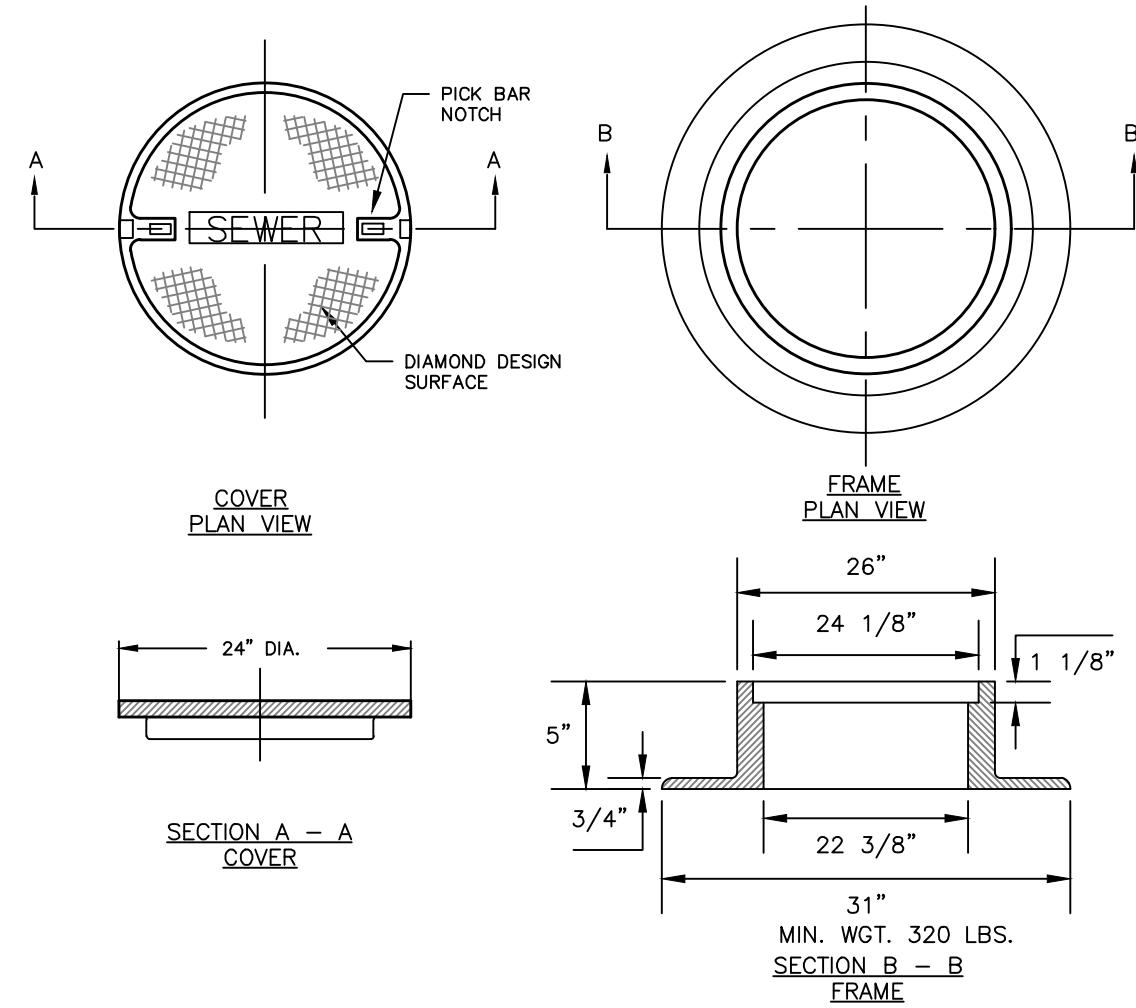
