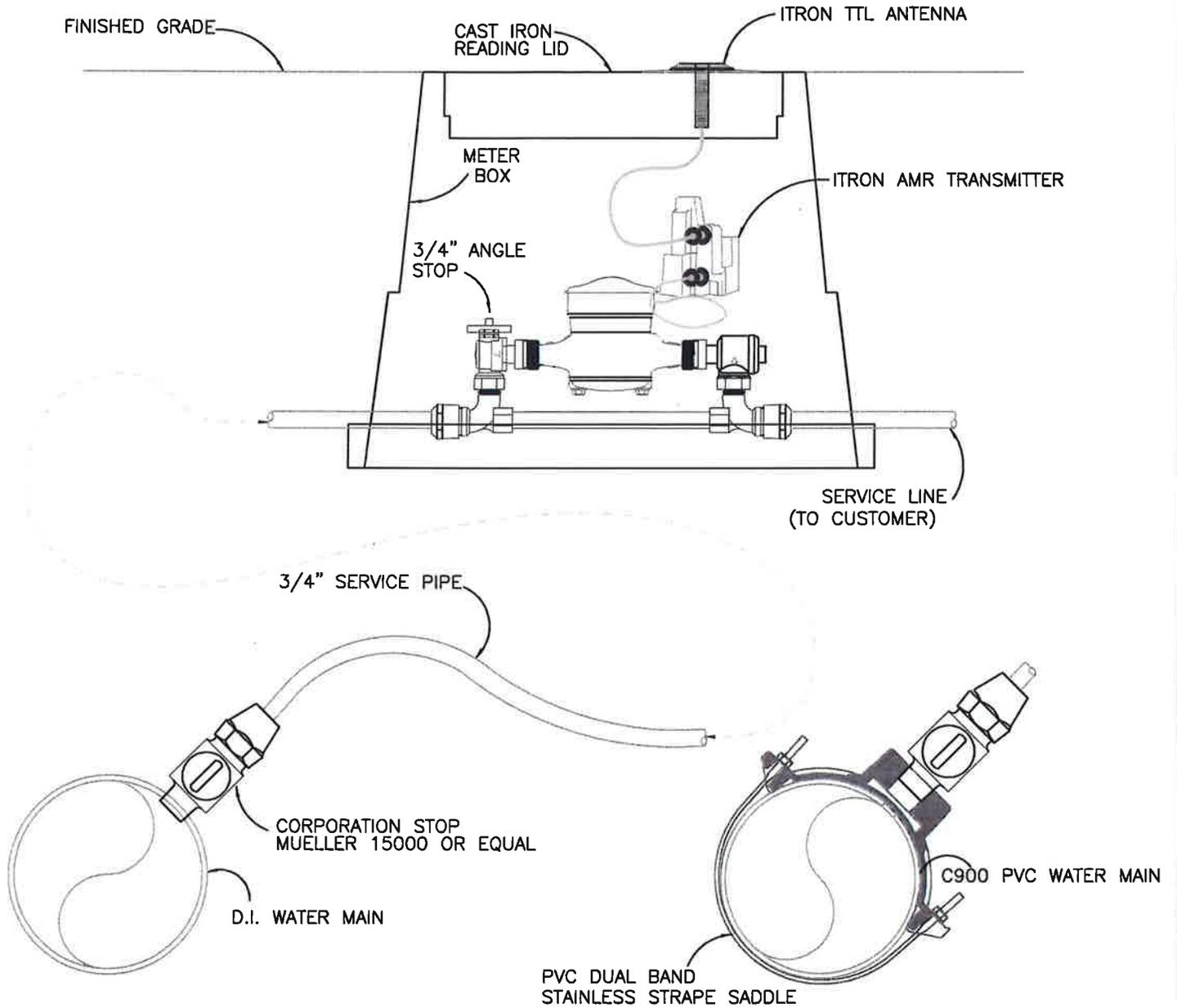


Appendix C  
 Water & Sanitary Sewer Construction Specifications  
STANDARD DRAWINGS

<u>DRAWING NO.</u>	<u>DESCRIPTION</u>
WATER SERVICE ASSEMBLY	Water Service Assembly; 5/8" & 3/4"
GV-VB1	Gate Valve & Valve Box
BFV-VB1	16" 7 Greater; Butterfly Valve & Valve Manhole
ARV-1	Air Release Valve Assembly
BHA-1	Blowoff Hydrant Assembly
FHA-1	Fire Hydrant Assembly
FHA-1A	Fire Hydrant Working (Clear) Area
FHA-2	2'x3' Off-Set Fire Hydrant Assembly
PIPE-W1 to W3	Water Main Laying Conditions
TBD-1	Thrust Blocking Details
TBD-2	Thrust Blocking Dimensions
SERVICE-1,2,3	Typical Combined Commercial Service & Fire Line
FIRELINE 1	Typical Fire Line Service
WATER DEMAND	Water Demand Chart
MH-PRECAST	Standard Precast Concrete Manhole
	Shallow Precast Concrete Manhole
MH-FRAME & COVER	Manhole Frame & Cover
MH-WATERTIGHT	Water Tight Manhole Frame & Cover
MH-D1	Standard Precast Concrete Drop Manhole
MH-D2	Optional (>=> 8" Pipe) Precast Concrete Inside Drop Manhole
MH-D3	Optional Precast Concrete Manhole with Outside Drop
MH-D4	Optional (6" Pipe) Precast Concrete Inside Drop Manhole
MH-INT1	Existing Manhole Interceptor Connection
MH-INT2	Existing Manhole Interceptor Connection – Force Main
MH-DO-1	Interceptor Drop Over Manhole – Large Diameter Pipe
MH-DO-2	Interceptor Drop Over Manhole – Small Diameter Pipe
MH-DO2	Interceptor Manhole – Branch Line Metering Station
PIPE-S1 to S3	Sanitary sewer Pipe Laying Conditions
<b>SANITARY SEWER SERVICE CONNECTION</b>	
<b>SANITARY SEWER SERVICE CLEANOUT (OPTIONAL FOR PRIVATE INSTALLATION)</b>	
LPSS-SVC	Low Pressure Sanitary Service – Generic Service
TSF	Erosion Control – Silt Fence
	Typical Chain Link Fence Details 1-4

NOTE:  
 METERS FURNISHED WITH PRESSURE  
 REDUCING VALVES SHALL BE INSTALLED  
 IN GODDARD NO. 37H METER BOXES  
 W/EXTENSION OR APPROVED EQUAL.



WATER METER INSTALLATION



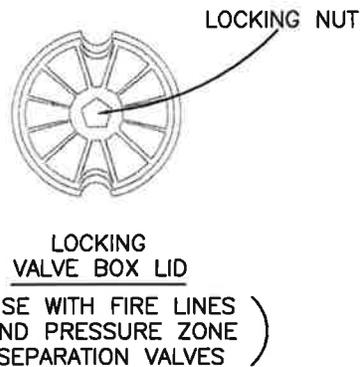
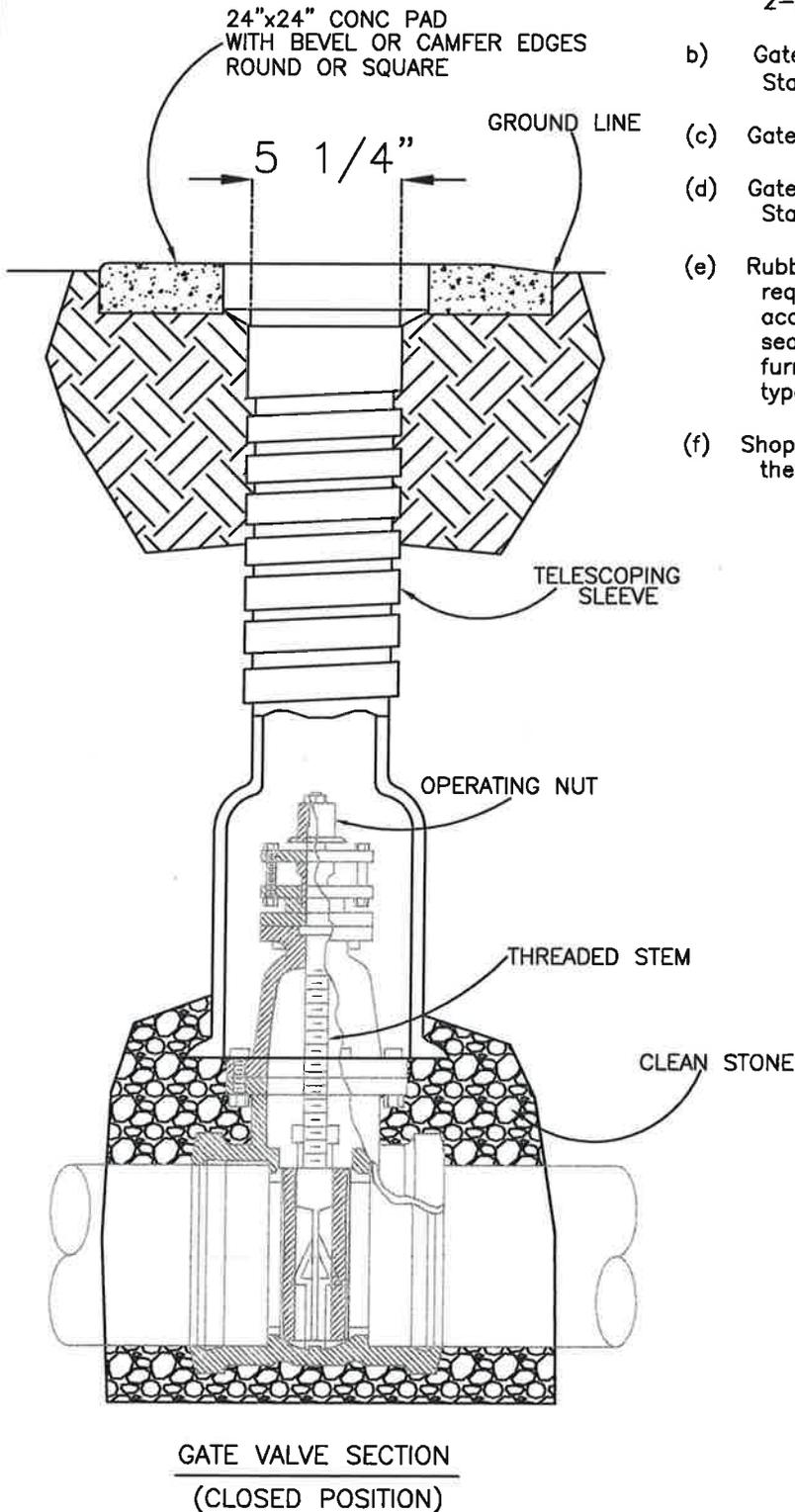
REVISED:  
 AUG-2015

WATER SERVICE  
 ASSEMBLY  
 5/8" x 3/4" METER

DRAWING NO.  
 W-SERVICE  
 ASSEMBLY

NOTES:

- (a) Gate valves shall be mechanical joint, resilient-seat type, iron body, non-rising stem, "O"-ring, stem seal type, 2-inch square operating nut, open counter-clockwise.
- (b) Gate valves shall meet the latest requirements of AWWA Standard C-509 OR C-515 (Compact).
- (c) Gate valve pressure ratings shall be 200 psig.
- (d) Gate valves meeting the latest requirement of AWWA Standard C-509.
- (e) Rubber-seated butterfly valves meeting the latest requirements of AWWA Standard C-504 will be acceptable for use on 8-inch or greater pipe. Rubber-seated butterfly valves shall be open counterclockwise, furnished with a 2-inch operating nut, mechanical joint type, Class 150-B.
- (f) Shop drawings of butterfly valves must be submitted to the Alcoa Public Works Department for approval.



REVISED:

JUL 2015

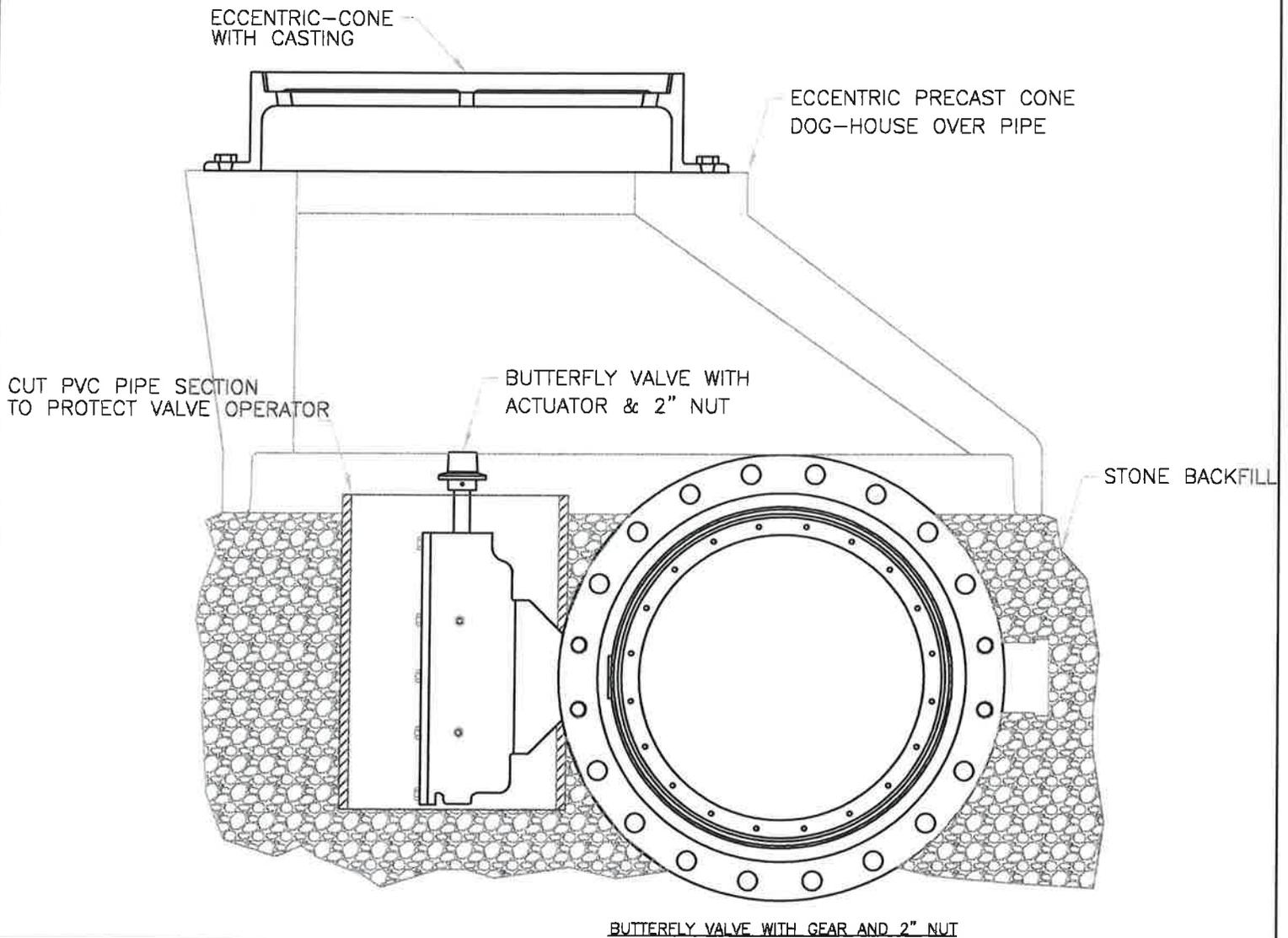
GATE VALVE  
&  
VALVE BOX

DRAWING NO.

GV-VB1

NOTES:

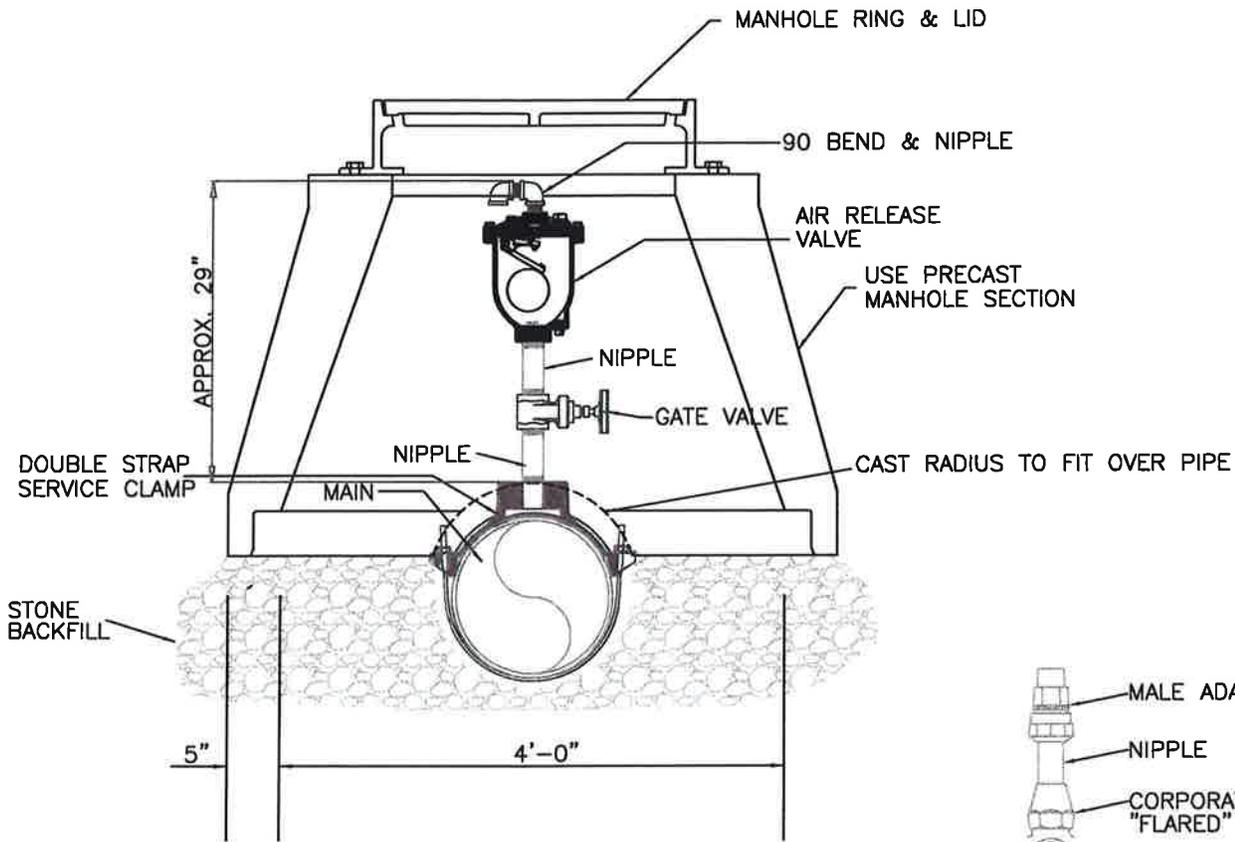
- (a) Butterfly valves shall be mechanical joint, rubber-seated type, iron body, non-rising stem, 2-inch square operating nut, open counter-clockwise.
- (b) Butterfly valves shall meet the latest requirements of ANSI/AWWA Standard C-504, Class 150B.
- (c) Butterfly valve pressure ratings shall be 150 psig.
- (d) Rubber-seated butterfly valves shall be used on 12-inch or greater pipe. Rubber-seated butterfly valves shall be open counterclockwise, furnished with a 2-inch operating nut, mechanical joint type, Class 150-B.
- (e) Shop drawings of butterfly valves must be submitted to the Alcoa Public Works & Engineering Department for approval.



