STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5203A & SS-4903AN	1	38

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
45333.3.1	W-5203A	CONST.
43290.3.1	SS-4903AN	CONST.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

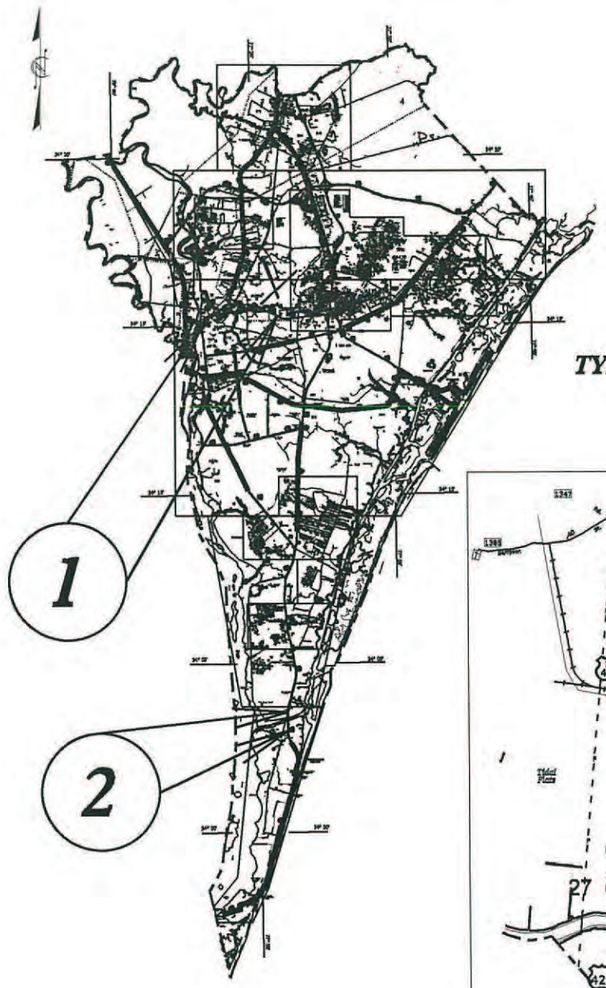
NEW HANOVER COUNTY

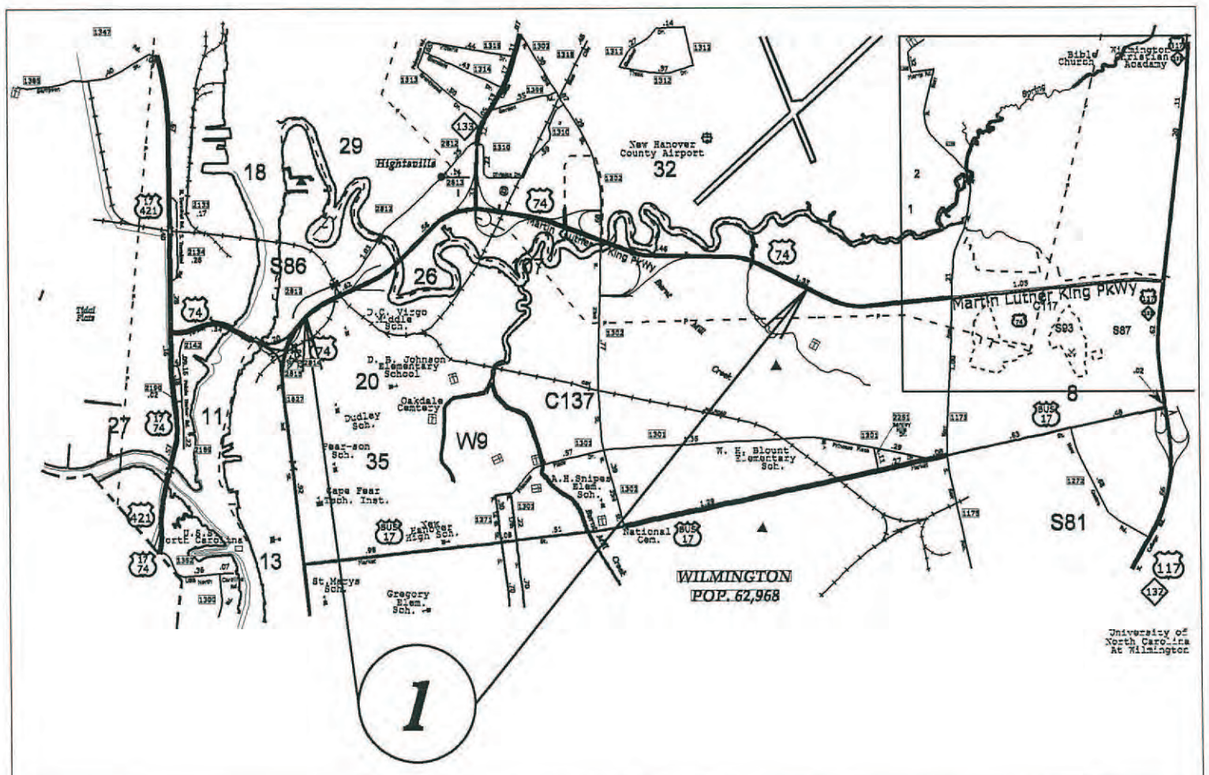
LOCATION: *Map 1: US 74 (Martin Luther King Parkway) from 0.17 miles east of NC 133 to 0.85 miles west of SR 1175 (Kerr Avenue) in the City of Wilmington in New Hanover County.*

Map 2: US 421 (North Lake Park Boulevard /Carolina Beach Road) from 0.26 miles north of SR 1573 (Dow Road) to 0.30 miles south of SR 1100 (River Road) in New Hanover County.

TYPE OF WORK: *Map 1: Installation of Median Guardrail on US 74.*

Map 2: Installation of Shoulder Guardrail on US 421.





NOT TO SCALE

CONTRACT: TIP PROJECT: W-5203A & SS-4903AN

GRAPHIC SCALES

30 15 0 30 60
PLANS

0
PROFILE (HORIZONTAL)

0
PROFILE (VERTICAL)

DESIGN DATA

ADT =
ADT =
DHV = %
D = %
T = % *
V = MPH

* TTST DUAL

PROJECT LENGTH

MAP NO. 1 = 2.66 MI.
MAP NO. 2 = 0.62 MI.
TOTAL = 3.28 MI.

Prepared In the Office of:
DIVISION OF HIGHWAYS
5501 Barbados Blvd., Castle Hayne, NC 28429

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:
April 19, 2012

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN TECHNICIAN
CMS

SIGNATURE:

SIGNATURE:

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOK

DIVISION DESIGN ENGINEER

09/08/99

26-MAR-2012 10:54
R:\RDY\THREE_NEW HANOVER\W5203A_MLK Guardrail\ROADWAY\Proj\COMBINED_W5203A_rdy_tsh.dgn
cschoonmaker AT DSCA025/1158

PROJECT REFERENCE NO.	SHEET NO.
W-5203A & SS-4903AN	1-A

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER
3/23/12

2012 ROADWAY ENGLISH 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, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 8 - INCIDENTALS	
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
1261.01	Guardrail and Barrier Delineators-Installation Spacing
1261.02	Guardrail and Barrier Delineators-Types and Mounting
1262.01	Guardrail End Delineation

GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-12
REVISED: 11/01/11

GUARDRAIL:

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.

SUBSURFACE PLANS:

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

END BENTS:

THE ENGINEER SHALL CHECK THE STRUCTURE END BENT PLANS, DETAILS, AND CROSS-SECTION PRIOR TO SETTING OF THE SLOPE STAKES FOR THE EMBANKMENT OR EXCAVATION APPROACHING A BRIDGE.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE THE TOWN OF CAROLINA BEACH, PROGRESS ENERGY, AT&T, AND CHARTER COMMUNICATIONS.

INDEX OF SHEETS

04/15/11

PROJECT REFERENCE NO.	SHEET NO.
W-5203A & SS-4903AN	1-B

Note: Not to Scale

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVAN COOKE

DIVISION DESIGN ENGINEER 7/25/12

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 Marker — RW
- 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
- 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.

MAP I-US 74

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/26/12

Chain L1 contains:
U922 SPI SCS1B CUR SCS1 SPI SCS1A SPI SCS2B CUR SCS2 SPI SCS2A SPI SCS3B CUR S-CS3 SPI SCS3A SPI SCS4B CUR SCS4 SPI SCS4A SPI SCS5B CUR SCS5 SPI SCS5A SPI SCS-6B CUR SCS6 SPI SCS6A U922I

Beginning chain L1 description
Feature: 3007
==

Point U922 N 183,010.9692 E 2,318,063.3676 Sta 10+00.00

Course from U922 to TS SCS1B N 6° 14' 47.27" W Dist 0.0071

Spiral SCS1B Type 1 Spiral Element

Feature: I

Angle	2° 38' 39.91" (RT) P		0.7571	BK N	6° 14' 47.21" W
LS	196.8500	K	98.4180	AH N	3° 36' 07.29" W
R	2,132.5417	LT	131.2480	CB N	5° 21' 53.96" W
YS	3.0280	ST	65.6300	Defl	0° 52' 53.25"
XS	196.8081	LC	196.8314	Deg	2° 41' 12.25"

Spiral Coordinates

Point	North	East	Station
TS	183,010.9763	2,318,063.3668	10+00.01
PI	183,141.4451	2,318,049.0863	11+31.26
SC	183,206.9454	2,318,044.9631	11+96.86
CC	183,340.9241	2,320,173.2920	

Curve Data

Curve SCS1
Feature: I
P.I. Station 25+82.93 N 184,590.2819 E 2,317,957.8818
Delta = 66° 02' 41.32" (RT)
Degree = 2° 41' 12.25"
Tangent = 1,386.0747
Length = 2,458.1795
Radius = 2,132.5417
External = 410.8688
Long Chord = 2,324.3295
Mid. Ord. = 344.4961
P.C. Station 11+96.86 N 183,206.9454 E 2,318,044.9631
P.T. Station 36+55.04 N 185,231.5274 E 2,319,186.7053
C.C. N 183,340.9241 E 2,320,173.2920
Back = N 3° 36' 07.29" W
Ahead = N 62° 26' 34.02" E
Chord Bear = N 29° 25' 13.36" E

Spiral SCS1A Type 2 Spiral Element

Feature: I

Angle	2° 38' 39.91" (RT) P		0.7571	BK N	62° 26' 34.02" E
LS	196.8500	K	98.4180	AH N	65° 05' 13.94" E
R	2,132.5417	LT	131.2480	CB N	64° 12' 20.69" E
YS	3.0280	ST	65.6300	Defl	0° 52' 53.25"
XS	196.8081	LC	196.8314	Deg	2° 41' 12.25"

Spiral Coordinates

Point	North	East	Station
CS	185,231.5274	2,319,186.7053	36+55.04
PI	185,261.8901	2,319,244.8896	37+20.67
ST	185,317.1768	2,319,363.9249	38+51.89
CC	183,340.9241	2,320,173.2920	

Course from ST SCS1A to TS SCS2B N 65° 05' 13.94" E Dist 1,121.9242

Spiral SCS2B Type 1 Spiral Element

Feature: I

Angle	2° 57' 48.87" (LT) P		0.8484	BK N	65° 05' 13.94" E
LS	196.8500	K	98.4162	AH N	62° 07' 25.07" E
R	1,902.8833	LT	131.2517	CB N	64° 05' 57.73" E
YS	3.3933	ST	65.6334	Defl	0° 59' 16.21"
XS	196.7973	LC	196.8266	Deg	3° 00' 39.59"

Spiral Coordinates

Point	North	East	Station
TS	185,789.7743	2,320,381.4541	49+73.81
PI	185,845.0626	2,320,500.4928	51+05.06
SC	185,875.7505	2,320,558.5100	51+70.66
CC	187,557.8204	2,319,668.7878	

Curve Data

Curve SCS2
Feature: I
P.I. Station 54+09.52 N 185,987.4347 E 2,320,769.6554
Delta = 14° 18' 34.20" (LT)
Degree = 3° 00' 39.59"
Tangent = 238.8634
Length = 475.2411
Radius = 1,902.8833
External = 14.9333
Long Chord = 474.0069
Mid. Ord. = 14.8170
P.C. Station 51+70.66 N 185,875.7505 E 2,320,558.5100
P.T. Station 56+45.90 N 186,147.8405 E 2,320,946.6460
C.C. N 187,557.8204 E 2,319,668.7878
Back = N 62° 07' 25.07" E
Ahead = N 47° 48' 50.87" E
Chord Bear = N 54° 58' 07.97" E

Spiral SCS2A Type 2 Spiral Element

Feature: I

Angle	2° 57' 48.87" (LT) P		0.8484	BK N	47° 48' 50.87" E
LS	196.8500	K	98.4162	AH N	44° 51' 02.00" E
R	1,902.8833	LT	131.2517	CB N	45° 50' 18.21" E
YS	3.3933	ST	65.6334	Defl	0° 59' 16.21"
XS	196.7973	LC	196.8266	Deg	3° 00' 39.59"

Spiral Coordinates

Point	North	East	Station
CS	186,147.8405	2,320,946.6460	56+45.90
PI	186,191.9158	2,320,995.2784	57+11.54
ST	186,284.9666	2,321,087.8450	58+42.75
CC	187,557.8204	2,319,668.7878	

Course from ST SCS2A to TS SCS3B N 44° 51' 02.00" E Dist 1,200.4638

Spiral SCS3B Type 1 Spiral Element

Feature: I

Angle	4° 10' 40.14" (RT) P		1.3952	BK N	44° 51' 02.00" E
LS	229.6583	K	114.8088	AH N	49° 01' 42.14" E
R	1,574.8000	LT	153.1482	CB N	46° 14' 35.15" E
YS	5.5799	ST	76.5916	Defl	1° 23' 33.15"
XS	229.5362	LC	229.6040	Deg	3° 38' 17.84"

