**DESCRIPTION:**

**REVISION NO.**

**SHEET NO.**

**INDEX NO.**

**NOTE:**

1. Barrier wall or bridge mounted poles: The wiring shall be in accordance with Section 992 of the Standard Specifications.

2. Provide cable length to remove fuseholders from transformer base, pole base or pullbox for maintenance. Remove slack from the luminaire cable to provide tension on the fuseholders if the pole breaks away. Pull excess cable into pull box to tighten strain relief fittings or cable clamps at both ends of conduit to prevent cable from slipping.
NOTES:
1. Use compacted select material in accordance with Index 505.
2. Concrete shall be Class NS with a minimum strength at 28 days of f'c=2.5 ksi.
3. Outside edge of slab shall be cast against formwork.
4. The pull box shown is 13" x 24"; others approved under Section 635 of the Standard Specifications may be used.
5. Slabs to be placed around all Poles and Pull Boxes in rural locations. In urban areas or where space is limited slab dimensions may be adjusted as shown in the plans.
6. Concrete for slabs around pull boxes shall be included in the price of pull box.

Concrete for slabs around pull boxes shall be included in the price of pull box.

Slab Details for Intermediate Pullbox Locations

Slab Dimensions

Section A-A

Pole Box Location

Select Material

SLAB DIMENSIONS

SLAB DETAILS FOR INTERMEDIATE PULLBOX LOCATIONS
NOTES:
1. Use compacted select material in accordance with Index 365.
2. Concrete shall be Class NS with a minimum strength at 28 days of f'c=2.5 ksi.
3. Outside edge of slab shall be cast against formwork.
4. The pull box shown is 1' x 2'; others approved under Section 835 of the Standard Specifications may be used.
5. Slabs to be placed around all Poles and Pull Boxes. In urban areas or where space is limited slab dimensions may be adjusted as shown in the plans.
6. Concrete for slabs around poles and pull boxes shall be included in the price of pole or pull box.
7. The expansion joint shall consist of ½" of closed-cell polyethylene foam expansion material. The top ½" of expansion material shall be removed after pouring the slab and sealed with an APL approved Type A sealant meeting the requirements of Section 932.

Concrete shall be Class NS with a minimum strength at 28 days of f'c=2.5 ksi. Use compacted select material in accordance with Index 365. Outside edge of slab shall be cast against formwork. The pull box shown is 1' x 2'; others approved under Section 835 of the Standard Specifications may be used. Slabs to be placed around all Poles and Pull Boxes. In urban areas or where space is limited slab dimensions may be adjusted as shown in the plans. Concrete for slabs around poles and pull boxes shall be included in the price of pole or pull box. The expansion joint shall consist of ½" of closed-cell polyethylene foam expansion material. The top ½" of expansion material shall be removed after pouring the slab and sealed with an APL approved Type A sealant meeting the requirements of Section 932.
GENERAL NOTES

1. Exothermically welded all grounding system connections. This includes all cables, ground electrodes and frangible poles. Do not exothermically bond grounding electrode to grounding electrode. Method of Measurement and Basis of Payment as per Standard Specifications 620.

2. Contact all utility companies prior to any underground work. The utility company is responsible for locating and identifying their facilities.

3. The contractor determines required dates for the power company to install the power service at the pre-construction conference.

4. The power company reserves the right to install the riser, switch gear and weatherhead on power company poles at the expense of the contractor. Contact the power company for cost or for authorization for an alternate procedure.

5. Paint any damaged portions of galvanized steel poles and bracket arms in accordance with Standard Specifications 562.

6. Before final acceptance, contractor shall provide 2 sets of full size as built plans to the maintaining agency.

7. Rout conduit pole to pole, maintaining pole setback distance from edge of pavement. Any cable routing in locations where guardrail is proposed shall be 2' in front of the standard guardrail position.

8. Where guardrail is constructed, placed poles, which are considered above guard hazard, a minimum of 5' behind the face of the guardrail.

