

*SANDY CREEK DRIVE
CULVERT REPLACEMENT
for
CITY OF WILSON
Wilson County, North Carolina
November 2021*



MAYOR: CARLTON L. STEVENS

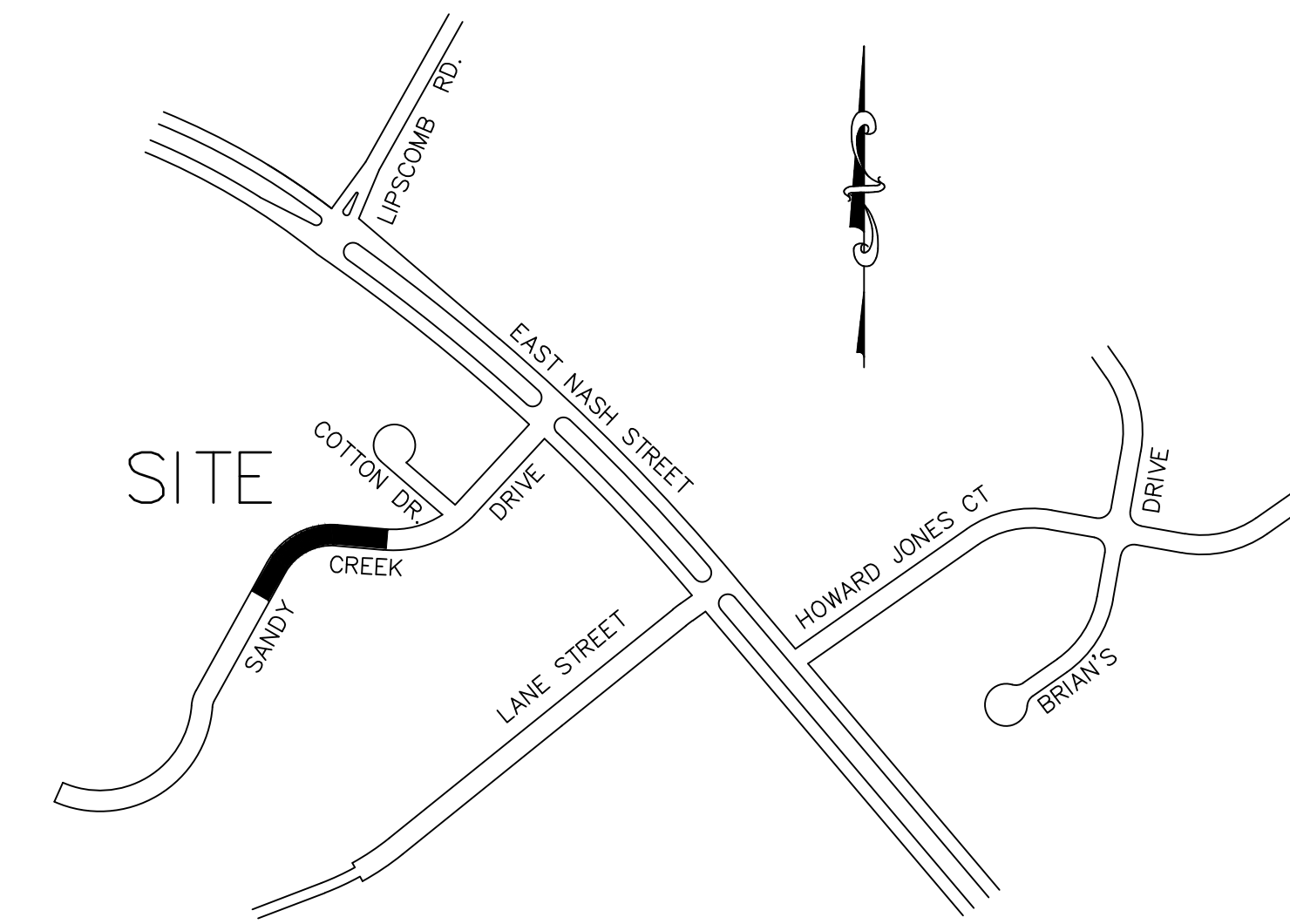
COUNCIL MEMBERS:

MICHAEL S. BELL
DEREK D. CREECH
DONALD I. EVANS
WILLIAM THOMAS "TOM" FYLE
JAMES M. JOHNSON, III
LOGAN T. LILES
GILLETTIA M. MORGAN

CITY MANAGER: GRANT W. GOINGS

PUBLIC WORKS DIRECTOR: W. T. (BILL) BASS IV, P.E.

STORMWATER SPECIALIST: NOAH PARSONS



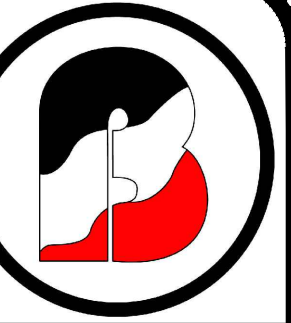
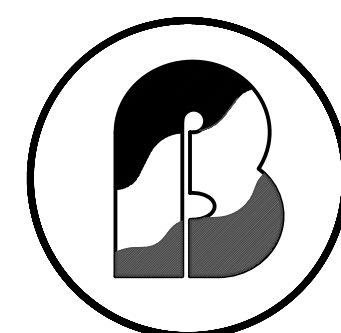
LOCATION MAP
NO SCALE

SHEET INDEX

CV	COVER SHEET
CP1	EXISTING CONDITIONS/DEMOLITION PLAN
CP2	OVERALL PROPOSED PLAN
CP3	PLAN & PROFILE
DT1	DETAILS

PREPARED BY:

BARTLETT ENGINEERING & SURVEYING, PC
1906 NASH STREET NORTH
WILSON, NORTH CAROLINA 27893-1726



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COVER SHEET

SANDY CREEK DRIVE
CULVERT REPLACEMENT
CITY OF WILSON
WILSON COUNTY

DATE:	OCTOBER 2021
SURVEY BY:	
DRAWN BY:	LR
CLIENT CODE:	WC
PROJECT:	21-235
CAD FILE:	21235SP2
SCALE:	NTS
REVISIONS	
ADDENDUM #2	11-18-2021

