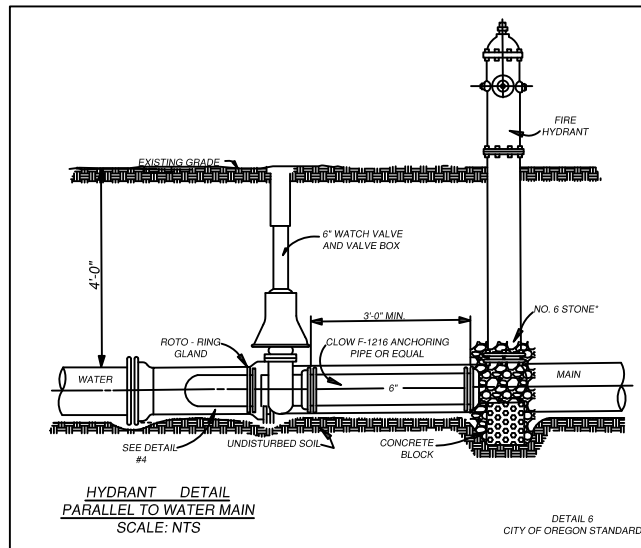
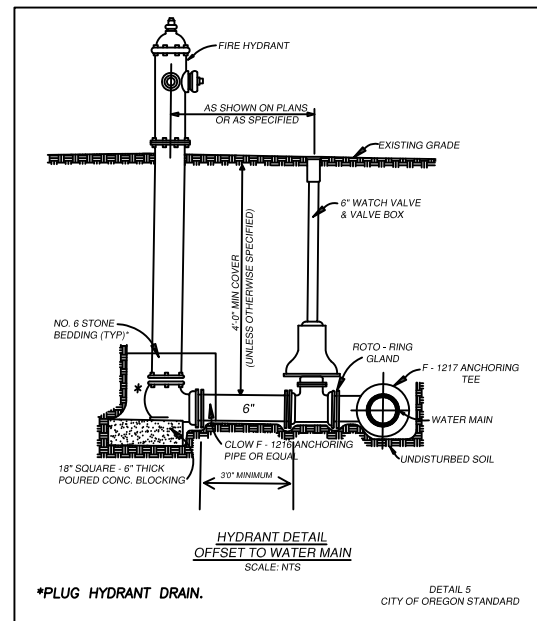
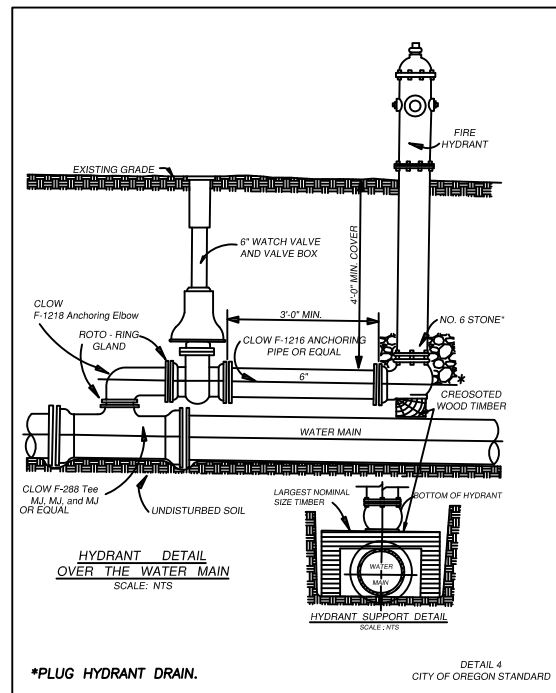
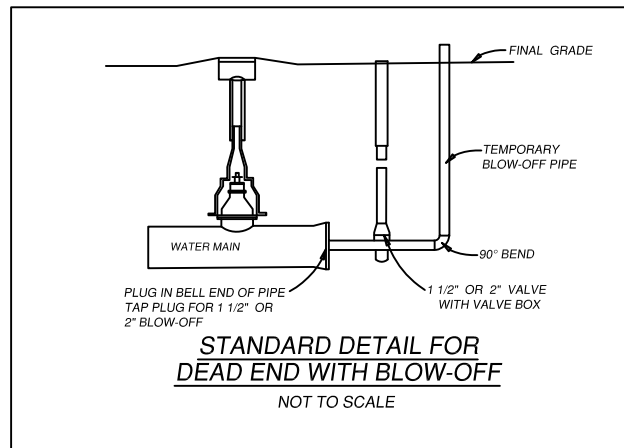
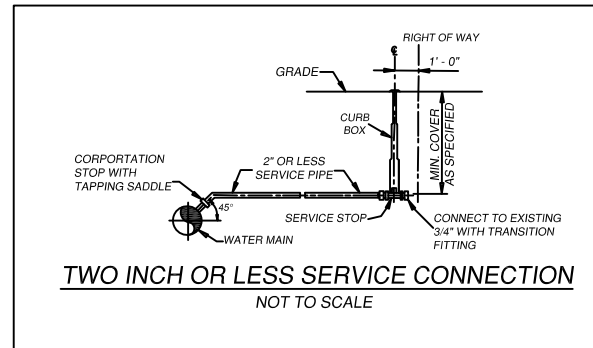


THRUST BLOCK DETAILS
N.T.S.



HYDRANT DETAILS
N.T.S.

THE PAY ITEM "FIRE HYDRANT AND VALVE ASSEMBLY" SHALL INCLUDE ALL MATERIAL, LABOR, EQUIPMENT, AND APPURTENANCES TO PROVIDE A COMPLETE WORKING FIRE HYDRANT AS DETAILED IN EITHER DETAIL 4, DETAIL 5, OR DETAIL 6. THE PAY ITEM SHALL BEGIN AT THE CONNECTION POINT WITH THE NEW WATER MAIN.



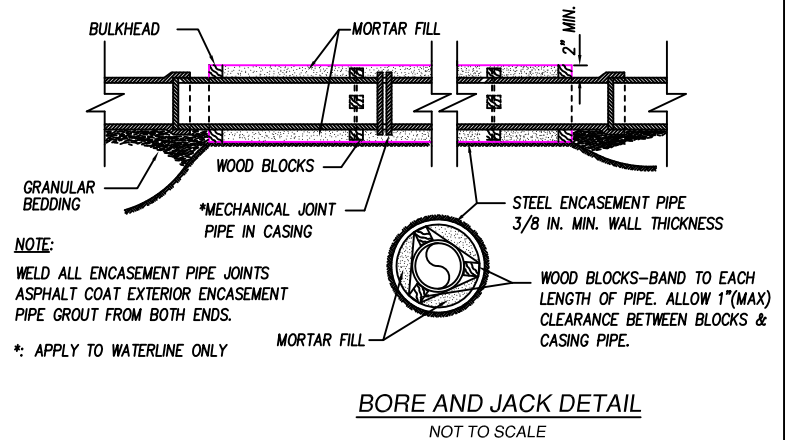
BORING

THE PIPE BORING SHALL BE INSTALLED BY FREE BORE, BORE AND JACK, DIRECTIONAL DRILLING, OR APPROVED METHOD. THE PIPE MATERIAL SHALL BE PER PLAN SPECIFICATIONS AND SHALL BE APPROVED BY THE MANUFACTURER FOR THE SELECTED BORING METHOD. THE BORE AND JACK METHOD SHALL FOLLOW THE DETAIL BELOW.

WHERE REQUIRED, WATERLINE SHALL BE INSTALLED WITHIN STEEL ENCASUREMENT PIPE MEETS ASTM A252. THE ENCASUREMENT PIPE SHALL BE WELDED STEEL PIPE, OR CITY OF OREGON APPROVED EQUAL, AND SHALL BE ASPHALT COATED ON THE OUTSIDE. THE ENCASUREMENT PIPE SHALL HAVE A MIN. TENSILE STRENGTH OF 60,000 P.S.I., A MINIMUM YIELD STRENGTH OF 35,000 P.S.I., AND A MIN. WALL THICKNESS OF 3/8 INCH. THE MINIMUM DIAMETER OF THE ENCASUREMENT PIPE SHALL BE THE OUTSIDE THICKNESS OF 3/8 INCH. THE MINIMUM DIAMETER OF THE ENCASUREMENT PIPE SHALL BE THE OUTSIDE DIAMETER OF THE BELL PLUS FOUR (4) INCHES, OR AS DIRECTED BY THE ENGINEER.

THE ENCASUREMENT PIPE SHALL BE INSTALLED BY BORING AND JACKING AND IN-SUCH A MANNER SO AS TO ALLOW THE PIPE TO BE LAID AT THE PROPER GRADE.

THIS OPERATION SHALL BE CONTINUOUS (AROUND THE CLOCK UNTIL COMPLETE) AND CONDUCTED SO AS NOT TO INTERFERE WITH, INTERRUPT OR ENDANGER THE OPERATION OF TRAFFIC NOR DAMAGE, DESTROY, OR ENDANGER THE INTEGRITY OF THE ROADWAY FACILITIES.



SCALE AS SHOWN
DRAWN A.L.B.
CHECKED PR
DATE 06/11/16

WATERLINE DETAILS

CITY OF OREGON