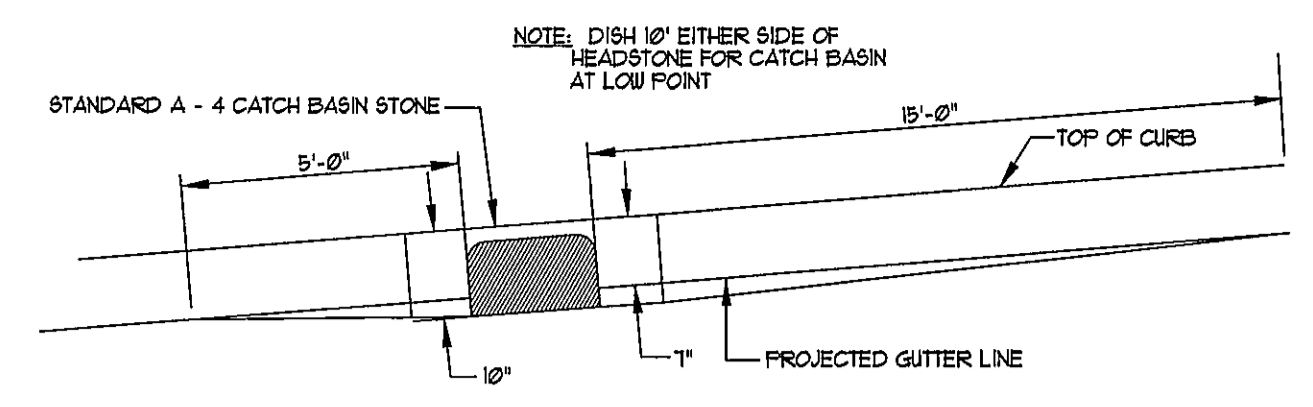
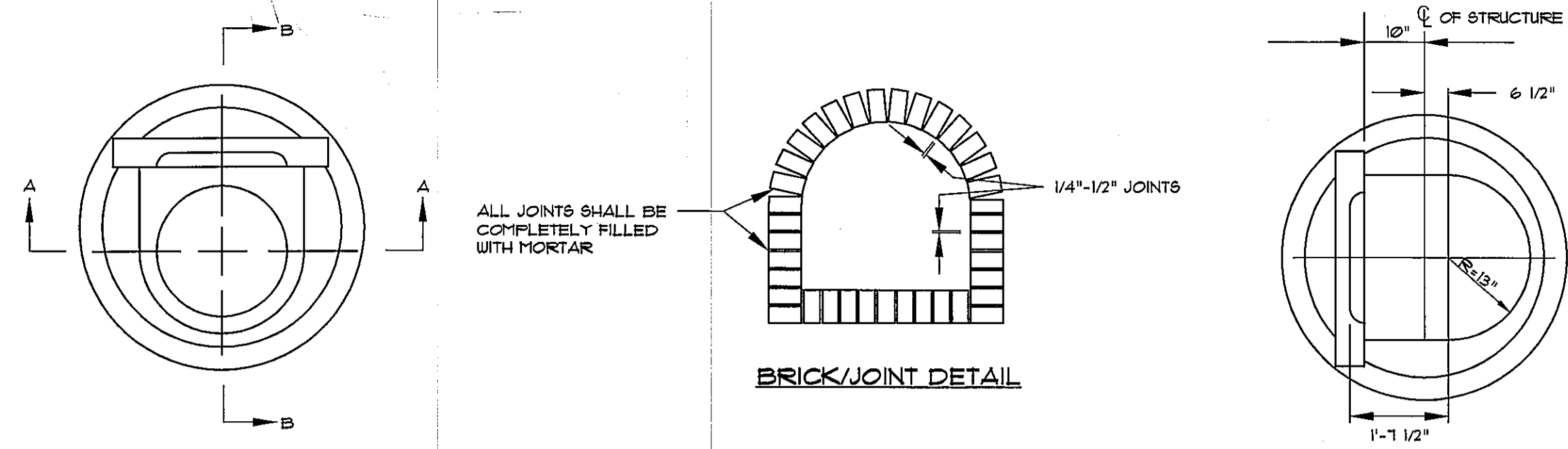
