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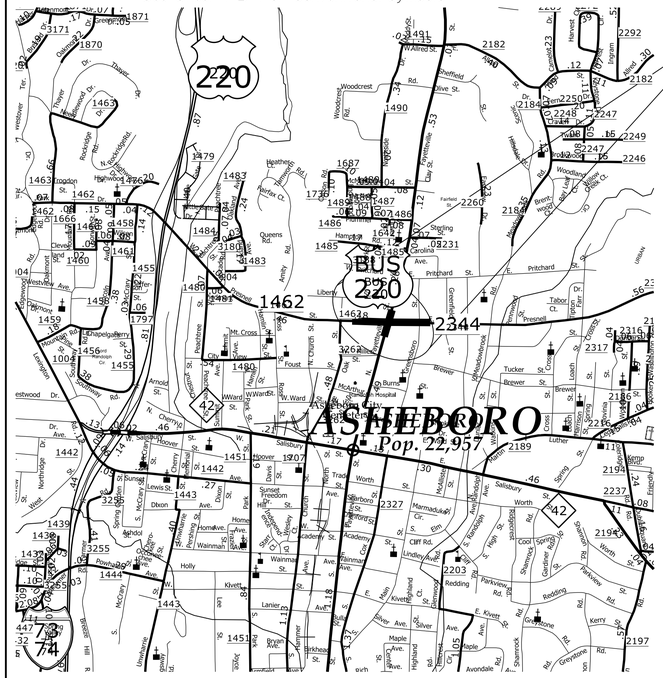
WBS ELEMENT U-5758 PROJECT: US 220 BUS @ SR 1462 (PRESNELL ST)

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



VICINITY MAP

PROJECT LOCATION

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

RANDOLPH COUNTY

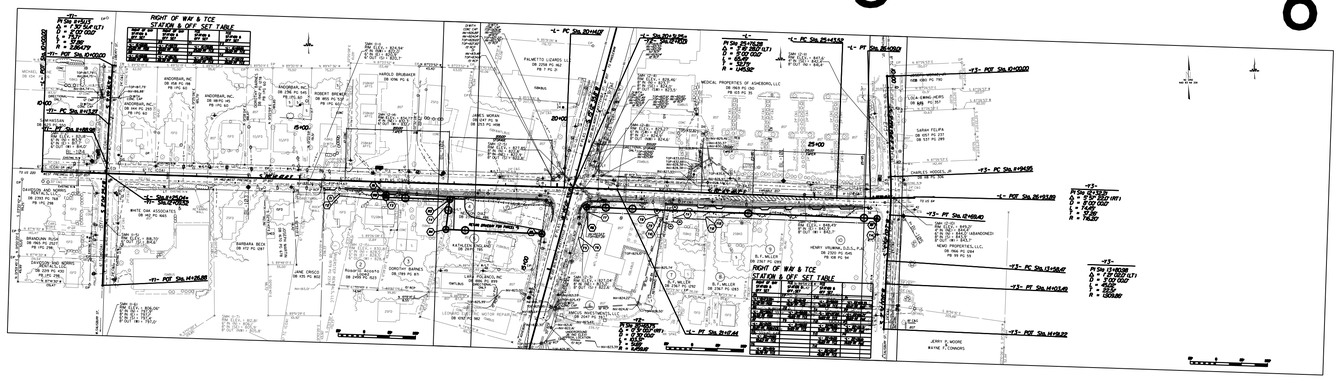
STATE	PROJECT REFFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5758	1	

WBS ELEMENT	F.A. PROJ. NO.	DESCRIPTION
50172.1.1		PE
50172.2.1		R/W
50172.3.1		CONST.

LOCATION: ON US 220 BUS (N. FAYETTEVILLE ST.) AT THE INTERSECTION OF SR 1462 (W. PRESNELL ST.) & SR 2344 (E. PRESNELL ST.) IN ASHEBORO.

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNAL, PAVEMENT MARKINGS & MARKERS, AND EROSION CONTROL

4 5 6



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

PLANS 0

PROFILE (HORIZONTAL) 0

PROFILE (VERTICAL) 0

DESIGN DATA

ADT ???? = ????
ADT ???? = ????
DHV = 2.4 %
D = ? %
T = ? % *
V = ?? MPH

* TTST DUAL

Prepared In the Office of:
DIVISION OF HIGHWAYS
DIVISION 8 DESIGN & CONSTRUCT UNIT
902 N. SANDHILLS BLVD.
ABERDEEN NC 28315
PLANS PREPARED BY: MRT

PROJECT LENGTH
ROADWAY: 0.2 MILES
STRUCTURE: ____ MILES
TOTAL: 0.2 MILES

DIVISION OF HIGHWAYS

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION ·

DIVISION DESIGN & CONSTRUCT ENGINEER

DocuSigned by: Greg S Davis 6/17/2017 *P.E.*
SIGNATURE:

DIVISION DESIGN & CONSTRUCT ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

PROJECT REFERENCE NO.	SHEET NO.
U-5758	1-A

DocuSigned by: Greg S Davis 33D47B5FD78F4A8...

SEAL 26930 NORTH CAROLINA PROFESSIONAL ENGINEER GREG S. DAVIS

6/17/2017

DIVISION DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

INDEX OF SHEETS

GENERAL NOTES

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 THE PROPER TIE-IN.

CLEARING

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

SHOULDER CONSTRUCTION:

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

UTILITIES

ANY RELOCATION OF EXISTING UTILITIES,
WILL BE ACCOMPLISHED BY OTHERS PRIOR TO THE DATE OF AVAILABILITY.

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 17, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
200.03	Method of Clearing – Method III
225.02	Guide for Grading Subgrade – Seconary and Local
225.04	Method of Obtaining Superelevation – Two Lane Pavement
225.04	Method of Obtaining Superelevation – Two Lane Pavement
300.01	Method of Pipe Installation
560.01	Method of Shoulder Construction – High Side of Superelevated Curve – Method I
560.02	Method of Shoulder Construction – High Side of Superelevated Curve – Method II
654.01	Pavement Repairs
840.02	Concrete Catch Basin – 12" thru 54" Pipe
840.03	Frame, Grates and Hood
840.25	Anchorage for Frames – Brick, Concrete, or Precast
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter
848.01	Concrete Sidewalk
848.03	Driveway Turnout – Drop Curb Type
848.05	Curb Ramp – Proposed Curb and Gutter
848.06	Curb Ramp – Existing Curb and Gutter

04/06/15

PROJECT REFERENCE NO.	SHEET NO.
U-5758	1-B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale **S.U.E. = Subsurface Utility Engineering*

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
- Existing Historic Property Boundary — HPB
- Known Contamination Area: Soil
- Potential Contamination Area: Soil
- Known Contamination Area: Water
- Potential Contamination Area: Water
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

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

RIGHT OF WAY:

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

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

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

MINOR:

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

UTILITIES:

POWER:

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

TELEPHONE:

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

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line LOS B (S.U.E*) — W
- U/G Water Line LOS C (S.U.E*) — W
- U/G Water Line LOS D (S.U.E*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- U/G TV Cable LOS B (S.U.E.*) — TV
- U/G TV Cable LOS C (S.U.E.*) — TV
- U/G TV Cable LOS D (S.U.E.*) — TV
- U/G Fiber Optic Cable LOS B (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS C (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS D (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line LOS B (S.U.E.*) — G
- U/G Gas Line LOS C (S.U.E.*) — G
- U/G Gas Line LOS D (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
- SS Forced Main Line LOS B (S.U.E.*) — FSS
- SS Forced Main Line LOS C (S.U.E.*) — FSS
- SS Forced Main Line LOS D (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line LOS B (S.U.E.*) — ?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 LOS A (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

PROJECT REFERENCE NO.	SHEET NO.
U-5758	1-C
R/W SHEET NO.	____

DocuSigned by:
Greg S Davis
33D47B5FD78F4A8...

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

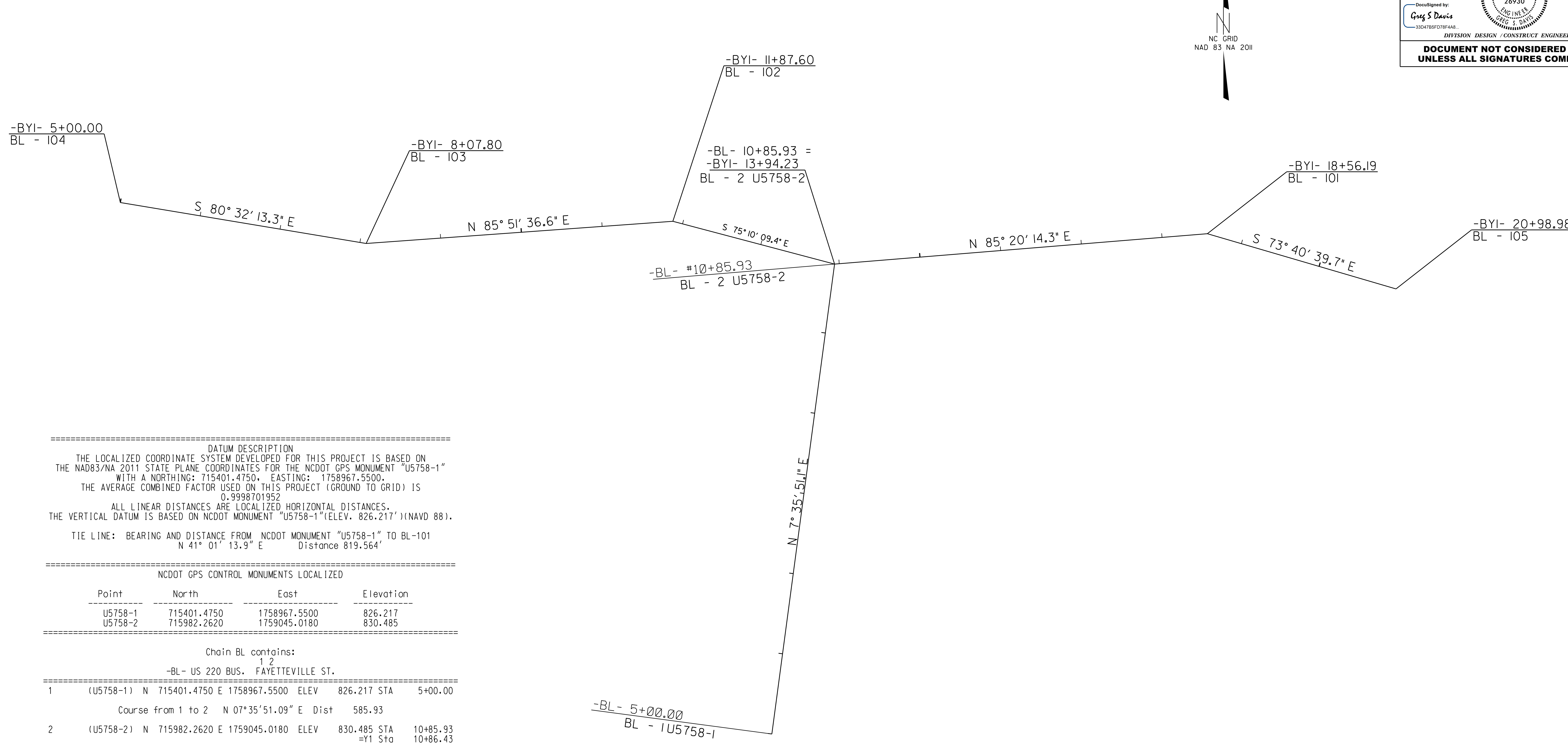
6/17/2017

DIVISION DESIGN / CONSTRUCT ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

SURVEY CONTROL SHEET U-5758



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE NAD83/NA 2011 STATE PLANE COORDINATES FOR THE NCDOT GPS MONUMENT "U5758-1" WITH A NORTHING: 715401.4750, EASTING: 1758967.5500.
THE AVERAGE COMBINED FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS 0.9998701952
ALL LINEAR DISTANCES ARE LOCALIZED HORIZONTAL DISTANCES.
THE VERTICAL DATUM IS BASED ON NCDOT MONUMENT "U5758-1"(ELEV. 826.217')(NAVD 88).

TIE LINE: BEARING AND DISTANCE FROM NCDOT MONUMENT "U5758-1" TO BL-101
N 41° 01' 13.9" E Distance 819.564'

NCDOT GPS CONTROL MONUMENTS LOCALIZED

Point	North	East	Elevation
U5758-1	715401.4750	1758967.5500	826.217
U5758-2	715982.2620	1759045.0180	830.485

Chain BL contains:
1 2
-BL- US 220 BUS. FAYETTEVILLE ST.

1 (U5758-1) N 715401.4750 E 1758967.5500 ELEV 826.217 STA 5+00.00

Course from 1 to 2 N 07°35'51.09" E Dist 585.93

2 (U5758-2) N 715982.2620 E 1759045.0180 ELEV 830.485 STA 10+85.93
=Y1 Sta 10+86.43

Chain BY1 contains:
104 103 102 E2 101 105

-BY1- SR 1462 PRESNELL ST.

104 (BY1-104) N 716058.3390 E 1758162.8530 ELEV 821.08 Sta 5+00.00

Course from 104 to 103 S 80° 32' 13.33" E Dist 307.7975

103 (BY1-103) N 716007.7340 E 1758466.4620 ELEV 825.94 Sta 8+07.80

Course from 103 to 102 N 85° 51' 36.65" E Dist 379.8000

102 (BY1-102) N 716035.1520 E 1758845.2710 ELEV 838.03 Sta 11+87.60

Course from 102 to E2 S 75° 10' 09.43" E Dist 206.6306

2 (U5758-2) N 715982.2620 E 1759045.0180 ELEV 830.485 Sta 13+94.23

Course from E2 to 101 N 85° 20' 14.27" E Dist 461.9649

101 (BY1-101) N 716019.8150 E 1759505.4540 ELEV 846.65 Sta 18+56.19

Course from 101 to 105 S 73° 40' 39.72" E Dist 242.7873

105 (BY1-105) N 715951.5820 E 1759738.4560 ELEV 849.87 Sta 20+98.98

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "U5728-1"
WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 715401.4750(ft) EASTING: 1758967.5500(ft)
ELEVATION: 826.217(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998701952
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "U5728-1" TO -L- Sta. 20+14.07 IS S 10° 30' 20" W 615.93'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

NOT TO SCAL

PROJECT REFERENCE NO.	SHEET NO.
U-5758	2
R/W SHEET NO.	
DIVISION DESIGN ENGINEER	HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by: Greg S Davis 6/17/2017

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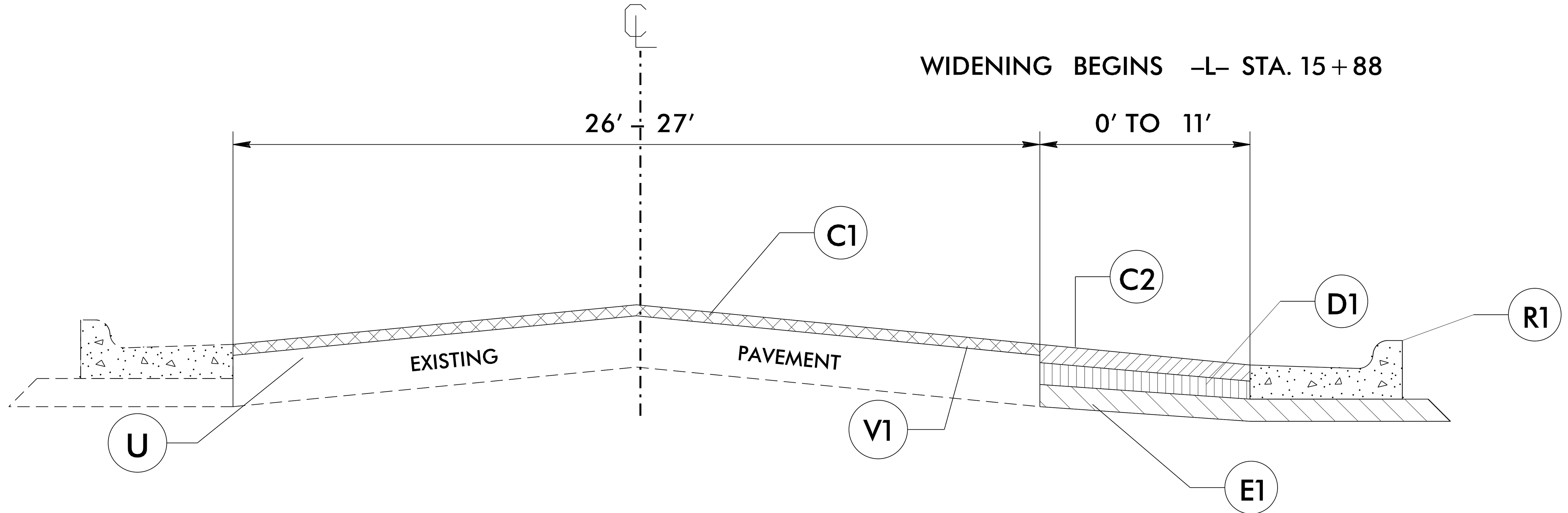
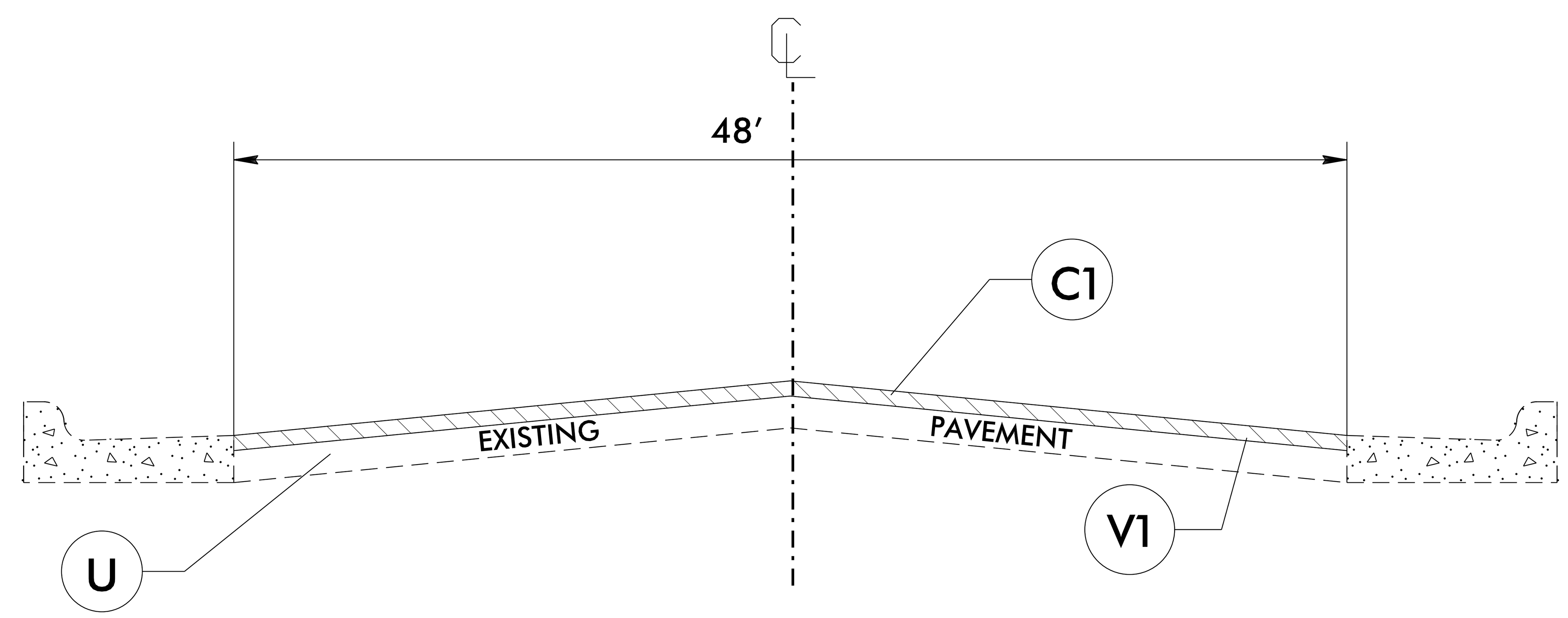
REVISIONS



TYPICAL SECTION NO. 1

USE TYPICAL NO. 1
FROM -L- STA. 15+43.00 TO STA. 19+98.21
AND -L- STA. 20+47.17 TO STA. 26+18.00



TYPICAL SECTION NO. 2

USE TYPICAL NO. 2
FROM -Y2- STA. 15+75.00 TO STA. 17+10

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 3.0″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, PLACED IN 2 LIFTS AT AN AVERAGE RATE OF 168 LBS PER SQ. YD.
D1	PROP. APPROX. 4″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E1	PROP. APPROX. 4″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
R1	2′ - 6″ CURB AND GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT.
V1	MILLING 1.5″ IN DEPTH

PROJECT NO.	SHEET NO.	TOTAL NO.
50172.3.1 (U-5758)	3	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH MI	WIDTH FT	GRADING LS	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES TON	FOUNDATION CONDITIONING GEOTEXTILE SY	15" RC PIPE CULVERT, CLASS IV LF	INCIDENTAL STONE BASE TONS	1.5" MILLING SY	BASE COURSE, B25.0B TONS	INTERMEDIATE COURSE, I19.0B TONS	SURFACE COURSE, S9.5B TONS	ASPHALT BINDER FOR PLANT MIX TONS	AC PLANT MIX (REPAIR) TONS	PIPE COLLAR CY	MASONRY DRAINAGE STRUCTURE EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE "G": EA	2'-6" CURB & GUTTER LF	4" CONCRETE SIDEWALK SY
50172.3.1 (U-5758)	Randolph	1	SR 1462/2344 (PRESNELL ST)	-L- STA. 15+43 T0 26+18	1,2	2	2WU	0.204	24-48	1	22	70	206	100	4,100	300	220	525	55	100	0.4465	4	4	795	15
TOTAL FOR MAP NO. 1								**0.204**		**1**	**22**	**70**	**206**	**100**	**4,100**	**300**	**220**	**525**	**55**	**100**	**0.4465**	**4**	**4**	**795**	**15**
TOTAL FOR PROJ NO. 50172.3.1 (U-5758)								**0.204**		**1**	**22**	**70**	**206**	**100**	**4,100**	**300**	**220**	**525**	**55**	**100**	**0.4465**	**4**	**4**	**795**	**15**
GRAND TOTAL								**0.204**		**1**	**22**	**70**	**206**	**100**	**4,100**	**300**	**220**	**525**	**55**	**100**	**0.4465**	**4**	**4**	**795**	**15**

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH MI	WIDTH FT	CONCRETE CURB RAMP EA	6" CONCRETE DRIVEWAYS SY	ADJUST CATCH BASIN EA	ADJUST MANHOLES EA	ADJUST METER OR VALVE BOX EA	PORTABLE LIGHTING LS	TEMPORARY SILT FENCE LF	SEDIMENT CONTROL STONE TON	TEMPORARY MULCHING ACR	MATTING (EROSION CONTROL) SY	1/4" HARDWARE CLOTH LF	SEED & MULCHING AC	GENERIC EROSION CONTROL ITEM - CONCRETE WASHOUT STRUCTURE EA	GENERIC EROSION CONTROL ITEM - FABRIC INLET PROTECTION DEVICE EA
50172.3.1 (U-5758)	Randolph	1	SR 1462/2344 (PRESNELL ST)	-L- STA. 15+43 T0 26+18	1,2	2	2WU	0.204	24-48	6	170	1	3	6	1	475	25	0.40	720	20	0.40	1	5
TOTAL FOR MAP NO. 1								**0.204**		**6**	**170**	**1**	**3**	**6**	**1**	**475**	**25**	**0.40**	**720**	**20**	**0.40**	**1**	**5**
TOTAL FOR PROJ NO. 50172.3.1 (U-5758)								**0.204**		**6**	**170**	**1**	**3**	**6**	**1**	**475**	**25**	**0.40**	**720**	**20**	**0.40**	**1**	**5**
GRAND TOTAL								**0.204**		**6**	**170**	**1**	**3**	**6**	**1**	**475**	**25**	**0.40**	**720**	**20**	**0.40**	**1**	**5**

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH MI	WIDTH FT	GENERIC EROSION CONTROL ITEM - FABRIC INLET PROTECTION DEVICE CLEANOUT EA	PEDESTRIAN SIGNAL HEAD (16", 1 SECTION W/COUNTDOWN) EA	SIGNAL CABLE LF	VEHICLE SIGNAL HEAD (12", 3 SECTION) EA	VEHICLE SIGNAL HEAD (12", 4 SECTION) EA	VEHICLE SIGNAL HEAD (12", 5 SECTION) EA	MESSENGER CABLE (1/4") LF	MESSENGER CABLE (3/8") LF	TRACER WIRE LF	PAVED TRENCHING (1 CONDUIT, 2 INCH) LF	UNPAVED TRENCHING (1 CONDUIT, 2 INCH) LF	JUNCTION BOX (STANDARD SIZE) EA	JUNCTION BOX (OVER-SIZED, HEAVY DUTY)) EA	WOOD POLE EA	GUY ASSEMBLY EA	1/2" RISER WITH WEATHERHEAD EA
50172.3.1 (U-5758)	Randolph	1	SR 1462/2344 (PRESNELL ST)	-L- STA. 15+43 T0 26+18	1,2	2	2WU	0.204	24-48	15	8	3,275	6	4	1	175	250	45	40	280	3	1	2	6	5
TOTAL FOR MAP NO. 1								**0.204**		**15**	**8**	**3,275**	**6**	**4**	**1**	**175**	**250**	**45**	**40**	**280**	**3**	**1**	**2**	**6**	**5**
TOTAL FOR PROJ NO. 50172.3.1 (U-5758)								**0.204**		**15**	**8**	**3,275**	**6**	**4**	**1**	**175**	**250**	**45**	**40**	**280**	**3**	**1**	**2**	**6**	**5**
GRAND TOTAL								**0.204**		**15**	**8**	**3,275**	**6**	**4**	**1**	**175**	**250**	**45**	**40**	**280**	**3**	**1**	**2**	**6**	**5**

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH MI	WIDTH FT	1" RISER WITH WEATHERHEAD EA	2" RISER WITH WEATHERHEAD EA	2" RISER WITH HEAT SHRINK TUBING EA	INDUCTIVE LOOP SAWCUT LF	LEAD-IN CABLE (14-2 PAIR) LF	COMMUNICATION CABLE (12 FIBER) LF	SPLICE ENCLOSURE EA	INTERCONNECT CENTER EA	FIBER-OPTIC TRANSCEIVER, DROP & REPEAT EA	TYPE I POST WITH FOUNDATION EA	TYPE II PEDESTAL WITH FOUNDATION EA	SIGNAL CABINET FOUNDATION EA	CONTROLLER WITH CABINET (TYPE 2070L, BASE MOUNTED) EA	DETECTOR CARD (TYPE 2070L) EA	CABINET BASE EXTENDER EA	GENERIC SIGNAL ITEM - "BACK PULL FIBER OPTIC CABLE" LF
50172.3.1 (U-5758)	Randolph	1	SR 1462/2344 (PRESNELL ST)	-L- STA. 15+43 T0 26+18	1,2	2	2WU	0.204	24-48	1	2	1	1,000	3,125	420	1	1	1	2	4	1	1	9	1	380
TOTAL FOR MAP NO. 1								**0.204**		**1**	**2**	**1**	**1,000**	**3,125**	**420**	**1**	**1**	**1**	**2**	**4**	**1**	**1**	**9**	**1**	**380**
TOTAL FOR PROJ NO. 50172.3.1 (U-5758)								**0.204**		**1**	**2**	**1**	**1,000**	**3,125**	**420**	**1**	**1**	**1**	**2**	**4**	**1**	**1**	**9**	**1**	**380**
GRAND TOTAL								**0.204**		**1**	**2**	**1**	**1,000**	**3,125**	**420**	**1**	**1**	**1**	**2**	**4**	**1**	**1**	**9**	**1**	**380**

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH MI	WIDTH FT	4399000000-N TEMPORARY TRAFFIC CONTROL LS	4510000000-N LAW ENFORCEMENT HR	4686000000-E 4" X 120 M WHITE THERMO LF	4686000000-E 4" X 120 M YELLOW THERMO LF	4695000000-E 8" X 90 M YELLOW THERMO LF	4697000000-E 8" X 120 M WHITE THERMO LF	4710000000-E 24" X 120 M WHITE THERMO LF	4725000000-E THERMO LT ARROW 90 M EA	4725000000-E THERMO STR & RT ARROW 90 M EA	4725000000-E THERMO RT ARROW 90 M EA	4810000000-E 4" WHITE PAINT LF	4810000000-E 4" YELLOW PAINT LF	4820000000-E 8" WHITE PAINT LF	4820000000-E 8" YELLOW PAINT LF	4835000000-E 24" WHITE PAINT LF	4845000000-N PAINT LT ARROW EA	4845000000-N PAINT STR & RT ARROW EA	4845000000-N PAINT RT ARROW EA	4900000000-N CRYSTAL & RED MARKERS EA	4900000000-N YELLOW & YELLOW MARKERS EA
50172.3.1 (U-5758)	Randolph	1	SR 1462/2344 (PRESNELL ST)	-L- STA. 15+43 T0 26+18	1,2	2	2WU	0.204	24	1	80	650	2,540	80	405	100	4	4	1	650	2,540	405	80	100	4	4	1	25	32
TOTAL FOR MAP NO. 1								**0.204**		**1**	**80**	**650**	**2,540**	**80**	**405**	**100**	**4**	**4**	**1**	**650**	**2,540**	**405**	**80**	**100**	**4**	**4**	**1**	**25**	**32**
TOTAL FOR PROJ NO. 50172.3.1 (U-5758)								**0.204**		**1**	**80**	**650**	**2,540**	**80**	**405**	**100**	**4**	**4**	**1**	**650**	**2,540**	**405**	**80**	**100**	**4**	**4**	**1**	**25**	**32**
												3,190					**9**			**3,190**		**485**			**9**			**57**	
GRAND TOTAL								**0.204**		**1**	**80**	**650**	**2,540**	**80**	**405**	**100**	**4**	**4**	**1**	**650**	**2,540**	**405**	**80**	**100**	**4**	**4**	**1**	**25**	**32**
												3,190					**9**			**3,190**		**485**			**9**			**57**	

COMPUTED BY: DDC DATE: 5/8/17
CHECKED BY: GSD DATE: 5/11/17

PROJECT NO.	SHEET NO.
U-5758	3-A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L- STA. 16+00	-L- STA.19+80	471	0		471
-L- STA. 20+60	-L- STA.26+00	679	0		679
GRAND TOTALS:		1150			1150
SAY:		**1125**			1150

Contingency Undercut = 400 CY

CONCRETE REMOVAL SUMMARY

IN SQUARE YARDS

SURVEY LINE	Station	Station	LOCATION LT/RT/CL	CONCRETE REMOVAL
-L-	15+72	19+98	RT	129.75
-L-	20+43	26+06	RT	159.25
-L-	20+83	20+96	LT	3.03
-L-	21+53	22+00	LT	11.03
		TOTAL:		303.06
		SAY:		305

PAVEMENT REMOVAL SUMMARY

IN SQUARE YARDS

SURVEY LINE	Station	Station	LOCATION LT/RT/CL	ASPHALT REMOVAL
-L-	18+00	18+23	RT	22.5
-L-	21+08	23+23	RT	142.47
		TOTAL:		164.97
		SAY:		165

COMPUTED BY: DDC DATE: 6/13/2016

CHECKED BY: GSD / WGC DATE: 6/17/2016

PROJECT NO.	SHEET NO.
U-5758	3-B

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.
See "Standard Specifications For Roads and Structures, Section 300-5".

