

NOTES:

1. THERE SHALL BE NO PARGING OF INTERIOR SURFACES WITH MORTAR. ALL JOINTS SHALL BE SEALED ON EXTERIOR SURFACES ONLY.
2. REFER TO THE WRITTEN SPECIFICATIONS FOR BACKFILL AND COMPACTION REQUIREMENTS
3. REFER TO THE WRITTEN SPECIFICATIONS FOR SANITARY SEWER STRUCTURE MATERIAL REQUIREMENTS AND TESTING REQUIREMENTS.
4. RAISE FRAME TO FINISH GRADE ONLY AFTER BASE COURSE OF PAVEMENT IS IN PLACE. RAISE FRAME TO BASE COURSE GRADE IF WEARING COURSE IS TO BE PLACED NEXT CONSTRUCTION SEASON.
5. CAST IN PLACE RUBBER BOOTS SHALL BE USED ON ALL SEWER CONNECTIONS. A CORE-N-SEAL STYLE BOOT MAY BE USED UPON TOWN APPROVAL.
6. HIGH STRENGTH NON-SHRINK GROUT SHALL BE USED TO SET FRAME AND GRADE RINGS.
7. IN GRASS AREAS, FRAME AND COVER ARE TO BE INSTALLED A MINIMUM OF 6" ABOVE GRADE.
8. BACKFILL MANHOLES WITH MATERIAL APPROVED BY TOWN.
9. IF THE INVERT IN ELEVATION IS GREATER THAN 2' ABOVE THE INVERT OUT ELEVATION, REFER TO FIGURE A-21 FOR AN INSIDE DROP MANHOLE.
10. FRAME AND COVER SHALL CONFORM TO H-20 LOADING REQUIREMENTS.
11. INSERT A SECTION OF PVC CONDUIT OR TUBING THROUGH THE SIDEWALL OF THE STRUCTURE AS SHOWN FOR THE TRACER WIRE TO ENTER THE STRUCTURE. ONCE THE TRACER WIRE IS INSTALLED, SEAL THE VOID BETWEEN THE CONDUIT OR TUBING AND THE TRACER WIRE WITH A WATERPROOF SEALANT. INSIDE THE MANHOLE, A COIL OF WIRE LONG ENOUGH TO REACH THE COVER SHALL BE ATTACHED TO THE INSIDE OF THE STRUCTURE BY MEANS OF PLASTIC "ZIP-TIES" TO A STAINLESS STEEL RING.



