## CONDUIT RUN SCHEDULE

| CO# | # OF CONDUITS | SIZE | LENGTH | B/T/O | AMOUNT AND TYPE OF CABLE/ WIRE |
|---|---|---|---|---|---|
| 1 | 1 | 2.0 IN | 3 FT | T | [NEW (1) 2/#8 U.F. W/ GROUND - LINE SIDE] |
| 2 | 1 | 2.0 IN | 77 FT | O/T | [NEW (1) 2/#8 U.F. W/ GROUND - LOAD SIDE] |
| 3 | 2 | 3.0 IN | 4 FT | T | [NEW (4) 5/#14, (6) 2/#14, (1) #6 GROUND]<br>[NEW (1) 2/#8 U.F. W/GROUND - LOAD SIDE] |
| 4 | 1 | 4.0 IN | 39 FT | T | [NEW (3) 5/#14, (4) 2/#14, (1) #6 GROUND] |
| 5 | 1 | 4.0 IN | 52 FT | T | [NEW (1) 2/#14, (1) #6 GROUND] |
| 6 | 1 | 4.0 IN | 101 FT | B | [NEW (1) 2/#14, (1) #6 GROUND] |
| 7 | 1 | 4.0 IN | 52 FT | B | [NEW (3) 5/#14, (3) 2/#14, (1) #6 GROUND] |
| 8 | 1 | 2.5 IN | 10 FT | T | [NEW (1) 5/#14, (1) #6 GROUND] |
| 9 | 1 | 4.0 IN | 58 FT | B | [NEW (2) 5/#14, (1) 2/#14, (1) #6 GROUND] |
| 10 | 1 | 2.5 IN | 17 FT | O | [NEW (2) 5/#14, (1) #6 GROUND] |
| 11 | 1 | 4.0 IN | 175 FT | T | [NEW (1) 2/#14, (1) #6 GROUND] |
| 12 | 1 | 4.0 IN | 64 FT | B | [NEW (1) 5/#14, (2) 2/#14, (1) #6 GROUND] |
| 13 | 1 | 2.5 IN | 8 FT | T | [NEW (1) 5/#14, (1) #6 GROUND] |

