

# CHATHAM STREET WATER LINE REPLACEMENT

## TOWN OF APEX, NC

### SCHEDULE OF DRAWINGS

SHEET	TITLE
COVER	VICINITY MAP AND SCHEDULE OF DRAWINGS
C-0.0	GENERAL NOTES, PROJECT NOTES, AND LEGEND
C-0.1	LOCATION MAP + NC HWY 55 & HUNTER ST. CROSSWALK IMPROVEMENTS
C-1.0	PLAN AND PROFILE - STA. 10+00 TO STA. 21+00
C-1.1	PLAN AND PROFILE - STA. 21+00 TO 32+00
C-1.2	PLAN AND PROFILE - STA. 32+00 TO 42+00
C-1.3	PLAN AND PROFILE - STA. 42+00 TO 53+00
C-1.4	PLAN AND PROFILE - STA. 53+00 TO 58+50
ED-1.0	EROSION CONTROL DETAILS
ED-2.0	EROSION CONTROL DETAILS
ED-3.0	EROSION CONTROL DETAILS
MD-1.0	MISCELLANEOUS DETAILS
SD-1.0	STANDARD DETAILS
SD-2.0	STANDARD DETAILS
SD-3.0	STANDARD DETAILS
SD-4.0	STANDARD DETAILS
SD-5.0	STANDARD DETAILS
TD-1.0	TEMPORARY TRAFFIC CONTROL PLAN - INDEX, LEGEND AND NOTES
TD-1.1	TEMPORARY TRAFFIC CONTROL PLAN - DETOUR ROUTES
TD-1.2	TRAFFIC CONTROL DETAILS
TD-1.3	TRAFFIC CONTROL DETAILS
S-1.0	LOCATION SKETCH & TOTAL STRUCTURE QUANTITIES
S-2.0	WEST WALL LAYOUT
S-3.0	EAST WALL LAYOUT
S-4.0	SEGMENT REINFORCING
S-4.1	SEGMENT REINFORCING
S-5.0	WALL DETAILS AND SECTIONS
S-6.0	BILL OF MATERIALS
S-7.0	ALUMINUM PEDESTRAIN RAILING
S-7.1	ALUMINUM PEDESTRAIN RAILING
S-8.0	STANDARD NOTES
SIG.-1.0	TRAFFIC SIGNAL PLAN
SIG.-1.1	TRAFFIC SIGNAL PLAN
SIG.-1.2	TRAFFIC SIGNAL ELECTRICAL DETAILS
SIG.-1.3	TRAFFIC SIGNAL ELECTRICAL DETAILS
SIG.-1.4	TRAFFIC SIGNAL ELECTRICAL DETAILS
SIG.-1.5	TRAFFIC SIGNAL ELECTRICAL DETAILS
SIG.-1.6	TRAFFIC SIGNAL ELECTRICAL DETAILS
SIG.-1.7	TRAFFIC SIGNAL ELECTRICAL DETAILS
SIG.-1.8	TRAFFIC SIGNAL ELECTRICAL DETAILS



NOTE: BOLD LINES INDICATE PROJECT WATER LINE LOCATIONS

1 VICINITY MAP  
SCALE: 1"=1000'



**NCDOT DISTRICT ENGINEER**  
AMY NEIDRINGHAUS  
919-733-3213

**WATER & SEWER OPERATIONS**  
JIMMY CORNELL  
919-249-3536

**CABLE TV**  
TIME WARNER CABLE  
919-573-7053

**PROJECT CONTACTS**

**ELECTRIC UTILITIES**  
RODNEY SMITH  
919-249-3342

**GAS UTILITIES**  
PSNC  
919-367-2713

**CSX RAILROAD**  
TBD

**PHONE UTILITIES**  
BELLSOUTH  
919-785-7774

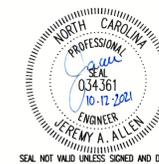
**PUBLIC INFRASTRUCTURE ADDED**

WATER LINES	4,900 LF
SEWER LINES	-
PUBLIC STREETS	-
CURB AND GUTTER	865 LF
STORM DRAIN	655 LF
SIDEWALK	865 LF

MAYOR - JACQUES GILBERT  
MAYOR PRO TEAM - NICOLE DOZIER  
COUNCIL - TERRY MAHAFFEY  
- CHERYL STALLINGS  
- AUDRA KILLINGSWORTH  
- BRETT GANTT

TOWN MANAGER - CATHERINE CROSBY  
ASSIST. TOWN MANAGERS - MARTY STONE, P.E.  
- SHAWN PURVIS

WATER RESOURCES DIRECTOR - MICHAEL DEATON, P.E.



