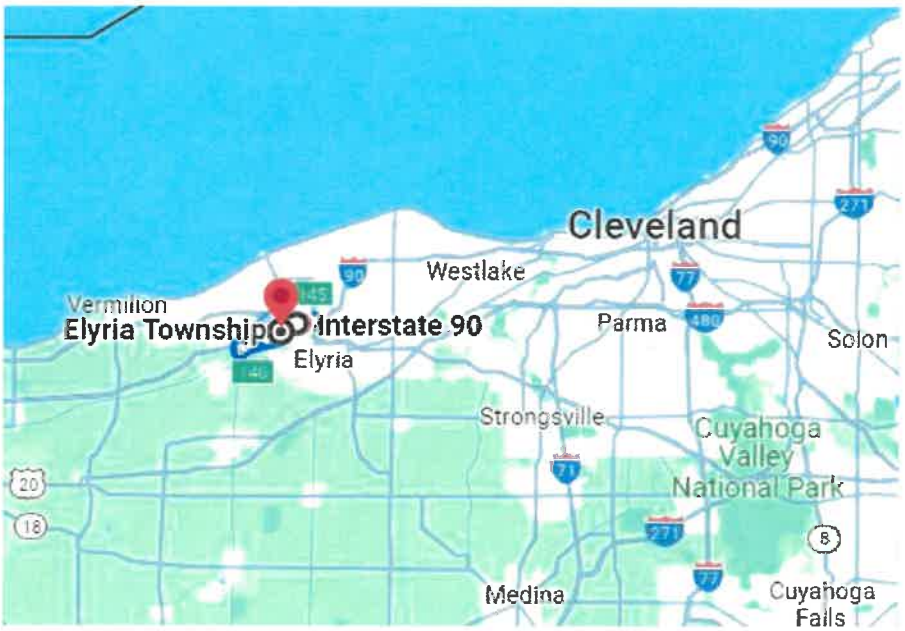
Design Exception Request

LOR-90-10.76

PID: 107714; Request 01

Letting Type: ODOT-Let

Design Designation			
0090; 10.76-11.96			
Current ADT (2025)	14,900	Td	30%
Design Year ADT (2045)	20,420	Design Speed	65
Design Hourly Volume (2045)	1,980	Legal Speed	65
Directional Distribution	56%	Design Functional Class	1 - Interstates
Trucks (24hr B&C)	37%	Functional Class Area Type	Urban
		NHS Project	Yes



Submitted By:

E-SIGNED by Karla Bohmer
on 2024-04-17 10:15:42 EST

Karla Bohmer
(Engineer of Record)

K.B.

Engineer of Record Seal

Approved by:

E-SIGNED by Jennifer Alford
on 2024-04-17 10:17:08 EST

Jennifer Alford Approval Date: 4/5/2024

Design Exception Request

LOR-90-10.76

PID: 107714; Request 01

Controlling Criteria Identification			
Section: 0090; 10.76-11.96			
Controlling Criteria	**Standard**	**Existing (a.)**	**Proposed**
Lane Width			
Shoulder Width			
Horizontal Curve Radius			
Maximum Grade			
SSD (Horizontal & Crest Vertical)	645'	WB I-90 over EB SR 2: 420'	WB I-90 over EB SR 2: 420'
Pavement Cross Slope			
Superelevation Rate	0.060 max (urban)	Curve 4 (P.I. at Sta. 542+32): 0.064 Curve 7 (P.I. at Sta. 576+31): 0.083	Curve 4 (P.I. at Sta. 542+32): 0.064 Curve 7 (P.I. at Sta. 576+31): 0.083
Vertical Clearance			
Design Loading Structural Capacity			
(a.) "Existing" may be N/A (i.e. New alignment or new ramp)			

Project Description

PID 107714 is a major rehabilitation design build project. This project will replace 7.50 miles and resurface 0.30 miles of IR-90 while widening to add a third lane in each direction from the I-90/SR-2 split to the French Creek Bridge. This project will also replace approximately 0.52 miles of SR-2 from the Murray Ridge Road bridges to IR-90.

Work also includes: Full ramp replacement and widening at the SR-254 interchange; noise wall construction; drainage and BMP modifications; lighting modifications; ITS; guardrail replacement; traffic control; bridge deck replacement for two bridges, right of way fence replacement, and miscellaneous bridge repairs.

Section Description

IR 90, SLM 10.76 (Ohio Turnpike Booth) to SLM 11.96 (SR 2)

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.):
The existing corridor was designed for a maximum superelevation rate of 0.083 (rural criteria). Existing bridge infrastructure to remain prevents full conversion to maximum superelevation rate of 0.060 (urban criteria). The District is proposing to allow the 0.083 maximum superelevation rate to remain. The Design Build Team may use either rural or urban superelevation rates along IR 90, SR 2 and SR 57 ramps in the design. Urban rates shall be used for the reconstructed SR 254 ramps. The Design Build Team shall submit superelevation transition calculations for the three lane sections of IR 90 with the Interim Design submission showing how the three lane transitions will be developed.

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?
No

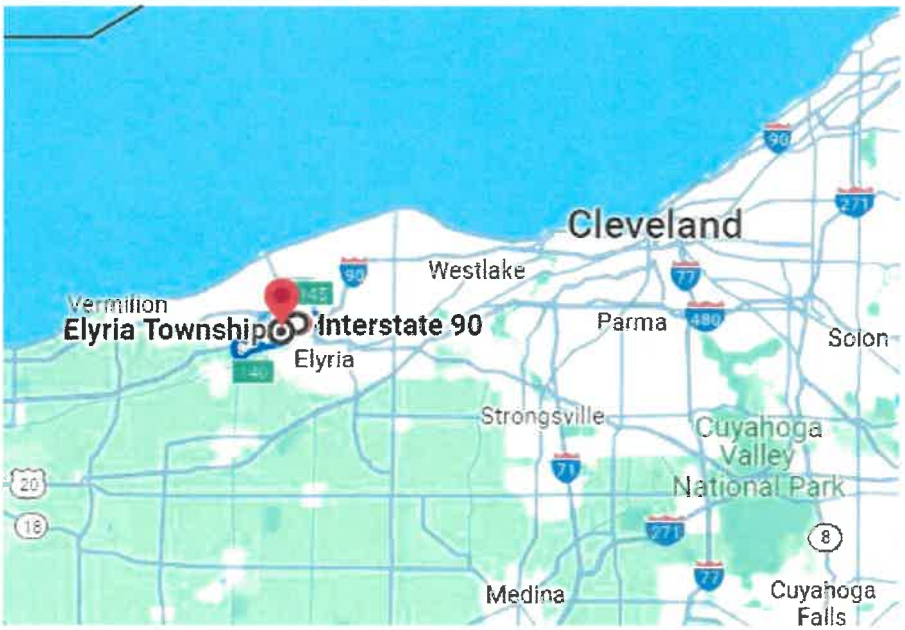
Design Exception Request

LOR-90-10.76

PID: 107714; Request 02

Letting Type: ODOT-Let

Design Designation			
0090; 11.96-18.61			
Current ADT (2025)	65,600	Td	13%
Design Year ADT (2045)	77,430	Design Speed	65
Design Hourly Volume (2045)	7,930	Legal Speed	65
Directional Distribution	57%	Design Functional Class	1 - Interstates
Trucks (24hr B&C)	11%	Functional Class Area Type	Urban
		NHS Project	Yes



Submitted By:

E-SIGNED by Karla Bohmer
on 2024-04-17 10:18:17 EST

Karla Bohmer
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K.B.

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Approved by:

E-SIGNED by Jennifer Alford
on 2024-04-17 10:21:40 EST

Jennifer Alford Approval Date: 4/5/2024

Design Exception Request

LOR-90-10.76

PID: 107714; Request 02

Controlling Criteria Identification			
Section: 0090; 11.96-18.61			
Controlling Criteria	**Standard**	**Existing (a.)**	**Proposed**
Lane Width			
Shoulder Width			
Horizontal Curve Radius			
Maximum Grade			
SSD (Horizontal & Crest Vertical)	645'	EB I-90 over Ford Road: 598' WB I-90 over Ford Road: 645'	EB I-90 over Ford Road: 598' WB I-90 over Ford Road: 579'
Pavement Cross Slope			
Superelevation Rate	0.060 max (urban)	SR 57 Interchange Ramps: 0.083 Curve with P.I. at Sta. 719+72: 0.064 Curve with P.I. at Sta. 750+88: 0.083 Curve with P.I. at Sta. 796+98: 0.083	SR 57 Interchange Ramps: 0.083 Curve with P.I. at Sta. 719+72: 0.064 Curve with P.I. at Sta. 750+88: 0.083 Curve with P.I. at Sta. 796+98: 0.083
Vertical Clearance	16.5 ft	IR 90 under SR 254 (SFN 4706277): 15 ft	IR 90 under SR 254 (SFN 4706277): 15 ft
Design Loading Structural Capacity			
(a.) "Existing" may be N/A (i.e. New alignment or new ramp)			

Project Description

PID 107714 is a major rehabilitation design build project. This project will replace 7.50 miles and resurface 0.30 miles of IR-90 while widening to add a third lane in each direction from the I-90/SR-2 split to the French Creek Bridge. This project will also replace approximately 0.52 miles of SR-2 from the Murray Ridge Road bridges to IR-90.

Work also includes: Full ramp replacement and widening at the SR-254 interchange; noise wall construction; drainage and BMP modifications; lighting modifications; ITS; guardrail replacement; traffic control; bridge deck replacement for two bridges, right of way fence replacement, and miscellaneous bridge repairs.

Section Description

IR 90, SLM 11.96 (SR 2) to SLM 18.61 (French Creek Structures)

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.):
The existing corridor was designed for a maximum superelevation rate of 0.083 (rural criteria). Existing bridge infrastructure to remain prevents full conversion to maximum superelevation rate of 0.060 (urban criteria). The District is proposing to allow the 0.083 maximum superelevation rate to remain. The Design Build Team may use either rural or urban superelevation rates along IR 90, SR 2 and SR 57 ramps in the design. Urban rates shall be used for the reconstructed SR 254 ramps. The Design Build Team shall submit superelevation transition calculations for the three lane sections of IR 90 with the Interim Design submission showing how the three lane transitions will be developed.

The proposed work to SFN 4706277 (SR 254 over IR 90) includes the installation of 6' tall vandal protection fence along the full length of both bridge parapets. The Design Build Team will be required to maintain existing eastbound and westbound vertical clearances under SR 254 with the project.

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?
No

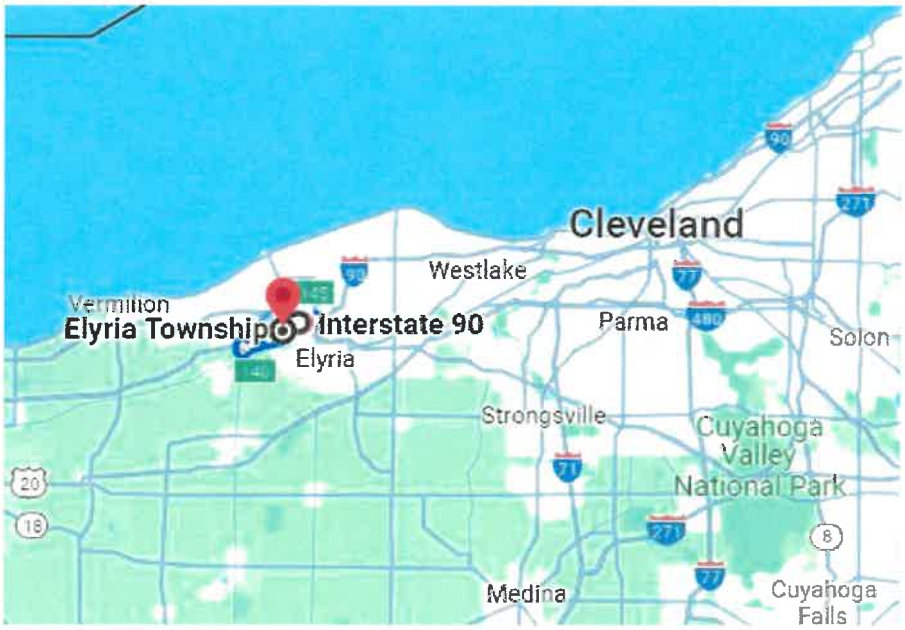
Design Exception Request

LOR-90-10.76

PID: 107714; Request 03

Letting Type: ODOT-Let

Design Designation			
0002; 10.71-11.23			
Current ADT (2025)	53,930	Td	6%
Design Year ADT (2045)	60,590	Design Speed	65
Design Hourly Volume (2045)	6,280	Legal Speed	65
Directional Distribution	54%	Design Functional Class	1 - Interstates
Trucks (24hr B&C)	6%	Functional Class Area Type	Urban
		NHS Project	Yes



Submitted By:

E-SIGNED by Karla Bohmer
on 2024-04-17 10:19:07 EST

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K.B.

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Approved by:

E-SIGNED by Jennifer Alford
on 2024-04-17 10:22:21 EST

Jennifer Alford Approval Date: 4/5/2024

Design Exception Request

LOR-90-10.76

PID: 107714; Request 03

Controlling Criteria Identification			
Section: 0002; 10.71-11.23			
Controlling Criteria	**Standard**	**Existing (a.)**	**Proposed**
Lane Width			
Shoulder Width			
Horizontal Curve Radius			
Maximum Grade			
SSD (Horizontal & Crest Vertical)	645'	EB SR 2 under WB I-90: 627'	EB SR 2 under WB I-90: 627'
Pavement Cross Slope			
Superelevation Rate	0.06 max (urban)	EB SR 2 curve with P.I. near Sta. 583+30: 0.081	EB SR 2 curve with P.I. near Sta. 583+30: 0.081
Vertical Clearance			
Design Loading Structural Capacity			
(a.) "Existing" may be N/A (i.e. New alignment or new ramp)			

Project Description

PID 107714 is a major rehabilitation design build project. This project will replace 7.50 miles and resurface 0.30 miles of IR-90 while widening to add a third lane in each direction from the I-90/SR-2 split to the French Creek Bridge. This project will also replace approximately 0.52 miles of SR-2 from the Murray Ridge Road bridges to IR-90.

Work also includes: Full ramp replacement and widening at the SR-254 interchange; noise wall construction; drainage and BMP modifications; lighting modifications; ITS; guardrail replacement; traffic control; bridge deck replacement for two bridges, right of way fence replacement, and miscellaneous bridge repairs.

Section Description

SR 2, SLM 10.71 (Murray Ridge Structures) to 11.23 (IR 90)

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.):
The existing corridor was designed for a maximum superelevation rate of 0.083 (rural criteria). Existing bridge infrastructure to remain prevents full conversion to maximum superelevation rate of 0.060 (urban criteria). The District is proposing to allow the 0.083 maximum superelevation rate to remain. The Design Build Team may use either rural or urban superelevation rates along IR 90, SR 2 and SR 57 ramps in the design. Urban rates shall be used for the reconstructed SR 254 ramps. The Design Build Team shall submit superelevation transition calculations for the three lane sections of IR 90 with the Interim Design submission showing how the three lane transitions will be developed.

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?
No