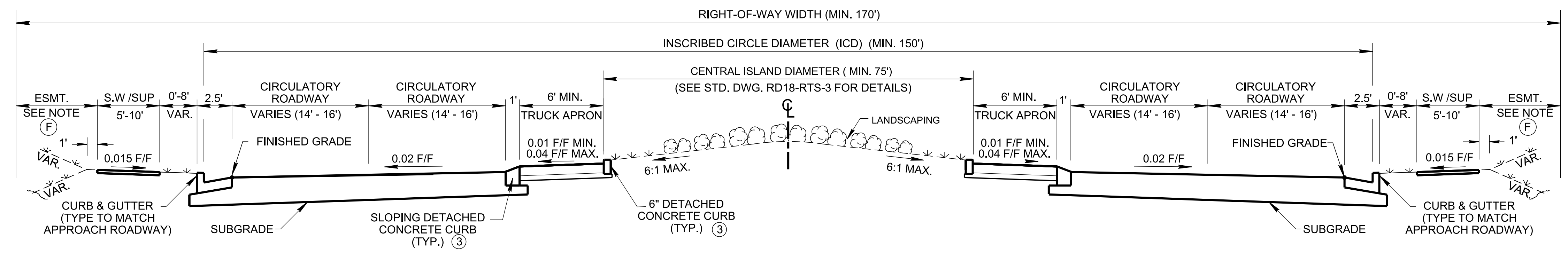
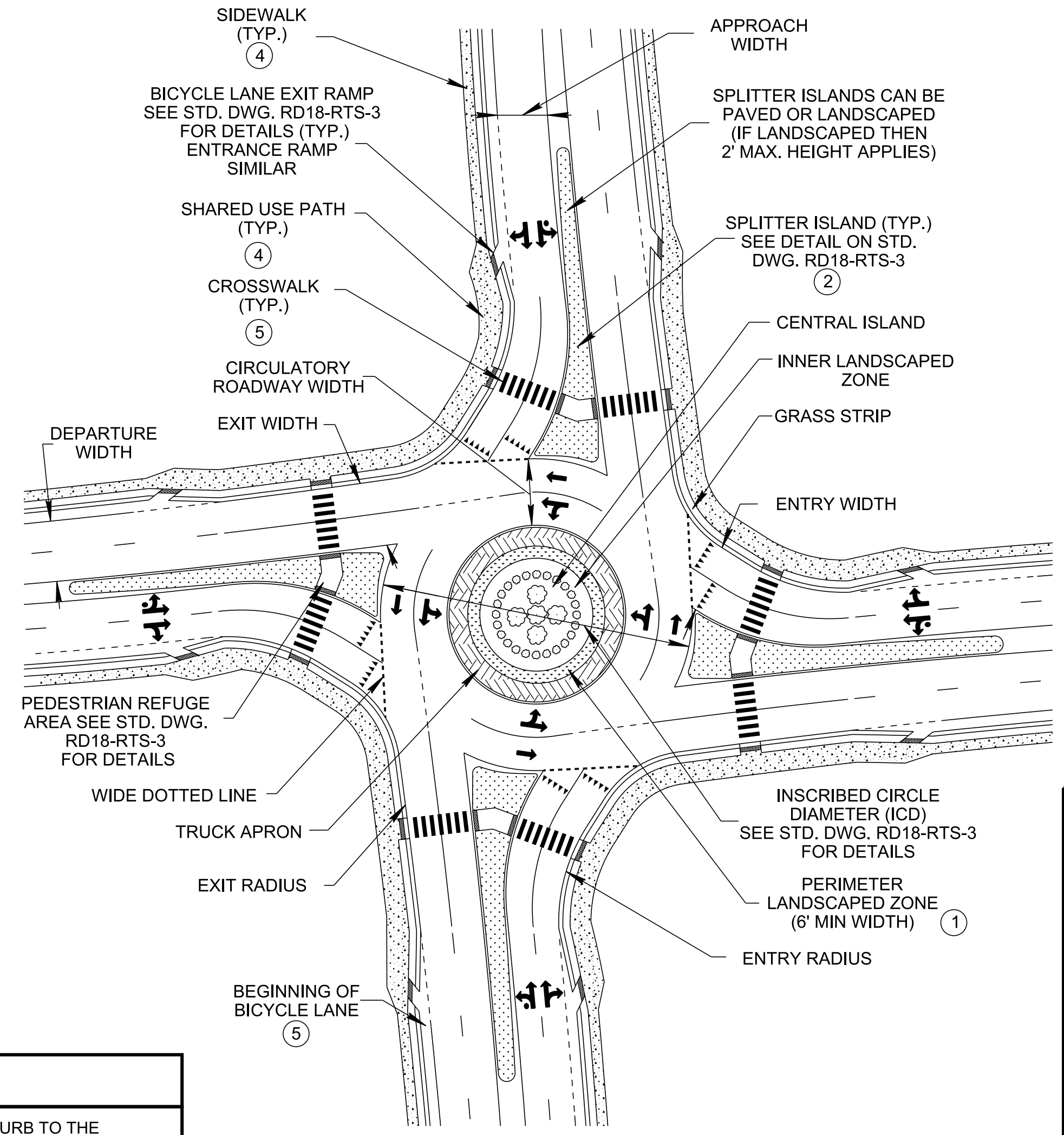


