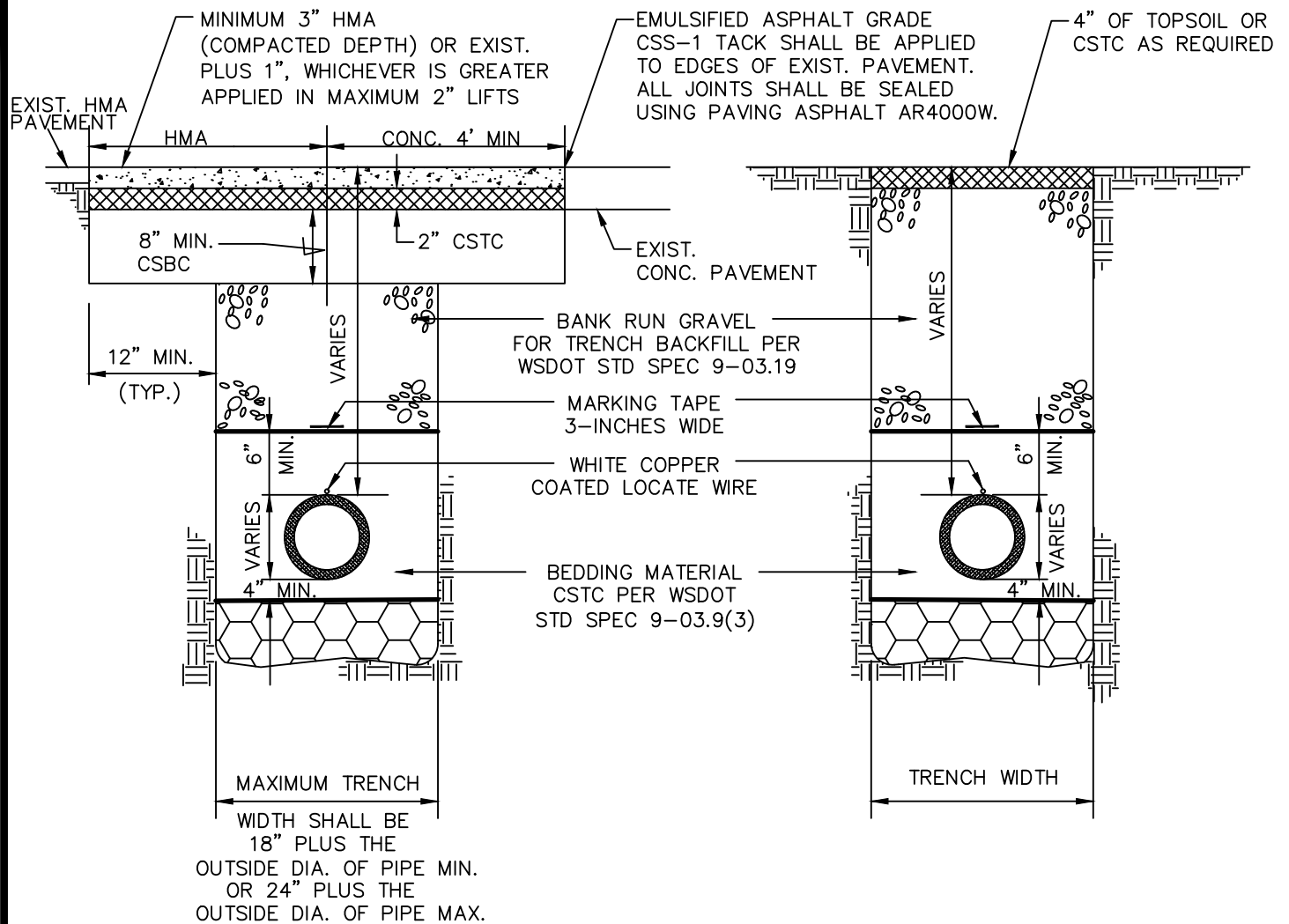




NOTES:

1. CSTC & CSBC MATERIAL SHALL BE COMPACTED IN 6-INCH MAXIMUM LIFTS TO 95% DENSITY.
2. COMPACTION: BEDDING SHALL BE COMPACTED TO 95% MAX. AS DETERMINED BY ASTM D1557. BACKFILL SHALL BE COMPACTED TO 95% IN THE ROADWAY PRISM, AND 85% OUTSIDE ROADWAY PRISM AS DETERMINED BY ASTM D1557.
3. ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AS AMENDED BY CITY STANDARDS.
4. WHEN CUT LINE IS LESS THAN THREE FEET FROM A CUT LINE, CURB, JOINT LINE, OR PAVEMENT EDGE, THE EXISTING PAVEMENT SHALL BE REMOVED TO THE CUT LINE.