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

STATION / SIZE / THICKNESS OR GAUGE	LOCATION (LT, RT, OR CL)'	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	C.S. PIPE 12" .064	15" .064	18" .064	24" .064	30" .079	36" .079	42" .109	48" .109	R.C. PIPE CLASS III 12"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS IV 12"	15"	18"	24"	30"	36"	42"	48"	** " 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 R.C.P.	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'	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	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME WITH TWO GRATES 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. 840.24	J.B. STD. 840.31 OR 840.32	G.D.I. FRAME (N.S. FLAT) W/2 GRATES STD. 840.29	T.B.D.I. STD. 840.35	15" DRAINAGE PIPE ELBOW		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
-L-																																																																														
15+44	RT	401		824.6																																																																									ADJUST CB
15+96	RT	401	402		820.4	823.9																															52																																									
	RT	402		826.9																																															1						1																						
20+66	RT	501																																																																													REMOVE CB, COLLAR AND EXTEND
	RT	501	502		823.63	823.8																															8																																							0.4465		"
20+70	RT	502		827.3																																															1						1																						
		502	503		823.8	825.1																															30																																									
21+03	RT	503		828.1																																															1						1																						
	RT	503	504		825.1	830.9																															116																																									
22+21	RT	504		833.9																																															1						1																						
SHEET TOTALS																																					206														4						4																			0.4465		

ABBREVIATIONS

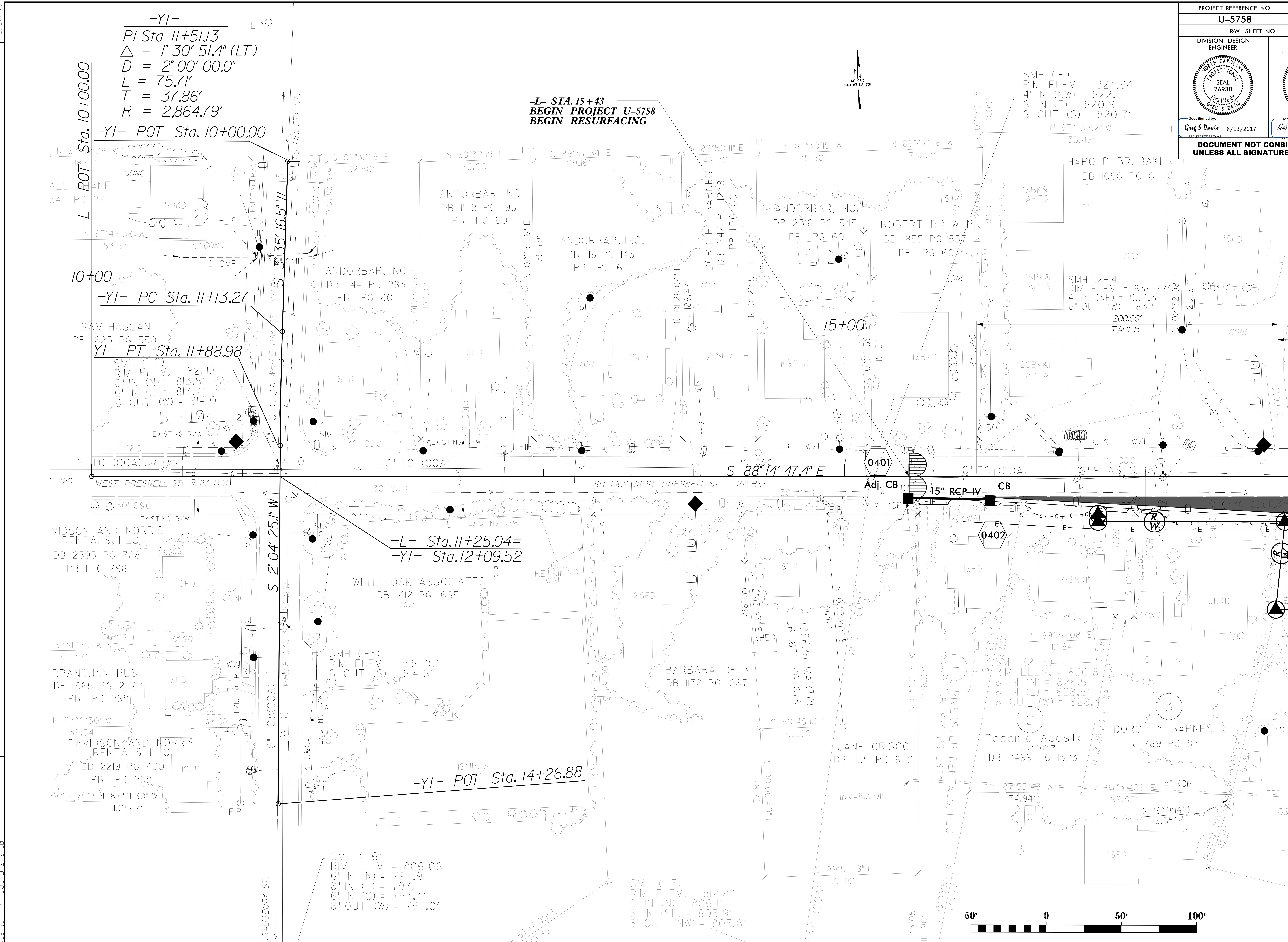
C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I.(N.S.)	(NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX

PROJECT REFERENCE NO.	SHEET NO.
U-5758	4

R/W SHEET NO.

DIVISION DESIGN ENGINEER	HYDRAULICS ENGINEER
SEAL 26930 — Greg S Davis 6/13/2017	SEAL 022000 — Galen Cail 6/15/2017

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



-Y1-
PI Sta 11+51.13
△ = 1° 30′ 51.4″ (LT)
D = 2° 00′ 00.0″
L = 75.71′
T = 37.86′
R = 2,864.79′
-L- POT Sta. 10+00.00
-Y1- POT Sta. 10+00.00
-Y1- PC Sta. 11+13.27
-Y1- PT Sta. 11+88.98
-L- STA. 15+43
BEGIN PROJECT U-5758
BEGIN RESURFACING
-L- Sta. 11+25.04=
-Y1- Sta. 12+09.52
-Y1- POT Sta. 14+26.88
S 88° 14′ 47.4″ E
SR 1462 WEST PRESNELL ST 27′ BST
S 3° 35′ 16.5″ W
S 2° 04′ 25.1″ W
W. SALISBURY ST.
TO LIBERTY ST.
0401
0402
Adj. CB
15″ RCP-IV
CB
200.00′ TAPER
MATCH LINE -L- 18+00
SEE SHEET 5
SMH (1-1) RIM ELEV. = 824.94′ 4″ IN (NW) = 822.0′ 6″ IN (E) = 820.9′ 6″ OUT (S) = 820.7′
SMH (1-2) RIM ELEV. = 821.18′ 6″ IN (N) = 813.9′ 6″ IN (E) = 817.7′ 6″ OUT (W) = 814.0′
SMH (1-5) RIM ELEV. = 818.70′ 6″ OUT (S) = 814.6′
SMH (1-6) RIM ELEV. = 806.06″ 6″ IN (N) = 797.9″ 8″ IN (E) = 797.1″ 6″ IN (S) = 797.4′ 8″ OUT (W) = 797.0′
SMH (1-7) RIM ELEV. = 812.81′ 6″ IN (N) = 806.1′ 8″ IN (SE) = 805.9′ 8″ OUT (NW) = 805.8′
SMH (2-14) RIM ELEV. = 834.77′ 4″ IN (NE) = 832.3′ 6″ OUT (W) = 832.1′
SMH (2-15) RIM ELEV. = 830.81′ 6″ IN (N) = 828.5′ 6″ IN (E) = 828.5′ 6″ OUT (W) = 828.4′
ANDORBAR, INC. DB 1158 PG 198 PB 1 PG 60
ANDORBAR, INC. DB 1181 PG 145 PB 1 PG 60
ANDORBAR, INC. DB 1144 PG 293 PB 1 PG 60
ANDORBAR, INC. DB 2316 PG 545 PB 1 PG 60
DOROTHY BARNES DB 1942 PG 1278 PB 1 PG 60
ROBERT BREWER DB 1855 PG 537 PB 1 PG 60
HAROLD BRUBAKER DB 1096 PG 6
SAMI HASSAN DB 1623 PG 550
DAVIDSON AND NORRIS RENTALS, LLC DB 2393 PG 768 PB 1 PG 298
BRANDUNN RUSH DB 1965 PG 2527 PB 1 PG 298
DAVIDSON AND NORRIS RENTALS, LLC DB 2219 PG 430 PB 1 PG 298
WHITE OAK ASSOCIATES DB 1412 PG 1665
BARBARA BECK DB 1172 PG 1287
JOSEPH MARTIN DB 1670 PG 678
JANE CRISCO DB 1135 PG 802
RIVERSTEP RENTALS, LLC DB 1979 PG 2374
Rosario Acosta Lopez DB 2499 PG 1523
DOROTHY BARNES DB 1789 PG 871
BL-102
BL-103
BL-104
15+00
10+00
50′ 0 50′ 100′

13-JUN-2017 14:55 R/W bus_220\dsn\bus_220sr_2344_4.dgn

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-5758	5
R/W SHEET NO.	

DIVISION DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS	NORTH CAROLINA PROFESSIONAL SEAL 022000 ENGINEER W. GALEN CAIL
DocuSigned by: Greg S Davis 6/13/2017	DocuSigned by: Galen Cail 6/15/2017

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L- PC Sta. 20+14.07
-L- Sta. 20+31.25= -Y2- Sta. 12+10.01
-L-
PI Sta 25+76.28
△ = 3° 16' 28.0" (LT)
D = 5° 00' 00.0"
L = 65.49'
T = 32.75'
R = 1,145.92'
-L- PC Sta. 25+43.52
PALMETTO LIZARDS LLC
DB 2258 PG 1162
PB 7 PG 21
MEDICAL PROPERTIES OF ASHEBORO, LLC
DB 1969 PG 1310
PB 103 PG 35
JAMES MORAN
DB 1247 PG 91
DB 1253 PG 1498
S 15° 12' 35.8" W
NC 220 BUS. NORTH FAYETTEVILLE ST
TO RANDLEMAN
-Y2- STA 17+10
END RESURFACING
200.00' STORAGE
100.00' TAPER
215.00' TAPER
25+00
20+00
REMOVE CONCRETE DRIVE AND REPLACE WITH CURB AND GUTTER
REMOVE AND REPLACE CURB AND GUTTER
REMOVE CB COLLAR & EXTEND 18" RCP-IV
CB
15" RCP-IV
0501
0502
0503
0504
S 87° 43' 46.7" E
SR 1462 EAST PRESNELL ST
SAWCUT AND REMOVE RETAINING WALL AND FINISH END TO SATISFACTION OF THE ENGINEER.
MATCH LINE -L- 18+00 SEE SHEET 4
MATCH LINE -L- 26+00 SEE SHEET 6
NELSON DIAZ
DB 2397 PG 486
RETAIN DRIVEWAY FOR PARCEL #5
KATHLEEN ENGLAND
DB 2111 PG 785
JOINT DRIVEWAY AGREEMENT
DB 1228 PG 1481
LARA POLANCO, INC
DB 1886 PG 899
LEONARD ELECTRIC MOTOR REPAIR, INC
DB 1092 PG 982
HENRY VRUWINK, D.D.S., P.A.
DB 2320 PG 1545
PB 108 PG 94
B. F. MILLER
DB 2367 PG 1289
B. F. MILLER
DB 2367 PG 1292
B. F. MILLER
DB 2367 PG 1283
AMICUS INVESTMENTS, LLC
DB 2047 PG 39
-Y2- STA 15+75
BEGIN RESURFACING
15+00
TO ASHEBORO
UNDERGROUND JB (NO ELEV) APPROX. LOCATION
-Y2-
PI Sta 20+65.75
△ = 0° 31' 00.7" (RT)
D = 0° 30' 00.0"
L = 103.37'
T = 51.69'
R = 11,459.16'
-L- PT Sta. 21+17.44
50' 0 50' 100'
REVISIONS

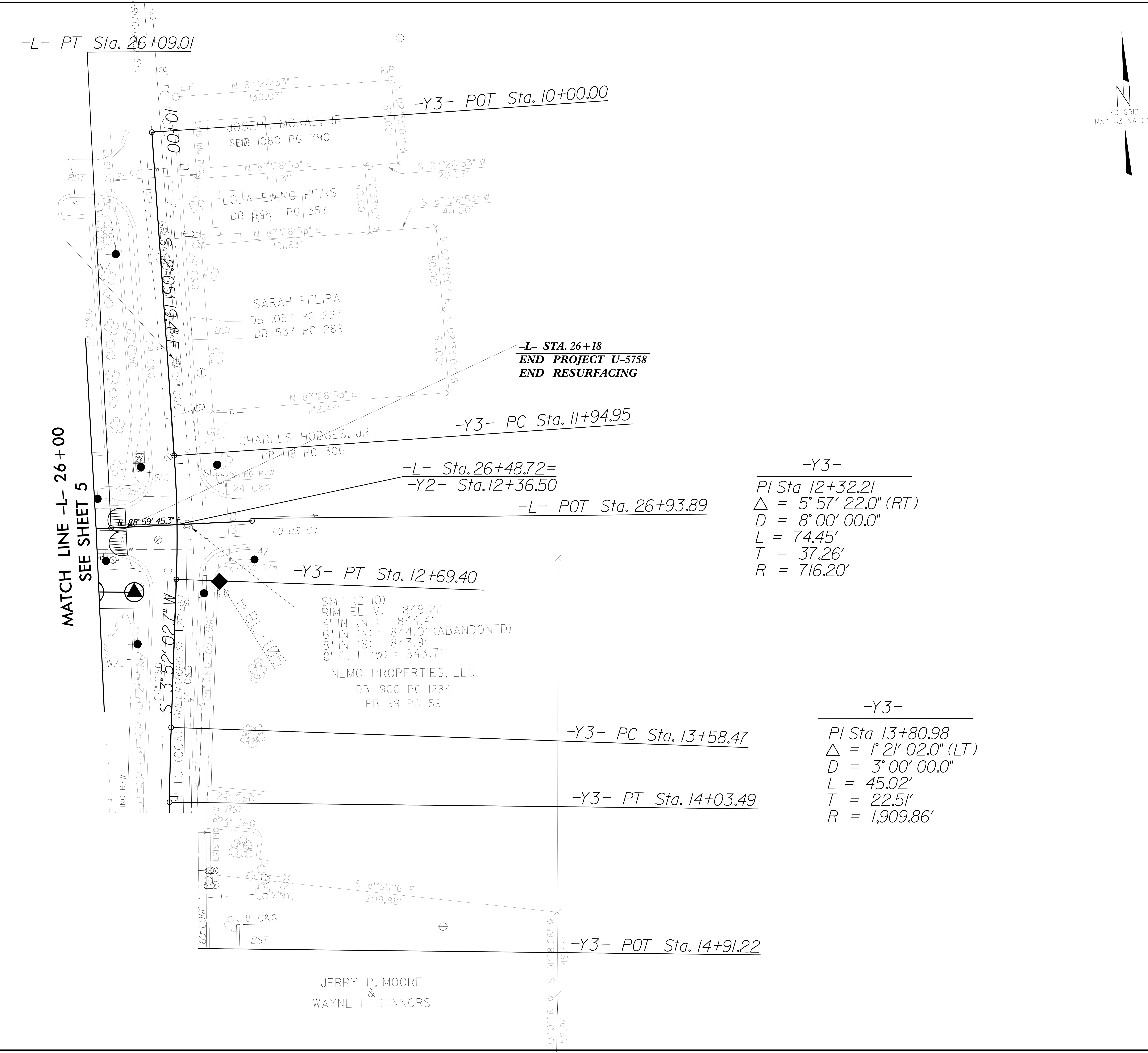
PROJECT REFERENCE NO.	SHEET NO.
U-5758	6
R/W SHEET NO.	
DIVISION DESIGN ENGINEER	HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 26930 GREG S. DAVIS

DocuSigned by: Greg S Davis 6/17/2017

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS



N
NC GRID
NAD 83 NA 2011
-L- PT Sta. 26+09.01
-Y3- POT Sta. 10+00.00
JOSEPH MCRAE, JR
DB 1080 PG 790
LOLA EWING HEIRS
DB 646 PG 357
SARAH FELIPA
DB 1057 PG 237
DB 537 PG 289
-L- STA. 26+18
END PROJECT U-5758
END RESURFACING
-Y3- PC Sta. 11+94.95
CHARLES HODGES, JR
DB 1118 PG 306
-L- Sta. 26+48.72=
-Y2- Sta. 12+36.50
-L- POT Sta. 26+93.89
TO US 64
MATCH LINE -L- 26+00
SEE SHEET 5
-Y3- PT Sta. 12+69.40
SMH (2-10)
RIM ELEV. = 849.21'
4" IN (NE) = 844.4'
6" IN (N) = 844.0' (ABANDONED)
8" IN (S) = 843.9'
8" OUT (W) = 843.7'
NEMO PROPERTIES, LLC.
DB 1966 PG 1284
PB 99 PG 59
-Y3- PC Sta. 13+58.47
-Y3- PT Sta. 14+03.49
-Y3- POT Sta. 14+91.22
JERRY P. MOORE
&
WAYNE F. CONNORS
-Y3-
PI Sta 12+32.21
Δ = 5° 57' 22.0" (RT)
D = 8° 00' 00.0"
L = 74.45'
T = 37.26'
R = 716.20'
-Y3-
PI Sta 13+80.98
Δ = 1° 21' 02.0" (LT)
D = 3° 00' 00.0"
L = 45.02'
T = 22.51'
R = 1,909.86'

50' 0 50' 100'

PROJECT REFERENCE NO.	SHEET NO.
U-5758	ROW-1
R/W SHEET NO.	
DIVISION DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

RIGHT OF WAY & TCE STATION & OFF SET TABLE

RIGHT OF WAY STATION & OFF SET	RIGHT OF WAY STATION & OFF SET	TCE STATION & OFF SET	TCE STATION & OFF SET
R1	R3	T1	T3
-L- 16+68.66	-L- 17+92.72	-L- 15+78.85	-L- 16+68.66
25.00' RT ROW	30.00' RT ROW	25.00' RT TCE	35.00' RT TCE
R2	R4	T2	T4
-L- 16+68.66	-L- 17+86.76	-L- 15+78.85	-L- 17+92.72
30.00' RT ROW	88.39' RT ROW	30.00' RT TCE	35.00' RT TCE

-Y1-
PI Sta 11+51.13
Δ = 1° 30' 51.4" (LT)
D = 2° 00' 00.0"
L = 75.71'
T = 37.86'
R = 2,864.79'

PROJECT REFERENCE NO.	SHEET NO.
U-5758	ROW-2
R/W SHEET NO.	
DIVISION DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L- PC Sta. 20+14.07
-L- Sta. 20+31.25=
-Y2- Sta. 12+10.01
-L-
PI Sta 25+76.28
△ = 3° 16' 28.0" (LT)
D = 5° 00' 00.0"
L = 65.49'
T = 32.75'
R = 1,145.92'
-L- PC Sta. 25+43.52
PALMETTO LIZARDS LLC
DB 2258 PG 1162
PB 7 PG 21
MEDICAL PROPERTIES OF ASHEBORO, LLC
DB 1969 PG 1310
PB 103 PG 35
JAMES MORAN
DB 1247 PG 91
DB 1253 PG 1498
20+00
25+00
S 15° 12' 35.8" W
N 15° 12' 35.8" E
S 87° 43' 46.7" E
MATCH LINE -L- 18+00
SEE ROW-1
MATCH LINE -L- 26+00
SEE ROW-3
RETAIN DRIVEWAY FOR PARCEL #5
NELSON DIAZ
KATHLEEN ENGLAND
DB 2111 PG 785
JOINT DRIVEWAY AGREEMENT
DB 1228 PG 1481
LARA POLANCO, INC
DB 1886 PG 899
LEONARD ELECTRIC MOTOR REPAIR, INC
DB 1092 PG 982
AMICUS INVESTMENTS, LLC
DB 2047 PG 39
B. F. MILLER
DB 2367 PG 1292
B. F. MILLER
DB 2367 PG 1283
B. F. MILLER
DB 2367 PG 1289
HENRY VRUWINK, D.D.S., P.A.
DB 2320 PG 1545
PB 108 PG 94
15+00
-Y2-
PI Sta 20+65.75
△ = 0° 31' 00.7" (RT)
D = 0° 30' 00.0"
L = 103.37'
T = 51.69'
R = 11,459.16'
-L- PT Sta. 21+17.44
UNDERGROUND JB (NO ELEV) APPROX. LOCATION
50' 0 50' 100'

RIGHT OF WAY & TCE STATION & OFF SET TABLE

RIGHT OF WAY STATION & OFF SET	TCE STATION & OFF SET	TCE STATION & OFF SET	
R5	T7	T10	P1
-L- 19+73.39	-L- 20+61.42	-L- 21+98.00	-L- 22+08.35
91.42' RT ROW	46.51' RT TCE	51.65' RT TCE	60.12' RT PUE
R6	T8	T11	P2
-L- 20+58.63	-L- 21+98.00	-L- 22+27.82	-L- 22+06.77
36.50' RT ROW	46.65' RT TCE	51.65' RT TCE	36.65' RT PUE
R7	T9	T12	P3
-L- 26+21.05	-L- 21+98.00	-L- 22+91.00	-L- 22+28.31
39.27' RT ROW\TCE	51.65' RT TCE	51.65' RT TCE	58.77' RT PUE
T5		T13	P4
-L- 20+44.60		-L- 22+91.00	-L- 22+26.81
95.63' RT TCE		46.65' RT TCE	36.65' RT PUE
T6		T14	
-L- 20+49.51		-L- 26+20.47	
96.78' RT TCE		49.26' RT TCE	

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-5758	ROW-3
R/W SHEET NO.	
DIVISION DESIGN ENGINEER	HYDRAULICS ENGINEER

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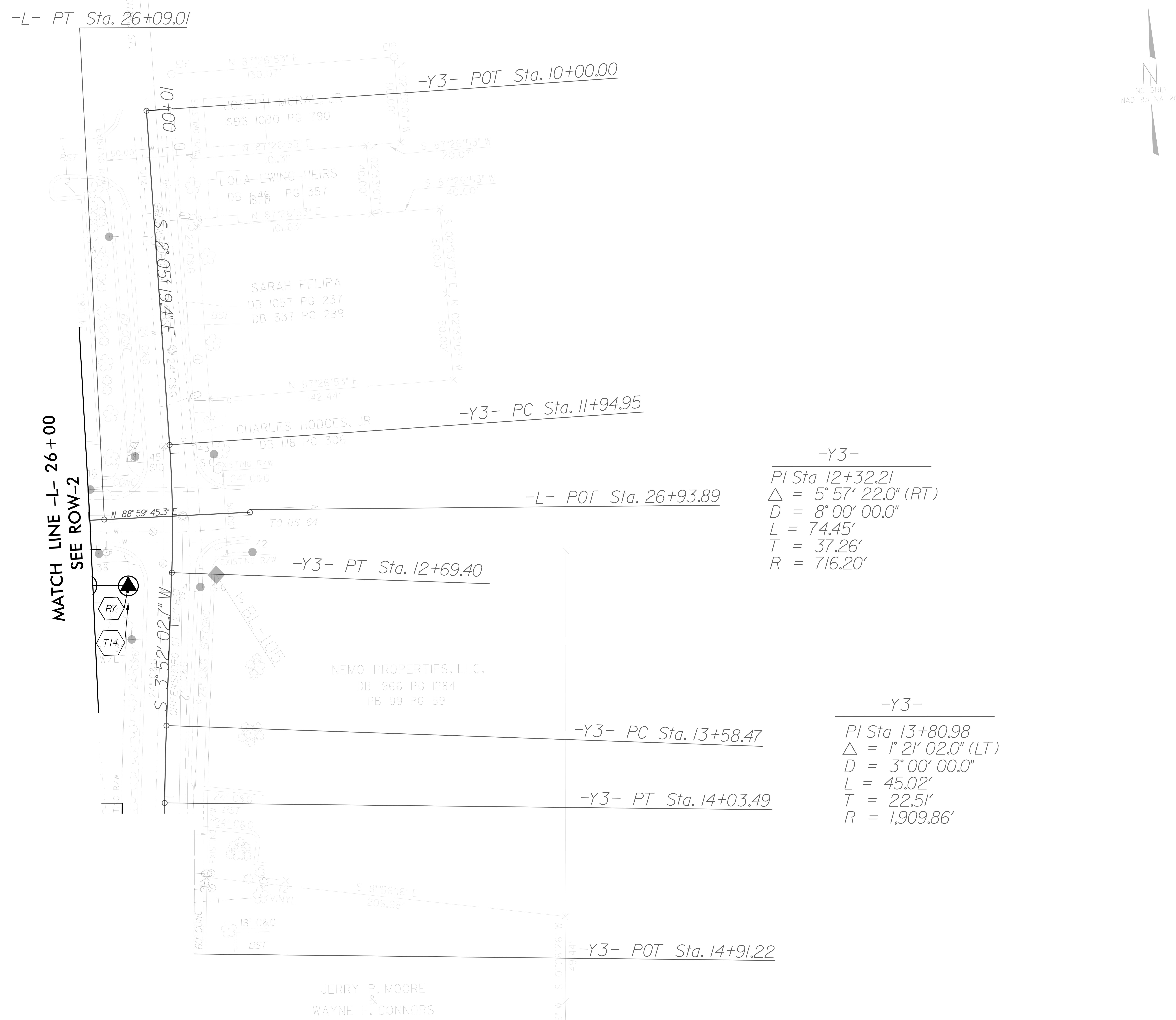
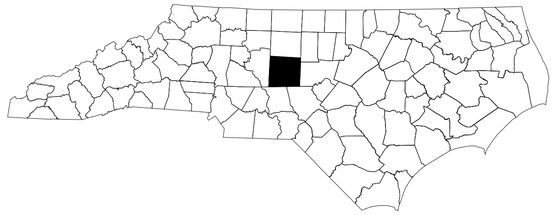
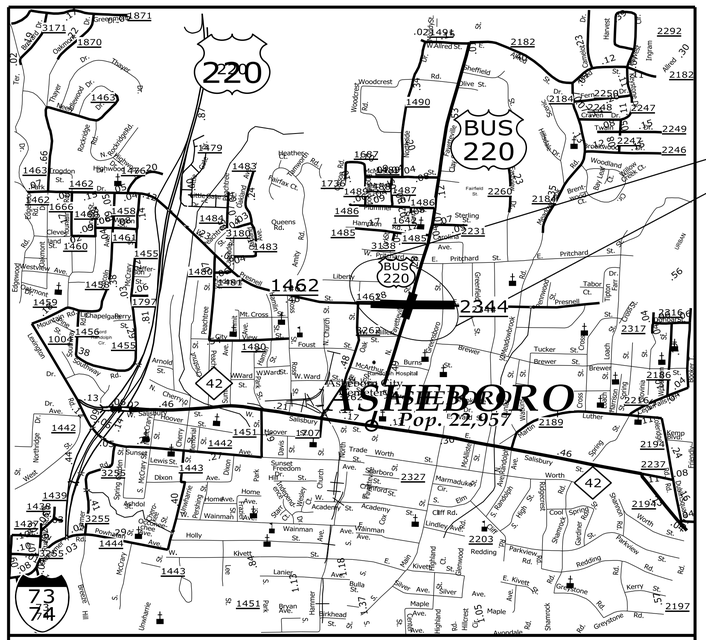
REVISIONS



-L- PT Sta. 26+09.01
-Y3- POT Sta. 10+00.00
10+00
JOSEPH MCRAE, JR.
DB 1080 PG 790
LOLA EWING HEIRS
DB 646 PG 357
S 2° 05' 19.4" E
SARAH FELIPA
DB 1057 PG 237
DB 537 PG 289
-Y3- PC Sta. 11+94.95
CHARLES HODGES, JR
DB 1118 PG 306
-L- POT Sta. 26+93.89
N 88° 59' 45.3" E
TO US 64
-Y3- PT Sta. 12+69.40
MATCH LINE -L- 26+00
SEE ROW-2
R7
T14
S 3° 52' 02.7" W
BL-105
NEMO PROPERTIES, LLC.
DB 1966 PG 1284
PB 99 PG 59
-Y3- PC Sta. 13+58.47
-Y3- PT Sta. 14+03.49
-Y3- POT Sta. 14+91.22
JERRY P. MOORE
&
WAYNE F. CONNORS
-Y3-
PI Sta 12+32.21
△ = 5° 57' 22.0" (RT)
D = 8° 00' 00.0"
L = 74.45'
T = 37.26'
R = 716.20'
-Y3-
PI Sta 13+80.98
△ = 1° 21' 02.0" (LT)
D = 3° 00' 00.0"
L = 45.02'
T = 22.51'
R = 1,909.86'
N
NC GRID
NAD 83 NA 2011

50' 0 50' 100'





STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

RANDOLPH COUNTY

VICINITY MAP

LOCATION: AT THE INTERSECTION US 220 BUS. (FAYETTEVILLE ST. AND SR 2344 (PRESNELL ST) IN ASHEBORO.

TYPE OF WORK: GRADING, DRAINAGE, PAVING, CONCRETE CURB AND GUTTER, SIGNAL REVISION,. PAVEMENT MARKINGS & MARKERS, AND EROSION CONTROL

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS AND LEGEND
TMP-2	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES, AND LOCAL NOTES)
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4	OFF-SITE DETOUR DETAIL #1
TMP-5	OFF-SITE DETOUR DETAIL #2

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WORK ZONE SAFETY & MOBILITY
"from the MOUNTAINS to the COAST"

N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

STATE TRAFFIC MANAGEMENT ENGINEER
TRAFFIC CONTROL PROJECT ENGINEER
GREG S. DAVIS, PE TRAFFIC CONTROL PROJECT DESIGN ENGINEER
TRAFFIC CONTROL DESIGN ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

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GREG S DAVIS

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DIVISION DESIGN & CONSTRUCT ENGINEER

TIP PROJECT: U-5758

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - 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
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.06	WARNING SIGNS FOR BLASTING ZONES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1170.01	POSITIVE PROTECTION
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

LEGEND

GENERAL

- ⬅ DIRECTION OF TRAFFIC FLOW
- ⬅🚶➡ DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- - - - - - - - - EXIST. PVMT.
- NORTH ARROW
- ——— PROPOSED PVMT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)
- ■ WORK AREA
- ▨ REMOVAL
- ☐ USER DEFINED (IF NEEDED)
- ☐ USER DEFINED (IF NEEDED)

SIGNALS

EXISTING

PROPOSED

TEMP TEMPORARY

PAVEMENT MARKINGS

- ——EXISTING LINES
- ——TEMPORARY LINES

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- ▲ CONE
- ● DRUM ◉ SKINNY DRUM ◎ TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- ● FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

- ☐ CRYSTAL/CRYSTAL
- ◧ CRYSTAL/RED
- ◆ YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

- ↑↰↲ PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

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DIVISION OF HIGHWAYS
WORK ZONE TRAFFIC CONTROL

ROADWAY STANDARD
DRAWINGS & LEGEND

GENERAL NOTES

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

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

TIME RESTRICTIONS

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

ROAD NAMEDAY AND TIME RESTRICTION	
US 220 BUS. (FAYETTEVILLE ST.) SR 1462 - SR 2344 (PRESNELL ST)	MONDAY THRU FRIDAY 6:00 AM - 8:00 PM

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

ROAD NAME

US 220 BUS. (FAYETTEVILLE ST)

SR 1462 - SR 2344 (PRESNELL ST)

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 5:00 P.M. DECEMBER 31st TO 8:30 A.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:30 A.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 5:00 P.M. THURSDAY AND 8:30 A.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 5:00 P.M. FRIDAY TO 8:30 A.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 5:00 P.M. THE DAY BEFORE INDEPENDENCE DAY AND 8:30 A.M. THE DAY AFTER INDEPENDENCE DAY.

   IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 5:00 P.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 8:30 A.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 5:00 P.M. FRIDAY AND 8:30 A.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 5:00 P.M. TUESDAY TO 8:30 A.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 5:00 P.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:30 A.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

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

LANE AND SHOULDER CLOSURE REQUIREMENTS

D) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED, OR AS DIRECTED BY THE ENGINEER.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

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

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

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

PAVEMENT EDGE DROP OFF REQUIREMENTS

I) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

J) DO NOT EXCEED A DIFFERNCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING " UNEVEN LANES" SIGNS (W8-1) 500 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THOUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

K) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

L) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

M) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

N) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.

O) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS, CONES OR SKINNY DRUMS) PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
US 220 BUS.	THERMO	RAISED PERMANENT
SR 1462 - SR 2344 (PRESNELL ST)	THERMO	RAISED PERMANENT

Q) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

R) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

S) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

APPROVED: Greg S Davis DATE: 6/17/2017

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 26930 GREG S. DAVIS

DIVISION OF HIGHWAYS, STATE OF NORTH CAROLINA, DEPARTMENT OF TRANSPORTATION, WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN

GENERAL NOTES

$$$$SYSTIME$$$$ $$$$$$$DGN$$$$$$$$$$$$$$$$$ $$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-5758	TMP-3

MANAGEMENT STRATEGIES

– WORKING UNDER NIGHT TIME ROAD CLOSURES, CONTRACTOR SHALL CLOSE SR 1462 /SR 2344 AND DETOUR TRAFFIC ON ONE SIDE OF US 220 BUS. TO COMPLETE WIDENING. AT THE END OF EACH NIGHT, CONTRACTOR SHALL SAFE UP COMPLETED WORK AND OPEN SR 1462 /SR 2344 (PRESNELL ST) TO TRAFFIC.

PHASING

STEP 1:
INSTALL WORK ZONE ADVANCE WARNING SIGNS IN ACCORDANCE WITH NCDOT ROADWAY STANDARD DRAWING NO. 1101.01. WHEN NO WORK IS BEING CONDUCTED FOR A PERIOD LONGER THAN ONE WEEK, REMOVE OR COVER ALL ADVANCE WORK ZONE SIGNS, AS DIRECTED BY THE ENGINEER.

STEP 2:

USING NCDOT STANDARD DRAWING NO. 1101.03 (SHEETS 1 & 2 OF 9), CLOSE SR 1462 /SR 2344 (–L) EITHER FROM –L– STA, 15+43 TO –L– STA. 19+98 OR FROM –L– STA. 20+47 TO –L– STA. 26+18. ONLY ONE SIDE CAN BE WORKED ON AT ONE TIME. SHIFT TRAFFIC TO OFF–SITE DETOUR AS SHOWN ON TMP–4 AND TMP–5.

STEP 3:
BEGIN CONSTRUCTION UP TO AND INCLUDING THE FINAL LAYER OF SURFACE COURSE AND MARKINGS. (SEE PM–1 AND PM–2)

NOTE:
AT THE END OF EACH WORK DAY, CONTRACTOR SHALL SAFE–UP WIDENING AND CLOSE SHOULDER USING NCDOT STANDARD DRAWING NO. 1101.04.

