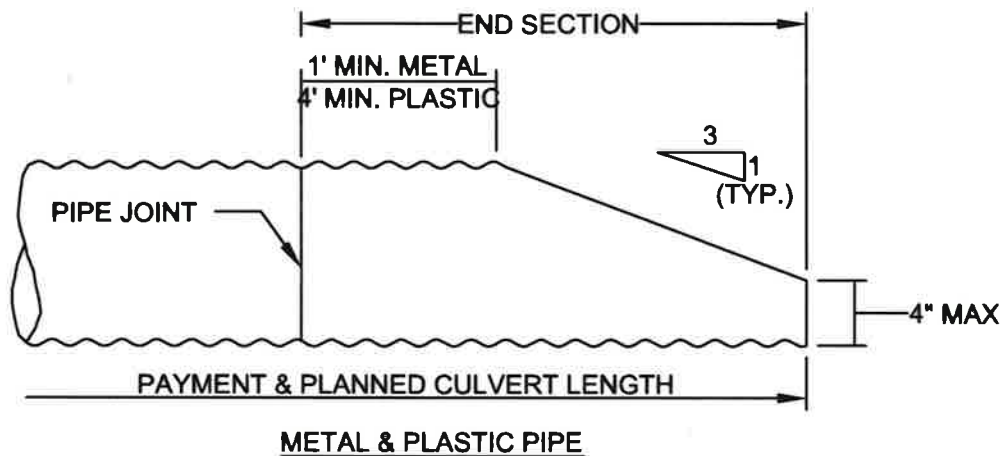
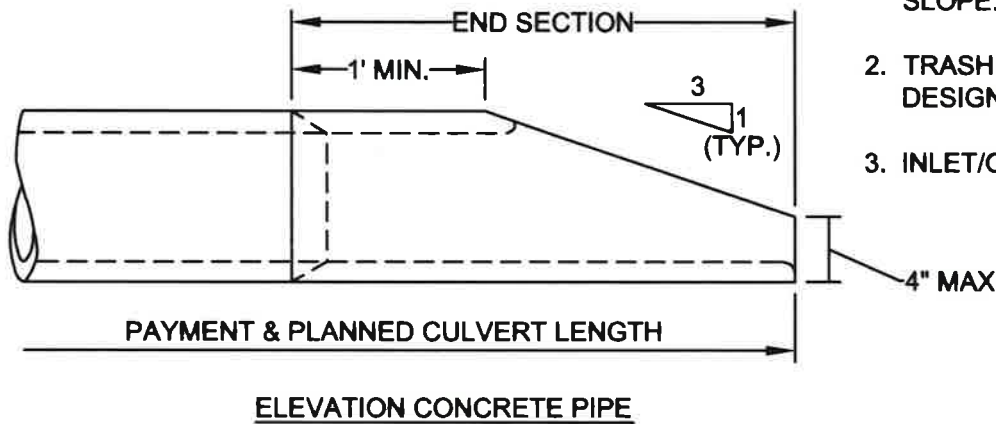


NOTES:

1. SIDE SLOPE SHALL BE WARPED TO MATCH THE BEVELED PIPE END. WHEN CULVERT IS ON SKEW, BEVELED END SHALL BE ROTATED TO CONFORM TO SLOPE. IF SLOPE DIFFERS FROM 3:1, PIPE SHALL BE BEVELED TO MATCH SLOPE.
2. TRASH RACK MAY BE REQUIRED BY DIRECTOR OR DESIGNEE. (SEE STND DWG 702 FOR DETAILS).
3. INLET/OUTLET PROTECTION SHALL BE REQUIRED.



701
Beveled End Pipe
Section

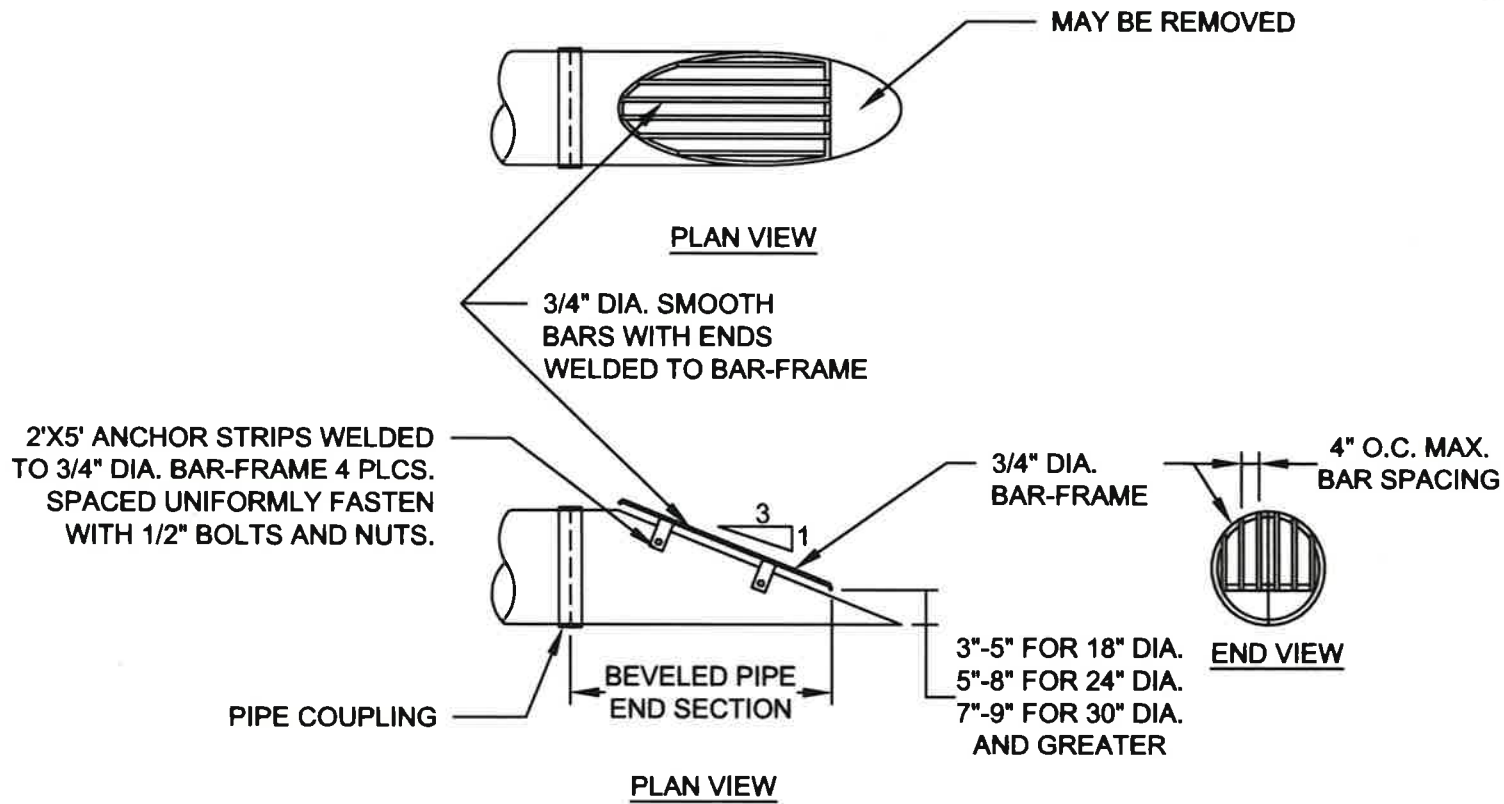


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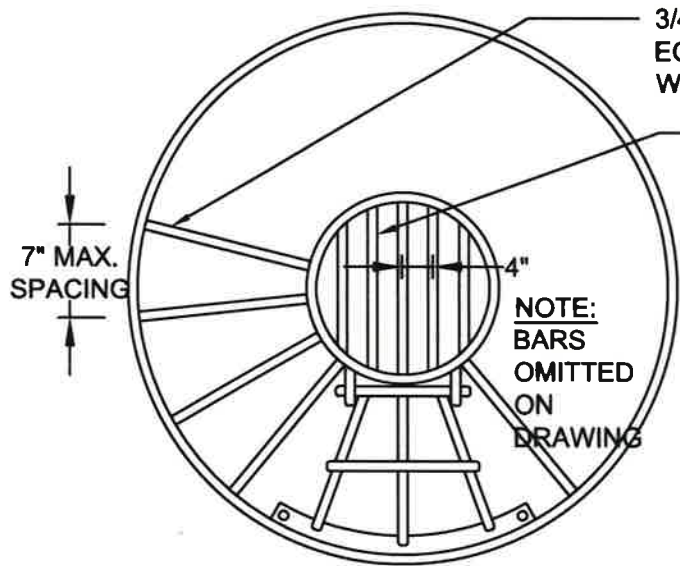
Revision Date
April 2017



NOTES:

1. CMP END-SECTION SHOWN. FOR CONCRETE PIPE BEVELED END-SECTION, SEE STND DWG 701.
2. ALL PARTS MUST BE ALUMINUM OR STAINLESS STEEL.
3. TRASH RACKS REQUIRED ON ALL PIPES 18" TO 36" IN DIAMETER ENTERING A CLOSED SYSTEM.

<h2 style="margin: 0;">702</h2> <h3 style="margin: 0;">Trash Rack (Debris Cage) - Pipe End</h3>	
 CITY OF SHORELINE Public Works	 TRICIA JUSTICE STATE OF WASHINGTON PROFESSIONAL ENGINEER 711917
NOT TO SCALE	Revision Date April 2017



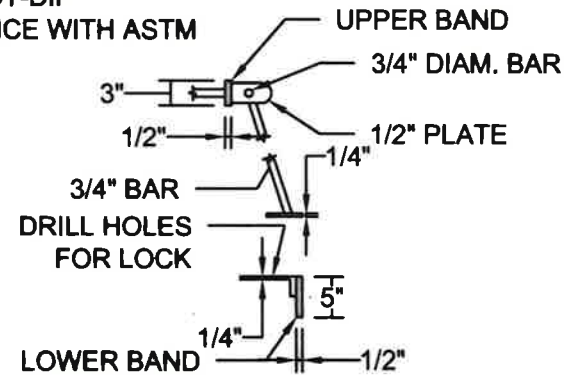
3/4" DIAM. SMOOTH ROUND BARS
EQUALLY SPACED. BARS SHALL BE
WELDED TO UPPER & LOWER BANDS.

3/4" DIAM. SMOOTH ROUND BARS
EQUALLY SPACED (4" O.C. MAX.)

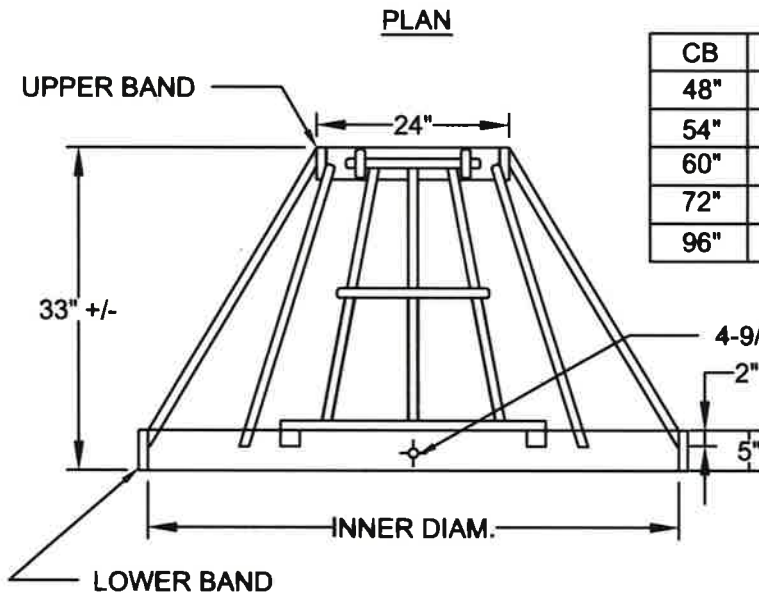
NOTE:
BARS
OMITTED
ON
DRAWING

NOTES:

1. ALL STEEL IN PLATES, BARS AND BANDS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A38.
2. DEBRIS CAGE SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 (AASHTO M111).



ENTRY GATE DETAIL



PLAN

ELEVATION

CB	INNER DIAM.
48"	58"
54"	65"
60"	72"
72"	86"
96"	114"

4-9/16" HOLES EQUALLY SPACED

**703
Trash Rack
(Debris Cage) -
Conical**



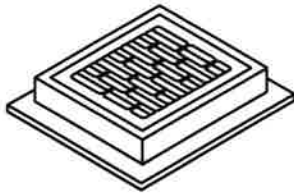
Public Works



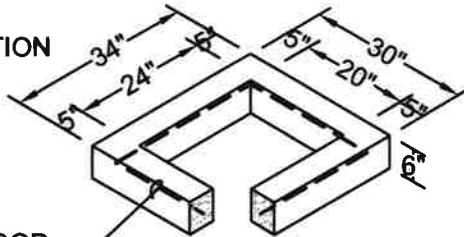
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Revision Date
April 2017

FRAME AND GRATE
SEE DWGS 726 FOR
DETAILS

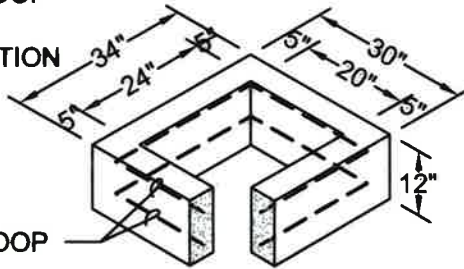


6" RISER SECTION



1 #3 BAR HOOP

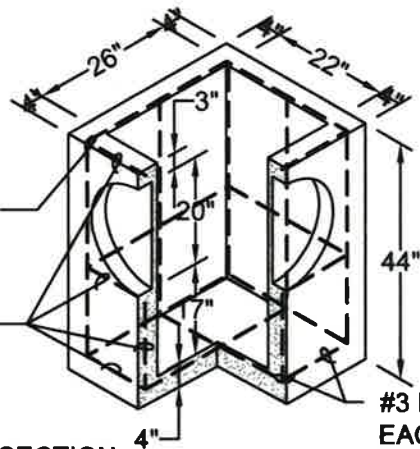
12" RISER SECTION



2 #3 BAR HOOP

#3 BAR EACH
CORNER

#3 BAR
EACH SIDE



#3 BAR
EACH WAY

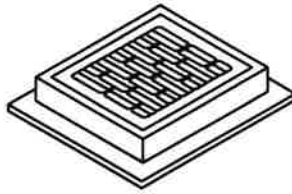
PRECAST BASE SECTION
(MEASUREMENT AT THE
TOP OF THE BASE)

NOTES:

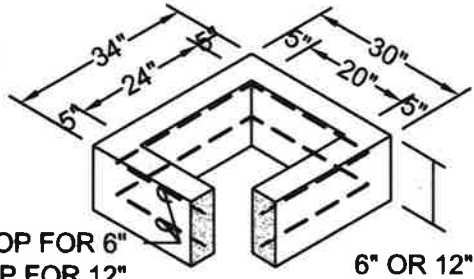
1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES, WITH MAX. DIAM. OF 20". KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
7. THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2"/FT.
9. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION A-A-60005. MATING SURFACES SHALL BE FINISHED WITH ANY COVER POSITION.
10. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
11. FOR CATCH BASINS IN PARKING LOTS REFER TO WSDOT STANDARD PLAN B-5.60-01.
12. EDGE OF RISER OR BRICK SHALL NOT BE MORE THAN 2" FROM VERTICAL EDGE OF CATCH BASIN WALL.

