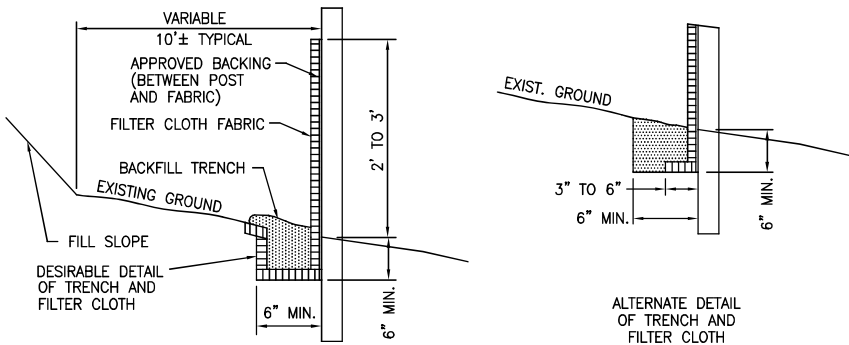


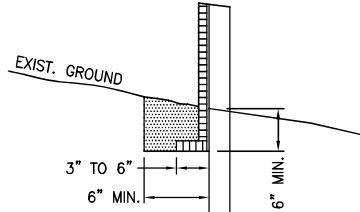
ELEVATION



SECTION

NOTES:

1. FILTER FABRIC SHALL HAVE APPROVED BACKING OR A BUILT-IN REINFORCED STRUCTURE AS RECOMMENDED BY THE MANUFACTURER TO SUPPORT THE FILTER FABRIC.
2. A PREASSEMBLED SILT FENCE MEETING THE REQUIREMENTS OF THIS DRAWING IS ACCEPTABLE IN LIEU OF A FIELD CONSTRUCTED SILT FENCE.



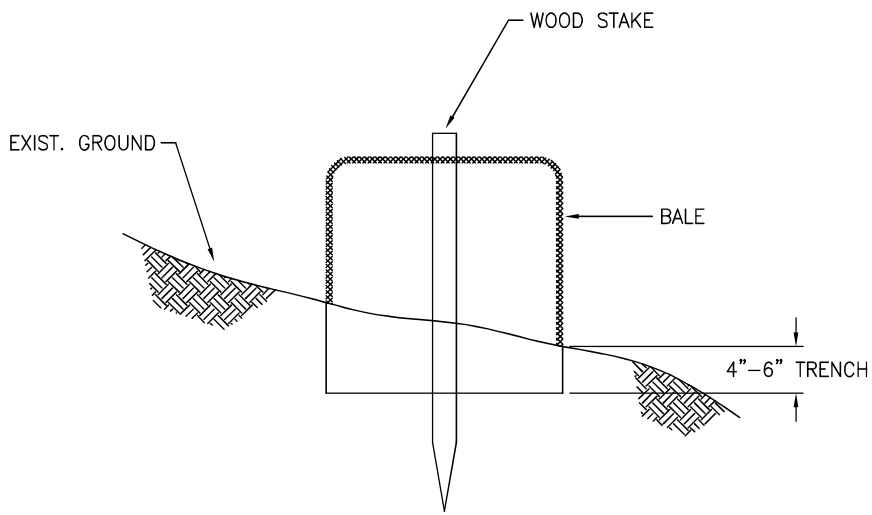
ALTERNATE DETAIL OF TRENCH AND FILTER CLOTH

**TEMPORARY  
SILT FENCE  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	REPRINT

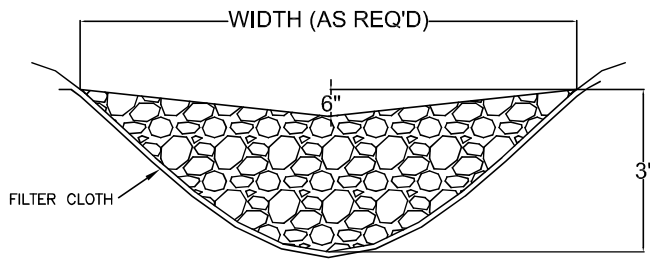


**STAKED STRAW BALE  
DETAIL  
N.T.S.**

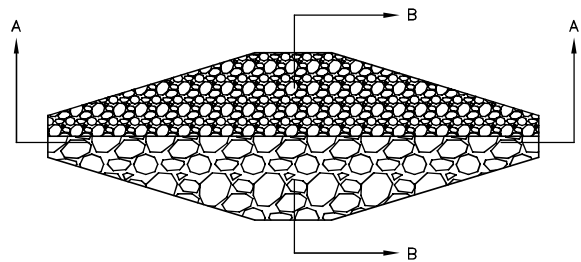


**STANDARD SPECIFICATIONS**

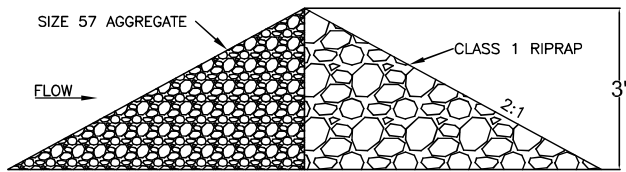
REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2008	TITLE CORRECTION



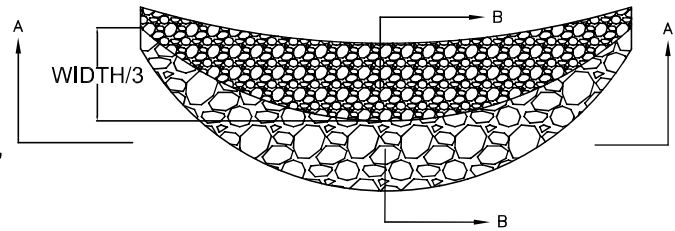
SECTION A-A



PLAN (STRAIGHT DAM)



SECTION B-B



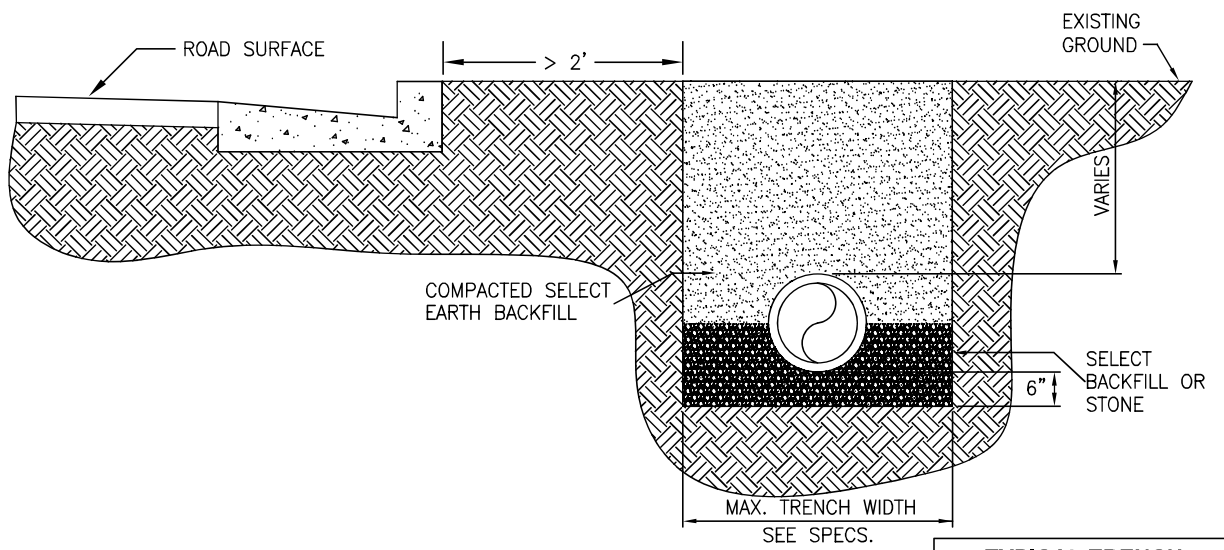
PLAN (CURVED DAM)

