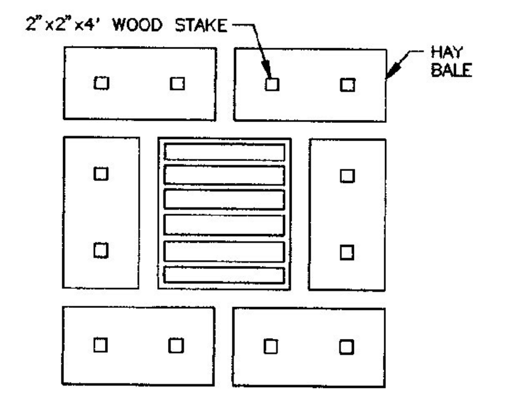
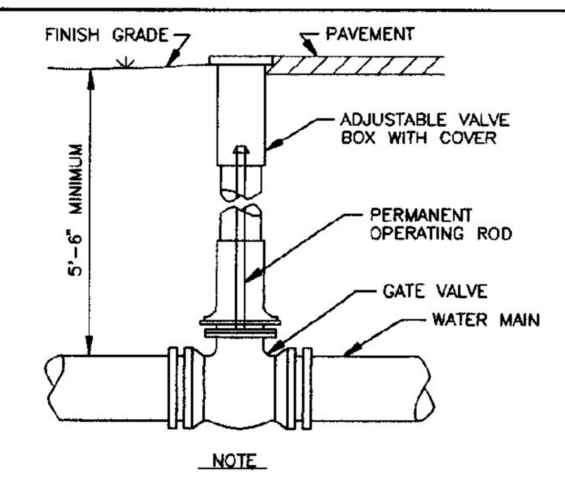
DRAWING FILE: 98074C1 VIEW: PLOTTING DATE: AUGUST 13, 1999



HAY BALE INLET PROTECTION

NOT TO SCALE

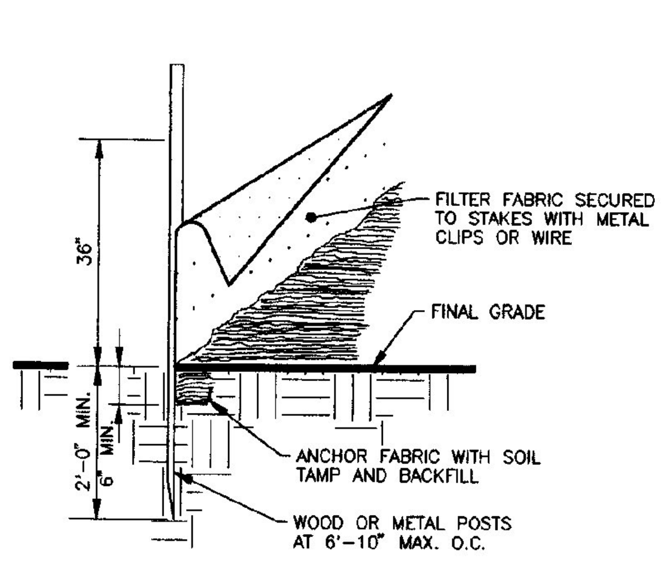


NOTE

UNLESS OTHERWISE INDICATED ALL GATE VALVES SHALL HAVE PERMANENTLY INSTALLED OPERATING RODS TERMINATING AT LEAST 2'-0" AND NOT MORE THAN 3'-0" BELOW THE TOP OF THE VALVE BOX.

