GENERAL NOTES

1) SPECIFICATIONS:
   A. WORNSHIP AND MATERIALS SHALL CONFORM TO THE NEW MEXICO DEPARTMENT OF TRANSPORTATION'S (NMDOT) STANDARDS SPECIFICATIONS AND SPECIAL PROVISIONS, CURRENT EDITION.
   B. DESIGN IS IN ACCORDANCE WITH THE ASHTO STANDARDS SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS (LATEST EDITION) AND HAVE COMPLIANCE, BOTH IN THE FIELD AND INDICATED ON PLANS OR SPECIAL PROVISIONS.
   C. THE POLE SHALL BE GALVANIZED OR PAINTED AS INDICATED ON THE PLANS. IN ADDITION, THE POLES IN URBAN AREAS SHALL BE PAINTED AND PAINTED IN RURAL AREAS.

2) GROUNDING:
   A. POLES, VIVACE OF BASE, AND VIVACE OF CABLES SHALL BE HOT DIPPED GALVANIZED PER ASHTO M 111 (ASTM A 123).

3) PAINTING:
   ALL STEEL MEMBERS AND CONSTRUCTION PANELS SHALL BE PAINTED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 544 OF THE ASHTO STANDARD SPECIFICATIONS. ALL STEEL MEMBERS SHALL BE CLASSIFIED IN THE Protection CLASS A.

4) MATERIALS:
   A. POLES SHALL BE STEEL OF 50 KSI MINIMUM YIELD STRENGTH.
   B. POLE MAXIMUM THICKNESS IS SPECIFIED ON THE PLANS.
   C. BASE PLATE OF 3/4" THICKNESS IS MICHIGAN ON THE PLANS.
   D. BASE PLATE OF 3/4" THICKNESS IS MICHIGAN ON THE PLANS.
   E. POLE MOUNTING DETAILS SHALL BE ASHTO M 183 (ASTM A 36).

5) WELDS:
   ALL FABRICATORS SHALL CONFORM TO SECTIONS 543.1 - 543.3 OF THE ASHTO STANDARDS SPECIFICATIONS. ALL FABRICATORS SHALL CONFORM TO SECTIONS 570.1 AND 570.2 OF THE ASHTO STANDARDS SPECIFICATIONS.

6) DESIGN:
   A. DESIGN IS IN ACCORDANCE WITH THE ASHTO STANDARDS SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS (LATEST EDITION).
   B. WIND VELOCITY: 10 MPH.
   C. EARTHQUAKE HAZARD: 0.11.
   D. STEEL: 50 KSI.
   E. EARTHQUAKE HAZARD: 0.11.
   F. TRAFFIC FORCE: 3000 PSI.
   G. CIVIL ENGINEERING: 2.5 LT.
   H. CIVIL ENGINEERING: 1.2 LT.
   I. CIVIL ENGINEERING: 1.8 LT.
   J. CIVIL ENGINEERING: 1.8 LT.
   K. CIVIL ENGINEERING: 1.8 LT.
   L. CIVIL ENGINEERING: 1.8 LT.
   M. CIVIL ENGINEERING: 1.8 LT.
   N. CIVIL ENGINEERING: 1.8 LT.
   O. CIVIL ENGINEERING: 1.8 LT.
   P. CIVIL ENGINEERING: 1.8 LT.
   Q. CIVIL ENGINEERING: 1.8 LT.
   R. CIVIL ENGINEERING: 1.8 LT.
   S. CIVIL ENGINEERING: 1.8 LT.
   T. CIVIL ENGINEERING: 1.8 LT.
   U. CIVIL ENGINEERING: 1.8 LT.
   V. CIVIL ENGINEERING: 1.8 LT.
   W. CIVIL ENGINEERING: 1.8 LT.
   X. CIVIL ENGINEERING: 1.8 LT.
   Y. CIVIL ENGINEERING: 1.8 LT.
   Z. CIVIL ENGINEERING: 1.8 LT.

