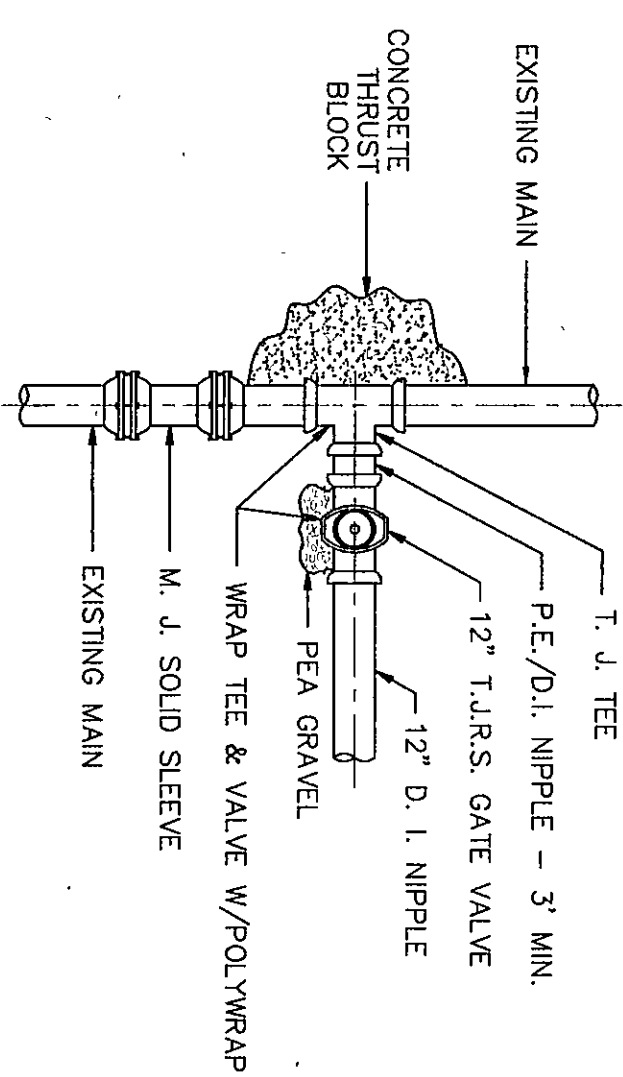
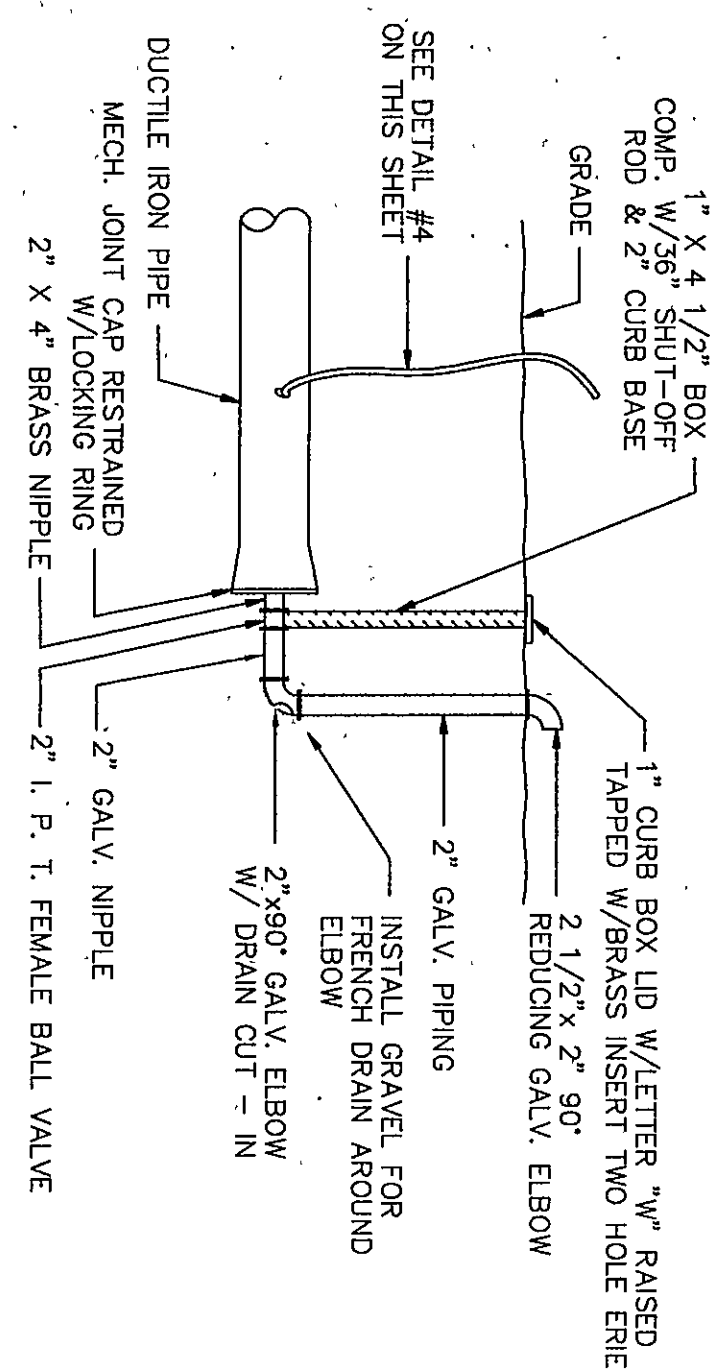


