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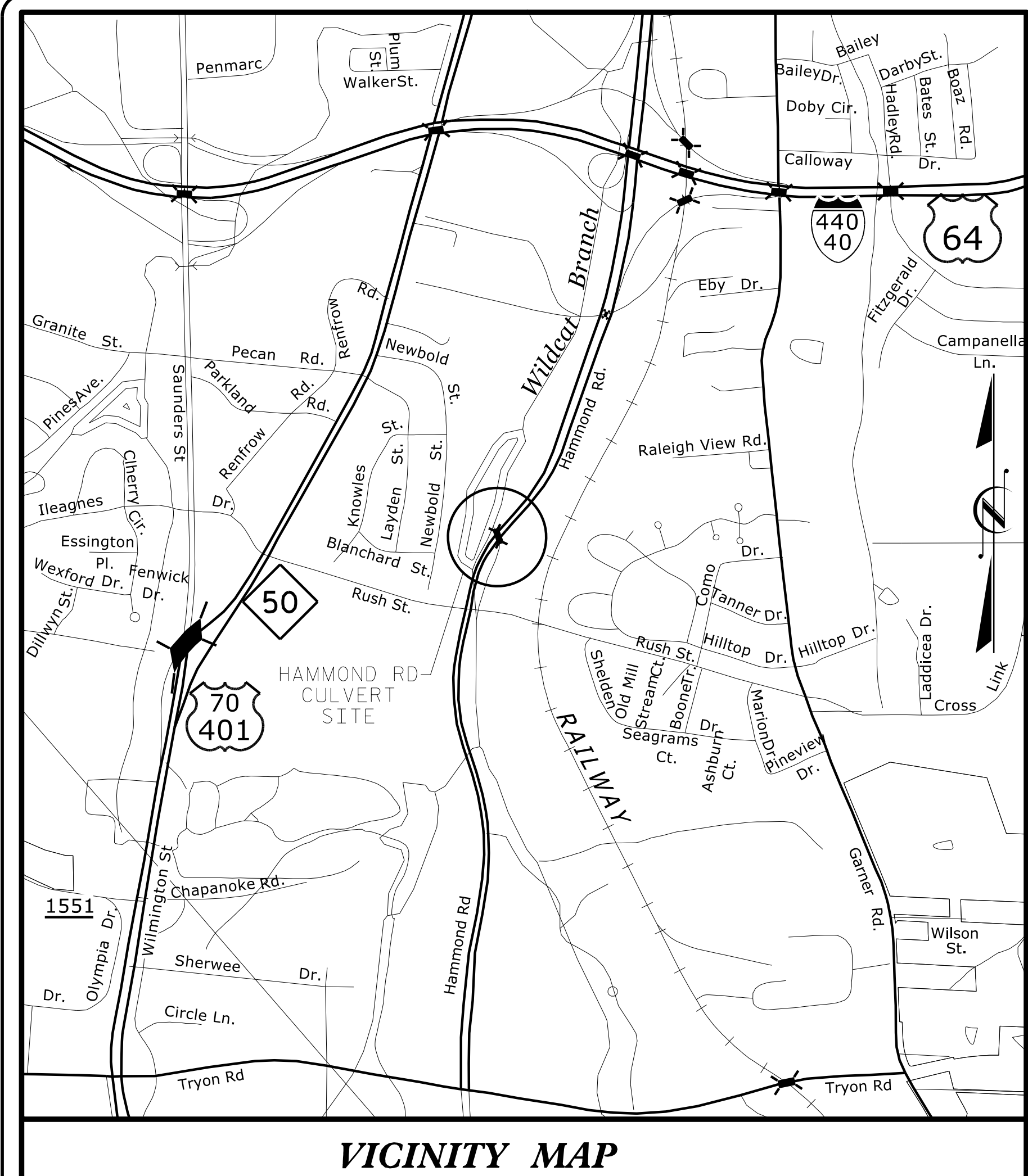
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09.05/2019

**PROJECT: 5B.209214.8**

**CONTRACT: ME00027**



**VICINITY MAP**

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
**WAKE COUNTY**

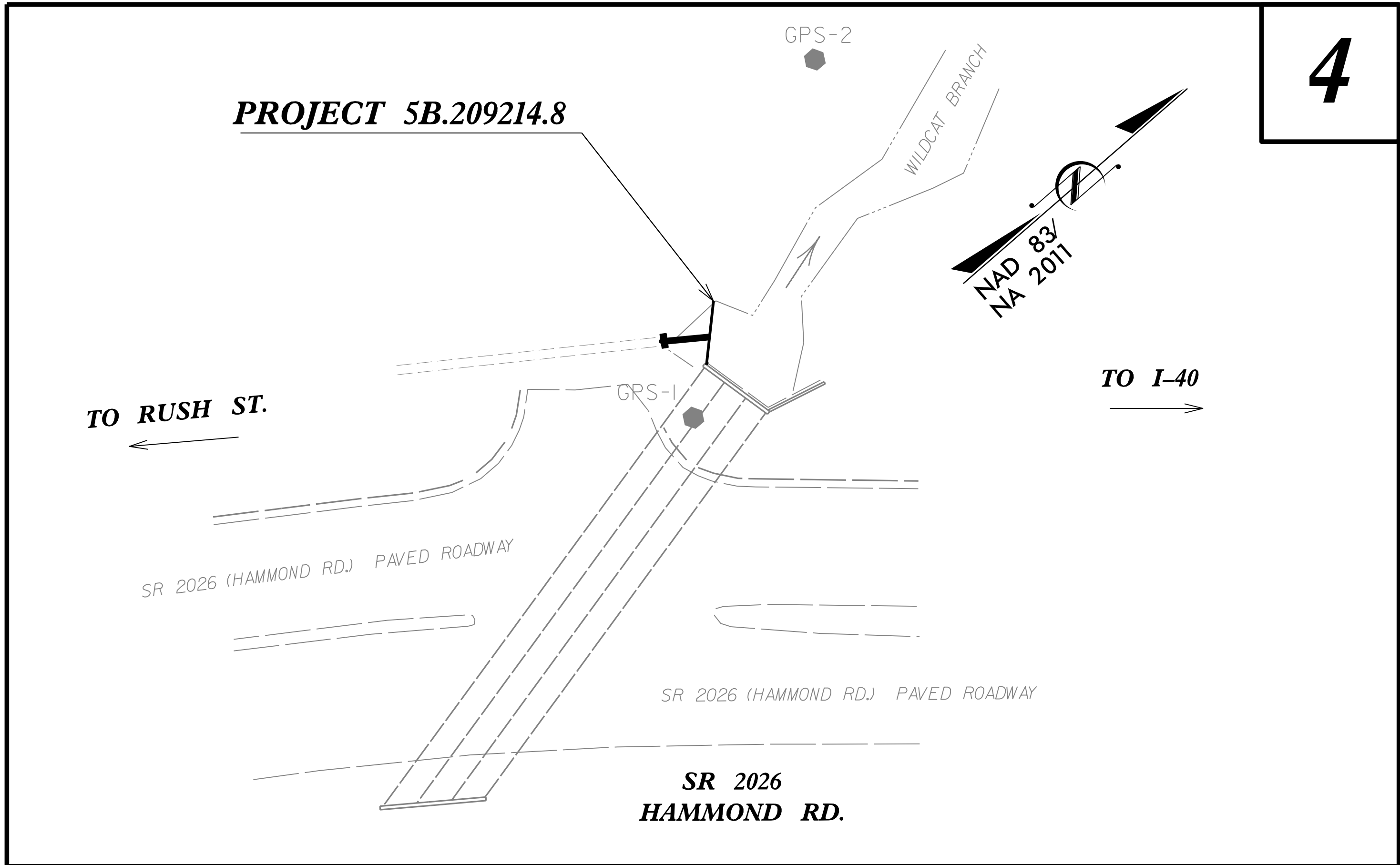
**LOCATION: CULVERT CROSSING ON SR 206 (HAMMOND ROAD)**  
**TYPE OF WORK: CULVERT REPAIR AND DRAINAGE**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	5B.209214.8	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
5B.209214.8		PE, UTIL., RW	
5B.209214.8		CONST.	

**WETHERILL ENGINEERING**  
1223 Jones Franklin Rd.  
Raleigh, N.C. 27606  
License No. F-0377  
Bus: 919 851 8077  
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

**FINAL PLANS**

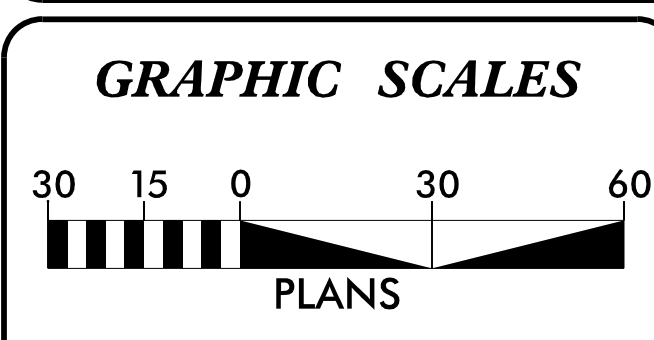


**4**

**INDEX OF SHEETS**

SHEET NUMBER	SHEET
1	TITLE SHEET
1-B	CONVENTIONAL SYMBOLS
3B-1	EARTHWORK AND DRAINAGE SUMMARIES
4	PLAN SHEET
5	PROFILE AND DETAILS
TMP-1	TRANSPORTATION MANAGEMENT PLAN
EC-1 THRU EC-5	EROSION CONTROL TITLE SHEET, SOIL STABILIZATION TIME FRAMES, PUMP AROUND DETAIL AND PLAN SHEET
S-1 THRU S-4	STRUCTURE PLANS

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



**PROJECT LENGTH**

LENGTH ROADWAY PROJECT 5B.209214.8 =	0.000 MILES
LENGTH STRUCTURE PROJECT 5B.209214.8 =	0.000 MILES
<b>TOTAL LENGTH PROJECT 5B.209214.8 =</b>	<b>0.000 MILES</b>

**NCDOT CONTACT:** SHAWN DUCKWORTH  
DIVISION BRIDGE MAINTENANCE ENGINEER

Prepared for:  
**DIVISION OF HIGHWAYS**  
**DIVISION FIVE**  
2612 N. Duke Street, Durham NC, 27704

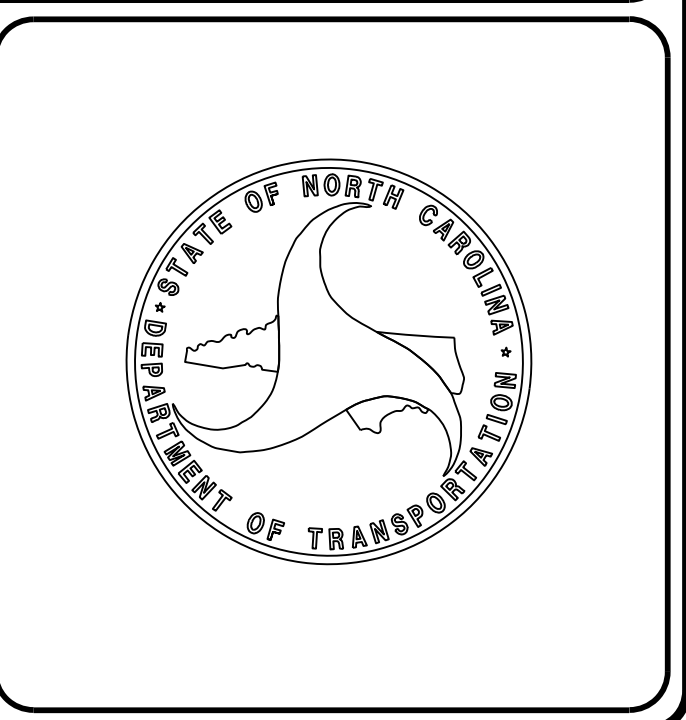
2018 STANDARD SPECIFICATIONS

**RIGHT OF WAY DATE:** EDWARD G. WETHERILL, PE  
PROJECT ENGINEER

**LETTING DATE:** SEPTEMBER 27, 2023  
R.K. MURPHY, JR., PE  
PROJECT DESIGN ENGINEER

**HYDRAULICS ENGINEER**  
8/2/2023  
SEAL 15833  
JERRY L. LINDSEY  
SIGNATURE: *Jerry L. Lindsey* P.E.

**ROADWAY DESIGN ENGINEER**  
8/2/2023  
SEAL 018981  
R.K. MURPHY, JR.  
SIGNATURE: *R.K. Murphy Jr.* P.E.



# STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

## BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin (EIP)	○
Computed Property Corner	×
Existing Concrete Monument (ECM)	□
Parcel/Sequence Number	(123)
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	-WLB-
Proposed Wetland Boundary	-WLB-
Existing Endangered Animal Boundary	-EAB-
Existing Endangered Plant Boundary	-EPB-
Existing Historic Property Boundary	-HPB-
Known Contamination Area: Soil	-S-S-S-
Potential Contamination Area: Soil	-S-S-S-
Known Contamination Area: Water	-W-W-W-
Potential Contamination Area: Water	-W-W-W-
Contaminated Site: Known or Potential	☠ ☡

## BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○
Well	○
Small Mine	×
Foundation	□
Area Outline	□
Cemetery	□
Building	□
School	□
Church	□
Dam	□

## HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	□
Jurisdictional Stream	-JS-
Buffer Zone 1	-BZ 1-
Buffer Zone 2	-BZ 2-
Flow Arrow	←
Disappearing Stream	→
Spring	○
Wetland	↓
Proposed Lateral, Tail, Head Ditch	→
False Sump	▽

## RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○
Switch	□
RR Abandoned	-----
RR Dismantled	-----

## RIGHT OF WAY & PROJECT CONTROL:

Primary Horiz Control Point	○
Primary Horiz and Vert Control Point	●
Secondary Horiz and Vert Control Point	◆
Vertical Benchmark	⊕
Existing Right of Way Monument	△
Proposed Right of Way Monument (Rebar and Cap)	▲
Proposed Right of Way Monument (Concrete)	⊕
Existing Permanent Easement Monument	◇
Proposed Permanent Easement Monument (Rebar and Cap)	◆
Existing C/A Monument	△
Proposed C/A Monument (Rebar and Cap)	▲
Proposed C/A Monument (Concrete)	⊕
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Existing Control of Access Line	-----
Proposed Control of Access Line	-----
Proposed ROW and CA Line	-----
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage/Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----

## ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-C-
Proposed Slope Stakes Fill	-F-
Proposed Curb Ramp	○
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	-----
VEGETATION:	
Single Tree	○
Single Shrub	○
Hedge	-----

Woods Line	-----
Orchard	-----
Vineyard	-----

## EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	-----
Bridge Wing Wall, Head Wall and End Wall	-----
MINOR:	
Head and End Wall	-----
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	-----
Paved Ditch Gutter	-----
Storm Sewer Manhole	○
Storm Sewer	-----

## UTILITIES:

\* SUE - Subsurface Utility Engineering  
LOS - Level of Service - A,B,C or D (Accuracy)

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	○
Power Line Tower	□
Power Transformer	□
U/G Power Cable Hand Hole	□
H-Frame Pole	●
U/G Power Line Test Hole (SUE - LOS A)*	⊕
U/G Power Line (SUE - LOS B)*	-----
U/G Power Line (SUE - LOS C)*	-----
U/G Power Line (SUE - LOS D)*	-----

## TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	○
Telephone Pedestal	□
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	□
U/G Telephone Test Hole (SUE - LOS A)*	⊕
U/G Telephone Cable (SUE - LOS B)*	-----
U/G Telephone Cable (SUE - LOS C)*	-----
U/G Telephone Cable (SUE - LOS D)*	-----
U/G Telephone Conduit (SUE - LOS B)*	-----
U/G Telephone Conduit (SUE - LOS C)*	-----
U/G Telephone Conduit (SUE - LOS D)*	-----
U/G Fiber Optics Cable (SUE - LOS B)*	-----
U/G Fiber Optics Cable (SUE - LOS C)*	-----
U/G Fiber Optics Cable (SUE - LOS D)*	-----

## WATER:

Water Manhole	○
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line Test Hole (SUE - LOS A)*	⊕
U/G Water Line (SUE - LOS B)*	-----
U/G Water Line (SUE - LOS C)*	-----
U/G Water Line (SUE - LOS D)*	-----
Above Ground Water Line	-----

## TV:

TV Pedestal	□
TV Tower	⊗
U/G TV Cable Hand Hole	□
U/G TV Test Hole (SUE - LOS A)*	⊕
U/G TV Cable (SUE - LOS B)*	-----
U/G TV Cable (SUE - LOS C)*	-----
U/G TV Cable (SUE - LOS D)*	-----
U/G Fiber Optic Cable (SUE - LOS B)*	-----
U/G Fiber Optic Cable (SUE - LOS C)*	-----
U/G Fiber Optic Cable (SUE - LOS D)*	-----

## GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line Test Hole (SUE - LOS A)*	⊕
U/G Gas Line (SUE - LOS B)*	-----
U/G Gas Line (SUE - LOS C)*	-----
U/G Gas Line (SUE - LOS D)*	-----
Above Ground Gas Line	-----

## SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
SS Force Main Line Test Hole (SUE - LOS A)*	⊕
SS Force Main Line (SUE - LOS B)*	-----
SS Force Main Line (SUE - LOS C)*	-----
SS Force Main Line (SUE - LOS D)*	-----

## MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	□
Utility Unknown U/G Line (SUE - LOS B)*	-----
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	□
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.