Spiral Coordinates

Point	North	East	Station
TS	187,136.0339	2,321,934.4842	70+43.22
PI	187,244.6081	2,322,042.4935	71+96.36
SC	187,294.8280	2,322,100.3227	72+72.87
CC	186,105.7999	2,323,132.8958	

Curve Data

Curve SCS3
Feature: I
P.I. Station 79+42.95 N 187,734.1857 E 2,322,606.2517
Delta = 46° 05' 57.48" (RT)
Degree = 3° 38' 17.84"
Tangent = 670.0741
Length = 1,267.0598
Radius = 1,574.8000
External = 136.6305
Long Chord = 1,233.1587
Mid. Ord. = 125.7227
P.C. Station 72+72.87 N 187,294.8280 E 2,322,100.3227
P.T. Station 85+39.93 N 187,674.2976 E 2,323,273.6441
C.C. N 186,105.7999 E 2,323,132.8958
Back = N 49° 01' 42.14" E
Ahead = S 84° 52' 20.38" E
Chord Bear = N 72° 04' 40.88" E

Spiral SCS3A Type 2 Spiral Element

Feature: I

Angle	4° 10' 40.14" (RT) P		1.3952	BK S	84° 52' 20.38" E
LS	229.6583	K	114.8088	AH S	80° 41' 40.24" E
R	1,574.8000	LT	153.1482	CB S	82° 05' 13.39" E
YS	5.5799	ST	76.5916	Defl	1° 23' 33.15"
XS	229.5362	LC	229.6040	Deg	3° 38' 17.84"

PROJECT REFERENCE NO.	SHEET NO.
W-5203A	1-D

MAP I-US 74

Spiral Coordinates

Point	North	East	Station
CS	187,674.2976	2,323,273.6441	85+39.93
PI	187,667.4522	2,323,349.9292	86+16.53
ST	187,642.6884	2,323,501.0620	87+69.59
CC	186,105.7999	2,323,132.8958	

Course from ST SCS3A to TS SCS4B S 80° 41' 40.24" E Dist 1,008.9904

Spiral SCS4B Type 1 Spiral Element

Feature: 1					
Angle	1° 33' 45.40" (RT) P	0.4474	BK S	80° 41' 40.24" E	
LS	196.8500	K	98.4226	AH S	79° 07' 54.83" E
R	3,608.9167	LT	131.2384	CB S	80° 10' 25.11" E
YS	1.7895	ST	65.6213	Defl	0° 31' 15.12"
XS	196.8354	LC	196.8435	Deg	1° 35' 15.42"

Spiral Coordinates

Point	North	East	Station
TS	187,479.5363	2,324,496.7743	97+78.58
PI	187,458.3152	2,324,626.2857	99+09.82
SC	187,445.9424	2,324,690.7300	99+75.43
CC	183,901.7558	2,324,010.2734	

Curve Data

Curve SCS4

Feature: 1					
P.I. Station	102+31.43	N	187,397.6736	E	2,324,942.1403
Delta	= 8° 06' 54.25" (RT)				
Degree	= 1° 35' 15.42"				
Tangent	= 256.0020				
Length	= 511.1477				
Radius	= 3,608.9167				
External	= 9.0685				
Long Chord	= 510.7206				
Mid. Ord.	= 9.0457				
P.C. Station	99+75.43	N	187,445.9424	E	2,324,690.7300
P.T. Station	104+86.58	N	187,314.3986	E	2,325,184.2194
C.C.	N	183,901.7558	E	2,324,010.2734	
Back	= S 79° 07' 54.83" E				
Ahead	= S 71° 01' 00.59" E				
Chord Bear	= S 75° 04' 27.71" E				

Spiral SCS4A Type 2 Spiral Element

Feature: 1					
Angle	1° 33' 45.40" (RT) P	0.4474	BK S	71° 01' 00.59" E	
LS	196.8500	K	98.4226	AH S	69° 27' 15.18" E
R	3,608.9167	LT	131.2384	CB S	69° 58' 30.30" E
YS	1.7895	ST	65.6213	Defl	0° 31' 15.12"
XS	196.8354	LC	196.8435	Deg	1° 35' 15.42"

Spiral Coordinates

Point	North	East	Station
CS	187,314.3986	2,325,184.2194	104+86.58
PI	187,293.0526	2,325,246.2718	105+52.20
ST	187,246.9937	2,325,369.1625	106+83.43
CC	183,901.7558	2,324,010.2734	

Course from ST SCS4A to TS SCS5B S 69° 27' 15.18" E Dist 1,936.3954

Spiral SCS5B Type 1 Spiral Element

Feature: 1					
Angle	6° 32' 53.12" (LT) P	2.4985	BK S	69° 27' 15.18" E	
LS	262.4667	K	131.1762	AH S	76° 00' 08.31" E
R	1,148.2917	LT	175.0977	CB S	71° 38' 12.02" E
YS	9.9894	ST	87.5979	Defl	2° 10' 56.84"
XS	262.1241	LC	262.3144	Deg	4° 59' 22.75"

Spiral Coordinates

Point	North	East	Station
TS	186,567.4047	2,327,182.3877	126+19.83
PI	186,505.9531	2,327,346.3478	127+94.92
SC	186,484.7647	2,327,431.3445	128+82.29
CC	187,598.9584	2,327,709.0965	

Curve Data

Curve SCS5

Feature: 1					
P.I. Station	129+45.36	N	186,469.5086	E	2,327,492.5437
Delta	= 6° 17' 16.23" (LT)				
Degree	= 4° 59' 22.75"				
Tangent	= 63.0721				
Length	= 126.0176				
Radius	= 1,148.2917				
External	= 1.7309				
Long Chord	= 125.9544				
Mid. Ord.	= 1.7283				
P.C. Station	128+82.29	N	186,484.7647	E	2,327,431.3445
P.T. Station	130+08.31	N	186,461.0471	E	2,327,555.0456
C.C.	N	187,598.9584	E	2,327,709.0965	
Back	= S 76° 00' 08.31" E				
Ahead	= S 82° 17' 24.54" E				
Chord Bear	= S 79° 08' 46.42" E				

Spiral SCS5A Type 2 Spiral Element

Feature: 1					
Angle	6° 32' 53.12" (LT) P	2.4985	BK S	82° 17' 24.54" E	
LS	262.4667	K	131.1762	AH S	88° 50' 17.66" E
R	1,148.2917	LT	175.0977	CB S	86° 39' 20.82" E
YS	9.9894	ST	87.5979	Defl	2° 10' 56.84"
XS	262.1241	LC	262.3144	Deg	4° 59' 22.75"

Spiral Coordinates

Point	North	East	Station
CS	186,461.0471	2,327,555.0456	130+08.31
PI	186,449.2953	2,327,641.8516	130+95.91
ST	186,445.7451	2,327,816.9133	132+70.78
CC	187,598.9584	2,327,709.0965	

Course from ST SCS5A to TS SCS6B S 88° 50' 17.66" E Dist 1,890.4979

Spiral SCS6B Type 1 Spiral Element

Feature: 1					
Angle	5° 59' 59.99" (RT) P	2.6170	BK S	88° 50' 17.66" E	
LS	300.0000	K	149.9452	AH S	82° 50' 17.67" E
R	1,432.3950	LT	200.1150	CB S	86° 50' 18.33" E
YS	10.4638	ST	100.1046	Defl	1° 59' 59.33"
XS	299.6712	LC	299.8538	Deg	3° 59' 59.99"

Spiral Coordinates

Point	North	East	Station
TS	186,407.4150	2,329,707.0226	151+61.27
PI	186,403.3576	2,329,907.0965	153+61.39
SC	186,390.8775	2,330,006.4200	154+61.27
CC	184,969.6578	2,329,827.8419	

Curve Data

Curve SCS6

Feature: 1					
P.I. Station	156+05.51	N	186,372.8956	E	2,330,149.5294
Delta	= 11° 30' 00.02" (RT)				
Degree	= 3° 59' 59.99"				
Tangent	= 144.2347				
Length	= 287.5002				
Radius	= 1,432.3950				
External	= 7.2435				
Long Chord	= 287.0179				
Mid. Ord.	= 7.2071				
P.C. Station	154+61.27	N	186,390.8775	E	2,330,006.4200
P.T. Station	157+48.77	N	186,326.7433	E	2,330,286.1808
C.C.	N	184,969.6578	E	2,329,827.8419	
Back	= S 82° 50' 17.67" E				
Ahead	= S 71° 20' 17.65" E				
Chord Bear	= S 77° 05' 17.66" E				

Spiral SCS6A Type 2 Spiral Element

Feature: 1					
Angle	7° 59' 59.99" (RT) P	4.6510	BK S	71° 20' 17.65" E	
LS	400.0000	K	199.8701	AH S	63° 20' 17.66" E
R	1,432.3950	LT	266.9395	CB S	66° 00' 16.07" E
YS	18.5909	ST	133.5814	Defl	2° 39' 58.41"
XS	399.2209	LC	399.6535	Deg	3° 59' 59.99"

Spiral Coordinates

Point	North	East	Station
CS	186,326.7433	2,330,286.1808	157+48.77
PI	186,283.9998	2,330,412.7390	158+82.36
ST	186,164.2180	2,330,651.2951	161+48.77
CC	184,969.6578	2,329,827.8419	

Course from ST SCS6A to U9221S 63° 20' 17.66" E Dist 1,320.8608

Point U9221 N 185,571.5178 E 2,331,831.7102 Sta 174+69.64

==========

Ending chain LI description

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE
DIVISION DESIGN ENGINEER
3/23/12

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5203A	1-E

MAP 1-US 74

Point# North(Y) East(X) Elev(Z)

Pt MLK1,N 184244.3450,E 2318247.6820,Z 43.5810,

Pt MLK2,N 185141.3950,E 2319045.9470,Z 45.7990,

Pt MLK3,N 187056.2640,E 2321848.2720,Z 27.0990,

Pt MLK4,N 187670.1800,E 2322914.9410,Z 40.9670,

Pt P11,N 184630.7788,E 2317886.0712,Z 0.0000,

Pt P12,N 185974.3402,E 2320778.8348,Z 0.0000,

Pt P13,N 187792.3917,E 2322587.4270,Z 0.0000,

Pt P14,N 187406.1890,E 2324944.4102,Z 0.0000,

Pt P15,N 186452.3897,E 2327489.2614,Z 0.0000,

Pt P16,N 186397.6955,E 2330186.3039,Z 0.0000,

Pt U921,N 181645.8080,E 2318212.7914,Z 0.0000,

Pt U922,N 183010.9692,E 2318063.3676,Z 0.0000,

Pt U923,N 185317.1766,E 2319363.9246,Z 0.0000,

Pt U924,N 185789.7743,E 2320381.4541,Z 0.0000,

Pt U925,N 186284.9666,E 2321087.8450,Z 0.0000,

Pt U926,N 187136.0339,E 2321934.4842,Z 0.0000,

Pt U927,N 187642.6884,E 2323501.0620,Z 0.0000,

Pt U928,N 187479.5363,E 2324496.7744,Z 0.0000,

Pt U929,N 187246.9937,E 2325369.1625,Z 0.0000,

Pt U930,N 186567.4047,E 2327182.3877,Z 0.0000,

Pt U9211,N 186445.7451,E 2327816.9133,Z 0.0000,

Pt U9212,N 186419.0071,E 2329135.4014,Z 0.0000,

Pt U9213,N 186416.3920,E 2329264.3577,Z 0.0000,

Pt U9214,N 186407.4152,E 2329707.0139,Z 0.0000,

Pt U9215,N 186403.3577,E 2329907.0928,Z 0.0000,

Pt U9216,N 186390.8769,E 2330006.4217,Z 0.0000,

Pt U9217,N 184969.6572,E 2329827.8435,Z 0.0000,

Pt U9218,N 186326.7427,E 2330286.1823,Z 0.0000,

Pt U9219,N 186283.9997,E 2330412.7392,Z 0.0000,

Pt U9220,N 186164.2176,E 2330651.2958,Z 0.0000,

Pt U9221,N 185571.5178,E 2331831.7102,Z 0.0000,

Pt U33383,N 185306.3080,E 2332347.3240,Z 32.9520,

Pt U33384,N 185860.9230,E 2331253.7480,Z 29.5730,

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "MLK-4"
WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF
NORTHING: 187670.180(ft) EASTING: 2322914.941(ft)
ELEVATION: 40.97(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 1.00002635
THE N.C. LAMBERT GRID BEARING AND
LOCALIZED HORIZONTAL GROUND DISTANCE FROM
"MLK-4" TO -L1- STATION IS 81+80.96 IS 4.70(ft) LT

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

PROJECT REFERENCE NO.	SHEET NO.
55-4903AN	1-F

MAP 2-US 421

Beginning chain L2 description

Point CL5 N 111,512.0155 E 2,333,291.9272 Sta 20+72.36

Course from CL5 to PC SCIN 1° 03′ 31.88" E Dist 3,103.3011

Curve Data

Curve SCI
Feature: I
P.I. Station 54+94.40 N 114,933.4712 E 2,333,355.1646
Delta = 12° 41′ 50.40" (RT)
Degree = 2° 00′ 00.00"
Tangent = 318.7389
Length = 634.8667
Radius = 2,864.7890
External = 17.6770
Long Chord = 633.5684
Mid. Ord. = 17.5686
P.C. Station 51+75.66 N 114,614.7867 E 2,333,349.2745
P.T. Station 58+10.53 N 115,243.0675 E 2,333,430.9578
C.C. N 114,561.8470 E 2,336,213.5743
Back = N 1° 03′ 31.88" E
Ahead = N 13° 45′ 22.28" E
Chord Bear = N 7° 24′ 27.08" E

