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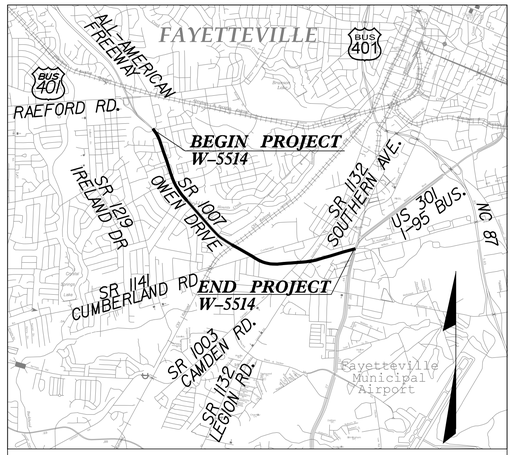
09/08/99

TIP PROJECT: W-5514

CONTRACT: C203651

See Sheet 1-A For Index of Sheets



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

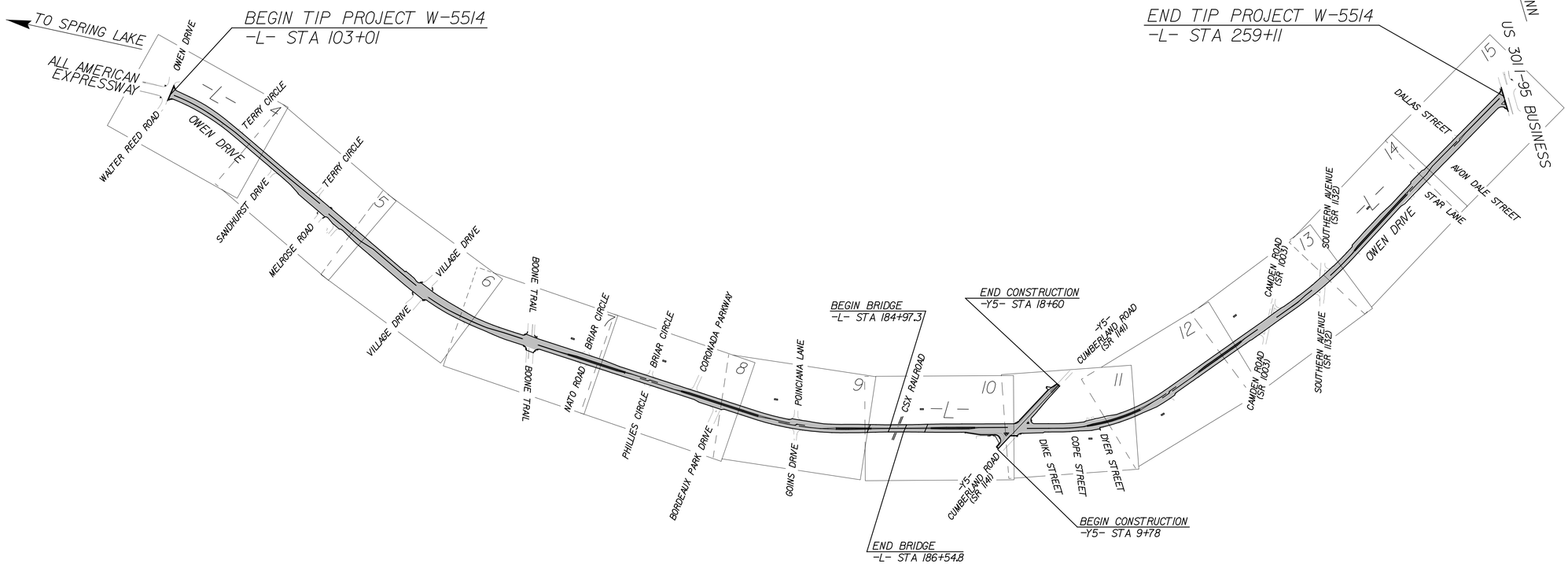
CUMBERLAND COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5514	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
44102.1.FS1	HSIP-1007(27)	PE
44102.2.FS1	HSIP-1007(27)	R/W, UTILITIES
44102.3.FS1	HSIP-1007(27)	CONSTRUCTION

LOCATION: SR 1007 (OWEN DRIVE) FROM WALTER REED ROAD TO US 301 / I-95 BUSINESS

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS, AND BRIDGE PRESERVATION



GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT (2013) = 55,000
ADT (2035) = 62,000
T = 5%*
V = 50 MPH
*DUAL = 3% *TTST = 2%

FUNC CLASS = PRINCIPAL ARTERIAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT W-5514	=	2.926 MILES
LENGTH STRUCTURE TIP PROJECT W-5514	=	0.030 MILES
TOTAL LENGTH TIP PROJECT W-5514	=	2.956 MILES

vhb
4000 WestChase Boulevard, Suite 530 Raleigh, NC 27607
NC License No. C-3705

SUNGATE DESIGN GROUP, P.A.
915 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL (919) RSN-2243 FAX (919) 859-6258
ENG FIRM LICENSE NO. C-0459

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JULY 18, 2014

LETTING DATE:
JULY 21, 2015

JIMMY GOODNIGHT, PE
PROJECT ENGINEER

LAURA FISHER, PE
PROJECT DESIGN ENGINEER

SEAN MATUSZEWSKI
DIVISION DESIGN ENGINEER
NCDOT CONTACT

HYDRAULICS ENGINEER
JOSHUA DALTON, PE
SUNGATE DESIGN GROUP, PA

NORTH CAROLINA PROFESSIONAL SEAL 26971 ENGINEER JOSHUA G. DALTON

DocuSigned by: Joshua G. Dalton 5/1/2015
1089AD8C14994C3...
SIGNATURE:

ROADWAY DESIGN ENGINEER
JIMMY GOODNIGHT, PE
VHB ENGINEERING NC, P.C.

NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER JIMMY D. GOODNIGHT, JR.

SIGNATURE:

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION ·

5/1/2015
W5514_rdy_tsh_01.dgn
bpease

12/05/11

STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
W-5514	1A

NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER JOSEPH STAFFORD GOODNIGHT JR.

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
1C-1	SURVEY CONTROL SHEET, DATUM DESCRIPTION, BASELINE INFORMATION, BENCHMARK INFORMATION
1D-1	CENTERLINE COORDINATE LIST
2A-1 THRU 2A-3	PAVEMENT SCHEDULE, TYPICAL SECTIONS
2C-1	DETAIL OF CURB RAMPS TYPE 2, TYPE 3, AND TYPE 5
2C-2	CURB RAMPS
2C-3	DETAIL OF 2'-9" TO 2'-6" CURB AND GUTTER TRANSITION SECTION
2D-1	DETAIL TO CONVERT EXISTING DI OR CB TO TRAFFIC BEARING JUNCTION BOX
2D-2	CONVERSION OF OPEN THROAT CATCH BASIN TO HOODED CATCH BASIN (840.02)
2H-1	STOCKPILE CONTAINMENT DETAIL
3B-1	EARTHWORK SUMMARY, REMOVAL OF EXISTING ASPHALT PAVEMENT SUMMARY, PARCEL INDEX
3D-1 THRU 3D-3	DRAINAGE SUMMARIES
4 THRU 15	PLAN SHEETS
TMP-1 THRU TMP-28	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-15	PAVEMENT MARKING PLANS
EC-1 THRU EC-15	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-14	SIGNING PLANS
SIG-1.0 THRU SIG-9.2	SIGNAL PLANS
SCP-1 THRU SCP-7	SIGNAL COMMUNICATION PLANS
SIG M-1 THRU SIG M-9	METAL POLE STANDARDS
SIG P1 THRU SIG P3	PEDESTAL PLANS
UO-1 THRU UO-10	UTILITIES BY OTHERS PLANS
X1-A	CROSS-SECTION SUMMARY
X-1 THRU X-80	CROSS-SECTIONS

STRUCTURE PLANS

1	TITLE SHEET
1A	INDEX OF SHEETS
S-1 THRU S-9	STRUCTURAL PLANS
SN	STANDARD NOTES

EFF. 01-17-2012
REV. 10-30-2012

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 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
838.01	Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.11	Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.80	Precast Endwalls - 12" thru 72" Pipe 90 Skew
840.00	Concrete Base Pad for Drainage Structures
840.01	Brick Catch Basin - 12" thru 54" Pipe
840.02	Concrete Catch Basin - 12" thru 54" Pipe
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin
840.14	Concrete Drop Inlet - 12" thru 30" Pipe
840.15	Brick Drop Inlet - 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15
840.29	Frames and Narrow Slot Flat Grates
840.31	Concrete Junction Box - 12" thru 66" Pipe
840.32	Brick Junction Box - 12" thru 66" Pipe
840.34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.54	Manhole Frame and Cover
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter
848.01	Concrete Sidewalk
848.02	Driveway Turnout - Radius Type
848.04	Street Turnout
848.05	Curb Ramp - Proposed Curb & Gutter
848.06	Curb Ramp - Existing Curb & Gutter
852.01	Concrete Islands
852.02	Concrete Mountable Median - for Use with Rigid or Flexible Pavement
852.06	Method for Placement of Drop Inlets in Concrete Islands
862.01	Guardrail Placement
862.02	Guardrail Installation
876.02	Guide for Rip Rap at Pipe Outlets

GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-2012
REVISED: 10-31-2014

GRADE LINE:

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. INVOLVED.

DRIVEWAYS:

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

STREET TURNOUT:

STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADII NOTED ON PLANS.

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.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE DUKE ENERGY PROGRESS,

CENTURY LINK, FAYETTEVILLE PUBLIC WORKS COMMISSION (WATER AND SEWER),

TIME WARNER CABLE, PIEDMONT NATURAL GAS

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

CURB RAMPS

CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.05 and/or 848.06 AND AS SHOWN IN DETAILS.

12/05/11

PROJECT REFERENCE NO.	SHEET NO.
W-5514	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 Wheelchair Ramp — WCR
- 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
- Proposed Traffic Signal
- 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.

09/08/99

CONTRACT: WBS 44102.1.FS1 TIP PROJECT: W-5514

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5514	1C-1	

W-5514 SURVEY CONTROL SHEET

◆ *INDICATES REBAR AND CAP USED OR SET FOR HORIZONTAL PROJECT CONTROL BY CH ENGINEERING.*

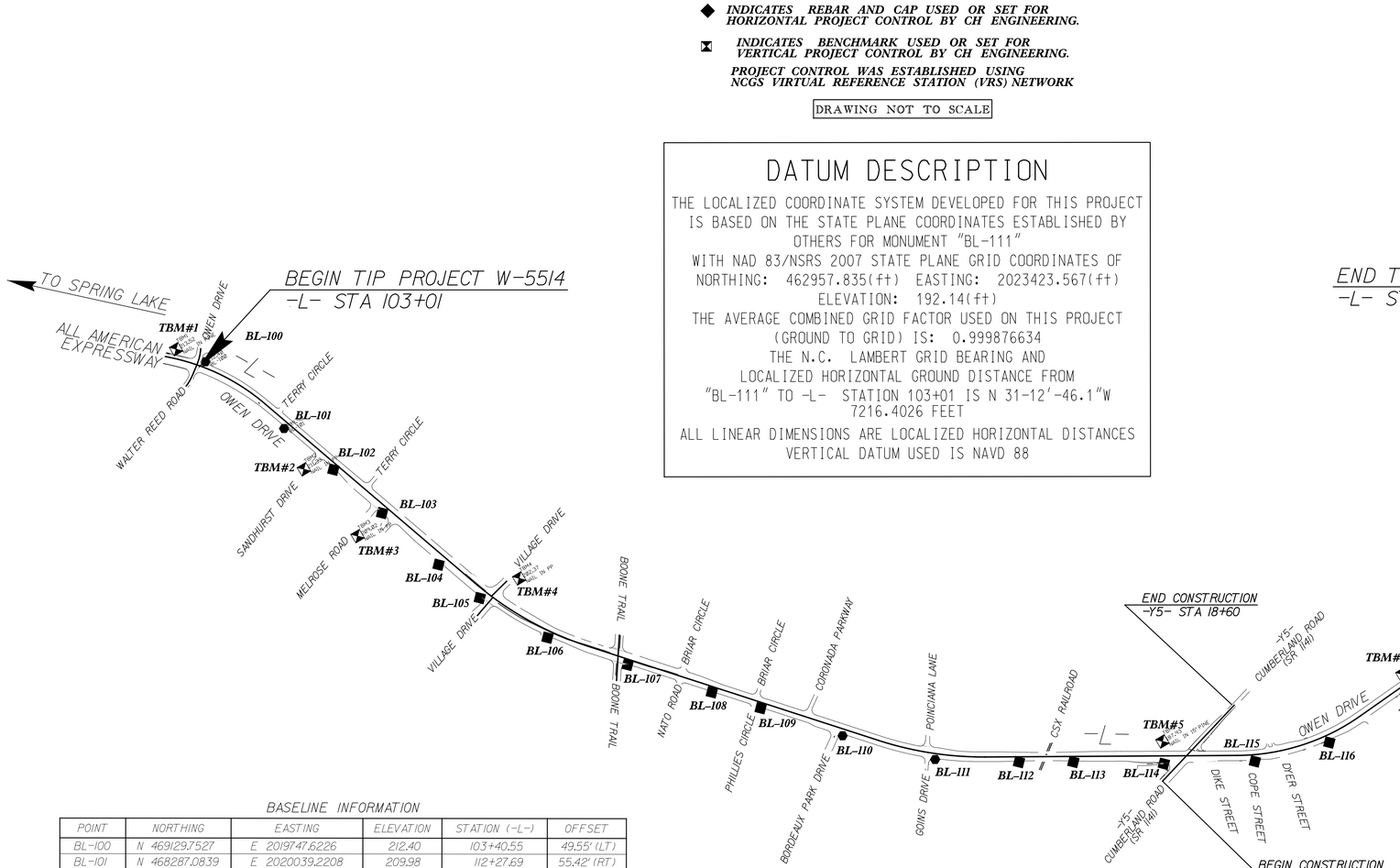
⧓ *INDICATES BENCHMARK USED OR SET FOR VERTICAL PROJECT CONTROL BY CH ENGINEERING.*

PROJECT CONTROL WAS ESTABLISHED USING NCGS VIRTUAL REFERENCE STATION (VRS) NETWORK

DRAWING NOT TO SCALE

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY OTHERS FOR MONUMENT "BL-111"
WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF
NORTHING: 462957.835(ft) EASTING: 2023423.567(ft)
ELEVATION: 192.14(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999876634
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "BL-111" TO -L- STATION 103+01 IS N 31-12'-46.1"W 7216.4026 FEET
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88



BASELINE INFORMATION

POINT	NORTHING	EASTING	ELEVATION	STATION (-L-)	OFFSET
BL-100	N 469129.7527	E 2019747.6226	212.40	103+40.55	49.55' (LT)
BL-101	N 468287.0839	E 2020039.2208	209.98	112+27.69	55.42' (RT)
BL-102	N 467763.3212	E 2020224.3639	208.71	117+83.18	49.67' (RT)
BL-103	N 467226.3056	E 2020395.3697	208.90	123+46.64	61.58' (RT)
BL-104	N 466593.2009	E 2020587.9576	205.03	130+08.00	84.16' (RT)
BL-105	N 466164.1289	E 2020748.0196	202.03	134+62.92	73.75' (RT)
BL-106	N 465571.2330	E 2021076.6805	195.17	141+26.70	59.38' (RT)
BL-107	N 465016.0231	E 2021552.2883	191.56	148+51.37	48.47' (RT)
BL-108	N 464440.4279	E 2022058.2944	165.96	156+17.76	49.46' (RT)
BL-109	N 464107.4653	E 2022351.2915	153.63	160+61.28	49.82' (RT)
BL-110	N 463541.9533	E 2022840.1113	165.62	168+08.74	57.04' (RT)
BL-111	N 462957.8352	E 2023423.5673	192.14	176+26.51	50.87' (RT)
BL-112	N 462568.4006	E 2024035.2506	207.65	183+45.26	46.73' (RT)
BL-113	N 462329.7074	E 2024440.3540	206.93	188+15.45	48.36' (RT)
BL-114	N 461917.2998	E 2025105.3527	191.02	195+97.68	68.81' (RT)
BL-115	N 461533.7572	E 2025792.3830	194.77	203+79.78	59.41' (RT)
BL-116	N 461346.4205	E 2026429.3341	195.19	210+25.44	65.65' (RT)
BL-117	N 461392.6635	E 2027223.8910	193.89	218+11.16	49.24' (RT)
BL-118	N 461434.5808	E 2027873.3259	193.15	224+61.88	58.12' (RT)
BL-119	N 461502.4645	E 2028542.6448	193.73	231+31.35	50.88' (RT)
BL-120	N 461713.0214	E 2029390.6574	192.67	239+98.68	49.31' (RT)
BL-121	N 461879.0711	E 2030014.7420	191.68	246+45.46	66.09' (RT)
BL-122	N 462046.9375	E 2030651.7944	193.70	253+05.27	68.15' (RT)
BL-123	N 462167.7939	E 2031115.5889	196.91	257+84.79	69.31' (RT)

BENCHMARK INFORMATION

TBM1 ELEVATION = 213.52
N 469352 E 2019586
L STATION 100+76.80 80.68 LT
N 36°05'33.80" W Dist 274.68
NAIL IN PINE

TBM2 ELEVATION = 211.33
N 467896 E 2020007
L STATION 115+87.00 212.36 RT
NAIL IN PP

TBM3 ELEVATION = 209.02
N 467163 E 2020112
L STATION 123+14.86 350.23 RT
NAIL IN PP

TBM4 ELEVATION = 202.37
N 466137 E 2021128
L STATION 136+42.30 265.57 LT
NAIL IN PP

TBM5 ELEVATION = 187.93
N 462090 E 2025194
L STATION 195+86.88 124.63 LT
NAIL IN 15" PINE

TBM6 ELEVATION = 198.08
N 461531 E 2027274
L STATION 218+71.79 84.80 LT
NAIL IN 15" PINE

TBM7 ELEVATION = 197.97
N 461347 E 2028001
L STATION 225+82.56 155.36 RT
X IN LP BASE

TBM8 ELEVATION = 191.28
N 461807 E 2028968
L STATION 236+16.42 161.10 LT
NAIL IN 42" OAK

TBM9 ELEVATION = 199.07
N 462069 E 2031115
L STATION 257+58.96 165.11 RT
BOLT ON LP BASE

CH ENGINEERING
3220 GLEN ROYAL RD. RALEIGH, NC 27617
TEL. (919) 788-0224 FAX (919) 788-0232
CORPORATE LICENSE # P-0189

4/27/2015
W5514_rdy_tsh_01C-1.dgn
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12/05/11