BURIED GATE VALVE DETAIL

NOT TO SCALE



SILT FENCE

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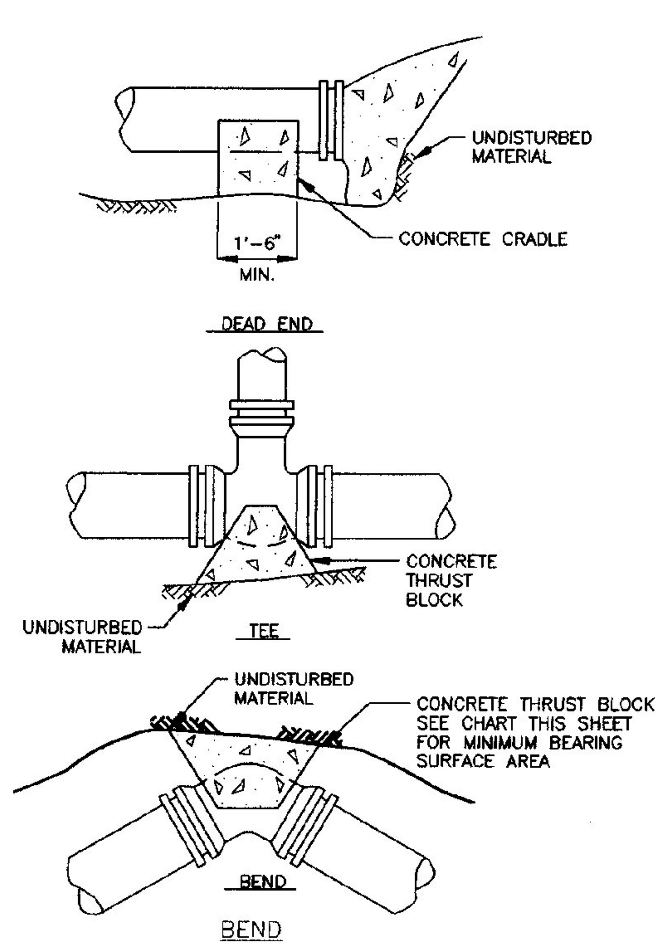


CONCRETE THRUST BLOCK DETAILS

NOT TO SCALE

EROSION CONTROL DURING CONSTRUCTION

1.BEFORE ANY CLEARING OR GRUBBING OF THE SITE IS INITIATED, AND DURING ALL EARTHWORK PHASES, SEDIMENT TRAPS (EROSION BARRIERS) SHALL BE CONSTRUCTED AND MAINTAINED AT THE INLET TO ALL STORM DRAINS, SWALES, AND DITCHES RECEIVING WATER FROM THE PROJECT. SEE TYPICAL DETAILS FOR TYPES AND BARRIERS.
2.ALL STOCKPILED SOIL SHALL BE ENCIRCLED WITH AN EROSION CONTROL BARRIER, UNLESS AN EXISTING BARRIER WILL ENTRAP ALL EROSION FROM SUCH A STOCKPILE OR THE STOCKPILE IS COMPLETELY COVERED WITH VEGETATION THAT PREVENTS EROSION.
3.AFTER EVERY STORM EACH SEDIMENT TRAP SHALL BE INSPECTED FOR FAILURES OR CLOGGING, AND ANY FAILURE OR CLOGGING SHALL BE RECTIFIED.
4.SEDIMENT TRAPS SHALL ALSO BE PLACED IN NEWLY CONSTRUCTED SWALES, DITCHES, OR OTHER WATERWAYS DURING THE CONSTRUCTION PERIOD. THE PLACING OF THESE TRAPS SHALL BE AS SHOWN ON THE PLANS. MAINTENANCE SHALL BE AS IN #3 ABOVE.
5.EROSION CONTROL BARRIERS INDICATED ON THE PLANS ARE THE MINIMUM NUMBER REQUIRED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO USE ADDITIONAL BARRIERS AS FIELD CONDITIONS DICTATE AND TO INSURE THAT ANY EROSION CREATED BY THIS PROJECT DOES NOT REACH THE STATE'S WATERWAYS OR LEAVE THE SITE.
6.NEW SWALES AND UNLINED DITCHES (AND ANY OTHER AREA SUBJECT TO CONCENTRATED STORM RUNOFF) SHALL BE FERTILIZED AND SEEDED WITH THE FOLLOWING MIXTURE TO AT LEAST TWO (2) FEET ABOVE THE CHANNEL BOTTOM:

SEED LBS/ACRE
CREEPING RED FESCUE20
REDTOP 2
SMOOTH BROMEGRASS20

AND SHALL HAVE MULCH APPLIED AT THE RATE OF 1-1/2 TONS PER ACRE.
7.WHERE THE INVERT OF NEW SWALES OR DITCHES EXCEEDS 2 PERCENT SLOPE, AND WHERE SLOPE GRADE EXCEEDS 50 PERCENT (1 ON 2 SLOPE), MATTING OR NETTING SECURELY ATTACHED TO THE GROUND SHALL BE PLACED OVER MULCH AND MAINTAINED UNTIL A PERMANENT GRASS COVER IS ESTABLISHED.
8.ALL DISTURBED TERRAIN AT FINAL GRADE SHALL BE SEEDED AND MULCHED WITHIN SEVEN DAYS OF COMPLETION, AND BY OCTOBER 1ST AT THE LATEST. BEFORE APPLYING FINAL SEEDING FOUR (4) INCH AVERAGE DEPTH OF TOPSOIL SHALL BE PLACED IN ALL DISTURBED AREAS TO BE SEEDED. SEED MIXTURES SHALL BE ONE OF THE FOLLOWING, AS APPROPRIATE:

EMBANKMENT/SLOPING GROUND LBS/ACRE
MIXTURE#1CREEPING RED FESCUE20
REDTOP 2
BIRDSFOOT TREFOIL 8
OR CROWNVETCH15
MIXTURE#2TALL FESCUE10
REDTOP 2
FLAT PEA (LATHCO)30
MIXTURE#3CREEPING RED FESCUE15
FLAT PEA (LATHCO)30
FLAT/LEVEL GROUND LBS/ACRE
MIXTURE#1KENTUCKY BLUE GRASS20
CREEPING RED FESCUE20
RYE (PERENNIAL), OR REDTOP 5
MIXTURE#2CREEPING RED FESCUE20
REDTOP 2
TALL FESCUE20

ALL NEWLY SEEDED AREA SHALL BE MULCHED AT A RATE OF TWO (2) TONS PER ACRE OF HAY, STRAW, OR WOODCHIPS. JUTE OR OTHER EQUAL NETTING SHALL BE USED WHERE WIND OR WATER MAY ERODE NEWLY-PLACED SEED OR MULCH. ALL NETTING, WHERE USED, SHALL BE STAKED TO THE GROUND IN COMPLIANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
9.ALL DISTURBED AREAS NOT AT FINAL GRADE, BUT THAT WILL NOT BE DISTURBED AGAIN FOR A PERIOD OF GREATER THAN SIXTY (60) DAYS, SHALL BE SEEDED WITH A TEMPORARY, RAPID-GROWING COVER CROP, SUCH AS RYE GRASS AND MILLET, AND SHALL BE MULCHED. NETTING SHALL ALSO BE APPLIED, IF NECESSARY, TO STABILIZE THE MULCH AND SEED.

EROSION BARRIER AND CONSTRUCTION SEQUENCE

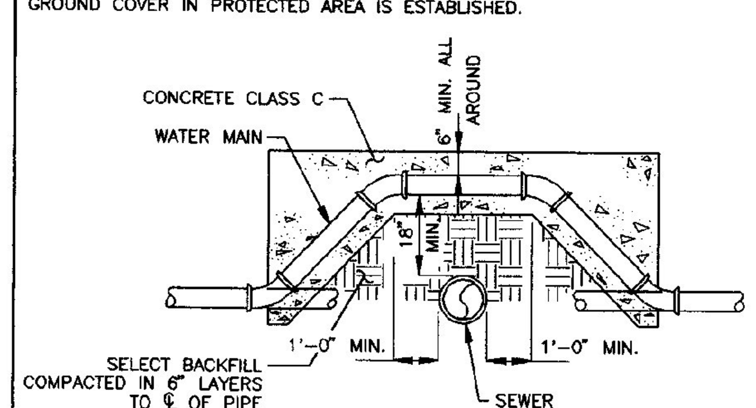
1.BEFORE ANY CONSTRUCTION BEGINS, AND MAINTAINED UNTIL ALL CONSTRUCTION IS COMPLETE OR ALL PERMANENT GROUND COVER IS ESTABLISHED.
2.BEFORE CONSTRUCTION IN AREA PROTECTED BEGINS, AND MAINTAINED UNTIL SUCH CONSTRUCTION IS COMPLETED. AS SOON AS PERMANENT STORM SEWER INLET STRUCTURE IS INSTALLED, AND MAINTAINED UNTIL ALL EARTHWORK IS COMPLETE IN AREA CONTRIBUTING STORM FLOWS AND PERMANENT GRASS COVER ESTABLISHED.
3.AS GRADING IN PROTECTED AREA PROGRESSES AND MAINTAINED UNTIL PERMANENT GROUND COVER IN PROTECTED AREA IS ESTABLISHED.

