

PHASING DIAGRAM

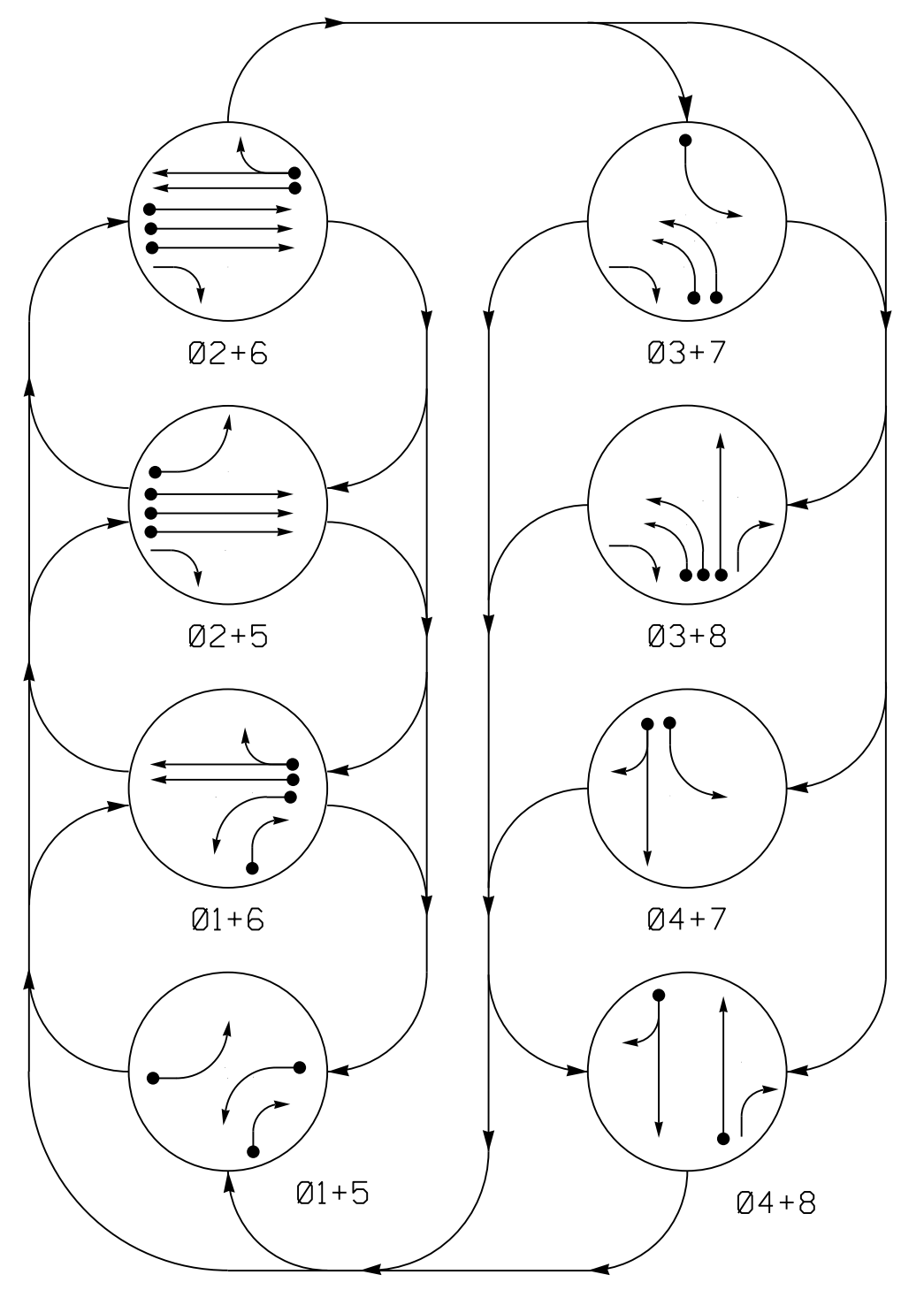


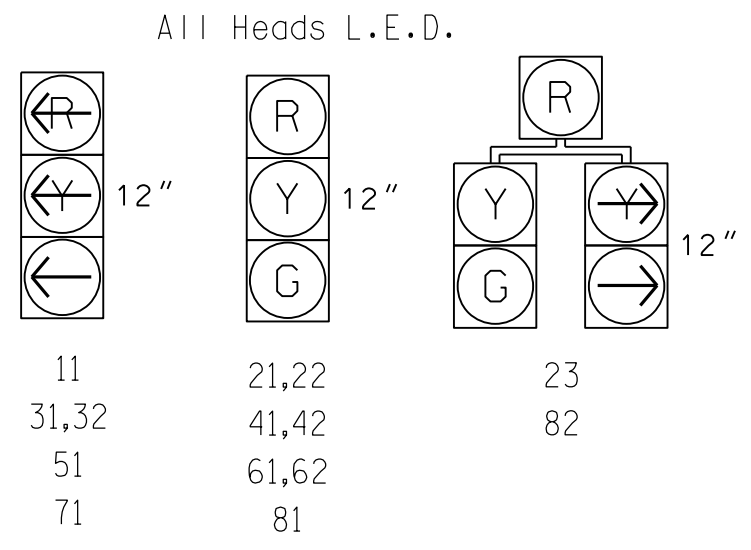
TABLE OF OPERATION

| SIGNAL FACE | PHASE | | | | | | | |
|-------------|-------|------|------|------|------|------|------|------|
| | Ø1+5 | Ø2+6 | Ø3+7 | Ø4+8 | Ø1+6 | Ø2+5 | Ø3+8 | Ø4+7 |
| 11 | ← | ← | ← | ← | ← | ← | ← | ← |
| 21,22 | R | R | G | G | R | R | R | Y |
| 23 | R | R | G | G | R | R | R | Y |
| 31,32 | ← | ← | ← | ← | ← | ← | ← | ← |
| 41,42 | R | R | R | R | R | R | G | G |
| 51 | ← | ← | ← | ← | ← | ← | ← | ← |
| 61,62 | R | G | R | G | R | R | R | Y |
| 71 | ← | ← | ← | ← | ← | ← | ← | ← |
| 81 | R | R | R | R | G | R | G | R |
| 82 | R | R | R | R | G | R | G | R |

PHASING DIAGRAM DETECTION LEGEND

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

SIGNAL FACE I.D.



