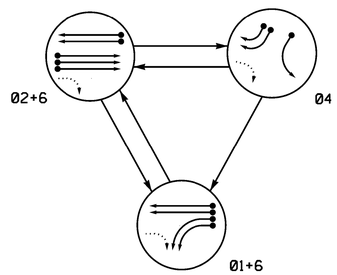
PROJECT REFERENCE NO.	SHEET NO.
U-6038	Sig 7.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE 01+6	PHASE 02+6	PHASE 04	FLASH
11,12	—	~~R~~	~~R~~	~~R~~
21,22,23	R	G	R	Y
41,42	R	R	G	R
61,62	G	G	R	Y

SIGNAL FACE I.D.

All Heads L.E.D.

11,12 — 21,22,23 41,42 61,62

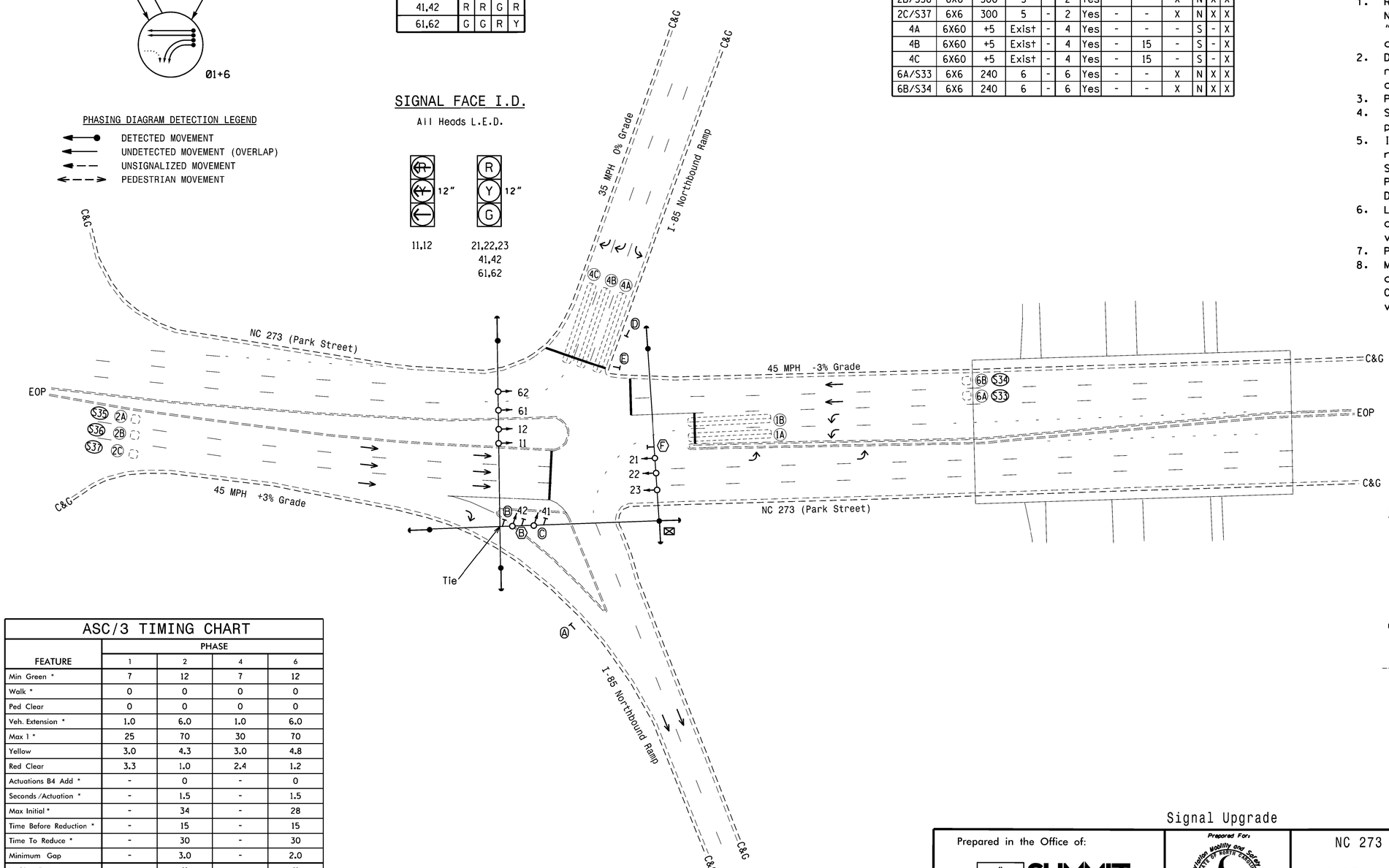
ASC/3 DETECTOR INSTALLATION CHART

DETECTOR					PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X60	+5	Exist	-	1	Yes	-	-	-	S	-	X
1B	6X60	+5	Exist	-	1	Yes	-	-	-	S	-	X
2A/S35	6X6	300	5	-	2	Yes	-	-	X	N	X	X
2B/S36	6X6	300	5	-	2	Yes	-	-	X	N	X	X
2C/S37	6X6	300	5	-	2	Yes	-	-	X	N	X	X
4A	6X60	+5	Exist	-	4	Yes	-	-	-	S	-	X
4B	6X60	+5	Exist	-	4	Yes	-	15	-	S	-	X
4C	6X60	+5	Exist	-	4	Yes	-	15	-	S	-	X
6A/S33	6X6	240	6	-	6	Yes	-	-	X	N	X	X
6B/S34	6X6	240	6	-	6	Yes	-	-	X	N	X	X

3 Phase
Fully Actuated
Belmont Signal System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 may be lagged.
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. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
7. Pavement markings are existing.
8. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



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	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
A	"YIELD" Sign (R1-2)	A
B	Right Arrow "ONLY" Sign (R3-5R)	B
C	Left Arrow "ONLY" Sign (R3-5L)	C
D	"DO NOT ENTER" Sign (R5-1)	D
