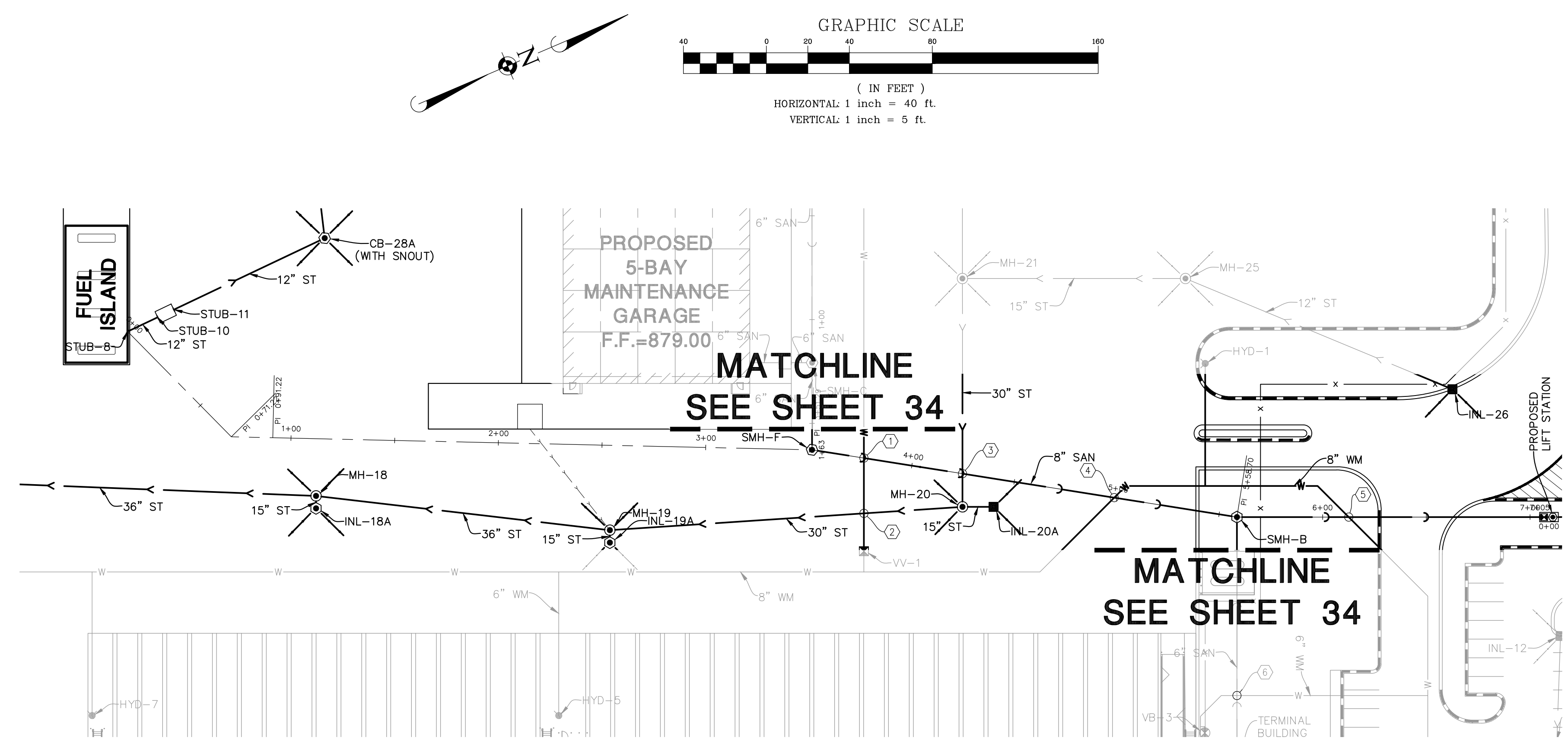
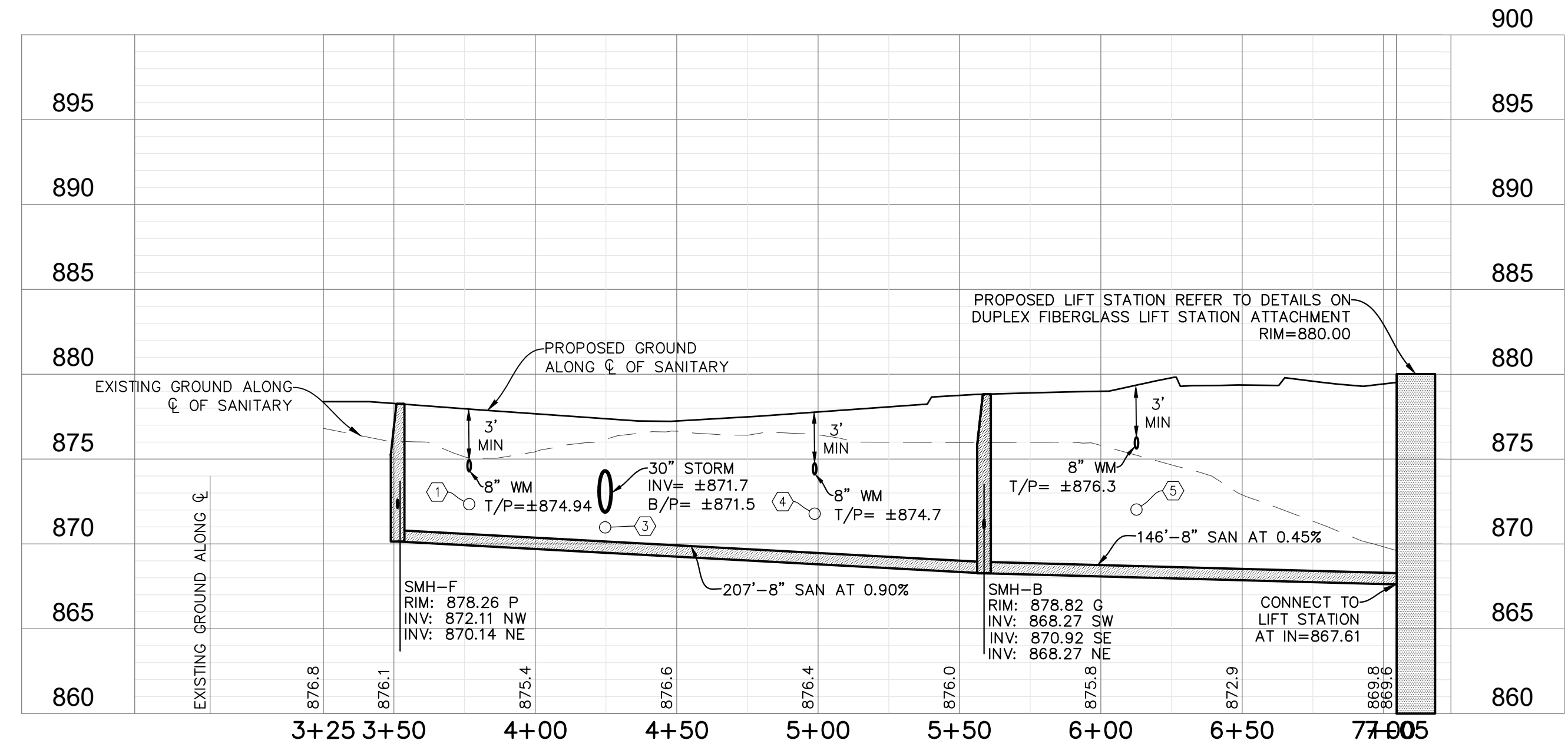


February 24, 2023 - 14:14 - Draw Name: P:\BIRDA\01\Man\Eng\Final Drawings\Plan Set\33-30 PROFILES.dwg, Updated By: OT/rlg



### SANITARY PROFILE FUEL ISLAND - LIFT STATION



SEE SHEETS 28-32 FOR UTILITY CROSSINGS

DATE	REVISIONS	DRAWN BY
12/07/2023	REVISED PER EEC COMMENTS	JMI
11/17/2023	REVISED PER EEC COMMENTS	JMI
11/13/2023	REVISED PER GSCP COMMENTS	JMI
10/19/2023	REVISED PER GSCP COMMENTS	JMI
10/17/2023	REVISED PER GSCP COMMENTS	JMI

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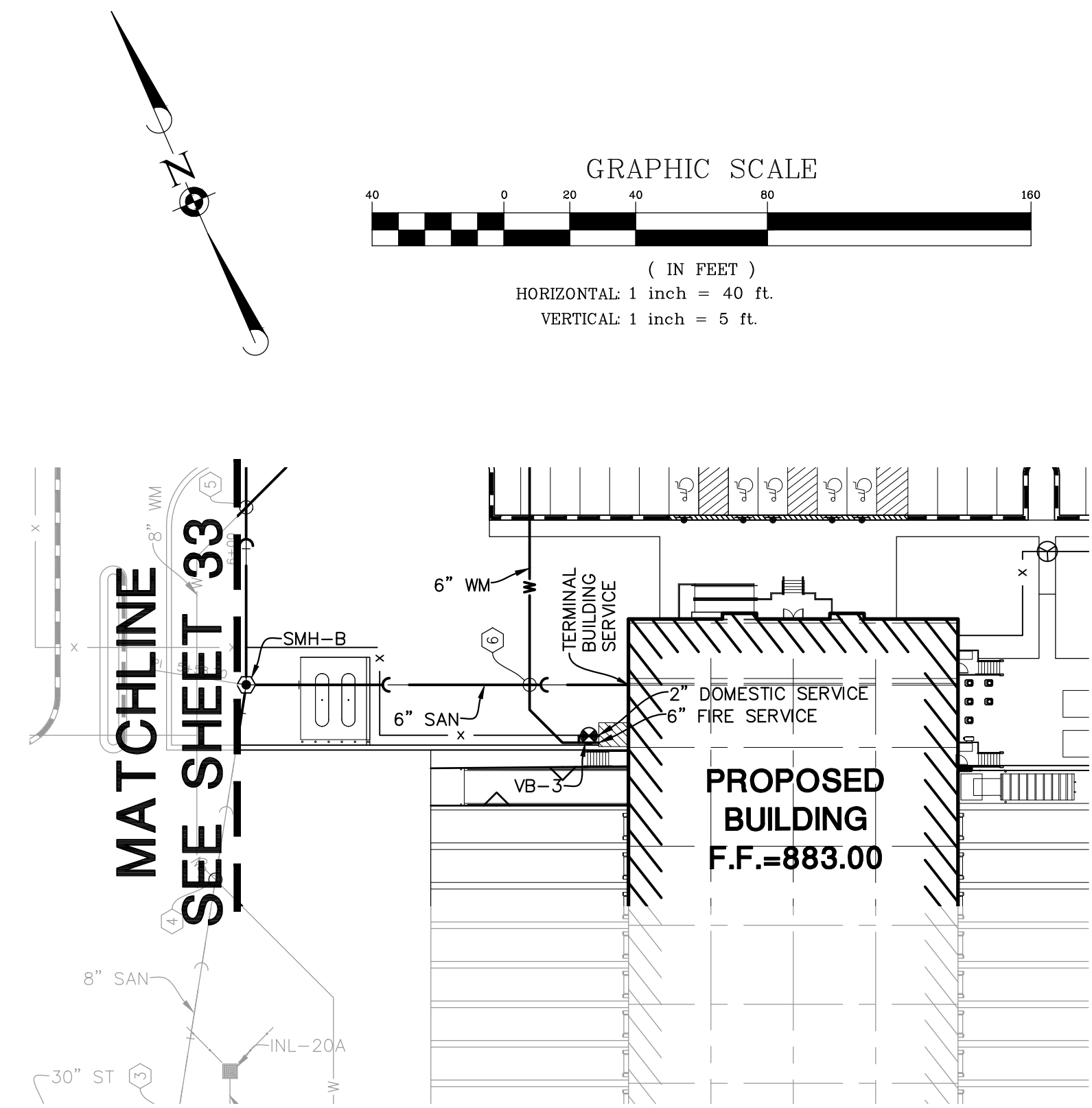
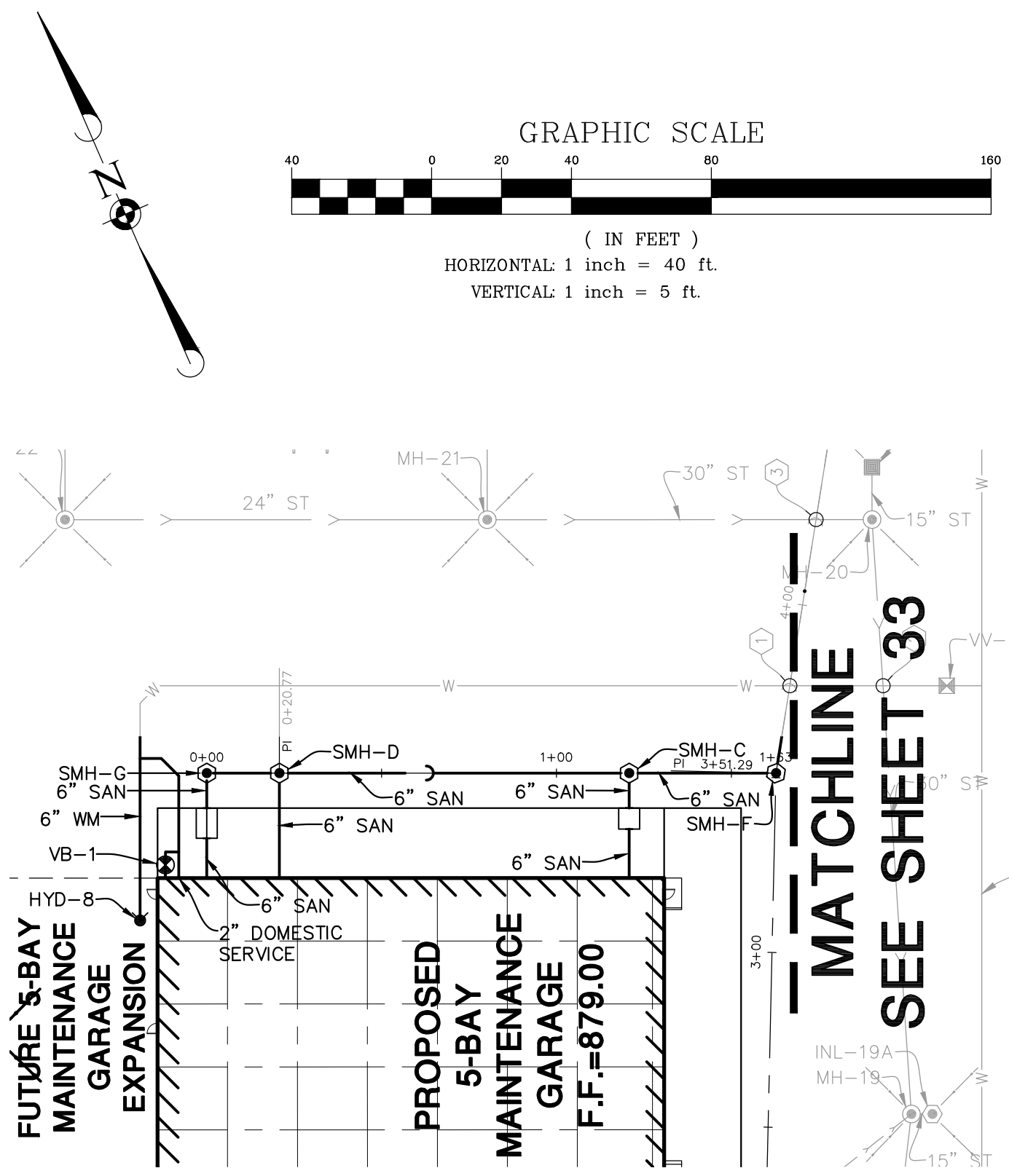
**R + L CARRIERS - GEORGETOWN**  
**CITY OF GEORGETOWN, SCOTT COUNTY, KENTUCKY**  
**PLAN AND PROFILE - FORCEMAIN**

PROJ. MGR.: JMI  
 PROJ. ASSOC.: MSP  
 DRAWN BY: XL  
 DATE: 4/18/2022  
 SCALE: H' = 40' V' = 5'

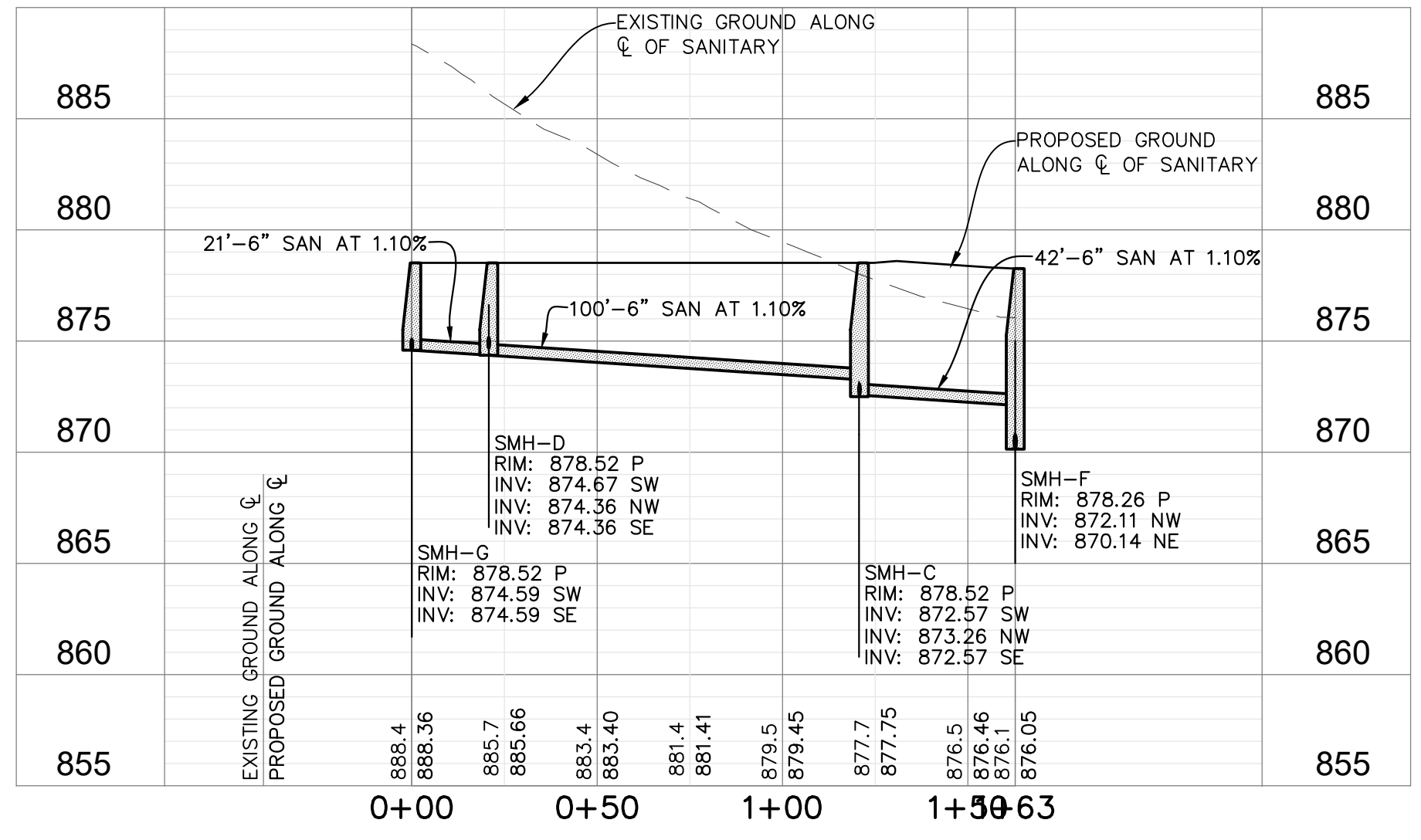
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**33** OF **42**  
 RLR.GTKY01

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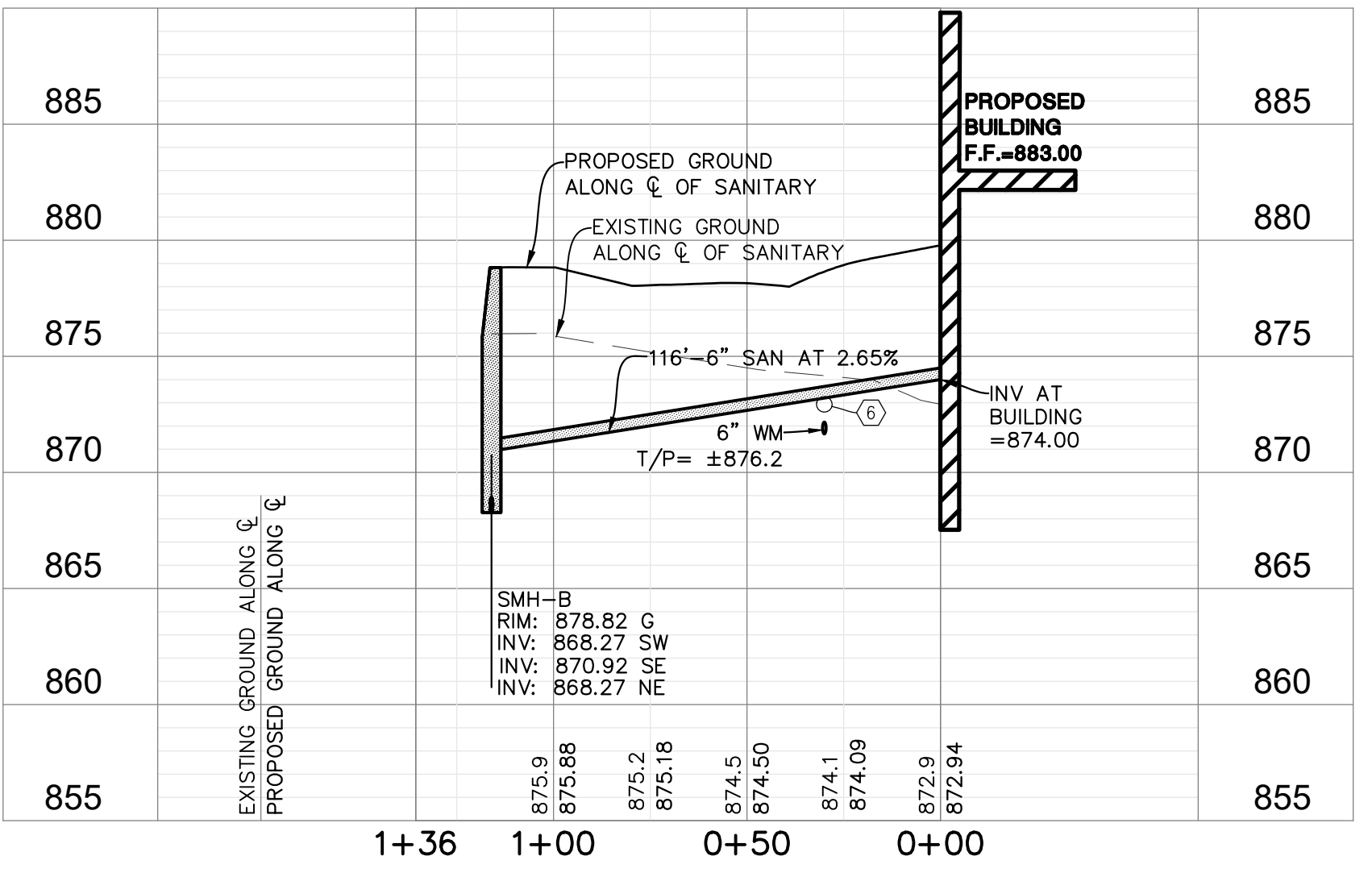
FOR REVIEW - NOT FOR CONSTRUCTION



**SANITARY PROFILE  
SMH G - SMH F**



**SANITARY PROFILE  
TERMINAL BUILDING SERVICE**



SEE SHEETS 28-32 FOR UTILITY CROSSINGS

DATE	REVISIONS
2/07/2023	REVISED PER EEC COMMENTS
11/13/2022	REVISED PER GSCP COMMENTS
8/15/2022	REVISED PER GSCP COMMENTS
7/15/2022	REVISED PER GSCP COMMENTS

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**CITY OF GEORGETOWN, SCOTT COUNTY, KENTUCKY**  
**PLAN AND PROFILE - FORCEMAIN**

PROJ. MGR.: JMI  
 PROJ. ASSOC.: MSP  
 DRAWN BY: XL  
 DATE: 4/18/2022  
 SCALE: 1/4" = 1'-5"  
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**34 OF 42**  
 RLR.GTKY01

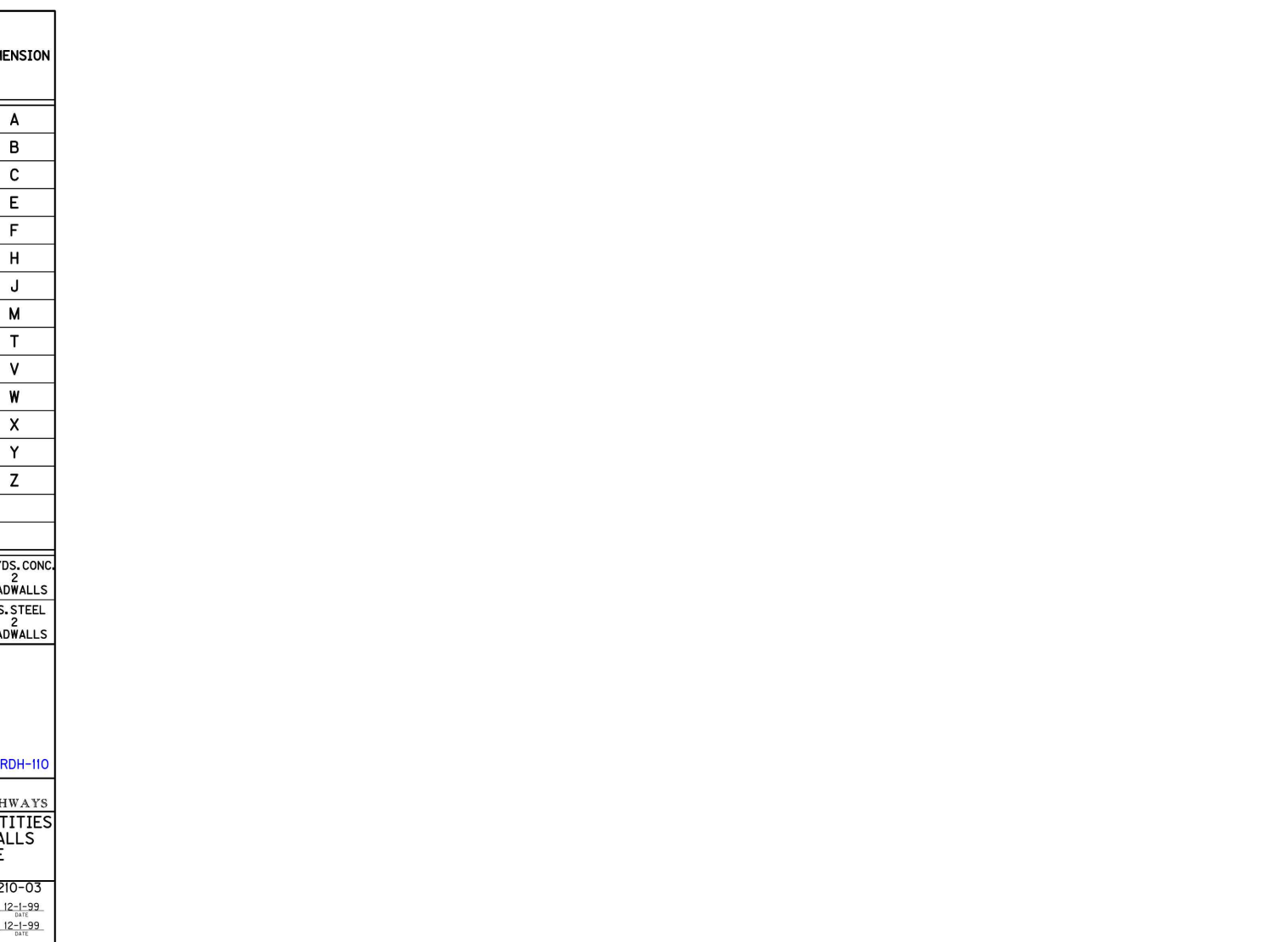
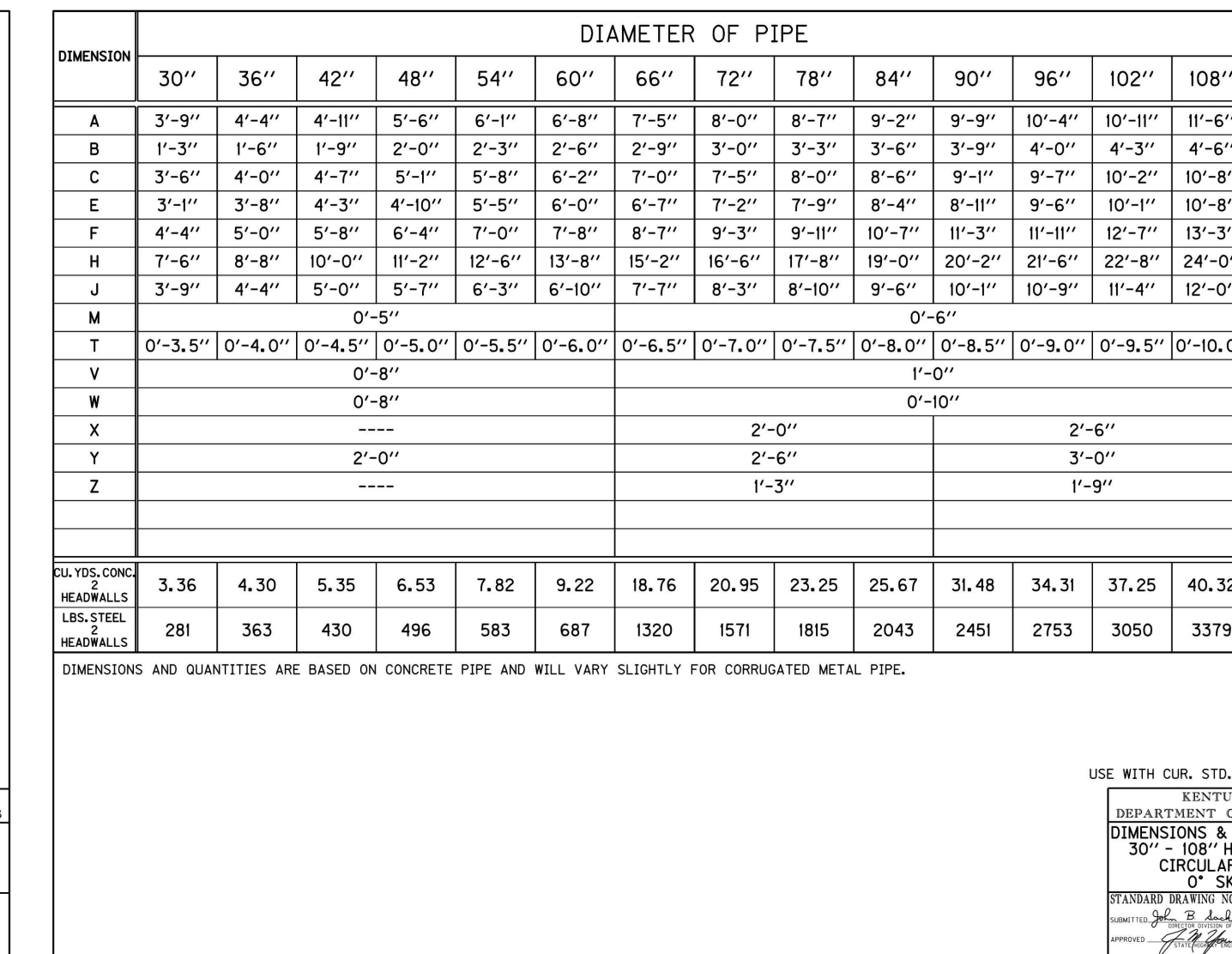
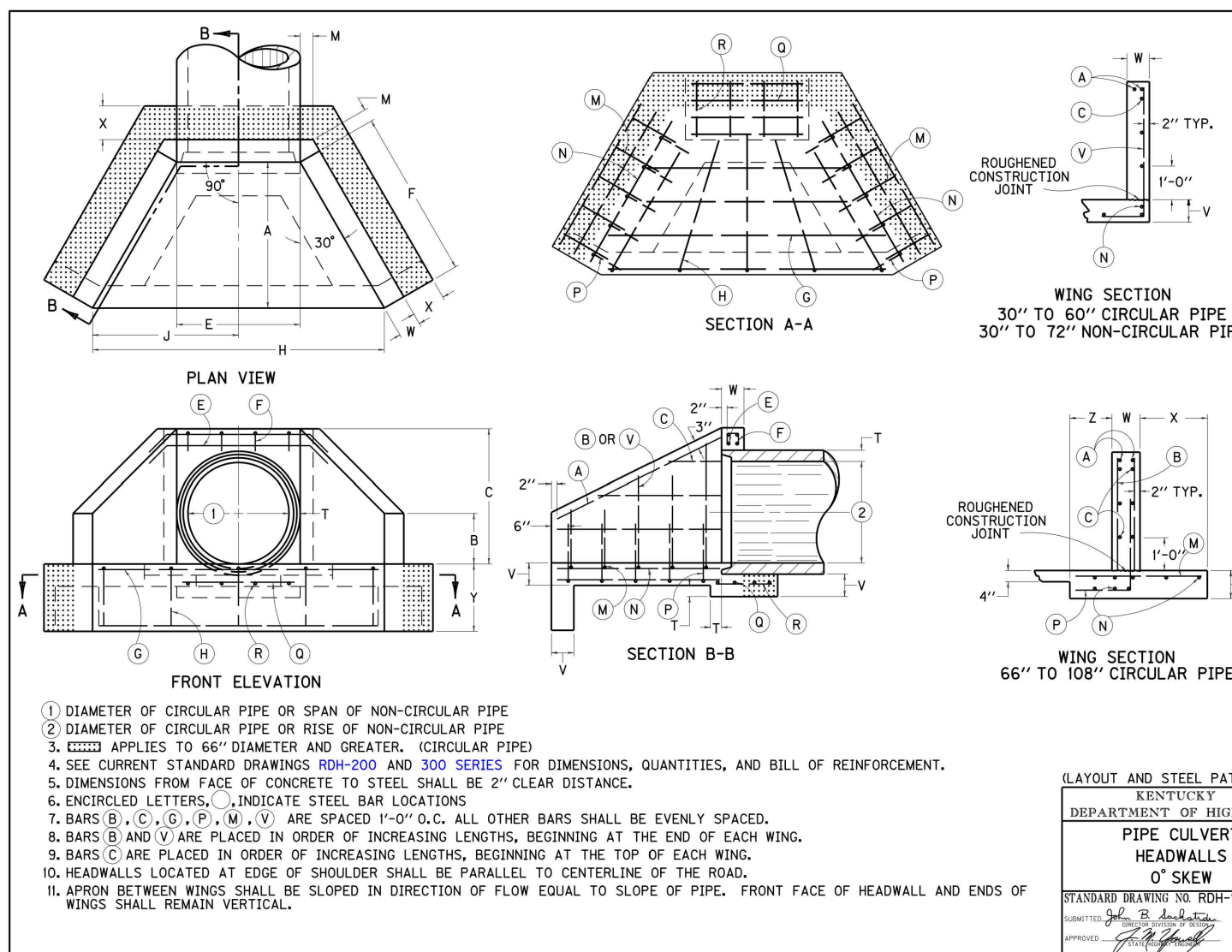
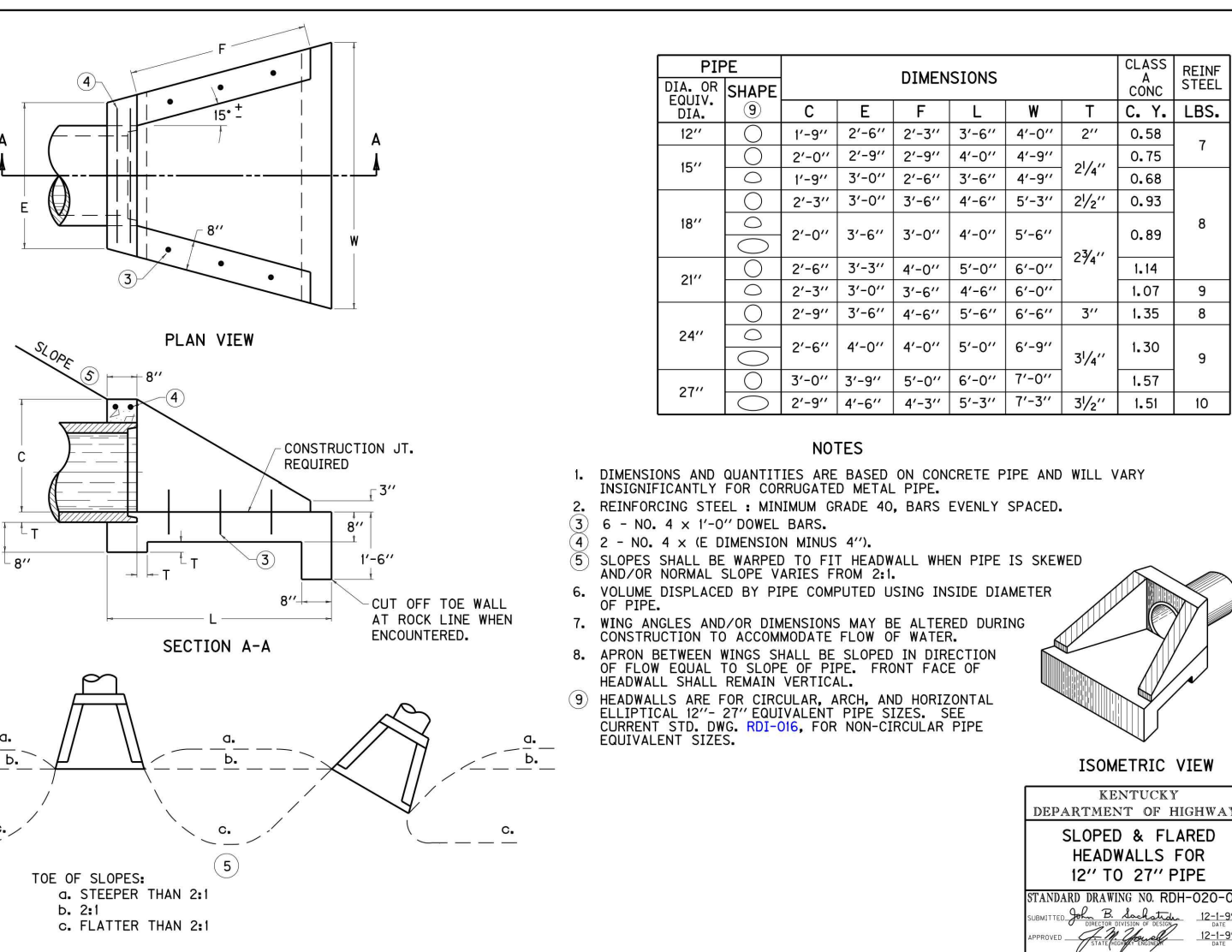
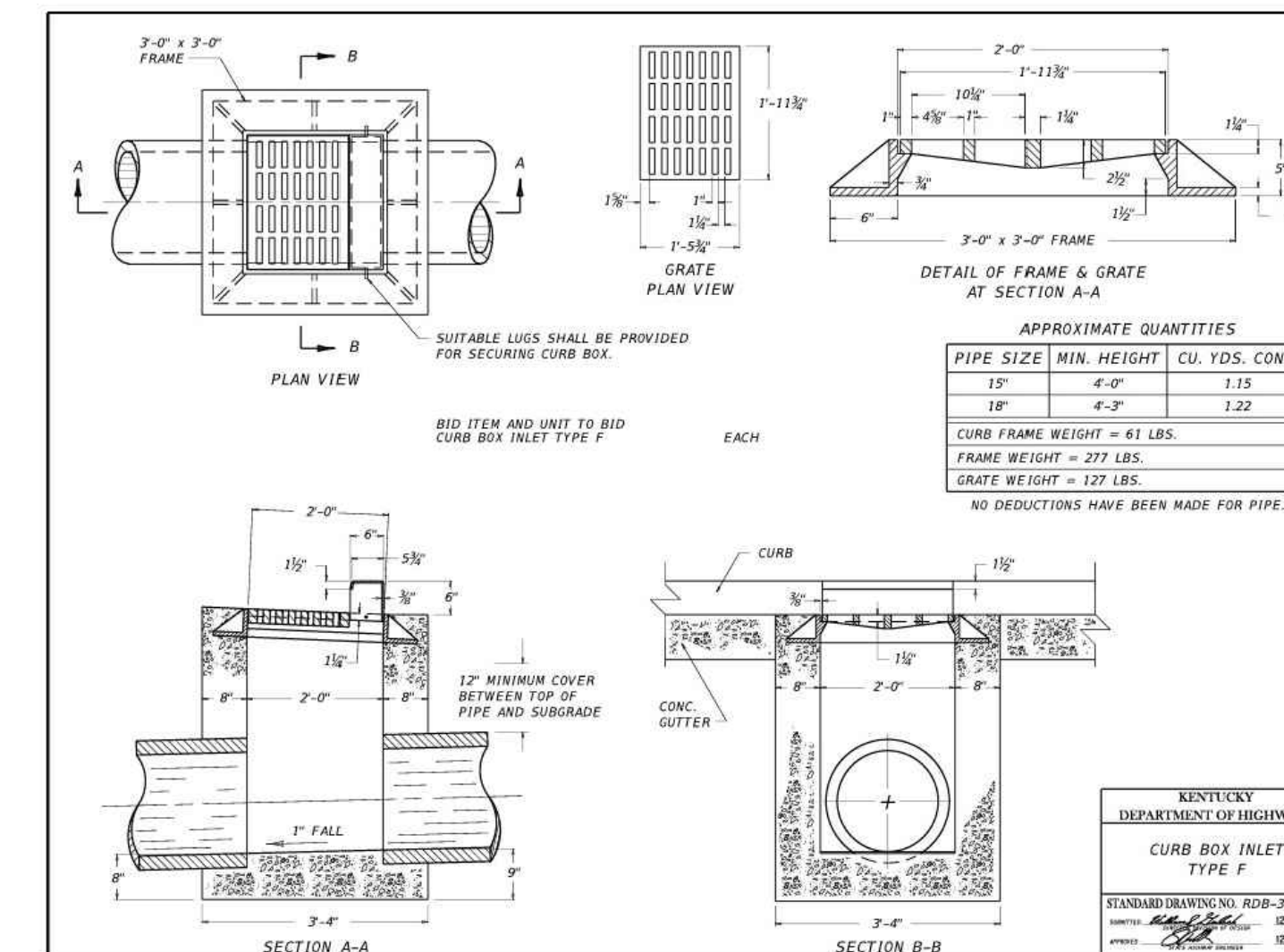
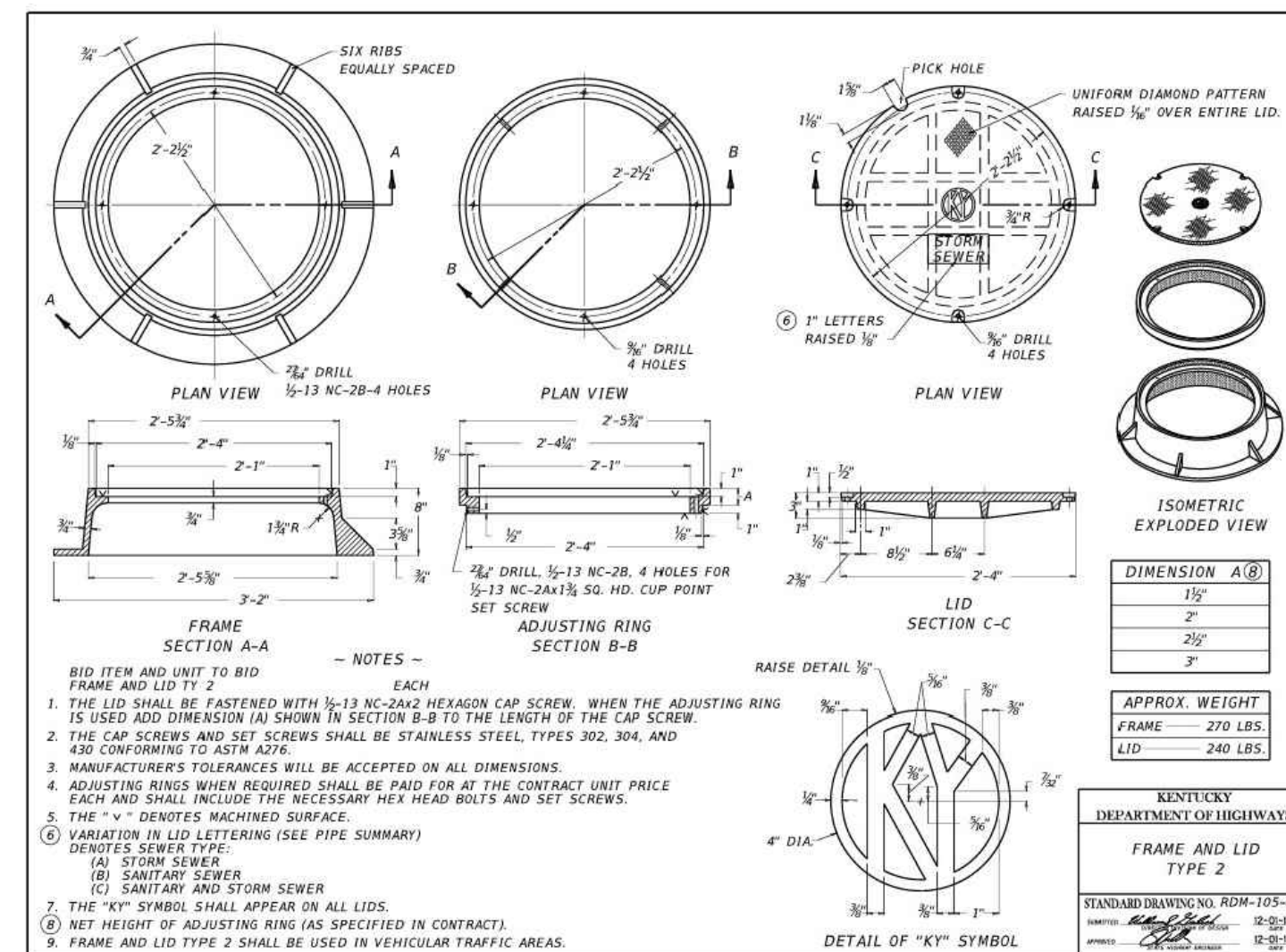
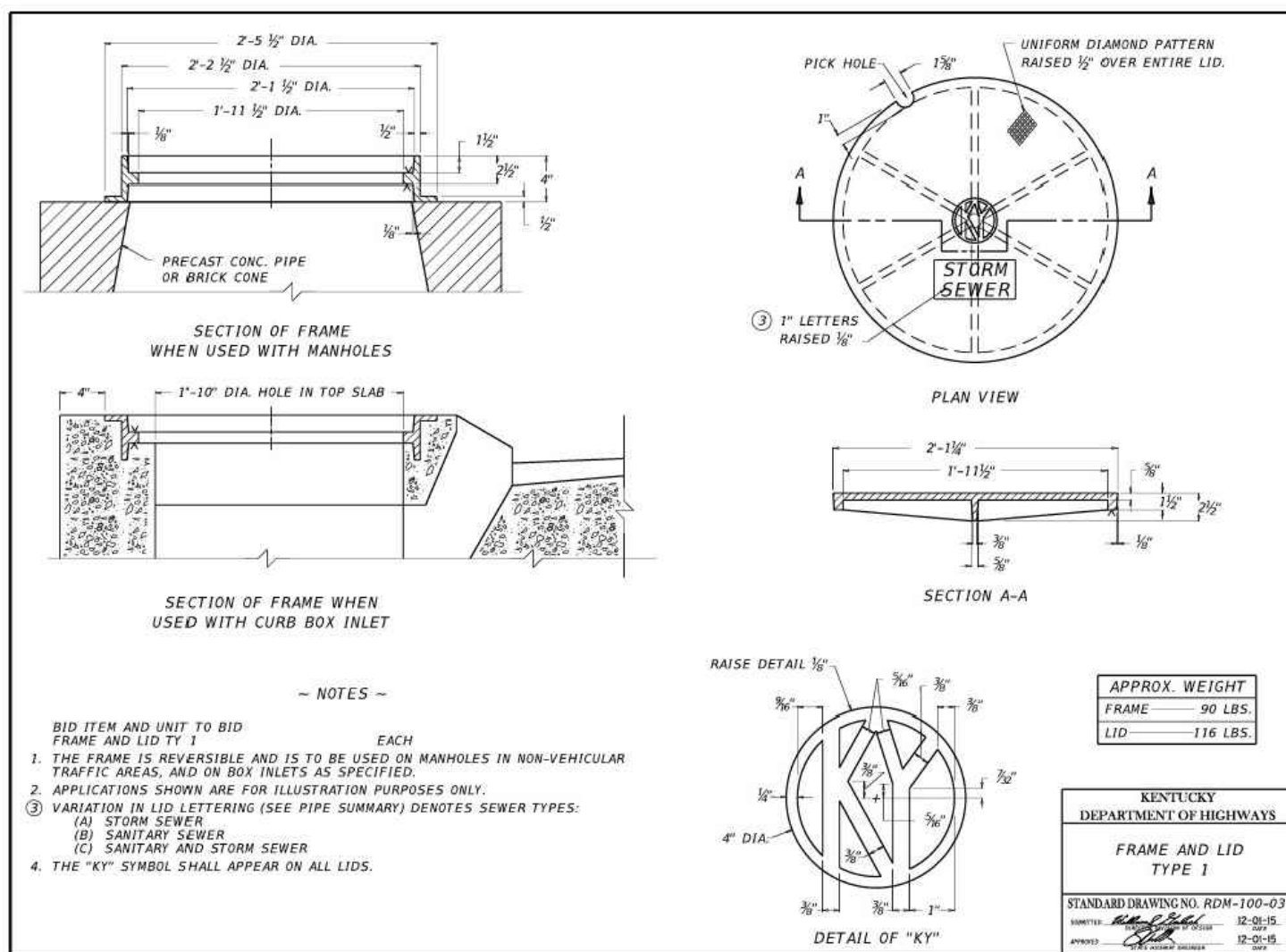
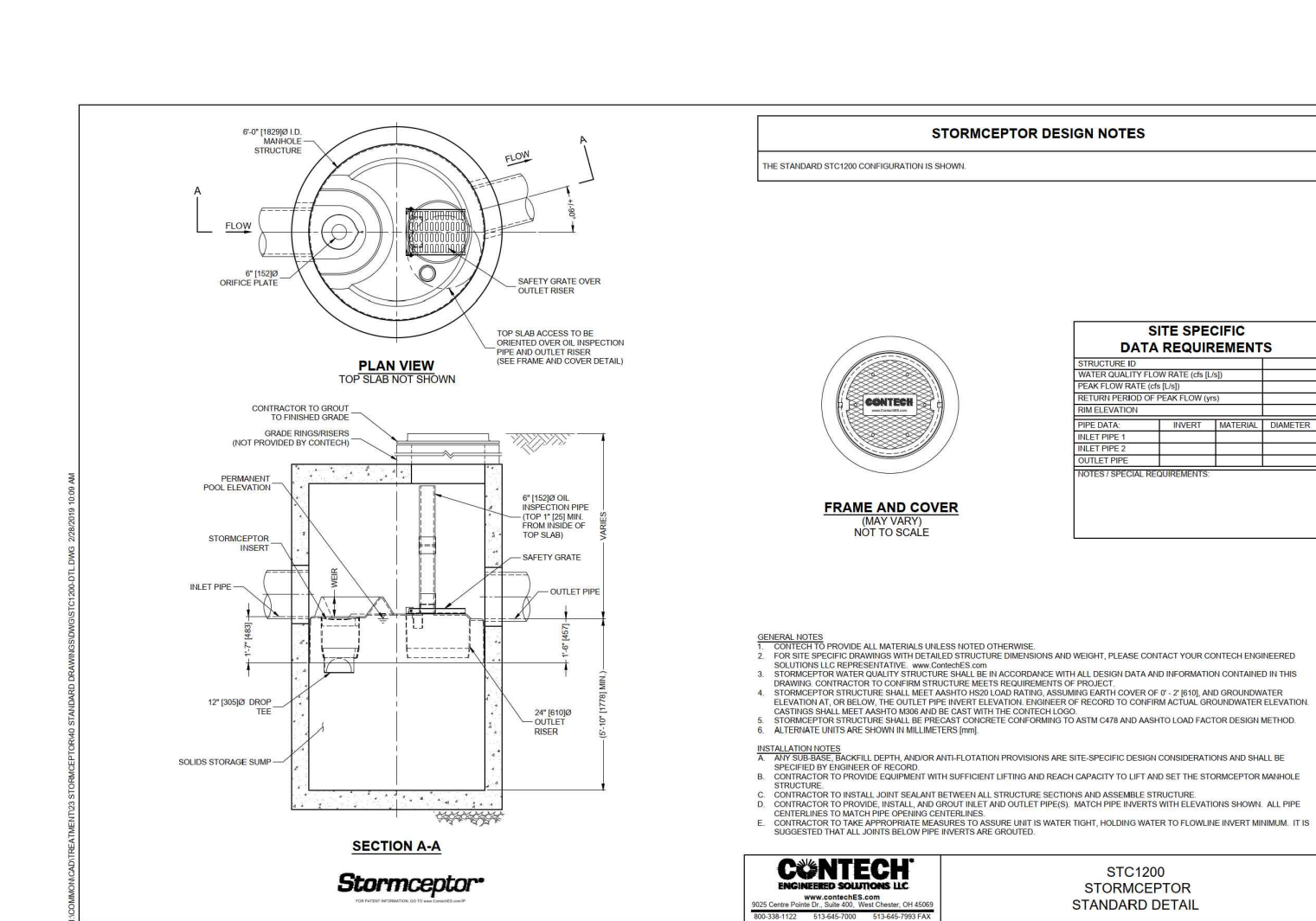
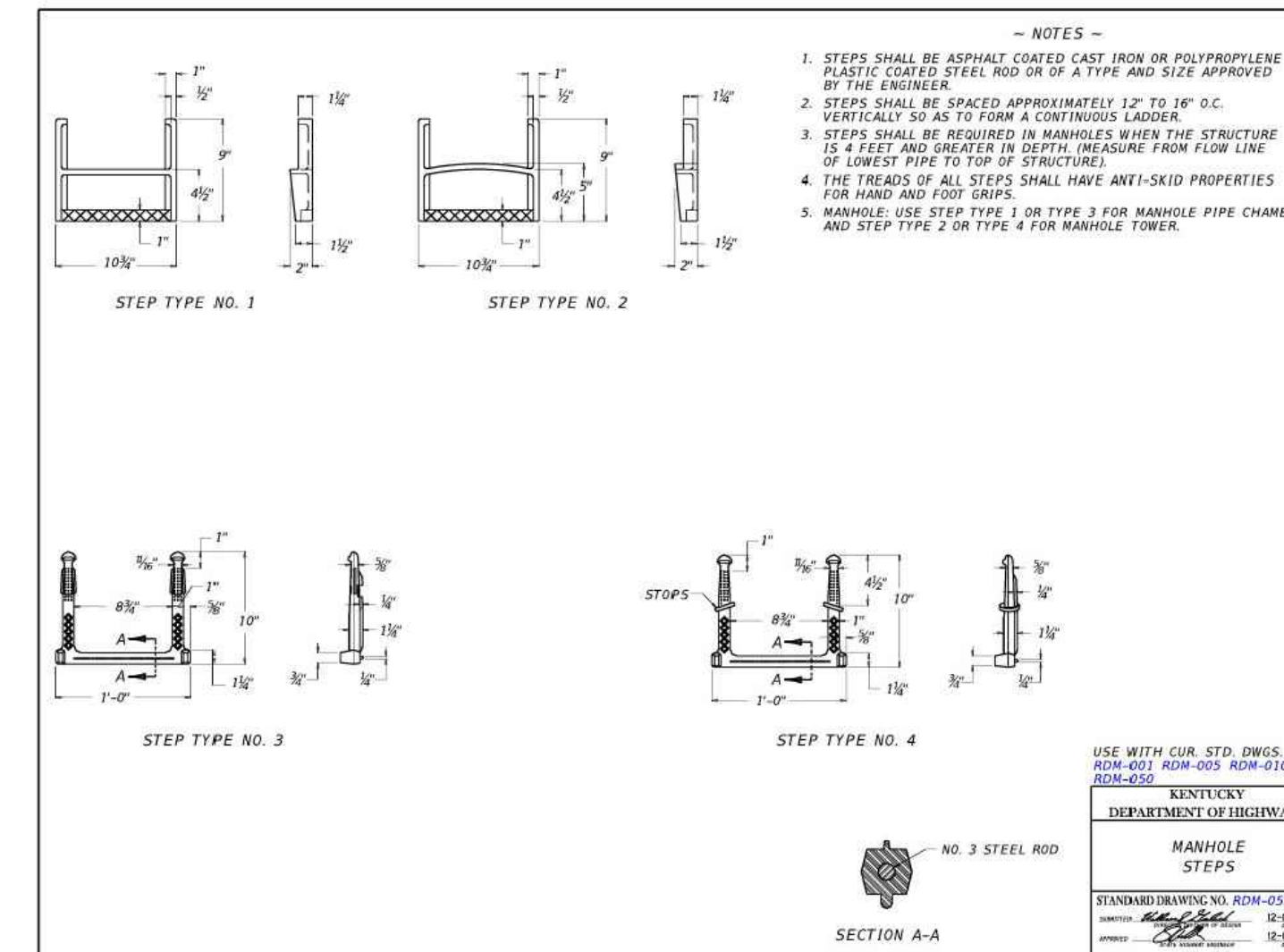
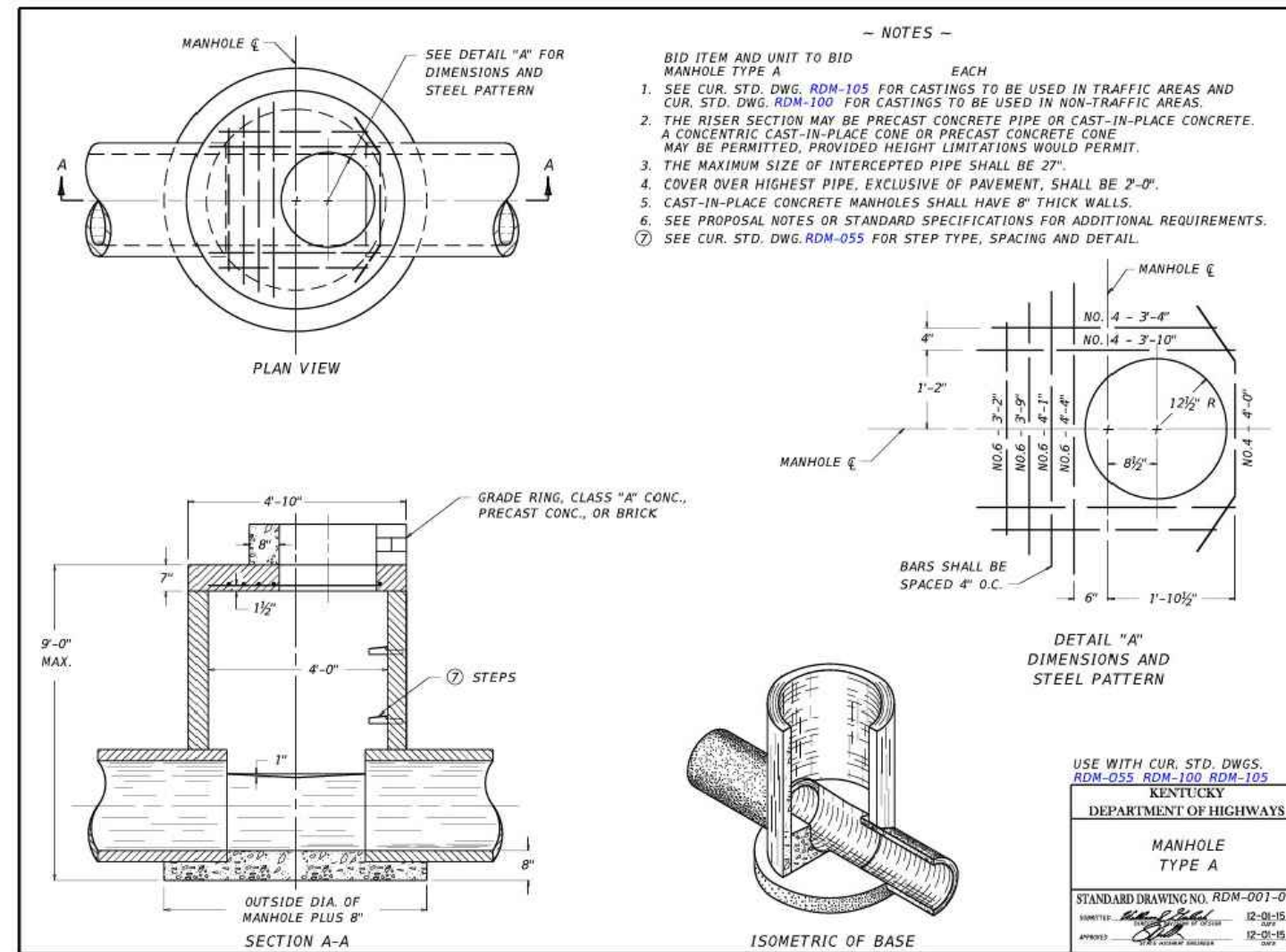
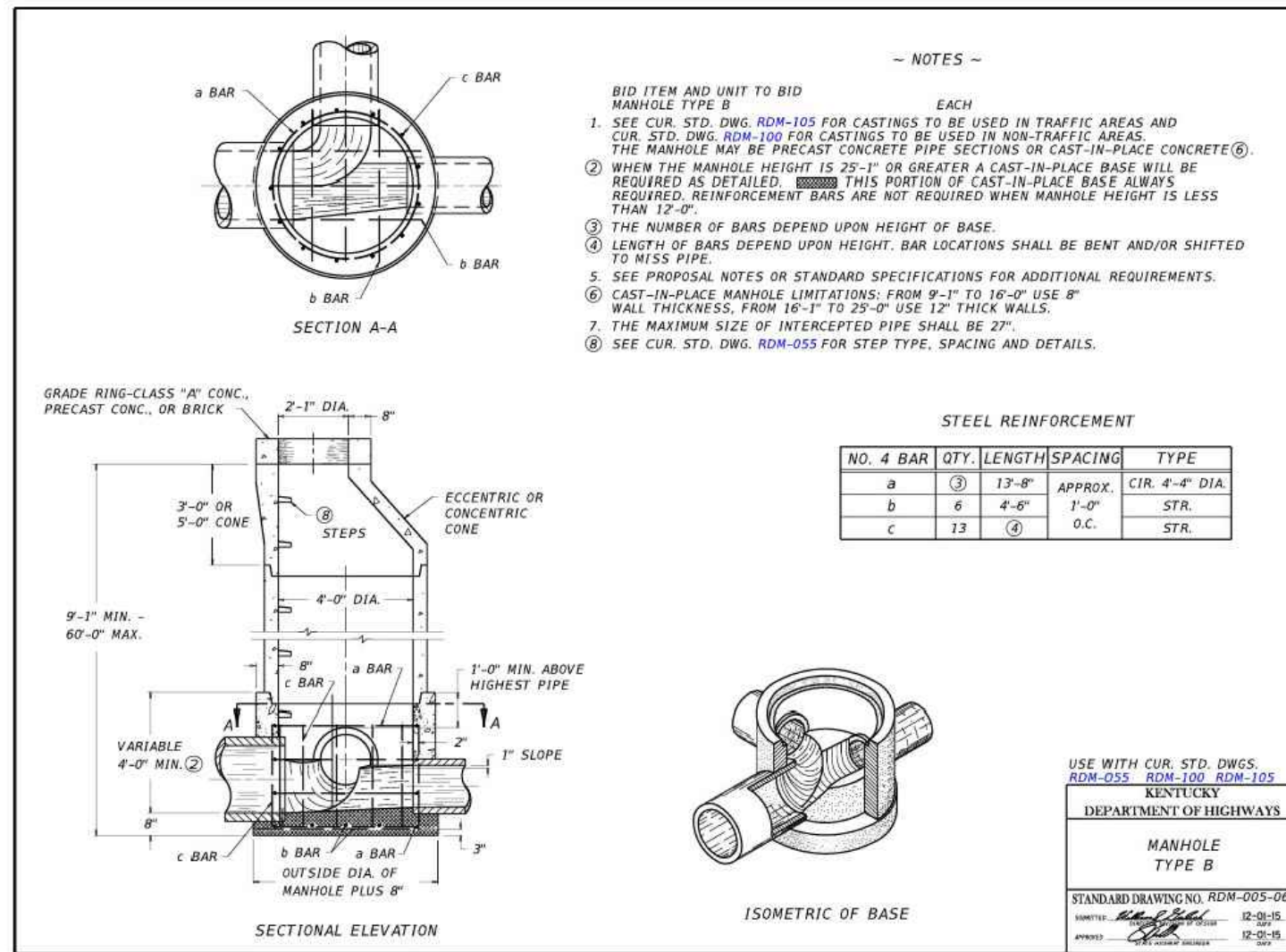
FOR REVIEW - NOT FOR CONSTRUCTION