9. Install pole foundations in accordance with Standard Specifications 715.

10. Make splice in pull boxes or on the pole base. Do not inside the conduit. The wires at pull boxes must be long enough to remove connectors to the outside of pull boxes to make connectors accessible for changing fuses and trouble shooting the system.

11. Neutral wires to have white insulation. Do not use white or green insulated wires for ungrounded conductors.

12. Make exposed or surfaced mounted conduit out of rigid or intermediate metal. Provide exposed runs of conduit within either expansion joint or flexible conduit sections adequate to take care of vibrations and thermal expansions. Ground all metal conduit. Hot-dip all steel conduit.

13. Mandrel test, clean inside and cap both ends of all conduit that remains empty as spares. Leave the corrosion resistant pull/drag wire and place pull boxes to mark the location of the ends of the conduits.

14. Located pull boxes at the end of conduits crossing roadways, and as necessary for the completion of the project.

15. These plans represent minimum acceptable criteria. The inspection per these drawings represent the minimum base of acceptance.

16. All material are Underwriters Laboratory approved, unless otherwise specified.

17. Install a pull box at each pole location. Place pull boxes at a maximum of 2' from pole unless otherwise directed by the project engineer. Ground metal pull box covers. See Standard Specifications 635.

18. At all pull boxes and pole bases, seal all ends of the conduit in accordance with Standard Specifications 630.

19. All mounting heights are 2'-6" unless otherwise noted in plans.

20. A handhole is required in all poles. Locate handhole on the opposite side of the conduit, with a cover fastened with stainless steel screws and at least 20 square inches at the opening of the handhole.

21. On joint use poles ground the luminaire and arm.
HIGHMAST LIGHTING NOTES:

1. Poles are designed to support the following:
   a. One (1) cylindrical head assembly with a maximum effective projected area of 6 sf (cd=1) and 340 lbs (Max.)
   b. Eight (8) cylindrical luminaires with a maximum effective projected area of 3.0 sf (cd = 0.3) and 17 lbs each.

2. Shop Drawings: This Index is considered fully detailed, only submit shop drawings for minor modifications.

3. High Mast Structure Materials:
   A. Poles and Bucking Rings:
      a. Less than 1.10" ASTM A1011 Grade 50, 55, 60 or 65
      b. Greater than or equal to 1.10" ASTM A572 Grade 50, 55, 60 or 65
      c. ASTM A595 Grade A (55 ksi yield) or Grade B (60 ksi yield)
   B. Steel Plates: ASTM A709 or ASTM A36
   C. Pole Caps: ASTM A1011 Grade 50, 55, 60, or 65 or ASTM B209
   D. Bolt Grades: C1038
   E. Stainless Steel Screws: AISI 316
   F. Anchor Bolts, Nuts and Washers:
      a. Anchor Bolts: ASTM F1554 Grade 55
      b. Nuts: ASTM A563 Grade A Heavy-Hex (5 per anchor bolt)
      c. Washers: ASTM A194 Grade 2
   G. Nut Covers: ASTM A576 (319-F)
   H. Concrete: Class IV (Drilled Shaft)
   I. Reinforcing Steel: Specification Section 415

4. Fabrication:
   A. Welding: Specification Section 460-6.4
   B. Poles:
      a. Round or 16-Sided (Min.)
      b. Pole Taper: Diameter changing at 0.14 inches per foot.
      c. Two longitudinal seam welds (Max.)
      d. Longitudinal seam welds within 6" of pole to base must be complete penetration welds.
      e. Longitudinal seam welds at telescopic field joints must be complete penetration welds for the splice length plus 6".
   C. Holes for Anchor Bolts: Anchor Bolt diameter plus 3" (Max.), prior to galvanizing.
   D. Hot Dip Galvanize after Fabrication
   E. Identification Tag: (Submit details for approval.)
      a. 2" x 4" (Max.) aluminum identification tag.
      b. Located on the outside of the pole and visible from the handhole.
      c. Secure to pole with 1/4" diameter stainless steel rivets or screws.
      d. Include the following information on the ID Tag:
         1. Financial Project ID
         2. Pole Type
         3. Pole height
         4. Manufacturer's Name
         5. Fe of Steel
         6. Base Wall Thickness

