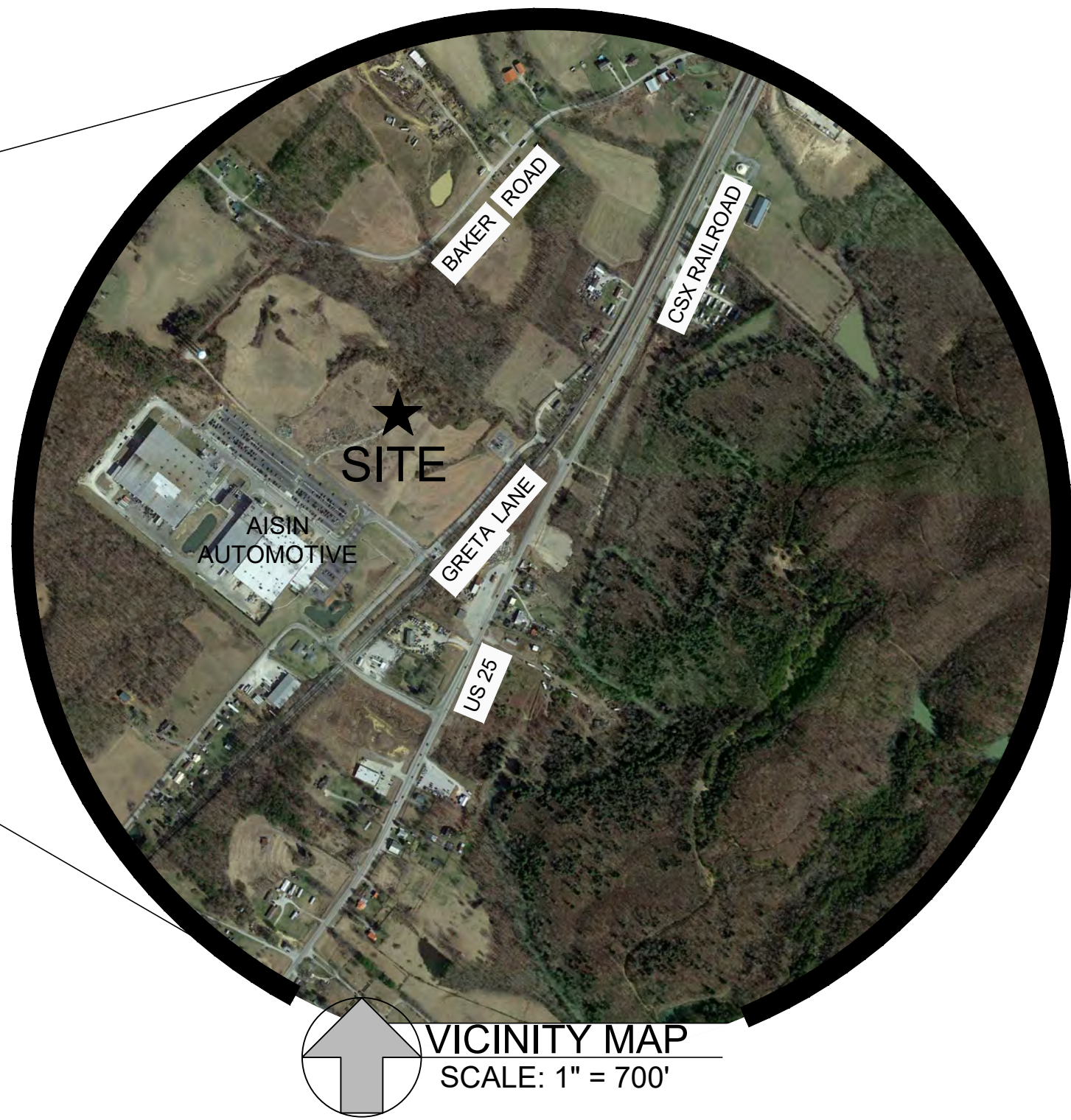


LONDON-LAUREL COUNTY INDUSTRIAL PARK

WATER,SEWER & GAS UTILITIES - GRETA LANE

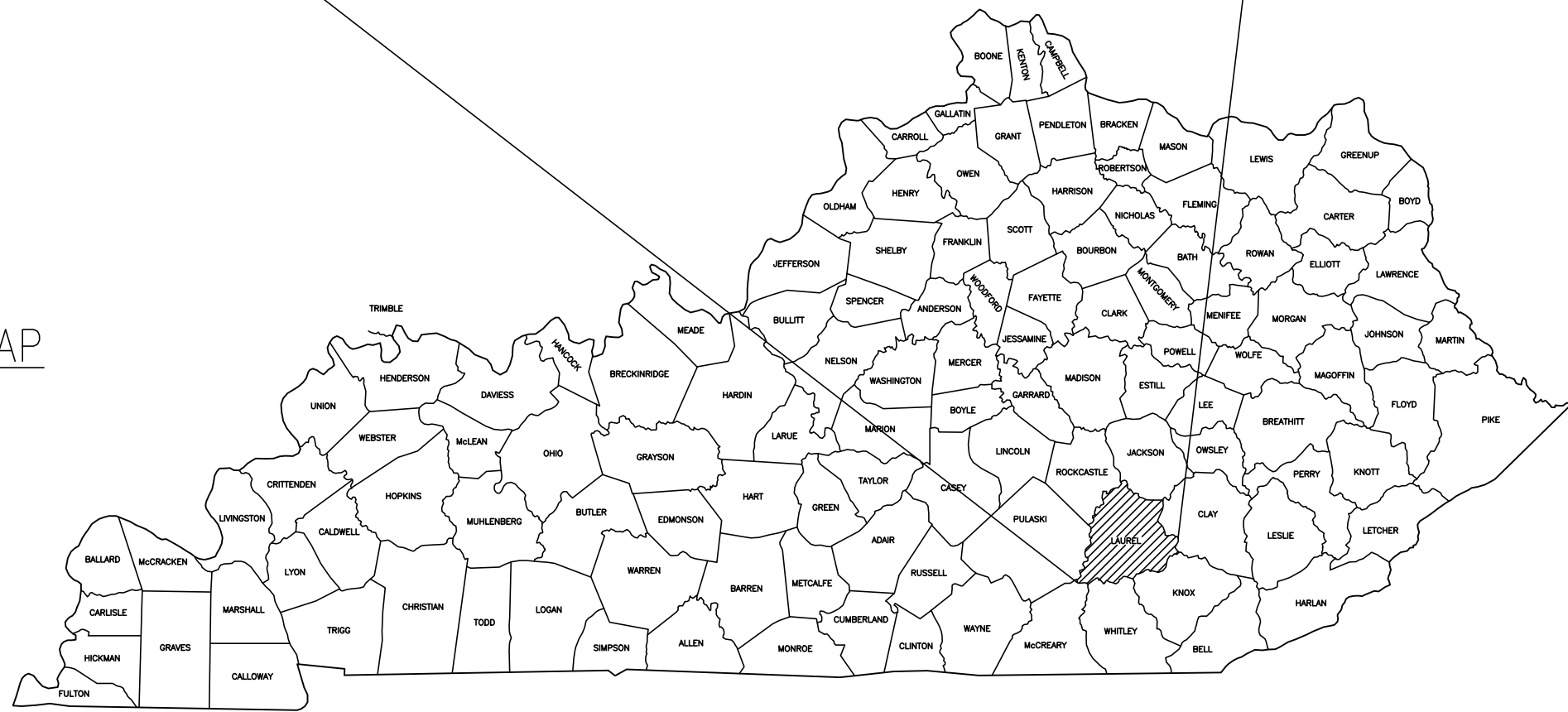
LAUREL COUNTY. KENTUCKY



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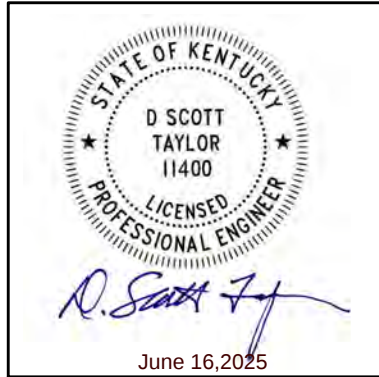
LOCATION MAP



MARCH 2025

nse Engineers
Architects
Planners
OF KENTUCKY, INC.

SET NO. _____ MSE PROJECT No. 2040-116



M:\Utility\London - Laurel\Spec - 2023\2023-06-01\Utility\Laurel Pad and Access Road\WTH\UTL 16-03-05.dwg, 6/16/2023, 3:04:05 PM, DWG, by mtf, xcl

GENERAL NOTES:

1. PRIOR TO ANY CONSTRUCTION OR DEMOLITION ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL EXISTING UTILITIES WITHIN THE PROJECT LIMITS. CONTRACTOR SHALL MAINTAIN UNINTERRUPTED UTILITY SERVICE TO ADJACENT FACILITIES DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WORK WITH UTILITY OWNERS. SHOULD DAMAGE OCCUR TO EXISTING OR NEW UTILITY SERVICES DURING CONSTRUCTION, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REPAIR AND/OR REPLACE SAID DAMAGE AT THE CONTRACTOR'S EXPENSE AT NO ADDITIONAL COST TO THE OWNER. NEW UTILITY WORK, REPAIRS, REPLACEMENTS AND/OR RELOCATIONS SHALL MEET THE APPROVAL OF THE UTILITY OWNER.
2. CONTRACTOR TO MARK AND PROTECT ALL UNDERGROUND UTILITIES AND OVERHEAD OBSTRUCTIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS INCLUDING GRADING PERMIT FROM LOCAL AUTHORITIES AND THE SUBMISSION OF A NOTICE ON INTENT (NOI) FOR STORMWATER DISCHARGE WITH THE KENTUCKY DEPARTMENT OF WATER PRIOR TO ANY CONSTRUCTION ACTIVITY. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT A NOTICE OF TERMINATION (NOT) TO THE KENTUCKY DIVISION OF WATER. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A COPY OF ALL PERMITS OBTAINED.
4. VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE "KENTUCKY BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES" DATED AUGUST 1994 AS PREPARED BY THE DIVISION OF CONSERVATION AND DIVISION OF WATER, NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET AND/OR THE KENTUCKY TRANSPORTATION CABINET (KYTC) STANDARDS. CONTRACTOR SHALL USE THE "KENTUCKY EROSION PREVENTION AND SEDIMENT CONTROL FIELD GUIDE" AS THE DEFINITION OF REQUIREMENTS FOR CONSTRUCTION ACTIVITY.
5. EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN AND MUST BE PROPERLY MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY OWNER OR THE GOVERNING AGENCY. CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES WEEKLY AND AFTER EACH RUN-OFF PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION AND SEDIMENT CONTROL DEVICES SHALL BE MADE IMMEDIATELY WITHIN 24 HOURS.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING CONSTRUCTION ENTRANCES AND SHALL KEEP ALL ROADS AND STREETS FREE ROM MUD, DIRT AND DEBRIS.
7. THE CONTRACTOR MUST PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES AND THE KENTUCKY DEPARTMENT OF HIGHWAYS GUIDANCE MANUAL.
- 8.THE CONTRACTOR MUST MAINTAIN ACCESS TO EXISTING BUSINESSES AND EXISTING ROADS.
9. IN ADDITION TO PREVENTING SEDIMENT AND EROSION CONTROL DURING CONSTRUCTION, THE CONTRACTOR MUST MINIMIZE OR ELIMINATE THE POTENTIAL FOR CHEMICAL CONTAMINANTS TO ENTER THE SOIL OR BE CARRIED ACROSS THE SITE BY STORM WATER. POTENTIAL CONTAMINANTS NORMALLY ASSOCIATED WITH CONSTRUCTION ACTIVITY INCLUDE GASOLINE AND DIESEL FUEL, OIL, GREASE, ANTIFREEZE, TERMITE SOIL TREATMENT CHEMICALS, FERTILIZER, ASPHALT OILS, EMULSIONS AND SMALL PARTICLE SIZE CONSTRUCTION DEBRIS. THE CONTRACTOR MUST EMPLOY VARIOUS BEST MANAGEMENT PRACTICES TO ELIMINATE OR MINIMIZE THE POTENTIAL FOR THESE CONTAMINANTS TO REACH THE SOIL AND/OR DRAINAGE SYSTEMS.
10. ALL SURFACE RUNOFF SHALL BE DIRECTED AWAY FROM ROADWAYS AND BUILDINGS AND DIRECTED TO DRAINAGE STRUCTURES, DITCHES OR SWALES.
11. CONTRACTOR SHALL ACCURATELY RECORD ALL UTILITIES CONSTRUCTED OR ENCOUNTERED ON "AS-BUILT" DRAWINGS AND PROVIDE TO OWNER AND ENGINEER.S SHA
12. MATERIALS AND METHODS OF CONSTRUCTION FOR GRADING AND DRAINAGE STRUCTURES INCLUDING PIPING AND HEADWALLS SHALL BE IN ACCORDANCE WITH KENTUCKY TRANSPORTATION CABINET (KYTC) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITION.
13. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY AREAS WHERE UNACCEPTABLE SOILS, SINKHOLES, WET AREAS OR OTHER CONDITIONS ARE ENCOUNTERED WHICH MAY ADVERSELY AFFECT THE SITE. IF DIRECTED BY ENGINEER, REMOVE UNSUITABLE SOILS AND REPLACE THEM WITH ACCEPTABLE SOILS.
14. ALL EARTH GRADED AREAS SCARRED OR DENUED BY THE CONSTRUCTION ACTIVITY SHALL BE SEEDED AND PROTECTED IN ADDITION TO THE PROVISIONS OF OTHER EROSION AND SEDIMENT CONTROL MEASURES AS REQUIRED. SEED ALL AREAS DISTURBED BY CONSTRUCTION IN ACCORDANCE WITH SEEDING SPECIFICATIONS.
15. ALL SURPLUS AND WASTE MATERIALS SHALL BE TRANSPORTED AND DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS AND CODES UNLESS OTHERWISE APPROVED BY OWNER. NO BURNING OR BURYING OF TREES, BRUSH, CONSTRUCTION DEBRIS, RUBBISH, ETC. SHALL BE ALLOWED ON SITE UNLESS OWNER APPROVAL IS OBTAINED.

NOTE: DO NOT USE THE ADJACENT AISIN AUTOMOTIVE DRIVEWAY FOR CONSTRUCTION ACCESS.

SPECIFICATIONS FOR GEOTEXTILE FABRIC

GRAB TENSILE STRENGTH 220 LBS. (MIN.)
(ASTM D1682)
ELONGATION FAILURE 60% (MIN.)
(ASTM D1682)
MULLEN BURST STRENGTH 430 LBS. (MIN.)
(ASTM D3768)
PUNCTURE STRENGTH 125 LBS. (MIN.)
(ASTM D751)
(MODIFIED)
EQUIVALENT OPENING SIZE 40-80
(US STD SIEVE)
(CW-02215)

NOTES

1. A STABILIZED ENTRANCE PAD OF CRUSHED STONE SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
2. SOIL STABILIZATION FABRIC SHALL BE USED AS A BASE FOR THE CONSTRUCTION ENTRANCE.
3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS WARRANT AND REPAIR OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
4. ANY SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC STREETS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
5. WHEN APPROPRIATE, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN.

UTILITY NOTES

UTILITY CONTACTS

- SEWER: London Utility Commission
Zach Creech - Superintendent
606-864-2103
- WATER: Laurel Water District No.2
Kenneth Fisher - Superintendent
606-878-2494
- GAS: Delta Natural Gas
Jeff Steele - Manager
800-262-2012 EXT. 1141
- ELECTRIC: KY Utilities
Will McDowell - Project Manager
270-556-8674

1. CONTRACTOR SHALL NOTIFY APPROPRIATE UTILITY AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION IN THE AREA OF THE AFFECTED UTILITY.
2. ANY INTERRUPTIONS IN SERVICE MUST BE MINIMIZED AND SCHEDULED WITH THE UTILITY.



PROPOSED UTILITIES
FOR
LONDON - LAUREL COUNTY
INDUSTRIAL DEVELOPMENT AUTHORITY
LAUREL COUNTY, KENTUCKY

DATE	REVISION	BY

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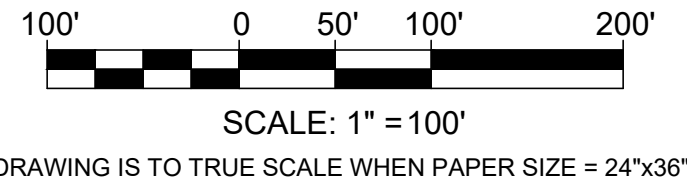
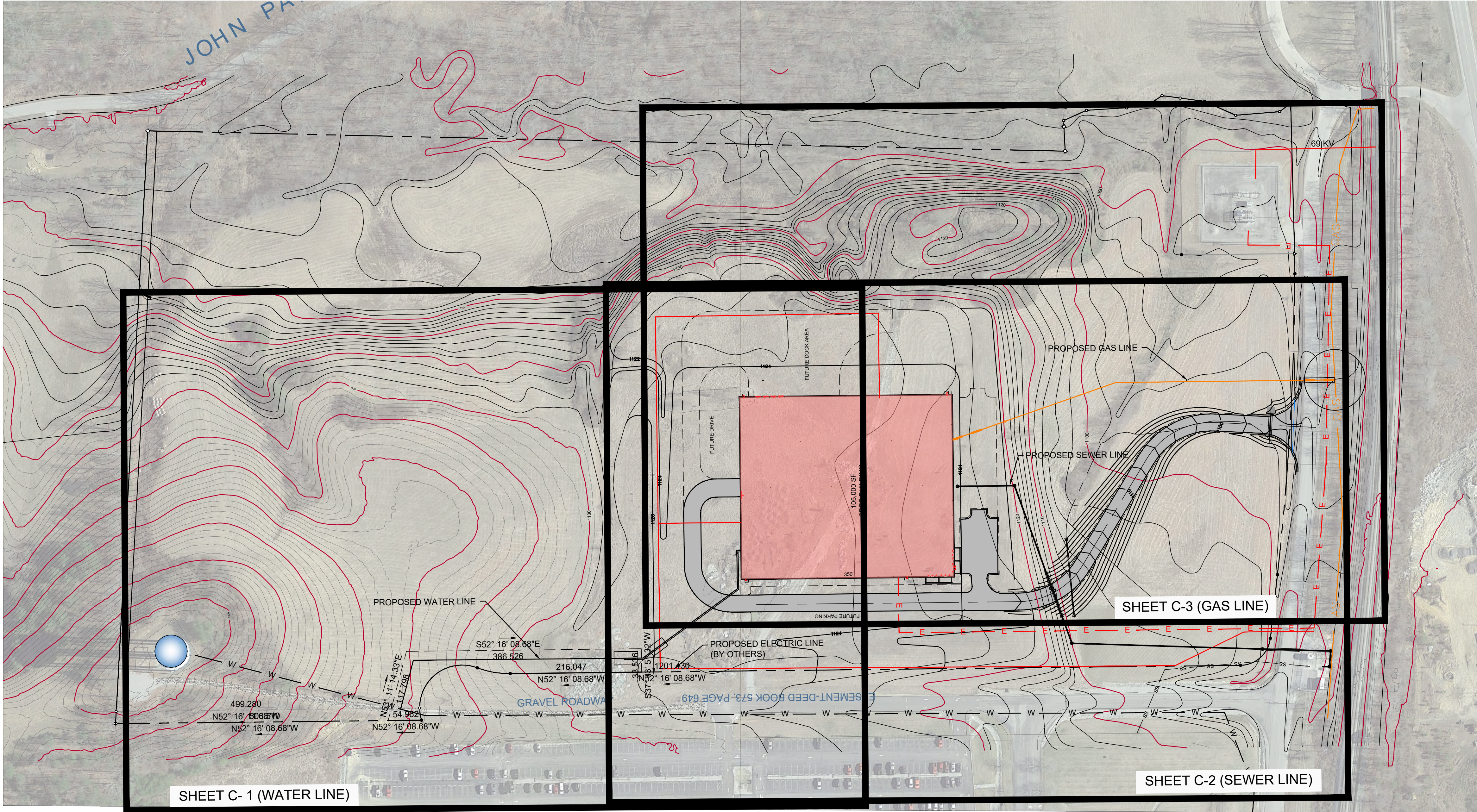
Engineers
Architects
Planners

M&E

OF KENTUCKY, INC.

624 Wellington Way
Lexington, KY 40503
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GENERAL NOTES

EXISTING GRADE ELEVATIONS SHOWN IN PROFILE AND CONTOURS SHOWN IN PLAN VIEW WERE COMPILED BY COMPUTER METHODS FROM AERIAL PHOTOGRAPHY.

CONTRACTOR IS TO PERFORM LAY-OUT AND PRODUCE CUT-SHEETS FOR VERIFICATION OF LINE DEPTHS AND MANHOLE QUANTITIES. CONTRACTOR SHALL UTILIZE CUT-SHEETS IN THE PREPARATION OF HIS AS-BUILT DRAWING TO ACCURATELY PORTRAY THE PROFILE. CUT-SHEETS WILL BE FIELD VERIFIED BY ENGINEER. CONTRACTOR SHALL DETERMINE THE BOUNDS OF CONSTRUCTION EASEMENTS AND RIGHTS-OF-WAY AND CONFINE ALL CONSTRUCTION ACTIVITY TO THESE AREAS, PROVIDE CONSTRUCTION WARNING SIGNS, BARRICADES AND FLAGMEN AS NECESSARY. CONTRACTOR SHALL PREVENT SOIL EROSION, CONTROL SILT RUN-OFF, PROVIDE MULCH, SILT FENCES, STRAW BALES OR OTHER MEASURES AS NECESSARY. CONTRACTOR SHALL LOCATE ANY EXISTING UTILITIES.

