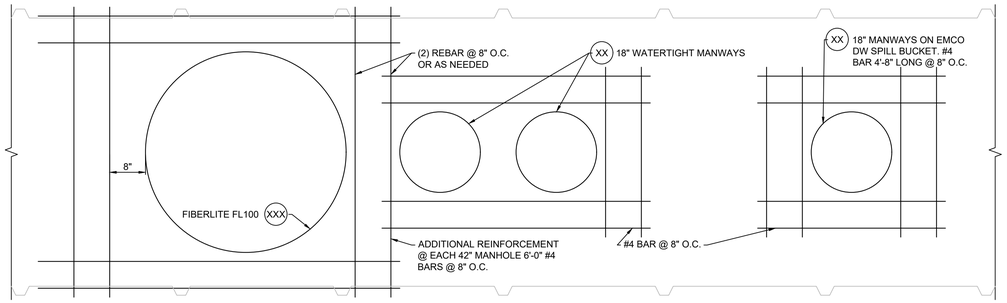
6) FOR SUPPORT OF ALL WIRE MESH IN SLABS, USE 2" WIRE MESH CHAIRS (MAS-CON OR EQUAL, SPACE AT 4 FT INTERVALS.



NOTE:
FOR EXISTING TANKS, THERE MAY BE A CONFLICT b/w ADJOINING SURFACE MOUNTED MANWAYS/FILLS. WHEN SPACING IS LESS THAN 6", INSTALL A #4 REBAR b/w MANWAYS/FILLS (LOCATE #4 REBAR IN CENTER OF TANK SLAB). MANWAYS/FILLS SHOULD BE NO CLOSER THAN 3".

DETAIL 1: MANHOLES AT 6" OR LESS APART
NOT TO SCALE

TANK SLAB MANHOLES REINFORCMENT



NOTE:
SLOPE CONCRETE AWAY FROM MANHOLES PER DETAIL ON THIS SHEET.

DETAIL 2: NEW & EXISTING MANHOLES AT GREATER THAN 6" APART
NOT TO SCALE

1 MANHOLE COVER DETAIL

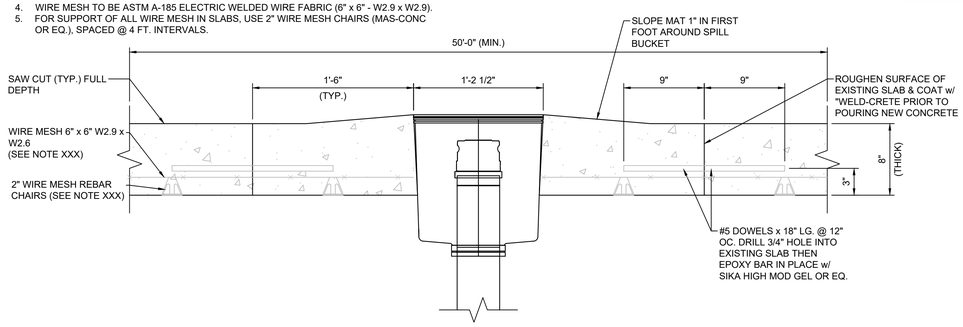
SCALE: 3/4"=1'-0"

NOTE:
1. BACKFILL USING ORIGINAL MATERIAL.
2. COMPACT ALL FILL MATERIAL
3. POUR NEW CONCRETE & REINFORCE.
4. WIRE MESH TO BE ASTM A-185 ELECTRIC WELDED WIRE FABRIC (6" x 6" - W2.9 x W2.9).
5. FOR SUPPORT OF ALL WIRE MESH IN SLABS, USE 2" WIRE MESH CHAIRS (MAS-CONC OR EQ.), SPACED @ 4 FT. INTERVALS.

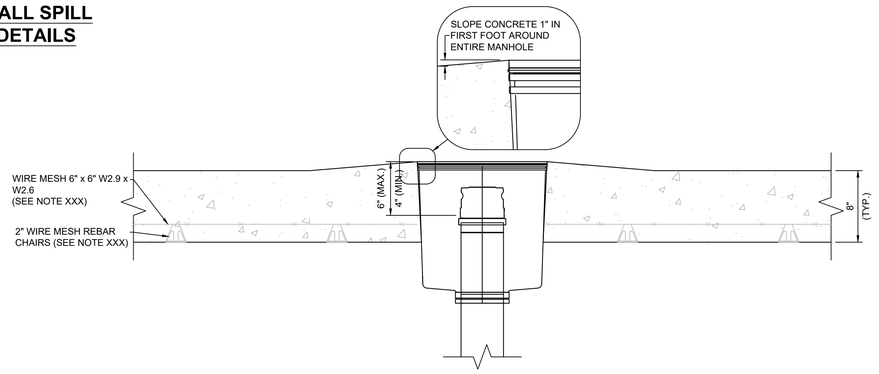
2 TANK SLAB MANHOLE DETAILS

SCALE: 3/4"=1'-0"

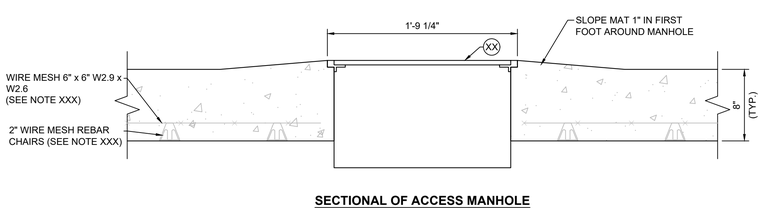
DOUBLE WALL SPILL BUCKET DETAILS



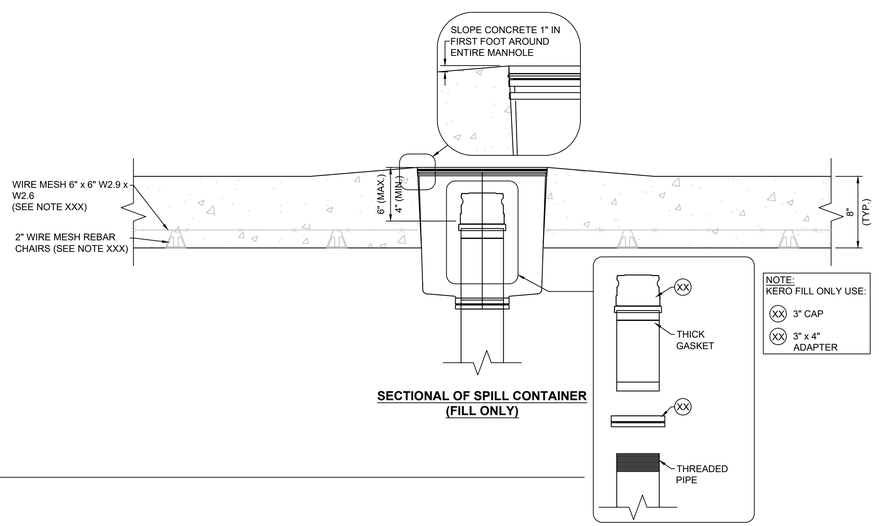
SECTIONAL OF SPILL BUCKET REPLACEMENT



SECTIONAL OF SPILL CONTAINER (DRY BREAK ONLY)



SECTIONAL OF ACCESS MANHOLE (EMCO 18" MANHOLE)



SECTIONAL OF SPILL CONTAINER (FILL ONLY)

NOTE:
KERO FILL ONLY USE:
XX 3" CAP
XX 3" x 4" ADAPTER

INTEGRITY TESTING NOTES

A) PRESSURE TEST (1.5 PSI)
B) VACUUM TEST (30" WATER COLUMN)

SEE INSTALLATION DOCUMENT PROVIDED w/ UNIT FOR TESTING INSTRUCTIONS. TEST REQUIRES SPECIAL EMCO TEST FITTING.

3 SPILL BUCKET DETAILS

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

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MANHOLE & SPILL BUCKET DETAILS

SCALE: AS NOTED

C-1.2

DRAWN BY: JM
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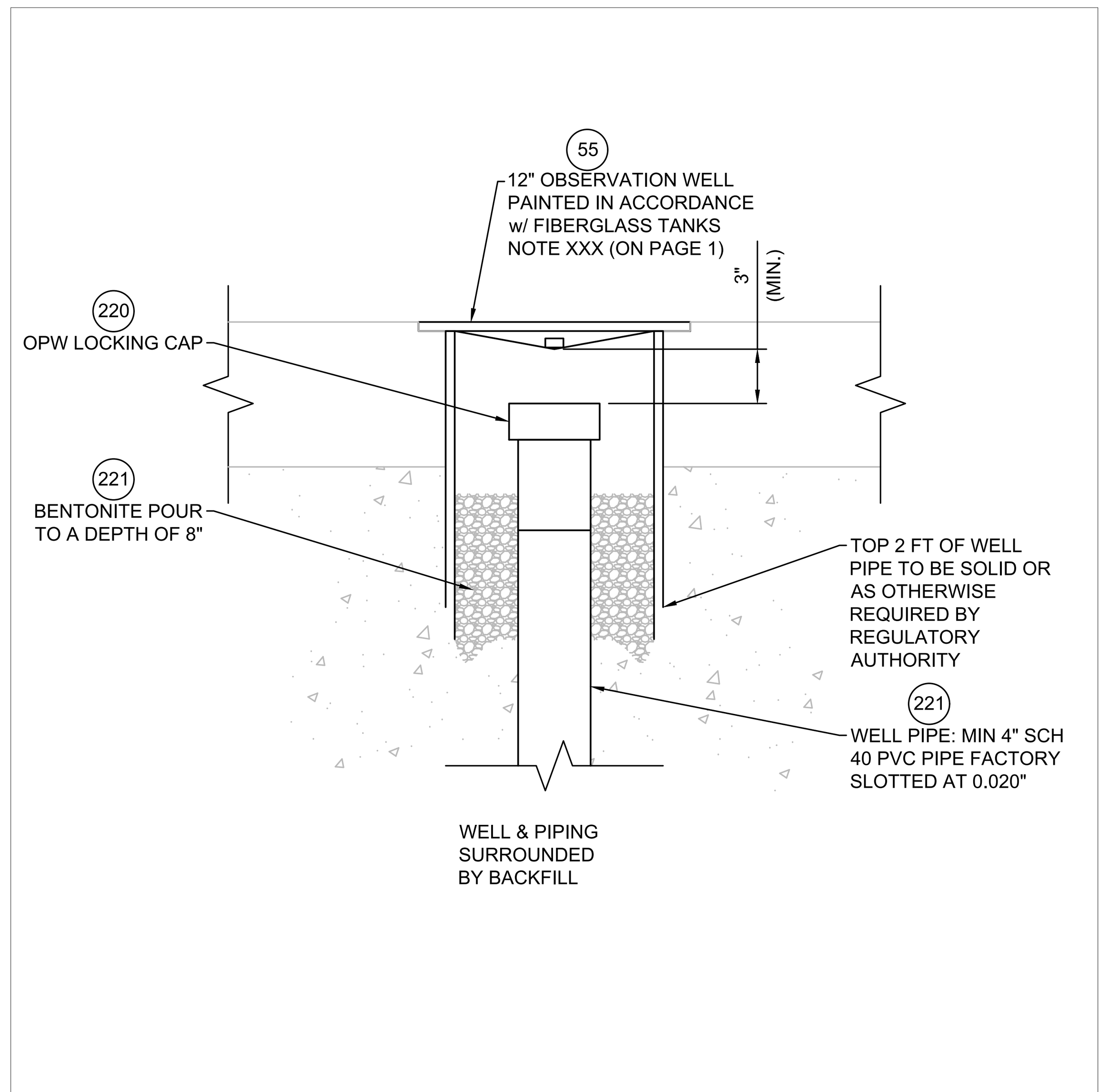
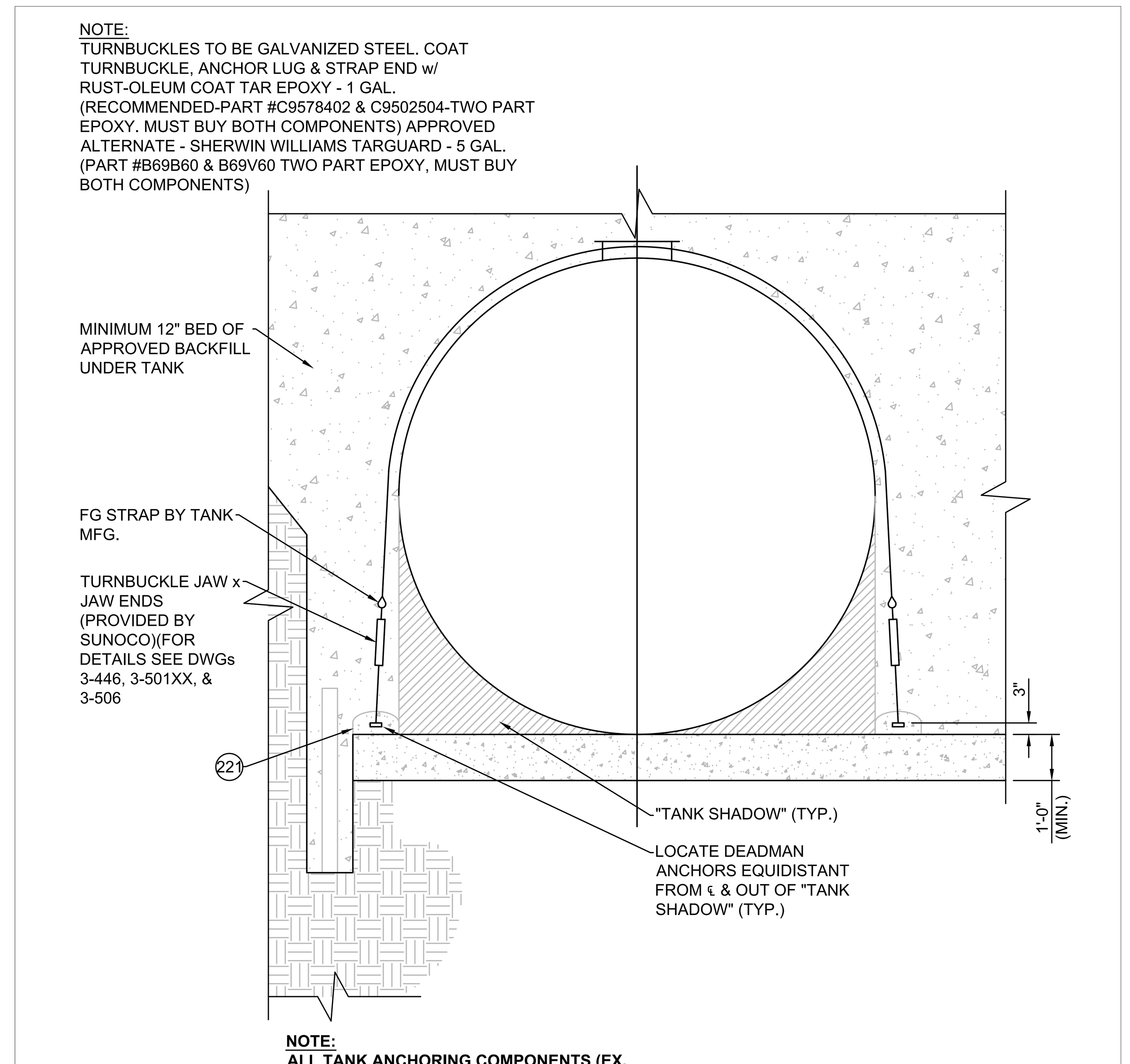




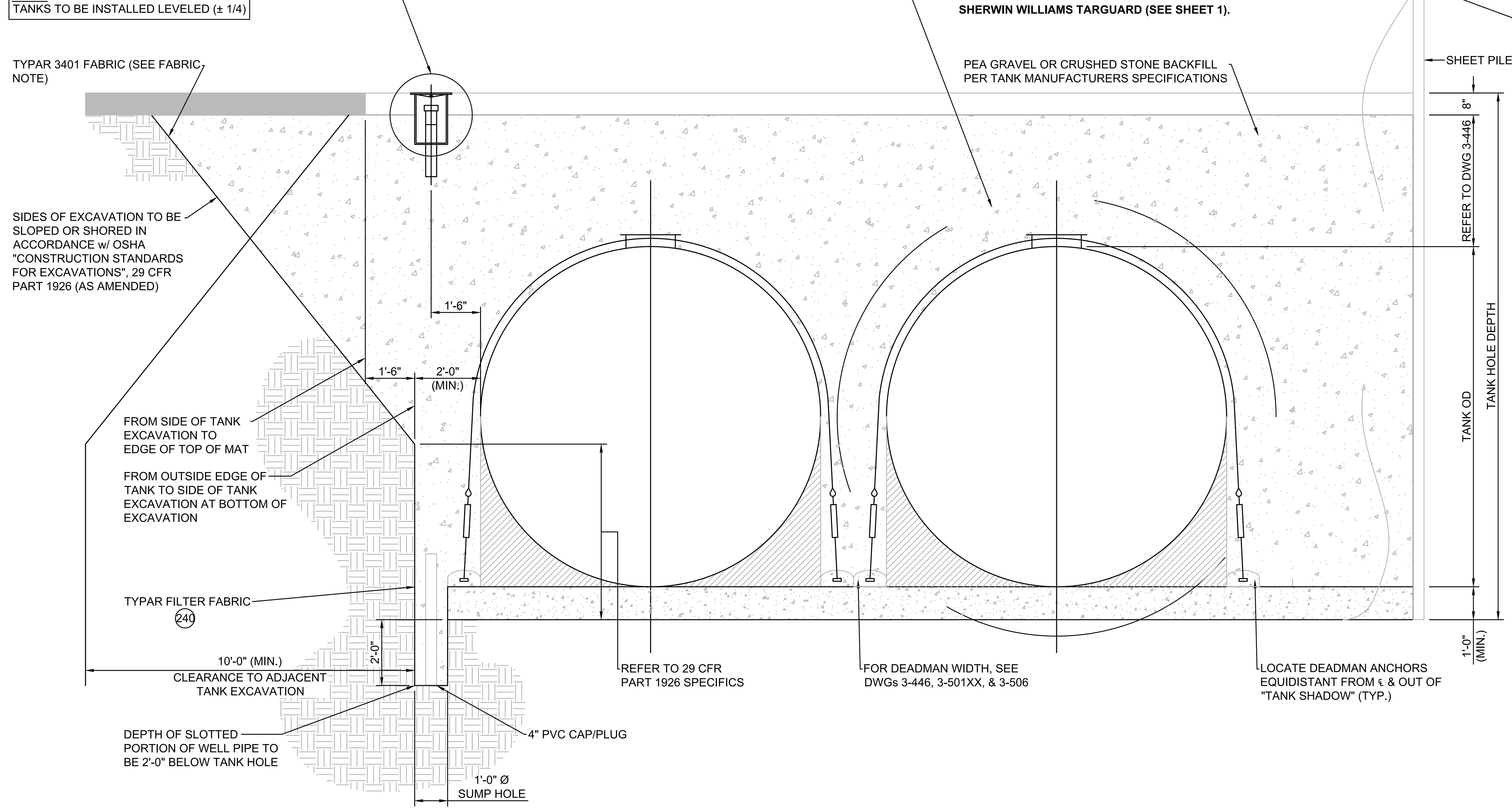
NOTE:
ALL TANK ANCHORING COMPONENTS (EX. TURNBUCKLES, SHACKLES, ANCHOR STRAPS, HOOKS, EYE LOOPS & MISC. HARDWARE) ARE TO BE GALVANIZED STEEL & COATED w/ RUST-OLAIM TAR EPOXY OR SHERWIN WILLIAMS TARGUARD (SEE SHEET 1).

