**DESCRIPTION:**

1/2" ETP Alloy 110 Copper Air Terminal (Class II) UL-96A Listed

- Bond #3 AWG Tin-Plated Bare Solid Copper Ground Wire To The Air Terminal. A Steel Pole May Be Used As A Grounding Conductor If It Has Sufficient Cross-Sectional Area To Equal The Conductivity Of Main Lightning Conductors Per NFPA 70E And A Minimum Wire Thickness Of 1/2" Or Greater.

- Dome Type CCTV Camera

- #2 AWG Tin-Plated Bare Solid Copper Wire.

- Concrete CCTV Pole

- Pull Box

- Exothermic Weld

- Ground Rod A

- Primary Ground Rod Assembly (See Inset A)

- STEEL CCTV POLE

- 2' Min.

- 8' Max.

- Concrete

- 12" Min.

- 30" Max.

- 40' Typ.

- 1/2" Diameter By 20' Long Copper-Clad Steel Ground Rods Driven Into Undisturbed Earth (See Inset A)

- CONCRETE CCTV POLE

- 2' Min.

- 8' Max.

- Concrete

- 12" Min.

- 30" Max.

- 40' Typ.

- 1/2" Diameter By 20' Long Copper-Clad Steel Ground Rods Driven Into Undisturbed Earth

**GROUNDING AND LIGHTNING PROTECTION**

- For Concrete Poles That Do Not Have Embedded Ground Wire. Install #2 AWG Tin-Plated Bare Solid Copper Wire To Camera Support Base As Required. Bond To Air Terminal And Ground Rod With Exothermic Welds.

- 1/2" x 10 PVC Conduit Sleeve Shall Be Provided To Protect Any External Ground Wire From Mechanical Damage. Ensure Conduits Are Sealed To Prevent Water Intrusion.

- #2 Wire May Be Routed Internally Or Externally According To Project Requirements.

- UL-96A Listed Air Terminal (Class II)

- "ETP Alloy 110 Copper"
Grounding and Lightning Protection

Air Terminal Placement (Lowering Device Pole)

Per NFPA 780-4.16.3
Minimum Contact Area
Surface Base of 8 Square-Inch
ETP Alloy 110 Copper

#2 AWG Tin-Plated Bare Solid Copper Ground Wire. Bond To Air Terminal

Air Terminal Placement (Span DMS)

Per NFPA 780-4.16.3
Minimum Contact Area
Surface Base of 8 Square-Inch
ETP Alloy 110 Copper

#2 AWG Tin-Plated Bare Solid Copper Ground Wire. Bond To Air Terminal

Air Terminal Placement (Cantilever DMS)
**GROUNDING AND LIGHTNING PROTECTION**

**GROUND ROD ARRAY PLACEMENT**

**Typical**
20' RODS, 40' SPACING

**Ground Rod C**

**Primary Ground Rod A**

**Ground Rod B**

**Ground Rod D**

**Foundation: CCTV or DMS Pole**

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**Modified Sphere Of Influence: 90 Degree**

**Ground Rod C**

**Primary Ground Rod A**

**Ground Rod B**

**Ground Rod D**

**Foundation: CCTV or DMS Pole**

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**INSET "A"**

"Sphere Of Influence: 120 Degree"

"Modified Sphere Of Influence: 90 Degree"
GROUNDING AND LIGHTNING PROTECTION

COMMUNICATION TOWER

GROUND ROD ARRAY PLACEMENT
(Communication Tower)
20' RODS, 40' SPACING

GROUND ROD ARRAY PROFILE
(Communication Tower)