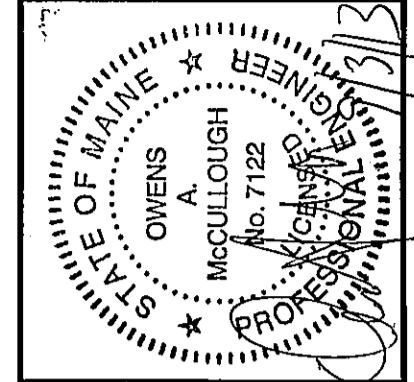
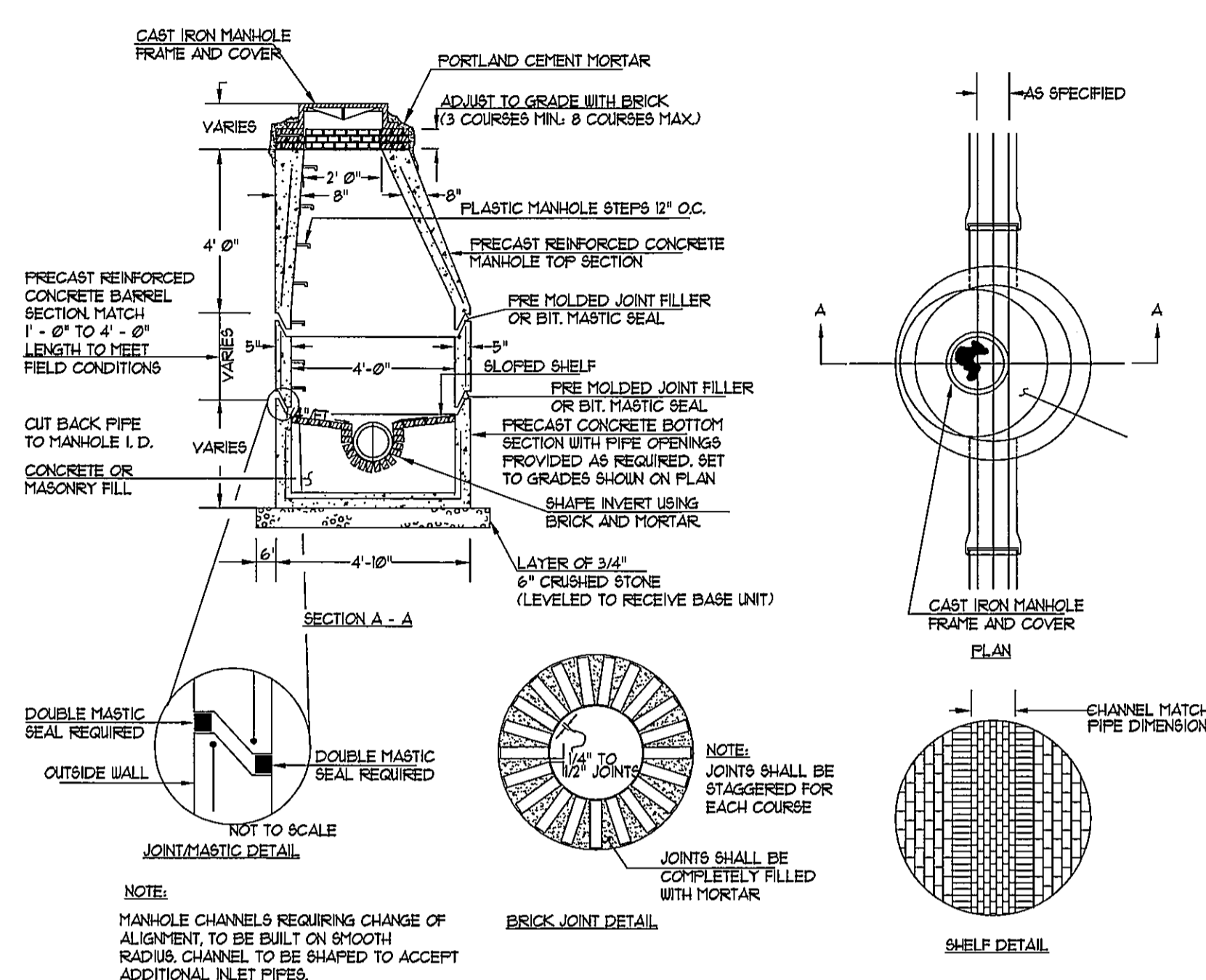
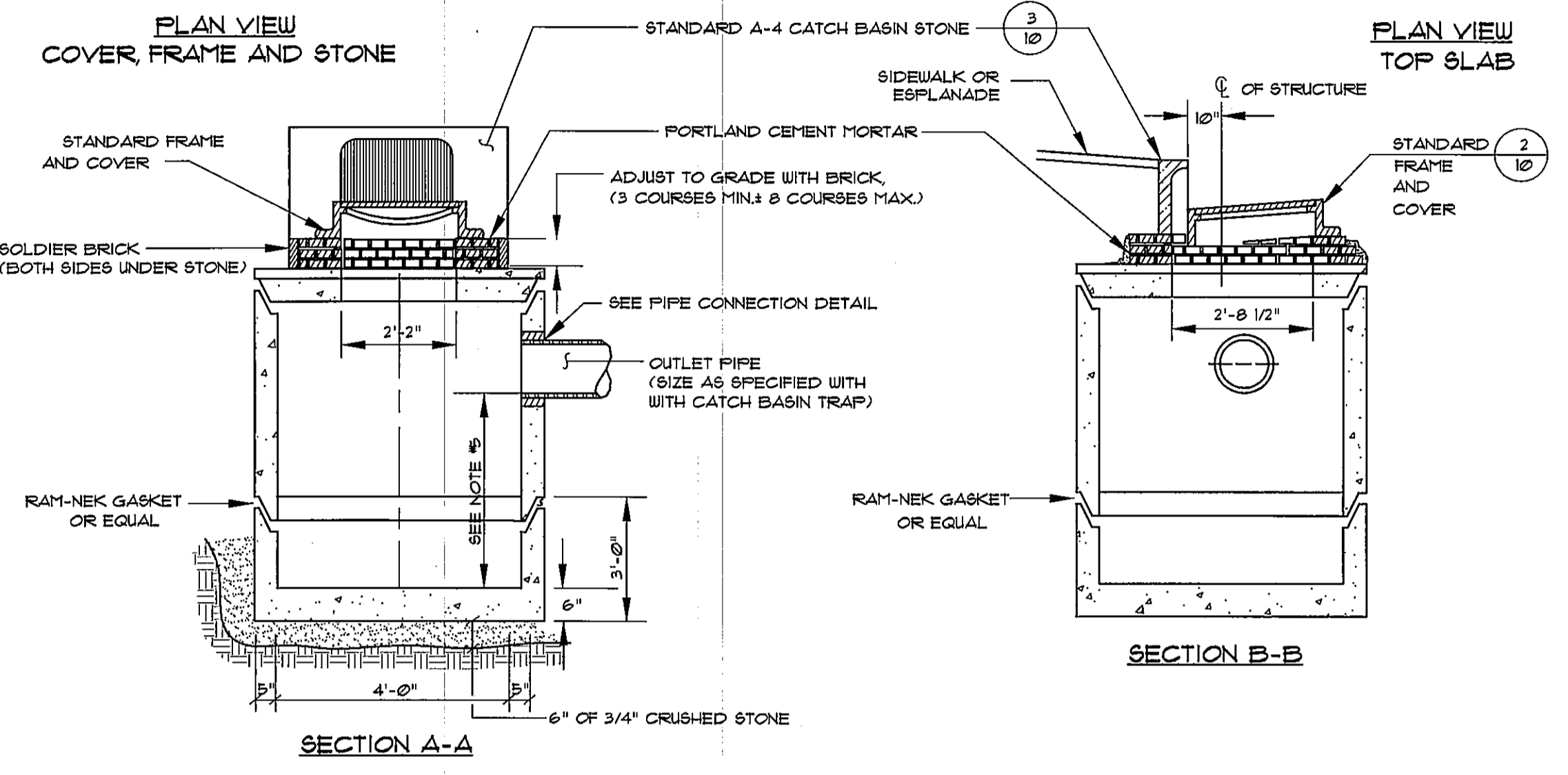