NOTE:
CHOICE OF SLOPING OR SHORING OF TANK HOLES TO BE DETERMINED BY OWNER & SITE CONDITIONS

NOTE:
TANKS TO BE INSTALLED LEVELED (± 1/4)

TYPAR 3401 FABRIC INSTALLATION NOTES

TYPAR 3401 FABRIC INSTALLED ON ALL TANK INSTALLATIONS. DRAPED FABRIC OVER SHEET PILE. OVERLAP ADJACENT STRIPS BY ONE FOOT, INSTALL BACK FILL IN ONE FOOT LIFTS; BEGIN FIRST LIFT w/ THE SPACE b/w THE FILTER FABRIC & THE SHEET PILE, THEN PULL THE FILTER FABRIC OVER THE SHEET PILE, INSTALL FIRST LIFT AROUND TANKS, THEN REPOSITION FILTER FABRIC TO ALLOW FOR SECOND LIFT b/w FABRIC & SHEET PILE. FOLLOW THIS PROCEDURE ALTERNATELY FILLING AROUND TANK & BEHIND FABRIC IN ONE FOOT LIFTS UNTIL BACK FILL IS COMPLETE. REMOVE SHEET PILING.



TANK EXCAVATION & ANCHORING DETAIL (TANK END VIEW)
NOT TO SCALE

OSHA CONSTRUCTION GUIDELINES AS OF 1994	
SOIL TYPE	MAX SLOPE FOR 20 FT DEEP OR LESS
STABLE ROCK	VERTICALLY (90°)
TYPE A	3/4:1 (53')
TYPE B	1:1 (45')
TYPE C	1-1/2:1 (39')

1 TANK EXCAVATION & ANCHORING DETAILS
SCALE: 3/8"=1'-0"

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TANK EXCAVATION & ANCHORING DETAILS
SCALE: AS NOTED

C-1.3

DRAWN BY: JM
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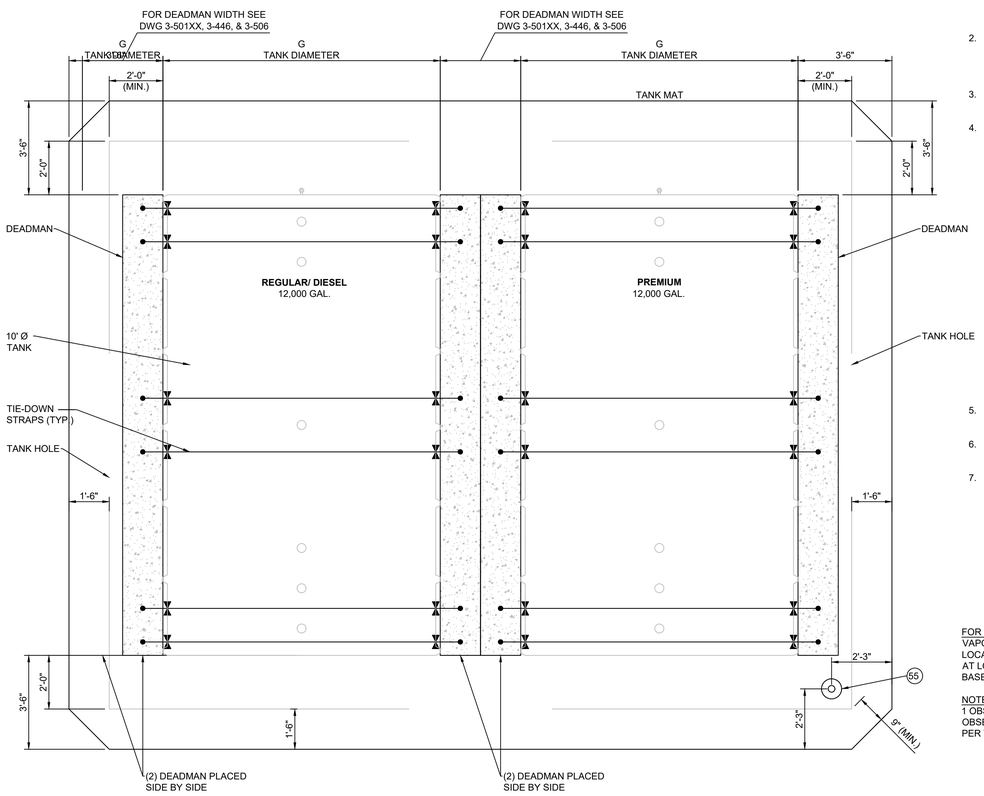

TYPICAL TANK MAT LAYOUT
NOT TO SCALE

NOTE:

1. TANK DETAILS IS SHOWN FOR 20K TANKS, BUT DIMENSIONS ARE TYP. FOR TANK INSTALLATION & MAT.
2. TANKS MUST BE ANCHORED USING DEADMEN. SEE TANK-RELATED DIMENSIONS & ANCHOR DRAWINGS (DEADMAN SUPPLIED BY SUNOCO).
3. INSTALLATION HAS BEEN DESIGNED TO COUNTERACT ANY BUOYANCY.
4. TANK STRAPPING:
   A. USE FRP PRE-SHAPE FIBERGLASS STRAPS FROM MANUFACTURER. WIRE ROPE ANCHORS OVER TANKS WILL NOT BE ACCEPTABLE AS A MEANS OF ANCHORING TANKS.
   B. HOLD DOWN STRAP RIB LOCATIONS ARE INDICATED BY "⋈" ON TANK WALL.
   C. CONNECTIONS TO FRP STRAPS SHALL BE w/ GALVANIZED STEEL.
   D. ALL HOLD DOWN STRAPS MUST BE UNIFORMLY TIGHTENED UNTIL SNUG, BUT CAUSE NO DEFLECTION OF THE TANK.
   E. HOLD DOWN STRAP ENDS, TURNBUCKLES & ANCHOR LUGS SHALL BE COATED w/ MC-TAR COATING (BY WASSER HIGH TECH COATINGS) OR SHERWIN WILLIAMS TARGUARD (TURNBUCKLES SUPPLIED BY SUNOCO).
5. FOR TANK PIPING LAYOUTS SEE DWGs 3-439, 3-443, & 3-444.
6. FOR TANK DETAILS SEE DWGs 3-446, 3-501XX, & 3-506.
7. FOR TANK MAT EXPANSION JOINTS DETAIL SEE DWGs 4-500XX (TANK MATS ARE 8" THICK CONCRETE SLAB).

FOR ITEM 55
VAPOR EXTRACTION/OBSERVATION WELL LOCATED IN ONE CORNER OF TANK MAT AT LOW POINT OF TANK EXCAVATION, BASED ON SITE CONDITIONS (TYP.).

NOTE:
1 OBSERVATION WELL IS STANDARD. 2-4 OBSERVATION WELLS MAY BE REQUIRED PER VARIOUS STATE REGULATIONS.

1 TANK MAT LAYOUT DETAILS

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

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TANK MAT LAYOUT DETAIL

SCALE: AS NOTED

C-1.4

DRAWN BY: JM
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1 PROPOSED GAS PLAN

SCALE: 1:100

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1982 W MAIN ST.
NORRISTOWN, PA 19403

DATE: 11/23/2021
PROJECT NO.: 21-0051

REVISION	DATE

NOTES:

NOT FOR CONSTRUCTION

DocuSigned by:
Paul Jones
1B53D233B...

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
PAUL G. JONES
ENGINEER
PE077696
8/5/2022

PROFESSIONAL ENGINEER SEAL
STATE OF PENNSYLVANIA

PROPOSED GAS PLAN

SCALE: AS NOTED

C-1.5

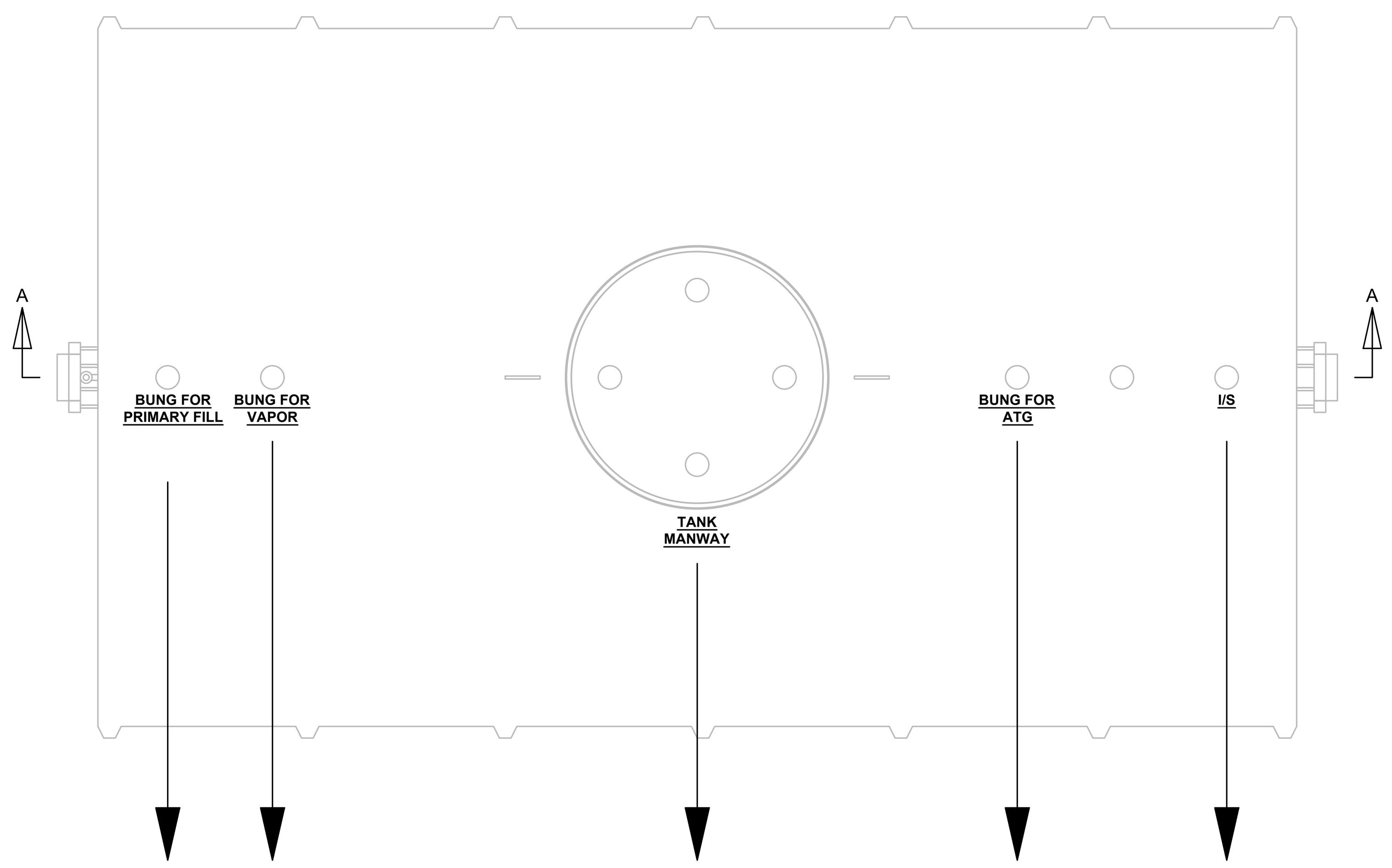
DRAWN BY: JM
CHECKED BY: JM

ITEM	QTY	EQUIPMENT LISTING
A	1	DOUBLE WALL FIBERGLASS STORAGE TANK
B	-	XERXES PRECAST CONCRETE DEADMAN SYSTEM
C	-	FIBERGLASS HOLD DOWN STRAP WITH TURNBUCKLE ASSY.
D	1	HYDROSTATIC MONITORING SYSTEM
E	2	42" DIA. FIBERGLASS CONTAINMENT COLLAR
F	2	42" DIA. FIBERGLASS 8 SIDED SW CONTAINMENT SUMP WITH 32" DIA. WATERTIGHT TOP
G	2*	LEVEL PROBE
H	2*	DISTINGUISHING LEAK SENSOR
I	1*	HYDROSTATIC MONITOR SENSOR
J	2*	LARGE ROUND MANHOLE
K	2*	FIVE GALLON SPILL FILL MANHOLE
L	2*	FILL CAP
M	2*	FILL ADAPTER
N	2*	PRODUCT LABEL MARKER
O	2*	OVERFILL PREVENTION VALVE
P	1*	MONITORING MANHOLE
Q	1*	4" SENSOR CAP
R	2*	FLEXIBLE ENTRY BOOT
S	2*	SINGLE WALL VENT PIPING
T	2*	DOUBLE WALL PRODUCT SUPPLY PIPING
U	4*	FLEXIBLE CONNECTOR
V	4*	FLEXIBLE CONNECTOR BOOT
W	2*	STAGE 1 VAPOR RECOVERY MANHOLE
X	2*	STAGE 1 VAPOR CAP
Y	2*	STAGE 1 VAPOR CHECK VALVE ADAPTER
Z	2*	EXTERIOR ASSEMBLY
AA	2*	SINGLE WALL STAGE 2 VAPOR RECOVERY PIPING
BB	2*	SUBMERSIBLE TURBINE PUMP
CC	2*	FULL PORT BALL VALVE

* SUPPLIED BY OTHERS

DOUBLE WALL TANK PLAN VIEW

SUMPS NOT SHOWN FOR CLARITY
NOT TO SCALE



UST SHOWN REPRESENTS A TYPICAL DOUBLE WALL FRP TANK OTHER SIZES AND MANUFACTURERS MAY HAVE DIFFERENT TANK TOP OPENING ALIGNMENTS. THIS WILL REQUIRE SUBSTITUTION FOR, MODIFICATION OF, OR REALOGNMENT OF THE EQUIPMENT SHOWN. ALL CHANGES FROM THE ALIGNMENT SHOWN MUST BE APPROVED BY SUNOCO ENGINEERING PRIOR TO THE WORK.

