ADA Compliance Checklist Guidance [Curb Ramps]

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i) Introduction

The **ADA Compliance Checklist** forms have been used extensively by the ADA Operations Unit since 2010 for federal compliance in conjunction with PROWAG in the field to ensure curb ramps are built to ADA compliance and MnDOT quality. However, most data collection was done on paper and the submission process had inefficiencies such as mailing paper copies or scanning the entire compilation of forms (sometimes up to 200 pages) to send out as email, and then finally entered into spreadsheet for analysis.

Although this had been done for the past few years, the percentages of submissions sent in by the construction staff is still well below expectation. The records show that only 31% of the total number of projects had compliance forms submitted to the ADA Ops. This can have a huge effect on statewide program as the number of compliant curb ramps is unclear for making crucial decisions.

By integrating ADA Compliance Checklist Forms into MnDOT's SharePoint library database, the submission procedure has moved online. With this, both ***paper waste*** and ***man hour*** spent on filling out the form multiple times by different entities will be reduced.

IMPORTANT: Only MnDOT employees are able to access the ADA SharePoint Library. Locals/Consultants will have to use the offline form supplied as mentioned below.

Internet connection

The online compliance form can only be used with an internet connection. If forms are to be used in the field, ensure there will be a signal at project location before utilizing mobile devices/tablet (e.g. iPad) for form submission.

What if – no internet connection?

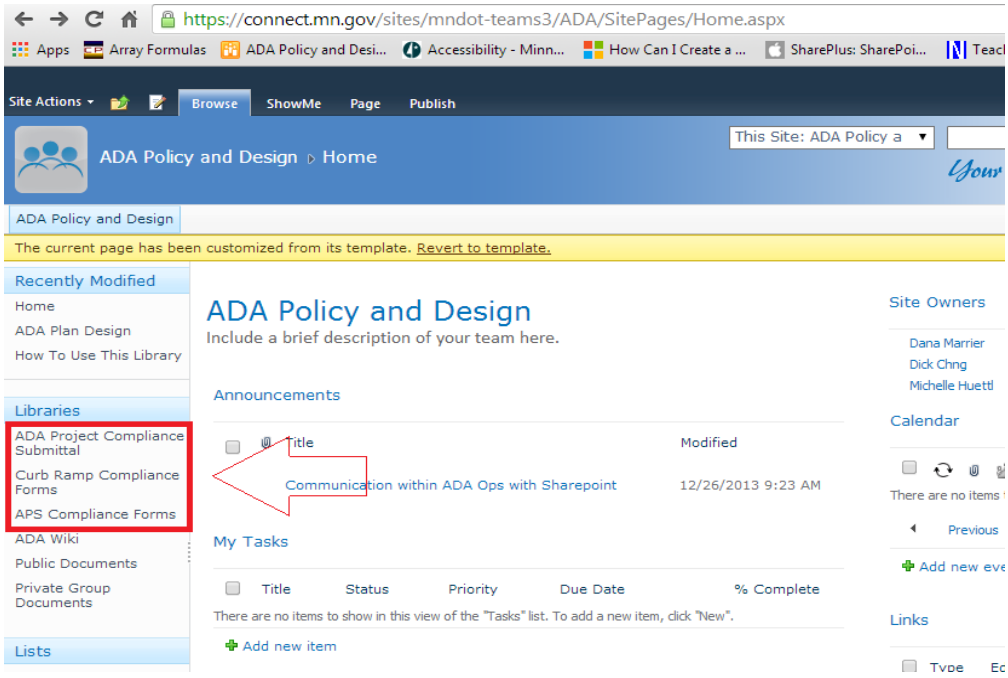
For projects located in areas with limited connectivity (weak signal/no internet), print out the compliance checklist forms http://www.dot.state.mn.us/ada/tools.html and fill it out on site. Enter all the acquired information on SharePoint (as shown in the next section) when internet is available.

For Tablet users:

DO NOT use **Safari** browser (the default browser for Apple devices) on iPads (or any other tablet that uses Safari) to fill out the compliance checklist form. The form may work but any attempt at uploading attachment(s) will crash the form. Alternatively, you can download Google Chrome (tested) or any other browser of your preference off App Store.

ii) Accessing the Compliant Checklist Form template on SharePoint

a) Open up your browser (preferably Internet Explorer for best view of the form) and key in address: https://connect.mn.gov/sites/mndot-teams3/ADA/SitePages/Home.aspx
If you try to access the site from an external network, there will be a security prompt. Login with your AD (Network) username and password (e.g. Username: AD\john1doe):



b) Click on the left tab “Curb Ramp Compliance Forms” (or **APS Compliance Form/ADA Project Compliance Submittal** depending on which form you are submitting).

c) Once at the Compliance Form Library, scroll to the bottom of the page and click “Add Document” (Note: if you do not have access, you will not be able to see the option).

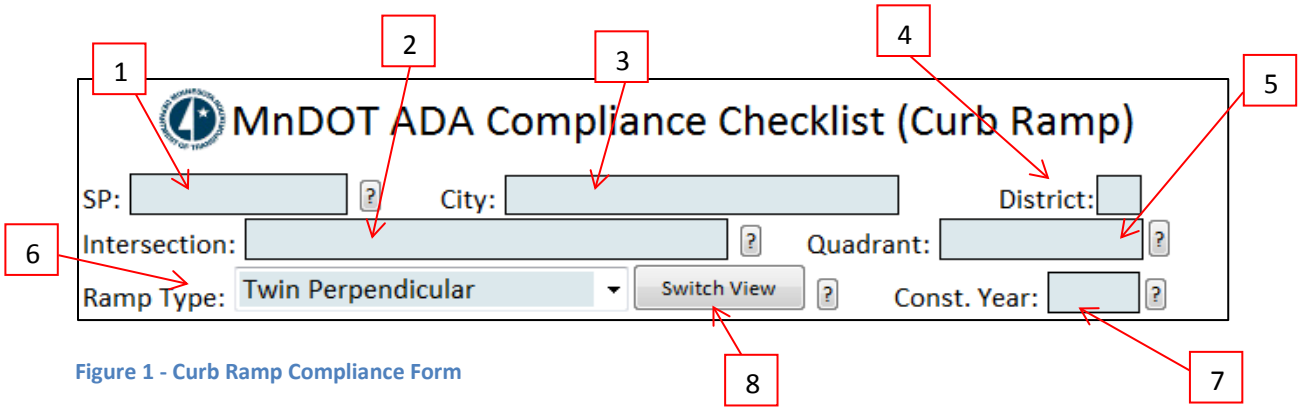


Figure 1 - Curb Ramp Compliance Form

1. Filling out the right SP Number

Depending on the plan sheet, key in the relevant SP number that has the intersection associated with it. If it is a state aid project, enter the SAP number.

