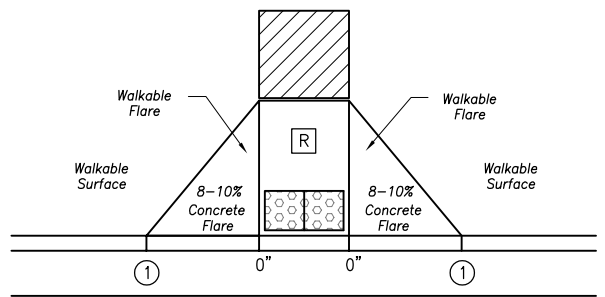
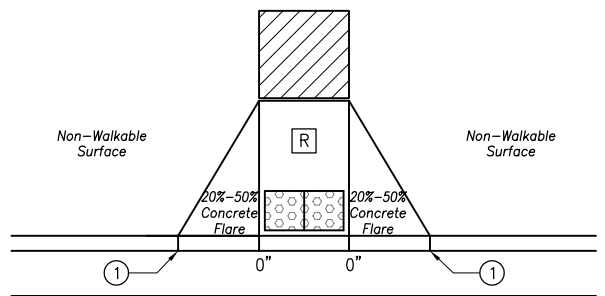


**Ramp Element Notes**

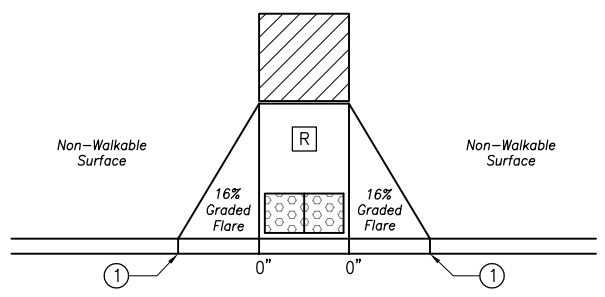
- A walkable surface is defined as a paved surface adjacent to a curb ramp without raised obstacles that could mistakenly be traversed by a user who is visually impaired.
- Concrete flare lengths adjacent to non-walkable surfaces should be less than 8' long measured along the ramps from the back of curb.
- Full curb height.
  - Side treatments are applicable to all ramp types and should be implemented as needed as field conditions dictate. The engineer shall determine the ramp side treatments based on maintenance of both roadway and sidewalk, adjacent property considerations, and mitigating construction impacts.
  - Typically used for medians and islands.
  - When no concrete flares are proposed, maintain 2" between edge of domes and edge of concrete.
  - If no curb and gutter is placed in rural sections, detectable warnings shall be placed 9" from the edge of bituminous roadway and/or bituminous shared-use path to provide visual contrast.
  - All constructed curbs must have a continuous detectable edge for the visually impaired. This detectable edge requires detectable warnings wherever there is zero-inch high curb. Curb tapers are considered a detectable edge when the taper starts within 2" of the edge of the detectable warnings and uniformly rises to a 3-inch minimum curb height. Any curb not part of a curb taper and less than 3 inches in height is not considered a detectable edge and therefore is not compliant with accessibility standards.
  - Drill and epoxy 1 - #4 12" long reinforcement bar (epoxy coated) with 3" min. cover. Reinforcement bars are not needed if the approach nose is poured integral with the curb. Use 2 - #4 bars when curb height exceeds 6".
  - Side treatment examples shown are when the initial landing is approximately level with the full height curb (i.e. 6" long ramp for 6" high curb). When the initial landing is more than 1" below full height curb refer to sheets 1 & 2 to modify the curb height tapers and maintain positive boulevard drainage.
  - 3' for medians and splitter islands. Nose can be reduced to 2' on free right islands.



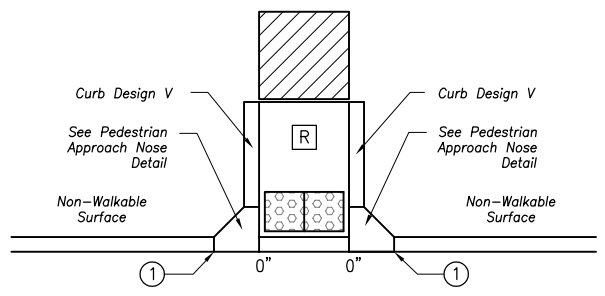
**Paved Flares Adjacent to Walkable Surface**



