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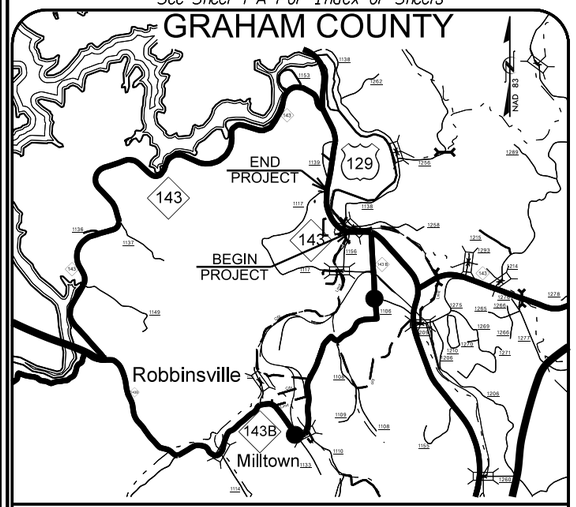
PROJECT: SS-6014E

CONTRACT: DN11991344

See Sheet 1-A For Index of Sheets



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

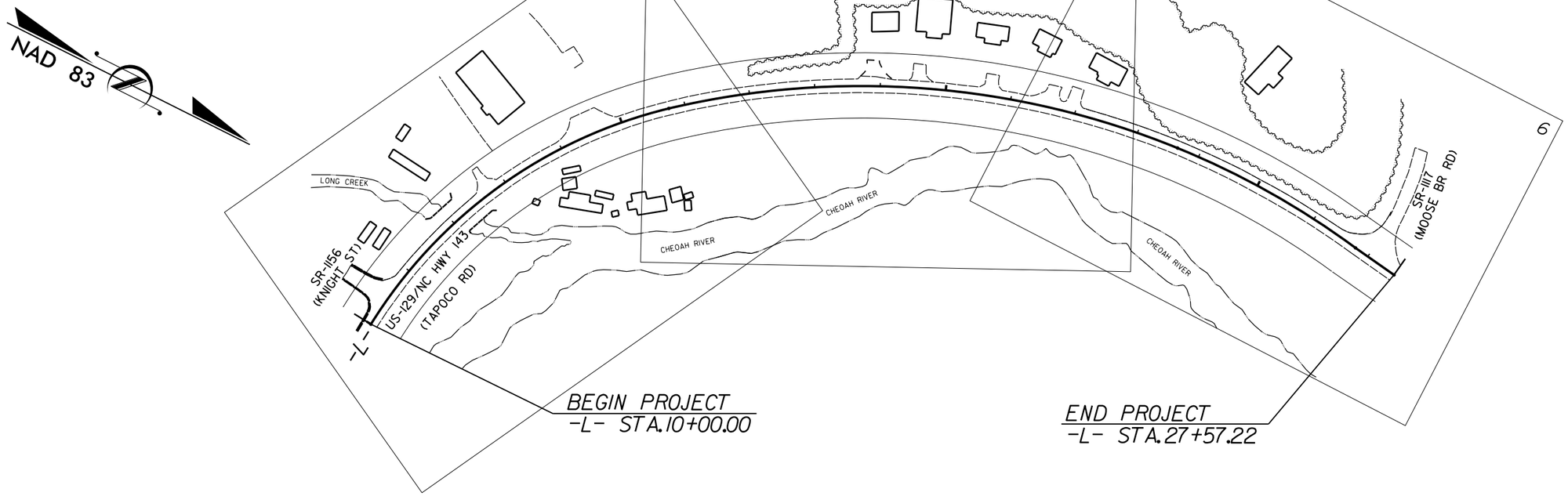
GRAHAM COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SS-6014E	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
48994.3.1		CONSTRUCTION

LOCATION: *BEGINNING AT THE INTERSECTION OF SR-1156 (KNIGHT ST) ALONG US HWY 129 /NC HWY 143 (TAPOCO RD) AND ENDING AT THE INTERSECTION OF SR-1117 (MOOSE BR RD)*

TYPE OF WORK: *GRADING, CURB & GUTTER, SIDEWALK INSTALLATION, GUARDRAIL REMOVAL, DRAINAGE*



GRAPHIC SCALES

25 12.5 0 25 50
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

5 2.5 0 5 10
PROFILE (VERTICAL)

PROJECT LENGTH

0.33 MILES

Prepared In the Office of:
DIVISION OF HIGHWAYS
191 Robbinsville Rd., Andrews NC, 28901

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:
07/27/21

ANDY RUSSELL P.E.
PROJECT ENGINEER

ANDY RUSSELL P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

DocuSigned by: Andy Russell
E9017A3F468143D...
P.E.
SIGNATURE:

NORTH CAROLINA PROFESSIONAL SEAL 037962 ENGINEER JESSE A. RUSSELL

ROADWAY DESIGN ENGINEER

DocuSigned by: Andy Russell
E9017A3F468143D...
P.E.
SIGNATURE:

NORTH CAROLINA PROFESSIONAL SEAL 037962 ENGINEER JESSE A. RUSSELL

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION ·

PROJECT REFERENCE NO.	SHEET NO.
SS-6014E	1A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

INDEX OF SHEETS

GENERAL NOTES

GENERAL NOTES: 2018 SPECIFICATIONS
EFFECTIVE: 01-16-2018

1 CARE SHALL BE TAKEN TO PREVENT DAMAGE TO EXISTING UTILITIES DURING CONSTRUCTION. ANY DAMAGE TO THESE UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

2 THE CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY.

3 CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. CONSTRUCT ALL CURB RAMPS IN ACCORDANCE WITH STD. 848.05 AND/OR 848.06.

