



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

January 07, 2022

Addendum No. 1

RE: Contract # C204553

WBS # 40237.3.3

STATE FUNDED

Pender County (R-3300B)

NC-417 (HAMPSTEAD BYPASS) FROM SOUTH OF NC-210 TO NORTH OF SR-1563 (SLOOP POINT LOOP RD)

January 18, 2022 Letting

To Whom It May Concern:

Reference is made to the plans and proposal form furnished to you on this project.

The following revisions have been made to the Roadway plans.

Sheet No.	Revision
23	Right of Way information modified.
33	Right of Way information modified.

Please void the above listed Sheets in your plans and staple the revised Sheets thereto.

The following revisions have been made to the Utility by Others Plans.

Sheet No.	Revision
UO-5	Removed Abandoned note.
UO-6	Duke U/G revised to Duke O/H. Spectrum U/G revised to Duke O/H.
UO-7	Duke/Spectrum O/H revised to Duke O/H. Spectrum U/G line removed.

Please void the above listed Sheets in your plans and staple the revised Sheets thereto.

The following revisions have been made to the Structure (Wall) plans.

Sheet No.	Revision
SW9&11-1	The word “ NOT ” removed from Note:*Panel Color at Bridge Location shall match Federal Color 30450, as approved by Engineer. Architectural Surface Treatment is not required for Sound Absorptive Barrier Wall. Spelling of “approved” corrected.
SW10-1	The word “ NOT ” removed from Note:*Panel Color at Bridge Location shall match Federal Color 30450, as approved by Engineer. Architectural Surface Treatment is not required for Sound Absorptive Barrier Wall. Spelling of “approved” corrected.

Please void the above listed Sheets in your plans and staple the revised Sheets thereto.

The following revisions have been made to the proposal.

Page No.	Revision
Proposal Cover	Note added that reads “Includes Addendum No. 1 Dated 1-07-2022”.
G-6	Project Special Provision entitled SPECIALTY ITEMS was revised to add line numbers 424-426.
G-38	Project Special Provision entitled NOTES TO CONTRACTOR was revised.
ST-45 to ST-46 (New)	The Unit Project Special Provision entitled STRUCTURES, CULVERTS, WALLS was revised. “Sound Wall Access Door” provision was added.

Please void the above listed existing Pages in your proposal and staple the revised Pages thereto.

Staple New Pages ST-45 and ST-46 after ST-44 in your proposal.

On the item sheets the following pay item revisions have been made:

<u>Item</u>	<u>Description</u>	<u>Old Quantity</u>	<u>New Quantity</u>
0424-5802000000-E-1530	ABANDON 10” UTILITY PIPE	NEW ITEM	9,136.5 LF
0425-6102000000-E-1664	SODDING	NEW ITEM	10,000 SY
0426-6105000000-E-1664	WATER	NEW ITEM	20 M/G

0427-8834000000-N- SP	NO -SW9&11- SOUND WALL STEEL ACCESS DOOR	NEW ITEM	2 EA
0428-8834000000-N- SP	NO -SW10- SOUND WALL STEEL ACCESS DOOR	NEW ITEM	1 EA

The Contractor's bid must include these pay item revisions.

The electronic bidding file has been updated to reflect these revisions. Please download the Addendum File and follow the instructions for applying the addendum. Bid Express will not accept your bid unless the addendum has been applied.

The contract will be prepared accordingly.

Sincerely,

DocuSigned by:

F81B6038A47A442...
Ronald E. Davenport, Jr., PE
State Contract Officer

RED/cms
Attachments

- cc: Mr. Lamar Sylvester, PE
Mr. D. Chad Kimes, PE
Mr. Boyd Tharrington, PE
Mr. Jon Weathersbee, PE
Mr. Ken Kennedy, PE
Project File (2)
- Mr. Forrest Dungan, PE
Ms. Jaci Kincaid
Ms. Lori Strickland
Mr. Mike Gwyn
Ms. Penny Higgins
Mr. Kyle Kempf

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.

PROPOSAL

INCLUDES ADDENDUM No. 1 DATED 1-7-2022

DATE AND TIME OF BID OPENING: **JANUARY 18, 2022 AT 2:00 PM**

CONTRACT ID C204553
WBS 40237.3.3

FEDERAL-AID NO. STATE FUNDED

COUNTY PENDER

T.I.P. NO. R-3300B

MILES 6.916

ROUTE NO. NC 417

LOCATION NC-417 (HAMPSTEAD BYPASS) FROM SOUTH OF NC-210 TO NORTH OF SR-1563 (SLOOP POINT LOOP RD).

TYPE OF WORK GRADING, DRAINAGE, PAVING, SIGNALS, AND STRUCTURES.

NOTICE:

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOTWITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY FEDERAL - AID FUNDED PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING.

BIDS WILL BE RECEIVED AS SHOWN BELOW:

THIS IS A ROADWAY & STRUCTURE PROPOSAL

5% BID BOND OR BID DEPOSIT REQUIRED

SPECIALTY ITEMS:

(7-1-95)(Rev. 7-20-21)

108-6

SP1 G37

Items listed below will be the specialty items for this contract (see Article 108-6 of the 2018 *Standard Specifications*).

Line #	Description
134-151	Guardrail
152-157	Fencing
161-189	Signing
207-212, 221-223	Long-Life Pavement Markings
213	Removable Tape
224-225	Permanent Pavement Markers
231-270, 424	Utility Construction
271-307, 309, 425-426	Erosion Control
308	Reforestation
310-366	Signals/ITS System

AWARD OF CONTRACT:

Revise the 2018 *Standard Specifications* as follows:

Page 1-23, Subarticle 103-4 (A) General, first paragraph, replace the 3rd and 4th sentences with the following:

Where award is to be made, the notice of award will be issued within 60 days after the opening of bids or upon issuance of any necessary debt instrument, whichever is later, but not to exceed 120 days; except with the consent of the lowest responsible bidder the decision to award the contract to such bidder may be delayed for as long a time as may be agreed upon by the Department and such bidder. In the absence of such agreement, the lowest responsible bidder may withdraw his bid at the expiration of 120 days without penalty if no notice of award has been issued.

FUEL PRICE ADJUSTMENT:

(11-15-05) (Rev. 7-20-21)

109-8

SP1 G43

Revise the 2018 *Standard Specifications* as follows:

Page 1-87, Article 109-8, Fuel Price Adjustments, add the following:

The base index price for DIESEL #2 FUEL is \$ **2.6786** per gallon. Where any of the following are included as pay items in the contract, they will be eligible for fuel price adjustment.

The pay items and the fuel factor used in calculating adjustments to be made will be as follows:

Description	Units	Fuel Usage Factor Diesel
Unclassified Excavation	Gal/CY	0.29
Borrow Excavation	Gal/CY	0.29
Class IV Subgrade Stabilization	Gal/Ton	0.55
Aggregate Base Course	Gal/Ton	0.55
Sub-Ballast	Gal/Ton	0.55

manufacturer's specifications and be equipped with all noise reducing equipment in proper operating condition.

NOTES TO CONTRACTOR:

Construction Delays of Entry are required to facilitate Utility Relocations. Access will be available at current grade from -Y30- (NC 210), -Y38- (Holiday Drive), -Y31- (Hoover Road), -L- (US 17) & -L1 and L1 Northern- (NC 417). See plan sheets TMP-3 thru TMP-3C for durations of these Areas.

Construction traffic can only access -L1- and -L1- Northern- (NC 417) via State Maintained Roads – -Y30- (NC 210), -Y38- (Holiday Drive), -Y31- (Hoover Road), -L- (US 17).

Extend State Maintained Road at -Y38- (Holiday Drive) to include work limits of -Y38-. Install 1.5” overlay prior to final acceptance. No construction activity or vehicles allowed beyond limits of -Y38- (Holiday Drive) on non-state-maintained roadway.

DO NOT DISTURB One Story Brick Dwelling on Parcel 069 (Survey Station 42+00, Survey Line –Y-31 LT) until directed by the Engineer. Dwelling shall be demolished by the Contractor when directed by the Engineer.

Parcels 82 and 87 are owned by NCDOT and may be evaluated for borrow at the contractor’s risk. The Department shall not provide any guarantee of availability or acceptance and it is the contractor’s responsibility if pursuing borrow at this site to meet all NCDOT and environmental agency requirements.

Project R-3300B

ST-45

Pender County

SOUND WALL ACCESS DOOR:**(SPECIAL)****1.0 Description**

This work consists of the manufacture and installation of a single exterior hollow core steel door/frame with an associated sloped concrete threshold area and slope protection for personnel access through sound walls at overhead signs having supports located behind the sound wall. The work shall be in accordance with this provision, the *2018 NCDOT Standard Specifications for Roads and Structures*, and conform to the various locations and dimensions shown in the sound wall Plan and as directed by the Engineer.

2.0 Materials

Where a sound wall steel access door/frame is required in the contract Plan, materials and fabrication methods shall meet the following requirements:

- The door/frame shall be manufactured using galvanized carbon steel sheets of commercial quality (16 gauge) which are completely coated with zinc or zinc-alloy complying with ASTM A653, G90 coating, mill phosphatized. Door shall be 1 - 3/4" in thickness.
- A protective polyvinyl fluoride film having a minimum thickness of 1.5mils shall be installed on each side of the galvanized steel sheeting. The galvanized steel sheeting shall be prepared for film coating in accordance with ASTM D6386. This film coat shall be installed via lamination process, utilizing heat and adhesive to provide a uniform and durable coating. The film coat shall be colored to provide optimum color matching with the Federal standard color number indicated on the Plan for the sound wall.
- Door/frame supports and anchors for attachment to the sound wall shall be fabricated of 16-gauge minimum galvanized sheet steel.
- Door lever, cylinder, bolt, box, lock, strike plate, fasteners, inserts, etc. shall be marine grade 316 stainless steel.
- Commercial grade hinges shall be marine grade 316 stainless steel and fully commensurate with the size and weight of the door.
- Concrete sloped doorway threshold and slope protection material shall comply with Section 1000 of the *2018 NCDOT Standard Specifications for Roads and Structures*.

3.0 Submittals - Shop Drawings, Fabrication Drawings, Catalog Cuts

The Contractor shall prepare and submit shop drawings, fabrication drawings, catalog cuts, etc. as appropriate for the proposed single hollow core steel door/frame which shall be compatible with the sound wall specified in the Plan and these provisions. The submittal shall include all material specifications and details necessary for general construction, configuration, jointing methods, reinforcement, and anchorage. Sufficient design calculations or directly applicable test data for the proposed door/frame, if available, shall be provided to indicate the door will remain closed and intact during windspeeds equivalent to the design windspeed for the sound wall itself.

The Contractor shall furnish elevations and door locations to the Supplier for development of shop drawings. These drawings will include an elevation view of each single steel door/frame indicating the locations and concrete threshold area elevation directly at the door. The single

Project R-3300B

ST-46

Pender County

steel door shall have a 96" height and 36" width with keyed door entry handles set within 8" to 12" of clearance from the centerline of the door handle to the top of the adjacent 2' – 8" high roadway concrete barrier. The minimum swing arc from a closed position shall be 120 degrees. The door/frame shall be designed so that it cannot be opened in such a way that it will strike directly against the sound wall edge.

The type of jointing/filler material proposed for use such as sealant, caulk, grout, etc. to fill any space between the door frame and the sound wall shall be submitted for approval by the Engineer and shall either be a direct match to the proposed color of the sound wall as shown in the Plan or shall be the closest available match subject to review and approval by the Engineer.

Furnish one complete copy of each submittal to the Engineer with 7 complete copies furnished to the Structures Management Unit unless directed otherwise by the Engineer.

4.0 Construction Methods

The Contractor shall install the single steel door/frame according to the manufacturer's recommendations, the Plan, contract documents, and shop drawings or other submittals approved by the Engineer. The sloped concrete threshold area and adjoining slope protection around the sign support shall be constructed in accordance with section 825 of the *2018 NCDOT Standard Specifications for Roads and Structures*.

The finished work shall provide a neat appearance with a uniform wall and door/frame color matching the Federal standard color number provided in the Plan for the sound wall. Door surfaces shall be carefully protected prior to, during, and after installation to avoid scratching or other damage to protective coatings. Such damage to the doors may necessitate replacement based on the Engineer's sole discretion.

The locks for the steel doors shall all be keyed identically and a total of ten (10) keys shall be provided to the Engineer immediately following installation. Each key shall be capable of opening every single steel door on the project.

5.0 Measurement and Payment

Sound Wall Steel Access Door shall be measured and paid as the number of each of these items manufactured and installed as part of the aforementioned, accepted work. Such price and payment will be full compensation for all work and will include, but not be limited to, furnishing all labor, materials, shop drawings, equipment, maintenance during construction prior to project acceptance, and other incidentals necessary to complete this work.

