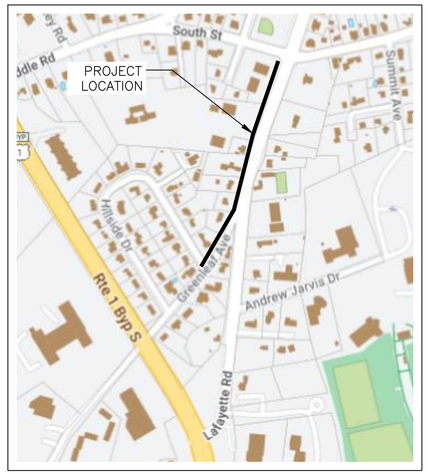
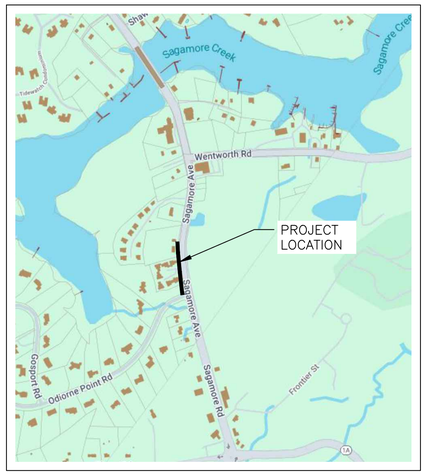
2025 CITYWIDE SIDEWALKS
PORTSMOUTH, NEW HAMPSHIRE
Project #7253

SPRING 2025

DEPARTMENT OF
PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530



LOCATION MAP – GREENLEAF AVENUE
SCALE: N.T.S



LOCATION MAP – SAGAMORE AVENUE
SCALE: N.T.S

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SURVEY BY:

GREENLEAF AVENUE
GREENMAN-PEDERSEN, INC.
21 DANIEL STREET, SECOND FLOOR
PORTSMOUTH, NH 03801

SAGAMORE AVENUE
HALEY WARD
200 GRIFFIN ROAD – UNIT 3
PORTSMOUTH, NH 03801

OUTER ISLINGTON STREET
JAMES VERRA & ASSOCIATES, INC.
101 SHATTUCK WAY, SUITE 8
NEWINGTON, NH 03801

DESIGN BY:

CITY OF PORTSMOUTH – DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, NH 03801

ISSUED FOR CONSTRUCTION

4/17/2025

LEGEND:

EXISTING / PROPOSED

- PROPERTY LINE
- RIGHT–OF–WAY
- BUILDING
- EDGE OF PAVEMENT
- CURB (VGC)
- SIDEWALK (CONCRETE)
- SIDEWALK (OTHER)
- ADA RAMP
- ADA SYMBOL
- SIGN
- MAILBOX (M)
- SINGLE WHITE LINE (SWL)
- DOUBLE YELLOW CENTERLINE (DYCL)
- RETAINING WALL
- FENCE
- GUARDRAIL
- SHRUB
- TREE
- TEMPORARY BENCHMARK
- 1' CONTOUR (53 / 52)
- WETLANDS
- WETLANDS BOUNDARY (A 14)
- DRAINAGE (D)
- WATER (W W)
- GRAVITY SEWER (S S)
- UNDERGROUND TELE. (UT)
- U/G POWER (UGE)
- U/G POWER & COMM.
- OVERHEAD WIRES (OHW)
- GAS (G G)
- FIRE HYDRANT
- UTILITY POLE
- UTILITY POLE w/ LIGHT
- CATCHBASIN
- MANHOLE (T D S)
- WATER SHUT OFF
- WATER VALVE
- EROSION CONTROL
- SAWCUT

DEMOLITION NOTES:

1. LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT GUARANTEED. CONTRACTOR SHALL LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR AND/OR RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
2. MATERIAL TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE NOTED. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.
3. ANY DAMAGE BY THE CONTRACTOR DURING DEMOLITION AND/OR CONSTRUCTION SHALL BE REPAIRS OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
4. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES NECESSARY TO COMPLETE THE WORK.
5. CONTRACTOR SHALL REMOVE TREES AND BRUSH AS INDICATED AND AS REQUIRED FOR COMPLETION OF THE WORK. ALL STUMPS SHALL BE REMOVED AND SURFACES GRUBBED WITHIN THE LIMITS OF WORK.
6. ALL WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL BE COORDINATED WITH THE CITY OF PORTSMOUTH. CONTRACTOR SHALL OBTAIN THE FOLLOWING:
   - 6.1. EXCAVATION LICENSE
   - 6.2. EXCAVATION AND FLAGGING PERMIT
7. CONTRACTOR SHALL PROTECT ALL FIELD STONE WALLS, FENCES, MAILBOXES, STRUCTURES, ETC. THROUGHOUT THE COMPLETION OF THE WORK.
8. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION WORK. THIS INCLUDES SILT FENCE / SILT SOCK AND INLET PROTECTION BARRIERS.
9. CONTRACTOR SHALL SAWCUT PAVEMENT AT EDGES OF TRENCHES FOR CLEAN VERTICAL EDGES.
10. CONTRACTOR SHALL PHASE DEMOLITION AND CONSTRUCTION AS REQUIRED TO PROVIDE CONTINUOUS ACCESS TO RESIDENTIAL PROPERTIES THROUGHOUT THE CONSTRUCTION PERIOD.
11. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE PADS, PAVEMENT, PIPES AND HEADWALLS WITHIN THE LIMITS OF CONSTRUCTION.
12. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE UTILITIES. WORK ASSOCIATED WITH UTILITIES, BUT NOT LIMITED TO, RELOCATION OF UTILITY POLES.
13. CONTRACTOR SHALL NOTIFY DIG–SAFE 72 HOURS PRIOR TO ANY WORK STARTING. CONTRACTOR REQUIRED TO MAINTAIN AN ACTIVE DIG–SAFE PERMIT THROUGHOUT THE DURATION OF CONSTRUCTION.

GRADING NOTES:

1. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CONTRACTOR SHALL PAY CLOSE ATTENTION TO DRIVEWAY ENTRANCES.
2. CONTRACTOR SHALL CLEAN ALL STRUCTURES WITHIN THE CONSTRUCTION LIMITS IMMEDIATELY UPON COMPLETION OF THE WORK. ALL SEDIMENT AND DEBRIS SHALL BE DISPOSED OF PER FEDERAL, STATE AND LOCAL REGULATIONS.
3. ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED FERTILIZER AND MULCH.
4. CONTRACTOR SHALL PROVIDE THE FOLLOWING MINIMUM REQUIREMENTS FOR COMPACTION:

BELOW PAVEMENT AND CONCRETE AREAS:	95%
TRENCH BEDDING AND BACKFILL:	95%
BELOW LOAM AND SEED AREAS:	90%

   COMPACTION PERCENTAGES SHALL BE THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D–1557, METHOD C. FIELD DENSITY TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH ASTM D–1556 OR ASTM–2922.
5. CONTRACTOR SHALL GRADE SLOPES TO THE LINES AND GRADES SHOWN ON THE PLANS. SLOPES STEEPER THAN 2:1 SHALL INCLUDE 6" RIP–RAP STONE FOR A DEPTH OF 18". SLOPES FROM 4:1 TO 2:1, CONTRACTOR SHALL PROVIDE A SLOPE STABILIZATION BLANKET.

