

CHAPTER 2
TRAFFIC ENGINEER

2-1 STREET STANDARDS AND GEOMETRICS

A. Parkway

The Parkway is required to move large volumes of traffic. Access to the Parkway will be limited. Service to abutting land is subordinate to provision of travel. Fully controlled access is required. The Parkway location is shown on the Street Classification Map.

B. Parkway Section

Peoria Standard Detail PE-010-1 is intended for use on the parkway with standard lane configuration (3-M-3) with the addition of right and left turn lanes as required. Limited access with three right-in, right-out access points per mile per direction. Major signalized intersection locations will be at the mile points and potential half-mile points. Vertical curb, gutter and median curbs are required. The Urban Section of the Parkway shall have a scenic corridor buffer of 15-feet from the right-of-way line, the Suburban Section of the Parkway requires a scenic corridor buffer of 30-feet from the right-of-way and the Rural Section shall have a scenic corridor of 50-feet from the right-of-way. A 10-foot pedestrian path is required on the west and north side of the parkway and a 6-foot path is required on the east and south side.

C. Arterial Streets

Arterial streets are the backbone of the City of Peoria's transportation infrastructure. Arterials handle high traffic volumes at moderate traffic speeds. The City of Peoria classifies arterials as major arterials or minor arterials, further defined in Section 3-1.

Right-of-Way and Street Section requirements for each Arterial Street are shown on the Street Classification Map. Section details are per City of Peoria Standard Details PE-010-2 and PE-010-3.

2-2 TRAFFIC CONTROL DEVICES

A. General

Traffic control, sign, barricades and pavement markings shall be in accordance with the Federal Manual on Uniform Traffic Control Devices (MUTCD) as revised. Street and lane closures shall be accordance with the Phoenix Traffic Barricade Manual and the MUTCD as revised. When any existing traffic control signs, barricades, guard rails, traffic signal facilities and equipment is called to be removed or replaced care shall be taken to salvage such facilities and equipment and deliver to the Maintenance Operations Center (M.O.C.), Public Services Yard at 8850 North 79th Avenue.

B. Traffic Signs and Pavement Markings

1. All new developments shall provide the required traffic control signs, street name signs, sign posts and pavement markings on all streets and intersections. The Developer is responsible to furnish and install the signs, posts and markings. Final Certificate of Completion and Construction bonds will not be released and streets will not be opened to the public until all signs and markings have been installed.
2. A Signing and Pavement Striping Plan shall be submitted to the Engineering Department and approved through the plan review process. All required signage will be shown on the plans (i.e., call out required stop sign and sign pole base upon entry to an existing arterial and/or collector street). It is the Design Engineers' responsibility to include all signing and striping to complete a safe design.
3. A local street signing plan is required for all residential subdivisions. This plan shall show all required signing and markings for internal and local roadways.
4. All signs and sign posts shall conform to the City of Peoria Standards and be installed per Peoria Standard Detail PE-032.
5. All striping shall conform to the City of Peoria Standards and be installed per Peoria Standard Details PE-011 through PE-020.
6. The Pavement Signing and Striping Plan shall include specifications and locations of Raised Pavement Markers (RPM's).

C. Traffic Signals

1. Signal Modifications. Signal modifications that are a result of street widening or recommended in the Traffic Impact Analysis related to the development are the responsibility of the Developer.
3. Signal Conduit. Signal conduit with pull boxes shall be provided at all major arterial, minor arterial and collector street intersections as shown in Peoria Standard Details PE-033 through PE-035.
4. Specifications and Details. Traffic signals shall be designed in accordance with the Arizona Department of Transportation, Traffic Signals and Lighting, Specification and Standard Drawings.
 - A. Traffic signal poles and hardware shall conform to the Arizona Department of Transportation standards and shall be approved through the Electrical Equipment Submittal process.
 - B. Traffic signal cabinets and controller/electronic equipment shall be selected from the City of Peoria approved Traffic signal cabinets and controller/electronic equipment list. Traffic signal cabinets and controller/electronic equipment shall be approved through the Electrical Equipment Submittal process.

- C. Internally Lighted Street Name Signs (ISNS) / Metros shall conform to the City of Peoria Standards. The design of the ISNS shall be approved through the Electrical Equipment Submittal process. The installation of the ISNS shall be coordinated with the Traffic Operations Supervisor.

