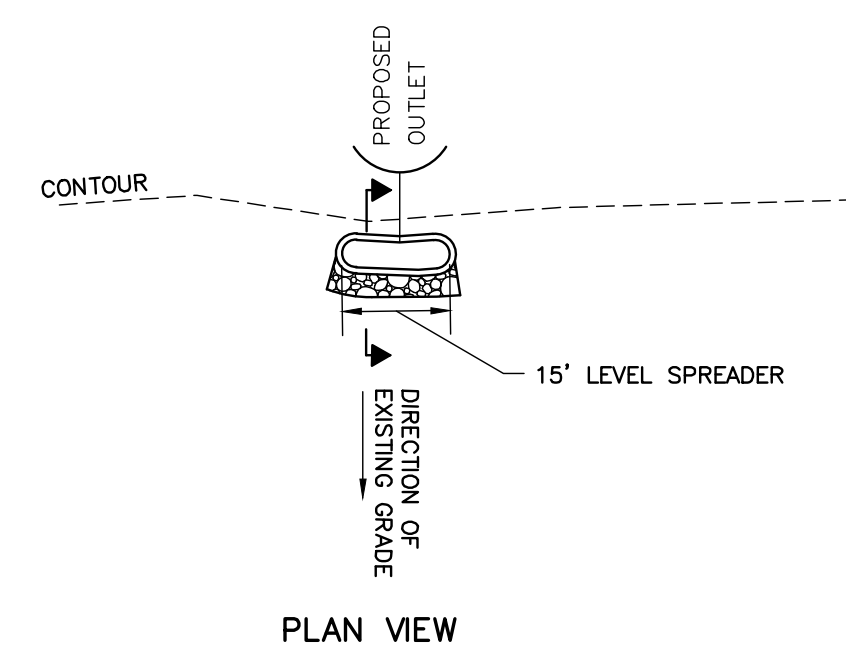


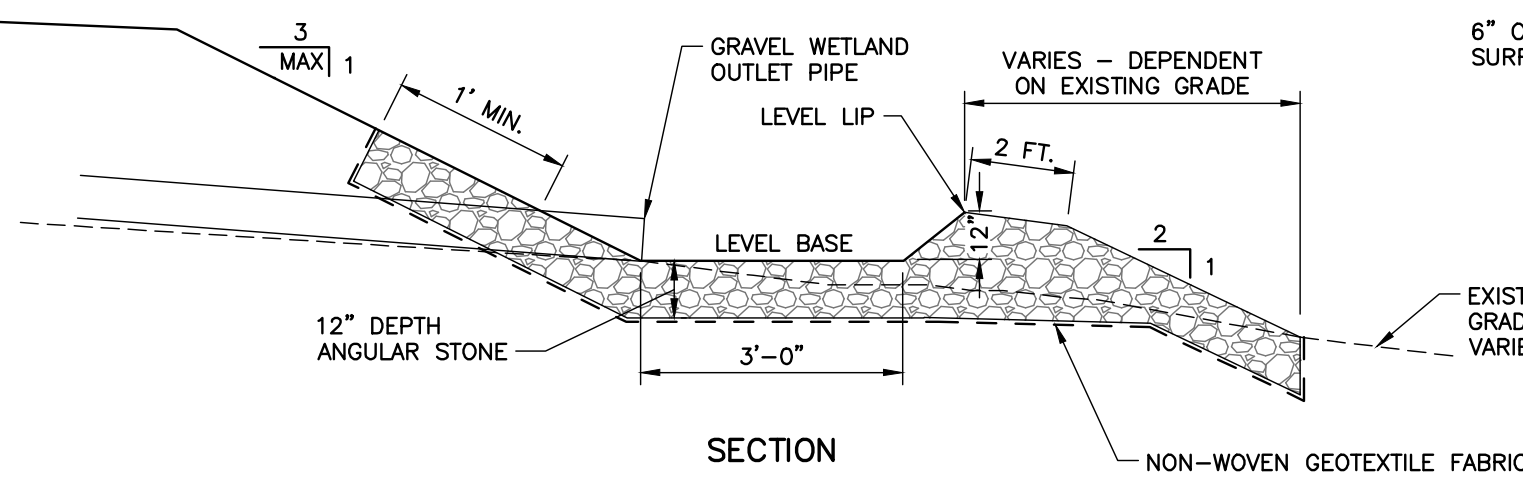
LEVEL SPREADER STONE SIZE*

Sieve Designation (metric)	Sieve Designation (U.S. Customary)	Percent by Weight Passing Square Mesh Sieve
300 mm	12 inch	100
150 mm	6 inch	84-100
75 mm	3 inch	68-83
25.4 mm	1 inch	42-55
4.75 mm	No. 4	8-12