Entrance to Shopping Center
Speed Unposted (Design) 35 mph
+2% Grade

ASC/3 DETECTOR INSTALLATION CHART

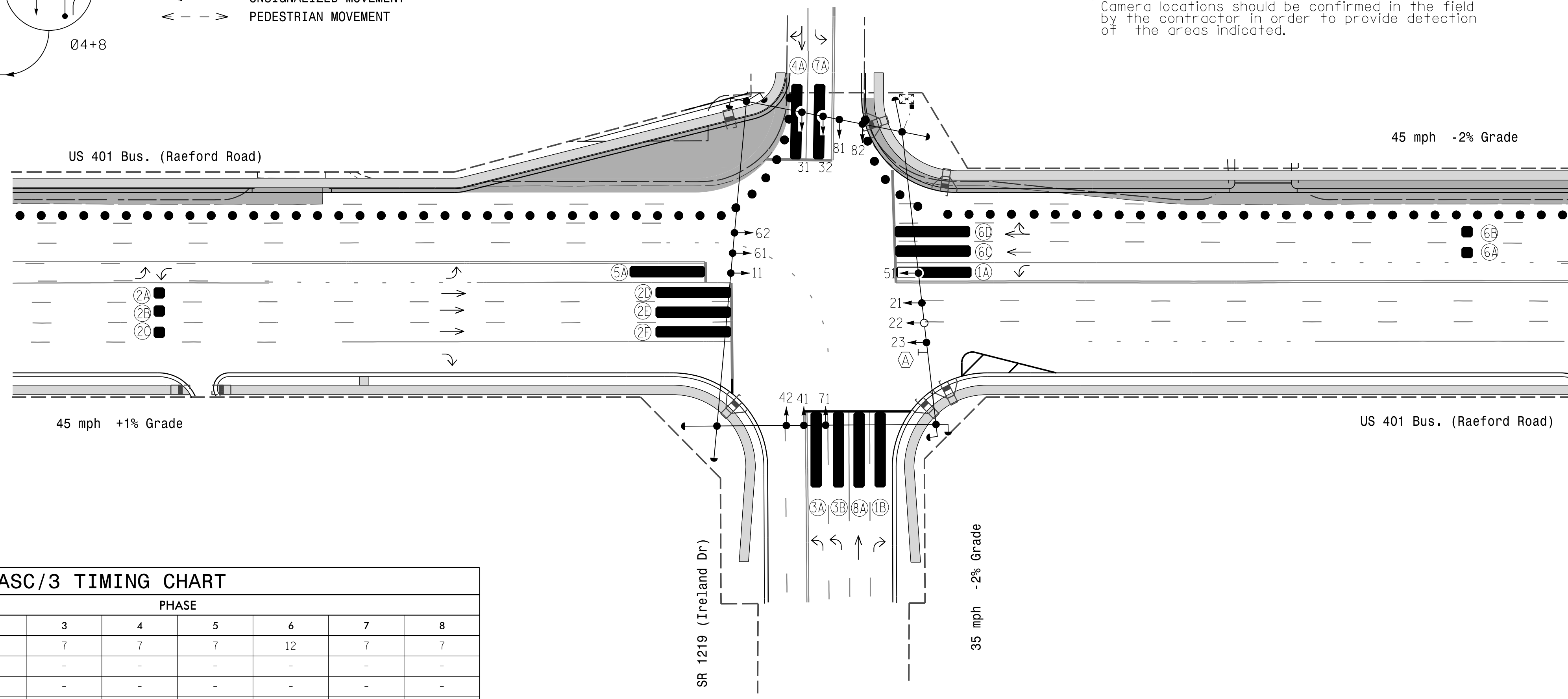
| LOOP | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS | NEW LOOP | PROGRAMMING | | | | | | |
|------|-----------|----------------------------|-------|----------|-------------|---------|-------------|------------|-------------------|------|-------------|
| | | | | | PHASE | CALLING | EXTEND TIME | DELAY TIME | USE ADDED INITIAL | TYPE | SYSTEM LOOP |
| 1A | 6X40 | 0 | * | - | 1 | Yes | - | 3 | - | S | - |
| 1B | 6X40 | 0 | * | - | 1 | Yes | - | 15 | - | S | - |
| 2A | 6X6 | 300 | * | - | 2 | Yes | - | - | - | N | - |
| 2B | 6X6 | 300 | * | - | 2 | Yes | - | - | - | N | - |
| 2C | 6X6 | 300 | * | - | 2 | Yes | - | - | - | N | - |
| 2D | 6X40 | 0 | * | - | 2 | Yes | 2.0 | 5 | - | G | - |
| 2E | 6X40 | 0 | * | - | 2 | Yes | 2.0 | 5 | - | G | - |
| 2F | 6X40 | 0 | * | - | 2 | Yes | 2.0 | 5 | - | G | - |
| 3A | 6X40 | 0 | * | - | 3 | Yes | - | 3 | - | S | - |
| 3B | 6X40 | 0 | * | - | 3 | Yes | - | - | - | S | - |
| 4A | 6X40 | 0 | * | - | 4 | Yes | - | 10 | - | S | - |
| 5A | 6X40 | 0 | * | - | 5 | Yes | - | 3 | - | S | - |
| 6A | 6X6 | 300 | * | - | 6 | Yes | - | - | - | N | - |
| 6B | 6X6 | 300 | * | - | 6 | Yes | - | - | - | N | - |
| 6C | 6X40 | 0 | * | - | 6 | Yes | 2.0 | 5 | - | G | - |
| 6D | 6X40 | 0 | * | - | 6 | Yes | 2.0 | 5 | - | G | - |
| 7A | 6X40 | 0 | * | - | 7 | Yes | - | 3 | - | S | - |
| 8A | 6X40 | 0 | * | - | 8 | Yes | - | - | - | S | - |

*Video Detection Area
Camera locations should be confirmed in the field by the contractor in order to provide detection of the areas indicated.

