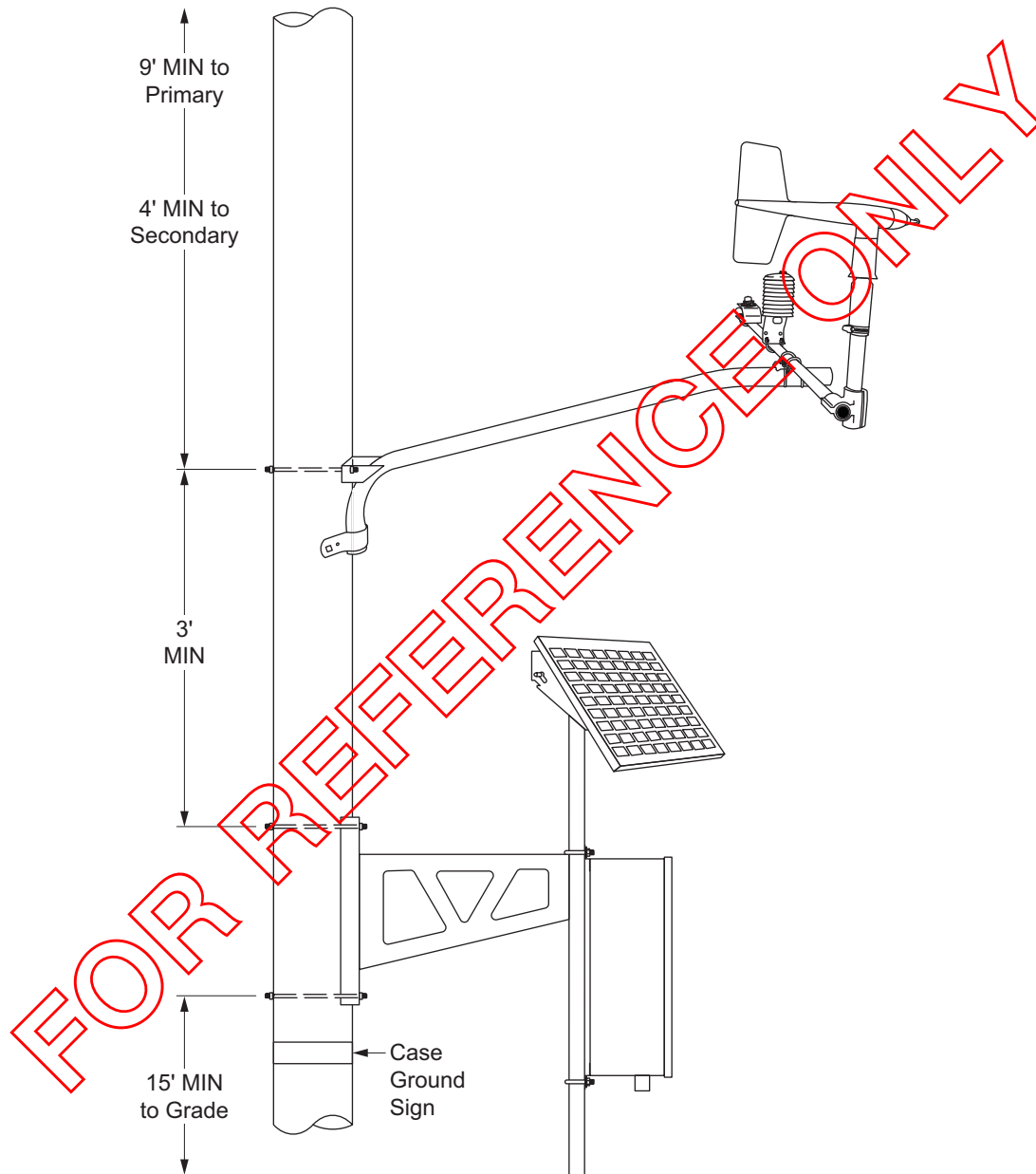




AP 810 Weather Monitoring System

Scope AP 810.1 Weather Monitoring System

Figure AP 810-1: Typical Installation of Cellular Weather Monitoring System



Note(s):

1. The Weather Station Pilot has been approved to be installed in the following districts: Thousand Oaks, Antelope Valley, Menifee, Monrovia, Saddleback, and Valencia.
2. All clearances shown specify the minimum required for installation.
3. Solar panel shall face south with a 55 degree tilt from horizontal.