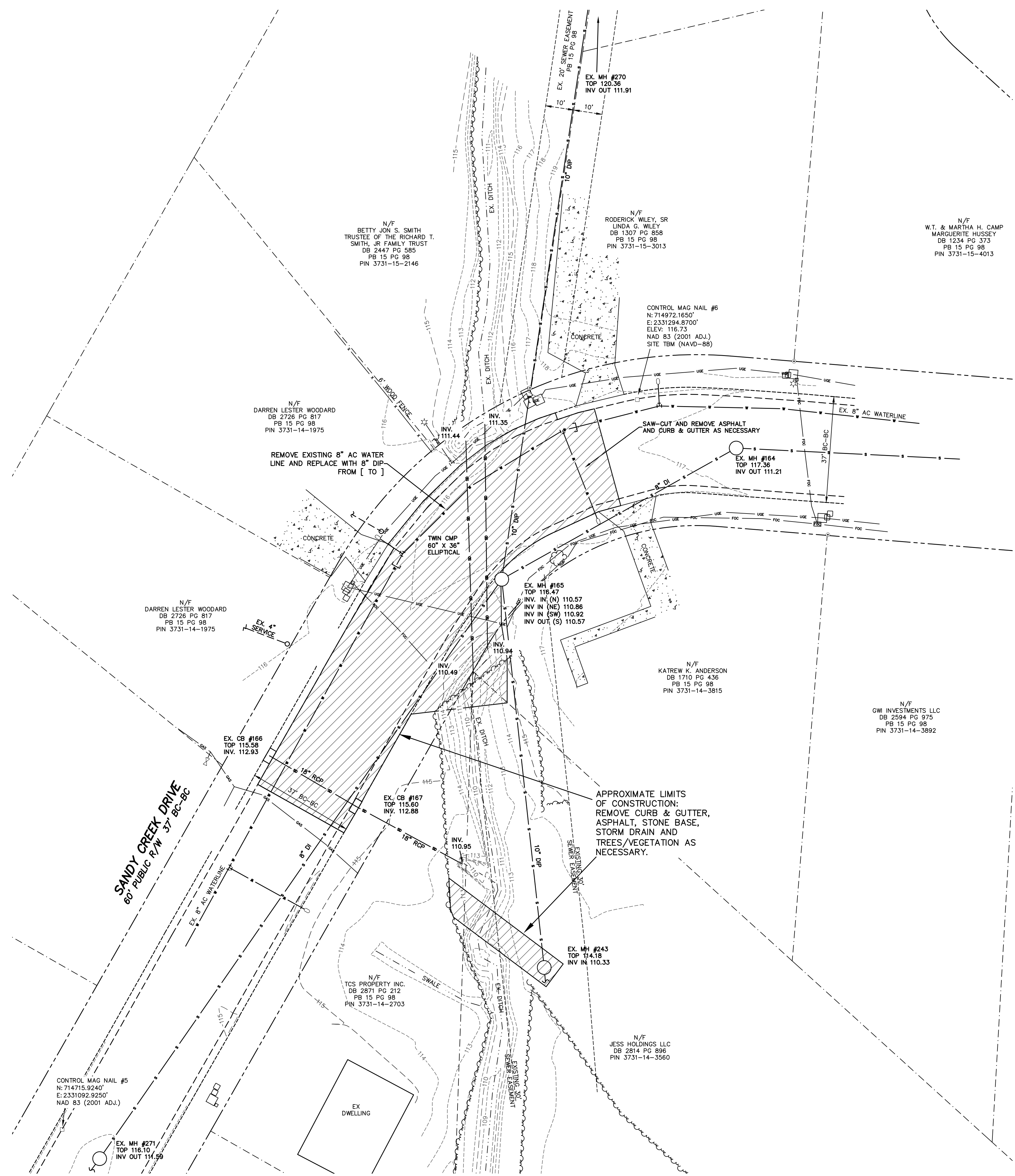
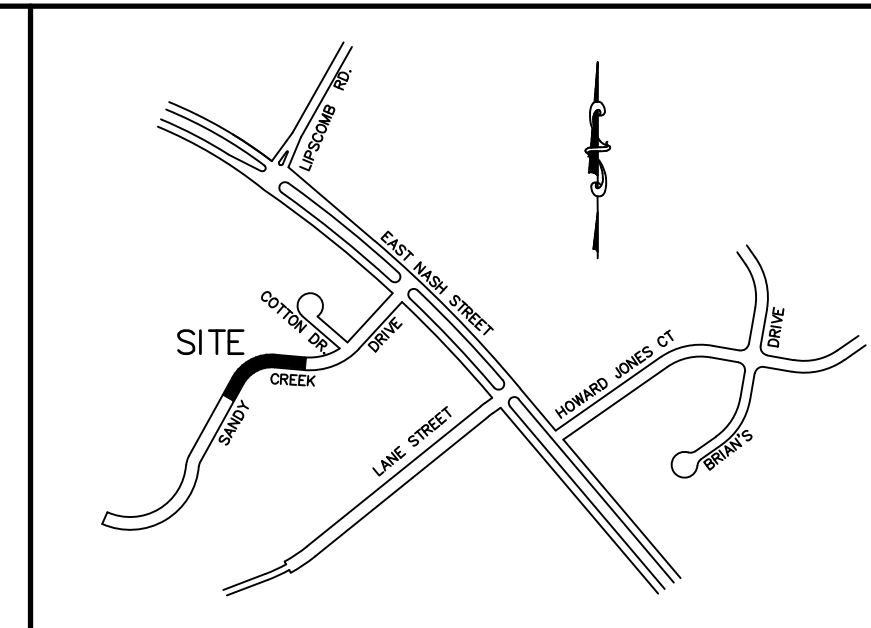
SHEET



- NOTES**
- AREAS COMPUTED BY COORDINATE CALCULATIONS.
 - NO GRID MONUMENT FOUND WITHIN 2000'.
 - ALL DISTANCES SHOWN ARE HORIZONTAL UNLESS NOTED OTHERWISE.
 - ALL RIGHTS-OF-WAY ARE PUBLIC UNLESS NOTED OTHERWISE.
 - WETLANDS, IF ANY, HAVE NOT BEEN DELINEATED.
 - A PORTION OF THIS PROPERTY IS LOCATED IN A SPECIAL FLOOD HAZARD AREA (SFHA - 100 YR. FLOOD) PANEL 3720373100K, EFFECTIVE ON 04/16/2013.
 - THIS PROPERTY IS NOT LOCATED IN A PROTECTED WATERSHED AREA.
 - THERE ARE NO CEMETERIES VISIBLE.
 - THIS PROPERTY IS SUBJECT TO ALL RIGHTS-OF-WAY, EASEMENTS, RESTRICTIVE COVENANTS AND ORDINANCES.
 - A TITLE REPORT HAS HAS NOT X BEEN SUPPLIED FOR THIS PROPERTY.
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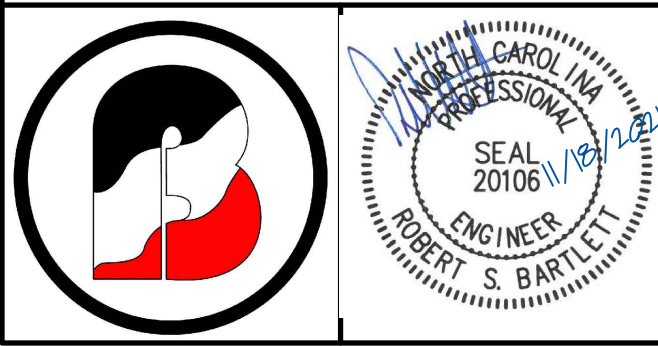
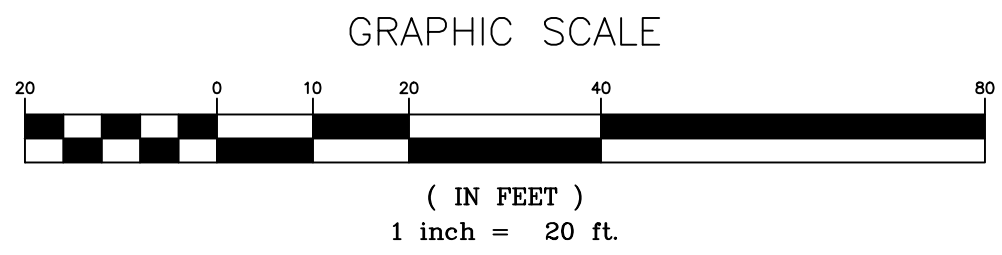
REFERENCES:

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DEED BOOK 2594	PAGE 975
PLAT BOOK 15	PAGE 98



- EXISTING CONDITIONS:**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL EXISTING JOB CONDITIONS. ANY ADVERSE CONDITIONS AFFECTING WORK SHOWN ON THESE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER FOR POSSIBLE CLARIFICATION OR RECONCILIATION.
- CONSTRUCTION SAFETY:**
- THESE DRAWINGS DO NOT CONTAIN THE REQUIREMENTS FOR JOB SAFETY. ALL PROVISIONS FOR SAFETY SHALL BE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- GENERAL NOTES:**
- WORK WITHIN THE NCDOT RIGHT-OF-WAY SHALL CONFORM TO NCDOT STANDARDS AND SPECIFICATIONS. CALL ONE CALL CENTER AT 1-800-632-4949 FOR LOCATIONS OF EXISTING UTILITIES PRIOR TO EXCAVATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL IN OR ADJACENT TO NCDOT OR CITY RIGHT-OF-WAY. ALL METHODS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.
- DEMOLITION NOTES:**
1. UNUSABLE EXCAVATED MATERIALS AND ALL WASTE RESULTING FROM DEMOLITION SHALL BE DISPOSED OF AT AN APPROVED PERMITTED OFF-SITE LOCATION BY CONTRACTOR.
 2. CONTRACTOR SHALL NOTIFY AND COOPERATE WITH ALL UTILITY COMPANIES OR FIRMS HAVING FACILITIES ON OR ADJACENT TO THE SITE BEFORE DISTURBING, ALTERING, REMOVING, RELOCATING, ADJUSTING OR CONNECTING TO SAID FACILITIES. CONTRACTOR SHALL RAISE OR LOWER TOPS OF EXISTING MANHOLES AS REQUIRED TO MATCH FINISHED GRADES.
 3. COORDINATE WITH THE LOCAL UTILITY PROVIDER FOR REMOVAL/RELOCATION OF EXISTING ELECTRICAL TRANSFORMERS AND/OR LIGHT POLES.
 4. SIDEWALK AND CURB & GUTTER TO BE REMOVED TO NEAREST JOINT OR SAW-CUT IN A MANNER SUCH THAT NO JOINT IS LESS THAN 5 FEET.
 5. ANY EXISTING CURB & GUTTER OR ASPHALT DAMAGED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

- LEGEND**
- IRON PIPE FOUND
 - ⊙ IRON REBAR FOUND
 - ⊕ EXISTING HYDRANT
 - ⊗ EXISTING WATER METER
 - ⊘ EXISTING WATER VALVE
 - ⊙ EXISTING UTILITY POLE
 - ⊙ EXISTING ELECTRIC BOX/TRANSFORMER
 - ⊙ EXISTING TELEPHONE PEDESTAL
 - ⊙ EXISTING CATCH BASIN
 - ⊙ EXISTING DROP INLET
 - ⊙ EXISTING SANITARY SEWER MANHOLE
 - ⊙ EXISTING GAS VALVE
- LINE LEGEND & ABBREVIATIONS**
- GAS — EXISTING GAS LINE (APPROX. LOCATION)
 - DHE — EXISTING UNDERGROUND ELECTRIC (APPROX. LOCATION)
 - W — EXISTING WATER LINE (APPROX. LOCATION)
 - SD — EXISTING STORM DRAIN LINE (APPROX. LOCATION)
 - S — EXISTING SANITARY SEWER LINE (APPROX. LOCATION)
 - - - EXISTING RIGHT-OF-WAY LINE (APPROX. LOCATION)
 - FOC — EXISTING FIBER OPTIC CABLE LINE (APPROX. LOCATION)



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EXISTING CONDITIONS & DEMOLITION PLAN

