PATH: K:\0629007\draw\sheets\
FILE: txy-sondetails.dwg
UPDATE BY: johse
SURVEY BOOK #
XREF DWG:
XREF DWG:
DATE: Tue 6/10/03 11:08am

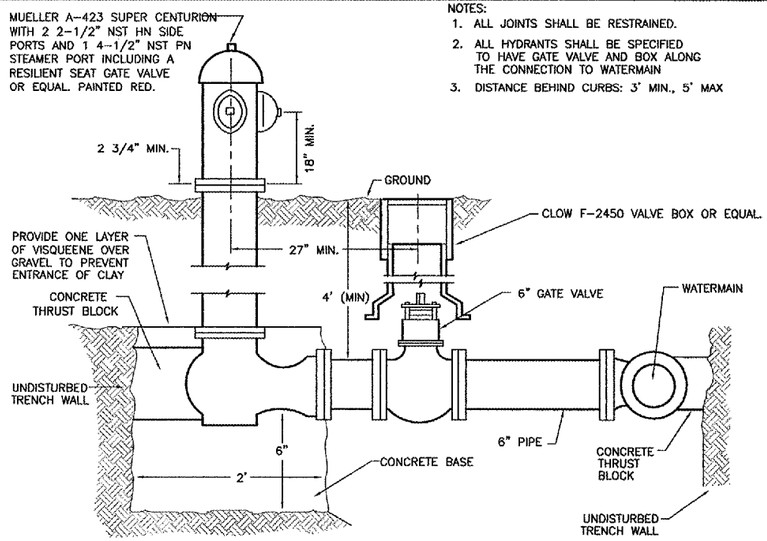
REVISIONS

NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

MUELLER A-423 SUPER CENTURION WITH 2 2-1/2" NST HN SIDE PORTS AND 1 4-1/2" NST PN STEAMER PORT INCLUDING A RESILIENT SEAT GATE VALVE OR EQUAL. PAINTED RED.

NOTES:
1. ALL JOINTS SHALL BE RESTRAINED.
2. ALL HYDRANTS SHALL BE SPECIFIED TO HAVE GATE VALVE AND BOX ALONG THE CONNECTION TO WATERMAIN
3. DISTANCE BEHIND CURBS: 3' MIN., 5' MAX

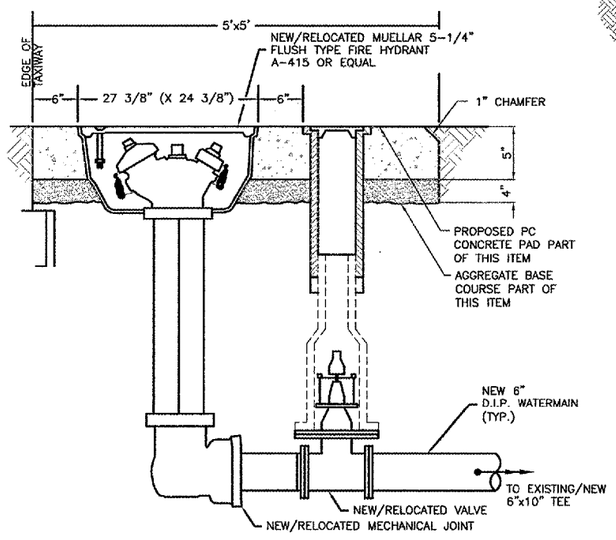


FIRE HYDRANT DETAIL
N.T.S.

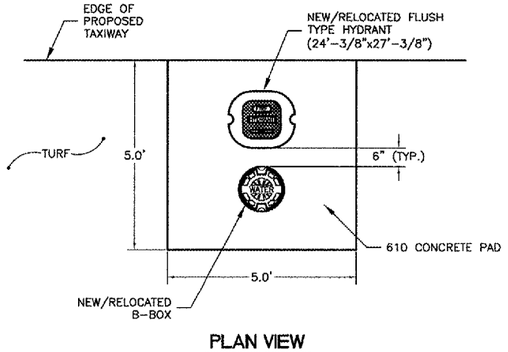
GENERAL NOTES:

1) CONTRACTOR TO COMPLETE INSTALLATION OF CONCRETE PADS FOR FLUSH MOUNTED HYDRANTS AFTER COMPLETION OF TAXIWAY PAVEMENT CONSTRUCTION.

