COLORADO
Department of Transportation
Office of the Chief Engineer

ADA Curb Ramp Variance Support Document

CDOT recognizes that it is not always possible for altered elements, spaces, or facilities to fully comply with new construction requirements because of existing physical constraints. Where existing physical constraints make it impracticable for altered elements, spaces, or facilities to fully comply with the requirements for new construction, compliance is required to the extent practicable within the scope of the project. Existing physical constraints include, but are not limited to, underlying terrain, right-of way availability, underground structures, adjacent developed facilities, drainage, or the presence of a notable natural or historic feature. The proposed guidelines (PROWAG) permit flexibility in alterations to existing facilities where needed.

Date	Project #	Subaccount #	City

Curb Ramp ID Number	Specific Curb Ramp Position ID See Pages 5 & 6
	☐ A1 ☐ A2 ☐ A3 ☐ E1 ☐ E2 ☐ E3 ☐ B1 ☐ B2 ☐ B3 ☐ F1 ☐ F2 ☐ F3 ☐ C1 ☐ C2 ☐ C3 ☐ G1 ☐ G2 ☐ G3 ☐ D1 ☐ D2 ☐ D3 ☐ H1 ☐ H2 ☐ H3 ☐ I ☐ J ☐ K ☐ L
☐ Alteration of existing curb ramp ☐ New Construction	
Primary State Highway / Secondary Route	

Variances			
	CURB RAMP DIMENSIONS	☐ Running Slope ☐ Cross Slope	☐ Width ☐ Length
	CURB RAMP NON-INSTALLATION OR REMOVAL	☐ Engineering decision based on existing area and coordination with LPA (documentation required) ☐ No existing pedestrian facilities (sidewalk, transit stops, pedestrian signals) exist at this time ☐ Reduction of possible pedestrian/vehicle conflict points ☐ No longer on system/devolved (documentation required) ☐ Other: Provide detail in *Justification for Design Deviation*, page 2	
	TURNING SPACE DIMENSIONS	☐ Running Slope ☐ Cross Slope	☐ Width ☐ Length
	DETECTABLE WARNINGS	☐ Alignment, contrasting color, or width	
	OTHER	☐ Counter slope exceeds 5% ☐ Sidewalk cross slope tie-in exceeds first joint ☐ Flares abut non-walkable surface and exceed 10% ☐ Diagonal Curb Ramp	☐ Barriers ☐ Road crown exceeds 5% = % ☐ Excessive road grade = % ☐ Other: Provide detail in *Justification for Design Deviation*, page 2

Design Deviation Maximum extent feasible/practicable
☐ Additional page(s) attached or photos attached. Please label with section name and curb ramp ID number.
Justification For Design Deviation and/or Exclusion
☐ Additional page(s) attached or photos attached. Please label with section name and curb ramp ID number.

Submitted By	
Printed Name	Title
Signature	Date (Omit if E-Signed)

The planned project is not in full compliance with the respective CDOT M-608-1 Standards. As determined by the **Program Engineer**, this item provides a level of accessibility to the maximum extent feasible in compliance with the above deviation.

Program Engineer	
Printed Name	Title and Area
Signature	Date (Omit if E-Signed)

THIS AREA FOR HQ CRBRC USE ONLY			
CRBRC Intake	Date Received	Received By	Title
GIS Intake	Date Received	Received By	Title
GIS Database/Filing	Date DB Edit Made	Edit Made By	Date Form Sent to Files

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Provisions of the Public Rights-of-Way Accessibility Guidelines (PROWAG)

PROWAG contains a provision relating to maximum extent feasible/practicable which is applicable only in alterations to existing facilities. ***This exception does not apply to new construction.*** The provision is as follows:

Existing physical constraints in the right-of-way include, but are not limited to, underlying terrain, right-of-way availability (***justification/documentation for not obtaining ROW is required***), underground structures, adjacent developed facilities, drainage, or the presence of a notable natural or historic feature.

The PROWAG clarifies that where elements, spaces, or facilities are altered, each altered element, space, or facility within the scope of the project must comply with the applicable requirements for new construction (see R 202.3). The phrase "within the scope of the project" is intended to focus on whether the alteration project presents an opportunity to design the altered element, space, or facility in an accessible manner. It is not intended for additional work to be done outside the scope of the project.