2. Determine the intersection names

State the intersection by combining the name of the street and trunk highway where the curb ramp is located. If there are no intersections, place the nearest landmark for easier identification through the use of Google Maps or similar web map services. Refer to Appendix for visual aid on how the intersections are named.

3. City

Fill in the name of the city the ramp is located in.

4. District

Put in the district number here depending on where the project is situated. For Metro, key in "M".

5. Quadrant

Determine the quadrant of the related curb ramp by facing True North. For Island/Pork Chop, Median, or Mid-block put <Quadrant Here>"Island/Median/Midblock" e.g. SE Island. Exception is allowed for mid-block along loop or roundabout that is difficult to be assigned a specific ordinal (NW, NE, SW, and SE) or cardinal direction (N, W, E, and S). In this situation, numbers are applicable should it compliment the intersection description. Refer to Appendix for visual aid on how the quadrants are determined.

6. Ramp Type

Ramp types are subjective due to various type of ramp being designed and added on. As of present (1/29/2014), the list comprises of:

i)	Perpendicular	ii)	Twin Perpendicular
iii)	Oneway Directional	iv)	Combined Directional
v)	Tiered Perpendicular	vi)	Parallel
vii)	Fan	viii)	Depressed Corner
ix)	Diagonal	x)	Other

7. Construction Year

Enter the year that the construction project was completed on in “yyyy” format.

8. Switch View/Display Form

Only after selecting the ramp type from the drop-down list, click on the button next to it (if you’re on the main page, it will be displayed as “Display Form”, and “Switch View” if you have already displayed the form with a ramp type selected).

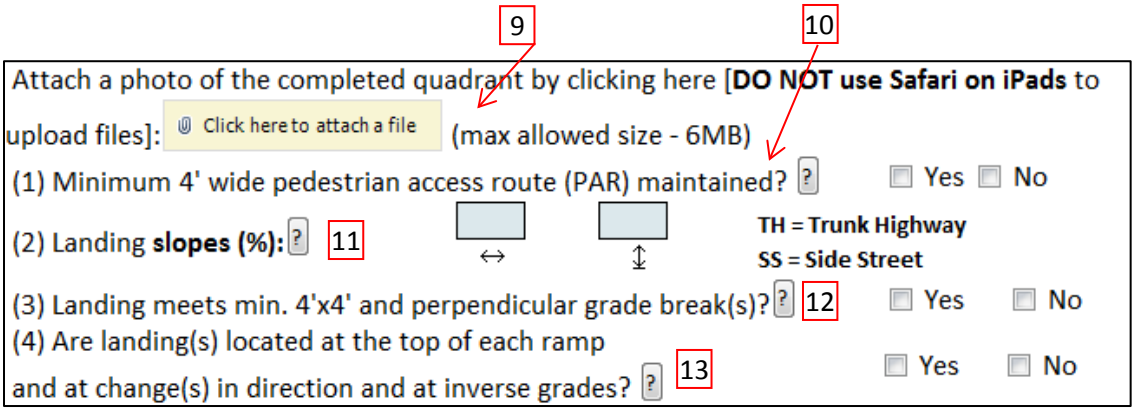


Figure 1 – Compliance Form (cont. 1)

9. Picture Attachment

Picture of the curb ramp shall not exceed 6 MB (6000KB). If it does, the form would not be able to be submitted. Also, DO NOT upload photos when submitting the form using Safari (iOS browser) as stated in the **Introduction** segment of this document. There is a known issue with iOS/Safari which iPad users might experience if any file upload is attempted. If field submission is absolutely necessary, consider using alternative web browsers such as Google Chrome for iPad.

10. Pedestrian Access Route (PAR)

A continuous clear width pedestrian access route (PAR) shall be 4 foot minimum, exclusive of the width of the curb, in every direction of travel. The cross slope along all PARs shall not exceed 2.0%.

11. Landing Slopes

Record the landing slopes in two directions perpendicular to each other. The landing must not have a slope greater than 2.0% in any direction. View may vary depending on the type of ramp selected. The recorded number differs slightly depending on the type of ramp. Refer to Appendix for visual aid on which section of quadrant to measure.

12. Landing Dimension & Grade Break

Landings shall be minimum 4’ x 4’ (5’ x 5’ min preferred) and contraction joints shall be constructed along all grade breaks. All grade breaks within the PAR shall be perpendicular to the path of travel.

13. Landing Locations

Check the landing locations. Landings shall be located anywhere the pedestrian access route (PAR) changes direction; at the top of ramps that have a running slope greater than 5.0%; and if the approaching walk is inverse grade.

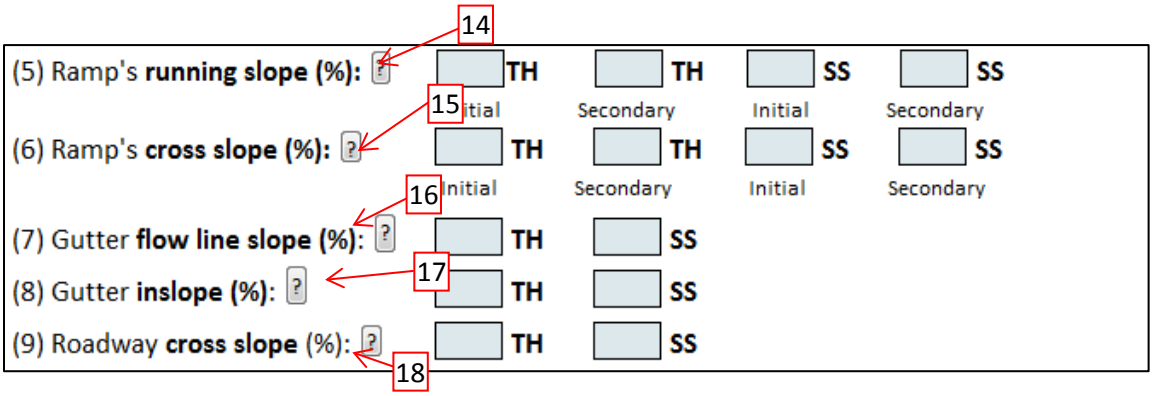


Figure 2 - Compliance Form (cont. 2)

14. Ramp’s Running Slope

Record the largest running slope (i.e. slope in the direction of travel) value after checking a couple of locations on the ramp. This must be less than or equal to 8.3% (or 1 inch per foot). Use a 10 foot straight edge (or a straight edge the length of the ramp) with a smart level to check this. Refer to Appendix for visual aid on which section of quadrant to measure for.