PROJECT REFERENCE NO.	SHEET NO.
W-5514	ID-1

STATE OF NORTH CAROLINA

W-5514

CENTERLINE COORDINATE LIST

Point #	Chain	Station	Northing (Y)	Easting (X)
1	L	100+00.00	469344.4267	2019473.4970
2	L	101+00.00	469276.9604	2019547.2926
3	L	102+00.00	469205.5539	2019617.2827
4	L	103+00.00	469130.4213	2019683.2569
5	L	104+00.00	469051.7883	2019745.0173
6	L	105+00.00	468969.8909	2019802.3785
7	L	106+00.00	468884.9749	2019855.1684
8	L	107+00.00	468797.2952	2019903.2284
9	L	108+00.00	468707.1149	2019946.4143
10	L	109+00.00	468614.7049	2019984.5965
11	L	110+00.00	468520.4559	2020017.9996
12	L	111+00.00	468425.8331	2020050.3496
13	L	112+00.00	468331.2102	2020082.6995
14	L	113+00.00	468236.5874	2020115.0495
15	L	114+00.00	468141.9646	2020147.3994
16	L	115+00.00	468047.3417	2020179.7494
17	L	116+00.00	467952.7189	2020212.0994
18	L	117+00.00	467858.0961	2020244.4493
19	L	118+00.00	467763.4732	2020276.7993
20	L	119+00.00	467668.8504	2020309.1492
21	L	120+00.00	467574.2276	2020341.4992
22	L	121+00.00	467479.6047	2020373.8491
23	L	122+00.00	467384.9819	2020406.1991
24	L	123+00.00	467290.3591	2020438.5490
25	L	124+00.00	467195.7362	2020470.8990
26	L	125+00.00	467101.1134	2020503.2490
27	L	126+00.00	467006.4906	2020535.5989
28	L	127+00.00	466911.8677	2020567.9489
29	L	128+00.00	466817.2449	2020600.2988
30	L	129+00.00	466722.6221	2020632.6488
31	L	130+00.00	466627.9992	2020664.9987
32	L	131+00.00	466533.3764	2020697.3487
33	L	132+00.00	466438.7536	2020729.6987
34	L	133+00.00	466344.1308	2020762.0486
35	L	134+00.00	466249.6457	2020794.7943
36	L	135+00.00	466156.2067	2020830.4050
37	L	136+00.00	466064.0744	2020869.2716
38	L	137+00.00	465973.3623	2020911.3464
39	L	138+00.00	465884.1820	2020956.5775
40	L	139+00.00	465796.6434	2021004.9093
41	L	140+00.00	465710.8541	2021056.2822
42	L	141+00.00	465626.9199	2021110.6330
43	L	142+00.00	465544.9439	2021167.8948
44	L	143+00.00	465465.0272	2021227.9972
45	L	144+00.00	465387.2681	2021290.8661
46	L	145+00.00	465311.6660	2021356.3155
47	L	146+00.00	465236.6470	2021422.4377
48	L	147+00.00	465161.6279	2021488.5600
49	L	148+00.00	465086.6089	2021554.6822
50	L	149+00.00	465011.5899	2021620.8044
51	L	150+00.00	464936.5709	2021686.9266
52	L	151+00.00	464861.5519	2021753.0488
53	L	152+00.00	464786.5329	2021819.1711
54	L	153+00.00	464711.5139	2021885.2933
55	L	154+00.00	464636.4949	2021951.4155
56	L	155+00.00	464561.4759	2022017.5377
57	L	156+00.00	464486.4569	2022083.6600
58	L	157+00.00	464411.4379	2022149.7822
59	L	158+00.00	464336.4189	2022215.9044
60	L	159+00.00	464261.3998	2022282.0266
61	L	160+00.00	464186.3808	2022348.1489
62	L	161+00.00	464111.3618	2022414.2711
63	L	162+00.00	464036.3428	2022480.3933
64	L	163+00.00	463961.3238	2022546.5155
65	L	164+00.00	463886.3048	2022612.6377
66	L	165+00.00	463811.2858	2022678.7600
67	L	166+00.00	463736.2668	2022744.8822
68	L	167+00.00	463661.2478	2022811.0044
69	L	168+00.00	463586.2288	2022877.1266
70	L	169+00.00	463511.2098	2022943.2489
71	L	170+00.00	463436.1908	2023009.3711
72	L	171+00.00	463361.1717	2023075.4933
73	L	172+00.00	463287.0047	2023142.5632
74	L	173+00.00	463215.1328	2023212.0865
75	L	174+00.00	463145.6586	2023284.0056
76	L	175+00.00	463078.6617	2023358.2381
77	L	176+00.00	463014.2191	2023434.6985
78	L	177+00.00	462952.4050	2023513.2992
79	L	178+00.00	462893.2903	2023593.9496
80	L	179+00.00	462836.9429	2023676.5572
81	L	180+00.00	462783.4277	2023761.0271
82	L	181+00.00	462732.5144	2023847.0937
83	L	182+00.00	462682.0491	2023933.4259
84	L	183+00.00	462631.5837	2024019.7581
85	L	184+00.00	462581.1184	2024106.0903
86	L	185+00.00	462530.6530	2024192.4225
87	L	186+00.00	462480.1877	2024278.7547
88	L	187+00.00	462429.7223	2024365.0869
89	L	188+00.00	462379.2569	2024451.4191
90	L	189+00.00	462328.7916	2024537.7513
91	L	190+00.00	462278.3262	2024624.0835
92	L	191+00.00	462227.8609	2024710.4157
93	L	192+00.00	462177.3955	2024796.7478
94	L	193+00.00	462126.9302	2024883.0800
95	L	194+00.00	462076.4648	2024969.4122
96	L	195+00.00	462025.9995	2025055.7444
97	L	196+00.00	461975.5341	2025142.0766
98	L	197+00.00	461925.0688	2025228.4088
99	L	198+00.00	461874.6034	2025314.7410
100	L	199+00.00	461824.1381	2025401.0732
101	L	200+00.00	461773.6727	2025487.4054
102	L	201+00.00	461723.2073	2025573.7376
103	L	202+00.00	461672.7420	2025660.0698
104	L	203+00.00	461623.4213	2025747.0521
105	L	204+00.00	461578.5985	2025836.4307
106	L	205+00.00	461538.6040	2025928.0717
107	L	206+00.00	461503.5516	2026021.7145
108	L	207+00.00	461473.5410	2026117.0926
109	L	208+00.00	461448.6575	2026213.9349
110	L	209+00.00	461428.9718	2026311.9661
111	L	210+00.00	461414.5399	2026410.9072
112	L	211+00.00	461405.4029	2026510.4770
113	L	212+00.00	461401.5868	2026610.3923
114	L	213+00.00	461403.1025	2026710.3690
115	L	214+00.00	461409.6737	2026810.1455
116	L	215+00.00	461417.4760	2026909.8407
117	L	216+00.00	461425.2782	2027009.5359
118	L	217+00.00	461433.0805	2027109.2310
119	L	218+00.00	461440.8828	2027208.9262
120	L	219+00.00	461448.6850	2027308.6213
121	L	220+00.00	461456.4873	2027408.3165
122	L	221+00.00	461464.2896	2027508.0116
123	L	222+00.00	461472.0918	2027607.7068
124	L	223+00.00	461479.8941	2027707.4020
125	L	224+00.00	461487.6964	2027807.0971
126	L	225+00.00	461495.4986	2027906.7923
127	L	226+00.00	461503.3009	2028006.4874
128	L	227+00.00	461511.1032	2028106.1826
129	L	228+00.00	461518.9054	2028205.8778
130	L	229+00.00	461526.7601	2028305.5687
131	L	230+00.00	461536.3563	2028405.1045
132	L	231+00.00	461548.5012	2028504.3615
133	L	232+00.00	461563.1870	2028603.2745
134	L	233+00.00	461580.4039	2028701.7784
135	L	234+00.00	461600.1405	2028799.8086
136	L	235+00.00	461622.3840	2028897.3006
137	L	236+00.00	461647.1198	2028994.1902
138	L	237+00.00	461674.3314	2029090.4137
139	L	238+00.00	461703.0823	2029186.1915
140	L	239+00.00	461731.8553	2029281.9627
141	L	240+00.00	461760.6283	2029377.7338
142	L	241+00.00	461789.4012	2029473.5050
143	L	242+00.00	461818.1742	2029569.2762
144	L	243+00.00	461846.9028	2029665.0606
145	L	244+00.00	461875.2297	2029760.9646
146	L	245+00.00	461903.0768	2029857.0089
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148	L	247+00.00	461957.3286	2030049.5093
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150	L	249+00.00	462009.6528	2030242.5426
151	L	250+00.00	462035.1568	2030339.2356
152	L	251+00.00	462060.6061	2030435.9431
153	L	252+00.00	462086.0554	2030532.6506
154	L	253+00.00	462111.5047	2030629.3580
155	L	254+00.00	462136.9540	2030726.0655
156	L	255+00.00	462162.4033	2030822.7729
157	L	256+00.00	462187.8527	2030919.4804
158	L	257+00.00	462213.3020	2031016.1878
159	L	258+00.00	462238.7513	2031112.8953
160	L	259+00.00	462264.2006	2031209.6028
161	L	260+00.00	462289.6499	2031306.3102
162	L	260+55.13	462303.6791	2031359.6212
163	Y1	10+00.00	469033.6854	2019499.2129
164	Y1	11+00.00	469082.1179	2019586.4862
165	Y1	12+00.00	469141.3417	2019667.0616
166	Y1	13+00.00	469208.5815	2019740.8040
167	Y1	13+47.88	469246.1705	2019770.4186
168	Y2	10+00.00	466126.2162	2020842.6397
169	Y2	11+00.00	466150.5706	2020939.6287
170	Y2	11+83.72	466170.9605	2021020.8293
171	Y3	10+00.00	466045.5226	2020654.8055
172	Y3	11+00.00	466077.6242	2020749.5129
173	Y3	12+00.00	466109.7259	2020844.2202
174	Y3	12+04.91	466111.3028	2020848.8724
175	Y4	10+00.00	464949.4532	2021402.8785
176	Y4	11+00.00	465032.2040	2021459.0239
177	Y4	12+00.00	465114.9548	2021515.1693
178	Y4	13+00.00	465197.7056	2021571.3148
179	Y4	13+89.83	465272.0421	2021621.7512
180	Y5	10+00.00	461802.6909	2025049.5765
181	Y5	11+00.00	461830.3794	2025145.6668
182	Y5	12+00.00	461858.0680	2025241.7571
183	Y5	13+00.00	461885.7566	2025337.8474
184	Y5	14+00.00	461913.4452	2025433.9377
185	Y5	15+00.00	461941.1337	2025530.0280
186	Y5	16+00.00	461968.8223	2025626.1183
187	Y5	17+00.00	461996.5109	2025722.2085
188	Y5	18+00.00	462024.1994	2025818.2988
189	Y5	18+70.00	462043.5814	2025885.5620
190	Y6	10+00.00	461338.7567	2027869.4551
191	Y6	11+00.00	461412.1658	2027937.3602
192	Y6	12+00.00	461485.5750	2028005.2652
193	Y6	13+00.00	461558.9842	2028073.1702
194	Y6	14+00.00	461632.3933	2028141.0753
195	Y6	14+57.84	461674.8566	2028180.3547
196	Y7	10+00.00	461386.1924	2028570.9196
197	Y7	11+00.00	461470.7316	2028624.3344
198	Y7	12+00.00	461555.2707	2028677.7492
199	Y7	13+00.00	461639.8098	2028731.1639
200	Y7	14+00.00	461724.3489	2028784.5787
201	Y7	14+14.65	461736.7323	2028792.4030
202	Y8	10+00.00	462066.8723	2031220.5529
203	Y8	11+00.00	462163.5245	2031246.2112
204	Y8	12+00.00	462260.1767	2031271.8696
205	Y8	13+00.00	462356.8289	2031297.5280
206	Y8	14+00.00	462453.4811	2031323.1863
207	Y8	14+10.64	462463.7697	2031325.9176

5/14/99

PAVEMENT SCHEDULE

C1	PROPOSED APPROXIMATELY 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	R4	PROPOSED 5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
C2	PROPOSED APPROXIMATELY 3.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	R5	PROPOSED 1'-6" CURB AND GUTTER
C3	PROPOSED VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH	R6	PROPOSED 9"X18"CONCRETE CURB
D1	PROPOSED APPROXIMATELY 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.	S	4" CONCRETE SIDEWALK
D2	PROPOSED APPROXIMATELY 4.0" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	T	EARTH MATERIAL
D3	PROPOSED VARIABLE DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 2.5" IN DEPTH OR GREATER THAN 4" IN DEPTH.	U	EXISTING PAVEMENT
E1	PROPOSED APPROXIMATELY 4.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	V1	MILLING ASPHALT PAVEMENT 0" TO 1.5" DEPTH.
E2	PROPOSED VARIABLE DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C AT AN AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT GREATER THAN 5.5" DEPTH OR LESS THAN 4" IN DEPTH.	V2	MILLING ASPHALT PAVEMENT 5.5" DEPTH (3' WIDTH)
R1	EXISTING 2'-6" CONCRETE CURB AND GUTTER	V3	MILLING ASPHALT PAVEMENT 0" DEPTH TO 2-7/8"(AVG.) DEPTH
R2	PROPOSED 2'-6" CONCRETE CURB AND GUTTER	V4	MILLING ASPHALT PAVEMENT 0" DEPTH TO 3-7/8" (AVG) DEPTH
R3	EXISTING CONCRETE ISLAND	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL BELOW SHOWING METHOD OF WEDGING)
		Y	SCARIFY EXISTING CONCRETE DECK 1.25" DEPTH AND REPLACE WITH LATEX MODIFIED CONCRETE, 1.75" DEPTH (STRUCTURE PAY ITEMS)

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

PROJECT REFERENCE NO.	SHEET NO.
W-5514	2A-1
R/W SHEET NO.	

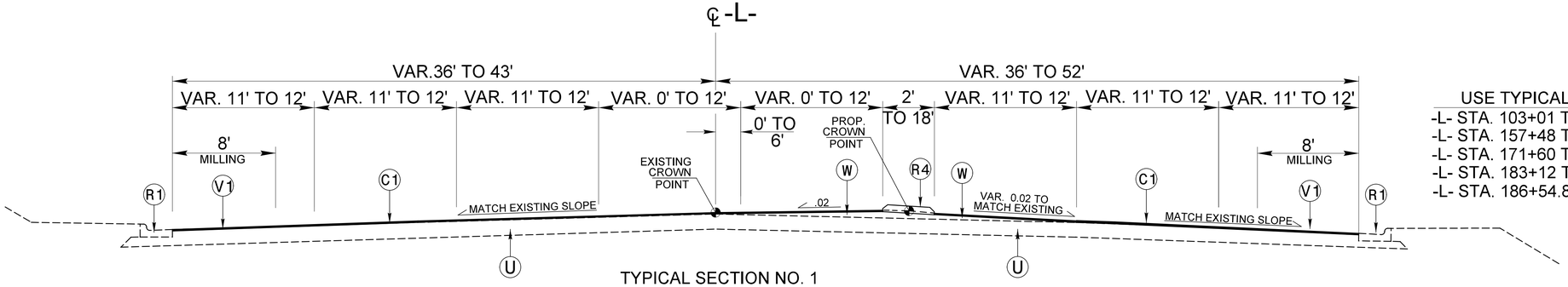
ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER JIMMY CRAFFORD GOODNIGHT, JR.

HYDRAULICS ENGINEER

DocuSigned by: Joshua G. Dalton 7C6BADBC1499404... SEAL 26971 ENGINEER JOSHUA G. DALTON

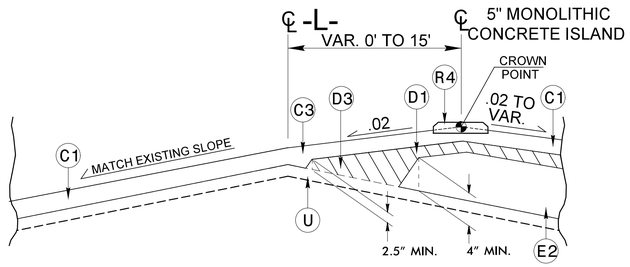
4/23/2015



TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1 FOR THE FOLLOWING:

-L- STA. 103+01 TO 151+50	-L- STA. 193+54 TO 204+90
-L- STA. 157+48 TO 163+50	-L- STA. 210+45 TO 217+52
-L- STA. 171+60 TO 179+59	-L- STA. 222+76 TO 237+43
-L- STA. 183+12 TO 184+97.3	-L- STA. 245+10 TO 259+11
-L- STA. 186+54.8 TO 189+16	



DETAIL SHOWING METHOD OF WEDGING

USE DETAIL FOR THE FOLLOWING AND AS DIRECTED BY THE ENGINEER TO OBTAIN DRAINAGE LEFT AND RIGHT OF 5" MONOLITHIC CONCRETE ISLANDS

-L- STA. 119+00 TO 121+89	-L- STA. 157+48 TO 159+72
-L- STA. 123+08 TO 128+21	-L- STA. 160+35 TO 163+35
-L- STA. 128+49 TO 133+00	-L- STA. 245+78 TO 248+48
-L- STA. 148+24 TO 151+30	-L- STA. 248+57 TO 252+50
	-L- STA. 253+37 TO 258+64

4/23/2015
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bgaa

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5514	2A-2
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

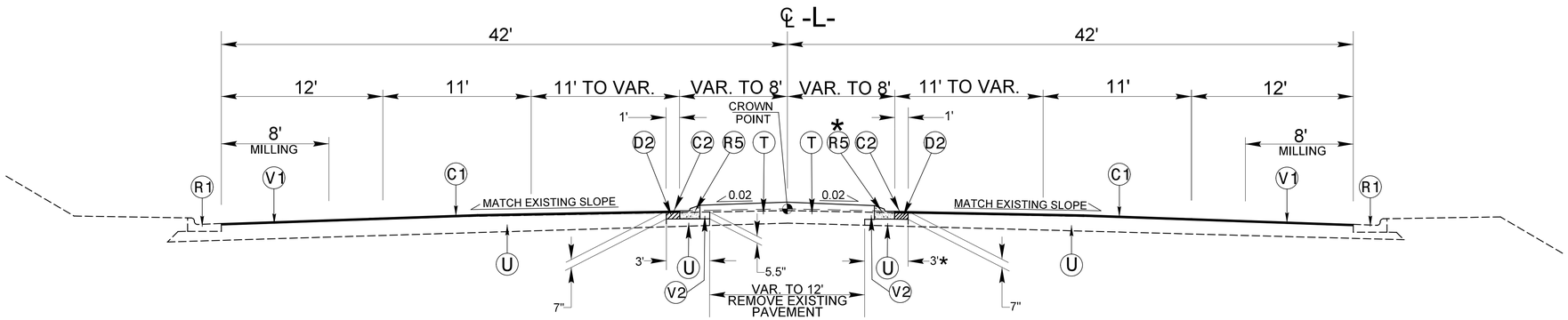
NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER JAMES STAFFORD GOODNIGHT JR.

