STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

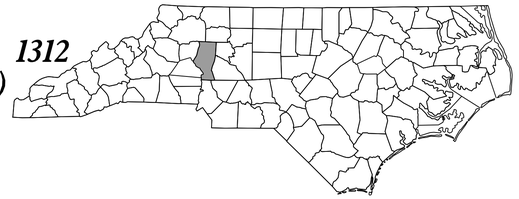
T.I.P. NO.	SHEET NO.
R–5711	UC–1

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

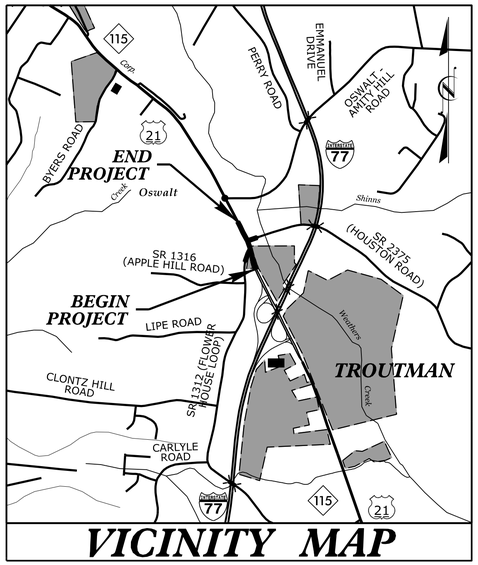
UTILITY CONSTRUCTION PLANS
IREDELL COUNTY

LOCATION: INTERSECTION IMPROVEMENTS AT US 21 AND SR 1312 (FLOWER HOUSE LOOP)/SR 2375 (HOUSTON ROAD)

