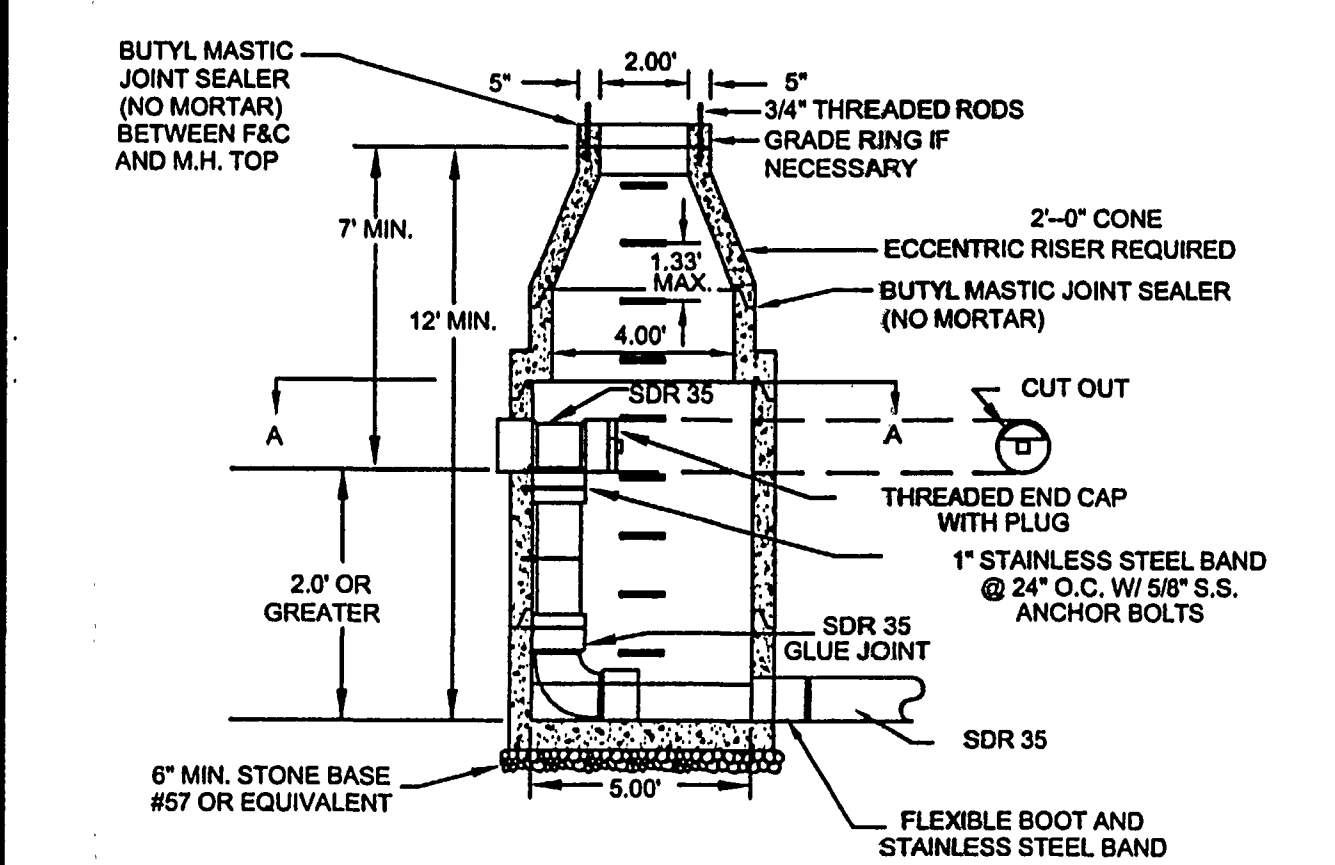
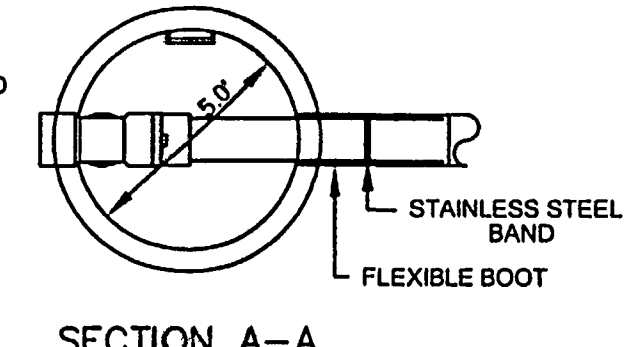


- NOTE:
1. PIER REQUIRED WHEN STORM DRAIN OR OTHER PIPES CROSSES OVER THE OTHER UTILITY WITH A VERTICAL CLEARANCE OF LESS THAN 18".
 2. PIER TO BE BUILT ON UNDISTURBED EARTH.
 3. CONCRETE TO BE READY MIX, CLASS A3.

WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS		
REVISION DATE		
07/01/04		
	CONCRETE PIER	S-19

