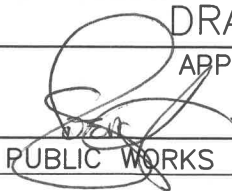


WOODLAND DRAINAGE STANDARDS SHEET INDEX

- 01 GENERAL NOTES FOR STORM SEWERS
- 02 STANDARD CATCH BASIN
- 03 CURB INLET
- 04 COMBINATION CURB INLET
- 05 G-2 CATCH BASIN
- 06 SLOPED FIELD INLET
- 07 STANDARD AREA INLET
- 08 HERRINGBONE GRATE
- 09 CATCH BASIN TRAP
- 10 MANHOLE
- 11 PRE-SEDIMENTATION MANHOLE
- 12 PRE-CAST DRYWELL
- 13 STORM SEWER CLEANOUT
- 14 MANHOLE COVER AND FRAME
- 15 PIPE BEDDING
- 16 TRENCH BACKFILL

DRAINAGE STANDARDS – SHEET INDEX




 APPROVED _____
 PUBLIC WORKS DIRECTOR

3-11-22
 DATE

REVISIONS	DATE	DRAWN	DESIGNED

D-00

GENERAL NOTES FOR STORM SEWERS

1. ALL MATERIALS AND INSTALLATION OF STORM SEWERS AND DRAINAGE SYSTEMS SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS IN THE CITY OF WOODLAND'S LATEST VERSION OF STANDARD DETAILS, THE PUBLIC WORKS ENGINEERING STANDARDS, AND THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, WHERE THE CITY OF WOODLAND REQUIREMENTS SHALL TAKE PRECEDENCE. WHEREVER THE STANDARD SPECIFICATIONS REFER TO THE OWNER AS EITHER THE "STATE" OR "SECRETARY" OR WHEN REFERENCE IS MADE TO THE DEPARTMENT OF TRANSPORTATION IT SHALL BE UNDERSTOOD THAT THE STANDARD SPECIFICATIONS SHOULD READ THE "CITY".
2. ALL STORM SEWER AND DRAINAGE SYSTEM CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF WOODLAND'S PUBLIC WORKS DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS OFFICE (360) 225-7999 AT LEAST 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION. THE CITY MAY REQUIRE THAT A PRECONSTRUCTION CONFERENCE BE HELD.
3. THE CONTRACTOR IS REQUIRED TO NOTIFY ALL UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR MAY CONTACT THE UTILITY NOTIFICATION CENTER BY DIALING 811 IN LIEU OF CONTACTING INDIVIDUAL UTILITIES.
4. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND/OR CONTRACTOR TO PROCURE AND COMPLY WITH THE PROVISIONS OF ALL APPLICABLE PERMITS, EASEMENTS, LICENSES AND CERTIFICATES IN CONJUNCTION WITH THE CONSTRUCTION OF STORM SEWERS AND DRAINAGE SYSTEMS. COMPLIANCE SHALL BE AT ALL LEVELS; FEDERAL, STATE, AND CITY, RELATING TO THE PERFORMANCE OF THIS WORK. THE CONTRACTOR SHALL OBTAIN A STREET CUT PERMIT FOR WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
5. THE CONTRACTOR SHALL OBTAIN AND SUBMIT AN APPROVED TRAFFIC CONTROL PLAN PRIOR TO BEGINNING CONSTRUCTION. THE PLAN SHALL BE APPROVED BY THE PUBLIC WORKS DIRECTOR.
6. ALL EROSION CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND EROSION CONTROL DETAILS, PRIOR TO START OF ANY CONSTRUCTION OR LAND DISTURBING ACTIVITY.
7. THE DEVELOPER OR CONTRACTOR SHALL OBTAIN ALL OFFSITE CONSTRUCTION EASEMENTS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THAT ALL OFFSITE UTILITIES EASEMENTS HAVE BEEN OBTAINED BY THE OWNER PRIOR TO THE COMMENCEMENT OF ANY OFFSITE CONSTRUCTION.
8. THE CONTRACTOR IS TO VERIFY AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER. ITEMS TO VERIFY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
 - INVERT AND TOP ELEVATIONS OF EXISTING STORM SEWERS
 - CENTERLINE AND TOP OF CURB ELEVATIONS
9. WATER QUALITY DEVICES WILL BE INSTALLED AND FUNCTIONING PRIOR TO COMMENCING WITH INSTALLATION OF PAVEMENT FOR ALL AREAS DRAINING INTO THE WATER QUALITY SYSTEM. VEGETATION IN BIO-FILTRATION SWALE AND POND SYSTEMS SHALL BE ESTABLISHED AND MECHANICAL DEVICES AND FILTER MEDIA SHALL BE INSTALLED. SWALES AND FILTER STRIPS WILL BE SEEDED WITH AN APPROVED SEED MIX, PER THE WESTERN WASHINGTON MANUAL. TURF IS ALLOWED FOR VEGETATED FILTERS PROVIDED THE TURF AREA IS OVERSEEDDED WITH THE EQUIVALENT GRASS SEED MIX.
10. ALL CATCH BASINS SHALL BE STENCILED: "PROTECT STREAMS" OR "PROTECT GROUNDWATER."
11. ROOF DOWNSPOUT RUNOFF MUST BE RETAINED ON EACH SPECIFIC SITE. DOWNSPOUTS SHALL NOT DRAIN TO THE STREET OR ANY ADJACENT PROPERTIES UNLESS SPECIFIC APPROVAL HAS BEEN SHOWN ON APPROVED CIVIL ENGINEERING PLANS.
12. THE CONTRACTOR WILL PROVIDE A TELEVISION REPORT, TAPE, AND TABULAR AS-BUILT OF ALL PUBLIC STORM MAINS AND LATERALS PRIOR TO PAVING. THIS INFORMATION WILL BE SUBMITTED TO THE CITY INSPECTOR FOR REVIEW. APPROVAL AND ACCEPTANCE OF THE TV INSPECTION WILL BE BASED UPON MANUFACTURING AND INSTALLATION DEFECTS, AS WELL AS DEBRIS IN THE LINES. FINAL ACCEPTANCE AND CONSTRUCTION OF STORM SEWERS ARE SUBJECT TO INSPECTION AND TESTING IN ACCORDANCE WITH SECTIONS 1-05.11, 1-05.12, AND 7-04.3 OF THE STANDARD SPECIFICATIONS.

GENERAL NOTES FOR STORM SEWERS

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REVISIONS

DATE

DRAWN

DESIGNED

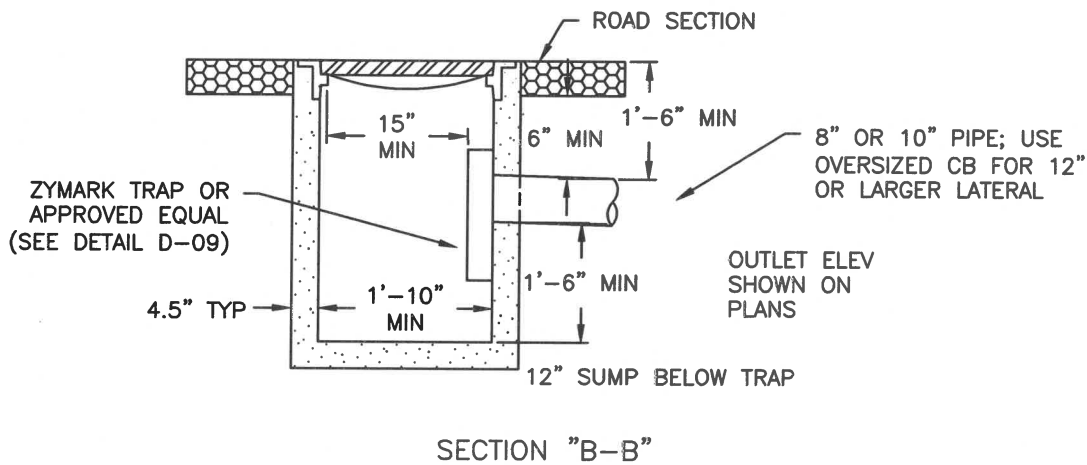
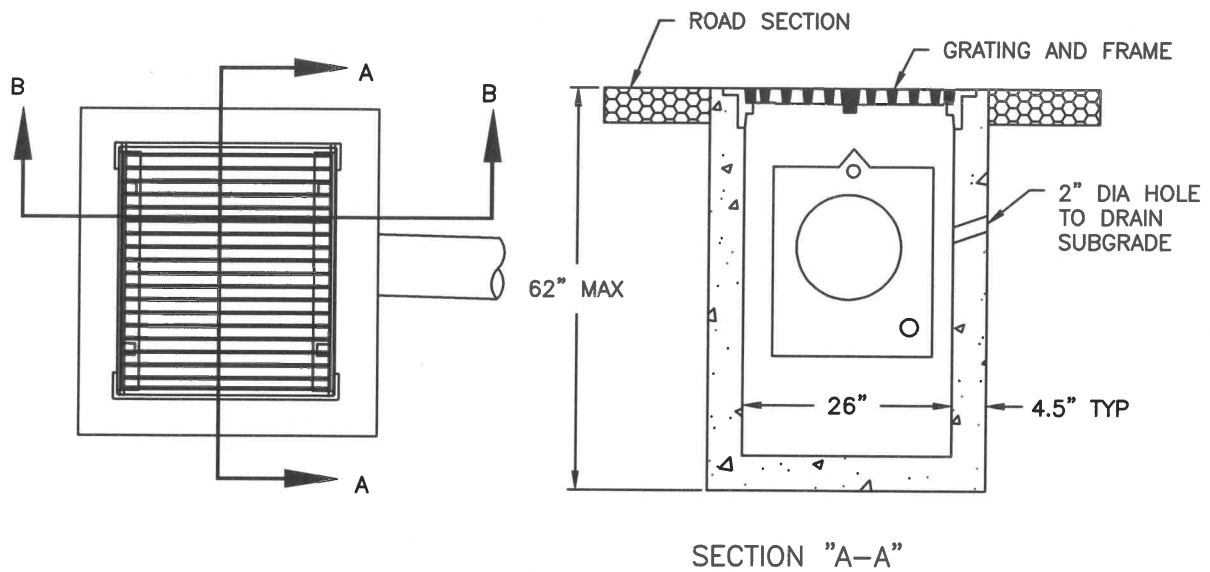