**ROCK CHECKDAM  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	REPRINT

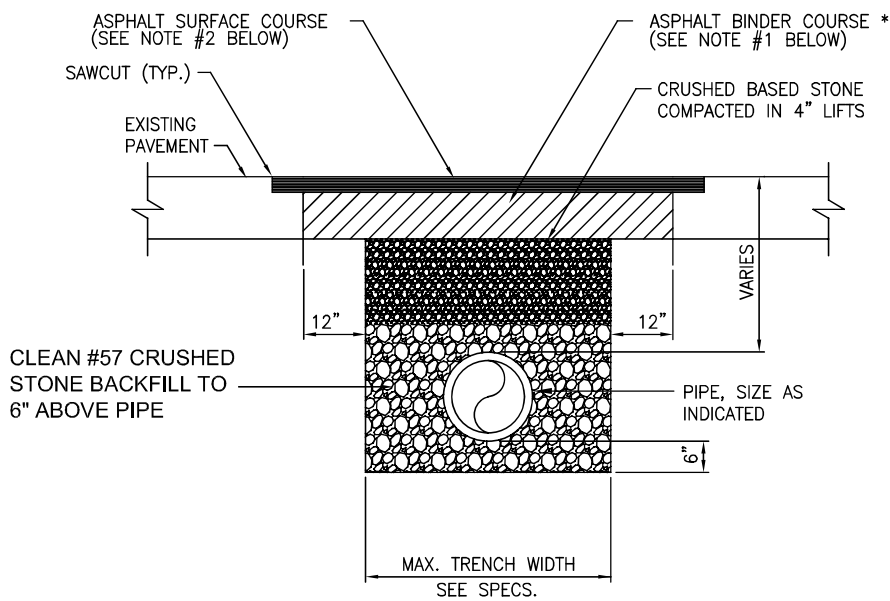


**TYPICAL TRENCH  
IN NON-TRAFFIC AREA  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	ADD ROAD, TITLE CORR.



**NOTES:**

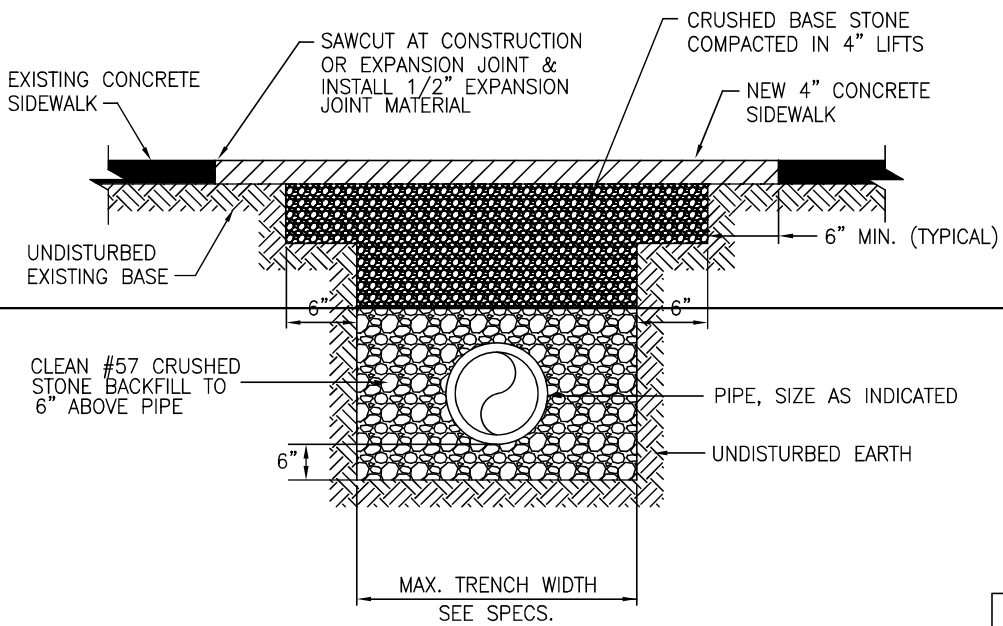
1. DEPTH OF BINDER COURSE SHALL BE 2.5" OF B MODIFIED MIX IN CITY STREETS AND TO TDOT SPECIFICATIONS IN STATE HIGHWAYS.
2. DEPTH OF SURFACE (TOPPING) COURSE SHALL BE 1.5" OF D OR E MIX WITH LIQUID ASPHALT TACK SOLUTION INSTALLED BETWEEN BINDER AND TOPPING COURSES IN CITY STREETS AND TO TDOT SPECIFICATIONS IN STATE HIGHWAYS.

**TYPICAL TRENCH  
IN PAVED AREAS  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	BACKFILL SPECS.



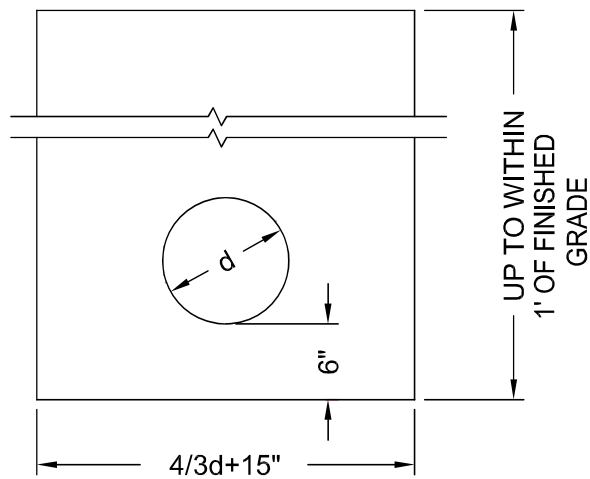
NOTE:  
CONCRETE MIX SHALL PRODUCE MIN. 4000 PSI AT 28 DAYS.

**TYPICAL TRENCH  
IN SIDEWALK AREA  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	BACKFILL SPECS.



EXTEND INTO  
 UNDISTURBED SOIL ON  
 EITHER SIDE & BELOW PIPE

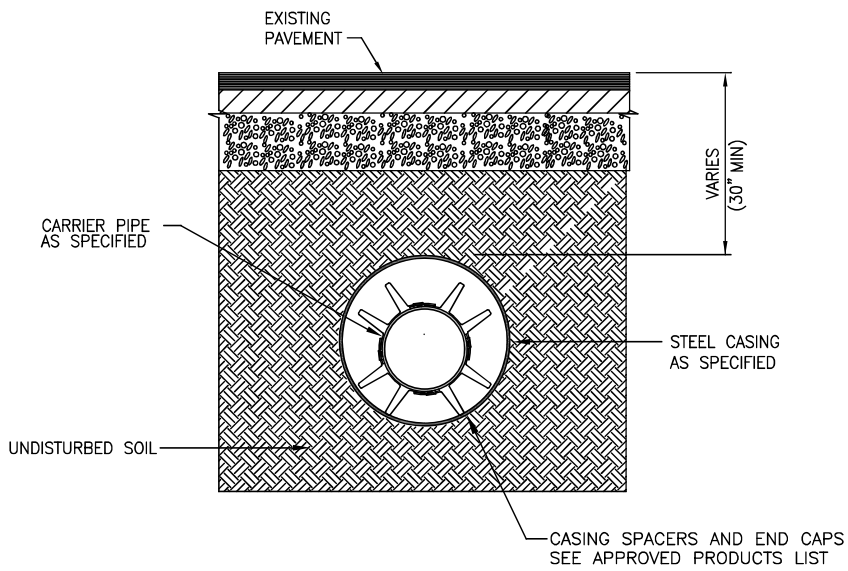
**NOTE:**  
 ALL CHECKDAMS ARE 3' THICK AND ARE  
 EITHER COMPACTED CLAY OR CONCRETE  
 AS NOTED ON DRAWINGS. LOCATE AS  
 DIRECTED BY CUB.