TYPE OF WORK: WATER & SEWER RELOCATIONS

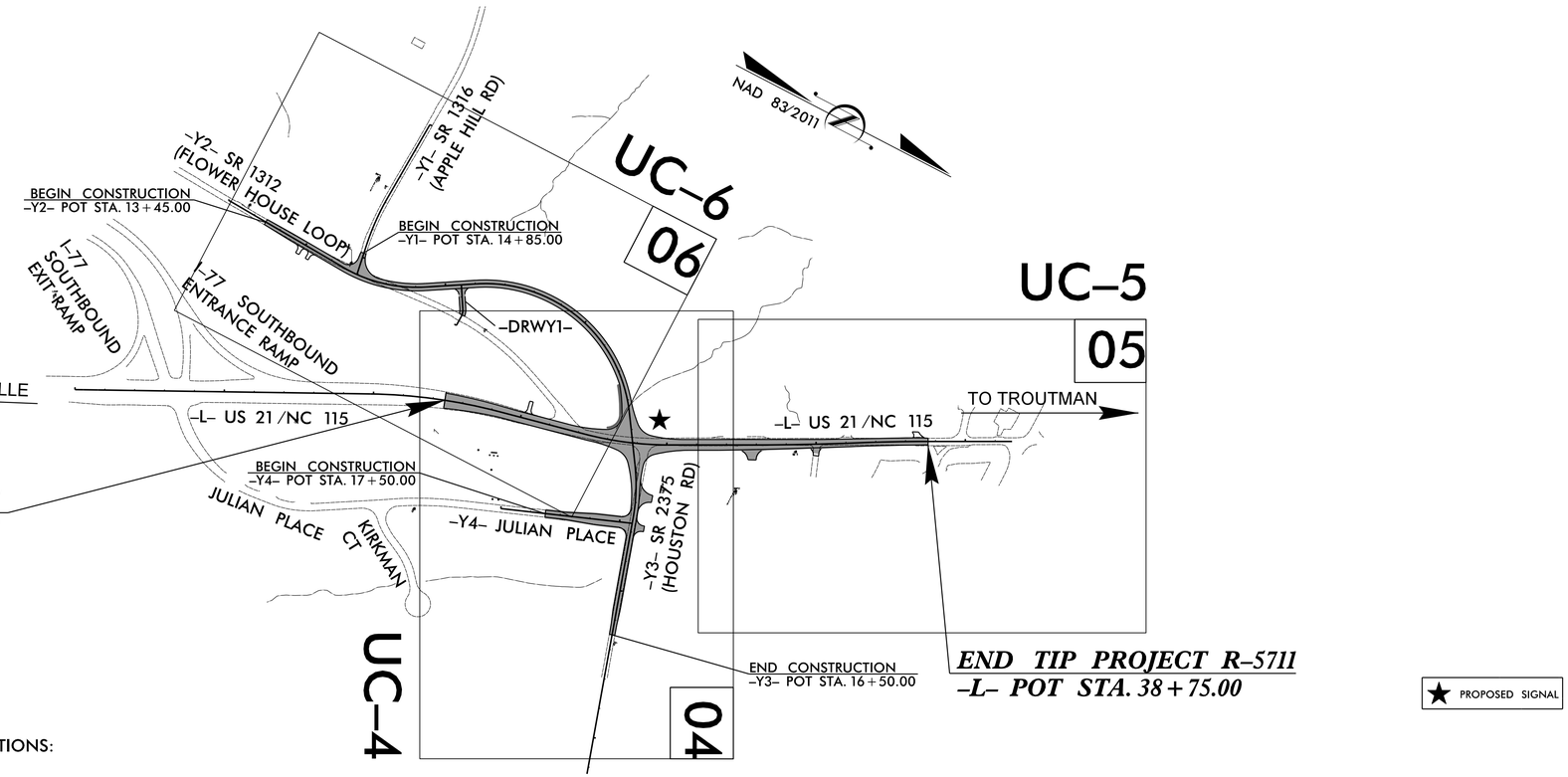


TIP PROJECT: R–5711



VICINITY MAP

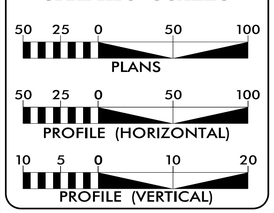
NOT TO SCALE



THERE IS NO CONTROL OF ACCESS ON THIS PROJECT.

THIS PROJECT REQUIRES THE FOLLOWING DESIGN EXCEPTIONS:
MIN. HORIZONTAL CURVE RADIUS = 485'

GRAPHIC SCALES



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UC–1	TITLE SHEET
UC–2	UTILITY SYMBOLOGY
UC–3	NOTES
UC–3A	DETAILS
UC–4 THRU UC–6	UTILITY CONSTRUCTION SHEETS
UC–7	PROFILE SHEET

WATER AND SEWER OWNERS ON PROJECT

(A) TOWN OF TROUTMAN

PREPARED IN THE OFFICE OF:

HINDE ENGINEERING
License No. C-2639
401 Harrison Oaks Blvd., Suite 220 Cary, NC 27513
Ph. (919) 653-0001

Clint L. Stevens, P.E.	*UTILITIES PROJECT MANAGER*
Jordan K. Chapman, E.I.	*UTILITIES PROJECT ENGINEER*
James N. Arnold	*UTILITIES PROJECT DESIGNER*

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040370 CLINT L. STEVENS
Docusigned by: Clint Stevens 9D6F32D777EB42D...
6/8/2026

DIVISION OF HIGHWAYS
DIVISION 12
1710 E.MARION STREET
SHELBY NC 28151–0047
PHONE (980) 552–4200
FAX (704) 480–5401

Mark Stafford, P.E.	*DIVISION ENGINEER*
Rodney Gantt	*DIVISION CONSTRUCTION ENGR*
Bryan K. Sowell, P.E.	*DIVISION PROJECT ENGINEER*
Warren Anderson	*DIVISION UTILITY ENGINEER*

08-JUN-2026 08:57
S:\Server Files\PROJECTS\2015\A2015004.00_DRMP_R-5711Divi2\Design\Utilities\Engineering\UC\Proj\R-5711_UT_tsh_UC1_psh.dgn
$$$$$$I$USERNAME$$$$$$

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HINDE ENGINEERING
License No. C-2639
401 Harrison Oaks Blvd., Suite 220 Cary, NC 27513

