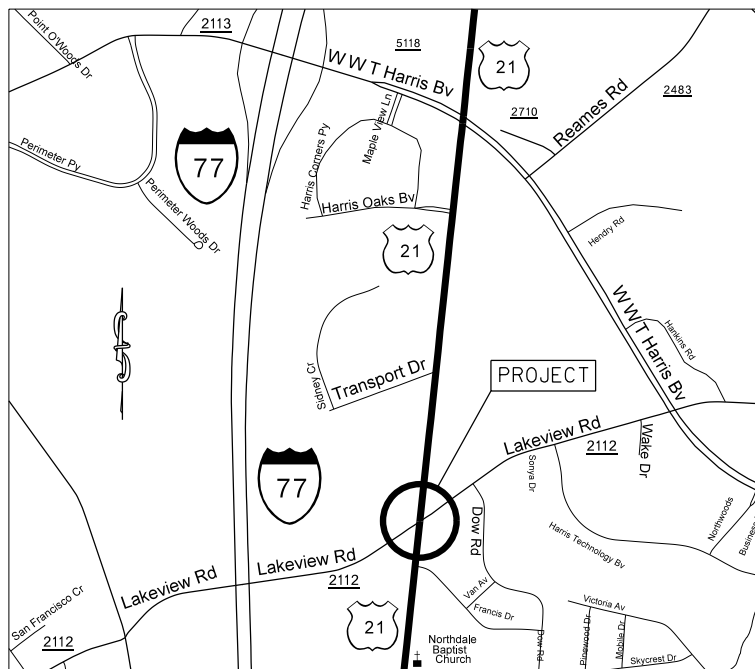


PROJECT: 50138.3.169 TIP: W-5601FL

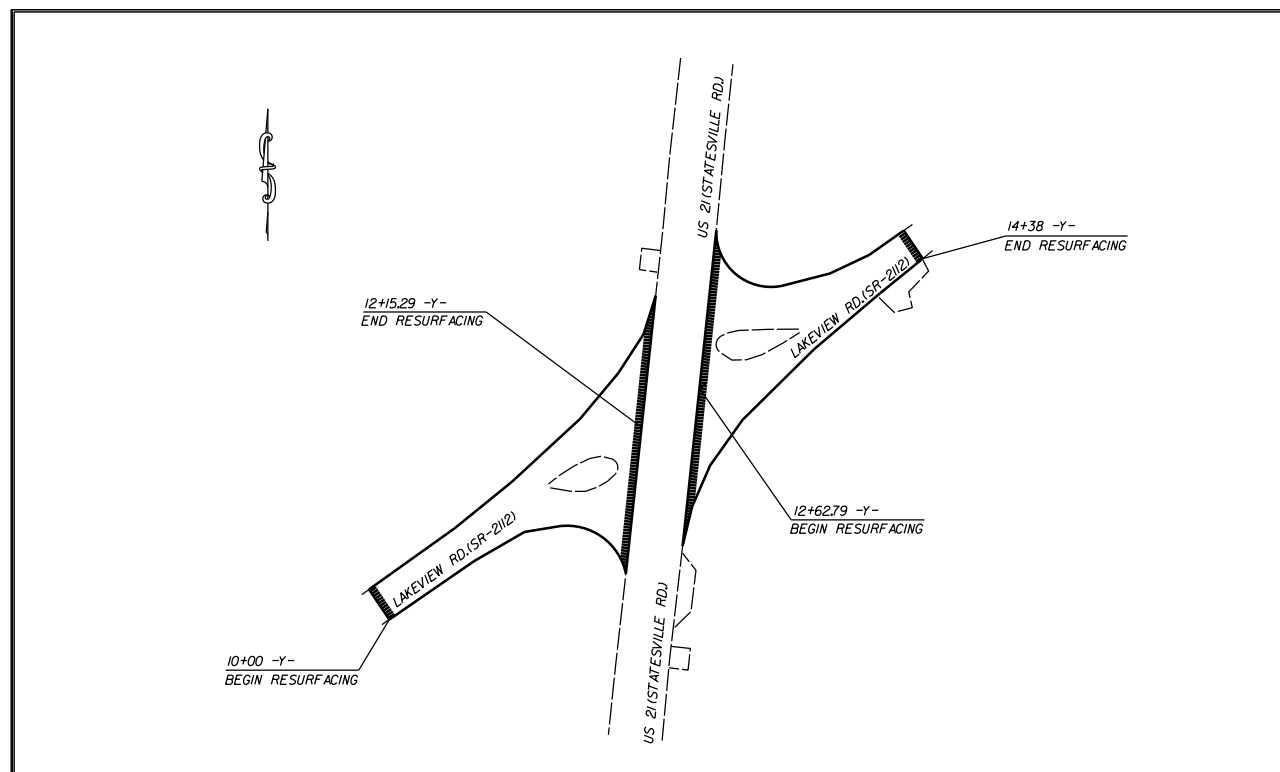


VICINITY MAP NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
MECKLENBURG COUNTY

LOCATION: INTERSECTION OF US 21 (STATESVILLE RD.) AND LAKEVIEW ROAD (SR-2112)

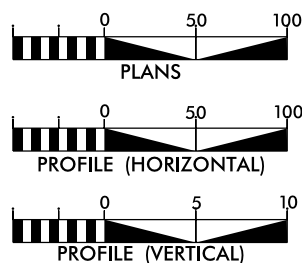
TYPE OF WORK: GRADING, PAVING, MILLING, THERMOPLASTIC PAVEMENT MARKING, AND TRAFFIC SIGNAL.



CLEARING ON THIS PROJECT SHALL BE TO THE LIMITS ESTABLISHED BY METHOD II AS DESCRIBED IN THE NCDOT STANDARD DRAWINGS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	50138.3.169	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50138.1.169	HSIP-0077(007)	P.E.	
50138.3.169	HSIP-0077(007)	RW	
		CONST.	