Payment will be made under:

Pay Item

___ Sound Wall Steel Access Door

Pay Unit

Each

County : Pender

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
ROADWAY ITEMS						
0001	0000100000-N	800	MOBILIZATION	Lump Sum	L.S.	
0002	0000400000-N	801	CONSTRUCTION SURVEYING	Lump Sum	L.S.	
0003	0000900000-N	SP	GENERIC MISCELLANEOUS ITEM FIELD OFFICE	Lump Sum	L.S.	
0004	0001000000-E	200	CLEARING & GRUBBING .. ACRE(S)	Lump Sum	L.S.	
0005	0008000000-E	200	SUPPLEMENTARY CLEARING & GRUB- BING	5 ACR		
0006	0015000000-N	205	SEALING ABANDONED WELLS	5 EA		
0007	0022000000-E	225	UNCLASSIFIED EXCAVATION	104,500 CY		
0008	0028000000-N	SP	TYPE I STANDARD APPROACH FILL STATION ***** (30+17.11 -Y31-)	Lump Sum	L.S.	
0009	0028000000-N	SP	TYPE I STANDARD APPROACH FILL STATION ***** (658+69.17 -L1- LT)	Lump Sum	L.S.	
0010	0028000000-N	SP	TYPE I STANDARD APPROACH FILL STATION ***** (658+69.17 -L1- RT)	Lump Sum	L.S.	
0011	0030000000-N	SP	TYPE II MODIFIED APPROACH FILL, STATION ***** (39+82.39 -Y30-)	Lump Sum	L.S.	
0012	0036000000-E	225	UNDERCUT EXCAVATION	168,000 CY		
0013	0084000000-E	SP	WICK DRAINS	743,000 LF		
0014	0106000000-E	230	BORROW EXCAVATION	4,405,300 CY		
0015	0127000000-N	235	EMBANKMENT SETTLEMENT GAUGES	26 EA		
0016	0134000000-E	240	DRAINAGE DITCH EXCAVATION	37,600 CY		
0017	0156000000-E	250	REMOVAL OF EXISTING ASPHALT PAVEMENT	80,460 SY		
0018	0177000000-E	250	BREAKING OF EXISTING ASPHALT PAVEMENT	12,700 SY		

County : Pender

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0019	0192000000-N	260	PROOF ROLLING	90 HR		
0020	0194000000-E	265	SELECT GRANULAR MATERIAL, CLASS III	56,800 CY		
0021	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZA- TION	68,800 SY		
0022	0199000000-E	SP	TEMPORARY SHORING	13,210 SF		
0023	0223000000-E	275	ROCK PLATING	2,400 SY		
0024	0248000000-N	SP	GENERIC GRADING ITEM MODIFIED TYPE A BRIDGE AP- PROACH FILL, STATION 25+28.04 -Y32-	Lump Sum	L.S.	
0025	0248000000-N	SP	GENERIC GRADING ITEM PLACEMENT OF NATIVE MATERIAL	Lump Sum	L.S.	
0026	0255000000-E	SP	GENERIC GRADING ITEM HAULING AND DISPOSAL OF PETRO- LEUM CONTAMINATED SOIL	50 TON		
0027	0318000000-E	300	FOUNDATION CONDITIONING MATE- RIAL, MINOR STRUCTURES	4,910 TON		
0028	0320000000-E	300	FOUNDATION CONDITIONING GEO- TEXTILE	15,440 SY		
0029	0335000000-E	305	*** DRAINAGE PIPE (60")	184 LF		
0030	0335200000-E	305	15" DRAINAGE PIPE	3,416 LF		
0031	0335300000-E	305	18" DRAINAGE PIPE	992 LF		
0032	0335400000-E	305	24" DRAINAGE PIPE	612 LF		
0033	0335500000-E	305	30" DRAINAGE PIPE	432 LF		
0034	0335600000-E	305	36" DRAINAGE PIPE	324 LF		
0035	0335700000-E	305	42" DRAINAGE PIPE	60 LF		
0036	0335800000-E	305	48" DRAINAGE PIPE	108 LF		

County : Pender

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0037	0335850000-E	305	*** DRAINAGE PIPE ELBOWS (15")	82 EA		
0038	0335850000-E	305	*** DRAINAGE PIPE ELBOWS (18")	8 EA		
0039	0335850000-E	305	*** DRAINAGE PIPE ELBOWS (24")	2 EA		
0040	0335850000-E	305	*** DRAINAGE PIPE ELBOWS (30")	2 EA		
0041	0343000000-E	310	15" SIDE DRAIN PIPE	392 LF		
0042	0344000000-E	310	18" SIDE DRAIN PIPE	96 LF		
0043	0345000000-E	310	24" SIDE DRAIN PIPE	136 LF		
0044	0354000000-E	310	**** RC PIPE CULVERTS, CLASS ***** (18", V)	48 LF		
0045	0354000000-E	310	**** RC PIPE CULVERTS, CLASS ***** (30", V)	96 LF		
0046	0354000000-E	310	**** RC PIPE CULVERTS, CLASS ***** (36", V)	320 LF		
0047	0354000000-E	310	**** RC PIPE CULVERTS, CLASS ***** (42", V)	464 LF		
0048	0366000000-E	310	15" RC PIPE CULVERTS, CLASS III	7,752 LF		
0049	0372000000-E	310	18" RC PIPE CULVERTS, CLASS III	2,588 LF		
0050	0378000000-E	310	24" RC PIPE CULVERTS, CLASS III	1,960 LF		
0051	0384000000-E	310	30" RC PIPE CULVERTS, CLASS III	1,164 LF		
0052	0390000000-E	310	36" RC PIPE CULVERTS, CLASS III	4,644 LF		

County : Pender

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0053	0396000000-E	310	42" RC PIPE CULVERTS, CLASS III	800 LF		
0054	0402000000-E	310	48" RC PIPE CULVERTS, CLASS III	1,200 LF		
0055	0408000000-E	310	54" RC PIPE CULVERTS, CLASS III	1,128 LF		
0056	0448000000-E	310	**** RC PIPE CULVERTS, CLASS IV (48")	112 LF		
0057	0448000000-E	310	**** RC PIPE CULVERTS, CLASS IV (66")	232 LF		
0058	0448000000-E	310	**** RC PIPE CULVERTS, CLASS IV (78")	428 LF		
0059	0448200000-E	310	15" RC PIPE CULVERTS, CLASS IV	8,424 LF		
0060	0448300000-E	310	18" RC PIPE CULVERTS, CLASS IV	1,954 LF		
0061	0448400000-E	310	24" RC PIPE CULVERTS, CLASS IV	564 LF		
0062	0448500000-E	310	30" RC PIPE CULVERTS, CLASS IV	876 LF		
0063	0448600000-E	310	36" RC PIPE CULVERTS, CLASS IV	3,352 LF		
0064	0448700000-E	310	42" RC PIPE CULVERTS, CLASS IV	1,000 LF		
0065	0546000000-E	310	*** CAA PIPE CULVERTS, ***** THICK (48", 0.109")	340 LF		
0066	0973100000-E	330	*** WELDED STEEL PIPE, ***** THICK, GRADE B IN SOIL (54", 0.750")	60 LF		
0067	0973300000-E	330	*** WELDED STEEL PIPE, ***** THICK, GRADE B NOT IN SOIL (54", 0.750")	60 LF		
0068	0992000000-E	SP	GENERIC PIPE ITEM 30" PIPE ENDWALL WITH LOAD-CARRYING GRATE	5 EA		

County : Pender

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0069	0992000000-E	SP	GENERIC PIPE ITEM 36" PIPE ENDWALL WITH LOAD- CARRYING GRATE	28 EA		
0070	0992000000-E	SP	GENERIC PIPE ITEM 42" PIPE ENDWALL WITH LOAD- CARRYING GRATE	2 EA		
0071	0992000000-E	SP	GENERIC PIPE ITEM 48" PIPE ENDWALL WITH LOAD- CARRYING GRATE	2 EA		
0072	0992000000-E	SP	GENERIC PIPE ITEM 54" PIPE ENDWALL WITH LOAD- CARRYING GRATE	1 EA		
0073	0992000000-E	SP	GENERIC PIPE ITEM 6" VALVE	1 EA		
0074	0995000000-E	340	PIPE REMOVAL	13,207 LF		
0075	1000000000-E	462	6" SLOPE PROTECTION	675 SY		
0076	1011000000-N	500	FINE GRADING	Lump Sum	L.S.	
0077	1099500000-E	505	SHALLOW UNDERCUT	1,100 CY		
0078	1099700000-E	505	CLASS IV SUBGRADE STABILIZA- TION	2,050 TON		
0079	1111000000-E	SP	CLASS IV AGGREGATE STABILIZA- TION	12,170 TON		
0080	1121000000-E	520	AGGREGATE BASE COURSE	157,800 TON		
0081	1220000000-E	545	INCIDENTAL STONE BASE	10,000 TON		
0082	1275000000-E	600	PRIME COAT	19,109 GAL		
0083	1297000000-E	607	MILLING ASPHALT PAVEMENT, **** DEPTH (1-1/2")	1,590 SY		
0084	1330000000-E	607	INCIDENTAL MILLING	2,000 SY		
0085	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	101,660 TON		

County : Pender

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0086	1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	92,280 TON		
0087	1519000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	18,990 TON		
0088	1523000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	73,460 TON		
0089	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	14,685 TON		
0090	1693000000-E	654	ASPHALT PLANT MIX, PAVEMENT REPAIR	800 TON		
0091	1840000000-E	665	MILLED RUMBLE STRIPS (ASPHALT CONCRETE)	118,100 LF		
0092	2022000000-E	815	SUBDRAIN EXCAVATION	3,159 CY		
0093	2026000000-E	815	GEOTEXTILE FOR SUBSURFACE DRAINS	9,400 SY		
0094	2036000000-E	815	SUBDRAIN COARSE AGGREGATE	1,580 CY		
0095	2044000000-E	815	6" PERFORATED SUBDRAIN PIPE	9,400 LF		
0096	2070000000-N	815	SUBDRAIN PIPE OUTLET	19 EA		
0097	2077000000-E	815	6" OUTLET PIPE	114 LF		
0098	2209000000-E	838	ENDWALLS	115.6 CY		
0099	2220000000-E	838	REINFORCED ENDWALLS	52.7 CY		
0100	2253000000-E	840	PIPE COLLARS	7.44 CY		
0101	2275000000-E	SP	FLOWABLE FILL	26 CY		
0102	2286000000-N	840	MASONRY DRAINAGE STRUCTURES	352 EA		
0103	2297000000-E	840	MASONRY DRAINAGE STRUCTURES	8.3 CY		
0104	2308000000-E	840	MASONRY DRAINAGE STRUCTURES	171 LF		

County : Pender

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0105	2352000000-N	840	FRAME WITH GRATE, STD 840.**** (840.20)	8 EA		
0106	2354000000-N	840	FRAME WITH GRATE, STD 840.22	21 EA		
0107	2364000000-N	840	FRAME WITH TWO GRATES, STD 840.16	30 EA		
0108	2364200000-N	840	FRAME WITH TWO GRATES, STD 840.20	84 EA		
0109	2365000000-N	840	FRAME WITH TWO GRATES, STD 840.22	85 EA		
0110	2366000000-N	840	FRAME WITH TWO GRATES, STD 840.24	4 EA		
0111	2367000000-N	840	FRAME WITH TWO GRATES, STD 840.29	5 EA		
0112	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (E)	24 EA		
0113	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (F)	59 EA		
0114	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (G)	54 EA		
0115	2396000000-N	840	FRAME WITH COVER, STD 840.54	4 EA		
0116	2407000000-N	840	STEEL FRAME WITH TWO GRATES, STD 840.37	5 EA		
0117	2440000000-N	852	CONCRETE TRANSITIONAL SECTION FOR CATCH BASIN	1 EA		
0118	2451000000-N	852	CONCRETE TRANSITIONAL SECTION FOR DROP INLET	23 EA		
0119	2462000000-E	836	*** SLUICE GATE (8")	1 EA		
0120	2538000000-E	846	***_*** CONCRETE CURB & GUTTER (2'-9")	1,010 LF		

County : Pender

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0121	2542000000-E	846	1'-6" CONCRETE CURB & GUTTER	13,770	LF	
0122	2549000000-E	846	2'-6" CONCRETE CURB & GUTTER	21,560	LF	
0123	2556000000-E	846	SHOULDER BERM GUTTER	9,580	LF	
0124	2591000000-E	848	4" CONCRETE SIDEWALK	2,620	SY	
0125	2605000000-N	848	CONCRETE CURB RAMPS	22	EA	
0126	2612000000-E	848	6" CONCRETE DRIVEWAY	400	SY	
0127	2655000000-E	852	5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)	7,950	SY	
0128	2717000000-E	854	VARIABLE HEIGHT CONCRETE BAR- RIER, TYPE ***** (II)	1,110	LF	
0129	2717000000-E	854	VARIABLE HEIGHT CONCRETE BAR- RIER, TYPE ***** (III)	59	LF	
0130	2717000000-E	854	VARIABLE HEIGHT CONCRETE BAR- RIER, TYPE ***** (T2)	59	LF	
0131	2724000000-E	857	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACED	14,020	LF	
0132	2905000000-N	859	CONVERT EXISTING DROP INLET TO JUNCTION BOX	2	EA	
0133	2995000000-N	SP	GENERIC DRAINAGE ITEM CONVERT EXISTING CATCH BASIN TO TRAFFIC BEARING JUNCTION BOX	4	EA	
0134	3001000000-N	SP	IMPACT ATTENUATOR UNITS, TYPE TL-3	14	EA	
0135	3030000000-E	862	STEEL BEAM GUARDRAIL	27,837.5	LF	
0136	3045000000-E	862	STEEL BEAM GUARDRAIL, SHOP CURVED	1,112.5	LF	
0137	3140000000-E	862	25' CLEAR SPAN GUARDRAIL SEC- TIONS	1	EA	

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0138	3150000000-N	862	ADDITIONAL GUARDRAIL POSTS	30 EA		
0139	3195000000-N	862	GUARDRAIL END UNITS, TYPE AT-1	3 EA		
0140	3210000000-N	862	GUARDRAIL END UNITS, TYPE CAT-1	27 EA		
0141	3215000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE III	4 EA		
0142	3287000000-N	SP	GUARDRAIL END UNITS, TYPE TL-3	34 EA		
0143	3288000000-N	SP	GUARDRAIL END UNITS, TYPE TL-2	12 EA		
0144	3317000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE B-77	31 EA		
0145	3360000000-E	863	REMOVE EXISTING GUARDRAIL	1,106 LF		
0146	3380000000-E	862	TEMPORARY STEEL BEAM GUARDRAIL	1,750 LF		
0147	3389150000-N	SP	TEMPORARY GUARDRAIL END UNITS, TYPE ***** (TL-2)	4 EA		
0148	3389150000-N	SP	TEMPORARY GUARDRAIL END UNITS, TYPE ***** (TL-3)	8 EA		
0149	3389200000-E	865	CABLE GUIDERAIL	26,900 LF		
0150	3389500000-N	865	ADDITIONAL GUIDERAIL POSTS	10 EA		
0151	3389600000-N	865	CABLE GUIDERAIL ANCHOR UNITS	34 EA		
0152	3503000000-E	866	WOVEN WIRE FENCE, 47" FABRIC	66,750 LF		
0153	3509000000-E	866	4" TIMBER FENCE POSTS, 7'-6" LONG	4,319 EA		
0154	3515000000-E	866	5" TIMBER FENCE POSTS, 8'-0" LONG	832 EA		
0155	3557000000-E	866	ADDITIONAL BARBED WIRE	1,000 LF		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0156	3564000000-E	866	SINGLE GATES, *** HIGH, *** WIDE, *** OPENING (47", 12', 12')	7 EA		
0157	3565000000-E	866	DOUBLE GATES, *** HIGH, *** WIDE, *** OPENING (47", 10', 20')	2 EA		
0158	3628000000-E	876	RIP RAP, CLASS I	5,656 TON		
0159	3649000000-E	876	RIP RAP, CLASS B	11,250 TON		
0160	3656000000-E	876	GEOTEXTILE FOR DRAINAGE	42,700 SY		
0161	4048000000-E	902	REINFORCED CONCRETE SIGN FOUNDATIONS	13 CY		
0162	4054000000-E	902	PLAIN CONCRETE SIGN FOUNDATIONS	2 CY		
0163	4057000000-E	SP	OVERHEAD FOOTING	24 CY		
0164	4060000000-E	903	SUPPORTS, BREAKAWAY STEEL BEAM	14,099 LB		
0165	4066000000-E	903	SUPPORTS, SIMPLE STEEL BEAM	971 LB		
0166	4072000000-E	903	SUPPORTS, 3-LB STEEL U-CHANNEL	6,829 LF		
0167	4082000000-E	903	SUPPORTS, WOOD	117 LF		
0168	4082100000-N	906	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (233+44 -L-)	Lump Sum	L.S.	
0169	4082100000-N	906	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (279+50 -L-)	Lump Sum	L.S.	
0170	4082100000-N	906	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (651+15 -L1-)	Lump Sum	L.S.	
0171	4082100000-N	906	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (654+20 -L1-)	Lump Sum	L.S.	