5. Coating:
   A. Galvanize Anchor Bolts, Nuts and Washers; ASTM F2329
   B. Hot Dip Galvanize all other steel items; ASTM A123

6. Construction:
   A. Foundation: Specification Section 455 Drilled Shaft, except that payment is included in the cost of the Structure.
   B. After Installation: Place wire screen between top of foundation and bottom of baseplate in accordance with
      Specification Section 649-6.
**POLE DESIGN TABLE**

<table>
<thead>
<tr>
<th>Design Wind Speed</th>
<th>Pole Overall Height (ft)</th>
<th>SECTION 1 (TOP)</th>
<th>SECTION 2</th>
<th>SECTION 3</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Length</td>
<td>Wall Thickness (in.)</td>
<td>Minimum Splice L.</td>
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<tr>
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<td>80</td>
<td>41'-9&quot;</td>
<td>0.250</td>
<td>2'-0&quot;</td>
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<td></td>
<td>100</td>
<td>24'-7&quot;</td>
<td>0.179</td>
<td>2'-0&quot;</td>
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<td></td>
<td>120</td>
<td>44'-6&quot;</td>
<td>0.250</td>
<td>2'-0&quot;</td>
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<tr>
<td>130 mph</td>
<td>80</td>
<td>41'-9&quot;</td>
<td>0.250</td>
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<td>0.179</td>
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<td>120</td>
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<tr>
<td>150 mph</td>
<td>80</td>
<td>42'-6&quot;</td>
<td>0.250</td>
<td>2'-3&quot;</td>
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<tr>
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<tr>
<td></td>
<td>120</td>
<td>44'-6&quot;</td>
<td>0.250</td>
<td>3'-0&quot;</td>
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* Diameter Measured Flat to Flat

**BASE PLATE AND BOLTS DESIGN TABLE**

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<thead>
<tr>
<th>Design Wind Speed</th>
<th>Pole Overall Height (ft)</th>
<th>Base Plate Diameter (in.)</th>
<th>Base Plate Thickness (in.)</th>
<th>No. Bolts</th>
<th>Bolt Diameter (in.)</th>
<th>Bolt Embedment (in.)</th>
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<td>23.0</td>
<td>8</td>
<td>1.75</td>
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<tr>
<td></td>
<td>100</td>
<td>33.5</td>
<td>3.0</td>
<td>26.5</td>
<td>8</td>
<td>1.75</td>
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<tr>
<td></td>
<td>120</td>
<td>36.0</td>
<td>3.0</td>
<td>29.0</td>
<td>8</td>
<td>1.75</td>
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<tr>
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**SHAFT DESIGN TABLE**

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<th>Design Wind Speed</th>
<th>Pole Overall Height (ft)</th>
<th>Shaft Diameter (in.)</th>
<th>Shaft Length (ft)</th>
<th>Longitudinal Reinforcement</th>
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<td>120</td>
<td>5'-0&quot;</td>
<td>20'-0&quot;</td>
<td>18'-0&quot;</td>
</tr>
</tbody>
</table>

**NOTE:**
Foundation for slopes 1:4 or flatter. Provide a 2'-0" drilled shaft projection on the high side.

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**POLE DESIGN TABLES**

**DESCRIPTI ON:**

**FY 2016-17 DESIGN STANDARDS**

**HIGH MAST LIGHTING**

**INDEX NO.:** 17502

**SHEET NO.:** 2 of 6
1. At all pull boxes and pole bases, ends of conduit shall be sealed in accordance with Section 630 of the Standard Specifications for Road and Bridge Construction.
2. Slabs to be placed around all Poles and Pull Boxes.
3. For Pull Boxes between Poles refer to Index 17500.
The contractor's attention is directed to those plan sheets detailing the mounting of luminaires at the pole top. Particular attention is directed to alignment of luminaire light distributions. Special attention must be exercised in the physical alignment of these luminaires to ensure that the approved photometric layout is physically produced at each lighting standard in the field. A marking shall be placed on the external face of the refractor to allow visual inspection of alignment. The marking shall correspond to the 0° axis of the refractor.