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26971 ENGINEER JOSHUA G. DALTON

Document signed by: Joshua G. Dalton 1680ADBC14994C3...

4/23/2015



TYPICAL SECTION NO. 2

-L- STA. 151+50 TO 157+48
-L- STA. 163+50 TO 171+60
-L- STA. 179+59 TO 183+12
-L- STA. 189+16 TO 193+54
-L- STA. 204+90 TO 210+45*
-L- STA. 217+52 TO 222+76
-L- STA. 237+43 TO 245+10

* USE 2'-9" CONC. CURB AND GUTTER ON THE RIGHT SIDE OF THE MEDIAN FROM -L- STA 204+90 TO STA 210+45. MILL 4.25' WIDE, 5.5" DEEP

DETAIL SHOWING DUAL RIGHT TURN LANES AND 9"X18" CONCRETE CURB

TO BE USED WITH TYPICAL SECTION NOS. 1 AND 2
-L- STA. 192+62 TO 196+15
(9"X18" CONCRETE CURB FROM -L- STA. 194+85 TO 196+15)
(4" CONCRETE SIDEWALK FROM -L- STA. 192+62 TO 196+09.5)

TYPICAL SECTION NO. 3

-L- STA. 184+97.3 TO 186+54.8

C1	1.5" S9.5C
C2	3.0" S9.5C
D2	4.0" I19.0C
E1	4.0" B25.0C
R1	EXISTING 2'-6" CURB AND GUTTER
R2	PROPOSED 2'-6" CURB AND GUTTER
R4	PROPOSED 5" MONOLITHIC CONC. ISLAND (KEYED IN)
R5	PROPOSED 1'-6" CURB AND GUTTER
R6	PROPOSED 9"-18" CONCRETE CURB
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	MILLING 0" TO 1.5"
V2	MILLING 5.5" DEPTH
V3	MILLING 0" TO 2.875"(AVG.)DEPTH
Y	SCARIFY DECK 1.25" DEPTH REPLACE WITH LMC, 1.75" DEPTH (STRUCTURE PAY ITEMS)

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

4/23/2015
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bgrass

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5514	2A-3
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

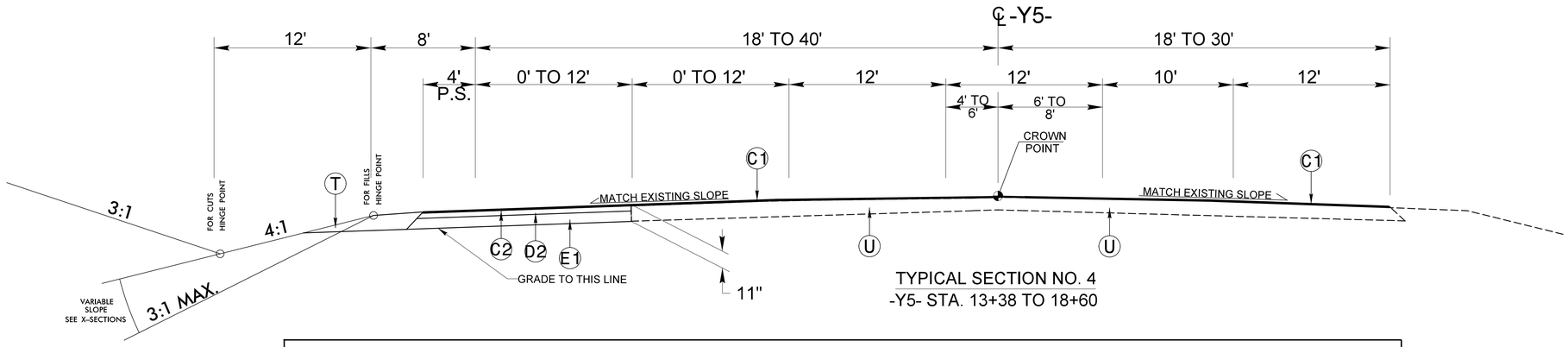
NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER JAMES STAFFORD GODWIN, JR.

HYDRAULICS ENGINEER

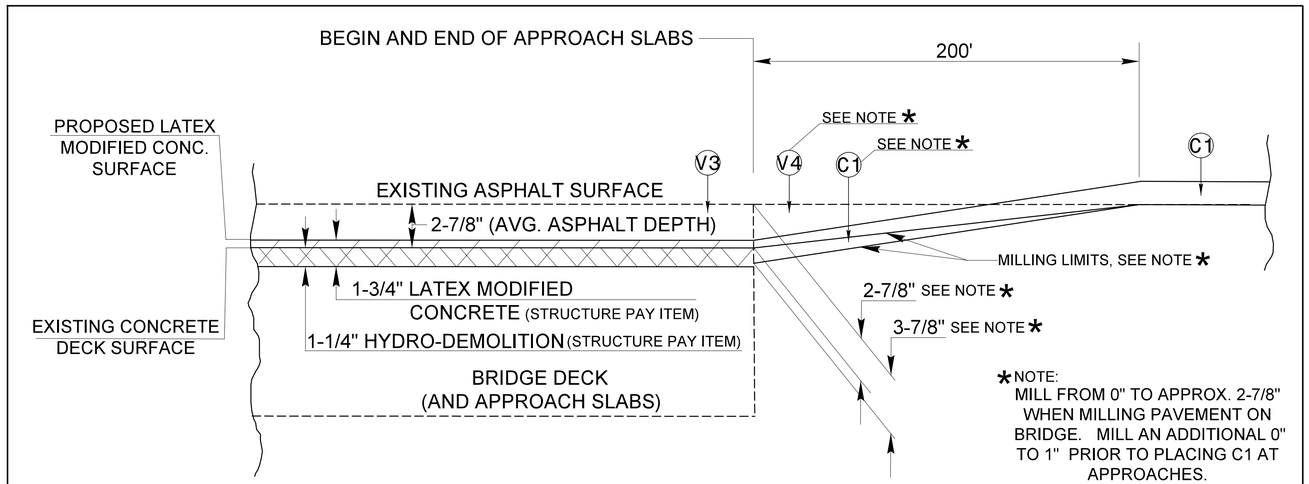
Digitally signed by Joshua G. Dalton DN: cn=Joshua G. Dalton, o=NCDOT, ou=Hydraulics, email=jgdalton@ncdot.gov, c=US Date: 2015.04.23 08:08:14 -04'00'

NORTH CAROLINA PROFESSIONAL SEAL 26371 ENGINEER JOSHUA G. DALTON

4/23/2015



TYPICAL SECTION NO. 4
-Y5- STA. 13+38 TO 18+60



*NOTE:
MILL FROM 0" TO APPROX. 2-7/8" WHEN MILLING PAVEMENT ON BRIDGE. MILL AN ADDITIONAL 0" TO 1" PRIOR TO PLACING C1 AT APPROACHES.

DETAIL SHOWING MILLING AND RESURFACING ON BRIDGE DECK, APPROACH SLABS, AND APPROACHES

C1	1.5" S9.5C
C2	3" S9.5C
D2	4" I19.0C
E1	4" B25.0C
R1	EXISTING 2'-6" CURB AND GUTTER
R2	PROPOSED 2'-6" CURB AND GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	MILLING 0" TO 1.5"
V3	MILLING 0" TO 2.875"(AVG.) DEPTH
V4	MILLING 0" TO 3.875"(AVG.) DEPTH
Y	SCARIFY DECK 1.25" DEPTH REPLACE WITH LMC, 1.75" DEPTH (STRUCTURE PAY ITEMS)

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

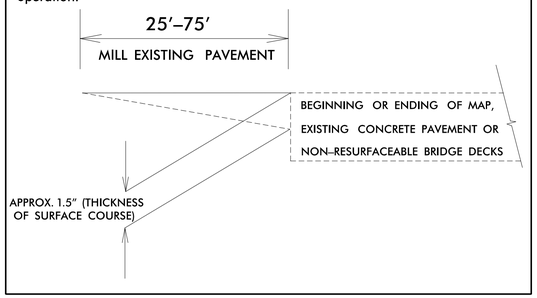
MILLING AT PAVEMENT TIE–INS

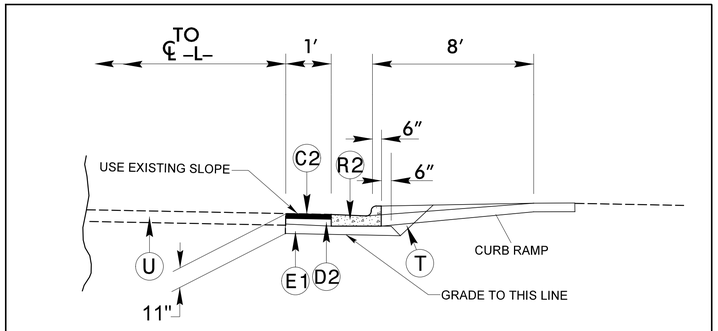
NOTES TO CONTRACTOR

For surface mixes over 1" in thickness, mill the existing pavement in accordance with the following sketch as directed by the Engineer.

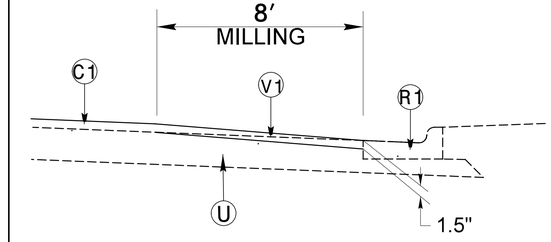
Locations shall include ties into existing concrete pavement, at bridge approaches where the bridge will not be resurfaced, and at the beginning and ending point of each resurfacing map.

Perform the work in accordance with Section 607 of the January 2012 North Carolina Department of Transportation Standard Specifications for Roads and Structures. Resurfacing will be accomplished at the same time as the milling operation.





DETAIL SHOWING PROPOSED PAVEMENT WHERE CURB RAMPS ARE PROPOSED AND WHERE EXISTING CURB RAMPS ARE TO BE REMOVED AND REPLACED WITH 2'-6" CONCRETE CURB AND GUTTER

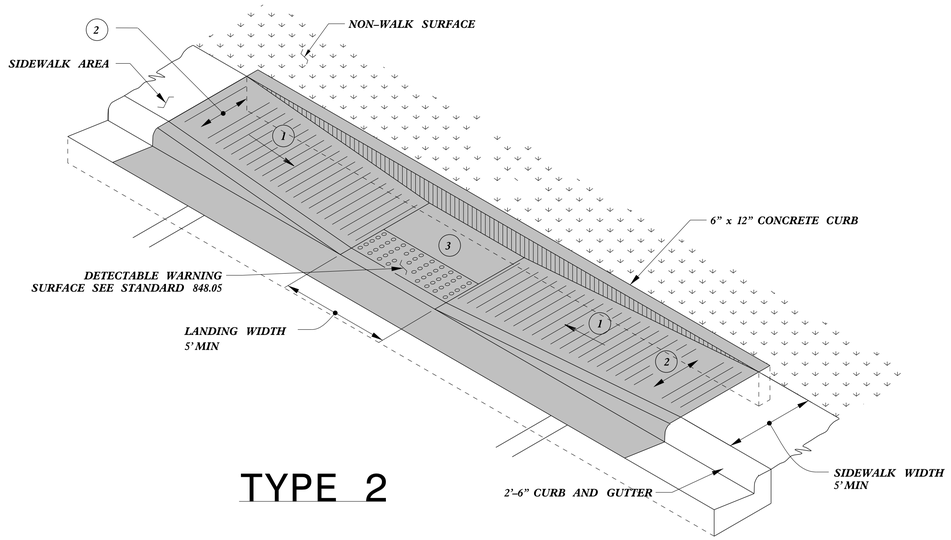


DETAIL SHOWING MILLING AND RESURFACING TO BE USED ON OUTSIDE LANES (LEFT & RIGHT)

4/23/2015
W-5514_rdy_typ_02A.dgn
brease

5/14/99

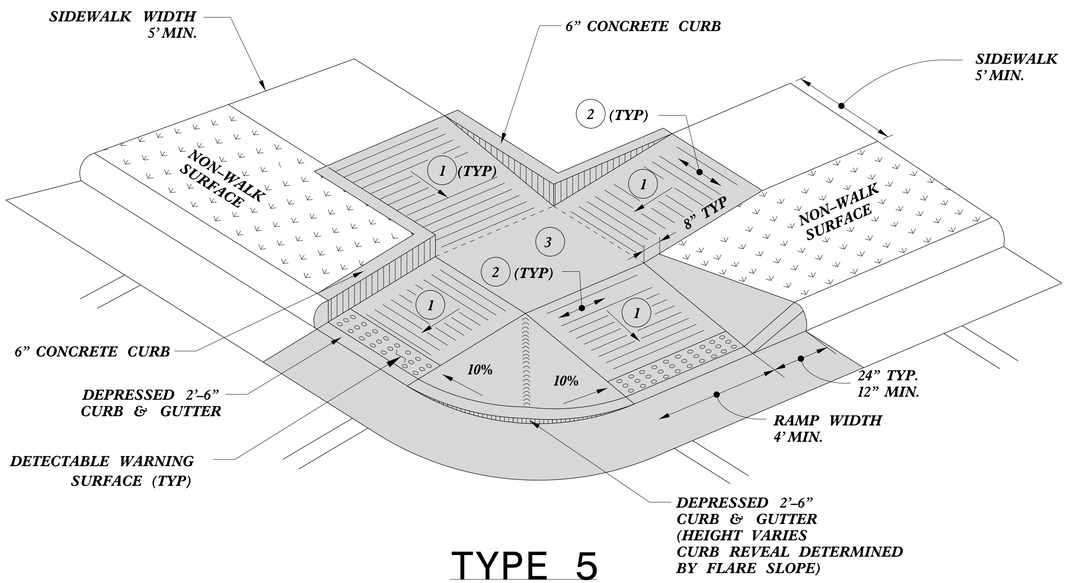
PROJECT REFERENCE NO.	SHEET NO.
W-5514	2C-1



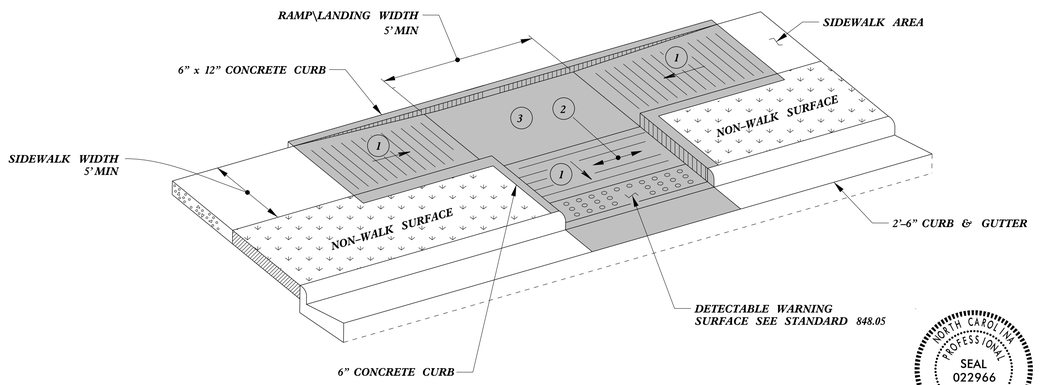
TYPE 2

PAY LIMITS FOR 1 CURB RAMP

1. *8.33% (12:1) MAX RAMP SLOPE*
2. *CROSS SLOPE: 2.00%*
3. *CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.*



TYPE 5



TYPE 3

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

Joel S Howerton
449E8E25522144F...