February 24, 2023 - 1:14 PM - Draw Name: P:\Bldg\01\Man\Eng\Final Drawings\Plan Set\38-30-PROFILES.dwg, Updated By: OT/rlk

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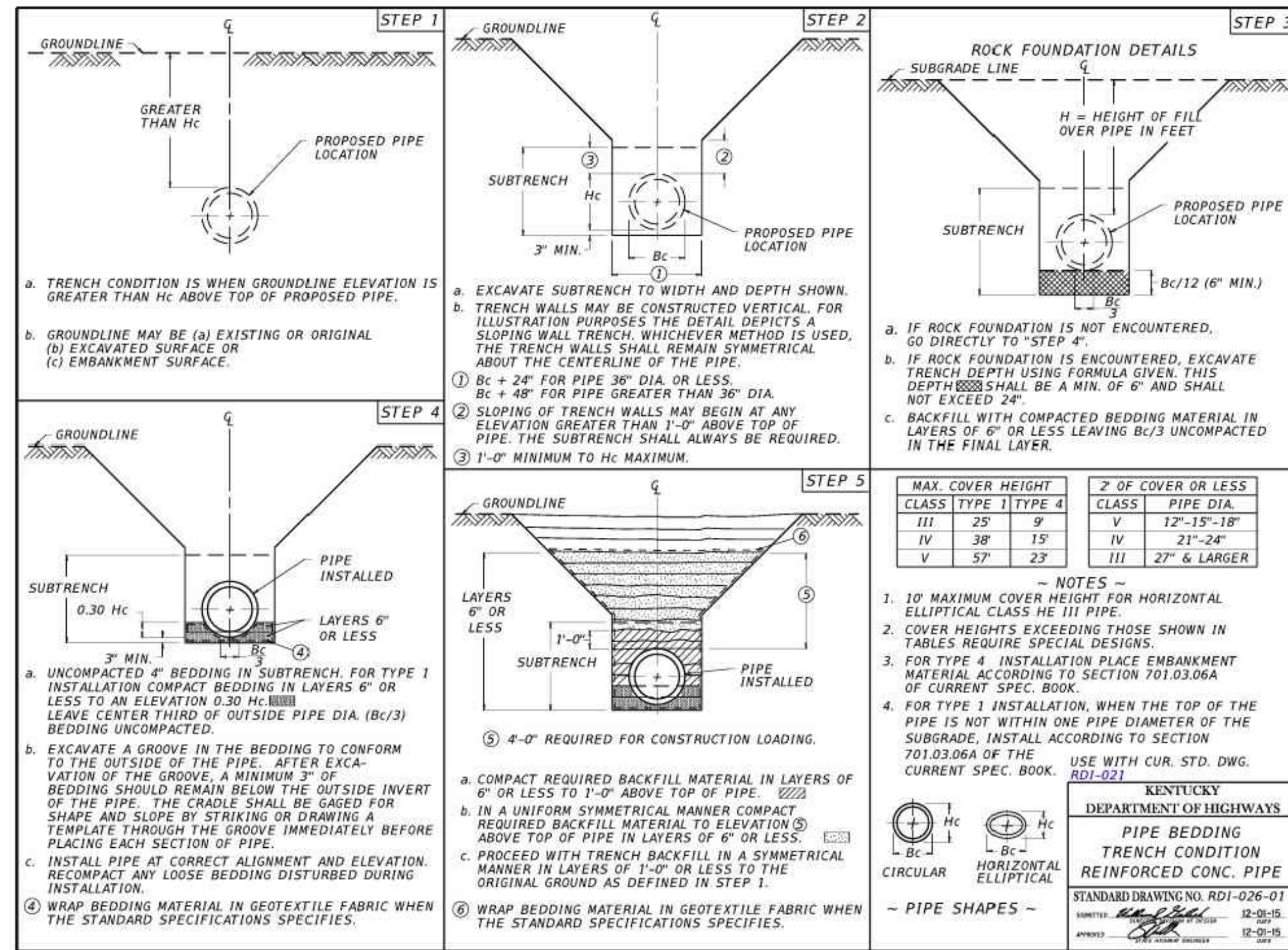
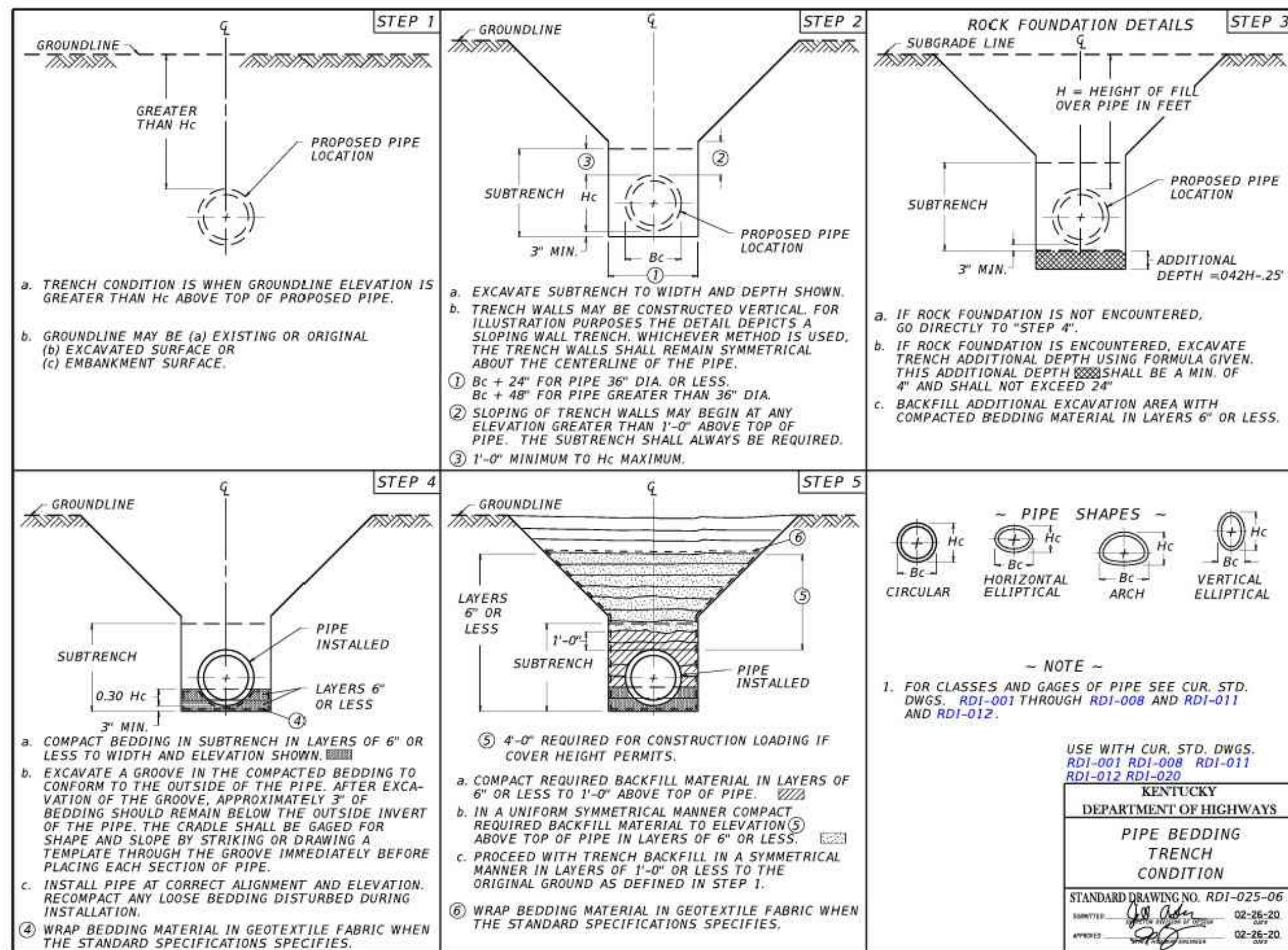
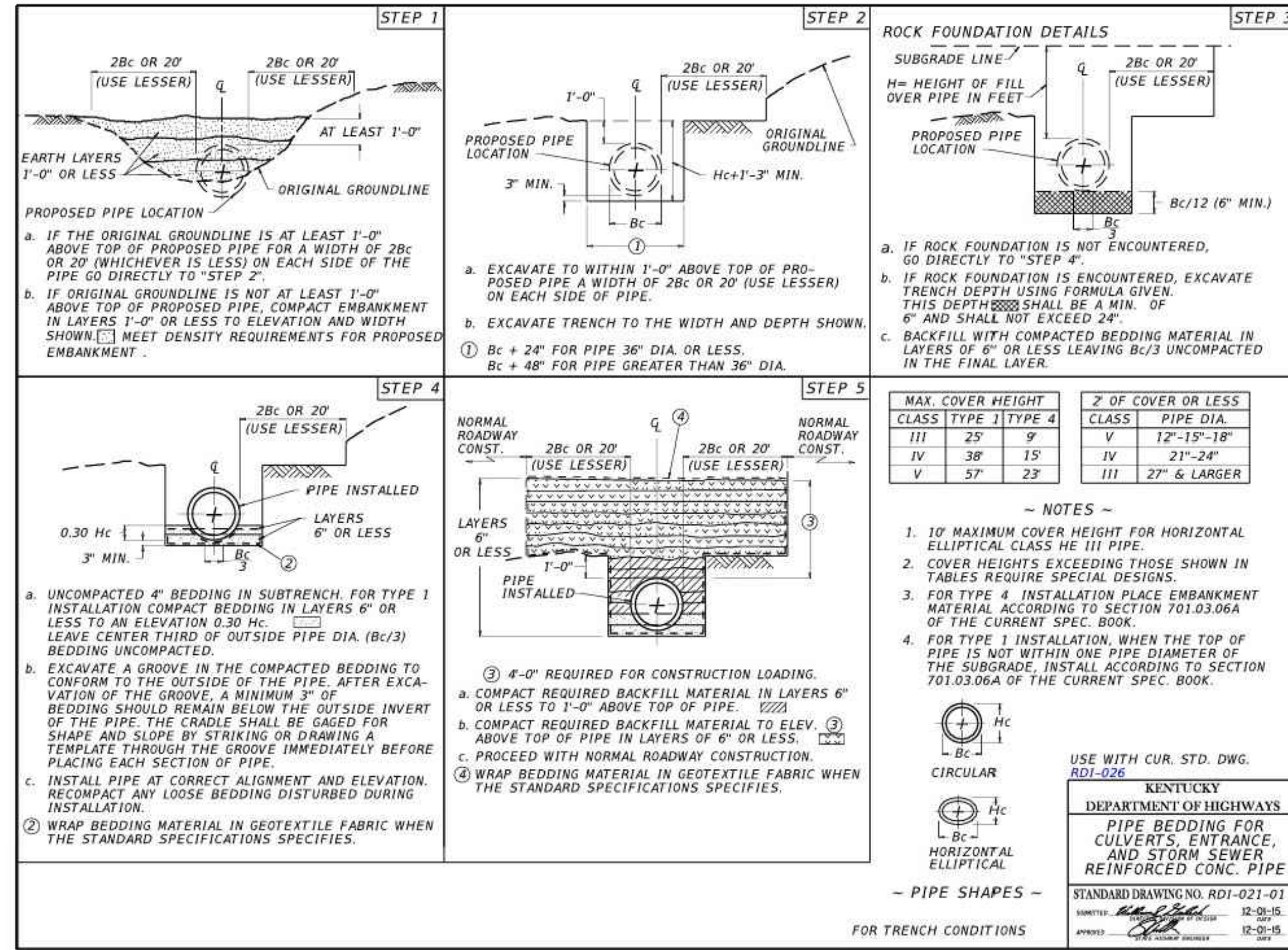
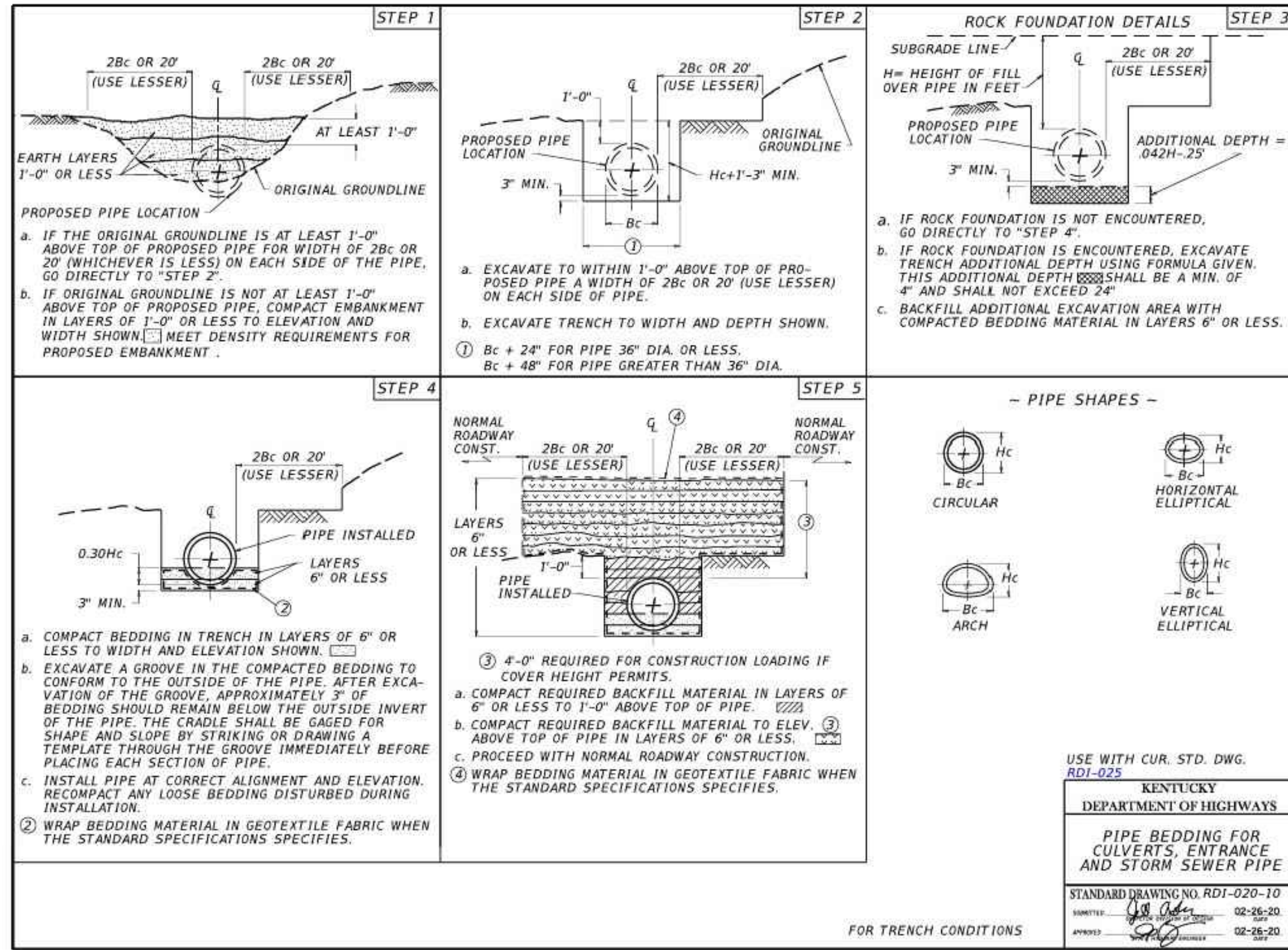






SHOULD A CONFLICT ARISE BETWEEN MANHARD DETAILS AND THE KENTUCKY TRAFFIC CABINET DETAILS, THE KENTUCKY TRAFFIC CABINET DETAILS SHALL TAKE PRECEDENCE.





SHOULD A CONFLICT ARISE BETWEEN MANHARD DETAILS AND THE KENTUCKY TRAFFIC CABINET DETAILS, THE KENTUCKY TRAFFIC CABINET DETAILS SHALL TAKE PRECEDENCE.

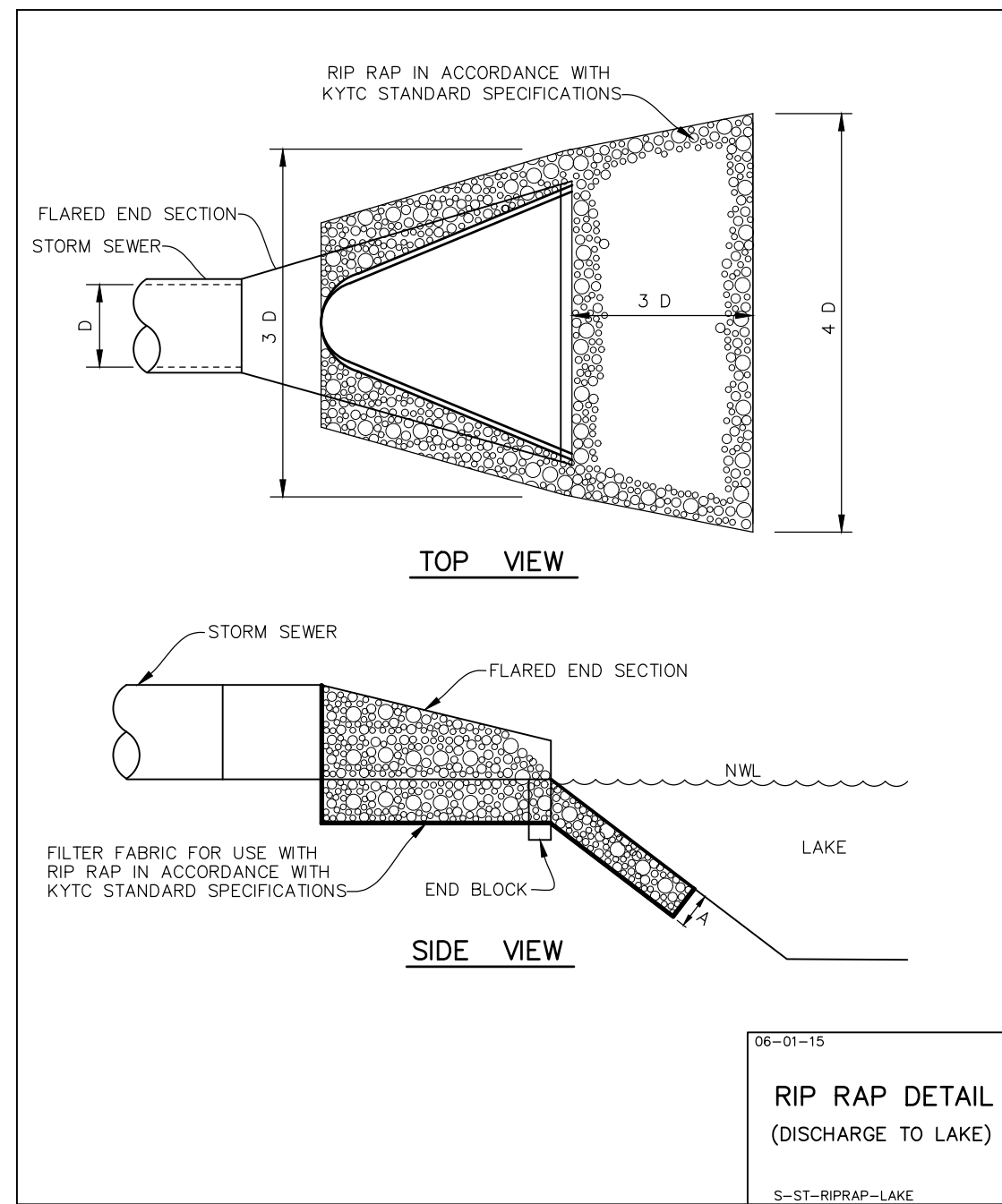
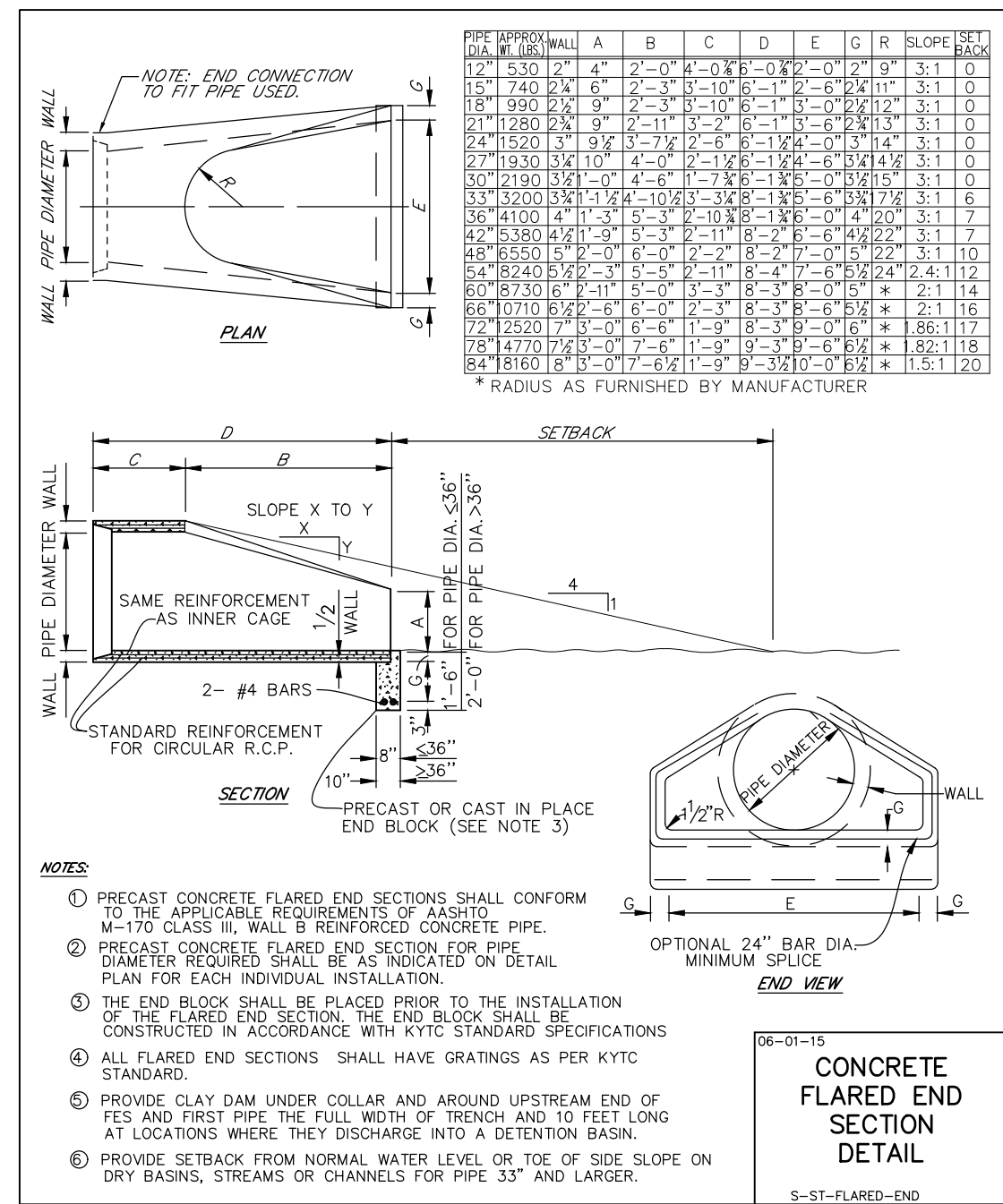
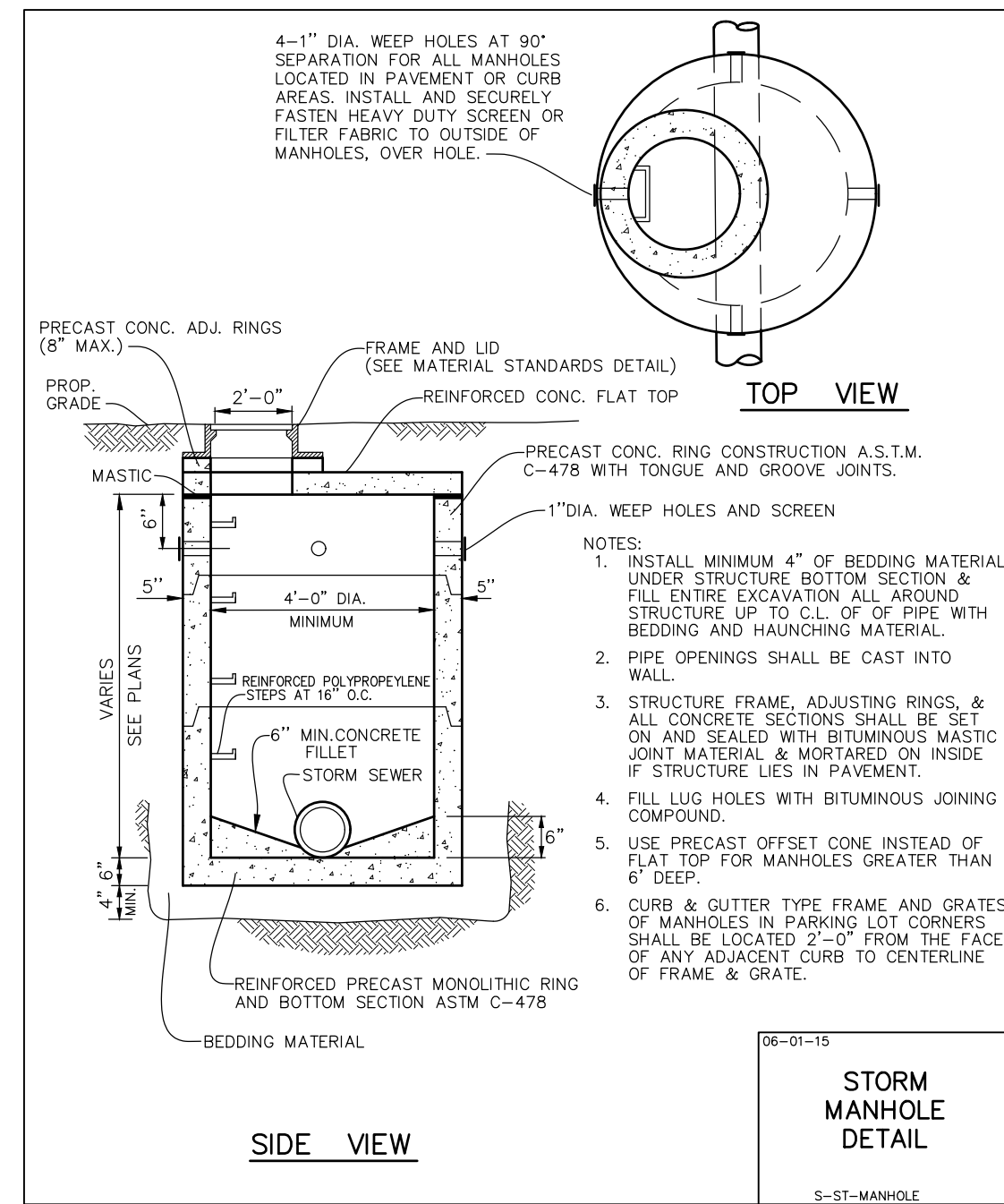
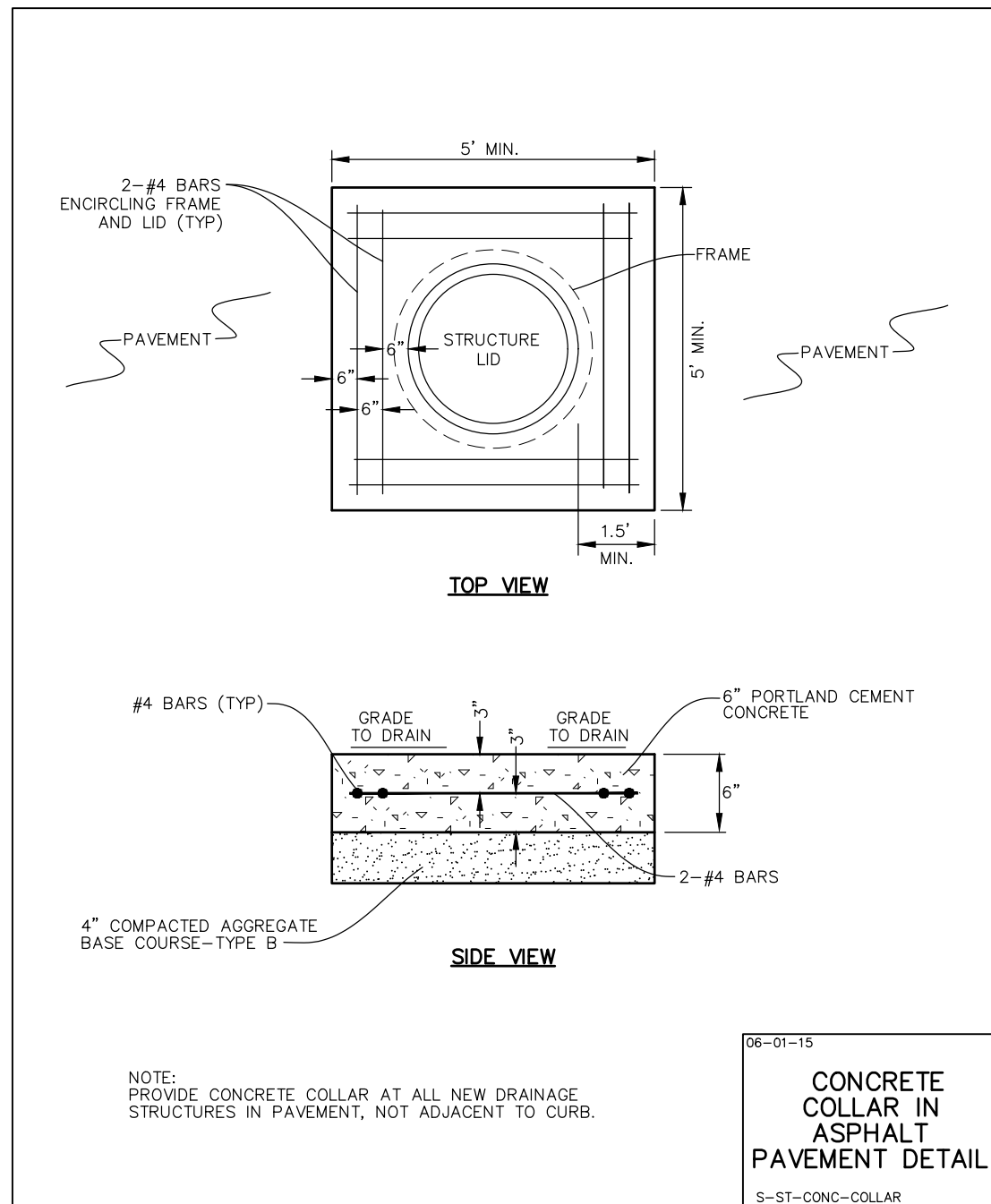
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 CITY OF GEORGETOWN, SCOTT COUNTY, KENTUCKY  
 CONSTRUCTION DETAILS - KENTUCKY DEPT OF HIGHWAYS

PROJ. MGR.: JMI  
 PROJ. ASSOC.: MSP  
 DRAWN BY: JMI  
 DATE: 4/18/2022  
 SCALE: N.T.S.  
 SHEET  
**37** of **42**  
 RLR.GTKY01

