MANHOLE RING AND COVER

RING & COVER WILL BE MACHINED AND

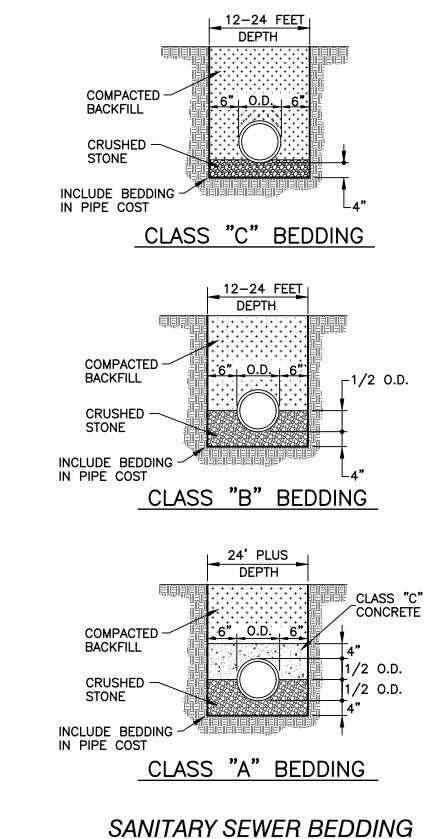
TOTAL 310 LBS.

RING COVER

WILL CONFORM TO ASTM A48, CLASS 30B

MINIMUM AVERAGE WEIGHTS

190 LBS. <u>120 LBS.</u>

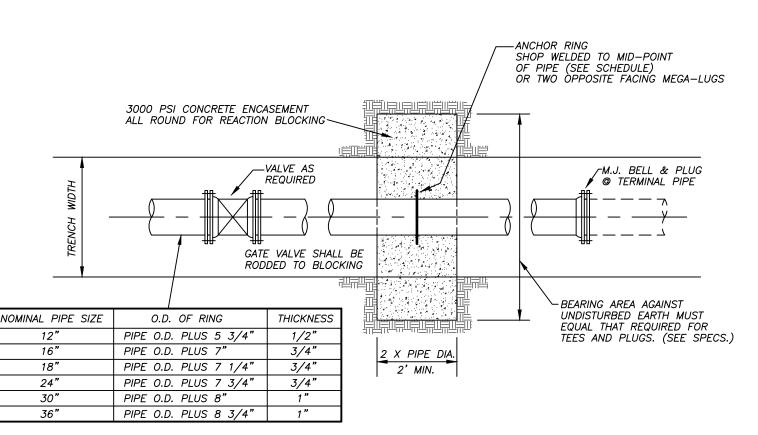


CUT OUT TOP 1/3
OF EXISTING PIPE STABILIZATION STONE EXTENDED 12" PAST CONCRETE BASE OR TO UNDISTURBED EARTH O'IES:
FLOW SHALL BE MAINTAINED DURING CONSTRUCTION
SEE 4' PRECAST REINFORCED MANHOLE STD DETAIL
DR ADDITIONAL DETAIL
PLACE HORSESHOE MANHOLE BASE IN WET 4'-0" DIA MANHOLE FOR 8" TO 12" MAINS 5'-0" DIA MANHOLE FOR 15" TO 30" MAINS 6'-0" DIA MANHOLE FOR 36" TO 48" MAINS (4,000 PS)).
OUT TOP THIRD OF EXISTING PIPE, FINISH AND WATERPROOF ALL COLD JOINTS AND ALL PIPES.
R CONCRETE COLLARS. 4,000 PSI CONCRETE ∠6" STABILIZATION STONE

STANDARD MANHOLE INSTALLATION OVER EXISTING SEWER MAIN

GENERAL UTILITY NOTES (APPLICABLE TO ALL SHEETS):