1) **SINGLE WALL TANKS (NOT SHOWN).**
2) **BAFFLED TANKS (NOT SHOWN).**
3) **IF ATG IS TO BE INSTALLED IN A MANWAY, IT IS TO BE INSTALLED ON THE CENTER LINE OF THE TANK.**
4) **OVERFILL PREVENTION VALVE IS TO BE INSTALLED ALONG CENTER OF TANK & THE FLAPPER VALVE IS TO BE ALIGNED ALONG THE CENTER LINE OF THE TANK.**

FIBERGLASS TANK NOTES:

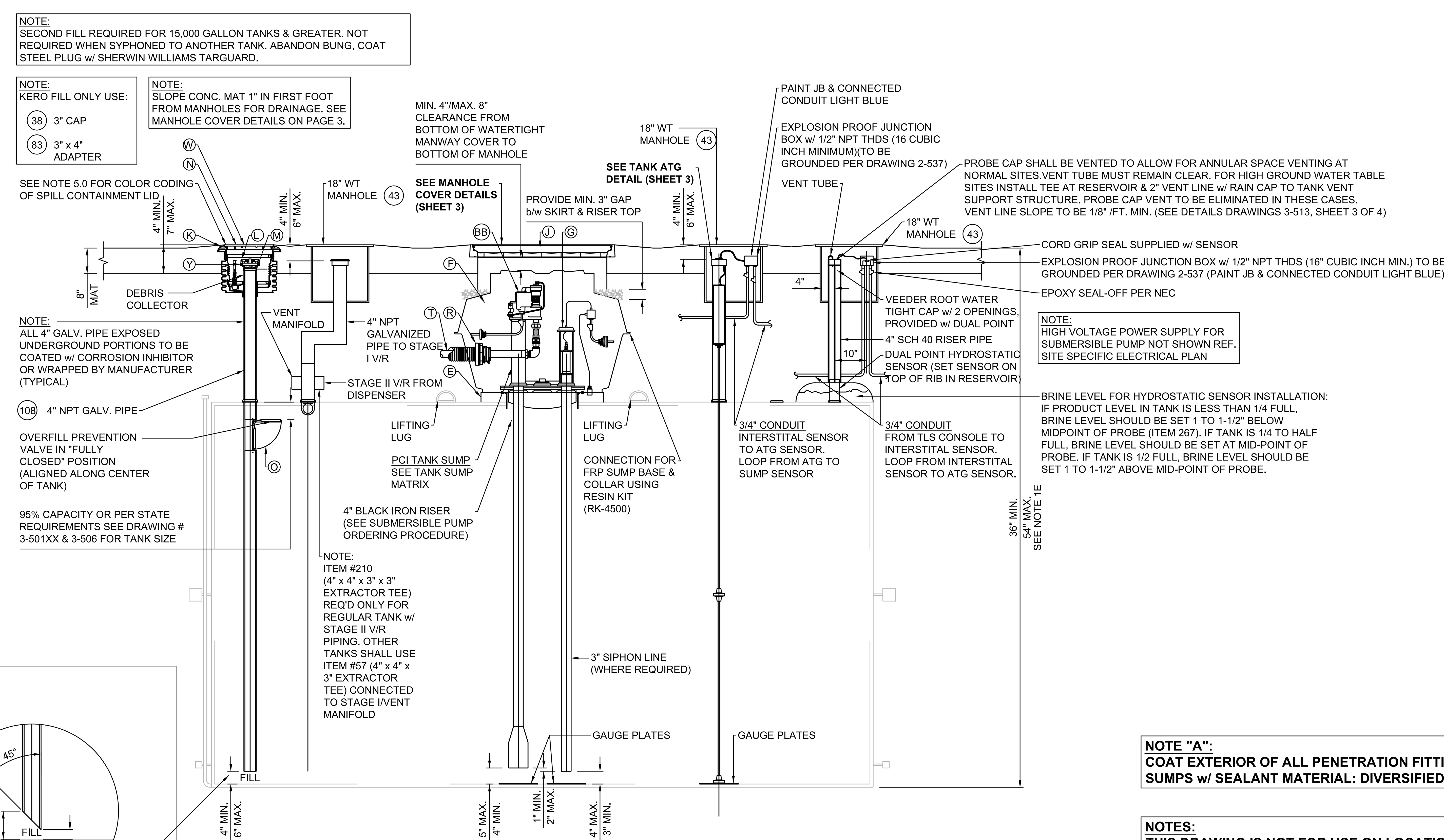
1. INSTALLATION PROCEDURES
   A. TANK INSTALLATION & TESTING PER TANK MFG INSTALLATION MANUAL & OPERATION GUIDELINES.
   B. SEE PLOT PLAN FOR LOCATION & GRADES.
   C. USE LIFTING LUGS TO LIFT TANK. DO NOT USE CHAINS OR CABLES AROUND TANKS.
   D. ENSURE THAT TANKS ARE LEVEL DURING INSTALLATION (± 1/4").
   E. IF TANK INSTALLED IN A WET HOLE, TANK BASE/FOUNDATION TO BE 18" IN DEPTH.
   F. MAXIMUM BURIAL DEPTHS FROM TOP OF TANK TO GRADE.
      - 20,000 GALLONS = 47"
      - 30,000 GALLONS = 50"
   G. ADDING NEW TANK LATER REQUIRES SEPARATE TANK HOLE 10'-0" MINIMUM FROM ORIGINAL HOLE.
   H. TANK SUMPS THAT ARE DEEPER THEN 60" ARE CONSIDERED PERMITTED CONFINED SPACE.
2. BACKFILL & BEDDING MATERIAL
   A. SHALL MEET THE TANK MANUFACTURER'S SPECIFICATIONS OF CLEAN & WELL GRADED PEA GRAVEL (ROUND PARTICLES) w/ A MINIMUM DIAMETER OF 1/8" & MAXIMUM DIAMETER OF 3/4".
   B. OR, OF CRUSHED STONE WASHED & FREE FLOWING. ANGULAR PARTICLE SIZE SHOULD BE b/w 1/8" & 1/2" & MUST MEET ASTM C-33 REQUIREMENTS.
3. FILTER FABRIC REQUIREMENTS (INSTALL AT ALL SITES)
   A. LINE ENTIRE EXCAVATION w/ TYPAR 3401 FILTER FABRIC.
   B. SEE MANUFACTURER INSTALLATION RECOMMENDATIONS. 2nd DRAWING S-513 SHEET 4 FOR FABRIC INSTALLATION PROCEDURES FOR SHORED HOLES.
4. TANK ANCHORING
   A. TANKS MUST BE ANCHORED USING DEADMEN. DEADMAN SIZING PER DRAWING 3-446, 3-506. DEAMEN TO BE SUPPLIED BY TANK MANUFACTURER.
   B. TANK STRAPPING (TO BE PROVIDED BY MANUFACTURER).
   C. USE FRP PRE-SHAPED FIBERGLASS STRAPS. WIRE ROPE ANCHORS OVER TANKS WILL NOT BE ACCEPTABLE AS A MEANS OF ANCHORING TANKS.
   D. HOLD DOWN STRAP RIB LOCATIONS ARE INDICATED BY "⧓" ON TANK WALL.
   E. CONNECTIONS TO FRP STRAPS SHALL BE w/ GALVANIZED STEEL TURNBUCKLES AS SHOWN (MANUFACTURED SUPPLIED TURNBUCKLES PROVIDED BY SUNOCO).
   F. ALL HOLD DOWN STRAPS MUST BE UNIFORMLY TIGHTENED UNTIL SNUG, BUT CAUSE NO DEFLECTION OF TANK.
   G. TURNBUCKLE JAW x JAW ENDS REFERENCE DWG 3-501XX.
   H. DEADMEN ANCHORS & REINFORCEMENT SHOULD BE INSTALLED AS SHOWN ON DWG 3-446 & 3-506
   I. HOLD DOWN STRAP ENDS, TURNBUCKLES & ANCHOR LUGS SHALL BE COATED w/ RUST-OLEUM COAL TAR EPOXY-1 GAL. (RECOMMENDED - PART #C9578402 & C9502504 - TWO PART EPOXY, MUST BUY BOTH COMPONENTS). APPROVED ALTERNATIVE - SHERWIN WILLIAMS TARGUARD - 5 GAL. (PART #B69B60 & B69V60 - TWO PART EPOXY MUST BUY BOTH COMPONENTS). (SEE SHEET 4).
5. EXISTING FIBERGLASS TANKS (TANK TOP UPGRADES)
   A. WHEN TANK TOP UPGRADES ARE PERFORMED, ALL RISERS, SUMPS, & SPILL BUCKETS ARE TO BE REPLACED.
   B. ON DOUBLE WALL TANKS w/ DRY INTERSTITAL, UPGRADE THE TANK MONITORING TO BRINE FILLED (CONVERSION IS TO BE PERFORMED BY THE TANK MANUFACTURER FIELD SERVICE GROUP).
   C. USE GASOILA E-SEAL FOR ALL DISPENSER PIPING & FITTING ABOVE & INCLUDING THE SHEAR VALVE.
6. COLOR CODING BY API STANDARDS
   A. SUNOCO UNLEADED
      ULTRA = RED w/ WHITE CROSS
      REGULAR = WHITE w/ BLACK CROSS
   B. SUNOCO ETHANOL
      ULTRA/PREMIUM = RED w/ WHITE CROSS & WHITE RING
      REGULAR = WHITE w/ BLACK CROSS & BLACK RING
   C. OTHER
      FUEL OIL (LOW SULFUR) = GREEN HEXAGON
      FUEL OIL (HI SULFUR) = GREEN HEXAGON w/ BLUE BAR
      DIESEL (HIGH SULFUR) = YELLOW HEXAGON w/ BLUE BAR
      DIESEL (LOW SULFUR) = YELLOW HEXAGON
      DIESEL (ULTRA LOW SULFUR) = YELLOW HEXAGON w/ BLACK "U"
      KEROSENE (LOW SULFUR) = BROWN HEXAGON
      KEROSENE (ULTRA LOW SULFUR) = BROWN HEXAGON w/ BLACK "U"
      E85 = BRONZE PENTAGON w/ BLACK "E85"
      WASTE OIL = PURPLE SQUARE
      OBSERVATION WELL = BLACK TRIANGLE ON WHITE BACKGROUND (FOR COVERS w/o TRIANGLE CASTING, PAINT 6" MIN. LENGTH BLACK TRIANGLE ON THE WHITE BACKGROUND).
      VAPOR RECOVERY = ORANGE CIRCLE
      OTHERS (INCLUDES UNUSED & ABANDONED SPILL BUCKETS) = BLACK
      RACE FUEL (UNLEADED) = PURPLE w/ WHITE CROSS
      RACE FUEL (ETHANOL) = PURPLE w/ WHITE CROSS & WHITE RING
      NOTE = SPILL BUCKET RIM IS TO BE PAINTED SAME COLOR AS THE COVER/LID
7. ENTRY PROCEDURE
   A. AREA BELOW MANHOLE LID IS OSHA CLASSIFIED AS A "CONFINED SPACE". PERSONNEL TRAINING, CERTIFICATIONS, ENTRY PROCEDURES, & EQUIPMENT MUST CONFIRM TO ALL APPROPRIATE OSHA REQUIREMENTS.

PIPING NOTES:

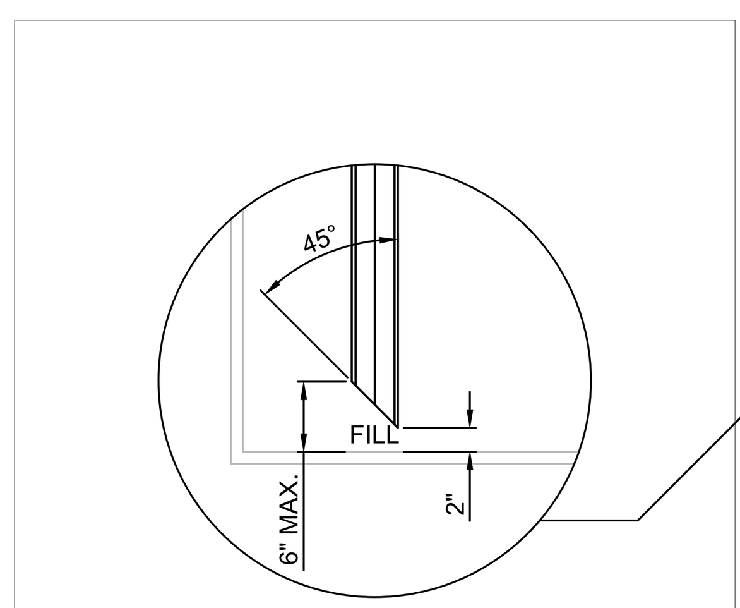
1. ALL PRODUCT PIPING IS DOUBLE WALL FIBERGLASS, ALL VAPOR PIPING IS SINGLE WALL FIBERGLASS (DOUBLE WALL FOR THE STATES OF DE & MD). THE APPROVED FRP PIPING MANF. IS AMERON, DUALOY 3000/L OR FIBERGLASS RED THREAD - IIA PIPE & FITTING, AS IDENTIFY ON MATERIAL SCHEDULE (3-451XX).

NOTE: DIFFERENT MAKES OF FRP PIPE MAY EXIST ON A GIVEN SITE. DIFFERENT MAKES ARE NEVER TO BE MIXED ON THE SAME PRODUCT SYSTEM.

2. ALL FRP PIPING & FITTINGS INSTALLED WITHIN SUMPS WILL BE INSTALLED USING MANUFACTURER APPROVED ADHESIVES & METHODS.
3. PRODUCT LINE GEOMETRY REQUIRES REVIEW & APPROVAL BY SUNOCO ENGINEER.
4. ALL CONDUIT PENETRATIONS WILL BE MADE TO ALLOW FOR ADHERENCE TO NEC UNDERGROUND MAXIMUM BEND REQUIREMENTS.
5. SEALANT MATERIAL SPECIFICATIONS.
   A. USE LOCTITE 565 PST PIPE SEALANT w/ TEFLON FOR ALL 2" OR LESS THREADED PRODUCT PIPE & PIPE FITTINGS (PRODUCT #56541/GRAINGER CATALOG #4KM16).
   B. USE GASOILA E-SEAL FOR 4" RISERS, 3" THREADED PIPE FITTINGS, TANK BUNGS, FILL ADAPTERS, MECHANICAL LEAK DETECTORS (MLD's), MISC. TEST PLUGS, & OTHER REMOVABLE COMPONENTS.
6. ELECTRICAL CONDUIT & PIPING ARE NOT TO BE INCLUDED IN THE SAME TRENCH (WHEN NECESSARY CONDUIT TO BE ABOVE).
7. ALL NON CONTAINED GALVANIZED STEEL PIPE RISERS & THREADS SHALL BE COATED w/ RUST - OLEUM COAL TAR EPOXY - 1 GAL. (RECOMMENDED - PART #C9578402 & C9502504 - TWO PART EPOXY, MUST BUY BOTH COMPONENTS). APPROVED ALTERNATE - SHERWIN WILLIAMS TARGUARD - 5 GAL. (PART #B69B60 & B69V60 - TWO PART EPOXY, MUST BUY BOTH COMPONENTS).
8. INSTALL PRODUCT & VAPOR RECOVERY PIPING IN ACCORDANCE w/ MANUFACTURERS REQUIREMENTS.
9. REFER TO DRAWING 3-511 FOR ADDITIONAL PIPING DETAILS.
10. PRODUCT & VAPOR RECOVERY PIPING BURIAL PREFERRED TO BE 18" MIN., BUT IN ACCORDANCE w/ MANUFACTURER RECOMMENDATIONS.



SECTION A-A
DOUBLE WALL TANK ELEVATION VIEW



SPECIFIC DETAIL FOR DELAWARE SITES ONLY

NOTE "A":
COAT EXTERIOR OF ALL PENETRATION FITTINGS FOR SUMPS w/ SEALANT MATERIAL: DIVERSIFIED DBF II

NOTES:
THIS DRAWING IS NOT FOR USE ON LOCATIONS IN NASSAU AND SUFFOLK COUNTIES OR IN NEW YORK CITY.

NOTES:
DWG# 0-0001 COVER SHEET FOR CONSTRUCTION STDS.
DWG# 3-451XX EQUIPMENT SCHEDULE.

1 PUMP DETAIL
SCALE: 1/2"=1'-0"

REFLECT DESIGN GROUP
306 S NEW STREET ©2021
BETHLEHEM, PA 18015

2021.11.23
PROJECT:
PROPOSED FUEL PUMP INSTALLATION PLANS

1982 W MAIN ST.
NORRISTOWN, PA 19403

DATE: 11/23/2021
PROJECT NO.: 21-0051

REVISION	DATE

NOTES:

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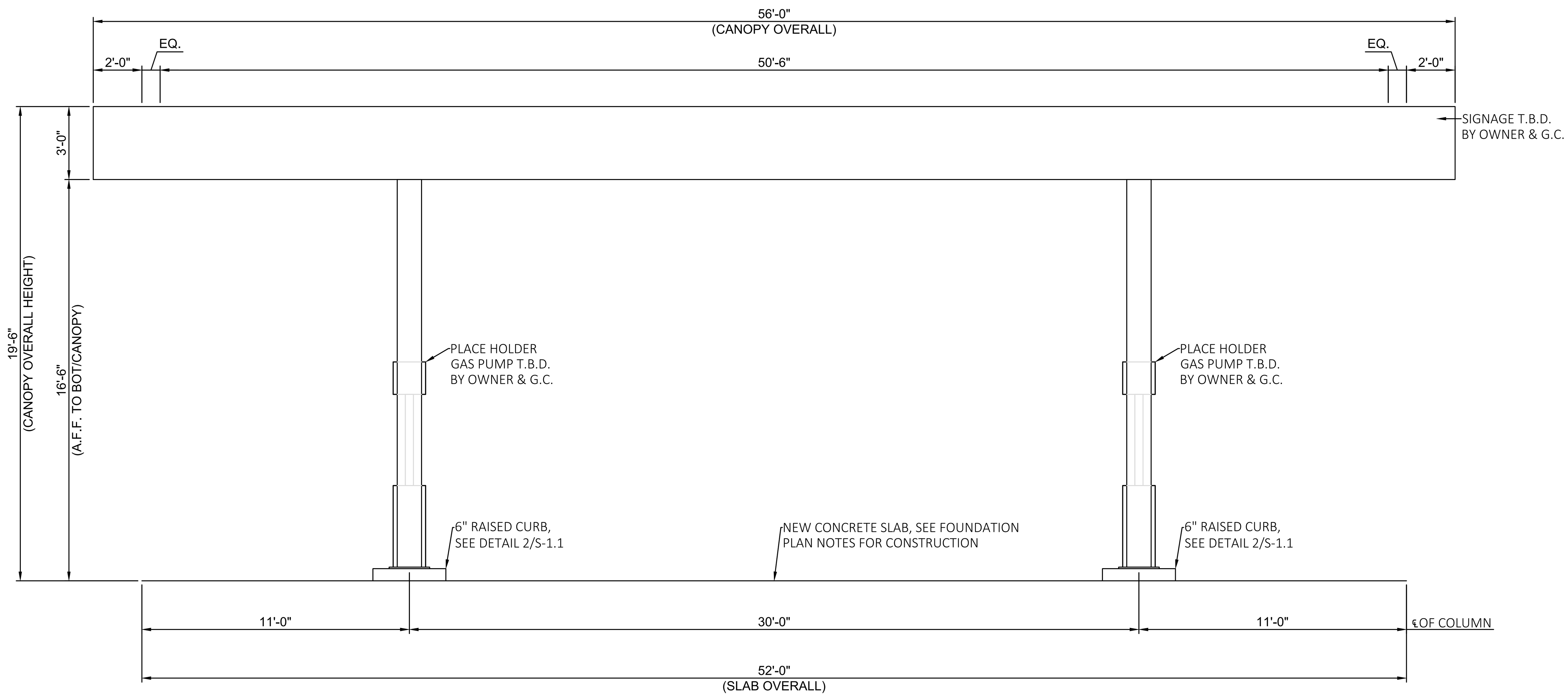
DocuSigned by:
Paul Jones
1B53D233BB80457...
COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL PAUL G. JONES ENGINEER PE077696
8/5/2022
PROFESSIONAL ENGINEER SEAL
STATE OF PENNSYLVANIA

