FAULKNER COUNTY, ARKANSAS

CONSTRUCTION PLANS

TRAFFIC SIGNAL PLANS

HIGHWAY 65B (HARKRIDER STREET) & BRUCE STREET

CONWAY ARKANSAS

PETERS & ASSOCIATES

ENGINEERS, INC.

CIVIL & TRAFFIC ENGINEERING

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Little Rock, Arkansas 72203

PLANS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UTILIZATION UNLESS WRITTEN AND DATED. CONTRACTORS ARE CAUTIONED AGAINST ORDERING MATERIAL BASED ON PRELIMINARY PLANS.
### SUMMARY OF QUANTITIES

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM</th>
<th>QUANTITY</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>661</td>
<td>MOBILIZATION</td>
<td>1.30</td>
<td>JUMP SUN</td>
</tr>
<tr>
<td>664</td>
<td>MALE/MALE 3 WAYS</td>
<td>260</td>
<td>LIN FT</td>
</tr>
<tr>
<td>664</td>
<td>MALE/MALE 4 WAYS</td>
<td>3</td>
<td>EACH</td>
</tr>
<tr>
<td>701</td>
<td>ELEC. CIRCUIT</td>
<td>1</td>
<td>EACH</td>
</tr>
<tr>
<td>708</td>
<td>ELECTRICAL CONDUCTORS</td>
<td>20</td>
<td>LIN FT</td>
</tr>
<tr>
<td>708</td>
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<td>LIN FT</td>
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<tr>
<td>708</td>
<td>ELECTRICAL CONDUCTORS</td>
<td>2000</td>
<td>LIN FT</td>
</tr>
<tr>
<td>712</td>
<td>NON-METALLIC CONDUCT</td>
<td>20</td>
<td>LIN FT</td>
</tr>
<tr>
<td>712</td>
<td>NON-METALLIC CONDUCT</td>
<td>200</td>
<td>LIN FT</td>
</tr>
<tr>
<td>714</td>
<td>CONCRETE PULL SCLR, TYPE 1</td>
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<td>EACH</td>
</tr>
<tr>
<td>715</td>
<td>CONCRETE PULL SCLR, TYPE 2</td>
<td>2</td>
<td>EACH</td>
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<tr>
<td>716</td>
<td>TEAMPLASTIC PAVING MARKING</td>
<td>50</td>
<td>LIN FT</td>
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<tr>
<td>716</td>
<td>TEAMPLASTIC PAVING MARKING</td>
<td>500</td>
<td>LIN FT</td>
</tr>
<tr>
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<td>5000</td>
<td>LIN FT</td>
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<tr>
<td>732</td>
<td>VIDEO CABLE</td>
<td>1.82</td>
<td>LIN FT</td>
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<tr>
<td>733</td>
<td>VIDEO DETECTOR (CLR)</td>
<td>6</td>
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<tr>
<td>733</td>
<td>VIDEO MONITOR (RGB)</td>
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<td>VIDEO MONITOR (RGB)</td>
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<td>733</td>
<td>BICYCLE DETECTOR RACK (16 - 20 IN LENGTH)</td>
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<td>733</td>
<td>CENTRAL CONTROL UNIT</td>
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<tr>
<td>734</td>
<td>LED LIGHT ASSEMBLY</td>
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<tr>
<td>734</td>
<td>ELECTRICAL CONDUCTORS</td>
<td>160</td>
<td>LIN FT</td>
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<td>734</td>
<td>BATTERY BACKUP SYSTEM</td>
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<tr>
<td>734</td>
<td>SERVICE POINT ASSEMBLY</td>
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</tr>
<tr>
<td>734</td>
<td>STREET NAME SIGN</td>
<td>4</td>
<td>EACH</td>
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<tr>
<td>734</td>
<td>REMOVAL C2 TRAFFIC SIGNAL EQUIPMENT</td>
<td>1.30</td>
<td>JUMP SUN</td>
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</tbody>
</table>