AREA OF BEARING FACE OF CONCRETE THRUST BLOCKS IN SQUARE FEET

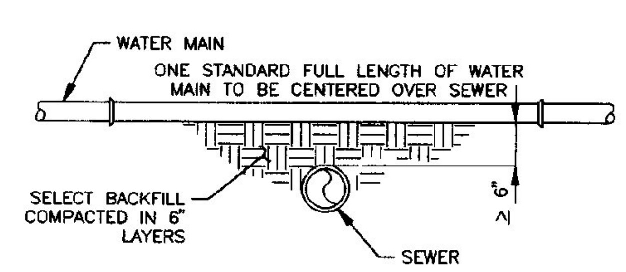
PIPE SIZE (IN)	SOFT WET CLAY, SAND OR SILT	DRY SAND	COMPACT COARSE SAND OR GRAVEL HARDPAN
DEAD END OR TEE			
8 OR LESS	15	5	4
10	24	8	6
12	34	11	8
16	60	20	15
20	94	31	24
24	136	45	34
1/4 BEND			
8 OR LESS	21	7	5
10	33	11	8
12	48	16	12
16	85	28	21
20	133	44	33
24	192	64	48
1/8 BEND			
8 OR LESS	12	4	3
10	18	6	5
12	26	9	7
16	46	15	12
20	72	24	18
24	104	35	26
1/16 BEND			
8 OR LESS	6	2	2
10	9	3	2
12	13	4	3
16	24	8	6
20	37	12	9
24	53	18	13

THRUST BLOCK TABLE NOTES

1. FIGURES BASED ON 300 PSI.
2. FOR PIPE SIZES NOT LISTED USE NEXT LARGER PIPE SIZE.
3. WHEN MORE THAN ONE SOIL TYPE IS ENCOUNTERED, THE ONE WITH LEAST BEARING CAPACITY SHALL BE USED.
4. RETAINING RODS OR RESTRAINED JOINT PIPE, AS APPROVED BY THE ENGINEER, SHALL BE USED IN PLACE OF THRUST BLOCKS WHEN MUCK IS ENCOUNTERED.