*ALL STONE SHALL BE CRUSHED, ANGULAR STONE



PLAN VIEW



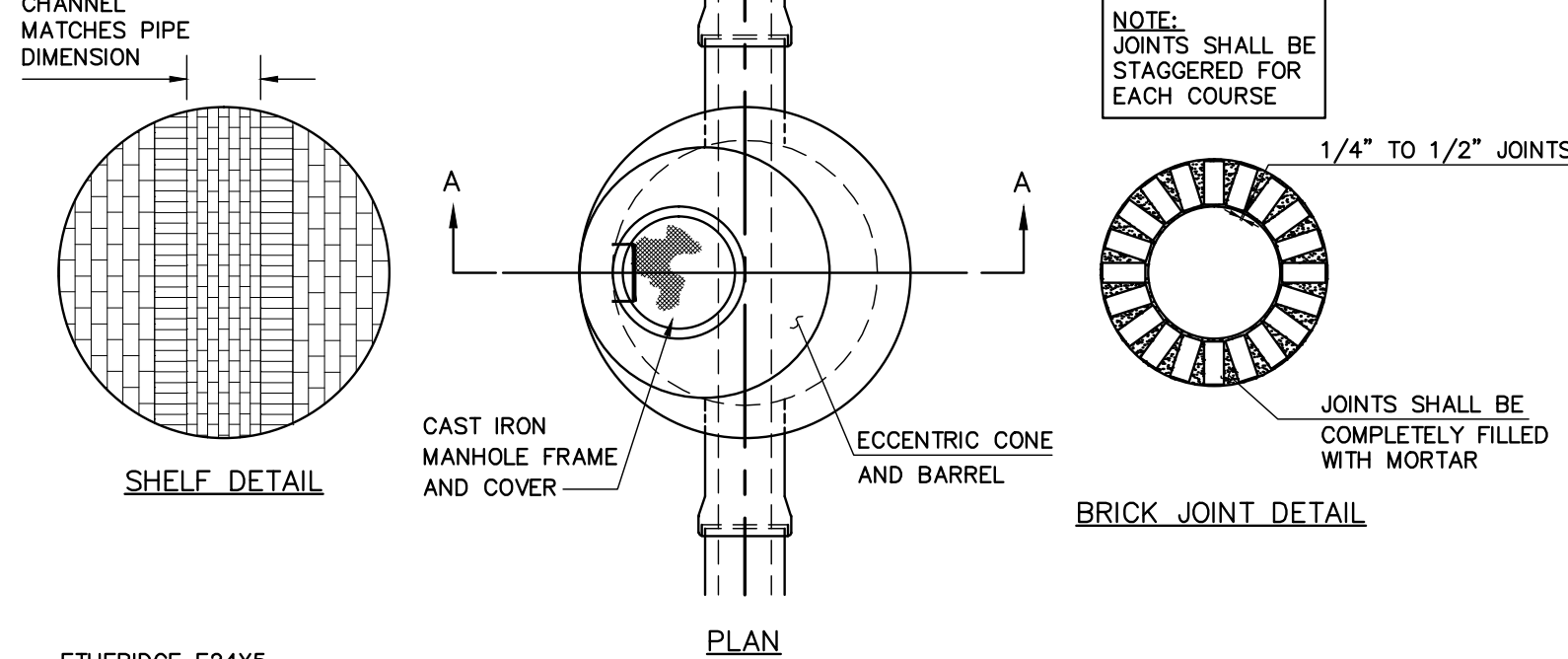
SECTION

LEVEL LIP SPREADER DETAIL

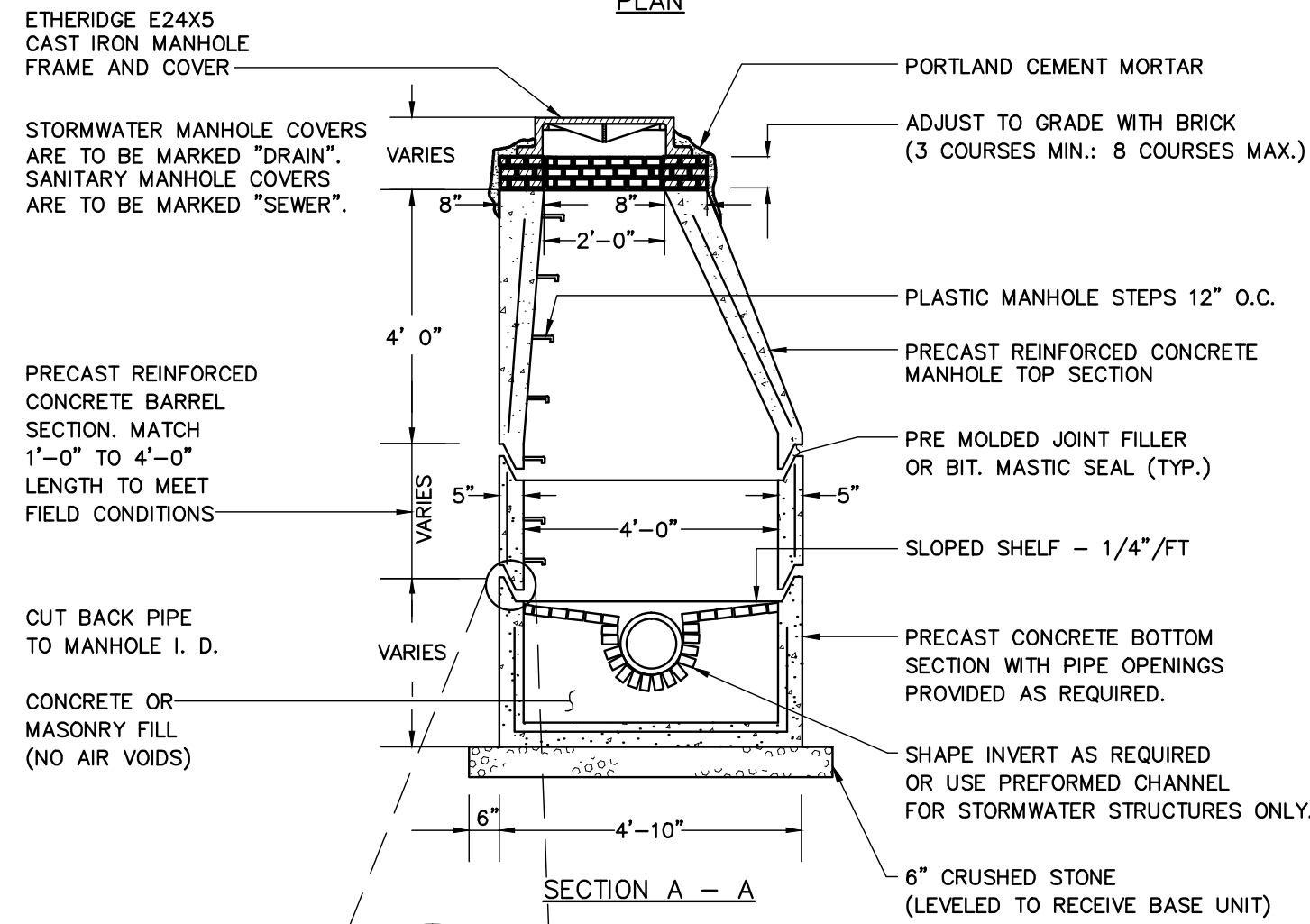
N.T.S.

