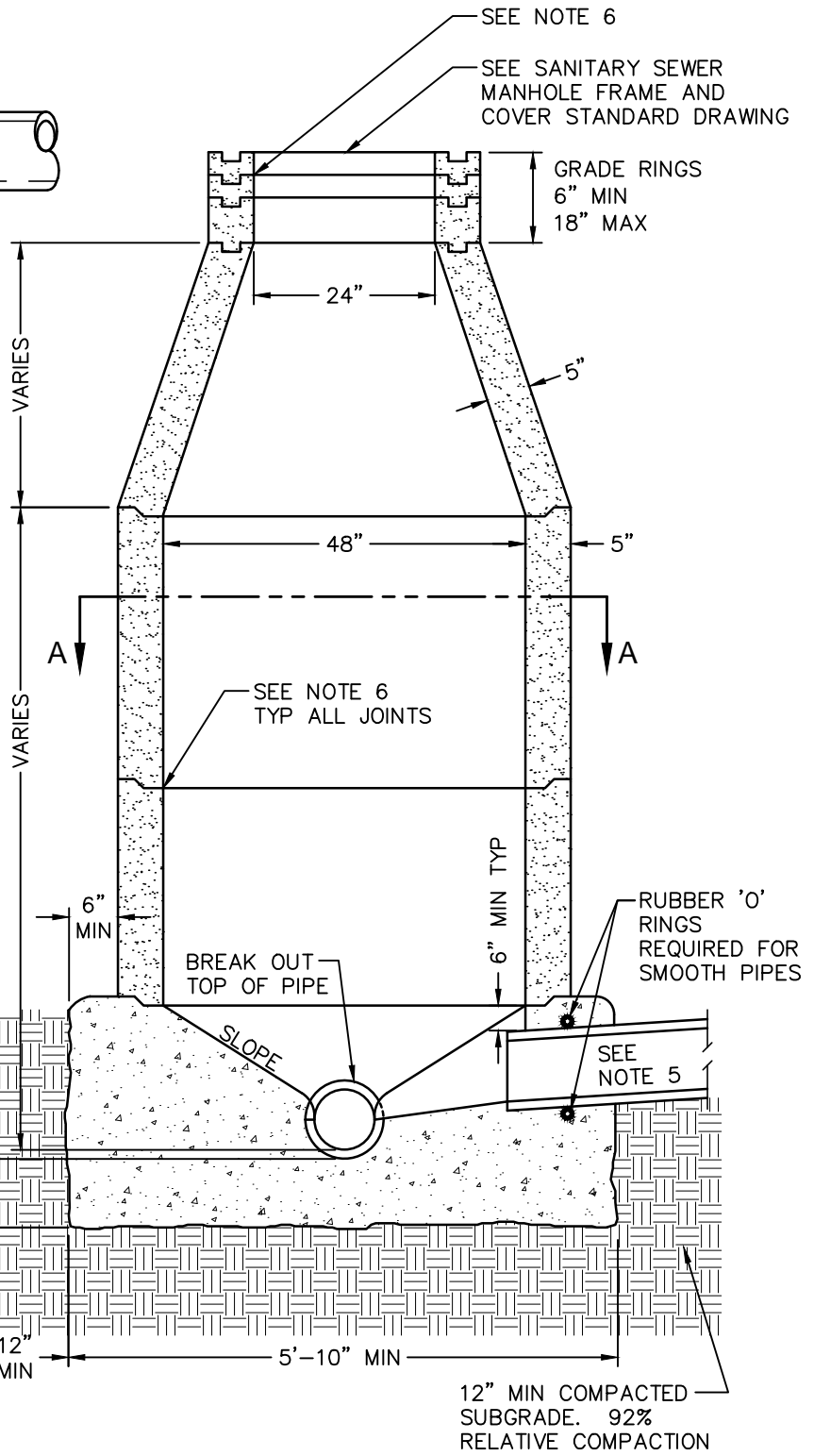


SECTION A-A

FORM TROUGH IN BOTTOM OF MANHOLE IN DIRECTION OF FLOW. TROUGH SHALL BE STEEL TROWELED SMOOTH. SEE TYPICAL FLOW CHANNELS FOR SANITARY SEWER MANHOLES STANDARD DRAWING.

SEE NOTE 6
SEE SANITARY SEWER MANHOLE FRAME AND COVER STANDARD DRAWING

GRADE RINGS
6" MIN
18" MAX



NOTES:

1. ALL CONCRETE SHALL BE CLASS 2 CONCRETE.
2. MANHOLE PIPE, CONE AND GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE AS PER ASTM C478.
3. JOINTS SHALL BE RUBBER GASKET AS PER ASTM C443 OR JOINTS SHALL BE CONSTRUCTED WITH MASTIC (KENT SEAL NO. 2 OR EQUAL) AS PER ASTM C990 AT CONTRACTOR'S OPTION. MASTIC SHALL COVER A MINIMUM OF ONE-HALF THE COMPRESSED SURFACE. ALL JOINTS SHALL BE WATER TIGHT.
4. MAXIMUM DISTANCE BETWEEN MANHOLES SHALL BE 500 FEET OR AS REQUIRED BY THE CITY ENGINEER.
5. 48" MANHOLES ARE REQUIRED FOR SEWER PIPE SIZES FROM 8" TO 24" OR AS REQUIRED BY THE CITY ENGINEER.
6. MORTAR INSIDE OF GRADE RINGS AND ALL INTERIOR JOINTS TO A SMOOTH FINISH.
7. A MAXIMUM OF 2 SEWER LATERAL CONNECTIONS WILL BE ALLOWED AT EACH SEWER MANHOLE, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.