CITY OF CASTLE ROCK			
TRENCH – PAVEMENT RESTORATION			
APPROVED: <i>Dan Vora</i>		07-20-20	DWG. NO. CRO01SW
BY CITY		DATE	
DATE: 06/20	DRWN: KAR	CHKD: CLR	SCALE: NONE

CURB AND GUTTER, SEE
STANDARD CURB AND
GUTTER DETAIL FOR
ADDITIONAL INFORMATION

CAST IRON FRAME,
SEE STANDARD FRAME
AND GRATE DETAIL

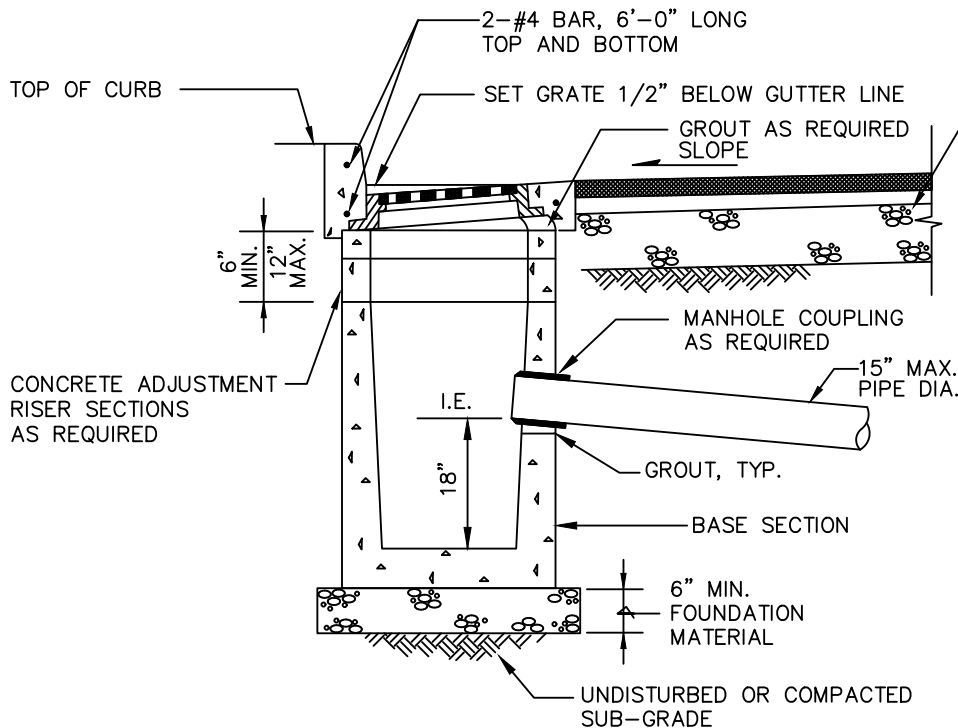
2- #4 x 6' TOP AND
BOTTOM, PLACE TOP BAR
3" FROM TOP OF THE CURB,
PLACE BOTTOM BAR 3" FROM
BOTTOM OF THE CURB

DUCTILE IRON GRATE, SEE
STANDARD FRAME AND GRATE
DETAIL

#4 BAR WRAPPED AROUND
CATCH BASIN FRAME

THRU JOINT, TYP.
EACH SIDE

PLAN



NOTES:

1. TYPE I CATCH BASIN PER WSDOT STD PLAN B-5.20 & TYPE II CATCH BASIN PER WSDOT STD PLAN B-5.40
2. CATCH BASINS SHALL BE SPACED PER MINIMUM CITY DESIGN STANDARDS
3. TYPE I CATCH BASIN IS USED FOR DEPTHS LESS THAN 5'-0" FROM THE TOP OF THE GRATE TO I.E. (INVERT)

ELEVATION

CATCH BASIN TYPE I

CITY OF CASTLE ROCK

CATCH BASIN TYPE I

APPROVED:

Dan Vora

07-20-20

DWG. NO.