Course from PT SCI to CL3 N 13° 45′ 22.28" E Dist 548.7596

Point CL3 N 115,776.0867 E 2,333,561.4478 Sta 63+59.29

Ending chain LI description

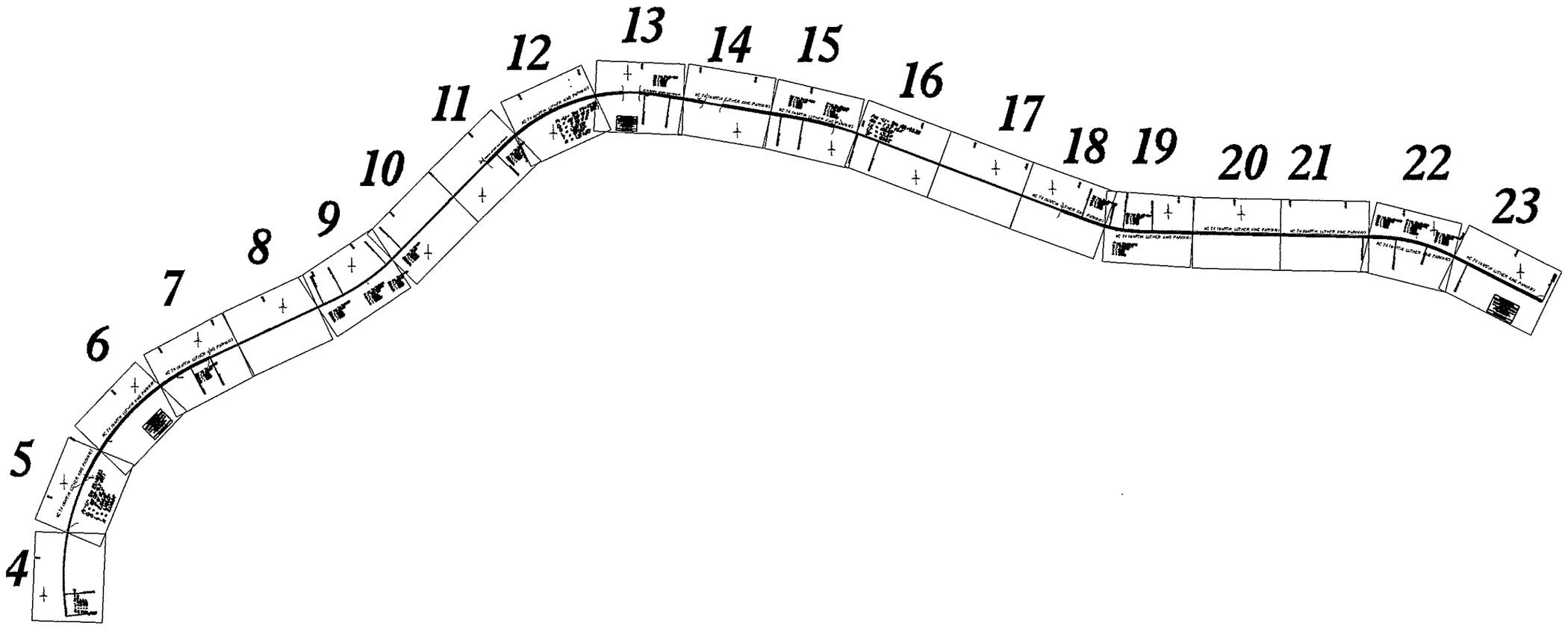
Point#	North(Y)	East(X)	Elev(Z)
Pt BRYANI,	N 141367.6820,	E 2334391.9190,	Z 38.0810
Pt CLI,	N 114307.8755,	E 2333343.6020,	Z -
Pt CL2,	N 112247.4864,	E 2333305.5206,	Z -
Pt CL3,	N 115776.0867,	E 2333561.4478,	Z -
Pt CL4,	N 115257.3125,	E 2333434.4451,	Z -
Pt CL5,	N 111512.0155,	E 2333291.9272,	Z -
Pt DPI,	N 114331.7500,	E 2333204.4620,	Z 13.7850
Pt DP2,	N 114497.0430,	E 2333217.7260,	Z 13.5460
Pt DP3,	N 114220.1680,	E 2333220.7760,	Z 14.5410
Pt DP4,	N 114241.5750,	E 2333451.1210,	Z 9.9890
Pt DP5,	N 114694.5670,	E 2333427.4410,	Z 15.8960
Pt DP6,	N 114954.1750,	E 2333465.5310,	Z 15.6910
Pt DP7,	N 114585.6290,	E 2333411.1930,	Z 14.9910
Pt DP8,	N 114349.2520,	E 2333443.9320,	Z 8.4490

PROJECT REFERENCE NO.	SHEET NO.
W-5203A	1-G

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

NEW HANOVER COUNTY US 74 – MARTIN LUTHER KING PARKWAY
ALIGNMENTS AND SHEET LAYOUT
–L1– MAP 1



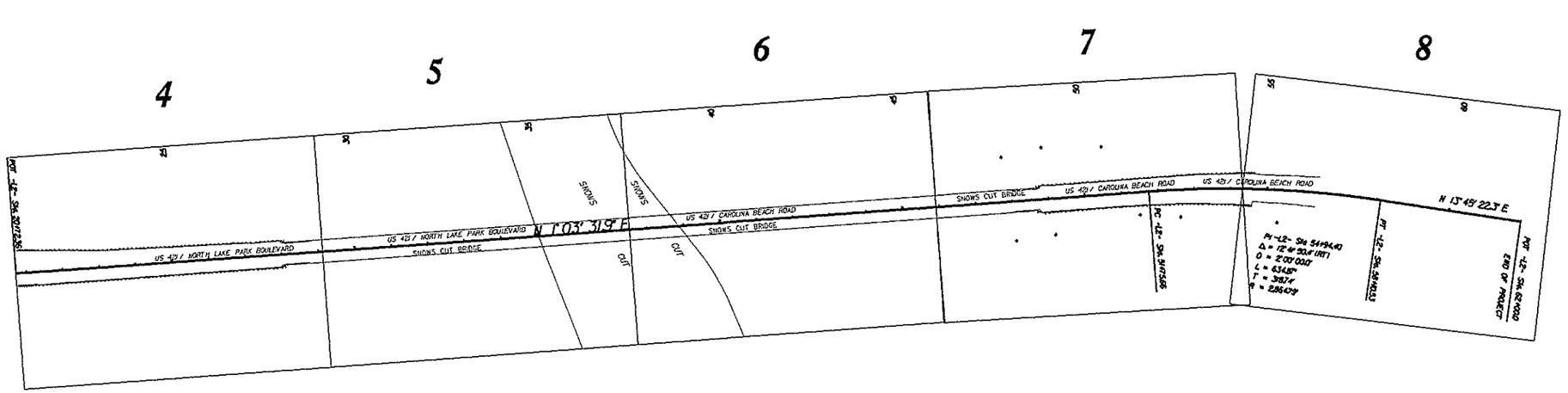
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
5S-4903AN	1-H

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

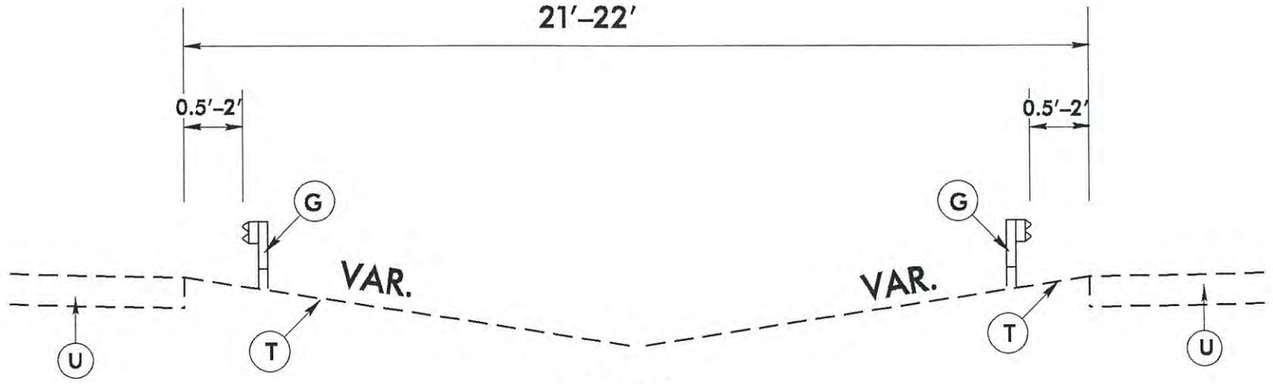
DIVISION DRAINAGE ENGINEER

NEW HANOVER COUNTY
US 421 – NORTH LAKE PARK BOULEVARD /CAROLINA BEACH ROAD
ALIGNMENTS AND SHEET LAYOUT
–L2– MAP 2



NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
W-5203A	2

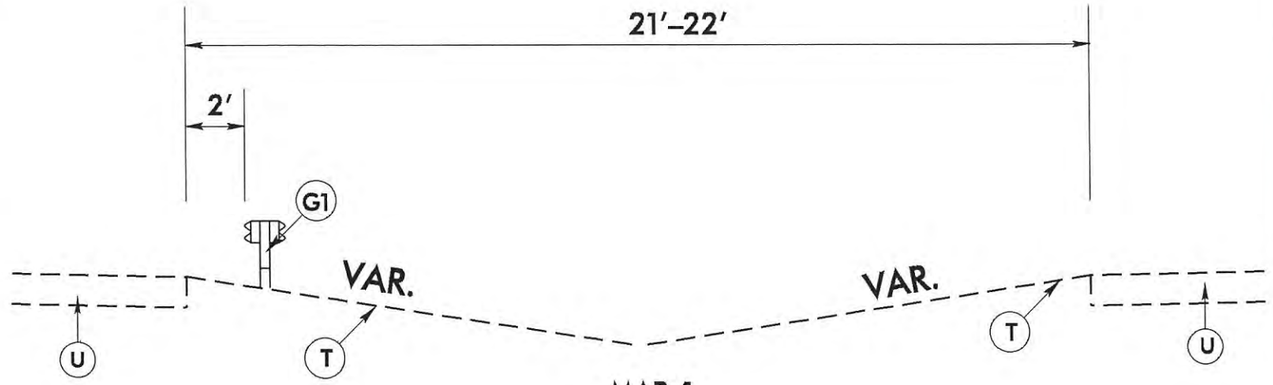


MAP 1

TYPICAL SECTION NO. 1

US 74

–L1– 28+59–38+12
–L1– 69+49–83+11
–L1– 85+38–90+23
–L1– 92+75–102+42

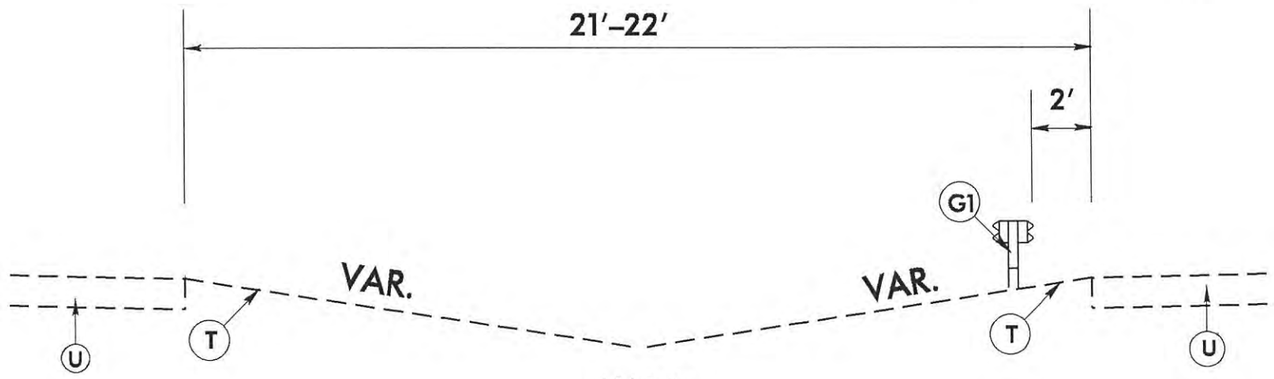


MAP 1

TYPICAL SECTION NO. 2

US 74

–L1– 124+90–143+91



MAP 1

TYPICAL SECTION NO. 3

US 74

–L1– 138+70–168+82

NOT TO SCALE

PAVEMENT SCHEDULE	
G	SINGLE FACE GUARDRAIL.
G1	DOUBLE FACE GUARDRAIL.
T	EXISTING EARTH MATERIAL.
U	EXISTING PAVEMENT.