**HIGHFILL**  
INFRASTRUCTURE  
ENGINEERING, P.C.



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Cary, North Carolina 27518  
Tel 919-481-4342

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Engineering is our profession. Service is our passion.

HIGHFILL PROJ. NO. APX1801  
OCTOBER 2021

**BUILDING INSPECTIONS & PERMITS TOWN OF APEX CERTIFICATION**

This drawing has been reviewed by the Town of Apex Building Inspections & Permits Department, and to the best of my knowledge and belief, conforms to the requirements established within the Town's Code of Ordinances and the North Carolina State Building Codes. However, this signature does not constitute a variance from any requirements contained in any federal, state, or local code, law, specification, rule or ordinance. It is the sole responsibility of the owner/developer, or any of his agents or contract professionals to ensure that this construction plan meets all the aforementioned requirements.

By: \_\_\_\_\_ Date: \_\_\_\_\_

**ELECTRIC TOWN OF APEX CERTIFICATION**

This drawing has been reviewed by the Town of Apex Electric Department, and to the best of my knowledge and belief, conforms to the requirements established in the Standard Specifications and Construction Details and the Unified Development Ordinance of the Town of Apex. However, this signature does not constitute a variance from any requirements contained in any federal, state, or local code, law, specification, rule or ordinance. It is the sole responsibility of the owner/developer, or any of his agents or contract professionals to ensure that this construction plan meets all the aforementioned requirements.

By: \_\_\_\_\_ Date: \_\_\_\_\_

**FIRE DEPARTMENT TOWN OF APEX CERTIFICATION**

This drawing has been reviewed by the Town of Apex Fire Department, and to the best of my knowledge and belief, conforms to the requirements established within the Town's Standard Specifications, Fire Protection Ordinances, and the North Carolina International Fire Code. However, this signature does not constitute a variance from any requirements contained in any federal, state, or local code, law, specification, rule or ordinance. It is the sole responsibility of the owner/developer, or any of his agents or contract professionals to ensure that this construction plan meets all the aforementioned requirements.

By: \_\_\_\_\_ Date: \_\_\_\_\_

**PARKS, RECREATION, AND CULTURAL RESOURCES TOWN OF APEX CERTIFICATION**

These plans have been reviewed by the Town of Apex, and to the best of my knowledge and belief, conform to representations made by the developer to myself and the Parks, Recreation, and Cultural Resource Advisory Commission consistent with the projects requirements for public Parks and Recreation, either in total or in part, as outlined in the Town of Apex Unified Development Ordinance and Town of Apex Code of Ordinances. However, this signature does not constitute a variance from any requirements contained in any federal, state, or local code, law, specification, rule or ordinance. It is the sole responsibility of the owner/developer, or any of his agents or contract professionals to ensure that this construction plan meets all the aforementioned requirements.

By: \_\_\_\_\_ Date: \_\_\_\_\_

**PLANNING/ZONING TOWN OF APEX CERTIFICATION**

This construction drawing has been reviewed by the Town of Apex Planning Department, and to the best of my knowledge and belief, conforms to the requirements established in the Standard Specifications and Standard Details of the Town of Apex. However, this signature does not constitute a variance from any requirements contained in any federal, state, or local code, law, specification, rule or ordinance. It is the sole responsibility of the owner/developer, or any of his agents or contract professionals to ensure that this construction plan meets all the aforementioned requirements.