4/23/2015

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

Parallel Ramps

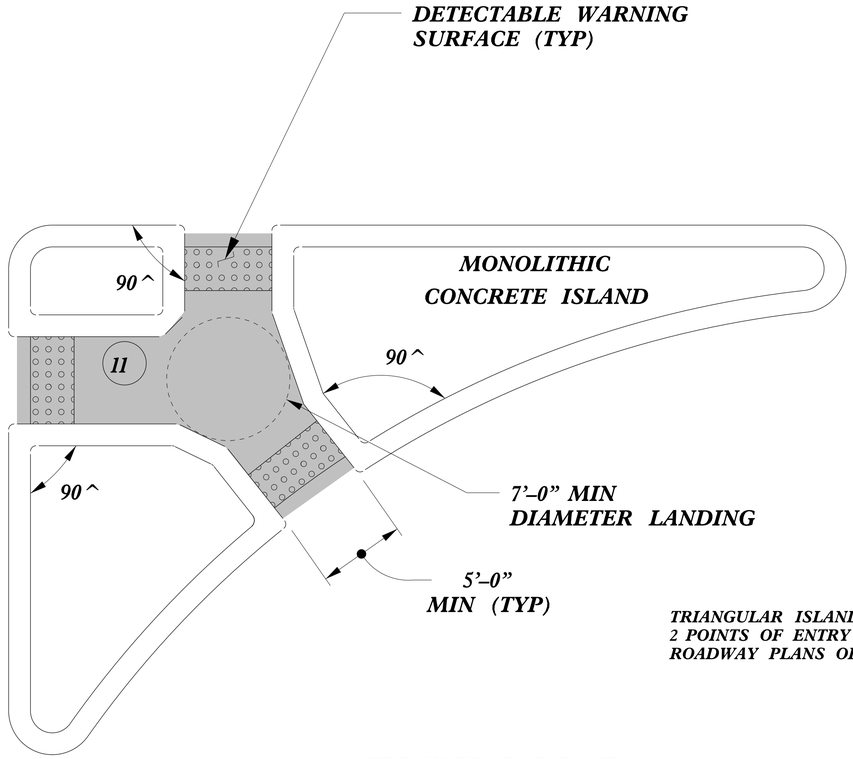
ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

$$$$USERNAME$$$$ $$$$CONFIG$$$$ $$$$FILE$$$$ $$$$SYTIME$$$$

5/14/99

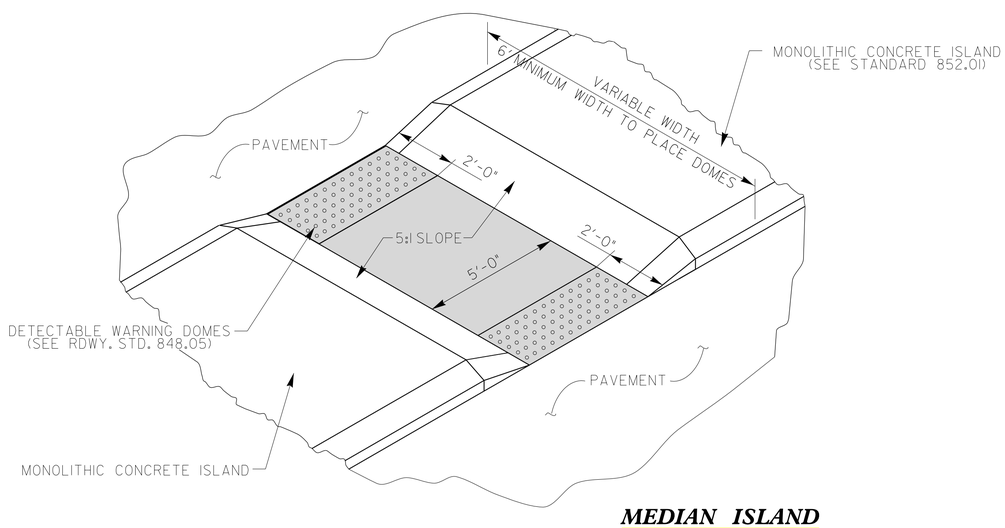
PROJECT REFERENCE NO.	SHEET NO.
W-5514	2C-2

PAY LIMITS FOR 1 CURB RAMP

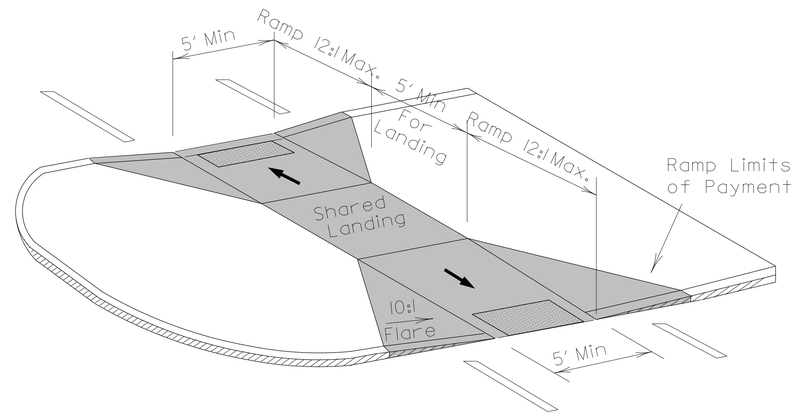


TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY 2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

TRIANGULAR ISLAND WITH CUT THROUGH



MEDIAN ISLAND WITH CUT THROUGH



MEDIAN ISLAND CURB RAMPS

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

Joel S. Howerton
449E8E25522144F...
4/23/2015

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

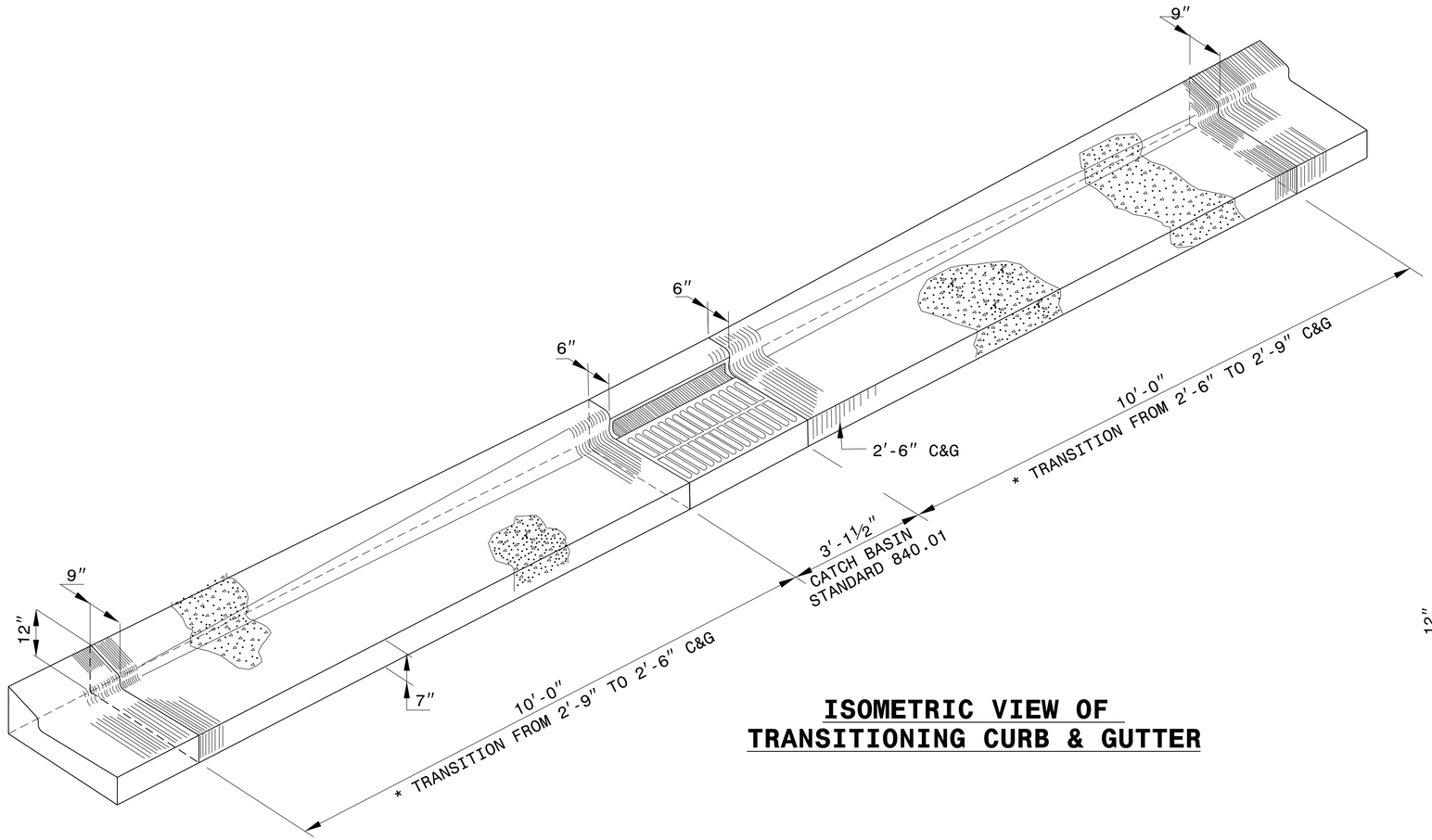
Median or Turn Lane Islands

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC. :stds/2012CurbRamp/CurbRampDetails.dgn

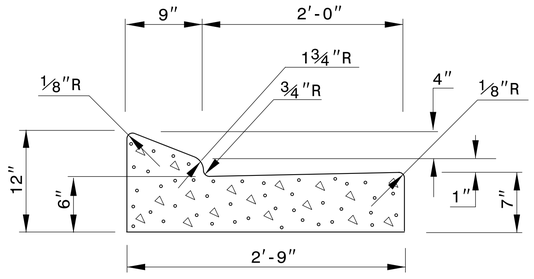
$$$$ SYSTEM $$$$
$$$$ ENV $$$$
$$$$ USERNAME $$$$

PROJECT REFERENCE NO.	SHEET NO.
W-5514	2C-3

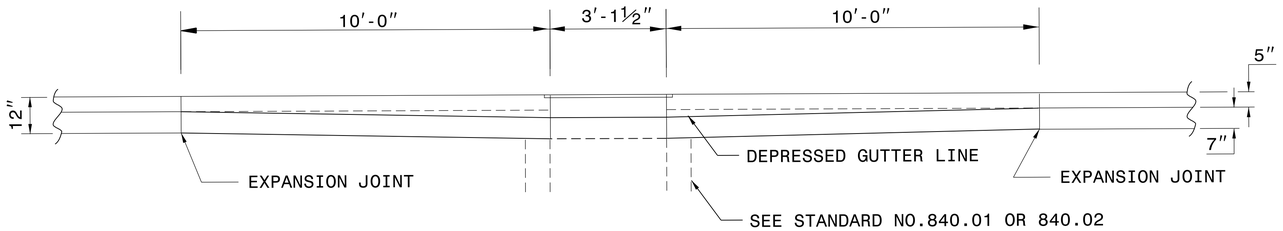
NOTE: SEE STD.DWG. 846.01 FOR 2'-6" CURB AND GUTTER INFORMATION.



ISOMETRIC VIEW OF TRANSITIONING CURB & GUTTER



PROPOSED 2'-9" CURB & GUTTER



ELEVATION

* MAINTAIN THE EDGE OF PAVEMENT. TRANSITION THE CURB ALONG THE BACK OF THE CURB.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 022966 Joel S. Howerton
Joel S. Howerton
449E8E25522144F...
4/23/2015

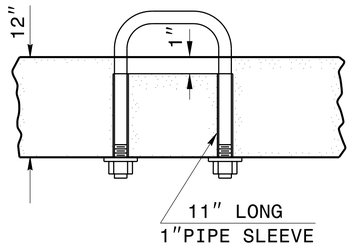
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

DETAIL OF 2'-9" TO 2'-6" CURB & GUTTER TRANSITION SECTION

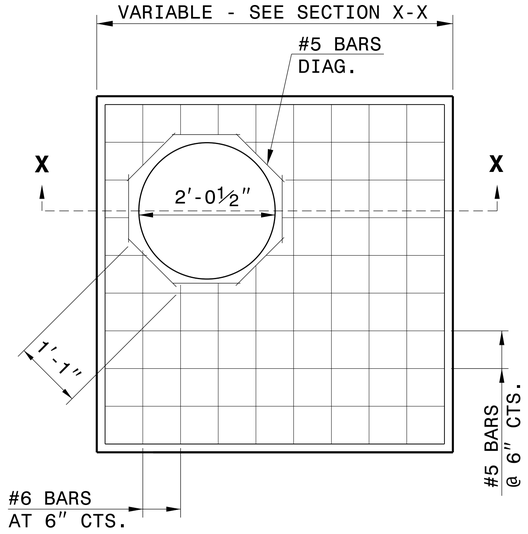
ORIGINAL BY: _____ DATE: _____
MODIFIED BY: tspell DATE: july 14,2009
CHECKED BY: _____ DATE: _____
FILE SPEC.: s:eric/usr/details/stand/cgtranst.dgn

$$$$SYSTIME$$$$
$$$$SCALE$$$$
$$$$USERNAME$$$$

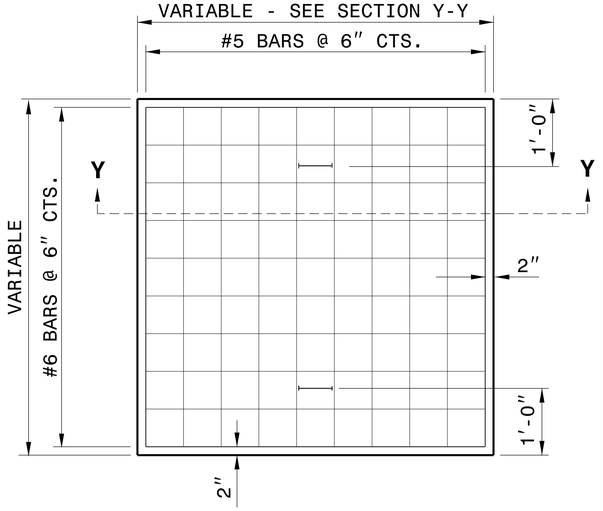
PROJECT REFERENCE NO.	SHEET NO.
W-5514	2D-1



PARTIAL SECTION



PLAN



PLAN

BILL OF MATERIALS

MASONRY	
TOP SLAB CONCRETE CLASS "A"	.037YDS^3 PER FT^2
BRICK MASONRY	.025YDS^3 PER FT^2
REINFORCING STEEL	7.64LBS PER FT^2

MANHOLE OPTION QUANTITIES

SIZE	QTY.	LENGTH	REINF. STEEL LBS.
#5 DIAG.	8	1'-1"	9.04

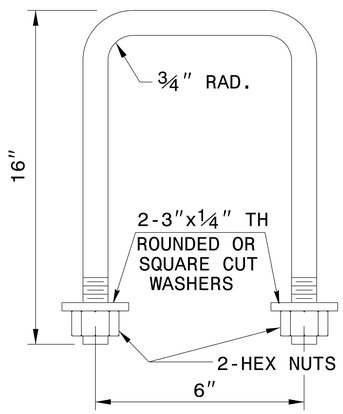
GENERAL NOTES:

CONCRETE AND REINFORCING STEEL QUANTITIES BASED ON SQUARE FOOT AREA OF THE PROPOSED TOP SLAB FOR THE EXISTING DRAINAGE STRUCTURE.

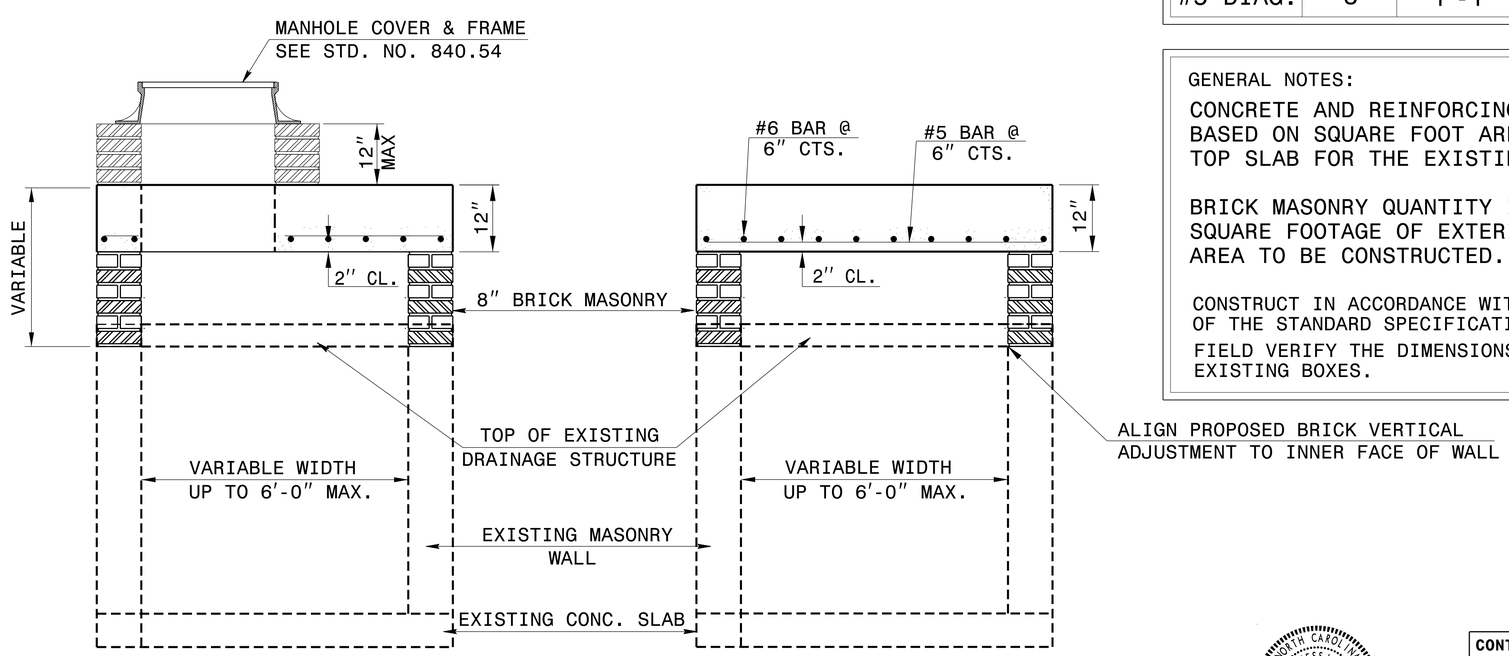
BRICK MASONRY QUANTITY IS BASED ON THE TOTAL SQUARE FOOTAGE OF EXTERIOR WALL SURFACE AREA TO BE CONSTRUCTED.

CONSTRUCT IN ACCORDANCE WITH SECTION 859 OF THE STANDARD SPECIFICATIONS.

FIELD VERIFY THE DIMENSIONS FOR THE EXISTING BOXES.