**TYPICAL CHECK DAM  
 DETAIL  
 N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	TITLE CORRECTION



**PIPE CASING  
FOR BORES  
DETAIL  
N.T.S.**

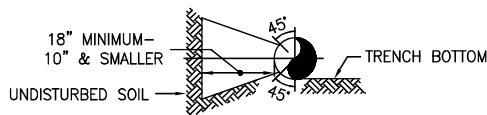
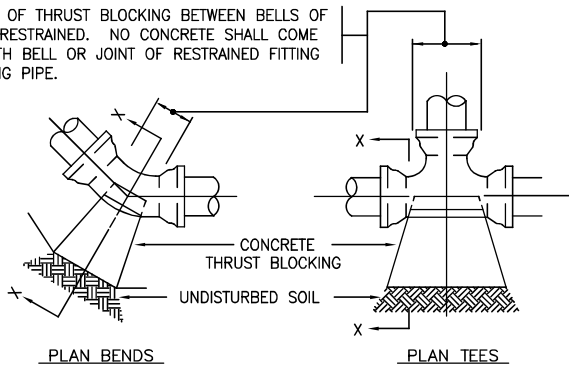


**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	ADDED CASING SPACERS



CONFINE LIMITS OF THRUST BLOCKING BETWEEN BELLS OF FITTING TO BE RESTRAINED. NO CONCRETE SHALL COME IN CONTACT WITH BELL OR JOINT OF RESTRAINED FITTING AND CONNECTING PIPE.



SECTION X-X  
BENDS & TEES

NOTE: WRAP ALL FITTINGS TO BE RESTRAINED WITH PLASTIC BEFORE POURING CONCRETE

MINIMUM CONCRETE THRUST BLOCK SIZE IN CONTACT WITH THE BEARING SOIL IN SQUARE FEET.

PIPE SIZE	BENDS				STD. TEE
	11-1/4'	22-1/2'	45'	90'	
4	1.0	1.0	1.5	2.5	2.0
6	1.5	2.0	3.0	5.5	4.0
8	1.5	2.5	5.0	10.0	7.0
10	2.0	4.0	7.5	14.5	10.0
12	3.0	6.0	11.5	21.5	14.5
14	4.0	7.5	15.0	28.0	19.5
16	5.0	10.0	20.0	35.0	25.5
18	6.5	12.5	24.56	35.0*	32.0
20	8.5	16.5	32.6	35.0*	35.0*
24	10.0	20.0	35.0*	35.0*	35.0*
30	18.0	34.5	35.0*	35.0*	35.0*
36	25.0	35.0*	35.0*	35.0*	35.0*
42	32.5	35.0*	35.0*	35.0*	35.0*

BLOCKING SCHEDULE BASED ON 200 PSI WATER PRESSURE, 2,000 PSF SOIL BEARING PRESSURE & 1.25 SAFETY FACTOR.

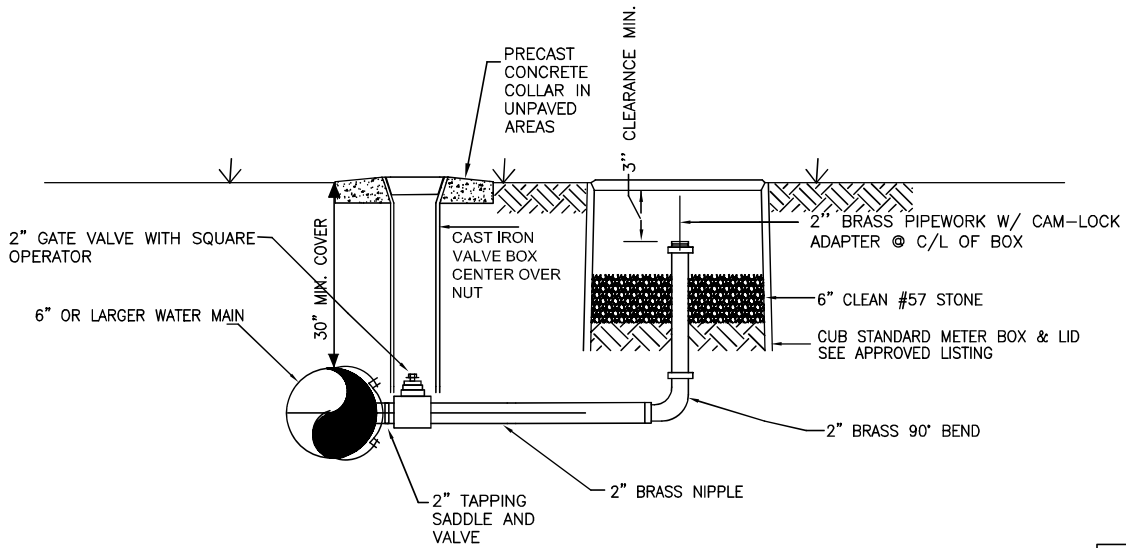
\* INDICATES FITTINGS REQUIRING RESTRAINED JOINTS IN ADDITION TO CONC. THRUST BLOCKING.

**THRUST BLOCKING  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	ADDED NOTE



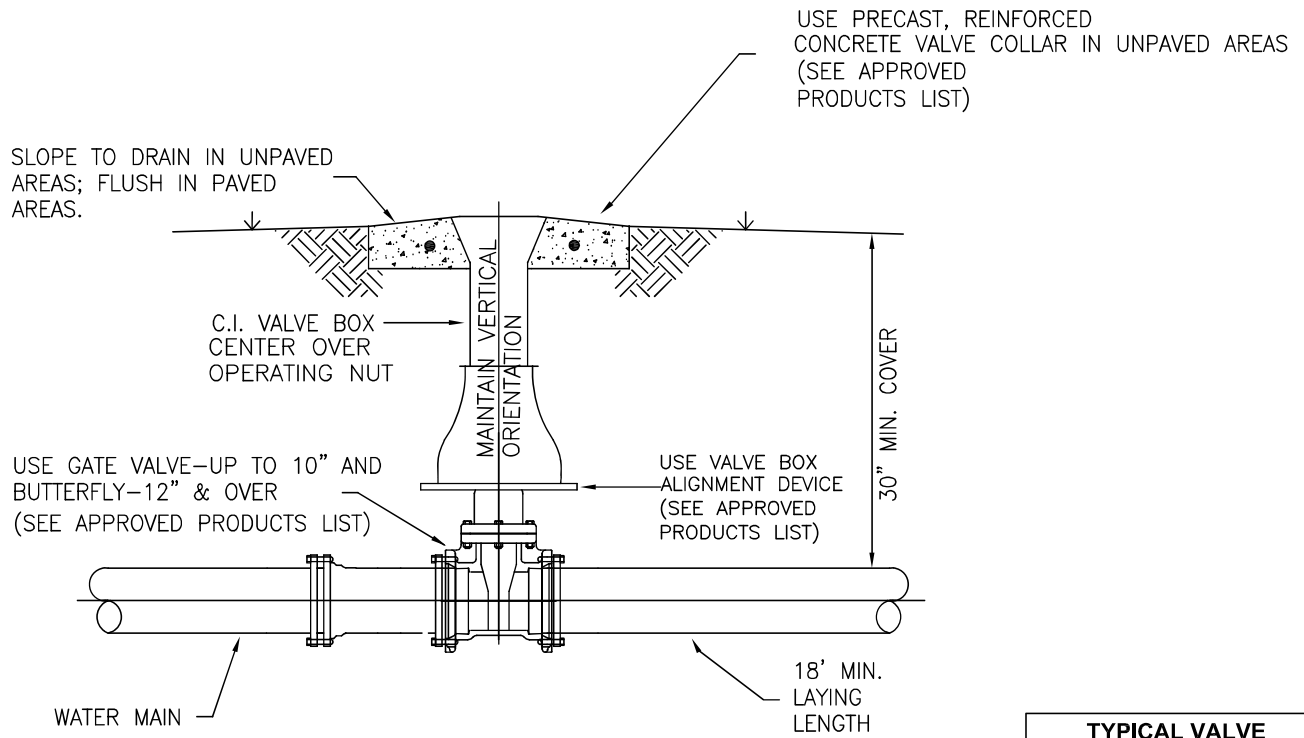
NOTE:  
 SEE STANDARD AND APPROVED PRODUCTS LIST FOR GATE VALVE,  
 TAPPING SADDLE, METER BOX & COVER, VALVE BOX, COLLAR, CAM  
 LOCK ADAPTER, ETC.