4 DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3 FOOT RADII OR AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

5 THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

6 NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

UTILITY OWNERS:

- TOWN OF ROBBINSVILLE
- DUKE ENERGY
- FRONTIER COMMUNICATIONS
- ZITO MEDIA

LIST OF ROADWAY STANDARDS

2018 ROADWAY STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" - Highway Design Branch - N.C. Department of Transportation - Raleigh, N.C., dated January 16, 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

STD. NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 8 - INCIDENTALS	
838.01	Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90° Skew
840.14	Concrete Drop Inlet - 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grates - for use with Std. Dwg.s 840.14 and 840.15
840.02	Concrete Catch Basin - 12" thru 54" Pipe
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin
846.01	Concrete Curb, Gutter and Curb & Gutter
848.01	Concrete Sidewalk
848.02	Driveway Turnout - Radius Type
862.01	Guardrail Placement
862.02	Guardrail Installation
DIVISION 11 - WORK ZONE TRAFFIC CONTROL	
1101.01	Work Zone Advance Warning Signs
1110.01	Stationary Work Zone Signs
1101.11	Traffic Control Design Tables

PROJECT REFERENCE NO.	SHEET NO.
SS-6014E	1B

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- 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
- Known Soil Contamination: Area or Site
- Potential Soil Contamination: Area or Site

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- 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 — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite R/W Marker — RW
- Proposed Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- 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 — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line — W
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Satellite Dish
- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

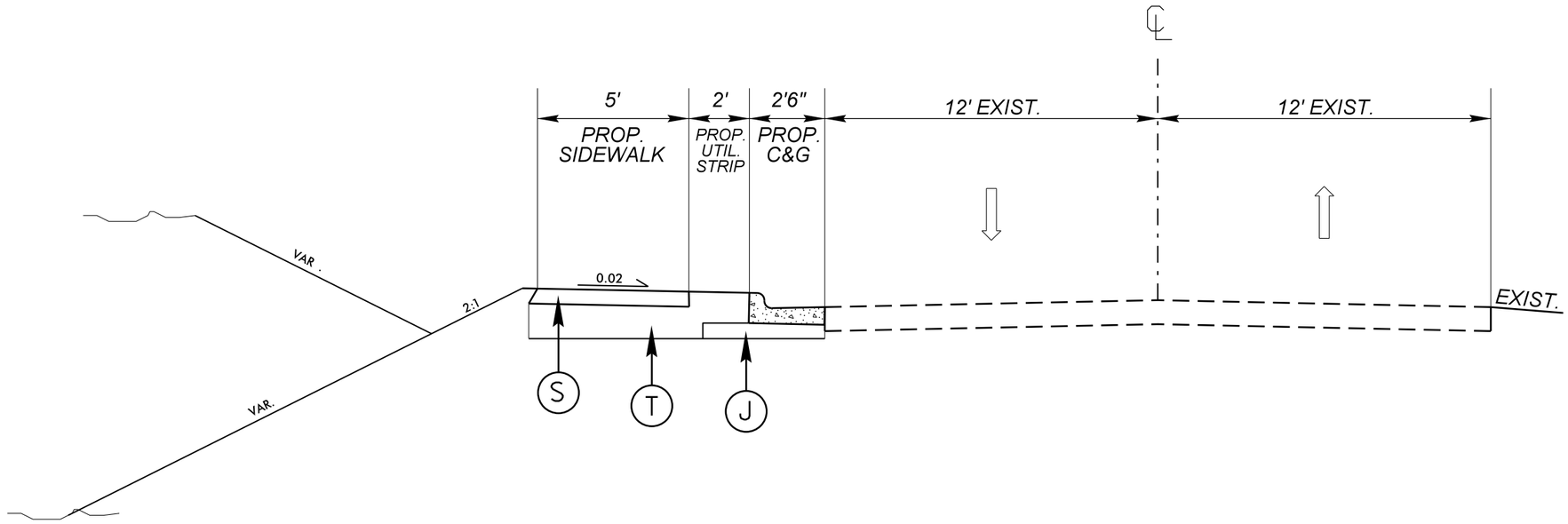
SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

PROJECT REFERENCE NO.	SHEET NO.
SS–6014E	2A



TYPICAL SECTION 1

SURFACING SCHEDULE

ITEM NO.	DESCRIPTION
J	8" GRADED AND COMPACTED ABC
S	SIDEWALK
T	EARTH MATERIAL

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
SUB–REGIONAL & REGIONAL
LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

NOTE: Invert Elevations are for Bid Purposes only and shall not be used for project construction stakeout.
See "Standard Specifications For Roads and Structures, Section 300–5".

STATION (SIZE / THICKNESS OR GAUGE)	LOCATION (LT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE
16+04	LT	1		1973.1															
16+04	LT	1	2		1968.1	1968.8													
16+04	LT	2		1972.5															
18+25	LT	3		1974.8															

STATION	C.S. PIPE 12" .064	15" .064	18" .064	24" .064	36" .079	42" .109	48" .109	R.C. PIPE (CLASS III) 15"	18"	24"	30"	36"	42"	48"	R.C. PIPE (CLASS IV) 12"	15"	18"	24"	30"	36"	42"	48"
16+04																						
16+04			10																			
16+04																						
18+25																						

STATION	**" R. C. PIPE (CLASS V)	**" R. C. PIPE CULVERTS, CONTRACTOR DESIGN PIPE	**" R. C. PIPE CULVERTS, CONTRACTOR DESIGN PIPE	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	ENDWALLS STD. 838.01, STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	W.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	* TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. *FT. A 5.0' THRU 10.0'	B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02
16+04								1			1
16+04											
16+04								1			
18+25								1			1

STATION	FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G		CONCRETE TRANSITIONAL SECTION CATCH BASIN	DROP INLET	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME & GRATE STD. 840.16	G.D.I. FRAME WITH TWO GRATES STD. 840.22	G.D.I. (N.S.) FRAME WITH GRATE STD. 840.24	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	J.B. STD. 840.31 OR 840.32	CORR. STEEL ELBOWS NO. & SIZE	CONC. COLLARS CL. "B" C.Y. STD 840.72	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	PIPE REMOVAL LIN.FT.	REMARKS
16+04	1																
16+04																	REMOVE EXIST. D.I.
16+04							1	1									
18+25		1															

ABBREVIATIONS

- C.B. CATCH BASIN
- N.D.I. NARROW DROP INLET
- D.I. DROP INLET
- G.D.I. GRATED DROP INLET
- G.D.I. (N.S.) GRATED DROP INLET (NARROW SLOT)
- J.B. JUNCTION BOX
- M.H. MANHOLE
- T.B.D.I. TRAFFIC BEARING DROP INLET
- T.B.J.B. TRAFFIC BEARING JUNCTION BOX

