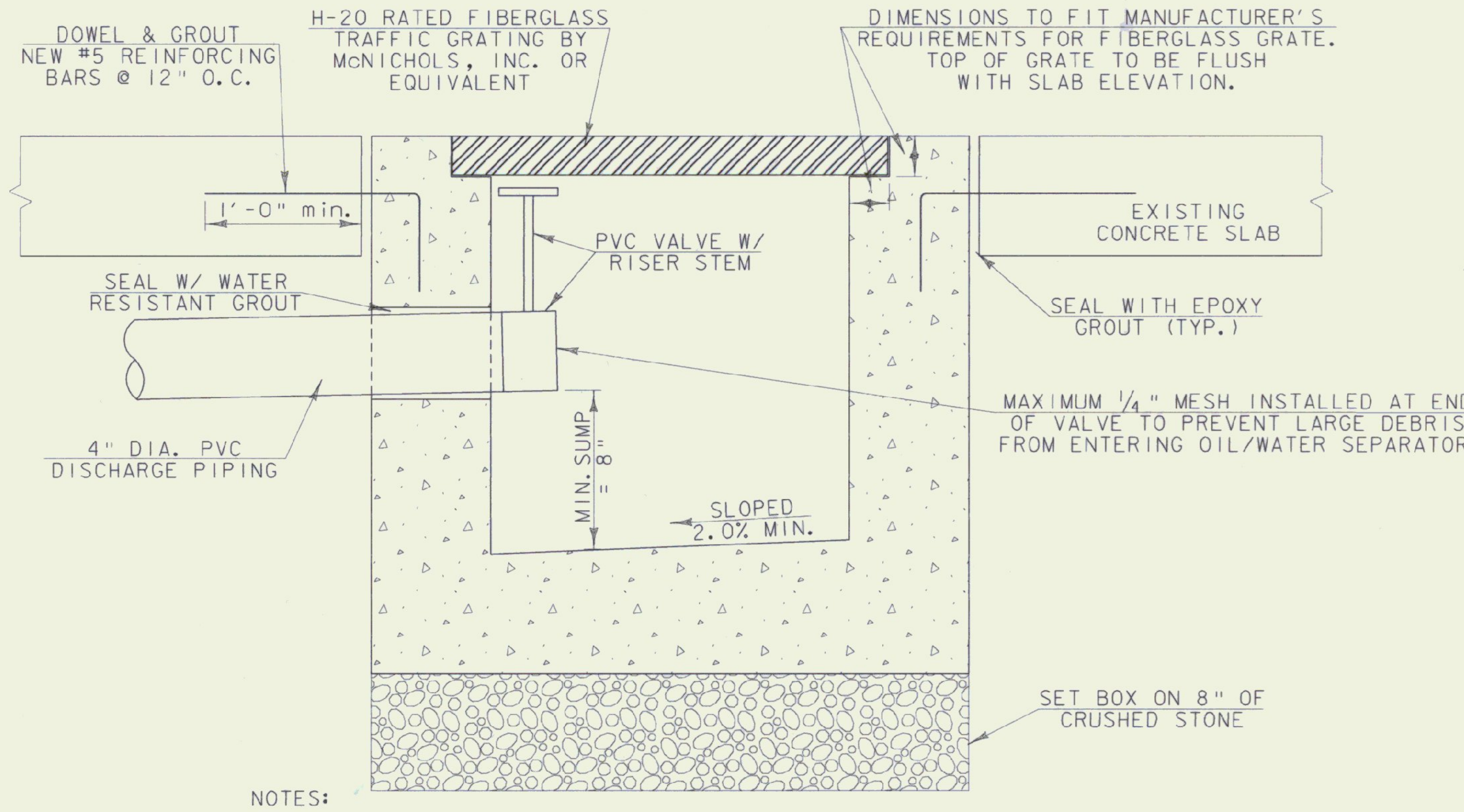
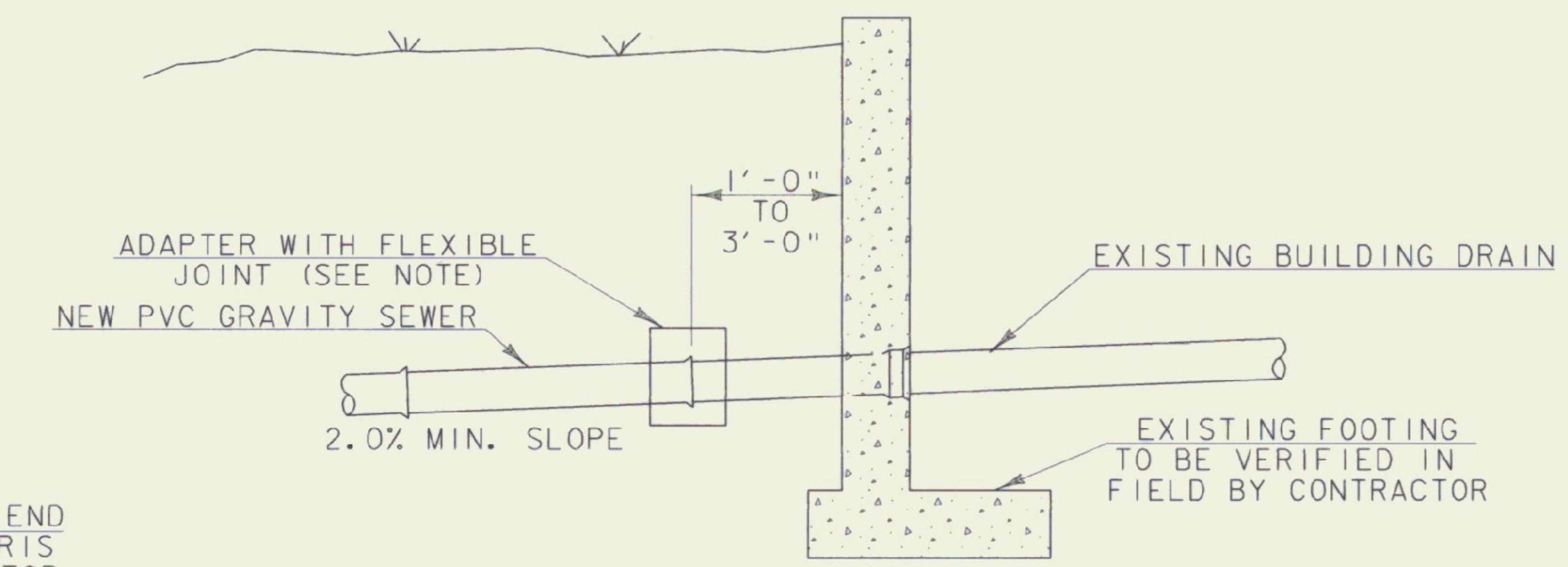