30
C-1.2 C-5.1
NO SCALE

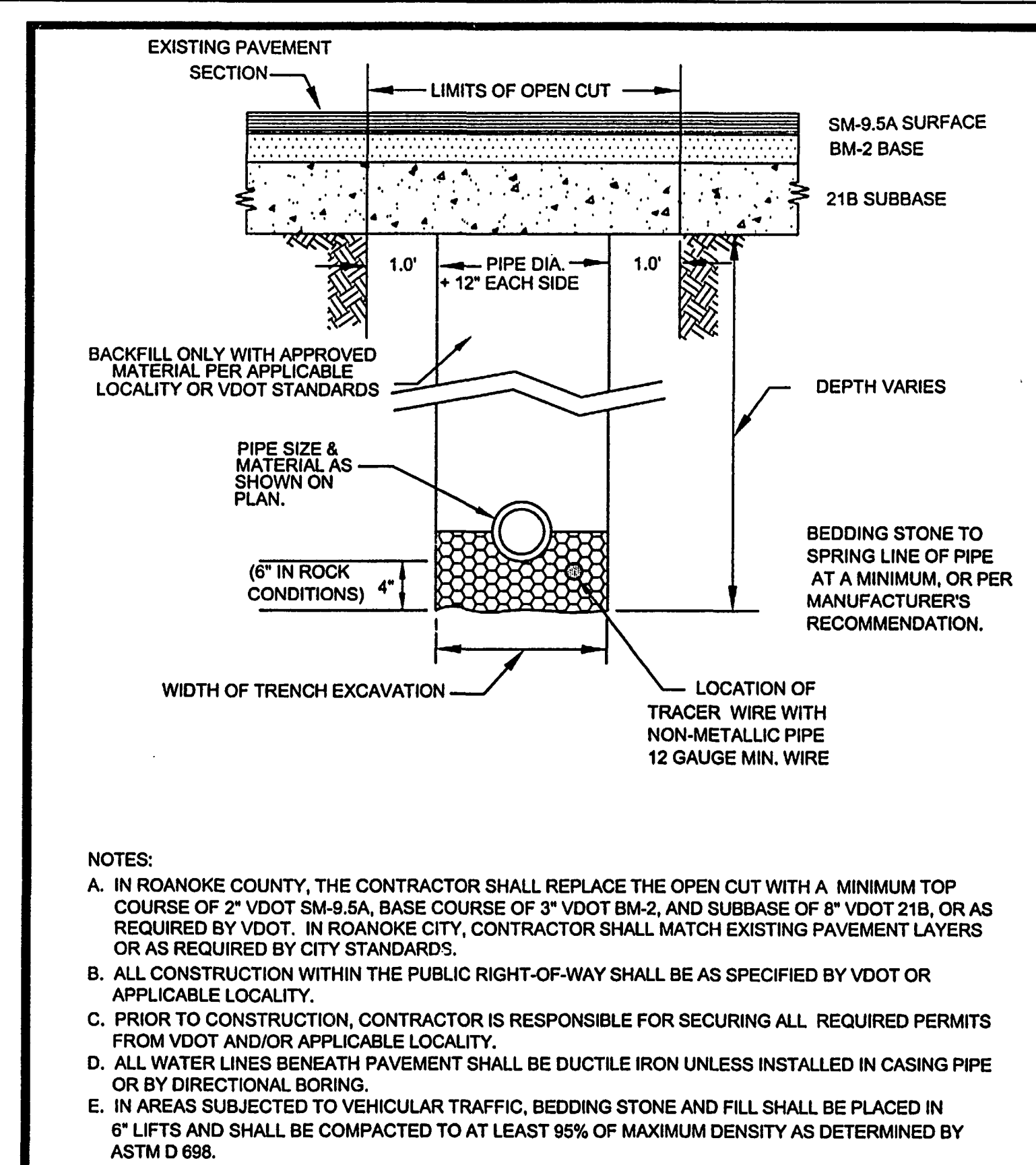
- NOTES:
1. ALL MANHOLE FRAMES AND COVERS SHALL BE EAST JORDAN IRON WORKS, INC. WATERTIGHT COVER MODEL #10402, WATER TIGHT COVER MODEL #10402, OR APPROVED EQUAL. BOLT-DOWN MANHOLE COVERS SHALL BE USED IN AREAS SUBJECT TO FLOODING OR AS DIRECTED BY THE AUTHORITY.
 2. STEPS TO BE VERTICALLY ALIGNED.
 3. THE FRAME AND COVER SHALL BE PROPERLY ALIGNED WITH THE 2 FOOT OPENING OF THE MANHOLE STRUCTURE AND BOLTED IN PLACE.
 4. RELINER BY DURAN INSIDE DROP WILL BE ALLOWED.
 5. GROUT ANNUAL SPACE BETWEEN PIPE AND PRECAST MANHOLE ON INSIDE OF MANHOLE.



NOTE: 6" DIAMETER MANHOLE REQUIRED FOR TWO INSIDE DROP CONNECTIONS (MAIN LINE OR LATERAL)

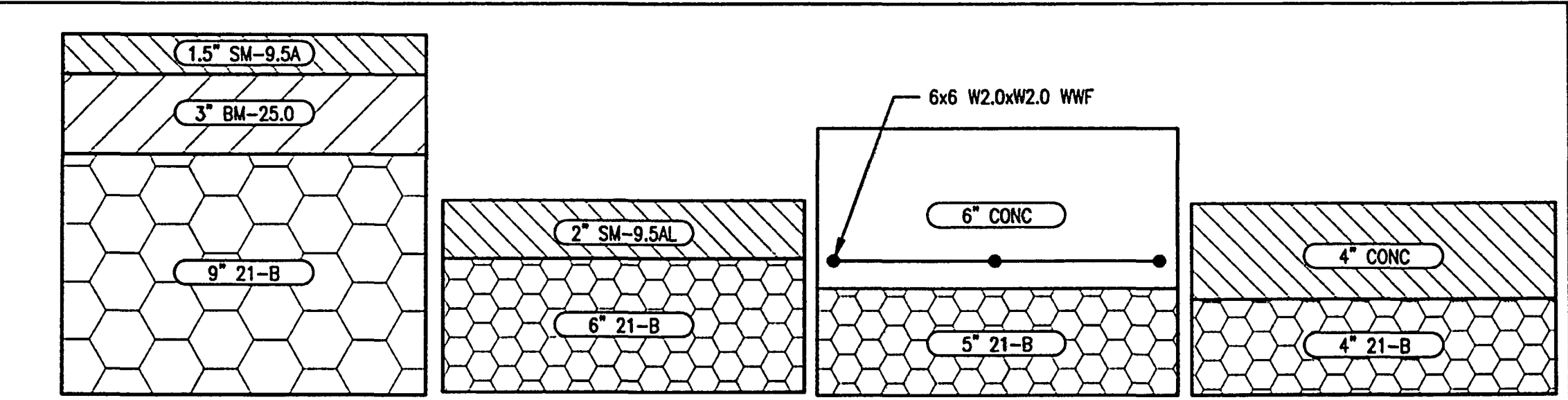
WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS		
REVISION DATE		
07/01/04		
	MAINLINE OR LATERAL INSIDE DROP MANHOLE (FOR USE WITH PVC PIPE)	S-04

