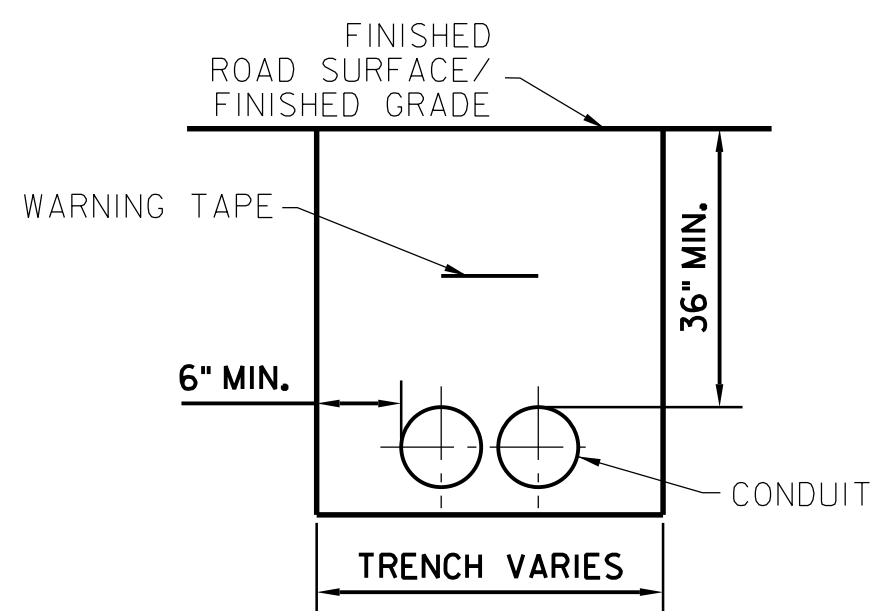


NOTES:

1. INSTALL STAND-OFF BRACKETS FOR RISER INSTALLATION AS REQUIRED BY POLE AND UTILITY COMPANY.
2. ATTACH RISERS TO THE BACK (AWAY FROM TRAFFIC) OF THE EXISTING POLES.
3. INSTALLATION AND RESTORATION SHALL BE INCLUDED IN THE UNIT COST ITEMS FOR '2-5" ELECTRIC RISER CONDUIT AND '2-4" TELEPHONE RISER CONDUIT

UTILITY POLE RISER DETAIL

N.T.S.