PUBLIC WORKS DIRECTOR

DATE

3-11-22

D-01



NOTES:

1. LATERALS WILL BE CONSTRUCTED TO ENTER THE BASIN PERPENDICULAR TO THE BASIN WALL. THE LATERAL WILL ENTER ONLY AT THE FRONT OR SIDE OF THE BASIN WITH NO LATERALS ALLOWED TO ENTER THE CATCH BASIN AT THE CORNERS. IF NEEDED, A BEND MAY BE USED AS THE FIRST SECTION OF PIPE OUTSIDE THE BASIN WALL. THE MAXIMUM BEND ALLOWED IS 45 DEGREES.
2. ALL REINFORCED STEEL SHALL HAVE A 1-1/2" CLEAR COVER UNLESS OTHERWISE NOTED, AND SHALL BE GRADE 40 OR GRADE 60 (ASTM A-615).
3. ANY PROTRUDING ENDS OF PIPES SHALL BE TRIMMED FLUSH WITH THE INSIDE WALLS AND GROUTED.
4. THE METAL FRAME AND GRATE SHALL BE SET TO A SLOPE TO CONFORM TO THE PARTICULAR DRAINAGE AREA (SEE DETAIL D-08).
5. ALL PRECAST OR CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.

STANDARD CATCH BASIN

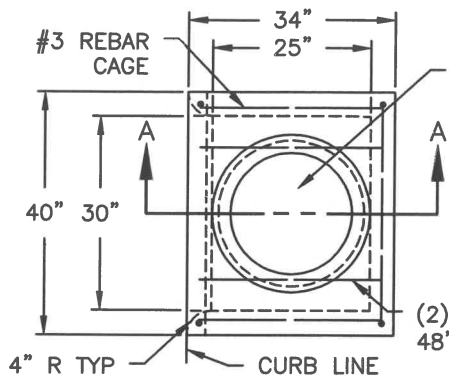


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 DATE 3-1-08

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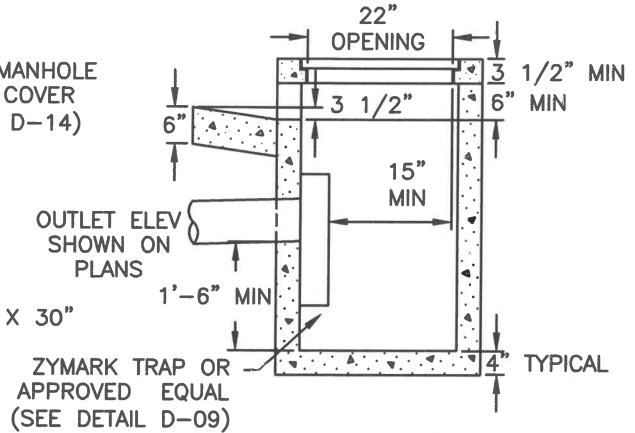
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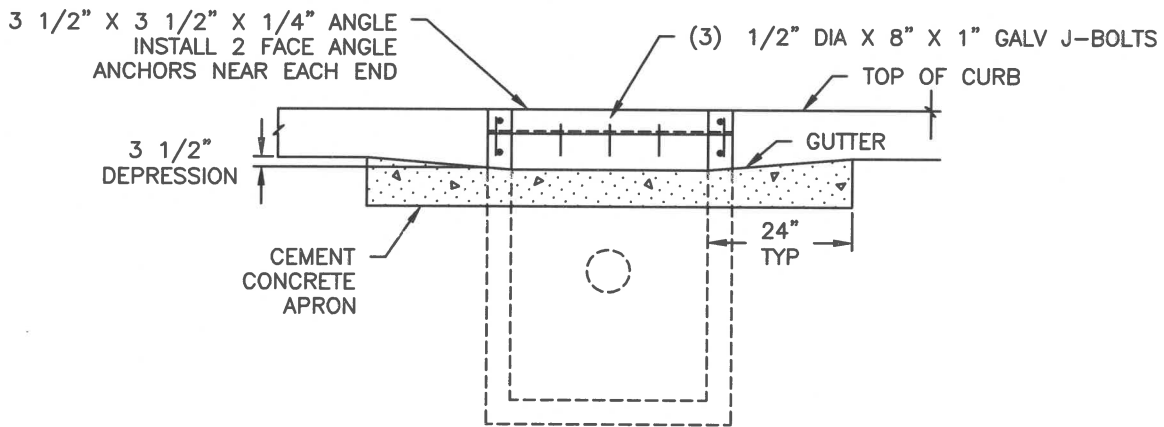
TOP VIEW

CAST IRON MANHOLE
FRAME AND COVER
(SEE DETAIL D-14)

(2) #4 REBAR X 30"
48" CB ONLY



SECTION A-A



FRONT VIEW

NOTES:

1. LATERALS WILL BE CONSTRUCTED TO ENTER THE BASIN PERPENDICULAR TO THE BASIN WALL. THE LATERAL WILL ENTER ONLY AT THE FRONT OR SIDE OF THE BASIN WITH NO LATERALS ALLOWED TO ENTER THE CATCH BASIN AT THE CORNERS. IF NEEDED, A BEND MAY BE USED AS THE FIRST SECTION OF PIPE OUTSIDE THE BASIN WALL. THE MAXIMUM BEND ALLOWED IS 45 DEGREES.
2. ALL REINFORCED STEEL SHALL HAVE A 1-1/2" CLEAR COVER UNLESS OTHERWISE NOTED, AND SHALL BE GRADE 40 OR GRADE 60 (ASTM A-615)
3. ANY PROTRUDING ENDS OF PIPES SHALL BE TRIMMED FLUSH WITH THE INSIDE WALLS AND GROUTED.
4. ALL PRECAST OR CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.

CURB INLET

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3-11-22

PUBLIC WORKS DIRECTOR

DATE

REVISIONS

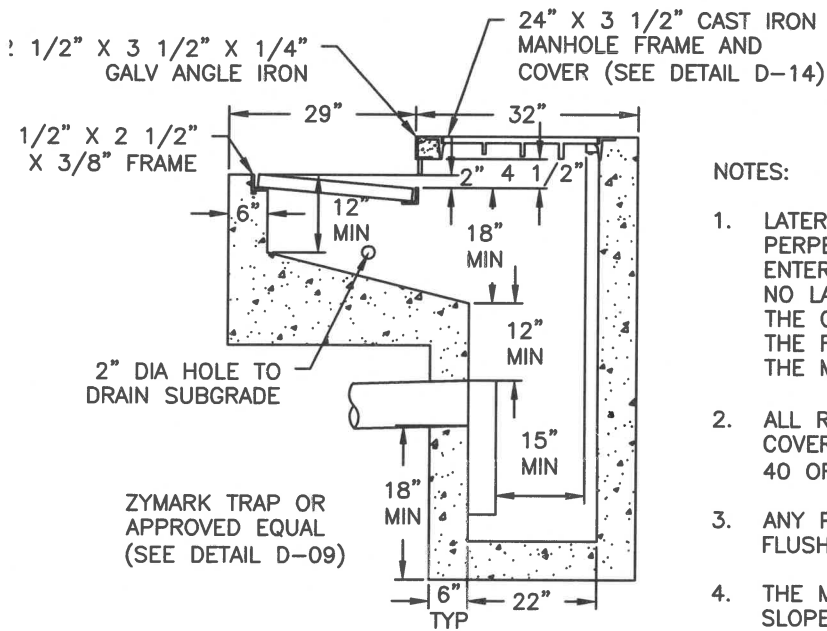
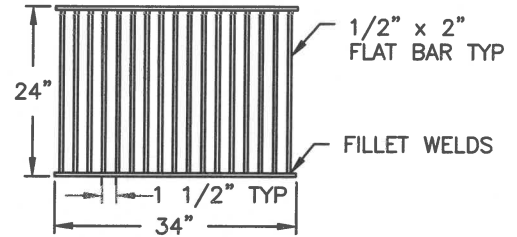
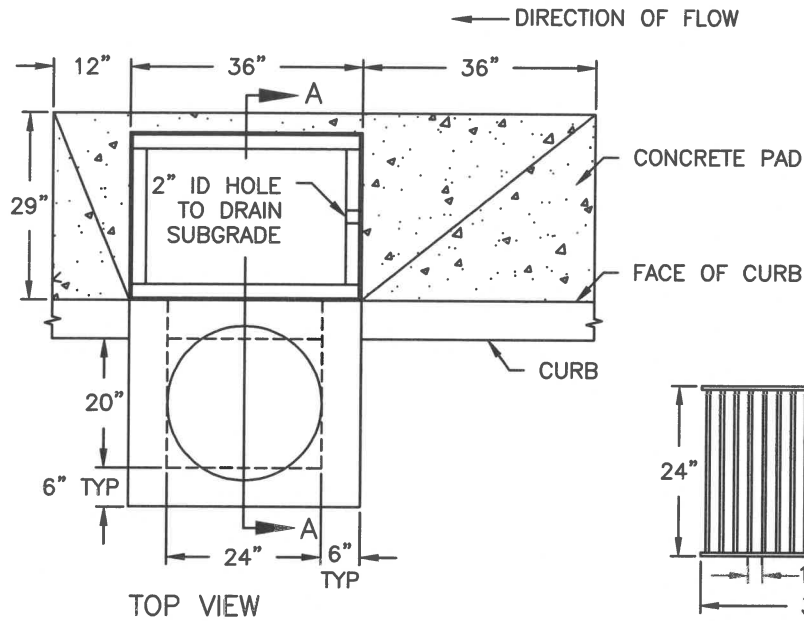
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DESIGNED

