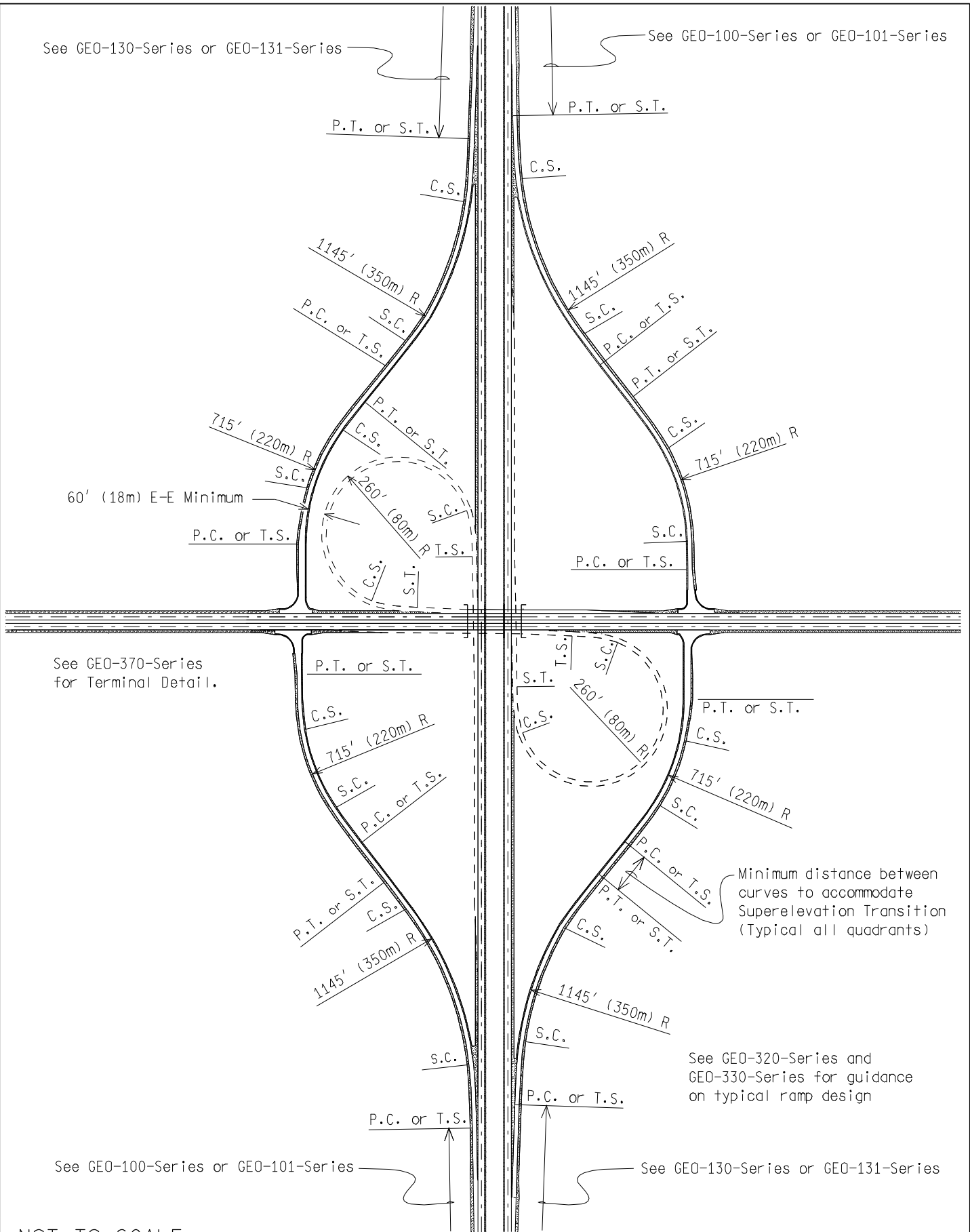


See GEO-130-Series or GEO-131-Series

See GEO-100-Series or GEO-101-Series



See GEO-370-Series for Terminal Detail.