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RR

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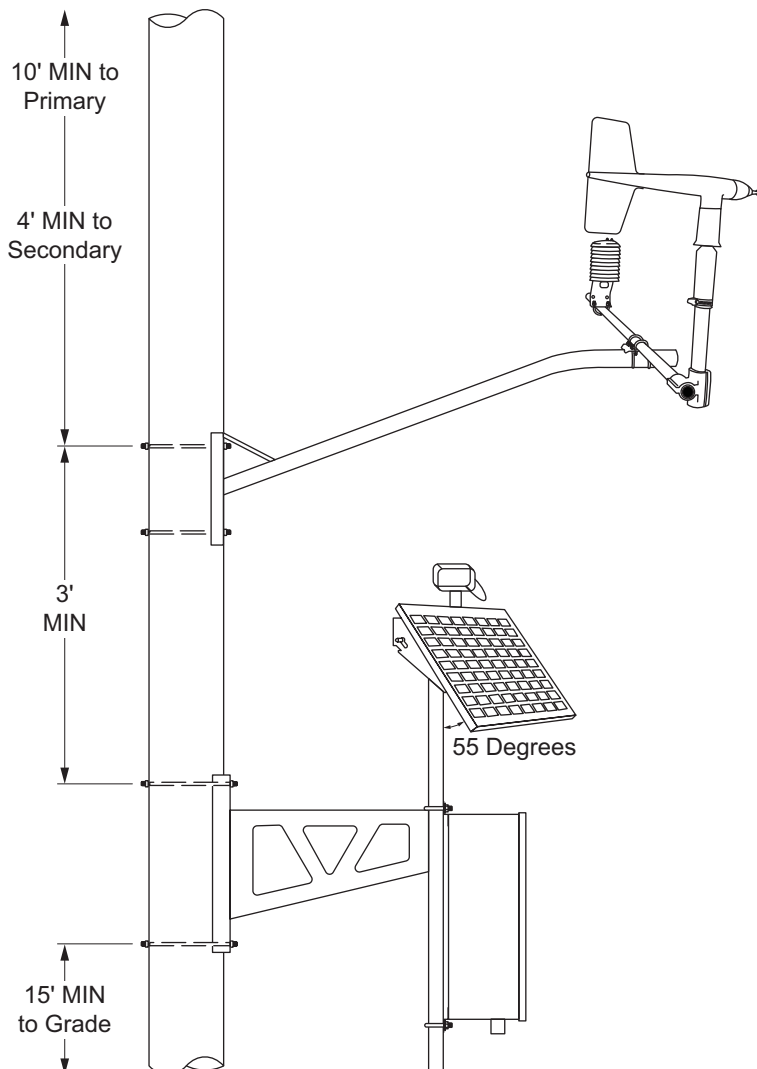
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What's Changed?

DAP

**Scope AP 810.2 Weather Monitoring System Scope****Figure AP 810-2: Typical Installation of Satellite Weather Monitoring System****Table AP 810-1: Material List**

CU	SAP	Description	Quantity	Unit
MISC-O-WXSTN-1	10211724	Mounted Fixed BGAN Satellite Assembly	1	EA
	10112582	PVC Conduit (1" diameter)	10	FT
	10112990	Conduit Strap (1" Conduit Size)	8	EA
	10114092	PVC Conduit Elbow (1" diameter)	2	EA
	10118515	Street Light Arm Upsweep Bracket	1	EA
	10211408	Weather Station (Temperature/Humidity Sensor and Anemometer)	1	EA

Note(s):

1. All clearances shown specify the minimum required for installation.
2. Solar panel shall face south with a 55 degree tilt from horizontal.

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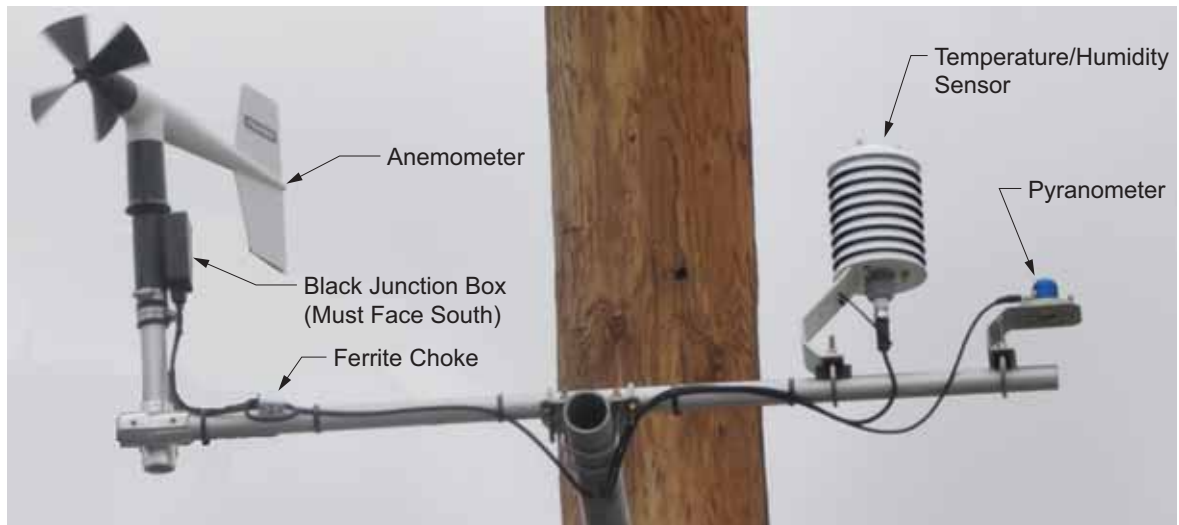
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1.0 Weather Station Sensors