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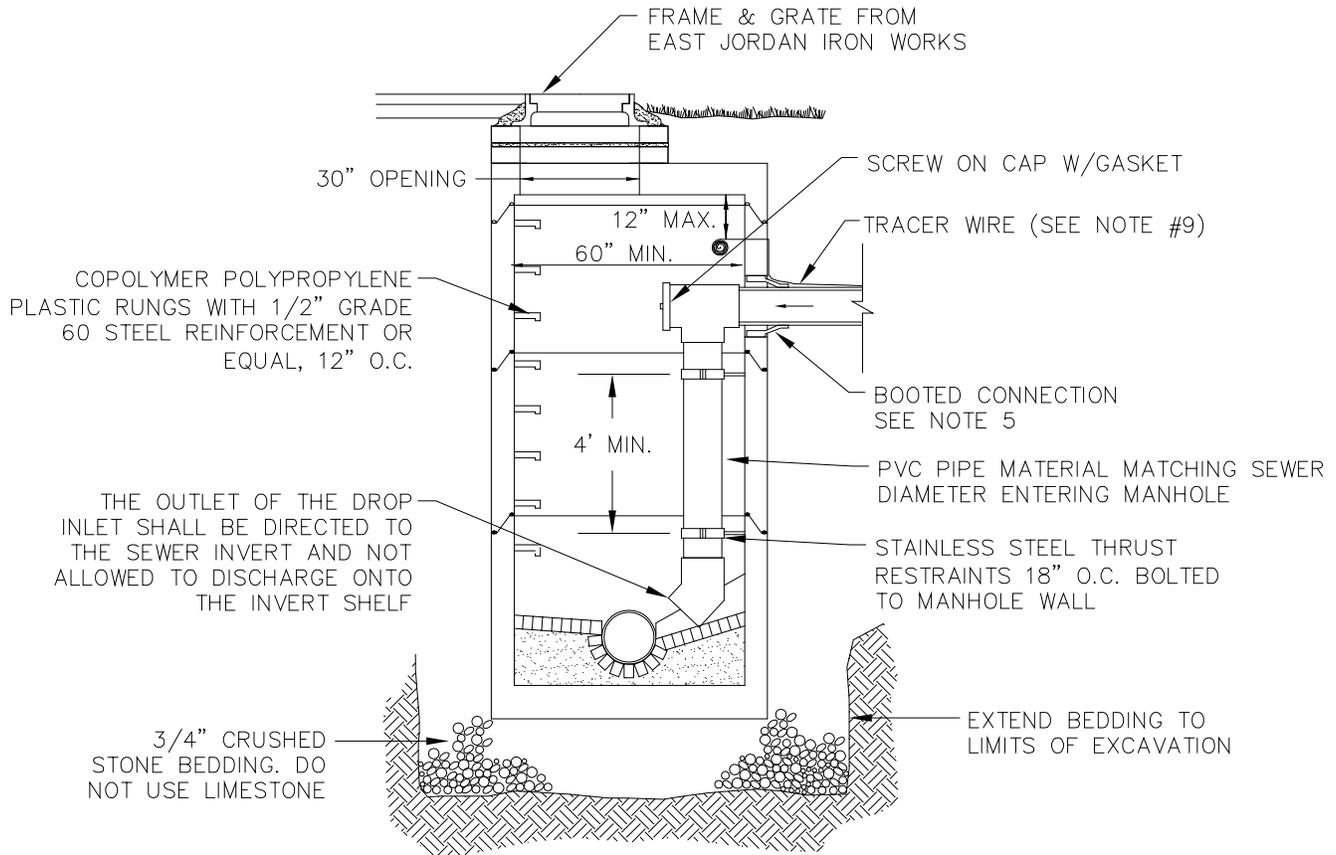
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**TOWN OF ESSEX, VERMONT
STANDARD SPECIFICATIONS FOR CONSTRUCTION**

SANITARY SEWER MANHOLE

Detail No: 300.01
Scale: NOT TO SCALE
Date: MAR. 2017

A-22



NOTES:

1. ALL STANDARDS FOUND IN DETAIL 300.01 SHALL BE REFERENCED FOR DIRECTION.
2. REFER TO DETAIL 300.01 FOR PAY LIMITS OF EXCAVATION AND BEDDING REQUIREMENTS
3. REFER TO THE WRITTEN SPECIFICATIONS FOR SANITARY SEWER STRUCTURE MATERIAL REQUIREMENTS AND TESTING REQUIREMENTS.
4. RAISE FRAME TO FINISH GRADE ONLY AFTER BASE COURSE OF PAVEMENT IS IN PLACE. RAISE FRAME TO BASE COURSE GRADE IF WEARING COURSE IS TO BE PLACED NEXT CONSTRUCTION SEASON.
5. CAST IN PLACE RUBBER BOOT SHALL BE USED ON ALL SEWER CONNECTIONS. A CORE-N-SEAL STYLE BOOT MAY BE USED UPON TOWN APPROVAL.
6. HIGH STRENGTH NON-SHRINK GROUT SHALL BE USED TO SET FRAME AND GRADE RINGS
7. IN GRASS AREAS, FRAME AND COVER ARE TO BE INSTALLED A MINIMUM OF 6" ABOVE GRADE
8. FRAME AND GRATE SHALL CONFORM TO H-20 LOADING REQUIREMENTS.
9. INSERT A SECTION OF PVC CONDUIT OR TUBING THROUGH THE SIDEWALL OF THE STRUCTURE AS SHOWN FOR THE TRACER WIRE TO ENTER THE STRUCTURE. ONCE THE TRACER WIRE IS INSTALLED, SEAL THE VOID BETWEEN THE CONDUIT OR TUBING AND THE TRACER WIRE WITH A WATERPROOF SEALANT. INSIDE THE MANHOLES, A COIL OF WIRE LONG ENOUGH TO REACH THE COVER SHALL BE ATTACHED TO THE INSIDE OF THE STRUCTURE BY MEANS OF PLASTIC "ZIP-TIES" TO A STAINLESS STEEL RING.



