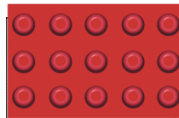


# REVISED STANDARD DRAWING #H-1011

Construction Advisory Council Meeting

© NYC DOT

January 27, 2021



**Ped  
Ramp  
Program**

<https://www.nycpedramps.info>



# PRESENTATION CONTENTS

---

- Highlights
- General Notes
- Case Side Treatments
- Corner Cases
- Midblock Cases
- Island Cases
- Temporary Cases
- Miscellaneous Details & Examples
- D.W.S.



# H-1011: PEDESTRIAN RAMP OVERVIEW

---

- In compliance with ADA 2010 and PROWAG 2011
- New standard cases:
  - Five corner cases: C1, C2, C3, C4, and C5
  - Two midblock cases: M1, M2
  - Two island/median cases: IM1, IM2
  - Three temporary cases: T1, T2, T3
- Detectable Warning Surface (D.W.S.) requirements
- Curb type varies
- Steel faced curb at ramps – now in new standard detail H-1060
- Sidewalk Curb also in new standard detail H-1060
- New side treatment options

4



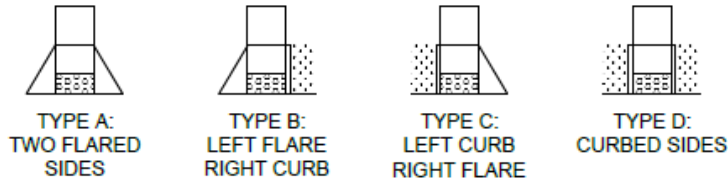
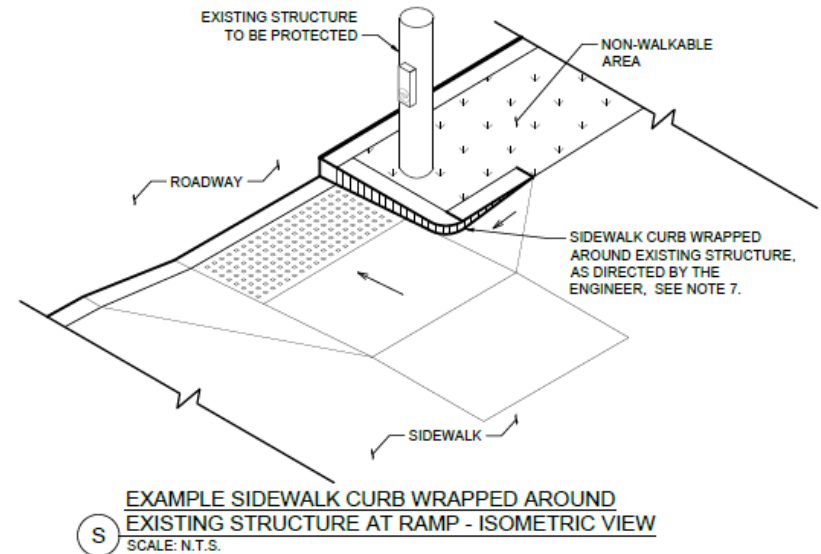
# H-1011 GENERAL NOTES

- Slope Limits
- Glossary
- General Notes
  - Construction Notes
  - Design and Field Layout Notes
  - Case Selection Notes
  - *Including: technical infeasibilities, construction inspection*

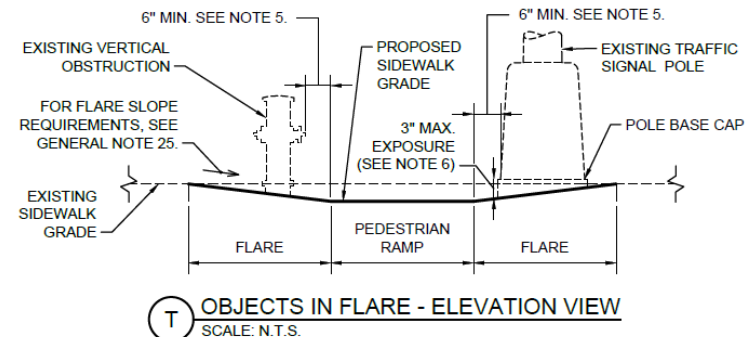
TABLE 1: DESIGN, LAYOUT AND WORK ACCEPTANCE SLOPE LIMITS		
ELEMENTS	SLOPE LIMITS FOR DESIGN AND FIELD LAYOUT	SLOPE LIMITS FOR WORK ACCEPTANCE
<ul style="list-style-type: none"> <li>• PEDESTRIAN ACCESS ROUTE CROSS SLOPE</li> <li>• RAMP CROSS SLOPE</li> <li>• LANDING (TURNING SPACE) RUNNING SLOPE AND CROSS SLOPE</li> <li>• ROADWAY GUTTER FLOW SLOPE (SEE GENERAL NOTE 26)</li> </ul>	0.5% (1:200) MIN. (SEE GENERAL NOTE 22.) 4.5% (1:67) MAX.	2.0% (1:50) MAX.
<ul style="list-style-type: none"> <li>• PEDESTRIAN ACCESS ROUTE RUNNING SLOPE (SEE GENERAL NOTE 23)</li> <li>• BLENDED TRANSITION RUNNING SLOPE</li> <li>• ROADWAY COUNTER SLOPE</li> </ul>	0.5% (1:200) MIN. (SEE GENERAL NOTE 22.) 4.5% (1:22) MAX.	5.0% (1:20) MAX.
<ul style="list-style-type: none"> <li>• PEDESTRIAN RAMP RUNNING SLOPE</li> </ul>	5.0% (1:20) MIN. 7.5% (1:13.5) MAX.	8.3% (1:12) MAX.
<ul style="list-style-type: none"> <li>• SIDE FLARE INSIDE PEDESTRIAN CIRCULATION PATH (SEE GENERAL NOTE 25)</li> </ul>	5.0% (1:20) MIN. 9.5% (1:10.5) MAX.	10.0% (1:10) MAX.
<ul style="list-style-type: none"> <li>• SIDE FLARE OUTSIDE PEDESTRIAN CIRCULATION PATH (SEE GENERAL NOTE 25)</li> </ul>	5.0% (1:20) MIN. 25% (1:4) MAX.	

