mesa·az Transportation Advisory Board Report

Date: December 20, 2016

To: Transportation Advisory Board

From: Sabine Ellis, City Traffic Engineer

Subject: Recommended Updates to City Code:
                  Signing and Sight Distance Visibility Requirements in Subdivisions

Purpose and Recommendation

To be in compliance with current design requirements and preferred practices, staff recommends the following modifications to the Subdivision Regulations in Mesa City Code (City Code):

1. Subsection 9-6-3(C)4.(i): Remove Figure 20 of sight distance visibility requirements and refer to Engineering Procedure Manual (Manual).

2. Subsection 9-6-4(D)12.: Make the installation of street name signs the responsibility of the subdivider, not the City.

Background

During a routine review of City Code, it was noted that the sight distance visibility requirements shown in Figure 20 of Subsection 9-6-3(C)4.(i) are outdated.

Per City Code Subsection 9-6-4(D)12., it is the responsibility of the subdivider to install signposts and pay a fee to the City for the installation of street name sign faces. However, staff discovered that this fee has not been charged, nor is it included in the City's Schedule of Fees and Charges. This means that there is no mechanism in place to allow for the collection of these cost. Essentially, subdividers whose developments require street name signs are unable to comply with City Code.

Discussion

Sight Visibility
Sight visibility requirements are covered in detail as part of the Manual, which is updated in regular intervals. Thus, Figure 20 shall be removed and replaced with a reference to the Manual.

Street Name Signs
Per City Code, subdividers are responsible to install all traffic control devices within City right-of-way (Subsection 9-6-4(D)11.) except for street name sign faces (Subsection 9-6-4(D)12.). City staff installs approximately 150 street name sign faces in new subdivisions every year, at a total cost of $12,000. After internal discussions, it was decided that it would be in the best interest of the City to require subdividers to install street name signs themselves. That way, the City can utilize its resources more effectively. It should be noted that the City of Scottsdale and the Town of Gilbert follow this same procedure, while other municipalities in the valley charge developers for the installation of street name signs.

Refer to the attached Figures for the proposed changes to City Code.

Alternatives

Doing nothing is an alternative that is not recommended. For the sight visibility requirements, it would mean that Figure 20 is in conflict with the Manual and thus, not in compliance with current design standards. For street name signs, a new fee would have to be established in the City's Schedule of Fees and Charges and a process be put in place to quantify the number of signs in order for the City to be able to collect the applicable cost from the subdivider.