GRAPHIC SCALES



DESIGN DATA

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

PROJECT LENGTH

LENGTH OF ROADWAY PROJECT 50138.3.169 = 0.08 MILES
TOTAL LENGTH OF STATE PROJECT 50138.3.169 = 0.08 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS

DIVISION TEN
DIVISION DESIGN / CONSTRUCT UNIT

RIGHT OF WAY DATE:

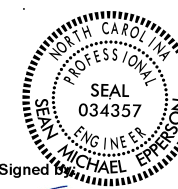
LETTING DATE:
November 1, 2017

DONALD GRIFFITH
PROJECT ENGINEER

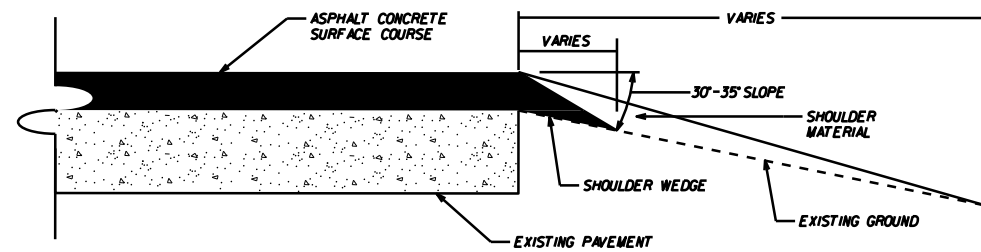
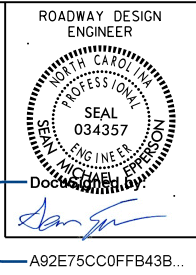
DONALD HARWARD
PROJECT DESIGN ENGINEER



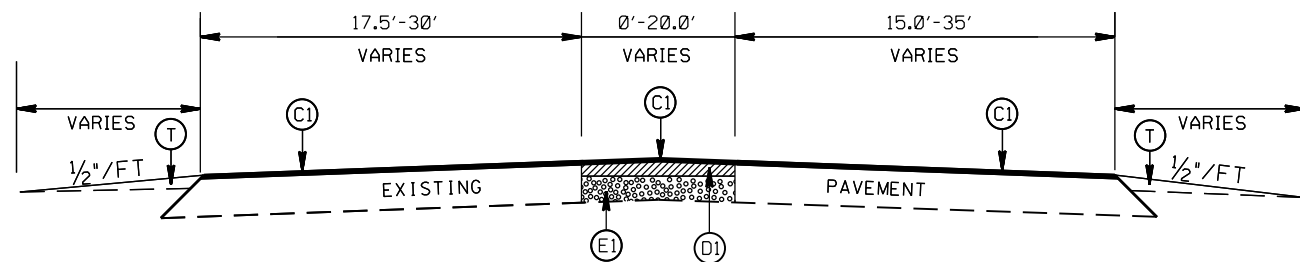
ROADWAY DESIGN ENGINEER



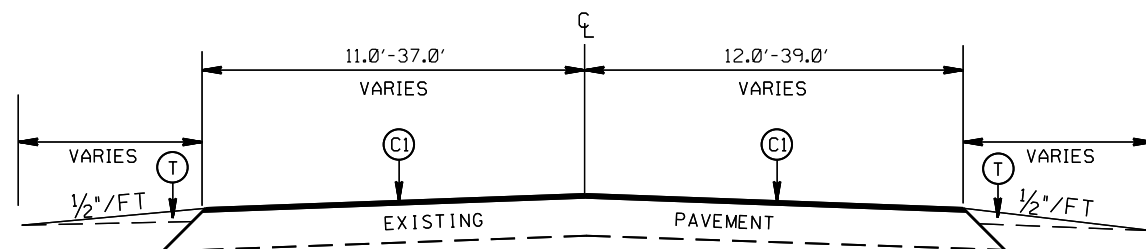
DocuSigned by
Michael Eberlein
002E76C0FFB43B...



SHOULDER WEDGE DETAIL



TYPICAL SECTION NO. 2
 STA. 11+38.00 TO 11+88.00 -Y-
 STA. 12+62.79 TO 12+88.00 -Y-



TYPICAL SECTION NO. 1
 STA. 10+00.00 TO 11+38.00 -Y-
 STA. 11+88.00 TO 12+15.29 -Y-
 STA. 12+62.79 TO 12+88.00 -Y-
 STA. 13+45.00 TO 14+38.00 -Y-

PAVEMENT SCHEDULE

(C1)	PROP. APPROX. 1½" ASPHALT CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
(D1)	PROP. APPROX. 2½" ASPHALT CONC. INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
(E1)	PROP. APPROX. 8.0" ASPHALT CONC. BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
(T)	EARTH MATERIAL

SIGNALIZING INTERSECTION AT
 US 21 (STATESVILLE RD.)
 AND LAKEVIEW RD. (SR-2112)

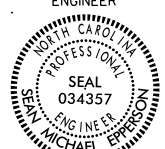
SCALE	r=50'
DATE	8-2018
DWG. BY	DLS
DESIGN BY	JDH
APPROVED	DCG