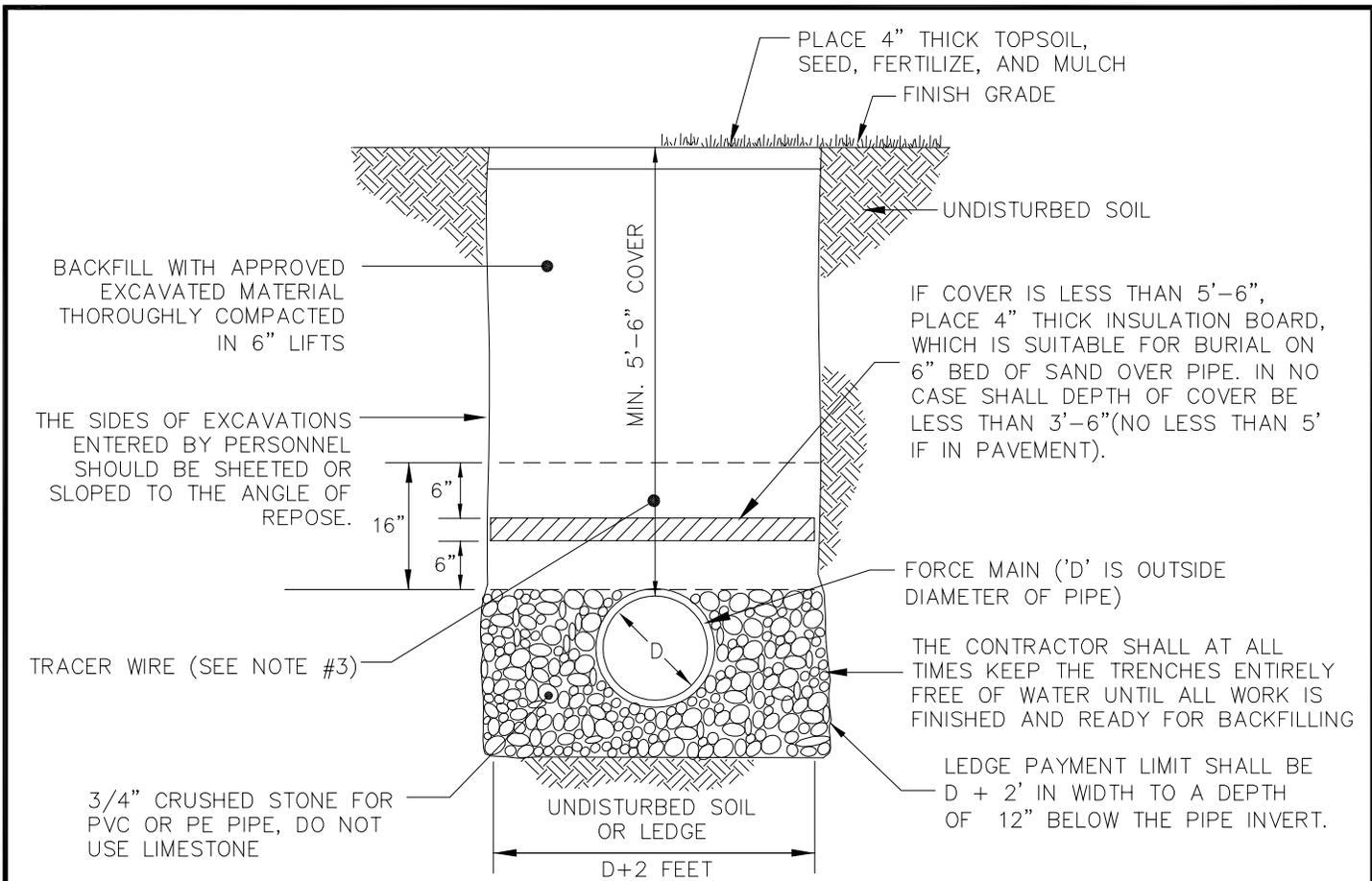
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**TOWN OF ESSEX, VERMONT
STANDARD SPECIFICATIONS FOR CONSTRUCTION**