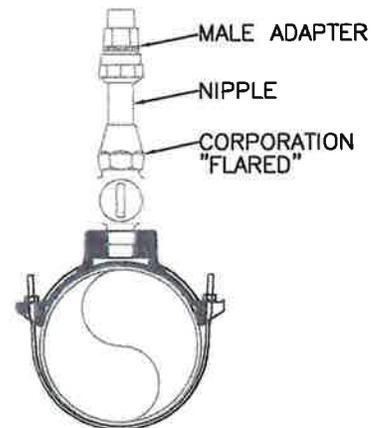
REVISED:  
JAN-2012

BUTTERFLY VALVE  
&  
VALVE MANHOLE

DRAWING NO.  
BFV-VB1



AIR RELEASE VALVE ASSEMBLY  
(DRY TAP)  
NTS



A.R.V. TAP ASSEMBLY  
(WET TAP)  
NTS

NOTES:

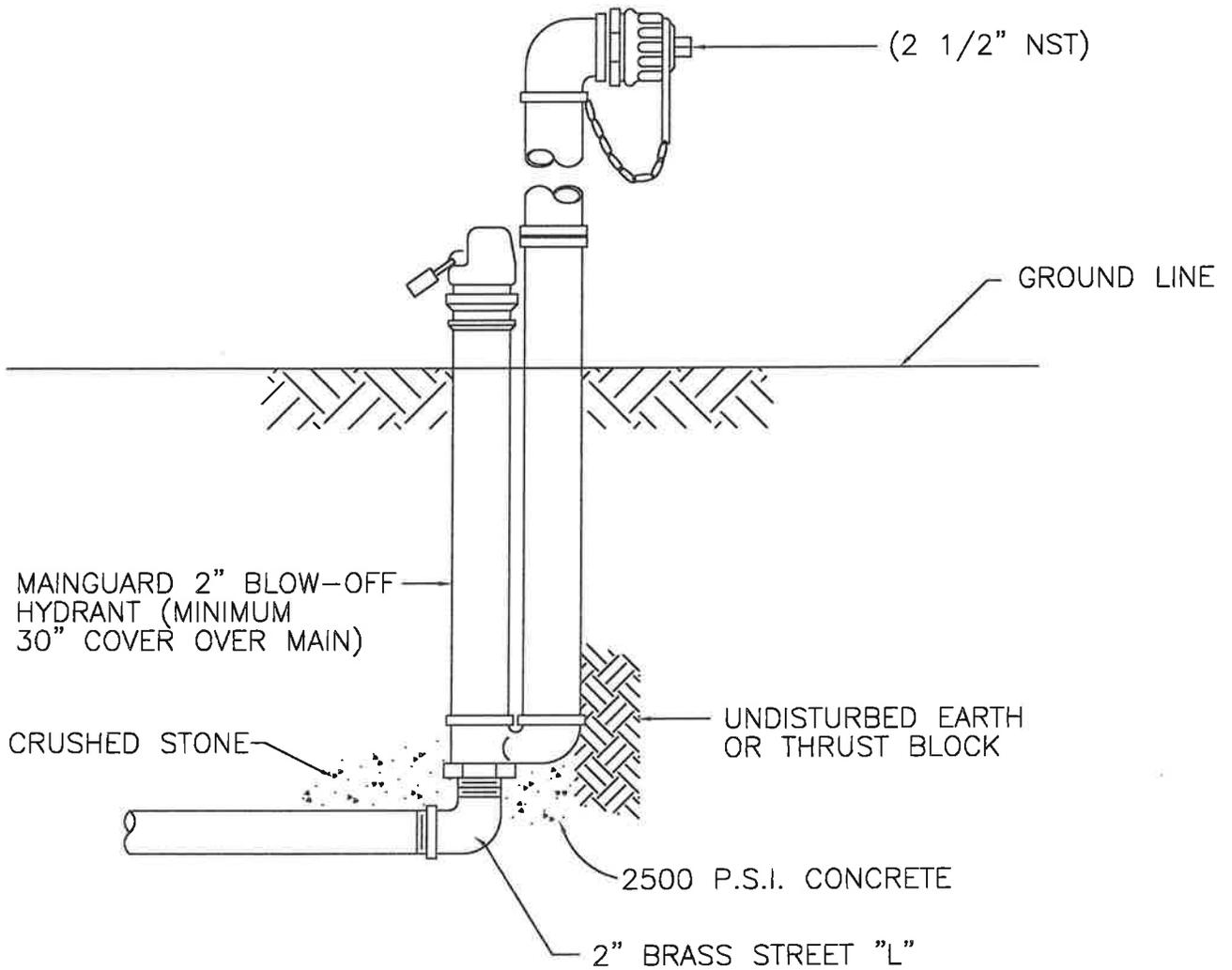
1. Manhole cover frames and lids shall be of gray cast iron meeting the latest requirements of ASTM Standard A48, Class 30, (30,000 psi); painting of the frame and lid is not required.
2. Manhole frames and covers shall be round, with the cover/frame interface machine ground horizontally, and should weigh not less than 375 pounds.
3. Manhole covers shall be Neenah R-1642; East Jordan Iron Works. No. V-1355; or approved equal.
4. 1" VALVE REQ'D ON 8" AND SMALLER WATER MAIN, AND 2" VALVE REQ'D ON 10" AND LARGER WATER MAIN.
4. See CITY OF ALCOA WASTEWATER COLLECTION - CONSTRUCTION SPECIFICATIONS for more information on manhole requirements.



REVISED:  
 DEC 2014

AIR RELEASE  
 VALVE  
 ASSEMBLY

DRAWING NO.  
 ARV-1



(EXTENDING BEYOND DITCH ON STATE HIGHWAYS)

NOTES:

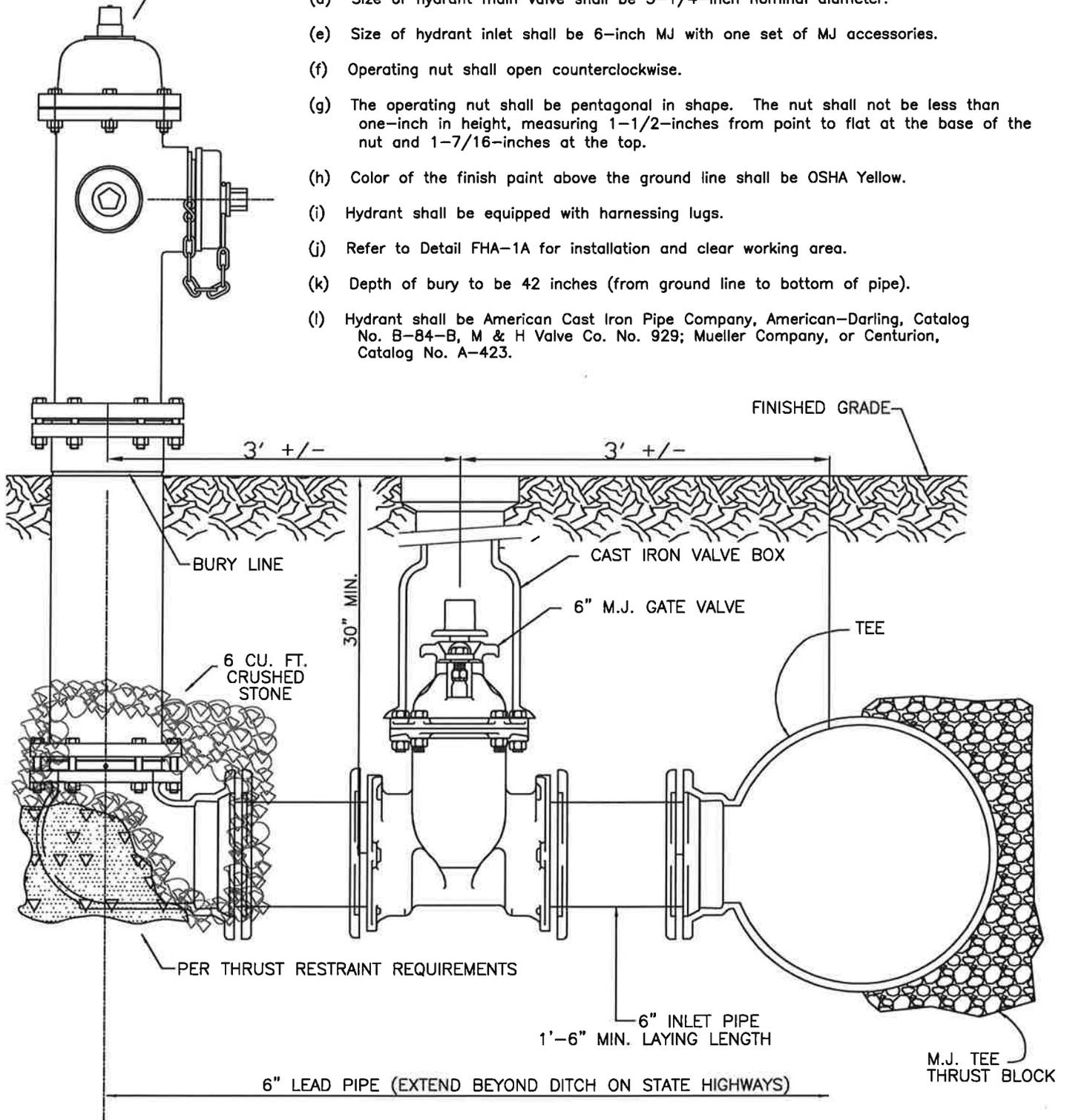
1. Post Hydrants shall be non-freezing, self draining type with a 30" bury. These hydrants will be furnished with a 2" FIP inlet, a non-turning operating rod, and shall open to the left.
2. All of the working parts shall be of bronze-to-bronze design, and be servicable from above grade with no digging.
3. The outlet shall also be bronze and be 2-1/2" NST.
4. Hydrants shall be lockable to prevent unauthorized use as manufactured by Kupferle Foundry Co., St. Louis, MO., or approved equal.

 <b>CITY OF ALCOA</b>	REVISED:	<b>BLOWOFF HYDRANT ASSEMBLY</b>	DRAWING NO.
	JAN 2006		<b>BHA-1</b>

NOTES:

- (a) Hydrant shall conform to the latest requirements of AWWA Standard C-502.
- (b) Hydrant shall be equipped with two 2-1/2-inch hose outlet nozzles and one 4-1/2-inch pumper outlet nozzle.
- (c) Nozzle thread shall conform with NFPA No. 194 for National Standard Fire Hose Coupling Screw Threads.
- (d) Size of hydrant main valve shall be 5-1/4-inch nominal diameter.
- (e) Size of hydrant inlet shall be 6-inch MJ with one set of MJ accessories.
- (f) Operating nut shall open counterclockwise.
- (g) The operating nut shall be pentagonal in shape. The nut shall not be less than one-inch in height, measuring 1-1/2-inches from point to flat at the base of the nut and 1-7/16-inches at the top.
- (h) Color of the finish paint above the ground line shall be OSHA Yellow.
- (i) Hydrant shall be equipped with harnessing lugs.
- (j) Refer to Detail FHA-1A for installation and clear working area.
- (k) Depth of bury to be 42 inches (from ground line to bottom of pipe).
- (l) Hydrant shall be American Cast Iron Pipe Company, American-Darling, Catalog No. B-84-B, M & H Valve Co. No. 929; Mueller Company, or Centurion, Catalog No. A-423.

FIRE HYDRANT



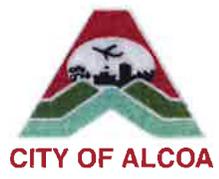
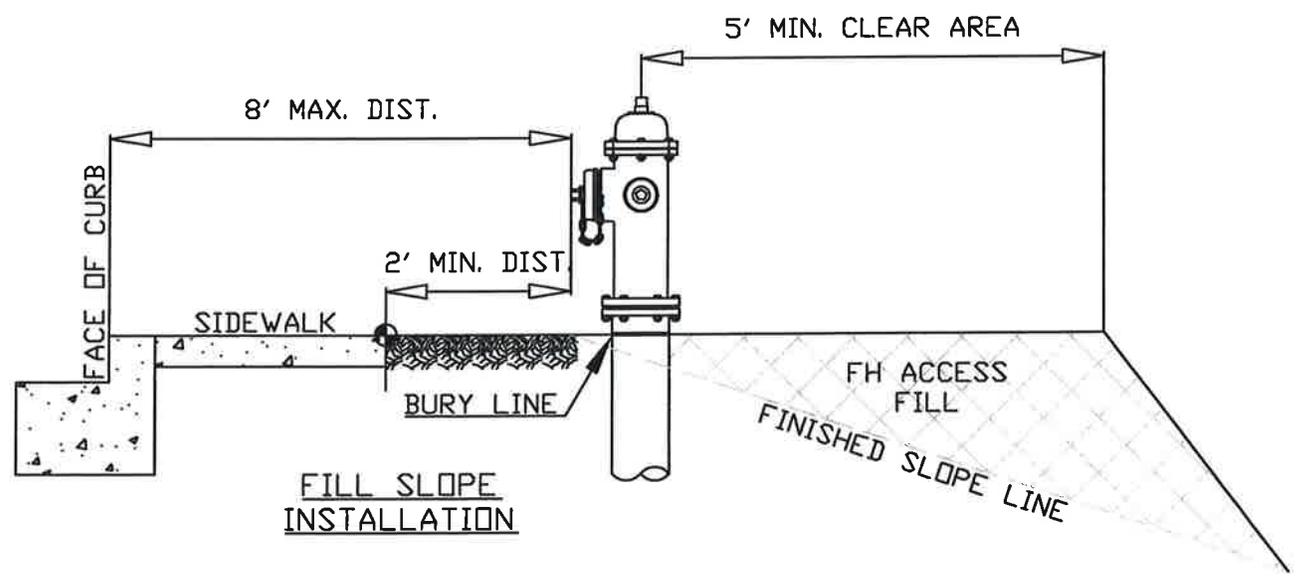
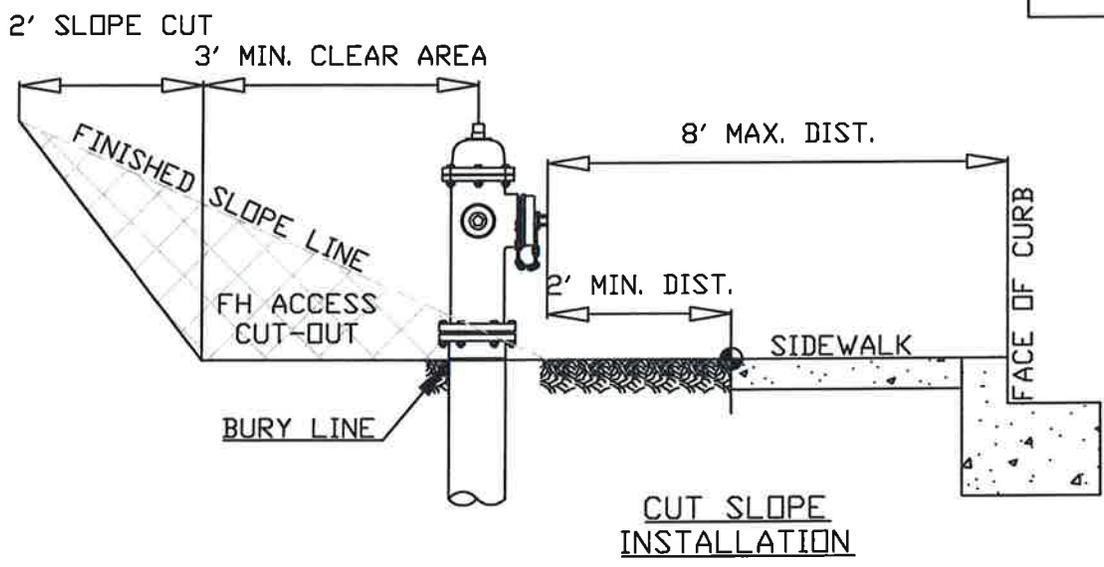
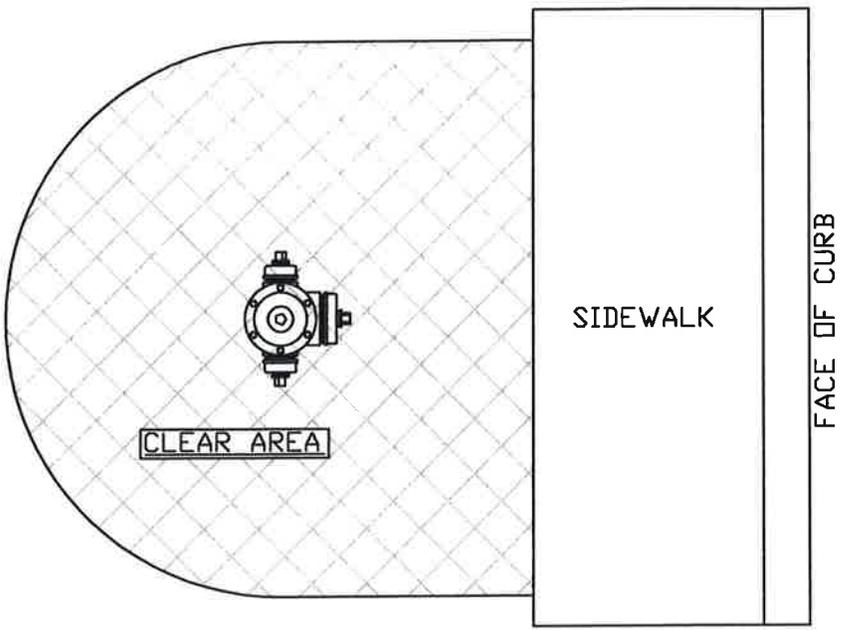
REVISED:

JAN 2014

FIRE HYDRANT  
ASSEMBLY

DRAWING NO.

FHA-1



REVISED:

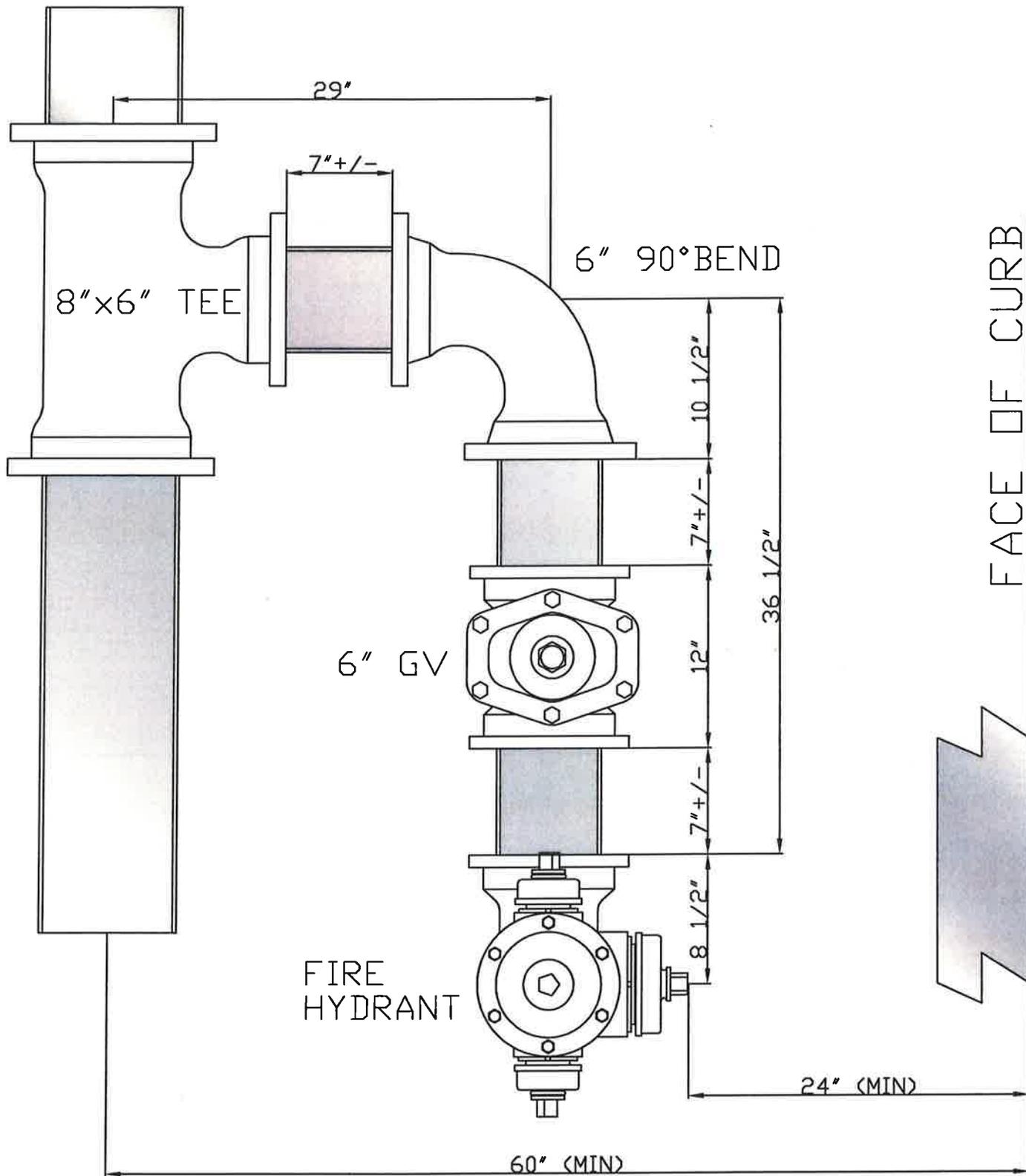
JAN 2014

FIRE HYDRANT

WORKING AREA

DRAWING NO.