**TYPICAL BLOW-OFF  
 DETAIL  
 N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	B.O. DEPTH & MAIN SIZE

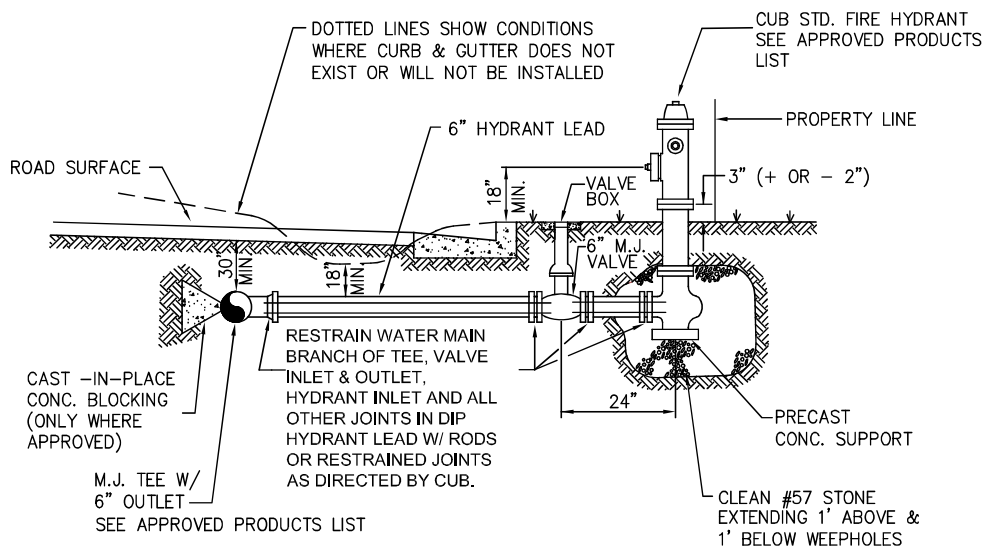


**TYPICAL VALVE  
SETTING  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	REF. TO APPROVED LIST



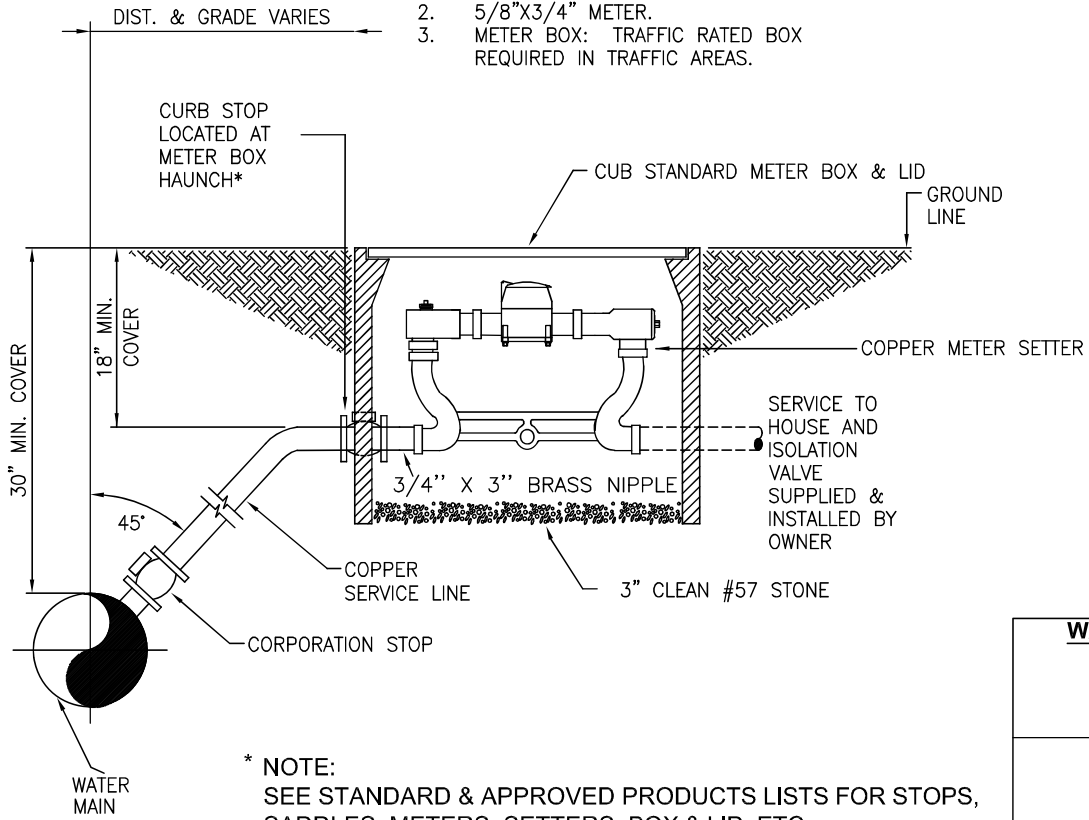
**TYPICAL FIRE HYDRANT  
DETAIL  
N.T.S.**

**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	ADD RESTRAINED JOINT

NOTES:

1. ROCKY AREAS WILL REQUIRE 2" PVC ENCASEMENT ACROSS ROADS.
2. 5/8"x3/4" METER.
3. METER BOX: TRAFFIC RATED BOX REQUIRED IN TRAFFIC AREAS.



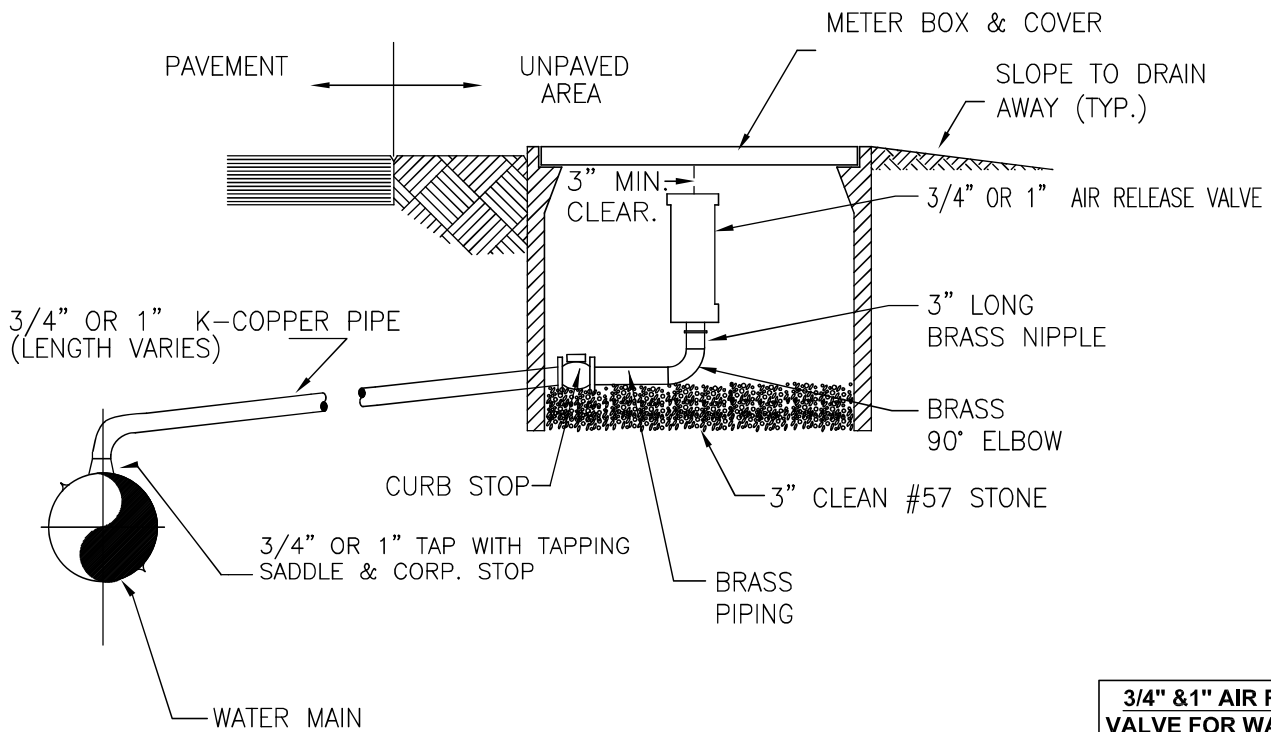
\* NOTE:  
SEE STANDARD & APPROVED PRODUCTS LISTS FOR STOPS,  
SADDLES, METERS, SETTERS, BOX & LID, ETC.