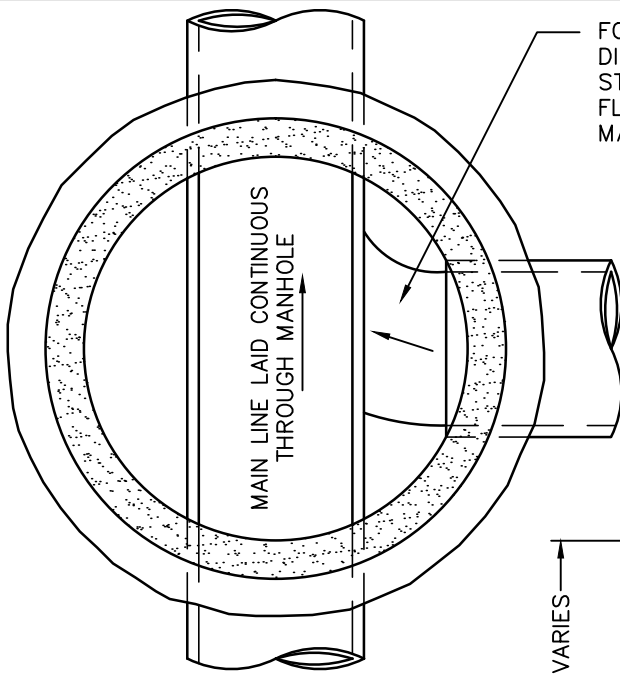
APPROVED BY:  09/16/16
CITY ENGINEER R.P.E. 81734 DATE

**CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS**

48" SANITARY SEWER MANHOLE

REVISIONS
09/27/13
BK 2016

S-1

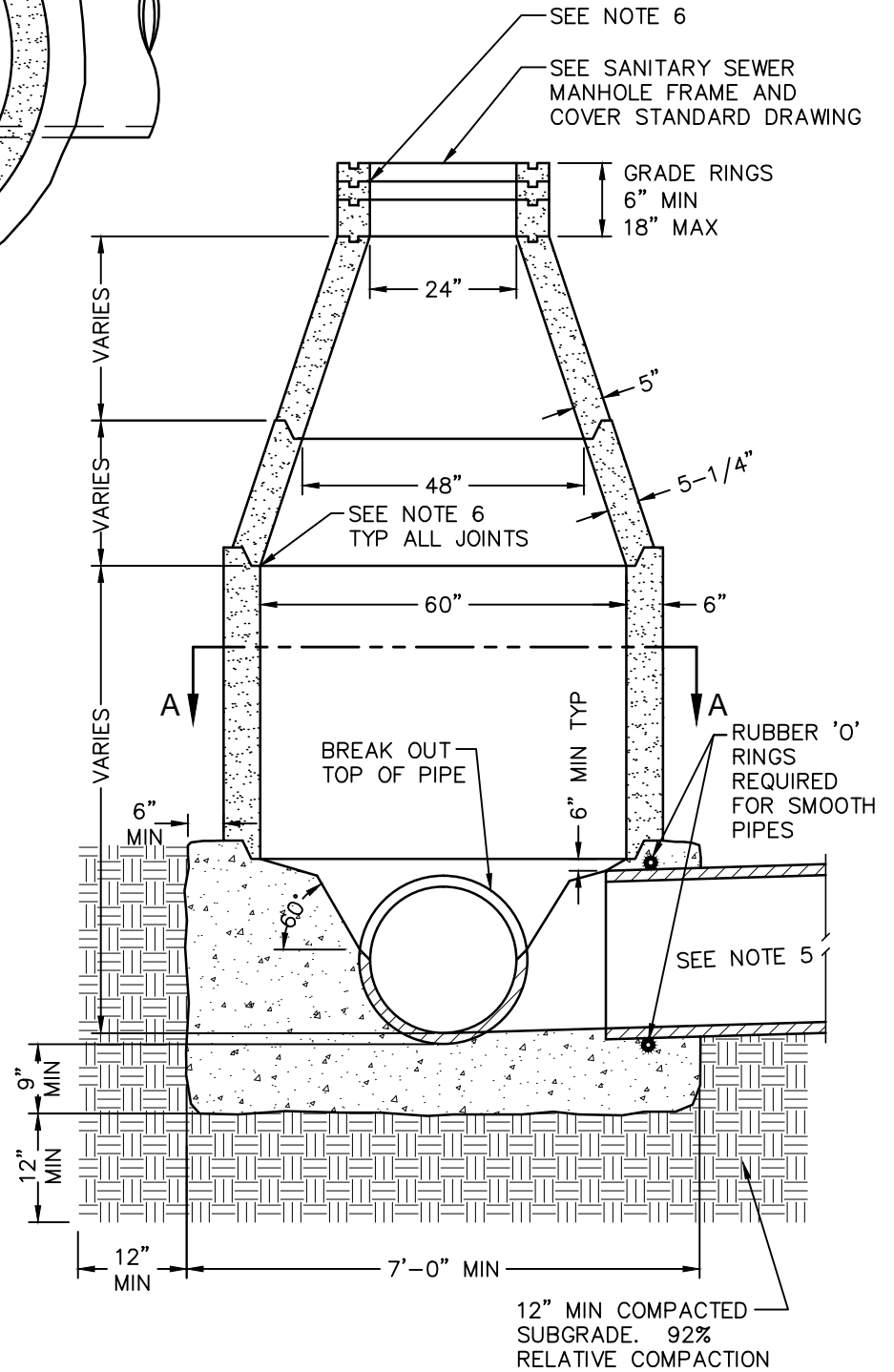


FORM TROUGH IN BOTTOM OF MANHOLE IN DIRECTION OF FLOW. TROUGH SHALL BE STEEL TROWELED SMOOTH. SEE TYPICAL FLOW CHANNELS FOR SANITARY SEWER MANHOLES STANDARD DRAWING.

SECTION A-A

NOTES:

1. ALL CONCRETE SHALL BE CLASS 2 CONCRETE.
2. MANHOLE PIPE, CONE AND GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE AS PER ASTM C478.
3. JOINTS SHALL BE RUBBER GASKET AS PER ASTM C443 OR JOINTS SHALL BE CONSTRUCTED WITH MASTIC (KENT SEAL NO. 2 OR EQUAL) AS PER ASTM C990 AT CONTRACTOR'S OPTION. MASTIC SHALL COVER A MINIMUM OF ONE-HALF THE COMPRESSED SURFACE. ALL JOINTS SHALL BE WATER TIGHT.
4. MAXIMUM DISTANCE BETWEEN MANHOLES SHALL BE 500 FEET OR AS REQUIRED BY THE CITY ENGINEER.
5. 60" MANHOLES ARE REQUIRED FOR SEWER PIPE SIZES FROM 27" TO 36" OR AS REQUIRED BY THE CITY ENGINEER.
6. MORTAR INSIDE OF GRADE RINGS AND ALL INTERIOR JOINTS TO A SMOOTH FINISH.
7. A MAXIMUM OF 2 SEWER LATERAL CONNECTIONS WILL BE ALLOWED AT EACH SEWER MANHOLE, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.



