



ADDENDUM NO. 2

Owner: Town of Haw River
403 East Main Street
Haw River, NC 27258

Project: Hanover Road Sewer Meters
AWCK Project No. 22009

Bids Due: **Bid Date March 23rd, 2023 at 2:00 PM as revised by addendum #1**
Haw River Municipal Building
403 East Main Street
Haw River, NC 27258

Addendum Date: March 16th, 2023

Notice to all plan holders:

The following changes, additions, deletions, clarifications, interpretations and/or corrections are herewith made a part of the referenced project and shall take precedence over previous requirements. Contractors shall familiarize themselves with the content of this memorandum, as it is a part of the contract documents.

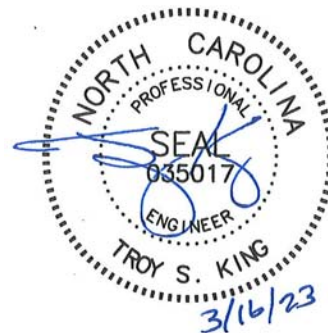
Item 1 – Plan Changes and Clarifications:

1. Plan Sheet 2 was revised to include an additional manhole (SSMH-2A) and ten additional feet of proposed 8" ductile iron sewer main. The slope of the proposed sewer main was reduced to 1.50% to increase meter accuracy. A slide will be installed within SSMH-2A to make up the elevation difference caused by the slope reduction. The limits of the pavement repair have been adjusted to accommodate the additional pipe length and manhole SSMH-2A. General notes on Plan Sheet 2 have been revised to accommodate the addition of SSMH-2A. Costs associated with these revisions shall be included within the lump sum bid item for Flume #2 (Bid item #4).
2. Note 14 was added to Plan Sheet 3 to provide additional information regarding the solar equipment to be provided by the contractor. Costs associated with this solar equipment shall be included within the lump sum bid item for Flume #1 (Bid item #3).

Please find attached revised plan sheets 2 and 3 with revisions detailed above.

Bidders are instructed to initial that Addendum No. 2 dated 3/16/2023 was received at the appropriate location on Page BF-1 of the Bid Form.

Troy S. King, P.E.
Alley, Williams, Carmen & King, Inc.; Firm License No. F-0203



THIS PLAN DOES NOT PURPORT TO SHOW ALL EXISTING UTILITIES, LINES, APPURTENANCES, ETC., AND THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES, PIPES, VALVES, ETC. AS SHOWN ARE IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER/ARCHITECT. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES, LINES, PIPES, ETC. BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, PIPES AND VALVES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER/ARCHITECT OF ANY CONFLICTS WITH EXISTING AND PROPOSED FACILITIES TO DETERMINE IF AN ITEM WILL NEED TO BE RELOCATED.

