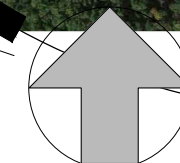
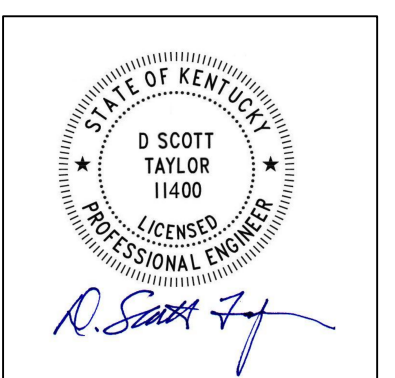


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**nse**  
OF KENTUCKY, INC.

MSE PROJECT No. 9556-02

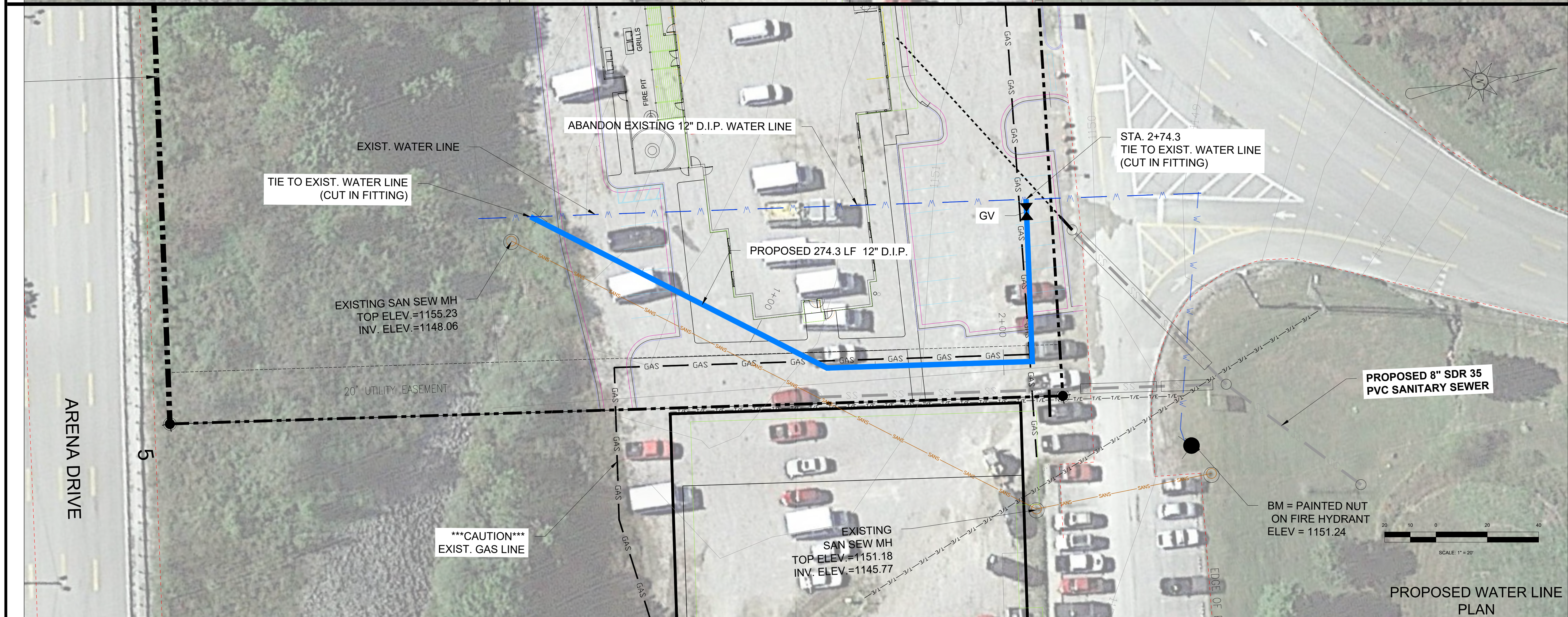
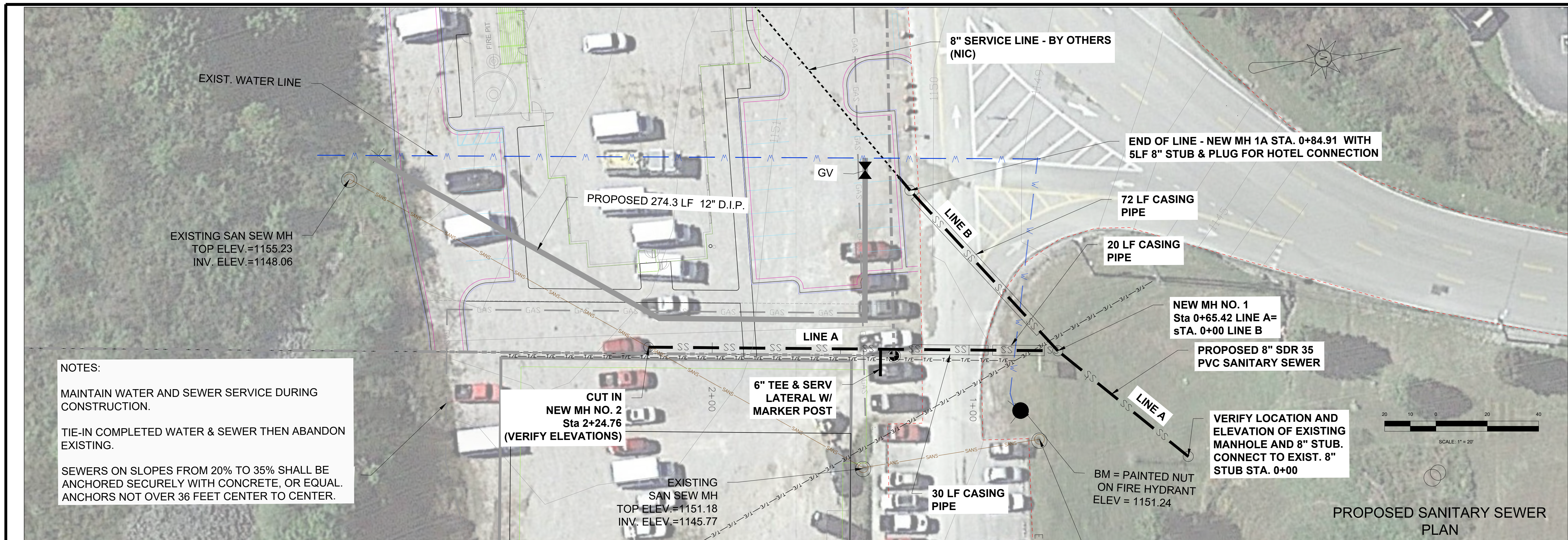
ARC PROJECT NO:





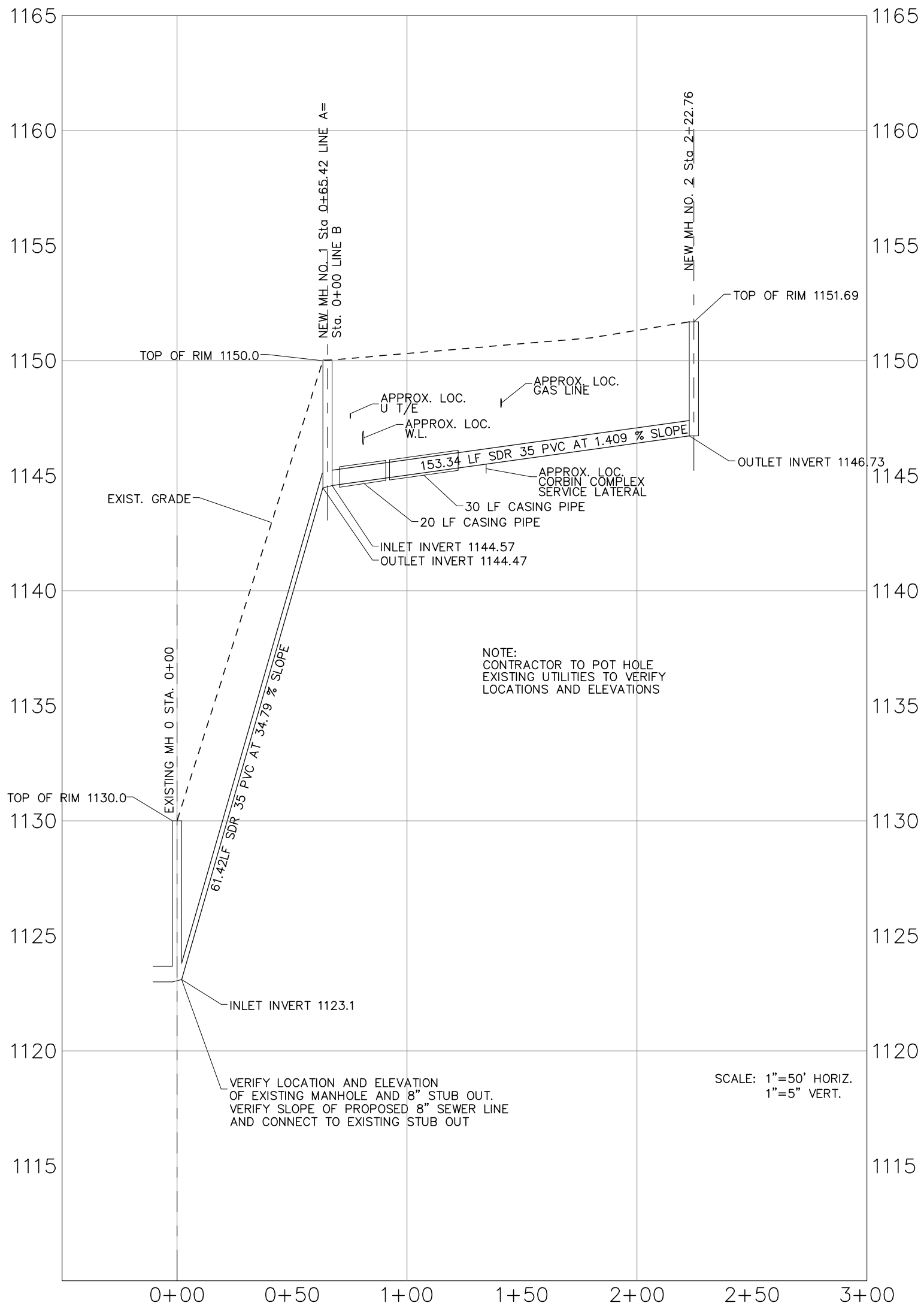
**Call  
811  
Before you Dig**







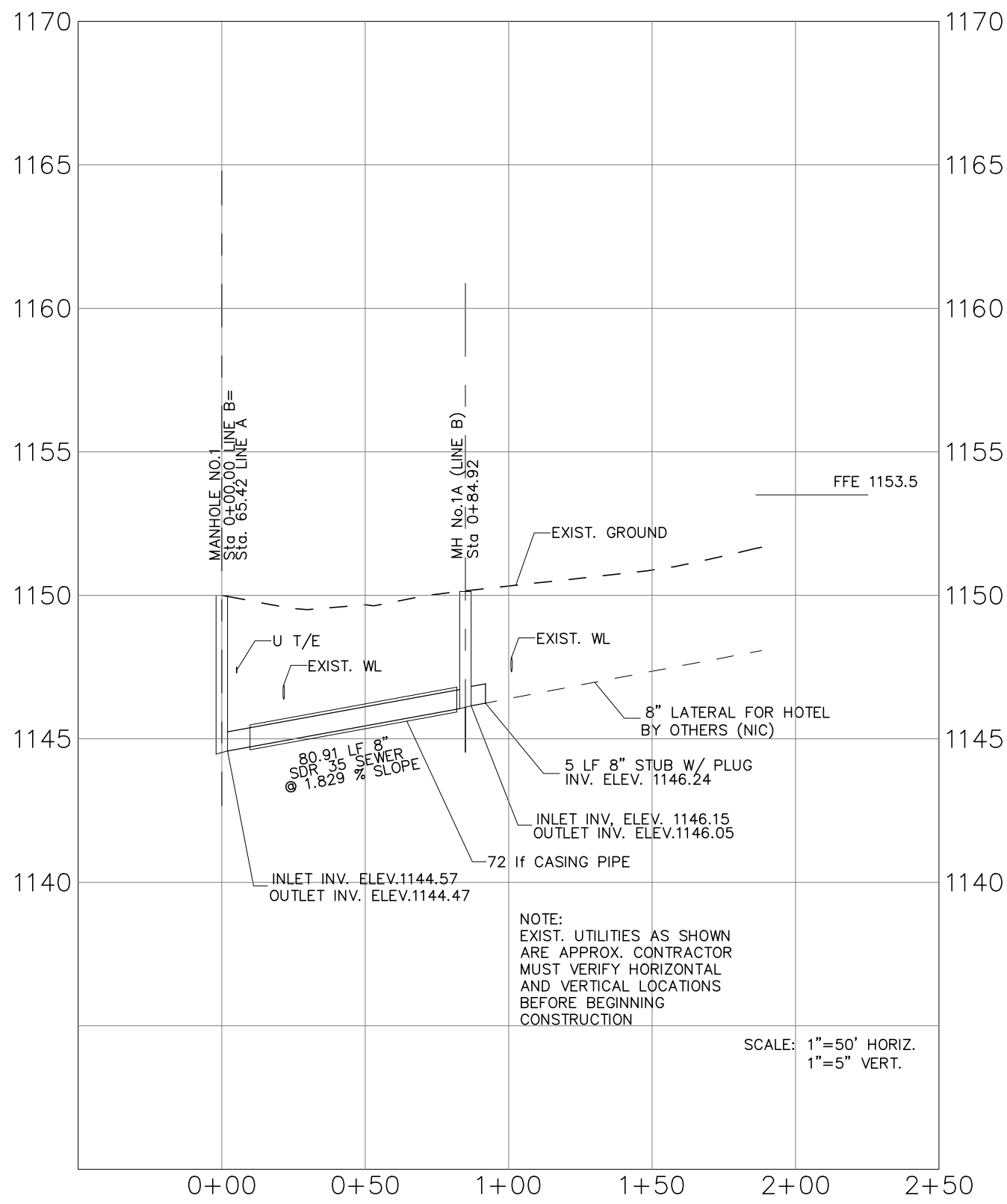
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SANITARY SEWER PROFILE  
LINE A

NOTES:

SEWERS ON SLOPES FROM 20% TO 35% SHALL BE  
ANCHORED SECURELY WITH CONCRETE, OR EQUAL.  
ANCHORS NOT OVER 36 FEET CENTER TO CENTER.



SANITARY SEWER PROFILE  
LINE B

PROPOSED SANITARY SEWER  
PROFILE

WATER, AND SEWER EXTENSIONS  
CITY OF CORBIN HOTEL PROJECT  
CORBIN, KENTUCKY

DATE	BY	REVISION

PROJECT NO.	DESIGNED BY	DRAWN BY	CHECKED BY	REVIEWED BY	DATE	SCALE
9556-02	DST	JDW	DST	DST	SEPT. 2023	AS NOTED

Engineers  
Architects  
Planners

mse

OF KENTUCKY, INC.

624 Wellington Way  
Lexington, KY 40503  
www.mselex.com

Phone: (859) 223-5894  
Fax: (859) 223-2807

DRAWING NO.

C-2

SHEET OF



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

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

NOTE: NO ROCK LARGER THAN 1/2" ALLOWED

TRENCH WIDTH & DEPTH

THRUST BLOCK FOR TEE  
N.T.S.

THRUST BLOCK FOR  
HORIZONTAL 90° BEND

---

*N.T.S.*

THRUST BLOCK FOR GATE VALVE  
*N.T.S.*

GRAVEL SURFACE  
N.T.S. (P51-08)

## TRENCHING, BEDDING, & BACK FILL DETAILS

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 ENCASMENT PIPE SHALL BE INSTALLED IN BORE HOLES NO LARGER THAN THE OUTSIDE DIAMETER OF THE ENCASMENT 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 DITCH LINE FROM THE EDGE OF PAVEMENT.

PAY LENGTH FOR BORED & JACKED CASING (OPEN-CUT TO OPEN-CUT)

Diagram illustrating the cross-section of a trench and its encasement pipe. The diagram shows a trench with a bottom width of 30" MIN. and a depth of 5' MIN. The trench is lined with a material labeled "EDGE OF PAVEMENT". The trench is flanked by "OPEN-CUT" areas. The trench is covered by a "36" MIN. COVER". The trench is labeled "TRENCH BOTTOM" and "ENCASEMENT PIPE (TO BE BORED & JACKED IN PLACE)".

SECTION VIEW OF ROAD CROSSING  
N.T.S.

EXCAVATED LARGE STONE

CARRIER PIPE

CRUSHED STONE

CONCRETE ENCASUREMENT TO BE CLASS "C" CONCRETE AND A MINIMUM OF 24" WIDE OR  $(D + 12")$  AND  $(12" + D)$  HIGH.

SPRINKLING

SPECIAL CREEK CROSSING TYPE "B"  
IN LOSE ROCK  
*N.T.S.*

FORCE MAIN MARKER

36" DIA. REINFORCED  
PRE-CAST CONC. PIPE  
OR PVC METER BOX

AIR RELEASE VALVE SHALL BE  
AN A.R.I. MODEL #S-020 BY  
FLOW CONTROL ACCESSORIES OR EQUAL.

2" SHUT  
OFF VALVE  
TEE AS REQUIRED OR  
TAPPING SADDLE AND VALVE

NOTE:  
ALL PIPING AND  
VALVES TO BE  
BRASS OR COPPER.

### AIR RELEASE AND VACUUM RELEASE VALVE AND BOX DETAIL

COMBINED TRENCH  
N.T.S.

