

IN ORDER TO ENSURE THAT NEW DEVELOPMENTS WITHIN THE CITY ARE DESIGNED AND CONSTRUCTED SUBSTANTIALLY IN ACCORDANCE WITH CITY REGULATIONS THE FOLLOWING INFORMATION IS REQUIRED:

FOR THE PURPOSE OF DESIGN THE FOLLOWING INFORMATION IS REQUIRED ON PLAN SHEET FOR DIRECTIONAL DRILLING.

1. PLAN SHEET SHALL INCLUDE PLAN VIEW WITH THE FOLLOWING INFORMATION: RIGHT OF WAY, PAVEMENT, CURBS AND UTILITIES SHALL BE VERIFIED AND DIMENSIONED FOR EACH STREET CROSSING.
2. DESIGN PLAN FOR DIRECTIONAL DRILL SHALL INCLUDE THE FOLLOWING INFORMATION: NOMINAL PIPE DIAMETER, PIPE DR, PIPE SIZE FITTING TYPE AND PIPE MATERIAL. LOCATION, PIPE MUST MEET THE DESIGN PRESSURE PIPE REQUIREMENTS EQUAL TO OR EXCEEDING DESIGN REQUIREMENTS OF CORRESPONDING UTILITIES. PROVIDE START AND ENDING LOCATIONS, ALIGNMENT, POINT OF SERVICE/LOCATION OF CITY MAINTENANCE.
3. PLAN SHEET SHOULD ALSO INCLUDE PROFILE OF PROPOSED DIRECTIONAL DRILL THAT DELINEATES DEPTH AND SEPARATION DISTANCES FROM EXISTING FACILITIES WITHIN THE BOUNDS OF THE STREET RIGHT OF WAY. MINIMUM PIPE DEPTH OF THE DIRECTIONAL BORE WHEN CROSSING BENEATH A ROADWAY, (TYPICALLY 10 TIMES THE BACK REAM DIAMETER AS MEASURED FROM THE EDGE OF ASPHALT, BUT TO BE NO LESS THAN 36 INCHES, UNLESS CERTIFIED BY DESIGN OF ENGINEER OF RECORD AND APPROVED BY THE CITY ENGINEER.
4. PIPE MATERIAL IS PART OF THE DESIGN PROCESS FOR DIRECTIONAL DRILLING, AND SHOULD BE PART OF THE ENGINEERING DESIGN. HOWEVER, THE PIPE MATERIAL SHALL MEET THE FOLLOWING MINIMAL STANDARDS:

MATERIAL STANDARDS FOR DIRECTIONAL DRILL INSTALLATION

MATERIAL TYPE	NON-PRESURE	PRESURE
POLYETHYLENE (PE)	ASTM D 2447	ASTM 2513 ASTM D 2447
HIGH DENSITY POLETHYLENE (HDPE)	ASTM D 2447 ASTM D 3350 ASTM F 714	ASTM D 2447 ASTM D 3350 ASTM F 714 ASTM 2513
POLYVINYL-CHLORIDA (PVC)	ASTM F 789	N/A
STEEL	ASTM A 139 GRADE B (1)	AWWA C200 API 2B (2)

