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CRM Dirt Streets Paving Project: Emerald Ln, Coral Dr., and Topaz Ave. Edgecombe County, Rocky Mount, N.C.

ROCKY MOUNT ENGINEERING THE CENTER OF IT ALL

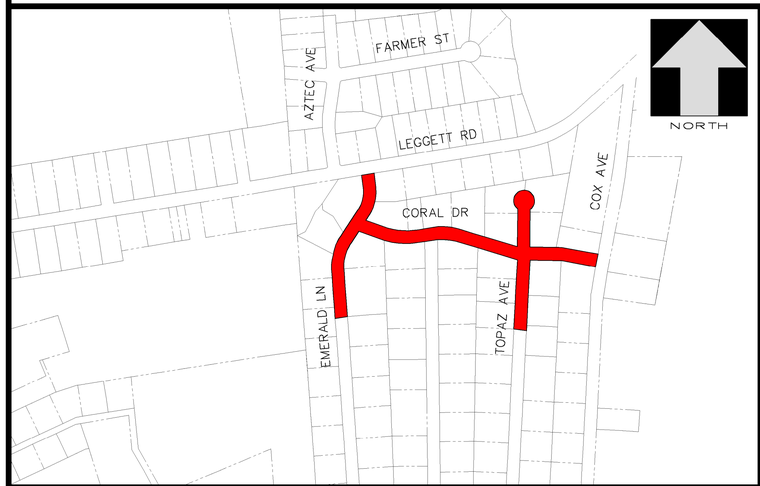
GENERAL NOTES

Last Revised 5/5/22

1. The purpose of this project is the paving of approximately 6,600 square yards of existing unsurfaced roadway, minor clearing and grubbing, and 2,600 LF gravity sewer main extensions and services.
2. "Spot shot" topographical information shown hereon obtained from an actual field survey performed by Hugh Clark, PLS, City of Rocky Mount Survey Manager. Additional topographic and boundary information obtained from the City of Rocky Mount and Edgecombe County GIS. Horizontal Datum is NAD '83/2007 NC State Plan Coordinates. Reference Datum is NAVD 88. Topographical information shown hereon must be verified by Contractor.
3. Boundary information obtained from GIS is shown for reference only. Consult Professional Land Surveyor for boundary data. No location of property boundaries, easements, wetland delineation, flood zones or buffers was performed, and must be done by a Professional Land Surveyor. This document is NOT to be used as a Deed of Easement, nor is it to be construed to permit the location, description, establishment or reestablishment of property lines or descriptions of land boundaries for conveyance.
4. All materials, construction, workmanship shall meet the City of Rocky Mount Land Development Code and Manual of Standards and Design, NCDEQ and NCDOT requirements, as well as specifications and conditions on these plans. City Standards shall be met.
5. Contractor and subcontractors shall comply with all OSHA requirements and pertinent provisions of the "Manual of Accident Prevention in Construction" issued by AGC of America, Inc., and the Safety and Health Regulations for Construction issued by the U.S. Department of Labor.
6. Contractor shall saw-cut to provide smooth transition at tie-in to existing edge of pavement where applicable.
7. Contractor to provide 10 ft wide x 7 ft paved turnout at each existing driveway.
8. No new water taps or waterline extensions are proposed for this project.
9. If required, remove/ relocate existing mailboxes (same day) per NCDOT Section 107-12 of the NCDOT Standard Specifications for Roads and Structures and coordinate with the US Postal Service.
10. **EXISTING UTILITIES**
    a. The Contractor shall be responsible for reviewing and verifying all existing site conditions. Any adverse existing conditions affecting work shown shall be brought to the attention of the engineer for possible clarification or reconciliation.
    b. The contractor shall be responsible for the repair of any pavement or existing utilities that may be damaged due to construction activity. Exercise caution.
    c. Existing utility locations shown, if any, are approximate and shall be verified in the field prior to beginning work. Contractor shall contact the 811 One Call Center for locations of existing utilities prior to beginning construction.
    d. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF THE LOCATION AND DEPTH OF ALL UTILITIES AND STRUCTURES WHICH CROSS THE WORK SITE OR WHICH MAY BE AFFECTED BY HIS OPERATIONS.
    e. Contractor is responsible for determination or discovery of existing underground storage tanks (UST), septic tanks, abandoned utility lines, graves or cemeteries that may exist on the site.
    f. Contractor shall exercise extreme caution when working under, around, and/or adjacent to existing power lines. Electrical lines and power poles are owned and maintained by City of Rocky Mount Public Utilities.
    g. Contractor shall video the existing conditions prior to beginning work to protect against unwarranted claims. Construction areas are to be left in a condition equal to or better than previous condition upon completion of work.
11. **ENVIRONMENTAL**
    a. FLOODPLAIN: Portions of this area are within the 500-yr and 100-yr Floodplain per FEMA FIRM# 3720.3870.00K, dated 6/18/2013. 100 Year BFE at this location is approximately 76.1.
    b. No wetlands, riparian buffers or streams exist onsite and will be impacted by this project. This site is not located within a Watershed Protected Zone.
12. **ELECTRIC/ GAS:**
    a. Contractor shall exercise extreme caution when working under, around, and/or adjacent to existing power lines. Electrical lines and power poles are owned and maintained by City of Rocky Mount Public Utilities.
    b. If required, Contractor shall contact City of Rocky Mount Public Utilities at 252/467-4808 to coordinate the installation of electric services and 252/467-4809 to coordinate the installation of natural gas services. No gas or electric service proposed.
    c. A City representative must be present prior to and during any construction within the area of existing gas mains. Any adjustments and relocations for gas lines will be performed by the City (none proposed).
13. **EARTHWORK:**
    a. Unless otherwise approved, all construction debris shall be disposed of **OFF-SITE** in a permitted landfill. All borrow material must come from a properly permitted E&SC site or mine.
    b. Earthwork and compaction efforts to comply with City and NCDOT requirements. Refer to requirements stipulated in contract documents.
    c. Contractor to coordinate closely with City Inspector at all times during construction.
14. **DRAINAGE**
    a. Contractor to confirm sizes and location of connections with existing drainage prior to construction and ordering culvert.
    b. Storm drainage piping shall be reinforced concrete pipe (RCP), Class III, conforming to ASTM C76, unless otherwise approved by the City. All joints shall be sealed. Ensure adequate cover as approved by City.
15. **CONCRETE:** (if required)
    a. All concrete is to be minimum 3,000 psi at 28 days, unless otherwise noted on the plans. Provide expansion joint (E.J.) wherever new concrete or curbing adjust existing concrete.
    b. DO NOT POUR ANY CONCRETE BEFORE FORMS ARE INSPECTED AND APPROVED BY THE CITY. Failure to do so may constitute removal of work performed at Contractor's cost until made satisfactory by the Engineer.
    c. Contractor shall watch for any potential upgrade depressions adjacent to and behind proposed concrete. Should any be detected, fill to provide positive surface drainage over concrete.
    d. Where directed by City, Contractor shall remove and replace existing concrete driveways. Install 4" concrete driveway in accordance with NCDOT Standard Specifications (sidewalk/broom finish).
16. **TRAFFIC CONTROL:**
    a. The Contractor shall be responsible for all work zone traffic control. All methods, signs, pavement markings and other traffic control devices shall conform to the Manual on Uniform Traffic Control Devices (MUTCD) and NCDOT standards, and are the Contractor's responsibility.
    b. All methods, signs, pavement markings and other traffic control devices shall conform to the Manual on Uniform Traffic Control Devices (MUTCD) and NCDOT standards, and are the Contractor's responsibility.
17. Contractor shall be responsible for any costs in excess of normal construction methods due to adverse conditions, or failure to give notice, that preclude the use of the City's standard installation methods. Examples of such are, but not limited to, boring, conduit installation, pavement patching, concrete replacement and landscaping.
18. GUARANTEE: The Contractor shall guarantee the quality of his work for a period of twelve months after acceptance. Should the work fail to perform according to these plans and specifications, the Contractor shall be required to conduct corrective actions at no cost to the Owner. Such adequacy shall be left to the discretion of the Engineer.

PROJECT CONTACTS

NAME/ TITLE	ENTITY	PHONE	MAIL/EMAIL
Brad Kerr, PE Director of Public Works	City of Rocky Mount	252.972.1121	Brad.kerr@rockymountnc.gov
Scott Miles, PE Assistant City Engineer	City of Rocky Mount	252.972.1122	Scott.miles@rockymountnc.gov
Hugh Clark, PLS Survey Manager	City of Rocky Mount	252.467.4944	Hugh.clark@rockymountnc.gov
Allen Goff Inspector	City of Rocky Mount	252.467.4946	Allen.goff@rockymountnc.gov
Bobby L. Joyner, PE President	Appian Consulting Engineers	252.972.7703	bjoyner@appianengineers.com
David C. Revoir, PE Project Engineer	Appian Consulting Engineers	252.972.7703	drevoir@appianengineers.com



CITY STANDARD NOTES

Last Revised 5/3/22

1. All required improvements shall conform to the City of Rocky Mount's Land Development Code and Manual of Specifications and Details, latest edition.
2. Omitted
3. Omitted
4. Omitted
5. The disturbed area for this project is less than 0.5 acre. Therefore, stormwater detention and nutrient management are not required.
6. The disturbed area for this project is less than 1 acre. Therefore, a formal Sedimentation and Erosion Control Plan is not required. However, the site is subject to erosion control provisions and the **CONTRACTOR IS RESPONSIBLE FOR CONTAINING ALL EROSION AND SEDIMENTATION WITHIN THE PROJECT LIMITS.**
7. Omitted
8. "Spot shot" topographical information shown hereon obtained from an actual field survey performed by Hugh Clark, PLS, City of Rocky Mount Survey Manager. Additional topographic and boundary information obtained from the City of Rocky Mount and Edgecombe County GIS. Horizontal Datum is NAD '83/2007 NC State Plan Coordinates. Reference Datum is NAVD 88.
9. Portions of this area are within the 500-yr and 100-yr Floodplain per FEMA FIRM# 3720.3870.00K, dated 6/18/2013. 100 Year BFE at this location is approximately 76.1.
10. Contractor/Developer shall contact City of Rocky Mount Construction Inspector Allen Goff at (252) 343-3158 one week prior to beginning construction.
11. Contractor shall contact City of Rocky Mount Public Utilities at 252/467-4808 to coordinate the installation of electric services and 252/467-4827 to coordinate the installation of natural gas services.
12. Omitted
13. The developer/owner is responsible for all costs related to the relocation of any existing utilities. No relocation of existing utilities proposed.
14. Omitted
15. The property owners shall provide an executed right-of-way easement prior to the installation of proposed swale on private property.
16. The contractor is responsible for calling the NC One Call Center at 811 to locate existing utilities prior to beginning work.

INDEX

CE-1 OVERALL EXISTING CONDITIONS
CE-2 OVERALL UTILITIES PLAN
CE-3 EMERALD LANE
CE-4 CORAL DRIVE
CE-5 CORAL DRIVE (SHEET 2)
CE-6 TOPAZ AVENUE
CE-7 COX AVENUE
D-1 CONSTRUCTION DETAILS
D-2 CONSTRUCTION DETAILS
D-3 CONSTRUCTION DETAILS

SCOPE OF WORK:

STREET NAME	EX. ROAD SURFACE	PRO. WORK DESCRIPTION	APPROX. LENGTH (LF)
Emerald Lane	ABC	Paving, sewer extension	800
Coral Drive	ABC	Paving, sewer extension	1,200
Topaz Ave	ABC	Paving, sewer extension	600
Cox Ave	Asphalt	Sewer Extension	920

LEGEND (EXISTING SITE)

- Adjacent Property Lines
- Building Outline (bldg)
- Buffer Easement
- Centerline (as Noted)
- Chain
- Ex. Curb & Gutter
- Ex. Contour
- ex elev. Topographic Elevation
- Ditch
- Drainage Structures (as Noted)
- Easement (esm't)
- Fence (as Noted)
- Edge Gravel / Soil
- Min. building Setback (mbl)
- Paint Stripe
- Edge Pavement (ep)
- 876 Right-of-way
- Tree/woods Limits
- Zoning Line
- ex mb ex mail box
- ex. sign ex sign (as noted)

LEGEND (EXISTING UTILITIES)

- CATV Cable TV
- Fence (as Noted)
- FO Fiber Optics Line
- FM Force Main
- G Gas
- O.H. Power
- Guy Wire
- ONE O.H. Electric
- UGE U.G. Electric
- SS San Sewer (As Noted)
- T Telecommunications
- UGT U.g. Telecommunications
- Utility (as Noted)
- UKN Unknown Utility Line
- W Water Line
- ex pp Power Pole
- ex guy Guy Wire
- ex lp Light Pole
- ex up Utility Pole
- ex fom Fiber Optic Monument
- ex tp Telecommunications Pedestal
- ex fh Fire Hydrant
- ex w.m. WM Water Meter
- ex wv Water Valve
- ex piv Post Indicator Valve
- Plug With Blocking
- ex gv Gas Valve
- ex mh Manhole (As Noted)
- ex co Cleanout

BEFORE YOU DIG, CALL 811 NORTH CAROLINA ONE-CALL CENTER www.ncocc.org

LEGEND (CONSTRUCTION)

- CENTERLINE (SEE PLANS)
- DITCH
- EASEMENT (AS NOTED)
- LOD LIMITS OF DISTURBANCE (ALT.)
- PROPERTY LINE (NO SURVEY)
- N33°33'33"E 333' PROPERTY LINE (SURVEYED)
- RIGHT-OF-WAY
- PAVEMENT STRIPING (AS NOTED)
- CENTERLINE (AS NOTED)
- ELEV. CONTOUR (ELEV. AS NOTED)
- ELEV. SPOT ELEVATION
- % SLOPE
- CONCRETE
- FLARED END
- SIGN
- STOP SIGN
- STREET NAME SIGN
- CH. LK. FENCE (AS NOTED)
- CAUTION: POWER IN AREA
- CAUTION: HIGH REPAIR COST
- IMPORTANT INFORMATION
- CAUTION: / IMPORTANT
- DO NOT DISTURB

Final Drawings
Review Purposes ONLY

NORTH CAROLINA PROFESSIONAL SEAL 26959 ENGINEER DAVID C. REVOIR
01/24/2023

Appian
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CIVIL, MUNICIPAL & STRUCTURAL ENGINEERS
COMPREHENSIVE ENVIRONMENTAL SERVICES

REVISIONS				
NO.	DATE:	DESCRIPTION:	BY:	CAD:

APPIAN CONSULTING ENGINEERS, P.A.
154 Roundabout Ct., Rocky Mount, N.C. 27804
(252) 972-7703
BLN = C0562
admin@appianengineers.com
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ACE J.N. 21-136/ CRM Dirt Streets Paving Project: Emerald Ln, Coral Dr., and Topaz Ave.