NOTES:

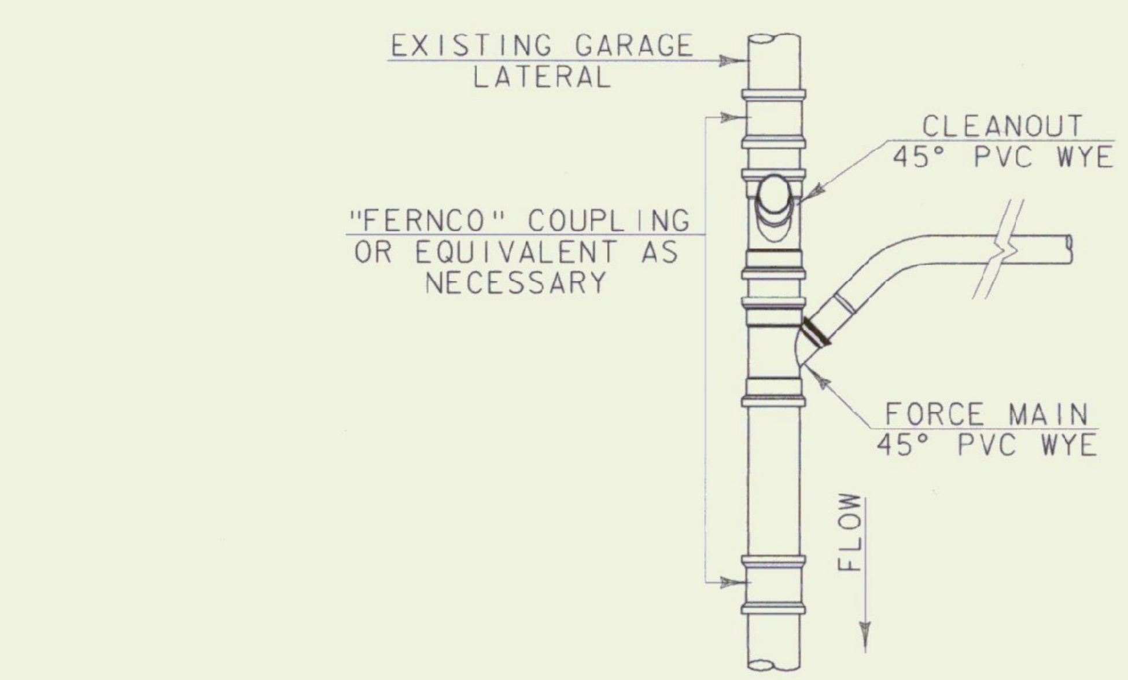
1. BOX EXTERIOR WALL DIMENSIONS ARE 2'-6" LONG x 2'-2" WIDE x 2'-3" HIGH W/ 6" WALLS.
2. SAW CUT EXISTING CONCRETE SLAB. DRILL & DOWEL EXISTING SLAB. POUR CONCRETE TO MATCH EXISTING SLAB GRADE & ALLOW FOR POSITIVE DRAINAGE.
3. STEEL REINFORCEMENT PER VTRANS STANDARD D-8 "REINFORCED CONCRETE DROP INLET W/ PRECAST COVER". CONTRACTOR TO ALTER STEEL LENGTHS AS NECESSARY.
4. CONCRETE MIX TO MEET CLASS "B" REQUIREMENTS PER VTRANS MATERIALS SPECIFICATIONS.