NOTE:

DETAIL FROM CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL



PLAN



SECTION A - A

JOINT/MASTIC DETAIL

PRECAST CONCRETE MANHOLE

N.T.S.

NOTE:

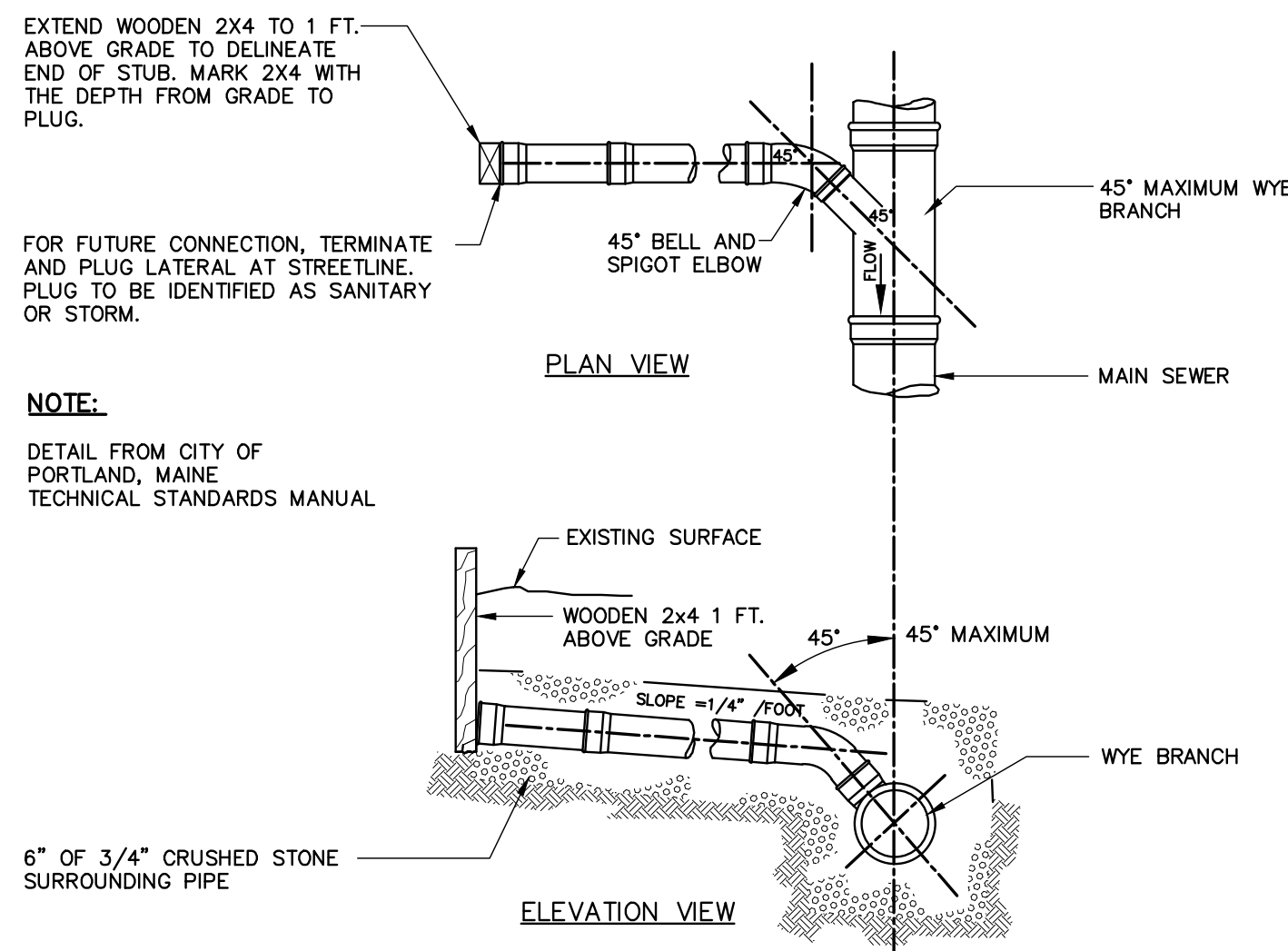
DETAIL FROM CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL

6" OF 3/4" CRUSHED STONE SURROUNDING PIPE

TYPICAL LATERAL TEE/WYE CONNECTION

N.T.S.

