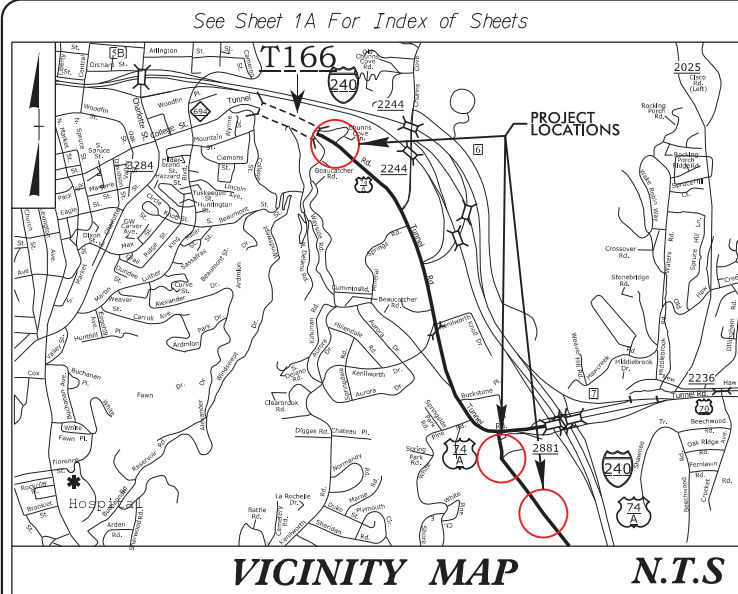


TIP PROJECT: W-5813G

CONTRACT: DM00412



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BUNCOMBE

**LOCATION: US-70/74/74A (TUNNELS, TUNNEL RD)
FROM TUNNEL 166 TO SOUTH MALL ENTRANCE**

**TYPE OF WORK: INSTALLATION OF PEDESTRIAN SIGNALS,
SIDEWALK, RAMPS, AND HIGH VISIBILITY CROSSWALKS**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5813G	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
48958.3.8	0070237	CONST.	



INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



2018 ROADWAY ENGLISH STANDARD DRAWINGS
EFF. 01-16-2018
REV.

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

STD. NO.	TITLE
DIVISION 6 - ASPHALT PAVEMENTS	
654.01	Pavement Repairs - For Superpave Mix Types
DIVISION 8 - INCIDENTALS	
848.05	Curb Ramp - Proposed Curb and Gutter
848.06	Curb Ramp - Existing Curb and Gutter
DIVISION 12 - PAVEMENT MARKINGS, MARKERS, AND DELINEATION	
1205.01	Pavement Markings - Line Types and Offsets
1205.04	Pavement Markings - Intersections
1205.07	Pavement Markings - Pedestrian Crosswalks

Prepared in the Office of:
DIVISION OF HIGHWAYS
55 Orange St., Asheville NC, 28801

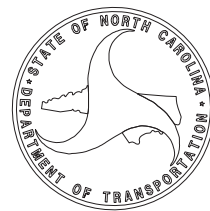
2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

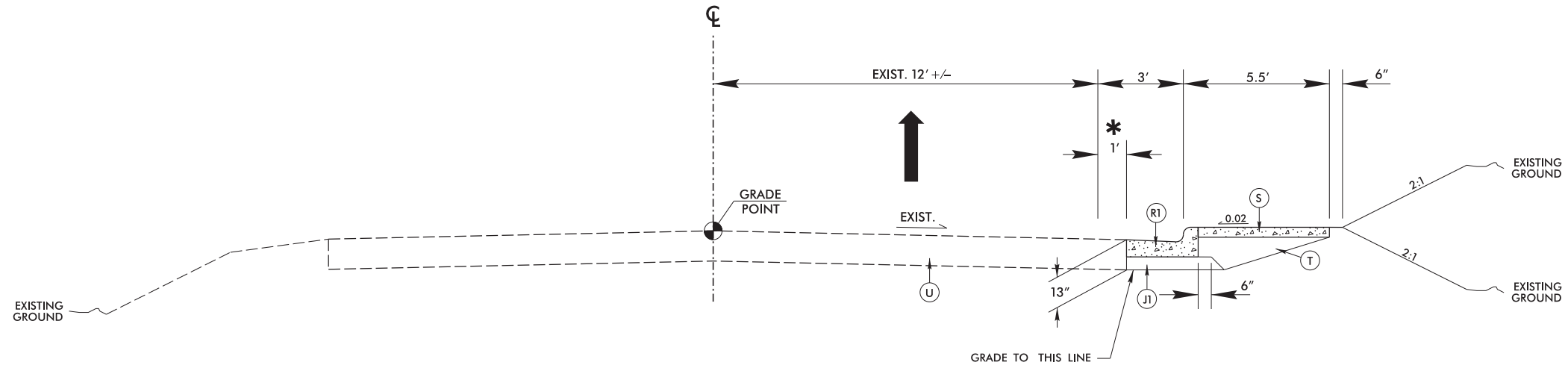
PROJECT ENGINEER

LETTING DATE:
MAY 5, 2022

PROJECT DESIGN ENGINEER



PROJECT REFERENCE NO.	SHEET NO.
W-5813G	2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



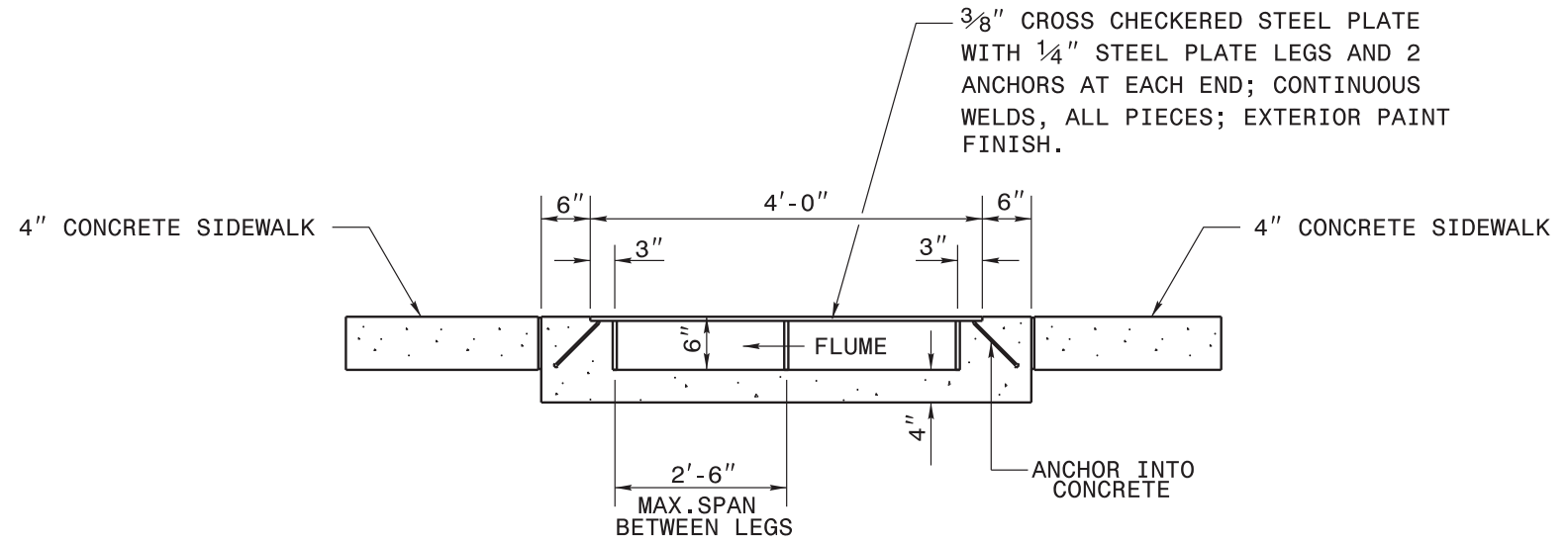
TYPICAL SECTION FOR SITE #1

***NOTE: INSTALL 2'-6" CONC. CURB AND GUTTER 1' FROM EOT OR AS DIRECT BY THE ENGINEER**

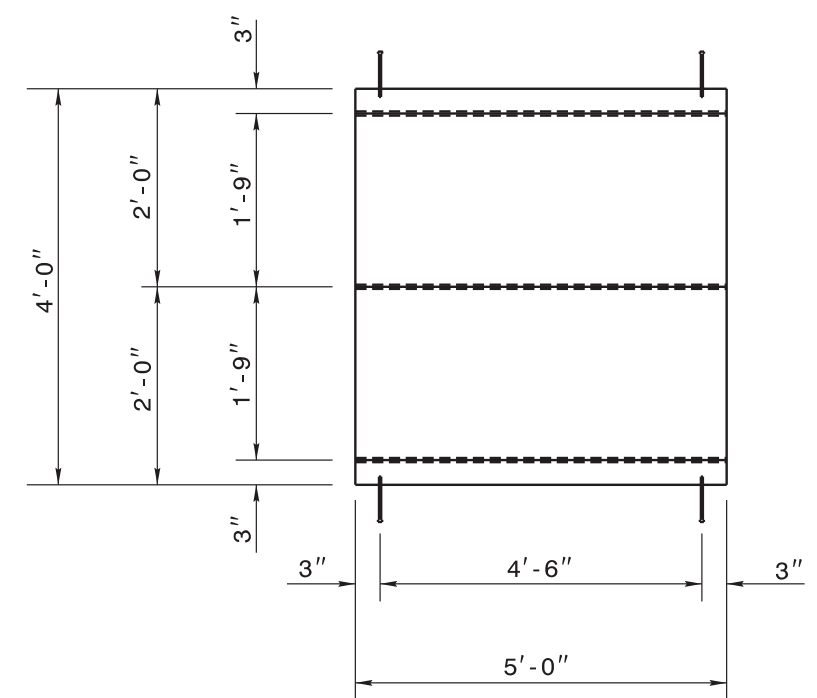
J1	6" AGGREGATE BASE COARSE
R1	2'-6" CONCRETE CURB AND GUTTER
S	5' CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT

REVISIONS
 22-MAR-2022 14:21
 C:\Users\jfernanz\OneDrive\Engineering\W-5813G\Roadway\Proj\W-5813G_addc...tjpdgn