PROJECT REFERENCE NO.	SHEET NO.
R-5711	UC-2

UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER SYMBOLS

- Water Line (Sized as Shown) — 12" WL
- 11¼ Degree Bend
- 22½ Degree Bend
- 45 Degree Bend
- 90 Degree Bend
- Plug
- Tee
- Cross
- Reducer
- Gate Valve — GV
- Butterfly Valve — BV
- Tapping Valve — TGV
- Line Stop — LS
- Line Stop with Bypass — LS/BP
- Blow Off — BO
- Fire Hydrant — PFH
- Relocate Fire Hydrant — RFH
- Remove Fire Hydrant — REM FH
- Water Meter — PWM
- Relocate Water Meter — RWM
- Remove Water Meter — REM WM
- Water Pump Station — PS(W)
- RPZ Backflow Preventer — PRPZ
- DCV Backflow Preventer — PBFP
- Relocate RPZ Backflow Preventer — RRPZ
- Relocate DCV Backflow Preventer — RBFP

PROPOSED SEWER SYMBOLS

- Gravity Sewer Line (Sized as Shown) — 12" SS
- Force Main Sewer Line (Sized as Shown) — 12" FSS
- Manhole (Sized per Note)
- Sewer Pump Station — PS(SS)

PROPOSED MISCELLANOUS UTILITIES SYMBOLS

- Power Pole
- Telephone Pole
- Joint Use Pole
- Telephone Pedestal — TEL PED
- Utility Line by Others (Type as Shown) — PROP O/H POW LINES
- Trenchless Installation — 12" TL INSTALL
- Encasement by Open Cut — 24" ENCAS BY OC
- Encasement — 24" ENCASEMENT
- Thrust Block
- Air Release Valve — AR
- Utility Vault — UV
- Concrete Pier — CP
- Steel Pier — SP
- Plan Note — NOTE
- Pay Item Note — PAY ITEM

EXISTING UTILITIES SYMBOLS

- Power Pole
- Telephone Pole
- Joint Use Pole
- Utility Pole
- Utility Pole with Base
- H-Frame Pole
- Power Transmission Line Tower
- Water Manhole
- Power Manhole
- Telephone Manhole
- Sanitary Sewer Manhole
- Hand Hole for Cable
- Power Transformer
- Telephone Pedestal — T
- CATV Pedestal — TV
- Gas Valve
- Gas Meter
- Located Miscellaneous Utility Object
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.
- *Underground Power Line — P
- *Underground Telephone Cable — T
- *Underground Telephone Conduit — TC
- *Underground Fiber Optics Telephone Cable — T FO
- *Underground TV Cable — TV
- *Underground Fiber Optics TV Cable — TV FO
- *Underground Gas Pipeline — G
- Aboveground Gas Pipeline — A/G Gas
- *Underground Water Line — W
- Aboveground Water Line — A/G Water
- *Underground Gravity Sanitary Sewer Line — SS
- Aboveground Gravity Sanitary Sewer Line — A/G Sanitary Sewer
- *Underground SS Forced Main Line — FSS
- Underground Unknown Utility Line — ?UTL
- SUE Test Hole
- Water Meter
- Water Valve
- Fire Hydrant
- Sanitary Sewer Cleanout

*For Existing Utilities

- Utility Line Drawn from Record (Type as Shown) — W
- Designated Utility Line (Type as Shown) — W

REV: 2/1/2012

08-JUL-2026 08:57
...\2024.00_R-5711_Design\Utilities\Engineering\UC\Proj\R-5711_Ut_sym_UC2_psh.dgn
$$$$USERNAME$$$$

Docusign Envelope ID: 718F54C7-5A01-8203-8302-AF8E8213989A

UTILITY CONSTRUCTION

HINDE ENGINEERING
License No. C-2639
401 Harrison Oaks Blvd., Suite 220 Cary, NC 27513

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-5711	UC-3
DESIGNED BY: JKC	
DRAWN BY: JNA	
CHECKED BY: JKC	
APPROVED BY: CLS	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE:(919)707-6690
FAX:(919)250-4151

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040370 CLINT L STEVENS
Docusigned by: Clint L Stevens 9D5F32D777EB42D...
6/8/2026
UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2024.