**WATER SERVICE  
SETTING  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

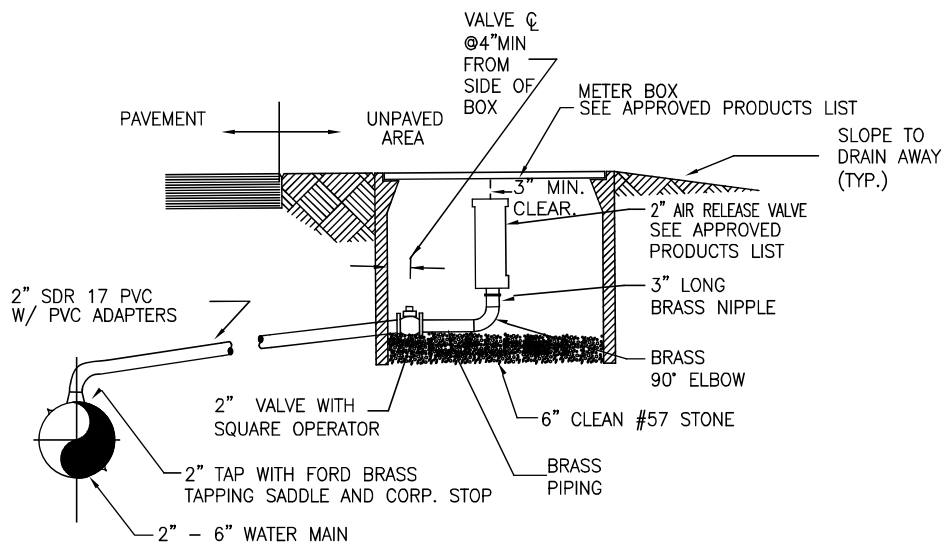
REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	RELOCATED CURB STOP



NOTE:  
SEE STANDARD AND APPROVED PRODUCTS LISTS FOR VALVES, SADDLES, STOPS, METER BOXES AND COVERS

3/4" & 1" AIR RELEASE VALVE FOR WATER MAIN				
DETAIL				
N.T.S.				
STANDARD SPECIFICATIONS				
REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	REFER TO APP. LISTING





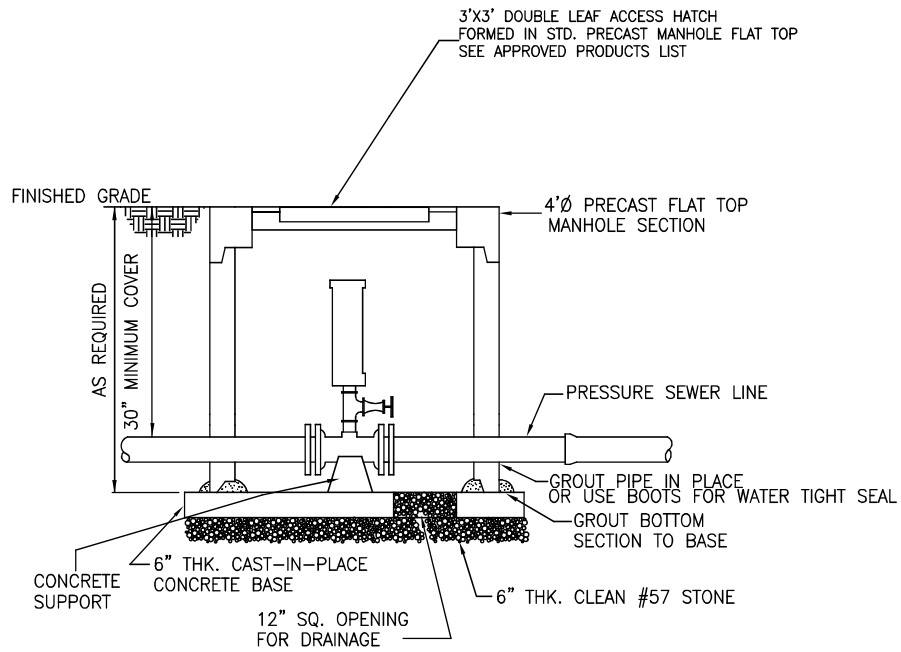
NOTE:  
SEE STANDARD AND APPROVED PRODUCTS LISTS FOR VALVES, SADDLES, STOPS, METER BOXES AND COVER

**2" AIR RELEASE  
VALVE FOR WATER MAIN  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.H.	7/1/2009	REF. APP. LISTING



**TYPICAL LARGE AIR RELEASE,  
PRESSURE REDUCING VALVE OR  
METER VAULT  
DETAIL  
N.T.S.**

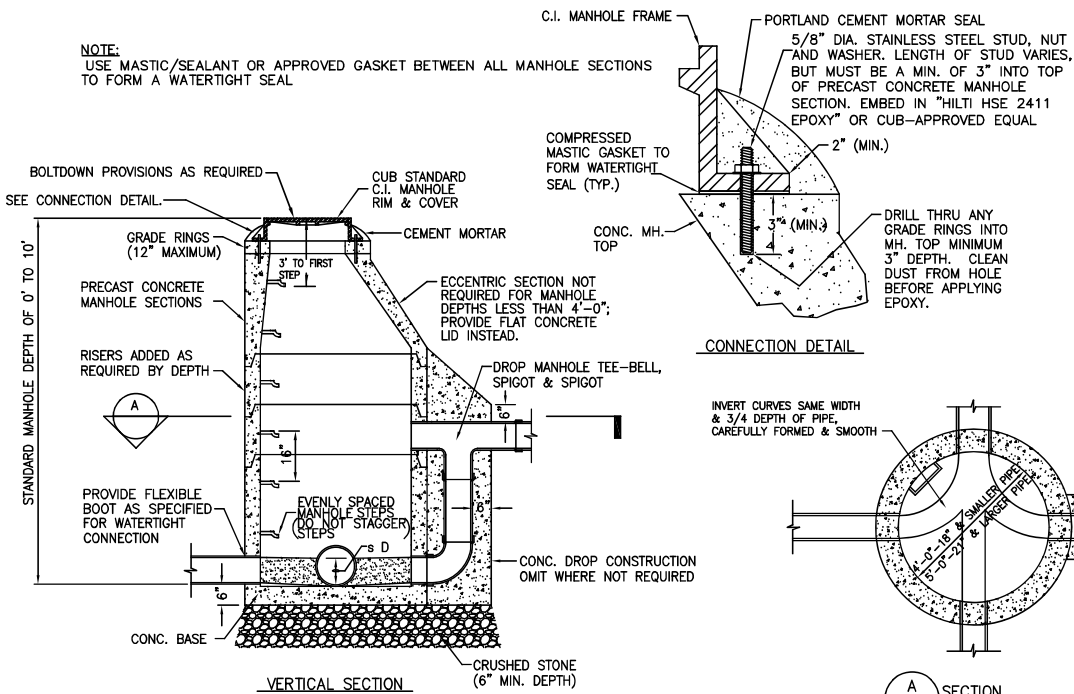
**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	REF. TO APP. LISTING






