GENERAL NOTES:
1. Work this Index with Specifications 641.
2. This Index is considered fully detailed and no shop drawings are necessary. Submit Shop Drawings for minor modifications not detailed in the Plans.
3. Install pole plumb.
4. Provide either round or 12-sided Poles.
5. See Index 635-001 for additional details for Pull Boxes.
6. Materials:
   A. Pole: Use Class VI concrete with 6 ksi minimum strength at transfer.
   B. Prestressing Strands: ASTM A416, Grade 270 low relaxation.
   C. Reinforcing Steel: ASTM A615, Grade 60
   D. Spiral Reinforcing: ASTM A134 Cold-Drawn
   E. Bolts: ASTM F1554, Grade 55
   F. Washers: ASTM F436
   G. Steel plates and Pole Cap: ASTM A36 or ASTM A709, Grade 50
   H. Galvanization Bolts, nuts and washers: ASTM F2329
   I. All other steel: ASTM A123

7. Pole Fabrication:
   A. Cut the tip end of the prestressed strand first or simultaneously with the butt end.
   B. For spiral reinforcing, one turn is required for spiral splices and two turns are required at the top and bottom of poles.
   C. For reinforcing steel, lap splice to consist of a 3'-0" lap length at each splice. No more than two opposing rebars to be spliced at the same cross section. Stagger lap splices as needed.
   D. Provided a Class 3 surface finish in accordance with Specification 400.
   E. Provide a 1" minimum cover.
   F. Provide handleless and coupler cover plates made of non-corrosive materials. Attach cover plates to poles using lead anchors or threaded inserts embedded in the poles in conjunction with round headed chrome plated screws.
   G. Provide identification markings on the poles where indicated in the Plans.

8. Cabinet Installation:
   A. Splice fiber optic cables in cabinet to preterminator patch panel.
   B. Furnish and install Surge Protection Devices (SPDs) in all cabinet in cabinet.
   C. Furnish and install secondary SPDs protection on outlets for equipment in cabinet.
   D. Ensure that all electronic equipment power is protected and conditioned with SPDs.
   E. Ensure that equipment cabinet is bonded to CCTV pole grounding system.
   F. Furnish and install Surge Protection Devices (SPDs) on all cabling in cabinet.
   G. Sizes and types of conduits and innerducts for network communications between the pullbox and cabinet are stated in the Contract Documents.
   H. Storage, Handling and Erection locations shown may vary within ± 3".
   I. Storage, handling and Erection locations shown may vary within ± 3".

9. Lowering Device Installation:
   A. Place the lowering cable that moves within the pole in an interior conduit to prevent it from tangling or interfering with any electrical wire that is in the pole. Ensure that any electrical wire within the pole is routed securely and free from slack.
   B. Mount lowering arm perpendicular to the roadway or as shown in the plans. Position CCTV pole so that the camera can be safely lowered without requiring lane closures.
   C. Coordinate all lowering device hardware requirements (including Tenon, Tenon mounting plates, parking stalls, etc.) with lowering device manufacturer.

Financial Project ID
Pole Manufacturer
Pole Length

H. Tie ground wires to the interior of reinforcing steel as necessary to prevent displacement during concreting operations.
1. Storage, Handling and Erection locations shown may vary within ± 3".

I. Storage, Handling and Erection locations shown may vary within ± 3".

CCTV POLE ASSEMBLY
NOTES:
1. Diameter of 12-sided poles are measured flat to flat.
2. Total Taper applies to pole, strands and reinforcing.
3. For 12-Sided Pole and Round Roles Option 2, Stress prestressed strand to 70% of Ultimate before transfer. For Round Pole Option 3, stress prestressed strand to 60% of Ultimate before transfer.
4. Pole Design Tables. Burial Depth is based on level ground (Flatter than 1:5). For poles within slopes 1:5 and greater, increase the burial depth in accordance with the Additional Burial Depth Due To Ground Slope Table. For values in-between those shown in the table, use the higher value.

**ADDITIONAL BURIAL DEPTH DUE TO GROUND SLOPE**

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**12-SIDED POLE DESIGN TABLE**

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**ROUND POLE DESIGN TABLE**

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NOTES:
1. Install all handhole and opening covers prior to shipping.
2. Install 1/2" x 5" long stud with hex nut in insert before shipment.
3. As an alternate, embed 4-1/2" Ø x 18" stainless steel threaded rods with a threaded nut. At top of rod, thread a coupling nut to attach plate w/ 4-1/2" x 1/2" stainless steel bolts.
4. Handhole frame may be Cast Aluminum 356.2.

ASSEMBLY

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