Each weather station shall consist of two sensors: an anemometer (for wind speed and direction), and a temperature/humidity sensor. These sensors are used to determine local weather conditions.

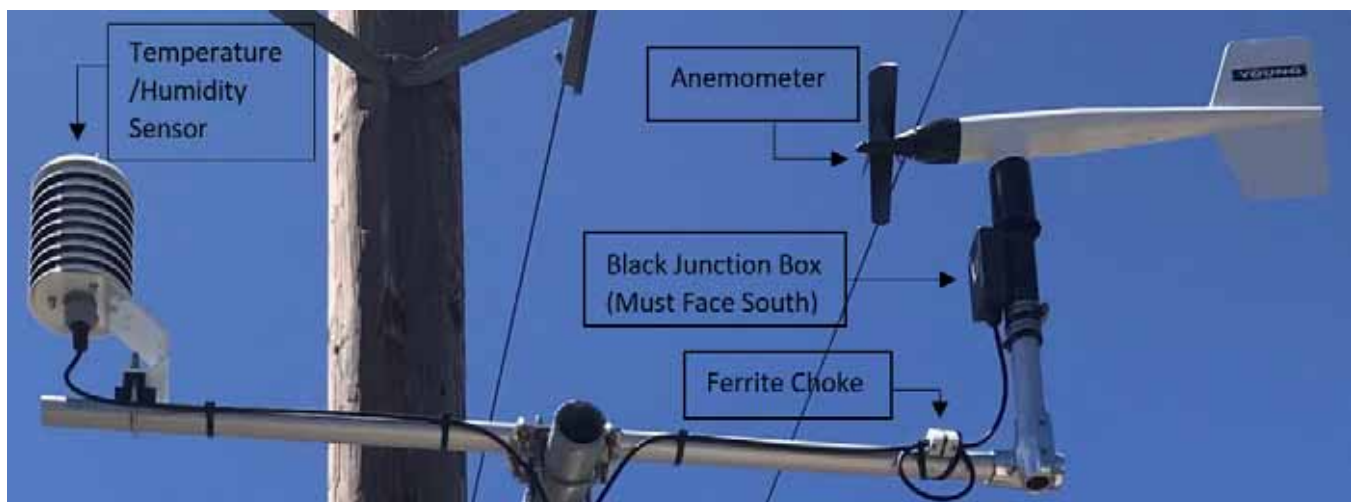
The streetlight mast arm when possible should be installed in an EAST-WEST orientation, with the arm holding the sensors parallel in a NORTH-SOUTH orientation. The anemometer shall be installed by itself on one side of the arm as close to the edge as possible, with the temperature sensor installed on the opposite arm (see [Figure AP 810-2](#)).


Figure AP 810-3: Typical Installation of Weather Monitoring System (Sensors) — FRO



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Figure AP 810-4: Typical Installation of Weather Monitoring System (Sensors)



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- The anemometer's small black box must be installed to face south (see [Figure AP 810-4](#)). The anemometer cord shall be "doubled-up" into the ferrite chock within the first 12 inches of cable. The anemometer shall be installed at a 90 degree angle.
- All cables shall be fed through the opening on the underside of the streetlight mast arm.

2.0 BGAN Bracket (NEMA Enclosure and Solar Panel)

Each weather station shall be solely powered by a battery and solar panel. The NEMA enclosure and Solar Panel shall both be mounted to the BGAN Bracket for climbing purposes.

Figure AP 810-5: Typical Installation of Weather Monitoring System (NEMA Enclosure and Solar Panel) — FRO



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**Figure AP 810-6: Typical Installation of Weather Monitoring System
(NEMA Enclosure and 65-Watt Solar Panel)**



3.0 Sensor Wiring

Sensor wiring shall be installed in the hole on the underside of the streetlight mast arm, then continue through 1-1/2-inch conduit down to the BGAN bracket. A wiring diagram is provided to connect each sensor to the terminal block. Cable entrance shall be sealed to be watertight.

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