**NOTE:**  
USE MASTIC/SEALANT OR APPROVED GASKET BETWEEN ALL MANHOLE SECTIONS TO FORM A WATERTIGHT SEAL



**NOTES**

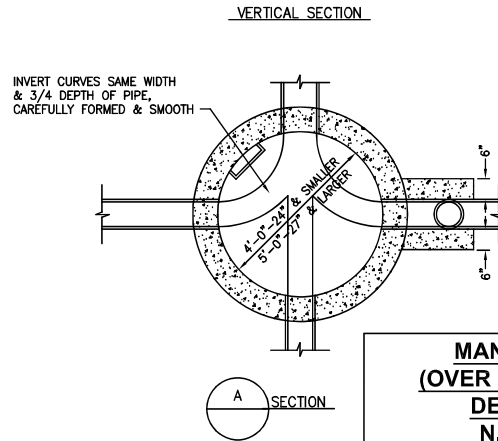
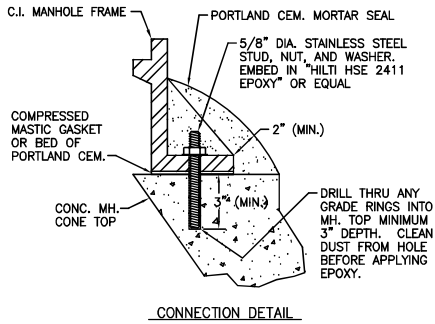
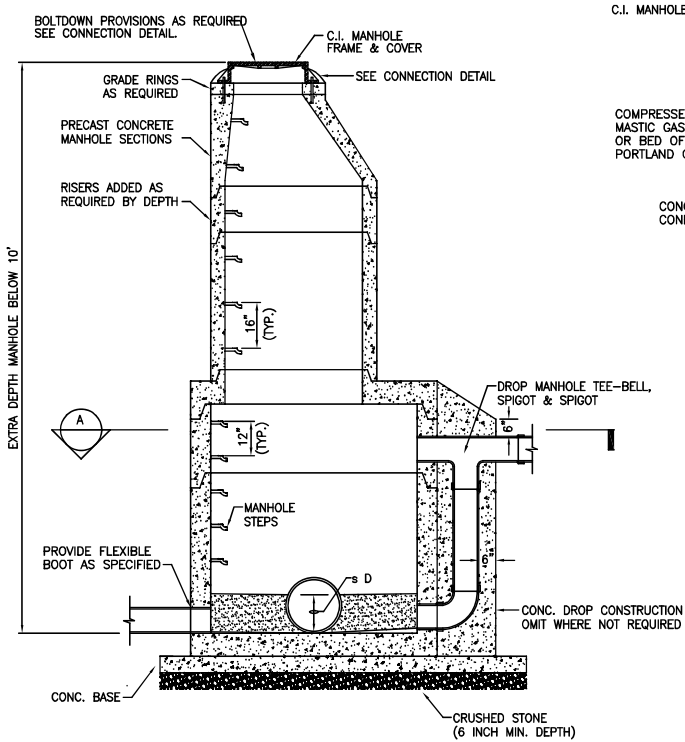
1. STEPS TO BE PROVIDED ONLY AS DIRECTED BY CUB.

**MANHOLE  
(4-10' DEEP)  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.	7/1/2009	STEP NOTE



**NOTES**

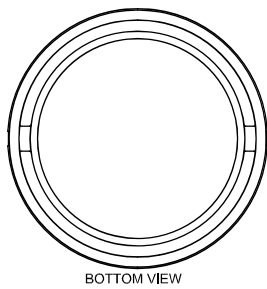
1. STEPS TO BE PROVIDED ONLY AS DIRECTED BY CUB.

**MANHOLE  
(OVER 10' DEEP)  
DETAIL  
N.T.S.**

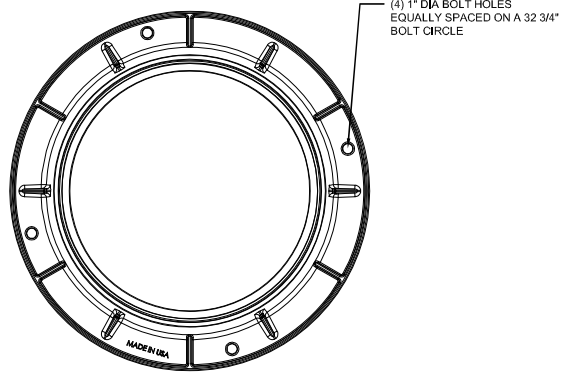


**STANDARD SPECIFICATIONS**

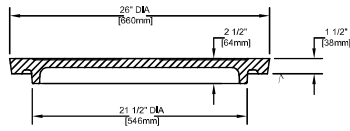
REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.H.	7/1/2009	STEP NOTE



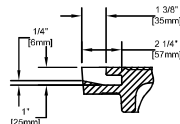
BOTTOM VIEW



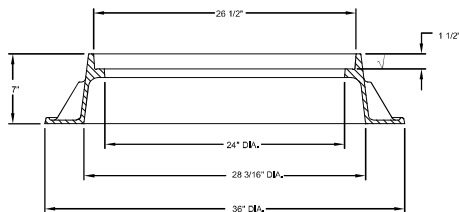
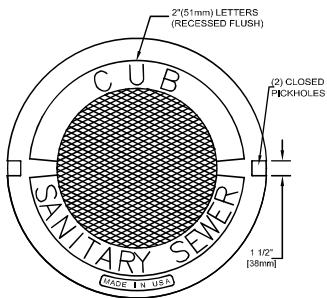
(4) 1" DIA BOLT HOLES  
EQUALLY SPACED ON A 32 3/4"  
BOLT CIRCLE



COVER SECTION



PICKHOLE DETAIL



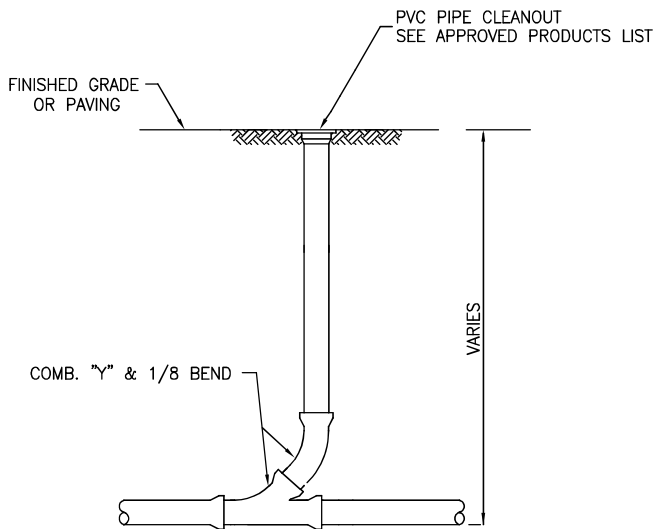
FRAME SECTION

**MANHOLE FRAME &  
COVER  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	MFG. STYLE UPDATE

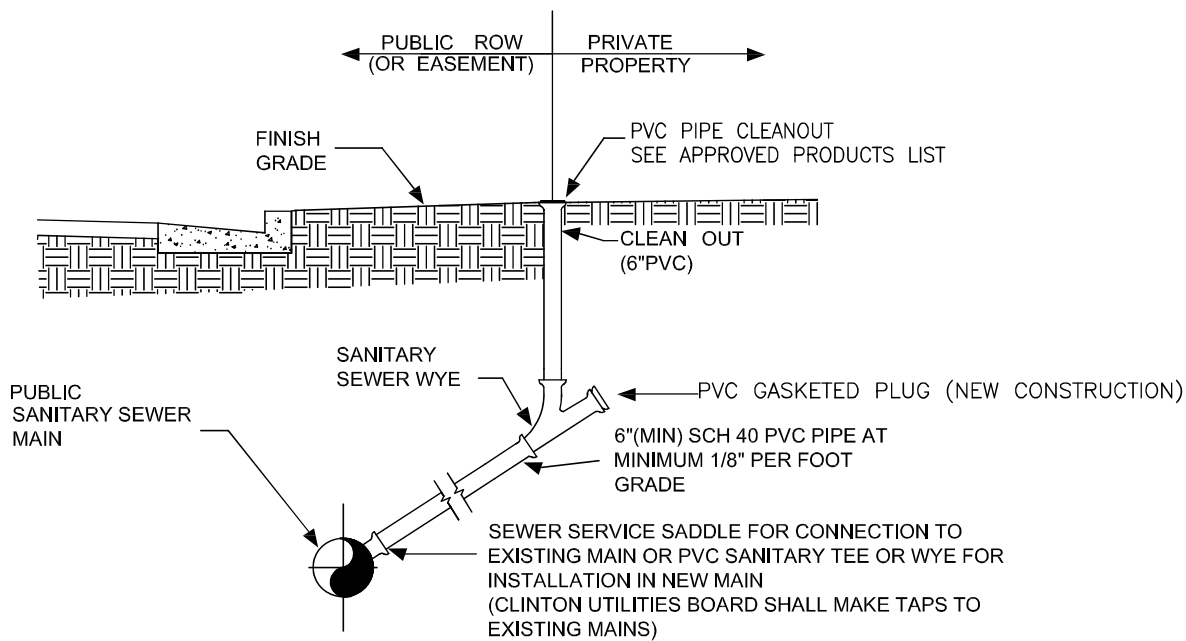


**GRAVITY SEWER IN-LINE  
CLEANOUT  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	RELOCATE BEND



**NOTE:**

1. INSTALLATION REQUIREMENTS AND COSTS FOR COMMERCIAL OR INDUSTRIAL CUSTOMERS SHALL BE DETERMINED BY CUB AT OR BEFORE SEWER TAP FEES ARE PAID.
2. PIPING FROM CUSTOMERS BUILDING TO BE INSTALLED BY OTHERS

