



# Signalization Checklist

This checklist is a guide for submitting complete and accurate plans to the city. See your project's DR, PP, ZN, UP, the Design Standards & Policies Manual (DS&PM), and contact your Project Coordinator for specific requirements.

- 1. Cover sheet and basic plan requirements, when required, per Plans Cover Sheet & Typical Sheet Checklist and the DS&PM, Section 1-2.
- 2. Contact COS Traffic Engineering and Plan Review to clarify "Signal Operation and Design Requirements".
- 3. Consult DS&PM Section 5-4 and conform to requirements for a Traffic Signal Plan.
- 4. Show General Notes on the cover or detail sheet as shown in DS&PM Sections 1-2 and 5-4.302.
- 5. Use ADOT drafting symbols on traffic signal plans.
- 6. Locate all existing and proposed improvements, above and below ground, within 200 feet of the intersection.
- 7. Locate all existing and proposed pavement marking and signing; include "turn arrows" for dedicated turn lanes.
- 8. Locate existing vegetation over 5 feet tall that could impact required signal visibility distances. Median vegetation must be set back 1500 feet to prevent obstructing visibility.
- 9. A Police Officer is required on-site when working within 300 feet of a signalized intersection.
- 10. Provide a plan in profile where vertical roadway alignments may impact traffic signal visibility requirements. Use a scale of 1 inch = 40 feet.
- 11. Install Vehicle-Count Detectors when and where required by COS Traffic Engineering..
- 12. Provide bearings for EACH leg of the intersection when deflection is greater than 2 degrees (from 180 or 90 degrees).
- 13. Locate all traffic signal poles, conduits, and equipment within public rights-of-way or easement.
- 14. Controller and cabinet must be type 170 HC11 with type 330 cabinet and extension base with removable panel.
- 15. Electric service (meter) cabinet must be MYERS MEUG16 ISA or APS/SRP approved equivalent. UPS shall be USTraffic/Powerback 2000 in a Model 336 cabinet powder coated Scottsdale White..
- 16. Locate signal poles, controller cabinet, electric service cabinet, UPS, and telco-intertie by station and offset dimension.
- 17. Provide address for electric service (meter) cabinet, available from the COS Records Department.
- 18. Install only one traffic signal pole per corner, unless geometrics or other considerations necessitate installation of an additional pole.
- 19. Provide intertie conduit and cable from Telco-phone-closure (20-gauge, 3 pair communication cable Beldon 9418 or approved equivalent).
- 20. Provide Emergency Vehicle Signal Pre-emption, using 3M Opticom optical detectors Model 721 with Model 752 Phase Selector and Model 138 detector cable or city approved equivalent.
- 21. Locate and specify source of electric service, UPS, and TS Controller. Design conduit path per COS Traffic Signal Special Requirements.
- 22. Provide phasing diagrams for initial signal operation and 8 Phase operation, unless otherwise directed by Traffic Engineering.
- 23. Provide conductor schedule indicating conduit run number, conduit size, wire type/size, phase, and any other pertinent information.
- 24. Install two IMSA 19-1 20 stranded conductor cables, with all other necessary conductors to be provided in each underground.
- 25. Install luminaries on mast arm poles where overhead clearances meet or exceed utility company requirements. Luminaries shall be GE M250AZ type or approved equivalent with ALR Model 2172NP3 Photocell or approved equivalent.
- 26. Underground/field wiring shall be IMSA 19-1 20, 7 & 4 conductor, stranded and marked according to COS required color codes for phasing.
- 27. Pull boxes shall be ADOT size #7 Fiberlyte type unless otherwise noted .
- 28. Wide-viewing angle LED indications shall be used for all indicators and peds.
- 29. Traffic Signal contractors shall have one IMSA Level 2 technician and one IMSA Level 1 technician minimum on-site at all times during working periods.
- 30. Pedestrian detection push-button units shall be located 36 to 42 inches high on pole to fulfill ADA requirements.
- 31. Contact Traffic Signal Supervisor at 480-312-5635 to arrange pre-construction meeting and set up inspection points during construction process.

## Planning & Development Services Department

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