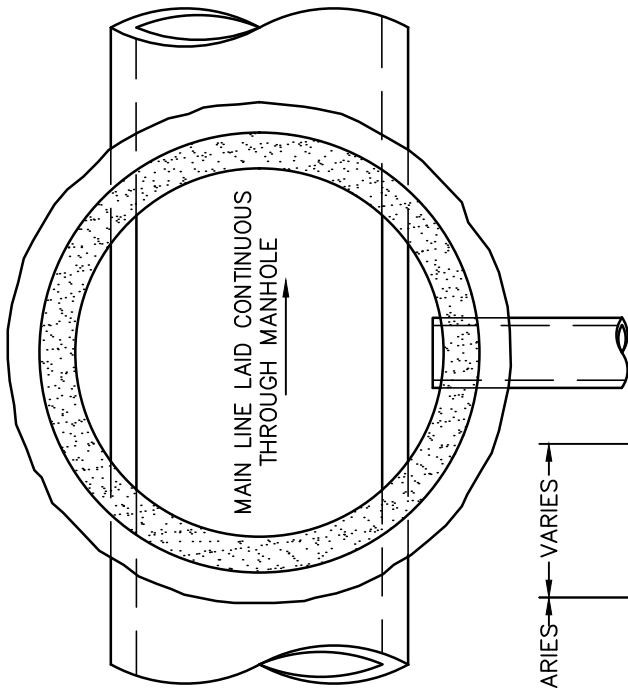
APPROVED BY: *[Signature]* 09/16/16
 CITY ENGINEER R.P.E. 81734 DATE

**CITY OF VISALIA
 DESIGN & IMPROVEMENT STANDARDS**

60" SANITARY SEWER MANHOLE

REVISIONS
 09/27/13
 BK 2016

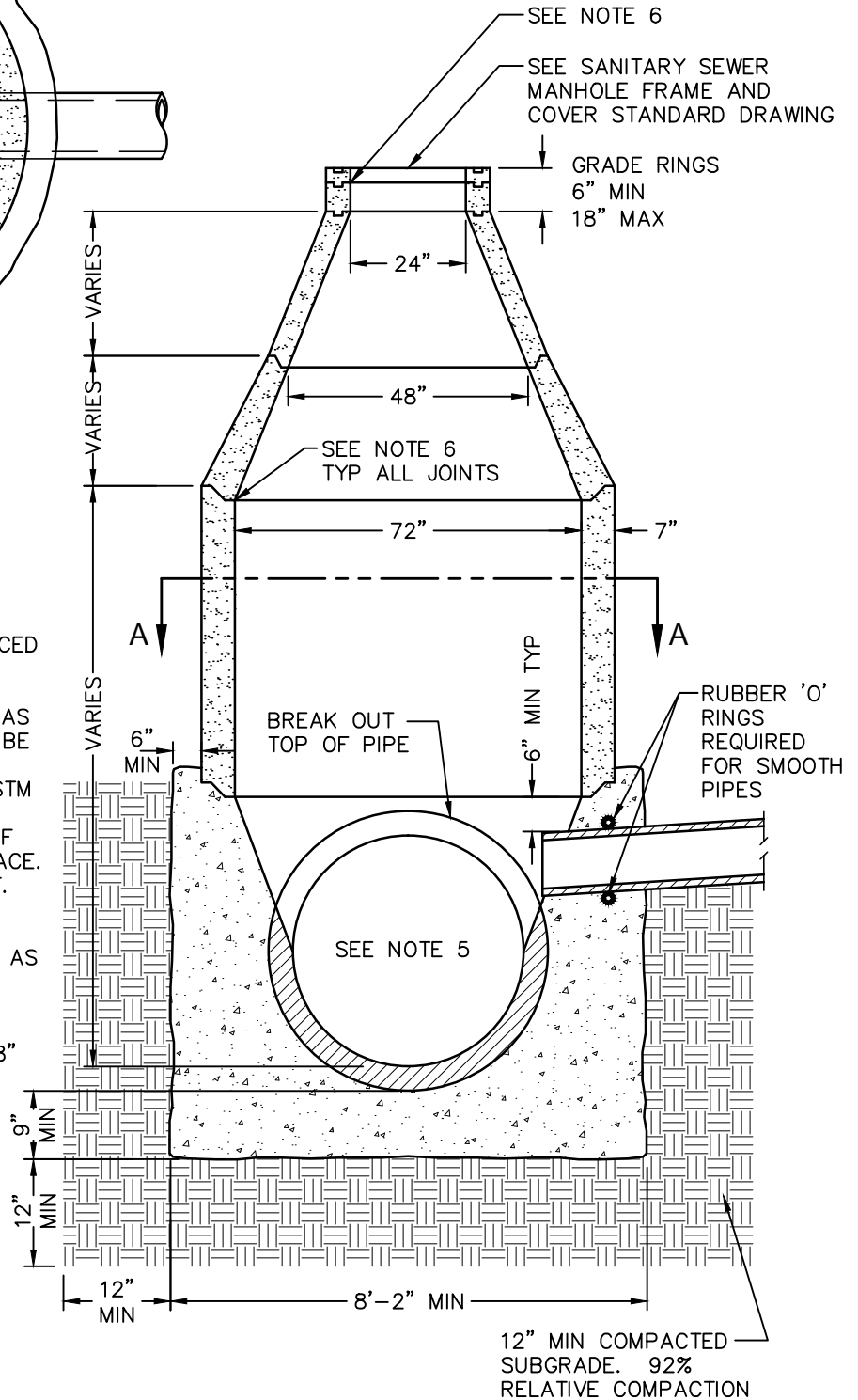
S-2



SECTION A-A

NOTES:

1. ALL CONCRETE SHALL BE CLASS 2 CONCRETE.
2. MANHOLE PIPE, CONE AND GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE AS PER ASTM C478.
3. JOINTS SHALL BE RUBBER GASKET AS PER ASTM C443 OR JOINTS SHALL BE CONSTRUCTED WITH MASTIC (KENT SEAL NO. 2 OR EQUAL) AS PER ASTM C990 AT CONTRACTOR'S OPTION. MASTIC SHALL COVER A MINIMUM OF ONE-HALF THE COMPRESSED SURFACE. ALL JOINTS SHALL BE WATER TIGHT.
4. MAXIMUM DISTANCE BETWEEN MANHOLES SHALL BE 500 FEET OR AS REQUIRED BY THE CITY ENGINEER.
5. 72" MANHOLES ARE REQUIRED FOR SEWER PIPE SIZES FROM 39" TO 48" OR AS REQUIRED BY THE CITY ENGINEER.
6. MORTAR INSIDE OF GRADE RINGS AND ALL INTERIOR JOINTS TO A SMOOTH FINISH.
7. A MAXIMUM OF 2 SEWER LATERAL CONNECTIONS WILL BE ALLOWED AT EACH SEWER MANHOLE, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.