See legend for number of luminaires, lamp wattage and light distribution.
NOTES:

1. Use compacted select material in accordance with Index 505.
2. Concrete shall be Class NS with a minimum strength at 28 days of f'c=2.5 ksi.
3. Outside edge of slab shall be cast against formwork.
4. The pull box shown is 13' x 24'; others approved under Section 635 of the Standard Specifications may be used.
5. Slabs to be placed around all Poles and Pull Boxes. In urban areas or where space is limited slab dimensions may be adjusted as shown in the plans.
6. Concrete for slabs around poles and pull boxes shall be included in the price of pole or pull box.
7. The expansion joint shall consist of ½" of closed-cell polyethylene foam expansion material. The top ½" of expansion material shall be removed after pouring the slab and sealed with an APL approved Type A sealant meeting the requirements of Section 930.

SLAB DIMENSIONS

SLAB DETAILS

SHAFT LOCATION

PULL BOX LOCATION

SECTION C-C

4" SELECT MATERIAL

½ Expansion Joint (Sealed)
GENERAL NOTES:
1. It shall be the contractors responsibility to provide a complete service assembly as per the plans and service specifications.
2. The service installation shall meet the requirements of the national electric code and applicable local codes.
3. Shop drawings are not required for service equipment, unless noted in the plans.
4. A Pull Box is required at each service point, see Index 17700.

DETAIL A
AERIAL FEED

Concrete Pole, Prestressed Type P-II, 30' Long
Clevis With Insulators
Conductor Weatherhead Height
As Required By Power Company
Meter As Required
Height Specified
By Power Company
Service Disconnect

#6 AWG Insulated
Grounding Electrode
Conductor In 1/2"
Rigid Galvanized Steel Conduit

Pull Box
Concrete Pad
Grade

U.L. Approved Ground Rod,
1' Dia. 40' long Copper
Clad (All Service Points)

12" Bed Of Pea-rock
Or Crushed Stone
For Drainage (Typ.)

DETAIL B
UNDERGROUND FEED

Concrete Pole, Prestressed Type P-II, 12' Long
Clevis With Insulators
Conductor Weatherhead Height
As Required By Power Company
Meter As Required
Height Specified
By Power Company
Service Disconnect

#6 AWG Insulated
Grounding Electrode
Conductor In 1/2"
Rigid Galvanized Steel Conduit

Pull Box
Concrete Pad
Grade

Connection For Pole
Ground, Bond Wire,
And Ground Rod

#6 AWG Insulated
Grounding Electrode
Conductor In 1/2"
Rigid Galvanized Steel Conduit

Connection For Pole
Ground, Bond Wire,
And Ground Rod

12" Bed Of Pea-rock
Or Crushed Stone
For Drainage (Typ.)
Keyed Notes:

2. Service Feeder in Rigid Galvanized Steel Conduit.
3. Meter Socket by Contractor.
4. Service Main Disconnect.
6. Concrete Riser Pole.
7. Weatherhead.
8. Electrical Panel. Number and Rating of Branch Circuit Breakers shall be as indicated on Distribution Point Description on Lighting Plan Sheets.
10. 1/2" Copper Clad Ground Rod. 49 Long.
11. #6 Insulated Copper Ground Wire. Bond the Service Neutral to Ground at Service Main Disconnect.
12. Fused Control Power Transformer 0.5 KVA, Single Phase, 480V Primary, 120V Secondary (Part of Lighting Contactor, Shown Outside for Clarity).
13. Lighting Arrestor Mounted on Outside of Enclosure.
15. 2 Pole Electrical Lighting Contactor.
16. Photo Electric Switch-120V Rated.
17. Hand-off Automatic Selector Switch (Part of Lighting Contactor, Shown Outside for Clarity).
18. Concrete Pad.
20. Mount on Riser Pole.
21. Ground BUS.
22. NEMA 4X SST Ground Mounted Storage Cabinet with Two Shelves. Only Required for High Mast Lighting Systems.