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH STRAIGHT	SHOP CURVED	DOUBLE FACED	WARRANT POINT APPROACH END	TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH APPROACH END	TRAILING END	W APPROACH END	TRAILING END	ANCHORS GREU TL2	.	.	.	.	.	.	.	.	IMPACT ATTENUATOR TYPE 350 NO.	PERMITTED G	NG	REMOVE EXISTING GUARDRAIL (LF)	.	.	REMARKS
–L–	10+83	12+56	LT	180			12+56	10+83							2												180			REMOVE, REPLACE 180 LF OF EXISTING GUARDRAIL
–L–	17+35	18+62	LT																								128			REMOVE EXISTING GUARDRAIL

SUMMARY OF EARTHWORK

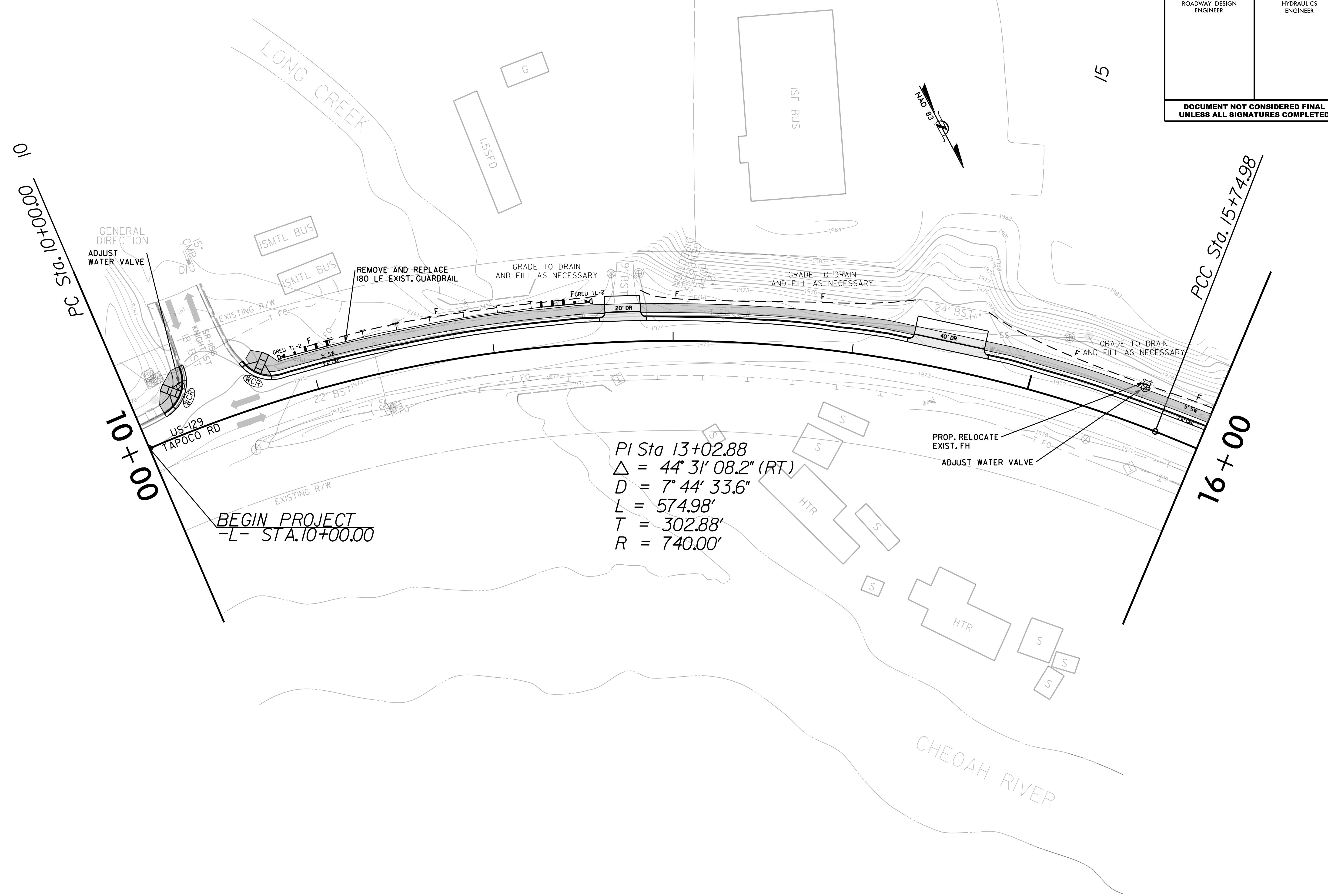
STATION	STATION	UNCL. EXCAV.	EMBANK. +%	BORROW	WASTE
10+00	27+52	116	212	215	116
SUBTOTALS:		116	212	215	116
PROJECT TOTALS:		116	212	215	116
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				10.75	
GRAND TOTALS:		116	212	225.75	116
SAY:		120		225	120

NOTE:
Approximate quantities only. Unclassified Excavation, Borrow Excavation, Clearing & Grubbing, and Removal & Breakup of existing pavement will be paid at the lump sum price for "Grading."

PROJECT REFERENCE NO.	SHEET NO.
SS-6014E	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS



PROJECT REFERENCE NO.	SHEET NO.
SS-6014E	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

NAD 83

J L & BETTY PHILLIPS
DB 145 PG 379

L & O CONSTRUCTION
DB 146 PG 758

JERRY WILLIAMS
REVONDA WILLIAMS
DB 386 PG 20

ISBKD

ISBKD

ISBKD

ISBKD

REMOVE EXISTING GUARDRAIL

EXISTING R/W

GRADE TO DRAIN
AND FILL AS NECESSARY

GRADE TO DRAIN
AND FILL AS NECESSARY

20' DR

20' DR

20' DR

20' DR

20' DR

2

3

1

DI

18" CMP

CB

CB

US-129
TAPOCO RD

16+00

22+00

PI Sta 19+83.29
△ = 35° 30' 52.7" (RT)
D = 4° 29' 37.6"
L = 790.31'
T = 408.31'
R = 1,275.00'