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

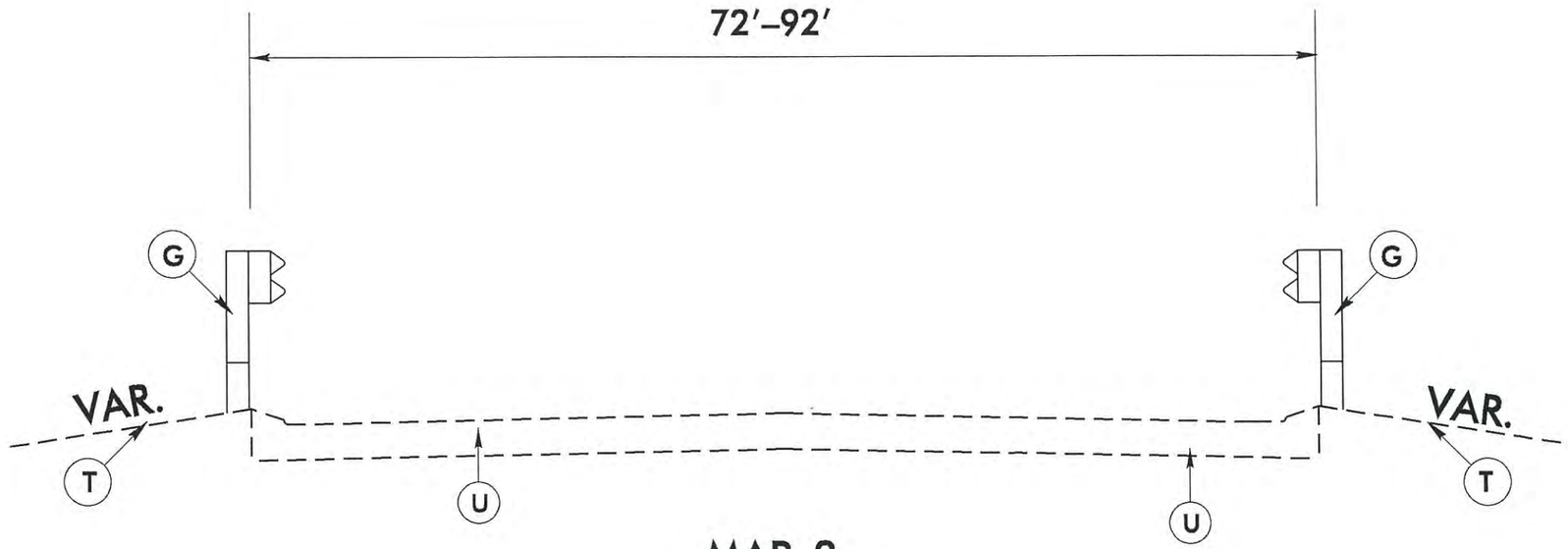
7/22/16

PROJECT REFERENCE NO.	SHEET NO.
SS-4903AN	2-A

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT COOKE EVANS

DIVISION DESIGN ENGINEER

3/29/12



MAP 2

TYPICAL SECTION NO. 4

US 421

–L2– 21+50–28+06

–L2– 48+70–54+39

PAVEMENT SCHEDULE	
G	SINGLE FACE GUARDRAIL.
G1	DOUBLE FACE GUARDRAIL.
T	EXISTING EARTH MATERIAL.
U	EXISTING PAVEMENT.

NOT TO SCALE

PROJECT NO.	SHEET NO.	TOTAL NO.
W-5203A & SS-4903AN	3	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	IMPACT ATTENUATOR UNIT, TYPE 350 EA	STEEL BM GUARDRAIL LF	STEEL BM GUARDRAIL, DOUBLE FACED LF	ADDITIONAL GUARDRAIL POSTS EA	GUARDRAIL ANCHOR UNITS, TYPE CAT-1 EA	GUARDRAIL ANCHOR UNITS, TYPE III EA	GR ANCHOR UNITS, TYPE 350 EA	REMOVE EXISTING GUARDRAIL LF
W-5203A	New Hanover	1	US 74 28+59-168+82	FROM 0.17 MI EAST OF NC 133 TO 2.83 MI. EAST OF NC 133	1	NO	2.656	22	3	6890	4850	19	4		4	1910
TOTAL FOR MAP NO. 1							2.656		3	6890	4850	19	4		4	1910
SS-4903AN	NewHanover	2	US 421 21+50-54+39	FROM 0.26 MILES NORTH OF SR 1573 TO 0.30 MILES SOUTH OF SR 1100	4	NO	0.623	78		1836		5	2	4	2	
TOTAL FOR MAP NO. 2							0.623		0	1836	0	5	2	4	2	0
TOTAL FOR PROJ NO. W-5203A & SS-4903AN							3.279		3	8726	4850	24	6	4	6	1910
GRAND TOTAL							3.279		3	8726	4850	24	6	4	6	1910

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER
3/28/12

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH		W		ANCHORS									IMPACT ATTENUATOR TYPE 350			SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	XI MOD	XI	GRAU 350	M-350	XIII	CAT-1	VI MOD	BIC	AT-1	EA	G	NG				
-L1-	28+59	31+41	LT	282'					4.5'	8'							1										282'	35'		
-L1-	28+59	38+12	RT	953'					4.5'	8'																	953'	156'		
-L1-	31+60	37+37	LT	577'					4.5'	8'										1							577'	38'		
-L1-	69+49	76+17	LT	668'					5.5'	8'							1										668'	100'		
-L1-	69+85	83+11	RT	1326'					5.5'	8'																	1326'	159'		
-L1-	76+36	82+47	LT	611'					5.5'	8'										1							611'	60'		
-L1-	85+38	87+67	LT	229'					6'	8'							1										229'	161'		
-L1-	85+40	90+23	RT	483'					6'	8'																	483'	265'		
-L1-	87+86	89+86	LT	200'					5'	8'										1							200'	37'		
-L1-	92+75	97+30	LT	455'					5'	8'							1										455'	108'		
-L1-	93+28	102+42	RT	914'					5'	8'																	914'	177'		
-L1-	97+49	101+65	LT	416'					4.5'	8'										1							416'	38'		
-L1-	124+90	143+91	LT			1901'			6'	8'																1		334'		
-L1-	138+70	168+82	RT			3012'			6'	8'							1									2		242'		
MAP 1 TOTAL				7114'		4913'																								
		MAP 1 LESS DEDUCTIONS: 224'			MAP 1 LESS DEDUCTIONS: 63'										MAP 1 DEDUCTIONS 4 ANCHORS TYPE CAT-1 @ 6' = 24'															
		MAP 1 SUBTOTAL: 6890'			MAP 1 SUBTOTAL: 4850'										MAP 1 DEDUCTIONS 4 ANCHORS TYPE 350 @ 50' = 200'															
		MAP 1 ADDITIONAL GUARDRAIL POSTS: 12			MAP 1 ADDITIONAL GUARDRAIL POSTS: 7										MAP 1 DEDUCTIONS 3 IMPACT ATTENUATORS TYPE 350 @ 21' = 63'															
															MAP 1 TOTAL DEDUCTIONS: 287'															
-L2-	24+93	28+06	LT	313'					6'	8'	85'									1							313'			
-L2-	21+50	28+06	RT	656'					12'	14'	226'						1										656'			
-L2-	48+70	54+39	LT	569'					8'	10'		247'					1										569'			
-L2-	48+70	53+55	RT	485'					12'	14'		204'								1							485'			
MAP 2 TOTAL				2023'																										
		MAP 2 LESS DEDUCTIONS: 187'													MAP 2 DEDUCTIONS 2 ANCHORS TYPE CAT-1 @ 6' = 12'															
		MAP 2 SUBTOTAL: 1836'													MAP 2 DEDUCTIONS 2 ANCHORS TYPE 350 @ 50' = 100'															
		MAP 2 ADDITIONAL GUARD RAIL POST: 5													MAP 2 DEDUCTIONS 4 ANCHORS TYPE III @ 18.75' = 75'															
															MAP 2 TOTAL DEDUCTIONS: 187'															
MAPS 1 & 2 TOTAL				9137'		4913'																								
		MAPS 1 & 2 LESS DEDUCTIONS: 411'			MAPS 1 & 2 LESS DEDUCTIONS: 63'										MAPS 1 & 2 DEDUCTIONS 6 ANCHORS TYPE CAT-1 @ 6' = 36'															
		MAPS 1 & 2 SUBTOTAL: 8726'			MAPS 1 & 2 SUBTOTAL: 4850'										MAPS 1 & 2 DEDUCTIONS 6 ANCHORS TYPE 350 @ 50' = 300'															
		MAPS 1 & 2 ADDITIONAL GUARDRAIL POSTS: 17			MAPS ' & 2 ADDITIONAL GUARDRAIL POSTS: 7										MAPS 1 & 2 DEDUCTIONS 3 IMPACT ATTENUATORS TYPE 350 @ 21' = 63'															
															MAPS 1 & 2 DEDUCTIONS 4 ANCHORS TYPE III @ 18.75' = 75'															
															MAPS 1 & 2 TOTAL DEDUCTIONS: 474'															

PROJECT REFERENCE NO.	SHEET NO.
W-5203A	4

8/17/99

REVISIONS

NC GRID
NAD 83/NSRS 2007

15+00

SCOTT EVANS COOLE
NORTH CAROLINA
PROFESSIONAL
SEAL
024905
ENGINEER

DIVISION DESIGN ENGINEER

3/27/12

US 74 (MARTIN LUTHER KING PARKWAY)

N 6° 14' 47.3" W

U922

17+95

PIs -LI- Sta 11+31.26
Θs = 2° 38' 39.9"
Ls = 196.85'
LT = 131.25'
ST = 65.63'

ST -LI- Sta. 10+00.01
BEGIN PROJECT

SC -LI- Sta. 11+96.86

Scale 1" = 30'
30' 0 30' 60'

23-MAR-2012 08:24
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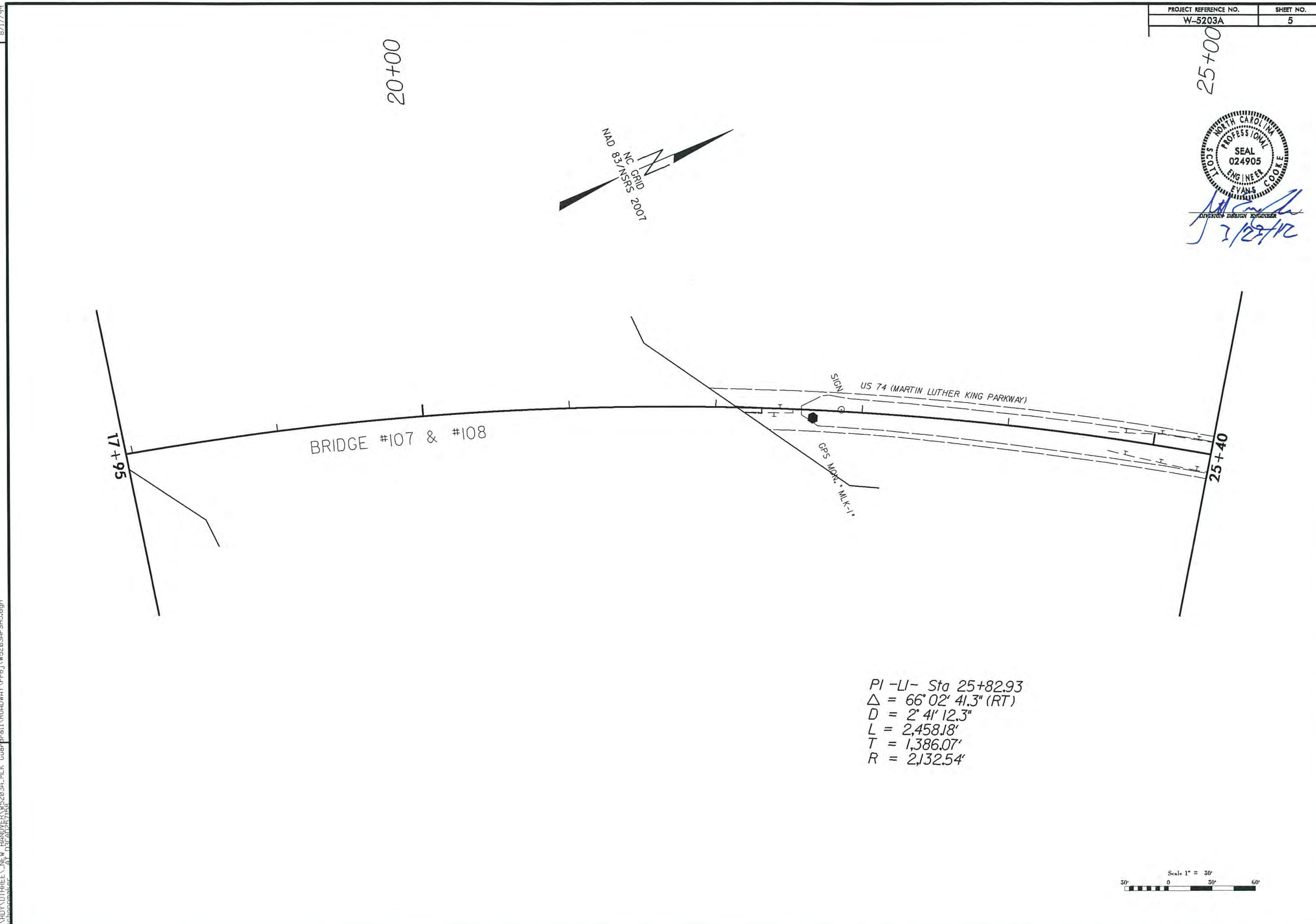
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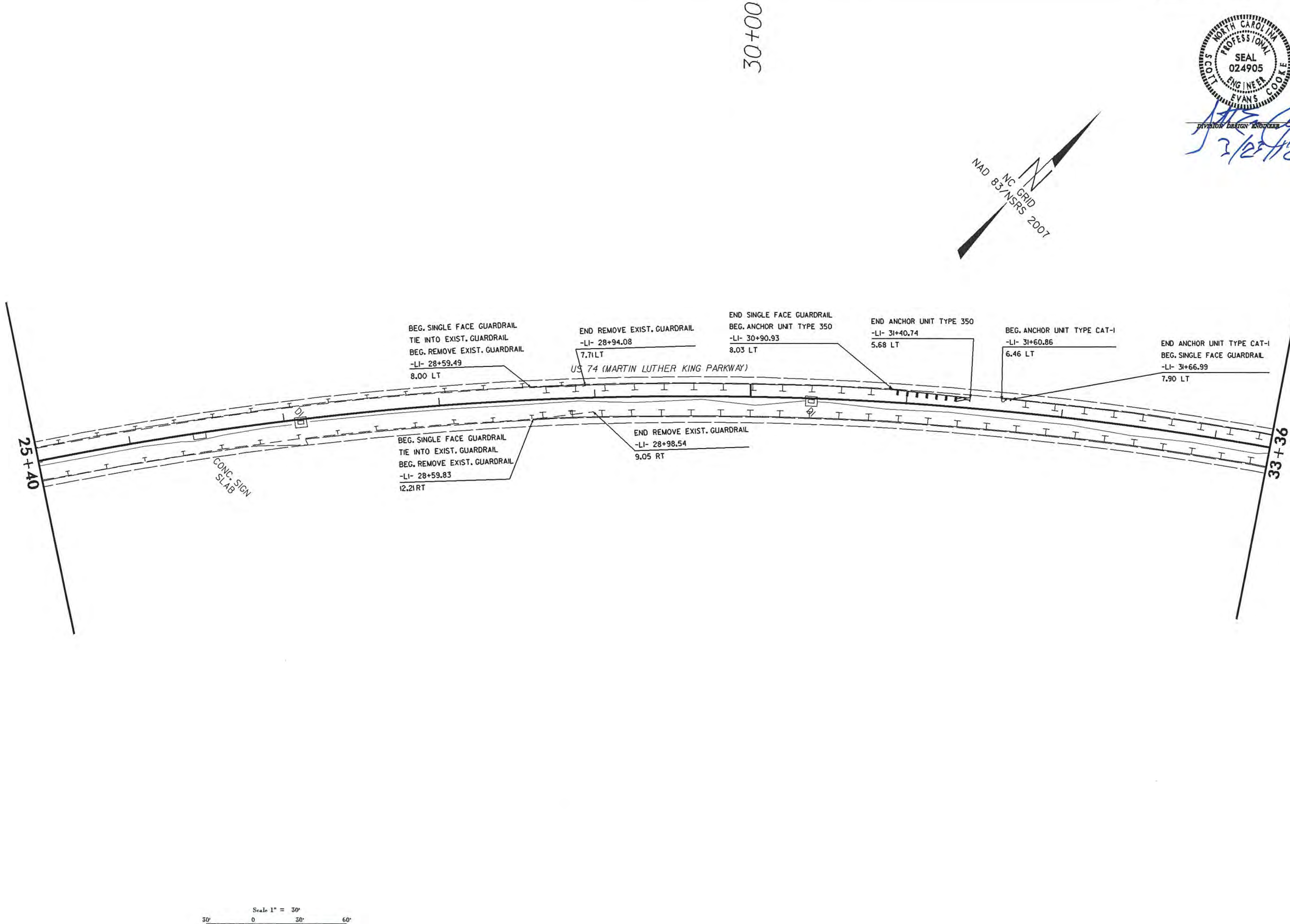
W-5203A
SHEET NO.
5
20+00
25+00
NC GRID
NAD 83/NSRS 2007
NORTH CAROLINA
PROFESSIONAL
SEAL
024905
ENGINEER
SCOTT EVANS COOKE
DIVISION DESIGN ENGINEER
3/27/12
SIGN
US 74 (MARTIN LUTHER KING PARKWAY)
BRIDGE #107 & #108
17+95
25+40
GPS MON. "MLK-1"
PI -L1- Sta 25+82.93
Δ = 66° 02' 41.3" (RT)
D = 2° 41' 12.3"
L = 2,458.18'
T = 1,386.07'
R = 2,132.54'
Scale 1" = 30'
REVISIONS
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
W-5203A	6