CR003SW

BY CITY

DATE

DATE:

11/19

DRWN:

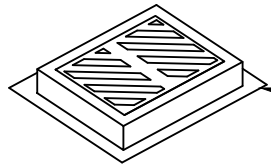
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CHKD:

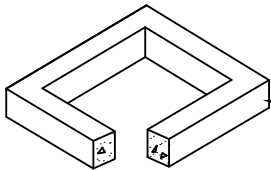
C.L.R.

SCALE:

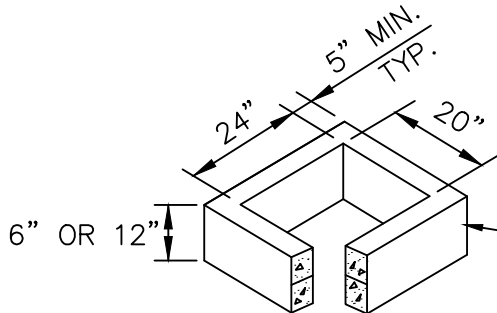
NONE



FRAME AND OPEN GRATE, VANED GRATE,
OR SOLID COVER.



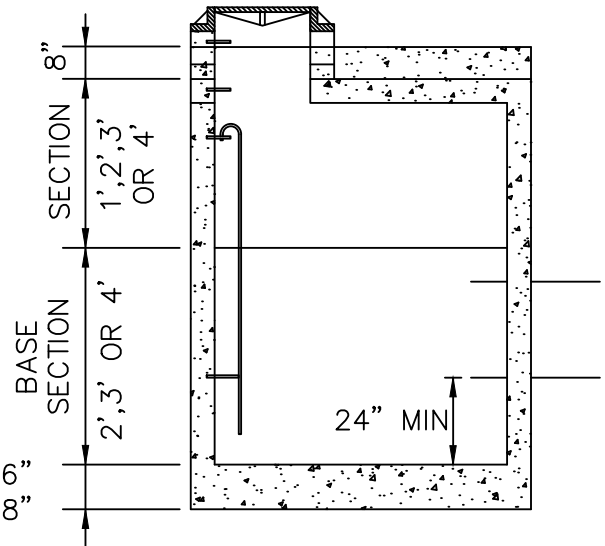
2" x 4" x 8" SOLID BRICK USED FOR FINAL
ADJUSTMENT TO GRADE 6" HIGH MAX.



TOP SLAB WITH 24" ROUND ACCESS OR
20" x 24" RECTANGULAR ACCESS, USE
SEWER STANDARD. DETAIL 640 FOR
STEPS AND LADDER.

NOTES:

1. TYPE 2 CATCH BASIN PER
WSDOT STD PLAN B-10.20
2. ALL TYPE 2 CB'S EQUIPPED WITH
OPEN GRATES SHALL BE LOCKING TYPE.
3. ALL TYPE 2 CB'S NOT IN PAVED
AREAS SHALL BE EQUIPPED WITH
LOCKING LIDS.
4. ALL TYPE II CB'S SHALL BE EQUIPPED
WITH STEPS AND LADDER.
5. CB'S SHALL BE SET SO THAT STEPS
ARE DIRECTLY UNDER OPENING.
6. CONCRETE SHALL BE CLASS 4000.
7. MINIMUM DISTANCE FROM INVERT
TO CB BOTTOM SHALL BE 2.0'.
8. CB SECTIONS AND LID WILL BE
HS20 TRAFFIC LOAD CERTIFIED
BY MFG.
9. HOLE SIZE - PIPE O.D. + 5" MAX
MAX HOLE SIZE - 36" (28" CB)
MAX HOLE SIZE - 42" (54" CB)



CATCH BASIN TYPE 2

CITY OF CASTLE ROCK			
CATCH BASIN TYPE 2			
APPROVED: 			DWG. NO.
BY CITY			CR004SW
DATE: 11/19	DRWN: W.M.	CHKD: C.L.R.	SCALE: NONE

OVERFLOW ELEV. TO
PROVIDE DETENTION
AND OIL SEPARATION
PER PLANS

WELD OR BOLT
CHAIN TO FRAME

ROUND SOLID COVER
MARKED "STORM"
WITH LOCKING BOLTS,
UNLESS OTHERWISE
APPROVED BY ENGINEER

CHAIN 220# CAPACITY
SLACK WHEN GATE IS
DOWN

60" DIAMETER MINIMUM

1" (POLY) SAFETY TYPE
MANHOLE STEPS LOCATED
AT 12" O.C.