Coordination

The proposed changes to City Code have been coordinated with Engineering, Development Services, and the City Attorney's office.
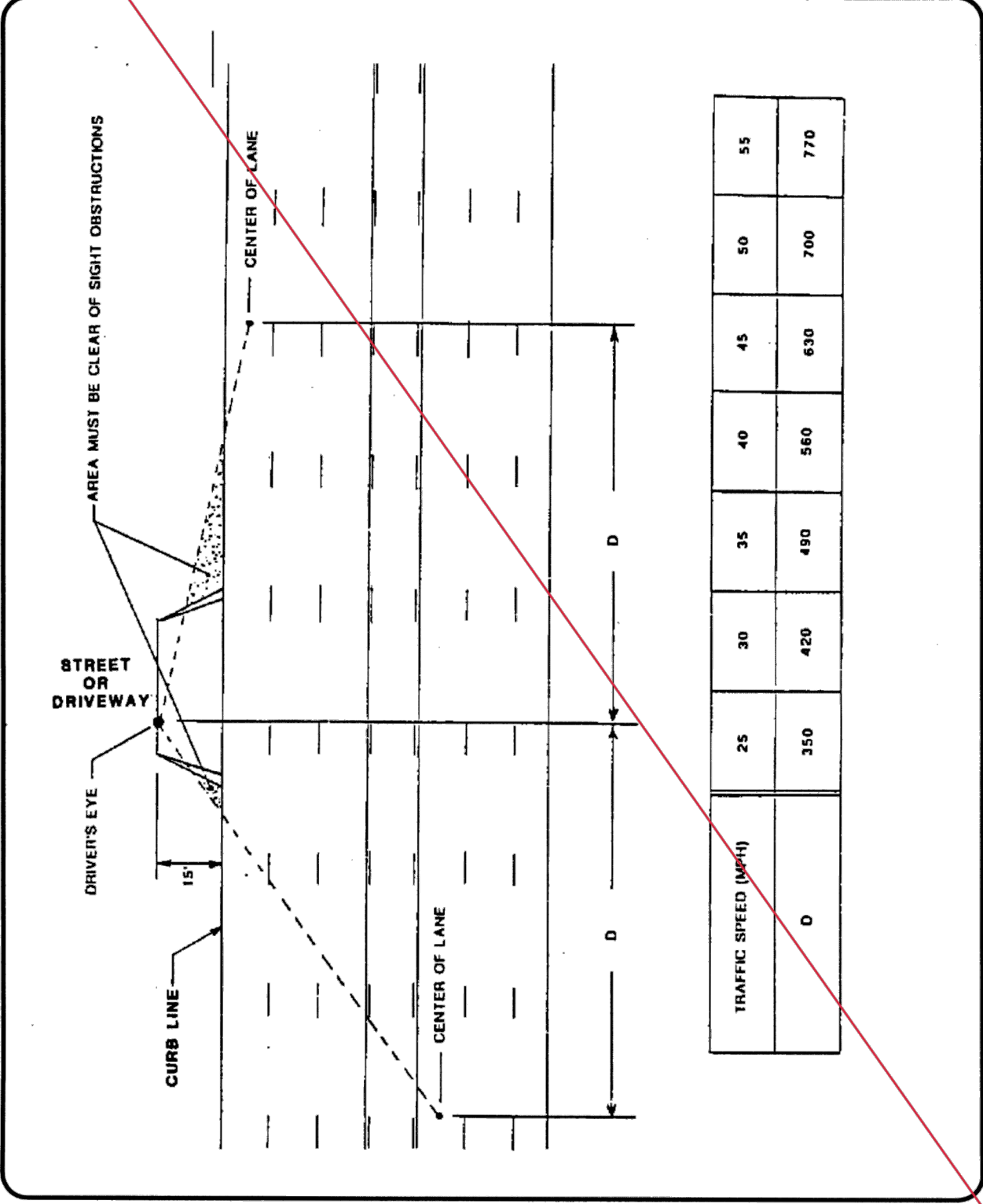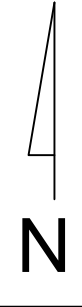
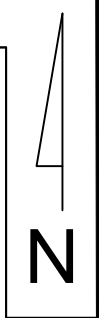**Fiscal Impact**

There is no fiscal impact to these updates.

(e) Local street intersections with four (4) legs and all collector and arterial street intersections shall be designed to comply with the curve and tangent section requirements given in the Curve Table of this Section, unless otherwise approved by the Traffic Engineer and City Engineer (see Figure 6). (2474/Reso. 6188)

(f) Local streets intersecting any street shall have a tangent section of centerline at least two hundred feet (200') in length measured from the right-of-way line of the intersecting street; except that no such tangent is required when the local street curve has a centerline radius of four hundred feet (400') or greater and is the terminating street at a "tee" intersection, with the center located on the intersecting street right-of-way line. Where topographic conditions make necessary other treatment to secure the best overall design, these standards may be modified by the Traffic Engineer and City Engineer (see Figure 6). (2474/Reso. 6188)

(g) Street intersections with more than four (4) legs and Y-type intersections where legs meet at acute angles shall be prohibited. Intersections on the inside of a horizontal curve on arterial, collector, or local streets shall be avoided, unless otherwise approved by the Traffic Engineer and City Engineer (see Figure 9). (2474/Reso. 6188)

(h) At all street intersections, property line corners shall be rounded by a circular arc, said arc having a minimum radius of fifteen feet (15') or by a cutoff whose tangent lengths would be equal to those of a rounded corner (see Figure 5). (2474/Reso. 6188)

(i) All street intersections shall be designed to meet minimum sight distance visibility requirements (see Figure 20 **REFER TO ENGINEERING PROCEDURE MANUAL FOR SPECIFIC REQUIREMENTS**). (2474/Reso. 6188)

5. Private Streets. Private streets shall conform to the above-stated design standards. Where site conditions necessitate unique design solutions, modifications may be approved by the City Engineer. (2474/Reso. 6188)

6. Half-streets. Half-streets shall conform to the above-stated design standards. They shall, however, be a minimum of twenty-four feet (24') wide measured from the face of the curb to the edge of the asphaltic pavement. Additional right-of-way in excess of that normally required for one-half (1/2) of a street of that classification may be required as determined by the Traffic Engineer and City Engineer. (2474/Reso. 6188)