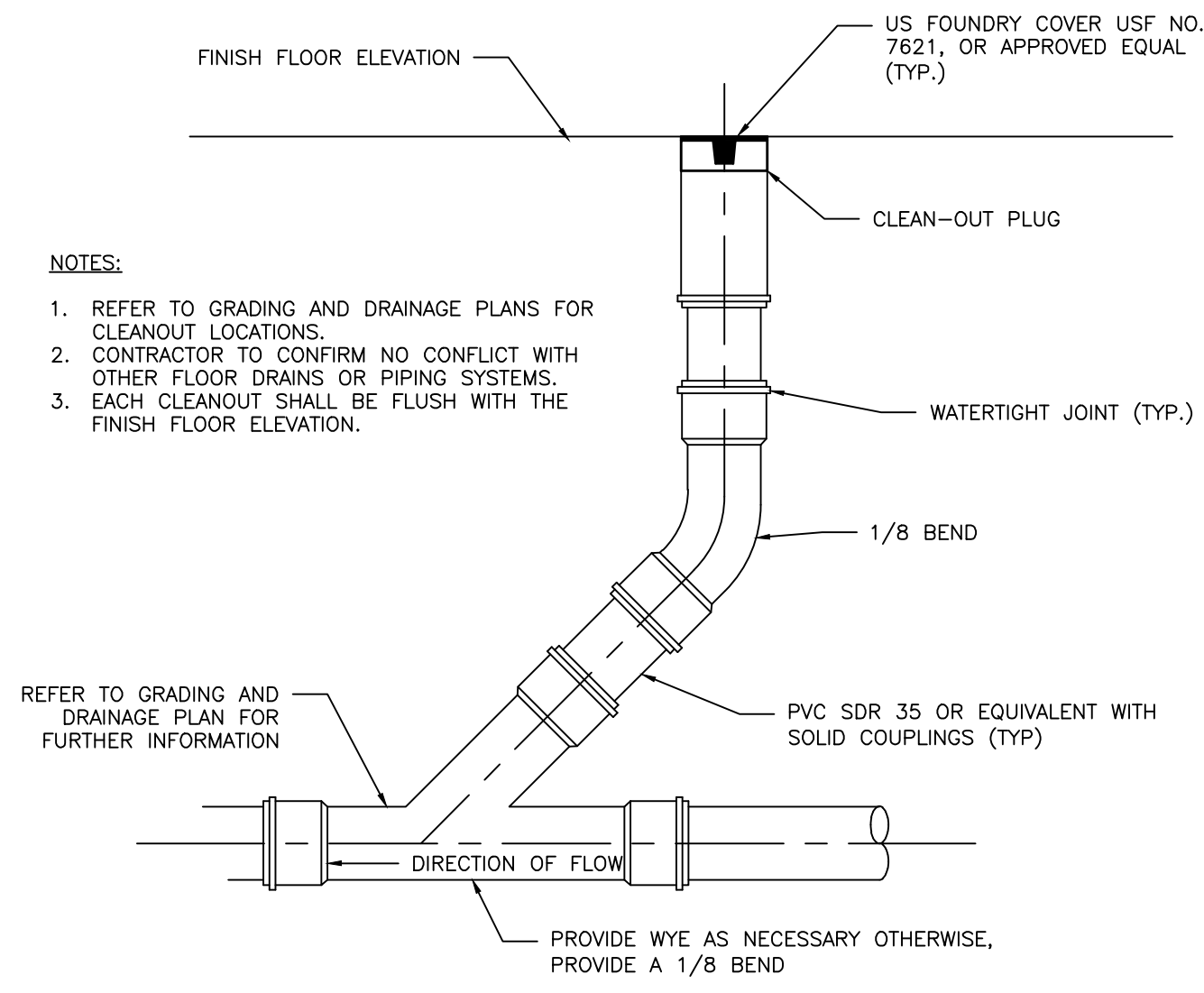