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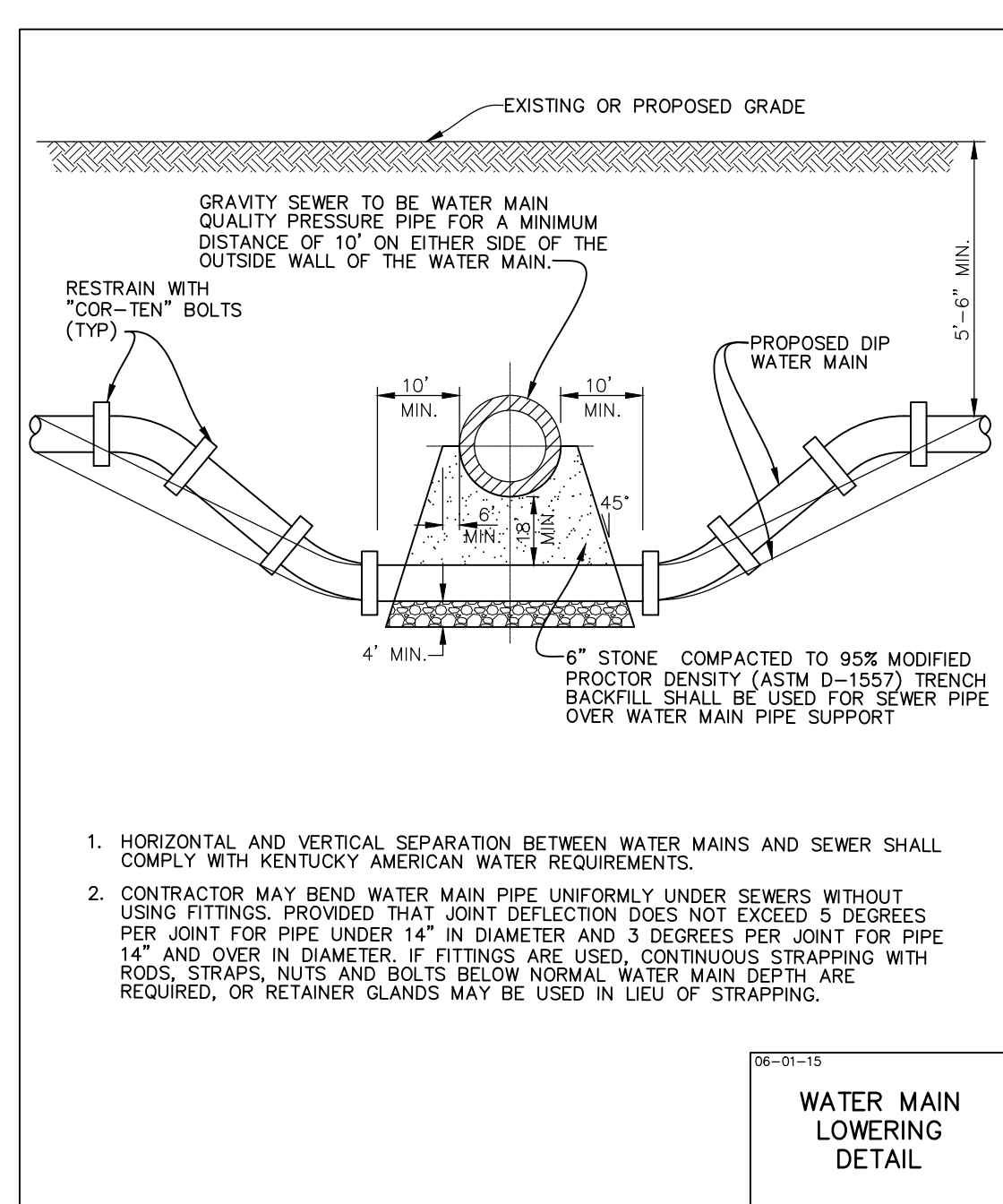
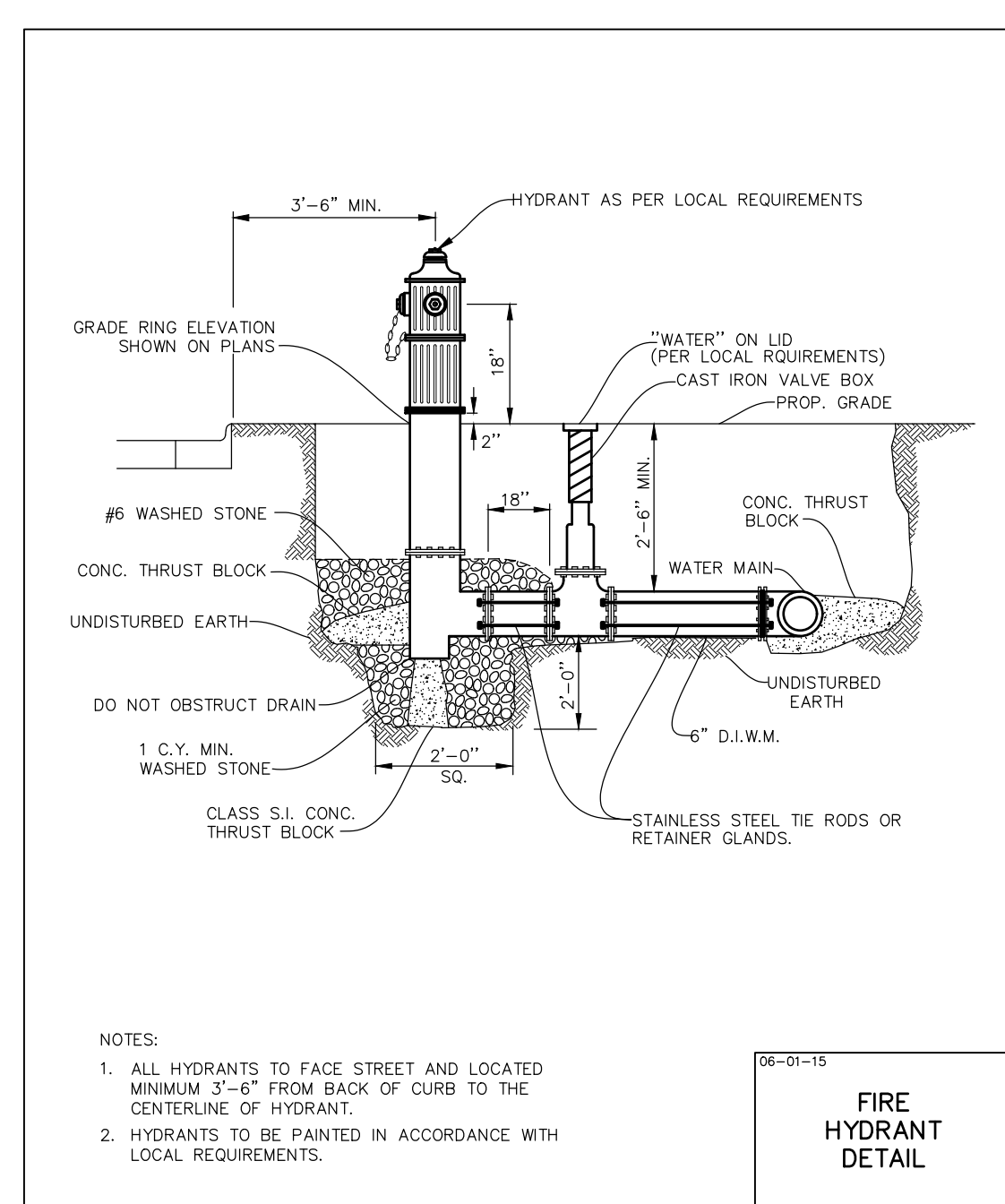
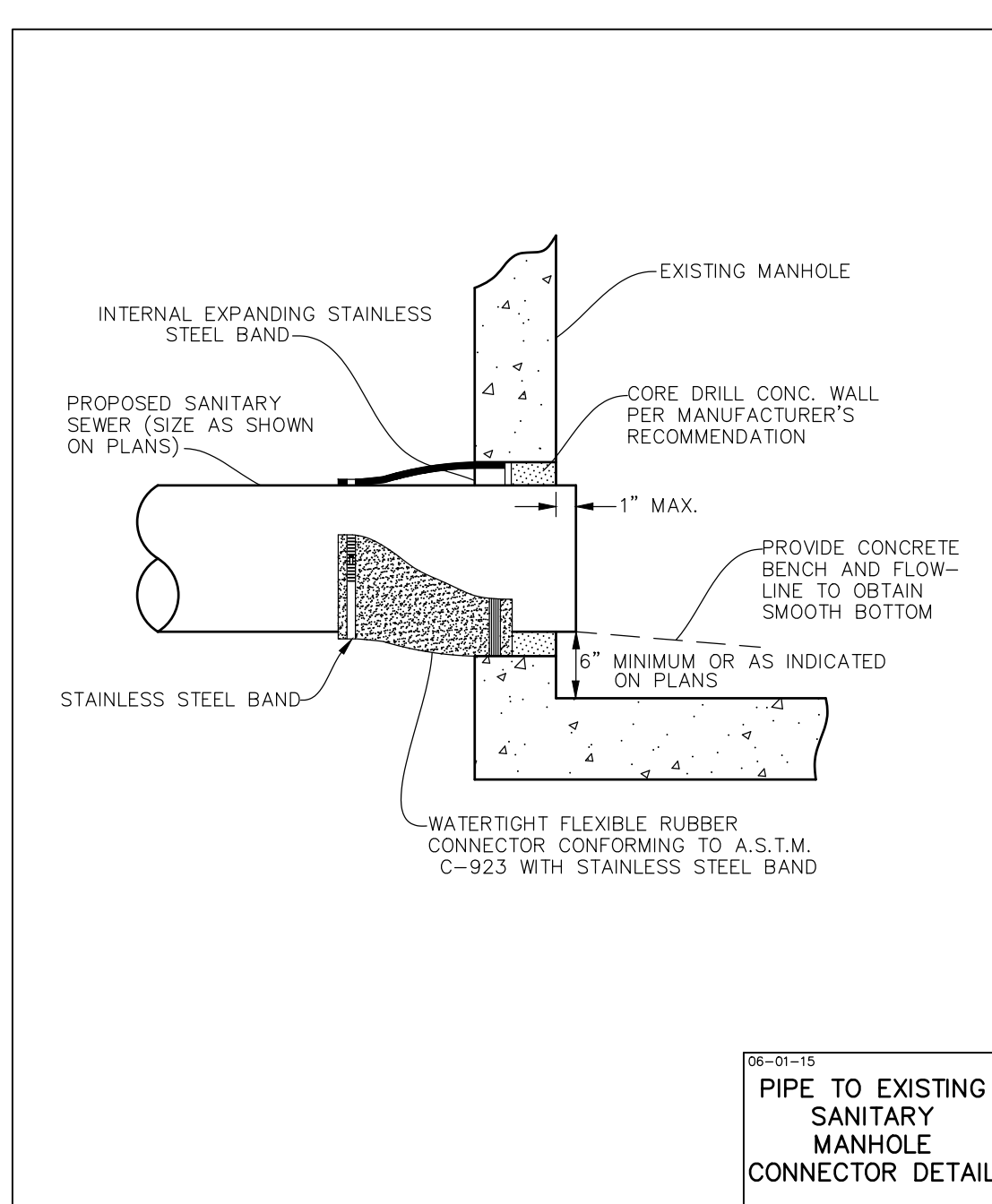
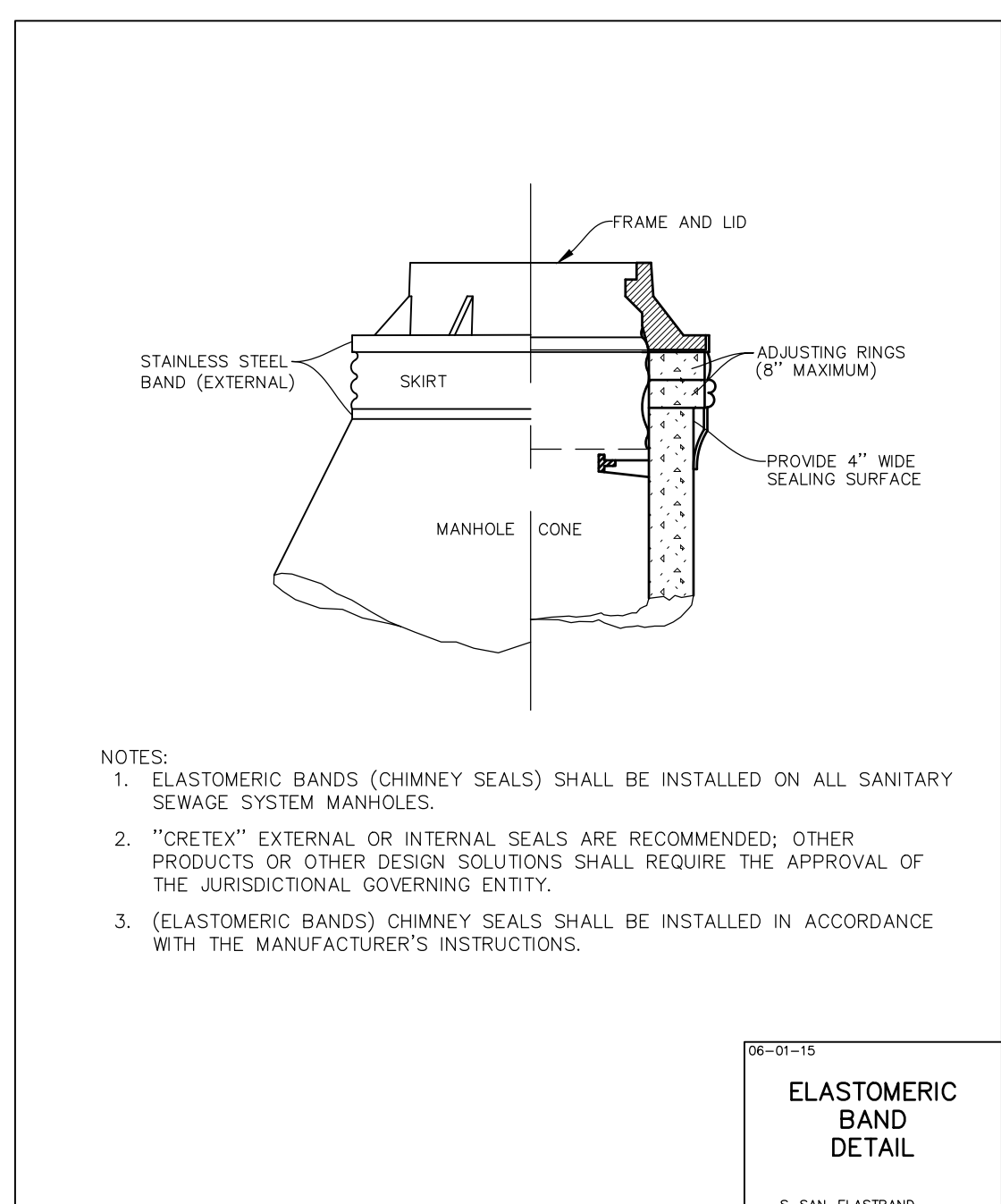
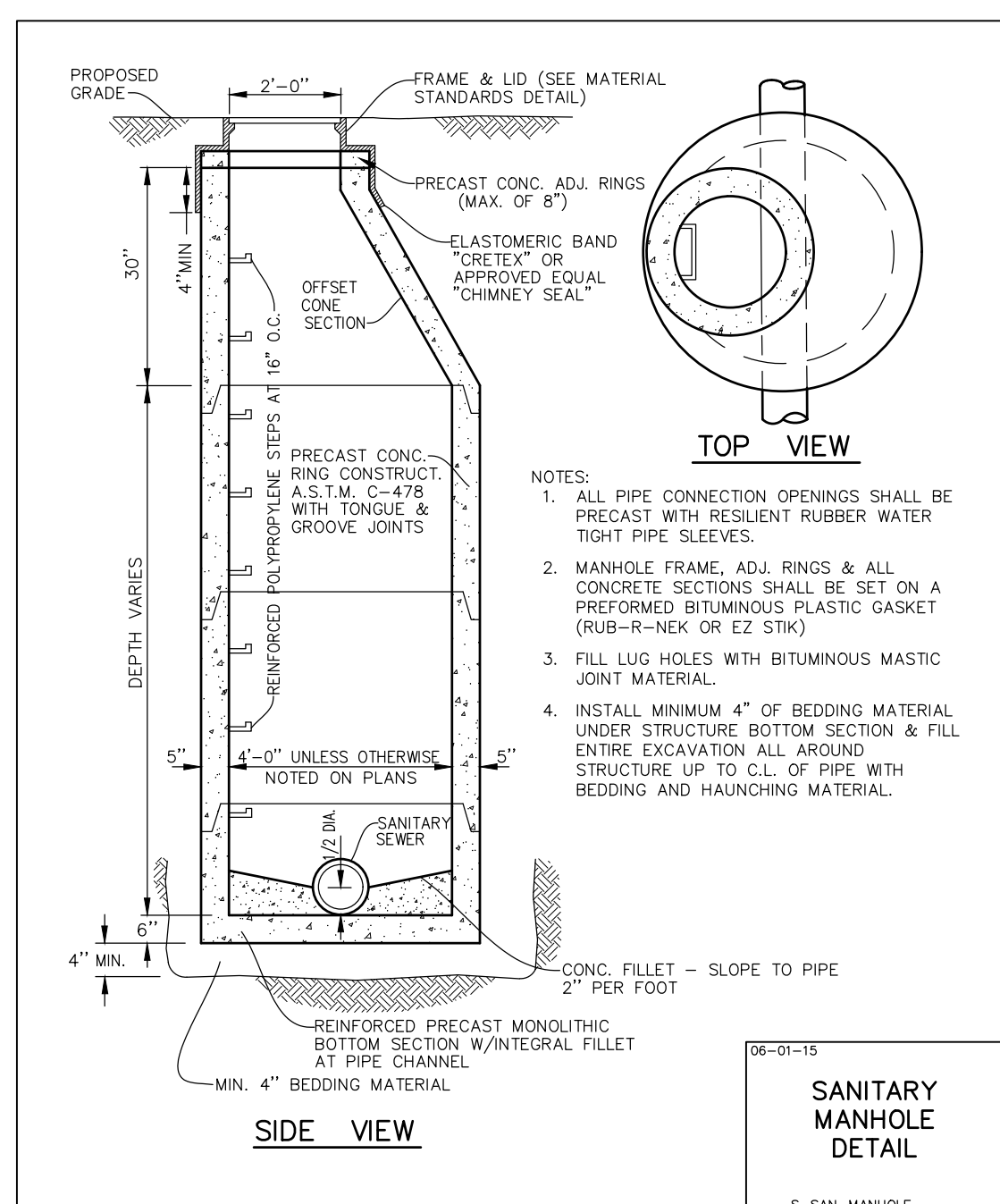
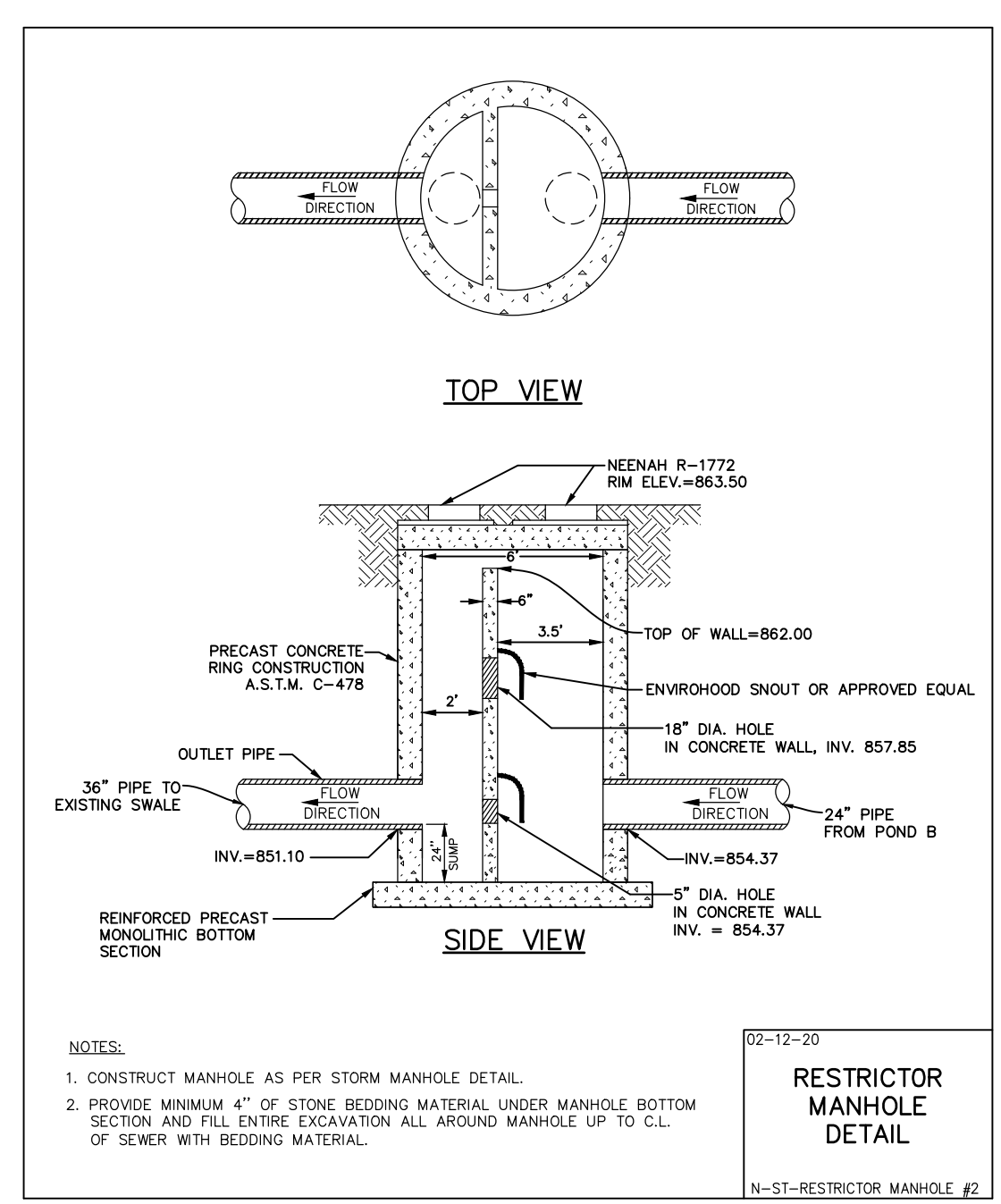
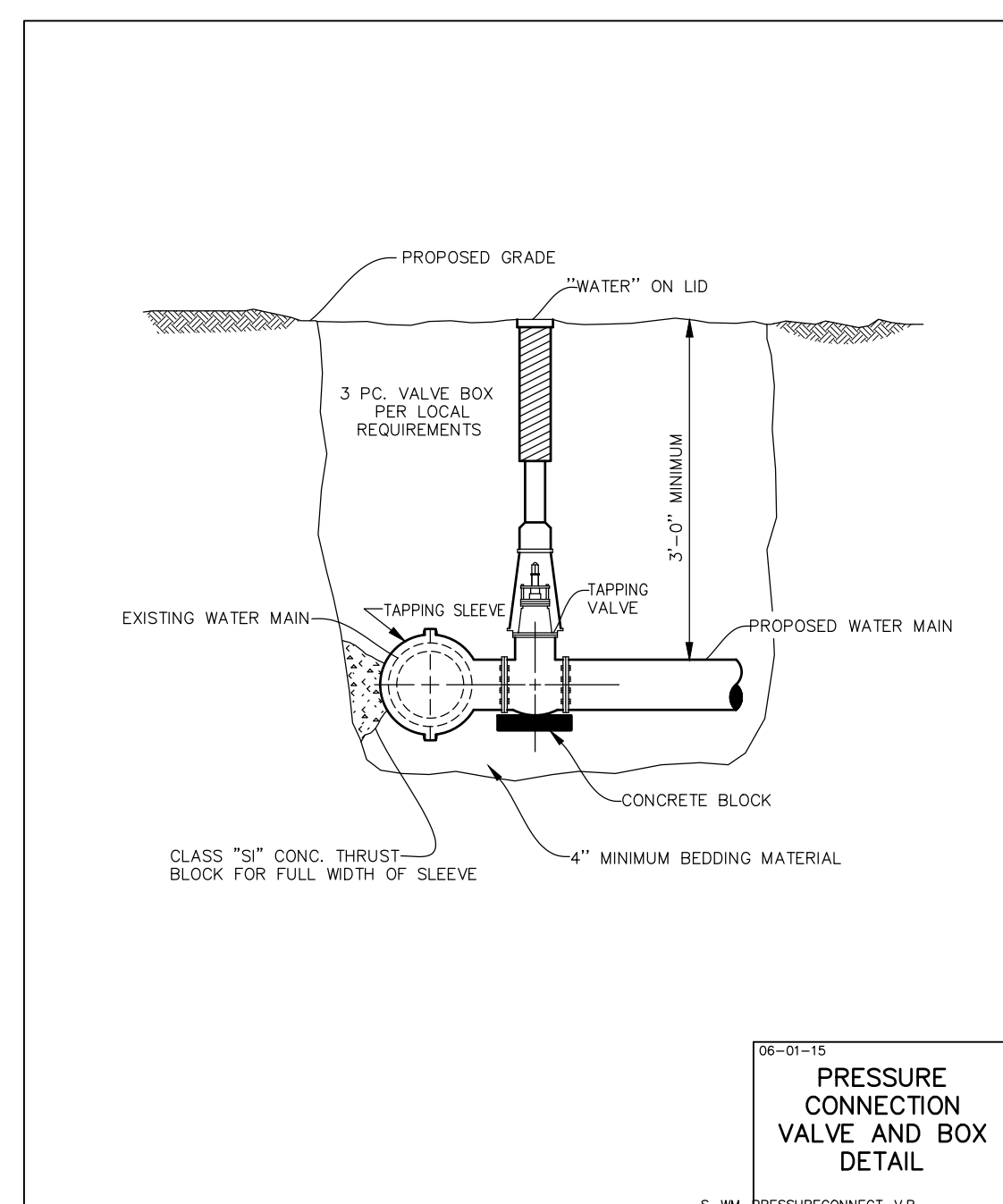
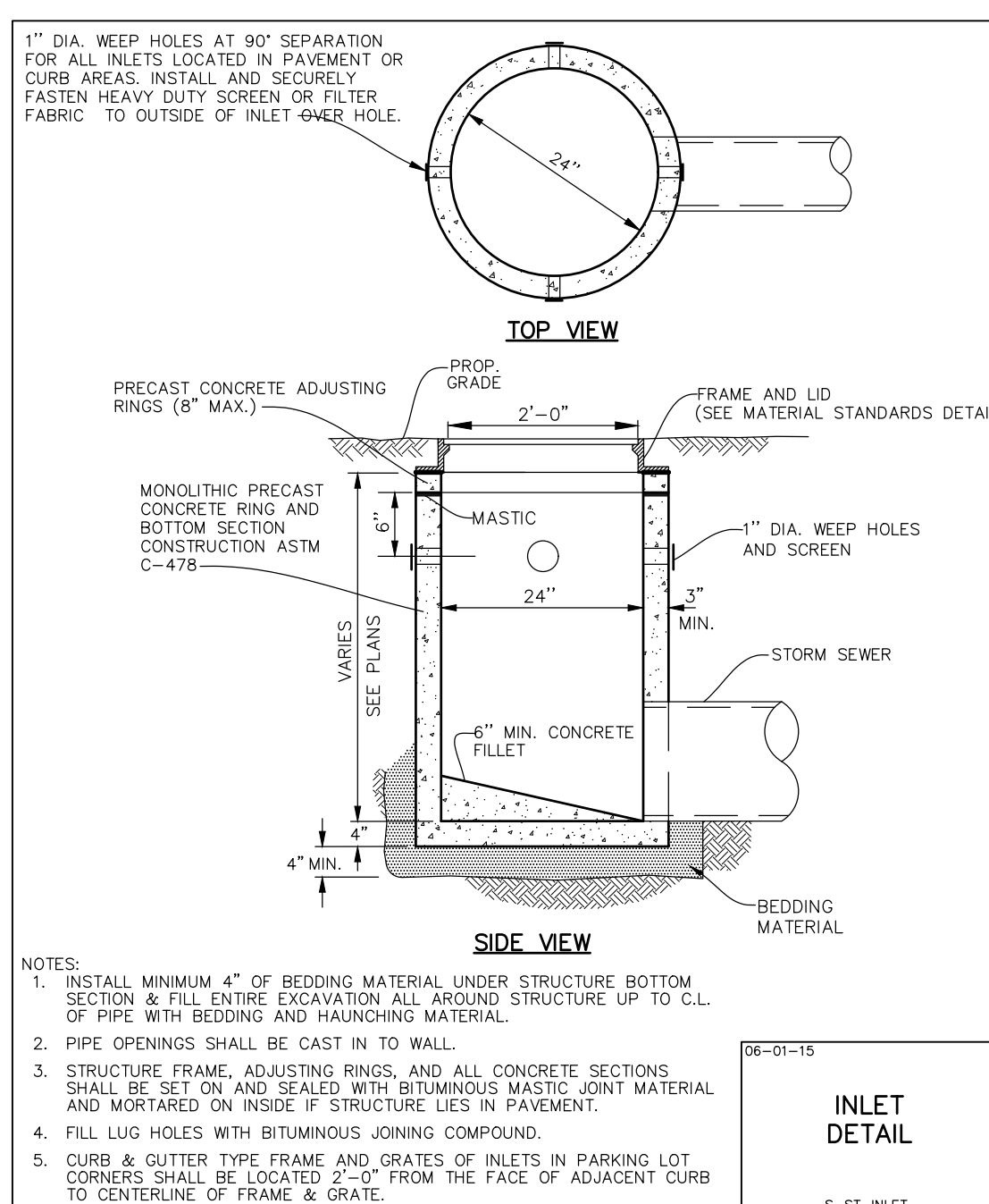




RIP-RAP									
STONE RIP-RAP					BEDDING				
PIPE DIAMETER (IN.)	QUALITY DESIGNATION	GRADATION NUMBER	MINIMUM THICKNESS (IN.)	MINIMUM WEIGHT (#)	MINIMUM LENGTH (FT.)	WEIGHT AVERAGE (#)	SIZE AVERAGE (IN.)	MINIMUM THICKNESS (IN.)	
12"	B	3	8"	4'	1-50	10	4.5"	N/A	
15"	B	3	8"	5'	1-50	10	4.5"	N/A	
18"	B	4	16"	6'	1-150	40	7"	6"	
21"	B	4	16"	7'	1-150	40	7"	6"	
24"	B	4	16"	8'	1-150	40	7"	6"	
27"	B	4	16"	9'	1-150	40	7"	6"	
30"	B	4	16"	10'	1-150	40	7"	6"	
36"	B	5	22"	12'	3-400	90	10"	8"	
42"	B	5	22"	14'	3-400	90	10"	8"	
48"	B	6	26"	16'	6-600	170	12"	10"	
54"	B	6	26"	18'	6-600	170	12"	10"	
60"	B	6	26"	20'	6-600	170	12"	10"	
72"	B	6	26"	24'	6-600	170	12"	10"	

**NOTE:**  
1. FOR PIPE LARGER THAN 72" A SPECIAL DESIGN OF RIP-RAP OR APRON IS REQUIRED.  
2. REFER TO KYTC SPECIFICATIONS AND STANDARDS FOR BEDDING GRADATION.

**STONE RIP RAP DETAIL**  
S-ST-RIPRAP-STONE



**GENERAL SPECIFICATIONS**

NO. REQ'D: (1)  
CAPACITY: 550 GALLONS  
TYPE: HIGH-GUARD, DW TYPE 1 360  
MATERIAL: MILD CARBON STEEL  
FLOW RATE: 50 GPM  
GAUGE: BASED ON 60" MAX. BURIAL  
INNER SHELL: 7 GA. 10 GA.  
OUTER SHELL: 7 GA. 10 GA.  
SURFACE PREP: SSPC: NO. 8 BLAST ALL EXTERIOR SURFACES  
SSPC: NO. 10 BLAST ALL INTERIOR SURFACES  
COATING: MATERIAL THICKNESS  
EXTERIOR: HIGHGUARD (75 MILS)  
INTERIOR: CHEMUR 4200 PW (15 MILS)  
CONSTRUCTION: LAP FIT & WELD ALL EXTERIOR SEAMS  
OPERATING PRESSURE: ATMOSPHERIC

**PROVIDED EQUIPMENT**

- 150# R.F.S.O. FLANGE W/ 2" FNPT FOR VENT
- 4" FNPT FIBRE GUZE WITH PLUG
- VELOCITY HEAD DIFFUSION Baffle
- WEAR PLATE
- SEWAGE CHAMBER
- UNDERFLOW Baffle (REMOVABLE)
- SLUDGE Baffle
- STRIKER PLATES
- PARALLEL CORRUGATED PLATE COALESCER, CORELLA PVC PLATES
- WATER SEPARATOR CHAMBER
- 6" THICK PETROSREEN COALESCER MATERIAL INSTALLED W/ PULL ROD FOR REMOVAL
- 18" MANWAY WITH BOLT-ON EXTENSION SHIPPED LOOSE
- 4" FNPT FOR OIL PUMP-OUT WITH INTERNAL PVC PIPE INSTALLED & RISER PIPE SHIPPED LOOSE
- 2" FNPT FOR LEVEL SENSOR WITH RISER PIPE SHIPPED LOOSE
- LIFTING LUG
- 2" FNPT FOR VENT
- 2" FNPT FOR LEAK SENSOR WITH RISER PIPE SHIPPED LOOSE
- STEEL TRANSFER SPRING
- 7 GA. BULKHEAD
- GLM-30 ROUND GRADE LEVEL MANWAY
- GLM-42 ROUND GRADE LEVEL MANWAY

**ANCILLARY PROVIDED EQUIPMENT**

- (6) 18" FIBREX MANWAY GASKETS
- (6) SETS OF NUTS/BOLTS/WASHERS FOR 18" MANWAY

**NOTES**

- POLYURETHANE HIGHGUARD TANK IS NOT APPROVED FOR THE STORAGE OF HEATED PRODUCTS
- ALL VENT PIPING BY INSTALLER
- 1500 VOLT SPARK TEST PROVIDED AT FACTORY

**Highland Tank**  
U.S. Patent #4,700,000 Canadian Patent # 2,096,263  
550 GALLON OIL WATER SEPARATOR  
HIGH-GUARD, DW TYPE 1 360  
CUSTOMER:  
QUOTE NO.: (DATE BY)  
PROJ. NO.: (DATE BY)  
SHEET NO.: (DATE BY)  
SHEET TOTAL: (DATE BY)  
SHEET NO.: (DATE BY)  
SHEET TOTAL: (DATE BY)

**PLAN**  
R=±878.06  
R=±878.05  
R=±878.09

**ELEVATION**  
INLET INV=873.85  
OUTFLOW INV=873.68

**SHOULD A CONFLICT ARISE BETWEEN MANHARD DETAILS AND THE KENTUCKY TRAFFIC CABINET DETAILS, THE KENTUCKY TRAFFIC CABINET DETAILS SHALL TAKE PRECEDENCE.**

February 2, 2023 - 14:58 Draw Name: P:\Highway\03\Draw\03\Draw\03\131-41\DETAILS.dwg Updated By: mbarber

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DATE: \_\_\_\_\_  
REVISIONS: \_\_\_\_\_

**R + L CARRIERS - GEORGETOWN**  
**CITY OF GEORGETOWN, SCOTT COUNTY, KENTUCKY**  
**CONSTRUCTION DETAILS**

PROJ. NO.: JMI  
PROJ. ASSOC.: MSP  
DRAWN BY: JMI  
DATE: 4/18/2022  
SCALE: N.T.S.  
SHEET  
**38 of 42**  
RLR.GTKY01

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MANHARD CONSULTING, LTD. STANDARD SPECIFICATIONS

GENERAL CONDITIONS

CONTRACTOR acknowledges and agrees that the use and reliance of these Plans and Specifications is sufficient consideration for CONTRACTOR'S covenants stated herein.

DEFINITION OF TERMS

- a. "CLIENT" shall mean R-L Carriers, which is the person or entity with whom Manhard Consulting, Ltd. has contracted with to prepare Civil Engineering PLANS and SPECIFICATIONS.
b. "ENGINEER" shall mean Manhard Consulting, Ltd., a Civil Engineering consultant on the subject project.
c. "PLANS and SPECIFICATIONS" shall mean the Civil Engineering PLANS and SPECIFICATIONS prepared by the ENGINEER, which may be a part of the contract documents for the subject project.
d. "CONTRACTOR" shall mean any person or entity performing any work described in the PLANS and SPECIFICATIONS.
e. "JURISDICTIONAL GOVERNMENTAL ENTITY" shall mean any municipal, county, state or federal unit of government from whom an approval, permit and/or review is required for any aspect of the subject project.

INTENT OF THE PLANS AND SPECIFICATIONS

The intent of the PLANS and SPECIFICATIONS is to set forth certain requirements of performance, type of equipment and structures, and standards of materials and construction. They may also identify labor and materials, equipment and transportation necessary for the proper execution of the work but are not intended to be infinitely determined so as to include minor items obviously required as part of the work. The PLANS and SPECIFICATIONS require new material and equipment unless otherwise indicated, and to require complete performance of the work in spite of omissions of specific references to any minor component part. It is not intended, however, that materials or work not covered by or properly inferred from any heading, branch, class or trade of the SPECIFICATIONS shall be supplied unless expressly so noted. Materials or work described in words, which so applied have a well-known technical or trade meaning, shall be held to refer to such recognized standards.

INTERPRETATION OF PLANS AND SPECIFICATIONS

- a. The CLIENT and/or CONTRACTOR shall promptly report any errors or ambiguities in the PLANS and SPECIFICATIONS to the ENGINEER. Questions as to meaning of PLANS and SPECIFICATIONS shall be interpreted by the ENGINEER, whose decision shall be final and binding on all parties.
b. The ENGINEER will provide the CLIENT with such information as may be required to show revised or additional details of construction.
c. Should any discrepancies or conflicts on the PLANS or SPECIFICATIONS be discovered either prior to or after award of the contract, the ENGINEER'S attention shall be called to the same before the work is begun thereon and the proper corrections made. Neither the CLIENT nor the CONTRACTOR may take advantage of any errors or omissions in the PLANS and SPECIFICATIONS. The ENGINEER will provide information when errors or omissions are discovered.

GOVERNING BODIES

All works herein proposed shall be completed in accordance with all requirements of any JURISDICTIONAL GOVERNMENTAL ENTITY, and all such pertinent laws, directives, ordinances and the like shall be considered to be a part of these SPECIFICATIONS. If a discrepancy is noted between the PLANS and SPECIFICATIONS and requirements of any JURISDICTIONAL GOVERNMENTAL ENTITY, the CLIENT and/or the CONTRACTOR shall immediately notify the ENGINEER in writing.

LOCATION OF UNDERGROUND FACILITIES AND UTILITIES

When the PLANS and SPECIFICATIONS include information pertaining to the location of existing underground facilities and utilities (including but not limited to water mains, sanitary sewers, storm sewers, electric, telephone, gas and cable TV lines), such information represents only the opinion of the ENGINEER as to the approximate location and elevation of these facilities and utilities. The CONTRACTOR shall verify or definitely establish the horizontal location, elevation, size and material (if appropriate) of the facilities and utilities. The CONTRACTOR shall notify the ENGINEER at least 48 hours prior to construction if any discrepancies in existing utility information or conflicts with existing utilities exist. The ENGINEER assumes no responsibility whatever with respect to the sufficiency or accuracy of the information shown on the PLANS and SPECIFICATIONS relative to the location of underground facilities and utilities, nor the manner in which they are removed or adjusted.

It shall be the CONTRACTOR'S responsibility prior to construction, to notify all Utility Companies of the intent to begin construction and to verify the actual location of all such facilities and utilities. The CONTRACTOR shall also obtain from the respective Utility Companies the working schedules for removing or adjusting these facilities.

UNSATURATED SOILS

The PLANS have been prepared by the ENGINEER based on the assumption that all soils on the project are suitable to support the proposed improvements shown. The CLIENT or CONTRACTOR shall immediately notify the ENGINEER if he discovers or encounters an obstruction that prevents the installation of the improvement according to the line and grades shown on the PLANS.

PROTECTION OF TREES

All trees that are not to be removed shall be protected from damage. Trees shall not be removed unless requested to do so in writing by the CLIENT.

NOTIFICATION OF OWNERS OF FACILITIES AND UTILITIES

The CONTRACTOR shall notify all applicable Jurisdictional Governmental Entities or utility companies, i.e., water, sewer, electric, telephone, gas and cable TV prior to beginning any construction so that said entity or company can establish the location and elevation of underground pipes, conduits or cables adjoining or crossing proposed construction.

TRAFFIC CONTROL

The CONTRACTOR shall provide when required by any JURISDICTIONAL GOVERNMENTAL ENTITY, all signs, equipment, and personnel necessary to provide for safe and efficient traffic flow in all areas where work will interrupt, interfere or cause a change in any form, the conditions of traffic flow that existed prior to the commencement of any portions of the work. The CLIENT may, at his discretion, require the CONTRACTOR to furnish traffic control under these or other circumstances where in his opinion it is necessary for the protection of life and property. Emergency vehicle access shall be maintained at all times. Unless authorized by the CLIENT or CLIENT'S construction representative, all existing access points shall be maintained at all times by the CONTRACTOR. The need for traffic control shall be anticipated by the CLIENT.

WORK AREA

The CONTRACTOR, his agents and employees and their employees and all equipment, machinery and vehicles shall confine their work within the boundaries of the project or work area specified by the CLIENT. The CONTRACTOR shall be solely liable for damage caused by him or his agents and employees and their equipment, machinery and vehicles on adjacent property or areas outside designated work areas.

UTILITY POLES

It shall be the responsibility of the CONTRACTOR to arrange for the relocation or bracing of existing utility poles that may be within the working limits of this contract. It is expressly understood that all work and costs connected with the maintenance of these utility poles, their temporary relocations, etc., shall be the responsibility of the CLIENT or the CONTRACTOR.

RESTORATION

It is the intent of these SPECIFICATIONS that clean-up and final restoration shall be performed immediately upon completion of each phase of the work, both inside and outside the Project, or when so directed by the CLIENT so that these areas will be restored as nearly as possible to their original condition or better, and shall include but not be limited to, restoration of maintained lawns and rights-of-way, roadways, driveways, sidewalks, ditches, bushes, hedges, trees, shrubs, fences, mailboxes, sewers, drain tiles, water mains, etc.

CLEANING UP

The CONTRACTOR shall at all times keep the premises free from accumulations of waste material or rubbish caused by his employees or work, and at the completion of the work shall remove all his rubbish, tools, scaffolding and surplus materials and shall leave his work "boom clean" or its equivalent, unless more exactly specified.

ROAD CLEANING

The CONTRACTOR shall maintain roadways adjoining the project site free from mud and debris at all times. If mud and/or debris is carried on the roadways from vehicles entering onto the highway from either the CONTRACTOR'S trucks, his employees' vehicles, or his material suppliers, the CONTRACTOR shall immediately remove said mud and/or debris.

SAFETY AND PROTECTION

The CONTRACTOR shall be solely and completely responsible for the conditions of the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours. The CONTRACTOR shall comply with all applicable laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR'S duties and responsibilities for safety and for protection of the work shall continue until such time as all work is completed and the CLIENT has notified CONTRACTOR that the work is acceptable. The duties of the ENGINEER do not include review of the adequacy of either the CONTRACTOR'S or the general public's safety in, on, or near the construction site.

HOLD HARMLESS

To the fullest extent permitted by law, any CONTRACTOR, material supplier or other entity by use of these plans and specifications hereby waives any right of contribution and agrees to indemnify, defend, save and hold harmless the CLIENT and ENGINEER and its agents, employees and consultants from and against all manner of claims, causes, causes of action, damages, losses and expenses, including but not limited to, attorneys' fees arising out of, resulting from or in connection with or arising out of any work, pursuant to or with respect to these plans and specifications. However, this indemnity shall not be construed to indemnify ENGINEER, its consultants, agents or employees against its own negligence.

Claims, damages, losses and expenses as these words are used in the Agreement shall mean and include, but not be limited to (1) injury or damage occurring by reason of the failure of or use of misuse of any hoist, rigging, blocking, scaffolding or any and all other kinds of items of equipment, whether or not the same be owned, furnished, furnished or loaded by any part or entity, including any contractor; (2) all attorneys' fees and costs incurred in bringing an action to enforce the provisions of this indemnity; (3) costs for time expended by the indemnified party and its employees, at its usual rates plus costs of travel, long distance telephone and reproduction of documents and (4) consequential damages.

In any and all claims against the CLIENT or ENGINEER or any of their agents or employees and consultants by any party, including any employee of the CONTRACTOR or any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification shall be in accordance with all applicable laws and regulations. The CONTRACTOR shall be responsible for the indemnification of or for the CONTRACTOR or any Subcontractor under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts or any insurance maintained by CONTRACTOR or any Subcontractor or any other party.

INSURANCE

Any party using or relying on or through any contractor, material supplier, or other entity shall obtain, (prior to commencing any work) general public liability insurance insuring against all damages and claims for any bodily injuries, death or property damage arising out of any work, including the construction work provided for in these plans, and shall name the CLIENT and ENGINEER and its consultants, agents and representatives as additional insureds under such insurance policy, provided that any party using or relying on these plans having obligations to maintain specific insurance by reason of any agreement with CLIENT or any CONTRACTOR or ENGINEER shall provide evidence and certificates of insurance as required by such contract or agreement. Such insurance must contain a clause stating that the insurance is primary coverage for ENGINEER and ENGINEER'S other applicable coverage is considered secondary. Such insurance shall not limit any liability of any party providing work or services or providing materials.

THIRD PARTY BENEFICIARY

Manhard Consulting, Ltd., the ENGINEER, is intended to be a third party beneficiary of this writing agreement and requirement.

DETAILED SPECIFICATIONS

I. DEMOLITION

The CONTRACTOR shall coordinate with respective utility companies prior to the removal and/or relocation of utilities. The CONTRACTOR shall coordinate with the utility company concerning portions of work which may be performed by the Utility Company's forces and any fees which are to be paid to the utility company for their services. The CONTRACTOR shall be responsible for paying for all existing charges. Should removal and/or relocation activities damage features indicated to remain, the CONTRACTOR shall provide new materials/structures in accordance with the contract documents. Except for materials designed to be relocated on this plan, all other construction materials shall be new. Prior to demolition occurring, all erosion control devices are to be installed.

All existing utility lines and conduits located under proposed buildings shall be removed and properly backfilled. All utility lines and conduits located under, on-site roads, parking lots or sidewalks shall be filled with a flowable backfill and end plugged. All existing structures shall be removed. All existing utility lines located under landscape areas shall be left in place and plugged at all structures.

The CONTRACTOR is responsible for demolition, removal and disposal (in a location approved by any JURISDICTIONAL GOVERNMENTAL ENTITY) of all structures, pads, walls, furnaces, foundations, rock, parking lots, drives, drainage structures, utilities, etc., such that the IMPROVEMENTS shown on these plans can be constructed. All demolition work shall be in accordance with all applicable laws and regulations. All facilities to be removed shall be undercut to suitable material and brought to grade with suitable compacted fill material per the specifications. The CONTRACTOR is responsible for obtaining all permits required for demolition and disposal.

Electrical, telephone, cable, water, fiber optic cable and/or gas lines needing to be removed shall be coordinated by the CONTRACTOR with the affected utility company. CONTRACTOR must protect the public at all times with fencing, barriers, enclosures, and other appropriate best management practices. Continuous access shall be maintained for surrounding properties at all times during demolition.

All fire access lanes within the project area shall remain in service, clean of debris, and accessible for use by emergency vehicles. The CONTRACTOR shall coordinate water main work with the Fire Department and the JURISDICTIONAL GOVERNING ENTITY to plan the proposed improvements and to ensure adequate fire protection is available to the facility and site throughout this specific work and through all phases of construction. CONTRACTOR shall be responsible for any required water main shut offs with the JURISDICTIONAL GOVERNING ENTITY during construction. Any costs associated with water main shut offs will be the responsibility of the CONTRACTOR and no extra compensation will be provided.

CONTRACTOR shall maintain all existing parking areas, sidewalks, drives, etc. clear and free from any construction activity and/or material to ensure easy and safe pedestrian and vehicular traffic to and from the site. CONTRACTOR shall coordinate peak all construction activity within proximity of the building and utility interruptions with the facility manager to minimize disturbance and inconvenience to facility operations. CONTRACTOR may limit saw-cut and pavement removal to only those areas where it is required as shown on these construction plans, however if any damage is incurred on any of the surrounding pavement, etc. the CONTRACTOR shall be responsible for ITS removal and repair.

Any existing wells encountered shall be exposed and sealed 3' below proposed finish grade by the CONTRACTOR in accordance with Section 920.120 (latest edition) of the Kentucky Department of Public Health, and all applicable local rules and regulations. CONTRACTOR is responsible for obtaining all permits required by JURISDICTIONAL GOVERNMENTAL ENTITIES for abandoning existing wells.

Any existing septic tanks and grease traps encountered shall have all liquids and solids removed and disposed of by a licensed commercial hauler in accordance with JURISDICTIONAL GOVERNING ENTITY regulations, and the tank and grease traps shall then be filled with suitable materials or removed from the site and disposed of by the CONTRACTOR. Voids left by any item removed under any proposed building, pavement, walk, etc. or within 24" thereof shall be filled and compacted with suitable materials by the CONTRACTOR.

The CONTRACTOR shall be responsible for the disconnection of utility services to the existing buildings prior to demolition of the buildings. Any material containing asbestos found within existing structures shall be removed from the site and disposed of off-site by the CONTRACTOR in accordance with applicable laws and regulations.

CONTRACTOR shall develop and implement a daily program of dust control and shall submit and obtain JURISDICTIONAL GOVERNING ENTITY approval of dust control procedures prior to demolition of any structures. Modification of dust control procedures shall be performed by the CONTRACTOR to the satisfaction of the JURISDICTIONAL GOVERNING ENTITY as requested.

The CONTRACTOR shall coordinate all demolition with the JURISDICTIONAL GOVERNING ENTITY and CLIENT to ensure protection and maintenance of sanitary sewer and water utilities as necessary and to provide stormwater conveyance until new facilities are constructed, tested and placed into operation.

The locations of all existing utilities shown on this plan have been determined from the best information available and are given for the convenience of the CONTRACTOR and are not to be interpreted as the exact location, or as the only obstacles that may occur on the site. The ENGINEER assumes no responsibility for their accuracy. Prior to start of any demolition activity, the CONTRACTOR shall notify the utility companies for location of existing utilities and shall verify existing conditions and proceed with caution around any anticipated features.

The CONTRACTOR is responsible for removing the existing irrigation system in the areas of proposed improvements. The contractor shall cap the existing irrigation system to remain such that the remaining system shall continue to function properly.

The parking lot shall be completed in sections such that it does not interrupt the facility operations. The CONTRACTOR shall coordinate with the construction manager for work to be performed.

II. EARTHWORK

STANDARDS

This work shall be completed in conformance with the applicable sections of the Standard Specifications for Road and Bridge Construction, Department of Transportation, State of Kentucky, latest edition except as modified below.

SOIL BORING DATA

Copies of results of soil boring and reports, if such borings were taken by the CLIENT in the vicinity of the proposed construction site, should be made available by the CLIENT to the CONTRACTOR. These borings are presented for whatever purpose the CONTRACTOR chooses to make of them. The ENGINEER makes no representation or warranty regarding the number, location, spacing or depth of borings taken, nor of the accuracy or reliability of the information given in the results thereof.

Further, the ENGINEER does not assume responsibility for the possibility that during construction, the soil and groundwater condition may be different than indicated. Neither does the ENGINEER assume responsibility for variations of soil and groundwater at location between borings. The CONTRACTOR is required to make its own borings, explorations and observations to determine soil and groundwater conditions.

EARTHWORK CALCULATIONS AND CROSS SECTIONS

The CONTRACTOR understands that any earthwork calculations, quantities or cross sections that have been furnished by the ENGINEER are for information only and are provided without any guarantee by the CLIENT or ENGINEER whatsoever as to their sufficiency or accuracy. CONTRACTOR warrants that he has performed his own subsurface investigations as necessary and his own calculations and cross sections to determine site soil conditions and earthwork volumes. The ENGINEER makes no representation or guarantee regarding earthwork quantities or that the earthwork for this project will balance due to the varying field conditions, changing soil types, allowable construction tolerances and construction methods that are beyond the control of the ENGINEER.

CLEARING, GRUBBING AND TREE REMOVAL

The site shall be cleared, grubbed, and trees and stumps removed where designated on the PLANS. Trees designated to remain shall be protected from damage.

TOPSOIL STRIPPING

Upon completion of demolition, clearing, grubbing and tree removal, all topsoil shall be stripped from under all buildings and pavements areas, and other areas necessary to complete the work. Topsoil stripped shall be placed in stockpiles in locations as designated by the CLIENT.

TOPSOIL RESPREAD

Upon completion of roadway and/or parking lot improvements and installation of underground utilities a minimum of six inches (6") of topsoil shall be respread over all unpaved areas which have been disturbed by earthwork construction, except building pads and other designated areas, which shall be kept free from topsoil.

SEEDING

Upon completion of topsoil respread, the CONTRACTOR shall apply seed and fertilizer to all respread areas in accordance with KYTC standards or as designated on landscape drawings and specifications provided by the CLIENT.

SODDING

Upon completion of topsoil respread, the CONTRACTOR shall install sod to all areas designated on the plans or as designated on the landscape drawings and specifications provided by the CLIENT.

EXCAVATION AND EMBANKMENT

Upon completion of topsoil stripping, all excavation and embankments shall be completed as shown on the PLANS. All suitable excavated materials shall be hauled, placed (moisture conditioned if necessary) and compacted in the embankment areas. The CONTRACTOR shall install all dewatering, temporary ditching and culverts necessary to complete the excavation and embankment.

Specifically included in the scope of Excavation and Embankment is grading and shaping of all cut or fill areas including swales and ditches; handling of sewer spoil, etc., and all work required to provide positive drainage at the end of each working day and upon completion of a section.

The CONTRACTOR shall be responsible for the excavation of all swales and ditches and for the excavation or filling of the roads, building pads and parking lots within the work limits to lines & grades shown on the plans. He shall be responsible for obtaining compaction in accordance with the minimum values listed in the table below for all embankments unless more stringent values are listed in the soils report or are approved by the CLIENT, and to use any method approved by the CLIENT necessary to obtain this compaction (i.e., soil fabric or any underlayment that may be required).

Table with 5 columns: Type/Material, Percent Compaction, Pavement & Floor Slabs, Grass Areas. Rows include Sandy Soils, Clay Soils, Silty Soils, and Organic Soils.

The CONTRACTOR shall notify the CLIENT if proper compaction cannot be obtained so that the CLIENT may determine what remedial measures may be needed.

A soils testing firm employed by the CLIENT shall determine which soils are unsuitable. Materials in their natural state being defined as unsuitable that would be suitable material if moisture conditioned, shall be conditioned by the CONTRACTOR and used as suitable embankment material or hauled from the site.

For purposes of definition, unsuitable material shall be as follows unless determined otherwise by the Soils Engineer: 1. Any soil whose optimum moisture content exceeds 25%. 2. Any cohesive soil with an unconfined compressive strength of 1.5 tons per square foot or less. 3. Any soil whose silt content exceeds 60% by weight. 4. Any soil whose maximum density is less than 100 pounds per cubic foot. 5. Any soil containing organic, deleterious, or hazardous material.

Upon completion of excavation and shaping of the water retention areas intended to maintain a permanent pool of water, all silt seams and granular or sandy soils shall be removed to a minimum depth of three feet below the subgrade and replaced with an impermeable clay liner, including adjacent to and under the water retention areas. The CONTRACTOR shall prepare the lake bottoms, side slopes, and compaction thereof such that the lakes will maintain the proposed normal water level and that leakage does not exceed 1/2 inch per week.

Ditches and swales are to be excavated to the lines and grades indicated on the PLANS. All suitable materials excavated from the ditches shall be used in construction of the embankments.

The CONTRACTOR shall notify the CLIENT immediately upon encountering groundwater during excavation. If in the opinion of the CLIENT or the JURISDICTIONAL GOVERNING ENTITY this condition necessitates the installation of perforated drain tile bedded in washed gravel or open storm sewer joints with a filter fabric, the CONTRACTOR shall install the same.

During excavation and embankment, grades may be adjusted to achieve an overall site earthwork balance. The CONTRACTOR shall cooperate fully with the CLIENT in adjustment of grades, construction methods and placement of material to meet the above goals and shall immediately advise CLIENT if he believes that the earthwork will not balance.

It is the intent of these PLANS that storm waters falling on the site be diverted into sedimentation / lake / detention basins during construction. The CONTRACTOR shall construct and maintain any temporary ditches or swales that are necessary to accomplish this prior to beginning mass excavation.

EROSION CONTROL

Suitable erosion control practices shall be maintained by the CONTRACTOR in accordance with Kentucky Urban Manual and all applicable Soil Erosion and Sedimentation Control ordinances and the PLANS.

UNDERCUTTING DURING EARTHWORK

If the subgrade cannot be dried adequately by dicing as outlined above for placement of material to planned grades and if the CLIENT determines that the subgrade does not meet the standards set forth above, the CLIENT may require undercutting.

MISCELLANEOUS CONTRACT ITEMS

The following items may be required at the CLIENT'S option, as indicated on the PLANS or as required by the JURISDICTIONAL GOVERNING ENTITY:

- (1) GEOTEKSTILE FABRIC: Geotextile fabric or approved equal shall be provided in areas as designated by the CLIENT, as indicated on the PLANS or as required by the JURISDICTIONAL GOVERNING ENTITY where proper compaction of embankments over existing soft soils is not possible. Geotextile fabric shall meet the material specifications of and shall be installed in accordance with the above standards.
(2) EROSION CONTROL BLANKET: Erosion control blanket or approved equal shall be provided in areas as designated by the CLIENT, as indicated on the PLANS or as required by the JURISDICTIONAL GOVERNING ENTITY for the stabilization of disturbed areas. Erosion control blanket shall meet the material specifications of and shall be installed in accordance with the above standards, the Kentucky Urban Manual and/or the details shown on the PLANS.

III. UNDERGROUND IMPROVEMENTS

A. GENERAL STANDARDS

All underground improvements shall be constructed and tested in accordance with the Standard Specifications for Water and Sewer Construction in Kentucky and Standard Specifications for Road and Bridge Construction, Department of Transportation, State of Kentucky, latest edition. In the event of conflicting guidelines, the more restrictive shall govern.

SELECTED GRANULAR BACKFILL

Selected Granular Backfill shall be required for all sewer and water main trenches lying under existing or proposed streets, driveways, parking lots and within 24" thereof, and where noted on PLANS. All material placed in such trenches shall be in accordance with the above standards.

MANHOLES, CATCH BASIN, INLETS & VALVE VAULTS

All Manholes, Catch Basins, Inlets, and Valve Vaults shall be constructed of reinforced precast concrete ring construction with tongue and groove joints in place. For open cut construction, approved equal of ASTM designation C-478. All joints between sections and frames (except sanitary manholes, see Section IIB Manholes, below) shall be sealed with mastic type bituminous joint compound. CONTRACTOR shall remove all excess mastic on inside of structure and buffer joints with mortar. Manholes are to have offset cones except that no cone shall be used on storm removals 6'-0" deep or less in which case a reinforced concrete flat top section shall be used. Any Valve Vaults shall have conical cones. Only concrete adjustment rings will be permitted where necessary and shall be limited to two adjustment rings totaling not more than 6" in height. All manholes and catch basin steps shall be copolymer polypropylene with continuous 5/8" steel reinforcement as manufactured by MA Industries, or approved equal.

AUGER/BORING AND CASING

Casing pipe shall be welded steel pipe, installed where shown on the PLANS. The carrier pipe shall be securely blocked and banded and sanitary and storm sewers shall maintain the specified gradient. Upon installing the carrier pipe the ends shall be sealed with hydraulic cement.

AUGER (OPEN BORE)

The CONTRACTOR shall auger (open bore) where noted on PLANS.

HORIZONTAL AND VERTICAL SEPARATION OF WATER AND SEWER MAINS

Horizontal and vertical separation of water and sewer mains shall be in accordance with Standard Specifications for Water and Sewer Construction in Kentucky Section 41-2.01A and 41-2.01B and Standard Drawing 18, 19, 20, 21, 22 and 24.

STRUCTURE ADJUSTMENTS

Structures shall be adjusted to the finished grade as shown on PLANS.

B. SANITARY SEWERS AND APPURTENANCES

SANITARY SEWER PIPE

Sanitary sewer pipe including building services, shall conform to the following:

- (1) Polyvinyl Chloride (PVC) Sewer Pipe shall conform to ASTM D3034 (4-inch thru 15-inch) or ASTM F679 (18-inch thru 48-inch) minimum SDR 26 with flexible elastomeric seal gasket gasketed joints conforming to ASTM D3212 and F477.
(2) Ductile Iron Sewer Pipe shall conform with ANSI/AWWA C151/A21.51 Class 50, cement lined with push on type joints conforming to ANSI/AWWA C11/A21.11.
(3) Extra Strength Clay Sewer Pipe shall conform with ASTM Specification C700 (glazed) with ASTM D1784 type joints conforming to Clow NO-BEL (EVS/CP), with flexible gasket meeting ASTM C425 (MWRD only).

Sanitary sewers shall include bedding and backfilling.

MANHOLES

Manholes shall be constructed in conformance with Section IIA Manholes, etc. above. The concrete base and bottom section shall be constructed of precast reinforced concrete monolithically cast sections including benches, pipe connection and inlet flow lines. Manhole frame and lids shall be Neenah R-1772 or approved equal with lids imprinted "SANITARY", with recessed pick holes. Manhole joints between adjustment rings and frames and between manhole sections shall be set on preformed plastic gasket consisting of a homogeneous blend of refined hydrocarbon resins and plasticizing compounds reinforced with inert mineral filler to provide a water tight seal. All pipe connection openings shall be precast with resilient rubber watertight pipe sleeves. A 10" elastomeric band (chimey seal) shall be installed extending from the manhole top to the manhole frame as shown on detail. Manholes shall include steps, frame & grate, bedding, and trench backfill.

FOUNDATION, BEDDING AND HAUNCHING

Foundation, Bedding and Haunching shall be wet coarse aggregate or moist fine aggregate in accordance with the above standards and placed as shown on the detail.

TESTING

Sanitary sewers shall be air tested and tested for deflection in accordance with the requirements of Section 31-1.12 TESTING AND INSPECTION FOR ACCEPTANCE OF SANITARY SEWERS" of the Standard Specifications for Water and Sewer Construction in Kentucky or the JURISDICTIONAL GOVERNING ENTITY, whichever is more restrictive. In addition, a detailed inspection of the completed sanitary sewers shall be conducted and a copy of the videotape and report furnished to the JURISDICTIONAL GOVERNING ENTITY.

All sanitary manholes are to be tested for water tightness in accordance with ASTM C969 "Standard Practice for Infiltration and Exfiltration Accurate Testing of Installed Precast Concrete Pipe Sewer Lines", or ASTM C1244 "Standard Test Method for Concrete Sewer Manholes by the Negative Pressure (Vacuum) Test".

SERVICES

A wye branch or "tee" and sanitary service line, properly plugged and sealed shall be constructed as shown on the PLANS. The ends of all services shall be marked with a 4"x4" post extending 36" above grade and painted red. The CONTRACTOR shall keep accurate records of all Wye or Tee locations as measured from the downstream manhole as well as the service lengths and furnish same to CLIENT.

RISERS

Risers shall be constructed in locations as shown on the PLANS and according to the detail.

DROP MANHOLE CONNECTIONS

Drop manhole connections to existing manholes shall be constructed according to the PLANS and the detail.

SANITARY SEWER FORCE MAIN

Sanitary sewer force main shall conform to the following:

- (1) Polyvinyl Chloride (PVC) Pressure Pipe conforming to the latest revision of ANSI/AWWA C900, Class 150 with integral bell and flexible elastomeric gasket joints conforming to ASTM F477.
(2) Ductile Iron cement lined pipe conforming to the latest revision of ANSI/AWWA C151/A21.51, Thickness Class 50, minimum 150 psi working pressure with "push on" type joints.

Force mains shall have a minimum of five feet six inches (5'-6") of cover and shall include bedding and trench backfill.

Upon completion of installation, force mains are to be plugged and pressure tested at 2 times the working pressure and total dynamic head for a period of 10 minutes, with no loss of pressure or as required by the JURISDICTIONAL GOVERNING ENTITY, whichever is more stringent.

TELEVISION INSPECTION

Upon completion of construction a television inspection of the sanitary sewer system shall be performed on all portions of the sewer if required by the JURISDICTIONAL GOVERNING ENTITY. Videotapes and written report of all television inspections shall be provided to the CLIENT. The form of report and type and format of the videotape shall be approved by the JURISDICTIONAL GOVERNING ENTITY.

All sewers and appurtenances shall be cleaned prior to inspection and testing required by this section.

All defects and corrective work required as the result of television inspection shall be performed by the CONTRACTOR without delay. All dips, cracks, leaks, improperly sealed joints and departures from approved grades and alignment shall be repaired by removing and replacing the involved sections of pipe. Upon completion thereof, the sewer shall be retested and such further inspection made as may appear warranted by the CLIENT.

MISCELLANEOUS

All floor drains shall be connected to the sanitary sewer.

C. WATER MAINS AND APPURTENANCES

WATER MAIN PIPE (3" AND LARGER)

Water main pipe shall conform to the following:

- (1) Ductile Iron pipe shall be per ANSI/AWWA C151/A21.51, Thickness Class 52, minimum 150 psi working pressure, cement lined in accordance with ANSI/AWWA C11/A21.4, with "push on" type joints (2) Polyvinyl Chloride Pipe (PVC) conforming to the latest revision of ANSI/AWWA C900 (4-inch thru 12-inch) or ANSI/AWWA C505 (14-inch thru 48-inch) with a pressure rating of 235 psi, SDR 18 in accordance with ASTM D2241. Joints shall be pressure rated in accordance with ASTM D3139 with elastomeric seals in accordance with ASTM F477.