STEP 4:
AFTER WORK ON ONE SIDE OF –L– HAS BEEN COMPLETED, USING NCDOT STANDARD DRAWING NO. 1101.03 (SHEETS 1 & 2 OF 3) CLOSE THE OTHER SIDE AND COMPLETE CONSTRUCTION UP TO AND INCLUDING THE FINAL LAYER OF SURFACE COURSE AND MARKINGS (SEE PM–1 AND PM–2)

STEP 5:
USING NCDOT STANDARD DRAWING NO. 1101.02 (SHEET 1 OF 15), COMPLETE RESURFACING OF US 220 BUS. (Y–2) FROM STA. 15+75 TO STA. 17+10 INCLUDING FINAL PAVEMENT MARKINGS AND MARKERS. USING NCDOT STANDARD DRAWING NO. 1101.02, (SHEET 1 OF 15) AND LAW ENFORCEMENT. COMPLETE SIGNAL REVISION. (SEE PM–2)

STEP 6:

REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES AND OPEN SR 1462 /SR 2344. (–L–) AND US 220 BUS, (–Y2–) TO FINAL TRAFFIC PATTERN.

DocuSigned by:
APPROVED: Greg S Davis DATE: 6/17/2017
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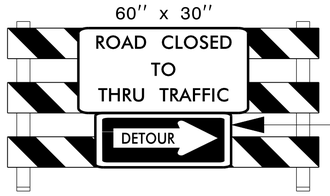
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

TEMPORARY TRAFFIC CONTROL PHASING

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$
$$$USERNAME$$$

PROJ. REFERENCE NO.	SHEET NO.
W-5601HV	TMP-4

R11-4
60″ x 30″

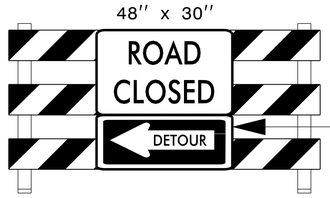


M4-10R
48″ x 18″

TYPE III BARRICADE

1

R11-2
48″ x 30″

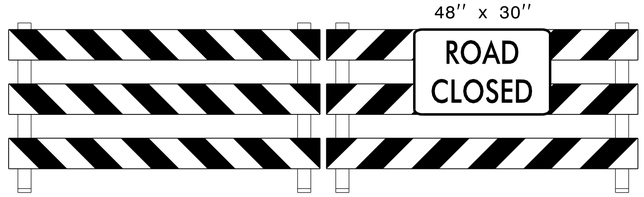


M4-10L
48″ x 18″

TYPE III BARRICADE

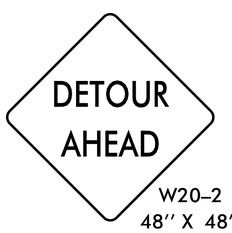
2

R11-2
48″ x 30″



TYPE III BARRICADE(S)

3



W20–2
48″ X 48″

A

W20–3
48″ X 48″

B

W20-3
48″ x 48″

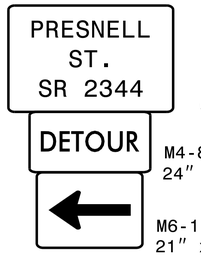
SP-4L
42″ X 12″

C

W20-3
48″ x 48″

SP-4R
42″ X 12″

D

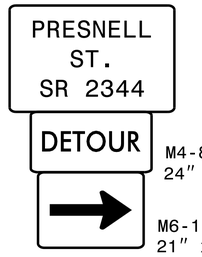


″ x ″

M4-8
24″ x 12″

M6-1
21″ x 15″

E

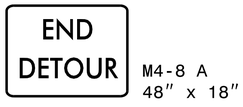


″ x ″

M4-8
24″ x 12″

M6-1
21″ x 15″

F

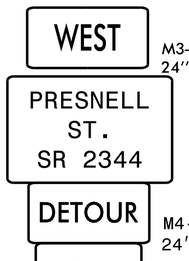


M4-8 A
48″ x 18″

G

W20-3
48″ x 48″

H



M3–4
24″ X 12″

″ x ″

M4-8
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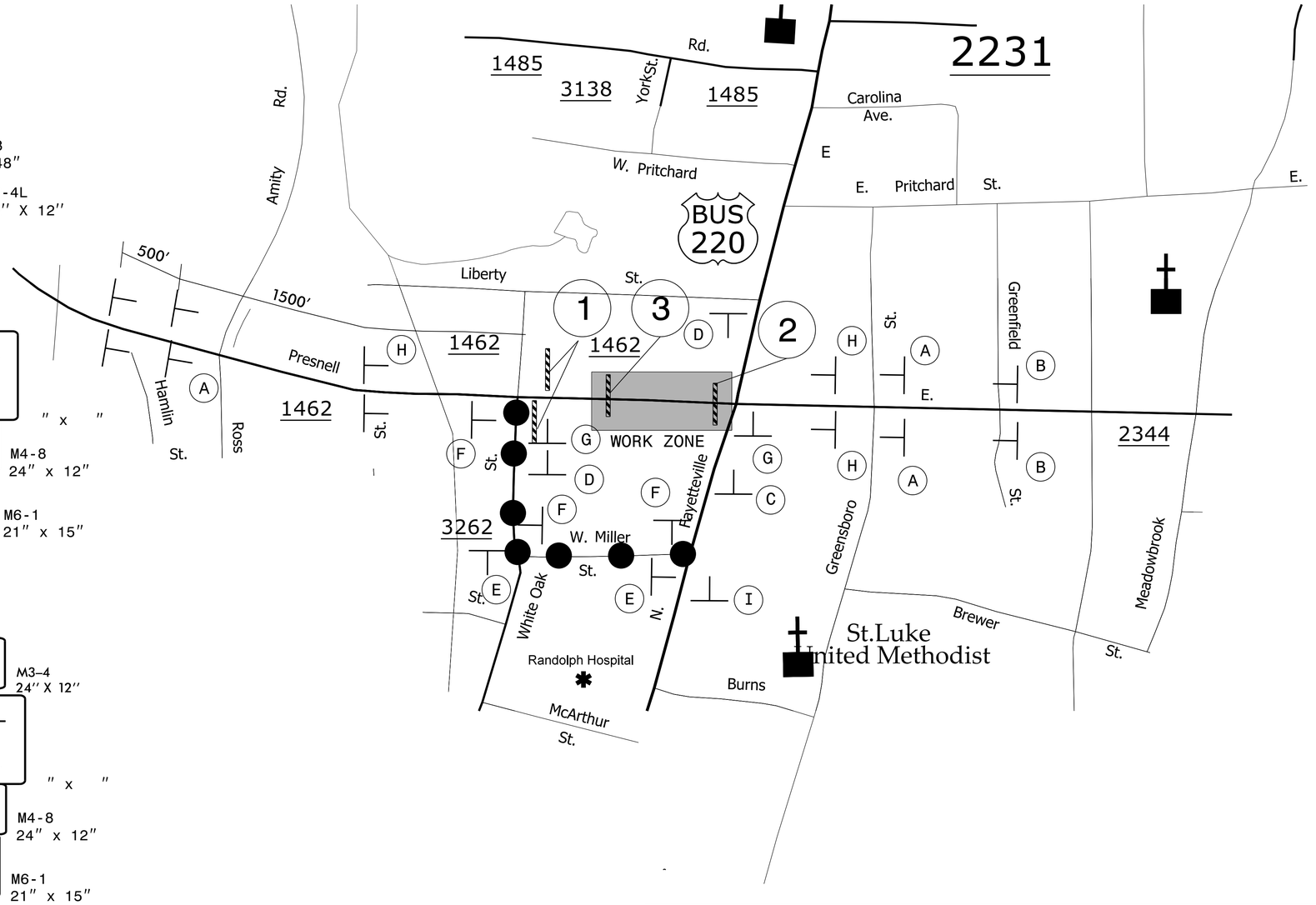
M6-1
21″ x 15″

I



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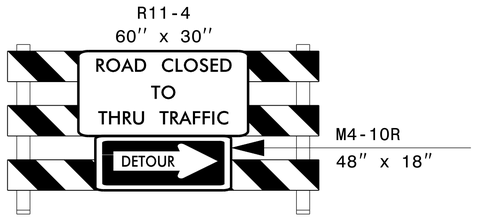
OFF–SITE DETOUR DETAIL #1

PROJ. REFERENCE NO.	SHEET NO.
W-5601HV	TMP-5



TYPE III BARRICADE

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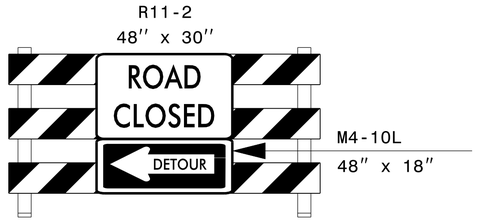

TYPE III BARRICADE

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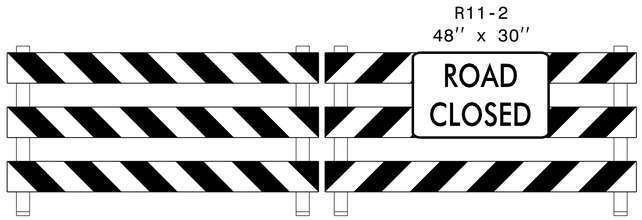
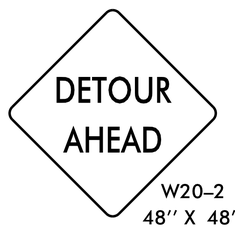


TYPE III BARRICADE(S)

3

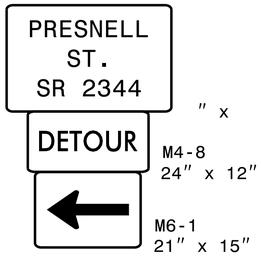


A

B

C

D



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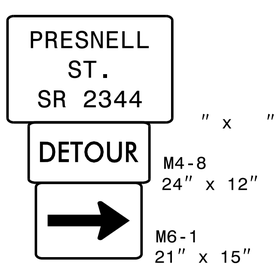

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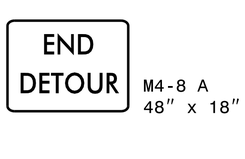
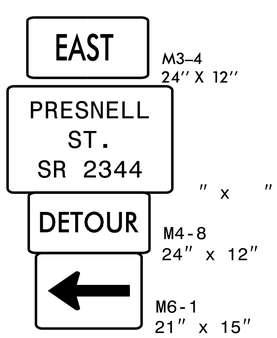


G

H



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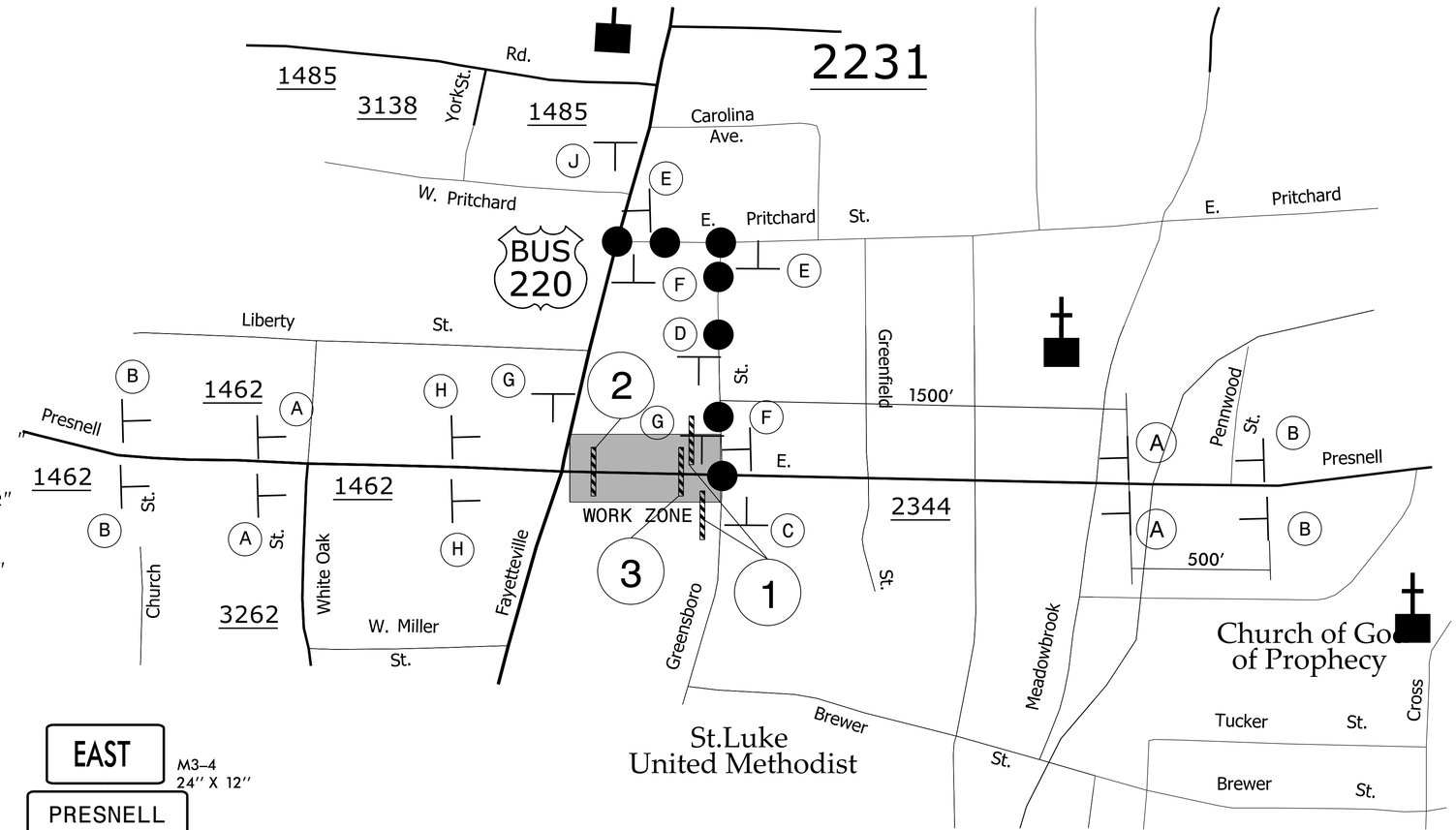

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DIVISION DESIGN & CONSTRUCT ENGINEER

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DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

OFF–SITE DETOUR DETAIL #2

PROJECT REFERENCE NO.	SHEET NO.
U-5758	PM-1
R/W SHEET NO.	

DocuSigned by:
Greg S Davis
33D47B5FD78F4A8...

SEAL 26930
GREG S. DAVIS

6/17/2017

DIVISION DESIGN / CONSTRUCT ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PAVEMENT MARKING LEGEND

- ◧ ---CRYSTAL / RED PAVEMENT MARKER
- ◆ ---YELLOW / YELLOW PAVEMENT MARKER
- ☐ ---CRYSTAL / CRYSTAL PAVEMENT MARKER

PI Sta 11+51.13
△ = 1° 30′ 51.4″ (LT)
D = 2° 00′ 00.0″
L = 75.71′
T = 37.86′
R = 2,864.79′

PAVEMENT MARKING LINES

TD - THERMOPLASTIC (4" WHITE, 120 MILS) 3' X 9' SP MINISKIP
TE - THERMOPLASTIC (4" WHITE, 120 MILS) SOLID LANE LINE
TI - THERMOPLASTIC (4" YELLOW, 120 MILS) DOUBLE CENTERLINE

PAVEMENT MARKING SYMBOLS

UA - THERMOPLASTIC (LEFT TURN ARROW, 90 MILS)
UE - THERMOPLASTIC (STRAIGHT/RIGHT TURN ARROW, 90 MILS)

50' 0 50' 100'

REVISIONS

8/17/99

17-JUN-2017 14:30
Z:\rdy\randolph\bus_220@sr_2344(presnell_st)\psh\pmp\U-5758_pmp_1.dgn
asdavis AT DBCAD-27041O

PROJECT REFERENCE NO.	SHEET NO.
U-5758	PM-2
R/W SHEET NO.	

SEAL 26930 — Greg S Davis — 6/17/2017

DIVISION DESIGN / CONSTRUCT ENGINEER

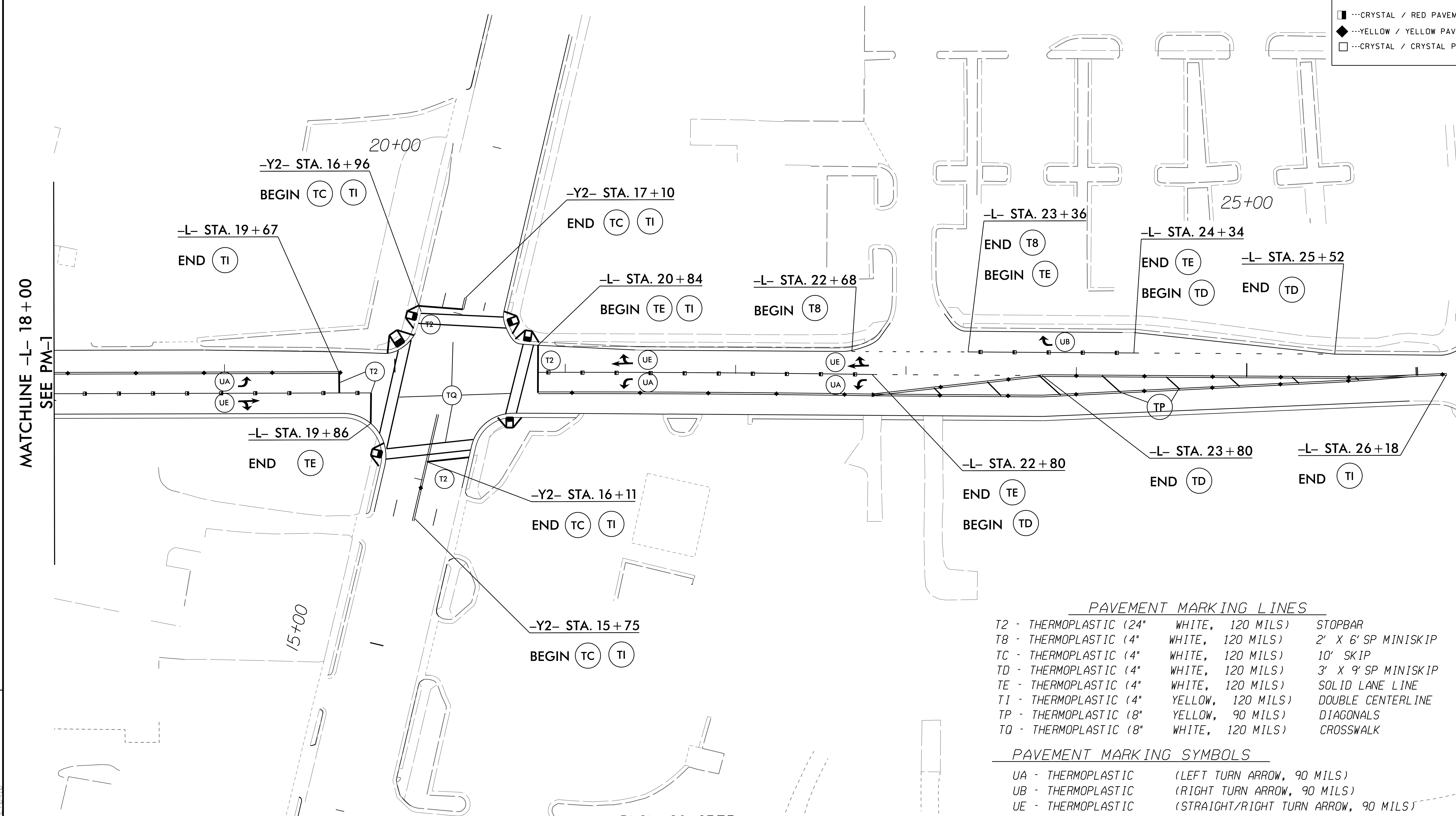
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVEMENT MARKING LEGEND

- CRYSTAL / RED PAVEMENT MARKER
- YELLOW / YELLOW PAVEMENT MARKER
- CRYSTAL / CRYSTAL PAVEMENT MARKER

REVISIONS

PI Sta 25+76.28
△ = 3° 16' 28.0" (LT)
D = 5° 00' 00.0"
L = 65.49'
T = 32.75'
R = 1,145.92'



PAVEMENT MARKING LINES

T2 - THERMOPLASTIC (24"	WHITE,	120 MILS)	STOPBAR
T8 - THERMOPLASTIC (4"	WHITE,	120 MILS)	2' X 6' SP MINISKIP
TC - THERMOPLASTIC (4"	WHITE,	120 MILS)	10' SKIP
TD - THERMOPLASTIC (4"	WHITE,	120 MILS)	3' X 9' SP MINISKIP
TE - THERMOPLASTIC (4"	WHITE,	120 MILS)	SOLID LANE LINE
TI - THERMOPLASTIC (4"	YELLOW,	120 MILS)	DOUBLE CENTERLINE
TP - THERMOPLASTIC (8"	YELLOW,	90 MILS)	DIAGONALS
TQ - THERMOPLASTIC (8"	WHITE,	120 MILS)	CROSSWALK

PAVEMENT MARKING SYMBOLS

UA - THERMOPLASTIC	(LEFT TURN ARROW, 90 MILS)
UB - THERMOPLASTIC	(RIGHT TURN ARROW, 90 MILS)
UE - THERMOPLASTIC	(STRAIGHT/RIGHT TURN ARROW, 90 MILS)

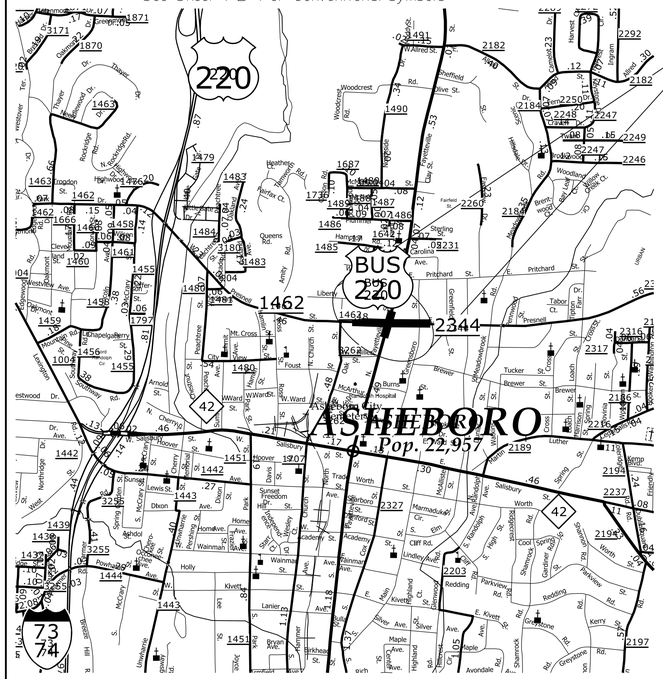
PI Sta 20+65.75
△ = 0° 31' 00.7" (RT)
D = 0° 30' 00.0"
L = 103.37'
T = 51.69'
R = 11,459.16'

50' 0 50' 100'

WBS ELEMENT U-5758 PROJECT: US 220 BUS @ SR 1462 (PRESNELL ST)

STATE	PROJECT REFFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5758	1	
WBS ELEMENT	F. A. PROJ. NO.	DESCRIPTION	
50172.1.1		PE	
50172.3.1		CONST.	

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



VICINITY MAP

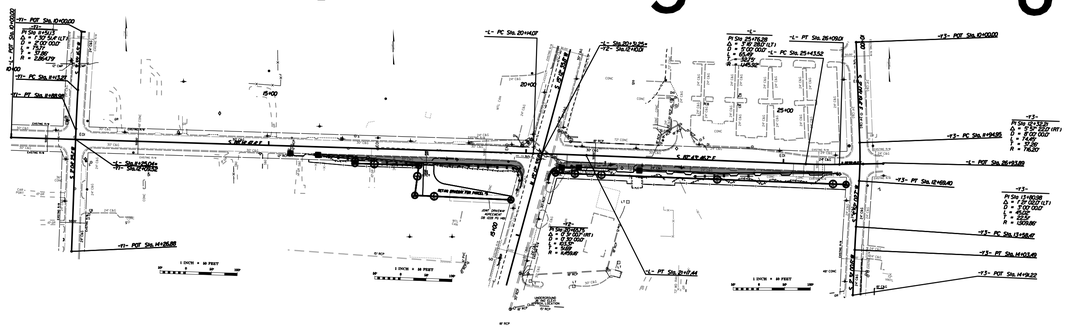
PROJECT LOCATION

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

RANDOLPH COUNTY

LOCATION: ON US 220 BUS (N. FAYETTEVILLE ST.) AT THE INTERSECTION OF SR 1462 (W. PRESNELL ST.) & SR 2344 (E. PRESNELL ST.) IN ASHEBORO.

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNAL, PAVEMENT MARKINGS & MARKERS, AND EROSION CONTROL



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	▨
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1630.06	Special Stilling Basin	
1632.03	Rock Inlet Sediment Trap Type C	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	▶
	Wattle	
	Wattle with Polyacrylamide (PAM)	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	

These Erosion and Sediment Control Plans comply with the regulations set forth by the VCG010000 general construction permit effective August 3, 2011 issued by the North Carolina Department of Environment and Natural Resources Division of Water Quality.

Prepared By:
J Howard Reedy, Jr.
Level III #3663
Dec. 31, 2017
PROJECT CONTACTS
District Engineer
Marty Tillman
Design & Construct Engineer
Greg S. Davis, PE
Resident Engineer
Reuben Blakley, PE

PROJECT LENGTH
ROADWAY: 0.10 MILES
STRUCTURE: ______ MILES
TOTAL: 0.10 MILES

Prepared In the Office of:
DIVISION EIGHT
DIVISION DESIGN & CONSTRUCT UNIT
902 N Sandhills Blvd.
PO Box 1067
Aberdeen, 28315

2012 STANDARD SPECIFICATIONS

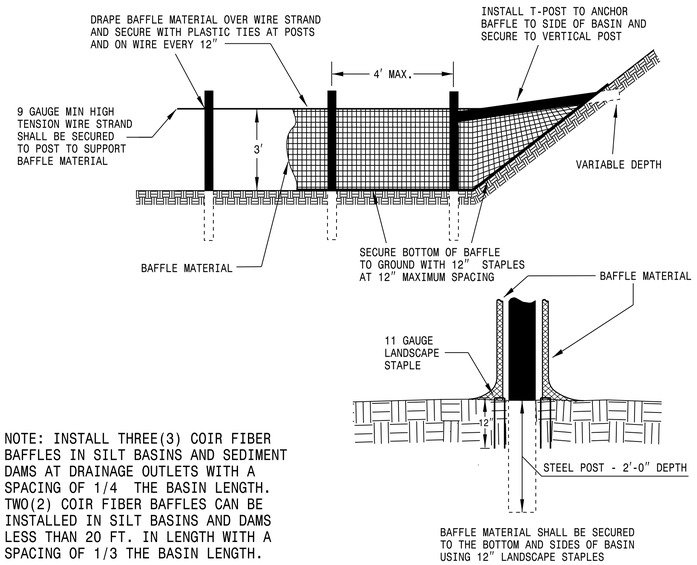
Roadway Standard Drawings

The following roadway ENGLISH standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 17, 2012 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01	Temporary Silt Fence	1632.01	Rock Inlet Sediment Trap Type A
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1622.01	Temporary Berms and Slope Drains	1633.01	Temporary Rock Silt Check Type A
1630.01	Riser Basin	1633.02	Temporary Rock Silt Check Type B
1630.02	Silt Basin Type B	1634.01	Temporary Rock Sediment Dam Type A
1630.03	Temporary Silt Ditch	1634.02	Temporary Rock Sediment Dam Type B
1630.04	Stilling Basin	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.05	Temporary Diversion	1636.01	Rock Silt Screen

WBS ELEMENT	SHEET NO.
U-5758	ECP-2

COIR FIBER BAFFLE DETAIL



NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF 1/4 THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.

EROSION CONTROL DETAILS AND SPECIFICATIONS

STD.#	DESCRIPTION	SYMBOL
1630.03	TEMPORARY SILT DITCH	TSD
1630.05	TEMPORARY DIVERSION	TD
1605.01	TEMPORARY SILT FENCE	/// ///
1622.01	GUIDE FOR TEMPORARY BERMS & SLOPE DRAINS	
1630.01	Riser Basin	
1630.02	SILT BASIN TYPE-B	
1633.01	TEMPORARY ROCK SILT CHECK TYPE-A	
	Wattle	
1633.02	TEMPORARY ROCK SILT CHECK TYPE-B	
1634.01	TEMPORARY ROCK SEDIMENT DAM TYPE-A	
1634.02	TEMPORARY ROCK SEDIMENT DAM TYPE-B	
1635.01	ROCK PIPE INLET SEDIMENT TRAP TYPE A	
1636.01	ROCK SILT SCREEN	
1630.04	STILLING BASIN FOR PUMPED EFFLUENT	
	ROCK INLET SEDIMENT PROTECTION	
1632.01	TRAP TYPE-A	A OR A
1632.02	TRAP TYPE-B	B OR B
1632.03	TRAP TYPE-C	C OR C

NARRATIVE

1. SOIL TYPE: ___CLAY X____SAND

2. IS THE PROJECT LOCATED IN A HIGH QUALITY WATER ZONE?
_____ YES ___X___ NO

3. ARE THERE ANY WETLANDS ADJOINING THIS PROJECT?
_____ YES _____X_____ NO

SITE DESCRIPTION

This project is located at intersection of US 220 BUS and SR 2344 (Presnell Street). The area surrounding this project primarily consists of wooded and grassy areas and single family dwellings. The drainage consists of roadway ditches that lead to existing ditches and drainage structures.

PROJECT DESCRIPTION

The project will consist of clearing, grubbing, draining, setting up the base and paving. The major land disturbing activites will consist of clearing and grading within the right of way. Temporary and permanent erosion control measures will be installed.

MAINTENANCE SCHEDULE

1. INSPECT WEEKLY AND AFTER EACH RAINFALL, USE THE DEPARTMENT OF TRANSPORTATION'S EROSION CONTROL INSPECTION REPORT.

2. MAINTAIN EROSION CONTROL DEVICES AS FOLLOWS:

A. SILT DITCH - REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE - CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED.

B. SILT FENCE - REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE - AVOID UNDERMINING THE FENCE.

C. SLOPE DRAINS - INSPECT THE SLOPE DRAINS AND SUPPORTING DIVERSIONS.

D. SEDIMENT BASIN - REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH - CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT - REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.

E. CHECK DAM - REMOVE SETTLEMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION - ADD STONE TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.

F. ROCK DAM - REMOVE SEDIMENT AND RESTORE ORIGINAL VOLUME WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE DESIGN VOLUME - CHECK THE STRUCTURE FOR EROSION, PIPING, AND ROCK DISPLACEMENT AFTER EACH SIGNIFICANT RAINSTORM AND REPAIR IMMEDIATELY.

G. DROP INLET PROTECTION (TYPE C) - REMOVE SEDIMENT FROM THE POOL AREAS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN.

H. SEDIMENT TRAP - REMOVE SEDIMENT AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS WHEN SETTLEMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP - CHECK THE STRUCTURE FOR DAMAGE FROM EROSION OR PIPING TO ENSURE IT IS A MINIMUM OF 1.5 FT. BELOW THE LOW POINT OF THE EMBANKMENT.

NOTE: SEDIMENT SHOULD BE PLACED IN DESIGNATED DISPOSAL AREAS AND NOT ALLOWED TO FLOW INTO STREAMS OR DRAINAGE WAYS DURING STRUCTURE REMOVAL.

NOTE: ALL SEDIMENT TRAPS/BASINS SHALL HAVE COIR FIBER BAFFLES. BASINS/TRAPS OVER 10 FT IN LENGTH SHALL HAVE TWO ROWS.

NOTE: NO PAM TO USED WITH THE LAST BMT (WATTLE) AT OUTLET OF THE PROJECT

NOTE: The erosion control measures have be designed to provide a minimum of 43% of the storage calculated using the RUSLE2 analysis. These sections of disturbed area must then be permanently stabilized within 60 days from the time grading begins.

GENERAL CONSIDERATIONS

1. THE LAW REQUIRES INSTALLATION AND MAINTENANCE OF SUFFICIENT EROSION CONTROL PRACTICES TO RETAIN SEDIMENT WITHIN THE BOUNDARIES OF THE SITE. IT ALSO REQUIRES THAT SURFACES BE NON EROSIVE AND STABLE WITHIN 21 DAYS CALENDAR DAYS AFTER THE COMPLETION OF ANY PHASE OF GRADING.

2. FIT THE DEVELOPMENT TO THE SITE - FOLLOW THE NATURAL CONTOURS AS MUCH AS POSSIBLE. PRESERVE AND USE NATURAL DRAINAGE SYSTEMS.

3. LIMIT CLEARING AND GRUBBING - CLEARLY DEFINE WORK LIMIT LINES. GRADE TO MINIMIZE CUT-AND-FILL SLOPES, PRESERVE NATURAL BUFFER AREAS, AND LIMIT THE TIME THAT BARE SOIL IS EXPOSED.

4. PROTECT THE SOIL SURFACE - LIMIT THE EXTENT OF DISTURBANCE AND STABILIZE THE SOIL SURFACE IMMEDIATELLY. ONCE THE SURFACE HAS BEEN DISTURBED, IT IS SUBJECT TO ACCELERATED EROSION AND SHOULD BE PROTECTED WITH APPROPRIATE COVER, SUCH AS MULCH OR VEGETATION IN AN EXPEDIENT MANNER.