EXISTING R/W

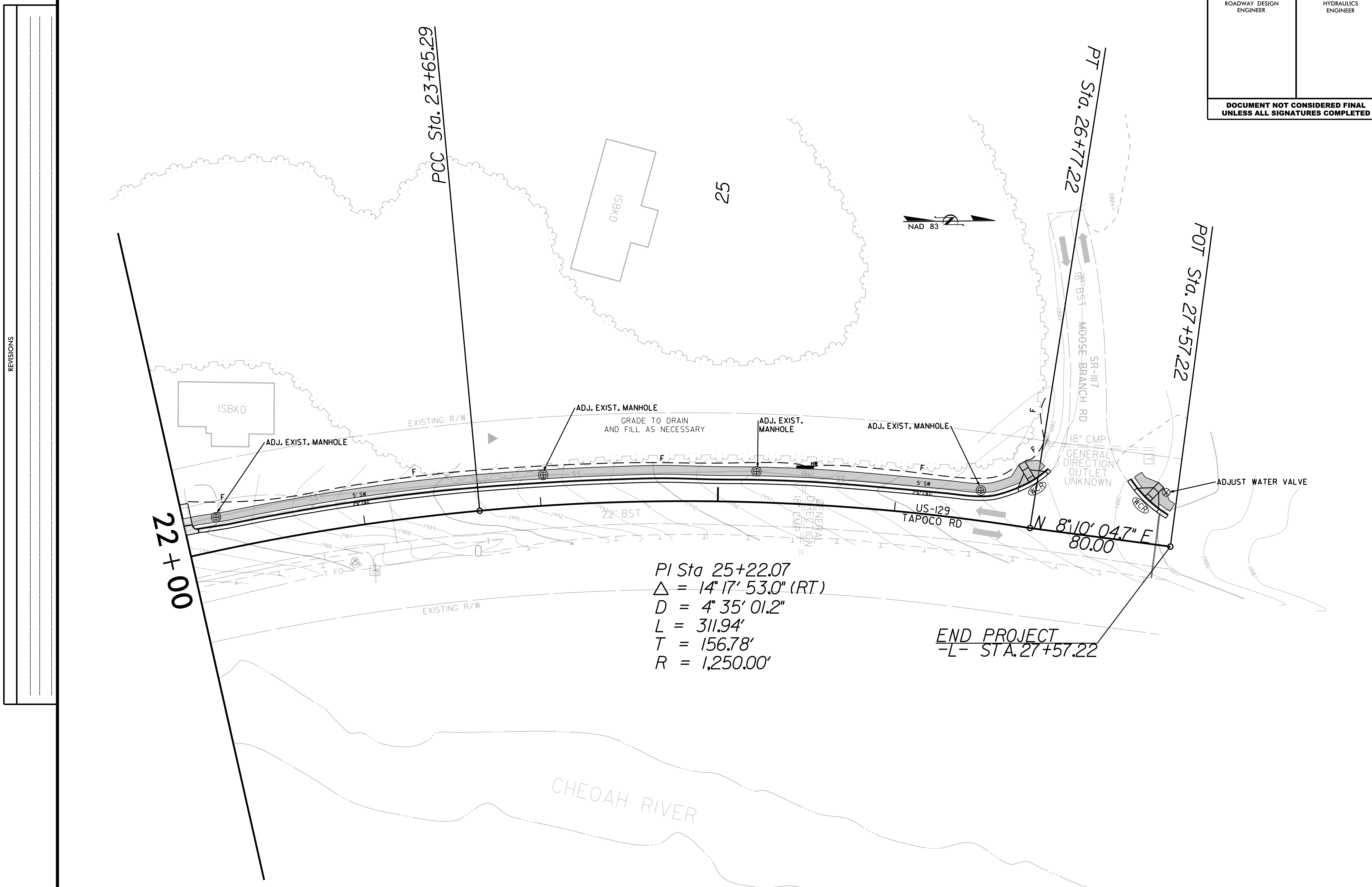
MYRTLE HILL
DB 165 PG 528

CHEOAH RIVER

RIVER

PROJECT REFERENCE NO.	SHEET NO.
SS-6014E	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROJECT: SS-6014E

CONTRACT: DN11991344

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SS-6014E	PMP-1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
48994.3.1		CONSTRUCTION	

PAVEMENT MARKING PLAN
GRAHAM COUNTY

LOCATION: ALONG US HWY 129 /NC HWY 143

TYPE OF WORK: GRADING, SIDEWALK INSTALLATION, GUARDRAIL REMOVAL, DRAINAGE

LIST OF ROADWAY STANDARDS

2018 ROADWAY STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" - Highway Design Branch - N.C. Department of Transportation - Raleigh, N.C., dated January 16, 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

STD. NO.	TITLE
DIVISION 12 - PAVEMENT MARKINGS, MARKERS AND DELINEATION	
1205.01	Pavement Markings - Line Types and Offsets
1205.07	Pavement Markings - Pedestrian Crosswalks

INDEX OF SHEETS

GENERAL NOTES

GENERAL NOTES: 2018 SPECIFICATIONS
EFFECTIVE: 01-16-2018

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.

1 INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
RODNEY ORR BYPASS	PAINT	
KNIGHT STREET	PAINT	
MOOSE BRANCH ROAD	PAINT	

2 TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

3 REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.

4 UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.

PAVEMENT MARKING SCHEDULE

PAVEMENT MARKINGS

SYMBOL	DESCRIPTION
T2	WHITE STOP BAR
T3	WHITE CROSSWALK LINE

PROJECT REFERENCE NO.	SHEET NO.
SS-6014E	PMP-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

10

PC Sta. 10+00.00

10+00

T3

SR-1156
KNIGHT ST

US-129
TAPOCO RD

-L- STA. 10+77

-L- STA. 10+21

NAD 83

15

PCC Sta. 15+74.98

16+00

PROJECT REFERENCE NO.	SHEET NO.
SS-6014E	PMP-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

NAD 83

20

US-129
TAPOCO RD

16+00

00+00

22+00

PROJECT REFERENCE NO.	SHEET NO.
SS-6014E	PMP-4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

