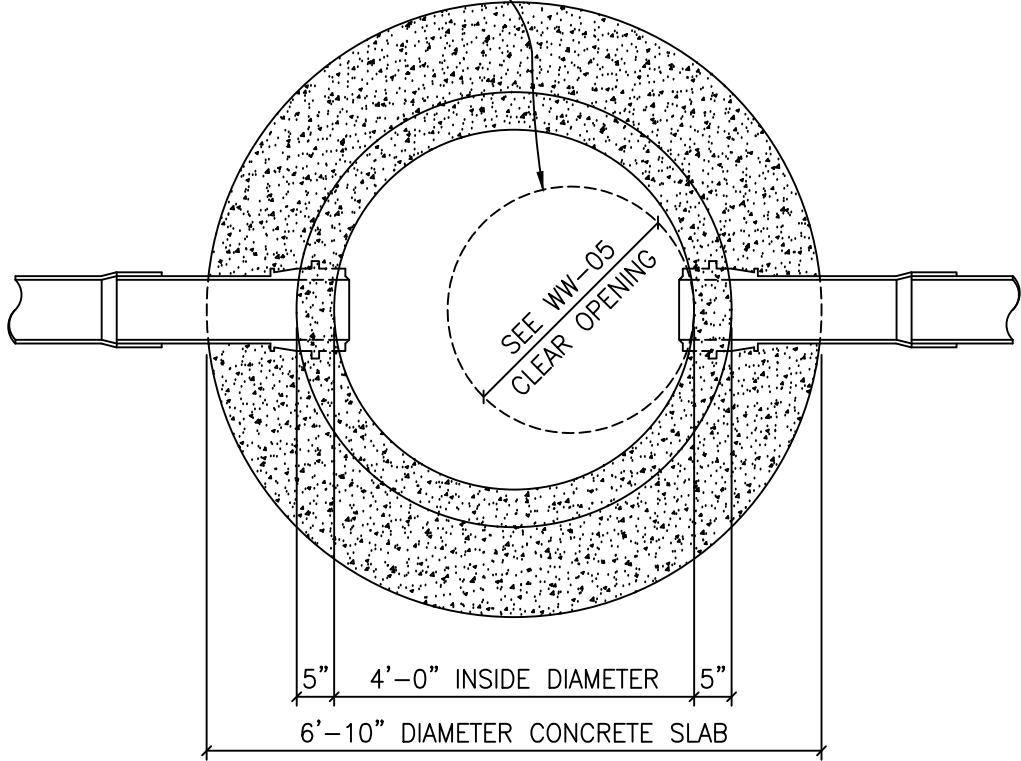


STANDARD CASTING AND COVER, AS SPECIFIED.
(BOLTED WHERE SHOWN ON PLANS)



SEE DETAIL SHEET 2

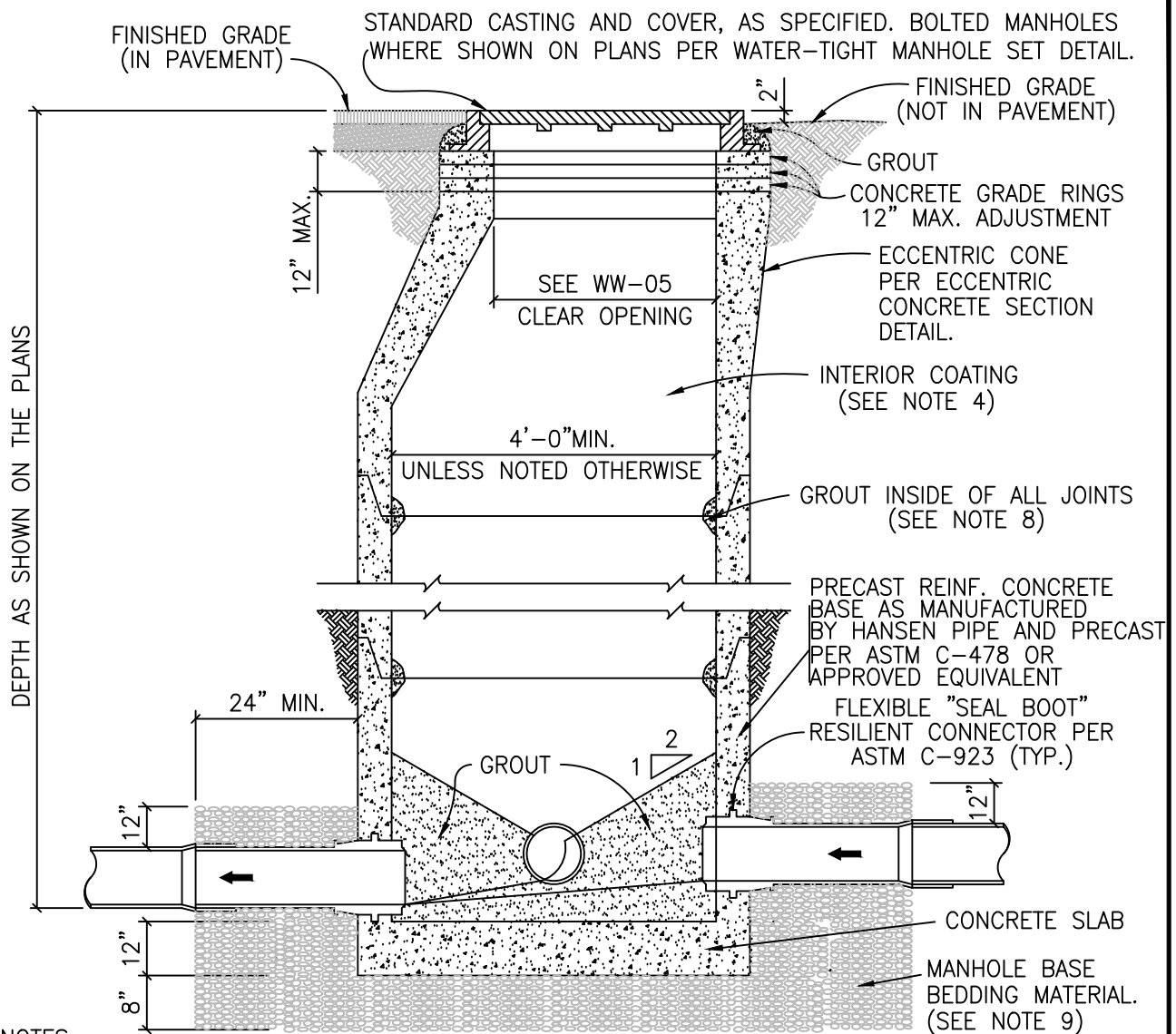
MANHOLE PLAN

NOTES:

1. ALL WASTEWATER INFRASTRUCTURE SHALL BE IN COMPLIANCE WITH SECTION 400 OF THE CITY OF BURNET TECHNICAL CONSTRUCTION STANDARDS AND SPECIFICATIONS MANUAL.

SHEET 1 OF 2

	CITY OF BURNET DEPARTMENT OF PUBLIC WORKS		STANDARD MANHOLE – PLAN	
	APPROVED BY: STAFF	DATE: 08/2020	The Architect/Engineer assumes responsibility for appropriate use of this standard.	DETAIL NUMBER: WW-01



NOTES:

1. MANHOLES SHALL BE PRECAST ASTM C-478 BELL AND SPIGOT WITH PROFILE GASKET – SINGLE OFF-SET JOINTS.
2. SEE PLANS AND MANHOLE SCHEDULE, FOR MANHOLE SIZE, LOCATION, CONFIGURATION, TYPE OF TOP SECTION, VENTING REQUIREMENTS, PIPE SIZE AND TYPES.
3. SEE SPECIFICATIONS ON MATERIALS AND CONSTRUCTION.
4. COATING SHALL BE APPLIED TO ENTIRE INTERIOR OF CERTAIN WASTEWATER MANHOLES AND UNDERSIDE OF FLAT TOPS. CITY ENGINEER WILL DETERMINE.
5. ALL MANHOLE COVERS SHALL BE BOLTED AND GASKETED WHEN MANHOLES ARE LOCATED OUT FROM PAVEMENT PER TCEQ.
6. MANHOLES TO BE VENTED ARE IDENTIFIED ON MANHOLE SCHEDULE. REFERENCE MANHOLE VENT DETAIL.
7. MANHOLES ARE TO BE DESIGNED TO RESIST LATERAL AND VERTICAL SOIL FORCES RESULTING FROM MANHOLE DEPTH. ADDITIONALLY, MANHOLES LOCATED IN PAVEMENT TO BE DESIGNED FOR HS-20 TRAFFIC LOADS.
8. GROUT SHALL MEET THE REQUIREMENTS AS STATED BY THE COATING MANUFACTURER.
9. MANHOLE BASE BEDDING MATERIAL SPECS. FOR 3/4" WASHED GRAVEL:
 - SIEVE SIZE 2", PERCENT (%) RETAINED 0
 - SIEVE SIZE 1 1/2", % RETAINED 0-10
 - SIEVE SIZE 1", % RETAINED 45-80
 - SIEVE SIZE 3/4", % RETAINED 85-100
 - SIEVE SIZE 3/8", % RETAINED 95-100

SHEET 2 OF 2



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

STANDARD MANHOLE –
PLAN

APPROVED BY:

STAFF

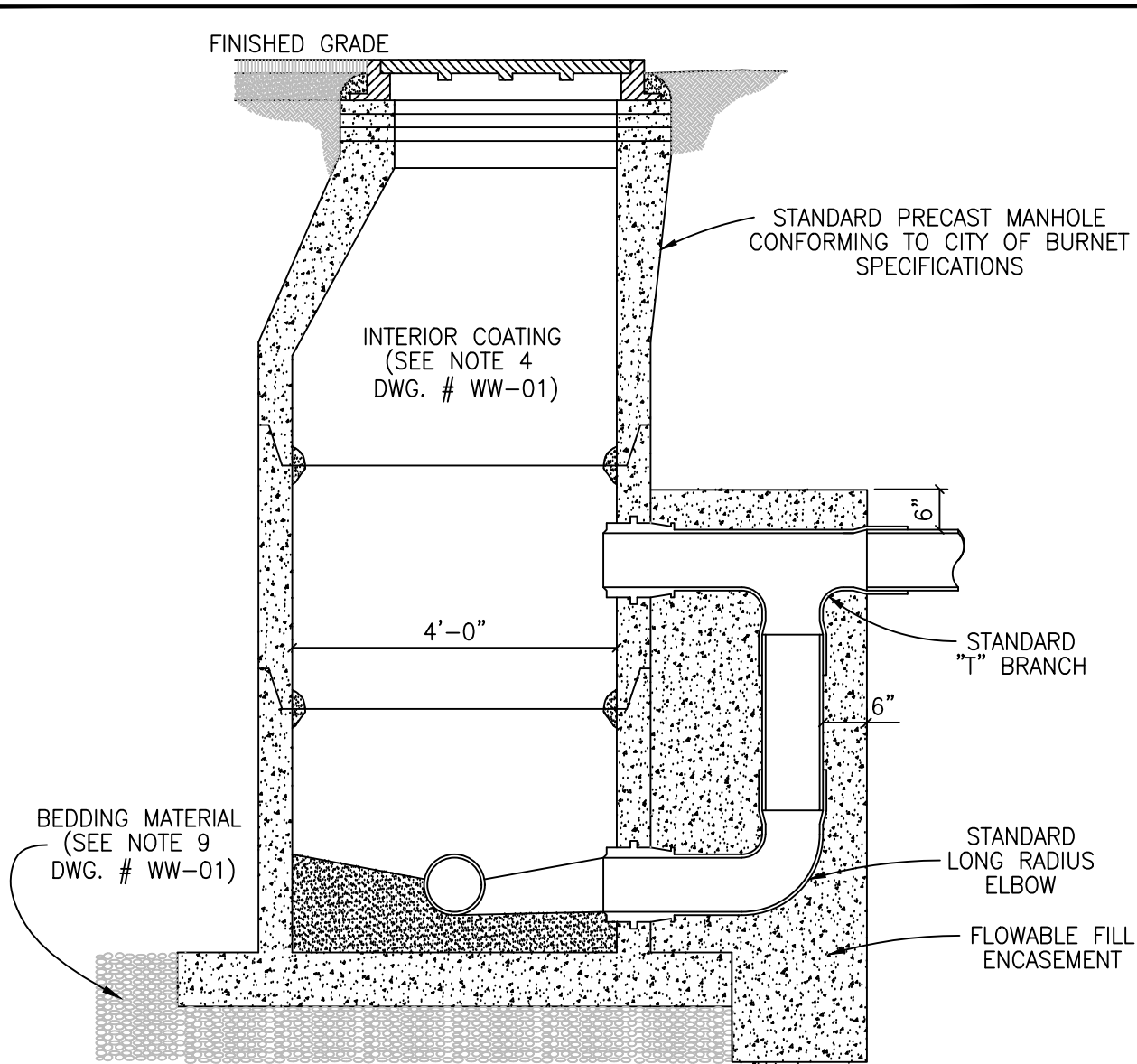
DATE:

08/2020

The Architect/Engineer
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for appropriate use of
this standard.

