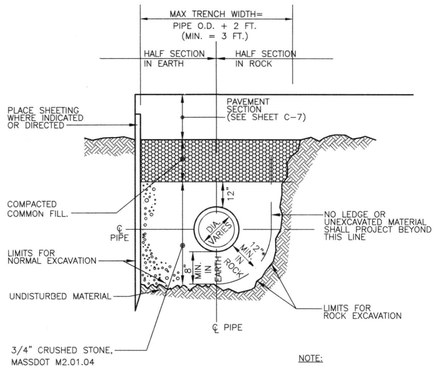
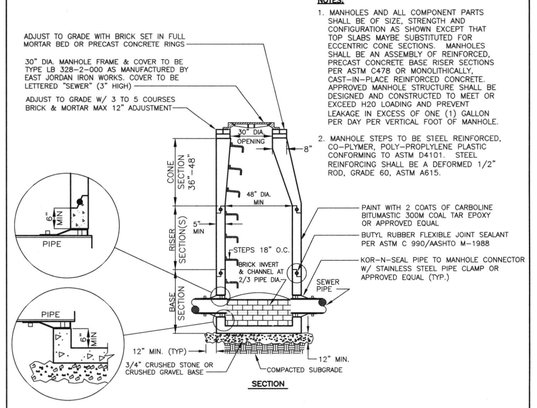


NOTE:

METHODS OF INSTALLATION TO MEET OR EXCEED THE TOWN OF WINCHESTER WATER/SEWER DEPARTMENT AND PIPE MANUFACTURER'S SPECIFICATIONS.

TYPICAL SEWER TRENCH DETAIL

SCALE: N.T.S.

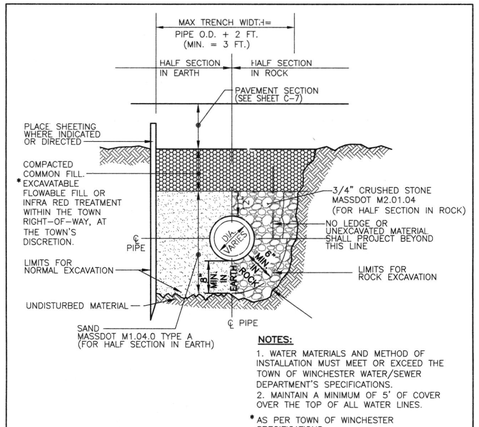


NOTES:

1. MANHOLES AND ALL COMPONENT PARTS SHALL BE OF SIZE, STRENGTH AND CONFIGURATION AS SHOWN EXCEPT THAT TOP SLABS MAYBE SUBSTITUTED FOR ECCENTRIC CONE SECTIONS. MANHOLES SHALL BE AN ASSEMBLY OF REINFORCED, PRECAST CONCRETE BASE RISER SECTIONS PER ASTM C478 OR MONOLITHICALLY, CAST-IN-PLACE REINFORCED CONCRETE. APPROVED MANHOLE STRUCTURE SHALL BE DESIGNED AND CONSTRUCTED TO MEET OR EXCEED H20 LOADING AND PREVENT LEAKAGE IN EXCESS OF ONE (1) GALLON PER DAY PER VERTICAL FOOT OF MANHOLE.
2. MANHOLE STEPS TO BE STEEL REINFORCED, CO-PLYMER, POLY-PROPLYLENE PLASTIC CONFORMING TO ASTM D4101. STEEL REINFORCING SHALL BE A DEFORMED 1/2" ROD, GRADE 60, ASTM A615.

PRECAST CONC. SEWER MANHOLE (SMH) WITH BRICK INVERT

SCALE: N.T.S.



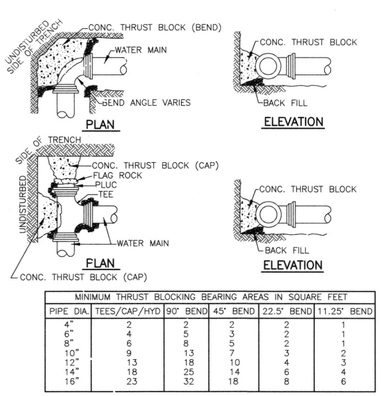
NOTES:

1. WATER MATERIALS AND METHOD OF INSTALLATION MUST MEET OR EXCEED THE TOWN OF WINCHESTER WATER/SEWER DEPARTMENT'S SPECIFICATIONS.
2. MAINTAIN A MINIMUM OF 5' OF COVER OVER THE TOP OF ALL WATER LINES.

* AS PER TOWN OF WINCHESTER SPECIFICATIONS.

TYPICAL WATER TRENCH DETAIL

SCALE: N.T.S.