NOTES:  
1. SEE FORCE MAIN AND GRAVITY SEWER  
DETAILS FOR BEDDING AND BACK FILL  
2. FORCE MAIN AND GRAVITY SEWER TO BE  
INSTALLED ON SEPARATE BEDDING SHELVES  
WHEN POSSIBLE

BEDDING MATERIAL #8 OR 9M STONE  
(85% STD. PROCTOR DENSITY)

## PVC & ABS

LAND PLANTED BACK FILL

VCP

WATER, AND SEWER EXTENSIONS  
CITY OF CORBIN HOTEL PROJECT  
CORBIN, KENTUCKY

DATE		REVISION		BY

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Shogren & Shogren, Inc. has hereby agreed to transfer all of its ownership, interest, and control in the above-captioned contract to the undersigned. The undersigned hereby agrees to assume all of the obligations of the contract and to defend, protect, and hold the other party harmless from all claims, damages, and expenses, including reasonable attorneys' fees, that may be asserted against or incurred by the other party in connection with or resulting from the contract. This agreement shall be binding upon the undersigned and its heirs, assigns, and legal representatives. The undersigned hereby certifies that the above information is true and correct to the best of its knowledge and belief.

\_\_\_\_\_  
 Name of the undersigned

\_\_\_\_\_  
 Title of the undersigned

\_\_\_\_\_  
 Date of execution of this agreement

PROJECT NO.	9556-02
DESIGNED BY	D.S.T.
DRAWN BY	J.D.W.
CHECKED BY	D.S.T.
REVIEWED BY	D.S.T.
DATE	SEPT. 2023
SCALE	AS NOTED

**MSE**  
**OF KENTUCKY, INC.**

Engineers  
Architects  
Planners

624 Wellington Way  
Lexington, KY 40503  
www.mselex.com

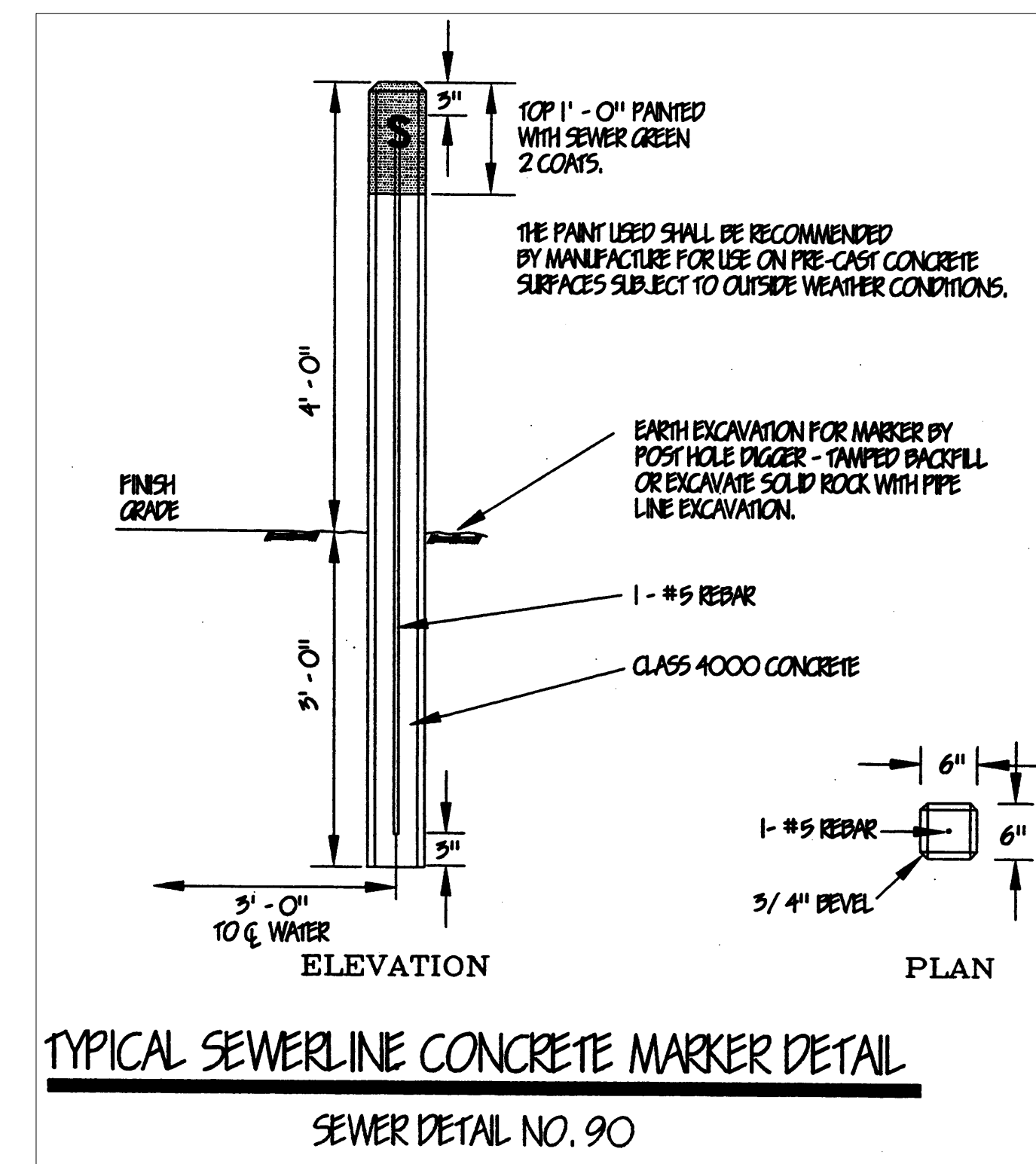
Phone: (859)223-5684  
Fax: (859)223-2607

DRAWING NO.

SD-1


SHEET 0

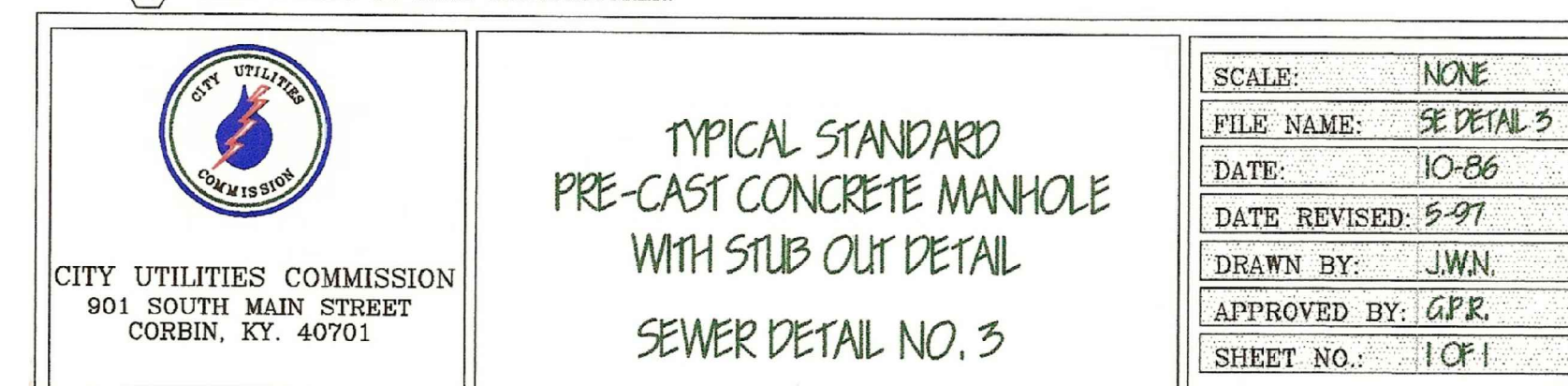
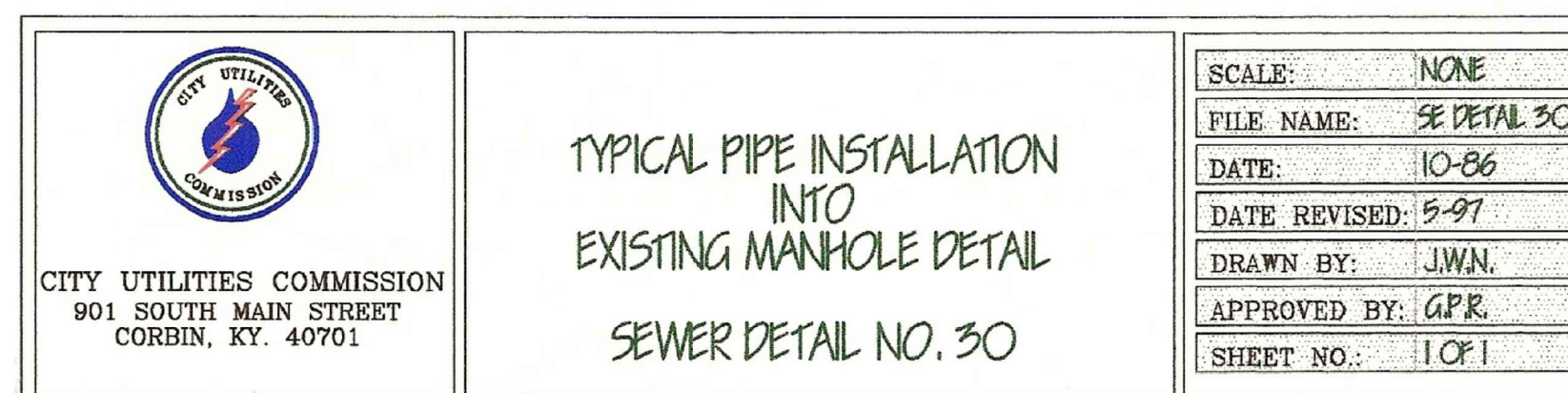