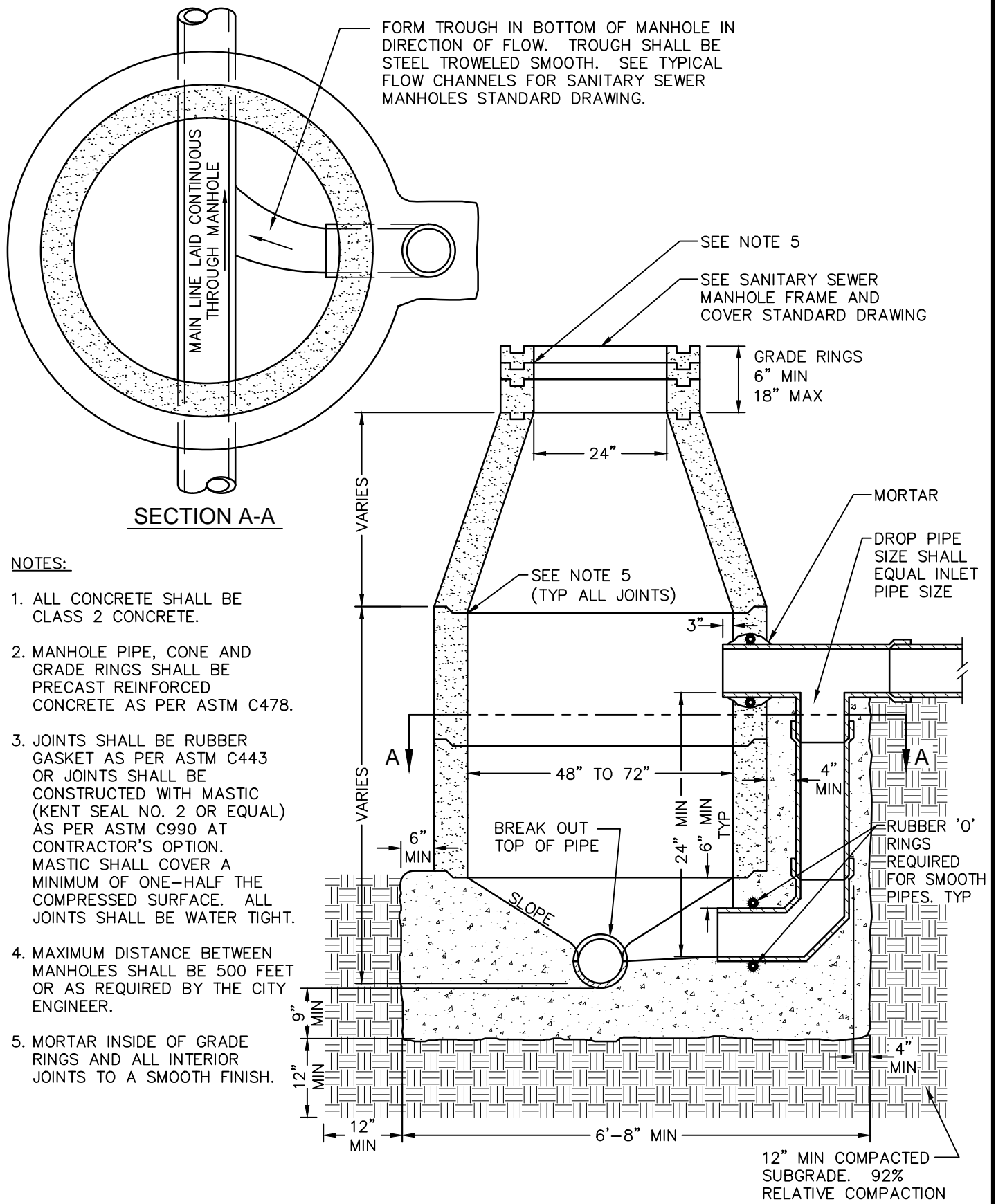
APPROVED BY: *[Signature]* 09/16/16
 CITY ENGINEER R.P.E. 81734 DATE

CITY OF VISALIA
 DESIGN & IMPROVEMENT STANDARDS

72" SANITARY SEWER MANHOLE

REVISIONS
 09/27/13
 BK 2016

S-3



NOTES:

1. ALL CONCRETE SHALL BE CLASS 2 CONCRETE.
2. MANHOLE PIPE, CONE AND GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE AS PER ASTM C478.
3. JOINTS SHALL BE RUBBER GASKET AS PER ASTM C443 OR JOINTS SHALL BE CONSTRUCTED WITH MASTIC (KENT SEAL NO. 2 OR EQUAL) AS PER ASTM C990 AT CONTRACTOR'S OPTION. MASTIC SHALL COVER A MINIMUM OF ONE-HALF THE COMPRESSED SURFACE. ALL JOINTS SHALL BE WATER TIGHT.
4. MAXIMUM DISTANCE BETWEEN MANHOLES SHALL BE 500 FEET OR AS REQUIRED BY THE CITY ENGINEER.
5. MORTAR INSIDE OF GRADE RINGS AND ALL INTERIOR JOINTS TO A SMOOTH FINISH.

APPROVED BY: *[Signature]* 09/16/16
 CITY ENGINEER R.P.E. 81734 DATE

CITY OF VISALIA
 DESIGN & IMPROVEMENT STANDARDS

SANITARY SEWER DROP MANHOLE

REVISIONS
09/27/13 BK 2016

S-4

RESERVED FOR FUTURE DETAIL

APPROVED BY: _____

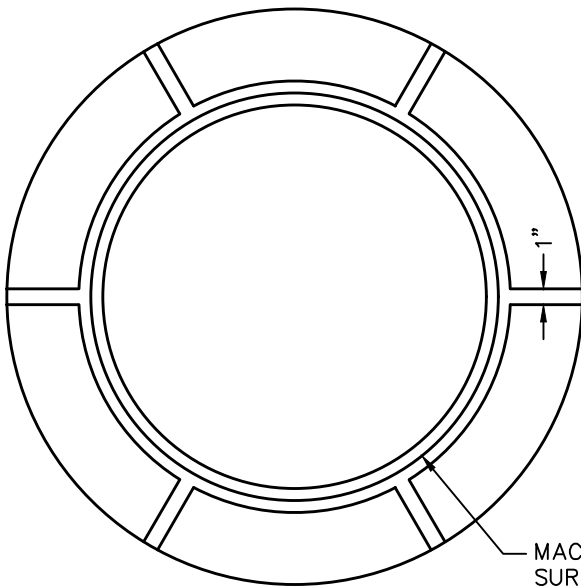
CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