DETAIL NUMBER:

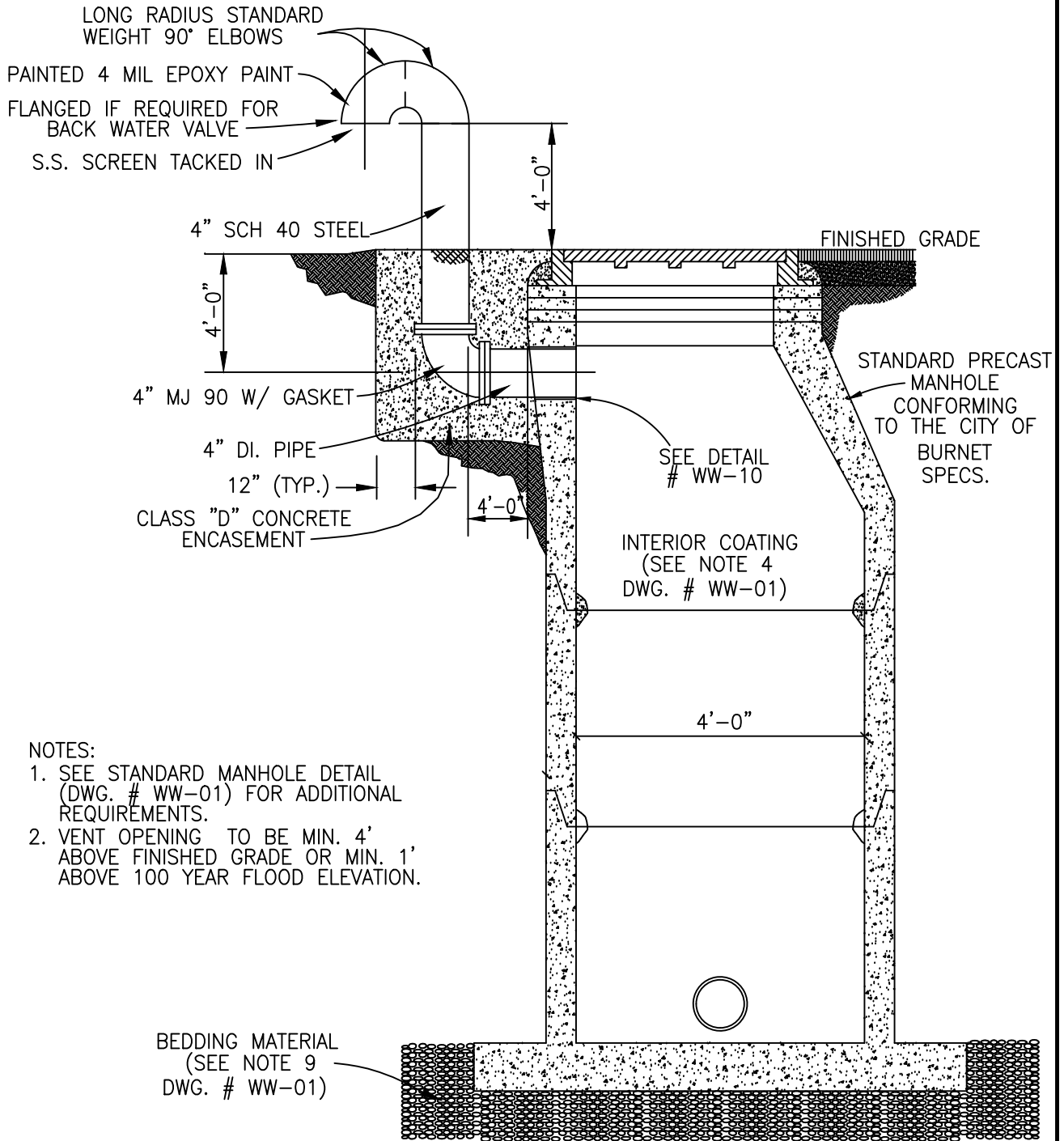
WW-01



NOTES:

1. FLOWABLE FILL ENCASEMENT MAY BE USED FOR DROP CONNECTION.
2. DROP CONNECTIONS SHALL BE REQUIRED WHENEVER AN INFLUENT SEWER IS LOCATED TWO FEET (2') OR MORE ABOVE THE MAIN INVERT CHANNEL.
3. A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE MANHOLE TO DIRECT INFLUENT INTO FLOW STREAM.
4. WHEN P.V.C. IS USED IN SANITARY SEWER LINES, SOLVENT TYPE JOINT P.V.C. FITTINGS MAY BE UTILIZED IN THE DROP ASSEMBLY ONLY.
5. MINIMUM PIPE SIZE FOR DROP IS EIGHT INCHES (8").
6. SEE STANDARD MANHOLE DETAIL (DWG. # WW-01) FOR ADDITIONAL REQUIREMENTS.

	CITY OF BURNET DEPARTMENT OF PUBLIC WORKS		DROP CONNECTION – PRECAST MANHOLE TYPE "A"	
	APPROVED BY: STAFF	DATE: 08/2020	The Architect/Engineer assumes responsibility for appropriate use of this standard.	DETAIL NUMBER: WW-02



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

TYPICAL MANHOLE WITH
VENT

APPROVED BY:

STAFF

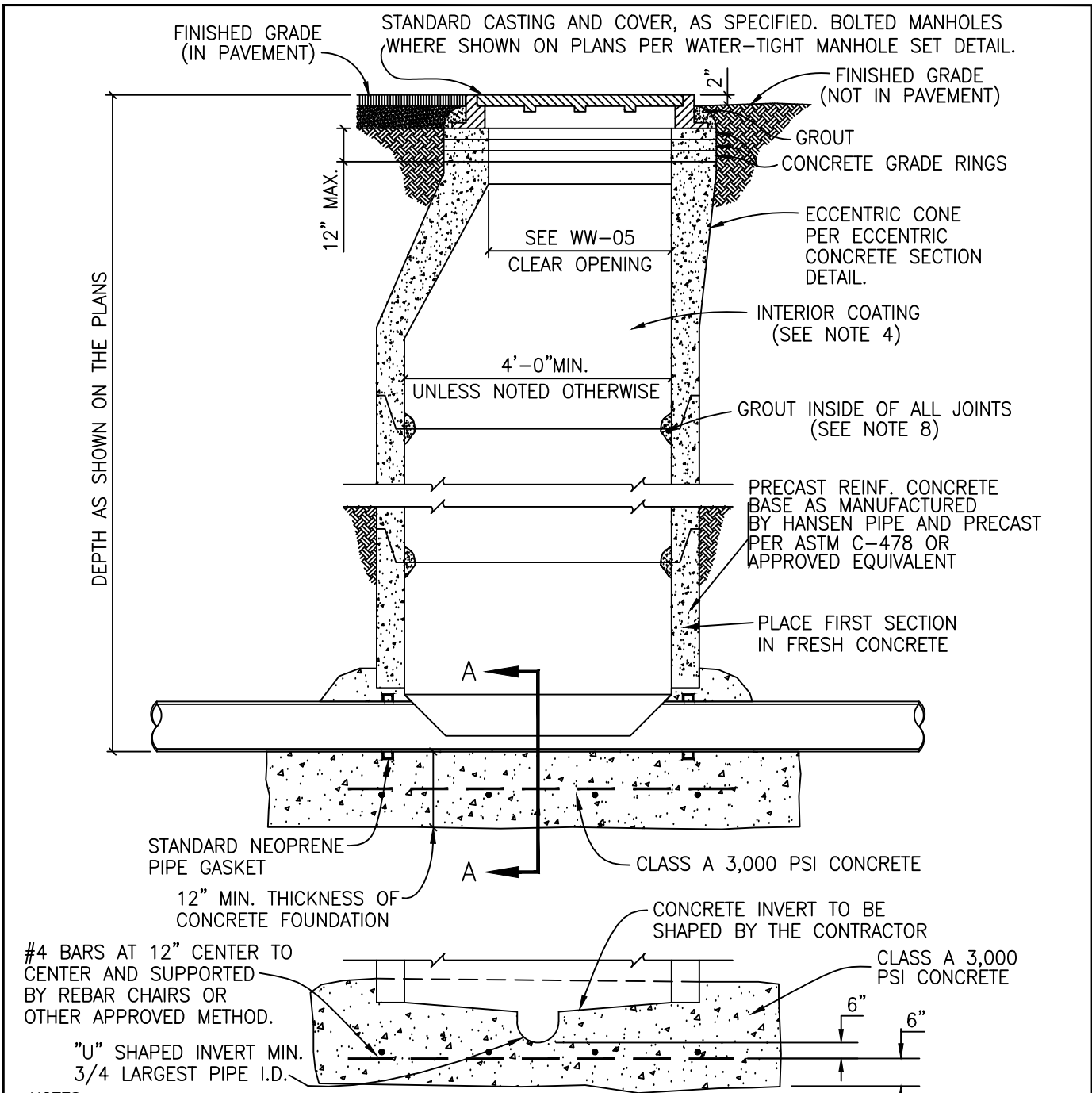
DATE:

08/2020

The Architect/Engineer
assumes responsibility
for appropriate use of
this standard.

DETAIL NUMBER:

WW-04



#4 BARS AT 12" CENTER TO CENTER AND SUPPORTED BY REBAR CHAIRS OR OTHER APPROVED METHOD.

"U" SHAPED INVERT MIN. 3/4 LARGEST PIPE I.D.

NOTES:

1. MANHOLES SHALL BE PRECAST ASTM C-478 BELL AND SPIGOT WITH PROFILE GASKET - SINGLE OFF-SET JOINTS.
2. SEE PLANS AND MANHOLE SCHEDULE, FOR MANHOLE SIZE, LOCATION, CONFIGURATION, TYPE OF TOP SECTION, VENTING REQUIREMENTS, PIPE SIZE AND TYPES.
3. SEE SPECIFICATIONS ON MATERIALS AND CONSTRUCTION.
4. COATING SHALL BE APPLIED TO ENTIRE INTERIOR OF CERTAIN WASTEWATER MANHOLES AND UNDERSIDE OF FLAT TOPS. CITY ENGINEER WILL DETERMINE.
5. ALL MANHOLE COVERS SHALL BE BOLTED AND GASKETTED WHEN MANHOLES ARE LOCATED OUT FROM PAVEMENT PER TCEQ.
6. MANHOLES TO BE VENTED ARE IDENTIFIED ON MANHOLE SCHEDULE. REFERENCE MANHOLE VENT DETAIL.
7. MANHOLES ARE TO BE DESIGNED TO RESIST LATERAL AND VERTICAL SOIL FORCES RESULTING FROM MANHOLE DEPTH. ADDITIONALLY, MANHOLES LOCATED IN PAVEMENT TO BE DESIGNED FOR HS-20 TRAFFIC LOADS.
8. GROUT SHALL MEET THE REQUIREMENTS AS STATED BY THE COATING MANUFACTURER.
9. MANHOLE BASE BEDDING MATERIAL SPECS. FOR 3/4" WASHED GRAVEL:
 SIEVE SIZE 2", PERCENT (%) RETAINED 0 SIEVE SIZE 1 1/2", % RETAINED 0-10 SIEVE SIZE 3/8", % RETAINED 95-100
 SIEVE SIZE 1", % RETAINED 45-80 SIEVE SIZE 3/4", % RETAINED 85-100
10. ALL PVC PIPE SHALL BE REMOVED FROM INVERT.