WHERE EXISTING UTILITIES ARE SHOWN, LOCATIONS ARE APPROXIMATE. CONSULT WITH APPLICABLE UTILITY COMPANIES TO DETERMINE EXACT LOCATIONS OF MAINS AND SERVICE LINES PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING PRIVATE PROPERTY. BORE ALL ASPHALT AND CONCRETE PAVEMENT UNLESS THE OWNER APPROVES OPEN CUTTING AND REPAIR. DO NOT CUT FENCES UNLESS THE OWNER APPROVES CUTTING AND REPAIR. PRESERVE TREES AND SHRUBS.

THE CONTRACTOR SHALL HAVE ON HAND AT THE JOB SITE 11, 22, 45, AND 90 DEGREE BENDS TO ALLOW FOR THEIR USE WHERE THE ENGINEER REQUIRES INSTALLATION AS NECESSARY.

PIPE JOINT DEFLECTION IS NOT TO EXCEED MANUFACTURER'S ALLOWABLE LIMITS.

AT SOME LOCATIONS, THE CONTRACTOR MAY BE REQUIRED TO PROVIDE EXTRA COVER OVER LINE. COST OF EXTRA COVER IS TO BE INCLUDED IN UNIT PRICE BID FOR LINE INSTALLATION AND NO SEPARATE PAYMENT WILL BE MADE FOR SUCH EXTRA COVER. ALL SUCH LOCATIONS ARE SHOWN ON THE PLANS.

AIR RELEASE VALVE AND AIR VACUUM VALVE LOCATIONS SHOWN ON THE PLANS ARE GENERAL. THE EXACT LOCATIONS SHOULD BE AT THE LOCAL HIGH ELEVATION IN THE VICINITY OF THE ARV OR AVV SHOWN ON THE PLANS.

THE CONTRACTOR MUST MAINTAIN ACCESS TO EXISTING BUSINESSES AND EXISTING ROADS.

WATER AND SEWER SEPARATION REQUIREMENT

WATER AND SEWER PARALLEL CONSTRUCTION
ALL WATER AND SEWER FACILITIES SHALL BE SEPARATED BY A MINIMUM OF 10 FEET MEASURED AS THE SHORTEST DISTANCE BETWEEN CLOSEST POINTS. NO WATER MAIN MAY BE CONSTRUCTED WITHIN 10 FT OF A SEWER MAIN, FORCE MAIN, MANHOLE OR ANY OTHER APPURTENANCE EXCEPT FOR CROSSINGS SHOWN ON THE PLANS. CROSSING SHALL MEET THE FOLLOWING REQUIREMENT.

WATER AND SEWER CROSSING
SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE OR BELOW THE SEWER. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO MAINTAIN LINE AND GRADE.

WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE, ONE OF THE FOLLOWING METHODS SHALL BE REQUIRED:
A. THE SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE,
B. EITHER THE WATER MAIN OR THE SEWER LINE MAY BE ENCASED IN A WATERTIGHT CARRIER PIPE THAT EXTENDS 10 FEET ON BOTH SIDES OF THE CROSSING, MEASURED PERPENDICULAR TO THE WATER MAIN. THE CARRIER PIPE SHALL BE MADE OF MATERIALS APPROVED BY THE REGULATORY AGENCY FOR USE IN WATER MAIN CONSTRUCTION.

STREAM CROSSING REQUIREMENTS

THE CONTRACTOR SHALL CONSTRUCT STREAM CROSSINGS IN ACCORDANCE WITH THE PLANS, SPECIFICATION AND THE FOLLOWING CONSTRAINTS:
(1) DURING THE CONSTRUCTION OF THE CROSSING, NO MATERIAL MAY BE PLACED IN THE STREAM OR IN THE FLOOD PLAIN OF THE STREAM TO FORM CONSTRUCTION PADS, COFFER DAMS, ACCESS ROADS, ETC.,
(2) THE TRENCH SHALL BE BACKFILLED AS CLOSELY AS POSSIBLE TO THE ORIGINAL CONTOUR. ALL EXCESS MATERIAL FROM CONSTRUCTION OF THE TRENCH SHALL BE DISPOSED OF OUTSIDE OF THE FLOOD PLAIN.
(3) FOR SUBFLUVIAL CROSSINGS OF ERODIBLE CHANNELS, THERE SHALL BE AT LEAST THIRTY (30) INCHES CLEAR TO THE TOP OF THE PIPE OR CONDUIT AT ALL POINTS.
(4) FOR SUBFLUVIAL CROSSINGS OF NONERODIBLE CHANNELS, THERE SHALL BE AT LEAST SIX (6) INCHES OF CLEAR COVER ABOVE THE TOP OF THE PIPE OR CONDUIT AT ALL POINTS, AND THE PIPE OR CONDUIT SHALL BE ENCASED ON ALL SIDES BY AT LEAST SIX (6) INCHES OF CONCRETE.

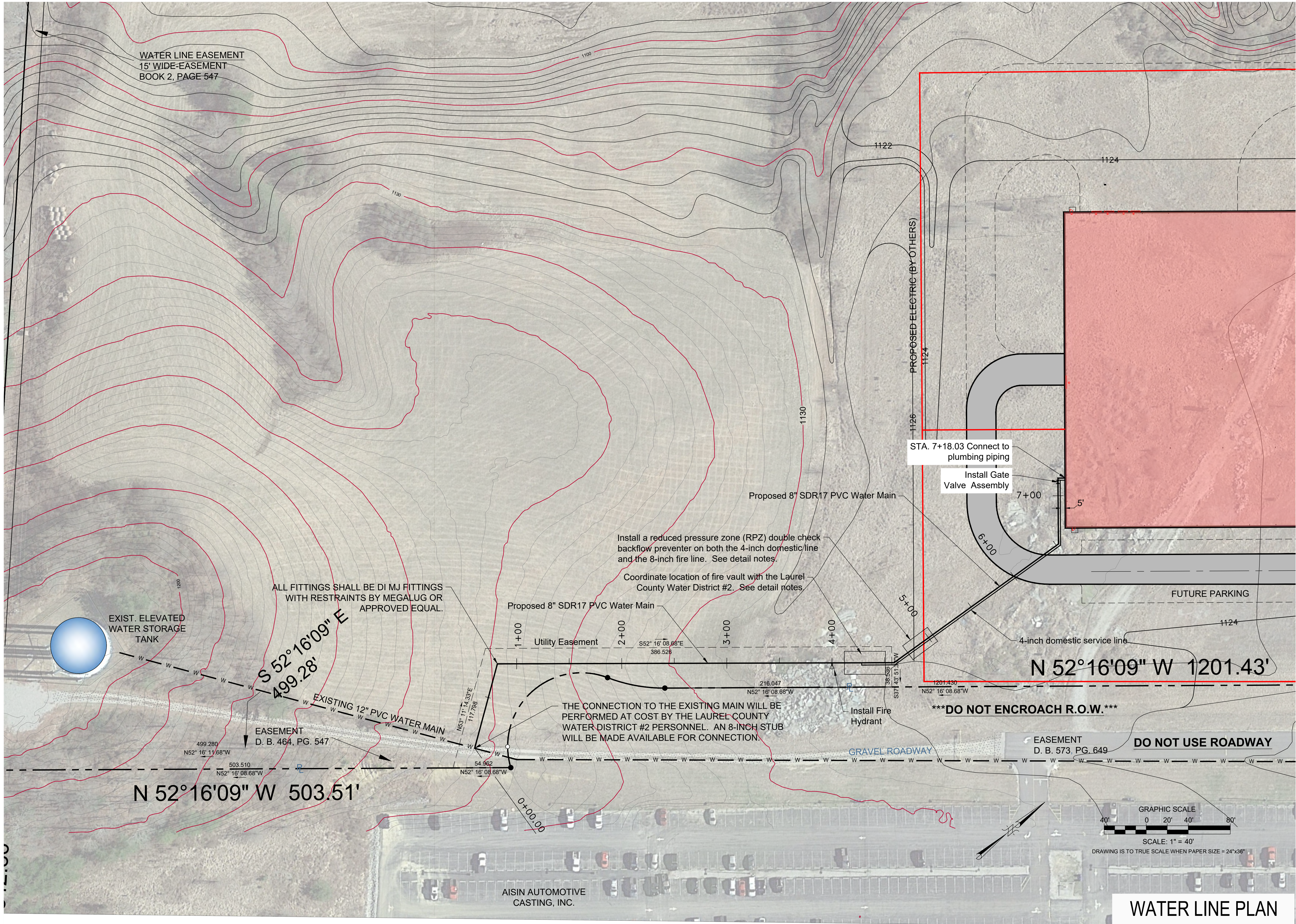


PROPOSED UTILITIES
FOR
LONDON - LAUREL COUNTY
INDUSTRIAL DEVELOPMENT AUTHORITY
LAUREL COUNTY, KENTUCKY

PROJECT NO.	DATE	REVISION	BY
2040-116			
DESIGNED BY: DST			
DRAWN BY: JDW			
CHECKED BY: JDW			
REVIEWED BY: DST			
DATE: MARCH 2025			
SCALE: AS SHOWN			

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Lexington, KY 40503
Phone: (502) 223-8604
Fax: (502) 223-2807
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DRAWING NO.
IDX
SHEET OF



PROPOSED WATER LINE
FOR
LONDON - LAUREL COUNTY
INDUSTRIAL DEVELOPMENT AUTHORITY
LAUREL COUNTY, KENTUCKY

PROJECT NO.	2040-116	DATE	REVISION	BY
DESIGNED BY:	DST			
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REVIEWED BY:	DST			
DATE:	MARCH 2025			
SCALE:	AS SHOWN			

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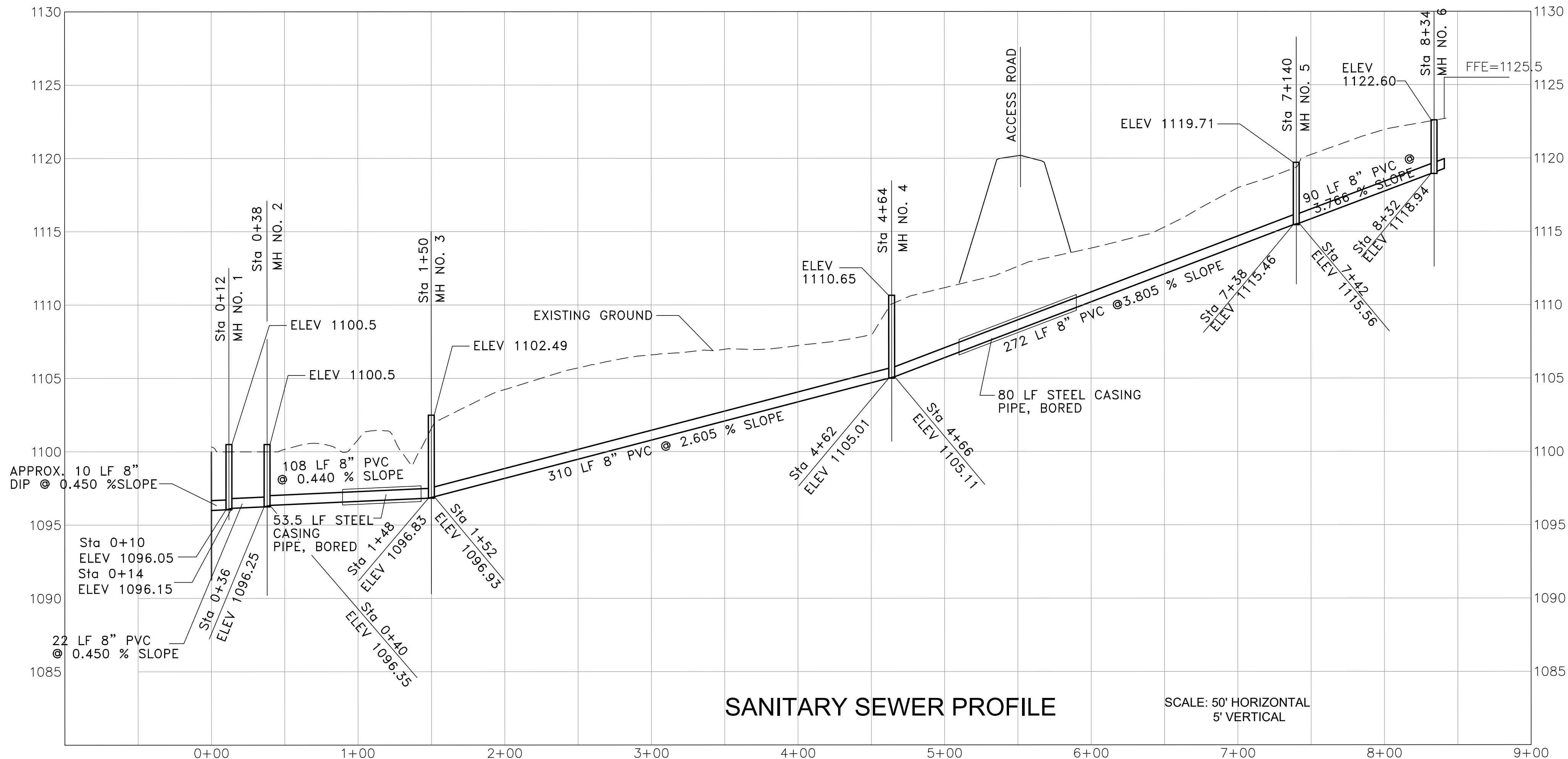
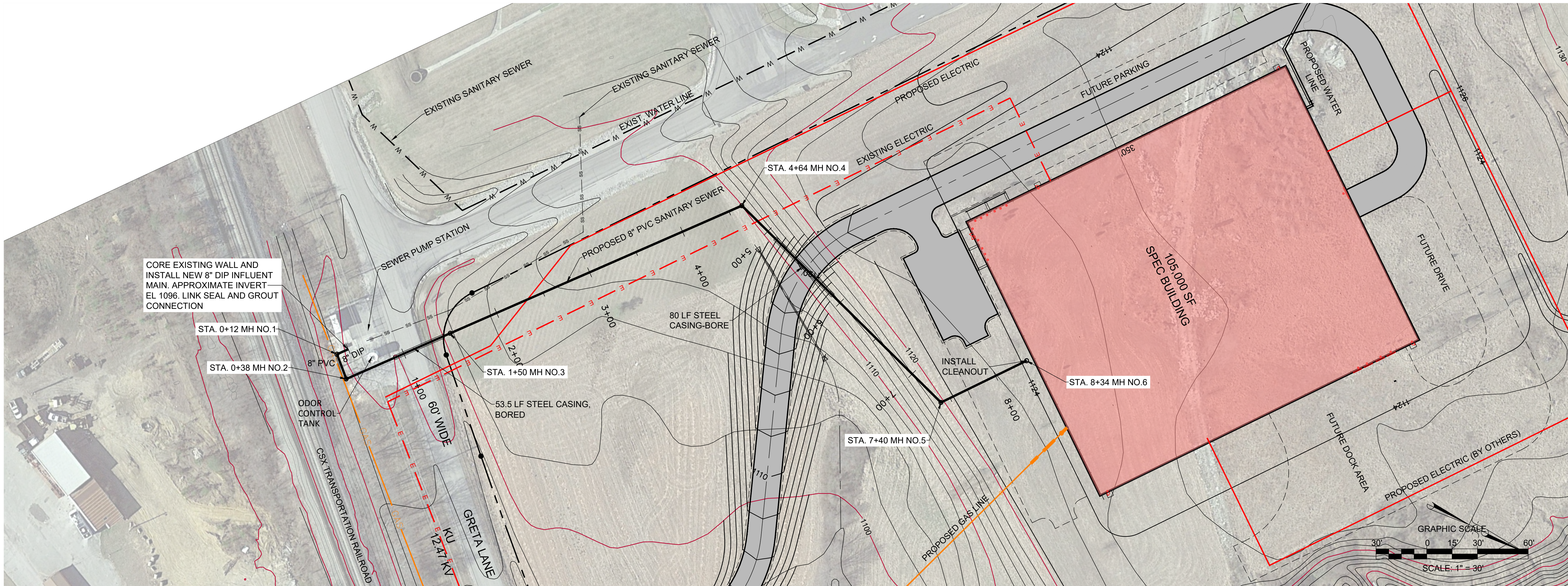
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624 Wellington Way
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Plot Date: 6/16/2025 3:02 PM

M:\ARCHLONDON LAUREL SPEC - 2023\SITE CIVIL\GRETA LANE PAD AND ACCESS ROAD WITH UTIL 6-03-25.DWG

M:\ARCHLONDON LAUREL SPEC - 2023\Site Civil\Greta Lane Pad and Access Road WITH UTIL 6-03-25.DWG To PDF.dwg



SANITARY SEWER PROFILE

SCALE: 50' HORIZONTAL
5' VERTICAL

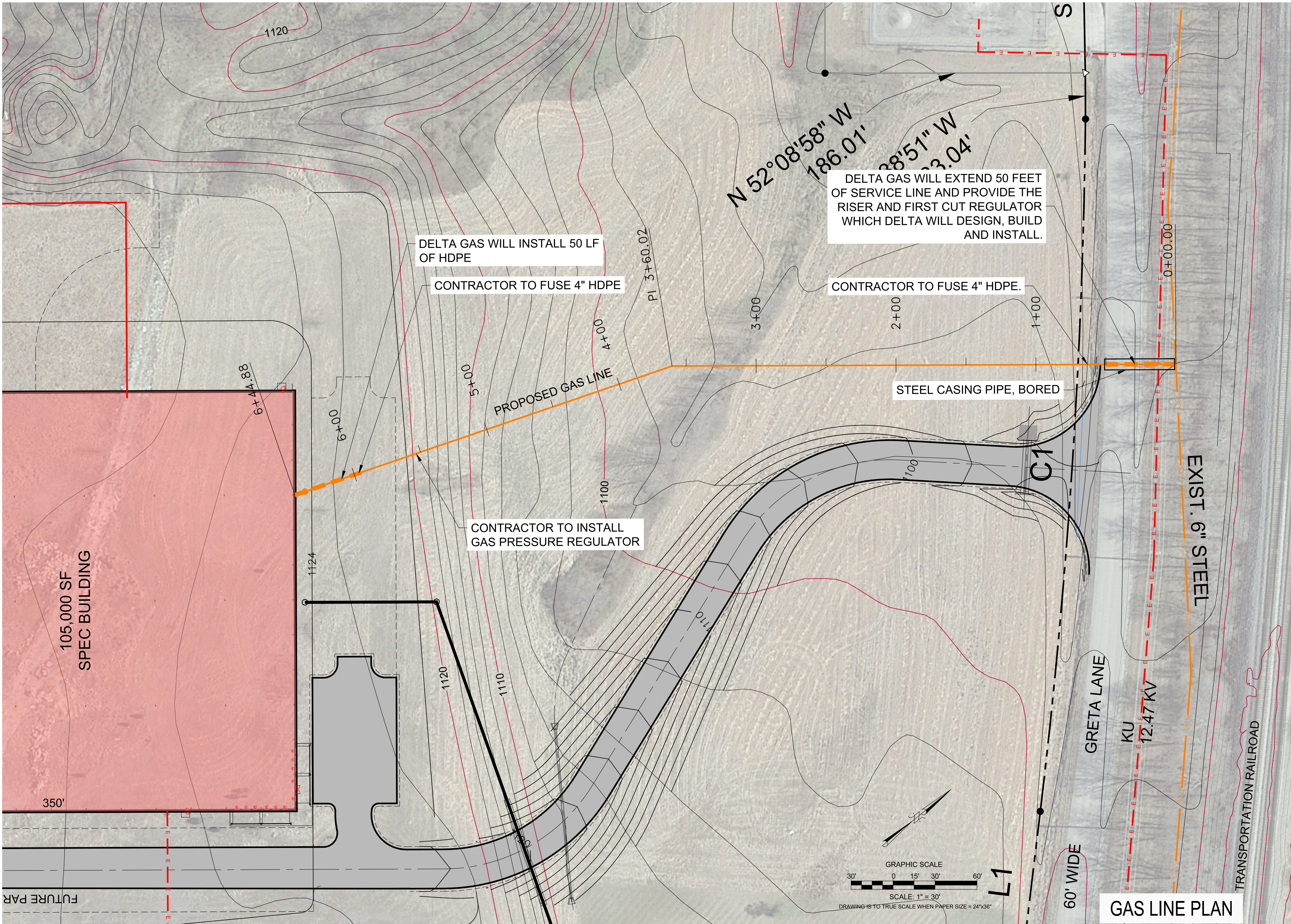
SEWER LINE
PLAN & PROFILE



PROPOSED SEWER LINE
FOR
LONDON - LAUREL COUNTY
INDUSTRIAL DEVELOPMENT AUTHORITY
LAUREL COUNTY, KENTUCKY

PROJECT NO.	2040-116	DATE	REVISION	BY
DESIGNED BY:	D.S.T.			
DRAWN BY:	J.D.W.			
CHECKED BY:	D.S.T.			
REVIEWED BY:	D.S.T.			
DATE:	MARCH 2025			
SCALE:	AS SHOWN			

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STATE OF KENTUCKY
D SCOTT TAYLOR
11400
LICENSED PROFESSIONAL ENGINEER
D. Scott Taylor
June 16, 2025