SITE NOTES:

1. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE SPECIFIED.
2. ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS.
3. CONTRACTOR SHALL PROVIDE AS–BUILT PLANS (MYLAR AND .DWG FORMAT AUTOCAD FILES) TO THE CITY OF PORTSMOUTH UPON COMPLETION OF THE PROJECT. AS–BUILT SHALL BE PREPARED AND CERTIFIED BY A LAND SURVEYOR OR PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE.
4. MATERIALS AND CONSTRUCTION SHALL COMPLY TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND SPECIFICATIONS.
5. CONTRACTOR SHALL PROVIDE A LICENSED ENGINEER OR SURVEYOR TO DETERMINE ALL LINES AND GRADE.
6. CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL VERTICAL AND HORIZONTAL CONTROL FOR THE PROJECT.
7. PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE "MANUAL ON UNIFORM CONTROL DEVICES'. "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS".
8. CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE CITY OF PORTSMOUTH FOR APPROVAL.
9. CONTRACTOR SHALL BE FAMILIAR WITH ALL AMERICAN WITH DISABILITY ACT (ADA) REQUIREMENTS FOR ACCESSIBILITY.
10. PAVEMENT MARKINGS SUCH AS CROSSWALKS, STOP BARS, LEGENDS AND SYMBOLS SHALL BE THERMOPLASTIC PER AASHTO M249. CENTERLINE AND EDGE STRIPING SHALL BE TRAFFIC PAINT PER AASHTO M248 TYPE 'F'. TRAFFIC PAINT COLOR AS INDICATED IN THE PLANS.

UTILITY NOTES:

1. CONTRACTOR SHALL IDENTIFY AND RECORD SWING TIES TO ALL EXISTING UTILITY STRUCTURES, INCLUDING, BUT NOT LIMITED TO WATER SHUT OFF VALVES, MANHOLES, FIRE HYDRANTS.
2. CONTRACTOR SHALL UTILITY WORK WITH THE APPROPRIATE UTILITY COMPANY.
   - ELECTRIC – EVERSOURCE
   - TELEPHONE – FAIRPOINT
   - WATER/SEWER – CITY OF PORTSMOUTH
   - GAS – UNITIL
3. LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT GUARANTEED. CONTRACTOR SHALL LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR AND/OR RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
4. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS, ARRANGE ALL INSPECTIONS, AND SUBMIT CERTIFICATES OF ACCEPTANCE TO THE OWNER PRIOR TO COMPLETION OF THE PROJECT.
5. ALL HYDRANTS AND VALVES SHALL BE INSPECTED AND MUST MEET CITY OF PORTSMOUTH STANDARDS.
6. CONTRACTOR TO VERIFY SEWER AND WATER LATERAL LOCATIONS FOR TIE–INS AND COORDINATE WITH HOMEOWNERS. CONTRACTOR SHALL REPLACE ALL WATER SHUT OFFS WITHIN THE CONSTRUCTION AREA AS SHOWN IN THE DETAIL SHEETS.
7. MINIMUM OF 12" CLEARANCE BETWEEN ALL CROSSING UTILITIES. IN THE EVENT <12" IS NEEDED, RIGID INSULATION SHALL BE PLACED BETWEEN THE UTILITIES.
8. WATER CROSSING ABOVE SEWER SHALL HAVE A MINIMUM OF 18" CLEARANCE.
9. SEWER AND WATER MAINS SHALL BE SEPARATED HORIZONTALLY BY A MINIMUM OF 10'.
10. REMOVAL OF EXISTING ABANDONED PIPE IN CONFLICT WITH NEW PIPE SHALL BE INCIDENTAL TO THE NE PIPE PAY ITEM.

NO.	REVISIONS	APP'D	DATE
1	ISSUED FOR CONSTRUCTION	MRB	4/17/25
0	ISSUED FOR BID	MRB	12/9/24

DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603–427–1530

DATE: MAY 2024
SCALE: AS SHOWN
PROJ. NO.: 7253
APVD BY: MRB

PROJECT: 2025 SIDEWALK

TITLE: LEGEND AND GENERAL NOTES

SHEET: G–101

NH STATE PLANE COORDINATE SYSTEM
NAD 1983

NOTES:
1. EXISTING CURB SHALL BE REMOVED AND RESET. CITY DPW REPRESENTATIVE OR ENGINEER TO DETERMINE ACCEPTABLE CURB FOR RE-USE.
2. CONTRACTOR SHALL COORDINATE SIDEWALK ELEVATIONS AT EVERY HOUSE STEP, GATE, WALKWAY AND DRIVEWAY.
3. ALL ITEMS IDENTIFIED FOR RE-USE, THE CONTRACTOR SHALL REMOVE CAREFULLY IN ORDER TO NOT DAMAGE, SAFELY STORE IN AN APPROPRIATE MANNER AND RE INSTALL AS REQUIRED.
4. CONCRETE SIDEWALKS SHALL BE 5'-6" WIDE (MIN) UNLESS OTHERWISE NOTED. MEASUREMENT PERTAINS TO THE WIDTH OF THE CONCRETE (EXCL. CURB WIDTH).
5. REPAIRS / RESETTING STONE WALL EXTENTS SHOWN ARE FOR ESTIMATING PURPOSES. FULL EXTENT OF REPAIRS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

HILLSIDE DRIVE
GREENLEAF AVENUE
MAP 231 LOT 10 N/F JILL A TAPSCOTT REVO TRUST BOOK 4733 PAGE 2186 #239 HILLSIDE DRIVE
MAP 231 LOT 43 N/F AMANDA R BLANCHETTE BOOK 6027 PAGE 1137 #240 HILLSIDE DRIVE
MAP 231 LOT 44 N/F SCOTT JOHNSON BOOK 3655 PAGE 687 #100 GREENLEAF AVENUE
MAP 231 LOT 45 N/F BRODY FAMILY REVOC TRUST BOOK 5544 PAGE 2258 #3 HILLSIDE DRIVE
MAP 231 LOT 7 N/F JACQUELINE MARIA SANTIAGO DOUGLAS ERIC SANTIAGO BOOK 6122 PAGE 824 #125 GREENLEAF AVENUE
MAP 231 LOT 6 N/F PAUL W CARLTON CHARLOTTE M CARLTON BOOK 3091PAGE 460 #115 GREENLEAF AVENUE
MAP 231 LOT 5 N/F RONALD E PORTER JULIANNE B PORTER BOOK 5608 PAGE 39 #105 GREENLEAF AVENUE
MAP 231 LOT 59 N/F CINDI S BLANCHETTE BOOK 4251 PAGE 2060 #95 GREENLEAF AVENUE
MAP 231 LOT 4 N/F PETER B COREN BOOK 3886 PAGE 1523 #430 LAFAYETTE ROAD
MAP 231 LOT 3 N/F KRISTIN ALEXANDER ROBERTSON BOOK 6064 PAGE 1516 #420 LAFAYETTE ROAD
MAP 231 LOT 2 N/F DRAHOZAL BIRD FAM RV TRUST BOOK 6537 PAGE 430 #410 LAFAYETTE ROAD