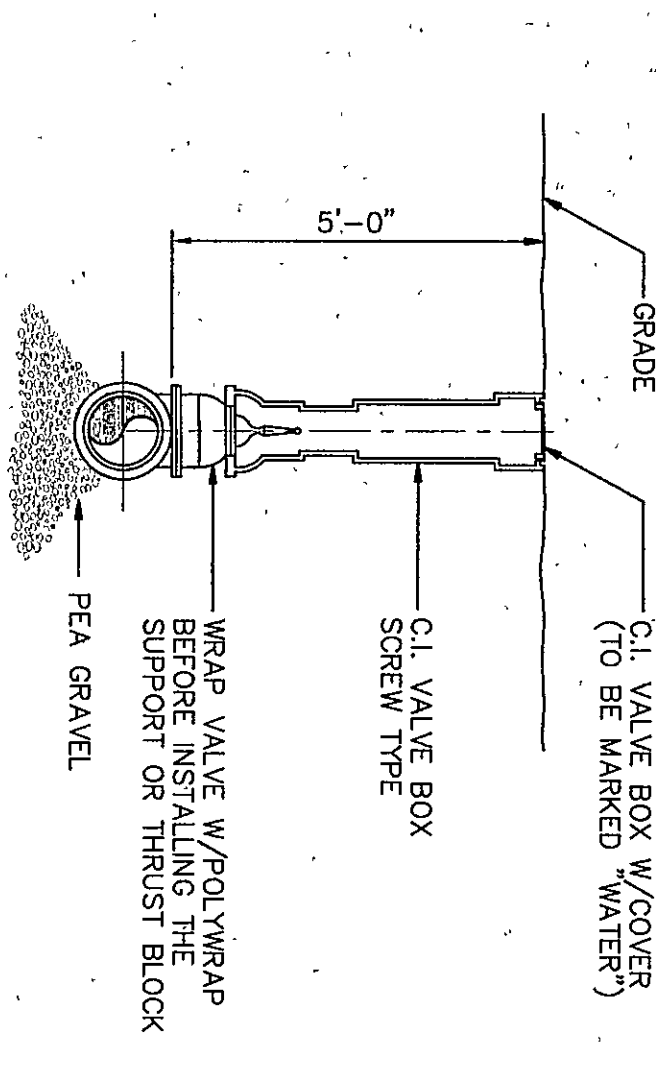
1 MAIN CONNECTION DETAIL TAPPING
NO SCALE



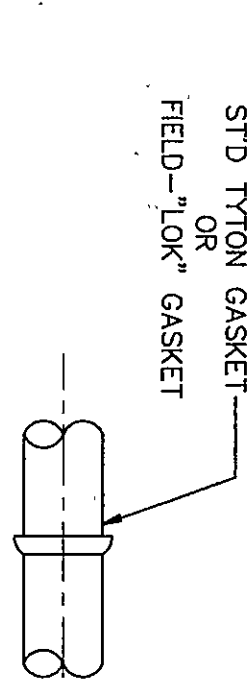
2 MAIN CONNECTION DETAIL CUT-IN
NO SCALE



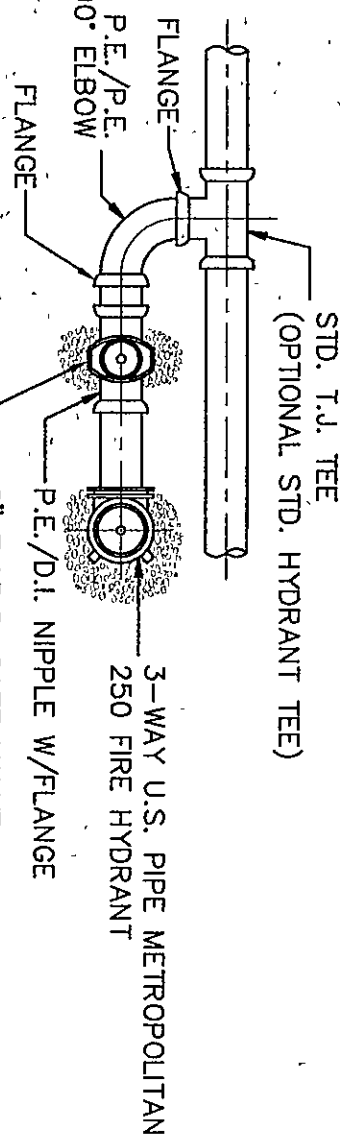
3 TEMPORARY FLUSH-OUT INSTALLATION
NO SCALE



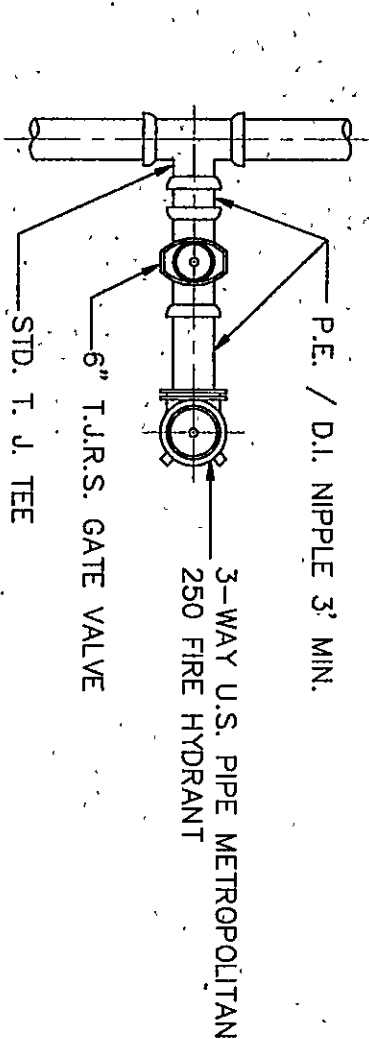
4 GATE VALVE INSTALLATION DETAIL
NO SCALE