INSIDE DROP MANHOLE

Detail No: 300.03
Scale: NOT TO SCALE
Date: JAN. 2017

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FORCE MAIN SPECIFICATIONS

1. PLACE THRUST BLOCKS AT ALL FORCE MAIN BENDS.
2. **TESTING:** THE CONTRACTOR SHALL FURNISH ALL FACILITIES AND PERSONNEL FOR CONDUCTING THE FOLLOWING TEST. THE FORCE MAIN SHALL BE FILLED WITH WATER AND TESTED BY THE CONTRACTOR TO A MINIMUM PRESSURE OF 50 PSI AT THE HIGHEST POINT ALONG THE FORCE MAIN FOR TWO HOURS AND THE PRESSURE SHALL NOT VARY MORE THAN 5 PSI. THE NEW LINES SHALL NOT BE ACCEPTED IF THE LEAKAGE DURING THE TWO-HOUR TEST IS GREATER THAN THAT DETERMINED BY THE FOLLOWING FORMULA.

$$L = \frac{ND \sqrt{P}}{7,400}$$
 WHERE L = THE ALLOWABLE LEAKAGE IN GALLONS PER HOUR
 N = THE NUMBER OF JOINTS IN THE LENGTH OF PIPELINE TESTED
 D = THE NOMINAL DIAMETER OF THE PIPE IN INCHES
 P = THE AVERAGE TEST PRESSURE MEASURED IN LBS/SQ IN

LEAKAGE IS DEFINED AS THE QUANTITY OF WATER THAT MUST BE SUPPLIED INTO THE NEWLY LAID PIPE TO MAINTAIN THE PRESSURE OF 50 PSI. THE CONTRACTOR SHALL AT ONCE LOCATE ANY LEAKS AND ACHIEVE THE ACCEPTABLE LIMIT AT NO EXTRA CHARGE TO THE OWNER.

3. INSTALL A CONTINUOUS SHEATHED SOLID CONDUCTOR COPPER TRACER WIRE OVER PIPE. THE WIRE SHALL BEGIN INSIDE ONE MANHOLE AND RUN TO THE NEXT MANHOLE. INSIDE THE MANHOLES, A COIL OF WIRE LONG ENOUGH TO REACH THE COVER SHALL BE ATTACHED TO THE INSIDE OF THE STRUCTURE. SEE DETAILS 300.01 AND 300.03.



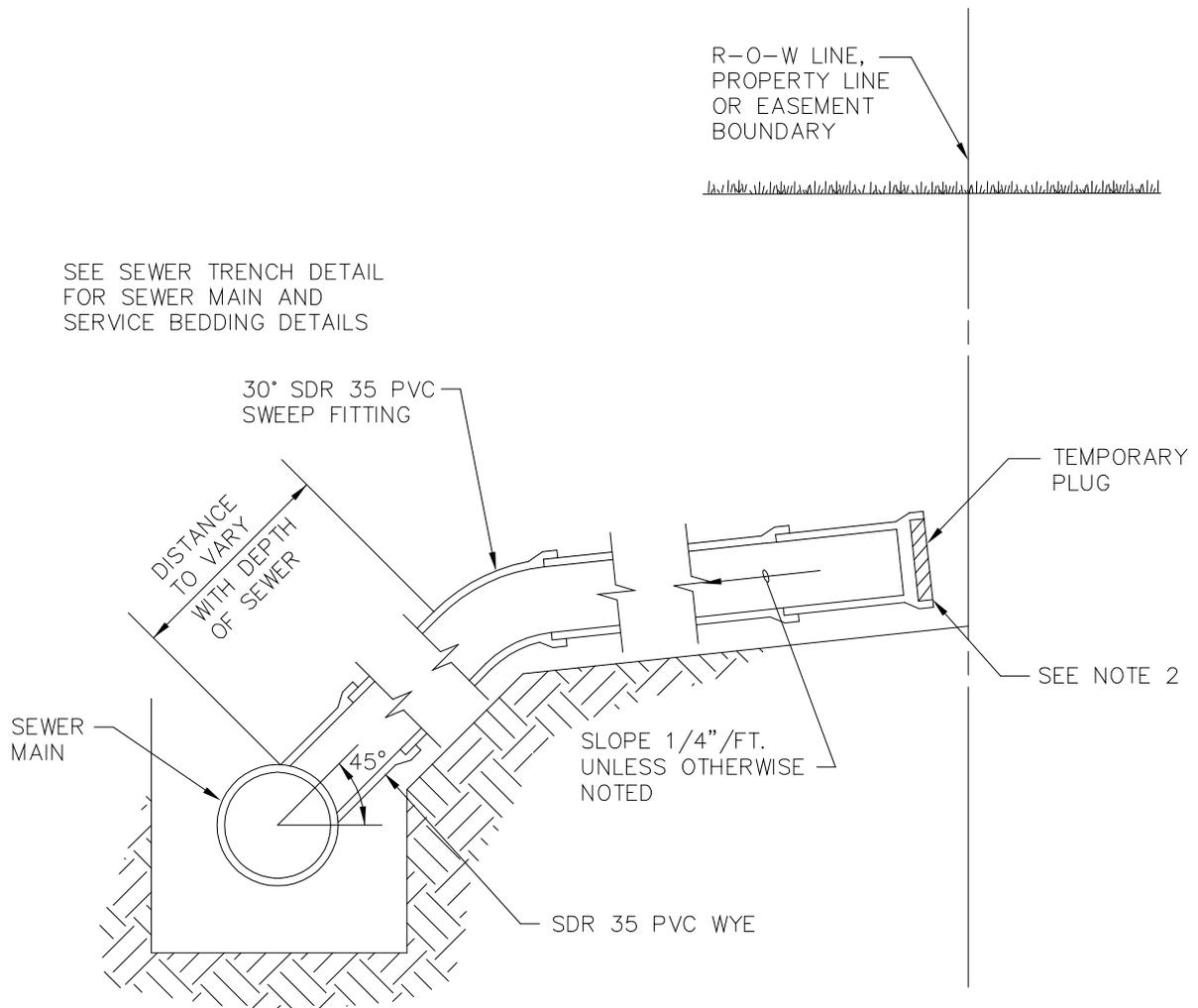
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TOWN OF ESSEX, VERMONT
STANDARD SPECIFICATIONS FOR CONSTRUCTION

