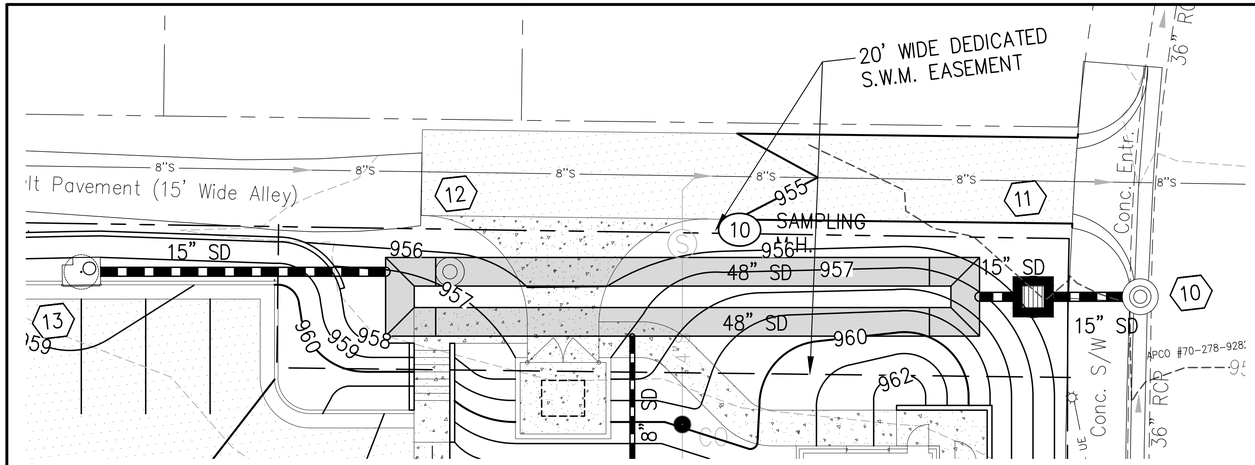
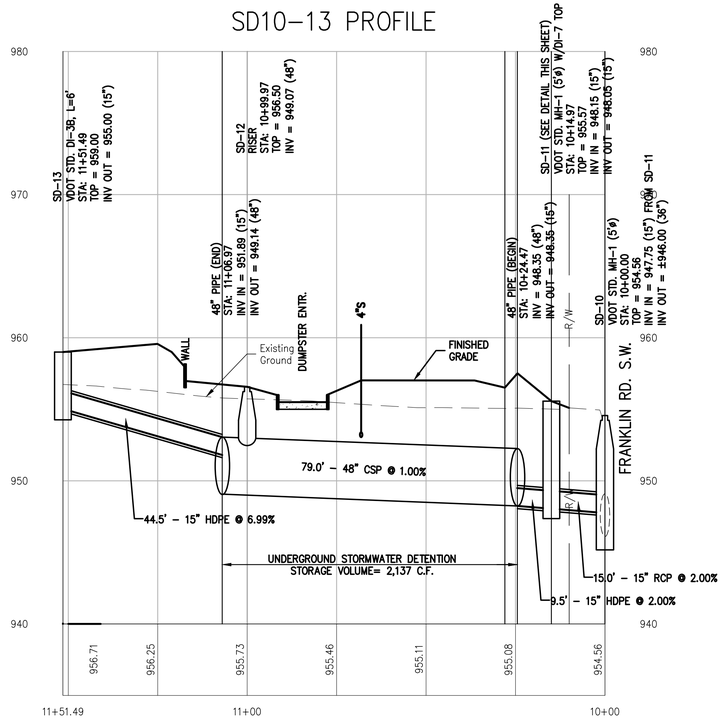


ENLARGED SWM PLAN

SCALE: 1"= 10'

SD10-13 PROFILE



SWM PROFILE

SCALE: 1"= 20'

SPECIFICATIONS AND INSTALLATION PROCEDURES FOR UNDERGROUND STORMWATER MANAGEMENT BASIN

SPECIFICATION FOR CORRUGATED STEEL PIPE-ALUMINIZED TYPE 2 STEEL:

SCOPE: THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE CORRUGATED STEEL PIPE (CSP) DETAILED IN THE PROJECT PLANS.

MATERIAL: THE ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M 274 OR ASTM A 929.

PIPE: THE CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M-36 OR ASTM A760. THE PIPE SIZES, GAUGES AND CORRUGATIONS SHALL BE AS SHOWN ON THE PROJECT PLANS. ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.

FITTINGS: ALL FITTINGS AND REINFORCEMENT SHALL COMPLY WITH ASTM A998.

RISERS AND STUB PIPES: SHALL BE 16 GAUGE WITH 2⅔" X ½" CORRUGATIONS.

