

7 ROADWAY

7.1 Standards and References

Design-Build Contractor shall design and construct the roadway Work in accordance with the applicable requirements in the PPA Documents, including the Project Standards, this Section 7 and its Attachment 7-1 (Unique Special Provisions: Roadway); Governmental Approvals; and applicable laws.

7.2 Design Requirements

The specific design requirements listed for I-65 are the minimum requirements for the design of the roadway. The design shall not provide for less than the minimum requirement unless written approval is obtained from INDOT.

7.2.1 General Design Requirements

1. Construct one additional travel lane in each direction. The resulting typical section for each direction of I-65 shall consist of a total of three 12-foot lanes; one added travel lane, two existing travel lanes.
2. The minimum usable median shoulder width shall be 10 feet. The minimum paved median shoulder width shall be 8 feet.
3. The new inside added travel lane shall be dropped on the median side and not at ramp termini. The southbound added travel lane on the median side shall terminate south of SR 2 interchange in accordance with AASHTO Policy on Geometric Design of Highways and Streets, Chapter 10 – Lane Reductions. The northbound added travel lane on the median side shall start opposite the terminus of the southbound full added travel lane in the median.
4. The outside paved shoulder width adjacent to I-65 mainline travel lanes north of US 231 shall be 12 feet unless existing bridge pier encroaches into the 12 foot shoulder width. If bridge pier encroaches, extend the outside paved shoulder width to the existing bridge pier. South of the US 231 interchange, including the interchange, to the end of the project, the outside paved shoulder width shall be 10 feet.
5. Provide a two foot offset from the edge of the paved shoulder to the face of new barrier or new guardrail for shoulders less than 12 feet. The offset for a 12-foot or wider shoulder shall be zero.
6. All existing guardrail, guardrail transitions, guardrail end treatment, and impact attenuators may remain in place if they meet Project Standards. Existing guardrail shall be replaced if it does not meet any other requirements described in this Section 7. The Design-Build Contractor shall ensure that all existing guardrail to remain in place within the Project Limits complies with Chapter 49 of the IDM.
7. The height of new, relocated, and/or reset guardrail shall be 30 inches to the top of rail.
8. When double-faced guardrail is used in the median, the slopes adjacent to median barriers shall be 10:1 or flatter.
9. One stage 1 spare parts package and one stage 2 spare parts package shall be supplied for each type of guardrail end treatment installed. The spare parts packages shall be in

accordance with the replacement parts list shown in INDOT Recurring Plan Detail 601-R-237d, current edition. One stage 1 spare parts packages and one stage 2 spare parts packages shall be supplied for each type of impact attenuator being installed. The spare parts packages shall be in accordance with the replacement parts list shown in INDOT Recurring Plan Detail 601-R-497d, current edition. The spare parts packages shall be delivered to the following address:

John Claussen
1130 East Maple Street, Rensselaer, IN 47978
(219)-866-5820
jclaussen@indot.in.gov

7.2.2 *Specific Design Requirements*

The following specific design requirements are the minimum design requirements for the Project and were developed for purposes of setting design requirements for the Project and not to be the basis or expectation of use of the Project. The specific design requirements apply only to the design of the roadways and as otherwise set forth in these Technical Provisions. Design-Build Contractor's use of the specific design requirements for any purpose other than roadway design shall be at the Design-Build Contractor's sole risk.

**Table 7-1: I-65 (Rural) Design Data
From South Project Limits to US 231 Interchange**

Jurisdictional System	INDOT
Project Design Criteria	IDM Fig. 54-2A / AASHTO Policy on Design Standards Interstate Systems - 2005
Design Functional Classification	Interstate
Rural/Urban	Rural
Access Control	Full Access Control
Terrain	Level
Median Type	Depressed
Traffic Data	
Current Year A.A.D.T. (2015)	SR 10 Interchange to SR 2 Interchange – 42,981 SR 2 Interchange to US 231 Interchange – 45,597
Opening Year A.A.D.T. (2016)	SR 10 Interchange to SR 2 Interchange – 42,848 SR 2 Interchange to US 231 Interchange – 45,697
Design Year A.A.D.T. (2035)	SR 10 Interchange to SR 2 Interchange – 59,000 SR 2 Interchange to US 231 Interchange – 55,200
Design Hourly Volume (D.H.V.) (2035)	SR 10 Interchange to SR 2 Interchange – 5,310 SR 2 Interchange to US 231 Interchange – 3,868
2035 Percent Trucks (A.A.D.T.)	SR 10 Interchange to SR 2 Interchange – 49% SR 2 Interchange to US 231 Interchange – 44%
2035 Percent Trucks (D.H.V.)	SR 10 Interchange to SR 2 Interchange – 49% SR 2 Interchange to US 231 Interchange – 44%
Proposed Design Speed	70
Proposed Posted Speed	70
Special Features	
None specified	