2. THE EXISTING UTILITIES BELONG TO TOWN OF TROUTMAN. THE CONTACT PERSON IS:

AUSTIN WAUGH
PUBLIC WORKS DIRECTOR
704-528-7600

IN THE EVENT OF A CONFLICT BETWEEN THE UTILITY OWNER'S TECHNICAL SPECIFICATIONS AND NCDOT STANDARD SPECIFICATIONS/PROJECT SPECIAL PROVISIONS, THE MOST STRINGENT SHALL GOVERN.

3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION. ALL SEWER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT QUALITY, DIVISION OF WATER RESOURCES, WATER QUALITY SECTION. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.

4. THE UTILITY OWNER OWNS THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE ENGINEER. AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.

5. PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPORTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.

6. THE PLANS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE, AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE DEPARTMENT.

7. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEM WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.

8. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE, AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, AND ON HOLIDAYS IF NECESSARY.

9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, " SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.

10. ALL WATER LINE INSTALLED ON THIS PROJECT SHALL MEET THE REQUIREMENTS OF THE RULES GOVERNING PUBLIC WATER SYSTEMS. VERTICAL SEPARATION BETWEEN PROPOSED WATER MAINS AND STORM DRAINAGE SHALL BE A MINIMUM OF 18-INCHES PER RECOMMENDED STANDARDS OF WATER WORKS. ALL PROPOSED WATER LINE SHALL HAVE A MINIMUM COVER OF 36-INCHES. PROPOSED WATER MAINS SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF 10-FEET FROM SEWER MAINS (REF. RULE .0904, RULE.0906). UTILITIES BEING RELOCATED OR INSTALLED AS SHOWN ON THE UTILITY CONSTRUCTION PLANS MUST BE ADJUSTED ACCORDINGLY TO MEET THESE CRITERIA.

08-JUN-2026 08:57
C:\Projects\PROJECTS\2015\A2015I004.00_DRMP_R-5711 Div12\Design\Utilities\Engineering\UC\Proj\R-5711_Ut_notes_UC3.pshdgn
$$$$USERNAME$$$$

Docusign Envelope ID: FD2E6306-0BF9-8802-82B0-17C2CC0EC9FB

STANDARD DETAILS

HINDE ENGINEERING
License No. C-2639
401 Harrison Oaks Blvd., Suite 220 Cary, NC 27513

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

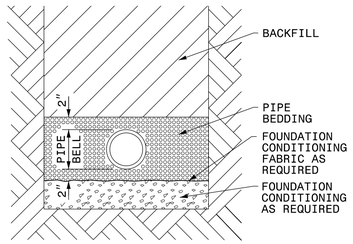
PROJECT REFERENCE NO.	SHEET NO.
R-5711	UC-3A
DESIGNED BY: JKC	
DRAWN BY: JNA	
CHECKED BY: JKC	
APPROVED BY: CLS	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE:(919)707-6690 FAX:(919)250-4151	

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040370 CLINT L STEVENS
Digitally signed by Clint Stevens
DocuSigned by: 9E8F32D777EB42D...
6/8/2026

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

TRENCH DETAIL



PLACE FOUNDATION CONDITIONING MATERIAL BELOW BEDDING IF REQUIRED, AS DIRECTED BY ENGINEER. PIPE BEDDED IN SELECT MATERIAL, CLASS II (TYPE 1) OR CLASS III. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROXIMATELY 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.

MAXIMUM TRENCH WIDTH AT TOP OF PIPE

NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)	NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)
4	28	20	44
6	30	24	48
8	32	30	54
10	34	36	60
12	36	42	66
14	38	48	72
16	40	54	78
18	42		

LIST OF NCDOT STANDARD DETAILS

654.01 PAVEMENT REPAIRS
1515.01 WATER METER
1515.02 FIRE HYDRANT

08-JUN-2026 08:57
C:\Users\...\PROJECTS\2015\A20151004.00_DRMP_R-5711 Div2\Design\Utilities\Engineering\UC\Proj\R-5711_Ut_dtl_UC3A_psh.dgn
$$$$USERNAME$$$$