# SIDE TREATMENT OPTIONS

- Shown for most cases
- Where side adjoins pedestrian circulation path - 9.5% Max side flare
- Where side adjoins non-walkable area – 25% max side flare or sidewalk curb
- As directed by the engineer



**CASE C1 AND C2 SIDE TREATMENT OPTIONS**  
SCALE: N.T.S.



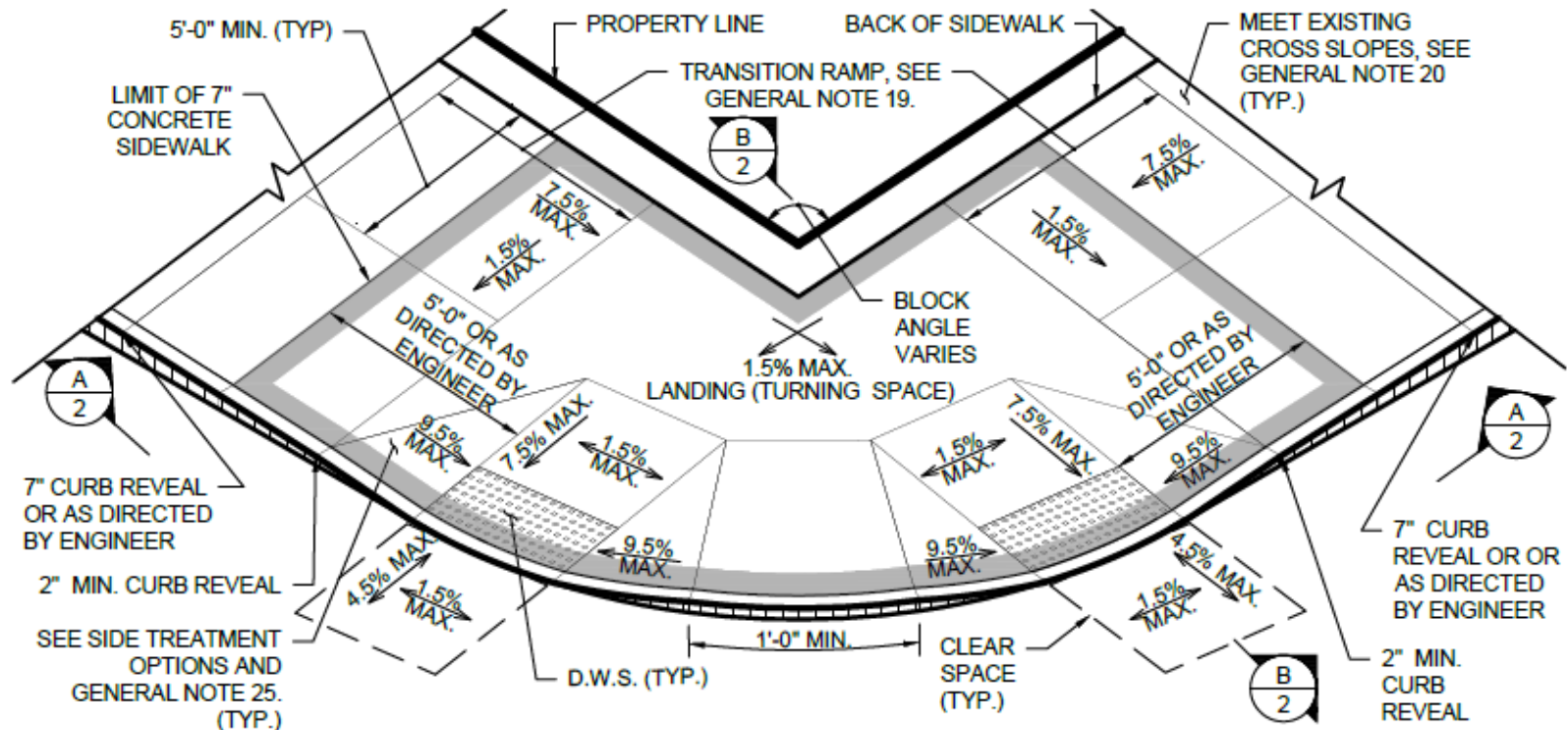
DRAFT

# SIDE TREATMENT OPTIONS - EXAMPLES



# CASE C1 - PERPENDICULAR

- Evolved from previous Case I and Case III
- Pedestrian circulation path (PCP) 8 feet wide or greater
- Transition ramps as directed by engineer



**C1** CASE C1 - PERPENDICULAR - ISOMETRIC VIEW  
SCALE: N.T.S.

DRAFT

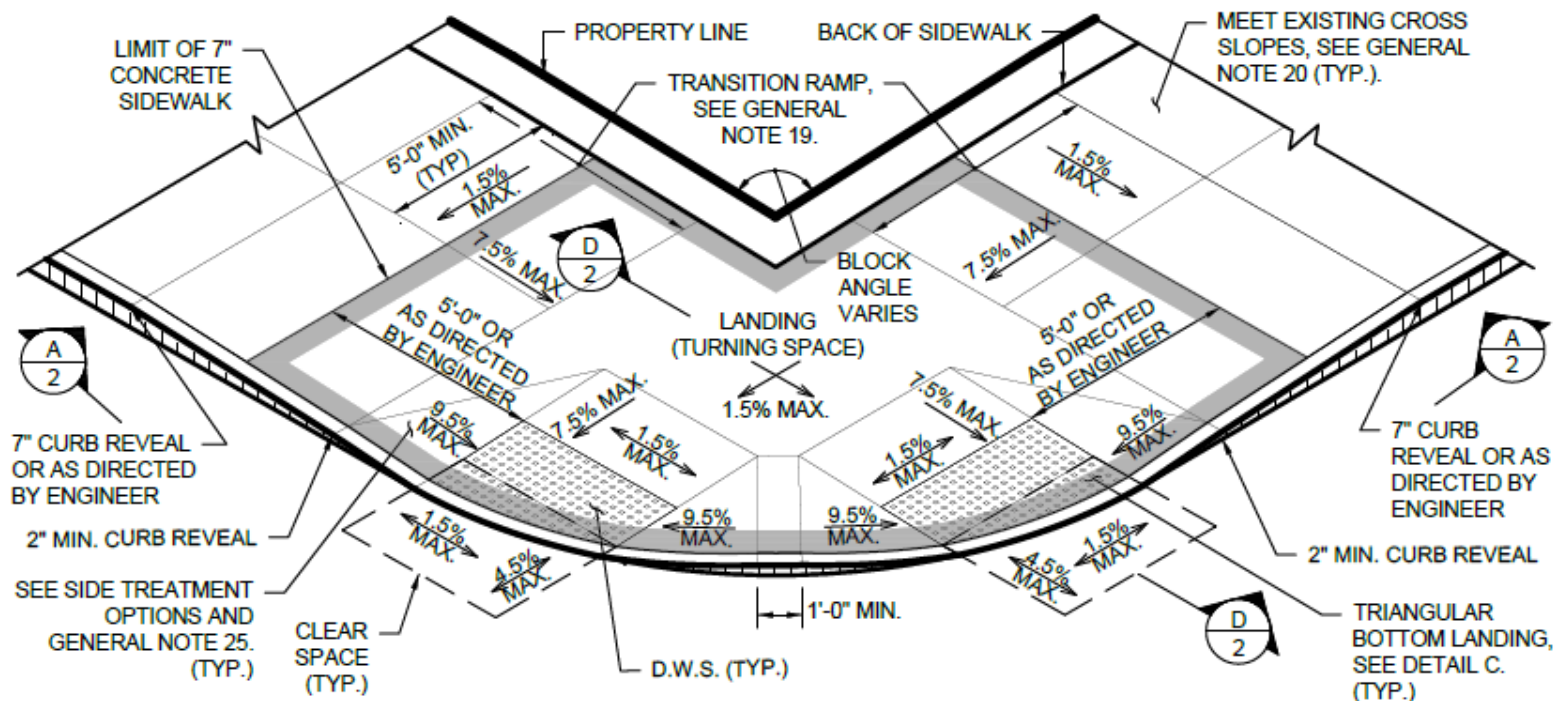


# CASE C1 – PERPENDICULAR - EXAMPLES



# CASE C2 – DIRECTIONAL

- Similar to case C1, ramp alignment skewed from curb
- Bottom grade break must be perpendicular to ramp run
- Pedestrian circulation path 8'-0" wide or greater
- Transition ramps where directed by engineer