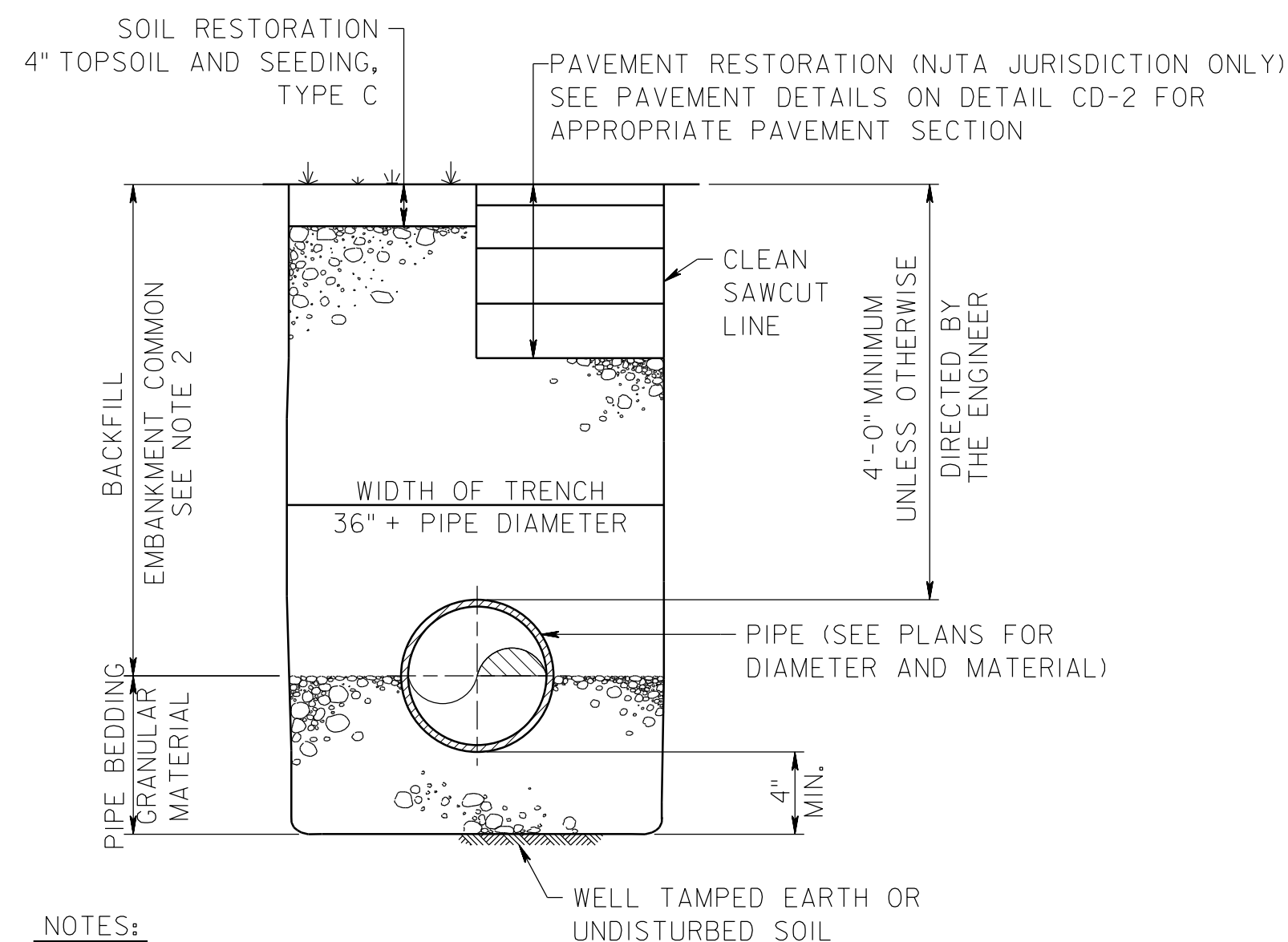


NOTES:

1. TRENCHES IN PAVED AREAS SHALL BE PAVED IN ACCORDANCE WITH PAVING DETAIL. TRENCHES IN UNPAVED AREAS SHALL BE CAPPED WITH 4 INCHES OF TOPSOIL.
2. TRENCH TO BE BACKFILLED WITH EXCAVATED MATERIAL. IF EXCAVATED MATERIAL IS UNSUITABLE, SELECT BACKFILL MATERIAL SHALL BE IMPORTED. BACKFILL SHALL BE PERFORMED IN 6" LIFTS COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY.
3. RESTORATION COSTS SHALL BE INCLUDED IN THE COST OF PIPE INSTALLATION.
4. INSTALLATION AND RESTORATION SHALL BE INCLUDED IN THE RESPECTIVE UNIT COST ITEMS FOR THE VARIOUS CONDUITS AND PIPES.
5. SEE ALSO ELECTRIC SITE DETAILS ON SHEET E-22 FOR ADDITIONAL DETAILS.

UTILITY CONDUIT TRENCH DETAIL

N.T.S.