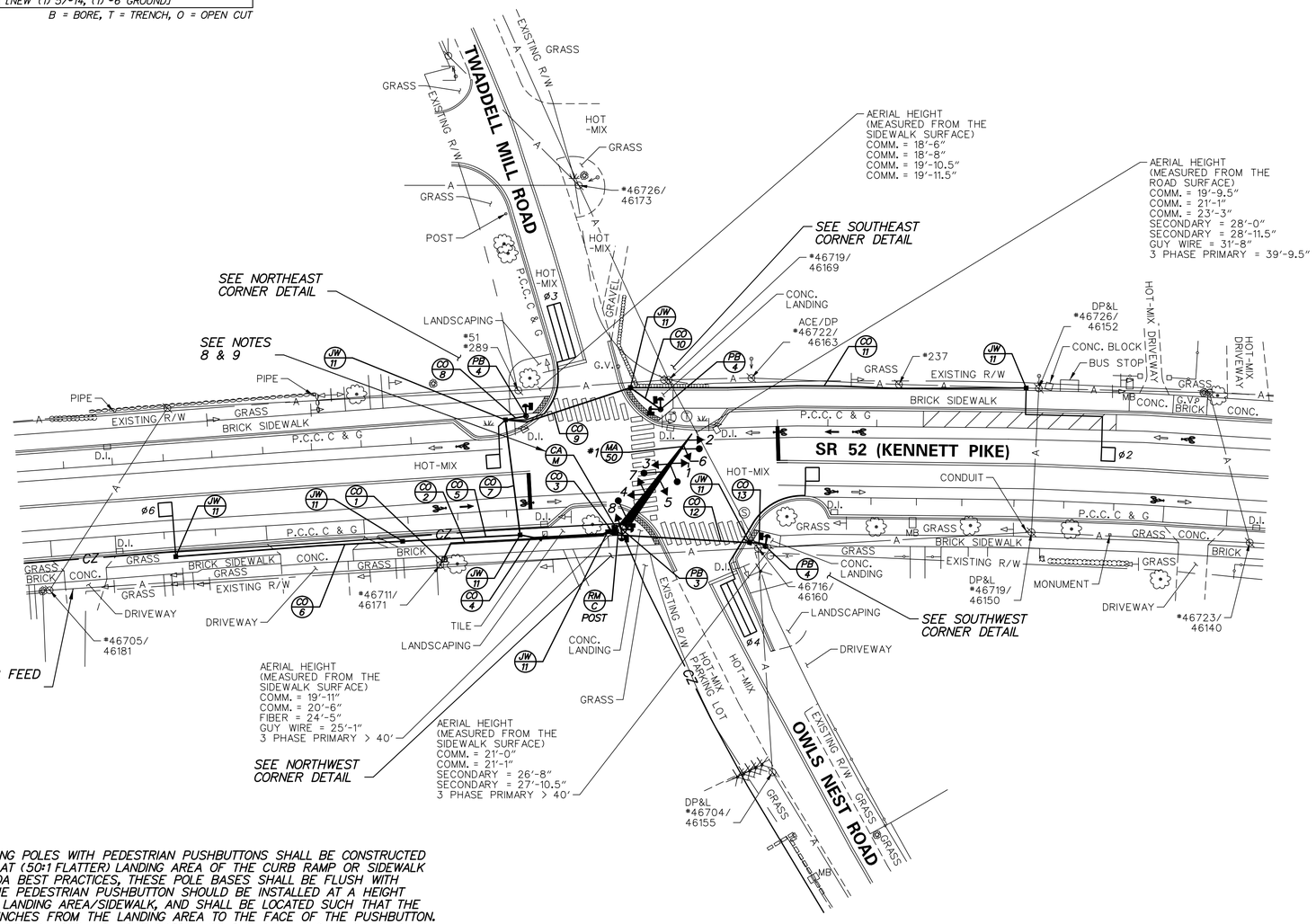
*ALL CONDUIT IS PROPOSED

B = BORE, T = TRENCH, O = OPEN CUT

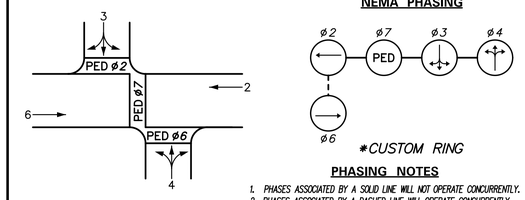
## MAST ARM SCHEDULE

| MA# | HEIGHT OF POLE | LENGTH OF ARM | # OF HEADS | # OPTICOM RECEIVERS | SF OF SIGNING | ARM MOUNT HEIGHT |
|---|---|---|---|---|---|---|
| 1 | 21'-6" | 50 FT | 7 | 4 | - | 20'-0" |

# SEMI-FINAL PLAN




## SIGNAL PHASING

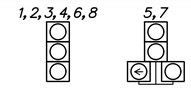



**PHASING NOTES**

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

## SIGNAL HEAD DIAGRAM

*ALL SIGNAL HEADS SHALL HAVE TUNNEL SHADES




## LEGEND

| | |
|---|---|
| PROPOSED SIGNAL CABINET | REMOVE BY CONTRACTOR |
| EXISTING SIGNAL CABINET | REMOVE BY OTHERS |
| PROPOSED SIGNAL POLE BASE | ABANDON |
| EXISTING SIGNAL POLE BASE | PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE) |
| PROPOSED PEDESTRIAN POLE BASE | EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE) |
| EXISTING PEDESTRIAN POLE BASE | PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL) |
| PROPOSED WOOD POLE | EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL) |
| EXISTING UTILITY POLE | PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN) |
| PROPOSED JUNCTION WELL | EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN) |
| EXISTING JUNCTION WELL | PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN) |
| PROPOSED SIGNAL HEAD | EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN) |
| EXISTING SIGNAL HEAD | PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM) |
| PROPOSED PEDESTRIAN SIGNAL HEAD | EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM) |
| EXISTING PEDESTRIAN SIGNAL HEAD | PROPOSED CABINET IDENTIFIER (TYPE OF CABINET) |
| PROPOSED PEDESTRIAN PUSHBUTTON | EXISTING CABINET IDENTIFIER (TYPE OF CABINET) |
| EXISTING PEDESTRIAN PUSHBUTTON | PROPOSED SPAN WIRE |
| PROPOSED VIDEO DETECTION | EXISTING SPAN WIRE |
| EXISTING VIDEO DETECTION | RIGHT-OF-WAY OR PROPERTY LINE |
| PROPOSED MICROWAVE DETECTION | PROPOSED SPAN INSULATOR |
| EXISTING MICROWAVE DETECTION | EXISTING SPAN INSULATOR |
| OVERHEAD SIGNING | SERVICE PEDESTAL |
| PROPOSED OPTICOM RECEIVER | |
| EXISTING OPTICOM RECEIVER | |
| PROPOSED MAST ARM | |
| EXISTING MAST ARM | |
| PROPOSED LUMINAIRE | |
| EXISTING LUMINAIRE | |
| PROPOSED LOOP DETECTOR (TYPE 1 OR 2) | |
| EXISTING LOOP DETECTOR (TYPE 1 OR 2) | |