PROPOSED GAS LINE
FOR
LONDON - LAUREL COUNTY
INDUSTRIAL DEVELOPMENT AUTHORITY
LAUREL COUNTY, KENTUCKY

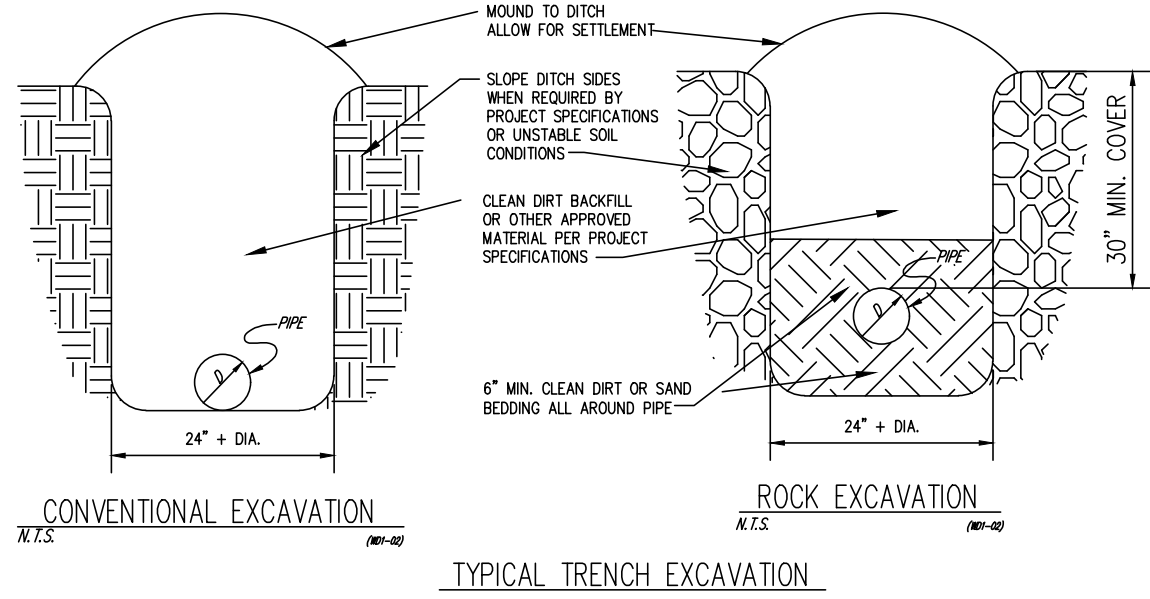
DATE	REVISION	BY

PROJECT NO.: 2403-116
DESIGNED BY: D.S.T.
DRAWN BY: J.D.W.
CHECKED BY: D.S.T.
REVIEWED BY: D.S.T.
DATE: MARCH 2025
SCALE: AS SHOWN

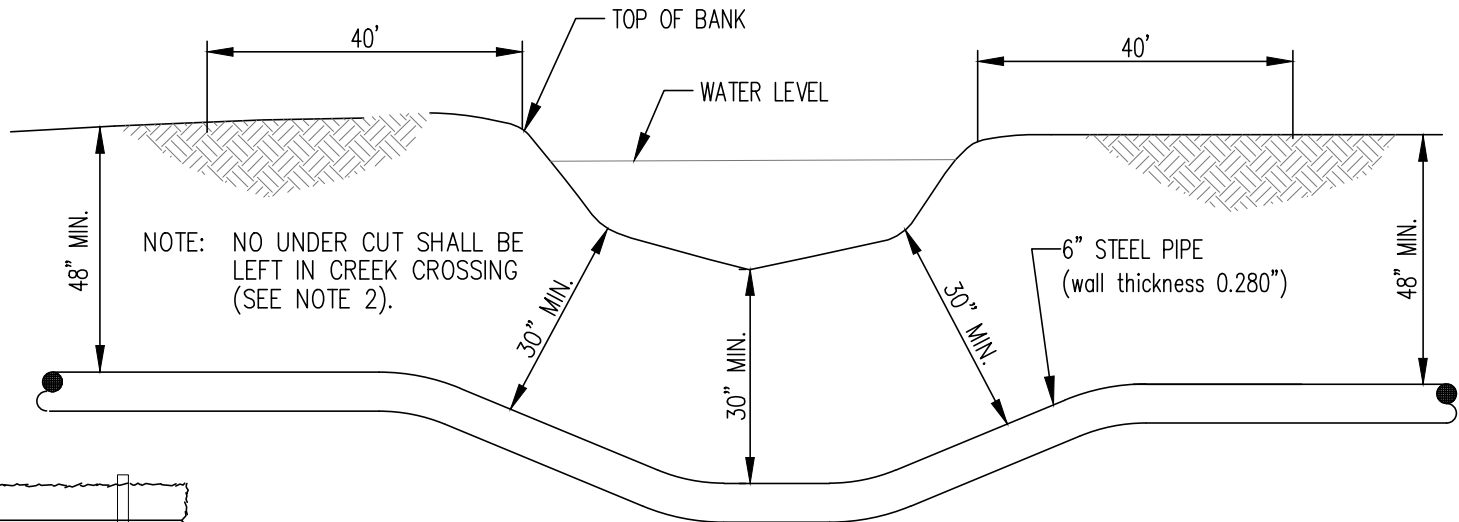
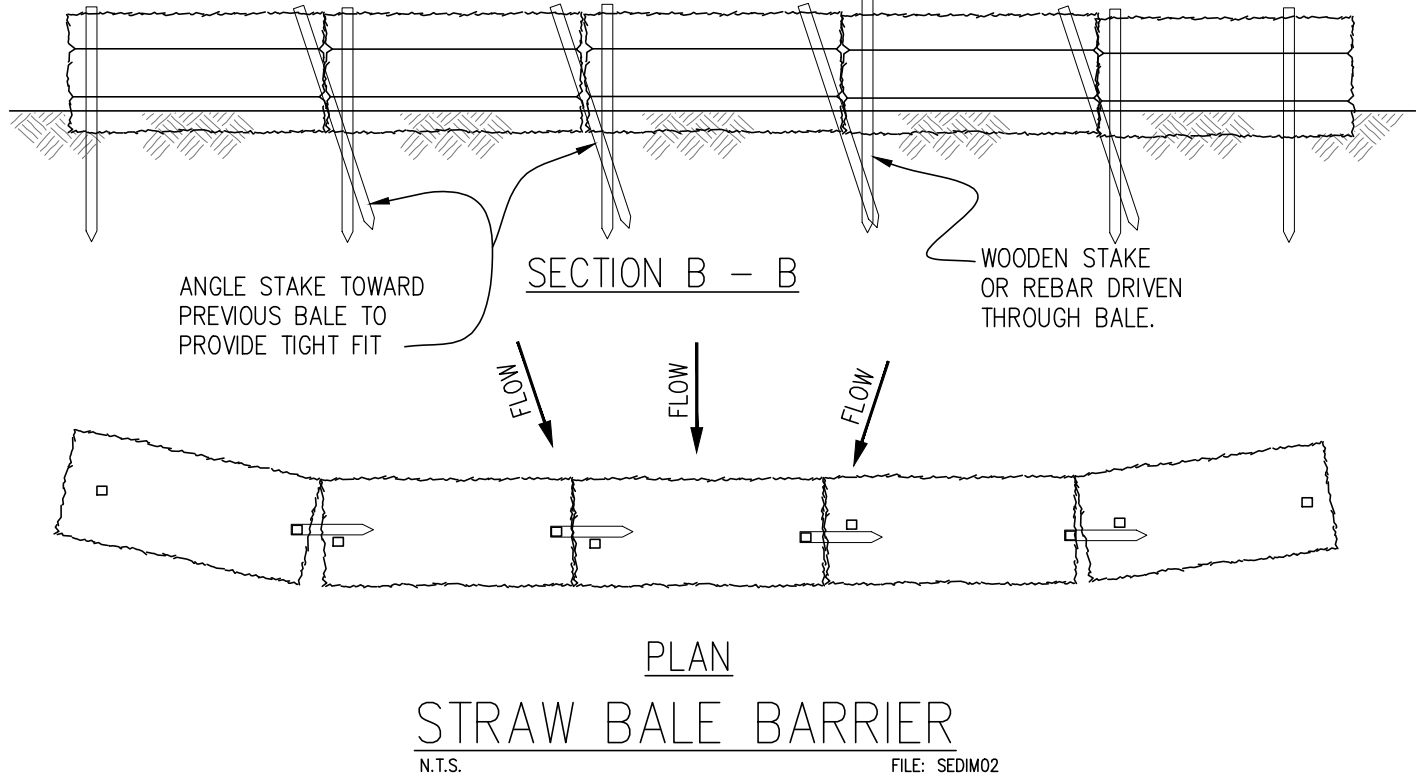
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DRAWING NO.
C-3 GL

SHEET OF



- NOTES:
1. THE CONTRACTOR SHALL SCHEDULE AND CONDUCT HIS OPERATIONS IN A MANNER TO AVOID OR MINIMIZE SOIL EROSION AND SILTATION.
 2. THE CONTRACTOR SHALL CONSTRUCT SILT CHECKS OR PLACE AND SECURE STRAW BALES TO PREVENT SILT-LADEN RUNOFF. SILT CHECKS WILL BE REQUIRED WHEN CLEARING, EXCAVATING, TRENCHING OR GRADING OPERATIONS ARE INITIATED IN ANY AREA THAT COULD PRODUCE SILT-LADEN RUNOFF. THE STRAW BALES SHALL BE SECURED SO AS TO REMAIN IN PLACE. THE PLAN FOR NUMBER OF BALES AND LOCATIONS SHALL BE PREPARED BY THE CONTRACTOR IN ACCORDANCE WITH KENTUCKY EROSION PREVENTION AND SEDIMENT CONTROL FIELD GUIDE. SEDIMENT DEPOSIT AT THE SILT CHECKS SHALL BE REMOVED AND DISPOSED OF WHEN NECESSARY.



- NOTES:
- (1) DURING THE CONSTRUCTION OF THE CROSSING, NO MATERIAL MAY BE PLACED IN THE STREAM OR IN THE FLOOD PLAIN OF THE STREAM TO FORM CONSTRUCTION PADS, COFFER DAMS, ACCESS ROADS, ETC., UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE CABINET.
 - (2) THE TRENCH SHALL BE BACKFILLED AS CLOSELY AS POSSIBLE TO THE ORIGINAL CONTOUR. ALL EXCESS MATERIAL FROM CONSTRUCTION OF THE TRENCH SHALL BE DISPOSED OF OUTSIDE THE FLOOD PLAIN UNLESS THE APPLICANT HAS RECEIVED PRIOR APPROVAL FROM THE CABINET TO FILL WITHIN THE FLOOD PLAIN.
 - (3) FOR SUBFLUVIAL CROSSINGS OF ERODIBLE CHANNELS, THERE SHALL BE AT LEAST THIRTY (30) INCHES CLEAR TO THE TOP OF PIPE OR CONDUIT AT ALL POINTS.
 - (4) FOR SUBFLUVIAL CROSSINGS OF NONERODIBLE CHANNELS, THERE SHALL BE AT LEAST SIX (6) INCHES OF CLEAR COVER ABOVE THE TOP OF PIPE OR CONDUIT AT ALL POINTS, AND THE PIPE OR CONDUIT SHALL BE ENCASED ON ALL SIDES BY AT LEAST SIX (6) INCHES OF CONCRETE.

CREEK CROSSING DETAIL
N.T.S. (WB-00)

PIPE	BEDDING (REQ'D NO EXTRA PAYMENT)
PVC (4" AND SMALLER), COPPER, GALVANIZED	EARTH TRENCH BOTTOM (LEVELLED)
PVC (ABOVE 4"), ALL MUNICIPAL P.V.	COMPACTED EARTH BACKFILL
C.I. AND D.I. (LESS THAN 4")	COMPACTED EARTH BACKFILL
C.I. AND D.I. (4" DIA. AND ABOVE)	COMPACTED CRUSHED STONE BACKFILL
STEEL GAS LINE (4" & ABOVE)	COMPACTED EARTH BACKFILL OR SAND

STANDARD BEDDING TABLE
(WB-00)

MINIMUM TRENCH WIDTHS IN EARTH & MAXIMUM PAY WIDTHS FOR ROCK EXCAVATION			
SIZE	WIDTH	SIZE	WIDTH
UP TO 4" PIPE	1'-6"	12" PIPE	2'-6"
6"	2'-0"	14"	2'-6"
8"	2'-0"	15"	2'-8"
10"	2'-4"	16"	2'-8"

PROJECT NO.	2040-116	DATE	REVISION	BY
DESIGNED BY:	DST			
DRAWN BY:	J.D.W.			
CHECKED BY:	J.D.W.			
REVIEWED BY:	DST			
DATE:	MARCH 2025			
SCALE:	AS SHOWN			

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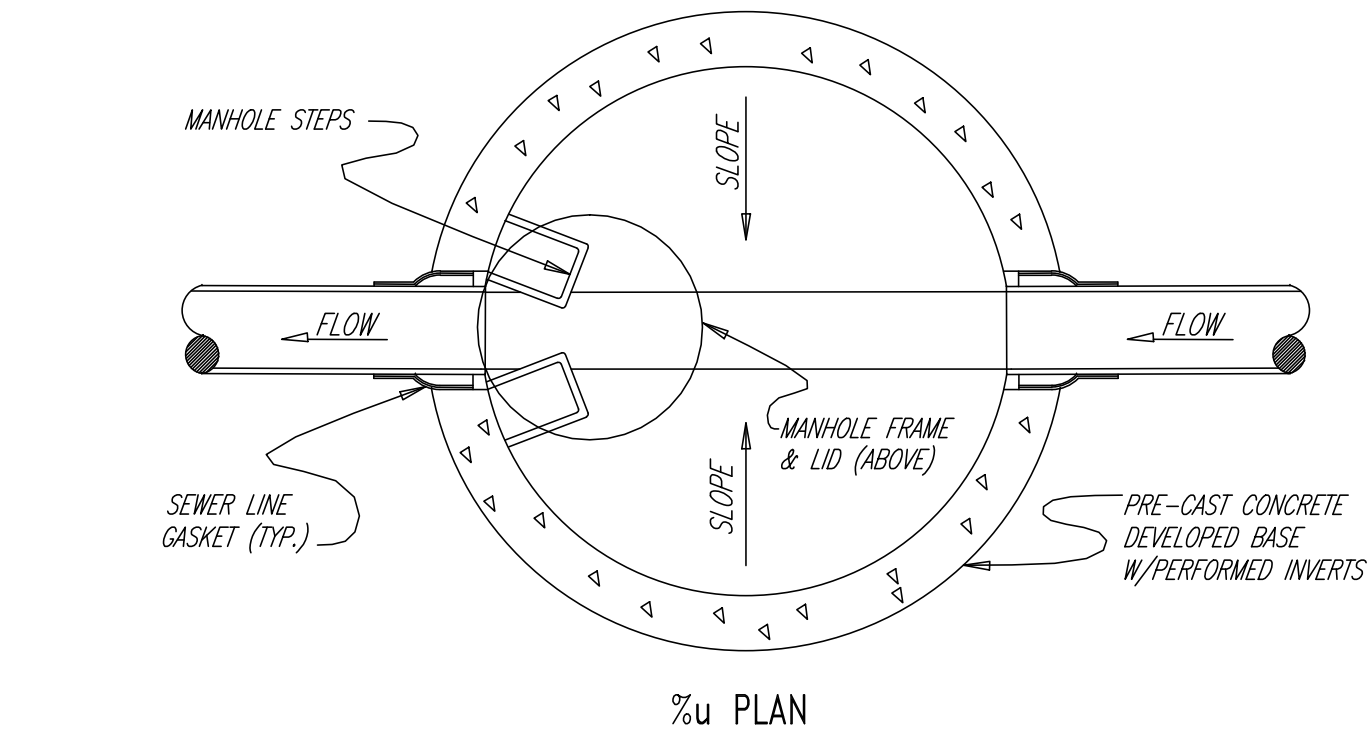
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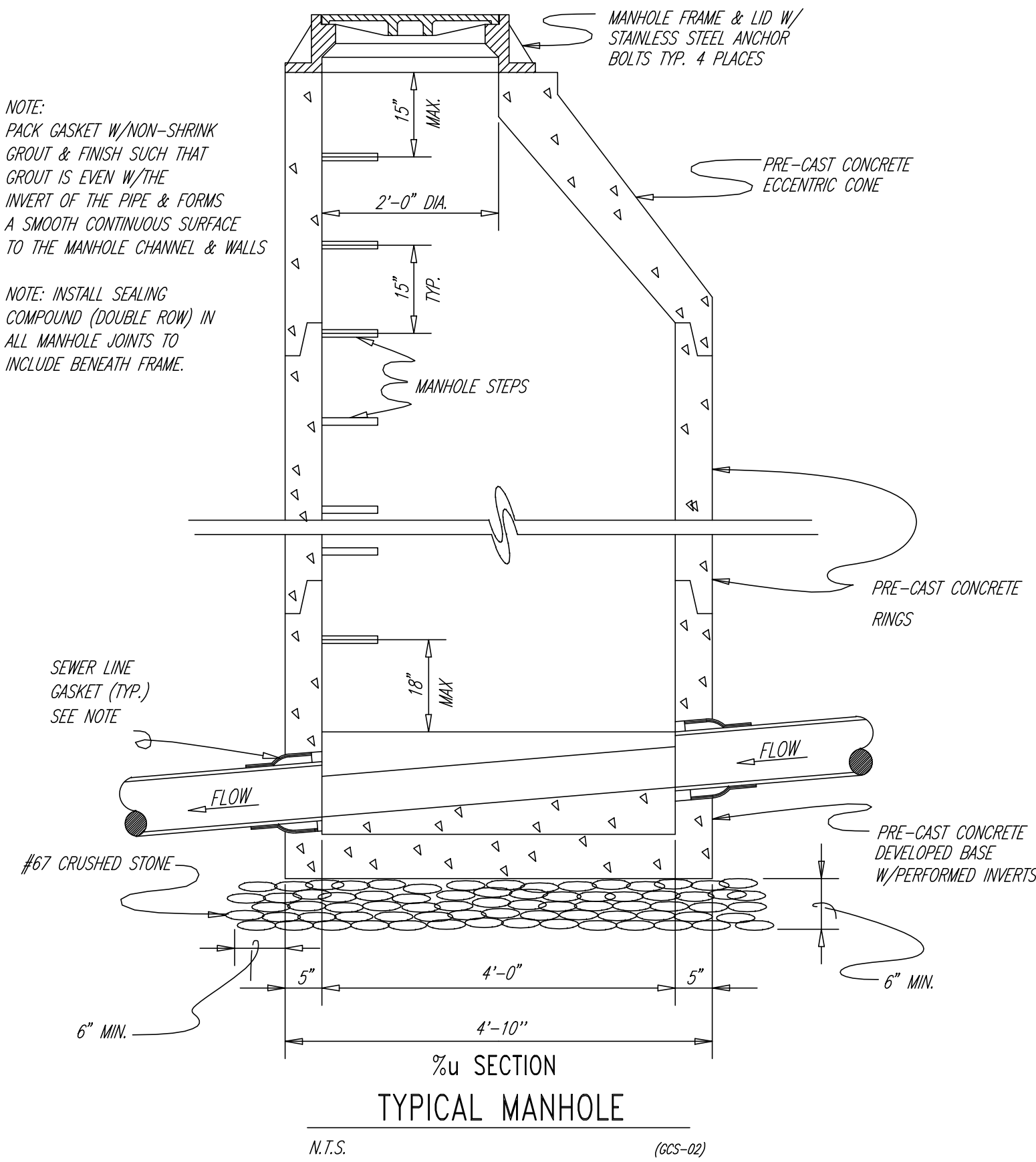
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STATE OF KENTUCKY
D SCOTT TAYLOR
11489
REGISTERED PROFESSIONAL ENGINEER
June 16, 2025

PROPOSED UTILITIES
FOR
LONDON - LAUREL COUNTY
INDUSTRIAL DEVELOPMENT AUTHORITY
LAUREL COUNTY, KENTUCKY



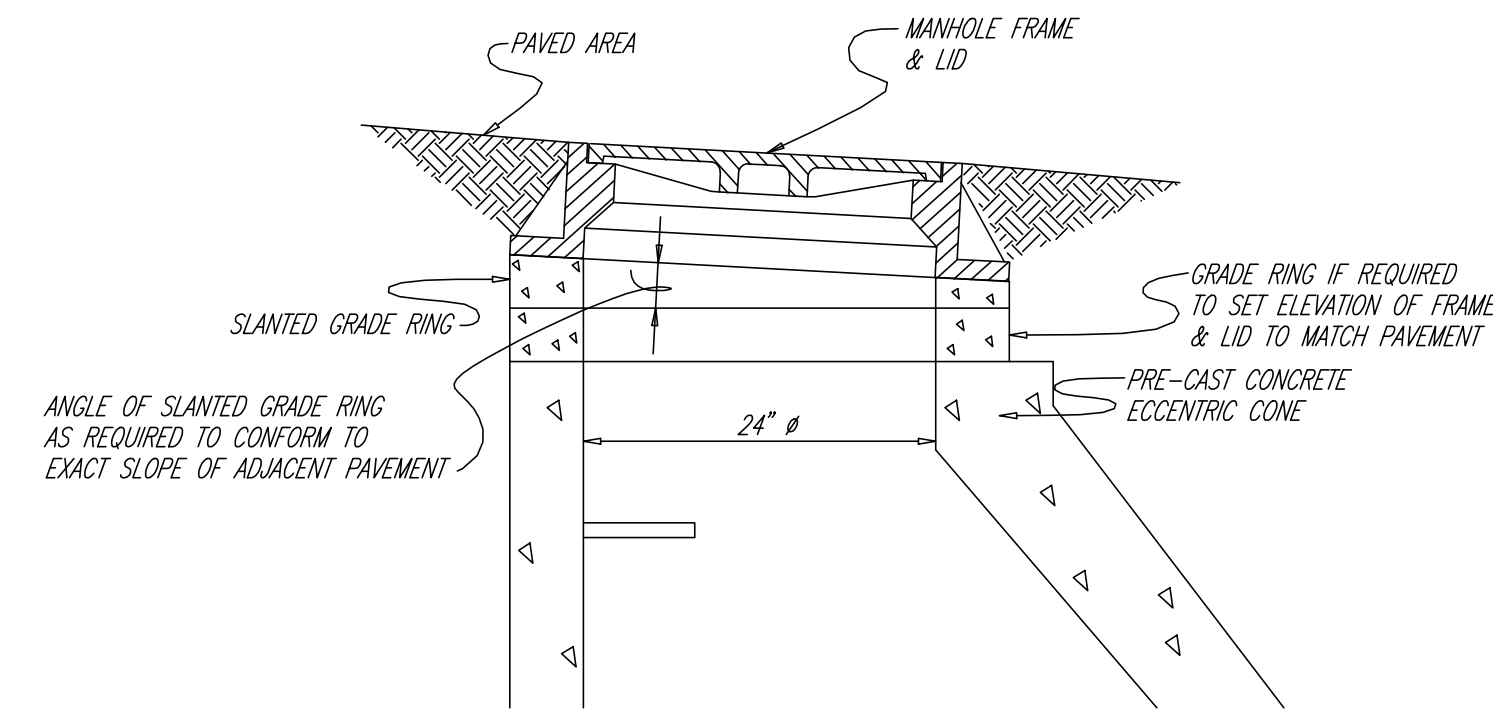
%u PLAN



TYPICAL MANHOLE

N.T.S.