SANITARY SEWER TRENCH
(FORCEMAIN)

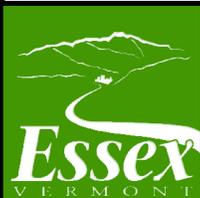
Detail No: 300.05
Scale: NOT TO SCALE
Date: JAN. 2017

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NOTES :

1. ALL SANITARY SEWER SERVICE PIPING WITHIN THE TOWN RIGHT OF WAY SHALL BE 6" SDR 35 PVC.
2. ALL CONNECTIONS TO THE NEW SERVICE SHALL BE WITH SDR 35 PVC FITTINGS OR APPROVED EQUAL. FERNCO STYLE FLEXIBLE COUPLINGS SHALL NOT BE USED.
3. ALL WORK SHALL CONFORM TO THESE SPECIFICATIONS AND DETAIL 300.04, SANITARY SEWER TRENCH (GRAVITY).



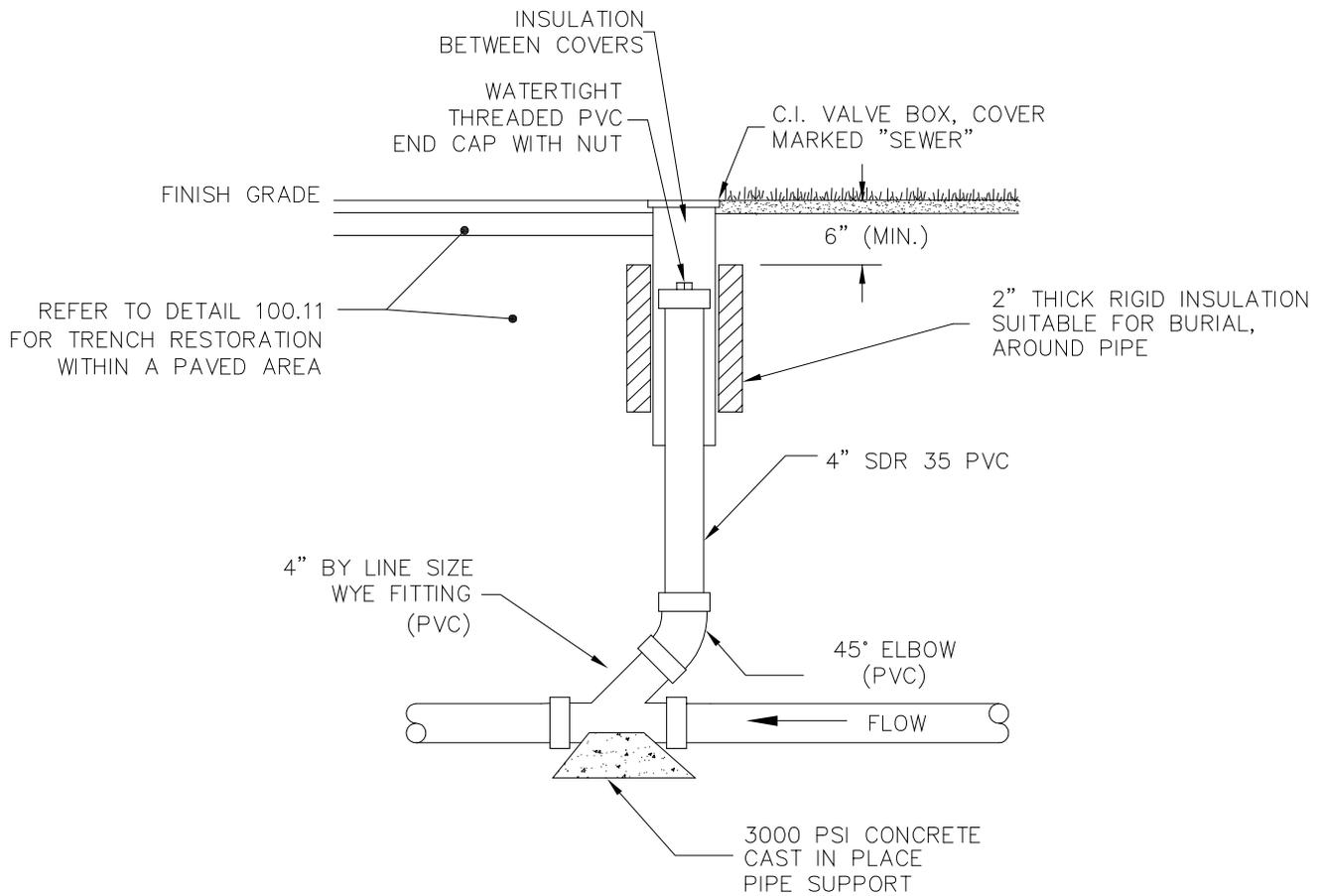
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TOWN OF ESSEX, VERMONT
STANDARD SPECIFICATIONS FOR CONSTRUCTION

SERVICE CONNECTION

Detail No:	300.06
Scale:	NOT TO SCALE
Date:	JAN. 2017