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/23/12



REVISIONS

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
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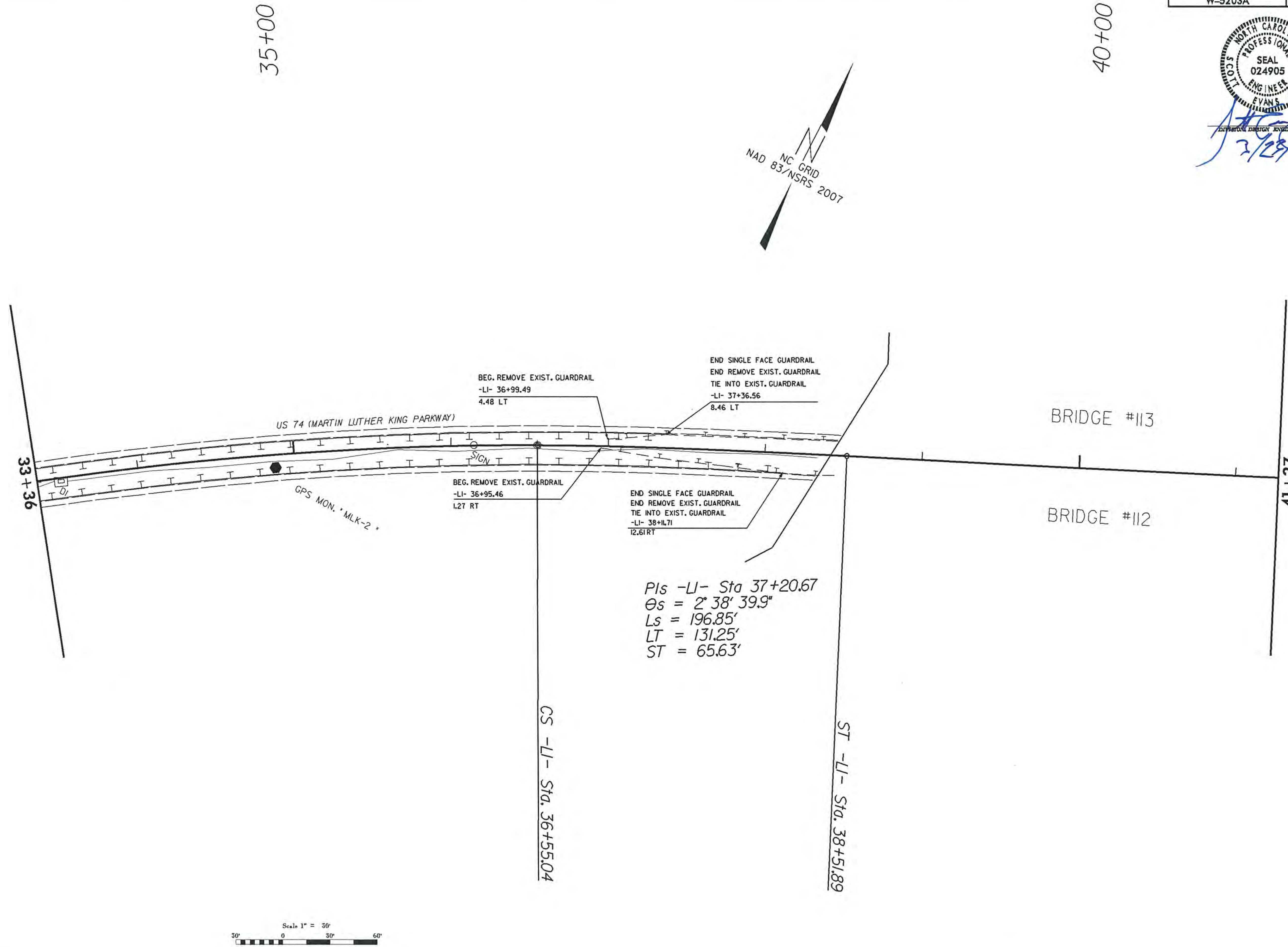
NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/23/12



REVISIONS

8/17/99

20-MAR-2012 14:01
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PROJECT REFERENCE NO.	SHEET NO.
W-5203A	8

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/28/12

45+00

NC GRID
NAD 83/NSRS 2007

BRIDGE #113

41+27

N 65° 05' 13.9" E

US 74 (MARTIN LUTHER KING PARKWAY)

49+67

BRIDGE #112

Scale 1" = 30'

30' 0 30' 60'

REVISIONS

8/17/99

20-MAR-2012 14:40
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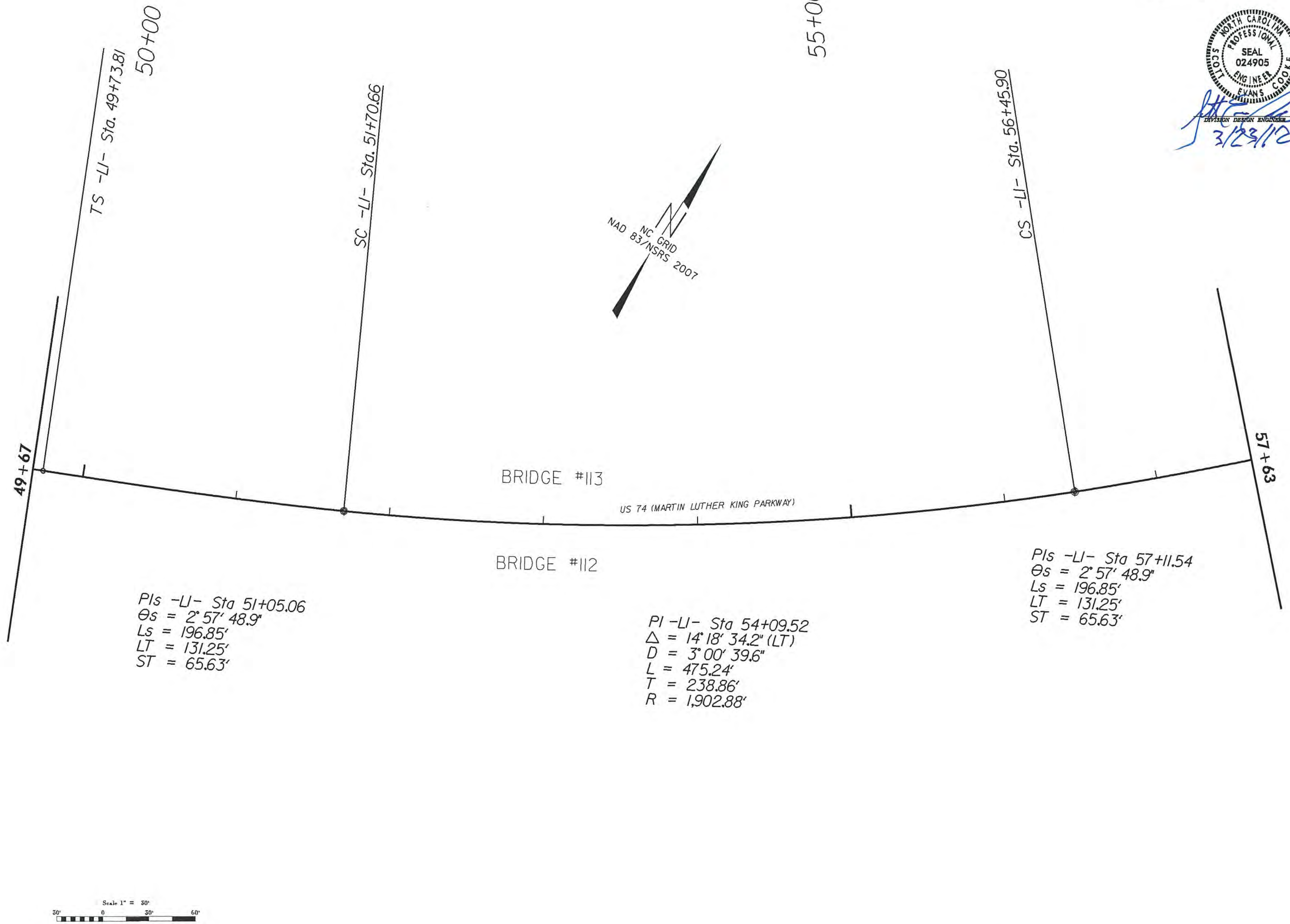
cschoonmaker AT DOT-27158

PROJECT REFERENCE NO.	SHEET NO.
W-5203A	9

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/23/12



REVISIONS

8/17/99

20-MAR-2012 14:02
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PROJECT REFERENCE NO.	SHEET NO.
W-5203A	10

60+00

65+00

ST -L/- Sta. 58+42.75

BRIDGE #113

US 74 (MARTIN LUTHER KING PARKWAY)

N 44° 51' 02.0" E

57+63

65+53

BRIDGE #112

PIs -L/- Sta 57+11.54
Θs = 2° 57' 48.9"
Ls = 196.85'
LT = 131.25'
ST = 65.63'

NC GRID
NAD 83/NSRS 2007

Scale 1" = 30'

30' 0 30' 60'