NOTE: ITS POLE DESIGN IS FOR UP TO TWO (2) CAMERAS WITH ONE (1) LOWERING DECK EACH TWO (2) VIVACE (MAXIMUM MOUNTING HEIGHT 50). ITS POLE DETAIL NOT TO SCALE.

LEGEND:
ITS INTELLIGENT TRANSPORTATION SYSTEMS CCTV CLOSED CIRCUIT TELEVISION VIVACE VEHICLE DETECTION SYSTEM

POLE DETAIL

NEW MEXICO DEPARTMENT OF TRANSPORTATION
STEEL PILP WITH INTERNAL CAMERA LOWERING SYSTEM AND VIVACE

POLE DETAIL

NOTE: ITS POLE DETAIL NOT TO SCALE.

LEGEND:
ITS INTELLIGENT TRANSPORTATION SYSTEMS CCTV CLOSED CIRCUIT TELEVISION VIVACE VEHICLE DETECTION SYSTEM
VDS GENERAL NOTES:
1. All cables shall be run inside pole between all components.
2. During commissioning and programming of the VDR, the angle of installation may need to be adjusted to improve accuracy of vehicle detection.
3. Installed cabling shall be as recommended by the manufacturer.
4. All cables from the control cabinet shall be encased in non-metallic liquid tight flexible conduit.
5. Contractor shall install VDS cables into pole by NMDOT approved method. Cable may be installed using existing holes or by field drilling steel poles. All cables shall have water-tight fittings for cable entrance and drip loop in cable for steel poles. All approved field drilled hole surfaces shall be reconditioned. All burrs and rough edges shall be eliminated.
6. If two (2) VDS units are required, install additional unit at manufacturer required mounting height on the same pole according to the installation requirements on this detail. Install equipment for additional unit in same cabinet as equipment for the first unit.

CCTV GENERAL NOTES:
1. Camera lowering device shall be fully compatible with camera pole to allow for internal installation.
2. Wiring shall be such that signal, coax, and power cords do not interfere with the lowering device control cable.

CAMERA LOWERING DEVICE DETAILS - VEHICLE DETECTION SYSTEM (VDS) DETAILS
GENERAL NOTES:
1. FOR DETAIL REFERENCES NOT SHOWN ON THIS SHEET, SEE SHEET TITLED "STEEL ITS PILE MISCELLANEOUS DETAILS" 750-04-4/11.
2. CABINET INSTALLATION SHALL NOT INTERFERE WITH CAMERA LOWERING DEVICE HATCHOLE.

POLE DATA

<table>
<thead>
<tr>
<th>POLE HEIGHT (FT)</th>
<th>MIN. BASE DIAMETER (IN)</th>
<th>MIN. TOP DIAMETER (IN)</th>
<th>TAPER (IN/FT)</th>
<th>MIN. THICKNESS (IN)</th>
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<tr>
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<td>10</td>
<td>5 3/4</td>
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MATERIAL DATA

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<tr>
<th>COMPONENT</th>
<th>ASTM DESIGNATION</th>
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<tr>
<td>POLE SHAFT - ALL OTHERS</td>
<td>A 572 OR 50</td>
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<tr>
<td>BASE PLATES</td>
<td>A 36</td>
<td>36</td>
</tr>
<tr>
<td>POLE TOP PLATE</td>
<td>A 36</td>
<td>36</td>
</tr>
<tr>
<td>TENON TUBING</td>
<td>A 572 OR 50</td>
<td>50</td>
</tr>
<tr>
<td>ANCHOR BOLTS</td>
<td>FT504 OR 55</td>
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</tr>
<tr>
<td>GALVANIZING - STRUCTURE</td>
<td>A 123</td>
<td>--</td>
</tr>
<tr>
<td>GALVANIZING - HARDWARE</td>
<td>A 153</td>
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</table>
DETAIL 1 TENON ASSEMBLY