In evaluating the accessibility of existing curb ramps consider the following factors:

Evaluation Factors	See latest CDOT M-608-1 Standards (Sheets 1-10)
CURB RAMP RUNNING SLOPE	✓ Running slope shall be 8.33% maximum (can design to less)
CURB RAMP CROSS SLOPE	✓ Cross Slope shall be 2% maximum* **At pedestrian street crossings without stop or yield control and at midblock pedestrian street crossings, the cross slope of curb ramps, blended transitions, and their turning space **shall be permitted to equal the street or highway grade.** Pedestrian street crossings without stop or yield control are crossings where there is no stop or yield sign, or where there is a traffic signal that is designed for the green phase. At pedestrian street crossings without stop or yield control, vehicles can proceed through the intersection without slowing or stopping.*
CURB RAMP WIDTH	✓ 48 inches wide (minimum) ✓ Perpendicular Curb Ramps: Where the turning space is constrained at the back-of-sidewalk, the turning space shall be 4 feet minimum by 5 feet minimum. The 5 foot dimension shall be provided in the direction of the ramp running slope. ✓ Parallel Curb Ramps: If the turning space is constrained on 2 or more sides, the turning space shall be 4 feet by 5 feet. The 5 foot dimension shall be provided in the direction of the pedestrian street crossing.
CURB RAMP TURNING SPACE	✓ 48 inches × 48 inches minimum with a 2% cross slope (see * in *Curb Ramp Cross Slope* above)
CURB RAMP NOT IN CROSSWALK	✓ Curb ramp must be wholly contained within the width of the pedestrian street crossing served (excluding flared sides).

GUTTER PAN / CROSS SLOPE	✓ Running slope of curb and gutter (towards the crown of the road) shall be 5% or less
DIRECTIONAL CURB RAMPS	✓ Two (2) directional curb ramps should be your design goal ✓ In **alterations/retrofits** where existing physical constraints prevent compliance, a single diagonal curb ramp is permitted to serve both pedestrian street crossings.
FLARE SLOPE	✓ Flares shall be 10% or less. However, flares may exceed 10% when they abut a non-walkable surface or the pedestrian circulation path is blocked.
CURB RAMP SURFACE	✓ Firm, stable, and slip resistant with no grade breaks
DETECTABLE WARNINGS	✓ Truncated domes contrast surrounding area, extend 24 inches minimum in the direction of travel and the full width of the curb ramp (excluding flared sides with 2" tolerance for width)
FLUSH TRANSITIONS	✓ Transitions to and through the curb ramp shall be flush. No vertical discontinuities accepted at the flow line, curb ramp grade breaks, or at connections where the pedestrian access route abuts the turning space.