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/23/12

REVISIONS

8/17/99

20-NOV-2012 14:02
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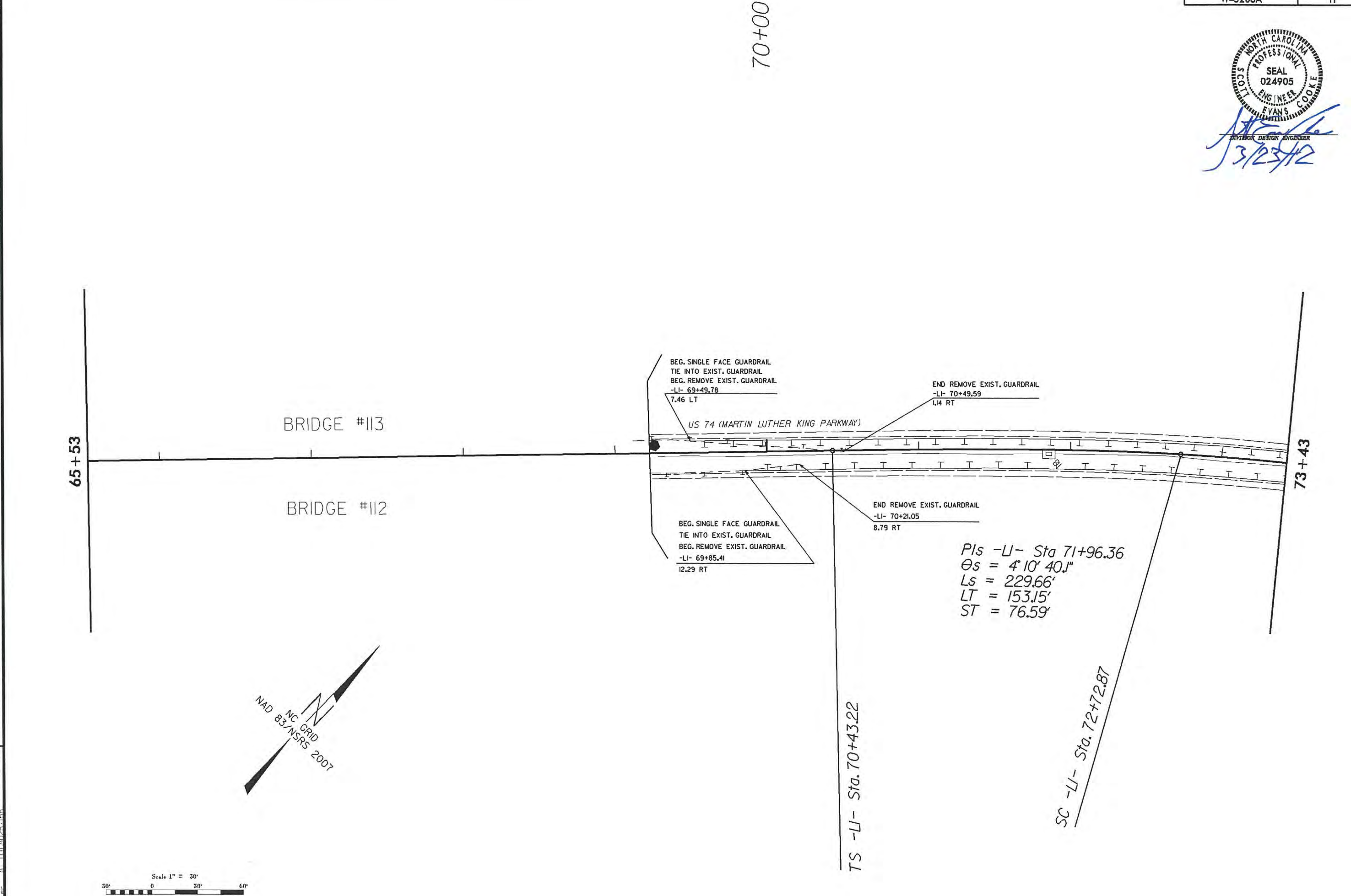
PROJECT REFERENCE NO.	SHEET NO.
W-5203A	11



REVISIONS

8/17/99

20-MAR-2012 14:02
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PROJECT REFERENCE NO.	SHEET NO.
W-5203A	12

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/23/12

75+00

80+00

END ANCHOR UNIT TYPE 350
-LI- 76+16.71
5.20 LT

END SINGLE FACE GUARDRAIL
BEG. ANCHOR UNIT TYPE 350
-LI- 75+66.90
6.55 LT

BEG. ANCHOR UNIT TYPE CAT-I
-LI- 76+36.74
5.45 LT

END ANCHOR UNIT TYPE CAT-I
BEG.SINGLE FACE GUARDRAIL
-LI- 76+42.86
6.91 LT

US 74 (MARTIN LUTHER KING PARKWAY)

73+43

81+44

PI -LI- Sta 79+42.95
Δ = 46° 05' 57.5" (RT)
D = 3° 38' 17.8"
L = 1,267.06'
T = 670.07'
R = 1,574.80'

NC GRID
NAD 83/NSRS 2007

Scale 1" = 30'
30' 0 30' 60'

REVISIONS

8/17/99

20-MAR-2012 14:02
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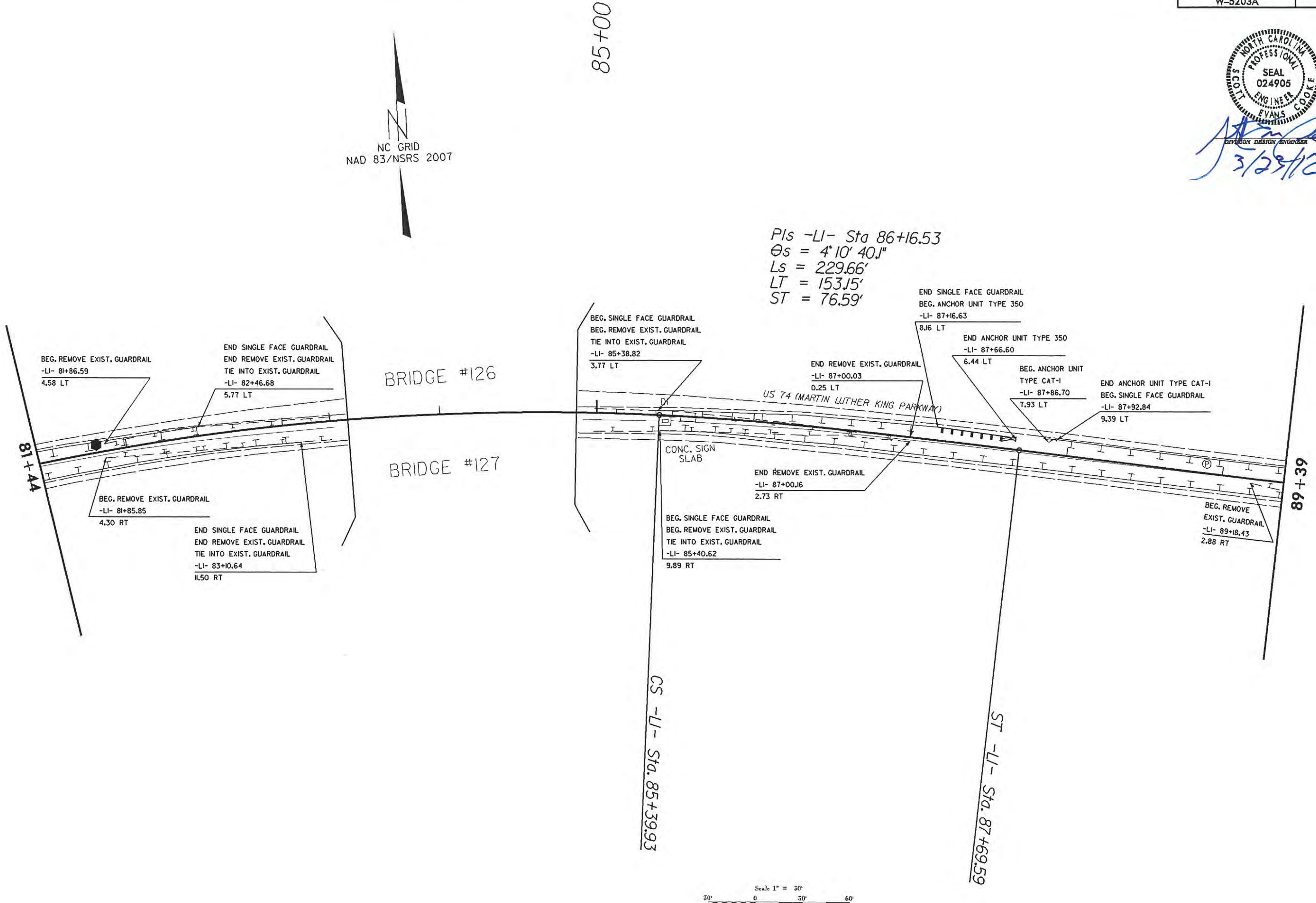
PROJECT REFERENCE NO.	SHEET NO.
W-5203A	13

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/23/12



REVISIONS

8/17/99

20-MAR-2012 14:02
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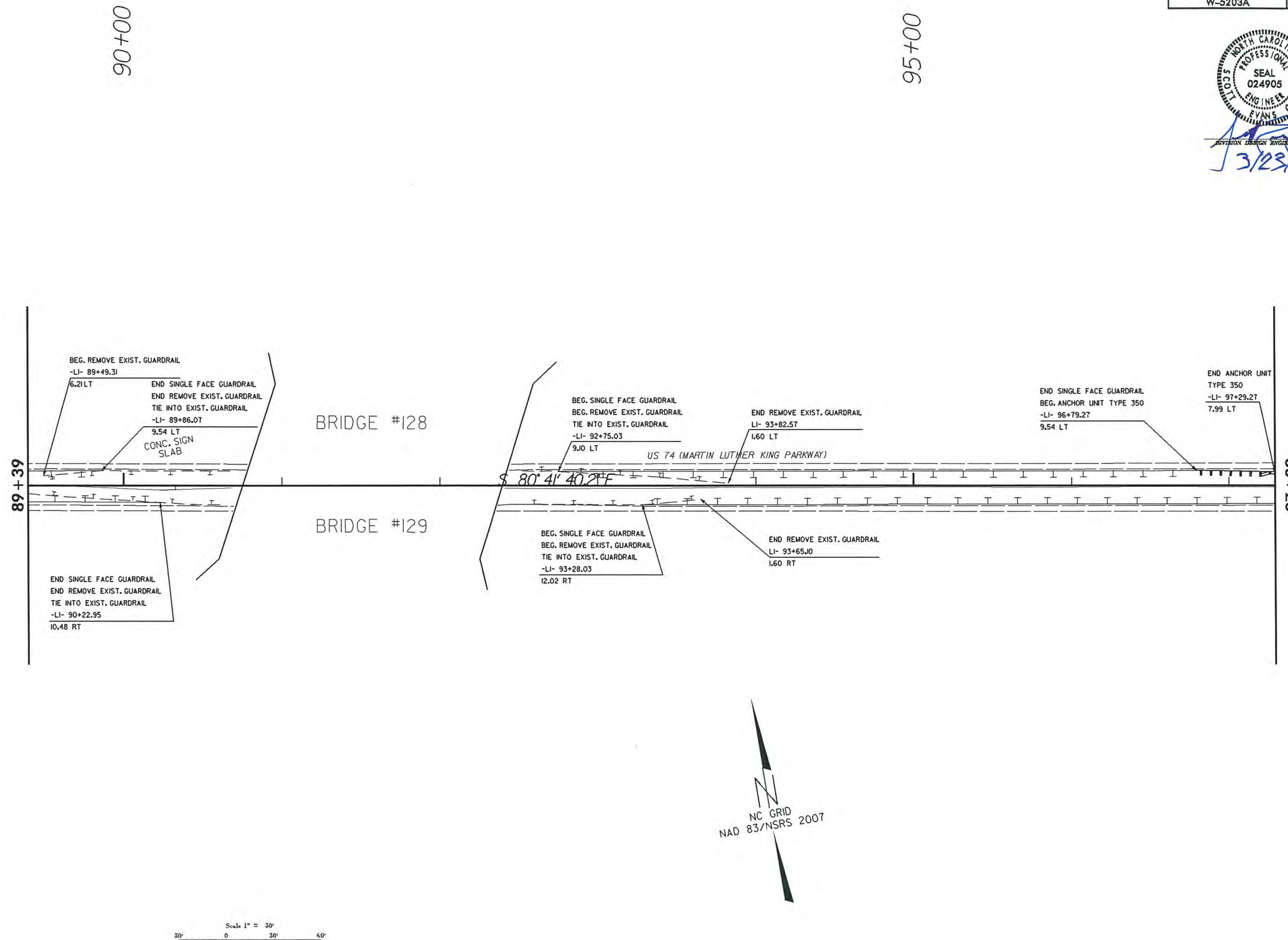
PROJECT REFERENCE NO.	SHEET NO.
W-5203A	14

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/23/12

REVISIONS



8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
W-5203A	15

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/22/12

REVISIONS

8/17/99

100+00

PIs -LI- Sta 99+09.82
Θs = 1° 33' 45.4"
Ls = 196.85'
LT = 131.24'
ST = 65.62'

PI -LI- Sta 102+31.43
Δ = 8° 06' 54.2" (RT)
D = 1° 35' 15.4"
L = 511.15'
T = 256.00'
R = 3,608.92'

105+00

BEG. ANCHOR UNIT TYPE CAT-1
-LI- 97+49.37
8.43 LT

END ANCHOR UNIT TYPE CAT-1
BEG. SINGLE FACE GUARDRAIL
-LI- 97+55.51
9.89 LT

BEG. REMOVE EXIST. GUARDRAIL
LI- 101+27.54
6.17 LT

END SINGLE FACE GUARDRAIL
END REMOVE EXIST. GUARDRAIL
TIE INTO EXIST. GUARDRAIL
LI- 101+64.55
9.58 LT

US 74 (MARTIN LUTHER KING PARKWAY)

BRIDGE #131

BRIDGE #132

97+29

105+21

BEG. REMOVE EXIST. GUARDRAIL
LI- 101+01.48
2.82 RT

END SINGLE FACE GUARDRAIL
END REMOVE EXIST. GUARDRAIL
TIE INTO EXIST. GUARDRAIL
LI- 102+41.42
11.82 RT

TS -LI- Sta. 97+78.58

SC -LI- Sta. 99+75.43

CS -LI- Sta. 104+88.58

NC GRID
NAD 83/NSRS 2007

Scale 1" = 30'
30' 0 30' 60'

23-MAR-2012 14:02
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PROJECT REFERENCE NO.	SHEET NO.
W-5203A	16

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/28/12

REVISIONS

8/17/99

20-MAR-2012 14:02
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PROJECT REFERENCE NO.	SHEET NO.
W-5203A	17