D-03





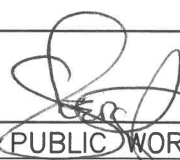
SECTION A-A

NOTES:

1. LATERALS WILL BE CONSTRUCTED TO ENTER THE BASIN PERPENDICULAR TO THE BASIN WALL. THE LATERAL WILL ENTER ONLY AT THE FRONT OR SIDE OF THE BASIN WITH NO LATERALS ALLOWED TO ENTER THE CATCH BASIN AT THE CORNERS. IF NEEDED, A BEND MAY BE USED AS THE FIRST SECTION OF PIPE OUTSIDE THE BASIN WALL. THE MAXIMUM BEND ALLOWED IS 45 DEGREES.
2. ALL REINFORCED STEEL SHALL HAVE 1-1/2" CLEAR COVER UNLESS OTHERWISE NOTED, AND SHALL BE GRADE 40 OR GRADE 60 (ASTM A-615).
3. ANY PROTRUDING ENDS OF PIPES SHALL BE TRIMMED FLUSH WITH THE INSIDE WALLS AND GROUTED.
4. THE METAL FRAME AND GRATE SHALL BE SET TO A SLOPE TO CONFORM TO THE PARTICULAR DRAINAGE AREA (SEE DETAIL D-08).
5. ALL PRECAST OR CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
6. WSDOT COMBINATION INLET, STANDARD PLAN B-25.20-01 MAY BE USED AS AN ALTERNATE TO THIS DETAIL

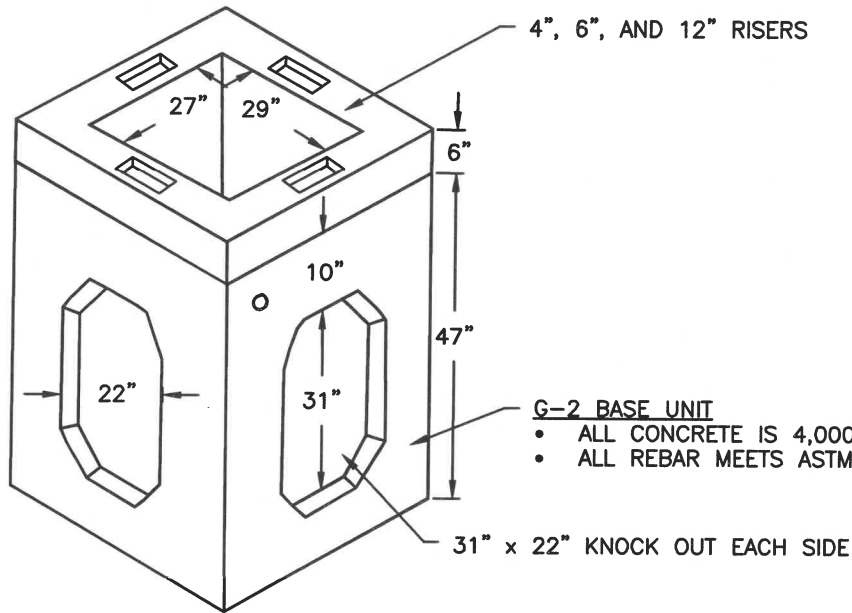
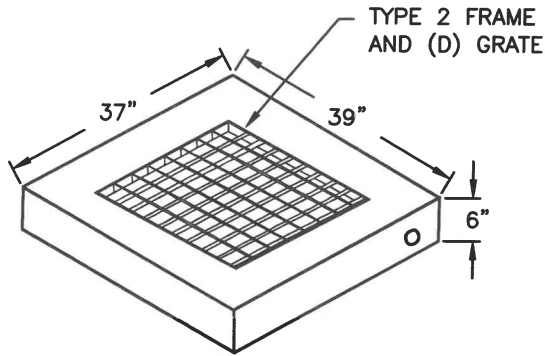
COMBINATION CURB INLET



APPROVED

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 DATE 3-11-00

REVISIONS	DATE	DRAWN	DESIGNED

D-04



- G-2 BASE UNIT**
- ALL CONCRETE IS 4,000 PSI MIN
 - ALL REBAR MEETS ASTM A615 GRADE 60

NOTES:

1. LATERALS WILL BE CONSTRUCTED TO ENTER THE BASIN PERPENDICULAR TO THE BASIN WALL. THE LATERAL WILL ENTER ONLY AT THE FRONT OR SIDE OF THE BASIN WITH NO LATERALS ALLOWED TO ENTER THE CATCH BASIN AT THE CORNERS. IF NEEDED, A BEND MAY BE USED AS THE FIRST SECTION OF PIPE OUTSIDE THE BASIN WALL. THE MAXIMUM BEND ALLOWED IS 45 DEGREES.
2. ALL REINFORCED STEEL SHALL HAVE A 1-1/2" CLEAR COVER UNLESS OTHERWISE NOTED, AND SHALL BE GRADE 40 OR GRADE 60 (ASTM A-615).
3. ANY PROTRUDING ENDS OF PIPES SHALL BE TRIMMED FLUSH WITH THE INSIDE WALLS AND GROUTED.
4. THE METAL FRAME AND GRATE SHALL BE SET TO A SLOPE TO CONFORM TO THE PARTICULAR DRAINAGE AREA (SEE DETAIL D-08).

G-2 CATCH BASIN

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[Signature]
PUBLIC WORKS DIRECTOR

3-11-08
DATE

REVISIONS

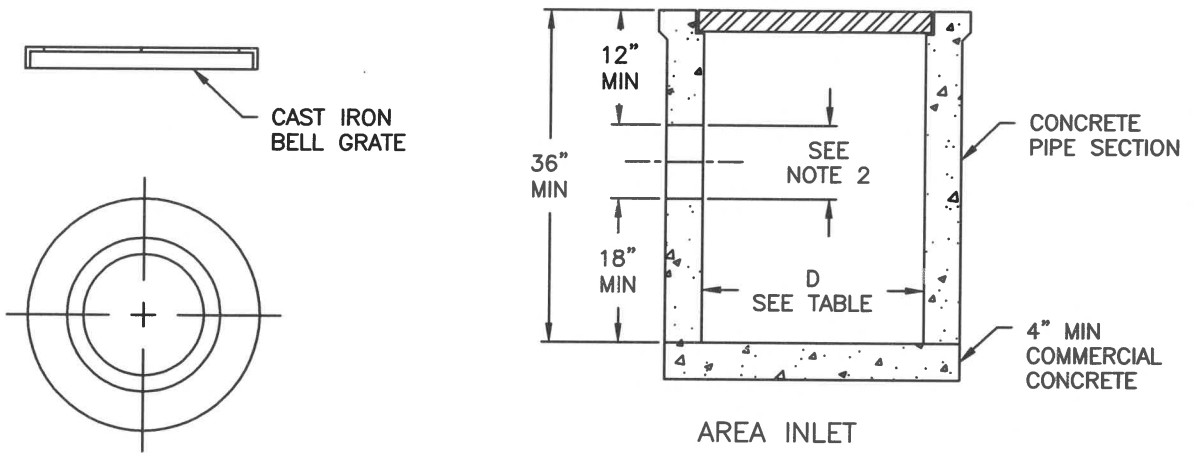
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DESIGNED

D-05





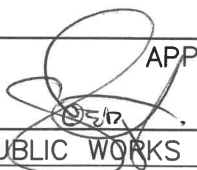
NOTES:

1. AREA INLETS TO BE CONSTRUCTED FROM CONCRETE PIPE, IN ACCORDANCE WITH ASTM C 14 UNLESS OTHERWISE SHOWN ON THE PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
2. CUTOUT HOLE SIZE IS EQUAL TO OUTLET PIPE OUTSIDE DIAMETER PLUS AREA INLET WALL THICKNESS. INSTALL ZYMARK TRAP OR APPROVED EQUAL.
3. CONNECTION TO OUTLET PIPE TO BE GROUTED AND MADE FLUSH WITH INSIDE OF THE AREA INLET WALL.
4. CAST IRON BELL GRATE SHALL MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. THE GRATE SHALL HAVE SLOTS (HOLES) THAT CONSTITUTE 50% OPEN AREA FOR DRAINAGE. INLET BELL SURFACE SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.