PCC Sta. 23+65.29

25

PT Sta. 26+77.22

NAD 83

POT Sta. 27+57.22

-L- STA. 26+68

T2

SR-1117
MOOSE BRANCH RD

T3

US-129
TAPOCO RD

N 8°10' 04.7" E
80.00

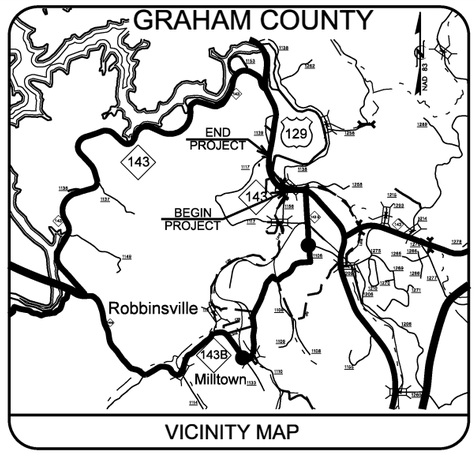
22+00

-L- STA. 27+47

-L- STA. 26+86

PROJECT: SS-6014E

CONTRACT: DN11991344



VICINITY MAP

STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

PLAN FOR PROPOSED

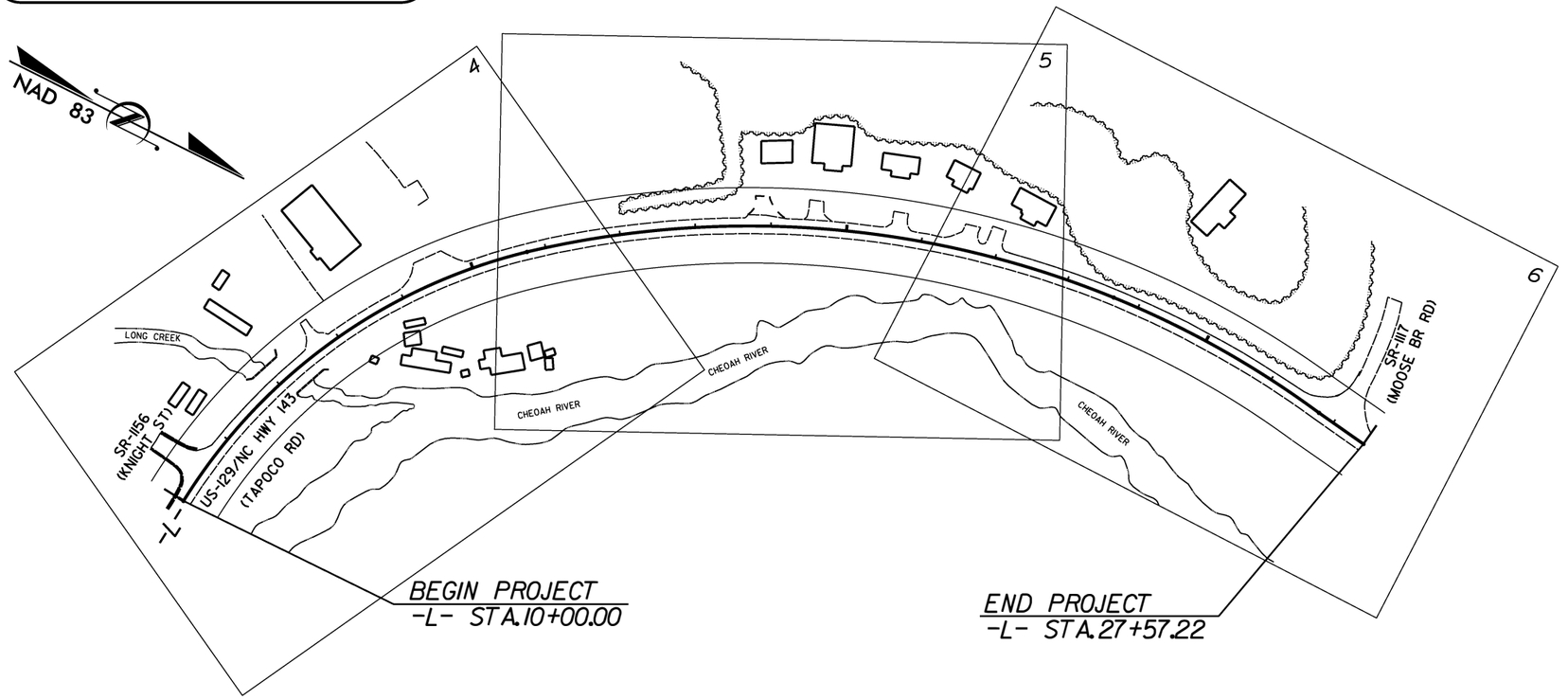
HIGHWAY EROSION CONTROL

GRAHAM COUNTY

LOCATION: *BEGINNING AT THE INTERSECTION OF SR–1156 (KNIGHT ST) ALONG US HWY 129 /NC HWY 143 (TAPOCO RD) AND ENDING AT THE INTERSECTION OF SR–1117 (MOOSE BR RD)*

TYPE OF WORK: *GRADING, SIDEWALK INSTALLATION, GUARDRAIL REMOVAL, DRAINAGE*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SS-6014E	EC-1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
48994.3.1		CONSTRUCTION	



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
	Streambank Reforestation	
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.01	Riser Basin	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

ANDY RUSSELL P.E.
LEVEL IIIA NAME

3234
LEVEL IIIA CERTIFICATION NO.

GRAPHIC SCALE

25 12.5 0 25 50
PLANS

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

Prepared In the Office of:

DIVISION OF HIGHWAYS

191 Robbinsville Rd., Andrews NC, 28901

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE: 07/27/21

ANDY RUSSELL P.E.
PROJECT ENGINEER

ANDY RUSSELL P.E.
PROJECT DESIGN ENGINEER

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 revison 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		

PROJECT REFERENCE NO.	SHEET NO.
SS-6014E	EC-2

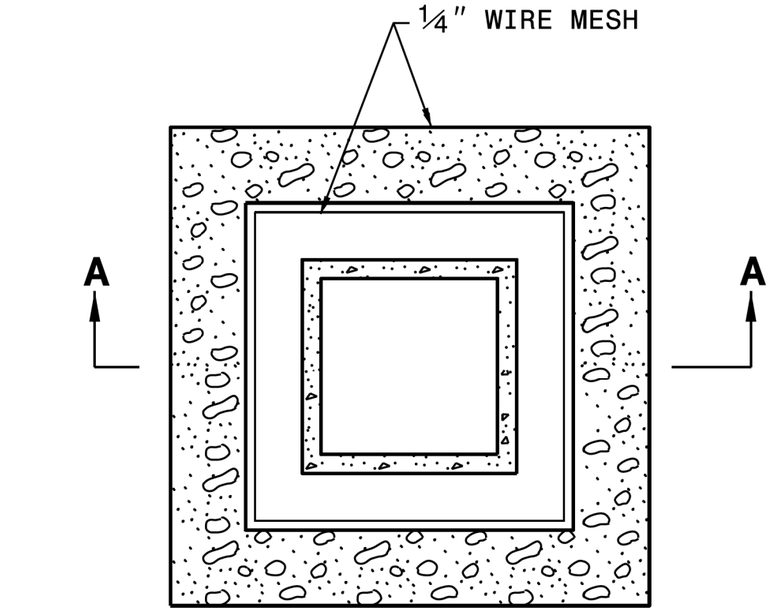
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	*STABILIZATION TIME*	*TIMEFRAME EXCEPTIONS*
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.