S:\Appian Projects - Saved Files\21136-CRM Dirt Streets-Coral Emerald Topaz\CAD\21136 -CRM Dirt Streets CD Set - 01-24-2023 - 8:51 AM Plot By: DAVID C. REVOIR

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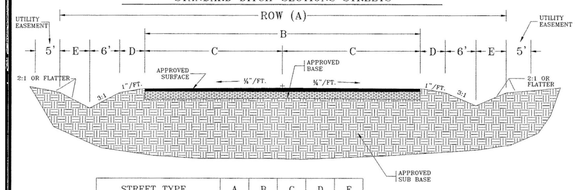
STANDARD DITCH-SECTIONS STREETS



STREET TYPE	A	B	C	D	E
INDUSTRIAL PARK LOCAL (ZONED I-P)	50.0	20.0	10.0	6.0	3.0
INDUSTRIAL PARK COLLECTOR (ZONED I-P)	65.0	26.0	13.0	7.5	6.0
PRIVATE LOCAL	46.0	12.0 ONE WAY	6.0	7.5	3.5
PRIVATE LOCAL	46.0	22.0 TWO WAY	11.0	3.0	3.0
PRIVATE LOCAL	46.0	24.0 ONE WAY	12.0	3.0	2.0

STANDARD DITCH SECTIONS FOR STREETS

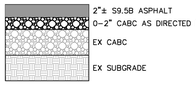
REVISIONS				
NO	DATE	DESCRIPTION		

CITY OF ROCKY MOUNT
DEPT. OF ENGINEERING

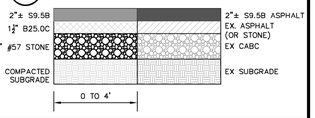
APPROVED	STD NO.
–	2.3
DATE	REVISION
10-02-08	–

PAVEMENT LEGEND

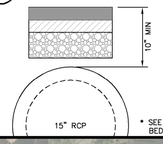
100 PAVING UNSURFACED ROAD



101 ROAD WIDENING



102 PIPE COVER



* SEE CRM 1.06 FOR BEDDING DETAILS

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NORTH CAROLINA ONE-CALL CENTER
www.ncocc.org

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Approved for Construction:

_____ Date: _____

BOUNDARY DESCRIPTION SHOWN IS NOT FOR RECORDATION.

RECORD DRAWINGS:
These drawings are believed to be a correct representation of actual field conditions but are not warranted as such.

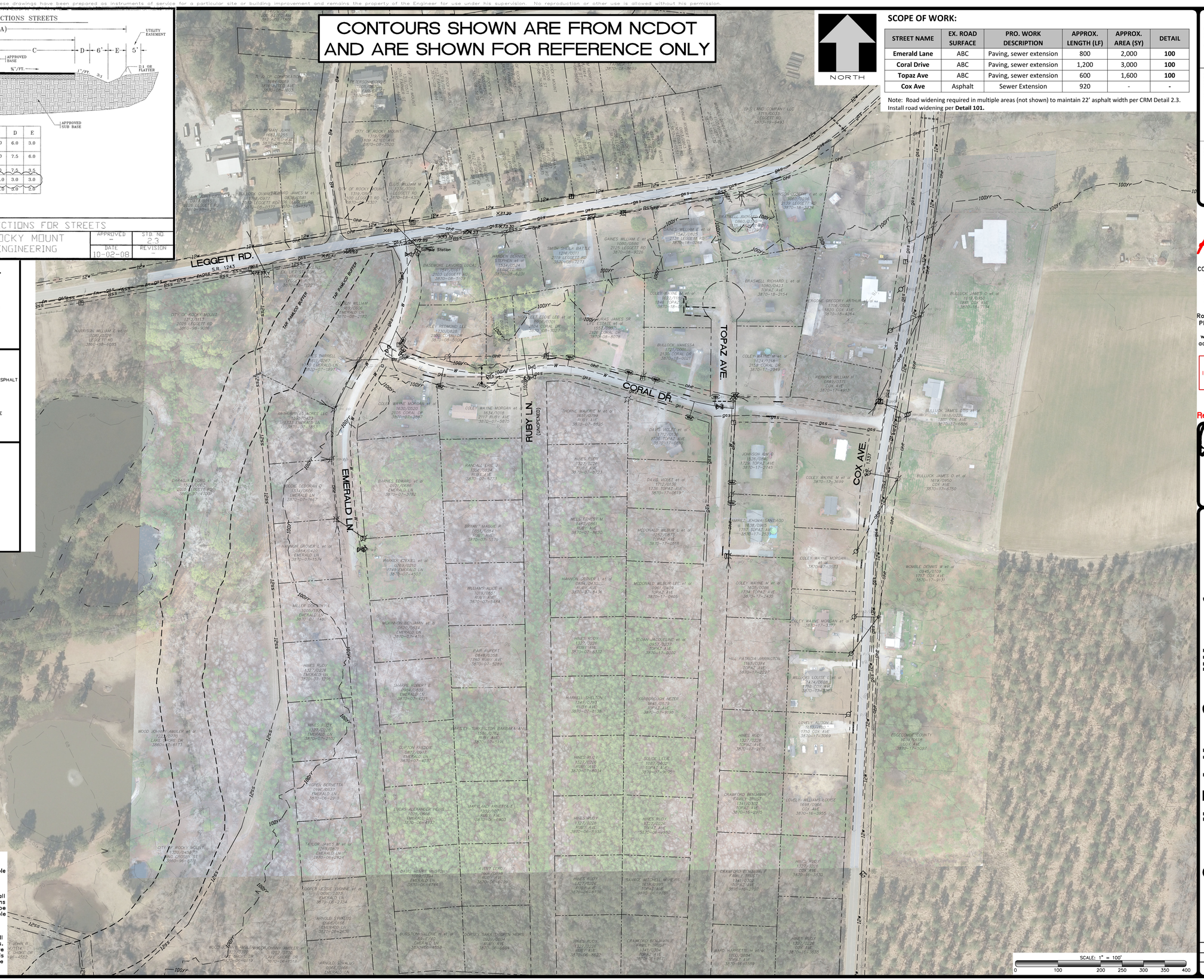
By: _____ Date: _____

CONSTRUCTION SAFETY
These drawings do not contain the requirements for job safety. All provisions for safety shall be the sole responsibility of the contractor.

EXISTING CONDITIONS:
The contractor shall be responsible for reviewing all existing job conditions. Any adverse existing conditions affecting work shown on these drawings shall be brought to the attention of the engineer for possible clarification or reconciliation.

ADA AND LEGAL DISCLAIMER
This document is not represented to comply with all requirements contained in the ADA or other laws. Engineers are not licensed to interpret laws or give advice concerning laws, the owner should have this document reviewed by his attorney to determine legal compliance.

CONTOURS SHOWN ARE FROM NCDOT AND ARE SHOWN FOR REFERENCE ONLY



SCOPE OF WORK:

STREET NAME	EX. ROAD SURFACE	PRO. WORK DESCRIPTION	APPROX. LENGTH (LF)	APPROX. AREA (SY)	DETAIL
Emerald Lane	ABC	Paving, sewer extension	800	2,000	**100**
Coral Drive	ABC	Paving, sewer extension	1,200	3,000	**100**
Topaz Ave	ABC	Paving, sewer extension	600	1,600	**100**
Cox Ave	Asphalt	Sewer Extension	920	-	**-**

Note: Road widening required in multiple areas (not shown) to maintain 22' asphalt width per CRM Detail 2.3. Install road widening per **Detail 101.**

HOR. SCALE: 1" = 100'	DATE: 01/24/2023	DESIGN: David Revoir	
VER. SCALE: N/A	DRAWN BY: Kelly Williams	CHKD: –	

REVISIONS

NO.	DATE:	DESCRIPTION:	BY:	CAD:
△				

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admin@appianengineers.com

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Final Drawings
Review Purposes ONLY

NORTH CAROLINA PROFESSIONAL SEAL 26959 ENGINEER DAVID C. REVOIR
01/24/2023

Overall Existing Conditions for CRM Dirt Streets Paving Project: Emerald Ln, Coral Dr., And Topaz Ave. Edgecombe County, Rocky Mount, N.C.

21-136
D-0000
CE-1

S:\Appian Projects – Shared Folder\21136-CRM Dirt Streets-Coral Emerald Topaz\CAD\21136 CRM Dirt Streets 51.dwg xCE-1> 01/24/2023 – 8:52 AM Plot by: KWILLIAMS,ZARW

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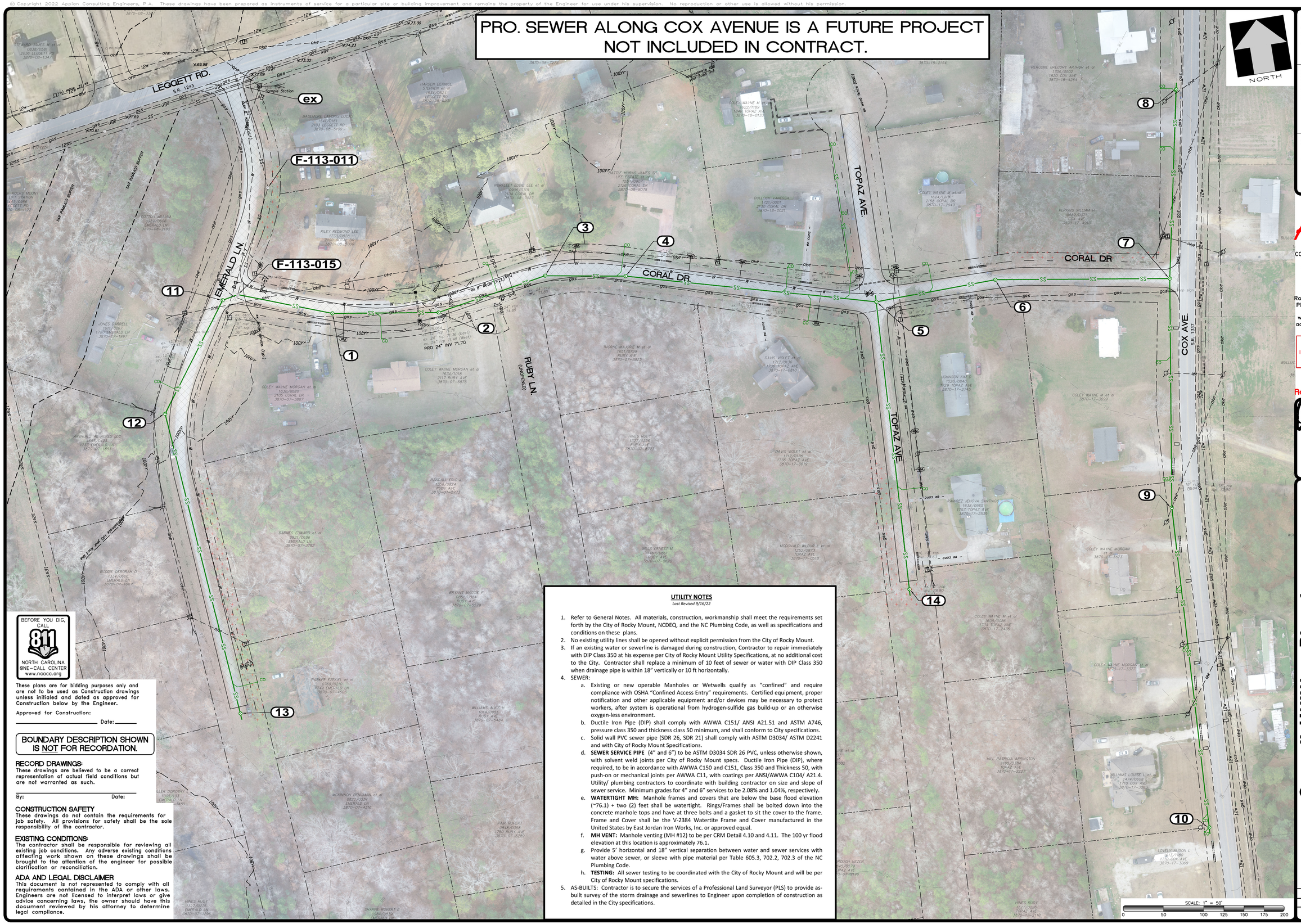

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_____ Date: _____

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RECORD DRAWINGS:
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By: _____ Date: _____

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UTILITY NOTES

Last Revised 9/16/22

1. Refer to General Notes. All materials, construction, workmanship shall meet the requirements set forth by the City of Rocky Mount, NCDEQ, and the NC Plumbing Code, as well as specifications and conditions on these plans.
2. No existing utility lines shall be opened without explicit permission from the City of Rocky Mount.
3. If an existing water or sewerline is damaged during construction, Contractor to repair immediately with DIP Class 350 at his expense per City of Rocky Mount Utility Specifications, at no additional cost to the City. Contractor shall replace a minimum of 10 feet of sewer or water with DIP Class 350 when drainage pipe is within 18" vertically or 10 ft horizontally.
4. SEWER:
   a. Existing or new operable Manholes or Wetwells qualify as "confined" and require compliance with OSHA "Confined Access Entry" requirements. Certified equipment, proper notification and other applicable equipment and/or devices may be necessary to protect workers, after system is operational from hydrogen-sulfide gas build-up or an otherwise oxygen-less environment.
   b. Ductile Iron Pipe (DIP) shall comply with AWWA C151/ ANSI A21.51 and ASTM A746, pressure class 350 and thickness class 50 minimum, and shall conform to City specifications.
   c. Solid wall PVC sewer pipe (SDR 26, SDR 21) shall comply with ASTM D3034/ ASTM D2241 and with City of Rocky Mount Specifications.
   d. **SEWER SERVICE PIPE** (4" and 6") to be ASTM D3034 SDR 26 PVC, unless otherwise shown, with solvent weld joints per City of Rocky Mount specs. Ductile Iron Pipe (DIP), where required, to be in accordance with AWWA C150 and C151, Class 350 and Thickness 50, with push-on or mechanical joints per AWWA C11, with coatings per ANSI/AWWA C104/ A21.4. Utility/ plumbing contractors to coordinate with building contractor on size and slope of sewer service. Minimum grades for 4" and 6" services to be 2.08% and 1.04%, respectively.
   e. **WATERTIGHT MH:** Manhole frames and covers that are below the base flood elevation (~76.1) + two (2) feet shall be watertight. Rings/Frames shall be bolted down into the concrete manhole tops and have at three bolts and a gasket to sit the cover to the frame. Frame and Cover shall be the V-2384 Watertite Frame and Cover manufactured in the United States by East Jordan Iron Works, Inc. or approved equal.
   f. **MH VENT:** Manhole venting (MH #12) to be per CRM Detail 4.10 and 4.11. The 100 yr flood elevation at this location is approximately 76.1.
   g. Provide 5' horizontal and 18" vertical separation between water and sewer services with water above sewer, or sleeve with pipe material per Table 605.3, 702.2, 702.3 of the NC Plumbing Code.
   h. **TESTING:** All sewer testing to be coordinated with the City of Rocky Mount and will be per City of Rocky Mount specifications.
5. AS-BUILTS: Contractor is to secure the services of a Professional Land Surveyor (PLS) to provide as-built survey of the storm drainage and sewerlines to Engineer upon completion of construction as detailed in the City specifications.