CAST-IN-PLACE FLOOR DRAIN & GRIT COLLECTION CHAMBER



NOTE:
JOINTS SHALL HAVE A NEOPRENE OR ELASTOMERIC GASKET FOR WATERTIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, APPROPRIATE ADAPTERS SUCH AS "FERNCO" OR EQUIVALENT SHALL BE USED.

BUILDING SEWER CONNECTION



PRESSURE SEWER SYSTEM SPECIFICATIONS FOR ISLAND POND STATE HIGHWAY GARAGE

VTrans Standard Specifications for Construction

All Materials and installations to be in conformance with VTrans Standard Specifications for Construction, 2001, except the items listed below. Installation shall be executed in an workman like manner:

Materials

Force Main: Shall be 1¼" diameter Heavy Duty Polyethylene pipe, rated 200 psi.

Force Main Joints & Fittings: Shall be pressure rated at or above the Force Main pipe specified. 90 degree angle bends are not to be used without written permission of the Engineer. Joints are to be secured with stainless steel bands.

Gravity Sewer: Shall be 4 inch diameter SDR 35 PVC pipe with push on joints. Gravity Sewer shall be installed with invert elevations as indicated on the plans and shall have a minimum slope of 2.00%.

Gravity Sewer Joints & Fittings: Joints shall be assembled such that bell ends of the pipe are facing up slope and spigot ends are correspondingly facing down slope. Where existing materials do not allow fitted joint connection with new SDR 35 pipe, couplings similar or equal to "FERNCO" may be used.

Utility Conduit: Electric service shall be installed in conduit as indicated on the plans or a min diameter SCH 40 PVC electrical conduit. Joints shall be push-on solvent-welded type and shall be installed with marker tape installed 6" directly above the top of the conduit. Conduit shall be terminated as indicated on the plans and shall be capped with an acceptable manufactured cap. Conduit to be installed w/ wire included. All wire to conform to NEC and State and Local codes.

Pump Chamber: The pump chamber shall be watertight, pre-cast concrete manhole with booted pipe connections.

Pump Chamber Appurtenances: A double rail pump lift system with brass/bronze castings, top guide rail bracket, wall stand-off brackets, and rail foot. Rails to be ¾" stainless steel. System to be for 2" discharge/ disconnect. Provide stainless steel lifting chains. System to be Goulds Pump Simplex System, Campbell Manufacturing Disconnect System, or approved equal.

Pump: Shall be a submersible, effluent type pump with a minimum capacity of 20 gallons per minute against a total head of 25 feet. Pump shall be of cast iron construction with a stainless steel shaft. The pump motor shall be a minimum 4/10 HP, single phase, 230 volt, 60 Hz. Pump shall be capable of handling ¾" solids. Pump shall be ABS "Scavenger" model SE4v, GOULDS 3885-WE Series, Model WE05H, or approved equal.