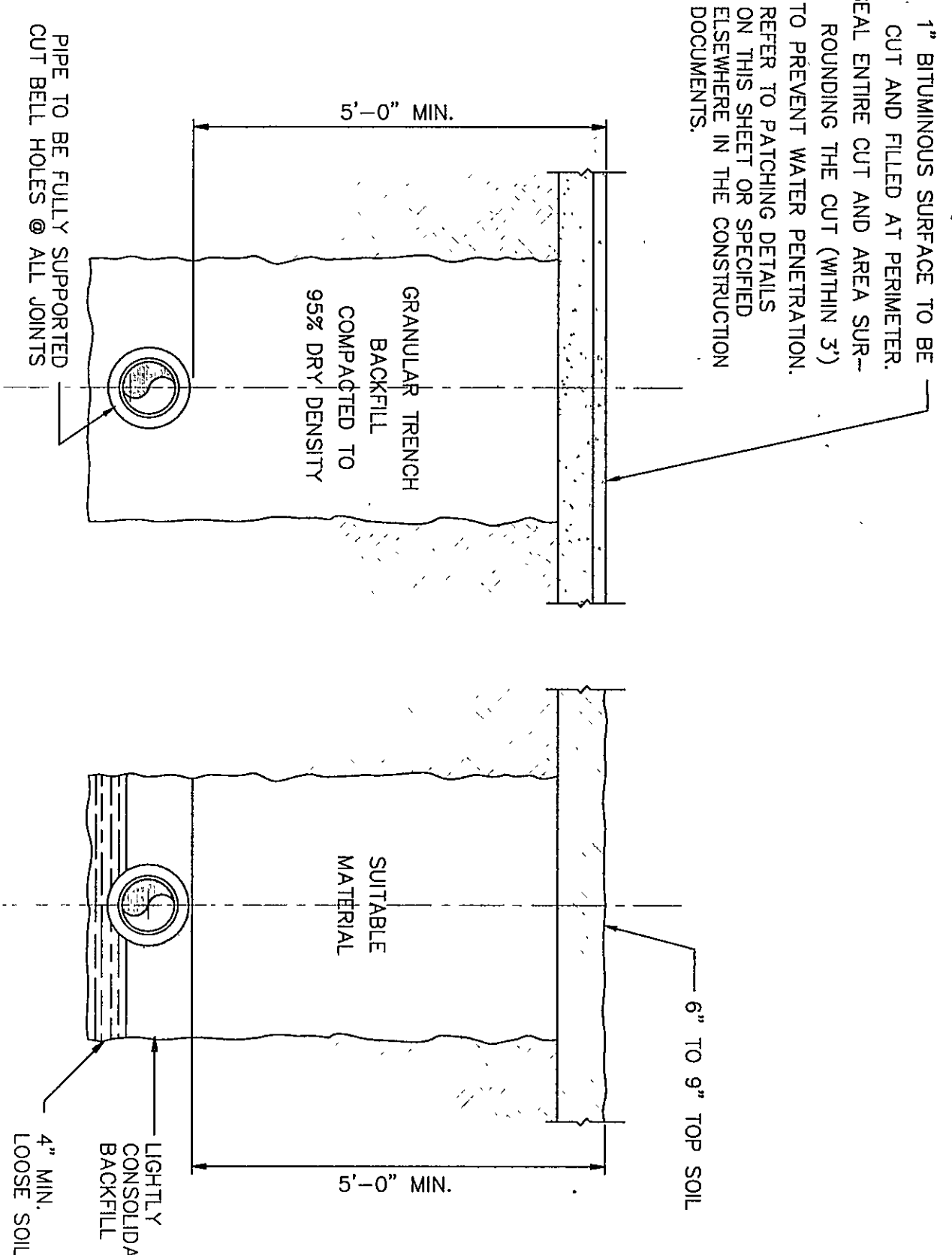
5 TYPICAL TYTON JOINT
NO SCALE



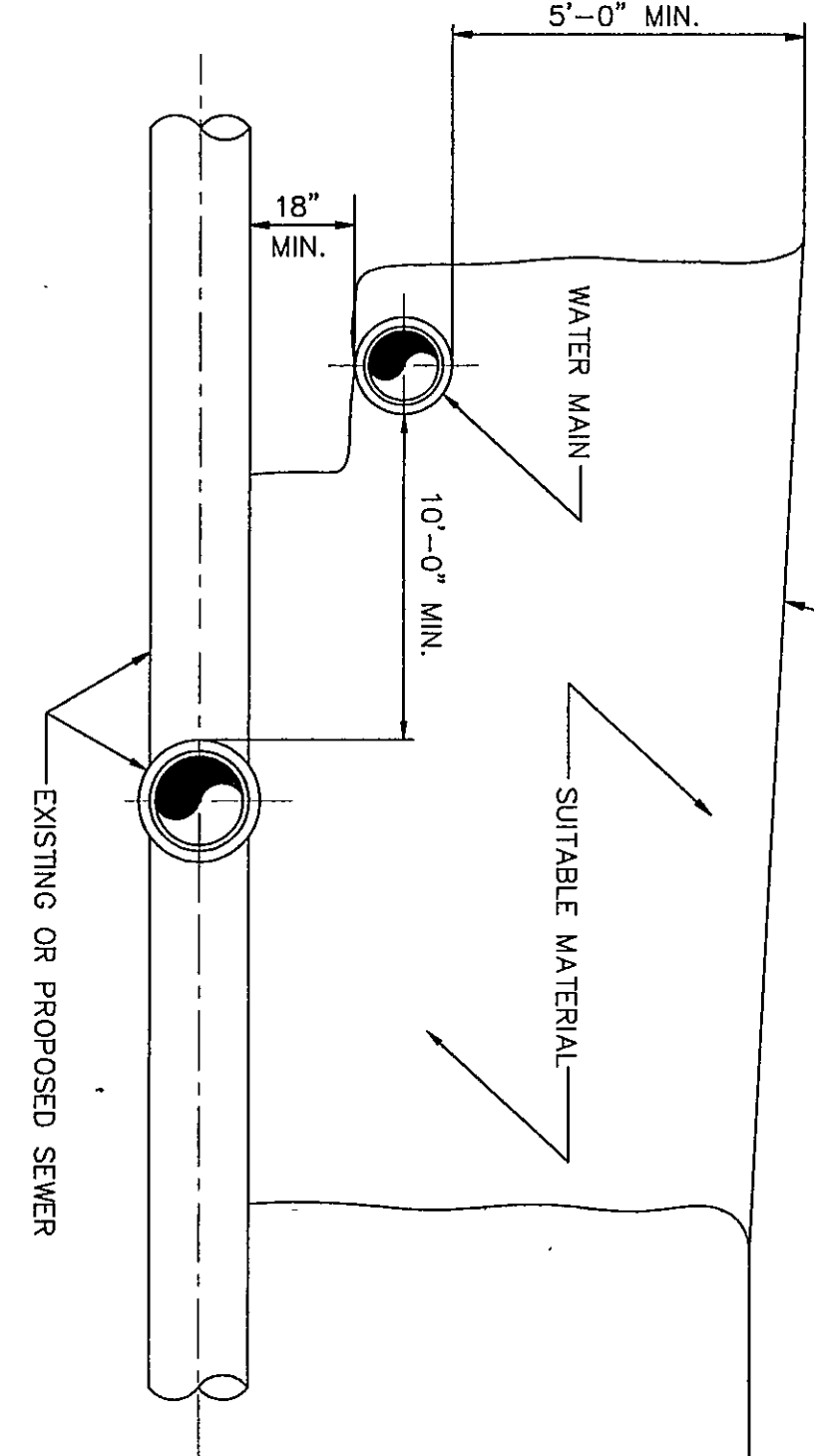
6 HYDRANT CONNECTION DETAIL INSTALLATION PARELLEL TO MAIN
NO SCALE