PUMP DETAIL

SCALE: AS NOTED

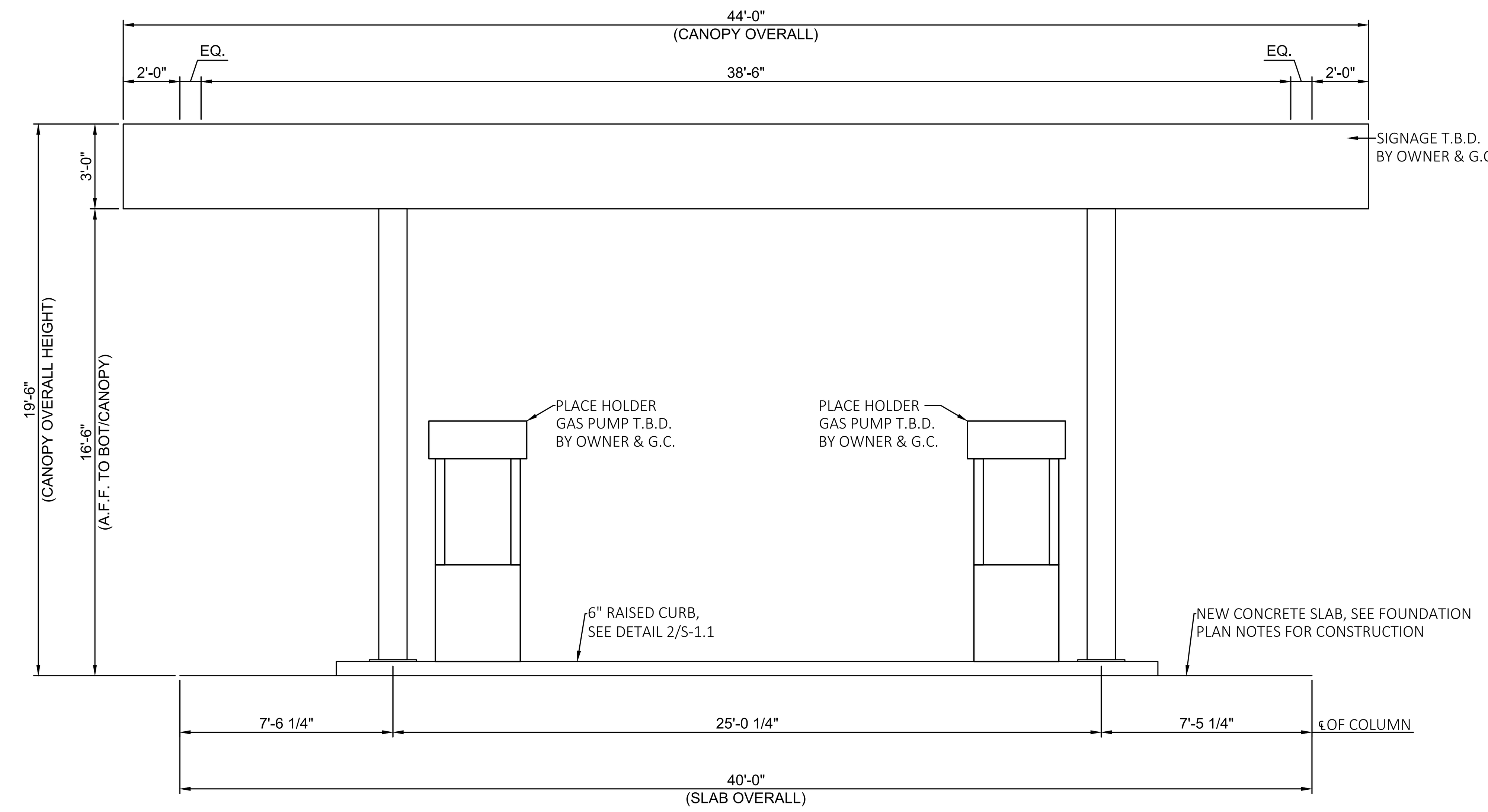
C-1.6

DRAWN BY: JM
CHECKED BY: JM



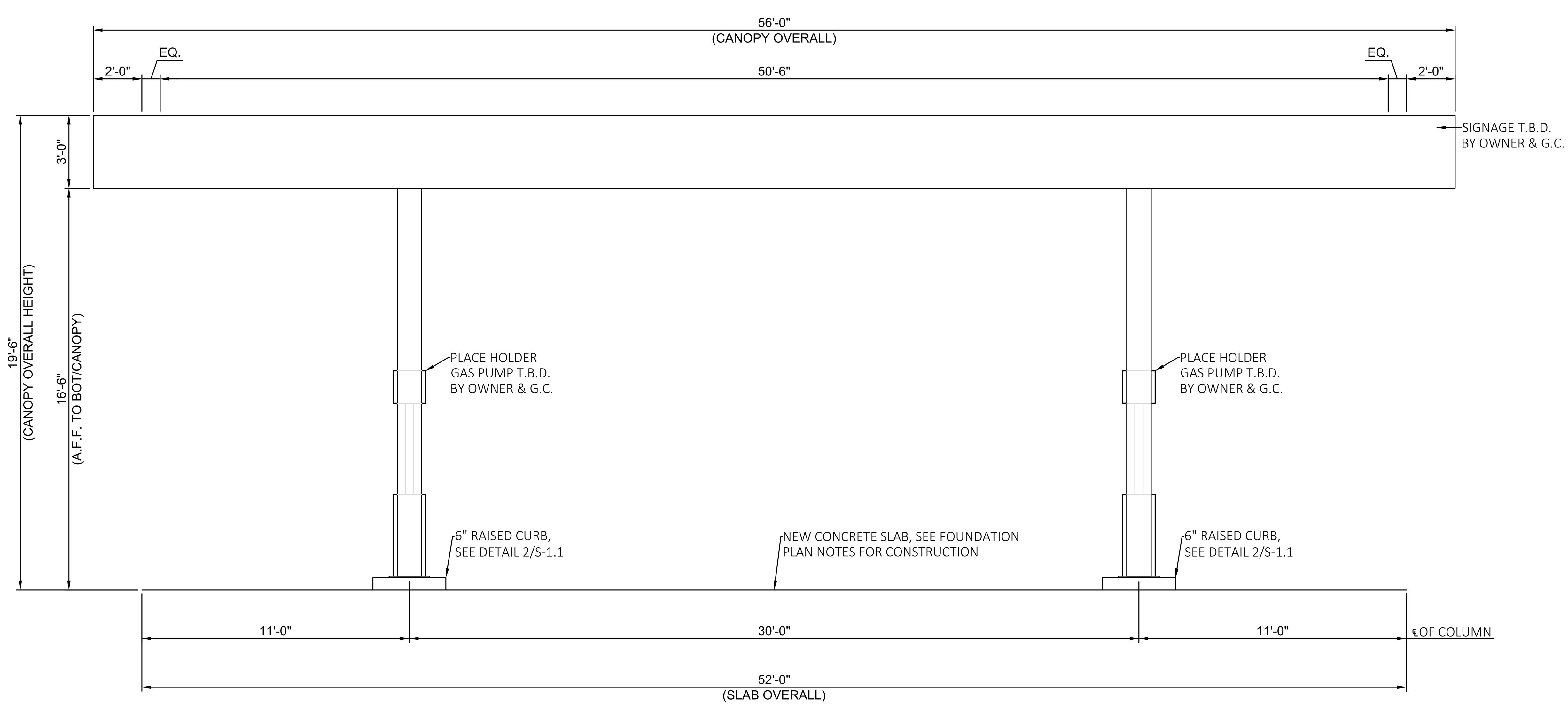
1 NORTH CANOPY ELEVATION

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



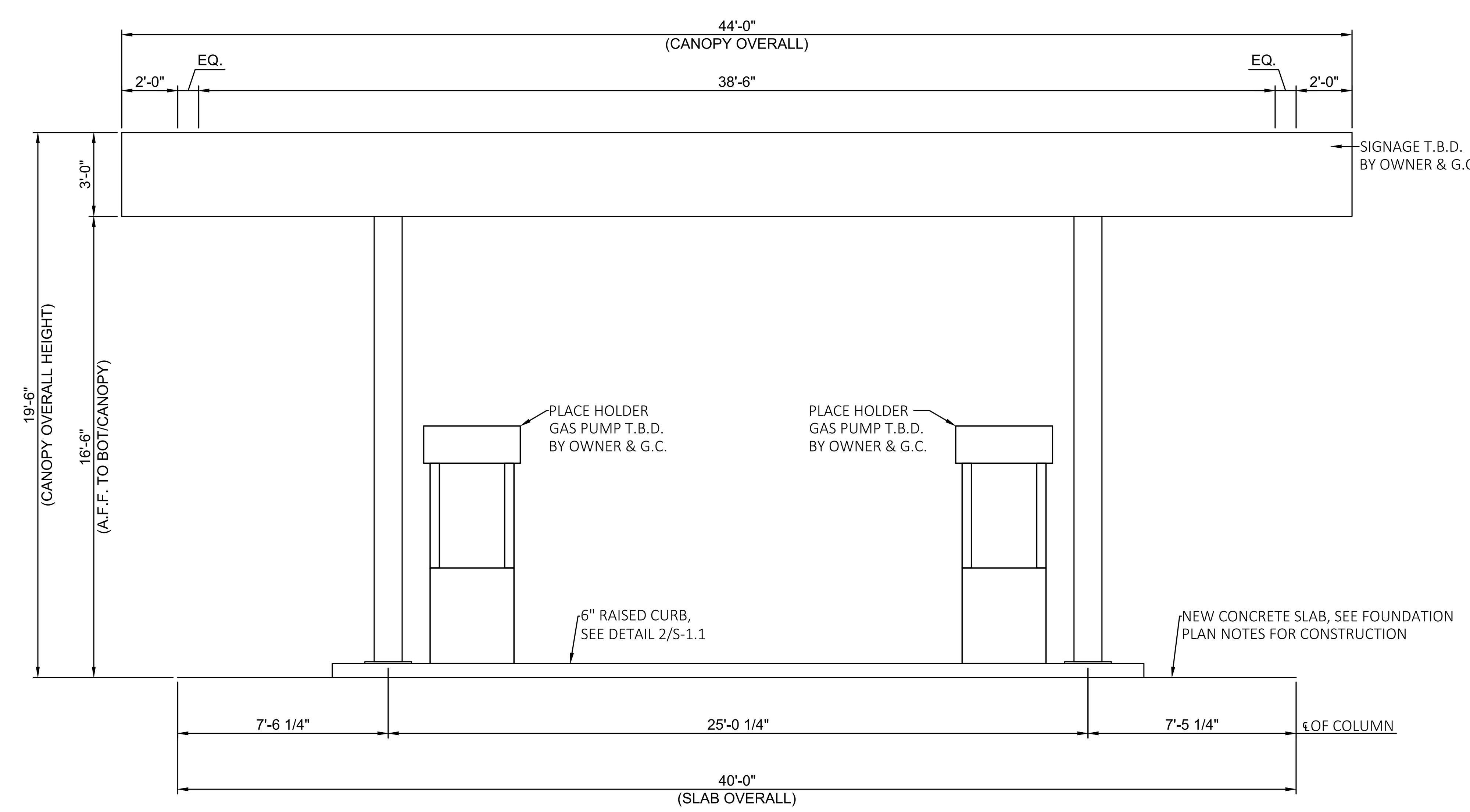
2 WEST CANOPY ELEVATION

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



3 SOUTH CANOPY ELEVATION

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



4 EAST CANOPY ELEVATION

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

REFLECT DESIGN GROUP
306 S NEW STREET ©2021
BETHLEHEM, PA 18015

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PAUL G. JONES
ENGINEER
PE077696

8/5/2022

PROFESSIONAL ENGINEER SEAL
STATE OF PENNSYLVANIA

CANOPY ELEVATIONS

SCALE: AS NOTED

C-2.0

DRAWN BY: JM
CHECKED BY: JM

GENERAL STRUCTURAL NOTES:

1. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, INSERTS, ANCHORS, HOLES AND OTHER ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE ENGINEER WILL NOT ADVISE ON NOR ISSUE DIRECTION AS TO SAFETY PRECAUTIONS AND PROGRAMS.

3. THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL ALL STRUCTURAL WORK AND CONNECTIONS HAVE BEEN COMPLETED. THE INVESTIGATION, DESIGN, SAFETY, ADEQUACY AND INSPECTION OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

4. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE METHODS, TECHNIQUES AND SEQUENCES OF PROCEDURES TO PERFORM THE WORK. THE SUPERVISION OF THE WORK IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

5. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO APPROVAL BY THE ENGINEER.

6. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH THE SUPPLIER'S INSTRUCTIONS AND REQUIREMENTS.

7. CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORTS REQUIRED FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES UNTIL THE STRUCTURE IS CAPABLE OF PROVIDING THIS SUPPORT. CONTRACTOR TO REFER TO A.I.S.C. STEEL DESIGN GUIDE #10, "ERECTION BRACING OF LOW RISE STRUCTURAL STEEL BUILDINGS".

8. LOADING APPLIED TO THE STRUCTURE DURING THE PROCESS OF CONSTRUCTION SHALL NOT EXCEED THE SAFE LOAD-CARRYING CAPACITY OF THE STRUCTURAL MEMBERS. THE LIVE LOADINGS USED IN THE DESIGN OF THIS STRUCTURE ARE INDICATED IN THE "DESIGN CRITERIA NOTES". DO NOT APPLY ANY CONSTRUCTION LOADS UNTIL STRUCTURAL FRAMING IS PROPERLY CONNECTED TOGETHER AND UNTIL ALL TEMPORARY BRACING IS IN PLACE.

9. ALL ASTM AND OTHER REFERENCES ARE PER THE LATEST EDITIONS OF THESE STANDARDS, UNLESS OTHERWISE NOTED.

10. IN ACCORDANCE WITH SECTION 1704 OF IBC 2015, SPECIAL INSPECTIONS WILL BE REQUIRED FOR THIS PROJECT. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE "SCHEDULE OF SPECIAL INSPECTIONS". ALL FABRICATORS SHALL SATISFY THE "EXCEPTION" NOTED IN SECTION 1704.2.5.1, WHICH REQUIRES THE FABRICATOR TO MAINTAIN AN AGREEMENT WITH AN APPROVED INDEPENDENT INSPECTION OR QUALITY CONTROL AGENCY. THE CONTRACTOR SHALL NOTIFY THE SPECIAL INSPECTOR AT LEAST 48 HOURS IN ADVANCE FOR WORK THAT WILL REQUIRE INSPECTION OR TESTING

11. UNLESS OTHERWISE INDICATED, ALL ITEMS NOTED TO BE DEMOLISHED SHALL BECOME THE CONTRACTOR'S PROPERTY AND BE REMOVED FROM THE SITE.

12. CONTRACTORS SHALL VISIT THE SITE PRIOR TO BID TO ASCERTAIN CONDITIONS WHICH MAY ADVERSELY AFFECT THE WORK OR COST THEREOF.

13. DIMENSIONS SHOWN ON THE ARCHITECTURAL DRAWINGS SHALL GOVERN OVER DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL GENERATE AN RFI REGARDING DISCREPANCIES PRIOR TO CONSTRUCTION.

SHOP DRAWING NOTES:

1. SHOP DRAWINGS AND OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. THE ENGINEER'S REVIEW IS TO BE FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS. THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SHOP DRAWINGS PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSIONS, ETC.

2. SUBMIT SHOP DRAWINGS AS PER NOTE #3 BELOW. IN NO CASE SHALL REPRODUCTION OF THE CONTRACT DRAWINGS BE USED AS SHOP DRAWINGS. AS A MINIMUM, SUBMIT THE FOLLOWING ITEMS FOR REVIEW:
A. SCHEMATIC CONNECTION DETAILS.
B. CONCRETE MIX DESIGN(S).
C. REINFORCING STEEL SHOP DRAWINGS.
D. STRUCTURAL STEEL SHOP DRAWINGS.
E. METAL DECKING SHOP DRAWINGS.
F. LIGHT GAGE METAL FRAMING SHOP DRAWINGS.
OTHER SUBMITTALS MAY BE REQUIRED PER THE "SCHEDULE OF SPECIAL INSPECTIONS" OR THE SEPARATE NOTES CONTAINED HEREIN.

3. CONTRACTOR SHALL SUBMIT ELECTRONIC SHOP DRAWINGS. ANY ADDITIONAL SHOP DRAWINGS SUBMITTED WILL NOT BE REVIEWED OR RETURNED.

4. CONTRACTOR SHALL SUBMIT A SCHEDULE INDICATING WHEN EACH SET OF SHOP DRAWINGS WILL BE SUBMITTED TO THE ARCHITECT/ENGINEER PRIOR TO ANY SHOP DRAWING SUBMISSION.

5. ALL NOTES OR QUESTIONS FROM THE DETAILER TO THE ENGINEER OR ARCHITECT SHALL BE CLOUDED, NUMBERED AND WITH THE TEXT "ARCH/ENGR. REVIEW." ANY NOTES OR QUESTIONS FROM THE DETAILER TO THE CONTRACTOR SHALL BE CLOUDED, NUMBERED AND WITH THE TEXT "G.C. REVIEW."

6. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR BEFORE SUBMITTAL TO THE ENGINEER OR ARCHITECT. SHOP DRAWINGS WILL BE REJECTED IF THE CONTRACTOR HAS NOT REVIEWED THE SHOP DRAWINGS PRIOR TO SUBMITTAL TO ENGINEER OR ARCHITECT.

7. FOR ALL STRUCTURAL STEEL SHOP DRAWINGS, THE CONTRACTOR IS TO FOLLOW THE SUBMITTAL SCHEDULE BELOW:
A. ANCHOR BOLT PLANS SHALL BE SUBMITTED FIRST, REVIEWED AND RETURNED PRIOR TO,
B. ERECTION PLAN SUBMISSION. THE ERECTION PLAN SUBMISSION MUST ADDRESS ALL COMMENTS FROM THE ANCHOR BOLT SUBMISSION OR IT WILL BE REJECTED WITHOUT REVIEW. ERECTION PLAN SUBMISSION MUST BE REVIEWED AND RETURNED PRIOR TO,
C. DETAIL SHEET SUBMISSION. THE DETAIL SHEET SUBMISSION MUST ADDRESS ALL COMMENTS FROM THE ERECTION PLAN SUBMISSION OR IT WILL BE REJECTED WITHOUT REVIEW. APPROVED ERECTION PLANS SHALL BE SUBMITTED WITH THE DETAIL SHEET SUBMISSION.