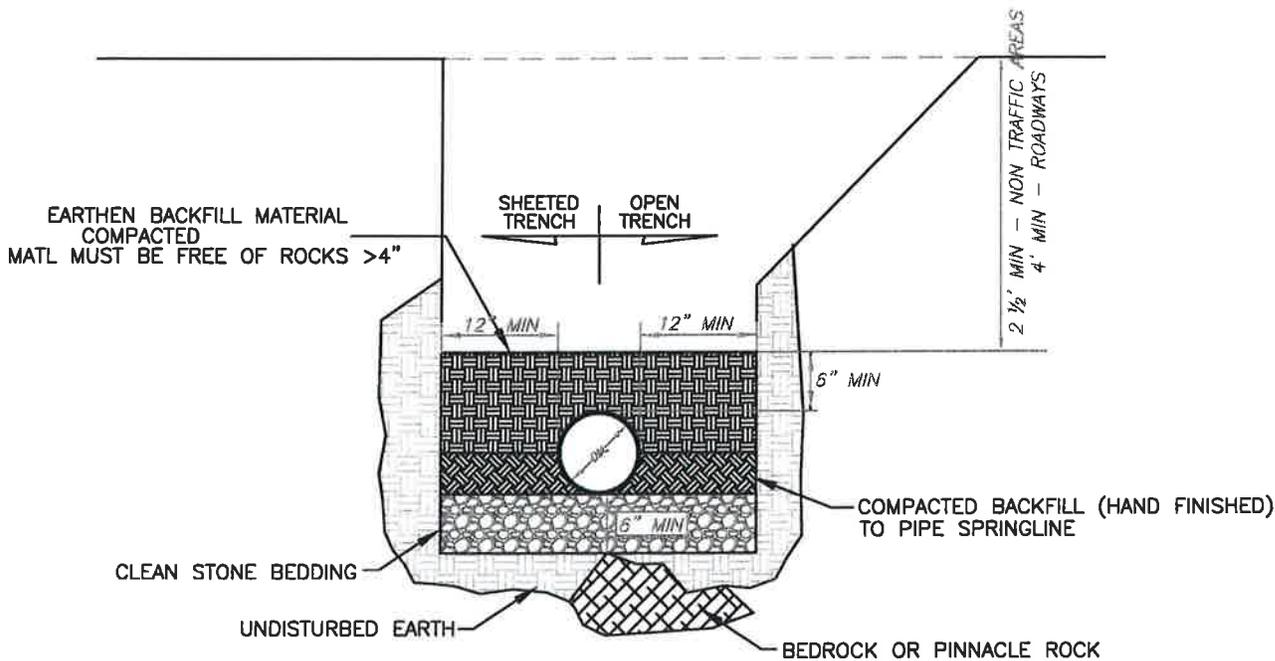
FHA-1A



REVISED:  
JUL 2014

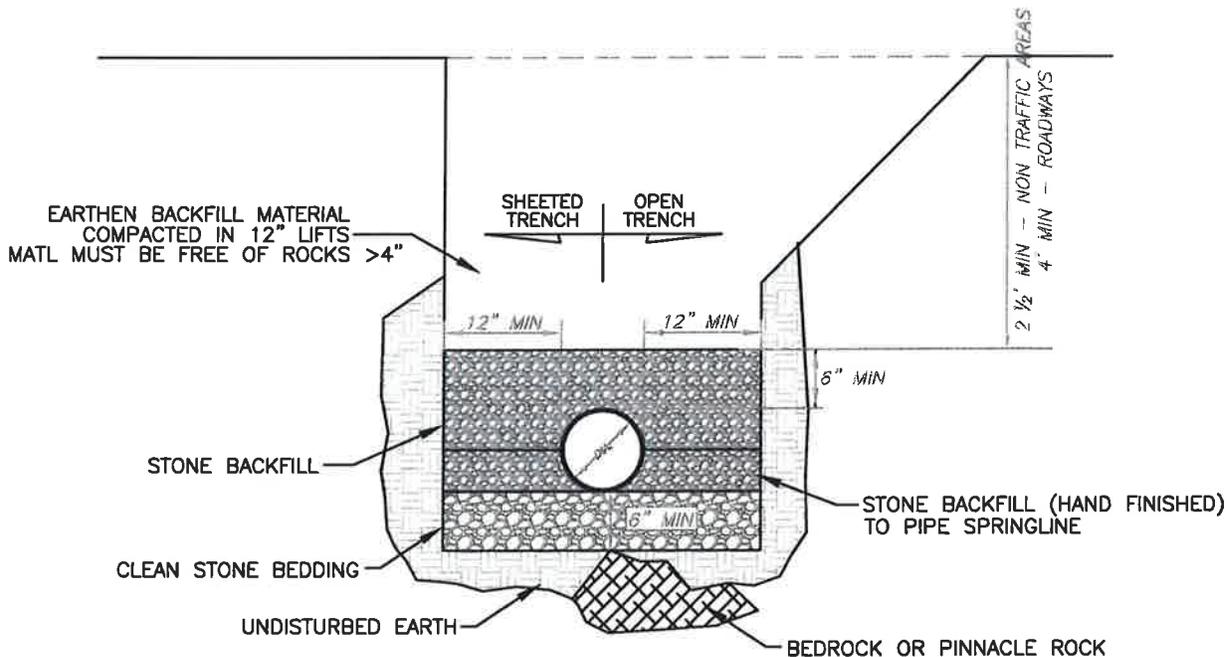
2X3 OFF SET  
FIRE HYDRANT  
ASSEMBLY

DRAWING NO.  
FHA-2



**STANDARD EXCAVATION  
DUCTILE IRON PIPE - 24" OR LESS**

REF: SECTIONS 1.1.1, 1.1.2, 1.1.3 & 1.3.4 thru 1.3.6 - CITY OF ALCOA CONSTRUCTION SPECIFICATIONS



**STANDARD EXCAVATION  
PVC PIPE - 24" OR LESS**

REF: SECTIONS 1.1.1, 1.1.2, 1.1.3 & 1.3.4 thru 1.3.6 - CITY OF ALCOA CONSTRUCTION SPECIFICATIONS

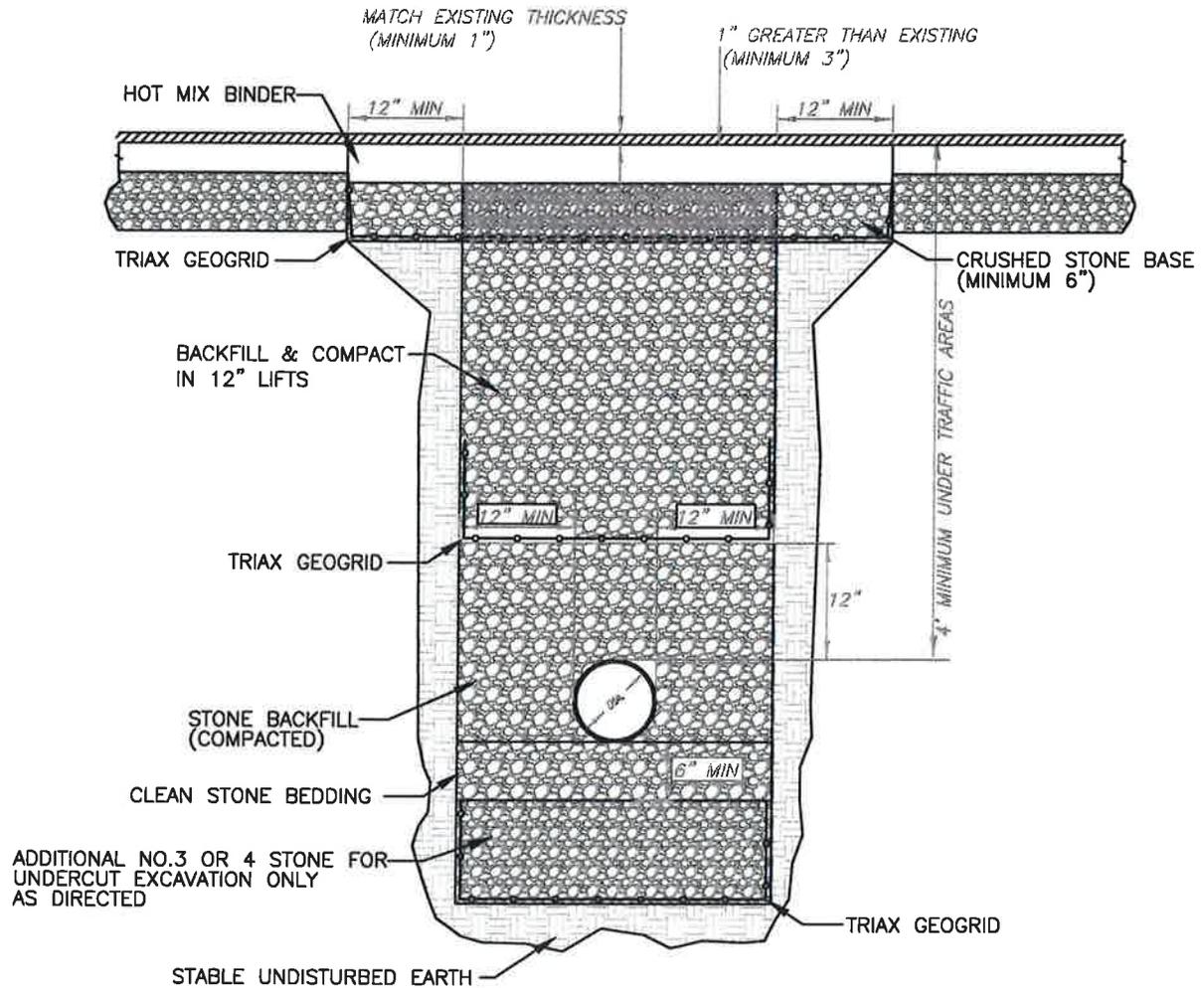


**REVISED:**  
**AUG-2015**

**WATER MAIN  
PIPE LAYING CONDITIONS**

**DRAWING NO.**  
**PIPE - W1**





**STREET CUT EXCAVATION WITH STONE BACKFILL  
WITH UNDERCUT**

REF: SECTIONS 1.3.3 - CITY OF ALCOA CONSTRUCTION SPECIFICATIONS

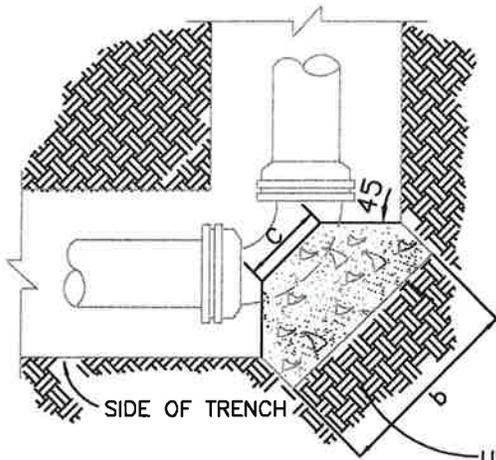
NOTE: THE TRIAX GEOGRID MUST BE INSTALLED TO MFG. SPECIFICATIONS.



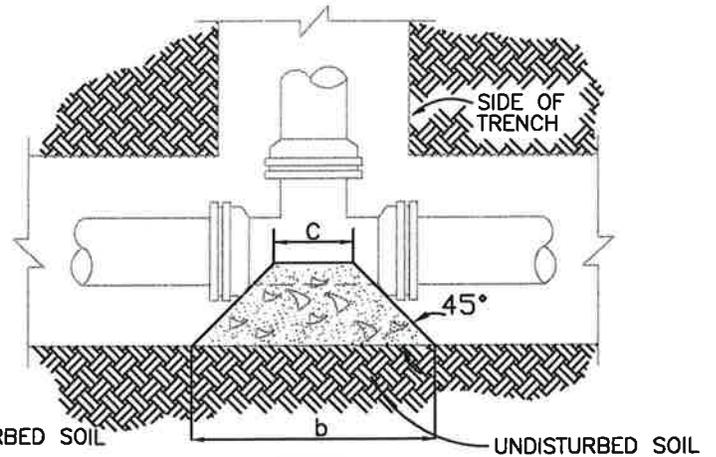
REVISED:  
25MAR2013

SANITARY SEWER  
PIPE LAYING CONDITIONS  
STREET CUT

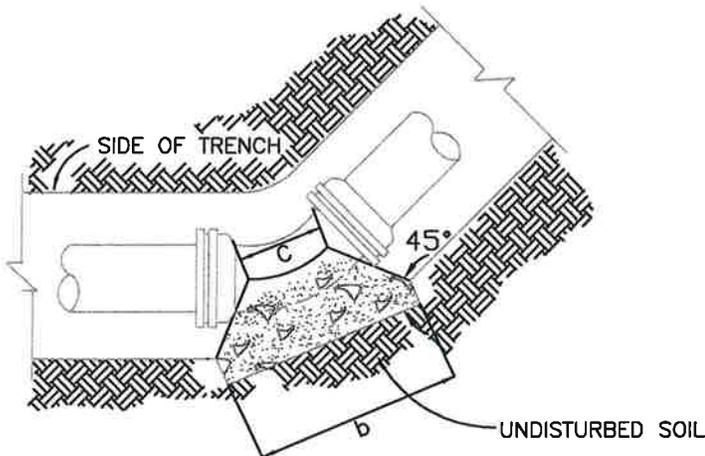
DRAWING NO.  
PIPE - W3



**90° BEND**  
 USED WHEN TEE  
 IS NOT FEASIBLE

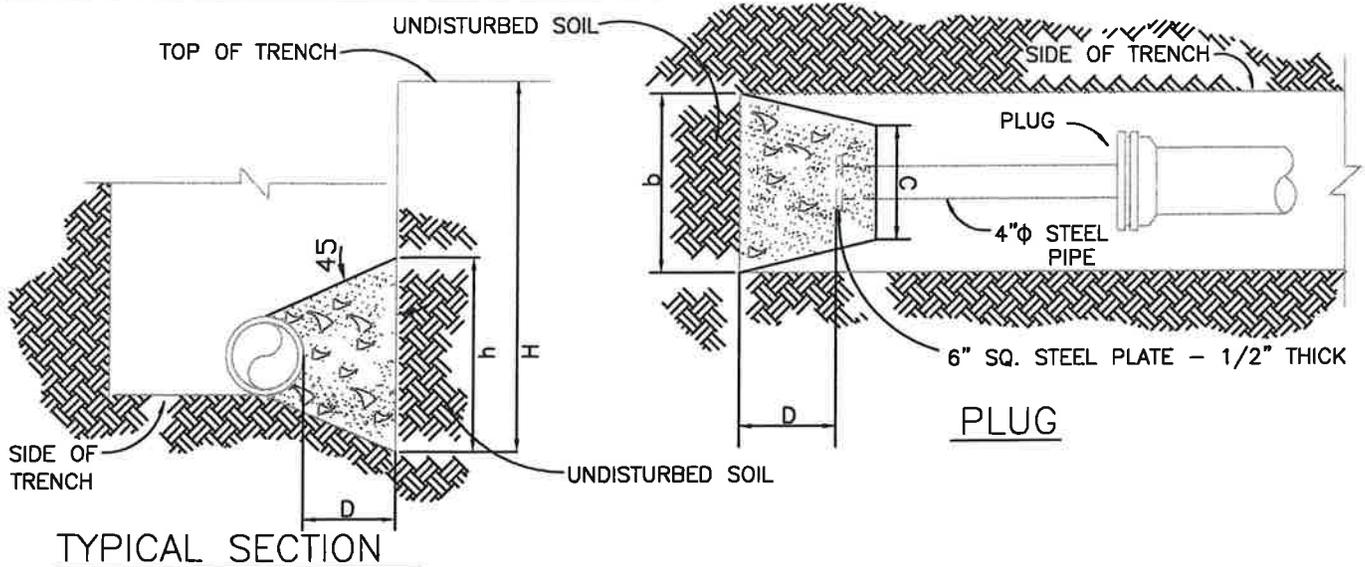


**TEE**

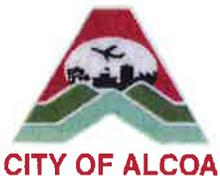


NOTE: THRUST BLOCK TO BE  
 Poured AGAINST UNDISTURBED  
 EARTH.  
 b x h - Required Bearing Block Area  
 b must be > h and < 2 x h  
 h must be > dia. of pipe and < H  
 45° - Minimum Angle from  
 Bearing block Area.

**45° - 22 1/2° - 11 1/4° BENDS**



REFERENCE: 'DIPRA' THRUST RESTRAINT DESIGN FOR DI PIPE  
<http://www.dipra.org/pdf/thrustRestraint.pdf>



REVISED:  
 APR-2015

THRUST BLOCKING  
 DETAILS

DRAWING NO.  
 TBD-1

TABLE CONDITIONS:  
 DESIGN PRESSURE: 100 PSI,  
 SOIL BEARING: 1,000 PSF (SOFT CLAY)  
 SAFETY FACTOR: 1

ALL OTHER CONDITIONS MUST BE  
 CALCULATED AS PROVIDED IN DIPRA  
 "THRUST RESTRAINT FOR D.I. PIPE"  
 AND DIMENSIONS PROVIDED.

11-1/4° BEND							
SIZE	4"	6"	8"	10"	12"	16"	24"
b	9"	12"	15"	23"	24"	29"	50"
h	6"	9"	12"	12"	16"	18"	30"
C	8"	10"	12"	14"	16"	18"	18"
D	6"	6"	6"	18"	24"	24"	24"
22-1/2° BEND							
SIZE	4"	6"	8"	10"	12"	16"	24"
b	12"	18"	23"	27"	32"	37"	61"
h	9"	12"	16"	20"	24"	28"	48"
C	8"	10"	12"	14"	16"	15"	15"
D	4"	6"	9"	18"	24"	24"	24"
45° BEND							
SIZE	4"	6"	8"	10"	12"	16"	24"
b	18"	23"	30"	36"	42"	56"	107"
h	12"	18"	24"	30"	36"	36"	54"
C	8"	10"	12"	14"	16"	26"	59"
D	6"	9"	12"	18"	24"	24"	24"
90° BEND							
SIZE	4"	6"	8"	10"	12"	16"	24"
b	23"	32"	44"	55"	66"	78"	137"
h	16"	24"	30"	36"	42"	48"	78"
C	9"	12"	12"	15"	16"	42"	88"
D	8"	12"	16"	18"	24"	24"	24"
TEE							
SIZE							
Main	4"-6"	8"-12"	8"-10"	12"	12"	12"	18"
Branch	4"-6"	2"-6"	8"-10"	2"-6"	8"-10"	12"	16"-18"
b		26"	43"	26"	43"	52"	70"
h		26"	43"	26"	43"	52"	70"
C		12"	12"	12"	12"	12"	30"
D		13"	21"	13"	21"	26"	24"
PLUG							
SIZE	4"	6"	8"	10"	12"	16"	24"
b	26"	36"	52"	70"	82"	98"	108"
h	20"	30"	36"	40"	48"	54"	96"
C	12"	12"	12"	12"	18"	30"	36"
D	18"	18"	18"	24"	24"	36"	36"

NOTES:

1. CITY OF ALCOA INSPECTOR SHALL INSPECT ALL THRUST BLOCKS.
2. WRAP ALL FITTINGS IN HEAVY PLASTIC BEFORE PLACING CONCRETE.
3. THERE MUST BE ADEQUATE HORIZONTAL CLEARANCE BEHIND THRUST BLOCK(S) OF UNDISTURBED EARTH BEHIND THRUST BLOCK BASE TO SUPPORT DESIGN LOAD - (b DIMENSION)