Installation shall be in accordance with ANSI/AWWA C600 (Ductile Iron) or ANSI/AWWA C605 (PVC). All water main shall have mechanical joint cast iron or ductile iron fittings in accordance with ANSI/AWWA C110/A21.10 or compact ductile iron fittings in accordance with ANSI/AWWA C153/A21.51 with 250 psi working pressure




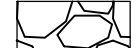



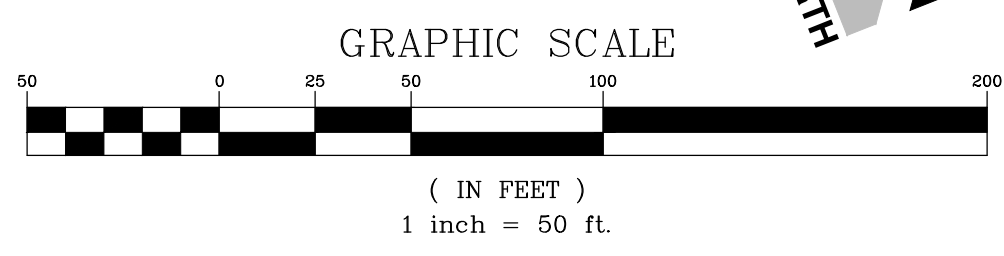






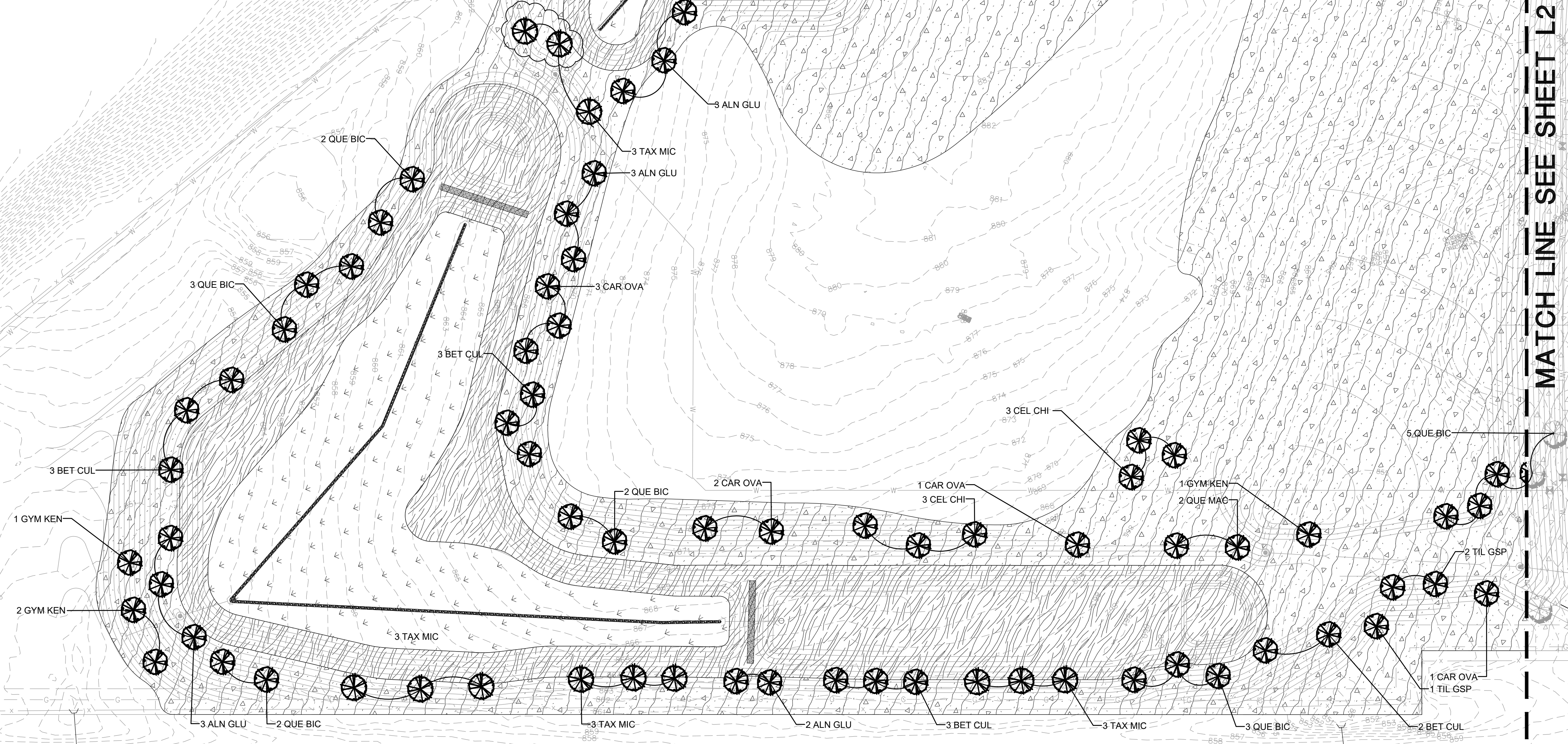
**Legend**

-  Turf
-  Gravel Locations
-  Cardno Stormwater Seed Mix
-  Cardno Economy Prairie Seed Mix
-  Cardno Wetland Emergent Seed Mix



MATCH LINE SEE SHEET L4

MATCH LINE SEE SHEET L2



November 3, 2022, 11:00 Doc Name: V:\csh\sh\Projects\03\Burgess\01\Map\Map02-Final\03-Final Landscape Plan-2022-06-03.dwg Updated by: luhelhoff

DATE	REVISIONS
11/03/2022	REVISED PER PLAN COMMISSION COMMENTS
07/15/2022	REVISED PER SITE PLAN ADJUSTMENTS
06/02/2022	REVISED PER REVIEW COMMENTS
04/18/2022	REVISED PER SITE PLAN ADJUSTMENTS


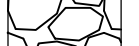
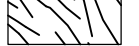

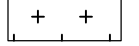
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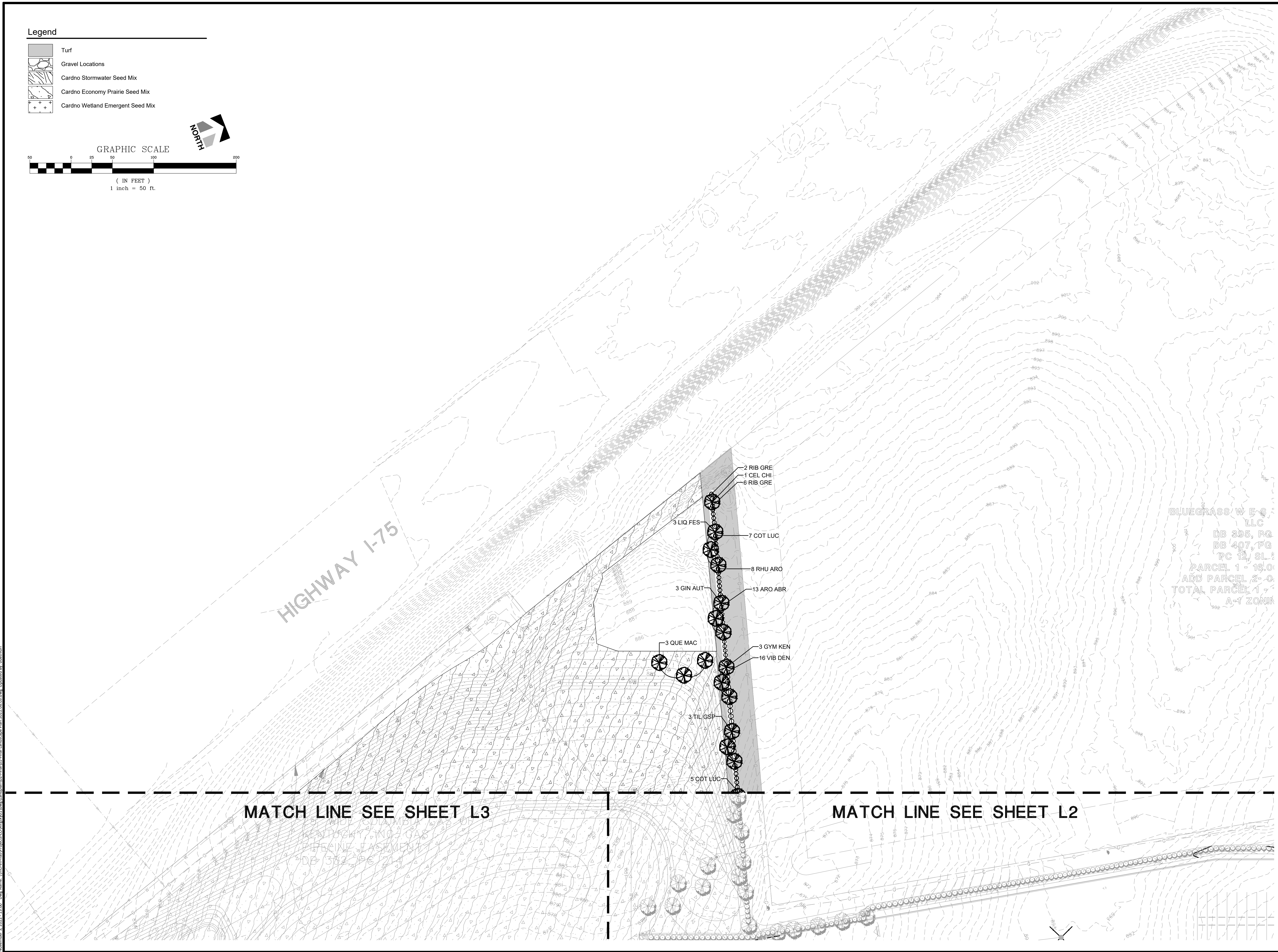
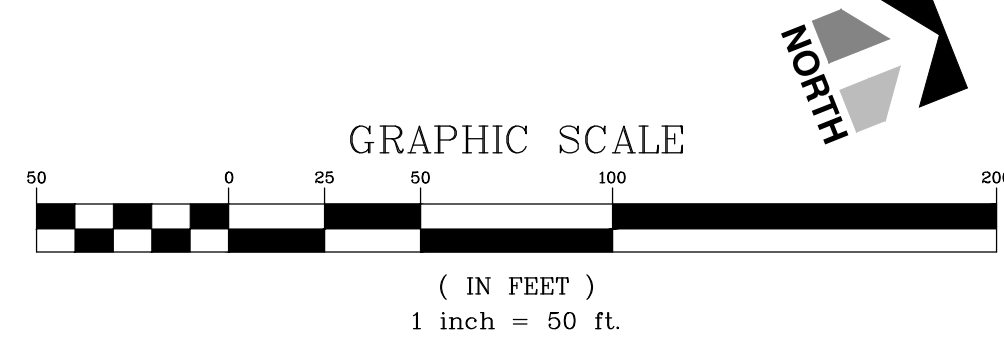
**R+L CARRIERS - GEORGETOWN**  
**CITY OF GEORGETOWN, KENTUCKY**  
**LANDSCAPE PLAN SOUTH**

PROJ. MGR.: **JL**  
 PROJ. ASSOC.: **MP**  
 DRAWN BY: **JBD**  
 DATE: **03/16/22**  
 SCALE: **1"=50'**

SHEET  
**L3 OF L6**  
 RLRGTY01



- Legend**
-  Turf
  -  Gravel Locations
  -  Cardno Stormwater Seed Mix
  -  Cardno Economy Prairie Seed Mix
  -  Cardno Wetland Emergent Seed Mix



BLUEGRASS W E S, LLC  
 DB 395, PG  
 DB 407, PG  
 PC 12, SL  
 PARCEL 1 - 16.0  
 ADD PARCEL 2 - 0.0  
 TOTAL PARCEL 1 -  
 A-1 ZONING

MATCH LINE SEE SHEET L3

MATCH LINE SEE SHEET L2

DATE	REVISIONS
11/03/2022	REVISED PER PLAN COMMISSION COMMENTS
07/15/2022	REVISED PER SITE PLAN ADJUSTMENTS
06/02/2022	REVISED PER REVIEW COMMENTS
04/18/2022	REVISED PER SITE PLAN ADJUSTMENTS

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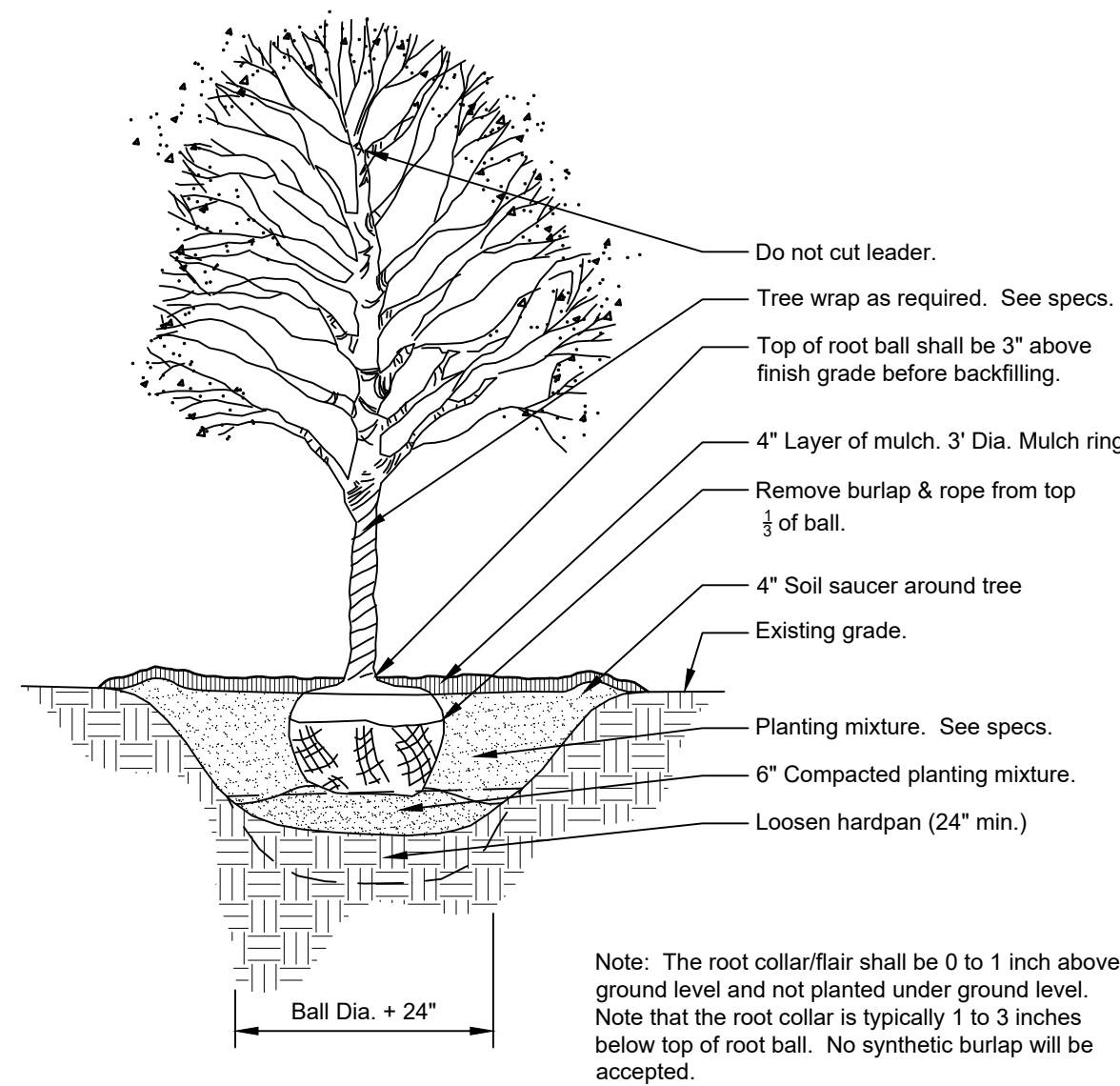
R+L CARRIERS - GEORGETOWN  
 CITY OF GEORGETOWN, KENTUCKY  
 LANDSCAPE PLAN - WEST

PROJ. MGR.: J  
 PROJ. ASSOC.: MP  
 DRAWN BY: JBD  
 DATE: 03/16/22  
 SCALE: 1"=50'

SHEET  
**L4 OF L6**  
 RLRGTY01

November 3, 2022, 11:00 Draw Name: V:\carr-carrier\Projects\01\Georgetown\02-Final\02-Final Landscape Plan 2022.rvt (03.16.22) Updated by: Luberloff

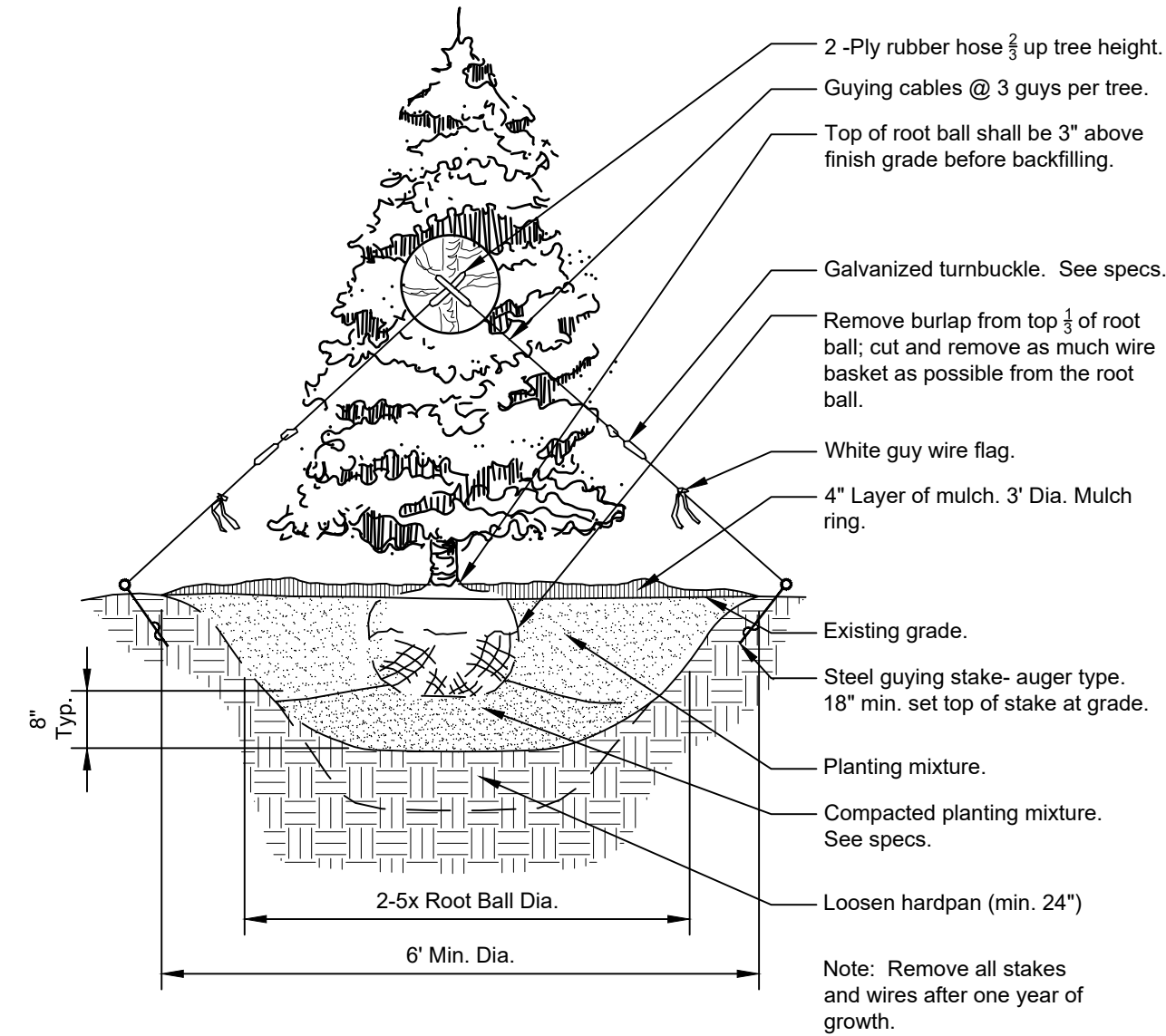




**1** DECIDUOUS TREE PLANTING

1/4" = 1'-0"

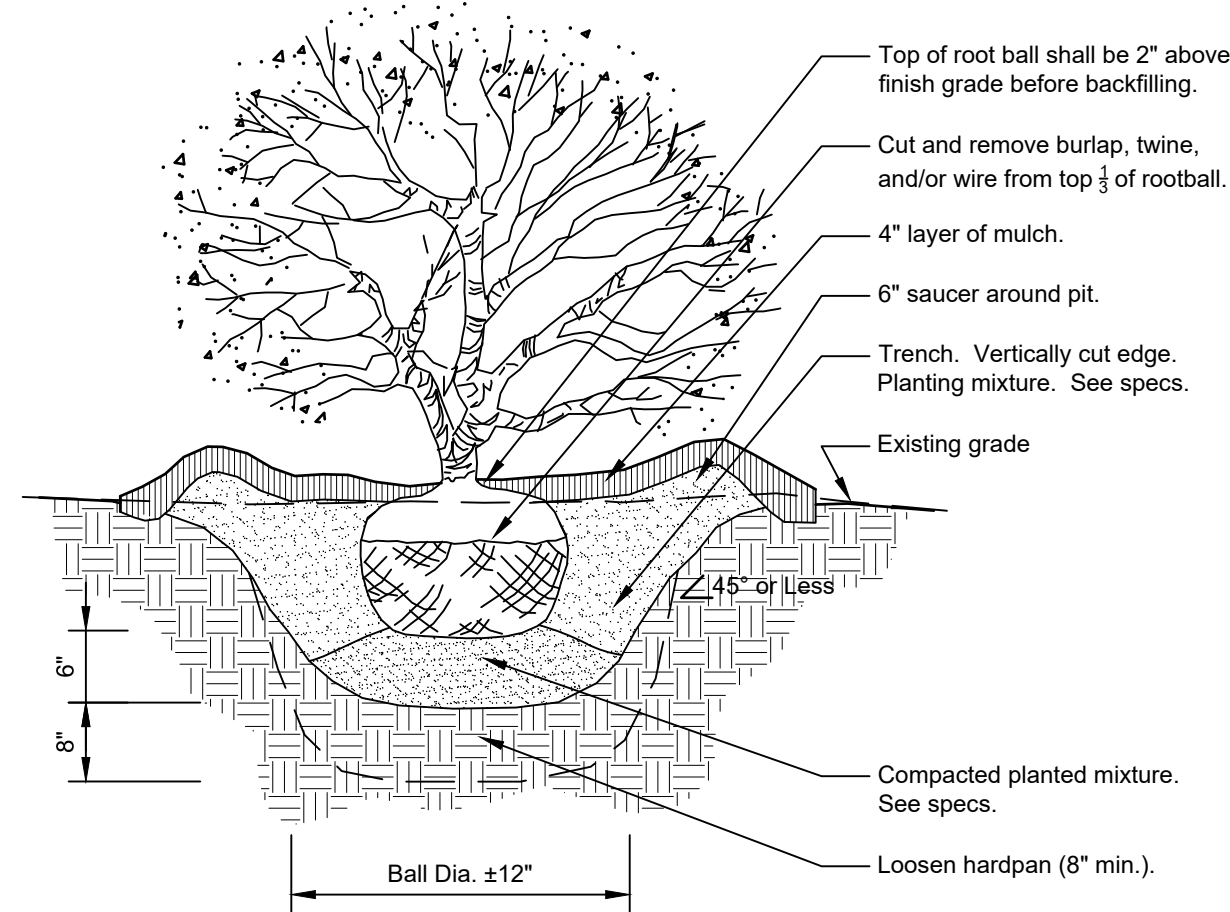
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**2** CONIFER TREE PLANTING

1/4" = 1'-0"

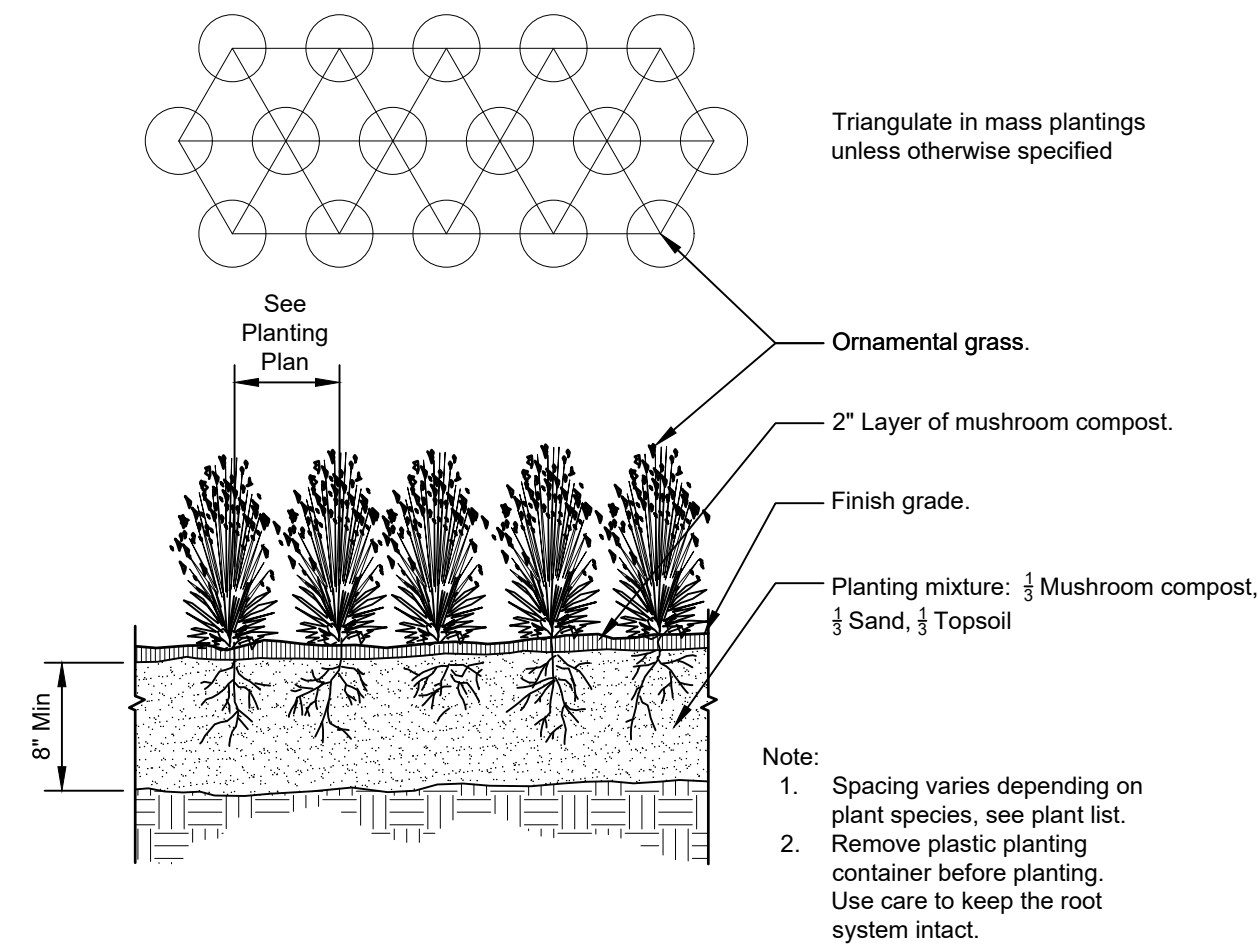
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**3** SHRUB PLANTING DETAIL

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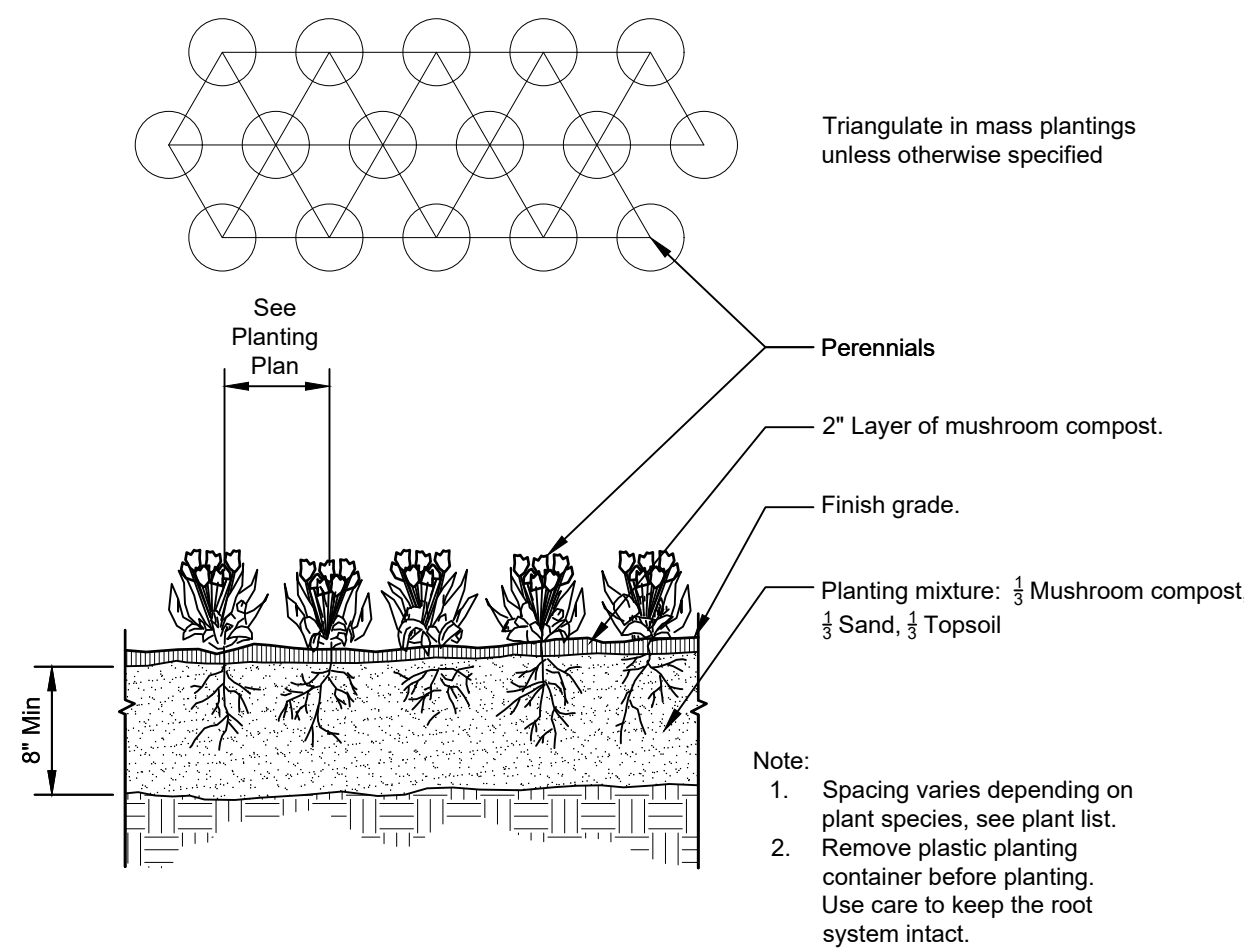
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**4** ORNAMENTAL GRASS PLANTING

1" = 1'-0"

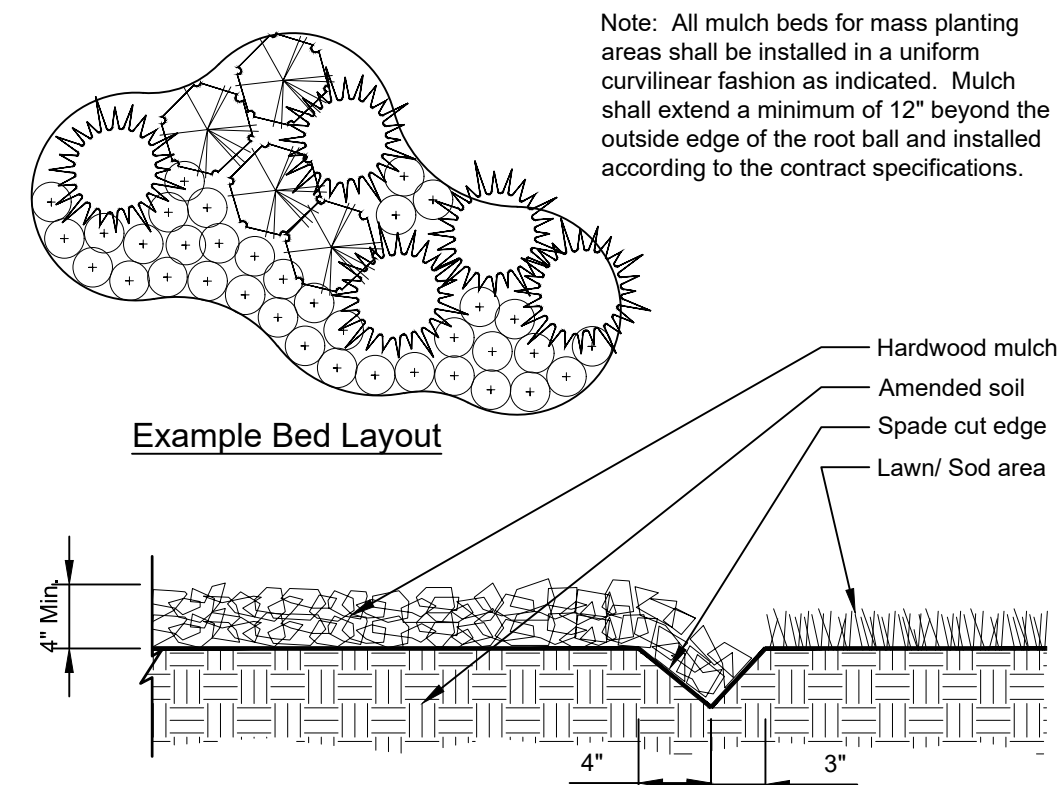
329313-01



**5** PERENNIAL / ANNUAL PLANTING

1" = 1'-0"

329313-02



**6** CONTINUOUS MULCH EDGING

1" = 1'-0"

329113.26-01

November 3, 2022 - 11:00 Draw Name: V:\csh\sh\Projects\03\Barg\01\Draw\Landscap\02\Final\03-Final Landscape Plan-2022-06-03.dwg Updated by: selenhoff

DATE	REVISIONS
11/03/2022	REVISED PER PLAN COMMISSION COMMENTS
07/15/2022	REVISED PER SITE PLAN ADJUSTMENTS
06/02/2022	REVISED PER REVIEW COMMENTS
04/18/2022	REVISED PER SITE PLAN ADJUSTMENTS

**Manhard CONSULTING**  
 700 Springfield Drive, Manchester, IL 60448-2818, 815.631.8500 Fax: 815.631.8525 manhard.com  
 Civil Engineers | Surveyors | Water Resource Engineers | Water & Waste Water Engineers  
 Construction Managers | Environmental Scientists | Landscape Architects | Planners

R+L CARRIERS - GEORGETOWN  
 CITY OF GEORGETOWN, KENTUCKY  
 LANDSCAPE DETAILS

PROJ. MGR.: J  
 PROJ. ASSOC.: MP  
 DRAWN BY: JBD  
 DATE: 03/16/22  
 SCALE: 1"=50'

SHEET  
**L5** OF **L6**  
 RLRGTY01

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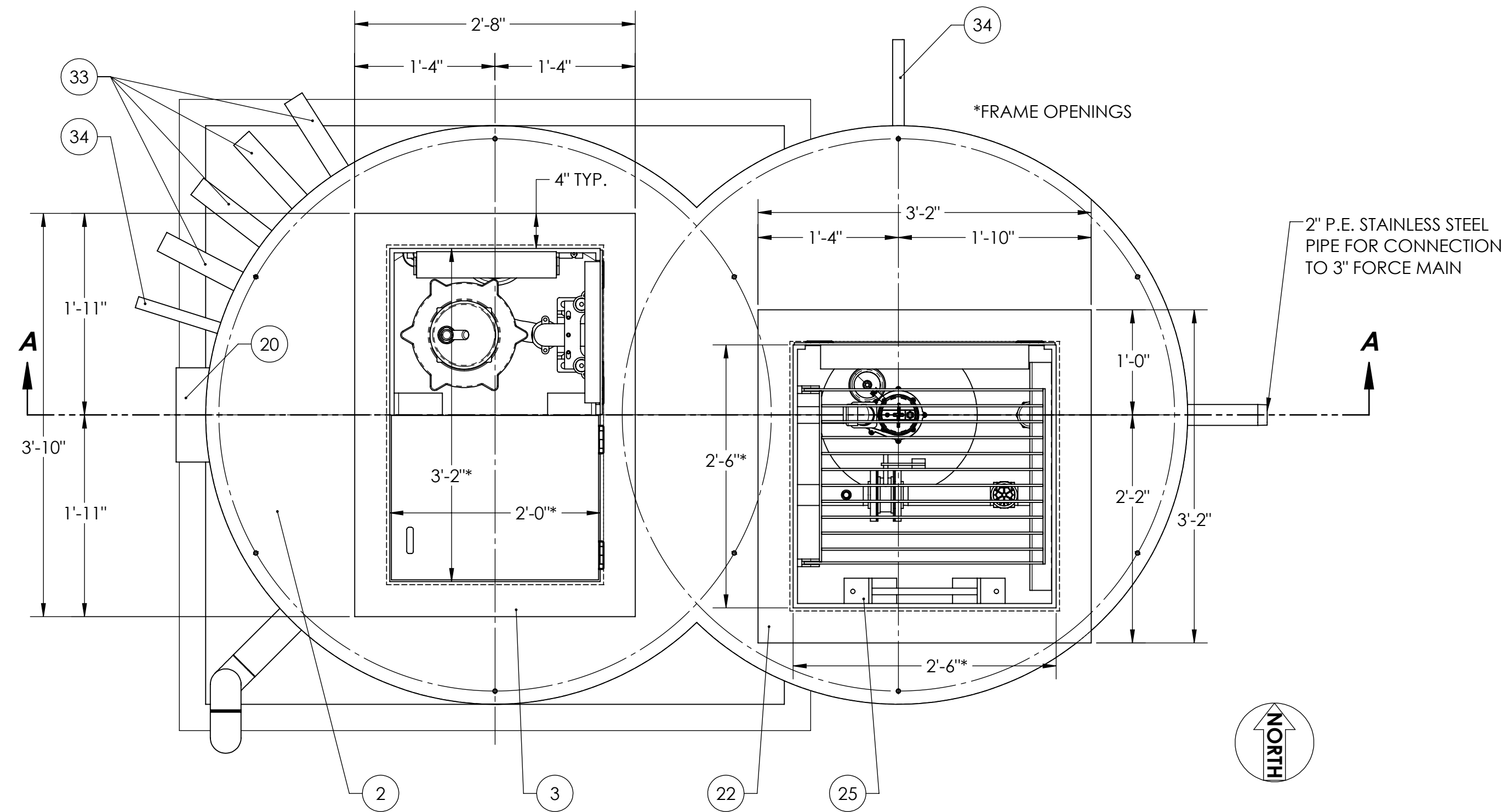
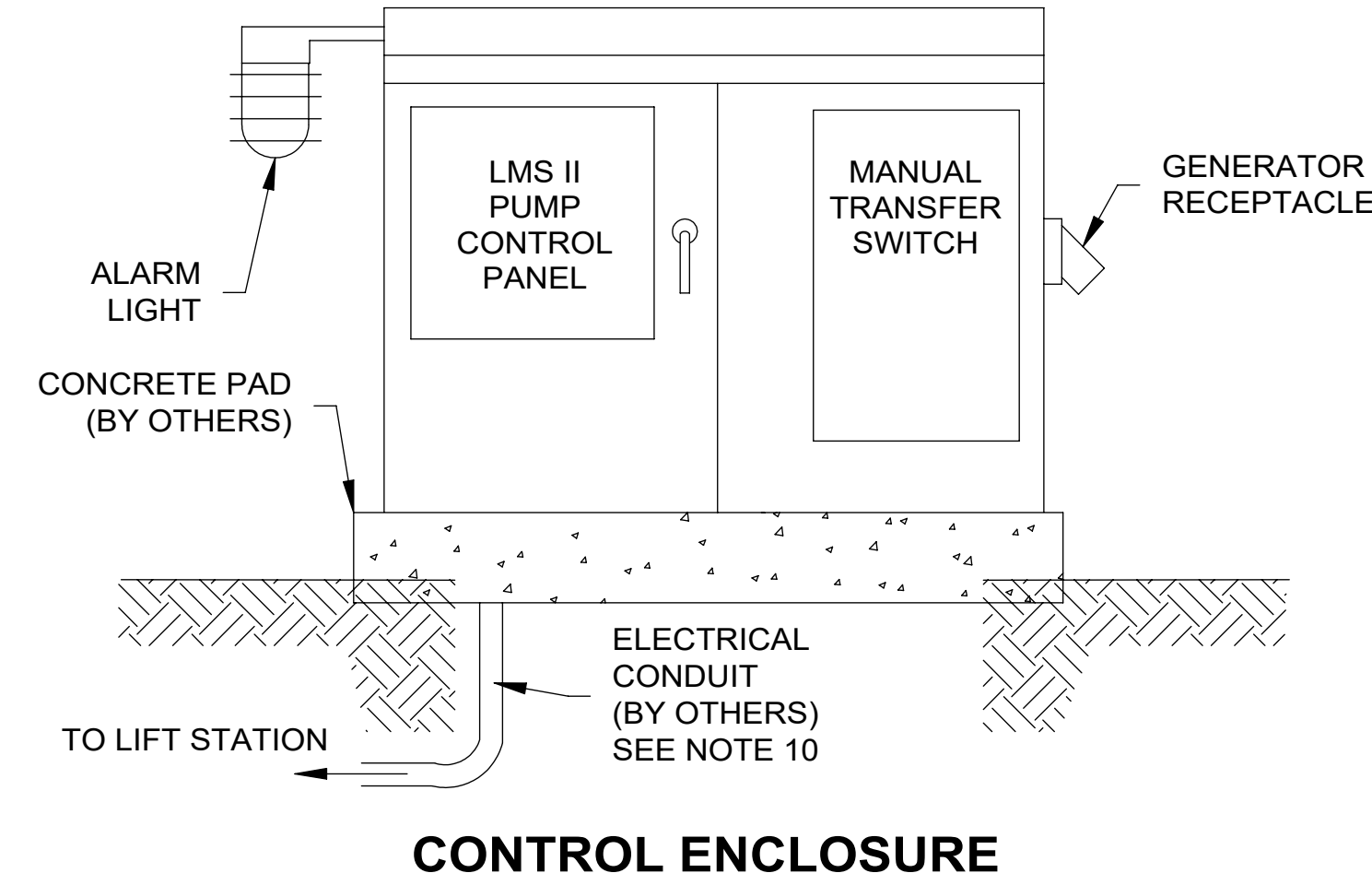
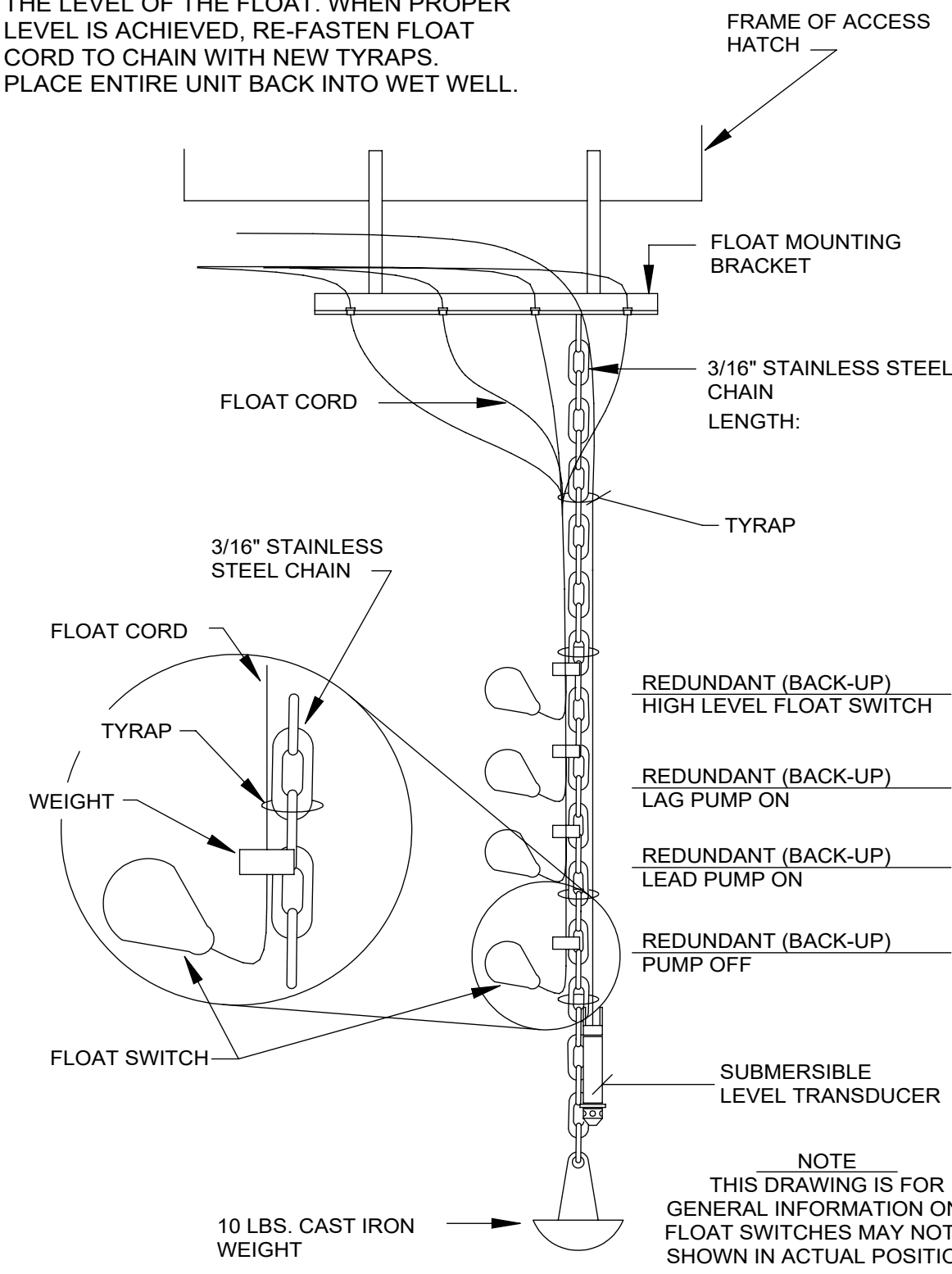




**NOTES:**

1. THIS DRAWING IS PRELIMINARY LAYOUT ONLY. NOT FOR CONSTRUCTION. CONSTRUCTION DRAWINGS WILL BE FORWARDED UPON RECEIPT OF APPROVED SUBMITTALS.
2. SOME ITEMS NOT SHOWN FOR CLARITY.
3. ADEQUATE LIFTING POINTS TO BE PROVIDED.
4. CONTRACTOR TO FILL INLET HUB WITH GROUT AFTER INSTALLING FIELD PIPING.
5. ALL COMPRESSION COUPLINGS, EPC's & FCA's, TO BE RESTRAINED WITH A MINIMUM OF 2 CONTROL RODS WHEN REQUIRED.
6. LIFT STATION TO BE INSTALLED BY AN EXPERIENCED AND QUALIFIED CONTRACTOR.
7. ALL CONCRETE WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR AND OR ENGINEER TO VERIFY ALL DIMENSIONS, ELEVATIONS, PIPING LAYOUT, AND ORIENTATION OF INLET (S), DISCHARGE AND CONDUIT (S).
9. ELECTRICAL COMPONENTS IN THE WET WELL SHALL BE RATED FOR CLASS I, DIV. 1, GROUP C & D LOCATIONS.
10. CONDUITS ARE AS FOLLOWS: (1) 2" FOR SENSOR CABLES, (1) 2" FOR LEVEL SWITCHES, (1) 2" FOR EACH PUMP POWER CORD (1) 1" FOR TRANSDUCER CABLE AND (1) 1" FOR VALVE VAULT SUMP PUMP POWER.
11. CONTRACTOR TO ORDER CONTROL AND POWER CORDS OF SUFFICIENT LENGTH TO REACH CONTROL PANEL FROM POINT OF ORIGIN ON PUMPS **WITHOUT SPLICING**.

WHEN CHANGING FLOAT LEVELS, PULL CHAIN, ANCHOR, AND FLOATS OUT OF WET WELL. CUT NECESSARY TYRAPS AND READJUST THE LEVEL OF THE FLOAT. WHEN PROPER LEVEL IS ACHIEVED, RE-FASTEN FLOAT CORD TO CHAIN WITH NEW TYRAPS. PLACE ENTIRE UNIT BACK INTO WET WELL.