8
C-1.2 C-5.1
NO SCALE

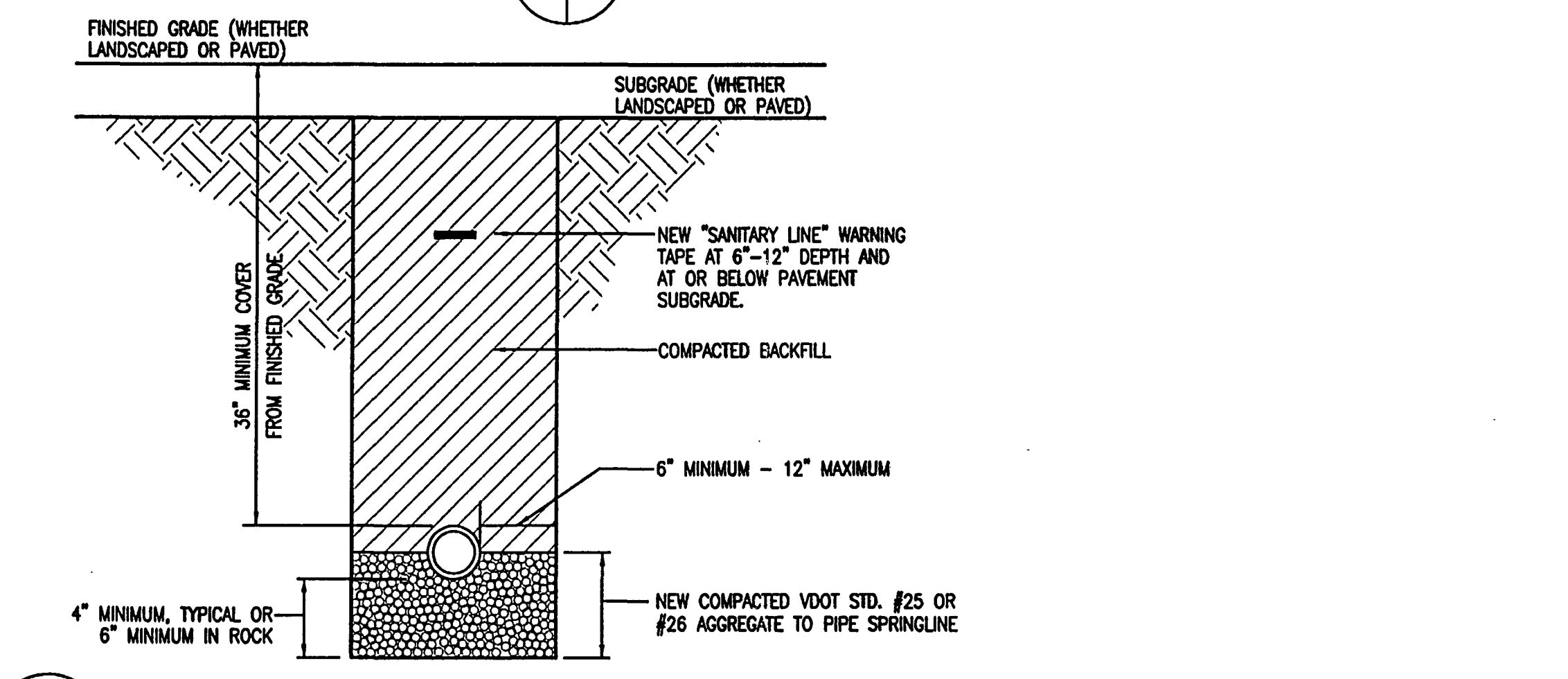


WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS		
REVISION DATE		
07/01/04		
	BEDDING AND BACKFILL UNDER PAVEMENT	S-25