NOTE: LOCATION / WARNING TAPE SHALL BE INSTALLED OVER CENTERLINE OF PIPE AT A MAXIMUM OF 24 INCHES BELOW FINISH GRADE.

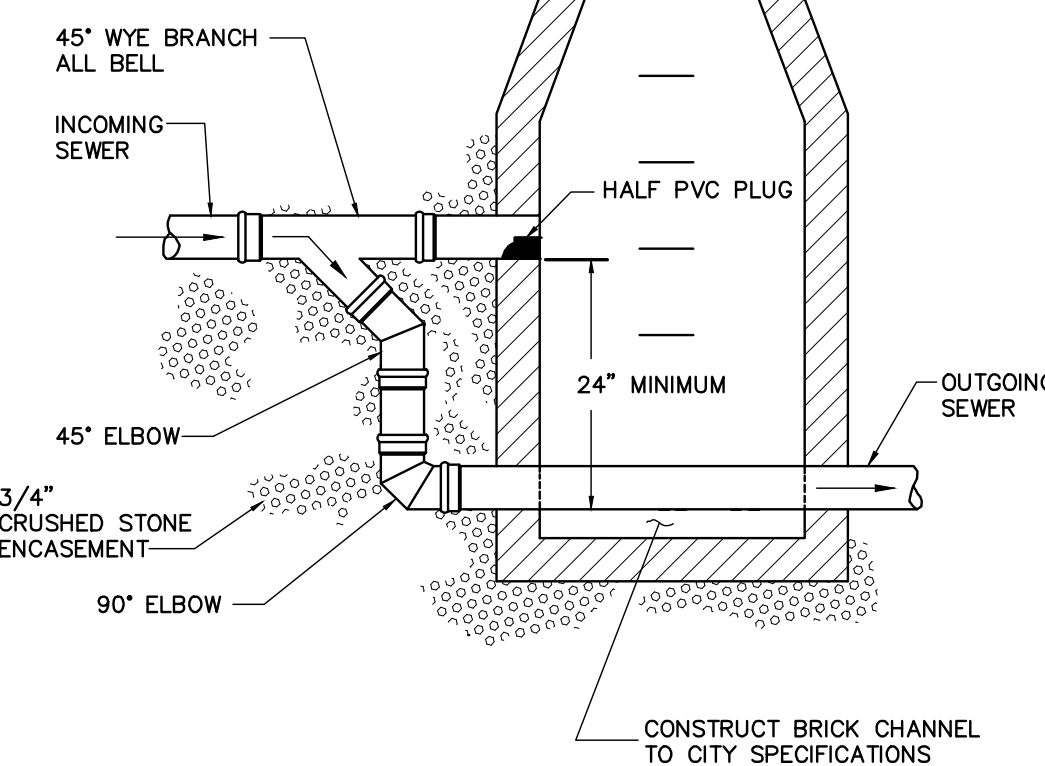


PLAN VIEW

ELEVATION VIEW

NOTE:

DROP MANHOLES ARE NOT REQUIRED FOR STORMWATER SYSTEMS.

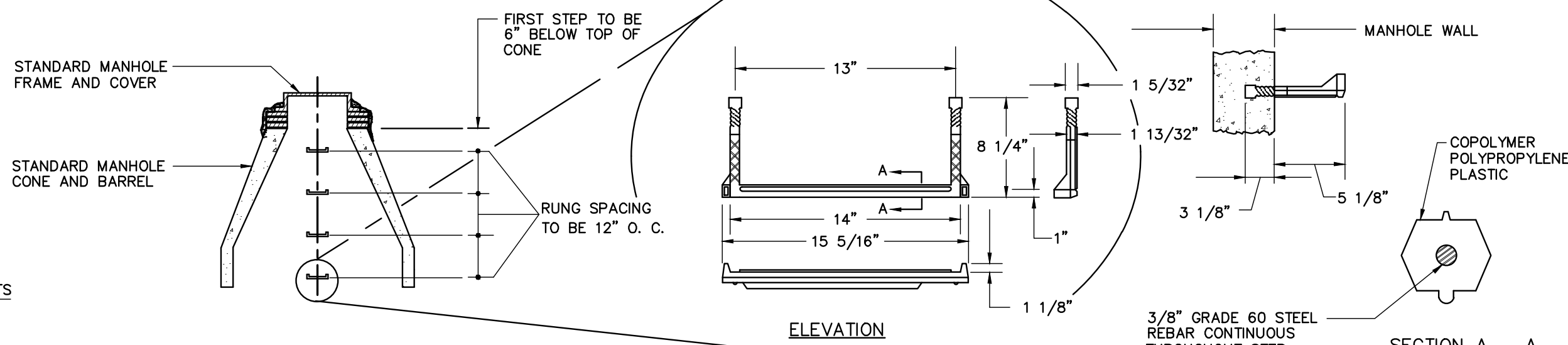


TYPICAL OUTSIDE DROP MANHOLE

N.T.S.

