METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2813C	SIG.41

PHASING DIAGRAM

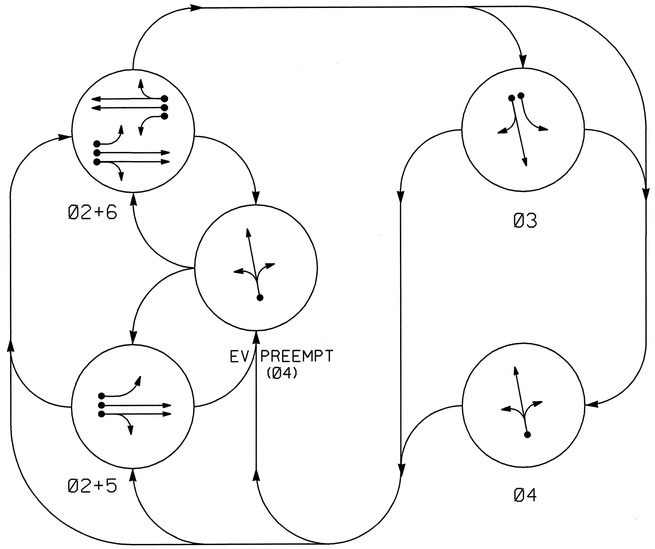
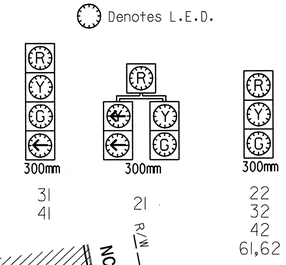


TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+5	Ø2+6	Ø3	Ø4	EVPRE	FLASH
21	G	G	R	R	R	Y
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
61,62	R	G	R	R	R	Y

SIGNAL FACE I.D.



2070L LOOP & DETECTOR INSTALLATION

INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (M)	TURNS	DISTANCE FROM STOPBAR (M)	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	SYSTEM LOOP	STRETCH TIME	DELAY TIME	NEW CARD
2A	1.8X6	EXISTING	100	-	2	Y	Y	-	-	1.8	—	Y
2B	1.8X10	EXISTING	18	-	2	Y	Y	-	-	—	—	Y
3A	1.8X18	EXISTING	+1.5	-	3	Y	Y	-	-	—	3	Y
3B	1.8X18	EXISTING	+1.5	-	3	Y	Y	-	-	—	10	Y
4A	1.8X21	EXISTING	+1.5	-	4	Y	Y	-	-	—	3	Y
5A	1.8X4.5	EXISTING	30	-	5	Y	Y	-	-	—	10	Y
6A,6B	1.8X1.8	4	90	Y	6	Y	Y	-	-	1.8	—	Y
6C,6D	1.8X1.8	4	27	Y	6	Y	Y	-	-	—	—	Y
6E	1.8X18	2-4-2	0	Y	6	Y	Y	Y	-	—	3	Y

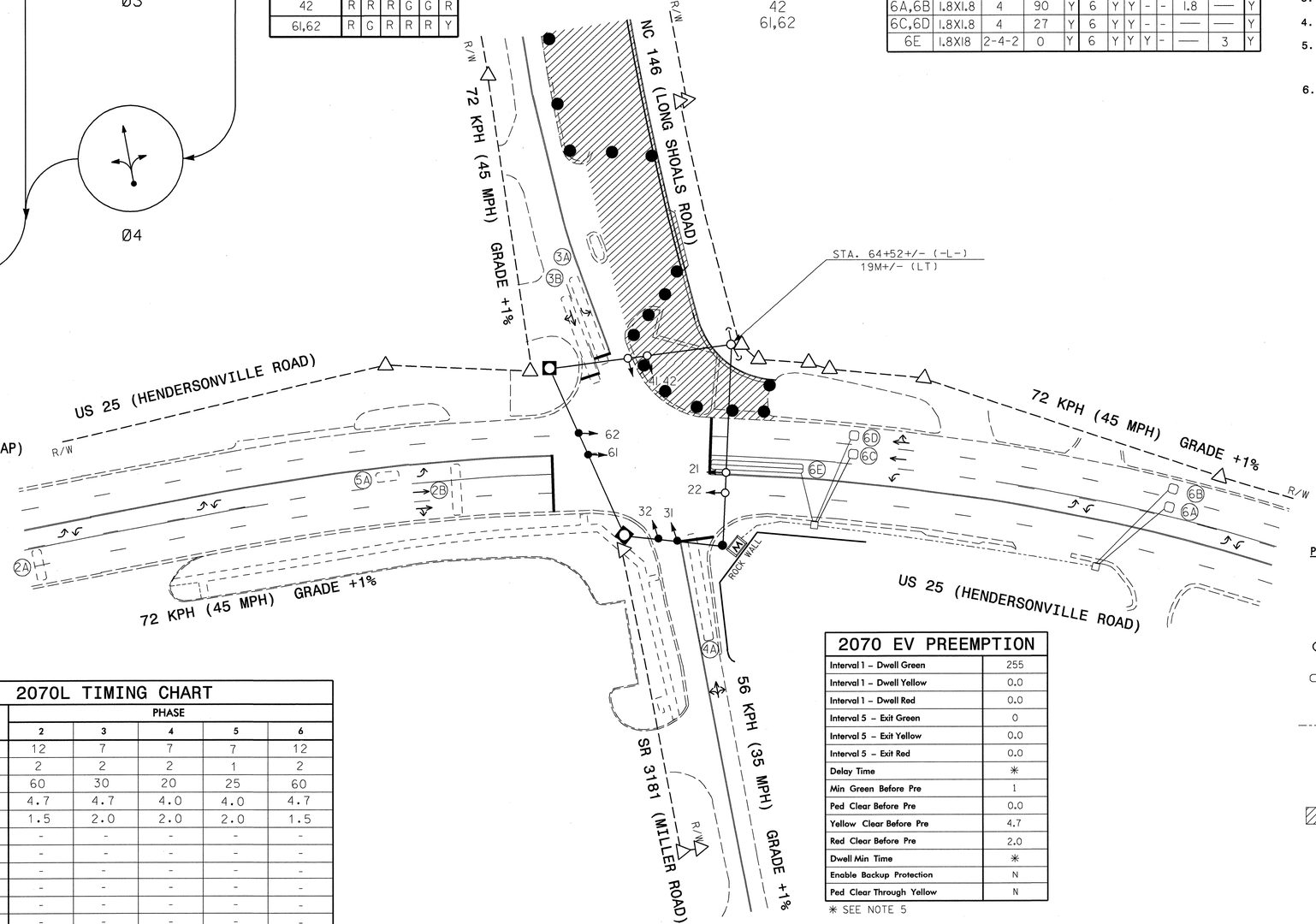
4 Phase Actuated
With EV Preempt
(Isolated)