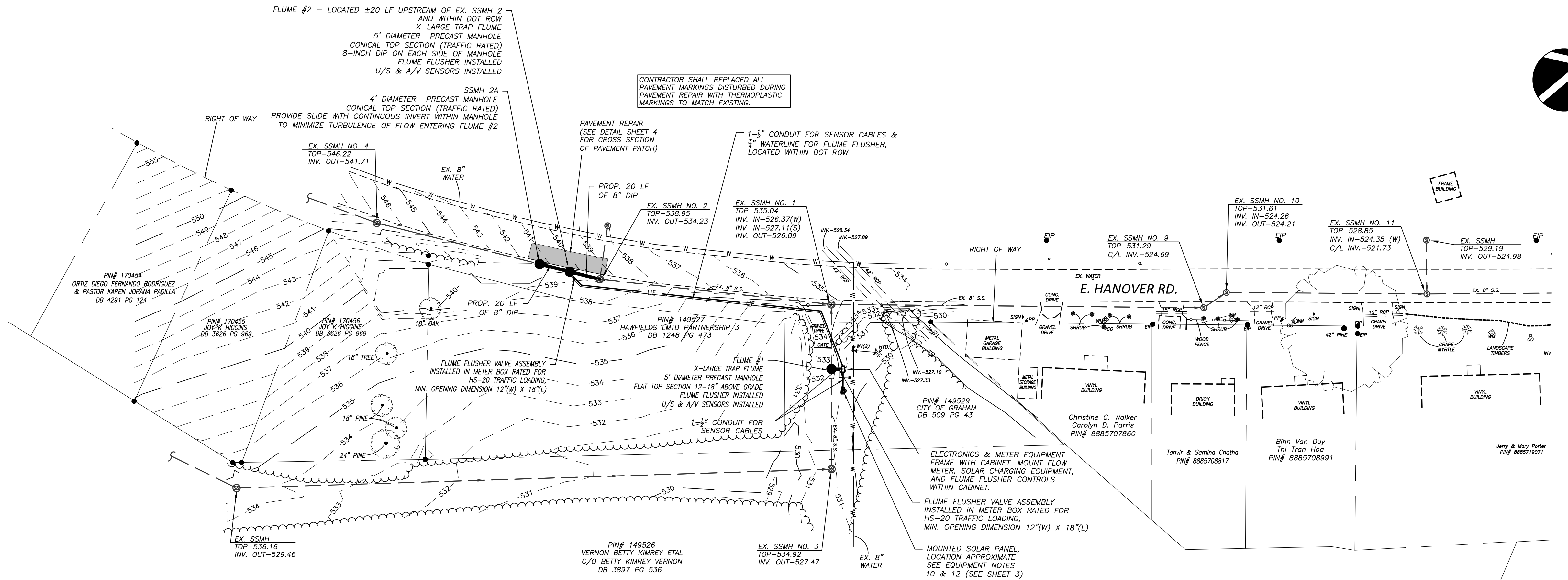
THE ENGINEER/ARCHITECT HAS MADE NO EXAMINATION TO DETERMINE WHETHER ANY HAZARDOUS OR TOXIC MATERIALS ARE PRESENT OR CONTAINED IN, UNDER, OR ON THE SUBJECT PROPERTY OR ITS WATERS, OR IF ANY HAZARDOUS OR TOXIC MATERIALS HAVE CONTAMINATED THIS OR OTHER PROPERTIES OR ITS WATERS IN ANY WAY WHATSOEVER. NO SUBSURFACE EXAMINATION OF ANY TYPE HAS BEEN MADE BY THE ENGINEER/ARCHITECT, AND ACCORDINGLY, NO OPINION IS EXPRESSED OR INFERRED ON ALL SUCH MATTERS. FURTHER, NO OPINION IS RENDERED AS TO ANY VIOLATION OF ANY ENVIRONMENTAL LAWS OR REGULATIONS, EITHER FEDERAL, STATE, OR LOCAL RELATED TO THE INFORMATION SHOWN ON THIS PLAN AND THE ENGINEER/ARCHITECT IS IN NO WAY LIABLE FOR ANY VIOLATION OF SUCH ENVIRONMENTAL LAWS SHOULD SUCH EXIST.

GENERAL NOTES:

1. CONTRACTOR TO PROVIDE BY-PASS PUMP TO DIVERT SEWER FLOW AROUND WORK AREA WHILE INSTALLING FLUMES.
2. BY-PASS PUMP SHALL BE MONITORED 24 HOURS PER DAY WHILE IN OPERATION.
3. PROVIDE TEMPORARY LANE CLOSURE FOR EASTBOUND TRAFFIC ON HANOVER ROAD WHILE WORKING WITHIN 5' OF THE EDGE OF PAVEMENT TO INSTALL SSMH-2A, FLUME #2, ELECTRICAL CONDUIT & 3/4" WATER SERVICE. PROVIDE FLAGGERS & TRAFFIC CONTROL PER PLAN AND DETAILS (SHEETS 5 & 6).
4. CONTRACTOR TO MAXIMIZE WORKING SPACE WITHIN FLUME #2 BY INSTALLING THE SHORTEST POSSIBLE PRECAST CONE SECTION AVAILABLE FROM PRECAST MANUFACTURER. SHOP DRAWINGS TO BE PROVIDED FOR EACH INDIVIDUAL PRECAST STRUCTURE.
5. THERMOPLASTIC LANE MARKINGS SHALL BE REPLACED AFTER FINAL PAVEMENT REPLACEMENT OCCURS.
6. SEE PROJECT SPECIAL PROVISIONS FOR TEMPORARY PAVEMENT REPAIR IF REQUIRED DUE TO WEATHER CONDITIONS.
7. WATER SERVICE SHALL BE TYPE K COPPER OR HDPE (CTS OR SIDR BLUE IN COLOR). PROVIDE TRACER WIRE (12 GA. BLUE IN COLOR) REGARDLESS OF PIPE MATERIAL SELECTED.