5. SEDIMENT BASINS AND TRAPS - SELECT SITES AND INSTALL SEDIMENT BASINS AND TRAPS BEFORE OTHER CONSTRUCTION ACTIVITIES ARE STARTED. ALSO CONSIDER LOCATIONS FOR DIVERSIONS, OPEN CHANNELS, AND STORM DRAINS AT THIS TIME SO THAT ALL SEDIMENT-LADEN TO RUN OFF CAN BE DIRECTED TO AN IMPOUNDMENT STRUCTURE BEFORE LEAVING THE CONSTRUCTION SITE. INSTALL ALL MEASURES AND RELEASE POINTS PRIOR TO CLEARING AND GRUBBING.

6. ONCE AN AREA IS DISTURBED, IT IS SUBJECT TO ACCELERATED EROSION. EROSION CONSTROL CAN BE ACHIEVED BY:

- LIMITING THE SIZE OF THE CLEARING AND TIME OF EXPOSURE BY PROPER SCHEDULING.
- REDUCING THE AMOUNT OF RUNOFF OVER THE DISTURBED SURFACE.
- LIMITING GRADES AND LENGTHS OF SLOPES, AND
- RE-ESTABLISHING PROTECTIVE COVER IMMEDIATELY AFTER LAND DUSTURBING ACTIVITIES ARE COMPLETED OR WHEN CONSTRUCTION ACTIVITES ARE DELAYED FOR THIRTY (30) OR MORE WORKING DAYS

7. STABILIZE CONSTRUCTION ACCESS AREAS, CONSTRUCTION ROADS, AND PARKING AREA DURING INITIAL ACTIVITIES. TRY TO KEEP ROAD GRADES TO A MINIMUM GENERALLY NEVER EXCEEDING 12%.

8. CLEAR BORROW AND WASTE DISPOSAL AREAS AS NEEDED AND PROTECT THEM FROM SURFACE RUNOFF. SLOPE ALL AREAS TO PROVIDE POSITIVE DRAINAGE, AND STABILIZE BARE SOIL SURFACES WITH PERMANENT VEGETATION OR MULCH AS SOON AS FINAL GRADES ARE PREPARED. DIRECT ALL RUNOFF THAT CONTAINS SEDIMENT TO A SEDIMENT-TRAPPING DEVICE. IN LARGE BORROW AND DISPOSAL SITES, SHAPE AND DEEPEN THE LOWER END TO FORM AN IN-PLACE SEDIMENT TRAP.

9. ONLY SEDIMENT-FREE RUNOFF MAY BE DISCHARGED FROM CONSTRUCTION SITES DIRECTLY INTO STREAMS. ENSURE THAT ALL OTHER FLOWS ENTER FROM DESILTING POOLS FORMED BY SEDIMENT TRAPS OR BARRIERS.

10. AREAS ADJOINING STREAMS SHOULD BE LEFT UNDISTURBED AS BUFFERS. WHERE NATURAL BUFFERS ARE NOT AVAILABLE, PROVIDE ARTIFICIAL BUFFERS. WHERE WORK IS REQUIRED ALONG A STREAM, PROVIDE MECHANICAL OR ARTIFICIAL BUFFER (25 FEET MINIMUM REQUIRED).

11. BEFORE MOVING TO NEXT JOB SITE, REVIEW ALL MEASURES FOR EFFECTIVENESS; MAKE ANY ADJUSTMENTS, CLEAR-OUTS, OR REPAIR; CALL ROADSIDE ENVIRONMENTAL DEPARTMENT FOR INSTALLATION OF A DITCH LINER AND SEEDING AND MULCHING OF ALL DISTURBED AREAS.

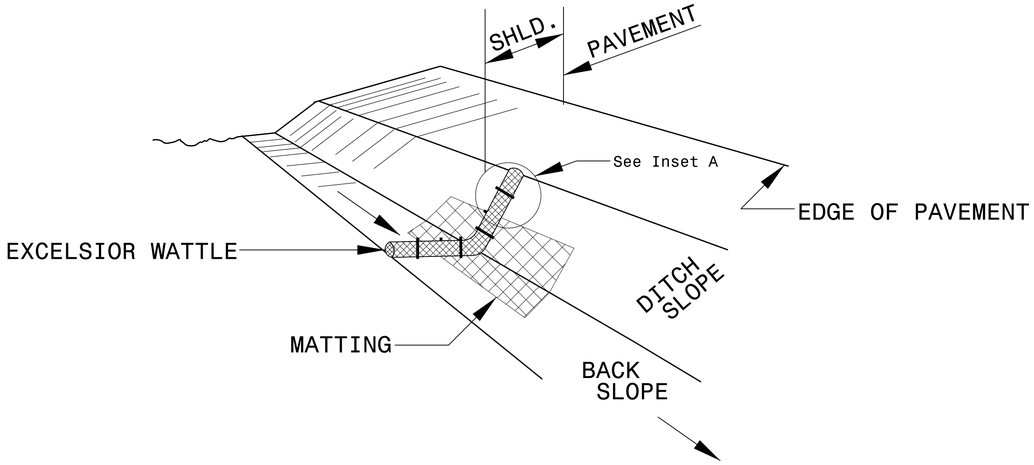
12. CONTINUE TO CHECK AND MAINTAIN ALL MEASURES AFTER EACH SIGNIFICANT RAINFALL UNTIL ALL DISTURBED AREAS BECOME STABILIZED.

13. FILL IN ALL SILT BASINS AND SILT DITCHES, REMOVE ALL SILT FENCES AND SLOPE DRAINS, REDISTRIBUTE ALL STONE FROM SILT CHECKS, SEDIMENT DAMS, AND SILT SCREENS. SEED AND MULCH DISTURBED AREAS.

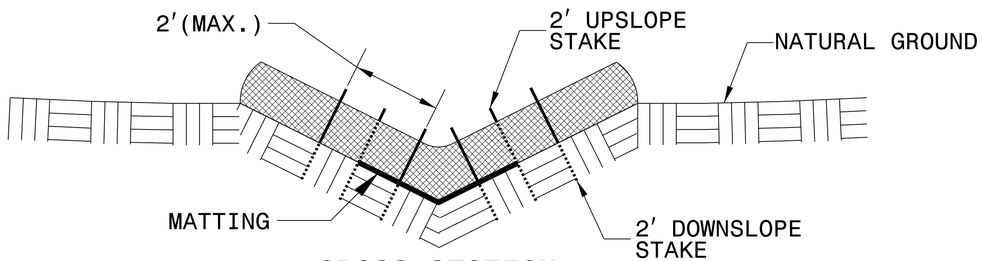
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
U–5758	EC–2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

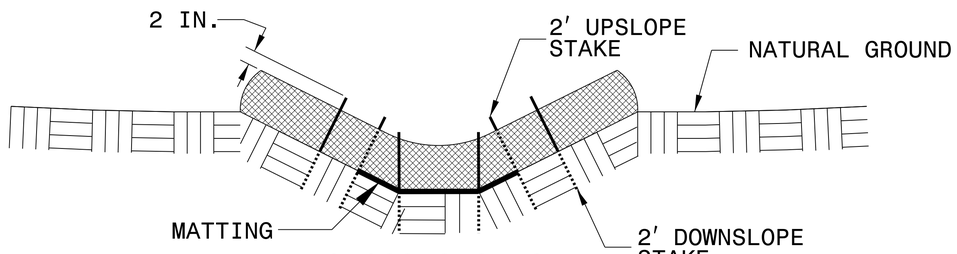
WATTLE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

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

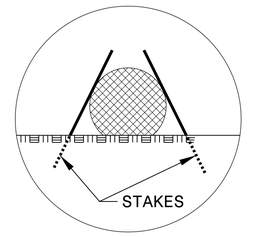
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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

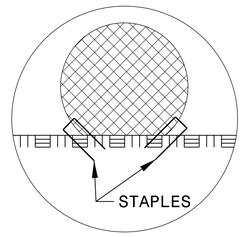
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

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

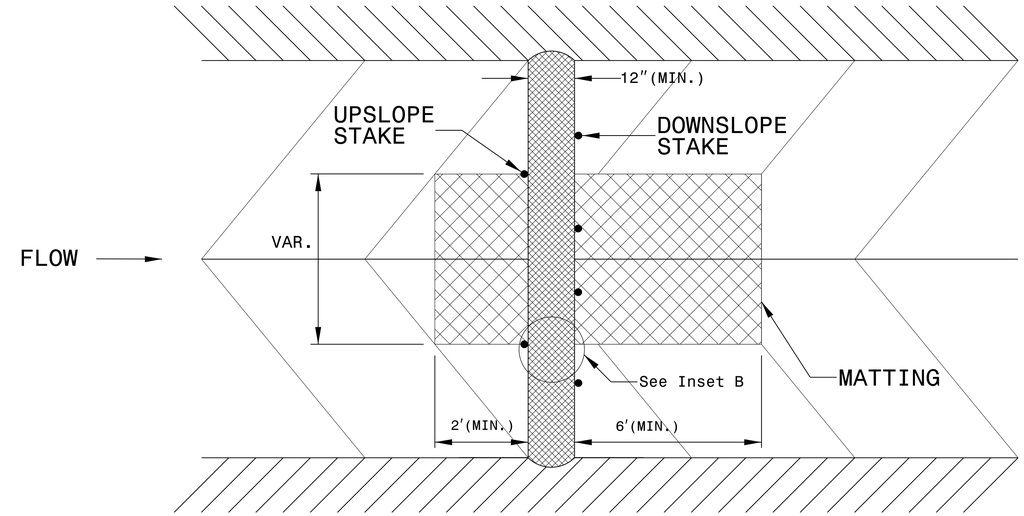
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



INSET A



INSET B



TOP VIEW

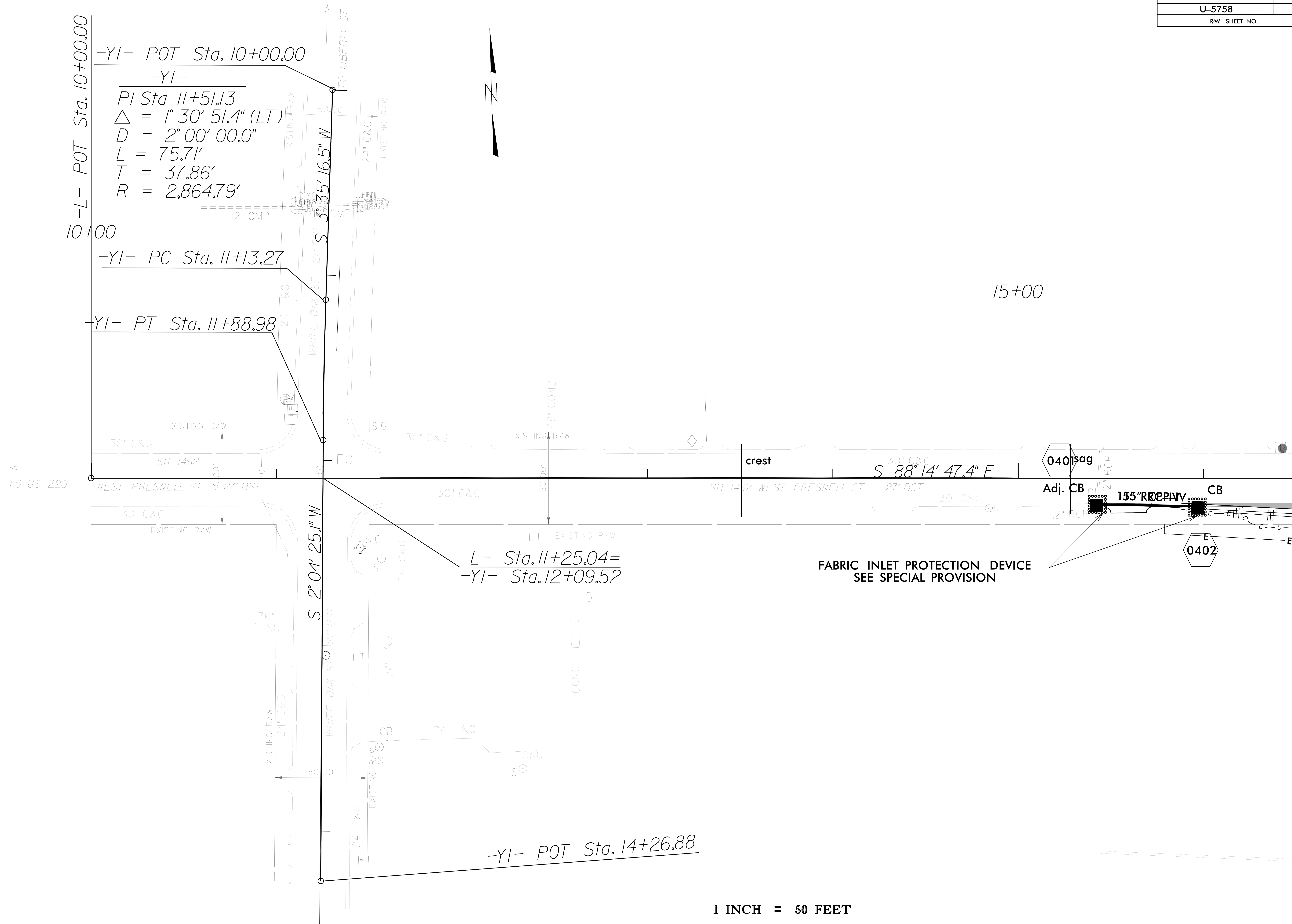
PROJECT REFERENCE NO.	SHEET NO.
U-5758	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

PROJECT REFERENCE NO.	SHEET NO.
U-5758	EC-4
R/W SHEET NO.	



-Y1- POT Sta. 10+00.00
-Y1-
PI Sta 11+51.13
△ = 1° 30′ 51.4″ (LT)
D = 2° 00′ 00.0″
L = 75.71′
T = 37.86′
R = 2,864.79′
-L- POT Sta. 10+00.00
10+00
-Y1- PC Sta. 11+13.27
-Y1- PT Sta. 11+88.98
S 3° 35′ 16.5″ W
S 2° 04′ 25.1″ W
-L- Sta. 11+25.04=
-Y1- Sta. 12+09.52
-Y1- POT Sta. 14+26.88
15+00
crest
sag
S 88° 14′ 47.4″ E
0401
Adj. CB
CB
0402
FABRIC INLET PROTECTION DEVICE
SEE SPECIAL PROVISION
MATCH LINE -L- 16+50
SEE EC-5
TO US 220
WEST PRESNELL ST
SR 1462
TO LIBERTY ST.
WHITE OAK ST
EXISTING R/W
30″ C&G
24″ C&G
12″ CMP

1 INCH = 50 FEET

50′ 0 50′ 100′

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-5758	EC-5
R/W SHEET NO.	

8/17/99

REVISIONS

-L- PC Sta. 20+14.07

-L- Sta. 20+31.25=
-Y2- Sta. 12+10.01

N

S 15° 12' 35.8" W

NC 220 BUS. NORTH FAYETTEVILLE ST

MATCH LINE -L- 16+50
SEE EC-4

MATCH LINE -L- 23+50
SEE EC-6

20+00

15+00

LT

24" C&G

30" C&G

EXISTING R/W

TO RANDLEMAN

47' BST

72" CONC

18" RCP

15" RCP

24" RCP

30" RCP

CONC

DI

CB

crest

sag

break point

RETAIN DRIVEWAY FOR PARCEL #5

JOINT DRIVEWAY AGREEMENT DB 1228 PG 1481

REMOVE CB COLLAR & EXTEND 18" RCP-IV

0501

0502

0503

0504

15" RCP-IV

FABRIC INLET PROTECTION DEVICE
SEE SPECIAL PROVISION

S 87° 43' 46

-Y2-
PI Sta 20+65.75
△ = 0° 31' 00.7" (RT)
D = 0° 30' 00.0"
L = 103.37'
T = 51.69'
R = 11,459.16'

-L- PT Sta. 21+17.44

1 INCH = 50 FEET

50' 0 50' 100'

13-JUN-2017 15:17
X:\projects\proj\bus_2200sr_2344(presnell_st)\roh\bus_2200sr_2344_ecp5.dgn
psavis

PROJECT REFERENCE NO.	SHEET NO.
U-5758	EC-6
R/W SHEET NO.	

8/17/99

REVISIONS

MATCH LINE -L- 23+50
SEE EC-5

-L-

PI Sta 25+76.28
△ = 3° 16′ 28.0" (LT)
D = 5° 00′ 00.0"
L = 65.49′
T = 32.75′
R = 1,145.92′

-L- PT Sta. 26+09.01

-L- PC Sta. 25+43.52

25+00

10+00

-Y3- POT Sta. 10+00.00

N

S 2° 05′ 19.4" E

-Y3-

PI Sta 12+32.21
△ = 5° 57′ 22.0" (RT)
D = 8° 00′ 00.0"
L = 74.45′
T = 37.26′
R = 716.20′

-Y3- PC Sta. 11+94.95

-L- Sta. 26+48.72=
-Y2- Sta. 12+36.50

-L- POT Sta. 26+93.89

-Y3- PT Sta. 12+69.40

-Y3-

PI Sta 13+80.98
△ = 1° 21′ 02.0" (LT)
D = 3° 00′ 00.0"
L = 45.02′
T = 22.51′
R = 1,909.86′

S 3° 52′ 02.7" W

-Y3- PC Sta. 13+58.47

-Y3- PT Sta. 14+03.49

S 2° 31′ 00.6" W

-Y3- POT Sta. 14+91.22

7" F

N 88° 59′ 45.3" E

crest

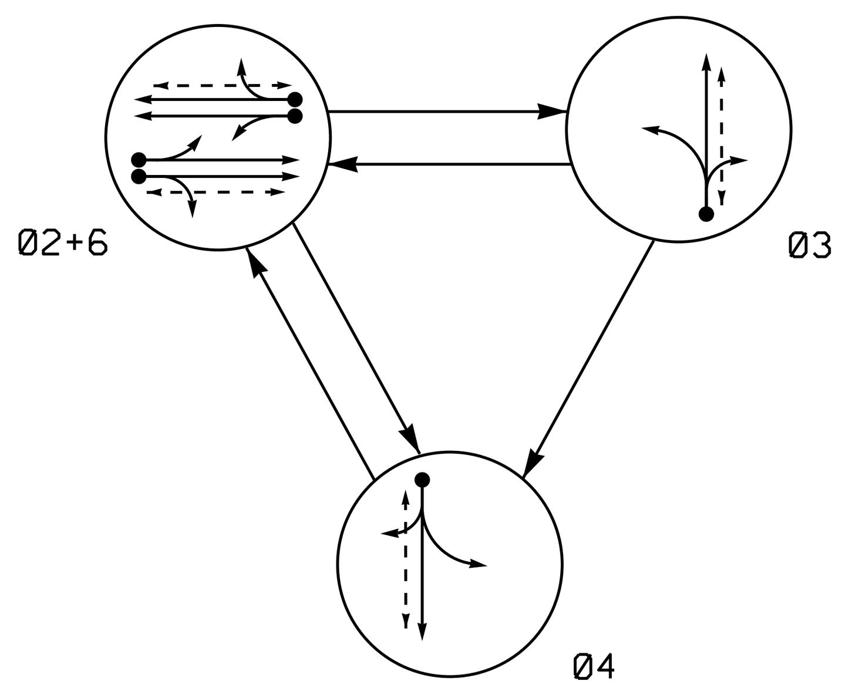
1 INCH = 50 FEET

50′ 0 50′ 100′

PROJECT REFERENCE NO.	SHEET NO.
U-5758	Sig. 1.0

3 Phase
Fully Actuated
NC 42 (Salisbury St)/
US 220 Bus (Fayetteville St) CLS

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

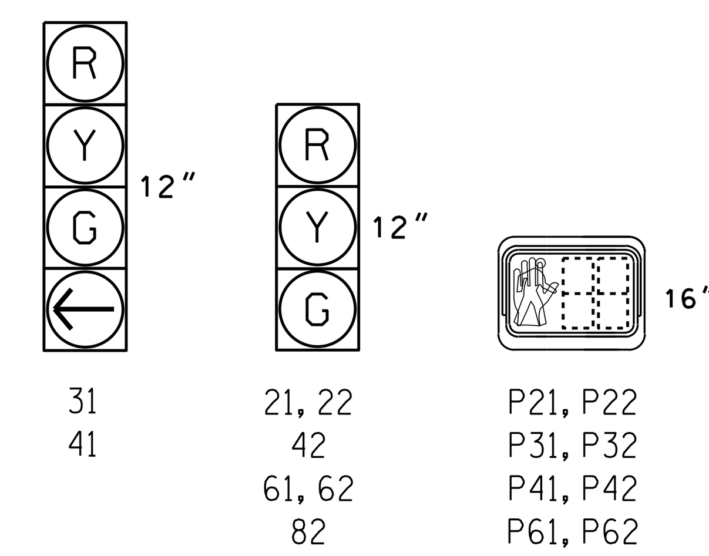
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+6	Ø3	Ø4	FLASH
21, 22	G	R	R	Y
31	R	G ←	R	R
41	R	R	G ←	R
42	R	R	G	R
61, 62	G	R	R	Y
82	R	G	R	R
P21, P22	W	DW	DW	DRK
P31, P32	DW	W	DW	DRK
P41, P42	DW	DW	W	DRK
P61, P62	W	DW	DW	DRK

SIGNAL FACE I.D.

All Heads L.E.D.

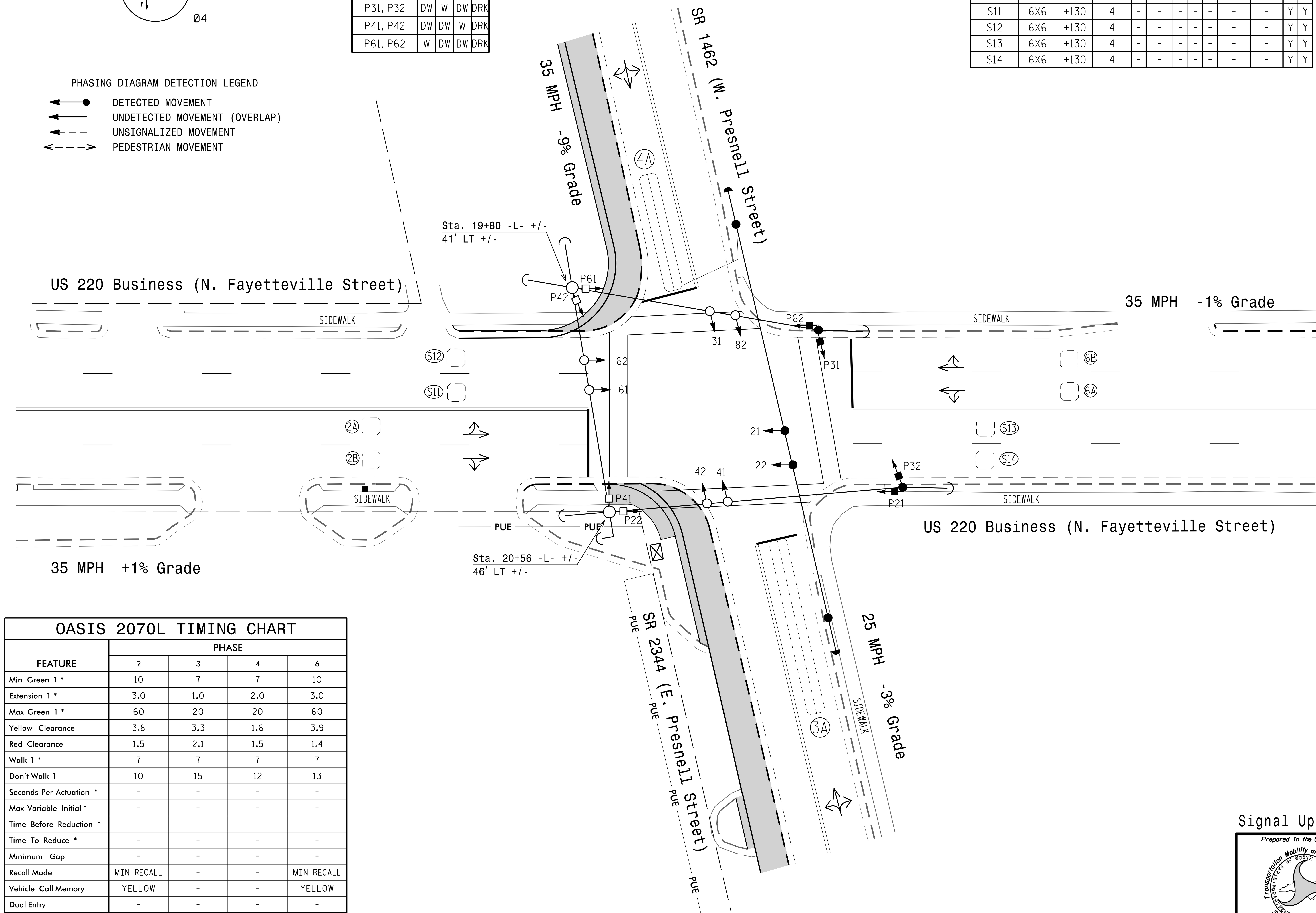


OASIS 2070L LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A	6X6	70	4	-	2	Y	Y	-	-	-	-	Y
2B	6X6	70	4	-	2	Y	Y	-	-	-	-	Y
3A	6X60	0	2-4-2	-	3	Y	Y	-	-	10	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	10	-	Y
6A	6X6	70	4	-	6	Y	Y	-	-	-	-	Y
6B	6X6	70	4	-	6	Y	Y	-	-	-	-	Y
S11	6X6	+130	4	-	-	-	-	-	-	-	Y	Y
S12	6X6	+130	4	-	-	-	-	-	-	-	Y	Y
S13	6X6	+130	4	-	-	-	-	-	-	-	Y	Y
S14	6X6	+130	4	-	-	-	-	-	-	-	Y	Y

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. The order of phase 3 and phase 4 may be reversed.
4. Set all detector units to presence mode.
5. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. Pedestrian pedestals are conceptual and shown for reference only. See sheets P1-P3 for pushbutton location details.
9. Pavement markings are existing.
10. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
11. Closed loop system data: Controller Asset #: 0125.



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
N/A	Permanent Easement	PUE
	Directional Arrow	
	Type II Signal Pedestal	
N/A	CurbRamp	
	Construction Zone	

OASIS 2070L TIMING CHART

FEATURE	PHASE 2	3	4	6
Min Green 1 *	10	7	7	10
Extension 1 *	3.0	1.0	2.0	3.0
Max Green 1 *	60	20	20	60
Yellow Clearance	3.8	3.3	1.6	3.9
Red Clearance	1.5	2.1	1.5	1.4
Walk 1 *	7	7	7	7
Don't Walk 1	10	15	12	13
Seconds Per Actuation *	-	-	-	-
Max Variable Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	MIN RECALL	-	-	MIN RECALL
Vehicle Call Memory	YELLOW	-	-	YELLOW
Dual Entry	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Signal Upgrade - Temporary Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

US 220 Business
(N. Fayetteville Street)
at
SR 1462/SR 2344 (Presnell Street)

Division 8 Randolph County Asheboro

PLAN DATE: May 2017 REVIEWED BY:
PREPARED BY: I. O. Umozurike REVIEWED BY:

SCALE 0 20 1"=20'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 026486 ROBERT J. ZIEMBA

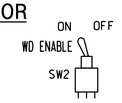
DocuSigned by: 6/13/2017
SIGNATURE DATE

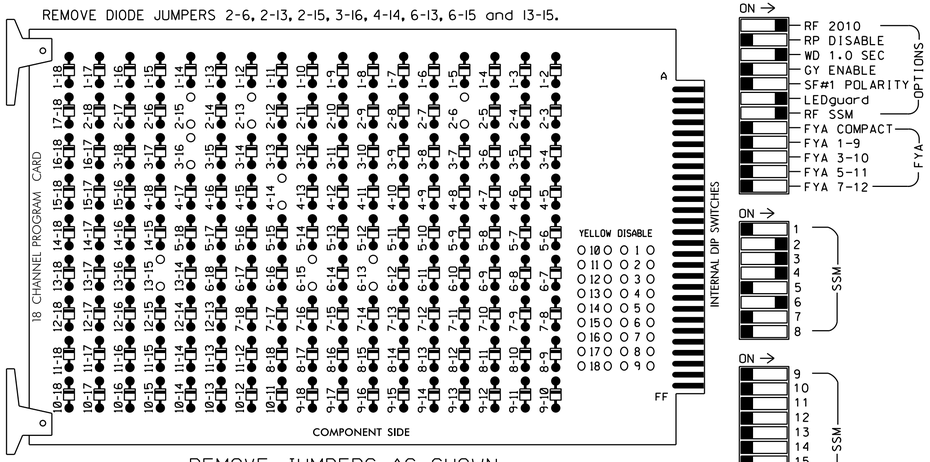
SIG. INVENTORY NO. 08-0125T

PROJECT REFERENCE NO.	SHEET NO.
U-5758	Sig. 1.1

EDI MODEL 2018ECL-NC CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)





REMOVE JUMPERS AS SHOWN

■ = DENOTES POSITION OF SWITCH

NOTES:

1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that Red Enable is active at all times during normal operation.
4. Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.

NOTES

1. To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
2. Enable Simultaneous Gap-Out for all Phases.
3. Program phases 2 and 6 for Startup In Green.
4. Program phases 2, 3, 4 and 6 for Startup Ped Call.
5. Program phases 2 and 6 for Yellow Flash.
6. The cabinet and controller are part of the US 220 Bus (Fayetteville St) Closed Loop System.

EQUIPMENT INFORMATION

CONTROLLER.....2070
CABINET.....332 W/ AUX
SOFTWARE.....ECONOLITE OASIS
CABINET MOUNT.....BASE
OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE
LOAD SWITCHES USED.....S2,S3,S4,S5,S6,S8,S9,S12
PHASES USED.....2,3,4,6,2 PED,3 PED,4 PED,6 PED
OVERLAP 'A'.....NOT USED
OVERLAP 'B'.....NOT USED
OVERLAP 'C'.....NOT USED
OVERLAP 'D'.....NOT USED

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4		S5		S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3		4		14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3		4		4 PED	5	6	6 PED	7	8	3 PED	OLA	OLB	SPARE	OLC	OLD	SPARE
SIGNAL HEAD NO.	NU	21,22	P21, P22	31	82	41	42	P41, P42	NU	61,62	P61, P62	NU	NU	P31, P32	NU	NU	NU	NU	NU	NU
RED		128		116	116	101	101			134										
YELLOW		129		117	117	102	102			135										
GREEN		130		118	118	103	103			136										
RED ARROW																				
YELLOW ARROW																				
GREEN ARROW				118		103														
✋			113					104			119			110						
🚶			115					106			121			112						

NU = Not Used

PED 3 PROGRAMMING DETAIL

(program controller as shown below)

CHANGING OUTPUT ASSIGNMENTS

1. FROM MAIN MENU SELECT '6' (OUTPUTS), THEN '1' (OUTPUT ASSIGNMENTS)
2. ENTER 17 (PHASE 8 DW) FOR OUTPUT ASSIGNMENT #.
3. SCROLL DOWN TO 'PEDESTRIAN PHASE' AND ENTER 'Y' REGARDLESS OF DEFAULT PROGRAMMING!
4. ENTER '3' FOR 'SELECT PEDESTRIAN PHASE'. NO CHANGE NEEDED FOR 'SELECT COLOR'
5. BACKUP TO 'OUTPUT ASSIGNMENTS AND SETTINGS MENU:' BY PRESSING THE 'ESC' BUTTON ON KEYBOARD.
6. SELECT '1' (OUTPUT ASSIGNMENTS)
7. ENTER 18 (PHASE 8 W) FOR OUTPUT ASSIGNMENT #.
8. REPEAT STEPS # 3 AND # 4.

CHANGING INPUT ASSIGNMENTS

1. FROM MAIN MENU SELECT '7' (DETECTORS), THEN '2' (PEDESTRIAN DETECTOR ASSIGNMENTS)
2. CYCLE TO PED DETECTOR #8 BY REPEATEDLY DEPRESSING '+' KEY
3. MODIFY PHASE ASSIGNED TO PED DETECTOR # 8 FROM PHASE 8 TO PHASE 3

PROGRAMMING COMPLETE

INPUT FILE POSITION LAYOUT

(front view)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE "I"	U	SLOT EMPTY	Ø2 2A	SLOT EMPTY	SLOT EMPTY	Ø3 3A	Ø4 4A	SLOT EMPTY	SLOT EMPTY	SYS. DET. S11	SLOT EMPTY	SLOT EMPTY	Ø2 PED DC ISOLATOR	Ø6 PED DC ISOLATOR	FS DC ISOLATOR
	L		Ø2 2B			NOT USED	NOT USED			SYS. DET. S12			Ø4 PED DC ISOLATOR	Ø3 PED DC ISOLATOR	ST DC ISOLATOR
FILE "J"	U	SLOT EMPTY	Ø6 6A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SYS. DET. S13	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
	L		Ø6 6B							SYS. DET. S14					

EX.: 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
2A	TB2-5,6	I2U	39	1	2	2	Y	Y			
2B	TB2-7,8	I2L	43	5	12	2	Y	Y			
3A	TB4-5,6	I5U	58	20	3	3	Y	Y			10
4A	TB4-9,10	I6U	41	3	4	4	Y	Y			10
✱ S11	TB6-9,10	I9U	60	22	11	SYS					
✱ S12	TB6-11,12	I9L	62	24	13	SYS					
6A	TB3-5,6	J2U	40	2	6	6	Y	Y			
6B	TB3-7,8	J2L	44	6	16	6	Y	Y			
✱ S13	TB7-9,10	J9U	59	21	15	SYS					
✱ S14	TB7-11,12	J9L	61	23	17	SYS					
PED PUSH BUTTONS											
P21,P22	TB8-4,6	I12U	67	29	PED 2	2 PED					
P41,P42	TB8-5,6	I12L	69	31	PED 4	4 PED					
P61,P62	TB8-7,9	I13U	68	30	PED 6	6 PED					
P31,P32	TB8-8,9	I13L	70	32	PED 8	3 PED					

NOTE:
INSTALL DC ISOLATORS IN INPUT FILE SLOTS I12 AND I13.