TABLE 1	
OUTLET PIPE DIA ϕ	INLET DIA (D)
6"	12"
8"	18"
12"	24"

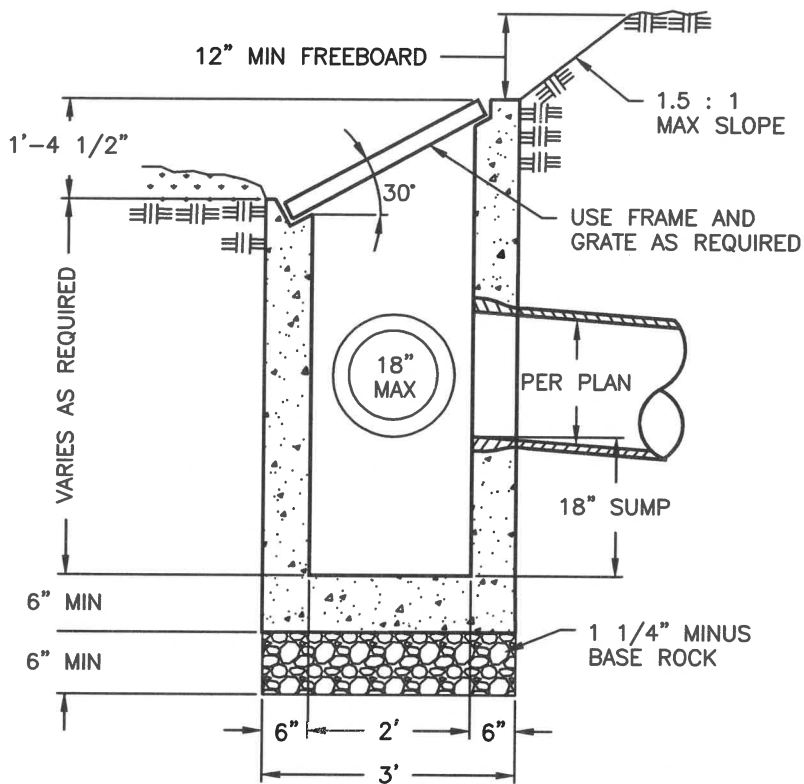
STANDARD AREA INLET



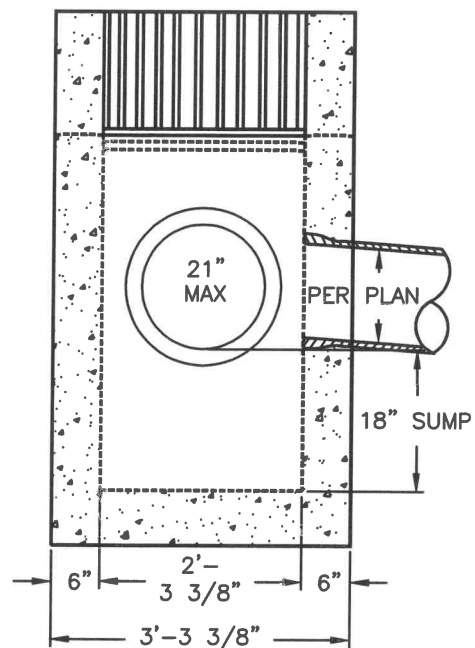
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 DATE 3-11-22

REVISIONS	DATE	DRAWN	DESIGNED

D-07



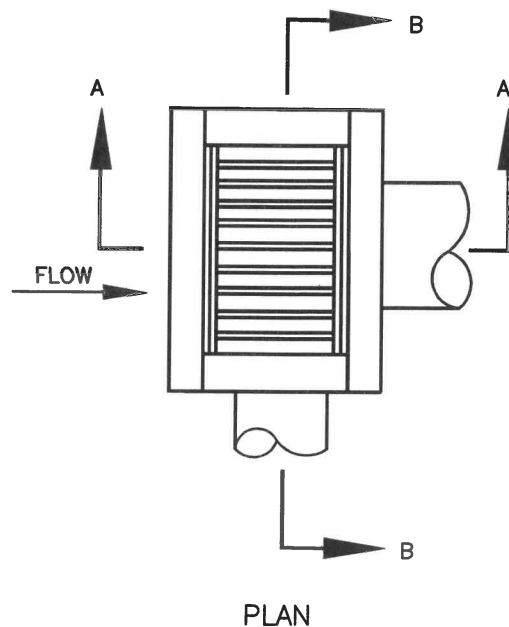
SECTION A-A



SECTION B-B

NOTES:

1. ALL PRECAST SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
2. ALL POURED IN PLACE CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 4,000 P.S.I. AND 2" TO 4" SLUMP.
3. STEEL TO BE NEW STRUCTURAL STEEL, ASTM A-7, A-36, OR A-373.
4. USE SLANTED OR BOX FRAME AND GRATE AS REQUIRED BY CITY.



PLAN

SLOPED FIELD INLET



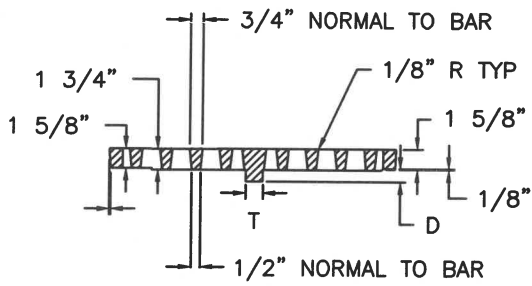
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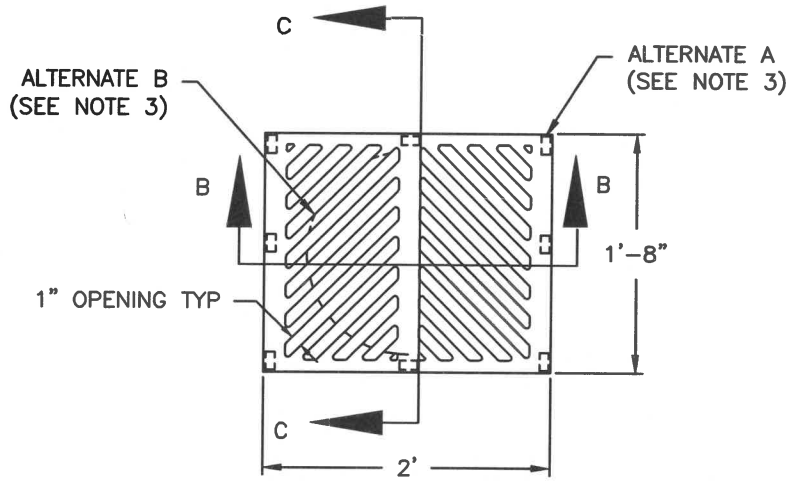
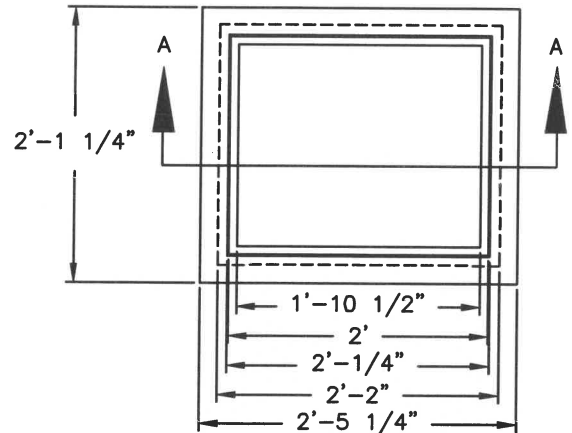
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REVISIONS	DATE	DRAWN	DESIGNED

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SECTION B-B



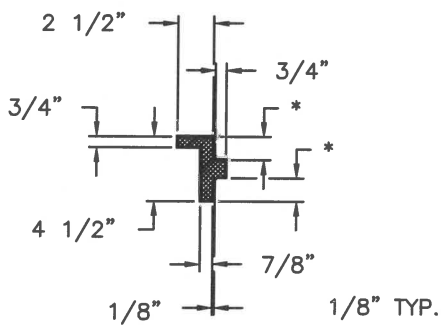
NOTES:

1. WELDING NOT PERMITTED.
2. USE VANED GRATE WHERE LONGITUDINAL SLOPE EXCEEDS 4%.
3. SEATING OF GRATE SHALL BE ACCOMPLISHED BY ONE OF THE FOLLOWING:

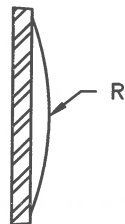
- ALTERNATE A SHALL BE 8 PADS 1-1/2" x 3/4" x 1/8" INTEGRALLY CAST WITH THE GRATE.
- ALTERNATE B SHALL BE A MACHINED SURFACE OUTSIDE A 17" CIRCLE, BOTTOM ONLY.

DIMENSIONS			
W1 & W2	T	R	D
1" MIN 1 3/4" MAX	1 3/4"	26"	1 5/8"
1" MIN 1 3/4" MAX	1 1/2"	21"	2 3/4"

* 1 5/8" (+0", -1/16")



