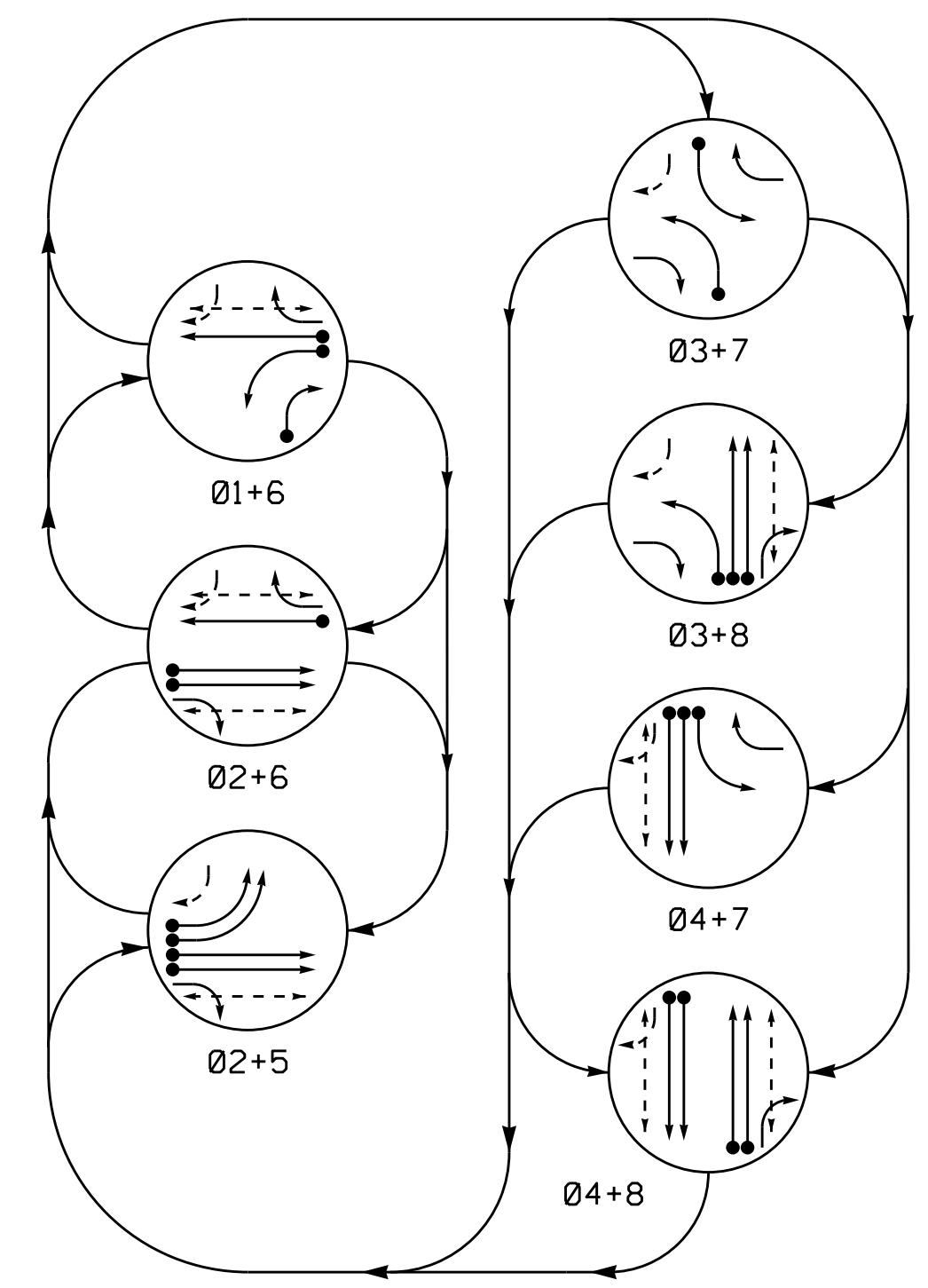


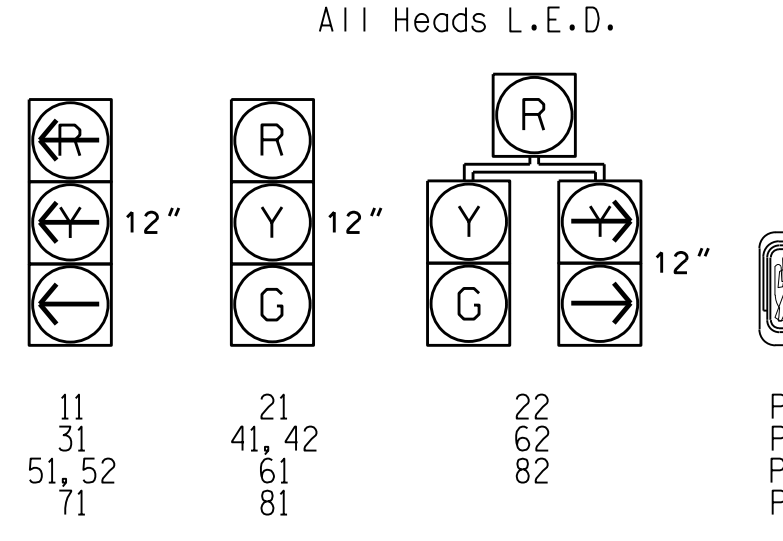
PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- ← ● → DETECTED MOVEMENT
- ← ○ → UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- ← - - - → PEDESTRIAN MOVEMENT

SIGNAL FACE I.D.