HOR. SCALE:	1" = 50'
VER. SCALE:	N/A
DATE:	01/24/2023
DRAWN BY:	Kelly Williams
DESIGN:	David Revoir
CHKD:	–

REVISIONS

NO.	DATE:	DESCRIPTION:	BY:	CAD:
△				

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Final Drawings
Review Purposes ONLY

NORTH CAROLINA PROFESSIONAL SEAL 26959 ENGINEER DAVID C. REVOIR 01/24/2023

Overall Utilities Plan for CRM Dirt Streets Paving Project: Emerald Ln, Coral Dr., And Topaz Ave. Edgecombe County, Rocky Mount, N.C.

21-136
D-0000
CE-2

S:\Appian Projects - Shared Folder\21136-CRM Dirt Streets-Coral Emerald Topaz\CAD\21136 CRM Dirt Streets S1.dwg xCE-2-2 01/24/2023 - 8:57 AM Plot by: KWILLIAMS_2ARW

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PAVEMENT LEGEND

100 PAVING UNSURFACED ROAD

2"± S9.5B ASPHALT
0–2" CABC AS DIRECTED BY CITY
EX CABC
EX SUBGRADE

101 ROAD WIDENING

2"± S9.5B
1½" B25.0C
6" #57 STONE
COMPACTED SUBGRADE
2"± S9.5B ASPHALT
EX. ASPHALT (OR STONE)
EX CABC
EX SUBGRADE
0 TO 4'

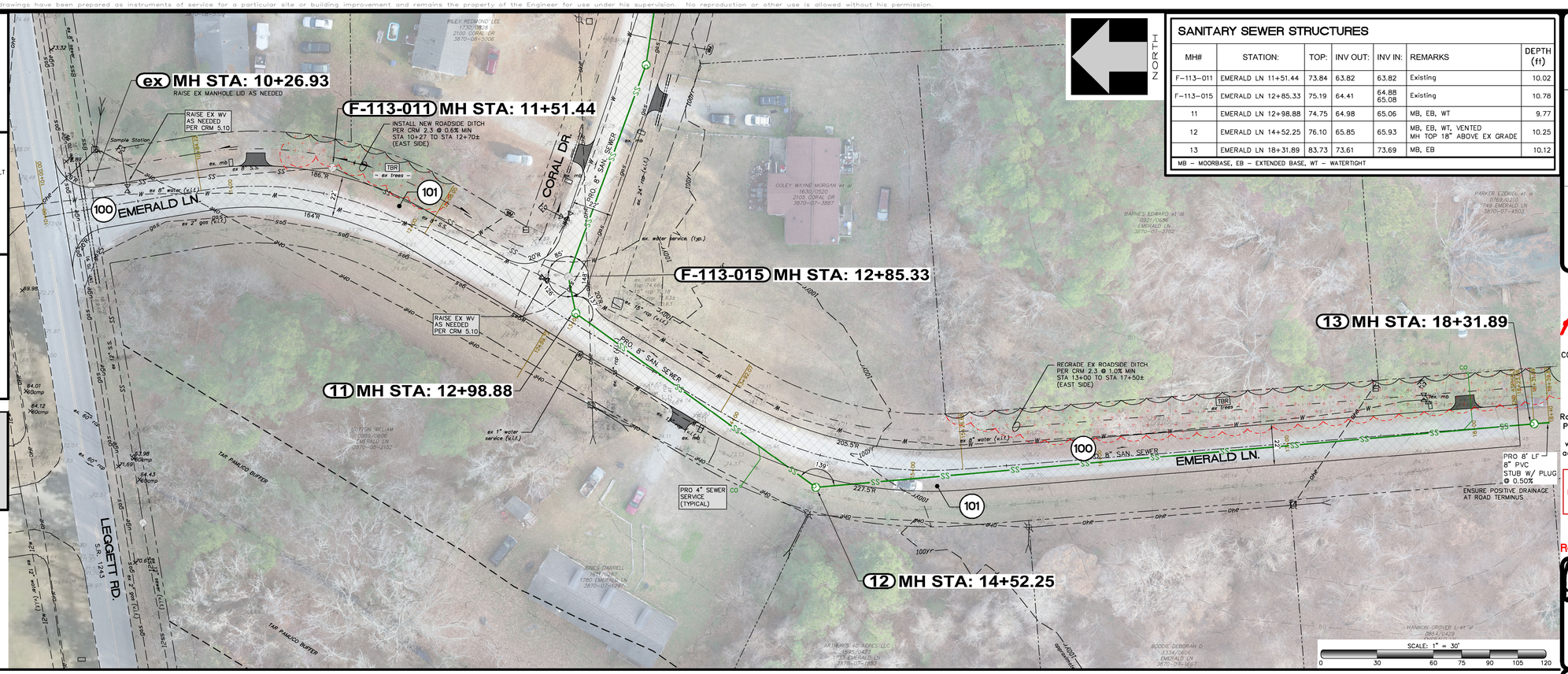
102 PIPE COVER

10" MIN
15" RCP
* SEE CRM 1.06 FOR BEDDING DETAILS

EROSION & SEDIMENTATION CONTROL: CONTRACTOR SHALL BE RESPONSIBLE FOR CONTAINING SEDIMENT ON–SITE AND SHALL PREVENT SEDIMENT FROM LEAVING WORK AREA. CONTRACTOR SHALL INSTALL ALL NECESSARY ESC MEASURES, INCLUDING: SILT FENCE, SILT FENCE OUTLET, WATTLES, ROCK SILT CHECK DAMS, ETC. ADDITIONAL MEASURES BEYOND WHAT IS SHOWN MAY BE REQUIRED TO MAINTAIN SEDIMENT ONSITE.

CONTRACTOR TO REMOVE ALL EX. D/W CULVERTS & REPLACE WITH NEW 15" RCP (CLASS III) TO MATCH NEW DITCH ELEVATIONS. ENSURE POSITIVE FLOW. MIN. CULVERT AND DITCH GRADE TO BE 0.5%

CONTRACTOR TO PROVIDE 10 FT WIDE x 7 FT PAVED TURNOUT AT EACH EX. DRIVEWAY.



SANITARY SEWER STRUCTURES

MH#	STATION:	TOP:	INV OUT:	INV IN:	REMARKS	DEPTH (ft)
F–113–011	EMERALD LN 11+51.44	73.84	63.82	63.82	Existing	10.02
F–113–015	EMERALD LN 12+85.33	75.19	64.41	64.88 65.08	Existing	10.78
11	EMERALD LN 12+98.88	74.75	64.98	65.06	MB, EB, WT	9.77
12	EMERALD LN 14+52.25	76.10	65.85	65.93	MB, EB, WT, VENTED MH TOP 18" ABOVE EX GRADE	10.25
13	EMERALD LN 18+31.89	83.73	73.61	73.69	MB, EB	10.12

MB – MOORBASE, EB – EXTENDED BASE, WT – WATERTIGHT

DESIGN:	David Revoir
CHKD:	–
DATE:	01/24/2023
DRAWN BY:	Kelly Williams
HOR. SCALE:	1" = 30'
VER. SCALE:	N/A

REVISIONS

NO.	DATE:	DESCRIPTION:	BY:	CAD:
△				

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Final Drawings
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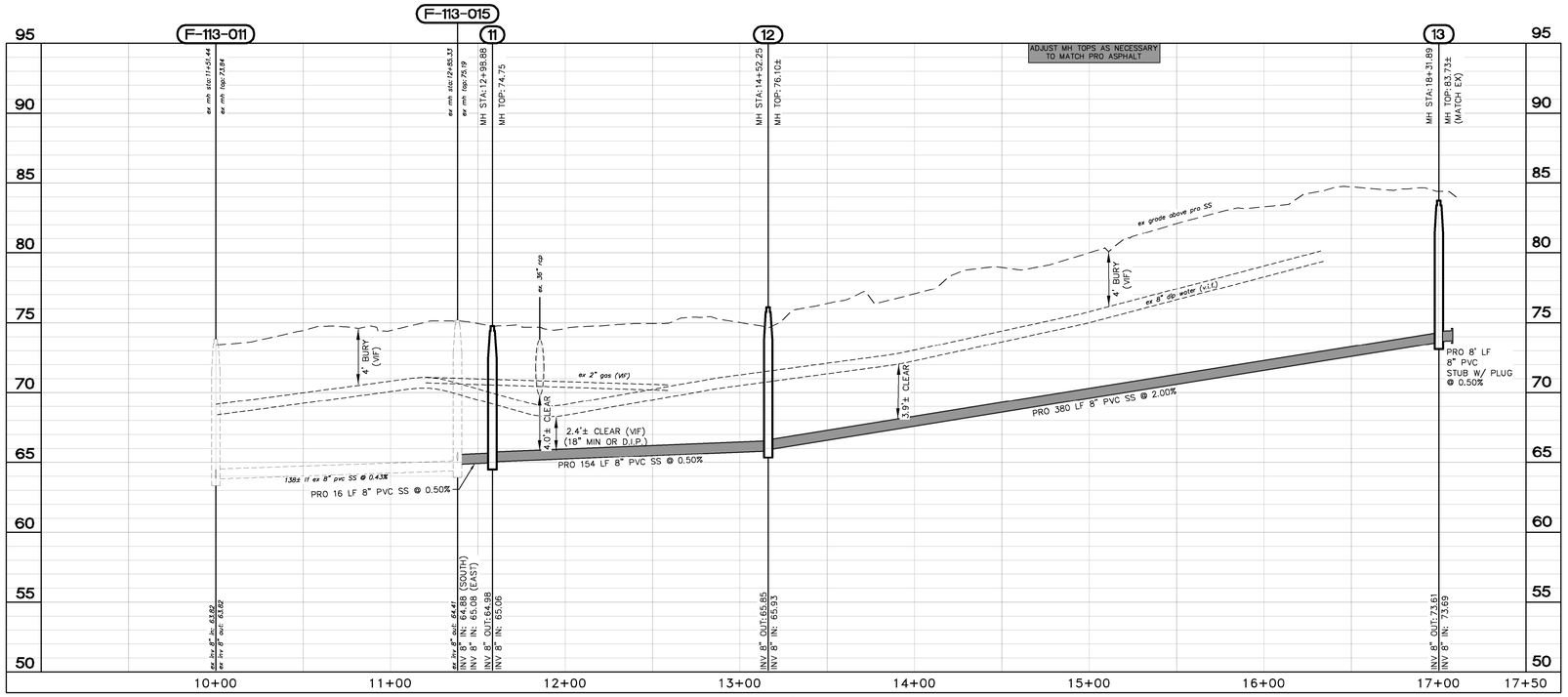
NORTH CAROLINA PROFESSIONAL SEAL 26959 ENGINEER DAVID C. REVOIR
01/24/2023



EMERALD LANE PROFILE 1" = 40' HOR, 1" = 5' VER

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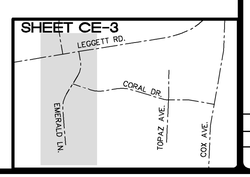
SHEET CE-3



EMERALD LANE
CRM Dirt Streets Paving Project:
Emerald Ln, Coral Dr., And Topaz Ave.
Edgecombe County, Rocky Mount, N.C.

21–136
D–0000
CE-3

S:\Appian Projects – Shared Folder\21136–CRM Dirt Streets–Coral Emerald Topaz\CAD\21136 CRM Dirt Streets S1.dwg >CE–3.> 01/24/2023 – 8:57 AM Plot by: KWILLIAMS,CMRW

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PAVEMENT LEGEND

100 PAVING UNSURFACED ROAD

- 2"± S9.5B ASPHALT
- 0–2" CABC AS DIRECTED BY CITY
- EX CABC
- EX SUBGRADE

101 ROAD WIDENING

2"± S9.5B
1½" B25.0C
6" #57 STONE
COMPACTED SUBGRADE
2"± S9.5B ASPHALT
EX. ASPHALT (OR STONE)
EX CABC
EX SUBGRADE
0 TO 4'

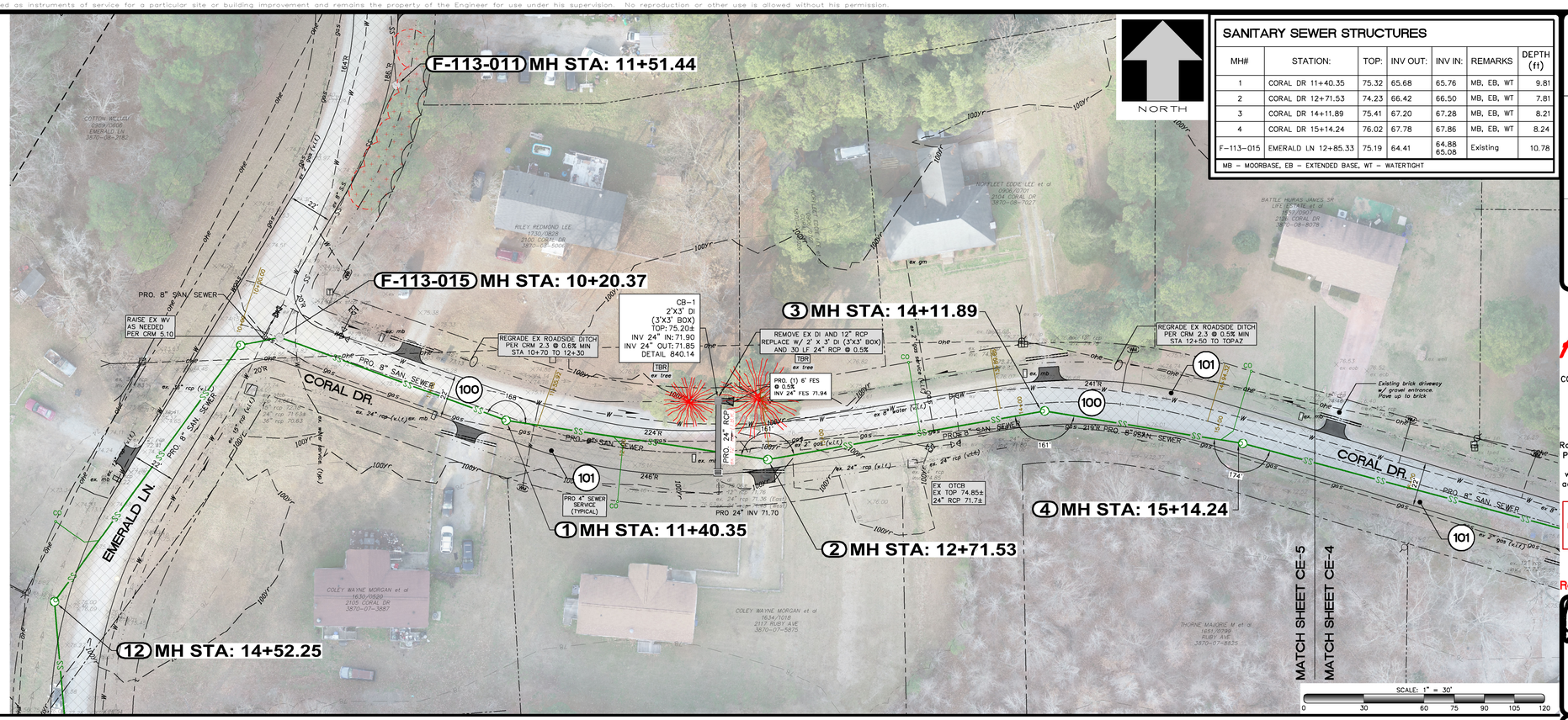
102 PIPE COVER

10" MIN
15" RCP
* SEE CRM 1.06 FOR BEDDING DETAILS

EROSION & SEDIMENTATION CONTROL: CONTRACTOR SHALL BE RESPONSIBLE FOR CONTAINING SEDIMENT ON–SITE AND SHALL PREVENT SEDIMENT FROM LEAVING WORK AREA. CONTRACTOR SHALL INSTALL ALL NECESSARY ESC MEASURES, INCLUDING: SILT FENCE, SILT FENCE OUTLET, WATTLES, ROCK SILT CHECK DAMS, ETC. ADDITIONAL MEASURES BEYOND WHAT IS SHOWN MAY BE REQUIRED TO MAINTAIN SEDIMENT ONSITE.