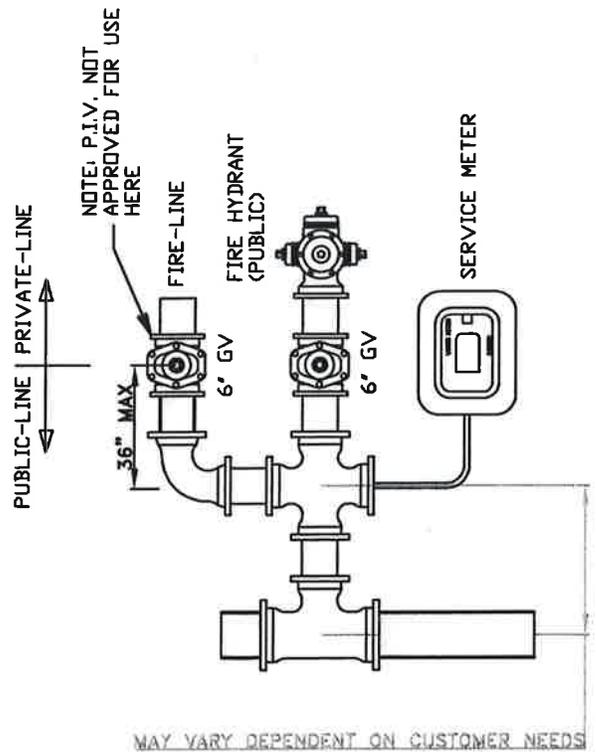
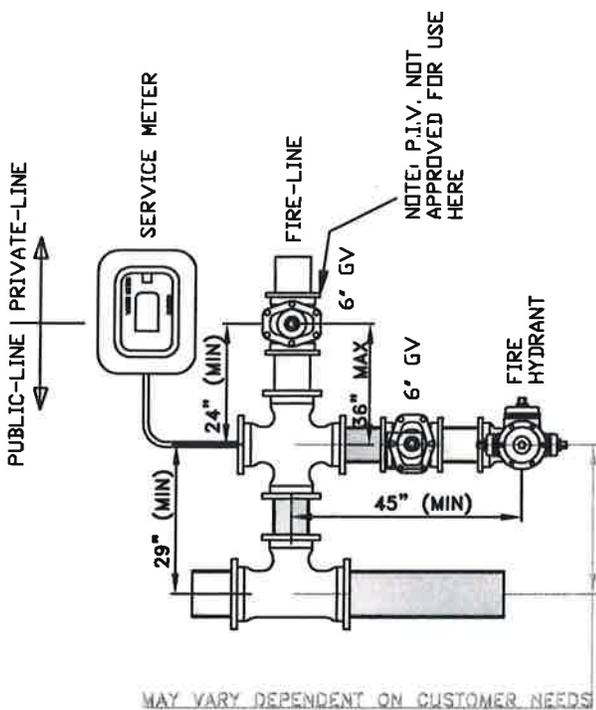
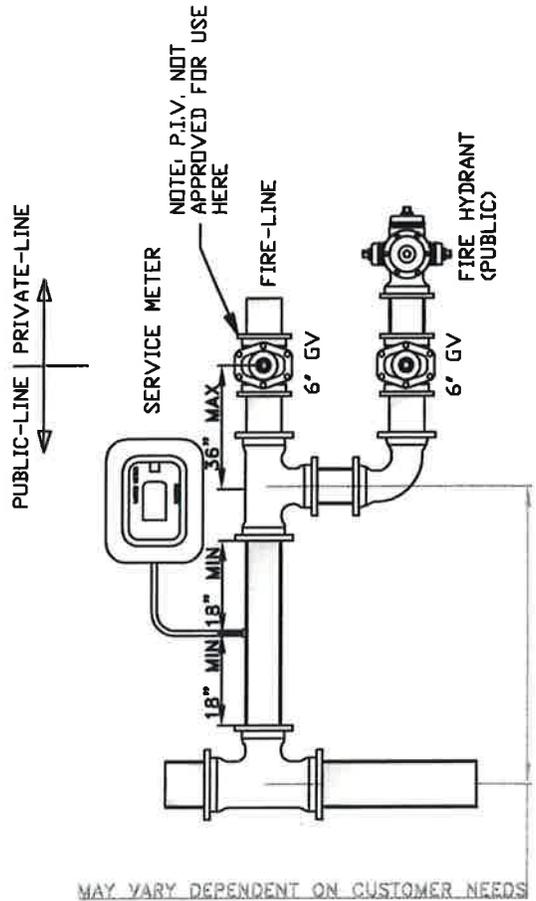
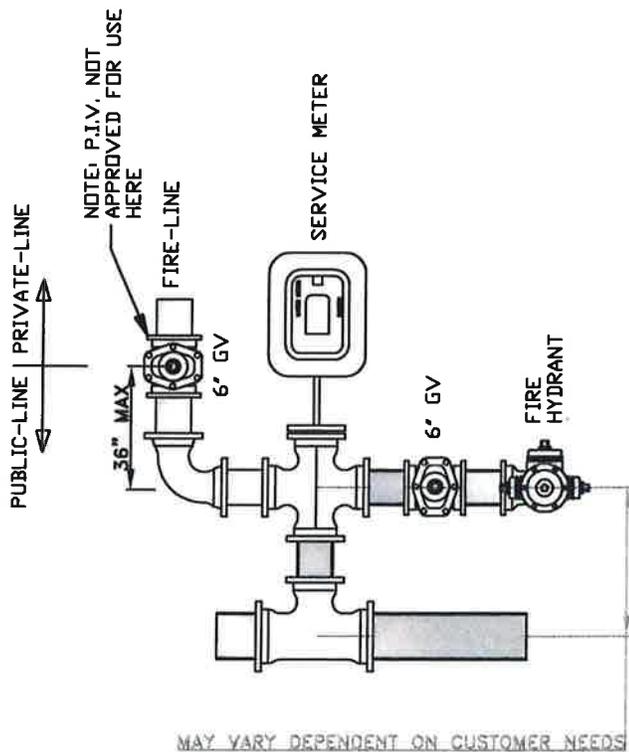
REVISED:

APR-2015

THRUST  
 BLOCKING  
 DIMENSIONS

DRAWING NO.

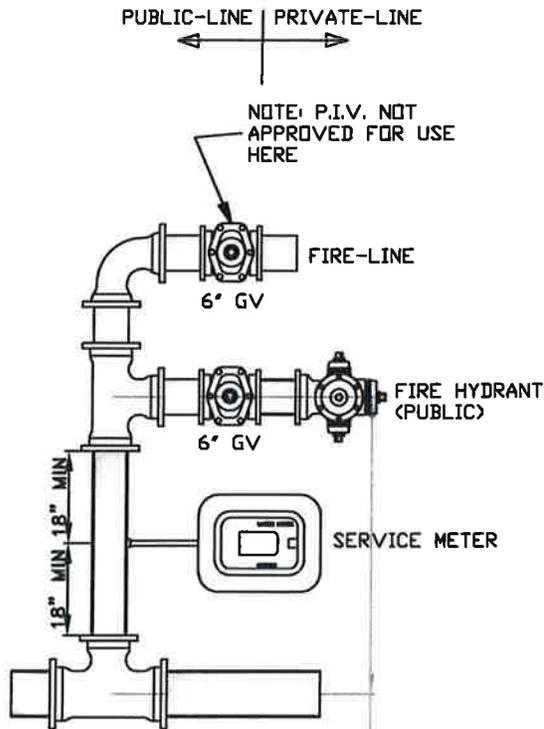
TBD-2



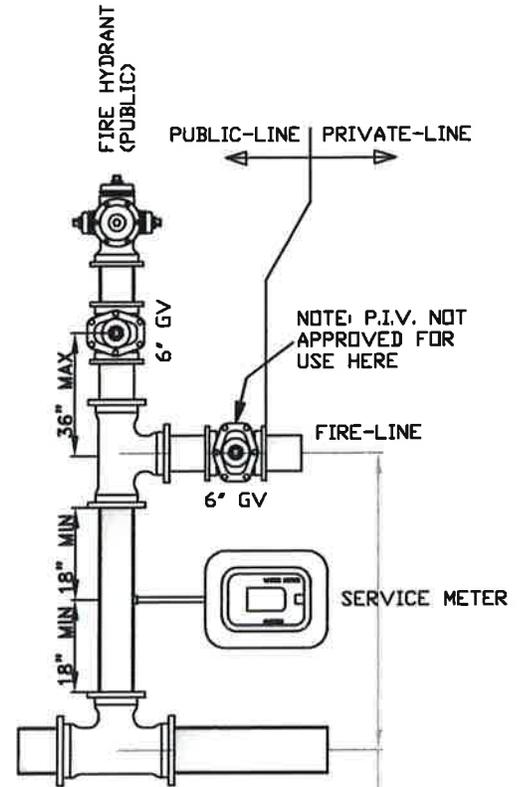
REVISED:  
JAN 2011

TYPICAL COMBINED  
COMMERCIAL SERVICE  
& FIRE LINE

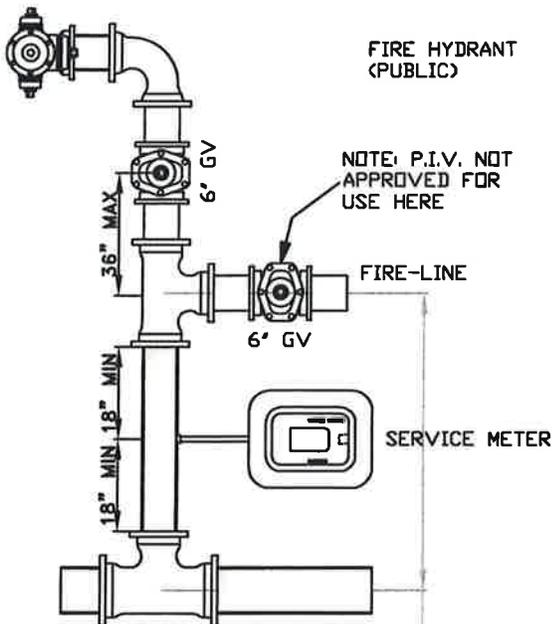
DRAWING NO.  
SERVICE-1



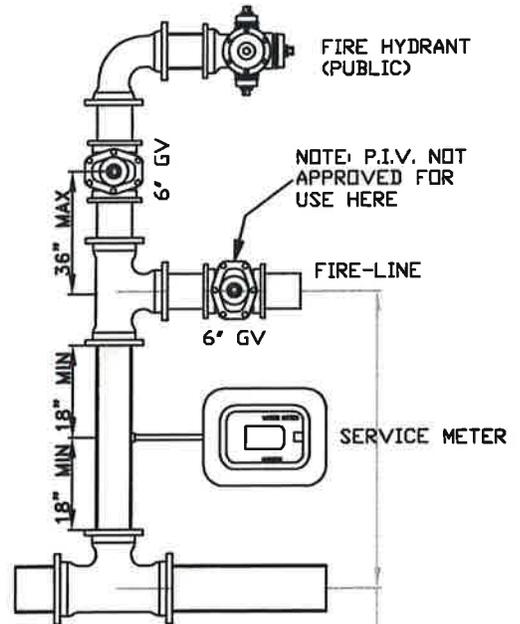
MAY VARY DEPENDENT ON CUSTOMER NEEDS



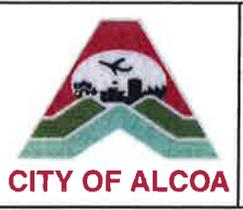
MAY VARY DEPENDENT ON CUSTOMER NEEDS



MAY VARY DEPENDENT ON CUSTOMER NEEDS



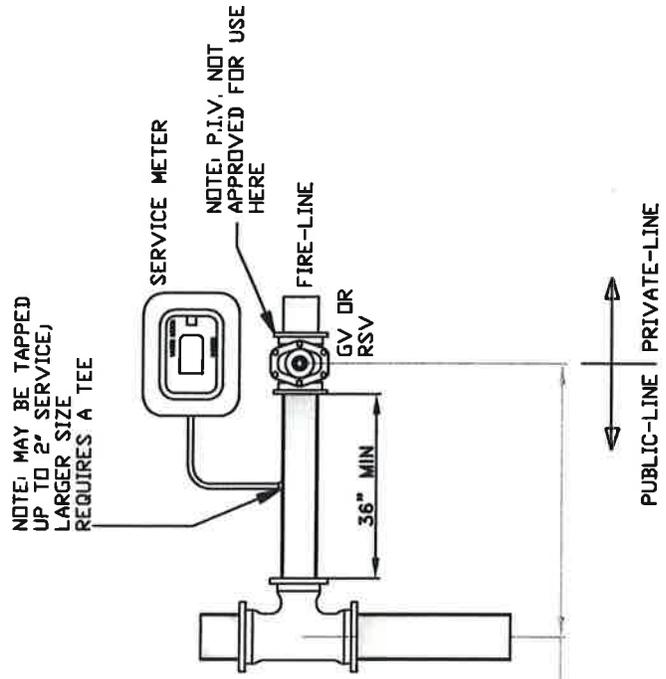
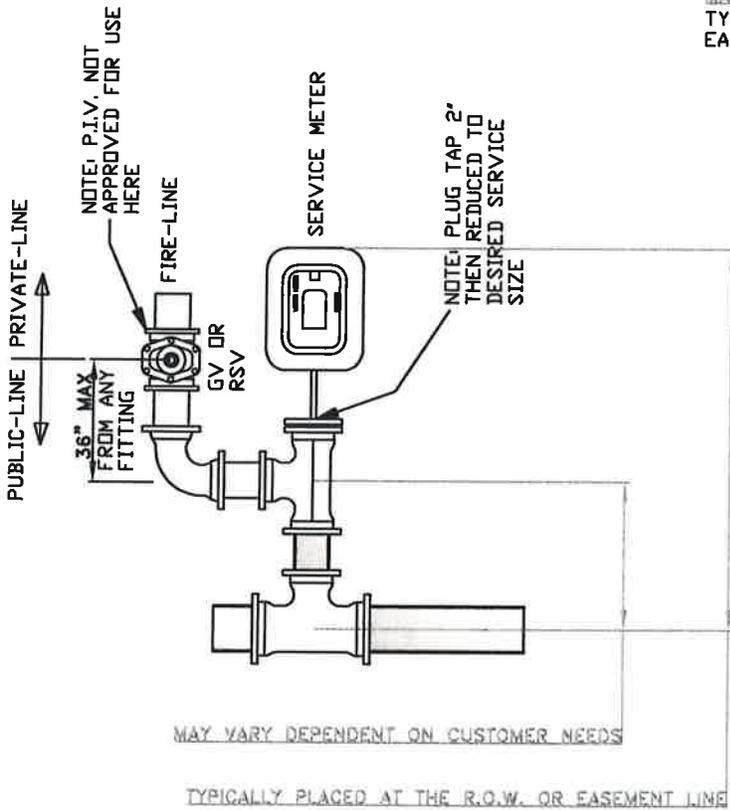
MAY VARY DEPENDENT ON CUSTOMER NEEDS



REVISED:  
JAN 2011

TYPICAL COMBINED  
COMMERCIAL SERVICE  
& FIRE LINE

DRAWING NO.  
SERVICE-2



MAY VARY DEPENDENT ON CUSTOMER NEEDS  
TYPICALLY PLACED AT THE R.O.W. OR EASEMENT LINE



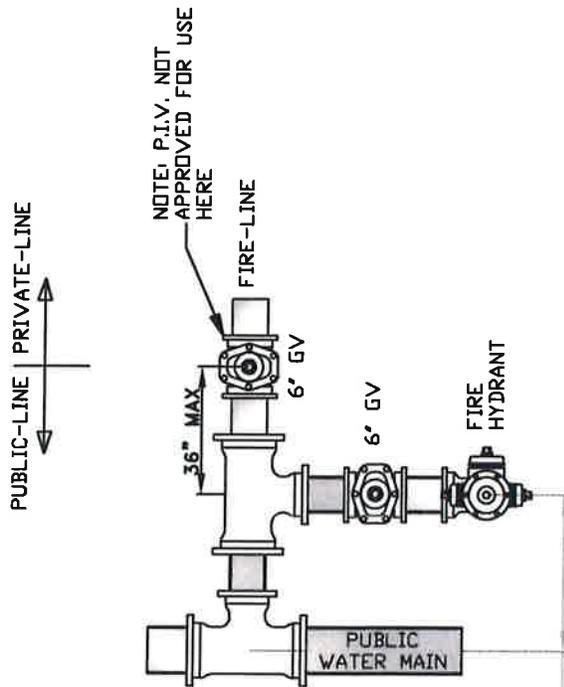
REVISED:

JAN 2014

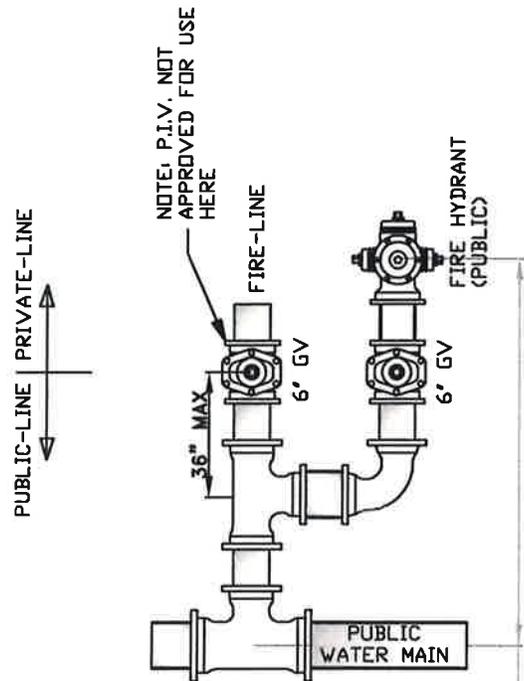
TYPICAL COMBINED  
COMMERCIAL SERVICE  
& FIRE LINE  
(WITHOUT FIRE HDYT.)

DRAWING NO.

SERVICE-3



MAY VARY DEPENDENT ON CUSTOMER NEEDS



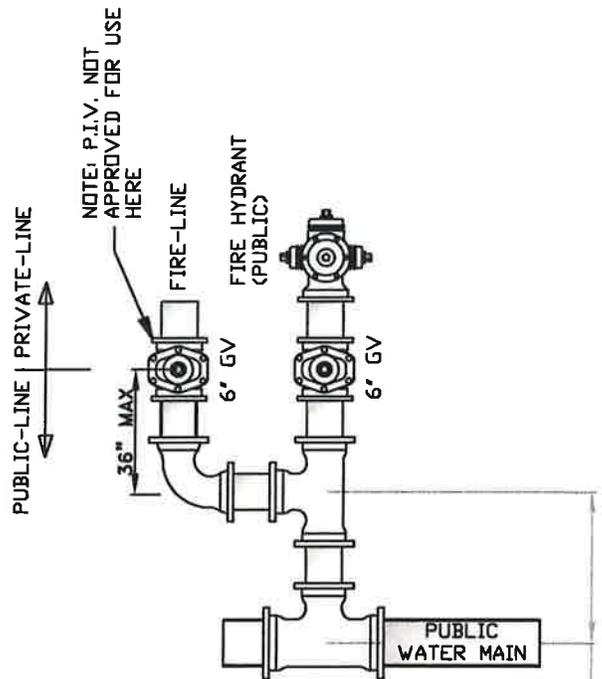
MAY VARY DEPENDENT ON CUSTOMER NEEDS

**NOTES:**

1. FIRE HYDRANTS ARE REQUIRED AT FIRE LINES WHEN THE ALCOA FIRE DEPARTMENT HAS DETERMINED THAT EXISTING PUBLIC FIRE HYDRANTS ARE NOT IN CLOSE ENOUGH PROXIMITY TO CONNECT TO THE FIRE DEPARTMENT CONNECTION ON THE CUSTOMERS FACILITY.

2. COMBINATION FIRE LINE SERVICE / FIRE HYDRANT CONNECTIONS MAY VARY TO MEET THE CUSTOMERS NEEDS. SHOWN AT TYPICAL AT PUBLIC WATER MAIN CONFIGURATIONS.

3. WHEN INSTALLED THE FACE OF ANY NOZZLE ON THE FIRE HYDRANT MUST BE A MINIMUM OF 2 FEET FROM THE FACE OF CURBING OR EDGE OF PAVEMENT.



MAY VARY DEPENDENT ON CUSTOMER NEEDS



REVISED:

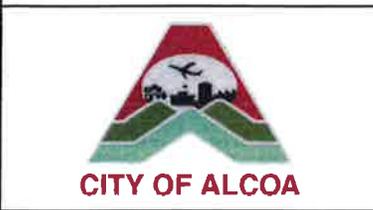
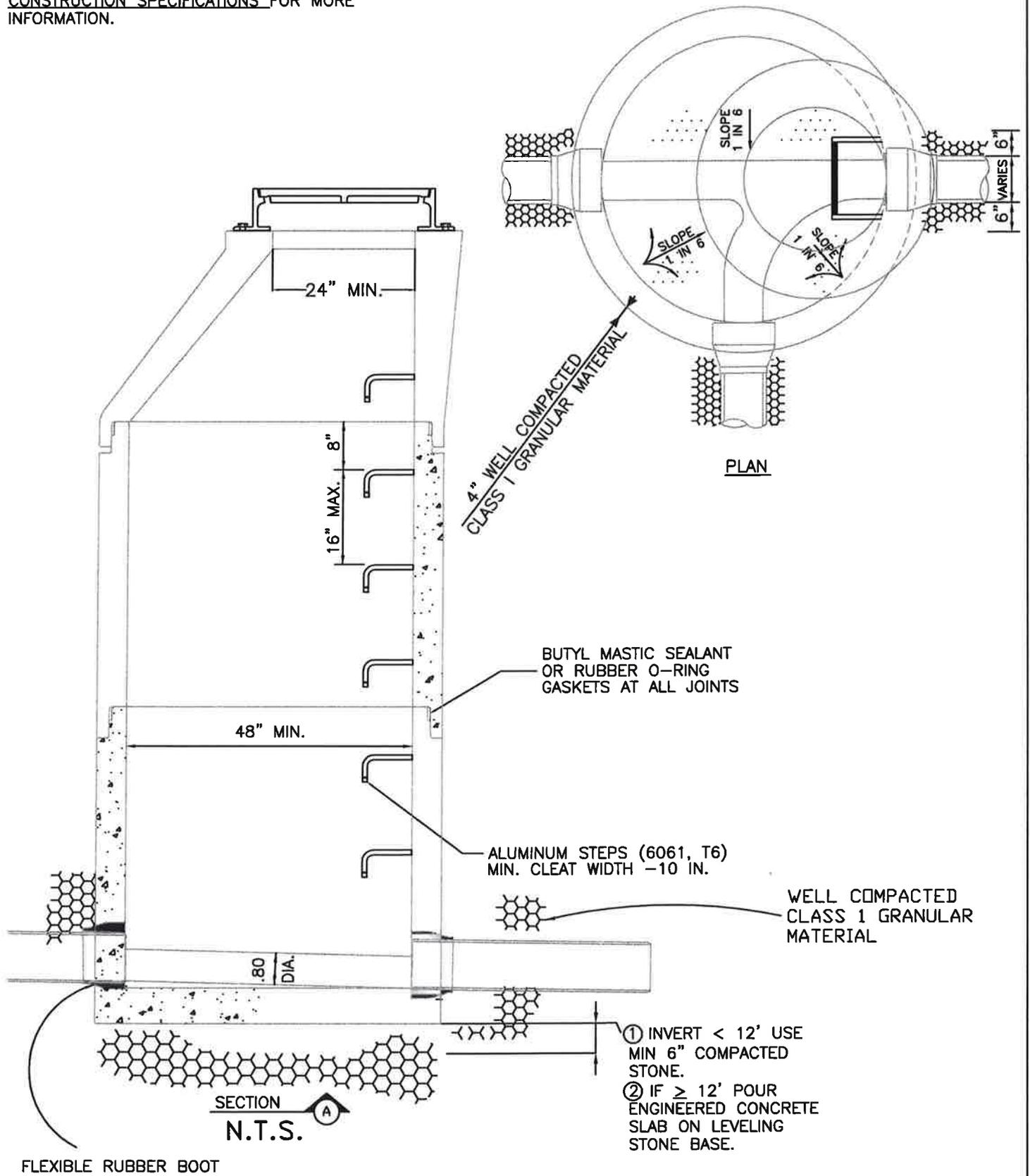
JAN 2013

TYPICAL FIRE LINE SERVICE

DRAWING NO.