4) CONCRETE PAD SHALL BE SLOPED 1.5 % TO DRAIN AWAY FROM THE TAXIWAY.

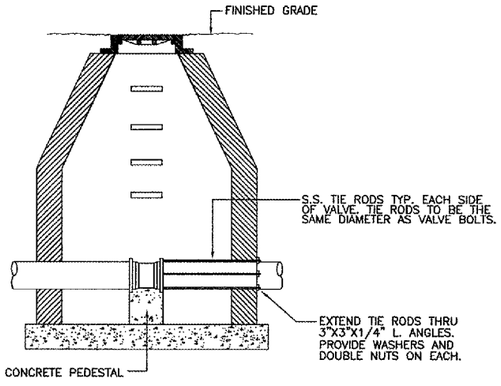


NEW/RELOCATED FLUSH MOUNTED HYDRANT
NOT TO SCALE

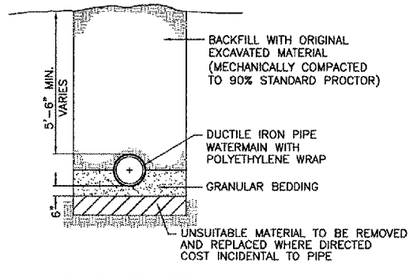


PLAN VIEW

NOTE: CONTRACTOR TO VERIFY EXISTING 12" WATERMAIN LOCATION TO ENSURE CONSTRUCTION OF HYDRANTS AND WATERMAINS

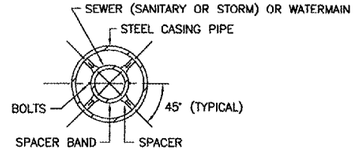


EXISTING VALVE VAULT RESTRAINT DETAIL
N.T.S.

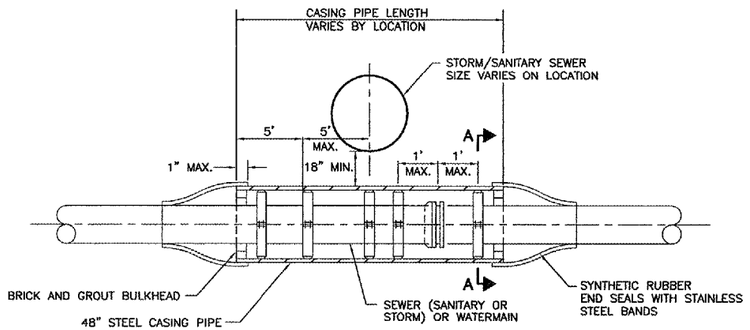


NON-PAVED AREAS

TRENCH DETAILS - WATERMAIN
N.T.S.

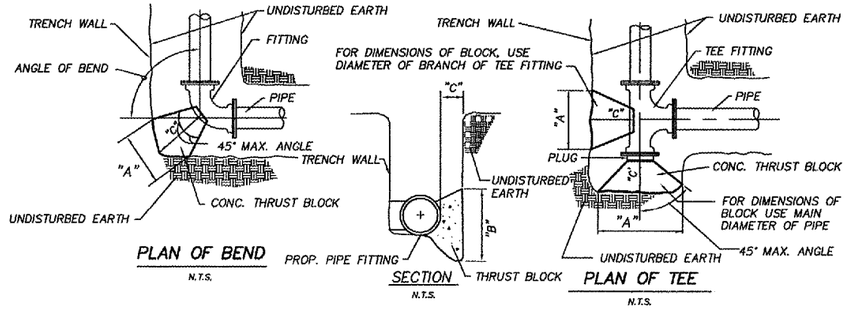


SECTION A-A



CASING PIPE DETAIL
N.T.S.