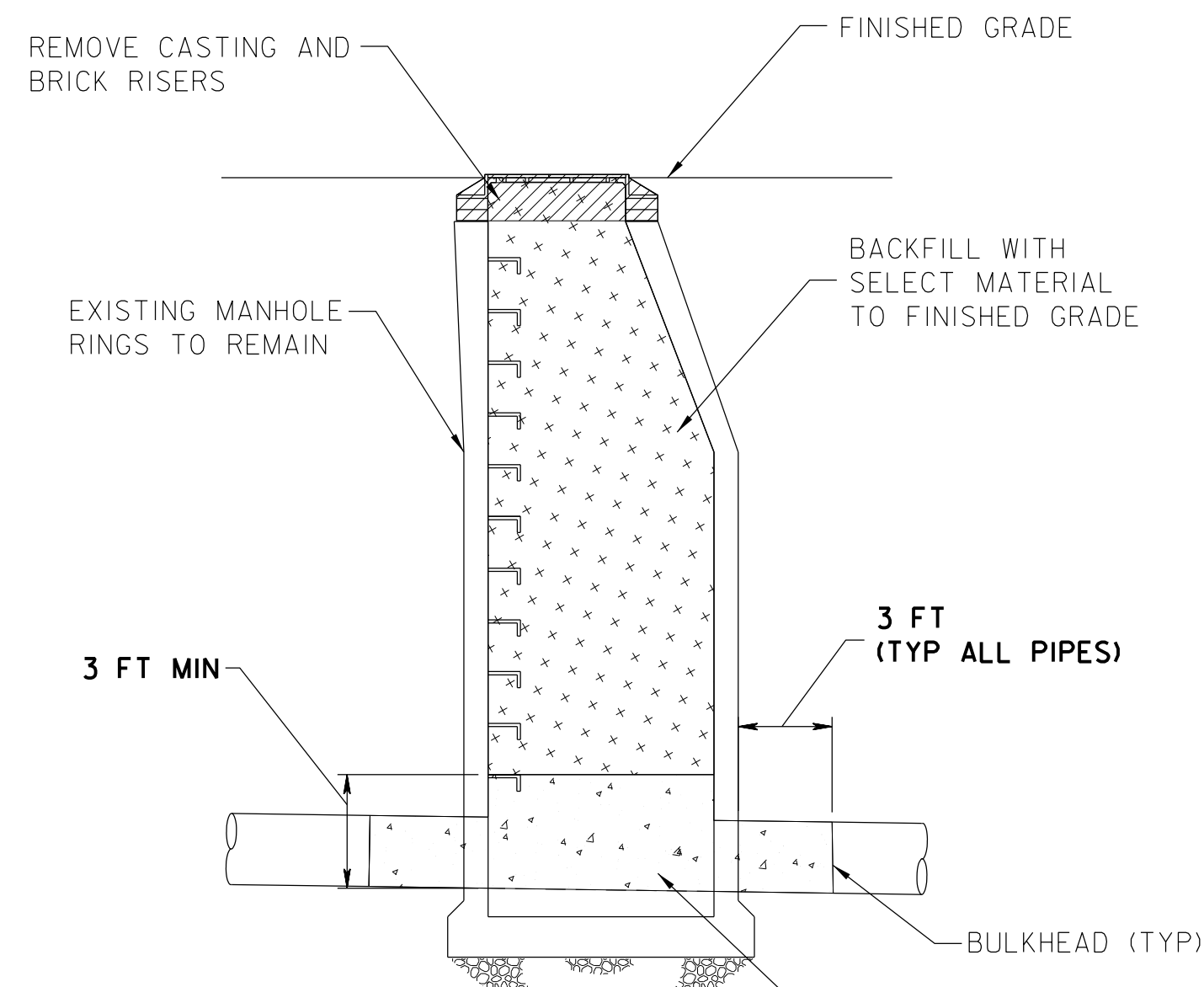


NOTES:

1. ALL COSTS FOR PAVEMENT AND TRENCH EXCAVATION/SUPPORT, BEDDING MATERIAL, PIPE PLACEMENT, BACKFILL/COMPACTION AND PAVEMENT OR SOIL RESTORATION SHALL BE INCLUDED IN THE COST BID FOR THE PIPE
2. TRENCH TO BE BACKFILLED WITH EXCAVATED MATERIAL. IF EXCAVATED MATERIAL IS UNSUITABLE, SELECT BACKFILL MATERIAL SHALL BE IMPORTED. BACKFILL SHALL BE PERFORMED IN 6" LIFTS COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY.
3. SANITARY SEWER PIPING SHALL BE INSTALLED AT THE LINE AND GRADE INDICATED ON SHEETS U-1 & U-2

PIPE BEDDING, SITE BACKFILL AND RESTORATION FOR WATER MAIN AND SANITARY SEWER PIPES

N.T.S.

