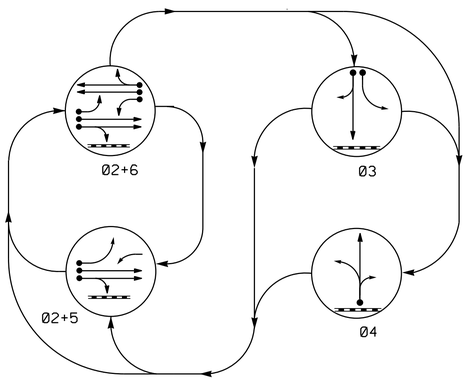
PROJECT REFERENCE NO.	SHEET NO.
U-4715 B	Sig.225.0

PHASING DIAGRAM

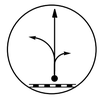


PHASING DIAGRAM DETECTION LEGEND

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

Queue PREEMPT PHASE

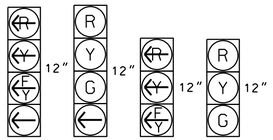
(Medium Priority)



PRE 3
(Ø4)

SIGNAL FACE I.D.

All Heads L.E.D.



51 | 31, 41 | 61 | 21,22, 32, 42, 62,63

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+5	Ø2+6	Ø3	Ø4	PRE 3	FLASH
21,22	G	G	R	R	R	Y
31	R	R	G	R	R	R
32	R	R	G	R	R	R
41	R	R	R	G	G	R
42	R	R	R	G	G	R
51	~~←~~	~~F Y~~	~~R~~	~~R~~	~~R~~	~~Y~~
61	~~F Y~~	~~F Y~~	~~R~~	~~R~~	~~R~~	~~Y~~
62,63	R	G	R	R	R	Y

OASIS 2070 LOOP & DETECTOR INSTALLATION

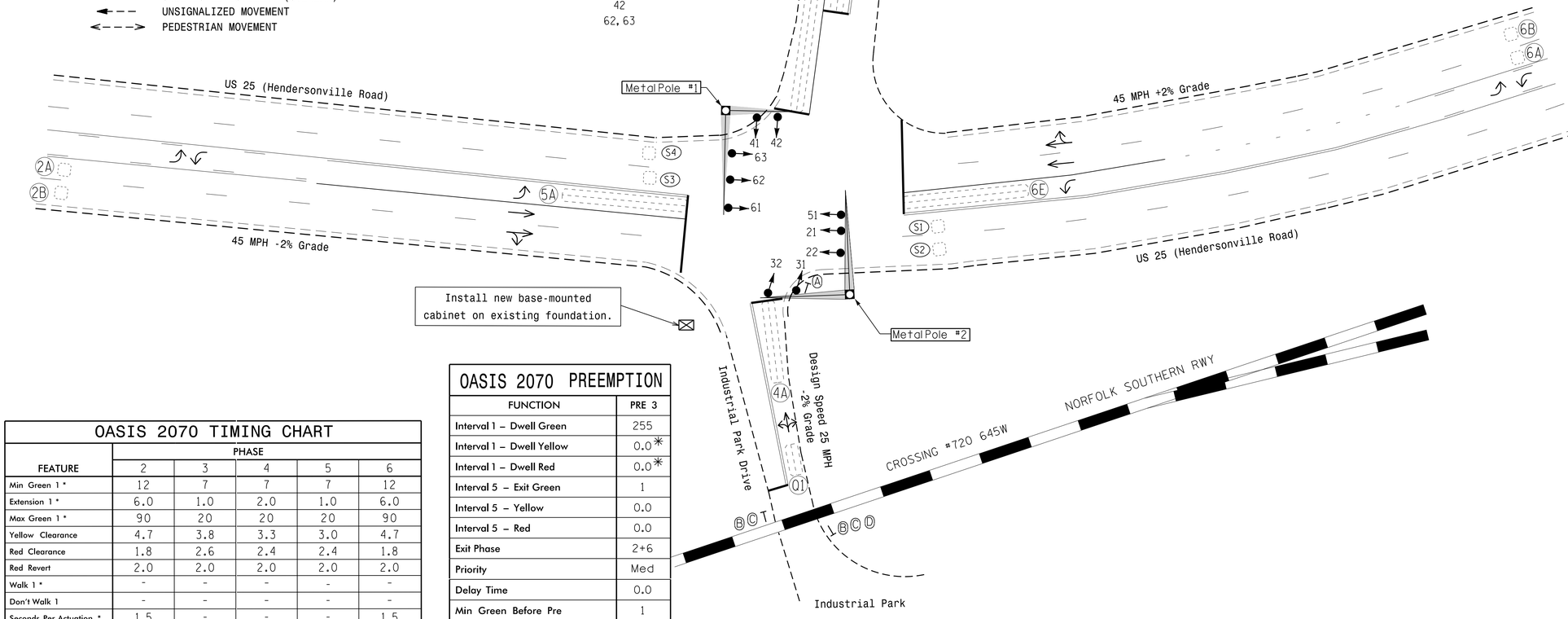
INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A	6X6	300	4	-	2	Y	Y	-	-	-	-	Y
2B	6X6	300	4	-	2	Y	Y	-	-	-	-	Y
3A	6X60	0	2-4-2	-	3	Y	Y	-	-	3	-	Y
3B	6X60	0	2-4-2	-	3	Y	Y	-	-	10	-	Y
4A	6X40	0	2-4-2	-	4	Y	Y	-	-	10	-	Y
5A	6X60	0	2-4-2	-	5	Y	Y	-	-	15	-	Y
				-	2	Y	Y	Y	-	3	-	Y
6A	6X6	300	4	-	6	Y	Y	-	-	-	-	Y
6B	6X6	300	4	-	6	Y	Y	-	-	-	-	Y
6E	6X60	0	2-4-2	-	6	Y	Y	Y	-	3	-	Y
S1	6X6	+120	4	-	-	-	-	-	-	-	Y	Y
S2	6X6	+120	4	-	-	-	-	-	-	-	Y	Y
S3	6X6	+120	4	-	-	-	-	-	-	-	Y	Y
S4	6X6	+120	4	-	-	-	-	-	-	-	Y	Y
✳ 01	6X15	70	2-4-2	-	PRE3	Y	Y	-	-	10	-	Y