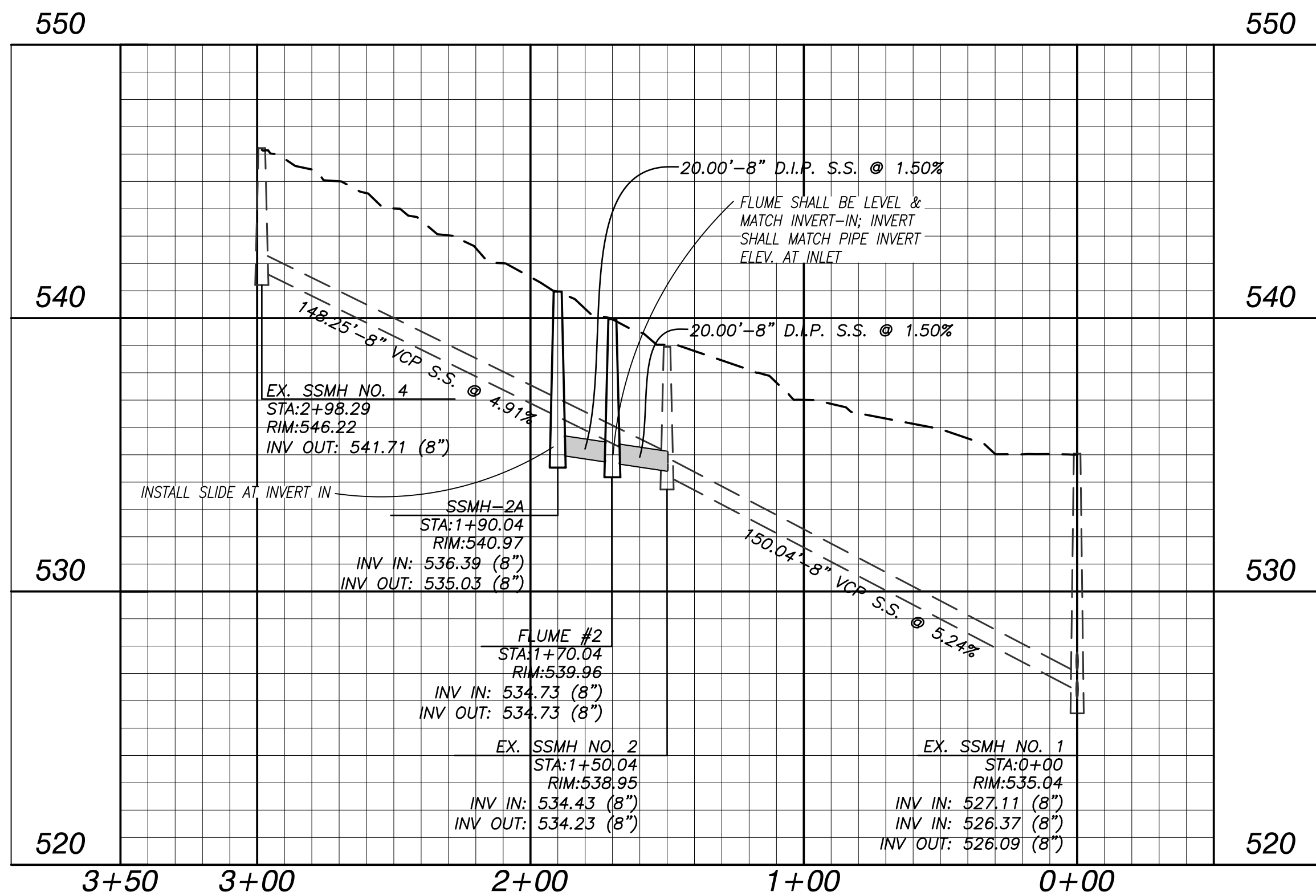
EQUIPMENT RACK NOTES:

1. LOCATE EQUIPMENT RACK INSIDE PERMANENT SEWER RIGHT-OF-WAY FACING MANHOLE AS SHOWN.
2. MOUNT 24"(H) X 20"(W) X 10"(D) NEMA-4X ENCLOSURE ON STEEL POLE FRAME. PROVIDE 2-3" I.D. GALVANIZED STEEL POLES - 9' TALL EACH. BURY 2.5' BELOW GRADE, PROVIDE 1-5/8" STAINLESS STEEL CHANNEL FOR HORIZONTAL SUPPORT. BOTTOM OF ENCLOSURE TO BE 30" MIN. ABOVE ADJACENT FINISHED GRADE.
3. RUN CONDUIT AND WATER SERVICE LINE FROM EACH MANHOLE TO ENCLOSURE FOR SENSOR CABLES. MINIMUM DEPTH OF BURY SHALL BE 2'.
4. MOUNT FLOW METER, FLUME FLUSHER ELECTRONICS, AND SOLAR CHARGING EQUIPMENT WITHIN ENCLOSURE.