Control Panel: Shall be a Simplex NEMA 4X panel. Panel to be single phase, 60 Hz, 230 volt. Panel to include through door mounted H-O-A switch and run light. Control panel shall be equipped with a visual and audible alarm for high water and low water. Switches shall be mercury activated float type. One switch for each function shall be installed: pump on, pump off, high water alarm, low water alarm. Control panel also to include cycle counter. Panel shall be Goulds Pumps "A" Series Electrical Control Panel, Ohio Electrical Control, Inc., "Cougar" Series Control Panel, or approved equal.

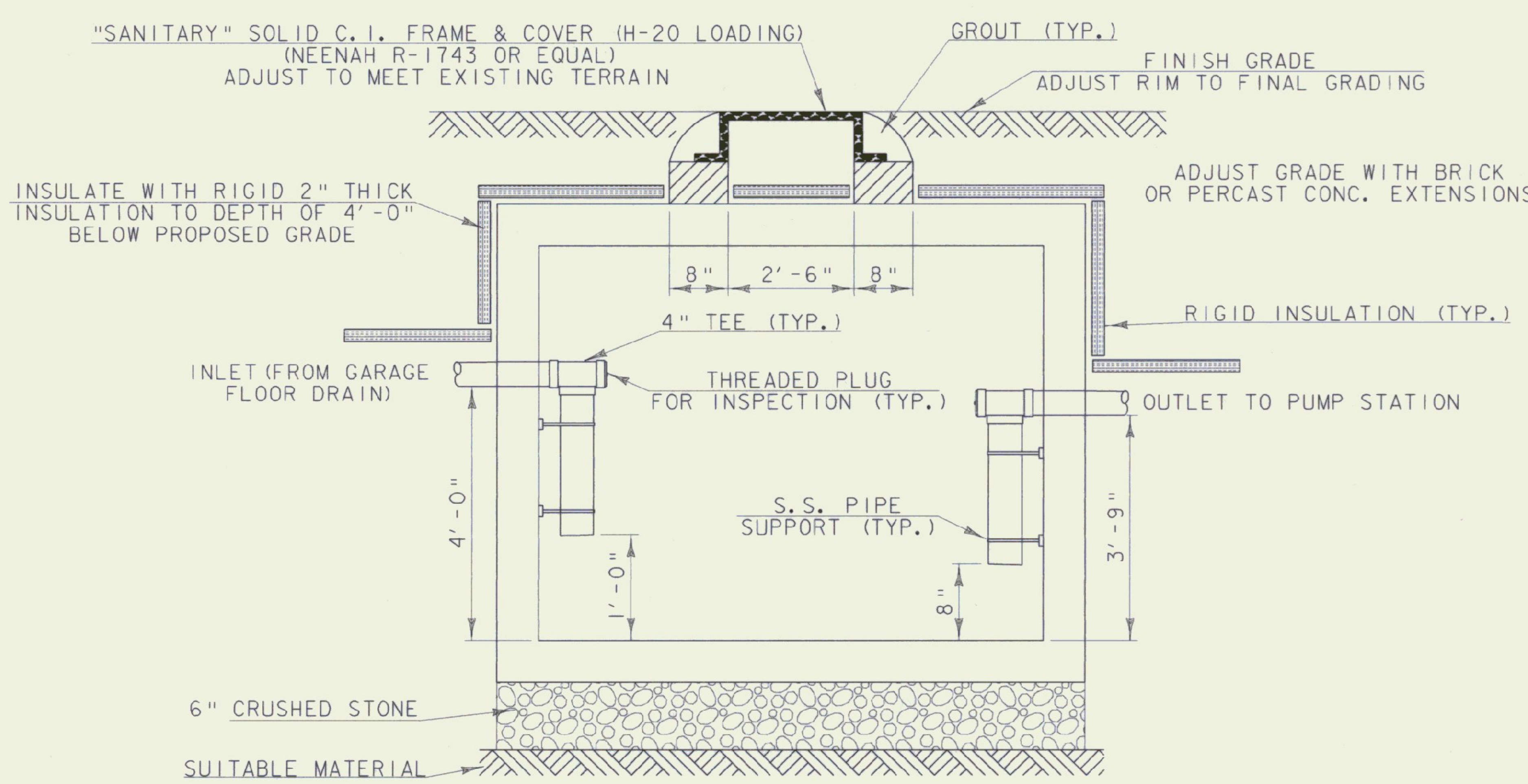
Rigid Styrofoam Insulation: Shall be 2 inch thick "Blue Board" with tongue and groove edges manufactured by Dow Industries or equivalent..