8/17/99

REVISIONS

115+00

120+00

NC GRID
NAD 83/NSRS 2007

BRIDGE #131

US 74 (MARTIN LUTHER KING PARKWAY)

S 69° 27' 15.2" E

113+11

121+01

BRIDGE #132

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/23/12

Scale 1" = 30'

30' 0 30' 60'

28-MAR-2012 14:03
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PROJECT REFERENCE NO.	SHEET NO.
W-5203A	18

DIVISION DESIGN ENGINEER

3/23/12

8/17/99

REVISIONS

NC GRID
NAD 83/NSRS 2007

125+00

TS -LI- Sta. 126+19.83

SC -LI- Sta. 128+82.29

Pls -LI- Sta 127+94.92
Θs = 6° 32' 53.1"
Ls = 262.47'
LT = 175.10'
ST = 87.60'

BEG. DOUBLE FACE GUARDRAIL
BEG. REMOVE EXIST. GUARDRAIL
TIE INTO EXIST. GUARDRAIL
-LI- 124+90.25
7.67 LT

END REMOVE EXIST. GUARDRAIL
-LI- 125+81.51
0.91 LT

US 74 (MARTIN LUTHER KING PARKWAY)

BRIDGE #131

BRIDGE #132

121+01

128+91

Scale 1" = 30'
30' 0 30' 60'

20-MAR-2012 14:03
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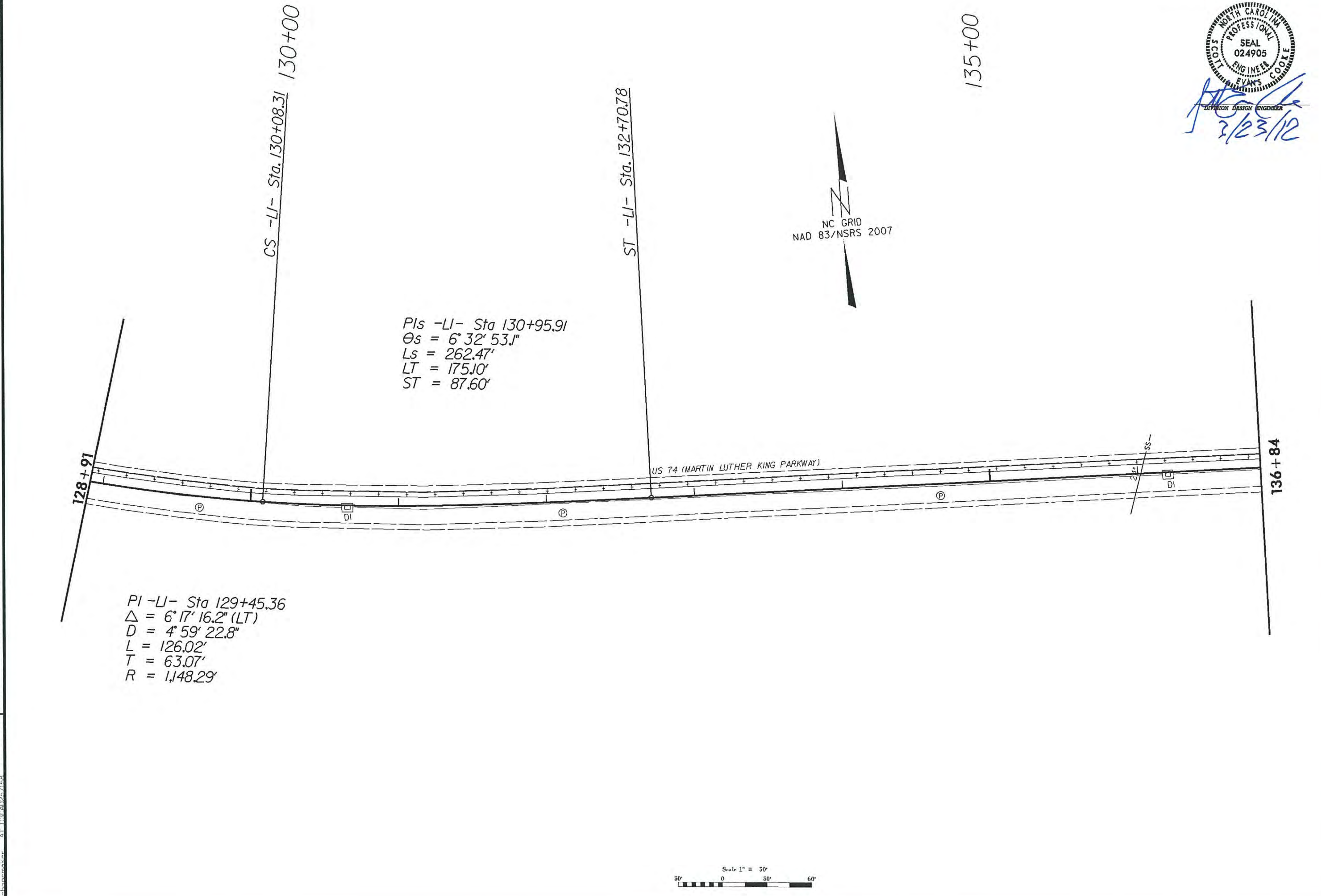
PROJECT REFERENCE NO.	SHEET NO.
W-5203A	19



REVISIONS

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
W-5203A	20

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/23/12

8/17/99

REVISIONS

140+00

NC GRID
NAD 83/NSRS 2007

136+84

144+74

US 74 (MARTIN LUTHER KING PARKWAY)

S 88°50'17.7" E

SIGN

BEG. REMOVE EXIST. GUARDRAIL
-LI- 140+09.65
0.19 RT

END DOUBLE FACE GUARDRAIL
BEG. IMPACT ATTENUATOR TYPE 350
-LI- 143+69.54
6.93 LT

END IMPACT ATTENUATOR
TYPE 350
-LI- 143+90.54
6.94 LT

BEG. IMPACT ATTENUATOR TYPE 350
-LI- 138+70.54
10.79 RT

END IMPACT ATTENUATOR TYPE 350
BEG. DOUBLE FACE GUARDRAIL
-LI- 138+91.54
10.75 RT

BEG. REMOVE EXIST. GUARDRAIL
-LI- 140+09.33
3.20 RT

END REMOVE EXIST. GUARDRAIL
-LI- 142+51.46
3.70 RT

END REMOVE EXIST. GUARDRAIL
-LI- 142+51.35
0.76 RT

Scale 1" = 30'

30' 0 30' 60'

20-MAR-2012 14:03
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REVISIONS

144+74

145+00

150+00

152+64

DI

SIGN

US 74 (MARTIN LUTHER KING PARKWAY)

TS -LI- Sta. 151+61.27

Scale 1" = 30'

30' 0 30' 60'

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

PROJECT REFERENCE NO.	SHEET NO.
W-5203A	21

PROJECT REFERENCE NO.	SHEET NO.
W-5203A	22

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION ENGINEER

7/23/12

8/17/99

REVISIONS

155+00

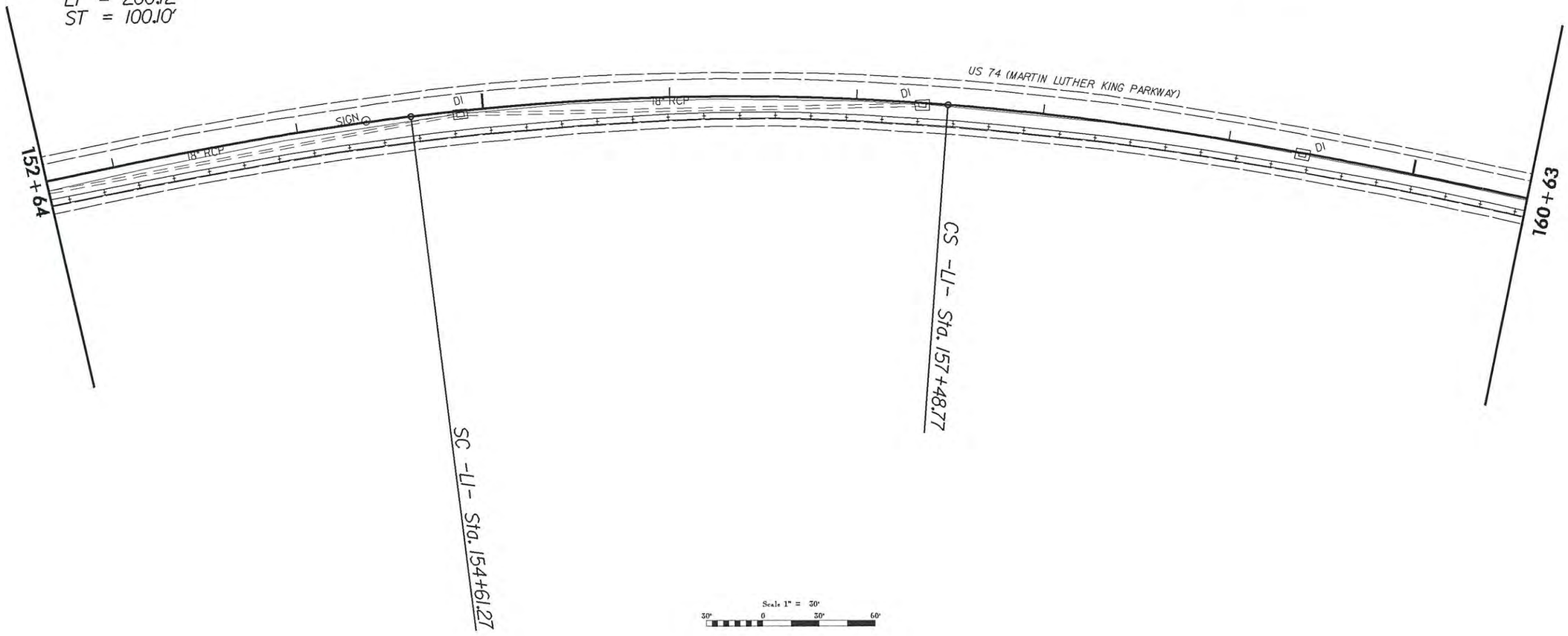
160+00

PI -LI- Sta 156+05.51
△ = 11° 30' 00.0" (RT)
D = 4° 00' 00.0"
L = 287.50'
T = 144.23'
R = 1,432.40'

NC GRID
NAD 83/NSRS 2007

PIs -LI- Sta 153+61.39
Θs = 6° 00' 00.0"
Ls = 300.00'
LT = 200.12'
ST = 100.10'

PIs -LI- Sta 158+82.36
Θs = 8° 00' 00.0"
Ls = 400.00'
LT = 266.94'
ST = 133.58'



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30' 0 30' 60'

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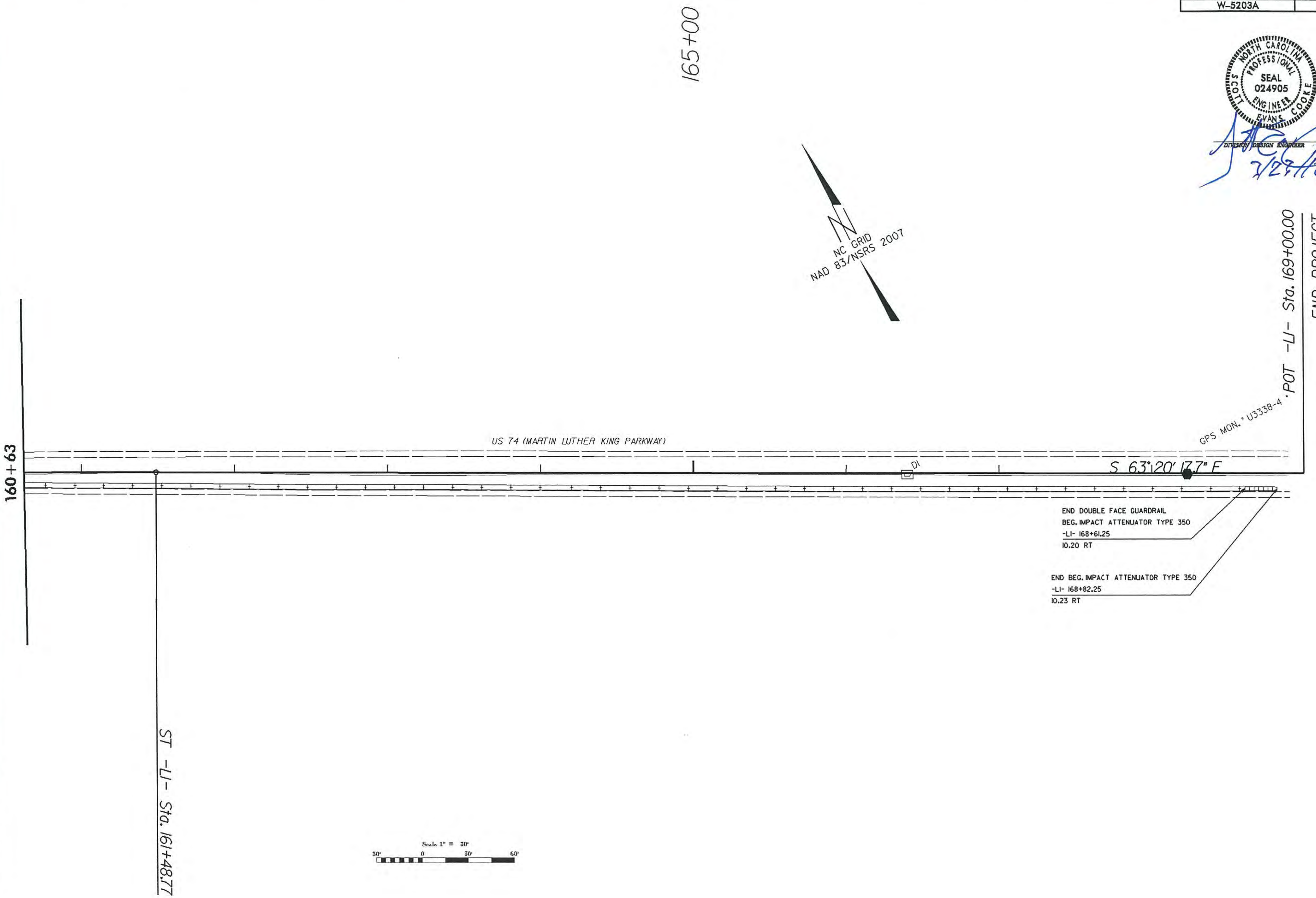
PROJECT REFERENCE NO.	SHEET NO.
W-5203A	23