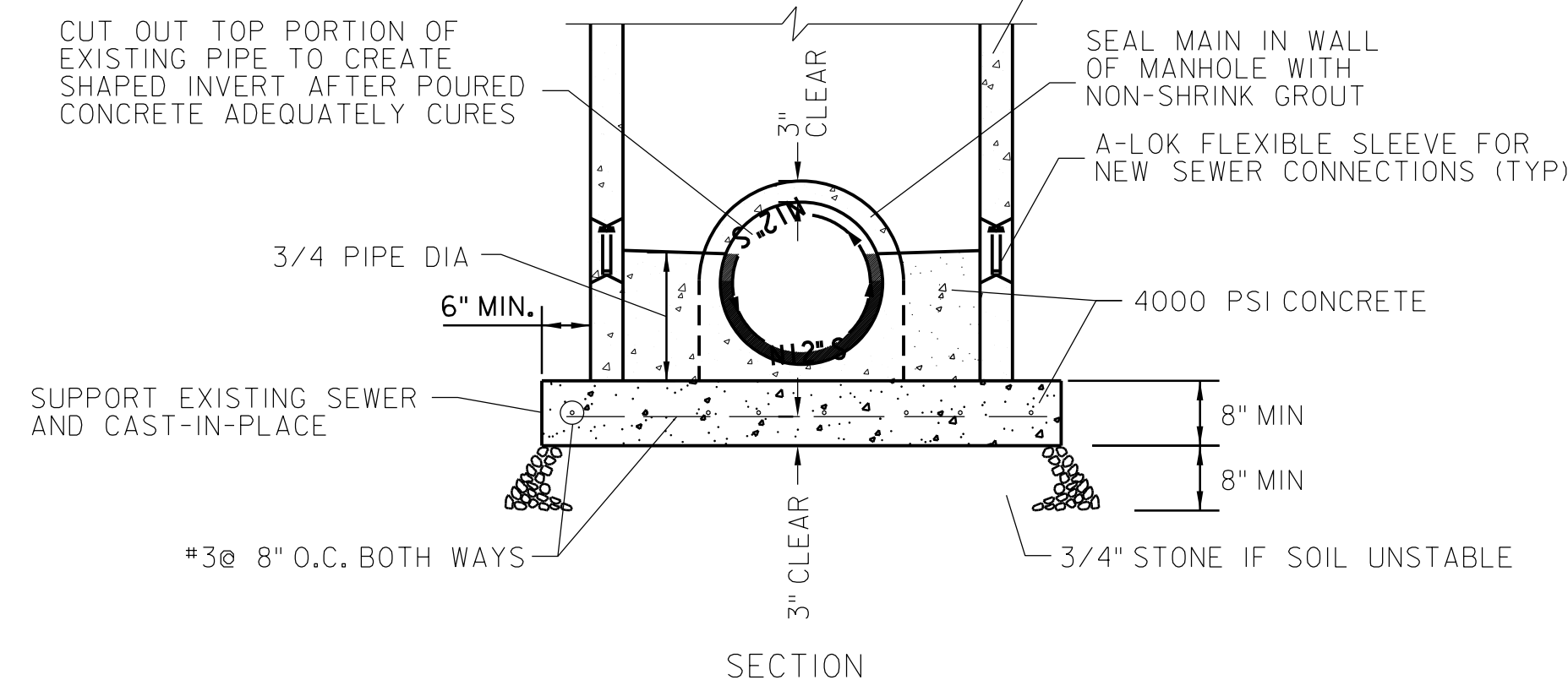


NOTES:

1. CONTRACTOR SHALL DISPOSE OF ALL REMOVED ITEMS

TYPICAL MANHOLE AND PIPE ABANDONMENT DETAIL

N.T.S.



NOTES:

1. MANHOLE SHALL BE PROVIDED IN ACCORDANCE WITH THE "MANHOLE TYPE P-1" AS SHOWN IN NJTA STANDARD DETAIL SHEET DR-3 EXCEPT MANHOLE BASE SHALL BE AS SHOWN ABOVE.
2. PAYMENT FOR THE DOGHOUSE MANHOLE SHALL BE PAID UNDER THE UNIT COST ITEM FOR SANITARY DOGHOUSE MANHOLE.

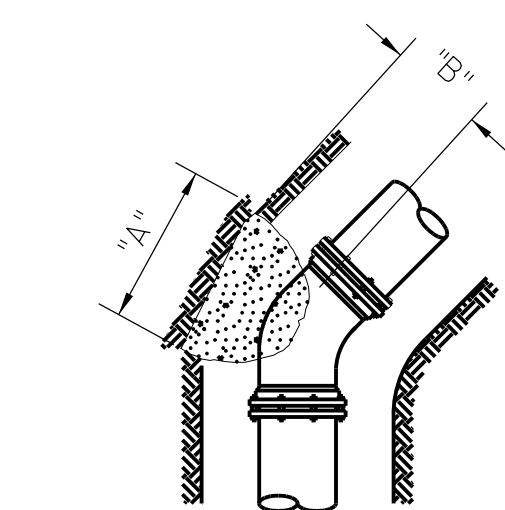
DOGHOUSE MANHOLE BASE

N.T.S.