DETAIL OF HANDLE



SECTION X-X

SECTION Y-Y

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

Joel S. Howerton
449EBE25522144F...
4/23/2015

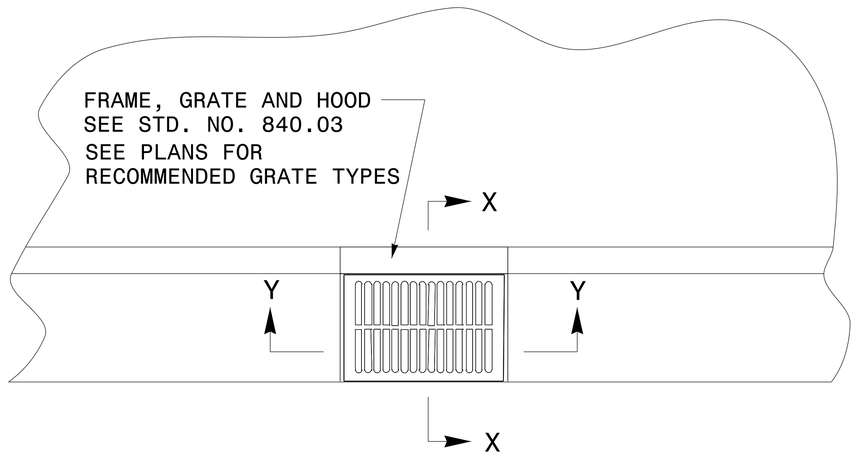
CONTRACT STANDARDS & DEVELOPMENT UNIT
STANDARDS AND SPECIAL DESIGN
Office 919-707-6900 FAX 919-250-4119

DETAIL TO CONVERT EXISTING DROP INLET OR CATCH BASIN TO TRAFFIC BEARING JUNCTION BOX (MANHOLE OPTIONAL)

ORIGINAL BY: _____ DATE: _____
MODIFIED BY: rnbritt DATE: 11-21-2014
CHECKED BY: _____ DATE: _____
FILE SPEC.: details/nbritt/english/hydro/diorcbtotbjb.dgn

$$$$USERNAME$$$$ $$$$SYSTIME$$$$ $$$$SCENARIO$$$$ $$$$ENAME$$$$ $$$$CELL$$$$

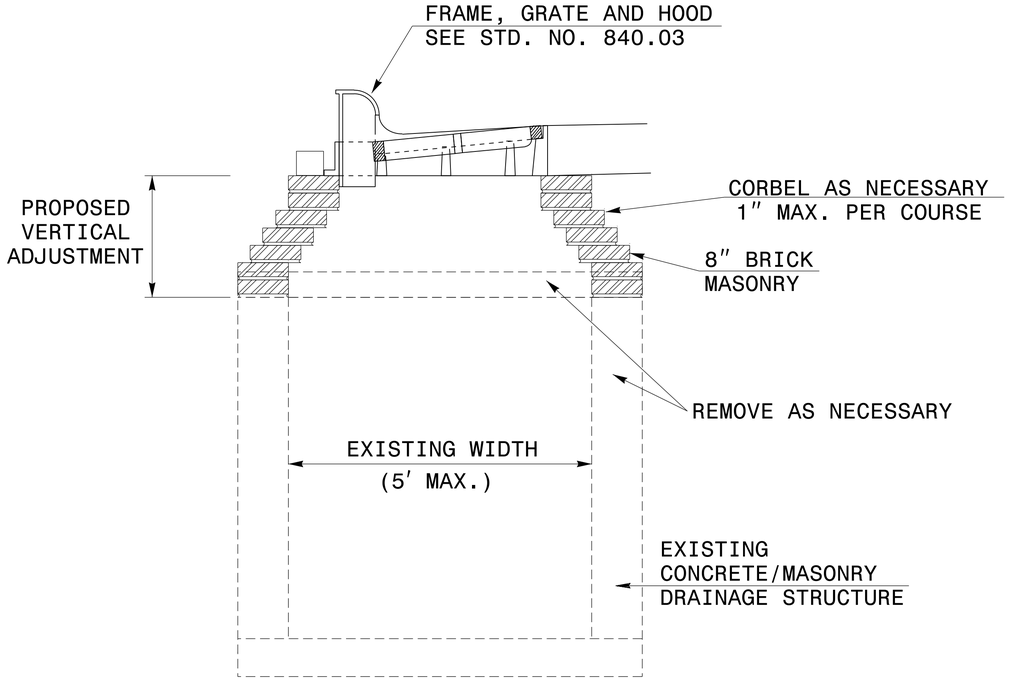
PROJECT REFERENCE NO.	SHEET NO.
W-5514	2D-2



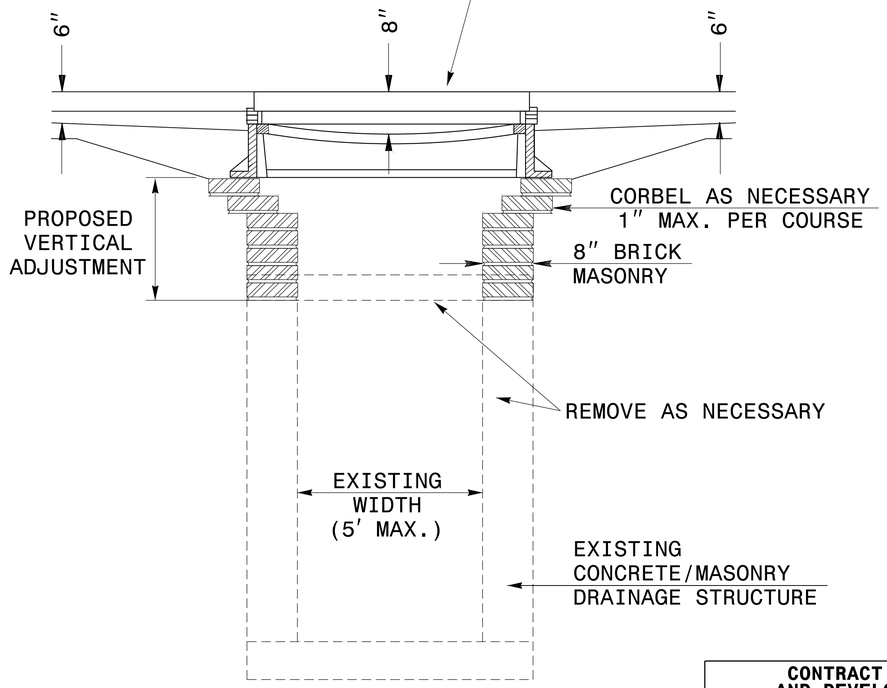
PLAN

GENERAL NOTES:

- THE ROADWAY PLANS INDICATE STRUCTURES TO BE CONVERTED.
- AFTER REMOVAL, GRATES AND FRAMES SHALL BE STORED AS DIRECTED BY THE ENGINEER.
- 4″ SOLID CLAY BRICK, JUMBO BRICK, CONCRETE, OR 4″ SOLID CONCRETE BLOCK MAY BE USED FOR VERTICAL ADJUSTMENT OF THE STRUCTURE.
- ALL CONVERSIONS SHALL BE IN ACCORDANCE WITH SECTION 859 OF THE STANDARD SPECIFICATIONS.



SECTION X-X



SECTION Y-Y

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton
Joel S. Howerton
449E8E25022144F...
4/23/2015

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CONVERSION OF OPEN THROAT CATCH BASIN TO HOODED CATCH BASIN (STD. 840.02)

ORIGINAL BY: E.E. WARD DATE: 11-97
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: s:usr\details\stand\jbtocb.dgn

$$$$$$$SYSTIME$$$$
$$$$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET
W-5514	2H-1

GEOENVIRONMENTAL ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 31499 ENGINEER CYRUS F. PARKER

DocuSigned by: Cyrus Parker 12/16/2014 C96492AF5E824DF...

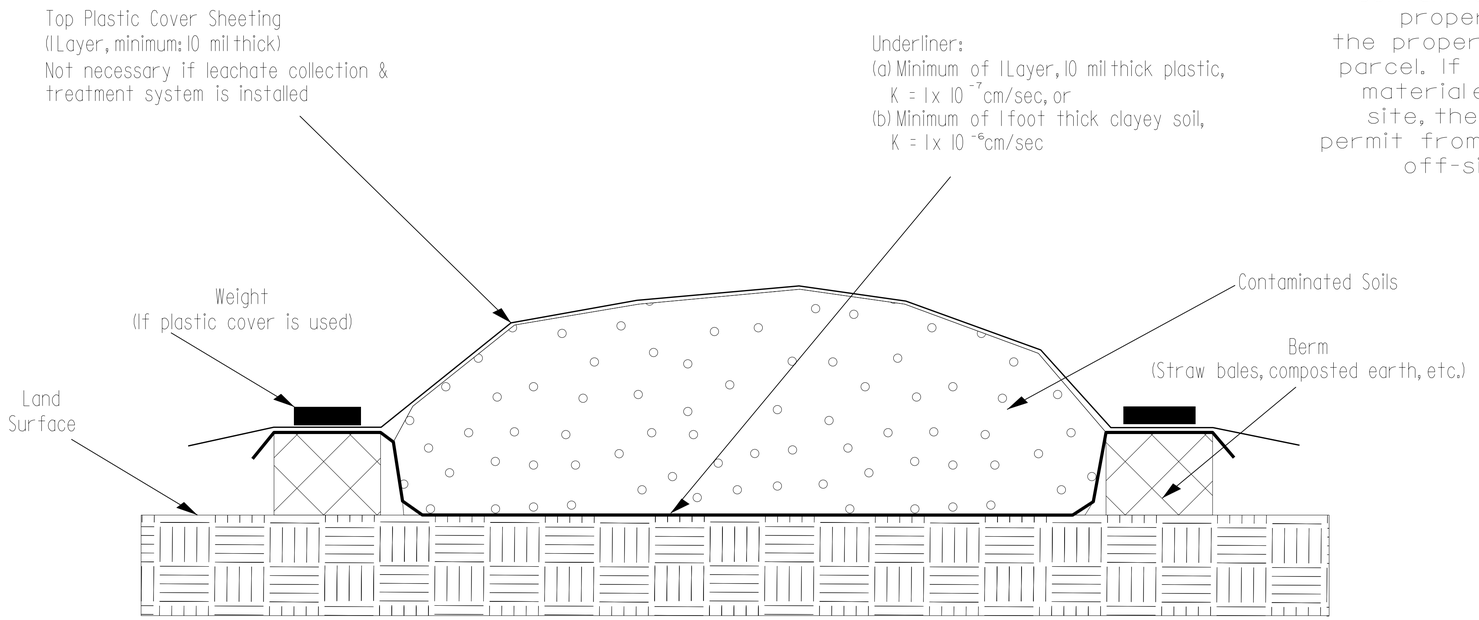
SIGNATURE DATE

ENGINEER

SIGNATURE DATE

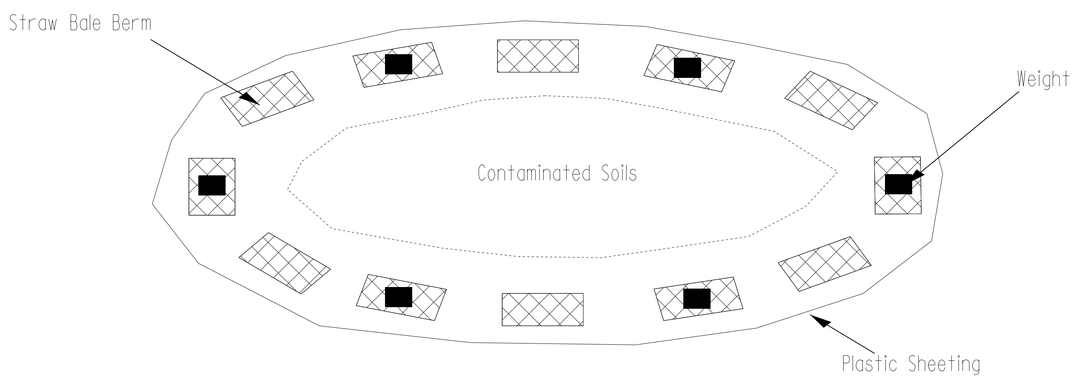
Detail for Temporary Containment of Contaminated Soil

Cross-Section View



NOTE:
The Contractor shall stockpile all contaminated soil excavated from a property in a location within the property boundaries of the source parcel. If the volume of contaminated material exceeds available space on site, the Contractor shall obtain a permit from the NCDENR UST Section for off-site temporary storage.

Map View



PREPARED BY:	DATE:
REVIEWED BY:	DATE:

GEOTECHNICAL ENGINEERING UNIT

☐ EASTERN REGIONAL OFFICE
☐ WESTERN REGIONAL OFFICE
☒ CONTRACT OFFICE

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STOCKPILE CONTAINMENT DETAIL

REVISIONS

NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

SUMMARY OF EARTHWORK

STATION	STATION	UNCL. EXCAV. (CY)	EMBANK. +%	BORROW	WASTE
–L– (MEDIAN)					
–L– 151+50	–L– 157+48	235	470	470	235
–L– 163+50	–L– 171+60	364	726	726	364
–L– 179+59	–L– 183+12	138	248	249	138
–L– 189+16	–L– 193+54	151	293	294	151
–L– 204+90	–L– 210+45	244	431	431	244
–L– 217+52	–L– 222+76	225	435	435	225
–L– 237+43	–L– 245+10	347	707	708	347
SUBTOTAL		1704	3,310	3,310	1704
–L– (RIGHT)					
–L– 192+62	–L– 196+15	326	76		231
SUBTOTAL		326	76	0	231
–Y5– (LEFT)					
–Y5– 12+78	–Y5– 18+60	356	53		303
SUBTOTAL		356	53	0	303
TOTAL		2386	3,458	3,310	2238
MATERIAL FOR SHOULDER CONSTRUCTION			163	163	
WASTE IN LEIU OF BORROW				–524	–524
PROJECT TOTAL		2386	3621	2949	1714
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				148	
GRAND TOTAL		2386	3621	3097	1714
SAY		2400		3,100	

DRAINAGE DITCH EXCAVATION =23 CY

REMOVAL OF EXISTING ASPHALT PAVEMENT

STATION	STATION	LOCATION (LT. OR RT.)	SQUARE YARDS
–L– (MEDIAN)			
–L– 151+50	–L– 157+48		739
–L– 163+50	–L– 171+60		1050
–L– 179+59	–L– 183+12		394
–L– 189+16	–L– 193+54		523
–L– 204+90	–L– 210+45		638
–L– 217+52	–L– 222+76		652
–L– 237+43	–L– 245+10		1009
		SUBTOTAL	5005
		SAY	5010

NOTE:

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, AND REMOVAL OF EXISTING ASPHALT PAVEMENT WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "GRADING."

PARCEL INDEX

PARCEL NUMBER	SHEET NUMBER	PROPERTY OWNER NAME
1	10 & 11	NELSON FAMILY INVESTMENTS, LLC
2	11	CAROLINA POWER AND LIGHT COMPANY

COMPUTED BY: Joshua G. Dalton, PE DATE: 3/12/2015

CHECKED BY: Jimmy Goodnight, PE DATE: 4/1/2015

PROJECT NO.	SHEET NO.
W-5514	3D-1

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.

Choose Project Tier

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

STATION	LOCATION (LT, RT, OR CL)	STRUCTURE NO.		TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC)								DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	C.S. PIPE								R.C. PIPE CLASS III								R.C. PIPE CLASS IV								** " R.C. PIPE (CLASS V)	***" RC PIPE CULVERTS, CONTRACTOR DESIGN	****" RC PIPE CULVERTS, CONTRACTOR DESIGN	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS		QUANTITIES FOR DRAINAGE STRUCTURES	*TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. FT.		C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE			CONCRETE TRANSITIONAL SECTION		D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	G.D.I. FRAME WITH GRATE STD. 840.20	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. 840.29	J.B. STD. 840.31 OR 840.32	T.B.J.B. STD. 840.34	M.H. FRAME AND COVER STD. 840.54	T.B.D.I. STD. 840.35	CONVERT O.T.C.B. TO C.B.	CONVERT C.B. TO T.B.J.B.	SIDE DRAIN PIPE ELBOWS NO. & SIZE	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
SIZE								12"	15"	18"	24"	30"	36"	42"	48"					12"	15"	18"	24"	30"	36"	42"	48"	12"	15"	18"	24"	30"	36"	42"	48"	12"	15"	18"	24"	30"	36"	42"	48"						R.C.P.	C.S.P.	PER EACH (0' THRU 5.0')	A 5.0' THRU 10.0'	B 10.0' AND ABOVE		E	F	G	DROP INLET	CATCH BASIN																					
THICKNESS OR GAUGE		FROM	TO																		.064	.064	.064	.064	.079	.079	.109	.109																																																				
105+00 -L-	RT	401		210.8	205.1																																														1	0.7							1		1	1																	
		401	400		205.1	204.8	X																													72																																									
106+00 -L-	RT	402		210.6	205.4																																														1	0.2							1		1	1																	
		402	401		205.4	205.1	X																													100																																									
107+00 -L-	RT	403		210.5	205.6																																														1								1		1	1																	
		403	402		205.6	205.4	X																													100																																									
107+75 -L-	RT	404		210.4	205.8																																														1								1		1	1																	
		404	403		205.8	205.6	X																													76																																									
108+25 -L-	RT	405		210.4	206.0																																														1								1		1	1																	
		405	404		206.0	205.8	X																													52																																									
108+75 -L-	RT	406		210.2	206.2																																														1								1		1	1																	
		406	405		206.2	206.0	X																													52																																									
109+14 -L-	RT	407		210.2	206.3																																														1								1		1	1																	
		407	406		206.3	206.2	X																													40																																									
		408	407		206.5	206.3	X																													36																																									REMOVE EXIST 15" RCP
110+00 -L-	RT	409		210.1	206.9																																														1								1		1	1																	
		409	410		206.9	206.75	X																													52																																									
110+50 -L-	CL	410		210.1	206.75																																														1								1		1	1																	
		410	411		206.75	206.6	X																													52																																									
111+00 -L-	CL	411		210.0	206.6																																														1								1		1	1																	
		411	412		206.6	206.4	X																													56																																									
111+55 -L-	CL	412		209.9	206.4																																														1								1		1	1																	
		412	413		206.4	206.28	X																													40																																									
134+35 -L-	LT	601		201.7	198.5																																														1								1		1	1																	
		601	602		198.5	198.4																														12																																									
134+45 -L-	LT	602		201.6	198.4																																														1								1		1	1																	
		602	603		198.4	198.0																														16																																									
134+60 -L-	LT	603		201.6	196.7																																														1																				1	1								INVERT OF JB IS ESTIMATED.
137+50 -L-	RT	604		199.6	196.4																																														1								1		1	1																	
		604	605		196.4	195.8																														76																																									
138+25 -L-	RT	605		199.0	195.8																																														1								1		1	1																	
		605	606		195.8	195.0																														76																																									
139+00 -L-	RT	606		198.2	195.0																																														1								1		1	1																	
		606	607		195.0	194.2																														76																																									
139+75 -L-	RT	607		197.4	194.2																																														1								1		1	1																	
		607	608		194.2	193.1																														100																																									
140+74 -L-	RT	608		196.3	189.0																																														1	2.3							1		1	1																	INVERT OF DI IS ESTIMATED
141+75 -L-	RT	701		195.2	192.0																																														1								1		1	1																	
		701	702		192.0	191.5																														76																																									
142+50 -L-	RT	702		194.7	191.5																																														1								1		1	1																	
		702	703		191.5	190.8																														76																																									
143+25 -L-	CL	703		194.0	190.8																																														1								1		1	1																	
		703	704		190.8	189.6																														84																																									
144+07 -L-	LT	704		193.5	189.6																																														1								1		1	1																	
		704	EX.		189.6	188.3																														40																																									
145+50 -L-	LT	705		193.3	190.2																																														1								1		1	1																	
		705	704		190.2	189.6																														144																																									
159+96 -L-	RT	801		154.6	151.4																																														1								1		1	1																	
		801	802		151.4	150.4																														52																																									
159+44 -L-	CL	802		155.8	146.6																																														1	4.2																			1	1								
172+30 -L-	RT	901		178.2	175.0																																														1								1		1	1																	
		901	902		175.0	173.7																														48																																									
171+84 -L-	RT	902		176.9	173.7																																														1								1		1	1																	
		902	903		173.7	170.6																														48																																									
SHEET TOTALS																																				1652														28	7.4							26		26	26									2	2								

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.)	(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

COMPUTED BY: Joshua G. Dalton, PE DATE: 3/12/2015

CHECKED BY: Jimmy Goodnight, PE DATE: 4/1/2015

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
W-5514	3D-2

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.