HINDE ENGINEERING
License No. C-2639
401 Harrison Oaks Blvd., Suite 220 Cary, NC 27513

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-5711	UC-4

DESIGNED BY:	JKC
DRAWN BY:	JNA
CHECKED BY:	JKC
APPROVED BY:	CLS
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE:(919)707-6690
FAX:(919)250-4151

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040370 CLINT L STEVENS
Digitally signed by Clint L Stevens
9D5F32D777EB42D...
9/22/2026

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

MATCH LINE –L– STA. 31+50 SEE SHEET UC–5

MATCH LINE –Y2– STA. 26+50 SEE SHEET UC–6

ABANDON 177 LF OF 8" UTILITY PIPE

8" DI RJ 45° BEND
8" DI RJ 45° BEND
8" DI RJ SLEEVE
CONCRETE BLOCKING

6" DI RJ 22.5° BEND
6" DI RJ SLEEVE

186 LF OF 8" WATER LINE (DI RJ, PC 350)
CONCRETE BLOCKING
8" DI RJ SLEEVE
8" DI RJ 45° BEND
8" DI RJ 45° BEND

60 LF OF 8" WATER LINE (DI RJ, PC 350)

ABANDON 40 LF OF 8" UTILITY PIPE

8" DI RJ 45° BEND
8" DI RJ 45° BEND
8" DI RJ SLEEVE
CONCRETE BLOCKING

15 LF FIRE HYDRANT LEG

CONCRETE BLOCKING
8" DI RJ SLEEVE
8" DI RJ 45° BEND

8" DI RJ 45° BEND

60 LF OF 8" WATER LINE (DI RJ, PC 350)

ABANDON 40 LF OF 8" UTILITY PIPE

8" DI RJ 45° BEND
8" DI RJ 45° BEND
8" DI RJ SLEEVE
CONCRETE BLOCKING

RELOCATE FIRE HYDRANT
70 LF FIRE HYDRANT LEG
6" VALVE

12" DI RJ 45° BEND
12" DI RJ SLEEVE
CONCRETE BLOCKING

12" DI RJ 11.25° BEND
12" DI RJ 22.5° BEND

80 LF OF 12" FORCE MAIN SEWER
(PVC RJ C900, DR18)

12" DI RJ 45° BEND

BORE PIT (APPX.) 10'X20'

12" DI RJ 45° BEND

ABANDON 340 LF OF 12" UTILITY PIPE

85 LF OF 18" ENCASEMENT PIPE
85 LF OF BORE & JACK OF 18"
96 LF OF 12" FORCE MAIN SEWER
(STEEL, 0.375")
(DI RJ, PC 350)

12" DI RJ 45° BEND

BORE PIT (APPX.) 10'X20'

12" DI RJ 45° BEND

175 LF OF 12" FORCE MAIN SEWER
(PVC RJ C900, DR18)

12" DI RJ 45° BEND
12" DI RJ 45° BEND
12" DI RJ 45° BEND
12" DI RJ SLEEVE
CONCRETE BLOCKING

EX. SEGRA LINE DRAWN BY RECORD

NAD 832011

NOTES:

1. PROPOSED WATER MAINS AND HYDRANT LEGS SHALL HAVE A MINIMUM OF 42-INCHES OF COVER.
2. PROPOSED WATER MAINS AND HYDRANT LEGS SHALL MEET THE REQUIREMENTS OF THE RULES GOVERNING PUBLIC WATER SYSTEMS AS FOLLOWS:
   A) MAINTAIN 12-INCHES OF VERTICAL SEPARATION BETWEEN WATER MAINS AND STORM SEWER PER RULE .0904.
   B) MAINTAIN 18-INCHES OF VERTICAL SEPARATION BETWEEN WATER MAINS AND SANITARY SEWER PER RULE .0906.

UTILITIES BEING RELOCATED OR INSTALLED AS SHOWN ON THE UTILITY CONSTRUCTION PLANS MUST BE ADJUSTED ACCORDINGLY TO MEET THESE CRITERIA.

