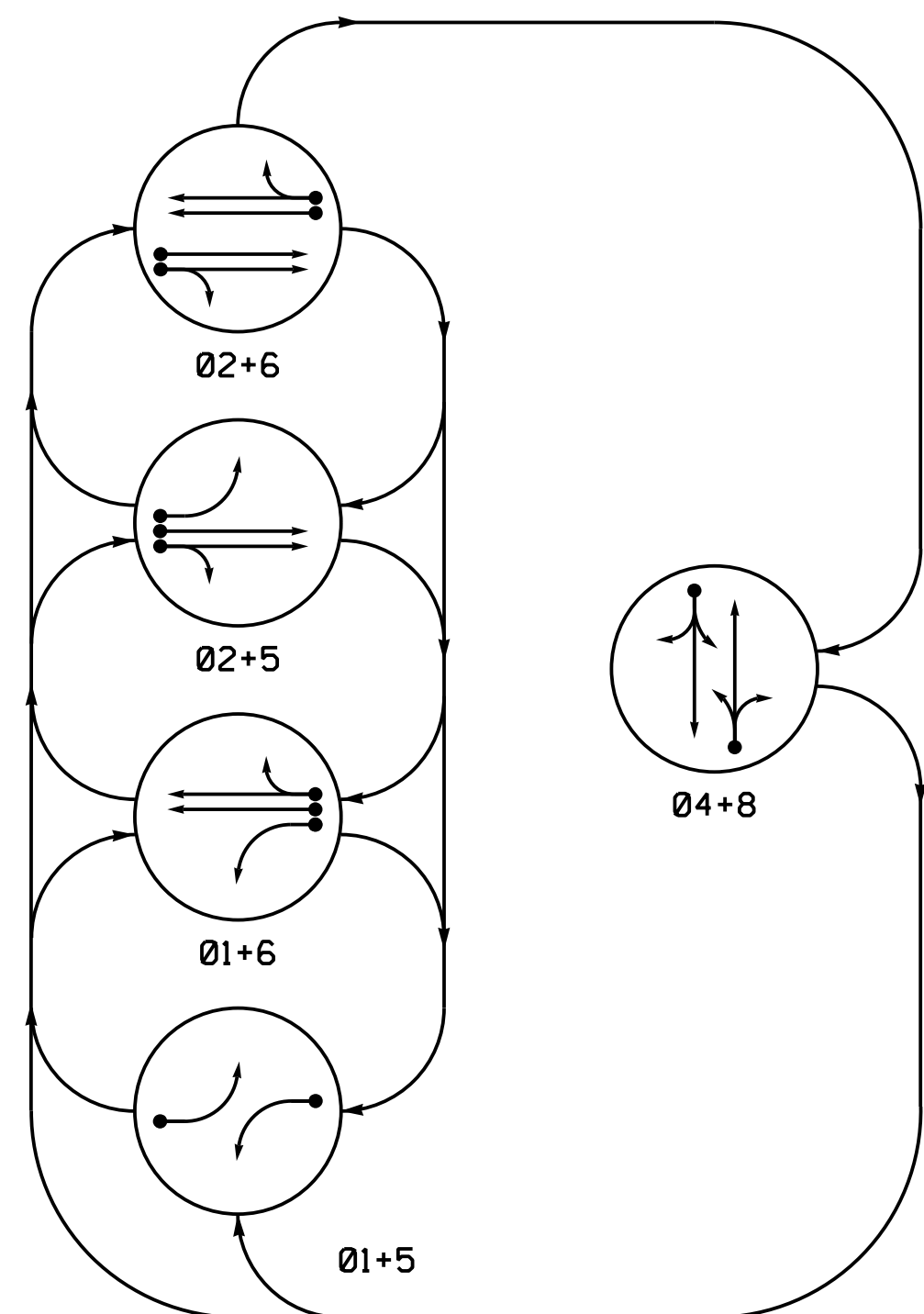


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

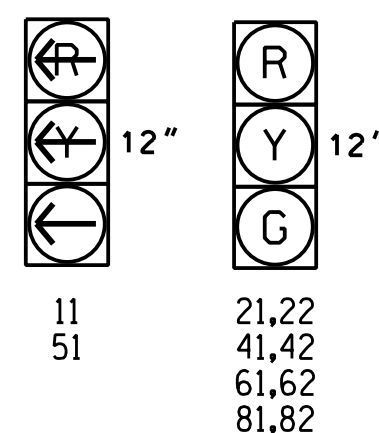
- ←● DETECTED MOVEMENT
- ← UNDETECTED MOVEMENT (OVERLAP)
- ←..... UNSIGNALIZED MOVEMENT
- ←--- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

