MEMORANDUM

State of Alaska

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

TO: Wolfgang E. Junge, P.E.
Preconstruction Engineer

THRU: James E. Amundsen, P.E.
Chief, Highway Design

FROM: KJ
Kevin L. Jackson, P.E.
Project Manager

DATE: November 16, 2016

TELEPHONE NO: 269-0641
FAX NUMBER: 243-4409

SUBJECT: **DSR Revisions**
HSIP: Anchorage Area
Safety Improvements
(Z581970000)

Submitted for your approval are the following revisions to the subject Design Study Report:

Remove the text from sections **2.0 DESIGN STANDARDS AND GUIDELINES** and **14.1 Pedestrian and Bicycle** and replace with the attached.

Approved: _____ 11/17/16
Wolfgange E. Junge, P.E., Preconstruction Engineer — Date

DISTRIBUTION:

DOT&PF – Central Region
Eric Miyashiro, P.E., Chief, Preliminary Design & Environmental
Todd Vanhove, Acting Chief, Planning and Administrative Services
Tom Dougherty, P.E., Regional Construction Engineer, Construction
Chris Post, P.E., Central Region Standards Engineer, Highway Design (electronic file only)
Central Files (original)

DOT&PF -- Statewide
Michael San Angelo, P.E., Statewide Materials Engineer, MS 2538
Marcheta Moulton, Bicycle/Pedestrian Coordinator, Statewide Planning, MS 2500

DOT&PF Civil Rights Office
Jacquie Braden, Civil Rights & Compliance Specialist, Civil Right Office, ADOT&PF

FHWA
Hank Rettinger, Senior Transportation Engineer,
FHWA Alaska Division, P.O. Box 21648, 709 West 9th Street, Room 851, Juneau, AK 99802-1648

2.0 DESIGN STANDARDS AND GUIDELINES

The standards used in analyzing the intersection improvements were based on many sources, including the following publications and documents:

- A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials (AASHTO), 2001.
- Roadside Design Guide, AASHTO, 2002.
- Official Streets and Highways Plan, 1996 with 2005 Addendum, MOA.
- Highway Capacity Manual, Transportation Research Board, National Research Council, 2000.
- Alaska Highway Preconstruction Manual, DOT&PF, November 2013.
- Alaska Traffic Manual Supplement, DOT&PF, January 2012.
- Manual on Uniform Traffic Control Devices, 2009 Edition, United States Department of Transportation, FHWA, 2009.
- Design Criteria Manual, Municipality of Anchorage Project Management & Engineering, 2007.
- Traffic Calming Policy Manual, Anchorage Municipal Traffic Department, 2005
- *ADA Standards for Accessible Design, United States Department of Justice (US DOJ), 2010*
- *ADA Standards for Transportation Facilities, United States Department of Transportation (US DOT), 2006.*
- *Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG), United States Access Board, 2011.*

The US DOT and FHWA recommend using PROWAG when the 2010 US DOJ and 2006 US DOT ADA standards do not address an accessibility issue. PROWAG is considered guidance and a best practice by FHWA and DOT&PF.

14.1 Pedestrian and Bicycle

Pedestrian accommodation and safety were considered in the evaluation of alternatives. Upgrades to sidewalks and curb ramps were incorporated into the project where practicable. *All replaced curb ramps and street crossings will be replaced with ADA compliant facilities or modified as required to comply with current ADA standards, with one exception.*

The north-south pedestrian crossing on the east leg of 3rd Avenue at its intersection with Ingra Street will not meet current ADA standards at the end of construction. As part of this project, a curb ramp will be installed in the southeast quadrant of the intersection, and a sidewalk is being installed on the east side Ingra Street between 3rd and 4th Avenues. Currently there is not a curb ramp or sidewalk present. The current grade of 3rd Avenue is 6%. According to Section 403.3.3 of the 2006 US DOT, the maximum permitted cross slope is 1:48 (approximately 2%). Section R302.6.1 of PROWAG states that the maximum permitted cross slope for a pedestrian street crossing without yield or stop control is 5%. At this location, the cross slope of the pedestrian crossing will match the existing 6% grade of the roadway profile.

Substantial reconstruction of the intersection due to underlying terrain, conflicts with underground and overhead utilities, and replacement of a large retaining wall, would be required to flatten the grade of 3rd Avenue and bring the cross slope of the pedestrian crossing into compliance. Reconstructing this intersection is not within the approved HSIP scope of this project. Given these parameters, this location meets the criteria set forth in Exceptions to Alterations (202.3(2), 2006 US DOT), Exception for structural impracticability (28 CFR 35.151(a)(2), 2010 US DOJ), and Existing physical constraints (R202.3.1, PROWAG). This project will construct the intersection to meet ADA standards to the extent practicable, but full compliance will only be possible through a larger 4R reconstruction project.

Bicycle accommodation and safety were only considered where bicycle traffic is allowed within regular pedestrian access ways.