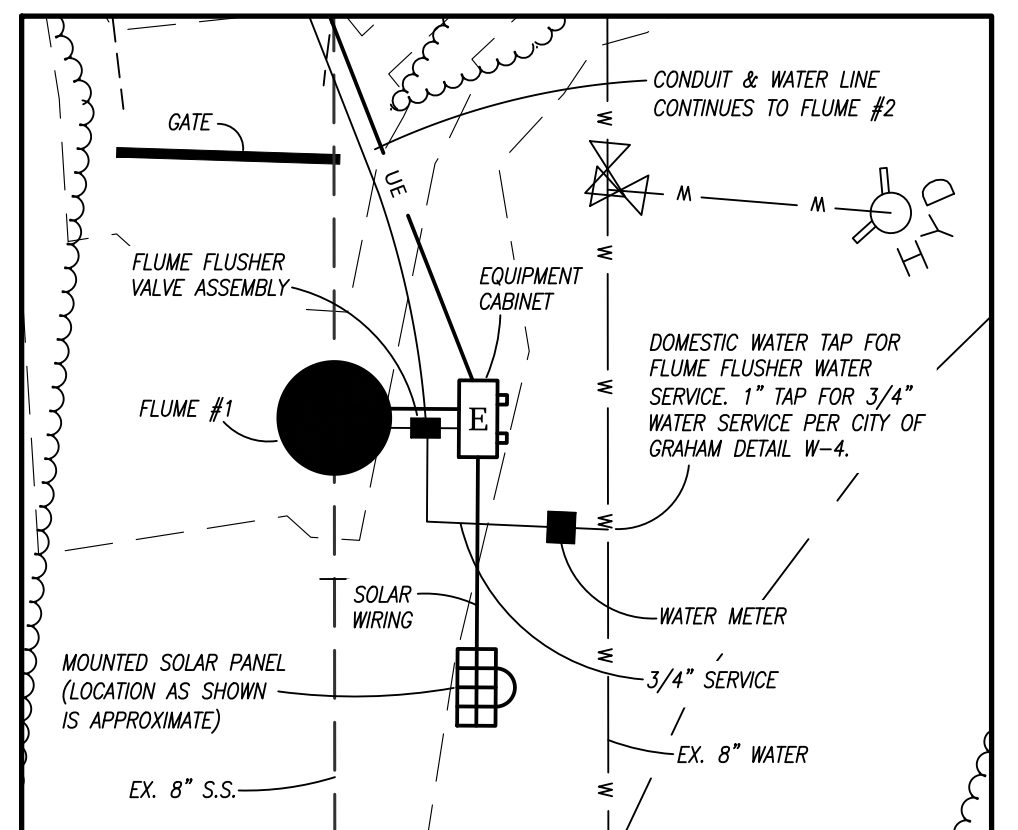
PLAN

SCALE: 1" = 40'



PROFILE

SCALE: 1" = 40' HOR.
1" = 4' VERT.



FLUME #1 | EQUIPMENT DETAIL



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Firm's Engineering License No. P-0203