FIRELINE 1

NOTE:  
 SEE THE CITY ALCOA WASTEWATER –  
 CONSTRUCTION SPECIFICATIONS FOR MORE  
 INFORMATION.



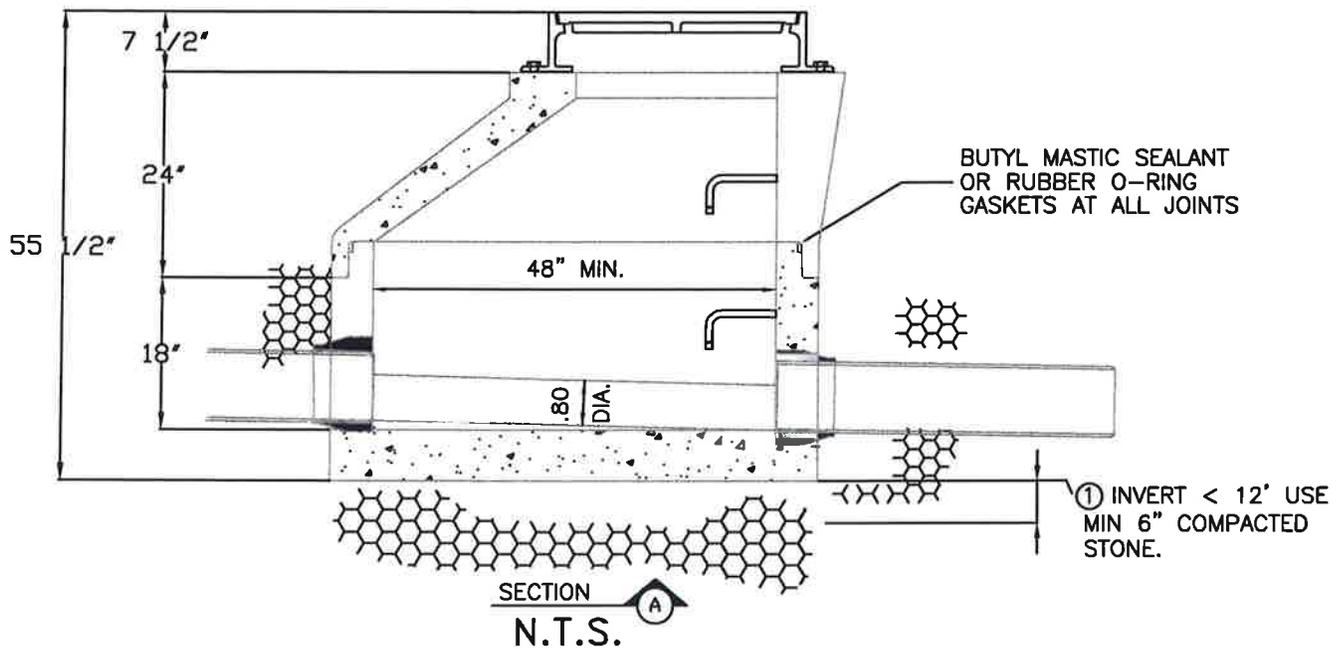
REVISED:  
 APR-2009

STANDARD  
 PRECAST CONCRETE  
 MANHOLE

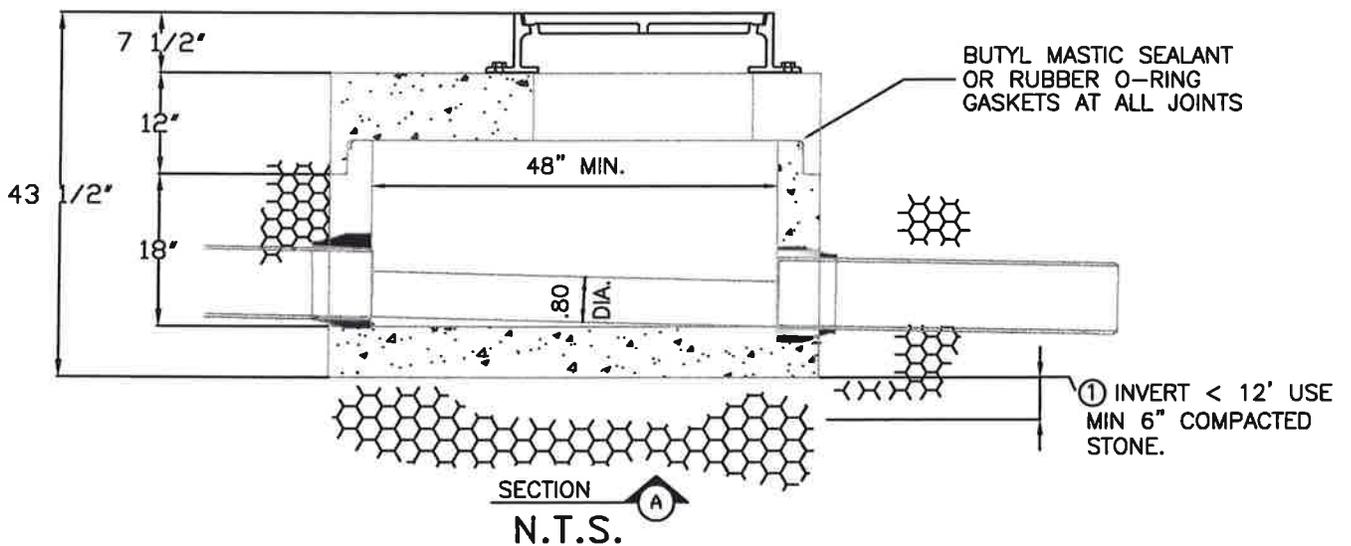
DRAWING NO.  
 MH-PRECAST

NOTE:

1. SEE THE CITY ALCOA WASTEWATER – CONSTRUCTION SPECIFICATIONS FOR MORE INFORMATION.
2. SEE STANDARD MANHOLE DRAWING FOR OTHER DETAILS



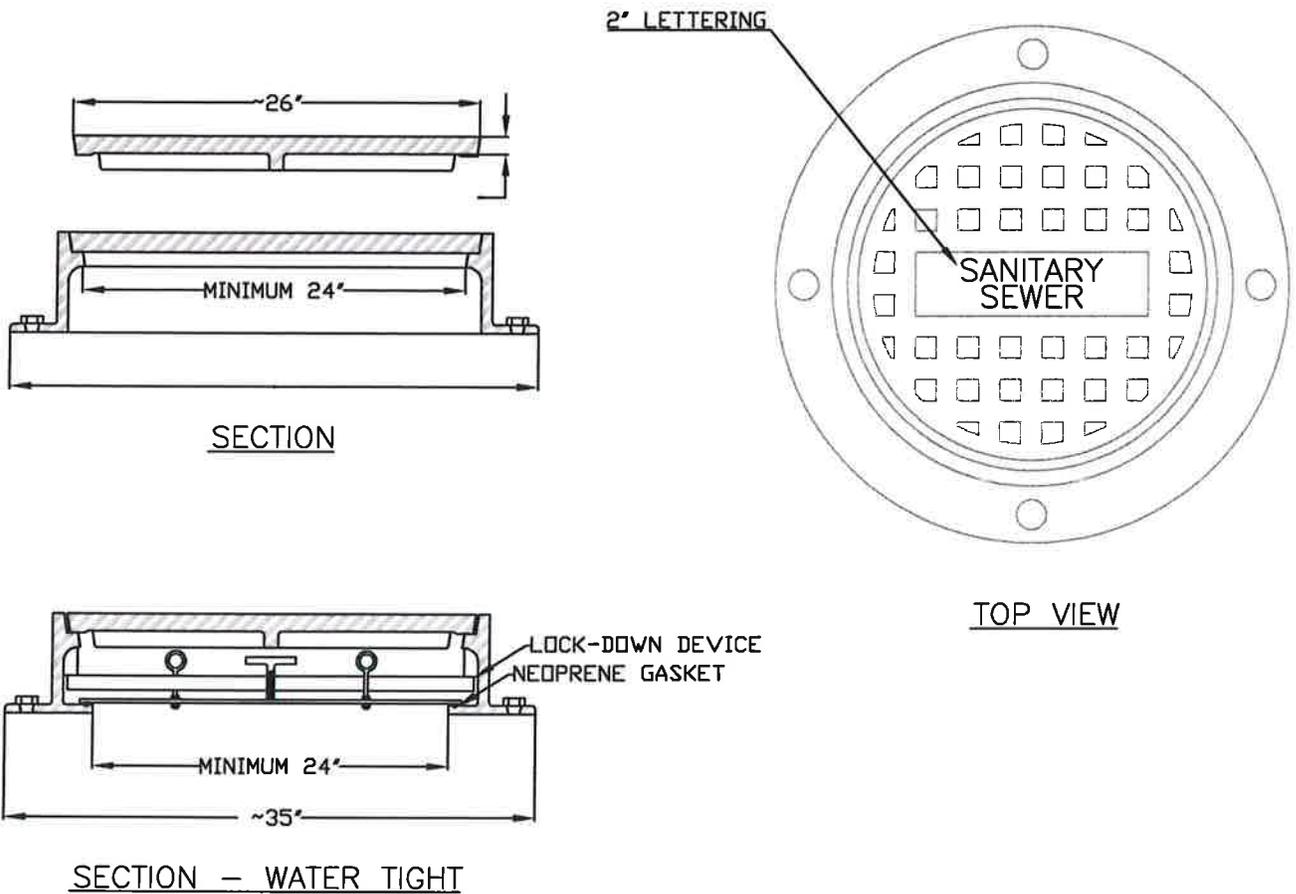
NOTE ON STEPS:  
 BEGIN INSTALLING STEPS WHEN  
 OVERALL EXTERIOR HEIGHT OF  
 MANHOLE EXCEEDS 48 INCHES



REVISED:  
 MAY-2009

SHALLOW  
 PRECAST CONCRETE  
 MANHOLE

DRAWING NO.  
 MH-PRECAST

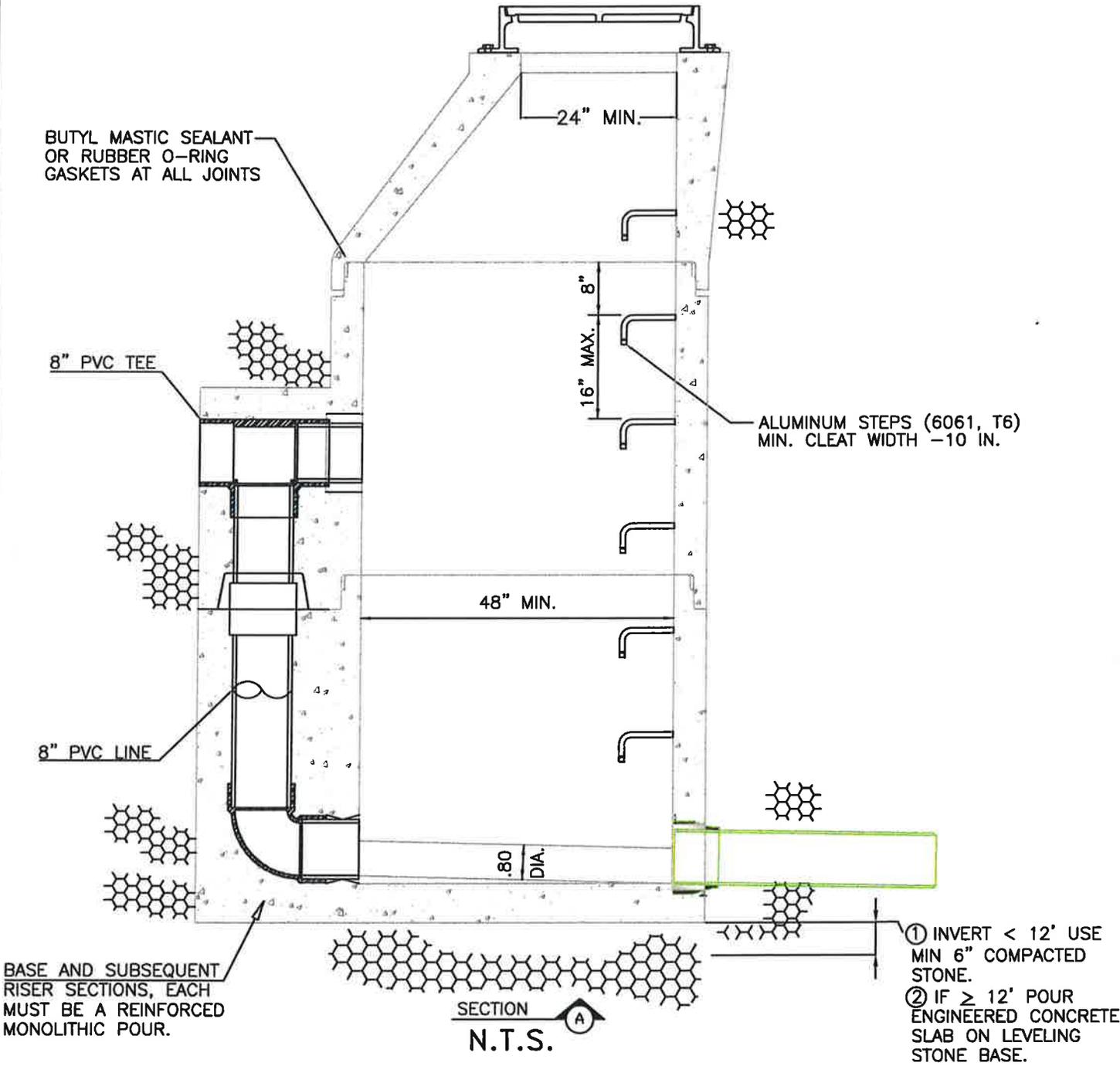


NOTES:

1. Manhole cover frames and lids shall be of gray cast iron meeting the latest requirements of ASTM Standard A48, Class 30, (30,000 psi); painting of the frame and lid is not required.
2. Manhole covers shall be Neenah R-1642; Vulcan Foundry, Inc., No. V-1380; or approved equal.
3. See CITY OF ALCOA WASTEWATER COLLECTION-CONSTRUCTION SPECIFICATIONS for more information.

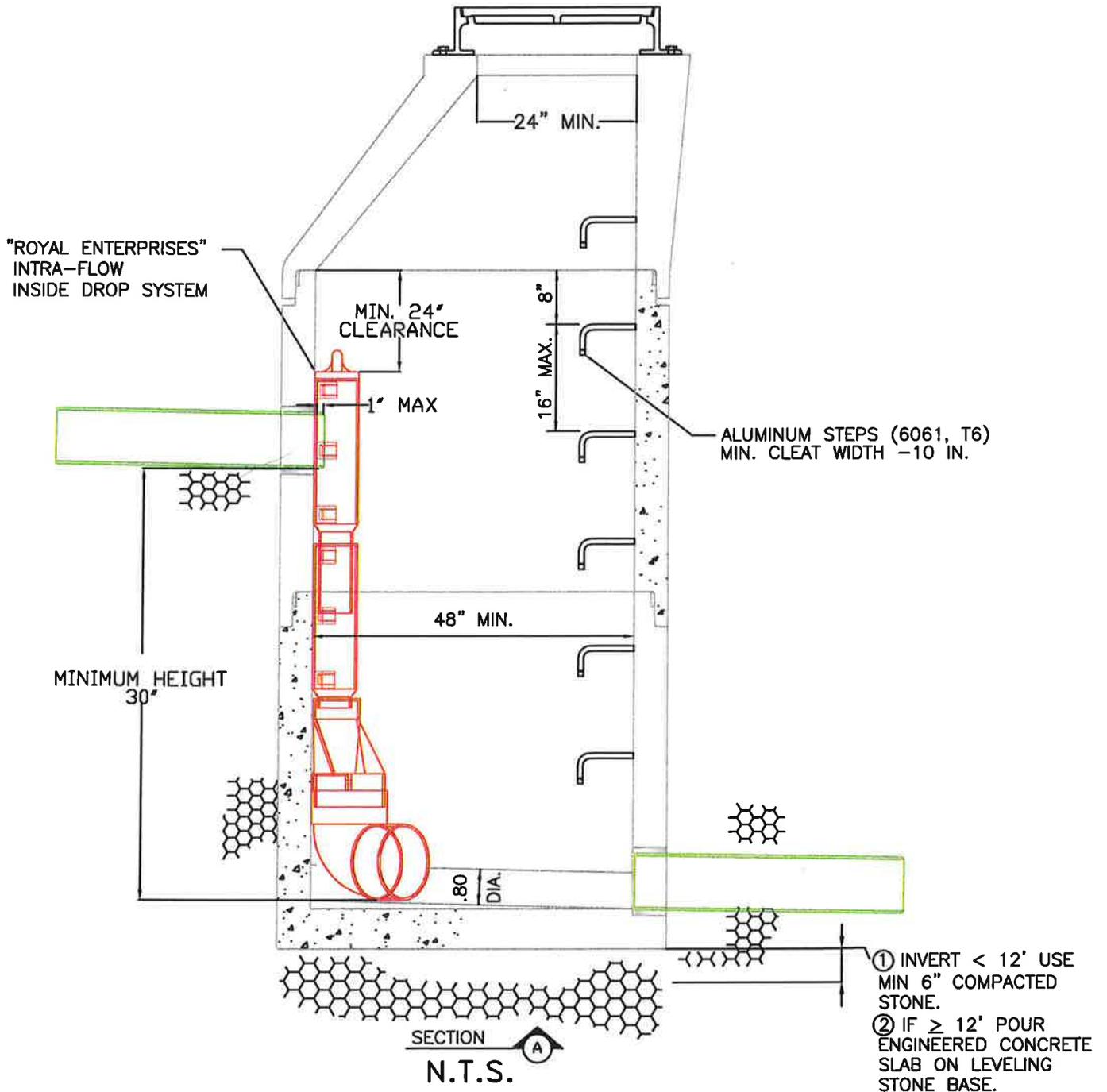
 <b>CITY OF ALCOA</b>	<b>REVISED:</b>	<b>MANHOLE FRAME &amp; COVER</b>	<b>DRAWING NO.</b>
	APR 2015		<b>MH-FRAME &amp; COVER</b>

NOTE:  
SEE THE CITY ALCOA WASTEWATER -  
CONSTRUCTION SPECIFICATIONS FOR MORE  
INFORMATION.



 <b>CITY OF ALCOA</b>	REVISED:	<b>STANDARD PRECAST CONCRETE DROP MANHOLE</b>	DRAWING NO.
	DEC-2012		MH-D1

NOTE:  
 SEE THE CITY ALCOA WASTEWATER -  
 CONSTRUCTION SPECIFICATIONS FOR MORE  
 INFORMATION.