TBM-1 NAIL SET IN UP#213-5 ELEV.=31.78
TBM-2 NAIL SET IN UP#11-4 ELEV.=39.72
TBM-3 NAIL SET IN UP#11-3 ELEV.=36.08
TBM-4 NAIL SET IN UP#213-2 ELEV.=40.80
TBM-5 NAIL SET IN UP#11-1 ELEV.=45.46
TRAV-2 T-MAG N=204844.3470 E=602312.1870 ELEV.=31.88

CONSTRUCT ASPHALT TRANSITION FROM SIDEWALK TO ROADWAY
CONSTRUCT ADA TIP-DOWN
RELOCATE STONE WALL AT CORNER (BACK 2')
STONE WALL REPAIRS
STONE SLOPE STABILIZATION
STONE WALL REPAIRS
REMOVE STUMP
CONSTRUCT 5.0' WIDE CONCRETE SIDEWALK (4" THICK) (TYP)
MATCHLINE
MATCHLINE

GRAPHIC SCALE
20 10 0 20 40 60 80 FEET
5 0 5 10 15 20 25 METERS

NO.	REVISIONS	APP'D	DATE
1	ISSUED FOR CONSTRUCTION	MRB	4/17/25
0	ISSUED FOR BID	MRB	12/9/24

DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: MAY 2024
SCALE: AS SHOWN
PROJ. NO.: 7253
APVD BY: MRB

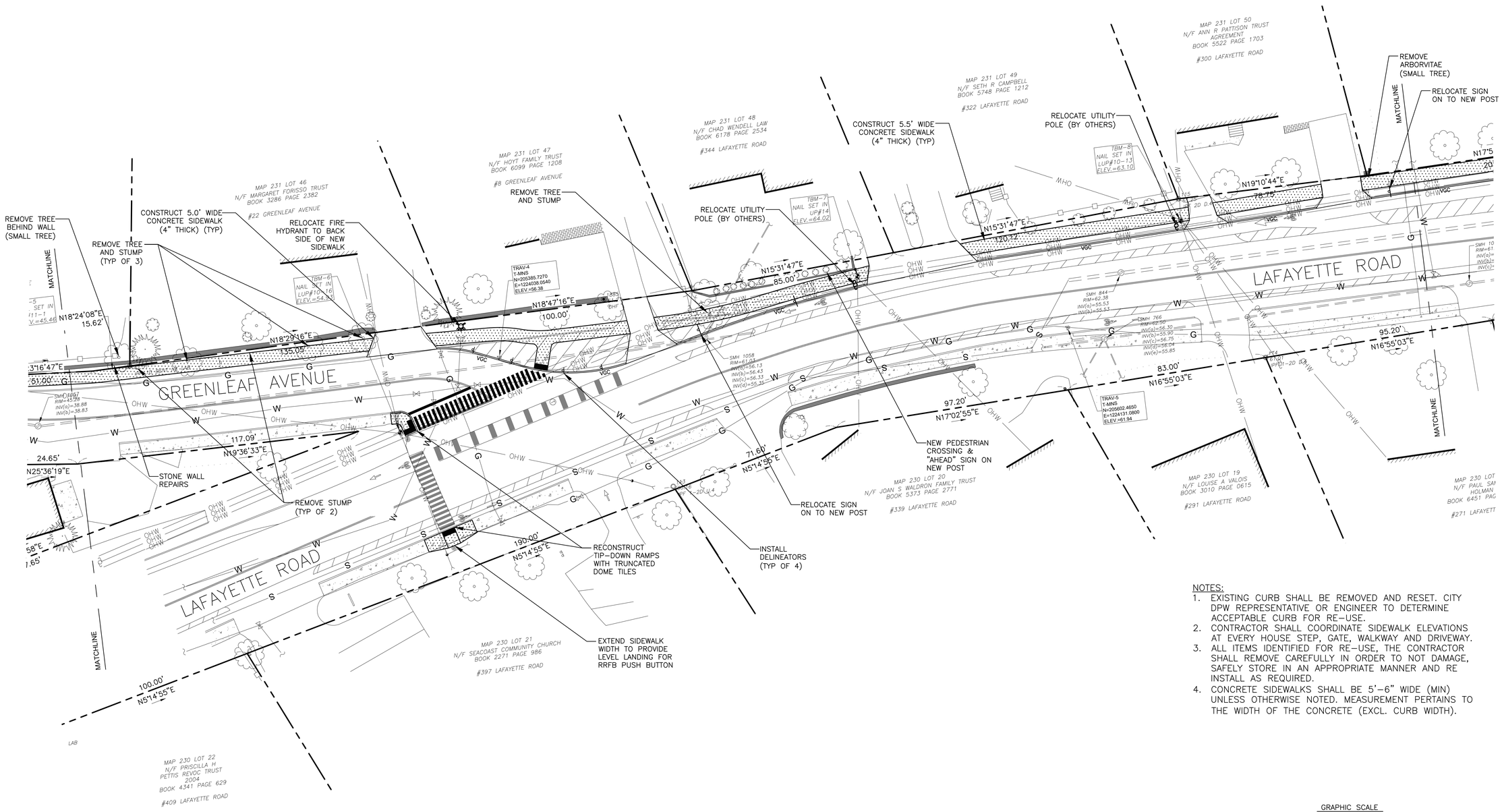
PROJECT: 2025 SIDEWALKS GREENLEAF AVENUE

TITLE: SIDEWALK LAYOUT

SHEET: C-101

NOTES:
REDUCTION OF ROADWAY WIDTH FROM 24' TO 22' WOULD ALLOW FOR ROW OF TREES AT #22 GREENLEAF AVENUE TO REMAIN.

NH STATE PLANE COORDINATE SYSTEM
NAD 1983



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3. ALL ITEMS IDENTIFIED FOR RE-USE, THE CONTRACTOR SHALL REMOVE CAREFULLY IN ORDER TO NOT DAMAGE, SAFELY STORE IN AN APPROPRIATE MANNER AND RE INSTALL AS REQUIRED.
4. CONCRETE SIDEWALKS SHALL BE 5'-6" WIDE (MIN) UNLESS OTHERWISE NOTED. MEASUREMENT PERTAINS TO THE WIDTH OF THE CONCRETE (EXCL. CURB WIDTH).