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

PRECAST MANHOLE ON
CAST-IN-PLACE FOUNDATION

APPROVED BY:

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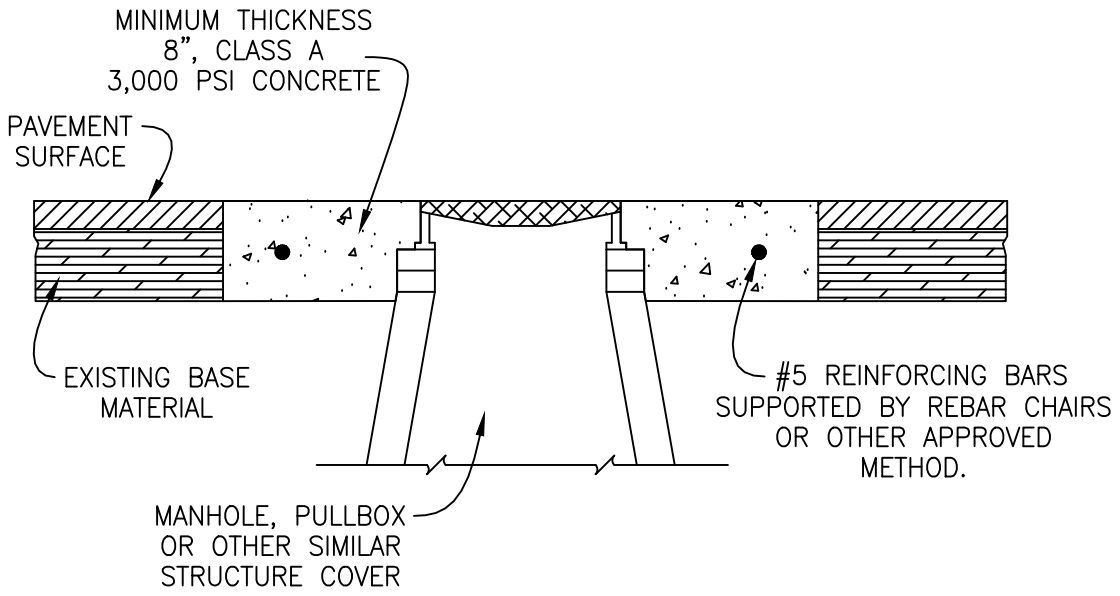
DATE:

08/2020

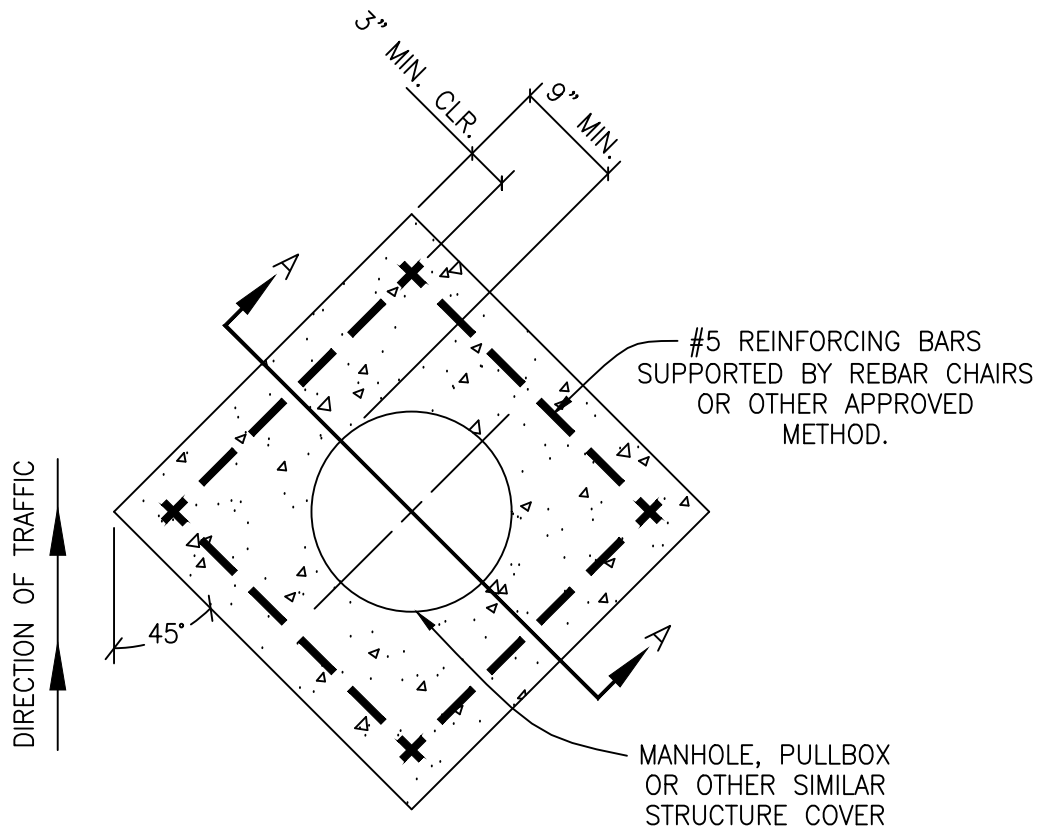
The Architect/Engineer
assumes responsibility
for appropriate use of
this standard.

DETAIL NUMBER:

WW-05



SECTION A-A



PLAN OF STRUCTURE IN ROADWAY

NOTE:

INSTALLATION OF THE CONCRETE CASTING IS REQUIRED FOR AND APPLIES TO ALL TYPES OF MANHOLES TO BE LOCATED IN THE ROADWAY.



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

CONCRETE CASTING
MANHOLE DETAIL

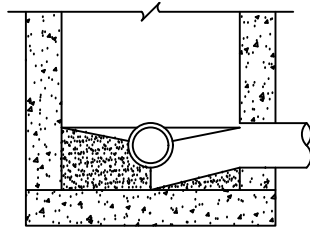
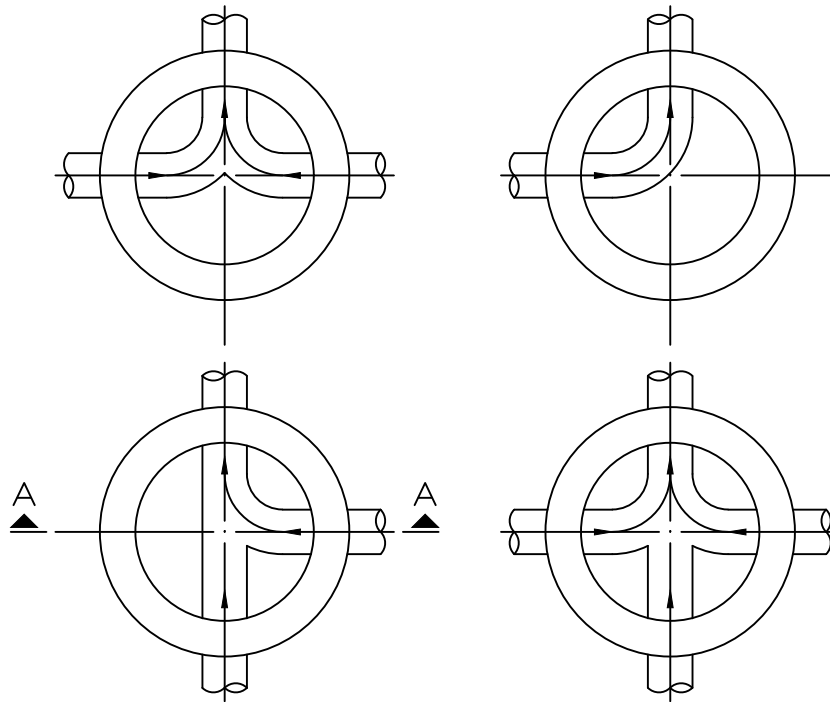
APPROVED BY:
STAFF

DATE:
08/2020

The Architect/Engineer
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this standard.

DETAIL NUMBER:
WW-06

FLOW PATTERNS FOR INVERT CHANNELS



SECTION "A-A"

NOTES:

1. INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
2. SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOW.
3. CHANNELS FOR FUTURE CONSTRUCTIONS (STUBS) SHALL BE CONSTRUCTED, FILLED WITH SAND, AND COVERED WITH 1" OF MORTAR.
4. SLOPE MANHOLE ITSELF WITH A 1:2 SLOPE FROM MANHOLE WALL TO CHANNEL.
5. INVERT SHALL BE A MINIMUM OF 1/2 THE DIAMETER OF THE LARGEST PIPE OR 4" DEEP.
6. MINIMUM ELEVATION DIFFERENCE ACROSS MANHOLE IS 0.10 FEET OF FALL.



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

**FLOW PATTERNS FOR
INVERT CHANNELS**

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STAFF

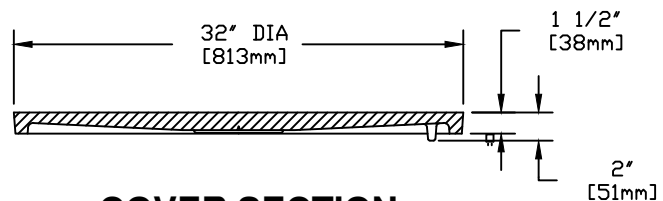
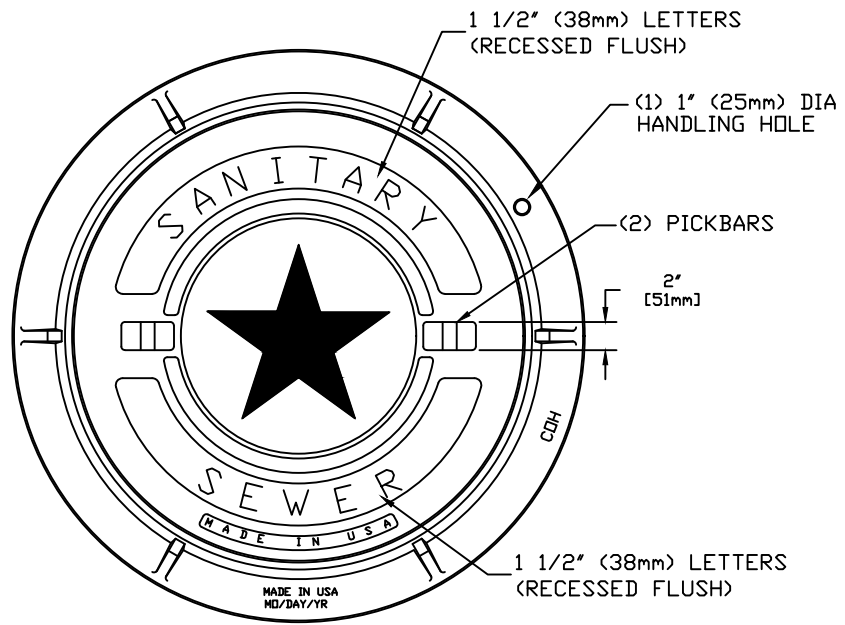
DATE:

08/2020

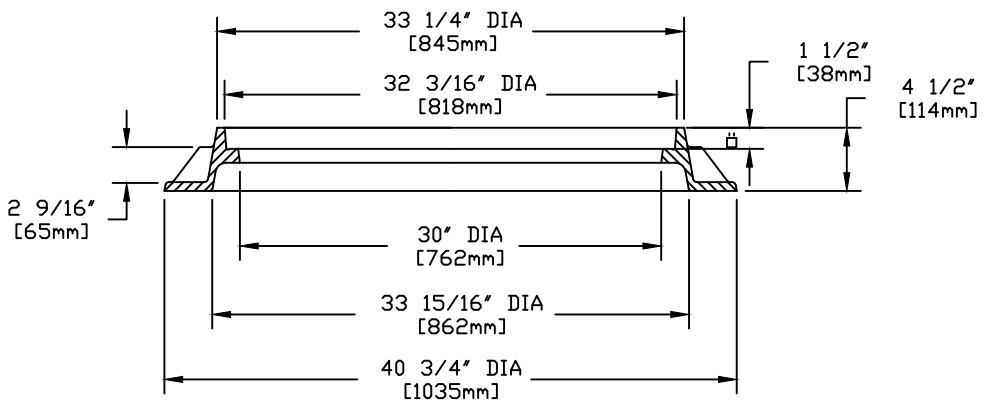
The Architect/Engineer
assumes responsibility
for appropriate use of
this standard.

