

TRANSPORTATION CABINET

Steven L. Beshear Governor Frankfort, Kentucky 40622 www.transportation.ky.gov/

Michael W. Hancock, P.E. Secretary

TO:

Tom Napier

Chief District Engineer
District 11 – Manchester

ATTENTION:

Joel Holcomb

TEBM - Engineering Support

FROM:

Tim Tharpe

TEBM – Traffic Engineering Division of Traffic Operations

DATE:

August 16, 2011

SUBJECT:

Harlan County

US 421 @ Industrial Park Rd.

MP 15.423

Item No. 11-1074.00 Temporary Traffic Signal

We have received approval from the Deputy State Highway Engineer for System Preservation and Operations to install a traffic signal at the subject location on a temporary basis. Once the bridge reconstruction project is complete and the intersection of US 421 @ KY 3459 is reopened, the subject signal shall be removed and the intersection returned to its normal one-way stop control. Attached is a completed Traffic Signal Checklist. If you have any questions, please feel free to let us know.

TDT:JSH Attachment

C: Ted Swansegar w/a Staci Timol w/a



TRANSPORTATION CABINET DIVISION OF TRAFFIC OPERATIONS TRAFFIC SIGNAL CHECKLIST

| DATE | August 19, 2011 | COUNTY | Harlan | CITY | | Harlan | | | | | |
|----------------|-------------------------------|---|--------------|-------------------|------------------|---|--|--|--|--|--|
| INTERSEC | TION | US 421 @ Industr | ial Park Rd | | MILEPOI | NT 15.423 | | | | | |
| Гх | NEW INSTALLATION | | | | APPROVAL DATE | 8/15/11 | | | | | |
| <u> </u> | TREVISION | | | | TURN-ON DATE | | | | | | |
| | REMOVAL | | | | TURN-ON TIME | | | | | | |
| | UPDATE : | | | | ITEM NUMBER | 11.1074.00 | | | | | |
| TYPE OF I | DEVICE ' | | | OPERATIONAL I | <u>DETAILS</u> | | | | | | |
| X | SIGNAL | | | NUMBER OF PH | IASES | 3 | | | | | |
| | FIXED TIM | E | | | | | | | | | |
| | SEMI-ACTU | JATED | | PROT/PERM PH | ASES | 5 | | | | | |
| | X FULLY ACT | TUATED | | FLASHING YELL | .OW ARROW | Y N X | | | | | |
| | PEDESTRI | AN | | ON PHASE | ES . | | | | | | |
| | SCHOOL FLASHER | | | | | | | | | | |
| <u> </u> | | IEN FLASHING | | GES | | Y N X | | | | | |
| | OVERHEAI | | | ON PHASE | ES | | | | | | |
| | SIDE MOU | NTED | | | RNING FLASHER | Y NX | | | | | |
| | INTERSECTION BEAC | ON | | ON PHASE | | 1 N A | | | | | |
| | | | | | FROM STOP BAR | | | | | | |
| | SIGN BEACON | | | ADVANCE | WARNING TIME | | | | | | |
| | | | | RAILROAD PRE | EMPTION | Y NX | | | | | |
| | | SIGN | | ON PHASE | | | | | | | |
| <u> </u> | LED-ENHANCED SIGN | | | EMERGENCY PI | REEMPTION | Y NX | | | | | |
| | | | | | | | | | | | |
| | | SIGN | | | | | | | | | |
| SICNIAL IN | IDICATIONS | - | | | | | | | | | |
| | IDICATIONS , APPROACH NAME | | US 42 | 21 | SPEE | D MPH | | | | | |
| | _ | | | _ | | *************************************** | | | | | |
| L _X |]12"R - 12"Y - 12"G | DOUBLE-RED | | BACKPLATES | | BACKPLATES | | | | | |
| | | WALK/DON'T WAI | LK | COUNTDOWN | PED BUTTON | SACCESSIBLE | | | | | |
| <u> </u> | 12" BEACON | RED | <u> </u> | JYELLOW | | | | | | | |
| <u> </u> | JOTHER THIS IS A 1 | TEMPORARY SIGNAL DU | IRING CON | ISTRUCTION | | | | | | | |
| SIDE STRE | EET, APPROACH NAME | *************************************** | Industrial P | Park Rd SPEED MPH | | | | | | | |
| X |]12"R - 12"Y - 12"G | DOULBE-RED | | BACKPLATES | REFLECTIVE | BACKPLATES | | | | | |
| | | WALK/DON'T WAI | LK | COUNTDOWN | PED BUTTON | SACCESSIBLE | | | | | |
| | 12" BEACON | RED | | YELLOW | | | | | | | |
| | OTHER | | | | | | | | | | |
| DETECTIO | NA . | | | | | | | | | | |
| DETECTION | <u> </u> | TYPE | | | DISTANCE FR | ROM | | | | | |
| | | (VID/LOC |)P) | SIZE | STOP BAR | \ | | | | | |
| | MAINLINE THROUGH | Loop | | 6' x 6' 50 feet | | | | | | | |
| | MAINLINE LEFT TURN | Loop | | 6' x 30' | 0 feet | | | | | | |
| | SIDE STREET | Loop | | 6' x 30' | 0 feet | | | | | | |
| GES | LOOPS | 04 | | . ,,,,, | IOLE INTERVAL | SECONDS | | | | | |
| | CRITICAL GRADE NEAR LOOP | % FEET FROM STOF | BAR | | ICLE INTERVAL FI | EET FROM STOP BAR | | | | | |