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

REVISIONS



8/17/99

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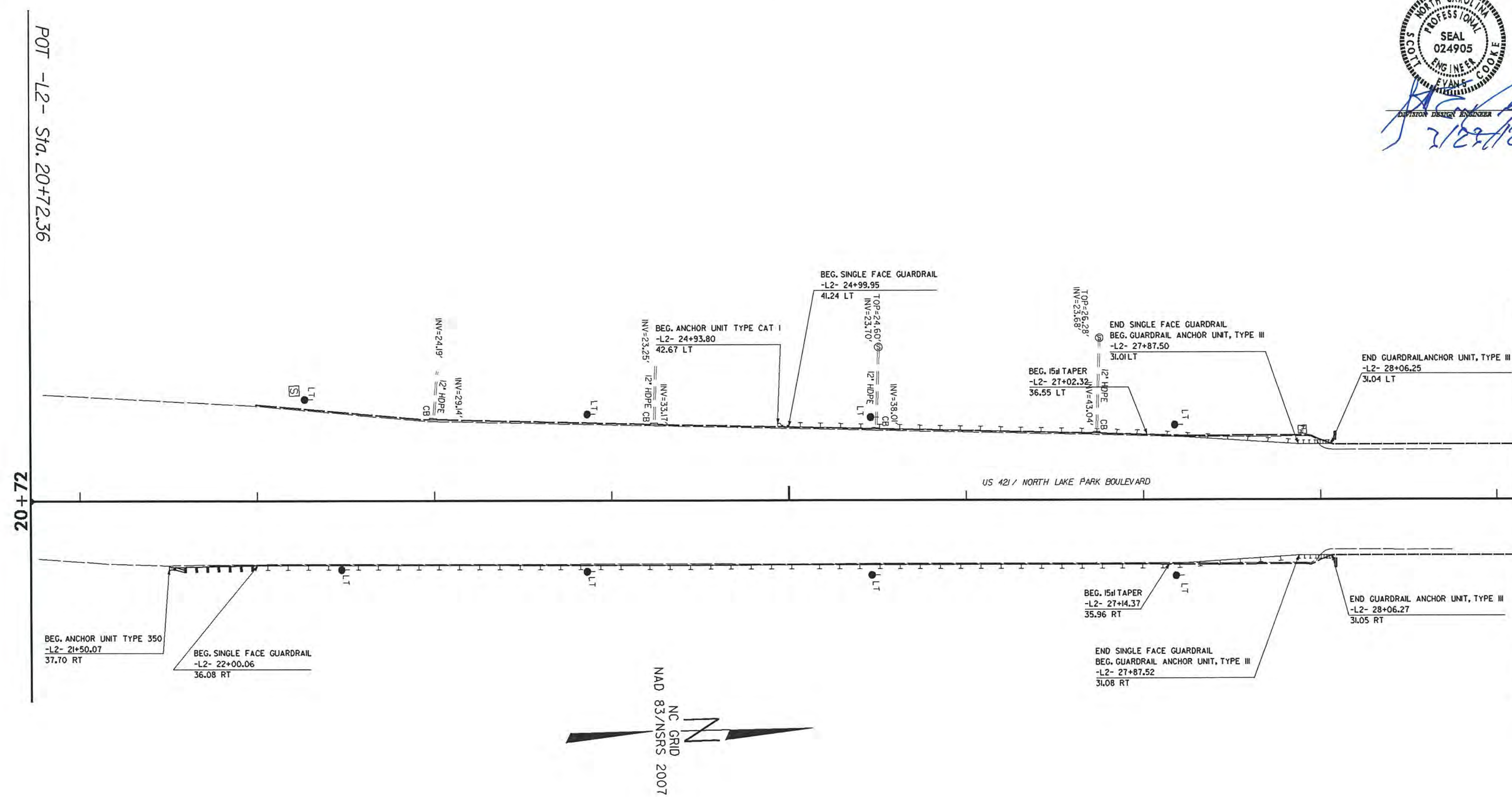
PROJECT REFERENCE NO.	SHEET NO.
SS-4903AN	24

25

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER 3/23/12

REVISIONS



Scale 1" = 30'
30' 0 30' 60'

8/17/99

23-MAR-2012 08:41
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PROJECT REFERENCE NO.	SHEET NO.
SS-4303AN	25

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT LOOKE EVANS

DIVISION DESIGN ENGINEER

2/23/12

REVISIONS

8/17/99

30

35

SNOWS CUT

29+12

37+52

US 421 / NORTH LAKE PARK BOULEVARD

SNOWS CUT BRIDGE

N 1° 03' 31.9" E

NC GRID
NAD 83/NSRS 2007

Scale 1" = 30'

30' 0 30' 60'

20-MAR-2012 14:07
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PROJECT REFERENCE NO.	SHEET NO.
SS-4903AN	26

40

45

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/29/12

REVISIONS

8/17/99

SNOWS CUT

37+52

US 421 / CAROLINA BEACH ROAD

SNOWS CUT BRIDGE

45+92

NC GRID
NAD 83/NSRS 2007

N

Scale 1" = 30'

30' 0 30' 60'

20-MAR-2012 14:07
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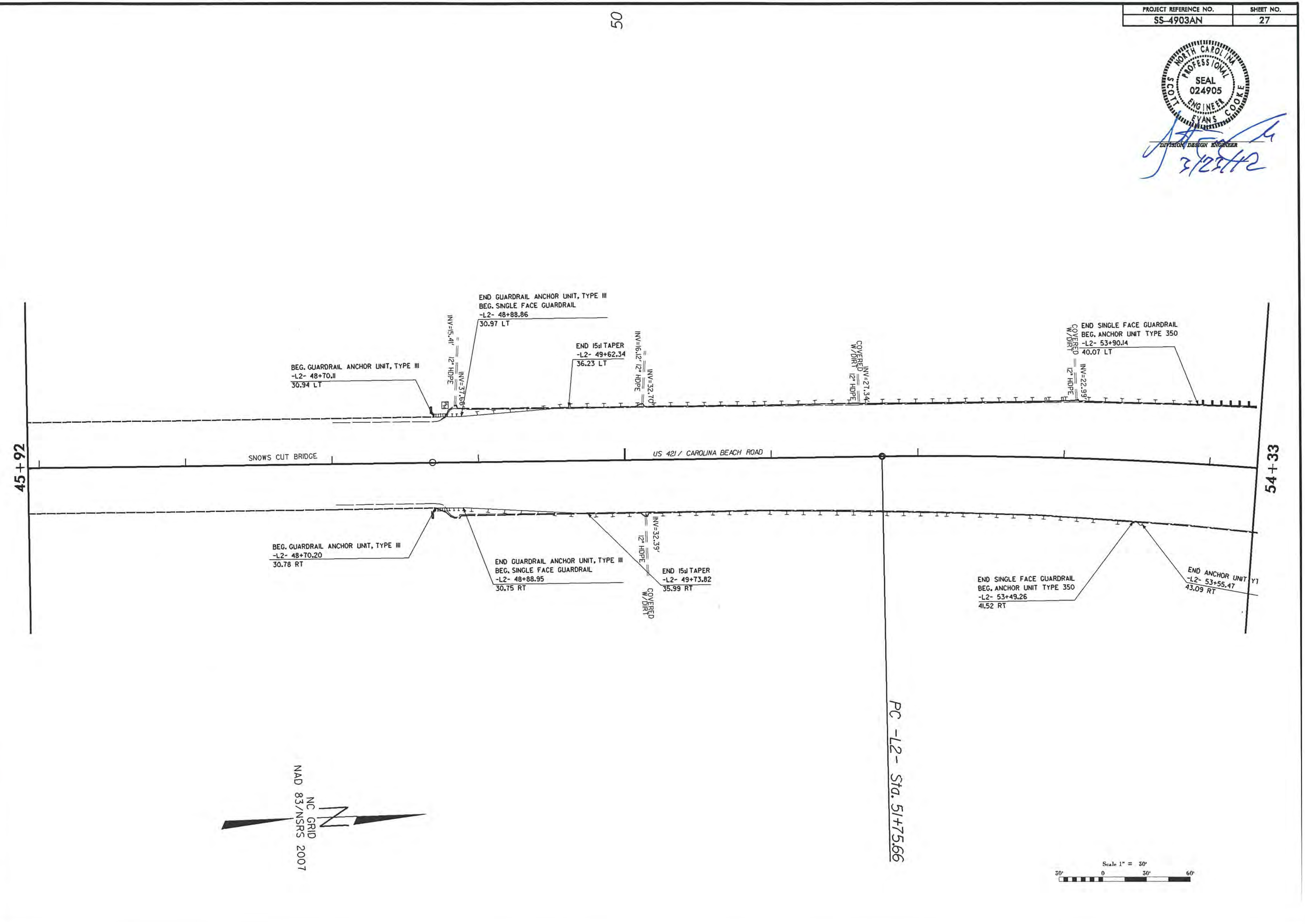
mschoonmaker AT DOT25715

PROJECT REFERENCE NO.	SHEET NO.
SS-4903AN	27

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

3/23/12



REVISIONS

8/17/99

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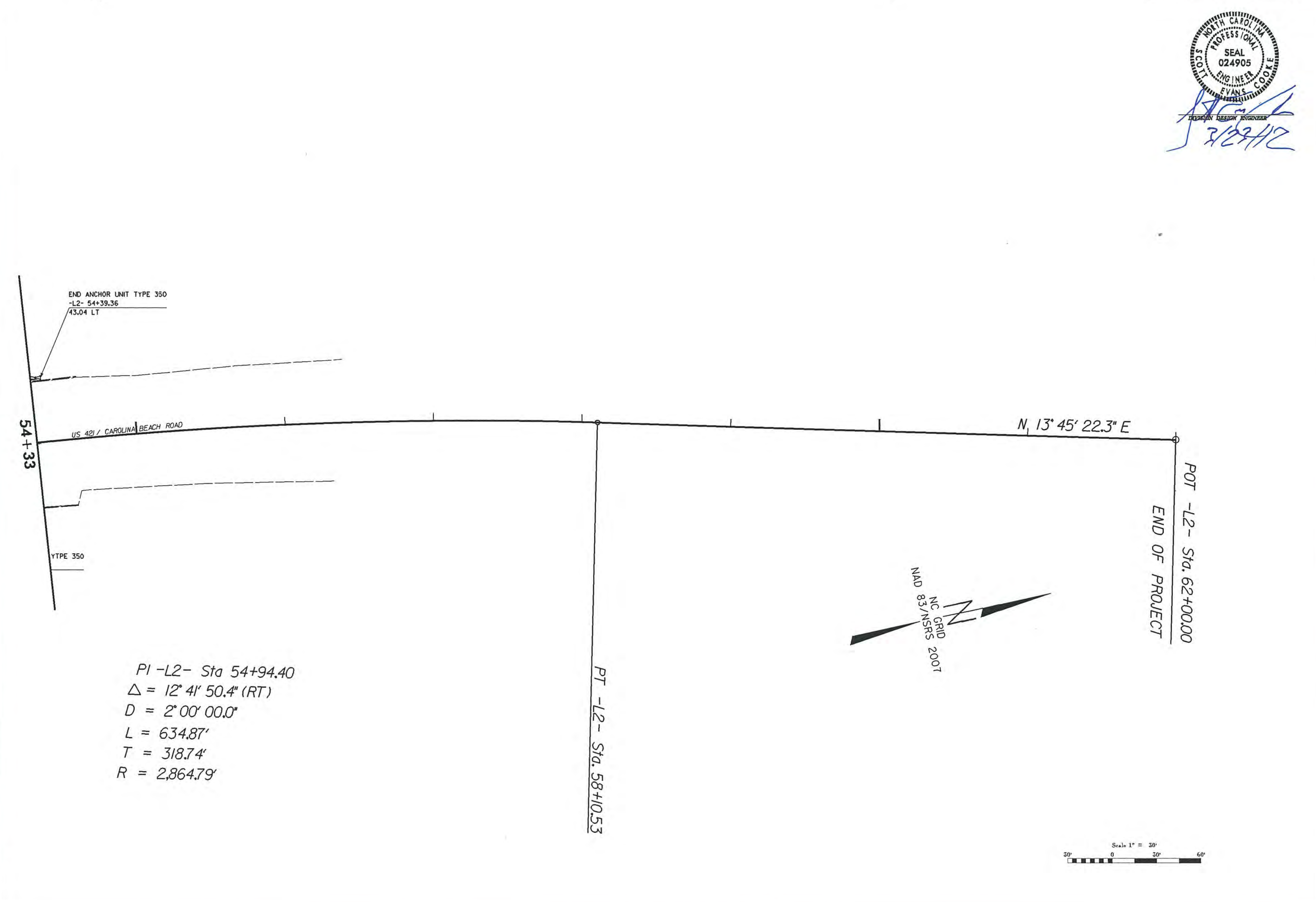
PROJECT REFERENCE NO.	SHEET NO.
SS-4903AN	28



REVISIONS

8/17/99

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