DETAIL NUMBER:

WW-07



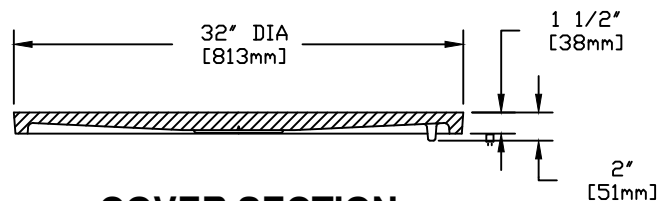
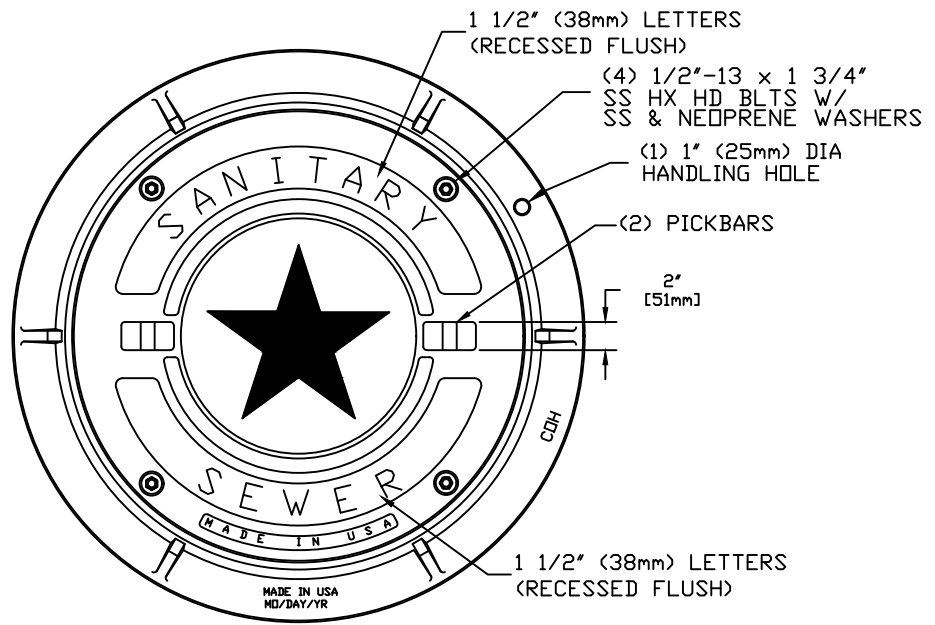
COVER SECTION



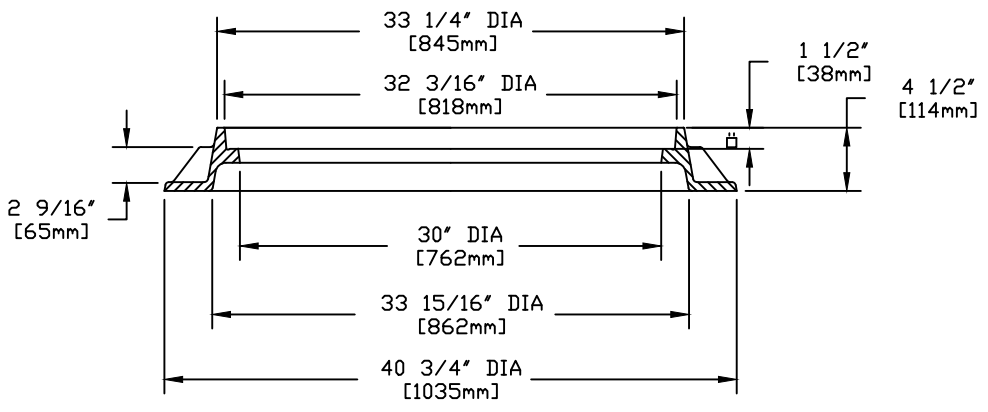
FRAME SECTION

- NOTES:
1. ALL WASTEWATER INFRASTRUCTURE SHALL BE IN COMPLIANCE WITH SECTION 400 OF THE CITY OF BURNET TECHNICAL CONSTRUCTION STANDARDS AND SPECIFICATIONS MANUAL.
 2. FOR BOLTED WASTEWATER MANHOLE COVER SEE WW-09.

	CITY OF BURNET DEPARTMENT OF PUBLIC WORKS		STANDARD WASTEWATER SEWER MANHOLE COVER	
	APPROVED BY: STAFF	DATE: 08/2020	The Architect/Engineer assumes responsibility for appropriate use of this standard.	DETAIL NUMBER: WW-08



COVER SECTION



FRAME SECTION

NOTES:

1. ALL WASTEWATER INFRASTRUCTURE SHALL BE IN COMPLIANCE WITH SECTION 400 OF THE CITY OF BURNET TECHNICAL CONSTRUCTION STANDARDS AND SPECIFICATIONS MANUAL.



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

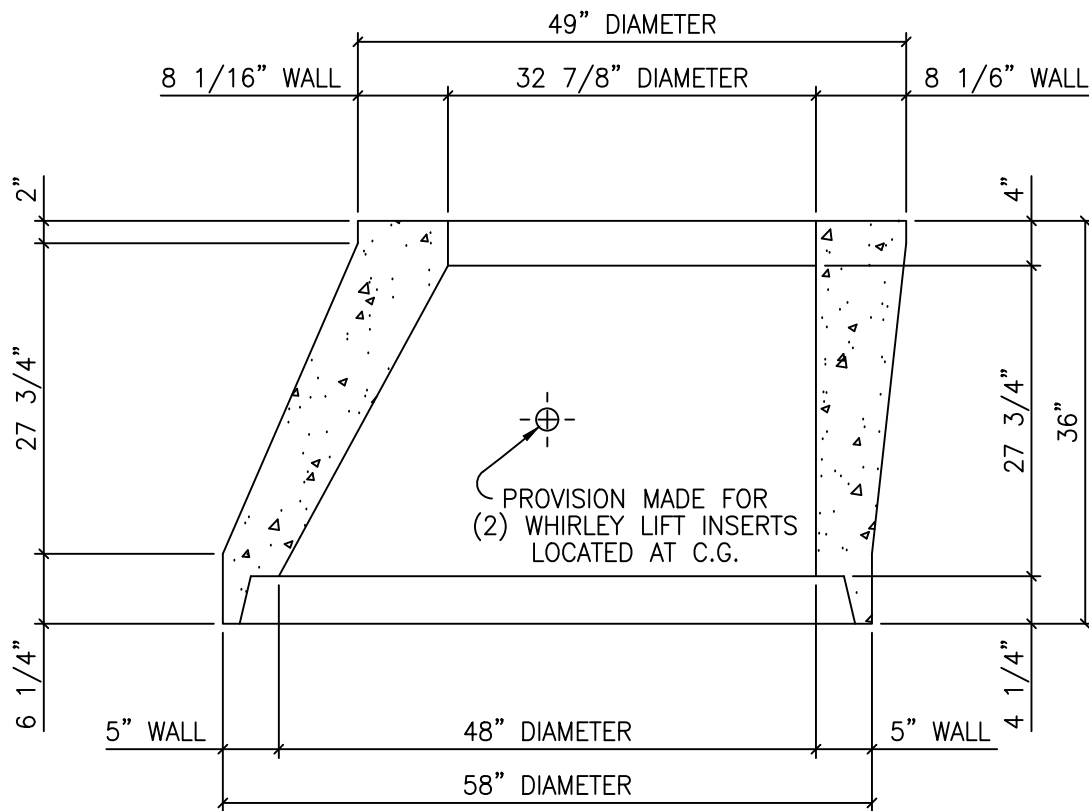
**BOLTED WASTEWATER
SEWER MANHOLE COVER**

APPROVED BY:
STAFF

DATE:
08/2020

The Architect/Engineer
assumes responsibility
for appropriate use of
this standard.

DETAIL NUMBER:
WW-09



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

48"x 5" TO 33"x 8"x 36"
TALL ECCENTRIC CONCRETE SECTION

APPROVED BY:

STAFF

DATE:

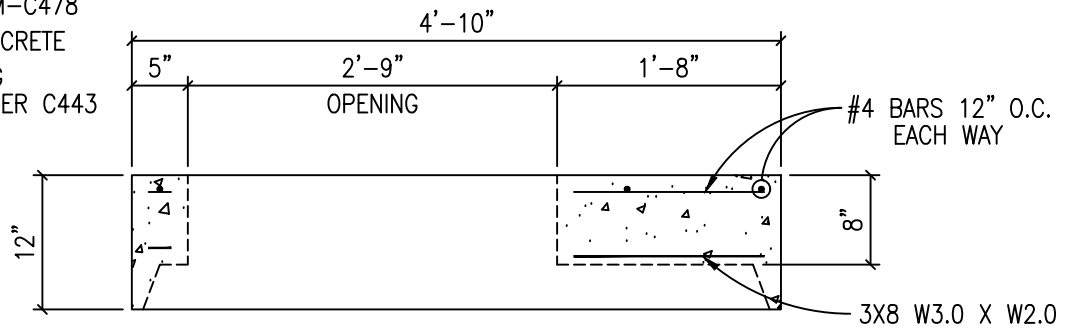
08/2020

The Architect/Engineer
assumes responsibility
for appropriate use of
this standard.

DETAIL NUMBER:

WW-10

M.F.G. PER ASTM-C478
 5000 P.S.I. CONCRETE
 TRAFFIC BEARING
 O-RING JOINT PER C443



NOTES:

1. AVAILABLE WITH CAST IRON RING AND COVER CAST IN PLACE.



CITY OF BURNET
 DEPARTMENT OF PUBLIC WORKS

48" MANHOLE FLAT LID

APPROVED BY:

STAFF

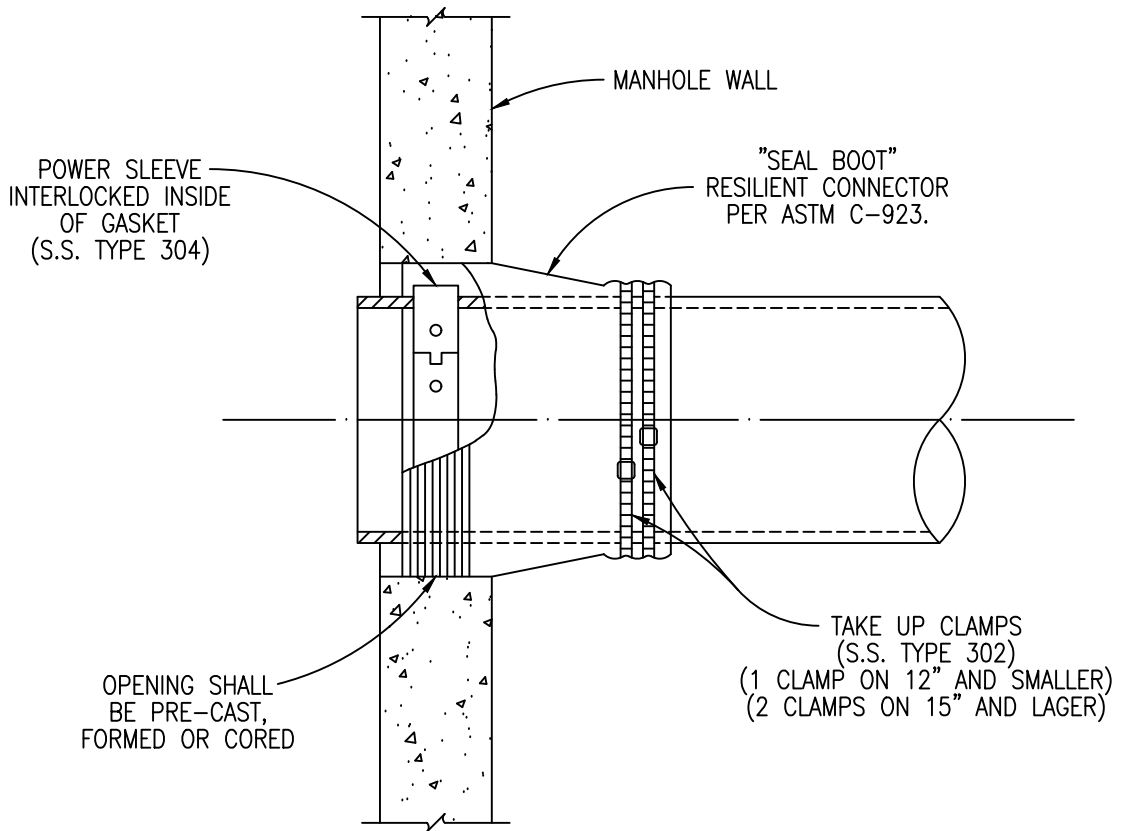
DATE:

08/2020

The Architect/Engineer
 assumes responsibility
 for appropriate use of
 this standard.