GRAPHIC SCALE
20 10 0 20 40 60 80 FEET
5 0 5 10 15 20 25 METERS

NO.	REVISIONS	APP'D	DATE
1	ISSUED FOR CONSTRUCTION	MRB	4/17/25
0	ISSUED FOR BID	MRB	12/9/24

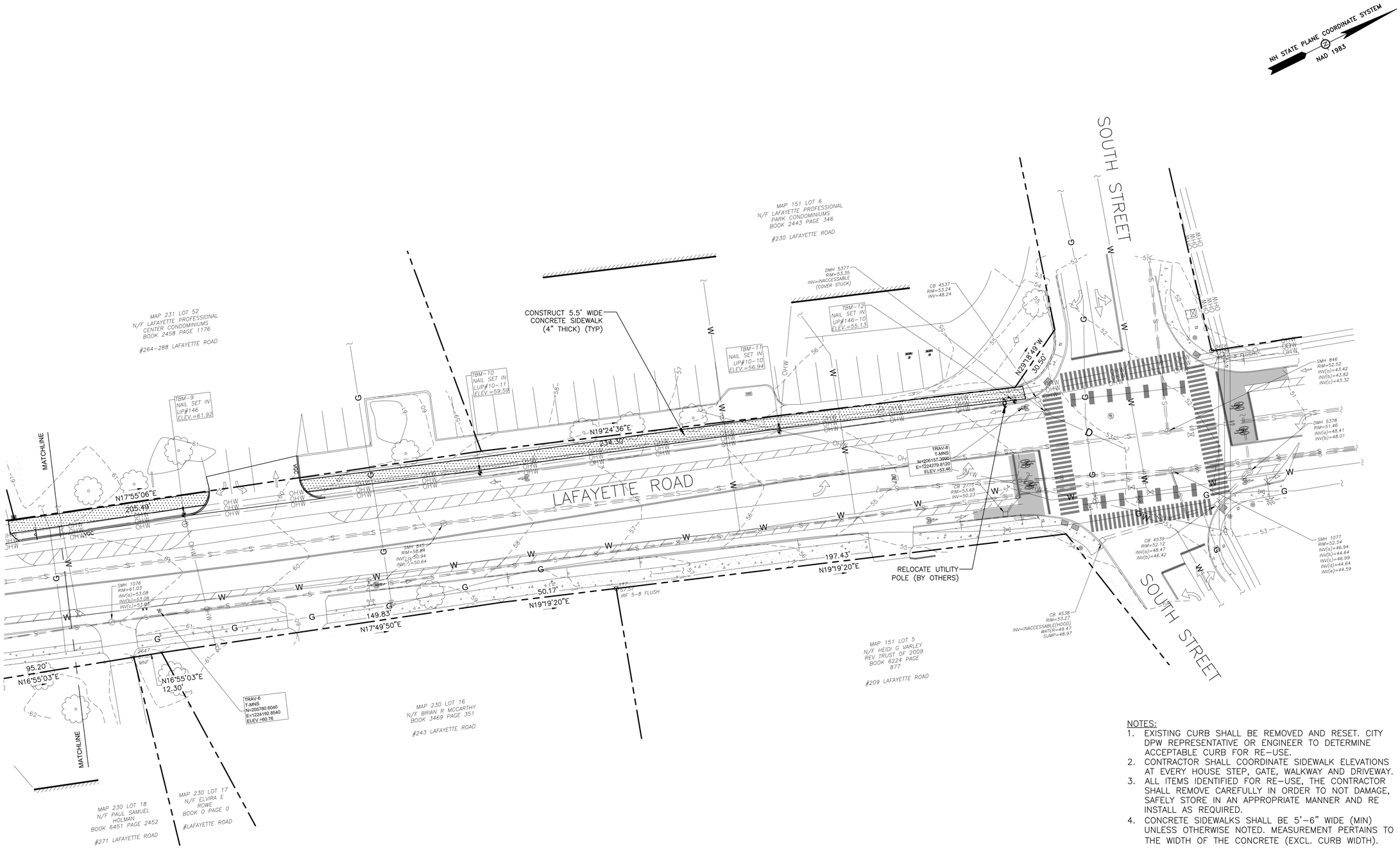
DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: MAY 2024
SCALE: AS SHOWN
PROJ. NO.: 7253
APVD BY: MRB

PROJECT: 2025 SIDEWALKS GREENLEAF AVENUE

TITLE: SIDEWALK LAYOUT

SHEET: C-102



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3. ALL ITEMS IDENTIFIED FOR RE-USE, THE CONTRACTOR SHALL REMOVE CAREFULLY IN ORDER TO NOT DAMAGE, SAFELY STORE IN AN APPROPRIATE MANNER AND RE INSTALL AS REQUIRED.
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GRAPHIC SCALE

20 10 0 20 40 60 80 FEET
5 0 5 10 15 20 25 METERS

NO.	REVISIONS	APP'D	DATE
1	ISSUED FOR CONSTRUCTION	MRB	4/17/25
0	ISSUED FOR BID	MRB	12/9/24

DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: MAY 2024
SCALE: AS SHOWN
PROJ. NO.: 7253
APVD BY: MRB

PROJECT: 2025 SIDEWALKS GREENLEAF AVENUE

TITLE: SIDEWALK LAYOUT

SHEET: C-103

NH STATE PLANE COORDINATE SYSTEM
NAD 1983

NO.	REVISIONS	APP'D	DATE
1	ISSUED FOR CONSTRUCTION	MRB	4/17/25
0A	REVISED PER NHDOT COMMENTS	MRB	1/15/24
0	ISSUED FOR BID	MRB	12/9/24

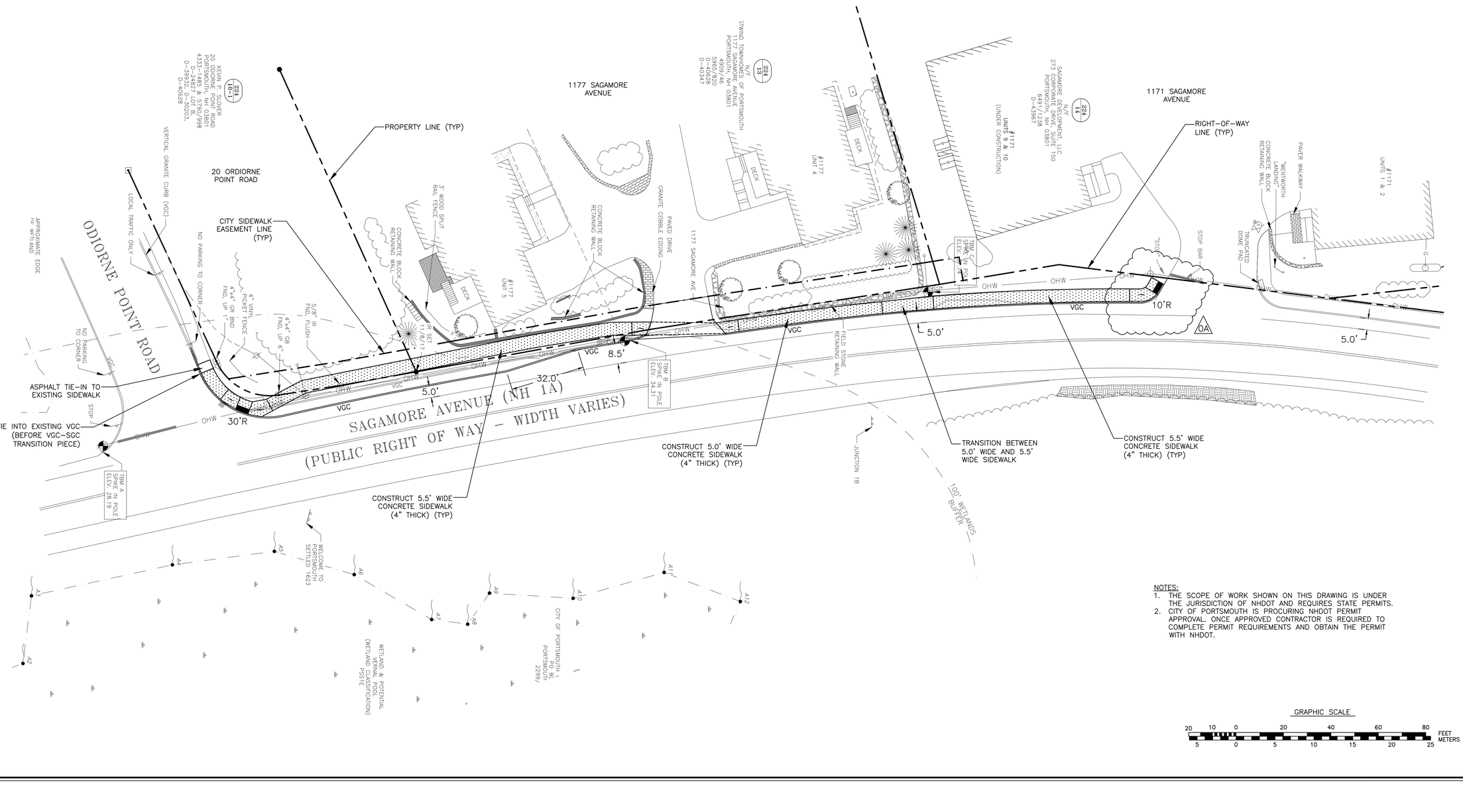
DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: NOV 7, 2024
SCALE: AS SHOWN
PROJ. NO.: 7253
APVD BY: MRB