8/17/99



FLUME SECTION VIEW



STEEL FLUME PLATE

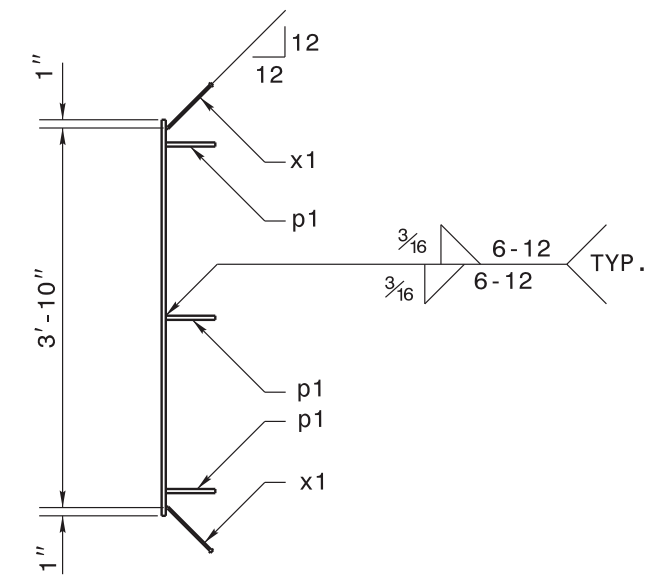


PLATE SECTION VIEW

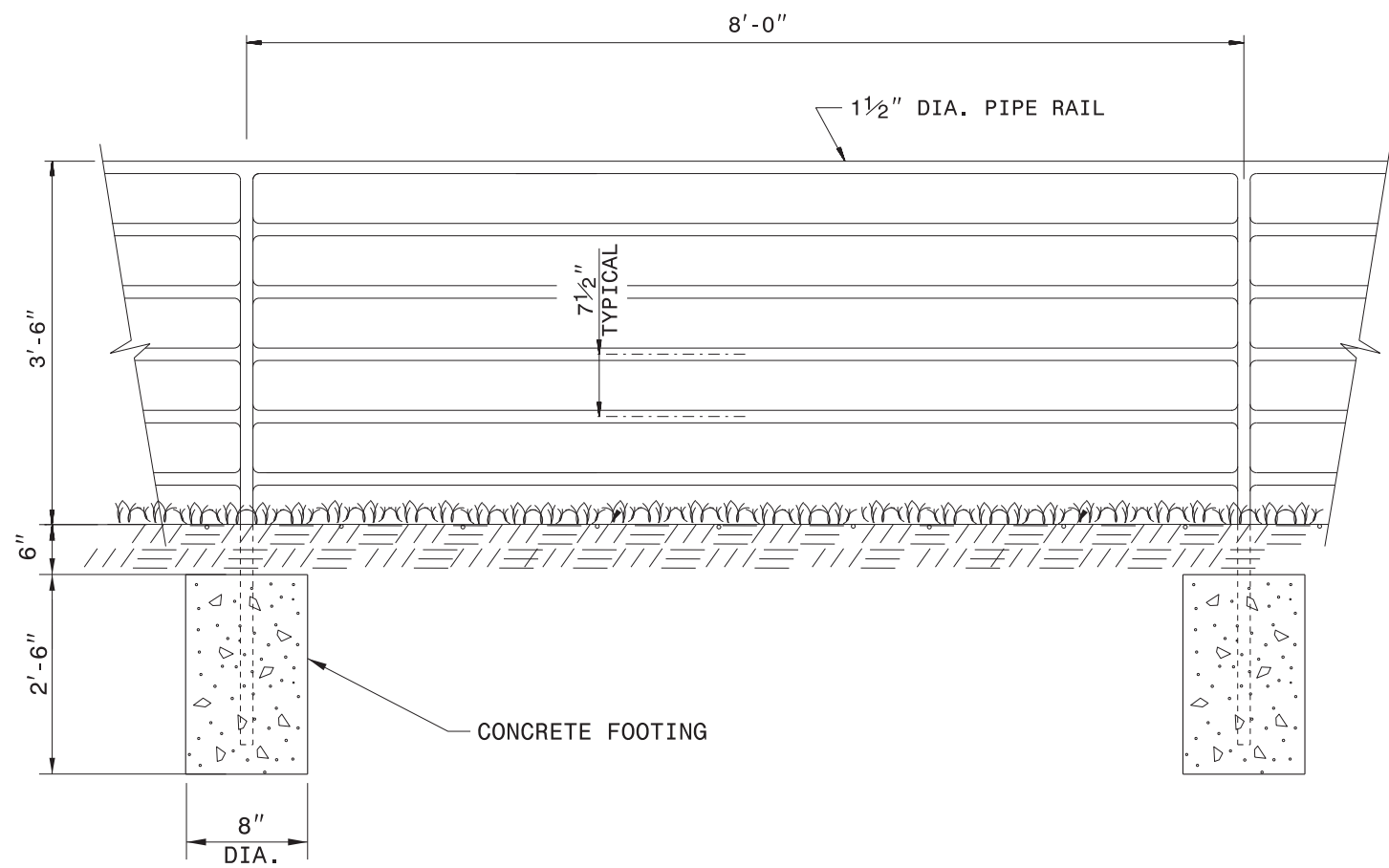
MARK	QTY	DESCRIPTION	LENGTH	GRADE	ROUTING CODE
1P1	1	CP 3/8 x 48	5'-0"	A786	F
p1	3	PL 1/4 x 6	5'-0"	A36	
x1	4	1/2 WS	0'-6 1/8"	A108	

**CONTRACT STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6900 FAX 919-250-4119

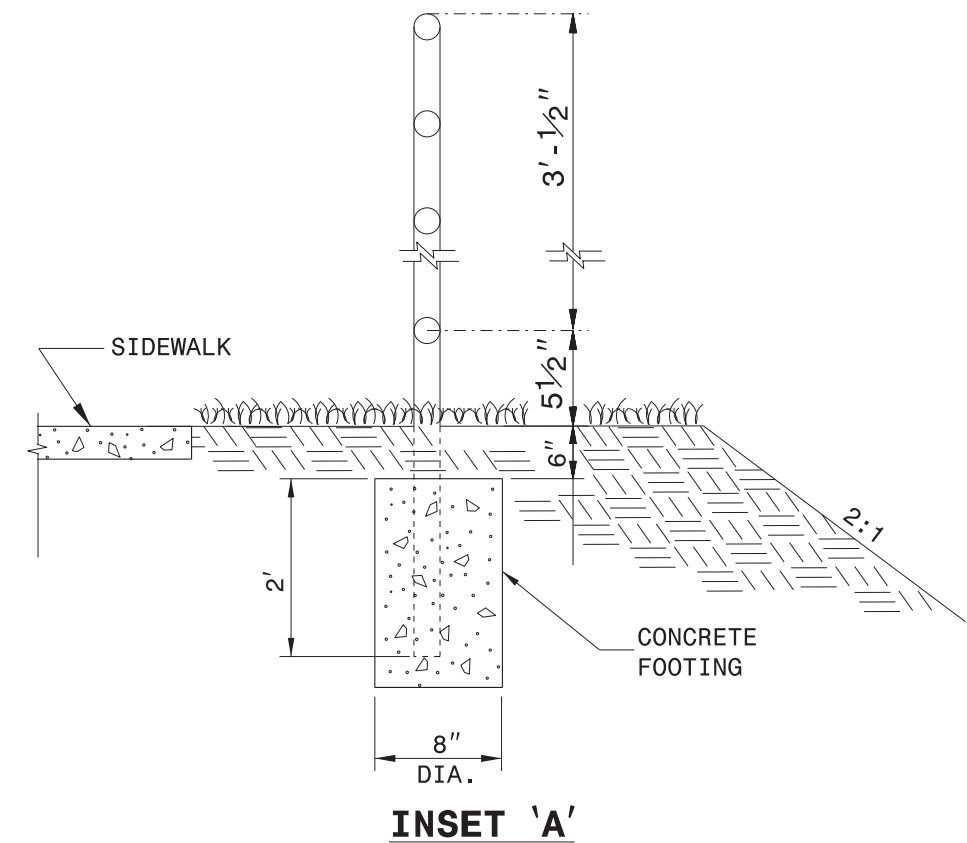
STEEL FLUME PLATE DETAIL

ORIGINAL BY: _____ DATE: _____
 MODIFIED BY: rtritt DATE: 12/1/17
 CHECKED BY: _____ DATE: _____
 FILE SPEC.: Dist2/Contracts/DW00236/Special Details

05-DEC-2017 10:28
 S:\CIVIL\Projects\Engineer\Projects\Fairview\Steel flume plate modified.dgn
 \$USER\$



ELEVATION OF HANDRAIL



NOTES:

CONSTRUCT PROPOSED STEEL PIPE RAIL OF 1 1/2" DIAMETER SCHEDULE 40 PLAIN END GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A53.

REPAIR GALVANIZING IN ACCORDANCE WITH SECTION 1076 OF THE NCDOT STANDARD SPECIFICATIONS.

PAINT, IF REQUIRED BY THE ENGINEER, IN ACCORDANCE WITH SECTION 1080 OF THE STANDARD SPECIFICATIONS.

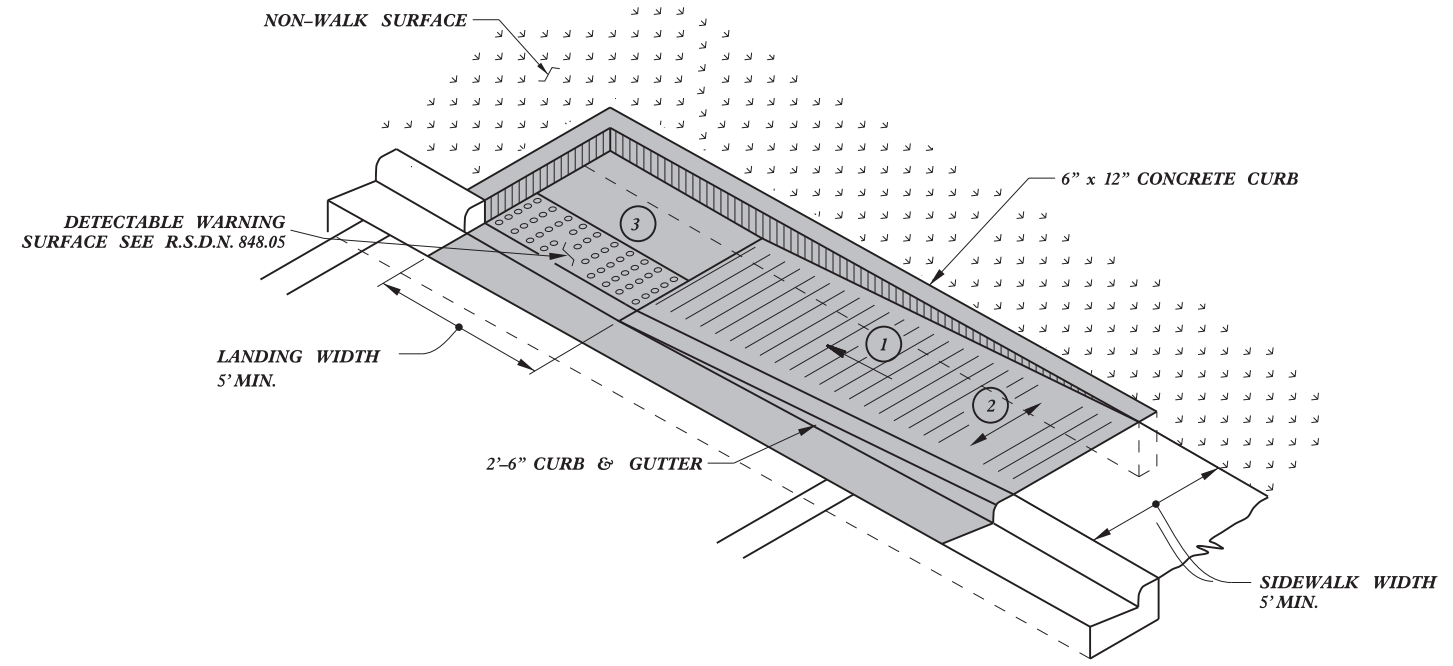
WELD IN ACCORDANCE WITH ARTICLE 1072-18 OF THE STANDARD SPECIFICATIONS.

USE CLASS 'B' CONCRETE FOR HANDRAIL FOOTINGS.

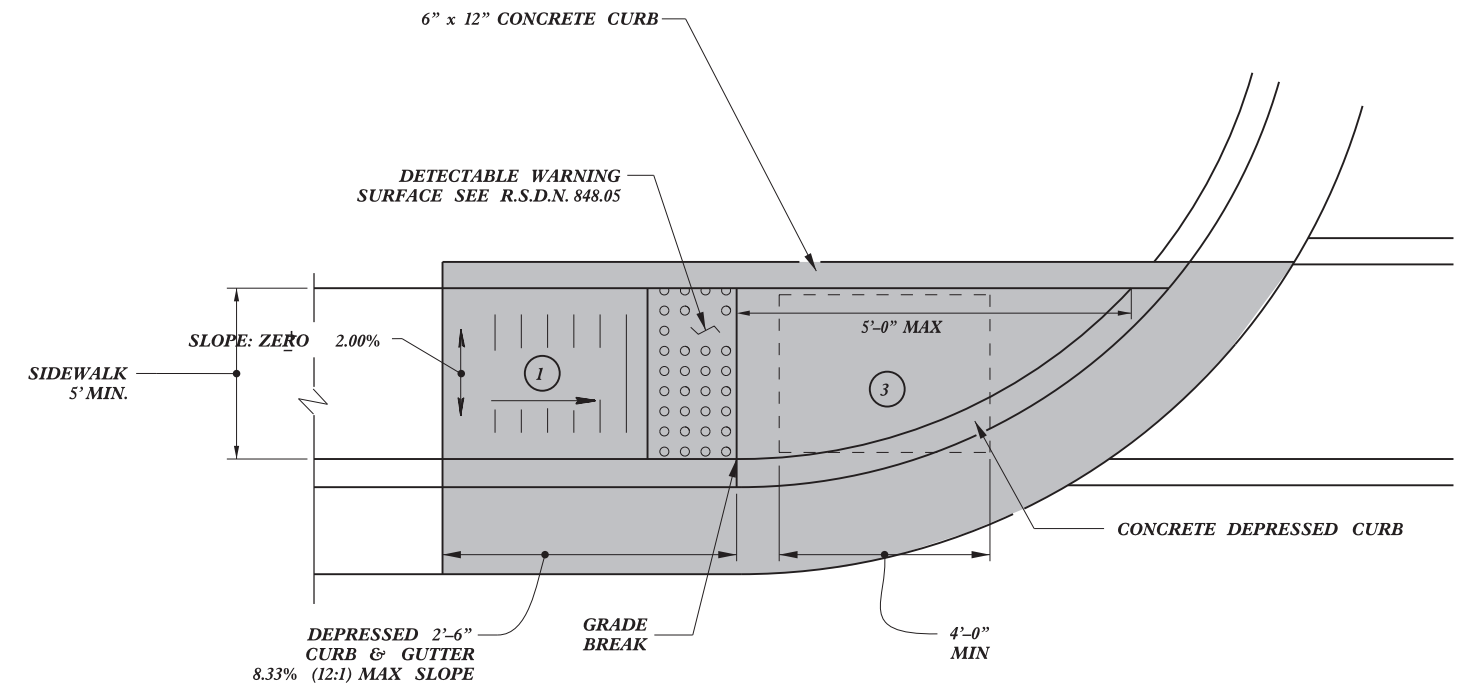
PLACEMENT OF HANDRAIL IN RELATION TO SHOULDER BREAK POINT AND SIDEWALK MAY BE MODIFIED AS DIRECTED BY THE ENGINEER.