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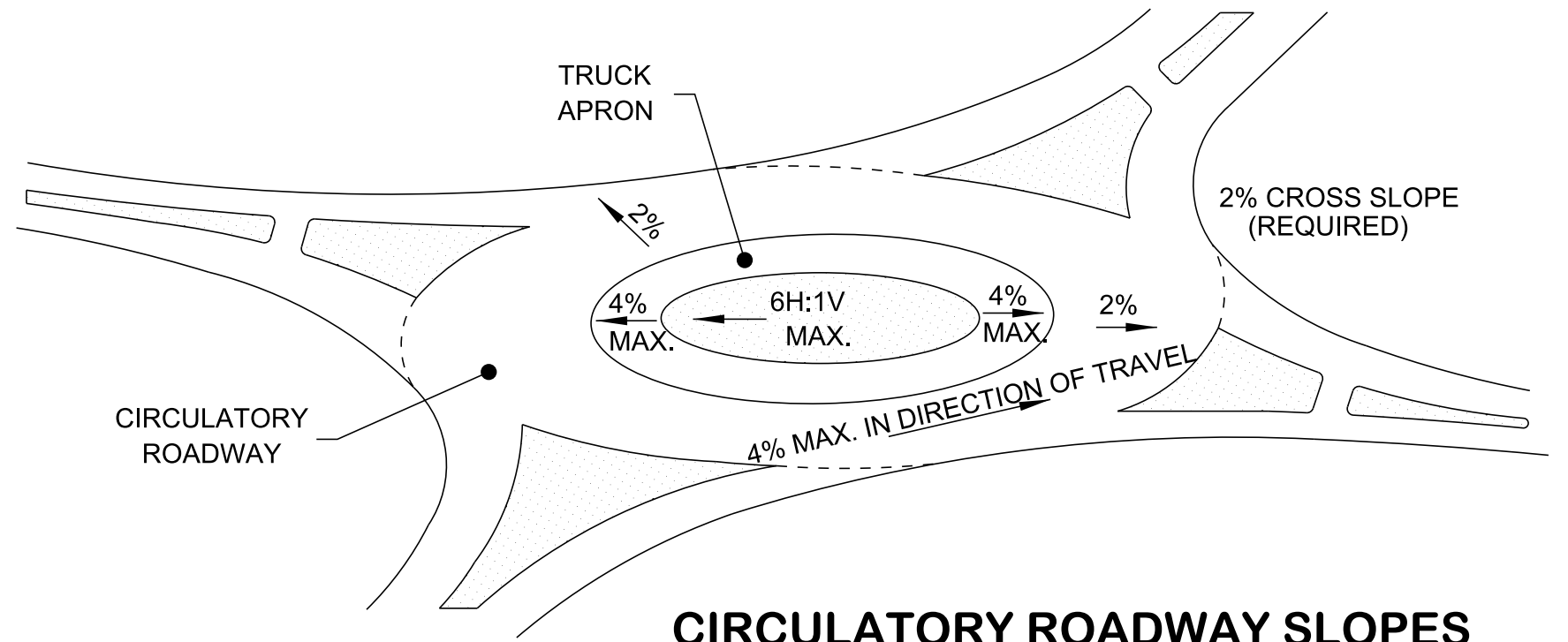
TYPICAL SECTION OF SINGLE-LANE ROUNDABOUT