- (1) NO HYDROSTATIC TEST REQUIRED
- (2) DIMENSIONAL TOLERANCES ONLY

5. PIPE SHALL BE COLOR CODED IN ACCORDANCE WITH OTHER STANDARD DETAILS FOR THE USE OF THE PIPE, WATER, WASTEWATER OR REUSE.
6. LOCATING WIRE, TWO LINES, SHALL BE ATTACHED TO THE PIPE. UPON COMPLETION OF DIRECTIONAL DRILL, TESTING OF THE CONTINUITY OF THE WIRE WILL BE PERFORMED. THIS TEST SHALL BE PERFORMED IN THE PRESENCE OF CITY INSPECTOR AND/OR CITY MAINTENANCE PERSONNEL FOR THE APPROPRIATE DIVISION.
7. UPON COMPLETION OF DIRECTIONAL DRILL, HYDROSTATIC TEST SHALL BE PERFORMED ON THE PIPE. THE TEST SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
PRESSURE PIPE – PIPE SHALL BE TESTED IN ACCORDANCE WITH UTILITY CARRIED.
NON-PRESURE PIPE – PIPE SHALL BE TESTED IN ACCORDANCE WITH UTILITY CARRIED.
8. PRIOR TO BEGINNING DIRECTIONAL DRILL, CONTRACTOR IS TO COMPLETE THE HORIZONTAL DIRECTIONAL DRILL PRE-LOG FORM, HDD STANDARD FORM NO. 101. COPY OF THIS FORM IS STANDARD DD-1B.
9. IF CONDITIONS WARRANT REMOVAL OF ANY MATERIALS INSTALLED IN A FAILED BORE PATH, AS DETERMINED BY ENGINEER, IT WILL BE AT NO COST TO THE CITY. THE VOID SHOULD BE FILLED WITH EXCAVATABLE FLOWABLE FILL.
10. IF THE HORIZONTAL DIRECTIONAL DRILL PATH ENCOUNTERS AN OBSTRUCTION WHICH PREVENTS THE COMPLETION IN ACCORDANCE WITH THE DESIGN LOCATION AND SPECIFICATIONS, THE PIPE IS TO BE TAKEN OUT OF SERVICE AND LEFT IN PLACE AT THE DISCRETION OF THE CITY ENGINEER. A NEW INSTALLATION PROCEDURE AND REVISED PLANS ARE TO BE SUBMITTED TO THE CITY FOR REVIEW. IF DURING THE PROCESS OF DIRECTIONAL DRILLING, DAMAGE IS OBSERVED TO EXISTING IMPROVEMENTS WITHIN THE RIGHT OF WAY, ALL WORK IS TO CEASE UNTIL A RESOLUTION TO MINIMIZE FURTHER DAMAGE AND A PLAN OF ACTION FOR RESTORATION IS APPROVED BY THE CITY ENGINEER.



STANDARD CONSTRUCTION DETAIL
DRAWING REQUIREMENTS FOR
HORIZONTAL DIRECTIONAL DRILL

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DD-1A

JAN - 2024

CITY OF SOUTH DAYTONA - HDD STANDARD FORM #101

HORIZONTAL DIRECTIONAL DRILL PRE-LOG

Note: This form must be completed by the contractor intending to perform the actual construction operation for a horizontal directional drill (HDD) on any City project or within City Right-of-Way and submitted to the City Public Works Department or its designated representative no less than 48 hours prior to commencement of work. This form shall be completed for each HDD bore run from entrance to exit.

NAME OF PROJECT: _____

PROJECT NUMBER: _____

NAME OF DRILLING CONTRACTOR: _____

NAME OF PRIME CONTRACTOR (if applicable): _____

STARTING DATE OF INTENDED WORK: _____

NOMINAL PIPE DIAMETER (inches): _____

PIPE MATERIAL: _____ PIPE D.R.: _____ IPS or DIPS: _____

PROPOSED HDD RUN

PROJECT STATIONING: FROM _____ + _____ TO _____ + _____

TYPICAL OFFSET AND DIRECTION FROM STATIONING CENTERLINE: _____

TOTAL LINEAR LENGTH, STATION TO STATION (FEET): _____

HAVE SOFT DIGS FOR EXISTING UTILITIES BEEN PERFORMED ON THIS RUN? (Y/N) _____

HAVE REQUIRED ENVIRONMENTAL PROTECTION MEASURES BEEN IMPLEMENTED FOR THIS ACTIVITY?