RESERVED

REVISIONS

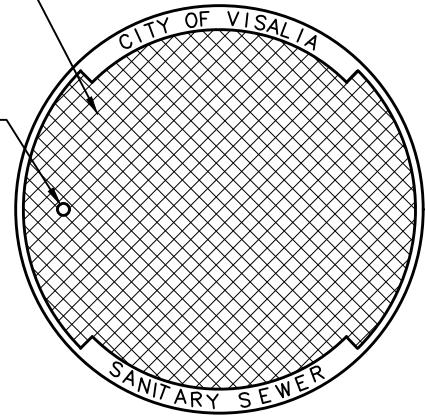
BK 2016

S-5

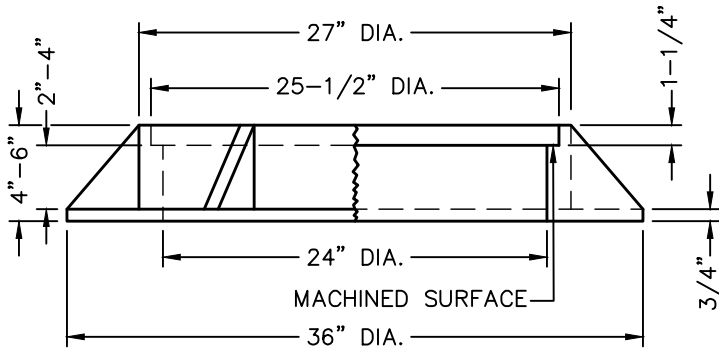


CHECKERED TOP DESIGN

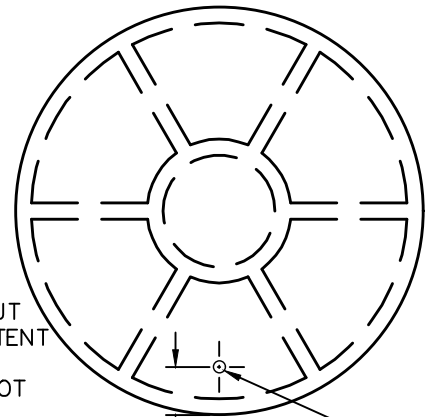
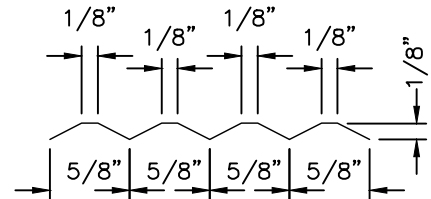
3/4" PICK HOLE



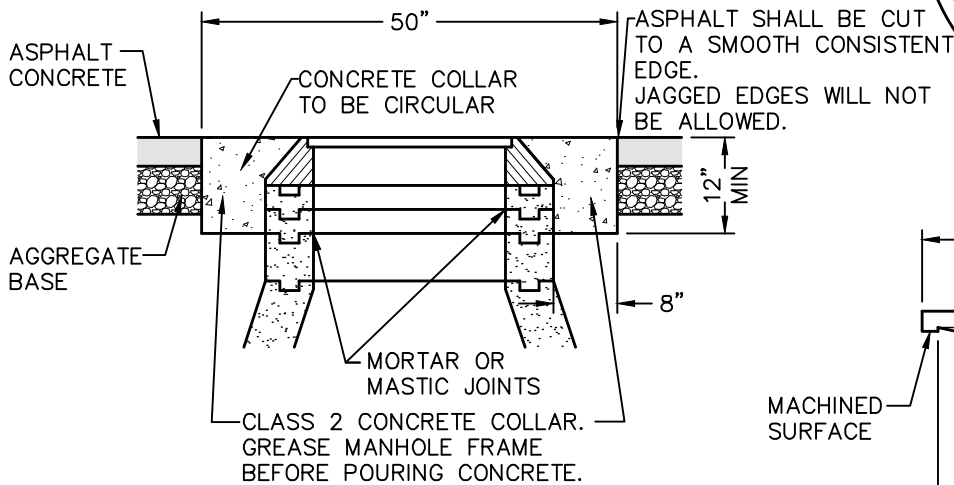
MACHINED SURFACE



MANHOLE FRAME

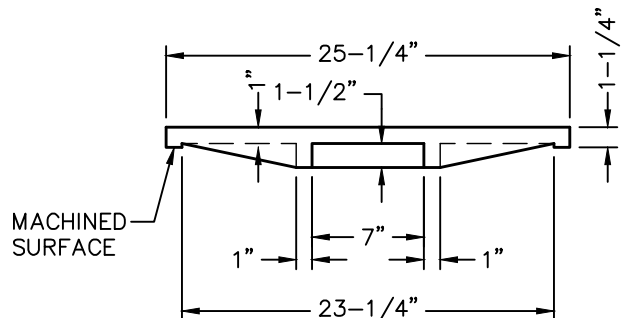


3/4" PICK HOLE



ASPHALT SHALL BE CUT TO A SMOOTH CONSISTENT EDGE. JAGGED EDGES WILL NOT BE ALLOWED.

MANHOLE ADJUSTMENT



MACHINED SURFACE

MANHOLE COVER

NOTE: FRAME, COVER AND CONCRETE COLLAR SHALL MATCH CROSS SLOPE. CURE CONCRETE A MINIMUM OF 48 HOURS PRIOR TO TRAFFIC USE.