EV PREEMPT PHASE (Medium Priority)

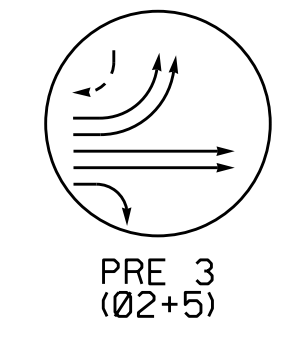


TABLE OF OPERATION

SIGNAL FACE	PHASE							
	02+5	02+6	01+6	03+7	03+8	04+7	04+8	PRE 3
11	R	R	-	R	R	R	R	R
21	G	G	R	R	R	R	R	G
22	G	G	R	R	R	R	R	G
31	R	R	R	-	R	R	R	R
41, 42	R	R	R	R	R	G	G	R
51, 52	-	R	R	R	R	R	R	-
61	R	G	G	R	R	R	R	R
62	R	G	G	R	R	R	R	R
71	R	R	R	-	R	-	R	R
81	R	R	R	R	R	G	R	R
82	R	R	R	R	R	G	R	R
P21, P22	W	W	DW	DW	DW	DW	DW	DRK
P41, P42	DW	DW	DW	DW	DW	W	W	DRK
P61, P62	DW	W	W	DW	DW	DW	DW	DRK
P81, P82	DW	DW	DW	DW	W	W	W	DRK

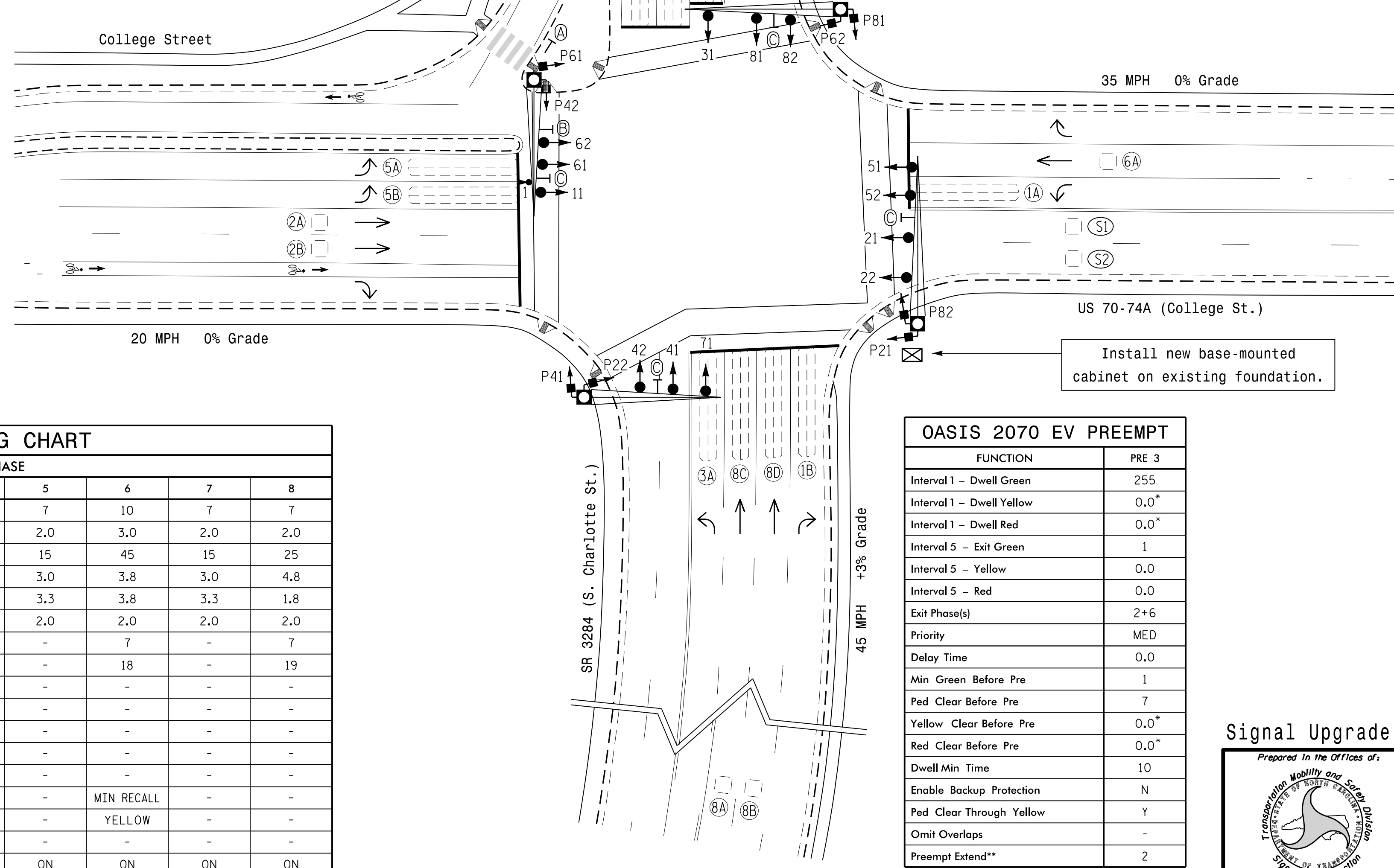
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING			SYSTEM LOOP	NEW CARD		
					PHASE	CALLING	EXTENSION				
1A	6X40	0	2-4-2	-	1	Y	Y	-	3	-	Y
1B	6X40	0	2-4-2	-	1	Y	Y	-	15	-	Y
2A	6X6	70	4	-	2	Y	Y	-	-	-	Y
2B	6X6	70	4	-	2	Y	Y	-	-	-	Y
3A	6X40	0	2-4-2	-	3	Y	Y	-	3	-	Y
4A	6X6	300	5	-	4	-	Y	-	2.4	-	Y
4B	6X6	300	5	-	4	-	Y	-	2.4	-	Y
4C	6X40	0	2-4-2	-	4	Y	Y	-	-	-	Y
4D	6X40	0	2-4-2	-	4	Y	Y	-	-	-	Y
5A	6X40	0	2-4-2	-	5	Y	Y	-	-	-	Y
5B	6X40	0	2-4-2	-	5	Y	Y	-	-	-	Y
6A	6X6	70	4	-	6	Y	Y	-	-	-	Y
7A	6X40	0	2-4-2	-	7	Y	Y	-	3	-	Y
8A	6X6	300	4	-	8	-	Y	-	2.4	-	Y
8B	6X6	300	4	-	8	-	Y	-	2.4	-	Y
8C	6X40	0	2-4-2	-	8	Y	Y	-	-	-	Y
8D	6X40	0	2-4-2	-	8	Y	Y	-	-	-	Y
S1	6X6	+200	3	-	-	-	-	-	-	-	Y
S2	6X6	+200	3	-	-	-	-	-	-	-	Y