15. Ramp’s Cross Slope

Record the largest cross slope (i.e. slope perpendicular to the direction of travel) value after checking a few locations on the ramp. This must be less than or equal to 2.0%. In cases where the grade of the gutter flow line exceeds 2.0%, the ramp cross slope adjacent to the gutter may exceed 2.0% but must not exceed the slope of the flow line and must transition to a 2.0% cross slope as soon as is practical. Be sure to document this condition when it exists. Refer to Appendix for visual aid on which section of quadrant to measure for.

16. Gutter Flow Line

Check gutter flow line slope at the bottom of each ramp. The gutter flow line slope should not exceed 2.0% when practicable. Should the flow line exceed 2.0% and the form shows up as non-compliant, explain the reason for exceeding 2.0% to show best practices have been carried out. Refer to Appendix for visual aid on which section of quadrant to measure for.

17. Gutter Inslope

The gutter inslope must meet the applicable standard from Sheet 3 of 5 of the Pedestrian Curb Ramp Details Standard Plans (5-297.250). To expand on that, the inslope (if applicable, gutter outflow) of the gutter where the pedestrian's path of travel is not perpendicular to the gutter flow line should not exceed 3.0%; Ramp type includes Fan, Depressed Corner, Combined Directional and One-way Directional. As for ramps that are perpendicular to pedestrian's path of travel, the gutter inslope should not exceed 5.0%. Refer to Appendix for visual aid on which section of the quadrant to measure for.

18. Roadway Cross Slope

The roadway cross slope value measured perpendicular to curb flow line or edge of roadway should not exceed 5.0% at pedestrian crossing locations. This is especially true for gutter and bituminous patching locations.

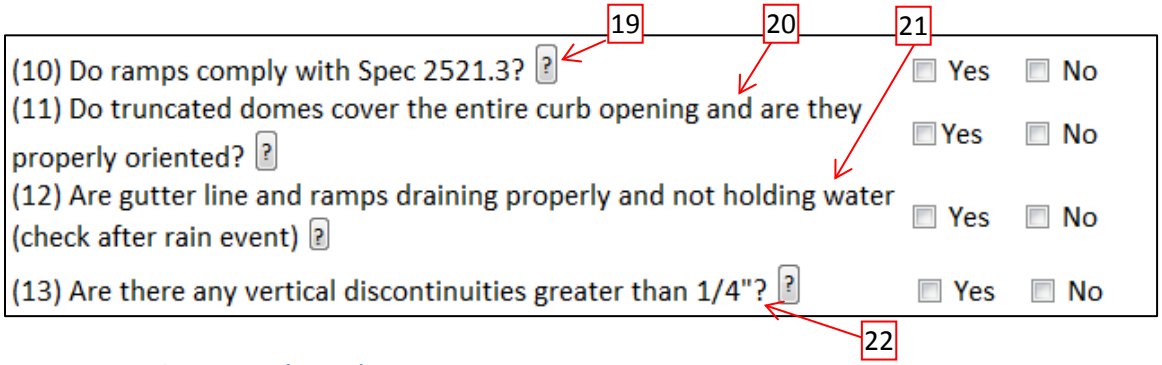


Figure 3 - Compliance Form (cont. 3)

19. Spec 2521.3 Joint

When checking the running slope with a 10 foot straight edge (or a straight edge the length of the ramp), make sure the surface is compliant with Spec. 2521.3C, which says "The surface shall not vary more than 3/16" from a 10 foot straight edge." Look for any bellies or ridges in the concrete ramp surface greater than 3/16". Also, the joints in the walk should be finished with a 1/4" radius jointing/edging tool or saw cut, and contraction joints should be approximately 1/8" wide per Spec. 2521.3C. Refer to Appendix: Figure 10 for visual aid on which segment the Spec refers to specifically.

20. Truncated Domes

Check truncated dome placement and orientation. If the ramp is directional the domes should be oriented in the direction of travel within the allowable set back limits, and in accordance with the applicable standard from Sheet 2 of 5 of the Pedestrian Curb Ramp Details Standard Plans (5-297.250). A minimum 4’ width of truncated domes is required for all ramps openings for a minimum 24’’ continuous length in the path of travel. Truncated domes shall extend the full width of the ramp, landing, or blended transition within 3” on each end (between the edge of domes and beginning of curb taper). Radial detectable warnings shall be set back 3”-6” from back of curb/edge of roadway. Whenever rectangular detectable warnings are placed around a radius, they may be set back up to 9" from back of curb in the middle of the ramp and 3" at the corners. If 9" setback is exceeded, use radial detectable warnings. On rural ramps with no curb, domes shall be set in concrete 1' back from edge of roadway with 3" on the sides, and 1' minimum behind domes for visual contrast.

21. Water Flow and Drainage

After a rain event, check the completed ramps to make sure that neither the ramps nor the gutters are holding water and everything appears to be draining properly. If not draining properly, ramps/gutters shall be reconstructed to provide positive drainage.

22. Vertical Discontinuities

Vertical discontinuities (i.e. trip hazards) greater than ¼” are unacceptable. Any vertical discontinuities between ¼”- ½” may be beveled at a maximum 1:2 slope. All beveling of concrete requires Engineers approval and is not recommended. If any vertical discontinuities are greater than ½”, the panel or curb and gutter must be removed and replaced.

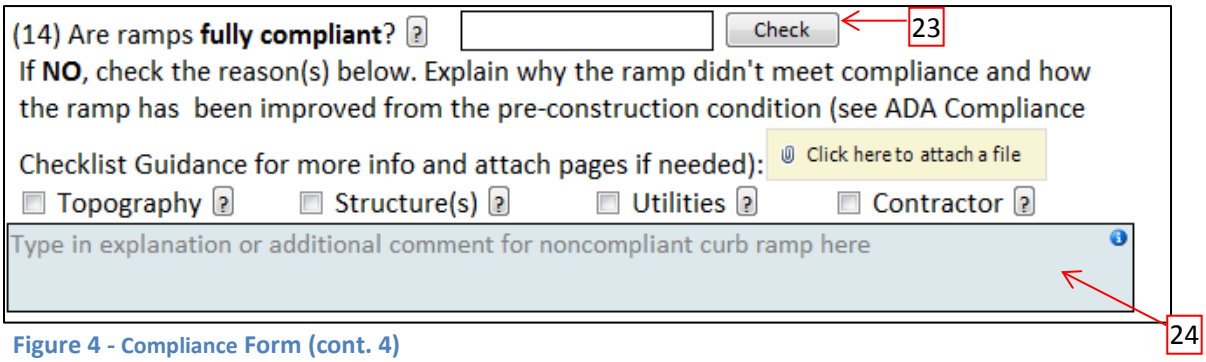


Figure 4 - Compliance Form (cont. 4)

23. Ramp Compliance

If any portion of the ramp is not compliant, be sure to document the pre-construction and post-construction ramp conditions and explain why the ramp cannot be fully compliant. If ramp is not compliant due to contractor’s performance, ramp will need to be made compliant before project

is substantially completed. Include photos with documentation. Also, check one of the given reasons that best describes why the ramp isn't compliant. Please click the check button after all information is entered or right before submission.