Yes: _____ No: _____ What measures?: _____

NAME OF AUTHORIZED HDD CONTRACTOR EMPLOYEE COMPLETING THIS FORM:

PRINT: _____ TITLE: _____

SIGN: _____



STANDARD CONSTRUCTION DETAIL
HORIZONTAL DIRECTIONAL DRILL
PRE-LOG FORM

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DD-1B

JAN - 2024

IN ORDER TO ENSURE THAT NEW DEVELOPMENTS WITHIN THE CITY ARE CONSTRUCTED SUBSTANTIALLY IN ACCORDANCE WITH CITY REGULATIONS AND THE APPROVED DRAWINGS "AS-BUILT" DRAWINGS ARE REQUIRED:

THE FOLLOWING INFORMATION IS REQUIRED ON ALL HORIZONTAL DIRECTIONAL DRILLING "AS-BUILT" DRAWINGS:

1. PROVIDE A BORE PATH REPORT TO THE CITY INSPECTOR. INCLUDE THE FOLLOWING IN THE REPORT:
 - A. LOCATION OF PROJECT- TO INCLUDE DETAIL REFERENCE TO A PERMANENT STRUCTURE WITH IN THE PROJECT BOUNDARIES FOR BOTH ENTRANCE AND EXIT.
 - B. IDENTIFICATION OF THE DETECTION METHOD USED.
 - C. NAME OF PERSON COLLECTING DATA, INCLUDING TITLE, POSITION AND COMPANY NAME.
 - D. ELEVATIONS AND OFFSET DIMENSIONS FROM BEGINING LOCATION AND ALIGNMENT SHOWN ON THE APPROVED PLANS.
2. PLAN SHEET SHALL INCLUDE PLAN VIEW WITH THE FOLLOWING INFORMATION: RIGHT OF WAY, VERTICAL AND HORIZONTAL LOCATION OF PAVEMENT, CURBS AND UTILITIES SHALL BE VERIFIED AND DIMENSIONED FOR EACH STREET CROSSING. THIS INFORMATION SHALL CLEARLY INDICATE IT AS BEING "AS-BUILT" INFORMATION.
3. PLAN SHEET SHALL INCLUDE PROFILE OF DIRECTIONAL DRILL ALIGNMENT. PROVIDE VERTICAL DATUM OF DRILL PATH, APPROXIMATE LOCATION OF VARIOUS UTILITY, STORMWATER AND OTHER UNDERGROUND SYSTEMS. THIS INFORMATION SHALL CLEARLY INDICATE IT AS BEING "AS-BUILT" INFORMATION. VERTICAL DATUM SHOULD BE SHOWN ON THE PROFILE.
4. SHOULD A DIRECTIONAL DRILL BE TERMINATED DUE TO AN OBSTRUCTION WHICH PREVENTS THE COMPLETION OF THE BORE, THE PIPE MAY BE TAKEN OUT OF SERVICE AND LEFT IN PLACE AT THE DISCRETION OF THE CITY ENGINEER. THE PIPE SHOULD BE FILLED WITH EXCAVATABLE FOLDABLE FILL. SHOW LOCATION OF FAILED BORE AND THIS INFORMATION SHALL CLEARLY INDICATE IT AS BEING "AS-BUILT" INFORMATION.