APPROVED BY: *Chris Carr* 02/05/25
CITY ENGINEER R.C.E. 71192 DATE

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

SANITARY SEWER
MANHOLE FRAME AND COVER

REVISIONS
02/05/25
BK 2016

S-6

RESERVED FOR FUTURE DETAIL

APPROVED BY: _____

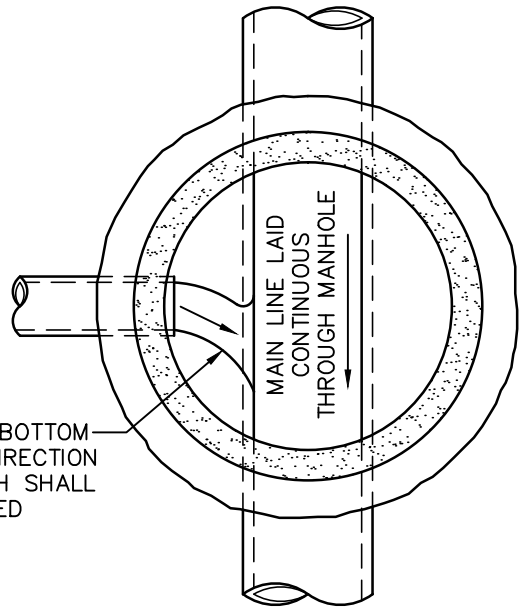
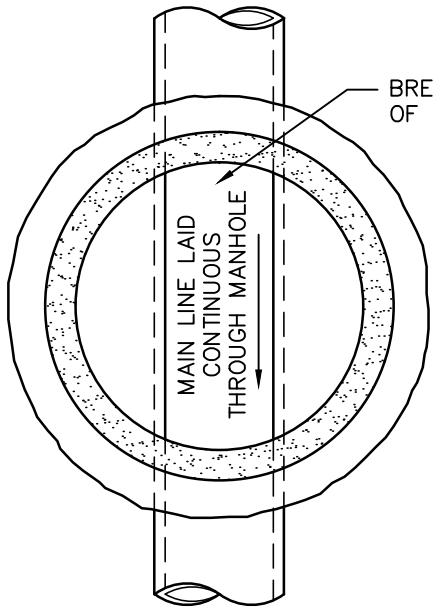
CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

RESERVED

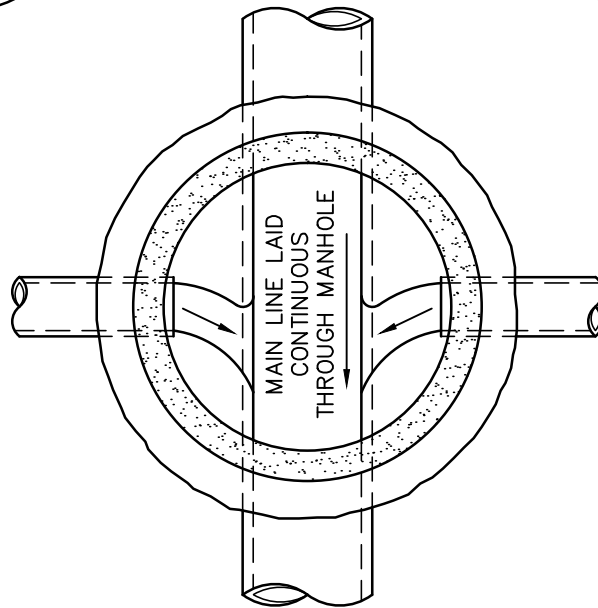
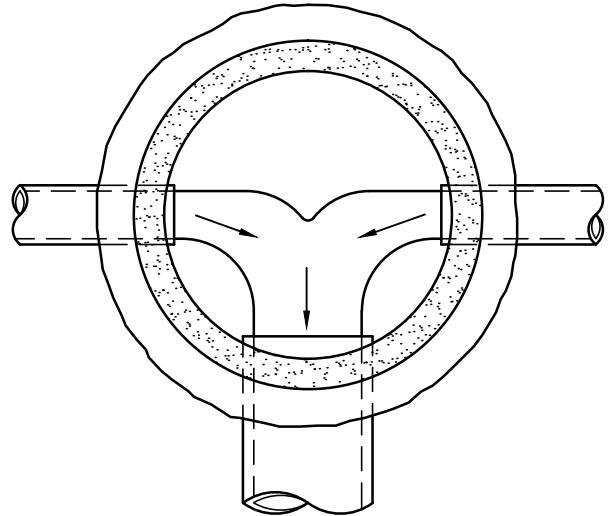
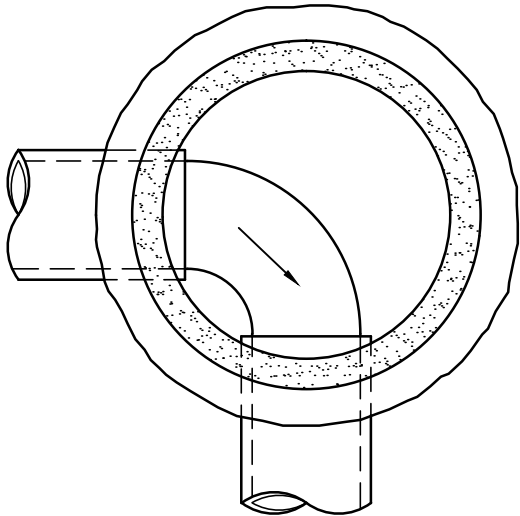
REVISIONS

BK 2016

S-7



FORM TROUGH IN BOTTOM OF MANHOLE IN DIRECTION OF FLOW. TROUGH SHALL BE STEEL TROWELED SMOOTH. TYP.