E	"ONE WAY" Sign (R6-1)	E
F	No Left Turn Sign (R3-2)	F

ASC/3 TIMING CHART

FEATURE	PHASE 1	PHASE 2	PHASE 4	PHASE 6
Min Green *	7	12	7	12
Walk *	0	0	0	0
Ped Clear	0	0	0	0
Veh. Extension *	1.0	6.0	1.0	6.0
Max 1 *	25	70	30	70
Yellow	3.0	4.3	3.0	4.8
Red Clear	3.3	1.0	2.4	1.2
Actuations B4 Add *	-	0	-	0
Seconds /Actuation *	-	1.5	-	1.5
Max Initial *	-	34	-	28
Time Before Reduction *	-	15	-	15
Time To Reduce *	-	30	-	30
Minimum Gap	-	3.0	-	2.0
Locking Detector	-	X	-	X
Recall Position	-	VEH. RECALL	-	VEH. RECALL
Dual Entry	-	-	-	-
Simultaneous Gap	X	X	X	X

* 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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:

SUMMIT DESIGN AND ENGINEERING SERVICES

NC FIRM LICENSE No: P-0339
504 Meadowlands Drive
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(919) 732-3883
(919) 732-6676 (FAX)

Prepared For:
Transportation Mobility and Safety Division
Traffic Engineering Branch
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 40
1"=40'

NC 273 (Park Street)
at
I-85 Northbound Ramps

Division 12 Gaston County Belmont

PLAN DATE:	October 2018	REVIEWED BY:	E. Sirgany
PREPARED BY:	J. Smith	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 018174 ENGINEER EDWARD W. SIRGANY

DocuSigned by: Edward W Sirgany 2/7/2019
38DF0C96A6684E9
DATE

SIG. INVENTORY NO. 12-0985

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