Cast-In-Place Grit Chamber: Grit chamber shall be cast into existing concrete slab. Saw cut existing slab and dowel and grout reinforcing steel as indicated on the Detail. Existing concrete drainage trough in garage shall be ground or otherwise shaped to appropriate grade to provide positive drainage into new grit chamber. Install fiberglass grate per manufacturers instruction.

Capping of Existing Pipes: Existing sewer and drainage pipes shall be capped with cast-in-place concrete or other suitable means.

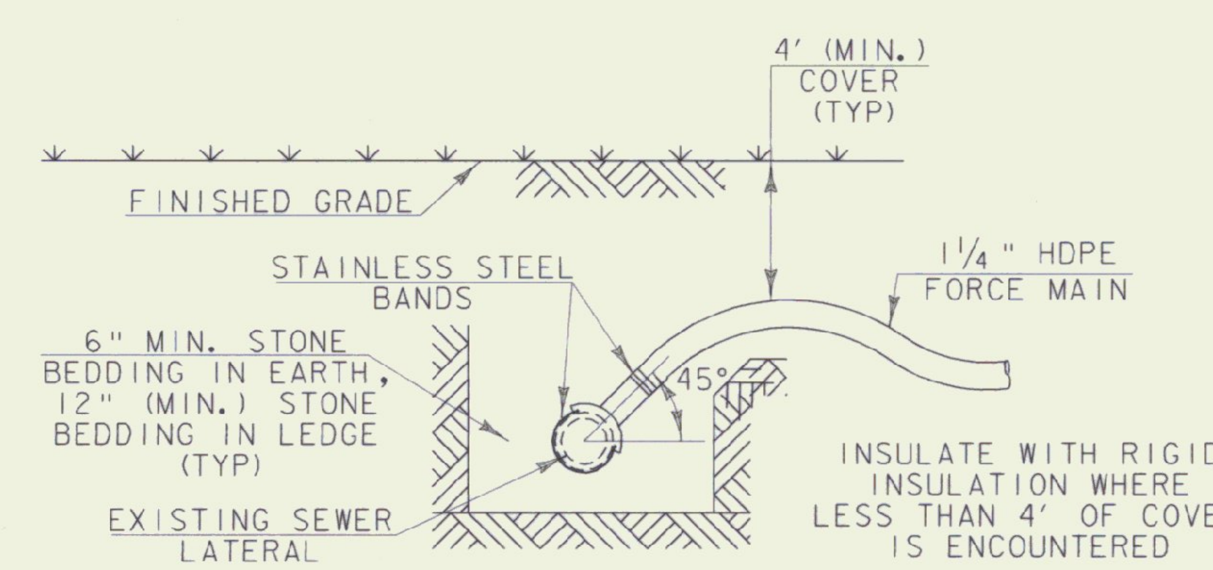
Testing

Once the entire sewer system has been installed it shall be pressure tested by the Contractor. The gravity and Force Main shall be tested in accordance with E.P.A. Small Scale Wastewater Treatment and Disposal Rules, 1996, Chapter 1, Appendix 1-A, Section 1-A-02 and Section 1-A-04 respectively.