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$CON\$\$\$\$\$
\$\$\$\$\$USRNAME\$\$\$\$\$
\$\$\$\$\$\$\$\$\$\$

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950 FAX 919-250-4119	
PROPOSED PEDESTRIAN SAFETY RAIL	
ORIGINAL BY: E.E. WARD	DATE: 12-99
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.: jhowerton/handrail_on_retaining_wall.dgn	



TYPE 1A



TYPE 1

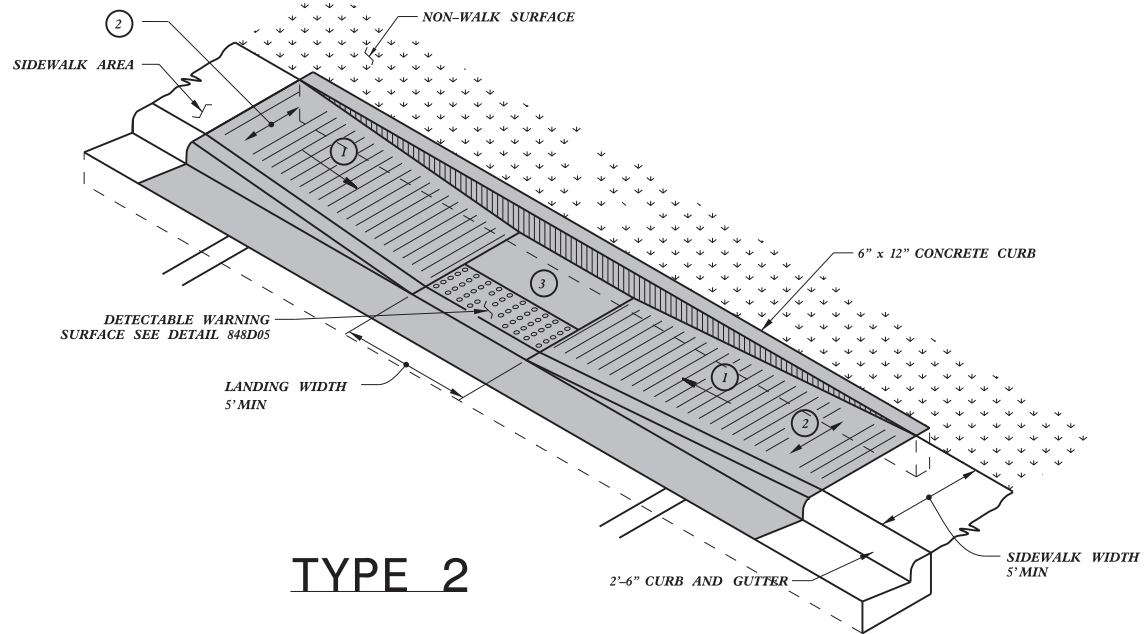
- ① 8.33% (12:1) MAX RAMP SLOPE
- ② CROSS SLOPE: 2.00%
- ③ CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

PAY LIMITS FOR CURB RAMP

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
Directional Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: sstds/2012CurbRamp/CurbRampDetails.dwg	

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

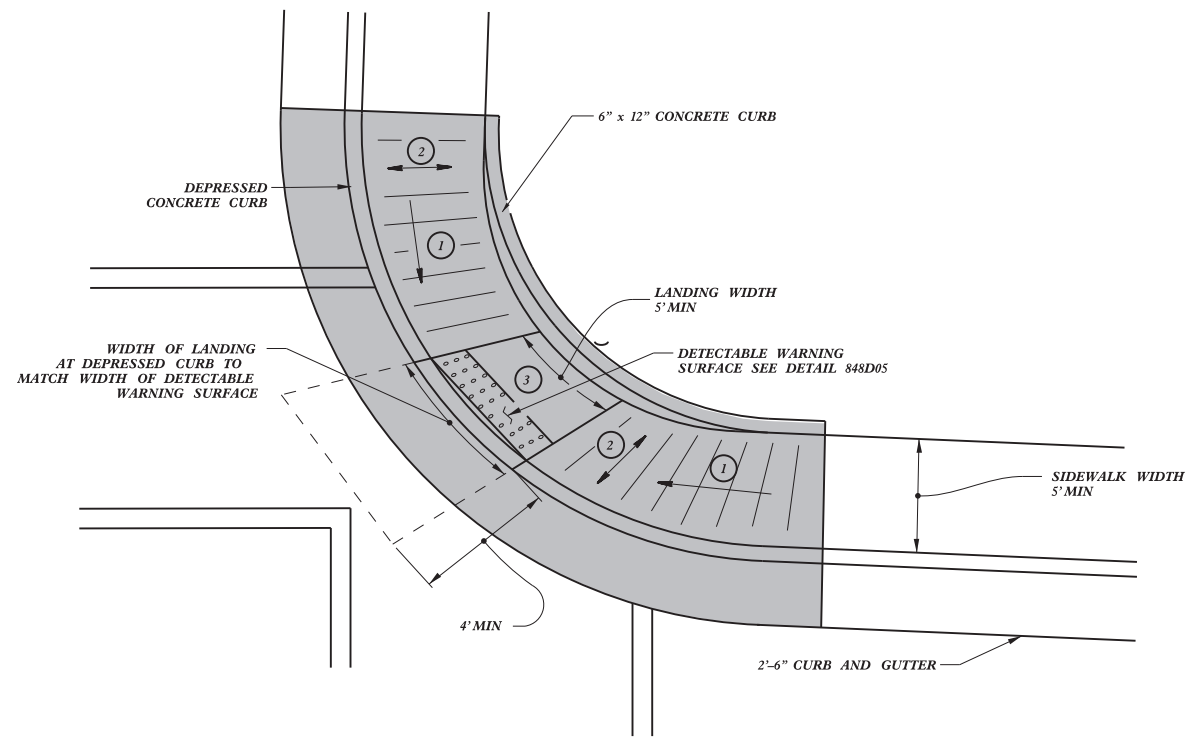
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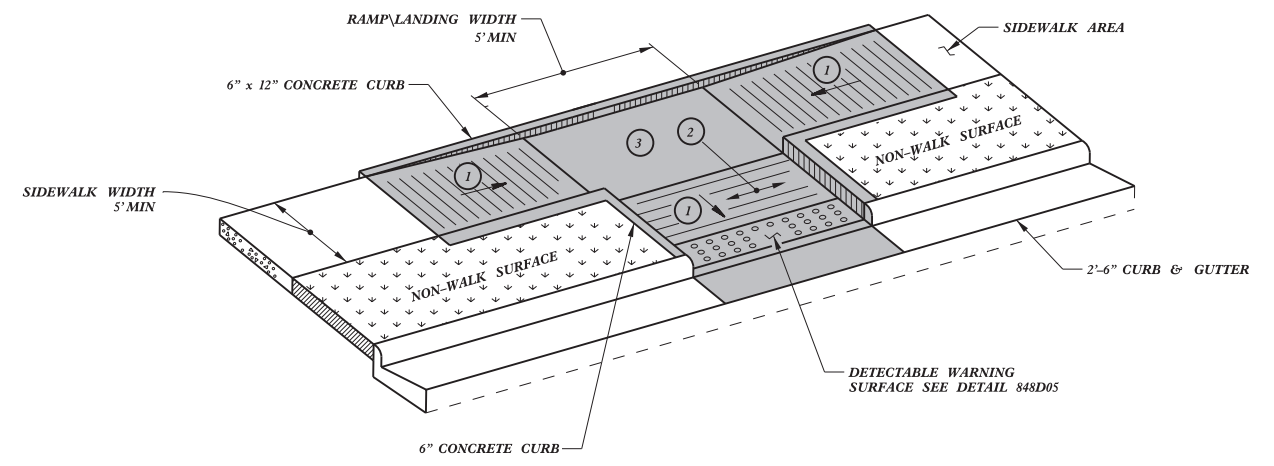
TYPE 2

 PAY LIMITS FOR CURB RAMP

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



TYPE 2A



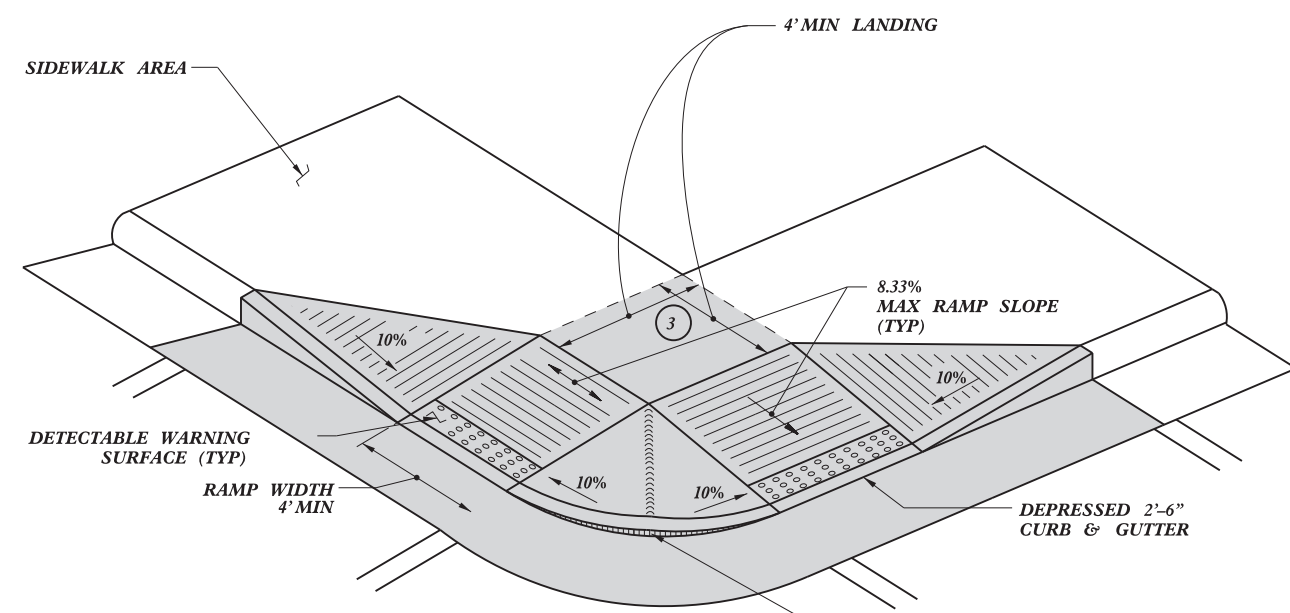
TYPE 3

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
Parallel Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY: _____	DATE: _____
CHECKED BY: _____	DATE: _____
FILE SPEC: sstds/2012CurbRamp/CurbRampDetails.dwg	