Minimum distance between curves to accommodate Superelevation Transition (Typical all quadrants)

See GEO-320-Series and GEO-330-Series for guidance on typical ramp design

See GEO-100-Series or GEO-101-Series

See GEO-130-Series or GEO-131-Series

NOT TO SCALE



BY: *John C. Friend*
ENGINEER OF DELIVERY

BY: *Mark A. Van Pelt*
ENGINEER OF DEVELOPMENT

GEOMETRIC DESIGN GUIDE FOR
DIAMOND
INTERCHANGE

DRAWN BY: ECH
CHECKED BY: IRG/JAT

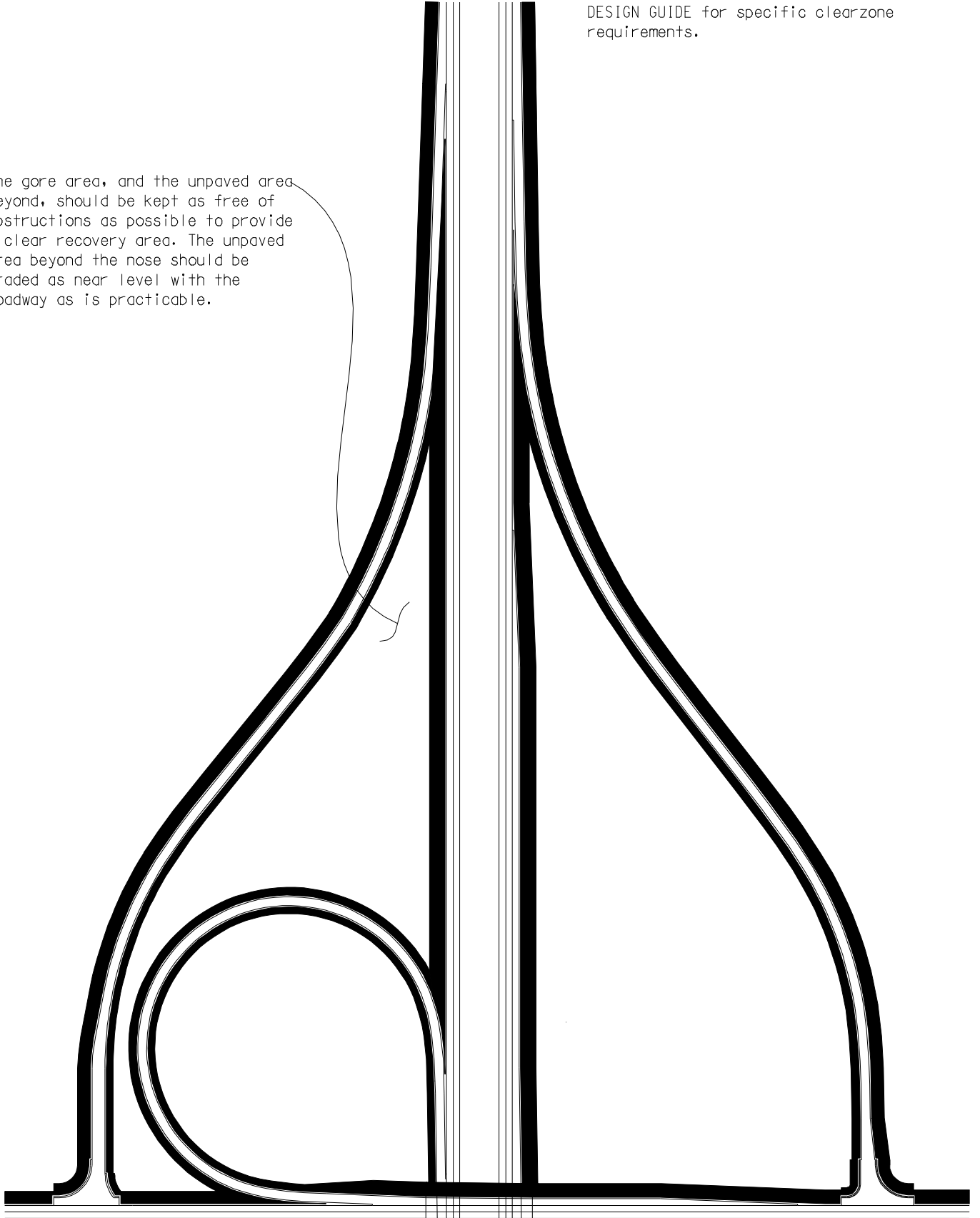
06/03/2010
PLAN DATE:

GEO-300-D

SHEET 1 OF 6

Clear zones are based on variables such as speed, curvature and slope. Since individual site conditions may vary, consult the latest AASHTO ROADSIDE DESIGN GUIDE for specific clearzone requirements.

The gore area, and the unpaved area beyond, should be kept as free of obstructions as possible to provide a clear recovery area. The unpaved area beyond the nose should be graded as near level with the roadway as is practicable.