DISTRIBUTION GATE
WITH 8 GAGE SLIDE

PIPE SUPPORT(S):
3"x.090 GAGE
BOLTED OR IMBEDDED
2" IN WALL AT MAX.
3" SPACING, MIN.
ONE SUPPORT

OUTLET
PIPE

INVERT ELEV.
PER PLANS

RESTRICTOR PLATE
WITH ORIFICE AS
SPECIFIED

INLET PIPE

INVERT
ELEVATION
PER PLANS

SECTION VIEW

FLOW RESTRICTOR CATCH BASIN TYPE 2

PLAN VIEW

NOTES:

1. PIPE SIZES AND SLOPES: PER APPROVED PLANS
2. OUTLET CAPACITY: NOT LESS THAN COMBINED INLETS
3. METAL PARTS: CORROSION RESISTANT. GALVANIZED PIPE PARTS TO HAVE ASPHALT TREATMENT 1
4. FRAME AND LADDER OR STEPS OFFSET SO:
 - A. CLEANOUT GATE IS VISIBLE FROM TOP
 - B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE
 - C. FRAME IS CLEAR OF CURB
5. 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"

CITY OF CASTLE ROCK

FLOW RESTRICTOR
CATCH BASIN TYPE 2

APPROVED:

David Vona

07-20-20

BY CITY

DATE

DWG. NO.

CR005SW

DATE:

11/19

DRWN:

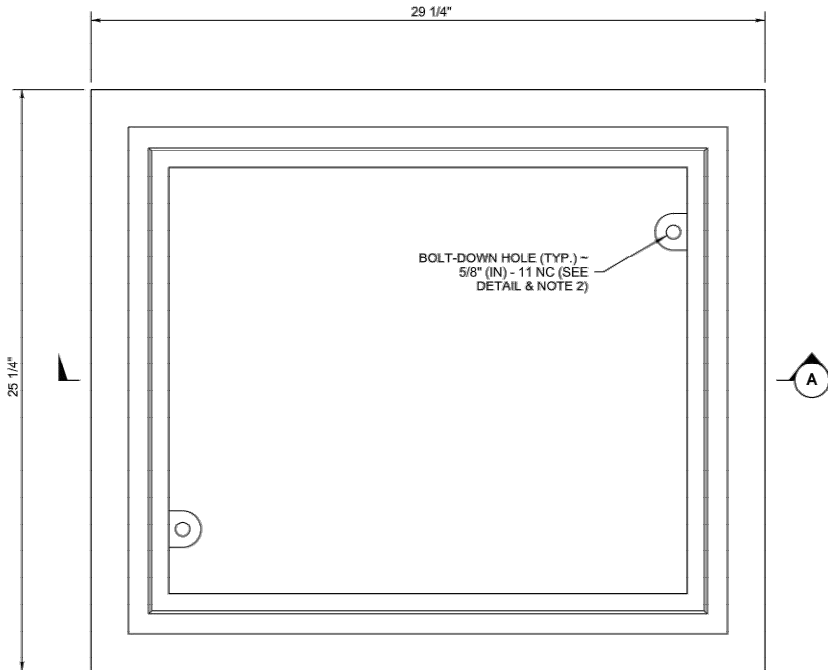
W.M.

CHKD:

C.L.R.