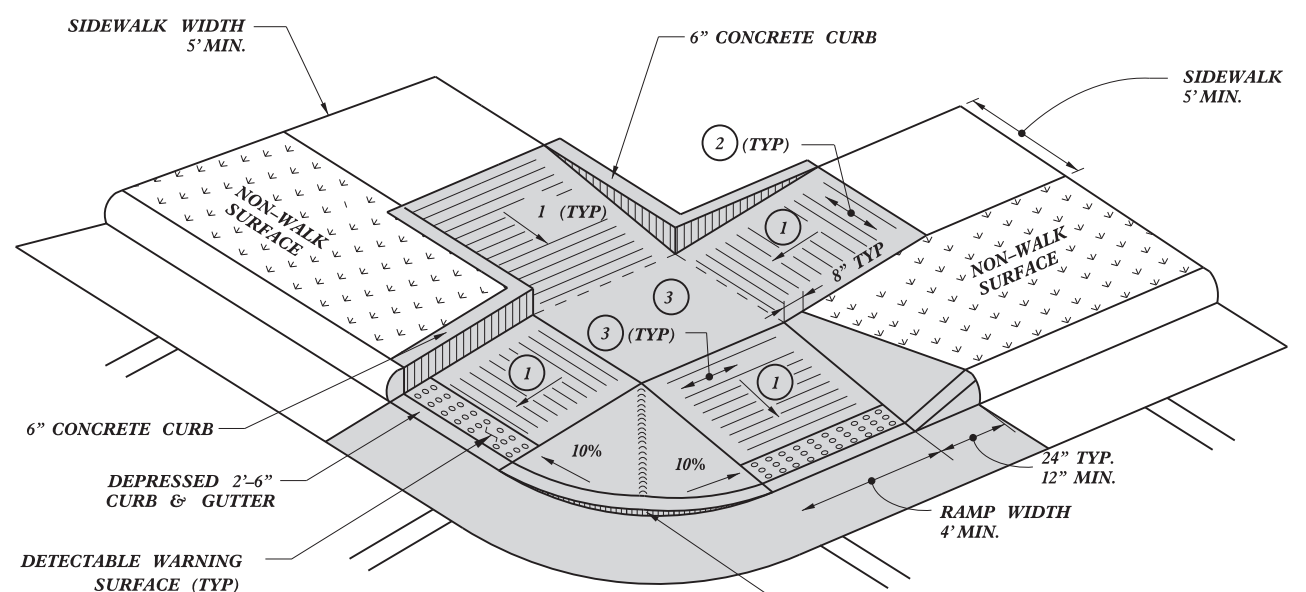
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

23-MAR-2012 15:07 S:\Contracts\Special Details\Howerton\Standard Drawings\2012 Standard Drawings\Curb Ramp Details.dwg J.Howerton AT 05023750

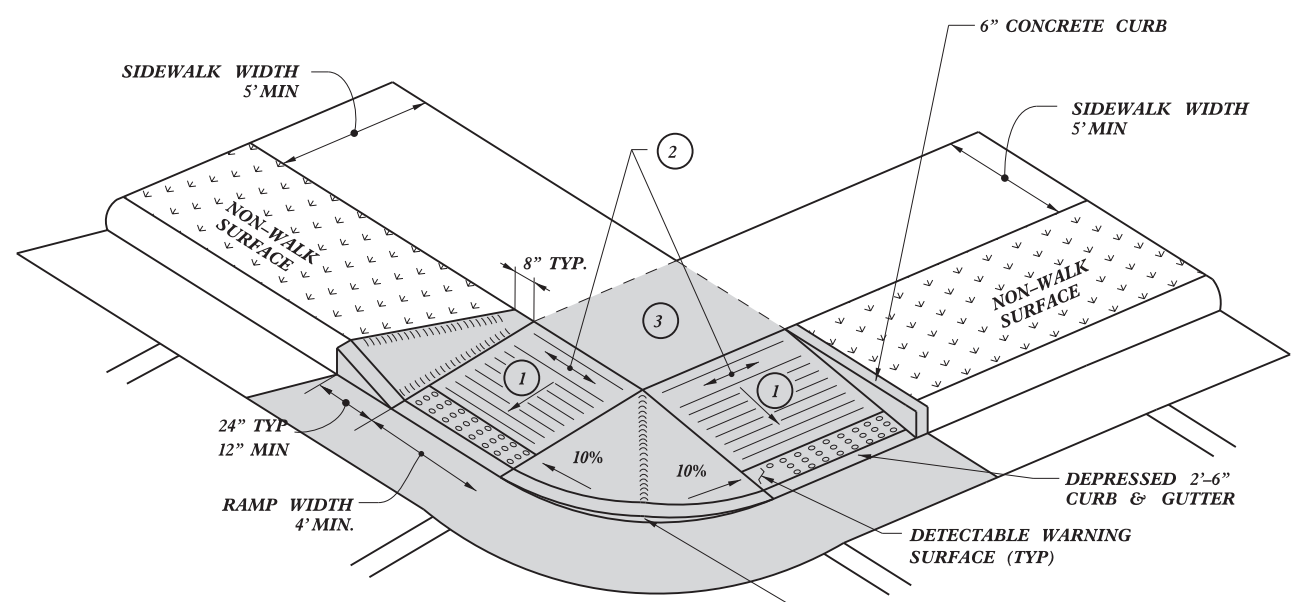
5/14/99



TYPE 4



TYPE 5



TYPE 4A

PAY LIMITS FOR CURB RAMP

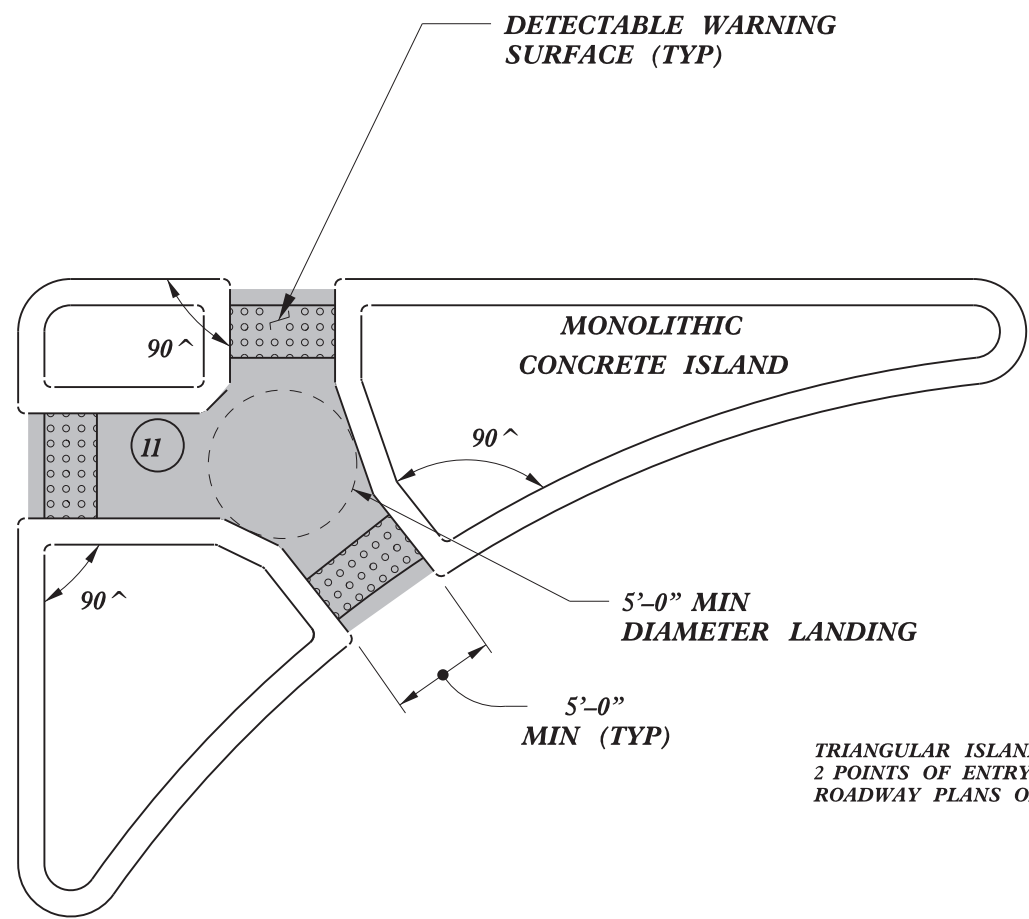
- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
Shared Landing	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dwg	

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

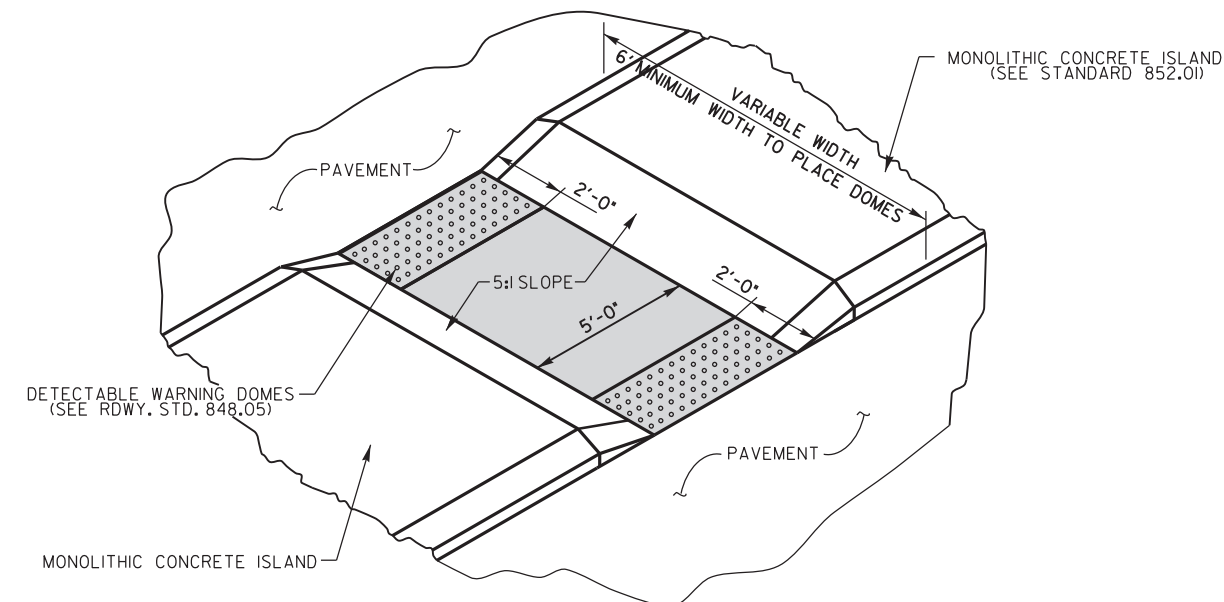
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PAY LIMITS FOR 1 CURB RAMP

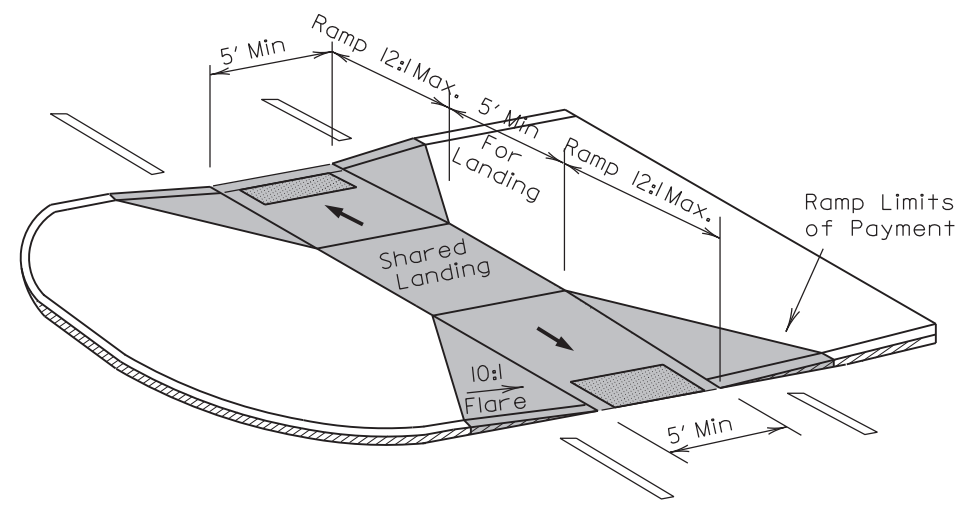


TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY 2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

TRIANGULAR ISLAND WITH CUT THROUGH



MEDIAN ISLAND WITH CUT THROUGH



MEDIAN ISLAND CURB RAMPS

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
Median or Turn Lane Islands	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: sstds/2012CurbRamp/CurbRampDetails.dwg	

5/14/99
C:\P\2012\STDS\2012CurbRamp\CurbRampDetails.dwg

8/17/99

REVISIONS

22-MAR-2022 10:39
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3/18/2022
mccarver

SITE 1

PROJECT REFERENCE NO. <i>W-5813G</i>	SHEET NO. <i>4</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



BEGIN 4" CONC. SIDEWALK AND 2'-6" CONC. CURB & GUTTER

BEGIN PEDESTRIAN HANDRAIL SEE SHEET 2C

STEEL FLUME PLATE SEE SHEET 2B

END PEDESTRIAN HANDRAIL SEE SHEET 2C

OLD CHUNNS COVE RD.