PROJECT: 2025 SIDEWALKS SAGAMORE AVENUE

TITLE: SIDEWALK LAYOUT

SHEET: C-110



NOTES:
1. THE SCOPE OF WORK SHOWN ON THIS DRAWING IS UNDER THE JURISDICTION OF NHDOT AND REQUIRES STATE PERMITS.
2. CITY OF PORTSMOUTH IS PROCURING NHDOT PERMIT APPROVAL. ONCE APPROVED CONTRACTOR IS REQUIRED TO COMPLETE PERMIT REQUIREMENTS AND OBTAIN THE PERMIT WITH NHDOT.

GRAPHIC SCALE

20 10 0 20 40 60 80 FEET
5 0 5 10 15 20 25 METERS

PROJECT NAME AND LOCATION:

2025 NEIGHBORHOOD SIDEWALKS
PORTSMOUTH, NEW HAMPSHIRE

DESCRIPTION:

THE PROJECT CONSISTS OF:
CONSTRUCTION OF NEW CONCRETE SIDEWALKS ON:
GREENLEAF AVE. & LAFAYETTE RD. (HILLSIDE DR. TO SOUTH ST.)
SAGAMORE AVE. (#1171 TO ORDIORNE POINT RD.)
REMOVAL OF SIDEWALKS AND CONSTRUCTION OF ASPHALT WALKWAYS ON:
ISLINGTON STREET (#1299 TO BARBERRY LN.)

CONSTRUCTION SEQUENCE:

1. INSTALL ALL EROSION CONTROL MEASURES.
2. REMOVE ANY EXISTING SIDEWALKS AND/OR EXCAVATE TO SUB-GRADE FOR NEW SIDEWALKS.
3. INSTALLATION ALL UNDERGROUND UTILITIES AS NECESSARY.
4. INSTALL AND/OR RESET GRANITE CURBING.
5. CONSTRUCT NEW SIDEWALKS.
6. PLACE LOAM & SEED TO FINISH GRADE.
7. INSTALL ALL ROADWAY STRIPING AND SIGNS.
8. WHEN CONSTRUCTION ACTIVITY IS COMPLETE AND SITE IS STABILIZED, REMOVE EROSION CONTROL MEASURES.

EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES:

THE EROSION CONTROL PROCEDURES SHALL CONFORM TO SECTION 645 OF THE "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION" OF THE NHDOT, AND "STORM WATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE".

DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.

AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:

- BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
- A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
- EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH WILL BE REGRADED LATER DURING CONSTRUCTION SHALL BE MACHINE HAY MULCHED AND SEEDED WITH RYE GRASS TO PREVENT EROSION.

DUST CONTROL: IF TEMPORARY STABILIZATION PRACTICES, SUCH AS TEMPORARY VEGETATION AND MULCHING, DO NOT ADEQUATELY REDUCE DUST GENERATION, APPLICATION OF WATER OR CALCIUM CHLORIDE SHALL BE APPLIED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES.

ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM OF 0.5" OR GREATER. ALL DAMAGED SILT FENCES SHALL BE REPAIRED. SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED IN A SECURED LOCATION.

AVOID THE USE OF FUTURE OPEN SPACES (LOAM AND SEED AREAS) WHEREVER POSSIBLE DURING CONSTRUCTION. CONSTRUCTION TRAFFIC SHALL USE THE ROADBEDS OF FUTURE ACCESS DRIVES AND PARKING AREAS.

TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNTS NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS. CONSTRUCT SILT FENCE AROUND TOPSOIL STOCKPILE.

ALL FILLS SHALL BE PLACED AND COMPACTED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS.

DISTURBED AREAS SHALL BE SEEDED WITHIN 72 HOURS FOLLOWING FINISHED GRADING.

AT NO TIME SHALL ANY DISTURBED AREA REMAIN UNSTABILIZED FOR LONGER THAN 72 HOURS. ALL AREAS WHERE CONSTRUCTION IS NOT COMPLETE WITHIN THIRTY DAYS OF THE INITIAL DISTURBANCE SHALL BE MACHINE HAY MULCHED AND SEEDED WITH RYE GRASS TO PREVENT EROSION.

INSTALLATION PROCEDURES OF EROSION AND SEDIMENT CONTROLS:

A. VEGETATIVE PRACTICE

FOR PERMANENT MEASURES AND PLANTINGS FROM EARLY SPRING TO SEPTEMBER 30:

LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF 2 TONS PER ACRE.

FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 500 POUNDS PER ACRE OF 10-20-20 FERTILIZER.

SEED SHALL BE SOWN AT THE RATES SHOWN IN THE TABLE BELOW. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4 INCH AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AT A RATE OF 1.5 TO 2 TONS PER ACRE, AND SHALL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE EROSION AND SEDIMENT CONTROL HANDBOOK.

THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED SHALL BE RESEEDED, AND ALL NOXIOUS WEEDS REMOVED.

A GRASS SEED MIXTURE CONTAINING THE FOLLOWING SEED REQUIREMENTS SHALL BE:

GENERAL COVER	SEEDING RATE
CREEPING RED FESCUE	100 LBS/ACRE
KENTUCKY BLUEGRASS	100 LBS/ACRE

SLOPE SEED (ALL SLOPES GREATER THAN OR EQUAL TO 3:1)

CREEPING RED FESCUE	20 LBS/ACRE
TALL FESCUE	20 LBS/ACRE
BIRDSFOOT TREFOIL	2 LBS/ACRE

IN NO CASE SHALL THE WEED CONTENT EXCEED ONE PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH APPLICABLE STATE AND FEDERAL SEED LAWS.

FOR TEMPORARY PROTECTION OF DISTURBED AREAS:
MULCHING AND SEEDING SHALL BE APPLIED AT THE FOLLOWING RATES:

PERENNIAL RYE:	0.7 LBS/1,000 S.F.
MULCH:	1.5 TONS/ACRE

B. MULCHING

IN ORDER TO BE EFFECTIVE, MULCHING MUST BE IN PLACE PRIOR TO MAJOR STORM EVENTS. THERE ARE TWO TYPES OF STANDARDS:
APPLY MULCH PRIOR TO ANY STORM EVENT:
THIS IS APPLICABLE WHEN WORKING WITHIN 100 FEET OF WETLANDS. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER FORECASTS FOR ADEQUATE WARNING TO SIGNIFICANT STORMS.
REQUIRED MULCHING WITHIN SPECIFIED TIME PERIOD:
THE TIME PERIOD CAN RANGE FROM 14 TO 21 DAYS OF INACTIVITY IN AN AREA, THE LENGTH OF TIME VARYING WITH SITE CONDITIONS. JUDGEMENT SHALL BE USED TO EVALUATE THE INTERACTION OF SITE CONDITIONS AND THE POTENTIAL FOR IMPACT ON ADJACENT AREAS TO CHOOSE AN APPROPRIATE TIME RESTRICTION.
WHEN MULCH IS TO BE APPLIED TO PROVIDE PROTECTION OVER WINTER MONTHS, IT SHALL BE AT A RATE OF 6,000 POUNDS OF HAY OR STRAW PER ACRE. A TACKIFIER SHALL BE ADDED TO THE MULCH.

C. WINTER NOTES

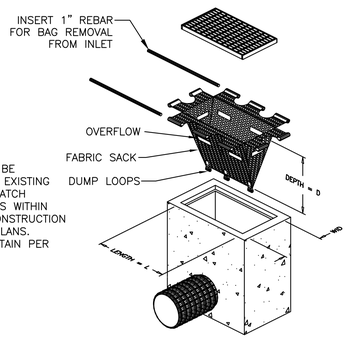
ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.

ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.

MAINTENANCE AND PROTECTION:

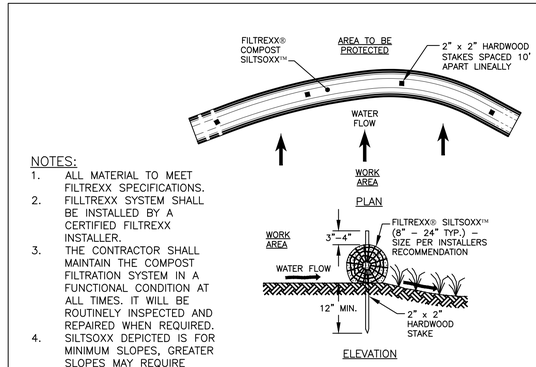
1. THE CONTRACTOR SHALL MAINTAIN ALL LOAM & SEED AREAS UNTIL FINAL ACCEPTANCE AT THE COMPLETION OF THE CONTRACT. MAINTENANCE SHALL INCLUDE WATERING, WEEDING, REMOVAL OF STONES AND OTHER FOREIGN OBJECTS OVER 1/2 INCHES IN DIAMETER WHICH MAY APPEAR AND THE FIRST TWO (2) CUTTINGS OF GRASS NO CLOSER THEN TEN (10) DAYS APART. THE FIRST CUTTING SHALL BE ACCOMPLISHED WHEN THE GRASS IS FROM 2 1/2 TO 3 INCHES HIGH. ALL BARE AND DEAD SPOTS WHICH BECOME APPARENT SHALL BE PROPERLY PREPARED, LIMED AND FERTILIZED, AND RESEEDED BY THE CONTRACTOR AT HIS EXPENSE AS MANY TIMES AS NECESSARY TO SECURE GOOD GROWTH. THE ENTIRE AREA SHALL BE MAINTAINED, WATERED AND CUT UNTIL ACCEPTANCE OF THE LAWN BY THE OWNER'S REPRESENTATIVE.
2. THE CONTRACTOR SHALL TAKE WHATEVER MEASURES ARE NECESSARY TO PROTECT THE GRASS WHILE IT IS DEVELOPING.
3. TO BE ACCEPTABLE, SEEDED AREAS SHALL CONSIST OF A UNIFORM STAND OF AT LEAST 90 PERCENT ESTABLISHED PERMANENT GRASS SPECIES, WITH UNIFORM COUNT OF AT LEAST 100 PLANTS PER SQUARE FOOT.
4. SEEDED AREAS WILL BE FERTILIZED AND RESEEDED AS NECESSARY TO INSURE VEGETATIVE ESTABLISHMENT.
5. THE SWALES WILL BE CHECKED WEEKLY AND REPAIRED WHEN NECESSARY UNTIL ADEQUATE VEGETATION IS ESTABLISHED.
6. THE SILT FENCE BARRIER SHALL BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
7. SILT FENCING SHALL BE REMOVED ONCE VEGETATION IS ESTABLISHED, AND DISTURBED AREAS RESULTING FROM SILT FENCE REMOVAL SHALL BE PERMANENTLY SEEDED.



NOTES:
1. SILT SACK SHALL BE INSTALLED AT ALL EXISTING AND PROPOSED CATCH BASINS AND INLETS WITHIN THE LIMITS OF CONSTRUCTION SHOWN ON THE PLANS.
2. INSTALL AND MAINTAIN PER MANUFACTURERS REQUIREMENTS.

DRAINAGE INLET PROTECTION

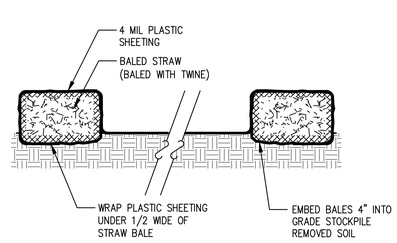
SCALE: N.T.S



NOTES:
1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
2. FILLTREXX SYSTEM SHALL BE INSTALLED BY A CERTIFIED FILTREXX INSTALLER.
3. THE CONTRACTOR SHALL MAINTAIN THE COMPOST FILTRATION SYSTEM IN A FUNCTIONAL CONDITION AT ALL TIMES. IT WILL BE ROUTINELY INSPECTED AND REPAIRED WHEN REQUIRED.
4. SILTSOXX DEPICTED IS FOR MINIMUM SLOPES, GREATER SLOPES MAY REQUIRE ADDITIONAL PLACEMENTS.
5. THE COMPOST FILTER MATERIAL WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED, AS DETERMINED BY THE ENGINEER.

SEDIMENTATION FENCE / LOG

SCALE: N.T.S



NOTES:
1. CONTRACTOR MUST PROVIDE A CONCRETE CLEAN-OUT STATION. NO TRUCK CLEAN-OUT WILL BE ALLOWED WITHOUT CONTAINMENT.
2. PLASTIC WRAP SHALL BE FREE OF TEARS OR HOLES.
3. AFTER BASIN IS USED, WAHWATER FROM WASHOUT BASINN SHALL BE ALLOWED TO EVAPORATE OR BE VACUUMED OUT.
4. REMOVE REMAINING HARDENED SOLIDS.
5. REPLACE PLASTIC SHEETING AND TRAWBALES AS REQUIRED.

CONCRETE CLEAN-OUT

SCALE: N.T.S

NO.	REVISIONS	APP'D	DATE
1	ISSUED FOR CONSTRUCTION	MRB	4/17/25
0	ISSUED FOR BID	MRB	12/9/24

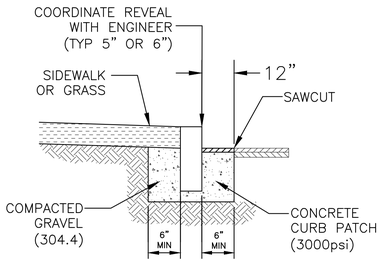
DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: MAY 2024
SCALE: AS SHOWN
PROJ. NO.: 7253
APVD BY: MRB

PROJECT: GREENLEAF AVENUE SIDEWALKS

TITLE: DETAILS SHEET EROSION CONTROL

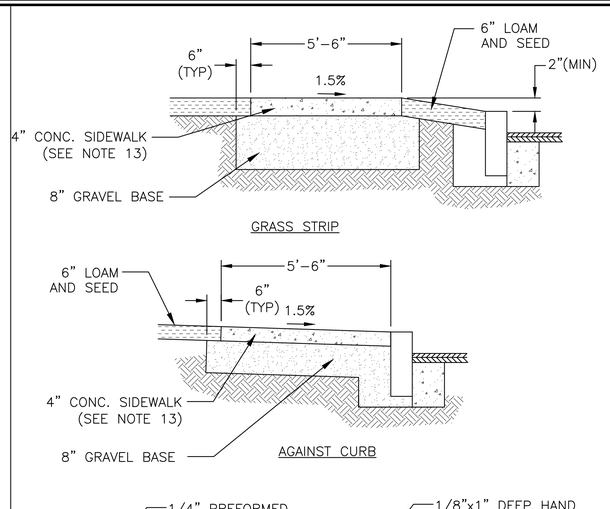
SHEET: C-200



RADIUS	MAX. LENGTH USE CURVED CURB
<20'	
21'–25'	3'
26'–30'	4'
31'–35'	5'
36'–40'	6'
41'–50'	7'
51'–56'	8'
56'–60'	9'
OVER 60'	10'

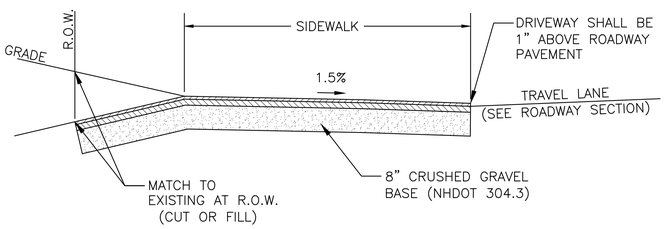
VERTICAL GRANITE CURB
SCALE: N.T.S

NOTES:
1. CURB TO BE SET TO LINE AND GRADE SPECIFIED.
2. ALL RADII 20 FEET AND SMALLER SHALL USE CURVED SECTIONS.
3. CURB AT FLUSH SECTION OF SIDEWALK SHALL BE SET TO 1.5% CROSS SLOPE. CURB AT RAMPS SHALL BE SET TO 7.5% RUNNING SLOPE. IT IS THE CURB CONTRACTORS RESPONSIBILITY TO VERIFY SLOPES WITH A SMART LEVEL.
4. VERTICAL GRANITE JOINTS SHALL BE MORTARED.
5. SEE CHART FOR MAX / MIN STONE LENGTHS.
6. RESET EXISTING CURB. ANY MISSING OR DAMAGED CURB SHALL BE REPLACED WITH MATCHING CURB SIZE (NEW).
7. NO CURB LESS THAN 3' IN LENGTH WILL BE ALLOWED.
8. CURB MATERIAL SHALL BE FROM THE SAME LOT OF GRANITE. VARIANCES IN COLOR AND TYPE WILL NOT BE ACCEPTED.
9. TYPICAL CURB REVEAL SHALL BE 5". VERIFY WITH CITY ENGINEER PRIOR TO CURB INSTALLATION.
10. COMPACTED SELECT BASE MATERIALS MAY BE AS CURB PATCH INSTEAD OF CONCRETE WHEN APPROVED BY THE ENGINEER. GRAVEL CURB PATCH SHALL BE COMPACTED TO THE TOP OF THE BASE MATERIAL LEVEL AND SHALL HAVE BASE ASPHALT PLACED FLUSH WITH ROADWAY BASE.
11. CONTRACTOR SHALL USE JUMPING JACK TO COMPACT ALONG CURB AT LOCATIONS WHERE CONC. BACKFILL IS NOT USED. SELECT BASE MATERIALS FOR SIDEWALK SHALL BE COMPACTED WITH JUMPING JACK ALONG BACK SIDE OF CURB PRIOR TO PLACEMENT OF CONCRETE.

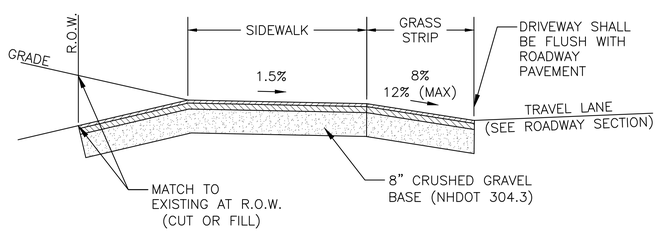


NOTES:
1. MEDIUM BROOM FINISH.
2. JOINTS SHALL BE HAND TOOLED w/ 1/8" RADII.
3. EXPANSION JOINT FIBER FILLER SHALL BE TRIMMED TO 1/4" BELOW SIDEWALK SURFACE FOR SEALANT.
4. THERE SHALL BE NO CHANGE IN ELEVATION (LIP) OR GAPS IN THE SIDEWALK GREATER THAN 1/4".
5. SIDEWALK CONCRETE SHALL BE TREATED WITH SILOXANE SEALER NO SOONER THAN 14 DAYS AND NO MORE THAN 45 DAYS AFTER PLACEMENT. REFER TO MANUFACTURERS SPECIFICATIONS FOR REQUIRED TEMPERATURES FOR APPLICATION. SIDEWALKS SHALL BE CLEANED PRIOR TO APPLICATION OF SEALANT.
6. EXPANSION JOINT FIBER SHALL BE USED AT ALL LOCATIONS WHERE CONCRETE ABUTS STRUCTURES (BUILDINGS, RET. WALLS, POLES, ETC.).
7. CONTRACTOR SHALL BE RESPONSIBLE TO CONSTRUCT SIDEWALKS WITH SLOPES COMPLIANT WITH ADA CODES.
8. GRAVEL BASE MATERIALS SHALL BE COMPACTED WITH JUMPING JACK ALONG BACK SIDE OF CURB PRIOR TO PLACEMENT OF CONCRETE.
9. SUB–GRADE SHALL BE COMPACTED PRIOR TO PLACEMENT OF GRAVEL BASE. GRAVEL BASE SHALL BE COMPACTED TO 95% PROCTOR.
10. CONTRACTOR SHALL WORK WITH CITY ENGINEER TO DETERMINE T/CONC. GRADES PRIOR TO PLACEMENT OF CONCRETE.
11. CONCRETE SHALL HAVE A STRENGTH OF 4,000psi CLASS AA w/FIBER MESH, AIR ENTRAINMENT (5%–7%) WITH A SLUMP OF 4"–6".
12. BASE MATERIAL SHALL BE NHDOT 304.4.
13. CONCRETE SHALL BE 6" THICK AT ADA CURB RAMPS.