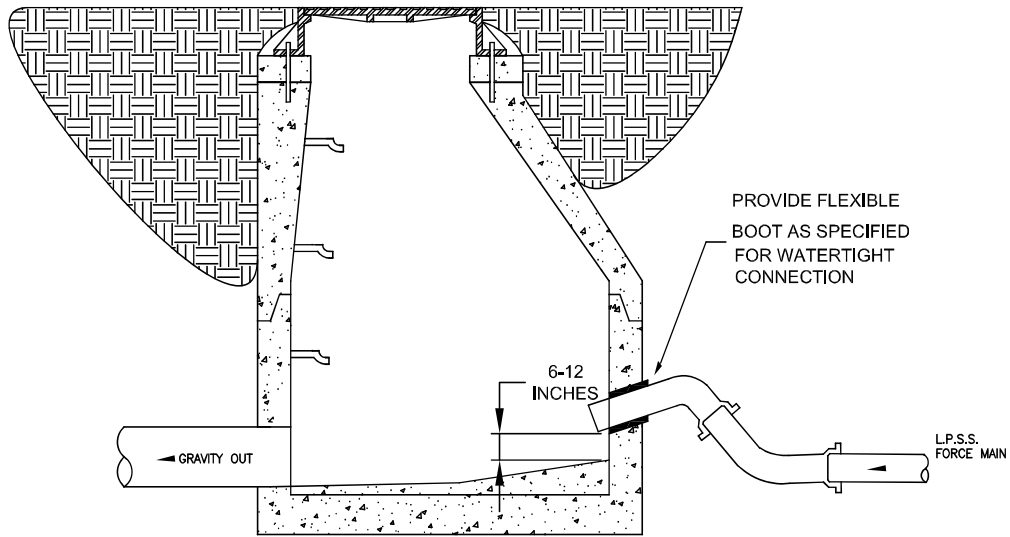
**STANDARD RESIDENTIAL GRAVITY SEWER SERVICE**

**DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	CHANGED PIPE SIZE



**NOTES:**

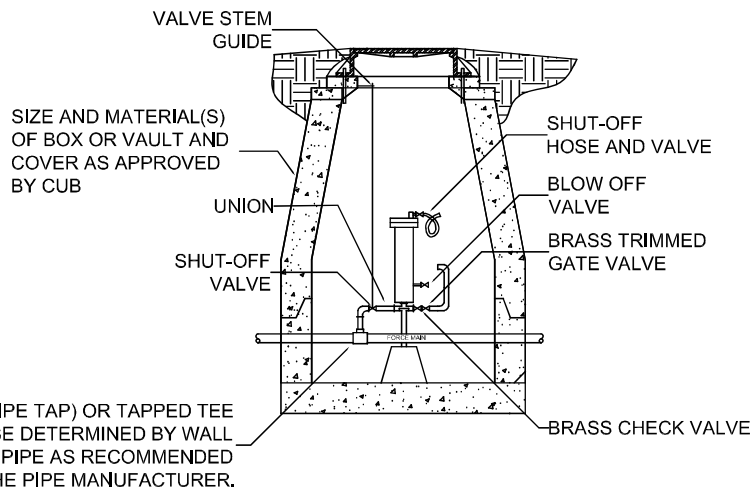
1. CONNECTIONS TO EXISTING MANHOLE: CORE DRILL OPENING, INSERT WATER TIGHT RUBBER BOOT ASSEMBLY, INSERT FORCE MAIN PIPE APPROXIMATELY 2 INCHES BEYOND INSIDE WALL OF MANHOLE, SEAL BOOT AROUND PIPE WITH STAINLESS STEEL BAND CLAMP.
2. CONNECTIONS TO NEWLY CONSTRUCTED MANHOLE: INSERT FORCE MAIN APPROX 2 INCHES BEYOND WALL OF MANHOLE, ENSURE RUBBER BOOT AT OPENING PROVIDES A WATER TIGHT SEAL AT MANHOLE AND AROUND PIPE.

**L.P.S.S.  
MANHOLE TIE-IN  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**


REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.H.	7/1/2009	REPRINT



NOTES:

1. AIR RELEASE VALVES FOR PROPOSED WATER AND SEWER LINES SHALL BE AS SHOWN ON PLANS AND AS DESCRIBED IN THE APPROVED PRODUCTS LIST.
2. AIR RELEASE VALVES SHALL BE INSTALLED IN METER BOXES OR VAULTS AS DIRECTED BY CUB.

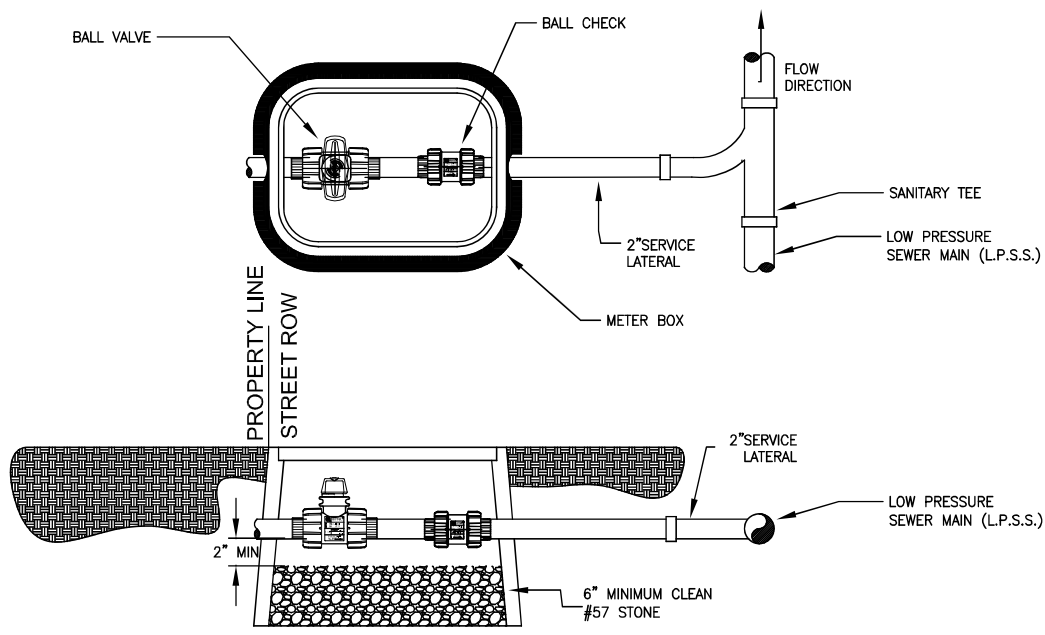
**L.P.S.S.**  
**AIR RELEASE VALVE**  
**DETAIL**  
**N.T.S.**



**STANDARD SPECIFICATIONS**


REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.J.H.	7/1/2009	REF. TO APPROVED LIST