APPROVED BY: *[Signature]* 09/16/16
 CITY ENGINEER R.P.E. 81734 DATE

CITY OF VISALIA
 DESIGN & IMPROVEMENT STANDARDS

TYPICAL FLOW CHANNELS FOR
 SANITARY SEWER MANHOLES

REVISIONS
 11/22/99
 BK 2016

S-8

RESERVED FOR FUTURE DETAIL

APPROVED BY: _____

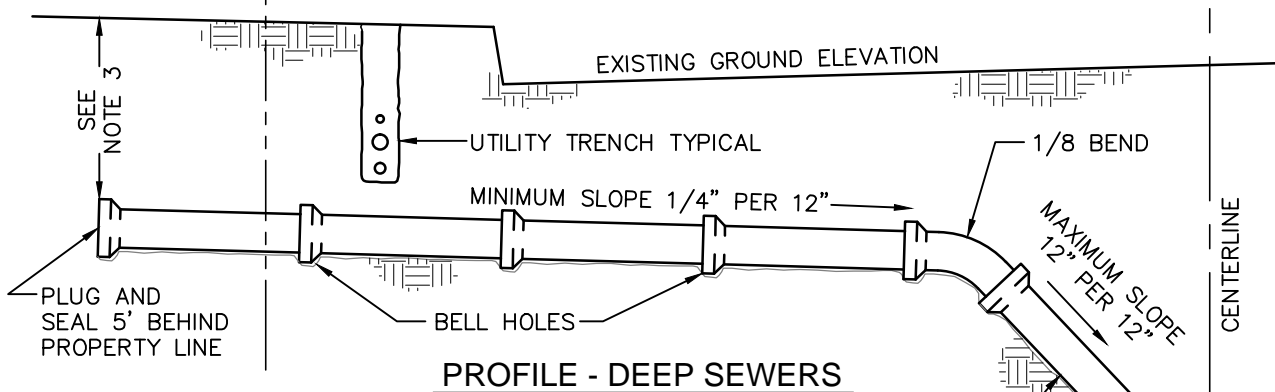
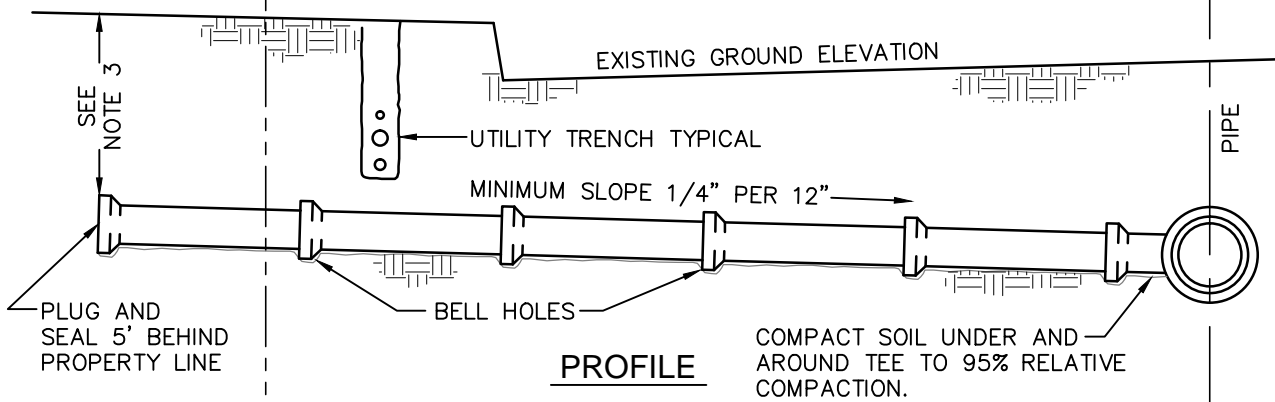
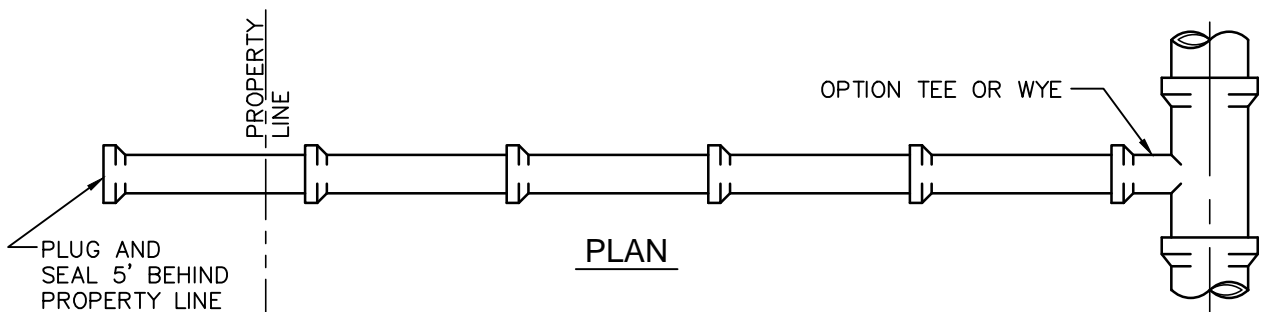
CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

RESERVED

REVISIONS

BK 2016

S-9



NOTES:

1. SEWER CONNECTIONS SHALL BE 4" OR 6" PVC WITH A MINIMUM PIPE STIFFNESS OF 46 AT 5% DEFLECTION.
2. THE GRADE OF SEWER LATERALS SHALL BE A MINIMUM OF 1/4 INCH PER 12 INCHES AND A MAXIMUM OF 12 INCHES PER 12 INCHES FOR DEEP SEWERS. UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
3. THE END OF SEWER LATERALS SHALL BE A MINIMUM 5' DEEP OR AS APPROVED BY THE CITY ENGINEER AND SHALL BE PLUGGED PRIOR TO BACKFILL WITH A CAP APPROVED BY THE PIPE MANUFACTURER FOR USE WITH THE PRODUCT.
4. SADDLES MOUNTED ON ALL PIPES SHALL HAVE A RUBBER GASKET AND SHALL BE SECURED WITH STAINLESS STEEL BANDS AND HARDWARE. CONNECTION SHALL BE WATER TIGHT.
5. A 3" "S" SHALL BE CHISELED OR STAMPED ON THE TOP OF CONCRETE CURB TO VERIFY SEWER LATERAL LOCATION.

COMPACT SOIL UNDER AND AROUND TEE TO 95% RELATIVE COMPACTION.