HANOVER ROAD SEWER METER
HAW RIVER TOWNSHIP - ALAMANCE COUNTY, NORTH CAROLINA

SANITARY SEWER IMPROVEMENTS
HAW RIVER, NORTH CAROLINA

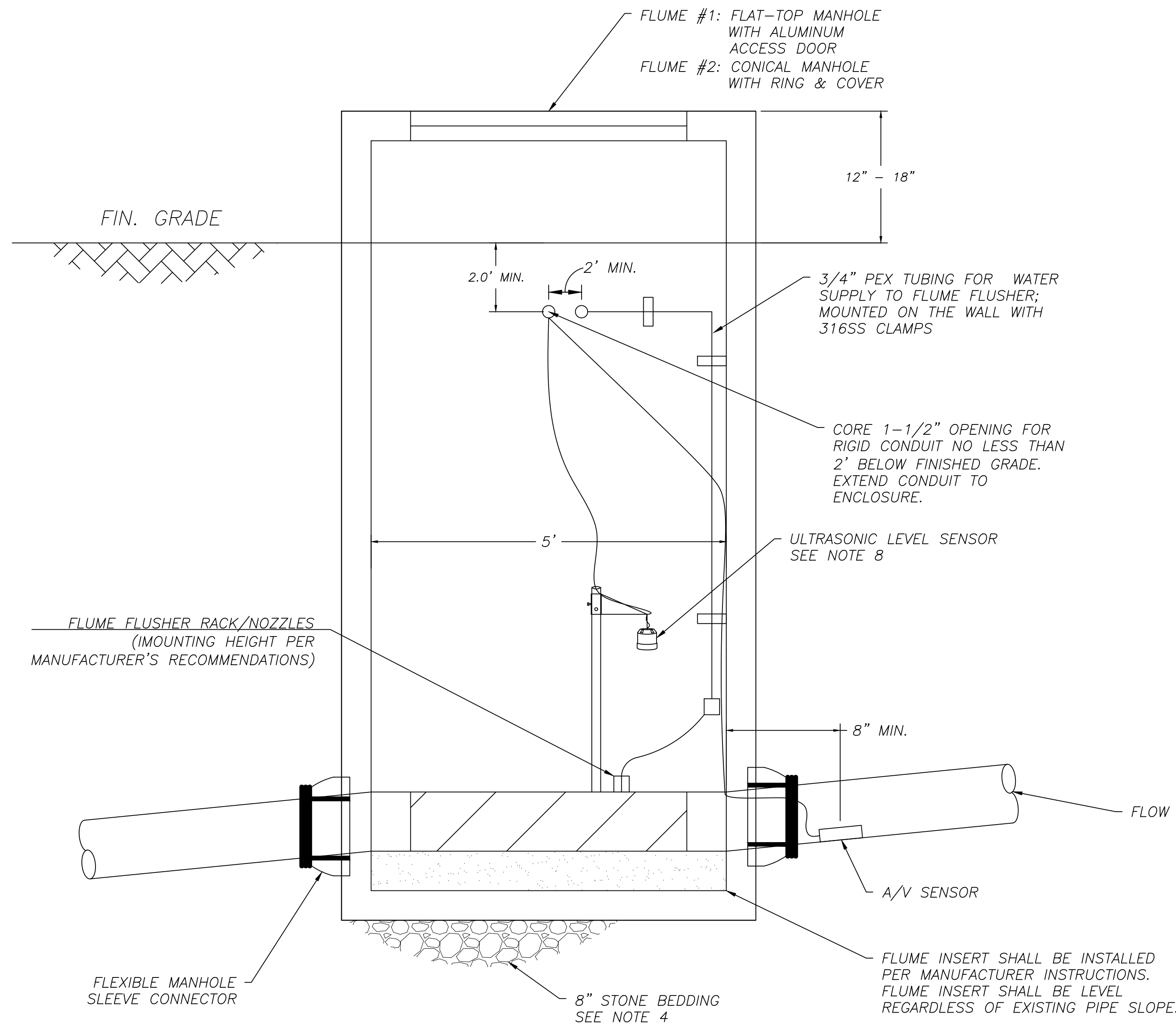
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SANITARY SEWER
PLAN & PROFILE

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**METERING MANHOLE
PROFILE**