NOTE:

DETAIL FROM CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL



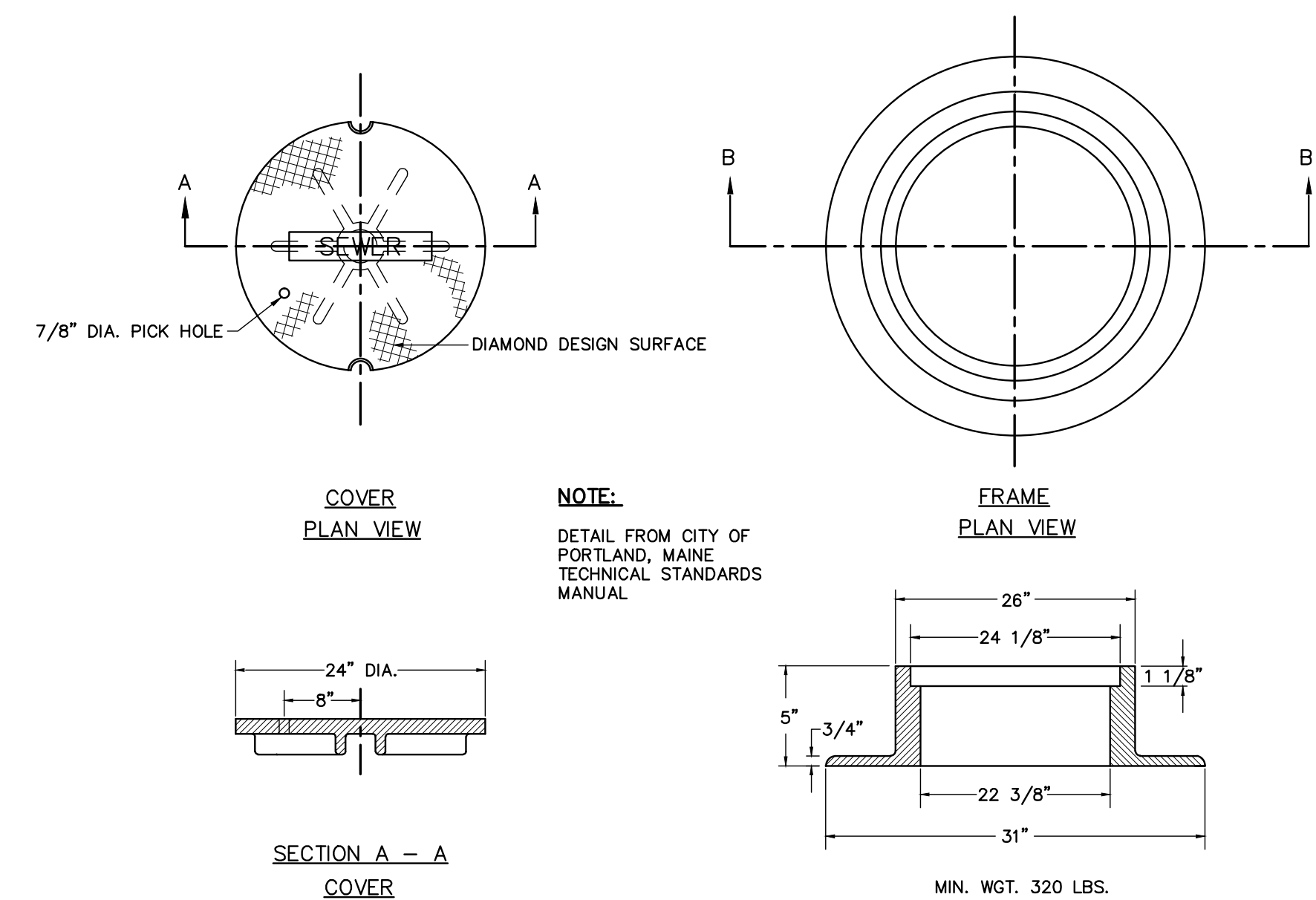
PLASTIC MANHOLE STEPS

N.T.S.

NOTE:

ALL MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE, LOCATED 8" FROM THE CENTER OF THE COVER.

ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/RAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.