ILLUSTRATIVE GUIDE FOR CLEAR ZONE REQUIREMENTS

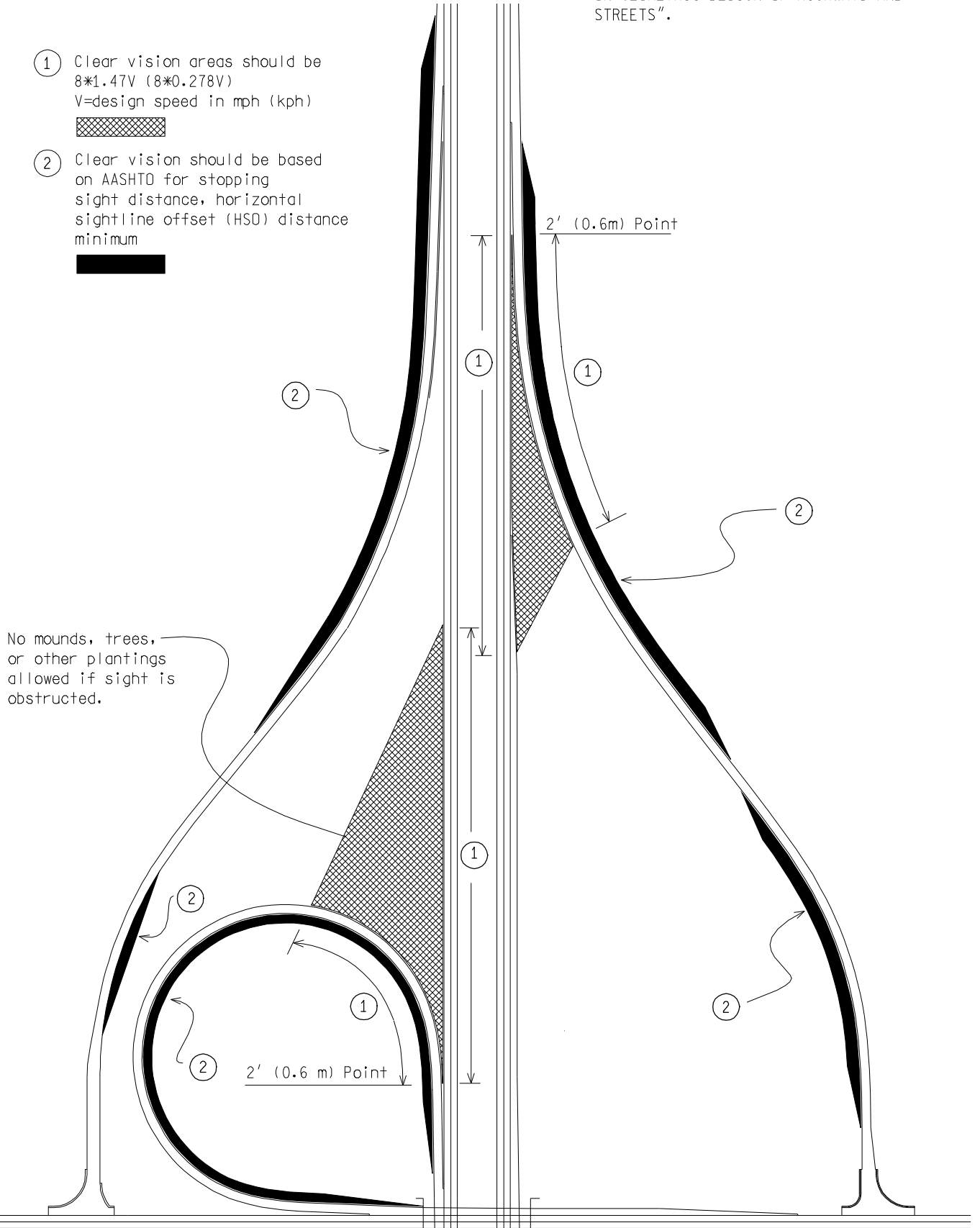
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Since individual site conditions may vary, consult "AASHTO A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS".