END 4" CONC. SIDEWALK AND 2'-6" CONC. CURB & GUTTER

US-70/US-74A (TUNNEL RD.)

T2
TQ
WCR

QUANTITIES

1121000000-E	AGGREGATE BASE COURSE	270 TON
1693000000-E	ASPH PLT MIX PVMT REPAIR	1 TON
2549000000-E	2'-6" CONC CURB & GUTTER	350 LF
2591000000-E	4" CONC SIDEWALK	180 SY
2613000000-N	REM & REP CURB RAMPS	2 EA
2759000000-N	STEEL FLUME PLATE	1 EA
2845000000-N	ADJ METER OR VALVE BOXES	1 EA
3575000000-E	STEEL PIPE HANDRAIL	60 LF
4695000000-E	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)	90 LF
4710000000-E	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)	20 LF
6000000000-E	TEMP SILT FENCE	100 LF
6084000000-E	SEEDING AND MULCHING	0.1 ACR

FINAL PAVEMENT MARKING SCHEDULE

PAVEMENT MARKINGS	PAVEMENT MARKINGS
T2 WHITE STOP	TQ THERMOPLASTIC (8", 90 MILS)
	TQ WHITE CROSSWALK LINE



8/17/99
 22-MAR-2022 11:24
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 3/18/20
 05.dgn
 3/18/20
 05.dgn

REVISIONS

SITE 2

PROJECT REFERENCE NO. <i>W-5813G</i>	SHEET NO. <i>5</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



QUANTITIES		
1693000000-E	ASPH PLT MIX PVMT REPAIR	3 TON
2605000000-N	CONC CURB RAMPS	1 EA
2613000000-N	REM & REP CURB RAMPS	5 EA
2845000000-N	ADJ METER OR VALVE BOXES	1 EA
4695000000-E	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)	450 LF
4860000000-E	REMOVAL OF PAVEMENT MARKING LINES (8")	450 LF

FINAL PAVEMENT MARKING SCHEDULE	
PAVEMENT MARKINGS	
THERMOPLASTIC (8", 90 MILS)	
TQ	WHITE CROSSWALK LINE

8/17/99
 REVISIONS
 23-MAR-2022 12:26
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 3/18/20



SITE 3

PROJECT REFERENCE NO. <i>W-5813G</i>	SHEET NO. 6
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

QUANTITIES

1693000000-E	ASPH PLT MIX PVMT REPAIR	2 TON
2605000000-N	CONC CURB RAMPS	1 EA
2613000000-N	REM & REP CURB RAMPS	3 EA
2830000000-N	ADJ MANHOLES	1 EA
2845000000-N	ADJ METER OR VALVE BOXES	1 EA
4695000000-E	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)	160 LF
4710000000-E	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)	220 LF
4870000000-E	REMOVAL OF PAVEMENT MARKING LINES (24")	220 LF

FINAL PAVEMENT MARKING SCHEDULE

PAVEMENT MARKINGS	PAVEMENT MARKINGS
THERMOPLASTICS (24", 120 MILS)	THERMOPLASTIC (8", 90 MILS)
T2 WHITE STOP BAR	TQ WHITE CROSSWALK LINE
T3 WHITE CROSSWALK LINE	



PHASING DIAGRAM

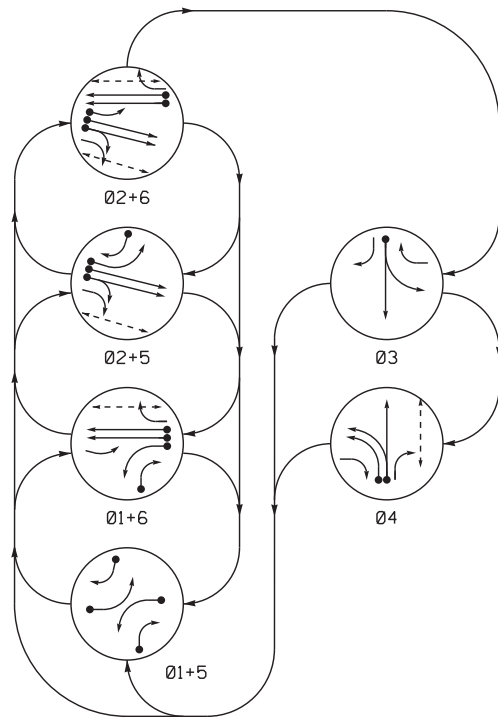


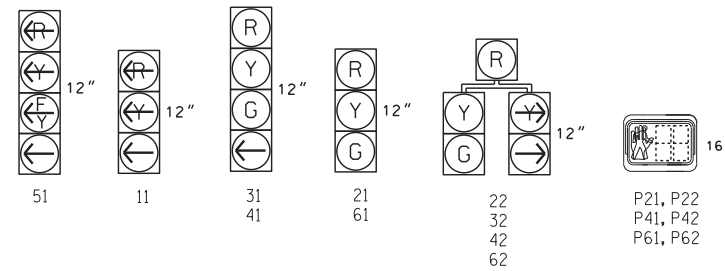
TABLE OF OPERATION

SIGNAL FACE	PHASE						FLASH
	01+5	01+6	02+5	02+6	03	04	
11	-	-	-R	-R	-R	-R	-
21	R	R	G	G	R	R	Y
22	R	R	G	G	R	R	Y
31	R	R	R	R	G	R	R
32	R	R	R	R	G	R	R
41	R	R	R	R	R	G	R
42	R	R	R	R	R	G	R
51	-	E	-	-	-	-	-
61	R	G	R	G	R	R	Y
62	R	G	R	G	R	R	Y
P21,P22	DW	DW	W	W	DW	DW	DRK
P41,P42	DW	DW	DW	DW	DW	DW	DRK
P61,P62	DW	W	DW	W	DW	DW	DRK
Sign "E"	OFF	OFF	ON	ON	OFF	OFF	OFF

* Illuminate during Phase 2 Ped

SIGNAL FACE I.D.

All Heads L.E.D.



OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	DETECTOR PROGRAMMING								
				NEW LOOP	PHASE	CALLING EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD	
1A	6X40	+5	2-4-2	-	1	Y	Y	-	-	3	-	-
1B	6X60	+5	EXIST	-	1	Y	Y	-	-	15	-	-
2A,2B	6X6	70	3	-	2	Y	Y	-	-	-	-	-
3A	6X40	0	2-4-2	-	3	Y	Y	-	-	3	-	-
4A	6X60	+5	EXIST	-	4	Y	Y	-	-	3	-	-
4B	6X60	+5	EXIST	-	4	Y	Y	-	-	-	-	-
5A	6X40	+5	2-4-2	-	5	Y	Y	-	-	15	-	-
5B	6X40	+5	2-4-2	-	5	Y	Y	-	-	15	-	-
6A,6B	6X6	70	4	-	6	Y	Y	-	-	-	-	-

NOTES

6 Phase Fully Actuated Asheville Signal System

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- The order of phase 3 and phase 4 may be reversed.
- Set all detector units to presence mode.
- In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Program phase 2 Ped for Advance Walk.
- Illuminate Sign "E" during Phase 2+5 and 2+6 green.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

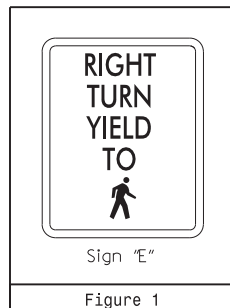
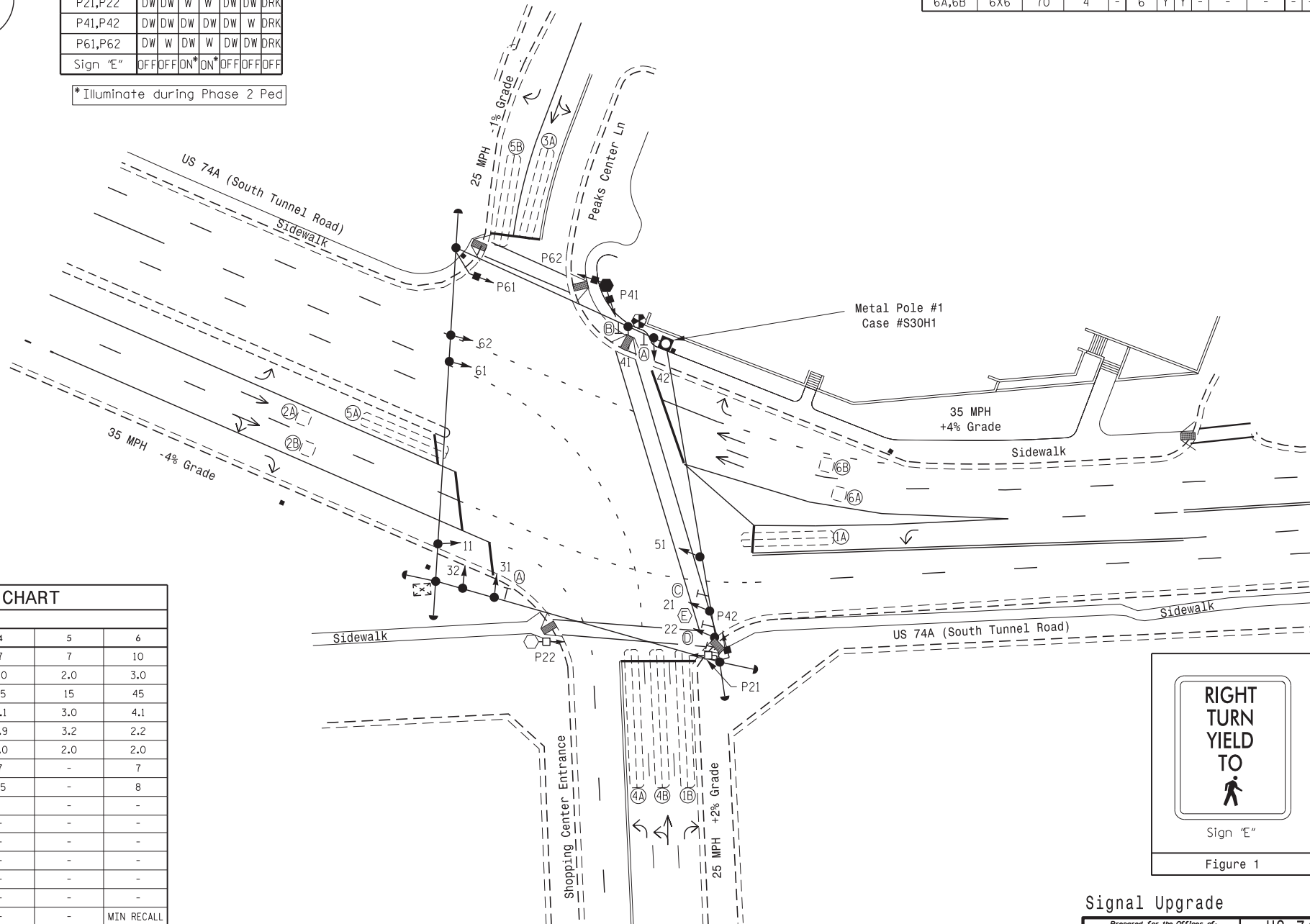
LEGEND

PROPOSED	EXISTING
	N/A
N/A	
N/A	

OASIS 2070 TIMING CHART

FEATURE	PHASE					
	1	2	3	4	5	6
Min Green 1*	7	10	7	7	7	10
Extension 1*	2.0	3.0	2.0	1.0	2.0	3.0
Max Green 1*	15	60	30	45	15	45
Yellow Clearance	3.0	4.1	3.2	3.1	3.0	4.1
Red Clearance	2.8	2.2	4.1	3.9	3.2	2.2
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1*	-	7	-	7	-	7
Don't Walk 1	-	16	-	35	-	8
Advance Walk	-	5	-	-	-	-
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	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

Prepared For the Offices of:
 Transportation Mobility and Safety Division
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 SIGNAL DESIGN SECTION