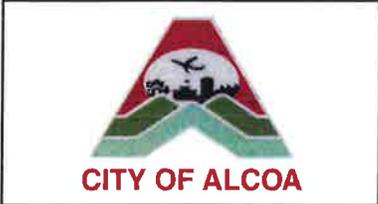
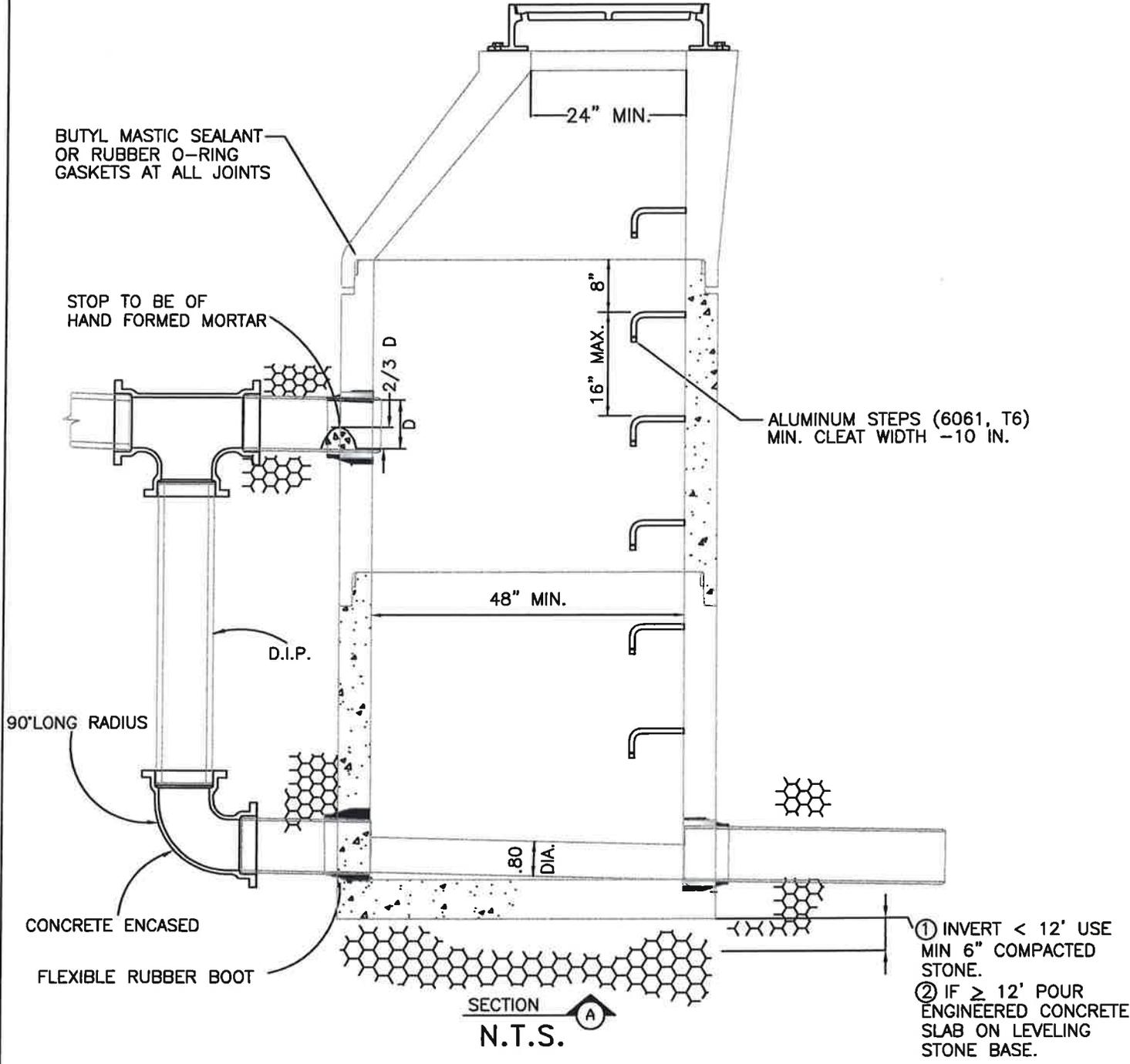


REVISED:  
 APR 2009

OPTIONAL ( $\geq 8"$  PIPE)  
 PRECAST CONCRETE  
 INSIDE DROP MANHOLE

DRAWING NO.  
 MH-D2

NOTE:  
 SEE THE CITY ALCOA WASTEWATER –  
 CONSTRUCTION SPECIFICATIONS FOR MORE  
 INFORMATION.

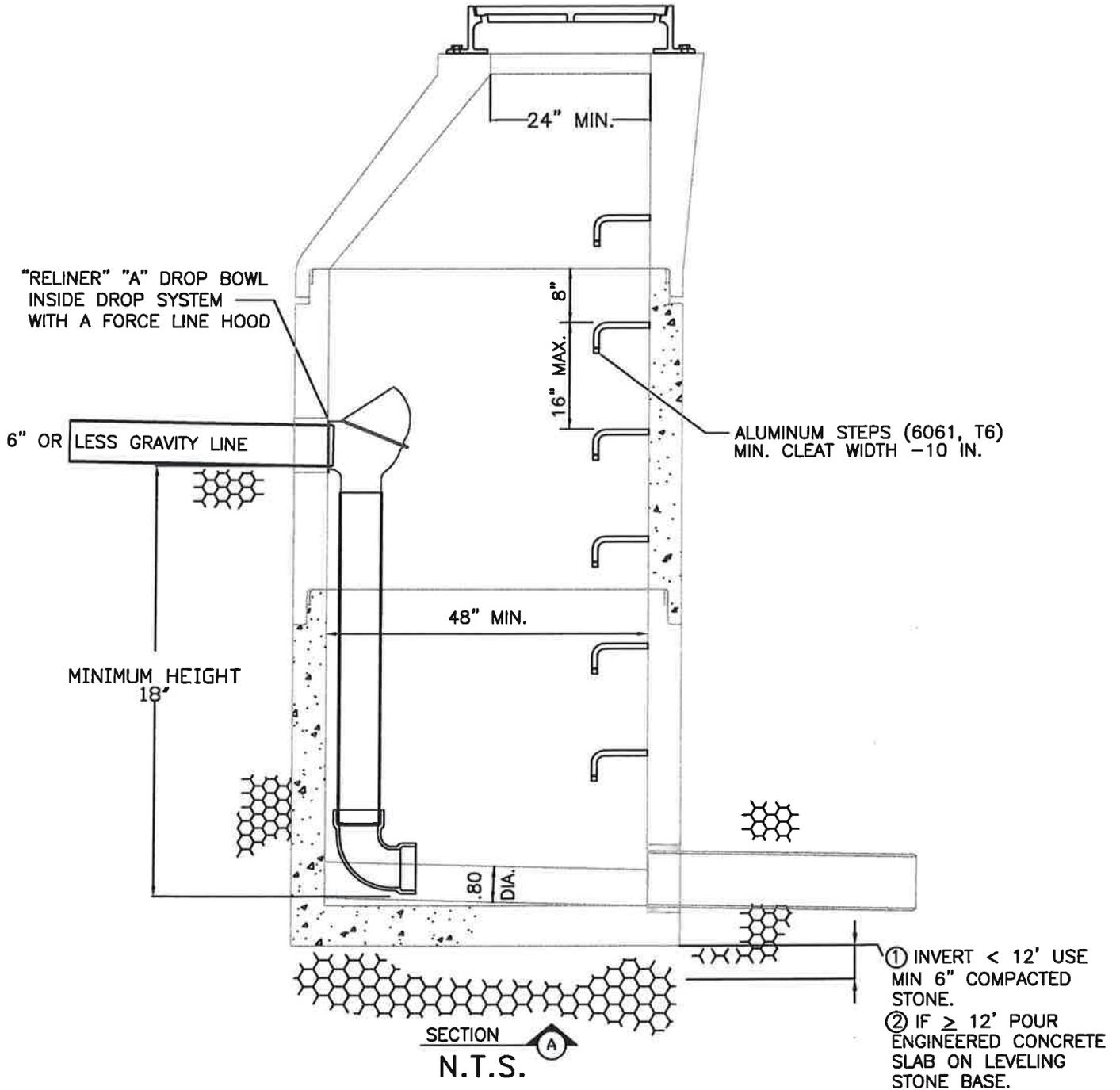


REVISED:  
 DEC-2012

OPTIONAL  
 PRECAST CONCRETE MANHOLE  
 WITH OUTSIDE DROP

DRAWING NO.  
 MH-D3

NOTE:  
 SEE THE CITY ALCOA WASTEWATER –  
 CONSTRUCTION SPECIFICATIONS FOR MORE  
 INFORMATION.



REVISED:  
 APR 2009

OPTIONAL (6" PIPE)  
 PRECAST CONCRETE  
 INSIDE DROP MANHOLE

DRAWING NO.  
 MH-D4

120 DEGREES

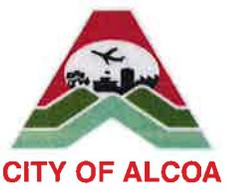
CONNECTIONS SHALL NOT  
OBSCURE ACCESS TO LINE  
IN THIS AREA

CONNECTION LIMITS

12" MIN. SEPARATION  
NO CONNECTIONS BELOW TOP OF PIPE  
> 24" SUPPLY INSIDE DROP  
CORE INTERCEPTOR TO BOOT  
MANUFACTURER'S SPECIFICATIONS

RCP

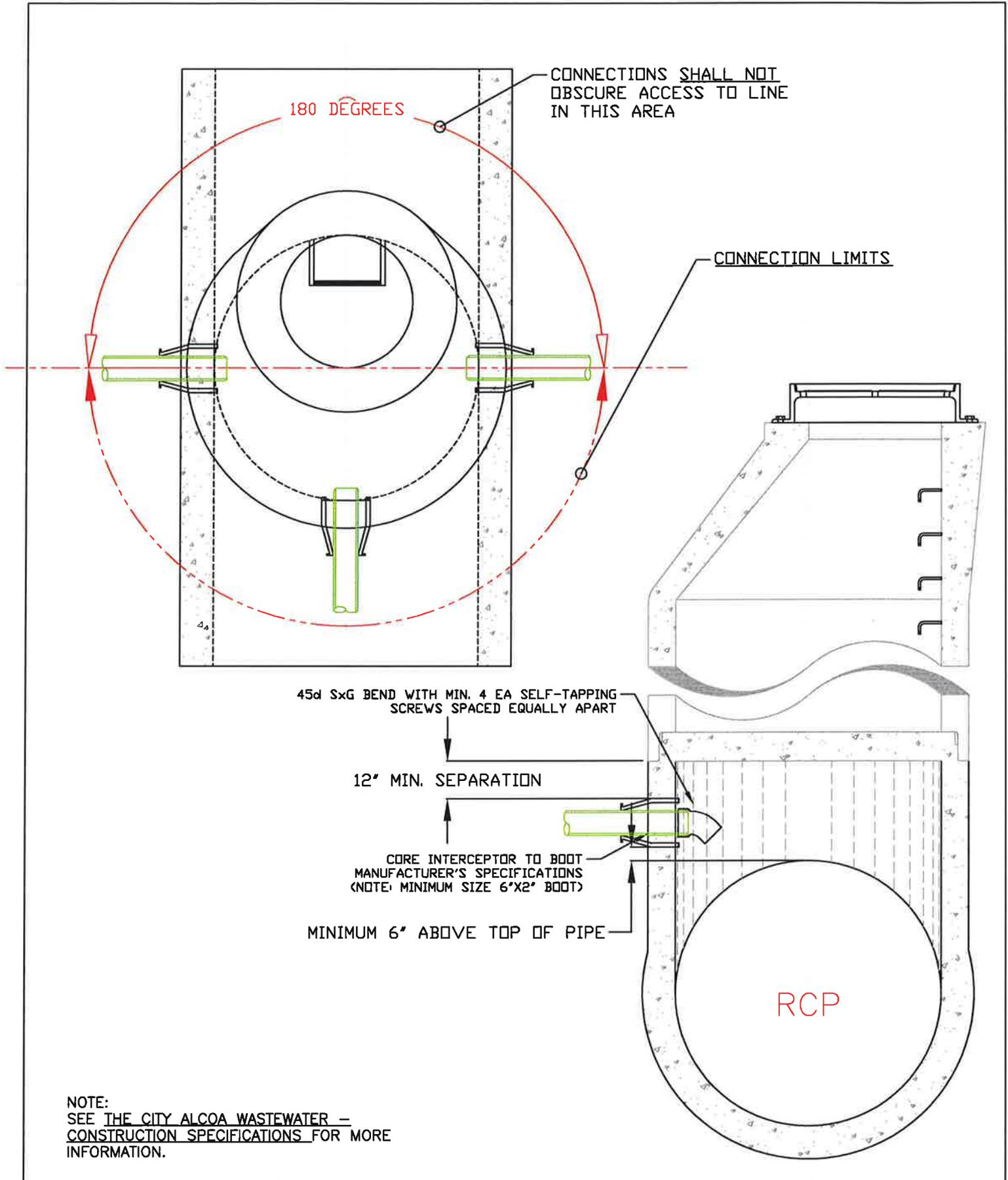
NOTE:  
SEE THE CITY ALCOA WASTEWATER -  
CONSTRUCTION SPECIFICATIONS FOR MORE  
INFORMATION.



REVISED:  
APR 2015

EXISTING MANHOLE  
INTERCEPTOR CONNECTION

DRAWING NO.  
MH-INT1



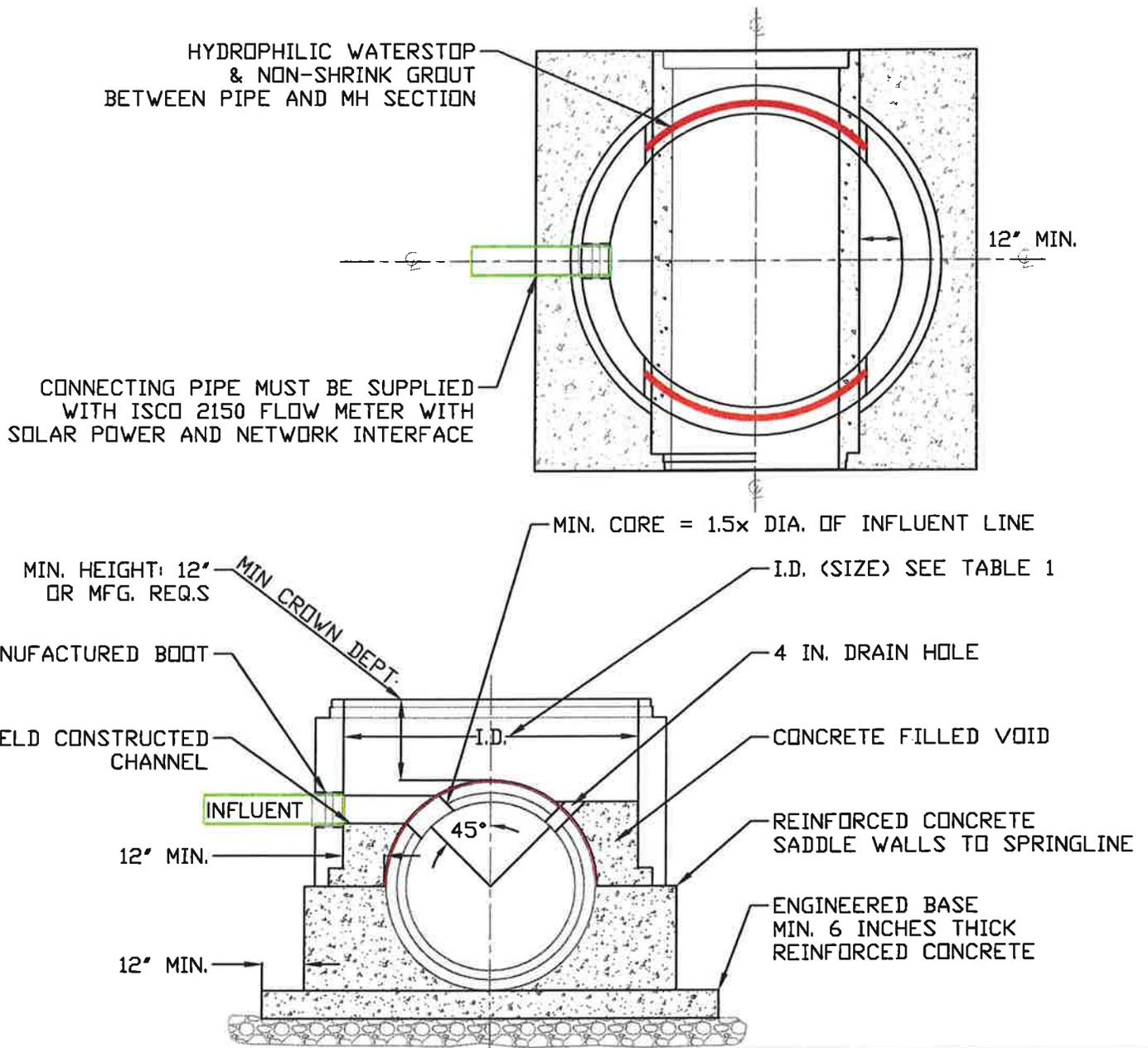
REVISED:  
APR 2015

EXISTING MANHOLE  
INTERCEPTOR CONNECTION  
FORCE MAIN

DRAWING NO.  
MH-INT2

DROP OVER MANHOLE	
PIPE SIZE (IN)	RISER I.D.
SDR35-C900-DI	
18"	48"
24"- 30"	60"
36"- 42"	72"
RCP	
18"	48"
24"	60"
30"-36"	72"
42"-48"	84"
54"	96"
60"-72"	120"

NOTE:  
SEE THE CITY ALCOA WASTEWATER –  
CONSTRUCTION SPECIFICATIONS FOR MORE  
INFORMATION.



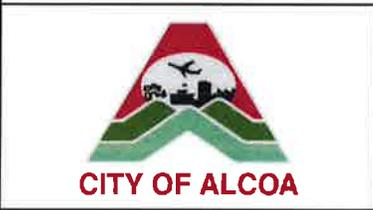
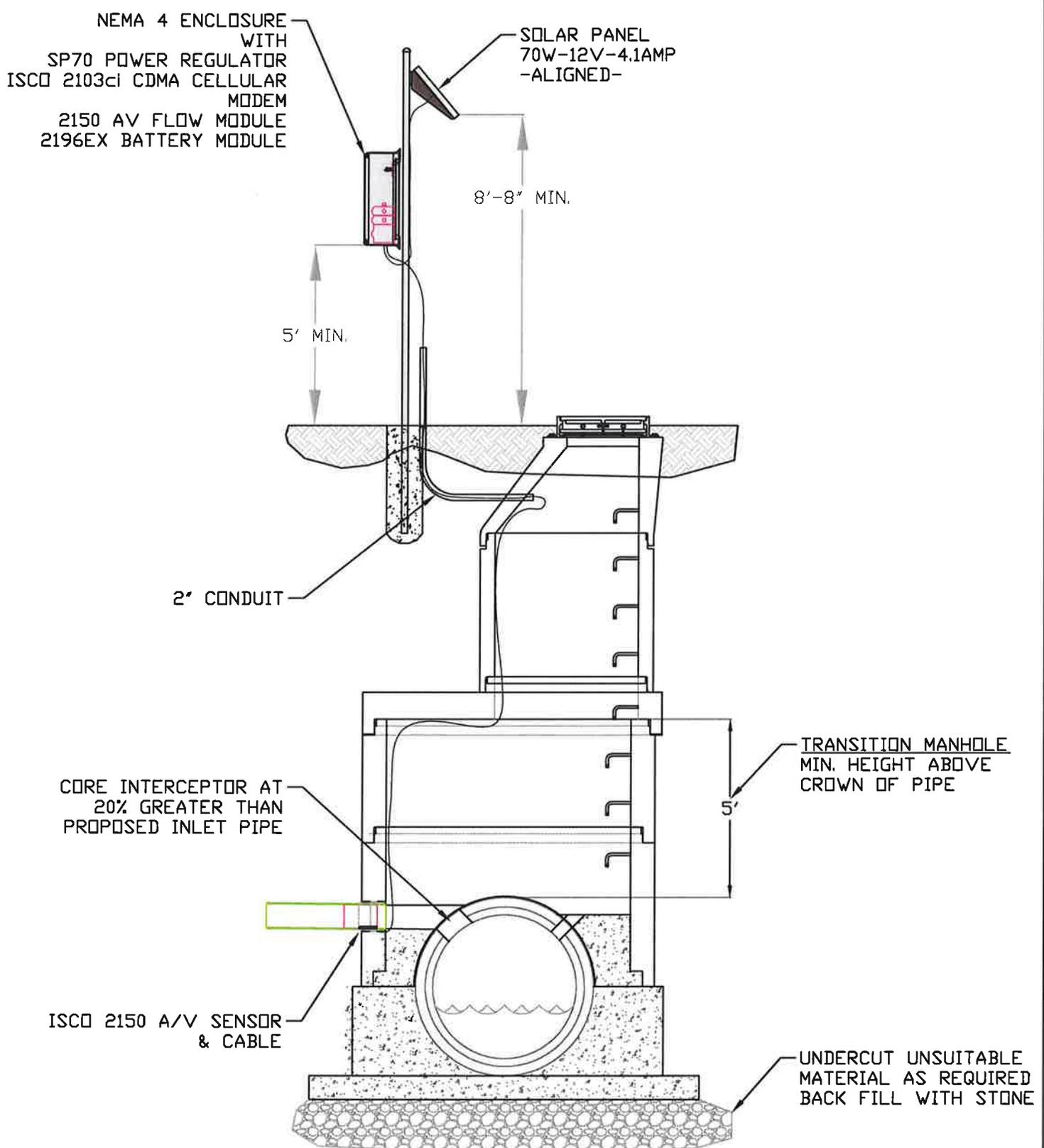
REVISED:  
MAY-2013

STANDARD  
PRECAST CONCRETE  
DROP OVER MANHOLE

DRAWING NO.  
MH-DO-1

FLOW METER TO BE PLACED IN AREA NOT PRONE TO FLOODING. MAY BE PLACED IN NEXT MANHOLE UPSTREAM

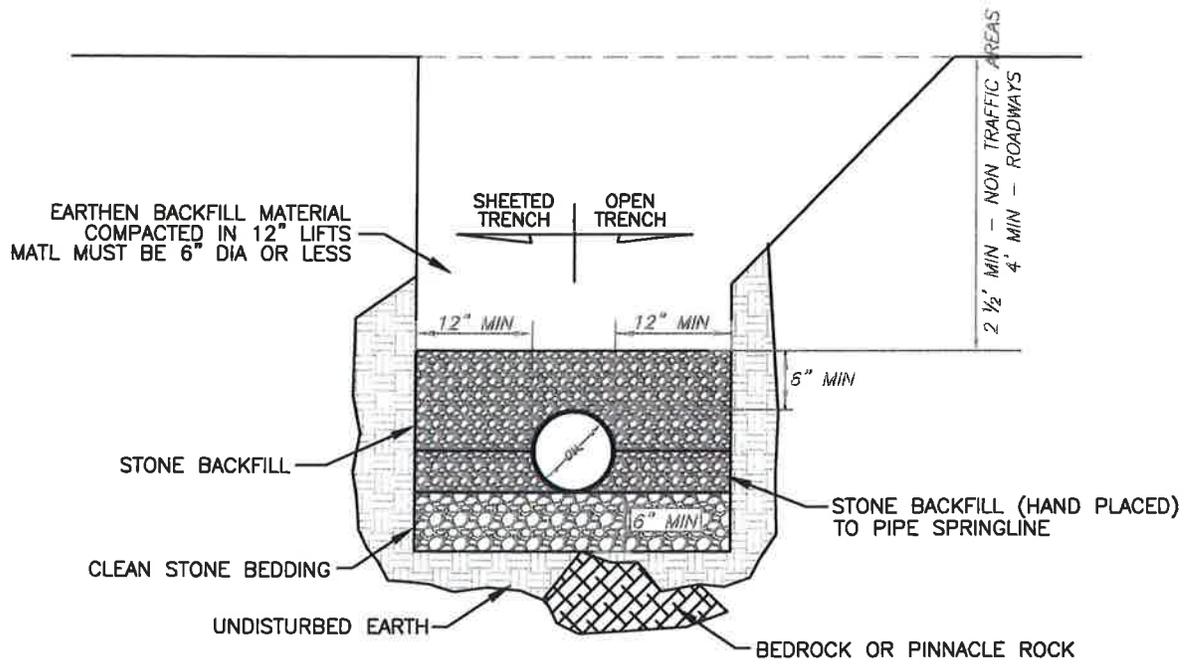
NOTE:  
SEE THE CITY ALCOA WASTEWATER - CONSTRUCTION SPECIFICATIONS FOR MORE INFORMATION.