✳ See Note ▪ 5

4 Phase
Fully Actuated
With Queue Preemption
Asheville Signal System

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. Phase 5 may be lagged.
4. The order of phase 3 and phase 4 may be reversed.
5. Program loop 01 so it can only call Preempt 3 if loop 4A also actuated.
6. Set all detector units to presence mode.
7. 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.
8. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
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.



OASIS 2070 TIMING CHART

FEATURE	PHASE 2	3	4	5	6
Min Green 1 *	12	7	7	7	12
Extension 1 *	6.0	1.0	2.0	1.0	6.0
Max Green 1 *	90	20	20	20	90
Yellow Clearance	4.7	3.8	3.3	3.0	4.7
Red Clearance	1.8	2.6	2.4	2.4	1.8
Red Revert	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-	-
Don't Walk 1	-	-	-	-	-
Seconds Per Actuation *	1.5	-	-	-	1.5
Max Variable Initial *	34	-	-	-	34
Time Before Reduction *	15	-	-	-	15
Time To Reduce *	30	-	-	-	30
Minimum Gap	3.0	-	-	-	3.0
Recall Mode	MIN RECALL	-	-	-	MIN RECALL
Vehicle Call Memory	YELLOW	-	-	-	YELLOW
Dual Entry	-	-	-	-	-
Simultaneous Gap	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 PREEMPTION

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	2+6
Priority	Med
Delay Time	0.0
Min Green Before Pre	1
Ped Clear Before Pre	0
Yellow Clear Before Pre	0.0✳
Red Clear Before Pre	0.0✳
Dwell Min Time	18
Dwell Max Time (Minutes)	1
Enable Backup Protection	N
Ped Clear Through Yellow	N

✳ Time defaults to time used for phase during normal operation

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	
M	Master Controller & Cabinet	M
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Metal Pole with Mastarm	
A	Left Arrow "ONLY" Sign (R3-5L)	A
B	"STOP" Sign (R1-1)	B
C	"Railroad Crossbuck" Sign (R15-5)	C
D	"DO NOT STOP ON TRACKS" Sign (R8-8)	D

Signal Revision

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

US 25 (Hendersonville Rd.)
at
SR 2025 (Rockwell Drive)
/ Industrial Park Drive

Division 14 Henderson County Fletcher

PLAN DATE: December 2015 REVIEWED BY: T. Williams
PREPARED BY: M. Mahbooba REVIEWED BY:

SCALE 0 30 1"=30'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 024393 ENGINEER TIMOTHY J. WILLIAMS

DocuSigned by: T. J. Williams 11/7/2016
07AD70DFE6934CA... DATE

SIG. INVENTORY NO. 14-0772

07-NOV-2016 07:29
S:*TISAS\Pro\Signals\Signal Design Section\Western Region\Div-13\U-4715B (Asheville Signal System)\Signal Designs\14-0772\140772_sig_dsn_20161107.dgn
mmahbooba