| SIGNAL FACE | PHASE |      |      |      |      |     |     |     |
|-------------|-------|------|------|------|------|-----|-----|-----|
|             | 01+5  | 01+6 | 02+5 | 02+6 | 04+8 | H   | S   | F   |
| 11          | ---   | ---  | ---  | ---  | ---  | --- | --- | --- |
| 21,22       | R     | R    | G    | G    | R    | Y   |     |     |
| 41,42       | R     | R    | R    | R    | G    | R   |     |     |
| 51          | ---   | ---  | ---  | ---  | ---  | --- | --- | --- |
| 61,62       | R     | G    | R    | G    | R    | Y   |     |     |
| 81,82       | R     | R    | R    | R    | G    | R   |     |     |

SIGNAL FACE I.D.

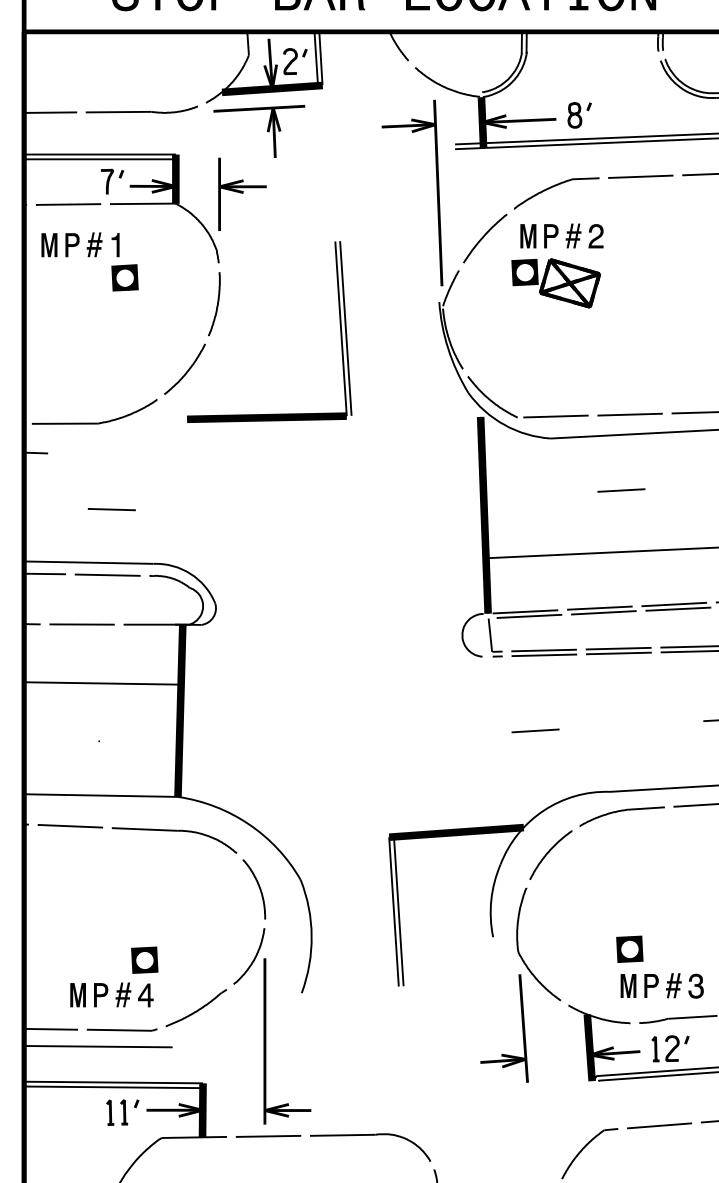
All Heads L.E.D.



OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

| LOOP | SIZE (FT) | DISTANCE FROM STOPBAR (FT) | TURNS | NEW LOOP | DETECTOR PROGRAMMING |         |           |                 |              |            |             |          |
|------|-----------|----------------------------|-------|----------|----------------------|---------|-----------|-----------------|--------------|------------|-------------|----------|
|      |           |                            |       |          | PHASE                | CALLING | EXTENSION | FULL TIME DELAY | STRETCH TIME | DELAY TIME | SYSTEM LOOP | NEW CARD |
| 1A   | 6X60      | 0                          | 2-4-2 | -        | 1                    | Y       | Y         | -               | -            | -          | -           | Y        |
| 2A   | 6X6       | 250                        | 4     | -        | 2                    | Y       | Y         | -               | -            | -          | -           | Y        |
| 2B   | 6X6       | 250                        | 4     | -        | 2                    | Y       | Y         | -               | -            | -          | -           | Y        |
| 4A   | 6X40      | +5                         | 2-4-2 | -        | 4                    | Y       | Y         | -               | -            | 3          | -           | Y        |
| 4B   | 6X30      | 0                          | 2-4-2 | -        | 4                    | Y       | Y         | -               | 2.0          | 5          | -           | Y        |
| 4C   | 6X6       | 0                          | 4     | -        | 4                    | Y       | Y         | -               | 2.0          | 15         | -           | Y        |
| 4D   | 6X6       | 0                          | 4     | -        | 4                    | Y       | Y         | -               | 2.0          | 15         | -           | Y        |
| 5A   | 6X60      | 0                          | 2-4-2 | -        | 5                    | Y       | Y         | -               | -            | -          | -           | Y        |
| 6A   | 6X6       | 250                        | 4     | -        | 6                    | Y       | Y         | -               | -            | -          | -           | Y        |
| 6B   | 6X6       | 250                        | 4     | -        | 6                    | Y       | Y         | -               | -            | -          | -           | Y        |
| 8A   | 6X40      | +5                         | 2-4-2 | -        | 8                    | Y       | Y         | -               | -            | 3          | -           | Y        |
| 8B   | 6X6       | 0                          | 4     | -        | 8                    | Y       | Y         | -               | 2.0          | 15         | -           | Y        |
| 8C   | 6X6       | 0                          | 4     | -        | 8                    | Y       | Y         | -               | 2.0          | 15         | -           | Y        |