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0172	4082100000-N	906	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (680+60 -L1-)	Lump Sum	L.S.	
0173	4082100000-N	906	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (838+15 -L1 NORTHERN-)	Lump Sum	L.S.	
0174	4082100000-N	906	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (874+60 -L1 NORTHERN-)	Lump Sum	L.S.	
0175	4096000000-N	904	SIGN ERECTION, TYPE D	9 EA		
0176	4102000000-N	904	SIGN ERECTION, TYPE E	240 EA		
0177	4108000000-N	904	SIGN ERECTION, TYPE F	63 EA		
0178	4109000000-N	904	SIGN ERECTION, TYPE *** (OVERHEAD) (A)	11 EA		
0179	4109000000-N	904	SIGN ERECTION, TYPE *** (OVERHEAD) (B)	7 EA		
0180	4110000000-N	904	SIGN ERECTION, TYPE *** (GROUND MOUNTED) (A)	17 EA		
0181	4110000000-N	904	SIGN ERECTION, TYPE *** (GROUND MOUNTED) (B)	10 EA		
0182	4114000000-N	904	SIGN ERECTION, MILEMARKERS	20 EA		
0183	4116100000-N	904	SIGN ERECTION, RELOCATE TYPE **** (GROUND MOUNTED) (D)	10 EA		
0184	4116100000-N	904	SIGN ERECTION, RELOCATE TYPE **** (GROUND MOUNTED) (E)	3 EA		
0185	4155000000-N	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	33 EA		
0186	4192000000-N	907	DISPOSAL OF SUPPORT, U-CHANNEL	13 EA		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0187	4360000000-N	SP	GENERIC SIGNING ITEM VERTICAL PANEL TYPE 3 OBJECT MARKER – OM3-C	6 EA		
0188	4360000000-N	SP	GENERIC SIGNING ITEM VERTICAL PANEL TYPE 3 OBJECT MARKER – OM3-L	19 EA		
0189	4360000000-N	SP	GENERIC SIGNING ITEM VERTICAL PANEL TYPE 3 OBJECT MARKER – OM3-R	1 EA		
0190	4400000000-E	1110	WORK ZONE SIGNS (STATIONARY)	917 SF		
0191	4405000000-E	1110	WORK ZONE SIGNS (PORTABLE)	343 SF		
0192	4410000000-E	1110	WORK ZONE SIGNS (BARRICADE MOUNTED)	498 SF		
0193	4415000000-N	1115	FLASHING ARROW BOARD	4 EA		
0194	4420000000-N	1120	PORTABLE CHANGEABLE MESSAGE SIGN	7 EA		
0195	4423000000-N	SP	WORK ZONE DIGITAL SPEED LIMIT SIGNS	2 EA		
0196	4430000000-N	1130	DRUMS	1,301 EA		
0197	4445000000-E	1145	BARRICADES (TYPE III)	1,360 LF		
0198	4455000000-N	1150	FLAGGER	440 DAY		
0199	4465000000-N	1160	TEMPORARY CRASH CUSHIONS	4 EA		
0200	4470000000-N	1160	REMOVE & RESET TEMPORARY CRASH CUSHION	3 EA		
0201	4480000000-N	1165	TMA	4 EA		
0202	4485000000-E	1170	PORTABLE CONCRETE BARRIER	2,200 LF		
0203	4490000000-E	1170	PORTABLE CONCRETE BARRIER (ANCHORED)	2,120 LF		
0204	4500000000-E	1170	REMOVE AND RESET PORTABLE CON- CRETE BARRIER	2,420 LF		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0205	4520000000-N	1266	TUBULAR MARKERS (FIXED)	50 EA		
0206	4650000000-N	1251	TEMPORARY RAISED PAVEMENT MARKERS	1,800 EA		
0207	4685000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)	72,950 LF		
0208	4688000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (6", 90 MILS)	152,618 LF		
0209	4695000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)	5,353 LF		
0210	4700000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (12", 90 MILS)	12,680 LF		
0211	4720000000-E	1205	THERMOPLASTIC PAVEMENT MARKING CHARACTER (90 MILS)	64 EA		
0212	4725000000-E	1205	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	208 EA		
0213	4770000000-E	1205	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (4") (IV)	2,590 LF		
0214	4810000000-E	1205	PAINT PAVEMENT MARKING LINES (4")	426,805 LF		
0215	4815000000-E	1205	PAINT PAVEMENT MARKING LINES (6")	10,450 LF		
0216	4820000000-E	1205	PAINT PAVEMENT MARKING LINES (8")	11,875 LF		
0217	4825000000-E	1205	PAINT PAVEMENT MARKING LINES (12")	4,380 LF		
0218	4835000000-E	1205	PAINT PAVEMENT MARKING LINES (24")	1,240 LF		
0219	4840000000-N	1205	PAINT PAVEMENT MARKING CHARACTER	64 EA		
0220	4845000000-N	1205	PAINT PAVEMENT MARKING SYMBOL	138 EA		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0221	4890000000-E	SP	GENERIC PAVEMENT MARKING ITEM POLYUREA PAVEMENT MARKING LINES, 4", 20 MILS (STANDARD GLASS BEADS)	3,223 LF		
0222	4890000000-E	SP	GENERIC PAVEMENT MARKING ITEM POLYUREA PAVEMENT MARKING LINES, 6", 20 MILS (STANDARD GLASS BEADS)	1,630 LF		
0223	4891000000-E	1205	GENERIC PAVEMENT MARKING ITEM THERMOPLASTIC PAVEMENT MARKING LINES (24", 90 MILS)	1,340 LF		
0224	4895000000-N	SP	GENERIC PAVEMENT MARKING ITEM NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKER	1,520 EA		
0225	4900000000-N	1251	PERMANENT RAISED PAVEMENT MARKERS	55 EA		
0226	4935000000-N	1267	FLEXIBLE DELINEATORS (CRYSTAL)	70 EA		
0227	4940000000-N	1267	FLEXIBLE DELINEATORS (YELLOW)	70 EA		
0228	4945000000-N	1267	FLEXIBLE DELINEATORS (CRYSTAL & RED)	16 EA		
0229	4950000000-N	1267	FLEXIBLE DELINEATORS (YELLOW & RED)	12 EA		
0230	5255000000-N	1413	PORTABLE LIGHTING	Lump Sum	L.S.	
0231	5325000000-E	1510	*** WATER LINE (18")	4,874 LF		
0232	5325400000-E	1510	4" WATER LINE	15 LF		
0233	5325600000-E	1510	6" WATER LINE	297.4 LF		
0234	5326200000-E	1510	12" WATER LINE	3,912.3 LF		
0235	5326600000-E	1510	16" WATER LINE	5,657.1 LF		
0236	5329000000-E	1510	DUCTILE IRON WATER PIPE FITTINGS	35,855 LB		
0237	5540000000-E	1515	6" VALVE	4 EA		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0238	5552000000-E	1515	10" VALVE	7	EA	
0239	5558000000-E	1515	12" VALVE	1	EA	
0240	5558600000-E	1515	16" VALVE	7	EA	
0241	5572200000-E	1515	12" TAPPING SLEEVE & VALVE	2	EA	
0242	5589100000-E	1515	1" AIR RELEASE VALVE	6	EA	
0243	5648000000-N	1515	RELOCATE WATER METER	1	EA	
0244	5649000000-N	1515	RECONNECT WATER METER	2	EA	
0245	5666000000-N	1515	FIRE HYDRANT	5	EA	
0246	5672000000-N	1515	RELOCATE FIRE HYDRANT	5	EA	
0247	5673000000-E	1515	FIRE HYDRANT LEG	80	LF	
0248	5678800000-E	1515	10" LINE STOP	4	EA	
0249	5679000000-E	1515	12" LINE STOP	3	EA	
0250	5679200000-E	1515	16" LINE STOP	4	EA	
0251	5686500000-E	1515	WATER SERVICE LINE	33.3	LF	
0252	5709200000-E	1520	4" FORCE MAIN SEWER	64	LF	
0253	5709500000-E	1520	10" FORCE MAIN SEWER	7,289.1	LF	
0254	5709600000-E	1520	12" FORCE MAIN SEWER	2,503.4	LF	
0255	5769000000-E	1520	DUCTILE IRON SEWER PIPE FITTINGS	8,835	LB	
0256	5798000000-E	1530	ABANDON *** UTILITY PIPE (4")	140.5	LF	
0257	5800000000-E	1530	ABANDON 6" UTILITY PIPE	935	LF	

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0258	5804000000-E	1530	ABANDON 12" UTILITY PIPE	4,281.7 LF		
0259	5810000000-E	1530	ABANDON 16" UTILITY PIPE	9,544 LF		
0260	5815000000-N	1530	REMOVE WATER METER	12 EA		
0261	5815500000-N	1530	REMOVE FIRE HYDRANT	3 EA		
0262	5835700000-E	1540	16" ENCASEMENT PIPE	207.2 LF		
0263	5835900000-E	1540	20" ENCASEMENT PIPE	243.6 LF		
0264	5836000000-E	1540	24" ENCASEMENT PIPE	942.1 LF		
0265	5872500000-E	1550	BORE AND JACK OF *** (16")	171.6 LF		
0266	5872500000-E	1550	BORE AND JACK OF *** (20")	219.2 LF		
0267	5872500000-E	1550	BORE AND JACK OF *** (24")	238.5 LF		
0268	5872600000-E	1550	DIRECTIONAL DRILLING OF *** (12")	2,304.4 LF		
0269	5872600000-E	1550	DIRECTIONAL DRILLING OF *** (16")	516 LF		
0270	5872600000-E	1550	DIRECTIONAL DRILLING OF *** (18")	4,200.6 LF		
0271	6000000000-E	1605	TEMPORARY SILT FENCE	251,850 LF		
0272	6006000000-E	1610	STONE FOR EROSION CONTROL, CLASS A	3,850 TON		
0273	6009000000-E	1610	STONE FOR EROSION CONTROL, CLASS B	28,110 TON		
0274	6012000000-E	1610	SEDIMENT CONTROL STONE	13,640 TON		
0275	6015000000-E	1615	TEMPORARY MULCHING	245 ACR		
0276	6018000000-E	1620	SEED FOR TEMPORARY SEEDING	14,500 LB		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0277	6021000000-E	1620	FERTILIZER FOR TEMPORARY SEED- ING	74 TON		
0278	6024000000-E	1622	TEMPORARY SLOPE DRAINS	39,650 LF		
0279	6029000000-E	SP	SAFETY FENCE	39,920 LF		
0280	6030000000-E	1630	SILT EXCAVATION	134,940 CY		
0281	6036000000-E	1631	MATTING FOR EROSION CONTROL	400,000 SY		
0282	6037000000-E	SP	COIR FIBER MAT	37,285 SY		
0283	6038000000-E	SP	PERMANENT SOIL REINFORCEMENT MAT	1,400 SY		
0284	6042000000-E	1632	1/4" HARDWARE CLOTH	22,900 LF		
0285	6043000000-E	SP	LOW PERMEABILITY GEOTEXTILE	10,040 SY		
0286	6045000000-E	SP	*** TEMPORARY PIPE (36")	185 LF		
0287	6045000000-E	SP	*** TEMPORARY PIPE (42")	80 LF		
0288	6070000000-N	1639	SPECIAL STILLING BASINS	14 EA		
0289	6071012000-E	SP	COIR FIBER WATTLE	24,100 LF		
0290	6071020000-E	SP	POLYACRYLAMIDE (PAM)	9,030 LB		
0291	6071030000-E	1640	COIR FIBER BAFFLE	26,000 LF		
0292	6071050000-E	SP	*** SKIMMER (1-1/2")	21 EA		
0293	6071050000-E	SP	*** SKIMMER (2")	21 EA		
0294	6071050000-E	SP	*** SKIMMER (2-1/2")	9 EA		
0295	6071050000-E	SP	*** SKIMMER (3")	4 EA		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0296	6071050000-E	SP	*** SKIMMER (5")	2 EA		
0297	6084000000-E	1660	SEEDING & MULCHING	245 ACR		
0298	6087000000-E	1660	MOWING	124 ACR		
0299	6090000000-E	1661	SEED FOR REPAIR SEEDING	3,000 LB		
0300	6093000000-E	1661	FERTILIZER FOR REPAIR SEEDING	13.5 TON		
0301	6096000000-E	1662	SEED FOR SUPPLEMENTAL SEEDING	8,225 LB		
0302	6108000000-E	1665	FERTILIZER TOPDRESSING	246 TON		
0303	6111000000-E	SP	IMPERVIOUS DIKE	1,142 LF		
0304	6114500000-N	1667	SPECIALIZED HAND MOWING	230 MHR		
0305	6117000000-N	SP	RESPONSE FOR EROSION CONTROL	108 EA		
0306	6117500000-N	SP	CONCRETE WASHOUT STRUCTURE	12 EA		
0307	6120000000-E	SP	CULVERT DIVERSION CHANNEL	4,100 CY		
0308	6123000000-E	1670	REFORESTATION	5 ACR		
0309	6676000000-E	SP	GENERIC PLANTING ITEM VEGETATIVE SHELF PLANTING	5,100 SF		
0310	7048500000-E	1705	PEDESTRIAN SIGNAL HEAD (16", 1 SECTION W/COUNTDOWN)	2 EA		
0311	7060000000-E	1705	SIGNAL CABLE	24,380 LF		
0312	7108000000-E	1705	VEHICLE SIGNAL HEAD (12", 1 SECTION)	14 EA		
0313	7120000000-E	1705	VEHICLE SIGNAL HEAD (12", 3 SECTION)	53 EA		
0314	7132000000-E	1705	VEHICLE SIGNAL HEAD (12", 4 SECTION)	18 EA		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0315	7264000000-E	1710	MESSENGER CABLE (3/8")	930		LF
0316	7279000000-E	1715	TRACER WIRE	10,670		LF
0317	7300000000-E	1715	UNPAVED TRENCHING (*****) (2, 2")	10,010		LF
0318	7300000000-E	1715	UNPAVED TRENCHING (*****) (3, 2")	3,240		LF
0319	7300000000-E	1715	UNPAVED TRENCHING (*****) (4, 2")	470		LF
0320	7300100000-E	1715	UNPAVED TRENCHING FOR TEMP- ORARY LEAD-IN	1,050		LF
0321	7301000000-E	1715	DIRECTIONAL DRILL (*****) (1, 2")	160		LF
0322	7301000000-E	1715	DIRECTIONAL DRILL (*****) (2, 1-1/2")	120		LF
0323	7301000000-E	1715	DIRECTIONAL DRILL (*****) (2, 2")	1,680		LF
0324	7301000000-E	1715	DIRECTIONAL DRILL (*****) (3, 2")	660		LF
0325	7301000000-E	1715	DIRECTIONAL DRILL (*****) (4, 2")	440		LF
0326	7324000000-N	1716	JUNCTION BOX (STANDARD SIZE)	67		EA
0327	7348000000-N	1716	JUNCTION BOX (OVER-SIZED, HEA- VY DUTY)	28		EA
0328	7360000000-N	1720	WOOD POLE	7		EA
0329	7372000000-N	1721	GUY ASSEMBLY	14		EA
0330	7408000000-E	1722	1" RISER WITH WEATHERHEAD	2		EA
0331	7420000000-E	1722	2" RISER WITH WEATHERHEAD	7		EA
0332	7456000000-E	1726	LEAD-IN CABLE (*****) (14-2)	580		LF