<h2 style="margin: 0;">705</h2> <h3 style="margin: 0;">Catch Basin Type 1</h3>	
<p style="font-size: small;">CITY OF SHORELINE Public Works</p>	<p style="font-size: x-small;">PATRICIA J. JARAMBA REGISTERED PROFESSIONAL ENGINEER NO. 2700</p>
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FRAME AND
GRATE SEE DWGS
726 FOR DETAILS



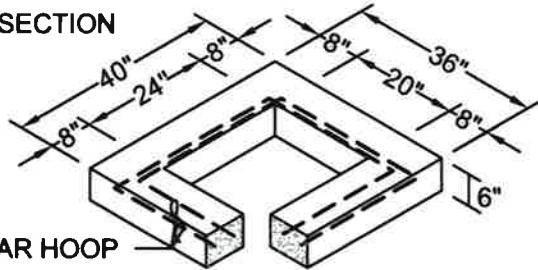
RISER SECTION



1 #3 BAR HOOP FOR 6"
2 #3 BAR HOOP FOR 12"

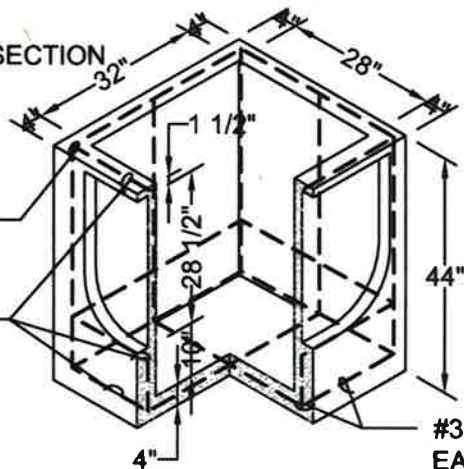
6" OR 12"

6" REDUCING SECTION



2 #3 BAR HOOP

PRECAST BASE SECTION



#3 BAR EACH
CORNER

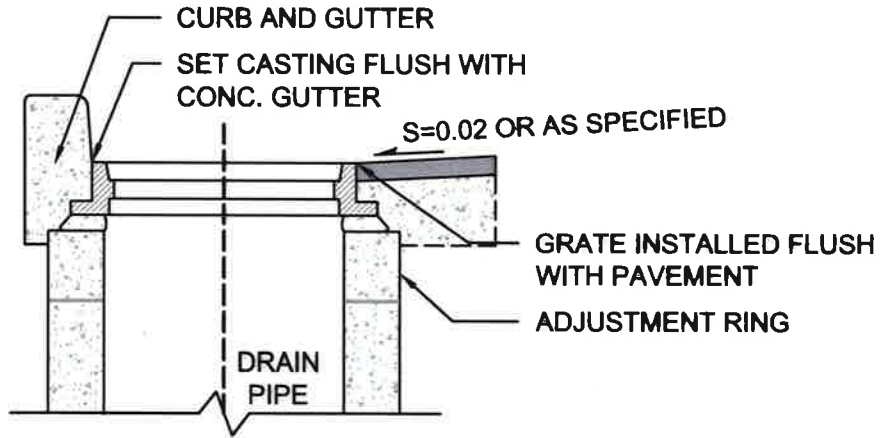
#3 BAR
EACH SIDE

#3 BAR
EACH WAY

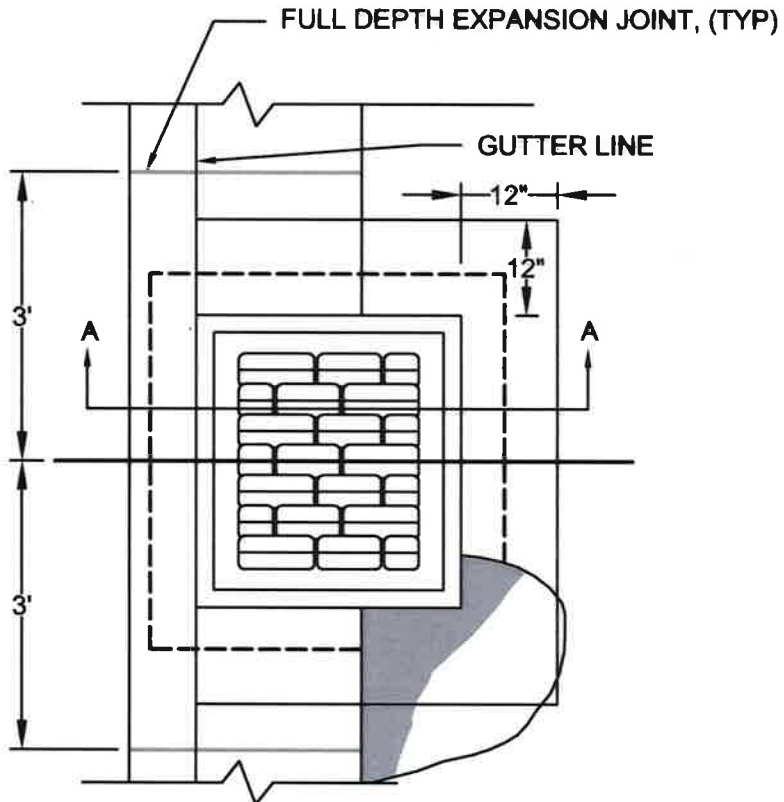
NOTES:

1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES, WITH MAX. DIAM. OF 26". KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
7. THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2"/FT.
9. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION A-A-60005. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
10. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
11. FOR CATCH BASINS IN PARKING LOTS REFER TO WSDOT STANDARD PLAN B-5.60-01.
12. EDGE OF RISER OR BRICK SHALL NOT BE MORE THAN 2" FROM VERTICAL EDGE OF CATCH BASIN WALL.

<h2 style="margin: 0;">706</h2> <h3 style="margin: 0;">Catch Basin</h3> <h3 style="margin: 0;">Type 1-L</h3>	
NOT TO SCALE	Revision Date April 2017



SECTION A-A



PLAN VIEW

NOTES:

1. AN APPROVED MATERIAL WHICH WILL PREVENT BONDING OF THE CURB TO FRAME, GRATE OR C.B. SHALL BE USED.
2. GROUT ALL JOINTS INSIDE AND OUTSIDE.

707
Catch Basin
Installation

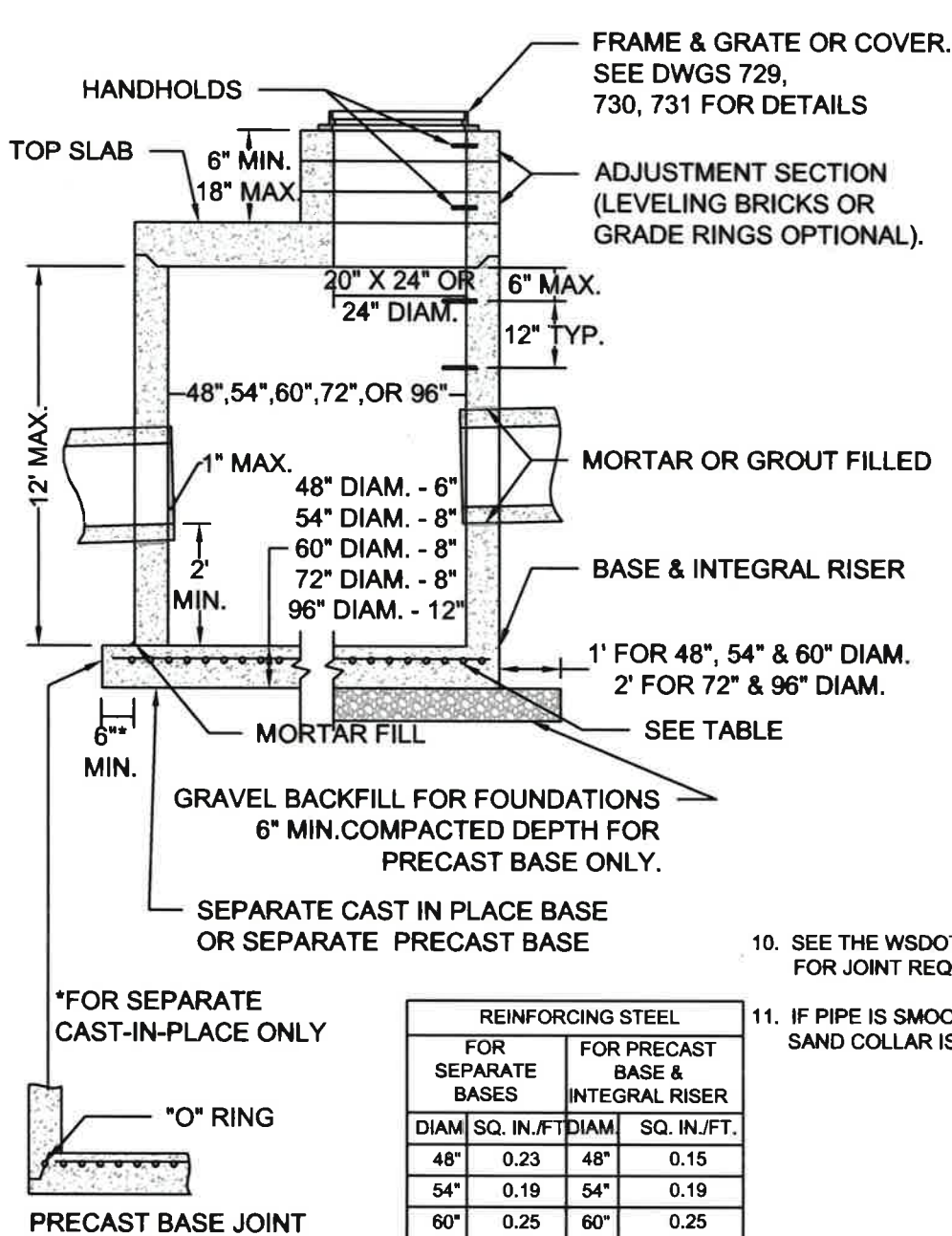


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REINFORCING STEEL			
FOR SEPARATE BASES		FOR PRECAST BASE & INTEGRAL RISER	
DIAM	SQ. IN./FT.	DIAM	SQ. IN./FT.
48"	0.23	48"	0.15
54"	0.19	54"	0.19
60"	0.25	60"	0.25
72"	0.35	72"	0.24
96"	0.39	96"	0.29

NOTES:


- CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M199) AND ASTM C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
- HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3" MIN. CLEARANCE. STEPS IN CATCH BASIN SHALL HAVE 6" MIN. CLEARANCE. SEE STND DWG 709, CATCH BASIN DETAILS. HANDHOLDS SHALL BE PLACED IN ALTERNATING GRADE RINGS OR LEVELING BRICK COURSE WITH A MIN. OF ONE HANDHOLD BETWEEN THE LAST STEP AND TOP OF THE MANHOLE.
- ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
- PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2" MIN. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT. PIPES SHALL BE INSTALLED ONLY IN FACTORY KNOCKOUTS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- KNOCKOUT OR CUTOUT HOLE SIZE SHALL EQUAL PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS. MAX. HOLE SIZE SHALL BE 36" FOR 48" CATCH BASIN, 42" FOR 54" C.B., 48" FOR 60" C.B., 60" FOR 72" C.B., 84" FOR 96" C.B. MIN. DISTANCE BETWEEN HOLES SHALL BE 8" FOR 48", 54", AND 60" C.B.; 12" FOR 72" AND 96" C.B.
- CATCH BASIN FRAMES AND GRATES OR COVERS SHALL BE IN ACCORDANCE WITH DWGS 729, 730, & 731 AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION A-A-60005. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
- ALL BASE REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MIN. CLEARANCE.
- MIN. SOIL BEARING VALUE SHALL EQUAL 3,300 POUNDS PER SQUARE FOOT.
- FOR DETAILS SHOWING LADDER, STEPS, HANDRAILS AND TOP SLABS, SEE STND DWG 709.
- SEE THE WSDOT STANDARD SPECIFICATIONS SEC. 7-05.3 FOR JOINT REQUIREMENTS.
- IF PIPE IS SMOOTH WALL PLASTIC, NOT CONCRETE, A SAND COLLAR IS REQUIRED.

708

Catch Basin Type 2


-

48", 54", 60", 72" & 96"

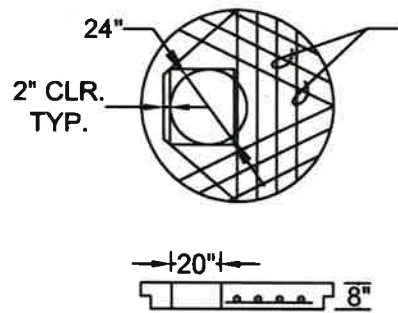


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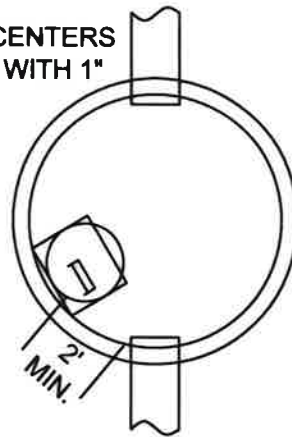


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#4 BARS @ 6" CENTERS
BOTTOM FACE WITH 1"
MIN. COVER

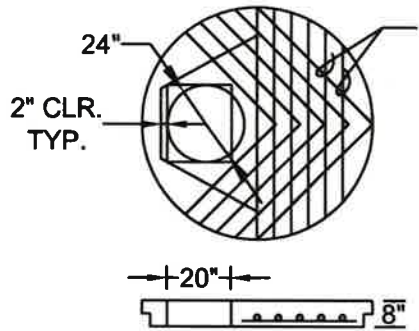
48", 54" & 60" TOP SLAB



TYPICAL ORIENTATION
FOR ACCESS AND STEPS

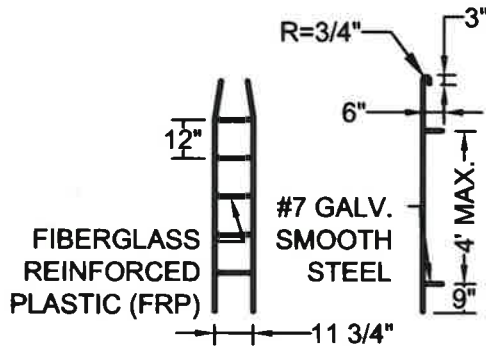
NOTES:

1. PROPRIETARY CATCH BASIN HANDHOLDS AND STEPS ARE ACCEPTABLE, PROVIDED THAT THEY CONFORM TO SEC. R, ASTM C478, AASHTO M-199 AND MEET ALL WISHA REQUIREMENTS.
2. CATCH BASIN STEP/HANDHOLD LEGS SHALL BE PARALLEL OR APPROXIMATELY RADIAL AT THE OPTION OF THE MANUFACTURER, EXCEPT THAT ALL STEPS IN ANY CATCH BASIN SHALL BE SIMILAR. PENETRATION OF OUTER WALL BY A LEG IS PROHIBITED.
3. HANDHOLDS AND STEPS SHALL HAVE "DROP" RUNGS AS SHOWN ON DETAIL OR PROTUBERANCES TO PREVENT SIDEWAYS SLIP.
4. SLAB OPENING MAY BE 24" X 20" OR 24" DIAM.
5. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497.
6. LADDERS OR STEPS SHALL EXTEND TO WITHIN 16" OF BOTTOM OF CATCH BASIN.
7. HANGING LADDERS SHALL BE PERMANENTLY FASTENED AT TOP BY HANGING ON STEP OR BY BOLTING OR EMBEDDING IN CONCRETE. EACH SHALL BE EMBEDDED AT BOTTOM IN BASE.
8. ADDITIONAL SAFETY FEATURES MAY BE REQUIRED.