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1,670 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON SEWER PIPE FITTINGS ON THIS PLAN SHEET IS 2,450 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

23_SEP-2026 10:16
$$$$USERNAME$$$$
$$$$CURRENT$$$$
C:\PROJECTS\2015\A20151004.00_DRMP_R-5711 Div12\Design\Utilities\Engineering\UC\Proj\R-5711_Ut_04_UC04_psh.dgn

Docusign Envelope ID: 36D25526-9E80-8850-82D0-28497C2394E2

HINDE ENGINEERING
License No. C-2639
401 Harrison Oaks Blvd., Suite 220 Cary, NC 27513

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-5711	UC-5
DESIGNED BY: JKC	
DRAWN BY: JNA	
CHECKED BY: JKC	
APPROVED BY: CLS	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE:(919)707-6690
FAX:(919)250-4151

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040370 CLINT L STEVENS
Digitally signed by Clint L Stevens
DocuSigned by: 958F32D777EB42D...
9/22/2026

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

MATCH LINE -L- STA. 31+50 SEE SHEET UC-4

ABANDON 108 LF OF 8" UTILITY PIPE

8" DI RJ 45° BEND

8" DI RJ SLEEVE

CONCRETE BLOCKING

RECONNECT WATER METER
55 LF OF WATER SERVICE LINE

RELOCATE WATER METER
45 LF OF WATER SERVICE LINE

RELOCATE FIRE HYDRANT
15 LF OF FIRE HYDRANT LEG
6 " VALVE
(8"X8"X6" DI RJ TEE)

8" DI RJ 45° BEND

125 LF OF 8" WATER LINE
(DI RJ, PC 350)

RELOCATE FIRE HYDRANT
13 LF OF FIRE HYDRANT LEG
6" DI RJ SLEEVE

END TIP PROJECT R-5711
POT -L- STA. 38+75.00

NAD 83/2011

NOTES:

1. PROPOSED WATER MAINS AND HYDRANT LEGS SHALL HAVE A MINIMUM OF 42-INCHES OF COVER.

2. PROPOSED WATER MAINS AND HYDRANT LEGS SHALL MEET THE REQUIREMENTS OF THE RULES GOVERNING PUBLIC WATER SYSTEMS AS FOLLOWS:

   A) MAINTAIN 12-INCHES OF VERTICAL SEPARATION BETWEEN WATER MAINS AND STORM SEWER PER RULE .0904.
   B) MAINTAIN 18-INCHES OF VERTICAL SEPARATION BETWEEN WATER MAINS AND SANITARY SEWER PER RULE .0906.

UTILITIES BEING RELOCATED OR INSTALLED AS SHOWN ON THE UTILITY CONSTRUCTION PLANS MUST BE ADJUSTED ACCORDINGLY TO MEET THESE CRITERIA.

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 590 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

22-SEP-2026 10:17
C:\PROJECTS\2015\A20151004.00_DRMP_R-5711 Div12\Design\Utilities\Engineering\UC\Proj\R-5711_Ut_05_UC05_psh.dgn
$$$$USERNAME$$$$

Docusign Envelope ID: 97BCF7A6-D177-8829-81E6-BDD912384934

HINDE ENGINEERING
License No. C-2639
401 Harrison Oaks Blvd., Suite 220 Cary, NC 27513

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-5711	UC-6

DESIGNED BY:	JKC
DRAWN BY:	JNA
CHECKED BY:	JKC
APPROVED BY:	CLS
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE:(919)707-6690
FAX:(919)250-4151

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040370 CLINT L STEVENS
Digitally signed by Clint L Stevens
DocuSigned by: 95BF32D777EB42D...
9/22/2026