PROJECT REFERENCE NO.	SHEET NO.
SS-6014E	EC-3

REVISIONS



SECTION A-A

MULTI-DIRECTIONAL FLOW

NOTES

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.

USE 24 GAUGE MINIMUM WIRE MESH HARDWARE CLOTH WITH ¼ INCH MESH OPENINGS.

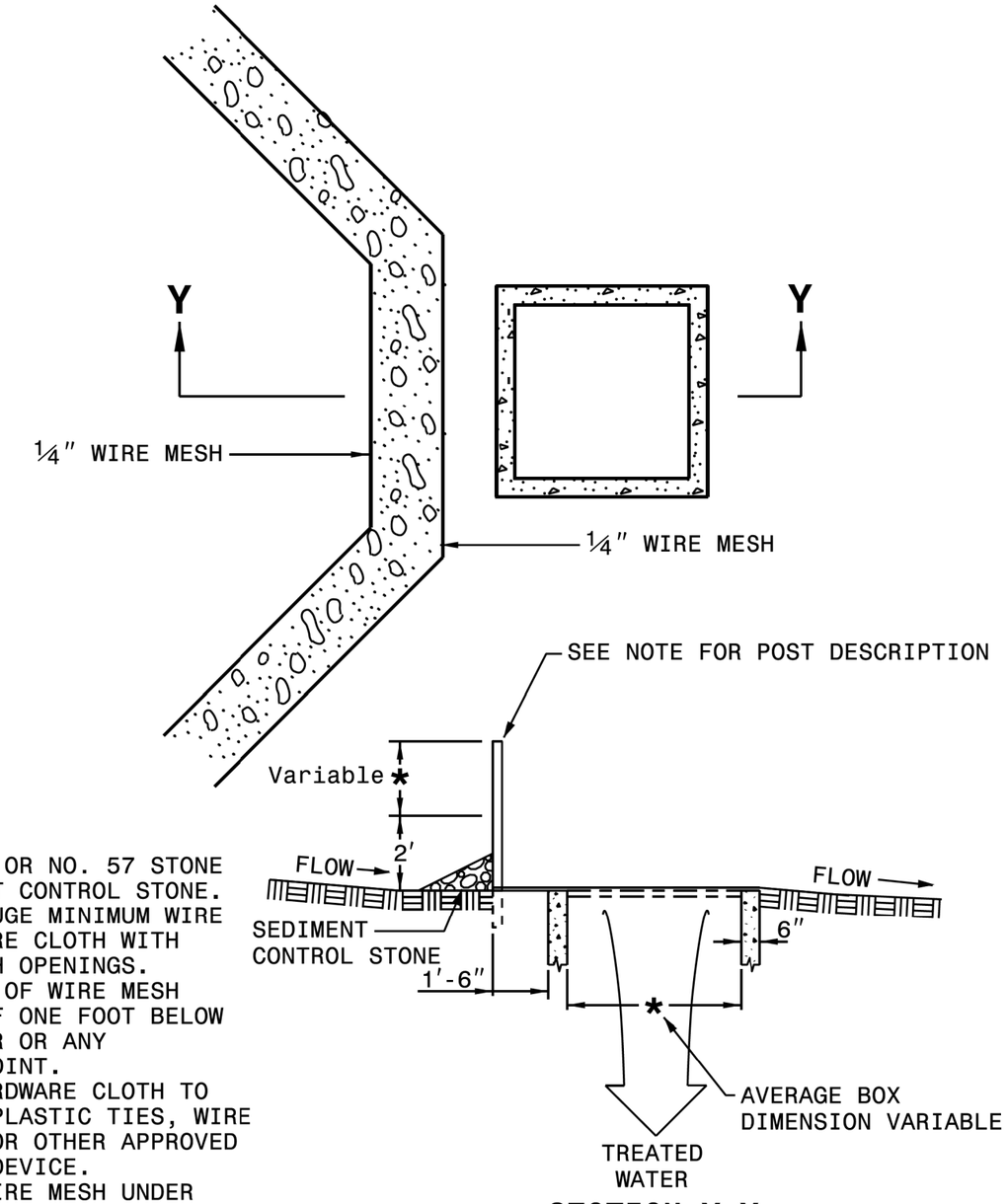
PLACE TOP OF WIRE MESH A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.

ATTACH HARDWARE CLOTH TO POSTS WITH PLASTIC TIES, WIRE FASTENERS, OR OTHER APPROVED ATTACHMENT DEVICE.

INSTALL WIRE MESH UNDER SEDIMENT CONTROL STONE.

USE 5' STEEL POST, INSTALLED 2' DEEP MINIMUM, AND OF THE SELF-FASTENER ANGLE STEEL TYPE.

SPACE POST A MAXIMUM OF 4'.