- 1. CONTRACTOR SHALL INSTALL TEST CORPS AS NECESSARY FOR PRESSURE TESTING AND CHLORINATION. NO DIRECT PAYMENT WILL BE MADE FOR THIS ITEM AND WILL BE INCIDENTAL TO PIPE INSTALLATION.
- 3. CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES AT PROPOSED WATER AND SEWER CROSSINGS PRIOR TO BEGINNING
- WORK AND CONFLICTS BROUGHT TO THE ATTENTION OF THE ENGINEER. ENGINEER, CONTRACTOR AND UTILITY COMPANIES WILL RESOLVE CONFLICTS PRIOR OR DETERMINE METHOD TO RESOLVE PRIOR TO PROCEEDING WITH THE WORK.
- 5. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANY SHOULD IT BE NECESSARY FOR THE UTILITY TO HOLD OR RELOCATE POLES, GROUND BOXES, ETC. WHEN INSTALLING THE UTILITY LINE NEAR POLES, BOXES, ETC. NO EXTRA PAYMENT
- THE CONTRACTOR SHALL WORK ON EXISTING RIGHT-OF-WAY AND ON EASEMENTS AS PROVIDED. STAGING AREAS FOR MATERIALS AND EQUIPMENT ARE THE RESPONSIBILITY OF THE CONTRACTOR. ANY AGREEMENTS WITH PRIVATE PROPERTY OWNERS SHALL BE IN WRITING AND WILL HOLD HARMLESS THE CITY AND ENGINEER. COPIES OF ANY AGREEMENTS SHALL BE
- INCLUDE ALL COSTS WITH THESE CLOSURES IN THE BID FORM. ALL NECESSARY LANE CLOSURES AND/OR STREET CLOSURES HAVE NOT BEEN DEPICTED WITHIN THESE CONTRACT DOCUMENTS.
- FENCES THAT ARE DISTURBED. THE CONTRACTOR SHALL RESTORE SAID ITEMS TO A CONDITION AS GOOD OR BETTER THAN THEY EXISTED PRIOR TO CONSTRUCTION EVEN IF SAID ITEMS ARE BEYOND REPAIR. THE CONTRACTOR SHALL INCLUDE ALL COSTS FOR REPAIR AND REPLACEMENT IN THE CONTRACT UNIT PRICES FOR THE VARIOUS SIZES OF WATER/SEWER LINE. NO DIRECT COSTS FOR REPAIR AND/OR REPLACEMENT WILL BE MADE.
- FLAGGERS IF IT IS NECESSARY TO REMOVE A STOP OR YIELD SIGN. 11. FIRE HYDRANTS WILL BE STAKED. FIELD ADJUST LOCATION IF REQUIRED BY CITY, NCDOT, OR PROJECT INSPECTOR.
- 14. FIRE HYDRANTS INSTALLED ON WATER MAINS LESS THAN 12" IN SIZE, MAIN VALVE OPENING SHALL BE 4 1/2" WITH 3'-6" BURY, FOR
- WATER MAINS 12" AND GREATER IN SIZE, FIRE HYDRANTS SHALL HAVE MAIN VALVE OPENING OF 5 1/4" WITH 4'-6" BURY. 15. ALL EXISTING FIRE HYDRANTS SHALL BE REUSED UNLESS DAMAGED. THE CITY WILL PROVIDE A NEW FIRE HYDRANT, IF REQUIRED.
- WILL BE MADE AND TO CONFIRM ELEVATIONS OF PROPOSED CONNECTIONS WITH ENGINEER. 17. CONTRACTOR SHALL COORDINATE WITH KYLE SMITH WITH THE CITY OF MEBANE REGARDING PUBLIC NOTIFICATION THAT WATER
- SERVICE WILL BE TEMPORARILY INTERRUPTED. PROVIDE ONE WEEK NOTICE PRIOR TO PLANNED SHUT OFF TO PROVIDE
- BEND) AS SHOWN ON PLANS A MINIMUM OF 24 HOURS PRIOR TO INSTALLING ADJACENT FITTINGS.