Neutral Bar

To Electrical Service Drop

ONE LINE DIAGRAM DISTRIBUTION POINT

PHOTO ELECTRIC CONTROLLER DETAIL

Side or Back of Enclosure

Cut a 2" hole in the side of the Lighting Control Panel enclosure for the operation and mounting of the P.E. controller. Use plexiglass and a clear silicone sealant to cover hole, install P.E. Controller.

TYPICAL DISTRIBUTION POINT SCHEMATIC DETAIL

GROUND BUS
**SIGN LIGHTING INSTALLATION**

**Roadway Lighting included in contract:**

1. Power for the sign lighting provided from the roadway lighting circuit.
2. Indicate sign location and a pull box location for connection to the sign lights in the lighting plans.
3. Lighting contractor installs pull box and loop 2' of lighting circuit conductors in the pull box for connection by the signing contractor.
4. Signing contractor furnishes and installs the luminaires, Nema 3R enclosure, 30 amp breaker, conduit, conductors and all other electrical equipment necessary for connection to the lighting circuit.

**Roadway Lighting not included in contract:**

1. Signing plans include the pay item numbers to furnish and install conduit, conductors, ground rods, pull boxes and service point equipment.
2. Signing plans indicate the location of the service point equipment and circuit runs.
3. Signing contractor provides all electrical equipment necessary for connection of the sign lights.

---

**PLACEMENT OF SIGN LIGHTS**

1. This Index details a bottom luminaire support structure. For signs requiring top luminaire support structures, the detail can be reversed.
2. Luminaires spacing and arm length is shown on Guide Sign Worksheet.
3. The Guide Sign Worksheet indicates the sign luminaire used for basis of design. The contractor may propose a different luminaire by submitting photometric calculations for each lighted sign for review by the Engineer.

**1.** Signing plans indicate the location of the service point equipment and circuit runs.

**2.** Indicate sign location and a pull box location for connection to the sign lights in the lighting plans.

**3.** Lighting contractor installs pull box and loop 2' of lighting circuit conductors in the pull box for connection by the signing contractor.

**4.** Signing contractor furnishes and installs the luminaires, Nema 3R enclosure, 30 amp breaker, conduit, conductors and all other electrical equipment necessary for connection to the lighting circuit.

---

**SIDE VIEW**

**BACK VIEW**

**b - 8' with Sidewalk
b - Otherwise**

**Ground Lug Attached To Metal Sign Structure**

**Conduit To Extend Up Column And Along Lower Sign Chord To Junction Boxes**

**2-#10 AWG THW Or THHW In 3/4" Galvanized Rigid Steel Conduit.**

**Nema 3R Waterproof Enclosure With A 30 Amp Breaker, Mounted On Sign Structure, With Bored Access Holes For Pull Box. Provide The Bonding Pad Lock Key.**

**Bond Wire To Run From Enclosure To Ground Lug In 1/2" Galvanized Rigid Steel Conduit.**

---

**EXTERNAL LIGHTING FOR SIGNS**
NOTES
1. Install hanger pipe to each vertical beam crossed with a 1/2"-Bolt, lock washers and hex nuts. Cap both ends of the horizontal pipe.

