

12_06 Beginning Ramp and Loop Alignments Guideline

Question:

Are there any guidelines for starting a ramp or loop alignment (stationing and direction wise)?

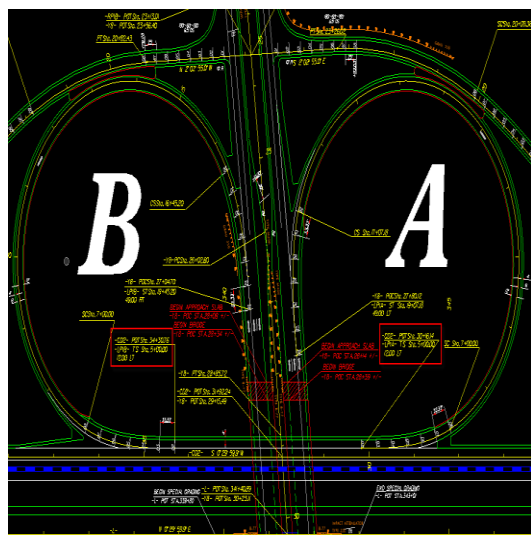
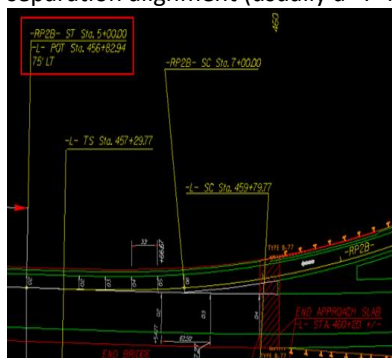
Answer:

1. Beginning station for ramp and loop alignments should be 5+00 (preferred) or 10+00. Never use "0+00" because;

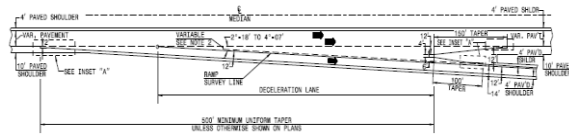
- If you need to extend the alignment back 120', station -1+20 will cause all kinds of technical issues.
- Some equipment in the field may not operate correctly with station 0+00.

Note CD's (collector-distributor) roads should follow the same convention.

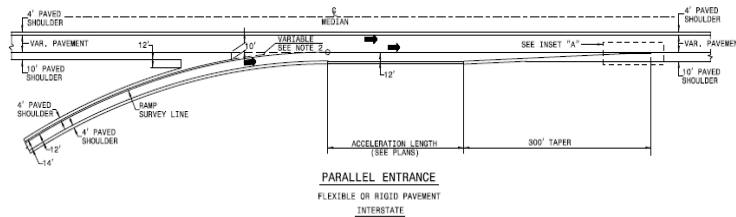
2. Ramp and loop alignments should start from the mainline (usually -L-) and end on the intersecting grade separation alignment (usually a -Y- line).



3. "Angular Exits" ($2^{\circ} 18'$ to $4^{\circ} 07'$) and "Parallel Entrances" are common ramp design, but not always. The bearing at the POB and POE of loop alignments (also CD, directional median crossovers, and detours) should be parallel to their respective offsetting chain. See Roadway Standard Drawings 225.03 for other scenerios.



**Angular Exit
Parallel Entrance**



4. Try to adhere to the standard naming convention for ramps and loops, RP1A, LP1A, etc. (Standard Alignment Naming Convention Table not available for linking at this time because inability to post/modify website.)
5. Use the two examples to write the HAL for ramps and loops in Geopak COGO Incomplete Alignment format. See the attached Word documents.
6. For minimal curve radius for loops, typical ramp length, and other info pertaining to interchange design, see Roadway Design Manual, Part I [Chapter 8 - Interchange](#). Additional resource can be found in the **Interchange Design Workshop Manual** held on February 2001 (prepared by Kathy Lassiter and Bruce Payne - June 1999) in Roadway Design. Your squad leader should have a copy or look in the Roadway library.

It is academic to say that it is not feasible to comply to this guideline all of the time. The objective for this guideline is for plans uniformity and consistency for those internal to Roadway Design and those outside, such as DDC and PEF's. Bear in mind SS3 Civil and Corridor Modeling will transition to a workflow where the GPK file and Geopak COGO are no longer needed. Design and engineering wise, it will affect all of us. The challenge will be incorporating our standards into this new workflow.