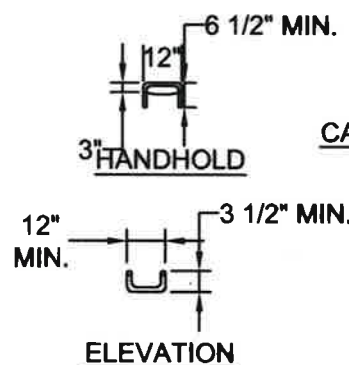


#5 BARS @ 6" CENTERS
BOTTOM FACE WITH 1"
MIN. COVER

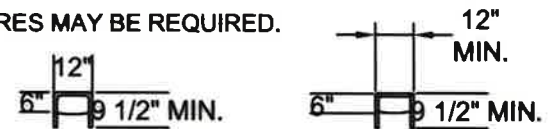
72" TOP SLAB



PREFABRICATED LADDER

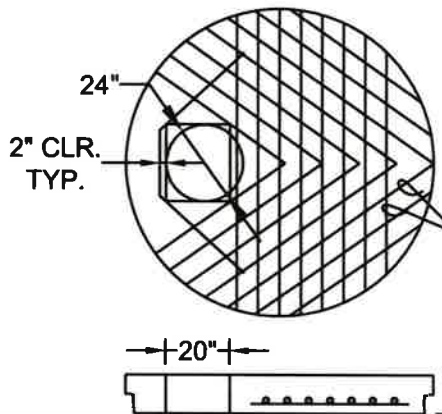


ELEVATION



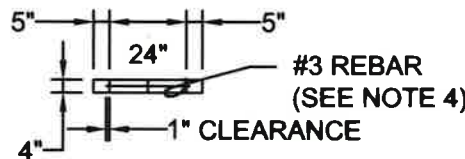
CATCH BASIN STEP

PLAN



#6 BARS @ 7" CENTERS
BOTTOM FACE WITH 1"
MIN. COVER

96" TOP SLAB



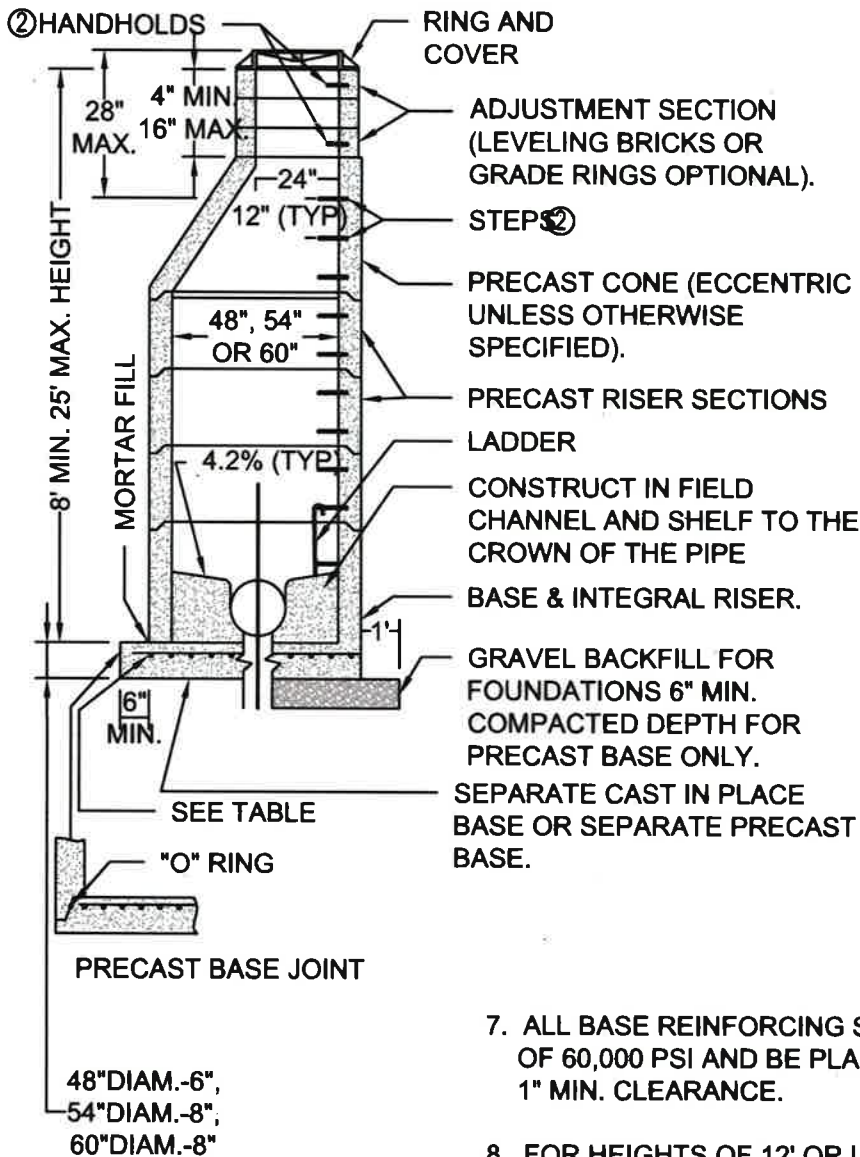
GRADE RING

709
Catch Basin -
Type 2 Details

Public Works

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April 2017



NOTES:

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
- ② HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3" MIN. CLEARANCE. STEPS IN MANHOLE SHALL HAVE 6" MIN. CLEARANCE. SEE STND DWG 716, "MANHOLE DETAILS." HANDHOLDS SHALL BE PLACED IN ALTERNATING GRADE RINGS OR LEVELING BRICK COURSE WITH A MIN. OF ONE HAND HOLD BETWEEN THE LAST STEP AND THE TOP OF THE MANHOLE.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000. ALL PRECAST CONCRETE SHALL BE CLASS 4000. NON-REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE CLASS 3000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2" MIN. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT. PIPES SHALL BE INSTALLED ONLY IN FACTORY KNOCKOUTS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. KNOCKOUT OR CUTOUT HOLE SIZE SHALL EQUAL PIPE OUTER DIAM. PLUS MANHOLE WALL THICKNESS. MAX. HOLE SIZE SHALL BE 36" FOR 48" MANHOLE, 42" FOR 54" MANHOLE, 48" FOR 60" M.H. MIN. DISTANCE BETWEEN HOLES SHALL BE 8".
6. MANHOLE RINGS AND COVERS SHALL MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION A-A-60005. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.

7. ALL BASE REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MIN. CLEARANCE.
8. FOR HEIGHTS OF 12' OR LESS, MIN. SOIL BEARING VALUE SHALL EQUAL 3,300 POUNDS PER SQUARE FOOT. FOR HEIGHTS OVER 12', MIN. SOIL BEARING VALUE SHALL EQUAL 3,800 POUNDS PER SQUARE FOOT.
9. FOR DETAILS SHOWING GRADE RING, LADDER, STEPS, HANDHOLDS, AND TOP SLABS, SEE STND DWG 716, "MANHOLE DETAILS".
10. SEE THE WSDOT STANDARD SPECIFICATIONS SEC. 7-05.3 FOR JOINT REQUIREMENTS.

REINFORCING STEEL			
FOR SEPARATE BASES		FOR PRECAST BASE & INTEGRAL RISER	
DIAM.	SQ. IN./FT.	DIAM.	SQ. IN./FT.
48"	0.23	48"	0.15
54"	0.19	54"	0.19
60"	0.25	60"	0.25

712

Manhole Type 1 - 48", 54" & 60"



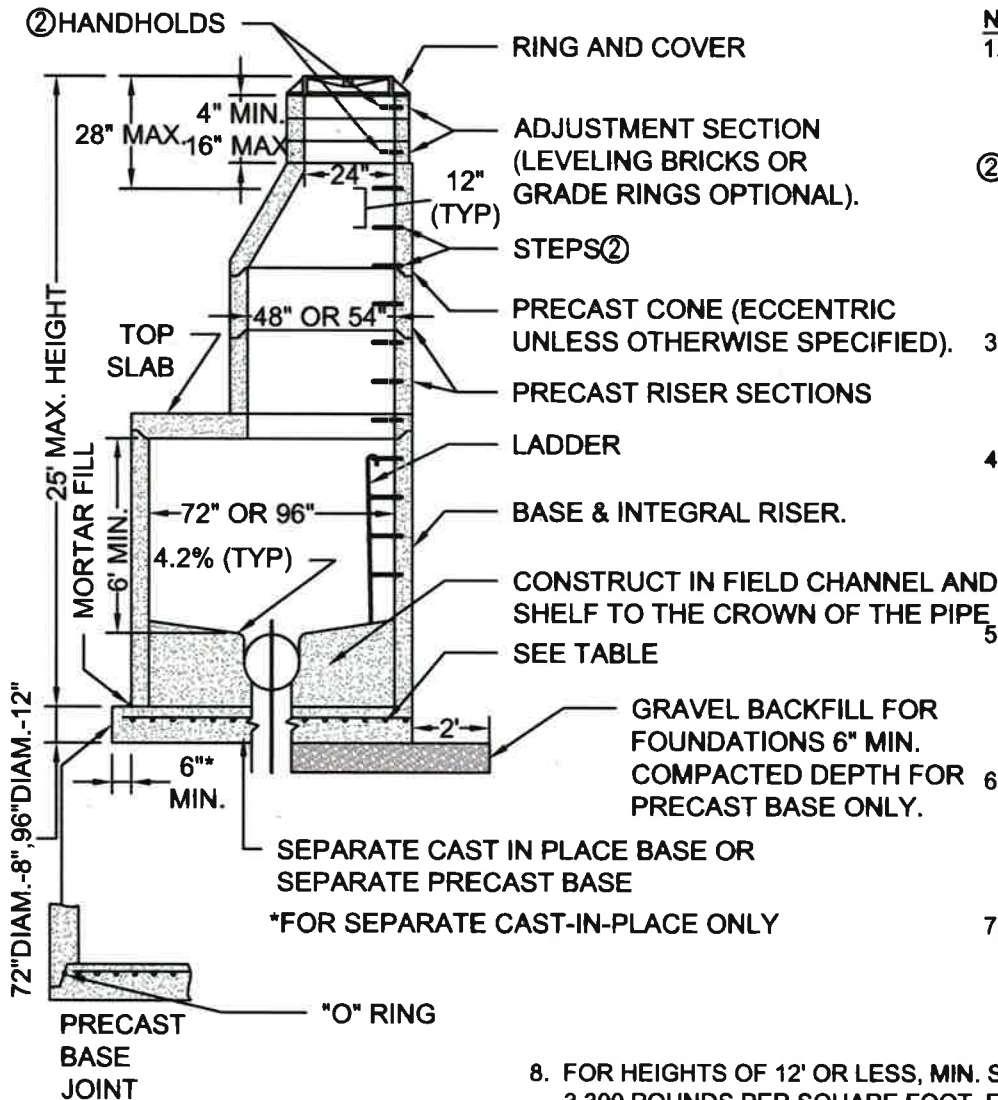
CITY OF SHORELINE
Public Works



TRACIA JUREK
Professional Engineer
4/19/17

NOT TO SCALE

Revision Date
April 2017



NOTES:

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3" MIN. CLEARANCE. STEPS IN MANHOLE SHALL HAVE 6" MIN. CLEARANCE. SEE STND DWG 716, "MANHOLE DETAILS." HANDHOLDS SHALL BE PLACED IN ALTERNATING GRADE RINGS OR LEVELING BRICK COURSE WITH A MIN. OF ONE HAND HOLD BETWEEN THE LAST STEP AND THE TOP OF THE MANHOLE.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000. ALL PRECAST CONCRETE SHALL BE CLASS 4000. NON-REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE CLASS 3000.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2" MIN. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT. PIPES SHALL BE INSTALLED ONLY IN FACTORY KNOCKOUTS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. KNOCKOUT OR CUTOUT HOLE SIZE SHALL EQUAL PIPE OUTER DIAM. PLUS MANHOLE WALL THICKNESS. MAX. HOLE SIZE SHALL BE 60" FOR 72" MANHOLE, 84" FOR 96" MANHOLE. MIN. DISTANCE BETWEEN HOLES SHALL BE 12".
6. MANHOLE RINGS AND COVERS SHALL MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION A-A-60005. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
7. ALL BASE REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MIN. CLEARANCE.

8. FOR HEIGHTS OF 12' OR LESS, MIN. SOIL BEARING VALUE SHALL EQUAL 3,300 POUNDS PER SQUARE FOOT. FOR HEIGHTS OVER 12', MIN. SOIL BEARING VALUE SHALL EQUAL 3,800 POUNDS PER SQUARE FOOT.
9. FOR DETAILS SHOWING GRADE RING, LADDER, STEPS, HANDHOLDS, AND TOP SLABS, SEE STND DWG 716, "MANHOLE DETAILS".
10. SEE THE WSDOT STANDARD SPECIFICATIONS SEC. 7-05.3 FOR JOINT REQUIREMENTS.