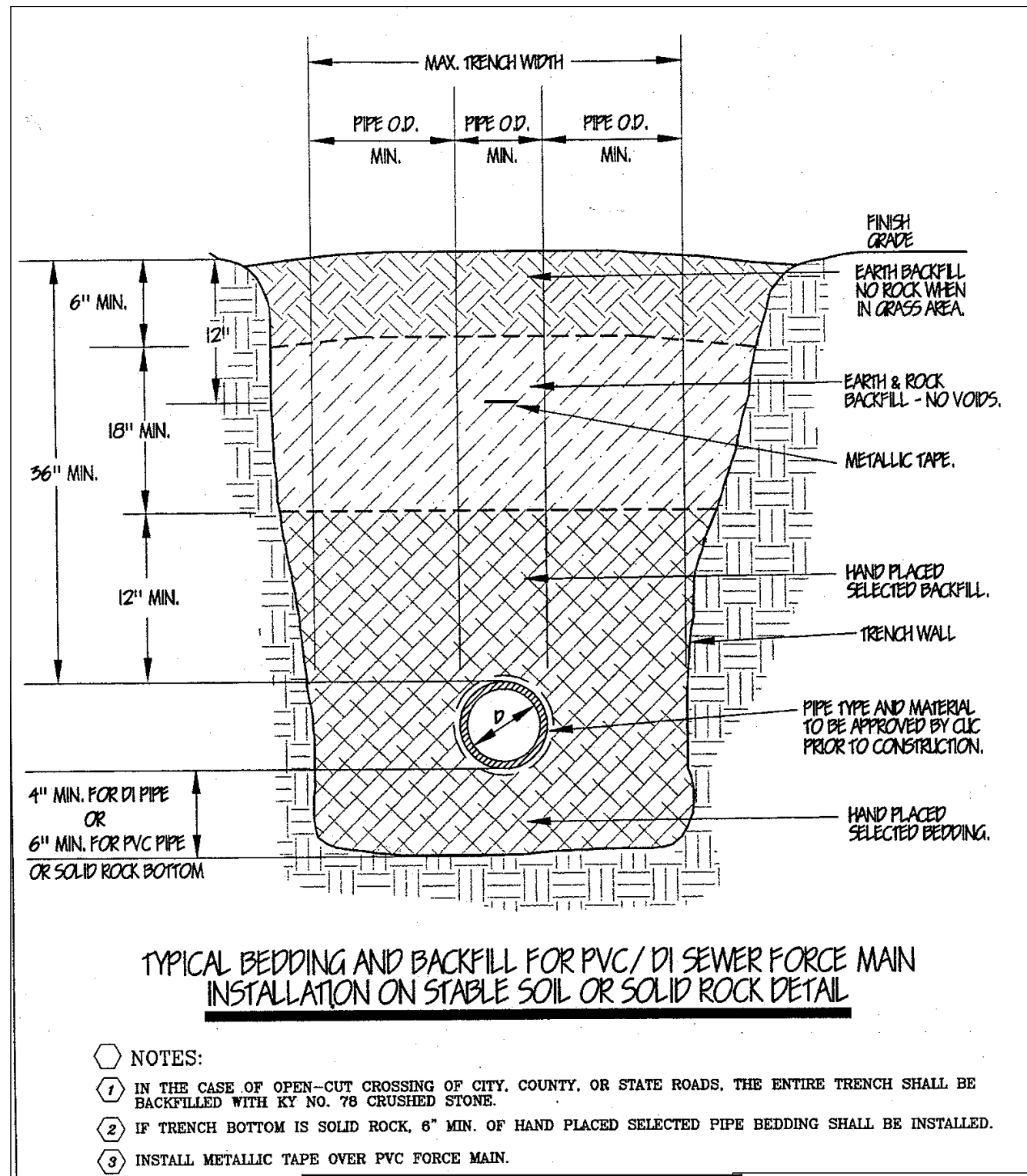
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|  <p>CITY UTILITIES<br/>COMMISSION</p> <p>CITY UTILITIES COMMISSION<br/>901 SOUTH MAIN STREET<br/>CORBIN, KY. 40701</p> | <p>TYPICAL PVC / DI GRAVITY<br/>SEWERLINE BEDDING AND BACKFILL<br/>FOR SEWERLINE INSTALLATION ON<br/>STABLE SOIL OR SOLID ROCK DETAIL</p> <p>SEWER DETAIL NO. 33</p> |                          | <p>SCALE: NONE</p>             |
|   |  |                          | <p>FILE NAME: SE DETAIL 33</p> |
|   |  |                          | <p>DATE: 10-86</p>             |
|   |  |                          | <p>DATE REVISED: 5-97</p>      |
|   |  |                          | <p>DRAWN BY: J.W.N.</p>        |
|   |  |                          | <p>APPROVED BY: G.P.P.</p>     |
|   |  | <p>SHEET NO.: 1 OF 1</p> |                                |