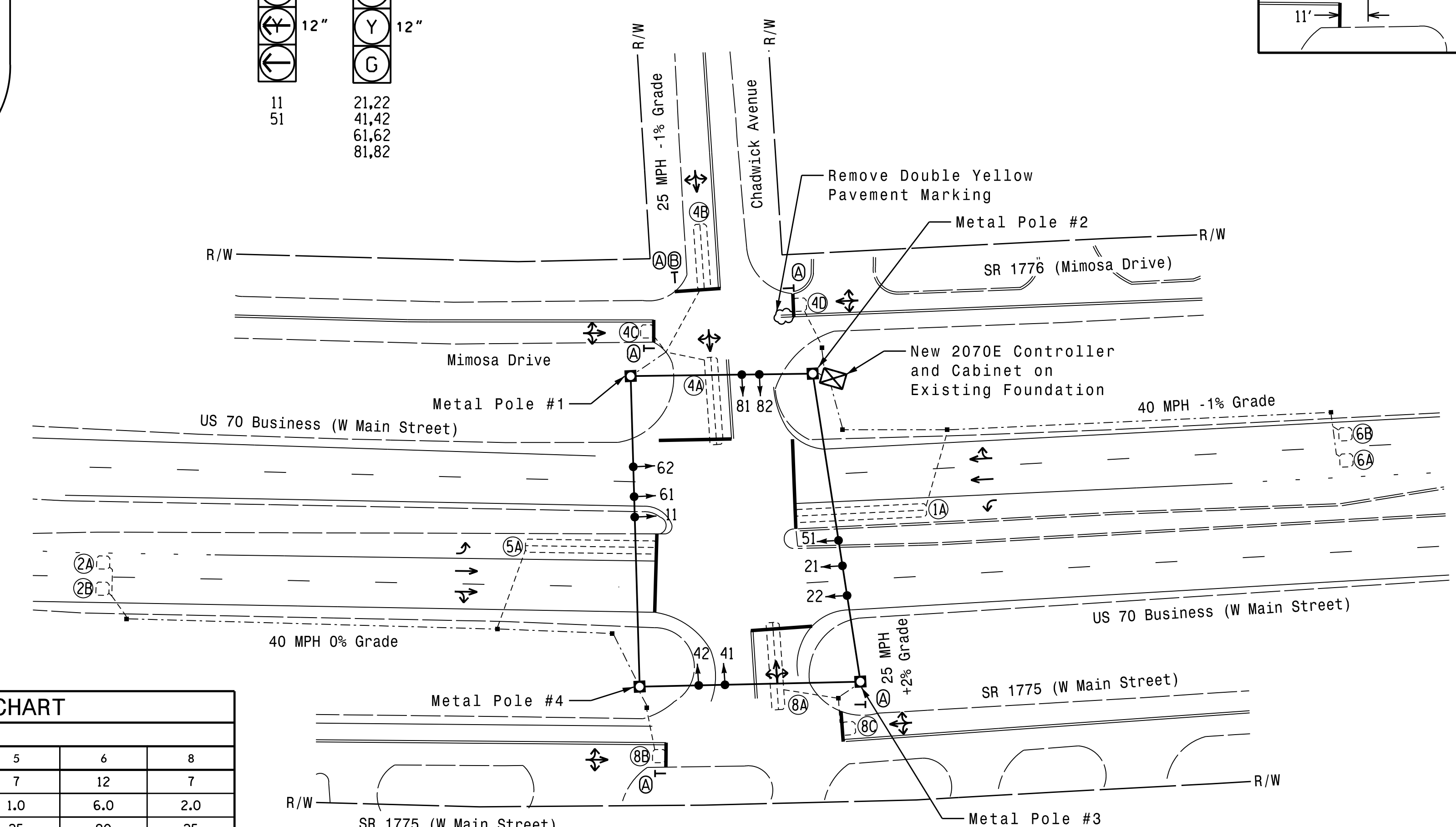
STOP BAR LOCATION



5 Phase Fully Actuated Havelock US 70 Business CLS

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/or 5 may be lagged.
- Set all detector units to presence mode.
- 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.
- The cabinet should be designed to include Auxiliary Output file for future use.
- Revise pavement markings as shown.
- 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 #0193



OASIS 2070 TIMING CHART

| FEATURE                | PHASE |            |     |     |            |     |
|------------------------|-------|------------|-----|-----|------------|-----|
|                        | 1     | 2          | 4   | 5   | 6          | 8   |
| Min Green 1*           | 7     | 12         | 7   | 7   | 12         | 7   |
| Extension 1*           | 1.0   | 6.0        | 2.0 | 1.0 | 6.0        | 2.0 |
| Max Green 1*           | 25    | 90         | 25  | 25  | 90         | 25  |
| Yellow Clearance       | 3.0   | 4.2        | 3.2 | 3.0 | 4.2        | 3.1 |
| Red Clearance          | 1.9   | 1.2        | 2.2 | 2.3 | 1.1        | 2.5 |
| Red Revert             | 2.0   | 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*  | -     | 29         | -   | -   | 29         | -   |
| Time Before Reduction* | -     | 15         | -   | -   | 15         | -   |
| Time To Reduce*        | -     | 45         | -   | -   | 45         | -   |
| Minimum Gap            | -     | 3.0        | -   | -   | 3.0        | -   |
| Recall Mode            | -     | MIN RECALL | -   | -   | MIN RECALL | -   |
| Vehicle Call Memory    | -     | YELLOW     | -   | -   | YELLOW     | -   |
| Dual Entry             | -     | -          | ON  | -   | -          | ON  |
| Simultaneous Gap       | ON    | 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.

LEGEND

| PROPOSED | EXISTING |
|----------|----------|
|          |          |
|          |          |
|          |          |
|          |          |
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|          |          |
|          |          |
|          |          |

Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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US 70 Business (W Main Street) at Chadwick Avenue / SR 1775 (W Main Street)

Division 02 Craven Co. Havelock

PLAN DATE: March 2018 REVIEWED BY: A.D. Klinksiek

PREPARED BY: A.H. Thornburg REVIEWED BY: N.R. Simmons

SEAL

SEAL 031464

ENGINEER

PREPARED BY: *Natasha R. Simmons* DATE: 12/7/2018

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

SIG. INVENTORY NO. 02-0193