REINFORCING STEEL			
FOR SEPARATE BASES		FOR PRECAST BASE & INTEGRAL RISER	
DIAM.	SQ. IN./FT.	DIAM.	SQ. IN./FT.
72"	0.35	72"	0.24
96"	0.39	96"	0.29

713

Manhole Type 2 -

72" & 96"

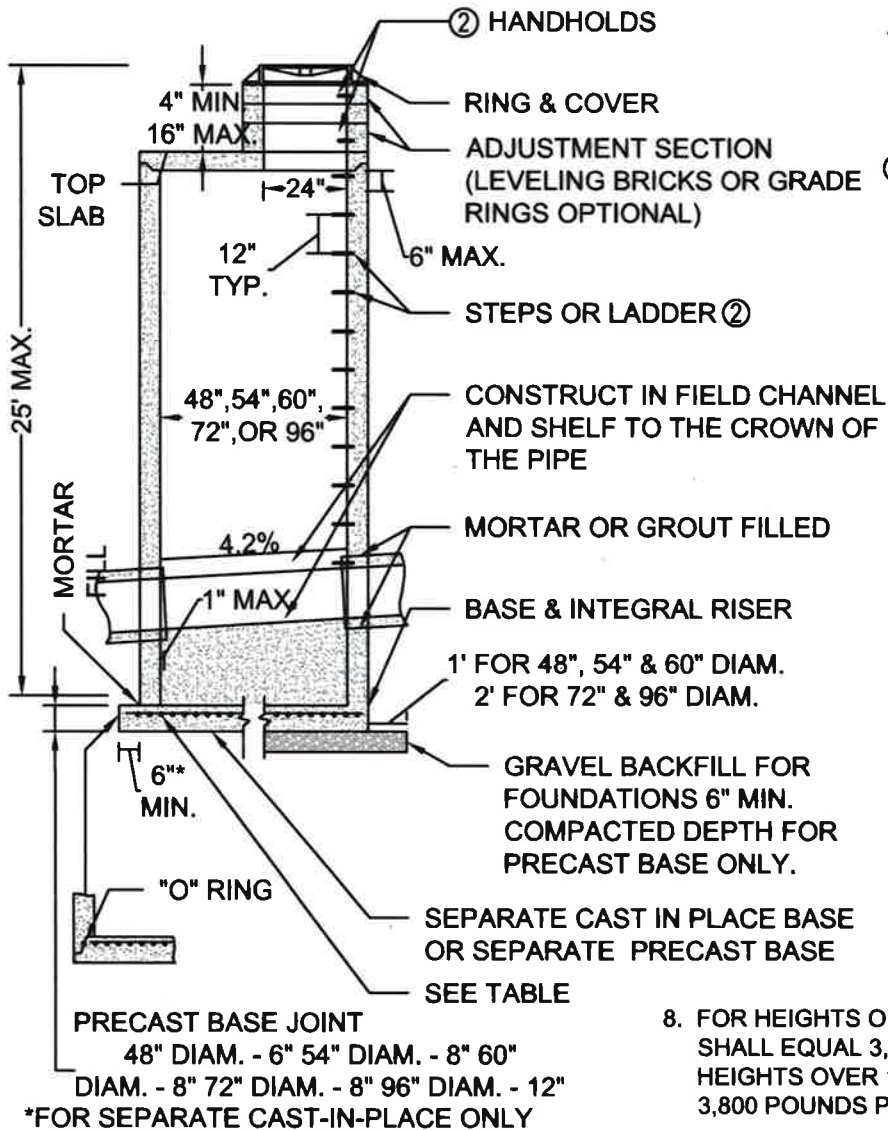


CITY OF SHORELINE
Public Works



NOT TO SCALE

Revision Date
April 2017



REINFORCING STEEL			
FOR SEPARATE BASES		FOR PRECAST BASE & INTEGRAL RISER	
DIAM.	SQ. IN./FT.	DIAM.	SQ. IN./FT.
48"	0.23	48"	0.15
54"	0.19	54"	0.19
60"	0.25	60"	0.25
72"	0.35	72"	0.24
96"	0.39	96"	0.29

NOTES:

- MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
- HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3" MIN. CLEARANCE. STEPS IN MANHOLE SHALL HAVE 6" MIN. CLEARANCE. SEE STND DWG 716, "MANHOLE DETAILS." HANDHOLDS SHALL BE PLACED IN ALTERNATING GRADE RINGS OR LEVELING BRICK COURSE WITH A MIN. OF ONE HAND HOLD BETWEEN THE LAST STEP AND THE TOP OF THE MANHOLE.
- ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000. ALL PRECAST CONCRETE SHALL BE CLASS 4000. NON-REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE CLASS 3000.
- PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF 2" MIN. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT. PIPES SHALL BE INSTALLED ONLY IN FACTORY KNOCKOUTS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- KNOCKOUT OR CUTOUT HOLE SIZE SHALL EQUAL PIPE OUTER DIAM. PLUS MANHOLE WALL THICKNESS. MAX. HOLE SIZE SHALL BE 36" FOR 48" M.H., 42" FOR 54" M.H., 48" FOR 60" M.H., 60" FOR 72" M.H., 84" FOR 96" M.H. MIN. DISTANCE BETWEEN HOLES SHALL BE 8" FOR 48", 54", AND 60" M.H., 12" FOR 72" AND 96" M.H.
- MANHOLE RINGS AND COVERS SHALL MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION A-A-60005. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
- ALL BASE REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MIN. CLEARANCE.
- FOR HEIGHTS OF 12' OR LESS, MIN. SOIL BEARING VALUE SHALL EQUAL 3,300 POUNDS PER SQUARE FOOT. FOR HEIGHTS OVER 12', MIN. SOIL BEARING VALUE SHALL EQUAL 3,800 POUNDS PER SQUARE FOOT.
- FOR DETAILS SHOWING GRADE RING, LADDER, STEPS, HANDHOLDS, AND TOP SLABS, SEE STND DWG 716, "MANHOLE DETAILS".
- SEE THE WSDOT STANDARD SPECIFICATIONS SEC. 7-05.3 FOR JOINT REQUIREMENTS.

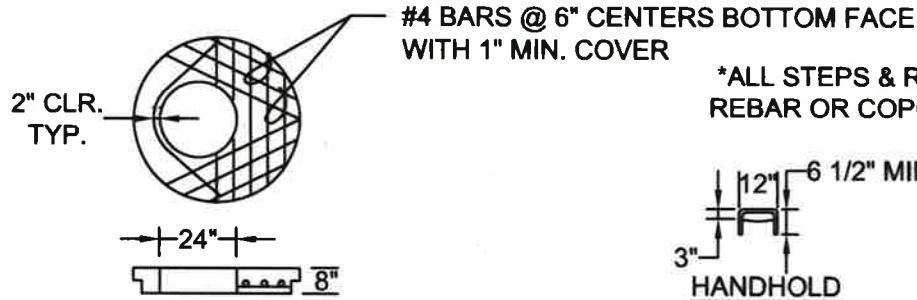
714
Manhole Type 3 -
48", 52", 60", 72" &
96"



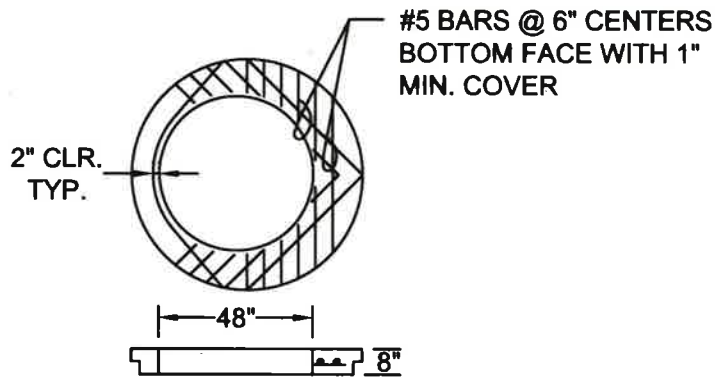

Public Works

NOT TO SCALE

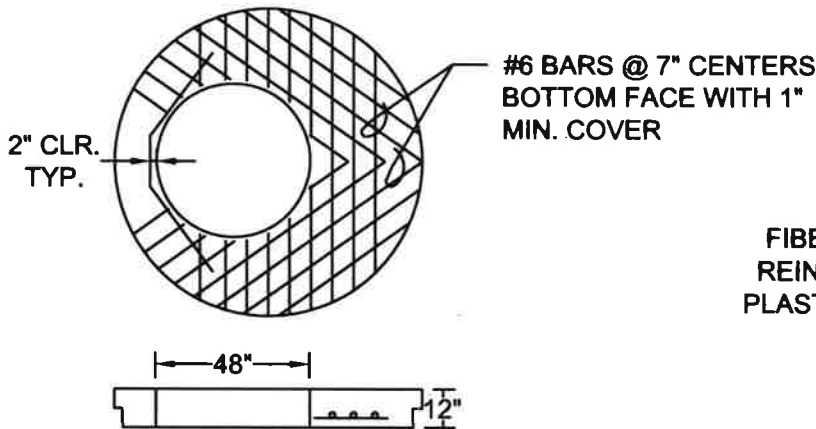
Revision Date
April 2017



48", 54", & 60" TOP SLAB

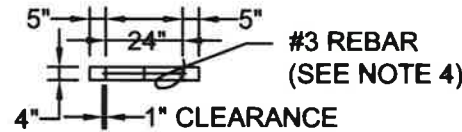
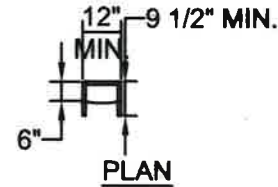
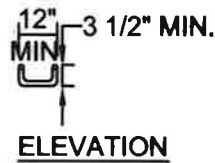
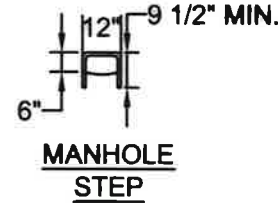


72" TOP SLAB

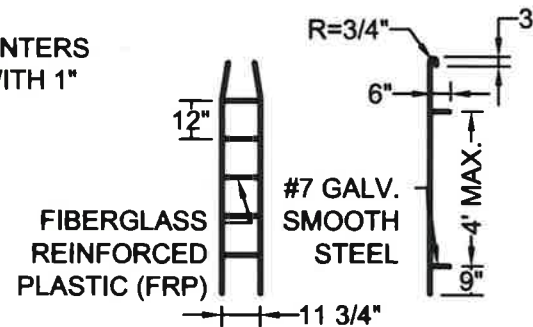


96" TOP SLAB

*ALL STEPS & RUNGS 1" DIAM. GALV. REBAR OR COPOLYMER PROPYLENE.



GRADE RING

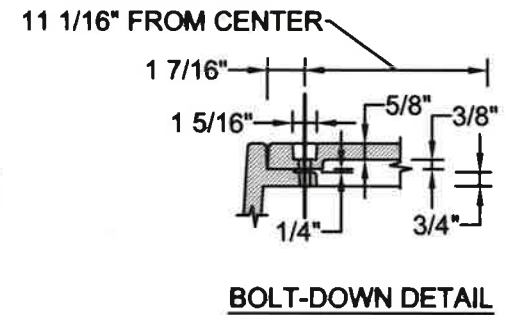
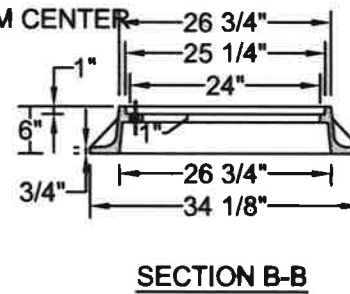
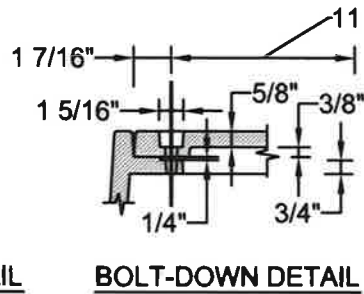
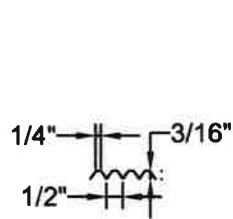
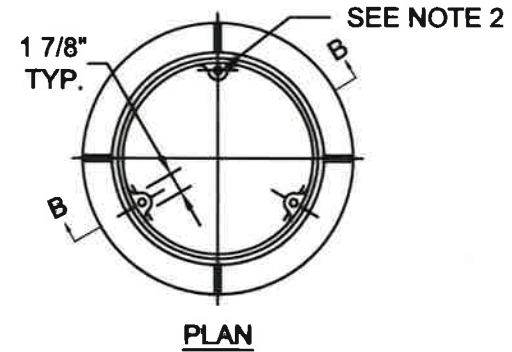
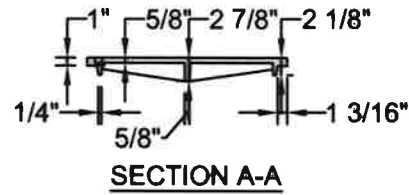
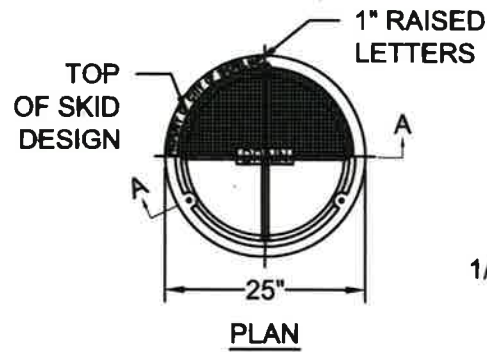


PREFABRICATED LADDER

NOTES:



1. PROPRIETARY MANHOLE HANDHOLDS AND STEPS ARE ACCEPTABLE, PROVIDED THAT THEY CONFORM TO SEC. R, ASTM C478, AASHTO M199 AND MEET ALL WISHA REQUIREMENTS.
2. MANHOLE STEP/HANDHOLD LEGS SHALL BE PARALLEL OR APPROXIMATELY RADIAL AT THE OPTION OF THE MANUFACTURER, EXCEPT THAT ALL STEPS IN ANY MANHOLE SHALL BE SIMILAR. PENETRATION OF OUTER WALL BY A LEG IS PROHIBITED.
3. HANDHOLDS AND STOPS SHALL HAVE "DROP" RUNGS OR PROTUBERANCES TO PREVENT SIDEWAYS SLIP.
4. LADDERS OR STEPS SHALL EXTEND TO WITHIN 16" OF BOTTOM OF MANHOLE.
5. HANGING LADDERS SHALL BE PERMANENTLY FASTENED AT TOP BY HANGING ON STEP OR BY BOLTING OR EMBEDDING IN CONCRETE. EACH SHALL BE EMBEDDED AT BOTTOM IN BASE.
6. ADDITIONAL SAFETY FEATURES MAY BE REQUIRED.

