Index 700-120
Enhanced Highway Signing Assemblies

ORIGINATION
Date: 6-6-21
Name: Derwood Sheppard
Phone: (850) 414-4334
Email: derwood.sheppard@dot.state.fl.us

COMMENTARY
The foundations within Indexes 646-001, 654-001, 695-001, and 700-120 are being updated to be more consistent between applications. A structural analysis was completed to determine if the foundations could be revised to provide a more consistent design between the various applications. The aluminum posts callouts will be changed to be consistent with other Indexes.

COMMENTS AND RESPONSES
BLACK = Industry Review Comments  RED = Standard Plans Response  GREEN = Change Made to Index

Name: K.C. Jose
Date: 8/30/2021

COMMENT: Draft page 1/11: Note # 5 advise concrete slab around light pole on road side – screen shot

Comment: - please specify whether Non structural concrete could be used for this.

RESPONSE:  The new General Note 4 references the material requirements of Specification 646. The material criteria including Concrete requirements are included in Specification 646.
No Change Made
Date: 9/1/2021

Name: C-Team Comment
Date: 9/8/2021

COMMENT: Has the revision of pole diameter callouts from 4” nominal to 4.5” OD been properly coordinated? This change could incur cost updates and other design considerations and affect APL. Were structural parameters considered? Specification 646 references 4” nominal which needs to be updated.

RESPONSE: The pole/posts are not changing with this update so there are no issues with the APL or additional costs incurred. This change was requested by the Structures Office to make callouts consistent with other Indexes that specify pole/post dimensions. The 4” nominal and
4.5” OD are the same callout in this scenario based on ASTM B429 which is a requirement of Spec 646. Although there is no conflict, Spec 646 will be updated to be consistent with the new callout in Indexes 646-001, 654-001, 695-001, and 700-120. The callout in the indexes will be updated to clarify that the poles/posts are not changing.

Change Made: Revise callouts in the Indexes and Spec to read “Nominal 4” Aluminum Pole (Sch. 40) (4.5” OD)”

Date: 9/10/2021
### GENERAL NOTES:
1. Install sign assemblies based on alpha-numeric type designation shown in the plans (e.g., Type A1). Assembly Type is based on Power Configuration 'Alpha' Identification shown above and numerical identification shown on Sheet 3 thru 8.
2. Install sign panel and wind beam in accordance with Index 700-030 and Specification 700.
3. Engage all threads on the transformer base and post unless the aluminum post is fully seated into base.
4. Meet the material requirements of Specification 646.
5. Install a concrete slab around all roadside assemblies on slopes 6:1 or greater. The minimum slab dimension is 6" by 4'-0" by 5'-0".
6. When wire entry holes are drilled in the sign column, use a bushing or rubber grommet to protect conductors.

### POWER CONFIGURATION 'A' NOTES:
1. Install a separate pole for mounting the solar panel, controller, and batteries for all roadside assemblies with solar panels, controllers, and batteries weighing more than 170 lbs.
2. Install the auxiliary pole as close to the right of way boundary as possible.
3. Install the auxiliary pole so that the height is the same as the column for the roadside assembly.
4. Orient solar panel to face South for optimal exposure to sunlight.
5. The controller and the solar batteries may be located in the same compartment.

### POWER CONFIGURATION 'B' NOTES:
1. Install a separate pole for mounting the solar panel, controller, and batteries for all roadside assemblies with solar panels, controllers, and batteries weighing more than 170 lbs.
2. Install the auxiliary pole as close to the right of way boundary as possible.
3. Install the auxiliary pole so that the height is the same as the column for the roadside assembly.
4. Orient solar panel to face South for optimal exposure to sunlight.
5. The controller and the solar batteries may be located in the same compartment.

### TABLE OF CONTENTS:

<table>
<thead>
<tr>
<th>Sheet</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General Notes and Contents</td>
</tr>
<tr>
<td>2</td>
<td>Conduit, Wiring, and Foundation Details</td>
</tr>
<tr>
<td>3</td>
<td>Roadside Sign Assembly-1</td>
</tr>
<tr>
<td>4</td>
<td>Roadside Sign Assembly-2</td>
</tr>
<tr>
<td>5</td>
<td>Roadside Sign Assembly-3</td>
</tr>
<tr>
<td>6</td>
<td>Roadside Sign Assembly-4</td>
</tr>
<tr>
<td>7</td>
<td>Roadside Sign Assembly-5</td>
</tr>
<tr>
<td>8</td>
<td>Roadside Sign Assembly-6</td>
</tr>
<tr>
<td>9</td>
<td>Roadside Sign Assembly-7</td>
</tr>
<tr>
<td>10</td>
<td>Roadside Sign Assembly-8</td>
</tr>
<tr>
<td>11</td>
<td>Overhead Sign Assembly</td>
</tr>
</tbody>
</table>