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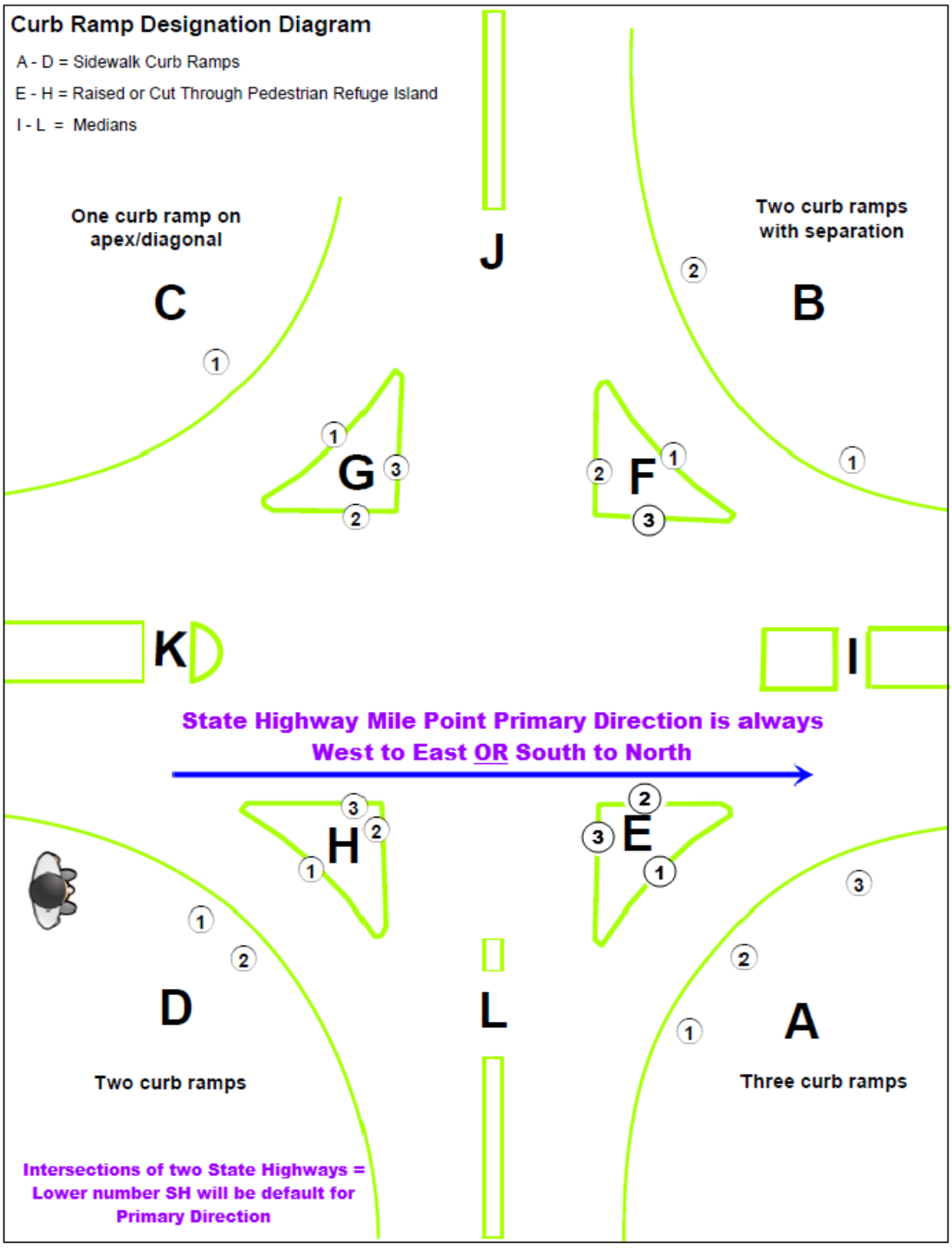
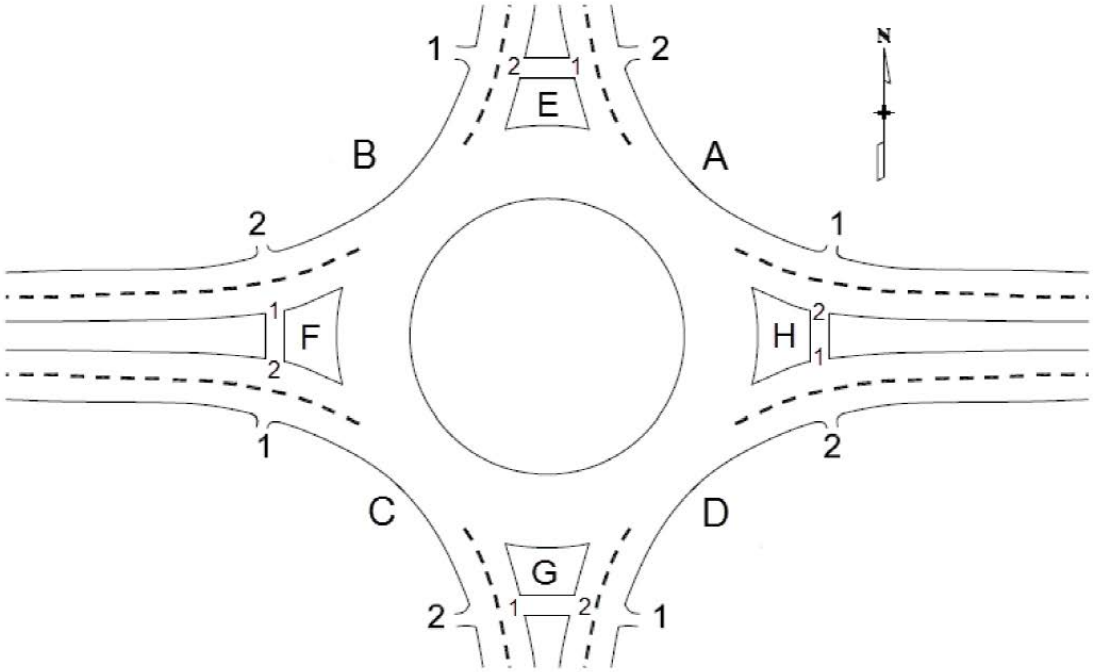

Curb Ramp Designation Diagram
A - D = Sidewalk Curb Ramps
E - H = Raised or Cut Through Pedestrian Refuge Island
I - L = Medians
One curb ramp on apex/diagonal
C
Two curb ramps with separation
B
J
G
F
K
I
State Highway Mile Point Primary Direction is always
West to East OR South to North
H
E
D
L
A
Two curb ramps
Three curb ramps
Intersections of two State Highways = Lower number SH will be default for Primary Direction



Roundabout Curb Ramp Designation Diagram - Note North Arrow