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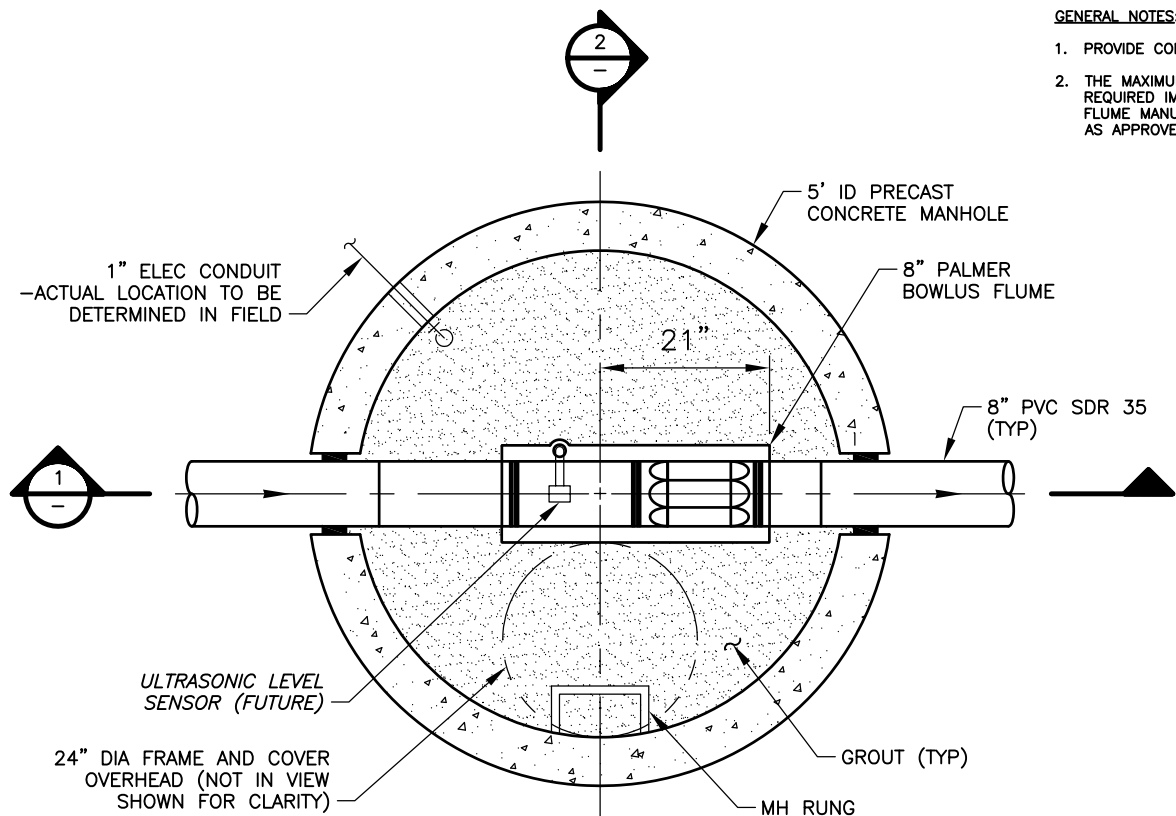
GENERAL NOTES:

1. PROVIDE CONDUIT INTO METERING MANHOLE FOR FUTURE POWERING OF SENSOR.
2. THE MAXIMUM SLOPE OF THE SEWER AND THE MINIMUM STRAIGHT PIPE LENGTH REQUIRED IMMEDIATELY UPSTREAM OF THE METERING MANHOLE SHALL BE PER THE FLUME MANUFACTURER'S REQUIREMENTS FOR THE PROJECT SPECIFIC APPLICATION, AND AS APPROVED BY THE AUTHORITY'S ENGINEER.