REVISIONS	

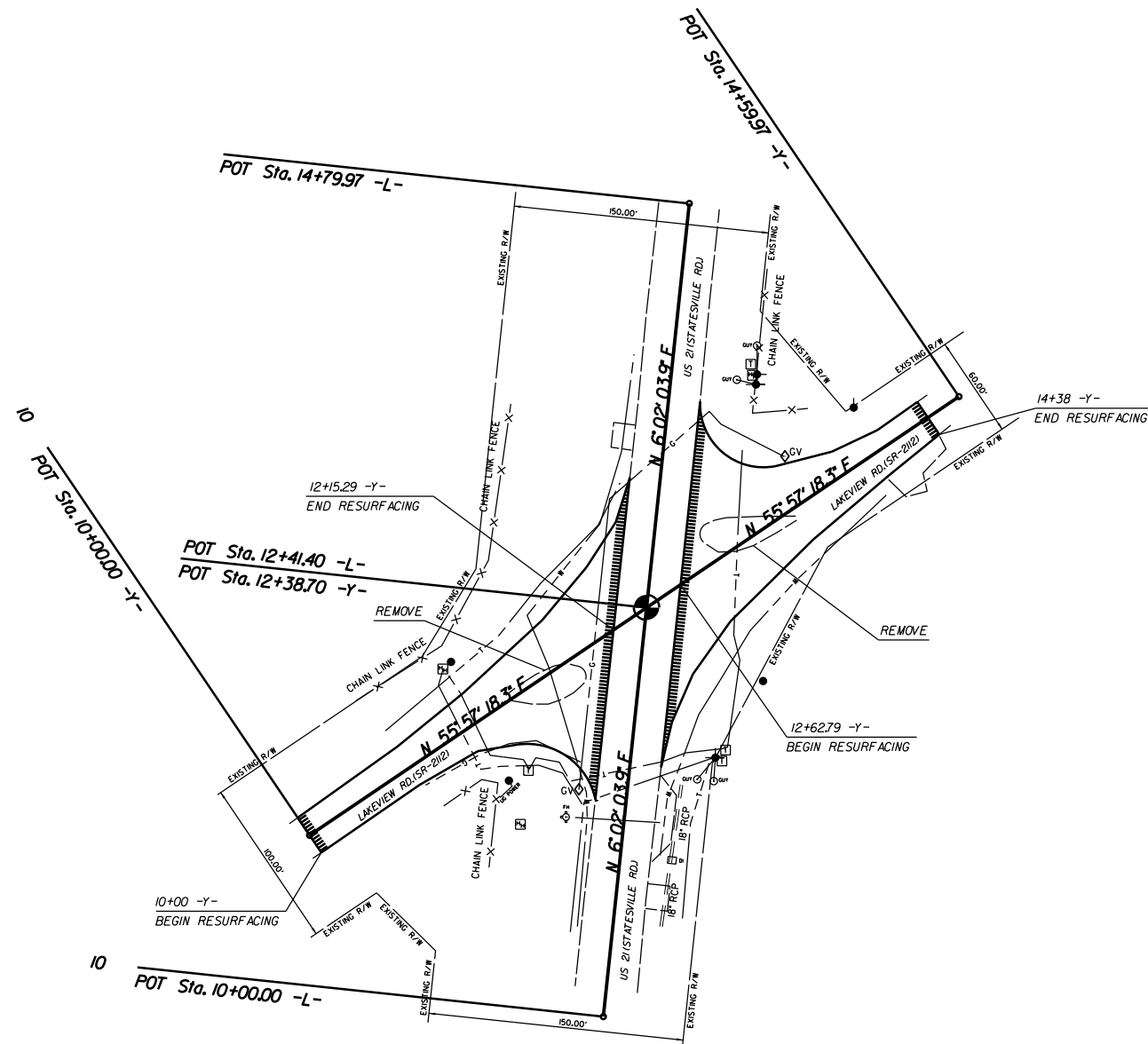
PROJECT NO.	SHEET NO.
50138.3.169	3
F.A. PROJECT NO. HSP-007(007)	

ROADWAY DESIGN
ENGINEER



DocuSign by:
Michael J. Murphy

A92E75CC0FFB43B...



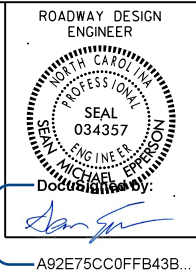
NOTE: INCIDENTAL MILL APPROX. 25' AT EACH
TIE IN TO PROVIDE A SMOOTH TRANSITION
TO THE EXISTING ASPHALT PAVEMENT.

US 21 (STATESVILLE RD.)
AT LAKEVIEW RD. (SR-2112)