8 Phase Fully Actuated Fayetteville Signal System

NOTES

- 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 Phase 5 may be lagged.
- Phase 3 and Phase 7 may be lagged.
- Reposition existing signal heads numbered 23,61,62.
- Set all detector units to presence mode.
- Maximum times shown in timing chart are for free-run timing operation only. Coordinated signal system timing values supersede these values.



LEGEND

- | PROPOSED | EXISTING |
|-----------------------------------|-----------------------------------|
| ○ → Traffic Signal Head | ● → N/A |
| ● → Modified Signal Head | ○ → N/A |
| ○ ↓ Pedestrian Signal Head | ○ ↓ N/A |
| ○ ↓ With Push Button & Sign | ○ ↓ N/A |
| ○ ↓ Signal Pole with Guy | ○ ↓ N/A |
| ○ ↓ Signal Pole with Sidewalk Guy | ○ ↓ N/A |
| □ 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 |
| ■ Video Detection Area | N/A |
| ■ Construction Zone | N/A |
| ● Drums | N/A |
| Ⓐ Right Arrow "ONLY" Sign (R3-5R) | Ⓐ Right Arrow "ONLY" Sign (R3-5R) |

ASC/3 TIMING CHART

| FEATURE | PHASE | | | | | | | |
|-------------------------|-------|-------------|-----|-----|-----|-------------|-----|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Min Green * | 7 | 12 | 7 | 7 | 7 | 12 | 7 | 7 |
| Walk * | - | - | - | - | - | - | - | - |
| Ped Clear | - | - | - | - | - | - | - | - |
| Veh. Extension * | 2.0 | 6.0 | 2.0 | 2.0 | 2.0 | 6.0 | 2.0 | 2.0 |
| Max I * | 15 | 60 | 15 | 15 | 15 | 60 | 15 | 15 |
| Yellow | 3.0 | 4.4 | 3.0 | 3.7 | 3.0 | 4.7 | 3.0 | 4.0 |
| Red Clear | 2.8 | 1.3 | 3.3 | 2.3 | 2.9 | 1.8 | 2.8 | 2.4 |
| Red Revert | - | - | - | - | - | - | - | - |
| Actuations B4 Add * | - | - | - | - | - | - | - | - |
| Seconds / Actuation * | - | - | - | - | - | - | - | - |
| Max Initial * | - | - | - | - | - | - | - | - |
| Time Before Reduction * | - | 15 | - | - | - | 15 | - | - |
| Time To Reduce * | - | 30 | - | - | - | 30 | - | - |
| Minimum Gap | - | 3.0 | - | - | - | 3.0 | - | - |
| Locking Detector | - | - | - | - | - | - | - | - |
| Recall Position | - | VEH. RECALL | - | - | - | VEH. RECALL | - | - |
| Dual Entry | - | - | - | - | - | - | - | - |
| Simultaneous Gap | X | X | X | X | 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 Temporary Design 2 - TMP Phase-II

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Prepared for the Offices of:
Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA
Signal Design Section
750 N. Greenfield Pkwy, Garner, NC 27526
SCALE: 0 40
1" = 40'

US 401 Bus. (Raeford Road) at SR 1219 (Ireland Drive) / Shopping Center Drive
Division 6 Cumberland County Fayetteville
PLAN DATE: March 2018 REVIEWED BY: E D Harris
PREPARED BY: J Hambricht REVIEWED BY: B L Watson

| REVISIONS | INIT. | DATE |
|-----------|-------|------|
| | | |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Professional Engineer Seal: 29449
FAYETTEVILLE, NC
Betsy L. Watson
3/29/2018
SIG. INVENTORY NO. 06-0422T2

3/29/2018 10:11:11 AM U:\Projects\4405\Signal\Design\Temporary_Signal_Design\Phase_2\U-4405_Sig_Den_06-0422-T2.dgn User: rmluncey