## GENERAL SIGNAL NOTES

1. PROPOSED LOOP DETECTORS:
   TYPE #1 - 6' x 6' - TO BE INSTALLED ON THE NORTHBOUND SR 52 THROUGH MOVEMENT.
   TYPE #1 - 6' x 6' - TO BE INSTALLED ON THE SOUTHBOUND SR 52 THROUGH MOVEMENT.
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON THE EASTBOUND OWLS NEST ROAD LEFT-TURN/RIGHT-TURN/THROUGH MOVEMENT.
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON THE WESTBOUND TWADDELL MILL ROAD LEFT-TURN/RIGHT-TURN/THROUGH MOVEMENT.
   SYSTEM - 6' x 6' - TO BE INSTALLED ON THE NORTHBOUND AND SOUTHBOUND SR 52 RECEIVING LANES, AS SHOWN.
2. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
3. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
4. ALL PROPOSED SIGNAL POLES SHALL BE FLUTED ORNAMENTAL DELDOT MAST ARMS.

*NOTES:*

5. *PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.*
6. *ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.*
7. *ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON THE NEW CASTLE COUNTY TAX PARCEL MAP.*
8. *THE PROPOSED CABINET, TYPE M, SHALL BE MOUNTED TO THE PROPOSED SIGNAL POLE.*
9. *DELDOT TRAFFIC SHALL COORDINATE THE CDMA INSTALLATION IN THE PROPOSED SIGNAL CABINET.*
10. *THE PROPOSED POWER FEED SHALL RUN AERIALLY FROM UTILITY POLE #46705/46181 TO UTILITY POLE #46711/46171 AND CONTINUE THROUGH PROPOSED CONDUIT RUNS 1 AND 2.*

RECOMMENDED _____ DATE: _____ | RECOMMENDED _____ DATE: _____ | RECOMMENDED _____ DATE: _____ | APPROVED TRAFFIC ENGINEER _____ DATE: _____ | APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: _____

**DELAWARE DEPARTMENT OF TRANSPORTATION**

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

| CONTRACT | PERMIT NO. | N812 | SIGNAL PLAN SR 52 (KENNETT PIKE) @ TWADDELL MILL ROAD/ OWLS NEST ROAD | SHEET NO. |
|---|---|---|---|---|
| T201501002 | DESIGNED BY: D.C.G. (WR&A) | | | 1 |
| COUNTY | | | | TOTAL SHTS. |
| NEW CASTLE | CHECKED BY: M.J.B. (WR&A) | | | 3 |

N:\31811-018\CADD\SR_52 @ Twaddell Mill Rd\SG01_SR52 @ Twaddell Mill Rd.dgn
2/4/2015 2:06:20 PM