DETAIL NO.1 (PREFERRED)
WATER MAIN RELOCATION – ABOVE SEWER



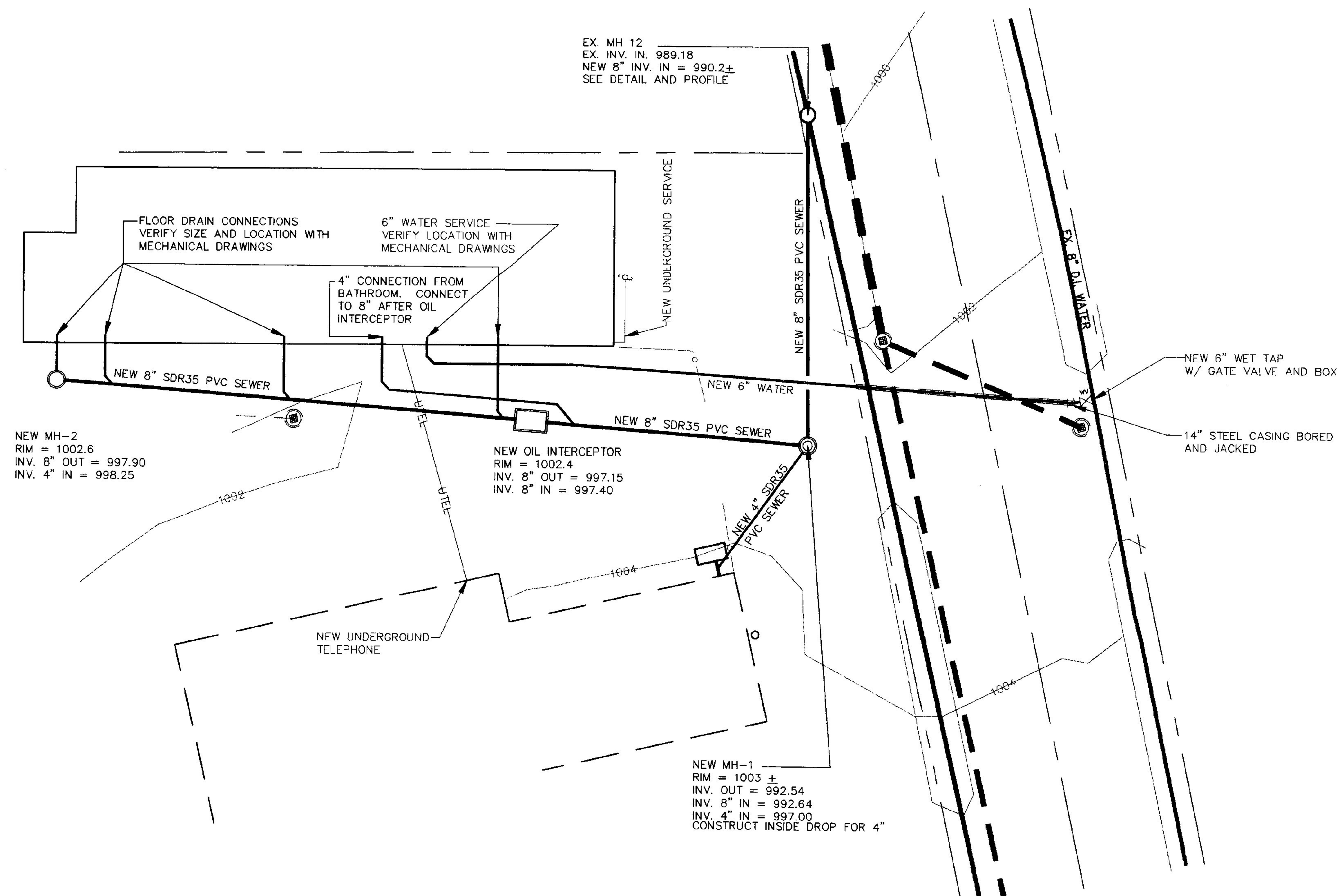
DETAIL NO.2
WATER MAIN LESS THAN 18" ABOVE SEWER