2. Materials:
   A. Steel Pipe: ASTM A53 (Grade A or B)
   B. Steel Plate: ASTM A36
   C. Bolts: ASTM A563
   D. Hex Nuts: ASTM F436
   E. Washers: ASTM A153


4. All pipe dimensions are NPS.

5. Chord O.D. ± 2" (Max.)

2. Materials:
   A. Steel Pipe: ASTM A53 (Grade A or B)
   B. Steel Plate: ASTM A36
   C. Bolts: ASTM A307
   D. Hex Nuts: ASTM A563
   E. Washers: ASTM F436

6. Varies by luminaire type

4. All pipe dimensions are NPS.

5. Chord O.D. ± 2" (Max.)
GENERAL NOTES

1. Poles are designed to support the following:
   A. Luminaire Effective Projected Area (EPA): 1.55 SF
   B. Weight: 75 lb

2. Shop Drawings: This Index is considered fully detailed, only submit shop drawings for minor modifications not included in the Plans.

3. Materials:
   A. Pole and Arm Extrusions: ASTM B221, Alloy 6063-T6; Pole Connection Extrusions: ASTM B221, Alloy 6063-T6 or Alloy 6061-T6
   B. Bars, Plates, Stiffeners and Backup Ring: ASTM B221, Alloy 6063-16
   C. Caps and Covers: ASTM B 26, Alloy 319 F
   D. Steel Bearing Plate: ASTM A299 or ASTM A36 Grade 36
   E. Aluminum Weld Material: ER 4043
   G. Bolts, Nuts and Washers:
      a. Shoe Base Bolt: ASTM A355 Type 1
      b. Nuts: ASTM A36 Grade DH Heavy-Hex
      c. Washer: ASTM F436 Type 1
   H. Anchor Bolts, Nuts, and Washers:
      a. Anchor Bolts: ASTM F1554 Grade 55
      b. Nuts: ASTM A36 Grade A Heavy-Hex
      c. Plate Washer: ASTM A36
   I. Stainless Steel Fasteners: AISI 316
   J. Nut Covers: ASTM B26 (319-F)
   K. Concrete: Class 1
   L. Reinforcing Steel: Specification Section 415

4. Fabrication:
   A. Upright Splices: Not allowed. Transverse welds are only allowed at the base.
   B. Roadway Light Pole Taper: Taper as required to provide a round top O.D. of 6" and a base O.D. of 10". Portions of the pole near the base sites and at the arm connections may be held constant at 10" and 8" respectively to simplify fabrication.
   C. Median Barrier Mounted Light Pole Taper: Taper as required to provide a 6" O.D. round top with an 11" x 7" O.D. oblong base. Portions of the pole near the base and at the arm connections may be held constant at 10"'s 7" oblong and 6" round respectively to simplify fabrication.
   D. Provide 1/2", 3/4" or 1" hole at top of pole for electrical wires.
   E. Equip poles located on bridges, walls and concrete median barriers/Traffic Railings with a vibration damper.
   F. Perform all welding in accordance with Specification Section 460-6-4.
   G. Embedded Junction Boxes (EJB):
      a. Weld all seams continuously and grind smooth.
      b. Hot Dip Galvanize after Fabrication.
      c. Provide a watertight cover with neoprene gasket and secure cover with galvanized screws.
   H. For Median Barrier Mounted Aluminum Light Poles, the fabricator must demonstrate the ability to produce a crack free pole. The fabricator’s Department-approved QC Plan must contain the following information prior to fabrication:
      a. Tests demonstrating a pole with a 1#4" wall thickness achieves and ultimate moment capacity of 44 kip*ft in the strong axis and 30 kip*ft in the weak axis.
      b. Tests demonstrating a pole with a 5#16" wall thickness achieves an ultimate moment capacity of 44 kip*ft in the strong axis and 37 kip*ft in the weak axis.
      c. Tests demonstrating a pole with a 1#4" wall thickness achieves and ultimate moment capacity of 36 kip*ft in the strong axis and 30 kip*ft in the weak axis.
      d. Include the following information on the ID Tag:
         i. Fabricator’s Department-approved QC Plan must contain the following information prior to fabrication:
      a. 2" x 4" (Max) aluminum identification tag.
      b. Locate on the inside of the transformer base and visible from the door opening.
      c. Secure to transformer base with 1#8" diameter stainless steel rivets or screws.
      d. Include the following information on the ID Tag:
         1. Financial Project ID
         2. Pole Height
         3. Manufacturer’s Name
   5. Coatings/Finish:
      A. Pole and Arm Finish: 50 grit satin rubbed
      B. Galvanize Steel Bolts, Screws, Nuts and Washers: ASTM F2329
      C. Hot Dip Galvanize after Fabrication.
   6. Construction:
      A. Foundation: Specification Section 455, except payment for the foundation is included in the cost of the pole.
      B. Frangible Base and Clamp:
         a. Certify the Base conforms to the current FHWA required AASHTO Frangibility Requirements, tested under NCHRP Report 350 Guidelines (e.g. Akron Foundry TB-17).
      C. Do not erect pole without Luminaire attached.
   7. Payment Note: Include the cost of the EJB in the cost of the median barrier or Traffic Railing it is embedded in.
The document contains a set of design standards for standard aluminum lighting, specifically for median barrier mounted aluminum light poles. The table provides wind speed, arm length, design mounting height, pole wall thickness, and fill height for various conditions. The standards include specifications for base plates, stiffener plates, and detail 'A' for median barrier mounted light poles. The diagrams illustrate the detailed assembly and installation procedures, including plate connections and structural reinforcements. The document is part of a larger set of design standards for FY 2016-17.
NOTE:
For Roadway Concrete Barrier Wall see Index 410