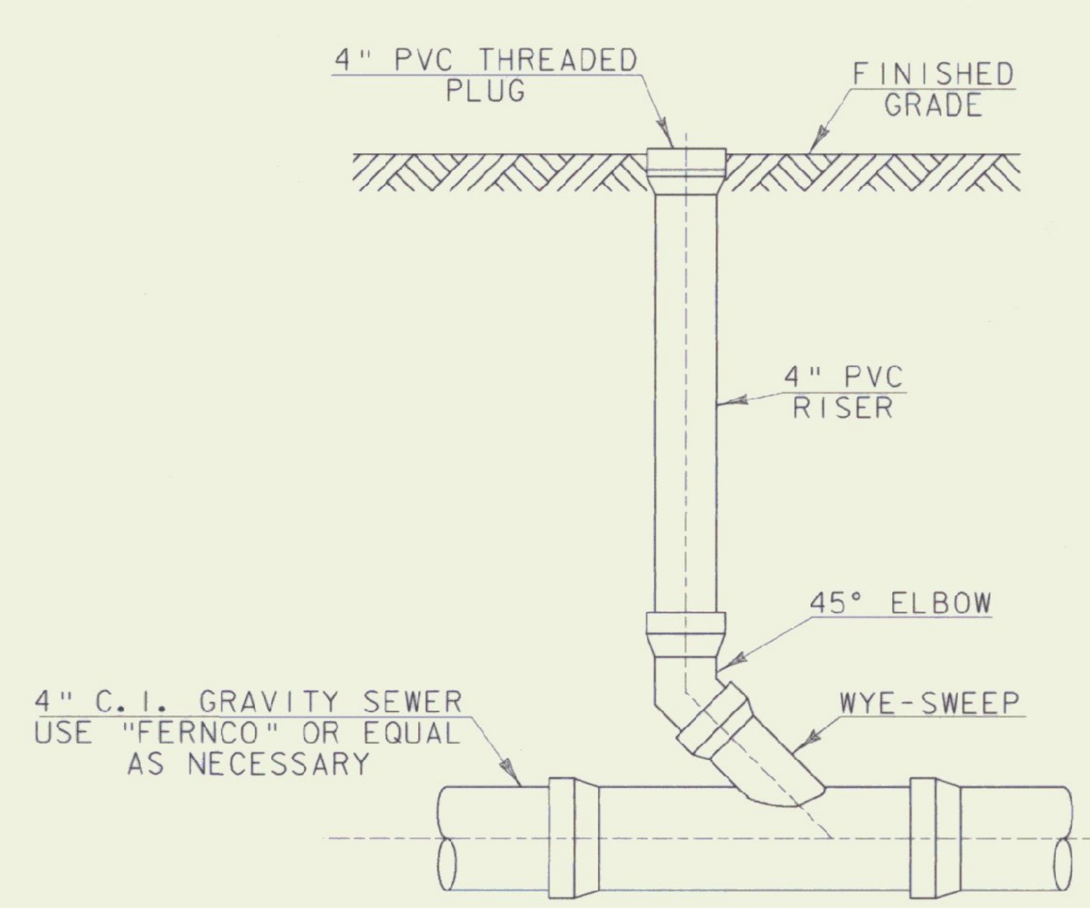


NOTES:
1. THE OIL SEPARATOR CHAMBER SHALL BE A 1000 GALLON SEPTIC TANK WITH 30" OPENING. THE CONCRETE SECTIONS SHALL BE CAPABLE OF WITHSTANDING H-20 LOADING. PIPE PENETRATIONS SHALL BE SEALED BY FLEXIBLE WATERTIGHT BOOTS.
2. THE EXTERIOR OF THE BOX SHALL RECEIVE TWO COATS OF ASPHALTIC SEAL COATING AT THE FACTORY.
3. JOINTS BETWEEN THE CONCRETE SECTIONS SHALL BE SEALED BY BUTYL-MASTIC (AASHTO M-198).
4. INTERIOR PIPING SHALL BE RESTRAINED WITH STAINLESS STEEL VERTICAL PIPE SUPPORTS.
5. THE OIL SEPARATOR CHAMBER SHALL BE FILLED WITH WATER AND SUBJECTED TO A 24 HOUR HYDROSTATIC LEAKAGE TEST.
6. NO LEAKAGE WILL BE ALLOWED DURING THE TEST PERIOD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A WATERTIGHT STRUCTURE.
7. INTERIOR PIPING SHALL BE PVC SCH 40. FITTINGS SHALL BE SOLVENT WELD TYPE.

OIL SEPARATOR



TYPICAL FORCE MAIN SEWER CONNECTION



SEWER CLEANOUT

ALL DETAILS NOT TO SCALE

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PROJECT NAME: ISLAND POND STATE HIGHWAY GARAGE	
PROJECT NUMBER: 01-0120	
FILE NAME: 01-0120idet.dgn	PLOT DATE: 01/22/2002
PROJECT LEADER: CIH	DRAWN BY: PGJ
DESIGNED BY: JMS	CHECKED BY: JMS
CLD REFERENCE NO.: 01-0120	SHEET 4 OF 4