SANDY CREEK DRIVE
— CULVERT REPLACEMENT —

DATE: OCTOBER 2021
SCALE(HORZ): 1" = 20'
SCALE(VERT): N/A

PROJECT: 21-235
CLIENT CODE: WC
CADFILE: 21235SP2
FIELD BOOK: 371
DRAWN BY: TRB/LR
SURVEY BY: JEB/JLB

REVISIONS: ADDENDUM #2 11-18-2021

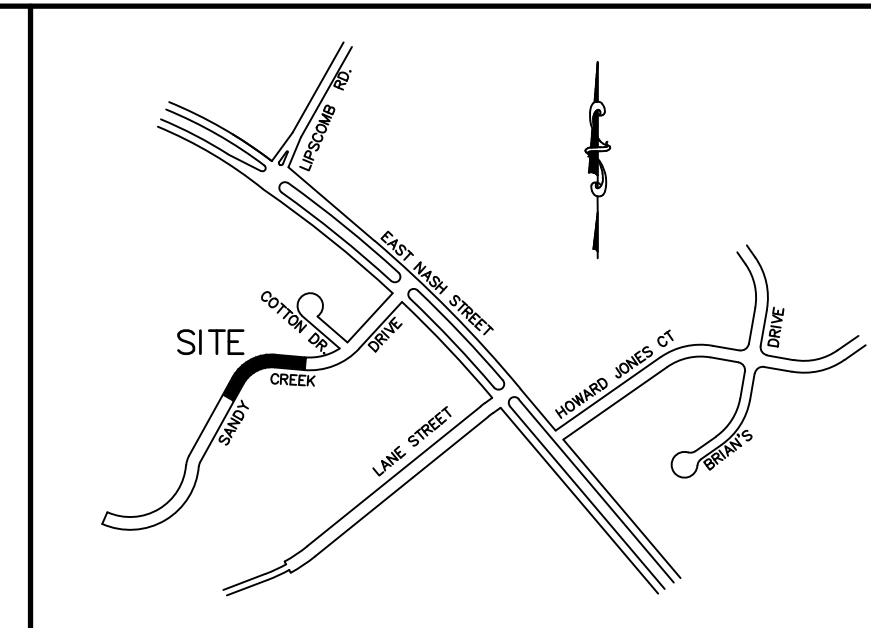
CITY OF WILSON	WILSON COUNTY
NORTH CAROLINA	ZONE:
PIN #	SHEET CP1

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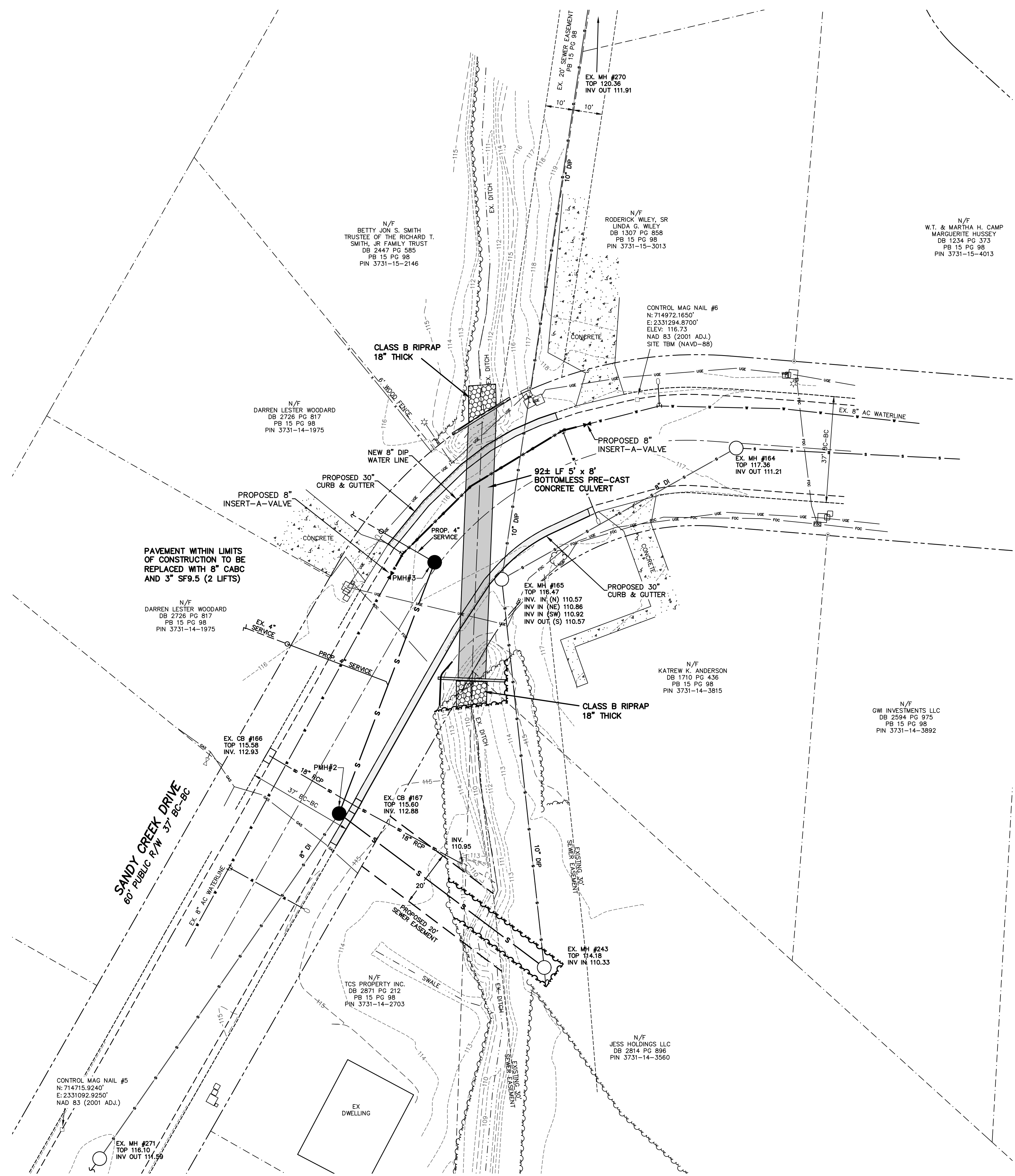
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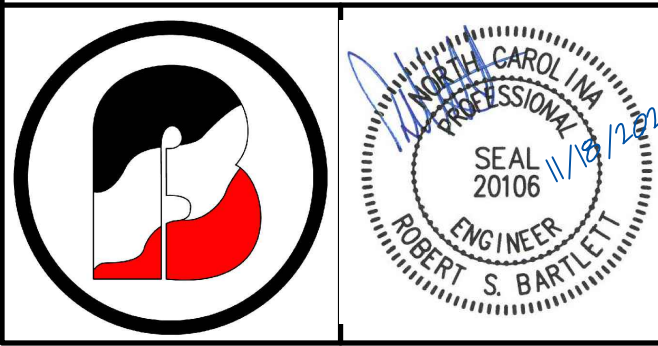
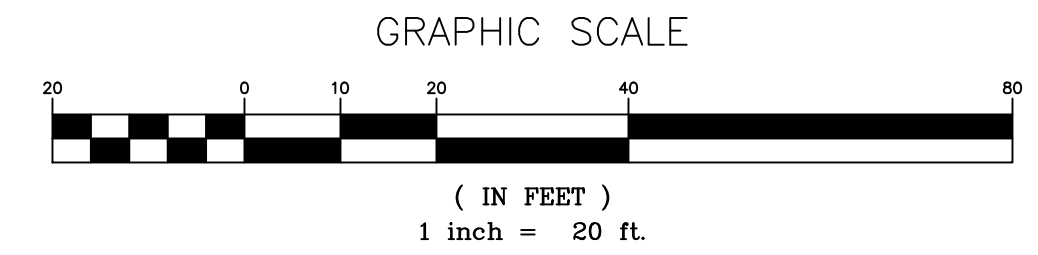


LOCATION MAP
NOT TO SCALE



- NOTES:**
- ALL WORK TO BE DONE IN ACCORDANCE WITH CITY OF WILSON STANDARDS & SPECIFICATIONS.
 - INLET PROTECTION TO BE UTILIZED AT ALL STRUCTURES AND PIPE INLETS UNDER CONSTRUCTION.
 - WING WALLS TO BE PRECAST BY CULVERT SUPPLIER, OR CAST-IN-PLACE PER NCDOT STANDARDS.

- LEGEND**
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 - ⊕ IRON REBAR FOUND
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 - ⊙ EXISTING WATER METER
 - ⊙ EXISTING WATER VALVE
 - ⊙ EXISTING UTILITY POLE
 - ⊙ EXISTING ELECTRIC BOX/TRANSFORMER
 - ⊙ EXISTING TELEPHONE PEDESTAL
 - ⊙ EXISTING CATCH BASIN
 - ⊙ EXISTING DROP INLET
 - ⊙ EXISTING SANITARY SEWER MANHOLE
 - PROPOSED SANITARY SEWER MANHOLE
- LINE LEGEND & ABBREVIATIONS**
- GAS — EXISTING GAS LINE (APPROX. LOCATION)
 - SHE — EXISTING UNDERGROUND ELECTRIC (APPROX. LOCATION)
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 - — EXISTING RIGHT-OF-WAY LINE (APPROX. LOCATION)
 - FOC — EXISTING FIBER OPTIC CABLE LINE (APPROX. LOCATION)
 - — EXISTING TREE LINE
 - — PROPOSED TREE LINE
 - S — PROPOSED SANITARY SEWER LINE