- ① Clear vision areas should be $8*1.47V$ ($8*0.278V$)
 V =design speed in mph (kph)



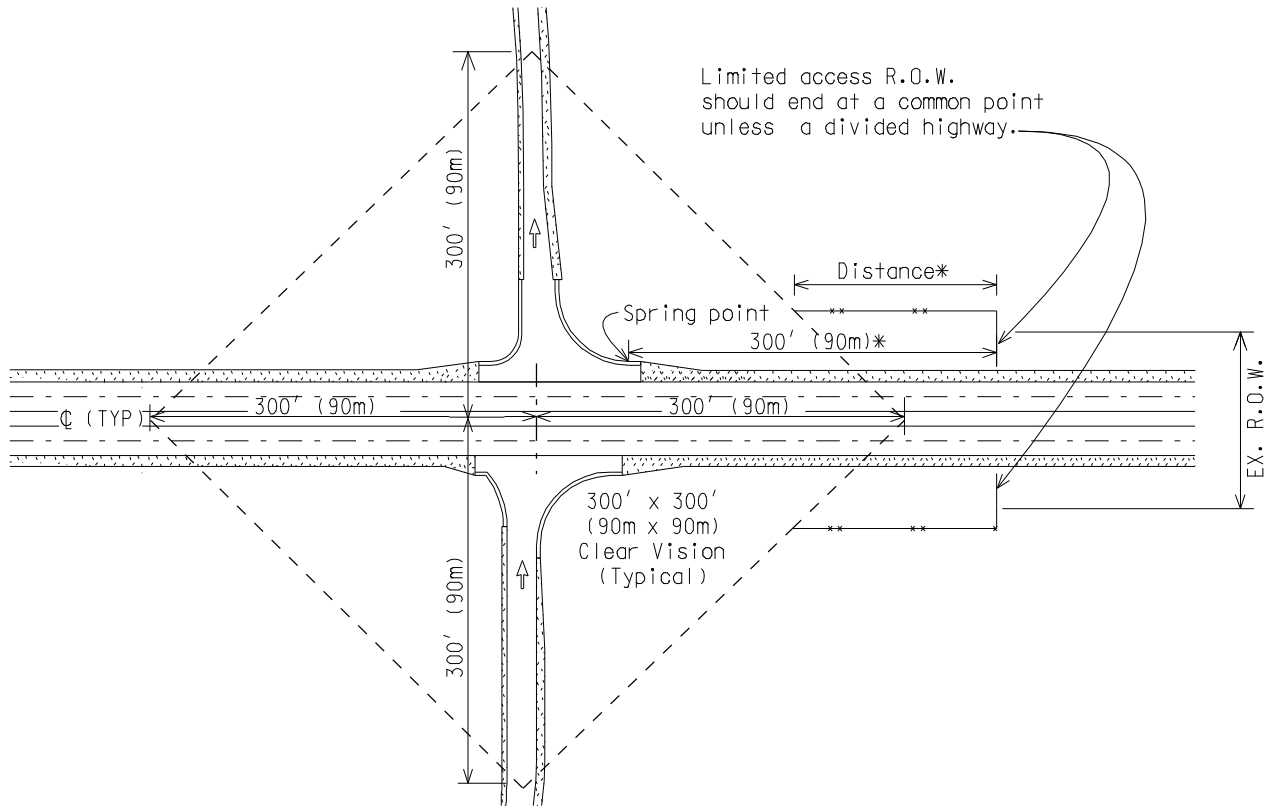
- ② Clear vision should be based on AASHTO for stopping sight distance, horizontal sightline offset (HSD) distance minimum



No mounds, trees, or other plantings allowed if sight is obstructed.