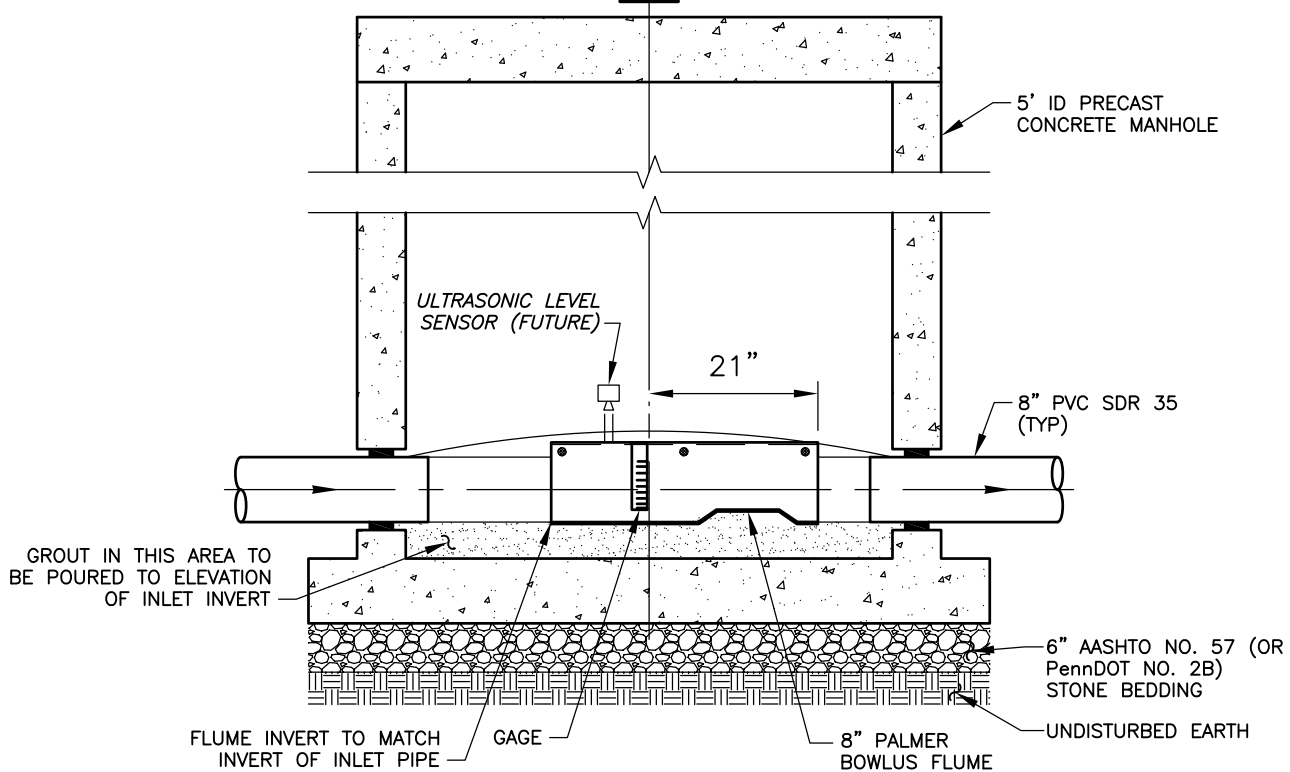
PALMER-BOWLUS FLUME

1. SHOP DRAWING FOR FLUME SHALL BE REVIEWED AND APPROVED BY SLSA PRIOR TO INSTALLATION.
2. THE PALMER-BOWLUS FLUME SHALL HAVE THE CHARACTERISTICS, DIMENSIONS AND TOLERANCES AS SHOWN ON THE DETAIL AND SPECIFIED BELOW. THE THROAT SECTION SHALL BE 6" TO MEASURE FLOW RATES FROM 20 TO 150 GPM.
3. THE FLUME SHALL BE FULL LENGTH, MOLDED FIBERGLASS REINFORCED POLYESTER (FRP), LAMINATED IN ONE PIECE. THE INTERIOR SURFACE SHALL HAVE A 12.5 ± 2.5 MIL WHITE GELCOAT BACKED BY A RESIN RICH LAYER OF RESIN AND CHOPPED GLASS FORMING A WATER AND CHEMICAL RESISTANT SURFACE. THE REMAINDER OF THE LAMINATE SHALL BE FIBERGLASS REINFORCED POLYESTER CONTAINING NOT LESS THAN 30% GLASS CONTENT BY WEIGHT. THE THICKNESS OF THE WALLS AND FLOOR OF THE FLUME SHALL BE NOT LESS THAN 3/16" THICK. THE FLUME SHALL BE REINFORCED WITH BOX SECTION STIFFENERS DOWN THE SIDES AND ACROSS THE BOTTOM. THE STIFFENERS SHALL BE JOINED TOGETHER AT THE KNEE TO FORM A RIGID DIMENSIONALLY STABLE FLUME.
4. THE FLUME SHALL HAVE ADEQUATE NUMBER OF ANCHOR CLIPS ON EXTERIOR WALLS AND FLOOR TO PROVIDE SECURE ANCHORING IN CONCRETE.
5. THE GELCOAT SHALL BE A PREMIUM GRADE, CHEMICAL RESISTANT GELCOAT WITH SUPERIOR RESISTANCE TO INTENSE UV DEGRADATION. GELCOAT SHALL BE ARMOCOTE AS MANUFACTURED BY COOK COMPOSITES & POLYMERS, OR APPROVED EQUAL.
6. STIFFENERS ACROSS THE TOP SHALL BE PERMANENT FRP PROTRUDED ANGLE/CHANNEL OR TEMPORARY WOOD SPREADERS AS REQUIRED AND SHALL PROVIDE SUFFICIENT STRENGTH AND STRUCTURAL SUPPORT TO RESIST THE STRESSES THAT OCCUR DURING SHIPPING AND PROPER INSTALLATION OF THE FLUME.
7. TYPICAL PHYSICAL PROPERTIES SHALL BE:

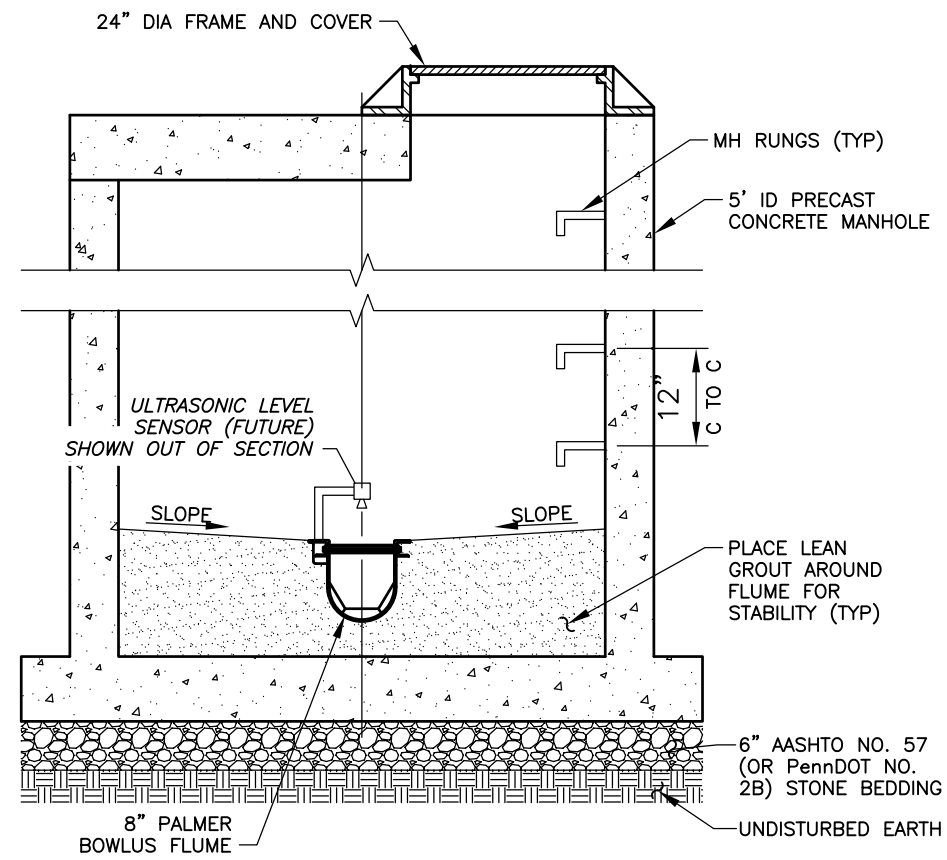
A. TENSILE STRENGTH	14,000 PSI
B. PERCENT ELONGATION	1.65%
C. FLEXURAL STRENGTH	25,000 PSI
D. FLEXURAL MODULUS	0.90 X 10 ⁹ PSI
E. BARCOL HARDNESS, MINIMUM	30
9. FLUME DIMENSIONS SHALL BE PLUS OR MINUS 1/16".
10. PROVIDE INLET RADIUS WINGWALLS TO PROVIDE A SMOOTH TRANSITION FROM THE UPSTREAM CHANNEL TO THE FLUME INLET. PROVIDE FLAT OUTLET WINGWALLS AT A 45 DEGREE ANGLE TO THE DIRECTION OF FLOW.
11. THE FLUME SHALL BE EQUIPPED WITH A MOLDED IN HEAD GAGE GRADUATED IN 100THS OF A FOOT AND MGD. THE SCALE SHALL 3/4" HIGH BLACK NUMERALS AT EACH TENTH.
12. INSTALLATION
 - A. THE FLUME INSERT SHALL BE INSTALLED WITHIN THE PERMANENT CHANNEL. THE INSERT SHALL BE INSTALLED LEVEL AND TRUE TO ASSURE ACCURATE FLOW MEASUREMENT.
 - B. THE INSERT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS DIRECTIONS AND RECOMMENDATIONS.
13. INSPECTION AND TESTING - PRIOR TO FINAL GROUTING OF THE FLUME INSERT, FURNISH THE SERVICES OF A FACTORY REPRESENTATIVE FOR A MINIMUM OF ONE (1) DAY TO SUPERVISE INSTALLATION AND APPROVE THE FINAL INSTALLATION OF THE FLUME. FINAL ALIGNMENT AND PLUMBNESS MEASUREMENTS OF THE INSERT SHALL BE TAKEN IN THE PRESENCE OF THE FACTORY REPRESENTATIVE AND THE ENGINEER PRIOR TO GROUTING. FINAL GROUTING SHALL BE PLACED SLOWLY AND EVENLY TO PREVENT DISPLACEMENT OF THE INERT.
14. ACCEPTABLE MANUFACTURERS - PLASTI-FAB, WARMINSTER FIBERGLASS, OR EQUAL.



PLAN



SECTION 1



SECTION 2

**METERING MANHOLE
DETAIL**

NTS