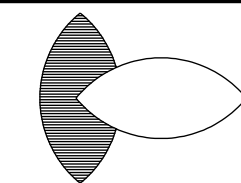


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FIBERGLASS WET WELL & VALVE VAULT	5'-0" DIA. x 17'-0" DEEP	1
2	LIFT STATION COVER	1/4" THK. ALUM. PLT.	1
3	R-APD300-24x38	DUPLEX ALUMINUM ACCESS HATCH	1
4	DUPLEX SAFETY GRATE		1
5	UPPER GUIDE RAIL SUPPORT		2
6	IGB-100S	INTERMEDIATE GUIDE RAIL BRACKET, S.S.	2
7	1" GUIDE RAIL	SCHED. 40 STAINLESS STEEL PIPE	8
8	CONERY BERS 0200 BASE ELBOW		2
9	HPGFX	SEWAGE GRINDER PUMP, 2" NPT DISCHARGE	2
10	BERS 0200 SEALING FLANGE ASSEMBLY		2
11	2" RISER	ANSI CLASS 150 FLANGES, STAINLESS STEEL PIPE	2
12	LINK SEAL SLEEVE FOR 2" SCHED. 40 STAINLESS STEEL PIPE		2
13	FLOAT MOUNTING BRACKET	STAINLESS STEEL, TO BE SHIPPED LOOSE - CONTRACTOR TO INSTALL IN FIELD	1
14	FLOAT: OFF LEVEL	METROPOLITAN SUBMERSIBLE LEVEL SWITCH	1
15	FLOAT: ONE PUMP ON	METROPOLITAN SUBMERSIBLE LEVEL SWITCH	1
16	FLOAT: TWO PUMPS ON	METROPOLITAN SUBMERSIBLE LEVEL SWITCH	1
17	FLOAT: ALARM LEVEL	METROPOLITAN SUBMERSIBLE LEVEL SWITCH	1
18	SUBMERSIBLE LEVEL TRANSDUCER	XXXX	1
19	ANCHOR	10lbs CAST IRON, WITH STAINLESS STEEL CHAIN FOR LEVEL CONTROL MOUNTING	1
20	INLET HUB FOR 8" PVC PIPING	SUPPLIED LOOSE, CONTRACTOR TO LOCATE & INSTALL IN FIELD	1
21	LINK SEAL SLEEVE FOR 2" SCHED. 40 STATION DISCHARGE		1
22	R-APS300-30x30	30"x30" OPENING	1
23	SIMPLEX SAFETY GRATE		1
24	1.50" CHECK VALVE	FOR SUMP PUMP	1
25	LADDER	ALUMINUM LADDER	1
26	SH30i	1/3 HP, 115 V SUMP PUMP	1
27	2" WAFER CHECK VALVE	w/ EXTERNAL SPRING, LEVER & WEIGHT, CHAMPION SDX	2
28	2" GATE VALVE	NON-RISING STEM	3
29	1.5" COUPLING 60" ID		1
30	2" COUPLING 60" ID	CONDUIT COUPLINGS	4
31	3" COUPLING 60" ID		1
32	1" COUPLING 60" ID		2
33	2" CONDUIT	BY OTHERS	4
34	1" CONDUIT	BY OTHERS	2
35	CONCRETE FILLET - BY OTHERS	SLOPE 1:1	1
36	3" SCHED. 80 PVC VENT PIPING w/ BUG SCREENING	BY OTHERS	1

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DATE	BY	REVISION	DATE	BY	REVISION
4/20/2022	F.U.	ELEVATIONS			
1/12/2023	F.U.	ELEVATIONS			

SCALE: 1:12  
 DRN. BY: F.U.  
 DATE: 4/4/2022  
 APP. BY:



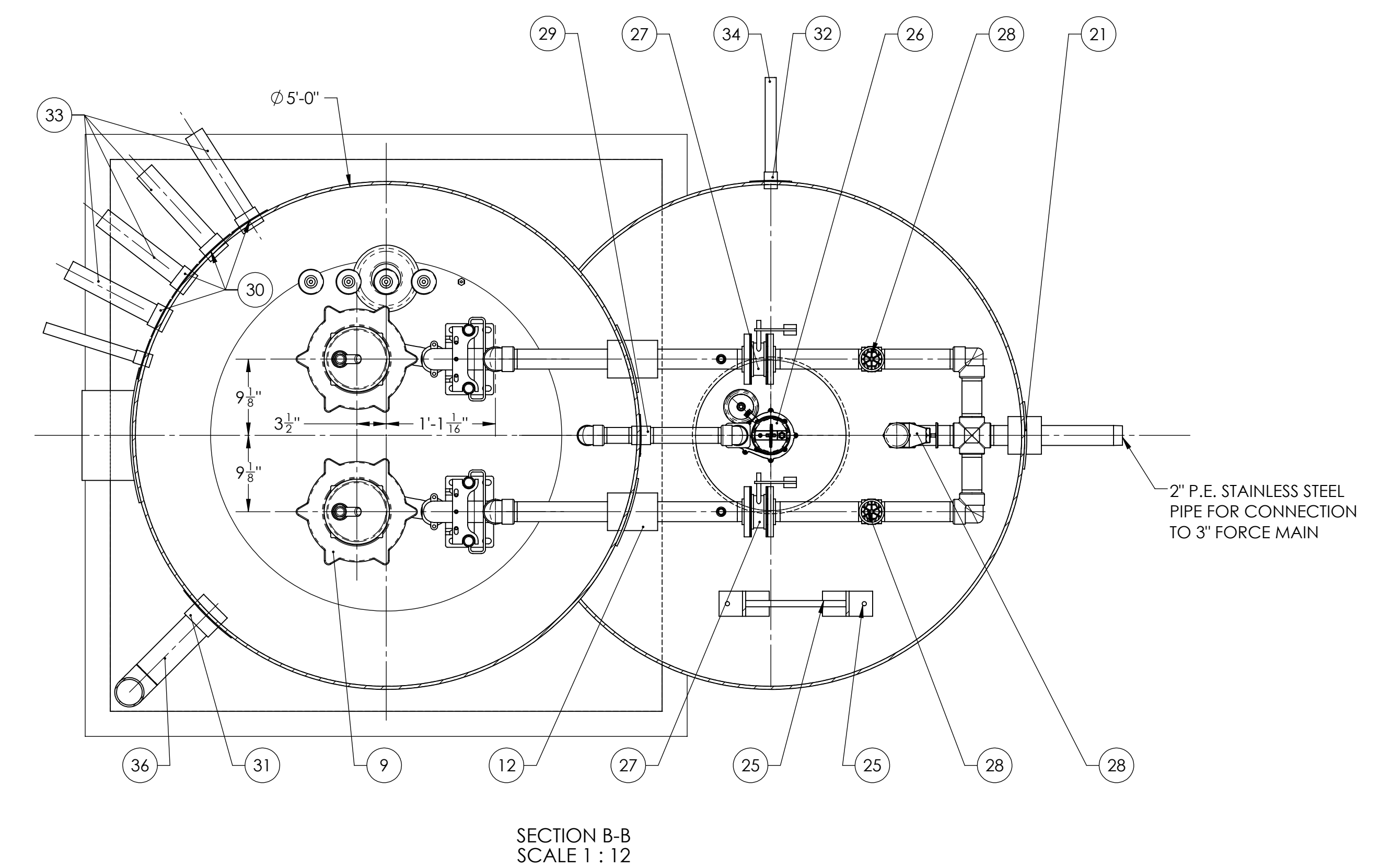
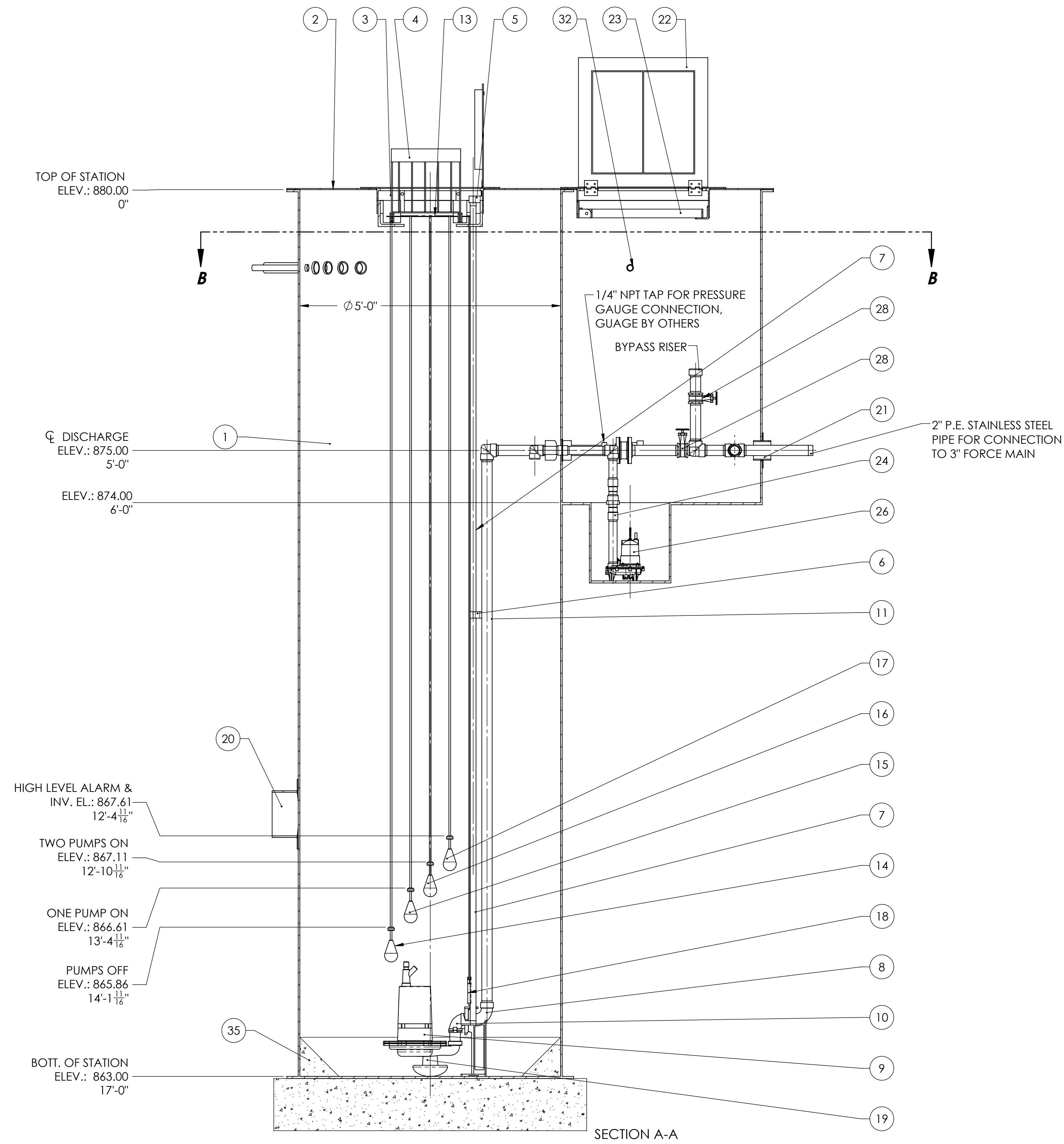
**METROPOLITAN INDUSTRIES, INC.**  
 37 FORESTWOOD DR. ROMEOVILLE, ILLINOIS 60446  
 (815)886-9200 FAX (815)886-4573  
 PUMPS - CONTROLS - SYSTEMS

TITLE: **DUPLEX METRORAIL FIBERGLASS LIFT STATION**

PROJECT: **SANITARY LIFT STATION  
 R&L CARRIERS  
 GEORGETOWN, KENTUCKY**

SHEET 1 OF 2  
 DRWG INDEX / JOB NO.  
 22S1W065F204-22N

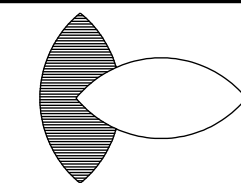




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DATE	BY	REVISION	DATE	BY	REVISION
4/20/2022	F.U.	ELEVATIONS			
1/12/2023	F.U.	ELEVATIONS			

SCALE: 1:16
DRN. BY: F.U.
DATE: 4/4/2022
APP. BY:



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SHEET 2 OF 2  
 DRWG INDEX / JOB NO.  
 22S1W065F204-22N

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TRAFFIC SIGNAL ESTIMATE OF QUANTITIES

ITEM CODE	ITEM	UNIT	TOTAL
2650	MAINTAIN & CONTROL TRAFFIC (5%)	LP SUM	1
4793	CONDUIT - 1 1/4 INCH	LIN FT	25
4811	ELECTRICAL JUNCTION BOX TYPE B	EACH	1
4820	TRENCHING AND BACKFILLING	LIN FT	20
4830	LOOP WIRE	LIN FT	575
4845	CABLE - NO. 14/7C	LIN FT	900
4850	CABLE - NO. 14/1 PAIR	LIN FT	220
4885	MESSENGER - 10800 LB	LIN FT	275
4895	LOOP SAW SLOT AND FILL	LIN FT	250
4932	INSTALL STEEL STRAIN POLE	EACH	1
4950	REMOVE SIGNAL EQUIPMENT	EACH	1
20093NS835	INSTALL PEDESTRIAN HEAD LED	EACH	1
21659NN	RELOCATE SIGNAL HEAD	EACH	5
21743NN	INSTALL PEDESTRIAN DETECTOR	EACH	1
23157EN	TRAFFIC SIGNAL POLE BASE	CU YD	14.9

THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION, AND OTHER SPECIAL NOTES AND SPECIFICATIONS WILL APPLY ON THIS PROJECT. SEE SECTION 706, 723, AND 112 FOR MEASUREMENT AND OTHER DETAILS. SEE SECTION 602 FOR SPRIAL REINFORCEMENT SPLICING.

ADD SENTENCE TO SECTION 835.15: ALL WIRE SHALL HAVE WORDING ADDED TO THE OUTER JACKET THAT STATES : "PROPERTY OF KENTUCKY TRANSPORTATION CABINET 502 564 0501".

THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE PROJECT SITE PRIOR TO SUBMITTING A BID AND SHALL BE THOROUGHLY FAMILIARIZED WITH EXISTING CONDITIONS. SUBMISSIONS OF A BID WILL BE CONSIDERED AN AFFIRMATION OF THIS INSPECTION HAVING BEEN COMPLETED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PICKING UP MATERIALS FOR INSTALL ITEMS AT KYTC'S DIVISION OF EQUIPMENT WAREHOUSE (1239 WILKINSON BOULEVARD, FRANKFORT, KY 40622). THE FOLLOWING PROCEDURES SHALL BE FOLLOWED FOR MATERIAL RELEASE. FAILURE TO FOLLOW THESE PROCEDURES MAY RESULT IN LONG DELAYS OR REFUSAL TO DISTRIBUTE MATERIALS UPON ARRIVAL.

1. CONTRACTOR SHALL SECURE THE SIGNATURES OF KYTC'S PROJECT ENGINEER AND THE ELECTRICAL CONTRACTOR'S FOREMAN ON THE PROJECT MATERIALS RELEASE FORM. IF THE RELEASE FORM IS NOT IN THE PROPOSAL, CONTACT TED SWANSEGAR OR KERRY ROBERTS WITH THE DIVISION OF TRAFFIC OPERATIONS BY PHONE (502-782-5540/502-782-5536) OR EMAIL (TED.SWANSEGAR@KY.GOV/KERRY.ROBERTS@KY.GOV) .

2. CONTRACTOR SHALL CONTACT THE WAREHOUSE TO PREARRANGE PICK UP OF MATERIALS. CONTRACTOR SHALL EMAIL THE PROJECT MATERIALS RELEASE FORM WITH REQUIRED SIGNATURES TO THE WAREHOUSE AT KIM.STAMPER@KY.GOV AND SHALL NOTIFY THE WAREHOUSE BY PHONE (502-782-8994/502-330-8153) OR EMAIL KIM.STAMPER@KY.GOV AT LEAST TWO (2) WORKING DAYS PRIOR TO ARRIVAL.

3. CONTRACTOR SHALL ALSO CONTACT THE SIGNAL SYSTEM BRANCH OF THE DIVISION OF TRAFFIC OPERATIONS BY PHONE (502-782-5543/502-782-5547) OR EMAIL (JOE.THOMPSON@KY.GOV/LARRY.IRISH@KY.GOV) AT LEAST TWO (2) WORKING DAYS PRIOR TO ARRIVAL TO FACILITATE PROGRAMMING OF ROUTERS.

4. CONTRACTOR SHALL ARRIVE AT THE KYTC'S DIVISION OF EQUIPMENT WAREHOUSE (1239 WILKINSON BOULEVARD, FRANKFORT, KY 40622) AT THE PREARRANGED DATE/TIME FOR MATERIAL PICK UP. TO FACILITATE THIS PROCESS, ENSURE CONTRACTOR'S DELIVERY DRIVER HAS A COPY OF THE PROJECT MATERIALS RELEASE FORM WITH THE REQUIRED SIGNATURES.

CONSTRUCTION AND MEASUREMENT NOTES THAT ARE CONTRARY TO SECTION 723

SUBSECTION: 03.02 POLES AND BASES INSTALLATION. B)  
REVISION: REPLACE ENTIRE TABLE WITH THE FOLLOWING:

MAXIMUM SERVICE FORCES	DIAMETER (IN.)	DEPTH (FEET)				VERTICAL BARS		TIES OR SPIRAL	
		< 2:1 GROUND SLOPE		2:1 GROUND SLOPE"		SIZE	TOTAL	BAR SIZE	SPACING OR PITCH (IN.)
		SOIL	ROCK	SOIL	ROCK				
0-9.9	4	6	6	6.5	6	#4	#4	12	
10-19.9	4	6	6	6.5	6	#4	#4	12	
20-29.9	4	6	6	6.5	6	#4	#4	12	
30-39.9	4	6	6	6.5	6	#4	#4	12	
40-49.9	4	6	6	6.5	6	#4	#4	12	
50-59.9	4	6	6	6.5	6	#4	#4	12	
60-69.9	4	6	6	6.5	6	#4	#4	12	
70-79.9	4	6	6	6.5	6	#4	#4	12	
80-89.9	4	6	6	6.5	6	#4	#4	12	
90-99.9	4	6	6	6.5	6	#4	#4	12	
100-149.9	4	6	6	6.5	6	#4	#4	12	
150-199.9	4	6	6	6.5	6	#4	#4	12	
200-249.9	4	6	6	6.5	6	#4	#4	12	
250-299.9	4	6	6	6.5	6	#4	#4	12	
300-349.9	4	6	6	6.5	6	#4	#4	12	
350-399.9	4	6	6	6.5	6	#4	#4	12	
400-449.9	4	6	6	6.5	6	#4	#4	12	
450-499.9	4	6	6	6.5	6	#4	#4	12	
500-600	4	6	6	6.5	6	#4	#4	12	

SUBSECTION: 03.13 LOOP INSTALLATION.  
REVISION: REPLACE FIRST SENTENCE NOTE WITH THE FOLLOWING:  
TWIST UNSHIELDED LOOP WIRES (IMSA 51-7) WITH 3 TO 5 TURNS PER FOOT FROM THE START OF THE HOMERUN TO THE JUNCTION BOX, CABINET, OR POLE. SLOT CAN BE WIDEN TO 1/2" to 5/8" TO HELP WITH THE INSTALLATION OF THE TWISTED WIRE.

SUBSECTION: 03.17 A) TESTING.  
REVISION: REPLACE FIFTH SENTENCE WITH THE FOLLOWING:  
THE CONTRACTOR SHALL VERIFY THAT THE LOOPS (BOTH EXISITNG AND REPLACEMENT LOOPS) MEETS THE REQUIREMENTS BEFORE THE FINAL SURFACE IS LAID.  
ADD FOLLOWING SENTENCE AT END OF PARAGRAPH:  
IF THE ENGINEER DECIDES TO REPLACE ANY LOOPS BEFORE TESTING, BID ITEM LOOP TEST WILL NOT BE USED FOR THAT LOOP LOCATION.

SUBSECTION: 03.12 WIRING INSTALLATION.  
REVISION: SEE TRAFFIC OPERATIONS WEBSITE FOR WORD DOCUMENT TO REPLACE ALL CHARTS FOR WIRING TO SHOW CHANGES FOR EQUIPMENT GROUNDING.

SUBSECTION: 04.22 REMOVE SIGNAL EQUIPMENT. (PERMIT ONLY)  
REVISION: REPLACE ENTIRE NOTE WITH THE FOLLOWING:  
THE DEPARTMENT WILL MEASURE THE QUANTITY AS A EACH REMOVAL OF SIGNAL EQUIPMENT. THE CONTRACTOR SHALL DISPOSE ALL MATERIALS REMOVED FROM THE PROJECT IN ACCORDANCE WITH CABINET POLICY. THE CONTRACTOR SHALL TAKE ALL STEEL AND ALUMINUM POLES TO THE EQUIPMENT WAREHOUSE IN FRANKFORT, KENTUCKY. ALL OTHER MATERIALS (WITH EXCEPTION OF PLASTIC ITEMS AND WOOD POLES) SHALL BE TAKEN TO LOCATIONS IDENTIFIED BY THE DISTRICT TRAFFIC ENGINEER. THE CONTRACTOR SHALL CONTACT THE DIVISION OF EQUIPMENT (502-564-3916) TO SCHEDULE A TIME TO DELIVER STEEL AND ALUMINUM POLES TO THE EQUIPMENT WAREHOUSE. THE TRANSPORTATION OF THE MATERIALS WILL CONSIDER THEM INCIDENTAL TO THIS ITEM OF WORK.

FILE NAME: P:\ENGR\TRAFFIC STUDIES\N+L CARRIERS CHERRY BLOSSOM WAY\POLE RELOCATION\SIGNAL DESIGN\QUANTITIES AND DETAIL SHEETS.DGN

USER: IJohnson  
DATE PLOTTED: September 29, 2022

E-SHEET NAME:

MicroStation v8.11.9.919

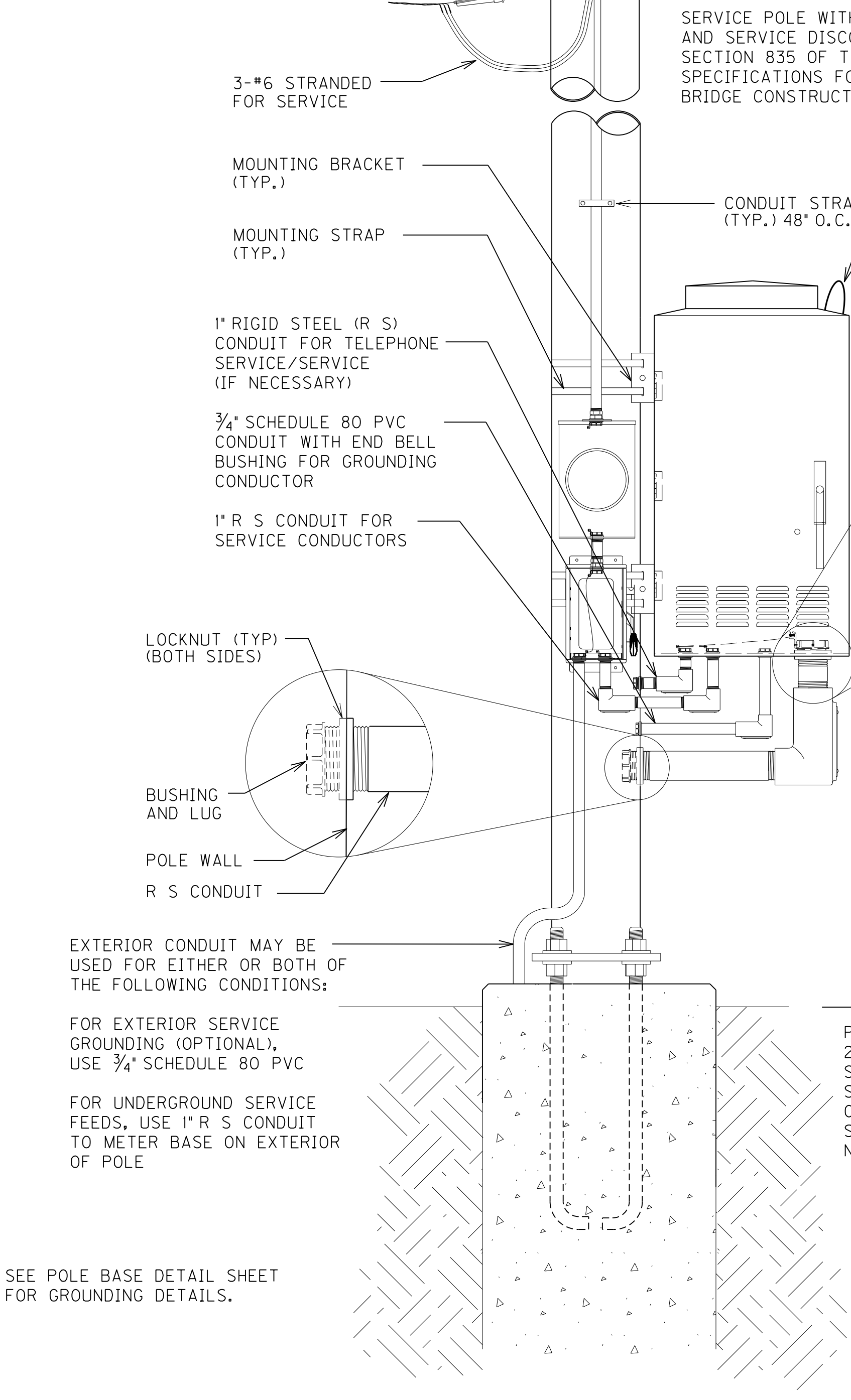
7-25-2022

TRAFFIC SIGNAL ESTIMATE OF QUANTITIES MEASUREMENT, CONST, AND MISC NOTES

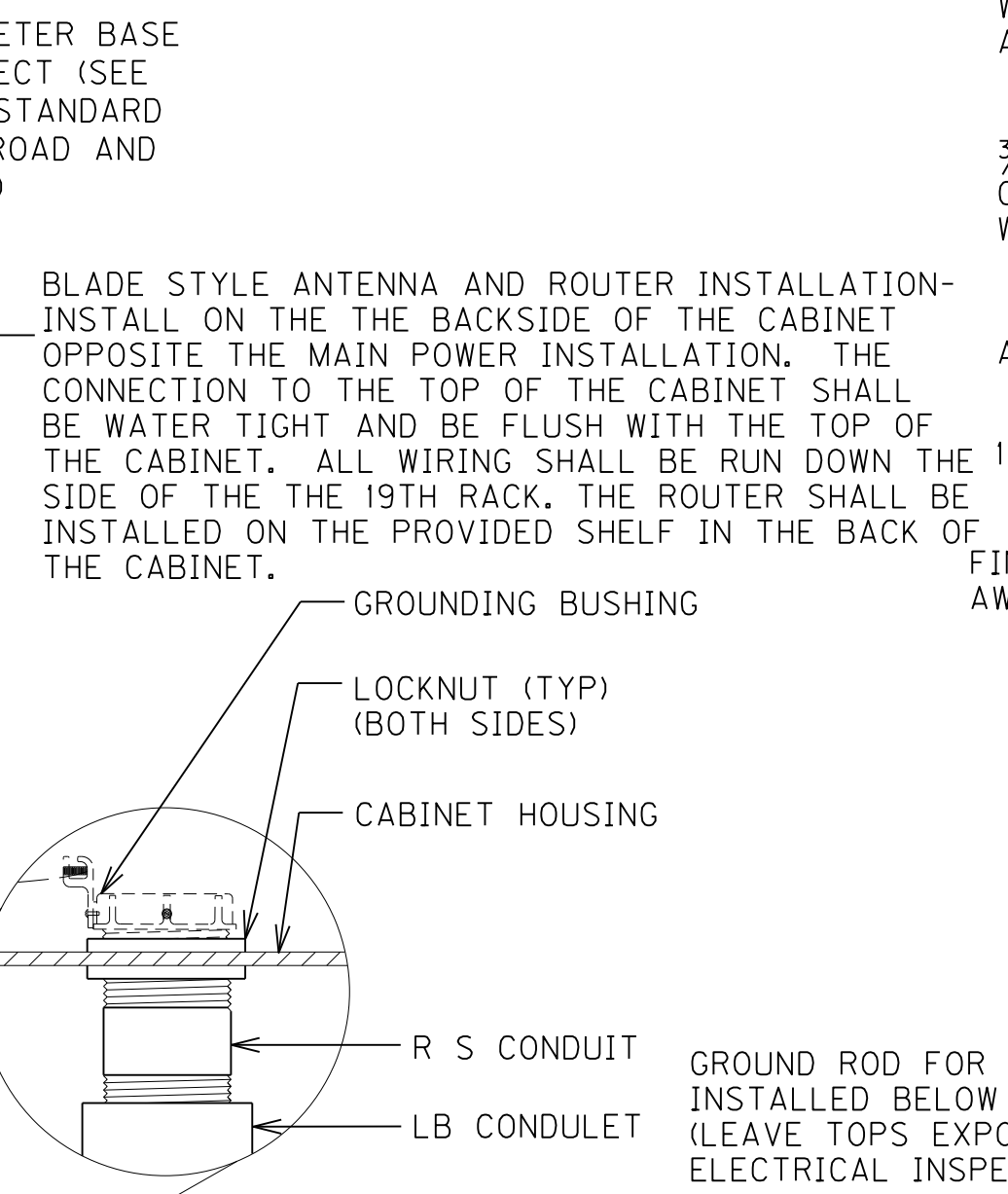


**SPECIAL NOTE:**  
DISCONNECTS (SAFETY SWITCH) AND METER BASE SHALL BE UL RATED FOR COMMERCIAL USE. DISCONNECTS (SAFETY SWITCH) AND METER BASE SHALL BE ALUMINUM ENCLOSURE. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALCULATE THE MAXIMUM AVAILABLE FAULT CURRENT FOR THE SERVICE EQUIPMENT THAT IS INSTALLED. THE CONTRACTOR SHALL SUPPLY A STICKER THAT WILL BE INSTALLED IN THE DISCONNECT WITH THE SYMMETRICAL RMS AMPERES AND THE DATE THAT THIS FAULT CURRENT IS CALCULATED. THE STICKER SHALL BE 4" LONG AND 4" WIDE AND BE METALCRAFT PLY425 PREM STYLEMARK LABEL (OR APPROVED EQUAL) WITH .007 THICKNESS, WITH UV WHITE POLYCARBONATE MATERIAL, AND WITH MC778 PRESSURE SENSITIVE ADHESIVE OR APPROVED EQUAL.

**NOTES:**  
ALL CONDUITS USED FOR THE TELEPHONE, GROUNDING, SPARES, AND SERVICE (INCLUDING FLEX CONDUIT IF IT IS RUN INSIDE THE POLE) THAT ARE INSTALLED ON THE POLE AND/OR IN THE CABINET BASE ARE INCIDENTAL TO BID ITEM \*4931. THIS INCLUDES PROVIDING A MINIMUM OF 24 INCHES OF CONDUIT PAST THE EDGE OF THE CONCRETE PAD.  
ALL CONDUITS SHALL BE INSTALLED BETWEEN 4 TO 6 INCHES ABOVE THE CONCRETE PAD, AND THEY CANNOT EXCEED THE 6 INCH HEIGHT.  
SERVICE WIRES FOR BASE MOUNTED CABINETS MAY BE INSTALLED IN FLEXIBLE CONDUIT FROM THE DISCONNECT TO THE 1" RIGID STEEL CONDUIT INSIDE THE POLE BASE. USE THE PROPER CONNECTIONS FOR TRANSITION FROM FLEXIBLE CONDUIT TO R S CONDUIT. FLEXIBLE CONDUIT SHALL NOT BLOCK THE HAND HOLE OR THE ABILITY TO ACCESS THE GROUNDING SYSTEM.

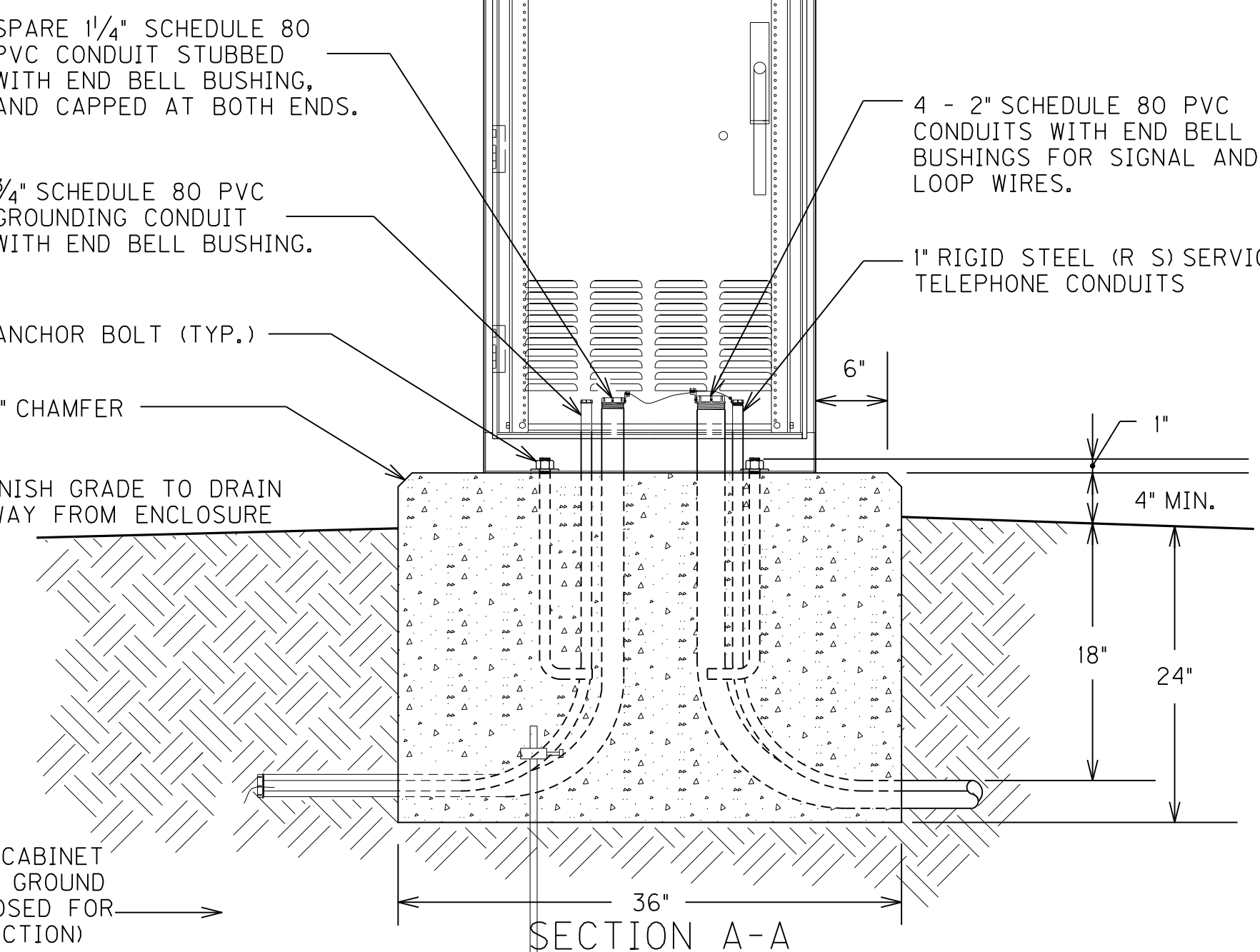


STEEL POLE MOUNT ENCLOSURE

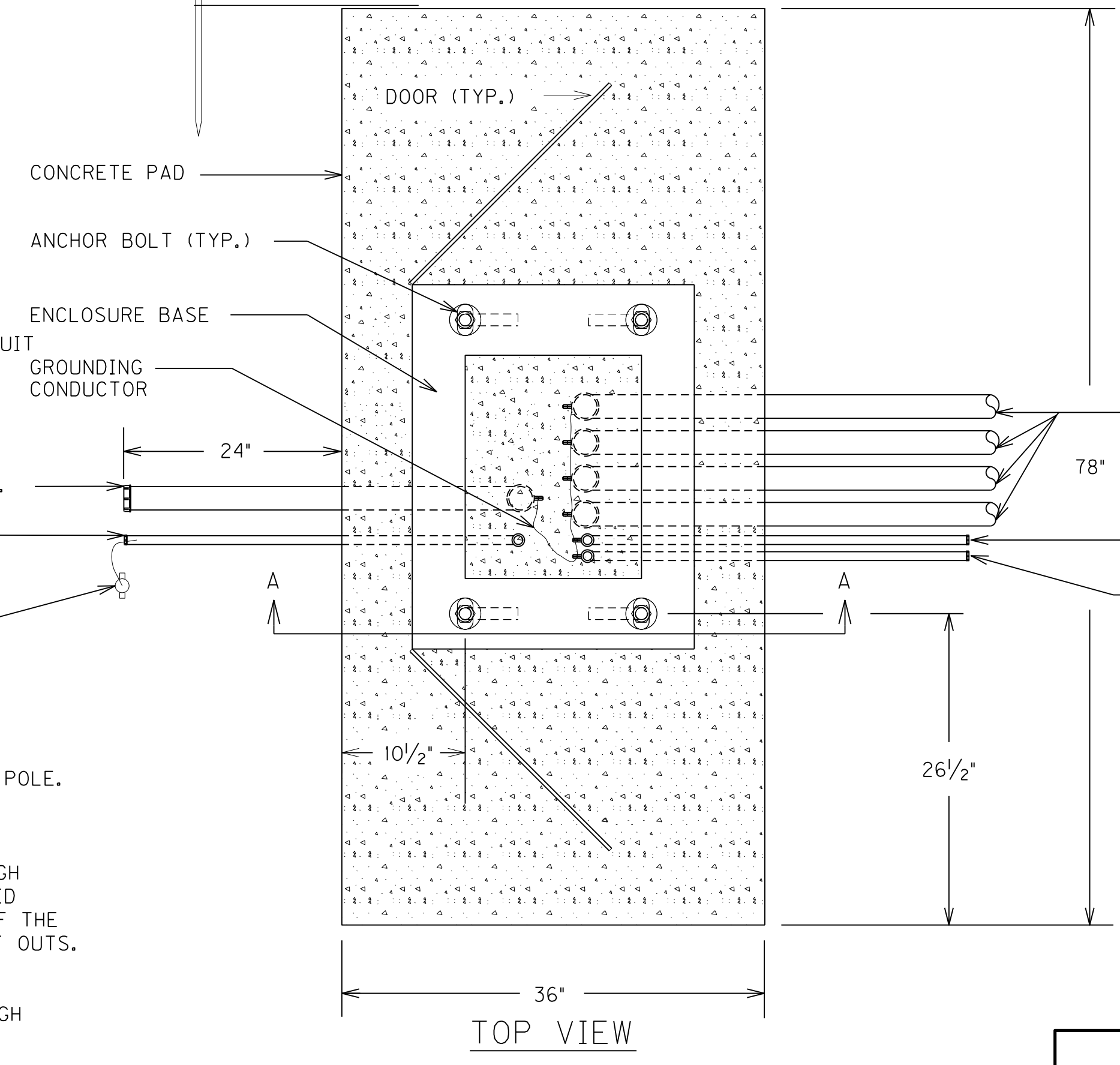


**SPECIAL NOTE FOR THE DISCONNECT:**  
ONLY CONNECT ONE SIDE OF THE 120 VOLT IN THE DISCONNECT. THE OTHER SIDE OF THE 120 VOLT SHALL STILL BE INSTALL IN METER BUT NOT FEED DOWN TO THE DISCONNECT. FURNISH A SHOCK HAZARD WARNING STICKER ON DISCONNECT WITH THE FOLLOWING INFORMATION:  
VOLTAGE (120 VOLT)  
GLOVE CLASS (0)  
LIMITED APPROACH BOUNDARY (42 IN)  
RESTRICTED APPROACH BOUNDARY (CONTACT)  
SEE NFPA 70E FOR ADDITIONAL PPE REQUIRED

**GROUNDING REQUIREMENTS:**  
CONTRACTOR SHALL PROVIDE A MINIMUM OF 6 INCHES OF GROUND WIRE FOR TESTING PRIOR TO CONNECTING THE WIRE TO ANY DISCONNECT, CABINET OR POLE.  
LEAVE TOP OF GROUND RODS EXPOSED FOR ELECTRICAL INSPECTION.  
SERVICE GROUND - GROUND WIRE SHALL COME FROM THE GROUND ROD THROUGH THE PVC CONDUIT, CONNECTING TO THE DISCONNECT AND THEN TO EACH RIGID STEEL (R S) GROUNDING BUSHING. IF GROUND WIRE IS RUN ON THE INSIDE OF THE POLE, RUBBER GROMMETS SHALL BE PROVIDED AT DISCONNECT AND POLE CUT OUTS. THEY SHALL BE INCIDENTAL TO BID ITEM \*4931".  
CABINET GROUND - GROUND WIRE SHALL COME FROM THE GROUND ROD THROUGH THE PVC CONDUIT, CONNECTING TO THE CABINET GROUND BUS.

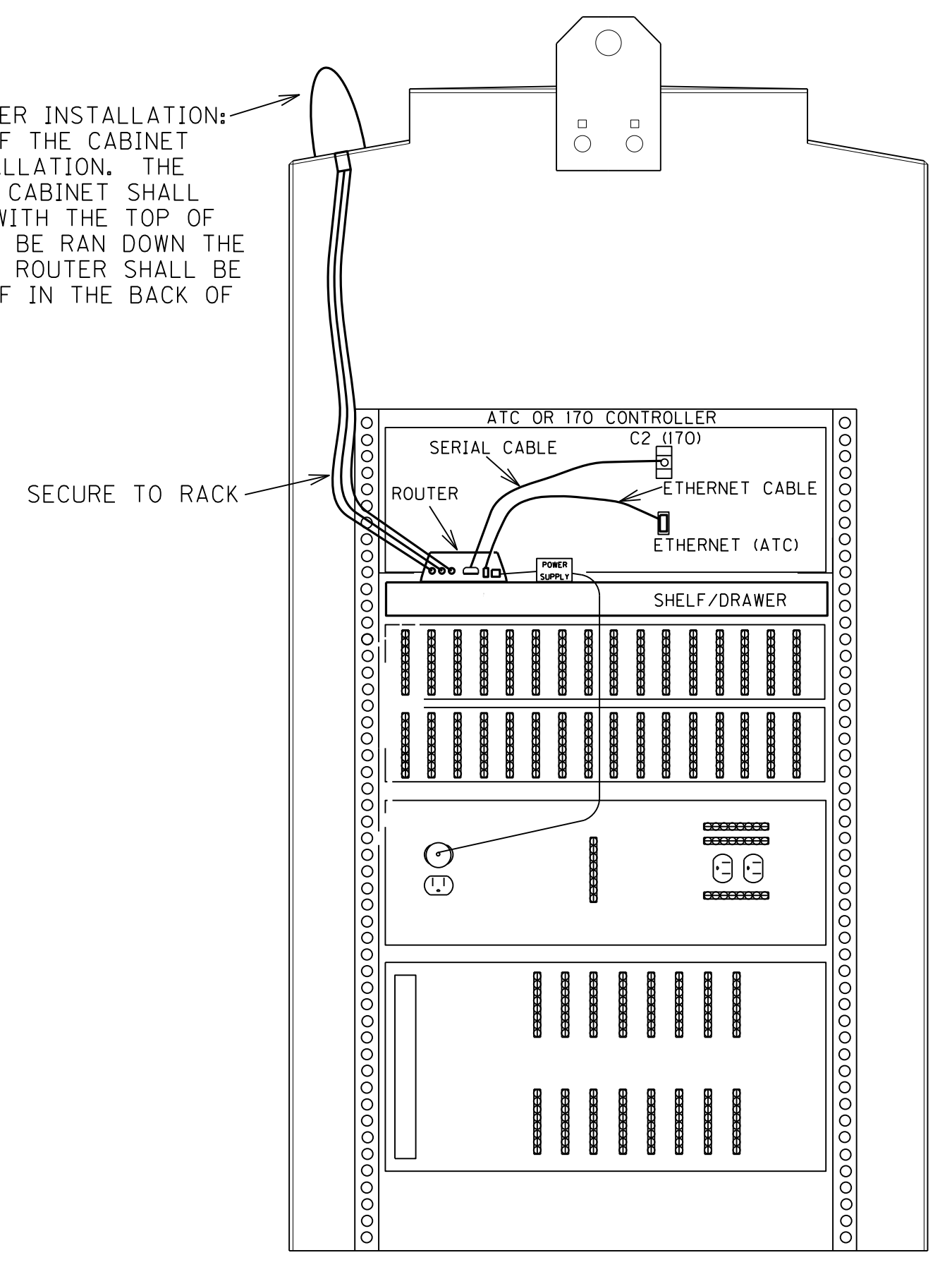


SECTION A-A



TOP VIEW  
PAD MOUNT ENCLOSURE

**BLADE STYLE ANTENNA AND ROUTER INSTALLATION:**  
INSTALL ON THE THE BACKSIDE OF THE CABINET OPPOSITE THE MAIN POWER INSTALLATION. THE CONNECTION TO THE TOP OF THE CABINET SHALL BE WATER TIGHT AND BE FLUSH WITH THE TOP OF THE CABINET. ALL WIRING SHALL BE RAN DOWN THE SIDE OF THE THE 19TH RACK. THE ROUTER SHALL BE INSTALLED ON THE PROVIDED SHELF IN THE BACK OF THE CABINET.



ROUTER INSTALLATION  
(REAR OF CABINET)

4- 2" (MIN.) SCHEDULE 80 PVC CONDUITS TO POLE BASE WITH END BELL BUSHING. CONTRACTOR SHALL MODIFY QUANTITY OF CONDUITS IN ORDER TO PROVIDE 1 SPARE CONDUIT AND COMPLY WITH NEC REQUIREMENTS

**SPECIAL NOTE FOR THE CABINET:**  
FURNISH A WARNING STICKER ON CABINET WITH THE FOLLOWING INFORMATION:  
ARC FLASH HAZARD  
NO ARC FLASH PPE REQUIRED PER NFPA 70E  
SHOCK FLASH HAZARD  
VOLTAGE (120 VOLT)  
GLOVE CLASS (0)  
LIMITED APPROACH BOUNDARY (42 IN)  
RESTRICTED APPROACH BOUNDARY (CONTACT)  
SEE NFPA 70E FOR ADDITIONAL PPE REQUIRED

CONTROLLER CABINET  
AND ANTENNA/ROUTER DETAIL

FILE NAME: \\HMBDATA05\VOL\ENGR\TRAFFIC STUDIES\RH-CARRIERS-CHERRY-BLOSSOM-WAY\POLE-RELOCATION\SIGNAL-DESIGN\QUANTITIES-AND-DETAIL-SHEETS  
USER: ljohnson  
DATE PLOTTED: September 29, 2022  
E-SHEET NAME:  
MicroStation v8.11.9.919  
5/4/2021

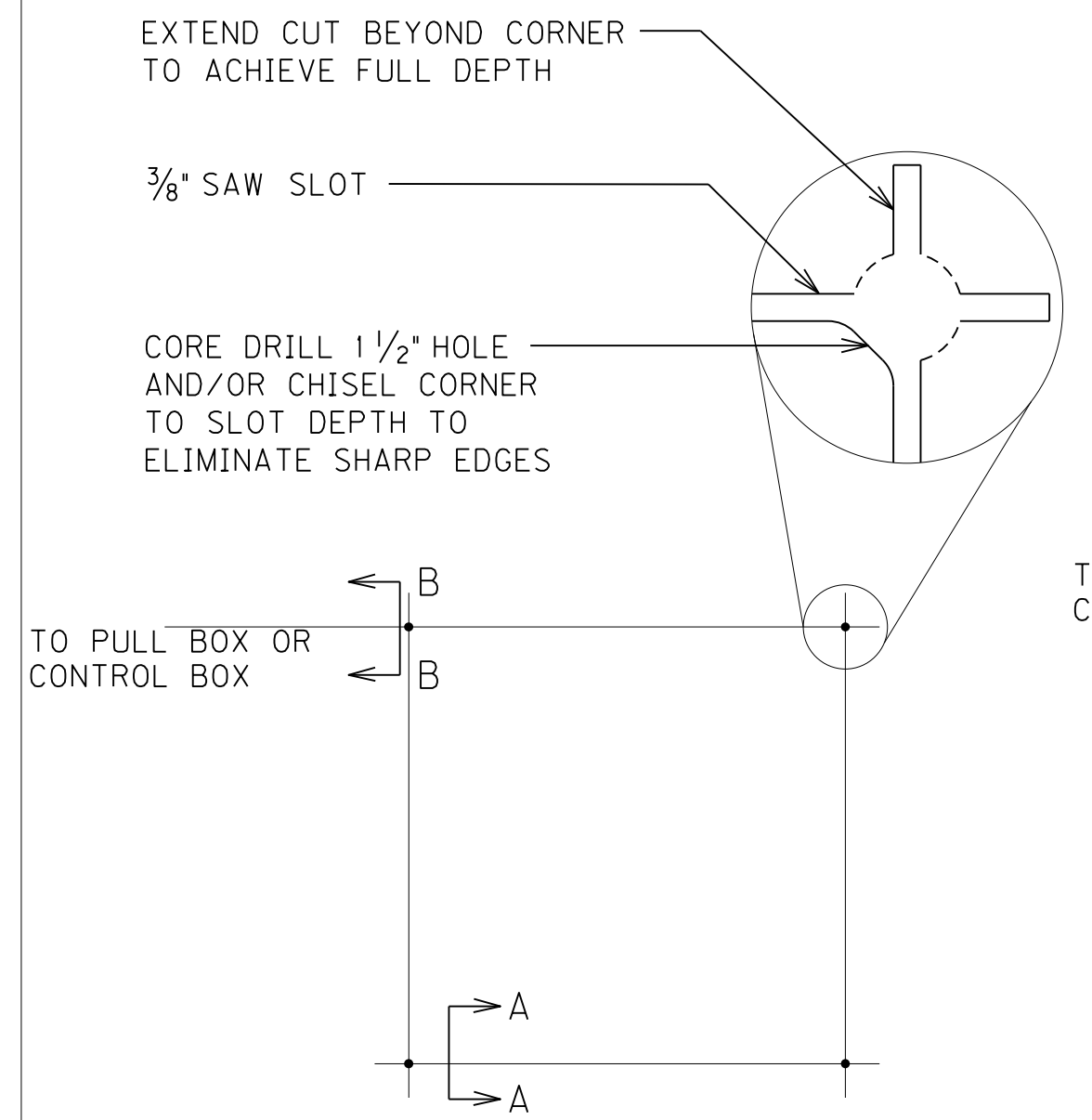


FILE NAME: \\HMBDATA05\VOL\ENGR\TRAFFIC STUDIES\RH-CARRIERS CHERRY BLOSSOM WAY\POLE RELOCATION\ SIGNAL DESIGN\QUANTITIES AND DETAIL SHEET  
 USER: Johnson  
 DATE PLOTTED: September 29, 2022  
 E-SHEET NAME:  
 MicroStation v8.11.9.919

COUNTY OF	ITEM NO.	SHEET NO.
SCOTT		

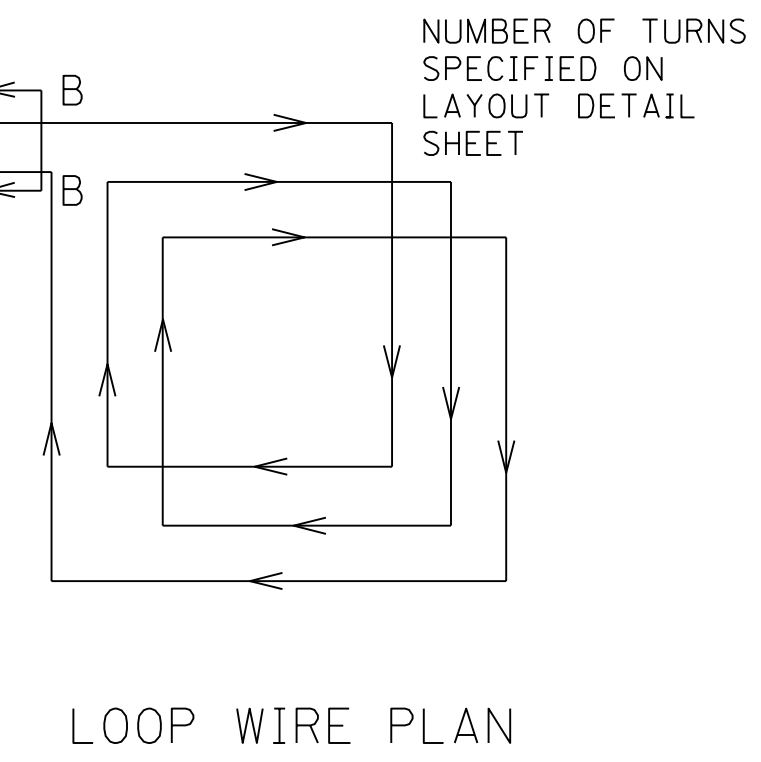
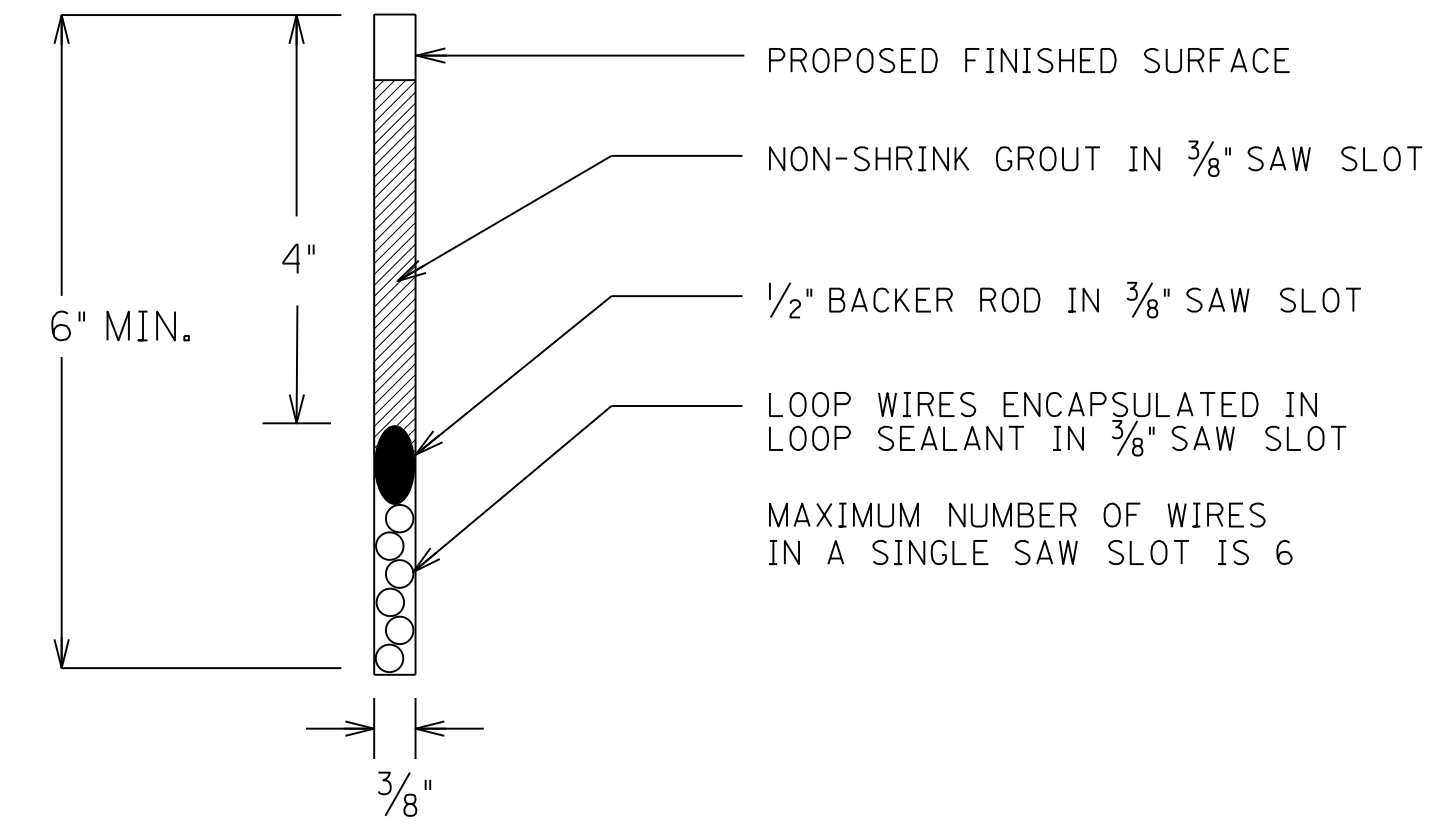
TWIST UNSHIELDED LOOP WIRES (MSA 51-7) WITH 3 TO 5 TURNS PER FOOT FROM THE START OF THE HOMERUN TO THE JUNCTION BOX, CABINET, OR POLE. SLOT CAN BE WIDEN TO 1/2" TO 5/8" TO HELP WITH THE INSTALLATION OF THE TWISTED WIRE.