CONTRACTOR TO REMOVE ALL EX. D/W CULVERTS & REPLACE WITH NEW 15" RCP (CLASS III) TO MATCH NEW DITCH ELEVATIONS. ENSURE POSITIVE FLOW. MIN. CULVERT AND DITCH GRADE TO BE 0.5%

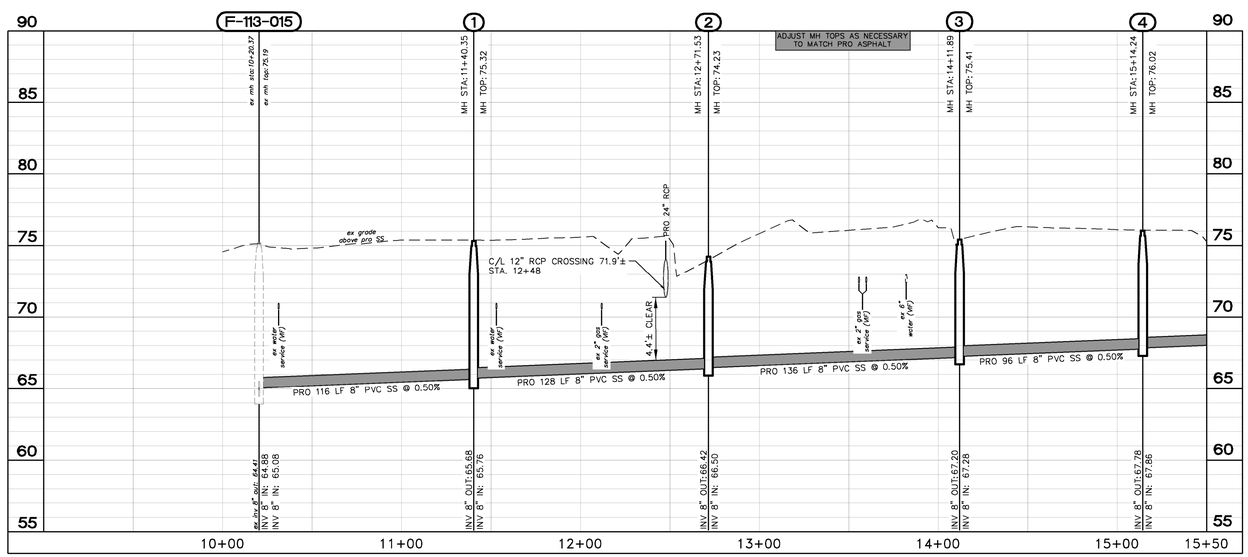
CONTRACTOR TO PROVIDE 10 FT WIDE x 7 FT PAVED TURNOUT AT EACH EX. DRIVEWAY.



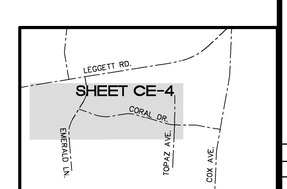
SANITARY SEWER STRUCTURES

MH#	STATION:	TOP:	INV OUT:	INV IN:	REMARKS	DEPTH (ft)
1	CORAL DR 11+40.35	75.32	65.68	65.76	MB, EB, WT	9.81
2	CORAL DR 12+71.53	74.23	66.42	66.50	MB, EB, WT	7.81
3	CORAL DR 14+11.89	75.41	67.20	67.28	MB, EB, WT	8.21
4	CORAL DR 15+14.24	76.02	67.78	67.86	MB, EB, WT	8.24
F–113–015	EMERALD LN 12+85.33	75.19	64.41	64.88 65.08	Existing	10.78

MB – MOORBASE, EB – EXTENDED BASE, WT – WATERTIGHT



CORAL DR (1) PROFILE 1" = 40' HOR, 1" = 5' VER



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DESIGN:	David Revoir
CHKD:	–
DRAWN BY:	Kelly Williams
DATE:	01/24/2023
HOR. SCALE:	1" = 30'
VER. SCALE:	N/A

REVISIONS

NO.	DATE:	DESCRIPTION:	BY:	CAD:

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NORTH CAROLINA PROFESSIONAL SEAL 26959 ENGINEER DAVID C. REVOIR 01/24/2023

CORAL DRIVE
CRM Dirt Streets Paving Project: Emerald Ln, Coral Dr., And Topaz Ave. Edgecombe County, Rocky Mount, N.C.

21–136
D–0000
CE-4

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PAVEMENT LEGEND

100 PAVING UNSURFACED ROAD

- 2"± S9.5B ASPHALT
- 0–2" CABC AS DIRECTED BY CITY
- EX CABC
- EX SUBGRADE

101 ROAD WIDENING

- 2"± S9.5B
- 1½" B25.0C
- 6" #57 STONE
- COMPACTED SUBGRADE
- 2"± S9.5B ASPHALT
- EX. ASPHALT (OR STONE)
- EX CABC
- EX SUBGRADE
- 0 TO 4'

102 PIPE COVER

- 10" MIN
- 15" RCP
- * SEE CRM 1.06 FOR BEDDING DETAILS

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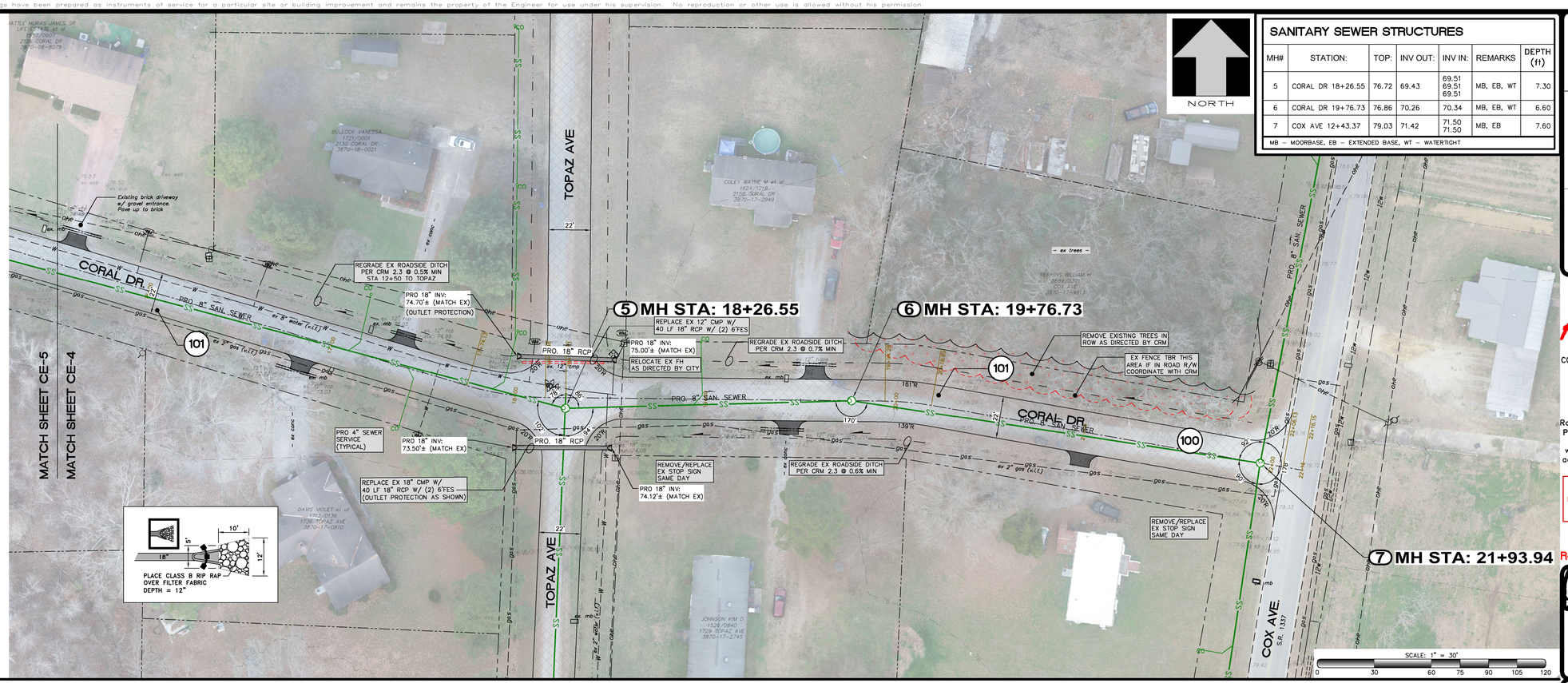
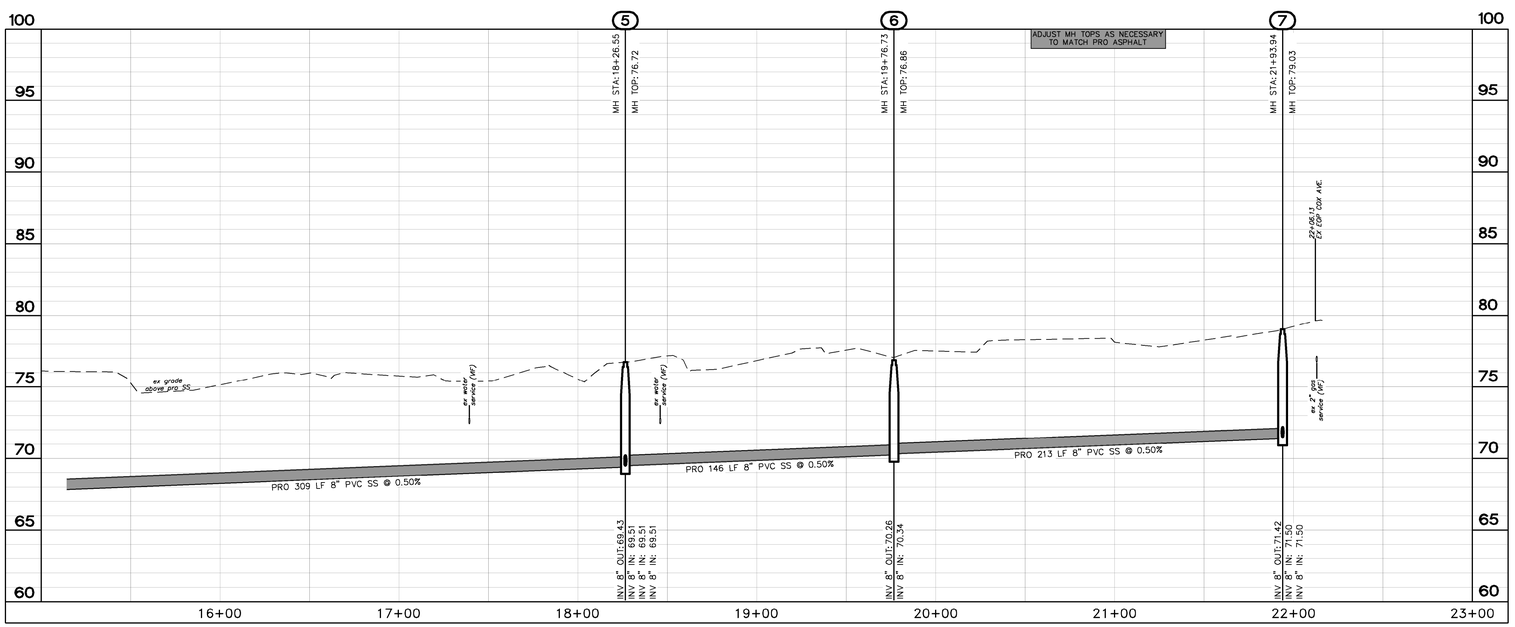


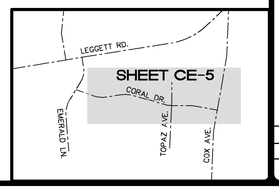
SANITARY SEWER STRUCTURES

MH#	STATION:	TOP:	INV OUT:	INV IN:	REMARKS	DEPTH (ft)
5	CORAL DR 18+26.55	76.72	69.43	69.51 69.51 69.51	MB, EB, WT	7.30
6	CORAL DR 19+76.73	76.86	70.26	70.34	MB, EB, WT	6.60
7	COX AVE 12+43.37	79.03	71.42	71.50 71.50	MB, EB	7.60

MB – MOORBASE, EB – EXTENDED BASE, WT – WATERTIGHT



CORAL DR (2) PROFILE 1" = 40' HOR 1" = 5' VER



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HOR. SCALE: 1" = 30' | DATE: | DRAWN BY: Kelly Williams | DESIGN: David Revoir
VER. SCALE: N/A | CHKD: –

REVISIONS

NO.	DATE:	DESCRIPTION:	BY:	CAD:
△				

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Final Drawings Review Purposes ONLY

NORTH CAROLINA PROFESSIONAL SEAL 26959 ENGINEER DAVID C. REVOIR 01/24/2023

CORAL DRIVE (SHEET 2)
CRM Dirt Streets Paving Project:
Emerald Ln, Coral Dr., And Topaz Ave.
Edgecombe County, Rocky Mount, N.C.