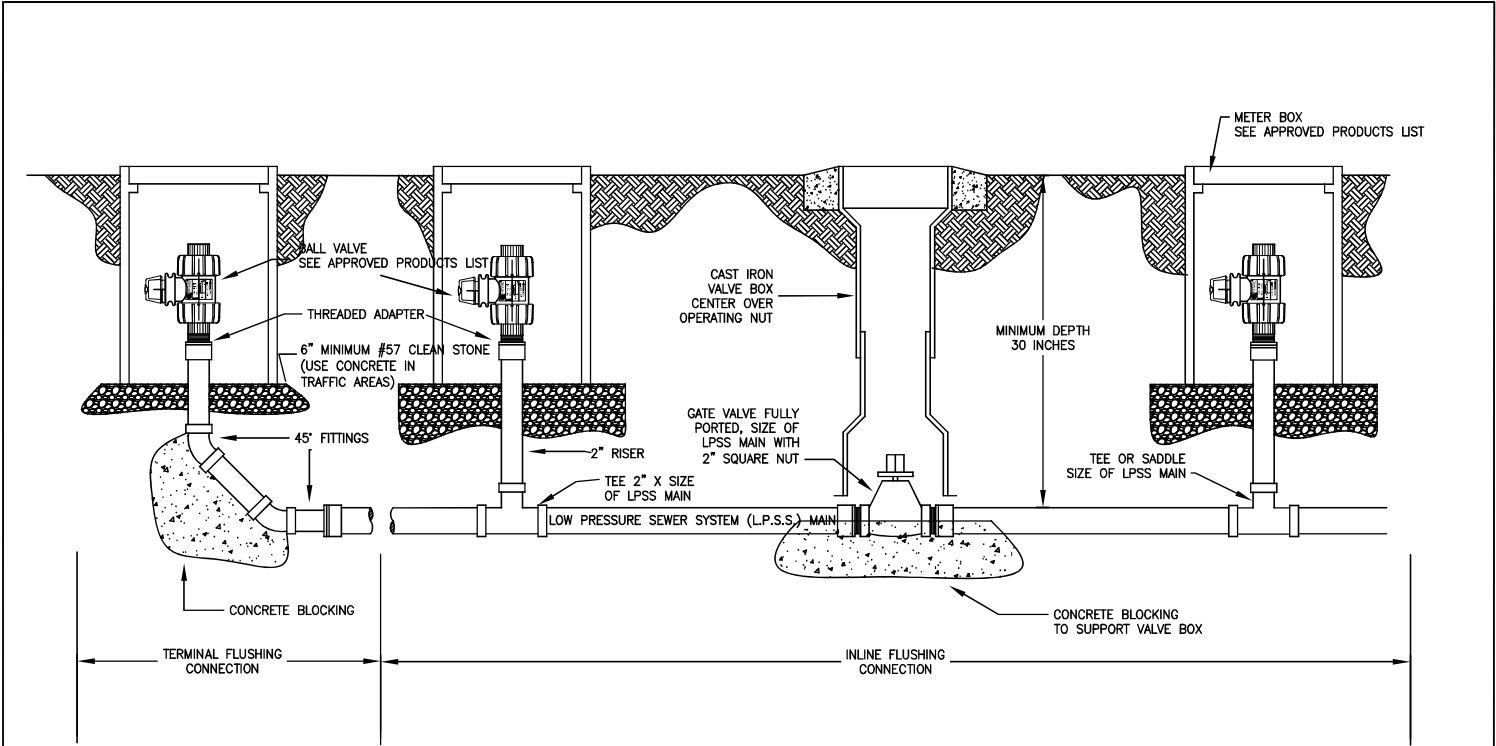
- NOTE:**
1. THIS BOX INSTALLATION DETAIL FOR USE IN NON-TRAFFIC (UNPAVED) AREAS ONLY
  2. SEE STANDARD AND APPROVED PRODUCTS LISTS FOR PIPING, FITTINGS, METER BOX AND VALVES

**L.P.S.S.  
SERVICE TIE-IN  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

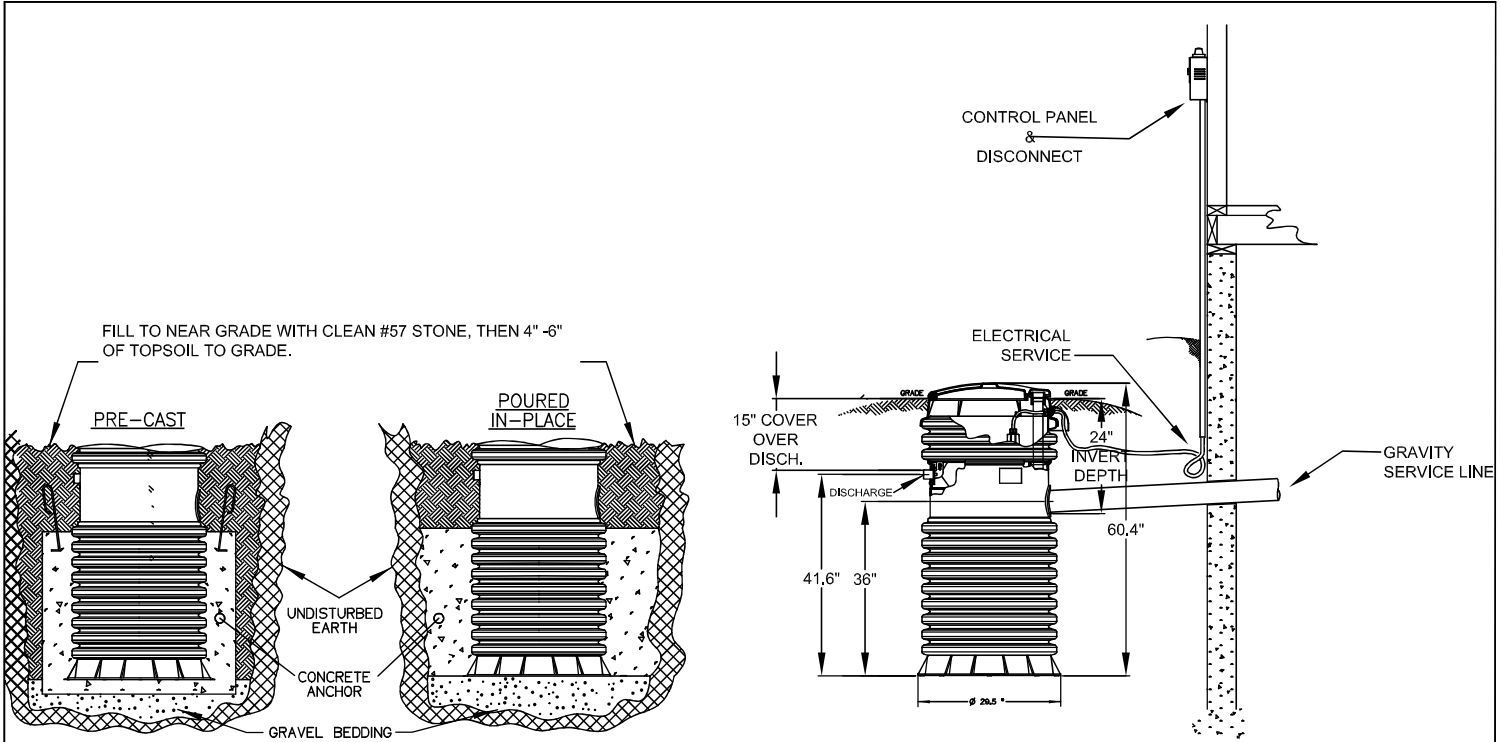
REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.H.	7/1/2009	REF. APP. LISTING



**L.P.S.S.  
FLUSHING CONN. FOR  
UNPAVED AREAS ONLY  
DETAIL  
N.T.S.**

**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.B.	D.A.H.	7/1/2009	REF. APP. LISTING



**NOTE:**

1. A CONCRETE ANCHOR OF 1600 LBS ( 10.5 CU FT) IS REQUIRED ON ALL MODEL 2010 61" STATIONS.
2. ANCHOR WEIGHT (VOLUME) WILL INCREASE FOR STATIONS DEEPER THAN 61", AND LARGER STATIONS. CHECK WITH STATION MANUFACTURER FOR REQUIRED ANCHORING.
3. LOCATION OF PUMP STATION SHALL BE WITHIN SIGHT OF DISCONNECT AT THE BUILDING, AND AS MUTUALLY AGREED TO BY PROPERTY OWNER AND CUB.

**L.P.S.S.  
GRINDER PUMP STATION  
DETAIL  
N.T.S.**



**STANDARD SPECIFICATIONS**

REVISIONS				
NO.	DR.	CHK.	DATE	DESCRIPTION
1	J.B.R.	D.A.H.	7/11/2009	BACKFILL TYPE