SCALE	1"=50'
DATE	8-2018
DWG. BY	DLS
DESIGN BY	JDH
APPROVED	DCG



REVISIONS



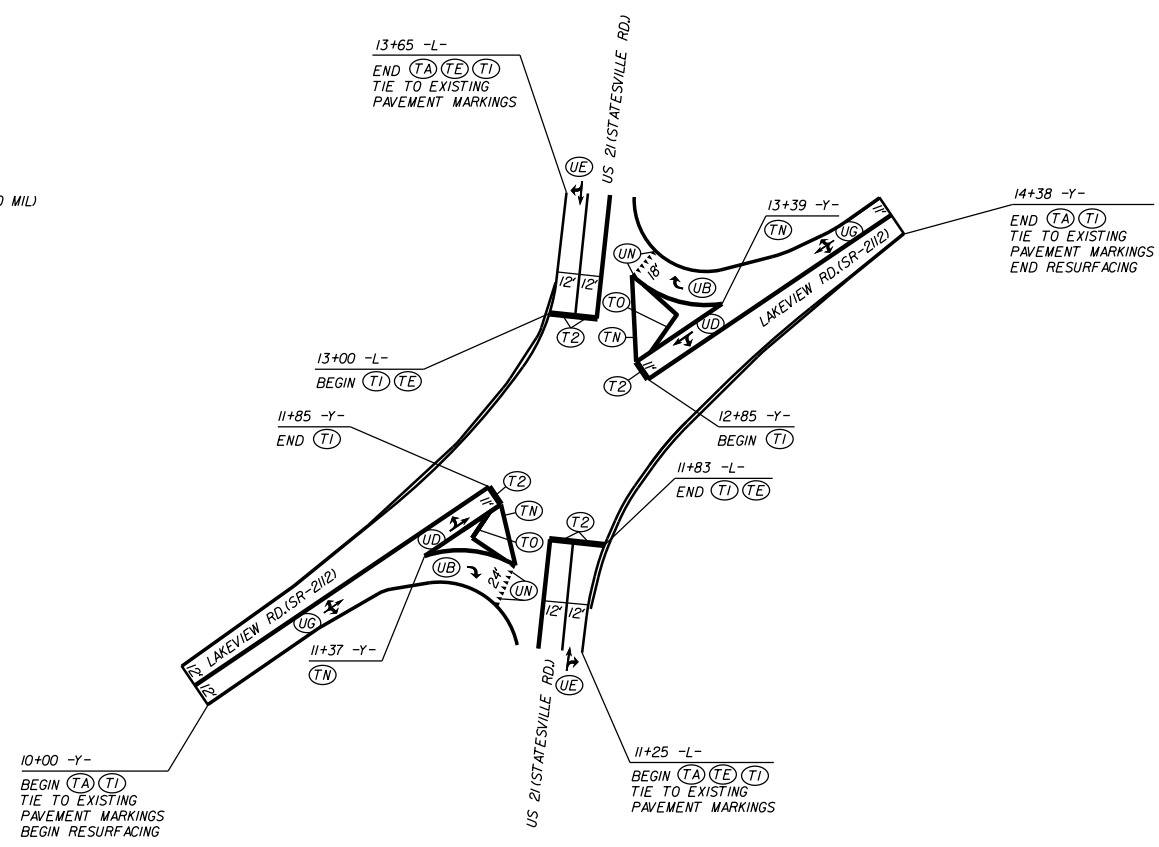
PAVEMENT MARKING SCHEDULE

PAVEMENT MARKING LINES

- | | |
|--|---|
| TA - WHITE EDGELINE (4',.90 MIL) | TU - WHITE DIAGONAL (12',.90 MIL) |
| TB - YELLOW EDGELINE (4',.90 MIL) | TV - YELLOW DIAGONAL (12',.90 MIL) |
| TC - 10FT. WHITE SKIP (4',.120 MIL) | TI - WHITE LINE, RR X (16',.120 MIL) |
| TD - 3FT.-9FT./SP WHITE MINISKIP (4',.120 MIL) | T2 - WHITE STOPBAR (24',.120 MIL) |
| TE - WHITE SOLID LANE LINE (4',.120 MIL) | T3 - WHITE CROSSWALK LINE (24',.120 MIL) |
| TF - 10FT. YELLOW SKIP (4',.120 MIL) | T4 - WHITE RUMBLE STRIP (4',.240 MIL) |
| TH - YELLOW SINGLE CENTER (4',.120 MIL) | T5 - YELLOW RUMBLE STRIP (4',.240 MIL) |
| TI - YELLOW DOUBLE CENTER (4',.120 MIL) | T6 - WHITE EDGELINE (6',.90 MIL) |
| TJ - 10FT. WHITE SKIP (6',.120 MIL) | T7 - YELLOW EDGELINE (6',.90 MIL) |
| TK - 3FT.-9FT./SP WHITE MINISKIP (6',.120 MIL) | T8 - 2FT.-6FT./SP WHITE MINISKIP (4',.120 MIL) |
| TL - WHITE SOLID LANE LINE (6',.120 MIL) | T9 - 2FT.-6FT./SP YELLOW MINISKIP (4',.120 MIL) |
| TM - 10FT. YELLOW SKIP (6',.120 MIL) | T10 - 3FT.-3FT./SP WHITE MINISKIP (12',.120 MIL) |
| TN - WHITE GORELINE (8',.90 MIL) | T11 - 2FT.-6FT./SP WHITE MINISKIP (6',.120 MIL) |
| TO - WHITE DIAGONAL (8',.90 MIL) | T12 - 2FT.-6FT./SP YELLOW MINISKIP (6',.120 MIL) |
| TP - YELLOW DIAGONAL (8',.90 MIL) | T13 - 3FT.-9FT./SP WHITE MINISKIP (8',.120 MIL) |
| TQ - WHITE CROSSWALK LINE (8',.120 MIL) | T14 - 3FT.-9FT./SP WHITE MINISKIP (12',.120 MIL) |
| TR - WHITE SOLID LANE LINE (8',.120 MIL) | T15 - YELLOW SINGLE CENTER (6',.120 MIL) |
| TS - WHITE GORELINE (12',.90 MIL) | T16 - YELLOW DOUBLE CENTER (6',.120 MIL) |
| TT - WHITE SOLID LANE LINE (12',.120 MIL) | T17 - 3FT.-3FT./SP WHITE MINISKIP ENTRANCE LINE (8',.120 MIL) |