COVER PLAN VIEW

FRAME PLAN VIEW

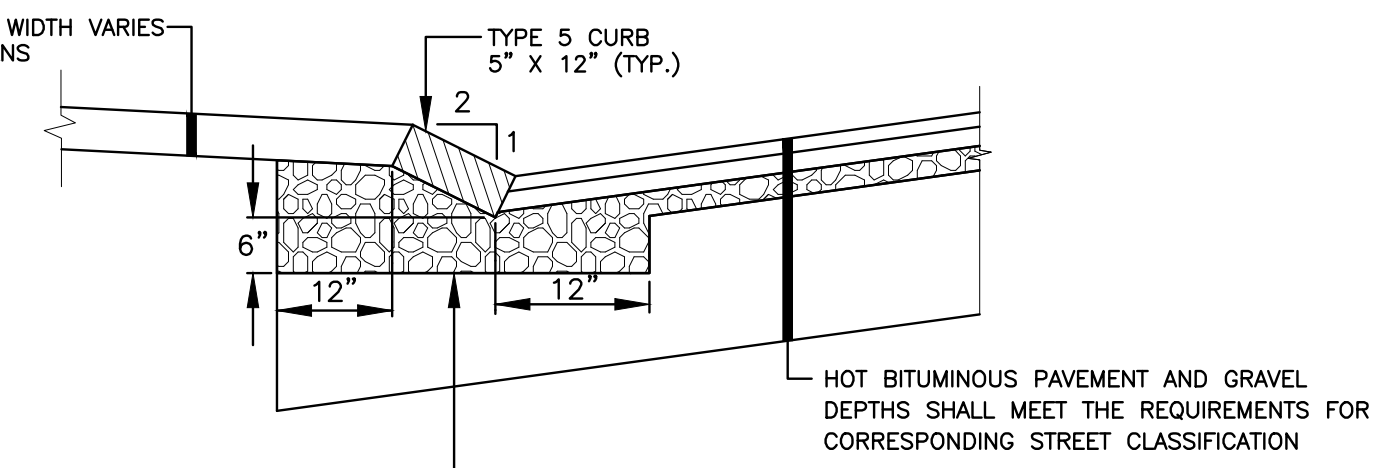
SECTION A - A COVER

SECTION B - B FRAME

CAST IRON MANHOLE COVER AND FRAME

N.T.S.

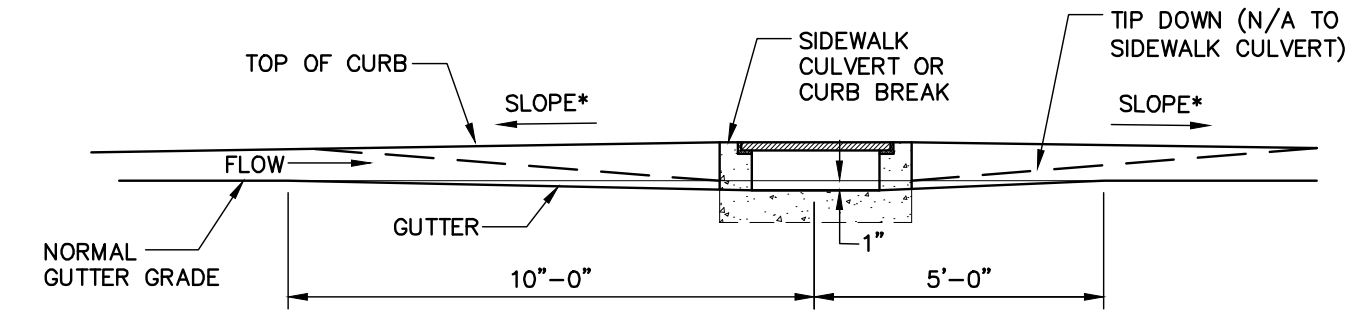
MATERIAL AND WIDTH VARIES REFER TO PLANS



NOTE: INDIVIDUAL PIECES OF CURB SHORTER THAN 4 L.F. ARE NOT ALLOWED, WITH THE EXCEPTION OF RADIAL CURB.