21–136
D–0000
CE-5

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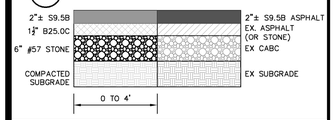
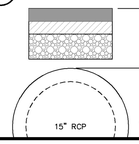
PAVEMENT LEGEND

100 PAVING UNSURFACED ROAD

101 ROAD WIDENING



102 PIPE COVER



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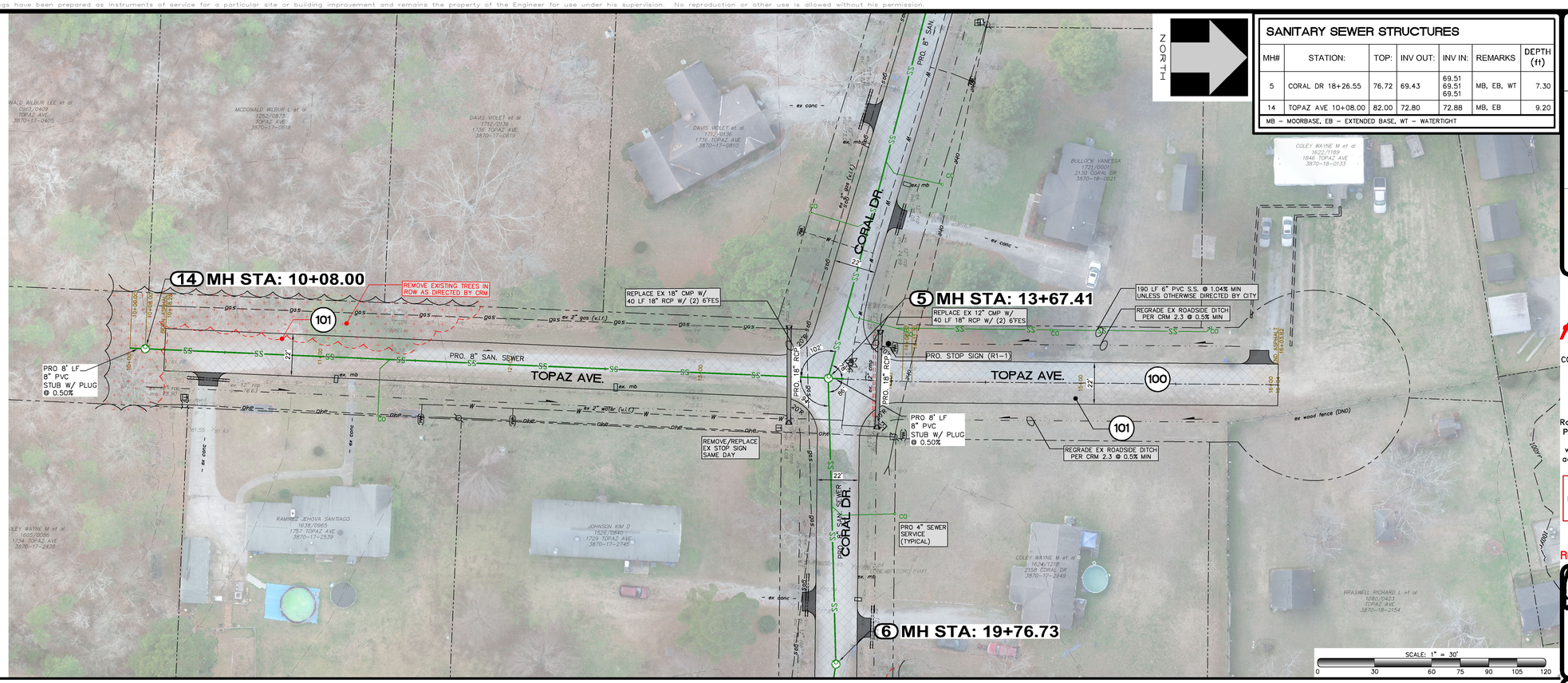

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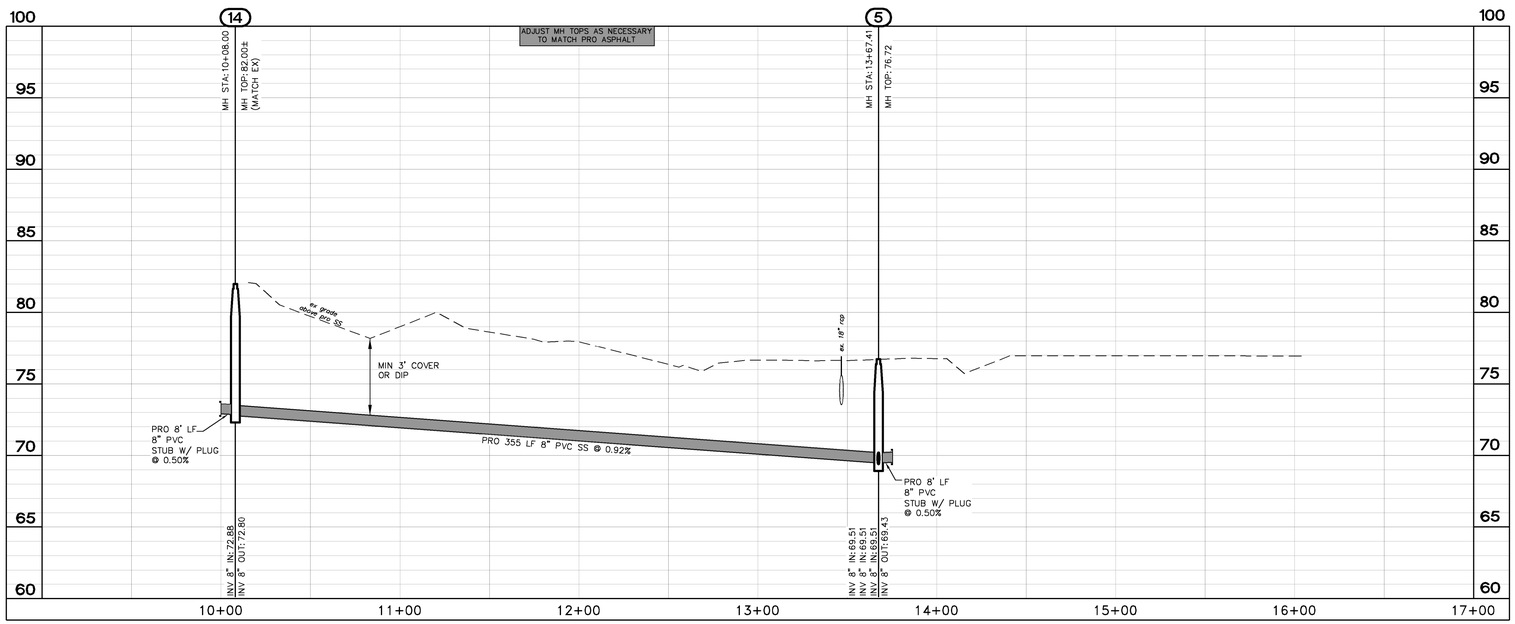
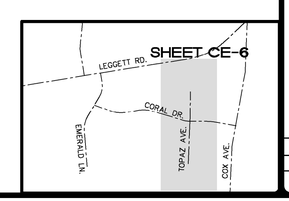
14	TOPAZ AVE 10+08.00	82.00	72.80	72.88	MB, EB	9.20

MB – MOORBASE, EB – EXTENDED BASE, WT – WATERTIGHT



TOPAZ AVE PROFILE 1" = 40' HOR 1" = 5' VER



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DESIGN: David Revoir
CHKD: –
DATE: 01/24/2023
DRAWN BY: Kelly Williams
HOR. SCALE: 1" = 30'
VER. SCALE: N/A

REVISIONS

NO.	DATE:	DESCRIPTION:	BY:	CAD:
△				

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NORTH CAROLINA PROFESSIONAL SEAL 26959 ENGINEER DAVID C. REVOIR 01/24/2023

TOPAZ AVENUE
CRM Dirt Streets Paving Project:
Emerald Ln, Coral Dr., And Topaz Ave.
Edgecombe County, Rocky Mount, N.C.

21–136
D–0000
CE-6

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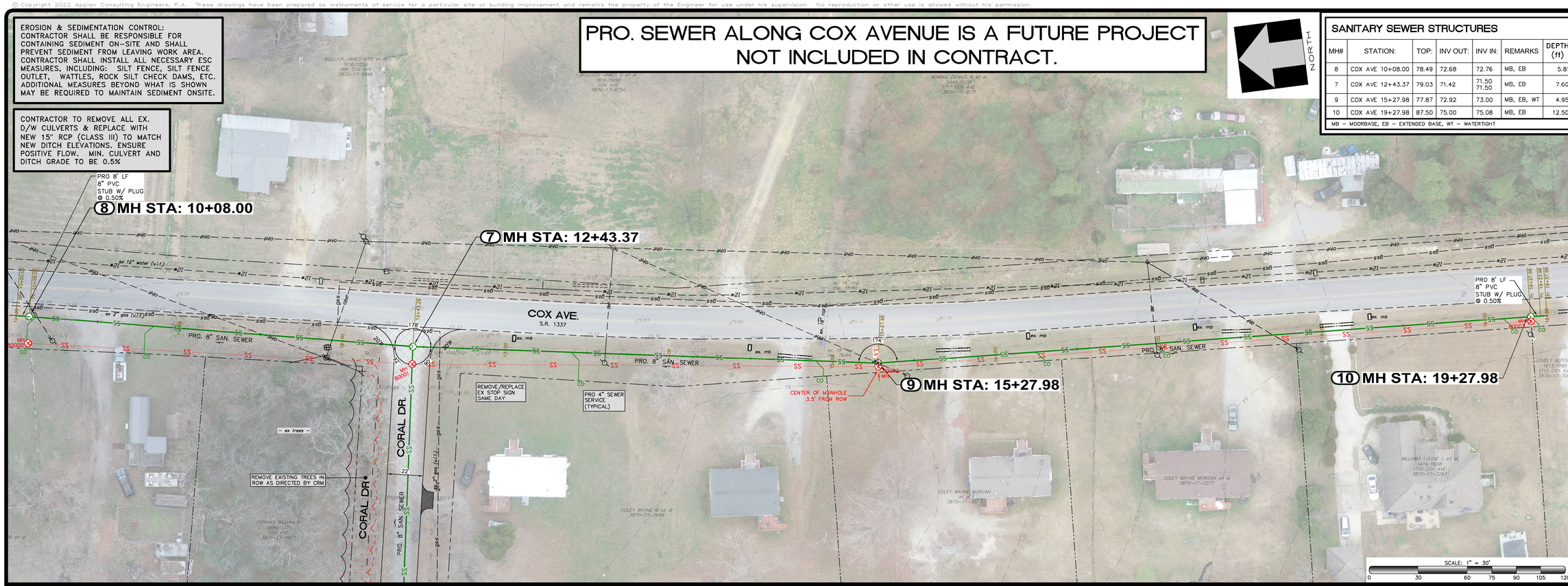
PRO. SEWER ALONG COX AVENUE IS A FUTURE PROJECT NOT INCLUDED IN CONTRACT.

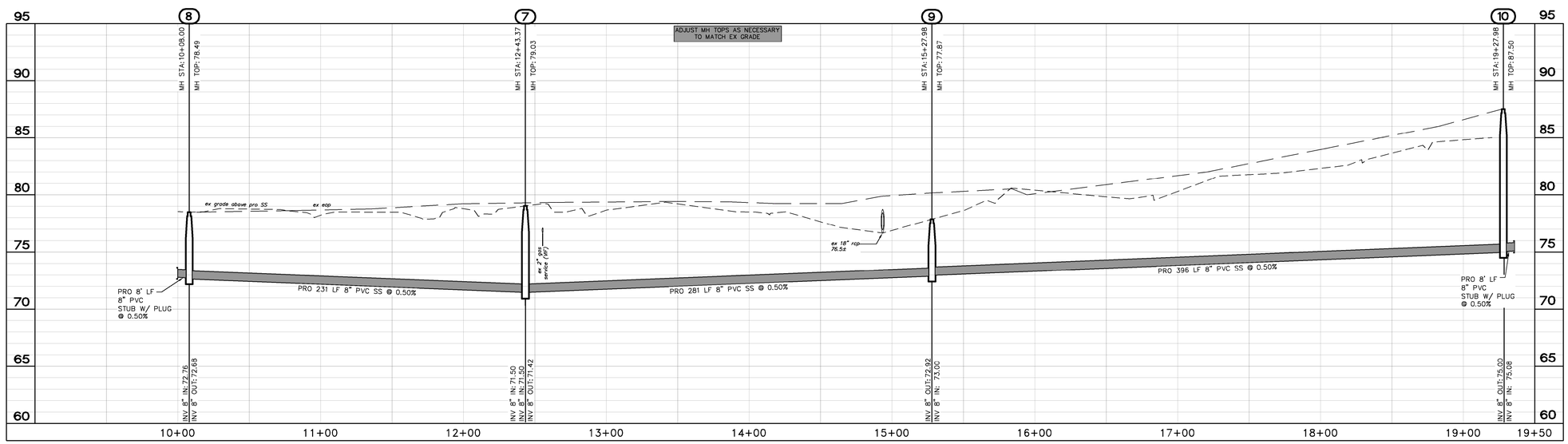
NORTH

SANITARY SEWER STRUCTURES

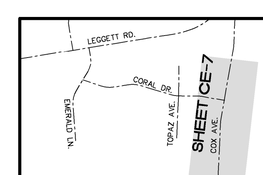
MH#	STATION:	TOP:	INV OUT:	INV IN:	REMARKS	DEPTH (ft)
8	COX AVE 10+08.00	78.49	72.68	72.76	MB, EB	5.81
7	COX AVE 12+43.37	79.03	71.42	71.50 71.50	MB, EB	7.60
9	COX AVE 15+27.98	77.87	72.92	73.00	MB, EB, WT	4.95
10	COX AVE 19+27.98	87.50	75.00	75.08	MB, EB	12.50

MB – MOORBASE, EB – EXTENDED BASE, WT – WATERTIGHT





COX AVE PROFILE 1" = 40' HOR 1" = 5' VER



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VER. SCALE: N/A

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NO.	DATE:	DESCRIPTION:	BY:	CAD:
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NORTH CAROLINA PROFESSIONAL SEAL 26959 ENGINEER DAVID C. REVOIR 01/24/2023

COX AVENUE
CRM Dirt Streets Paving Project: Emerald Ln, Coral Dr., And Topaz Ave. Edgecombe County, Rocky Mount, N.C.

21-136
D-0000
CE-7

S:\Appian Projects - Shared Folder\21136-CRM Dirt Streets-Coral Emerald Topaz\CAD\21136 CRM Dirt Streets 51.dwg >CE-7> 01/24/2023 - 9:01 AM Plot by: KWILLIAMS,CMRW

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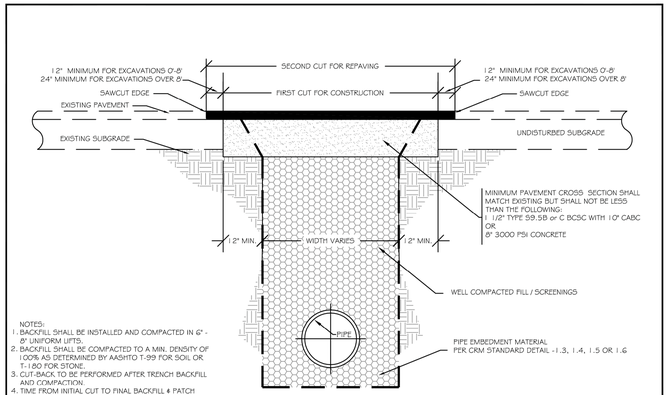
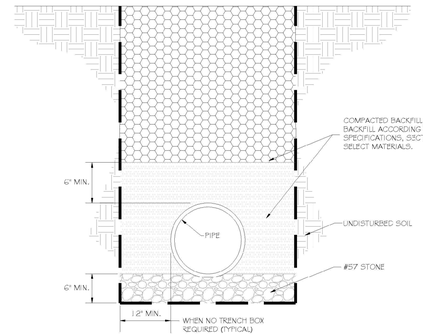


NOTES:
1. BACKFILL SHALL BE INSTALLED AND COMPACTED IN 6" - 8" UNIFORM LIFTS.
2. BACKFILL SHALL BE COMPACTED TO A MIN. DENSITY OF 100% AS DETERMINED BY AASHTO T-99 FOR SOIL OR T-180 FOR STONE.
3. CUT BACK TO BE PERFORMED AFTER TRENCH BACKFILL AND COMPACTION.
4. TIME FROM INITIAL CUT TO FINAL BACKFILL & PATCH SHALL NOT EXCEED 5 DAYS UNLESS APPROVED BY DIRECTOR OF ENGINEERING.

