1. Design notes apply to both rural and urban intersections under Highway control or flashing beacon control. For full signal controlled intersections see Design Note No. 4.

2. Sight distance (d) applies to normal and skewed intersections (intersecting angles between 60° and 120°), and where vertical and/or horizontal curves are present. Sight distance (d) is measured along the major roadway from the center of the entrance lane of the minor roadway to the center of the nearby approach lane (right or left) of the major roadway. Distance d is measured from the centerline of the entrance lane of the minor roadway to a point on the edge of the nearside traffic lane or on the major roadway. A distance d is measured from the centerline of the entrance lane of the minor roadway to a point on the median clear zone limit or horizontal clearance limit for the far side roadway of the major roadway.

3. The limits of clear sight define a corridor throughout which a clear sight window must be preserved. See WINDOW DETAIL Sheet 6.

b. Clear sight must be provided between vehicles at intersection stop lines, and vehicles on the major roadway within dimension d.

c. Since observations are made in both directions along the line of sight, the reference datum between roads is 3'-0" above respective pavements.

4. Barrier systems within intersection sight corridors, where penetration into the sight window might occur, shall be located to provide the least adverse effect practicable.

5. The corridor defined by the limits of clear sight is a restricted planting area. Driveways or vehicles on the intersecting roadway and vehicles on the major roadway shall be able to see each other clearly throughout the limits of d and d'. If in the Engineer's judgment, landscaping interferes with the line of sight corridor prescribed by these standards the Engineer may reconfigure, relocate or eliminate plantings. Plants within the restricted areas are limited to selections as follows:

- **Ground Cover**
- **Trunked Plants**

### Design Notes

1. The information shown on this index is intended solely for the purpose of clear sight development and maintenance of intersecting highways, roads and streets, and is not intended to be used to establish roadway and roadblock safety except as related to clear sight corridors. An analysis of sight distance shall be documented for all intersections.

2. Details are based on the AASHO "A Policy On Geometric Design Of Highways And Streets", 1965, CHAPTER 9, Intersection Sight Triangles, CASES B and C, and Department practices for channelized median openings (left turns from major roadways).

3. The minimum driver eye level of 5'-0" from the edge of the traveled way may be adjusted on any intersection leg only when justified by a documented site specific field study of vehicle stopping position and driver eye position.

4. For SIGNALIZED INTERSECTIONS, the first vehicle stopped on one approach shall be visible to the driver of the first vehicle stopped on any of the other approaches. Left-turning vehicles should have sufficient sight distance to allow gaps in oncoming traffic and complete left turns. Apart from those sight conditions, there are generally no other approach or departure sight triangles needed for signalized intersections. However, if the traffic signal is to be placed on angle or flashing operation (i.e., flashing yellow on the major-road approaches and flashing red on the minor-road approaches) or under off-peak or nighttime conditions, then the appropriate sight triangles for Case B, both to the left and to the right, should be provided for the minor-road approach. In addition, if right turns on a red signal are to be permitted from any approach, then the appropriate departure sight triangle to the left for Case B should be provided to accommodate right turns from that approach.

5. Where curvature, superelevation, adverse sight profiles or other conditions preclude the use of standard tree sizes and spacing, proof of view and shadowing analysis must be documented and the area and location of trees in medians detailed in the plans.

6. Intersection sight distance values are provided for Passenger Vehicles, SUV Vehicles and Combination Vehicles. Intersection sight distance based on the Passenger Vehicle is suitable for most intersections. Where substantial volumes of heavy vehicles enter the major-road, such as from ramp terminals with at least control or roadways serving truck terminals, the use of tabulated values for SUV Vehicles or Combination Vehicles should be considered.
2 LANE UNDIVIDED

2 LANE 2 WAY • FLARED FOR OPPOSING LEFT TURN CENTERED ON ALIGNMENT

2 LANE 2 WAY • FLARED FOR SINGLE SIDE LEFT TURN CENTERED ON ALIGNMENT

LEGEND

NOTE: See Sheet 6 for intersecting roadway origin of clear sight and quadrant corner slope.
SIGHT DISTANCES (d) & ($d_v$) AND RELATED DISTANCES ($d_i$, $d_o$, $d_s$ & $d_{vl}$) (FEET)

4 LANE DIVIDED ROADWAY

NOTES FOR 4-LANE DIVIDED ROADWAY

1. See Sheet 6 for origin of clear sight line on the minor road.
2. Values shown in the table are the governing (controlling) sight distances calculated based on "AASHTO Class B - Intersection with Stop Control on the Minor Road."

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>Vehicle Length (FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger (P)</td>
<td>19</td>
</tr>
<tr>
<td>Single Unit (SU)</td>
<td>30</td>
</tr>
<tr>
<td>Long School Bus</td>
<td>40</td>
</tr>
<tr>
<td>WB-40</td>
<td>45.5</td>
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<tr>
<td>WB-50</td>
<td>55</td>
</tr>
</tbody>
</table>

WHERE THE MEDIAN IS SUFFICIENTLY WIDE FOR THE DESIGN VEHICLE TO PASS IN THE MEDIAN
Vehicles Length Plus 6' Min. 1 The Clear Line of Sight To The Right Is Measured From
The Vehicle Passing Location, i.e. Not From The Crown Road Shoulder. Distances $d_i$ & $d_s$ Do Not Apply.
LEGEND

- Area Free Of Sight Obstruction

PLAN

PICTORIAL

INSET A

INSET B

NOTES FOR 4-LANE DIVIDED ROADWAY

1. See Sheet 6 for origin of clear sight line on the minor road.
2. Values shown in the table are the governing (controlling) sight distances calculated based on "AASHTO Class B - Intersection with Stop Control on the Minor Road."

SIGHT DISTANCES \( d, (d_1), (d_2), (d_3) \) AND RELATED DISTANCES \( (d_1, d_2, d_3, d_v, d_vl) \) (FEET)

6 LANE DIVIDED