SECTION A-A



SECTION C-C

HERRINGBONE GRATE

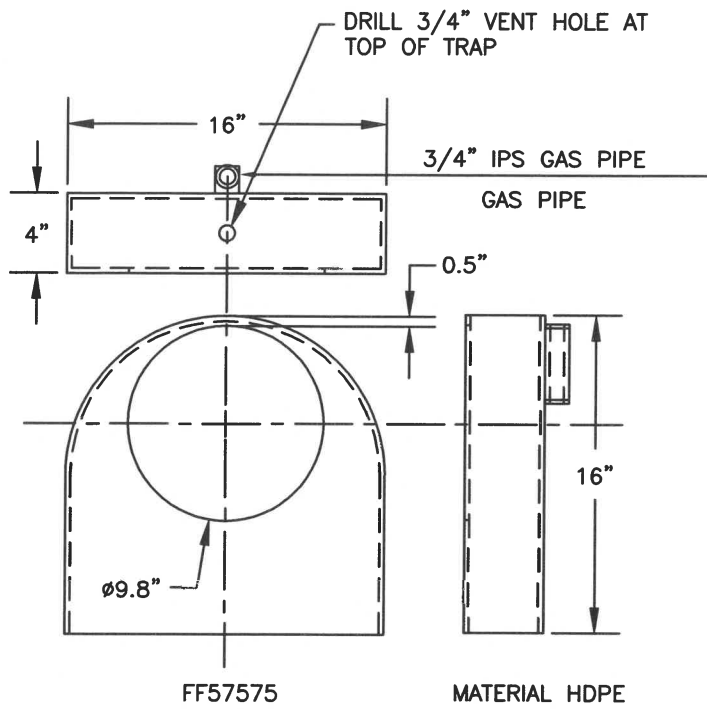


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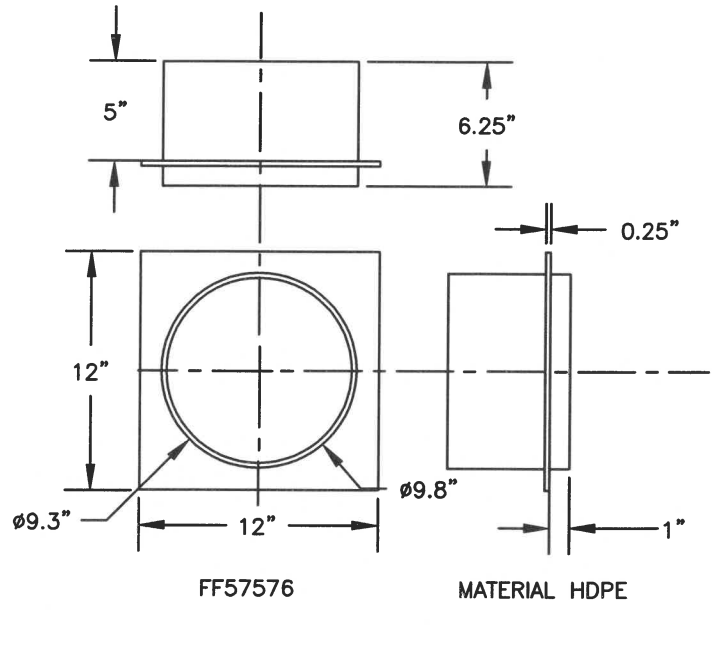
 PUBLIC WORKS DIRECTOR
 DATE 3-11-22

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D-08

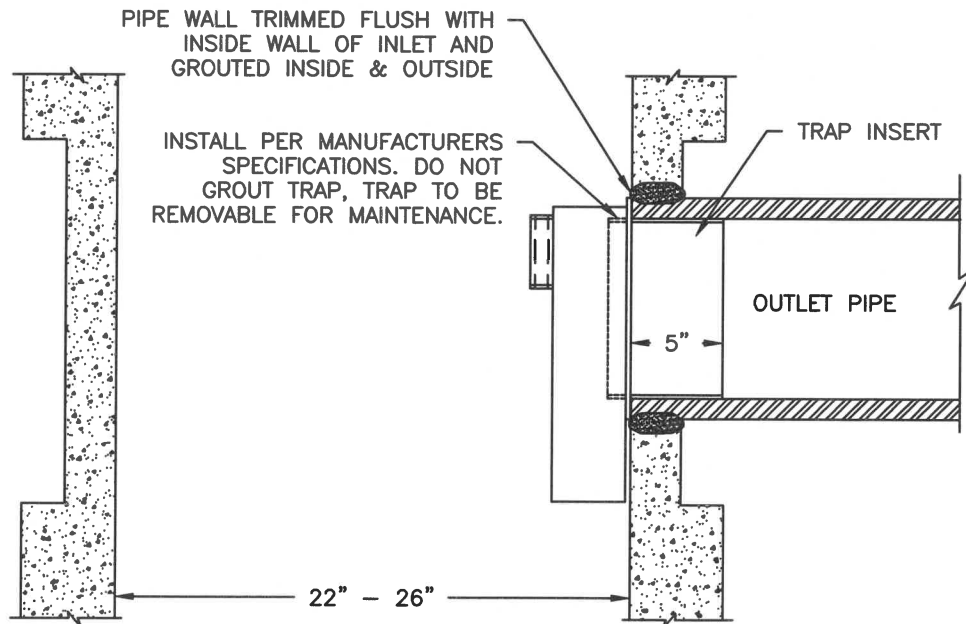


LOW PROFILE ELBOW



ELBOW INSERT

TRAP TO PREVENT SEDIMENT AND DEBRIS FROM ENTERING OUTLET PIPE



CATCH BASIN TRAP

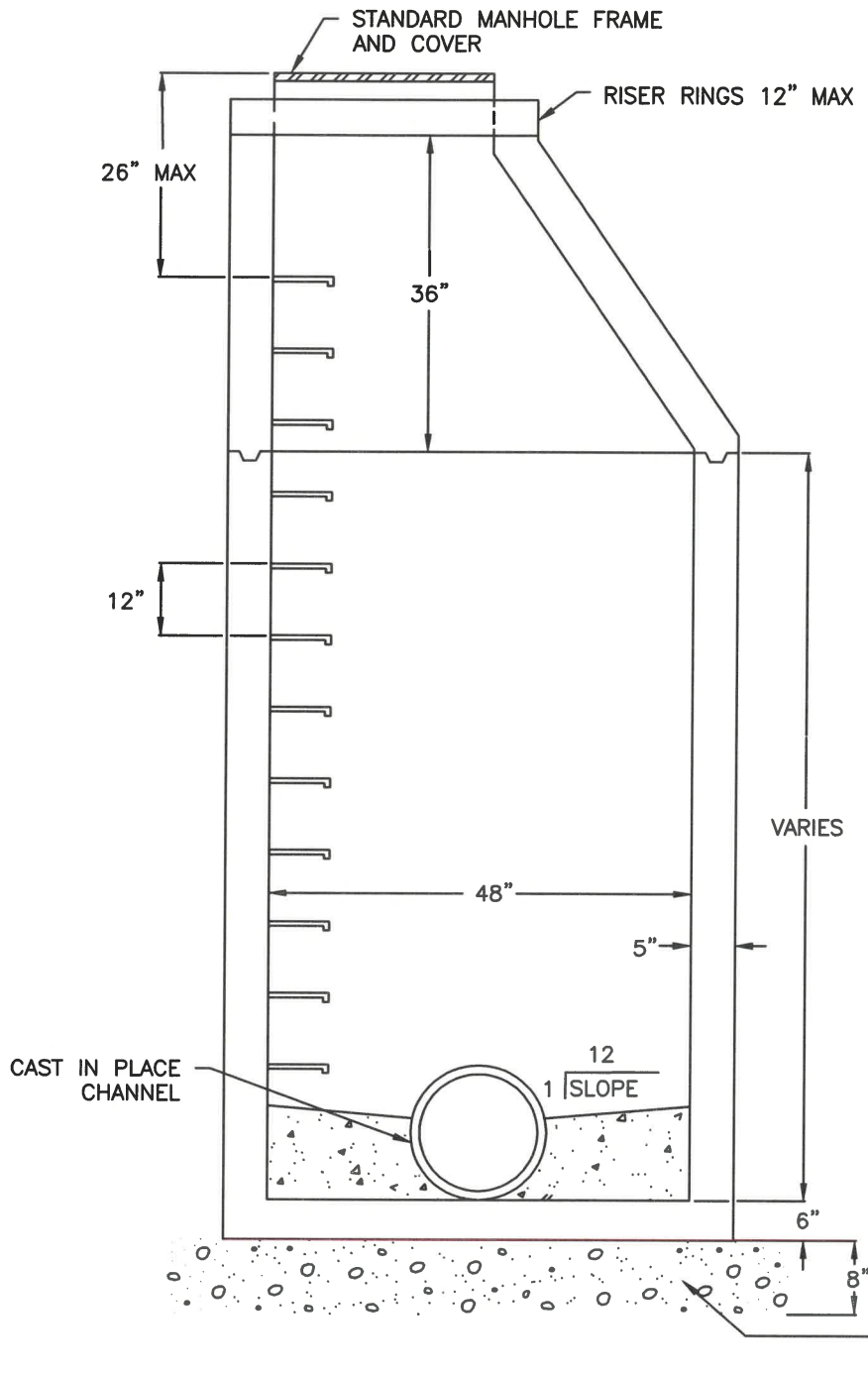


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 3-11-22
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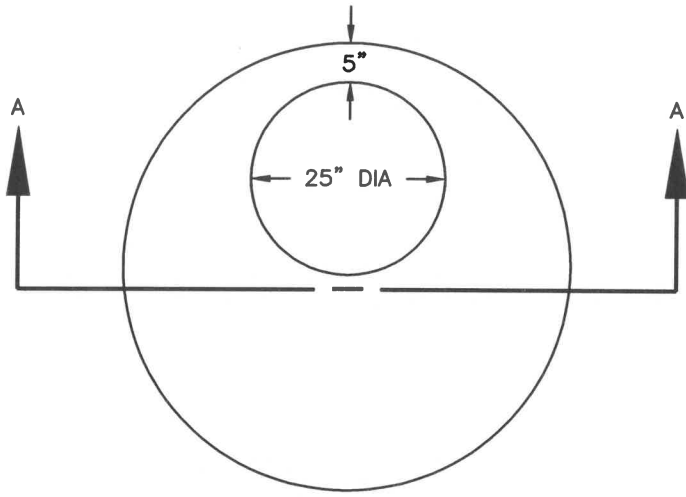
NOTES:

1. ALL PRECAST SECTIONS SHALL CONFORM TO REQUIREMENTS OF A.S.T.M. C478.
2. BASE CONCRETE SHALL BE 3000 P.S.I., 2"-4" SLUMP. FLOW LINES AND INSIDE SURFACES SHALL BE TROWELED SMOOTH AND UNIFORM AT TIME OF POUR.
3. JOINTS SHALL BE CONSTRUCTED SO AS TO BE WATERTIGHT. KENT-SEAL NO. 2 OR APPROVED EQUAL SHALL BE USED ON TONGUE AND GROOVE SECTIONS. PREMOLDED "O" RING MAY BE SUBSTITUTED ON BELL AND SPIGOT SECTIONS. ALL JOINTS SHALL BE GROUTED WITH PORTLAND CEMENT GROUT AND STRUCK EVEN WITH THE WALL.
4. MANHOLES UNDER 6 FEET IN DEPTH FROM RIM TO SHELF SHALL HAVE A TOP SLAB IN LIEU OF CONE.
5. ALLOWABLE DISTANCE BETWEEN PIPE KNOCKOUTS IS 8 INCHES.