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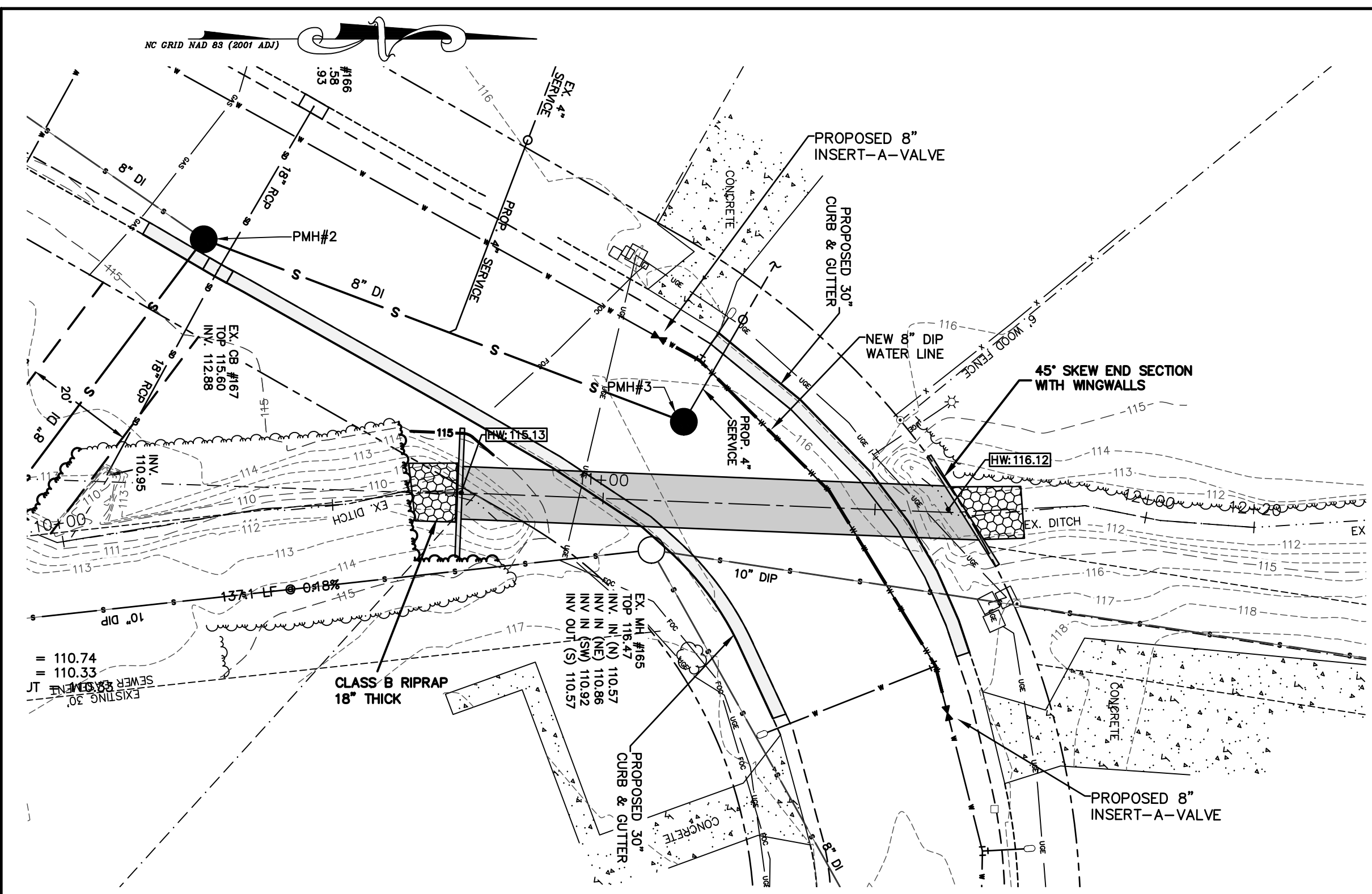
PROPOSED PLAN

SANDY CREEK DRIVE
— CULVERT REPLACEMENT —

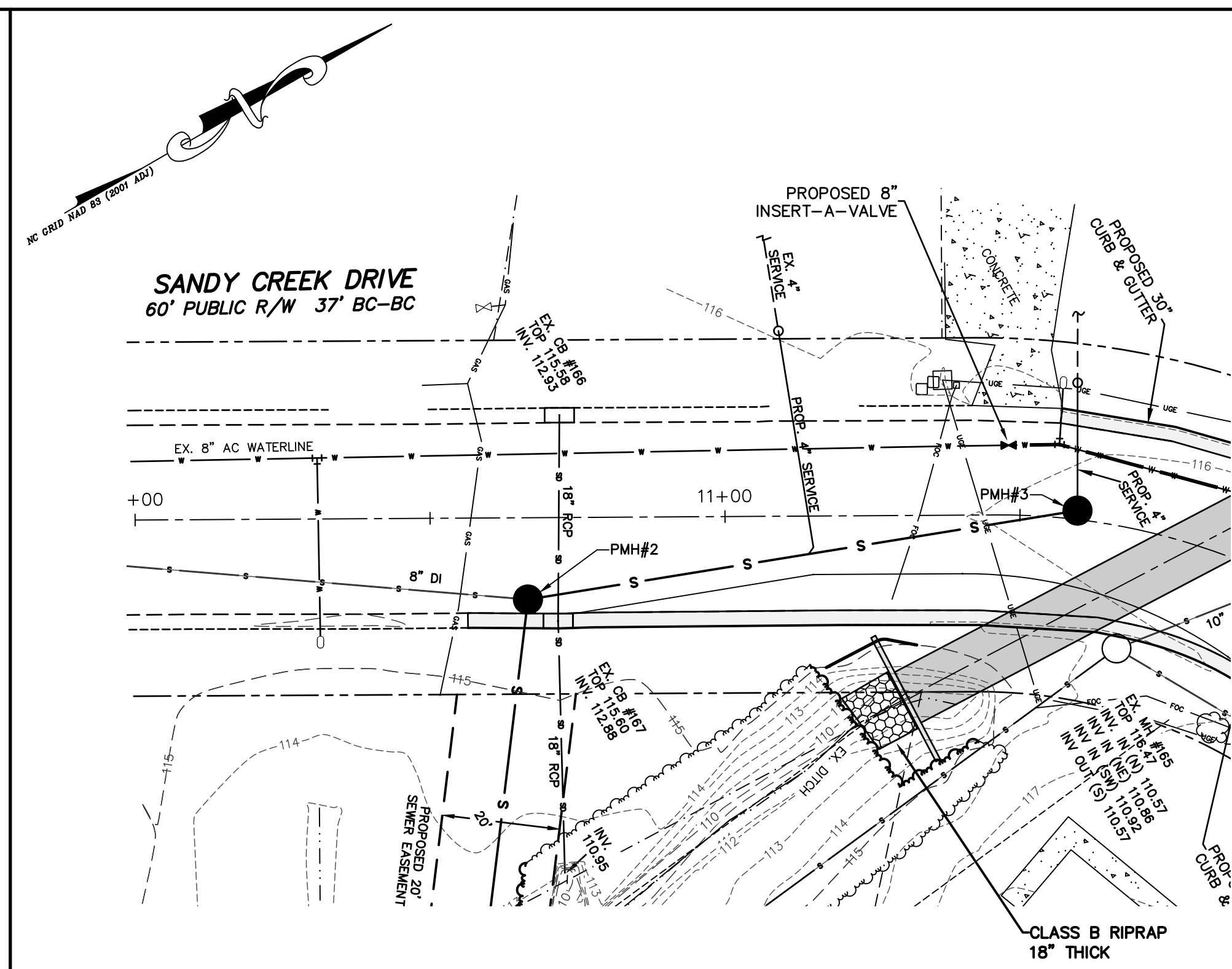
DATE: OCTOBER 2021	PROJECT: 21-235
SCALE(HORZ): 1" = 20'	CLIENT CODE: WC
SCALE(VERT): N/A	CADFILE: 21235SP2
	FIELD BOOK: 371
	DRAWN BY: TRB/LR
	SURVEY BY: JEB/JLB
REVISIONS: ADDENDUM #2 11-18-2021	