(02S-02)

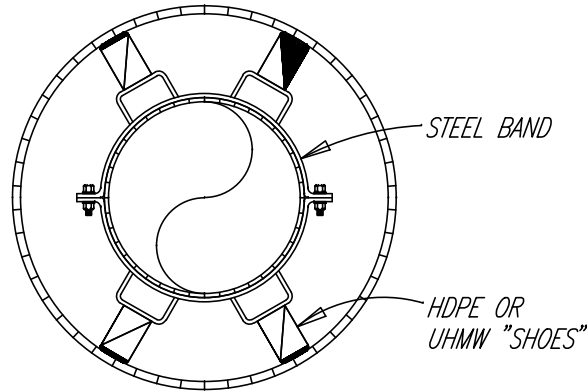


DETAIL - GRADE RINGS

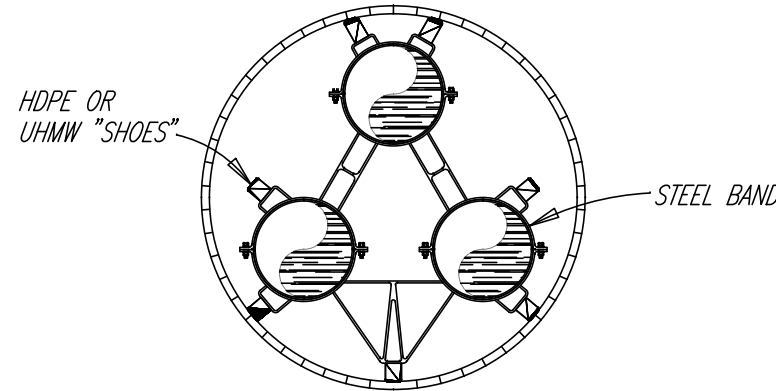
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(02S-05)

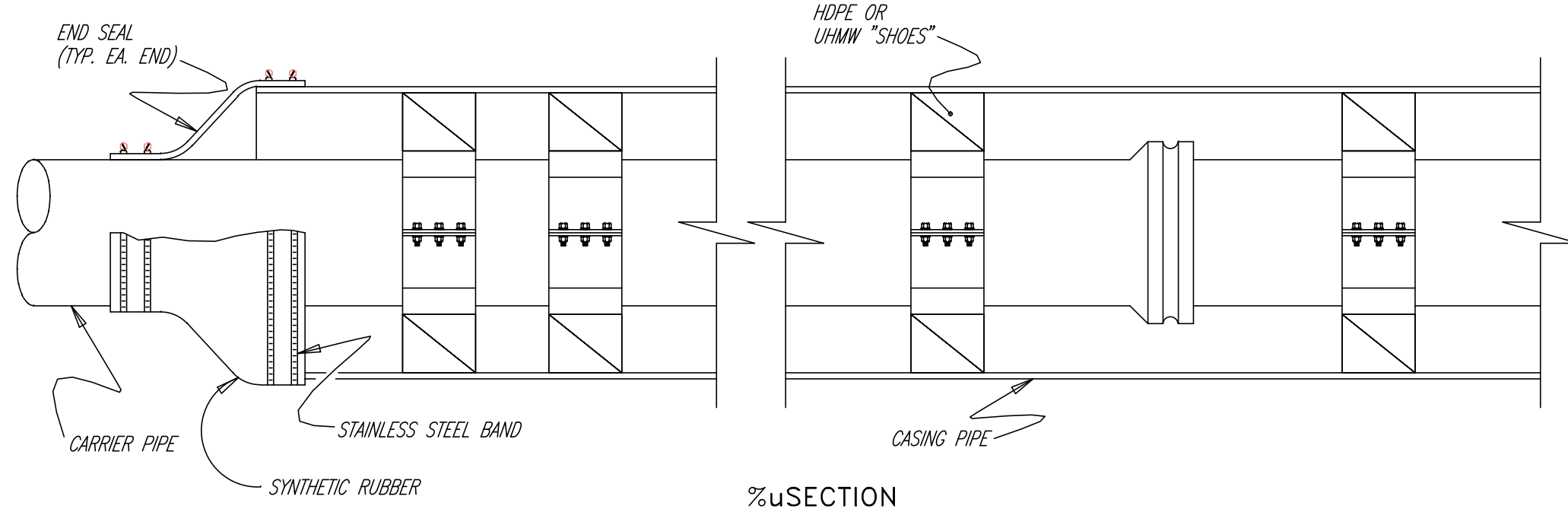
NOTE: STEEL CASING PIPE SHALL CONTAIN CASING SPACERS. SPACERS SHALL BE LOCATED PER MANUFACTURE RECOMMENDATION. SPACERS SHALL BE STEEL CASING INSULATORS WITH ROLLERS OR SLIDES AS MANUFACTURED BY ADVANCE PRODUCTS & SYSTEMS, INC. PSI OR APPROVED EQUAL. CASING PIPE GRADE FOR GRAVITY LINES SHALL MATCH THE GRAVITY SEWER LINE, AND INVERT ELEVATION SHALL BE AS REQUIRED BY THE GRAVITY SEWER LINE. RUBBER END SEALS SHALL BE DESIGNED TO COVER EACH END OF THE CASING PIPE, BE MOLDED AROUND EACH OF THE CARRIER PIPES AND SECURED IN PLACE WITH STN. STL. BAND CLAMPS.



%uEND VIEW
SINGLE CARRIER SYSTEM



%uEND VIEW
MULTIPLE CARRIER SYSTEM

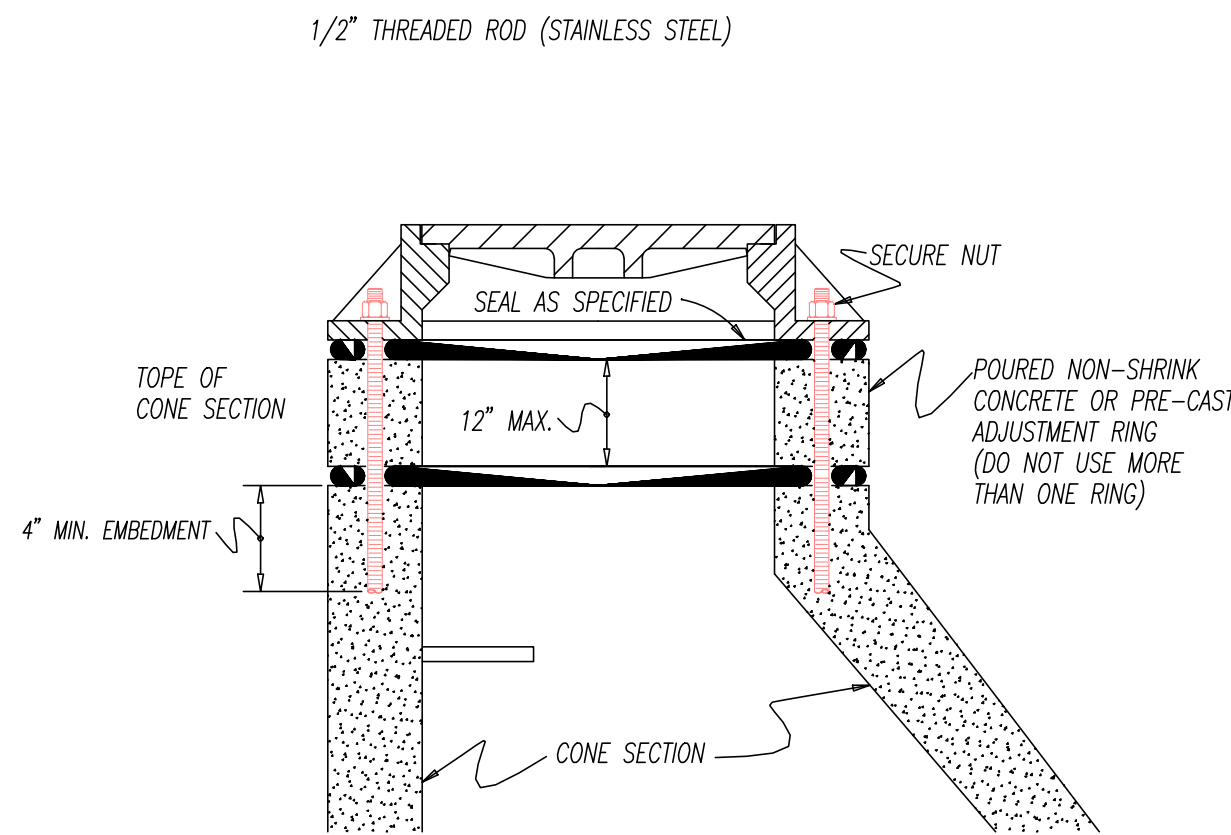


%uSECTION

%uCARRIER PIPE SKIDS-DETAILS

N.T.S.

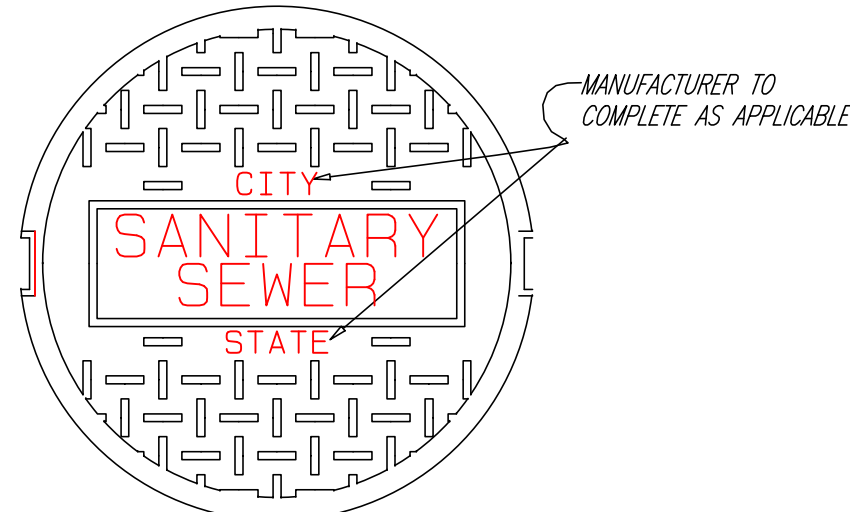
(02S-03)



DETAIL: SANITARY SEWER
INSTALLATION DETAIL FOR
%uALL FRAMES AND COVERS

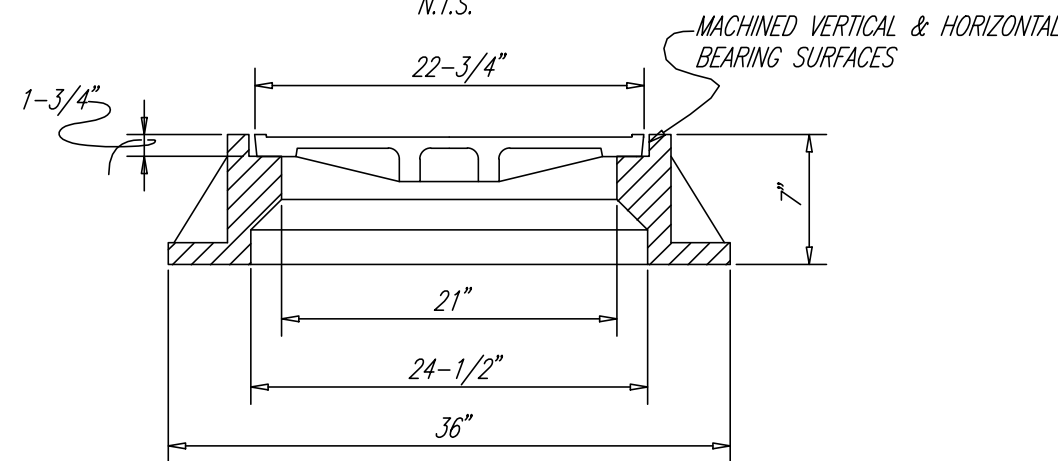
N.T.S.

NOTE:
MIN. WT. LID ~ 150 lbs.
MIN. WT. LID/FRAME ASSY. ~ 385 lbs.
ALL STEEL ASTM A-48 W/ MACHINED SEATING EDGES



%u PLAN - LID

N.T.S.



SECTION - MANHOLE & LID

N.T.S.

(02S-06)

GASKET: THICKNESS OF GASKET MATERIAL .375
TENSILE STRENGTH OF RUBBER 1800 PSI MIN.
ELONGATION OF RUBBER 450% - 550%
DUROMETER OF RUBBER 42 ±5
ALL RUBBER MEETS ASTM C-923 REQUIREMENTS.

POWER EXPANSION SLEEVE: 1.5" X .120" TYPE 304 STAINLESS STEEL
TENSILE STRENGTH OF STEEL 85,000 PSI
YIELD STRENGTH OF STEEL 35,000 PSI
POWER EXPANSION SLEEVE STAINLESS STEEL MEETS ALL REQUIREMENTS OF ASTM C-923

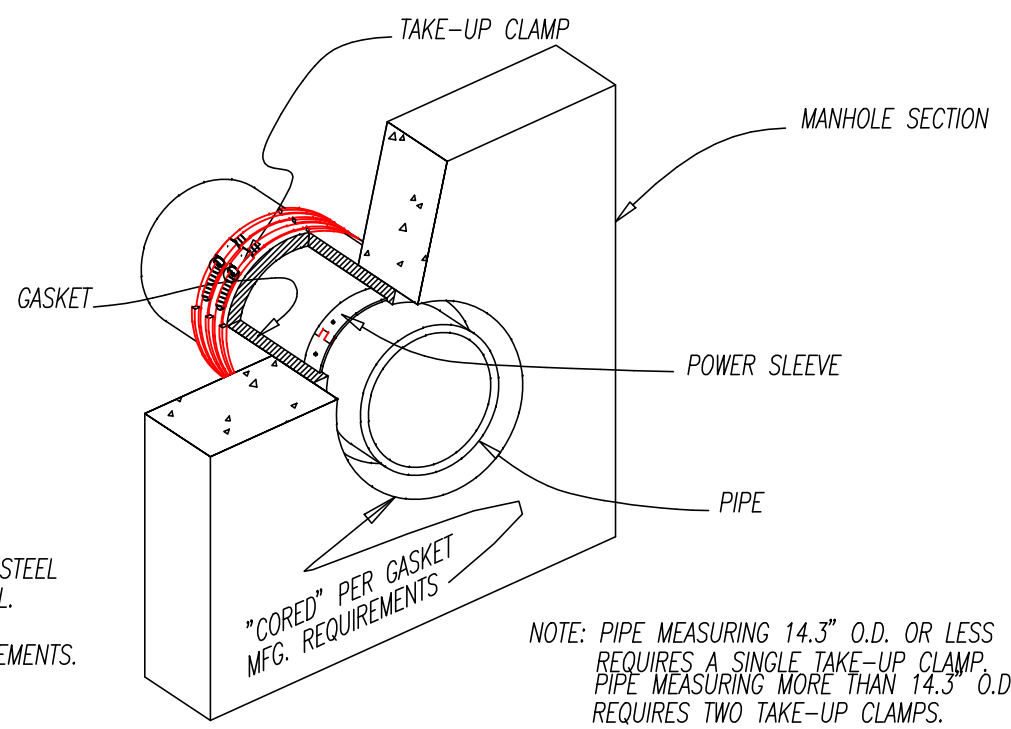
TAKE-UP CLAMP: BAND, SADDLE AND HOUSING MADE OF TYPE 302 STAINLESS STEEL
BREEZE CLAMP: SCREW MADE OF TYPE 305 STAINLESS STEEL
BREEZE STAINLESS STEEL CLAMP'S MEET ASTM C-923 REQUIREMENTS.

GASKET MANUFACTURED BY PRESS SEAL GASKET CO.

CASING PIPE SCHEDULE

(02S-04)

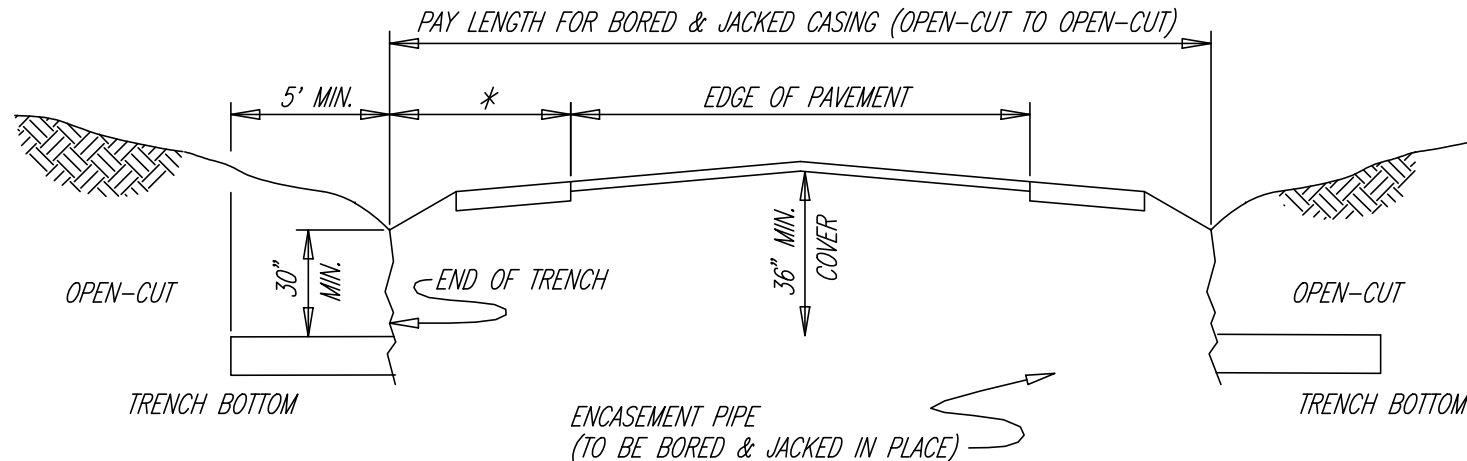
CARRIER PIPE NOMINAL SIZE	MINIMUM I.D. OF CASING PIPE FOR:			MAX. SKID SUPPORT SPACING L.F. APART
	PLASTIC B&S or COIL	C.I. or D.I. B&S	C.I. or D.I. M.J.	
3/4"	1-1/4"			
1" & 1-1/4"	2"			
1-1/2"	3"			
2"	3-1/2"			
2-1/2"	4"			
3"	5"	8"	10"	
4"	8"	8"	10"	4.7"
5"	8"			5.5"
6"	10"	12"	12"	6.3"
8"	12"	13-1/2"	15-1/2"	7.4"
10"	15-1/2"	15-1/2"	17-1/2"	8.5"
12"	17-1/2"	17-1/2"	19-1/2"	9.6"
14"		19-1/2"	21-1/2"	10.0"
16"		21-1/2"	23-1/2"	11.0"
18"		25-1/2"	27-1/2"	12.0"



NOTE: UNDER ROAD CROSSINGS STEEL CASING PIPE SHALL BE REQUIRED, PIPES 4" & LESS SHALL BE NEW SCHEDULE 40, PIPES LARGER THAN 4" SHALL HAVE MINIMUM WALL THICKNESS OF 0.250". ALL BORED & JACKED ENCASEMENT PIPE SHALL BE INSTALLED IN BORE HOLES NO LARGER THAN THE OUTSIDE DIAMETER OF THE ENCASEMENT PIPE.