By: \_\_\_\_\_ Date: \_\_\_\_\_

**PUBLIC WORKS & TRANSPORTATION TOWN OF APEX CERTIFICATION**

This drawing has been reviewed by the Town of Apex Public Works & Transportation Department, and to the best of my knowledge and belief, provides an acceptable transportation system with consideration for the elements contained within the Transportation Plan conforming to the requirements established in the Standard Specifications & Standard Details and the Unified Development Ordinance of the Town of Apex. However, this signature does not constitute a variance from any requirements contained in any federal, state, or local code, law, specification, rule or ordinance. It is the sole responsibility of the owner/developer, or any of his agents or contract professionals to ensure that this construction plan meets all the aforementioned requirements.

By: \_\_\_\_\_ Date: \_\_\_\_\_

**WATER RESOURCES SOIL EROSION & SEDIMENTATION CONTROL TOWN OF APEX CERTIFICATION**

This drawing has been reviewed by the Town of Apex Water Resources Stormwater & Utility Engineering Division and to the best of my knowledge and belief, conforms to the requirements established in the Standard Specifications and Standard Details and the Unified Development Ordinance of the Town of Apex. However, this signature does not constitute a variance from any requirements contained in any federal, state, or local code, law, specification, rule or ordinance. It is the sole responsibility of the owner/developer, or any of his agents or contract professionals to ensure that this construction plan meets all the aforementioned requirements.

This signature does not constitute plan approval, only plan requirements. A separate letter of plan approval will be mailed to the financially responsible person at a later date according to the construction sequence.

By: \_\_\_\_\_ Date: \_\_\_\_\_

**WATER RESOURCES STORMWATER ENGINEERING TOWN OF APEX CERTIFICATION**

This drawing has been reviewed by the Town of Apex Water Resources Stormwater & Utility Engineering Division and to the best of my knowledge and belief, conforms to the requirements established in the Standard Specifications and Standard Details and the Unified Development Ordinance of the Town of Apex. However, this signature does not constitute a variance from any requirements contained in any federal, state, or local code, law, specification, rule or ordinance. It is the sole responsibility of the owner/developer, or any of his agents or contract professionals to ensure that this construction plan meets all the aforementioned requirements. This signature serves as the stormwater permit for this project.