**NOTE 1:** CONWAY CORP WILL PROVIDE LUMINARIA ASSEMBLY FOR CONTRACTOR TO INSTALL.

**NOTE 2:** TYPE 3 WHEELCHAIR RAMP QUANTITIES WILL BE COMPLETED AFTER FIRST ARDOT REVIEW.

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**HIGHWAY 650 (HARKRIDER STREET) & BRUCE STREET, CONWAY, ARKANSAS**

**PLANS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS SIGNED AND DATED. CONTRACTORS ARE CAUTIONED AGAINST ORDERING MATERIALS BASED ON PRELIMINARY PLANS.**
NOTES TO CONTRACTOR:
1. ONE SEPARATE 6G B RUN TO EACH POLE FOR THE PEDESTRIAN PUSH BUTTON.
2. ALL DETECTOR PAK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
3. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
4. ALL VIDEO CABLE TO BE INSTALLED SHALL BE CAT 5 CABLE.
5. INSTALL BATTERY BACKUP COMPATIBLE WITH CITY OF CONWAY EXISTING EQUIPMENT AND HARDWARE.
6. CONTRACTOR TO REMOVE AND RELOCATE EXISTING RAILROAD PRESENT INTERFACE EQUIPMENT TO NEW TRAFFIC SIGNAL CONTROLLER, INSTALL NEW 2" CONDUIT AND NEW WIRE FROM EXISTING RAILROAD CONTROLLER TO NEW TRAFFIC SIGNAL CONTROLLER.
7. CONTRACTOR WILL PROVIDE HARDWARE ASSEMBLY FOR CONTRACTOR TO INSTALL.
8. TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION PHASES.
1. Refer to the striping details for pavement marking line widths.

2. This drawing shall be used in conjunction with the latest revision edition of the "Manual on Uniform Traffic Control Devices."

3. Raised pavement markers shall be placed on an 80-foot spacing unless otherwise shown in the plan.

NOTES:

2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT

DETAIL OF STANDARD RAISED PAVEMENT MARKERS

13.50"

YIELD LINE DETAIL

CROSSWALK AND STOPBAR DETAILS

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1
GENERAL NOTES:

1. FOUR SECTION "PROTECTED/PERMISSIVE" LEFT TURN HEADS SHOULD BE PLACED A MINIMUM OF TWO (2') FEET TO THE LEFT OF THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.

2. THREE SECTION "PROTECTED" LEFT TURN HEADS SHOULD BE PLACED ON THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.

3. WHEN IT IS NECESSARY TO PLACE POLES OTHER THAN AS SHOWN ON PLAN SHEETS, INSTALLING AN ADDITIONAL MAST ARM TO THE RIGHT OF THE CENTERLINE OR THE APPROACHING LEFT TURN LANE, ADDITIONAL COMPENSATION SHOULD BE AGREED UPON PRIOR TO INSTALLING THE MAST ARM. IF ADDITIONAL COMPENSATION IS REQUIRED.

4. SIGNAL HEAD SPACING SHALL BE EQUALLY SPACED, BUT NOT LESS THAN 8' SPACING.

5. ALL SIGNAL HEADS SHOWN ON THIS DETAIL SHEET SHALL BE LOCATED ACCORDING TO THE DIMENSIONS SHOWN IN RELATION TO THE APPROPRIATE END OF THE INTERSECTION.

6. MINIMUM MOUNTING HEIGHT OF SIGNAL FACES LOCATED BETWEEN 40 FEET AND 53 FEET FROM THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.

7. WHEN IT IS NECESSARY TO PLACE POLES OTHER THAN AS SHOWN ON PLAN SHEETS, INSTALLING AN ADDITIONAL MAST ARM TO THE RIGHT OF THE CENTERLINE OR THE APPROACHING LEFT TURN LANE, ADDITIONAL COMPENSATION SHOULD BE AGREED UPON PRIOR TO INSTALLING THE MAST ARM. IF ADDITIONAL COMPENSATION IS REQUIRED.

8. SIGNAL HEAD SPACING SHALL BE EQUALLY SPACED, BUT NOT LESS THAN 8' SPACING.

9. ALL SIGNAL HEADS SHOWN ON THIS DETAIL SHEET SHALL BE LOCATED ACCORDING TO THE DIMENSIONS SHOWN IN RELATION TO THE APPROPRIATE END OF THE INTERSECTION.

10. MINIMUM MOUNTING HEIGHT OF SIGNAL FACES LOCATED BETWEEN 40 FEET AND 53 FEET FROM THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.
MAIN BREAKER NOT NEAR CONTROLLER CABINET
SECONDARY REQUIRED

NOTES TO CONTRACTOR AND AGENCY RESPONSIBLE FOR MAINTENANCE OF THE INTERSECTION (CITY/COUNTY):

ELECTRICAL SERVICE TYPICALLY FALLS INTO TWO CATEGORIES: MAIN BREAKER NEAR CONTROLLER CABINET AND MAIN BREAKER NOT NEAR CONTROLLER CABINET. THE CONTRACTOR'S AND THE CITY'S OR COUNTY'S RESPONSIBILITY VARIES ACCORDINGLY AS INDICATED ON THESE DETAILS.