## CONDUIT RUN SCHEDULE

| CO# | # OF CONDUITS | SIZE | LENGTH | B/T/O | AMOUNT AND TYPE OF CABLE/ WIRE |
|---|---|---|---|---|---|
| 1 | 1 | 2.0 IN | 3 FT | T | [NEW (1) 2/#8 U.F. W/ GROUND - LINE SIDE] |
| 2 | 1 | 2.0 IN | 77 FT | O/T | [NEW (1) 2/#8 U.F. W/ GROUND - LOAD SIDE] |
| 3 | 2 | 3.0 IN | 4 FT | T | [NEW (4) 5/#14, (6) 2/#14, (1) #6 GROUND]<br>[NEW (1) 2/#8 U.F. W/GROUND - LOAD SIDE] |
| 4 | 1 | 4.0 IN | 39 FT | T | [NEW (3) 5/#14, (4) 2/#14, (1) #6 GROUND] |
| 5 | 1 | 4.0 IN | 52 FT | T | [NEW (1) 2/#14, (1) #6 GROUND] |
| 6 | 1 | 4.0 IN | 101 FT | B | [NEW (1) 2/#14, (1) #6 GROUND] |
| 7 | 1 | 4.0 IN | 52 FT | B | [NEW (3) 5/#14, (3) 2/#14, (1) #6 GROUND] |
| 8 | 1 | 2.5 IN | 10 FT | T | [NEW (1) 5/#14, (1) #6 GROUND] |
| 9 | 1 | 4.0 IN | 58 FT | B | [NEW (2) 5/#14, (1) 2/#14, (1) #6 GROUND] |
| 10 | 1 | 2.5 IN | 17 FT | O | [NEW (2) 5/#14, (1) #6 GROUND] |
| 11 | 1 | 4.0 IN | 175 FT | T | [NEW (1) 2/#14, (1) #6 GROUND] |
| 12 | 1 | 4.0 IN | 64 FT | B | [NEW (1) 5/#14, (2) 2/#14, (1) #6 GROUND] |
| 13 | 1 | 2.5 IN | 8 FT | T | [NEW (1) 5/#14, (1) #6 GROUND] |

*ALL CONDUIT IS PROPOSED

B = BORE, T = TRENCH, O = OPEN CUT

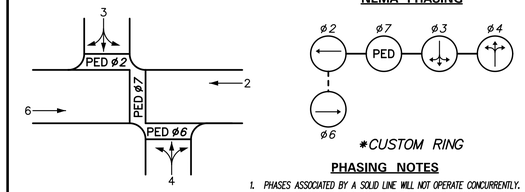
## MAST ARM SCHEDULE

| MA# | HEIGHT OF POLE | LENGTH OF ARM | # OF HEADS | # OPTICOM RECEIVERS | SF OF SIGNING | ARM MOUNT HEIGHT |
|---|---|---|---|---|---|---|
| 1 | 21'-6" | 50 FT | 7 | 4 | - | 20'-0" |

NOTES:

5. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES, THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
6. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
7. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY BASED ON THE NEW CASTLE COUNTY TAX PARCEL MAP.
8. THE PROPOSED CABINET, TYPE M, SHALL BE MOUNTED TO THE PROPOSED SIGNAL POLE.
9. DELDOT TRAFFIC SHALL COORDINATE THE CDMA INSTALLATION IN THE PROPOSED SIGNAL CABINET.
10. THE PROPOSED POWER FEED SHALL RUN AERIALLY FROM UTILITY POLE #46705/46181 TO UTILITY POLE #46711/46171 AND CONTINUE THROUGH PROPOSED CONDUIT RUNS 1 AND 2.

## SIGNAL PHASING

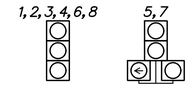



PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

## SIGNAL HEAD DIAGRAM

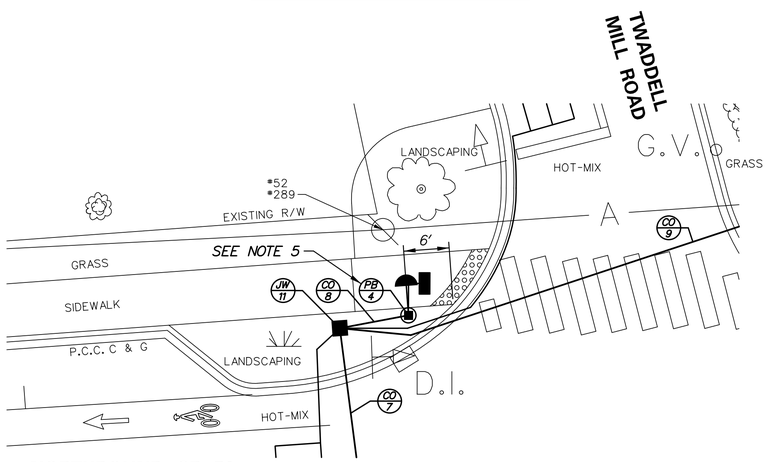
*ALL SIGNAL HEADS SHALL HAVE TUNNEL SHADES



