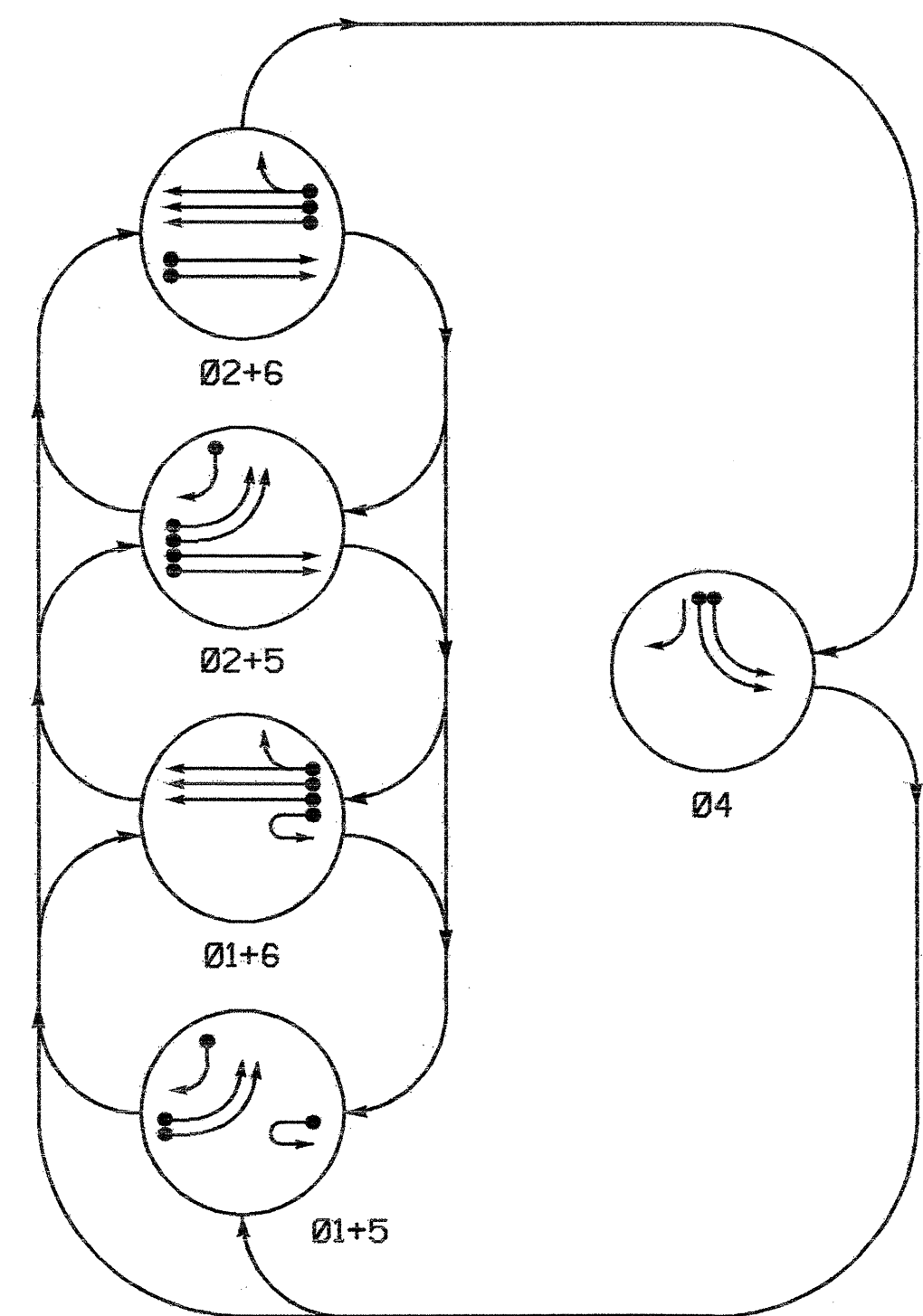


PHASING DIAGRAM

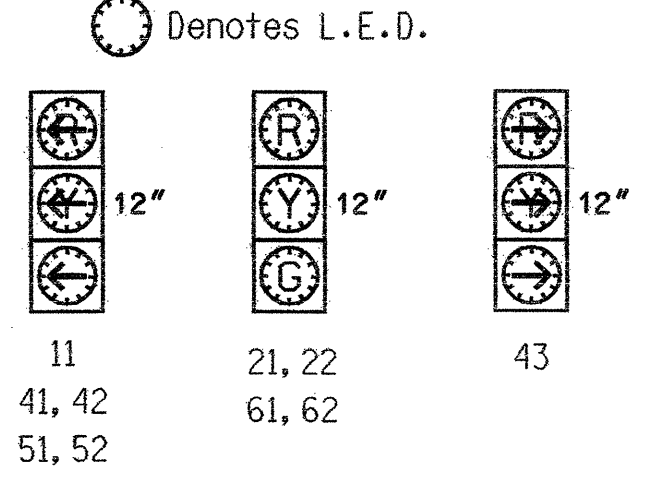


PHASING DIAGRAM DETECTION LEGEND
 ● DETECTED MOVEMENT
 ○ UNDETECTED MOVEMENT (OVERLAP)
 - - - UNSIGNALIZED MOVEMENT
 - - - PEDESTRIAN MOVEMENT

TABLE OF OPERATION

| SIGNAL FACE | PHASE | | | | | |
|-------------|-------|------|------|------|----|------|
| | Ø1+5 | Ø1+6 | Ø2+5 | Ø2+6 | Ø4 | HEAD |
| 11 | ← | ← | → | → | ← | ← |
| 21, 22 | R | R | G | G | R | Y |
| 41, 42 | ← | ← | → | → | ← | ← |
| 43 | ← | ← | → | → | ← | ← |
| 51, 52 | ← | ← | → | → | ← | ← |
| 61, 62 | R | G | R | G | R | Y |

SIGNAL FACE I.D.



2070L LOOP & DETECTOR INSTALLATION

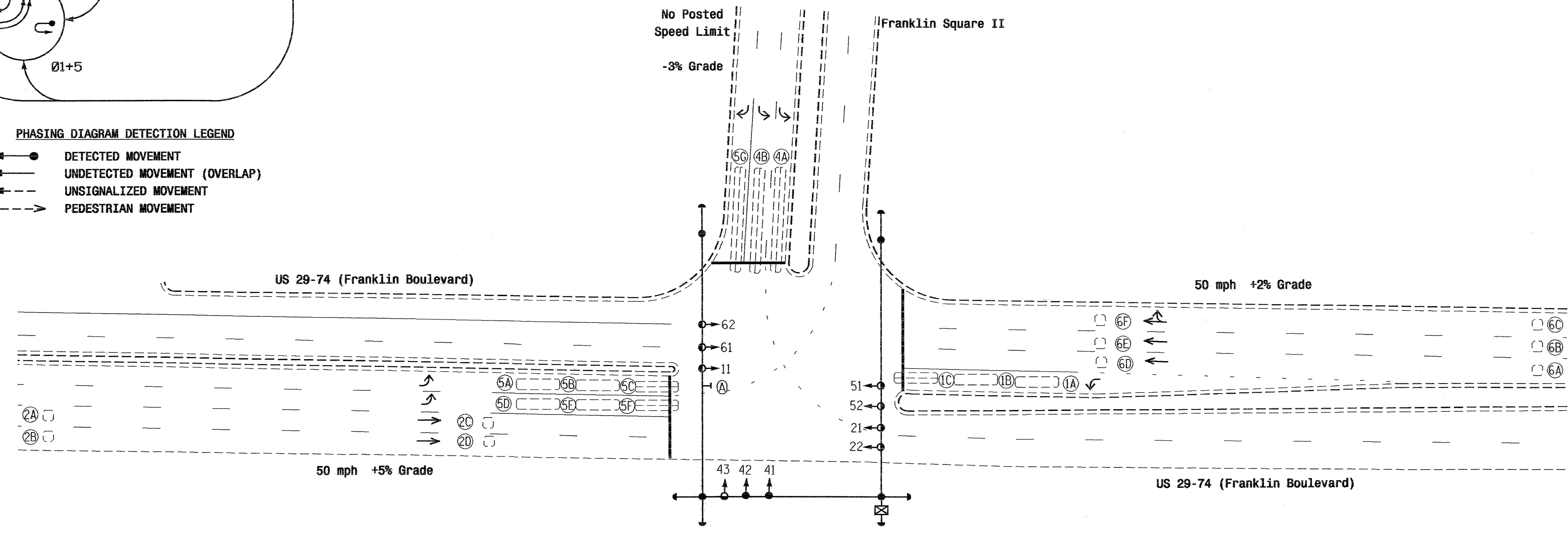
| LOOP | SIZE (FT) | TURNS | DISTANCE FROM STOPBAR (FT) | NEW LOOP | DETECTOR PROGRAMMING | | | | | | | |
|------------|-----------|----------|----------------------------|----------|----------------------|---------|-----------|-----------------|-------------|--------------|------------|----------|