CITY OF ROCKY MOUNT NORTH CAROLINA — DEPARTMENT OF ENGINEERING

PAVEMENT PATCHING UTILITY INSTALLATION

DATE: OCTOBER 2012	STANDARD #: 1.1
APPROVED:	SHEET # 1 OF 1
	REVISION:



NOTES:
1. PLEASE REFER TO NCDOT STANDARD DETAIL 300.01.
2. ALL REINFORCED CONCRETE PIPE MUST BE NCDOT APPROVED (STAMPED).

CITY OF ROCKY MOUNT NORTH CAROLINA — DEPARTMENT OF ENGINEERING

STANDARD BEDDING DETAILS FOR REINFORCED CONCRETE PIPE

DATE: AUGUST 2017	STANDARD #: 1.6
APPROVED:	SHEET # 1 OF 2
	REVISION:

NOTES

MATERIAL CLASSIFICATIONS:

CLASS I
CLASS I SELECT MATERIAL IS A SILTY OR CLAYEY SOIL MATERIAL MEETING AASHTO M 145 FOR SOIL CLASSIFICATION A-4. SOIL MATERIALS WHICH MEET AASHTO M 145 FOR SOIL CLASSIFICATION A-2, A-5, A-6 AND A-7 ARE ACCEPTABLE PROVIDED SUCH MATERIALS DO NOT HAVE A LL GREATER THAN 50, NOR A PI OF LESS THAN 7 OR GREATER THAN 20.

CLASS II
TYPE 1 SELECT MATERIAL
TYPE 1 SELECT MATERIAL IS A FINE AGGREGATE MATERIAL CONSISTING OF CRUSHED STONE SCREENINGS (WASHED OR UNWASHED) MEETING THE GRADATION IN TABLE 1.
TYPE 2 SELECT MATERIAL
TYPE 2 SELECT MATERIAL IS A GRANULAR SOIL MATERIAL MEETING AASHTO M 145 FOR SOIL CLASSIFICATIONS A-2-4 WITH A MAXIMUM PI OF 6 AND A-4 SOIL CONTAINING 45% MAXIMUM PASSING A NO. 200 SIEVE AND A MAXIMUM PI OF 6.
WHEN TYPE IS NOT SPECIFIED, EITHER TYPE MAY BE USED, BUT NO ADDITIONAL COMPENSATION WILL BE MADE.

CLASS III
TYPE 1 SELECT MATERIAL
TYPE 1 SELECT MATERIAL IS A NATURAL OR MANUFACTURED FIN AGGREGATE MATERIAL MEETING THE GRADATION REQUIREMENTS OF STANDARD SIZE 25 OR 2MS IN TABEL 1005-2 AS DESCRIBED IN SECTIONS 1005 AND 1006.
TYPE 2 SELECT MATERIAL
TYPE 2 SELECT MATERIAL IS A GRANULAR SOIL MATERIAL MEETING AASHTO M 145 FOR SOIL CLASSIFICATION A-1 OR A-3.
WHEN A TYPE IS NOT SPECIFIED, EITHER TYPE MAY BE USED, BUT NO ADDITIONAL COMPENSATION WILL BE MADE.

CLASS IV
CLASS IV SELECT MATERIAL IS A COARSE AGGREGATE MATERIAL MEETING THE GRADATION REQUIREMENTS OF STANDARD SIZE ABC AS DESCRIBED IN SECTION 1010.

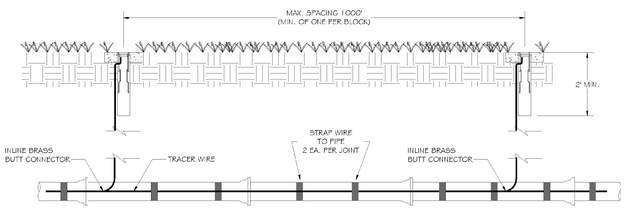
CLASS V
CLASS V SELECT MATERIAL IS A COARSE AGGREGATE MATERIAL MEETING THE GRADATION REQUIREMENTS OF STANDARD SIZE 78M IN TABLE 1005-1 AS DESCRIBED IN SECTION 1005 AND 1006.

CITY OF ROCKY MOUNT NORTH CAROLINA — DEPARTMENT OF ENGINEERING

STANDARD BEDDING DETAILS FOR REINFORCED CONCRETE PIPE

DATE: DECEMBER 2016	STANDARD #: 1.6
APPROVED:	SHEET # 2 OF 2
	REVISION:

NOTES:
1. INSTALL DETECTABLE SOLID (SINGLE STRAND) 10 GAUGE TRACER WIRE ABOVE ALL NONMETALLIC WATER PIPES INCLUDING SERVICE CONNECTIONS. SECURE ALL WIRE WITH TIE WRAPS.
2. MAKE DETECTABLE SOLID 12 GAUGE TRACER WIRE ACCESSIBLE IN WATER METER BOXES, VALVE BOXES OR CASINGS, OR OUTSIDE THE FOUNDATIONS OF BUILDINGS WHERE THE PIPE ENTERS THE BUILDING.
3. STUB OUT A MINIMUM OF 1' OF TRACER WIRE IN EACH VALVE BOX AND METER BOX FOR LOCATING PURPOSE.
4. NO WIRE NUTS ALLOWED, USE ONLY INLINE BRASS BUTT CONNECTORS TO INSURE SOLID SPLICES OF TRACER WIRES.
5. INSPECTORS MUST VERIFY ALL CONNECTIONS AND POSITIVE TRACING SIGNAL FOR ALL MAINS AND SERVICES, BEFORE CONDITIONAL AND FINAL ACCEPTANCE.
6. TRACER WIRE SHALL BE INSTALLED OUTSIDE VALVE BOX AND DRILL HOLE TO BE MADE IN VALVE BOX UNDER VALVE CAP. THEN INSERT TRACER INSIDE VALVE BOX WITH 1' MIN. EXTENDING ABOVE VALVE BOX.
7. WHEN VALVE IS NOT INSTALLED AT TRANSITION FROM NON-METALLIC TO CAST PROVIDE WITNESS POST AT TRANSITION LOCATION. IF TRANSITION IS IN ROADWAY PROVIDE VALVE BOX FOR TRACER WIRE.

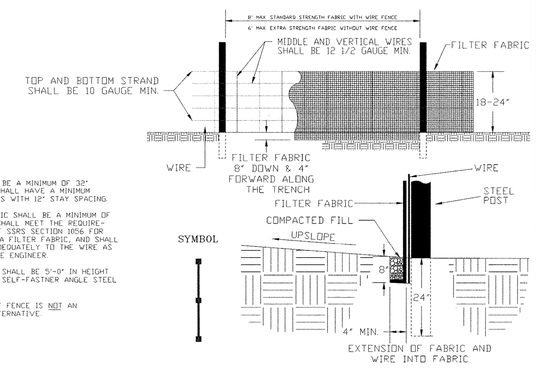


CITY OF ROCKY MOUNT NORTH CAROLINA — DEPARTMENT OF ENGINEERING

TRACER WIRE FOR UTILITY INSTALLATIONS

DATE: APRIL 2014	STANDARD #: 1.17
APPROVED: 9/25/2020	SHEET # 1 OF 1
	REVISION:

HAY BALES ARE NOT AN ACCEPTABLE ALTERNATIVE TO SILT FENCING.



NOTES:

WIRE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.

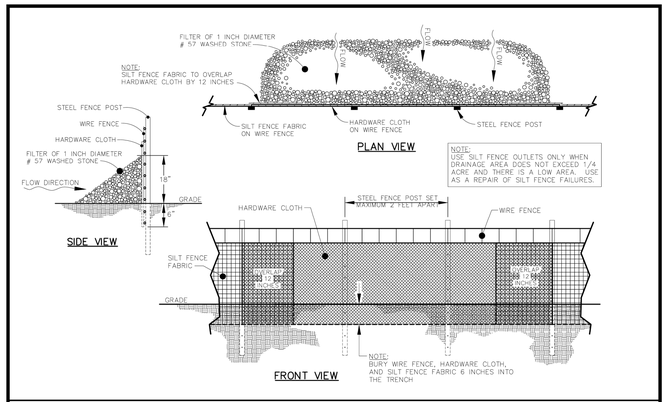
FILTER FABRIC SHALL BE A MINIMUM OF 36" IN WIDTH, SHALL MEET THE REQUIREMENTS OF NCDOT SSRS SECTION 1056 FOR TYPE 3, CLASS A FILTER FABRIC, AND SHALL BE FASTENED ADEQUATELY TO THE WIRE AS DIRECTED BY THE ENGINEER.

STEEL POST SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTNER ANGLE STEEL TYPE.

WOOD POST SILT FENCE IS NOT AN ACCEPTABLE ALTERNATIVE.

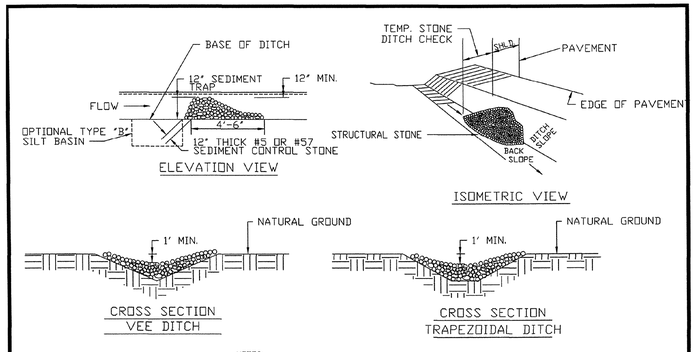
TEMPORARY SEDIMENT (SILT) FENCE

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED –	STD. NO. 3.3
				DATE 06-26-07	REVISION –



STANDARD SILT FENCE OUTLET

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED –	STD. NO. 3.3a
				DATE 03-01-10	REVISION –

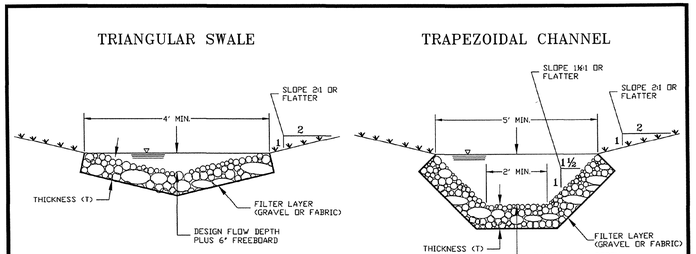


NOTES:

STRUCTURAL STONE SHALL BE "CLASS B" STONE FOR EROSION CONTROL.

TEMPORARY ROCK SILT CHECK TYPE-B

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED –	STD. NO. 3.9
				DATE 04-10-00	REVISION –

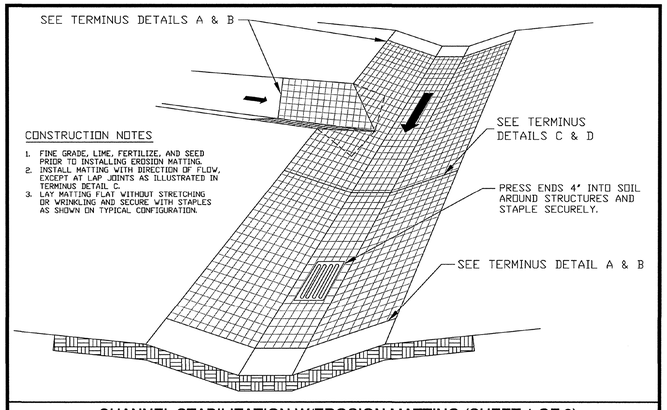


STONE SIZE	THICKNESS (T)
CLASS A	9"
CLASS B	12"
CLASS I	18"
CLASS II	24"

GENERAL NOTES:
STONE SHALL BE CLASS "A", "B", "I", OR "II" STONE AS DESCRIBED IN SECTION 1042 OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS & STRUCTURES (SSRS.)
FILTER FABRIC FOR UNDERLAYMENT SHALL MEET REQUIREMENTS OF SECTION 1056 OF THE NCDOT SSRS.
GRADED GRAVEL FOR UNDERLAYMENT SHALL BE CLEAN STONE MEETING GRADATION REQUIREMENTS FOR #57 OR #67 STONE (4" MIN. THICKNESS.)
WIDTH AND SHAPE OF DITCHES SHALL BE AS SHOWN ON THE APPROVED PLAN OR AS DIRECTED BY THE ENGINEER.
ALL DIMENSIONS ARE MINIMUM UNLESS OTHERWISE NOTED ON PLANS.

STANDARD RIP RAP CHANNEL LINING

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED –	STD. NO. 3.10
				DATE 04-10-00	REVISION –



CONSTRUCTION NOTES
1. FINE GRADE, LIME, FERTILIZE, AND SEED PRIOR TO INSTALLING EROSION MATTING.
2. INSTALL MATTING WITH DIRECTION OF FLOW, EXCEPT AT LAP JOINTS AS ILLUSTRATED IN TERMINUS DETAIL C.
3. LAY MATTING FLAT WITHOUT STRETCHING OR WRINKLING AND SECURE WITH STAPLES AS SHOWN ON TYPICAL CONFIGURATION.

CHANNEL STABILIZATION W/EROSION MATTING (SHEET 1 OF 3)

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED –	STD. NO. 3.12
				DATE 10-09-03	REVISION –

WKR. SCALE:	AS NOTED
VER. SCALE:	N/A
DATE:	01/24/2023
DRAWN BY:	TRJ
DESIGN:	David Revoir
CHKD:	–

REVISIONS

NO.	DATE:	DESCRIPTION:	BY:	CAD:

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THESE PLANS WERE PRINTED USING COLOR. IF THIS NOTE IS NOT SHOWN IN RED, PLEASE REFER TO ORIGINAL PLANS.

Final Drawings
Review Purposes ONLY

NORTH CAROLINA PROFESSIONAL SEAL 26959 ENGINEER DAVID C. REVOIR 01/24/2023

CONSTRUCTION DETAILS for CRM Dirt Streets Paving Project: Emerald Ln, Coral Dr., And Topaz Ave. Edgecombe County, Rocky Mount, N.C.