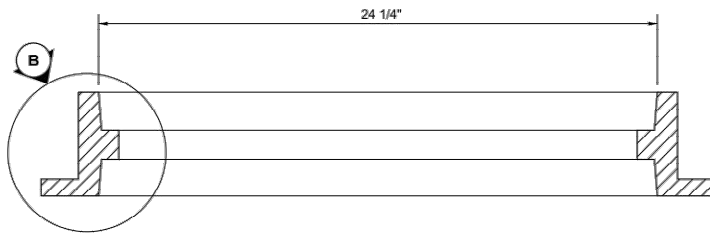
SCALE:

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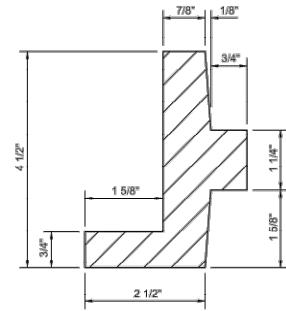


BOLT-DOWN HOLE (TYP.) -
5/8" (IN) - 11 NC (SEE
DETAIL & NOTE 2)

TOP

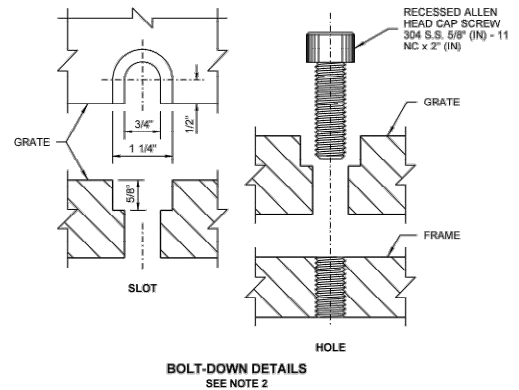


SECTION A



DETAIL B

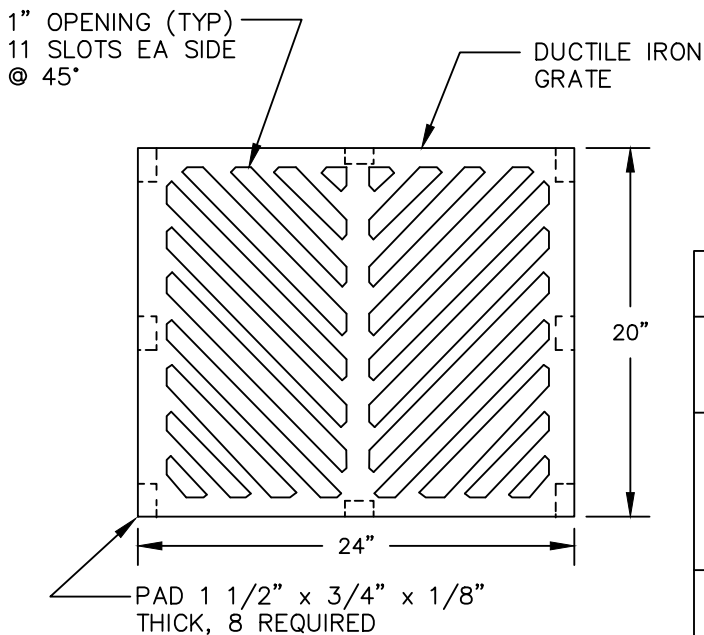
1. This frame is designed to accommodate 20" (in) x 24" (in) grates or covers as shown on **Standard Plans B-30.20, B-30.30, B-30.40, and B-30.50.**
2. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC x 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.
3. Refer to **Standard Specification Section 9-05.15 and 9-05.15(2)** for additional requirements.



BOLT-DOWN DETAILS
SEE NOTE 2

NOTES:

1. MATERIAL SHALL CONFORM TO THE MOST CURRENT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" PREPARED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER.
2. WHEN ROAD PROFILE PER WSDOT STD PLAN B-30.30, EXCEEDS 6%, "VANED" GRATES SHALL BE INSTALLED IN LIEU OF THE "HERRING BONE" GRATE, AT THE DISCRETION OF THE CITY.



1" OPENING (TYP)
11 SLOTS EA SIDE
@ 45°

DUCTILE IRON
GRATE

20"

24"

PAD 1 1/2" x 3/4" x 1/8"
THICK, 8 REQUIRED

CITY OF CASTLE ROCK

CATCH BASIN FRAME AND GRATE

APPROVED:

David Vora

07-20-20

DWG. NO.