8/17/23



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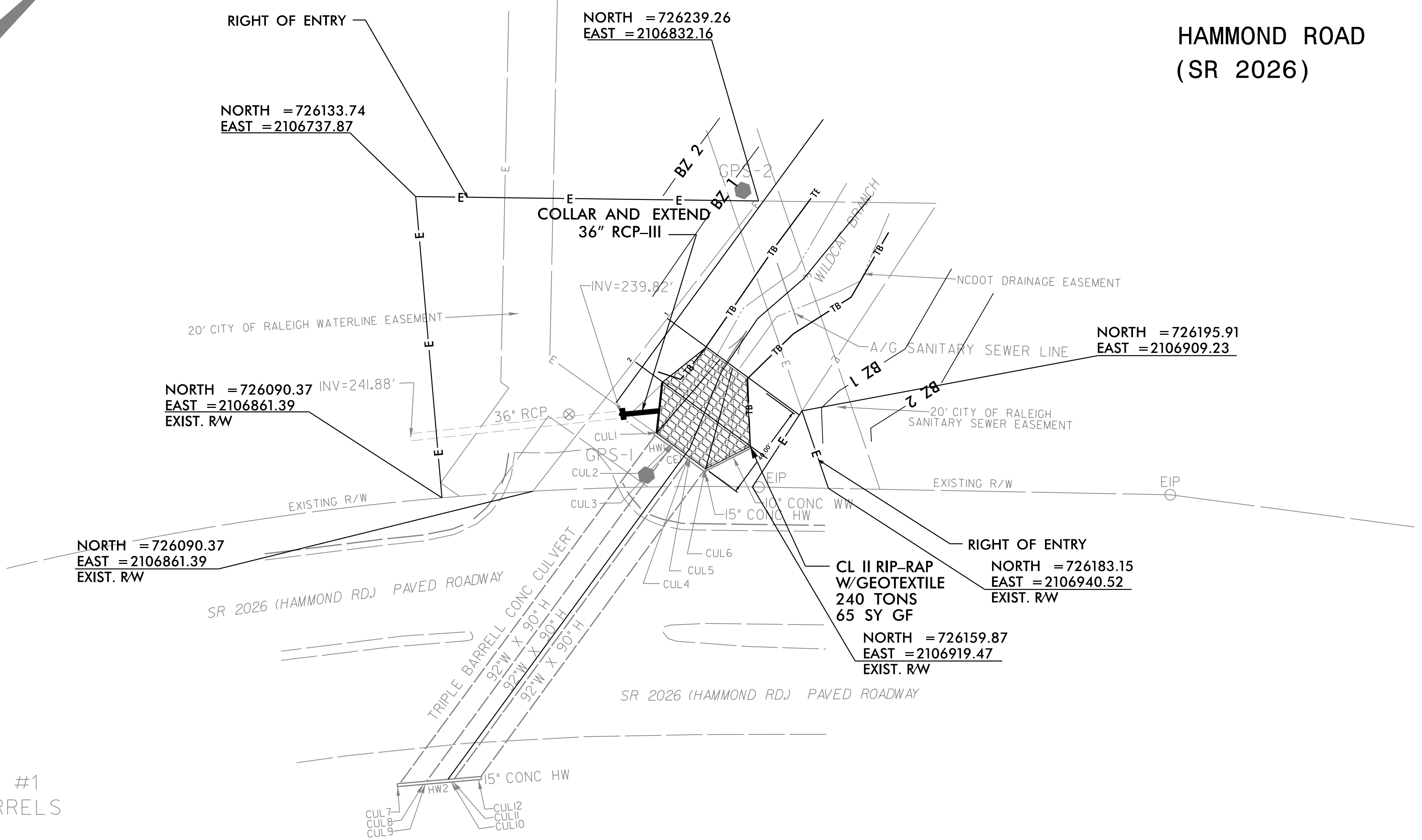
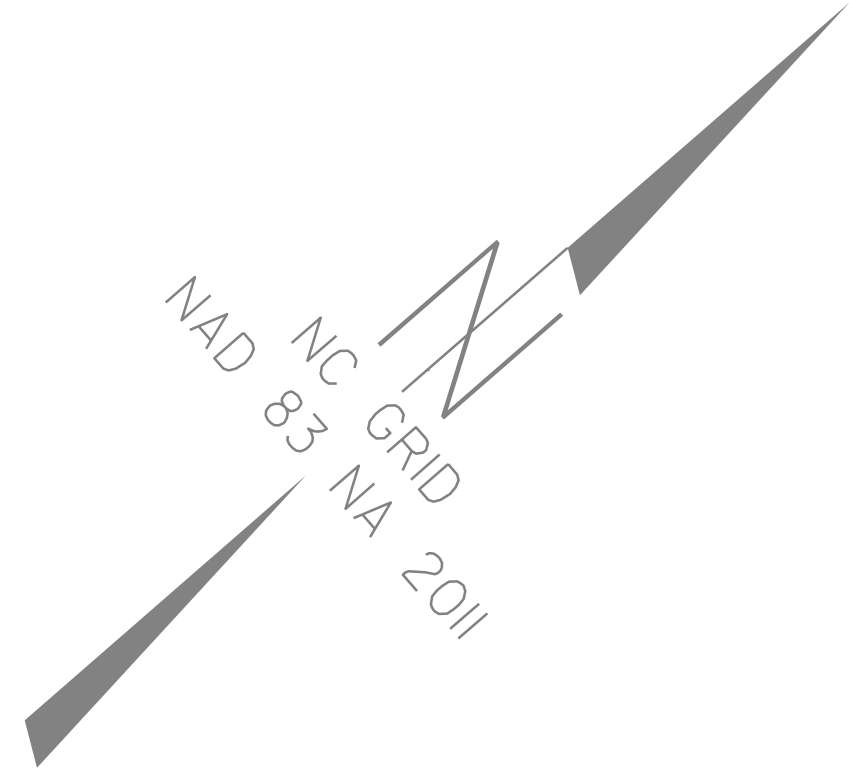
PROJECT REFERENCE NO. <b>5B.209214.8</b>	SHEET NO. <b>4</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 8/2/2023	HYDRAULICS ENGINEER 8/2/2023
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
 CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

**HAMMOND ROAD  
 (SR 2026)**

SCALE 1" = 30'

①  
 CH-AFH I/RALEIGH DOWNTOWN SOUTH LLC  
 DB 19135 PG 2228  
 PB 2022 PG 1304



CULVERT #1  
 THREE BARRELS

	NORTH	EAST	ELEV.
CUL1	726144.64	2106876.81	239.04
CUL2	726146.24	2106884.27	239.07
CUL3	726146.51	2106885.21	239.09
CUL4	726148.25	2106892.71	239.11
CUL5	726148.54	2106893.62	239.11
CUL6	726150.14	2106901.16	239.16
CE1	726147.43	2106889.57	246.62
HW1	726147.42	2106889.00	248.76
CUL7	725968.26	2106916.69	241.94
CUL8	725976.89	2106922.97	242.00
CUL9	725977.50	2106923.43	242.01
CUL10	725986.22	2106929.75	242.01
CUL11	725986.81	2106930.20	242.00
CUL12	725995.38	2106936.42	242.00
HW2	725985.12	2106929.00	249.98

Description	North	East	Elevation
GPS-1	726130.0270	2106887.0810	254.5320
GPS-2	726237.1870	2106824.5920	243.2470

REVISIONS

8/2/2023  
 2023.08.02  
 5B.209214.8.Hammond Rd...r.dj.psh\_04.dgn  
 J.K. Murphy

REVISIONS

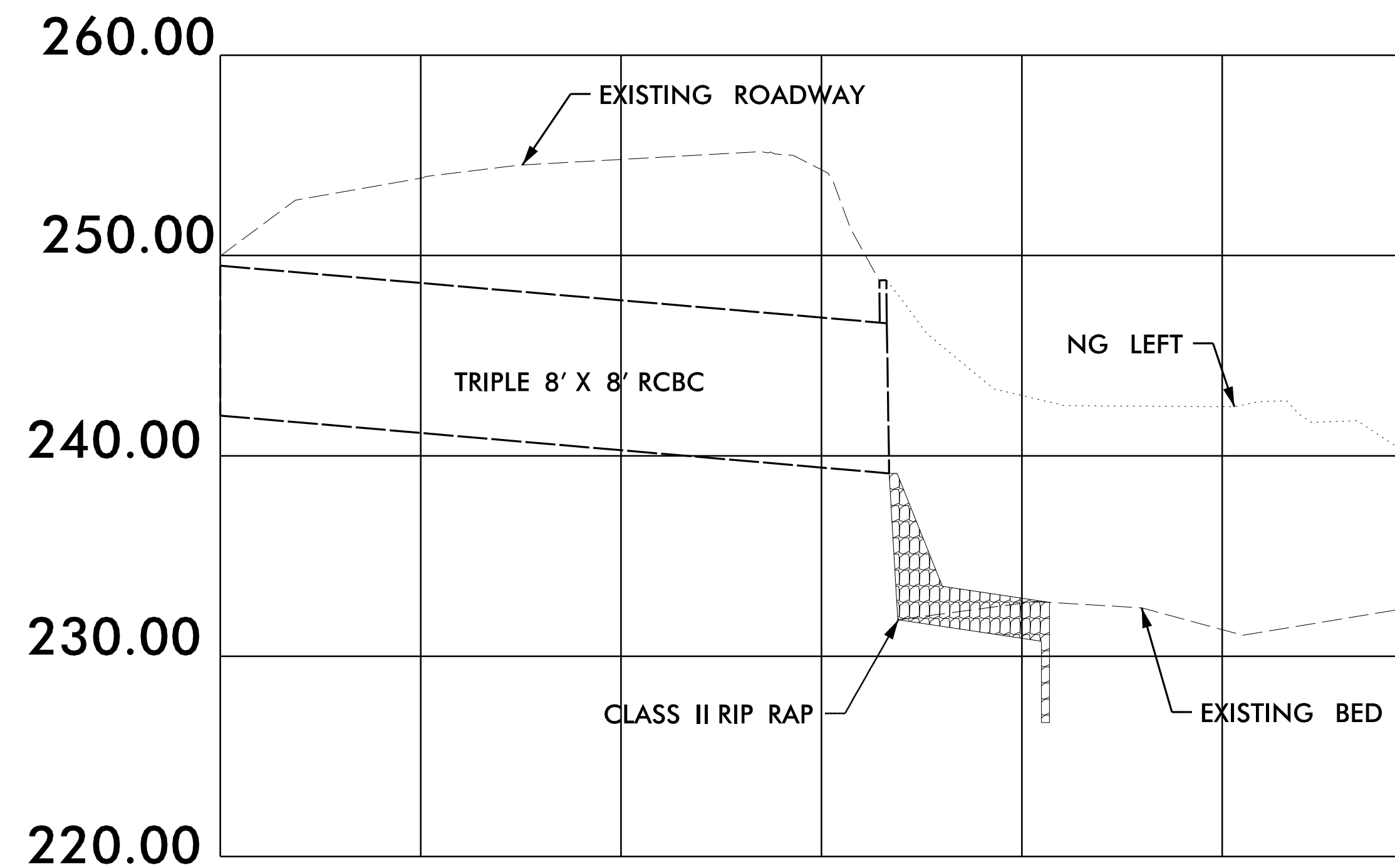
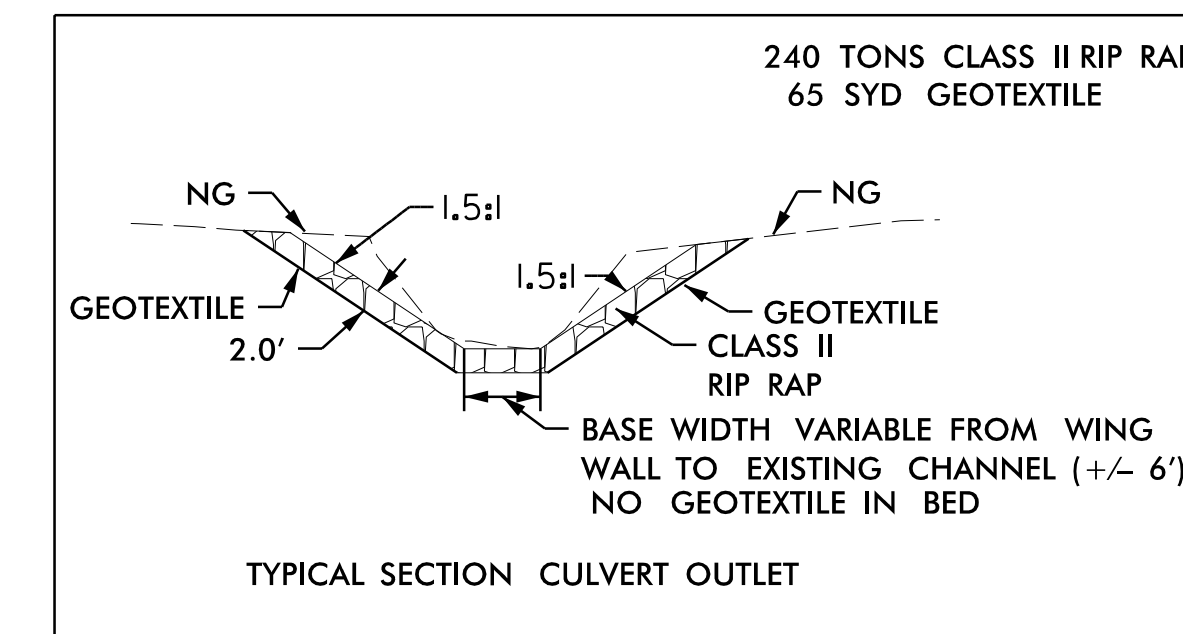


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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
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PROJECT REFERENCE NO. <b>5B.209214.8</b>	SHEET NO. <b>5</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 7/24/2023 SEAL 018981 JERRY L. MURPHY	HYDRAULICS ENGINEER 7/24/2023 SEAL 15833 JERRY L. LINDSEY
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

**HAMMOND ROAD  
(SR 2026)**





## GENERAL NOTES

### ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
----------	-------

1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1165.01	TRUCK MOUNTED ATTENUATOR
1180.01	SKINNY - DRUMS

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

**TIME RESTRICTIONS**

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
1. SR 2026 (HAMMOND RD)	6:00 A.M. - 9:00 A.M. 4:00 P.M. - 6:00 P.M. MONDAY - FRIDAY

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME
1. SR 2026 (HAMMOND RD)

**HOLIDAY**

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 6:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6:00 P.M. THE FOLLOWING TUESDAY.