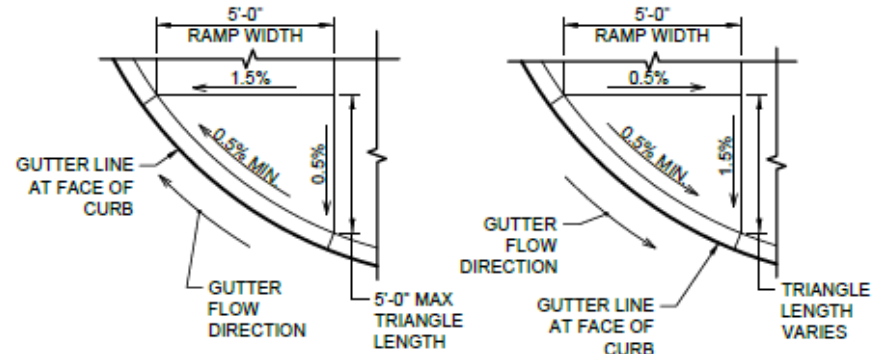


**C2 CASE C2 - DIRECTIONAL - ISOMETRIC VIEW**  
SCALE: N.T.S.

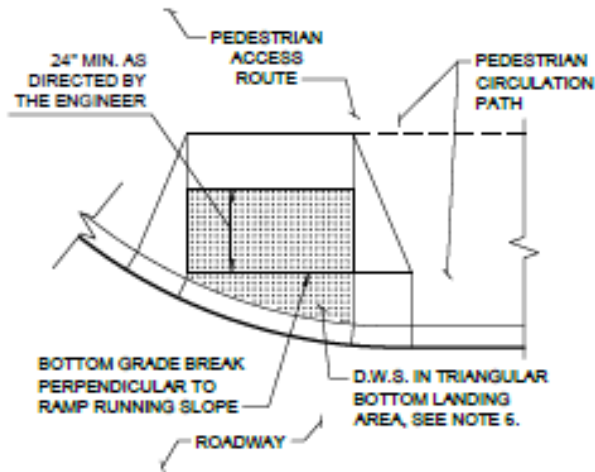
DRAFT

# CASE C2 – DIRECTIONAL

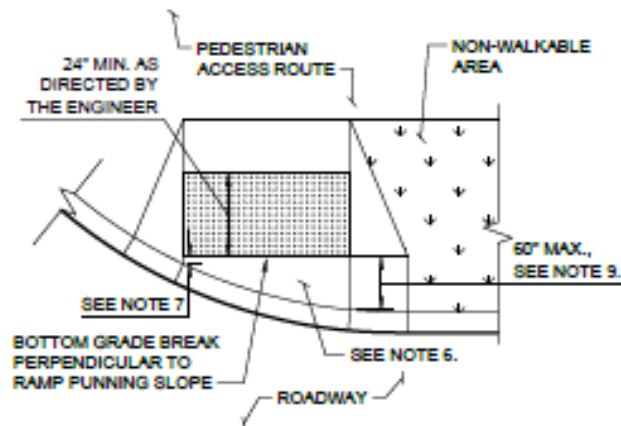
- Standard grading options provided
- D.W.S. as directed by engineer, typically required in triangular bottom landing
- Designer of record responsible for grading detail



**C** TRIANGULAR BOTTOM LANDING GRADING DETAIL - PLAN  
SCALE: N.T.S.



**Y** D.W.S. PLACEMENT AT DIRECTIONAL RAMP ADJACENT TO PEDESTRIAN CIRCULATION PATH. - PLAN DETAIL  
SCALE: N.T.S.



**Z** D.W.S. PLACEMENT AT DIRECTIONAL RAMP ADJACENT TO NON-WALKABLE AREA - PLAN DETAIL  
SCALE: N.T.S.

DRAFT

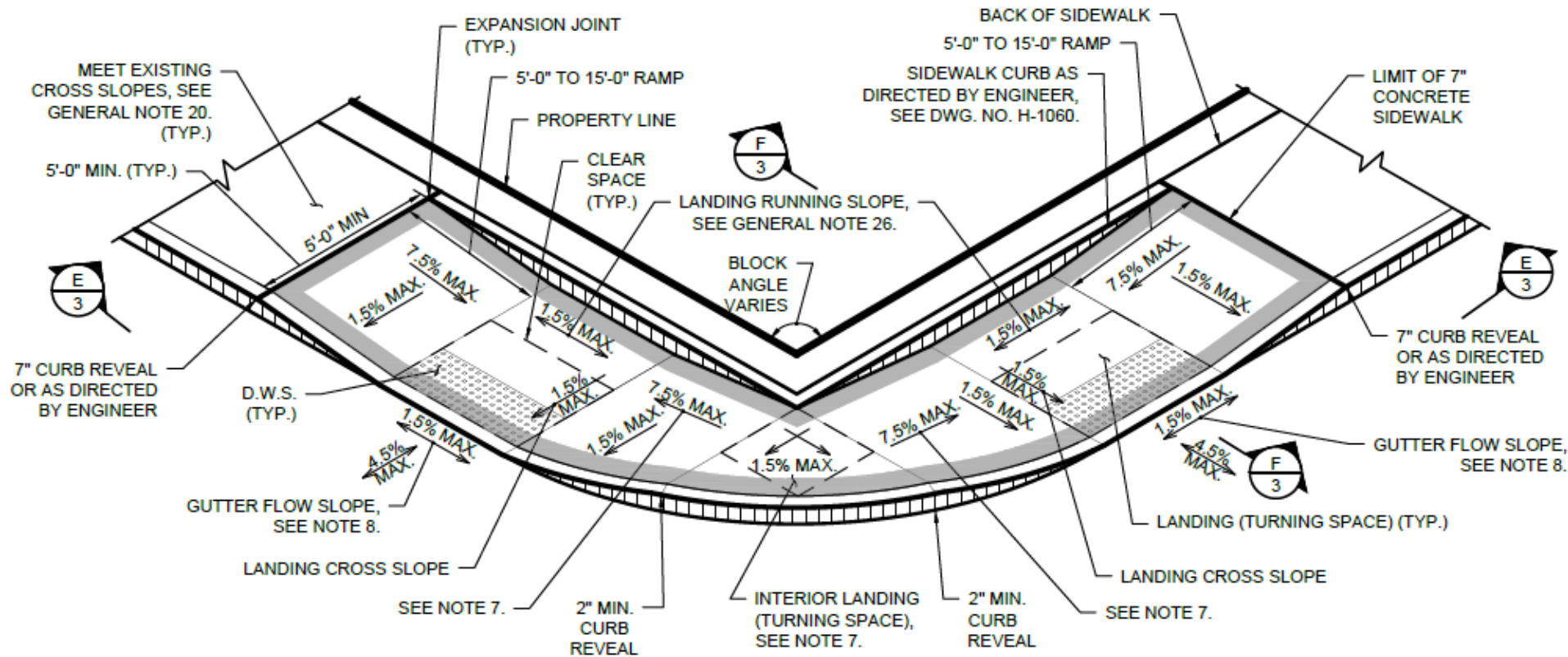


# **CASE C2 – DIRECTIONAL - EXAMPLES**



# CASE C3 - PARALLEL

- Pedestrian circulation path less than 8'-0" wide
- Ramps are parallel to curb line, no need to score any flares



C3 CASE C3 - PARALLEL- ISOMETRIC VIEW  
SCALE: N.T.S.