**SECTION B-B (TWIST NOTE)  
-FOR CANCELING OUT CROSSTALK**

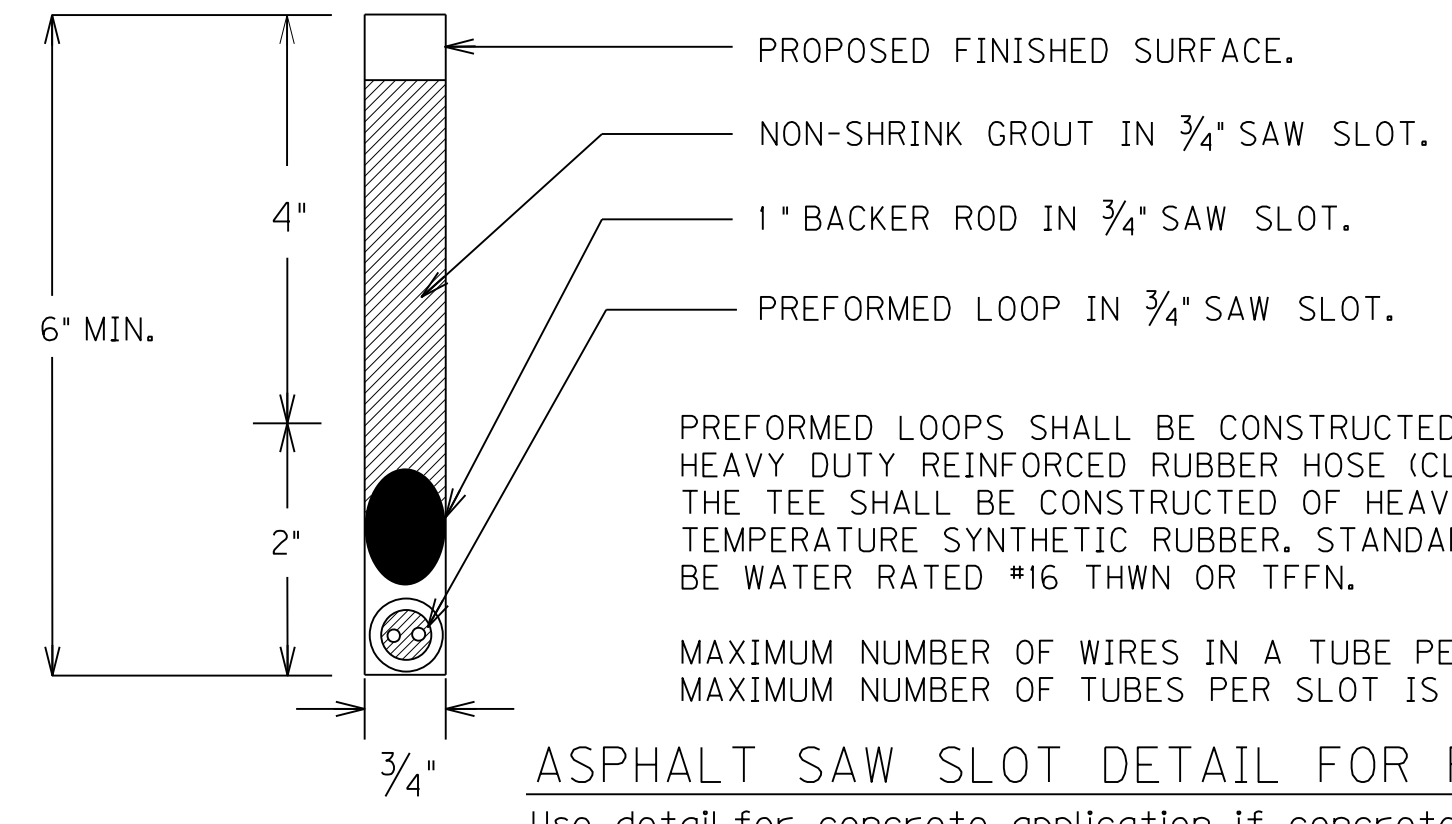


SAW CUT PLAN

**SECTION A-A (SAW SLOT DETAIL)**



6'x6' LOOP

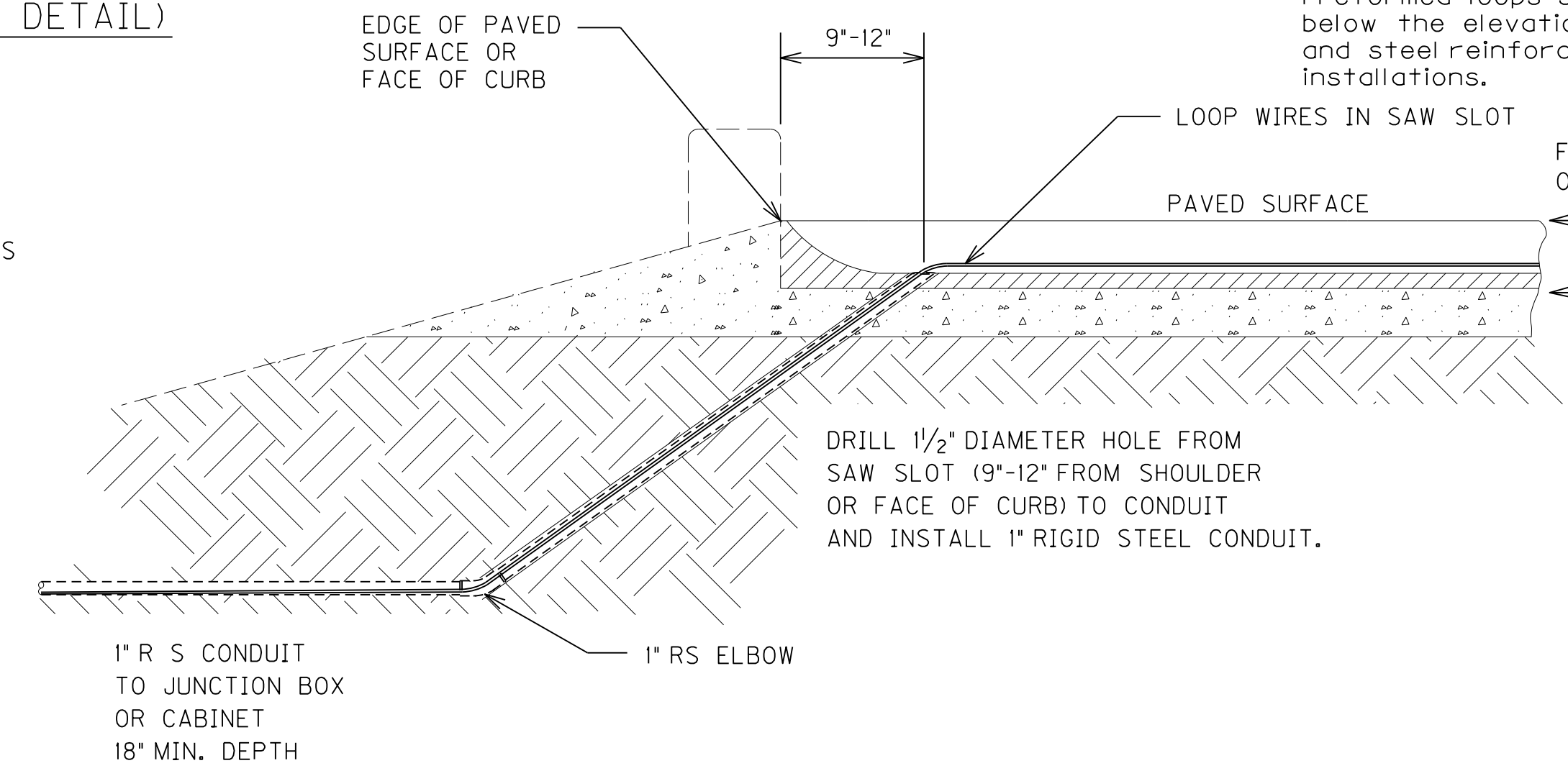


**ASPHALT SAW SLOT DETAIL FOR PREFORMED**

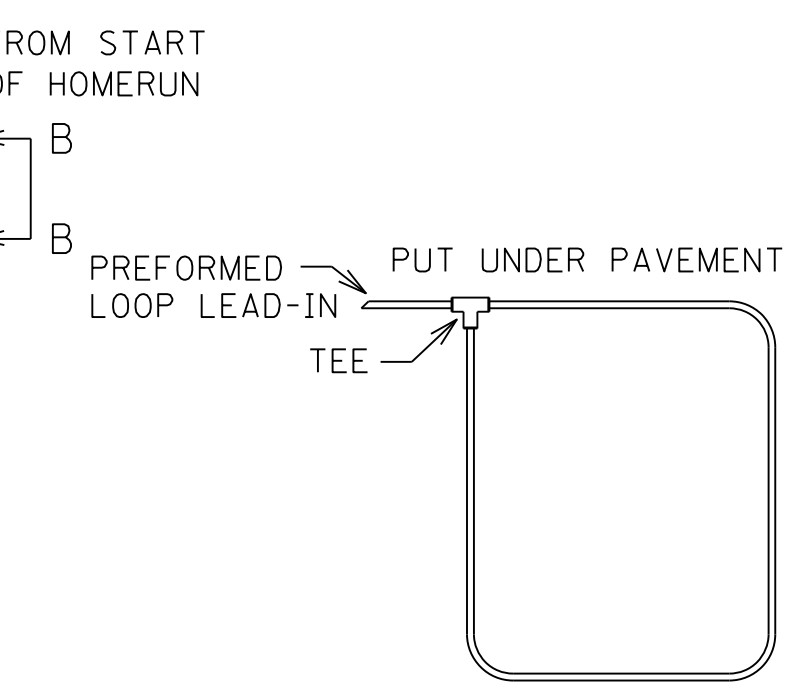
Use detail for concrete application if concrete is 4" or less. Preformed loops shall not be installed more than twelve inches below the elevation of the final pavement surface. Concrete joints and steel reinforcement shall be located to avoid the preformed loop installations.

PREFORMED LOOPS SHALL BE CONSTRUCTED WITH 11/16" OR SMALLER HEAVY DUTY REINFORCED RUBBER HOSE (CLASS A OIL RESISANT). THE TEE SHALL BE CONSTRUCTED OF HEAVY DUTY HIGH TEMPERATURE SYNTHETIC RUBBER. STANDARD WIRE SHALL BE WATER RATED #16 THWN OR TFFN.

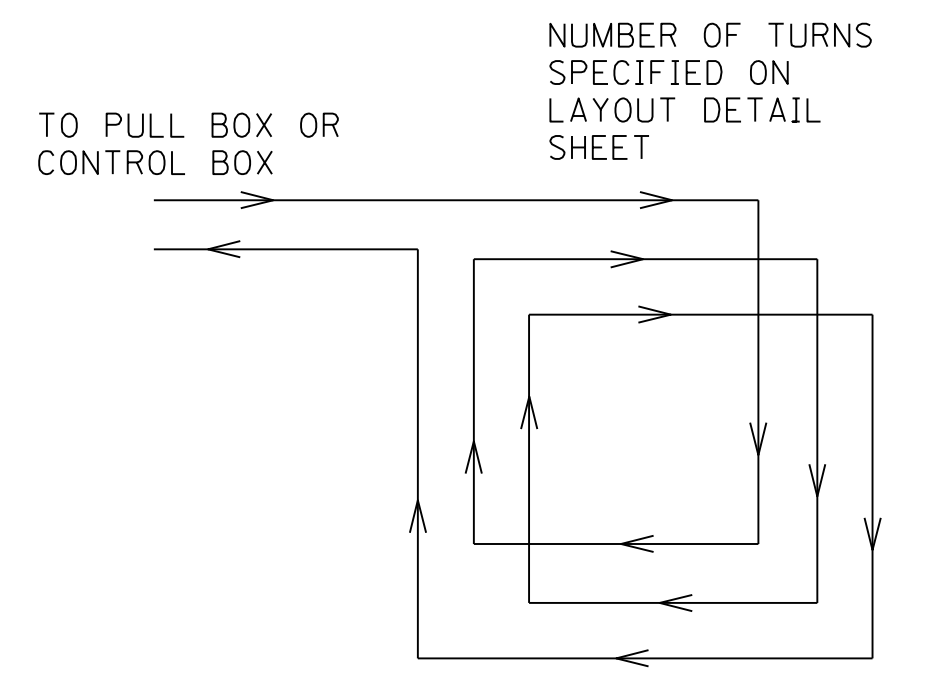
MAXIMUM NUMBER OF WIRES IN A TUBE PER SLOT IS 4.  
MAXIMUM NUMBER OF TUBES PER SLOT IS 1.



SAW SLOT EDGE OF PAVEMENT TRANSITION



PREFORMED LOOP DIAGRAM



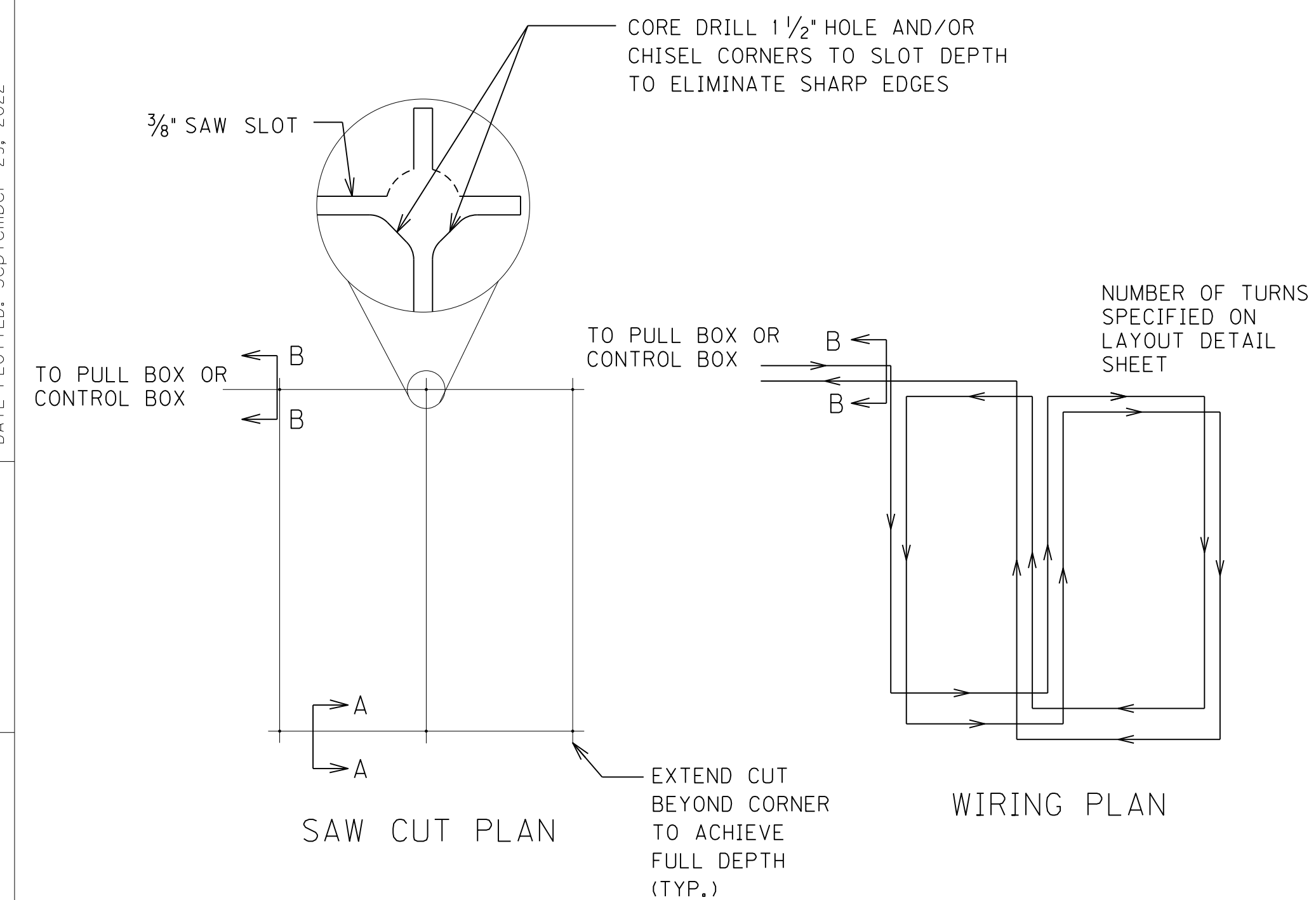
LOOP WIRE PLAN

6'x6' PREFORMED LOOP

CONSTRUCTION DETAILS FOR LOOP SAW SLOT AND FILL BID ITEM: THE FOLLOWING IS A TYPICAL STEP BY STEP PROCEDURE FOR THE INSTALLATION OF A LOOP.

- CAREFULLY MARK THE SLOT TO BE CUT, PERPENDICULAR TO THE FLOW OF TRAFFIC AND CENTERED IN THE LANE.
- MAKE EACH SAW-CUT 3/8" INCH WIDE AND AT A DEPTH SUCH THAT THE TOP OF THE BACKER ROD IS A MINIMUM OF 4 INCHES BELOW THE SURFACE OF ASPHALT PAVEMENT.
- DRILL A 1 1/2" INCH CORE HOLE AT EACH CORNER AND USE A CHISEL TO SMOOTH THE CORNERS TO PREVENT SHARP BENDS IN THE WIRE.
- CLEAN ALL FOREIGN AND LOOSE MATTER OUT OF THE SLOTS, DRILLED CORES, AND WITHIN 1 FOOT ON ALL SIDES OF THE SLOTS USING A HIGH PRESSURE WASHER.
- COMPLETELY DRY THE SLOTS, DRILLED CORES, AND WITHIN 1 FOOT ON ALL SIDES OF THE SLOTS.
- MEASURE 9-12 INCHES FROM THE EDGE OF THE PAVED SURFACE (SHOULDER BREAK OR FACE OF CURB) AND DRILL A 1 1/2" INCH HOLE ON A 45 DEGREE ANGLE TO THE CONDUIT ADJACENT TO THE ROADWAY.
- CLOSELY INSPECT ALL CUTS, CORES, AND SLOTS FOR JAGGED EDGES OR PROTRUSIONS PRIOR TO THE PLACEMENT OF THE WIRE. ALL JAGGED EDGES AND PROTRUSIONS SHALL BE GROUND OR RE-CUT AND CLEANED AGAIN.
- INSTALL 1" RIGID STEEL CONDUIT IN 45 DEGREE DRILLED SLOT. CONNECT CONDUIT TO 1" RIGID STEEL CONDUIT ADJACENT TO THE ROADWAY WITH RIGID STEEL ELBOW.
- PLACE THE LOOP WIRE SPLICE-FREE FROM THE TERMINATION POINT. SEE SECTION B-B NOTE.
- PUSH THE WIRE INTO THE SAW SLOT WITH A BLUNT OBJECT SUCH AS A WOODEN STICK. MAKE SURE THAT THE LOOP WIRE IS PUSHED FULLY TO THE BOTTOM OF THE SAW SLOT. SCREWDRIVERS SHALL NOT BE USED.
- INSTALL DUCT SEALANT TO A MINIMUM OF 1 INCH DEEP INTO THE CORED 1 1/2" INCH HOLE.
- APPLY LOOP SEALANT FROM THE BOTTOM UP AND FULLY ENCAPSULATE THE LOOP WIRES IN THE SAW SLOT. THE WIRE SHOULD NOT BE ABLE TO MOVE WHEN THE SEALANT HAS SET.
- COVER THE ENCAPSULATED LOOP WIRE WITH A CONTINUOUS LAYER OF BACKER ROD ALONG THE ENTIRE LOOP AND HOME RUN SAW SLOTS SUCH THAT NO VOIDS ARE PRESENT BETWEEN THE LOOP SEALANT AND BACKER ROD.
- FINISH FILLING THE SAW CUT WITH NON-SHRINKABLE GROUT PER MANUFACTURER'S INSTRUCTIONS. ALLEVIATE ALL AIR POCKETS AND REFILL LOW SPACES. THERE SHALL BE NO CONCAVE PORTION TO THE GROUT IN THE SAW SLOT. ANY EXCESS GROUT SHALL BE CLEANED FROM THE ROADWAY TO ALLEVIATE TRACKING.
- CLEAN UP THE SITE AND DISPOSE OF ALL WASTE OFF THE PROJECT.
- ENSURE THAT THE GROUT HAS COMPLETELY CURED PRIOR TO SUBJECTING THE LOOP TO TRAFFIC. CURING TIME VARIES WITH TEMPERATURE AND HUMIDITY.

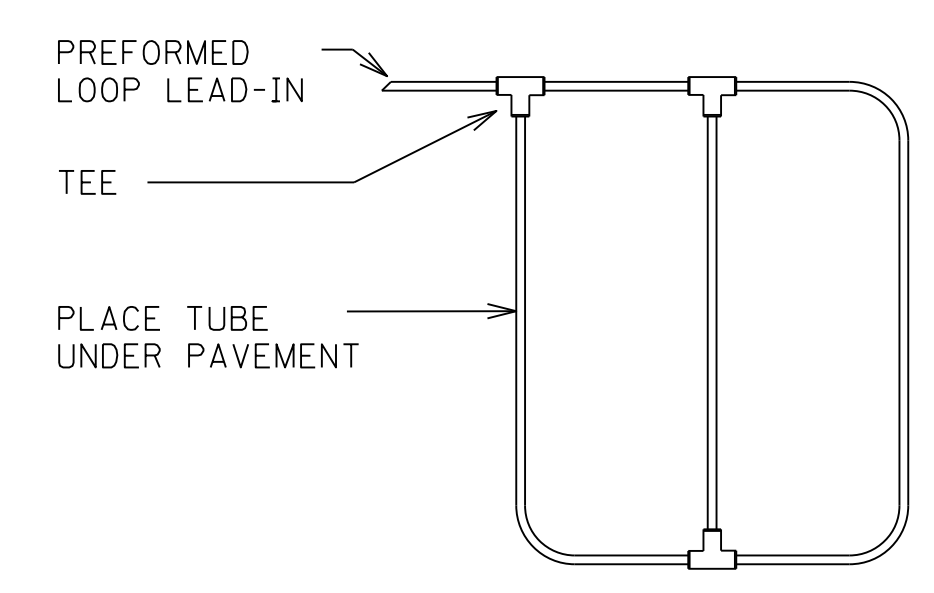
PREFORMED LOOP LEAD-IN SHALL BE TWISTED WITH THREE TO FIVE TURNS PER FOOT UNTIL TERMINATED AT FIELD CONNECTIONS IN THE CABINET OR CONNECTED TO SHIELDED CABLE.



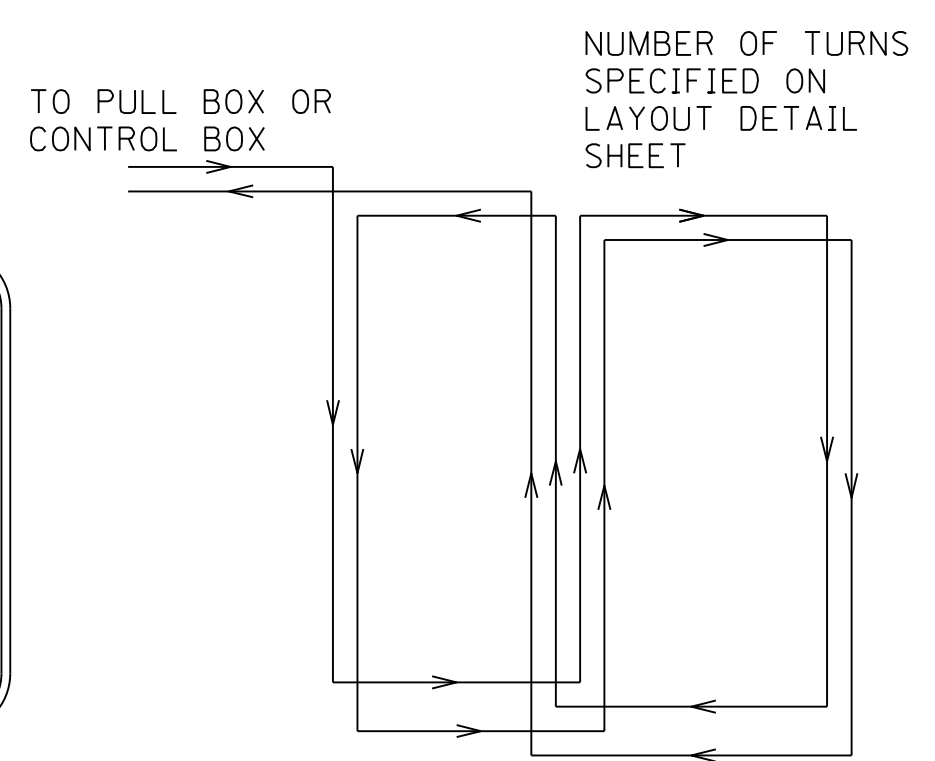
SAW CUT PLAN

WIRING PLAN

6'x30' QUADRAPOLE LOOP



PREFORMED LOOP DIAGRAM



LOOP WIRE PLAN

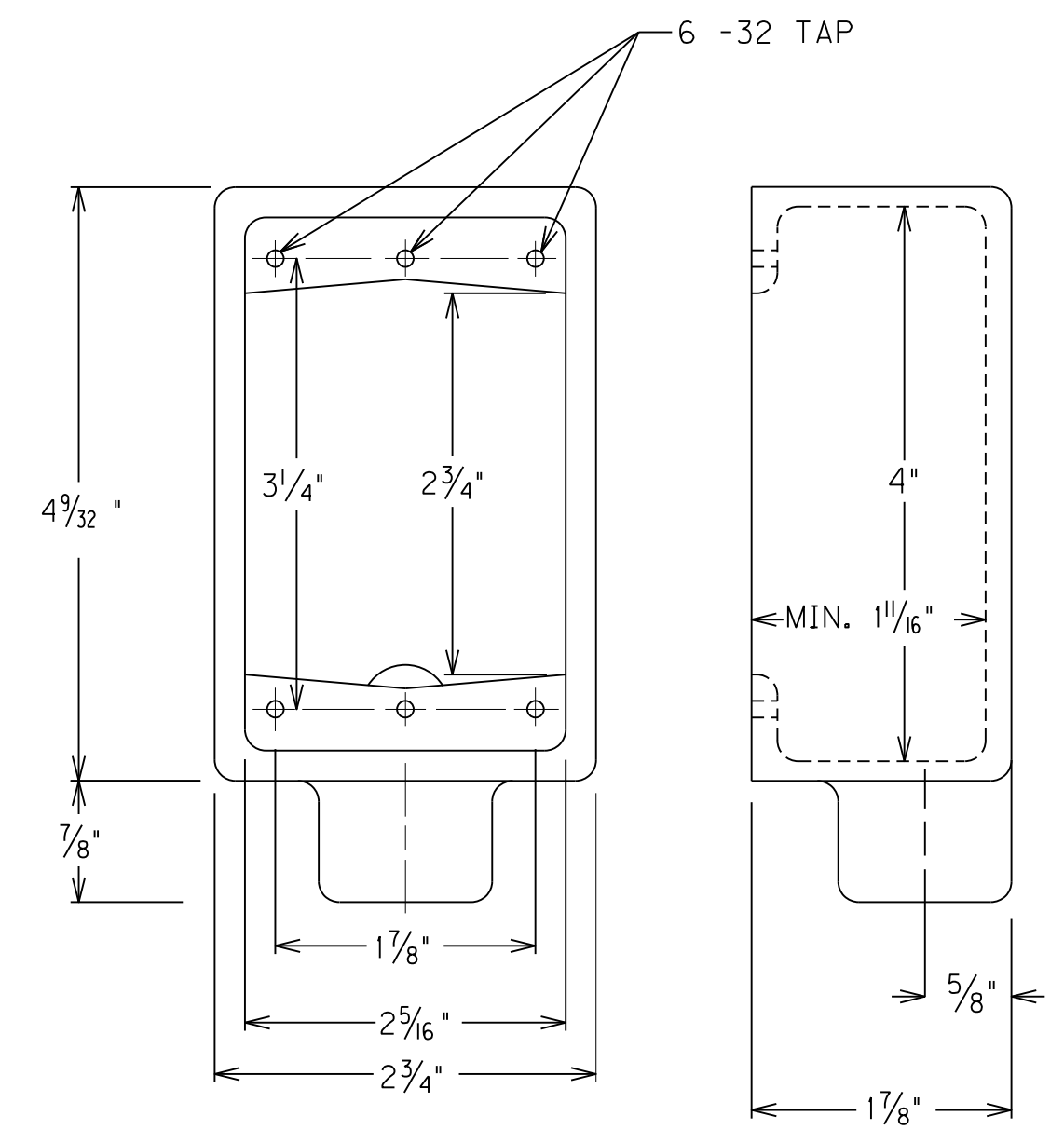
6'x30' QUADRAPOLE PREFORMED LOOP

**LOOP DETAILS**

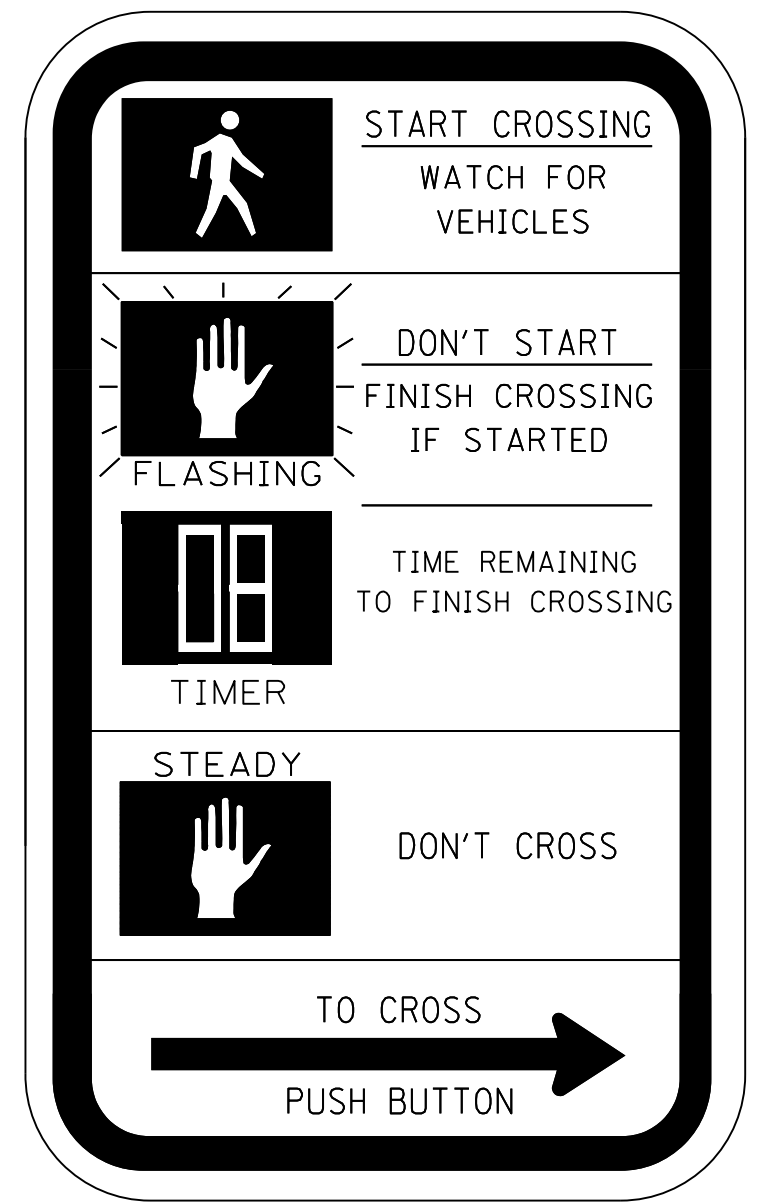


FILE NAME: \\HMBDATA05\VOL\ENGR\TRAFFIC STUDIES\RH CARRIERS CHERRY BLOSSOM WAY\POLE RELOCATION\SIGNAL DESIGN\QUANTITIES AND DETAIL SHEET  
 USER: IJohnson  
 DATE PLOTTED: September 29, 2022  
 E-SHEET NAME:  
 MicroStation v8.11.9.919

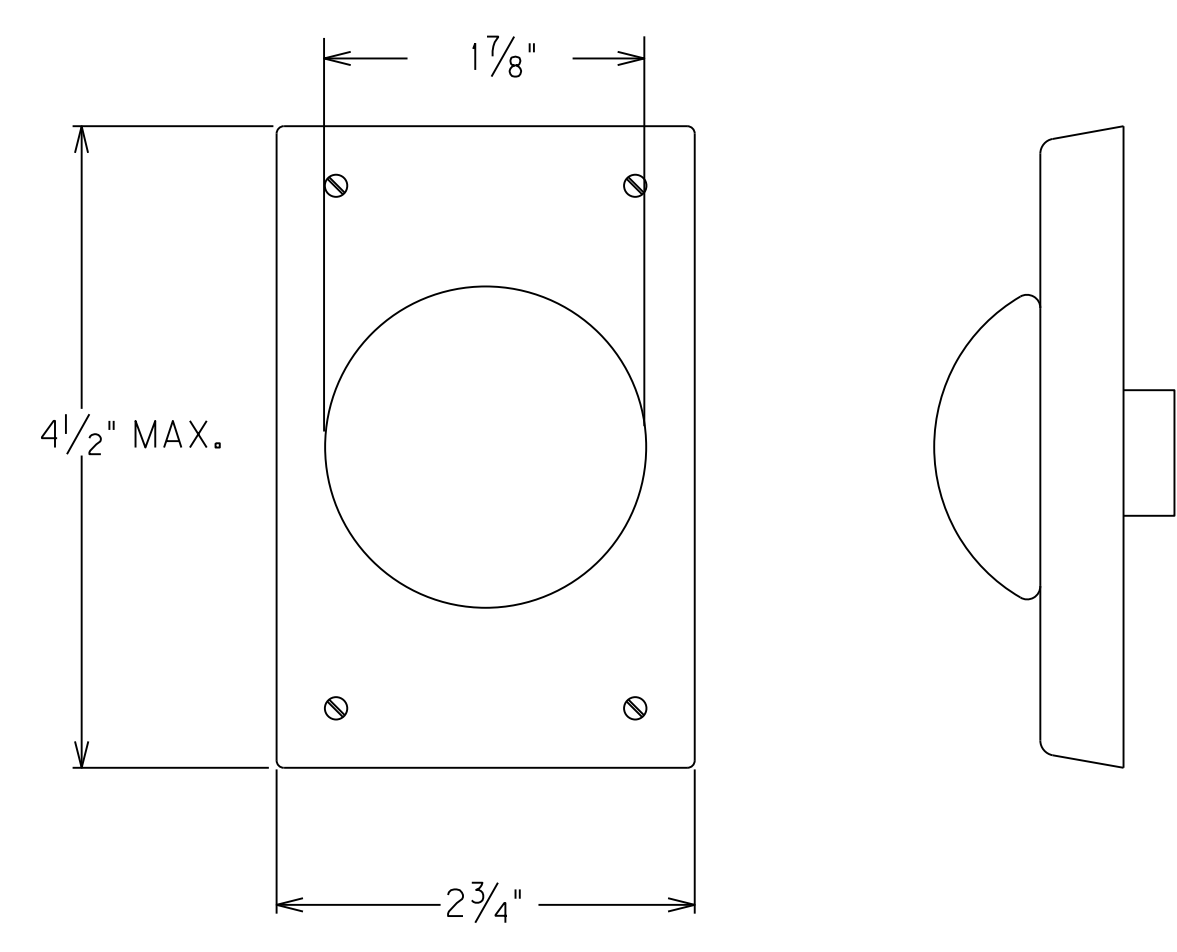
COUNTY OF	ITEM NO.	SHEET NO.
SCOTT		



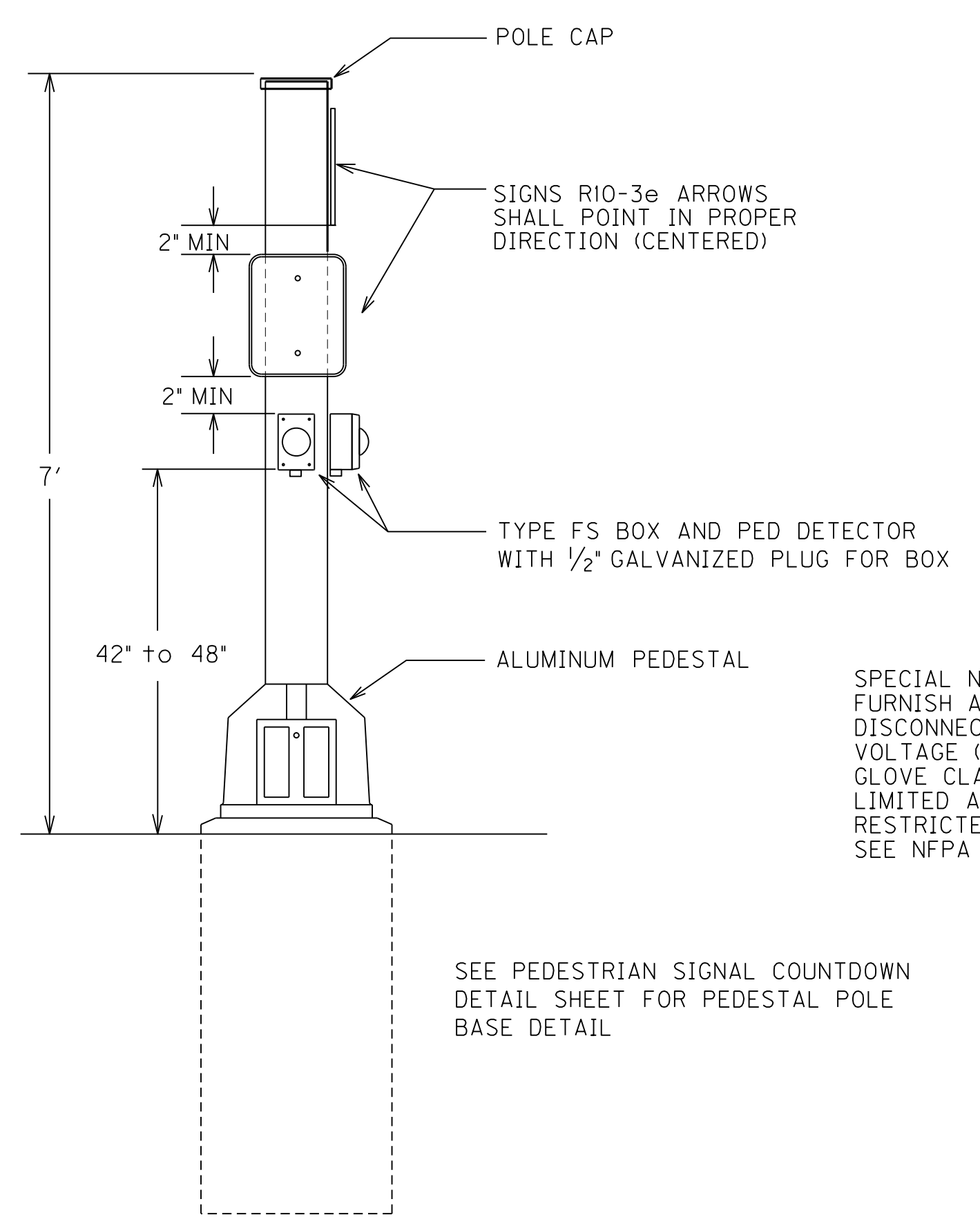
TYPE FS BOX FOR PED DETECTOR FOR USE WITH STEEL STRAIN POLE, WOOD POST, PEDESTAL, AND WOOD POLE



R10-3e SIGN (9" X 15") FOR COUNTDOWN ONLY



PED DETECTOR

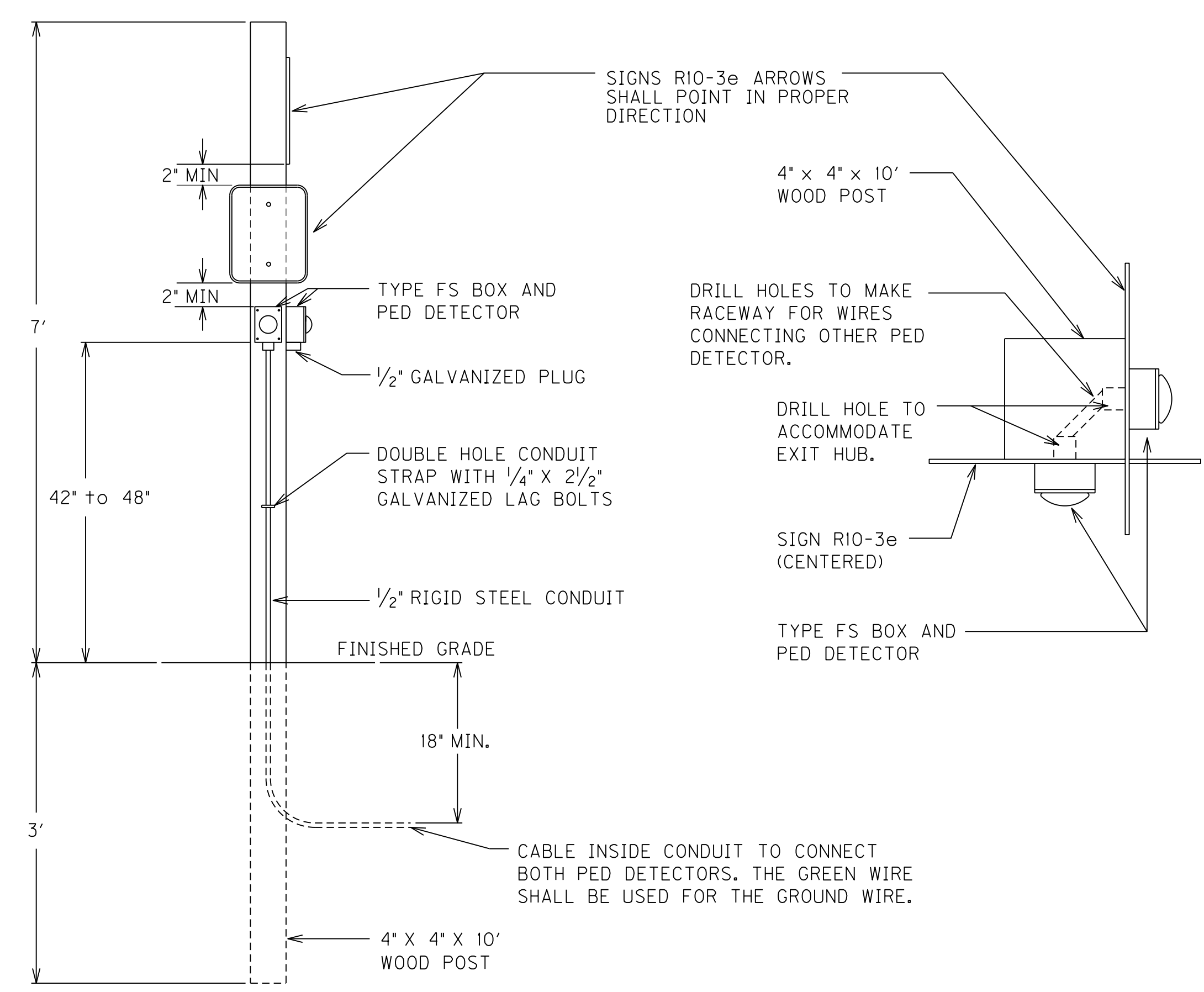


PEDESTAL POST DETAIL FOR PED DETECTORS & SIGNS

SPECIAL NOTE FOR TRANSFORMER DOOR:  
 FURNISH A SHOCK HAZARD WARNING STICKER ON DISCONNECT WITH THE FOLLOWING INFORMATION:  
 VOLTAGE (120 VOLT)  
 GLOVE CLASS (0)  
 LIMITED APPROACH BOUNDARY (42 IN)  
 RESTRICTED APPROACH BOUNDARY (CONTACT)  
 SEE NFPA 70E FOR ADDITIONAL PPE REQUIRED

SEE PEDESTRIAN SIGNAL COUNTDOWN DETAIL SHEET FOR PEDESTAL POLE BASE DETAIL

#9 X 1 1/2" PAN HEAD OR ROUND HEAD WOOD SCREWS TO SECURE BOX TO POST. MINIMUM OF 2 SCREWS FOR EACH BOX. SCREWS SHALL BE INSTALLED DIAGONALLY.



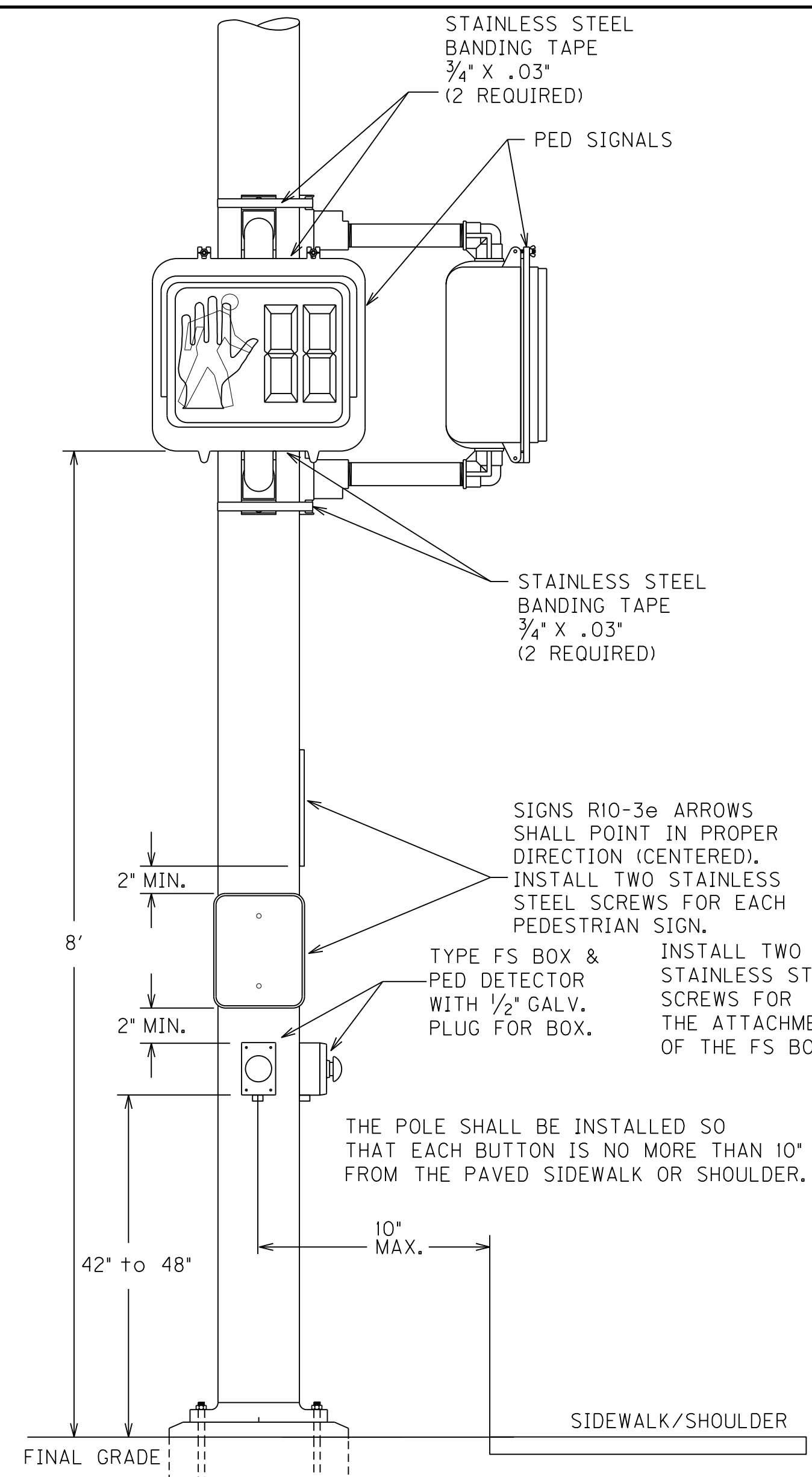
PED DETECTOR ON WOOD POST DETAIL

PEDESTRIAN DETECTOR DETAIL



FILE NAME: \\HMBDATA05\VOL\ENGR\TRAFFIC STUDIES\RH-CARRIERS CHERRY BLOSSOM WAY\POLE RELOCATION\SIGNAL DESIGN\QUANTITIES AND DETAIL SHEET  
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 8/19/2021

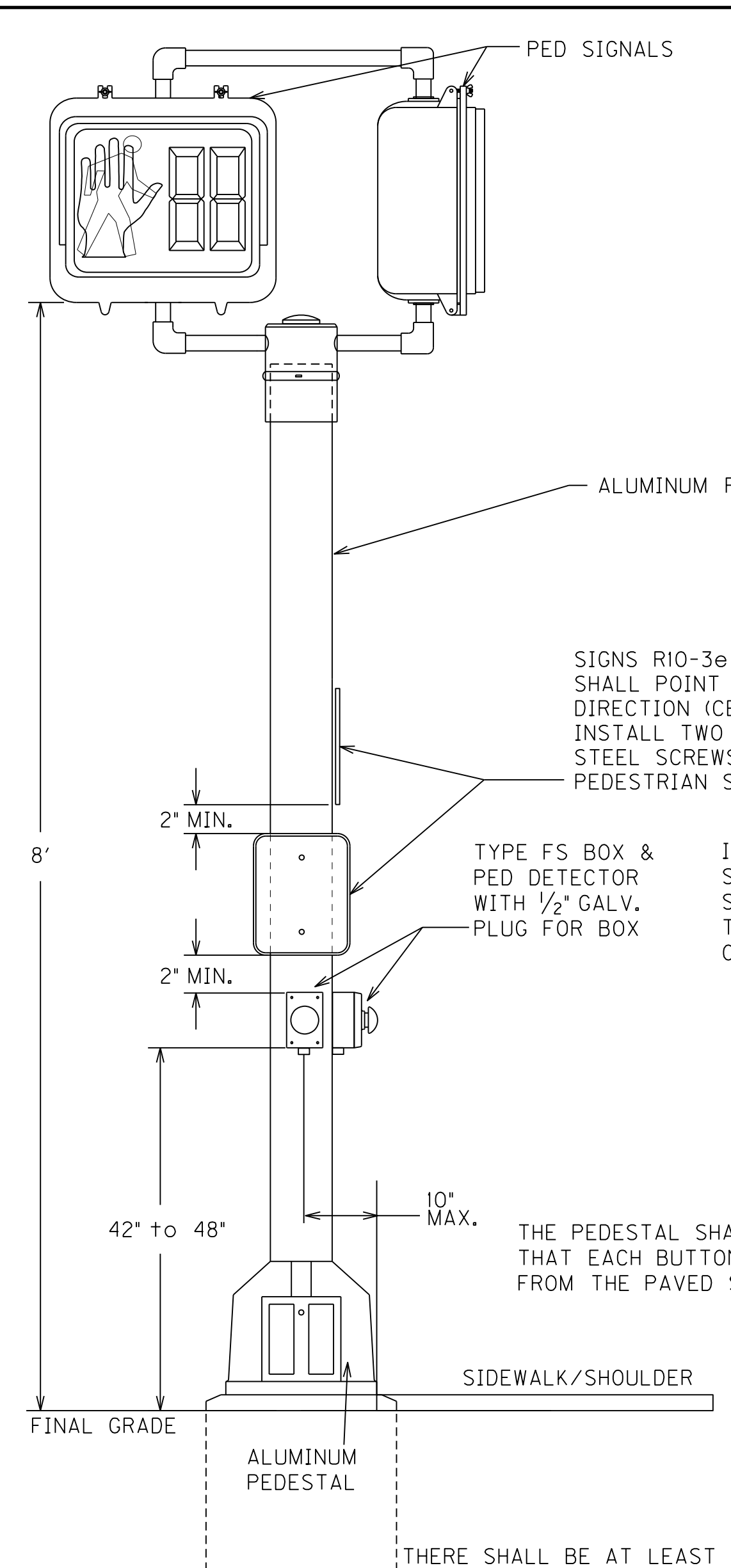
COUNTY OF	ITEM NO.	SHEET NO.
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**STEEL STRAIN POLE DETAIL FOR PED DETECTORS AND PED SIGNALS**

**NOTE:**  
 ALL GROUNDING AND SPARE CONDUITS THAT ARE INSTALLED IN THE CONCRETE PEDESTAL POLE BASE ARE INCIDENTAL TO BID ITEM '23222EC'. THIS INCLUDES PROVIDING A MINIMUM OF 24 INCHES OF CONDUIT PAST THE EDGE OF THE CONCRETE BASE. AN ARROW SHALL BE ETCHED INTO THE TOP OF THE PEDESTAL BASE TO SHOW LOCATION AND DIRECTION OF THE SPARE CONDUIT.

THERE SHALL BE A 2.5' (MIN.) X 4' (MIN.) CLEAR SPACE AT ALL PEDESTRIAN BUTTONS PER SECTION 404 OF PROWAG REQUIREMENTS.

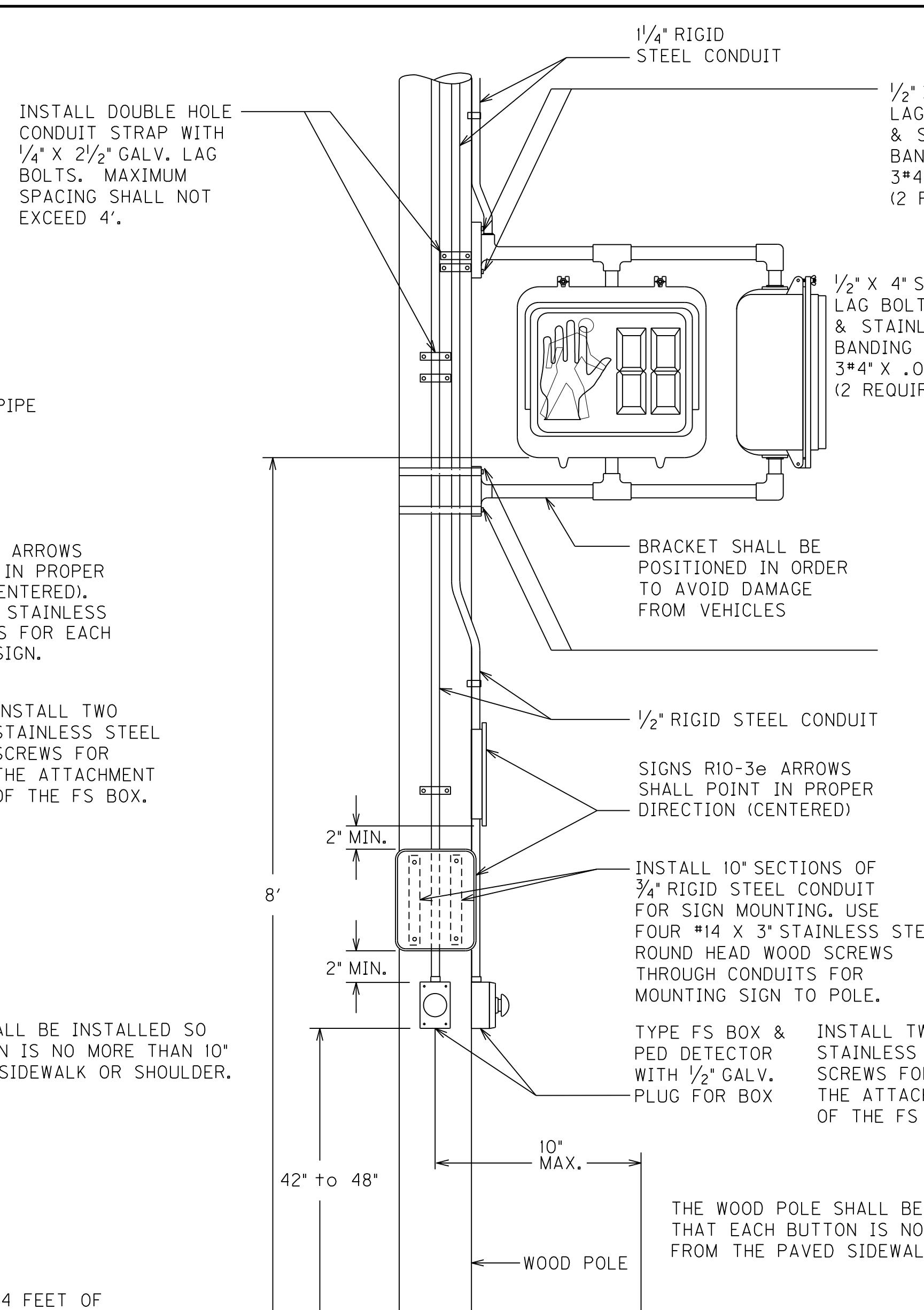


**PEDESTAL POLE DETAIL FOR PED DETECTORS AND PED SIGNALS**

CONTRACTOR SHALL DRILL HOLES IN THE PIPE AND THE TYPE FS BOX NOT EXCEEDING 1/2" IN DIAMETER. CONTRACTOR SHALL USE A ROUND FILE TO REMOVE ALL BURRS AND SHARP EDGES FROM THE HOLES. WIRES SHALL BE PROTECTED WITH HEAT SHRINK TUBING OR VINYL TAPE WHERE THEY PASS THROUGH THE HOLES.

