Existing curb lines and roadway features that are to be removed or relocated during construction may need to be shown on the lighting plans to insure the contractor understands the potential conflicts. For Example: The Contractor should clearly understand that the plan requires installation of light poles and conduit in an area that was once an asphalt parking lot, but is now planned to be a grassy landscaped area.

## 4.8.2 Plan Sheet Symbols and Call-outs

Once the entire layout of the roadway lighting plan has been developed; including the location of the light poles, junction boxes, control centers, conduit runs, and wire sizes, the various roadway lighting symbols are added to the plan sheets. Call-outs are placed on the plan sheet indicating each required item to be installed by the contractor. These call-outs and symbols must exactly match the plan pay items. Figures 4-5 and 4-6 provide a simple example of plan sheet symbols and call-outs.

## 4.8.2.1 Luminaire Call-outs

Each luminaire call-out should include an annotation indicating its source of power. For a 3-phase lighting system, this note should reference the phase, circuit, and control center from which it is fed.

**Conventional** luminaire call-outs must include a reference to wattage, bracket arm length, and mounting height.

**Offset** luminaire call-outs must include a reference to wattage, tilt angle, and mounting height. If the tilt angle is the same for all luminaires (e.g., 0-degrees), the angle may be stated in the General Notes or in the plan details. The offset tilt angle written on the plans is referenced to straight down. It is important to note that some lighting manufacturers (in their .IES file) reference the nadir (0-degrees) for their offset luminaires as 45-degrees from straight down. The manufacturer's convention should not be confused with the construction plan's convention of referencing the luminaire tilt angle. This issue should be made very clear to the contractor in the light pole details included with the plan set.

**High mast** luminaire assembly call-outs must include a reference to wattage and number of luminaires on the assembly. The pole length is frequently included in the luminaire call-out for clarity, however, this annotation may be redundant to the "Pole Type" associated with the pole call-out. If a high mast luminaire must be installed with its optics oriented at a particular bearing, an arrow must be added to the symbol to indicate the luminaire's aiming direction.

## 4.8.2.2 Pole Call-outs

The pole call-out provides the contractor with a pole location, pole number, and pole type.

- The pole location usually references a survey baseline as explained in <u>TEDM</u> <u>Section V – Roadway Lighting, Chapter 4, 4.8.4.</u>
- <u>TEDM Section V Roadway Lighting, Chapter4, 4.8.3</u> provides an example pole numbering convention.