8. THE CONTRACTOR SHALL PRODUCE ALL SHOP DRAWINGS. COPYING, SCANNING AND/OR REUSING ANY PORTION OF THE STRUCTURAL DRAWINGS AS PART OF THE SHOP DRAWINGS SUBMITTAL IS NOT PERMITTED. SUBMITTALS THAT INCLUDE REPRODUCED PORTIONS OF THE STRUCTURAL DRAWINGS WILL BE REJECTED WITHOUT REVIEW.

DESIGN CRITERIA NOTES:

1. THE INTENDED DESIGN STANDARDS AND/OR CRITERIA ARE AS FOLLOWS: GENERAL: UNIFORM STATEWIDE BLDG. CODE (IBC 2015, CHAPTER 16 AS AMENDED)
CONCRETE: ACI 318-14
STRUCTURAL STEEL: AISC A.S.D. (14TH EDITION)
METAL DECK: SDI-10
COLD-FORMED METAL: AISI, ASD-12
FOUNDATIONS: GEOTECHNICAL INVESTIGATION AND REPORT COMPLETED BY XXX

2. DESIGN GRAVITY DEAD & LIVE LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS (REFER TO IBC 2015 SECTION 1606):

DESIGN LOADING TABLE			
LOCATION	LIVE LOAD	REDUCED	DEAD LOAD
ROOF	20 PSF	NO	20 PSF

TABLE NOTES: LIVE LOAD REDUCTIONS HAVE BEEN USED FOR DESIGN OF THE STRUCTURAL FRAMING WHERE PERMITTED PER IBC/ASCE 7.

3. SNOW LOAD:

GROUND SNOW LOAD (Pg):	25 PSF
TERRAIN CATEGORY:	B
ROOF EXPOSURE:	PARTLY EXPOSED
SNOW EXPOSURE FACTOR (Ce):	1.0
THERMAL FACTOR (Ct):	1.2
FLAT ROOF SNOW LOAD (Pf):	0.7 x Ce x Ct x I x Pg = 25.2 PSF
MIN Pf:	I x Pg (Pg=20 PSF MIN) = 20 PSF

4. WIND LOADS:

BASIC WIND SPEED (3s GUST):	105 MPH
RISK CATEGORY:	II
WIND EXPOSURE:	B
MEAN ROOF HEIGHT:	20 FT
INTERNAL PRESSURE COEFFICIENT:	±0.00
ROOF DEAD LOAD FOR USE IN NET UPLIFT CALCULATIONS:	7 PSF
CLADDING PRESSURE ZONES:	SEE ASCE 7-10 FIGURE 30.8-1
DIMENSION "a":	XL V 4 FT

COMPONENTS AND CLADDING WIND PRESSURE (PSF)				
TRIB AREA (SF)	ZONE 1, 2, & 3	ZONE 1	ZONE 2	ZONE 3
	POS.	NEG.	NEG.	NEG.
≤16	16	-20	-31	-59
>16, ≤64	33	-20	-31	-31
>64	22	-20	-20	-20

TRIB AREA (SF)	FASCIA PANEL	
	POS.	NEG.
10	27	-18
25	27	-18
50	27	-18
100	27	-18

5. SEISMIC LOADS:

ANALYSIS PROCEDURE:	EQUIVALENT LATERAL FORCE PROCEDURE
OCCUPANCY CATEGORY:	II
SEISMIC IMPORTANCE FACTOR (Ie):	1.00
SOIL SITE CLASS:	D
SHORT PERIOD SPECTRAL ACCEL. (Ss):	0.208
1-SEC. PERIOD SPECTRAL ACCEL. (S1):	0.06
LONG-PERIOD TRANSITION PERIOD (TL):	6 SEC.
SEISMIC DESIGN CATEGORY (SDC):	B

6. MAIN LATERAL FORCE RESISTING SYSTEM:

FORCE-RESISTING SYSTEM:	STRUCTURAL STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
RESPONSE MODIFICATION FACTOR (R):	3.0
SYSTEM OVERSTRENTH FACTOR (Ω):	2.5
DEFL.N AMPLIFICATION FACTOR (Cd):	3.0
CALCULATED FUNDAMENTAL PERIOD (T):	6 SEC
SEISMIC RESPONSE COEFFICIENT (Cs):	0.074
SEISMIC BASE SHEAR (V):	3.1 KIPS

MATERIALS:

1. CONCRETE:
   a. CEMENT: PORTLAND CEMENT SHALL CONFORM TO ASTM C150. UNLESS NOTED OTHERWISE, CEMENT SHALL BE TYPE I; HOWEVER, WHERE CONCRETE IS IN CONTACT WITH SOIL, THE CEMENT TYPE SHALL BE TYPE II.
   b. UNIT WEIGHT: 145 PCF, UNLESS NOTED OTHERWISE.
   c. DESIGN COMPRESSIVE STRENGTH: SEE CHART BELOW. STRENGTH SHALL BE ATTAINED AT 28 DAYS, UNLESS NOTED OTHERWISE.
   d. AIR CONTENT: AIR ENTRAINMENT SHALL MEET ALL U.L. RATING REQUIREMENTS. ALL CONCRETE SHALL BE AIR ENTRAINED TO HAVE A TOTAL AIR CONTENT MEETING ACI 318-14, SECTION 19.3, TABLE 19.3.1.1 FOR THE APPROPRIATE EXPOSURE CLASS AND NOMINAL MAXIMUM AGGREGATE SIZE. UNLESS NOTED OTHERWISE, ALL CONCRETE SHALL BE CONSIDERED F1 EXPOSURE. FOR CONCRETE WITH COMPRESSIVE STRENGTH GREATER THAN 5,000 PSI, THE REQUIRED AIR CONTENT MAY BE REDUCED BY 1%.
   e. AGGREGATE: COMBINED AGGREGATE GRADING PER SPECIFICATIONS. NORMAL WEIGHT AGGREGATE SHALL CONFORM TO ASTM C33.
   f. CONCRETE MIX SPECIFICATION TABLE:

CONCRETE MATERIAL SCHEDULE					
USAGE	f'C MIN (PSI)	MAX W/C RATIO	MAX. NOM AGGREGATE SIZE	AIR CONTENT	EXPOSURE CLASS
FOUNDATION CONCRETE	4,000	0.55	1"	6%	F2
EXTERIOR SLAB	4,500	0.40	1 1/2	6%	F2
INTERIOR SLAB-ON-GRADE	3,000	0.55	1 1/2	3%	F0
RETAINING WALLS	4,000	0.50	1"	6%	F2
SLAB-ON-METAL DECK	3,000	0.40	1"	3%	F0

2. REINFORCING STEEL: AT CONTRACTORS OPTION, AN APPROVED ADMIXTURE MAY BE USED TO PRODUCE FLOWABLE CONCRETE. MAXIMUM SLUMP SHALL NOT EXCEED 10 INCHES. THE CONTRACTOR SHALL SUBMIT TEST RESULTS OF THE PROPOSED CONCRETE MIXES ALONG WITH THE MANUFACTURER'S TECHNICAL DATA FOR APPROVAL PRIOR TO POURING CONCRETE

REINFORCING BARS	ASTM A615, GRADE 60
WELDED WIRE REINFORCING (WWR)	ASTM A185
DOWELING ADHESIVE FOR REINFORCING BARS INTO CONCRETE	HILTI HIT-HY 270

3. STRUCTURAL STEEL:

W SHAPES	ASTM A992 (Fy=50 KSI)
ANGLES, PLATES, AND CHANNELS	ASTM A36 (Fy=36 KSI)
HOLLOW STRUCTURAL SECTIONS RECTANGULAR AND SQUARE	ASTM A500, GRADE "B" (Fy=46 KSI)
PIPE	ASTM A53, GRADE "B" (Fy=35 KSI)
HIGH STRENGTH BOLTS	ASTM A325 TYP.
ANCHOR RODS	ASTM F1554, GRADE 36 (W/ SECTION "S1" WELDABILITY SUPPLEMENT) & GRADE 105 WHERE INDICATED
NUTS	ASTM A563
WASHERS	ASTM F436
WELDING ELECTRODES	AWS A5.1 OR A5.5, E70XX
EXPANSION ANCHOR (BOLTS)	HILTI KWIK BOLT TZ
GROUT - BEARING AND BASE PLATES	8,000 PSI, NON-SHRINK

4. METAL DECK:

GALVANIZED METAL DECK AND ACCESSORIES	ASTM A653, GRADE 40, G60

5. COLD FORMED METAL FRAMING

COLD FORMED METAL FRAMING	ASTM A446 (GALVANIZED)
33 MILS (20 GAUGE)	33 KSI
43 MILS (18 GAUGE)	33 KSI
54 MILS (16 GAUGE)	50 KSI

DEMOLITION NOTES:

1. THE CONTRACTOR IS TO OBTAIN AND PAY FOR ALL NECESSARY PERMITS FOR THE DEMOLITION AND REMOVAL WORK REQUIRED.

2. PRIOR TO UNDERTAKING ANY DEMOLITION WORK, THE CONTRACTOR SHALL ASCERTAIN, BY SURVEY, THE EXISTING CONDITIONS OF THE PROPERTY AND THE EXTENT OF THE DEMOLITION WORK INVOLVED.

SITE PREPARATION NOTES:

1. ALL SITE PREPARATION SHALL CONFORM TO THE REQUIREMENTS OF IBC 2015 CHAPTER 18.

2. WITHIN AN AREA A MINIMUM OF 5 FEET BEYOND THE STRUCTURE'S LIMITS, EXCAVATE A MINIMUM OF 4" OF EXISTING SOIL. REMOVE ALL ORGANICS, PAVEMENT, ROOTS, DEBRIS AND OTHERWISE UNSUITABLE MATERIAL.

3. THE SURFACE OF THE EXPOSED SUBGRADE SHALL BE INSPECTED BY PROBING OR TESTING TO CHECK FOR POCKETS OF SOFT OR UNSUITABLE MATERIAL. EXCAVATE UNSUITABLE SOIL AS DIRECTED BY THE GEOTECHNICAL ENGINEER/TESTING AGENCY.

4. FILL ALL EXCAVATED AREAS WITH APPROVED CONTROLLED FILL. PLACE IN 8 INCH LOOSE LIFTS AND COMPACT TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-698.

5. ALL CONTROLLED FILL MATERIAL SHALL BE A SELECT GRANULAR MATERIAL FREE FROM ALL ORGANICS OR OTHERWISE DELETERIOUS MATERIAL WITH NOT MORE THAN 20% BY WEIGHT PASSING A NO. 200 SIEVE (CLASSIFIED AS SC, SM, SP OR BETTER IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM) AND WITH A PLASTICITY INDEX NOT EXCEEDING 6%.

REFLECT DESIGN GROUP
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BETHLEHEM, PA 18015

2021.11.23
PROJECT:
PROPOSED FUEL PUMP INSTALLATION PLANS
1982 W MAIN ST.
NORRISTOWN, PA 19403
DATE: 11/23/2021
PROJECT NO.: 21-0051

REVISION DATE

NOTES:
NOT FOR CONSTRUCTION

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8/5/2022
PROFESSIONAL ENGINEER SEAL
STATE OF PENNSYLVANIA

STRUCTURAL GENERAL NOTES

SCALE: AS NOTED

S-0.0

DRAWN BY: JM
CHECKED BY: JM

FOUNDATION NOTES:

1. ALL FOUNDATION CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF IBC 2015 CHAPTER 18.

2. ALL FOOTINGS HAVE BEEN DESIGNED BASED UPON AN ASSUMED SOIL BEARING PRESSURE OF 1,500 PSF. ALL FOOTINGS SHALL BEAR ON UNDISTURBED, FIRM NATURAL SOIL OR COMPACTED FILL. ALL FOUNDATION EXCAVATIONS SHALL BE EVALUATED BY THE GEOTECHNICAL ENGINEER/TESTING AGENCY PRIOR TO POURING FOUNDATION CONCRETE.

3. TOP OF FOOTING ELEVATION SHALL BE AS SHOWN ON THE FOUNDATION PLAN. THESE ELEVATIONS ARE A MAXIMUM AND SHALL BE LOWERED AS REQUIRED TO OBTAIN THE REQUIRED DESIGN BEARING PRESSURE OR LOWERED BELOW NEW OR EXISTING UTILITIES PER TYPICAL DETAILS.

4. ALL FOUNDATION CONCRETE SHALL OBTAIN A 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI. ALL CONCRETE TO BE PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR ENTRAINED TO 5% (+-1%) WITH AN ADMIXTURE THAT CONFORMS TO ASTM C-260.

5. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS". HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305. COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.

6. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60. REINFORCING SHALL BE DETAILED AND INSTALLED PER ACI 315 AND CRSI MANUAL OF STANDARD PRACTICE.

7. UNLESS OTHERWISE NOTED, THE FOLLOWING CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT.
A) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
B) CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 THROUGH #18 BARS: 2"
#5 BAR, W31 OR D31 WIRE AND SMALLER: 1-1/2"

8. ALL REINFORCING MARKED CONTINUOUS (CONT.) ON THE PLANS AND DETAILS SHALL BE LAPPED 36XBAR DIAMETERS AT SPLICES UNLESS OTHERWISE NOTED.

9. PRIOR TO COMMENCING ANY FOUNDATION WORK, COORDINATE WORK WITH ANY EXISTING UTILITIES. FOUNDATIONS SHALL BE LOWERED WHERE REQUIRED TO AVOID UTILITIES.

10. UNLESS OTHERWISE NOTED, THE CENTERLINES OF COLUMN FOUNDATIONS SHALL BE LOCATED ON COLUMN CENTERLINES.

SLAB ON GRADE NOTES:

1. SLAB-ON-GRADE CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS" AND IBC 2015 SECTION 1907.

2. PROVIDE CONCRETE SLABS AS INDICATED ON PLANS OVER A 10 MIL POLYETHYLENE VAPOR BARRIER AND 4" OF POROUS FILL AS FOLLOWS: 6" SLAB REINFORCED WITH 6X6- W2.9XW2.9 WELDED WIRE FABRIC AND WITH 4000 PSI MIX CONCRETE.

3. ALL WELDED WIRE FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-1064. LAP ADJOINING PIECES AT LEAST ONE FULL MESH.

4. ALL POROUS FILL MATERIAL SHALL BE A CLEAN GRANULAR MATERIAL WITH 100% PASSING A 1-1/2" SIEVE AND NO MORE THAN 5% PASSING A NO. 4 SIEVE. POROUS FILL SHALL BE COMPACTED TO 95% MAX. DRY DENSITY PER ASTM D-698.

5. SLAB JOINTS SHALL BE FILLED WITH APPROVED MATERIAL. THIS SHOULD TAKE PLACE AS LATE AS POSSIBLE, PREFERABLY 4 TO 6 WEEKS AFTER THE SLAB HAS BEEN CAST. PRIOR TO FILLING, REMOVE ALL DEBRIS FROM THE SLAB JOINTS, THEN FILL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AS FOLLOWS:
FILL WITH FIELD MOLDED OR ELASTOMERIC SEALANT

6. UNLESS OTHERWISE APPROVED, ALL WELDED WIRE FABRIC SHALL BE BLOCKED INTO THE POSITION INDICATED WITH PRECAST CONCRETE BLOCKS HAVING A COMPRESSIVE STRENGTH EQUAL TO THAT OF THE SLAB.

7. WALKWAYS AND OTHER EXTERIOR SLABS ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS. SEE THE SITE PLAN AND ARCHITECTURAL DRAWINGS FOR LOCATIONS, DIMENSIONS, ELEVATIONS, JOINTING DETAILS AND FINISH DETAILS. PROVIDE 4" WALKS REINFORCED WITH 6X6 - W1.4XW1.4 WWF UNLESS OTHERWISE NOTED.

8. SLABS TO BE PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR ENTRAINED TO 6% (+-1%) WITH AN ADMIXTURE THAT CONFORMS TO ASTM C-260.

9. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS". HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305. COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.

10. THE ALTERNATE WIRES OF THE WELDED WIRE FABRIC MUST BE PRECUT AT THE SLAB CONTRACTION JOINT LOCATIONS TO CREATE A "WEAKENED PLANE". WITHOUT CUTTING THE ALTERNATE WIRES, THE STRENGTH OF THE WIRE WILL PREVENT THE SLAB FROM CRACKING (SEPARATING) AT THE JOINT AND THE SLAB MAY BEGIN TO CRACK ELSEWHERE.

11. THE USE OF POLYPROPYLENE FIBERS (IN LIEU OF WELDED WIRE FABRIC) IS PROHIBITED WITHOUT THE WRITTEN AUTHORIZATION OF THE ENGINEER.

12. THE FINISH TOLERANCE OF ALL SLABS SHALL BE IN ACCORDANCE WITH ACI 302, SECTION 8.4.

CAST-IN-PLACE CONCRETE NOTES:

1. CONCRETE MIXES SHALL BE DESIGNED PER ACI 301, USING PORTLAND CEMENT CONFORMING TO ASTM C-150 OR C-595, AGGREGATE CONFORMING TO ASTM C-33, AND ADMIXTURES CONFORMING TO ASTM C-494, C-1017, C-618, C-989 AND C-260. CONCRETE SHALL BE READY-MIXED IN ACCORDANCE WITH ASTM C-94.

2. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS" AND IBC 2015 CHAPTER 19. HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305. COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.

3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60. REINFORCING SHALL BE DETAILED AND INSTALLED PER ACI 315 AND CRSI MANUAL OF STANDARD PRACTICE.