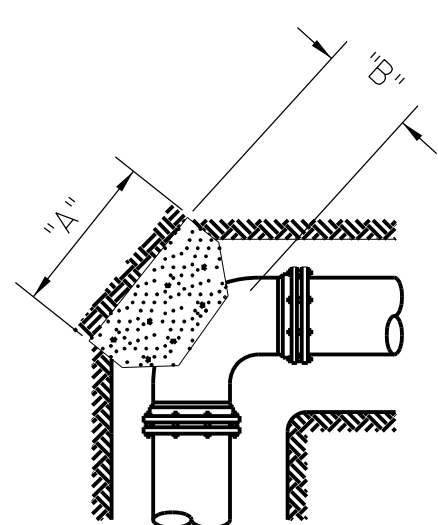
THRUST BLOCK NOTES:

1. ALL BEARING SURFACES SHALL BE CARRIED TO UNDISTURBED SOIL.
2. THRUST BLOCKS TO BE PROVIDED AT ALL BENDS ALONG NEWLY INSTALLED WATER MAINS.
3. POOR SOIL (SILTY SOILS, CLAYS, MUCK, AND PEAT) WILL REQUIRE LARGER THRUST BLOCKS.
4. QUANTITY OF CONCRETE USED FOR THRUST BLOCKING SHALL BE SUFFICIENT TO CREATE A BLOCK WITH BEARING AREA OF DIMENSIONS SHOWN AGAINST UNDISTURBED EARTH.
5. CONCRETE FOR THRUST BLOCKS SHALL BE CLASS 'C' (3,000 P.S.I.).



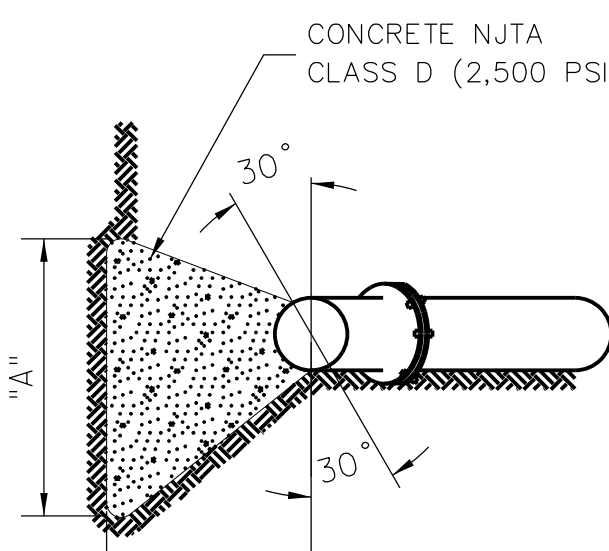
PLAN 45° ELBOW

N.T.S.



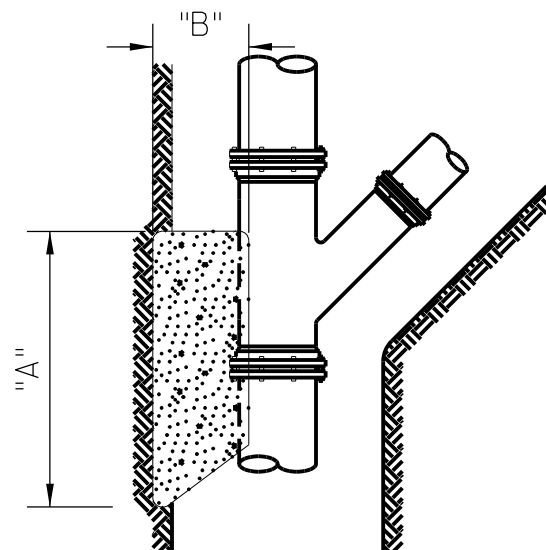
PLAN 90° ELBOW

N.T.S.