24. Comments and General Non-Compliant Reason(s)

If the ramp is shown to be NON-COMPLIANT, make sure to check the reason(s) located under the comment box (Topography, Utilities, Structure, and/or Contractor) and explain why the ramp is not compliant. If none of the reasons are checked, the submission of the form will not go through.

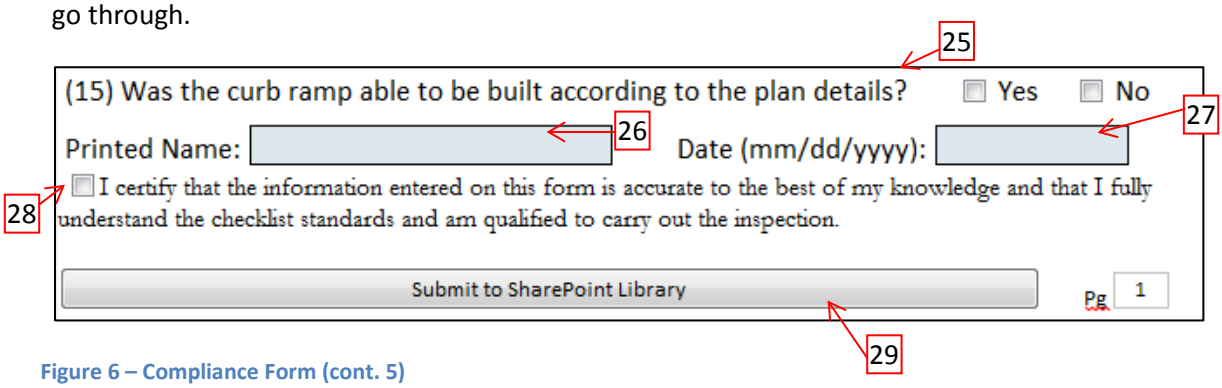


Figure 6 – Compliance Form (cont. 5)

25. Construction Plan Correlation

Check if the curb ramp was able to be built according to plan details. This would include changes in the S and F values, corrections in noncompliant gutter flow lines not called out in plans, change in ramp type, changes to the PAR width, and modification of the landing dimensions. This information does not affect compliance but will only be used for curb ramp design improvements in the future.

26. Printed Name

Fill in the name of the person who gathered/filled out the information.

27. Printed Date

Fill in the date when the form was filled.

28. Information Accuracy

Check the box to indicate that all information entered is gathered as is from the field without any unauthorized modification.

29. Submission

Click the "Submit to SharePoint Library" to upload the form to ADA Form Library on SharePoint.

APPENDIX

The numbers placed in each figure represent the required data on the compliance checklist form for all ramp types.

No. as shown on the Form and in Figures below	DESCRIPTION
1	Pedestrian Access Route
2	Landing Slopes
3	Landing Dimensions
5	Running Slopes
6	Cross Slopes
7	Gutter Flow Line
8	Gutter Inslope (or Outslope)
9	Roadway Crossing (Cross Slope)