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0333	7516000000-E	1730	COMMUNICATIONS CABLE (**FIBER) (48)	11,225 LF		
0334	7528000000-E	1730	DROP CABLE	600 LF		
0335	7540000000-N	1731	SPLICE ENCLOSURE	6 EA		
0336	7552000000-N	1731	INTERCONNECT CENTER	7 EA		
0337	7566000000-N	1733	DELINEATOR MARKER	27 EA		
0338	7588000000-N	SP	METAL POLE WITH SINGLE MAST ARM	8 EA		
0339	7590000000-N	SP	METAL POLE WITH DUAL MAST ARM	1 EA		
0340	7613000000-N	SP	SOIL TEST	9 EA		
0341	7614100000-E	SP	DRILLED PIER FOUNDATION	54 CY		
0342	7631000000-N	SP	MAST ARM WITH METAL POLE DE- SIGN	9 EA		
0343	7636000000-N	1745	SIGN FOR SIGNALS	48 EA		
0344	7642200000-N	1743	TYPE II PEDESTAL WITH FOUND- ATION	2 EA		
0345	7642300000-N	1743	TYPE III PEDESTAL WITH FOUND- ATION	16 EA		
0346	7648000000-N	1746	RELOCATE EXISTING SIGN	2 EA		
0347	7684000000-N	1750	SIGNAL CABINET FOUNDATION	6 EA		
0348	7696000000-N	1751	CONTROLLERS WITH CABINET (*****) (TYPE 2070E - BASE MOUNTED)	6 EA		
0349	7901000000-N	1753	CABINET BASE EXTENDER	6 EA		
0350	7948000000-N	1757	TRAFFIC SIGNAL REMOVAL	1 EA		
0351	7980000000-N	SP	GENERIC SIGNAL ITEM CCTV CAMERA EXTENSION POLE	1 EA		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0352	7980000000-N	SP	GENERIC SIGNAL ITEM CCTV ELECTRICAL SERVICE	3 EA		
0353	7980000000-N	SP	GENERIC SIGNAL ITEM CCTV METAL POLE (40')	3 EA		
0354	7980000000-N	SP	GENERIC SIGNAL ITEM DIGITAL CCTV CAMERA ASSEMBLY	4 EA		
0355	7980000000-N	SP	GENERIC SIGNAL ITEM DISPOSAL OF EXISTING DMS	1 EA		
0356	7980000000-N	SP	GENERIC SIGNAL ITEM DISPOSAL OF EXISTING DMS ELECTRICAL SERVICE	1 EA		
0357	7980000000-N	SP	GENERIC SIGNAL ITEM DISPOSAL OF EXISTING DMS STRUCTURE & FOUNDATION	1 EA		
0358	7980000000-N	SP	GENERIC SIGNAL ITEM DMS	6 EA		
0359	7980000000-N	SP	GENERIC SIGNAL ITEM DMS ELECTRICAL SERVICE	3 EA		
0360	7980000000-N	SP	GENERIC SIGNAL ITEM DMS STRUCTURE	3 EA		
0361	7980000000-N	SP	GENERIC SIGNAL ITEM ETHERNET EDGE SWITCH	7 EA		
0362	7980000000-N	SP	GENERIC SIGNAL ITEM FIELD EQUIPMENT CABINET	3 EA		
0363	7980000000-N	SP	GENERIC SIGNAL ITEM MICROWAVE VEHICLE DETECTION SYSTEM - MULTIPLE ZONES	18 EA		
0364	7980000000-N	SP	GENERIC SIGNAL ITEM SOIL TEST FOR CCTV POLE	3 EA		
0365	7980000000-N	SP	GENERIC SIGNAL ITEM SOIL TEST FOR DMS FOUNDATION	3 EA		
0366	7992000000-E	SP	GENERIC SIGNAL ITEM DRILLED PIER FOUNDATION FOR CCTV POLE	18 CY		
0424	5802000000-E	1530	ABANDON 10" UTILITY PIPE	9,136.5 LF		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0425	6102000000-E	1664	SODDING	10,000	SY	
0426	6105000000-E	1664	WATER	20	M/G	

CULVERT ITEMS

0367	0320000000-E	300	FOUNDATION CONDITIONING GEO-TEXTILE	9,769	SY	
0368	8035000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STATION ***** (19+49.00 -Y30RPD-)	Lump Sum	L.S.	
0369	8056000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STATION ***** (18+00.00 -Y32-)	Lump Sum	L.S.	
0370	8056000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STATION ***** (320+01.00 -L-)	Lump Sum	L.S.	
0371	8065000000-N	SP	ASBESTOS ASSESSMENT	Lump Sum	L.S.	
0372	8126000000-N	414	CULVERT EXCAVATION, STA ***** (16+22.00 -Y30RPA-)	Lump Sum	L.S.	
0373	8126000000-N	414	CULVERT EXCAVATION, STA ***** (18+00.00 -Y32-)	Lump Sum	L.S.	
0374	8126000000-N	414	CULVERT EXCAVATION, STA ***** (19+49.00 -Y30RPD-)	Lump Sum	L.S.	
0375	8126000000-N	414	CULVERT EXCAVATION, STA ***** (19+80.00 -Y38-)	Lump Sum	L.S.	
0376	8126000000-N	414	CULVERT EXCAVATION, STA ***** (320+01.00 -L-)	Lump Sum	L.S.	
0377	8126000000-N	414	CULVERT EXCAVATION, STA ***** (612+13.00 -L1-)	Lump Sum	L.S.	
0378	8126000000-N	414	CULVERT EXCAVATION, STA ***** (660+85.00 -L1-)	Lump Sum	L.S.	

County : Pender

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0379	8126000000-N	414	CULVERT EXCAVATION, STA ***** (712+62.00 -L1-)	Lump Sum	L.S.	
0380	8133000000-E	414	FOUNDATION CONDITIONING MATER- IAL, BOX CULVERT	7,053 TON		
0381	8196000000-E	420	CLASS A CONCRETE (CULVERT)	5,269.1 CY		
0382	8245000000-E	425	REINFORCING STEEL (CULVERT)	838,896 LB		

WALL ITEMS

0383	8504000000-E	460	CONCRETE BARRIER RAIL WITH MOMENT SLAB	630 LF		
0384	8801000000-E	SP	MSE RETAINING WALL NO **** (1)	5,990 SF		
0385	8801000000-E	SP	MSE RETAINING WALL NO **** (2)	1,290 SF		
0386	8801000000-E	SP	MSE RETAINING WALL NO **** (3)	6,560 SF		
0387	8801000000-E	SP	MSE RETAINING WALL NO **** (4)	3,530 SF		
0388	8839000000-E	SP	GENERIC RETAINING WALL ITEM CUSTOM BARRIER RAIL	80 LF		
0389	8847000000-E	SP	GENERIC RETAINING WALL ITEM ARCHITECTURAL SURFACE TREAT- MENT (SOUND BARRIER WALL)	516,691 SF		
0390	8847000000-E	SP	GENERIC RETAINING WALL ITEM SOUND ABSORPTIVE BARRIER WALL NO -SW10-	91,231 SF		
0391	8847000000-E	SP	GENERIC RETAINING WALL ITEM SOUND ABSORPTIVE BARRIER WALL NO -SW9&11-	93,961 SF		
0392	8847000000-E	SP	GENERIC RETAINING WALL ITEM SOUND BARRIER WALL NO -SW10-	91,231 SF		

County : Pender

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0393	8847000000-E	SP	GENERIC RETAINING WALL ITEM SOUND BARRIER WALL NO -SW22-	10,055 SF		
0394	8847000000-E	SP	GENERIC RETAINING WALL ITEM SOUND BARRIER WALL NO -SW9&11-	178,826 SF		
0395	8847000000-E	SP	GENERIC RETAINING WALL ITEM TEMPORARY SURCHARGE WALL NO 3	520 SF		
0396	8847000000-E	SP	GENERIC RETAINING WALL ITEM TEMPORARY SURCHARGE WALL NO 4	500 SF		
0427	8834000000-N	SP	GENERIC RETAINING WALL ITEM NO -SW9&11- SOUND WALL STEEL ACCESS DOOR	2 EA		
0428	8834000000-N	SP	GENERIC RETAINING WALL ITEM NO -SW10- SOUND WALL STEEL ACCESS DOOR	1 EA		

STRUCTURE ITEMS

0397	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1, 25+28.04 -Y32-)	Lump Sum	L.S.	
0398	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1, 30+17.11 -Y31-)	Lump Sum	L.S.	
0399	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1, 39+82.39 -Y30-)	Lump Sum	L.S.	
0400	8112730000-N	450	PDA TESTING	8 EA		
0401	8147000000-E	420	REINFORCED CONCRETE DECK SLAB	52,701 SF		
0402	8161000000-E	420	GROOVING BRIDGE FLOORS	56,601 SF		
0403	8182000000-E	420	CLASS A CONCRETE (BRIDGE)	992.7 CY		
0404	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (25+28.04 -Y32-)	Lump Sum	L.S.	

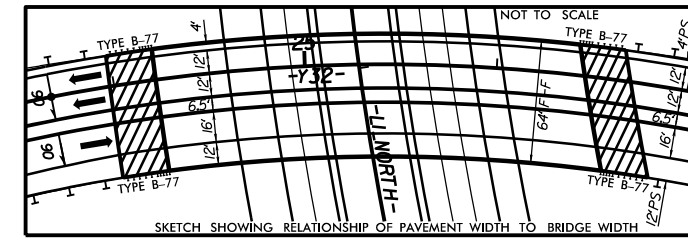
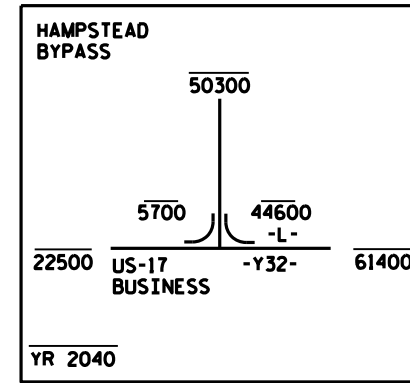
County : Pender

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0405	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (30+17.11 -Y31-)	Lump Sum	L.S.	
0406	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (39+82.39 -Y30-)	Lump Sum	L.S.	
0407	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (658+69.17 -L1- LT)	Lump Sum	L.S.	
0408	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (658+69.17 -L1- RT)	Lump Sum	L.S.	
0409	8217000000-E	425	REINFORCING STEEL (BRIDGE)	154,013 LB		
0410	8238000000-E	425	SPIRAL COLUMN REINFORCING STEEL (BRIDGE)	5,405 LB		
0411	8277000000-E	430	MODIFIED 72" PRESTRESSED CONC GIRDERS	1,298.06 LF		
0412	8328200000-E	450	PILE DRIVING EQUIPMENT SETUP FOR *** STEEL PILES (HP 12 X 53)	180 EA		
0413	8328200000-E	450	PILE DRIVING EQUIPMENT SETUP FOR *** STEEL PILES (HP 14 X 73)	24 EA		
0414	8364000000-E	450	HP12X53 STEEL PILES	13,500 LF		
0415	8384000000-E	450	HP14X73 STEEL PILES	2,280 LF		
0416	8391000000-N	450	STEEL PILE POINTS	176 EA		
0417	8393000000-N	450	PILE REDRIVES	103 EA		
0418	8503000000-E	460	CONCRETE BARRIER RAIL	1,736.94 LF		
0419	8531000000-E	462	4" SLOPE PROTECTION	3,878 SY		
0420	8657000000-N	430	ELASTOMERIC BEARINGS	Lump Sum	L.S.	
0421	8706000000-N	SP	EXPANSION JOINT SEALS	Lump Sum	L.S.	