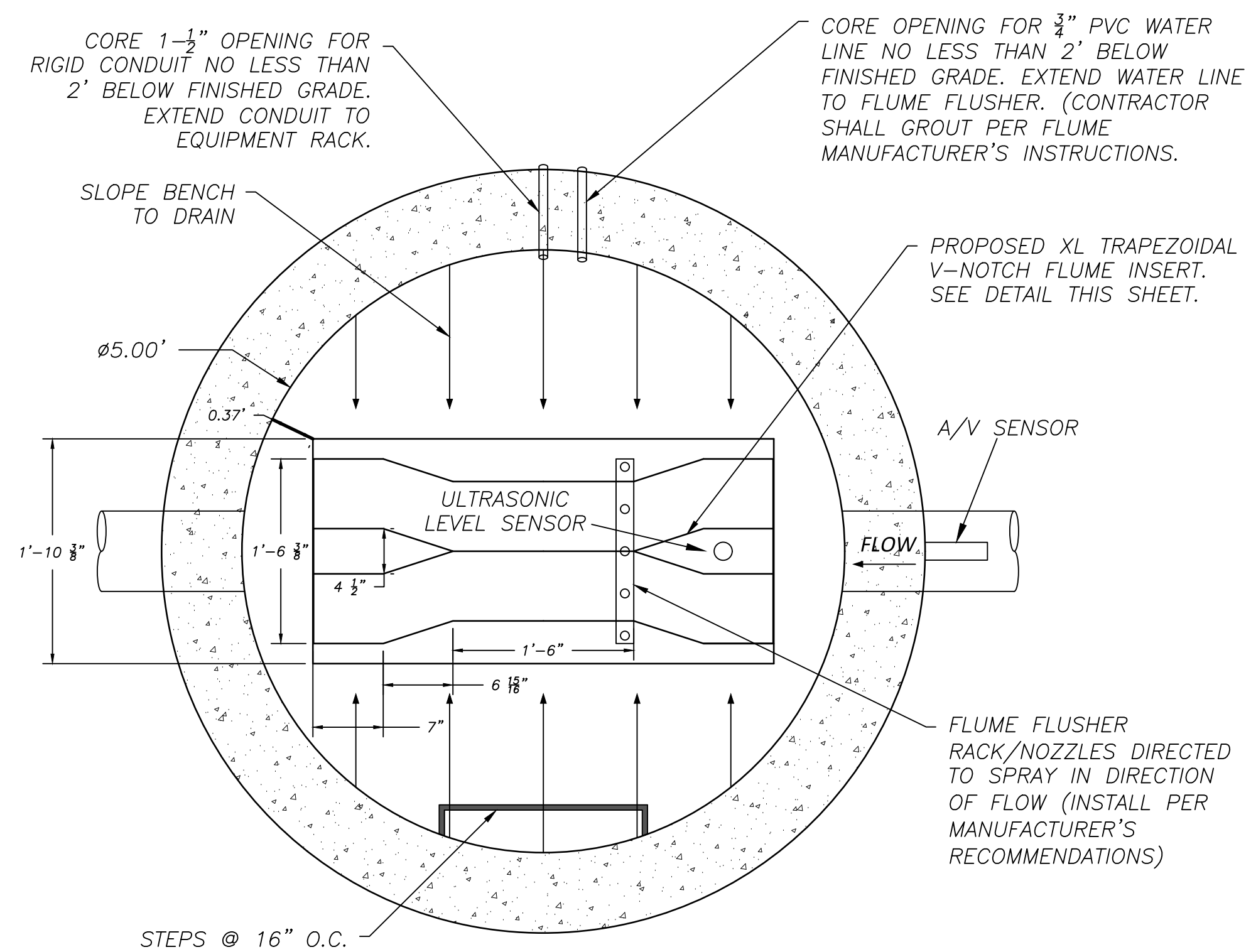
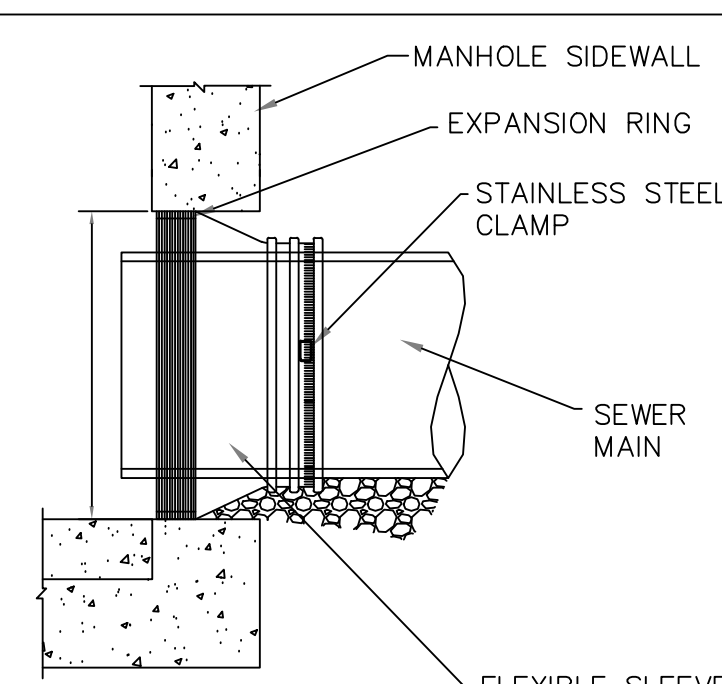
MANHOLE NOTES:

1. FOR FLUME #1, USE FLAT TOP MANHOLE AND SET RIM ELEVATION 12"–18" ABOVE FINISHED GRADE. ACCESS DOOR SHALL BE SERIES S1R 42" X 42" ACCESS DOOR MANUFACTURED BY HALLIDAY PRODUCTS OR APPROVED EQUAL.
2. FOR FLUME #2, USE TRAFFIC RATED CONE SECTION MANHOLE AND RIM, SET FLUSH WITH GRADE.
3. PRECAST MANHOLE SHALL CONFORM TO ASTM C478, WITH AASHTO M198 BUTYL SEALS BETWEEN JOINTS AND 6" ADHESIVE BUTYL TAPE ON THE OUTSIDE OF JOINTS.
4. MANHOLE SHALL BE BEDDED ON 8" STABILIZATION STONE OR AS DIRECTED BY THE ENGINEER.
5. MANHOLE AND FLUME SHALL BE INSTALLED LEVEL. CONTRACTOR SHALL FORM CHANNEL WITH GROUT IN METERING MANHOLE THAT WILL TRANSITION FROM INCOMING/OUTGOING PIPE TO THE FLUME.
6. MANHOLE STEPS SHALL CONFORM TO MANHOLE STANDARDS AND ASTM C478. STEPS SHALL BE POLY-COATED STEEL.
7. CONTRACTOR TO SECURE TUBING/WIRING TO INTERIOR OF MANHOLE WALL WITH STAINLESS STEEL CLAMPS.
8. INSTALL ULTRASONIC LEVEL SENSOR WITH INHERENT TEMPERATURE COMPENSATION.
9. CAST IRON VALVE BOX TO BE USED AT BOTH FLUME MANHOLES TO HOUSE FLUME FLUSHER VALVES.

NOTES:

1. FLEXIBLE MANHOLE SLEEVES SHALL CONFORM TO ASTM C-923. SLEEVES BY PRESS-SEAL GASKET CORPORATION, EPCO INC, OR NPC INC. OR EQUIVALENT ARE ACCEPTABLE. MAXIMUM DEFLECTION FOR SLEEVE IS 7" (12%). SLOPES GREATER THAN 12% MUST HAVE SLEEVES DESIGNED FOR HIGHER DEFLECTION.

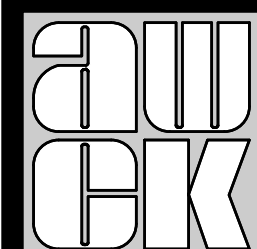
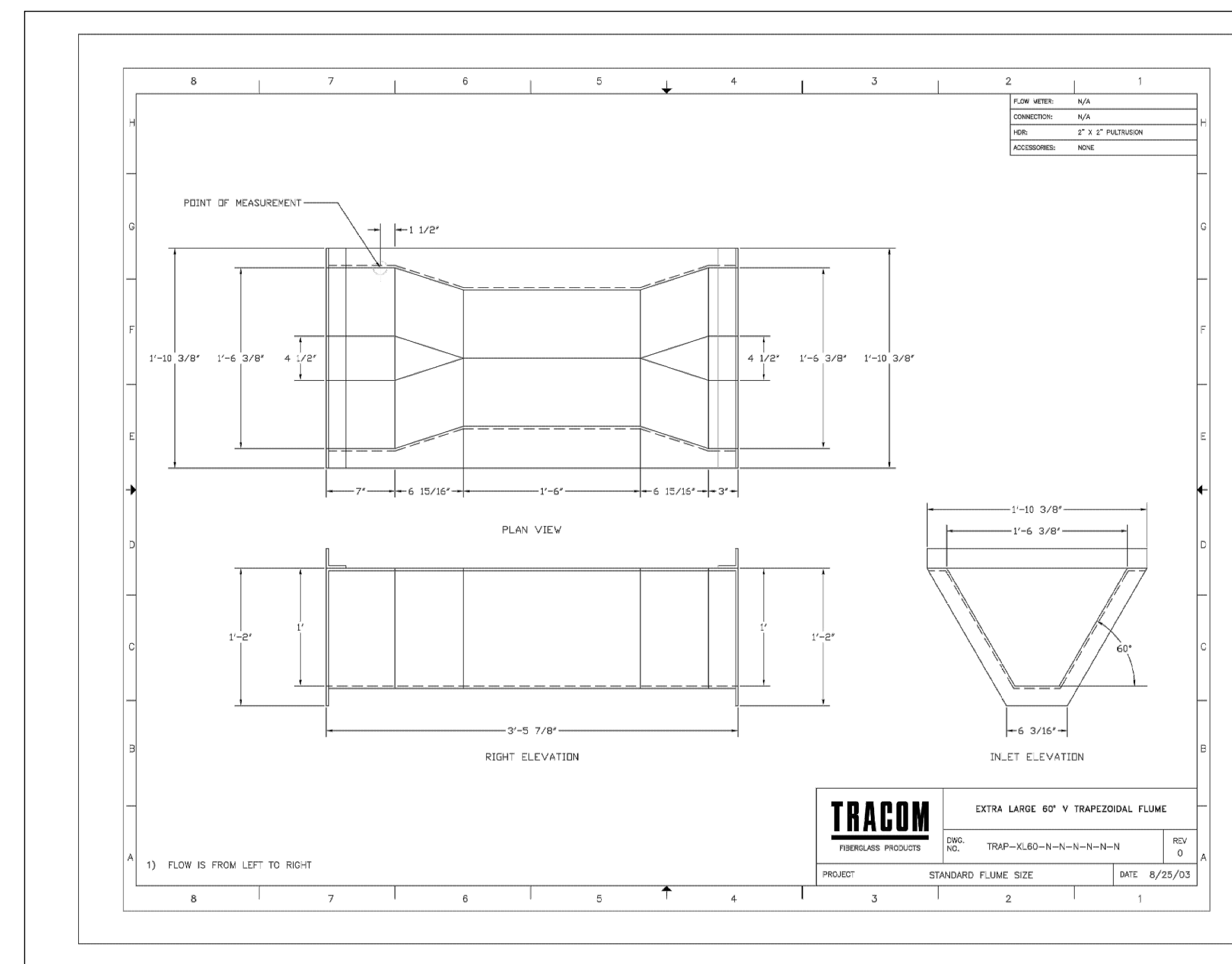
FLEXIBLE MANHOLE SLEEVE DETAIL