NOTE: ALL JOINTS TO BE SOLIDLY WELDED, END OF CASING TO BE SEALED W/CONCRETE AFTER LINE HAS BEEN INSTALLED & TESTED.

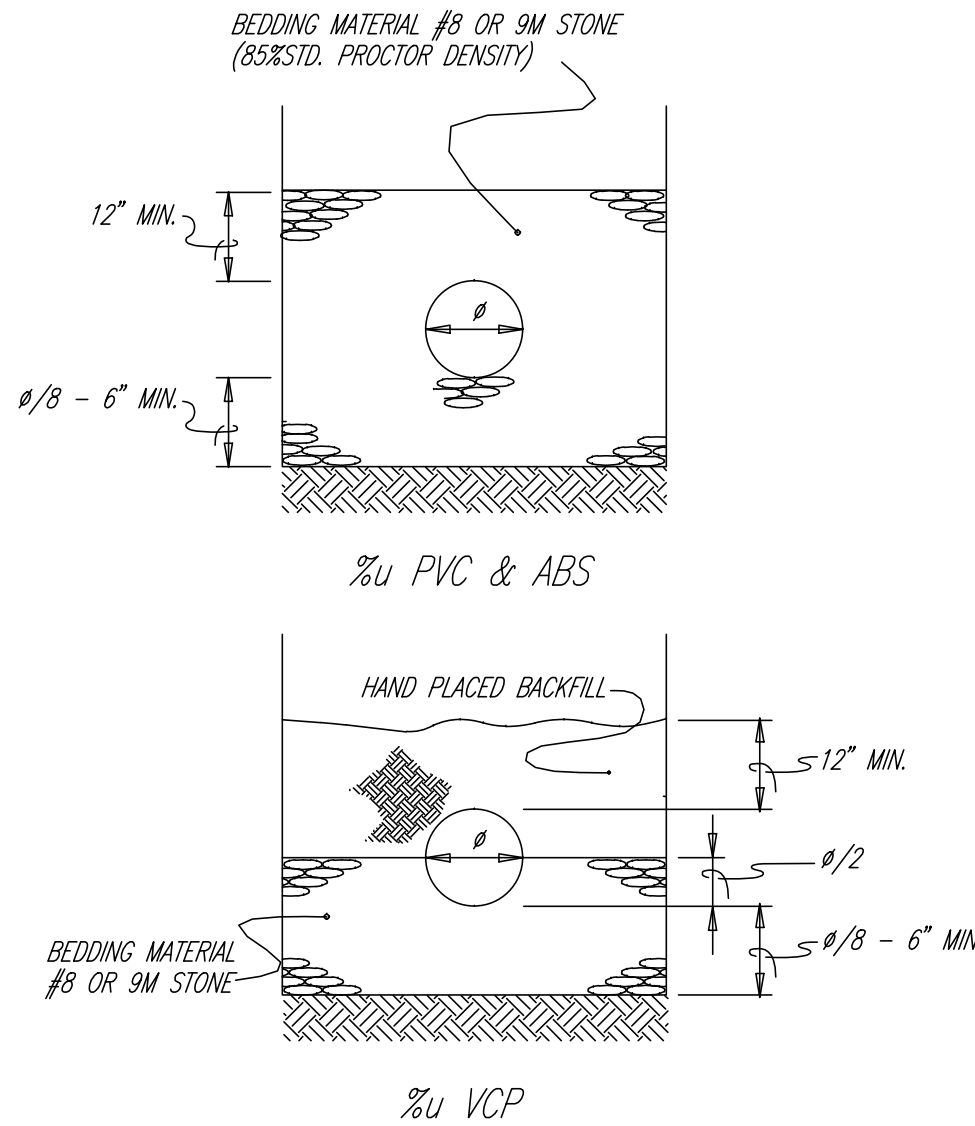
• NOTE: OPEN TRENCH NO CLOSER THAN THE DITCHLINE FROM THE EDGE OF PAVEMENT.



SECTION VIEW OF ROAD CROSSING

N.T.S.

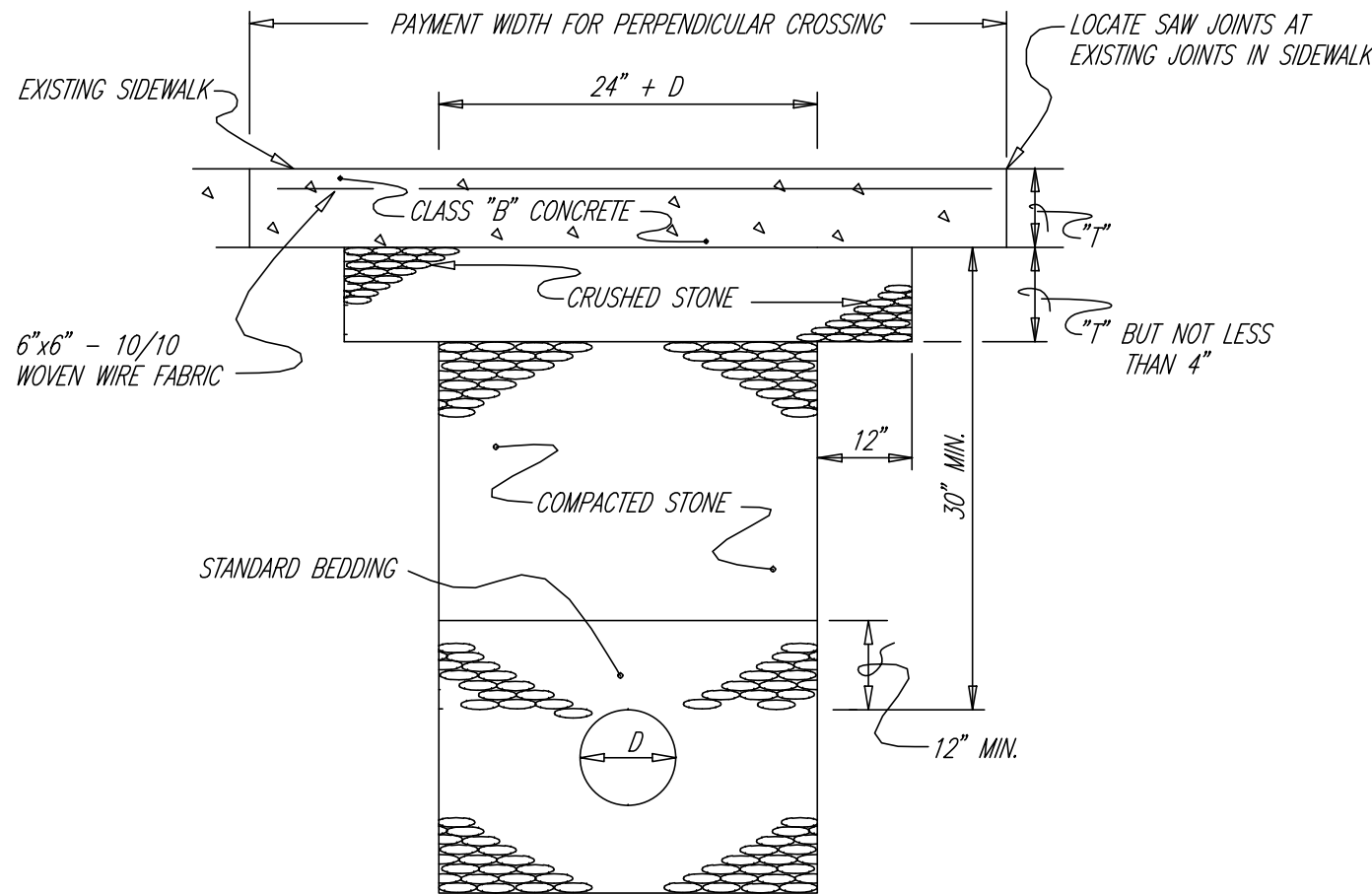
PS2-06



TRENCHING, BEDDING, & BACKFILL DETAILS

N.T.S.

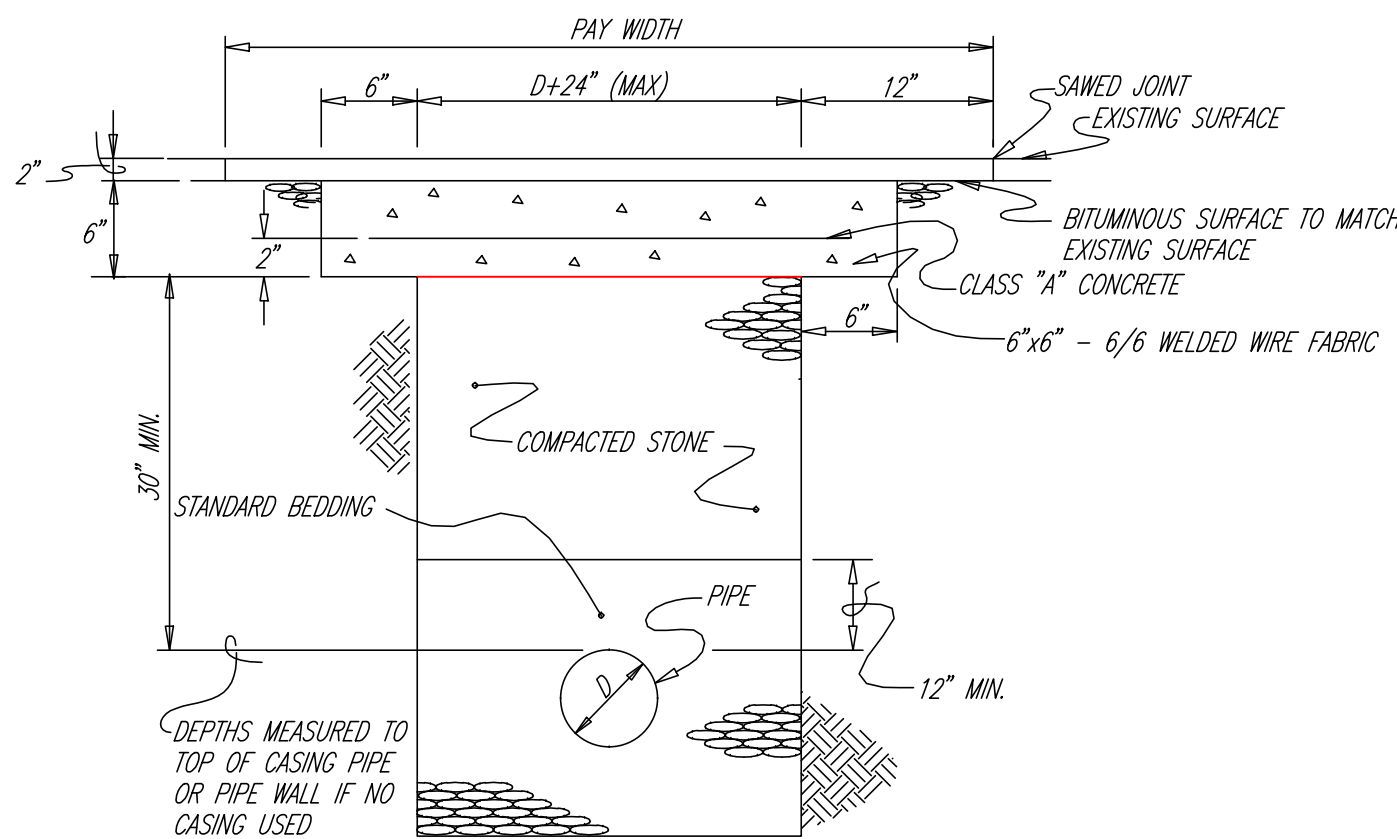
(RCS-10)



CONCRETE SIDEWALK OR DRIVEWAY CROSSING REPLACEMENT

N.T.S.

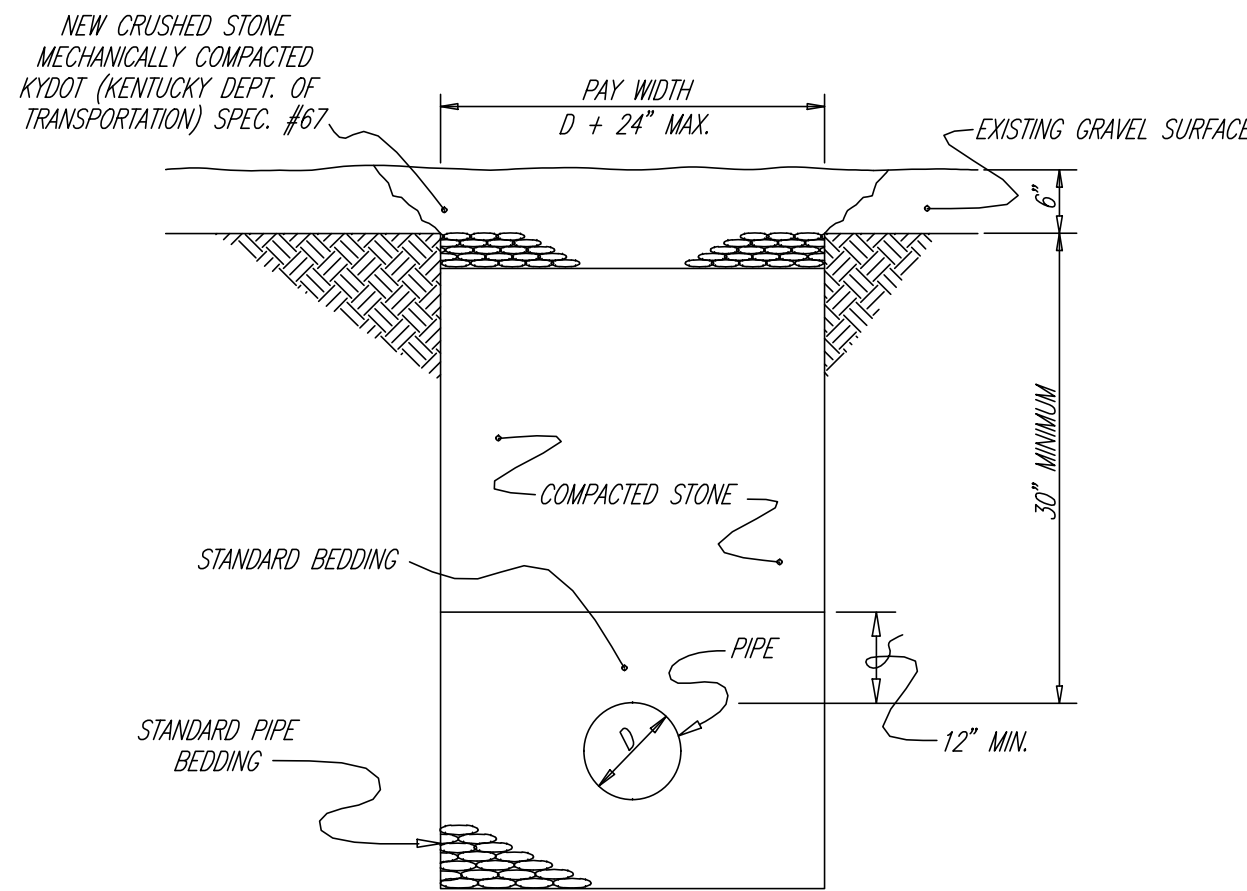
(PS1-04)



BITUMINOUS HEAVY-DUTY SURFACE MORE THAN 2"

N.T.S.

(PS1-08)



GRAVEL SURFACE

N.T.S.

(PS1-06)



PROPOSED SEWER LINE
FOR
LONDON - LAUREL COUNTY
INDUSTRIAL DEVELOPMENT AUTHORITY
LAUREL COUNTY, KENTUCKY

PROJECT NO.	2040-116	DESIGNED BY:	DST	DRAWN BY:	JDW	CHECKED BY:	DST	REVIEWED BY:	DST	DATE:	MARCH 2025	SCALE:	AS SHOWN
DATE		REVISION		BY									

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Phone: (609)223-5604
624 Wellington Way
Lexington, Ky. 40503
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Fax: (609)223-2607

DRAWING NO.

SD-2

SHEET OF

SANITARY SEWER DETAILS

MINIMUM TRENCH WIDTHS IN EARTH & MAXIMUM PAY WIDTHS FOR ROCK EXCAVATION							
SIZE	WIDTH	SIZE	WIDTH	SIZE	WIDTH	SIZE	WIDTH
UP TO 4" PIPE	1'-2"	12" PIPE	2'-0"	18" PIPE	2'-6"	24" PIPE	3'-0"
6"	2'-0"	14"	2'-6"	20"	3'-0"	26"	3'-6"
8"	2'-6"	16"	2'-6"	22"	3'-6"	28"	4'-0"
10"	2'-6"	18"	2'-6"	24"	3'-6"	30"	4'-0"

NOTE: NO ROCKS LARGER THAN 1 1/2" SHALL BE ALLOWED IN TOP 6" TOP OF BACKFILL WILL BE UNIFORMLY ROUNDED ABOVE EXISTING GROUND FOR SETTLING.

NOTE: BACKFILL SHALL BE HAND PLACED BUT MAY BE MECHANICALLY PLACED IF APPROVED BY ENGINEER & SOLIDLY TAMPED BY HAND OR APPROVED MECHANICAL METHODS (MAY BE "WALKED-IN" WITH PVC PIPE) AROUND THE PIPE & TO A POINT 8" HIGHER THAN TOP OF THE PIPE & 12" HIGHER FOR A.C. PIPE. THE REMAINDER OF BACKFILL SHALL CONTAIN NO ROCKS LARGER THAN 18".

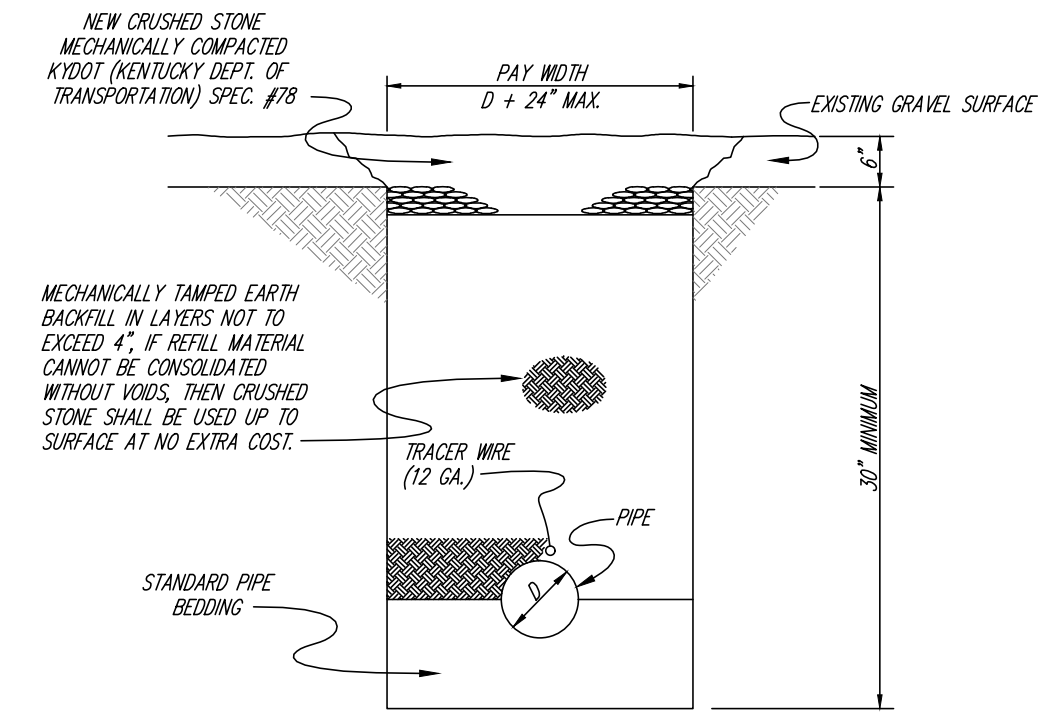
COMMUNICATION CONDUIT BY O.E.C.
NOTE: NO ROCK LARGER THAN 1/2" ALLOWED

STANDARD BEDDING (SEE STANDARD BEDDING TABLE) FOR PVC PIPE MAY BE COMPACTED IN PLACE BY "WALKING-IN" FINELY GRADED SELECT MATERIAL. WHERE TRENCHING EQUIPMENT LEAVES SUITABLE BEDDING, SHOVELING OF ADDITIONAL BEDDING SHALL NOT BE REQUIRED. THE PIPE BARREL SHALL BE UNIFORMLY SUPPORTED FOR ITS FULL LENGTH.