DRAFT

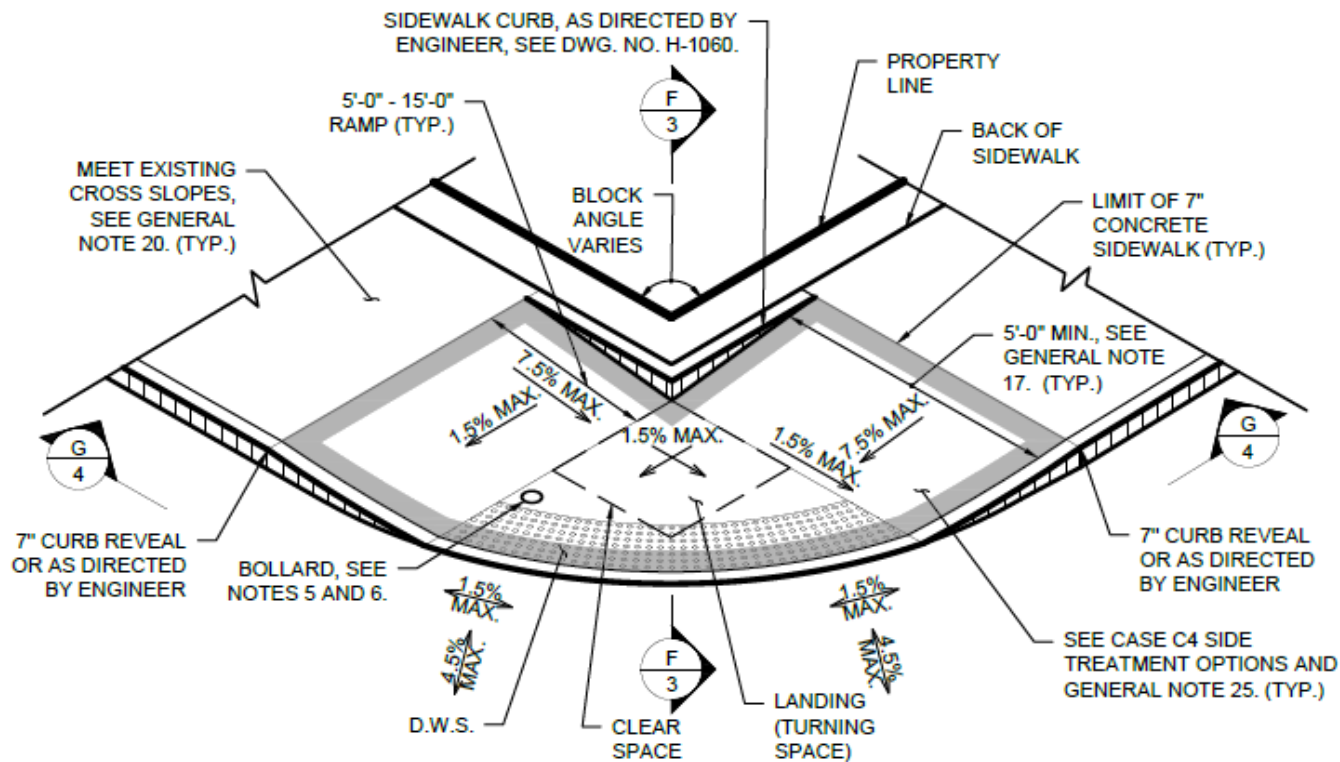
# CASE C3 – PARALLEL - EXAMPLES





# CASE C4 – SHARED PARALLEL

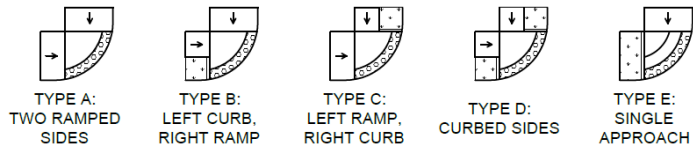
- Two parallel ramps with shared landing.
- Pedestrian circulation paths less than 8'-0" wide
- Requires DOT approval



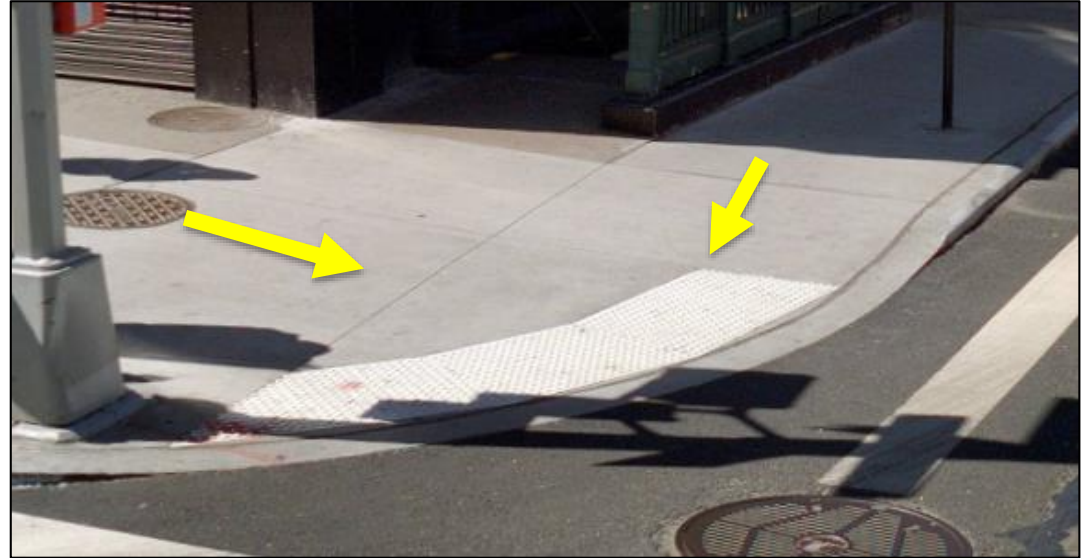
**C4 CASE C4 - SHARED PARALLEL - ISOMETRIC VIEW**  
SCALE: N.T.S