NOTE: DETAIL 2 TO APPLY ONLY FOR 30-FOOT TALL POLES THAT DO NOT INCLUDE A CAMERA LOWERING DEVICE. USE DETAIL 6 FOR OTHER APPLICATIONS

DETAIL 2 VDS ONLY HANDHOLE *

* HANDHOLE INFORMATION:
HANDHOLE REINFORCEMENT SHALL BE EITHER FORGED STEEL CONFORMING TO ASTM A 576, GRADE 1021, OR FABRICATED FROM 3/16" WALL TUBE CONFORMING TO ASTM A 64 OR CAST FROM STEEL CONFORMING TO ASTM A 27, GRADE 65-35, OR FABRICATED WITH 6" STANDARD BLACK PIPE (0.280" WALL) ASTM A 53 GRADE B.

REINFORCEMENT SHALL BE WELDED TO THE POLE SHAFT IN THE 90 DEGREE LOCATION PRIOR TO GALVANIZING POLE SHAFT. COVER SHALL BE FABRICATED FROM 3/16" SHEET STEEL OR ALUMINUM. STEEL COVER IS GALVANIZED ACCORDING TO ASTM A 153. COVER SHALL BE EQUIPPED WITH TWO (2) ASG J04 STAINLESS STEEL 1/4" - 20UNC x 3/4" LG HEX CAP SCREW AND TWO (2) CAGE WASHERS.

PROVISION FOR INTERNAL GROUNDING SHALL BE PROVIDED BY A TAPPED HOLE.

HANDHOLE REINFORCEMENT SHALL STRENGTHEN POLE SHAFT SECTION TO THAT OF A SHAFT 1-1/2" IN DIAMETER WITHOUT A HANDHOLE.
GENERAL NOTES:
1. DRILLED SHAFT CONCRETE SHALL CONFORM TO SECTION 510 - PORTLAND CEMENT CONCRETE. CONCRETE IS TO BE CLASS "D" BASED ON ULTIMATE 28 DAY COMpressive STRONGH OF 3000 PSI.

2. REINFORCING STEEL (REBAR) SHALL CONFORM TO SECTION 540 - STEEL REINFORCEMENT. ASHRAE M.31 (ASHRAE 1.615) GRADE 50. DIMENSIONS REFER TO THE CENTERLINE OF THE REINFORCEMENT STEEL UNLESS OTHERWISE NOTED ON THE PLANS. ALL REINFORCING STEEL SHALL BE IDENTICAL TO CONCRETE.

3. ALTERNATIVE DESIGNS FOR FOUNDATIONS TO BE SUBMITTED TO THE STATE GEOLOGICAL ENGINEER FOR APPROVAL.

4. ALL CONCRETE, EXCEPT DRILLED SHAFT CONCRETE, SHALL BE CLASS "A" BASED ON ULTIMATE 28 DAY COMpressive STRONGH OF 3000 PSI. CHAMFER ALL EXPOSED EDGES 1/4" UNLESS NOTED OTHERWISE. LIQUEFICATION RESISTANT CONCRETE IS CONFORM TO SUBSECTION 510.2.3.1 AND 511.3.9.3 OF THE STANDARD SPECIFICATIONS.

5. FINISHED GRADE FOR ALL FOUNDATIONS TO BE APPROVED BY THE PROJECT MANAGER.

6. THE POLE FOUNDATION SHALL BE INCIDENTAL TO THE ITS STEEL POLE BASE ITEM.

7. THE CONTRACTOR SHALL COORDINATE WITH THE MNBBC FOR THE PERFORMANCE OF LOW STRAIN IMPACT TEST. MNBBC WILL BE RESPONSIBLE FOR PERFORM THE TEST.