3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 6:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE DAY AFTER INDEPENDENCE DAY.  
  
IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 6:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 6:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

E) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

**LANE AND SHOULDER CLOSURE REQUIREMENTS**

- F) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

I) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

J) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

- K) DO NOT INSTALL MORE THAN 1250 FT OF LANE CLOSURE ON HAMMOND RD MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- L) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON HAMMOND RD.

**TRAFFIC PATTERN ALTERATIONS**

M) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

**SIGNING**

- N) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

**TRAFFIC CONTROL DEVICES**

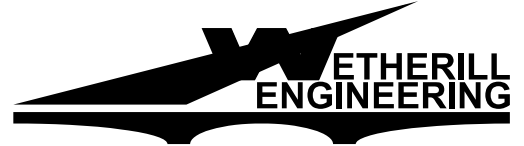
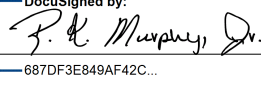
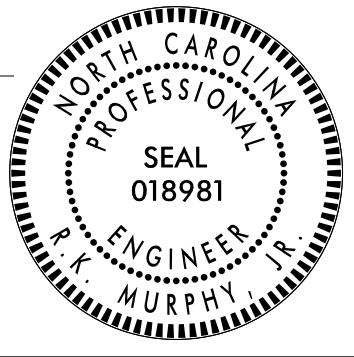
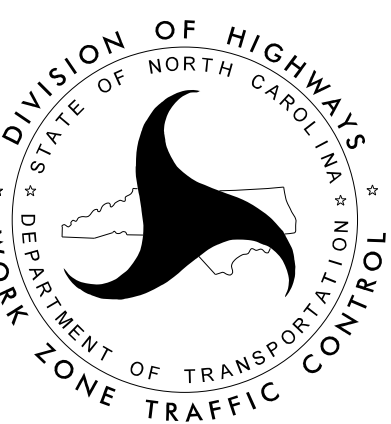
P) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADIUS, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

Q) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

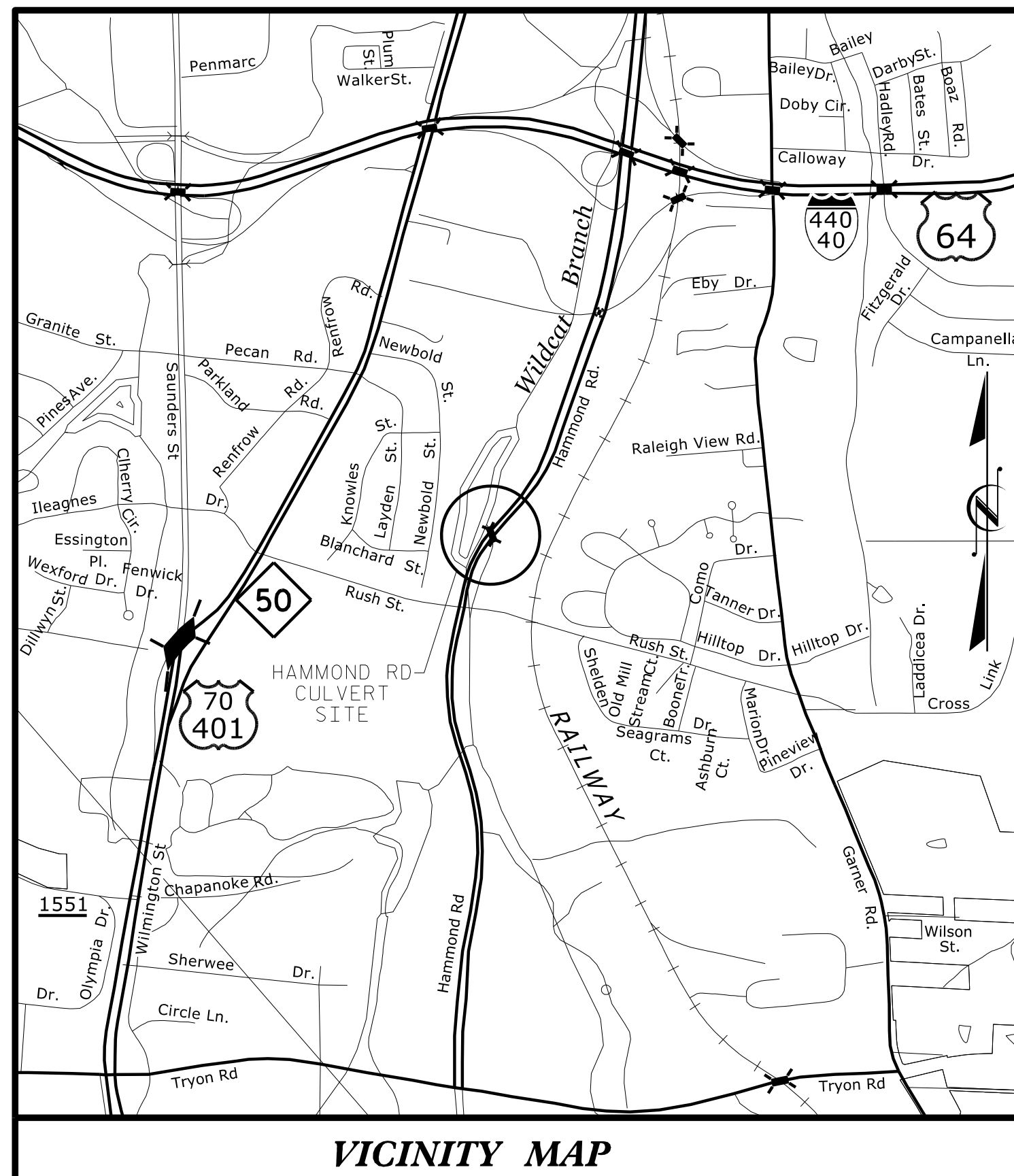
**MISCELLANEOUS**

R) CONTRACTOR SHALL CLOSE SIDEWALK WITHIN A LANE CLOSURE AT THE NEAREST CURB RAMP LOCATED OUTSIDE OF THE LANE CLOSURE. THE CONTRACTOR SHALL RE-OPEN THE SIDEWALK AFTER THE LANE CLOSURE IS REMOVED.

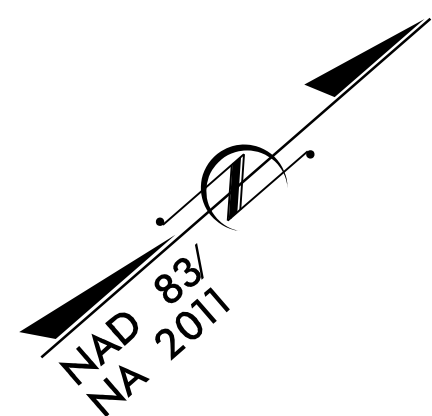
4/19/2023 \\net-fs01\projects\2022\22136.09 Div 5 Drainage On-Call\Hammond Road Culvert\Traffic\5B.209214.8 TMP.dgn User:AHayes

 <p>1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107</p> <p style="font-size: small;">TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION</p>	<p>APPROVED: </p> <p>DATE: 7/24/2023</p>			<p><b>LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND</b></p>
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED				

**TIP PROJECT: 5B.209214.8**

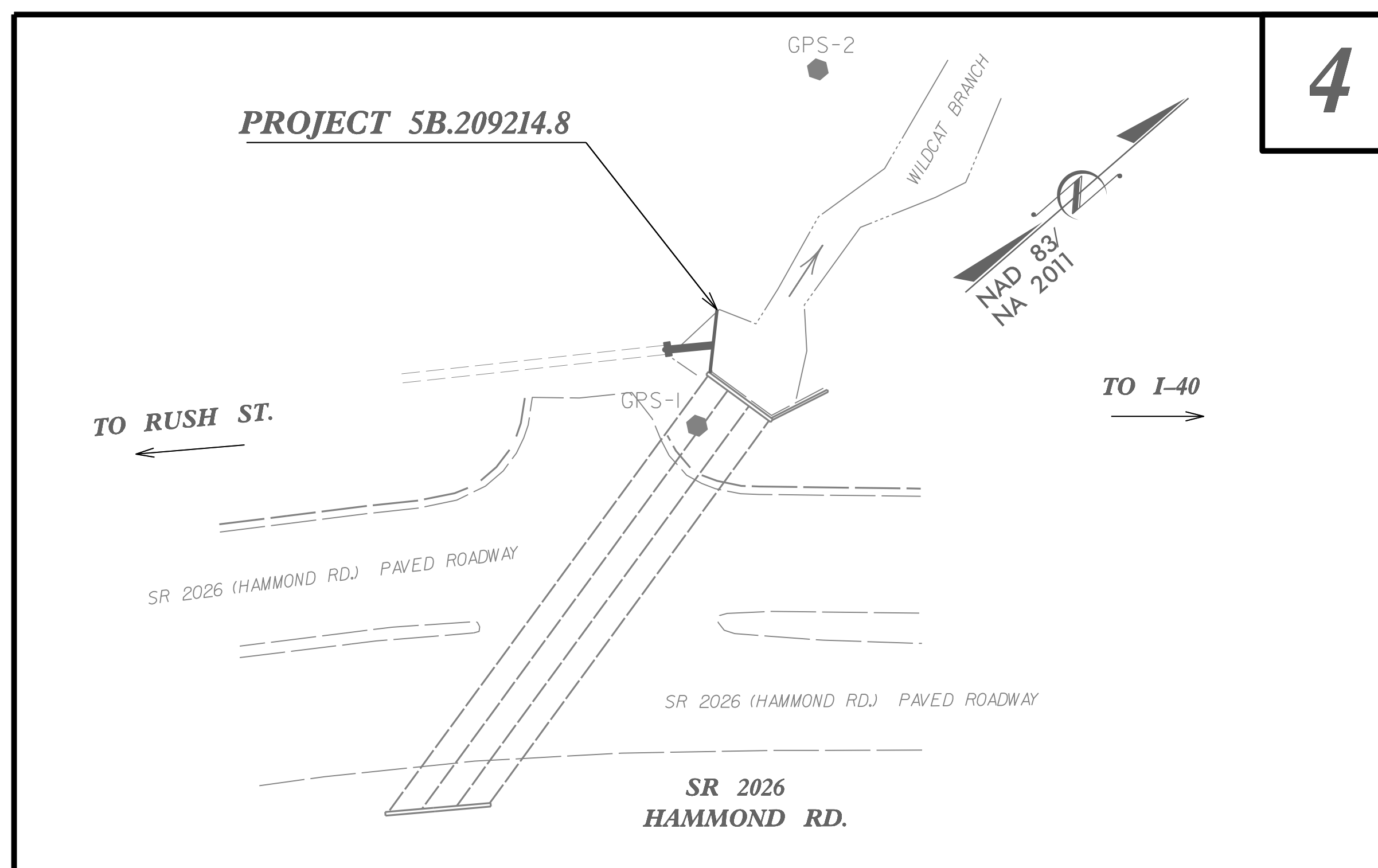


VICINITY MAP



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
PLAN FOR PROPOSED  
HIGHWAY EROSION CONTROL  
**WAKE COUNTY**

**LOCATION: CULVERT CROSSING ON SR 2026 (HAMMOND ROAD)**  
**TYPE OF WORK: CULVERT REPAIR AND DRAINAGE**



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	5B.209214.8	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	TSF
1606.01	Special Sediment Control Fence	SSCF
1622.01	Temporary Berms and Slope Drains	TBSD
1630.02	Silt Basin Type B	SB
1633.01	Temporary Rock Silt Check Type-A	TRSCA
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	TRSCA-PAM
1633.02	Temporary Rock Silt Check Type-B	TRSCB
	Wattle/Coir Fiber Wattle	WCFW
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	WCFW-PAM
1634.01	Temporary Rock Sediment Dam Type-A	TRSDA
1634.02	Temporary Rock Sediment Dam Type-B	TRSDB
1635.01	Rock Pipe Inlet Sediment Trap Type-A	RPISTRA
1635.02	Rock Pipe Inlet Sediment Trap Type-B	RPISTRB
1630.04	Stilling Basin	SB
1630.06	Special Stilling Basin	SSB
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	SKB
	Tiered Skimmer Basin	TSKB
	Infiltration Basin	IB

**THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.**

**THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.**

**ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT**  
*Refer To E. C. Special Provisions for Special Considerations.*

**GRAPHIC SCALE**



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.



Prepared in the Office of:  
**WETHERILL ENGINEERING, INC.**  
1223 JONES FRANKLIN ROAD  
RALEIGH, NC 27606

Designed by:  
**KATIE ESTEP** 4485  
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

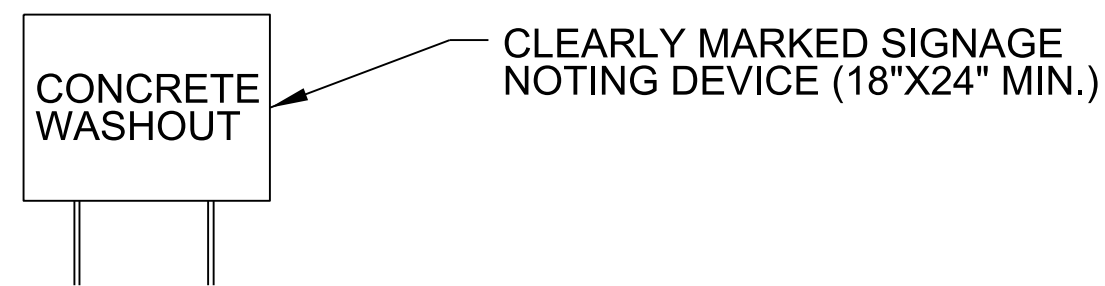
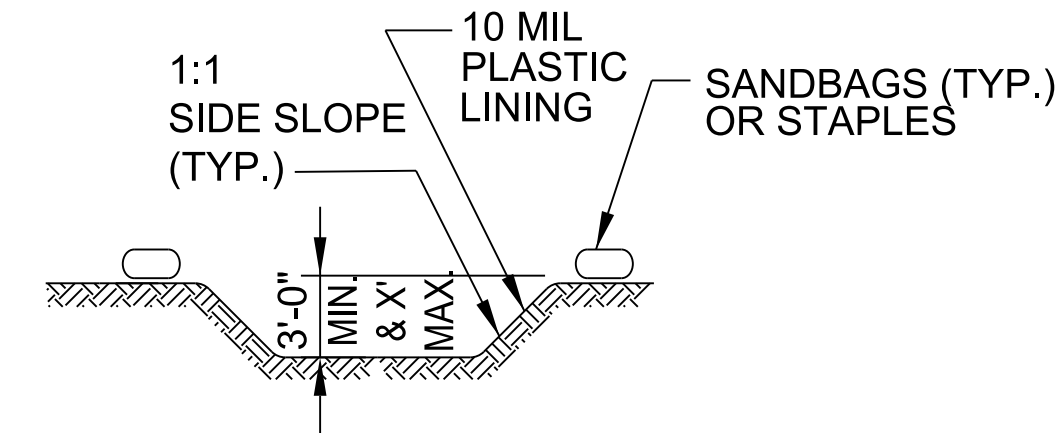
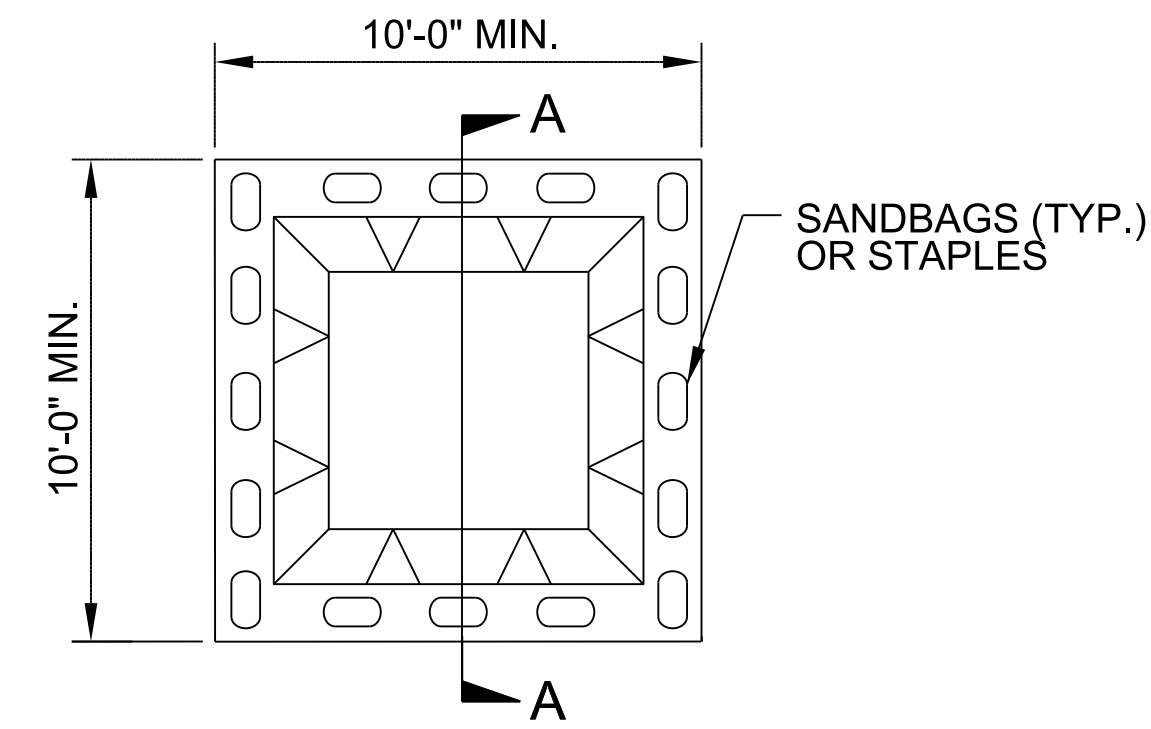
1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