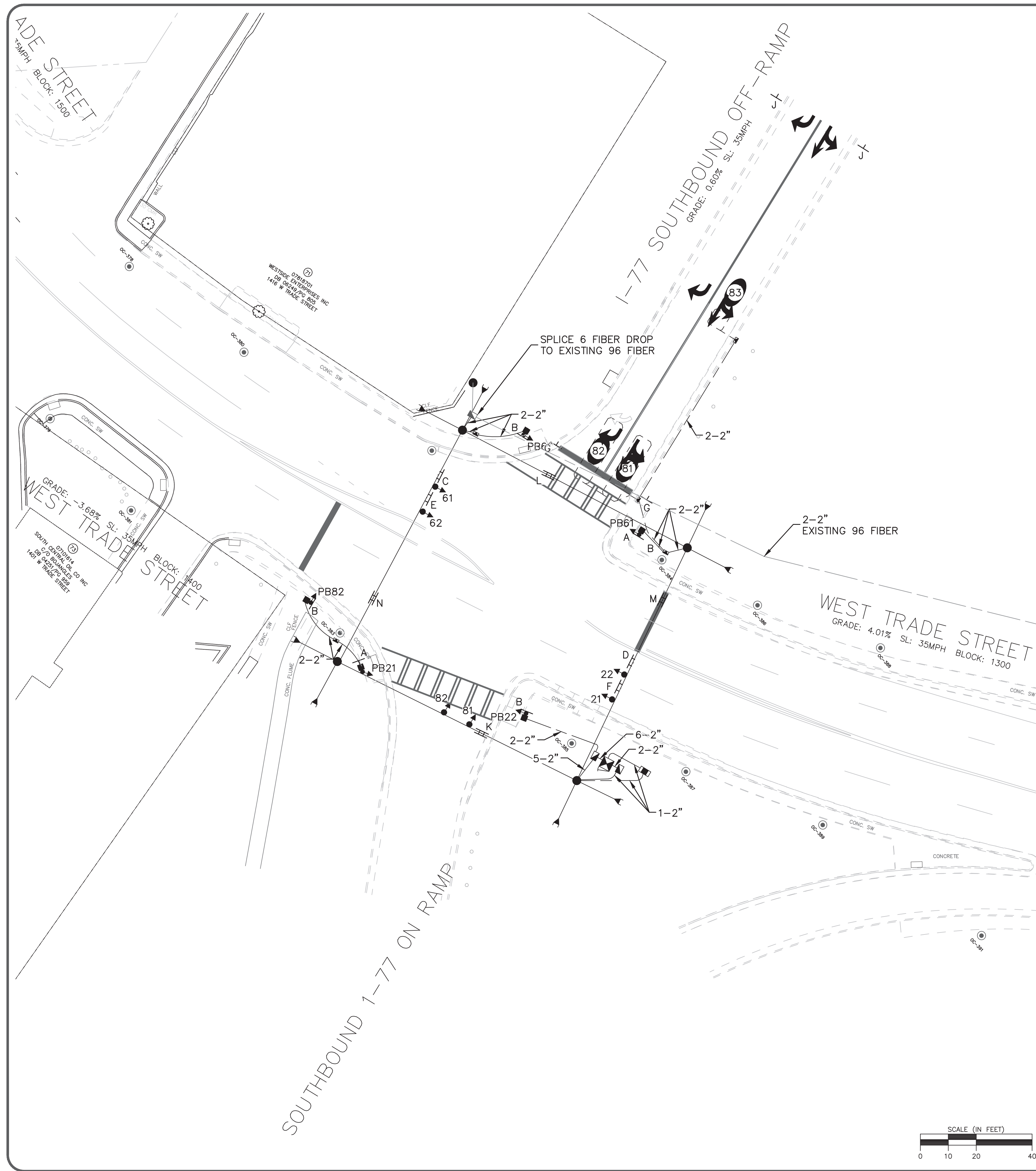
PAVEMENT MARKING SYMBOLS

- | | |
|--|--|
| UA - LEFT TURN ARROW (90 MIL) | UU - FISH-HOOK STRAIGHT ARROW (90 MIL) |
| UB - RIGHT TURN ARROW (90 MIL) | UV - FISH-HOOK LEFT/STRAIGHT ARROW (90 MIL) |
| UC - STRAIGHT ARROW (90 MIL) | UW - FISH-HOOK RIGHT/STRAIGHT ARROW (90 MIL) |
| UD - COMBO. LEFT/STRAIGHT ARROW (90 MIL) | UX - FISH-HOOK LEFT/RIGHT ARROW (90 MIL) |
| UE - COMBO. RIGHT/STRAIGHT ARROW (90 MIL) | UY - FISH-HOOK LEFT/RIGHT/STRAIGHT ARROW (90 MIL) |
| UF - COMBO. LEFT/RIGHT ARROW (90 MIL) | UZ - FISH-HOOK W/CIRCLE STRAIGHT ARROW (90 MIL) |
| UG - COMBO. LEFT/RIGHT/STRAIGHT ARROW (90 MIL) | |
| UH - HANDICAP PARKING (90 MIL) | WA - FISH-HOOK W/CIRCLE LEFT ARROW (90 MIL) |
| UI - ALPHANUMERIC CHAR. (120 MIL) | WB - FISH-HOOK W/CIRCLE LEFT/STRAIGHT ARROW (90 MIL) |
| UJ - BICYCLE SYMBOL (90 MIL) | WC - FISH-HOOK W/CIRCLE LEFT/RIGHT/STRAIGHT ARROW (90 MIL) |
| UK - BICYCLE STRAIGHT ARROW (90 MIL) | |
| UL - BICYCLE CHAR. (120 MIL) | MA - PERMANENT RAISED MARKER (YELLOW & YELLOW) |
| UM - 12" YIELD LINE TRIANGLE (90 MIL) | MB - PERMANENT RAISED MARKER (CRYSTAL & RED) |
| UN - 24" YIELD LINE TRIANGLE (90 MIL) | MC - PERMANENT RAISED MARKER (YELLOW & RED) |
| UO - BICYCLE LEFT ARROW (90 MIL) | MD - PERMANENT RAISED MARKER (YELLOW) |
| UP - MERGE ARROW (90 MIL) | ME - SNOWFLOWABLE MARKER (YELLOW & YELLOW) |
| UQ - RAMP ARROW SYMBOL (90 MIL) | MF - SNOWFLOWABLE MARKER (CRYSTAL & RED) |
| UR - SHARROW (90 MIL) | MG - SNOWFLOWABLE MARKER (YELLOW & RED) |
| US - BICYCLE LOOP DETECTOR (90 MIL) | ML - PERMANENT RAISED MARKER (CRYSTAL & CRYSTAL) |
| UT - U-TURN ARROW (90 MIL) | MO - SNOWFLOWABLE MARKER (CRYSTAL & CRYSTAL) |



SIGNALIZING INTERSECTION AT
US 21 (STATESVILLE RD.)
AND LAKEVIEW RD. (SR-2112)

SCALE	1"=50'		REVISIONS
DATE	8-2018		
DWG. BY	DLS		
DESIGN BY	JDH		
APPROVED	DCG		



SIGNAL PHASING		SIGNAL SEQUENCE								CLEARANCE INTERVALS							
Ring Configuration: 1,2,3,4,5,6,7,8,9		RING 1 PHASE 1 PHASE 2 PHASE 3 PHASE 4								Phase 1 2 3 4 5 6 7 8							
CONTROLLER TYPE: ECONOLITE ASC/3		SIGNAL ID NUMBER								% Grade							
ECONOLITE ASC/3		21,22								-3.7%							
1 NOT USED		PB21,PB22								105							
2 NOT USED										35							
3 NOT USED										4.1							
4 NOT USED										2.1							
5 NOT USED										6.2							
6 NOT USED										5.6							
7 NOT USED										5.5							
8 NOT USED																	
9 NOT USED																	
10 NOT USED																	

TRAFFIC VOLUMES															
RING 2 PHASE 5 PHASE 6 PHASE 7 PHASE 8															
SIGNAL ID NUMBER															
61,62															
81,82															
PB61,PB62															

OVERLAP - PHASE															
OVERLAP - PHASE															
SIGNAL ID NUMBER															
R/W OTH R/W OTH R/W OTH R/W OTH															
FLASH															