PHASE FUNCTIONS (0 + Key)

| FUNCTION | KEY | PHASE NUMBER (use cad lights) | | | | | | | | | | øε | 6 | | SO | N A |
|-------------------|-----|-------------------------------|---|----------|----------|----------|---|----------|--|------|-------------|----|-----|---|-----|--------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | | | | |
| VEHICLE RECALL | 0 | | Х | | | | Х | | |] | | | | | 421 | - 1 |
| PED RECALL | 1 | | | | | | | | |] | Industrial | ₩ | | | | |
| RED LOCK | 2 | | | | | | | | |] | Park Rd | | | | | |
| YELLOW LOCK | 3 | | | | <u> </u> | | L | | |] | | | | | | |
| PERMIT | 4 | | X | | | X | X | | X | ╛ | | | | | 1 | |
| PED PHASES | 5 | | | | <u></u> | | | <u> </u> | <u> </u> | j | | | | | ŀ | |
| LEAD PHASES | 6 | Х | | X | <u> </u> | X | | X | <u> </u> | ø8 | | | | | • | |
| DOUBLE ENTRY | 7 | | | | | | | <u> </u> | <u> </u> |] 20 | | | | | 1 | |
| SEQUENTIAL TIMING | 8 | | | | | | | | <u> </u> | | | | | | | |
| START UP GREEN | 9 | | X | <u> </u> | | | X | | <u> </u> | 1 | | | | | | |
| OVERLAP A | Α | | L | <u></u> | | | | | | _ | | | | | | |
| OVERLAP B | В | | | | | <u> </u> | | | l | 1 | | 4 | | | İ | |
| OVERLAP C | С | | | | | | | <u> </u> | |] | 421 | ` | 1 | | | |
| OVERLAP D | D | | | | | | | | <u> </u> | _ | | 1 | | | | |
| EXCLUSIVE PHASE | E | | | | | | | | | _ | ns | ø5 | 5 ø | 2 | | |
| SIMULTANEOUS GAP | F | | | | | | | L | |] | | | | | | |

PHASE TIMING (phase + key)

(Timing Provided by the District Traffic Engineer)

| | KEY | PHASE | | | | | | | | | | | | | | | |
|-------------------------|-----|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FUNCTION | | 1 | | 2 | 2 | 3 | } | 4 | 4 | - | 5 | 6 | į | 7 | , | 8 | 3 |
| MAX I | | | | | | | | | | | | | | | | | |
| MAX II | • | | | | | | | | | | | | | | | | |
| WALK | | | | | | | | | | | | | | | | | |
| FLASHING DON'T WALK | | | | | | | | | | | | | | | | | |
| MAX INITIAL | | | | | | | | | | | | | | | | | |
| MINIMUM GREEN | | | | | | | · | | | | | | | | | | |
| TIME BEFORE REDUCTION | | | | | | | | | | | | | | | | | |
| TIME TO REDUCE | | | | | | | | | | | · | | | | | | |
| OBSERVE GAP (read only) | | | | | | | | | | | | | | | | | |
| PASSAGE | | | | | | | | | | | | | | | | | |
| MINIMUM GAP | | | | | | | | | | | | | · | | | | |
| ADDED PER ACTUATION | | | | | | | | | | | | | | | | | |
| YELLOW | | | | | | | | | | | | | | | | | |
| RED CLEARANCE | | | | | | | | | | | | | | | | | |
| RED REVERT | | | | | | | | | | | | | | | | | |
| WALK II | | | | | | | | | | | | | | | | | |
| FLASH COLOR | | R | Y | R | Υ | R | Υ | R | Υ | R | Y | R | Y | R | Υ | R | ` |