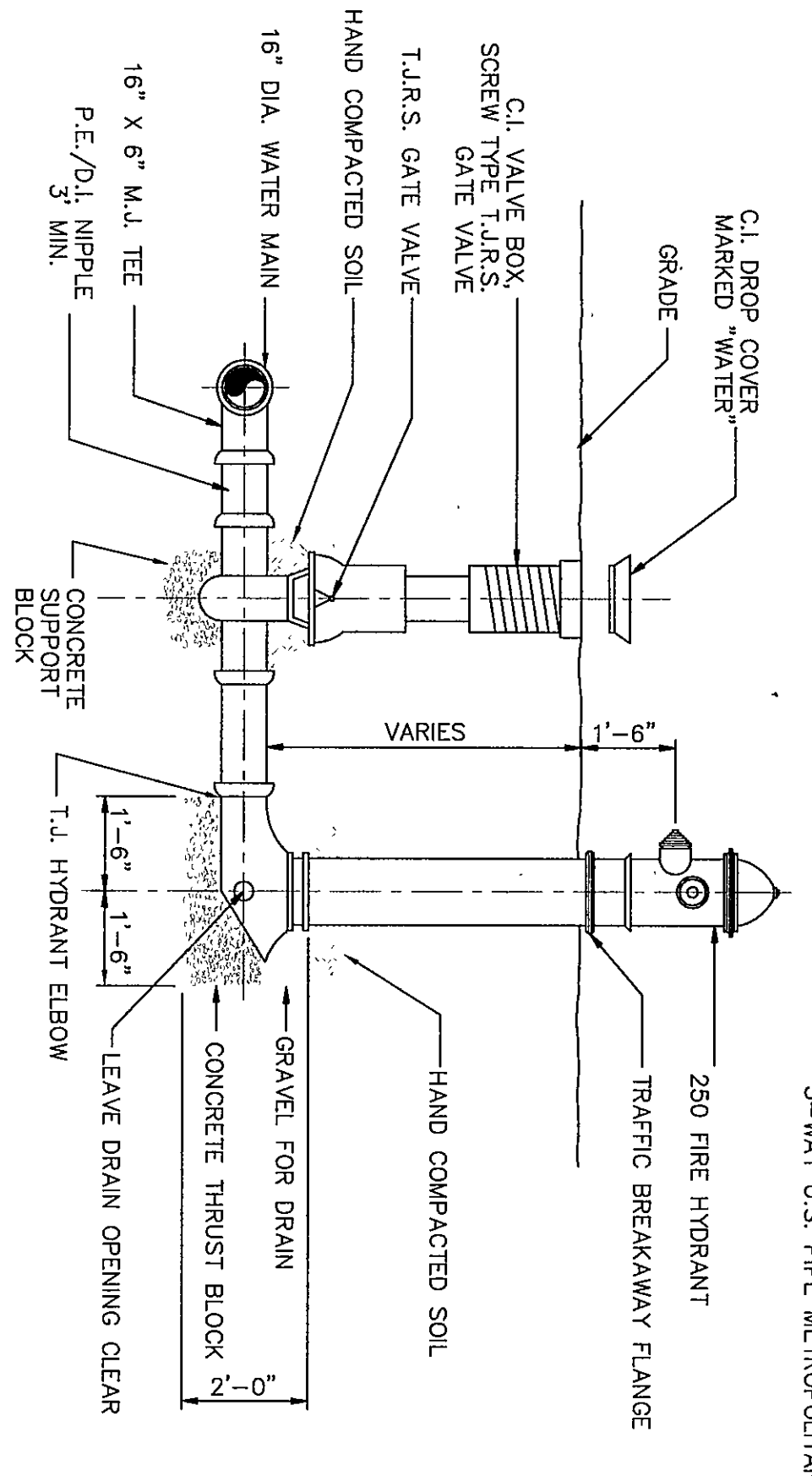
7 HYDRANT CONNECTION DETAIL INSTALLATION PERPENDICULAR TO MAIN
NO SCALE



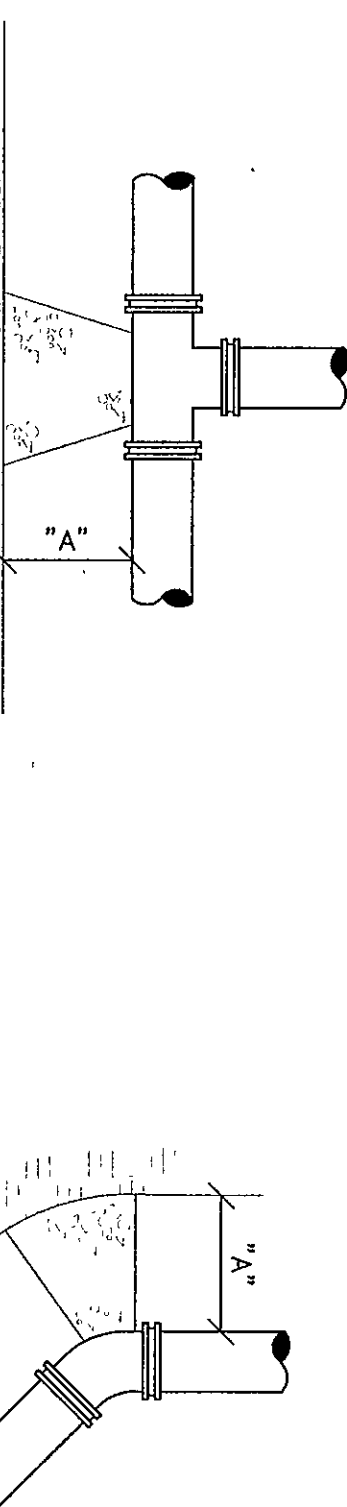
8 TRENCH BACKFILL DETAIL FOR WATER MAIN
NO SCALE