CITY OF WILSON	WILSON COUNTY
NORTH CAROLINA	ZONE:
PIN #	SHEET CP2

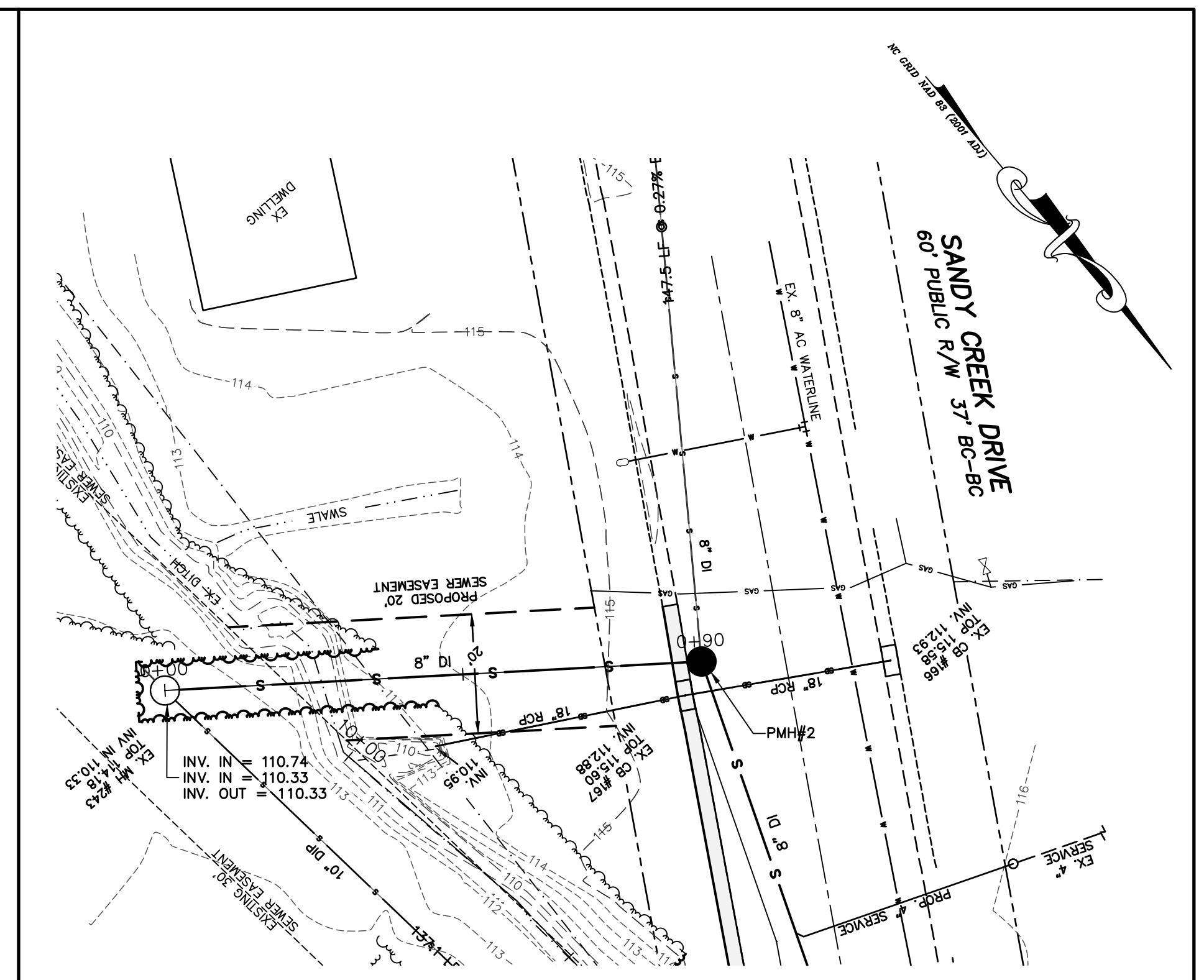
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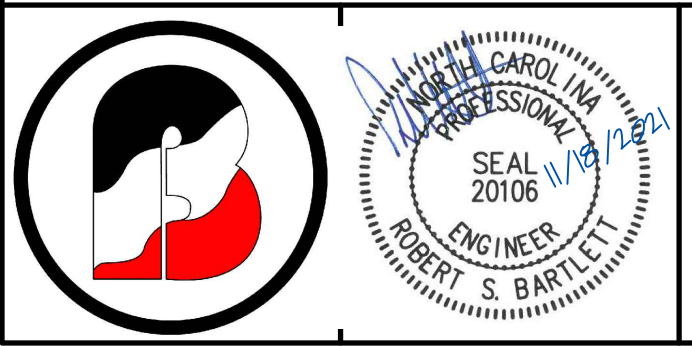