SECTION Y-Y

SINGLE-DIRECTIONAL FLOW

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-18

ROADWAY STANDARD DRAWING FOR

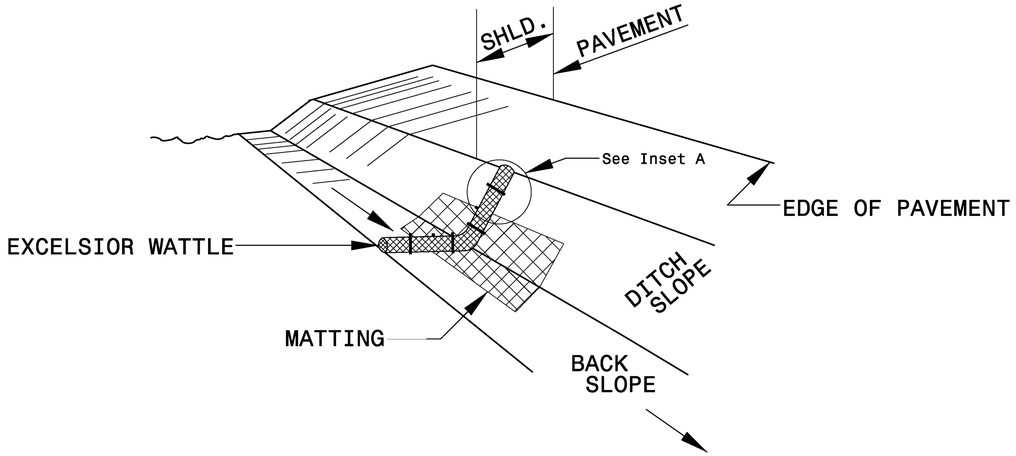
ROCK INLET SEDIMENT TRAP TYPE C

SHEET 1 OF 1

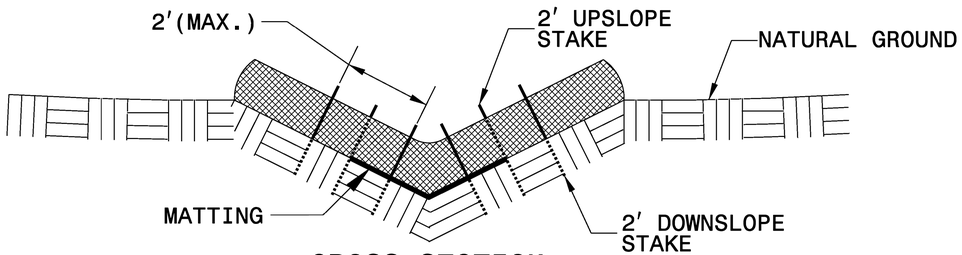
1632.03

PROJECT REFERENCE NO.	SHEET NO.
SS-6014E	EC-3A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

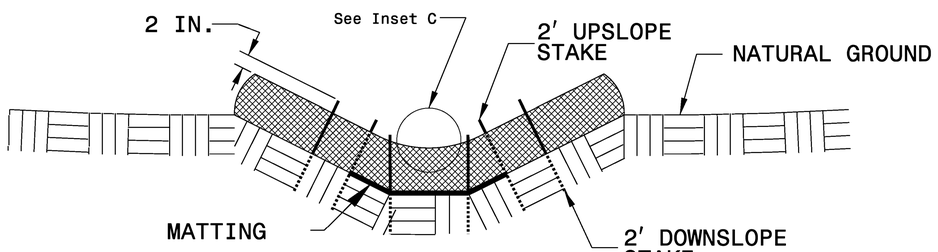
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

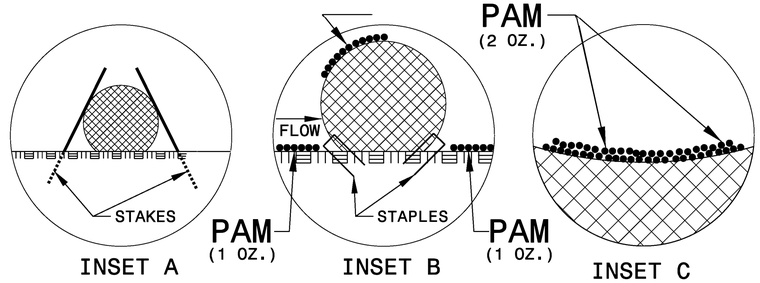
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

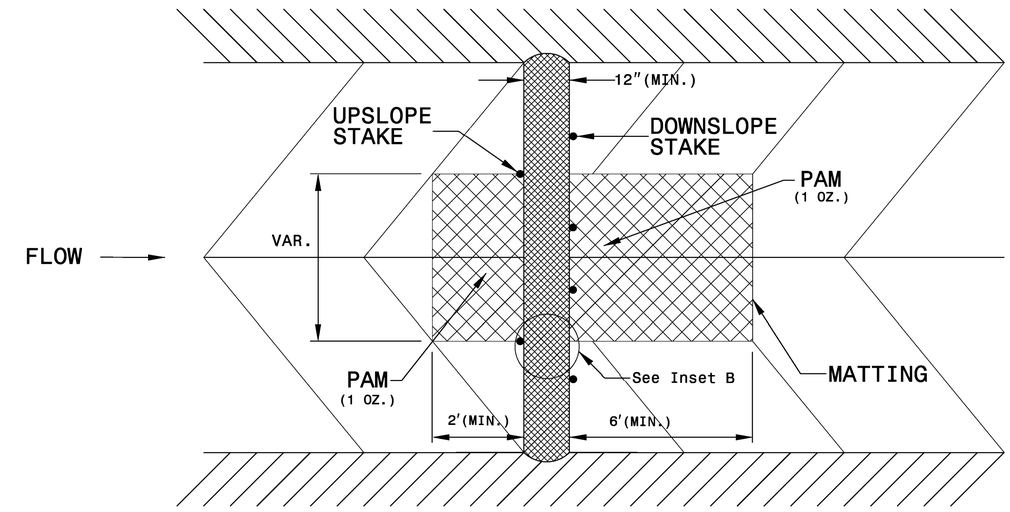
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.





TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
SS-6014E	EC-4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

LONG CREEK

DONNA CODY J/T
BRIANNA JUMPER J/T
DB 381 PG 351

L & O CONSTRUCTION
DB 146 PG 758

ISF BUS

NAD 83

GRAHAM COUNTY
DB N/A PG N/A

15"SFD

TEMPORARY SILT FENCING

GENERAL DIRECTION

15" CMP

DI

T3

SMTL BUS

SMTL BUS

EXISTING R/W

T FO

18' BST

5' SW

20' DR

9' BST

GENERAL DIRECTION

12" HDPE

SS

W

24' BST

40' DR

22' BST

10+00

16+00

EXISTING R/W

WATTLE WITH PAM

HTR

MICHAEL N. BRYANT
KANDI L BRYANT
DB 388 PG 764

MYRTLE HILL
DB 165 PG 528

HTR

CHEOAH RIVER

**NOTE: ALL EXPOSED AREAS AND SLOPES WILL BE SEEDED AND MULCHED, WATTLES WITH PAM TO BE USED IF DIRECTED BY ENGINEER

PROJECT REFERENCE NO.	SHEET NO.
SS-6014E	EC-5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

NAD 83

INLET PROTECTION TYPE "C"