County : Pender

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0422	8860000000-N	SP	GENERIC STRUCTURE ITEM SOUND ABSORPTIVE BARRIER WALL (BRIDGE MOUNTED)	Lump Sum	L.S.	
0423	8867000000-E	SP	GENERIC STRUCTURE ITEM MODIFIED 54" PRESTRESSED CON- CRETE GIRDERS	4,176.15 LF		
1233/Jan06/Q10852221.99/D1955435842000/E428			Total Amount Of Bid For Entire Project :			

5/14/99



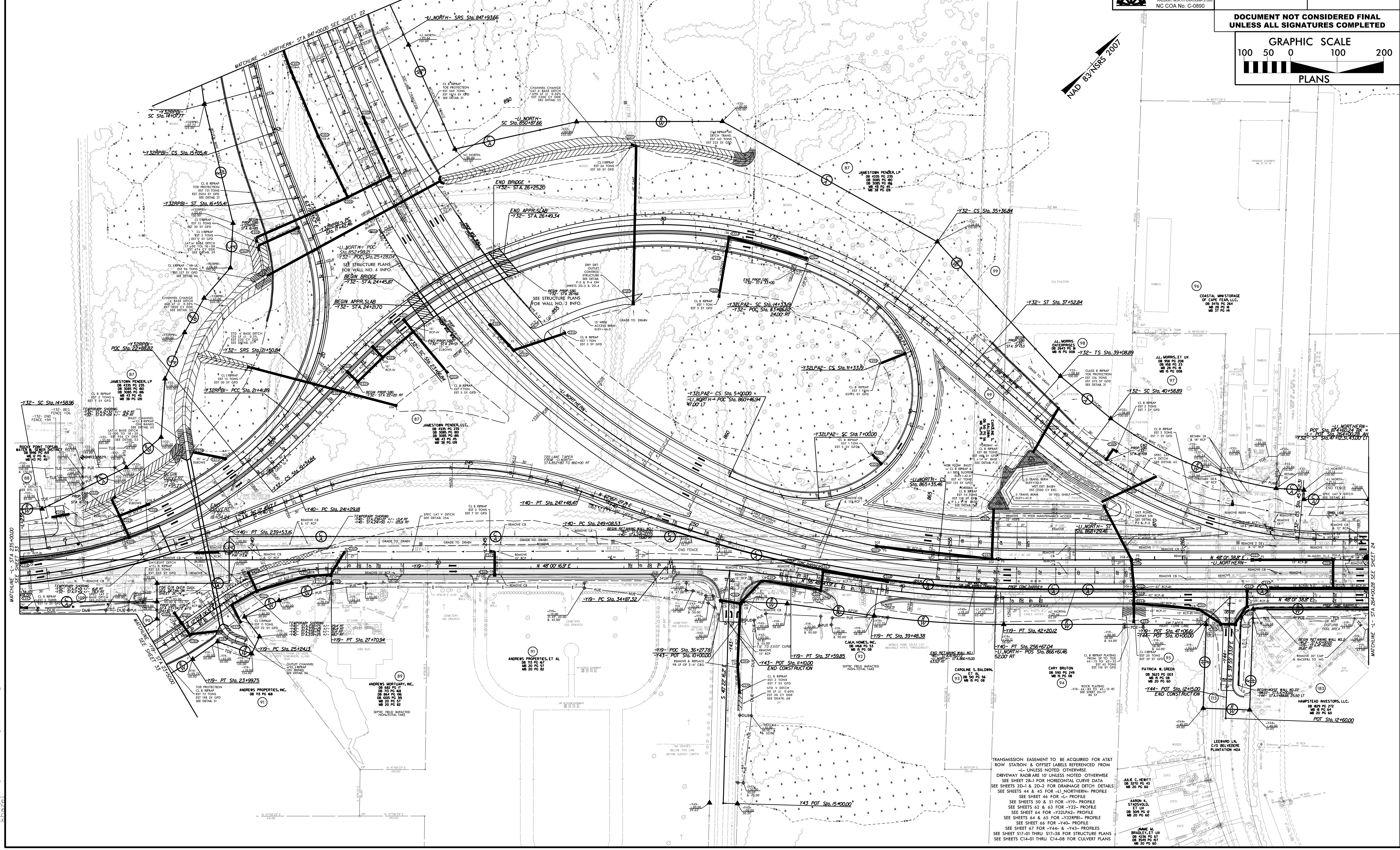
Stantec
Stantec Consulting Services Inc.
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Raleigh, NC 27606
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Fax. (919) 851-7024
www.stantec.com
License No. F-0672

SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH NORTH CAROLINA 27609
NC COA No. C-0890

PROJECT REFERENCE NO. R-3300B	SHEET NO. 23
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	SEAL 025513 MICHAEL D. LINDSEY
	SEAL 26971 JOSHUA G. DALTON

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALE
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PLANS



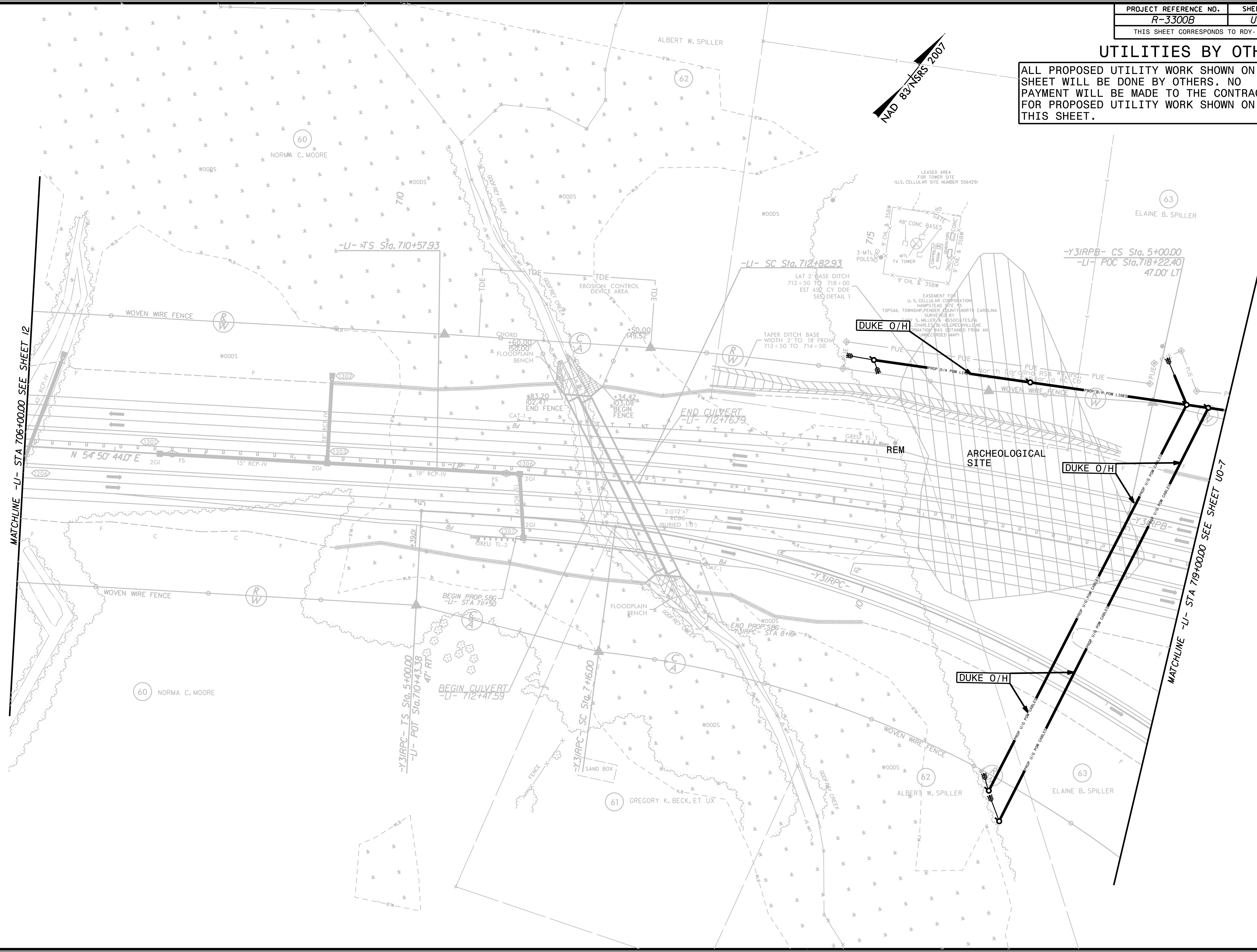
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UTILITIES BY OTHERS

ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

5/14/99

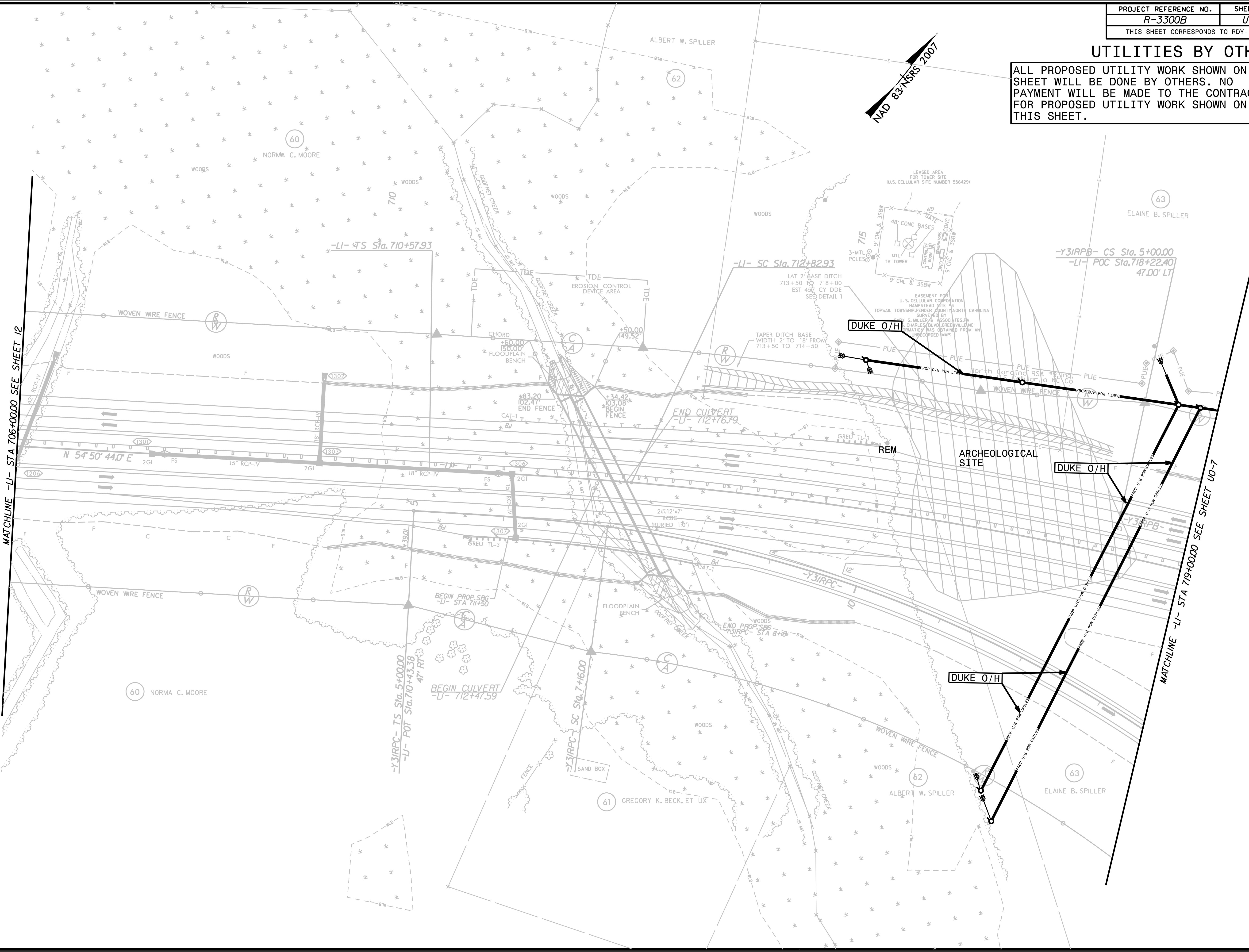
NAD 83 NRS 2007



MATCHLINE -LI- STA 706+00.00 SEE SHEET 12

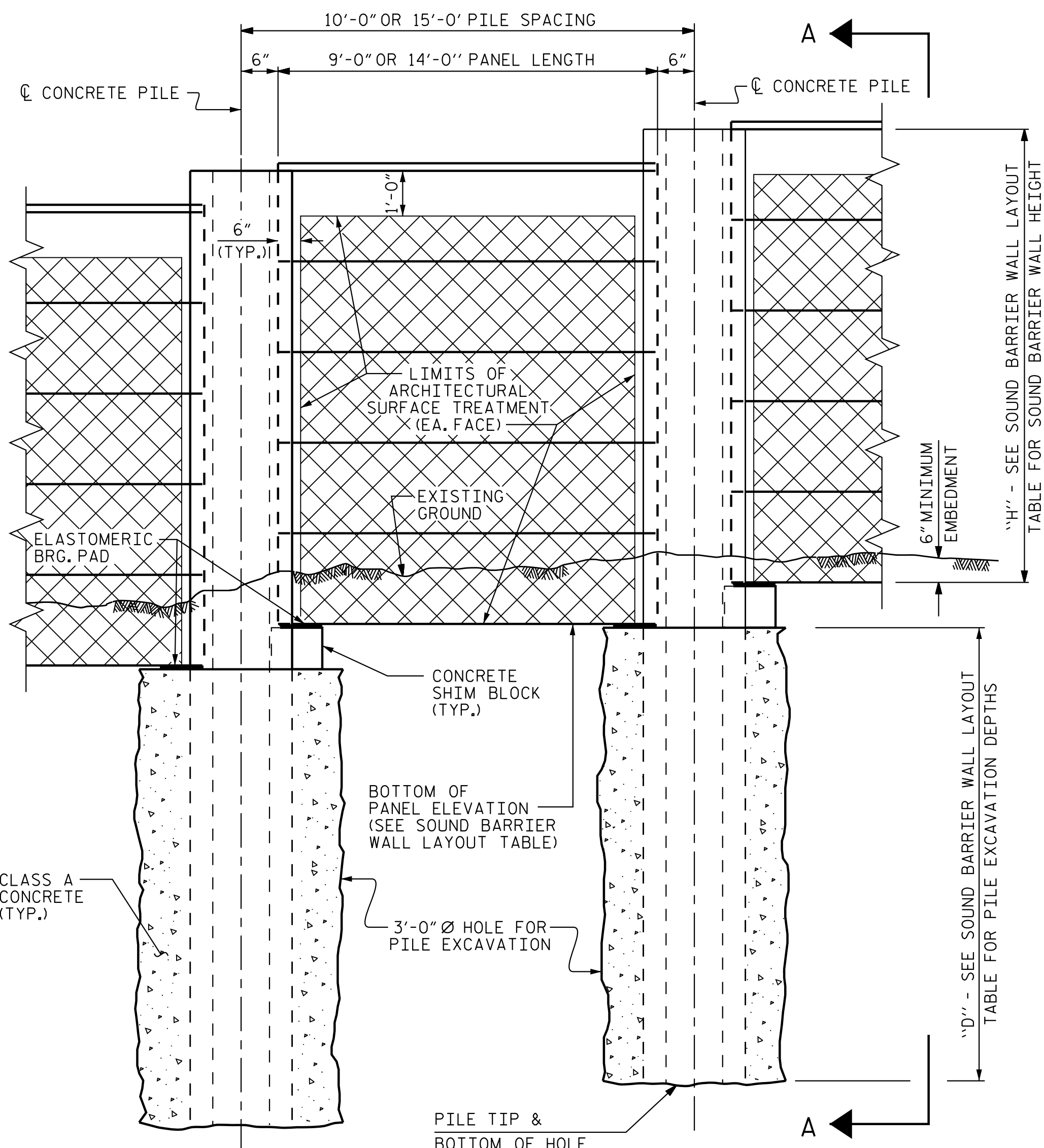
MATCHLINE -LI- STA 719+00.00 SEE SHEET U0-7

60 NORMA C. MOORE
61 GREGORY K. BECK, ET UX
62 ALBERT W. SPILLER
63 ELAINE B. SPILLER

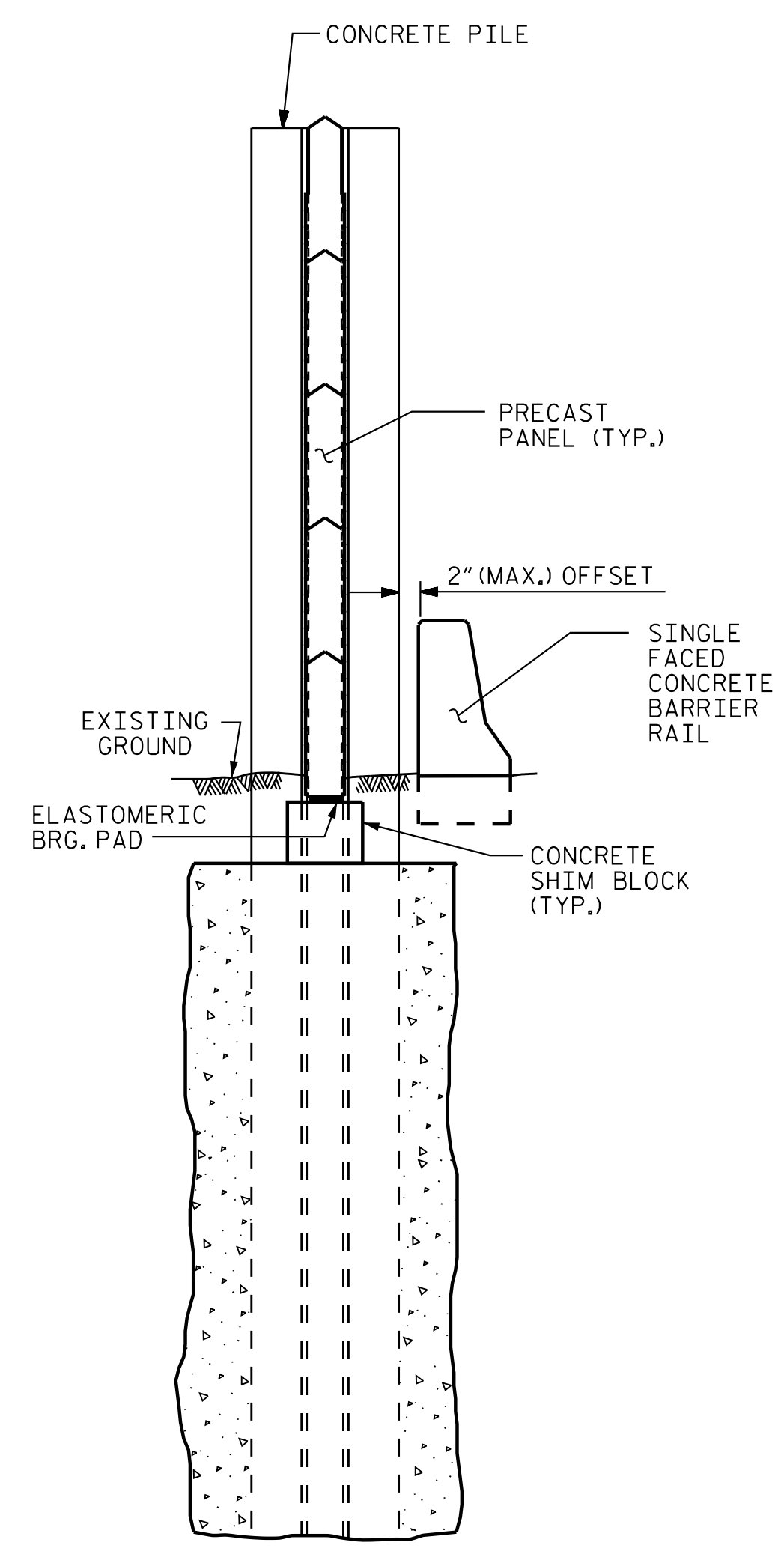


NOTES

FOR SOUND BARRIER WALL, SEE SPECIAL PROVISIONS.
 CONSTRUCT SOUND BARRIER WALL TO LINES AND GRADES SHOWN ON THE ROADWAY PLANS.
 PROVIDE PANELS WITH A FLAT BOTTOM.
 VERIFY THE LOCATION OF UNDERGROUND UTILITIES BEFORE DRILLING HOLES TO ENSURE SUFFICIENT CLEARANCE IS AVAILABLE.
 ADJUST PILE EXCAVATION ELEVATIONS TO MAINTAIN 6" MINIMUM EMBEDMENT OF THE BOTTOM PANEL, EXCEPT AT REMOVABLE PANEL LOCATIONS.
 USE CLASS AA FOR PANELS AND CLASS A CONCRETE PILE EXCAVATION BACKFILL, IN ACCORDANCE WITH ARTICLE 1000-4 OF THE STANDARD SPECIFICATIONS.
 AT THE CONTRACTOR'S OPTION, USE 10'-0" OR 15'-0" PILE SPACINGS. STANDARD PRECAST CONCRETE PANELS MAY BE USED WITH THE 10'-0" AND 15'-0" PILE SPACING.
 FOR SOUND BARRIER WALL STATIONS, OFFSETS, AND WALL ENVELOPE, SEE ROADWAY PLANS.
 PLACE 1" Ø BACKER RODS FULL HEIGHT ON EACH SIDE OF THE PRECAST PANELS, SET AND SEAL THE BACKER ROD IN PLACE WITH SEALANT THAT CONFORMS WITH ARTICLE 1028-3 OF THE STANDARD SPECIFICATIONS.
 FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
 FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
 FOR ADDITIONAL SOUND BARRIER WALL DETAILS, SEE ROADWAY DRAWINGS.
 SOUND ABSORPTIVE WALL PANELS SHALL BE INSTALLED AT LOCATIONS SPECIFIED IN PANEL LAYOUT TABLES. FOR ADDITIONAL DETAILS, SEE SPECIAL PROVISIONS.
 LIGHTWEIGHT SOUND ABSORPTIVE WALL PANELS SHALL BE INSTALLED AT BRIDGE LOCATION. FOR LIGHTWEIGHT WALL PANELS AND PILES AT BRIDGE SITE, SEE BRIDGE PLANS FOR INSTALLATION DETAILS AND PILE TYPE/SPACING. FOR ADDITIONAL DETAILS, SEE SPECIAL PROVISIONS.
 INSTALLATION OF REMOVABLE SOUND BARRIER WALL IS REQUIRED AT SPECIFIC WALL LOCATIONS, SEE SHEET 4 FOR DETAILS.
 BARRIER RAIL NOT SHOWN IN ELEVATION VIEW FOR CLARITY. FOR BACKFILL TREATMENT AT BARRIER RAIL, SEE "SOUND WALL BACKFILL DETAIL"
 AT THE CONTRACTOR'S OPTION, USE CONTINUOUS FLIGHT AUGER PILES IN LIEU OF PILE EXCAVATION FOR SOUND BARRIER WALL FOUNDATION. SEE "CONTINUOUS FLIGHT AUGER PILES FOR SOUND BARRIER WALLS" SPECIAL PROVISION.