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S:\Appian Projects — Shared Folder\21136-CRM Dirt Streets-Coral Emerald Topaz\CAD\21136 CRM Dirt Streets D1.dwg <2-1> 01/24/2023 – 9:03 AM Plot by: KWILLIAMS\CAWN

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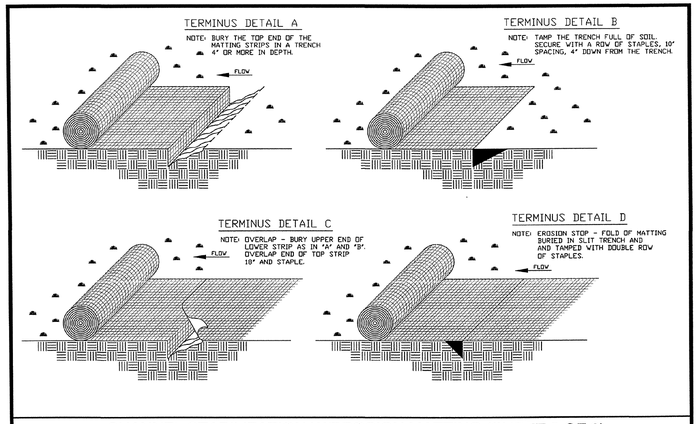
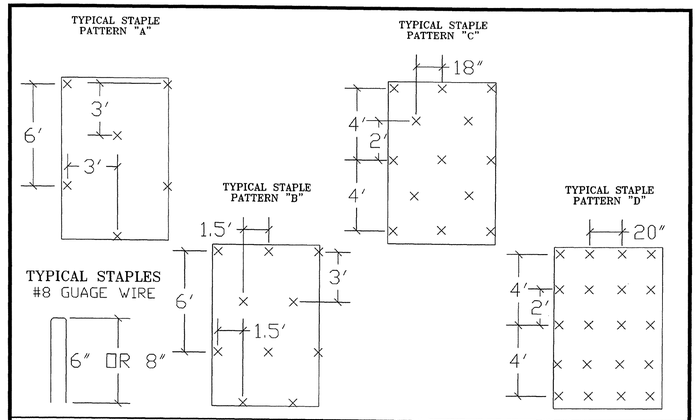


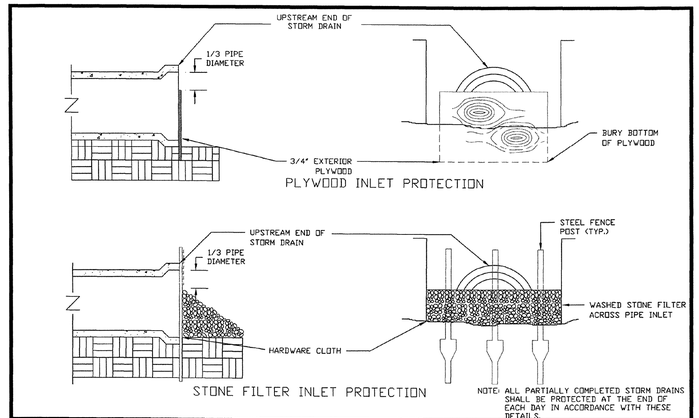
CHANNEL STABILIZATION W/EROSION MATTING (SHEET 2 OF 3)

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED –	STD. NO. 3.13
				DATE 04-10-00	REVISION –



CHANNEL STABILIZATION W/EROSION MATTING (SHEET 3 OF 3)

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED –	STD. NO. 3.14
				DATE 04-10-00	REVISION –



PIPE INLET PROTECTION (PLYWOOD & STONE)

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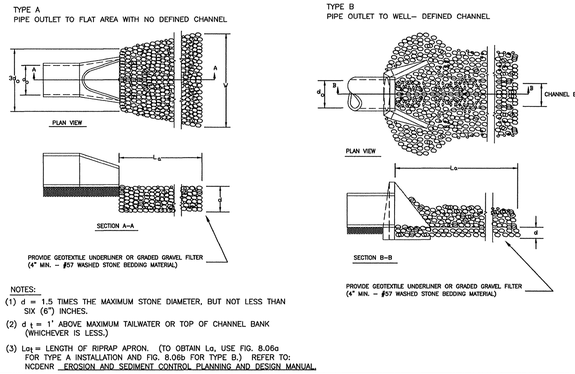
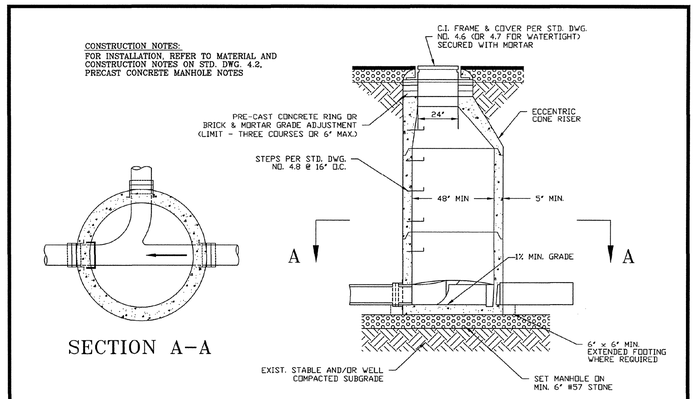
				DATE 04-10-99	REVISION –



NOTES:
(1) d = 1.5 TIMES THE MAXIMUM STONE DIAMETER, BUT NOT LESS THAN SIX (6") INCHES.
(2) d_t = 1' ABOVE MAXIMUM TAILWATER OR TOP OF CHANNEL BANK (WHICHEVER IS LESS.)
(3) L_{a1} = LENGTH OF RIPRAP APRON. (TO OBTAIN La, USE FIG. 8.06a FOR TYPE A INSTALLATION AND FIG. 8.06b FOR TYPE B.) REFER TO: NCDENR "EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL"

CULVERT OUTLET PROTECTION

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED –	STD. NO. 3.22
				DATE 01-31-03	REVISION –



PRECAST CONCRETE MANHOLE

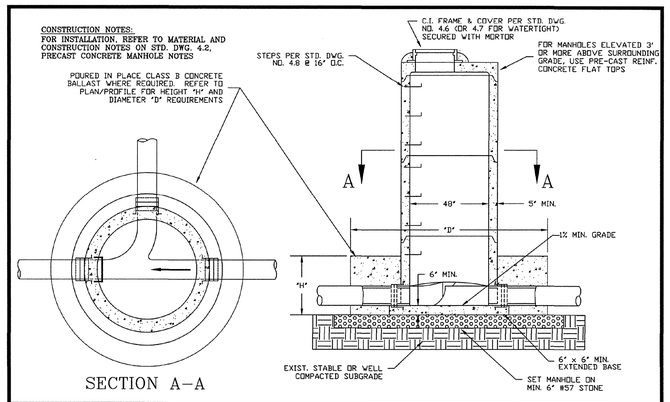
REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED –	STD. NO. 4.1
				DATE 04-10-99	REVISION –

NOTES:

1. PRECAST CONCRETE MANHOLES SHALL MEET OR EXCEED THE REQUIREMENTS OF ASTM C 478. ALL SURFACES SHALL BE SMOOTH AND EVEN TEXTURED WITH A MINIMUM OF HONEYCOMB, FIN, AND OTHER IMPERFECTIONS.
2. JOINTS BETWEEN MANHOLE SECTIONS SHALL BE SEALED WATERTIGHT USING EITHER O-RING GASKETS CONFORMING WITH ASTM C 443 OR BUTYL RESIN CONFORMING WITH AASHTO M-198.
3. HOLES FOR CONNECTION OF PIPE TO MANHOLE SHALL BE PRECAST OR CORED. DIAMETER OF HOLE SHALL NOT EXCEED OUTSIDE DIAMETER OR PIPE BY MORE THAN 3 INCHES.
4. CONNECTIONS OF PIPE TO MANHOLE SHALL BE MADE WATERTIGHT USING RESILIENT CONNECTORS CONFORMING TO ASTM C 923 OR NEOPRENE BOOTS EMBEDDED IN PRECAST BASE WITH STAINLESS STEEL COMPRESSION BANDS.
5. MANHOLE INVERTS SHALL BE INSTALLED USING BRICK AND MORTAR, OR MANHOLES MAY BE PRECAST, MONOLITHIC SECTIONS WITH FORMED INVERTS.
6. LIFT HOLES SHALL BE PLUGGED AND FILLED FLUSH WITH MORTAR.
7. ALL BRICK AND MORTAR SHALL RECIEVE A 1/2" MORTAR PARGE COAT ON INSIDE AND OUTSIDE.

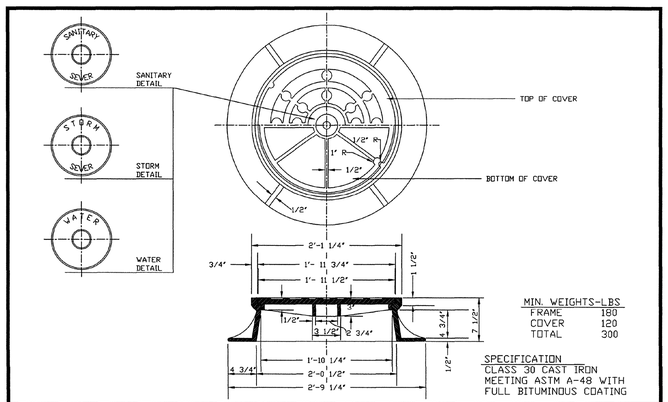
PRECAST CONCRETE MANHOLE NOTES

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED –	STD. NO. 4.2
				DATE 04-21-04	REVISION –



ELEVATED MANHOLE IN FLOOD PRONE AREA

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED –	STD. NO. 4.5
				DATE 04-10-99	REVISION



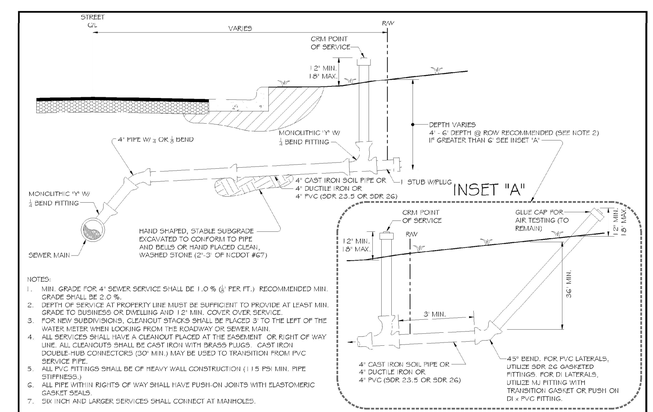
MIN. WEIGHTS-LBS

FRAME	180
COVER	120
TOTAL	300

SPECIFICATION
CLASS 30 CAST IRON MEETING ASTM A-48 WITH FULL BITUMINOUS COATING

STANDARD MANHOLE RING & COVER

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED –	STD. NO. 4.6
				DATE 02-19-03	REVISION –



NOTES:

1. MIN. GRADE FOR 4" SEWER SERVICE SHALL BE 1.0 % (1' PER FT.) RECOMMENDED MIN. GRADE SHALL BE 2.0 %.
2. DEPTH OF SERVICE AT PROPERTY LINE MUST BE SUFFICIENT TO PROVIDE AT LEAST MIN. GRADE TO BUSINESS OR DWELLING AND 12" MIN. COVER OVER SERVICE.
3. FOR NEW SUBDIVISIONS, CLEANOUT STACKS SHALL BE PLACED 3' TO THE LEFT OF THE WATER METER WHEN LOOKING FROM THE ROADWAY OR SEWER MAIN.
4. ALL SERVICES SHALL HAVE A CLEANOUT PLACED AT THE EASEMENT OR RIGHT OF WAY LINE. ALL CLEANOUTS SHALL BE CAST IRON WITH BRASS PLUGS. CAST IRON DOUBLE HUB CONNECTORS (30" MIN.) MAY BE USED TO TRANSITION FROM PVC SERVICE PIPE.
5. ALL PVC FITTINGS SHALL BE OF HEAVY WALL CONSTRUCTION (115 PSI MIN. PIPE STIFFNESS.)
6. ALL PIPE WITHIN RIGHTS OF WAY SHALL HAVE PUSH-ON JOINTS WITH ELASTOMERIC GASKET SEALS.
7. SIX INCH AND LARGER SERVICES SHALL CONNECT AT MANHOLES.

CITY OF ROCKY MOUNT NORTH CAROLINA
DEPARTMENT OF ENGINEERING

STANDARD 4" SERVICE LATERAL

DATE: APRIL 2015	STANDARD #: 4.12
APPROVED:	SHEET # 1 OF 1
	REVISION:

HOR. SCALE: AS NOTED	DATE: 01/24/2023	DESIGN: David Revoir	NO.	DATE:	DRAWN BY: TRJ	CHKD: –	REVISIONS DESCRIPTION:	BY:	CAD:
VER. SCALE: N/A									

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Final Drawings
Review Purposes ONLY

NORTH CAROLINA PROFESSIONAL SEAL 26959 ENGINEER DAVID C. REVOIR
01/24/2023

DETAILS & NOTES for CRM Dirt Streets Paving Project: Emerald Ln, Coral Dr., And Topaz Ave. Edgecombe County, Rocky Mount, N.C.