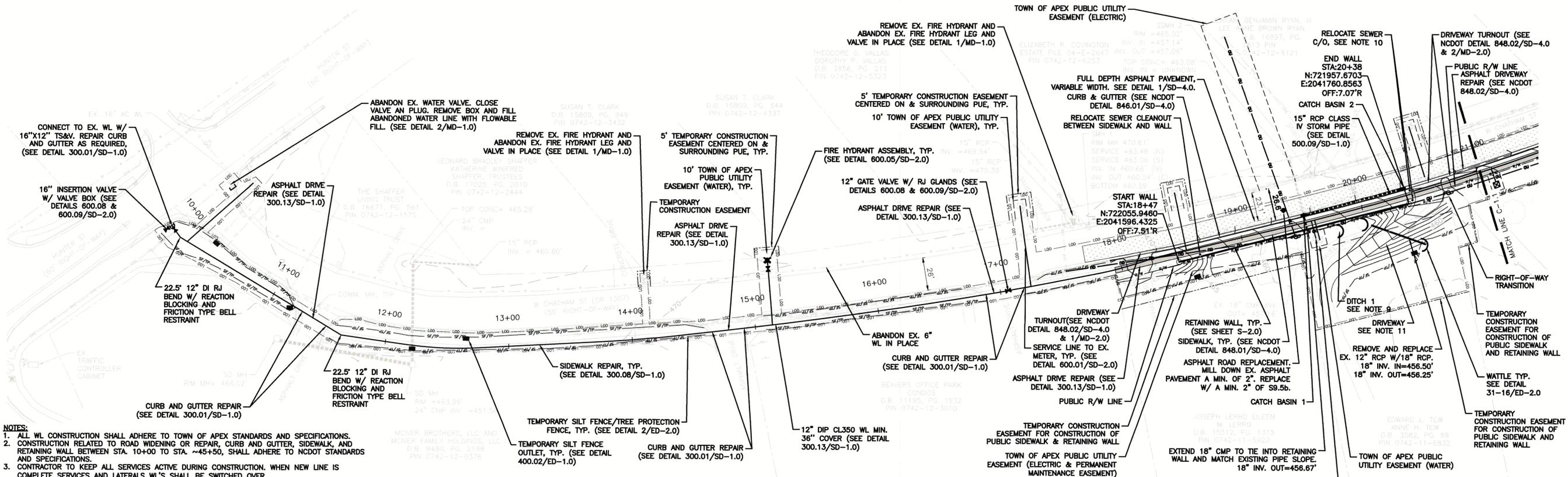
By: \_\_\_\_\_ Date: \_\_\_\_\_

**WATER RESOURCES UTILITY ENGINEERING TOWN OF APEX CERTIFICATION**

This drawing has been reviewed by the Town of Apex Water Resources Department, and to the best of my knowledge and belief, conforms to the requirements established in the Standard Specifications and Standard Details of the Town of Apex. However, this signature does not constitute a variance from any requirements contained in any federal, state, or local code, law, specification, rule or ordinance. It is the sole responsibility of the owner/developer, or any of his agents or contract professionals to ensure that this construction plan meets all the aforementioned requirements.

By: \_\_\_\_\_ Date: \_\_\_\_\_

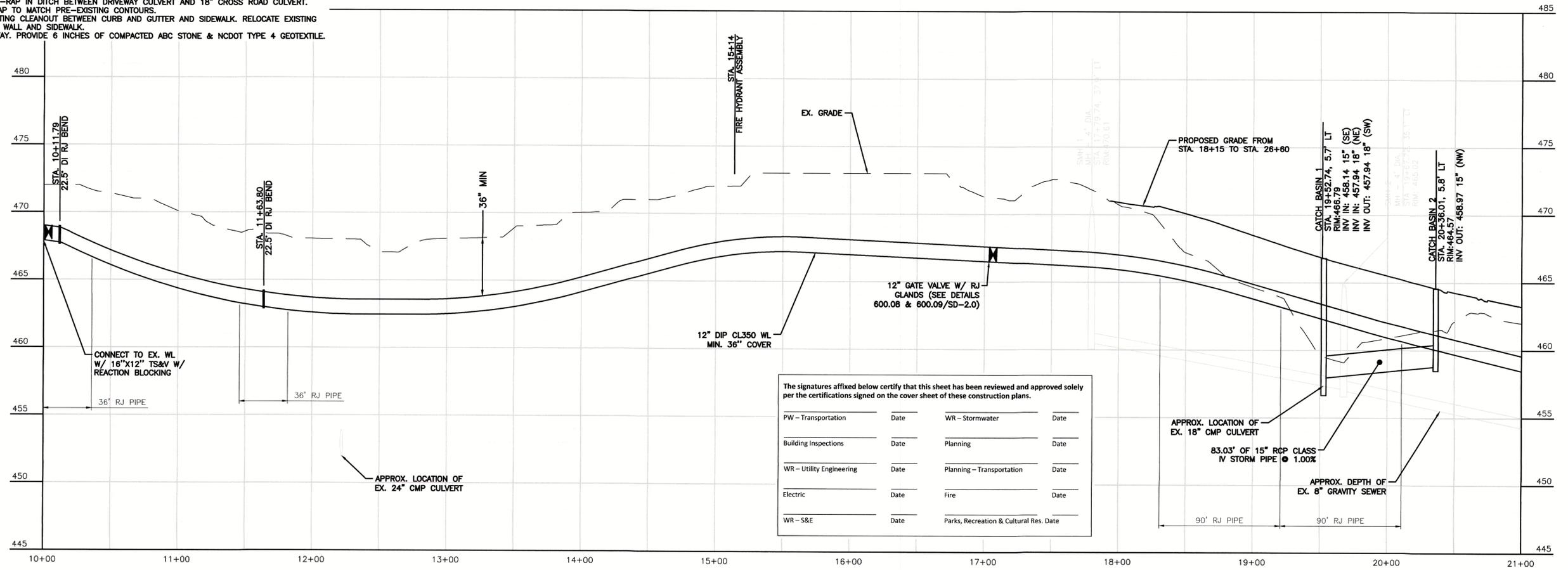
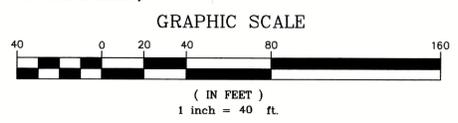
CHATHAM STREET WATER LINE REPLACEMENT (HIGHFILL PROJ. NO. APX1801)