✱ SYSTEM DETECTOR ONLY. REMOVE THE VEHICLE PHASE ASSIGNED TO THIS DETECTOR IN THE DEFAULT PROGRAMMING.

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

COUNTDOWN PEDESTRIAN SIGNAL OPERATION

Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 08-0125T
DESIGNED: May 2017
SEALED: 6-13-27
REVISED: N/A

Electrical Detail - Temporary Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared in the Offices of:
Transportation Mobility and Safety Division
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signals Management Section
750 N.Greenfield Pkwy,Garner,NC 27529

US 220 Business
(N. Fayetteville Street)
at
SR 1462/SR 2344 (Presnell Street)

Division 8 | Randolph County | Asheboro

PLAN DATE: May 2017 | REVIEWED BY:
PREPARED BY: James Peterson | REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 036880 ENGINEER KEITH M. MIMS

DocuSigned by: Keith M. Mims 6/16/2017
2F80786E6CD34A5 DATE

SIG. INVENTORY NO. 08-0125T

16-JUN-2017 10:26
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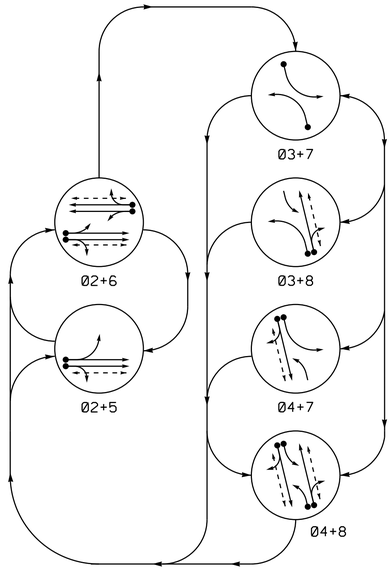
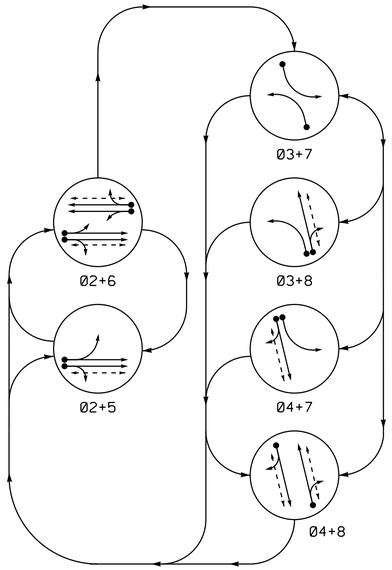
jmpeterson

PROJECT REFERENCE NO.	SHEET NO.
U-5758	Sig. 2.0

DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM

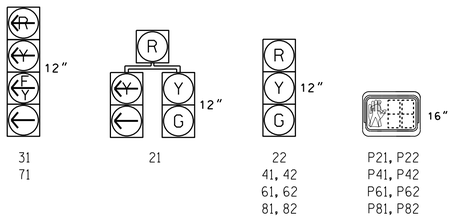


PHASING DIAGRAM DETECTION LEGEND

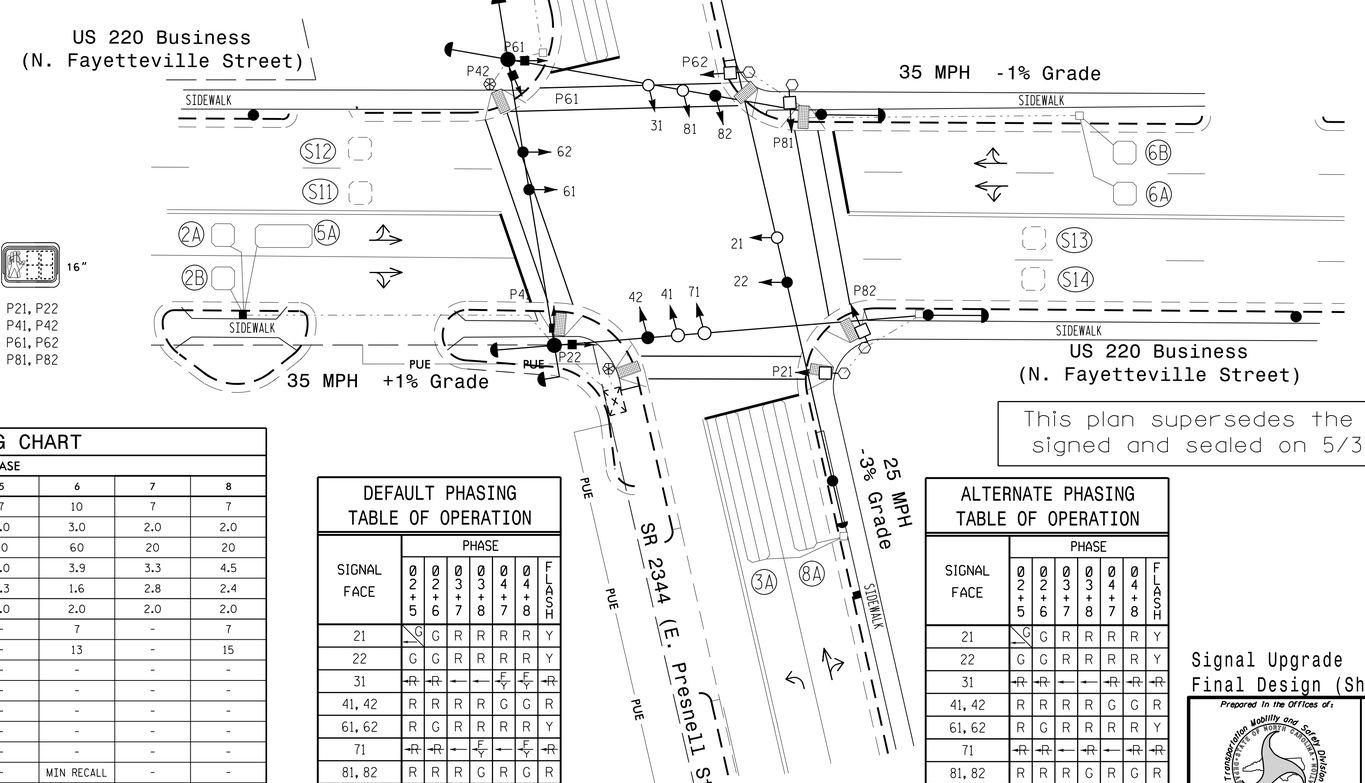
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

SIGNAL FACE I.D.

All Heads L.E.D.



31, 71	21	22, 41, 42, 61, 62, 81, 82	P21, P22, P41, P42, P61, P62, P81, P82



6 Phase Fully Actuated NC 42 (Salisbury St)/ US 220 Bus (Fayetteville St) CLS

OASIS 2070L LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A	6X6	70	4	Y	2	Y	Y	-	-	-	-	-
2B	6X6	70	4	Y	2	Y	Y	-	-	-	-	-
3A	6X40	0	2-4-2	Y	3	Y	Y	-	-	15 *	-	Y
					8 #	Y	Y	-	-	3	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	10	-	-
5A	6X15	50	4	Y	5	Y	Y	-	-	15	-	Y
6A	6X6	70	4	Y	6	Y	Y	-	-	-	-	-
6B	6X6	70	4	Y	6	Y	Y	-	-	-	-	-
7A	6X40	0	2-4-2	Y	7	Y	Y	-	-	15 *	-	Y
					4 #	Y	Y	-	-	3	-	Y
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	10	-	Y
S11	6X6	+125	4	-	-	-	-	-	-	-	Y	-
S12	6X6	+125	4	-	-	-	-	-	-	-	Y	-
S13	6X6	+135	4	-	-	-	-	-	-	-	Y	-
S14	6X6	+135	4	-	-	-	-	-	-	-	Y	-

* Disable Delay During Alternate Phasing Operation.
\# Disable Phase Call For Loop(s) During Alternate Phasing Operation.

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Enable Backup Protect for phase 2 to allow the controller to clear from phase 2+6 to phase 2+5 by progressing through an all red display.
4. Phase 3 and/or phase 7 may be lagged.
5. Renumber existing phase 3 as phase 8.
6. Reposition existing signal heads as necessary.
7. Set all detector units to presence mode.
8. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
9. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
10. Pedestrian pedestals are conceptual and shown for reference only. See sheets P1-P3 for pushbutton location details.
11. The Division Traffic Engineer will determine the hours of use for each phasing plan.
12. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
13. Closed loop system data: Controller Asset #: 0125.

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
N/A	Permanent Easement	PUE
	Directional Arrow	
	Type I Pushbutton Post	
	Type II Signal Pedestal	
N/A	Curb Ramp	

This plan supersedes the plan signed and sealed on 5/30/16.

OASIS 2070 TIMING CHART

FEATURE	PHASE 2	3	4	5	6	7	8
Min Green 1 *	10	7	7	7	10	7	7
Extension 1 *	3.0	2.0	2.0	3.0	3.0	2.0	2.0
Max Green 1 *	60	20	20	20	60	20	20
Yellow Clearance	3.8	3.0	4.5	3.0	3.9	3.3	4.5
Red Clearance	1.7	2.6	2.4	2.3	1.6	2.8	2.4
Red Revert	5.0	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	7	-	7	-	7	-	7
Don't Walk 1	10	-	13	-	13	-	15
Seconds Per Actuation *	-	-	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-	-
Recall Mode	MIN RECALL	-	-	-	MIN RECALL	-	-
Vehicle Call Memory	YELLOW	-	-	-	YELLOW	-	-
Dual Entry	-	-	ON	-	-	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE 02+05	02+06	03+07	03+08	04+07	04+08	FLASH
21	G	G	R	R	R	R	Y
22	G	G	R	R	R	R	Y
31	~~R~~	~~R~~	←	←	~~F Y~~	~~F Y~~	~~R~~
41, 42	R	R	R	R	G	G	R
61, 62	R	G	R	R	R	R	Y
71	~~R~~	~~R~~	←	~~F Y~~	←	~~F Y~~	~~R~~
81, 82	R	R	R	G	R	G	R
P21, P22	W	W	DW	DW	DW	DW	DRK
P41, P42	DW	DW	DW	DW	W	W	DRK
P61, P62	DW	W	DW	DW	DW	DW	DRK
P81, P82	DW	DW	DW	W	DW	W	DRK

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE 02+05	02+06	03+07	03+08	04+07	04+08	FLASH
21	G	G	R	R	R	R	Y
22	G	G	R	R	R	R	Y
31	~~R~~	~~R~~	←	←	~~R~~	~~R~~	~~R~~
41, 42	R	R	R	R	G	G	R
61, 62	R	G	R	R	R	R	Y
71	~~R~~	~~R~~	←	←	~~R~~	~~R~~	~~R~~
81, 82	R	R	R	G	R	G	R
P21, P22	W	W	DW	DW	DW	DW	DRK
P41, P42	DW	DW	DW	DW	W	W	DRK
P61, P62	DW	W	DW	DW	DW	DW	DRK
P81, P82	DW	DW	DW	W	DW	W	DRK

Signal Upgrade
Final Design (Sheet 1 of 2)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared In the Offices of:
Transportation Mobility and Safety Division
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

US 220 Business
(N. Fayetteville Street)
at
SR 1462/SR 2344 (Presnell Street)

Division 8 Randolph County Asheboro

PLAN DATE: May 2017 REVIEWED BY:
PREPARED BY: I. O. Umozurike REVIEWED BY:

SCALE 0 20 1"=20'

REVISIONS	INIT.	DATE

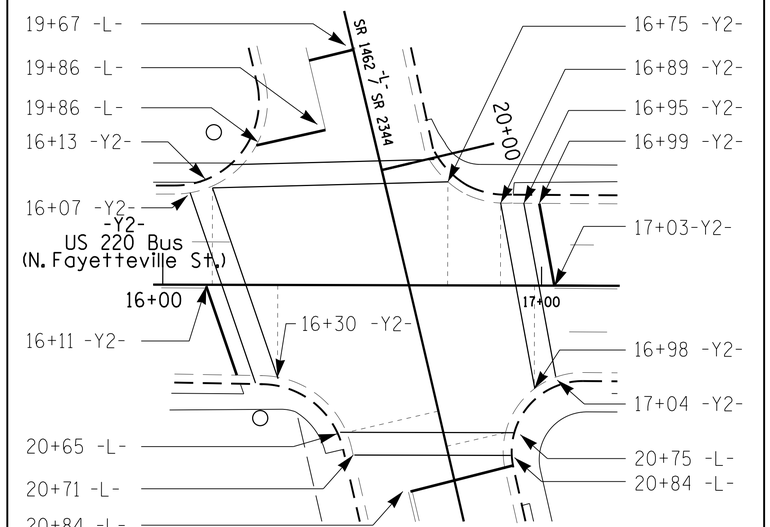
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. ZIEMBA

DocuSigned by: 6/13/2017
SIGNATURE DATE

SIG. INVENTORY NO. 08-0125

PROJECT REFERENCE NO.	SHEET NO.
U-5758	Sig. 2.1

Stopline & Crosswalk Locations



✳ All crosswalks 6' wide

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Enable Backup Protect for phase 2 to allow the controller to clear from phase 2+6 to phase 2+5 by progressing through an all red display.
4. Phase 3 and/or phase 7 may be lagged.
5. Renumber existing phase 3 as phase 8.
6. Reposition existing signal heads as necessary.
7. Set all detector units to presence mode.
8. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
9. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
10. Pedestrian pedestals are conceptual and shown for reference only. See sheets P1-P3 for pushbutton location details.
11. The Division Traffic Engineer will determine the hours of use for each phasing plan.
12. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
13. Closed loop system data:
    Controller Asset #: 0125.

This plan supersedes the plan signed and sealed on 6/30/16.

Signal Upgrade
Final Design (Sheet 2 of 2)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared In the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
1750 N.Greenfield Pkwy.Garner,NC 27529

US 220 Business
(N. Fayetteville Street)
at
SR 1462/SR 2344 (Presnell Street)
Division 8 Randolph County Asheboro

PLAN DATE: May 2017 REVIEWED BY:
PREPARED BY: I. O. Umozurike REVIEWED BY:

SCALE 0 20 1"=20'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. ZIEMBA

DocuSigned by: Robert J. Ziemba 6/13/2017
1800SIGNATURE DATE

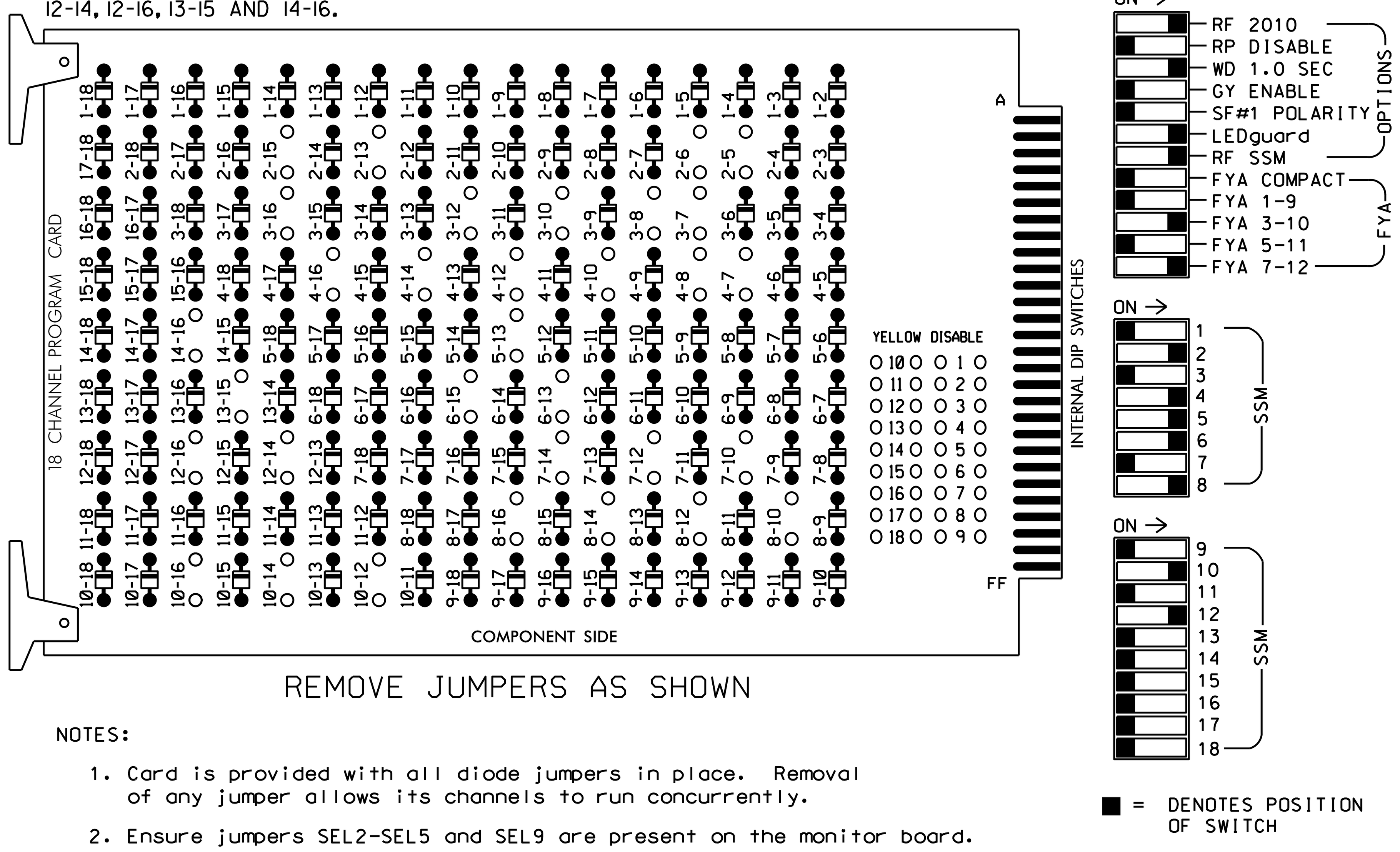
SIG. INVENTORY NO. 08-0125

13-JUN-2017 16:56
S:\TIS\Signals\Signal Design Section\Central Region\Div 8\U-5758\08-0125supersede\08125_sig2_dsn_20170613.dgn
rziemba

EDI MODEL 2018ECL-NC CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 2-5, 2-6, 2-13, 2-15, 3-7, 3-8, 3-10, 3-12, 3-16, 4-7, 4-8, 4-10, 4-12, 4-14, 4-16, 5-13, 6-13, 6-15, 7-10, 7-12, 7-14, 8-10, 8-12, 8-14, 8-16, 10-12, 10-14, 10-16, 12-14, 12-16, 13-15 AND 14-16.



REMOVE JUMPERS AS SHOWN

NOTES:

1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that Red Enable is active at all times during normal operation.
4. Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.

NOTES

1. To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
2. Program phases 4 and 8 for Dual Entry.
3. Enable Simultaneous Gap-Out for all Phases.
4. Program phases 2 and 6 for Startup In Green.
5. Program phases 2, 4, 6, and 8 for Startup Ped Call.
6. Program phases 2 and 6 for Yellow Flash, and overlap 2 as Wag Overlaps.
7. The cabinet and controller are part of the US 220 Bus (Fayetteville St) Closed Loop System.

EQUIPMENT INFORMATION

CONTROLLER..............2070
CABINET.................332 W/ AUX
SOFTWARE................ECONOLITE OASIS
CABINET MOUNT...........BASE
OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE
LOAD SWITCHES USED......S2,S3,S4,S5,S6,S7,S8,S9,S10,S11, S12,AUX S2,AUX S5
PHASES USED.............2,3,4,5,6,7,8,2 PED,4 PED,6 PED,8 PED
OVERLAP "A".............NOT USED
OVERLAP "B".............3+4
OVERLAP "C".............NOT USED
OVERLAP "D".............7+8

PROJECT REFERENCE NO.	SHEET NO.
U-5758	Sig. 2.2

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OLA	OLB	SPARE	OLC	OLD	SPARE
SIGNAL HEAD NO.	NU	21,22	P21, P22	31★	41,42	P41, P42	21	61,62	P61, P62	71★	81,82	P81, P82	NU	31★	NU	NU	71★	NU
RED		128			101		✳	134			107							
YELLOW		129		✳	102			135		✳	108							
GREEN		130			103			136			109							
RED ARROW														A124			A101	
YELLOW ARROW							132							A125			A102	
FLASHING YELLOW ARROW														A126			A103	
GREEN ARROW				118			133			124								
(Don't Walk hand)			113			104			119			110						
(Walk person)			115			106			121			112						

NU = Not Used

✳ Denotes install load resistor. See load resistor installation detail this sheet.

★ See pictorial of head wiring in detail this sheet.

COUNTDOWN PEDESTRIAN SIGNAL OPERATION

Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

INPUT FILE POSITION LAYOUT

(front view)

FILE		1	2	3	4	5	6	7	8	9	10	11	12	13	14
"I"	U	SLOT EMPTY	Ø 2 2A	SLOT EMPTY	SLOT EMPTY	Ø 3 3A	Ø 4 4A	SLOT EMPTY	WIRED INPUT ⊗	SYS. DET. S11	SLOT EMPTY	SLOT EMPTY	Ø2 PED DC ISOLATOR	Ø6 PED DC ISOLATOR	FS DC ISOLATOR
"I"	L		Ø 2 2B			NOT USED	NOT USED			SYS. DET. S12			Ø4 PED DC ISOLATOR	Ø8 PED DC ISOLATOR	ST DC ISOLATOR
"J"	U	Ø 5 5A	Ø 6 6A	SLOT EMPTY	SLOT EMPTY	Ø 7 7A	Ø 8 8A	SLOT EMPTY	WIRED INPUT ⊗	SYS. DET. S13	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
"J"	L	NOT USED	Ø 6 6B			NOT USED	NOT USED			SYS. DET. S14					

EX.: 1A, 2A, ETC. = LOOP NO.'S

⊗ Wired Input - Do not populate slot with detector card

FS = FLASH SENSE
ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
2A	TB2-5,6	I2U	39	1	2	2	Y	Y			
2B	TB2-7,8	I2L	43	5	12	2	Y	Y			
3A[1]	TB4-5,6	I5U	58	20	3	3	Y	Y			15
	-	J8U	50	12★	28	8	Y	Y			3
	-	I5U	58	20★	53	3	Y	Y			
4A	TB4-9,10	I6U	41	3	4	4	Y	Y			10
✳ S11	TB6-9,10	I9U	60	22	11	SYS					
✳ S12	TB6-11,12	I9L	62	24	13	SYS					
5A	TB3-1,2	J1U	55	17	5	5	Y	Y			15
6A	TB3-5,6	J2U	40	2	6	6	Y	Y			
6B	TB3-7,8	J2L	44	6	16	6	Y	Y			
7A[2]	TB5-5,6	J5U	57	19	7	7	Y	Y			15
	-	I8U	49	11★	24	4	Y	Y			3
	-	J5U	57	19★	57	7	Y	Y			
8A	TB5-9,10	J6U	42	4	8	8	Y	Y			10
✳ S13	TB7-9,10	J9U	59	21	15	SYS					
✳ S14	TB7-11,12	J9L	61	23	17	SYS					
PED PUSH BUTTONS											
P21,P22	TB8-4,6	I12U	67	29	PED 2	2 PED					
P41,P42	TB8-5,6	I12L	69	31	PED 4	4 PED					
P61,P62	TB8-7,9	I13U	68	30	PED 6	6 PED					
P81,P82	TB8-8,9	I13L	70	32	PED 8	8 PED					

NOTE:
INSTALL DC ISOLATORS IN INPUT FILE SLOTS I12 AND I13.

[1] Add jumper from I5-W to J8-W, on rear of input file.

[2] Add jumper from J5-W to I8-W, on rear of input file.

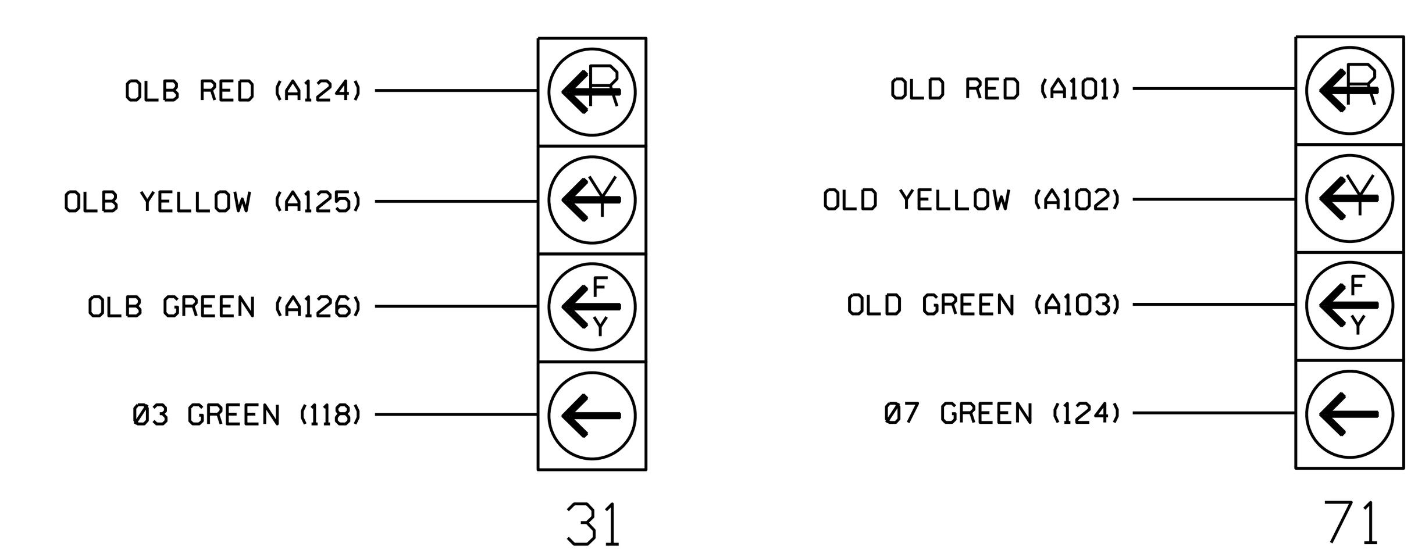
★ See Input Page Assignment programming details on sheets 3 and 4.

✳ System detector only. Remove the vehicle phase assigned to this detector in the default programming.

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



NOTE

The sequence display for signal heads 31 and 71 requires special logic programming. See sheet 2 for programming instructions.

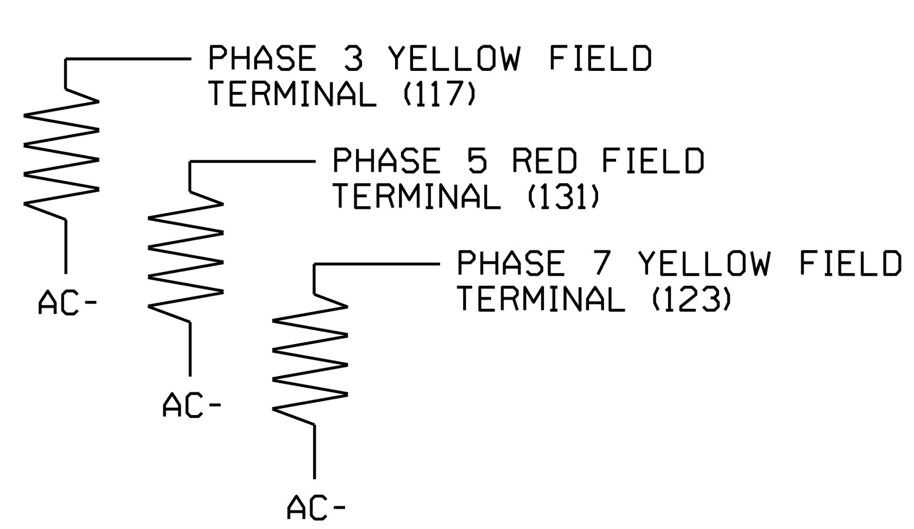
THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 08-0125
DESIGNED: May 2017
SEALED: 6-13-17
REVISED: N/A

This Electrical Detail supersedes the detail sealed on 7-07-16.

LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown below)

ACCEPTABLE VALUES	
VALUE (ohms)	WATTAGE
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)



BACKUP PROTECTION NOTE

(program controller as shown below)

From Main Menu press '2' (Phase Control), then '1' (Phase Control Functions). Program phase 2 for 'Backup Protect'. Make sure the Red Revert times shown on the Signal Design Plans are programmed in the 'Phase Timing' menu.

Electrical Detail - Sheet 1 of 5

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared in the Offices of: Transportation Mobility and Safety Division, Signals Management Section, 750 N.Greenfield Pkwy,Garner,NC 27529

US 220 Business
(N. Fayetteville Street)
at
SR 1462/SR 2344 (Presnell Street)

Division 8 Randolph County Asheboro

PLAN DATE: May 2017	REVIEWED BY:
PREPARED BY: James Peterson	REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 036880 ENGINEER KEITH M. MIMS

DocuSigned by: Keith M. Mims 6/16/2017
2F80786E8CD34A5...
DATE

SIG. INVENTORY NO. 08-0125

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jtpeterson

PROJECT REFERENCE NO.	SHEET NO.
U-5758	Sig. 2.3

LOGICAL I/O PROCESSOR PROGRAMMING DETAIL TO PRODUCE SPECIAL FYA-PPLT SIGNAL SEQUENCE

(program controller as shown below)

1. FROM MAIN MENU PRESS '2' (PHASE CONTROL), THEN '1' (PHASE CONTROL FUNCTIONS). SCROLL TO THE BOTTOM OF THE MENU AND ENABLE ACT LOGIC COMMANDS 1, 2, 3, 4, 5 and 6.

2. FROM MAIN MENU PRESS '6' (OUTPUTS), THEN '3' (LOGICAL I/O PROCESSOR).

```
  LOGICAL I/O COMMAND #1  (+/-COMMAND#)
IF  ACTIVE PHASE       #3  IS ON
AND RED CLEAR ON PHASE #3  IS ON

            SCROLL DOWN

 THEN:
 SET OUTPUT  ASSIGNMENT #47 ON
 SET OUTPUT  ASSIGNMENT #48 OFF
```

NOTE: LOGIC FOR PHASE 3 RED CLEAR WHEN TRANSITIONING FROM PHASE 3 TO PHASE 4 (HEAD 31).

PRESS '+'

```
  LOGICAL I/O COMMAND #2  (+/-COMMAND#)
IF  ACTIVE PHASE       #3  IS ON

            SCROLL DOWN

 THEN:
 SET OUTPUT  ASSIGNMENT #49 OFF
```

NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 3 (HEAD 31).

PRESS '+'

```
  LOGICAL I/O COMMAND #3  (+/-COMMAND#)
IF  YELLOW ON PHASE    #3  IS ON

            SCROLL DOWN

 THEN:
 SET OUTPUT  ASSIGNMENT #48 ON
```

NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 3 (HEAD 31).

PRESS '+'

```
  LOGICAL I/O COMMAND #4  (+/-COMMAND#)
IF  ACTIVE PHASE       #7  IS ON
AND RED CLEAR ON PHASE #7  IS ON

            SCROLL DOWN

 THEN:
 SET OUTPUT  ASSIGNMENT #39 ON
 SET OUTPUT  ASSIGNMENT #40 OFF
```

NOTE: LOGIC FOR PHASE 7 RED CLEAR WHEN TRANSITIONING FROM PHASE 7 TO PHASE 8 (HEAD 71).

PRESS '+'

```
  LOGICAL I/O COMMAND #5  (+/-COMMAND#)
IF  ACTIVE PHASE       #7  IS ON

            SCROLL DOWN

 THEN:
 SET OUTPUT  ASSIGNMENT #41 OFF
```

NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 7 (HEAD 71).

PRESS '+'

```
  LOGICAL I/O COMMAND #6  (+/-COMMAND#)
IF  YELLOW ON PHASE    #7  IS ON

            SCROLL DOWN

 THEN:
 SET OUTPUT  ASSIGNMENT #40 ON
```

NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 7 (HEAD 71).

LOGIC I/O PROCESSOR PROGRAMMING COMPLETE

OUTPUT REFERENCE SCHEDULE

USE TO INTERPRET LOGIC PROCESSOR

OUTPUT 39 = Overlap D Red
OUTPUT 40 = Overlap D Yellow
OUTPUT 41 = Overlap D Green
OUTPUT 47 = Overlap B Red
OUTPUT 48 = Overlap B Yellow
OUTPUT 49 = Overlap B Green

OVERLAP PROGRAMMING DETAIL FOR DEFAULT PHASING

(program controller as shown below)

FROM MAIN MENU PRESS '8' (OVERLAPS), THEN '1' (VEHICLE OVERLAP SETTINGS).