DETECTOR INFORMATION															
DETECTOR NUMBER															
AMP NO.															
SIZE / ZONE															
AMP TYPE															
DELAY															
COMMENTS:															
81 1 6'x25' 8 N															
82 2 6'x25' 8 D 8															
83 3 6'x6' 8 N															

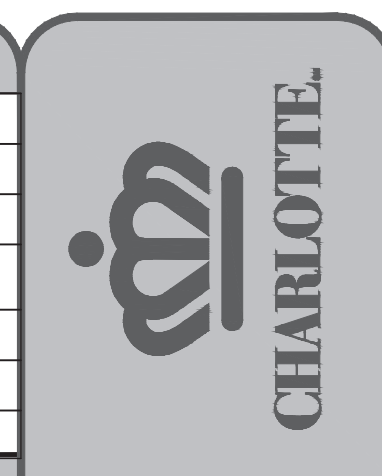
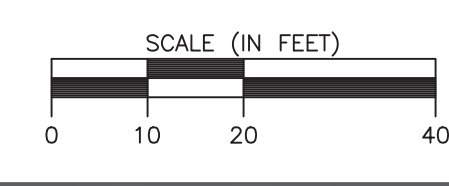
PULLBOX ID	
SIZE:	PULLBOX TYPE:
13"x24"x12"	LOOP
17"x30"x24"	FIBER OPTIC
24"x36"x24"	CONTROLLER / FIBER
30"x48"x36"	CONTROLLER
24"x24"x12"	CONTROLLER
36"x36"x12"	CONTROLLER

SIGNAL HEAD ID	
21,22	PB21,PB22
61,62	PB61,PB62
81,82	PB81,PB82

SIGN ID		LEGEND	
A	R10-3b (L)	PROPOSED	EXISTING
B	R10-3b (R)	CONTROL BOX	METER PEDESTAL
C	R3-1 24" x 24"	PULL BOX	STEEL POLE
D	R3-2 30" x 30"	MAST ARM	PED PEDESTAL
E	R6-1L 48" x 18"	UTILITY POLE	ANCHOR
F	R6-1R 48" x 18"	SIGNAL HEAD	VIDEO CAMERA
G	R5-1 30" x 30"	OPTICOM	OBSERVATION CAM
H	R5-1a 36" x 24"	DETECTOR	CONDUIT
I	WRONG WAY	INTERCONNECT	EDGE OF PWMT.
J	WRONG WAY	CURB & GUTTER	TUBULAR MARKER
K	W. Trade St. 1200	GROUND SIGN	OVERHEAD SIGN
L	W. Trade St. 1300	DOUBLE YELLOW	STOP BAR
M	S. I-77 On Ramp	WHITE SKIP	WHITE MINI
N	S. I-77 Off Ramp	PAVEMENT ARROW	PROPERTY LINE

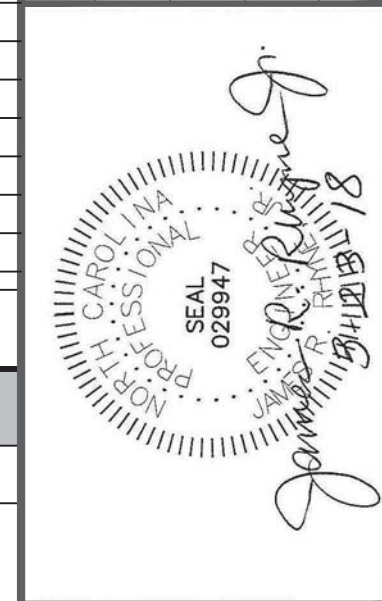
PLAN NOTES

- ALL PAVEMENT MARKING DIMENSIONS ARE APPROXIMATE.
- SIGNAL WILL BE INSTALLED IN ACCORDANCE WITH THE MAY 1998 CDOT TRAFFIC SIGNAL SPECIFICATIONS AND THE PROJECT SPECIAL PROVISIONS.
- PED SIGNALS WITH PUSHBUTTONS WILL BE LABELED "PB" (FOR EXAMPLE PB21, PB22)
- COUNTDOWN PEDESTRIAN SIGNALS SHOULD COUNT DOWN FLASHING DON'T WALK ONLY.



Plans Prepared By:
City of Charlotte
 Department of Transportation
 600 East Fourth Street
 Charlotte, North Carolina 28202
 Phone: (704) 336-4119