- NOTES:**
1. ALL WL CONSTRUCTION SHALL ADHERE TO TOWN OF APEX STANDARDS AND SPECIFICATIONS.
  2. CONSTRUCTION RELATED TO ROAD WIDENING OR REPAIR, CURB AND GUTTER, SIDEWALK, AND RETAINING WALL BETWEEN STA. 10+00 TO STA. ~45+50, SHALL ADHERE TO NCDOT STANDARDS AND SPECIFICATIONS.
  3. CONTRACTOR TO KEEP ALL SERVICES ACTIVE DURING CONSTRUCTION. WHEN NEW LINE IS COMPLETE SERVICES AND LATERALS WL'S SHALL BE SWITCHED OVER.
  4. SEE DETAIL 600.13/SD-3.0 FOR REACTION BLOCKING REQUIREMENTS.
  5. REMOVE EX. WATERLINE, DESIGNATED TO BE ABANDONED, AS NECESSARY FOR CONSTRUCTION.
  6. CONTRACT SHALL ESTABLISH A CONSTRUCTION ENTRANCE ON EITHER SIDE OF PROPOSED WALL, SEE DETAIL 400.06/ED-1.0.
  7. CONTRACTOR SHALL COORDINATE AND MAINTAIN DRIVEWAY ACCESS TO PROPERTIES DURING CONSTRUCTION.
  8. PROPOSED STORM WATER CATCH BASINS SHALL HAVE NCDOT TYPE "F" GRATE INLET, TYP., (SEE NCDOT DETAILS 840.02 & 840.03/SD-3.0). WL SHALL MAINTAIN 24" OF CLEARANCE.
  9. INSTALL 6" RIP-RAP IN DITCH BETWEEN DRIVEWAY CULVERT AND 18" CROSS ROAD CULVERT. INSTALL RIP-RAP TO MATCH PRE-EXISTING CONTOURS.
  10. RELOCATE EXISTING CLEANOUT BETWEEN CURB AND SIDEWALK. RELOCATE EXISTING VENT BETWEEN WALL AND SIDEWALK.
  11. GRAVEL DRIVEWAY. PROVIDE 6 INCHES OF COMPACTED ABC STONE & NCDOT TYPE 4 GEOTEXTILE.

- EROSION CONTROL NOTES:**
1. GRADED SLOPES SHALL HAVE EROSION CONTROL MATTING INSTALLED WITHIN 7 DAYS OF COMPLETION FOR STABILIZATION.
  2. SLOPES OF ANY DISTURBED STREAM, DITCH OR SWALE SHALL HAVE DITCH LINER INSTALLED WITHIN 7 DAYS OF DISTURBANCE.

1 PLAN - STA. 10+00 TO 21+00  
SCALE: 1" = 40'



The signatures affixed below certify that this sheet has been reviewed and approved solely per the certifications signed on the cover sheet of these construction plans.

PW - Transportation	Date	WR - Stormwater	Date
Building Inspections	Date	Planning	Date
WR - Utility Engineering	Date	Planning - Transportation	Date
Electric	Date	Fire	Date
WR - S&E	Date	Parks, Recreation & Cultural Res. Date	