**Paved Flares Adjacent to Non-Walkable Surface**

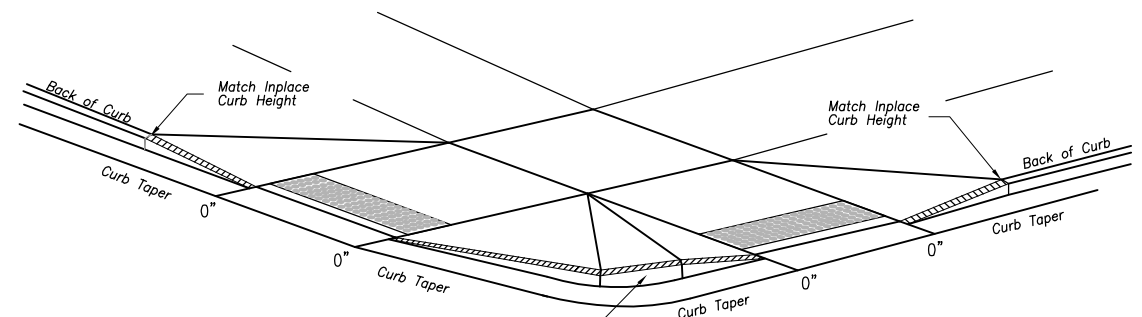


**Graded Flares**



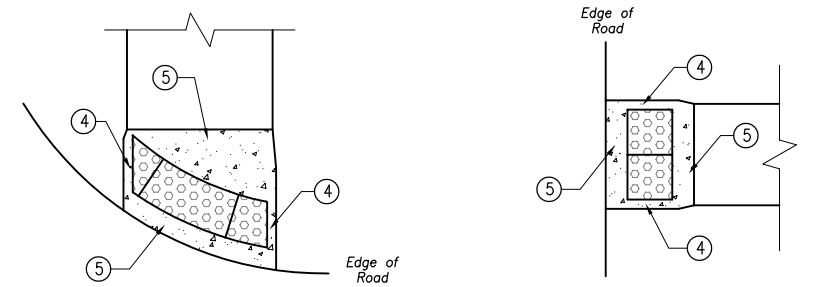
**Returned Curb**

**Typical Side Treatment Options**



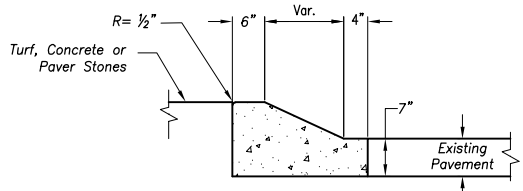
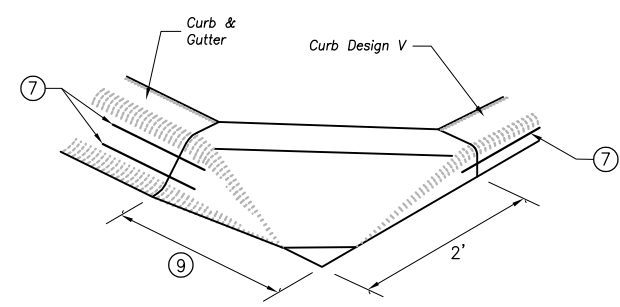
3" minimum curb height, 4" preferred (measured at front face of curb) for a min. 6" length (measured along flow line), not necessarily centered between ramps

**Detectable Edge with Curb and Gutter**

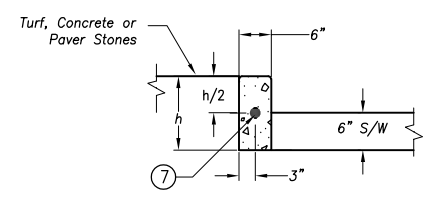


**Radial Detectable Warning**      **Rectangular Detectable Warning**

**Detectable Edge without Curb and Gutter**

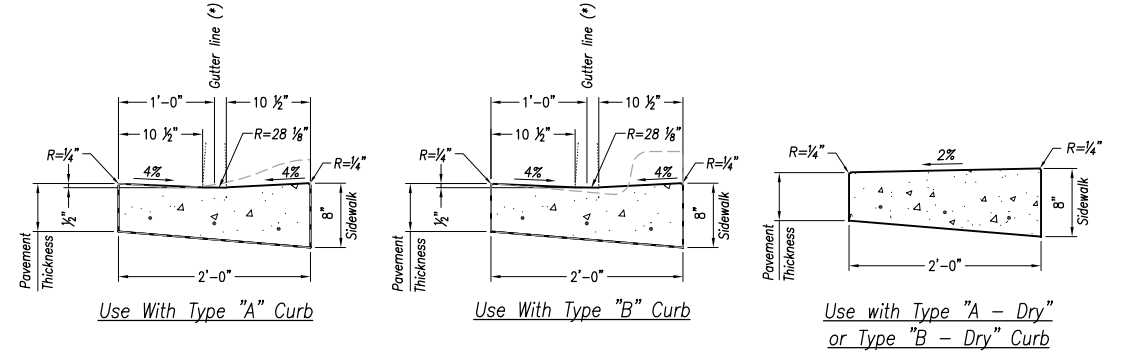


**Section A-A**



**Section B-B**

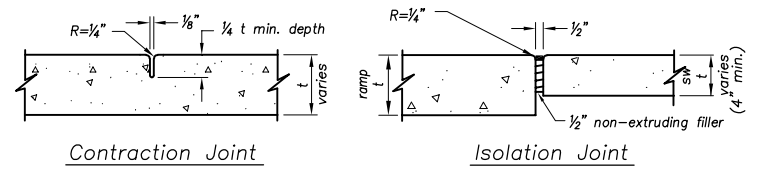
**Pedestrian Approach Nose Detail**  
(For Returned Curb Side Treatment)



\* - 0.5% minimum positive slope in gutter line shall be maintained through transition from standard curb to ramp curb

**Street Curb Detail at Ramp**

Note: See Standard Curb Detail for additional requirements



**Joint Details**

Legend	
	Curb Ramp
	Turning Space - 4' x 4' min. (5' x 4' min. when constrained). Max 2.0% slope in all directions. Turning Spaces shall be full width of incoming PARs.
	Detectable Warning Plates
	Curb height

REVISIONS:	
Dec. 2006	ADA Compliance
Jan. 2018	Updated ADA Compliance
RELATED ORDINANCES:	
OPMC Title 13	

Year 2022 Edition

**OVERLAND PARK**  
KANSAS  
ABOVE AND BEYOND. BY DESIGN.

DEPARTMENT OF PUBLIC WORKS  
STANDARD DETAILS

**SIDEWALK & SIDEWALK RAMP DETAILS**

DATE: 01/20/04      SHEET: 32\_b