REVISED:  
MAY 2013

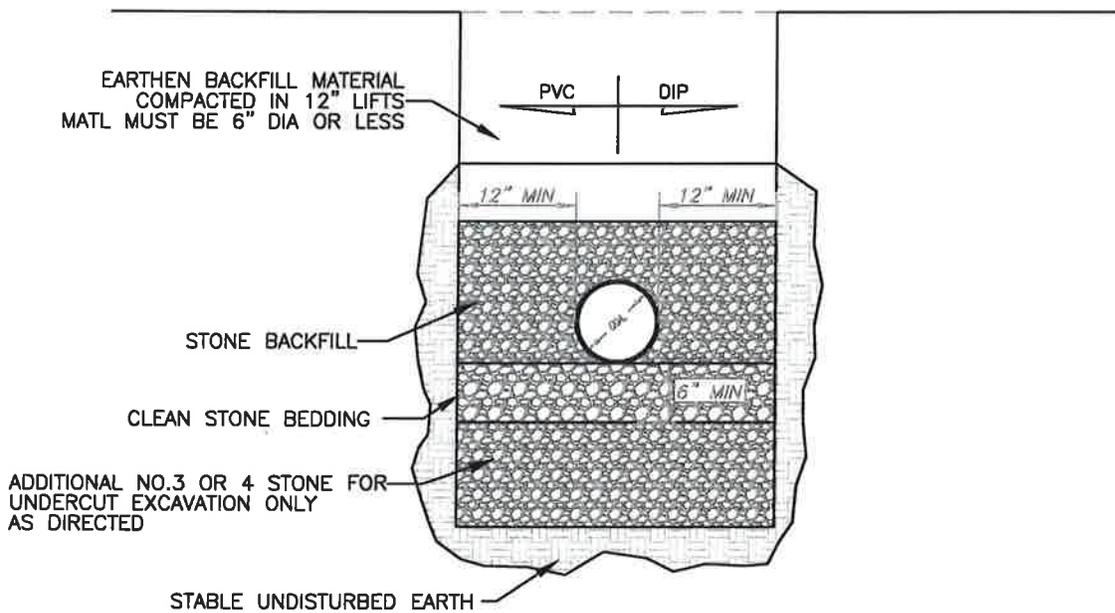
PRECAST CONCRETE  
DROP OVER MANHOLE  
WITH FLOW METER

DRAWING NO.  
MH-D02



**STANDARD EXCAVATION  
PVC PIPE - 24" OR LESS**

REF: SECTIONS 2.1.8, 2.3.3 & 2.3.4 - CITY OF ALCOA CONSTRUCTION SPECIFICATIONS



**STANDARD EXCAVATION  
UNDERCUT**

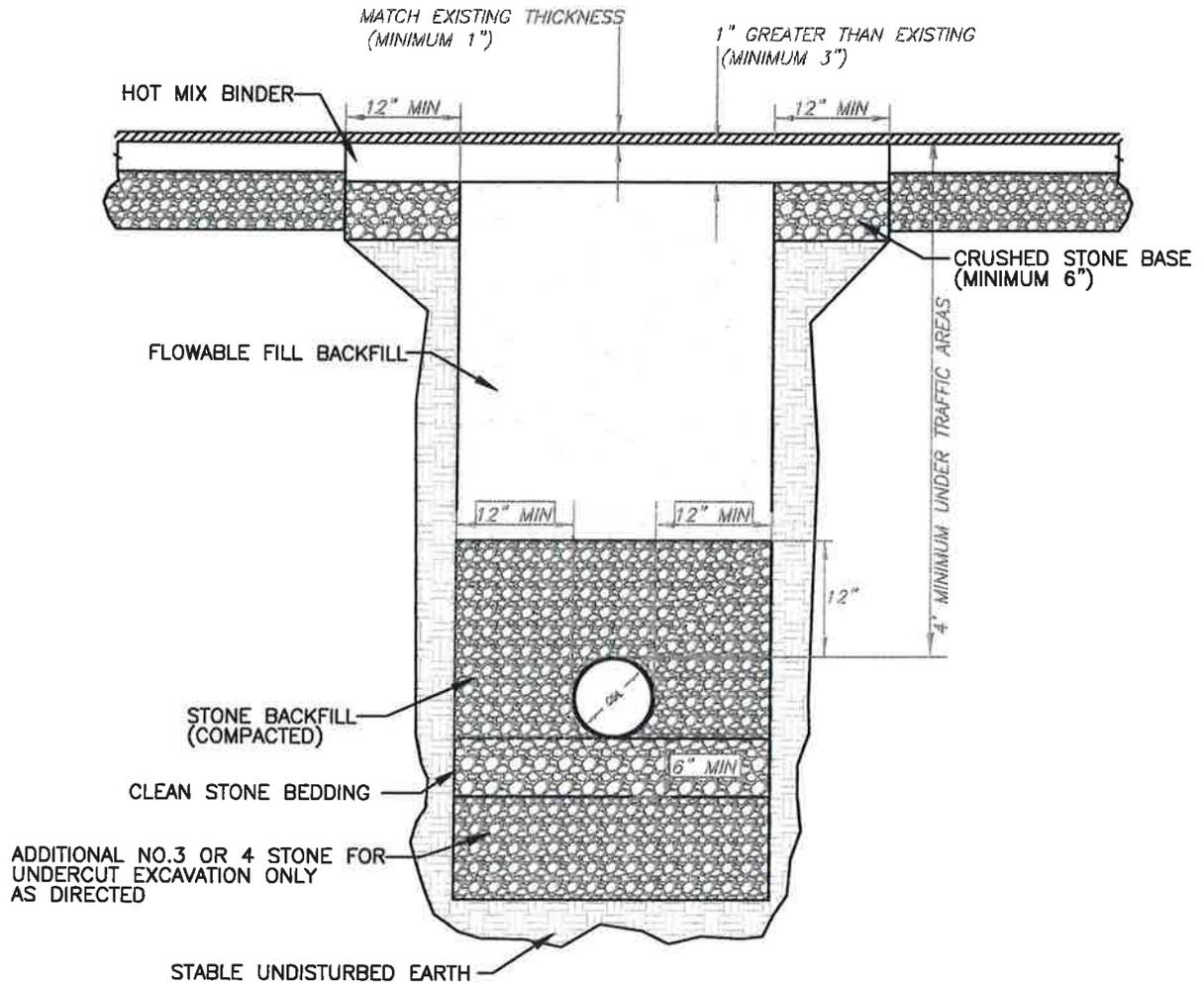
REF: SECTIONS 2.3.3 - CITY OF ALCOA CONSTRUCTION SPECIFICATIONS



**REVISED:**  
**25MAR2013**

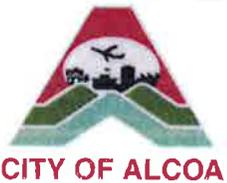
**SANITARY SEWER  
PIPE LAYING CONDITIONS**

**DRAWING NO.**  
**PIPE - S1**



**STANDARD STREET CUT EXCAVATION  
WITH UNDERCUT**

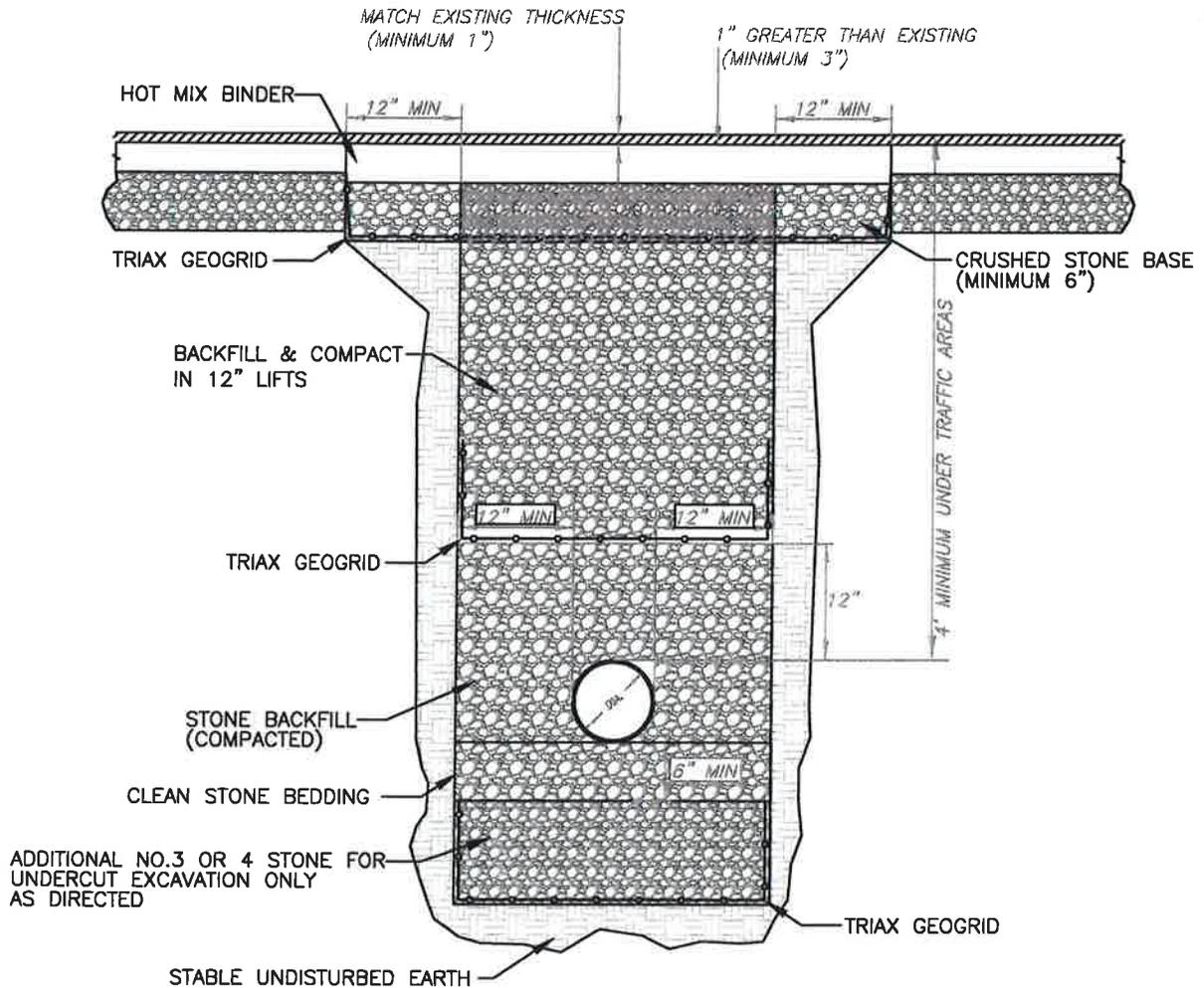
REF: SECTIONS 2.3.3 - CITY OF ALCOA CONSTRUCTION SPECIFICATIONS



REVISED:  
25MAR2013

SANITARY SEWER  
PIPE LAYING CONDITIONS  
STREET CUT

DRAWING NO.  
PIPE - S2



**STREET CUT EXCAVATION WITH STONE BACKFILL  
WITH UNDERCUT**

REF: SECTIONS 2.3.3 - CITY OF ALCOA CONSTRUCTION SPECIFICATIONS

NOTE: THE TRIAX GEOGRID MUST BE INSTALLED TO MFG. SPECIFICATIONS.

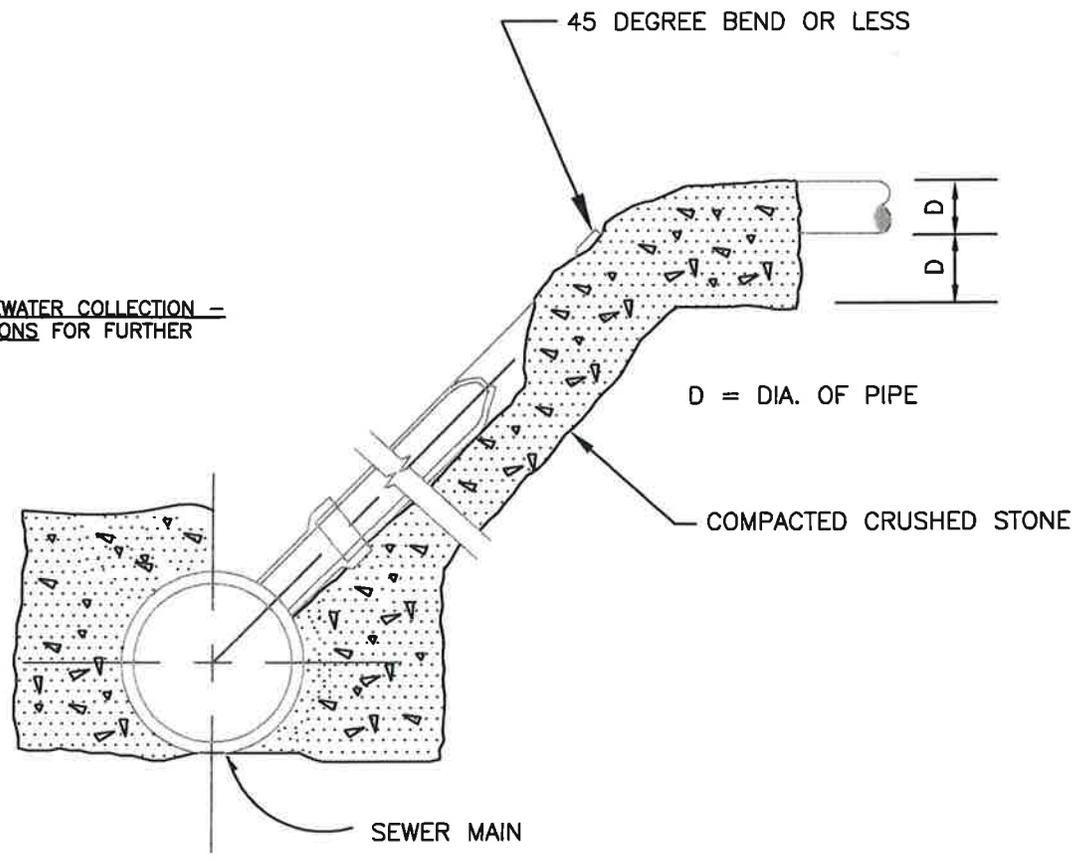


REVISED:  
25MAR2013

SANITARY SEWER  
PIPE LAYING CONDITIONS  
STREET CUT

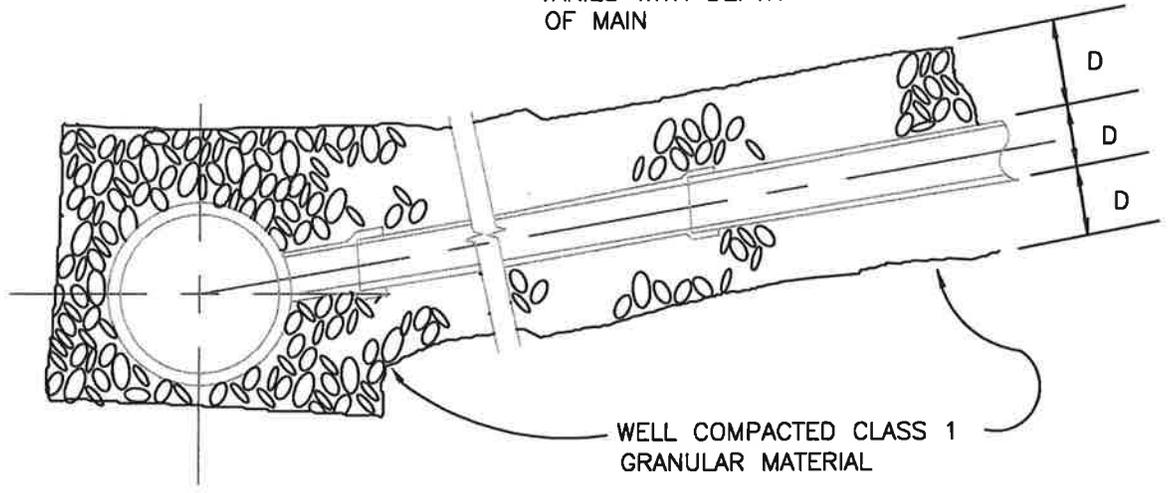
DRAWING NO.  
PIPE - S3

NOTE:  
 SEE CITY OF ALCOA WASTEWATER COLLECTION —  
 CONSTRUCTION SPECIFICATIONS FOR FURTHER  
 INFORMATION.



DEEP MAIN

SLOPE OF PIPE  
 VARIES WITH DEPTH  
 OF MAIN



SHALLOW MAIN



REVISED:

SEWER SERVICE  
 CONNECTION

DRAWING NO.