2 PROFILE - STA. 10+00 TO 21+00  
SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'

DATE	11/25/20	REVISION	
PERMITTING	03/19/21	BY	JBR
PERMITTING	07/09/21	BY	JBR
PERMITTING	10/12/21	BY	JBR

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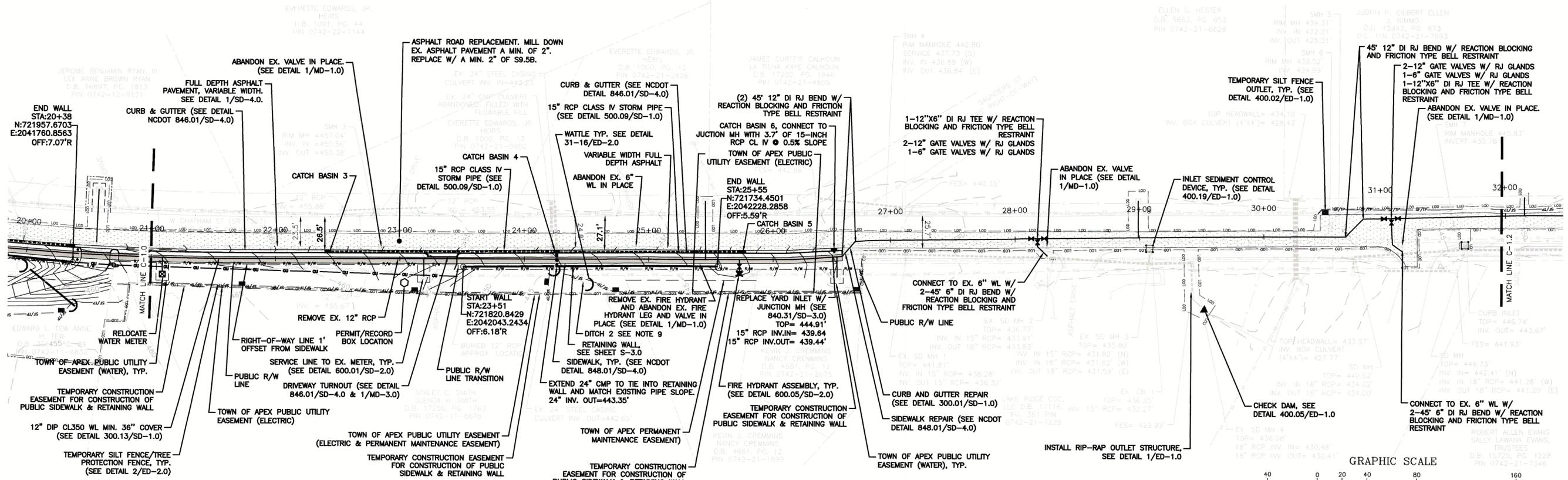
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Service is our passion.