STANDARD MANHOLE FOR 24-INCH OR SMALLER PIPE OR 30-INCH DUCTILE IRON PIPE

MANHOLE					D-10
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
 PUBLIC WORKS DIRECTOR		3-11-08			
		DATE			

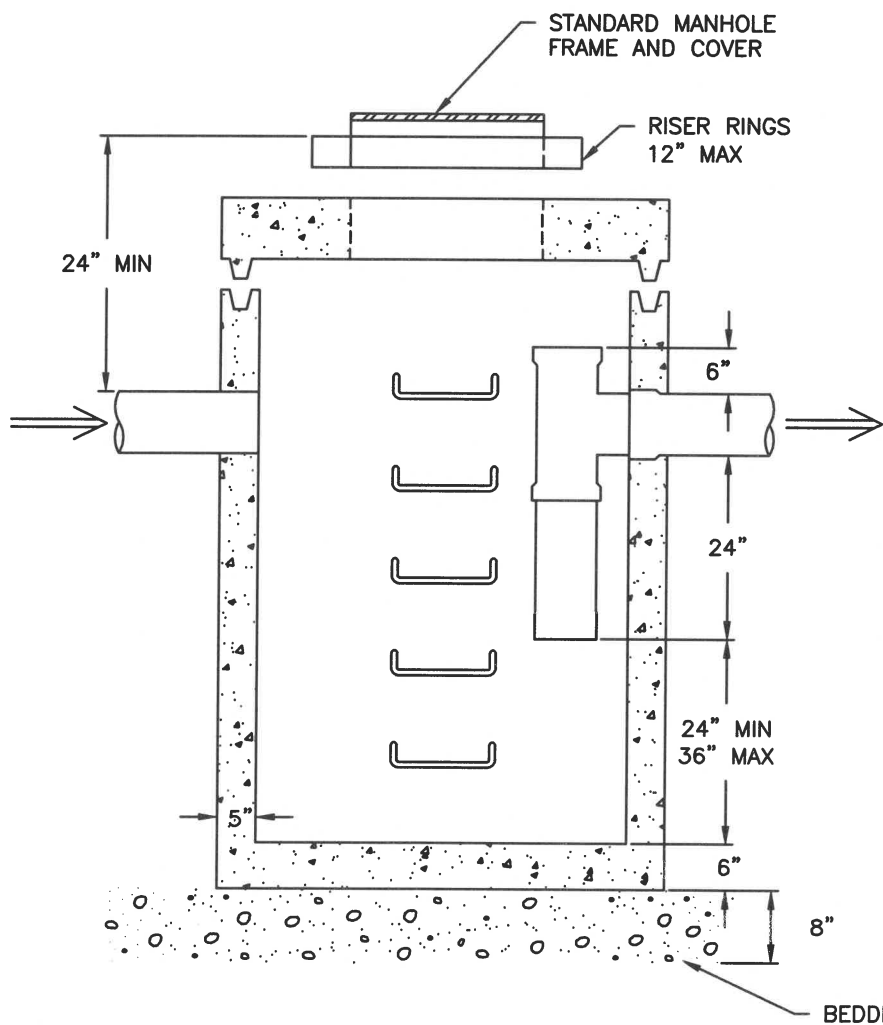




PLAN

NOTES:

1. SEE STANDARD MANHOLE DETAIL D-10 FOR DETAILS ON THE MANHOLE SECTIONS AND STEP SPECIFICATIONS.
2. TEE SECTION SHALL BE REMOVABLE FOR MAINTENANCE PURPOSES.
3. ANY PROTRUDING ENDS OF PIPES SHALL BE TRIMMED FLUSH WITH THE INSIDE WALLS AND GROUTED.

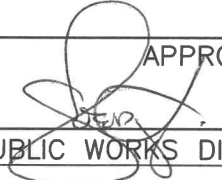


SECTION A-A

BEDDING PER SECTION 9-03.12(3) OF THE STANDARD SPECIFICATIONS

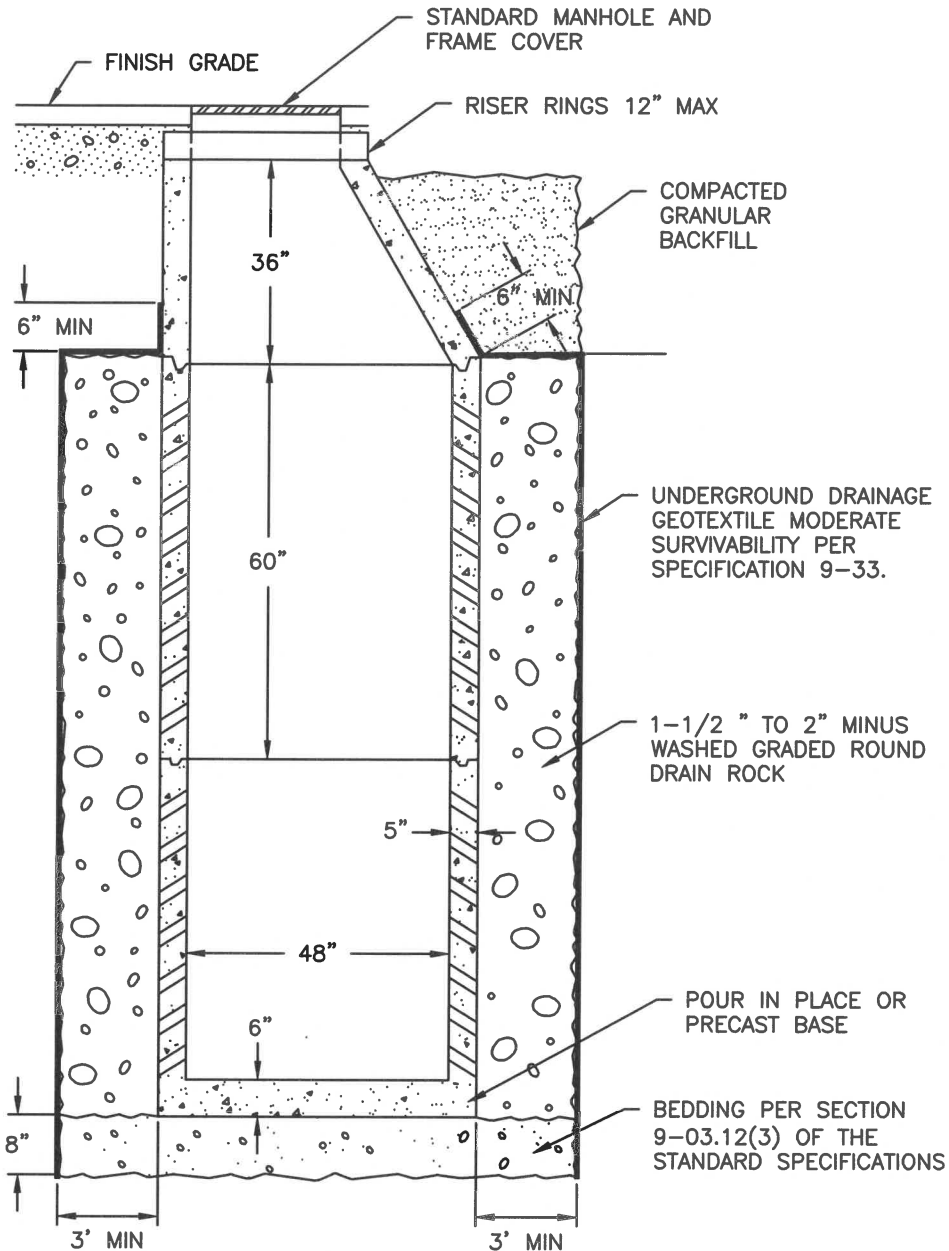
PRE-SEDIMENTATION MANHOLE



APPROVED

 PUBLIC WORKS DIRECTOR
 DATE 3-11-22

REVISIONS	DATE	DRAWN	DESIGNED

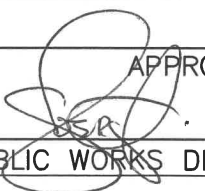
D-11



NOTES:

1. ALL PRECAST SECTIONS SHALL CONFORM TO REQUIREMENTS OF A.S.T.M. C478.
2. ALL PIPING TO AND FROM PRECAST DRYWELLS SHALL HAVE AT LEAST 8" OF 1-1/2" MINUS CLEAN CRUSHED ROCK COVER CONTINUOUSLY AROUND PIPE WHERE DRAIN ROCK WOULD OTHERWISE BE IN CONTACT WITH PIPE.
3. PERFORATIONS SHALL BE HORIZONTAL ROWS OF (14) 2-1/4" SQUARE OR (14) 2-3/8" ROUND HOLES, EQUALLY SPACED. ROWS SHALL BE SPACED 6-1/2" CENTER TO CENTER. PERFORATIONS SHALL BE ANGLED AS SHOWN OR HORIZONTAL.
4. STANDARD DRYWELL DEPTH SHALL BE 13 FEET UNLESS NOTED OTHERWISE.
5. ANY PROTRUDING ENDS OF PIPES SHALL BE TRIMMED FLUSH WITH THE INSIDE WALLS AND GROUTED.