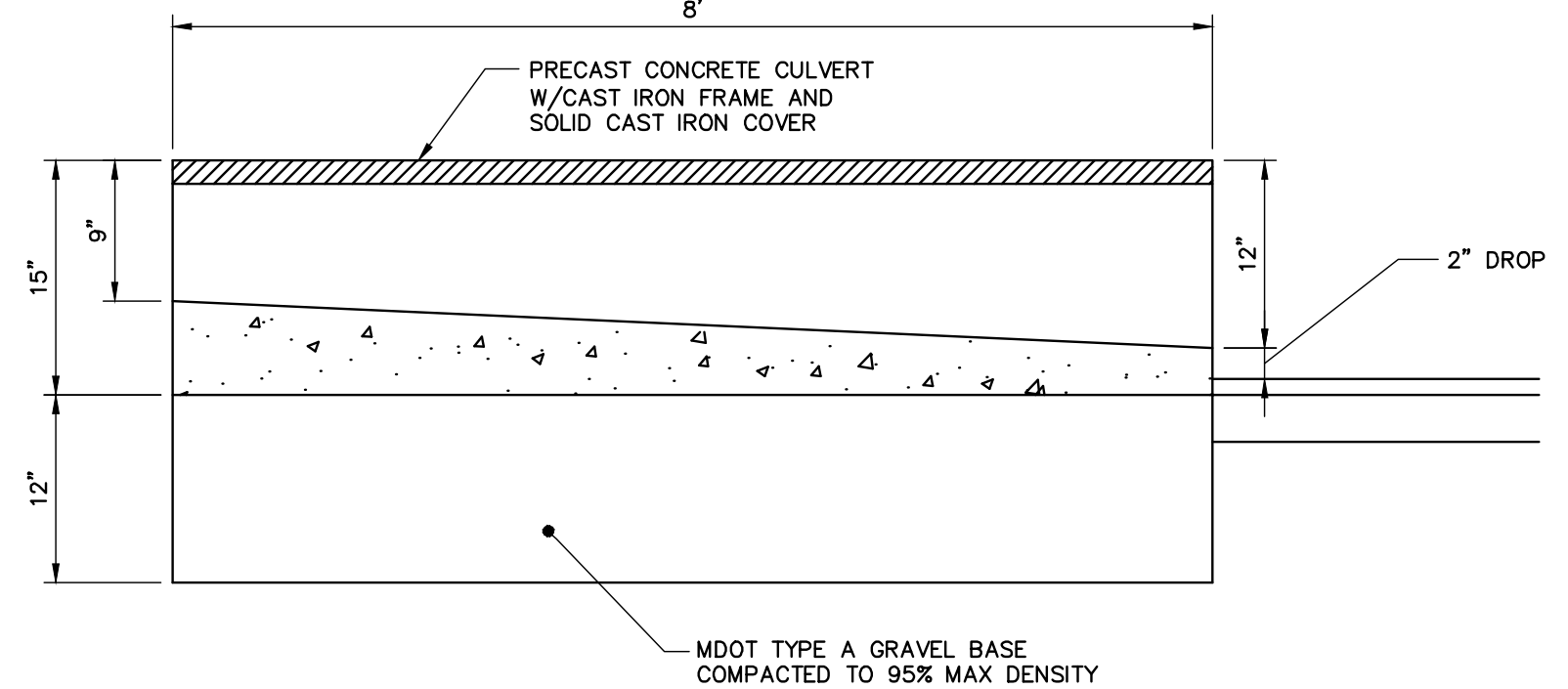
SLOPED GRANITE CURB DETAIL

N.T.S.