D. Barricades

1. All new developments shall provide a typical end of road marker at all dead ends and incomplete streets. The end of road markers shall be nine red reflectors, each with a minimum dimension of three-inches, mounted symmetrically on an 18 diamond back panel. Five or more markers shall be used at the end of the roadway. The minimum height of the marker shall be four-feet.
2. If an existing barricade is removed, it shall be salvaged and delivered by the contractor to the Maintenance Operations Center (M.O.C.), Public Services Yard at 8850 North 79th Avenue.
3. With approval by the City, barricades installed by phased construction may be relocated within the same development if the condition of the barricades is restored.
4. Barricades shall be set one foot inside the subdivision being developed. The pavement should stop short of the barricade.

E. Guard Rails

Guard rails when required shall be per the Maricopa County Department of Transportation, Roadway Design manual, Section 5.30.

F. Transition Tapers

Transition tapers when required shall be per Figure 3-4.

G. Street and Lane Closure

A request submitted in written form to the City is required at least 48-hours in advance for any lane or street closure. A Traffic Control Plan must be submitted, approved by the City and acknowledged a minimum of 48-hours prior to any work proposed to be undertaken within the street right-of-way. All construction zone signing shall be installed and maintained per the Phoenix Barricade Manual and the Federal Manual of Uniform Traffic Control Devices at the developer's expense. Traffic Control Plans shall be faxed to the Off-site Inspector Supervisor at (623) 825-0325.

2-3 PARKING AND ACCESS

Parking is prohibited on parkway and arterial streets. Where permitted on local streets, parking shall be parallel to the flow of traffic, unless a designated parking area is provided which allows angled or perpendicular parking.

Any parking backing into the main drive aisles of a commercial development will be prohibited.

The minimum throat length of all accesses/driveways will be 50'. Longer throat lengths may be required based on the Traffic Impact Analysis.

2-4 DRIVEWAYS

A. General

Driveway access will be granted upon due consideration of pedestrian and vehicle safety, the resulting interference with the movement of vehicular traffic, interference with existing public improvements, unreasonable interference with the rights of the public in the adjacent street and alley and whether other access exists to the private property.

All driveways serving property abutting public streets in the City shall conform to the following guidelines. Driveways shall be constructed per Peoria Details PE-251-1, PE-251-2, and PE-251-3.

B. Width

The width of a driveway shall be measured as the width at the throat of the driveway projected to the curb line, exclusive of wings or return radii. Driveway widths shall be in accordance with Peoria Standard Detail PE-251-3.

C. Distance Between Driveways

The distance between driveways shall be measured as the distance between inside edges of the driveways. See Peoria Standard Detail PE-251-3 and the Access Management Guidelines for minimum separation distance requirements.

D. Construction

Construction shall be per Peoria Standard Details PE-251-1, 251-2, and 251-3.

E. Number of Driveways

1. Residential lots shall be permitted a single driveway where lot size is less than 18,000 square feet. No more than two driveways are permitted for lots larger than 18,000 square feet in area with up to a maximum width of 24-feet allowed for the primary driveway, and up to a maximum width of 12-feet for the secondary driveway. Exceptions of these guidelines may be approved when appropriate justification can be demonstrated and approved by the City Engineer.
2. Commercial, industrial and Multi-family residential properties are to minimize the number of driveways. Site plans shall be arranged to minimize number of driveways, by providing shared access and cross-access. Maximum number of driveways shall be per Peoria Standard Detail PE-251-3.
3. Notwithstanding the provision of these standards, where ample justification exists, the City may approve driveways up to a maximum width of 40-feet.

2-5 TRAFFIC IMPACT ANALYSIS

1. A Traffic Impact Analysis (TIS) shall be submitted with new development plans. The TIA must be in accordance with the Circulation Study Assessment (dated March 2008), TIA criteria (dated January 2002), and revised Deceleration Lane criteria (dated March 31, 2003).

2. The TIS for a school has additional requirements. See appendices School TIS Criteria.

2-6 15 MPH SCHOOL CROSSINGS

1. Requests for 15 mph School Crossings from Public Schools in the Peoria Unified School District shall be submitted to the Peoria School District Superintendent. Submit 15 mph School Crossing requests to:

Peoria Unified School District
Support Services Complex
10721 North 95th Avenue
Peoria, AZ 85345

2. Requests for School Crossings from Public Schools in the Deer Valley Unified School District shall be submitted to the Deer Valley School District Superintendent. Submit school crossing requests to:

Deer Valley Unified School District
20402 North 15th Avenue
Phoenix, AZ 85027

3. Requests for School Crossings from Private/Charter Schools in the City of Peoria jurisdiction shall be submitted to the City Traffic Engineer. Submit School Crossing request to:

City of Peoria
Traffic Engineering
9875 North 85th Avenue
Peoria, Arizona 85345