US 74A (South Tunnel Road) at Shopping Center Entrance/ Peaks Center Ln.
 Division 13 Buncombe County Asheville
 PLAN DATE: August 2021 REVIEWED BY: T.J. Williams
 PREPARED BY: EM Minshew REVIEWED BY:

750 N. Greenfield Pkwy, Corner, NC 27529
 SCALE: 0 30
 1"=30'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 024393
 TIMOTHY J. WILLIAMS

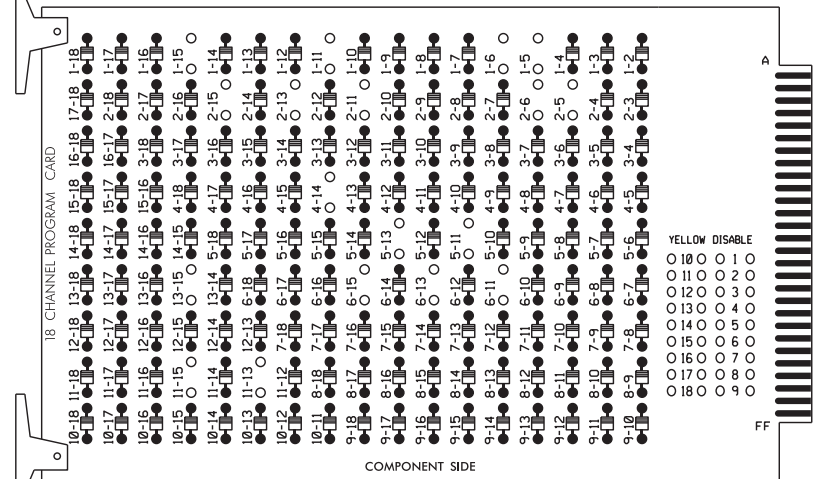
8/31/2021
 S. J. Williams
 DATE
 SIG. INVENTORY NO. 13-0398

31-AUG-2021 07:16
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 emminshew

EDI MODEL 2018ECLip-NC CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS I-5, I-6, I-11, I-15, 2-5, 2-6, 2-11, 2-13, 2-15, 4-14, 5-11, 5-13, 6-11, 6-13, 6-15, 11-13, 11-15 and 13-15.



REMOVE JUMPERS AS SHOWN

NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that Red Enable is active at all times during normal operation.
- Integrate monitor with Ethernet network in cabinet.

■ = DENOTES POSITION OF SWITCH

NOTES

- 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.
- Enable Simultaneous Gap-Out for all Phases.
- Program phases 2 and 6 for Startup In Green.
- Program phases 4 and 6 for Startup Ped Call.
- Program phases 2 and 6 for Yellow Flash.
- The cabinet and controller are part of the Asheville Signal System.

EQUIPMENT INFORMATION

CONTROLLER.....2070E
 CABINET332
 SOFTWAREECONOLITE OASIS
 CABINET MOUNT.....BASE
 OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE LOAD SWITCHES USED.....S1,S2,S3,S4,S5,S6,S7,S8,S9,AUX S4
 PHASES USED.....1,2,2 PED,3,4,4PED,5,6,6PED
 OVERLAP "A".....NOT USED
 OVERLAP "B".....NOT USED
 OVERLAP "C".....5+6
 OVERLAP "D".....NOT USED

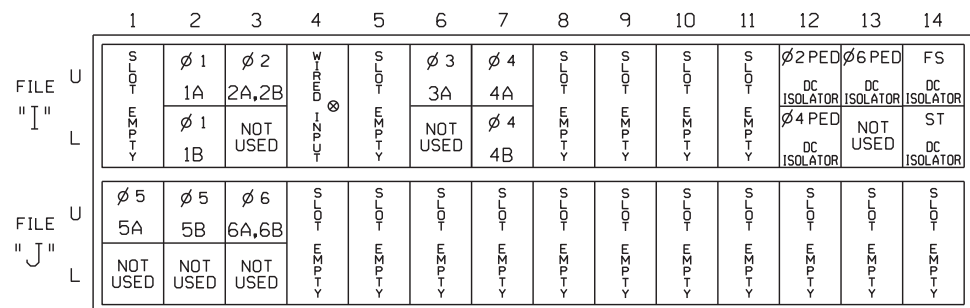
SIGNAL HEAD HOOK-UP CHART

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	8 PED	OLA	OLB	SPARE	OLC	OLD	SPARE
SIGNAL HEAD NO.	11	42	21,22	P21, P22	31	32	62	41	42	22	P41, P42	51	32	61,62	P61, P62	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	125																	A114
YELLOW ARROW	126	126					117		102		132							
FLASHING YELLOW ARROW																		
GREEN ARROW	127	127		118	118	103	103	133	133									
PED YELLOW				113					104		119							
				**	114													
				115					106		121							

NU = Not Used
 * Denotes install load resistor. See load resistor installation detail this sheet.
 ** A Blankout Sign is wired to S3-Y, see wiring detail and programming detail sheet 2.
 ★ See pictorial of head wiring in detail this sheet.

INPUT FILE POSITION LAYOUT

(front view)



EX.: 1A, 2A, ETC. = LOOP NO.'S
 FS = FLASH SENSE
 ST = STOP TIME

⊗ Wired input - Do not populate slot with detector card

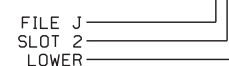
INPUT FILE CONNECTION & PROGRAMMING CHART

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
1A	TB2-5,6	I2U	39	1	2	1	Y	Y			3
1B	TB2-7,8	I2L	43	5	12	1	Y	Y			15
2A,2B	TB2-9,10	I3U	63	25	32	2	Y	Y			
3A	TB4-9,10	I6U	41	3	4	3	Y	Y			3
4A	TB6-1,2	I7U	65	27	34	4	Y	Y			3
4B	TB6-3,4	I7L	78	40	44	4	Y	Y			
5A ¹	TB3-1,2	J1U	55	17	5	5	Y	Y			15
		I4U	47	9	22	2	Y	Y			
5B	TB3-5,6	J2U	40	2	6	5	Y	Y			15
6A,6B	TB3-9,10	J3U	64	26	36	6	Y	Y			
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			

NOTE:
 INSTALL DC ISOLATORS IN INPUT FILE SLOTS 112 AND 113.

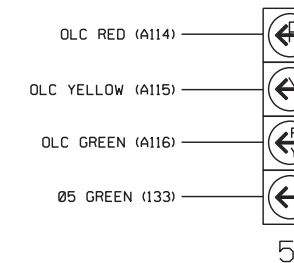
¹Add jumper from J1-W to I4-W, on rear of input file.

INPUT FILE POSITION LEGEND: J2L



FYA SIGNAL WIRING DETAIL

(wire signal head as shown)



NOTE

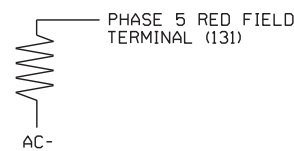
The sequence display for signal head 51 requires special logic programming. See sheet 2 for programming instructions.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 13-0398
 DESIGNED: August 2021
 SEALED: 8/31/2021
 REVISED:

LOAD RESISTOR INSTALLATION DETAIL

(install resistor as shown below)

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



Electrical Detail - Sheet 1 of 2

US 74A (South Tunnel Road) at Shopping Center Entrance/Peaks Center Ln.

Division 13 Buncombe County Asheville

PLAN DATE: August 2021 REVIEWED BY: T. Joyce

PREPARED BY: C. Strickland REVIEWED BY:

REVISIONS: INIT. DATE

750 N. Greenfield Pkwy, Garner, NC 27529

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 031001 D. Todd Joyce

DocuSigned by: D. Todd Joyce 8/31/2021

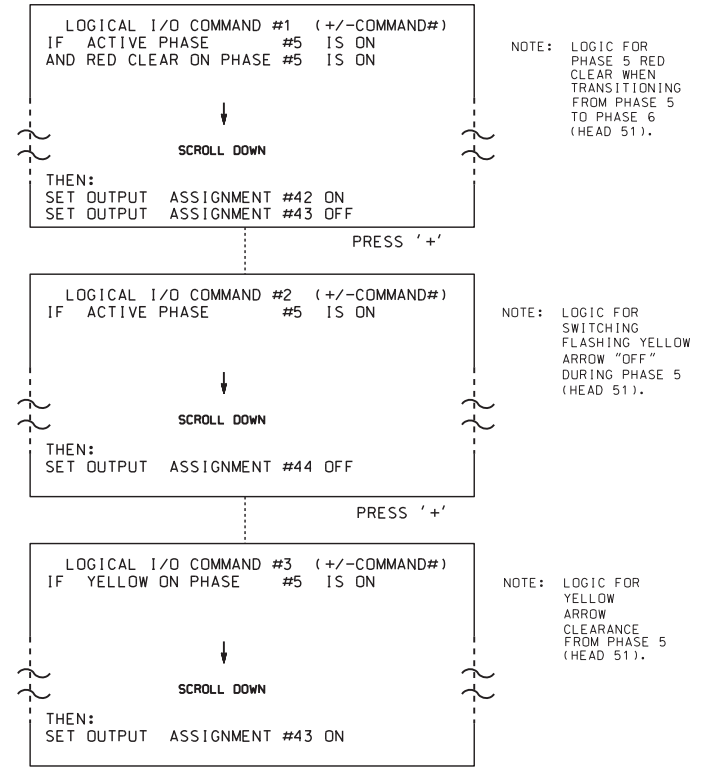
SIG. INVENTORY NO. 13-0398

31-AUG-2021 09:56 S:\IT\AS\W\15\S\Signal\Workgroups\61g\Main\Projects From Signal Design\Active Projects\Strickland\30398_sim.ele.xxx.dgn

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

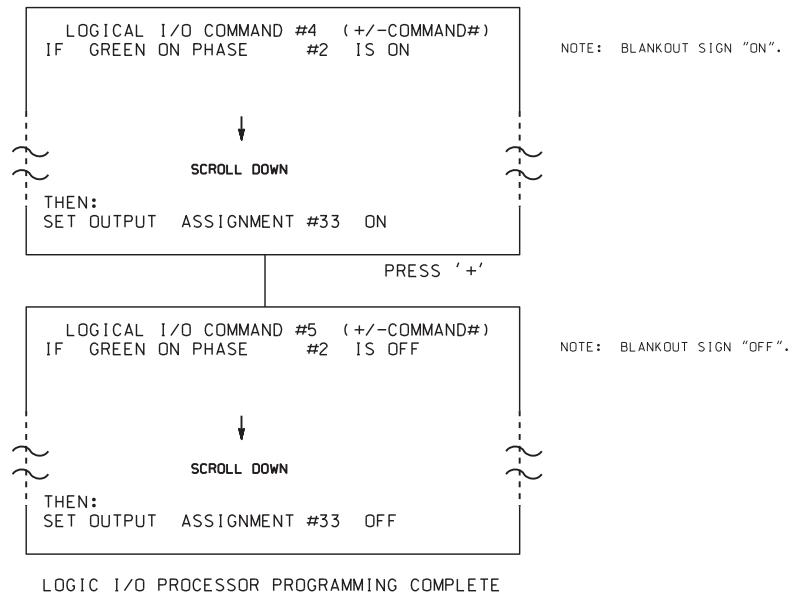


OUTPUT REFERENCE SCHEDULE	
OUTPUT 42	= Overlap C Red
OUTPUT 43	= Overlap C Yellow
OUTPUT 44	= Overlap C Green

LOGICAL I/O PROCESSOR PROGRAMMING DETAIL FOR BLANKOUT SIGN OPERATION

(program controller as shown below)

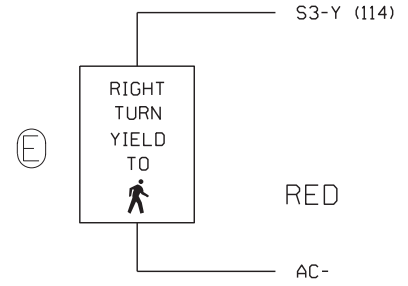
1. From Main Menu press '2' (Phase Control), then '1' (Phase Control Functions). Scroll to the bottom of the menu and enable Act Logic Commands 4 and 5.
2. From Main Menu press '6' (Outputs), then '3' (Logical I/O Processor).
3. The programming shown below is necessary for the operation of Blankout Sign E.