4. ALL EPOXY COATED WELDED WIRE FABRIC (W.W.F.) SHALL CONFORM TO ASTM A-884.

5. ALL REINFORCING STEEL SHALL BE SET AND TIED IN PLACE PRIOR TO POURING OF CONCRETE. DO NOT FIELD BEND BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE UNLESS SPECIFICALLY INDICATED OR APPROVED BY THE ENGINEER.

6. REINFORCING STEEL, INCLUDING HOOKS AND BENDS, SHALL BE DETAILED IN ACCORDANCE WITH ACI 315. ALL REINFORCING

STEEL INDICATED AS BEING CONTINUOUS (CONT) SHALL BE LAPPED WITH A TYPE 2 LAP SPLICE UNLESS OTHERWISE NOTED.

8. UNLESS OTHERWISE NOTED, THE FOLLOWING CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:
   A. CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 THROUGH #18 BARS : 2"
   #5 BAR, W31 OR D31 WIRE AND SMALLER : 1-1/2"
   B. FOUNDATION CONCRETE (SEE "FOUNDATION NOTES")

9. BAR SUPPORTS AND HOLDING BARS SHALL BE PROVIDED FOR ALL REINFORCING STEEL TO INSURE MINIMUM CONCRETE COVER. BAR SUPPORTS SHALL BE PLASTIC TIPPED OR STAINLESS STEEL.

10. ALL EDGES OF PERMANENTLY EXPOSED CONCRETE SURFACES SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

11. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH DOCUMENTATION THAT ALL MATERIALS CONFORM TO THE QUALITY STANDARDS SPECIFIED IN IBC 2015.

12. IN ACCORDANCE WITH IBC 2015, SPECIAL INSPECTIONS ARE REQUIRED FOR THE CONCRETE WORK. THE OWNER WILL HIRE THE SPECIAL INSPECTOR TO PERFORM ALL REQUIRED SPECIAL INSPECTIONS.

STRUCTURAL STEEL NOTES:

1. ALL STRUCTURAL STEEL SHALL CONFORM TO THE AISC "MANUAL OF STEEL CONSTRUCTION" (14TH EDITION) AND IBC 2015 CHAPTER 22.

2. ALL CONNECTIONS SHALL BE SHEAR TYPE CONNECTIONS. THE FABRICATOR SHALL SUBMIT SCHEMATIC CONNECTION DETAILS. MINIMUM BOLT DIAMETER SHALL BE 3/4". UNLESS OTHERWISE NOTED ALL BOLTS SHALL BE SHEAR/BEARING TYPE BOLTS AND BE "SNUG-TIGHT".

3. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 USING E70XX ELECTRODES. UNLESS OTHERWISE NOTED, PROVIDE CONT. MIN. SIZED FILLET WELDS PER AISC REQUIREMENTS. ALL FILLER MATERIAL SHALL HAVE A MINIMUM YIELD STRENGTH OF 70 KSI.

4. HOLES IN STEEL SHALL BE DRILLED OR PUNCHED. ALL SLOTTED HOLES SHALL BE PROVIDED WITH SMOOTH EDGES. BURNING OF HOLES AND TORCH CUTTING AT THE SITE IS NOT PERMITTED.

5. THE STRUCTURAL STEEL ERECTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING (SEE GENERAL STRUCTURAL NOTES).

6. COLUMNS, ANCHOR BOLTS, BASE PLATES, ETC. HAVE BEEN DESIGNED FOR THE FINAL COMPLETED CONDITION AND HAVE NOT BEEN INVESTIGATED FOR POTENTIAL LOADINGS ENCOUNTERED DURING STEEL ERECTION AND CONSTRUCTION. ANY INVESTIGATION OF

THE COLUMNS, ANCHOR BOLTS, BASE PLATES, ETC. FOR ADEQUACY DURING THE STEEL ERECTION AND CONSTRUCTION PROCESS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

7. UNLESS OTHERWISE NOTED, ALL STRUCTURAL STEEL PERMANENTLY EXPOSED TO THE WEATHER, SHALL BE POWDER COATED.

8. PROTECTIVE COATINGS DAMAGED DURING THE TRANSPORTING, ERECTING AND FIELD WELDING PROCESSES SHALL BE REPAIRED IN THE FIELD TO MATCH THE SHOP APPLIED COATING.

9. FINISH WELDS SHALL BE GROUND SMOOTH AND FREE OF BURRS.

10. THE CONTRACTOR SHALL (OWNER WILL) HIRE AN INDEPENDENT TESTING AGENCY TO PROVIDE SPECIAL INSPECTIONS OF BOLTING, WELDING AND OTHER ITEMS IN ACCORDANCE WITH IBC 2015, SECTION 1704.

STEEL SHOP PRIMING:

1. POWDER COAT STEEL SURFACES, EXCEPT THE FOLLOWING:
A. SURFACES TO BE FIELD WELDED.
B. SURFACES TO BE HIGH-STRENGTH BOLTED WITH SLIP-CRITICAL CONNECTIONS.

2. SURFACE PREPARATION: CLEAN SURFACES TO BE PAINTED. REMOVE LOOSE RUST, LOOSE MILL SCALE, AND SPATTER, SLAG, OR FLUX DEPOSITS. PREPARE SURFACES ACCORDING TO SSPC SPECIFICATIONS AS FOLLOW:
A. SSPC-SP-2 "HAND TOOL CLEANING"
B. SSPC-SP 3 "POWER TOOL CLEANING"
C. SSPC-SP 6 "COMMERCIAL BLAST CLEANING" FOR STEEL WHICH WILL BE LEFT EXPOSED WITH PAINT FINISH ONLY.

ROOF DECK NOTES:

1. ALL METAL DECK SHALL BE MANUFACTURED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE "DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS AND ROOF DECKS" BY THE STEEL DECK INSTITUTE (SDI) AND IBC 2015 CHAPTER 22.

2. ALL ROOF DECKING SHALL BE 1-1/2" DEEP, 22 GAUGE, WIDE RIB DECK (MIN. I_X = 0.16 IN^4 / FT AND SP = 0.180 IN^3 / FT) SPANNING PERPENDICULAR TO SUPPORTS. CONNECT WITH 5/8" DIA. PUDDLE WELDS AND MECHANICALLY FASTENED SIDELAPS PER THE "TYPICAL ROOF DECK ATTACHMENT DETAIL".

3. ALL METAL DECK WELDING SHALL BE IN ACCORDANCE WITH AMERICAN WELDING SOCIETY SPECIFICATION D1.3. PROVIDE WELDING WASHERS FOR ALL FLOOR DECK WELDS.

4. SUSPENDED CEILINGS, LIGHT FIXTURES, DUCTS AND OTHER PERMANENT SUSPENDED LOADS SHALL NOT BE SUPPORTED BY THE METAL DECKING.

5. ALL ROOF DECKING SHALL BE PAINTED GALVANIZED. ALL DECK WELDS SHALL BE TOUCHED UP WITH GALVANIZING REPAIR PAINT FOR GALVANIZED DECKS.

6. SUBMIT DETAILED SHOP DRAWINGS PRIOR TO FABRICATION SHOWING LAYOUT, TYPES OF METAL DECK UNITS, CONNECTION DETAILS, ACCESSORIES AND OTHER RELATED ITEMS. REFER TO "SHOP DRAWING NOTES" SECTION FOR ADDITIONAL REQUIREMENTS.

COLD FORMED STEEL FRAMING NOTES:

1. ALL COLD FORMED STEEL FRAMING MEMBERS, THEIR DESIGN, FABRICATION, AND ERECTION SHALL CONFORM TO THE "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" OF THE A.I.S.I. (2012 ED.) AND IBC 2015 SECTIONS 2210 THROUGH 2211.

2. ALL FRAMING MEMBERS SHALL BE FORMED FROM STEEL CONFORMING TO ASTM A653 WITH A MINIMUM YIELD STRENGTH AS FOLLOWS:
12, 14 AND 16 GAUGE MEMBERS: FY=50 KSI (GRADE D)
18 AND 20 GAUGE MEMBERS: FY=33 KSI (GRADE A)

3. ALL FRAMING MEMBERS SHALL BE GALVANIZED WITH A G-60 COATING MEETING THE REQUIREMENTS OF ASTM A653.

4. MEMBERS SHALL BE THE MANUFACTURER'S STANDARD "C" SHAPED STUDS/JOISTS OF THE SIZE, FLANGE WIDTH, AND GAUGE INDICATED. ALL MEMBERS SHALL HAVE A MINIMUM FLANGE LIP RETURN OF 1/2" AND SATISFY THE MINIMUM PROPERTIES AS PER "MARINO-WARE", OR APPROVED EQUAL.

5. THE GAUGE OF ALL TRACKS SHALL BE NO LIGHTER THAN THE FRAMING BEING CONNECTED.

6. ALL WELDING SHALL BE IN CONFORMANCE WITH AMERICAN WELDING SOCIETY SPECIFICATION D1.3. ALL WELDS SHALL BE COATED WITH GALVANIZING REPAIR PAINT PER SSPC-PAINT 20 IN THE SHOP. NO FIELD WELDS WILL BE PERMITTED.

7. ALL STRUCTURAL MEMBERS SHALL BE PROPERLY CONNECTED TO EACH OTHER AND TO THE SUPPORTING BACK-UP FRAMING. FASTENINGS SHALL BE MADE WITH SELF-TAPPING SCREWS TO INSURE THE CONNECTION STRENGTH. UNLESS OTHERWISE NOTED, CONNECT ALL MEMBERS BASED ON THE FOLLOWING LOADINGS:
JOISTS - DEAD LOAD AND LIVE LOAD PER THE "DESIGN CRITERIA NOTES"
STUDS LESS THAN 8 FEET LONG - 45 PSF

8. PROVIDE BRIDGING FOR STUDS, JOISTS AND RAFTERS AT MIDSPAN AND AT A MAXIMUM SPACING NOT TO EXCEED 6'-0". ALL BRIDGING SHALL BE INSTALLED PRIOR TO THE ADDITION OF ANY LOADING. CONNECT BRIDGING TO EACH MEMBER BY WELDING, CLIP ANGLES OR OTHER APPROVED METHOD PER THE MANUFACTURER'S REQUIREMENTS.
9. PROVIDE THE MANUFACTURER'S STANDARD TRACK, CLIP ANGLES, BRACING, REINFORCEMENTS, FASTENERS AND ACCESSORIES AS RECOMMENDED BY THE MANUFACTURER FOR THE APPLICATION INDICATED AND AS NEEDED TO PROVIDE A COMPLETE FRAMING SYSTEM. UNLESS OTHERWISE NOTED, INSTALL THE METAL FRAMING SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS.

10. THE CONTRACTOR SHALL SUBMIT THE FOLLOWING FOR APPROVAL:
   A. SHOP DRAWINGS: SUBMIT DRAWINGS THAT SHOW THE NUMBER, TYPE, LOCATION AND SPACING OF ALL MEMBERS. ALL CONNECTIONS AND ATTACHMENTS SHALL BE CLEARLY SHOWN AS FOLLOWS:
      1. INDICATE COMPONENT DETAILS, FRAMED OPENINGS, LOADING, WELDS, TYPE AND LOCATION OF FASTENERS, AND ACCESSORIES OR ITEMS REQUIRED OF RELATED WORK.
      2. INDICATE STUD LAYOUT.
      3. DESCRIBE METHOD FOR SECURING STUDS TO TRACKS AND FOR FRAMING CONNECTIONS.
      4. REFER TO "SHOP DRAWING NOTES" SECTION FOR ADDITIONAL REQUIREMENTS.
         A. PRODUCT DATA: SUBMIT DATA ON STANDARD FRAMING MEMBERS; DESCRIBE MATERIALS AND FINISH, PRODUCT CRITERIA, LIMITATIONS.
         B. MANUFACTURER'S INSTALLATION INSTRUCTIONS: SUBMIT SPECIAL PROCEDURES, PERIMETER CONDITIONS REQUIRING SPECIAL ATTENTION.
         C. MILL CERTIFICATIONS: SUBMIT MILL CERTIFICATIONS FOR STEEL DELIVERED TO SITE. CERTIFY STEEL BARE METAL THICKNESS IN 0.001 INCH, YIELD STRENGTH, TENSILE STRENGTH, TOTAL ELONGATION IN 2 INCH OR 8 INCH GAGE LENGTH, CHEMICAL ANALYSIS, AND GALVANIZED COATING THICKNESS.

REFLECT DESIGN GROUP
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BETHLEHEM, PA 18015

2021.11.23

PROJECT:
PROPOSED FUEL PUMP INSTALLATION PLANS

1982 W MAIN ST.
NORRISTOWN, PA 19403

DATE: 11/23/2021
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NOTES:

NOT FOR CONSTRUCTION

DocuSigned by:
Paul Jones
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REGISTERED PROFESSIONAL
PAUL G. JONES
ENGINEER
PE077696
8/5/2022

PROFESSIONAL ENGINEER SEAL
STATE OF PENNSYLVANIA

STRUCTURAL GENERAL NOTES

SCALE: AS NOTED

S-0.1

DRAWN BY: JM
CHECKED BY: JM

WOOD FASTENING SCHEDULE; IBC 2018, TABLE 2304.10.1

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
ROOF		
1. BLOCKING BETWEEN CEILING JOISTS, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	3-8d COMMON 3-10d BOX 3-3" x 0.131" NAILS 3-3" 14 GAGE STAPLES, 7/16" CROWN	EACH END, TOENAIL
BLOCKING BETWEEN RAFTERS OR TRUSSES NOT AT WALL TOP PLATE, TO RAFTER OR TRUSS	2-8d COMMON 2-3" x 0.131" NAILS 2-3" 14 GAGE STAPLES, 7/16" CROWN	EACH END, TOENAIL
	2-16d COMMON 3-3" x 0.131" NAILS 3-3" 14 GAGE STAPLES, 7/16" CROWN	END NAIL
FLAT BLOCKING TO TRUSS AND WEB FILLER	16d COMMON @ 6" O.C. 3" x 0.131" NAILS @ 6" O.C. 3" x 14 GAGE STAPLES @ 6" O.C.	FACE NAIL
2. CEILING JOISTS TOP TOP PLATE	3-8d COMMON 3-10d BOX 3-3" x 0.131" NAILS 3-3" 14 GAGE STAPLES, 7/16" CROWN	EACH JOIST, TOENAIL
3. CEILING JOIST NOT ATTCHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (NO THRUST)	3-16d COMMON 4-10d BOX 4-3" x 0.131" NAILS 4-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
4. CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT)	PER TABLE 2308.7.31	FACE NAIL
5. COLLAR TO TIE RAFTER	3-10d COMMON 4-10d BOX 4-3" x 0.131" NAILS 4-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
6. RAFTER OR ROOF TRUSS TO TOP PLATE	3-10d COMMON 3-16d BOX 4-10d BOX 4-3" x 0.131" NAILS 4-3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
7. ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS, OR ROOF RAFTER TO 2-INCH RIDGE BEAM	3-16d COMMON 4-10d BOX 4-3" x 0.131" NAILS 4-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
WALL		
8. STUD TO STUD (AT BRACED AT WALL PANELS)	16d COMMON	24" O.C. FACE NAIL
	10d BOX 3" x 0.131" NAILS 3-3" 14 GAGE STAPLES, 7/16" CROWN	16" O.C. FACE NAIL
9. STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d COMMON	16" O.C. FACE NAIL
	16d BOX	12" O.C. FACE NAIL
	3" 0.131" NAILS 3-3" 14 GAGE STAPLES, 7/16" CROWN	12" O.C. FACE NAIL
10. BUILT UP HEADER (2" TO 2" HEADER)	16d COMMON	16" O.C. EACH EDGE, FACE NAIL
	16d BOX	12" O.C. EACH EDGE, FACE NAIL
11. CONTINUOUS HEADER TO STUD	4-8d COMMON 4-10d BOX	TOENAIL
12. TOP PLATE TO TOP PLATE	16d COMMON	16" O.C.FACE NAIL
	10d BOX 3" x 0.131" NAILS 3" 14 GAGE STAPLES, 7/16" CROWN	12" O.C.FACE NAIL
13. TOP PLATE TO TOP PLATE, AT END JOINTS	8-16d BOX 12-10d BOX 12-3" x 0.131" NAILS 12-3" 14 GAGE STAPLES, 7/16" CROWN	EACH SIDE OF END JOINT, FACE NAIL (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
14. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON	16" O.C.FACE NAIL
	16d BOX 3-3" x 0.131" NAILS 3" 14 GAGE STAPLES, 7/16" CROWN	12" O.C.FACE NAIL
15. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING AT BRACED WALL PANELS	2-16d COMMON 3-16d BOX 4-3" x 0.131" NAILS 4-3" 14 GAGE STAPLES, 7/16" CROWN	16" O.C.FACE NAIL