STANDARD TRENCH DETAIL

N.T.S. (N01-05)

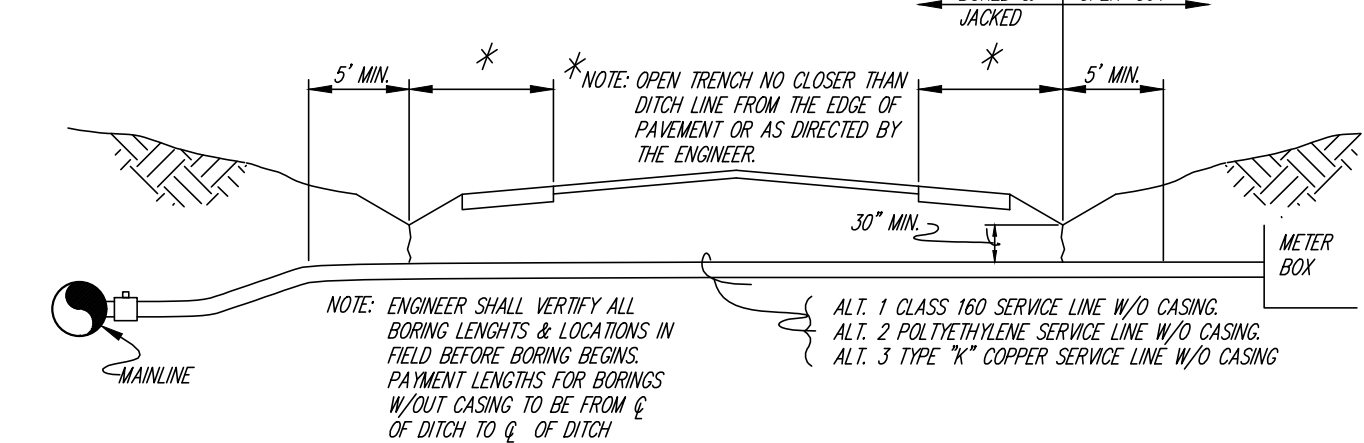
NOTE: A.C. PIPE CROSSINGS SUBSTITUTE BANK RUN SAND, IF NOT ENCASED, FOR SPEC. #78 STONE. ALL OTHER PIPE MATERIALS USE STONE.



GRAVEL SURFACE

N.T.S. (N01-01)

NOTE: FOR BOTH OPPOSITE SIDE & SAME SIDE SERVICES IN HIGH PRESSURE AREA WHERE MAINLINE PIPE EXCEEDS CLASS 150, THE SERVICE LINE SHALL BE CONSTRUCTED OF PIPE OF THE SAME CLASS AS THE MAINLINE FROM THE MAINLINE TAP TO THE PRESSURE REGULATOR.



OPPOSITE SIDE SERVICE

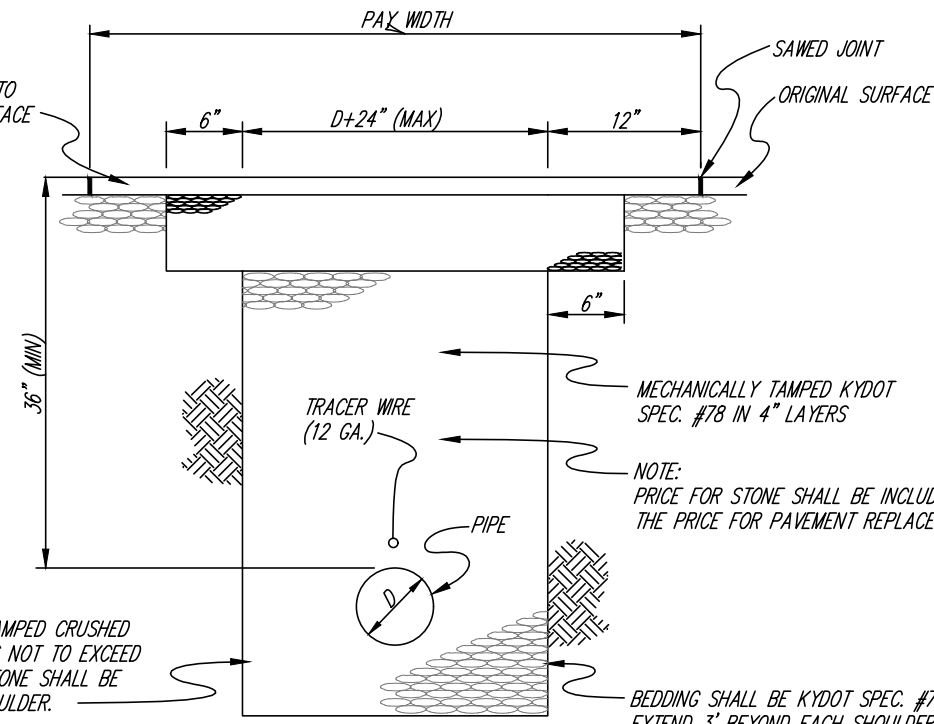
N.T.S. (N04-03)

NOTE: WHERE SEPARATE BID ITEMS ARE ESTABLISHED FOR PAVING REPLACEMENT, QUANTITIES SHALL BE DETERMINED AS FOLLOWS: STONE USED FOR PAVEMENT REPLACEMENT TO BE PAID FOR BY TON FOR WEIGHT OF MATERIAL REQUIRED TO FIT THE DIMENSIONS SHOWN IN THESE DETAILS. UNIT WEIGHT = 110#/CU.YD. PER INCH OF DEPTH.

BITUMINOUS SURFACING OF ALL TYPES PAID FOR ON THE BASIS OF SQUARE YARDAGE OF 2" THICK PAVING REQUIRED TO FIT DIMENSIONS SHOWN IN THE DETAILS. ADJUST THE ACTUAL DEPTH REQUIRED TO MATCH EXISTING PAVING. CONCRETE SURFACING, EXCEPT DRIVEWAYS & SIDEWALKS, PAID FOR ON BASIS OF SQUARE YARDAGE OF 6" THICK PAVING REQUIRED TO FIT DIMENSIONS SHOWN IN DETAILS. ADJUST TO ACTUAL DEPTH REQUIRED.

SURFACE RESTORATION

(N01-10)



BITUMINOUS LIGHT-DUTY SURFACE 2" OR LESS

N.T.S.

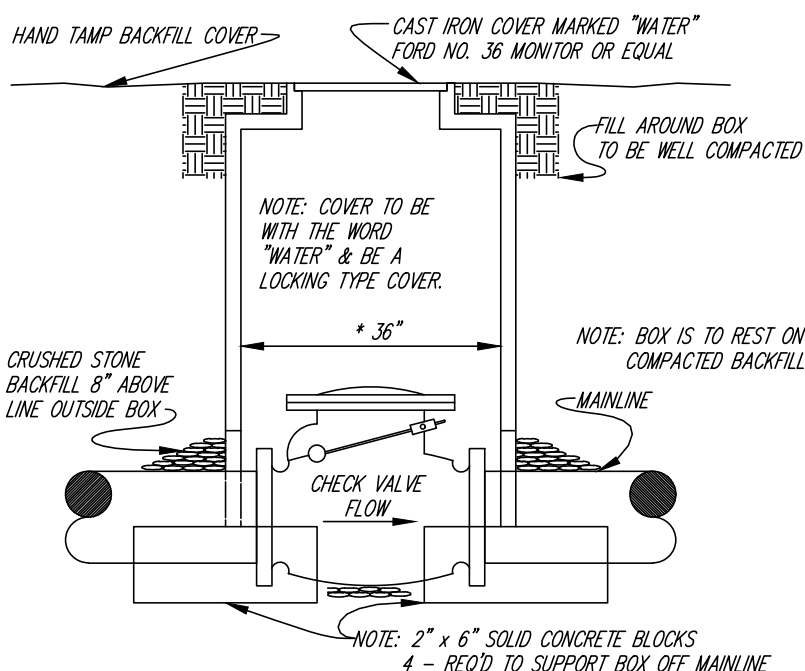
PIPE	BEDDING (REQ'D NO EXTRA PAYMENT)
PVC (4" AND SMALLER), COPPER, GALVANIZED	EARTH TRENCH BOTTOM (LEVELLED)
PVC (ABOVE 4"), ALL MUNICIPAL P.V.	COMPACTED EARTH BACKFILL
C.I. AND D.I. (LESS THAN 4')	COMPACTED EARTH BACKFILL
C.I. AND D.I. (4' DIA. AND ABOVE)	COMPACTED CRUSHED STONE BACKFILL
ASBESTOS-CEMENT (ABOVE 4')	COMPACTED BANK RUN SAND

STANDARD BEDDING TABLE

(N01-06)

NOTE: BODIES IN GRASS AREAS SHALL BE NO HIGHER THAN 1/2" ABOVE GROUND & NO LONGER THAN FLUSH. BODIES IN CONCRETE OR PAVED AREAS SHALL BE FLUSH. IN AREAS TO BE SODDED, THE TOP OF BOX SHALL BE 2" ABOVE GRADE.

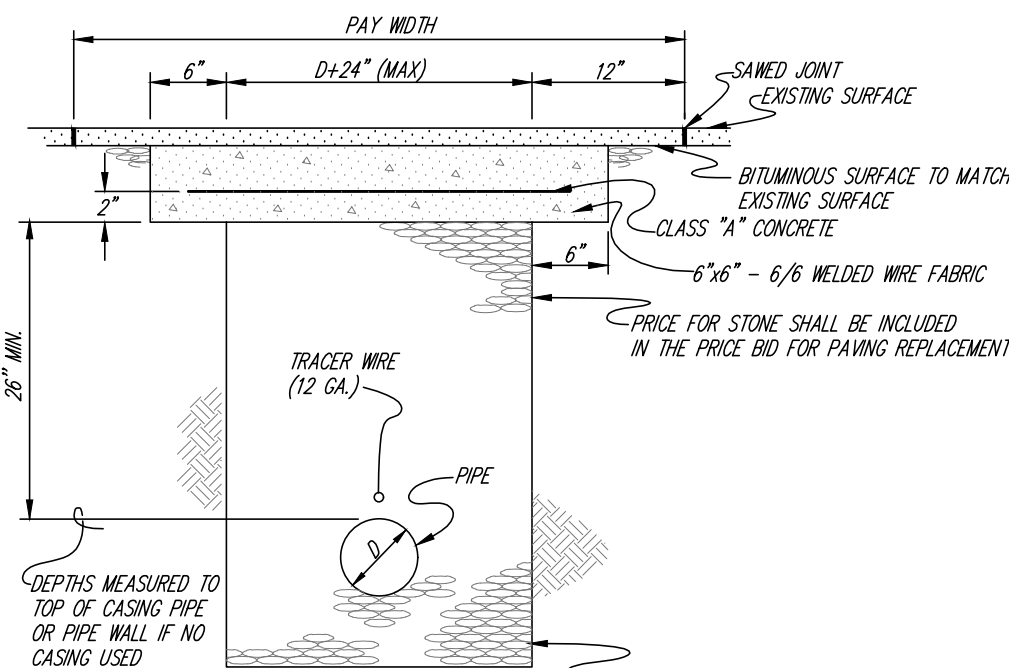
NOTE: CHECK VALVES TO BE INSTALLED IN METER BOX WITH A SUITABLE METER BOX COVER TO ACCOMMODATE VALVE & ACCESSORIES.



CHECK VALVE SETTING

N.T.S. (N04-01)

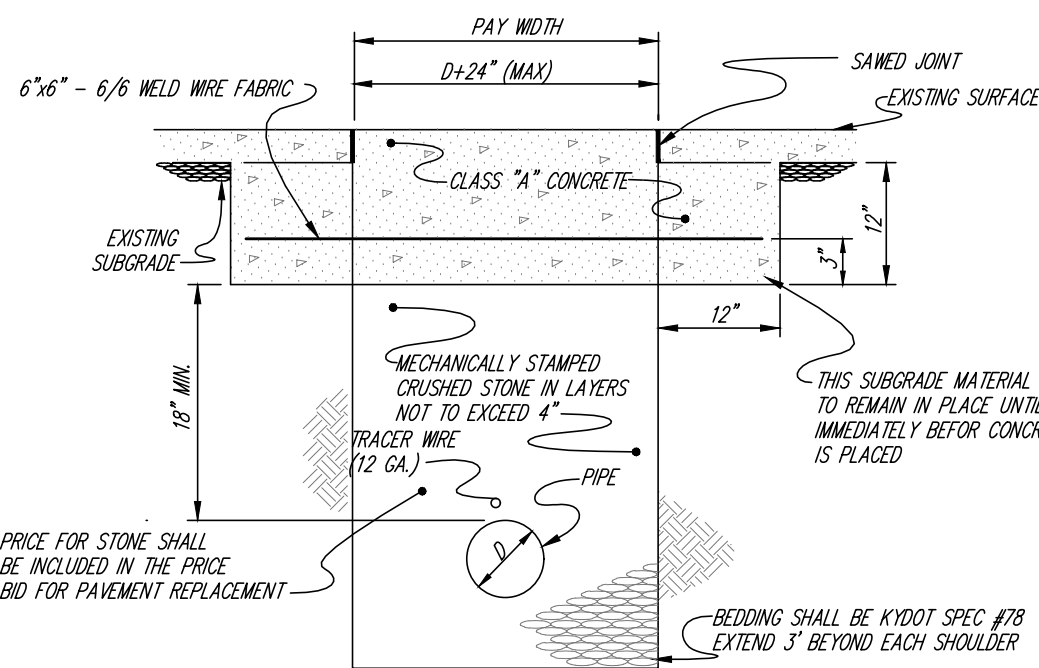
NOTE: A.C. PIPE CROSSINGS SUBSTITUTE BANK RUN SAND, IF NOT ENCASED, FOR SPEC. #78 STONE. ALL OTHER PIPE MATERIALS USE STONE.
NOTE: SAWED JOINTS TO BE A MINIMUM 1" DEPTH TO OBTAIN STRAIGHT JOINTS.



BITUMINOUS HEAVY-DUTY SURFACE MORE THAN 2"

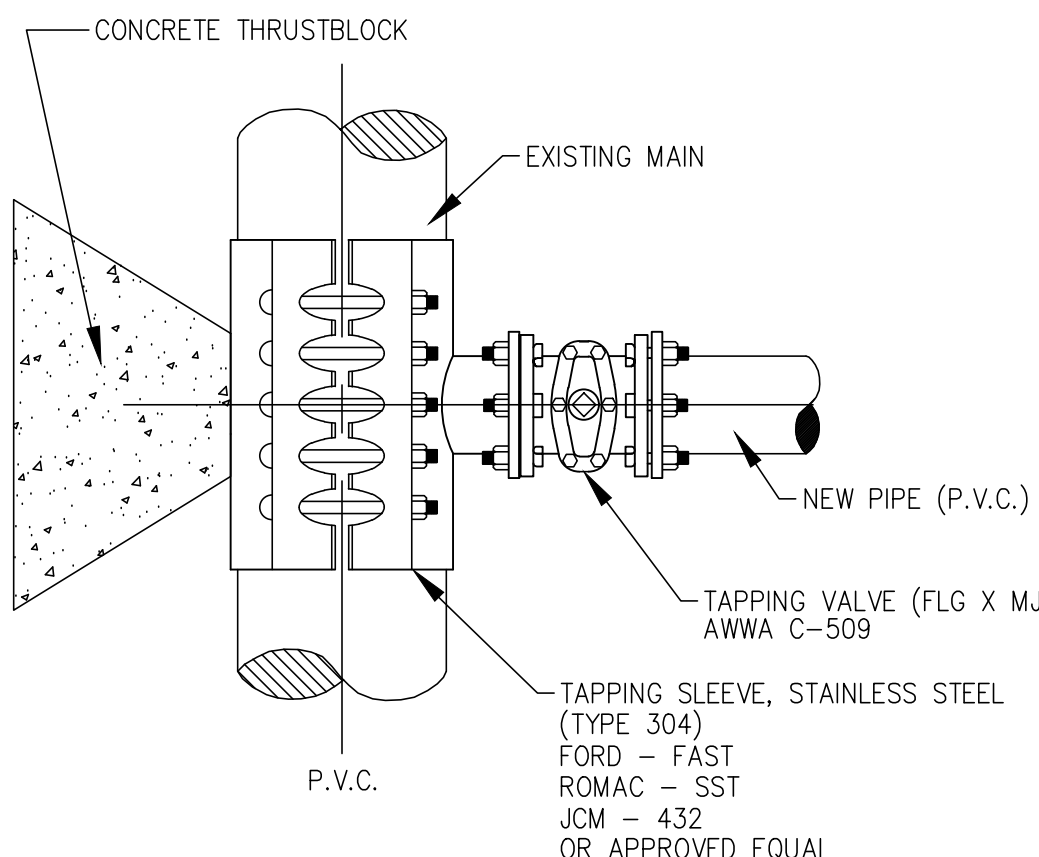
N.T.S.

NOTE: A.C. PIPE CROSSINGS SUBSTITUTE BANK RUN SAND, IF NOT ENCASED, FOR SPEC. #78 STONE. ALL OTHER PIPE MATERIALS USE STONE.
NOTE: EXISTING JOINTS OR BREAKS IN PAVEMENT TO BE USED FOR SAW JOINTS IF POSSIBLE. IF DISTANCE FROM SAWED JOINT TO NEAREST EXISTING JOINT IS LESS THAN 6' REMOVE PAVEMENT TO EXISTING JOINT & REPLACE SLAB.



CONCRETE SURFACE

N.T.S.

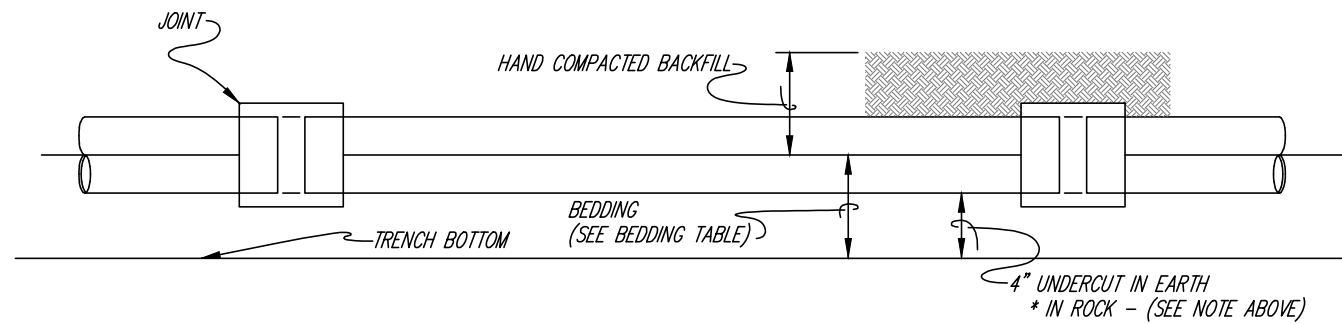


WET TAPPING SLEEVE ASSEMBLY

N.T.S. (WET TAP CONNECTION.DWG)

NOTE: ALL INSTALLATION IN ROCK WILL UTILIZE THE UNDERCUTTING METHOD W/6" CRUSHED STONE BEDDING (SAND FOR A.C.) PVC, COPPER, OR GALVANIZED MAY BE BEDDED IN ROCK ON 6" EARTH IF PIPE IS 4" DIA. OR LESS.

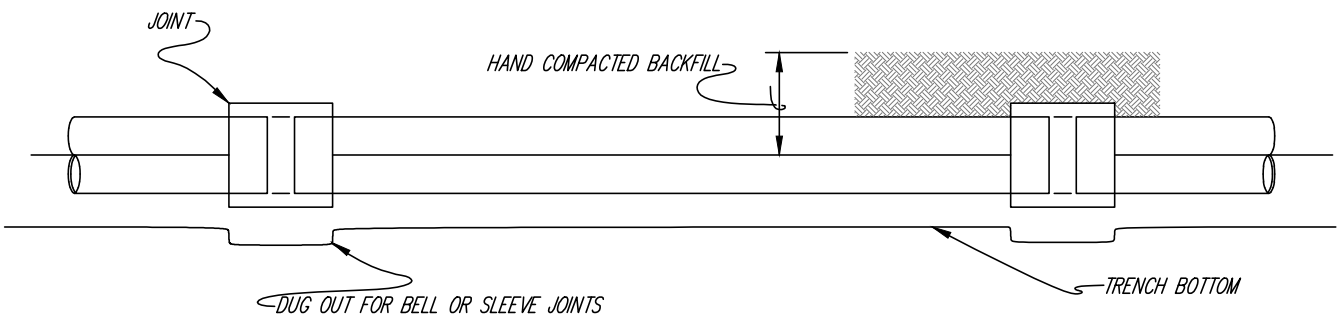
NOTE: UNDERCUTTING METHOD REQUIRED FOR ALL PVC, CAST IRON, & DUCTILE IRON PIPE 4" & ABOVE. OPTIONAL ON ALL OTHER SIZES. - A.C. PIPE OF ALL SIZES SHALL USE UNDERCUTTING METHODS. SEE SPECIFICATIONS. (SEE NOTE ELSEWHERE ON THIS SHEET FOR EXCEPTIONS FOR PVC PIPE.)



