

## APPENDIX M: DESIGN EXCEPTIONS

### HILLIARD ROAD BRIDGE

CUY-00069-0857

Road Classification: Urban – Minor Arterial

ADT: 18,263

Legal Speed: 35 mph

Project Description: Feasibility Report for the Hilliard Road Bridge

### GOVERNING CRITERIA

- 1) AASHTO "Standard Specifications for Highway Bridges", 17<sup>th</sup> Edition, 2002.
- 2) Ohio Department of Transportation, Bridge Design Manual, 2007, with most recent quarterly revisions.
- 3) Ohio Department of Transportation, Office of Roadway Engineering Services, Location & Design Volume 1, 2013, with most recent quarterly revisions.
- 4) Ohio Department of Transportation, Construction Material Specifications, January 1, 2013.

### ROADWAY LAYOUT

#### 1. Cross Section

a. Widths Across Bridge:	<u>Provided</u>	<u>Required</u>	<u>Criteria Met?</u>
1) Sidewalk	9'-6"	Min 5'	Yes
2) Shoulders	None	1'-2' Paved	No
3) Lanes	Varies from 10'-0" to 14'-0"	11'	No
4) Curb Height	12"	8"	Yes

b. Cross Slopes Across Bridge:	<u>Provided</u>	<u>Required</u>	<u>Criteria Met?</u>
1) Sidewalk	0.02	.02	Yes
2) Shoulders	N/A	0.016	N/A
3) Lanes	0.016	0.016	Yes

2. <u>Vertical Alignment (Max Grades):</u>	<u>Provided</u>	<u>Required</u>	<u>Criteria Met?</u>
a. On Roadway	+0.49%	Max 6%	Yes

### DESIGN EXCEPTIONS

The current bridge does not meet the governing design requirements for shoulder width or lane width. However, due to the historic nature of the existing structure, these design requirements can be waived, therefore, no design exceptions would be needed for Alternatives 1 through 3. Under the Total Rehabilitation proposed in Alternative 3, the curb height will be reduced to 8" to meet current design standards. For Alternative 4, since a new bridge will be designed and constructed, these design requirements can be met as part of the new design.