

Traffic Signal Pre-Inspection Turn On

The following checklist is a guideline offered to electrical contractors for traffic signals within the City of Fairfield. It is recommended contractors review checklist prior to and during construction to facilitate the final inspection process. This is offered as a guideline and may or may not include all City of Fairfield requirements. It remains the contractor's responsibility to review all applicable documents to verify compliance to City of Fairfield standards and specifications or special provisions. (6-3-10 V1)

Indications/Signal & Pedestrian Heads

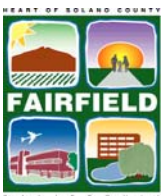
- Are the heads aligned properly with the lane and leveled according to the horizontal and vertical edge of the backplate?
- Is the slip fitter on the mast arm pipe tenon secure, aligned, and facing oncoming traffic?
- Does the conductor terminate in a terminal block or junction box? Are the wire crimps and terminations secure when you pull or tug on them?
- Have the countdown indications been installed with the egg crate louver?
- Is the signal plumbing securely fastened to the poles?
- Are the knockouts deburred and free of sharp edges that could damage conductors over time?

Cabinet & Service Enclosure

- Are the field wires neatly terminated, color coated, and labeled in the cabinet?
- Are the service and controller cabinet free of dirt and debris both inside and outside?
- Is the cabinet level?
- Is there a water tight seal between the base of the cabinet and the concrete pad?
- Has the cabinet been tested and inspected by City staff?
- Are there three (3) cabinet prints and product instruction documents in the cabinet shelf?
- Are the detector wires landed properly on the detector termination panel/strip?
- Are the opticom conductors landed properly in cabinet for the preemption cards?
- Is the wireless equipment terminated at the proper location? Is the actual equipment mounted on the upper rear left corner of the cabinet?
- Does each pole or pole/mast arm have its own conductor home run for a particular phase to the controller cabinet? Multiple indications with the same phase can be terminated in a terminal or junction box with a home run to the controller cabinet.
- Are the copper communication cables properly terminated and remaining pairs tied off? Is the communication equipment securely fastened to the cabinet?

Conduit and Pull Boxes

- Are the conductors neatly wound to the internal walls and labeled in the pull box per their phase and detector input?
- Does the pull box sump contain ¾" clean rock? If grouted, are there drain holes to allow moisture to escape?
- Are the conduits at least 2" – 4" above the ¾" clean rock/grout? Does each conduit end include a bel end?



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- Are the pull box lids clean and free of grout or other debris?
- Are the detectors loops labeled per their input in the cabinet (i.e., 2I7U) at each pull box location?
- Is there duct seal in each of the conduits?
- Is there ¾" 2500 flat woven polyester pull tape with tracer wire in each conduit?
- Are the conduits and pull boxes properly bonded and grounded utilizing bonding jumpers and #8 solid bare copper conductors?

Intersection Lighting

- Have the fixtures been leveled?
- Are standard cobra head street light fixtures installed with induction lights, aluminum heat sink device, and an electronic ballast?
- Is the non-delay photocell aimed due north?
- Does the fixture operate properly?

Poles/Mast Arms

- Are the poles plumb/leveled?
- Is the pole standard stamped or bead welded on the base plate of the pole?
- Has the plumbing hardware, poles, and arms for mounting signal hardware been de-burred and free of sharp edges?
- Are the optical receivers for preemption properly aligned with the #1 through lane and mounted on the mast arm?
- Is the wireless antenna mounted with a sky bracket and aimed in the correct direction per traffic staff?
- Are the regulatory signs on the mast arm mounted with two contact points per Caltrans May 2006 Standard Detail?
- Are the street name signs mounted correctly to the pole/mast arm with minimum three (3) contact points on pole/mast arm? Or two (2) contact points on pole?
- Have the through bolts been shortened with no more than 1" exposed? If the bolts have been cut, are the sharp edges smoothed over?
- Is there grout between the base plate of the pole and concrete foundation?
- Are the reflective street light numbers installed on the pole at the proper height?

Detectors and Pedestrian Push Buttons

- Has the detector loop been tested for resistance to ground measuring at least 2000 mega-ohms?
- Have the detector loops been properly placed a minimum of 1' behind the limit line?
- Are the detector homeruns spliced to the loops and soldered with 60/40 rosin core with the proper taping and insulation?
- Are the pedestrian buttons located maximum 5' from the extended crosswalk line?
- Are the pushbuttons signs ceramic and provided with a three (3) colors with brass grommets?
- Are the buttons ADA approved with a momentary switch lighted upon activation?
- Are the pedestrian buttons mounted at the correct height according to Caltrans Standard details may 2006?

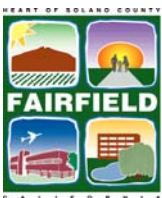


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Other

- Are the high intensity street names clearly shown and spelled correctly?
- Has the optical preempt detector been drilled out to release any moisture?
- Has the as-built drawing been provided to the City? Electronically?
- Are all the communications wired or wireless terminated according to the manufacturer or City requirements?
- Is the striping and markings correct and consistent with the traffic signal phasing?
- Do signs need to be modified, removed, or covered when the traffic signal is energized?
- Is the battery back-up system secure and mounted separately on the concrete pad?



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