UNDERCUTTING METHOD

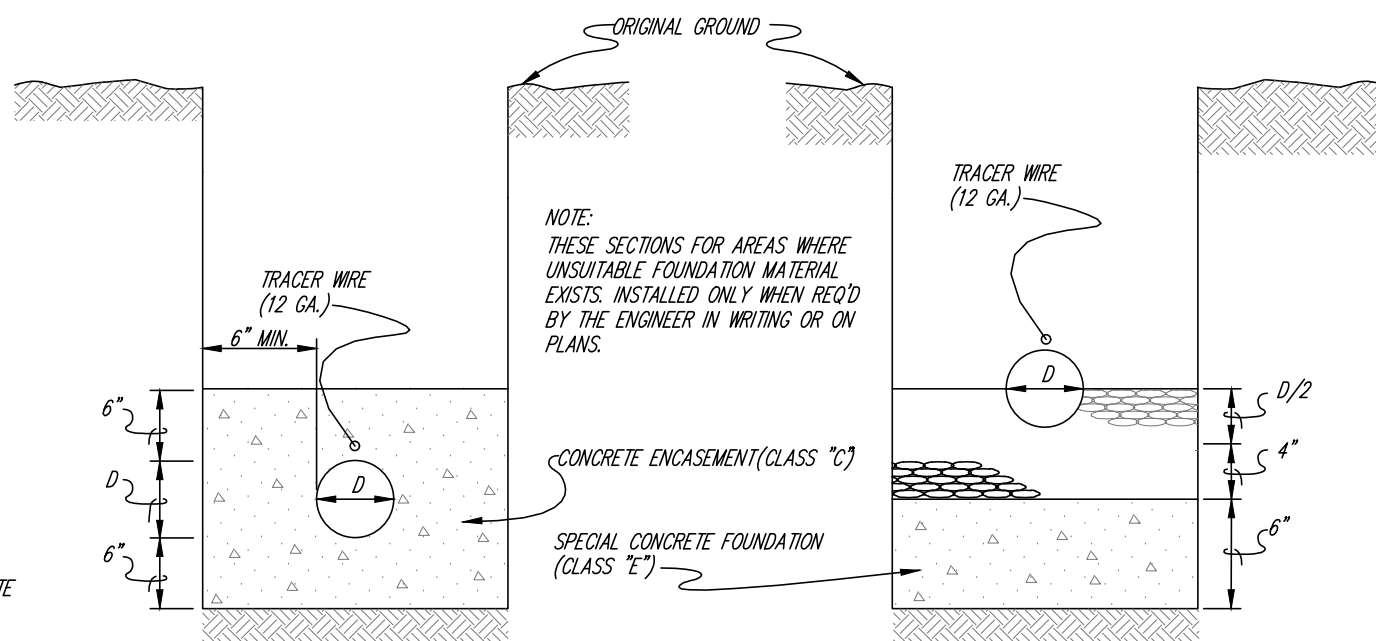
N.T.S.

NOTE: MAY BE USED ON ALL PVC PIPELINES 4" AND SMALLER AND ALL GALVANIZED OR COPPER LINES. THE BOTTOM MUST BE LEVELLED AND FREE OF IRREGULARITIES.



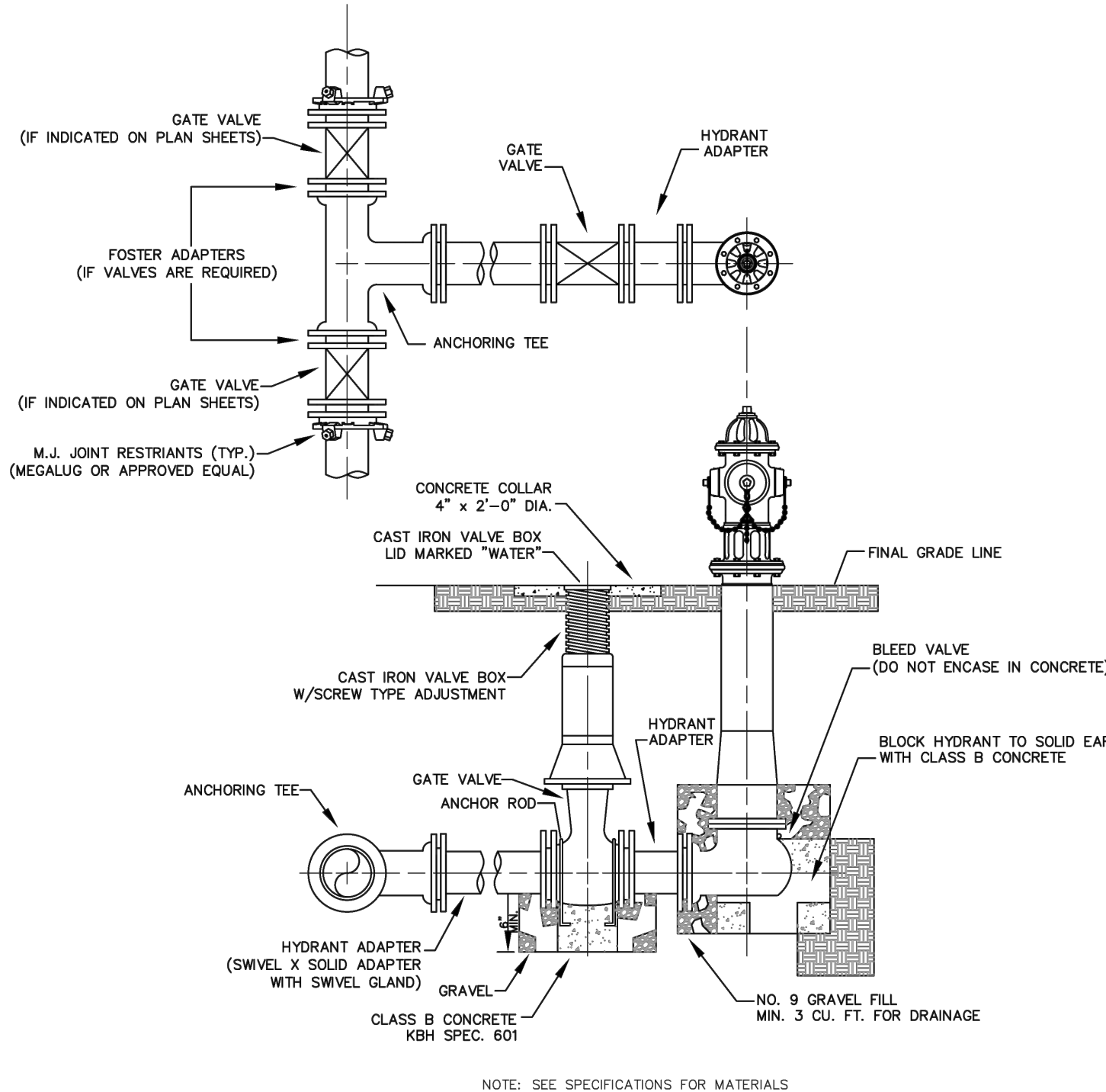
SOLID TRENCH BOTTOM METHOD

N.T.S.



SPECIAL BEDDING FOR UNSTABLE FOUNDATIONS (EXTRA PAY ITEM)

N.T.S.



LAUREL COUNTY WATER DISTRICT NO. 2

STANDARD DETAIL DRAWINGS

FLUSH HYDRANT ASSEMBLY

LAUREL COUNTY WATER DISTRICT NO. 2
LAUREL COUNTY, KY
556 CARLTON DRIVE
LAUREL, KY 40342
PHONE: (606) 225-5694
FAX: (606) 225-5607
WWW.LCWD.COM

DATE: MARCH 2025
SCALE: AS SHOWN

DESIGNED BY: DST
DRAWN BY: JDW
CHECKED BY: DST
REVIEWED BY: DST

PROJECT NO.: 2040-116
DATE: 03/20/25

BY: [Signature]

REVISION: [Table]

LAUREL COUNTY WATER DISTRICT NO. 2
STANDARD DETAIL DRAWINGS
FLUSH HYDRANT ASSEMBLY

LAUREL COUNTY, KY
556 CARLTON DRIVE
LAUREL, KY 40342
PHONE: (606) 225-5694
FAX: (606) 225-5607
WWW.LCWD.COM



PROPOSED SEWER LINE FOR LONDON - LAUREL COUNTY INDUSTRIAL DEVELOPMENT AUTHORITY LAUREL COUNTY, KENTUCKY

DATE	REVISION	BY
03/20/25	1	DST
03/20/25	2	JDW
03/20/25	3	DST
03/20/25	4	DST

PROJECT NO.: 2040-116	DESIGNED BY: DST
DRAWN BY: JDW	CHECKED BY: DST
REVIEWED BY: DST	DATE: MARCH 2025
SCALE: AS SHOWN	

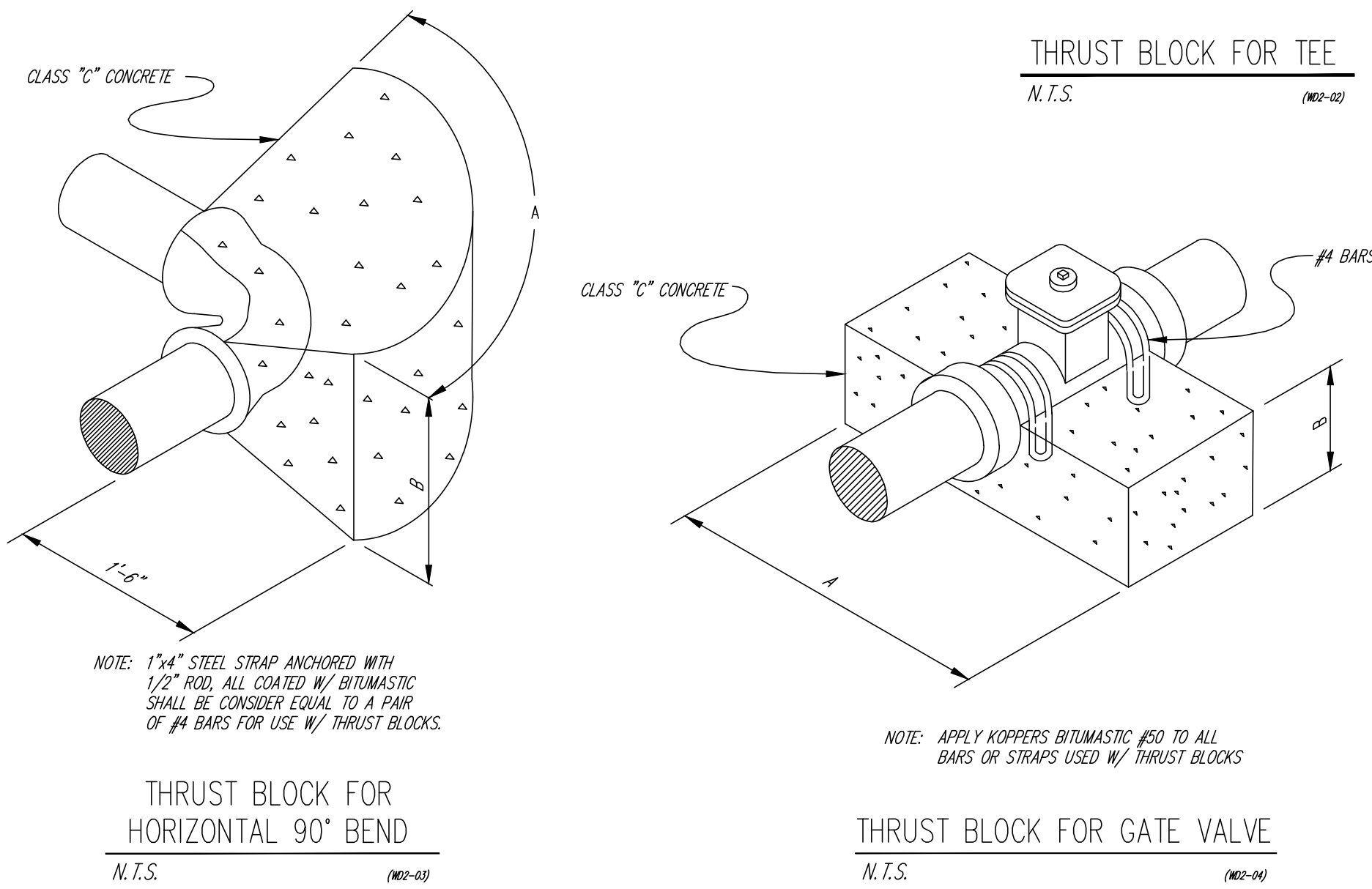
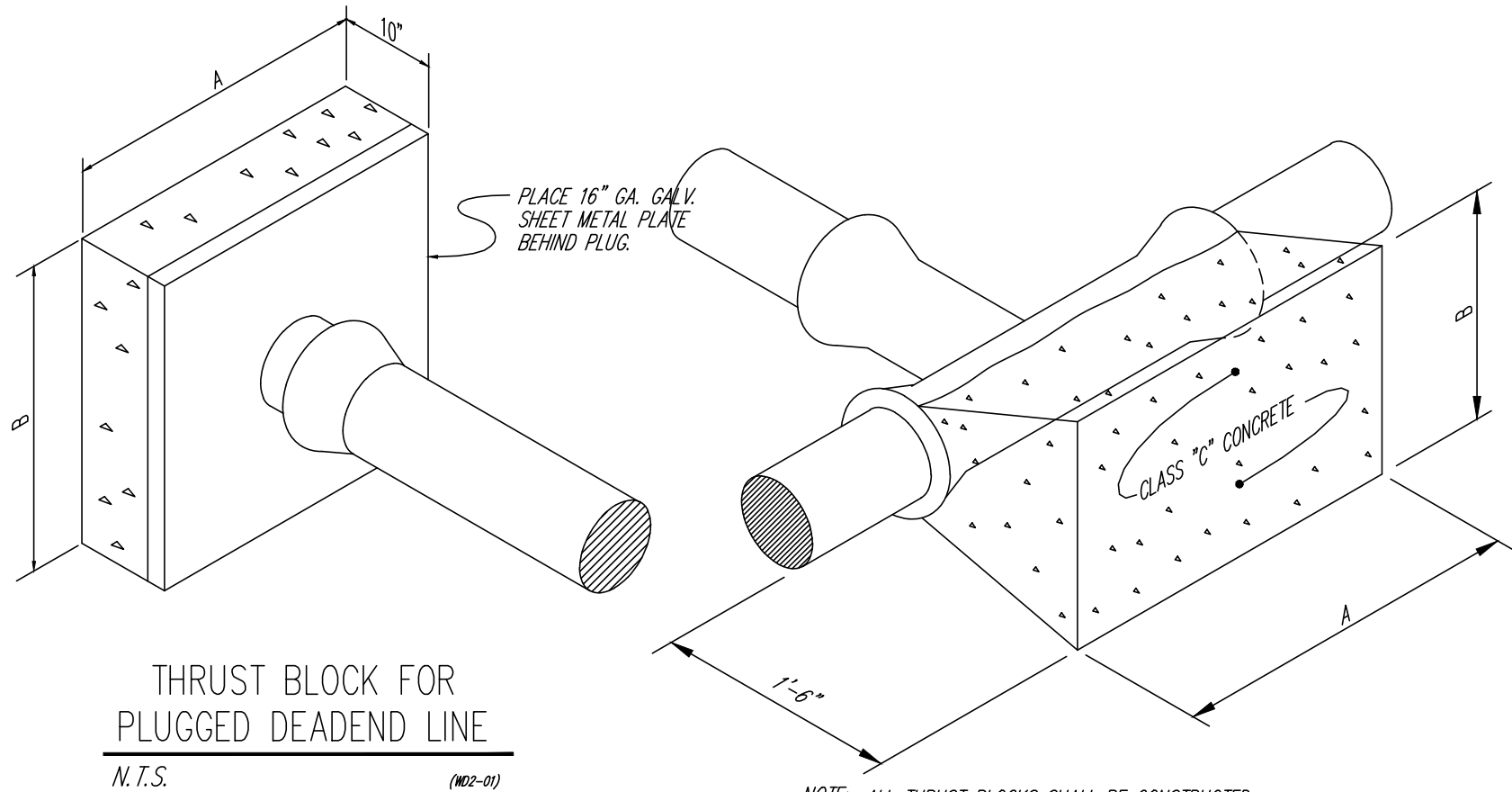
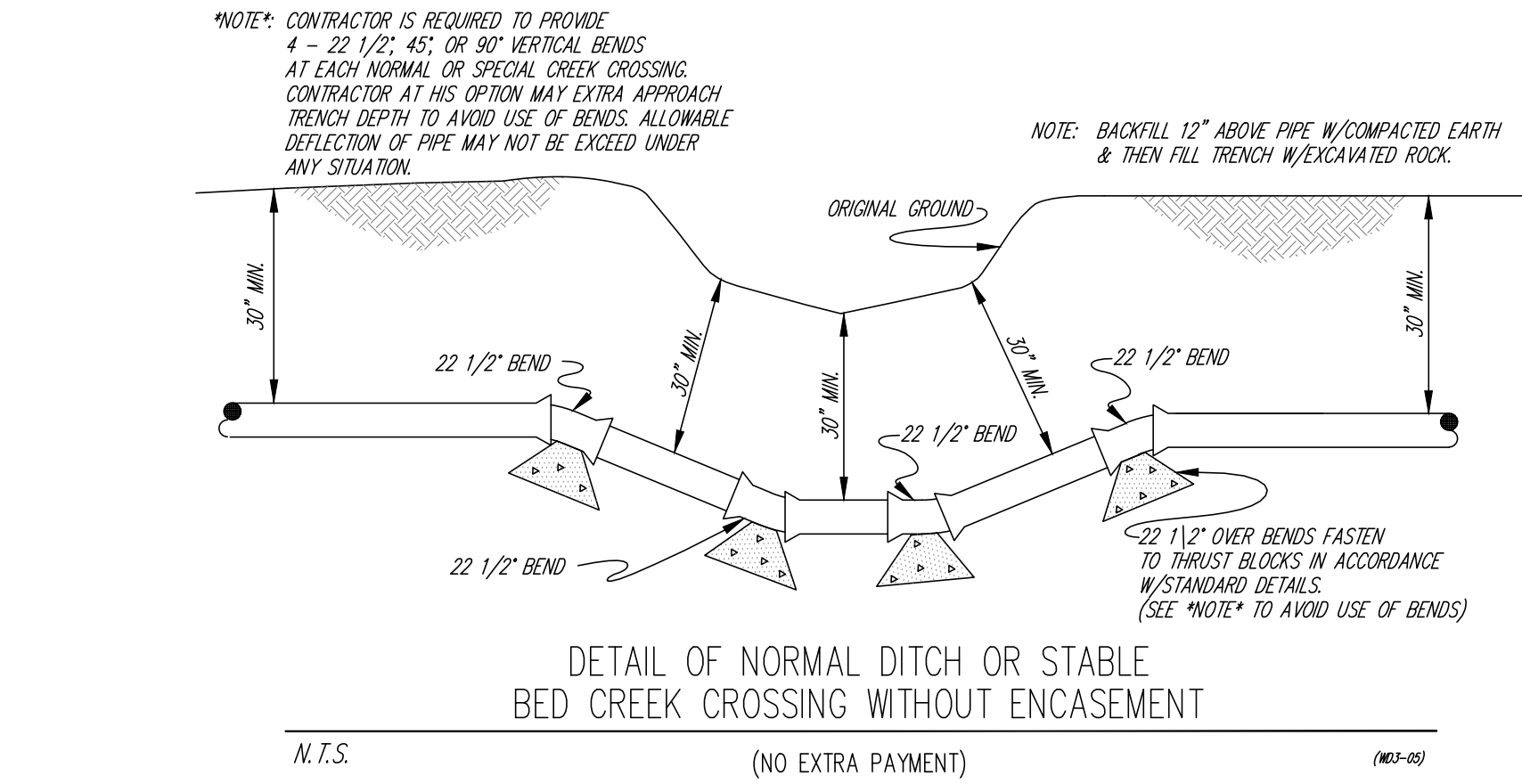
msc Engineers Architects Planners
OF KENTUCKY, INC.
624 Wellington Way
Lexington, KY 40503
Phone: (606) 225-5694
Fax: (606) 225-5607
www.mscpa.com

DRAWING NO.