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NOTES :

1. CLEANOUTS FOR GRAVITY SEWERS AND FORCE MAINS SHALL BE PROVIDED AT LOCATIONS INDICATED ON THE PLANS OR AS DIRECTED BY THE TOWN OR ENGINEER.
2. CLEANOUT FRAMES AND COVERS SHALL BE CAST IRON.
3. ALL PIPING AND FITTINGS WITHIN THE TOWN RIGHT OF WAY SHALL BE A MINIMUM OF 6".



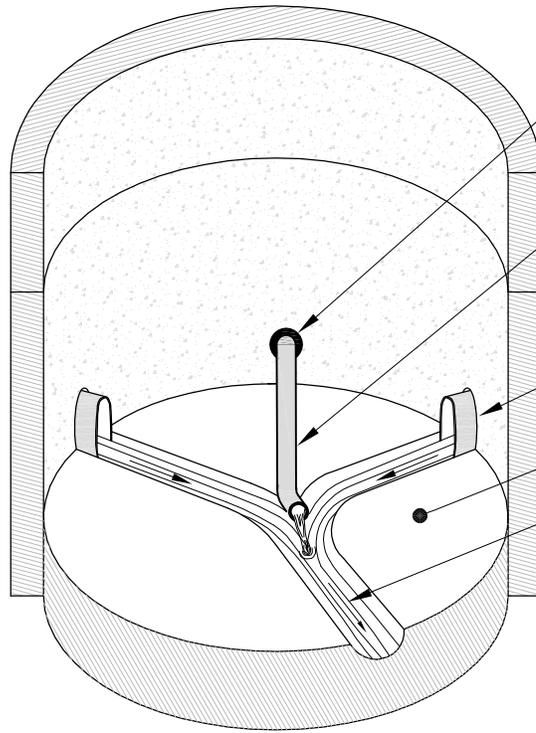
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**TOWN OF ESSEX, VERMONT
STANDARD SPECIFICATIONS FOR CONSTRUCTION**

SANITARY SEWER CLEANOUT

Detail No:	300.07
Scale:	NOT TO SCALE
Date:	JAN. 2017
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CORE HOLE ABOVE EXISTING SHELF TO ACCOMMODATE THE NEW FORCEMAIN PIPE. ADD A NEW CORE AND SEAL BOOTED CONNECTION OR EQUAL.