| | | | | | PHASE | CALLING | EXTENSION | FULL TIME DELAY | SYSTEM LOOP | STRETCH TIME | DELAY TIME | NEW CARD |
| 1A, 1B, 1C | EXISTING | EXISTING | EXISTING | - | 1 | Y | Y | - | - | - | - | Y |
| 2A* | EXISTING | EXISTING | EXISTING | - | 2 | Y | Y | - | - | 2 | - | Y |
| 2B* | EXISTING | EXISTING | EXISTING | - | 2 | Y | Y | - | - | 2 | - | Y |
| 2C, 2D | EXISTING | EXISTING | EXISTING | - | 2 | Y | Y | - | - | - | - | Y |
| 4A, 4B | EXISTING | EXISTING | EXISTING | - | 4 | Y | Y | - | - | - | - | Y |
| 5A, 5B, 5C | EXISTING | EXISTING | EXISTING | - | 5 | Y | Y | - | - | - | - | Y |
| 5D, 5E, 5F | EXISTING | EXISTING | EXISTING | - | 5 | Y | Y | - | - | - | - | Y |
| 5G | EXISTING | EXISTING | EXISTING | - | 5 | Y | Y | - | - | - | 15 | Y |
| 6A* | EXISTING | EXISTING | EXISTING | - | 6 | Y | Y | - | - | 2 | - | Y |
| 6B* | EXISTING | EXISTING | EXISTING | - | 6 | Y | Y | - | - | 2 | - | Y |
| 6C* | EXISTING | EXISTING | EXISTING | - | 6 | Y | Y | - | - | 2 | - | Y |
| 6D, 6E, 6F | EXISTING | EXISTING | EXISTING | - | 6 | Y | Y | - | - | - | - | Y |