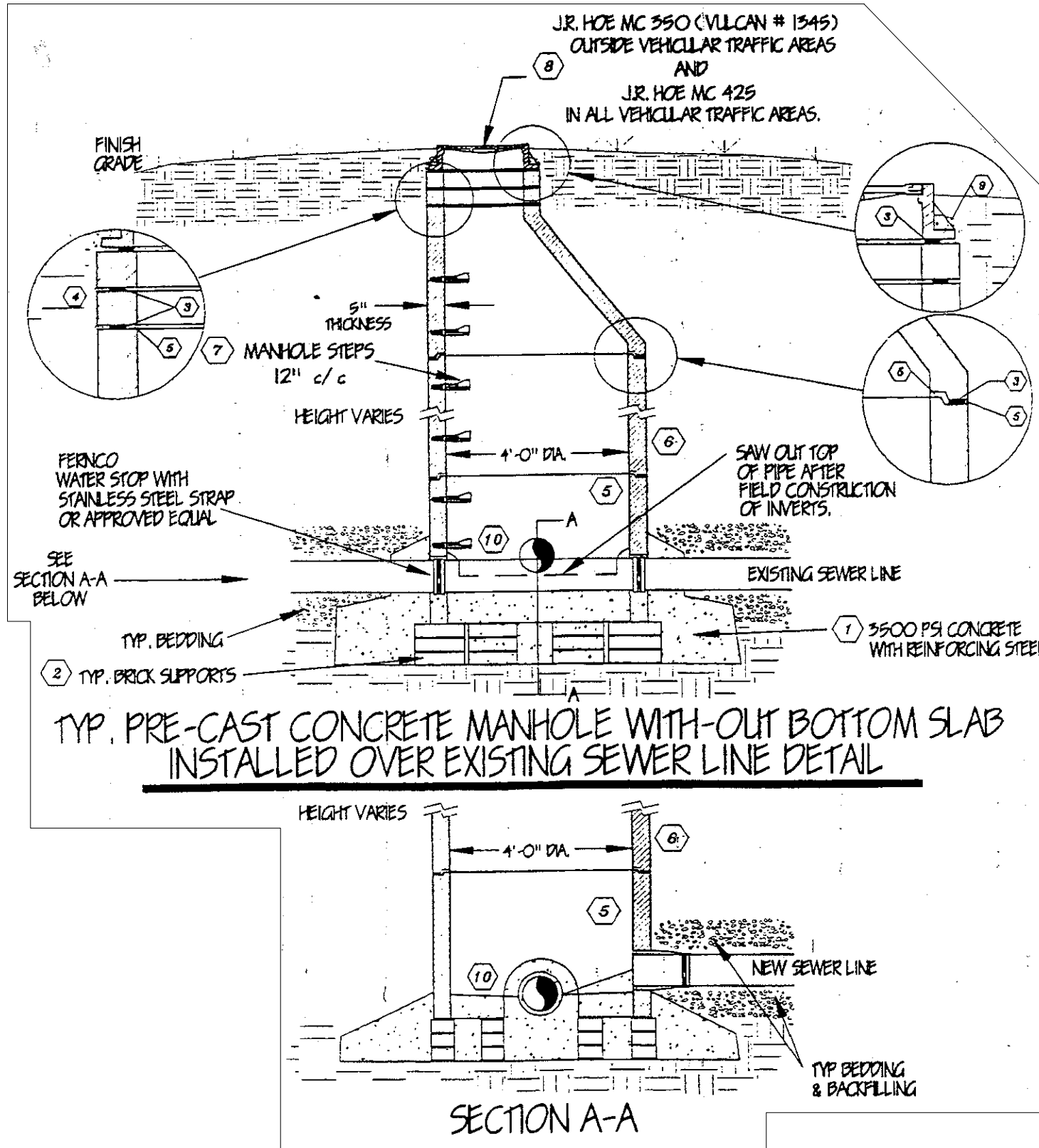
SHEET OF

## C.U.C. - SEWER DETAILS

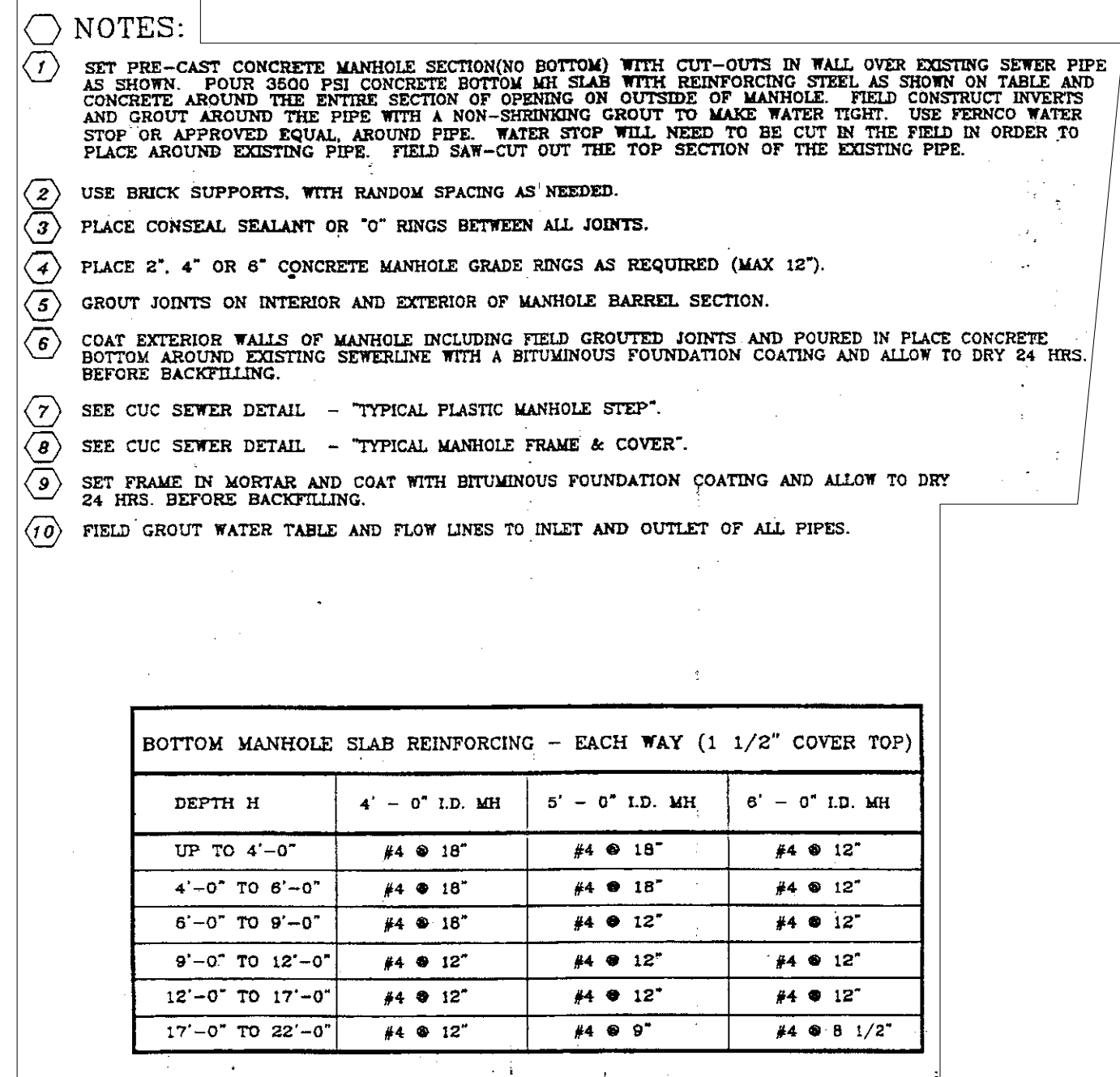




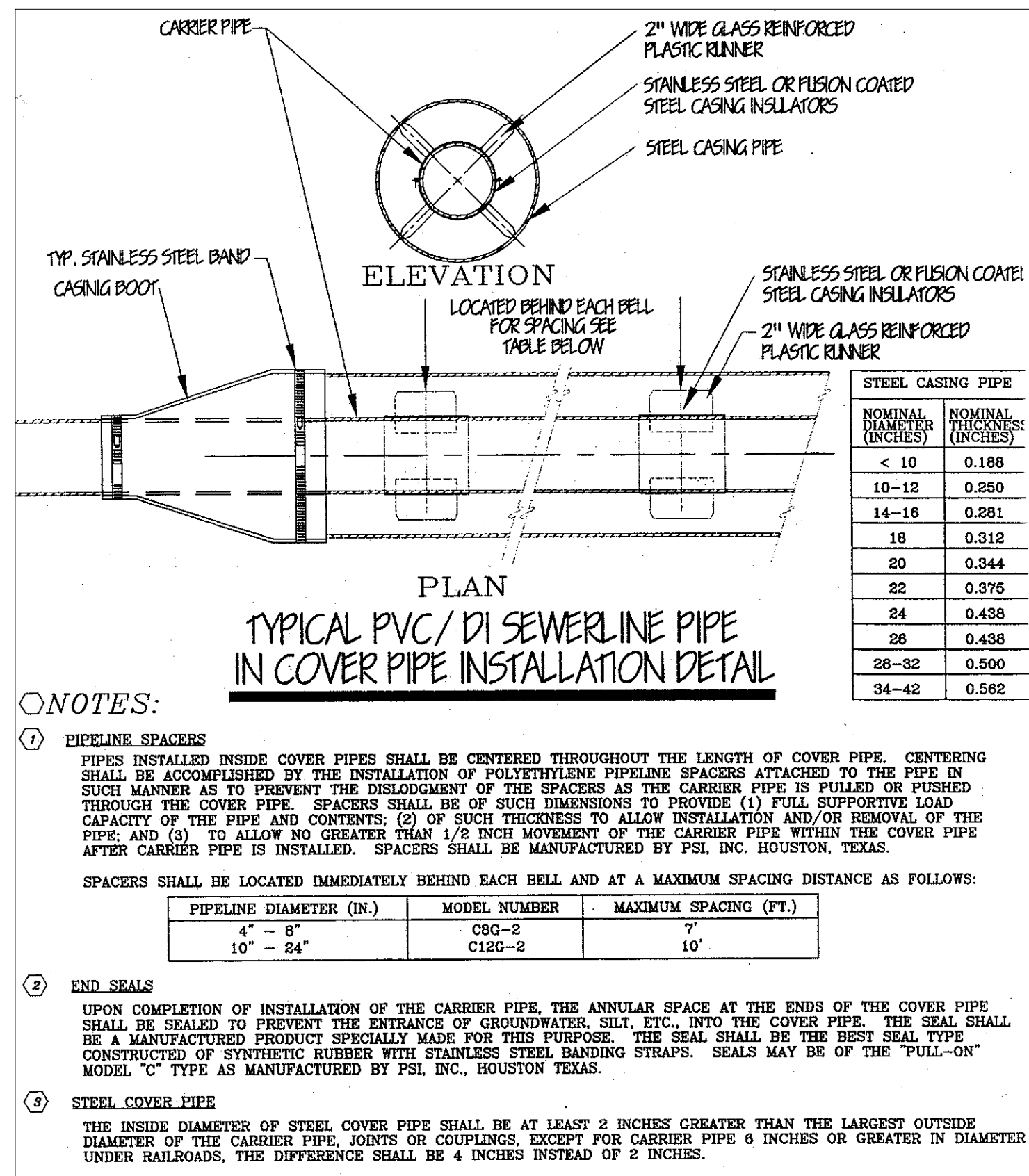
TYPICAL BEDDING AND BACKFILL FOR  
PVC/DI SEWER FORCE MAIN  
INSTALLATION ON STABLE SOIL  
OR SOLID ROCK DETAIL  
SEWER DETAIL NO. 66