NOTES

1. REFER TO "ROADWAY STANDARD DRAWINGS NCDOT", DATED JANUARY 2002 AND "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2002.
2. OMIT PHASE 5 DURING PHASE 6 ON.
3. PROGRAM CONTROLLER TO CLEAR FROM PHASE 2+6 TO PHASE 2+5 BY PROGRESSING THROUGH PHASE 4.
4. LOCATE EMERGENCY VEHICLE PREEMPTION SWITCH IN THE FIRE STATION.
5. THE DIVISION TRAFFIC ENGINEER WILL DETERMINE THE DELAY BEFORE PREEMPT AND PREEMPT DWELL MIN GREEN TIME FOR THE EMERGENCY VEHICLE PREEMPTION TIMING.
6. SET ALL DETECTOR UNITS TO PRESENCE MODE.

PLAN QUANTITIES

Pay Item	Meters
Signal Cable	105
Messenger Cable	80
Lead-in Cable	200



PHASING DIAGRAM DETECTION LEGEND

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

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	
	50mm Underground Conduit	
N/A	Right of Way with Marker	
	Directional Arrow	
	Metal Strain Pole	
M	Master Controller & Cabinet	M
	Construction Zone	N/A
	Construction Barrels	N/A

2070L TIMING CHART

FEATURE	PHASE 2	3	4	5	6
Min Green 1 *	12	7	7	7	12
Extension 1 *	2	2	2	1	2
Max Green 1 *	60	30	20	25	60
Yellow Clearance	4.7	4.7	4.0	4.0	4.7
Red Clearance	1.5	2.0	2.0	2.0	1.5
Walk 1 *	-	-	-	-	-
Don't Walk 1	-	-	-	-	-
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

* 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.

2070 EV PREEMPTION

Interval 1 – Dwell Green	255
Interval 1 – Dwell Yellow	0.0
Interval 1 – Dwell Red	0.0
Interval 5 – Exit Green	0
Interval 5 – Exit Yellow	0.0
Interval 5 – Exit Red	0.0
Delay Time	*
Min Green Before Pre	1
Ped Clear Before Pre	0.0
Yellow Clear Before Pre	4.7
Red Clear Before Pre	2.0
Dwell Min Time	*
Enable Backup Protection	N
Ped Clear Through Yellow	N

* SEE NOTE 5

TEMPORARY SIGNAL 1 - PHASE I - TCP 13

PLANS PREPARED BY :
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FOR
DIVISION OF HIGHWAYS

Prepared for the Offices of:
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STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signals and Geometrics Section
122 N. McDowell St., Raleigh, NC 27603

US 25 (HENDERSONVILLE ROAD)
AT
NC 146 (LONG SHOALS ROAD)

DIVISION 13 BUNCOMBE COUNTY ASHEVILLE

PLAN DATE: 02-08-04 REVIEWED BY: D. MORTON

PREPARED BY: C.B. HOLDEN RK&K PROJECT NO. 302-079-SIG4

SCALE 5 0 10 1 : 500

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 19798 ENGINEER DONALD W. MORTON
SIGNATURE 2-26-04 DATE

SIG. INVENTORY NO. 13-0284T1