- 20. CONTRACTOR SHALL BAG ANY FIRE HYDRANT DURING TIME WHEN WATER TO FIRE HYDRANT IS OFF. CONTRACTOR SHALL NOTIFY KYLE SMITH 48 HOURS IN ADVANCE OF SHUTTING DOWN FIRE HYDRANTS FOR NOTIFICATION OF FIRE DEPARTMENT.
- DETAIL DRAWINGS. 22. CONTRACTOR SHALL PROVIDE A DEWATERING PUMP FOR UTILITY TRENCHES AND DISCHARGE EFFLUENT INTO A SILT BAG, AS
- 23. THE CONTRACTOR SHALL PLACE CONCRETE OR PRECAST DONUT AROUND ALL GATE VALVE BOXES LOCATED IN OPEN SPACE.
- 24. CONTRACTOR SHALL REMOVE EXISTING HIGHWAY SIGNS, STREET SIGNS, MAILBOXES, FENCES, LANDSCAPE BLOCKS, ETC. WHICH INTERFERE WITH UTILITY LINE RELOCATIONS. STORE AT LOCATION TO PREVENT DAMAGE AND REINSTALL TO PRIOR LOCATION INCLUDING HEIGHT IMMEDIATELY AFTER UTILITY LINE RELOCATIONS IN VICINITY OF SIGN IS COMPLETE. PROVIDE TEMPORARY
- 25. THE CONTRACTOR SHALL INSPECT THE ENTIRE PROJECT WITH THE OWNER AND PROJECT ENGINEER'S INSPECTOR PRIOR TO BEGINNING ANY WORK. ANY DAMAGED AREAS SHALL BE PHOTOGRAPHED AND DOCUMENTED BY THE CONTRACTOR AND
- 26. EXISTING SEWER MAIN SHALL BE ABANDONED BETWEEN POINTS OF CONNECTION. CONTRACTOR SHALL FOLLOW NCDOT
- 27. ALL EXISTING WATER LINE PERMANENTLY DISCONTINUED FROM SERVICE SHALL BE REMOVED UNLESS OTHERWISE AUTHORIZED
- GROUT. ALL CONTENTS SHALL BE REMOVED & DISPOSED OF ACCORDING TO LOCAL REGULATIONS.
- 29. WATER METERS AND SERVICE LINES THAT MUST BE RELOCATED DUE TO UTILITY RELOCATIONS SHALL BE RELOCATED WHERE THE R/W LINE HAS BEEN MODIFIED AS A RESULT OF THE NCDOT I-5711 PROJECT. REFER TO DETAILS FOR PROPER PLACEMENT
- 30. TEMPORARY WATER SERVICE SHALL BE PROVIDED FOR ANY SERVICE THAT IS LOCATED ON A SECTION OF WATER LINE TO BE
- CONNECTING TO EXISTING SERVICE.
- 31. ALL LOCATIONS WHERE A PLUG IS TO BE INSTALLED ON AN EXISTING WATER LINE, THE PLUG SHALL BE RODDED BACK TO AN ADJACENT VALVE OR TEE. IF THERE IS NOT AN EXISTING VALVE OR TEE IN THE VICINITY. A DEADMAN SHALL BE INSTALLED WITH
- 32. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PUMP & HAUL AND/OR BYPASS PUMPING OPERATIONS DURING ALL SANITARY SEWER RELOCATIONS
- 33. CONTRACTOR SHALL PROVIDE THE CITY OF MEBANE WITH A DETAILED SCHEDULE OF PROPOSED WATER OUTAGES FOR UTILITY RELOCATIONS. THE CITY OF MEBANE AND/OR THE ENGINEER OF RECORD WILL ASSIST THE CONTRACTOR WITH LOCATING AND IDENTIFYING EXISTING WATER VALVES FOR WATER OUTAGES. CONTRACTOR WILL BE RESPONSIBLE FOR NOTIFYING PARTIES
- 34. STREET AND STORM DRAINAGE IMPROVEMENTS SHOWN ON PLANS INDICATE PROPOSED/FUTURE IMPROVEMENTS BY OTHERS. 35. CONTRACTOR SHALL COORDINATE POTENTIAL METER REPLACEMENT WITH CITY OF MEBANE. CITY WILL FURNISH METER SHOULD THEY CHOOSE TO REPLACE METER.