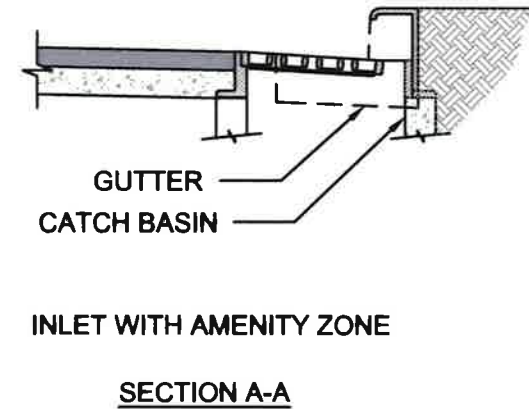
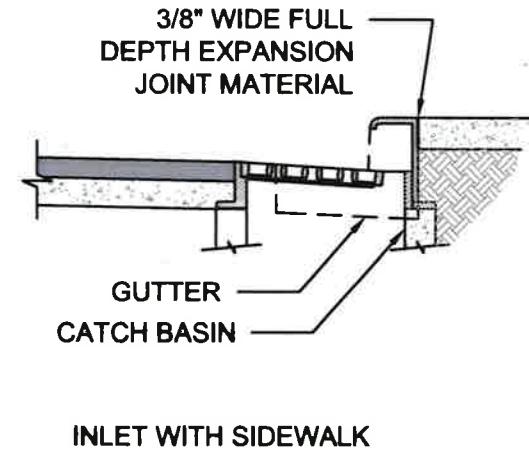
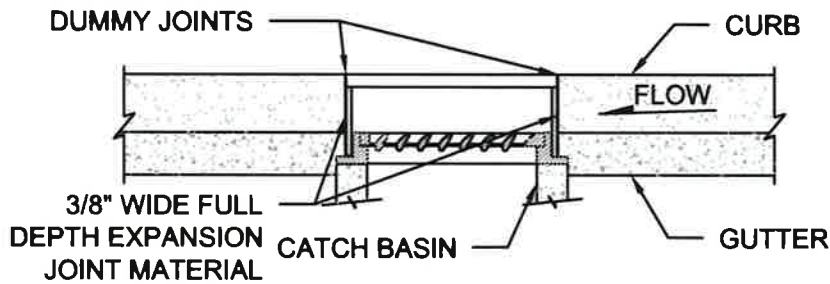
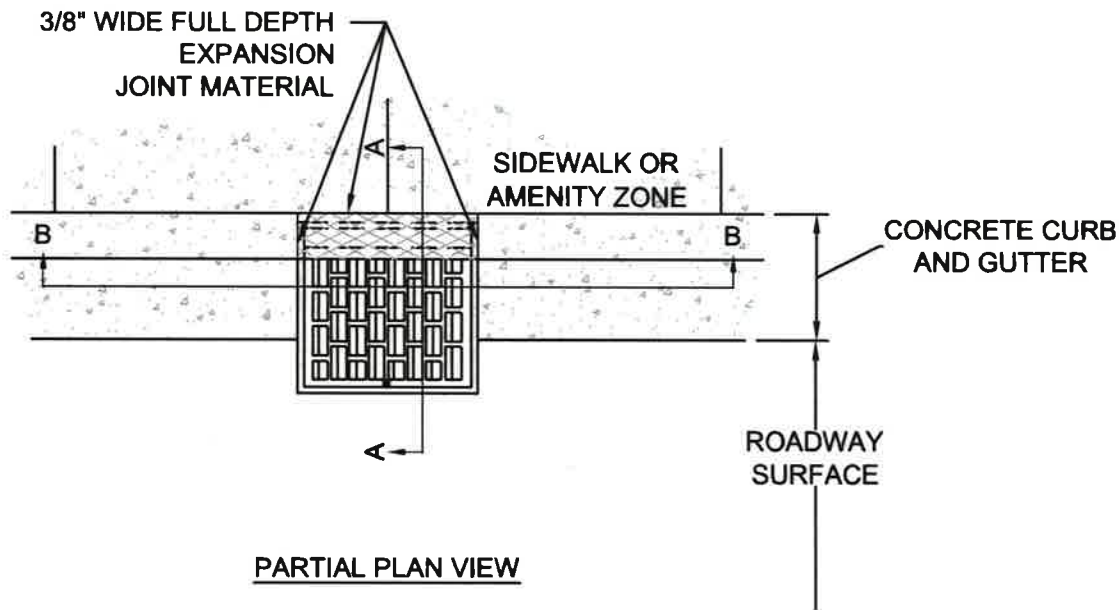
716 Manhole Details	
 CITY OF SHORELINE Public Works	 TERESA J. JOHNSON CITY OF SHORELINE PROFESSIONAL ENGINEER
NOT TO SCALE	Revision Date April 2017



NOTES:

1. USE WITH THREE LOCKING BOLTS 5/8"-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2" LONG. DRILL HOLES SPACED 120° AT 11 1/16" RADIUS.
2. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06 OR CAST IRON ASTM A48 CLASS 30.

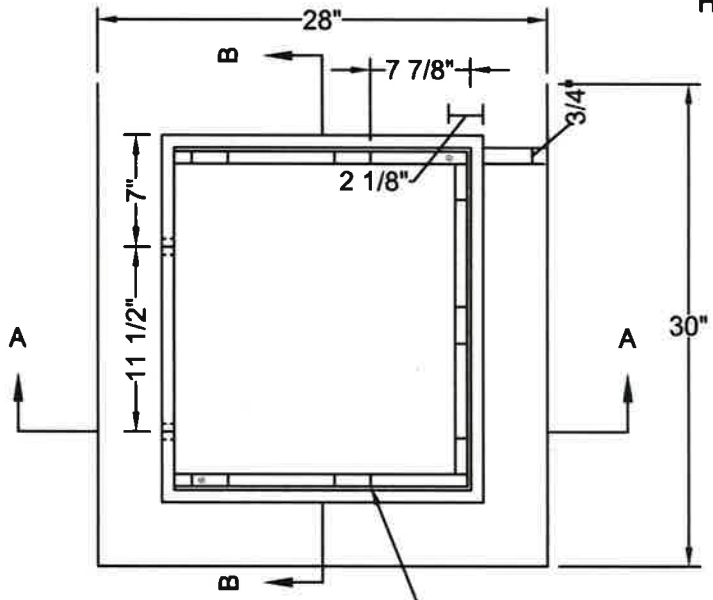
<h1 style="margin: 0;">720</h1> <h2 style="margin: 0;">Locking Manhole Cover and Installation</h2>	
 CITY OF SHORELINE Public Works	 PROFESSIONAL ENGINEER APRIL 2017
NOT TO SCALE	Revision Date April 2017



NOTE:

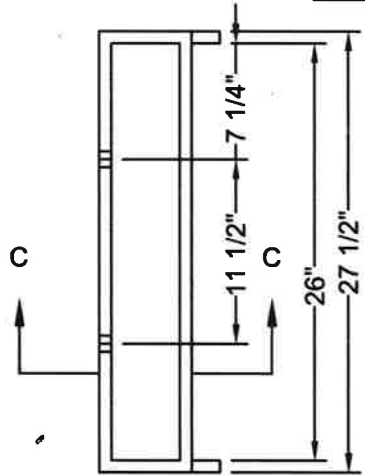
1. SET TO GRADE AND CONSTRUCT ROAD AND GUTTER TO BE FLUSH WITH F
2. SEE STND DWGS 726 & 729 FOR TYPES OF GRATE USE.
3. SEE STND DWG 724 FOR FRAME DETAIL.
4. SEE STND DWGS 707 FOR CATCH BASIN INSTALLATION.
5. INSTALL CITY PROVIDED METAL MEDALLION (SEE STND DETAIL 725).

<h2 style="margin: 0;">723</h2> <h3 style="margin: 0;">Through-Curb Inlet & Vertical Curb Installation</h3>	
<p style="font-size: small;">CITY OF SHORELINE Public Works</p>	<p style="font-size: x-small;">PATRICIA JURKOVIC REGISTERED PROFESSIONAL ENGINEER NO. 119112</p>
NOT TO SCALE	Revision Date April 2017



PLAN

LEVELING PAD
7-1/8" X 3/4" X 2 1/4"
(TYP.)

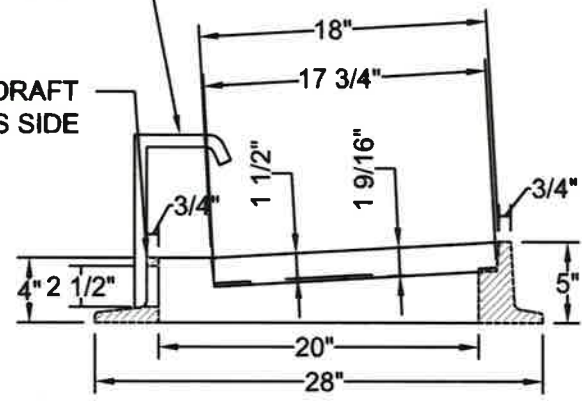


HOOD DETAIL

2 - 1" DIAM. HOLES FOR
3/4" BOLT, WASHER
& NUT, SEE NOTE 4

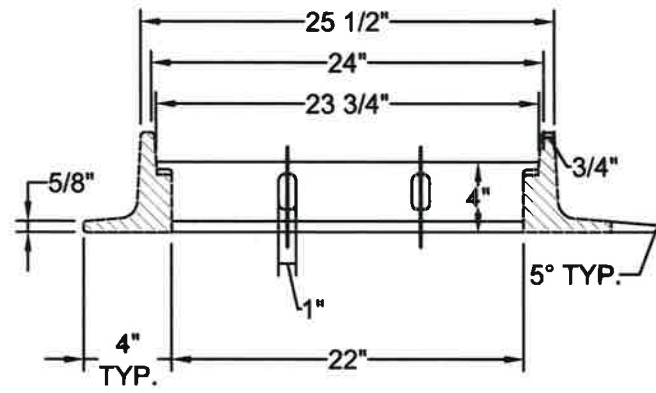
HOOD ATTACHES
AS SHOWN

MIN. DRAFT
ON THIS SIDE



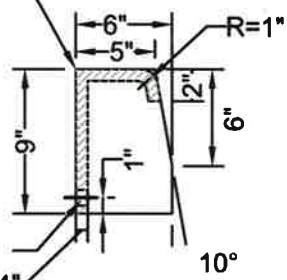
SECTION A-A

= 3 1/2"



SECTION B-B

SEE
NOTE 3

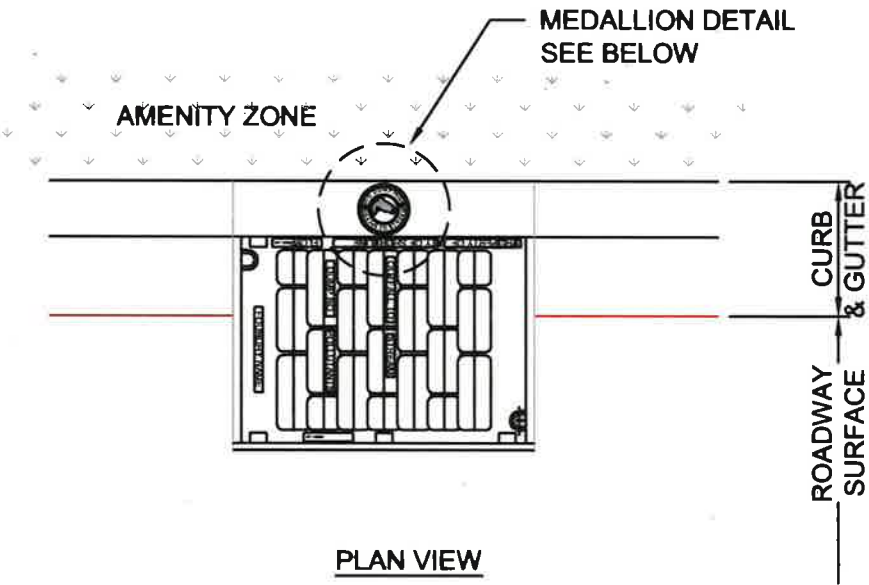


SECTION C-C

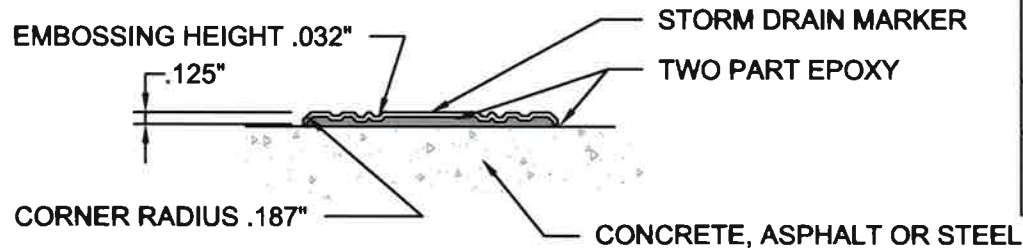
NOTES:

1. MATERIAL IS CAST IRON
ASTM A48 CLASS 30.
2. SEE STND DWG 726 FOR
VANED GRATE.
3. PATTERN ON TOP SURFACE
OF HOOD SHALL BE 3/16"
NON-SKID.
4. BOLT, WASHER, & NUT SHALL
BE GALVANIZED OR EROSION
RESISTANT.
5. INSTALL CITY PROVIDED
METAL MEDALLION (SEE
STND DETAIL 725).

<h2 style="margin: 0;">724</h2> <h3 style="margin: 0;">Through-Curb Inlet Frame</h3>	
<p style="font-size: small;">CITY OF SHORELINE Public Works</p>	<p style="font-size: x-small;">TRICIA JUBINER CITY OF SHORELINE PUBLIC WORKS APRIL 2017</p>
NOT TO SCALE	Revision Date April 2017



PLAN VIEW



SIDE VIEW



4"

TOP VIEW

NOTE:

1. WIRE BRUSH SURFACE, BLOW DUST, APPLY EPOXY AND PRESS DOWN.
2. PLACE MEDALLION ON TOP SURFACE OF CURB.
3. IN THE EVENT OF THAT THERE IS NO CURB, THE LOCATION WILL BE DETERMINED BY THE CITY.