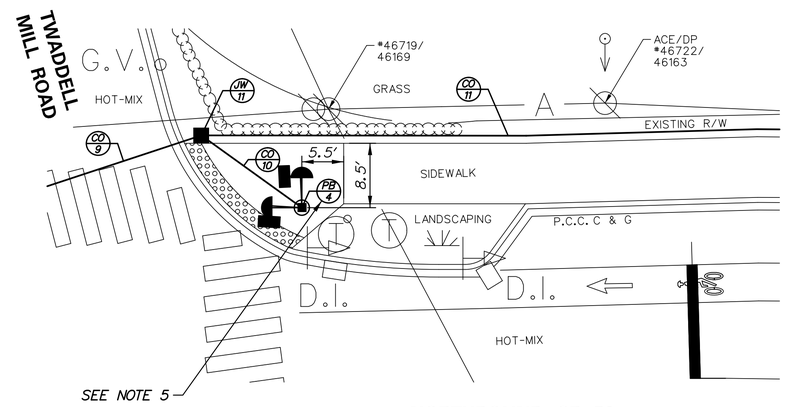

## LEGEND

| | |
|---|---|
| PROPOSED SIGNAL CABINET | REMOVE BY CONTRACTOR |
| EXISTING SIGNAL CABINET | REMOVE BY OTHERS |
| PROPOSED SIGNAL POLE BASE | ABANDON |
| EXISTING SIGNAL POLE BASE | PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE) |
| PROPOSED PEDESTRIAN POLE BASE | EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE) |
| EXISTING PEDESTRIAN POLE BASE | PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL) |
| PROPOSED WOOD POLE | EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL) |
| EXISTING UTILITY POLE | PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN) |
| PROPOSED JUNCTION WELL | EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN) |
| EXISTING JUNCTION WELL | PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN) |
| PROPOSED SIGNAL HEAD | EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN) |
| EXISTING SIGNAL HEAD | PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM) |
| PROPOSED PEDESTRIAN SIGNAL HEAD | EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM) |
| EXISTING PEDESTRIAN SIGNAL HEAD | PROPOSED CABINET IDENTIFIER (TYPE OF CABINET) |
| PROPOSED PEDESTRIAN PUSHBUTTON | EXISTING CABINET IDENTIFIER (TYPE OF CABINET) |
| EXISTING PEDESTRIAN PUSHBUTTON | PROPOSED SPAN WIRE |
| PROPOSED VIDEO DETECTION | EXISTING SPAN WIRE |
| EXISTING VIDEO DETECTION | RIGHT-OF-WAY OR PROPERTY LINE |
| PROPOSED MICROWAVE DETECTION | PROPOSED SPAN INSULATOR |
| EXISTING MICROWAVE DETECTION | EXISTING SPAN INSULATOR |
| OVERHEAD SIGNING | SERVICE PEDESTAL |
| PROPOSED OPTICOM RECEIVER | |
| EXISTING OPTICOM RECEIVER | |
| PROPOSED MAST ARM | |
| EXISTING MAST ARM | |
| PROPOSED LUMINAIRE | |
| EXISTING LUMINAIRE | |
| PROPOSED LOOP DETECTOR (TYPE 1 OR 2) | |
| EXISTING LOOP DETECTOR (TYPE 1 OR 2) | |