5B.209214.8-Hammond Rd.-rdg-1sh.dgn  
User: KEstep



PROJECT REFERENCE NO.	SHEET NO.
5B.209214.8	EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

## ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



### SECTION A-A

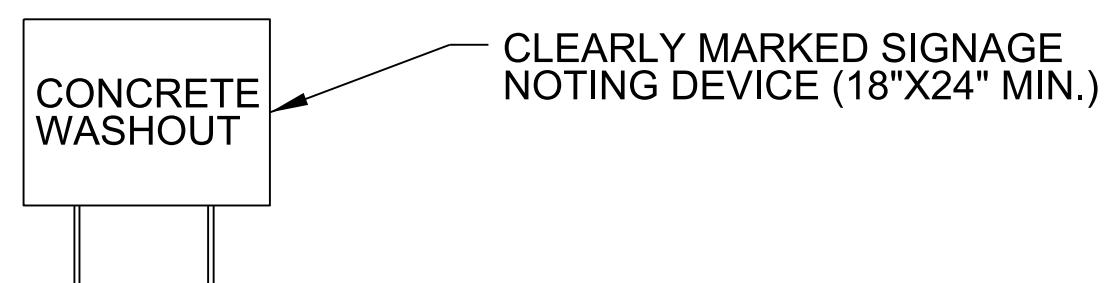
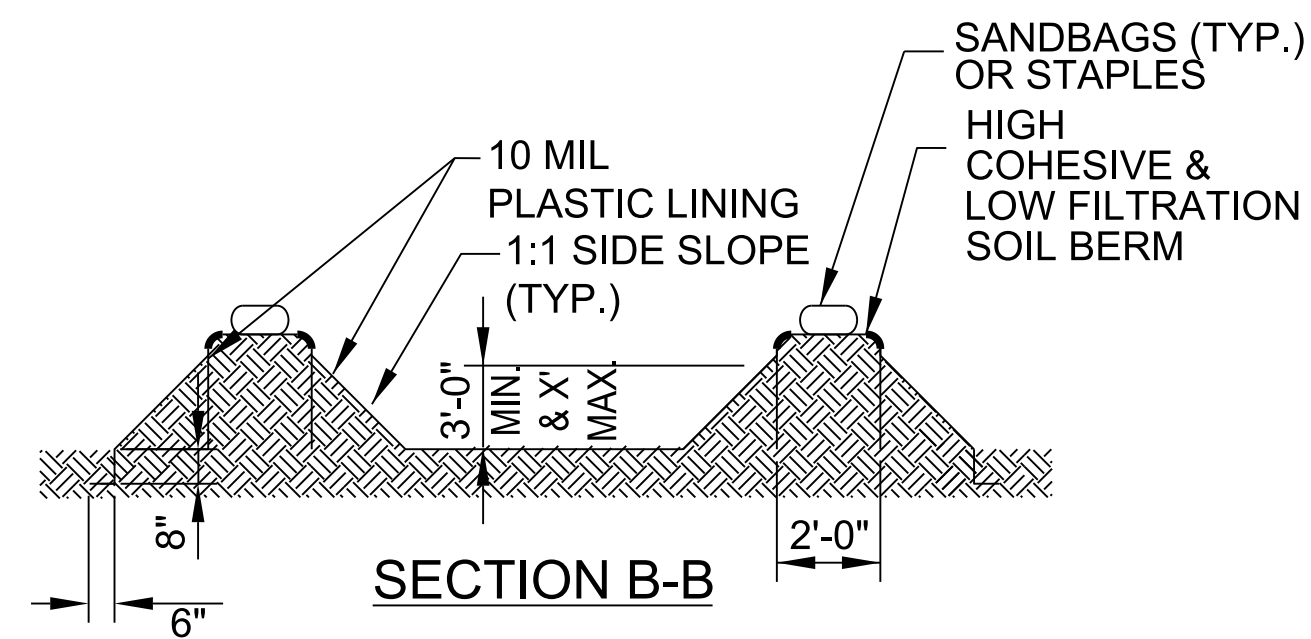
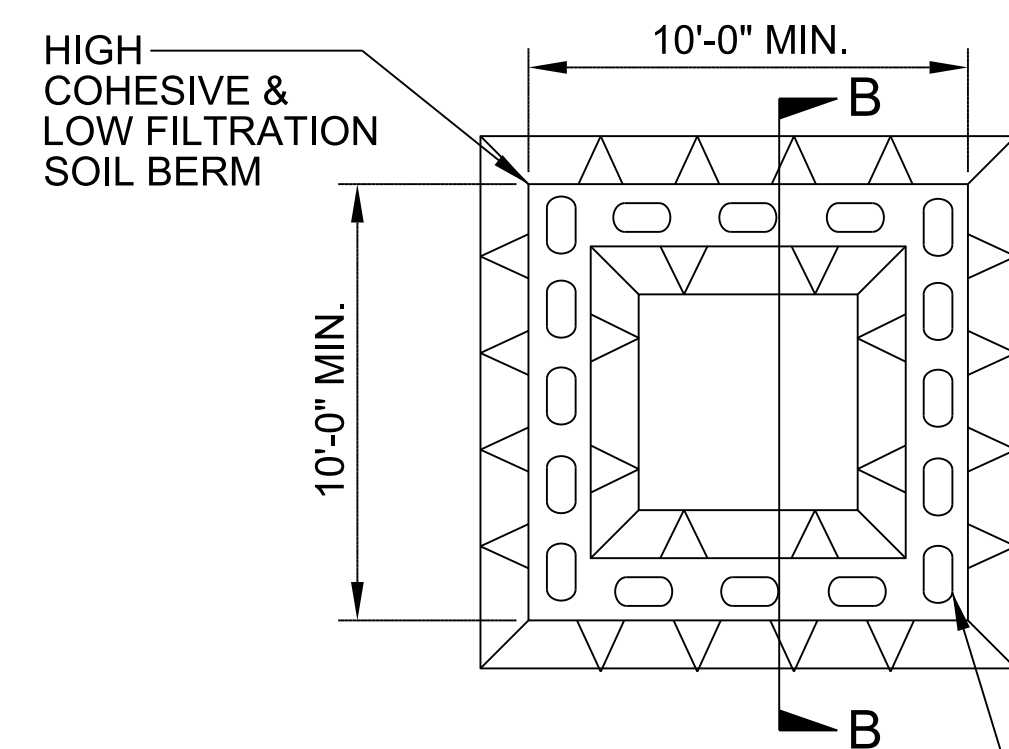
**NOTES:**

1. ACTUAL LOCATION DETERMINED IN FIELD
2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY.
3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

PLAN

## BELOW GRADE WASHOUT STRUCTURE

NOT TO SCALE



**NOTES:**

1. ACTUAL LOCATION DETERMINED IN FIELD
2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

PLAN

## ABOVE GRADE WASHOUT STRUCTURE

NOT TO SCALE

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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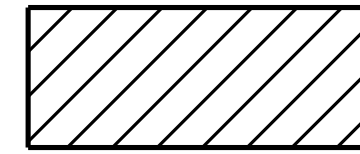
PROJECT REFERENCE NO. <i>5B.209214.8</i>	SHEET NO. <i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# ***SOIL STABILIZATION TIMEFRAMES***

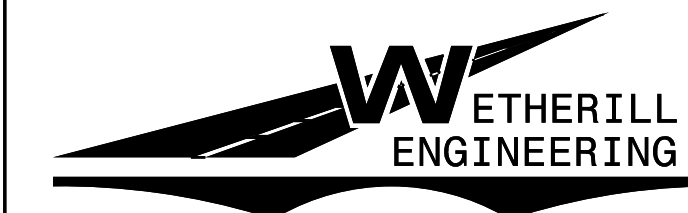
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 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.

8/17/99

CLEARING AND GRUBBING EROSION CONTROL FOR PLAN SHEET 4



ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS



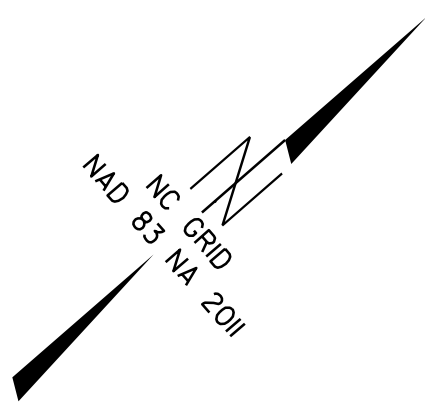
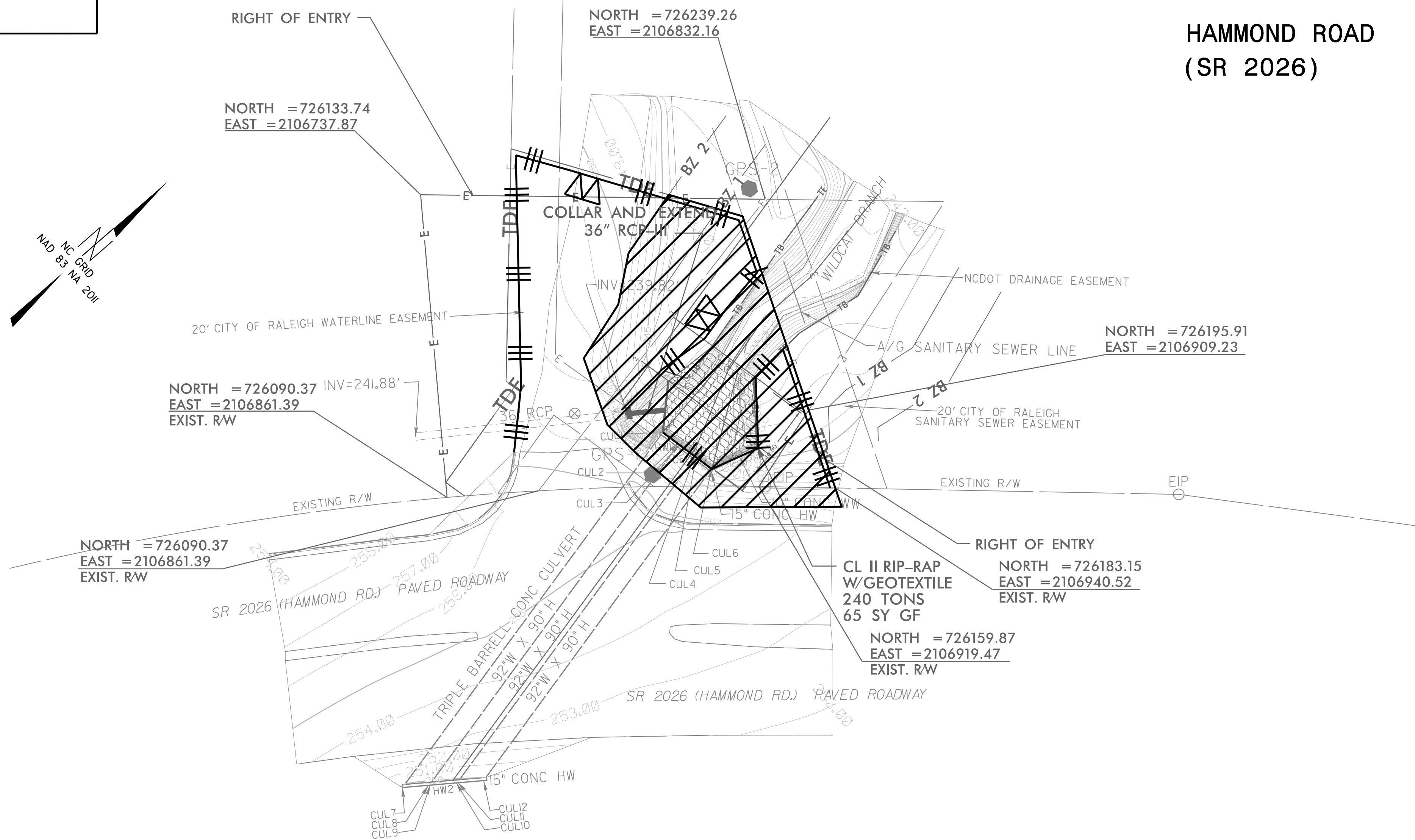
1223 Jones Franklin Rd.  
Raleigh, N.C. 27606  
License No. F-0377  
Bus: 919 851 8077  
Fax: 919 851 8107

PROJECT REFERENCE NO. <b>5B.209214.8</b>	SHEET NO. <b>EC-4/CONSTR.4</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CH-AFH I/RALEIGH DOWNTOWN SOUTH LLC  
DB 19135 PG 2228  
PB 2022 PG 1304

**HAMMOND ROAD  
(SR 2026)**

SCALE 1" = 30'



REVISIONS

Description	North	East	Elevation
GPS-1	726130.0270	2106887.0810	254.5320
GPS-2	726237.1870	2106824.5920	243.2470

8/3/2023  
I:\56209214.8-Hammond Rd.-ec.ecg.dgn  
J:\56209214.8-Hammond Rd.-ec.ecg.dgn