| DESIGN STANDARDS FOR MULTILANE ROUNDABOUTS (B) | | |
|---|---------------------|--|
| DESIGN STANDARDS | | NOTES |
| MAX. ENTERING DESIGN SPEEDS | 25 TO 30 MPH | ENTERING DESIGN SPEEDS BASED ON A THEORETICAL FASTEST PATH |
| TYPICAL DAILY SERVICE VOLUME ON FOUR-LEG ROUNDABOUT * (VEH/DAY) | UP TO 45,000 | --- |
| INSCRIBED CIRCLE DIAMETER (ICD) (FOR 2 LANES) | 150' - 220' | MEASURED FROM CURB FACE TO CURB FACE |
| CIRCULATORY ROADWAY WIDTH (PER LANE) | 14' - 16' | 16' LANE PREFERRED |
| ENTRY WIDTH (PER LANE) | 12' - 15' | EXCLUDE GUTTER PAN |
| ENTRY RADIUS | 65' - 120' | --- |
| EXIT WIDTH (PER LANE) | SAME AS ENTRY WIDTH | SAME AS ENTRY WIDTH |
| EXIT RADIUS | > 200' | --- |
| MIN. CENTRAL ISLAND DIAMETER | 75' | --- |
| MAX. CIRCULATORY ROADWAY CROSS SLOPE | 2% | --- |
| MAX. CIRCULATORY ROADWAY LONGITUDINAL GRADE | 4% | IN THE DIRECTION OF TRAVEL |
| * AN OPERATIONAL ANALYSIS NEEDS TO VERIFY THE UPPER LIMIT FOR SPECIFIC APPLICATIONS OR FOR ROUNDABOUTS WITH MORE THAN TWO LANES OR FOUR LEGS. | | |



TYPICAL PLAN VIEW OF MULTILANE ROUNDABOUT

- DESIGN NOTES**
- PROVIDE 6' MINIMUM UNOBSTRUCTED HORIZONTAL CLEARANCE FROM THE VERTICAL CURB TO THE CENTRAL ISLAND LANDSCAPING TO ALLOW FOR CIRCULATORY ROADWAY SIGHT DISTANCE, ACTUAL DISTANCE MAY BE GREATER AND SHOULD BE DETERMINED AFTER SIGHT DISTANCE CHECKS ARE COMPLETE, BUT SHALL NOT BE LESS THAN 6'. SEE STD. DWG. RD18-RTS-3 FOR DETAILS.
 - SPLITTER ISLAND SHOULD BE A RAISED MEDIAN WITH CONCRETE HARDSCAPING (PREFERRED). SPLITTER ISLAND SHOULD EXTEND A MINIMUM OF 50' FROM THE YIELD LINE. SEE STANDARD DRAWING RD18-RTS-3 FOR ADDITIONAL DETAILS.
 - SEE STANDARD DRAWING RP-SC-1 FOR SLOPING CURB BETWEEN CIRCULATORY ROADWAY AND TRUCK APRON, AND STANDARD DRAWING RP-VC-10 FOR DETACHED CONCRETE CURB BETWEEN TRUCK APRON AND CENTRAL ISLAND.
 - SIDEWALK SHOULD BE WIDENED TO A SHARED USE PATH (SUP) TO ACCOMMODATE BOTH BICYCLES AND PEDESTRIANS AT THE ROUNDABOUT. SEE STANDARD DRAWING MM-SW AND MM-TS SERIES FOR ADDITIONAL DETAILS.
 - SEE STANDARD DRAWINGS MM-PM SERIES FOR SIGNING AND PAVEMENT MARKINGS FOR SHARED USE PATHS AND BICYCLE LANES. CROSSWALK MARKINGS AND CURB RAMPS MAY BE OMITTED AT RURAL LOCATIONS WHERE SIDEWALK IS NOT PRESENT.
 - ASSUMES APPROXIMATELY 90-DEGREE ANGLES BETWEEN ENTRIES AND NO MORE THAN FOUR ENTRIES PER THE ROUNDABOUT.