WOOD FASTENING SCHEDULE; IBC 2018, TABLE 2304.10.1

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
16. STUD TO TOP OR BOTTOM PLATE	4-8d COMMON 4-10d BOX 4-3" x 0.131" NAILS 4-3" 14 GAGE STAPLES 7/16" CROWN	TOENAIL
	2-16d COMMON 3-10d BOX 3-3" x 0.131" NAILS 3-3" 14 GAGE STAPLES, 7/16" CROWN	ENDNAIL
17. TOP OR BOTTOM PLATE TO STUD	2-16d COMMON 3-10d BOX 3-3" x 0.131" NAILS 3-3" 14 GAGE STAPLES, 7/16" CROWN	ENDNAIL
18. TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	2-16d COMMON 3-10d BOX 3-3" x 0.131" NAILS 3-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
19. 1" BRACE TO EACH STUD AND PLATE	2-8d COMMON 2-10d BOX 2-3" x 0.131" NAILS 2-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
20. 1" X 6' SHEATHING TO EACH BEARING	2-8d COMMON 2-10d BOX	FACE NAIL
21. 1" X 8" AND WIDER SHEATHING TO EACH BEARING	3-8d COMMON 3-10d BOX	FACE NAIL
FLOOR		
22. JOIST TO SILL, TOP PLATE, OR GIRDER	3-8d COMMON 3-10d BOX 3-3" x 0.131" NAILS 3-3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
23. RIM JOIST, BAND JOIST OR BLOCKING TO TOP PLATE, SILL OR OTHER FRAMING BELOW	8d COMMON 10d BOX 3" x 0.131" NAILS 3" 14 GAGE STAPLES, 7/16" CROWN	6" O.C., TOENAIL
24. 1" X 6" SUBFLOOR OR LESS TO EACH JOIST	2-8d COMMON 2-10d BOX	FACE NAIL
25. 2" SUBFLOOR TO JOIST OR GIRDER	2-16d COMMON	FACE NAIL
26. 2" PLANKS (PLANK & BEAM - FLOOR & ROOF)	2-16d COMMON	EACH BEARING, FACE NAIL
27. BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	20d COMMON	32" O.C., FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
	10d BOX 3" x 0.131" NAILS 3" 14 GAGE STAPLES, 7/16" CROWN	24" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
	AND: 2-20d COMMON 3-10d BOX 3-3" x 0.131" NAILS 3-3" 14 GAGE STAPLES, 7/16" CROWN	ENDS AT EACH SPLICE, FACE NAIL
28. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	3-16d COMMON 4-10d BOX 4-3" x 0.131" NAILS 4-3" 14 GAGE STAPLES, 7/16" CROWN	EACH JOIST OR RAFTER, FACE NAIL
29. JOIST TO BAND JOIST OR RIM JOIST	3-16d COMMON 4-10d BOX 4-3" x 0.131" NAILS 4-3" 14 GAGE STAPLES, 7/16" CROWN	END NAIL
30. BRIDGING OR BLOCK TO JOIST, RAFTER OR TRUSS	2-8d COMMON 2-10d BOX 2-3" x 0.131" NAILS 2-3" 14 GAGE STAPLES, 7/16" CROWN	EACH END, TOENAIL

WOOD FASTENING SCHEDULE; IBC 2018, TABLE 2304.10.1

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION	
WOOD STRUCTURAL PANELS (WSP), SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLE BOARD WALL SHEATHING TO FRAMING			
		EDGES (INCHES)	INTERMEDIATE SUPPORTS (INCHES)
31. 3/8" - 1/2"	6d COMMON OR DEFORMED	6	12
	8d BOX OR DEFORMED	6	12
	2 3/8 " x 0.113" NAIL (SUBFLOOR AND WALL)	6	12
	1 3/4" 16 GAGE STAPLE, 7/16" CROWN (SUBFLOOR AND WALL)	4	8
	2 3/8" x 0.113" NAIL (ROOF)	4	8
	1 3/4"16 GAGE STAPLE, 7/17" CROWN (ROOF)	4	8
32. 19/32" - 3/4"	8d COMMON 6d DEFORMED	6	12
	2 3/8" x 0.113" NAIL 2" 16 GAGE STAPLE, 7/16" CROWN	4	8
33. 7/8" - 1 1/4"	10d COMMON 8d DEFORMED	6	12
OTHER EXTERIOR WALL SHEATHING			
34. 1/2" FIBERBOARD SHEATHING	1 1/2 " GALVANIZED ROOFING NAIL 1 1/4' 16 GAGE STAPLE WITH 7/16" OR 1" CROWN	3	6
35. 25/32" FIBERBOARD SHEATHING	1 3/4" GALVANIZED ROOFING NAIL 1 1/2" 16 GAGE STAPLE WITH 7/16" OR 1" CROWN	3	6
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING			
		EDGES (INCHES)	INTERMEDIATE SUPPORTS (INCHES)
36. 3/4" AND LESS	8d COMMON 6d DEFORMED	6	12
37. 7/8" TO 1"	8d COMMON 8d DEFORMED	6	12
PANEL SIDING TO FRAMING			
39. 1/2" OR LESS	6d CORROSION-RESISTANT SIDING 6d CORROSION-RESISTANT CASING	6	12
40. 5/8"	8d CORROSION-RESISTANT SIDING 8d CORROSION-RESISTANT CASING	6	12
INTERIOR PANELING			
41. 1/4"	4d CASING 4d FINISH	6	12
42. 3/8"	6d CASING 6d FINISH	6	12

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DATE: 11/23/2021
PROJECT NO.: 21-0051

REVISION DATE

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STRUCTURAL GENERAL NOTES

SCALE: AS NOTED

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TABLE 1705.3 REQUIRED SPECIAL INSPECTION AND TESTS OF CONCRETE CONSTRUCTION					
APPLIES	TYPE	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
X	1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	–	X	ACI 318: CH. 20, 25.2, 25.3, 26.6-26.6.3	1908.4
X	2. REINFORCING BAR WELDING	–	X		
X	a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706;	–	X		
X	b. INSPECT SINGLE PASS FILLET WELDS, MAXIMUM 5/16"; AND	–	X	AWS D1.4, ACI 318: 26.6.4	–
	c. INSPECT ALL OTHER WELDS	X			
X	3. INSPECT ANCHORS CAST IN CONCRETE	–	X	ACI 318: 17.8.2	–
	4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.				
X	a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	X	ACI 318: 17.8.2.4	–
	b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4a		X	ACI 318: 17.8.2	–
X	5. VERIFY USE OF REQUIRED DESIGN MIX	–	X	ACI 318: CH 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
X	6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	–	ASTM C172, ASTM C31, ACI 318: 26.5, 26.12	1908.10
X	7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	–	ACI 318: 26.5, 26.12	1908.6, 1908.7, 1908.8
X	8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	–	X	ACI 318: 26.5.3-26.5.5	1908.9
X	9. INSPECT PRESTRESSED CONCRETE FOR:				
	a. APPLICATION OF PRESTRESSING FORCES; AND	X	–	ACI 318: 26.10	–
X	b. GROUTING OF BONDED PRESTRESSED TENDONS.	X	–		
X	10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	–	X	ACI 318: 26.9	–
X	11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	–	X	ACI 318: 26.11.2	–
X	12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	–	X	ACI 318: 26.11.1.2(b)	

TABLE 1705.6 REQUIRED SPECIAL INSPECTION AND TESTING OF SOILS			
APPLIES	TYPE	CONTINUOUS	PERIODIC
X	1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	–	X
X	2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	–	X
X	3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	–	X
X	4. VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	–
X	5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	–	X

SPECIAL INSPECTION FOR STEEL			
APPLIES	INSPECTION TASK	CONTINUOUS	PERIODIC
	1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS:		
X	a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARD SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	–	X
X	b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED INSPECTION OF ADHESIVE ANCHORS.	–	
X	2. INSPECTION OF ADHESIVE ANCHORS.	X	–
	3. INSPECTION OF HIGH-STRENGTH BOLTING (REF AISC 360, SEC M2.5):		
X	a. SNUG-TIGHT JOINTS	–	X
X	b. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCH MARKING, TWIST-OFF-BOLT, OR DIRECT TENSION INDICATOR.		X
X	c. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCH MARKING OR CALIBRATED WRENCH	X	
	4. MATERIAL VERIFICATION OF STRUCTURAL STEEL:		
X	a. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360		X
X	b. MANUFACTURER'S CERTIFIED MILL TEST REPORTS		X
	5. MATERIAL VERIFICATION OF WELD FILLER MATERIAL:		
X	a. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS		X
X	b. MANUFACTURER'S CERTIFICATION OF COMPLIANCE REQUIRED		X
	6. INSPECTION OF WELDING:		
X	a. STRUCTURAL STEEL:		
X	1) COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS.	X	
X	2) MULTI-PASS FILLET WELDS	X	
X	3) SINGLE PASS FILLET WELDS > 5/16"	X	
X	4) PLUG AND SLOT WELDS	X	
X	5) SINGLE PASS FILLET WELDS < 5/16"		X
	7. INSPECTION OF STEEL FRAMED JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS:		
X	a. DETAILS SUCH AS BRACING AND STIFFENING		
X	b. MEMBER LOCATIONS		
X	c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION		

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8/5/2022

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STRUCTURAL GENERAL NOTES

SCALE: AS NOTED

S-0.3

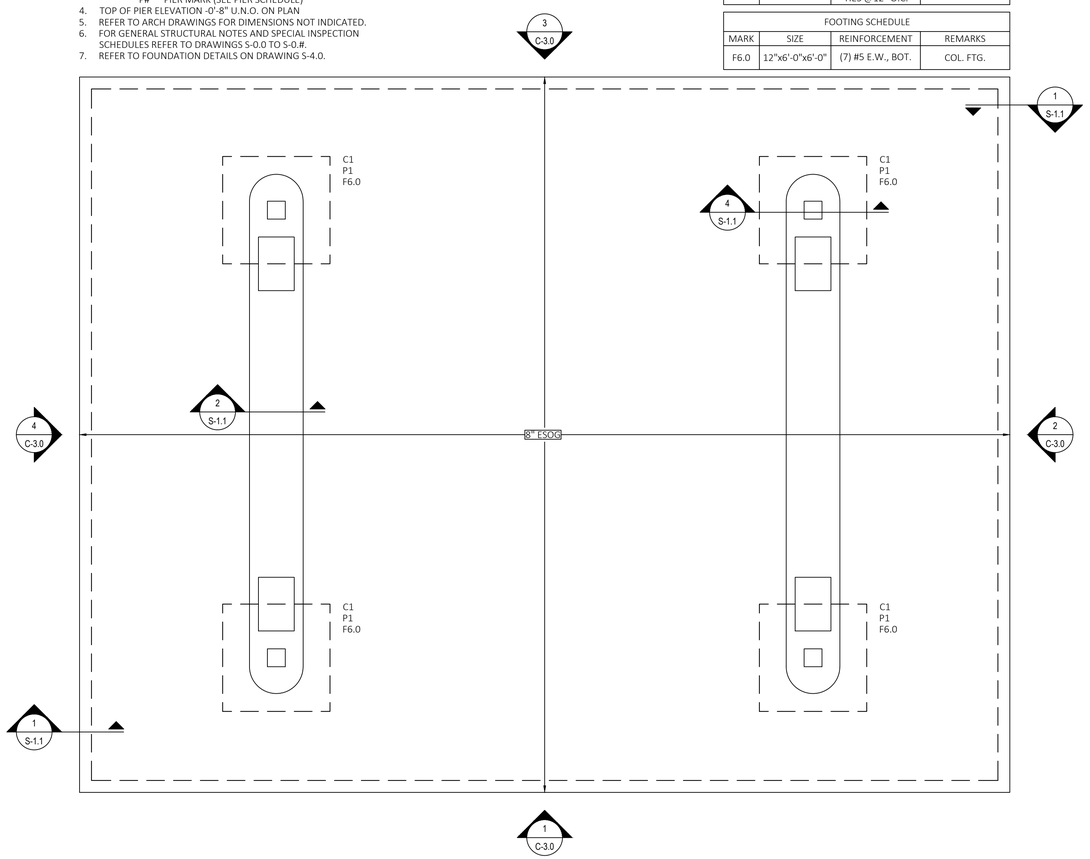
DRAWN BY: JM
CHECKED BY: JM

FOUNDATION PLAN NOTES
1. FINISH SLAB ON GRADE IS 0'-0" U.N.O. ON PLAN.
2. TOP OF FOOTING ELEVATION IS -2'-0" U.N.O. ON PLAN.
3. FOUNDATION MEMBERS ARE DESIGNED AS FOLLOWS:
   F#.# FOOTING MARK (SEE FOOTING SCHEDULE)
   C# COLUMN MARK (SEE COLUMN SCHEDULE)
   P# PIER MARK (SEE PIER SCHEDULE)
4. TOP OF PIER ELEVATION -0'-8" U.N.O. ON PLAN
5. REFER TO ARCH DRAWINGS FOR DIMENSIONS NOT INDICATED.
6. FOR GENERAL STRUCTURAL NOTES AND SPECIAL INSPECTION SCHEDULES REFER TO DRAWINGS S-0.0 TO S-0.#.
7. REFER TO FOUNDATION DETAILS ON DRAWING S-4.0.

COLUMN SCHEDULE			
MARK	SIZE	BASE PLATE	ANCHOR BOLTS (SEE#/S4.0.)
C1	HSS12x12x5/8	3/4"x20"x1'-8"	(4) 3/4" DIA., 12" EMD., 4" PROJ.

PIER SCHEDULE			
MARK	TYPE	REINFORCEMENT	COMMENTS
P1	30"x30"	(12) #6 VERT. + #3 TIES @12" O.C.	-------

FOOTING SCHEDULE			
MARK	SIZE	REINFORCEMENT	REMARKS
F6.0	12"x6'-0"x6'-0"	(7) #5 E.W., BOT.	COL. FTG.



1 PROPOSED FOUNDATION PLAN
SCALE: 1/4"=1'-0"

N

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PROPOSED FOUNDATION PLAN

SCALE: AS NOTED

S-1.0

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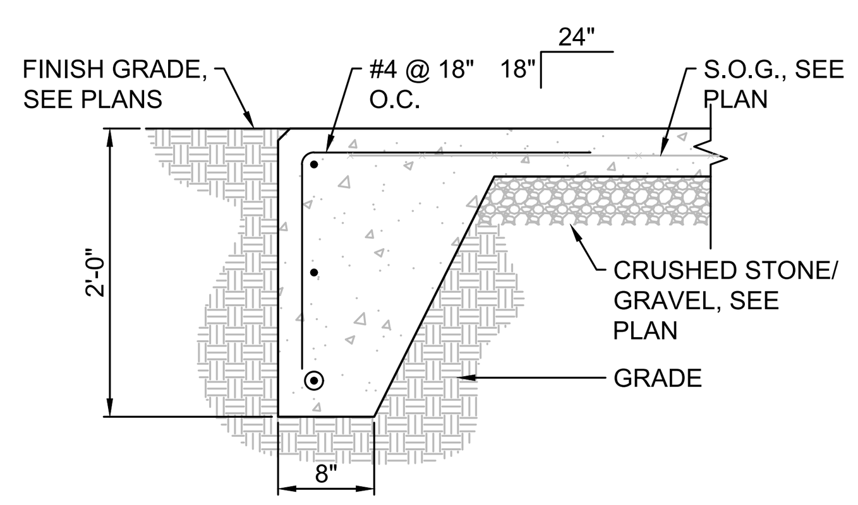
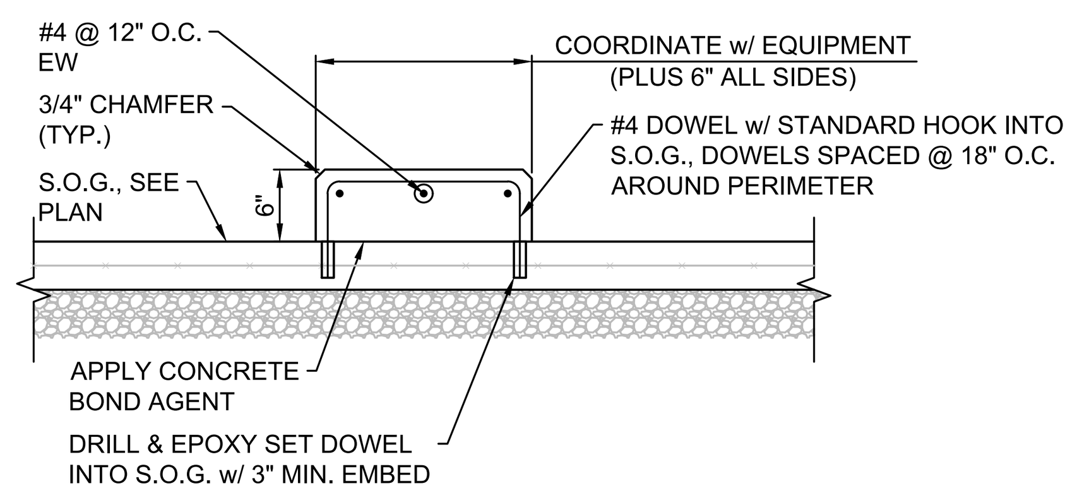
CHECKED BY: JM



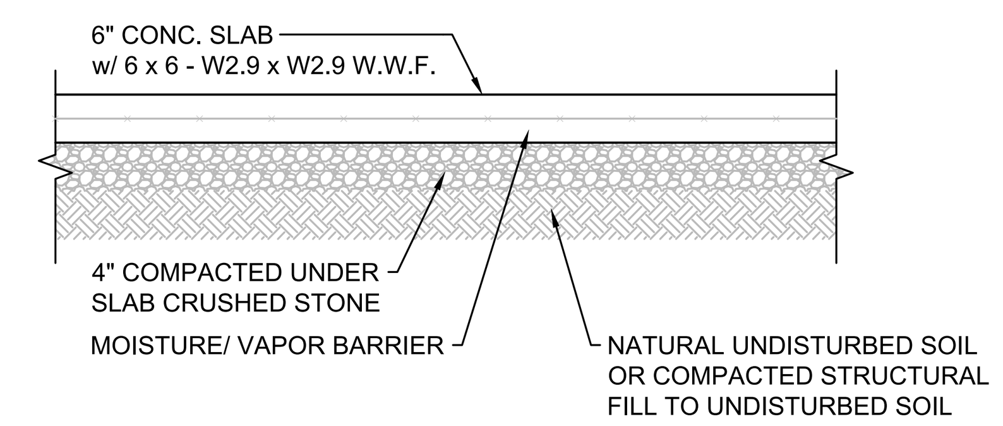
1 SLAB-ON-GRADE TURN DOWN FTG.