NEW FORCE MAIN INLET INVERT TO BE 1" MIN. ABOVE EXISTING SHELF AND DIRECTED INTO EXISTING FLOW CHANNEL

EXISTING SEWER LINE INLET, TYP.

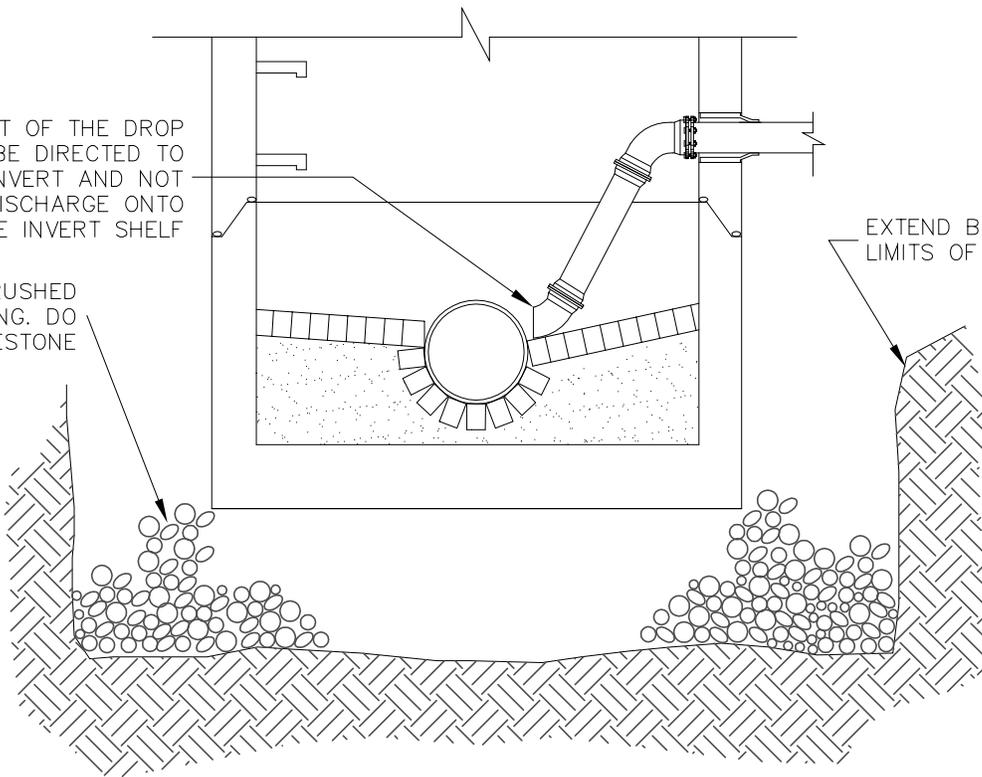
SHELF

DIRECTION OF FLOW

THE OUTLET OF THE DROP INLET SHALL BE DIRECTED TO THE SEWER INVERT AND NOT ALLOWED TO DISCHARGE ONTO THE INVERT SHELF

3/4" CRUSHED STONE BEDDING. DO NOT USE LIMESTONE

EXTEND BEDDING TO LIMITS OF EXCAVATION



TOWN OF ESSEX, VERMONT
STANDARD SPECIFICATIONS FOR CONSTRUCTION

FORCEMAIN MANHOLE
CONNECTION

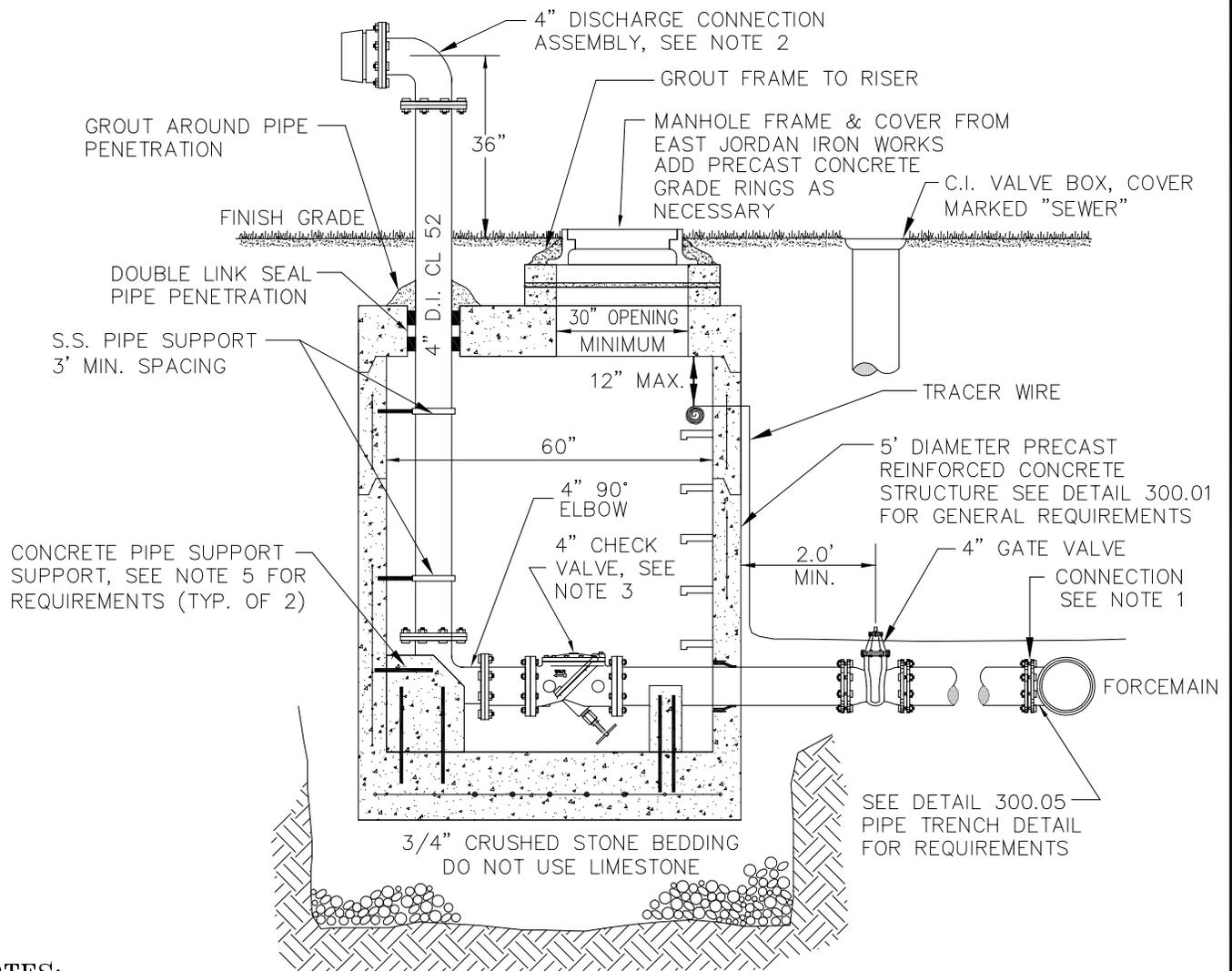
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NOTES:

1. THE CONNECTION TEE TO THE EXISTING FORCEMAIN SHALL BE (LINE SIZE) X (LINE SIZE) X (4").
2. THE DISCHARGE CONNECTION ASSEMBLY SHALL BE A FLANGED, DUCTILE IRON, 90° ELBOW, WITH A 4" QUICK CONNECTION WITH LOCKING CAP.
3. 4" CHECK VALVE SHALL BE VALMATIC, SWING FLEX CHECK VALVE OR APPROVED EQUAL.
4. ALL PIPING SHALL BE 4" CLASS 52 DUCTILE IRON, FLANGED PIPING UNLESS OTHERWISE SPECIFIED.
5. CAST IN PLACE RUBBER BOOT SHALL BE USED ON ALL SEWER CONNECTIONS. A CORE-N-SEAL STYLE BOOT CAN BE USED UPON TOWN APPROVAL.
6. HIGH STRENGTH NON-SHRINK GROUT SHALL BE USED TO SET FRAME AND GRADE RINGS
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TOWN OF ESSEX, VERMONT
STANDARD SPECIFICATIONS FOR CONSTRUCTION

AUXILIARY DISCHARGE
MANHOLE

Detail No: 300.09
Scale: NOT TO SCALE
Date: JAN. 2017

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