FINISH		
UV BAKED ENAMEL OR NATURAL FINISH	1-2 COLOR OPTION	
MATERIAL	THICKNESS	WEIGHT
304 ANNEALED STAINLESS STEEL	.062"	.218 LBS.
BRASS	.062"	.250 LBS.
ALUMINUM	.062"	.082 LBS.
ANODIZED ALUMINUM	.062"	.082 LBS.
OPTIONS		
SQUARE HOLE:	1/4" X 1/4"	
SERIAL NOS.:	.250" HIGH, MAX. 6 DIGITS	

725 Storm Drain Medallion Installation



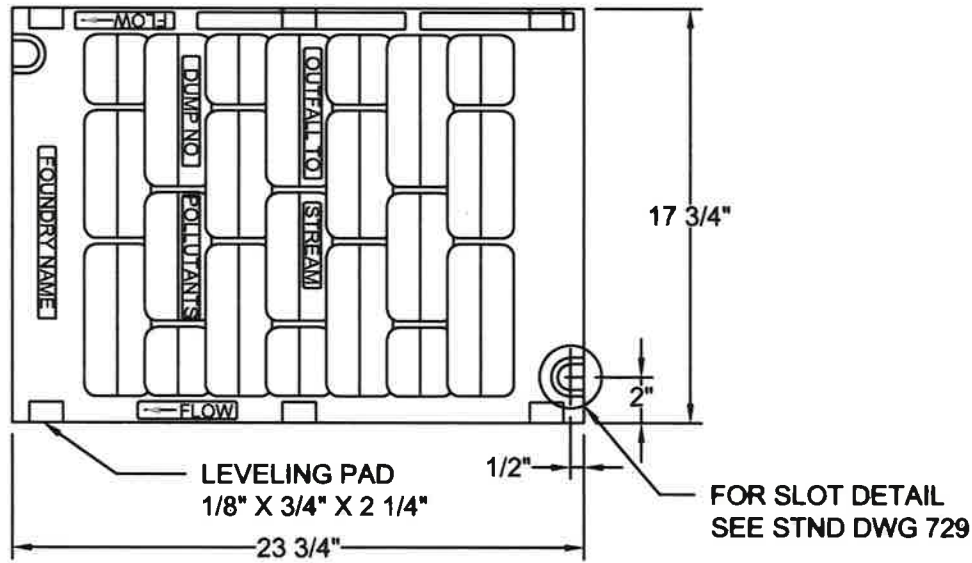
CITY OF SHORELINE
Public Works



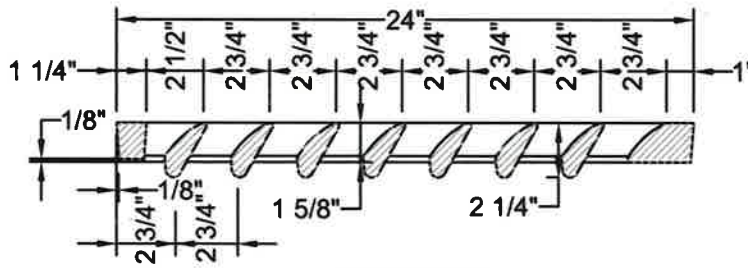
Patricia Justice
Professional Engineer

NOT TO SCALE

Revision Date
April 2017



PLAN

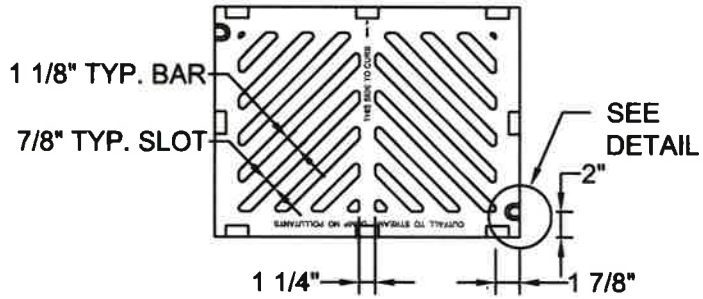


ELEVATION

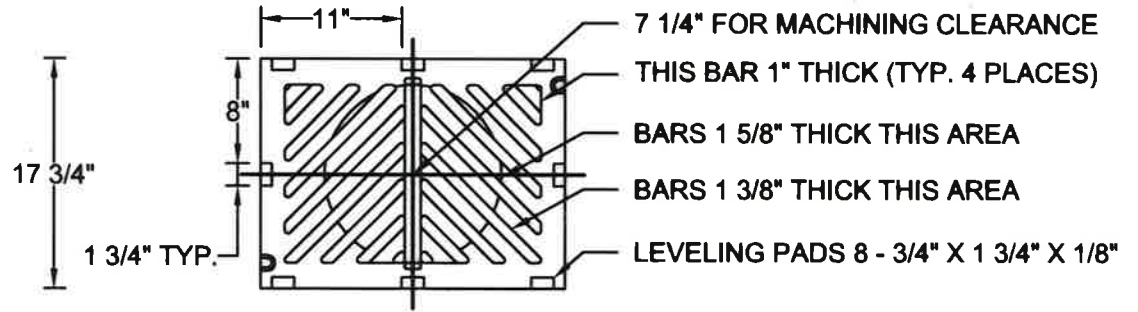
NOTES:

1. USE WITH TWO LOCKING BOLTS 5/8"-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2" LONG.
2. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06.
3. "OUTFALL TO STREAM DUMP NO POLLUTANTS" MAY BE LOCATED ON THE BORDER AREA.
4. INSTALL CITY PROVIDED METAL MEDALLION (SEE STND DETAIL 725).
5. INSTALL A BI-DIRECTIONAL VANED GRATE AT LOCATIONS WHERE FLOWS ARE IN TWO DIRECTIONS. SEE WSDOT B-30.40-01.

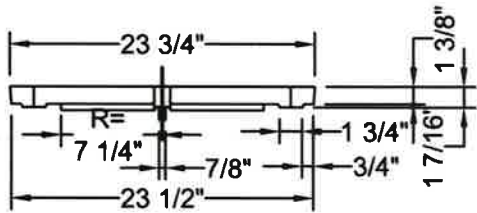
<h2 style="margin: 0;">726</h2> <h3 style="margin: 0;">Vaned Grate</h3>	
<p style="font-size: small; margin: 0;">CITY OF SHORELINE Public Works</p>	<p style="font-size: x-small; margin: 0;">PATRICIA JURMAN REGISTERED PROFESSIONAL ENGINEER 4/17/17</p>
<p style="font-size: x-small; margin: 0;">NOT TO SCALE</p>	<p style="font-size: x-small; margin: 0;">Revision Date April 2017</p>



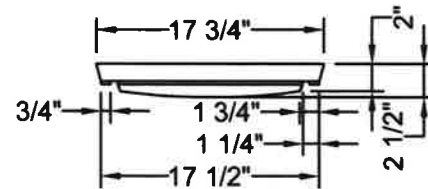
TOP VIEW



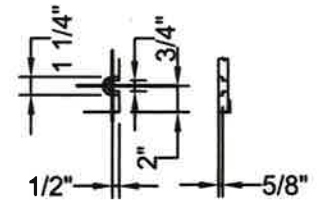
BOTTOM VIEW



SIDE VIEW



END VIEW



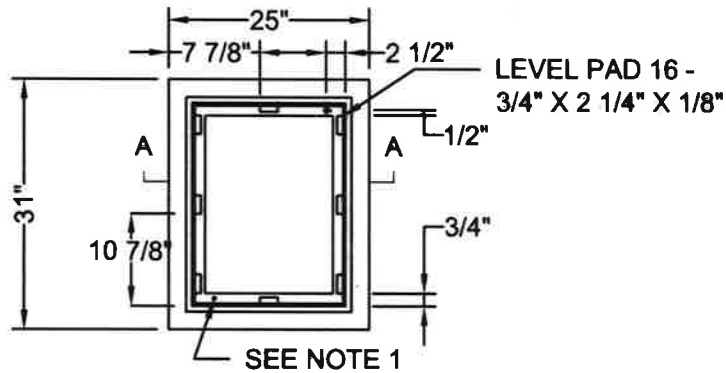
SLOT DETAIL

SEE NOTE ①

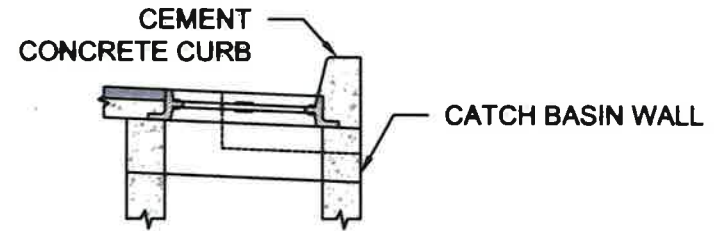
NOTES:

- ① SLOT FORMED AND RECESSED FOR 5/8"-11 NC X 2" SOCKET HEAD (ALLEN HEAD) CAP SCREW.
- 2. ALL CASTINGS SHALL HAVE A BITUMINOUS COATING.
- 3. GRATE SHALL BE CAST IRON PER ASTM A48 CLASS 30 UNLESS OTHERWISE SPECIFIED.
- 4. INSTALL CITY PROVIDED METAL MEDALLION (SEE STND DETAIL 725).

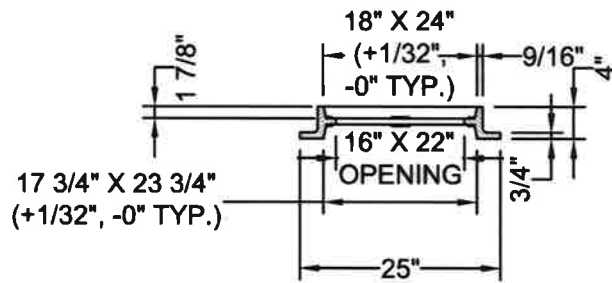
<h2 style="margin: 0;">729</h2> <h3 style="margin: 0;">Standard Grate</h3>	
<p style="font-size: small;">CITY OF SHORELINE Public Works</p>	<p style="font-size: small;">PATRICIA J. JENSEN LICENSED PROFESSIONAL ENGINEER NO. 10000 EXPIRES 12/31/17</p>
<p style="font-size: x-small;">NOT TO SCALE</p>	<p style="font-size: x-small;">Revision Date April 2017</p>



PLAN



CURB



SECTION A-A

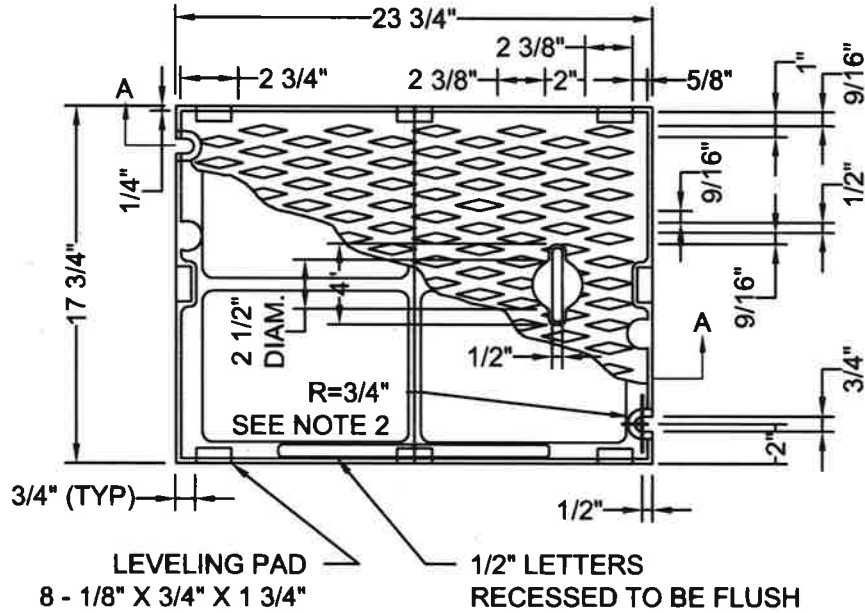


NO CURB

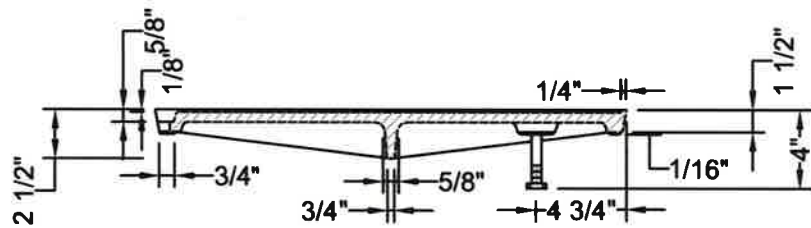
NOTES:

1. TWO LOCKING BOLTS 5/8"-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2" LONG WHEN USED WITH SOLID COVER (STND DWG 731) OR WHEN SPECIFIED BY ENGINEER.
2. FRAME MATERIAL IS CAST IRON PER ASTM A48 CLASS 30.
3. SET FRAME TO GRADE & CONSTRUCT ROAD & GUTTER TO BE FLUSH WITH FRAME.
4. INSTALL CITY PROVIDED METAL MEDALLION (SEE STND DETAIL 725).

<h2 style="margin: 0;">730</h2> <h3 style="margin: 0;">Standard Frame Installation</h3>	
<p style="font-size: small; margin: 0;">CITY OF SHORELINE</p> <p style="font-size: x-small; margin: 0;">Public Works</p>	<p style="font-size: x-small; margin: 0;">JERICA JARAMA REGISTERED PROFESSIONAL ENGINEER NO. 119117</p>
<p style="font-size: x-small; margin: 0;">NOT TO SCALE</p>	<p style="font-size: x-small; margin: 0;">Revision Date April 2017</p>



PLAN COVER

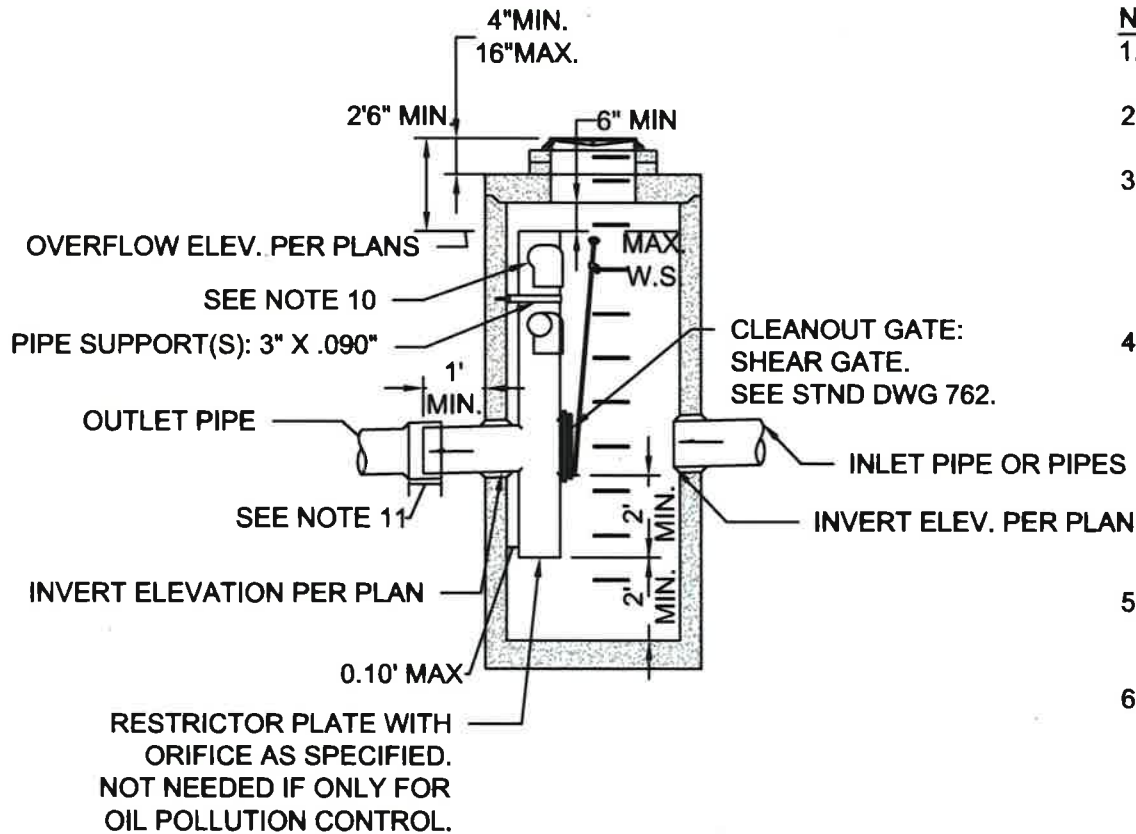


SECTION A-A

NOTES:

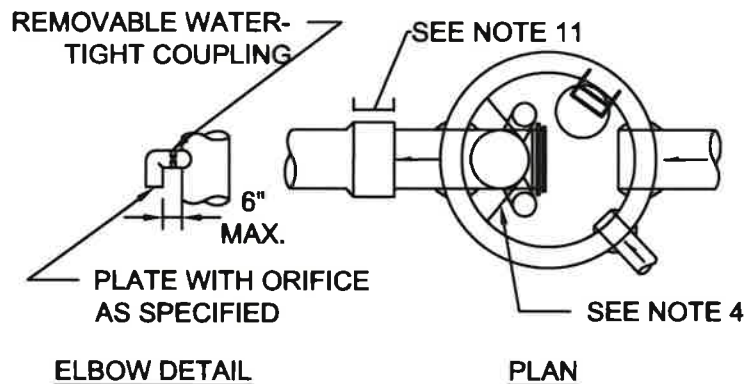
1. USE WITH FRAME (SEE STND DWG 730) DRILLED & TAPPED FOR LOCKING BOLTS.
2. FOR FRAME AND GRATES WITHIN THE TRAVEL LANE USE, FOUR LOCKING BOLTS.
3. USE WITH TWO LOCKING 5/8"-11 NC STAINLESS STEEL TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) CAP SCREWS 2" LONG.
4. MATERIAL IS CAST IRON PER ASTM A48 CLASS 30.