Choose Project Tier

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

STATION	LOCATION (LT, RT, OR CL)*	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC) SIZE	12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE
								THICKNESS OR GAUGE												
179+50 -L-	RT	904		200.4	197.2															
		904	905		197.2	195.6														
179+00 -L-	RT	905		198.8	195.6															
		905	906		195.6	194.0														
178+50 -L-	RT	906		197.2	194.0															
		906	908		194.0	192.6														
Structure 907 Omitted																				
178+00 -L-	RT	908		195.8	192.6															
		908	909		192.6	190.2														
177+25 -L-	RT	909		193.4	190.2															
		909	910		190.2	188.1														
176+60 -L-	RT	910		191.3	188.1															
		910	911		188.1	184.6														
176+00 -L-	RT	911		189.5	184.6															
		911	913		184.6	184.4														
175+60 -L-	CL	912		188.0	184.8															
		912	911		184.8	184.6														
175+92 -L-	LT	913		187.7	184.4															
194+48 -L-	RT	1001		191.1																
195+53 -L-	RT	1101		192.0	188.8															
		1101	1102		188.8	185.7														
195+53 -L-	RT	1102		188.9	185.7															
		1102	1104		185.7	185.0														
195+61 -L-	RT	1103		188.8	185.8															
		1103	1102		185.8	185.7														
195+53 -L-	RT	1104		189.6	182.0															
196+05 -L-	RT	1105		189.5																
196+13 -L-	RT	1106		188.6																
10+67 -Y5-	LT	1107		191.5																
13+25 -Y5-	LT	1108		188.0																
13+28 -Y5-	LT	1109																		
		1109	1111		182.4	182.3														
13+15 -Y5-	LT	1110																		
		1110	1111		184.35	184.2														
13+30 -Y5-	LT	1111		188.2	182.3															
		1111	1112		182.3	182.1														
13+43 -Y5-	LT	1112																		
199+78 -L-	RT	1113		190.3	186.3															
		1113	EX		186.3	184.4														
200+40 -L-	RT	1114		190.6	187.5															
		1114	1113		187.5	187.0														
201+00 -L-	RT	1115		191.0	187.8															
		1115	1114		187.8	187.5														
201+60 -L-	RT	1116		191.4	188.2															
		1116	1115		188.2	187.8														
202+20 -L-	RT	1117		191.8	188.7															
		1117	1116		188.7	188.2														
202+99 -L-	RT	1118		192.4	186.9															
203+50 -L-	RT	1119		192.6	189.4															
		1119	1118		189.4	189.0														
204+05 -L-	RT	1120		192.8	189.6															
		1120	1119		189.6	189.4														
SHEET TOTALS																	16	12	20	

STATION	C.S. PIPE SIZE	12"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS III SIZE	12"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS IV SIZE	12"	15"	18"	24"	30"	36"	42"	48"
	THICKNESS OR GAUGE	.064	.064	.064	.064	.079	.079	.109	.109																			
179+50 -L-																											
																			52								
179+00 -L-																											
																			52								
178+50 -L-																											
																			52								
Structure 907 Omitted																											
178+00 -L-																											
																			76								
177+25 -L-																											
																			68								
176+60 -L-																											
																			60								
176+00 -L-																											
																			52								
175+60 -L-																											
																			44								
175+92 -L-																											
194+48 -L-																											
195+53 -L-																											
195+53 -L-																											
195+61 -L-																											
195+53 -L-																											
196+05 -L-																											
196+13 -L-																											
10+67 -Y5-																											
13+25 -Y5-																											
13+28 -Y5-																											
																			12								
13+15 -Y5-																											
13+30 -Y5-																											
																			20								
13+43 -Y5-																											
199+78 -L-																											
200+40 -L-																											
																			64								
201+00 -L-																											
																			60								
201+60 -L-																											
																			60								
202+20 -L-																											
																			60								
202+99 -L-																											
203+50 -L-																											
																			52								
204+05 -L-																											
																			56								
SHEET TOTALS																	16	12	20								

STATION	ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS R.C.P.	ENDWALLS CU. YARDS C.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')	LIN. FT. B (10.0' AND ABOVE)	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	CONCRETE TRANSITIONAL SECTION DROP INLET	CATCH BASIN
179+50 -L-			1							1	
179+00 -L-			1							1	
178+50 -L-			1							1	
Structure 907 Omitted											
178+00 -L-			1								
177+25 -L-			1								
176+60 -L-			1								
176+00 -L-			1								
175+60 -L-			1							1	
175+92 -L-			1								
194+48 -L-							1				
195+53 -L-			1								
195+53 -L-			1			1		1			
195+61 -L-			1			1	1				
195+53 -L-			1	2.6							
196+05 -L-											
196+13 -L-											
10+67 -Y5-											
13+25 -Y5-											
13+28 -Y5-											
13+15 -Y5-											
13+30 -Y5-			1	0.9							
13+43 -Y5-	4.5										
199+78 -L-			1							1	
200+40 -L-			1							1	
201+00 -L-			1							1	
201+60 -L-			1							1	
202+20 -L-			1							1	
202+99 -L-			1	0.5						1	
203+50 -L-			1							1	
204+05 -L-			1							1	
SHEET TOTALS	4.5		22	4		2	1	2		12	

STATION	CONCRETE TRANSITIONAL SECTION CATCH BASIN	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	G.D.I. FRAME WITH GRATE STD. 840.20	G.D.I. FRAME WITH TWO GRATES STD. 840.22	G.D.I. FRAME WITH GRATE STD. 840.24	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.29	J.B. STD. 840.31 OR 840.32	T.B.J.B. STD. 840.34	M.H. FRAME AND COVER STD. 840.54	T.B.D.I. STD. 840.35	CONVERT O.T.C.B. TO C.B.	CONVERT C.B. TO T.B.J.B.
179+50 -L-		1	1													
179+00 -L-		1	1													
178+50 -L-		1	1													
Structure 907 Omitted																
178+00 -L-										1				1		
177+25 -L-										1				1		
176+60 -L-										1				1		
176+00 -L-										1				1		
175+60 -L-	1	1	1													
175+92 -L-											1	1				
194+48 -L-														1		
195+53 -L-										1				1		
195+53 -L-																
195+61 -L-																
195+53 -L-											1	1				
196+05 -L-														1		1
196+13 -L-																
10+67 -Y5-														1		1
13+25 -Y5-														1		1
13+28 -Y5-																
13+15 -Y5-																
13+30 -Y5-											1	1				
13+43 -Y5-																
199+78 -L-	1	1	1													
200+40 -L-	1	1	1													
201+00 -L-	1	1	1													
201+60 -L-	1	1	1													
202+20 -L-	1	1	1													
202+99 -L-	1	1	1													
203+50 -L-	1	1	1													
204+05 -L-	1	1	1													
SHEET TOTALS	12	12	12							5	1	2	6	5	1	3

STATION	SIDE DRAIN PIPE ELBOWS NO. & SIZE	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
179+50 -L-					
179+00 -L-					
178+50 -L-					
Structure 907 Omitted					
178+00 -L-					
177+25 -L-					
176+60 -L-					
176+00 -L-					
175+60 -L-					
175+92 -L-					
194+48 -L-				10	REMOVE EST 10 LF 15" RCP
195+53 -L-					
195+53 -L-					
195+61 -L-					
195+53 -L-					INVERT OF JB IS ESTIMATED
196+05 -L-					
196+13 -L-					
10+67 -Y5-					
13+25 -Y5-					
13+28 -Y5-			0.764		COLLAR AND EXTEND 36" RCP
13+15 -Y5-			0.553		COLLAR AND EXTEND 24" RCP
13+30 -Y5-					
13+43 -Y5-					
199+78 -L-					
200+40 -L-					REMOVE EST 51 LF EXIST. 15" RCP
201+00 -L-					
201+60 -L-					
202+20 -L-					
202+99 -L-					
203+50 -L-					
204+05 -L-					
SHEET TOTALS			1.317	10	

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.)	(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

* " R.C. PIPE (CLASS V)

*** RC PIPE CULVERTS, CONTRACTOR DESIGN

**** RC PIPE CULVERTS, CONTRACTOR DESIGN

15" SIDE DRAIN PIPE

18" SIDE DRAIN PIPE

COMPUTED BY: Joshua G. Dalton, PE DATE: 3/12/2015
CHECKED BY: Jimmy Goodnight, PE DATE: 4/1/2015

PROJECT NO.	SHEET NO.
W-5514	3D-3

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.

Choose Project Tier

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

STATION	LOCATION (LT, RT, OR CL)'	STRUCTURE NO.		TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC)												C.S. PIPE								R.C. PIPE CLASS III								R.C. PIPE CLASS IV							
SIZE								12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	12"	15"	18"	24"	30"	36"	42"	48"	12"	15"	18"	24"	30"	36"	42"	48"	12"	15"	18"	24"	30"	36"	42"	48"
THICKNESS OR GAUGE		FROM	TO																	.064	.064	.064	.064	.079	.079	.109	.109																
204+60 -L-	RT	1121		193.0	189.8																																						
		1121	1120		189.8	189.6																															56						
205+20 -L-	RT	1122		193.0	187.8																																						
205+80 -L-	RT	1123		193.1	190.0																																						
		1123	1122		190.0	187.8																															60						
206+40 -L-	RT	1124		193.2	190.2																																						
		1124	1123		190.2	190.0																															60						
207+00 -L-	RT	1125		193.3	190.3																																						
		1125	1124		190.3	190.0																															60						
207+69 -L-	RT	1126		193.5	190.3																																						
		1126	1127		190.3	188.4																															52						
199+13 -L-	RT	1128		189.9	186.7																																						
		1128	1113		186.7	186.3																															68						
208+20 -L-	RT	1201		193.6	190.5																																						
		1201	1126		190.5	190.3																															52						
208+80 -L-	RT	1202		193.8	190.7																																						
		1202	1201		190.7	190.5																															60						
209+30 -L-	RT	1203		193.9	190.9																																						
		1203	1202		190.9	190.7																															52						
214+00 -L-	LT	1204		194.8	191.6																																						
		1204	1205		191.6	190.6																															228						
211+70 -L-	LT	1205		193.8	190.6																																						
		1205	1206		190.6	190.5																															8						
211+64 -L-	LT	1206		193.8	190.5																																						
		1206	1207		190.5	189.9																															112						
210+55 -L-	RT	1207		194.2	189.9																																						
		1207	1208		189.9	188.8																															52						
228+00 -L-	RT	1301		192.8	189.6																																						
		1301	1302		189.6	189.4																															52						
228+50 -L-	RT	1302		192.7	189.4																																						
		1302	1303		189.4	189.2																															52						
229+00 -L-	RT	1303		192.6	189.2																																						
		1303	1304		189.2	189.0																															24						
229+24 -L-	RT	1304		192.6	189.0																																						
		1304	1305		189.0	187.5																															48						
230+72 -L-	LT	1306		192.5	189.3																																						
		1306	1307		189.3	189.0																															80						
231+50 -L-	LT	1307		192.4	189.0																																						
		1307	1308		189.0	188.5																															12						
231+60 -L-	LT	1308		192.4	181.3																																						
234+68 -L-	RT	1402		192.9	188.9																																						
		1402	1401		188.9	188.2																															48						
235+10 -L-	RT	1403		192.9	189.1																																						
		1403	1402		189.1	188.9																															44						
235+50 -L-	RT	1404		192.9	189.3																																						
		1404	1403		189.3	189.1																															40						
236+00 -L-	RT	1405		192.9	189.5																																						
		1405	1404		189.5	189.3																															52						
236+50 -L-	RT	1406		192.9	189.7																																						
		1406	1405		189.7	189.5																															52						
245+33 -L-	LT	1407		192.7	189.5																																						
		1407	1408		189.5	187.3																																					
246+20 -L-	CL	1408		192.9	187.3																																						
SHEET 3-C TOTALS																																					1424						
SHEET 3-A TOTALS																																					1652						
SHEET 3-B TOTALS																													16		12	20			808		52				
PROJECT TOTALS																													16		12	20			3884		52				
SAY																																											

STATION	STRUCTURE NO. FROM	STRUCTURE NO. TO	** " R.C. PIPE (CLASS V)	***" RC PIPE CULVERTS, CONTRACTOR DESIGN	***" RC PIPE CULVERTS, CONTRACTOR DESIGN	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS		QUANTITIES FOR DRAINAGE STRUCTURES	*TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. FT.		C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE			CONCRETE TRANSITIONAL SECTION		D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	G.D.I. FRAME WITH GRATE STD. 840.20	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. 840.29	J.B. STD. 840.31 OR 840.32	T.B.J.B. STD. 840.34	M.H. FRAME AND COVER STD. 840.54	T.B.D.I. STD. 840.35	CONVERT O.T.C.B. TO C.B.	CONVERT C.B. TO J.B.	SIDE DRAIN PIPE ELBOWS NO. & SIZE	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
								R.C.P.	C.S.P.	PER EACH (0' THRU 5.0')	A 5.0' THRU 10.0'	B 10.0' AND ABOVE		E	F	G	DROP INLET	CATCH BASIN																				
204+60 -L-	1121									1							1		1	1																		
	1121	1120																																				
205+20 -L-	1122									1			1		1			1																				
205+80 -L-	1123									1			1		1			1																				
	1123	1122																																				
206+40 -L-	1124									1			1		1			1																				
	1124	1123																																				
207+00 -L-	1125									1			1		1			1																				
	1125	1124																																				
207+69 -L-	1126									1			1		1			1																				
	1126	1127																																				
199+13 -L-	1128									1							1		1	1																		
	1128	1113																																				
208+20 -L-	1201									1			1		1			1																				
	1201	1126																																				
208+80 -L-	1202									1			1		1			1																				
	1202	1201																																				
209+30 -L-	1203									1			1		1			1																				
	1203	1202																																				
214+00 -L-	1204									1							1		1	1																		
	1204	1205																																				
211+70 -L-	1205									1							1		1	1																		
	1205	1206																																				
211+64 -L-	1206									1							1		1	1																		
	1206	1207																																				
210+55 -L-	1207									1							1		1	1																		
	1207	1208																																				
228+00 -L-	1301									1							1		1	1																		
	1301	1302																																				
228+50 -L-	1302									1							1		1	1																		
	1302	1303																																				
229+00 -L-	1303									1							1		1	1																		
	1303	1304																																				
229+24 -L-	1304									1							1		1	1																		
	1304	1305																																				
230+72 -L-	1306									1							1		1	1																		
	1306	1307																																				
231+50 -L-	1307									1							1		1	1																		
	1307	1308																																				
231+60 -L-	1308									1	5	1.1																		1	1								
234+68 -L-	1402									1							1		1	1																		
	1402	1401																																				
235+10 -L-	1403									1							1		1	1																		
	1403	1402																																				
235+50 -L-	1404									1							1		1	1																		
	1404	1403																																				
236+00 -L-	1405									1							1		1	1																		
	1405	1404																																				
236+50 -L-	1406									1							1		1	1																		
	1406	1405																																				
245+33 -L-	1407									1							1		1	1																		
	1407	1408																																				
246+20 -L-	1408									1	0.6																			1	1								
SHEET 3-C TOTALS										28	5.6	1.1	8		8		18	8	18	18										2	2								
SHEET 3-A TOTALS										28	7.4						26		26	26										2	2								
SHEET 3-B TOTALS								4.5		22	4		2	1	2		12		12	12							5	1	2	6	5	1	3			1.317	10	
PROJECT TOTALS								4.5		78	17.0	1.1	10	1	10		56	8	56	56							5	1	6	10	5	1	3			1.317	10	
SAY								5			18.4																									2		

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.)	(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

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5514	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER STANFORD GOODNIGHT JR.

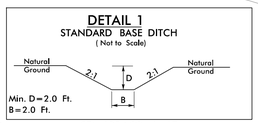
HYDRAULICS ENGINEER

Joshua G. Dalton

NORTH CAROLINA SEAL 26971 ENGINEER JOSHUA G. DALTON

4/27/2015

DETAIL 1
STANDARD BASE DITCH
(Not to Scale)



STA. 105+00 -L- LT

105

-L-
PI Sta 104+93.46
Δ = 30° 15' 38.0" (RT)
D = 3° 08' 22.2"
L = 963.87'
T = 493.46'
R = 1,825.00'
DS = 50 mph

110

PT Sta. 13+47.88

SEE DETAIL SHEET 2C-1 TYPE 2 FOR CURB RAMP ADJUST TO FIT FIELD CONDITIONS AS NEEDED.