5
C-1.2 C-5.1
NO SCALE

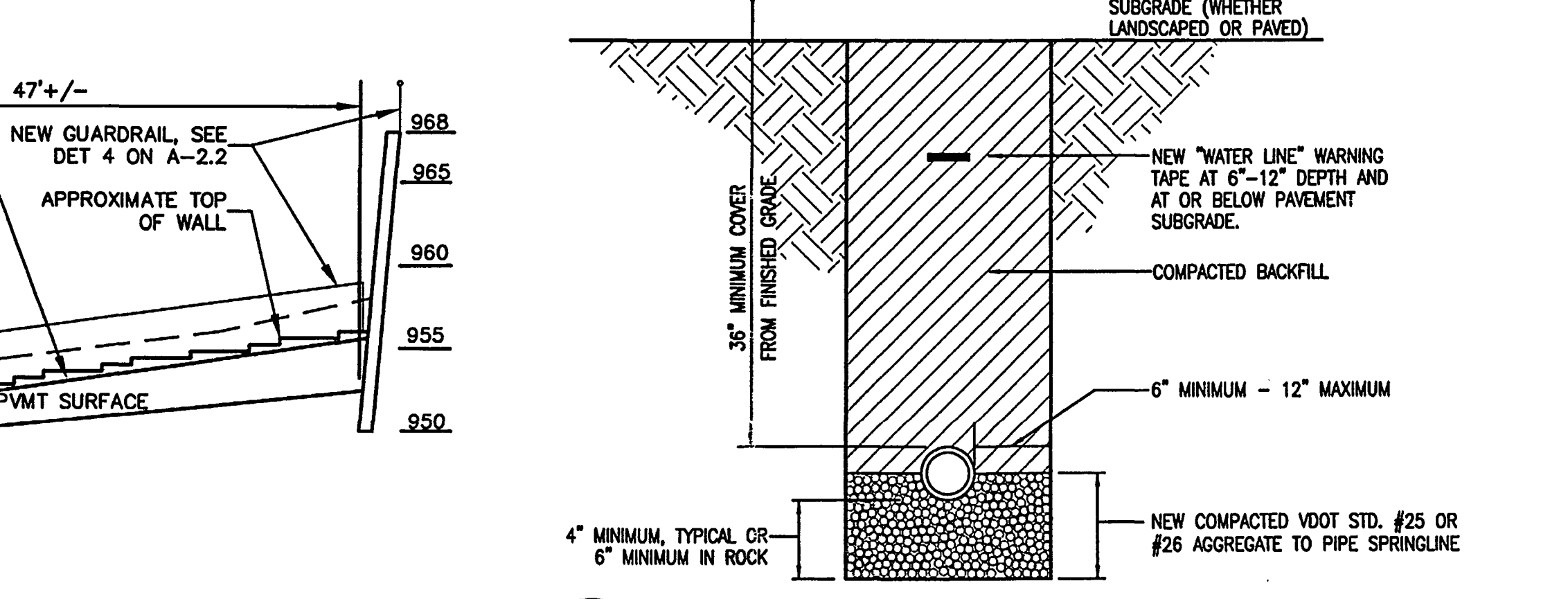


WITHIN R/W & TRAVEL LANES
PARKING SPACES
CONCRETE
PAVEMENT SECTIONS



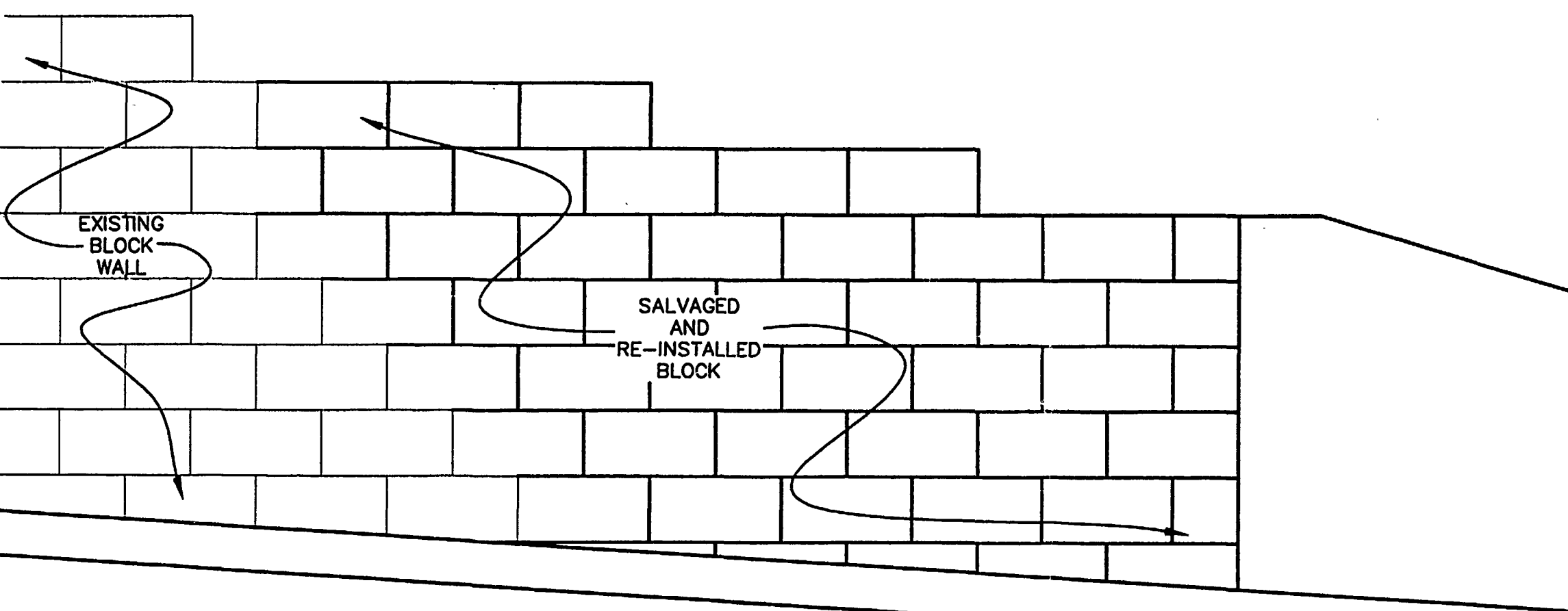
2
C-1.2 C-5.1
NO SCALE

NEW SANITARY LINE TRENCH SECTION



3
C-1.2 C-5.1
NO SCALE

NEW WATER LINE TRENCH SECTION

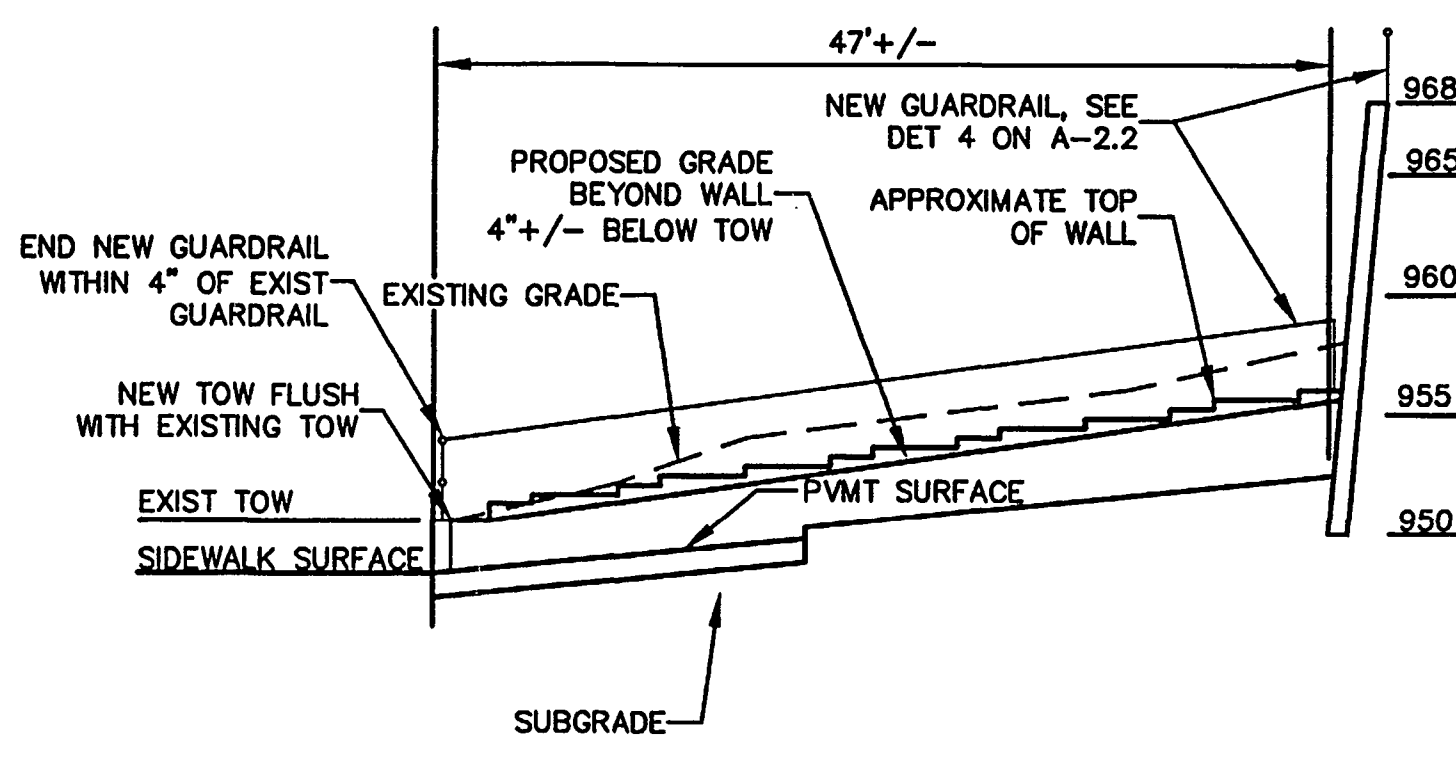


7
C-1.2 C-5.1
NO SCALE

DAY AVE. WALL RE-CONSTRUCTION

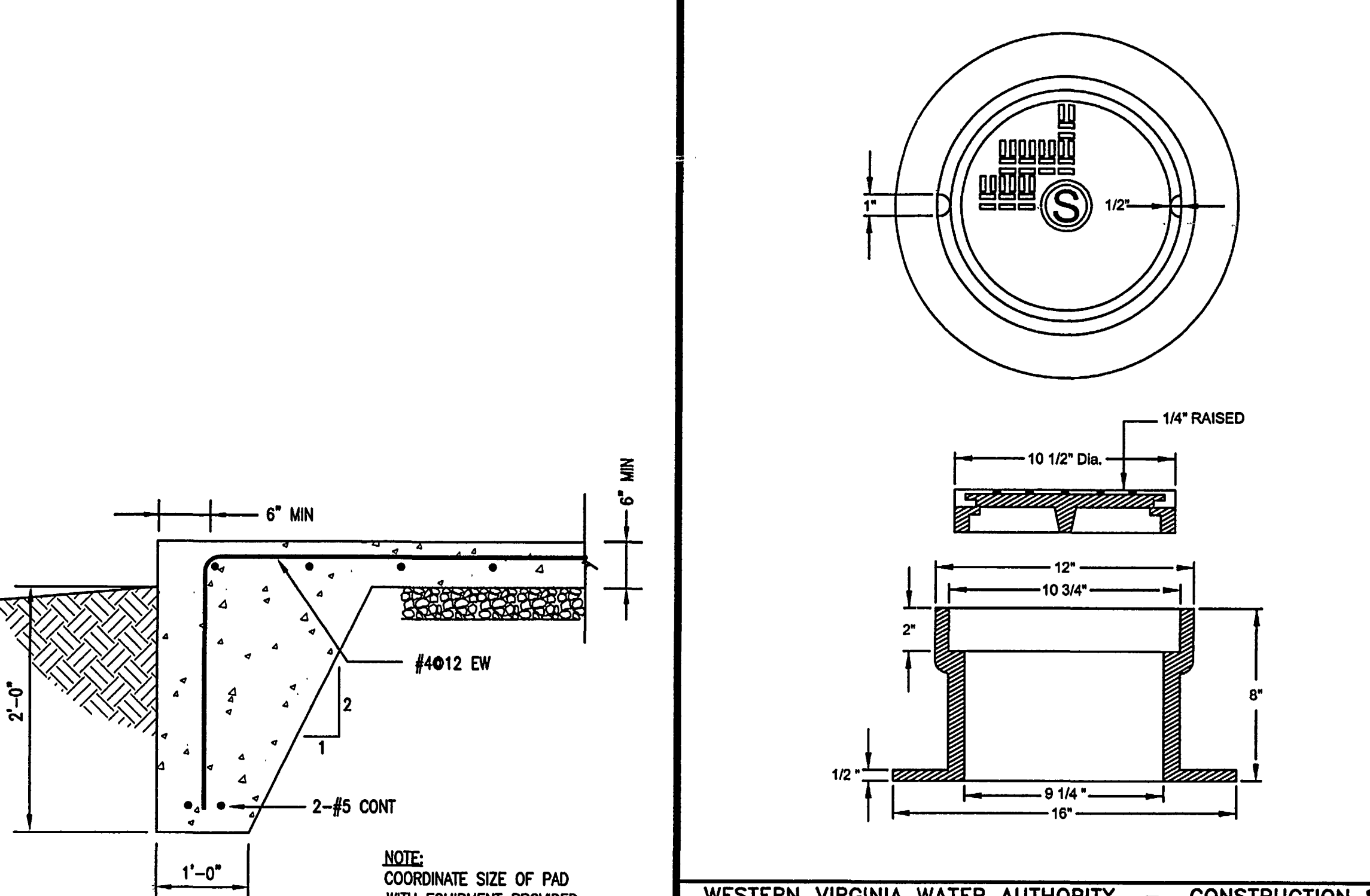
SEGMENTAL BLOCK WALL NOTES

1. NEW BASE SHALL BE COMPACTED COARSE SAND AND/OR GRAVEL, 6" THICK MIN.
2. CONTRACTOR MAY OPT FOR A LEAN CONCRETE PAD, CONCRETE PAD SHALL BE UNREINFORCED, 1" TO 2" THICK MAXIMUM.
3. MINIMUM EMBEDEDMENT OF WALL BELOW FINISH GRADE SHALL BE 12" FOR WALL HEIGHTS FROM 4 FT. AND UP, 6" BELOW 4 FT. UNLESS SHOWN DIFFERENTLY.
4. DRAINAGE FILL SHALL BE INSTALLED BEHIND THE WALL UP TO 18" OF THE TOP OF THE WALL. DRAINAGE FILL SHALL NOT EXTEND BELOW FINAL GRADE IN FRONT OF WALL.
5. WHERE DRAIN PIPE IS USED, PROVIDE OUTLETS @ MAX. 40 FT C-C.
6. FOR UNITS TO BE EMBEDDED, COMPACT FILL IN FRONT OF UNITS AT THE SAME TIME BACKFILL BEHIND UNITS IS COMPACTED.
7. COMPACTION TESTS SHALL BE TAKEN AS THE WALL IS INSTALLED. THE MINIMUM NUMBER OF TESTS SHALL BE DETERMINED BY THE SITE SOILS ENGINEER.
8. COMPACTION SHALL BE TO 95% OF MAXIMUM STANDARD PROCTOR DENSITY (ASTM D-698).
9. SEE ELEVATION FOR GEOSYNTHETIC TYPE, LENGTH AND LOCATION REQUIRED.
10. GEOSYNTHETICS, IF DISCOVERED, SHALL MATCH EXISTING MATERIAL, DIMENSIONS AND VERTICAL LOCATION.