NOTES:

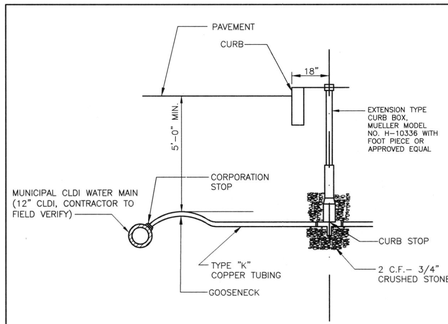
1. ALL WATER MAIN FITTINGS, BENDS, TEES, PLUGS ETC. SHALL BE RESTRAINED W/ THRUST BLOCKS EXCEPT WHERE NOTED.
2. ALL THRUST BLOCKS & COLLARS SHALL BE INSTALLED SO THAT THEY BEAR AGAINST UNDISTURBED EARTH.
3. SIZE OF CONCRETE THRUST BLOCKS AS NOTED BELOW.
4. MINIMUM COMPRESSIVE STRENGTH OF THRUST BLOCK CONCRETE SHALL BE 4,000 P.S.I.
5. MINIMUM BEARING AREA BASED ON 2000 LB/SF ALLOWABLE SOIL BEARING PRESSURE WITH A 1.5 SAFETY FACTOR.
6. A MINIMUM OF 1/3 CUBIC YARD OF CONCRETE MUST BE USED FOR THRUST BLOCKS.
7. MATERIALS, METHOD INSTALLATION SHALL CONFORM TO THE TOWN OF WINCHESTER WATER/SEWER DEPARTMENT'S SPECIFICATIONS.

MINIMUM THRUST BLOCKING BEARING AREAS IN SQUARE FEET

PIPE DIA.	TEES/CAP/HYD	90° BEND	45° BEND	22.5° BEND	11.25° BEND
4"	2	2	2	2	1
6"	4	5	3	2	1
8"	6	8	5	2	1
10"	9	13	7	3	2
12"	13	18	10	4	3
14"	18	25	14	6	4
16"	23	32	18	8	6

TYPICAL THRUST BLOCK DETAIL

SCALE: N.T.S.

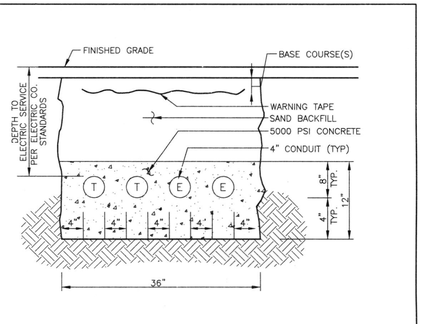


NOTES:

1. 2" DOMESTIC WATER SERVICE TO BE RESTRAINED TO MUNICIPAL WATER MAIN (12" CLDI, CONTRACTOR TO FIELD VERIFY) PER DPW REQUIREMENTS.
2. INSTALLATION AND MATERIALS TO BE IN ACCORDANCE WITH TOWN OF WINCHESTER'S WATER DEPARTMENT STANDARDS AND SPECIFICATIONS.

2" DOMESTIC WATER SERVICE CONNECTION DETAIL

SCALE: N.T.S.



NOTE:
MUST MEET ELECTRIC AND
TELEPHONE COMPANIES' SPECIFICATIONS.

ELECTRICAL/ TELEPHONE DUCT BANK SECTIONS

SCALE: N.T.S.

Drawing name: G:\CVS\Projects\MA\Winchester\Washington Street and Swanton\Main\Details\11071_C-8.dwg
May 24, 2013 - 17:09pm

CVS pharmacy

11,955 SF PHARMACY WITH NO DRIVE THRU

STORE NUMBER: 10129
WASHINGTON STREET AND
SWANTON STREET
WINCHESTER, MA
PROJECT TYPE: NEW CONSTRUCTION
DEAL TYPE: GROUND LEASE

CS PROJECT # 65348

CIVIL ENGINEER:
RJO'CONNELL & ASSOCIATES, INC.
CIVIL ENGINEERS, SURVEYORS
& LAND PLANNERS
80 MONTVALE AVE
STONEHAM, MA 02180
PHONE: 781-279-0180
FAX: 781-279-0173

DEVELOPER:
GBC
GERSHMAN BROWN CROWLEY INC.
GERSHMAN BROWN CROWLEY, INC.
14 BREAKNECK HILL RD, SUITE 101
LINCOLN, RI 02865
TEL (401) 721-1605
PROJECT CONTACT: PAUL BECK

SEAL:

COMMONWEALTH OF MASSACHUSETTS
BRIAN P. DUNDON
CIVIL
No. 41905
REGISTERED
PROFESSIONAL ENGINEER
5-29-13

REVISIONS:

REVISED PER TOWN COMMENTS	1/24/2013
SUBMIT TO ZBA FOR SITE PLAN APPROVED	2/15/2013
REVISED PER TOWN COMMENTS	5/06/2013
REVISED PER TOWN COMMENT LETTER	5/29/2013

PROJECT MANAGER:	JSK
DRAWING BY:	KPM
REVIEWED BY:	JSK/MJW
DATE:	10/05/2012
JOB NUMBER:	11071

TITLE:

UTILITY DETAILS

SHEET NUMBER:

C-8

COMMENTS:
NOT FOR CONSTRUCTION