**NOTES:**

- ALL SANITARY AND STORMWATER/DRAIN MANHOLE COVERS SHALL BE 24" x 5".
- ALL SANITARY MANHOLE COVERS AND SHALL HAVE "SEWER" CAST INTO THE COVER.
- ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
- APPROVED MANHOLE FRAMES:
  - EAST JORDAN = 1690Z
  - OR APPROVED EQUAL
- APPROVED MANHOLE COVERS
  - EAST JORDAN = 2160A
  - OR APPROVED EQUAL
- FRAME AND COVER CONSTRUCTION SHALL BE COMPATIBLE WITH STANDARD PRECAST SEWER MANHOLE DETAIL



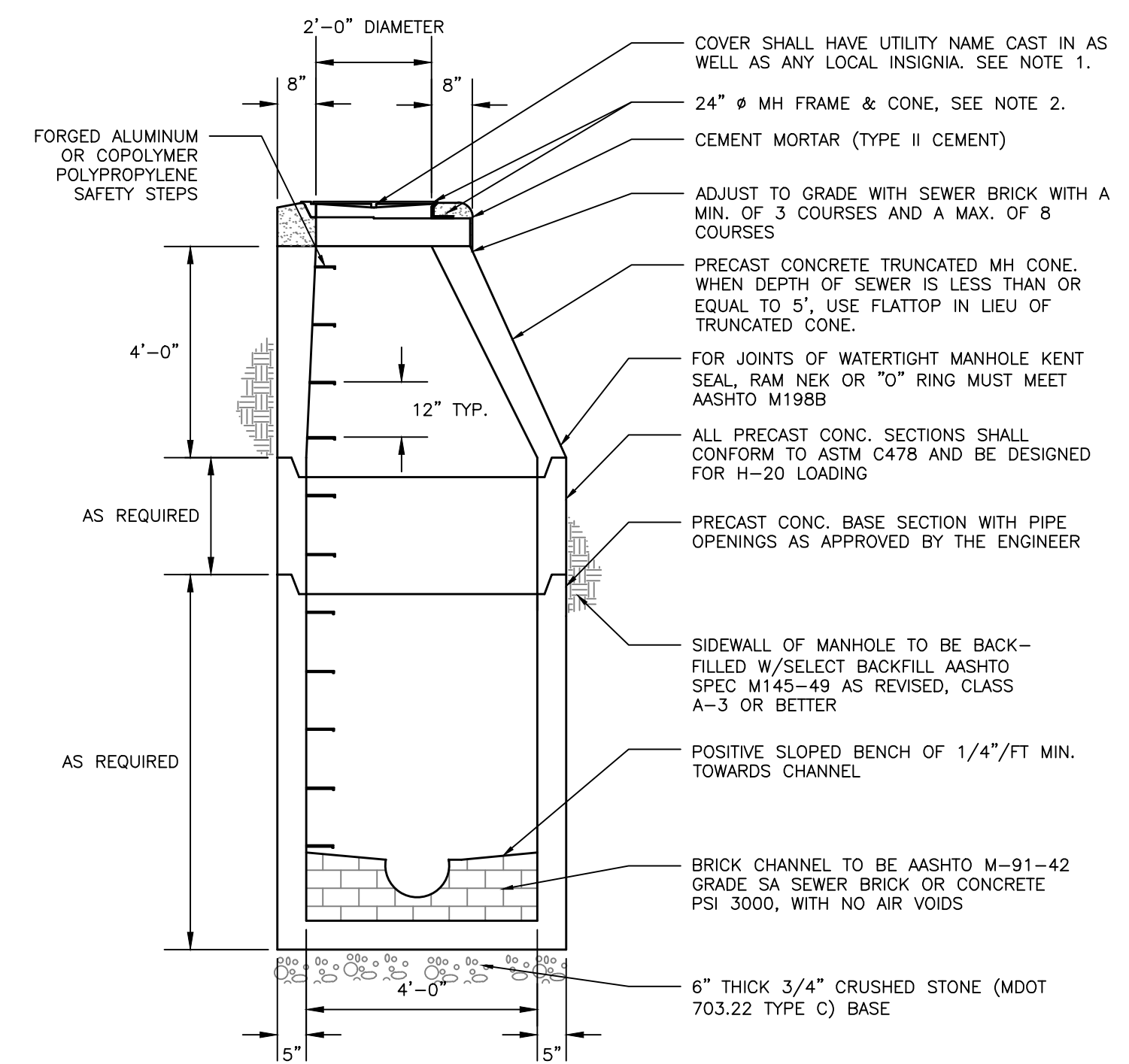
**CAST IRON MANHOLE COVER AND FRAME**  
NOT TO SCALE