OUTPUT REFERENCE SCHEDULE
OUTPUT 33 = Phase 2 PED Yellow

BLANKOUT SIGN "E" WIRING DETAIL

(wire sign as shown)



NOTES

1. IF TERMINAL 114 HAS A CONFLICT MONITOR WIRE CONNECTED, REMOVE, TAPE AND LABEL WIRE.

OVERLAP PROGRAMMING DETAIL

(program controller as shown below)

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

PRESS '+' TWICE

PAGE 1: VEHICLE OVERLAP 'C' SETTINGS

PHASE: 12345678910111213141516

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?...Y

GREEN EXTENSION (0-255 SEC)...0.0

YELLOW CLEAR (0=PARENT,3-25.5 SEC)...0.0

RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0

OUTPUT AS PHASE # (0=NONE, 1-16)...0

← NOTICE GREEN FLASH

OVERLAP PROGRAMMING COMPLETE

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.

ADVANCE WALK NOTE

(program controller as shown below)

From Main Menu press '2' (Phase Control), then '1' (Phase Control Functions). Program phase 2 for 'Advanced Walk'. Make sure the Walk Advance Time shown on the Signal Design plans are programmed in the 'Phase Timing' menu.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 13-0398
DESIGNED: August 2021
SEALED: 8/31/2021
REVISED:

Electrical Detail - Sheet 2 of 2

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

US 74A (South Tunnel Road) at Shopping Center Entrance/Peaks Center Ln.	
Division 13	Buncombe County Asheville
PLAN DATE: August 2021	REVIEWED BY: T. Joyce
PREPARED BY: C. Strickland	REVIEWED BY:
REVISIONS	INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

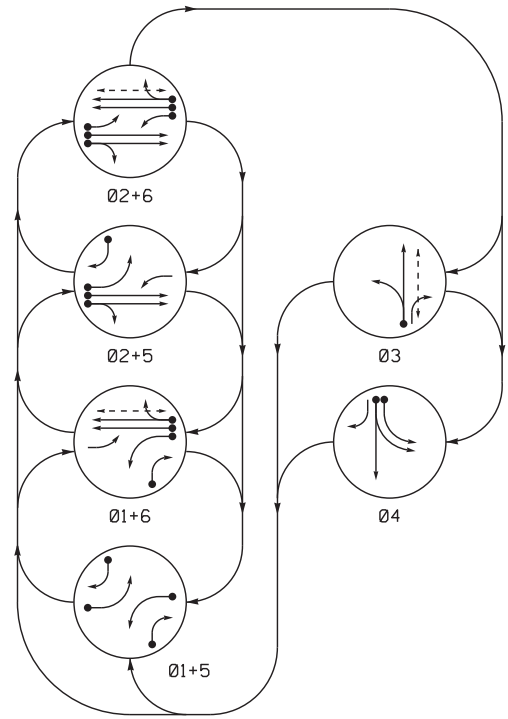
DocuSigned by: D. Todd Joyce

8/31/2021

DATE

SIG. INVENTORY NO. 13-0398

PHASING DIAGRAM



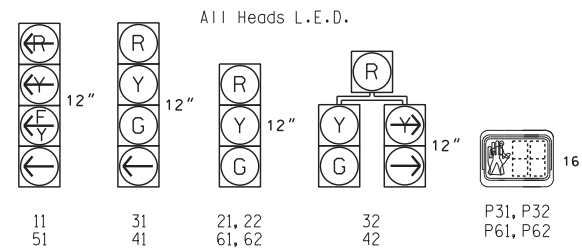
PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE					
	01+5	01+6	02+5	02+6	03	04
11	←	←	←	←	←	←
21, 22	R	R	G	G	R	Y
31	R	R	R	R	G	R
32	R	R	R	R	G	R
41	R	R	R	R	G	R
42	R	R	R	R	G	R
51	←	←	←	←	←	←
61, 62	R	G	R	G	R	Y
P31, P32	DW	DW	DW	DW	DW	DRK
P61, P62	DW	W	DW	W	DW	DRK

SIGNAL FACE I.D.



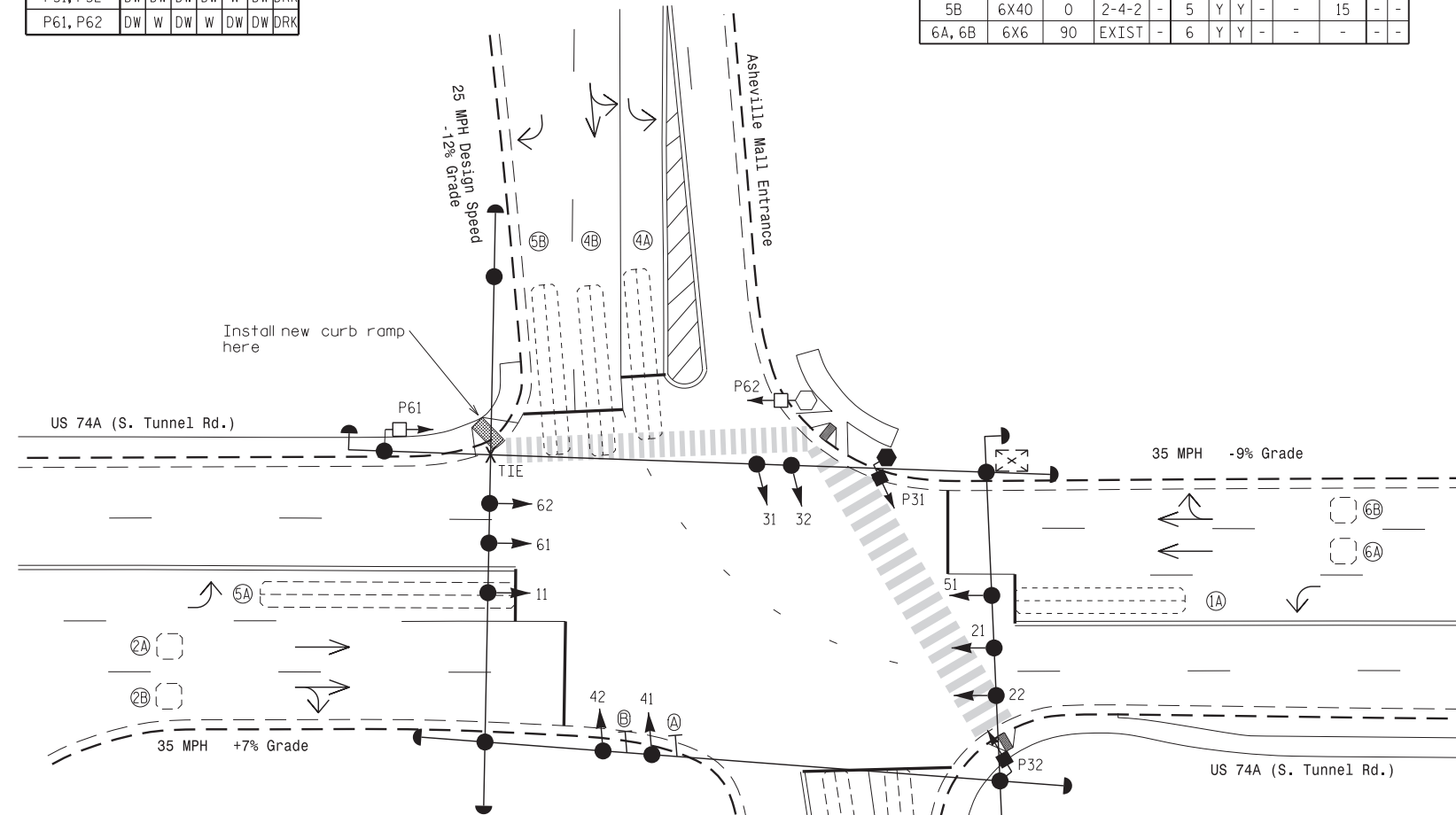
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING							
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	-	1	Y	Y	-	-	15	-	-
1B	6X40	0	2-4-2	-	1	Y	Y	-	-	15	-	-
2A, 2B	6X6	90	EXIST	-	2	Y	Y	-	-	-	-	-
3A	6X40	0	2-4-2	-	3	Y	Y	-	-	3	-	-
4A	6X40	+15	2-4-2	-	4	Y	Y	-	-	3	-	-
4B	6X40	+10	2-4-2	-	4	Y	Y	-	-	-	-	-
5A	6X60	+10	2-4-2	-	5	Y	Y	-	-	15	-	-
5B	6X40	0	2-4-2	-	5	Y	Y	-	-	-	-	-
6A, 6B	6X6	90	EXIST	-	6	Y	Y	-	-	-	-	-

6 Phase Fully Actuated Asheville Signal System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Phase 1 and/or phase 5 may be lagged.
3. The order of phase 3 and phase 4 may be reversed.
4. Set all detector units to presence mode.
5. In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls for Ped phase 3.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

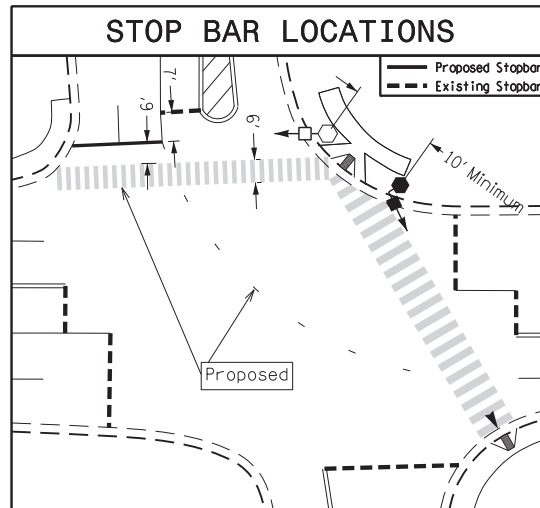


OASIS 2070 TIMING CHART

FEATURE	PHASE					
	1	2	3	4	5	6
Min Green 1*	7	10	7	7	7	10
Extension 1	2.0	3.0	2.0	1.0	1.0	3.0
Max Green 1*	15	60	25	25	15	60
Yellow Clearance	3.3	4.6	3.3	4.0	3.0	4.6
Red Clearance	2.3	2.0	2.8	2.8	1.9	2.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1*	-	-	7	-	-	7
Don't Walk 1	-	-	18	-	-	17
Seconds Per Actuation*	-	-	-	-	-	-
Max Variable Initial*	-	-	-	-	-	-
Time Before Reduction*	-	-	-	-	-	-
Time To Reduce*	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-
Recall Mode	-	MIN RECALL	-	-	-	MIN/PED RECALL
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW
Dual Entry	-	-	-	-	-	-
Simultaneous Gap	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.