1. AT LEAST THREE CASING CHOCKS/PIPE LENGTH SHALL BE INSTALLED WITH THE CASING PIPE.
2. THE CASING SPACER SHALL BE CENTERED AND RESTRAINED TYPE.
3. THE SPACER BANDS SHALL BE STAINLESS STEEL.
4. ALL FASTENER HARDWARE (I.E. NUTS, BOLTS AND WASHERS) ASSOCIATED WITH THE CASING SPACERS SHALL BE STAINLESS STEEL.
5. THE SPACERS SHALL BE STAINLESS STEEL OR NONMETALLIC MATERIAL.



100 P.S.I. TABLE

SIZE	90° BEND			45° BEND			22-1/2° BEND			11-1/4° BEND			TEE OR PLUG		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
4"& 6"	2'-0"	1'-4"	9"	1'-6"	1'-0"	6"	1'-1"	0'-8"	6"	0'-9"	0'-6"	6"	2'-5"	1'-7"	1'-0"
8"	2'-8"	1'-10"	1'-0"	2'-0"	1'-4"	8"	1'-5"	1'-0"	8"	1'-0"	0'-8"	8"	3'-2"	2'-2"	1'-3"
10"	3'-4"	2'-3"	1'-3"	2'-6"	1'-8"	10"	1'-9"	1'-2"	8"	1'-3"	0'-10"	8"	4'-0"	2'-8"	1'-7"
12"	4'-0"	2'-8"	1'-6"	3'-0"	2'-0"	1'-0"	2'-2"	1'-5"	8"	1'-6"	1'-0"	8"	4'-10"	3'-2"	1'-11"
14"	4'-8"	3'-2"	1'-9"	3'-6"	2'-4"	1'-2"	2'-6"	1'-8"	8"	1'-9"	1'-2"	8"	5'-7"	3'-9"	2'-3"
16"	5'-4"	3'-7"	2'-0"	3'-11"	2'-8"	1'-4"	2'-10"	1'-11"	9"	2'-0"	1'-4"	8"	6'-4"	4'-3"	2'-6"
18"	6'-0"	4'-0"	2'-3"	4'-5"	3'-0"	1'-6"	3'-2"	2'-2"	10"	2'-3"	1'-6"	8"	7'-2"	4'-9"	2'-10"
20"	6'-8"	4'-5"	2'-6"	4'-11"	3'-4"	1'-8"	3'-6"	2'-4"	11"	2'-6"	1'-8"	8"	7'-11"	5'-4"	3'-2"
24"	8'-0"	5'-4"	3'-0"	5'-11"	3'-11"	2'-0"	4'-3"	2'-10"	1'-1"	3'-0"	2'-0"	8"	9'-6"	6'-4"	3'-9"

THRUST BLOCK DETAILS (FOR HORIZONTAL ALIGNMENT)

NOTES:
1. ALL BENDS, TEES, PLUGS, FITTINGS OR OTHER SIGNIFICANT CHANGES IN ALIGNMENT SHALL BE BRACED WITH POURED CONCRETE THRUST BLOCKS FITTINGS WITH RETAINING GLANDS WILL NOT BE ALLOWED.
2. "C" DIMENSION SHALL BE AS REQUIRED TO REACH UNDISTURBED EARTH BUT NOT LESS THAN VALUE LISTED IN TABLE.
3. DIMENSIONS "A" AND "B" ARE BASED ON INTERNAL PIPE PRESSURE OF 100 P.S.I. AND BEARING ON THE UNDISTURBED SOIL OF 1500 P.S.F.
4. "B"= HEIGHT OF THRUST BLOCK
5. ALL PLUGS SHALL BE SEPARATED FROM THE CONCRETE THRUST BLOCK BY A LAYER OF 5 MIL PLASTIC SHEET
5. ALL POURED CONCRETE SHALL BE 3000 psi @ 28 DAYS.

PALWAUKEE MUNICIPAL AIRPORT
WHEELING/PROSPECT HEIGHTS, ILLINOIS

WATERMAIN DETAILS

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

DESIGN BY:	MJS
DRAWN BY:	JRO
CHECKED BY:	MJS
APPROVED BY:	
DATE:	06/29/06
JOB No:	06290-07

ILLINOIS PROJECT: PWK-3613
A.I.P. PROJECT: 3-17-0018-B39