9 SEPARATION OF WATER MAINS, SANITARY SEWER AND STORM SEWERS
NO SCALE

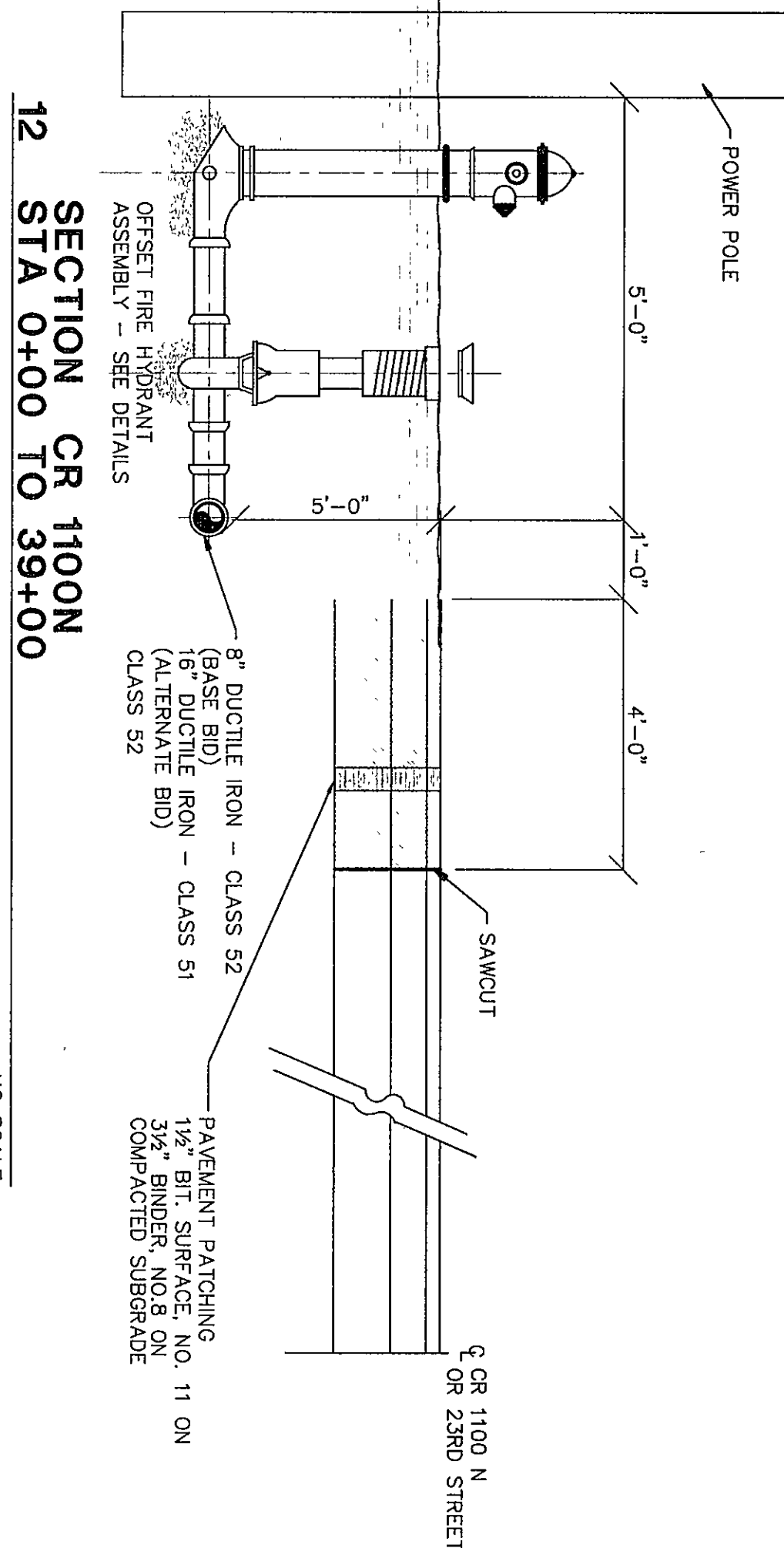


10 FIRE HYDRANT WITH TYTON JOINT
NO SCALE

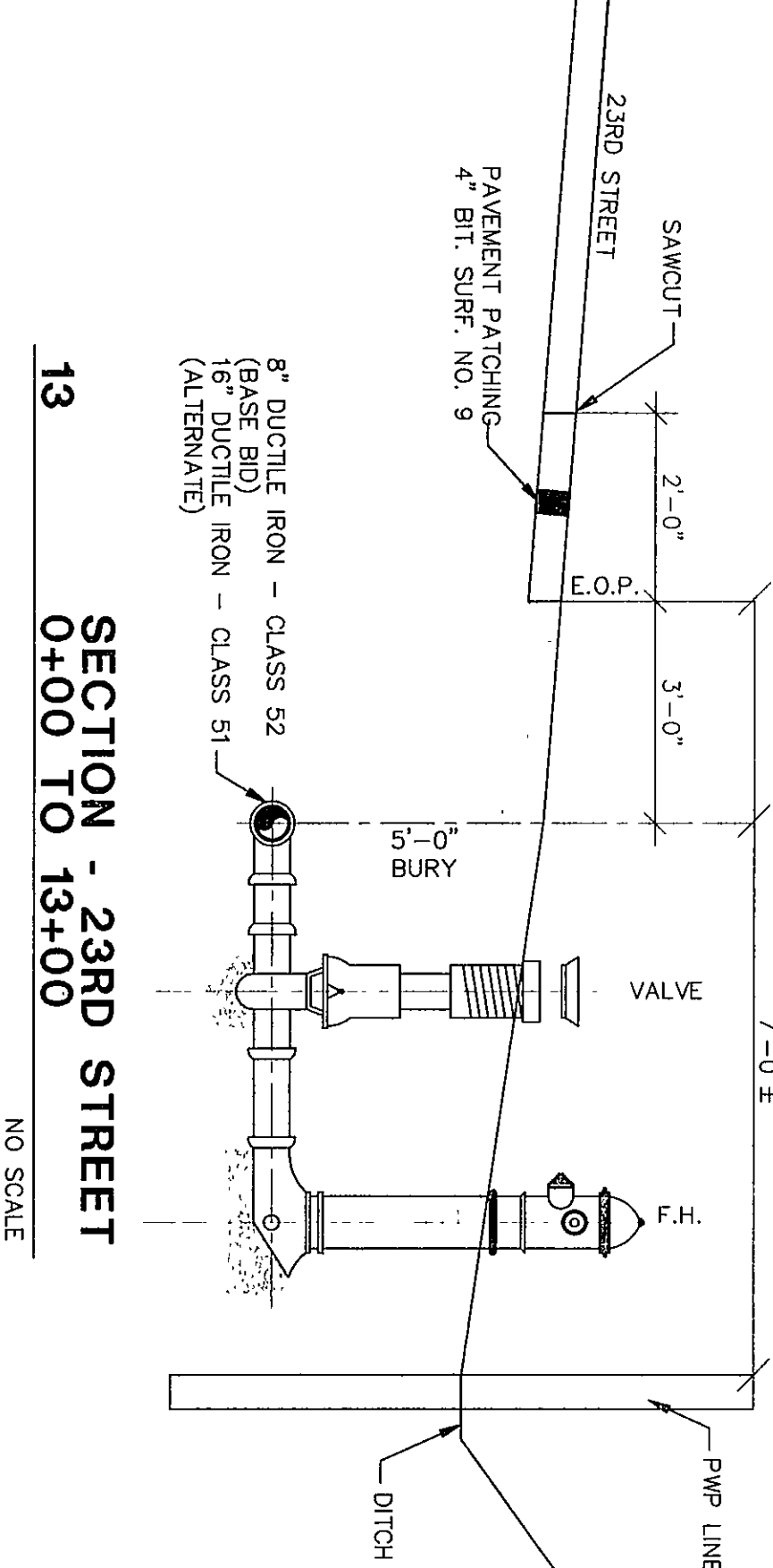


11 TEST PLUGS & HYDRANTS
NO SCALE

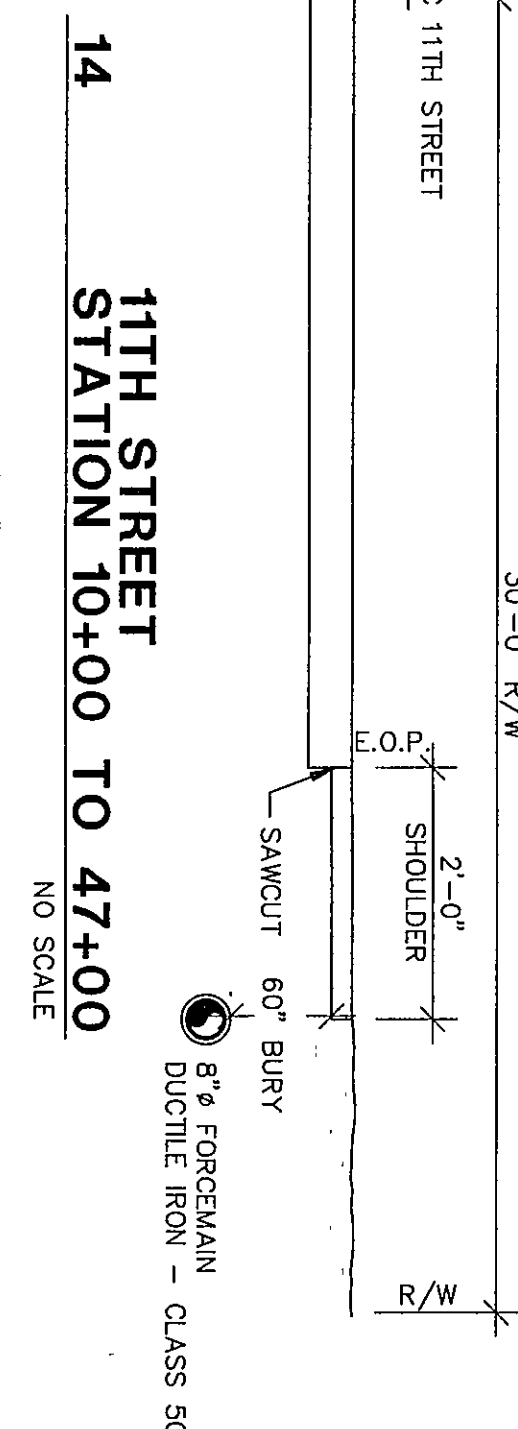
1. THRUST BLOCK SHALL BE (P=2500 PSI @ 28 DAYS (SEE SPECIFICATIONS SECTION 03300))
2. ALL THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH.
3. BOLTS, FITTINGS & JOINTS SHALL BE KEPT CLEAR OF CONCRETE.
4. A BEARING CAPACITY OF 2000# PER FOOT SHALL BE USED IN DETERMINING
5. THE CROSS SECTION OF THE THRUST BLOCKS SHALL BE SQUARE.