CR006SW

BY CITY

DATE

DATE:

12/19

DRWN:

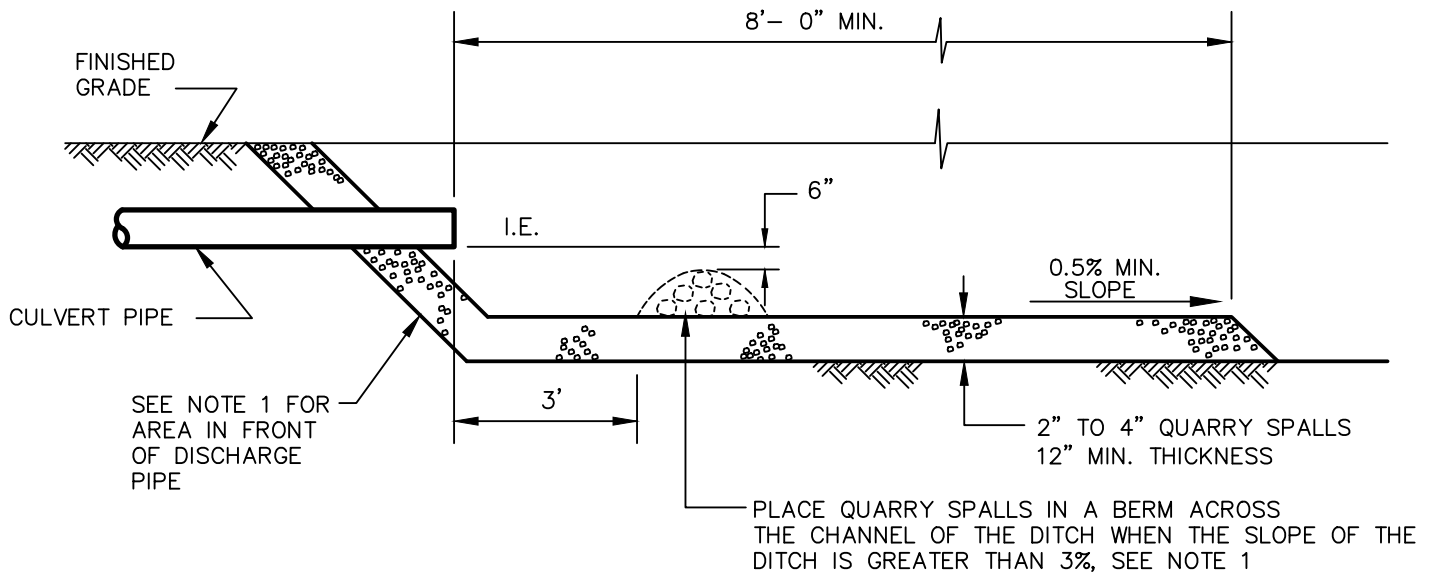
W.M.

CHKD:

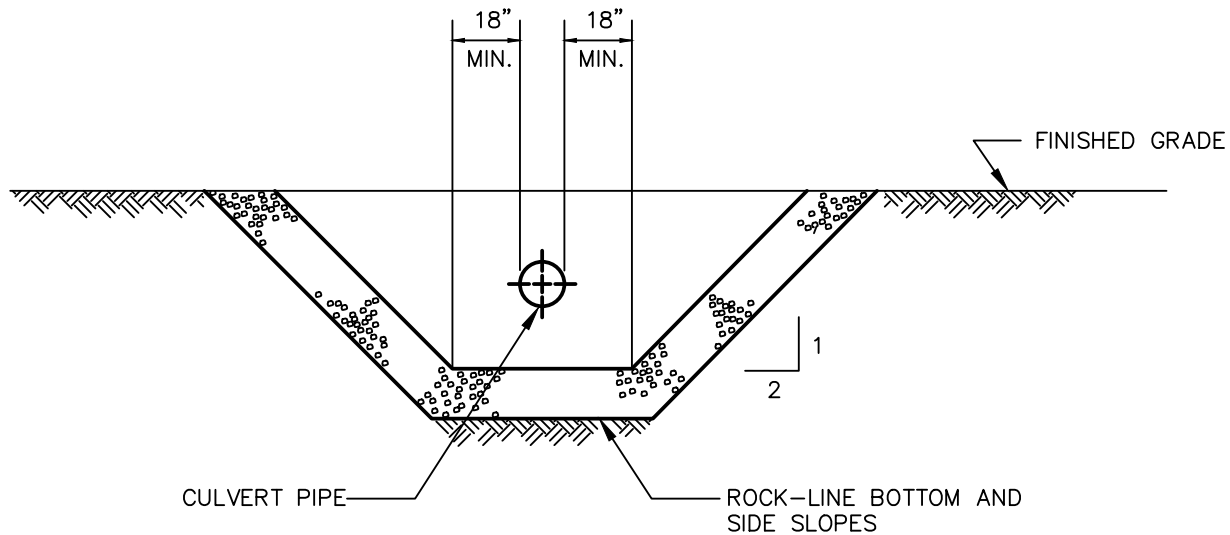
C.L.R.