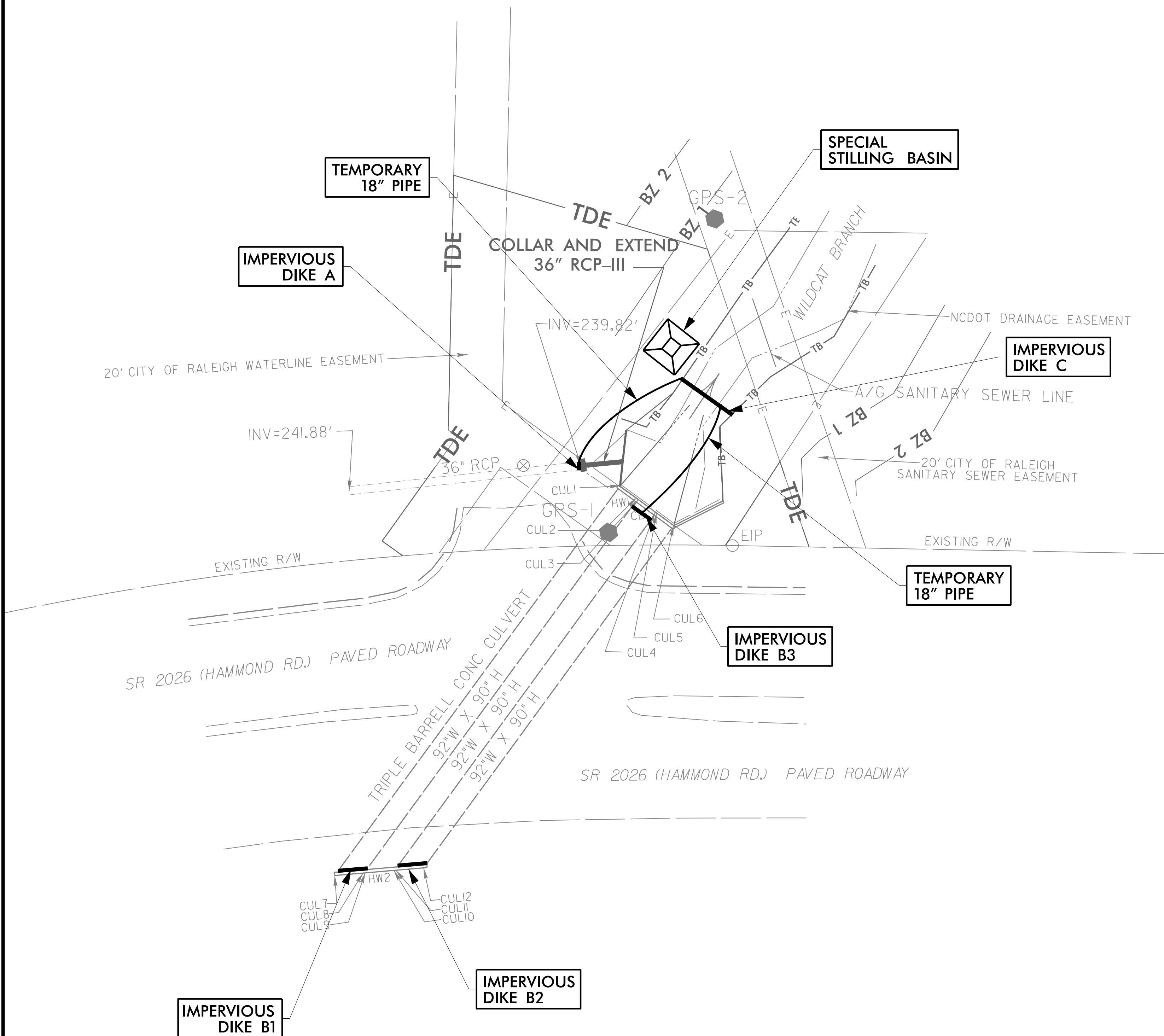
# PIPE CONSTRUCTION SEQUENCE



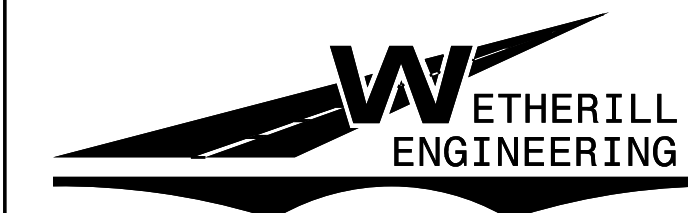
1223 Jones Franklin Rd.  
Raleigh, N.C. 27606  
License No. F-0377  
Bus: 919 851 8077  
Fax: 919 851 8107

PROJECT REFERENCE NO. <b>5B.209214.8</b>	SHEET NO. <b>EC-4A</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION



1. INSTALL IMPERVIOUS DIKE A AND FLEXIBLE PIPE FROM EXISTING 36" RCP.
2. INSTALL IMPERVIOUS DIKES B1, B2, B3, AND C. INSTALL TEMPORARY 18" PIPE BETWEEN IMPERVIOUS DIKES B3 AND C. INSTALL SPECIAL STILLING BASIN AND PUMP TO DEWATER SITE.
3. CONSTRUCT WINGWALL AND CULVERT REPAIRS.
4. INSTALL RIPRAP AND CHANNEL REPAIRS.
5. REMOVE IMPERVIOUS DIKE A AND CONNECTED TEMPORARY 18" PIPE. INSTALL 36" CULVERT EXTENSION.
6. REMOVE REMAINING IMPERVIOUS DIKES AND TEMPORARY PIPE. RETURN FLOW.



1223 Jones Franklin Rd.  
Raleigh, N.C. 27606  
License No. F-0377  
Bus: 919 851 8077  
Fax: 919 851 8107

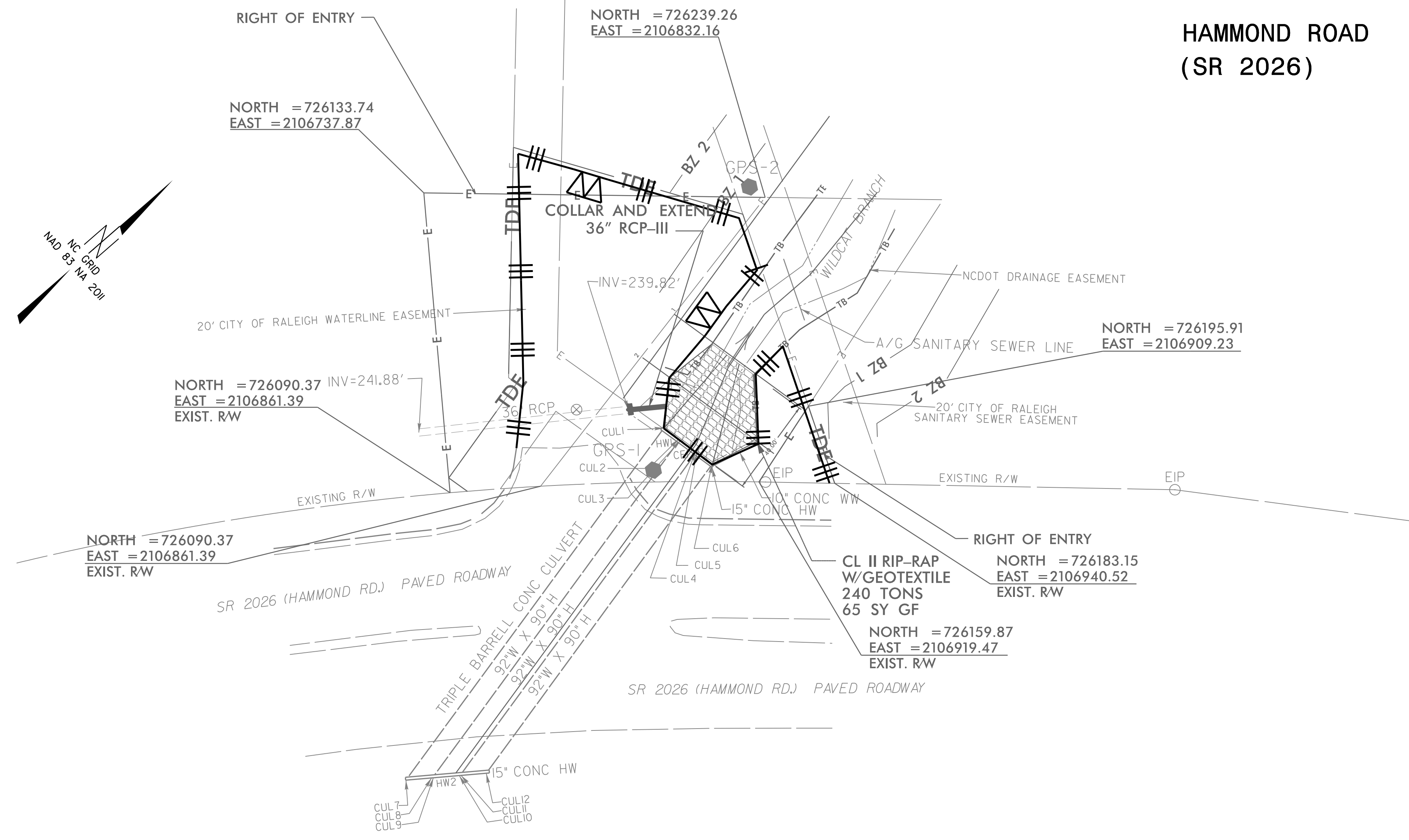
PROJECT REFERENCE NO. <b>5B.209214.8</b>	SHEET NO. <b>EC-5/CONSTR.4</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CH-AFH I/RALEIGH DOWNTOWN SOUTH LLC  
DB 19135 PG 2228  
PB 2022 PG 1304

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

**HAMMOND ROAD  
(SR 2026)**

SCALE 1" = 30'

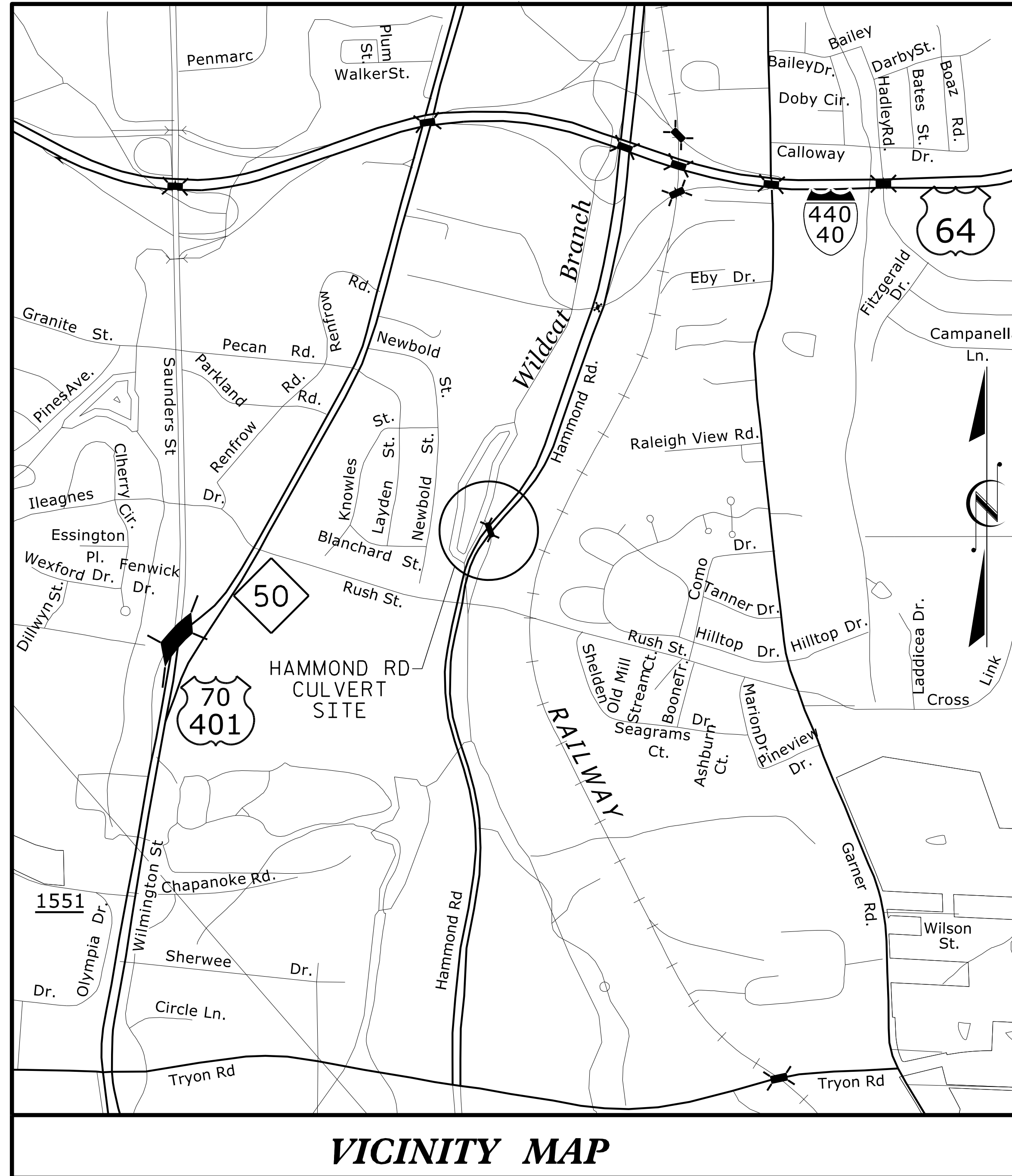


REVISIONS

Description	North	East	Elevation
GPS-1	726130.0270	2106887.0810	254.5320
GPS-2	726237.1870	2106824.5920	243.2470

**PROJECT: 5B.209214.8**

**CONTRACT: ME00027**

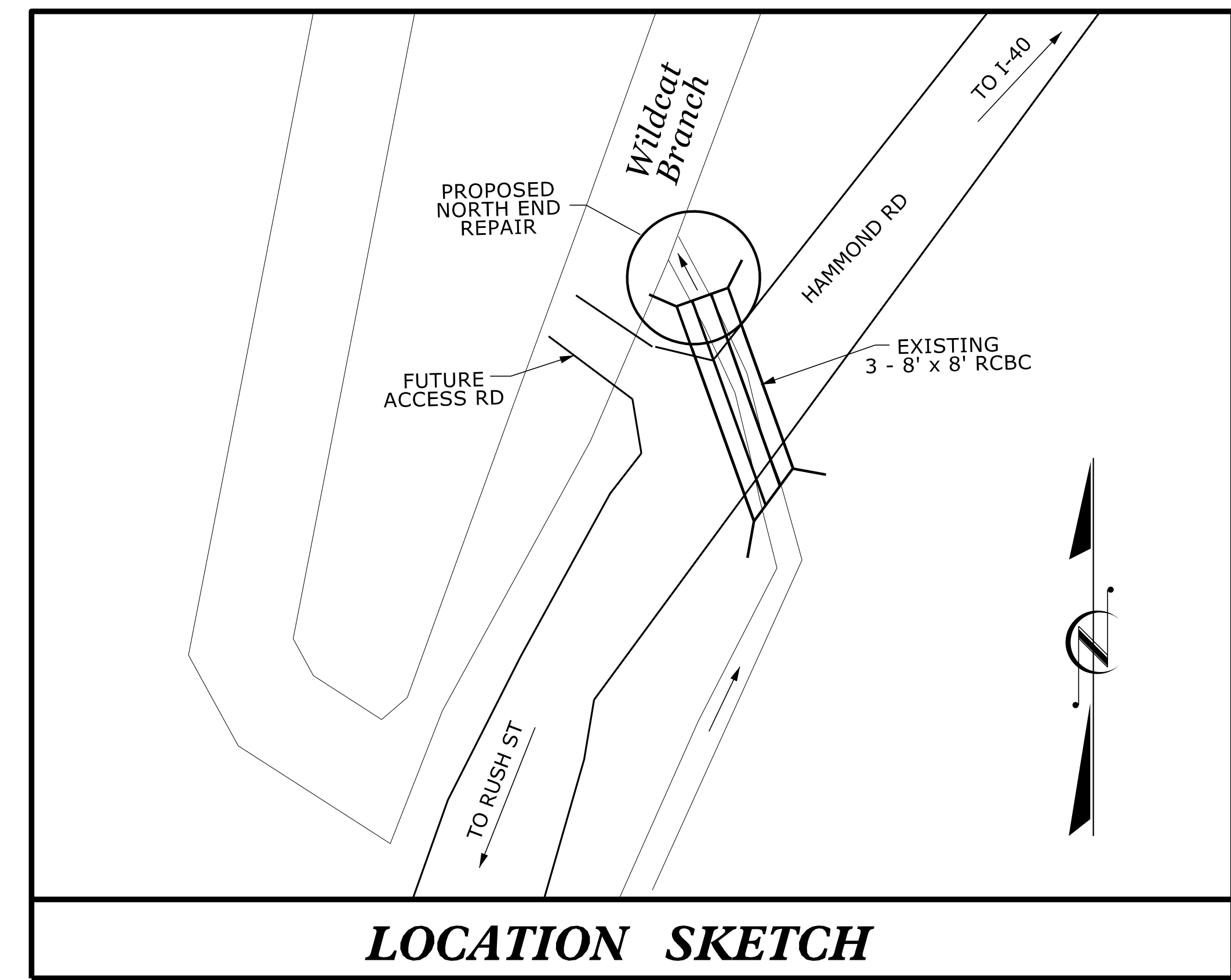


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# WAKE COUNTY RALEIGH N.C.