DETAIL NUMBER:

WW-11



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

FLEXIBLE "SEAL BOOT" CONNECTOR

APPROVED BY:

STAFF

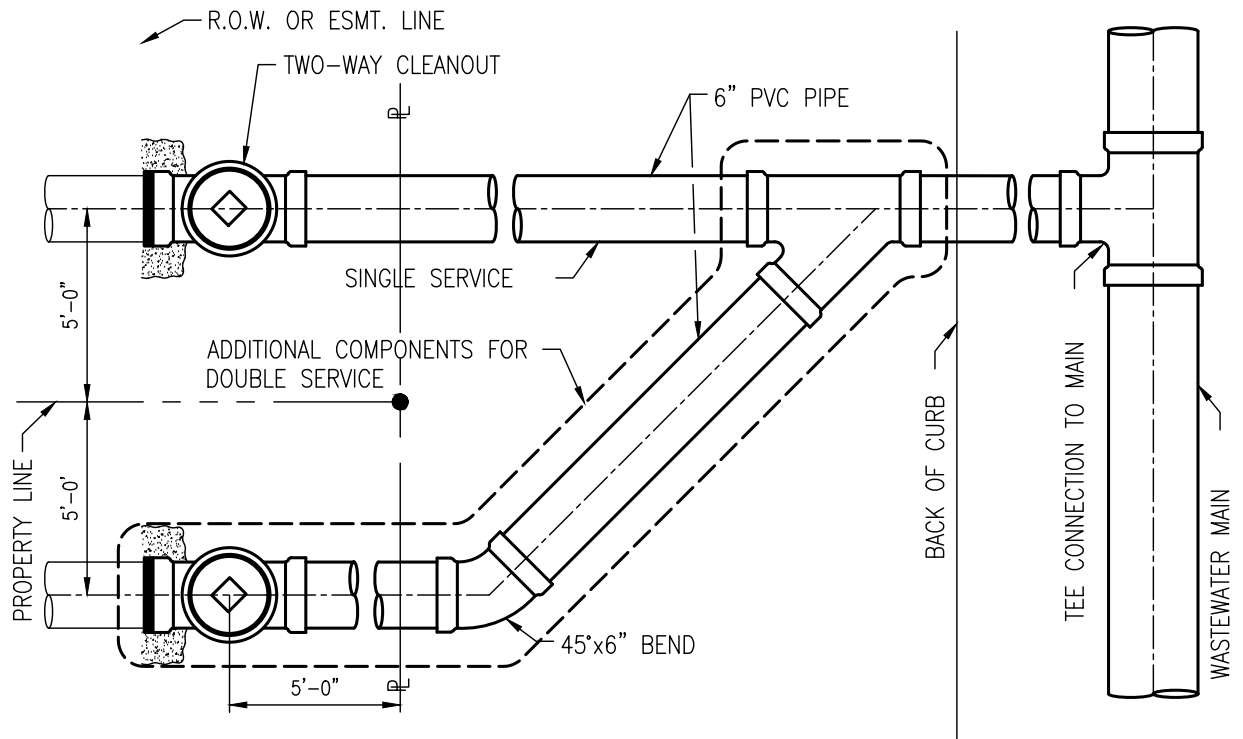
DATE:

08/2020

The Architect/Engineer
assumes responsibility
for appropriate use of
this standard.

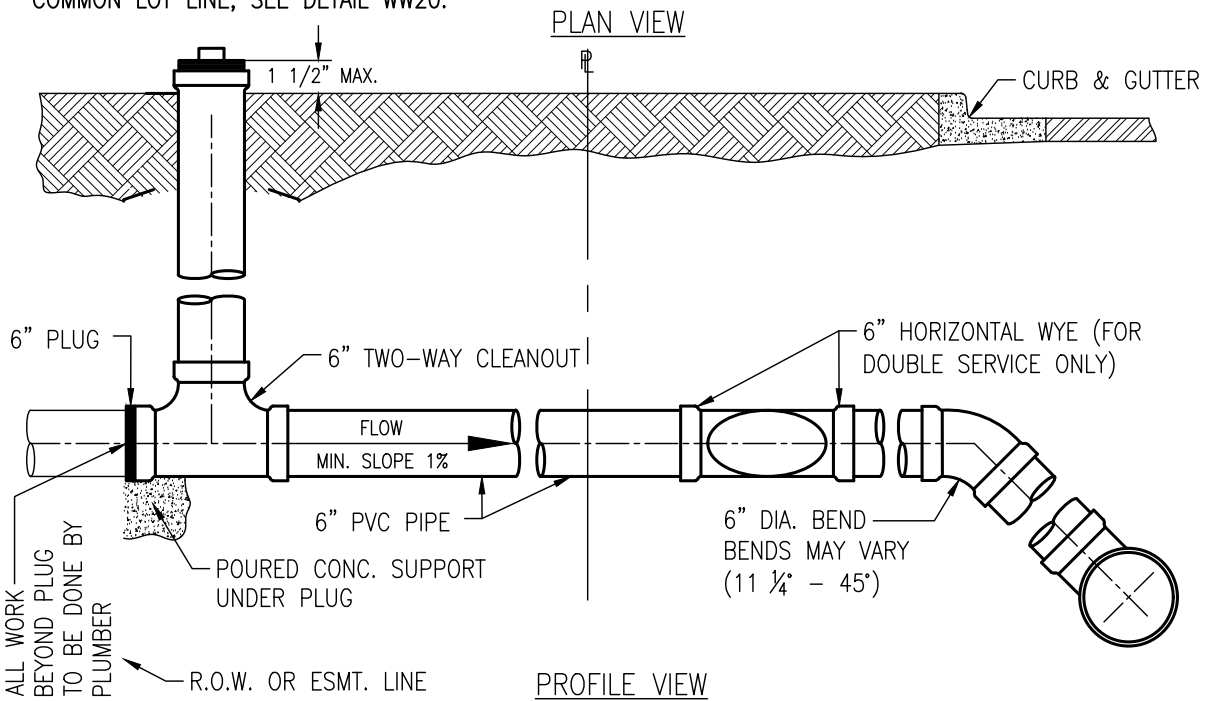
DETAIL NUMBER:

WW-12



* OFFSET FROM PROPERTY LINE IS FOR DOUBLE WASTEWATER SERVICE INSTALLATION ONLY.

WHERE WATER & WASTEWATER SERVICES ARE INSTALLED ON A COMMON LOT LINE, SEE DETAIL WW20.



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

SINGLE AND DOUBLE WASTEWATER SERVICE CONNECTION / COMMON WITH ELECTRIC SERVICE

APPROVED BY:

DATE:

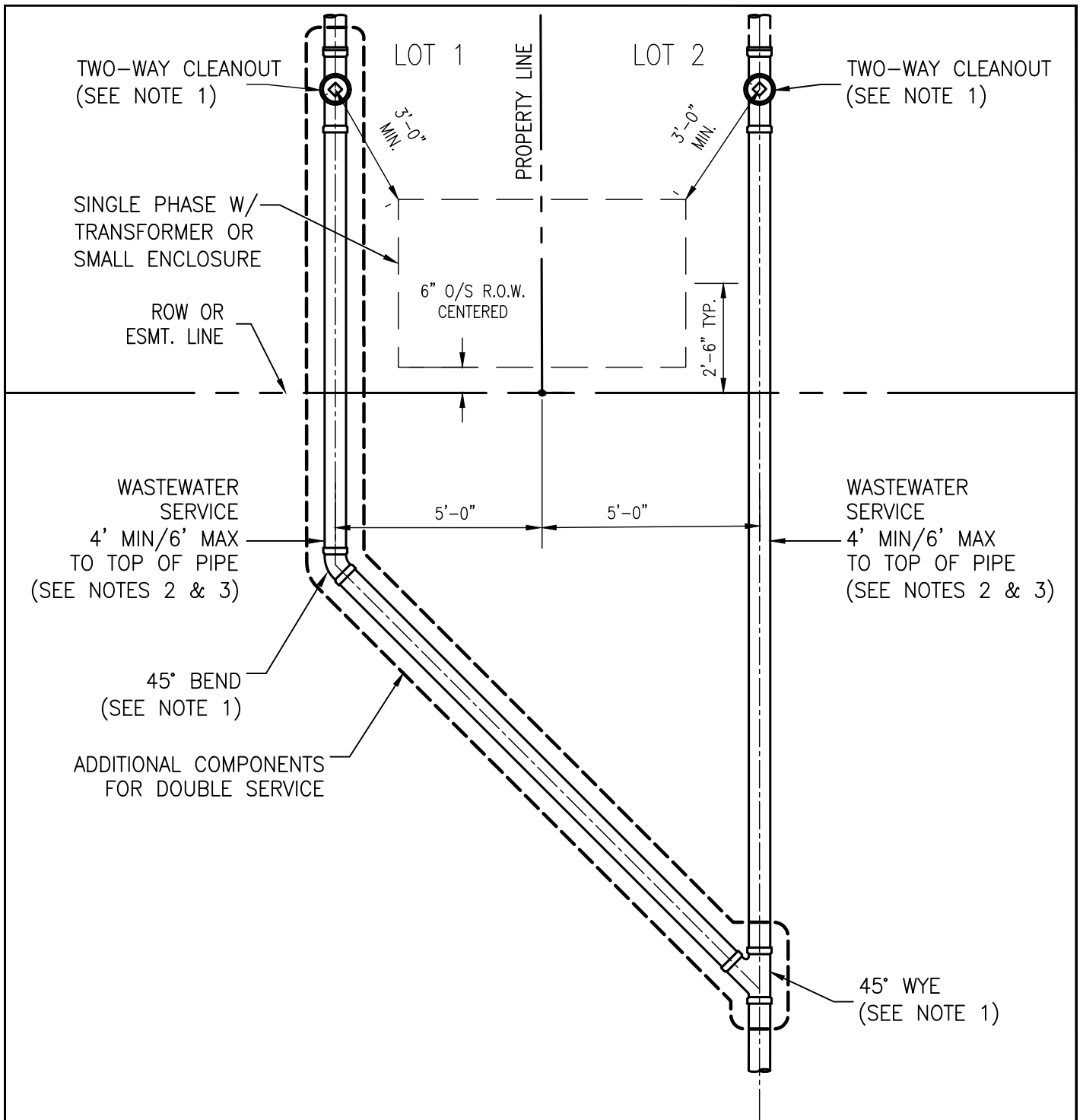
STAFF

08/2020

The Architect/Engineer assumes responsibility for appropriate use of this standard.

DETAIL NUMBER:

WW-14
1 OF 4



NOTES:

1. WASTEWATER SERVICE FITTINGS SHALL BE APPROVED FOR USE WITH THIS DETAIL AS LISTED ON WW14, 1, 3 AND 4.
2. UTILIZE EXISTING ALIGNMENT FOR REPAIR OR REPLACEMENT OF EXISTING WATER AND WASTEWATER SERVICES. WATER SERVICE SHALL BE INSTALLED AT A SHALLOWER GRADE THAN WASTEWATER SERVICE.
3. SEE STANDARD DETAILS W07-W11 FOR WATER SERVICE INSTALLATION AND WW14, 1-4 FOR WASTEWATER SERVICE INSTALLATION.