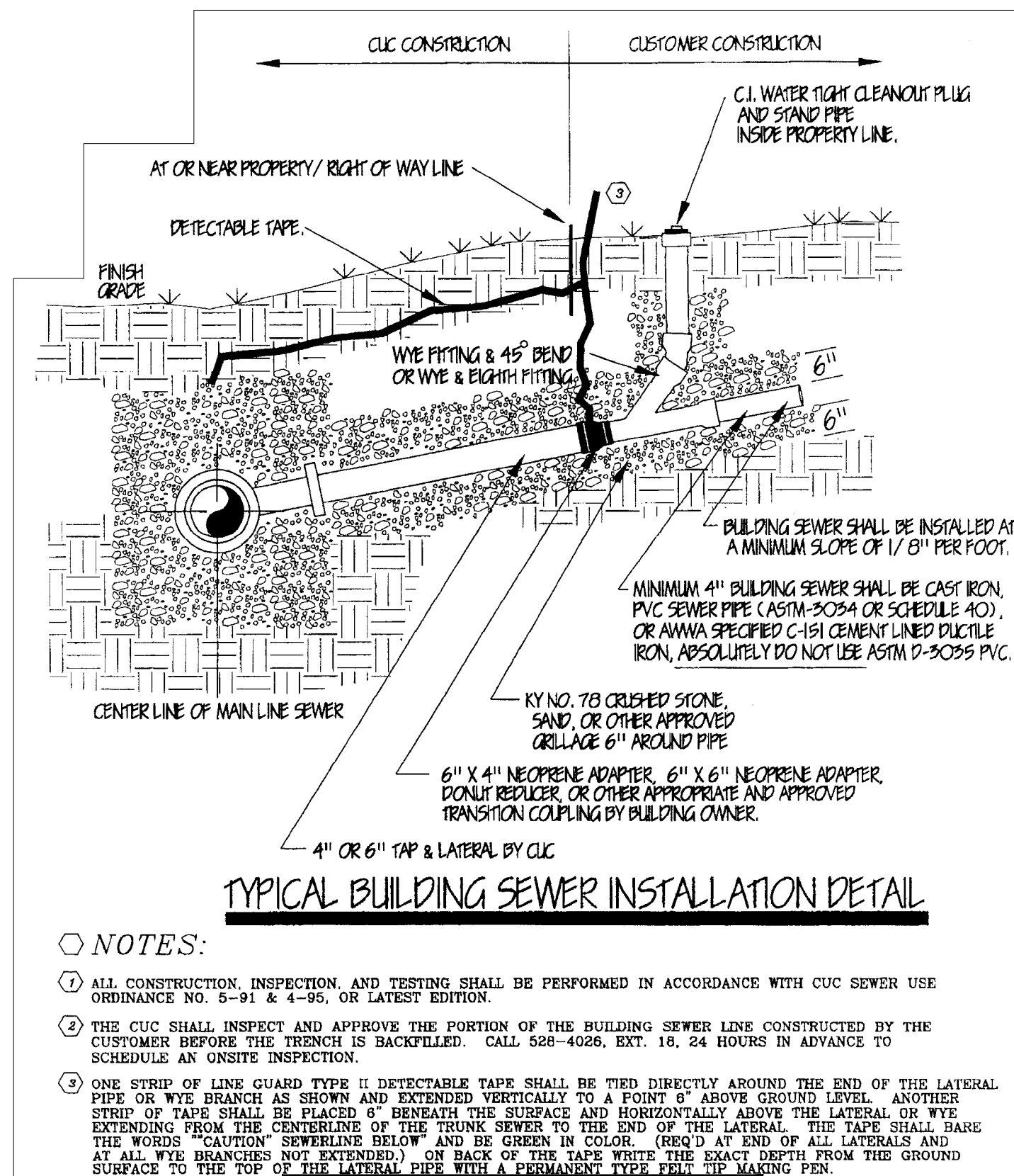
TYPICAL PRE-CAST CONCRETE  
MANHOLE WITH-OUT BOTTOM SLAB  
INSTALLED OVER EXISTING  
SEWER LINE DETAIL  
C.U.C.  
SEWER DETAIL NO. 15



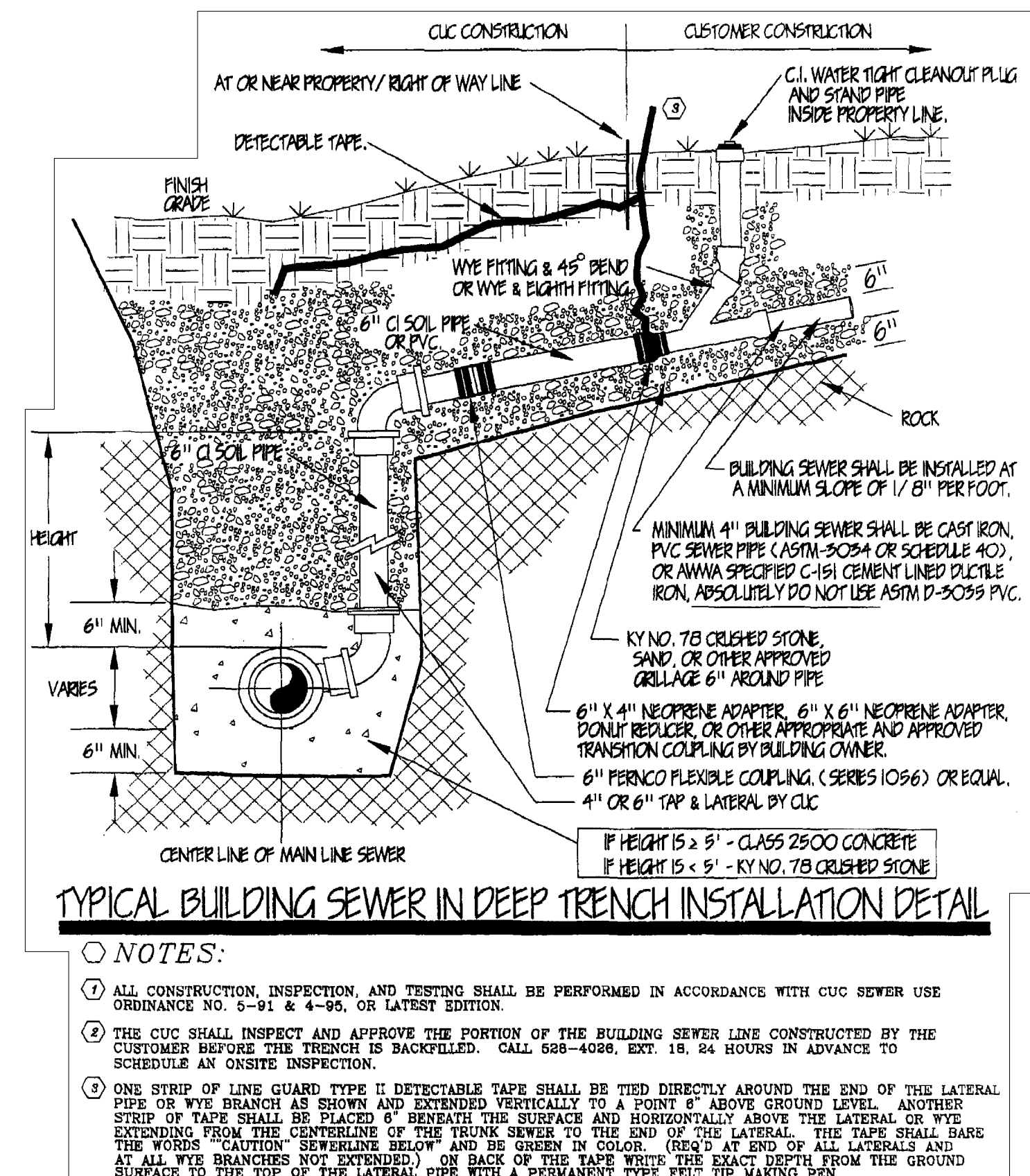
TYPICAL PRE-CAST CONCRETE  
MANHOLE WITH-OUT BOTTOM SLAB  
INSTALLED OVER EXISTING  
SEWER LINE DETAIL  
C.U.C.  
SEWER DETAIL NO. 15



TYPICAL PVC/DI SEWERLINE PIPE  
IN COVER PIPE WITH  
END SEALS INSTALLATION DETAIL  
C.U.C.  
SEWER DETAIL NO. 48



TYPICAL BUILDING SEWER  
INSTALLATION DETAIL  
C.U.C.  
SEWER DETAIL NO. 78

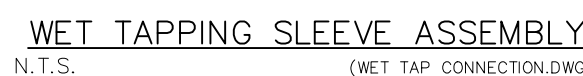
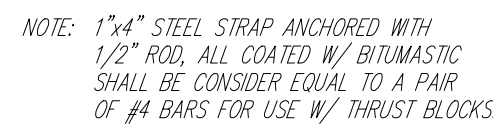
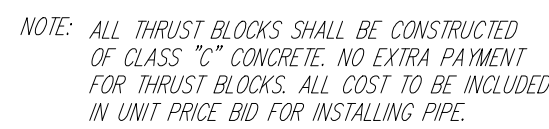