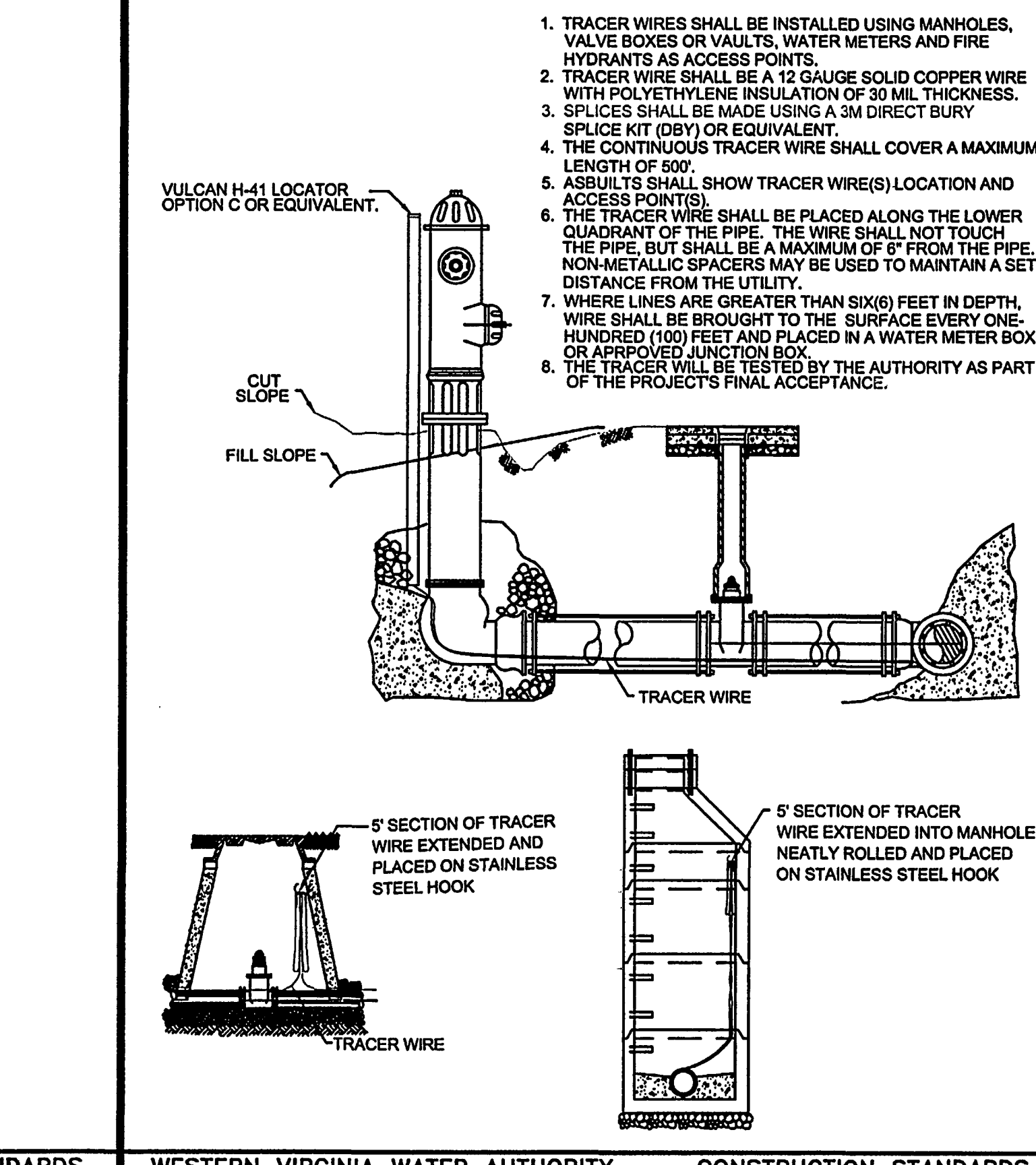
6
C-1.2 C-5.1
NO SCALE

NORTH WALL ELEVATION



11
C-1.2 C-5.1
NO SCALE

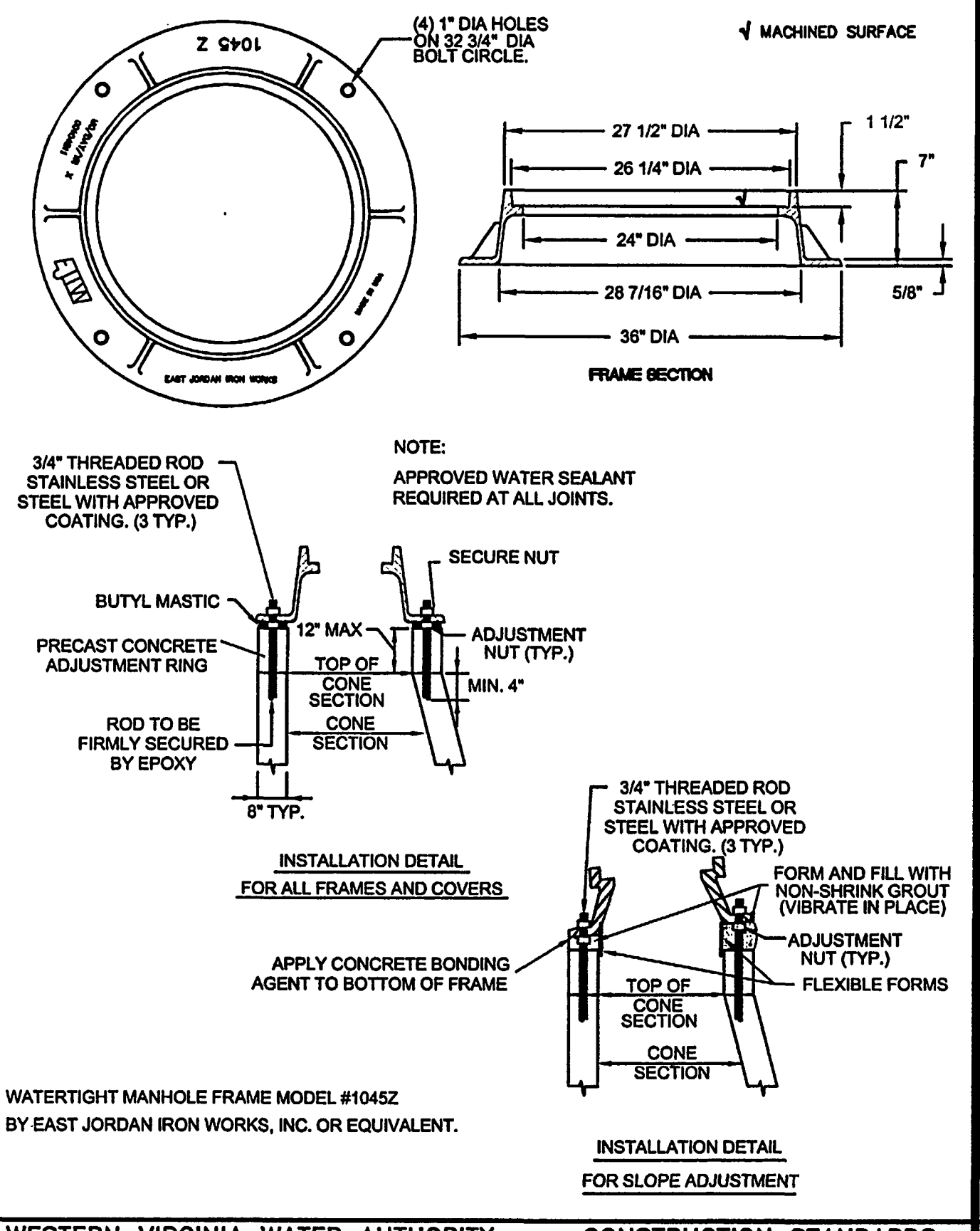
TYPICAL EQUIPMENT PAD



WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS		
REVISION DATE		
07/01/04		
	TRAFFIC BEARING CLEANOUT BOX	S-14

9
C-1.2 C-5.1
NO SCALE

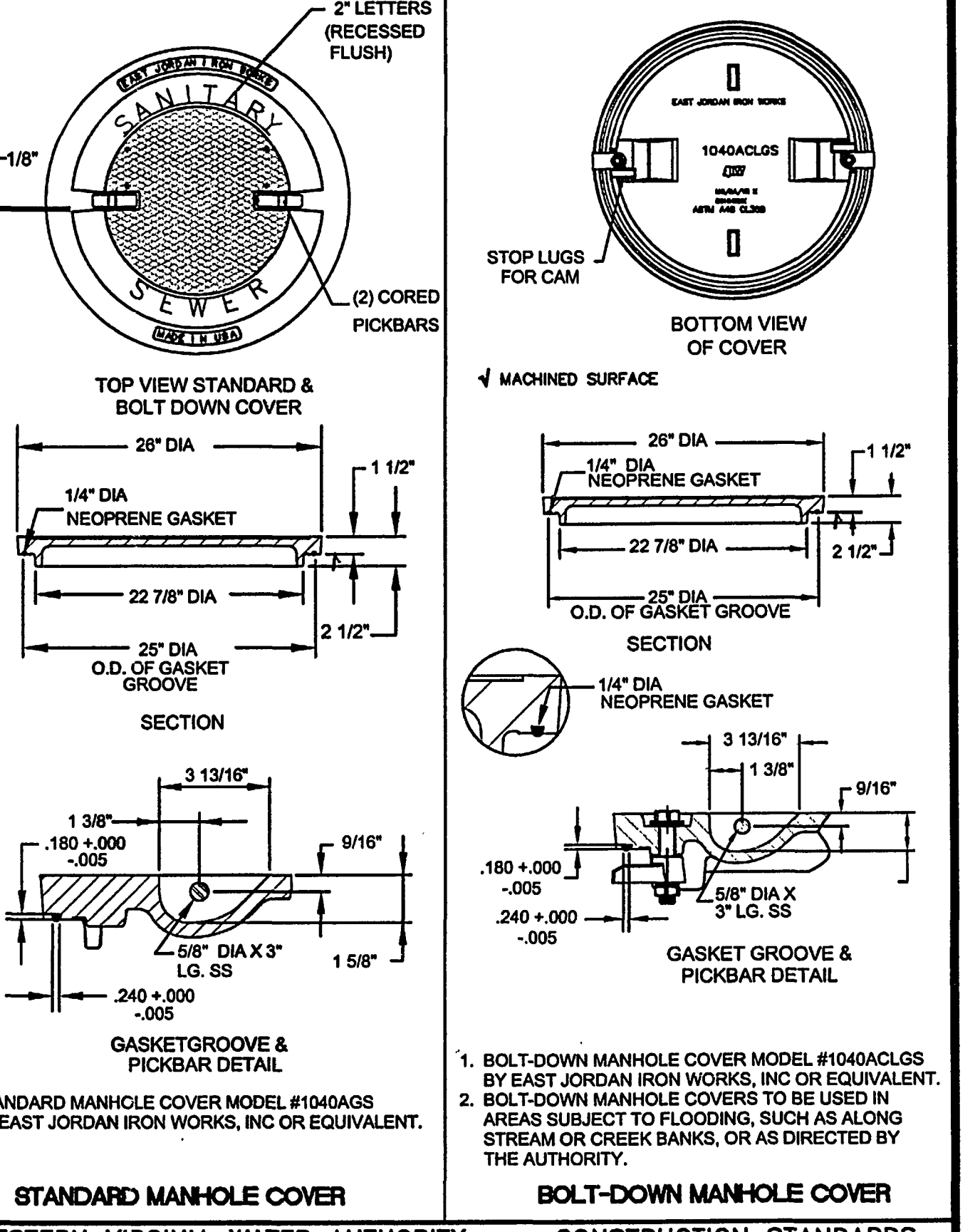
WWVA CLEANOUT DETAIL



WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS		
REVISION DATE		
07/01/04		
	TRACER WIRE FOR NON-METALLIC PIPE	S-34