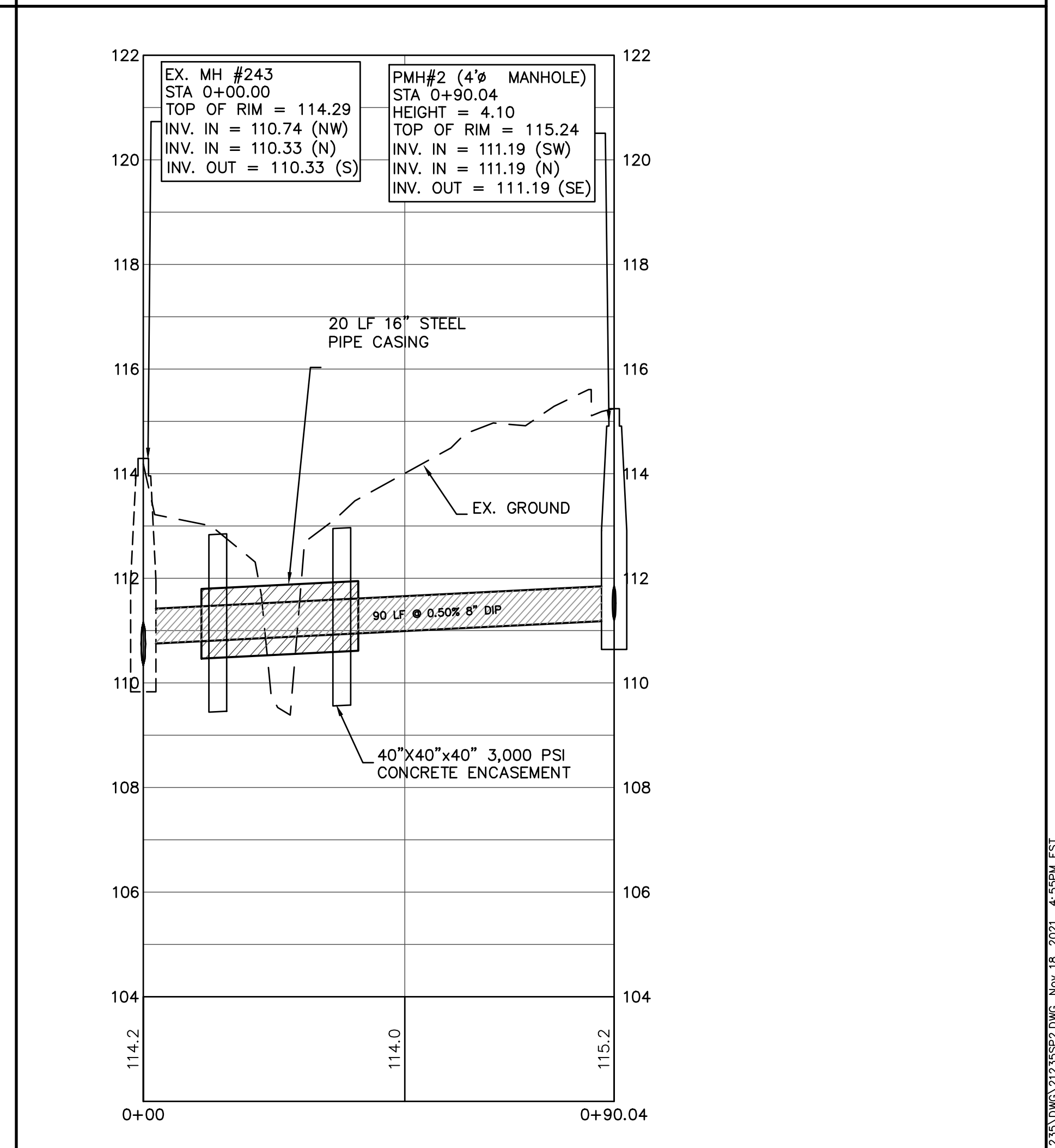
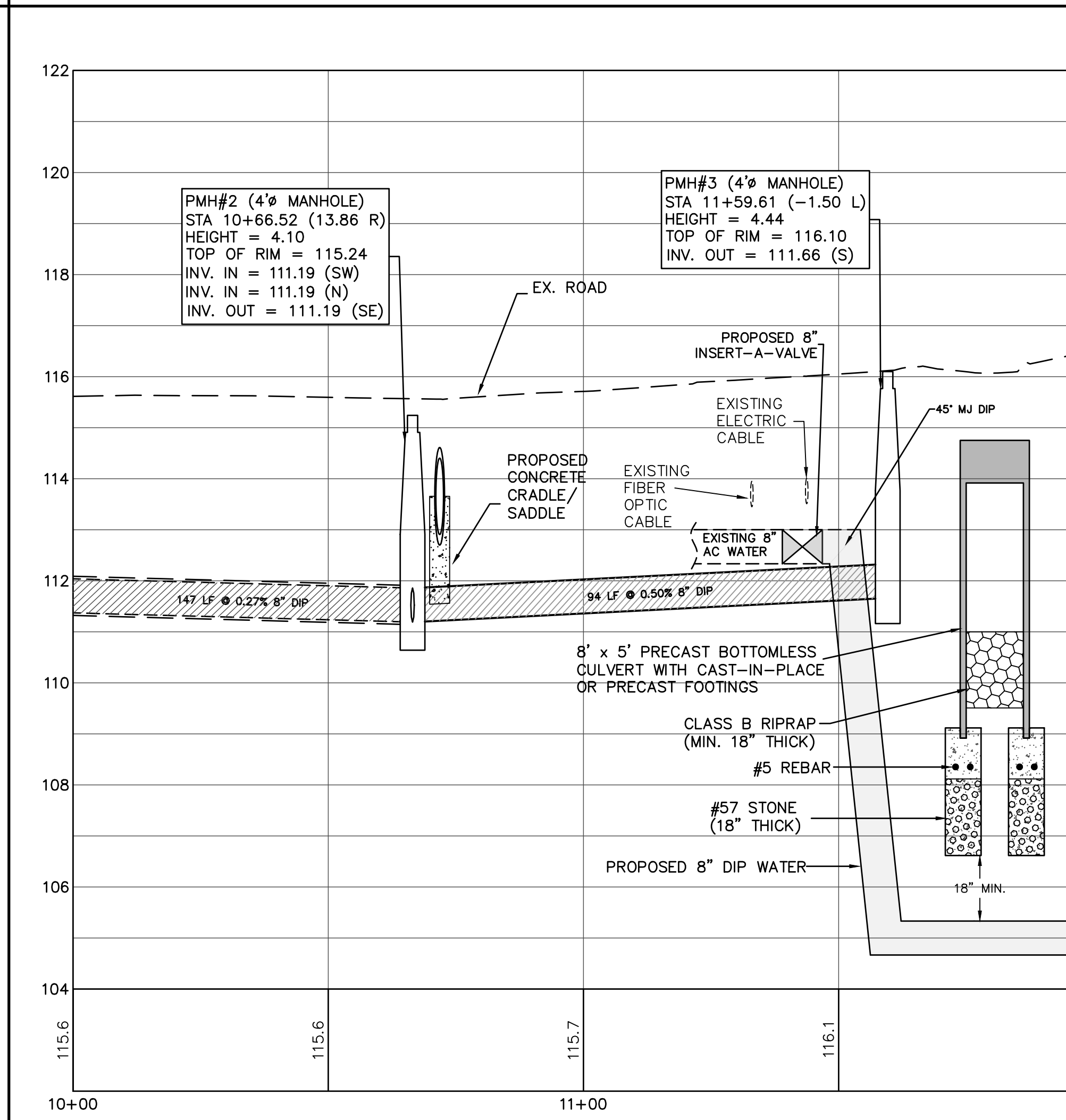
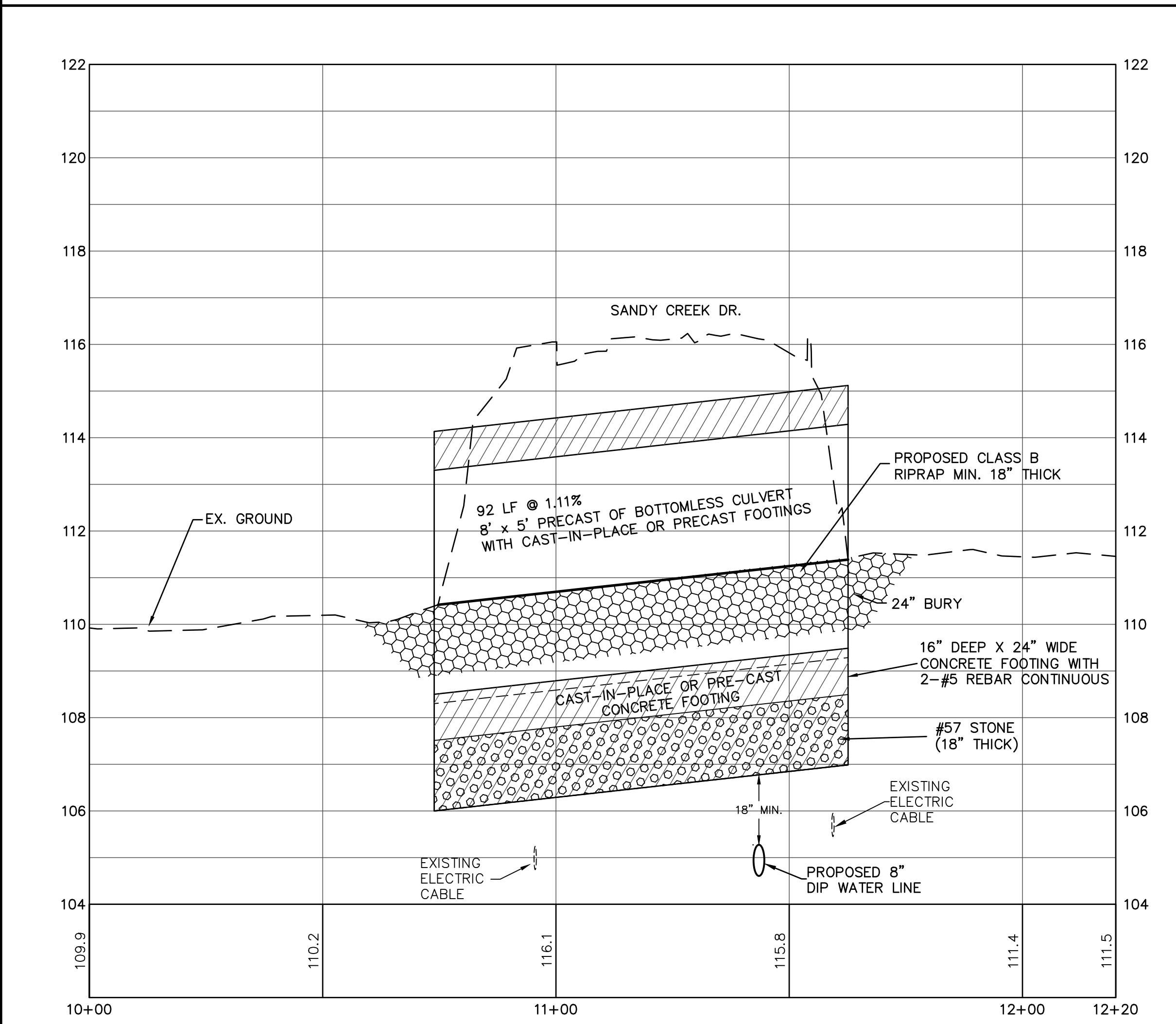
**STORM DRAINAGE
PLAN VIEW -L1-**