DRAFT

# CASE C4 – SHARED PARALLEL - EXAMPLES



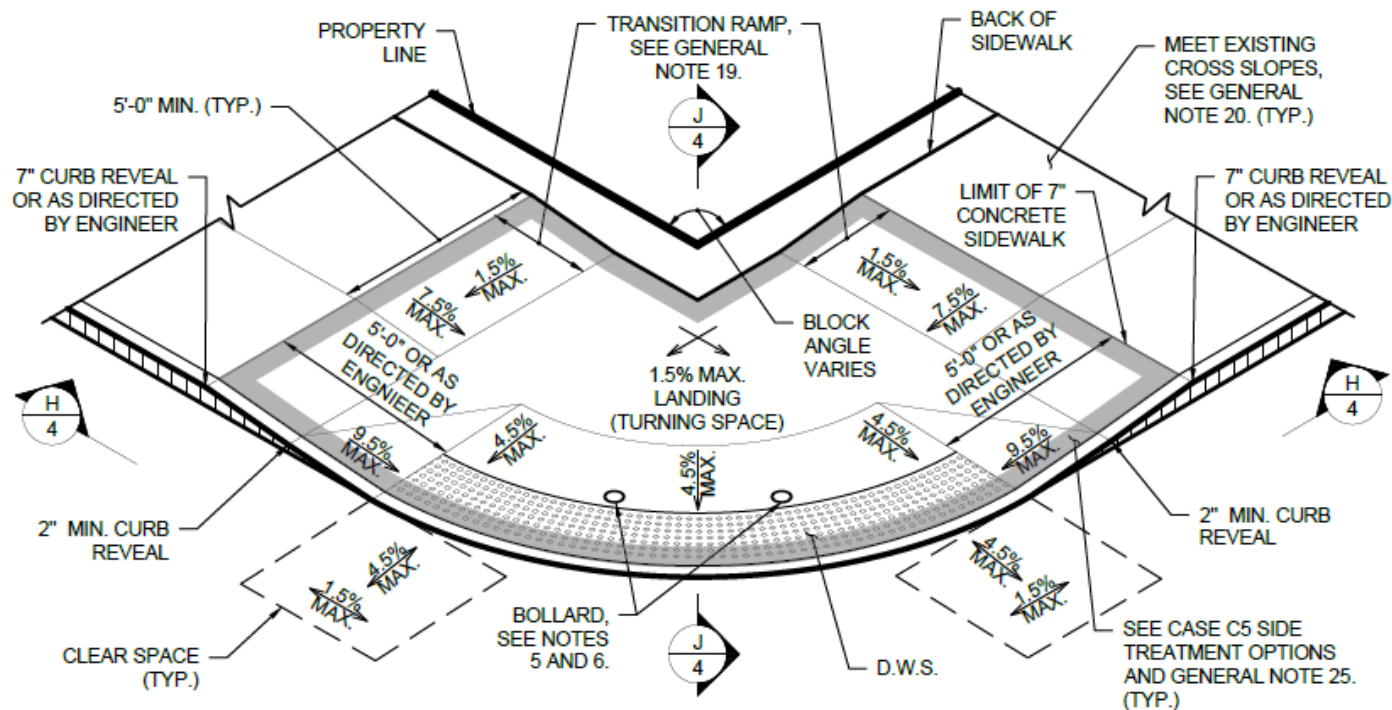
CASE C4 SIDE TREATMENT OPTIONS  
SCALE: N.T.S.



DRAFT

# CASE C5 – BLENDED TRANSITION

- Replaces old Case II (Apex)
- Pedestrian circulation paths 8'-0" or greater
- 4.5% Max running slope (field layout)
- Minimum 8'-0" Wide
- Radial D.W.S.
- Requires DOT approval



C5 CASE C5 - BLENDED TRANSITION - ISOMETRIC VIEW  
SCALE: N.T.S.

DRAFT



# PERPENDICULAR CASES: C5 - EXAMPLE



- New case, same concept as Case C1 - Perpendicular
- Pedestrian circulation paths 8'-0" wide or greater



# **CASE M1 – MIDBLOCK PERPENDICULAR - EXAMPLES**

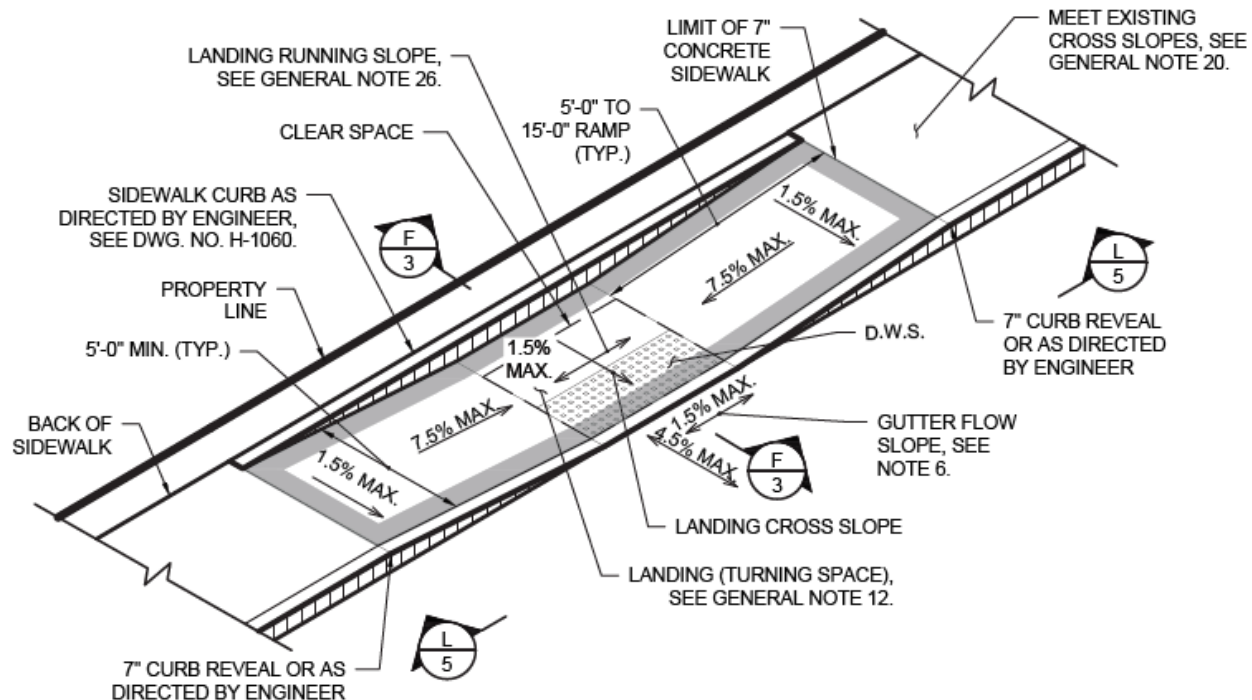
---





# CASE M2 – MIDBLOCK PARALLEL

- New case, same concept as Case C3 - Parallel
- Pedestrian circulation paths less than 8'-0" wide



M2 CASE M2 - MIDBLOCK PARALLEL - ISOMETRIC VIEW  
SCALE: N.T.S.