**GENERAL NOTES FOR MANHOLES AND CATCH BASINS**

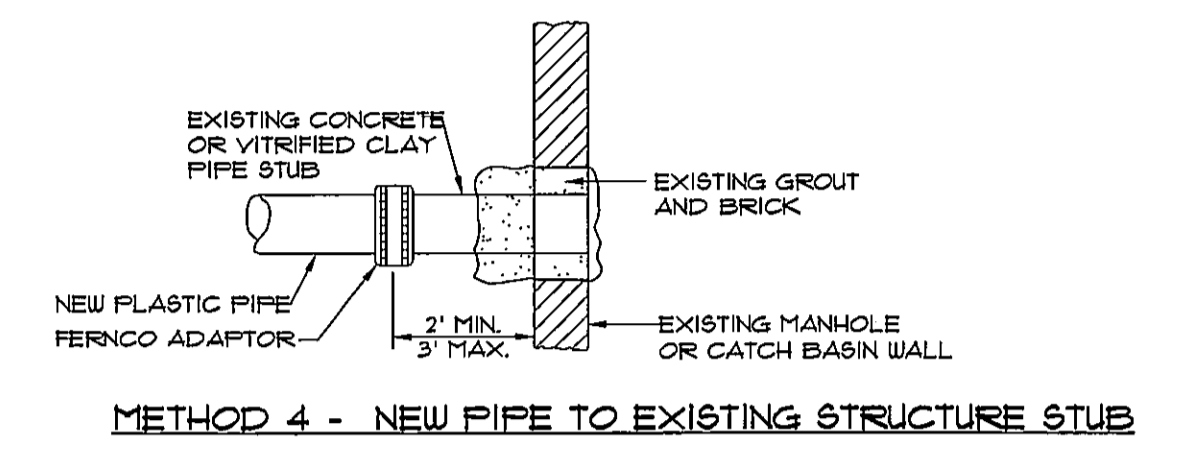
- ALL CONCRETE SHALL BE CLASS "A" AND HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 PSI PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
- FRECAST REINFORCED CONCRETE MANHOLE MANUFACTURED PER ASTM SPEC. C-478-6T
- SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
- ALL MANHOLES SHALL HAVE A BITUMINOUS WATERPROOFING APPLIED TO THE EXTERIOR SURFACE. IF CONSTRUCTED OF BRICK MASONRY, SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 3/8" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPECIFICATIONS SECTION 604.
- CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35. ALL PARTS OF CASTINGS, EXCEPT FINISHED SURFACES, SHALL RECEIVE A COAT OF COAL TAR PITCH VARNISH OR ASPHALTUM PAINT WHICH SHALL BE SMOOTH AND TOUGH BUT NOT BRITTLE.
- MANHOLES MAY BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
- ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION AND GESSET PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
- EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
- ALL WORK WITHIN THE STREET RIGHT-OF-WAY SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
- ALL CATCH BASIN OUTLET PIPES SHALL BE INSTALLED WITH AN OIL AND FLOATABLES SEPARATOR. THE SEPARATOR SHALL BE THE "SNOUT" OR AN APPROVED EQUAL AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