* See Note 10 for System Loops

5 Phase Fully Actuated Gastonia City System

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 or phase 5 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.
- Remove "LEFT TURN SIGNAL" Sign (R10-10L).
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Closed loop system data: Controller Asset #1401.
- Loops 2A, 2B, 6A, 6B, and 6C must be wired separately to serve as both presence loops and system loops.



LEGEND

| PROPOSED | EXISTING |
|--|--|
| ○ → Traffic Signal Head | ● → N/A |
| ○ → Modified Signal Head | ○ → N/A |
| ⊥ Sign | ⊥ Sign |
| ⊥ Pedestrian Signal Head With Push Button & Sign | ⊥ Pedestrian Signal Head With Push Button & Sign |
| ○ Signal Pole with Guy | ○ Signal Pole with Guy |
| ○ Signal Pole with Sidewalk Guy | ○ Signal Pole with Sidewalk Guy |
| ⊠ Inductive Loop Detector | ⊠ Inductive Loop Detector |
| ⊠ Controller & Cabinet | ⊠ Junction Box |
| □ Junction Box | □ Junction Box |
| - - - 2-in Underground Conduit | - - - 2-in Underground Conduit |
| N/A Right of Way | → Right of Way |
| → Directional Arrow | → Directional Arrow |
| → Pavement Marking Arrow | → Pavement Marking Arrow |
| Ⓐ U-Turn "MUST YIELD" Sign (R3-27) | Ⓐ U-Turn "MUST YIELD" Sign (R3-27) |

2070L TIMING CHART

| FEATURE | PHASE | | | | |
|------------------------|-------|------------|-----|-----|------------|
| | 1 | 2 | 4 | 5 | 6 |
| Min Green 1* | 7 | 14 | 7 | 7 | 14 |
| Extension 1* | 1.0 | 2.0 | 1.0 | 2.0 | 2.0 |
| Max Green 1* | 15 | 45 | 25 | 20 | 60 |
| Yellow Clearance | 4.0 | 4.7 | 4.0 | 4.0 | 4.7 |
| Red Clearance | 1.7 | 1.9 | 3.5 | 2.9 | 1.9 |
| 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.

Signal Upgrade

Prepared in the Office of
 NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 STATE AND GEOMETRICS SERVICE

US 29-74 (Franklin Boulevard) at Franklin Square II

Division 12 Gaston County Gastonia

PLAN DATE: February 2005 REVIEWED BY: DY Ishak

PREPARED BY: TS Brown REVIEWED BY:

REVISIONS

SCALE 1"=40'

SIGNATURE DATE

SIG. INVENTORY NO. 12-1401

12-MAY-2005 09:11:17
 I:\Projects\2005\051117\meritor\groupshf10\project\sig-4736\sig\plan\12-1401-1.spl.dgn_20050218.dgn
 TTH:qpsn