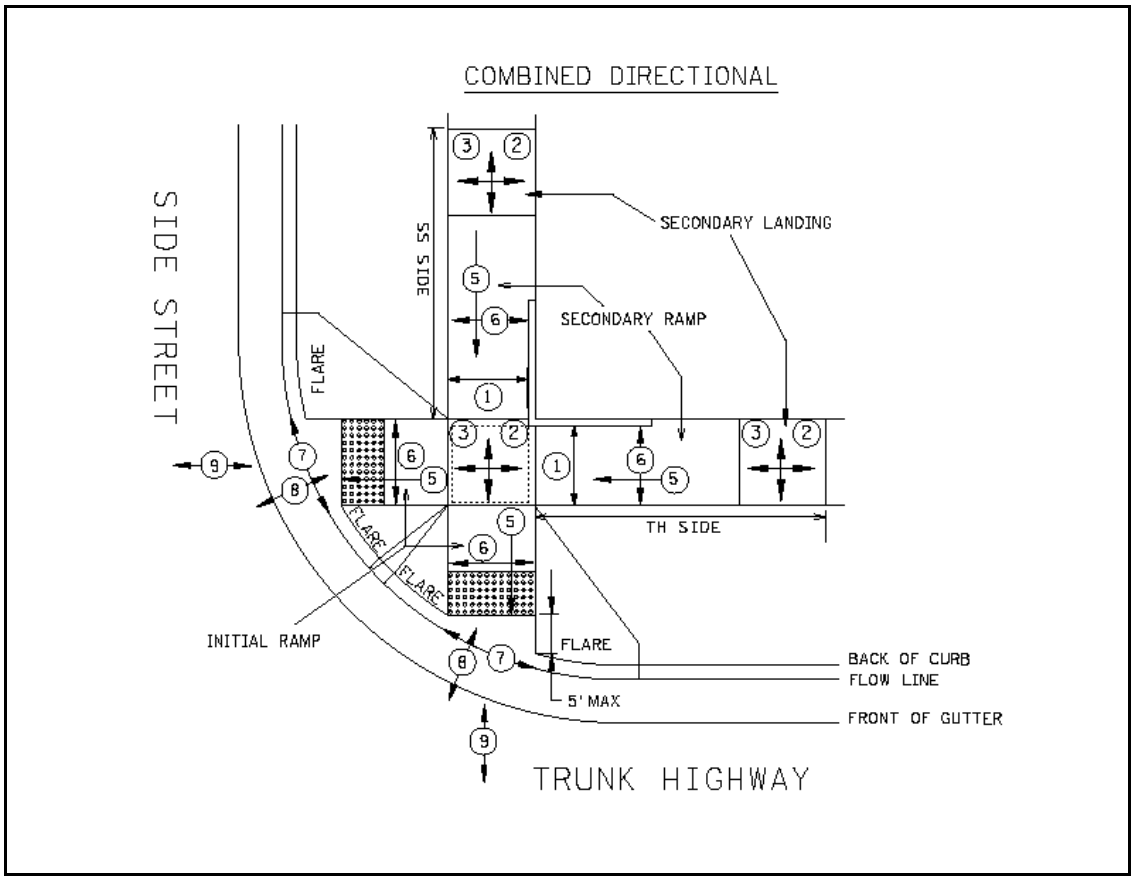


Figure 1 – Combined Directional

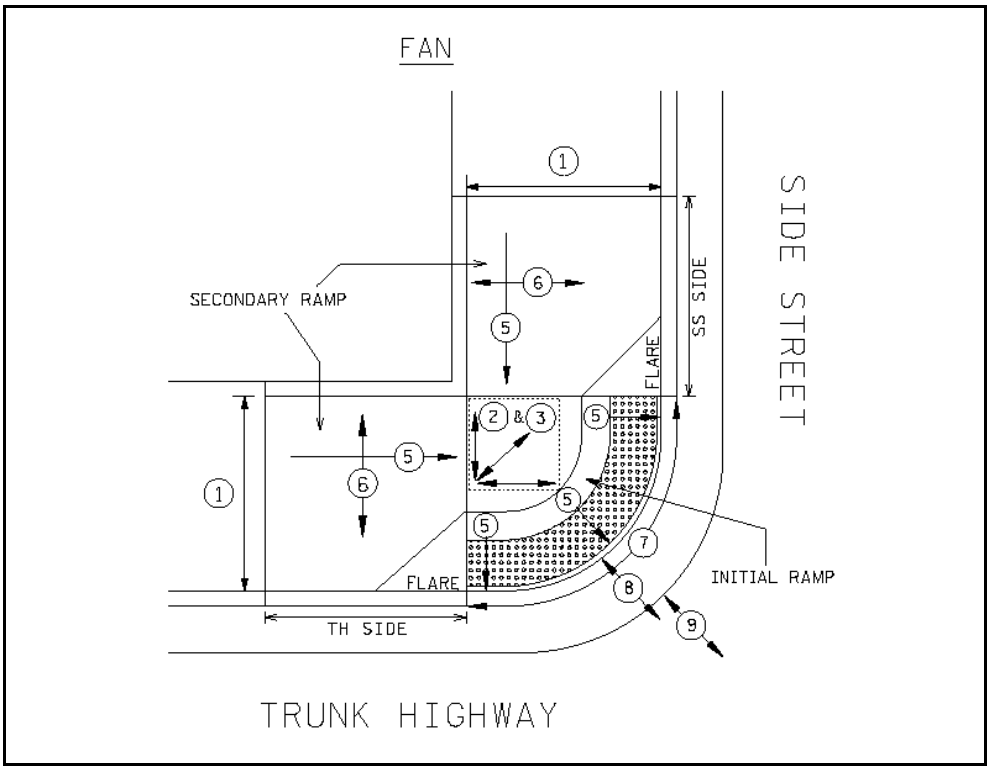


Figure 2 – Fan

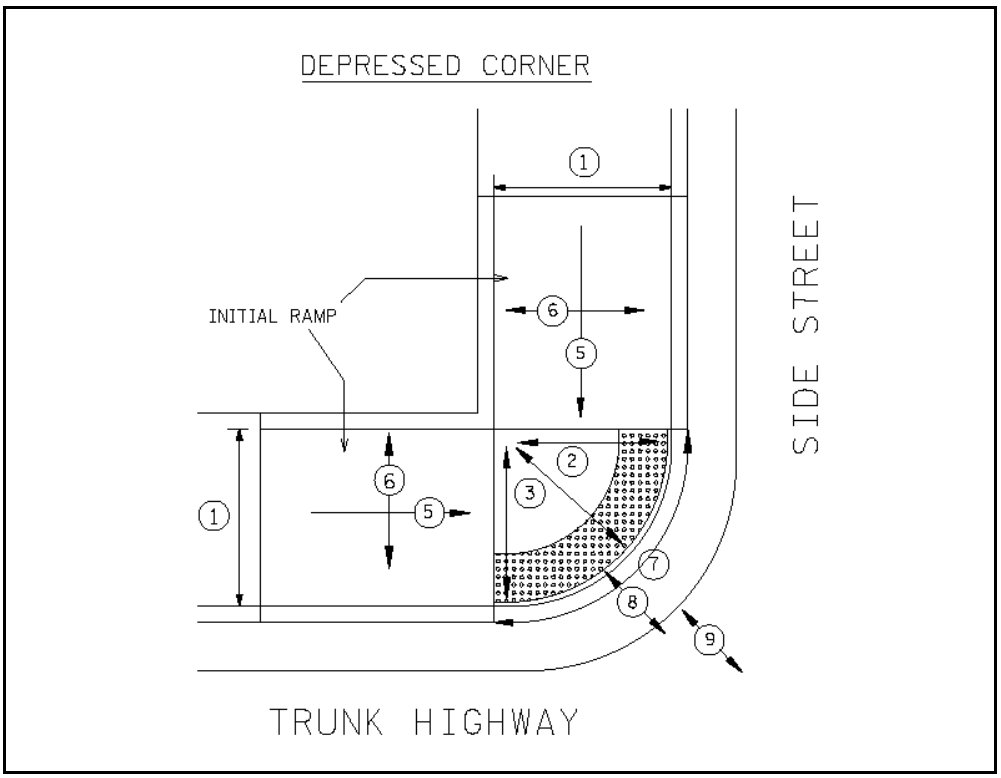


Figure 3 – Depressed Corner