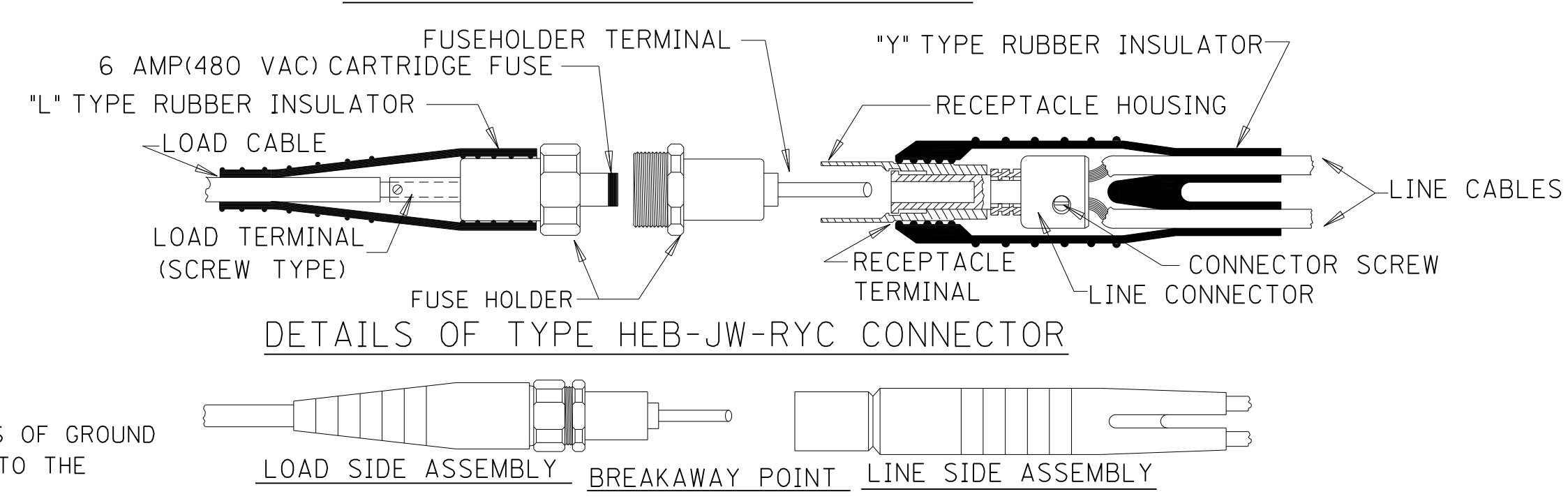
**GROUNDING REQUIREMENTS:**  
 CONTRACTOR SHALL PROVIDE A MINIMUM OF 6 INCHES OF GROUND WIRE FOR TESTING PRIOR TO CONNECTING THE WIRE TO THE TRANSFORMER BASE.  
 LEAVE TOP OF GROUND RODS EXPOSED FOR ELECTRICAL INSPECTION.

PEDESTAL POLE GROUND - GROUND WIRE SHALL COME FROM THE GROUND ROD THROUGH THE PVC CONDUIT, CONNECTING TO A GROUND LUG ON THE TRANSFORMER BASE AND THEN TO EACH RIGID STEEL GROUNDING BUSHING. ALL GROUND RODS SHALL BE 24" FROM THE CONCRETE POLE BASE.



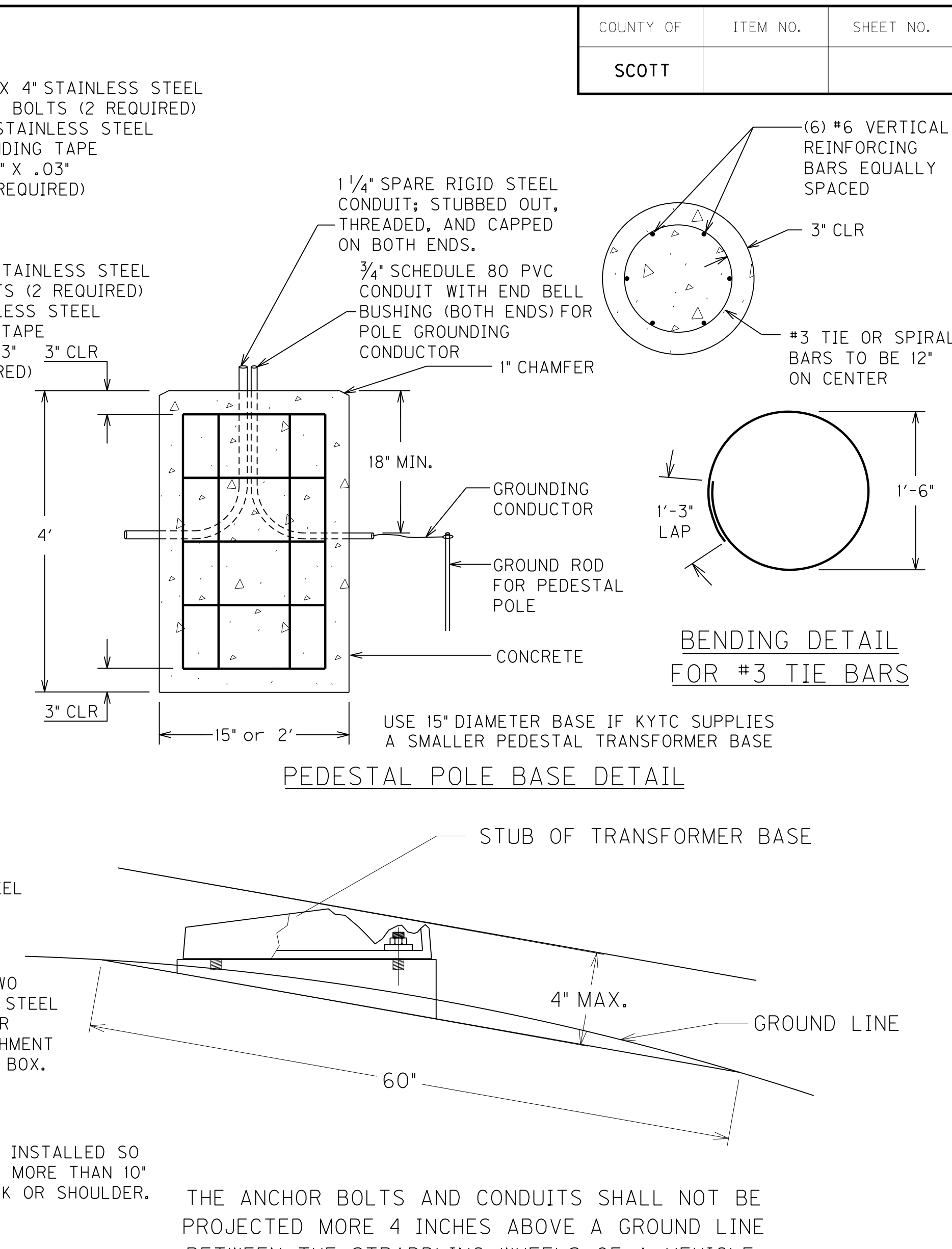
**WOOD POLE DETAIL FOR PED DETECTORS AND PED SIGNALS**

**BREAKAWAY FUSE CONNECTOR KIT**



**TYPE HEB-JW-RYC CONNECTOR SHOWN**

**SPECIAL NOTE FOR THE TRANSFORMER BASE:** FUSED CONNECTOR KITS SHALL BE INSTALLED FOR ALL 120 VOLT WIRING IN TRANSFORMER BASES. THIS WILL ONLY BE NEEDED FOR PEDESTRAIN HEADS AND SIGNALS HEADS. PEDESTRAIN DETECTORS DO NOT REQUIRE FUSED CONNECTOR KITS. CONTRACTOR CAN USE ONE KIT FOR A COMMON NEUTRAL FOR ALL DEVICES IN THE TRANSFORMER BASE. THERE SHALL BE A METAL LUG INSTALLED IN THE NEUTRAL WIRE KIT INSTEAD OF A FUSE.



**PEDESTAL POLE BASE DETAIL**

**BREAKAWAY SUPPORT STUB HEIGHT MEASUREMENT**

**NOTE:**  
 THE PEDESTAL BASE DOOR SHALL HAVE A 4" BY 6" SHOCK HAZARD WARNING STICKER (IF SMALLER TRANSFORMER BASE IS INSTALLED USE A 2" BY 3" INSTEAD). INSTALL 3" FROM THE TOP OF THE DOOR. THE STICKER SHALL BE METALCRAFT PLY695 PREM STYLEMARK LABEL WITH .007 THICKNESS, WITH UV WHITE POLYCARBONATE MATERIAL, AND WITH MC53FL PRESSURE SENSITIVE ADHESIVE OR APPROVAL EQUAL. THIS SHALL BE INCIDENTAL TO THE PROJECT.  
**SPECIAL NOTE FOR THE TRANSFORMER BASE:** FURNISH A SHOCK HAZARD WARNING STICKER ON DISCONNECT WITH THE FOLLOWING INFORMATION:  
 VOLTAGE (120 VOLT)  
 GLOVE CLASS (0)  
 LIMITED APPROACH BOUNDARY (42 IN)  
 RESTRICTED APPROACH BOUNDARY (CONTACT)  
 SEE NFPA 70E FOR ADDITIONAL PPE REQUIRED

**PEDESTRIAN SIGNAL COUNTDOWN DETAIL**



FILE NAME: \\HMBDATA05\VOL\ENGR\TRAFFIC STUDIES\RH-CARRIERS CHERRY BLOSSOM WAY\POLE RELOCATION\SIGNAL DESIGN\QUANTITIES AND DETAIL SHEET  
 USER: IJohnson  
 DATE PLOTTED: September 29, 2022  
 E-SHEET NAME:  
 MicroStation v8.11.9.919  
 7/26/2022

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SCOTT		

**NOTES:**

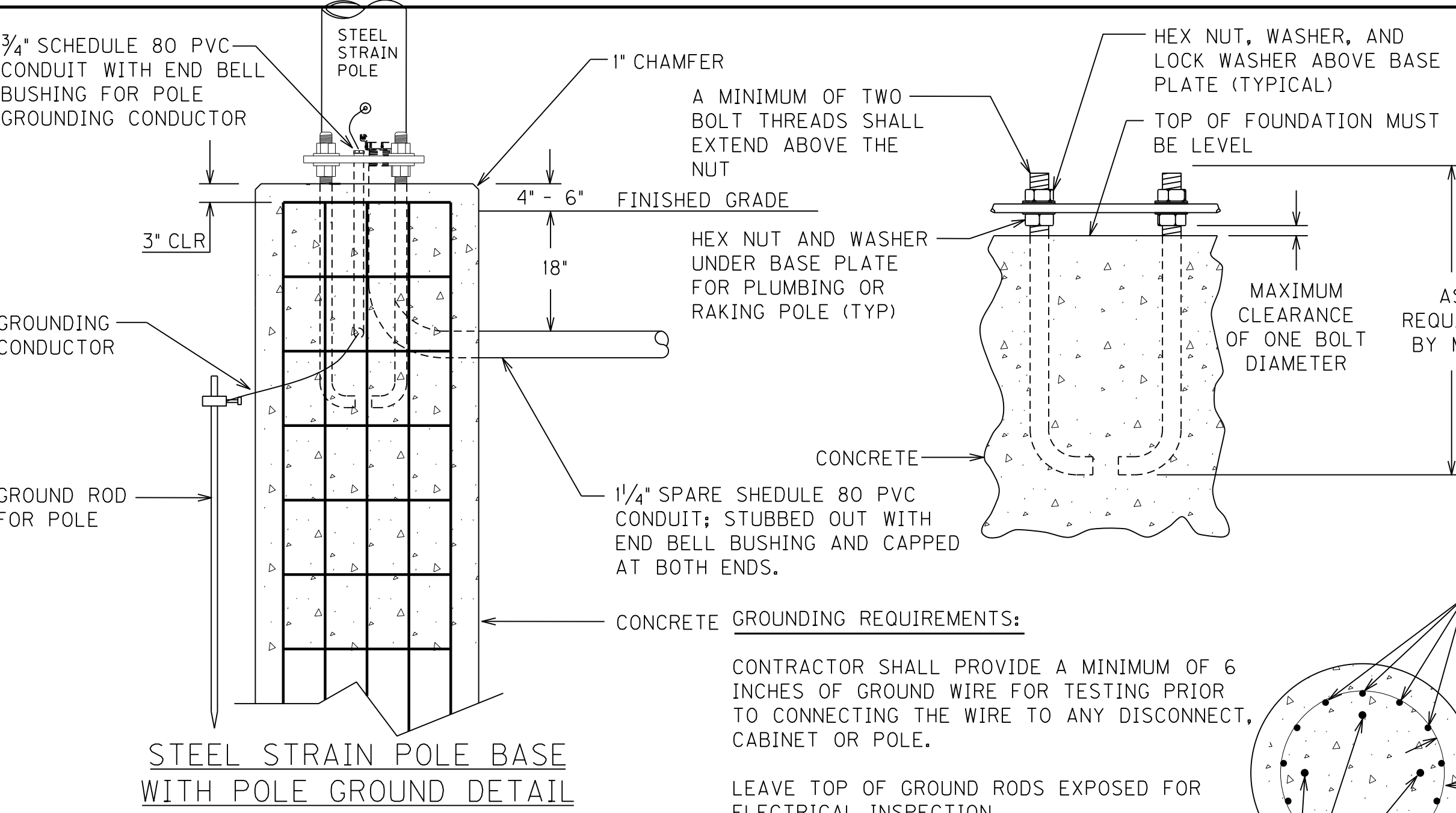
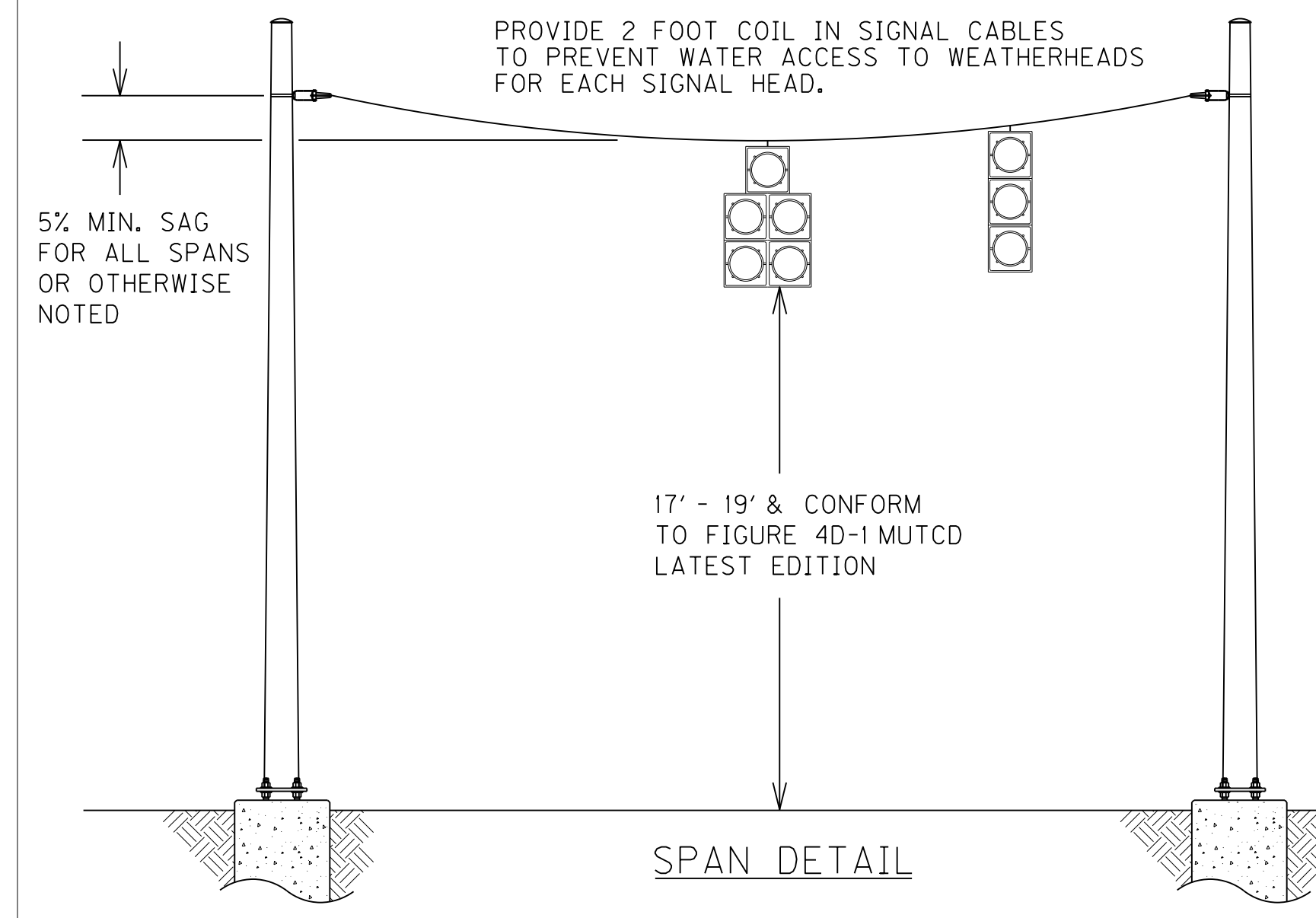
ALL CONDUITS USED FOR THE TELEPHONE, GROUNDING, SPARE, AND SERVICE THAT ARE INSTALLED IN THE POLE BASE ARE INCIDENTAL TO BID ITEM "23157EN". THIS INCLUDES PROVIDING A MINIMUM OF 24 INCHES OF CONDUIT PAST THE EDGE OF THE CONCRETE POLE BASE.

ALL CONDUITS SHALL BE INSTALLED BETWEEN 4 TO 6 INCHES ABOVE THE CONCRETE PAD, AND THEY CANNOT EXCEED THE 6 INCH HEIGHT.

FOR POLE BASE DEPTH SEE CHART IN SECTION 723 OF THE KENTUCKY STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

OVERHEAD SERVICE WIRES SHALL BE INSTALLED ON THE EXTERIOR OF THE POLE IN A 1" RIGID STEEL CONDUIT WITH WEATHERHEAD, OR ON THE INSIDE THE STEEL STRAIN POLE IN FLEXIBLE CONDUIT.

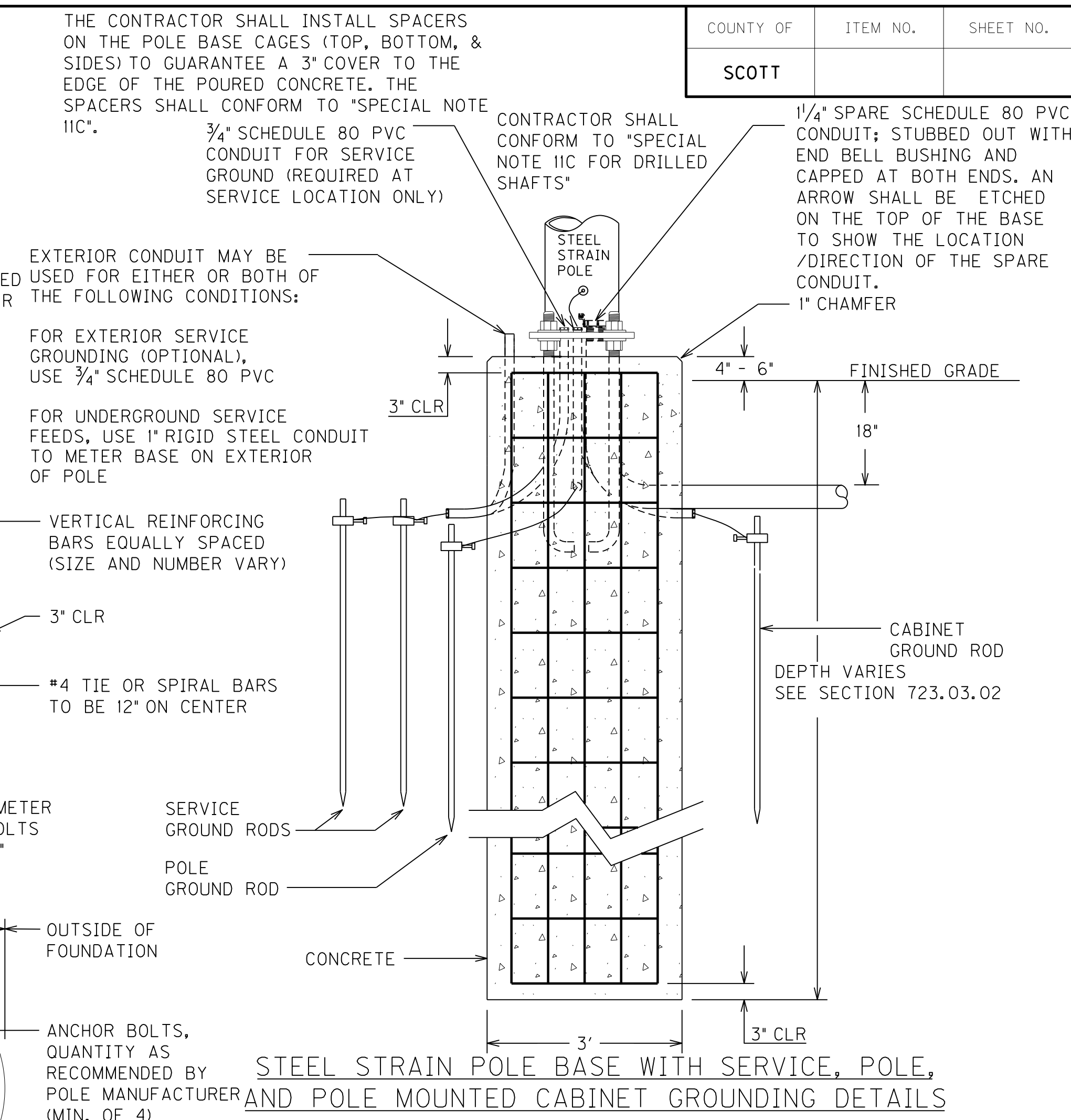
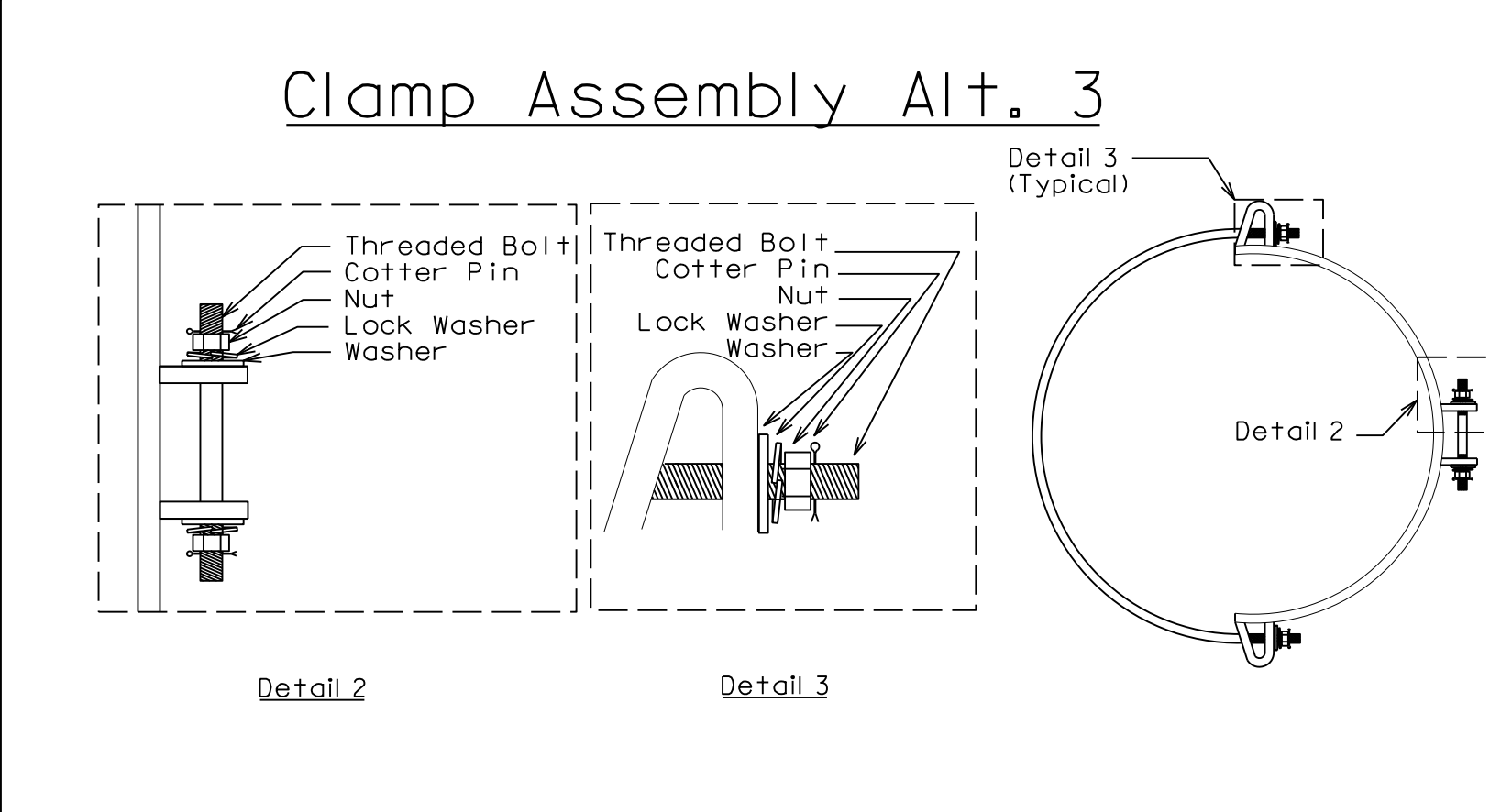
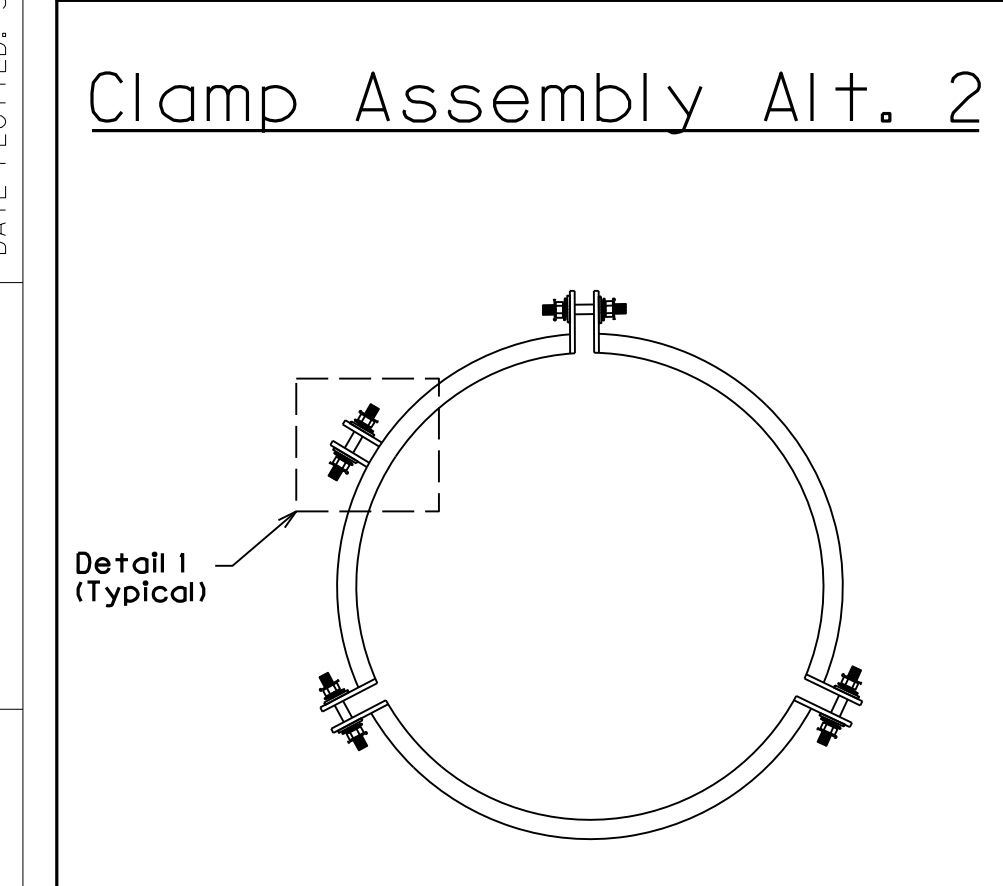
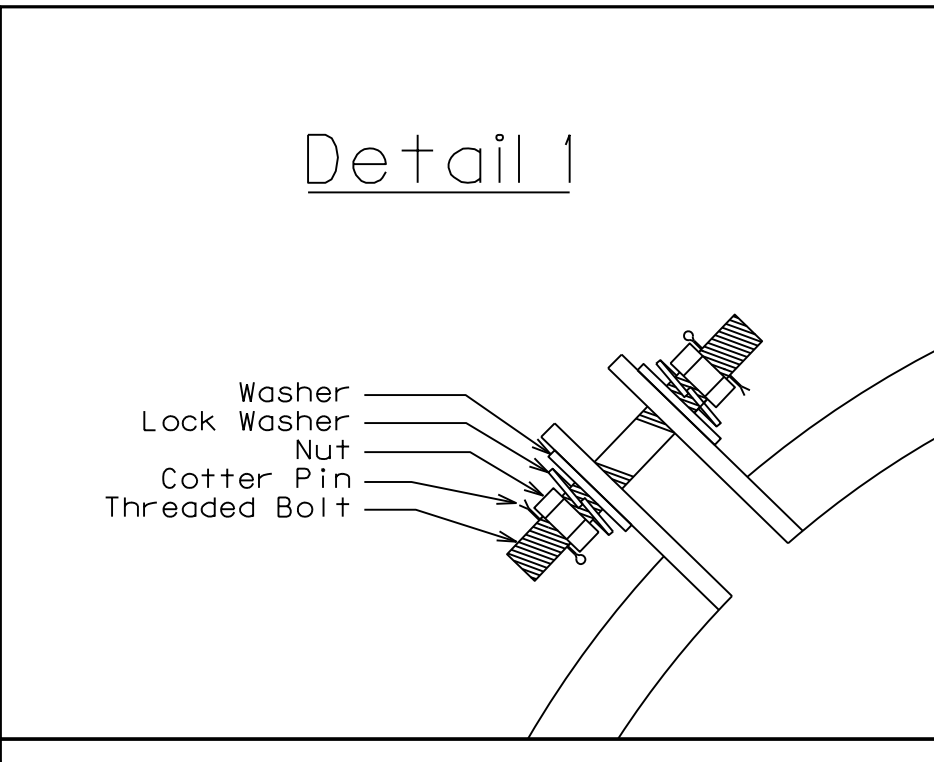
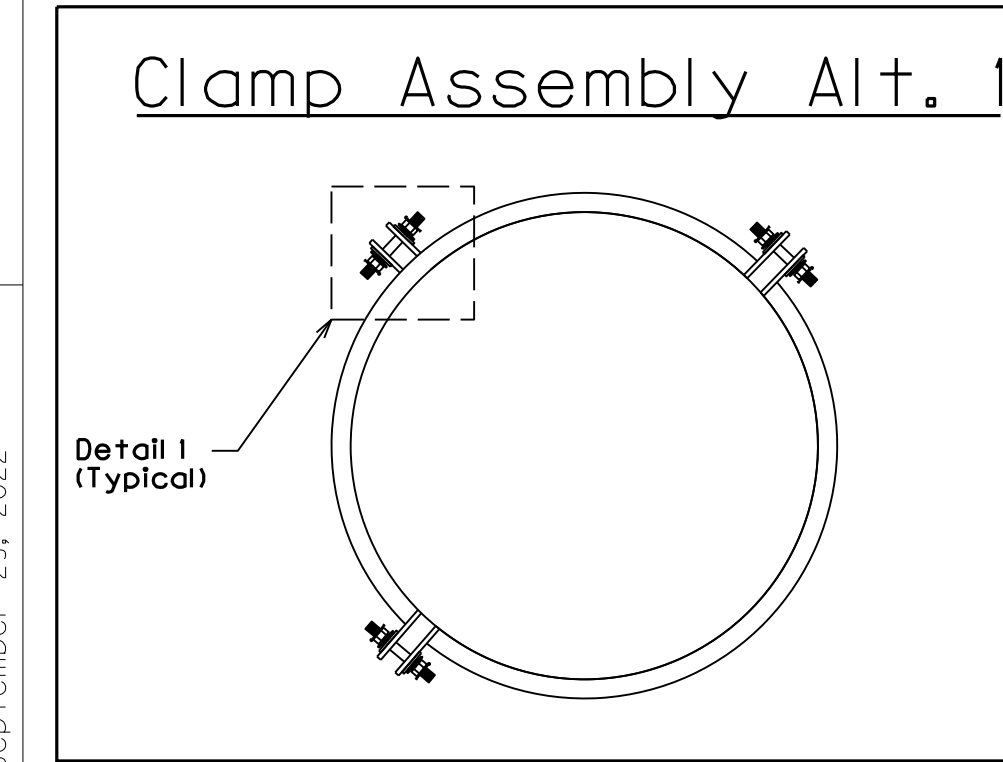
UNDERGROUND SERVICE WIRES SHALL BE INSTALLED IN 1" RIGID STEEL CONDUIT AS SHOWN ON THE CONTROLLER CABINET DETAIL SHEET.



**NOTE:**  
 THE STEEL STRAIN DOOR SHALL HAVE A 4" BY 6" SHOCK HAZARD WARNING STICKER INSTALL 3" FROM THE TOP OF THE DOOR. THE STICKER SHALL BE METALCRAFT PLY695 PREM STYLEMARK LABEL WITH .007 THICKNESS, WITH UV WHITE POLYCARBONATE MATERIAL, AND WITH MC53FL PRESSURE SENSITIVE ADHESIVE OR APPROVED EQUAL. THIS SHALL BE INCIDENTAL TO THE PROJECT.

**CLAMP ASSEMBLY SPECIFICATIONS**  
 CLAMP ASSEMBLIES MUST BE DESIGNED IN ACCORDANCE TO THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, SIXTH EDITION 2013. ADDITIONAL DESIGN PROVISIONS NOT ADDRESSED IN THE AFOREMENTIONED CODE SHALL BE OBTAINED FROM THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (2002). CLAMP ASSEMBLIES SHALL CONFORM TO SECTION 835.07.01 AND THE DRAWINGS SHOWN ON THIS STANDARD.

**MATERIALS:**  
 CLAMP/CLEVIS- ASTM A36 (GRADE 36)/ASTM A572 (GRADE 50)  
 BOLTS (EXCEPT U- BOLTS)- HIGH STRENGTH ASTM A325, ASTM A449, OR ASTM A490  
 U- BOLTS- MINIMUM ASTM A36  
 GALVANIZING- ASTM A153

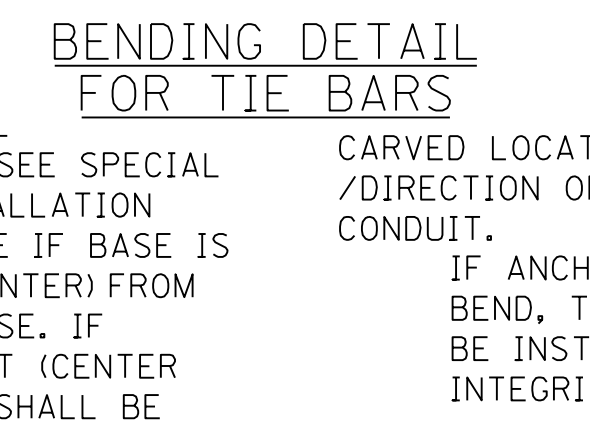
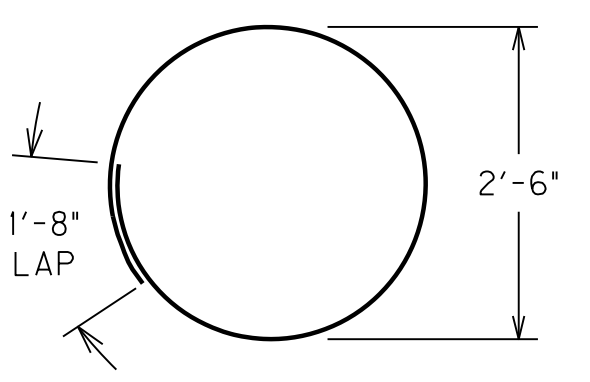


**CONTRACTOR SHALL PROVIDE A MINIMUM OF 6 INCHES OF GROUND WIRE FOR TESTING PRIOR TO CONNECTING THE WIRE TO ANY DISCONNECT, CABINET OR POLE.**

LEAVE TOP OF GROUND RODS EXPOSED FOR ELECTRICAL INSPECTION.

POLE GROUND - GROUND WIRE SHALL COME FROM THE GROUND ROD THROUGH THE PVC CONDUIT, CONNECTING TO THE POLE AND THEN TO EACH RIGID STEEL GROUNDING BUSHING.

ALL GROUND RODS SHALL BE 24" FROM THE CONCRETE POLE BASE.



**SPECIAL NOTE FOR POLE DOOR:**  
 FURNISH A SHOCK HAZARD WARNING STICKER ON DISCONNECT WITH THE FOLLOWING INFORMATION:  
 VOLTAGE (120 VOLT)  
 GLOVE CLASS (0)  
 LIMITED APPROACH BOUNDARY (42 IN)  
 RESTRICTED APPROACH BOUNDARY (CONTACT)  
 SEE NFPA 70E FOR ADDITIONAL PPE REQUIRED

**FOR EQUIPMENT GROUND:**  
 CONNECT SPAN WIRES WITH #4 AWG BARE COPPER AT BULL RING. THE GROUNDING LUG SHALL BE BRONZE TYPE.

**FOR EQUIPMENT GROUND:**  
 CONNECT SPAN WIRE TO POLE WITH #4 AWG BARE COPPER. THE GROUNDING LUG SHALL BE BRONZE TYPE. THERE SHALL BE AT LEAST 1.5 FOOT OF BARE COPPER BETWEEN EACH LUG.

CONNECT EACH STRAND VISE TO BULL RING AT AERIAL CORNER.

INSTALL MESSENGER THROUGH STRAND VISE AND BEND MESSENGER AT EXIT POINT.

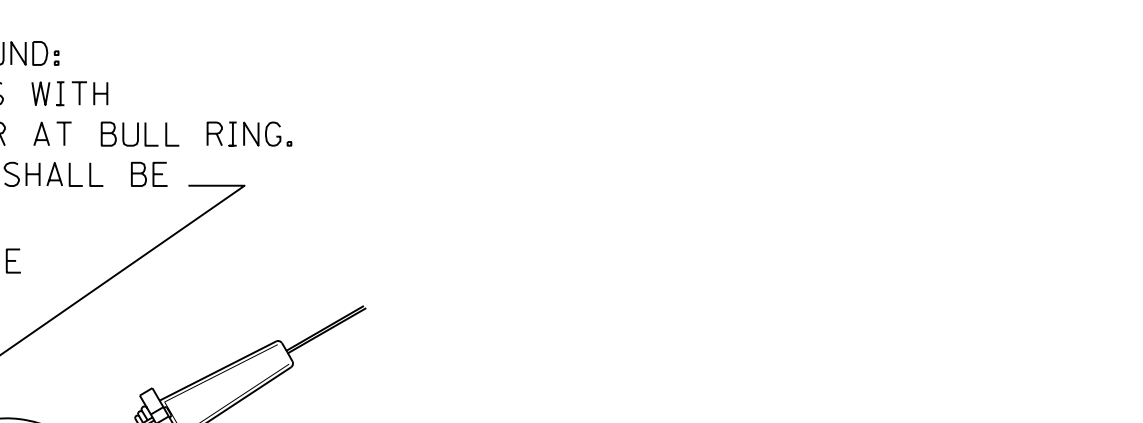
MESSENGER SHALL EXTEND 8" TO 10" BEYOND THE STRAND VISE YOKE.

JOHNNYBALLS OR STRAIN ISOLATORS SHALL NOT BE USED ON THE ATTACHMENT OF THE SPAN WIRE TO THE POLE.

INSTALL MESSENGER THROUGH STRAND VISE AND BEND MESSENGER AT EXIT POINT.

MESSENGER SHALL EXTEND 8" TO 10" BEYOND THE STRAND VISE YOKE.

THERE SHALL BE A SEPARATE COLLAR USED FOR EACH SPAN.



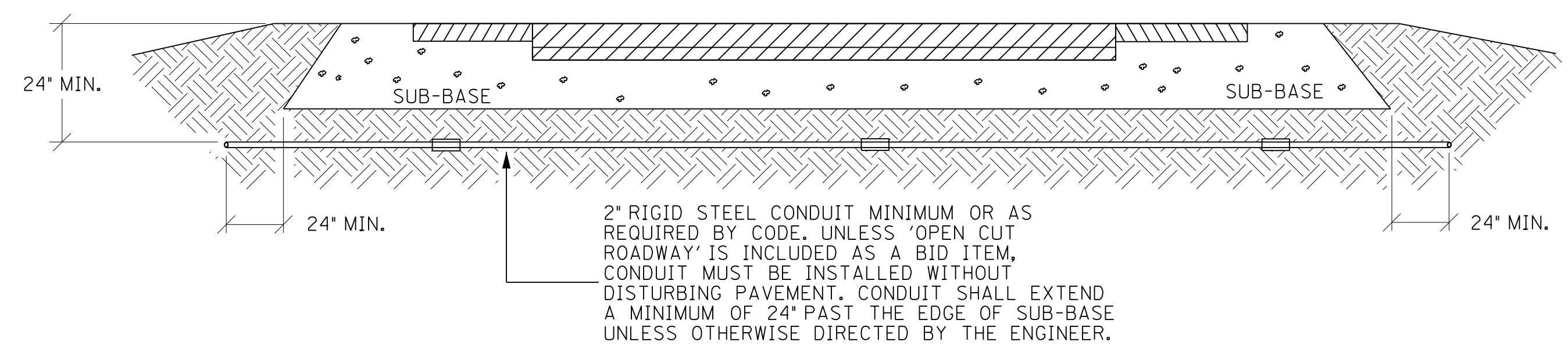
**FOR EQUIPMENT GROUND SIGNAL/PED HEADS:**  
 CONNECT GREEN WIRE FROM 5C/7C IMSA CABLE TO CONNECTOR THAT WILL BE INSTALLED UNDER ONE OF THE BOLTS FOR THE TRI STUD ASSEMBLY THAT CONNECTS THE HEADS. WE RECOMMEND BUTTED SEAM CLOSED BARREL FOR THIS CONNECTION.

**POLE BASE/SIGNAL HEAD DETAILS**

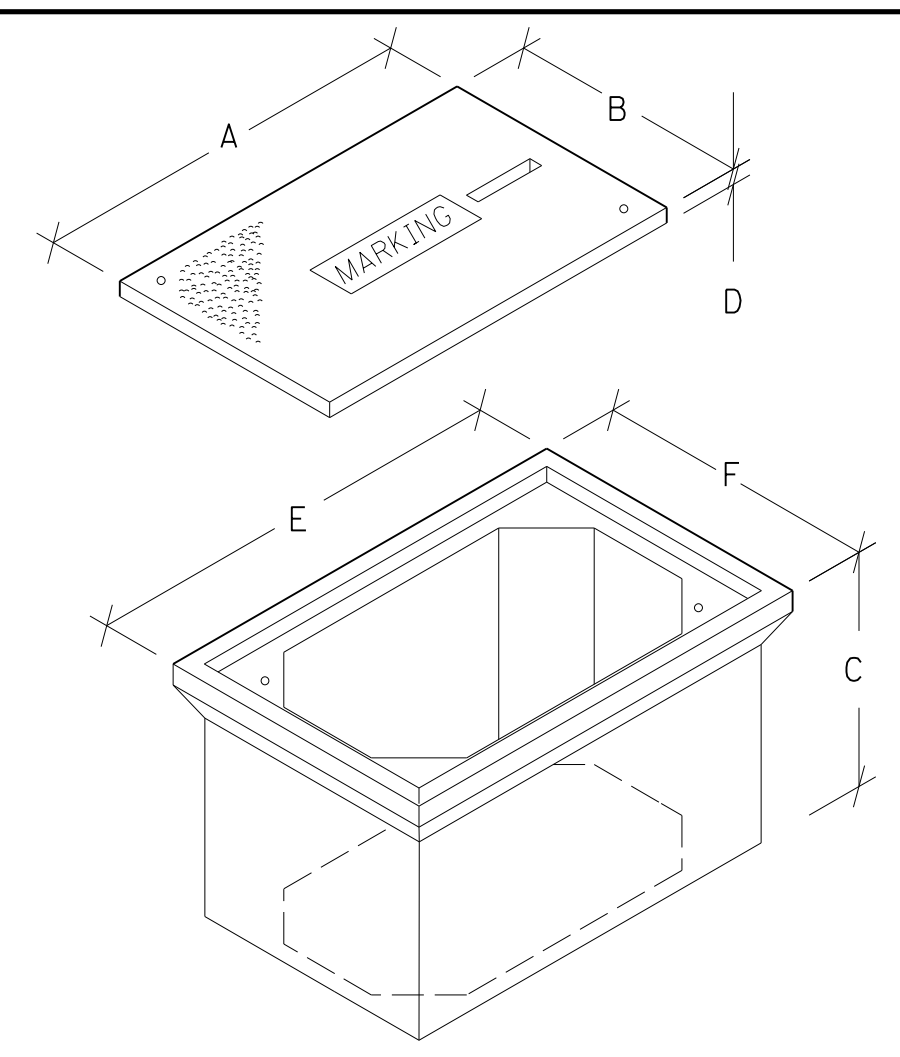


FILE NAME: \\HMBDATA05\VOL\ENGR\TRAFFIC STUDIES\VR-H CARRIERS CHERRY BLOSSOM WAY\POLE RELOCATION\SIGNAL DESIGN\QUANTITIES AND DETAIL SHEET  
 USER: IJohnson  
 DATE PLOTTED: September 29, 2022  
 E-SHEET NAME:  
 MicroStation v8.11.9.919  
 3/13/2017

COUNTY OF	ITEM NO.	SHEET NO.
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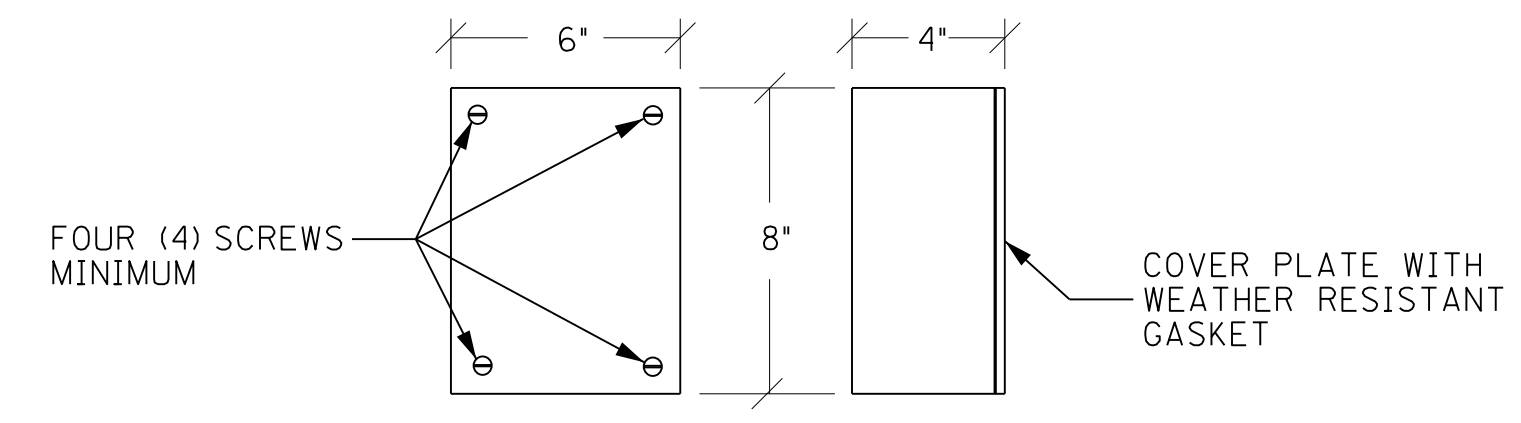


CONDUIT INSTALLATION UNDER EXISTING PAVEMENT DETAIL

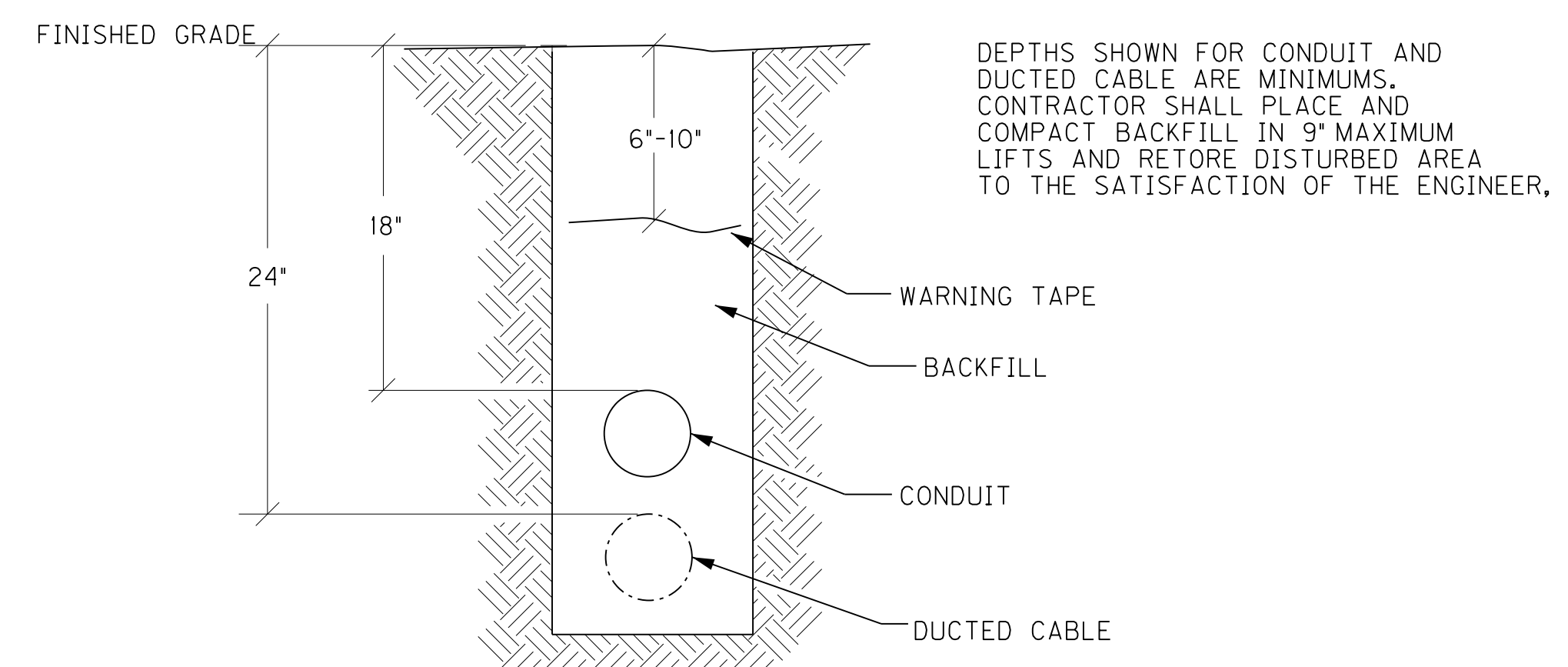


JUNCTION BOX DIMENSIONS (NOMINAL)						
	A	B	C	D	E	F
TYPE A	23"	14"	27"	2"	25"	15"
TYPE B	18"	11"	12"	1 3/4"	20"	13"
TYPE C	36"	24"	30"	3"	38"	26"

• MINIMUM  
 NOTE: STACKABLE BOXES ARE PERMITTED

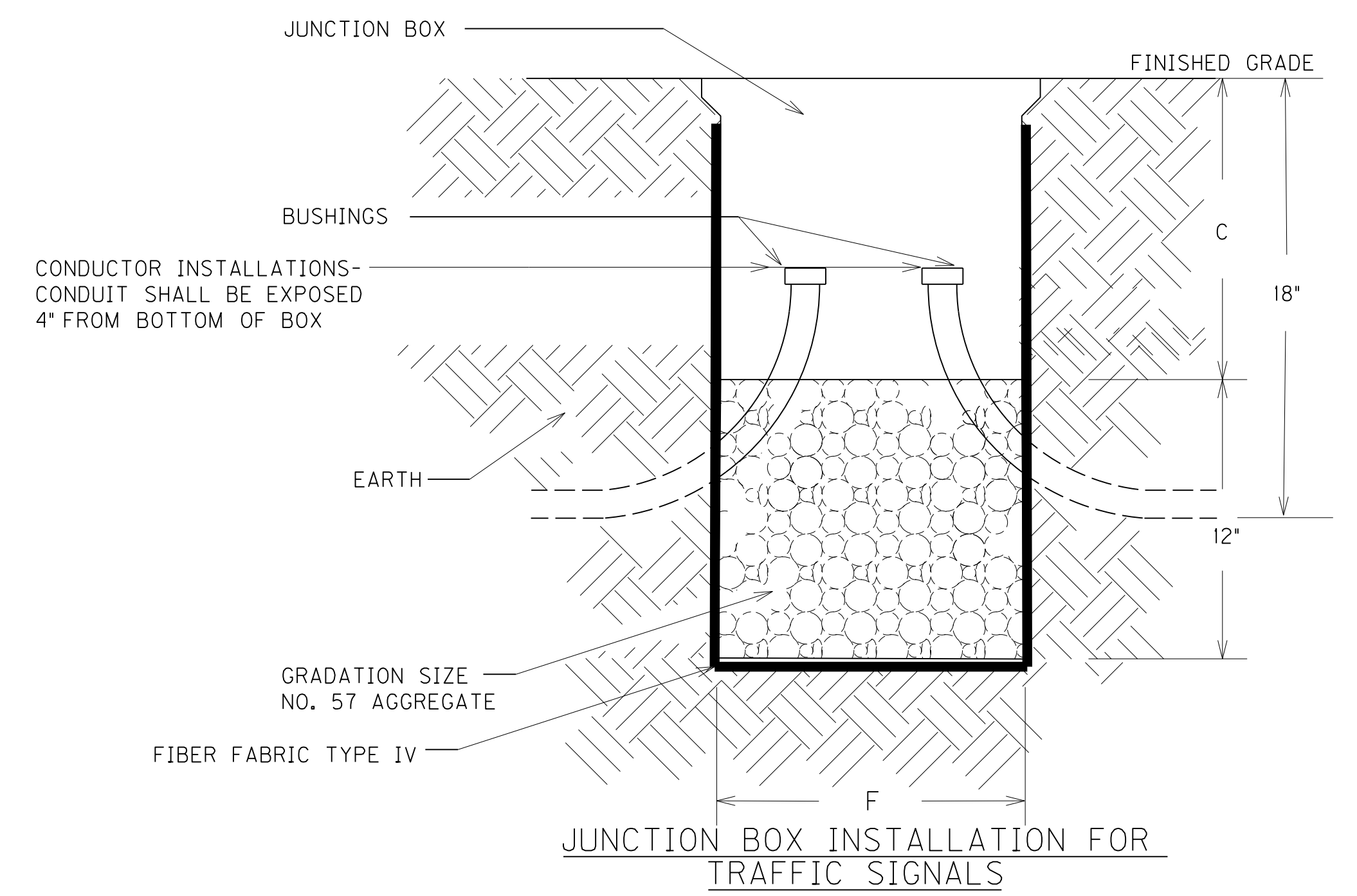


ABOVE GROUND BOX

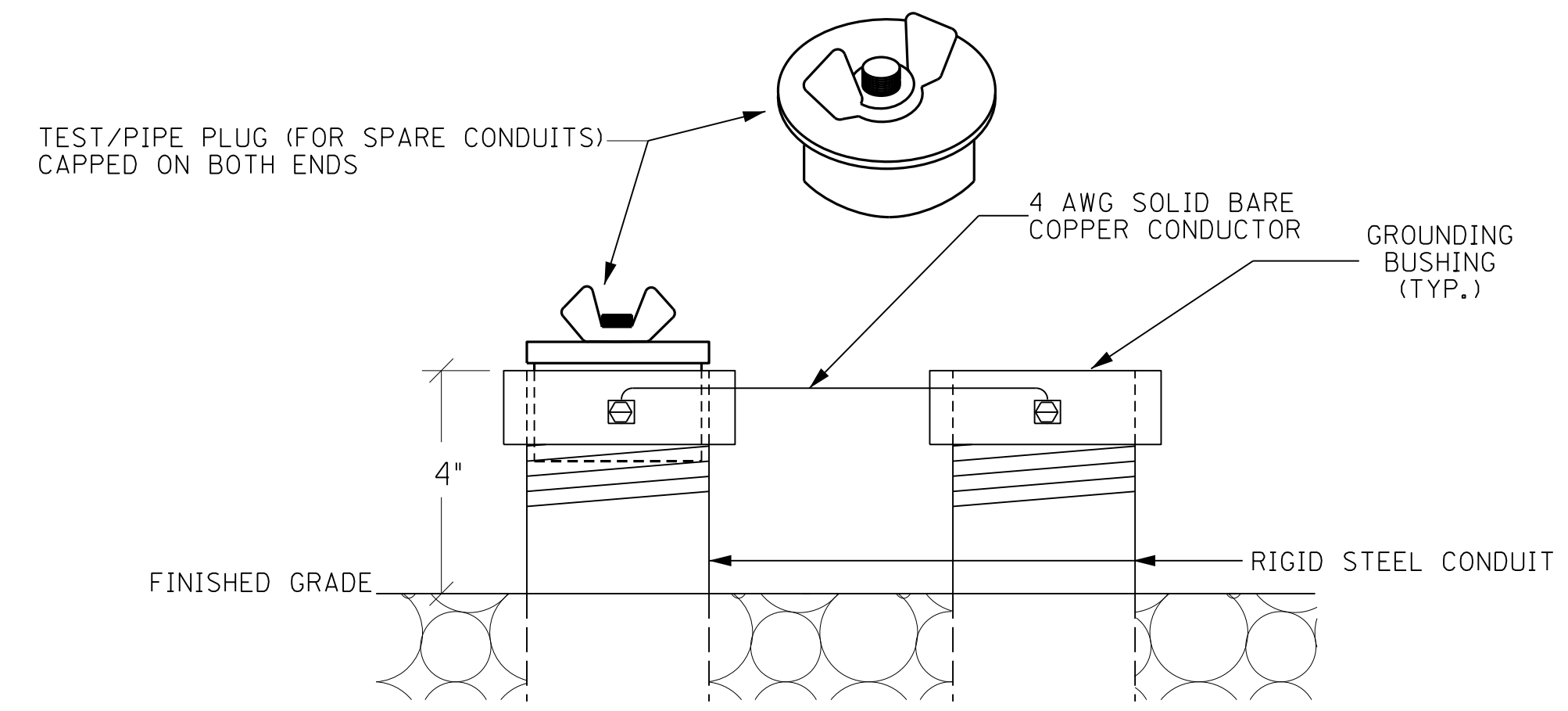


CONDUIT, DUCTED CABLE, AND WARNING TAPE TRENCH

ABOVE GROUND BOX SHALL BE FABRICATED FROM MINIMUM 12 GAUGE STEEL AND GALVANIZED AFTER FABRICATION. BOXES SHALL HAVE NO KNOCKOUTS AND SHALL BE PROVIDED WITH A PLATE COVER WITH A WEATHER RESISTANT GASKET AND A MINIMUM OF FOUR SCREWS FOR ATTACHING THE PLATE COVER TO THE BOX. CABLE CLAMPS SHALL BE PROVIDED FOR CABLES ENTERING AND EXITING THE BOX.