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

SINGLE AND DOUBLE WASTEWATER SERVICE CONNECTION / COMMON WITH ELECTRIC SERVICE

APPROVED BY:

STAFF

DATE:

11 / 2020

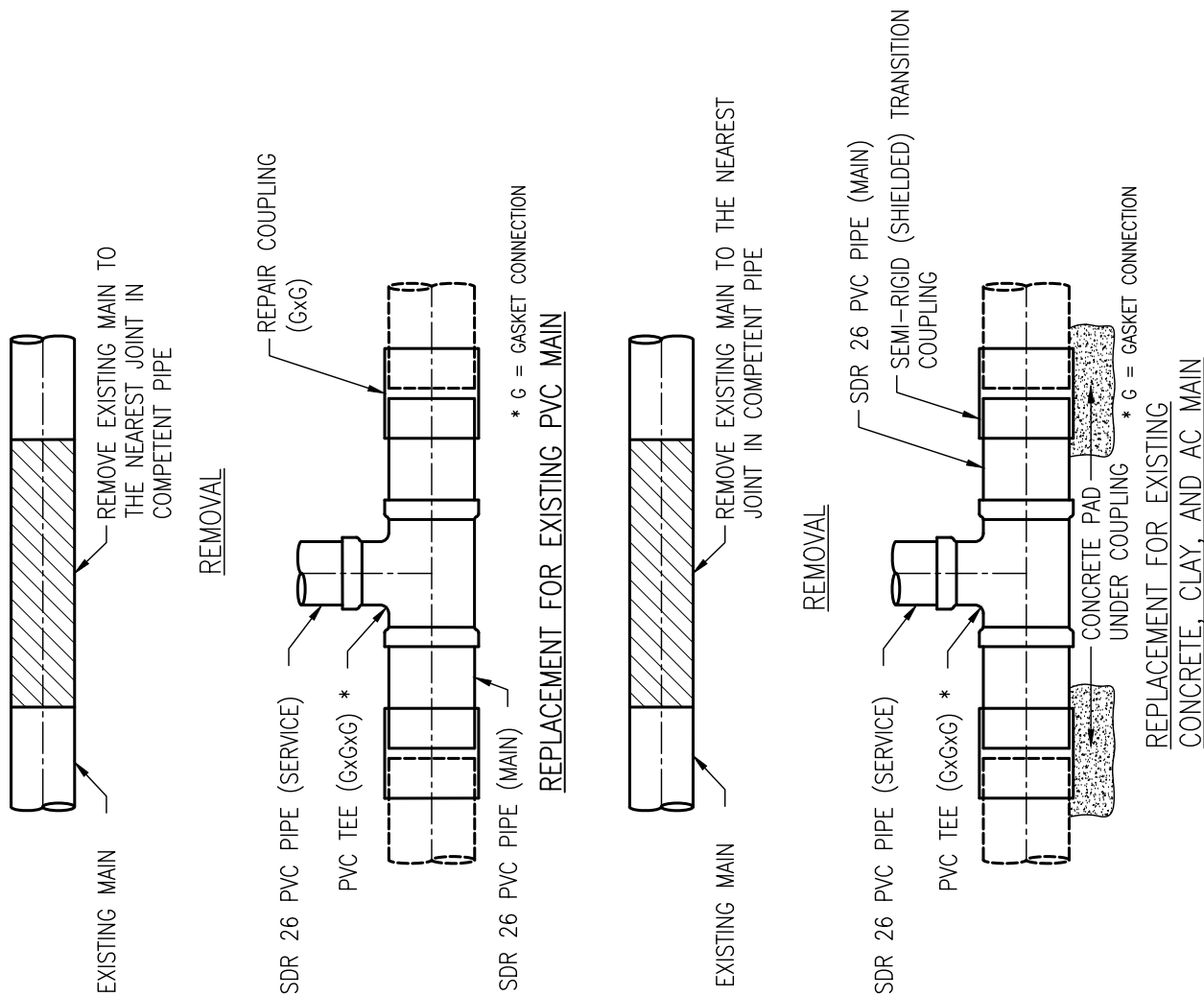
The Architect/Engineer assumes responsibility for appropriate use of this standard.

DETAIL NUMBER:

WW-14
2 OF 4

NOTES:

1. DURING SUBDIVISION CONSTRUCTION, UTILITY CONTRACTOR INSTALLS WASTEWATER TEE CONNECTION TO MAIN, 6" STUB, HORIZONTAL WYE FOR DOUBLE SERVICES, 6" SERVICE BRANCH WITH TWO-WAY CLEANOUT(S) AND RISER, FRAME, AND COVER. CLEANOUT(S) TO BE PLUGGED AT PROPERTY LINE OR EASEMENT LINE END. ALL WASTEWATER PIPING SHALL HAVE ELASTOMERIC GASKET TYPE JOINTS AND SLOPE DOWNWARD TO MAIN 1% MIN. TO 45° MAX. DEPTH OF SERVICE AT PROPERTY LINE WILL BE SHOWN ON PLANS BY ENGINEER IF GREATER THAN 4', OTHERWISE THE INSTALLED DEPTH WILL BE 4' MIN. AND 6' MAX. AT PROPERTY LINE. IF WASTEWATER SERVICE LINE TO MAIN REQUIRES DEFLECTION EXCEEDING 45°, SEE SHEET 3 OF 4.
2. PIPING IN STREET RIGHT-OF-WAY AND IN EASEMENT AREA SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY CITY OF BURNET; BACKFILL ABOVE THE GRANULAR BEDDING SHALL BE AS REQUIRED. SERVICE LINES IN THESE AREAS SHALL HAVE A MIN. COVER BELOW FINAL STREET GRADE OF 42".
3. PLUMBER SHALL REMOVE PLUG AND CONNECT TO TWO-WAY CLEANOUT. NO CONNECTION TO CLEANOUT STACK IS ALLOWED.



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

APPROVED BY:

STAFF

DATE:

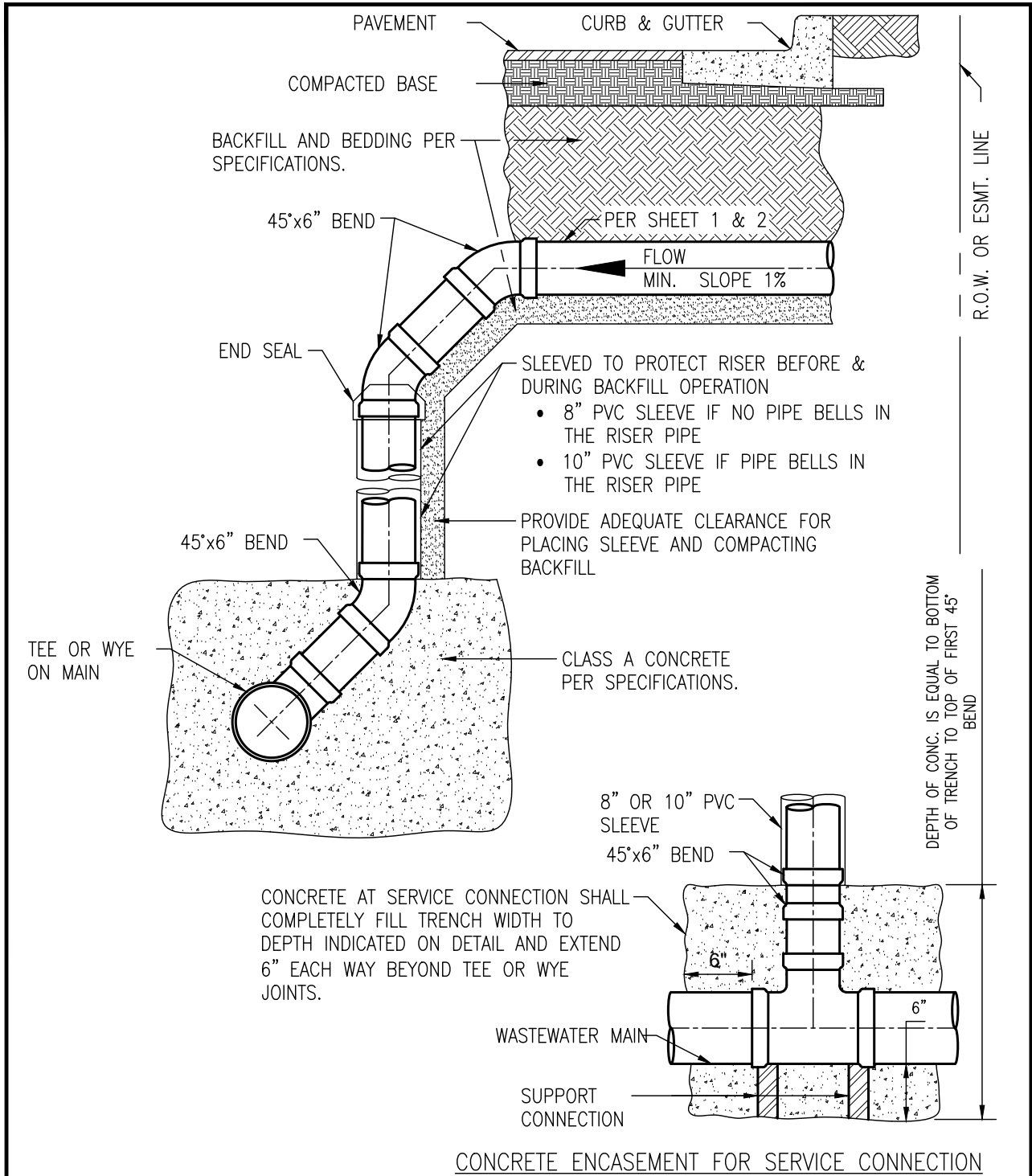
08/2020

SINGLE AND DOUBLE WASTEWATER SERVICE CONNECTION / COMMON WITH ELECTRIC SERVICE


The Architect/Engineer assumes responsibility for appropriate use of this standard.

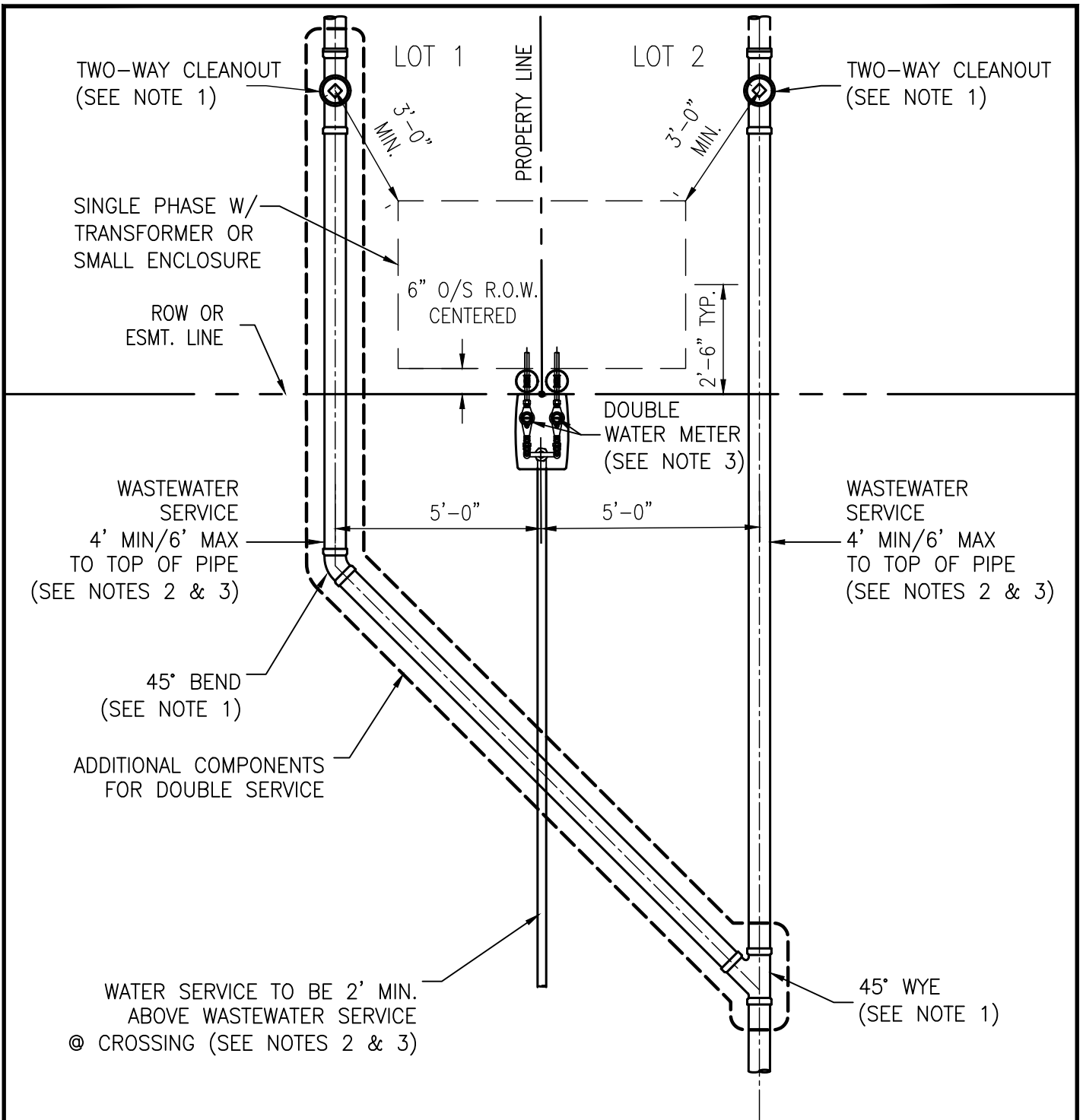
DETAIL NUMBER:

WW-14
3 OF 4



DEEP SERVICE CONNECTION

	CITY OF BURNET DEPARTMENT OF PUBLIC WORKS		SINGLE AND DOUBLE WASTEWATER SERVICE CONNECTION / COMMON WITH ELECTRIC SERVICE	
	APPROVED BY: STAFF	DATE: 08/2020	The Architect/Engineer assumes responsibility for appropriate use of this standard.	DETAIL NUMBER: WW-14 4 OF 4



NOTES:

1. WASTEWATER SERVICE FITTINGS SHALL BE APPROVED FOR USE WITH THIS DETAIL AS LISTED ON WW14, 1-4.
2. UTILIZE EXISTING ALIGNMENT FOR REPAIR OR REPLACEMENT OF EXISTING WATER AND WASTEWATER SERVICES. WATER SERVICE SHALL BE INSTALLED AT A SHALLOWER GRADE THAN WASTEWATER SERVICE.
3. SEE STANDARD DETAILS W07-W11 FOR WATER SERVICE INSTALLATION AND WW14, 1-4 FOR WASTEWATER SERVICE INSTALLATION.



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

**WATER / WASTEWATER SERVICE
ON COMMON LOT LINE**

APPROVED BY:

STAFF

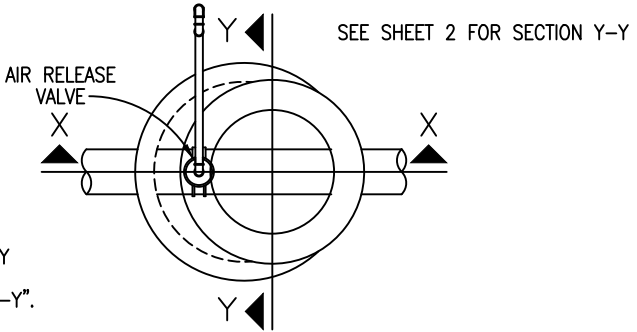
DATE:

11 / 2020

The Architect/Engineer assumes responsibility for appropriate use of this standard.

DETAIL NUMBER:

WW-15

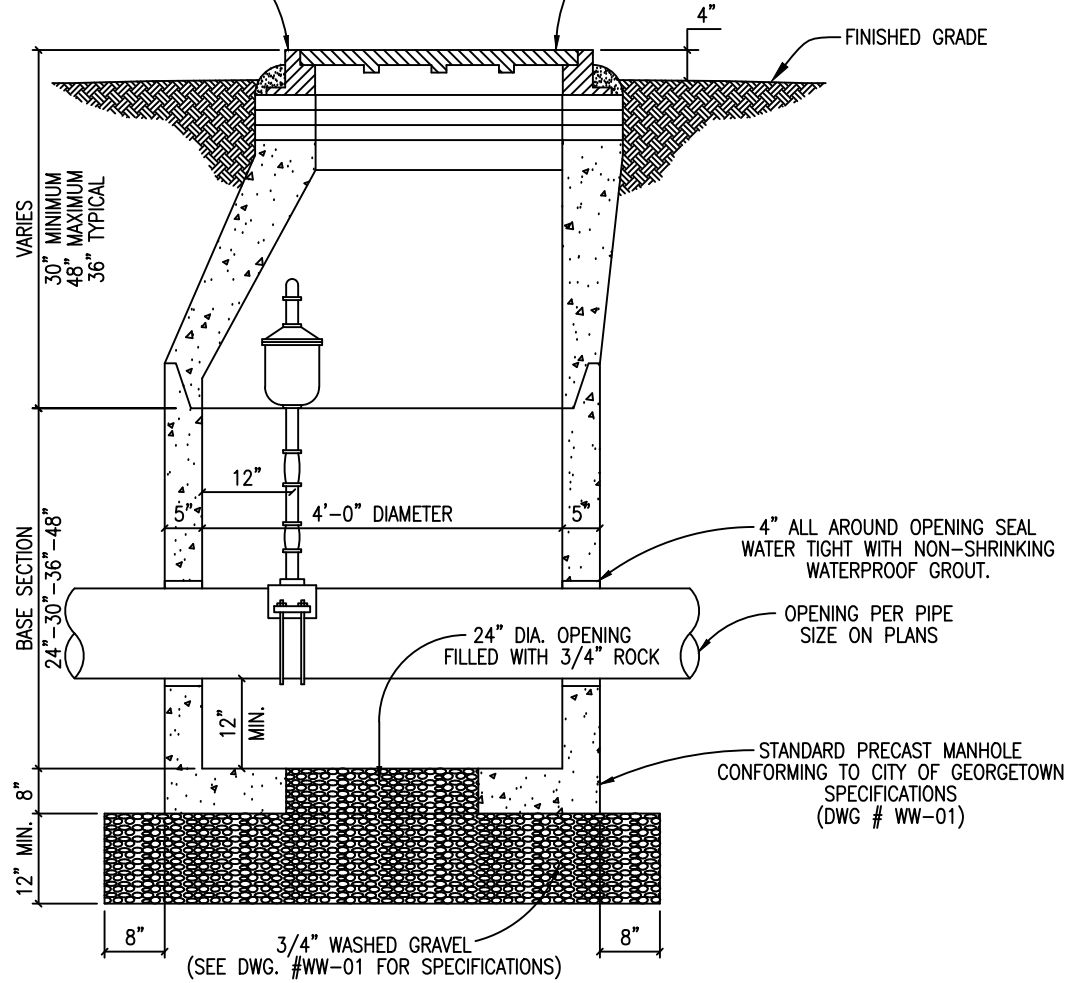


NOTE:
 PLAN VIEW SHOWN ONLY
 FOR CLARIFICATION OF
 SECTION "X-X" AND "Y-Y".

PLAN

ADJUST WITH GRADE RINGS
 AND MORTAR TO BRING TO 4"
 ABOVE GRADE.
 (12" MAX. ADJUSTMENT)

FRAME AND COVER
 AS PER DETAIL #WW-05 OR
 APPROVED EQUIVALENT AND
 SHALL BE 4" ABOVE FINISH GRADE.



SECTION "X-X"



CITY OF BURNET
 DEPARTMENT OF PUBLIC WORKS

STANDARD AIR RELEASE
 VALVE FOR FORCE MAIN

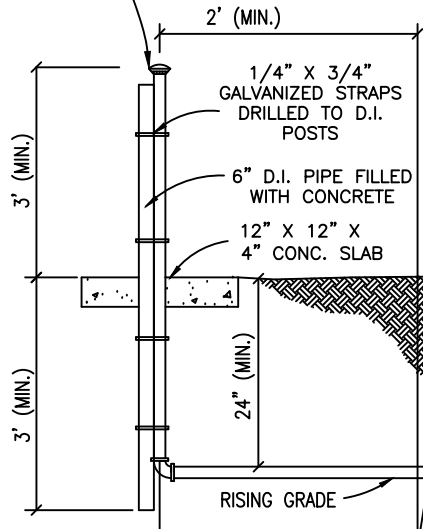
APPROVED BY:
 STAFF

DATE:
 08/2020

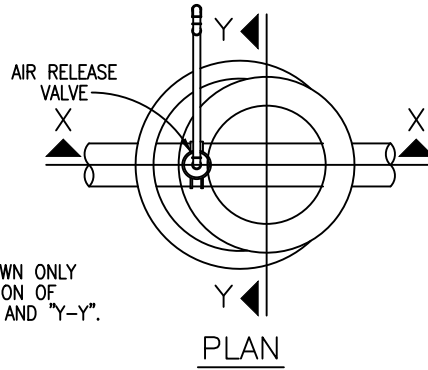
The Architect/Engineer
 assumes responsibility
 for appropriate use of
 this standard.

DETAIL NUMBER:
 WW-16

GALVANIZED MUSHROOM VENT CAP WITH S.S. SCREEN, R.W. BECKETT, KG4025, ON GALVANIZED IRON AIR VENT PIPE



NOTE:
PLAN VIEW SHOWN ONLY FOR CLARIFICATION OF SECTION "X-X" AND "Y-Y".



2" CORPORATION STOP WITH AWWA THREADS
OR APPROVE EQUAL (FORD FB1000-IDR7-NL) DOUBLE STRAP TAPPING SADDLE

SEAL

SCREW-ON PVC SCHEDULE 80 OR BRASS FITTINGS

APCO NO. 440 COMBINATION SEWAGE AIR VALVE OR APPROVED EQUIVALENT

BRONZE OR STAINLESS STEEL FITTINGS

SECTION "Y-Y"

SHEET 2 OF 2



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

STANDARD AIR RELEASE VALVE FOR FORCE MAIN

APPROVED BY:

STAFF

DATE:

08/2020

The Architect/Engineer assumes responsibility for appropriate use of this standard.

DETAIL NUMBER:

WW-16

PLACE A 6" LAYER OF EXISTING TOPSOIL
FOR FUTURE GROWTH OF VEGETATION

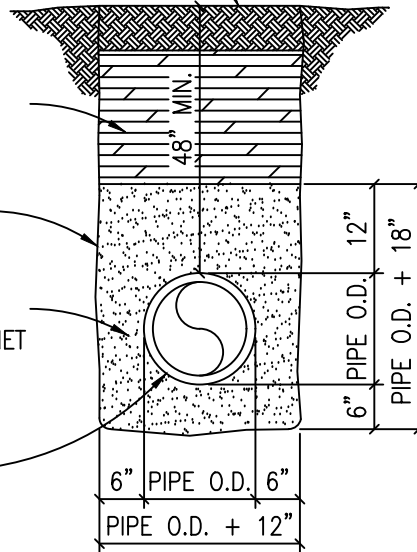
FINISHED GRADE

COMPACTED SELECT FILL
IN ACCORDANCE WITH CITY
OF BURNET SPECIFICATIONS.

UNDISTURBED TRENCH WALL

BEDDING SHALL BE REQUIRED
AS PER TYPICAL BEDDING
SPECIFICATIONS IN CITY OF BURNET
CONSTRUCTION SPECIFICATIONS.

WASTEWATER LINE
(SDR-26 PVC)



TRENCH WIDTHS

- *PIPE LESS THAN 20" DIAMETER
1'-0" + PIPE O.D.
- *20" DIAMETER PIPE AND LARGER
2'-0" + PIPE O.D.