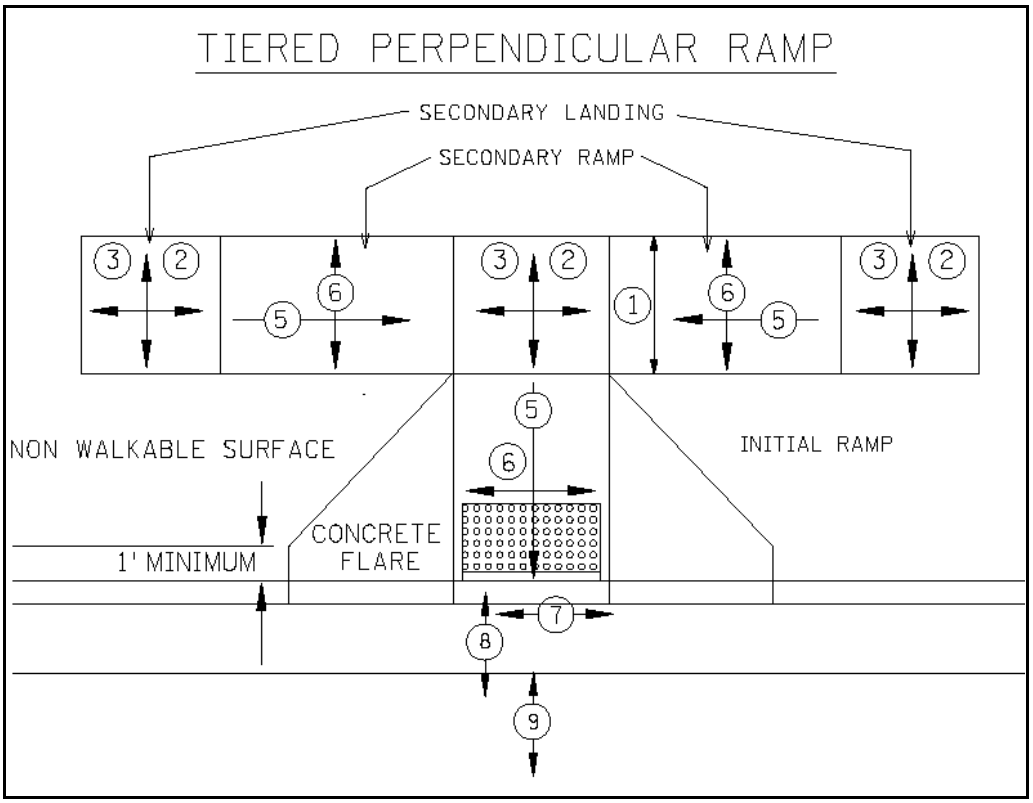


Figure 4 – Tiered Perpendicular

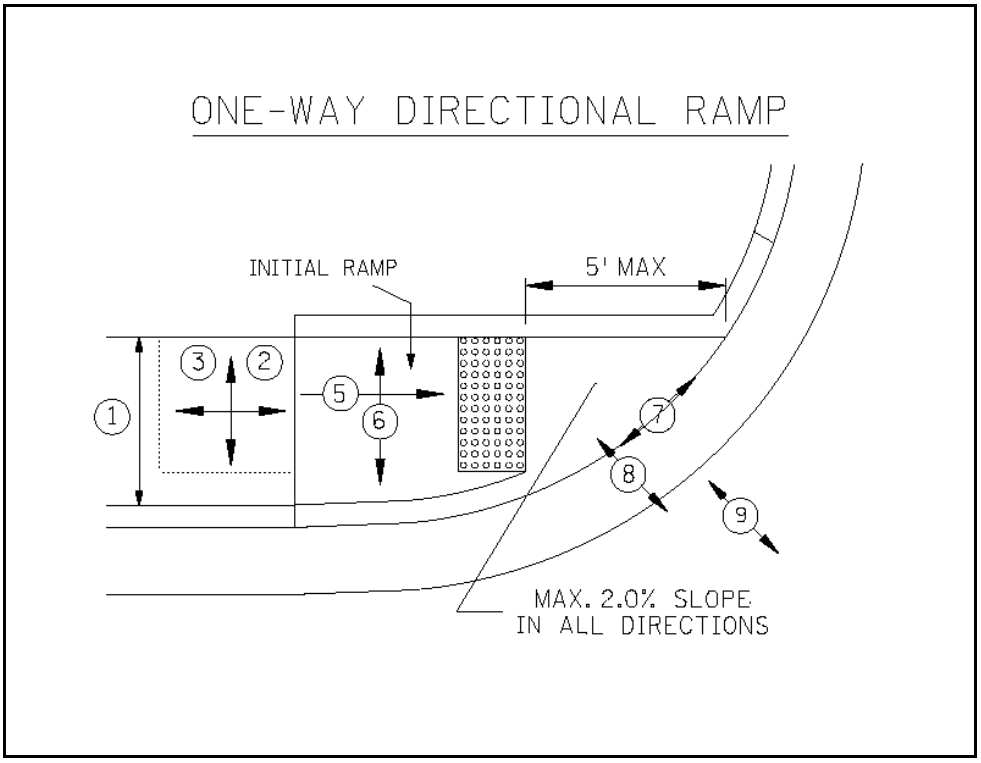


Figure 5 – One-way Directional

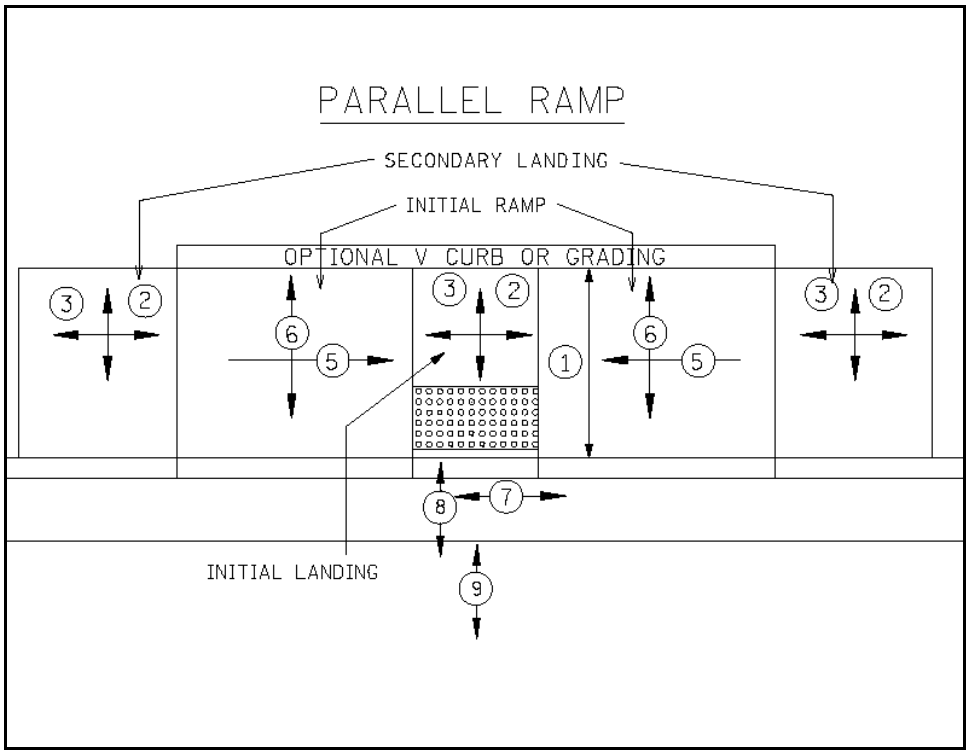