ELEVATION



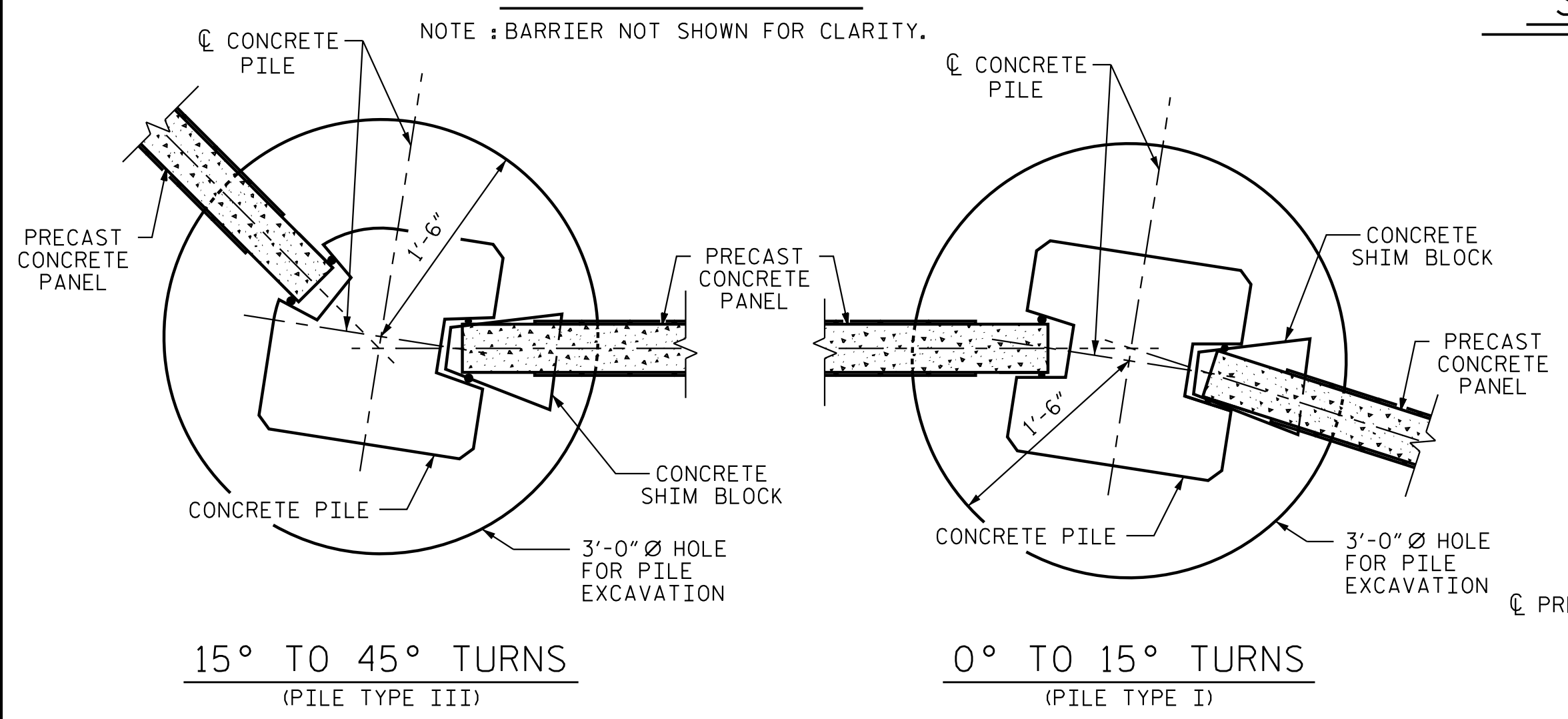
SECTION A-A

SOUND WALL BACKFILL DETAIL

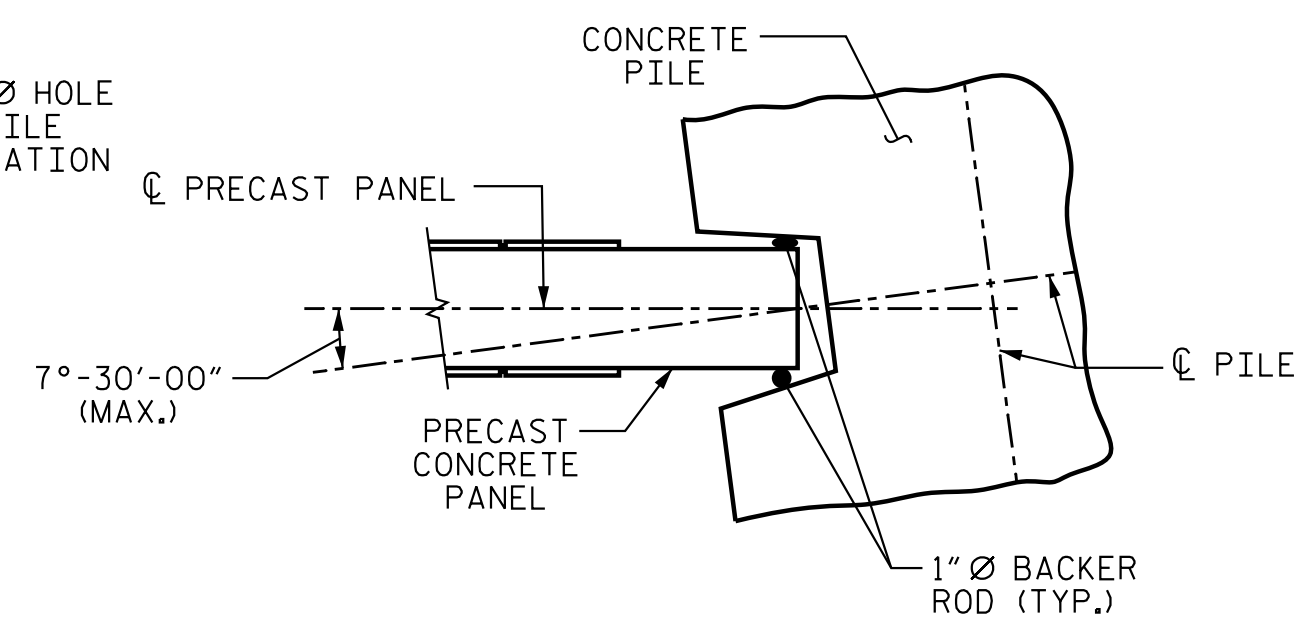
PILE REINFORCING STEEL
 EXPOSURE CATEGORY D DESIGN WIND PRESSURE = 62 PSF (0' < H ≤ 14'); 71 PSF (14' < H ≤ 25')

PILE TYPE I				PILE TYPE III			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES	PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
10'-0"	H ≤ 25'	4 - #8 EA. FACE	#4 @ 9"CTS.	10'-0"	H ≤ 25'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#4 @ 9"CTS.
	20' < H ≤ 25'	4 - #10 EA. FACE	#4 @ 9"CTS.		15'-0"	H ≤ 20'	3 - #8 SHORT FACE 4 - #8 LONG FACE
15'-0"	H ≤ 20'	4 - #8 EA. FACE	#4 @ 9"CTS.	15'-0"		20' < H ≤ 25'	3 - #11 SHORT FACE 4 - #11 LONG FACE

PILE TYPE II				PILE TYPE III ALT.			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES	PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
10'-0"	H ≤ 25'	4 - #6 EA. FACE	#4 @ 9"CTS.	10'-0"	H ≤ 25'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#4 @ 9"CTS.
	20' < H ≤ 25'	4 - #7 EA. FACE	#4 @ 9"CTS.		15'-0"	H ≤ 20'	3 - #9 SHORT FACE 4 - #9 LONG FACE
15'-0"	H ≤ 20'	4 - #6 EA. FACE	#4 @ 9"CTS.	15'-0"		20' < H ≤ 25'	3 - #11 SHORT FACE 4 - #11 LONG FACE



TYPICAL WALL TURN DETAILS



PILE ROTATION LIMIT FOR WALL TURN

(ROTATE THE CONCRETE PILE ±7°-30'-00" TO ACCOMMODATE WALL TURN.)

BILL OF MATERIAL

SOUND ABSORPTIVE BARRIER WALL **	93,961 S.F.
SOUND BARRIER WALL (TOTAL)	178,826 S.F.
ARCHITECTURAL SURFACE TREATMENT *	329,271 S.F.
QUANTITIES PROVIDED ARE APPROXIMATE AND ARE FOR BID PURPOSES ONLY.	

ARCHITECTURAL SURFACE TREATMENT

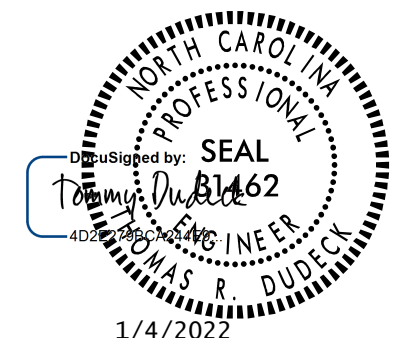
TEXTURE OPTION:	DRY STACK
STAIN OPTION:	FEDERAL COLOR 30450

* PANEL COLOR AT BRIDGE LOCATION SHALL MATCH FEDERAL COLOR 30450, AS APPROVED BY ENGINEER. ARCHITECTURAL SURFACE TREATMENT IS REQUIRED FOR SOUND ABSORPTIVE BARRIER WALL.

** SOUND ABSORPTIVE BARRIER WALL QUANTITY SHOWN DOES NOT INCLUDE SOUND BARRIER WALL AT BRIDGE LOCATIONS. SEE BRIDGE PLANS FOR ADDITIONAL DETAILS AND PAYMENT.

PROJECT NO. R-3300B
 PENDER COUNTY
 STATION: 623+71.35 -L1-

SHEET 1 OF 10
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
 SOUND BARRIER WALL



1/4/2022

REVISIONS						SHEET NO. SW9&11- 1
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 10
2			4			

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

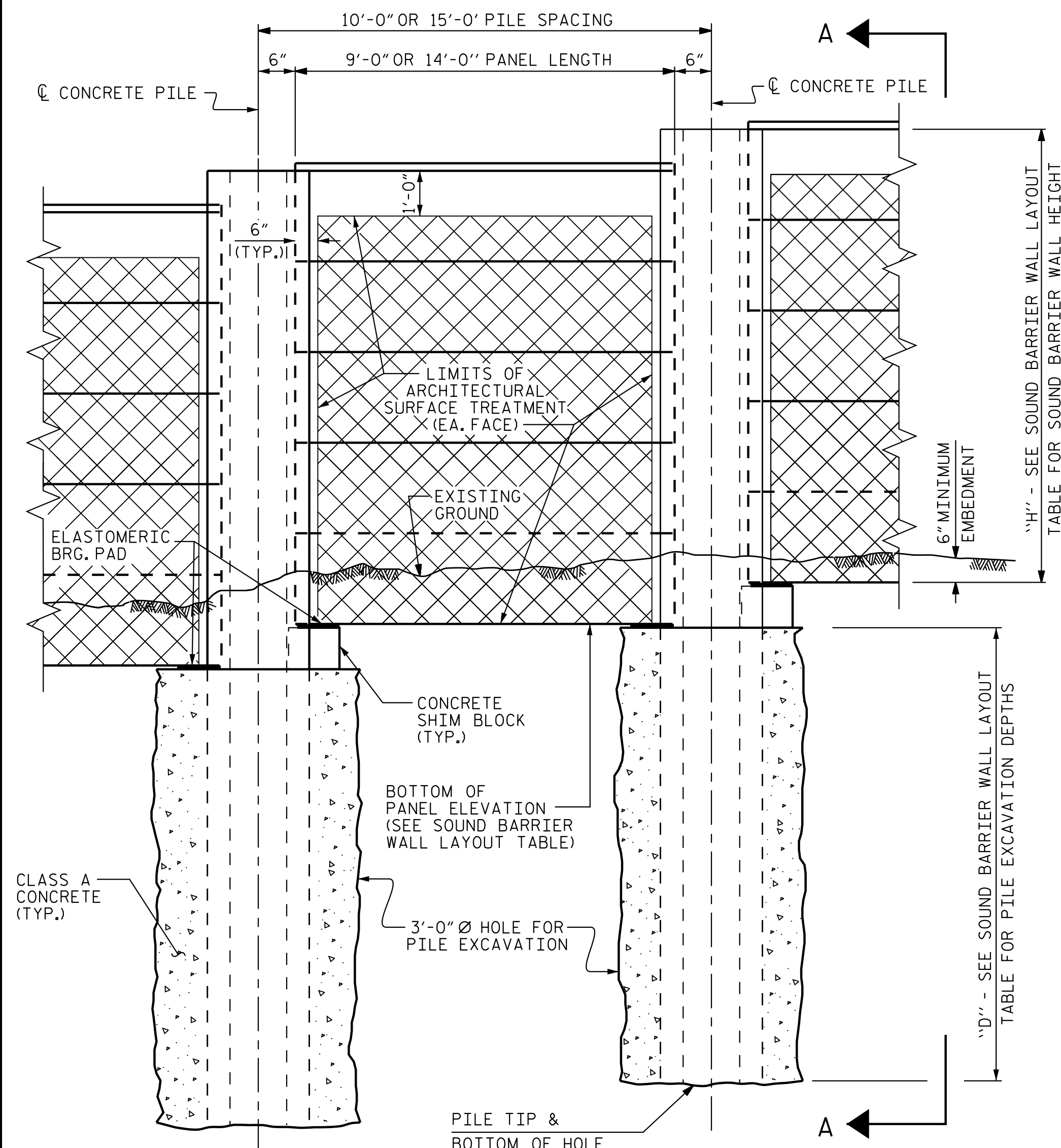
Stantec Consulting Services Inc.
 801 Jones Franklin Road
 Suite 300
 Raleigh, NC 27606
 Tel. (919) 851-6866
 Fax. (919) 851-7024
 www.stantec.com
 License No. F-0672

DRAWN BY: V. T. THOMPSON DATE: 01/15/20
 CHECKED BY: T. R. DUDECK DATE: 05/08/20
 DESIGN ENGINEER OF RECORD: T. R. DUDECK DATE: 10/27/21

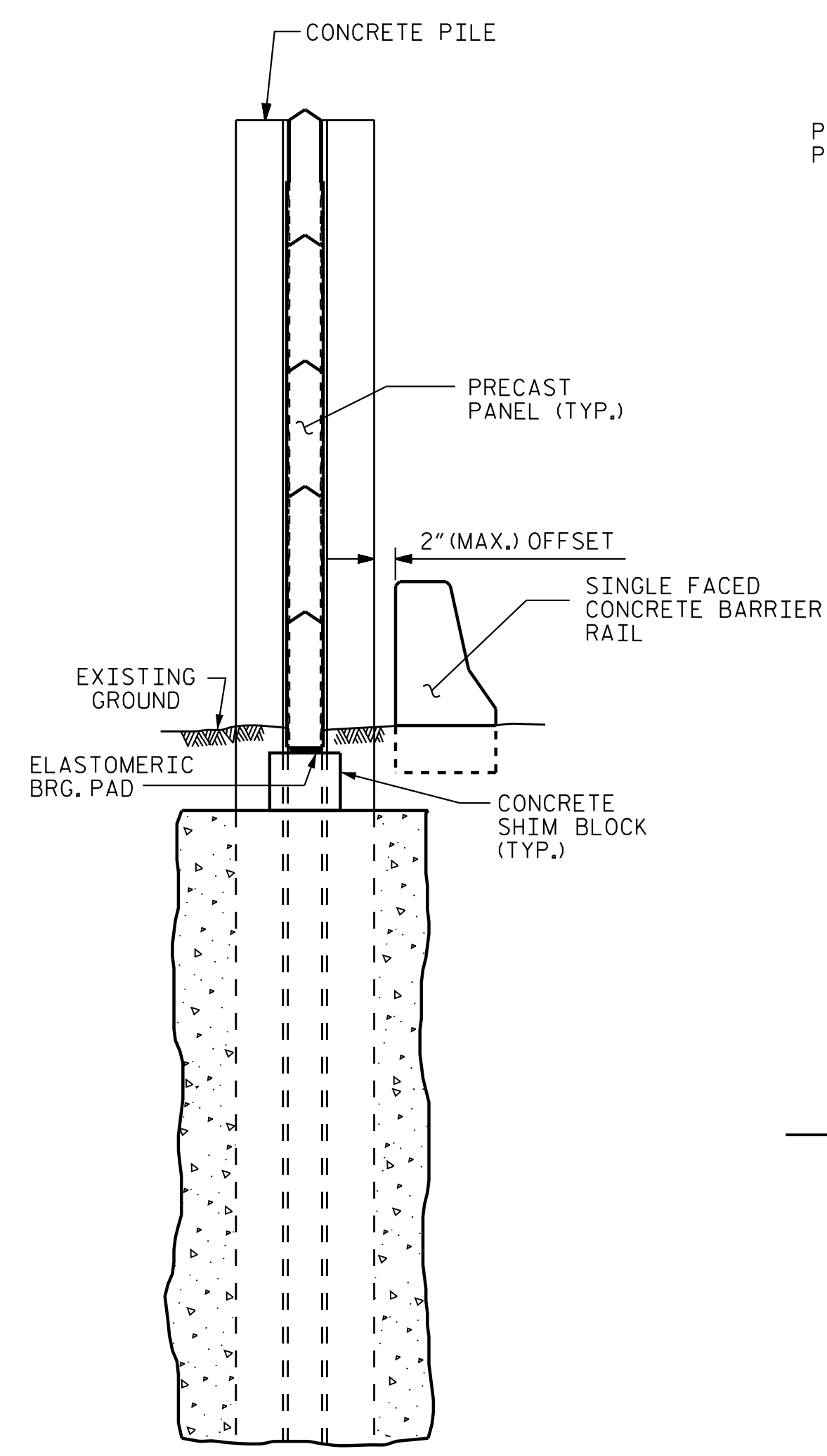
1/4/2022 jpe@telle U:\Structures\Noise Walls\8\In\Dr\of\trng\N3300B-SMU-SBW9&11.dgn