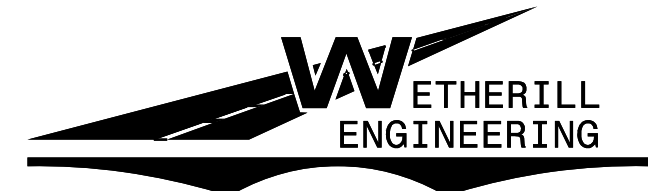
**LOCATION: WILDCAT BRANCH CULVERT UNDER HAMMOND RD**  
**TYPE OF WORK: CULVERT REPAIR**

## STRUCTURE PLANS



DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

\$\$\$\$\$ SYSTEM \$\$\$\$\$\$  
\$\$\$\$\$ DGN \$\$\$\$\$\$  
\$\$\$\$\$ USER NAME \$\$\$\$\$\$



TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN  
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

1223 Jones Franklin Rd.  
Raleigh, N.C. 27606  
Bus: 919 851 8077  
Fax: 919 851 8107  
License No. F-0377

**RALEIGH**  
TRANSPORTATION  
PLANNING  
BRIDGE/STRUCTURAL  
CIVIL/SITE  
UTILITIES  
CONSTRUCTION OBSERVATION  
SURVEYING/SUE

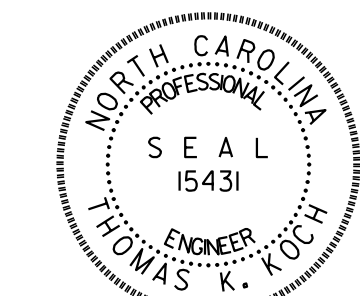
**CHARLOTTE**  
TRANSPORTATION  
PLANNING  
BRIDGE/STRUCTURAL  
CIVIL/SITE  
UTILITIES  
CONSTRUCTION OBSERVATION

Prepared for:  
**DIVISION OF HIGHWAYS**  
1000 BIRCH RIDGE DRIVE, RALEIGH, NC 27610

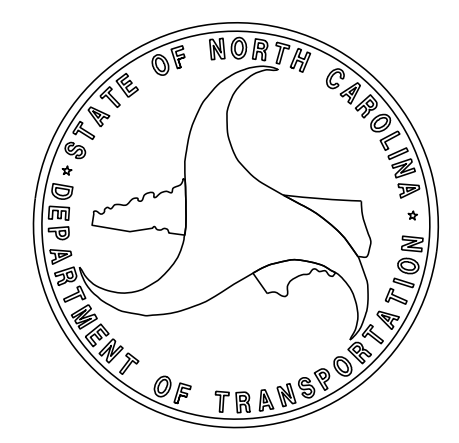
7/27/2023

**EDWARD G. WETHERILL, PE**  
PROJECT ENGINEER

**THOMAS K. KOCH, PE**  
PROJECT DESIGN ENGINEER



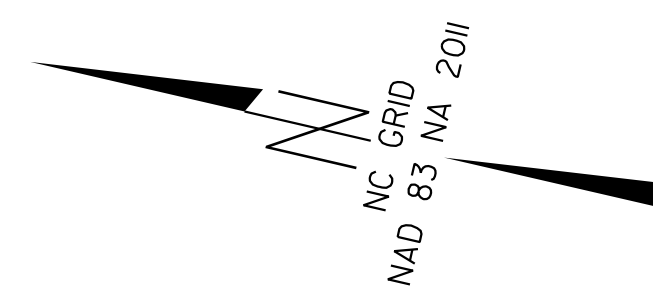
DocuSigned by:  
*Thomas K. Koch*  
44A7D984D077442



SHEET NO. 1  
TOTAL SHEETS 4

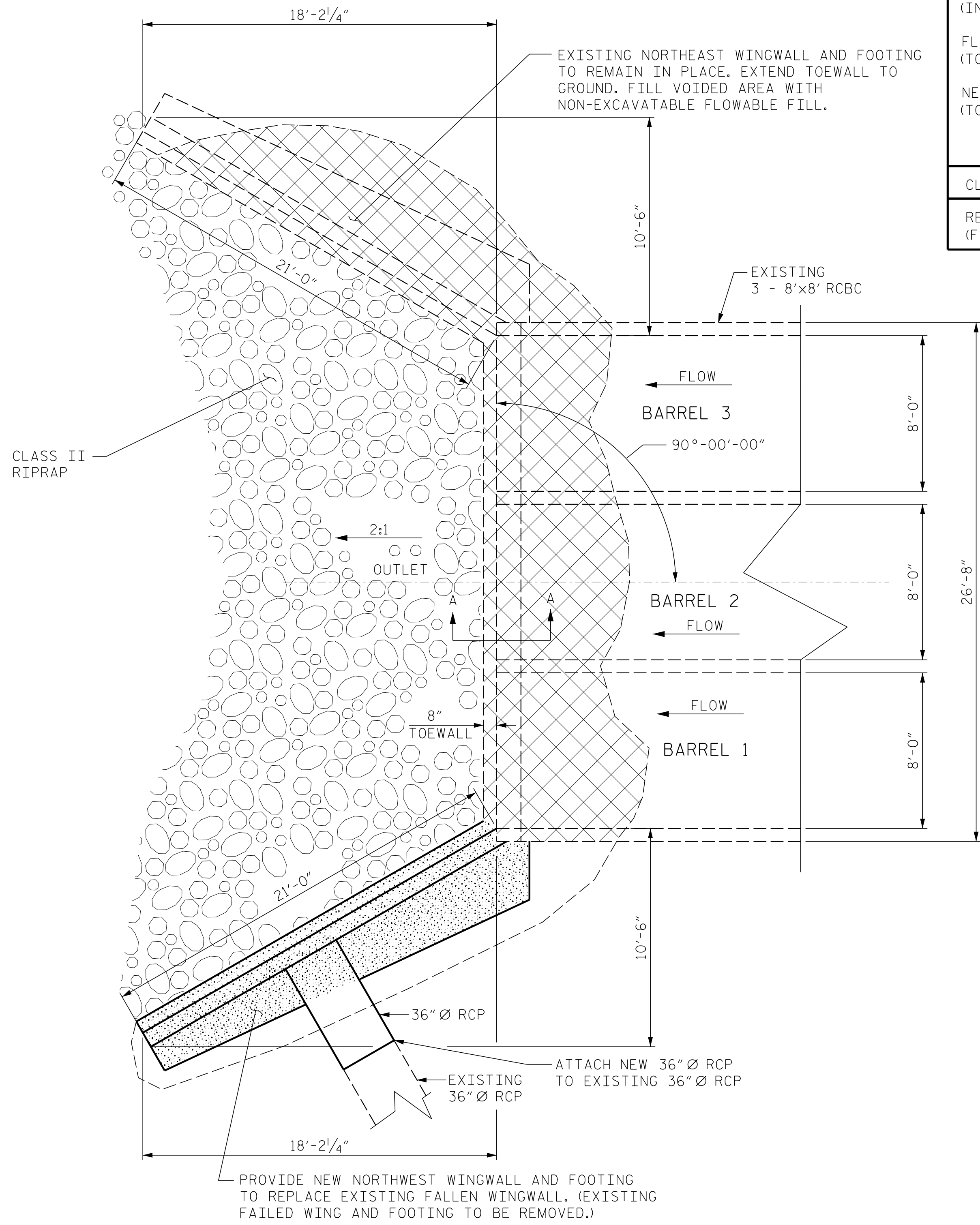


PA-2022-22 136.09 Div 5 Drainage On-Culvert/Hammond Rd Culvert.dgn  
8/16/2023 3:54:06 PM



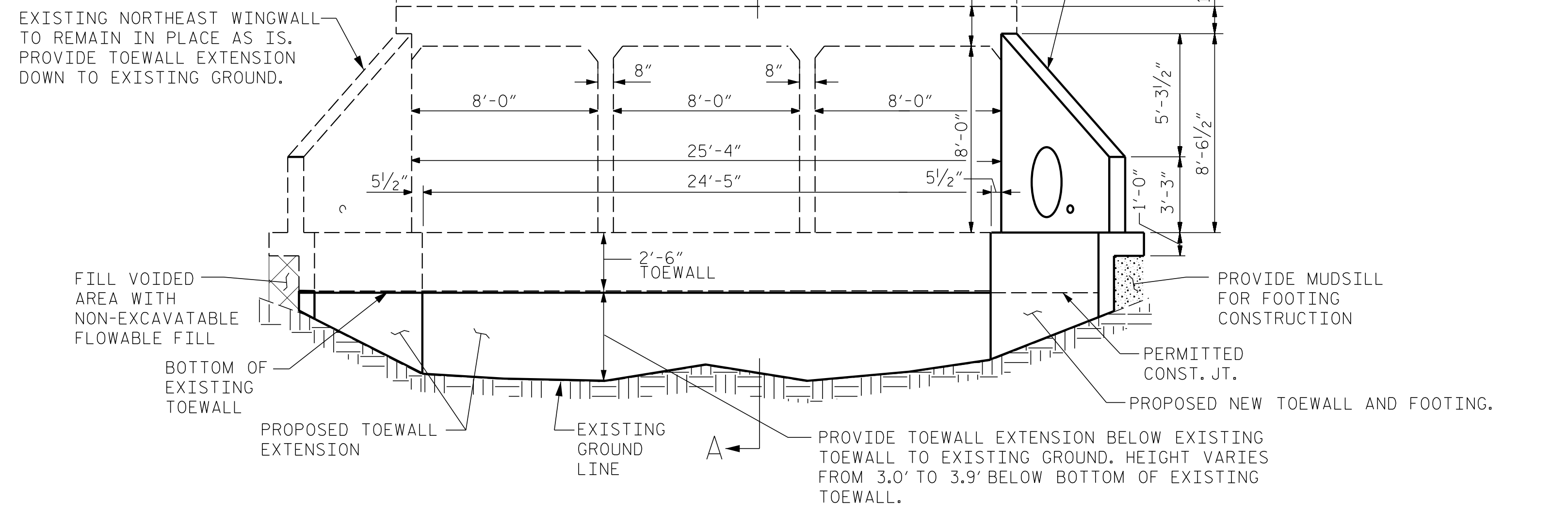
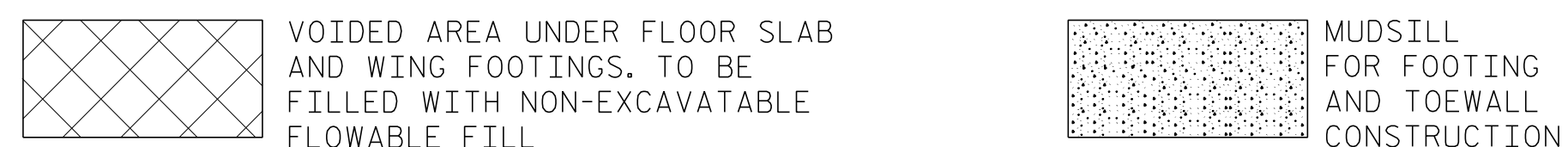
TOTAL QUANTITIES	
CLASS A CONCRETE	
NW WINGWALL (INCL. FOOTING AND TOEWALL)	= 11.0 C.Y.
FLOOR SLAB (TOEWALL EXTENSION)	= 2.3 C.Y.
NE WINGWALL (TOEWALL EXTENSION)	= 1.0 C.Y.
TOTAL	= 14.3 C.Y.
CLASS II RIPRAP	= 70 TONS
REINFORCING STEEL (FOR NW WINGWALL, FOOTING AND TOEWALL)	= 1064 LBS.

- NOTES:**
- REPAIR LOCATION AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE REPAIR QUANTITY TABLE.
  - PRIOR TO PUMPING NON-EXCAVATABLE FLOWABLE FILL, INSTALL DIKE AND DEWATER AREA.
  - CORE 2" DIAMETER HOLES IN FLOOR SLAB OF CULVERT TO PUMP NON-EXCAVATABLE FLOWABLE FILL THROUGH. AFTER PUMPING NON-EXCAVATABLE FLOWABLE FILL IS COMPLETE, PATCH CORED HOLES WITH HYDRAULIC CEMENT. NUMBER OF NON-EXCAVATABLE FLOWABLE FILL HOLES REQUIRED SHALL BE DETERMINED BY CONTRACTOR, AND SUBMITTED FOR APPROVAL PRIOR TO PERFORMING WORK.
  - NON-EXCAVATABLE FLOWABLE FILL SHALL BE AS APPROVED BY THE ENGINEER.
  - THE COST OF PROVIDING AND INSTALLING THE NEW SECTION OF 36" Ø RCP IS INCLUDED IN THE VARIOUS PAY ITEMS.
  - THE COST OF PROVIDING THE MUDSILL SHALL BE INCLUDED IN THE PRICE BID FOR CLASS A CONCRETE.
  - FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
  - FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
  - FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
  - FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
  - FOR ASBESTOS ASSESSMENT, SEE SPECIAL PROVISIONS.
  - FOR FLOWABLE FILL, SEE SPECIAL PROVISIONS.



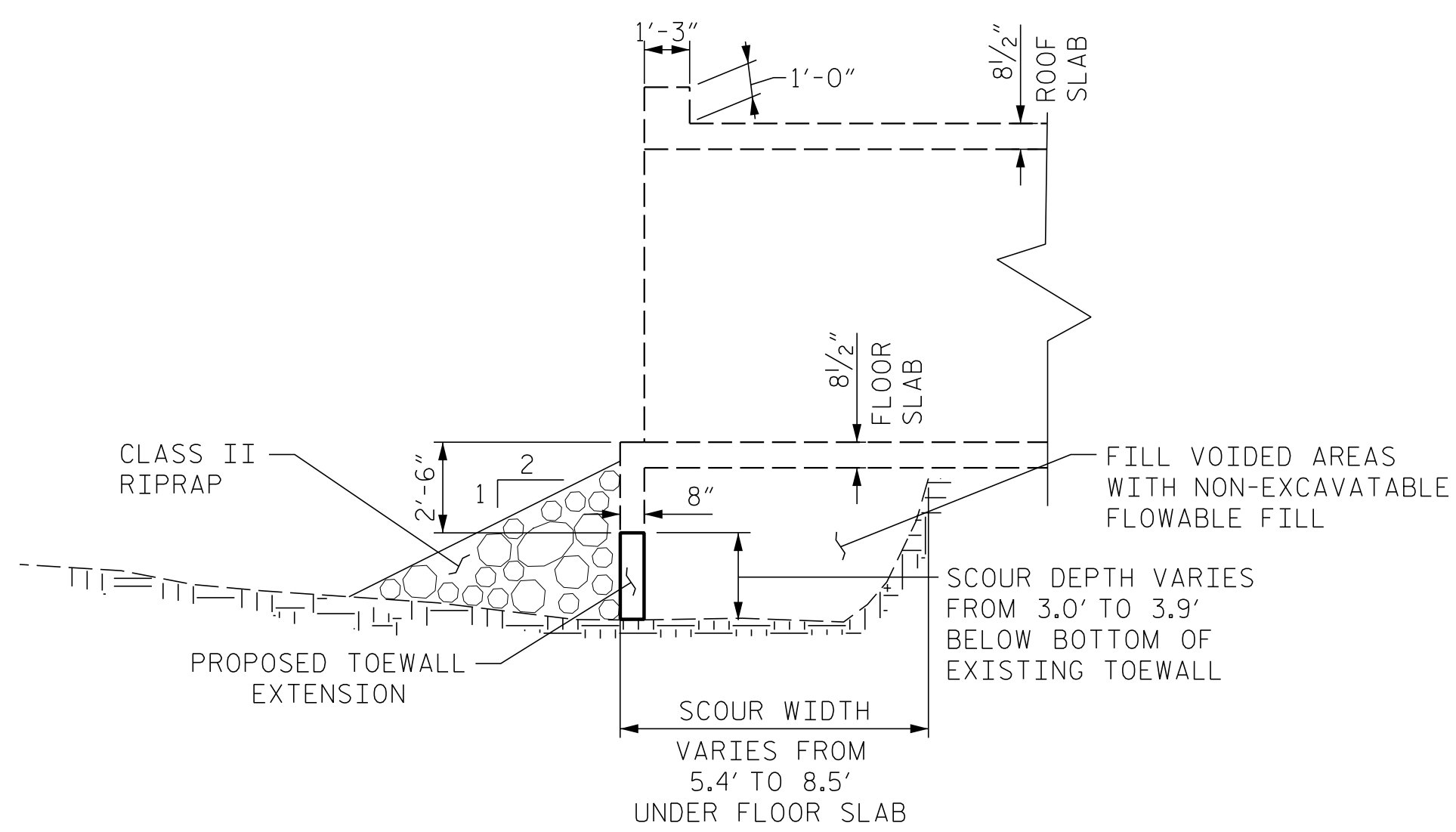
PLAN OF DOWNSTREAM END

CULVERT REPAIR QUANTITY TABLE				
NON-EXCAVATABLE FLOWABLE FILL	ESTIMATE		ACTUAL	
	AREA	VOLUME	AREA	VOLUME
OUTLET END AND NORTHEAST WINGWALL	400 SF	45.0 CY		



DOWNSTREAM END ELEVATION VIEW

NOTE: DIMENSIONS OF ROOF & FLOOR SLABS ARE FROM EXISTING PLANS AND HAVE NOT BEEN VERIFIED.