## NORTHEAST CORNER DETAIL

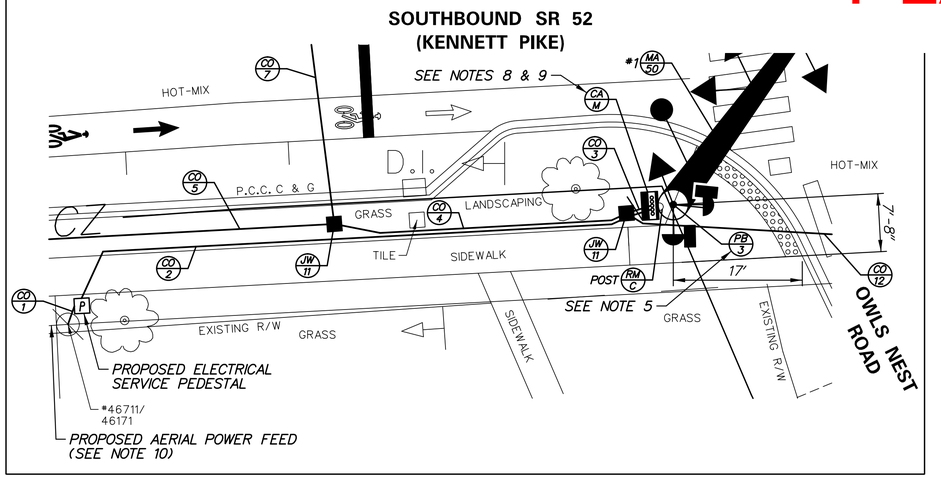



## SOUTHEAST CORNER DETAIL

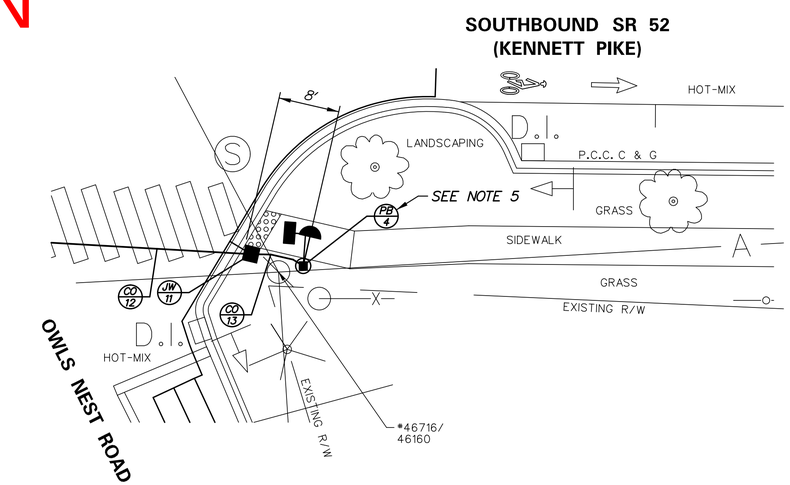



SEMI-FINAL PLAN

## NORTHWEST CORNER DETAIL




## SOUTHWEST CORNER DETAIL




## GENERAL SIGNAL NOTES

1. PROPOSED LOOP DETECTORS:
   TYPE #1 - 6' x 6' - TO BE INSTALLED ON THE NORTHBOUND SR 52 THROUGH MOVEMENT.
   TYPE #1 - 6' x 6' - TO BE INSTALLED ON THE SOUTHBOUND SR 52 THROUGH MOVEMENT.
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON THE EASTBOUND OWLS NEST ROAD LEFT-TURN/RIGHT-TURN/THROUGH MOVEMENT.
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON THE WESTBOUND TWADDELL MILL ROAD LEFT-TURN/RIGHT-TURN/THROUGH MOVEMENT.
   SYSTEM - 6' x 6' - TO BE INSTALLED ON THE NORTHBOUND AND SOUTHBOUND SR 52 RECEIVING LANES, AS SHOWN.
2. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
3. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
4. ALL PROPOSED SIGNAL POLES SHALL BE FLUTED ORNAMENTAL DELDOT MAST ARMS.

RECOMMENDED _____ DATE: _____ | RECOMMENDED _____ DATE: _____ | RECOMMENDED _____ DATE: _____ | APPROVED TRAFFIC ENGINEER _____ DATE: _____ | APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: _____

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 10 20 30 FEET

| CONTRACT | PERMIT NO. | N812 | SIGNAL PLAN DETAILS SR 52 (KENNETT PIKE) @ TWADDELL MILL ROAD/ OWLS NEST ROAD | SHEET NO. |
|---|---|---|---|---|
| T201501002 | DESIGNED BY: D.C.G. (WR&A) | | | 2 |
| COUNTY | | | | TOTAL SHTS. |
| NEW CASTLE | CHECKED BY: M.J.B. (WR&A) | | | 3 |

N:\31811-01B\CADD\SR_52 @ Twaddell Mill Rd\SC02_DETAILS_SR52 @ Twaddell Mill Rd.dgn
12/10/19 PM
27 4/2015