PRESS '+'

```
 PAGE 1: VEHICLE OVERLAP 'B' SETTINGS
 PHASE:          :1234567891011121314151 6
VEH OVL PARENTS::  XX
VEH OVL NOT VEH::
VEH OVL NOT PED::
VEH OVL GRN EXT::
STARTUP COLOR: _ RED  _ YELLOW  _ GREEN
FLASH COLORS:  _ RED  _ YELLOW  X GREEN
SELECT VEHICLE OVERLAP OPTIONS:   (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...N
GREEN EXTENSION (0-255 SEC).........0
YELLOW CLEAR (O=PARENT,3-25.5 SEC)..0.0
RED CLEAR (O=PARENT,0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (O=NONE, 1-16)....0
```

← NOTICE GREEN FLASH

PRESS '+' TWICE

```
 PAGE 1: VEHICLE OVERLAP 'D' SETTINGS
 PHASE:          :1234567891011121314151 6
VEH OVL PARENTS::     XX
VEH OVL NOT VEH::
VEH OVL NOT PED::
VEH OVL GRN EXT::
STARTUP COLOR: _ RED  _ YELLOW  _ GREEN
FLASH COLORS:  _ RED  _ YELLOW  X GREEN
SELECT VEHICLE OVERLAP OPTIONS:   (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...N
GREEN EXTENSION (0-255 SEC).........0
YELLOW CLEAR (O=PARENT,3-25.5 SEC)..0.0
RED CLEAR (O=PARENT,0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (O=NONE, 1-16)....0
```

← NOTICE GREEN FLASH

OVERLAP PROGRAMMING COMPLETE

OVERLAP PROGRAMMING DETAIL FOR ALTERNATE PHASING

(program controller as shown below)

FROM MAIN MENU PRESS '8' (OVERLAPS). THEN '1' (VEHICLE OVERLAP SETTINGS). PRESS 'NEXT' TO ADVANCE TO PAGE 2.

PRESS '+'

NOTICE PAGE 2 →

```
 PAGE 2: VEHICLE OVERLAP 'B' SETTINGS
 PHASE:          :1234567891011121314151 6
VEH OVL PARENTS::  X
VEH OVL NOT VEH::
VEH OVL NOT PED::
VEH OVL GRN EXT::
STARTUP COLOR: _ RED  _ YELLOW  _ GREEN
FLASH COLORS:  _ RED  _ YELLOW  _ GREEN
SELECT VEHICLE OVERLAP OPTIONS:   (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...N
GREEN EXTENSION (0-255 SEC).........0
YELLOW CLEAR (O=PARENT,3-25.5 SEC)..0.0
RED CLEAR (O=PARENT,0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (O=NONE, 1-16)....0
```

PRESS '+' TWICE

NOTICE PAGE 2 →

```
 PAGE 2: VEHICLE OVERLAP 'D' SETTINGS
 PHASE:          :1234567891011121314151 6
VEH OVL PARENTS::     X
VEH OVL NOT VEH::
VEH OVL NOT PED::
VEH OVL GRN EXT::
STARTUP COLOR: _ RED  _ YELLOW  _ GREEN
FLASH COLORS:  _ RED  _ YELLOW  _ GREEN
SELECT VEHICLE OVERLAP OPTIONS:   (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...N
GREEN EXTENSION (0-255 SEC).........0
YELLOW CLEAR (O=PARENT,3-25.5 SEC)..0.0
RED CLEAR (O=PARENT,0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (O=NONE, 1-16)....0
```

OVERLAP PROGRAMMING COMPLETE

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 08-0125
DESIGNED: May 2017
SEALED: 6-13-17
REVISED: N/A

This Electrical Detail supersedes the detail sealed on 7-07-16.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared in the Offices of:

Transportation Mobility and Safety Division
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Management Section

750 N.Greenfield Pkwy.Garner,NC 27529

US 220 Business
(N. Fayetteville Street)
at
SR 1462/SR 2344 (Presnell Street)

Division 8 | Randolph County | Asheboro

PLAN DATE: May 2017 | REVIEWED BY:

PREPARED BY: James Peterson | REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 036880 ENGINEER KEITH M. MIMS

DocuSigned by: Keith M. Mims 6/16/2017
2F80786E8CD34A5 DATE

SIG. INVENTORY NO. 08-0125

INPUT PAGE 2 ASSIGNMENT PROGRAMMING DETAIL FOR ALTERNATE PHASING - LOOP 3A

(program controller as shown below)

NOTES: 1. THIS PROGRAMMING APPLIES FOR INPUT PAGE 2 ONLY. INPUT PAGE 1 WILL USE STANDARD DEFAULT SETTINGS. THIS PROGRAMMING IS NECESSARY FOR PROPER DETECTOR OPERATION DURING ALTERNATE PHASING OPERATION.

2. THE FIRST TASK THIS PROGRAMMING ACCOMPLISHES IS THE DISABLING OF INPUT #12 (DETECTOR 28) SO THAT A VEHICLE CALL WILL NOT BE PLACED TO PHASE 8 DURING ALTERNATE PHASING OPERATION. THE SECOND TASK THIS PROGRAMMING ACCOMPLISHES IS THAT IT REASSIGNS DETECTOR 53 TO INPUT #20 SO THAT THE DELAY ON LOOP 3A CAN BE REDUCED FROM 15 SECONDS TO 0 SECONDS.

FROM MAIN MENU PRESS '5' (INPUTS), THEN PRESS 'NEXT' TO GET TO INPUT PAGE '2'. PRESS THE '+' KEY UNTIL INPUT 12 IS REACHED.

```
PAGE: 2 C1 PIN:50  VEHICLE DETECTOR
INPUT ASSIGNMENT #..................12
DEBOUNCE TIME (0-25.5 SEC)..........0.5
DELAY TIME (0-25.5 SEC).............0.0
HOLD-OVER TIME (0-25.5 SEC).........0.0
ASSIGNMENT SELECTION:
NOT ENABLED (Y/N)...................Y
VEHICLE DETECTOR (1-64).............28
PEDESTRIAN DETECTOR (1-16).........._
ALTERNATE PED DETECTOR (1-16)......._
PREEMPT (1-10)......................_
INVERTED PREEMPT (1-10)............._
STOP TIME (Y/N)....................._
FLASH SENSE (Y/N)..................._
DOOR OPEN (Y/N)....................._
MANUAL CONTROL ENABLE (Y/N)........._
MANUAL CONTROL ADVANCE (Y/N)........_
SPECIAL FUNCTION ALARM (1-8)........_
TOD HOUR SYCHRONIZATION (0-23)......_
FORCE OFF RING (1-4)................_
HOLD PHASES (1-16).................._
PLAN (65=FLSH,66=FREE).._  OFFSET#.._
CHANGE PHASE SEQUENCE PAGE (1-12)..._
CHANGE PHASE TIMING PAGE (1-4)......_
CHANGE PHASE CONTROL PAGE (1-4)....._
CHANGE OVERLAP CONTROL PAGE (1-4)..._
CHANGE INPUT PAGE (1-4)............._
CHANGE OUTPUT PAGE (1-4)............_
OVERRIDE PHASE CONTROL FUNCTION (Y)._
```

ENTER A 'Y' FOR NOT ENABLED →

DEFAULT DETECTOR NUMBER WILL REMAIN UNTIL 'NOT ENABLED' IS ENTERED.

(LOOP 3A - PHASE 8)

```
PAGE: 2 C1 PIN:50  NOT ENABLED
INPUT ASSIGNMENT #..................12
DEBOUNCE TIME (0-25.5 SEC)..........0.5
DELAY TIME (0-25.5 SEC).............0.0
HOLD-OVER TIME (0-25.5 SEC).........0.0
ASSIGNMENT SELECTION:
NOT ENABLED (Y/N)...................Y
VEHICLE DETECTOR (1-64)............._
PEDESTRIAN DETECTOR (1-16).........._
ALTERNATE PED DETECTOR (1-16)......._
PREEMPT (1-10)......................_
INVERTED PREEMPT (1-10)............._
STOP TIME (Y/N)....................._
FLASH SENSE (Y/N)..................._
DOOR OPEN (Y/N)....................._
MANUAL CONTROL ENABLE (Y/N)........._
MANUAL CONTROL ADVANCE (Y/N)........_
SPECIAL FUNCTION ALARM (1-8)........_
TOD HOUR SYCHRONIZATION (0-23)......_
FORCE OFF RING (1-4)................_
HOLD PHASES (1-16).................._
PLAN (65=FLSH,66=FREE).._  OFFSET#.._
CHANGE PHASE SEQUENCE PAGE (1-12)..._
CHANGE PHASE TIMING PAGE (1-4)......_
CHANGE PHASE CONTROL PAGE (1-4)....._
CHANGE OVERLAP CONTROL PAGE (1-4)..._
CHANGE INPUT PAGE (1-4)............._
CHANGE OUTPUT PAGE (1-4)............_
OVERRIDE PHASE CONTROL FUNCTION (Y)._
```

PRESS '+' TO ADVANCE TO INPUT 20

```
PAGE: 2 C1 PIN:58  VEHICLE DETECTOR
INPUT ASSIGNMENT #..................20
DEBOUNCE TIME (0-25.5 SEC)..........0.5
DELAY TIME (0-25.5 SEC).............0.0
HOLD-OVER TIME (0-25.5 SEC).........0.0
ASSIGNMENT SELECTION:
NOT ENABLED (Y/N)..................._
VEHICLE DETECTOR (1-64).............3
PEDESTRIAN DETECTOR (1-16).........._
ALTERNATE PED DETECTOR (1-16)......._
PREEMPT (1-10)......................_
INVERTED PREEMPT (1-10)............._
STOP TIME (Y/N)....................._
FLASH SENSE (Y/N)..................._
DOOR OPEN (Y/N)....................._
MANUAL CONTROL ENABLE (Y/N)........._
MANUAL CONTROL ADVANCE (Y/N)........_
SPECIAL FUNCTION ALARM (1-8)........_
TOD HOUR SYCHRONIZATION (0-23)......_
FORCE OFF RING (1-4)................_
HOLD PHASES (1-16).................._
PLAN (65=FLSH,66=FREE).._  OFFSET#.._
CHANGE PHASE SEQUENCE PAGE (1-12)..._
CHANGE PHASE TIMING PAGE (1-4)......_
CHANGE PHASE CONTROL PAGE (1-4)....._
CHANGE OVERLAP CONTROL PAGE (1-4)..._
CHANGE INPUT PAGE (1-4)............._
CHANGE OUTPUT PAGE (1-4)............_
OVERRIDE PHASE CONTROL FUNCTION (Y)._
```

→ ENTER '53' TO REASSIGN THE VEHICLE DETECTOR FOR THIS INPUT →

(LOOP 3A - PHASE 3)

```
PAGE: 2 C1 PIN:58  VEHICLE DETECTOR
INPUT ASSIGNMENT #..................20
DEBOUNCE TIME (0-25.5 SEC)..........0.5
DELAY TIME (0-25.5 SEC).............0.0
HOLD-OVER TIME (0-25.5 SEC).........0.0
ASSIGNMENT SELECTION:
NOT ENABLED (Y/N)..................._
VEHICLE DETECTOR (1-64).............53
PEDESTRIAN DETECTOR (1-16).........._
ALTERNATE PED DETECTOR (1-16)......._
PREEMPT (1-10)......................_
INVERTED PREEMPT (1-10)............._
STOP TIME (Y/N)....................._
FLASH SENSE (Y/N)..................._
DOOR OPEN (Y/N)....................._
MANUAL CONTROL ENABLE (Y/N)........._
MANUAL CONTROL ADVANCE (Y/N)........_
SPECIAL FUNCTION ALARM (1-8)........_
TOD HOUR SYCHRONIZATION (0-23)......_
FORCE OFF RING (1-4)................_
HOLD PHASES (1-16).................._
PLAN (65=FLSH,66=FREE).._  OFFSET#.._
CHANGE PHASE SEQUENCE PAGE (1-12)..._
CHANGE PHASE TIMING PAGE (1-4)......_
CHANGE PHASE CONTROL PAGE (1-4)....._
CHANGE OVERLAP CONTROL PAGE (1-4)..._
CHANGE INPUT PAGE (1-4)............._
CHANGE OUTPUT PAGE (1-4)............_
OVERRIDE PHASE CONTROL FUNCTION (Y)._
```

PROGRAMMING COMPLETE

SPECIAL DETECTOR PROGRAMMING DETAIL - LOOP 3A (ALT.)

(program controller as shown below)

FROM MAIN MENU PRESS '7' (DETECTORS), THEN PRESS '1' FOR VEHICLE DETECTORS. PRESS THE '-' KEY TO GET TO VEHICLE DETECTOR #53.

```
VEHICLE DETECTOR #53  SETTINGS (+-,1-64)
SETTING:                           (Y/N)
ENABLE DETECTOR.....................N
ENABLE LOGGING......................N
ENABLE DIAGNOSTICS..................N
SPEED TRAP..........................N
CALL DETECTOR.......................Y
EXTENSION DETECTOR..................Y
MODE 2 STOP BAR.....................N
SWITCHING DETECTOR..................N
DUPLICATING DETECTOR................N
ENABLE FULL TIME DELAY..............N
IF FAILED, SET MIN RECALL?..........N
IF FAILED, SET MAX1 RECALL?.........N
IF FAILED, SET MAX2 RECALL?.........N
PHASE#          ¦12345678910111213141516
PHASES ASSIGNED ¦
SWITCH/DUPLICATE¦
LOOP SIZE (0-255 FT)................6
SPEED TRAP DISTANCE (0-255 FT)......0
STOP BAR TIME (0-255 SEC)...........0
STRETCH (0-25.5 SEC)................0.0
DELAY (0-255 SEC)...................0
MAX CALLS/MIN (0-255)...............255
MIN CALLS/DIAGNOSTIC PERIOD (0-255).0
MAX OCCUPANCY (0-100%)..............100
EXTENSION DISABLE TIME (0-255 SEC)..0
QUEUE MAX OCCUPANCY TIME (0-255)....0
QUEUE GAP RESET TIME (0-25.5).......0.0
PREEMPTION INDEX FOR QUEUE (0-10)...0
```

→ ENTER 'Y' FOR ENABLE DETECTOR →

ENTER '3' FOR PHASES ASSIGNED →

ENSURE DELAY IS '0' →

```
VEHICLE DETECTOR #53  SETTINGS (+-,1-64)
SETTING:                           (Y/N)
ENABLE DETECTOR.....................Y
ENABLE LOGGING......................N
ENABLE DIAGNOSTICS..................N
SPEED TRAP..........................N
CALL DETECTOR.......................Y
EXTENSION DETECTOR..................Y
MODE 2 STOP BAR.....................N
SWITCHING DETECTOR..................N
DUPLICATING DETECTOR................N
ENABLE FULL TIME DELAY..............N
IF FAILED, SET MIN RECALL?..........N
IF FAILED, SET MAX1 RECALL?.........N
IF FAILED, SET MAX2 RECALL?.........N
PHASE#          ¦12345678910111213141516
PHASES ASSIGNED ¦  X
SWITCH/DUPLICATE¦
LOOP SIZE (0-255 FT)................6
SPEED TRAP DISTANCE (0-255 FT)......0
STOP BAR TIME (0-255 SEC)...........0
STRETCH (0-25.5 SEC)................0.0
DELAY (0-255 SEC)...................0
MAX CALLS/MIN (0-255)...............255
MIN CALLS/DIAGNOSTIC PERIOD (0-255).0
MAX OCCUPANCY (0-100%)..............100
EXTENSION DISABLE TIME (0-255 SEC)..0
QUEUE MAX OCCUPANCY TIME (0-255)....0
QUEUE GAP RESET TIME (0-25.5).......0.0
PREEMPTION INDEX FOR QUEUE (0-10)...0
```

DETECTOR PROGRAMMING COMPLETE

NOTE: DETECTOR IS PROGRAMMED PER THE INPUT FILE CONNECTION AND PROGRAMMING CHART SHOWN ON SHEET 1.

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 08-0125
DESIGNED: May 2017
SEALED: 6-13-17
REVISED: N/A

This Electrical Detail supersedes the detail sealed on 7-07-16.

Electrical Detail - Sheet 3 of 5

ELECTRICAL AND PROGRAMMING DETAILS FOR: Prepared in the Offices of: Transportation Mobility and Safety Division, Signals Management Section, 750 N.Greenfield Pkwy,Garner,NC 27529	US 220 Business (N. Fayetteville Street) at SR 1462/SR 2344 (Presnell Street)	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
	Division 8 Randolph County Asheboro	SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 036880 KEITH M. MIMS
	PLAN DATE: May 2017 REVIEWED BY:	DocuSigned by: Keith M. Mims 6/16/2017 DATE
	PREPARED BY: James Peterson REVIEWED BY:	
	REVISIONS INIT. DATE	SIG. INVENTORY NO. 08-0125

16-JUN-2017 10:31
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jtpeterson

INPUT PAGE 2 ASSIGNMENT PROGRAMMING DETAIL FOR ALTERNATE PHASING - LOOP 7A

(program controller as shown below)

NOTES:
1. THIS PROGRAMMING APPLIES FOR INPUT PAGE 2 ONLY. INPUT PAGE 1 WILL USE STANDARD DEFAULT SETTINGS. THIS PROGRAMMING IS NECESSARY FOR PROPER DETECTOR OPERATION DURING ALTERNATE PHASING OPERATION.
2. THE FIRST TASK THIS PROGRAMMING ACCOMPLISHES IS THE DISABLING OF INPUT #11 (DETECTOR 24) SO THAT A VEHICLE CALL WILL NOT BE PLACED TO PHASE 4 DURING ALTERNATE PHASING OPERATION. THE SECOND TASK THIS PROGRAMMING ACCOMPLISHES IS THAT IT REASSIGNS DETECTOR 57 TO INPUT #19 SO THAT THE DELAY ON LOOP 7A CAN BE REDUCED FROM 15 SECONDS TO 0 SECONDS.

FROM MAIN MENU PRESS '5' (INPUTS), THEN PRESS 'NEXT' TO GET TO INPUT PAGE '2'. PRESS THE '+' KEY UNTIL INPUT 11 IS REACHED.

```
PAGE: 2 C1 PIN:49  VEHICLE DETECTOR
INPUT ASSIGNMENT #..................11
DEBOUNCE TIME (0-25.5 SEC)..........0.5
DELAY TIME (0-25.5 SEC).............0.0
HOLD-OVER TIME (0-25.5 SEC).........0.0
ASSIGNMENT SELECTION:
NOT ENABLED (Y/N)...................Y
VEHICLE DETECTOR (1-64).............24
PEDESTRIAN DETECTOR (1-16).........._
ALTERNATE PED DETECTOR (1-16)......._
PREEMPT (1-10)......................_
INVERTED PREEMPT (1-10)............._
STOP TIME (Y/N)....................._
FLASH SENSE (Y/N)..................._
DOOR OPEN (Y/N)....................._
MANUAL CONTROL ENABLE (Y/N)........._
MANUAL CONTROL ADVANCE (Y/N)........_
SPECIAL FUNCTION ALARM (1-8)........_
TOD HOUR SYCHRONIZATION (0-23)......_
FORCE OFF RING (1-4)................_
HOLD PHASES (1-16).................._
PLAN (65=FLSH,66=FREE).._  OFFSET#.._
CHANGE PHASE SEQUENCE PAGE (1-12)..._
CHANGE PHASE TIMING PAGE (1-4)......_
CHANGE PHASE CONTROL PAGE (1-4)....._
CHANGE OVERLAP CONTROL PAGE (1-4)..._
CHANGE INPUT PAGE (1-4)............._
CHANGE OUTPUT PAGE (1-4)............_
OVERRIDE PHASE CONTROL FUNCTION (Y)._
```

→ ENTER A 'Y' FOR NOT ENABLED →

DEFAULT DETECTOR NUMBER WILL REMAIN UNTIL 'NOT ENABLED' IS ENTERED.

(LOOP 7A - PHASE 4)

```
PAGE: 2 C1 PIN:49  NOT ENABLED
INPUT ASSIGNMENT #..................11
DEBOUNCE TIME (0-25.5 SEC)..........0.5
DELAY TIME (0-25.5 SEC).............0.0
HOLD-OVER TIME (0-25.5 SEC).........0.0
ASSIGNMENT SELECTION:
NOT ENABLED (Y/N)...................Y
VEHICLE DETECTOR (1-64)............._
PEDESTRIAN DETECTOR (1-16).........._
ALTERNATE PED DETECTOR (1-16)......._
PREEMPT (1-10)......................_
INVERTED PREEMPT (1-10)............._
STOP TIME (Y/N)....................._
FLASH SENSE (Y/N)..................._
DOOR OPEN (Y/N)....................._
MANUAL CONTROL ENABLE (Y/N)........._
MANUAL CONTROL ADVANCE (Y/N)........_
SPECIAL FUNCTION ALARM (1-8)........_
TOD HOUR SYCHRONIZATION (0-23)......_
FORCE OFF RING (1-4)................_
HOLD PHASES (1-16).................._
PLAN (65=FLSH,66=FREE).._  OFFSET#.._
CHANGE PHASE SEQUENCE PAGE (1-12)..._
CHANGE PHASE TIMING PAGE (1-4)......_
CHANGE PHASE CONTROL PAGE (1-4)....._
CHANGE OVERLAP CONTROL PAGE (1-4)..._
CHANGE INPUT PAGE (1-4)............._
CHANGE OUTPUT PAGE (1-4)............_
OVERRIDE PHASE CONTROL FUNCTION (Y)._
```

PRESS '+' TO ADVANCE TO INPUT 19

```
PAGE: 2 C1 PIN:57  VEHICLE DETECTOR
INPUT ASSIGNMENT #..................19
DEBOUNCE TIME (0-25.5 SEC)..........0.5
DELAY TIME (0-25.5 SEC).............0.0
HOLD-OVER TIME (0-25.5 SEC).........0.0
ASSIGNMENT SELECTION:
NOT ENABLED (Y/N)..................._
VEHICLE DETECTOR (1-64).............7
PEDESTRIAN DETECTOR (1-16).........._
ALTERNATE PED DETECTOR (1-16)......._
PREEMPT (1-10)......................_
INVERTED PREEMPT (1-10)............._
STOP TIME (Y/N)....................._
FLASH SENSE (Y/N)..................._
DOOR OPEN (Y/N)....................._
MANUAL CONTROL ENABLE (Y/N)........._
MANUAL CONTROL ADVANCE (Y/N)........_
SPECIAL FUNCTION ALARM (1-8)........_
TOD HOUR SYCHRONIZATION (0-23)......_
FORCE OFF RING (1-4)................_
HOLD PHASES (1-16).................._
PLAN (65=FLSH,66=FREE).._  OFFSET#.._
CHANGE PHASE SEQUENCE PAGE (1-12)..._
CHANGE PHASE TIMING PAGE (1-4)......_
CHANGE PHASE CONTROL PAGE (1-4)....._
CHANGE OVERLAP CONTROL PAGE (1-4)..._
CHANGE INPUT PAGE (1-4)............._
CHANGE OUTPUT PAGE (1-4)............_
OVERRIDE PHASE CONTROL FUNCTION (Y)._
```

→ ENTER '57' TO REASSIGN THE VEHICLE DETECTOR FOR THIS INPUT →

(LOOP 7A - PHASE 7)

```
PAGE: 2 C1 PIN:57  VEHICLE DETECTOR
INPUT ASSIGNMENT #..................19
DEBOUNCE TIME (0-25.5 SEC)..........0.5
DELAY TIME (0-25.5 SEC).............0.0
HOLD-OVER TIME (0-25.5 SEC).........0.0
ASSIGNMENT SELECTION:
NOT ENABLED (Y/N)..................._
VEHICLE DETECTOR (1-64).............57
PEDESTRIAN DETECTOR (1-16).........._
ALTERNATE PED DETECTOR (1-16)......._
PREEMPT (1-10)......................_
INVERTED PREEMPT (1-10)............._
STOP TIME (Y/N)....................._
FLASH SENSE (Y/N)..................._
DOOR OPEN (Y/N)....................._
MANUAL CONTROL ENABLE (Y/N)........._
MANUAL CONTROL ADVANCE (Y/N)........_
SPECIAL FUNCTION ALARM (1-8)........_
TOD HOUR SYCHRONIZATION (0-23)......_
FORCE OFF RING (1-4)................_
HOLD PHASES (1-16).................._
PLAN (65=FLSH,66=FREE).._  OFFSET#.._
CHANGE PHASE SEQUENCE PAGE (1-12)..._
CHANGE PHASE TIMING PAGE (1-4)......_
CHANGE PHASE CONTROL PAGE (1-4)....._
CHANGE OVERLAP CONTROL PAGE (1-4)..._
CHANGE INPUT PAGE (1-4)............._
CHANGE OUTPUT PAGE (1-4)............_
OVERRIDE PHASE CONTROL FUNCTION (Y)._
```

PROGRAMMING COMPLETE

SPECIAL DETECTOR PROGRAMMING DETAIL - LOOP 7A (ALT.)

(program controller as shown below)

FROM MAIN MENU PRESS '7' (DETECTORS), THEN PRESS '1' FOR VEHICLE DETECTORS. PRESS THE '-' KEY TO GET TO VEHICLE DETECTOR #57.

```
VEHICLE DETECTOR #57  SETTINGS (+-,1-64)
SETTING:                           (Y/N)
ENABLE DETECTOR.....................N
ENABLE LOGGING......................N
ENABLE DIAGNOSTICS..................N
SPEED TRAP..........................N
CALL DETECTOR.......................Y
EXTENSION DETECTOR..................Y
MODE 2 STOP BAR.....................N
SWITCHING DETECTOR..................N
DUPLICATING DETECTOR................N
ENABLE FULL TIME DELAY..............N
IF FAILED, SET MIN RECALL?..........N
IF FAILED, SET MAX1 RECALL?.........N
IF FAILED, SET MAX2 RECALL?.........N
PHASE#          ¦12345678910111213141516
PHASES ASSIGNED ¦
SWITCH/DUPLICATE¦
LOOP SIZE (0-255 FT)................6
SPEED TRAP DISTANCE (0-255 FT)......0
STOP BAR TIME (0-255 SEC)...........0
STRETCH (0-25.5 SEC)................0.0
DELAY (0-255 SEC)...................0
MAX CALLS/MIN (0-255)...............255
MIN CALLS/DIAGNOSTIC PERIOD (0-255).0
MAX OCCUPANCY (0-100%)..............100
EXTENSION DISABLE TIME (0-255 SEC)..0
QUEUE MAX OCCUPANCY TIME (0-255)....0
QUEUE GAP RESET TIME (0-25.5).......0.0
PREEMPTION INDEX FOR QUEUE (0-10)...0
```

→ ENTER 'Y' FOR ENABLE DETECTOR →

→ ENTER '7' FOR PHASES ASSIGNED →

→ ENSURE DELAY IS '0' →

```
VEHICLE DETECTOR #57  SETTINGS (+-,1-64)
SETTING:                           (Y/N)
ENABLE DETECTOR.....................Y
ENABLE LOGGING......................N
ENABLE DIAGNOSTICS..................N
SPEED TRAP..........................N
CALL DETECTOR.......................Y
EXTENSION DETECTOR..................Y
MODE 2 STOP BAR.....................N
SWITCHING DETECTOR..................N
DUPLICATING DETECTOR................N
ENABLE FULL TIME DELAY..............N
IF FAILED, SET MIN RECALL?..........N
IF FAILED, SET MAX1 RECALL?.........N
IF FAILED, SET MAX2 RECALL?.........N
PHASE#          ¦12345678910111213141516
PHASES ASSIGNED ¦      X
SWITCH/DUPLICATE¦
LOOP SIZE (0-255 FT)................6
SPEED TRAP DISTANCE (0-255 FT)......0
STOP BAR TIME (0-255 SEC)...........0
STRETCH (0-25.5 SEC)................0.0
DELAY (0-255 SEC)...................0
MAX CALLS/MIN (0-255)...............255
MIN CALLS/DIAGNOSTIC PERIOD (0-255).0
MAX OCCUPANCY (0-100%)..............100
EXTENSION DISABLE TIME (0-255 SEC)..0
QUEUE MAX OCCUPANCY TIME (0-255)....0
QUEUE GAP RESET TIME (0-25.5).......0.0
PREEMPTION INDEX FOR QUEUE (0-10)...0
```

DETECTOR PROGRAMMING COMPLETE

NOTE: DETECTOR IS PROGRAMMED PER THE INPUT FILE CONNECTION AND PROGRAMMING CHART SHOWN ON SHEET 1.

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 08-0125
DESIGNED: May 2017
SEALED: 6-13-17
REVISED: N/A

This Electrical Detail supersedes the detail sealed on 7-07-16.

Electrical Detail - Sheet 4 of 5

ELECTRICAL AND PROGRAMMING DETAILS FOR:

US 220 Business
(N. Fayetteville Street)
at
SR 1462/SR 2344 (Presnell Street)

Division 8 | Randolph County | Asheboro

Prepared in the Offices of: Transportation Mobility and Safety Division, Signals Management Section, State of North Carolina Department of Transportation
750 N.Greenfield Pkwy,Garner,NC 27529

PLAN DATE: May 2017	REVIEWED BY:
PREPARED BY: James Peterson	REVIEWED BY:

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 036880 ENGINEER KEITH M. MIMS

DocuSigned by: Keith M. Mims 6/16/2017
2F80786E8CD34A5...
DATE

SIG. INVENTORY NO. 08-0125

PROJECT REFERENCE NO.	SHEET NO.
U-5758	Sig. 2.6

ALTERNATE PHASING ACTIVATION DETAIL

TO RUN ALT. PHASING DURING COORDINATION - SELECT ALL PAGE CHANGES (AS SHOWN BELOW) WITHIN COORDINATION PLAN PROGRAMMING.

TO RUN ALT. PHASING DURING FREE RUN - PROGRAM PAGE CHANGES (SHOWN BELOW) IN SEPARATE TIME OF DAY EVENTS. IF PAGE 1 IS USED, NO EVENT PROGRAMMING IS NECESSARY FOR THAT PARTICULAR PAGE.

PHASING	INPUTS PAGE	OVERLAPS PAGE
ACTIVE PAGES REQUIRED TO RUN DEFAULT PHASING	1	1
ACTIVE PAGES REQUIRED TO RUN ALTERNATE PHASING	2	2

NOTE: PAGES NOT SHOWN (i.e. sequence, phase control, etc.) SHOULD REMAIN AS '1', OR AS DEFINED BY TIMING ENGINEER.

IMPORTANT: IF ALT. PHASING IS USED DURING FREE RUN AND COORDINATION, DO NOT OPERATE TIME OF DAY PAGE CHANGE EVENTS CONCURRENTLY WITH COORDINATION PLAN EVENTS IN THE EVENT SCHEDULER. (EX. FREE RUN PAGE CHANGE EVENT SHOULD END BEFORE COORDINATION PLAN EVENT STARTS AND VICE-VERSA).

ALTERNATE PHASING PAGE CHANGE SUMMARY

THE FOLLOWING IS A SUMMARY OF WHAT TAKES PLACE WHEN THESE OVERLAP/INPUT PAGE CHANGES ACTIVATE TO CALL THE "ALTERNATE PHASING":

OVERLAPS PAGE 2: Modifies overlap parent phases for heads 31 and 71 to run protected turns only.

INPUTS PAGE 2: Disables phase 8 call on loop 3A and reduces delay time for phase 3 call on loop 3A to 0 seconds.

Disables phase 4 call on loop 7A and reduces delay time for phase 7 call on loop 7A to 0 seconds.

PED 8 PROGRAMMING DETAIL

(program controller as shown below)

CHANGING OUTPUT ASSIGNMENTS

1. FROM MAIN MENU SELECT '6' (OUTPUTS), THEN '1' (OUTPUT ASSIGNMENTS)
2. ENTER 17 (PHASE 8 DW) FOR OUTPUT ASSIGNMENT #.
3. SCROLL DOWN TO 'PEDESTRIAN PHASE' AND ENTER 'Y' REGARDLESS OF DEFAULT PROGRAMMING!
4. ENTER '8' FOR 'SELECT PEDESTRIAN PHASE'. NO CHANGE NEEDED FOR 'SELECT COLOR'
5. BACKUP TO 'OUTPUT ASSIGNMENTS AND SETTINGS MENU:' BY PRESSING THE 'ESC' BUTTON ON KEYBOARD.
6. SELECT '1' (OUTPUT ASSIGNMENTS)
7. ENTER 18 (PHASE 8 W) FOR OUTPUT ASSIGNMENT #.
8. REPEAT STEPS # 3 AND # 4.

CHANGING INPUT ASSIGNMENTS

1. FROM MAIN MENU SELECT '7' (DETECTORS), THEN '2' (PEDESTRIAN DETECTOR ASSIGNMENTS)
2. CYCLE TO PED DETECTOR #8 BY REPEATEDLY DEPRESSING '+' KEY
3. MODIFY PHASE ASSIGNED TO PED DETECTOR # 8 FROM PHASE 3 TO PHASE 8

PROGRAMMING COMPLETE

FLASHER CIRCUIT MODIFICATION DETAIL

IN ORDER TO ENSURE THAT SIGNALS FLASH CONCURRENTLY ON THE SAME APPROACH, MAKE THE FOLLOWING FLASHER CIRCUIT CHANGES:

1. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.
2. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-3.
3. REMOVE FLASHER UNIT 2.

THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 08-0125
DESIGNED: May 2017
SEALED: 6-13-17
REVISED: N/A

This Electrical Detail supersedes the detail sealed on 7-07-16.

Electrical Detail - Sheet 5 of 5

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared in the Offices of: Transportation Mobility and Safety Division, Signals Management Section, State of North Carolina Department of Transportation
750 N.Greenfield Pkwy,Garner,NC 27529

US 220 Business
(N. Fayetteville Street)
at
SR 1462/SR 2344 (Presnell Street)

Division 8 Randolph County Asheboro

PLAN DATE: May 2017	REVIEWED BY:
PREPARED BY: James Peterson	REVIEWED BY:

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 036880 ENGINEER KEITH M. MIMS

DocuSigned by:
Keith M. Mims
2F80786E8CD34A5...
6/16/2017
DATE

SIG. INVENTORY NO. 08-0125

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jtpeterson

PROJECT NO.	SHEET NO.
U-5758	Sig. P1

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

06-14

ENGLISH DETAIL DRAWING FOR

PEDESTRIAN PUSHBUTTON LOCATIONS

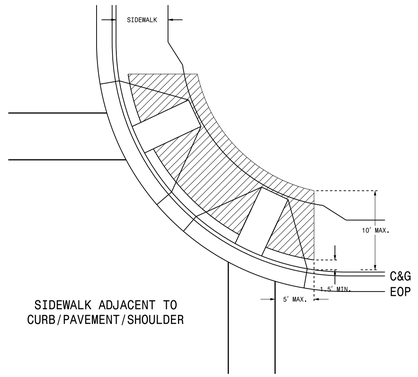
PLACEMENT DETAIL

SHEET 1 OF 3

1705D01

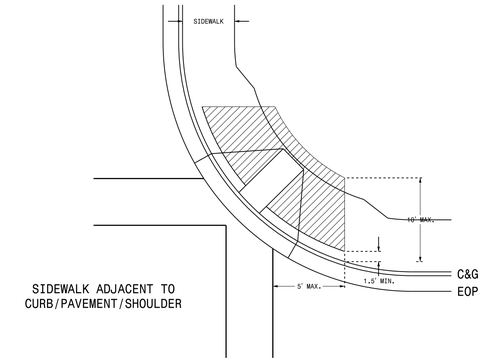
PUSHBUTTON PLACEMENT

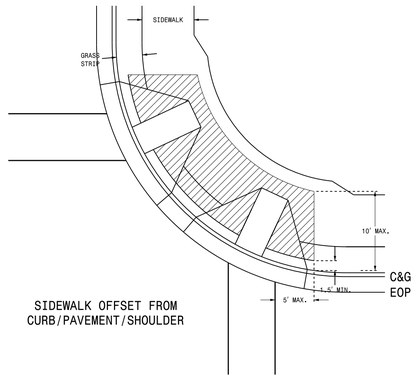
SEPARATE CURB RAMPS

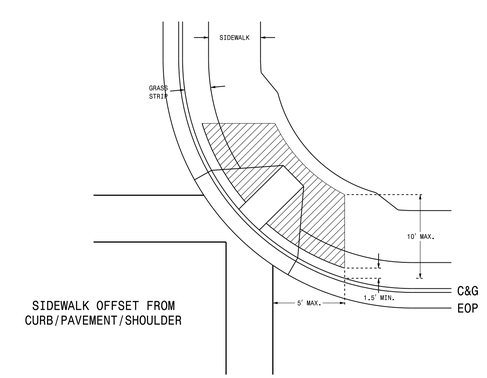


PUSHBUTTON PLACEMENT

SHARED CURB RAMP







NOTES

1. Pushbutton pedestals should not be located further than 10 feet from the edge of curb, shoulder, or pavement.
2. The face of the pushbutton should be parallel to the applicable crosswalk.
3. Separate pushbuttons used on the same corner should be separated by a distance of at least 10 feet.
4. Pushbuttons shall be installed adjacent to a level surface with a maximum reach distance of 10 inches.
5. Maintain 4 feet of clearance around pedestal if located in sidewalk.
6. Refer to section 1705 of the 2012 NCDOT Roadway Standard Drawings for Pushbutton Assembly details.
7. Refer to section 1743 of the 2012 NCDOT Roadway Standard Drawings for Pedestal details.
8. Contact Division Traffic Engineer for pushbutton location approval prior to installation.
9. Curb ramps are for symbolic use only and may not reflect actual design or field conditions.

LEGEND

PROPOSED

- Signal Pole
- Type I Pushbutton Post
- Type II Signal Pedestal
- Pushbutton & Sign
- Pedestrian Signal Head
- Curb Ramp
- Pushbutton Location Area

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

06-14

ENGLISH DETAIL DRAWING FOR

PEDESTRIAN PUSHBUTTON LOCATIONS

PLACEMENT DETAIL

SHEET 1 OF 3

1705D01

See Plate for Title

Prepared in the Offices of:

Transportation Mobility and Safety Division
Signal Design Section
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

750 N. Greenfield Parkway
Garner, NC 27529

SEAL

NORTH CAROLINA
PROFESSIONAL
SEAL
026486
ENGINEER
ROBERT J. ZIEMBA

DocuSigned by:
SIGNATURE

6/17/2014
DATE

11-MAY-2017 15:20
S:\Traffic\Signals\Signal Design Section\Central Region\Rob's Files\Ped Stds\PushButton Drawings\Pushbutton Plate Drawings_20140617.dgn
rziemba

PROJECT NO.	SHEET NO.
U-5758	Sig. P2

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

06-14

ENGLISH DETAIL DRAWING FOR

PEDESTRIAN PUSHBUTTON LOCATIONS

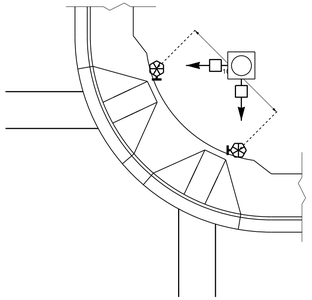
PLACEMENT DETAIL

SHEET 2 OF 3

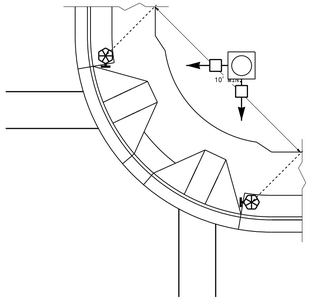
1705D01

TYPICAL PUSHBUTTON LOCATIONS (CASE I)

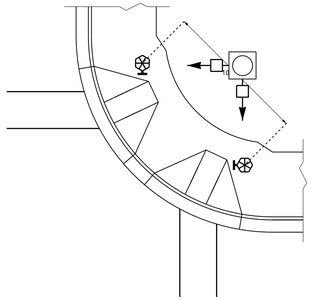
SEPARATE CURB RAMPS W/ TYPE I PEDESTALS



BACK OF SIDEWALK IS WITHIN 10′
OF CURB OR PAVEMENT/SHOULDER



GRASS STRIP PLACEMENT IF BACK
OF SIDEWALK EXCEEDS 10′ FROM
CURB OR PAVEMENT/SHOULDER



PUSHBUTTON PLACEMENT
IN WIDE SIDEWALK

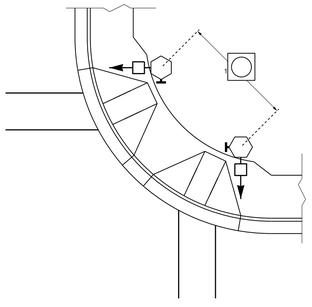
PROPOSED

LEGEND

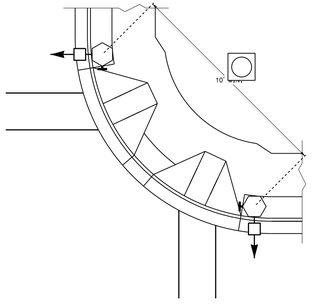
- Signal Pole
- Type I Pushbutton Post
- Type II Signal Pedestal
- Pushbutton & Sign
- Pedestrian Signal Head
- Curb Ramp
- Pushbutton Location Area

TYPICAL PUSHBUTTON LOCATIONS (CASE II)

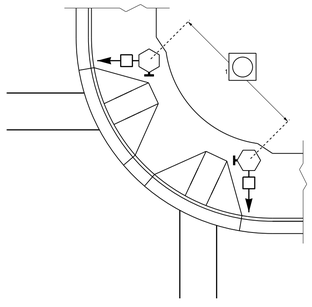
SEPARATE CURB RAMPS W/ TYPE II PEDESTALS



BACK OF SIDEWALK IS WITHIN 10′
OF CURB OR PAVEMENT/SHOULDER



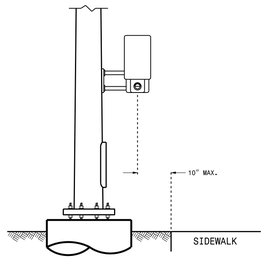
GRASS STRIP PLACEMENT IF BACK
OF SIDEWALK EXCEEDS 10′ FROM
CURB OR PAVEMENT/SHOULDER



PUSHBUTTON PLACEMENT
IN WIDE SIDEWALK

OPTIONAL PUSHBUTTON EXTENSION

FACE OF PUSHBUTTON PARALLEL TO
APPLICABLE CROSSWALK



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

06-14

ENGLISH DETAIL DRAWING FOR

PEDESTRIAN PUSHBUTTON LOCATIONS

PLACEMENT DETAIL

SHEET 2 OF 3

1705D01

See Plate for Title

Prepared in the Offices of:

Transportation Mobility and Safety Division
Signal Design Section

750 N. Greenfield Parkway
Garner, NC 27529

SEAL

NORTH CAROLINA
PROFESSIONAL
SEAL
026486
ENGINEER
ROBERT J. ZIEMBA

DocuSigned by:
SIGNATURE

6/17/2014
DATE

11-MAY-2017 15:12
S:\Traffic\Signals\Signal Design Section\Central Region\Rob's Files\Red Side\Pushbutton Drawings\Pushbutton Plate Drawings_20140617.dgn
rziemba

PROJECT NO.	SHEET NO.
U-5758	Sig. P3

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

06-14

ENGLISH DETAIL DRAWING FOR

PEDESTRIAN PUSHBUTTON LOCATIONS

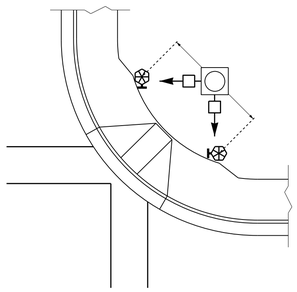
PLACEMENT DETAIL

SHEET 3 OF 3

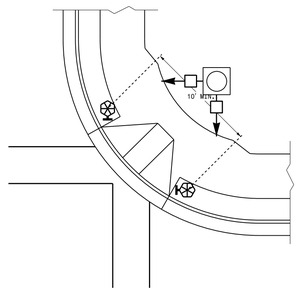
1705D01

TYPICAL PUSHBUTTON LOCATIONS (CASE III)

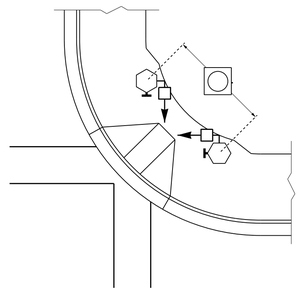
SHARED CURB RAMPS



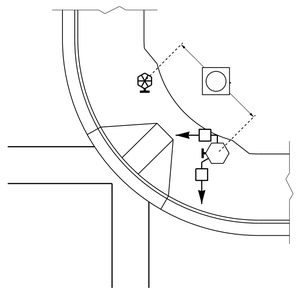
BACK OF SIDEWALK IS WITHIN 10′ OF CURB OR PAVEMENT/SHOULDER



GRASS STRIP PLACEMENT IF BACK OF SIDEWALK EXCEEDS 10′ FROM CURB OR PAVEMENT/SHOULDER

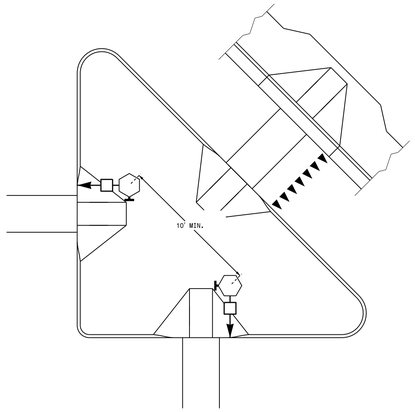


PUSHBUTTON PLACEMENT IN WIDE SIDEWALK (CORRESPONDING PUSHBUTTONS AND SIGNAL HEADS ON DIFFERENT PEDESTALS)

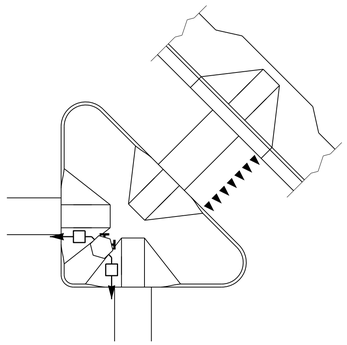


PUSHBUTTON PLACEMENT WITH SHARED TYPE II SIGNAL PEDESTAL AND TYPE I PUSHBUTTON POST

TRAFFIC ISLAND PUSHBUTTON LOCATIONS

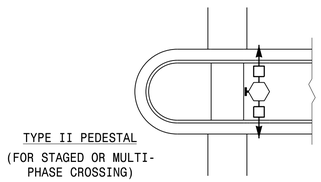


PUSHBUTTON PLACEMENT IN LARGE "PORK CHOP ISLAND" WITH SEPARATE PEDESTALS

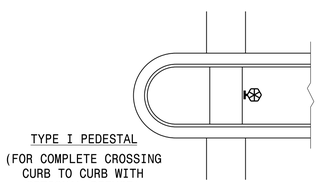


PUSHBUTTON PLACEMENT IN SMALL "PORK CHOP ISLAND" WITH SHARED PEDESTAL

PUSHBUTTON PLACEMENT IN MEDIAN



TYPE II PEDESTAL
(FOR STAGED OR MULTI-PHASE CROSSING)



TYPE I PEDESTAL
(FOR COMPLETE CROSSING CURB TO CURB WITH OPTIONAL REFUGE)

LEGEND

PROPOSED

- Signal Pole
- Type I Pushbutton Post
- Type II Signal Pedestal
- Pushbutton & Sign
- Pedestrian Signal Head
- Curb Ramp
- Pushbutton Location Area

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

06-14

ENGLISH DETAIL DRAWING FOR

PEDESTRIAN PUSHBUTTON LOCATIONS

PLACEMENT DETAIL

SHEET 3 OF 3

1705D01

See Plate for Title

Prepared in the Offices of:

Transportation Mobility and Safety Division
Signal Design Section
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

750 N. Greenfield Parkway
Garner, NC 27529

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 026486 ENGINEER ROBERT J. ZIEMBA

DocuSigned by:
SIGNATURE

6/17/2014
DATE

11-MAY-2017 15:21
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rziemba

PROJECT REFERENCE NO.	SHEET NO.
U-5758	SCP 1

Note	Description
1	INSTALL REA, PE – 22, SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE
2	INSTALL COAX CABLE
3	INSTALL ETHERNET CABLE
4	INSTALL SMFO CABLE
5	INSTALL MMFO CABLE
6	INSTALL FIBER OPTIC DROP CABLE
7	INSTALL TRACER WIRE
8	TRENCH
9	INSTALL PVC CONDUIT
10	INSTALL RIGID, GALVANIZED STEEL CONDUIT
11	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
12	INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL
13	INSTALL OUTER–DUCT POLYETHYLENE CONDUIT
14	INSTALL POLYETHYLENE CONDUIT
15	DIRECTIONAL DRILL CONDUIT
16	BORE AND JACK CONDUIT
17	INSTALL CABLE(S) IN EXISTING CONDUIT
18	INSTALL CABLE(S) IN NEW CONDUIT
19	INSTALL CABLE(S) IN EXISTING RISER
20	INSTALL CABLE(S) IN NEW RISER
21	INSTALL CABLE(S) IN EXISTING CONDUIT STUB–OUTS
22	INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB–OUTS WHEN AVAILABLE)
23	INSTALL NEW RISER INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB–OUTS WHEN AVAILABLE)
24	INSTALL NEW CONDUIT INTO EXISTING POLE MOUNTED CABINET
25	INSTALL NEW RISER INTO EXISTING POLE MOUNTED CABINET
26	MODIFY EXISTING INTERCONNECT CENTER /SPLICE ENCLOSURE
27	INSTALL NEW FIBER OPTIC TRANSCEIVER
28	INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET
29	INSTALL UNDERGROUND SPLICE ENCLOSURE
30	INSTALL AERIAL SPLICE ENCLOSURE
31	INSTALL POLE MOUNTED SPLICE CABINET
32	INSTALL BASE MOUNTED SPLICE CABINET
33	REMOVE EXISTING SPLICE CABINET
34	INSTALL CABINET FOUNDATION
35	REMOVE EXISTING CABINET FOUNDATION
36	INSTALL CCTV CAMERA ASSEMBLY
37	INSTALL CCTV CAMERA WOOD POLE
38	INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
39	INSTALL JUNCTION BOX
40	INSTALL OVERSIZED JUNCTION BOX
41	REMOVE EXISTING JUNCTION BOX
42	INSTALL WOOD POLE
43	REMOVE EXISTING WOOD POLE
44	INSTALL AERIAL GUY ASSEMBLY
45	INSTALL STANDARD GUY ASSEMBLY
46	INSTALL SIDEWALK GUY ASSEMBLY
47	INSTALL MESSENGER CABLE
48	REMOVE EXISTING COMMUNICATIONS AND MESSENGER CABLE
49	REMOVE EXISTING MESSENGER CABLE
50	INSTALL TELEPHONE SERVICE
51	INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF CABLE
52	INSTALL DELINEATOR MARKER
53	STORE 20 FEET OF COMMUNICATIONS CABLE
54	LASH CABLE(S) TO EXISTING SIGNAL/COMMUNICATIONS CABLE
55	LASH CABLE(S) TO EXISTING MESSENGER CABLE
56	LASH CABLE(S) TO NEW MESSENGER CABLE
57	MODIFY EXISTING ELECTRICAL SERVICE
58	INSTALL NEW ELECTRICAL SERVICE
59	INSTALL NEW FIELD ETHERNET SWITCH
60	BOND TRACER WIRE TO EQUIPMENT GROUND BUS
61	DO NOT BOND TRACER WIRE TO EQUIPMENT GROUND BUS
62	BOND RISER AND MESSENGER CABLE TO POLE GROUND

ATTACHMENT POINT:

Symbol	Meaning
XX"/SS over YYY	DISTANCE ABOVE (IN)/ATTACHMENT POINT REFERENCE POINT
YYY over XX"/SS	REFERENCE POINT DISTANCE BELOW (IN)/ATTACHMENT POINT

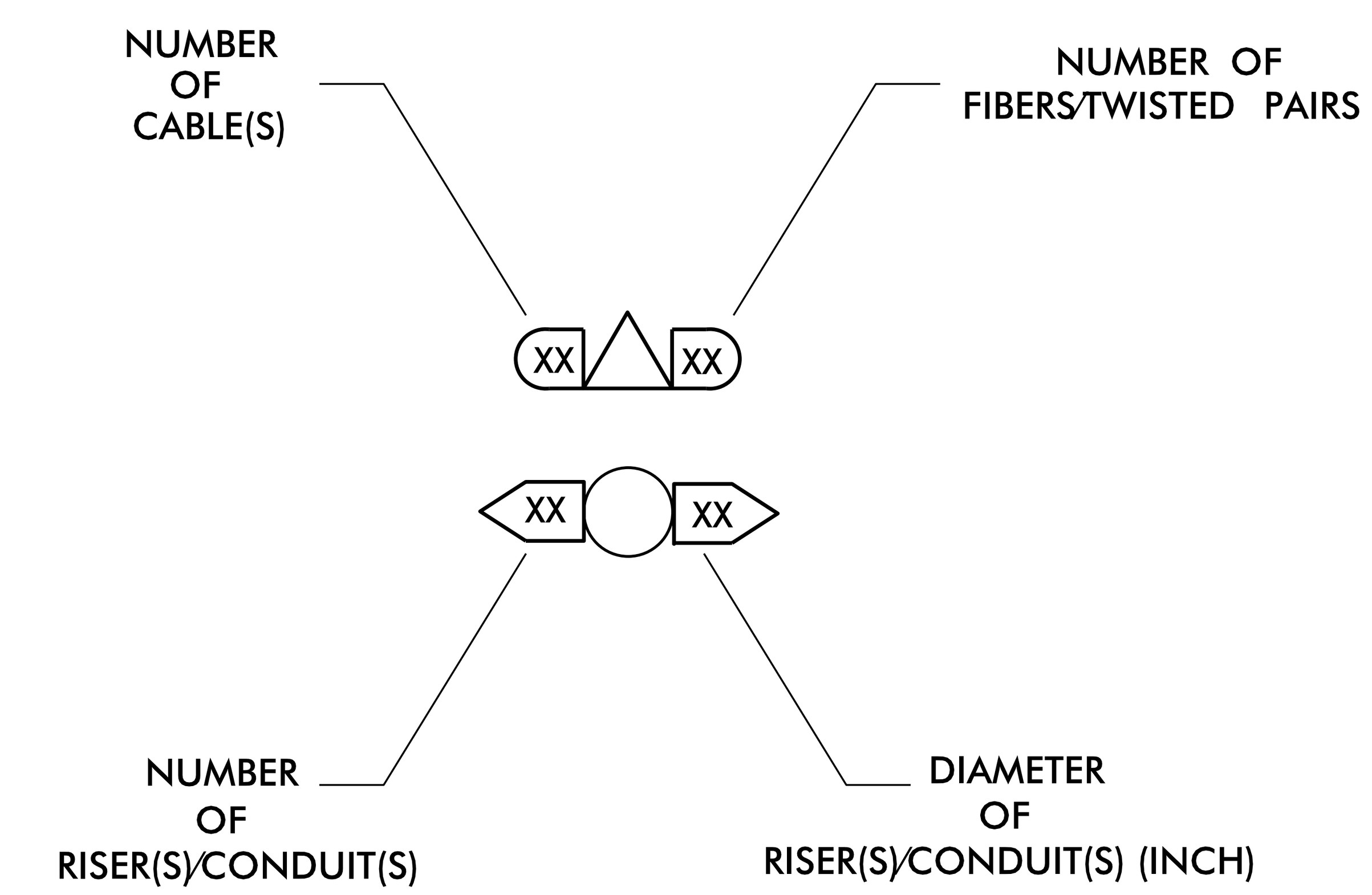
"SS" REFERENCE LOCATION
FS = FRONT SIDE OF POLE
BS = BACK SIDE OF POLE

LEGEND

Symbol	Description
FO	NEW FIBER OPTIC COMMUNICATIONS CABLE
TWIST PR	NEW TWISTED PAIR COMMUNICATIONS CABLE
EXI	EXISTING COMMUNICATIONS CABLE
REM	EXISTING COMMUNICATIONS CABLE TO BE REMOVED
	NEW AERIAL GUY ASSEMBLY
	NEW CONDUIT
	EXISTING CONDUIT
DD	NEW DIRECTIONAL DRILLED CONDUIT
B&J	NEW BORED AND JACKED CONDUIT
	NEW JUNCTION BOX
	EXISTING JUNCTION BOX
	NEW WOOD POLE
	EXISTING WOOD POLE
S	AERIAL SPLICE ENCLOSURE
	NEW METAL POLE
	EXISTING METAL POLE
	NEW CCTV ASSEMBLY
	NEW STANDARD GUY ASSEMBLY
	NEW SIDEWALK GUY ASSEMBLY
	NEW CABLE STORAGE RACKS (SNOW SHOES)
X	EXISTING CONTROLLER AND CABINET
S	EXISTING SPLICE CABINET
S	NEW SPLICE CABINET
SP	SIGNAL POLE
XX–XXXX	SIGNAL INVENTORY NUMBER

CONSTRUCTION NOTE SYMBOLOGY KEY

Symbol	Meaning
XX	INDICATES NUMBER OF CABLES, LOOPS, ETC.
XX	INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.
XX	INDICATES NUMBER OF RISER(S)/CONDUIT(S)
XX	INDICATES DIAMETER OF RISER(S)/CONDUIT(S) (INCH)



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Offices of:

Transportation Mobility and Safety Division, State of North Carolina Department of Transportation, Intelligent Transportation Systems Section

750 N. Greenfield Pkwy., Garner, NC 27529

CONSTRUCTION NOTES

DIVISION 8 RANDOLPH CO. ASHEBORO

PLAN DATE:	JUNE 2017	REVIEWED BY:
PREPARED BY:	I. N. AVERY	

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 032108 ENGINEER MOHD A. ASLAMI

DocuSigned by: Mohd Aslami 6/14/2017

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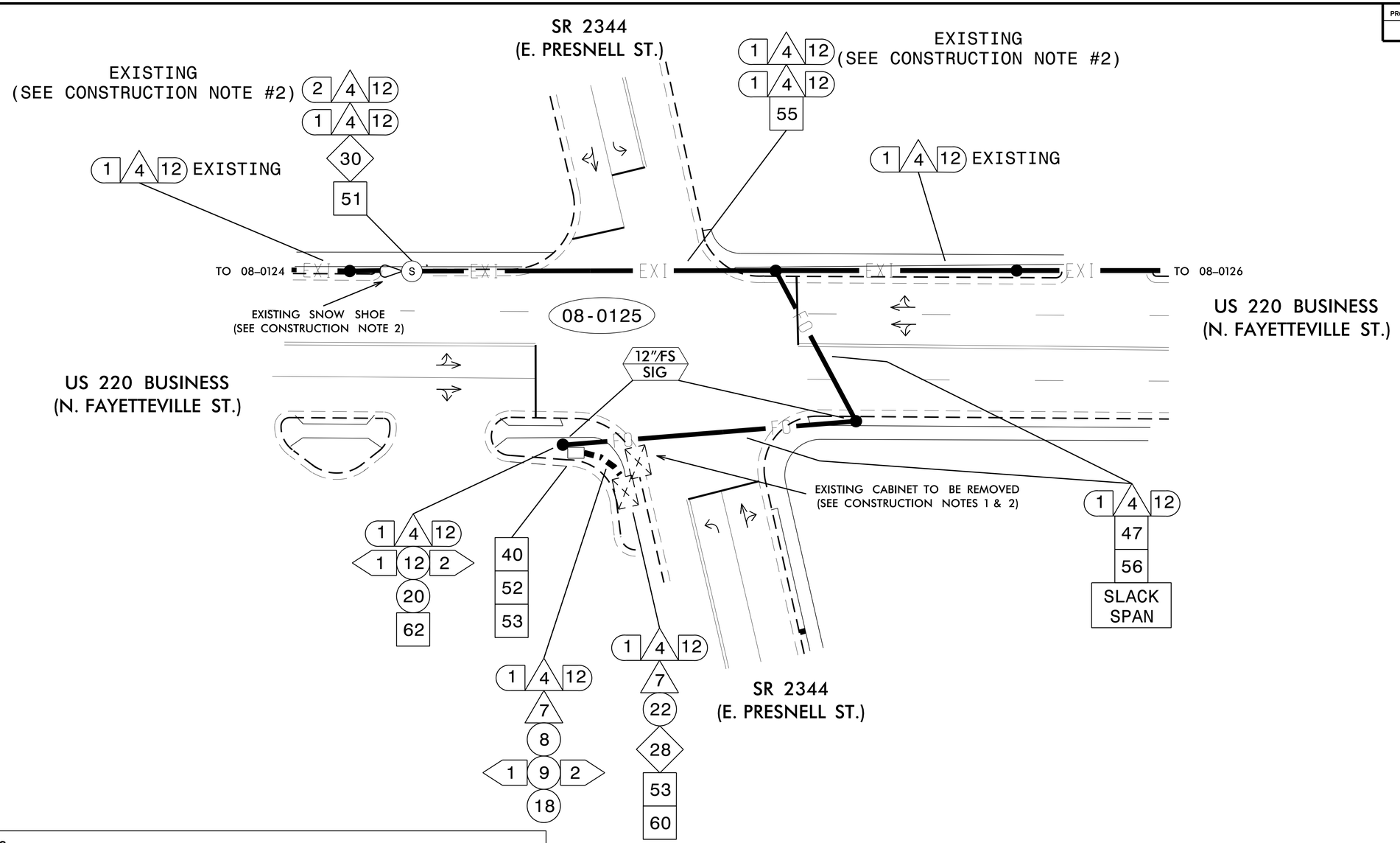
DATE

PROJECT REFERENCE NO.	SHEET NO.
U-5758	SCP 2



CONSTRUCTION NOTES:

1) PRIOR TO DISCONNECTING/REMOVING THE EXISTING FIBER CABLES FROM THE INTERCONNECT CENTER, RECORD THE EXISTING SPLICE CONFIGURATION AND COMPARE TO THE SUPPLIED SPLICE DETAILS. IF DISCREPANCIES EXIST, CONTACT THE ENGINEER TO DETERMINE HOW TO PROCEED WITH RESPLICING. PROVIDE AS–BUILT PLANS TO THE ENGINEER IF FINAL SPLICE ARRANGEMENT DIFFERS FROM THE SUPPLIED SPLICE DETAILS.
2) BACK PULL AND RE–ROUTE THE TWO (2) EXISTING 12 FIBER CABLES FROM THE EXISTING CABINET TO THE EXISTING SNOW SHOE ARRANGEMENT AND INSTALL A NEW AERIAL SPLICE ENCLOSURE.

GENERAL NOTE:

1) NOTIFY THE DIVISION'S TRAFFIC SIGNAL SUPERVISOR, GARY PHILLIPS, AT (910) 947–3930 FIVE (5) DAYS PRIOR TO BEGINNING WORK ON SIGNAL SYSTEM COMMUNICATIONS CABLE. NOTIFY THE TRAFFIC SIGNAL SUPERVISOR AFTER ALL WORK IS PERFORMED TO ENSURE THAT ALL FIBER CIRCUITS ARE FUNCTIONING PROPERLY. ALL WORK IS NOT COMPLETE UNTIL THE SIGNAL SYSTEM IS BACK UP AND OPERATIONAL.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Offices of:
Traffic Engineering Branch, Traffic Signal Section
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Integrated Mobility and Safety Division
Transportation Systems Section
750 N. Greenfield Pkwy., Garner, NC 27529

COMMUNICATIONS CABLE AND CONDUIT ROUTING PLANS

DIVISION 8 RANDOLPH CO. ASHEBORO

PLAN DATE: JUNE 2017 REVIEWED BY:

PREPARED BY: I. N. AVERY REVIEWED BY:

SCALE 0 60 1" = 60'

REVISIONS	INIT.	DATE

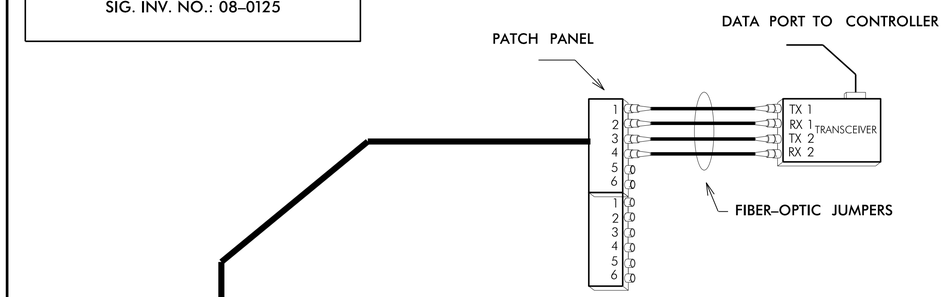
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032108 MOHD A. ASLAMI
DocuSigned by: Mohd Aslami 8/14/2017
SIGNATURE DATE

CADD Filename:

PROJECT REFERENCE NO.	SHEET NO.
U-5758	SCP 3

CONTROLLER

US 220 BUSINESS (N. FAYETTEVILLE ST.)
AND SR 2344 (E. PRESNELL ST.)
SIG. INV. NO.: 08–0125



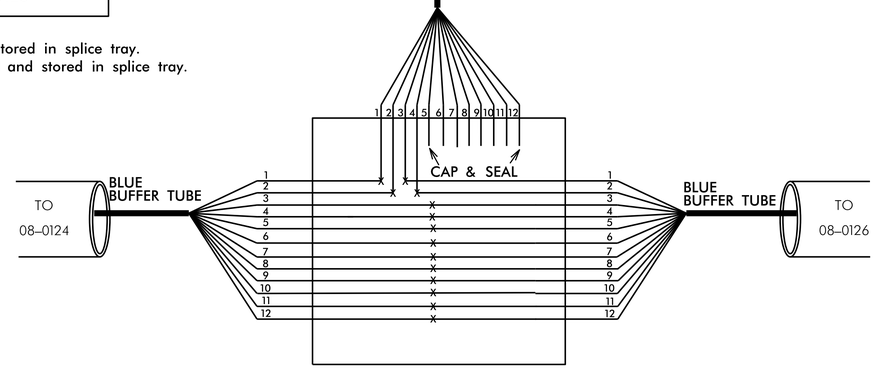
LEGEND
X = FUSION SPLICE

COLOR CODE TIA/EIA 598–A

(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA

AERIAL SPLICE ENCLOSURE
WEST OF
US 220 BUSINESS (N. FAYETTEVILLE ST.)
AND SR 2344 (E. PRESNELL ST.)
SIG. INV. NO.: 08–0125

Notes:
Unused fibers left coiled and stored in splice tray.
Unused Buffer Tubes left coiled and stored in splice tray.