SECTION A-A

PROJECT NO. 5B.209214.8  
 WAKE COUNTY  
 STATION: HAMMOND RD.

ENGINEER OF RECORD  
 8/16/2023  
  
 Thomas K. Koch  
 WETHERILL ENGINEERING  
 1223 Jones Franklin Rd.  
 Raleigh, N.C. 27606  
 Bus: 919 851 8077  
 Fax: 919 851 8107  
 LICENSE NO. F-0377

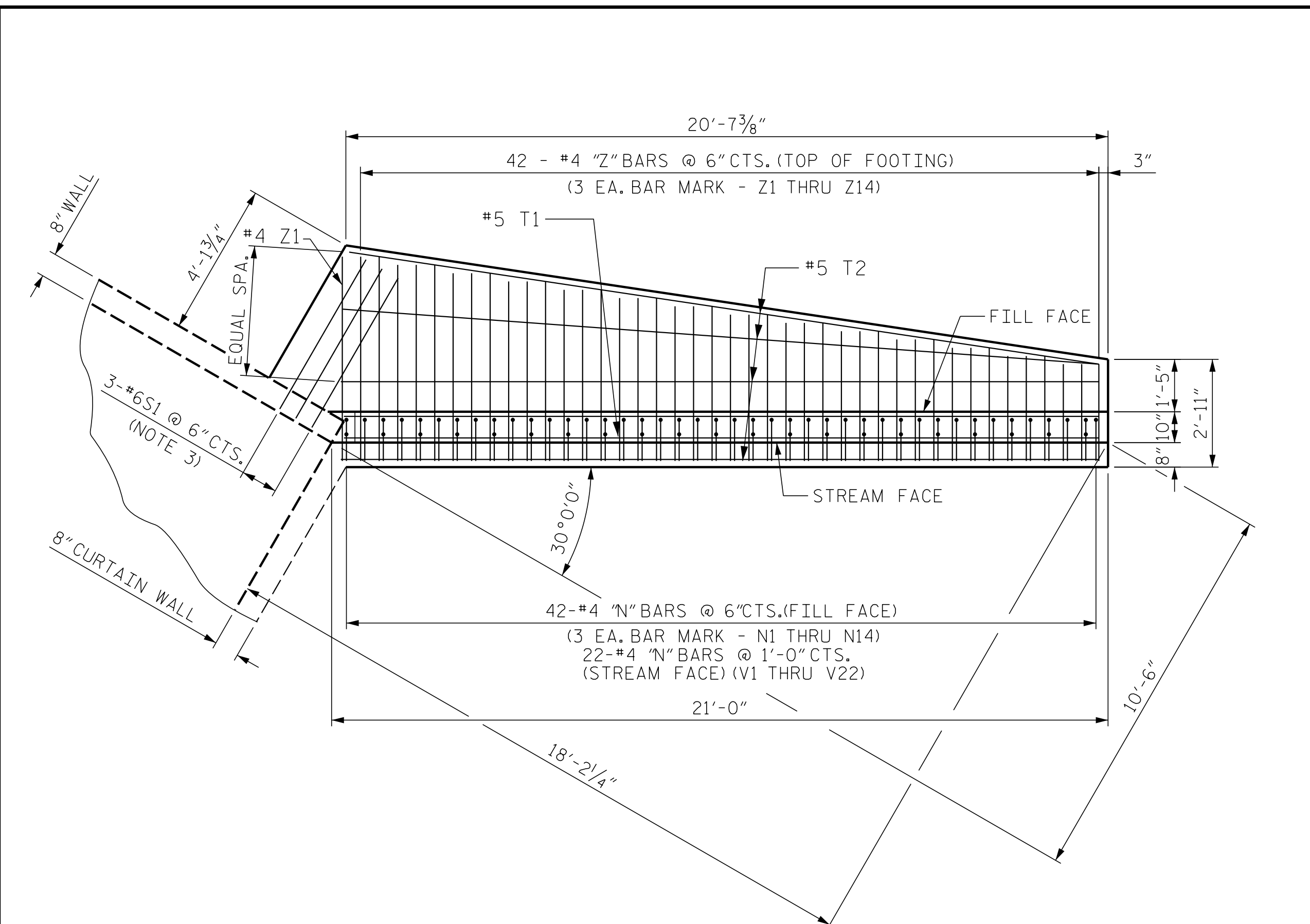
STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
**CULVERT REHABILITATION**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS
2			4			4

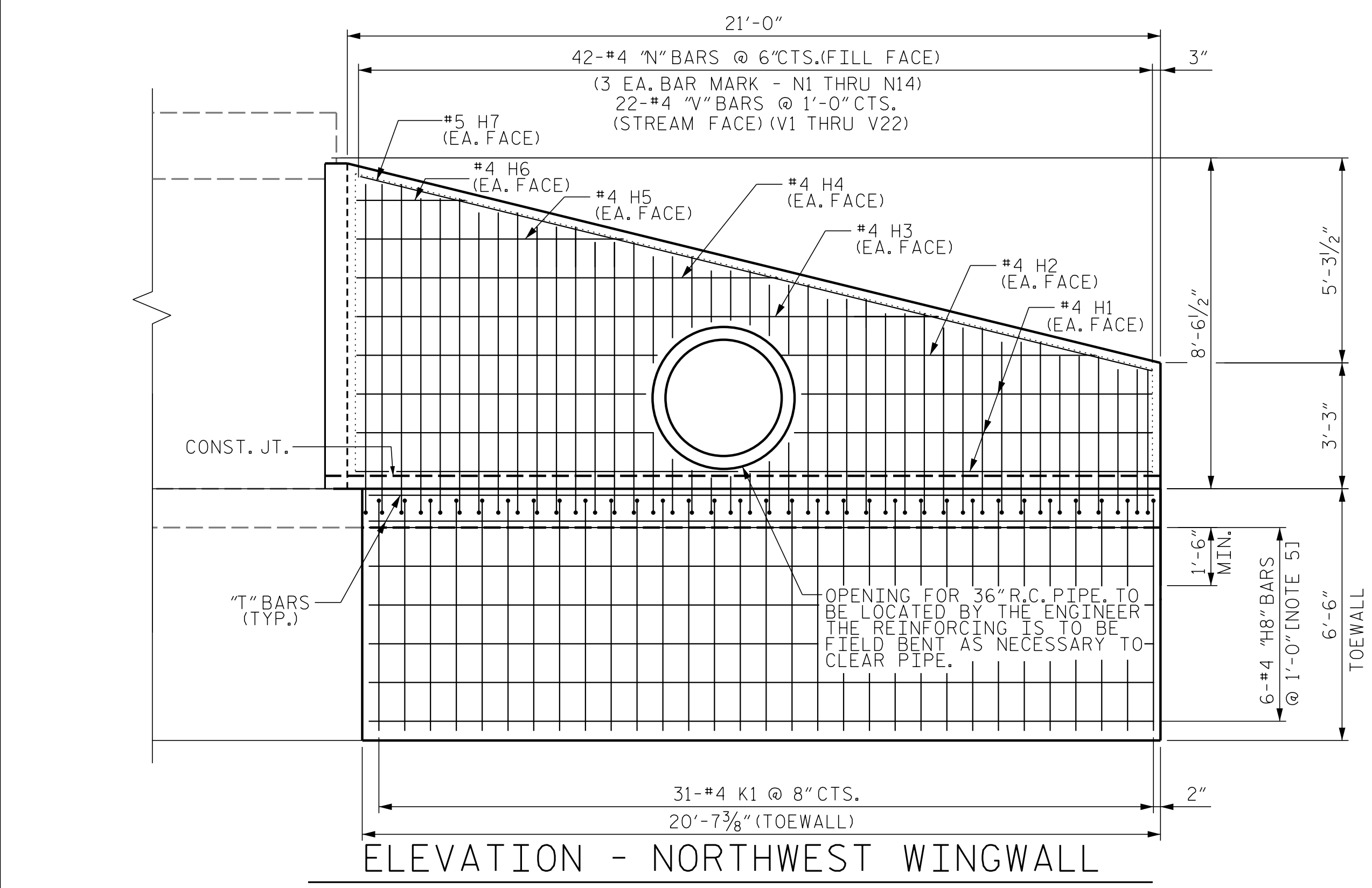
DRAWN BY: J. PENDERGRAFT DATE: 11-22  
 CHECKED BY: T. KOCH DATE: 11-22

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

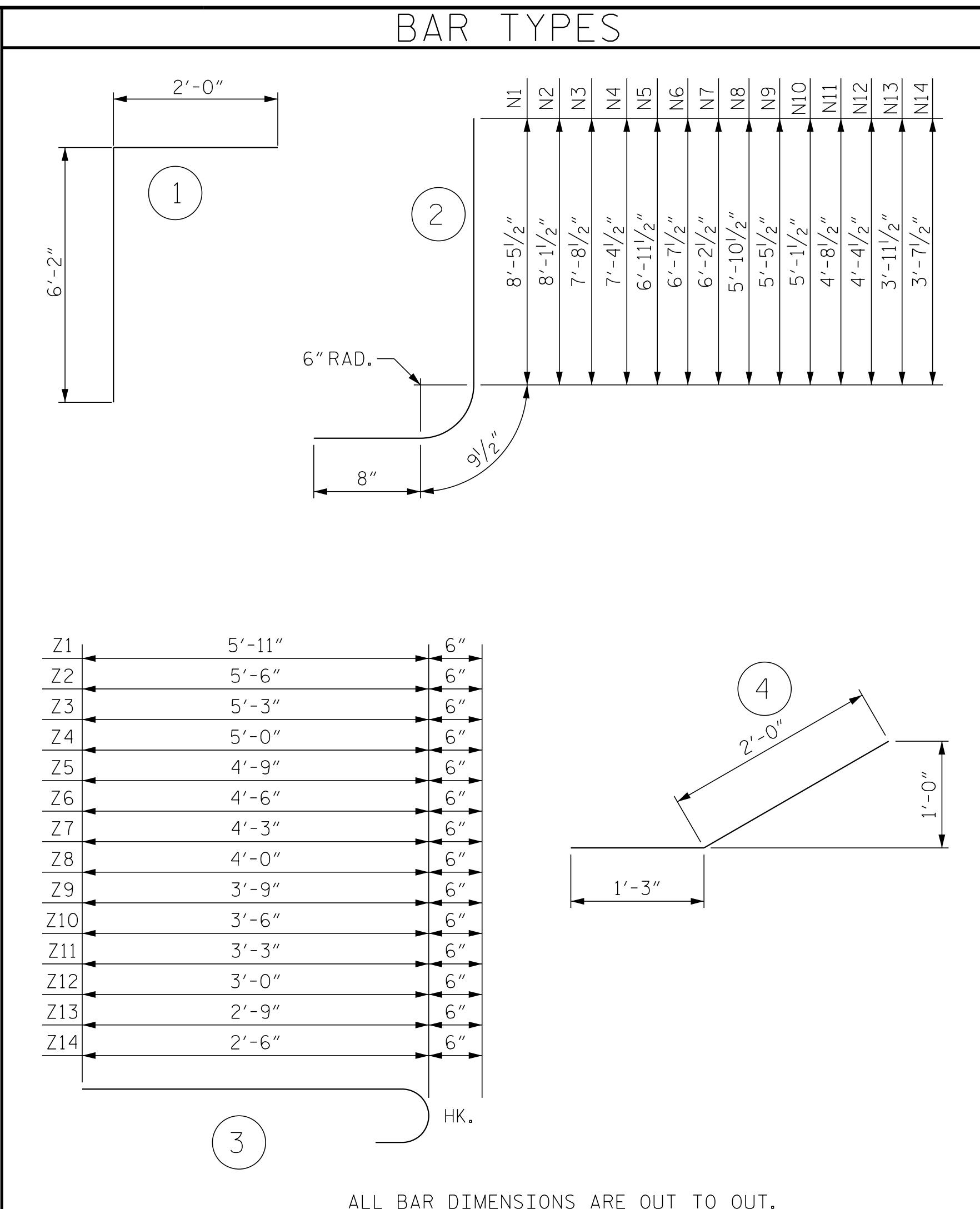




PLAN - NORTHWEST WINGWALL



ELEVATION - NORTHWEST WINGWALL



BAR TYPES						BILL OF MATERIAL					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
E1	16	#4	STR	5'-9"	61	Z1	3	#4	3	6'-5"	13
H1	6	#4	STR	20'-6"	82	Z2	3	#4	3	6'-0"	12
H2	2	#4	STR	18'-11"	25	Z3	3	#4	3	5'-9"	12
H3	2	#4	STR	14'-10"	20	Z4	3	#4	3	5'-6"	11
H4	2	#4	STR	10'-9"	14	Z5	3	#4	3	5'-3"	11
H5	2	#4	STR	6'-6"	9	Z6	3	#4	3	5'-0"	10
H6	2	#4	STR	2'-7"	3	Z7	3	#4	3	4'-9"	10
H7	2	#5	STR	21'-1"	44	Z8	3	#4	3	4'-6"	9
H8	6	#4	STR	20'-3"	81	Z9	3	#4	3	4'-3"	9
N1	3	#4	2	9'-11"	20	Z10	3	#4	3	4'-0"	8
N2	3	#4	2	9'-7"	19	Z11	3	#4	3	3'-9"	8
N3	3	#4	2	9'-2"	19	Z12	3	#4	3	3'-6"	7
N4	3	#4	2	8'-10"	18	Z13	3	#4	3	3'-3"	7
N5	3	#4	2	8'-5"	17	Z14	3	#4	3	3'-0"	6
N6	3	#4	2	8'-1"	16						
N7	3	#4	2	7'-8"	15						
N8	3	#4	2	7'-4"	15						
N9	3	#4	2	6'-11"	14						
N10	3	#4	2	6'-7"	13						
N11	3	#4	2	6'-2"	12						
N12	3	#4	2	5'-10"	12						
N13	3	#4	2	5'-5"	11						
N14	3	#4	2	5'-1"	10						
S1	3	#6	STR	4'-6"	20						
S2	2	#4	4	3'-3"	4						
K1	31	#4	1	8'-2"	169						
T1	1	#5	STR	20'-3"	21						
T2	4	#5	STR	20'-9"	87						
V1	1	#4	STR	8'-4"	6						
V2	1	#4	STR	8'-1"	5						
V3	1	#4	STR	7'-10"	5						
V4	1	#4	STR	7'-7"	5						
V5	1	#4	STR	7'-4"	5						
V6	1	#4	STR	7'-1"	5						
V7	1	#4	STR	6'-10"	5						
V8	1	#4	STR	6'-7"	4						
V9	1	#4	STR	6'-4"	4						
V10	1	#4	STR	6'-1"	4						
V11	1	#4	STR	5'-10"	4						
V12	1	#4	STR	5'-7"	4						
V13	1	#4	STR	5'-4"	3						
V14	1	#4	STR	5'-1"	3						
V15	1	#4	STR	4'-10"	3						
V16	1	#4	STR	4'-7"	3						
V17	1	#4	STR	4'-4"	3						
V18	1	#4	STR	4'-1"	3						
V19	1	#4	STR	3'-10"	3						
V20	1	#4	STR	3'-7"	2						
V21	1	#4	STR	3'-4"	2						
V22	1	#4	STR	3'-1"	2						