SEWER  
 SERVICE



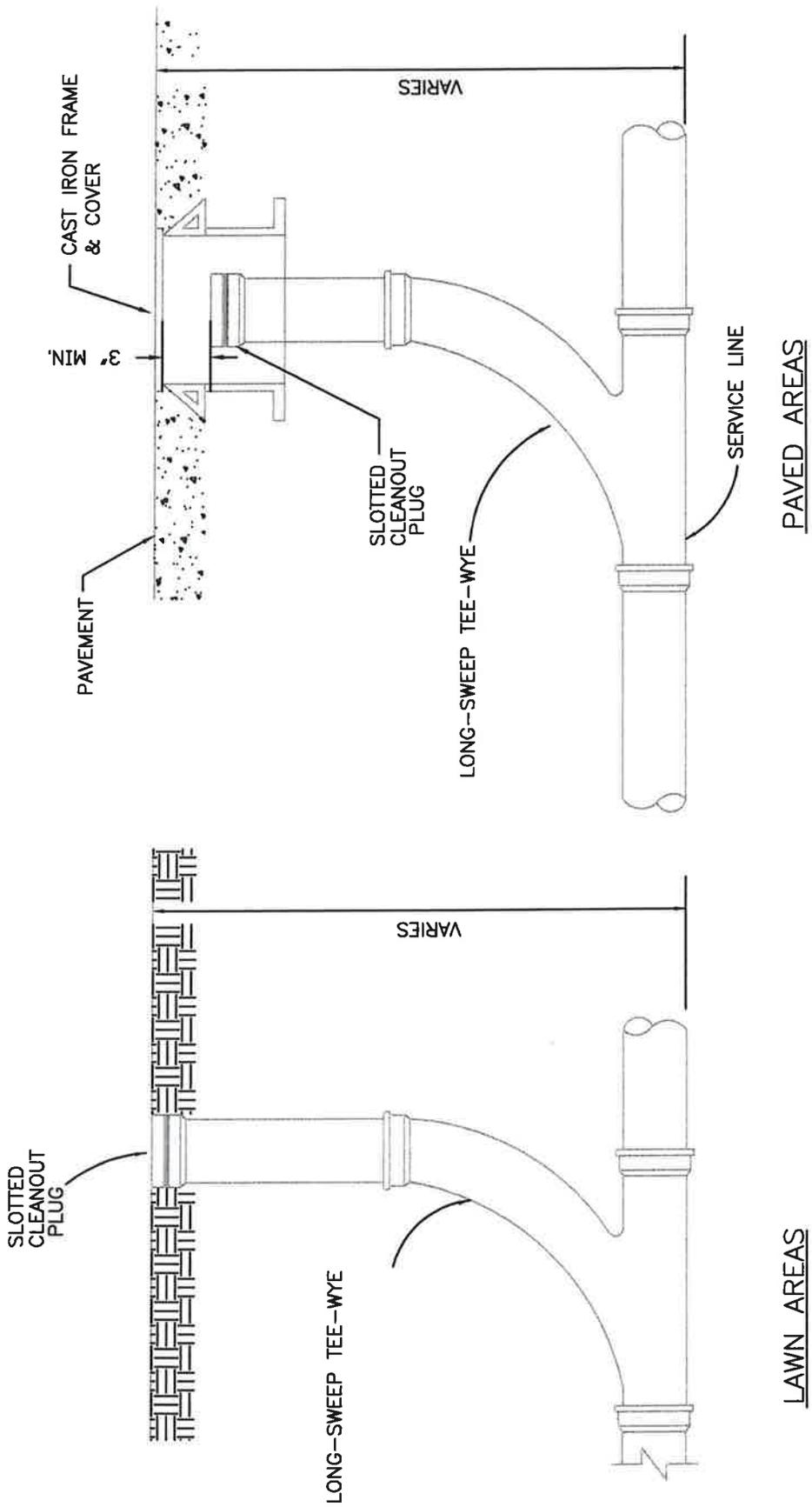
REVISED:

SEWER CLEANOUT

DRAWING NO.  
SEWER CLEANOUT

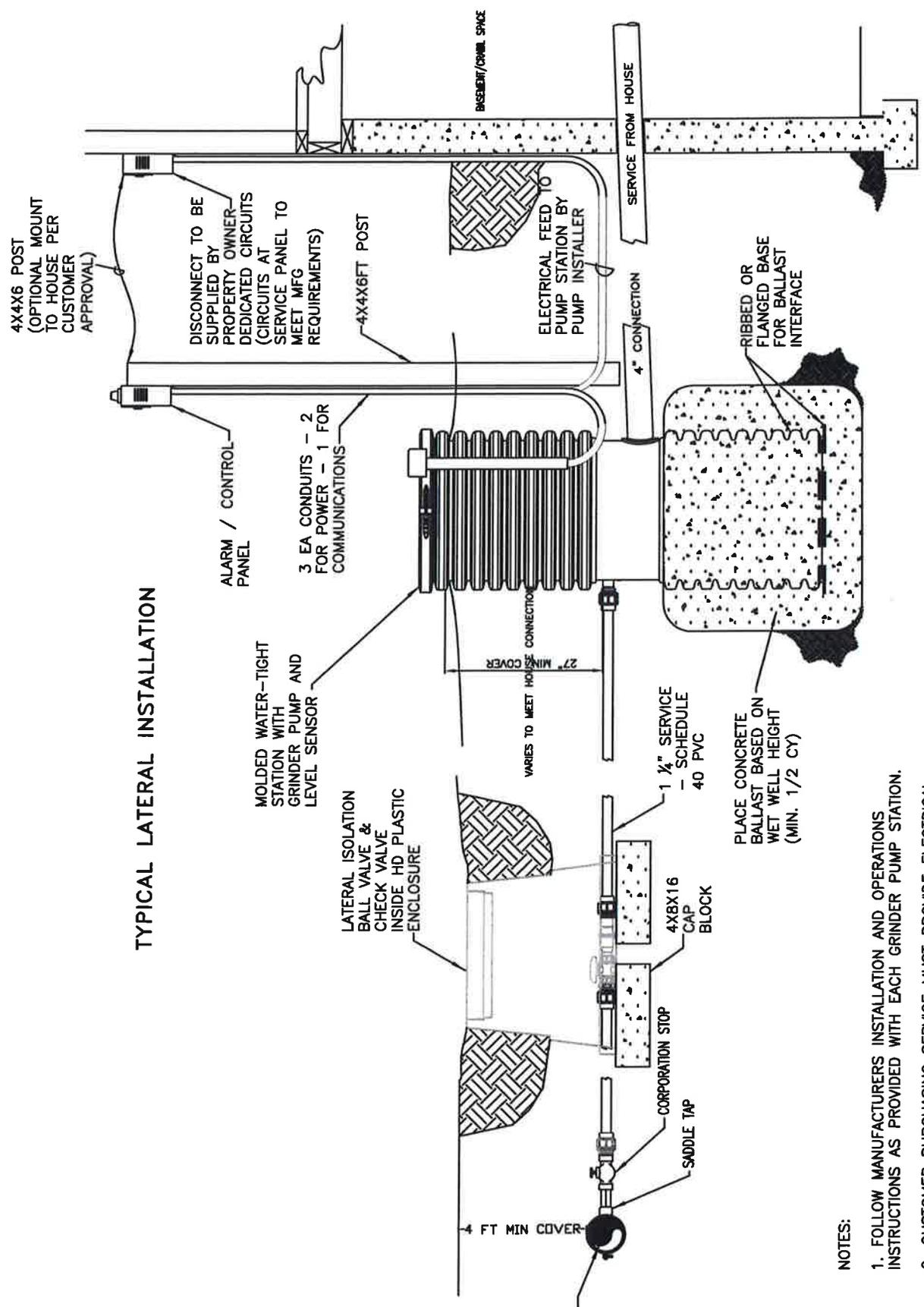
NOTES:

1. USE LONG-SWEEP TEE-WYE WITH MIN. 2' NIPPLE.
2. SEE CITY OF ALCOA WASTEWATER COLLECTION - CONSTRUCTION SPECIFICATIONS FOR FURTHER INFORMATION.
3. CLEANOUT PLUGS W/RAISED NUTS ARE PROHIBITED.



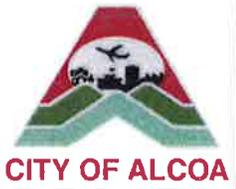
CLEANOUT DETAILS  
NOT INSTALLED ON PUBLIC SIDE OF SERVICE

TYPICAL LATERAL INSTALLATION



- NOTES:
1. FOLLOW MANUFACTURERS INSTALLATION AND OPERATIONS INSTRUCTIONS AS PROVIDED WITH EACH GRINDER PUMP STATION.
  2. CUSTOMER PURCHASING SERVICE MUST PROVIDE ELECTRICAL SERVICE TO A LOCATION ON OR NEAR HOME AS REQUIRED BY CITY ELECTRICAL CODE.
  3. CUSTOMER SHALL BE PROVIDED AN USE GUIDE SHEET WITH EMERGENCY CONTACT TELEPHONE NUMBER.

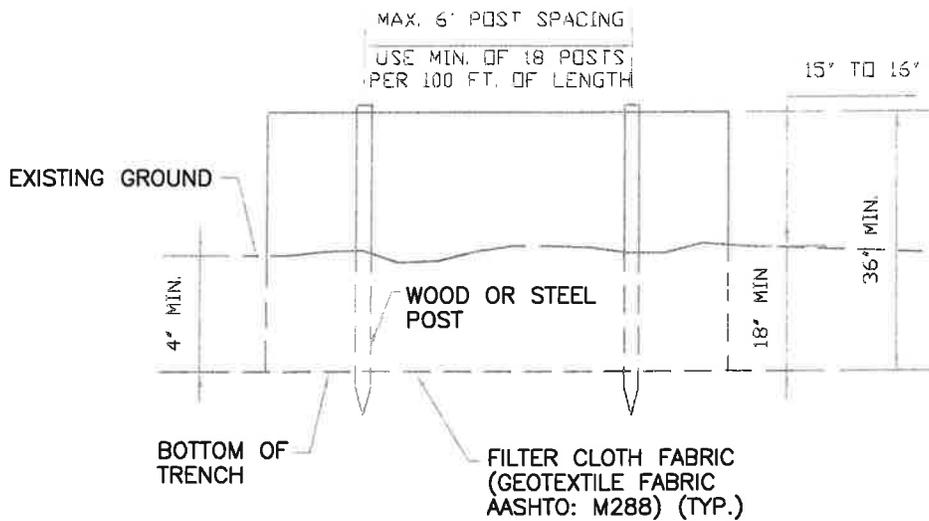
SOURCE: VARIOUS SYSTEMS



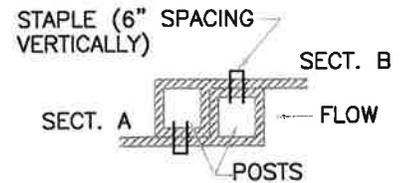
REVISED:  
JUL 2015

LPSS  
GRINDER PUMP INSTALLATION  
(GENERIC)

DRAWING NO.  
LPSS-SVC

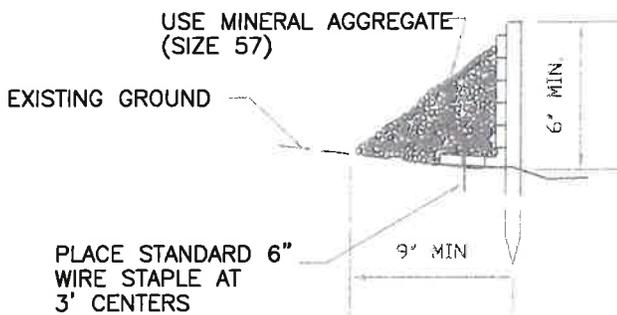


ELEVATION VIEW



JOINING TWO ADJACENT TEMPORARY FILTER BARRIERS

MIN. 2" (NOMINAL) X 2" (NOMINAL) - (1.5" ACTUAL X 1.5" ACTUAL) (2.25 SQ. IN. OAK OR HICKORY) - LENGTH 48" OR MIN - 1.33 LB/FT STEEL POST (STD. OR U-SECTION)



BACKFILL WITH COMPACTED SOIL

EXISTING GROUND

FLOW

4' MIN.

24' TO 26'

6" MIN.

DETAIL OF TRENCH AND FILTER CLOTH

SECTIONAL VIEW

NOTES:

1. FILTER CLOTH SHALL MEET THE REQUIREMENTS OF THE STANDARDS FOR GEOTEXTILE AASHTO DESIGNATION: M288, SEDIMENTS CONTROL, SELF SUPPORTED.
2. THE FILTER MATERIAL SHALL BE STAPLED TO THE WOODEN STAKES. HEAVY DUTY WIRE STAPLES WITH 1/2" LEG AND 1" WIDTH SHALL BE USED AND EVENLY SPACED WITH AT LEAST FOUR PER POST STAPLED TO EXISTING TREES.
3. SILT FENCES AND FILTER BARRIERS SHOULD BE PLACED ALONG OR NEAR THE GROUND CONTOUR. THE BOTTOM OF THE FENCE OR BARRIER AT THE GROUND LINE SHOULD BE ON A ZERO PERCENT (0%) GRADE. ± .5%.
4. A PREASSEMBLED SILT FENCE OR FILTER BARRIER MEETING THE REQUIREMENTS OF THIS DRAWING IS ACCEPTABLE IN LIEU OF A FIELD CONSTRUCTED SILT FENCE OR FILTER BARRIER.
5. WHEN HEIGHT OF EMBANKMENT EXCEEDS 15 FEET THE USE OF A TEMPORARY SILT FENCE IS GENERALLY RECOMMENDED. WHEN HEIGHT OF EMBANKMENT IS LESS THAN 15 FEET THE USE OF A TEMPORARY FILTER BARRIER MAY BE USED.



REVISED:

EROSION CONTROL  
FILTER BARRIER

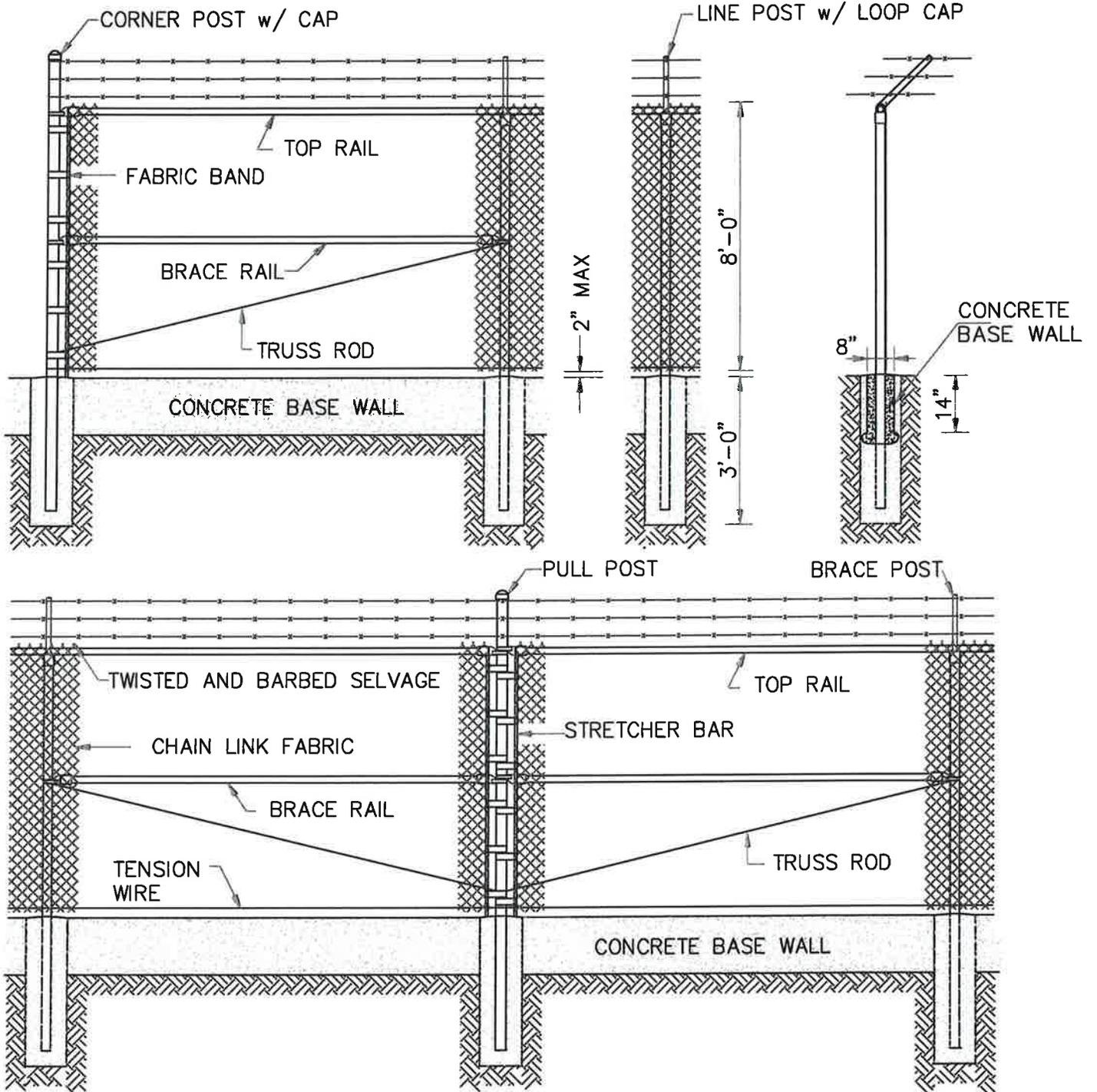
DRAWING NO.

TSF-1

MEMBER	NOMINAL DIA (IN)	MATERIAL	
BRACE RAIL	1.660	GALV TUBULAR STL	
GATE FRAME	2.00	GALV TUBULAR STL	
LINE POSTS	2.375	GALV TUBULAR STL	
END & CORNER POST	2.875	GALV TUBULAR STL	
CHAIN LINK FABRIC		6 GA. HOT DIP GALV.	
	GATE OPENING (ft)	NOMINAL DIA (IN)	MATERIAL
GATE POST	16'	4	GALV TUBULAR STL

**NOTES:**

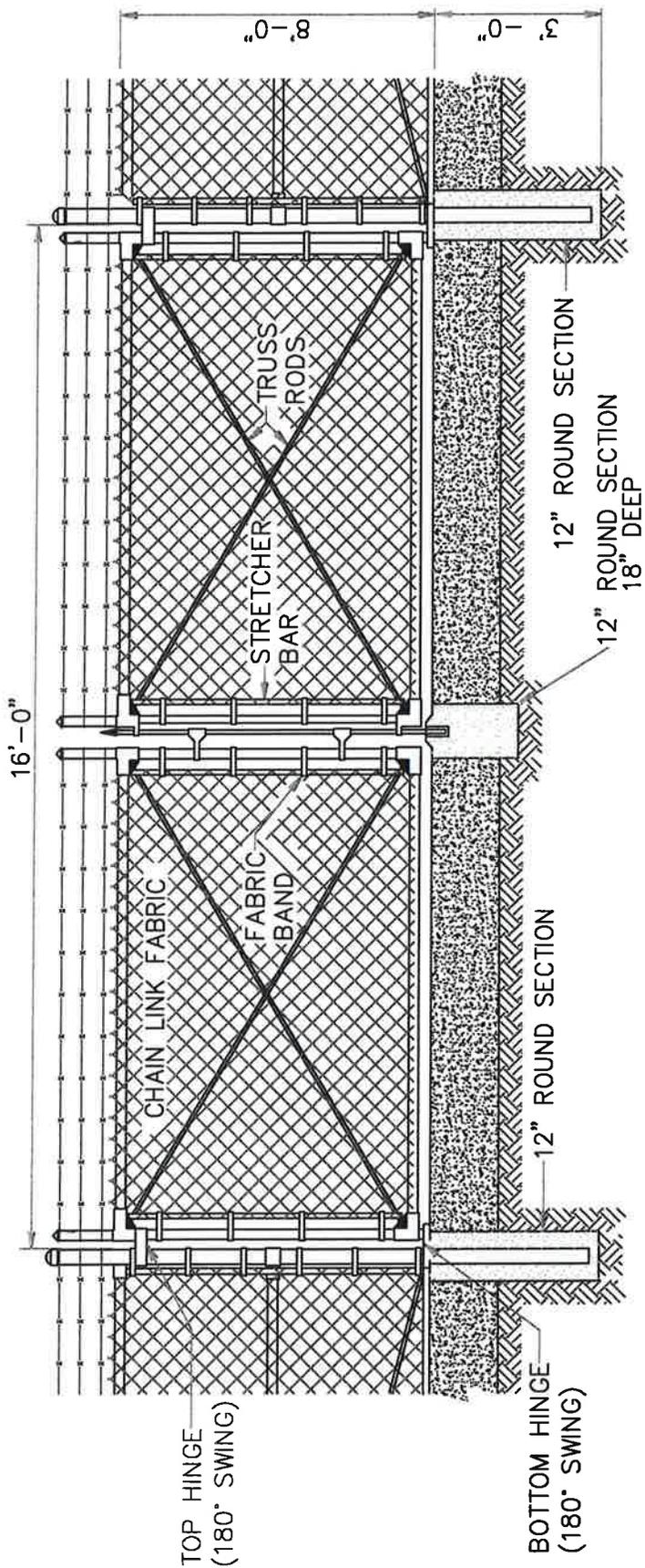
1. ALL CHAIN LINK FABRIC SHALL BE 6 GAGE WITH TWISTED SELVAGE.
2. ALL FITTINGS, FASTENERS, & AND FABRIC TIES SHALL BE HOT DIP GALV.
3. CONC SHALL BE MIN 4000 PSI @ 28 DAYS.
4. PROVIDE BRACE RAIL BETWEEN END POSTS AND LINE POSTS. LENGTHS AS REQ'D.
5. PROVIDE GATE STOPS AND DROP RECEIVERS SET IN CONCRETE, EACH GATE.
6. PROVIDE EXTENSION ARMS ON LINE, END AND CORNER POSTS & GATE POSTS AS REQ'D.
7. CENTER BRACE RAIL NOT REQUIRED WITH FENCE HEIGHT OF 5' OR LESS.
8. PLACE TIES EVERY 15' VERTICALLY AND WHEN TOP RAILS ARE USED EVERY 24' HORIZONTALLY.



CITY OF ALCOA, TENNESSEE  
PUBLIC WORKS AND ENGINEERING DEPARTMENT  
HIGH SECURITY FENCE – DETAIL 1

DATE: 12FEB2013

DRWN BY: tsd



CITY OF ALCOA, TENNESSEE  
 PUBLIC WORKS AND ENGINEERING DEPARTMENT  
 HIGH SECURITY FENCE – DETAIL 2

DATE: 12FEB2013

DRWN BY: tsd