CHATHAM STREET WATER LINE REPLACEMENT  
TOWN OF APEX  
APEX, NC

PLAN AND PROFILE - STA. 10+00 TO STA. 21+00

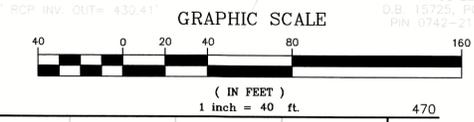
PROJECT NO.  
APX1801

C-1.0



**EROSION CONTROL NOTES:**  
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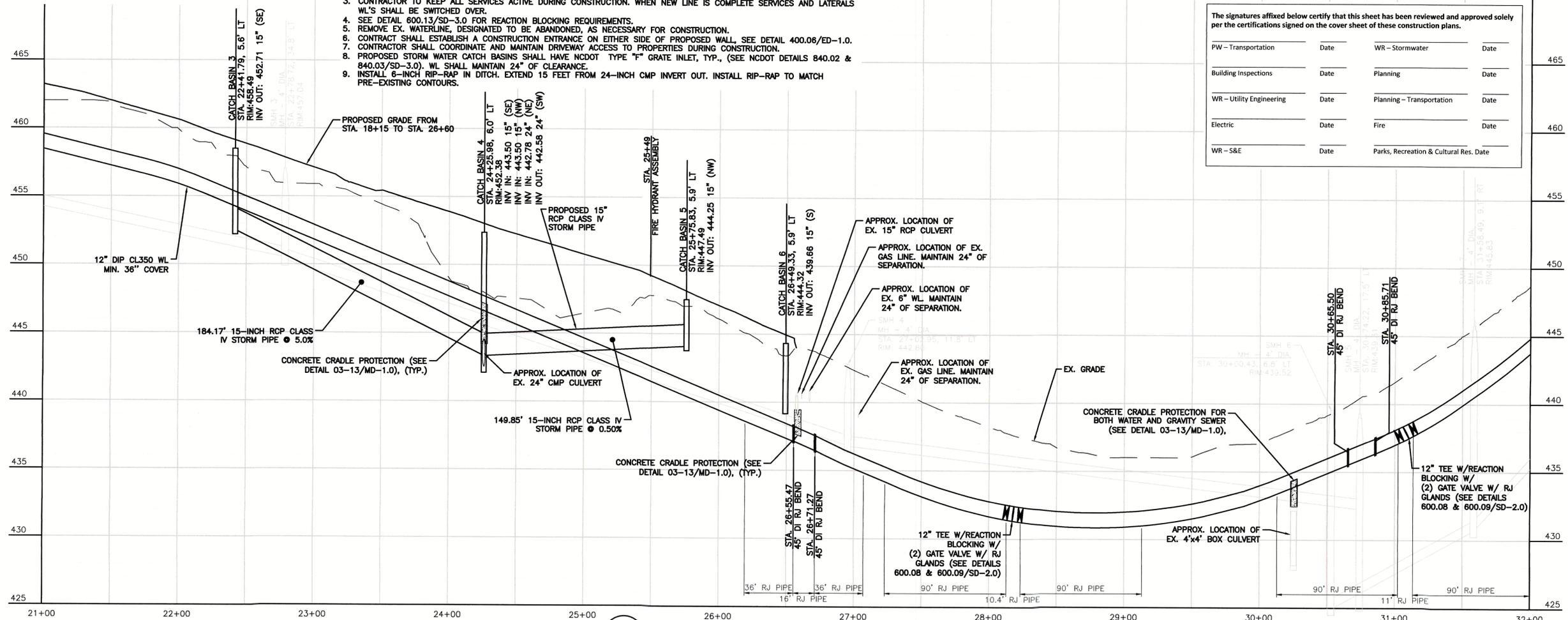
- NOTES:**
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  - CONTRACTOR TO KEEP ALL SERVICES ACTIVE DURING CONSTRUCTION. WHEN NEW LINE IS COMPLETE SERVICES AND LATERALS WL'S SHALL BE SWITCHED OVER.
  - SEE DETAIL 600.13/SD-3.0 FOR REACTION BLOCKING REQUIREMENTS.
  - REMOVE EX. WATERLINE, DESIGNATED TO BE ABANDONED, AS NECESSARY FOR CONSTRUCTION.
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  - CONTRACTOR SHALL COORDINATE AND MAINTAIN DRIVEWAY ACCESS TO PROPERTIES DURING CONSTRUCTION.
  - PROPOSED STORM WATER CATCH BASINS SHALL HAVE NCDOT TYPE "F" GRATE INLET, TYP., (SEE NCDOT DETAILS 840.02 & 840.03/SD-3.0). WL SHALL MAINTAIN 24" OF CLEARANCE.
  - INSTALL 6-INCH RIP-RAP IN DITCH. EXTEND 15 FEET FROM 24-INCH CMP INVERT OUT. INSTALL RIP-RAP TO MATCH PRE-EXISTING CONTOURS.



**1 PLAN - STA. 21+00 TO 32+00**  
 SCALE: 1" = 40'

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PW - Transportation	Date	WR - Stormwater	Date
Building Inspections	Date	Planning	Date
WR - Utility Engineering	Date	Planning - Transportation	Date
Electric	Date	Fire	Date
WR - S&E	Date	Parks, Recreation & Cultural Res. Date	



**2 PROFILE - STA. 21+00 TO 32+00**  
 SCALE: 1" = 40'  
 VERTICAL SCALE: 1" = 4'

GDF	JBR	JBR	JBR	JBR	BY
PERMITTING	PERMITTING	PERMITTING	PERMITTING	PERMITTING	REVISION
10/12/21	07/09/21	03/19/21	12/16/20	11/25/20	DATE

**h**  
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 Service is our passion.

CHATHAM STREET WATER LINE REPLACEMENT  
 TOWN OF APEX  
 APEX, NC

PLAN AND PROFILE - STA. 21+00 TO 32+00

PROJECT NO.  
 APX1801

C-1.1