THRUST RESTRAINT WITH ANCHOR RING DETAIL

EROSION CONTROL SHALL BE COORDINATED WITH NCDOT ROADWAY PLANS.

4. FIELDWORK, LOCATIONS, ETC. PER NCDOT. CONTRACTOR TO FIELD VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CONTACT NC ONE CALL (811) PRIOR TO ANY EXCAVATION.

WILL BE MADE FOR THIS AS THE COST SHALL BE INCLUDED IN THE VARIOUS BID ITEMS.

PROVIDED TO THE CITY AND ENGINEER.

7. THE CONTRACTOR SHALL ANTICIPATE TEMPORARY LANE/ROAD CLOSURES AS NECESSARY TO COMPLETE THE WORK AND SHALL

8. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ALL LANDSCAPED AREAS, EXISTING STEPS, EXISTING WALKS AND EXISTING

9. THE CONTRACTOR SHALL REPLACE REGULATORY, WARNING & OTHER SIGNS BY THE END OF EACH WORK DAY. 10. THE CONTRACTOR SHALL RELOCATE STOP OR YIELD SIGNS, PROVIDE TEMPORARY STOP OR YIELD SIGNS, OR PROVIDE

12. ALL FITTINGS, VALVES, HYDRANTS, ETC. SHALL HAVE A WORKING PRESSURE RATING OF AT LEAST 350 PSI.

13. ALL PIPE SHALL BE DUCTILE IRON CLASS 50.

16. CONTRACTOR SHALL FIELD LOCATE ELEVATION OF WATER MAIN WHERE THRUST COLLARS AND CONNECTION TO EXISTING MAIN

18. CONTRACTOR SHALL NOT OPERATE GATE VALVES, CONTRACTOR SHALL COORDINATE WITH CITY PERSONNEL TO SCHEDULE VALVE OPENING/CLOSURE. ONLY CITY PERSONNEL SHALL OPEN/CLOSE EXISTING GATE VALVES.

19. CONTRACTOR SHALL INSTALL CONCRETE THRUST COLLARS (CONNECT THREADED RODS FROM THRUST COLLAR TO VALVE &

21. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CITY OF MEBANE'S STANDARD SPECIFICATIONS AND

NO DIRECT PAYMENT SHALL BE MADE FOR THIS ITEM (SEE FIRE HYDRANT INSTALLATION DETAIL).

STOP SIGNS AT INTERSECTIONS, IF NECESSARY.

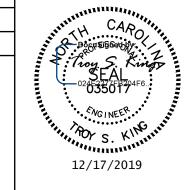
PROCEDURES FOR ALL UTILITY ABANDONMENT.

28. EXISTING UTILITIES TO BE ABANDONED IN PLACE SHALL BE FILLED SOLID WITH CONCRETE, FLOWABLE FILL OR NON-SHRINK

RELOCATED. TEMPORARY WATER SERVICE SHALL BE CHLORINATED AND HAVE A CLEAN BACTERIOLOGICAL SAMPLE PRIOR TO

RODDING TO THE PLUG. CONCRETE BLOCKING SHALL ALSO BE INSTALLED AT ALL PLUG LOCATIONS.

DRAWN BY: W. FOX CHECKED BY: T. KING APPROVED BY: T. KING



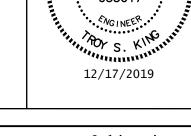
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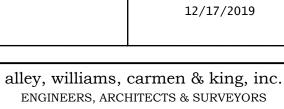
UC-2



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ROADWAY DESIGN DATA AND DRAWINGS PROVIDED BY NCDOT

Firm's Engineering License No. F-0203

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PROJECT REFERENCE NO.

I-5711

DESIGNED BY: T. KING

REVISED: