

# NORTH DAKOTA DEPARTMENT OF TRANSPORTATION DESIGN EXCEPTION REQUEST

**I. Project Description (fill in project information and provide a brief write up of project and limits):**

Project # \_\_\_\_\_ PCN \_\_\_\_\_

<u>Work Type</u>	<u>System</u>	<u>FHWA Involvement</u>
<input type="checkbox"/> New Constr/Reconstruction	<input type="checkbox"/> NHS	<input type="checkbox"/> Non-Exempt (Full)
<input type="checkbox"/> 3R	<input type="checkbox"/> Non NHS	<input type="checkbox"/> Exempt (By Request & Partial)
<input type="checkbox"/> Preventive Maintenance		<input type="checkbox"/> None

Highway Classification

- Interstate
- Interregional
- State Corridor
- District Corridor
- District Collector
- Other

Cross Section

- Interstate Divided
- Rural Divided
- Rural Two Lane
- Urban (all cross sections)

Speed:

	Posted	Design
Speed	<input style="width: 80px; height: 25px;" type="text"/>	<input style="width: 80px; height: 25px;" type="text"/>

Traffic Volumes:

	Current	Forecast
Year	<input style="width: 80px; height: 25px;" type="text"/>	<input style="width: 80px; height: 25px;" type="text"/>
Passenger ADT	<input style="width: 80px; height: 25px;" type="text"/>	<input style="width: 80px; height: 25px;" type="text"/>
Truck ADT	<input style="width: 80px; height: 25px;" type="text"/>	<input style="width: 80px; height: 25px;" type="text"/>
<b>Total ADT</b>	<input style="width: 80px; height: 25px;" type="text"/>	<input style="width: 80px; height: 25px;" type="text"/>

Note: Current traffic volumes are used for design on Preventative Maintenance projects. Forecast volumes are used for design on all other projects.

**Location:**

**Description of Work:**

**II. Design Exception for the following element (identify location(s) below).**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Design Speed            | <input type="checkbox"/> Lane Width           | <input type="checkbox"/> Superelevation                    |
| <input type="checkbox"/> Structural Capacity     | <input type="checkbox"/> Shoulder Width       | <input type="checkbox"/> Vertical Clearance <sup>1</sup>   |
| <input type="checkbox"/> Bridge Width            | <input type="checkbox"/> Grade                | <input type="checkbox"/> Horizontal Clearance <sup>2</sup> |
| <input type="checkbox"/> Stopping Sight Distance | <input type="checkbox"/> Vertical Alignment   | <input type="checkbox"/> Clear zone <sup>3</sup>           |
| <input type="checkbox"/> Cross Slope             | <input type="checkbox"/> Horizontal Alignment | <input type="checkbox"/> Guardrail <sup>4</sup>            |

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<sup>1</sup>Per FHWA Memorandum titled "Vertical Clearance, Interstate System Coordination of Design Exceptions" dated August 15, 1997, Military Defense approval is required for vertical clearance on STRAHNET designated highways or connectors. STRAHNET designated highways in North Dakota are; I-29 and I-94. STRAHNET connectors are; US-83 connecting Minot AFB to I-94 and US-2 connecting Grand Forks AFB to I-29.

<sup>2</sup>When less than 1.5' provided from edge of driving lane.

<sup>3</sup>Used on 4-R projects; for NDDOT use only – FHWA approval not required

<sup>4</sup> Guardrail: When guardrail cannot be provided with sufficient length to satisfy NDDOT standard length of need; or when barriers, guardrail, end terminals or bridge rail transitions cannot be practically and economically made to conform with designs crash tested in accordance with NCHRP 350, and accepted by the FHWA, or when bridge rail transitions, though NCHRP tested designs, are utilized which are not completely compatible with the bride railing (this is only considered where bridge railing cannot be modified to conform with current NCHRP 350 tested designs).

**Location(s) & existing features' dimension and design value (locations shall be identified by station and reference point). Identify which feature(s) do not meet, (NDDOT Guidance, AASHTO Guidance, etc.).**

**III. Proposed design values for the exception element (identify what speed and appropriate dimensions this treatment meets if applicable):**

**IV. All Design Exceptions must have a crash analysis. Describe Crash Analysis performed, (include length of analysis period) and discuss crash history relationship to the proposed design exception feature.**

**V. Impacts other than costs of bringing the features up to minimum design values (e.g., impacts to other design features, ROW, environmental effects, preservation of historical feature, construction issues, social concerns, reduction of design life, compatibility with adjacent roadway features, engineering discretion).**

**VI. Estimate of construction cost of project:**

**VII. Estimated increased cost to meet minimum design value for requested design exception:**

**VIII. Proposed mitigation to address exception feature if applicable. List any recommendations from Crash Analysis and/or Safety Review and/or Traffic Operations Report. Some possible countermeasures may include advisory signs, lighting, inslope flattening, guardrail, signing, traversable end sections, rumble strips (shoulder, centerline, or advanced for stop signs), future work to address design exception, incremental improvement, etc.**

**IX. Additional Comments:**

Signatures Required for NDDOT Projects:

## Recommend Approval

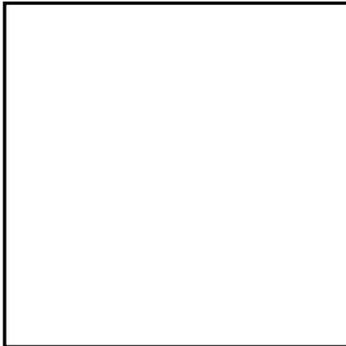
\_\_\_\_\_  
Director, Office of Project Development

\_\_\_\_\_  
Date

## Approval

I hereby certify that this Design Exception was prepared by me or under my direct supervision and that I am a duly registered professional engineer under the laws of the State of North Dakota.

PE STAMP HERE



\_\_\_\_\_  
Deputy Director for Engineering

\_\_\_\_\_  
Date

*Design Exceptions will be submitted to FHWA on all Interstate projects, on NHS > \$ 3 million and on other full involvement projects selected by mutual agreement between NDDOT and FHWA*

FHWA approval required:  Yes  No (Designer to check one)

**Approval** (If unapproved, document will be returned, unsigned with a letter of explanation.)

\_\_\_\_\_  
Federal Highway Administration

\_\_\_\_\_  
Date

Contingency Yes \_\_\_\_\_ No \_\_\_\_\_

Contingencies of FHWA Approval (If applicable):