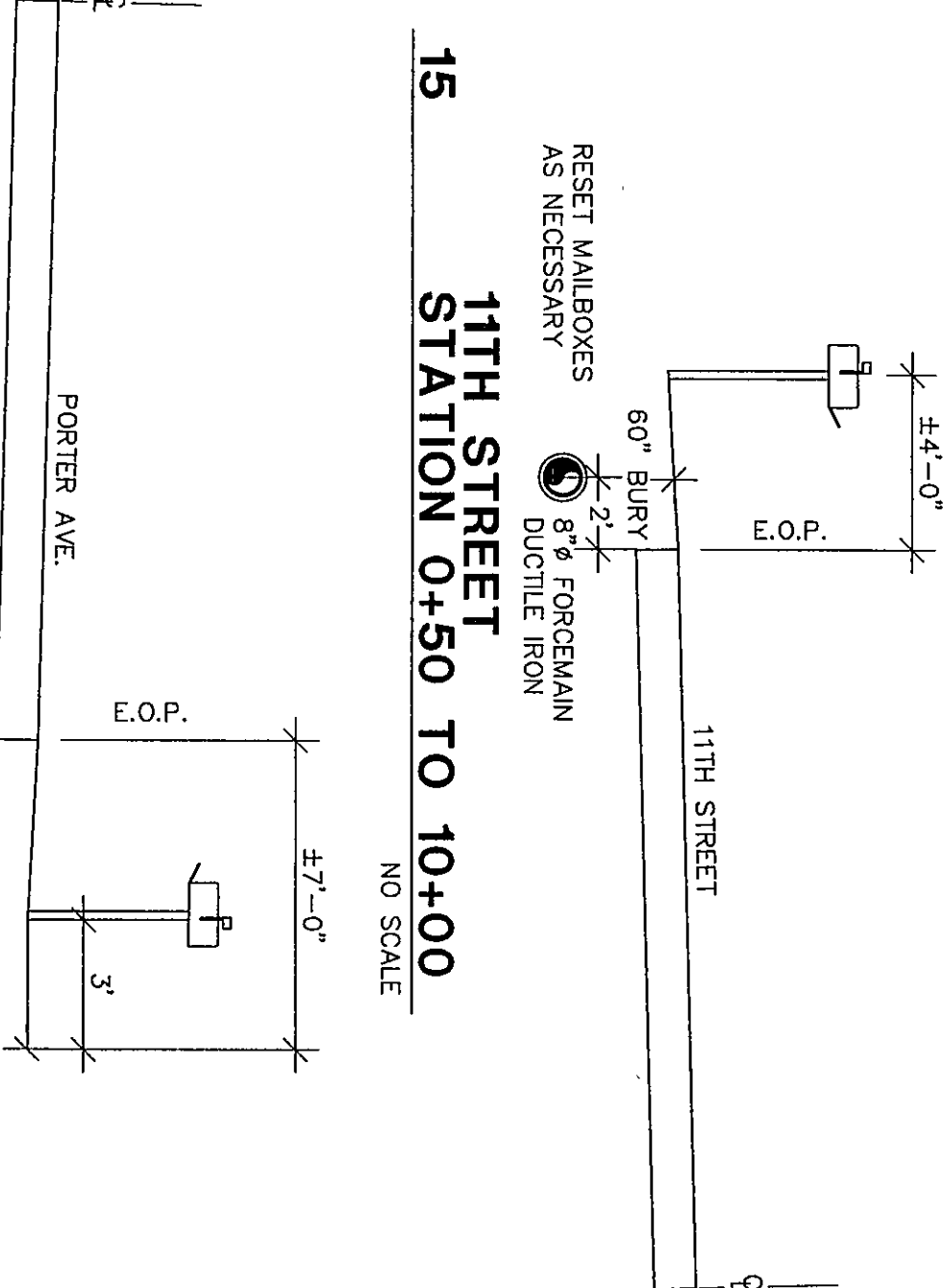
12 SECTION CR 1100N STA 0+00 TO 39+00
NO SCALE



13 SECTION - 23RD STREET 0+00 TO 13+00
NO SCALE



14 11TH STREET STATION 10+00 TO 47+00
NO SCALE



15 11TH STREET STATION 0+50 TO 10+00
NO SCALE

16 PORTER AVE. STA 48+00 TO 59+00
NO SCALE

TEES, PLUGS & HYDRANTS		
PIPE DIA. INCHES	"A" FEET	BEARING AREA SQUARE FEET
4	2.0	1.5
6	2.0	2.9
8	2.5	4.8
10	2.5	7.1
12	3.0	10.0
16	3.0	17.1
18	3.5	21.0
20	4.0	26.0

ELBOWS		
PIPE DIA. INCHES	"A" FEET	BEARING AREA SQUARE FEET
4	1.5	2.1
6	2.0	4.1
8	2.0	6.8
10	2.5	10.1
12	3.0	14.1
16	3.0	24.2
18	3.0	36.8
20	3.0	51.1

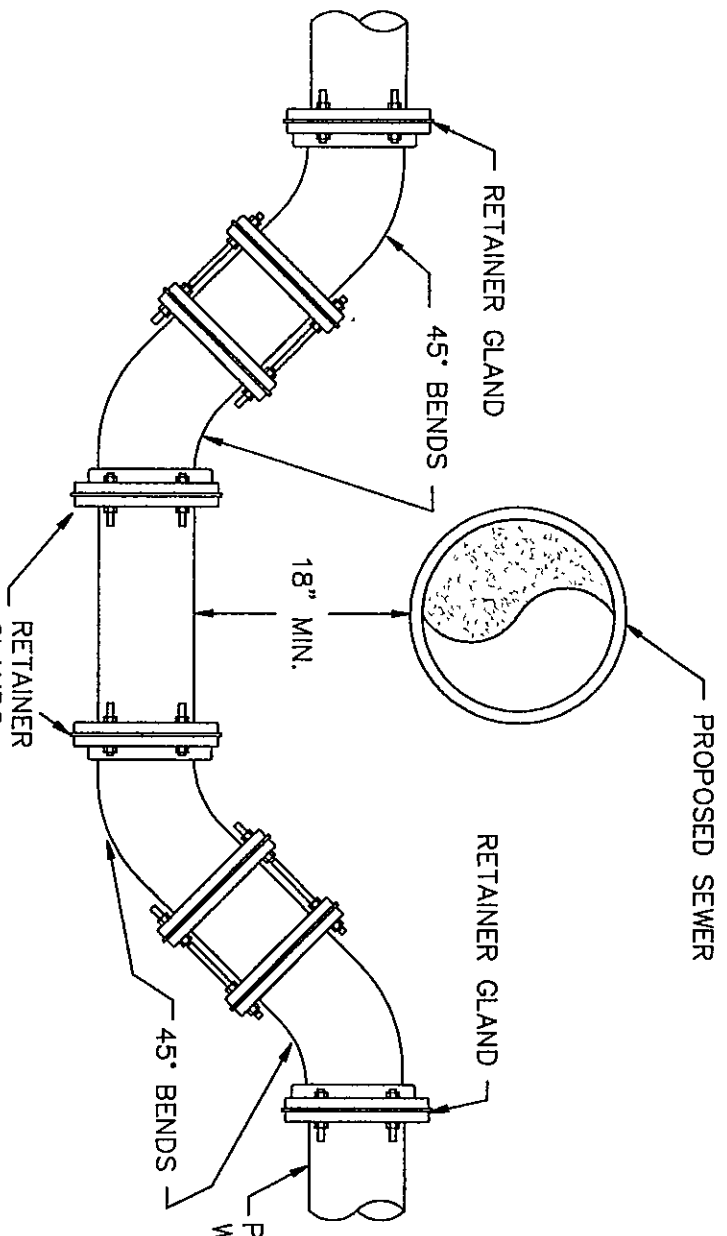
11 CONCRETE THRUST BLOCK DETAIL
NO SCALE