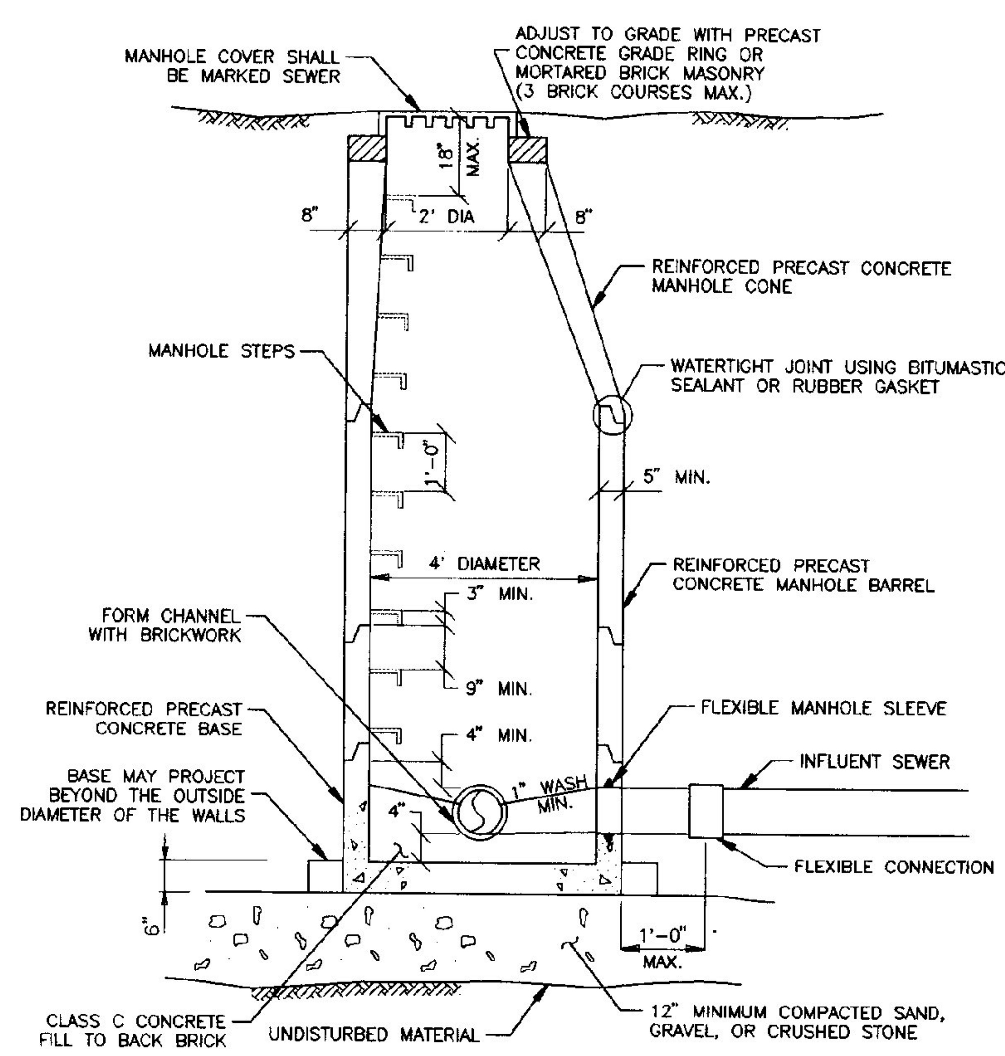
CROSSING DETAILS

NOT TO SCALE

NOTES

1. DETAILS NO.1 & NO.2 ALLOWABLE WATER PIPE DEFLECTIONS MAY BE USED TO ACCOMPLISH THE RELOCATIONS IN LIEU OF ELBOWS AND FITTINGS.