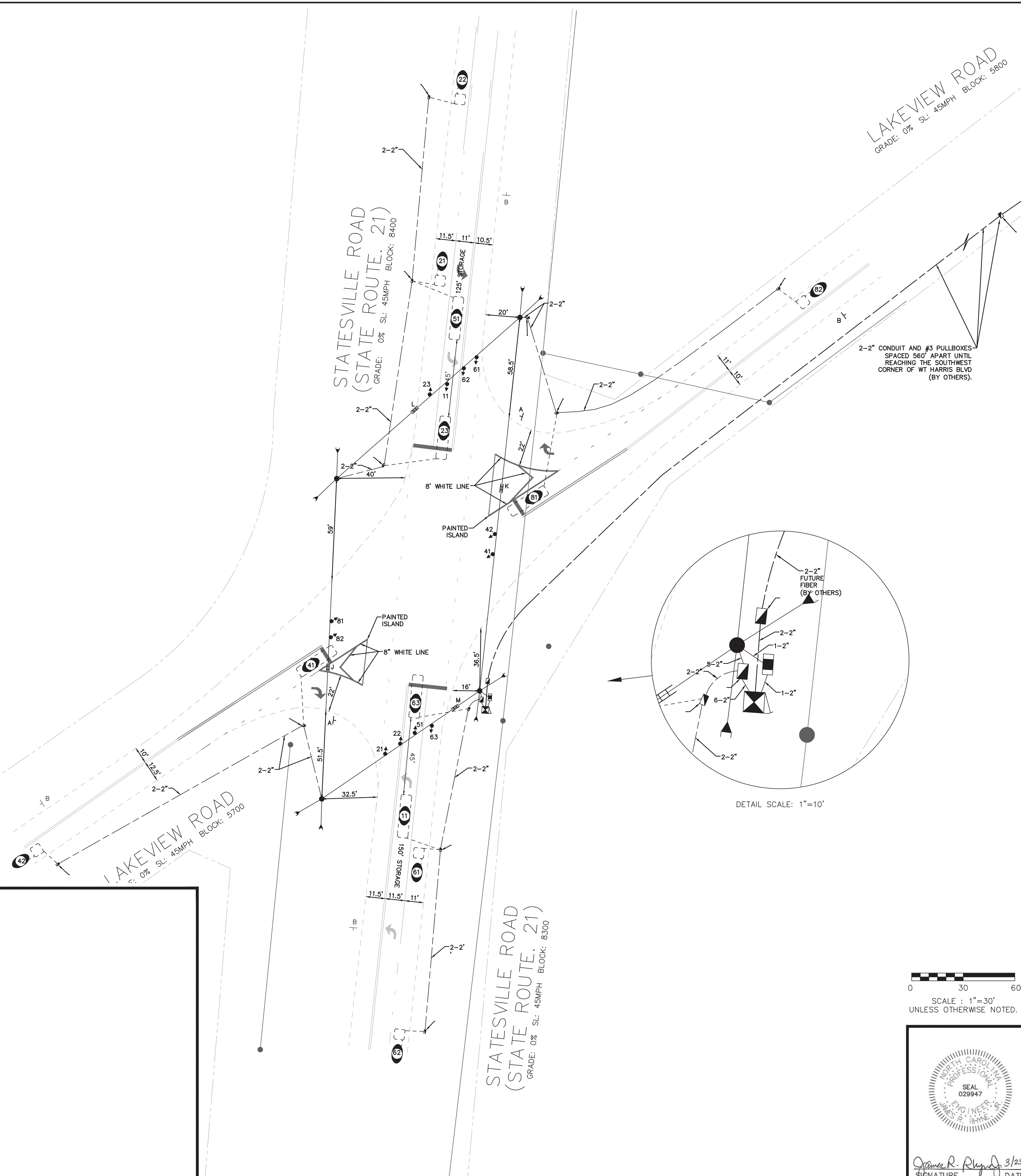
NO.	DATE	BY	DESCRIPTION



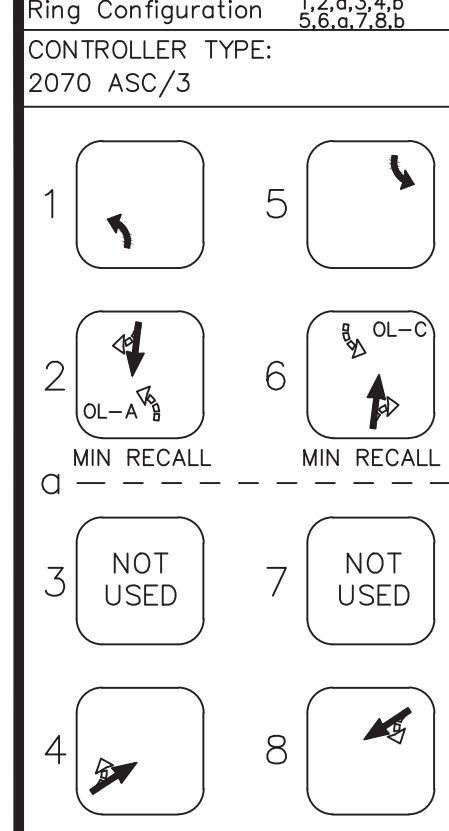
512-14-1522	SCALE	1" = 20'
JOB NO.	NA	NA
SIGNAL ID	NA	NA
PREPARED BY	TLB	04/12/2016
CHECKED BY	NLC	
APPROVED BY	JBR	

WEST TRADE STREET
 AND
 I-77 SOUTHBOUND RAMP

SHEET
 SG-06
 OF
 SG-30



SIGNAL PHASING



SIGNAL SEQUENCE

RING 1	PHASE 1	PHASE 2	PHASE 3	PHASE 4	FLASH
SIGNAL ID NUMBER	R/W OTH	R/W OTH	R/W OTH	R/W OTH	FLASH
11	◀ ◀	G Y			
21,22,23					
41,42				G Y R	
51	◀ ◀	G Y			
61,62,63					
81,82				G Y R	

CLEARANCE INTERVALS

PHASE	1	2	3	4	5	6	7	8
% GRADE	---	---	---	---	---	---	---	---
DISTANCE	---	---	---	---	---	---	---	---
APPROACH SPEED (MPH)	---	---	---	---	---	---	---	---
YELLOW	---	---	---	---	---	---	---	---
ALL RED	---	---	---	---	---	---	---	---
TOTAL CLEARANCE	---	---	---	---	---	---	---	---

NOTE: CLEARANCE INTERVAL DATA IS NOT LINKED.

TRAFFIC VOLUMES

STREET NAME	STREET NAME
	COUNTS NOT AVAILABLE

DETECTOR INFORMATION

DETECTOR NUMBER	AMP NO.	SIZE / ZONE	AMP TYPE	DELAY TYPE	COMMENTS
11	1	6x25	1	D 1	65' FROM SB
21	2	6x6	2	S ---	95' FROM SB
22	3	6x6	2	S ---	200' FROM SB
23	4	6x25	2	N ---	SB
41	5	6x25	4	N ---	SB
42	6	6x6	4	S ---	200' FROM SB
51	7	6x25	5	D 5	65' FROM SB
61	8	6x6	6	S ---	95' FROM SB
62	9	6x6	6	S ---	200' FROM SB
63	10	6x25	6	N ---	SB
81	11	6x25	8	N ---	SB
82	12	6x6	8	S ---	200' FROM SB
---	13	---	---	---	---
---	14	---	---	---	---
---	15	---	---	---	---
---	16	---	---	---	---
---	17	---	---	---	---
---	18	---	---	---	---
---	19	---	---	---	---

NOTE: ALL STOPBAR LOOPS EXTEND 5' BEYOND THE STOPBAR UNLESS OTHERWISE NOTED. ALL LOOPS RECEIVE THREE TURNS.