GENERAL CONSTRUCTION NOTES:

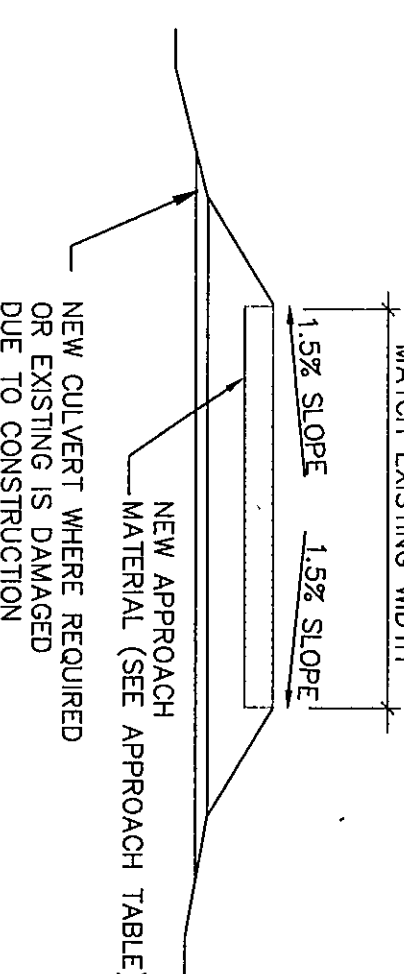
1. NORTHWEST INDIANA WATER COMPANY'S SPECIFICATIONS AND STANDARDS SHALL BE USED FOR THE CONSTRUCTION OF WATER MAINS AND APPURTENANCES SHALL PREVAIL.
2. WATER MAINS AND APPURTENANCES SHALL BE POLYETHYLENE-ENCASED (SEE SPECIFICATIONS).
3. ALL FUTURE OR EXISTING PAVEMENT AREAS SHALL BE COMPACTED BY APPROVED METHODS IN HORIZONTAL LAYERS NOT TO EXCEED STANDARD SPECIFICATIONS, SEC. 715, IN CONFORMANCE WITH INDOT STANDARDS.
4. UNSUITABLE BACKFILL MATERIAL SHALL BE REMOVED AND REPLACED WITH GRADE "B" BORROW, OR APPROVED EQUIVALENT AS DIRECTED (SEE SPECIFICATIONS).
5. CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF THE INDIANA SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCES.
6. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ALL CONSTRUCTION PERMITS (I.E. CITY, COUNTY, STATE, RAILROAD, DNR, INDOT, INDIANAPOLIS, ILL. ETC.)
7. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND OTHER UTILITY LOCATIONS BEFORE DIGGING.
8. CONTRACTORS SHALL KEEP ACCURATE DATE RECORDS TO DEVELOP CONSTRUCTION PROGRESS REPORTS SHALL BE PROVIDED ON A DAILY BASIS.
9. U.S. PIPE FIELD "LOCK" GASKET SYSTEM, OR APPROVED EQUAL, SHALL BE USED ON 4-INCH THROUGH 12-INCH PIPE (SEE SPECIFICATIONS).
10. WHEN THE ELEVATION OF THE PAVEMENT IS LOWER THAN THE ELEVATION OF THE GROUND WATER, THE PIPES TO BE Laid, NO MORE THAN 72 INCHES AS MEASURED FROM THE TOP OF THE PAVEMENT TO THE TOP OF THE PIPE, SHALL BE PROTECTED BY THE COMPANY'S REPRESENTATIVE.
11. CONTRACTORS SHALL COMPLY WITH ALL APPLICABLE OSHA RULES AND REGULATIONS AT ALL TIMES.
12. CONTRACTORS TO PRESSURE AND LEAK TEST PIPE AS PER INWC SPECIFICATIONS.
13. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN, TO BE APPROVED BY OWNER AND FANNING/HOWEY, PRIOR TO BEGINNING CONSTRUCTION. THE PLAN SHALL SHOW ALL TRAFFIC CONTROL DEVICES, SIGNAGE, AND ALL OTHER DETAILS THAT SHALL BE NOTED OR WHERE APPROPRIATE.

ABBREVIATIONS

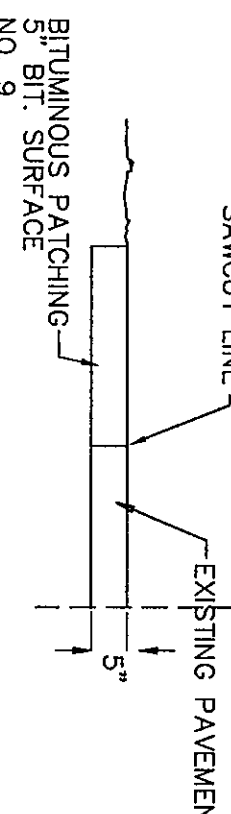
- M.A. = MECHANICAL JOINT
T.J.R.S. = TYTON JOINT
D.I. = DUCTILE IRON
P.E. = POLYETHYLENE
R.S. = RESILIENT SEATED GATE VALVE



17 LOWERING WATERMAIN DETAIL
NO SCALE



18 TYPICAL DRIVEWAY APPROACH
NO SCALE



19 BITUMINOUS PATCHING
NO SCALE

APPROACH DETAILS APPLY AT ALL AFFECTED DRIVEWAY APPROACHES	
APPROACH TABLE	
EXISTING APPROACH	CONSTRUCTED APPROACH
GRAVEL	6\"/>
CONCRETE	6\"/>
BITUMINOUS	1 1/2\"/>
SIDEWALK	4\"/>

Fanning/Howey Associates, Inc.
Architects Engineers Consultants

THE NEW CHESTERTON HIGH SCHOOL FOR THE DUNELAND SCHOOL CORPORATION CHESTERTON, INDIANA

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WATER MAIN DETAILS

DRAWN BY: JDW COMM. NO.: 95067.00
CHECKED BY: JDW DATE: APRIL 21, 1997

SU2.7

REVISIONS NO. DATE

CHESTERTON HIGH SCHOOL
95067.00 PHASE 2