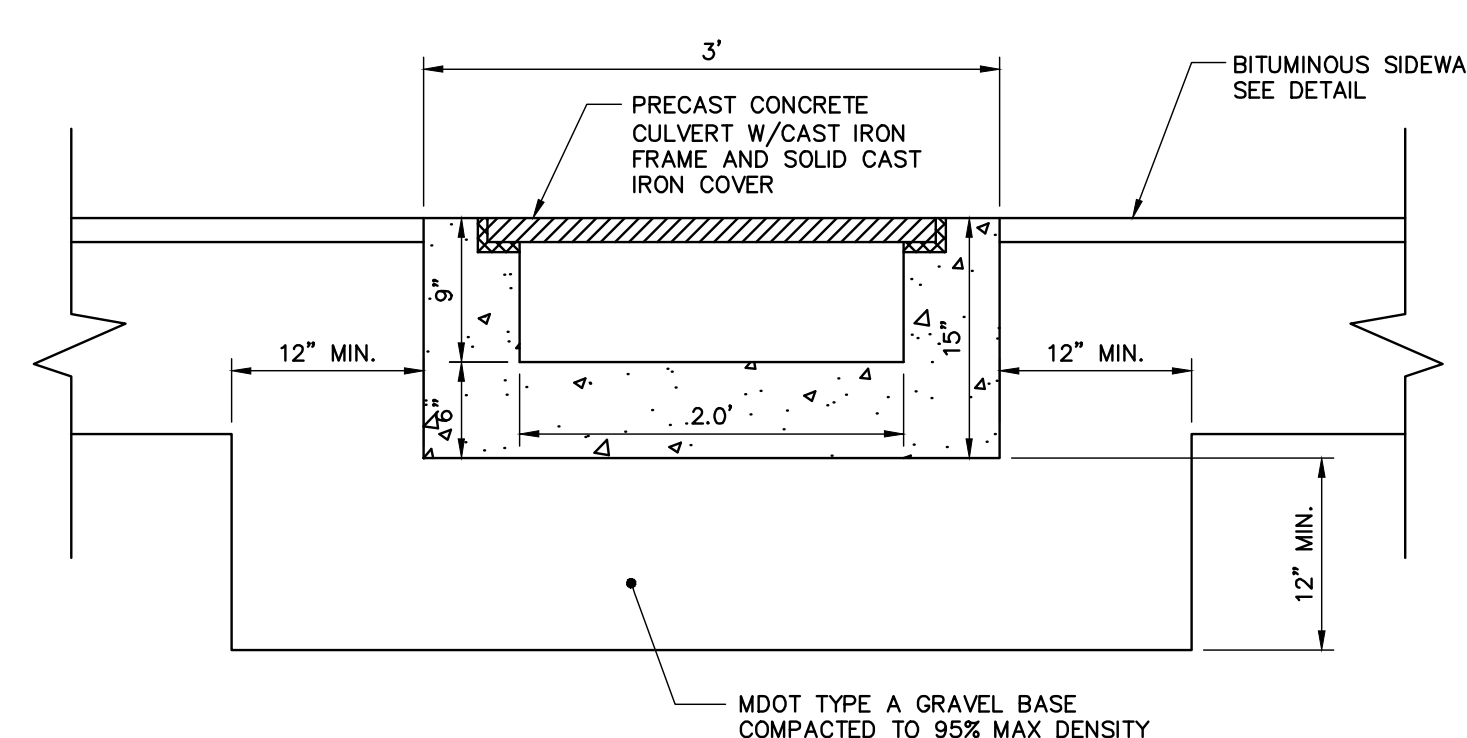


CULVERT/ CURB BREAK GUTTER DETAIL

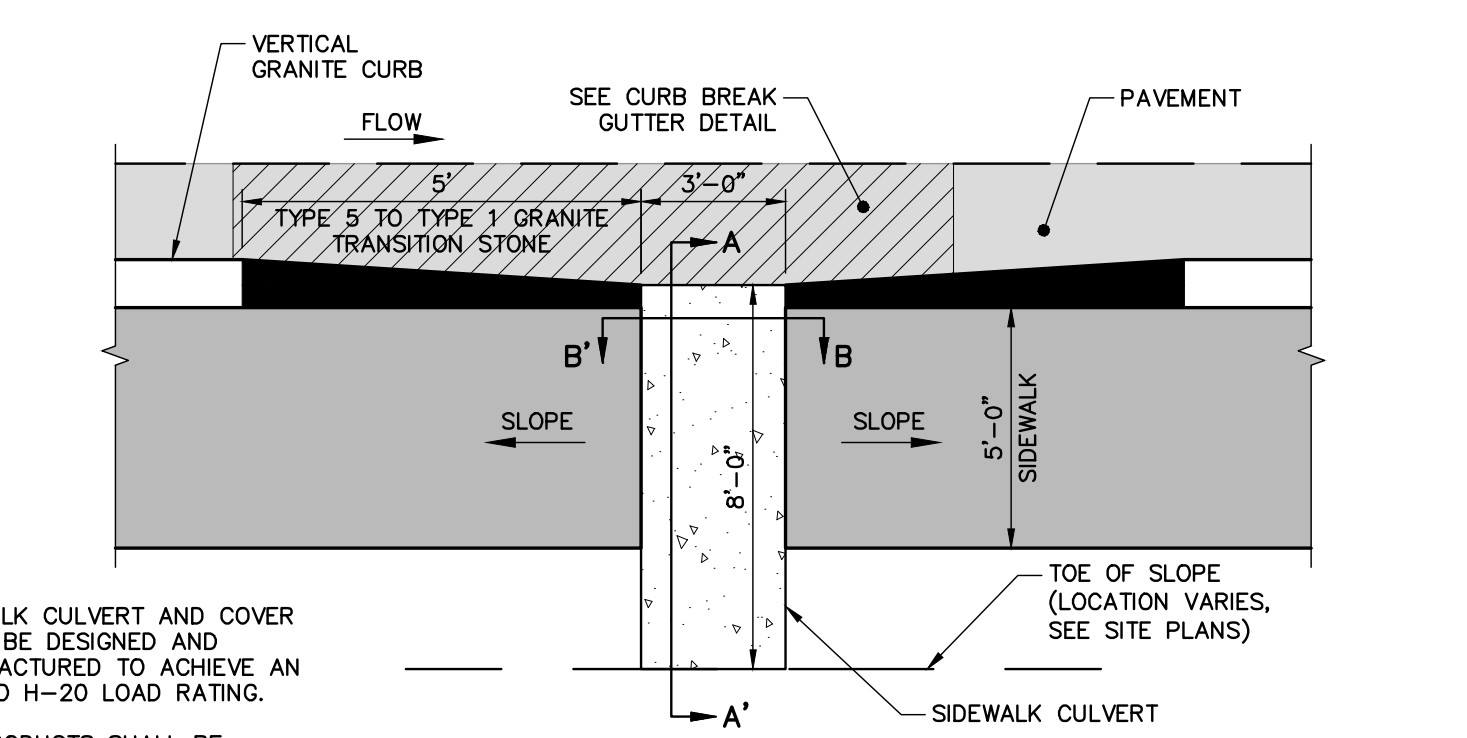
N.T.S.



SECTION A-A'



SECTION B-B'



PLAN

SIDEWALK CULVERT DETAIL

N.T.S.

NOTE:

- SIDEWALK CULVERT AND COVER SHALL BE DESIGNED AND MANUFACTURED TO ACHIEVE AN AASHTO H-20 LOAD RATING.
- ALL PRODUCTS SHALL BE MANUFACTURED IN THE UNITED STATES.
- SIDEWALK CULVERTS BY GEORGE R. ROBERTS COMPANY OR APPROVED EQUAL.

41 Hutchins Drive
Portland, Maine 04102
800.428.4282 | www.woodardcurran.com

WOODARD & CURRAN

COMMITMENT & INTEGRITY DRIVE RESULTS

DAVID SENUS
10791
REGISTERED PROFESSIONAL ENGINEER
MAINE

REV	DESCRIPTION	DATE
1	DESIGNED BY: ACA/LUS	
2	CHECKED BY: DAS	
3	DRAWN BY: JBC	

CIVIL DETAILS 3

CITY OF PORTLAND
ECONOMIC DEVELOPMENT OFFICE
PORTLAND, MAINE
& PATRONS OXFORD INSURANCE CO.

PORTLAND TECHNOLOGY PARK UPDATE
& LCE 4 DEVELOPMENT

JOB NO: 229001.01
DATE: OCTOBER 2015
SCALE: AS NOTED
SHEET: 14 OF 17