

MEMORANDUM

State of Alaska

Department of Transportation & Public Facilities
Design and Engineering Services – Central Region

TO: Distribution

DATE: April 3, 2014

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FROM: Kenneth M. Morton, P.E.
Preconstruction Engineer

SUBJECT: Roundabout Review
Policy

Roundabouts are specialized intersections that don't have traditional standards to follow. Quality design reviews are important to the success of roundabouts. Recognizing this, the Central Region Preconstruction Division has adopted a practice that all proposed roundabout intersections within the Department of Transportation and Public Facilities (DOT&PF) Right-of-Way shall have peer reviews performed on them. This includes intersections being designed and constructed by other public or private parties within DOT&PF Right-of-Way.

Peer reviews shall be performed by a designer with the following qualifications:

- A licensed professional engineer (licensing in the State of Alaska not required).
- Experience in the design of roundabout projects (multiple roundabouts in one project count as a single roundabout project) in the last 10 years.
 - Roundabouts for roadways classifications lower than collector roads do not count.

All project peer review designs are subject to approval by the DOT&PF's Project Manager.

If the principal designer of the roundabout has qualifications meeting the peer review designer qualifications above then the peer review requirement may be waived by the DOT&PF's Project Manager or Regional Traffic Engineer.

Peer reviews shall consist of, at a minimum:

- Traffic operations
- Fastest path speeds
- Pavement markings
- Minimized signing plans
- Sight distance
- Design vehicle and turning paths
- Vertical design
- Construction staging and details
- Typical section, drainage
- Grading plans
- Landscaping
- Lighting
- SIDRA modeling as well as HCS
- SimTraffic or Vissim sensitivity modeling

The Central Region Preconstruction Division's roundabout design practice includes:

- 140' min single lane outer inscribed diameters on arterials for up to 20,000 entering vehicles per day
- 165' min two lane outer inscribed diameters on arterials for up to 35,000 entering vehicles per day
- Use of NCHRP Report 672 as a reference for roundabout lane selection

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