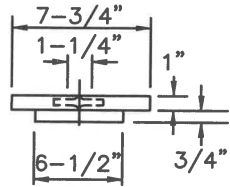
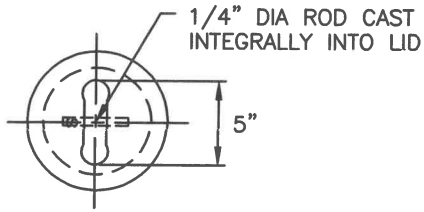


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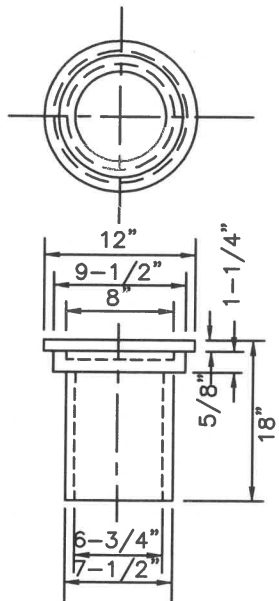
PRE-CAST DRYWELL

3-11-20
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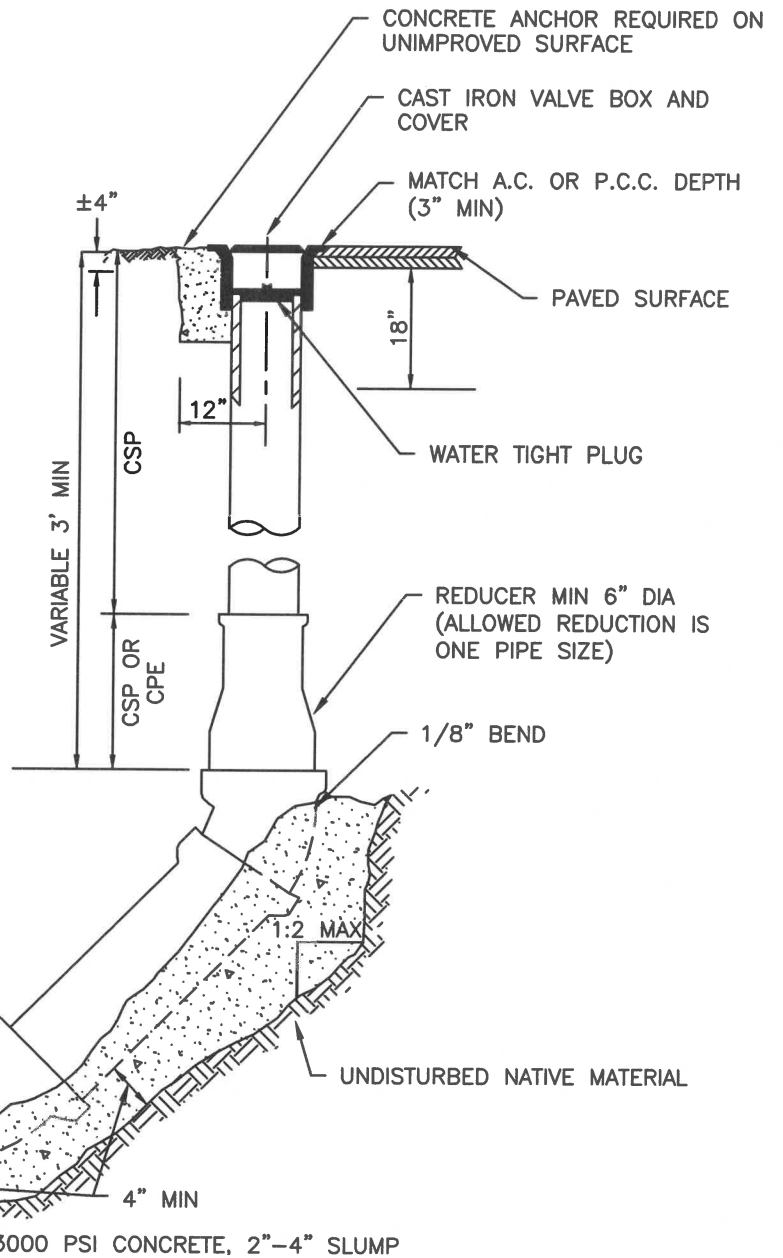
REVISIONS	DATE	DRAWN	DESIGNED



COVER



CAST IRON VALVE BOX



SEWER CLEANOUT

NOTES:

1. VALVE BOX SHALL BE FORT VANCOUVER PATTERN NO. 910 CAST IRON OR APPROVED EQUAL.
2. MATERIAL TO BE GRAY CAST IRON CONFORMING TO ASTM A-46 CLASS 30.
3. LID TO HAVE "S" CAST IN OR STAMPED ON. "W" CASTING NOT ALLOWED.
4. TOLERANCE = 1/8".
5. SEWER CLEANOUT TO BE 8" DIAMETER.

STORM SEWER CLEANOUT

APPROVED

PUBLIC WORKS DIRECTOR

3-11-00
DATE

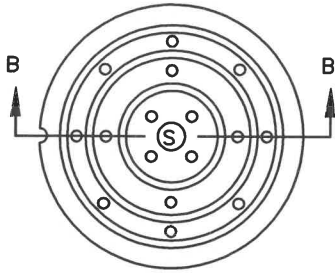
REVISIONS

DATE

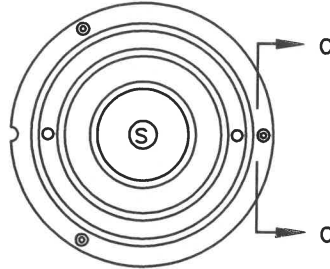
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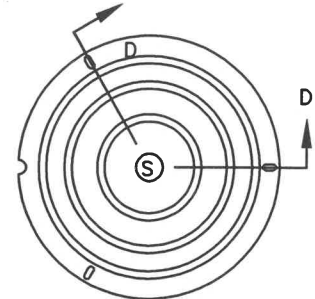
D-13



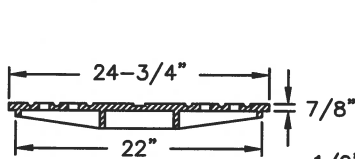
NON-LOCKING LID



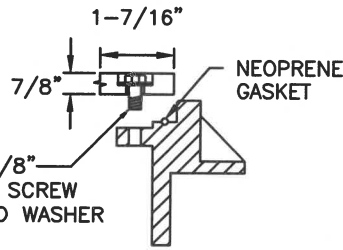
BOLT DOWN LID



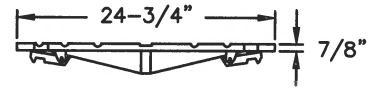
"CAM-LOCK" LID



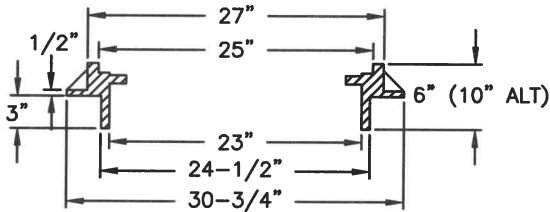
SECTION B-B



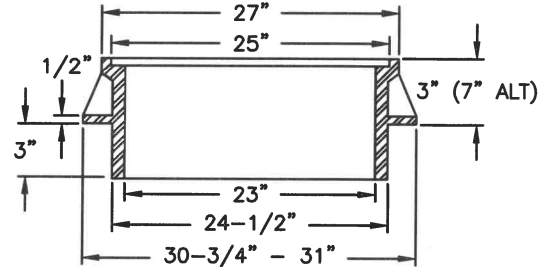
SECTION C-C



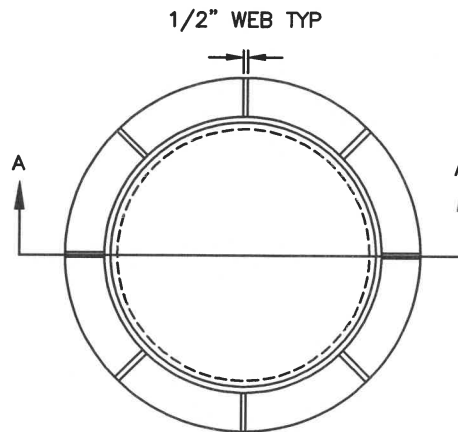
SECTION D-D



SECTION A-A
BOLT DOWN FRAME



SECTION A-A
STANDARD AND
"CAMLOCK" FRAME



FRAME

MANHOLE COVER AND FRAME

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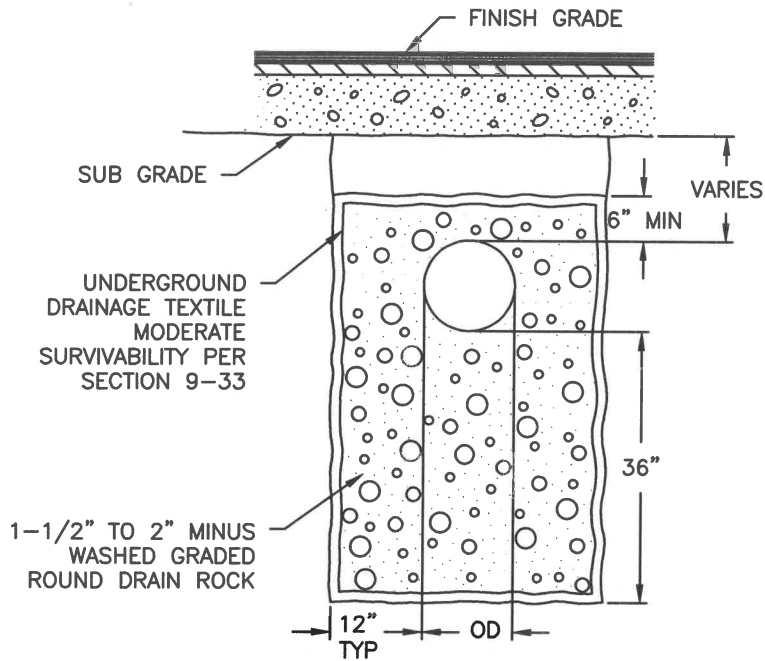


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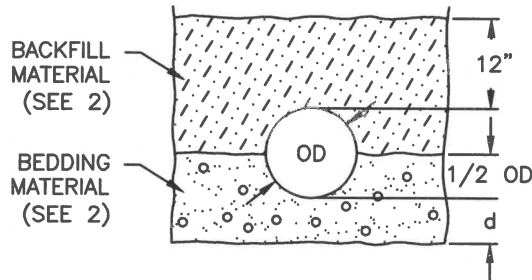
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D-14

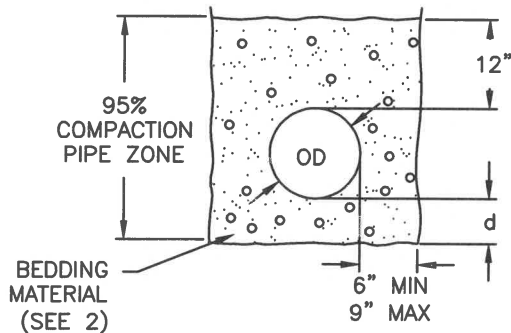


STANDARD PERFORATED PIPE SECTION

STORM SEWER TRENCH - MAIN LINE ONLY
(ALL LATERALS TO BE NON-PERFORATED)



RIGID PIPE BEDDING DETAILS



FLEXIBLE PIPE BEDDING DETAILS

NOTES:

1. PROVIDE UNIFORM SUPPORT UNDER BARREL, HAND TAMP UNDER HAUNCHES.
2. BEDDING MATERIALS SHALL CONFORM TO SECTION 9-03.12(3) OF THE STANDARD SPECIFICATIONS.
3. FOR ROCK AND OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVER EXCAVATED A MINIMUM OF 6 INCHES AND REFILLED WITH GRANULAR MATERIAL AS DIRECTED BY THE ENGINEER.
4. BEDDING AND BACKFILL MATERIALS IN THE PIPE ZONE SHALL BE COMPACTED TO 95%.
5. NATIVE MATERIAL MAY BE USED IN LIEU OF IMPORTED MATERIAL FOR BEDDING SPECIFIED, PROVIDED THAT THE NATIVE CONFORMS TO SECTION 9-03.12(3) OF THE STANDARD SPECIFICATIONS, AND IS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A SAMPLE OF THE MATERIAL TO THE ENGINEER AT LEAST 72 HOURS PRIOR TO USE. THE ENGINEER MAY APPROVE, REJECT OR REQUIRE LAB TESTING OF THE MATERIAL.
6. TRENCH WIDTH SHALL NOT EXCEED 1-1/2 TIMES THE ID OF THE PIPE PLUS 18 INCHES AT THE TOP OF THE PIPE ZONE.
7. ALL JOINTS SHALL BE AIR-TIGHT FOR NON-PERFORATED PIPE. THE ENGINEER MAY REQUIRE TESTING OF ANY OR ALL JOINTS AND CONNECTIONS.

8.

DEPTH OF BEDDING MATERIAL BELOW PIPE	
OD	d (MIN)
27" & SMALLER	4"
LARGER THAN 27"	6"

PIPE BEDDING

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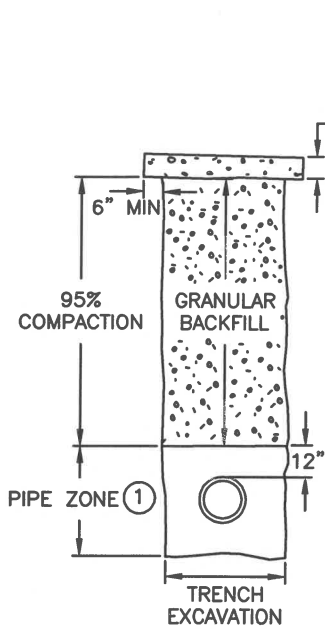
DESIGNED



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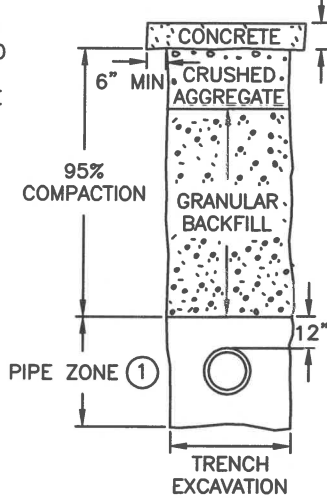
3-11-22
DATE

D-15



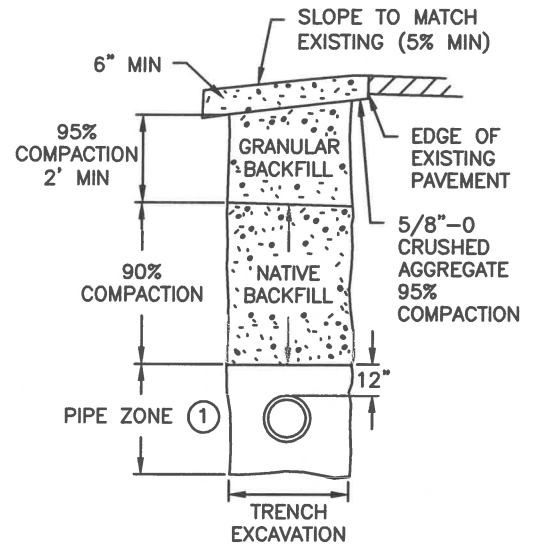
WHEN NOT OTHERWISE SPECIFIED, RESURFACING SHALL CONSIST OF 6" OF 1-1/4"-0 OR 3/4"-0 CRUSHED AGGREGATE

TRAVELED UNIMPROVED STREET

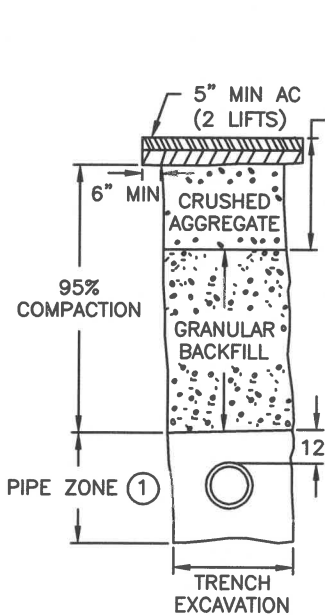


WHEN NOT OTHERWISE SPECIFIED, RESURFACING SHALL CONSIST OF 6" OF CONCRETE ON 12" OF 1-1/4"-0 CRUSHED AGGREGATE

HARD SURFACE (CONCRETE)

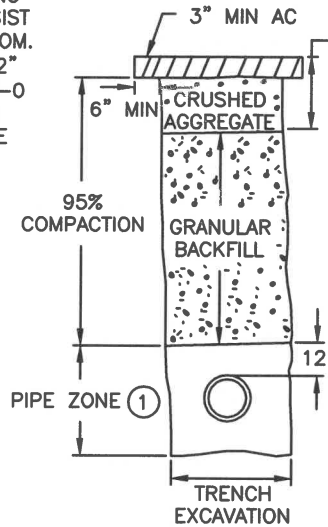


ROADWAY SHOULDER



WHEN NOT OTHERWISE SPECIFIED, RESURFACING SHALL CONSIST OF 5" OF COM. HMA ON 12" OF 1-1/4"-0 CRUSHED AGGREGATE

MAIN OR SECONDARY ARTERIAL OIL, GRAVEL, OR ASPHALT CONCRETE SURFACE



WHEN NOT OTHERWISE SPECIFIED, RESURFACING SHALL CONSIST OF 3" OF COM. HMA ON 9" OF 1-1/4"-0 CRUSHED AGGREGATE

COLLECTOR OR LOCAL STREET OIL, GRAVEL, OR ASPHALT CONCRETE SURFACE

TRENCH SECTION

NOTES:

1. FOR PIPE ZONE BEDDING, BACKFILL AND COMPACTION REQUIREMENTS, SEE STANDARD DETAIL D-15.
2. COMPACTION PERCENTAGES REFER TO RELATIVE DRY DENSITY AS DETERMINED BY STANDARD PROCTOR (ASTM D 698)
3. CONTRACTOR MAY USE UP TO 2-1/2" OF 5/8"-0 OR 3/4"-0 CRUSHED AGGREGATE IN LIEU OF 1-1/4"-0 BASE ROCK UNDER SURFACING FOR LEVELING COURSE.
4. ALL EXISTING PAVED SURFACES SHALL BE SAW CUT A MINIMUM OF 6" OUTSIDE OF EDGE OF TRENCH TO PROVIDE A NEAT STRAIGHT EDGE.
5. THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE CLEANED AND A TACK COAT SHALL BE APPLIED PER STD. SECTION 5-04.3(5). ALL JOINTS SHALL BE SEALED WITH AR-4000 AND SANDED.
6. ALL BACKFILL SHALL BE MECHANICALLY COMPACTED IN LIFTS WHICH DO NOT EXCEED RATED CAPABILITY OF EQUIPMENT USED, BUT IN NO CASE EXCEED 12" LOOSE.
7. GRANULAR BACKFILL SHALL MEET REQUIREMENTS OF SECTION 9-30.7(3) UNLESS OTHERWISE SPECIFIED.

TRENCH BACKFILL

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DATE

3-11-22