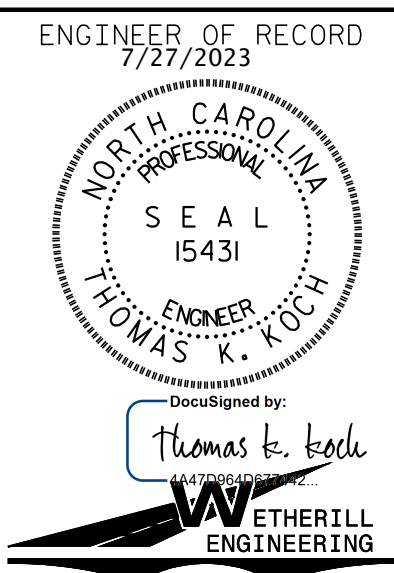
REINFORCING STEEL FOR 1 WING (INCL. FOOTING AND TOEWALL) 1064 LBS  
 CLASS A CONCRETE 1 WING (INCL. FOOTING AND TOEWALL) 11.0 CY

NOTES:

- REMOVE EXISTING WINGWALL BY SAWCUTTING STEM OF WING APPROXIMATELY 6" FROM JUNCTION WITH BARREL. CUT SHALL BE PERPENDICULAR TO FACE OF EXISTING WING.
- SEAL REBAR CUTS BY PAINTING CUT SURFACES WITH ONE COAT OF EPOXY PAINT.
- DRILL AND EPOXY "S1" DOWEL BARS INTO CENTER OF EXISTING CULVERT BOTTOM SLAB. MINIMUM EMBEDMENT OF DOWELS SHALL BE PER MANUFACTURERS INSTRUCTIONS. LOAD TESTING OF ADHESIVELY ANCHORED DOWELS IS NOT REQUIRED AT THIS LOCATION.
- FIELD CUT REBAR TO PROVIDE OPENING FOR 36" RCP THROUGH FACE OF WINGWALL. REBARS SHALL CLEAR PIPE BY 2 INCHES.
- AT CONTRACTOR'S OPTION, SIDES OF TOEWALL MAY BE CAST DIRECTLY AGAINST SOIL. PROVIDED SIDES ARE APPROXIMATELY VERTICAL, OR MAY BE A COMBINATION OF SOIL AND FORMWORK.
- "K" AND "H" BARS MAY BE FIELD CUT TO PROVIDE 3" CLEARANCE FROM END OF BAR IF NOTE 5 OPTION IS USED.
- SEE DRAINAGE PLANS FOR REQUIRED INVERTS OF 36" RCP.

PROJECT NO. 5B.209214.8  
 WAKE COUNTY  
 STATION: HAMMOND RD.

SHEET 1 OF 2



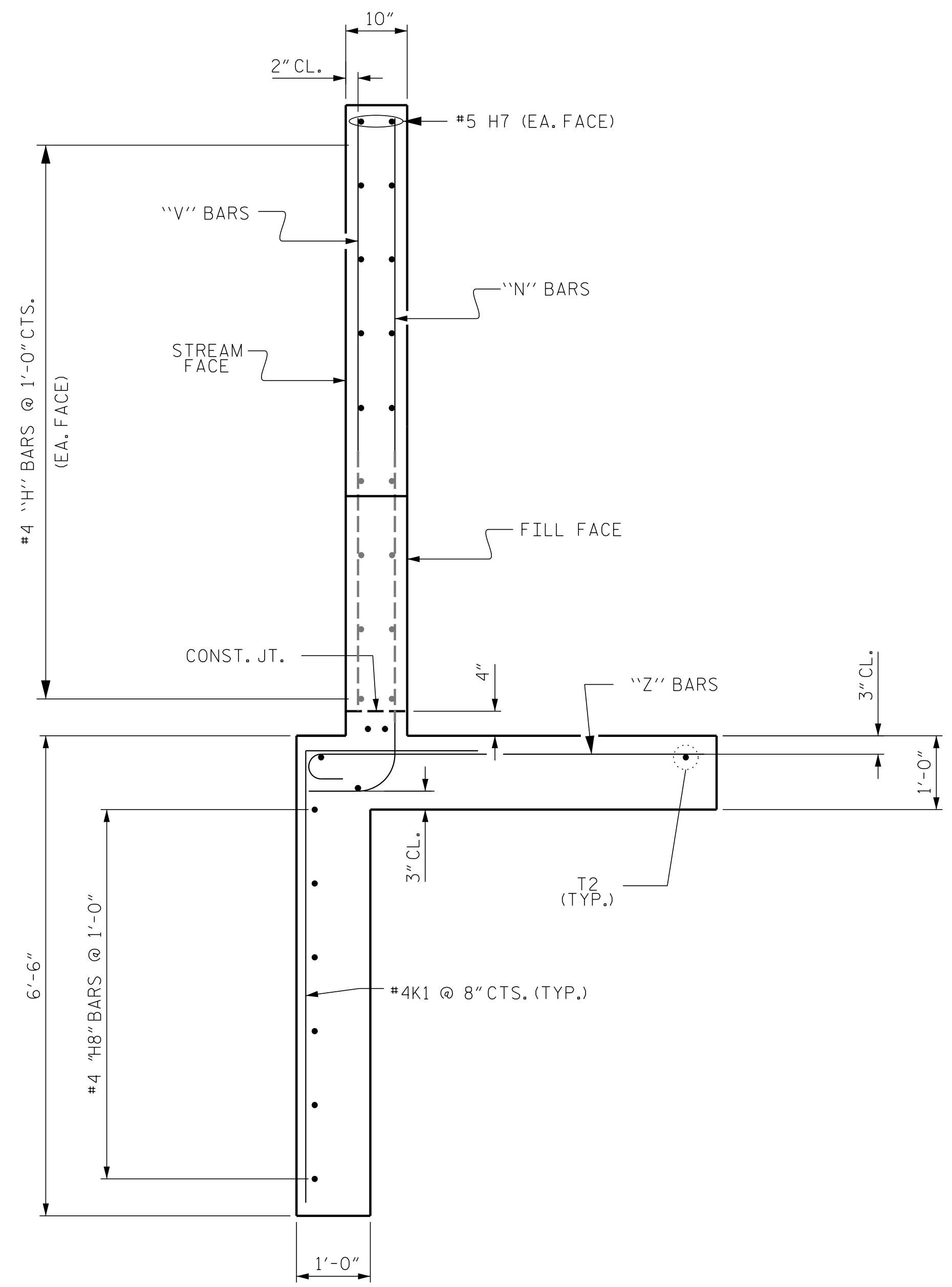
STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 NORTHWEST WINGWALL  
 FOR  
 CONCRETE BOX CULVERT  
 H = 8'-0"  
 90° SKEW

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS
2			4			4

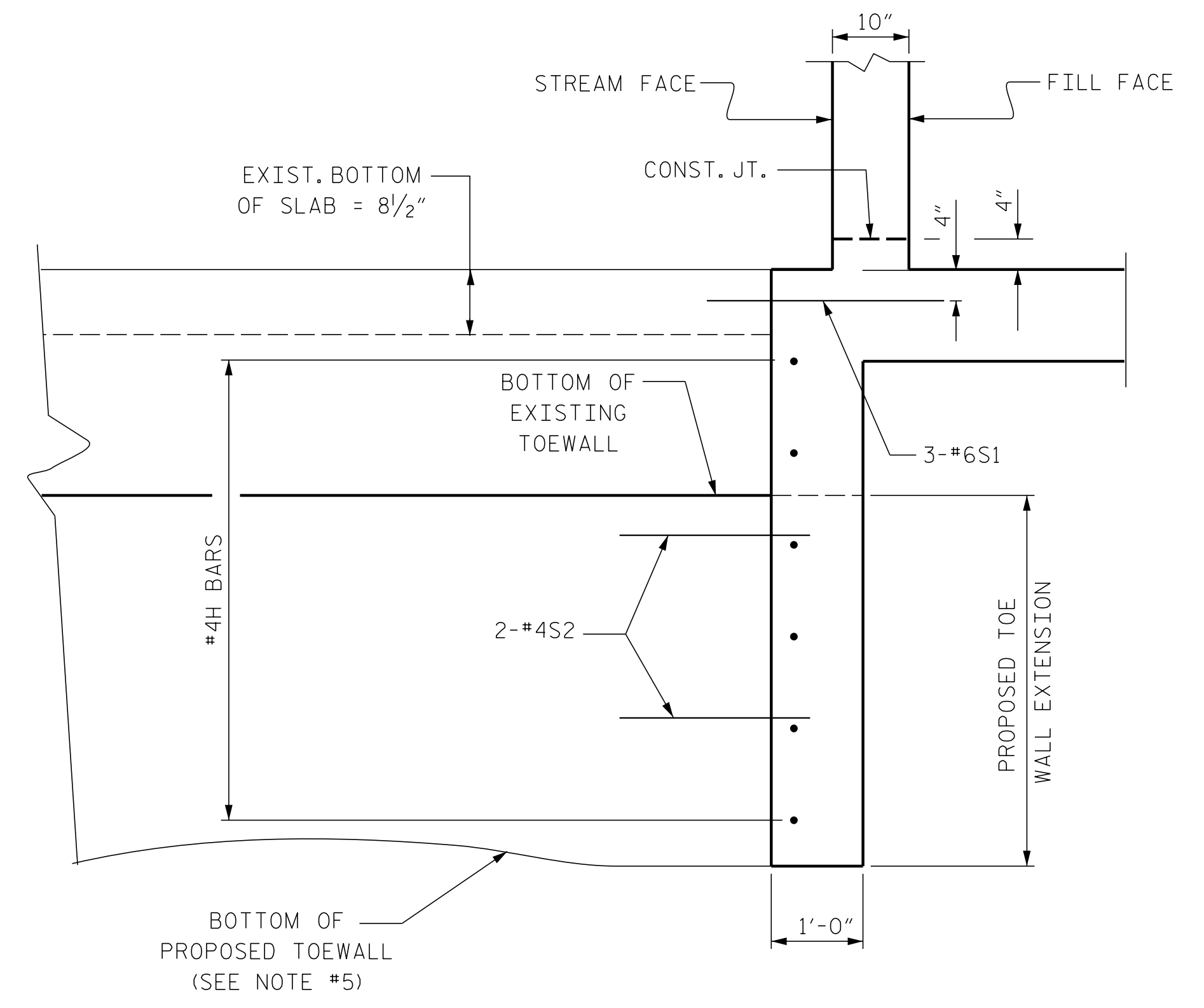
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ASSEMBLED BY : J. PENDERGRAFT DATE : 11-22  
 CHECKED BY : T. KOCH DATE : 12-22  
 DRAWN BY : CCJ 10/99 REV. 6/19 MAA/THC  
 CHECKED BY : RWW 03/00

\$FILE\$  
\$DATE\$

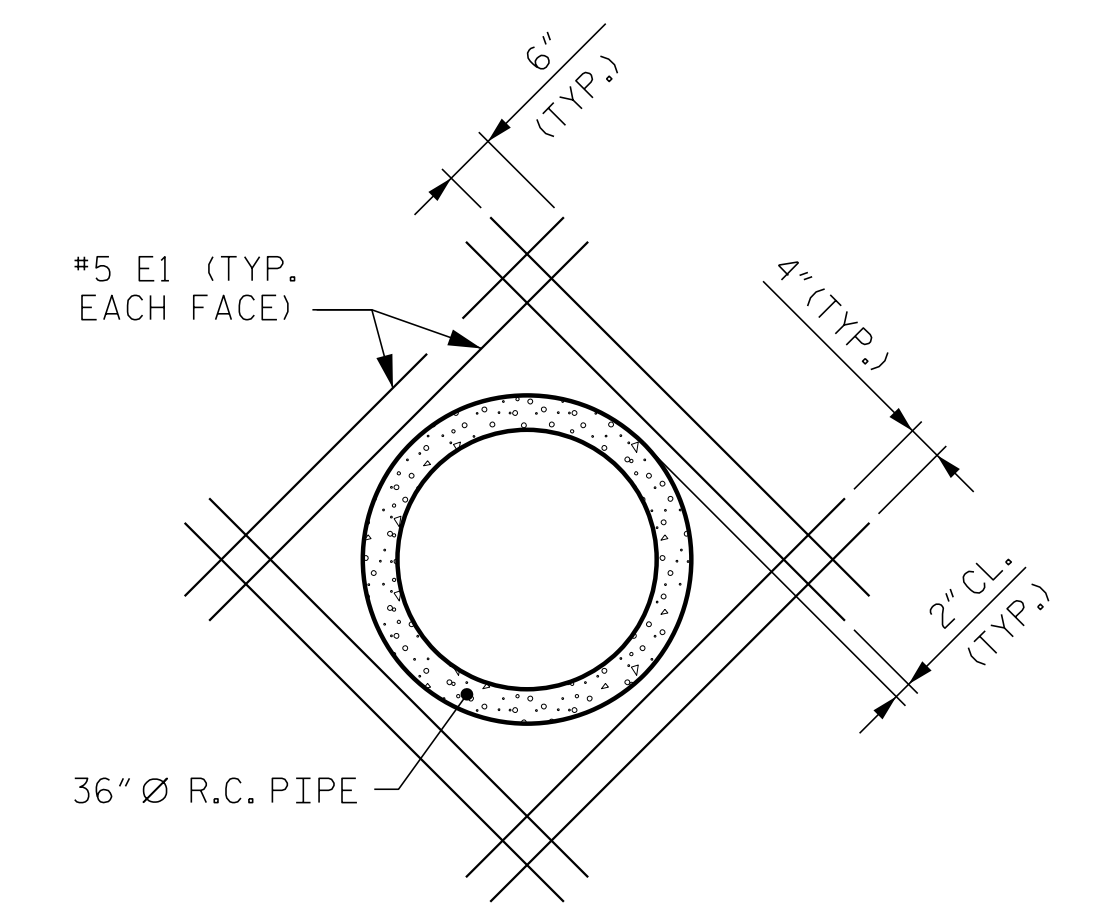


TYPICAL WING SECTION



ATTACHMENT DETAIL

NORTHWEST WINGWALL 4



DETAIL OF REINFORCING AROUND 36" Ø PIPE

PROJECT NO. 5B.209214.8  
WAKE COUNTY  
 STATION: HAMMOND RD.

SHEET 2 OF 2

\$FILE\$  
\$DATE\$  
\$TIME\$

DRAWN BY : J. PENDERGRAFT DATE : 1-23  
 CHECKED BY : T. KOCH DATE : 1-23

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

ENGINEER OF RECORD  
 7/27/2023  
 NORTH CAROLINA PROFESSIONAL SEAL  
 15431  
 THOMAS K. KOCH  
 ENGINEER  
 DocuSigned by:  
 Thomas K. Koch  
 WETHERILL ENGINEERING  
 1223 Jones Franklin Rd.  
 Raleigh, N.C. 27606  
 Bus: 919 851 8077  
 Fax: 919 851 8107  
 LICENSE NO. F-0377

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
**WINGWALL DETAILS**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS
2			4			4