TEMPORARY SILT FENCING

REMOVE EXISTING GUARDRAIL

WATTLE WITH PAM

16+00

22+00

J L & BETTY PHILLIPS
DB 145 PG 379

L & O CONSTRUCTION
DB 146 PG 758

JERRY WILLIAMS
REVONDA WILLIAMS
DB 386 PG 20

ISBKD

ISBKD

ISBKD

ISBKD

GRADE TO DRAIN AND FILL AS NECESSARY

EXISTING R/W

GRADE TO DRAIN AND FILL AS NECESSARY

US-129
TAPOCO RD

22' BST

EXISTING R/W

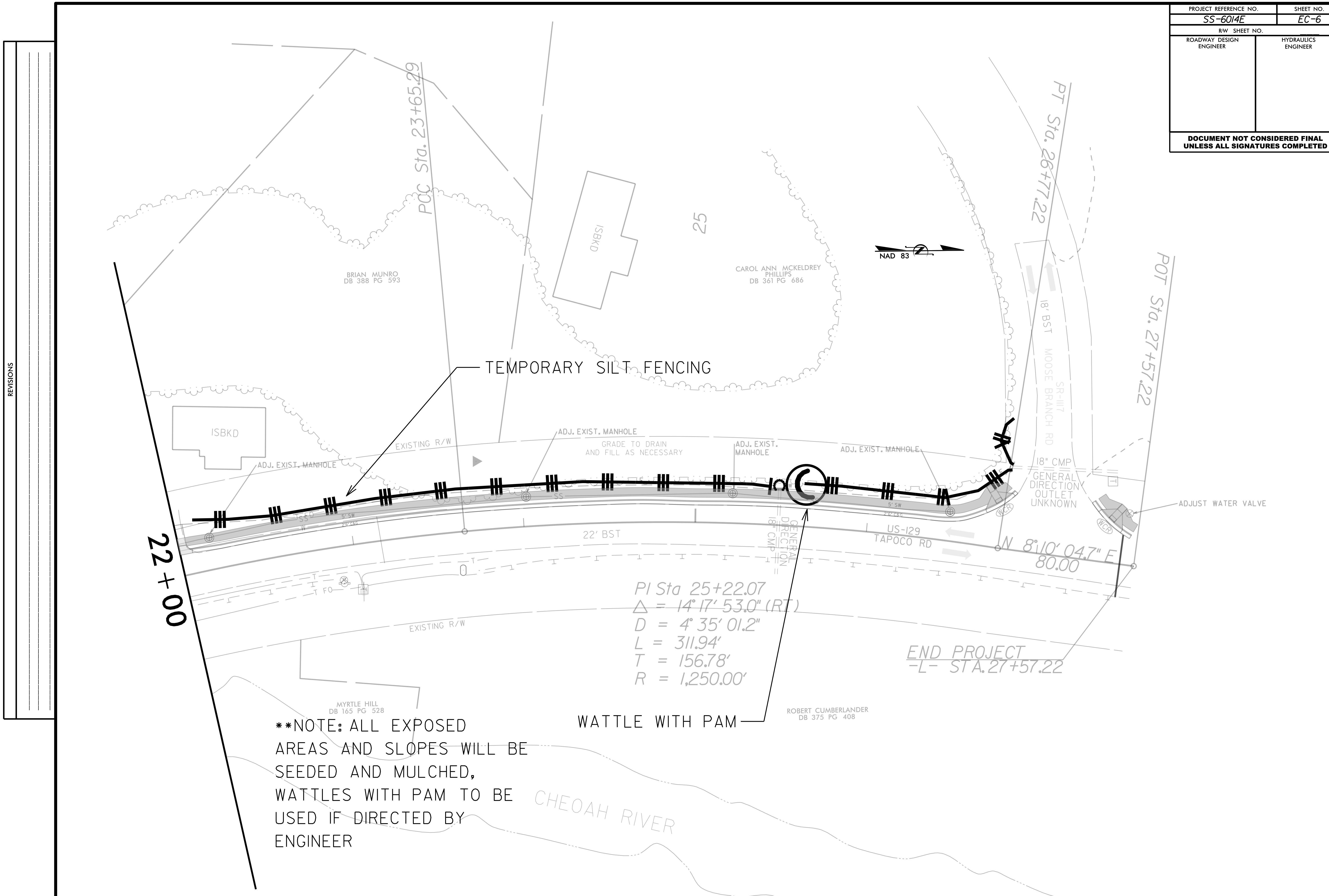
PI Sta 19+83.29
△ = 35° 30' 52.7" (RT)
D = 4° 29' 37.6"
L = 790.31'
T = 408.31'
R = 1,275.00'

MYRTLE HILL
DB 165 PG 528

CHEOAH RIVER

RIVER

**NOTE: ALL EXPOSED AREAS AND SLOPES WILL BE SEEDED AND MULCHED, WATTLES WITH PAM TO BE USED IF DIRECTED BY ENGINEER


PROJECT REFERENCE NO.
SS-6014E
SHEET NO.
EC-6
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
REVISIONS
POC Sta. 23+65.29
PT Sta. 26+77.22
POT Sta. 27+57.22
NAD 83
25
ISBKD
BRIAN MUNRO
DB 388 PG 593
CAROL ANN MCKELDREY PHILLIPS
DB 361 PG 686
TEMPORARY SILT FENCING
18' BST
SR-1117
MOOSE BRANCH RD
EXISTING R/W
ADJ. EXIST. MANHOLE
GRADE TO DRAIN AND FILL AS NECESSARY
18" CMP
GENERAL DIRECTION OUTLET UNKNOWN
ADJUST WATER VALVE
22' BST
US-129
TAPOCO RD
N 8°10' 04.7" E
80.00
22+00
PI Sta 25+22.07
Δ = 14° 17' 53.0" (RT)
D = 4° 35' 01.2"
L = 311.94'
T = 156.78'
R = 1,250.00'
END PROJECT
-L- STA.27+57.22
MYRTLE HILL
DB 165 PG 528
ROBERT CUMBERLANDER
DB 375 PG 408
WATTLE WITH PAM
**NOTE: ALL EXPOSED AREAS AND SLOPES WILL BE SEEDED AND MULCHED, WATTLES WITH PAM TO BE USED IF DIRECTED BY ENGINEER
CHEOAH RIVER