**SANDY CREEK DRIVE
PLAN VIEW**



**SANITARY SEWER OUTFALL
PLAN VIEW**



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PLAN & PROFILE

SANDY CREEK DRIVE
- CULVERT REPLACEMENT -

DATE: OCTOBER 2021
SCALE(HORZ): 1" = 20'
SCALE(VERT): 1" = 2'
REVISIONS: ADDENDUM #2 11-18-2021

PROJECT: 21-235
CLIENT CODE: WC
CADFILE: 21235SP2
FIELD BOOK: 371
DRAWN BY: TRB/LR
SURVEY BY: JEB/JLB
CITY OF WILSON
NORTH CAROLINA
WILSON COUNTY
ZONE:
PIN # SHEET CP3

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Details Provided by APRIAN Consulting Engineers - www.aprianengineers.com

03/05/2020 - 12:00:38 PM Details Provided by APRIAN Consulting Engineers - www.aprianengineers.com

05/06/2010 - 1:00:18 PM Details Provided by APRIAN Consulting Engineers - www.aprianengineers.com

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05/06/2010 - 1:00:18 PM Details Provided by APRIAN Consulting Engineers - www.aprianengineers.com

STREET APPLICATION

FIELD + WOODS APPLICATION

END SEAL DETAIL

SECTION A-A

TYPICAL DETAIL for BORE UNDER PAVED ROADS / HIGHWAYS

NOTES:

- Concrete strength to be 4,000 PSI minimum.
- Pipes will be grouted inside and out.
- Flexible sleeve boots cast in place or installed with stainless steel expander rings. Boots to meet ASTM C-923 standards.
- See detail 732.01 for typical invert shaping.
- Service laterals into existing manholes to be core drilled and booted.
- Maximum depth 4" diameter manhole = 12" (see sewer design section for other requirements / limitations).
- If height above grade exceeds 24", use eccentric flat top.
- For watertight applications, place butyl rubber between frame and cone.
- All bonded connections shall be double banded. For pipe connections 12" and larger, 2 sets of bands shall be required.
- Lubricate the following: Pipe exterior, boot interior, boot exterior, S.S. bands (Top & bottom).
- Place manhole opening over the effluent line.
- Manholes subject to flooding shall have the top of the manhole rim a minimum of 24" above the 100 Yr. BFE unless approved otherwise by the City Engineer or Water Resources. When vents are permitted, vent every 3rd manhole, not exceeding 1,000 LF between vents. Vents shall be placed a minimum of 24" above the 100 Yr. BFE. See detail 732.10.
- Outfall manholes, regardless of manhole top elevation, shall be vented.

CITY of WILSON, N.C.

CONCRETE CURB, GUTTER AND CURB WITH GUTTER

STANDARD ECCENTRIC CONE PRECAST MANHOLE DETAIL

STANDARD ECCENTRIC CONE PRECAST MANHOLE DETAIL

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CITY of WILSON, N.C.

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STANDARD ECCENTRIC CONE PRECAST MANHOLE DETAIL

STANDARD ASPHALT PAVING DETAIL
NO SCALE

HEAVY-DUTY PAVING DETAIL
NO SCALE

CONCRETE PAVING DETAIL
NO SCALE

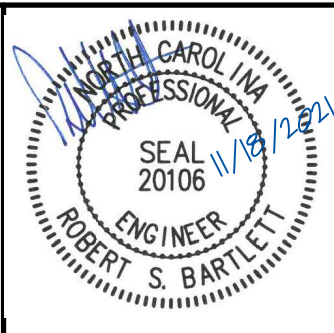
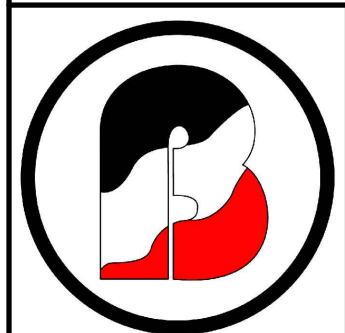
CONCRETE CRADLE PROTECTION FOR SEWER LINE CROSSINGS

AERIAL DITCH CROSSING (STEEL ENCASEMENT)

NOTES:

- CARRIER PIPE: MECHANICAL JOINT DIP
- PIPE SUPPORT ASSEMBLY: MINIMUM 3 SPIDER ASSEMBLY PER STANDARD PIPE LENGTH.
- GREASE ENCASEMENT PIPE AS REQUIRED FOR EASE OF INSTALLATION.
- SEE TABLE FOR CASING PIPE SIZE.
- STEEL PIPE TO BE 35,000 PSI MIN. YIELD STRENGTH, GRADE B.

CARRIER PIPE DIAMETER	CASING PIPE DIAMETER
6 & UNDER	12
8	16
10	20
12	24



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