BEFORE THE INSTALLATION OF THE #57 AGGREGATE AND JUNCTION BOX, THE CONTRACTOR SHALL INSTALL GEOTEXTILE FILTER FABRIC TYPE IV IN THE HOLE. THE FABRIC SHALL EXTEND TO JUST BELOW THE LIP OF THE JUNCTION BOX AND SHALL BE CONTINUOUSLY ADHERED TO THE EXTERIOR OF THE BOX WITH ADHESIVE. ANY LOCATIONS WHERE CONDUITS ENTER THE BOX, THE FABRIC SHALL BE 'X CUT' ONLY AS MUCH AS NECESSARY TO ALLOW PASSAGE OF EACH INDIVIDUAL CONDUIT THROUGH THE FABRIC. THE FABRIC SHALL BE INCIDENTAL TO BID ITEMS 4811, 2039INS835, OR 20392NS835.



TEST/PIPE PLUG(FOR SPARE CONDUITS) AND GROUNDING DETAIL



**FLASHING YELLOW ARROW SIGNAL WIRING AND SPECIAL REQUIREMENTS**

**7-CONDUCTOR FOUR-SECTION FYA HEADS**

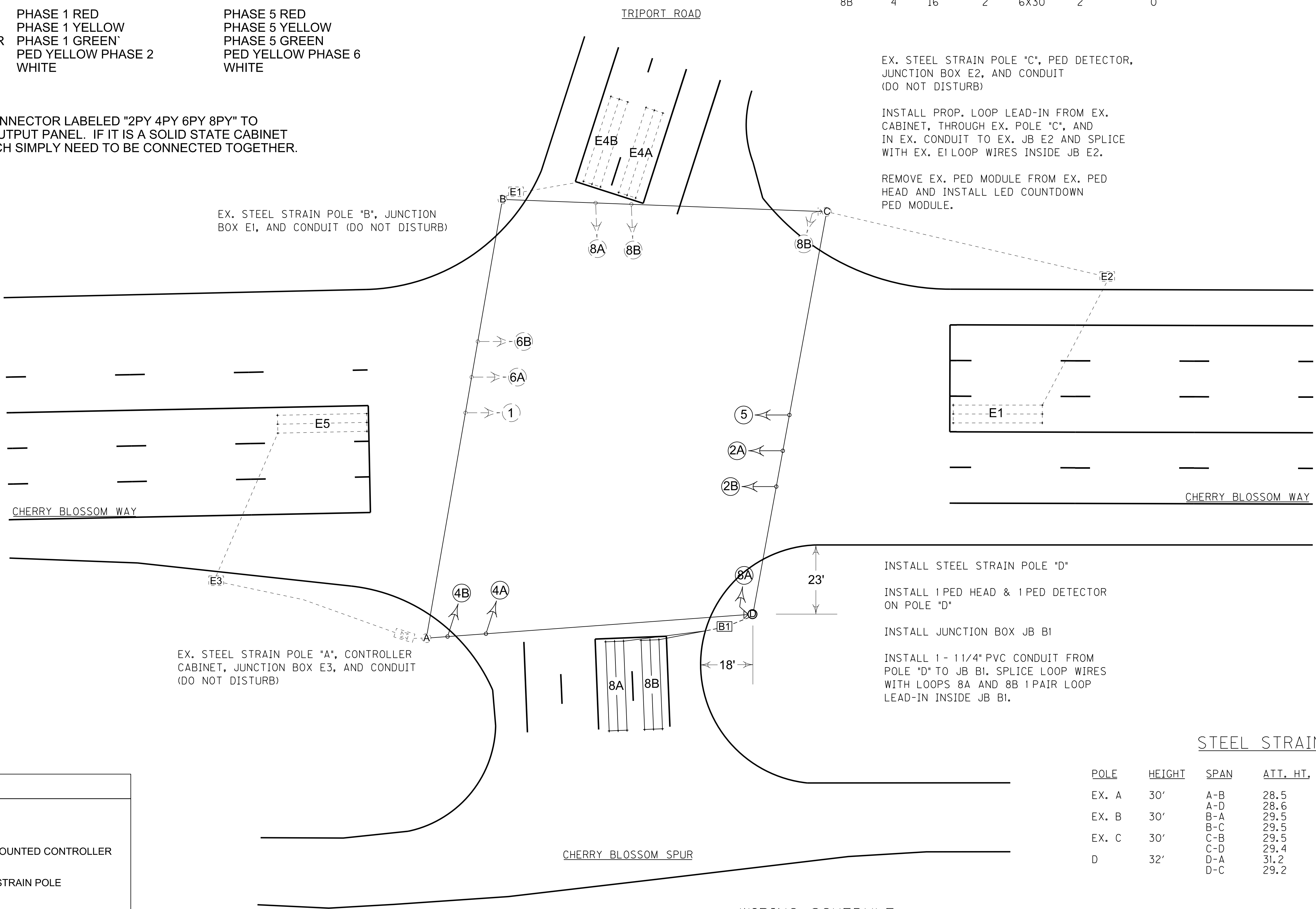
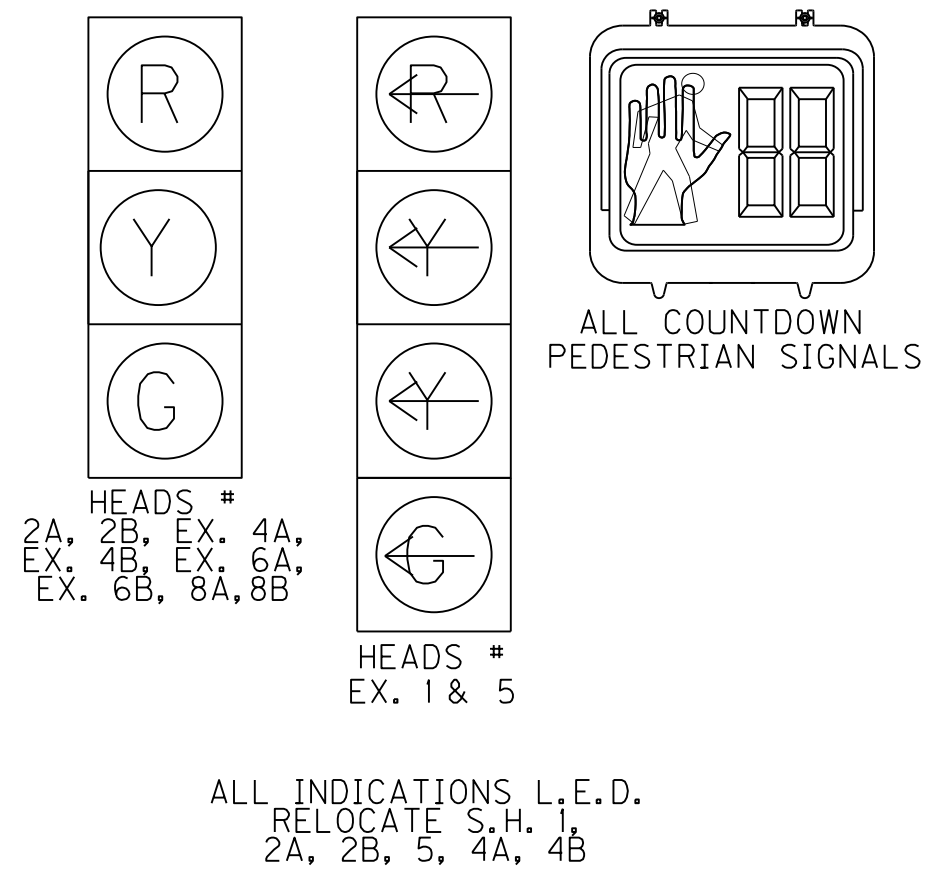
CONNECTION	COLOR	OUTPUT FILE CONNECTION FOR FYA ON PHASE 1	OUTPUT FILE CONNECTION OF FYA ON PHASE 5
RED ARROW	RED	PHASE 1 RED	PHASE 5 RED
STEADY YELLOW ARROW	ORANGE	PHASE 1 YELLOW	PHASE 5 YELLOW
FLASHING YELLOW ARROW	WHITE/TRACER	PHASE 1 GREEN	PHASE 5 GREEN
GREEN ARROW	GREEN	PED YELLOW PHASE 2	PED YELLOW PHASE 6
NEUTRAL	WHITE	WHITE	
NOT USED	BLUE		
NOT USED	BLACK		

THE CONTRACTOR SHALL CONNECT THE CONNECTOR LABELED "2PY 4PY 6PY 8PY" TO CONNECTOR "CMU 13,16,R,U" BEHIND THE OUTPUT PANEL. IF IT IS A SOLID STATE CABINET (SIEMENS) ONLY HAVE 2 CONNECTORS WHICH SIMPLY NEED TO BE CONNECTED TOGETHER.

**LOOP SCHEDULE**

LOOP	PHASE	SLOT	CHANNEL	SIZE	# OF TURNS	DIST. FROM STOP BAR
E1	1	11	1	6X30	2	0
8A	2	16	1	6X30	2	0
8B	4	16	2	6X30	2	0

**SIGNAL HEADS**



EX. STEEL STRAIN POLE "C", PED DETECTOR, JUNCTION BOX E2, AND CONDUIT (DO NOT DISTURB)

INSTALL PROP. LOOP LEAD-IN FROM EX. CABINET, THROUGH EX. POLE "C", AND IN EX. CONDUIT TO EX. JB E2 AND SPLICE WITH EX. E1 LOOP WIRES INSIDE JB E2.

REMOVE EX. PED MODULE FROM EX. PED HEAD AND INSTALL LED COUNTDOWN PED MODULE.

EX. STEEL STRAIN POLE "B", JUNCTION BOX E1, AND CONDUIT (DO NOT DISTURB)

INSTALL STEEL STRAIN POLE "D"

INSTALL 1 PED HEAD & 1 PED DETECTOR ON POLE "D"

INSTALL JUNCTION BOX JB B1

INSTALL 1- 1 1/4" PVC CONDUIT FROM POLE "D" TO JB B1. SPLICE LOOP WIRES WITH LOOPS 8A AND 8B 1 PAIR LOOP LEAD-IN INSIDE JB B1.

EX. STEEL STRAIN POLE "A", CONTROLLER CABINET, JUNCTION BOX E3, AND CONDUIT (DO NOT DISTURB)

**STEEL STRAIN POLES**

POLE	HEIGHT	SPAN	ATT. HT.	CALC. SERV. MOMENT	SAG
EX. A	30'	A-B	28.5	112.20 K-FT	5%
A-D		A-D	28.6		
EX. B	30'	B-A	29.5	103.34 K-FT	5%
B-C		B-C	29.5		
EX. C	30'	C-B	29.5	111.01 K-FT	5%
C-D		C-D	29.4		
D	32'	D-A	31.2	95.51 K-FT	5%
		D-C	29.2		

**WIRING SCHEDULE**

CABLE	ORIGIN	ENDING	CONNECTING
1-#14/7C	CONTROLLER	SH 2A	SH 2A & 2B
1-#14/7C	CONTROLLER	SH 5	SH 5
1-#14/7C	CONTROLLER	SH 4A	SH 4A & 4B
1-#14/7C	CONTROLLER	EX. POLE C	EX. PH 8B & EX. PED DETECTOR
1-#14/7C	CONTROLLER	POLE D	PH 8A & PED DETECTOR
2-#14/1 PAIR	CONTROLLER	JB B1	LOOPS 8A & 8B
1-#14/1 PAIR	CONTROLLER	EX. JB E2	EX. LOOP E1

SCALE 1" = 20'

**LEGEND**

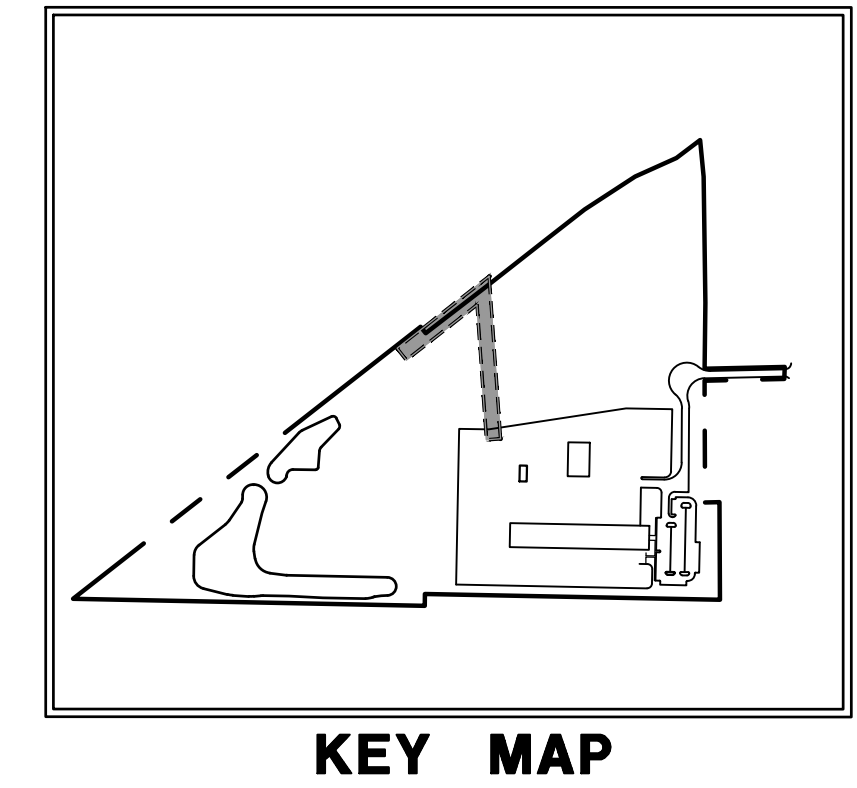
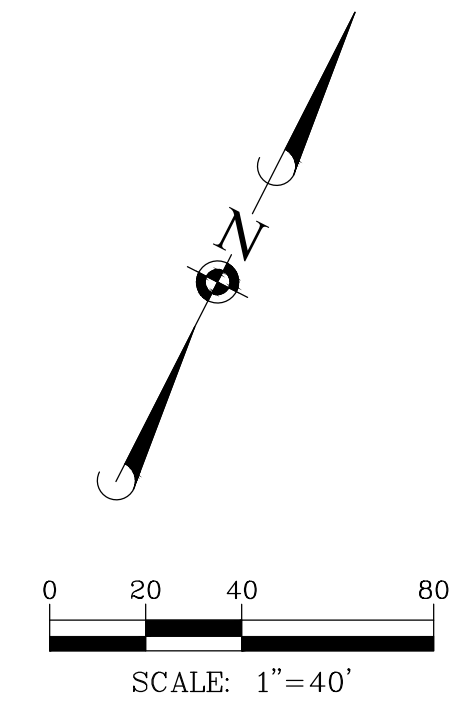
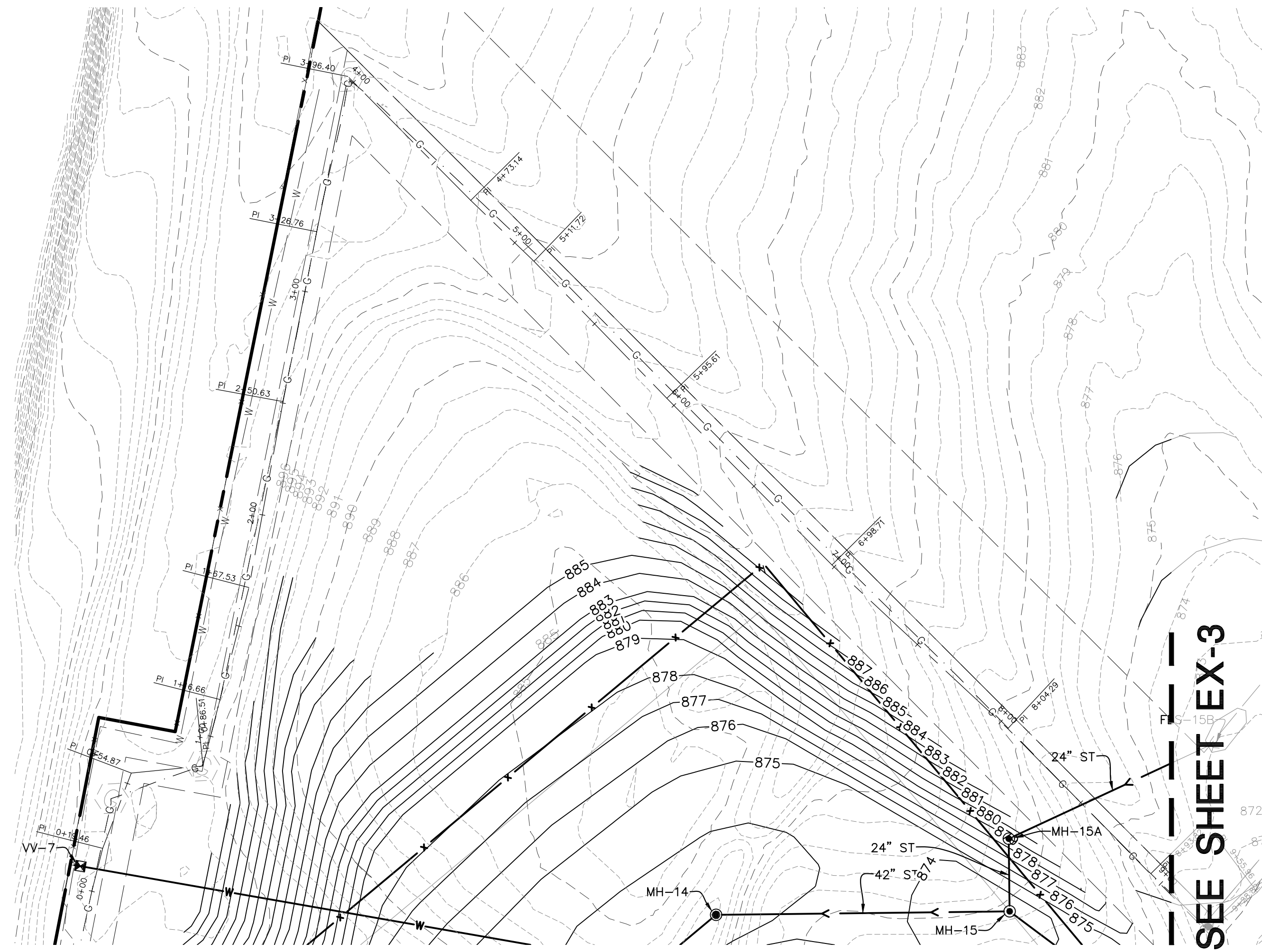
PROPOSED/RELOCATED	EXISTING	DESCRIPTION
		BASE MOUNTED CONTROLLER
		STEEL STRAIN POLE
		JUNCTION BOX TYPE B
		PEDESTRIAN DETECTOR
		SIGNAL HEAD
		PEDESTRIAN HEAD
		LOOP DETECTOR
		1 1/2" SCHEDULE 80 PVC CONDUIT (UNLESS OTHERWISE NOTED)

FILE NAME: P:\ENGR\TRAFFIC STUDIES\N+L CARRIERS CHERRY BLOSSOM WAY\POLE RELOCATION\SIGNAL DESIGN\DN  
 USER: PLOTTER: September 29, 2022  
 E-SHEET NAME: MicroStation v8.11.9.919

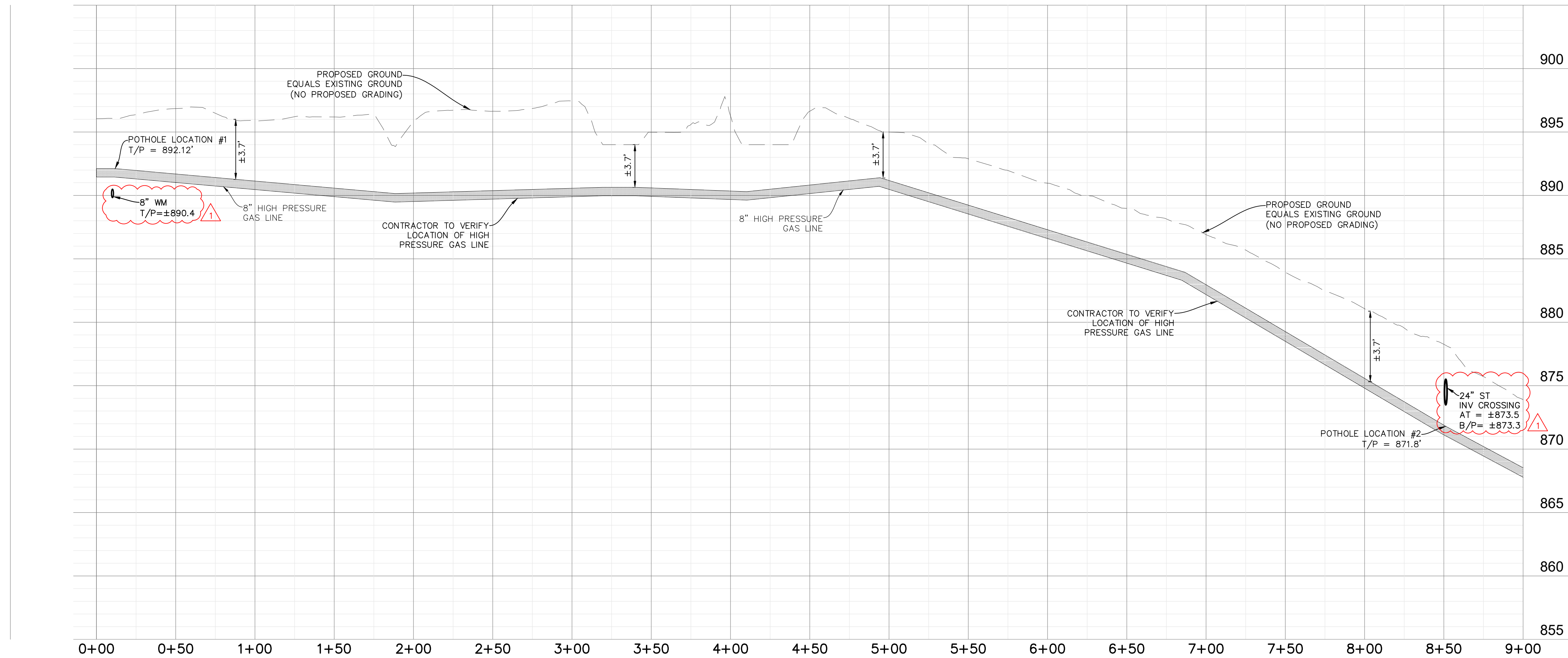








### GAS LINE PROFILE: STA 0+00-9+00



February 3, 2023 - 08:19 Des Name: P:\Projects\03\Manhard\Exhibits\Gas Line Exhibit.dwg Updated By: OMT

DATE	REVISIONS	DRAWN BY
2/3/2023	REVISED PER COLUMBIA GAS KENTUCKY COMMENTS	JMI

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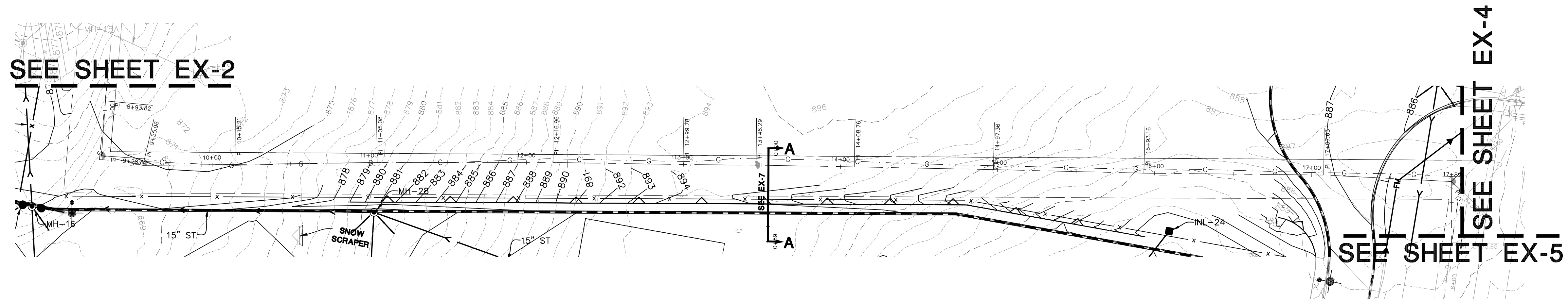
**R + L CARRIERS - GEORGETOWN**  
**CITY OF GEORGETOWN, SCOTT COUNTY, KENTUCKY**  
**GAS LINE EXHIBIT - STATION 0+00**

PROJ. MGR.: JMI  
 PROJ. ASSOC.: MSP  
 DRAWN BY: OMT  
 DATE: 2/1/2023  
 SCALE: 1"=40'

SHEET  
**EX-2**  
 RLR.GTKY01

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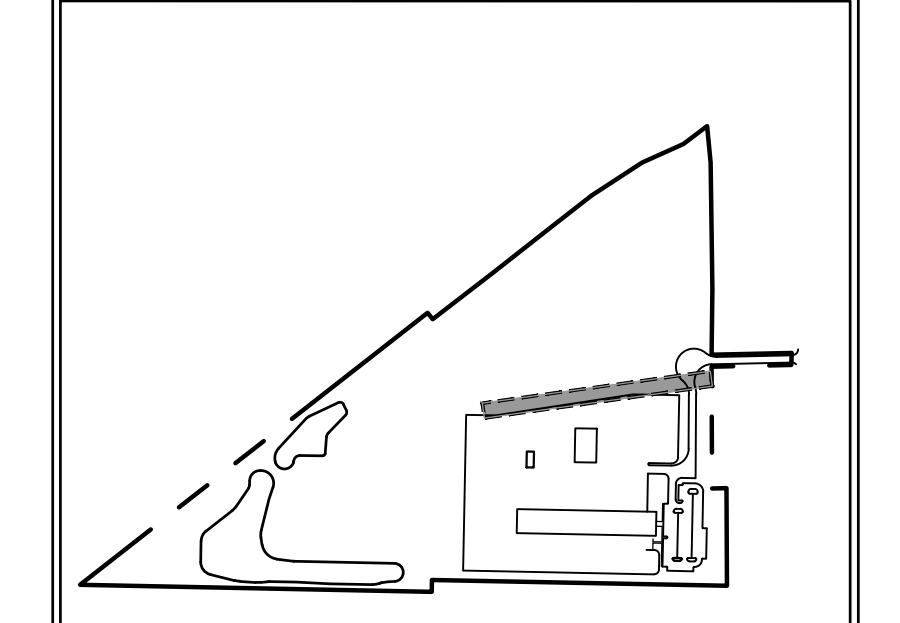
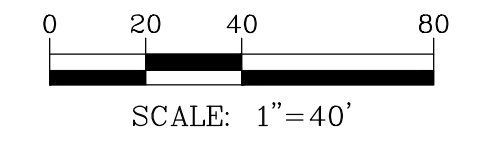
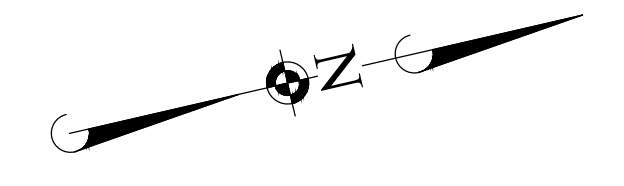




SEE SHEET EX-2

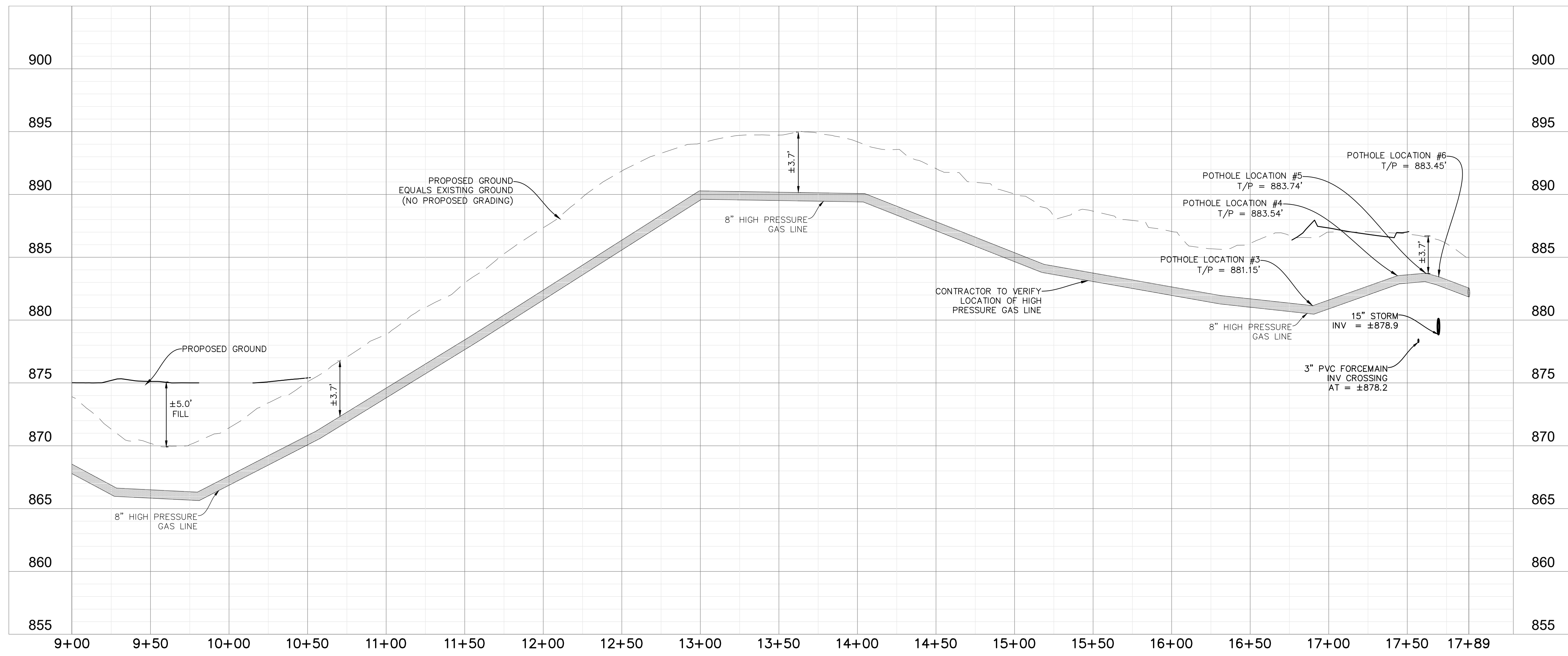
SEE SHEET EX-4

SEE SHEET EX-5



KEY MAP

**GAS LINE PROFILE: STA 9+00-17+90**



February 3, 2023 - 08:22 Dwg Name: P:\Projects\03\_Year\Exp\Final\_Downman\Exhibit\Gas\_Line\_Exhibit.dwg Updated By: OJalea

DATE	REVISIONS	DRAWN BY
2/3/2023	REVISED PER COLUMBIA GAS KENTUCKY COMMENTS	JMI

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**GAS LINE EXHIBIT - STATION 9+00**

PROJ MGR: JMI  
 PROJ ASSOC: MSP  
 DRAWN BY: OMT  
 DATE: 2/1/2023  
 SCALE: 1"=40'

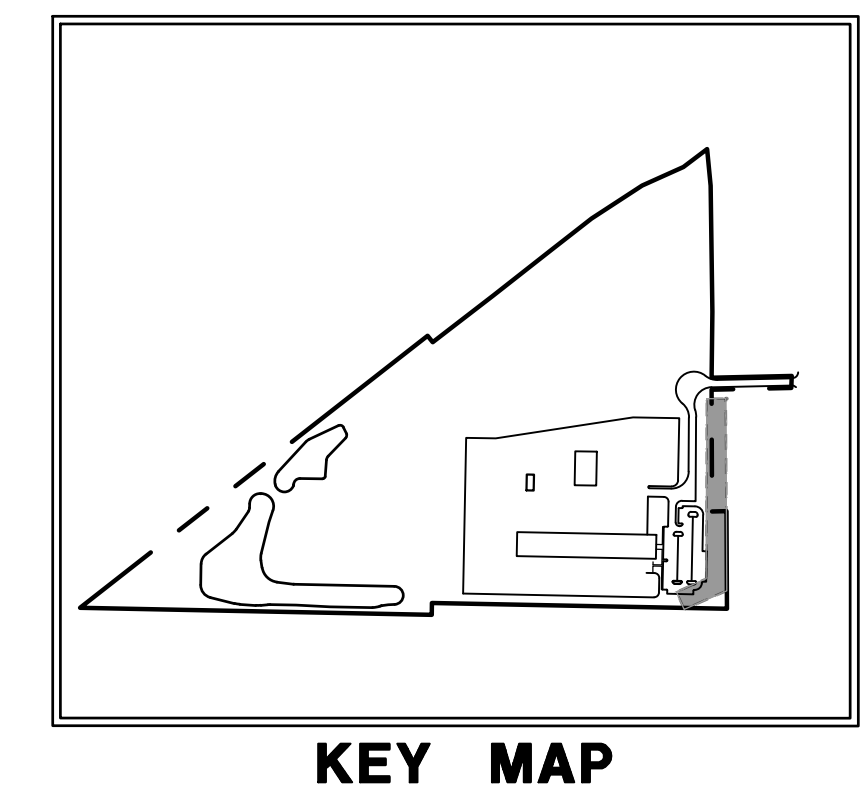
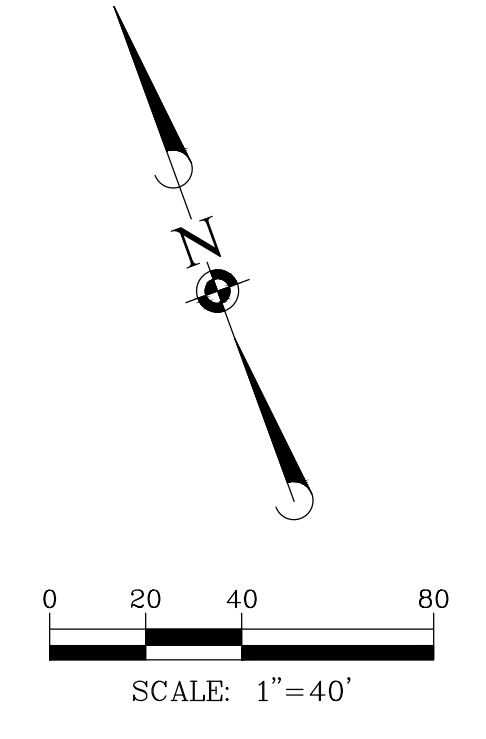
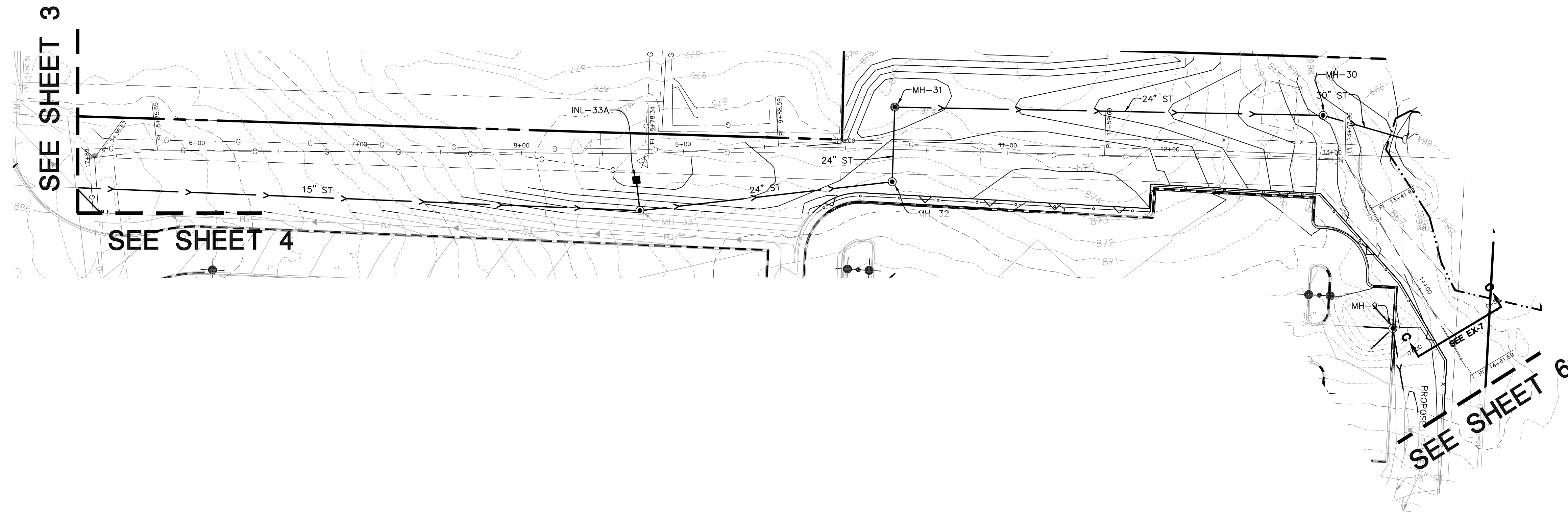
SHEET  
**EX - 3**  
 RLR.GTKY01

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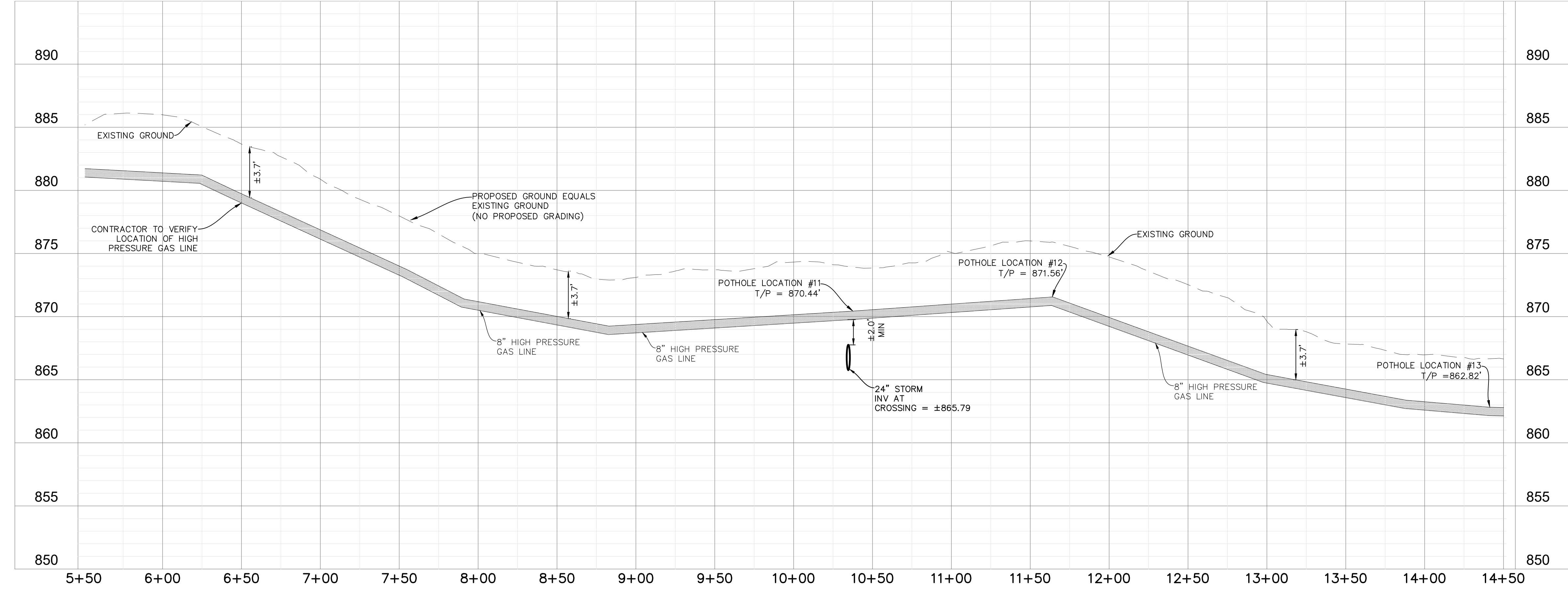








**GAS LINE PROFILE: STA 5+50-14+50**



February 3, 2023 - 08:22 Draw Name: P:\Projects\03\_Year\Gas Line Exhibit.dwg Updated By: OJalea

DATE	REVISIONS	COMMENTS
2/3/2023	1	REVISED PER COLUMBIA GAS KENTUCKY COMMENTS

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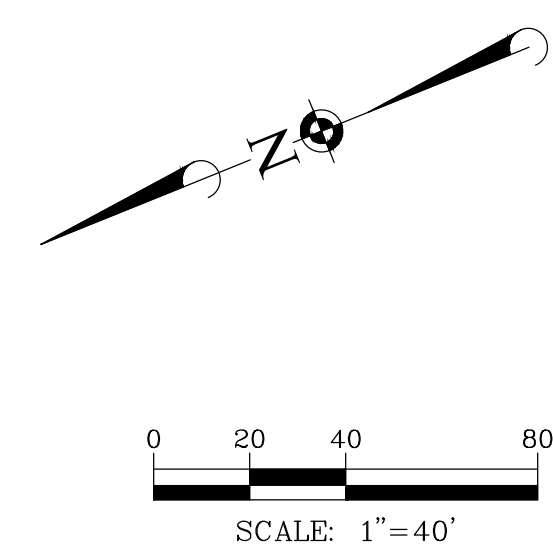
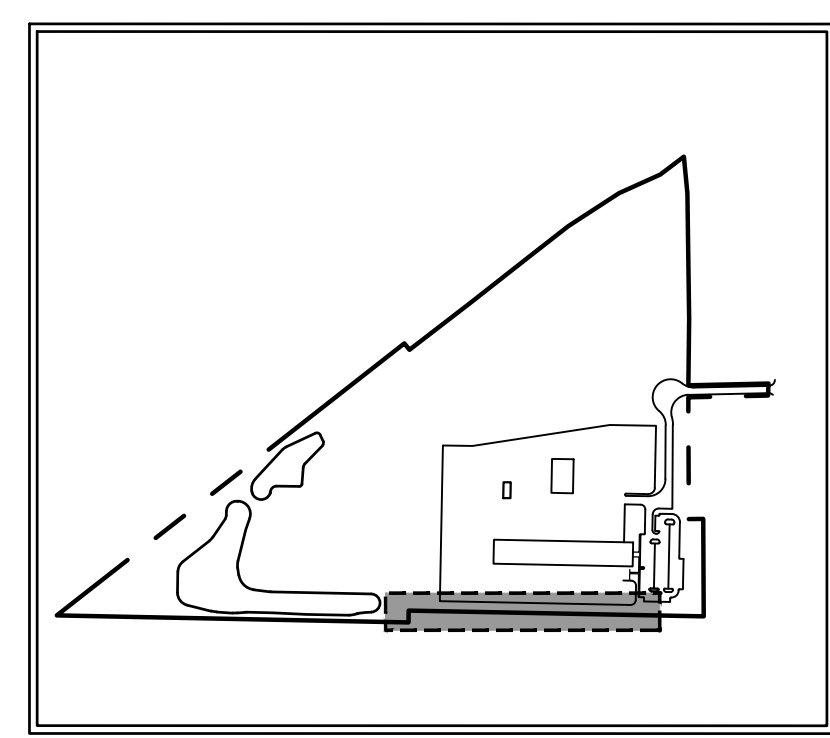
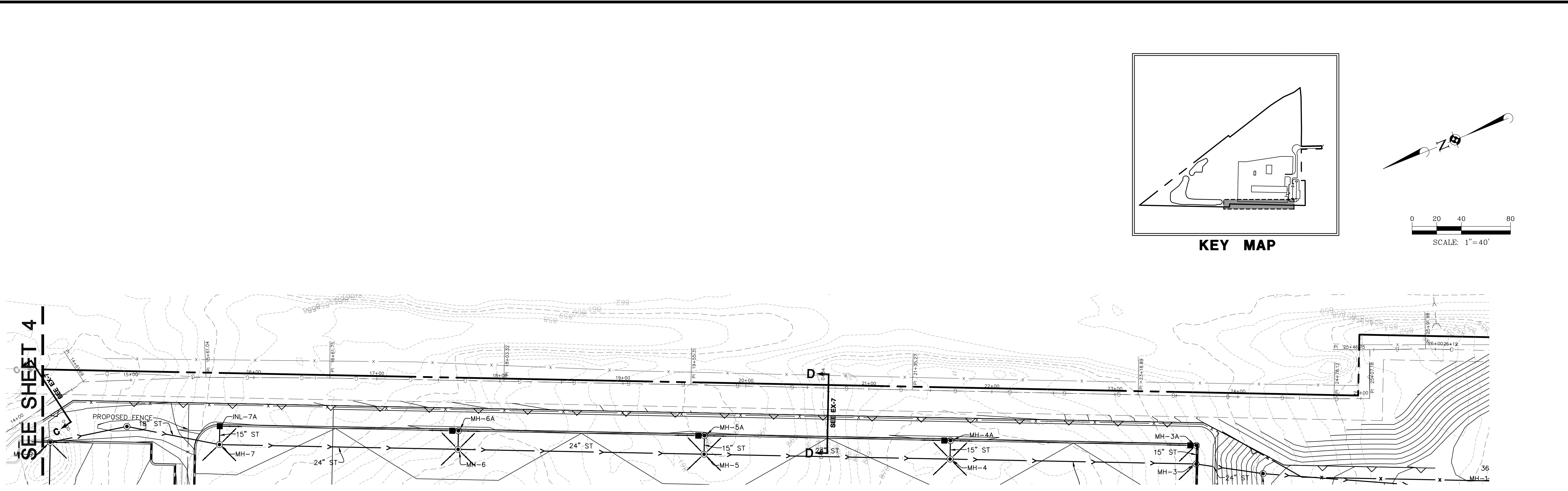
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**CITY OF GEORGETOWN, SCOTT COUNTY, KENTUCKY**  
**GAS LINE EXHIBIT - STATION 5 + 50**

PROJ. MGR.: JMI  
 PROJ. ASSOC.: MSP  
 DRAWN BY: OMT  
 DATE: 2/1/2023  
 SCALE: 1"=40'

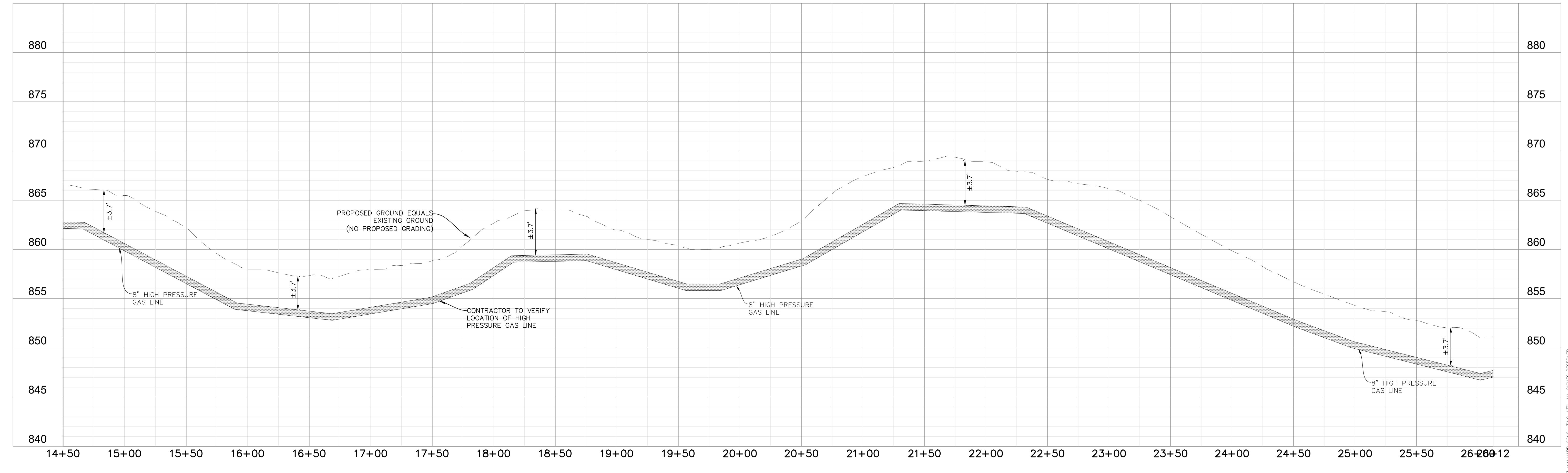
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**EX - 5**  
 RLR.GTKY01

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**GAS LINE PROFILE: 14+50-26+18**



February 3, 2023 - 08:22 Draw Name: P:\Regis\03\Gas\Gas Line Exhibit.dwg Updated By: OJalea

DATE	REVISIONS	DRAWN BY
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**GAS LINE EXHIBIT - STATION 14+50**

PROJ. MGR.: JMI  
 PROJ. ASSOC.: MSP  
 DRAWN BY: OMT  
 DATE: 2/1/2023  
 SCALE: 1"=40'

SHEET  
**EX - 6**  
 RLR.GTKY01