PLAN

(Reinforcing steel not shown)

Provide dowel bars @ construction joint

Min. 10 from free end
barrier wall transition, approach ends and ground guardrail.

NOTE:
Divide 2" Ø Conduit to avoid cylindrical foundation.

2'Ø Conduit for grounding

3" Ø x 20' Grounding Rod

2" Ø Conduit

Foundation Depth

(See Foundation Table)

NOTE:
Provide dowel bars @ construction joint

Note: For Bare Plate Details, Bearing Plate Detail and Detail "A" see Sheet 5

#5 Bars, 6" long (Typ.)

Construction joint

See Roadway Plans

#4 Bars (Typ.)

Bearing Plate

Tie Bars *

Double Nuts (Typ.)

#5 Bars @ 8" (Typ.)

1" Chamfer

#4 Bars (Typ.)

For reinforcing steel above foundation see Index 421

NOTE:

1.75'151

110

40

8

DESIGN STANDARDS

STANDARD ALUMINUM LIGHTING

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For reinforcing steel above foundation see Index 421

NOTE:

1) Ø Anchor Bolts

4 ~ 1

3 - #7 Bars

2'6" Ø

8 - #7 Bars

Equally Spaced

Ø Arm

Tie Bars *

SECTION C-C

VIEW B-B

END VIEW

CYLINDRICAL FOUNDATION DETAILS FOR MEDIAN BARRIER MOUNTED ALUMINUM LIGHT POLE

(Elevations above roadway concrete)

NOTE:

FOR ROADWAY CONCRETE BARRIER WALL reinforcing steel see Index 410

FOUNDATION TABLE

WIND SPEED

DESIGN MOUNTING DEPTH (FT)

FOUNDATION DEPTH (FT)

170

40

8

130

40

9

150

40

9
Bridge Deck

PLAN
(Reinforcing steel not shown)

BAR BENDING DIAGRAMS

ELEVATION
(Longitudinal and transverse deck reinforcing steel not shown)

NOTES:
1. For Base Plate Details, Bearing Plate Details and Detail 'A' see sheet 5.
2. See Index 421 for details of Traffic Railing (Median 32" F Shape) and angles LA and LB.

DETAILS FOR TRAFFIC RAILING (MEDIAN 32" F SHAPE) MOUNTED ALUMINUM LIGHT POLE

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REVISION 07/01/15

DESCRIPTION:

FY 2016-17 DESIGN STANDARDS

STANDARD ALUMINUM LIGHTING