10
C-1.2 C-5.1
NO SCALE

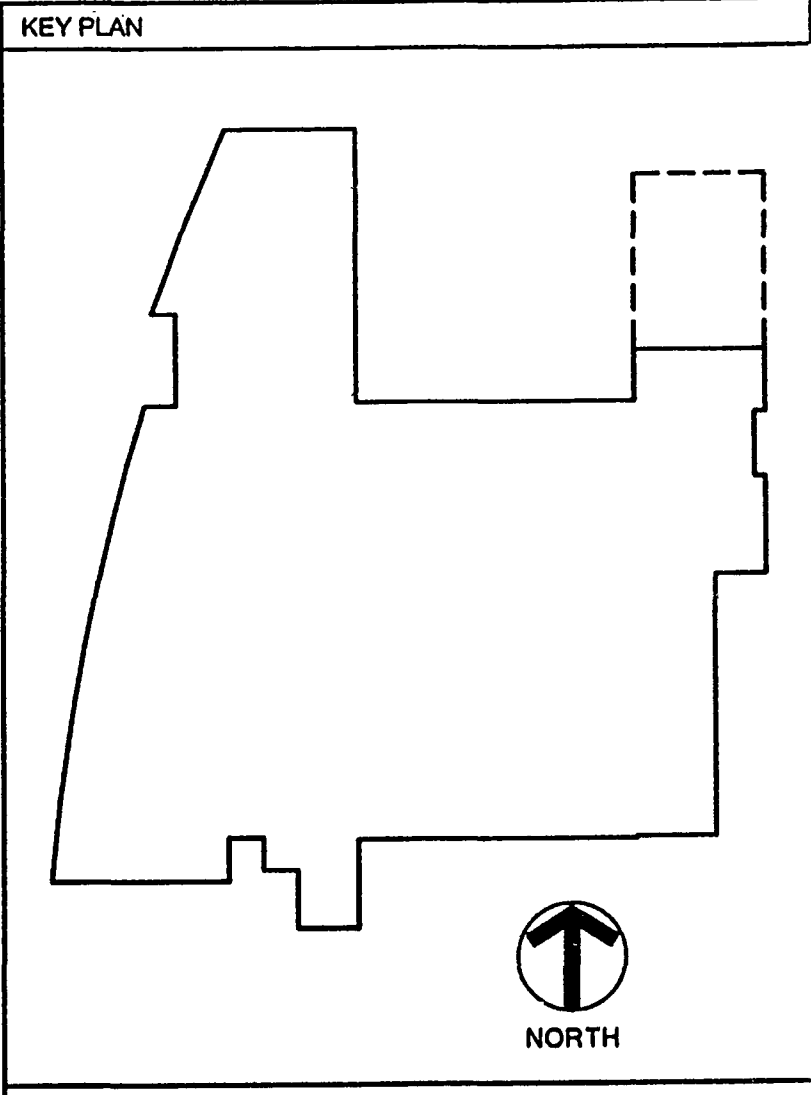
WWVA TRACER WIRE DETAIL



WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS		
REVISION DATE		
07/01/04		
	WATERTIGHT MANHOLE FRAME	S-05

4
C-1.2 C-5.1
NO SCALE

WWVA MANHOLE FRAME & COVER DETAILS



GENERAL NOTES

KEY PLAN

NO SCALE

NO SCALE

NO SCALE

NO SCALE

NO SCALE

NO SCALE

NO SCALE

NO SCALE

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Architecture
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837 East Pale Rose Way, Suite 200
Channahon, Ohio 45502
(513) 721-8080

SPECTRUM DESIGN
10 CHURCH AVE SE, PLAZA SUITE 1 ROANOKE, VIRGINIA 24011 540.342.6001
ROANOKE • MARION

Roanoke Fire Station
& Fire Administration
Building

CITY OF ROANOKE
PLAN NUMBER: 6548
BID NUMBER: 05-04-01

SPECTRUM DESIGN PROJECT NO. 03035

COMMONWEALTH OF VIRGINIA
MICHAEL A. RAKES
No. 008999
Professional Engineer
12/19/05

DATE: MAY 29, 2005
DESIGN: MAR
DRAWING: MAR
CHECKED: MAR
REVISIONS: NUMBER DATE

SHEET TITLE
CIVIL -
GENERAL DETAILS

C-5.1