PULLBOX ID

SIZE	PULLBOX TYPE
13"x24"x12"	LOOP
17"x30"x24"	FIBER OPTIC
24"x36"x24"	CONTROLLER / FIBER
30"x48"x36"	CONTROLLER
24"x24"x12"	CONTROLLER
36"x36"x12"	CONTROLLER

NOTE: PULLBOX MATERIAL MUST MEET OR EXCEED THE 1998 CDOT TRAFFIC SIGNAL SPECIFICATIONS.

SIGNAL HEAD ID

21,22,23	11A,51A
41,42	11A,51A
61,62,63	11A,51A
81,82	11,51

SIGN ID

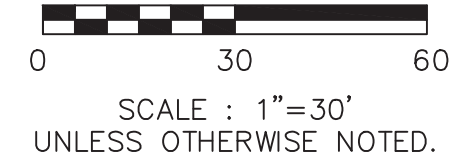


LEGEND

PROPOSED	DESCRIPTION	EXISTING
	CONTROL BOX	
	METER PEDESTAL	
	PULL BOX	
	STEEL POLE	
	MAST ARM	
	PED PEDESTAL	
	UTILITY POLE	
	ANCHOR	
	SIGNAL HEAD	
	VIDEO CAMERA	
	OPTICOM	
	OBSERVATION CAM	
	DETECTOR	
	CONDUIT	
	INTERCONNECT	
	EDGE OF PWMT.	
	CURB & GUTTER	
	TUBULAR MARKER	
	GROUND SIGN	
	OVERHEAD SIGN	
	DOUBLE YELLOW	
	STOP BAR	
	WHITE SKIP	
	WHITE MINI	
	PAVEMENT ARROW	
	PROPERTY LINE	
	ROW	

PLAN NOTES

- ALL PAVEMENT MARKING DIMENSIONS ARE APPROXIMATE.
- SIGNAL WILL BE INSTALLED IN ACCORDANCE WITH THE MAY 1998 CDOT TRAFFIC SIGNAL SPECIFICATIONS AND THE PROJECT SPECIAL PROVISIONS.
- PED SIGNALS WITH PUSHBUTTONS WILL BE LABELED "PB" (FOR EXAMPLE PB21, PB22)
- COUNTDOWN PEDESTRIAN SIGNALS SHALL COUNT DOWN FLASHING DON'T WALK ONLY.
- FYA 11 AND 51 WILL INITIALLY OPERATE 24/7.



SEAL
029947
ENGINEER
JAMES S. RYAN, P.E.
3/23/18
SIGNATURE DATE

#	BY:	DATE:	REVISION:

CITY OF CHARLOTTE
DEPARTMENT OF TRANSPORTATION
600 E. 4TH ST. CHARLOTTE, NC 28202 704 336-4119 FAX: 704 336-4400

STATESVILLE ROAD
AND
LAKEVIEW ROAD

DESIGNED BY:MKC|DATE: 1/24/17|APPROVED BY: BG NCDOT# 10-1703|UNIT ID: 4175|SIGNAL ID: 01743



SIGNAL PHASING		SIGNAL SEQUENCE								CLEARANCE INTERVALS												
RING 1	PHASE 1	PHASE 2	PHASE 3	PHASE 4	FLASH	PHASE 1	2	3	4	5	6	7	8	PHASE 1	2	3	4	5	6	7	8	
41,42,43																						

TRAFFIC VOLUMES	
STREET NAME	COUNTS NOT AVAILABLE
STREET NAME	
STREET NAME	

OVERLAP - PHASE	
OVERLAP PHASE	FYA
31A	

PULLBOX ID	
SIZE	PULLBOX TYPE
13"x24"x12"	LOOP
17"x30"x24"	FIBER OPTIC
24"x36"x24"	CONTROLLER / FIBER
30"x48"x36"	CONTROLLER
24"x24"x12"	CONTROLLER
36"x36"x12"	CONTROLLER

SIGNAL HEAD ID					
DETECTOR NUMBER	AMP NO.	SIZE / ZONE	AMP TYPE	DELAY	COMMENTS
31	1	6x25	3	D 3	65' FROM SB
41	2	6x25	N		SB (LT)

SIGN ID		LEGEND	
PROPOSED	DESCRIPTION	PROPOSED	EXISTING
A	AIR MARKER 6" x 23"	[Symbol]	[Symbol]
B	R4-7 24" x 30"	[Symbol]	[Symbol]
C	R3-4 24" x 24"	[Symbol]	[Symbol]

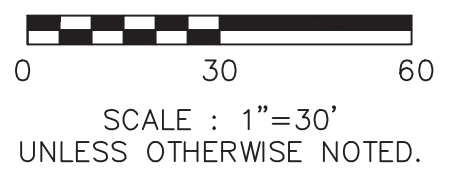
PLAN NOTES	
1. ALL PAVEMENT MARKING DIMENSIONS ARE APPROXIMATE. 2. SIGNAL WILL BE INSTALLED IN ACCORDANCE WITH THE MAY 1998 CDOT TRAFFIC SIGNAL SPECIFICATIONS AND THE PROJECT SPECIAL PROVISIONS. 3. PED SIGNALS WITH PUSHBUTTONS WILL BE LABELED "PB" (FOR EXAMPLE PB21, PB22) 4. COUNTDOWN PEDESTRIAN SIGNALS SHALL COUNT DOWN FLASHING DON'T WALK ONLY. 5. FYA #31 WILL INITIALLY RUN 24/7.	

#	BY:	DATE:	REVISION:

CITY OF CHARLOTTE
 DEPARTMENT OF TRANSPORTATION
 600 E. 4TH ST. CHARLOTTE, NC 28202 704 336-4119 FAX: 704 336-4400

I-77 NB RAMP
 AND
 WESTINGHOUSE BOULEVARD

DESIGNED BY: MKC | DATE: 9/12/16 | APPROVED BY: BG | NCDOT# 10-2245 | UNIT ID: 23501 | SIGNAL ID: 01744



James B. Rhyne 3/23/18
 SIGNATURE DATE

SPLICE DETAIL NOT AVAILABLE