WD-1

SHEET OF

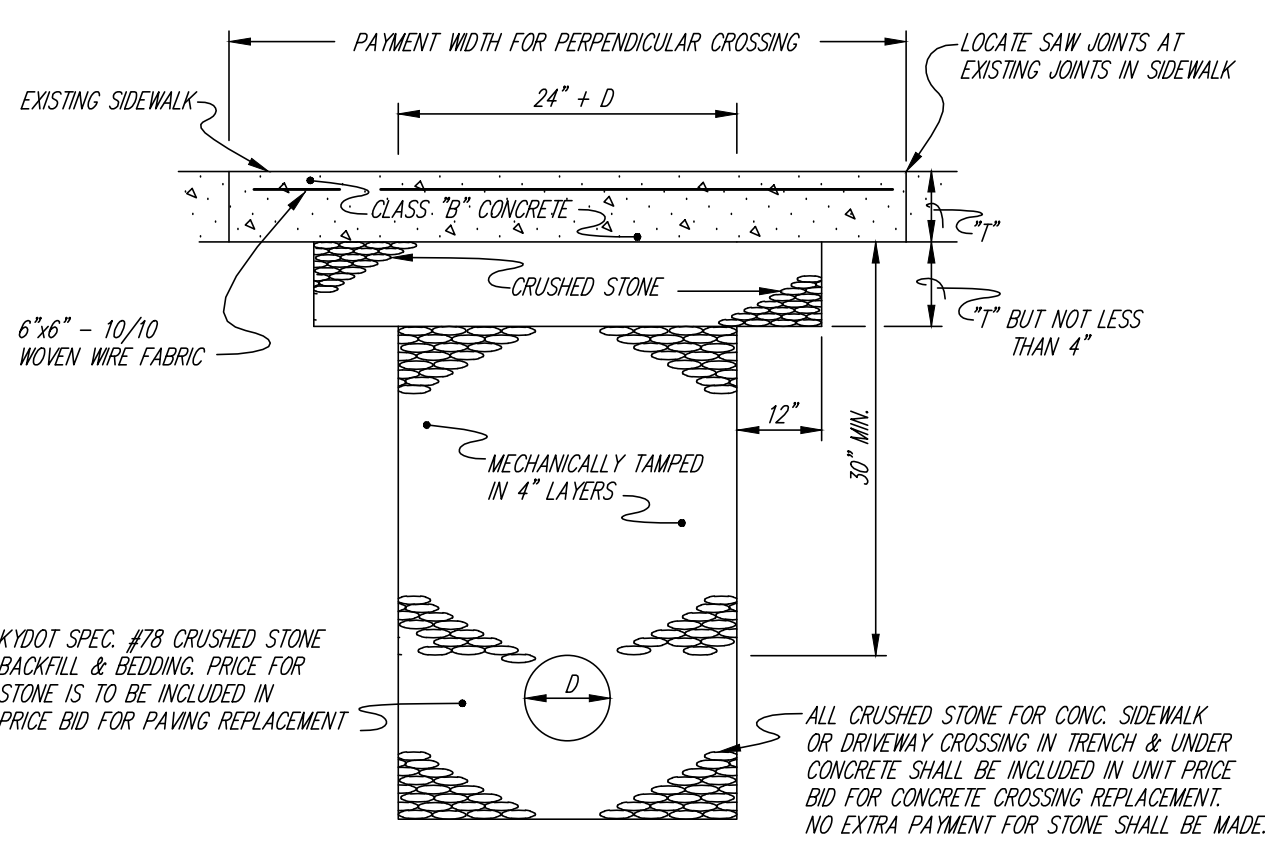
WATER LINE DETAILS



CARRIER PIPE NOMINAL SIZE	PLASTIC BARS OR COIL	MINIMUM I.D. OF CASING PIPE FOR: C.I. or D.I.	C.I. or D.I. M.J.	A.B.S. CEM. or A.B.S.
3/4"	1-1/4"			
1" & 1-1/4"	2"			
1-1/2"	3"			
2"	3-1/2"			
2-1/2"	4"			
3"	5"	8"	10"	
4"	6"	8"	10"	
5"	8"			
6"	10"	12"	12"	12"
8"	12"	13-1/2"	15-1/2"	13-1/2"
10"	15-1/2"	15-1/2"	17-1/2"	15-1/2"
12"	17-1/2"	17-1/2"	19-1/2"	19-1/2"
14"		19-1/2"	21-1/2"	21-1/2"
16"		21-1/2"	23-1/2"	23-1/2"
18"		25-1/2"	27-1/2"	27-1/2"

WATERLINE CASING PIPE SCHEDULE

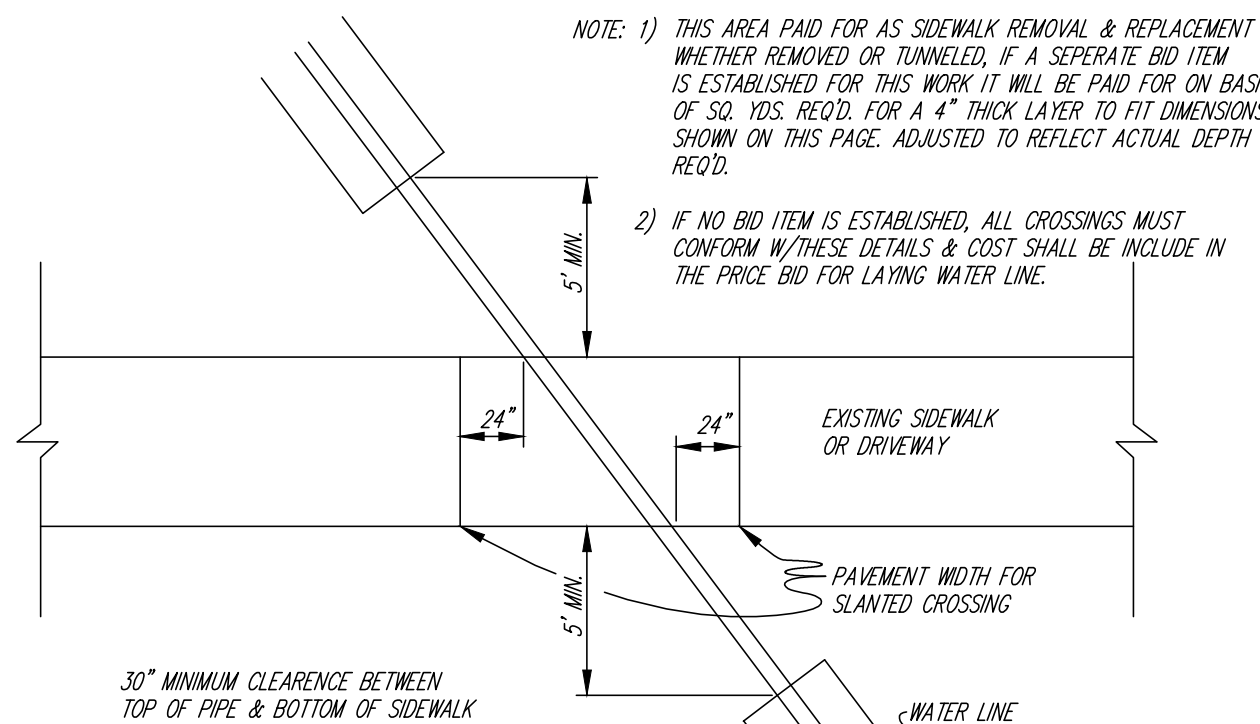
(N62-02)



CLASS	P.S.I
A	4000
B	3000
C	2500
D	2000
E	NO 28 DAY STD

28 DAYS CONCRETE STRENGTH

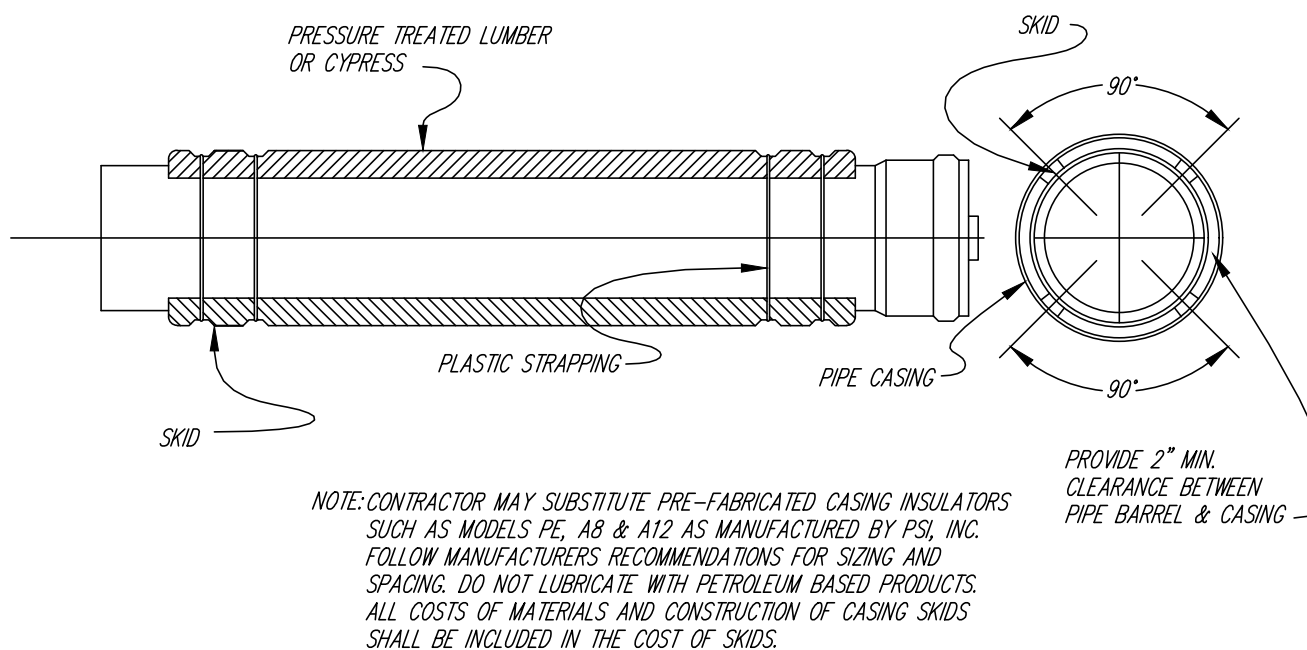
(N62-08)



SOFT-SANDY CLAY SOIL (BEARING STRENGTH = 2,000#/FT. ²)									
PIPE SIZE	BEARING AREA 90° BEND	78"	74"	BEARING AREA 45° BEND	78"	74"	BEARING AREA TEE, GATE VALVE & DEADEND	78"	74"
1 1/2"	0.33 FT. ²	12"	4"	0.18 FT. ²	8"	4"	0.24 FT. ²	9"	4"
2"	0.52 FT. ²	12"	7"	0.28 FT. ²	12"	4"	0.37 FT. ²	12"	5"
2 1/2"	0.75 FT. ²	12"	9"	0.41 FT. ²	12"	5"	0.53 FT. ²	12"	7"
3"	1.12 FT. ²	18"	9"	0.61 FT. ²	12"	8"	0.79 FT. ²	18"	7"
4"	1.84 FT. ²	24"	12"	1.00 FT. ²	18"	8"	1.30 FT. ²	24"	8"
6"	3.96 FT. ²	36"	16"	2.14 FT. ²	26"	12"	2.80 FT. ²	30"	14"
8"	6.70 FT. ²	54"	18"	3.63 FT. ²	30"	18"	4.74 FT. ²	36"	19"
10"	10.00 FT. ²	60"	24"	5.41 FT. ²	44"	18"	7.07 FT. ²	43"	24"
12"	13.69 FT. ²	60"	33"	7.41 FT. ²	36"	30"	9.68 FT. ²	47"	30"
14"	16.35 FT. ²	66"	36"	9.35 FT. ²	40"	34"	12.20 FT. ²	60"	30"
16"	19.55 FT. ²	72"	40"	11.35 FT. ²	60"	28"	14.77 FT. ²	60"	36"

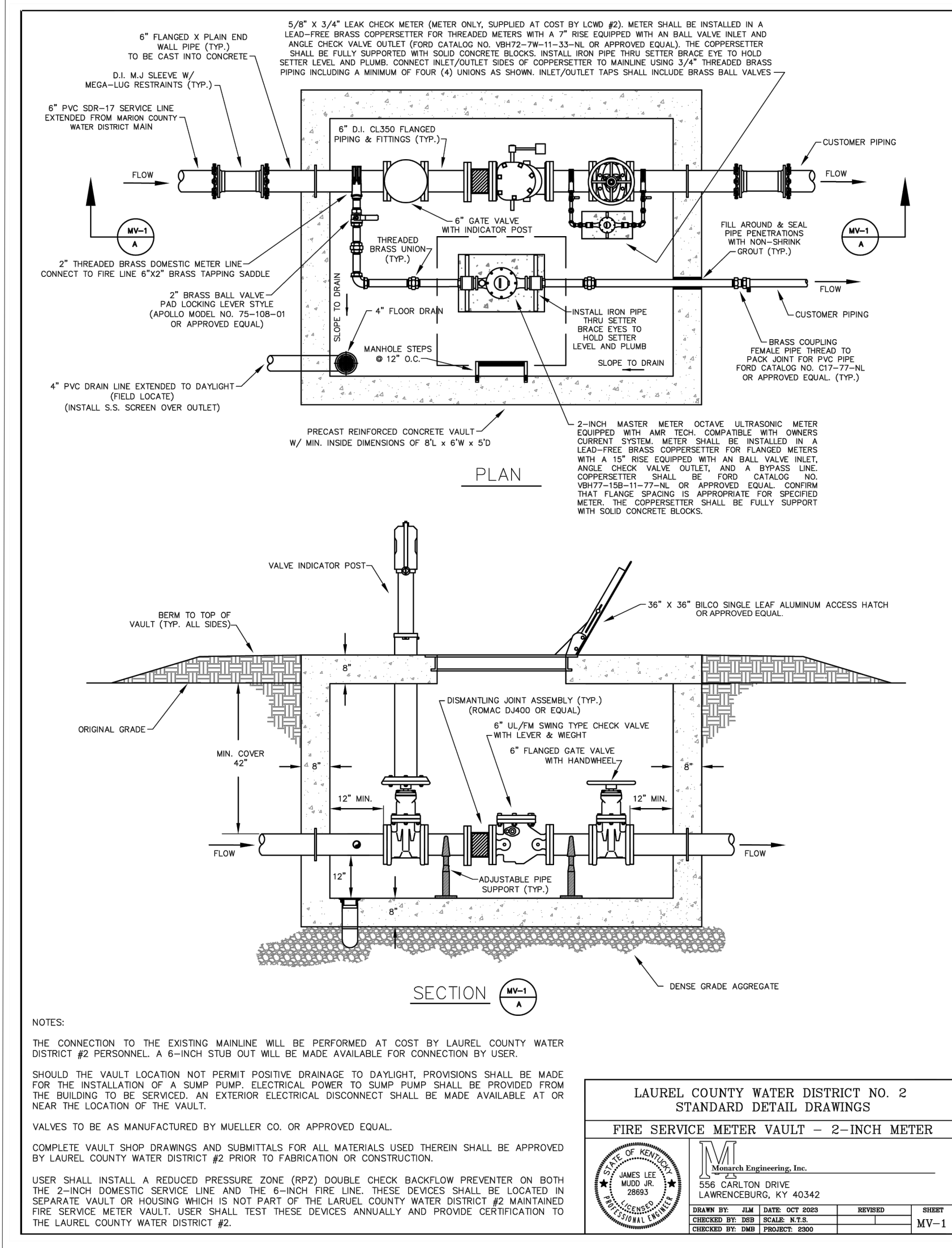
THRUST BLOCKS (160 P.S.I. DESIGNED)

(N62-08)



CARRIER PIPE SKIDS FOR ROAD BORES

N.T.S. (N62-07)



"The inlet piping and fire line out shall be 8" SDR17 PVC and the domestic line to the building shall be 4" SDR17 PVC. The domestic line size inside the fire pit shall be 3". All associated valves, fittings, and meter shall be 3" inside the fire pit."

SOLID-SAND & GRAVEL CEMENTED W/CLAY (BEARING STRENGTH = 4,000 #/FT. ²)									
PIPE SIZE	BEARING AREA 90° BEND	78"	74"	BEARING AREA 45° BEND	78"	74"	BEARING AREA TEE, GATE VALVE & DEADEND	78"	74"
1 1/2"	0.17 FT. ²	6"	4"	0.90 FT. ²	4"	4"	0.12 FT. ²	5"	4"
2"	0.26 FT. ²	10"	4"	0.14 FT. ²	6"	4"	0.18 FT. ²	7"	4"
2 1/2"	0.23 FT. ²	12"	5"	0.20 FT. ²	8"	4"	0.26 FT. ²	10"	4"
3"	0.56 FT. ²	12"	7"	0.30 FT. ²	8"	6"	0.40 FT. ²	10"	6"
4"	0.92 FT. ²	18"	8"	0.50 FT. ²	9"	8"	0.65 FT. ²	12"	8"
6"	1.98 FT. ²	24"	12"	1.07 FT. ²	16"	10"	1.40 FT. ²	18"	12"
8"	3.35 FT. ²	42"	12"	1.82 FT. ²	22"	12"	2.37 FT. ²	29"	12"
10"	5.00 FT. ²	40"	18"	2.71 FT. ²	22"	18"	3.54 FT. ²	29"	18"
12"	6.85 FT. ²	42"	24"	3.71 FT. ²	30"	18"	4.84 FT. ²	30"	24"
14"	8.80 FT. ²	43"	30"	4.67 FT. ²	36"	19"	6.16 FT. ²	36"	26"
16"	11.20 FT. ²	62"	27"	5.66 FT. ²	44"	19"	7.50 FT. ²	36"	30"

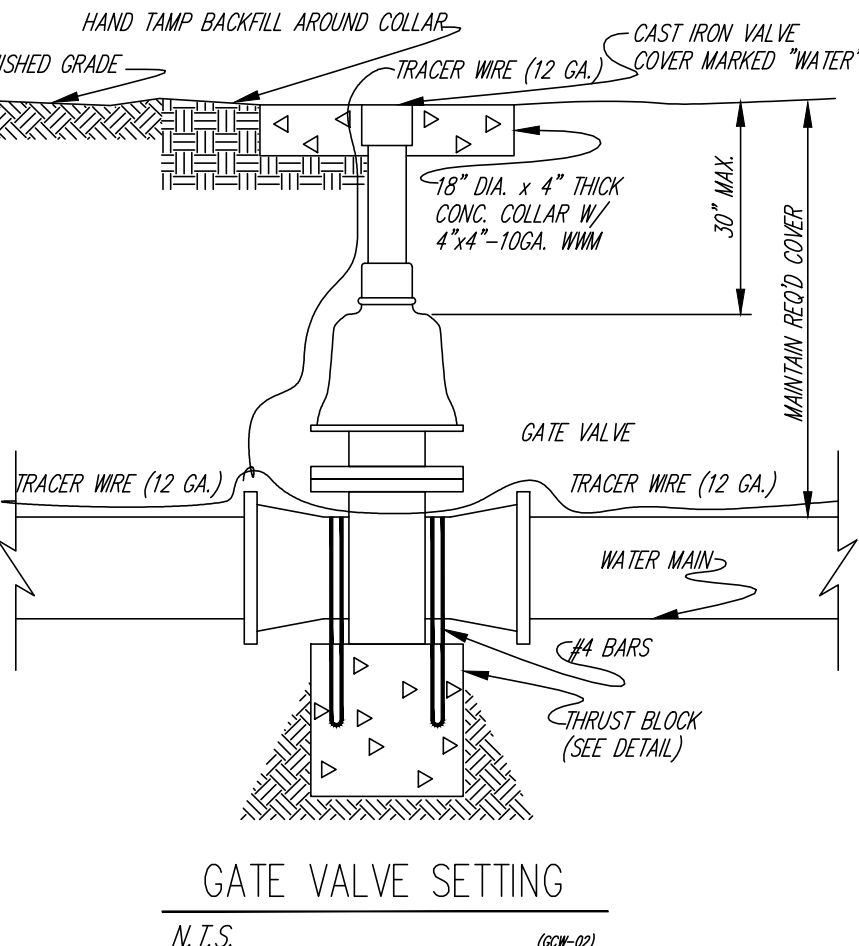
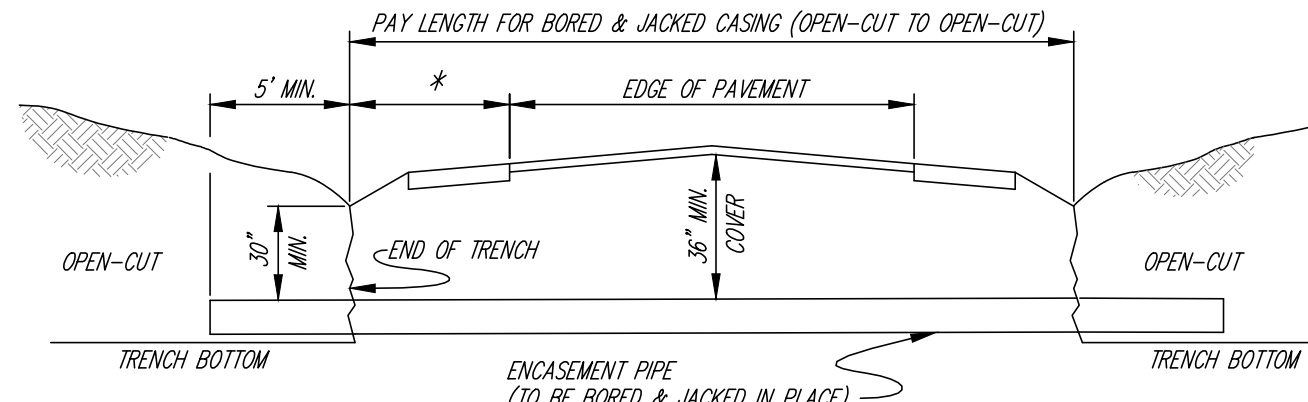
THRUST BLOCKS (160 P.S.I. DESIGNED)

(N62-08)

NOTE: UNDER ROAD CROSSINGS STEEL CASING PIPE SHALL BE REQUIRED, PIPES 4" & LESS SHALL BE NEW SCHEDULE 40. PIPES LARGER THAN 4" SHALL HAVE MINIMUM WALL THICKNESS OF 0.250". ALL BORED & JACKED ENCASEMENT PIPE SHALL BE INSTALLED IN BORE HOLES NO LARGER THAN THE OUTSIDE DIAMETER OF THE ENCASEMENT PIPE.

NOTE: ALL JOINTS TO BE SOLIDLY WELDED, END OF CASING TO BE SEALED W/CONCRETE AFTER LINE HAS BEEN INSTALLED & TESTED.

NOTE: OPEN TRENCH NO CLOSER THAN THE DITCHLINE FROM THE EDGE OF THE PAVEMENT OR AS DIRECTED BY STATE, COUNTY, OR MUNICIPAL SPECIFICATIONS.



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Architects
Planners

OF KENTUCKY, INC.

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www.mseusa.com

DRAWING NO.

WD-2

SHEET OF

DATE	REVISION	BY

PROJECT NO. 2040-116
DESIGNED BY: DST
DRAWN BY: JOW
CHECKED BY: DST
REVIEWED BY: DST
DATE: MARCH 2025
SCALE: AS SHOWN

The design professionals warrant any and all responsibility and liability for problems which arise from failure to follow these plans, specifications and the contract documents.

This document contains confidential information and is not to be distributed or used for any purpose without the written permission of these professionals.

PROPOSED WATER LINE

FOR

LONDON - LAUREL COUNTY

INDUSTRIAL DEVELOPMENT AUTHORITY

LAUREL COUNTY, KENTUCKY