**Table 7-2: I-65 (Urban) Design Data
From US 231 Interchange to North Project Limits**

Jurisdictional System	INDOT
Project Design Criteria	IDM Fig. 54-2A / AASHTO Policy on Design Standards Interstate Systems - 2005
Design Functional Classification	Interstate
Rural/Urban	Urban
Access Control	Full Access Control
Terrain	Level
Median Type	CMB
Traffic Data	
Current Year A.A.D.T. (2015)	US 231 Interchange to 109 th Avenue Interchange – 50,837 109 th Avenue Interchange to US 30 Interchange – 62,890
Opening Year A.A.D.T. (2016)	US 231 Interchange to 109 th Avenue Interchange – 50,949 109 th Avenue Interchange to US 30 Interchange – 62,978
Design Year A.A.D.T. (2035)	US 231 Interchange to 109 th Avenue Interchange – 51,800 109 th Avenue Interchange to US 30 Interchange – 67,400
Design Hourly Volume (D.H.V.) (2035)	US 231 Interchange to 109 th Avenue Interchange – 4,144 109 th Avenue Interchange to US 30 Interchange – 5,392
2035 Percent Trucks (A.A.D.T.)	US 231 Interchange to 109 th Avenue Interchange – 34% 109 th Avenue Interchange to US 30 Interchange – 28%
2035 Percent Trucks (D.H.V.)	US 231 Interchange to 109 th Avenue Interchange – 34% 109 th Avenue Interchange to US 30 Interchange – 28%
Proposed Design Speed	70
Proposed Posted Speed	70
Special Features	
None specified	

7.2.3 Interstate-Route Crossovers

Interstate-route crossover locations for I-65 are listed in IDM Figure 54-6B(65). Median crossings included within the Project Limits shall be in accordance with the IDM, except as noted in Table 7-3.

Table 7-3: Interstate Crossovers

Reference Marker	I-65 Location Description	Action
247.8 ⁽¹⁾	0.4 mi. N. of US 231	Do not construct new crossover

1. The actual location of the existing crossover is Reference Marker 247.6. It is currently blocked-off with sand-filled barrels.

7.3 Limited Construction Area

No permanent features shall be constructed within the limits of the footprint along I-65 from RP 241+50 to RP 243+14 except for the following items:

1. Elements of the roadway typical section including: travel lanes; shoulders; drainage ditches and cross culverts; and required traffic barriers
2. ITS wiring and conduits
3. Roadside signing

Design-Build Contractor shall obtain approval by INDOT for construction of all other items, including ITS surface features, any utility relocations, and any overhead signing.

7.4 Design Exceptions

Design-Build Contractor may propose Design Exceptions and follow the Department's Design Exception process; however, INDOT reserves the right to reject, in its sole discretion, any proposed change that requires a Design Exception or does not otherwise conform to the requirements of the PPA Documents. All adjustments to the Project shall conform to applicable Laws and Governmental Approvals. Design-Build Contractor is responsible for time delays in obtaining Design Exceptions. Delays due to approvals for Design Exceptions shall not be considered eligible for a Change Order. All Level Two Design Exceptions shall be approved by INDOT in writing.

INDOT is in the process of obtaining the following Design Exceptions on the Project:

7.4.1 Level One Design Exceptions

Shoulder Widths: From the South End of Project Limits to US 231 – Rural Typical Cross Section. With the addition of the third travel lane, the median shoulder will be 8'-0" paved with 2'-0" of aggregate for a total usable shoulder width of 10'-0"

7.5 Deliverables

Deliverables, a non-exhaustive list of which is set forth in the table below, shall be submitted in electronic format in accordance with the schedule set forth below. Acceptable electronic formats include PDF and current versions of Microsoft Word and Microsoft Excel, unless otherwise indicated.

Deliverable	Schedule	TP Section
Design Exception documentation	As needed	7.4