TYPICAL BUILDING SEWER  
IN DEEP TRENCH  
INSTALLATION DETAIL  
C.U.C.  
SEWER DETAIL NO. 81









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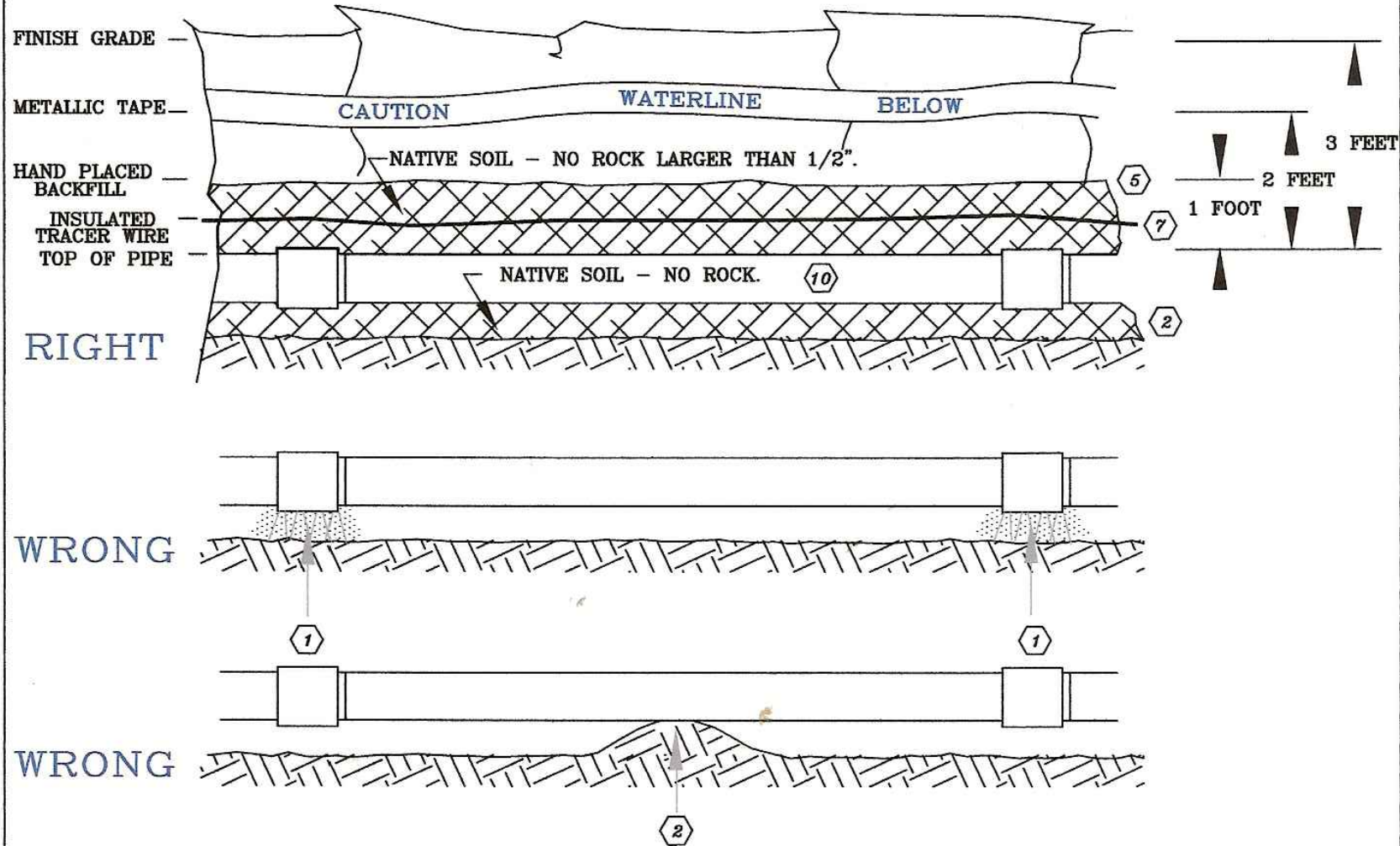


CORBIN, KENTUCKY

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SHEET 0





TYPICAL PVC WATERLINE WITH METALLIC TRACER WIRE INSTALLATION

NOTES:

- NEVER ALLOW BELLS TO REST ON, OR SETTLE DOWN TO ORIGINAL TRENCH BOTTOM.
- MAKE CERTAIN THAT PIPE IS GIVEN AN EVEN BEARING FOR ITS ENTIRE LENGTH ON LOOSE NATIVE SOIL.
- CARRY EXCAVATION 6-INCHES BELOW REQUIRED ELEVATION IN STABLE SOIL AREAS CONTAINING NO ROCKS. REPLACE WITH LOOSE NATIVE SOIL CONTAINING NO ROCK. WHEN ROCK IS ENCOUNTERED, CARRY EXCAVATION 8-INCHES BELOW REQUIRED ELEVATION AND REPLACE WITH LOOSE NATIVE SOIL CONTAINING NO ROCKS, AS REQUIRED BY THE OWNER/ENGINEER AT NO EXTRA COST TO THE OWNER.
- PIPE SHALL BE HOMED USING A BAR AND BLOCK. NEVER HOME PIPE WITH A BACKHOE BUCKET.
- BACKFILL SHALL BE HAND PLACED WITH SUITABLE MATERIAL TO 12-INCHES ABOVE THE TOP OF THE PIPE. ALL ROCK 1/2 INCH OR GREATER IN DIAMETER SHALL BE REMOVED FROM THE FIRST 12-INCHES.
- PVC WATERLINE SHALL BE BACKFILLED 2-Feet PRIOR TO INSTALLING DETECTABLE INSULATED WIRE DIRECTLY OVER PIPE.
- TRACER WIRE SHALL BE TIED DIRECTLY TO ALL VALVES, HYDRANTS AND SERVICE LINES.
- THE TAPE SHALL READ "CAUTION WATERLINE BELOW".
- THE MAX. VERTICAL/HORIZONTAL DEFLECTION SHALL NOT EXCEED ONE-HALF (1/2) MFG. RECOMMENDATION.
- ALL PVC WATERLINE SHALL BE C-900, DR-18 CLASS 150 (MIN).

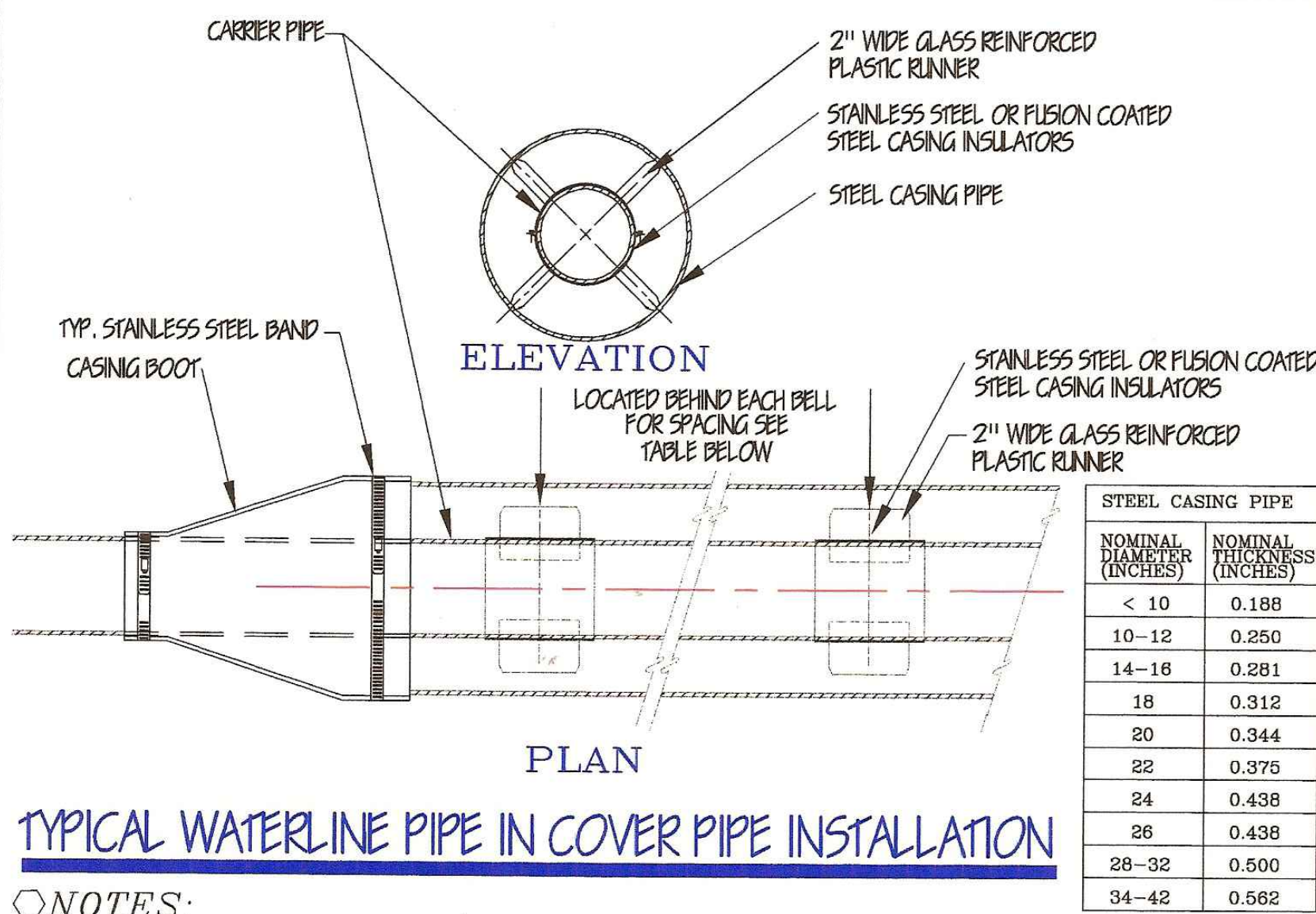


CITY UTILITIES COMMISSION  
1515 CUMBERLAND FALLS HWY.  
CORBIN, KY. 40701

PVC WATERLINE WITH TRACER WIRE  
INSTALLATION

WATER DETAIL NO. 3

SCALE:	NONE
FILE NAME:	WA DETAIL 3
DATE:	10-86
DATE REVISED:	10-13
DRAWN BY:	J.W.N.
APPROVED BY:	R.W.H.
SHEET NO.:	1 OF 1