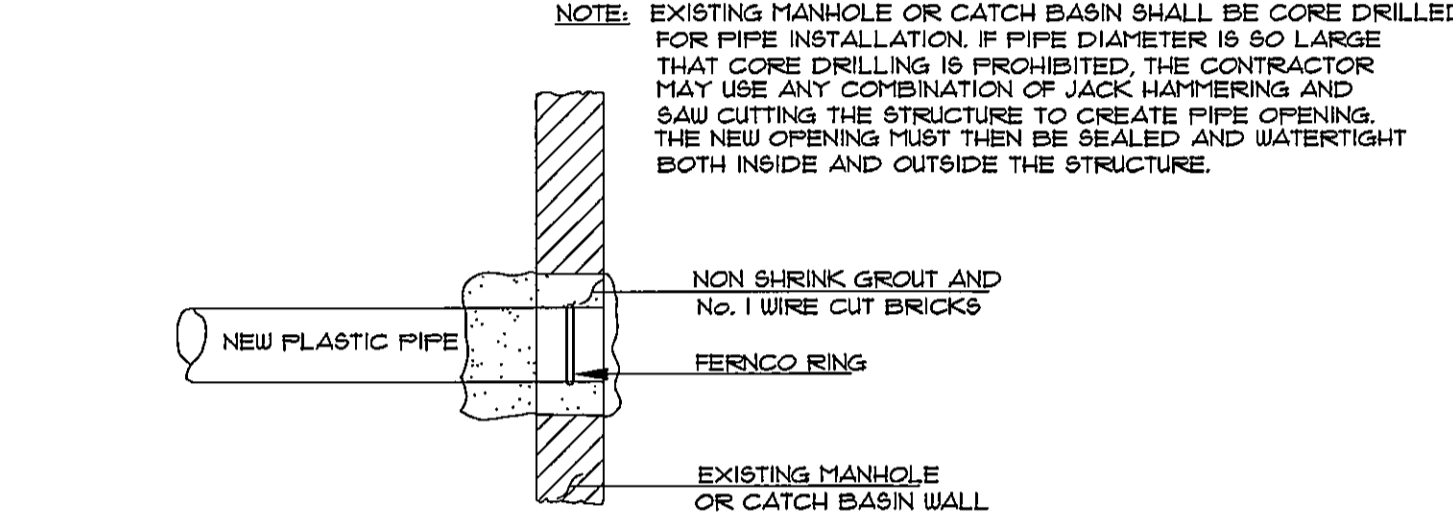
**TYPICAL PAVEMENT GRADING ON SLOPES FOR CATCH BASIN AND INLET**  
NOT TO SCALE



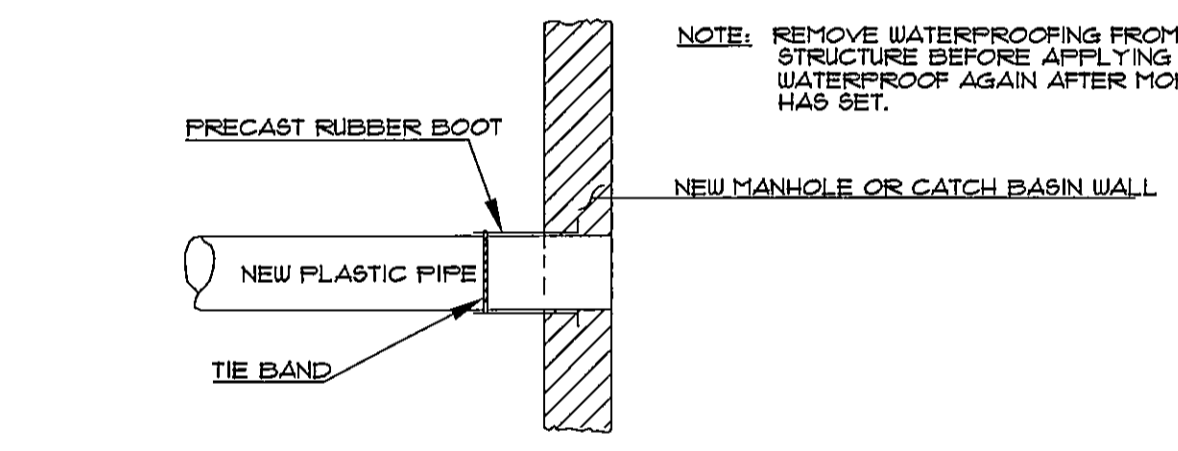
**PRECAST CONCRETE MANHOLE TYPE "A"**  
NOT TO SCALE



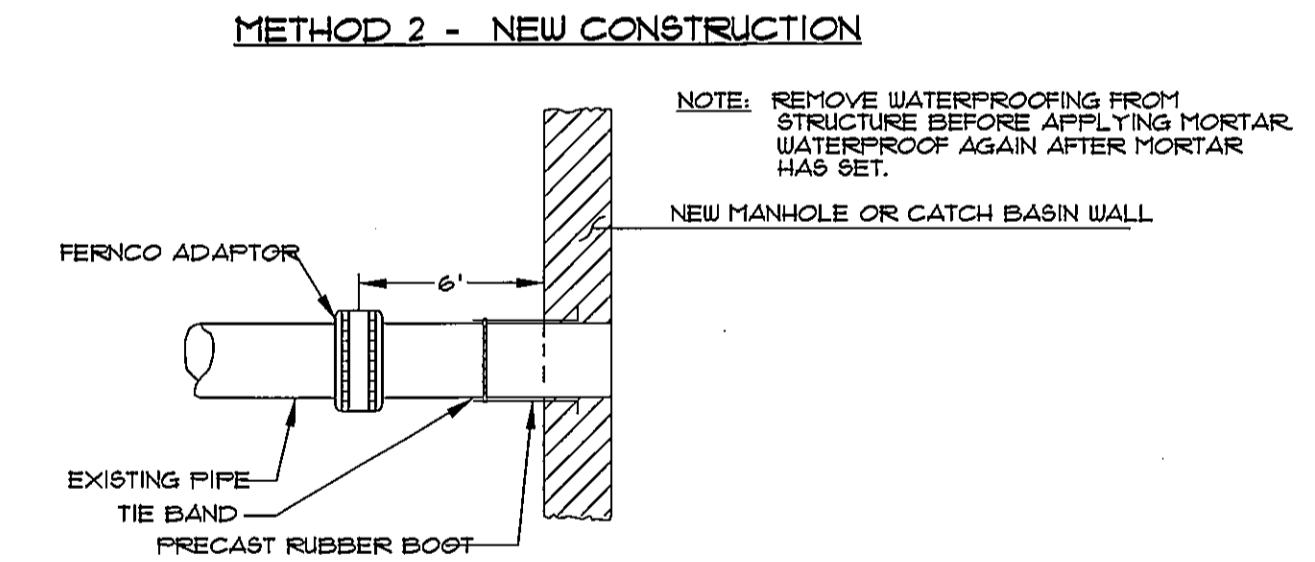
**METHOD 4 - NEW PIPE TO EXISTING STRUCTURE STUB**