<h2 style="margin: 0;">731</h2> <h3 style="margin: 0;">Solid Cover</h3>	
 CITY OF SHORELINE Public Works	 PATRICIA JUSTICE PROFESSIONAL ENGINEER License No. 211717
NOT TO SCALE	Revision Date April 2017



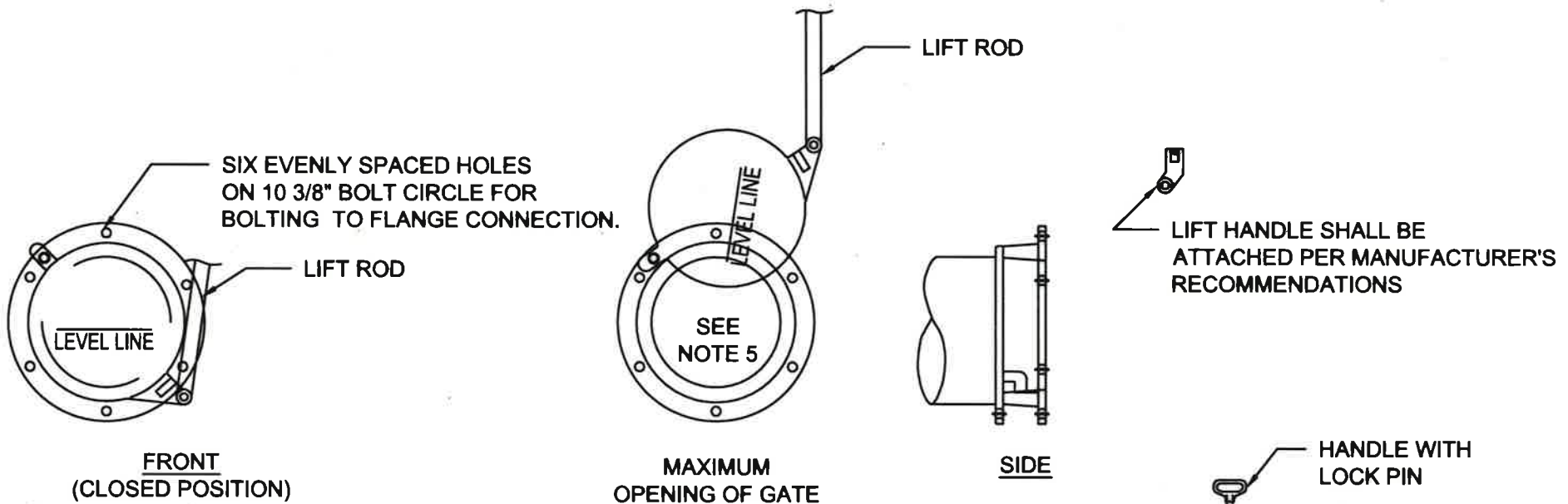
NOTES:

1. PIPE SIZES AND SLOPES: PER PLANS.
2. OUTLET CAPACITY: NOT LESS THAN COMBINED INLETS.
3. EXCEPT AS SHOWN OR NOTED, UNITS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS FOR CATCH BASIN TYPE 2, 54" MIN. DIAM.
4. PIPE SUPPORTS SHALL BE STAINLESS STEEL, AND BE ANCHORED AT 3' MAX. SPACING BY 5/8" DIAM. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED 2" IN WALL. ONE STRAP ABOVE AND BELOW OUTLET REQUIRED, INTERMEDIATE STRAPS REQUIRED FOR RESTRICTOR RISERS GREATER THAN 12' ABOVE OUTLET.
5. THE RESTRICTOR/SEPARATOR SHALL BE FABRICATED FROM .060" ALUMINUM, OR .064" ALUMINIZED STEEL.
6. OUTLET SHALL BE CONNECTED TO CULVERT OR STORM DRAIN WITH A STANDARD COUPLING BAND FOR CORRUGATED METAL PIPE, OR GROUTED INTO THE BELL OF CONCRETE PIPE.
7. THE VERTICAL RISER STEM OF THE RESTRICTOR/SEPARATOR SHALL BE THE SAME DIAM. AS THE HORIZONTAL OUTLET PIPE, WITH AN 8" MIN. DIAM.



9. IF METAL OUTLET PIPE CONNECTS TO CEMENT CONCRETE PIPE: OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS 1/4".
10. MULTI-ORIFICE ELBOWS MAY BE LOCATED AS SHOWN OR ALL ON ONE SIDE OF RISER TO ASSURE LADDER CLEARANCE.
11. BAND STRAP WITH GASKET.

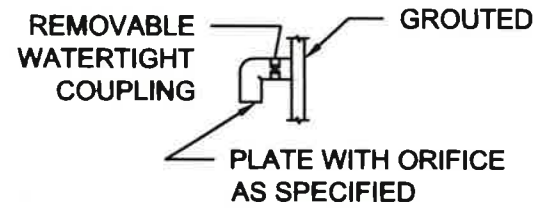
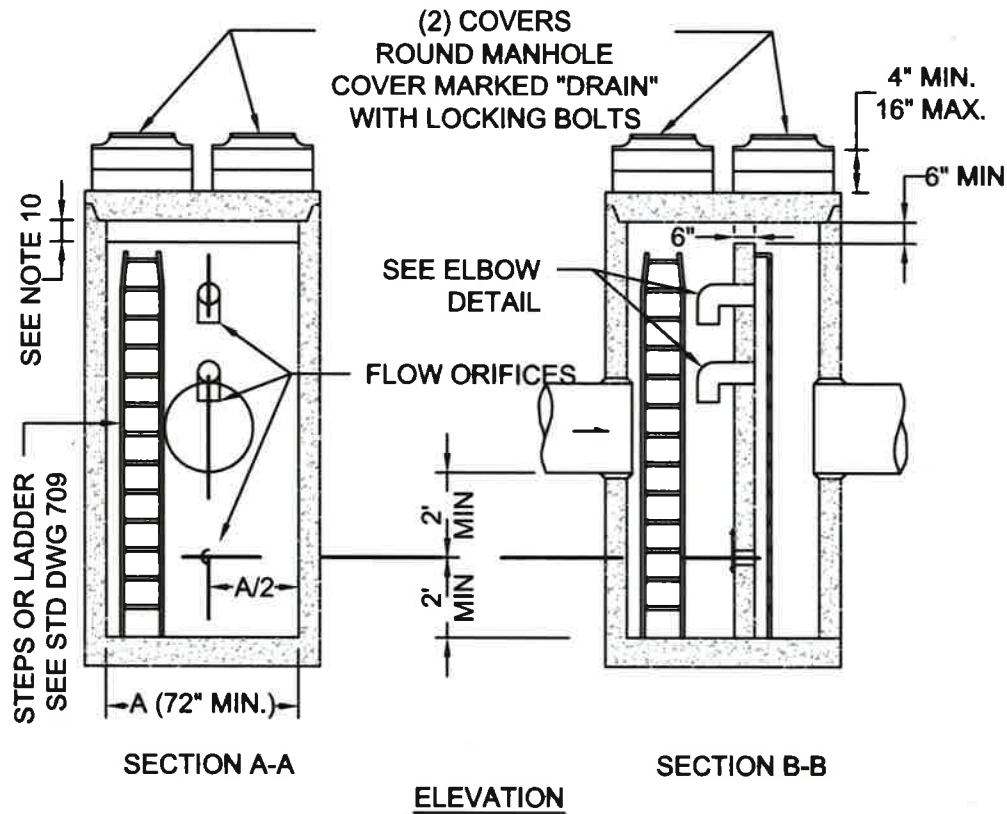
<h2 style="margin: 0;">761</h2> <h3 style="margin: 0;">Flow Restrictor (Tee)</h3>	
<p style="font-size: small;">CITY OF SHORELINE Public Works</p>	<p style="font-size: small;">PATRICIA JUSTICE REGISTERED PROFESSIONAL ENGINEER 419/17</p>
NOT TO SCALE	Revision Date April 2017



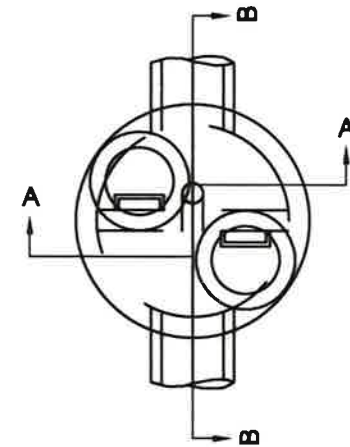
NOTES:

1. SHEAR GATE SHALL BE ALUMINUM ALLOY PER ASTM B-26-ZG-32a OR CAST IRON ASTM A48 CLASS 308 AS REQUIRED.
2. GATE SHALL BE 8" DIAMETER UNLESS OTHERWISE SPECIFIED.
3. GATE SHALL BE JOINED TO TEE SECTION BY BOLTING (THROUGH FLANGE) OR WELDED.
4. LIFT ROD: AS SPECIFIED BY MANUFACTURER WITH HANDLE EXTENDING TO WITHIN 1 FOOT OF COVER & ADJUSTABLE HOOK LOCK FASTENED TO FRAME OR UPPER HANDHOLD.
5. GATE SHALL NOT OPEN BEYOND THE CLEAR OPENING BY LIMITED HINGE MOVEMENT, STOP TAB, OR SOME OTHER DEVICE.
6. NEOPRENE RUBBER GASKET REQUIRED BETWEEN RISER MOUNTING FLANGE AND GATE FLANGE.
7. MATING SURFACES OF LID AND BODY TO BE MACHINED FOR PROPER FIT.
8. FLANGE MOUNTING BOLTS SHALL BE 3/8" DIAMETER STAINLESS STEEL.
9. ALTERNATIVE CLEANOUT/SHEAR GATES TO THE DESIGN SHOWN ARE ACCEPTABLE, PROVIDED THEY MEET THE MATERIAL SOECIFICATIONS ABOVE AND HAVE A SIX BOLT, 10 3/8" BOLT CIRCLE FOR BOLTING TO THE FLANGE CONNECTION.

<h2 style="margin: 0;">762</h2> <h3 style="margin: 0;">FROP-T Shear Gate</h3> <h4 style="margin: 0;">Detail</h4>	
<p style="font-size: small; margin: 0;">CITY OF SHORELINE Public Works</p>	<p style="font-size: small; margin: 0;">PATRICIA JUSTICE PROFESSIONAL ENGINEER 4/12/17</p>
<p style="font-size: x-small; margin: 0;">NOT TO SCALE</p>	<p style="font-size: x-small; margin: 0;">Revision Date April 2017</p>



ELBOW DETAIL

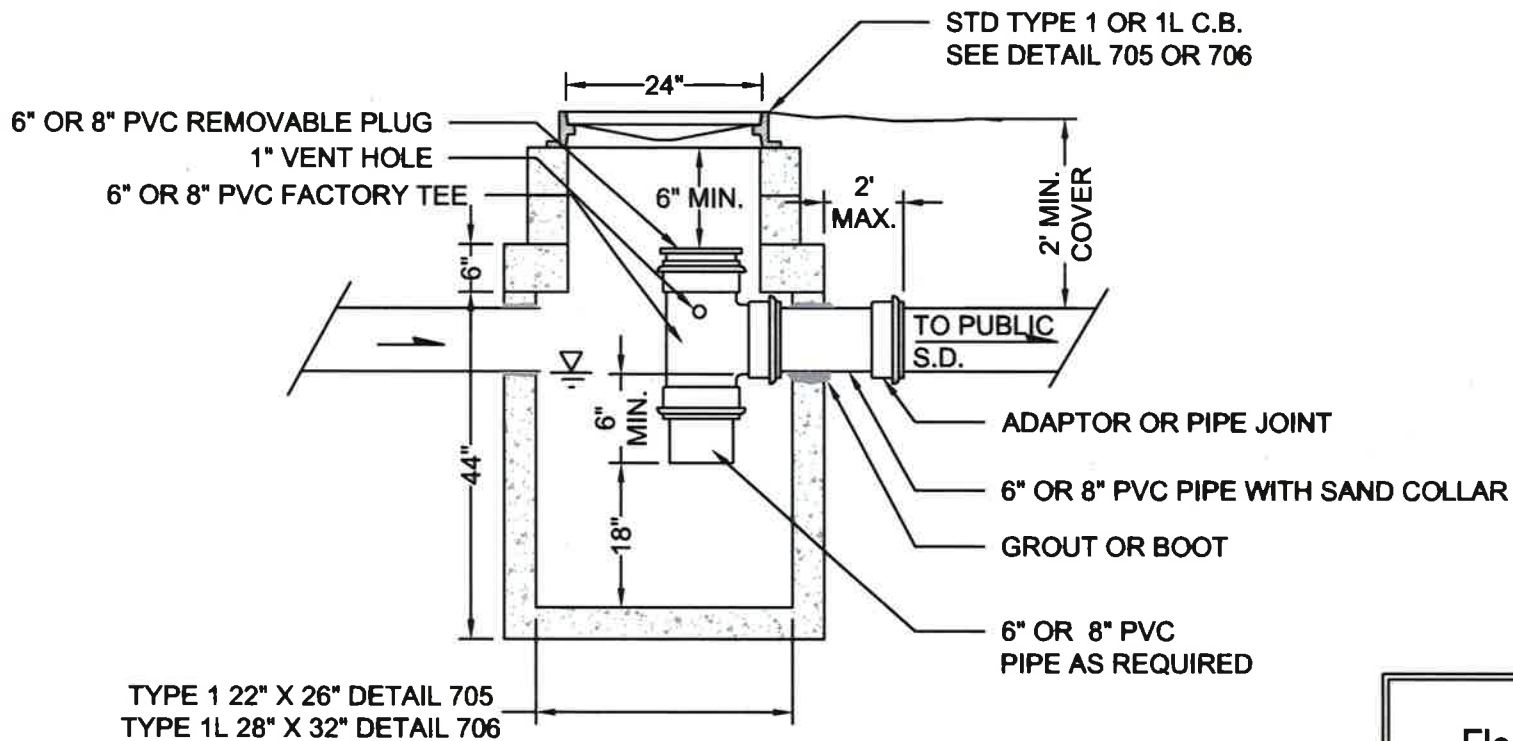


PLAN

NOTES:



1. PIPE SIZE, SLOPES, AND ALL ELEVATIONS: PER PLANS.
2. OUTLET CAPACITY: NOT LESS THAN COMBINED INLETS.
3. CATCH BASIN: TYPE 2 TO BE CONSTRUCTED IN ACCORDANCE WITH STND DWG 708 & AASHTO M199 UNLESS OTHERWISE SPECIFIED.
4. COVERS: ROUND, SOLID MARKED "DRAIN" WITH LOCKING BOLTS. SEE STND DWGS 720.
5. ORIFICES: SIZED & LOCATED AS REQUIRED, WITH LOWEST ORIFICE MIN 2" FROM BASE.
6. BAFFLE WALL SHALL HAVE #4 REINFORCEMENT BAR AT 12" SPACING EACH WAY.
7. PRECAST BAFFLE WALL SHALL BE KEYED & GROUDED IN PLACE.
8. BOTTOM ORIFICE PLATE TO BE 1/4" MIN ALUMINUM & ATTACHED WITH 1/2" STAINLESS STEEL BOLTS. OMIT ORIFICE PLATE ID ONLY FOR OIL SEPARATION.