**CLEANOUT DETAIL**  
NOT TO SCALE

**NOTES:**

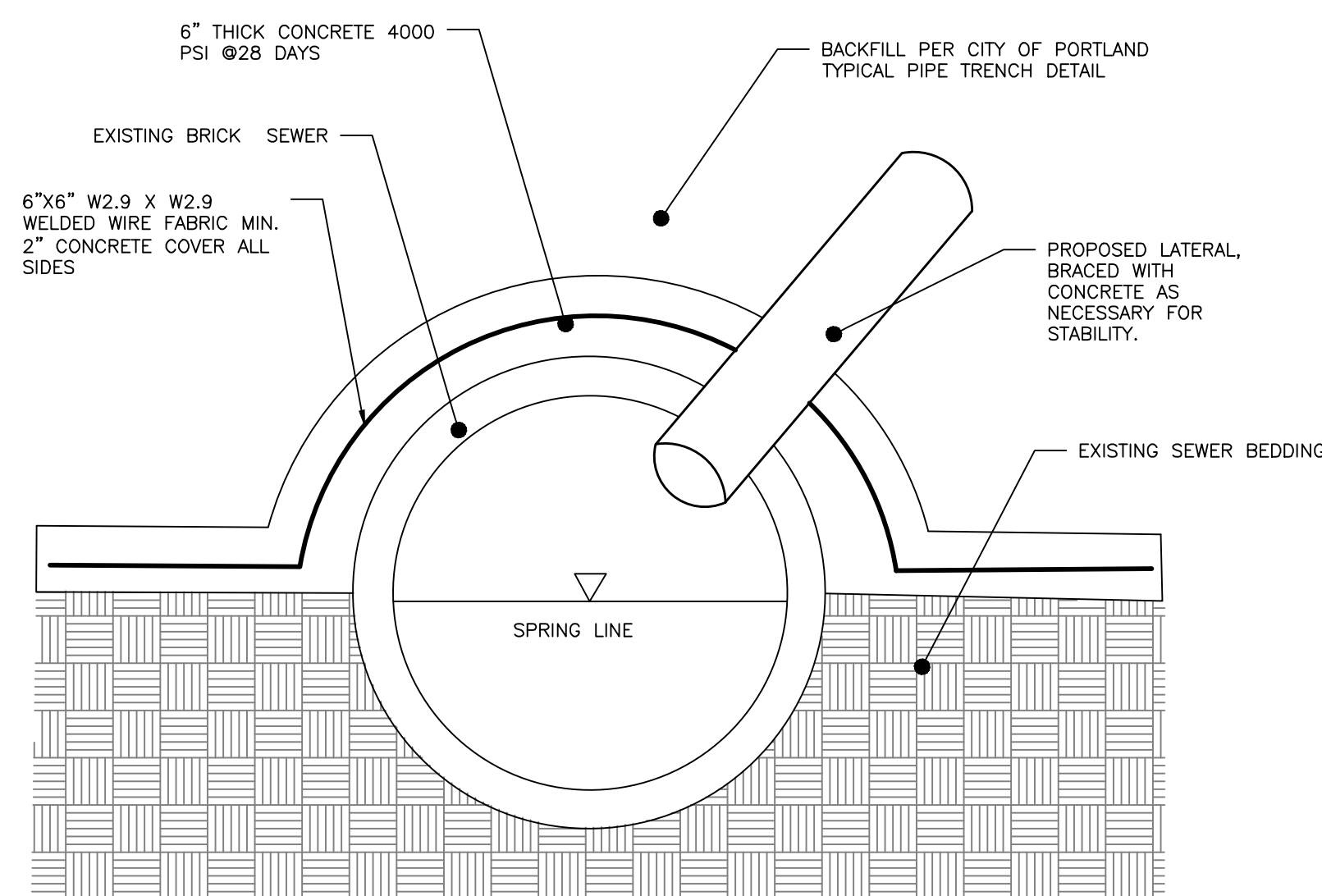
- MANHOLE COVER FOR SEWER MANHOLE SHALL BE ENGRAVED "SEWER", AND SHALL BE EITHER ITEM # 2160A AS MANUFACTURED BY EAST JORDAN CO. OR ITEM # 14960002 AS MANUFACTURED BY NEENAH FOUNDRY. MANHOLE COVER FOR STORM SEWER SHALL BE ENGRAVED "DRAIN", AND SHALL BE EITHER ITEM # 2160A AS MANUFACTURED BY EAST JORDAN CO. OR ITEM # 14960003 AS MANUFACTURED BY NEENAH FOUNDRY.
- MANHOLE FRAME SHALL BE EITHER ITEM # 14960001, AS MANUFACTURED BY NEENAH FOUNDRY, OR ITEM # 1960Z, AS MANUFACTURED BY EAST JORDAN CO.
- WITHIN CITY OF PORTLAND ROW, STORM DRAIN MANHOLE SHALL CONFORM WITH "STANDARD PRECAST SEWER MANHOLE DETAIL", WITH THE EXCEPTION THAT THE COVER SHALL BE MARKED AS "DRAIN". REFER TO CITY OF PORTLAND TECHNICAL MANUAL, SECTION 2 - SANITARY SEWER AND STORM DRAIN, FIGURE II-1
- SUBMITTAL REQUIRED FOR MANHOLES, MANHOLE FRAMES & MANHOLE COVERS