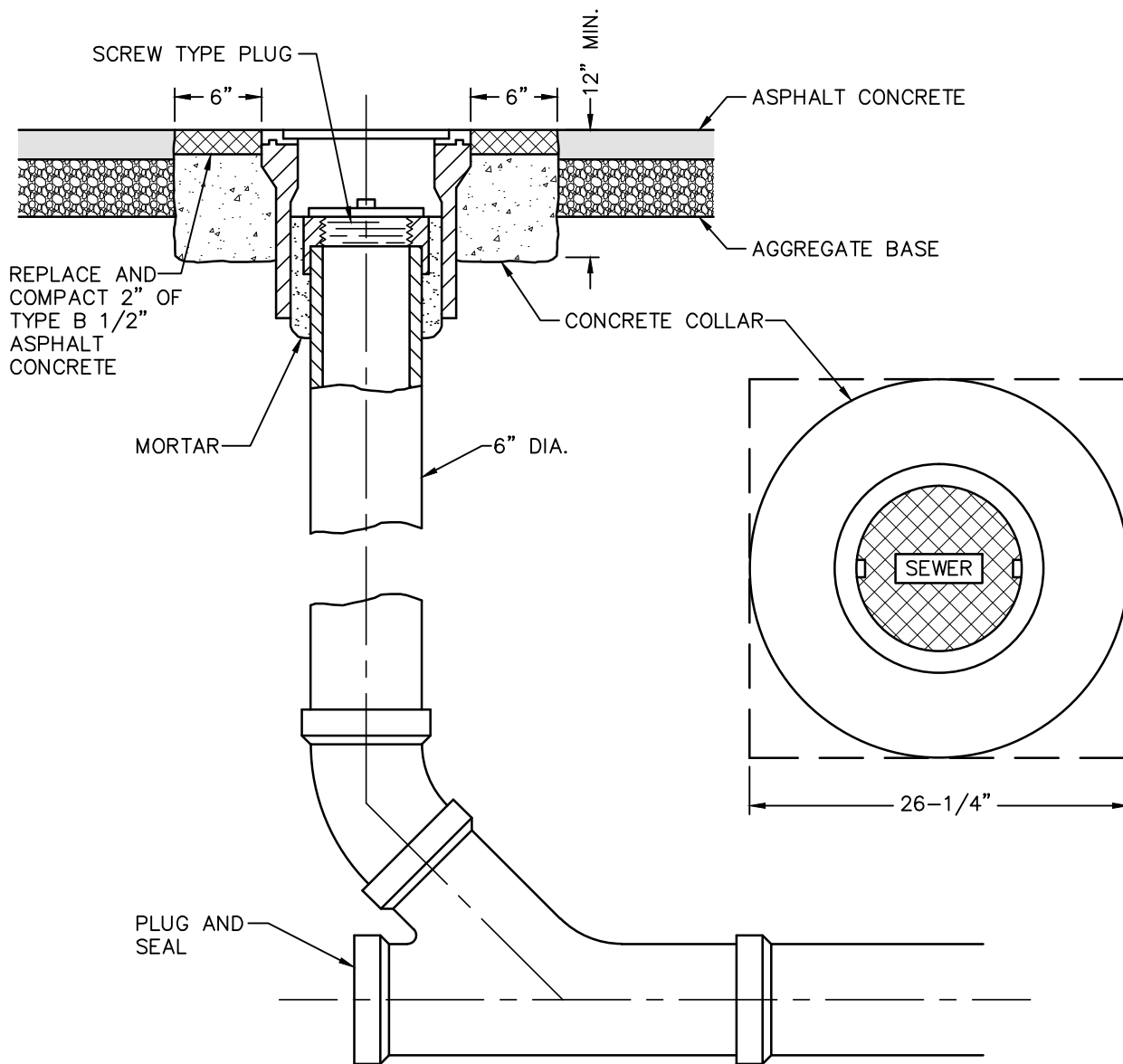
APPROVED BY:  09/16/16
 CITY ENGINEER R.P.E. 81734 DATE

CITY OF VISALIA
 DESIGN & IMPROVEMENT STANDARDS

SEWER CONNECTION

REVISIONS
 09/27/13
 BK 2016

S-10



NOTES:

1. SEWER CLEANOUT RISER SHALL BE 6" MINIMUM PVC WITH A MINIMUM PIPE STIFFNESS OF 46 AT 5% DEFLECTION.
2. SEWER CLEANOUT FRAME AND COVER SHALL BE CHRISTY G5 TRAFFIC VALVE BOX OR EQUAL.
3. PLUG MAIN LINE END WITH CAP APPROVED BY THE PIPE MANUFACTURER FOR USE WITH THE PRODUCT.
4. CONCRETE COLLAR SHALL BE CLASS 3 CONCRETE.
5. CONCRETE COLLAR SHALL BE 26-1/4" IN DIAMETER OR ALTERNATIVE 26-1/4"X26-1/4" SQUARE.
6. MORTAR MIXTURE SHALL BE ONE PART CEMENT PER TWO PARTS SAND.

APPROVED BY:  09/16/16
 CITY ENGINEER R.P.E. 81734 DATE

CITY OF VISALIA
 DESIGN & IMPROVEMENT STANDARDS

SANITARY SEWER CLEANOUT

REVISIONS
 09/27/13
 BK 2016

S-11

RESERVED FOR FUTURE DETAIL

APPROVED BY: _____

CITY OF VISALIA
DESIGN & IMPROVEMENT STANDARDS

RESERVED

REVISIONS

BK 2016

S-12

OUTSIDE COMMERCIAL AND INDUSTRIAL SAND, SILT, GREASE, OIL, AND GARBAGE INTERCEPTORS

1. THE SIZE AND DETAILS OF ALL INTERCEPTORS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CALIFORNIA PLUMBING CODE, CURRENT EDITION, HEREINAFTER REFERRED TO AS CPC. ALL INTERCEPTORS SHALL BE SEALED AND WATER TIGHT.
2. INTERCEPTORS SHALL BE CONSTRUCTED AND VENTED IN ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN THE CPC.
3. THE LOCATION OF THE INTERCEPTOR SHALL BE APPROVED BY THE COMMUNITY DEVELOPMENT DEPARTMENT PRIOR TO CONSTRUCTION.
4. ALL CAST IN PLACE OR PRECAST INTERCEPTOR UNITS SHALL BE APPROVED BY THE COMMUNITY DEVELOPMENT DEPARTMENT PRIOR TO CONSTRUCTION.
5. THE OWNER SHALL BE RESPONSIBLE FOR PROVIDING ALL DOCUMENTATION AND TESTING TO CERTIFY THAT THE INTERCEPTORS AND WASTE STREAMS MEETS THE REQUIREMENTS OF ALL CURRENT REGULATIONS AND THE QUALITY ASSURANCE DIVISION REQUIREMENTS.
6. PRE -CAST INTERCEPTORS SHALL BE LABELED WITH THE MANUFACTURERS NAME, MODEL NUMBER AND SHALL HAVE AN I.A.P.M.O. CERTIFICATION MARK.
7. ALL CONCRETE FOR CAST-IN-PLACE INTERCEPTORS SHALL BE CLASS 2 CONCRETE IN ACCORDANCE WITH THE CITY OF VISALIA STANDARD SPECIFICATIONS AND ENGINEERING DESIGN & IMPROVEMENT STANDARDS.
8. CAST IRON FRAMES MAY BE CAST INTO THE INTERCEPTOR LID.
9. ALL INTERCEPTORS SHALL BE ACCESSIBLE TO THE QUALITY ASSURANCE DIVISION FOR TESTING AT ANY TIME.

CITY OF VISALIA QUALITY ASSURANCE DIVISION
7579 AVENUE 288
VISALIA, CA. 93277-9435
TEL. 559-713-4529

APPROVED BY:  <small>CITY ENGINEER</small> <small>R.P.E. 81734</small> <small>09/16/16</small> <small>DATE</small>	CITY OF VISALIA DESIGN & IMPROVEMENT STANDARDS	
OUTSIDE COMMERCIAL AND INDUSTRIAL SAND, SILT, GREASE, OIL AND GARBAGE INTERCEPTORS	REVISIONS 09/27/13 BK 2016	S-13