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

NAD 83/2011

-Y1- POT Sta. 10+00.00

-Y2- PC Sta. 21+03.57

-Y1- PC Sta. 12+82.32

-DRW1- POT Sta. 11+40.96=
-Y2- POT Sta. 20+53.19

BEGIN CONSTRUCTION
-Y1- POT STA. 14+85.00

BEGIN CONSTRUCTION
-Y2- POT STA. 13+45.00

-Y2- PT Sta. 19+33.57
N 31° 02' 37.9" W

-Y1- PT Sta. 14+58.42
N 80° 29' 58.4" E

-Y2- PC Sta. 16+46.47

-Y2- N 23° 50' 20.7" E

-Y1- POT Sta. 15+60.17=
-Y2- POC Sta. 16+97.57

PT Sta. 10+59.85
S 58° 55' 22.1" W

PC Sta. 10+31.32

PC Sta. 19+88.98

POT Sta. 10+08.62
N 88° 23' 16.2" W

HOWARD J. CULBRETH & SHARON M. CULBRETH
DB 1626 PG 2045

HARRY CURTIS MILLER
DB 2248 PG 1588

REGINALD K. OSTWALP
DB 654 PG 103

STEPHEN B. HUBBARD
DB 1827 PG 1293

HWG TROUTMAN HWY 21LLC
DB 2048 PG 931

MOUNTAIN STATE INV. LLC
DB 1668 PG 1022

FULL THROTTLE INVESTMENTS, LLC
DB 2734 PG 1757

AT&T Corp.

TOWN OF TROUTMAN DI

LAT. BASE DITCH SEE DETAIL 'I'

SPEC. CUT BASE DITCH SEE DETAIL 'L' CL. B RIP-RAP EST. 5 TONS EST. 14 SY

SPEC. CUT DITCH SEE DETAIL 'B'

SPEC. CUT DITCH W/ RIP-RAP SEE DETAIL 'K'

CUT DITCH SEE DETAIL 'C'

DITCH BLOCK

GREU TL-3

2' RCP-III

0603

0602

0601

0604

0605

GRADE ONLY

REMOVE 12" CMP

TIE TO EXISTING +45.00

SPEC. CUT DITCH SEE DETAIL 'B'

CUT DITCH SEE DETAIL 'B'

CL. B RIP-RAP EST. 3 TONS EST. 10 SY

TV LINES ARE CUT AT POLE

100' TAPER

41 LF OF 6" WATER LINE (DI RJ, PC 350)

6" VALVE

2" BLOW OFF

6" DI RJ SLEEVE

MJ PLUG

MATCH LINE -Y2- STA. 26+50 SEE SHEET UC-4

NOTES:

1. PROPOSED WATER MAINS AND HYDRANT LEGS SHALL HAVE A MINIMUM OF 42-INCHES OF COVER.

2. PROPOSED WATER MAINS AND HYDRANT LEGS SHALL MEET THE REQUIREMENTS OF THE RULES GOVERNING PUBLIC WATER SYSTEMS AS FOLLOWS:

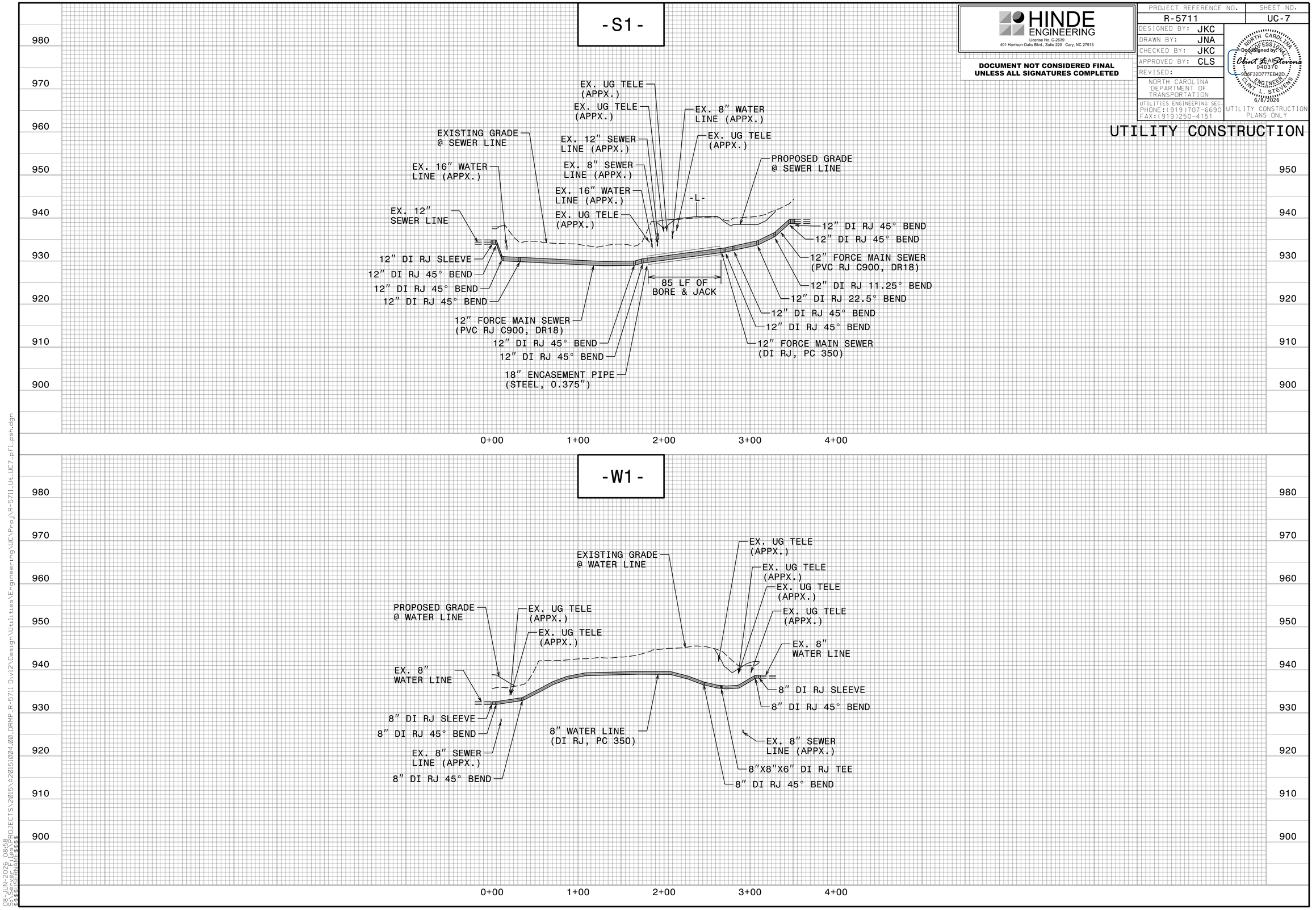
   A) MAINTAIN 12-INCHES OF VERTICAL SEPARATION BETWEEN WATER MAINS AND STORM SEWER PER RULE .0904.
   B) MAINTAIN 18-INCHES OF VERTICAL SEPARATION BETWEEN WATER MAINS AND SANITARY SEWER PER RULE .0906.

UTILITIES BEING RELOCATED OR INSTALLED AS SHOWN ON THE UTILITY CONSTRUCTION PLANS MUST BE ADJUSTED ACCORDINGLY TO MEET THESE CRITERIA.

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 90 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

22-SEP-2026 10:18
C:\PROJECTS\2015\A20151004.00.DRMP.R-5711.Div12\Design\Utilities\Engineering\UC\P-o\R-5711_Ut_06_UC06_psh.dgn
$$$$ ISFENOM $$$$

Docusign Envelope ID: 671305C4-37C1-86F0-83F1-E2D9BA5C329F



HINDE ENGINEERING
License No. C-2639
401 Harrison Oaks Blvd., Suite 220 Cary, NC 27513

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-5711	UC-7
DESIGNED BY: JKC	
DRAWN BY: JNA	
CHECKED BY: JKC	
APPROVED BY: CLS	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE:(919)707-6690
FAX:(919)250-4151

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040370 CLINT L STEVENS
Digitally signed by Clint L Stevens
9D8F32D777EB42D...
6/8/2026

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

08-JUN-2026 08:58
S:\Documents\PROJECTS\2015\A2015I004.00_DRMP_R-5711_Div12\Design\Utilities\Engineering\UC\Proj\R-5711_Ut_UC7_pfl_psh.dgn
$$$$USERNAME$$$$