STOP BAR LOCATIONS



LEGEND

- | PROPOSED | EXISTING |
|--|--|
| ○ Traffic Signal Head | ● N/A |
| ● Modified Signal Head | ○ N/A |
| ⊥ Sign | ⊥ Sign |
| ⊥ Pedestrian Signal Head With Push Button & Sign | ⊥ Pedestrian Signal Head |
| ⊥ Signal Pole with Guy | ⊥ Signal Pole with Guy |
| ⊥ Signal Pole with Sidewalk Guy | ⊥ Signal Pole with Sidewalk Guy |
| ⊥ Inductive Loop Detector | ⊥ Inductive Loop Detector |
| ⊥ Controller & Cabinet | ⊥ Controller & Cabinet |
| ⊥ Junction Box | ⊥ Junction Box |
| ⊥ 2-in Underground Conduit | ⊥ 2-in Underground Conduit |
| N/A Right of Way | ⊥ Right of Way |
| → Directional Arrow | → Directional Arrow |
| N/A Type II Signal Pedestal | ● Type II Signal Pedestal |
| N/A Curb Ramp | ⊥ Curb Ramp |
| ⊥ Left Arrow "ONLY" Sign (R3-5L) | ⊥ Left Arrow "ONLY" Sign (R3-5L) |
| ⊥ Combined Through and Left Arrow Sign (R3-6L) | ⊥ Combined Through and Left Arrow Sign (R3-6L) |

Signal Upgrade

Prepared in the Offices of:
 Transportation Mobility and Safety Division
 STATE OF NORTH CAROLINA
 SIGNAL DESIGN SECTION

US 74A (S. Tunnel Rd.)
 at
 Asheville Mall Entrance/
 Shopping Center Entrance

Division 13 - Buncombe County Asheville
 PLAN DATE: July 2021 REVIEWED BY: T.J. Williams
 PREPARED BY: X. Han REVIEWED BY:

750 N. Greenfield Pkwy, Garner, NC 27529

REVISIONS: _____ INIT. DATE

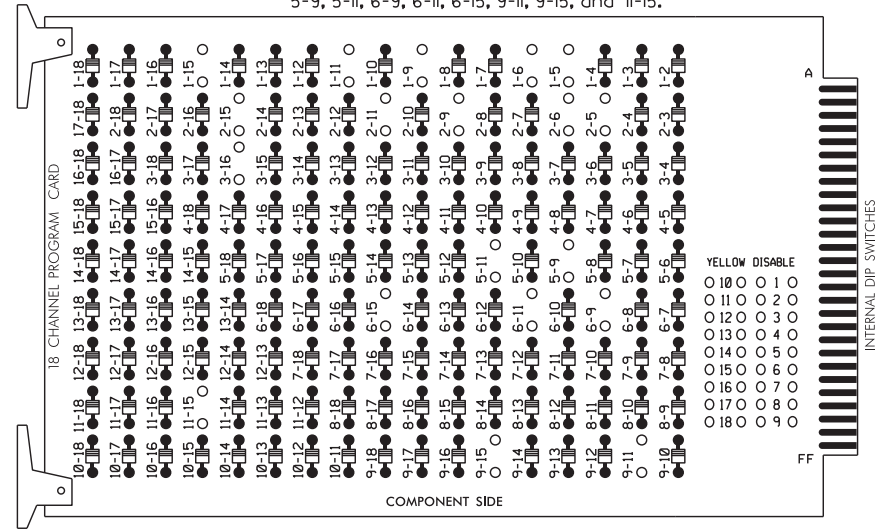
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 024393
 J. J. Williams
 ENGINEER
 8/3/2021
 DATE
 SIG. INVENTORY NO. 13-0417

EDI MODEL 2018ECLip-NC CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-11, 1-15, 2-5, 2-6, 2-9, 2-11, 2-15, 3-16, 5-9, 5-11, 6-9, 6-11, 6-15, 9-11, 9-15, and 11-15.



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. Integrate monitor with Ethernet network in cabinet.

■ = DENOTES POSITION OF SWITCH

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 phase 3 and 6 for 'Startup Ped Call'.
5. Program phases 2 and 6 for Yellow Flash, and overlap 1 as Wag Overlaps.
6. The cabinet and controller are part of the Asheville Signal System.

EQUIPMENT INFORMATION

CONTROLLER.....2070E
 CABINET.....332 W/ AUX
 SOFTWARE.....ECONOLITE OASIS
 CABINET MOUNT.....BASE
 OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE
 LOAD SWITCHES USED.....S1,S2,S4,S5,S7,S8,S9,S12,
 AUX S1,AUX S4
 PHASES USED.....1,2,3,3PED,4,5,6,6PED
 OVERLAP "A".....1+2
 OVERLAP "B".....NOT USED
 OVERLAP "C".....5+6
 OVERLAP "D".....NOT USED

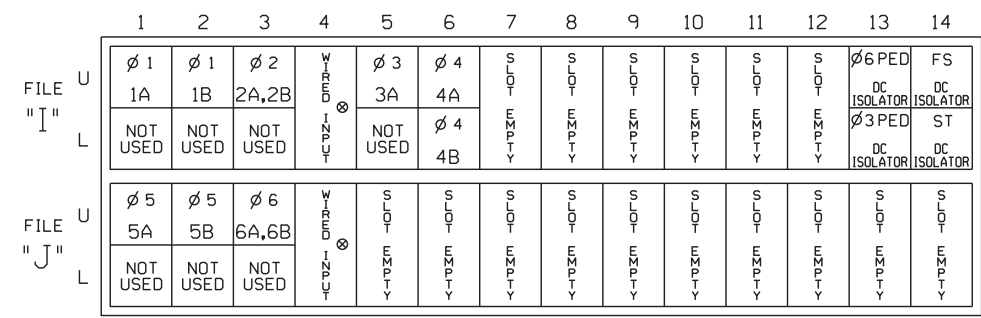
SIGNAL HEAD HOOK-UP CHART

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	8 PED	OLA	OLB	SPARE	OLC	OLD	SPARE						
SIGNAL HEAD NO.	11★	32	21,22	31	32	41	42	NU	42	51★	61,62	P61, P62	NU	NU	P31, P32	11★	NU	51★	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																			A121		A114			
YELLOW ARROW	126									132									A122		A115			
FLASHING YELLOW ARROW																			A123		A116			
GREEN ARROW	127	127		118	103					133	133													
Hand																						119	110	
Walking																							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.

INPUT FILE POSITION LAYOUT

(front view)



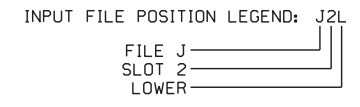
EX.: 1A, 2A, ETC. = LOOP NO.'S
 FS = FLASH SENSE
 ST = STOP TIME
 ⊗ Wired Input - Do not populate slot with detector card

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
1A ¹	TB2-1,2	I1U	56	18	1	1	Y	Y			15
1B	TB2-5,6	J4U	48	10	26	6	Y	Y			15
2A,2B	TB2-9,10	I3U	63	25	32	2	Y	Y			
3A	TB4-5,6	I5U	58	20	3	3	Y	Y			3
4A	TB4-9,10	I6U	41	3	4	4	Y	Y			3
4B	TB4-11,12	I6L	45	7	14	4	Y	Y			
5A ²	TB3-1,2	J1U	55	17	5	5	Y	Y			15
5B	TB3-5,6	J2U	40	2	22	2	Y	Y			15
6A,6B	TB3-9,10	J3U	64	26	36	6	Y	Y			
PED PUSH BUTTONS											
P31,P32	TB8-8,9	I13L	70	32	PED 8	3 PED					

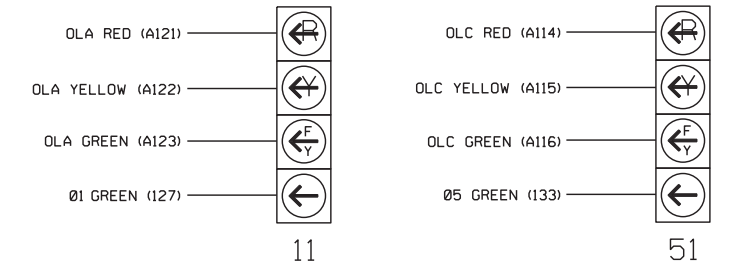
NOTE:
 INSTALL DC ISOLATOR IN INPUT FILE SLOT I13.

- ¹Add jumper from I1-W to J4-W, on rear of input file.
- ²Add jumper from J1-W to I4-W, on rear of input file.



FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)

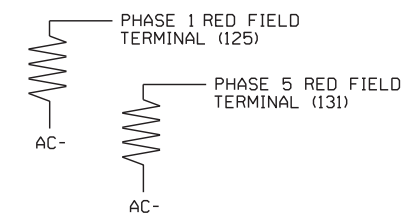


NOTE
 The sequence display for these signals requires special logic programming. See sheet 2 for programming instructions.

LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown below)

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



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.

Prepared in the Offices of:
 Buncombe County
 Signal Management System

US 74A (S. Tunnel Rd.)
 at
 Asheville Mall Entrance/
 Shopping Center Entrance

Division 13 Buncombe County Asheville

PLAN DATE: August 2021 REVIEWED BY:
 PREPARED BY: S. Armstrong REVIEWED BY:

REVISIONS: INIT. DATE

DocuSigned by:
 Ryan W. Houff
 430020FAA2B64C3

8/4/2021
 DATE

SIG. INVENTORY NO. 13-0417

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 RYAN W. HOUFF
 SEAL 036833

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 #1 IS ON
AND RED CLEAR ON PHASE #1 IS ON

↓
SCROLL DOWN

THEN:
SET OUTPUT ASSIGNMENT #50 ON
SET OUTPUT ASSIGNMENT #51 OFF

PRESS '+'

NOTE: LOGIC FOR PHASE 1 RED CLEAR WHEN TRANSITIONING FROM PHASE 1 TO PHASE 2 (HEAD 11).

LOGICAL I/O COMMAND #2 (+/-COMMAND#)
IF ACTIVE PHASE #1 IS ON

↓
SCROLL DOWN

THEN:
SET OUTPUT ASSIGNMENT #52 OFF

PRESS '+'

NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 1 (HEAD 11).

LOGICAL I/O COMMAND #3 (+/-COMMAND#)
IF YELLOW ON PHASE #1 IS ON

↓
SCROLL DOWN

THEN:
SET OUTPUT ASSIGNMENT #51 ON

PRESS '+'

NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 1 (HEAD 11).

LOGICAL I/O COMMAND #4 (+/-COMMAND#)
IF ACTIVE PHASE #5 IS ON
AND RED CLEAR ON PHASE #5 IS ON

↓
SCROLL DOWN

THEN:
SET OUTPUT ASSIGNMENT #42 ON
SET OUTPUT ASSIGNMENT #43 OFF

PRESS '+'

NOTE: LOGIC FOR PHASE 5 RED CLEAR WHEN TRANSITIONING FROM PHASE 5 TO PHASE 6 (HEAD 51).

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

↓
SCROLL DOWN

THEN:
SET OUTPUT ASSIGNMENT #44 OFF

PRESS '+'

NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 5 (HEAD 51).

LOGICAL I/O COMMAND #6 (+/-COMMAND#)
IF YELLOW ON PHASE #5 IS ON

↓
SCROLL DOWN

THEN:
SET OUTPUT ASSIGNMENT #43 ON

PRESS '+'

NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 5 (HEAD 51).

LOGIC I/O PROCESSOR PROGRAMMING COMPLETE

OUTPUT REFERENCE SCHEDULE

OUTPUT 42 = Overlap C Red
OUTPUT 43 = Overlap C Yellow
OUTPUT 44 = Overlap C Green
OUTPUT 50 = Overlap A Red
OUTPUT 51 = Overlap A Yellow
OUTPUT 52 = Overlap A Green

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 13-0417
DESIGNED: July 2021
SEALED: 8/3/2021
REVISED: N/A

OVERLAP PROGRAMMING DETAIL

(program controller as shown below)

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

PAGE 1: VEHICLE OVERLAP 'A' SETTINGS
PHASE: :12345678910111213141516
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?...Y
GREEN EXTENSION (0-255 SEC)...0.0
YELLOW CLEAR (0=PARENT,3-25.5 SEC)...0.0
RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (0=NONE, 1-16)...0

PRESS '+' TWICE

PAGE 1: VEHICLE OVERLAP 'C' SETTINGS
PHASE: :12345678910111213141516
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?...Y
GREEN EXTENSION (0-255 SEC)...0.0
YELLOW CLEAR (0=PARENT,3-25.5 SEC)...0.0
RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (0=NONE, 1-16)...0

OVERLAP PROGRAMMING COMPLETE

PED 3 PROGRAMMING DETAIL

(program controller as shown below)

CHANGING OUTPUT ASSIGNMENTS

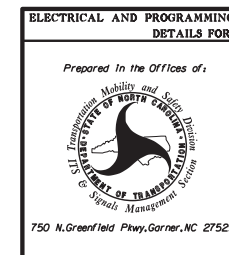
1. FROM MAIN MENU SELECT '6' (OUTPUTS), THEN '1' (OUTPUT ASSIGNMENTS)
2. ENTER 17 (PHASE 8 DW) FOR OUTPUT ASSIGNMENT #.
3. SCROLL DOWN TO 'PEDESTRIAN PHASE' AND ENTER 'Y' REGARDLESS OF DEFAULT PROGRAMMING
4. ENTER '3' FOR 'SELECT PEDESTRIAN PHASE'. NO CHANGE NEEDED FOR 'SELECT COLOR'
5. BACKUP TO 'OUTPUT 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

Electrical Detail - Sheet 2 of 2



US 74A (S. Tunnel Rd.)
at
Asheville Mall Entrance/
Shopping Center Entrance

Division 13 Buncombe County Asheville	
PLAN DATE: August 2021	REVIEWED BY:
PREPARED BY: S. Armstrong	REVIEWED BY:
REVISIONS	INIT. DATE

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL
STATE OF NORTH CAROLINA
PROFESSIONAL ENGINEER
RYAN W. HOUGH
036833

DocuSigned by:
Ryan W. Hough 8/4/2021
DATE

SIG. INVENTORY NO. 13-0417