BEGIN TIP PROJECT W-5514
-L- STA.103+01

-L- POT Sta.102+81.56=
-Y1- POT Sta.12+05.40

PROPOSED CURB RAMP
-L- STA.102+29+/-

-BL- #100

2' BASE DITCH
EST DDE 23 CY
SEE DETAIL 1
CL B RIP RAP
EST 2 TONS
EST 7 SY GEOTEXTILE

594' FULL LEFT TURN LANE

TBM #1 EL=213.52'
NAIL IN PINE

N 53° 37' 07.7" E

-Y1-

2'R REM.WCR REPL WITH 15' C&G

SR 1007 (OWEN DR) 88' PAV

ALL AMERICAN EXPY 93' BST

PC Sta. 12+03.10

PT Sta. 11+10.32

REMOVE EXISTING 15" RCP

47.5' EXISTING TAPER

150' TAPER

-L-
S 18° 52' 28.9" E

-BL- #101

PT Sta. 109+63.87

MATCHLINE SHEET 5
-L- STA 113+00.00

SEE DETAIL SHEET 2C-1 TYPE 2 FOR CURB RAMP ADJUST TO FIT FIELD CONDITIONS AS NEEDED.

PROPOSED CURB RAMP
-L- STA.102+18+/-

PC Sta. 10+00.00

PC Sta. 100+00.00

PIN NO. 0416-99-4121
BETARI INC., ET AL
D.B. 7508, PG. 400
P.B. 109, PG. 115

PIN NO. 0416-98-5895
BRE/ESA TX PROPERTIES, L.P.
D.B. 6536, PG. 345

PIN NO. 0416-98-6536
BRE/ESA TX PROPERTIES, L.P.
D.B. 6536, PG. 345

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY OTHERS FOR MONUMENT "BL-111"
WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF
NORTHING: 462957.835(ft) EASTING: 2023423.567(ft)
ELEVATION: 192.14(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999876634
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "BL-111" TO -L- STATION 103+01 IS N 31-12'-46.1"W 7216.4026 FEET
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

4/27/2015
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bpope

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5514	5
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER STANFORD GOODNIGHT, JR.

HYDRAULICS ENGINEER

Electronically Signed by Joshua G. Dalton

NORTH CAROLINA PROFESSIONAL SEAL 26971 ENGINEER JOSHUA G. DALTON

4/27/2015

MATCHLINE SHEET 4 -L- STA 113+00.00

MATCHLINE SHEET 6 -L- STA 127+00.00

PIN NO. 0426-07-6468
FAYETTEVILLE ARE HEALTH EDUCATION FOUNDATION, INC.
D.B. 3373, PG. 589
D.B. 3639, PG. 871(EASEMENT)
P.B. 17, PG. 31

PIN NO. 0426-07-4559
DAVID B. ALABASTER & DIANE M. ALABASTER
D.B. 3319, PG. 141
D.B. 3626, PG. 259 (EASEMENT)

115

120

125

ISF BUS

2SBK BUS

TERRY CIR

EXISTING R/W

WEDGE PAVEMENT TO DRAIN LEFT. STA. 123+25 TO STA. 127+00 -L-

PROPOSED 4' CONC. SIDEWALK FROM CURB RAMP TO PEDESTAL SEE SHEET 2C-1, TYPE 3 FOR CURB RAMP DETAIL

5' MONOLITHIC CONC. ISLAND

SR 1007 (OWEN DR) 77' BST

-L-

S 18° 52' 28.9" E

-BL-#102

-BL-#103

445' TAPER

WEDGE PAVEMENT TO DRAIN RIGHT. STA. 119+00 TO STA. 121+85 -L-

SEE DETAIL SHEET 2C-1 TYPE 2 FOR CURB RAMP

SEE DETAIL SHEET 2C-1 TYPE 2 FOR CURB RAMPS ADJUST TO FIT FIELD CONDITIONS AS NEEDED.

REM. WCR REPL. WITH 15' C&G

RETROFIT EXISTING CURB RAMPS WITH TRUNCATED DOMES AS NEEDED AND AS DIRECTED BY THE ENGINEER

SANDHURST DR 32' BST

MELROSE RD 55' BST

PIN NO. 0426-08-0080
BIENVENIDO C. SIY-HIAN
D.B. 7984, PG. 244
P.B. 17, PG. 17

PIN NO. 0426-07-1842
EDOSA LOVE, LLC.
D.B. 8802, PG. 636
D.B. 3611, PG. 841(R/W)
P.B. 18, PG. 38

PIN NO. 0426-07-1389
HAROLD L. GODWIN & NINA P. GODWIN
D.B. 4422, PG. 625
P.B. 17, PG. 17

PIN NO. 0416-96-6493
CUMBERLAND COUNTY HOSPITAL SYSTEM, INC.
D.B. 7225, PG. 436
P.B. 64, PG. 64

TBM #2 EL=211.33'
NAIL IN PP

TBM #3 EL=209.02'
NAIL IN PP

4/27/2015
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bpeace

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5514	6
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER JAMES STANFORD GOODNIGHT, JR.

HYDRAULICS ENGINEER

DocuSigned by: Joshua G. Dalton 0B81ADBC1449...

NORTH CAROLINA PROFESSIONAL SEAL 26971 ENGINEER JOSHUA G. DALTON

4/27/2015

-L-
PI Sta 139+18.51
Δ = 22° 31' 06.4" (LT)
D = 2° 00' 37.4"
L = 1,120.11'
T = 567.38'
R = 2,850.00'
DS > 50 mph

MATCHLINE SHEET 5 -L- STA 127+00.00

MATCHLINE SHEET 7 -L- STA 141+00.00

WEDGE PAVEMENT TO DRAIN LEFT. STA. 127+00 TO STA. 128+21 -L-

WEDGE PAVEMENT TO DRAIN RIGHT. STA. 128+49 TO STA. 132+00 -L

150' TAPER

300' TAPER

PROPOSED 5" MONOLITHIC CONC. ISLAND

REMOVE EXISTING ISLAND

REMOVE EXISTING CONCRETE ISLAND

INSTALL DI ON EXISTING 24" PIPE

PC Sta. 133+51.13

REM WCR REPL WITH 10 FT C&G

POT Sta. 11+83.72

-L- POT Sta.135+48.55=
-Y2- POT Sta.10+00.00

N 75° 54' 15.0" E
-Y2-

-L- POT Sta.135+48.55=
-Y3- POT Sta.12+04.91

N 71° 16' 32.0" E
-Y3-

POT Sta. 10+00.00

-BL- # 104

-BL- # 105

TBM #4 EL=202.62'
NAIL IN PP

RETROFIT EXISTING CURB RAMPS WITH TRUNCATED DOMES AS NEEDED AND AS DIRECTED BY THE ENGINEER

SEE DETAIL SHEET 2C-1 TYPE 5 FOR CURB RAMPS AT VILLAGE DRIVE ADJUST TO FIT FIELD CONDITIONS AS NEEDED.

PIN NO. 0426-06-9514
HOLLAND AND CARVER REAL ESTATE INVESTMENTS, LLC.
D.B. 8947, PG. 240
P.B. 15, PG. 51

PIN NO. 0426-06-9437
PHILIP S. RIZZO & JANNA J. RIZZO
D.B. 8465, PG. 177
P.B. 84, PG. 51

PIN NO. 0426-06-9383
MGT NORTH CAROLINA, LLC.
D.B. 6968, PG. 556
P.B. 109, PG. 105

PIN NO. 0426-16-0071
FIRST CITIZENS BANK AND TRUST COMPANY
D.B. 2503, PG. 292
D.B. 4415, PG. 18
P.B. 25, PG. 60

PIN NO. 0426-06-6239
CUMBERLAND COUNTY HOSPITAL SYSTEM, INC.
D.B. 7225, PG. 436 (TRACT 38)

PIN NO. 0426-06-6230
CUMBERLAND COUNTY HOSPITAL SYSTEM, INC.
D.B. 7225, PG. 436 (TRACT 37)

PIN NO. 0416-96-6493
CUMBERLAND COUNTY HOSPITAL SYSTEM, INC.
D.B. 7225, PG. 436
P.B. 64, PG. 64

PIN NO. 0426-05-7446
BORDEAUX CENTER, INC.
D.B. 4880, PG. 490
P.B. 111, PG. 24
P.B. 21, PG. 2

130 135 140

SR 1007 (OWEN DR) 103' BST

SR 1007 (OWEN DR) VAR BST

VILLAGE DR 75' BST

EXISTING R/W

30' C&G 24" C&G 36" C&G

24" RCP 36" RCP 18" RCP 12" DIP 16" DIP 6" PVC

15" RCP-IV

DI 601 602 603 604 605 606 607 608

TB JB w/MH

6" STL 4" STL

CONC ISL

6' BLK WALL 8' BLK WALL 24" BLK WALL

2SBK BUS

OVERHEAD SIGN

4/27/2015
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bgrant

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5514	7
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER STANFORD GOODNIGHT JR.

HYDRAULICS ENGINEER

Joshua G. Dalton
1D8ABDBC1499425...

NORTH CAROLINA PROFESSIONAL SEAL 26971 ENGINEER JOSHUA G. DALTON

4/27/2015

-L-
PI Sta 139+18.50
△ = 22° 31' 06.4" (LT)
D = 2° 00' 37.4"
L = 1,120.11'
T = 567.38'
R = 2,850.00'
DS > 50 mph

MATCHLINE SHEET 6 -L- STA 141+00.00

MATCHLINE SHEET 8 -L- STA 155+00.00

145

150

155

PIN NO. 0426-15-5731
AROMA HOTELS, LLC.
D.B. 7479, PG. 582
P.B. 107, PG. 55

PIN NO. 0426-15-5315
V/D NEAL PROPERTIES, LLC.
D.B. 6426, PG. 49

PIN NO. 0426-15-7231
VENTURE LEASING, LLC.
D.B. 7874, PG. 374

PIN NO. 0426-15-8142
FRANCHISE REALTY INTERSTATE CORPORATION
D.B. 2499, PG. 199
P.B. 42, PG. 51

PIN NO. 0426-24-6687
RCP BRIARWOOD LLC. ET AL
D.B. 5349, PG. 306
P.B. 40, PG. 21

PT Sta. 144+71.24

POT Sta. 13+89.83

-L- POT Sta.147+49.80=
-Y4- POT Sta.12+11.26

-L- STA. 154+50, PROPOSED 60' OF 4' ENCASEMENT PIPE

PROPOSED REMOVAL OF EXISTING ASPHALT PAVEMENT

REM WCR REPL WITH 15 FT C&G

MTL CANOPY

WEDGE PAVEMENT TO DRAIN LEFT. STA. 148+34 TO STA. 151+30 -L-

300' TAPER

150' TAPER

BOONE TRL 68' BST

BRIAR CIR 32' BST

EXISTING R/W

REMOVE EXISTING CONC.ISLAND

REMOVE EXISTING ISLAND

PROPOSED 5" MONOLITHIC CONC.ISLAND

SR 1007 (OWEN DR) 96' BST

1'-6" CURB AND GUTTER 84'

1'-6" CURB AND GUTTER

REMOVE 15 FT. EXIST ISLAND

-BL- #106

-BL- #107

SEE DETAIL SHEET 2C-1 TYPE 2 FOR CURB RAMPS AT BOONE TRAIL ADJUST TO FIT FIELD CONDITIONS AS NEEDED.

RETROFIT EXISTING CURB RAMPS WITH TRUNCATED DOMES AS NEEDED AND AS DIRECTED BY THE ENGINEER

POT Sta. 10+00.00

N 34° 09' 23.1" E
-Y4-

PIN NO. 0426-05-7446
BORDEAUX CENTER, INC.
D.B. 4880, PG. 490
P.B. 111, PG. 24
P.B. 21, PG. 2

PIN NO. 0426-15-2280
HOLT REAL ESTATE ENTERPRISES, INC.
D.B. 9222, PG. 292
D.B. 4418, PG. 120

PIN NO. 0426-15-2061
RUBY TUESDAY, INC.
D.B. 6499, PG. 125
P.B. 111, PG. 24

PIN NO. 0426-14-5845
McMILLAN-SHULER OIL CO.
D.B. 723, PG. 260

PIN NO. 0426-14-6742
FREDA K. SANDERS
P.B. 21, PG. 59

SR 1149 (BOONE TRL) 82' BST

NATO RD 30' BST

4/27/2015
brandis
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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5514	8
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER STANFORD GOODNIGHT JR.

HYDRAULICS ENGINEER

Joshua G. Dalton
SEAL 26971 ENGINEER JOSHUA G. DALTON

4/23/2015

MATCHLINE SHEET 7 -L- STA 155+00.00

MATCHLINE SHEET 9 -L- STA 169+00.00

155 160 165

PIN NO. 0426-24-6687
RCP BRIARWOOD LLC, ET AL
D.B. 5349, PG. 306
P.B. 40, PG. 21

PROPOSED REMOVAL OF EXISTING ASPHALT PAVEMENT

PIN NO. 0426-24-7076
HENRY A. UNDERWOOD
D.B. 2266, PG. 15
P.B. 25, PG. 23

PIN NO. 0426-24-7011
EMMA DALE GRAHAM
D.B. 2101, PG. 453
P.B. 25, PG. 23

PIN NO. 0426-23-9819
HATTIE MAE W. McKINNON
D.B. 2303, PG. 507
P.B. 25, PG. 23

PIN NO. 0426-23-8846
RUTH B. WILLIAMS &
JOHNNIE O. WILLIAMS, SR.
D.B. 6721, PG. 308
P.B. 25, PG. 23

PIN NO. 0426-23-8801
DAVID F. FERRUZZI
D.B. 4456, PG. 638
P.B. 25, PG. 23

PIN NO. 0426-23-6958
DAVID F. FERRUZZI
D.B. 4456, PG. 641
P.B. 25, PG. 23

WEDGE PAVEMENT TO DRAIN RIGHT.
STA. 157+48 TO STA. 159+72 -L-

WEDGE PAVEMENT TO DRAIN LEFT.
STA. 160+35 TO STA. 163+35 -L-

-L- STA. 168+25 PROPOSED 50' OF 4" ENCASEMENT PIPE

150' TAPER

S 41° 23' 35.4" E

5' MONOLITHIC CONC. ISLAND

16" DIP

15" RCP-IV

TBJB W/MH 802

DI 801

-BL- #108

-BL- #109

-BL- #110

2" UNK

RETROFIT EXISTING CURB RAMPS WITH TRUNCATED DOMES AS NEEDED AND AS DIRECTED BY THE ENGINEER

PIN NO. 0426-23-4720
A&M REAL ESTATE DEVELOPMENT CO. LLC.
D.B. 7920, PG. 408
P.B. 94, PG. 9

PIN NO. 0426-23-3718
BORDEAUX PARK INVESTMENTS, LLC.
D.B. 6724, PG. 527
P.B. 1, PG. 147

PIN NO. 0426-23-8412
JAIN PROPERTIES, LLC.
D.B. 8347, PG. 509
P.B. 94, PG. 9

4/23/2015
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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5514	9
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER JUSTIN STAFFORD GOODNIGHT, JR.

HYDRAULICS ENGINEER

Digitally signed by JOSHUA G. DALTON
SEAL 26971 ENGINEER JOSHUA G. DALTON
4/23/2015

-L-
PI Sta 175+88.40
△ = 18° 17' 54.6" (LT)
D = 1° 56' 32.0"
L = 942.14'
T = 475.11'
R = 2,950.00'
DS > 50 mph

MATCHLINE SHEET 8 -L- STA 169+00.00

PC Sta. 171+13.29

PROPOSED REMOVAL OF EXISTING ASPHALT PAVEMENT

-L- STA. 181+00 PROPOSED 50' OF 4" ENCASEMENT PIPE

PT Sta. 180+55.43

MATCHLINE SHEET 10 -L- STA 183+00.00

170 175 180

PIN NO. 0426-33-3327
DEAN HAROLD SMELCER, JR.
D.B. 7979, PG. 769

PIN NO. 0426-33-3199
HAROLD SMELCER
D.B. 7344, PG. 1
P.B. 27, PG. 28

PIN NO. 0426-33-5079
DAL HYUN AHN & MYOUNG SUN AHN
D.B. 6209, PG. 777
P.B. 32, PG. 15

PIN NO. 0426-23-8412
JAIN PROPERTIES, LLC.
D.B. 8347, PG. 509
P.B. 94, PG. 9

PIN NO. 0426-23-8186
G. ODELL DALTON, JR. & LINDA DALTON
D.B. 4044, PG. 59

PIN NO. 0426-33-1070
CAPE FEAR PETROLEUM CORP.
D.B. 2295, PG. 387

PIN NO. 0426-32-8878
PAUL D. GOINS ET AL
D.B. 4587, PG. 239

PIN NO. 0426-32-4896
JAMES H. HARDIN & WIFE
D.B. 2773, PG. 90

PIN NO. 0426-32-4853
TLC PROPERTIES INC.
D.B. 7883, PG. 39

PIN NO. 0426-32-4890
CLARENCE W. GOINS
D.B. 2339, PG. 493

PIN NO. 0426-32-5718
BEATRICE G. ABERNATHY ET AL
D.B. 1428, PG. 24
P.B. 24, PG. 19

903 902 901 913 912 911 910 909 908 906 905 904

150' TAPER 400' TAPER

TB JB w/MH

TB 2GI

DI

15" RCP-IV 18" RCP 16" DIP

5' MONOLITHIC CONC. ISLAND

1'-6" CURB AND GUTTER

-BL- #III

RETROFIT EXISTING CURB RAMPS WITH TRUNCATED DOMES AS NEEDED AND AS DIRECTED BY THE ENGINEER

4/23/2015
W5514_rdy_psh_09.dgn
bgarris

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5514	10
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER JAMES STANFORD GOODNIGHT JR.

HYDRAULICS ENGINEER

Joshua G. Dalton
SEAL 26971 ENGINEER JOSHUA G. DALTON

4/27/2015

185

190

195

PROPOSED REMOVAL OF EXISTING ASPHALT PAVEMENT

BEGIN EXISTING BRIDGE -L- STA. 184+97.3

NOTE: ASPHALT OVERLAY TO BE REMOVED AND CONCRETE DECK SCARIFIED. REPLACE WITH 1.75" LATEX MODIFIED CONCRETE. SEE TYPICAL SECTION NO. 3, SHEET 2A-2 AND DETAIL ON SHEET 2A-3.