ILLUSTRATIVE GUIDE FOR VISION REQUIREMENTS

NOT TO SCALE

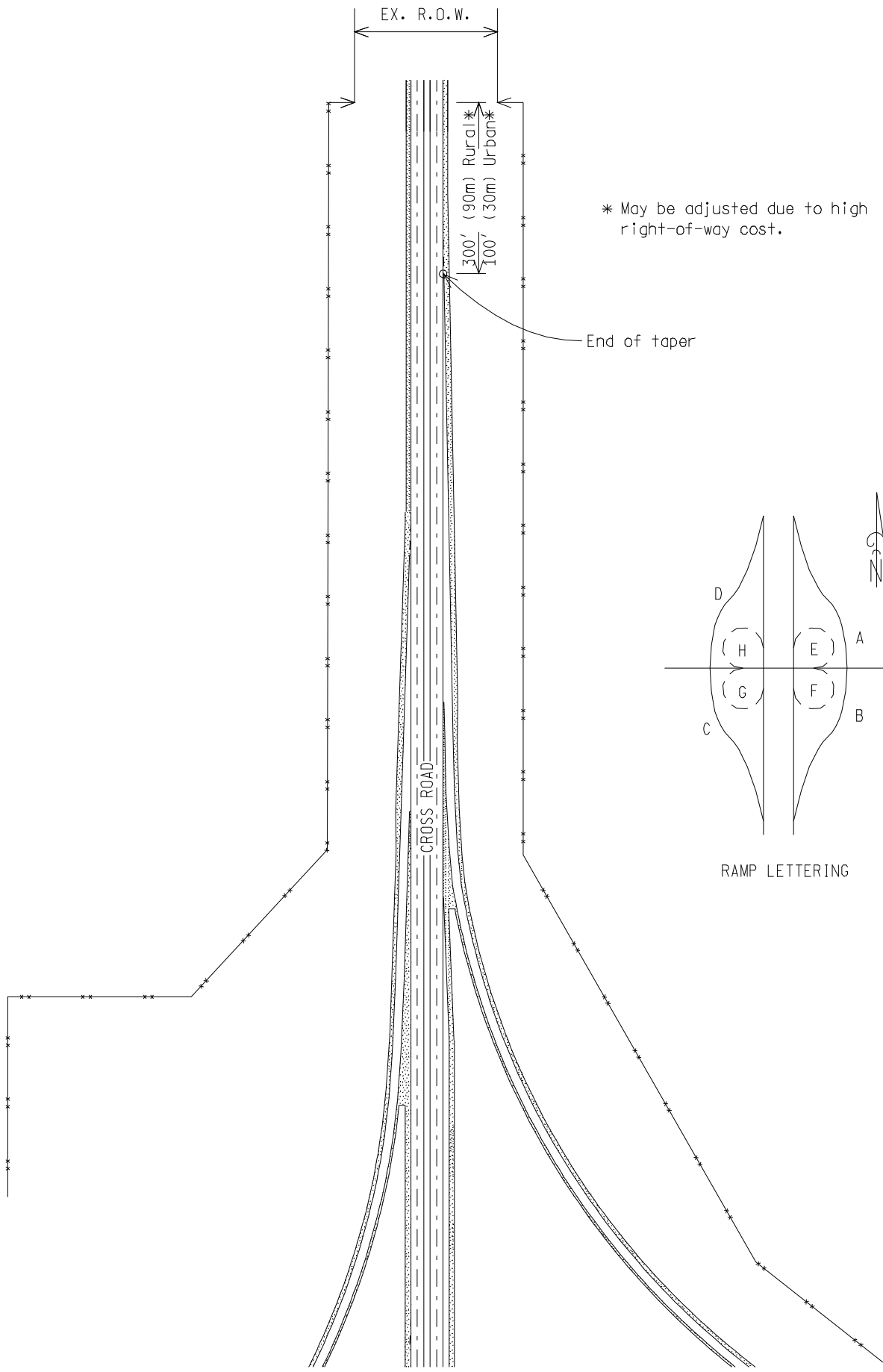


* Limited access right-of-way to the end of the right turn taper or 300' (90m) minimum from the springpoint, if there is no auxiliary lane.

May be adjusted due to high right-of-way cost.

GUIDE FOR LIMITED ACCESS RIGHT-OF-WAY AND CLEAR VISION AREAS AT RAMP TERMINALS (RURAL)

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GUIDE FOR LIMITED ACCESS RIGHT-OF-WAY AT RAMP TERMINALS

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NOTES:

1. Spiral transitions should be used on new ramp alignments based on the design speed of the curve and the radius as shown in the table of the Road Standard Plan R-107-Series.
2. The cross slope in the gore area between the 2' (0.6m) point and the 22' (6.6m) point should not exceed 8% with a 6% maximum algebraic difference in cross slope between the gore and the adjacent lane. This algebraic difference also applies within crowned gores.
3. The design speed of the ramp vertical alignment should meet or exceed the design speed of the ramp horizontal alignment.
4. Each ramp should be carefully studied to provide maximum vision at its merge points.
5. See Geometric Design GEO-370-Series for ramp terminal details.
6. The interchange design should allow for possible future construction of a Parclo-A 4 quad design or the need for B-Loops. See GEO-120-Series for successive entrance ramps and GEO-150-Series for successive exit ramps.
7. See Standard Plan R-42-Series for joint layouts for ramps.
8. Current AASHTO A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS and MDOT Guidelines should be used for sight distance requirements. Local or County roads over freeways should be designed for stopping sight distance based on the project design speed.
9. Limited access Right-of-Way should be as shown in this guide and the current MDOT Road Design Manual.
10. These design concepts are for new construction. Where modifications are needed for retrofitting to existing road features, consult the Geometric Review and Congestion Analysis Unit, Division of Operations.

NOT TO SCALE