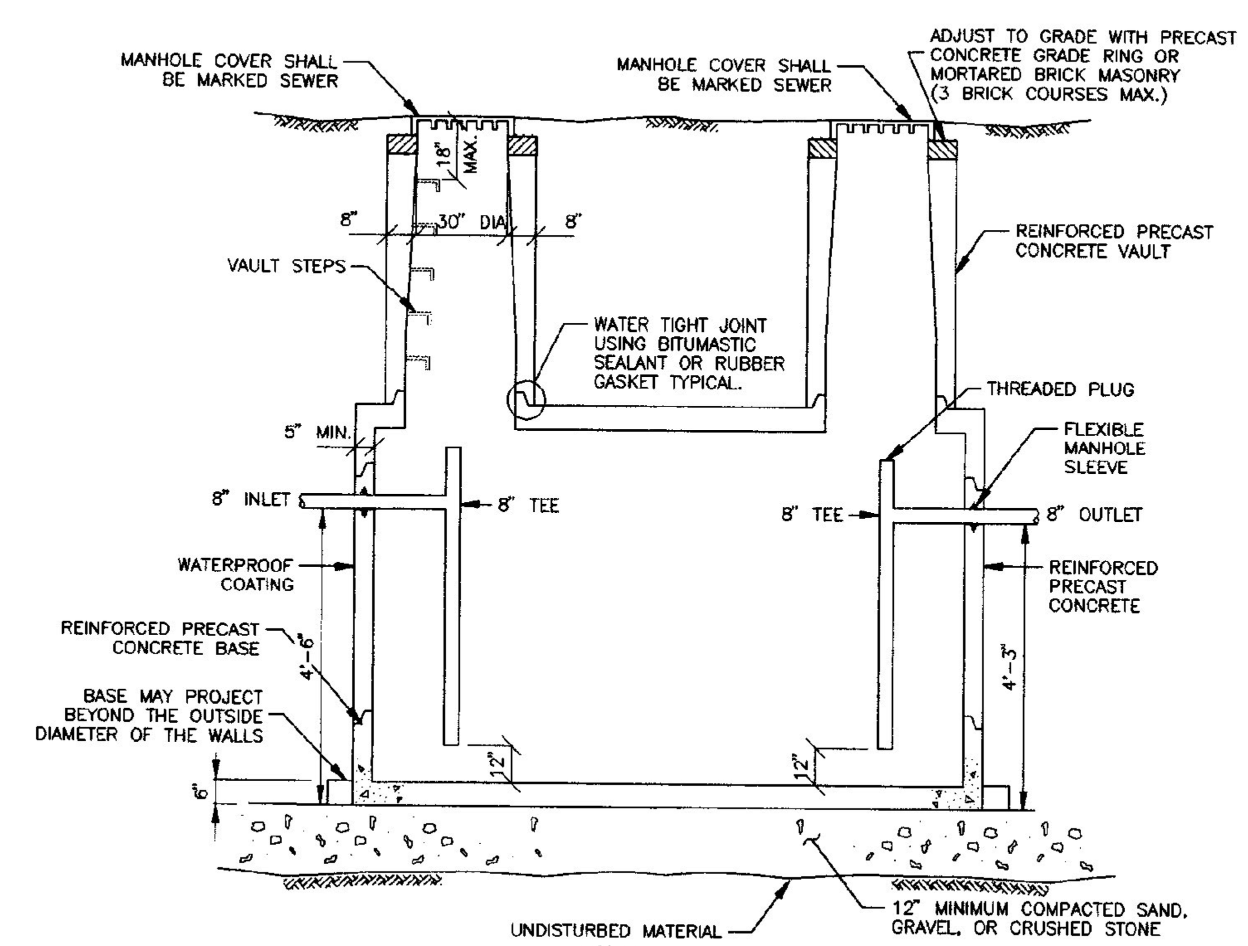


NOTES

1. WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A FLAT REINFORCED CONCRETE COVER WITH AN ECCENTRIC OPENING AND CAPABLE OF H-20 WHEEL LOADS MAY BE USED.
2. ALL MANHOLES SHALL BE DESIGNED FOR H-20 WHEEL LOADS.

SEWER MANHOLE DETAIL

NOT TO SCALE



NOTES

1. WHEN VAULT DEPTH IS LESS THAN 6 FEET, A FLAT REINFORCED CONCRETE COVER WITH AN ECCENTRIC OPENING AND CAPABLE OF H-20 WHEEL LOADS MAY BE USED.
2. ALL MANHOLES SHALL BE DESIGNED FOR H-20 WHEEL LOADS.
3. VAULT TO BE 4'(W) x 8'(L) x 5'(H) INSIDE.

OIL/GREASE INTERCEPTOR

NOT TO SCALE

NO.	DATE	REVISION
1		
2		
3		
4		
5		
6		
7		

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STATE OF VERMONT CHRISTOPHER LA... No. 5323 REGISTERED PROFESSIONAL ENGINEER

STATE OF VERMONT DISTICT No. 9

US ROUTE 5 DERBY, VERMONT

VERMONT DEPARTMENT OF STATE BUILDINGS

SHEET DESCRIPTION: SITE PLAN

PROJECT NO. 98074 | DATE AUGUST 10, 1999

SCALE 1" = 20'

DRAWN RSD

CHECKED CJT

C-1