1. ALL SITUATIONS, ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL MOUNTING AT A MUTUALLY ACCEPTABLE POINT OR ON THE STREET. SERVICE POINT INCLUDES GALVANIZED STEEL CONDUIT TO A POINT 18" BELOW GROUND LINE, TWO CIRCUIT MAIN BREAKER, LIGHTNING ARRESTER, POWER ISOLATION ASSEMBLY WHERE REQUIRED, METER LOOP IF REQUIRED BY LOCAL UTILITY, ELECTRICAL CONDUCTORS AND WIRE.

2. STREET LIGHTING CIRCUIT 12" AWAY RATED, TYPICAL, SHALL BE KEPT SEPARATE FROM THE CIRCUIT SERVING TRAFFIC SIGNAL, SERVICE WIRE AND WIRING FROM THE CONTRACTOR TO MAIN BREAKER IS PROVIDED BY THE CONTRACTOR AS PART OF THIS CONTRACT. WIRE AND WIRING FROM MAIN BREAKER, AND CONNECTION TO THE UTILITY IS THE RESPONSIBILITY OF THE CITY/COUNTY.


MAIN BREAKER NEAR CONTROLLER CABINET
SECONDARY NOT REQUIRED

GROUND ROO-D: A 1" X 8" GROUND ROO SHALL BE INSTALLED IN THE FULL BOX FOR EACH POLE AND THE CONTROLLER. THE GROUND ROOD AND "8" NMI SHALL BE INCLUDED IN THE TOTAL COST. THE FULL BOX AND CONDUCTOR BOX SHALL BE PAID FOR SEPARATELY.
**TYPICAL FOUNDATION DETAILS**

**TABLE 1**

<table>
<thead>
<tr>
<th>MAST ARM SLOPE</th>
<th>H-Bar Length</th>
<th><em>L</em></th>
<th><em>W</em></th>
<th><em>T</em></th>
<th><em>Z</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 to 4 degrees</td>
<td>36&quot;</td>
<td>18&quot;</td>
<td>12&quot;</td>
<td>9&quot;</td>
<td>6&quot;</td>
</tr>
</tbody>
</table>

**SPECIAL NOTES TO MPH ZONE DESIGN SET**

- In the event of a pole failure due to wind, the distance between the pole and the structure shall be increased by 10% of the pole height, with the lower limit of the increased distance being 10 ft.
- In the event of a pole failure due to snow, the distance between the pole and the structure shall be increased by 5% of the pole height, with the lower limit of the increased distance being 5 ft.

**CONSTRUCTION SPECIFICATIONS**

- All poles and arms shall be fabricated from steel. The pole shall be Grade 40 min. and the arm shall be Grade 36 min.
- All welds shall be done in accordance with ASME Section IX.
- All bolts shall be Grade 5 or higher.

**GENERAL NOTES**

- All structural designs shall be in accordance with the AASHTO Highway Bridge Design Specifications.
- All signs shall be fabricated from aluminum alloy (ASTM designation B-209) with a minimum thickness of 0.100 inch.
- All poles shall be mounted on a minimum of four 4" diameter ground rods, spaced not more than 9" on centers.

**REVISIONS TO SD-11**

- The revision date of SD-11 is 4-11-01.
- The revision date for the MAST ARM SLOPE is 11-17-98.
- The revision date for the PEDESTRIAN PHASES is 11-25-08.

**STANDARD DRAWING SD-11**

- This standard drawing is for reference only and shall not be used for construction without proper engineering review and approval.
- All dimensions are approximate and shall be verified by the engineer.

**ARMS AND POLLS**

- The arms and polls shall be designed for the following loads:
  - live load: 50 lb/ft
  - wind load: 100 lb/ft
  - snow load: 20 lb/ft

**GROUNDING**

- The grounding system shall be in accordance with the AASHTO Highway Bridge Design Specifications.
- All ground rods shall be of 5/8" diameter and shall be driven to a depth of at least 10 ft.

**DESIGN LOADS**

- The design loads for the pole and mast arm shall be as follows:
  - pole: 20 lb
  - mast arm: 10 lb

**H-BARS**

- The h-bars shall be of 3/8" diameter and shall be equally spaced.

**ANCHOR BASE**

- The anchor base shall be of 36" x 12" x 0.125" sign blank and shall be mounted near the end of the mast arm.

**U-BOLTS**

- The u-bolts shall be of 3/8" diameter and shall be used to attach the anchor base to the mast arm.

**CONCRETE**

- All concrete for the controller cabinet and pole shall be of 4,000 psi strength.

**ELECTRICAL CONDUCTORS**

- All electrical conductors shall be of 12 AWG size and shall be run through the controller cabinet.

**REMARKS**

- All remarks shall be in accordance with the AASHTO Highway Bridge Design Specifications.