7 Phase Fully Actuated w/ Emergency Vehicle Preemption Asheville Signal System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 or phase 5 may lead. Phase 1 and phase 5 shall not run simultaneously.
- Phase 3 and/or phase 7 may be lagged.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Pavement markings are existing.
- This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



Install new base-mounted cabinet on existing foundation.

LEGEND

- | PROPOSED | EXISTING |
|----------|----------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

OASIS 2070 TIMING CHART

FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green 1*	7	10	7	7	7	10	7	7
Extension 1*	2.0	3.0	2.0	2.0	2.0	3.0	2.0	2.0
Max Green 1*	15	45	15	25	15	45	15	25
Yellow Clearance	3.0	3.8	3.0	4.8	3.0	3.8	3.0	4.8
Red Clearance	3.2	3.8	3.3	1.8	3.3	3.8	3.3	1.8
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1*	-	7	-	7	-	7	-	7
Don't Walk 1	-	27	-	20	-	18	-	19
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	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.

OASIS 2070 EV PREEMPT

FUNCTION	PRE 3
Interval 1 - Dwell Green	255
Interval 1 - Dwell Yellow	0.0*
Interval 1 - Dwell Red	0.0*
Interval 5 - Exit Green	1
Interval 5 - Yellow	0.0
Interval 5 - Red	0.0
Exit Phase(s)	2+6
Priority	MED
Delay Time	0.0
Min Green Before Pre	1
Ped Clear Before Pre	7
Yellow Clear Before Pre	0.0*
Red Clear Before Pre	0.0*
Dwell Min Time	10
Enable Backup Protection	N
Ped Clear Through Yellow	Y
Omit Overlaps	-
Preempt Extend**	2

* Time defaults to time used for phase during normal operation
** Program Timing on Optical Detection Unit

Signal Upgrade

US 70-74A (College St.) at SR 3284 (S. Charlotte St.) / US 70-74A (Charlotte St.)

Division 13 Buncombe County Asheville

PLAN DATE: JUNE 2016 REVIEWED BY: P.L. Alexander

PREPARED BY: R.N. Zinser REVIEWED BY:

REVISIONS: _____ INIT: _____ DATE: _____

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

Richard N. Zinser 8/12/2016

SIG. INVENTORY NO. 13-0401

P:\ASSETS\2016\11-131-SIGNAL\ASSETS\SIGNAL\Signal Design\Region01\13-0401-4715B (Asheville) Signal System\Signal Design\13-0401-4715B.dgn
 Date: 8/12/2016 11:31 AM
 User: rnzinsr