**POWER CONFIGURATION ‘A’ CONVENTIONALLY-POWERED**

**POWER CONFIGURATION ‘B’ SOLAR-POWERED**

**FRONT ELEVATION**

**SIGN ASSEMBLY ELEVATION**

**FRONT ELEVATION**

**AUXILIARY POLE ELEVATION**

**FRONT ELEVATION**

**AUXILIARY POLE ELEVATION**

**FRONT ELEVATION**

**AUXILIARY POLE ELEVATION**

**FRONT ELEVATION**
CONDUIT, WIRING, AND FOUNDATION DETAILS

DETAIL "A"

- Nominal 6" Aluminum Pole (Sch. 40) (4.5" OD)
- One-Pole, Non-Fused, Watertight Breakaway Electrical Connectors
- Strain Relief Fitting
- #6 Ground Wire
- Concrete Apron (Typ.)
- Transformer Base
- 6' x 18" Anchor Bolts
- #6 Ground Wire
- Grounding Lug
- Cap Conduit
- Conduit for Future Use
- Conduit for Power Service or Auxiliary Pole
- #4 Stirrups Equally Spaced, 12" Max.
- 4-#5 Bars Equally Spaced
- #4 Stirrups Equally Spaced, 12" Max.
- 1" Cover
- 2" Dia
- #6 Ground Wire
- U.L. Approved Ground Rod
- #3 Diameter 20' Long Copper Clad with Approved Ground Connection (At all Pull Boxes)

DETAIL "B"

- Nominal 4" Aluminum Pole (Sch. 40) (4.5" OD)
- To Power Service or Auxiliary Pole
- Transformer Base
- 6' x 18" Anchor Bolts
- Grounding Lug
- Cap Conduit
- Conduit for Future Use
- Concrete Apron (Typ.)
- Circuit Conductors in Schedule 40 PVC
- Conduit and Conduit size as shown in Plans (Typical)
- 12" Bed of Pearock or Crushed Stone For Drainage
- Circuit Conductors and Fittings
- Footing Depth
- Transformer Base
- Strain Relief Fitting
- Pull Box
- Finished Grade
- Connection (At all Pull Boxes)
- Clad with Approved Grounding Lug
NOTES:
1. Type A1 Assembly (conventionally-powered) is shown. Type B1 Assemblies (solar-powered) similar.
2. Foundation reinforcement not shown.
NOTES:
1. Type A2 Assembly (conventionally-powered) is shown. Type B2 Assemblies (solar-powered) similar.
2. Foundation reinforcement not shown.
NOTES:

1. Type A3 Assembly (conventionally-powered) is shown. Type B3 Assemblies (solar-powered) similar.

2. Use electronic speed feedback sign with 15" high numerals for posted speed of 45 mph or less, and 18" high numerals for posted speeds greater than 45 mph.

3. Foundation reinforcement not shown.
NOTES:

1. Type A4 Assembly (conventionally-powered) is shown.
   Type B4 Assembly (solar-powered) similar.

2. Foundation reinforcement not shown.
NOTES:

1. Type A5 Assembly (conventionally-powered) is shown. Type B5 Assemblies (solar-powered) similar.

2. Use electronic speed feedback sign with 15" high numerals for posted speed of 45 mph or less, and 18" high numerals for posted speeds greater than 45 mph.

3. Foundation reinforcement not shown.
NOTES:
1. Type A6 Assembly (conventionally-powered) is shown. Type B6 Assemblies (solar-powered) similar.
2. Use electronic speed feedback sign with 15' high numerals for posted speed of 45 mph or less, and 19' high numerals for posted speeds greater than 45 mph.
3. Foundation reinforcement not shown.
NOTES:

1. Type A7 Assembly (Conventionally-Powered) is shown.

2. Install cameras, wireless link, detectors, and antennas in accordance with the manufacturer's instructions.

3. For solar powered assemblies, install controller and batteries in the same ground mounted cabinet. Install a separate pole for mounting the solar panel. Install the solar panel pole and cabinet as close to the right of way boundary as possible. Orient solar panel to face South.

4. Foundation reinforcement not shown.
NOTES:
1. Type A1 Assembly (conventionally-powered) is shown.
2. Blank Out Sign visors are optional.
3. Foundation reinforcement not shown.
OVERHEAD SCHOOL SIGN ASSEMBLY

ZEE SECTION DETAIL

MOUNTING DETAIL

CABLE ENTRY DETAIL

NOTES:
1. Flasher unit and cabinet to be placed on the strain pole supporting overhead sign assembly or on service pole. The flasher unit not to overhang private property or sidewalk.
2. Optional flashing beacon will be called for in the Plans. They may be placed within or below the panel, or face to the rear.