NOTES

- FOR SOUND BARRIER WALL, SEE SPECIAL PROVISIONS.
- CONSTRUCT SOUND BARRIER WALL TO LINES AND GRADES SHOWN ON THE ROADWAY PLANS.
- PROVIDE PANELS WITH A FLAT BOTTOM.
- VERIFY THE LOCATION OF UNDERGROUND UTILITIES BEFORE DRILLING HOLES TO ENSURE SUFFICIENT CLEARANCE IS AVAILABLE.
- ADJUST PILE EXCAVATION ELEVATIONS TO MAINTAIN 6" MINIMUM EMBEDMENT OF THE BOTTOM PANEL, EXCEPT AT REMOVABLE PANEL LOCATIONS.
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- AT THE CONTRACTOR'S OPTION, USE 10'-0" OR 15'-0" PILE SPACINGS. STANDARD PRECAST CONCRETE PANELS MAY BE USED WITH THE 10'-0" AND 15'-0" PILE SPACING.
- FOR SOUND BARRIER WALL STATIONS, OFFSETS, AND WALL ENVELOPE, SEE ROADWAY PLANS.
- PLACE 1" Ø BACKER RODS FULL HEIGHT ON EACH SIDE OF THE PRECAST PANELS. SET AND SEAL THE BACKER ROD IN PLACE WITH SEALANT THAT CONFORMS WITH ARTICLE 1028-3 OF THE STANDARD SPECIFICATIONS.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR ADDITIONAL SOUND BARRIER WALL DETAILS, SEE ROADWAY DRAWINGS.
- SOUND ABSORPTIVE WALL PANELS SHALL BE INSTALLED AT LOCATIONS SPECIFIED IN PANEL LAYOUT TABLES. FOR ADDITIONAL DETAILS, SEE SPECIAL PROVISIONS.
- LIGHTWEIGHT SOUND ABSORPTIVE WALL PANELS SHALL BE INSTALLED AT BRIDGE LOCATION. FOR LIGHTWEIGHT WALL PANELS AND PILES AT BRIDGE SITE, SEE BRIDGE PLANS FOR INSTALLATION DETAILS AND PILE TYPE/SPACING. FOR ADDITIONAL DETAILS, SEE SPECIAL PROVISIONS.
- INSTALLATION OF REMOVABLE SOUND BARRIER WALL IS REQUIRED AT SPECIFIC WALL LOCATIONS, SEE SHEET 4 FOR DETAILS.
- BARRIER RAIL NOT SHOWN IN ELEVATION VIEW FOR CLARITY. FOR BACKFILL TREATMENT AT BARRIER RAIL, SEE "SOUND WALL BACKFILL DETAIL"
- AT THE CONTRACTOR'S OPTION, USE CONTINUOUS FLIGHT AUGER PILES IN LIEU OF PILE EXCAVATION FOR SOUND BARRIER WALL FOUNDATION. SEE "CONTINUOUS FLIGHT AUGER PILES FOR SOUND BARRIER WALLS" SPECIAL PROVISION.



ELEVATION

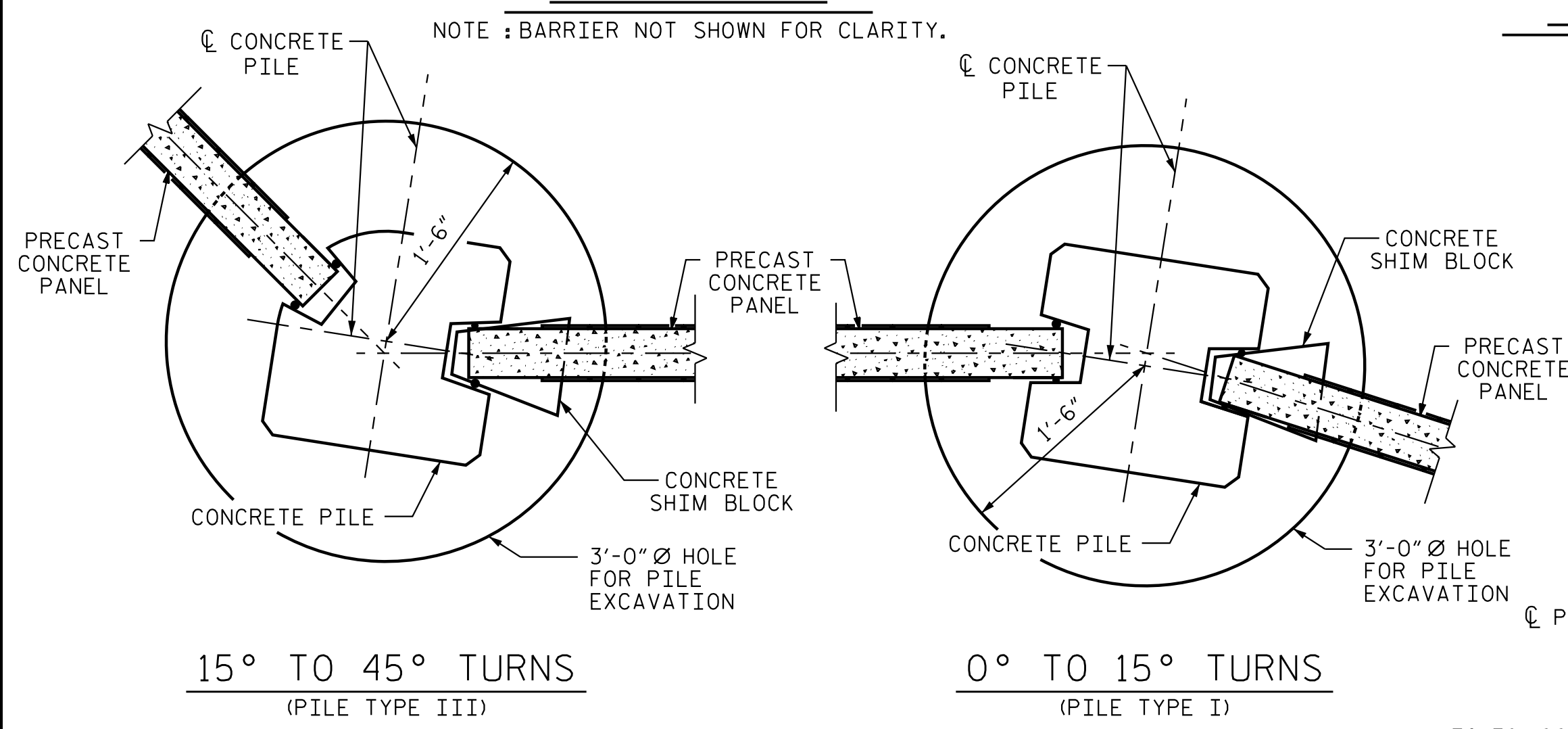


SECTION A-A

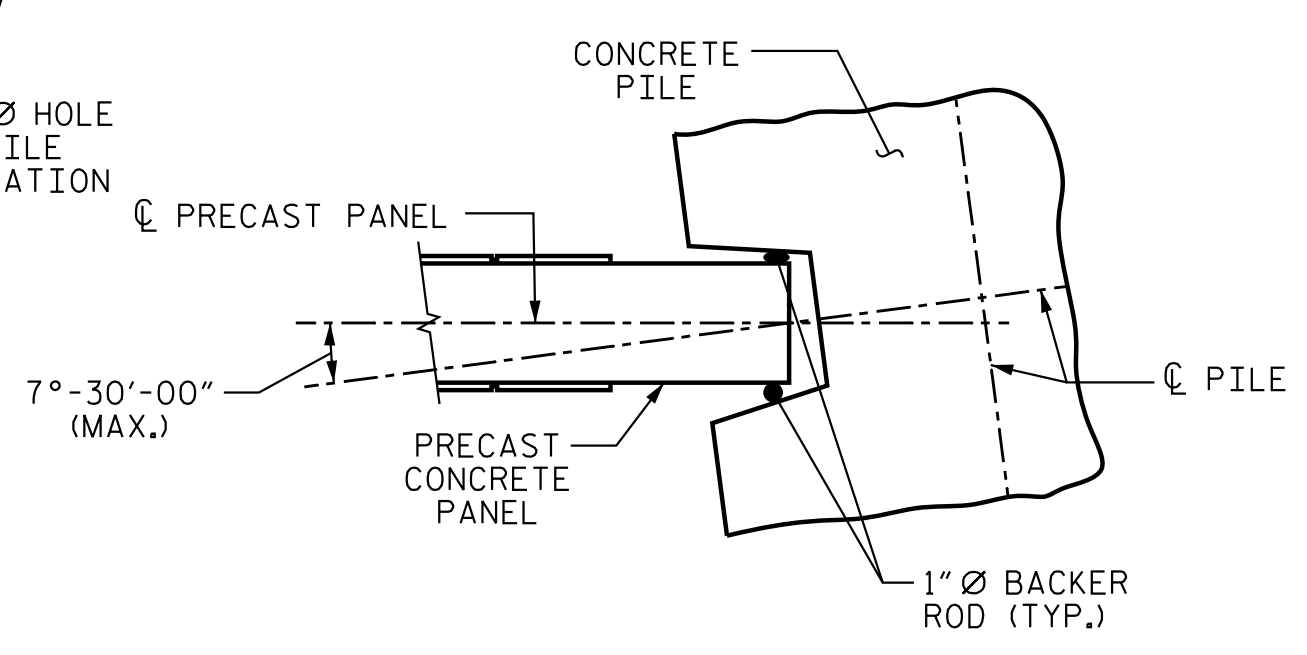
SOUND WALL BACKFILL DETAIL

PILE REINFORCING STEEL							
EXPOSURE CATEGORY D DESIGN WIND PRESSURE = 62 PSF (0' < H ≤ 14'); 71 PSF (14' < H ≤ 25')							
PILE TYPE I				PILE TYPE III			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES	PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
10'-0"	H ≤ 25'	4 - #8 EA. FACE	#4 @ 9"CTS.	10'-0"	H ≤ 25'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#4 @ 9"CTS.
	H ≤ 20'	4 - #8 EA. FACE	#4 @ 9"CTS.		15'-0"	H ≤ 20'	3 - #8 SHORT FACE 4 - #8 LONG FACE
15'-0"	20' < H ≤ 25'	4 - #10 EA. FACE	#4 @ 9"CTS.	15'-0"		20' < H ≤ 25'	3 - #11 SHORT FACE 4 - #11 LONG FACE

PILE TYPE II				PILE TYPE III ALT.			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES	PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
10'-0"	H ≤ 25'	4 - #6 EA. FACE	#4 @ 9"CTS.	10'-0"	H ≤ 25'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#4 @ 9"CTS.
	H ≤ 20'	4 - #6 EA. FACE	#4 @ 9"CTS.		15'-0"	H ≤ 20'	3 - #9 SHORT FACE 4 - #9 LONG FACE
15'-0"	20' < H ≤ 25'	4 - #7 EA. FACE	#4 @ 9"CTS.	15'-0"		20' < H ≤ 25'	3 - #11 SHORT FACE 4 - #11 LONG FACE



TYPICAL WALL TURN DETAILS



PILE ROTATION LIMIT FOR WALL TURN

(ROTATE THE CONCRETE PILE ±7°-30'-00" TO ACCOMMODATE WALL TURN.)

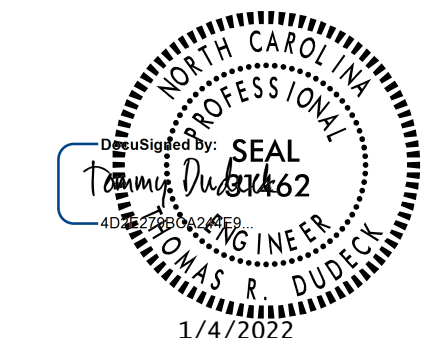
BILL OF MATERIAL	
SOUND ABSORPTIVE BARRIER WALL **	91,231 S.F.
SOUND BARRIER WALL	91,231 S.F.
ARCHITECTURAL SURFACE TREATMENT *	169,636 S.F.
QUANTITIES PROVIDED ARE APPROXIMATE AND ARE FOR BID PURPOSES ONLY.	
ARCHITECTURAL SURFACE TREATMENT	
TEXTURE OPTION:	DRY STACK
STAIN OPTION:	FEDERAL COLOR 30450

- * PANEL COLOR AT BRIDGE LOCATION SHALL MATCH FEDERAL COLOR 30450, AS APPROVED BY ENGINEER. ARCHITECTURAL SURFACE TREATMENT IS REQUIRED FOR SOUND ABSORPTIVE BARRIER WALL.
- ** SOUND ABSORPTIVE BARRIER WALL QUANTITY SHOWN DOES NOT INCLUDE SOUND BARRIER WALL AT BRIDGE LOCATIONS. SEE BRIDGE PLANS FOR ADDITIONAL DETAILS AND PAYMENT.

PROJECT NO. R-3300B
PENDER COUNTY
STATION: 638+10.79 -L1-

SHEET 1 OF 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
SOUND BARRIER WALL



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO. SW10-1
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 7
2			4			

1/4/2022 jgeille U:\Structures\Noise Walls\0-Dr-af+ing\R3300B_SML_SBW10.Ldgn

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Fax. (919) 851-7024
www.stantec.com
License No. F-0672

DRAWN BY: V. T. THOMPSON DATE: 04/28/20
CHECKED BY: T. R. DUDECK DATE: 05/08/20
DESIGN ENGINEER OF RECORD: T. R. DUDECK DATE: 10/27/21