DRAFT

# CASE M2 – MIDBLOCK PARALLEL - EXAMPLES



- Island widths less than 16'-0" require DOT Approval





# CASE IM1 – ISLAND WITH PERPENDICULAR RAMPS - EXAMPLE

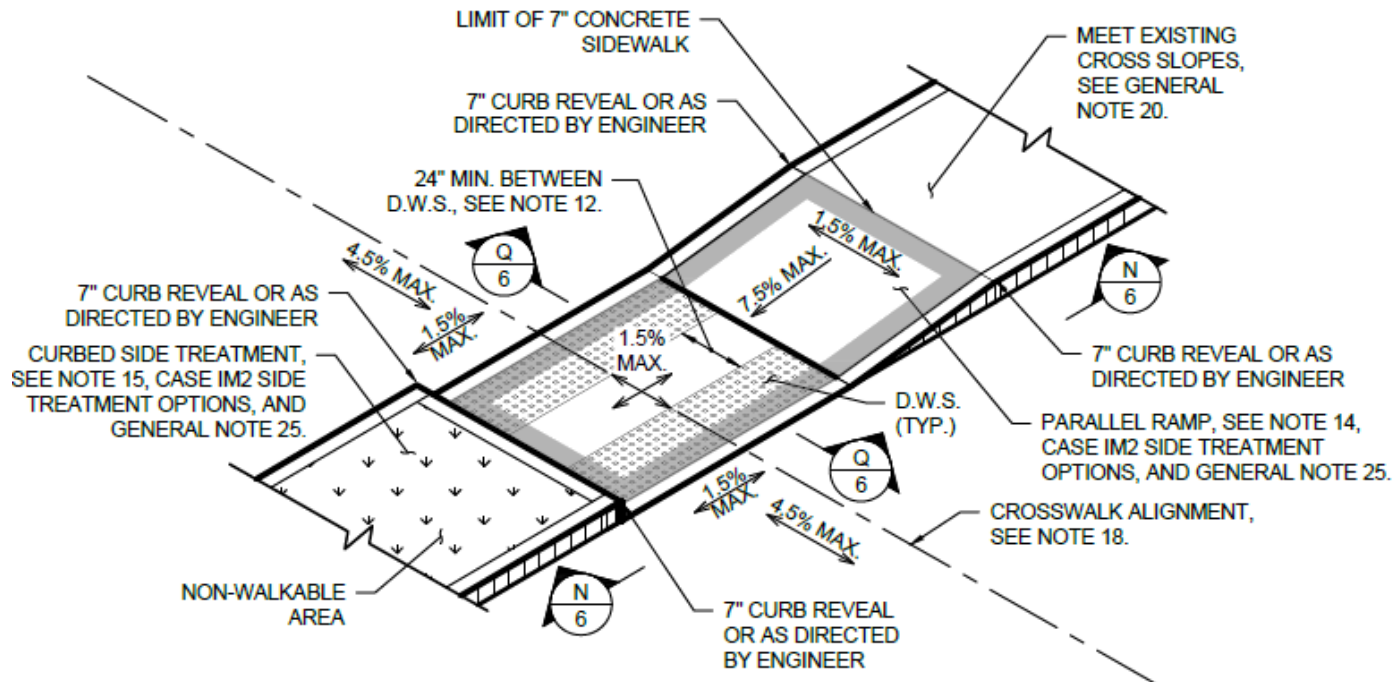
---



# CASE IM2 – ISLAND CUT THROUGH

- Supersedes grading and geometry in H-1003
- Standardizes cut through width from TRF-02
- DWS must have 24" separation, as directed by engineer

TABLE 2: CUT THROUGH WIDTHS		
CROSSWALK WIDTH	LESS THAN 14 FEET	14 FEET OR GREATER
CUT THROUGH WIDTH	8 FEET	10 FEET



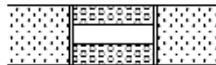
IM2 CASE IM2 - ISLAND CUT THROUGH - ISOMETRIC VIEW  
SCALE: N.T.S.

DRAFT

# CASE IM2 – ISLAND CUT THROUGH - EXAMPLES



TYPE A:  
TWO PARALLEL  
RAMPS



TYPE B:  
CURBED SIDES



TYPE C:  
ONE PARALLEL  
RAMP, ONE CURB

CASE IM2 SIDE TREATMENT OPTIONS  
SCALE: N.T.S.



TYPE C



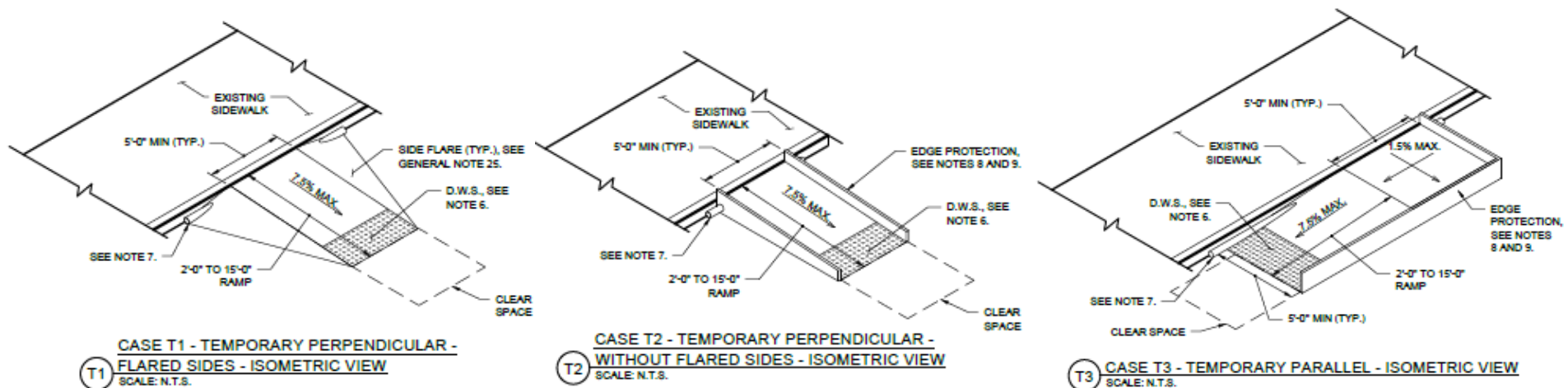
TYPE B

DRAFT



# CASE T1, T2, T3 – TEMPORARY RAMPS

- Not a substitute for M.P.T. plans
- Drainage flow must be maintained, may require drainage pipe
- Material not specified; must be firm, stable, slip resistant, and fixed to ground