SCALE: 3/4"=1'-0"



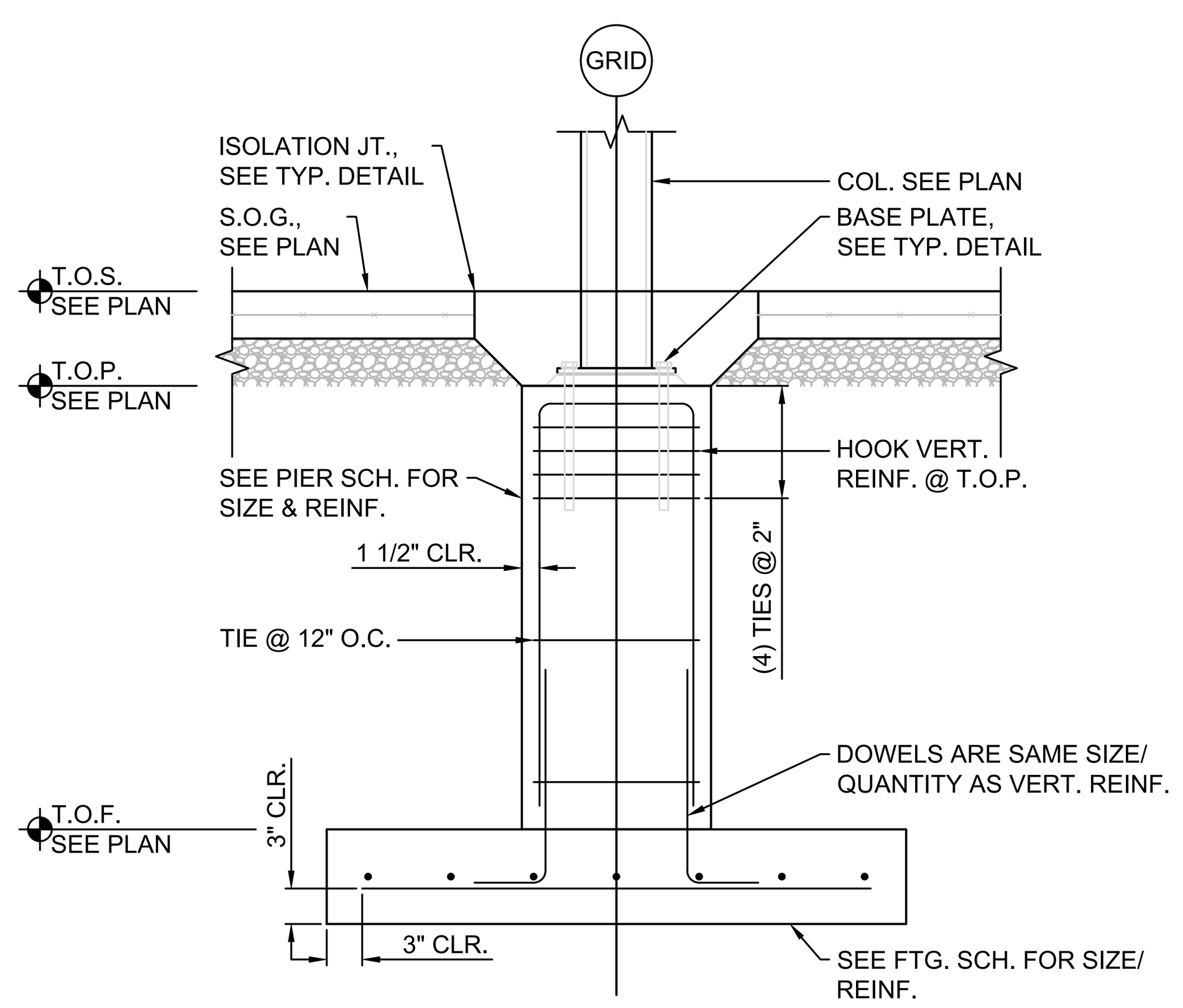
2 RAISED CURB GAS PUMP CURB

SCALE: 3/4"=1'-0"



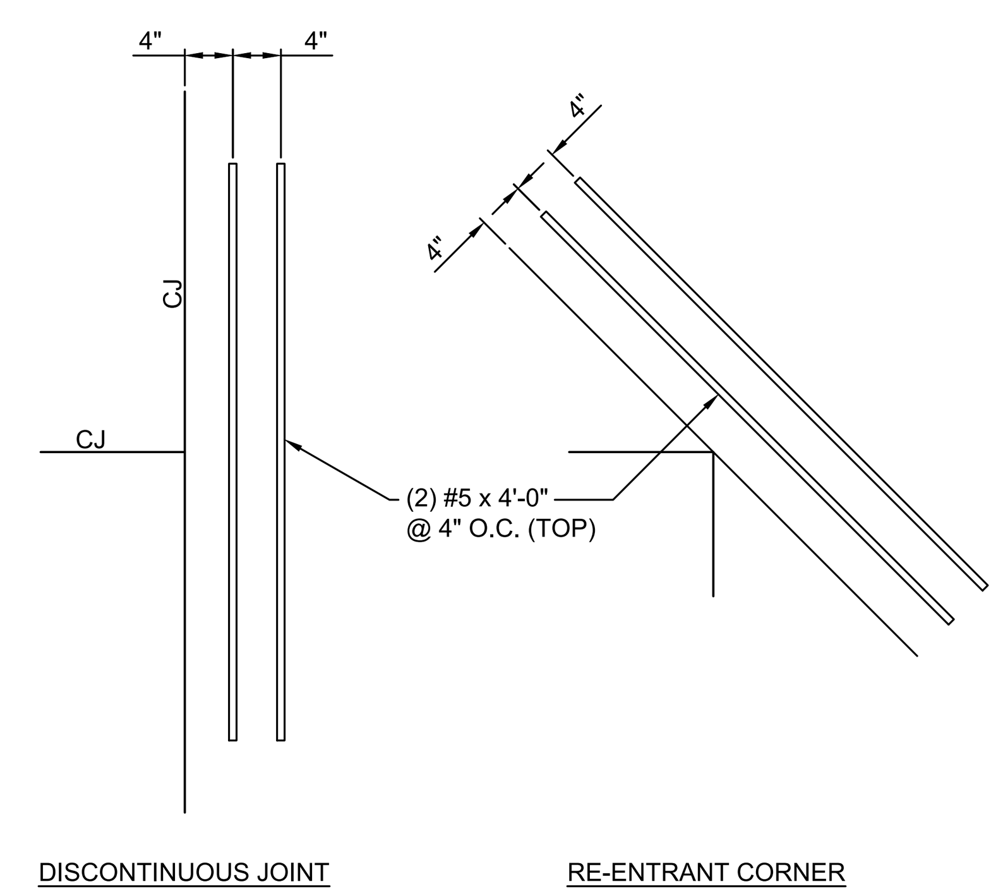
3 TYP. SLAB-ON-GRADE CONSTRUCTION

SCALE: 3/4"=1'-0"



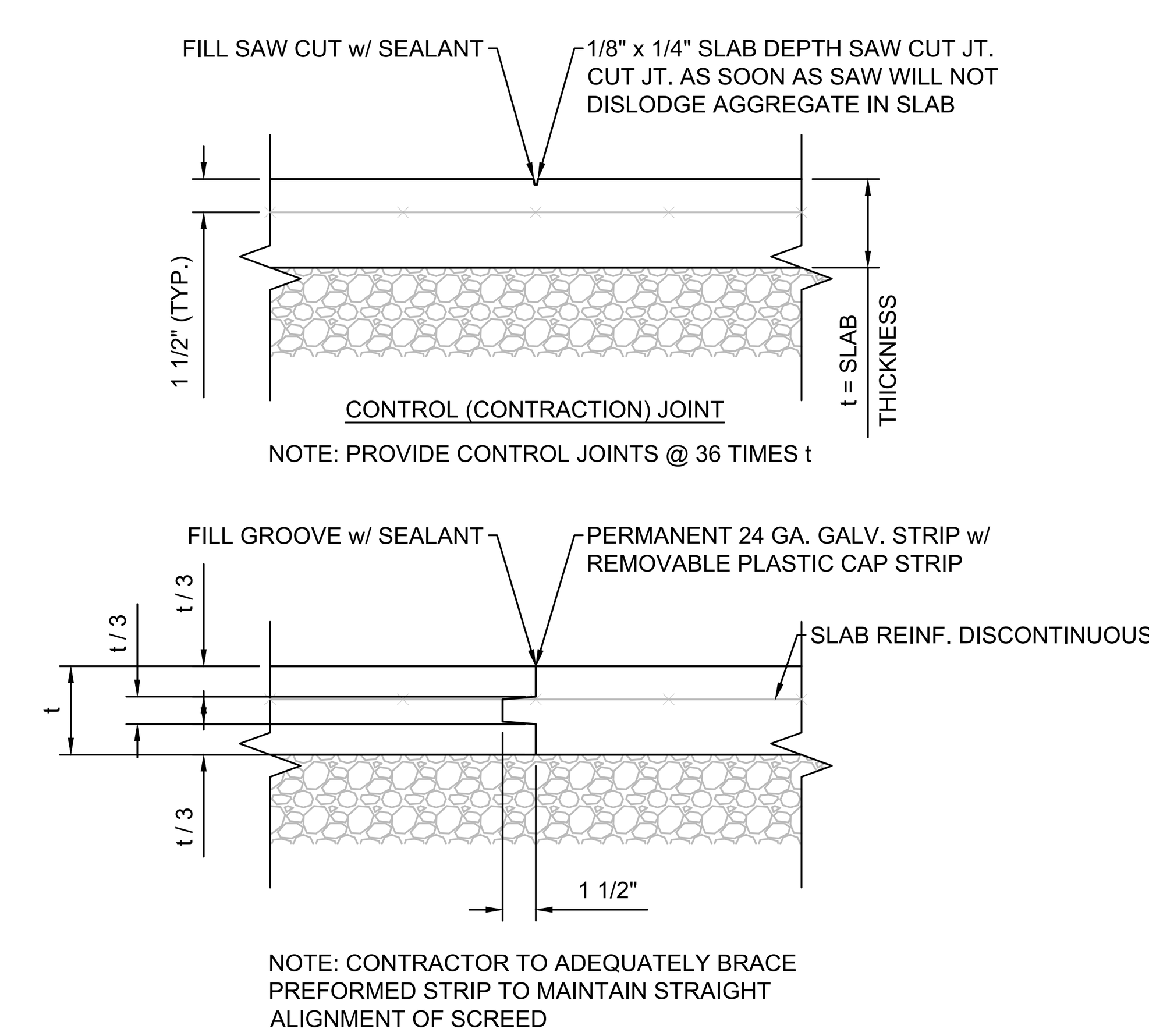
4 TYP. PIER & FTG. DETAIL

SCALE: 3/4"=1'-0"



5 TYP. CRACK CONTROL DETAIL

SCALE: 3/4"=1'-0"



6 TYP. SLAB-ON-GRADE JOINT

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

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SCALE: AS NOTED

S-1.1

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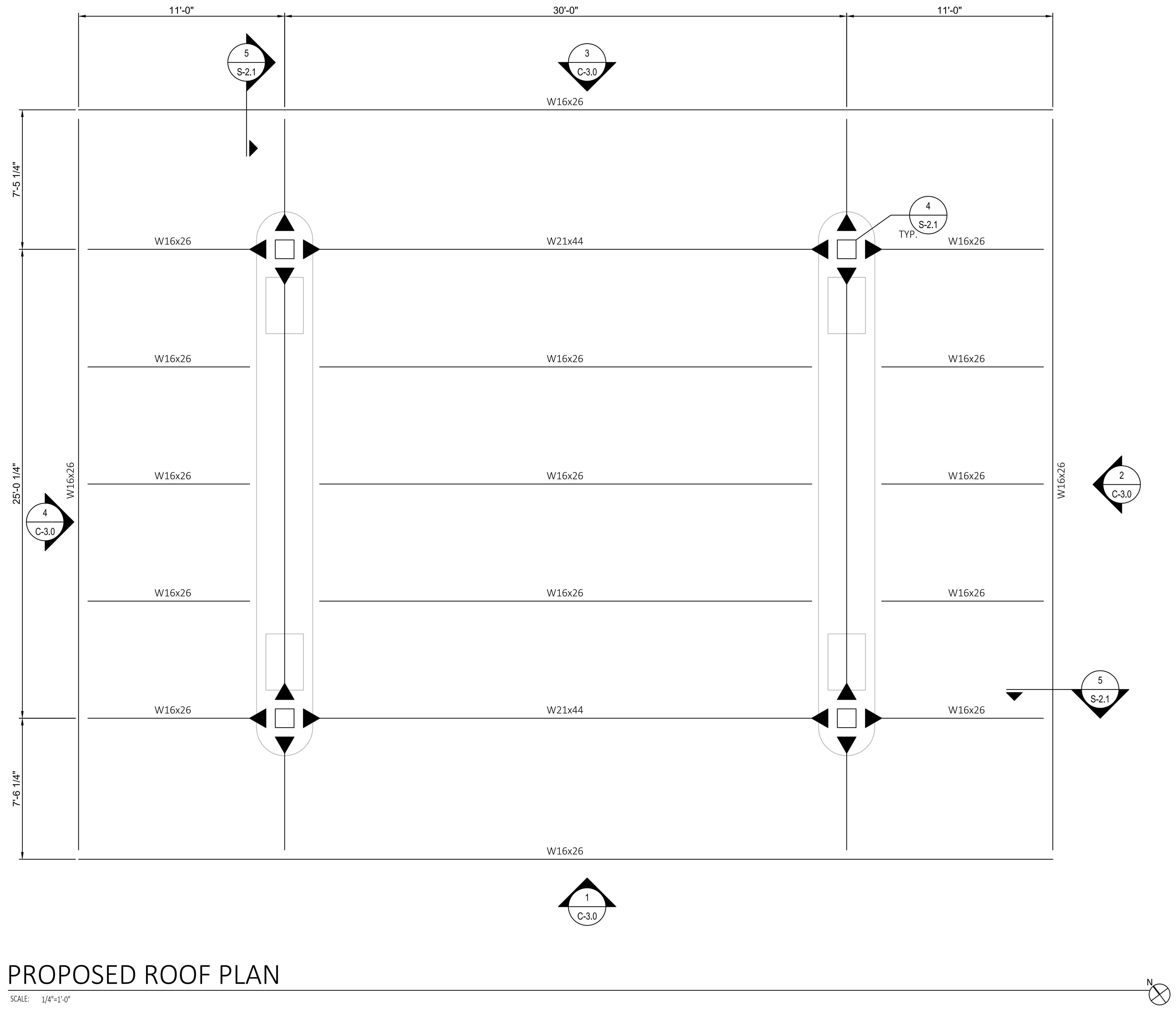
ROOF FRAMING PLAN NOTES:

1. REFER TO PLAN FOR TOP OF STEEL ELEVATION.
2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL INFORMATION NOT PROVIDED.
3. (+L) INDICATES CONT. L6 x 4 x 5/16 (LLH)
4. S-1 INDICATES 1-1/2" x 20 GA. METAL ROOF DECK.
5. INDICATES MOMENT CONNECTION, SEE DETAIL X/S-4.0



1 PROPOSED ROOF PLAN

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

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SCALE: AS NOTED

S-2.0

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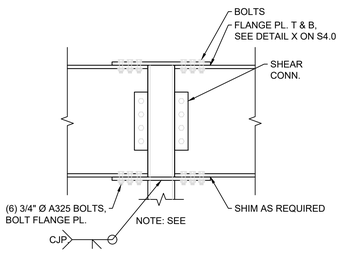
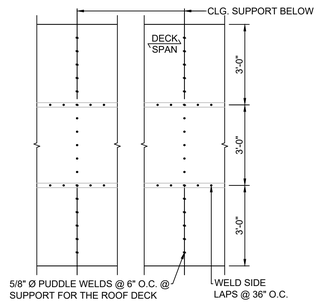


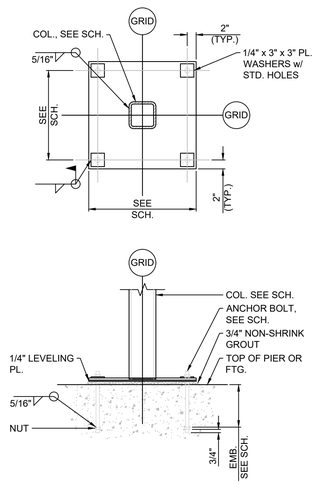
1 BEAM TO HSS COL., BOLTED MOMENT CONN.

SCALE: 3/4"=1'-0"



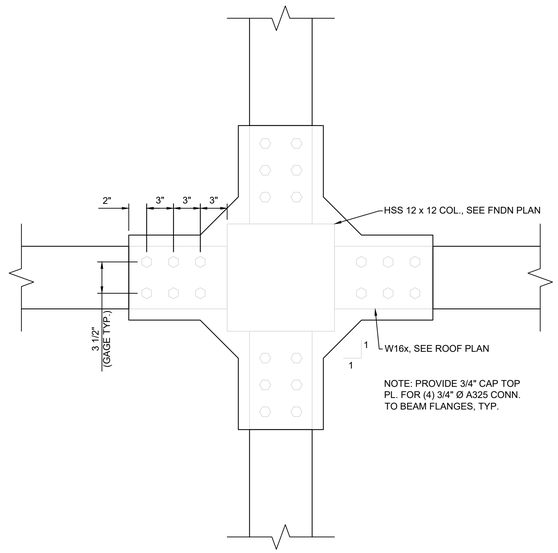
2 TYP. ROOF DECK CONN.

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



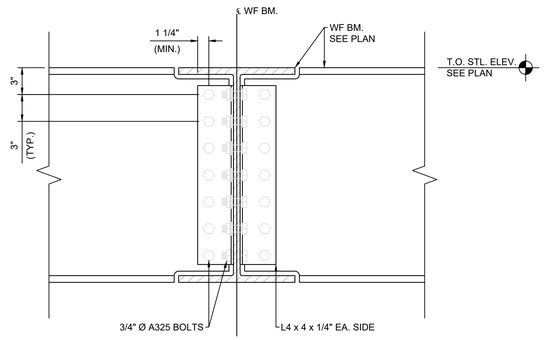
3 TYP. BASE PLATE DETAIL

SCALE: 3/4"=1'-0"



4 MOMENT CONN. AT COL. CAP

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



SHEAR CONNECTION SCHEDULE		
DEPTH OF WF	MIN. # OF BOLT ROWS	TOTAL LOAD REACTION
16"	4	50 KIPS
21" + 24"	6	80 KIPS

5 TYP. SHEAR CONN.

SCALE: 3/4"=1'-0"

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