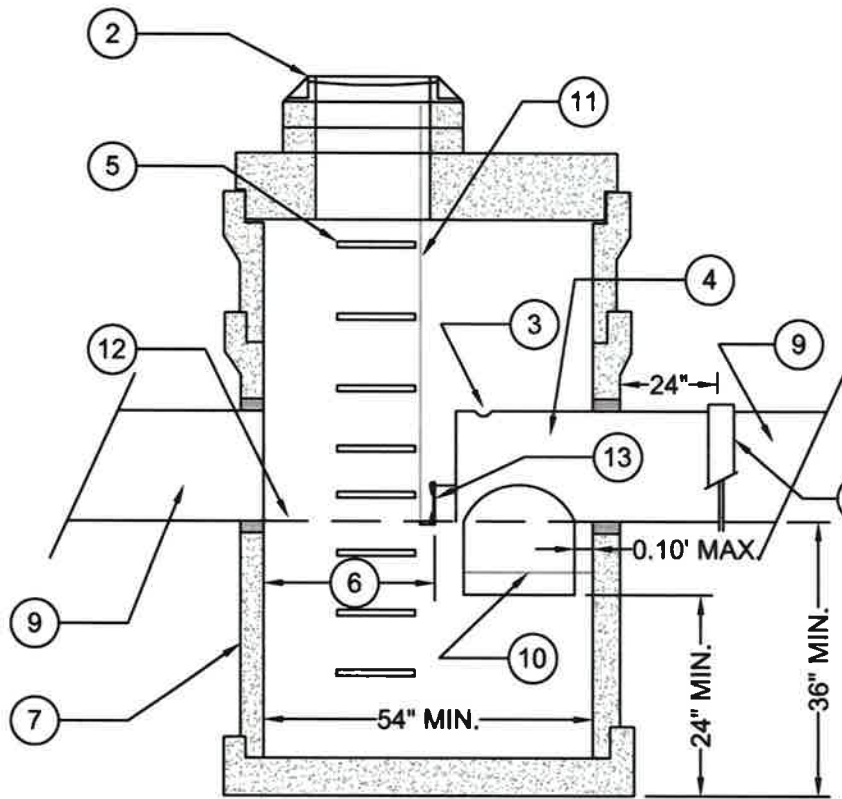
763 Flow Restrictor (Baffle)	
 CITY OF SHORELINE Public Works	 PATRICIA J. JENSEN PROFESSIONAL ENGINEER No. 12717
NOT TO SCALE	Revision Date April 2017



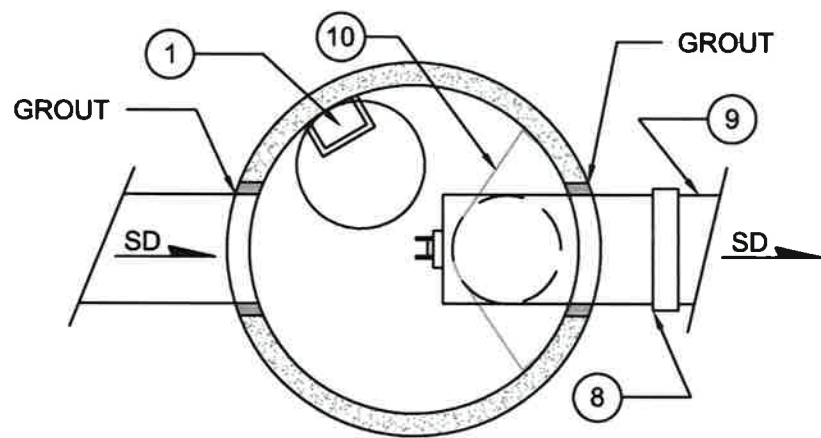
NOTE:

1. MAX. RIM EL. INV. EL. DIFFERENCE GREATER THAN 5' SEE STND DWG 766.
2. GROUT ALL JOINTS INSIDE AND OUTSIDE.

<h1 style="margin: 0;">765</h1> <h2 style="margin: 0;">Floatable Material Separator - 6" or 8" Pipe</h2>	
 CITY OF SHORELINE Public Works	 PATRICIA J. BERMAN No. 3870 PROFESSIONAL ENGINEER STATE OF WASHINGTON
NOT TO SCALE	Revision Date April 2017



ELEVATION

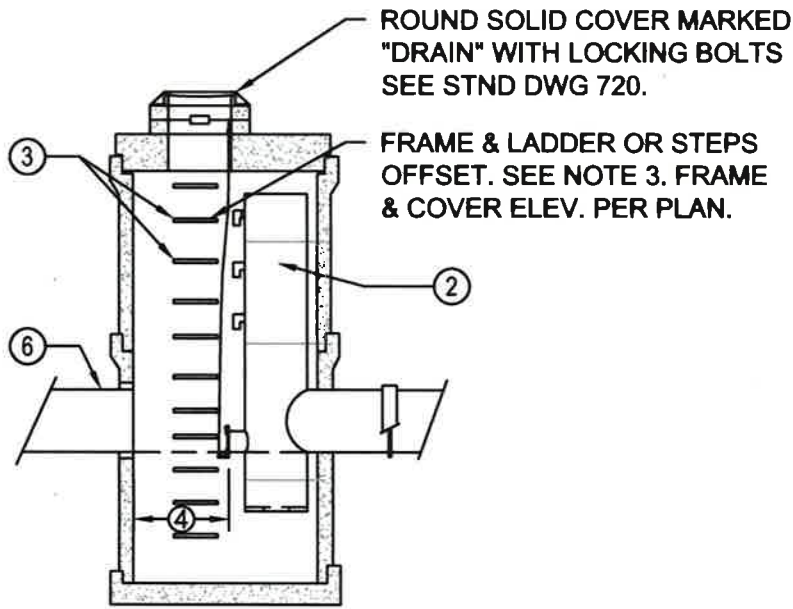
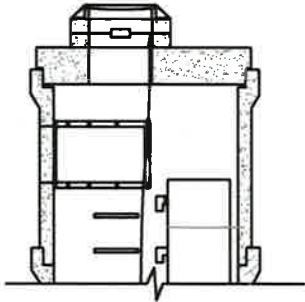
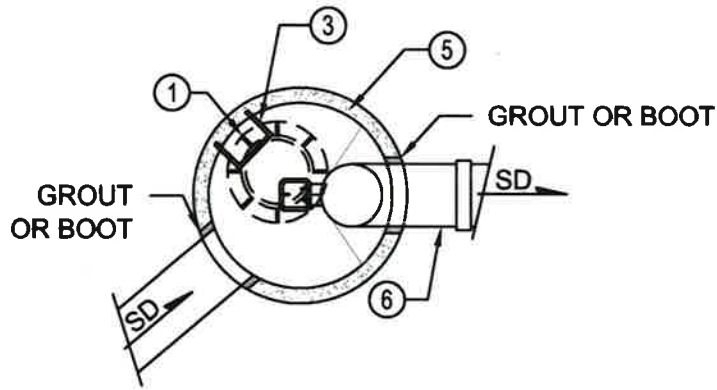


PLAN

NOTES:

- ① INSTALL MANHOLE ACCESS SO THAT LIFT GATE IS VISIBLE THROUGH OPENING AND STEPS CLEAR INLET AND RESTRICTOR UNIT.
- ② INSTALL STND DWG 721 WITH LOCKING COVER, FOR MANHOLES OR WHEN IT IS TO BE A CATCH BASIN THEN USE STND DWG 707.
- ③ 1" VENT HOLE.
- ④ SEPARATOR ASSEMBLY.
- ⑤ POLYPROPYLENE LADDER OR STEPS: SEE STND DWG 709.
- ⑥ MIN CLEARANCE: 36" FOR OUTLETS OF 24" AND LARGER 18" FOR OUTLETS OF 18" AND SMALLER.
- ⑦ 54" TYPE 2 CB OR LARGER.
- ⑧ BAND STRAP WITH GASKET.
- ⑨ SEE PLAN AND SPECIFICATIONS FOR SIZE AND TYPE OF PIPE ENTERING AND EXITING CB.
- ⑩ SECURE SEPARATOR TO CB WITH 8 STAINLESS STEEL STRAP. BOLT TO CB WALL WITH STAINLESS STEEL ANCHOR BOLTS AND TACK WELD TO SEPARATOR UNIT.
- ⑪ SHEAR GATE LIFT HANDLE SEE STND DWG 762.
- ⑫ INV. EL.: SEE PLANS AND SPECIFICATIONS.
- ⑬ SHEAR GATE CLEAN OUT, 8" MIN. DIA., 12" DIA. FOR 24" DIA. AND LARGER OUTLET PIPE.
- ⑭ GROUT ALL JOINTS INSIDE AND OUTSIDE.

<h2 style="margin: 0;">766</h2> <h3 style="margin: 0;">Floatable Material Separator - 12" & Larger</h3>	
<p style="font-size: small;">CITY OF SHORELINE Public Works</p>	
<p style="font-size: x-small;">NOT TO SCALE</p>	<p style="font-size: x-small;">Revision Date April 2017</p>

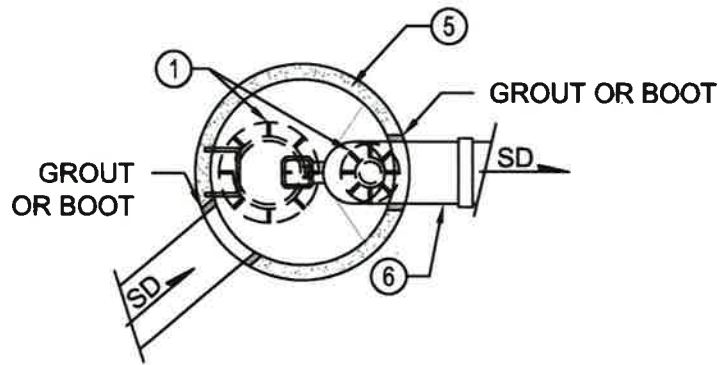


ELEVATION

NOTES:

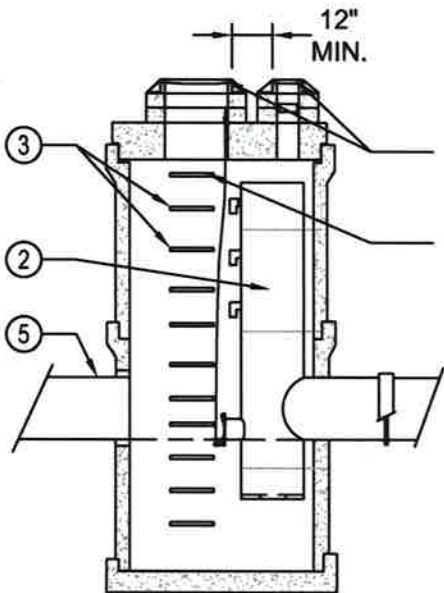
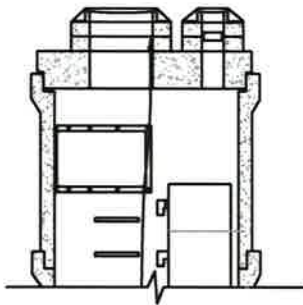
- ① INSTALL 1-24" DIA. MH. ACCESS PER SNTD DWG 716, SO THAT THE LIFT GATE IS VISIBLE AND THE STEPS ARE CLEAR AND DIRECTLY ACCESSIBLE.
- ② FLOW RESTRICTOR UNIT - SEE STND DWG 761.
- ③ POLYPROPYLENE PLASTIC STEP OR LADDER, SEE STND DWG 709. OFFSET STEPS OR LADDER FROM FRAME SO THAT:
 - A. CLEANOUT GATE IS VISIBLE FROM TOP.
 - B. CLIMB DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
 - C. FRAME IS CLEAR OF CURB.
- ④ MIN CLEARANCE: 36" FOR OUTLETS OF 24" AND LARGER 18" FOR OUTLETS OF 18" AND SMALLER.
- ⑤ 54" OR 60" TYPE 2 CB.
- ⑥ SEE PLAN AND SPECIFICATIONS FOR SIZE AND TYPE OF PIPES ENTERING AND EXITING CB.

<h2 style="margin: 0;">771</h2> <h3 style="margin: 0;">Control Structure - 54" or 60" Diameter</h3>	
<p style="font-size: small; margin: 0;">CITY OF SHORELINE</p>	
Public Works	
NOT TO SCALE	Revision Date April 2017



NOTES:

- ①. INSTALL 1-18" AND 1-24" DIA. MH. ACCESS PER SNTD DWG 716, SO THAT THE LIFT GATE IS VISIBLE AND THE STEPS ARE CLEAR AND DIRECTLY ACCESSIBLE.
- ②. FLOW RESTRICTOR UNIT - SEE STND DWG 761.
- ③. POLYPROPYLENE PLASTIC STEP OR LADDER, SEE STND DWG 709. OFFSET STEPS OR LADDER FROM FRAME SO THAT:
 - A. CLEANOUT GATE IS VISIBLE FROM TOP.
 - B. CLIMB DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
 - C. FRAME IS CLEAR OF CURB.
- ④. 70" TYPE 2 CB OR LARGER.
- ⑤. SEE PLAN AND SPECIFICATIONS FOR SIZE AND TYPE OF PIPES ENTERING AND EXITING CB.



③. ROUND SOLID COVER MARKED "DRAIN" WITH LOCKING BOLTS SEE STND DWG 720.

②. FRAME & LADDER OR STEPS OFFSET. SEE NOTE 3. FRAME & COVER ELEV. PER PLAN.

ELEVATION

<h2 style="margin: 0;">772</h2> <h3 style="margin: 0;">Control Structure - 72" Diameter or Larger</h3>	
<p style="margin: 0;">Public Works</p>	
NOT TO SCALE	Revision Date April 2017