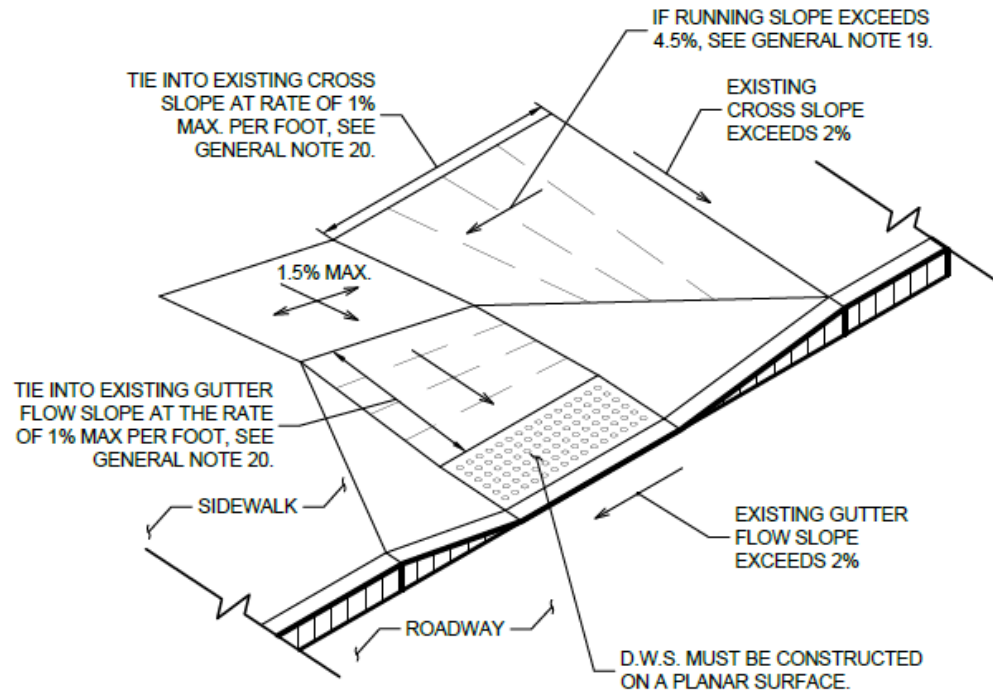
DRAFT

# CASE T1, T2, T3 – TEMPORARY RAMPS - EXAMPLES



# MEETING NON-COMPLIANT SLOPES

- Guidance detail provided on sheet 8



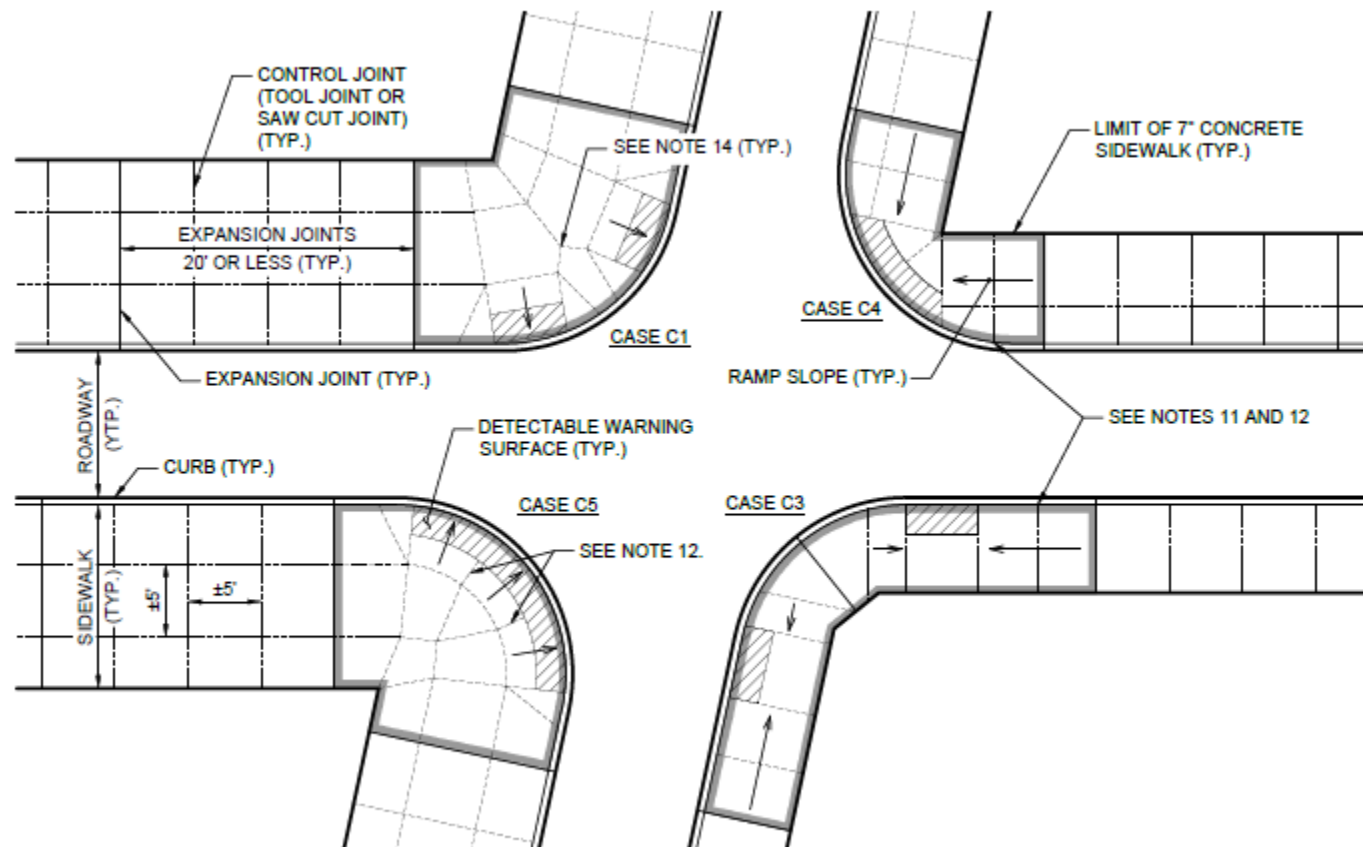
(R) MEETING NON-COMPLIANT SLOPES - ISOMETRIC VIEW  
SCALE: N.T.S.

DRAFT



# SAMPLE SCORING PATTERNS

- Additional guidance provided on sheet 8

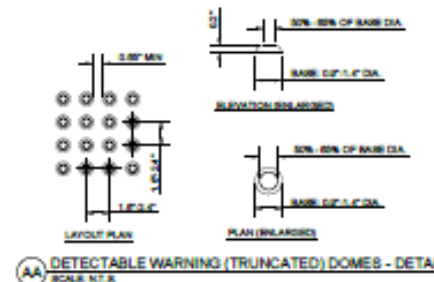
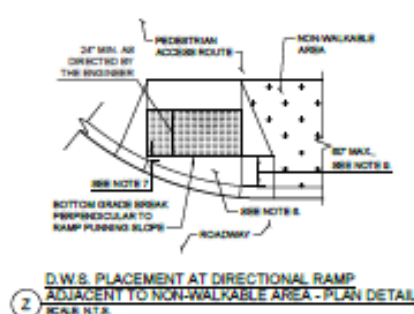
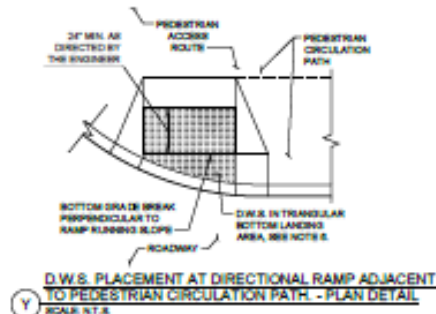
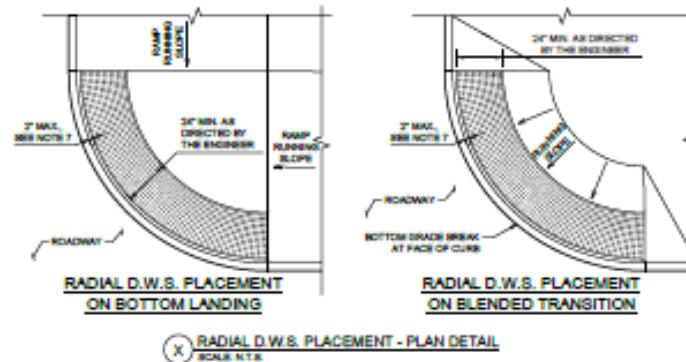
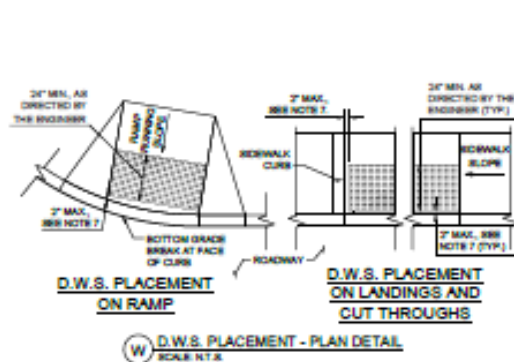