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

TRENCH AND EMBEDMENT
STANDARD UNDER NON-PAVED
AREAS

APPROVED BY:

STAFF

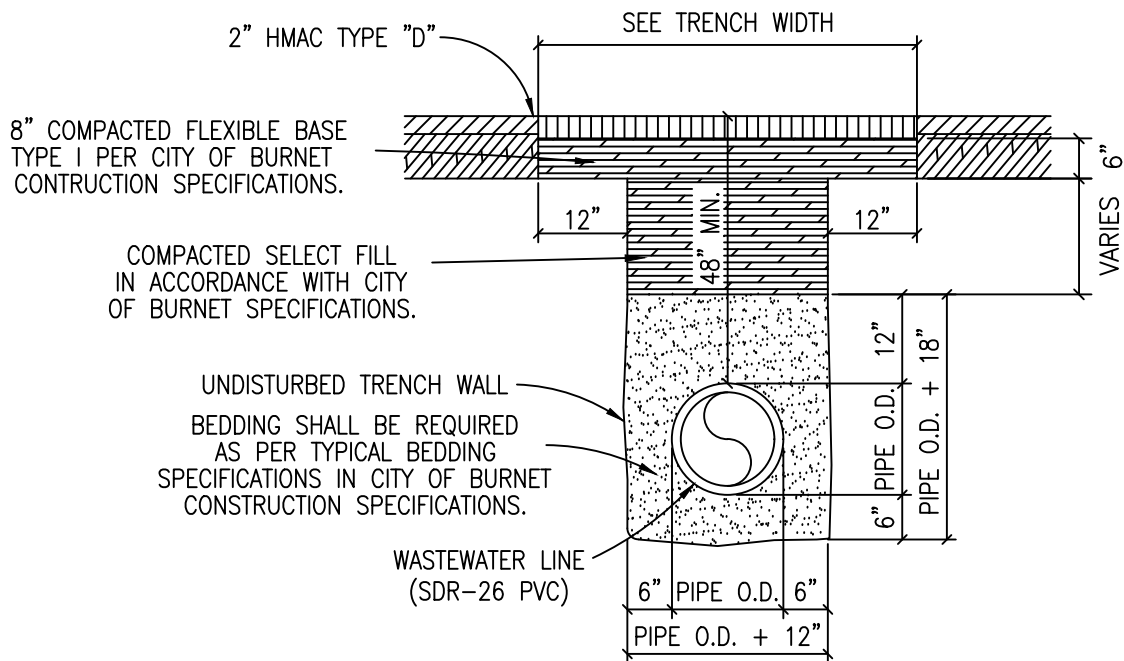
DATE:

08/2020

The Architect/Engineer
assumes responsibility
for appropriate use of
this standard.

DETAIL NUMBER:

WW-17



TRENCH WIDTHS

- *PIPE LESS THAN 20" DIAMETER
1'-0" + PIPE O.D.
- *20" DIAMETER PIPE AND LARGER
2'-0" + PIPE O.D.

NOTES:

1. REPLACED BASE MATERIAL OVER DITCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL BASE.
2. BASE MATERIAL SHALL BE PLACED IN MULTIPLE LIFTS NOT TO EXCEED 6". EACH LAYER SHALL BE THOROUGHLY ROLLED OR TAMPED TO SPECIFIED MAXIMUM DENSITY.
3. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
4. SURFACE MATERIAL SHALL BE CONSISTENT WITH THE EXISTING SURFACE.
5. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF BURNET CONSTRUCTION SPECIFICATIONS AND STANDARDS.
6. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL.



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

TRENCH AND EMBEDMENT AND
PAVEMENT REPLACEMENT STANDARD
UNDER EXISTING ROADWAY

APPROVED BY:

DATE:

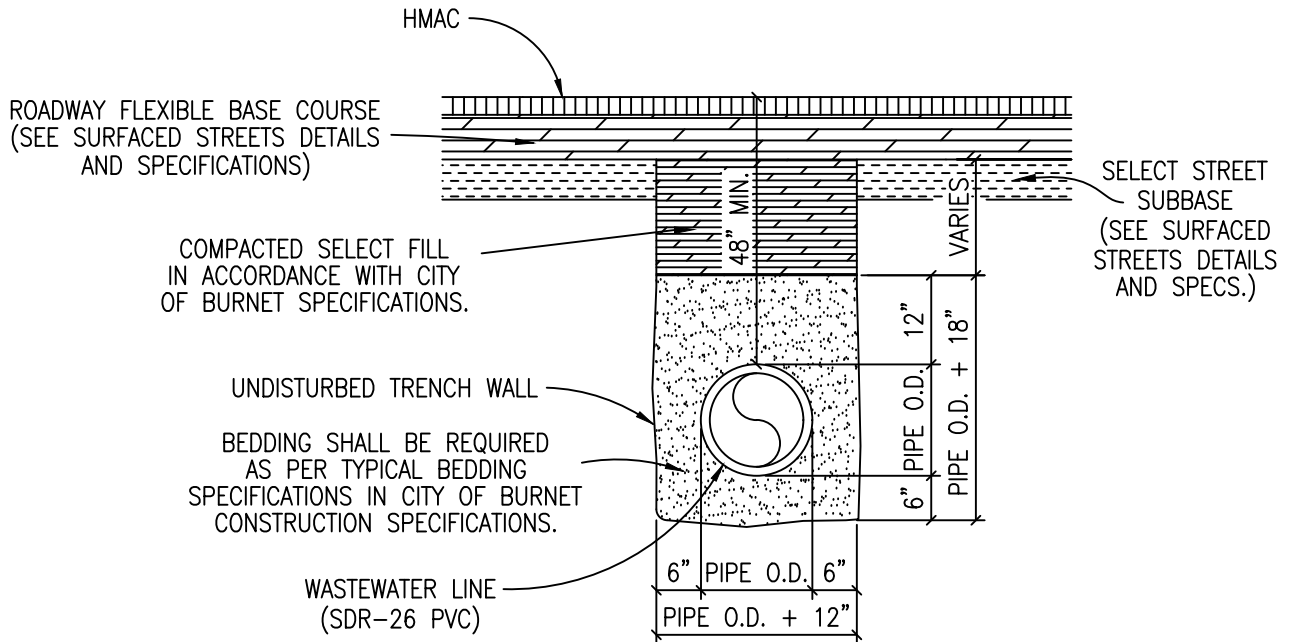
STAFF

08/2020

The Architect/Engineer
assumes responsibility
for appropriate use of
this standard.

DETAIL NUMBER:

WW-18



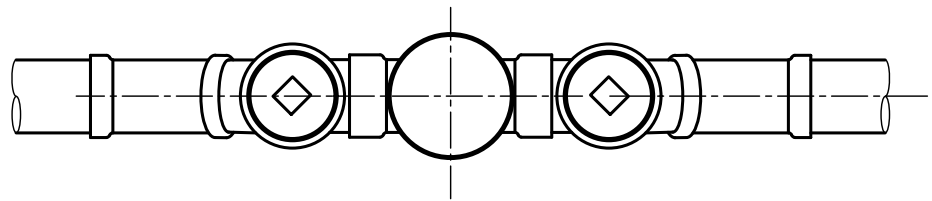
TRENCH WIDTHS

- *PIPE LESS THAN 20" DIAMETER
1'-0" + PIPE O.D.
- *20" DIAMETER PIPE AND LARGER
2'-0" + PIPE O.D.

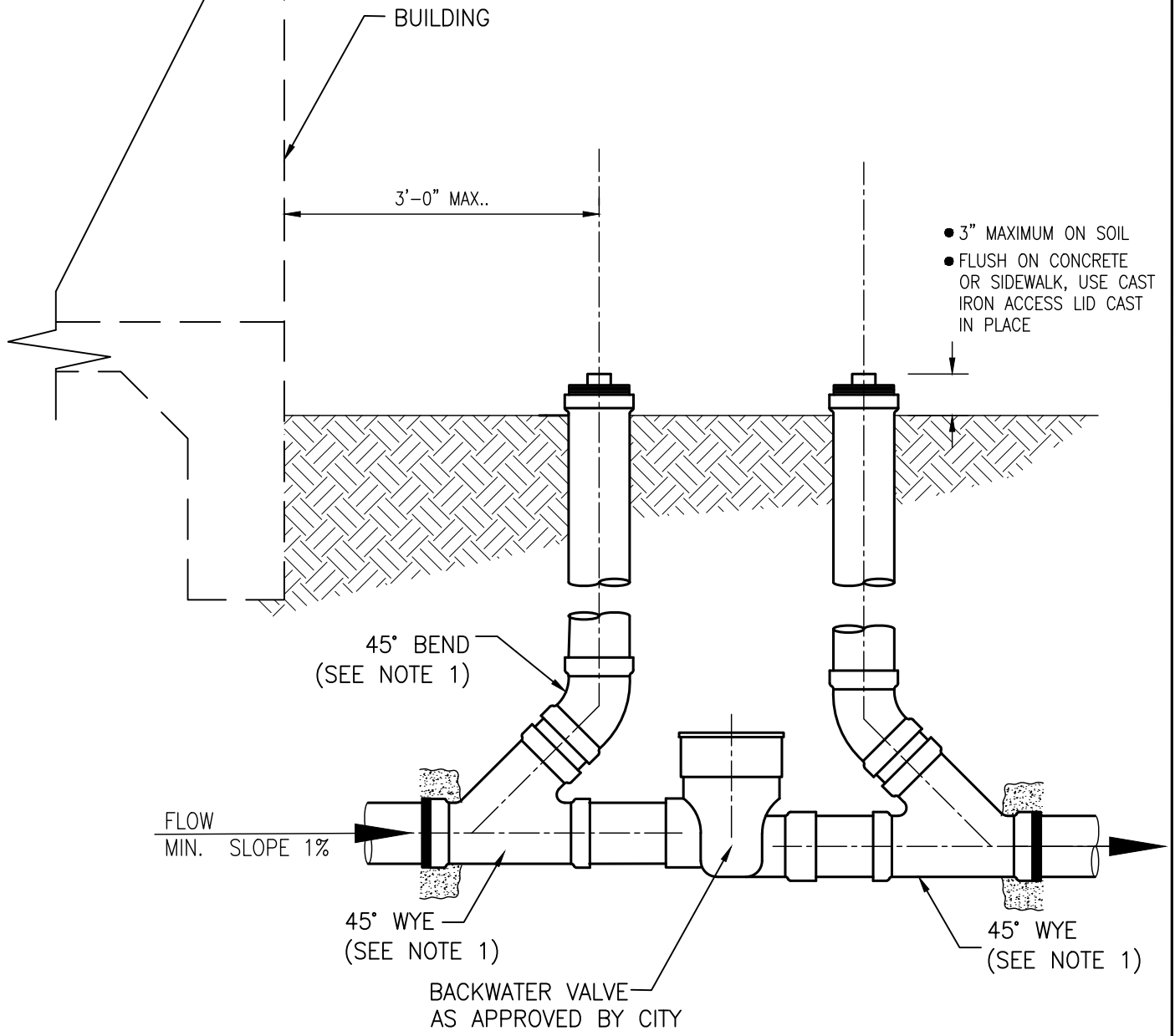
NOTES:

1. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF BURNET CONSTRUCTION SPECIFICATIONS AND STANDARDS.
2. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL.

	<p>CITY OF BURNET DEPARTMENT OF PUBLIC WORKS</p>		<p>TRENCH AND EMBEDMENT STANDARD UNDER PROPOSED ROADWAY</p>	
	<p>APPROVED BY: STAFF</p>	<p>DATE: 08/2020</p>	<p>The Architect/Engineer assumes responsibility for appropriate use of this standard.</p>	<p>DETAIL NUMBER: WW-19</p>



PLAN VIEW



PROFILE VIEW

NOTES:

1. WASTEWATER SERVICE FITTINGS SHALL BE APPROVED FOR USE WITH THIS DETAIL AS LISTED ON WW14, 1, 3 AND 4.



CITY OF BURNET
DEPARTMENT OF PUBLIC WORKS

**WASTEWATER BACKWATER VALVE
AT BUILDING CLEANOUT**

APPROVED BY:
STAFF

DATE:
02/01/21

The Architect/Engineer
assumes responsibility
for appropriate use of
this standard.

DETAIL NUMBER:
WW-20
1 OF 1