8. THE FOUNDATION CONSTRUCTION AND THE TIME INVOLVED WILL BE INCIDENT TO THE FOUNDATION CONSTRUCTION.

SHAPE GROUND LOCALLY AROUND POLE. (3:1 MAX)

9. FURNISHING AND PLACING OF ANCHOR BOLTS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND NO DIRECT PAYMENT WILL BE MADE THEREFOR.

10. ANCHOR BOLTS:
A. 4, 6, OR 8 - ASHRAE M.314 (ASHRAE 1.1554)
   GRADE 50 ANCHOR BOLTS ARE REQUIRED FOR EACH POLE. PROVIDE A HEX NUT, LEVELING NUT, AND 2 WASHERS FOR EACH BOLT AT BASE PLATE.

B. THREADS MAY BE CUT OR ROLLED. BOLTS SHALL BE UNDAMAGED PLATES ATTACHED ARE FORCED. EACH BOLT SHALL BE PROVIDE WITH 9 OF THREADS AND FURNISHED WITH TWO NUTS AND TWO WASHERS AT EACH END.

11. PRIOR TO TIGHTENING ANCHOR BOLTS, LEVELING NUTS SHALL BE ADJUSTED SO THAT THEY BEAR UNIFORMLY AGAINST THE BASE PLATES.

12. TIGHTEN THE ANCHOR BOLT NUTS TWO OR MORE TIMES IN CROSS PATTERNS. TIGHTENING NUTS DIAMETRICALLY OPPOSED TO ENSURE EVEN TIGHTENING. THE BOLTS SHALL BE TIGHTED ACCORDING TO SECTION 542 - HIGH-STRONG BOLTS OF THE STANDARD SPECIFICATIONS.

13. AFTER TIGHTENING, TACK WELD THE TOP NUTS TO THE ANCHOR BOLTS TO ENSURE THAT THE NUTS WILL NOT LOOSEN.
NOTE
1. TENON ASSEMBLY TO BE HOT DIPPED GALVANIZED PER ASTM A 153 AND AASHTO M 232.
ERCTION AND HANDLING NOTES:

1. THE CONCRETE POLE WAS INVESTIGATED FOR THE HANDLING AND ERECTION SUPPORT CONDITIONS SHOWN.

2. FOR ERECTION AND HANDLING SUPPORT CONDITIONS OTHER THAN THE ONES SHOWN, IT IS THE RESPONSIBILITY OF THE CONTRACTOR/FABRICATOR TO ANALYZE THE POLE FOR THE ACTUAL SUPPORT CONDITION UTILIZED.

<table>
<thead>
<tr>
<th>POLE HEIGHT (FT)</th>
<th>MAX POLE LENGTH (FT)</th>
<th>APPROX. POLE WEIGHT (TONS)</th>
</tr>
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<tbody>
<tr>
<td>30</td>
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<td>80</td>
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ERCTION AND HANDLING DETAIL (30' POLE)

ERCTION AND HANDLING DETAIL (65' POLE)

ERCTION AND HANDLING DETAIL (50' POLE)

ERCTION AND HANDLING DETAIL (80' POLE)
1. END TERMINALS SHALL BE HINT TANNED DIPPED AND SHALL HAVE A COATING OF SOLDER ON ONE SIDE. THE SOLDER COATED SIDE SHALL BE ON THE INSIDE OF THE BEND.

#2 AWG BARE STRANDED COPPER WIRE CONNECTION DETAIL

NOT TO SCALE

#2 AWG BARE STRANDED COPPER WIRE

NOT TO SCALE

GROUND ROD GRID

NOT TO SCALE

NOTES:
1. ALL CONNECTIONS TO BE EXOTHERMIC WELDS
2. INTERFACES TO BE PAINTED OR COATED WITH VINYL–MASTIC TO PREVENT CORROSION.
3. IN ROCKY TERRAIN, ROADS CAN BE BURIED HORIZONTALLY IN TRENCHES 2 DEEP.
4. CONTRACTOR SHALL MEASURE GROUND RESISTANCE TO PROVIDE AS PART OF AS–BUILT DATA.