

### **GEOMETRIC DESIGN CRITERIA**

**18 MPH BICYCLE DESIGN SPEED** 

PEDESTRIAN DENSITY ≥ 200 PED/HR

HORIZONTAL CURVE 60' MIN. RADIUS

VERTICAL GRADE 5% MAX.

MINIMUM PAVED PATH WIDTH 10' WITH MAX. 6:1 SLOPE, 2' WIDE, CLEAR OF OBSTRUCTIONS

MAXIMUM CROSS SLOPE 1.5%

WHEN IMMEDIATELY ADJACENT TO ROADWAY WITHIN EXISTING RIGHT OF WAY SHARED USE PATH MAY FOLLOW ROADWAY GEOMETRIC DESIGN

(1)

# **REFERENCED STANDARD DRAWINGS**

AND GUTTER DETAILS SEE RP-D-15 & 16 FOR CONCRETE DRIVEWAYS SEE RP-SC-1 FOR SLOPING CONCRETE CURB AND CURBS AND GUTTERS SEE MM-CR SERIES FOR CURB RAMP DETAILS SEE MM-BPR-1 FOR BIKE AND PEDESTRIAN SAFETY RAIL SEE MM-BPR-2 FOR BIKE AND PEDESTRIAN MEDIAN BARRIER RAIL SEE MM-SW-2 FOR ALTERNATE DETAILS FOR CONCRETE SIDEWALK (REHABILITATION) SEE MM-PM-1 THRU MM-PM-5 FOR BIKE LANE/ROUTE PAVEMENT MARKINGS SEE MM-TS-1 FOR BIKE ACCOMMODATION DESIGN GUIDANCE SEE MM-TS-2 LATERAL OFFSETS FOR SIDEWALK AND SHARED USE PATH SEE S-PL-6 FOR GUARDRAIL PLACEMENT SEE T-M-4 FOR CROSS WALK MARKING



- 2 PRIME COAT 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) AT 0.30 - 0.35 GAL./S.Y. 402-02 AGGREGATE FOR COVER MATERIAL (PC) AT 8 - 12 LBS/S.Y.
- $(\mathbf{3})$ BITUMINOUS BINDER AT 3 INCHES THICK (APPROX. 339 LBS/S.Y.) 307-01.08 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2
- (4)TACK COAT 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) AT 0.05 - 0.10 GAL./S.Y.
- (5) BITUMINOUS SURFACING (SHOULDERS) AT 1.5 INCHES THICK (APPROX. 154.5 LBS/S.Y.) 411-01.07 ACS MIX (PG64-22) GRADING E SHOULDER

TYPICAL PAVEMENT DETAILS ARE PROVIDED FOR GUIDANCE. PAVEMENT DESIGN SHOULD CONSIDER OCCASIONAL MAINTENANCE AND EMERGENCY VEHICLES OR ALTERNATIVE MATERIAL OTHER THAN ASPHALT MAY BE USED AND SHOWN ON THE PLANS.