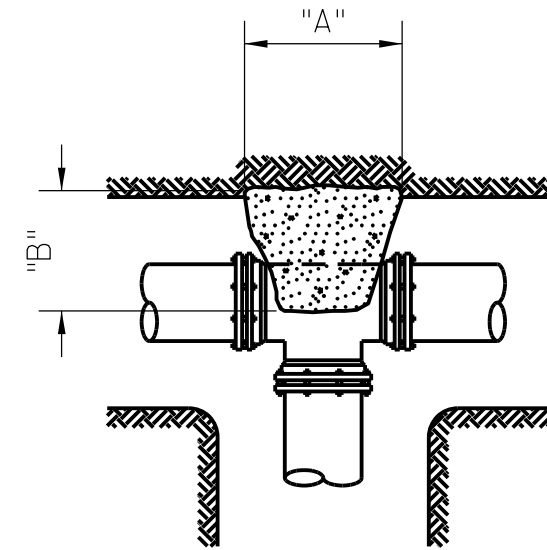
TYPICAL SECTION

N.T.S.



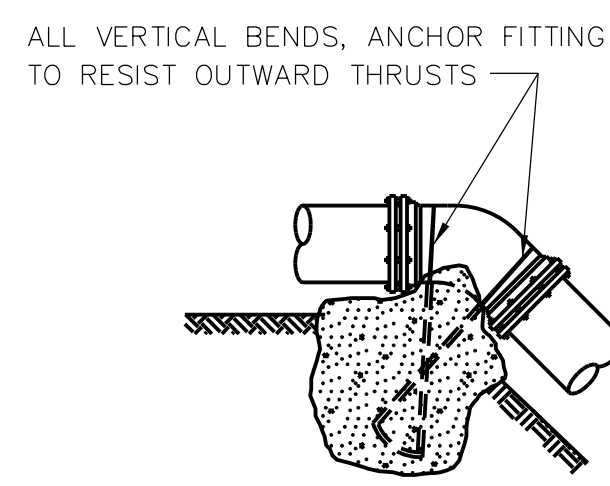
PLAN WYE BRANCH

N.T.S.



PLAN TEE

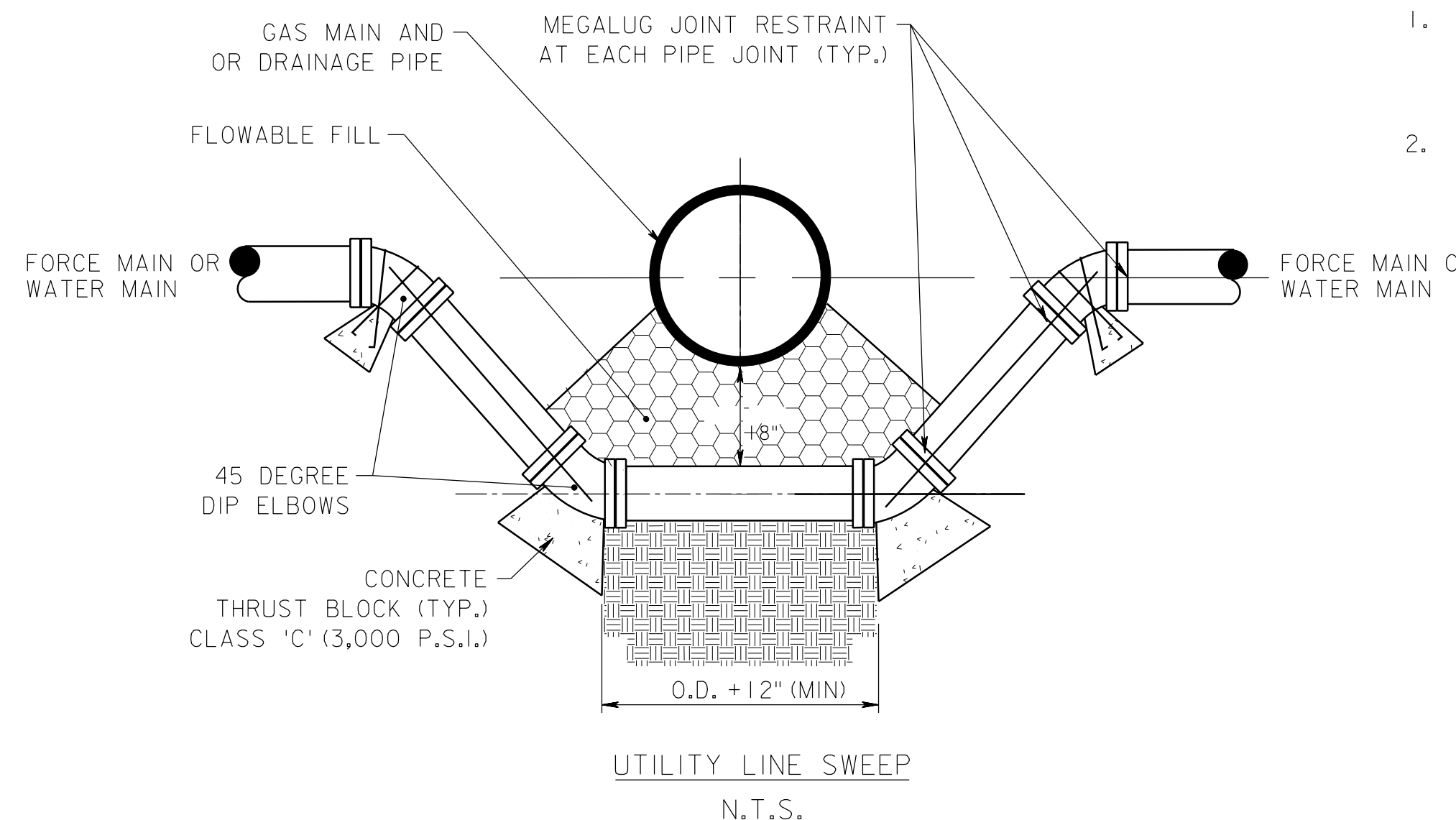
N.T.S.