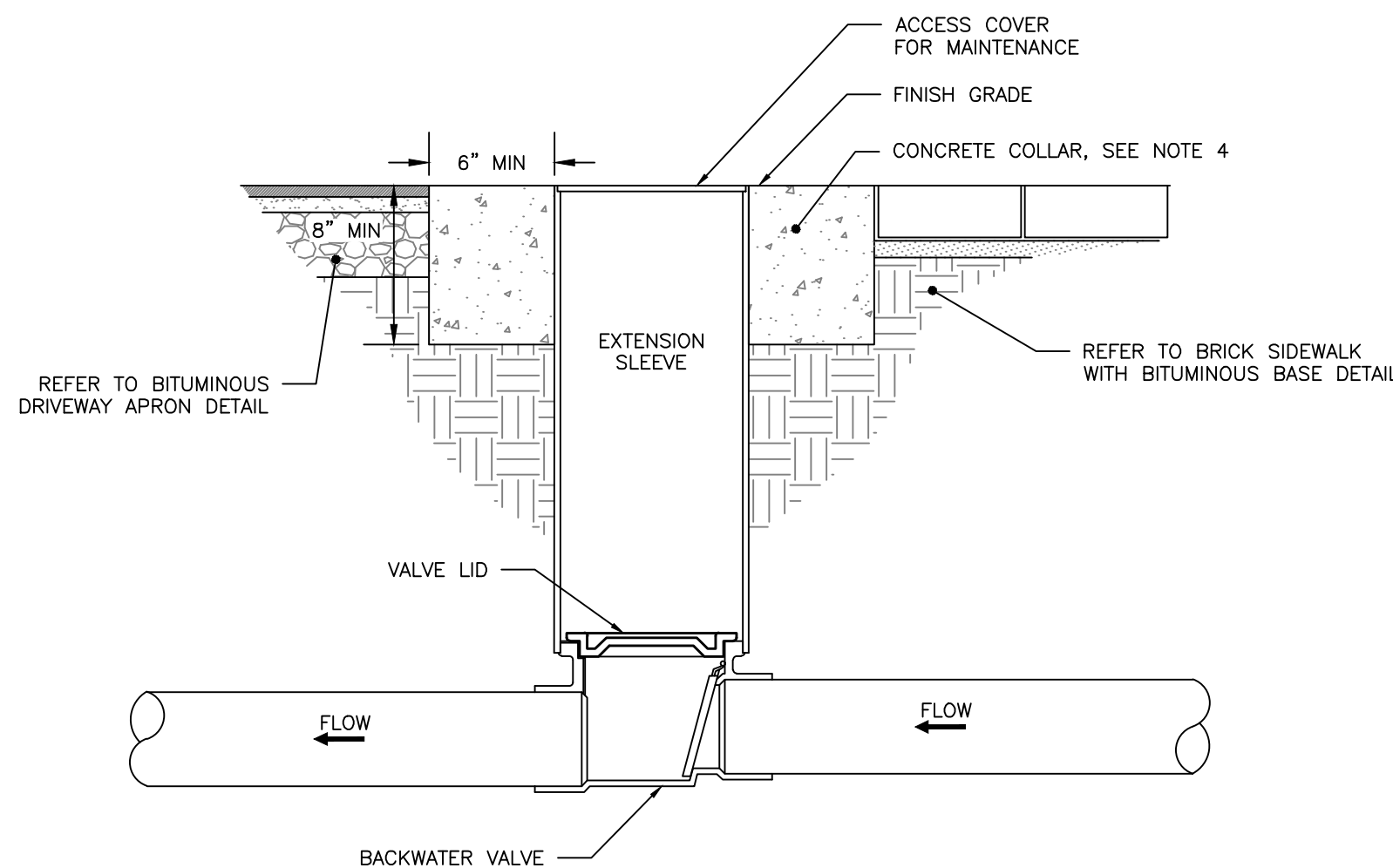
**STANDARD PRECAST SEWER MANHOLE**  
NOT TO SCALE