NOTES:

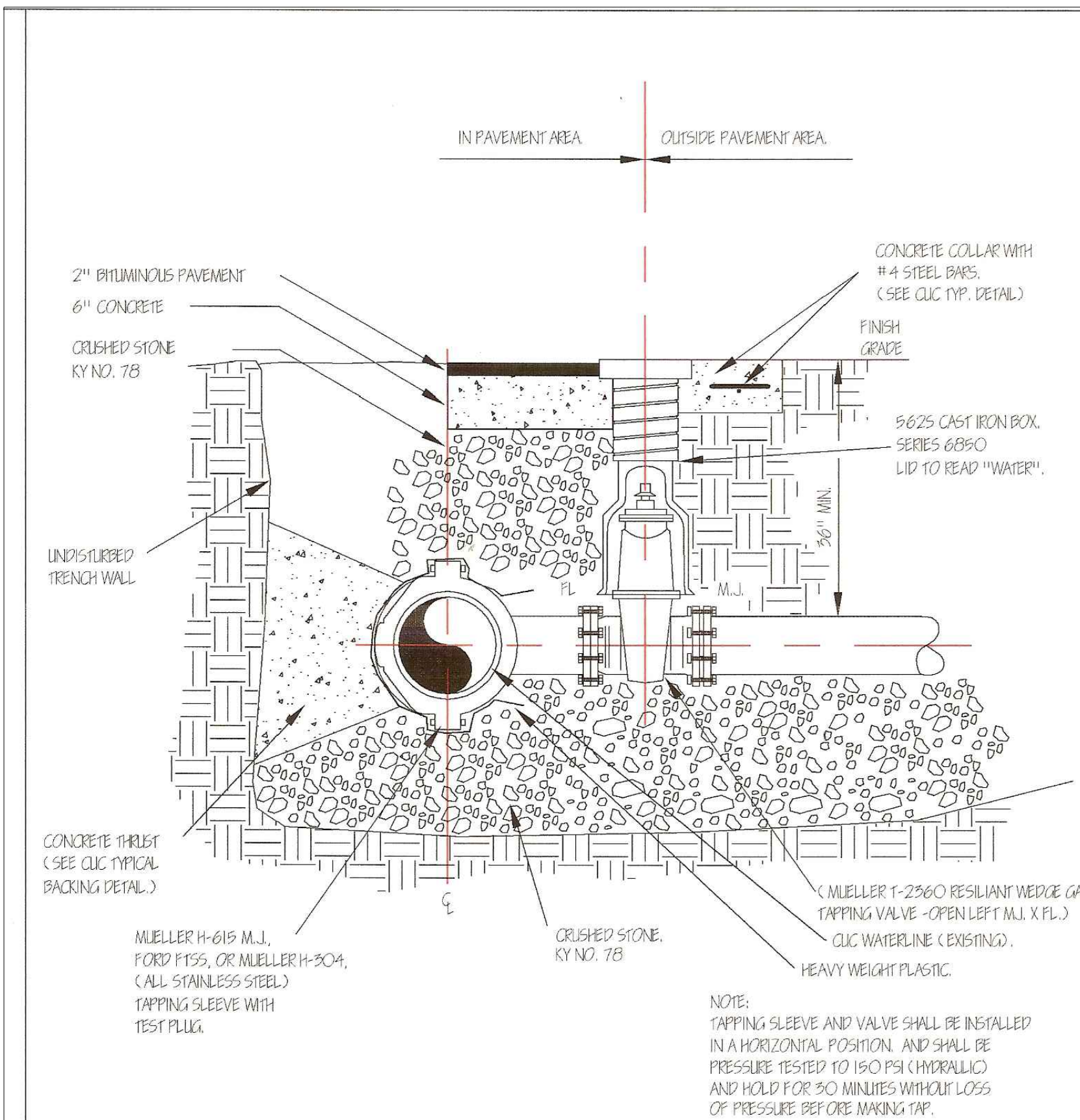
- PIPELINE SPACERS  
PIPES INSTALLED INSIDE COVER PIPES SHALL BE CENTERED THROUGHOUT THE LENGTH OF COVER PIPE. CENTERING SHALL BE ACCOMPLISHED BY THE INSTALLATION OF POLYETHYLENE PIPELINE SPACERS ATTACHED TO THE PIPE IN SUCH MANNER AS TO PREVENT THE DISLODGMET OF THE SPACERS AS THE CARRIER PIPE IS PULLED OR PUSHED THROUGH THE COVER PIPE. SPACERS SHALL BE OF SUCH DIMENSIONS TO PROVIDE (1) FULL SUPPORTIVE LOAD CAPACITY OF THE PIPE AND CONTENTS; (2) OF SUCH THICKNESS TO ALLOW INSTALLATION AND/OR REMOVAL OF THE PIPE; AND (3) TO ALLOW NO GREATER THAN 1/2 INCH MOVEMENT OF THE CARRIER PIPE WITHIN THE COVER PIPE AFTER CARRIER PIPE IS INSTALLED. SPACERS SHALL BE MANUFACTURED BY PSI, INC. HOUSTON, TEXAS.  
SPACERS SHALL BE LOCATED IMMEDIATELY BEHIND EACH BELL AND AT A MAXIMUM SPACING DISTANCE AS FOLLOWS:
- | PIPELINE DIAMETER (IN.) | MODEL NUMBER | MAXIMUM SPACING (FT.) |
|-------------------------|--------------|-----------------------|
| 4" - 8"                 | CRG-2        | 7'                    |
| 10" - 24"               | C12G-2       | 10'                   |
- END SEALS  
UPON COMPLETION OF INSTALLATION OF THE CARRIER PIPE, THE ANNULAR SPACE AT THE ENDS OF THE COVER PIPE SHALL BE SEALED TO PREVENT THE ENTRANCE OF GROUNDWATER, SILT, ETC., INTO THE COVER PIPE. THE SEAL SHALL BE A MANUFACTURED PRODUCT SPECIALLY MADE FOR THIS PURPOSE. THE SEAL SHALL BE THE BEST SEAL TYPE CONSTRUCTED OF SYNTHETIC RUBBER WITH STAINLESS STEEL BANDING STRAPS. SEALS MAY BE OF THE "PULL-ON" MODEL "C" TYPE AS MANUFACTURED BY PSI, INC., HOUSTON TEXAS.
  - STEEL COVER PIPE  
THE INSIDE DIAMETER OF STEEL COVER PIPE SHALL BE AT LEAST 2 INCHES GREATER THAN THE LARGEST OUTSIDE DIAMETER OF THE CARRIER PIPE, JOINTS OR COUPLINGS, EXCEPT FOR CARRIER PIPE 6 INCHES OR GREATER IN DIAMETER UNDER RAILROADS, THE DIFFERENCE SHALL BE 4 INCHES INSTEAD OF 2 INCHES.



CITY UTILITIES COMMISSION  
901 SOUTH MAIN STREET  
CORBIN, KY. 40701

TYPICAL WATERLINE PIPE IN COVER  
PIPE WITH END SEALS INSTALLATION  
WATER DETAIL NO. 24

SCALE:	NONE
FILE NAME:	WA DETAIL 24
DATE:	10-86
DATE REVISED:	5-97
DRAWN BY:	J.W.N.
APPROVED BY:	G.P.R.
SHEET NO.:	1 OF 1



TYPICAL WET TAP



CITY UTILITIES COMMISSION  
901 SOUTH MAIN STREET  
CORBIN, KY. 40701

TYPICAL  
WET TAP

WATER DETAIL NO. 30

SCALE:	NONE
FILE NAME:	WA DETAIL 30
DATE:	10-86
DATE REVISED:	9-09
DRAWN BY:	J.W.N.
APPROVED BY:	R.W.H.
SHEET NO.:	1 OF 1

WATER, AND SEWER EXTENSIONS  
CITY OF CORBIN HOTEL PROJECT  
CORBIN, KENTUCKY

PROJECT NO.	DESIGNED BY	DRAWN BY	CHECKED BY	REVIEWED BY	DATE	SCALE
9556-02	D.S.T.	J.D.W.	D.S.T.	D.S.T.	SEPT. 2023	AS NOTED

Engineers  
Architects  
Planners

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DRAWING NO.

WD-3

SHEET OF

C.U.C. - WATER DETAILS