## **GENERAL NOTES**

- UNDER CERTAIN CONDITIONS IT MAY BE NECESSARY OR DESIRABLE TO USE ALTERNATIVE PATH WIDTHS. TDOT STANDARDS (A)ARE BASED ON 200 - 300 USERS PER HOUR, A LEVEL OF SERVICE (LOS) OF "C". REFER TO THE HIGHWAY CAPACITY MANUAL, 6TH EDITION FOR MORE INFORMATION.
- **(B)** THE MINIMUM WIDTH OF A ONE DIRECTIONAL SHARED USE PATH IS 6 FEET AND TWO DIRECTIONAL IS 10 FEET.
- $\bigcirc$ 2 FEET ON A 6:1 SLOPE IS DESIRABLE TO PROVIDE LATERAL OFFSET FROM TREES, POLES, WALLS, FENCES, GUARDRAILS, OR OTHER LATERAL OBSTRUCTIONS. WHERE THE PATH IS ADJACENT TO CANALS, DITCHES OR SLOPES STEEPER THAN 3:1 A WIDER SEPARATION SHOULD BE CONSIDERED.
- (D)THE MINIMUM VERTICAL CLEARANCE TO OBSTRUCTIONS SHALL BE 10 FEET TO PERMIT PASSAGE OF MAINTENANCE AND EMERGENCY VEHICLES AND TO PROVIDE ADEQUATE VERTICAL SHY DISTANCE.
- (E)A DRAINAGE OR STORM WATER CONVEYANCE SYSTEM DITCH SHOULD BE LOCATED PROPERLY BETWEEN THE SHARED USE PATH AND ROADWAY TO ENSURE THAT WATER DOES NOT FLOW ONTO THE ROADWAY OR SHOULDER. ALSO, DITCH SHOULD BE SUFFICIENT ENOUGH TO REMOVE THE ADDITIONAL RUNOFF.
- $(\mathbf{F})$ WHEN THE DISTANCE BETWEEN THE EDGE OF TRAVEL LANE AND THE SHARED USE PATH IS LESS THAN 12.5 FEET ON A FACILITY WITH POSTED SPEED OF ≥ 45 MILES PER HOUR, A BARRIER RAIL IS REQUIRED. (THIS REDUCED WIDTH SHALL MEET THE REQUIREMENTS FOR OCCASIONAL MAINTENANCE ACTIVITIES.) SEE STD. DWG. MM-BPR-2 FOR DETAILS.
- G CLEAR ZONE SHOULD BE MAINTAINED BETWEEN THE ROADWAY AND THE SHARED USE PATH. IF CLEAR ZONE CAN NOT BE ACHIEVED. AN APPROPRIATE BARRIER SHOULD BE CONSIDERED FOR POSTED SPEED MORE THAN 45 MPH.
- (H)ON ALL BRIDGE DECKS, SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT BICYCLE- SAFE EXPANSION JOINTS ARE USED AND DECKING MATERIALS THAT MAY BECOME SLIPPERY WHEN WET ARE AVOIDED.
- $(\mathbf{I})$ SEE STD. DWG. MM-PM SERIES FOR SIGNING AND PAVEMENT MARKINGS.
- $(\mathsf{J})$ THE PURPOSE OF THIS STANDARD IS TO PROVIDE MINIMUM GEOMETRIC AND SAFETY DESIGN STANDARDS DURING THE DEVELOPMENT OF NON-MOTORIZED TRANSPORTATION FACILITIES. ALL FACILITIES SHALL BE DESIGNED FOR ADA ACCESSIBILITY
- $(\mathbf{K})$ FOR FURTHER INFORMATION, REFER TO AASHTO "GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES" FOR GEOMETRIC DESIGN REQUIREMENTS AND TOOT ROADWAY DESIGN GUIDELINES MULTI-MODAL DESIGN GUIDE CHAPTER.
- (L)PAVEMENT MARKINGS MAY BE OPTIONAL ON SHARED USE PATHS, HOWEVER, PROPER SIGNAGE MUST BE INSTALLED PER STANDARDS AND THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- (M)BRIDGES THAT CROSS OVER RAILROAD TRACKS MAY NEED SPECIAL FENCING, SEE STANDARD STRUCTURE DRAWINGS,
- (N)FOR INFORMATION TO DETERMINE LOADS AND RESISTANCES FOR WOODEN GREENWAY STRUCTURES SEE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS; SECTION 3, LOADS AND LOAD FACTORS AND SECTION 8, WOOD STRUCTURES.
- $\bigcirc$ EXISTING BRIDGE DECK SLOPES MAY BE GREATER THAN 1.5 %.
- $(\mathbf{P})$ COMBINATION BRIDGE SEPARATION BARRIER WITH RAILING HAS BEEN EVALUATED BY THE MIDWEST ROADSIDE SAFETY FACILITY AND MEETS MASH TL-2 STANDARDS. THE EVALUATION HAS BEEN DOCUMENTED IN REPORT NUMBER TRP-03-397-19.

PROVIDE SMOOTH RIDING SURFACE WHEN STD 11-1 OR 2 BRIDGE WALL IS USED

SEE RP-VC-10 OR 11 FOR VERTICAL CONCRETE CURB AND CURBS



REV. 06-28-19: REVISED ALL DETAILS TO SHOW 1.5% MAX. GRADE. ADJUSTED WORDING IN GENERAL NOTES (D) AND(L)

REV. 06-15-21: REMOVED TYPICAL SECTION FOR TWO-WAY SHARED USE PATH ADJACENT TO HIGH SPEED HIGHWAY AND MOVED IT TO MM-TS-2. REVISED RAILINGS ON BRIDGE TYPICAL SECTION FOR SHARED USE PATH. ADDED NOTE(O). REVISED GEOMETRIC DESIGN CRITERIA NOTES.

REV: 01-28-2022: ADDED VEHICULAR BRIDGE TYPICAL SECTION WHEN SIDEWALK PRESENT DRAWING. GENERAL NOTE(P) WAS ADDED. REVISED BRIDGE TYPICAL SECTION TITLES.

#### (Replaced Std Dwg RD11-TS-8)