(D)   Block Design. (2474/Reso. 6188)

1. The maximum length of blocks measured along the centerline of the street and between intersecting street centerlines is one thousand five hundred feet (1,500'); except that in a development with lot areas averaging one-half (1/2) acre or more or where conditions warrant, this maximum may be exceeded by five hundred feet (500'). Blocks shall be as long as reasonably possible under the circumstances within the above maximums in order to achieve depth and possible street economy and to reduce the expense and safety hazard arising from excessive street intersections (see Figure 10). (2474/Reso. 6188)

9-6-3

SIGHT DISTANCE REQUIREMENTS

N

AREA MUST BE CLEAR OF SIGHT OBSTRUCTIONS

CENTER OF LANE

STREET OR DRIVEWAY

DRIVER'S EYE

15'

CURB LINE

CENTER OF LANE

D

D

TRAFFIC SPEED (MPH)	25	30	35	40	45	50	55
D	350	420	490	560	630	700	770

CITY OF MESA TRANSPORTATION

FIGURE 2: Subsection 9-6-3(C)4.(i)

10. Streetlights. Streetlights shall be installed along all streets within the subdivision and along all perimeter streets developed in conjunction with the subdivision. Streetlights shall be installed by the subdivider in accordance with plans approved by the Engineering Department and in conformance with City standards. For a single parcel development with less than one hundred fifty feet (150') of street frontage, the City Engineer may waive the required streetlight installation. If installation is waived, prior to the issuance of a building permit, the subdivider shall pay an amount determined by the City based on the street frontage to pay for the future installation of streetlights by the City or others. (2474/Reso. 6188)

11. Traffic Control Devices. Traffic control devices shall be provided or existing control devices shall be modified in conjunction with the development in accordance with designs approved by the Development Services Department, where required in accordance with the Mesa Transportation Division. The Transportation Division may defer the installation of required traffic control devices. (4570)

When the installation of required traffic control devices is deferred, the owner/developer shall pay the City a payment in-lieu of causing the actual design, installation, and/or construction of the devices. This in-lieu payment shall be based upon a cost estimate prepared by a professionally registered civil engineer and approved by the City of Mesa. The in-lieu payment cost estimate shall include all design costs, labor and materials costs, plus twenty percent (20%) for future contingency costs. All in-lieu payments shall be remitted to the City of Mesa as a condition of and in conjunction with the issuance of any on-site construction permits and/or off-site rights-of-way permits associated with the development project. (4570)

12. Street Name Signs. Street name signs shall be placed in all street intersections. The subdivider shall install signposts **AND SIGNS** ~~meeting City standards at locations designated by the City Engineer~~ **PER MESA STANDARD DETAILS IN ACCORDANCE WITH DESIGNS APPROVED BY THE MESA TRANSORTATION DIVISION**. ~~The signposts shall be in place prior to the completion of street paving. Prior to the issuance of a City permit for street paving, the subdivider shall pay to the City an amount per street name sign location as determined by the City Engineer to pay for the fabrication and installation of sign plates by the City.~~ (2474,4570/Reso. 6188)

13. Survey Monuments. Survey monuments conforming to City standards shall be installed at all corners, angle points, and points of curves and at all street intersections for streets within and around the perimeter of the subdivision and at such other locations as may be required by the City Engineer. After all improvements have been installed, the subdivider's registered land surveyor shall check the location of the monuments and mark the brass cap. (2474,4570/Reso. 6188)

14. Lot Corners. Iron pipe or round reinforced steel bars not less than one-half inch (1/2") in diameter shall be set at all corners, angle points, and points of curve for each lot within the subdivision prior to the recording of the plat, except that the City Engineer may approve a temporary delay where topographic conditions make it necessary. (2474,4570/Reso. 6188)

15. Parkway Landscaping. Parkway areas along arterial streets and other streets, as deemed necessary by the City Engineer, shall be landscaped in accordance with approved plans and standards set by the City Engineer. In PADs, a statement shall be contained in both the deed restrictions and the owners' association by-laws that all landscaping, including that within the public right-of-way adjacent to the site, shall remain the responsibility of the owners' association to maintain in perpetuity. (2474,4570/Reso. 6188)

| CITY OF MESA TRANSPORTATION | FIGURE 3: Subsection 9-6-4(D)12. |