**METERING MANHOLE
PLAN**

EQUIPMENT NOTES:

1. EQUIPMENT LIST TO BE PROVIDED BY THE CONTRACTOR PER PROJECT SPECIFICATION. EQUIPMENT PROVIDER TO PROGRAM INSTALLED EQUIPMENT AND CALIBRATE FLOW METER.
2. (2) EXTRA LARGE TRAPEZOIDAL V-NOTCH FLUME INSERTED WITH INTEGRAL APPROACH, AND GAGE IN 100THS OF A FOOT AND CENTIMETERS. MANUFACTURER SHALL BE TRACOM TRAP-XL60 OR PRE-APPROVED EQUAL.
3. FLOW METER SYSTEM: ISCO SIGNATURE, HACH FL1500 OR APPROVED EQUAL.
4. (2) ULTRA-SONIC (U/S) SENSORS
5. (2) AREA VELOCITY (A/V) SENSORS.
6. BATTERY BACKUP KIT FOR METER.
7. INTERNAL 7-DIGIT MECHANICAL, NON-RESETTABLE FLOW TOTALIZER, FACTORY INSTALLED.
8. (2) MOUNTING RINGS FOR 8" PIPE.
9. (1) FLOW METER CONNECT CABLE, 60-FT.
(2) FLOW METER CONNECT CABLE, 180-FT.
10. SOLAR PANEL, MOUNTING HARDWARE, POLE, AND APPURTENANCES.
11. 24"(H) X 20"(W) X 10"(D) NEMA-4X ENCLOSURE W/ STAINLESS STEEL, LOCKABLE TWIST LATCHES.
12. STEEL POLE TO BE INSTALLED BY CONTRACTOR WITHIN EXISTING SEWER EASEMENT. CONTRACTOR SHALL MOUNT SOLAR PANEL AT HEIGHT PER MANUFACTURER RECOMMENDATIONS. SOLAR PANEL SHALL BE ORIENTED TO RECEIVE SUNLIGHT FROM A GENERALLY SOUTHERN EXPOSURE.
13. CONTRACTOR TO INSTALL 1-1/2" DIAMETER RIGID CONDUIT FROM POLE TO EQUIPMENT ENCLOSURE. CONDUIT SHALL BE BURIED MINIMUM 24-INCHES.
14. CONTRACTOR TO PROVIDE MINIMUM 200 WATT SOLAR PANEL AND 100Ah BATTERY IN LOCKABLE ENCLOSURE.



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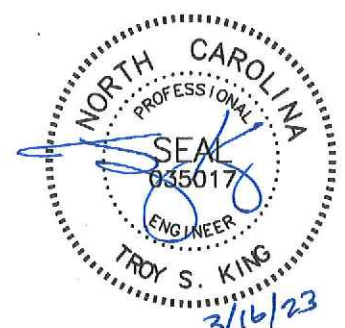
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**CONSTRUCTION
DETAILS**

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