**METHOD 3 - NEW PIPE INTO EXISTING STRUCTURE**



**METHOD 2 - NEW CONSTRUCTION**

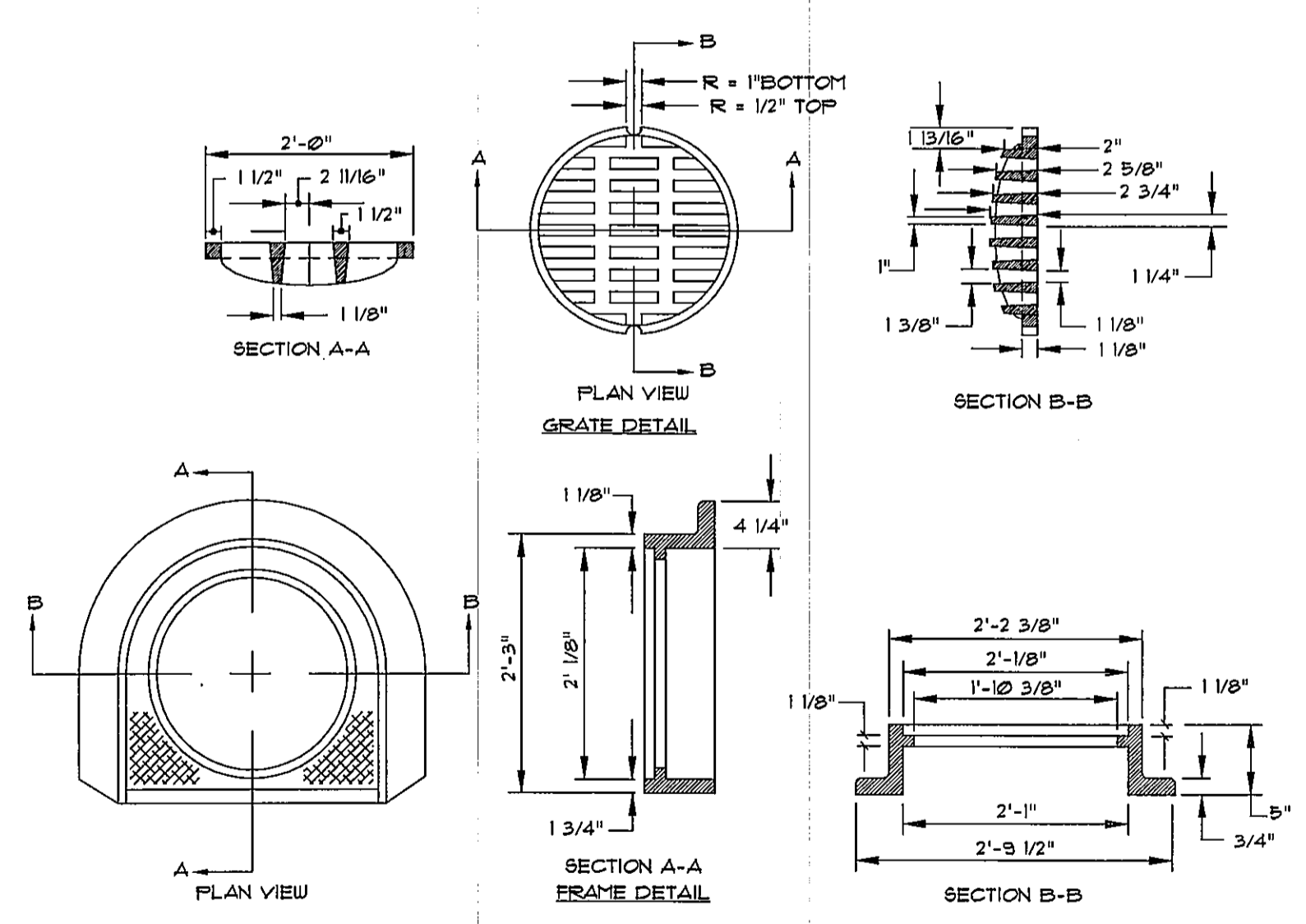


**METHOD 1 - EXISTING PIPE INTO NEW STRUCTURE**

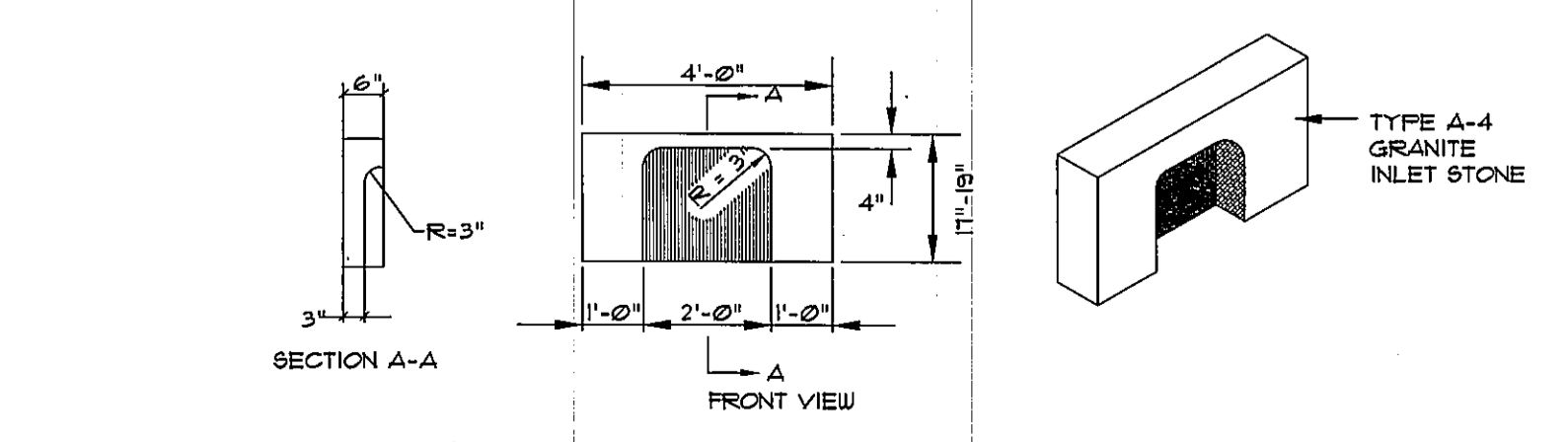
**PLASTIC PIPE CONNECTION DETAIL**  
NOT TO SCALE

- NOTES:**
- 1.4'-0" I.D. TYPICAL. SOME STRUCTURES MAY REQUIRE LARGER I.D. PROVIDE SHOP DRAWINGS FOR APPROVAL.
  2. DRAINAGE STRUCTURES TO BE DESIGNED FOR H-20 LOADING.
  3. PIPE SIZES AND INVERTS AS NOTED ON PLANS.
  4. CATCH BASIN FRAME AND GRATE TO ACCOMMODATE 2' MIN. GRATE (H-20 LOADING + BICYCLE SAFE). PROVIDE SHOP DRAWINGS FOR ENGINEER'S / OWNER REPRESENTATIVE'S APPROVAL.
  5. ALL CATCH BASIN SUMP'S SHALL BE 3' IN DEPTH.

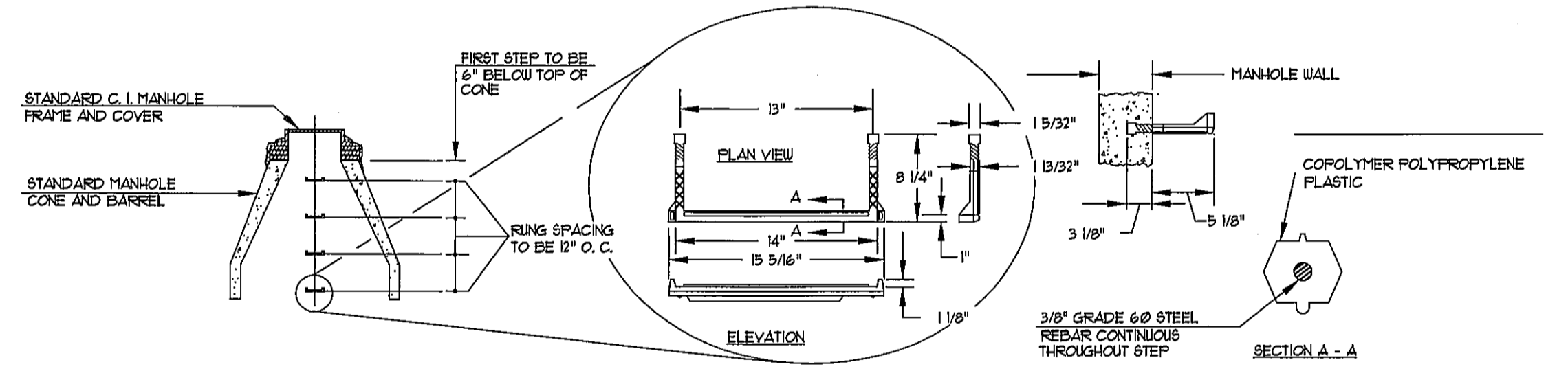
**PRECAST CONCRETE CATCH BASIN - TYPE "E"**  
NOT TO SCALE



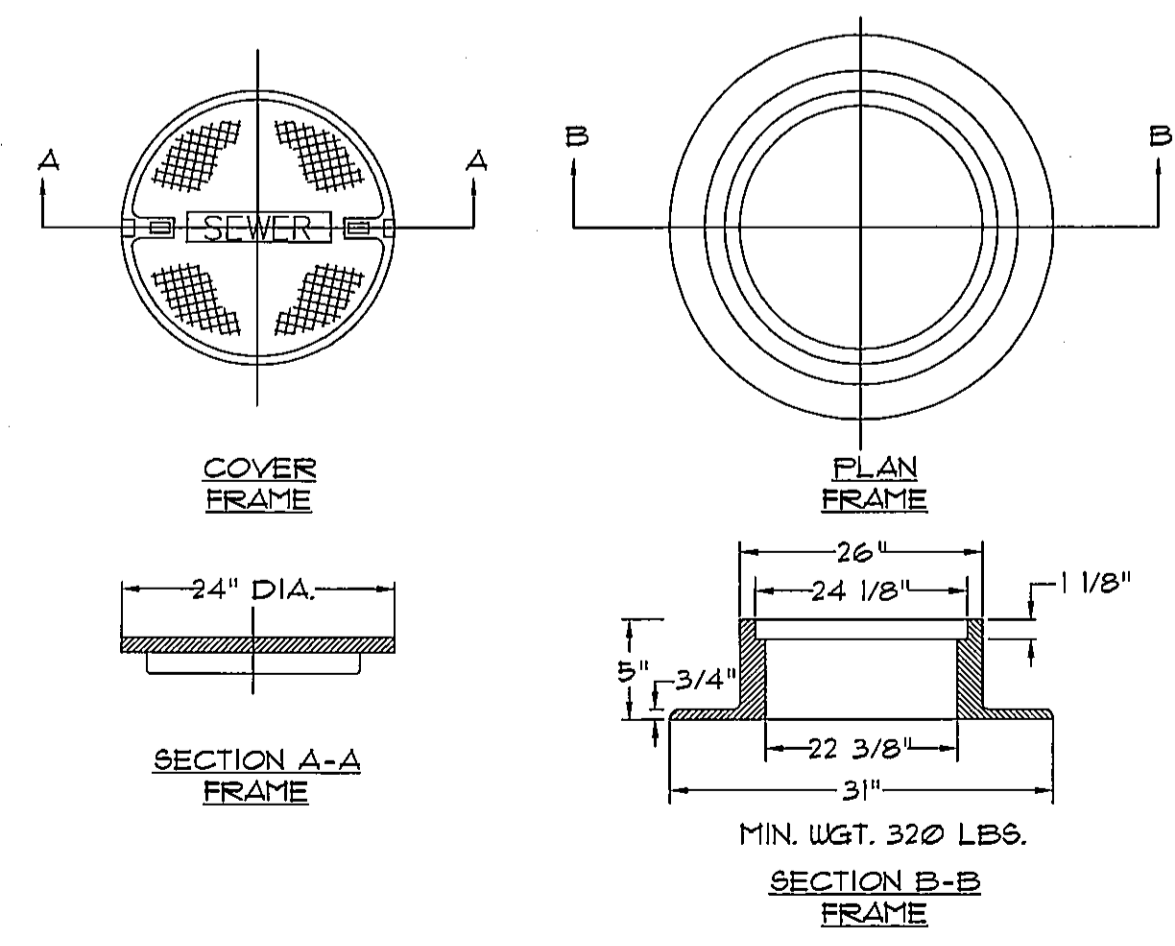
**CATCH BASIN TYPE "D" - FRAME & COVER DETAIL**  
NOT TO SCALE



**TYPE A-4 GRANITE CATCH BASIN INLET STONE DETAIL**  
NOT TO SCALE



**PLASTIC MANHOLE STEPS**  
NOT TO SCALE



**CAST IRON MANHOLE COVER AND FRAME**  
NOT TO SCALE

|          |     |                                      |      |        |
|----------|-----|--------------------------------------|------|--------|
| 09-03-13 | WTC | CITY SUBMITTAL 3                     | DATE | STATUS |
| 07-29-13 | WTC | SUBMIT SITE PLAN APPLICATION TO CITY | DATE | STATUS |
| REV:     | BY: | DATE                                 | DATE | STATUS |

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South Portland, ME 04106  
Tel: 207-783-6556  
Tel: 800-203-2100

PROJECT NO. FIELD BOOK DESIGN CHKD DRAWN MAL  
13251 WTC WTC WTC

**DETAILS**

OF:  
SEAPORT LOFTS  
NEWBURY / HANCOCK STREET  
PORTLAND, MAINE  
FOR: 113 NEWBURY STREET, LLC  
35 CAN STREET, SUITE 1075  
BOSTON, MA 02118-4320

|          |          |
|----------|----------|
| DATE     | SCALE    |
| 07-26-13 | AS SHOWN |