PLAN TURNED DOWN

N.T.S.

D	TEES & GROSSES	90° BENDS			45° BENDS			22 1/2° BENDS			REDUCERS	DxD			
		A	B	C	A	B	C	A	B	C		A	B	C	
6"	2'-0"	8"	1'-3"	2'-6"	8"	1'-3"	1'-6"	8"	1'-3"	1'-6"	8"	1'-3"	6'-4"	1'-6"	1'-0"
8"	2'-6"	8"	1'-6"	3'-0"	8"	1'-6"	1'-6"	8"	1'-9"	1'-6"	8"	1'-9"	8'-4"	2'-0"	1'-0"
10"	3'-0"	10"	2'-0"	3'-6"	10"	2'-0"	2'-3"	10"	2'-0"	1'-6"	10"	2'-0"	10'-6"	2'-4"	1'-3"
12"	3'-6"	10"	2'-6"	3'-9"	10"	2'-9"	2'-6"	10"	2'-6"	1'-6"	10"	2'-6"	10'-8"	2'-6"	1'-6"



UTILITY LINE SWEEP

N.T.S.

BY	DATE
DESIGNED BY: LIG	1/2015
DRAWN BY: LIG	1/2015
CHECKED BY: WHF	1/2015
SUPERVISOR: J. KEIL	

REV.	DESCRIPTION	DATE	BY	CHK.
I	ADDENDUM NO I	05/19/15	LIG	WHF

CHURCHILL CONSULTING ENGINEERS
344 NORTH ROUTE 73, SUITE A, BERLIN, NJ 08009

Joseph E. Keil
JOSEPH E. KEIL, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE03605600

NEW JERSEY TURNPIKE AUTHORITY
GARDEN STATE PARKWAY
CONTRACT NO. P500.360 - FACILITIES IMPROVEMENT PROGRAM
PMD5 (TELEGRAPH HILL) MP 116, PMD6 (CLARK) MP 136.7,
PMD7 (CLIFTON) MP 156.1 AND PMD8 (PARAMUS) MP 164.2
PMD5 (TELEGRAPH HILL)
CONSTRUCTION DETAILS - 4

T.Y. LIN INTERNATIONAL
3379 QUAKERBRIDGE ROAD, SUITE 200
HAMILTON, NJ 08619
CERTIFICATE OF AUTHORIZATION NO. 24GA27976000
James S. Lester
JAMES S. LESTER
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE0346000

SCALE: AS SHOWN
DATE: MAY 2015

CD-4
CD-8

28
679