-L- STA. 191+35 PROPOSED 50' OF 4" ENCASEMENT PIPE

MATCHLINE SHEET 9 -L- STA 183+00.00

MATCHLINE SHEET 11 -L- STA 195+00.00

400' TAPER

400' TAPER

100' TAPER

EXISTING R/W

WOODS

MTL

30" C&G

12'

11'

CONC

36'

72'

-L-

S 59° 41' 29.9" E

76'

5" MONOLITHIC CONC. ISLAND

SR 1007 (OWEN DR) 74' BST

-BL- # 112

-BL- #113

200' MILLING, SEE DETAIL SHEET 2A-3

END EXISTING BRIDGE -L- STA. 186+54.8

465.86

END UNK

36" RCP

15" RCP

16" DIP

1'-6" CURB AND GUTTER

108'

REMOVE CB

REMOVE EST 10LF EXIST 15" RCP

REMOVE EXIST. GUARDRAIL

6" STL

PROPOSED CAT -1

8" PVC

150' TAPER

83', EXIST. R/W

CONVERT OTCB TO CB

PROP. 9"X18" CONC. CURB (TIE TO EXIST CURB -L- STA. 194+85)

BEGIN 2'-6" CONC. CURB & GUTTER

BEGIN 4" CONC. SIDEWALK -L- STA. 192+62

PIN NO. 0426-41-9941
NELSON FAMILY INVESTMENTS, LLC.
D.B. 8097, PG. 10
PLB. 10, PG. 60

1001

4/27/2015
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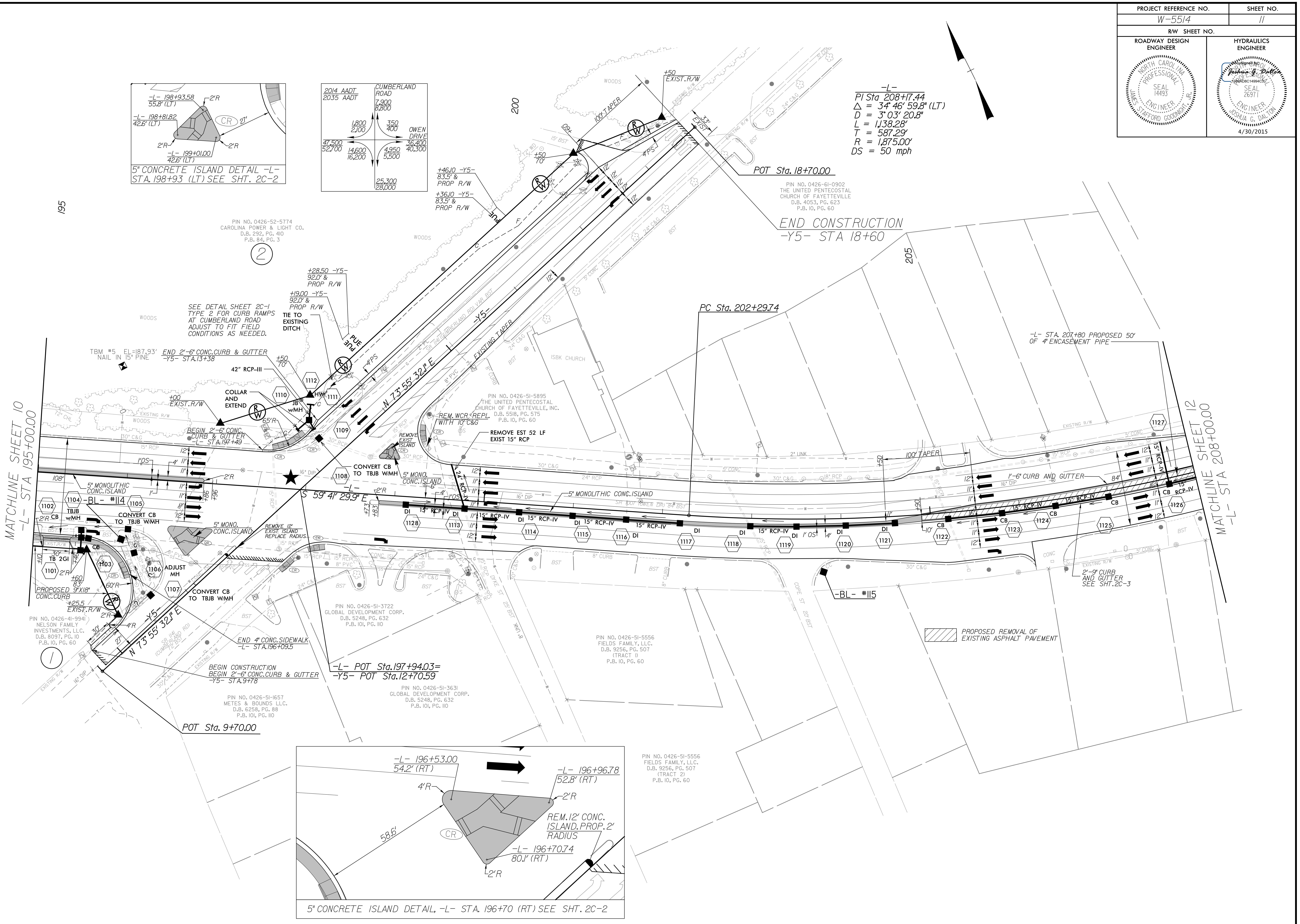
bgeise

PROJECT REFERENCE NO.	SHEET NO.
W-5514	11
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
SEAL 14493 JAMES STAFFORD GOODNIGHT, JR.	DocuSigned by: Joshua G. Dalton 1089AD8C14994C3... SEAL 26971 JOSHUA G. DALTON 4/30/2015



5/14/99

4/30/2015
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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5514	12
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER STANFORD GOODNIGHT JR.	Digitally signed by Joshua G. Dalton SEAL 26971 ENGINEER JOSHUA G. DALTON
	4/27/2015

-L-
PI Sta 208+17.44
Δ = 34° 46' 59.8" (LT)
D = 3° 03' 20.8"
L = 1,138.28'
T = 587.29'
R = 1,875.00'
DS = 50 mph

MATCHLINE SHEET 11
-L- STA 208+00.00

MATCHLINE SHEET 13
-L- STA 221+00.00

PIN NO. 0426-61-3822
UNITED PENTECOSTAL CHURH OF FAYETTEVILLE, INC.
D.B. 3803, PG. 740

PIN NO. 0426-61-8802
MOUNT CARMEL PENTECOSTAL HOLINESS CHURCH
D.B. 8889, PG. 614
(TRACT 1)

PIN NO. 0426-71-2507
MOUNT CARMEL PENTECOSTAL HOLINESS CHURCH
D.B. 7997, PG. 406
(TRACT 2)

2SBK CHURCH

CANNOT WEDGE IN THIS AREA AS ROAD IS IN FULL SUPER.

PT Sta. 213+68.02

-L- STA. 220+15 PROPOSED 50' OF 4" ENCASEMENT PIPE

TBM #6 EL=198.08'
NAIL IN 15" PINE

N 85° 31' 30.3" E -L-

150' TAPER

1'-6" CURB AND GUTTER

5" MONOLITHIC CONC. ISLAND

SR 1007 (OWEN DR) 44' BST

2'-9" CURB AND GUTTER SEE SHT.2C-3

-BL- #116

-BL- #117

PROPOSED REMOVAL OF EXISTING ASPHALT PAVEMENT

RETROFIT EXISTING CURB RAMPS WITH TRUNCATED DOMES AS NEEDED AND AS DIRECTED BY THE ENGINEER

PIN NO. 0426-61-2206
J.A. MARLEY & MARTHA P. MARLEY
D.B. 795, PG. 317
P.B. 15, PG. 41

PIN NO. 0426-61-5144
JOSEPH P. RIDDLE & TRINA T. RIDDLE
D.B. 8714, PG. 237

PIN NO. 0426-71-0243
MICHAEL R. WALKER
D.B. 7401, PG. 891

ISBK BUS

PIN NO. 0426-60-8911
OWEN STORAGE LLC.
D.B. 8307, PG. 714
P.B. 125, PG. 139

4/27/2015
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PROJECT REFERENCE NO.	SHEET NO.
W-5514	13
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER STANFORD GOODNIGHT JR.

HYDRAULICS ENGINEER

Docusigned by: Joshua G. Dalton 10DADBC14994C8...

NORTH CAROLINA PROFESSIONAL SEAL 26971 ENGINEER JOSHUA G. DALTON

4/23/2015

MATCHLINE SHEET 12 -L- STA 221+00.00

MATCHLINE SHEET 14 -L- STA 234+00.00

225

230

-L-
PI Sta 232+98.58
△ = 12° 14' 49.8" (LT)
D = 1° 28' 08.8"
L = 833.64'
T = 418.41'
R = 3,900.00'
DS > 50 mph

EXISTING R/W

PROPOSED REMOVAL OF EXISTING ASPHALT PAVEMENT

POT Sta. 14+57.84

FUTURE CAMDEN ROAD WIDENING CONSTRUCTED UNDER U-2810C (BY OTHERS)

-L- POC Sta.232+90.60=
-Y7- POT Sta.12+27.69

PC Sta. 228+79.76

PIN NO. 0426-71-8741
ERNEST M. NORTON, JR. & MARGIE W. NORTON
D.B. 8932, PG. 181
D.B. 8496, PG. 83
D.B. 4706, PG. 130
P.B. 94, PG. 161

PIN NO. 0426-71-6684
MARWILL INC.
D.B. 7679, PG. 2

WEDGE PAVEMENT TO DRAIN RIGHT.
STA. 223+00 TO STA. 224+32 -L-

-L- POT Sta.226+16.41=
-Y7- POT Sta.12+25.89

PIN NO. 0426-81-3627
TERRY L. ALLEN
D.B. 9341, PG. 628
P.B. 9, PG. 51

PIN NO. 0426-81-6753
PARKER INVESTMENTS USA LLC.
D.B. 8728, PG. 856
TRACT 1

PIN NO. 0426-81-6586
PARKER INVESTMENTS USA LLC.
D.B. 8728, PG. 856
TRACT 2

PIN NO. 0426-81-5846
PARKER INVESTMENTS USA LLC.
D.B. 8728, PG. 856
TRACT 2

+21
100' TAPER
8" CURB
BST
GR
30' C&G
LWCR
WCR
12'
11'
5" MONOLITHIC CONC. ISLAND
1'-6" CURB AND GUTTER
84'
10'
+76
3%
1' OS
2' R
4'
+80
+90
-L-
N 85° 31' 30.3" E
+98
+08
15" RCP-IV
DI
1301
1302
1303
1304
1305
+70
100' TAPER
30' RCP
30' BCP
END UNK
6" STL
12" AC
24" RCP
UNK SIZE & TYPE
WCR CONC
2' R
+36
+46
+55
TB JB wMH
1306
1307
1308
+77

-BL- #118

-BL- #119

-Y6-
N 42° 46' 10.1" E

-Y7-
N 32° 17' 10.0" E

POT Sta. 10+00.00

TBM #7 EL=197.97'
CHISELED X IN CONC PP BASE

PIN NO. 0426-71-6236
PAGE DISTRIBUTING CO. INC.
D.B. 3780, PG. 415

PIN NO. 0426-81-0346
BILLY C. WHITTENTON, JR
& LISA S. WHITTENTON
D.B. 8995 PG. 35
D.B. 5773. 21
P.B. 9, PG. 51
P.B. 11, PG. 27

PIN NO. 0426-81-8756
BILLY C. WHITTENTON, JR
& LISA S. WHITTENTON
D.B. 5773. 51
D.B. 8995 PG. 35
P.B. 9, PG. 51
P.B. 11, PG. 27

ISBLK BUS

PIN NO. 0426-81-1389
KAY FRANCES BREWINGTON
D.B. 7031, PG. 31 (TRACT 3)
P.B. 9, PG. 31

PIN NO. 0426-81-2464
KAY F. BREWINGTON
D.B. 8287, PG. 400
(TRACT 16)
P.B. 9, PG. 31

MTL CANOPY

A/C TANK

PIN NO. 0426-81-3351
JOHN H. WILLIAMS & ANNIE RUTH WILLIAMS
D.B. 110, PG. 289
P.B. 9, PG. 31

PIN NO. 0426-81-4471
BOBBY TAYLOR OIL CO.
D.B. 3213, PG. 672
D.B. 8932, PG. 745
P.B. 9, PG. 51

PIN NO. 0426-81-7292
US POSTAL SERVICES
D.B. 2852, PG. 389

PIN NO. 0426-71-9255
PAUL & EYDIE HAMMAKER
D.B. 8619, PG. 172
D.B. 9031, PG. 69
P.B. 11, PG. 25
P.B. 9, PG. 31

PIN NO. 0426-81-0286
PAUL & EYDIE HAMMAKER
D.B. 6378, PG. 81
D.B. 8619, PG. 172
P.B. 11, PG. 25
P.B. 9, PG. 31

FUTURE CAMDEN ROAD WIDENING CONSTRUCTED UNDER U-2810C (BY OTHERS)

FUTURE SOUTHERN AVENUE WIDENING CONSTRUCTED UNDER U-2809B (BY OTHERS)

4/23/2015
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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5514	14
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER STAFFORD GOODNIGHT JR.

HYDRAULICS ENGINEER

Joshua G. Dalton SEAL 26971 ENGINEER JOSHUA G. DALTON

4/23/2015

-L-
PI Sta 232+98.58
Δ = 12° 14' 49.8" (LT)
D = 1° 28' 08.8"
L = 833.64'
T = 418.41'
R = 3,900.00'
DS > 50 mph

-L-
PI Sta 246+02.70
Δ = 1° 58' 42.7" (RT)
D = 0° 17' 11.3"
L = 690.64'
T = 345.35'
R = 20,000.00'
DS > 50 mph

235 240 245

FUTURE SOUTHERN AVENUE WIDENING CONSTRUCTED UNDER U-2809B (BY OTHERS)

PT Sta. 237+13.40

TBM #8 EL=191.28' NAIL IN 42" OAK

POT Sta. 14+14.65

-L- STA. 241+30 PROPOSED 60' OF 4" ENCASEMENT PIPE.

PROPOSED REMOVAL OF EXISTING ASPHALT PAVEMENT

RETROFIT EXISTING CURB RAMPS WITH TRUNCATED DOMES AS NEEDED AND AS DIRECTED BY THE ENGINEER

WEDGE PAVEMENT TO DRAIN LEFT. STA. 245+78 TO STA. 248+48 -L-

MATCHLINE SHEET 13 -L- STA 234+00.00

MATCHLINE SHEET 15 -L- STA 248+00.00

1401 1402 1403 1404 1405 1406 1407 1408

5" MONOLITHIC CONC. ISLAND

1'-6" CURB AND GUTTER

N 73° 16' 40.5" E

SR 1007 (OWEN DR) 84' BST

100' TAPER

-BL- #120

-BL- #121

75' TRANSITION

PC Sta. 242+56.93

PIN NO. 0426-81-9477
WILCOHESS LLC
D.B. 6736, PG. 97
P.B. 113, PG. 39

4/23/2015
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bgrass

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5514	15
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER STANFORD GOODNIGHT JR.

HYDRAULICS ENGINEER

Digitally signed by Joshua G. Dalton
DN: cn=Joshua G. Dalton, o=NCDOT, ou=Hydraulics, email=jgdalton@ncdot.gov, c=US
Date: 2015.04.27 08:14:04 -04'00'

NORTH CAROLINA PROFESSIONAL SEAL 26971 ENGINEER JOSHUA G. DALTON

4/27/2015

MATCHLINE SHEET 14
-L- STA 248+00.00

-L-
PI Sta 246+02.70
Δ = 1° 58' 42.7" (RT)
D = 0° 17' 11.3"
L = 690.64'
T = 345.35'
R = 20,000.00'
DS > 50 mph

250 255 260

WEDGE PAVEMENT TO DRAIN RIGHT. STA. 248+50 TO STA. 252+50 -L-

WEDGE PAVEMENT TO DRAIN RIGHT. STA. 253+37 TO STA. 258+57 -L-

PIN NO. 0436-02-6228
CUMBERLAND HOLDINGS LLC.
D.B. 7614, PG. 878

PIN NO. 0436-02-7361
CUMBERLAND HOLDINGS LLC.
D.B. 7614, PG. 878

PIN NO. 0436-02-9316
FAYE J. CLIFTON
D.B. 3833, PG. 227
P.B. 204, PG. 43

PIN NO. 0436-02-9397
R. WAYNE PETERS & JUDE R. PETERS
D.B. 6515, PG. 47
P.B. 129, PG. 18

PIN NO. 0436-12-1424
MM FOWLER, INC.
D.B. 3583, PG. 317
P.B. 129, PG. 18

DALLAS ST

ISF BUS

5' MONOLITHIC CONC. ISLAND

-L-

N 75° 15' 23.2" E

SR 1007 (OWEN DR) 95' BST

-BL- #122

-BL- #123

REM. WCR
REPL. W/15FT C&G

PT Sta. 249+47.57

100' TAPER

AVON DALE ST 18' GR

POT Sta. 14+10.64

-L- POT Sta. 259+70.41=
-Y8- POT Sta. 12+22.70

RETROFIT EXISTING CURB RAMPS WITH TRUNCATED DOMES AS NEEDED AND AS DIRECTED BY THE ENGINEER

POT Sta. 260+55.13

MTL CANOPY

PROP. CONC. SIDEWALK

PROP. CURB RAMP -Y8 STA. 13+18+/-

PROPOSED 5' MONOLITHIC CONC. ISLAND

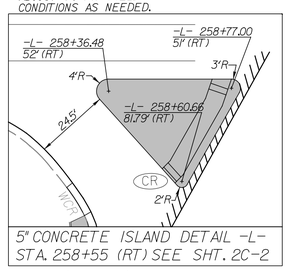
POT Sta. 10+00.00

TBM #9 EL=199.07'
BOLT ON CONC PP BASE

-Y8- N 14° 52' 02.8" E

END TIP PROJECT W-5514
-L- STA. 259+11

SEE DETAIL SHEET 2C-1
TYPE 2 FOR CURB RAMPS
AT US 301
ADJUST TO FIT FIELD
CONDITIONS AS NEEDED.



5' CONCRETE ISLAND DETAIL -L- STA. 258+55 (RT) SEE SHT. 2C-2

4/27/2015
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