## CONCRETE TYPICAL TRAIL SECTION VARIABLE WIDTH (8' MIN, 14' MAX) - NOTES:

- 1. TRAIL WIDTH TO BE DETERMINED BY CITY OF RALEIGH.
- 2. WHEN CONDITIONS PERMIT, USE 6' SHOULDER IN FILL SECTIONS AND 4' SHOULDER IN CUT SECTIONS. USE MINIMUM 2' SHOULDER IN CUT AND FILL SECTIONS. FOR CUT SECTION CONDITION SHOWN IN "INSET 1," APPLY ENGINEERING JUDGMENT TO DETERMINE IF UPHILL SIDE REQUIRES A SWALE.
- 3. TRAILS OR TRAIL SEGMENTS OF ANY LENGTH MAY BE CONSTRUCTED WITH RUNNING SLOPES/VERTICAL GRADES UP TO 1:20 (5%). TO ACCOMMODATE STEEP TERRAIN, TRAILS MAY BE DESIGNED WITH STEEPER SECTIONS OF CONSTRAINED LENGTH AS SHOWN IN TABLE 1. RESTING INTERVALS WITH FLATTER RUNNING SLOPES ARE REQUIRED BETWEEN TRAIL SEGMENTS ANYTIME THE RUNNING SLOPE EXCEEDS 1:20 (5%). RESTING INTERVALS SHALL BE LOCATED ON UPHILL SIDE OF TRAIL IF ONLY PROVIDED ON ONE SIDE.
- 4. TO ENSURE THAT A TRAIL IS NOT DESIGNED AS A SERIES OF STEEP SEGMENTS, NO MORE THAN 30% OF THE TOTAL LENGTH OF TRAIL MAY HAVE A RUNNING SLOPE/VERTICAL GRADE OF 7.5% (8.33% OR 1:12 MAX). RESTING INTERVALS MUST BE PROVIDED MORE FREQUENTLY AS THE RUNNING SLOPE INCREASES.
- 5. RUNNING SLOPE/VERTICAL GRADE RECOMMENDATIONS MAY NOT BE ABLE TO BE ACHIEVED FOR TRAIL REPLACEMENT PROJECTS. FOR THESE TYPES OF PROJECTS, REPLACEMENT OF THE EXISTING CONDITION IN KIND IS SUFFICIENT.
- 6. 1.5% (2.08% OR 1:48 MAX) CROSS SLOPE. CROSS SLOPE DIRECTION VARIES. SLOPE SHOULDERS FOR POSITIVE DRAINAGE. OFTEN REQUIRES CONTINUING PAVEMENT OR SHOULDER SLOPE UNTIL TIE-IN WITH NATURAL GROUND. SEE PLAN SHEETS AND CROSS SECTIONS.
- 7. WHEN CONDITIONS PERMIT, SHOULDERS TO MATCH CROSS SLOPE OF TRAIL AND SIDE SLOPES TO BE 3:1 OR FLATTER.
- 8. PROVIDE A SAFETY RAIL FOR THE FOLLOWING CIRCUMSTANCES WITHIN 6' OF THE EDGE OF PAVEMENT: 1) SLOPE > 3:1 AND DROP OF 6'; 2) SLOPE > 2:1 AND DROP OF 4'; 3) SLOPE > 1:1 AND DROP OF 1'. REFER TO GW-20.01 AND GW-20.02 FOR SAFETY RAIL DETAILS.
- 9. CONTRACTOR GRADE SEED SHALL BE SEWN INTO AGGREGATE BASE COURSE ON SHOULDERS AT THE SURFACE.
- 10. TRANSVERSE EXPANSION JOINTS TO BE MAXIMUM 50' APART. SAWCUT TRANSVERSE CONTROL JOINTS AT MAXIMUM 10' ON-CENTER OR AS OTHERWISE SHOWN ON PLANS.
- 11. CONTRACTOR IS RESPONSIBLE FOR RE-ESTABLISHING ALL SLOPES DISTURBED DURING CONSTRUCTION.
- 12. PROOF ROLLING SHALL OCCUR IN PRESENCE OF THE OWNER OR THE OWNER'S TESTING AGENCY AT THE FOLLOWING STAGES: 1) PRIOR TO PLACING FILL IN LOW AREAS; 2) AFTER THE PREPARATION OF SUBGRADE PRIOR TO PLACING ABC; 3) AFTER THE PLACEMENT OF ABC PRIOR TO POURING CONCRETE.
- 13. NO ABOVE-GROUND UTILITIES OR UTILITY SURFACE COVERS/PLATES/MANHOLES SHALL BE LOCATED WITHIN THE TRAIL AND SHALL BE A MINIMUM OF 2' FROM THE EDGE OF TRAIL. RAISED MANHOLES SHALL BE A MINIMUM OF 4' FROM THE EDGE OF TRAIL.

SHEET 2 OF 2

## TABLE 1 - MAXIMUM RUNNING SLOPE AND TRAIL SEGMENT LENGTH RUNNING SLOPE MAX LENGTH OF SEGMENT

200 FT

30 FT

1:20 (5%)

1:12 (8.33%)

STANDARD DETAIL		
REVISIONS	DATE: 12/2022	NOT TO SCALE
	CONCRETE TYPICAL TRAIL SECTION VARIABLE WIDTH (8' MIN, 14' MAX)	
	GW-10	0.02.2

CITY OF RALEIGH