V EXAMPLE CONCRETE SIDEWALK SCORING PATTERN - PLAN VIEW  
SCALE: N.T.S.

DRAFT

# DETECTABLE WARNING SURFACES

- Must meet requirements of sheet 9
- Radial D.W.S. is introduced
- Requirements for D.W.S. adjacent to curb, 2" max offset
- D.W.S. must be installed per manufacturer's recommendations.



- NOTES**
1. FOR INDEX OF DIMENSIONS, SLOPE LIMITS, LEGEND, GLOSSARY, GENERAL NOTES, SEE DWG. NO. H-1011.1.
  2. DWS MUST BE INSTALLED AT ALL FLUSH CURB LOCATIONS, WHERE THE PEDESTRIAN CIRCULATION PATH CROSSES A ROADWAY, RAILWAY, OR TRAFFIC CONTROLLED DRIVEWAY.
  3. DWS MUST BE INSTALLED ACROSS THE FULL WIDTH OF FLUSH CURB, INCLUDING FULL RAMP WIDTH, FULL BOTTOM LANDING WIDTH, FULL BLENDED TRANSITION WIDTH, AND FULL CUT-THROUGH WIDTH (WHERE APPLICABLE).
  4. DWS MUST BE INSTALLED ACROSS THE FULL WIDTH OF THE PEDESTRIAN CIRCULATION PATH, AT ANY STOP YIELD CONTROLLED, OR SIGNALIZED DRIVEWAY. DWS MUST NOT BE INSTALLED AT UNCONTROLLED DRIVEWAYS.
  5. DWS MUST BE INSTALLED FOR A MINIMUM LENGTH OF 24 INCHES IN THE DIRECTION OF PEDESTRIAN TRAVEL. DWS MUST BE INSTALLED OR OMITTED AT ISLAND AND MEDIAN CUT THROUGHS IN ACCORDANCE WITH NOTE 12 ON DWG. NO. H-1011.8, AS DIRECTED BY THE ENGINEER.
  6. TO MAINTAIN DETECTABILITY AT DIRECTIONAL RAMPS, DWS DAPS MUST NOT BE SET BETWEEN PEDESTRIAN CIRCULATION PATHS AND FLUSH CURBS. WHEN THE SIDE PLANE ALIGNS A PEDESTRIAN CIRCULATION PATH, DWS MUST BE INSTALLED IN THE TRANSFER BOTTOM LANDING AREA OF DIRECTIONAL RAMPS. WHEN THE SIDE PLANE ALIGNS A NON-WALKABLE AREA, DWS MAY BE OMITTED IN THE TRANSFER BOTTOM LANDING AREA OF DIRECTIONAL RAMPS.
  7. WHEN PROPOSED AT THE BACK OF CURB, DWS MUST BE INSTALLED WITH A TWO (2) INCH (51 MM) MAXIMUM OFFSET FROM THE EXPANSION JOINT OR TOLDED RADII.
  8. DWS MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES AS DIRECTED BY THE ENGINEER. DWS MAY BE CUT OR TRIMMED TO MEET THE REQUIREMENTS OF THIS DETAIL, AS DIRECTED AND APPROVED BY THE ENGINEER.
  9. IF THE TRANSFER BOTTOM LANDING OF A DIRECTIONAL RAMP IS LONGER THAN 80 INCHES, THE DWS MUST BE INSTALLED IN THE BOTTOM LANDING AREA.
  10. THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE. THE QUANTITY OF TRUNCATED DOMES DIRECTED ON THE DWS IS FOR ILLUSTRATION ONLY.
  11. DWS MUST PROVIDE COLOR CONTRAST WITH THE ADJACENT SIDEWALK, FOR DWS REQUIREMENTS INCLUDING COLOR CONTRAST, SEE NYC DOT STANDARD HIGHWAY SPECIFICATION ITEM NO. 613.06.
  12. ON SLOPES OF FIVE PERCENT (5%) OR GREATER, TRUNCATED DOMES MUST BE ALIGNED WITH THE LOWER GRADE BREAK OF THE RAMP. ON SLOPES LESS THAN FIVE PERCENT (5%), TRUNCATED DOMES DO NOT NEED TO BE ALIGNED WITH THE LOWER GRADE BREAK OF THE RAMP.
  13. DWS MUST BE PROVIDED AT RAILROAD CROSSINGS IN ACCORDANCE WITH NEW YORK STATE AND FEDERAL RAILROAD ADMINISTRATION REQUIREMENTS. DWS LAYOUT AT RAILROAD CROSSINGS MUST BE SUBMITTED TO NYCTD FOR REVIEW AND APPROVAL PRIOR TO ITS CONSTRUCTION.
  14. BLENDED DWS MUST BE INSTALLED ON A PLANAR SURFACE TO PREVENT WARPING. ANY CROSS SLOPE TRANSITIONS (WARPING) WITHIN A RAMP OR TURNING SPACE MUST BE SLOTTED BY THE DWS, AT A MAXIMUM RATE OF ONE PERCENT (1.0%) PER LINEAR FOOT.
  15. PRE-FABRICATED RADIAL DWS MAY BE USED FOR RADIAL DWS PLACEMENT, WHERE PROCUREMENT OF PRE-FABRICATED RADIAL DWS IS NOT FEASIBLE. RECTANGULAR TILE ARRAYS MAY BE USED TO PROVIDE RADIAL DWS PLACEMENT, AS DIRECTED BY THE ENGINEER. WHERE USED, RADIAL DWS OF ANY TYPE MUST MEET ALL APPLICABLE REQUIREMENTS ON THIS SHEET, INCLUDING COLOR MATCHING.
  16. DETECTABLE WARNING (TRUNCATED) DOMES MUST MEET THE REQUIREMENTS OF DETAIL AA.
  17. WHERE AN EXISTING UTILITY CARTING IS LOCATED WITHIN THE PROPOSED LOCATION OF A DWS, THE CONTRACTOR MAY CUT THE DWS TO ACCOMMODATE THE UTILITY CARTING, SEE NOTE 8.

DRAFT

# THANK YOU

---

## Questions?



NYC DOT



NYC DOT



nyc\_dot



NYC DOT