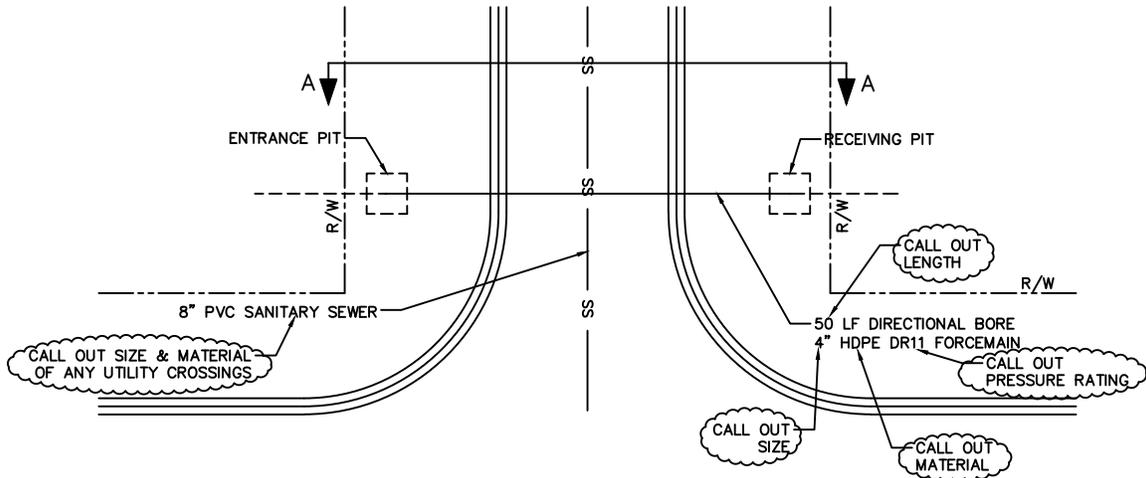


STANDARD CONSTRUCTION DETAIL
REQUIREMENTS FOR AS-BUILT DRAWINGS
HORIZONTAL DIRECTIONAL DRILL

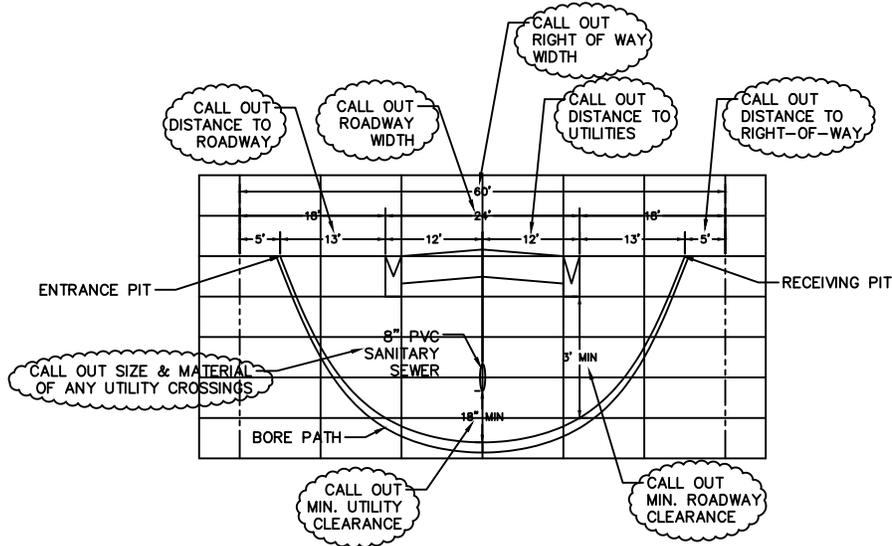
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TYPICAL DIRECTIONAL DRILL PLAN



TYPICAL DIRECTIONAL DRILL PROFILE

NOTES:

1. MAXIMUM BACK REAMER SIZE = 6" CALL OUT BACK REAM SIZE
2. BORE PATH = 50' +/- CALL OUT BORE LENGTH
3. USE CONDUIT - 4" HDPE DR11 CALL OUT SIZE, MATERIAL, & PRESSURE RATING
4. TRACING WIRE TO BE ADHERED TO DIRECTIONAL BORE
5. MINIMUM COVER SHALL BE 4.0' ON ALL CITY STREETS
6. CONTRACTOR SHALL OBTAIN CLEARANCE FROM THE CITY OF SOUTH DAYTONA PUBLIC WORKS PRIOR TO PERFORMING THE DIRECTIONAL BORE

TYPICAL DIRECTIONAL DRILL NOTES



STANDARD CONSTRUCTION DETAIL
 TYPICAL PLAN, PROFILE, & NOTES FOR
 HORIZONTAL DIRECTIONAL DRILL

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