**NOTES:**

- CONCRETE CASING AROUND PIPE SHALL CONTINUE LENGTHWISE FOR AT LEAST 4' OF PIPE, OR LENGTH OF PIPE DAMAGED DURING CONSTRUCTION, WHICHEVER IS GREATER.
- INSTALL ALL ITEMS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ENGINEER SHALL BE CONTACTED DURING CONNECTION TO BRICK SEWER, IF SEWER IS FOUND TO BE IN VERY GOOD CONDITION BY ENGINEER, THEN ONLY CONCRETE CASING AROUND PROPOSED LATERAL AND STUB SHALL BE REQUIRED.



**CONNECTION TO BRICK SEWER**  
NOT TO SCALE



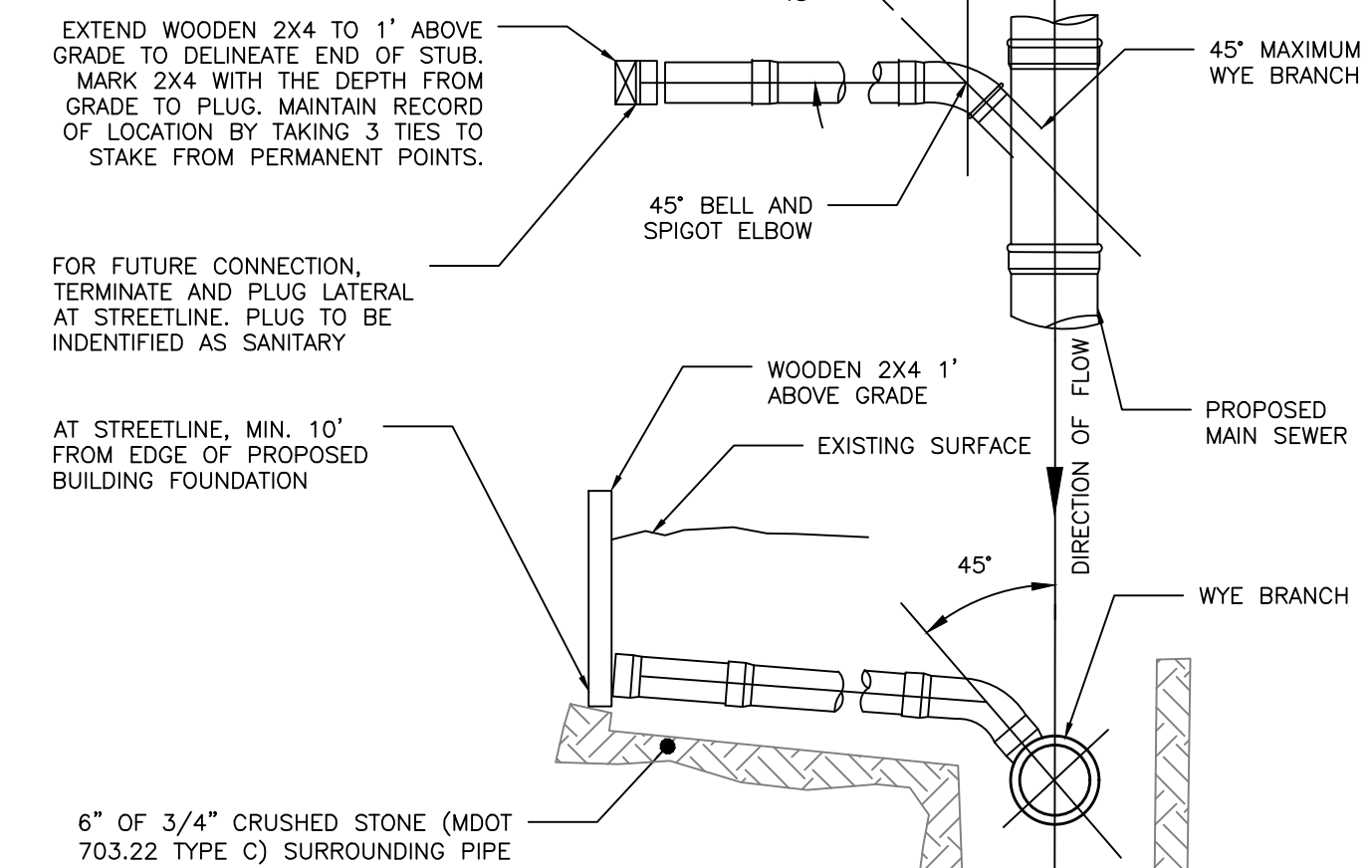
**NOTES:**

- BACKFLOW VALVE TO BE PROVIDED BY RED VALVE COMPANY, INC. OR AN APPROVED EQUAL.
- VALVE TO BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS AND COMPLY WITH RULES AND REGULATIONS AS OUTLINED IN SECTION 2 OF THE CITY OF PORTLAND TECHNICAL MANUAL.
- VALVE SHALL BE INSTALLED WITH A VALVE BOX AND COVER TO PROVIDE EASY ACCESS AND MAINTENANCE; VALVE COVER SHALL STATE "SEWER" OR "STORM" FOR THE APPLICABLE VALVES ON THE LID FLUSH TO SURFACE. REFER TO VALVE & BOX COVER DETAIL FOR ADDITIONAL INFORMATION.
- CONCRETE COLLAR AT A MINIMUM 24-HOUR COMPRESSIVE STRENGTH OF 3,000 PSI.

**BACKFLOW VALVE ASSEMBLY**  
NOT TO SCALE

**NOTES:**

- LOCATION WITH WARNING TAPE SHALL BE INSTALLED OVER CENTERLINE OF PIPE AT A MAXIMUM OF 24 INCHES BELOW FINISH GRADE.
- SITE CONTRACTOR TO COORDINATE CONNECTION OF SEWER LATERAL TO HOUSEHOLD PLUMBING WITH ARCHITECTURAL CONTRACTOR.
- CONNECTION OF PROPOSED SEWER LATERAL TO HOUSEHOLD PLUMBING SHOULD INCORPORATE USE OF SIMILAR PIPE MATERIALS. IN THE CASE OF DISSIMILAR PIPES BEING USED, A FERROD FLEXIBLE COUPLING SHALL BE USED.



**SEWER TEE/WYE CONNECTION DETAIL**  
NOT TO SCALE

PRELIMINARY  
NOT ISSUED FOR  
CONSTRUCTION

ISSUED FOR	BY
FINAL APP.	MTA
	DATE
	1/13/17

DRAWING NAME: **UTILITY DETAILS - 1**

PROJECT NAME: **HOTEL RENOVATION & STORMWATER UPGRADES**

CLIENT: **LQ MANAGEMENT, LLC**

909 HIDDEN RIDGE SUITE 600, IRVING, TEXAS 75038

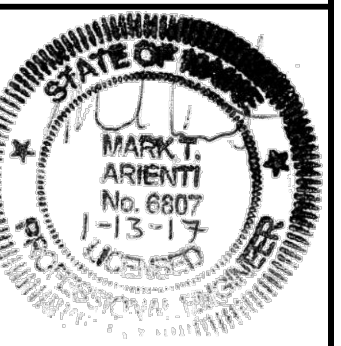
ENGINEERING, INC.

ACORN ENGINEERING, INC. IS AN EQUAL OPPORTUNITY EMPLOYER. WE DO NOT DISCRIMINATE ON THE BASIS OF RACE, GENDER, RELIGION, NATIONAL ORIGIN, ANCESTRY, AGE, SEXUAL ORIENTATION, OR DISABILITY.

158 BANKFOUN ST. PORTLAND, MAINE 04102

(207) 775-2655

FILE:	5012_CIVIL
JN:	5012
SCALE:	NTS
DESIGNED BY:	WHS
DRAWN BY:	SJL
CHECKED BY:	MTA



DRAWING NO.  
**C-42**