

# Design Exception Request

POR IR 0076 16.58/21.18

PID: 102858; Request 02

Letting Type: ODOT-Let

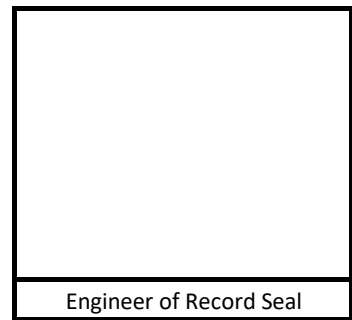
## Design Designation

Current ADT (2022)	780	Td	0
Design Year ADT (2042)	990	Design Speed	60
Design Hourly Volume (2042)	119	Legal Speed	55
Directional Distribution	60%	Design Functional Class	7 - Local Roads
Trucks (24hr B&C)	3	Functional Class Area Type	Rural
		NHS Project	No



Submitted By:

Joshua Conley  
(Engineer of Record)



Approved by:

David Holstein

Approval Date: 6/28/2019

# Design Exception Request

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## Controlling Criteria Identification

Controlling Criteria	Standard	Existing (a.)	Proposed
Lane Width	11	10	10
Shoulder Width			
Horizontal Curve Radius			
Maximum Grade			
SSD (Horizontal & Crest)	570	495	473
Pavement Cross Slope			
Superelevation Rate			
Vertical Clearance			
Design Loading Structural			

(a.) "Existing" may be N/A (i.e. New alignment or new ramp)

### Project Description

Project includes bridge deck replacement and minor approach work for CR 137 (John Thomas Rd) over IR 76 (SLM 16.58) and CR 73 (Milton Newton Rd) over IR 76 (SLM 21.18).

### Section Description

County Road 73 over IR 76(SLM 21.18). The proposed project will improve the structural capacity of the bridge by replacing the deck and improve safety by increasing the vertical clearance over IR-76 to 16.5 feet.

**Proposed Mitigation**

None

**Support for Deviation (Benefit-cost, R/W, Environmental, Constructability, Coordination with Other Projects, Relationship between any crash patterns and proposed design exception, etc.):**

Existing lane widths on the approach roadway are 10' and approach work for the project is minimal. Widening the bridge and maintaining the desired structural design loading will require the addition of a new beam line and a reconfiguration of the beam spacing and replacement of the cross frames. While the stopping sight distance for the crest vertical curve is below the existing and standard at 53 MPH, the adjacent sag vertical curves are well below the standard at less than 33 MPH. In addition, flattening the curve across the bridge will alter the shape of the bridge and require taller haunches than desired at the ends of the bridge and minimum haunch depths in the middle of the beams since the camber of the beams will be unchanged. Because deep haunches require additional reinforcing and the haunch depth is varying along the length of the beams getting the reinforcement correct in the field has proven to be very difficult.

Crash data for the past 5 years was checked. There have been no reported accidents on CR 73 during this period.

**Does the requested Design Exception location fall within a Safety Integrated Project (SIP) Map Location?**

No

**Does the crash analysis (GCAT and CAM Tool) show any patterns that would be adversely impacted by the proposed Design Exception?**

# Signature Certificate

 Document Reference: 4DJCZWJKD4DAJY6P7N5LEF

**RightSignature**  
Easy Online Document Signing

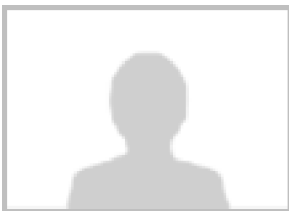


David Holstein  
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Electronic Signature:

Multi-Factor  
Digital Fingerprint Checksum

16a68c8038ad6c2d4a64219a86e94e610bfea037



Joshua Conley  
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9abf3e712b63190b2c609302715351a8e0a208cb



## Timestamp

2019-07-01 05:34:50 -0700  
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2019-07-01 05:34:24 -0700  
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2019-07-01 04:54:01 -0700  
2019-07-01 04:42:25 -0700  
2019-07-01 04:36:33 -0700

## Audit

All parties have signed document. Signed copies sent to: Derek Troyer, Rinaldo Spano, PE, David Holstein, Joshua Conley, and Christi Collins.  
Document signed by David Holstein (dave.holstein@dot.ohio.gov) with drawn signature. - 156.63.133.86  
Document viewed by David Holstein (dave.holstein@dot.ohio.gov). - 156.63.133.86  
Document signed by Joshua Conley (jconley@jmt.com) with drawn signature. - 104.129.194.54  
Joshua Conley attached a file (Filename: Joshua\_Conley\_PE\_Seal.JPG) - 104.129.194.54  
Document viewed by Joshua Conley (jconley@jmt.com). - 196.17.100.23  
Document created by Christi Collins (christi.collins@dot.ohio.gov). - 156.63.133.86



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