CIRCULATORY ROADWAY SLOPES

NOTE: TRUCK APRON CROSS SLOPE SHOULD MATCH CIRCULATORY ROADWAY CROSS SLOPE OR MAY BE INCREASED UP TO 4 PERCENT MAX.

- GENERAL NOTES**
- FOR SPECIFIC CONDITIONS NOT COVERED ON THIS SHEET, REFERENCE SHOULD BE MADE TO "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS", AASHTO, 2018.
 - REFERENCE SHOULD BE MADE TO "ROUNDABOUTS: AN INFORMATIONAL GUIDE", SECOND EDITION, FHWA, 2010. REFERENCE SHOULD ALSO BE MADE TO THE "ROADSIDE DESIGN GUIDE", AASHTO, 2011.
 - THIS STANDARD DRAWING IS INTENDED TO BE USED AS GUIDANCE FOR THE DESIGN OF MULTILANE URBAN AND RURAL ROUNDABOUTS. FOR MULTI-LANE DESIGNS, SEE STANDARD DRAWING RD18-RTS-1.
 - TRUCK TURNING TEMPLATES SHOULD BE PERFORMED ON ALL TURNING MOVEMENTS WITHIN THE ROUNDABOUT TO SIZE THE TRUCK APRON(S). SEE TDOT ROADWAY DESIGN GUIDELINES.
 - STANDARD AASHTO GUIDELINES FOR ISLAND DESIGN SHOULD BE FOLLOWED FOR SPLITTER ISLAND DESIGNS, INCLUDING LARGER NOSE RADIUS AT APPROACH CORNERS AND OFFSETTING CURB LINES AT THE APPROACH ENDS OF THE SPLITTER ISLAND.
 - DESIRABLE RIGHT-OF-WAY IS SLOPE LINES PLUS CONSTRUCTION EASEMENT OF 5' MINIMUM FOR URBAN AREAS AND 10' MINIMUM FOR RURAL AREAS.
 - ROUNDABOUT APPROACHES WITH SPEEDS OF 45 MPH OR GREATER ARE CONSIDERED HIGH SPEED APPROACHES. REFER TO "ROUNDABOUTS: AN INFORMATIONAL GUIDE", SECOND EDITION, FHWA, 2010 FOR ADDITIONAL INFORMATION ON DESIGN OF ROUNDABOUTS WITH HIGH SPEED APPROACHES.
 - TRAFFIC CIRCLES AND ROTARIES ARE NOT CONSIDERED ROUNDABOUTS AND SHOULD NOT BE DESIGNED TO THE STANDARDS. SEE TDOT ROADWAY DESIGN GUIDELINES FOR MINI-ROUNDABOUTS.
 - ROADWAY SHOULDERS AND BICYCLE LANES SHALL END PRIOR TO THE CIRCULATORY ROADWAY UNLESS ADT IS LOW.
 - SEE STANDARD DRAWINGS:
 RD18-RTS-1 FOR DESIGN STANDARDS FOR SINGLE-LANE ROUNDABOUTS
 RD18-RTS-3 FOR STANDARDS CONSTRUCTION DETAILS FOR ROUNDABOUTS
 RD18-RSD-1 FOR SIGHT DISTANCE FOR SINGLE-LANE AND MULTILANE ROUNDABOUTS
 T-M-17 FOR PAVEMENT MARKING DETAILS FOR ROUNDABOUTS
 T-S-25 FOR SIGNING DETAILS FOR ROUNDABOUTS

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

DESIGN STANDARDS FOR MULTI-LANE URBAN AND RURAL ROUNDABOUTS

05-04-2022 RD18-RTS-2