1) NOTIFY THE DIVISION'S TRAFFIC SIGNAL SUPERVISOR, GARY PHILLIPS, AT (910) 947–3930. FIVE (5) DAYS PRIOR TO BEGINNING WORK ON SIGNAL SYSTEM COMMUNICATIONS CABLE. NOTIFY THE TRAFFIC SIGNAL SUPERVISOR AFTER ALL WORK IS PERFORMED TO ENSURE THAT ALL FIBER CIRCUITS ARE FUNCTIONING PROPERLY. ALL WORK IS NOT COMPLETE UNTIL THE SIGNAL SYSTEM IS BACK UP AND OPERATIONAL.

2) CONTRACTOR TO RECORD EXISTING SPLICE ARRANGEMENT FOR COMPARISON TO THE SUPPLIED SPLICE DETAILS. IF DISCREPANCIES EXIST, CONTACT THE ENGINEER TO DETERMINE HOW TO PROCEED WITH RESPLICING. PROVIDE AS–BUILT PLANS TO THE ENGINEER IF FINAL SPLICE ARRANGEMENT DIFFERS FROM THE SUPPLIED SPLICE DETAILS.

3) TRANSCEIVER TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING \ ENSURING PROPER TERMINATIONS.

4) INCLUDE ON THE COVER OF EACH SPLICE TRAY THE FOLLOWING: REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"

1) SPLICE LOCATION
2) DATE
3) COMPANY NAME
4) NAME OF INDIVIDUAL PERFORMING THE SPLICING

PRIOR TO INSTALLING THE COVER ON THE SPLICE TRAY TAKE A DIGITAL PHOTOGRAPH SHOWING THE SPLICE TRAY AND INFORMATION SHOWN ABOVE (1–4) AND SUBMIT PHOTOGRAPH ALONG WITH OTDR TEST RESULTS.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Offices of:
NC Department of Transportation, Mobility and Safety Division, Traffic Engineering Branch, Signal Section
750 N. Greenfield Pkwy., Garner, NC 27529

SPLICE PLAN

DIVISION 08 RANDOLPH CO. ASHEBORO

PLAN DATE:	JUNE 2017	REVIEWED BY:	
PREPARED BY:	I. N. AVERY	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032108 ENGINEER MOHD A. ASLAMI
DocuSigned by: Mohd Aslami 6/14/2017
509808A8DB8495...
DATE

CADD Filename:

PROJECT REFERENCE NO.	SHEET NO.
U-5758	UBO-1
R/W SHEET NO.	

REVISIONS

8/17/99

-Y1-
PI Sta 11+51.13
△ = 1° 30' 51.4" (LT)
D = 2° 00' 00.0"
L = 75.71'
T = 37.86'
R = 2,864.79'

-Y1- POT Sta. 10+00.00

-L- POT Sta. 10+00.00

10+00

-Y1- PC Sta. 11+13.27

-Y1- PT Sta. 11+88.98

15+00

-L- Sta. 11+25.04=
-Y1- Sta. 12+09.52

-Y1- POT Sta. 14+26.88

S 3° 35' 16.5" W

S 2° 04' 25.1" W

S 88° 14' 47.4" E

200.00'
TAPER

AEL LANE
34 PG 26

SAMI HASSAN
DB 1623 PG 550

ANDORBAR, INC
DB 1158 PG 198
PB 1PG 60

ANDORBAR, INC.
DB 1144 PG 293
PB 1PG 60

ANDORBAR, INC.
DB 1181PG 145
PB 1PG 60

DOROTHY BARNES
DB 1942 PG 1278
PB 1PG 60

ANDORBAR, INC.
DB 2316 PG 545
PB 1PG 60

ROBERT BREWER
DB 1855 PG 537
PB 1PG 60

HAROLD BRUBAKER
DB 1096 PG 6

SMH (I-1)
RIM ELEV. = 824.94'
4" IN (NW) = 822.0'
6" IN (E) = 820.9'
6" OUT (S) = 820.7'

SMH (I-2)
RIM ELEV. = 821.18'
6" IN (N) = 813.9'
6" IN (E) = 817.7'
6" OUT (W) = 814.0'

SMH (I-4)
RIM ELEV. = 834.77'
4" IN (NE) = 832.3'
6" OUT (W) = 832.1'

VIDSON AND NORRIS
RENTALS, LLC
DB 2393 PG 768
PB 1PG 298

WHITE OAK ASSOCIATES
DB 1412 PG 1665

BRANDUNN RUSH
DB 1965 PG 2527
PB 1PG 298

DAVIDSON AND NORRIS
RENTALS, LLC
DB 2219 PG 430
PB 1PG 298

SMH (I-5)
RIM ELEV. = 818.70'
6" OUT (S) = 814.6'

SMH (I-6)
RIM ELEV. = 806.06"
6" IN (N) = 797.9"
8" IN (E) = 797.1"
6" IN (S) = 797.4'
8" OUT (W) = 797.0'

BARBARA BECK
DB 1172 PG 1287

JOSEPH MARTIN
DB 1670 PG 678

JANE CRISCO
DB 1135 PG 802

RIVERSTEP RENTALS, LLC
DB 1979 PG 2374

Rosario Acosta Lopez
DB 2499 PG 1523

DOROTHY BARNES
DB 1789 PG 871

SMH (I-7)
RIM ELEV. = 812.81'
6" IN (N) = 806.1'
8" IN (SE) = 805.9'
8" OUT (NW) = 805.8'

SMH (I-8)
RIM ELEV. = 830.81'
6" IN (N) = 828.5'
6" IN (E) = 828.5'
6" OUT (W) = 828.4'

Adj. CB
15" RCP-IV
CB
12" RCP

TO DIS# Q301AD

133'
477 AAC (ABC)
#2 CHD (N)

Q300AD
75 KVA

10/1 TPX 13'

#A443AD
35C5

#2 TPX 47'

MATCH LINE 18+00
SEE UBO-2

WEST PRESNELL ST
SR 1462 WEST PRESNELL ST
W. SALISBURY ST.
LIBERTY ST.

50' 0 50' 100'

17-JUN-2017 15:18
J:\projects\pgh\bus.2200\sr_2344\presnell_st\pgh\ubo\bus.2200sr_2344presnell_st\pgh\ubo\bus.2200sr_2344_ubo_1.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-5758	UBO-2
R/W SHEET NO.	

8/17/99

REVISIONS

-L- PC Sta. 20+14.07

-L- Sta. 20+31.25=
-Y2- Sta. 12+10.01

-L-
PI Sta 25+76.28
△ = 3° 16' 28.0" (LT)
D = 5° 00' 00.0"
L = 65.49'
T = 32.75'
R = 1,145.92'

-L- PC Sta. 25+43.52

NC GRID
NAD 83 NA 2011

PALMETTO LIZARDS LLC
DB 2258 PG 1162
PB 7 PG 21

MEDICAL PROPERTIES OF ASHEBORO, LLC
DB 1969 PG 1310
PB 103 PG 35

JAMES MORAN
DB 1247 PG 91
DB 1253 PG 1498

20+00

25+00

S 15° 12' 35.8" W

98'-PRI.

111'-PRI.

73'-PRI.

84'-PRI.

100'-SEC.

15+00

TO DIS#
Q300AD

113'
477 AAC (ABC)
#2 CHD (N)
1/0 ACSR OWS

#Q301AD
35C5

83'
477 AAC (ABC)
#2 CHD (N)
1/0 ACSR OWS

#K015AD

137'
477 AAC (ABC)
#2 CU (N)

#K0175AD

105'
477 AAC (ABC)
1/0 AAAC (N)

#K018AD
45C4
25C

123'
477 AAC (ABC)
1/0 AAAC (N)
#4 DPLX

#K024AD
45C4

157'
477 AAC (ABC)
1/0 AAAC (N)

#K026AD
45C4

109'-PRI.

5/16" S.G.
1/0 ACSR
47'

S 87° 43' 46.7" E

#Q302AD
F.P.

#K021AD
F.P.

#K020AD
F.P.

#K019AD
F.P.

#K025AD
30C6
F.P.

102'-#2 TPX

#4 TPX
79'

#1C5R44
35C5

#4 TPX
48'

#1C5R46
F.P.
35C5

#2 TPX
40'

PROP O/H (FO) TEL LINES

PROP O/H (FO) TEL LINES

140.60'

163.17'

#K014AD

50'
#2 TPX

58.93'

1C5R45
F.P.
35C5
30' GUY LEAD

TO DIS#
A443AD

RETAIN DRIVEWAY FOR PARCEL #5

#K011AD
F.P.

#8JN32

NELSON DIAZ
DB 2137 PG 486

KATHLEEN ENGLAND
DB 2111 PG 785

LARA POLANCO, INC
DB 1886 PG 899

AMICUS INVESTMENTS, LLC
DB 2047 PG 39

B. F. MILLER
DB 2367 PG 1292

B. F. MILLER
DB 2367 PG 1283

NRY VRUWINK, D.D.S., P.A.
1545
94

-Y2-
PI Sta 20+65.75
△ = 0° 31' 00.7" (RT)
D = 0° 30' 00.0"
L = 103.37'
T = 51.69'
R = 11,459.16'

-L- PT Sta. 21+17.44

50' 0 50' 100'

MATCH LINE -L- 18+00
SEE UBO-1

MATCH LINE -L- 26+28
SEE UBO-3

27-JUN-2017 15:18
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$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-5758	UBO-3
R/W SHEET NO.	

8/17/99

REVISIONS

MATCH LINE -L- 26+28
SEE UBO-2

+09.01

-Y3- POT Sta. 10+00.00

JOSEPH MCRAE, JR
DB 1080 PG 790

LOLA EWING HEIRS
DB 646 PG 357

SARAH FELIPA
DB 1057 PG 237
DB 537 PG 289

CHARLES HODGES, JR
DB 1118 PG 306

-Y3- PC Sta. 11+94.95

-L- Sta. 26+48.72=
-Y2- Sta. 12+36.50

-L- POT Sta. 26+93.89

PRI.

TO US 64

-Y3- PT Sta. 12+69.40

S 3° 52' 02.7" W

NEMO PROPERTIES, LLC.
DB 1966 PG 1284
PB 99 PG 59

-Y3- PC Sta. 13+58.47

-Y3- PT Sta. 14+03.49

S 2° 31' 00.6" W

-Y3- POT Sta. 14+91.22

JERRY P. MOORE
&
WAYNE F. CONNORS

E. SALISBURY ST.

S 10° 05' 19.4" E

-Y3-

PI Sta 12+32.21
△ = 5° 57' 22.0" (RT)
D = 8° 00' 00.0"
L = 74.45'
T = 37.26'
R = 716.20'

-Y3-

PI Sta 13+80.98
△ = 1° 21' 02.0" (LT)
D = 3° 00' 00.0"
L = 45.02'
T = 22.51'
R = 1,909.86'

NC GRID
NAD 83 NA 2011

50' 0 50' 100'

17-JUN-2017 15:18
U:\PROJECTS\U-5758\gsh\ubo\ubus_220@sr_2344\presnell_st\gsh\ubo\ubus_220@sr_2344_ubo_3.dgn
$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
U-5758	X-A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CROSS-SECTION SUMMARY

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDE BACKFILL FOR UNDERCUT

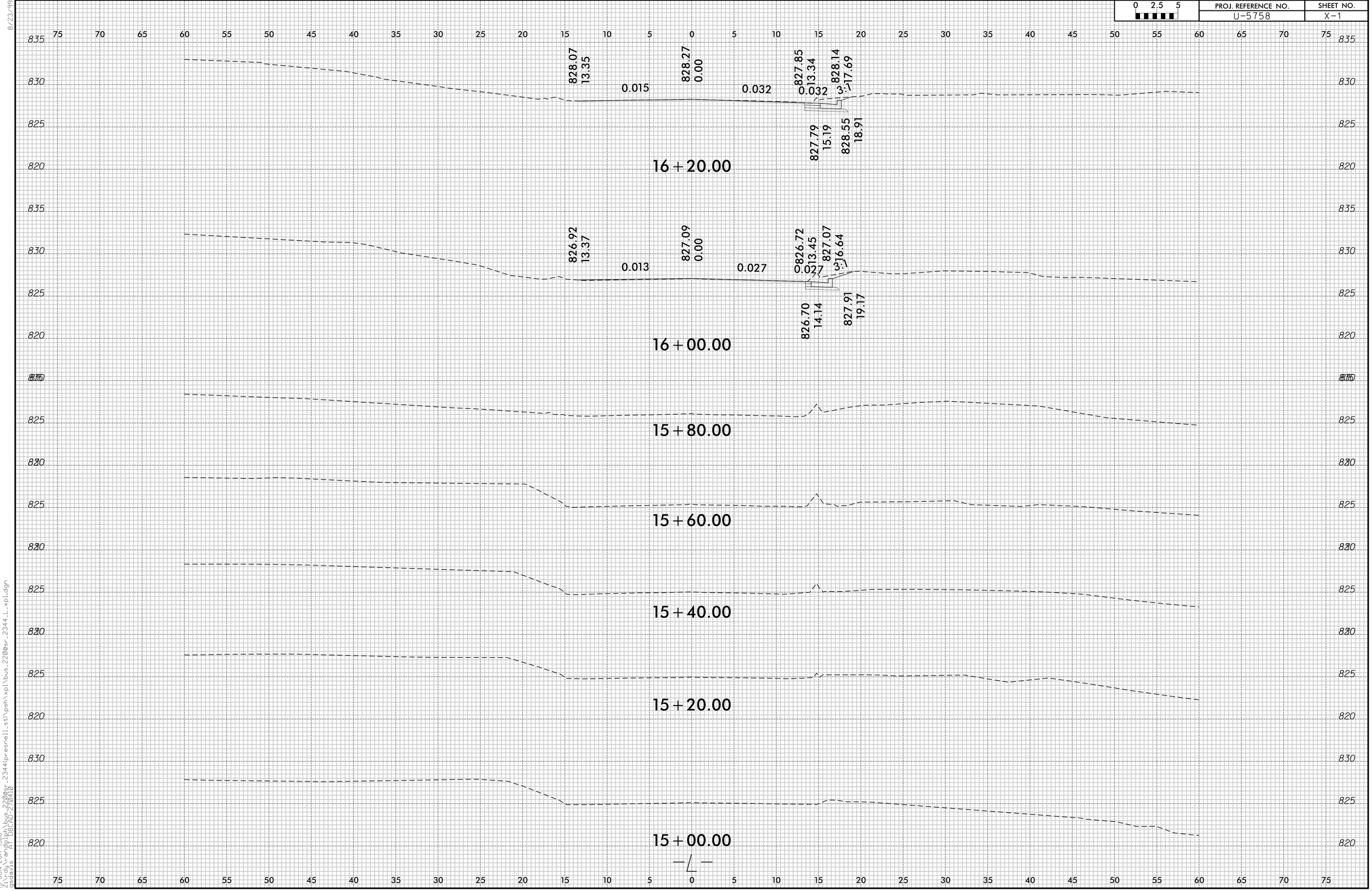
Station L	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
16+00.00	0	0
16+20.00	4	0
16+40.00	9	0
16+60.00	12	0
16+80.00	16	0
17+00.00	18	0
17+20.00	21	0
17+40.00	26	0
17+60.00	26	0
17+80.00	26	0
18+00.00	26	0
18+20.00	25	0
18+40.00	25	0
18+60.00	26	0
18+80.00	24	0
19+00.00	26	0
19+20.00	34	0
19+40.00	41	0
19+60.00	45	0
19+80.00	41	0

Station L	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
20+60.00	0	0
20+80.00	12	0
21+00.00	19	0
21+20.00	20	0
21+40.00	20	0
21+60.00	18	0
21+80.00	16	0
22+00.00	15	0
22+20.00	31	0
22+40.00	44	0
22+60.00	30	0
22+80.00	29	0
23+00.00	32	0
23+20.00	35	0
23+40.00	39	0
23+60.00	32	0
23+80.00	26	0
24+00.00	32	0
24+20.00	30	0
24+40.00	20	0
24+60.00	31	0
24+80.00	34	0
25+00.00	24	0
25+20.00	22	0
25+40.00	23	0
25+60.00	26	0
25+80.00	16	0
26+00.00	3	0

Approximate quantities only. Unclassified excavation, borrow excavation, shoulder borrow, fine grading, clearing and grubbing, and removal of existing pavement will be paid for at the lump sum price for "Grading".

8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	U-5758	X-1



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	U-5758	X-2

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

845 840 835 830 825 840 835 830 825 820

833.70
13.45
0.015
833.91
0.00
833.84
13.40
0.005
0.005
834.22
21.89
834.78
33.60
2.0 % 5.0 % 16.0 %
DRIVEWAY
833.81
19.39
834.37
22.36

17+00.00

832.33
13.43
0.018
832.58
0.00
832.37
13.40
0.015
0.015
833.6
34.4
2.0 % 5.0 % 16.0 % 25.0 %
DRIVEWAY
332.29
18.34

16+80.00

830.87
13.39
0.019
831.13
0.00
830.89
13.39
0.018
0.018
831.20
19.79
3:1
832.99
25.14
830.82
17.29

16+60.00

829.34
13.34
0.023
829.64
0.00
829.31
13.36
0.024
0.024
829.61
18.74
3:1
832.19
26.46
829.24
16.24

16+40.00

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	U-5758	X-3

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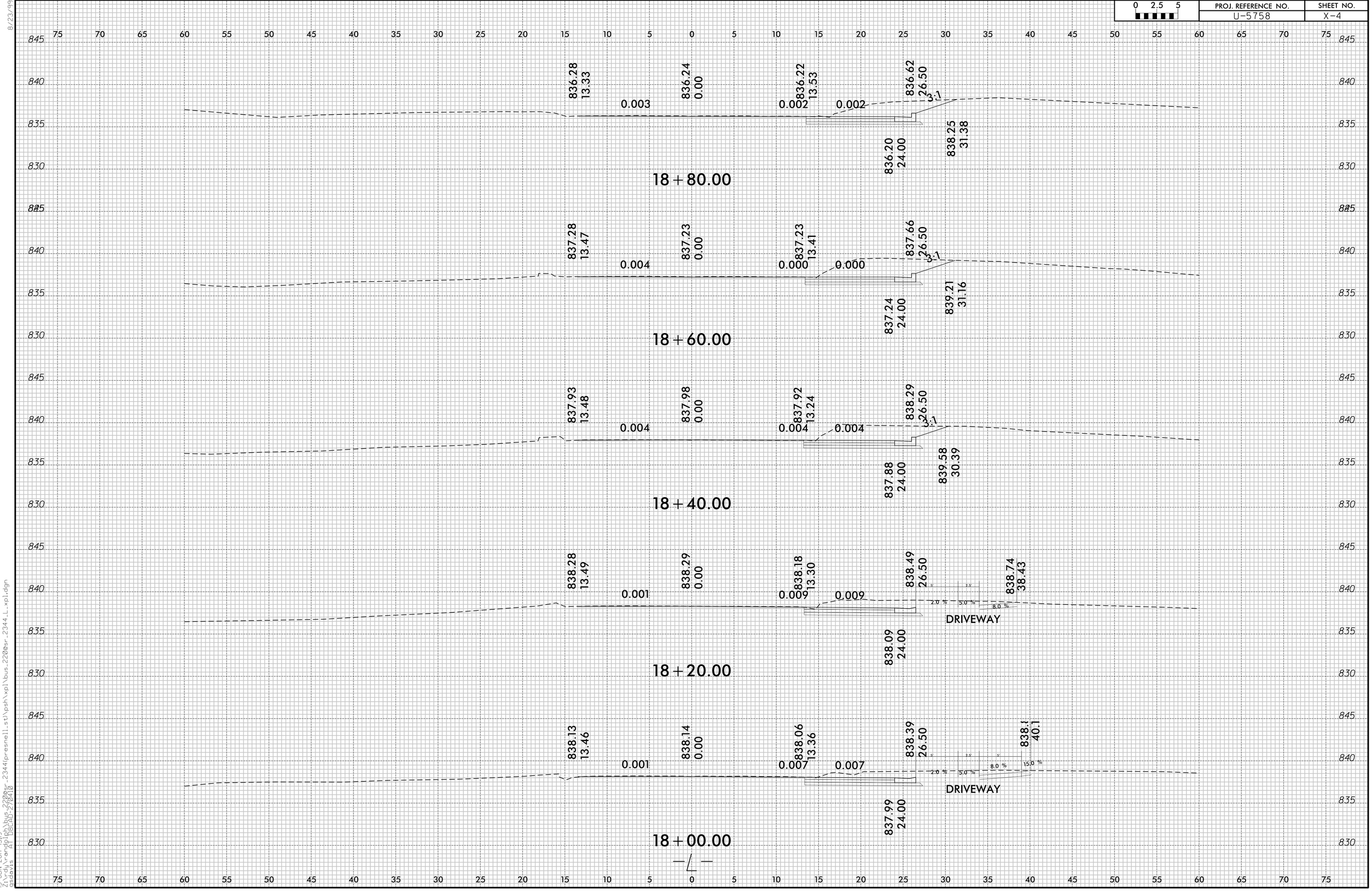
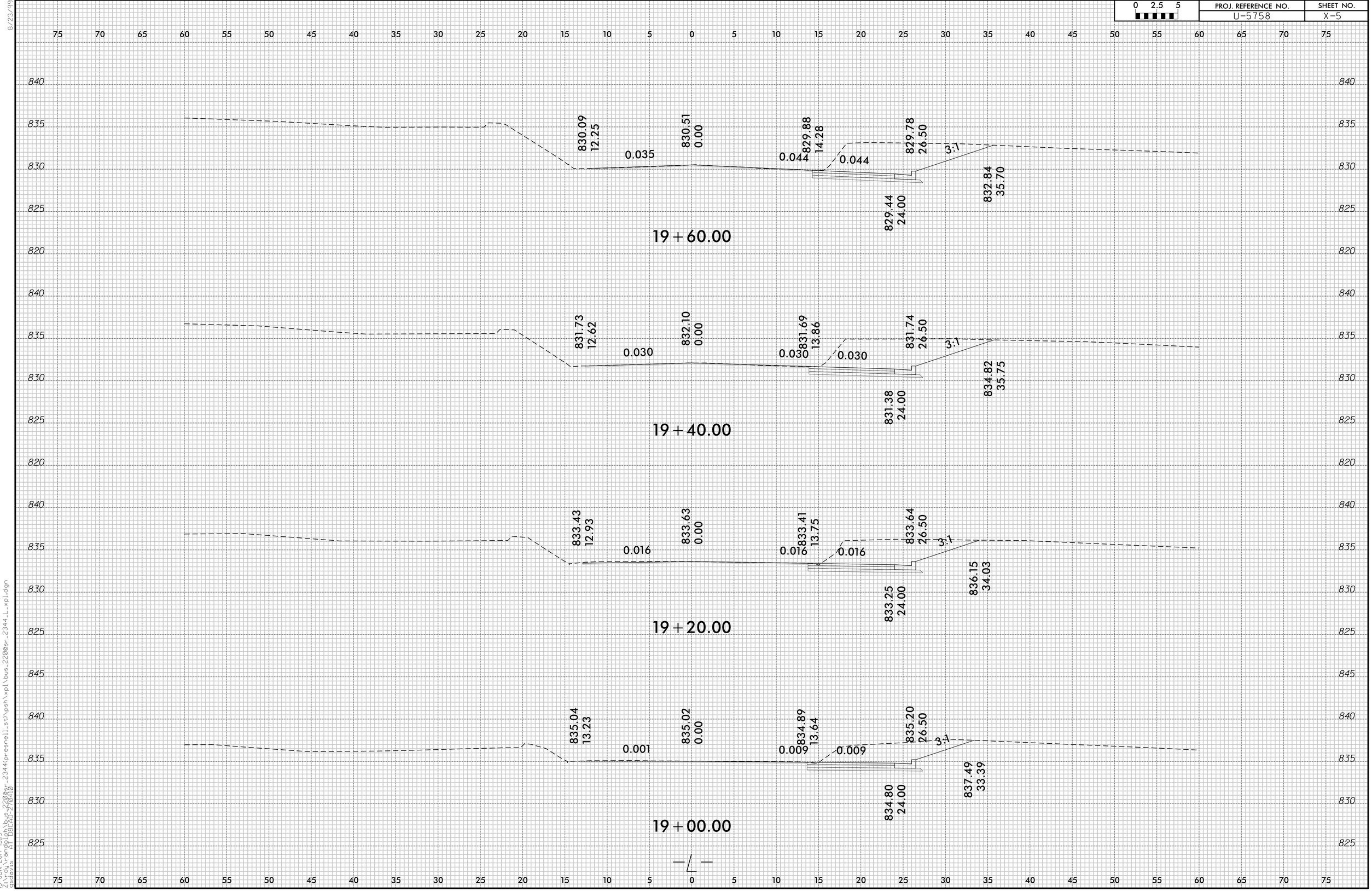
psdavis AT DBCAD-27418

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	U-5758	X-4



0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	U-5758	X-5



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A1 D8CAD-270410
qsdavis

PROJ. REFERENCE NO.	SHEET NO.
U-5758	X-6


0 2.5 5
20+80.00
828.25 16.32
828.44 0.00
827.71 14.41
827.54 26.50
0.012
0.051
0.051
3:1
827.23 24.00
828.45 29.21
20+60.00
827.99 5.00
827.92 0.00
827.17 23.00
827.43 28.35
827.66 34.25
0.013
0.033
0.033
TIE TO SIDEWALK
827.08 25.84
827.60 28.85
20+40.00
20+20.00
20+00.00
19+80.00
828.74 11.70
829.11 0.00
828.34 15.20
828.09 28.75
0.031
0.051
0.051
3:1
827.78 26.25
830.57 36.18
835
830
825
820
75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	U-5758	X-7

13-JUN-2017 15:19
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AT_DBCAD-2/0418

0 2.5 5

PROJ. REFERENCE NO.	SHEET NO.
U-5758	X-8

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

845 840 835 830 825 840 835 830 825 840 835 830 825 820

22+40.00

835.14
13.42
0.027
835.51
0.00
835.03
13.42
0.036
0.036
835.00
26.50
3:1
838.82
37.97
834.65
24.00

22+20.00

833.90
13.42
0.026
834.25
0.00
833.74
13.37
0.038
0.038
833.67
26.50
3:1
837.93
39.26
833.33
24.00

22+00.00

832.69
13.41
0.026
833.04
0.00
832.57
13.39
0.035
0.035
832.20
24.00
5'
2.0 %
832.37
31.47
DRIVEWAY

21+80.00

831.50
13.41
0.033
831.93
0.00
831.46
13.46
0.035
0.035
5'
2.0 %
831.01
37.79
DRIVEWAY

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	U-5758	X-9

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

850 845 840 835

839.60
25.82

0.036

840.54
0.00

0.040

840.00
13.52

0.040

842.1
46.6

2.0 % 5.0 % 16.0 % 25.0 %

DRIVEWAY

23+20.00

850 845 840 835

838.32
25.88

0.036

839.26
0.00

838.76
13.51

0.037

0.037

838.71
26.50

4:1

840.93
35.40

838.36
24.00

23+00.00

830 845 840 835

837.41
18.22

0.030

837.95
0.00

0.033

837.51
13.51

0.033

839.4
49.3(

2.0 % 5.0 % 8.0 % 15.0 %

DRIVEWAY

22+80.00

830 845 840 835

836.40
13.44

0.022

836.70
0.00

836.47
13.48

0.017

0.017

836.67
26.50

3:1

838.18
31.03

836.29
24.00

22+60.00

830 825

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

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gasdavis
AT D8CAD-270410

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	U-5758	X-10

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

855 850 845 840

844.37
25.63

0.034

845.23
0.00

0.039

844.70
13.59

0.039

846.62
42.85

5' 2.5' 5'
2.0 % 5.0 % 16.0 % 25.0 %

DRIVEWAY

844.33
23.04

24+00.00

855 850 845 840

843.34
25.67

0.032

844.17
0.00

0.036

843.68
13.59

0.036

843.65
26.50

4:1

845.52
33.97

843.30
24.00

23+80.00

835 850 845 840

842.26
25.71

0.030

843.03
0.00

0.039

842.50
13.58

0.039

842.43
26.50

4:1

844.73
35.68

842.09
24.00

23+60.00

835 850 845 840

841.12
26.01

0.027

841.81
0.00

0.040

841.27
13.55

0.040

841.19
26.50

4:1

844.09
38.09

840.85
24.00

23+40.00

830 835

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

8/23/99

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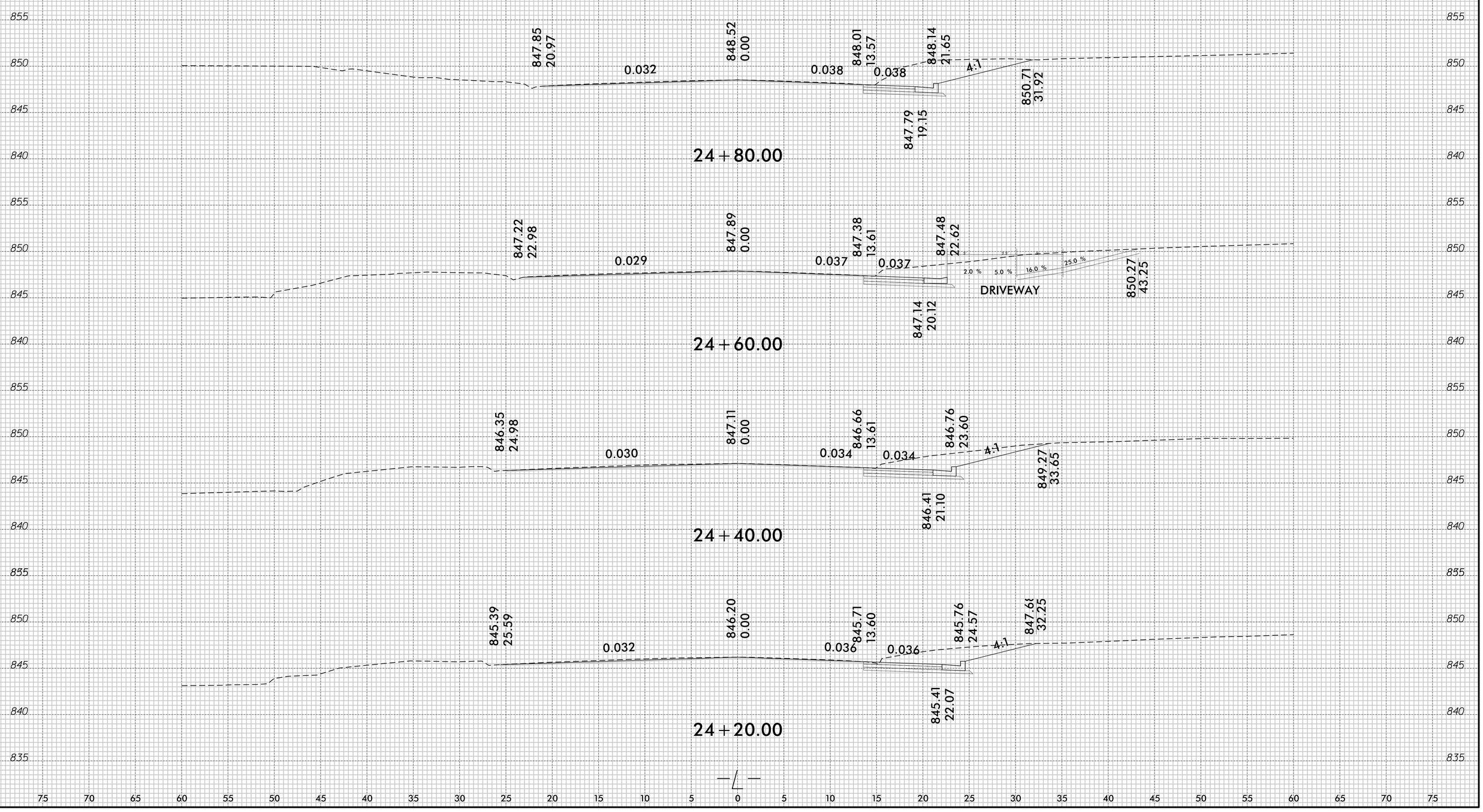
gsdavis
ATTDBCAD_270410

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	U-5758	X-11



0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	U-5758	X-12

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

860 855 850 845 840

849.15
13.55
0.044
849.74
0.00
0.041
849.18
13.70
0.041
849.45
17.87
2.0 % 5.0 % 16.0 % 25.0 %
DRIVEWAY
849.11
15.37

25+60.00

848.92
14.88
0.047
849.63
0.00
0.039
849.10
13.54
0.039
849.33
18.73
4:1
853.13
33.93
848.99
16.23

25+40.00

848.61
16.92
0.046
849.38
0.00
0.035
848.90
13.50
0.035
849.12
19.70
4:1
852.26
29.13
848.77
17.20

25+20.00

848.32
18.97
0.038
849.04
0.00
0.034
848.57
13.53
0.034
848.77
20.68
2.0 % 5.0 % 16.0 % 25.0 %
850.37
36.59
DRIVEWAY
848.41
18.18
849.40
22.57

25+00.00