21-136
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S:\Appian Projects — Shared Folder\21136-CRM Dirt Streets-Cord Emerald Topaz\CAD\21136 CRM Dirt Streets D1.dwg -D-2> 01/24/2023 — 9:03 AM Plot by: KWILLIAMS,CARW

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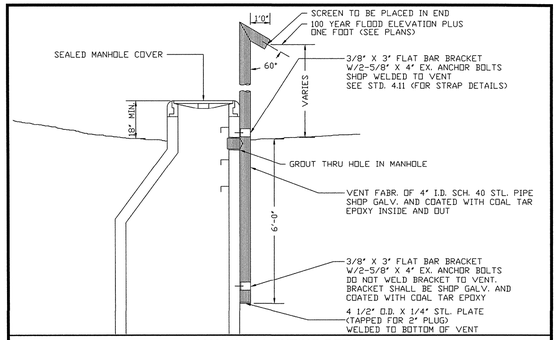

MANHOLE VENTING DETAIL

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED	STD. NO.
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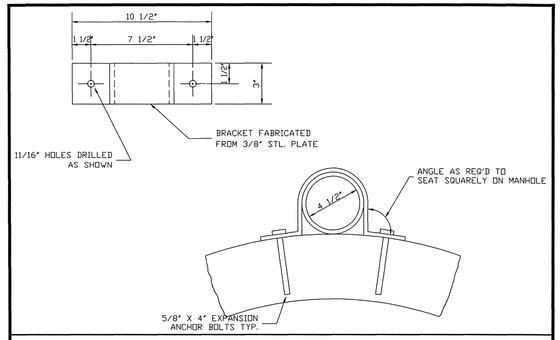
				DATE	REVISION
				04-10-00	"



VENT STRAP DETAIL

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED	STD. NO.
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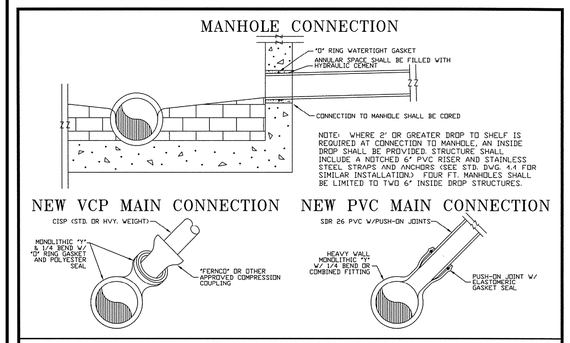
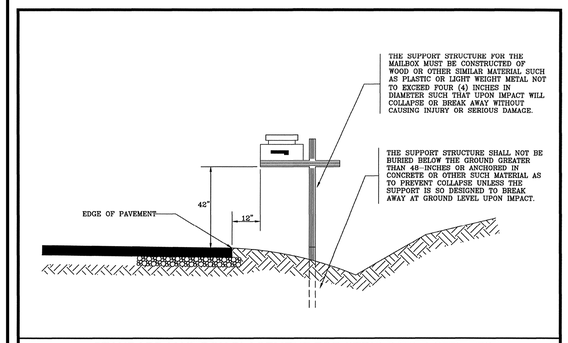
				DATE	REVISION
				04-10-99	"



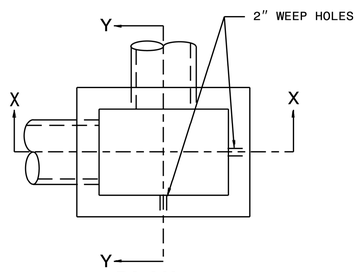
4" SEWER SERVICE CONNECTION

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED	STD. NO.
				"	4.13
				DATE	REVISION
				04-07-04	"



STANDARD MAIL BOX PLACEMENT FOR STRIP PAVED STREETS

REVISIONS NO	DATE	DESCRIPTION	CITY OF ROCKY MOUNT DEPT. OF ENGINEERING	APPROVED	STD. NO.
				"	7.3
				DATE	REVISION
				01-29-03	"



PLAN

WITH GRATE & FRAME REMOVED

GENERAL NOTES:

USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE ALL DROP INLETS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR 2" KEYWAY OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.

CONSTRUCT WITH PIPE CROWNS MATCHING.

SEE STANDARD DRAWING 840.25 FOR ATTACHMENT OF FRAMES AND GRATES NOT SHOWN.

INSTALL 2" WEEPHOLES AS DIRECTED BY THE ENGINEER.

INSTALL STONE DRAINS, OF A MINIMUM OF 1 CUBIC FOOT OF NO. 78M STONE IN A POROUS FABRIC BAG OR WRAP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER.

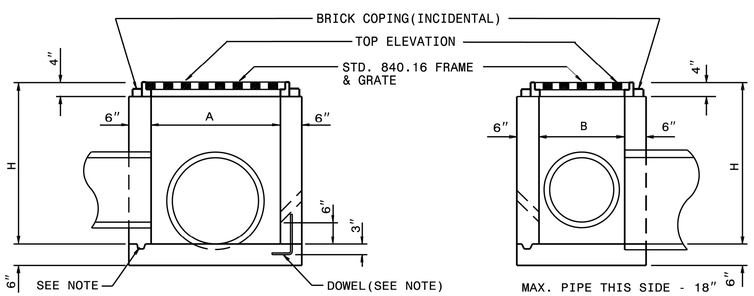
CHAMFER ALL EXPOSED CORNERS 1".

DRAWING NOT TO SCALE.

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

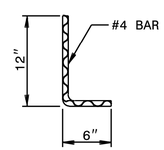
1-18

ROADWAY STANDARD DRAWING FOR
CONCRETE DROP INLET
12" THRU 30" PIPE



SECTION X-X

SECTION Y-Y



DOWEL

DIMENSIONS AND QUANTITIES FOR DROP INLET(BASED ON MIN. HEIGHT, H)								
DIMENSIONS OF BOX & PIPE				CUBIC YARDS CONC. IN BOX			DEDUCTIONS FOR ONE PIPE	
PIPE	SPAN	WIDTH	MIN. HEIGHT	BOTTOM SLAB	WALL PER FT. HT.	TOTAL CONCRETE FOR MINIMUM HEIGHT, H	C.M.	R.C.
D	A	B	H					
12"	3'-0"	2'-0"	2'-0"	0.222	0.222	0.592	0.015	0.026
15"	↗	↗	2'-3"	↗	↗	0.648	0.023	0.036
18"	↗	↗	2'-6"	↗	↗	0.703	0.033	0.049
24"	↗	↗	3'-0"	↗	↗	0.814	0.059	0.085
30"	3'-0"	2'-0"	3'-6"	0.222	0.222	0.925	0.092	0.127

SHEET 1 OF 1

840.14

SEEDING NOTES

A. Vegetative Practices

1. Refer to Stabilization Timeframe Table.

   Per NPDES Stormwater Discharge Permit for Construction Activities, NCG01, seeding shall be placed in the timeframes shown in the table below. The timeframes shown below govern over any other less stringent note on the plans or specifications for this contract.

STABILIZATION TIMEFRAMES TABLE

Site Area Description	Stabilization	Timeframe Exceptions
Perimeter Dikes, Swales, Ditches and Slopes	7 days	None
High Quality Water (HWQ) Zones	7 days	None
Slopes Steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, then 14 days are allowed
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 50' in length
All other areas with slopes flatter than 4:1	14 days	None, except for perimeters and HQW Zones

2. Permanently seed areas that will not be re-disturbed. Do not allow any disturbed areas to remain disturbed any longer than necessary and do not remove protection devices until adequate ground cover has been achieved. Note that the time for establishment of permanent ground cover is 14 calendar days.

B. Management Strategies

1. Contractor is to notify the Engineer at least 48 hours prior to starting work.
2. Stockpile and/or waste areas must be maintained within the limits of the areas protected by the proposed measures and otherwise temporarily seeded if to be left stockpiled over 14 days.
3. Construction shall be planned so that grading operations can begin and end as quickly as possible.
4. Silt Fences shall also be installed prior to or as a first step in construction.
5. The Contractor shall be responsible for the installation and maintenance of all erosion and sediment control practices.

C. Vegetative Ground Cover

Immediately following grading, all areas shall receive either permanent or temporary seeding, as applicable, as follows:

	FEB-MAY	JUNE-OCT	NOV-JAN
Permanent Seed	Tall Fescue @ 240#/Ac (Kentucky 31)	Bermudagrass (hulled) @ 35#/Ac, plus Centipede @ 10#/Ac, plus German/Browntop Millet Grain @ 10#/Ac	Tall Fescue @ 240#/Ac (Kentucky 31), plus Winter Rye @ 50#/Ac
Temporary Seed	German/Browntop Millet Grain @ 40#/Ac	German/Browntop Millet Grain @ 40#/Ac	Rye grain @ 120#/Ac

Fertilizer: 10-10-10 @ 20#/1000 SF, plus
Lime: 100#/1000 SF, plus
Mulch: Straw @ 95#/1000 SF, plus
Tack: 200 gallons/Ac on all mulching

D. Seed Bed Preparation

1. The soil shall be scarified or otherwise loosened to a depth of not less than 5 inches except as otherwise directed by the Engineer. Clods shall be broken and the top three inches of soil shall be worked into an acceptable seedbed by the use of soil pulverizers, drags, or harrows.
2. On 2:1 slopes a seedbed preparation will be required that is the same depth as that required on flatter areas, although the degree of smoothness may be reduced from that required on the flatter areas.
3. Seedbed preparation within two feet of the edge of any pavement shall be limited to a depth of two to three inches.
4. The preparation of seedbeds shall not be done when the soil is frozen, extremely wet, or when the Engineer determines that it is in an otherwise unfavorable working condition.
5. Before mulch is applied, the Contractor shall remove and dispose of all exposed stones in excess of one inch in diameter and all roots or other debris which prevent proper contact of the mulch with the soil. Segregation of exposed stone under one inch shall be avoided and, if found, dispersed or disposed of at the direction of the Engineer.

E. Maintenance

1. Reseed and mulch bare spots larger than 9 square feet (limited to 5% maximum of site area.)
2. Maintain all seeded areas until uniform stand is acceptable.
3. If growth is not established by final project inspection, continue specified attention until the stand is acceptable.
4. Correct and repair all undue settling and erosion within 1 year after final inspection.

008.01 **SEWER MAINS** REV. 11-3-20

1. All materials, construction, workmanship and testing shall meet the requirements set forth by the local municipality, NCDEQ, NCDOT, and the NC Plumbing Code, as applicable. If there is a conflict in these requirements or those on the plans/notes, the more strict shall govern.
2. No work is to begin along any public roadway without an approved copy of the encroachment permit in hand. No work is to begin until permit is in hand from the NCDEQ approving line placement. The Contractor shall make arrangements with the local utility authority when connecting to existing manholes or mains.
3. Existing or new manholes or wetwells qualify as "confined" and require compliance with OSHA "Confined Access Entry" requirements. Certified equipment, proper notification and other applicable equipment and or devices may be necessary to protect workers, after system is operational, from hydrogen- sulfide gas build-up or an otherwise oxygen-less environment.
4. Contractor shall take proper precautions not to disturb existing property corner markers. All disturbed property corner markers shall be replaced by a Professional Land Surveyor (PLS).
5. The following pipe specifications apply only when that material is shown on the plans or specified in the Contract Documents for the specific project being bid or constructed, and shall comply with local municipality requirements. Do not substitute without written approval from the Engineer. Contractor to verify material type and requirements with local municipality prior to construction.

   a. PVC SEWER PIPE: Pipe shall conform to ASTM D3034/ ASTM D2241 Type PSM, SDR-35 solid wall (or SDR 26 per local municipality), with integral elastomeric-gasket bell end per ASTM F477.

   b. DIP SEWER PIPE: Ductile Iron Gravity Sewer pipe shall be pressure Class 350 Ductile Iron Pipe for all pipe up to and including 12" and shall conform to ASTM A746 and ANSI/ AWWA C151/A21.51.91. Ductile Iron Sewer Pipe interior Lining shall meet ANSI/AWWA C104/A21.4 for Ductile Iron Force Mains, these same standards shall apply. Fittings shall be ductile iron in accordance with the requirements of ANSI/ AWWA C153/A21.53, ANSI/AWWA C110/A21.10. Mechanical joints and slip joints shall conform to ANSI/AWWA C111/A21.11.

   c. SEWER SERVICE PIPE (4"and 6") to be ASTM D3034 SDR 26 PVC (or Sch 40 per ASTM D1785 per local municipality), or DUCTILE IRON PIPE (if depth is less than 3 feet), unless otherwise shown, with solvent weld joints.

6. Pipe bedding on all pipe to be minimum Class C. On PVC pipe, bedding is to be Class B modified (i.e. stone to top of pipe).
7. The minimum clearances for water, sewer and storm drainage lines shall be as follows:

Between	Horizontal	Vertical
Water and Sewer	10'	18" w/ water above sewer
Water and Storm Drainage	-	18" w/ water above sewer
Sewer and Storm Drainage	5'	24"

8. **CLEAN OUTS** are to be spaced a maximum of 75 ft. on centers for 4" and 6" services. Provide clean outs at all bends, tees, wyes, changes in grade and deadends. Minimum grades for 4" and 6" lines to be 2.08% and 1.04%, respectively.
9. Location, size and invert elevations of clean outs shown on "private" services are to be coordinated with the approved Plumbing Plans for the building. All plumbing is to meet the requirements of the NC State Building Code, Volume II, Plumbing, latest revision.
10. Unless noted otherwise, manholes are to be precast concrete manholes with eccentric cones, rubber boots and moorbases. Manholes to meet AASHTO M-199. Manhole Castings to be Vulcan V-1984-95 adjustable or approved equal.
11. Any well pointing, dewatering, etc. needed during sewer construction is to be included in the cost of the line laid. Utilize select fill from on-site for trench borrow when needed. If material of a select nature is not available, bring in from off-site. Verify availability with Geotechnical Engineer if questionable.
12. Lengths of sewer pipe have been rounded to the nearest foot. Measurements on sewer lines are straight line distances between manholes.
13. Maximum allowable infiltration rate at the outlet end of the sewer pipe shall not exceed 100 gallons per day per one inch of pipe nominal diameter per mile of pipe length along the entire system.
14. The completed system shall be subjected to either an infiltration test or a low pressure air test when pipe has less than 2' of water above top of pipe. Contact Engineer for procedures for low pressure test. Manholes to be subjected to a vacuum test.
15. Contractor shall seed, mulch and tack all disturbed areas within 7 days after backfilling trench. All sedimentation control measures shall be kept in operable condition until a stand of grass is established and the area is capable of resisting erosion by wind and rain. All erosion control measures shall be removed when authorized by the Engineer after the completion of the project.
16. All excavated wood and rocks shall be disposed off site by the Contractor. Bury will not be permitted on-site.
17. Sewer lines crossing existing asphalt pavement shall be installed by the open cut trench method unless otherwise indicated. Where lines cross gravel driveways, Contractor is to restore driveways to the original condition. Paved drives to be paid as per unit price for pavement replacement.
18. Contractor shall provide silt fencing wherever the new sewer mains cross existing driveway pipes and/or parallel adjacent to existing concrete ditches. A silt fence shall be provided to protect the existing driveway pipes and concrete ditches from silt accumulation.
19. Omitted.
20. Omitted.
21. Omitted.
22. Omitted.
23. Omitted.
24. **AS-BUILTS:** Contractor is to maintain on-site a full set of project drawings for purpose of recording as constructed conditions. Information should be legibly recorded as construction progresses and should document any field changes from the original drawings. Show horizontal and vertical location of any existing underground utilities encountered during construction. Contractor is to secure the services of a Professional Land Surveyor (PLS) to provide as-built survey in paper and digital format to Engineer upon completion of construction in accordance with NCDEQ and local municipality requirements.

HOR. SCALE: AS NOTED	DATE: 01/24/2023	DESIGN: David Revoir	
VER. SCALE: N/A	DRAWN BY: TRJ	CHKD: -	
REVISIONS			
NO. △	DATE:	DESCRIPTION:	BY: CAD:

Appian
CONSULTING ENGINEERS, P.A.
CIVIL, MUNICIPAL &
STRUCTURAL ENGINEERS
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THESE PLANS WERE PRINTED USING COLOR. IF THIS NOTE IS NOT SHOWN IN RED, PLEASE REFER TO ORIGINAL PLANS.

Final Drawings
Review Purposes ONLY

NORTH CAROLINA PROFESSIONAL SEAL 26959 ENGINEER DAVID C. REVOIR 01/24/2023

CONSTRUCTION DETAILS for CRM Dirt Streets Paving Project: Emerald Ln, Coral Dr., And Topaz Ave. Edgecombe County, Rocky Mount, N.C.

21-136

D-0000

D-3

S:\Appian Projects - Shared Folder\21136-CRM Dirt Streets-Coral Emerald Topaz\CAD\21136 CRM Dirt Streets D1.dwg <D-3> 01/24/2023 - 9:43 AM Plot by: KWILLIAMS.CAM