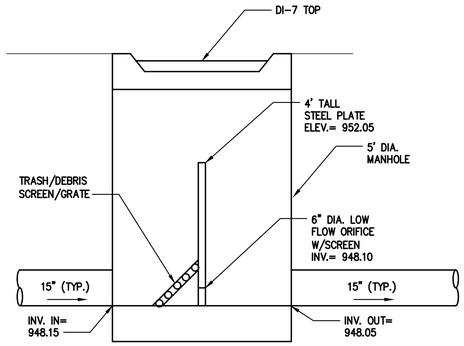
HANDLING & ASSEMBLY: SHALL BE IN ACCORDANCE WITH NCSPA'S (NATIONAL CORRUGATED STEEL PIPE ASSOCIATION) RECOMMENDATIONS.

INSTALLATION: SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II OR ASTM A 798 AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE PROJECT ENGINEER. IT IS ALWAYS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

CONSTRUCTION LOADS: CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSPA GUIDELINES.

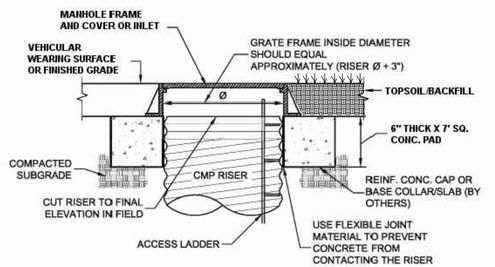
FOUNDATION/BEDDING PREPARATION: PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER. ONCE THE FOUNDATION PREPARATION IS COMPLETE, 4'-6"OF A WELL-GRADED GRANULAR MATERIAL SHALL BE PLACED AS THE BEDDING.

BACKFILL: THE BACKFILL SHALL BE AN A1, A2 OR A3 GRANULAR FILL PER AASHTO M145, OR A WELL-GRADED GRANULAR FILL AS APPROVED BY THE SITE ENGINEER (SEE INSTALLATION GUIDELINES). THE MATERIAL SHALL BE PLACED IN 8"LOOSE LIFTS AND COMPACTED TO 90% AASHTO T99 STANDARD PROCTOR DENSITY. WHEN PLACING THE FIRST LIFTS OF BACKFILL IT IS IMPORTANT TO MAKE SURE THAT THE BACKFILL IS PROPERLY COMPACTED UNDER AND AROUND THE PIPE HAUNCHES. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO LIFT (16') DIFFERENTIAL BETWEEN ANY OF THE PIPES AT ANY TIME DURING THE BACKFILL PROCESS. THE BACK FILL SHALL BE ADVANCED ALONG THE LENGTH OF THE DETENTION SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON THE PIPE. OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS, AS APPROVED BY SITE ENGINEER.



OUTLET (SD-11) DETAIL

SCALE: N.T.S.



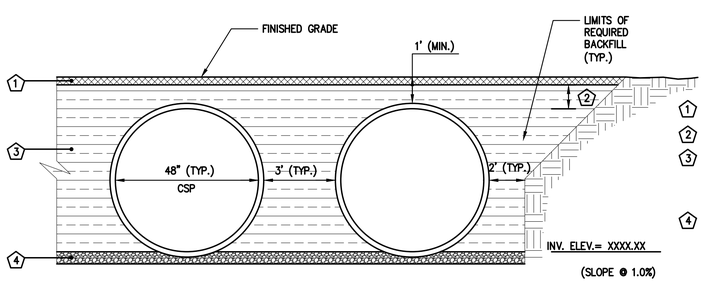
SECTION A-A

TYPICAL RISER (SD-12) DETAIL

SCALE: N.T.S.

MANHOLE CAP DETAIL

SCALE: N.T.S.



KEYNOTES:

1. 4" TOPSOIL, MINIMUM.
2. 12" MIN. COVER.
3. SELECT GRANULAR FILL PER AASHTO M145 A1, A2 OR A3, OR APPROVED EQUAL. PLACED IN 8" LIFTS (COMPACTED TO MIN. 90% STANDARD DENSITY PER AASHTO T99).
4. GRANULAR BEDDING, ROUGHLY SHAPED TO FIT THE BOTTOM OF PIPE, 4" TO 6" IN DEPTH.

TYPICAL SECTION VIEW

SCALE: N.T.S.

City of Roanoke
Planning, Building, & Development
COMPREHENSIVE DEVELOPMENT PLAN
APPROVED
by Aaron Cypher 06/10/2020

CITY PLAN NO.: CP20-0016

0 10' 20' 40'
SCALE: 1" = 20'

COMMONWEALTH OF VIRGINIA
WM. THOMAS AUSTIN
Lic. No. 039097
06/08/20
PROFESSIONAL ENGINEER

Revisions	Date

Issue Date: JUNE 8, 2020
Drawn By: WTA
Designed By: WTA/ARB
Checked By: WTA
Date: 06/08/20

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NEW ANGELS OF ASSISI CLINIC
725 FRANKLIN ROAD, SW
ROANOKE, VIRGINIA

STORM DRAINAGE - SWM PLAN AND PROFILES

Vertical Scale: 1"= 5'
Horizontal Scale: AS NOTED
Commission Number: 4009
Sheet No.: C5.3