SCALE:

NONE



SIDE VIEW



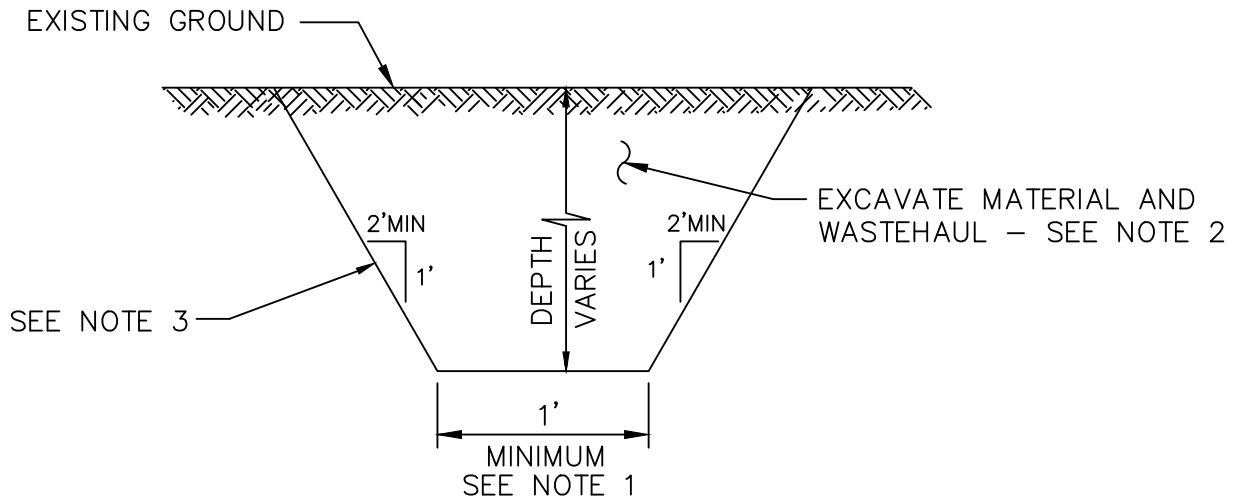
FRONT VIEW

NOTES:

1. PLACE QUARRY SPALLS IN FRONT OF CULVERT DISCHARGE, ENGINEER SHALL SIZE QUARRY SPALL BERM

RIPRAP AND ENERGY DISSIPATION FOR DITCH

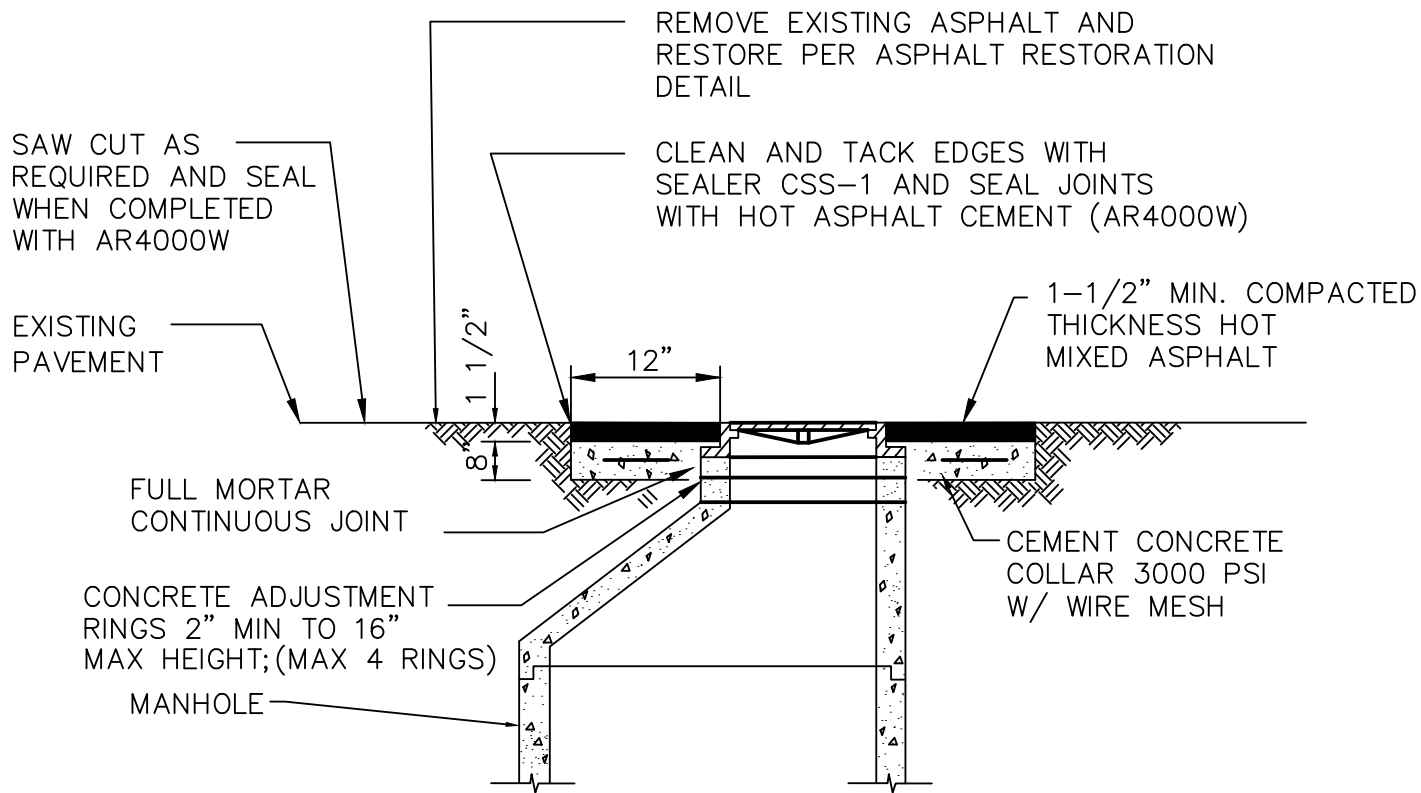
CITY OF CASTLE ROCK			
RIPRAP AND ENERGY DISSIPATION FOR DITCH			
APPROVED: <i>David Vora</i>		07-20-20	DWG. NO. CR007SW
BY CITY		DATE	
DATE: 11/19	DRWN: W.M.	CHKD: C.L.R.	SCALE: NONE



NOTES:

1. NEW DITCH CONTOUR LINE.
PROVIDE A CONSTANT SLOPE
IN DITCH BETWEEN CULVERTS
TO PROVIDE PROPER DRAINAGE.
2. INSTALL RIP-RAP OR QUARRY
SPALLS AS REQUIRED BY
THE CITY ENGINEER TO
STABILIZE SIDE WALLS AND
BOTTOM.
3. DITCH SLOPE ADJACENT TO
ROADWAYS SHALL NOT BE
STEEPER THAN 4:1

CITY OF CASTLE ROCK			
NEW DITCH CONSTRUCTION			
APPROVED: 		07-20-20	DWG. NO.
BY CITY		DATE	CR008SW
DATE: 11/19	DRWN: W.M.	CHKD: C.L.R.	SCALE: NONE



CITY OF CASTLE ROCK			
MANHOLE, OR CATCH BASIN (TYPE II) GRADE ADJUSTMENT DETAIL			
APPROVED: <i>David Vora</i>		07-20-20	DWG. NO. CR009SW
BY CITY		DATE	
DATE: 11/19	DRWN: W.M.	CHKD: C.L.R.	SCALE: NONE