Figure 6 – Parallel

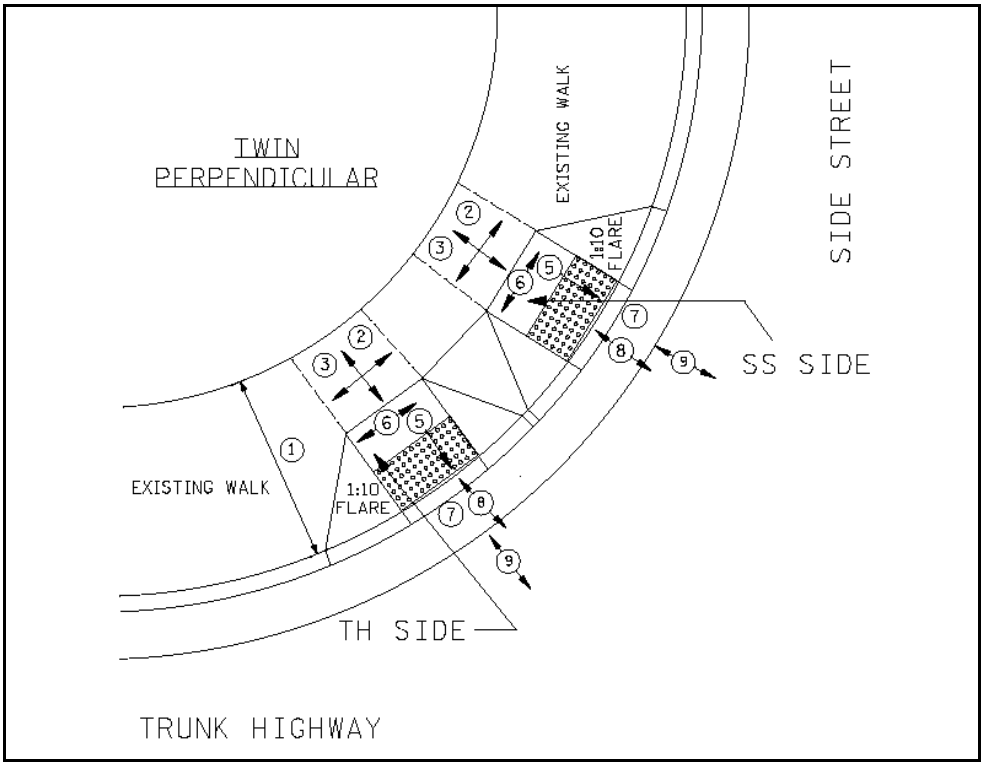


Figure 7 – Twin Perpendicular

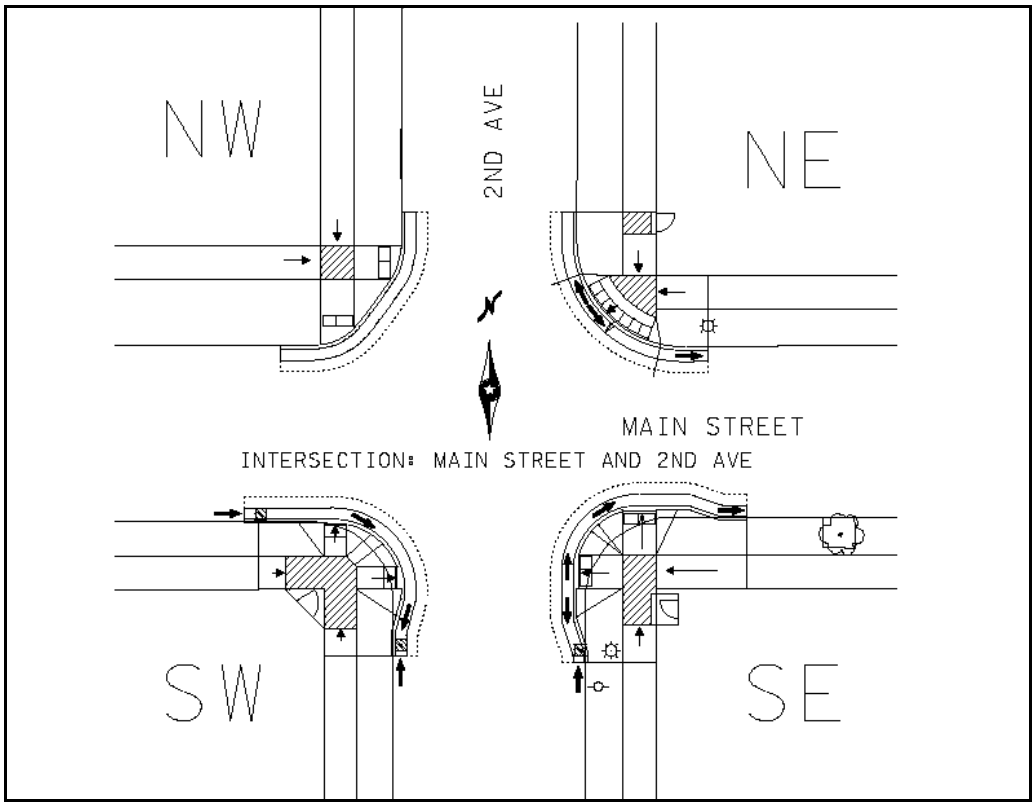


Figure 8 - Intersection and Quadrant identification (1)

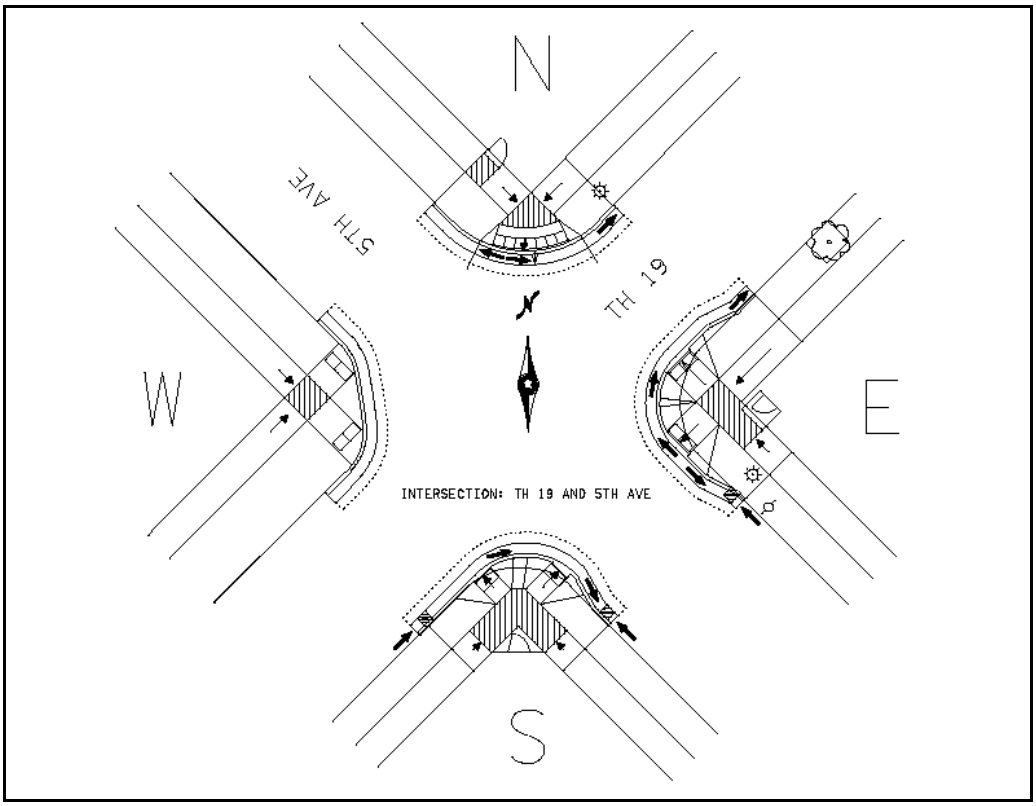


Figure 9 - Intersection and Quadrant identification (2)

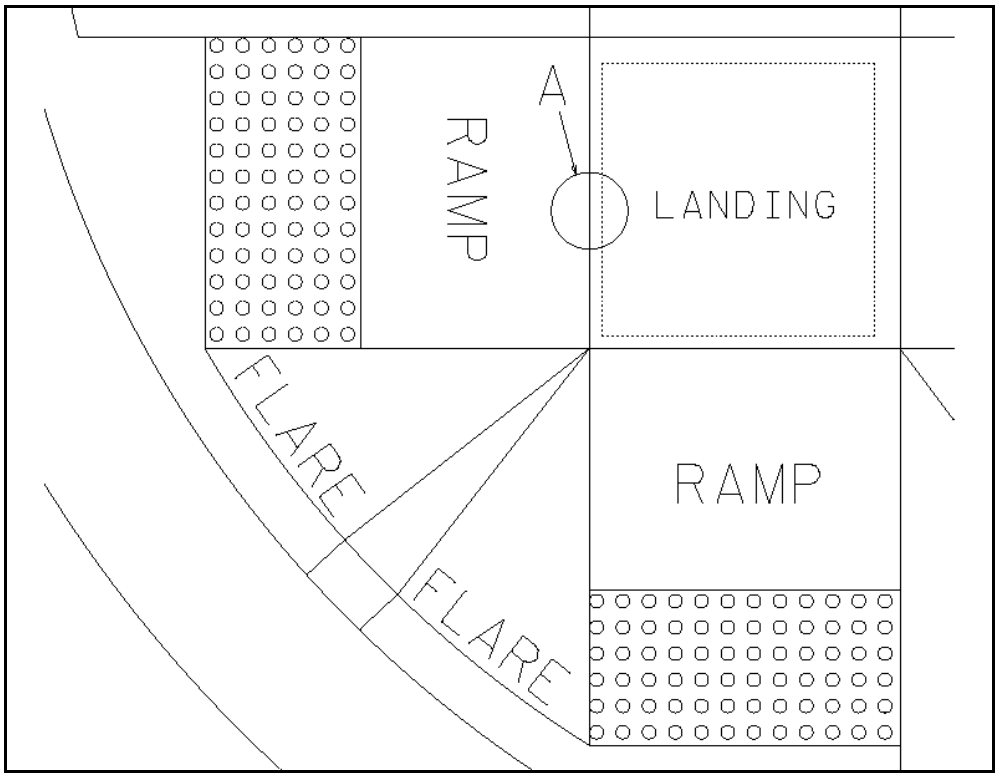


Figure 10a - Spec 2521.3c

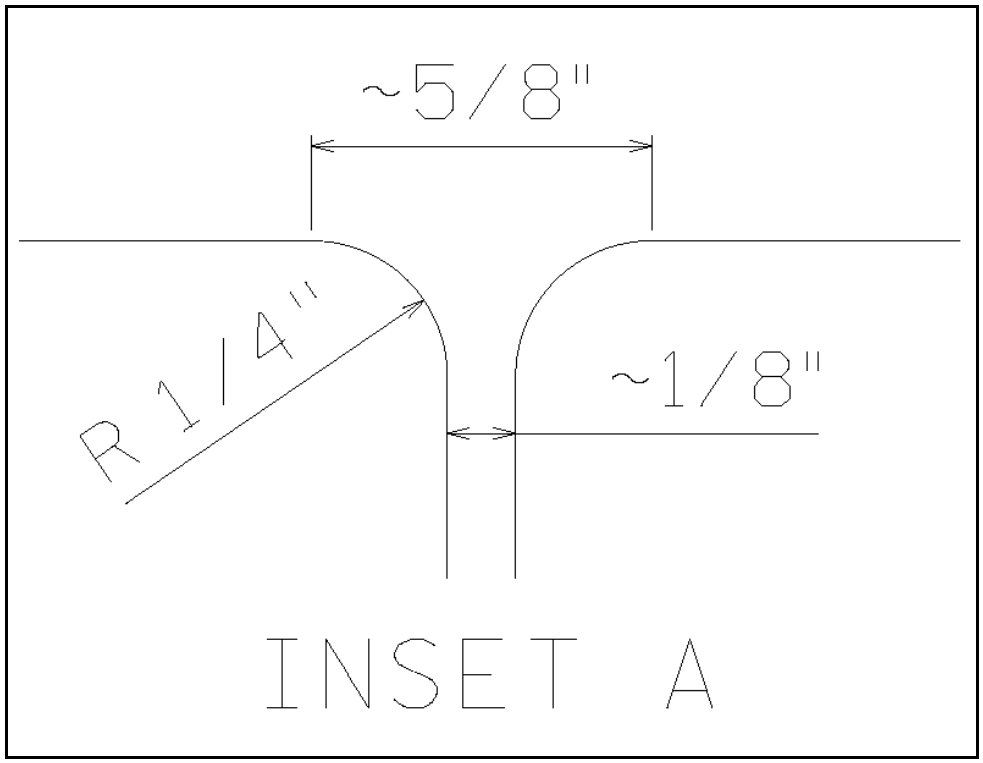


Figure 10b - Spec 2521.3c (allowable joint displacement)