CONCRETE SIDEWALK
SCALE: N.T.S



SECTION VIEW – NO GRASS STRIP



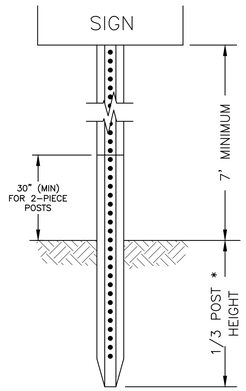
SECTION VIEW – GRASS STRIP

NOTES:
1. DRIVEWAY PAVEMENT SHALL BE:
   1.0" WEARING (3/8" 50 GYRATION)
   2.0" BINDER (1/2" 50 GYRATION)
2. ENGINEER TO DETERMINE IF EXISTING BASE MATERIALS ARE ACCEPTABLE.
3. SUB–GRADE SHALL BE COMPACTED PRIOR TO PLACEMENT OF GRAVEL BASE. GRAVEL BASE SHALL BE COMPACTED TO 95% PROCTOR.

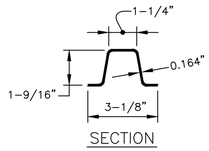
TYPICAL DRIVEWAY SECTION
SCALE: N.T.S

W11–2
30"x30"
BLACK ON YELLOW

W16–9P



*IN LEDGE, DRILL & GROUT TO 2FT. DEPTH, MINIMUM



SECTION

LENGTH: AS REQUIRED

WEIGHT/LINEAR FOOT: 2.50 POUNDS (MIN.)

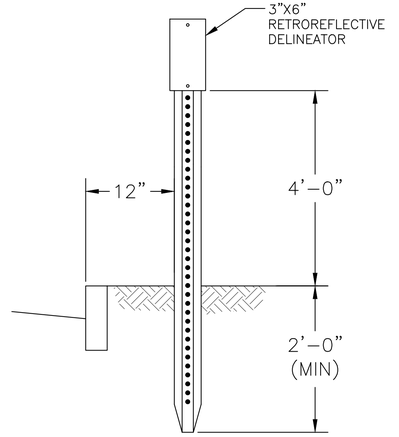
HOLES: 3/8" DIA., 1" C–C FULL LENGTH

STEEL: SHALL CONFORM TO ASTM A–499 (GRADE 60) OR ASTM A–5761 (GRADE 1070 – 1080)

FINISH: SHALL BE HOT DIPPED GALVANIZED.

NOTES:
1. POSTS MAY BE SET OR DRIVEN.
2. WHEN POSTS ARE SET, HOLES SHALL BE DUG TO THE PROPER DEPTH; AFTER INSERTING POSTS, THE HOLES SHALL BE BACK FILLED WITH SUITABLE MATERIAL IN LAYERS NOT TO EXCEED 6" IN DEPTH AND THOROUGHLY COMPACTED, CARE BEING TAKEN TO PRESERVE THE ALIGNMENT OF THE POST.
3. WHEN POSTS ARE DRIVEN, A SUITABLE DRIVING CAP SHALL BE USED AND AFTER DRIVING THE TOP OF THE POST SHALL HAVE SUBSTANTIALLY THE SAME CROSS–SECTIONAL DIMENSION AS THE BODY OF THE POST; BATTERED HEADS WILL NOT BE ACCEPTED.
4. POSTS SHALL NOT BE DRIVEN WITH THE SIGN ATTACHED TO THE POST.
5. WHEN SIGN IS IN PLACE, NO PART OF THE POST SHALL EXTEND ABOVE THE SIGN.
6. WHEN POST IS TO BE INSTALLED IN A CONCRETE SIDEWALK, A 4" DIA. PVC SLEEVE SHALL BE CAST INTO THE CONCRETE AGAINST THE BACK SIDE OF THE CURB.

SIGN & DELINEATOR POST
SCALE: N.T.S



DELINEATOR NOTES:
1. POSTS MAY BE SET OR DRIVEN.
2. WHEN POSTS ARE SET, HOLES SHALL BE DUG TO THE PROPER DEPTH; AFTER INSERTING POSTS, THE HOLES SHALL BE BACK FILLED WITH SUITABLE MATERIAL IN LAYERS NOT TO EXCEED 6" IN DEPTH AND THOROUGHLY COMPACTED, CARE BEING TAKEN TO PRESERVE THE ALIGNMENT OF THE POST.
3. WHEN POSTS ARE DRIVEN, A SUITABLE DRIVING CAP SHALL BE USED AND AFTER DRIVING THE TOP OF THE POST SHALL HAVE SUBSTANTIALLY THE SAME CROSS–SECTIONAL DIMENSION AS THE BODY OF THE POST; BATTERED HEADS WILL NOT BE ACCEPTED.
4. POSTS SHALL NOT BE DRIVEN WITH THE DELINEATOR ATTACHED TO THE POST.
5. WHEN DELINEATOR IS IN PLACE, NO PART OF THE POST SHALL EXTEND ABOVE THE DELINEATOR.
6. DELINEATOR COLORS SHALL IN ALL CASES CONFORM TO THE COLOR OF THE EDGE LINE AND BE PLACED IN THE DIRECTION OF TRAFFIC.

NO.	REVISIONS	APP'D	DATE
1	ISSUED FOR CONSTRUCTION	MRB	4/17/25
0	ISSUED FOR BID	MRB	12/9/24

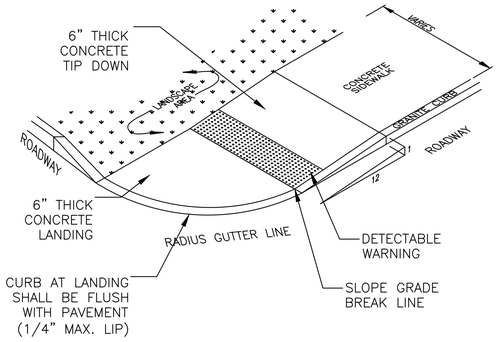
DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603–427–1530

DATE: MAY 2024
SCALE: AS SHOWN
PROJ. NO.: 7253
APVD BY: MRB

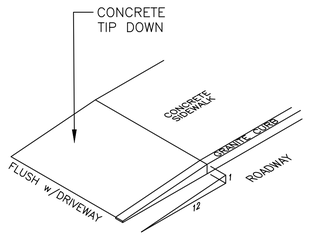
PROJECT: GREENLEAF AVENUE SIDEWALKS

TITLE: DETAILS SHEET SITE

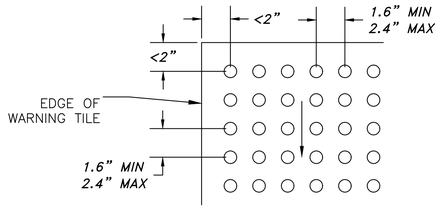
SHEET: C–201



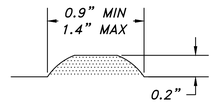
CURB RAMPS AT STREETS



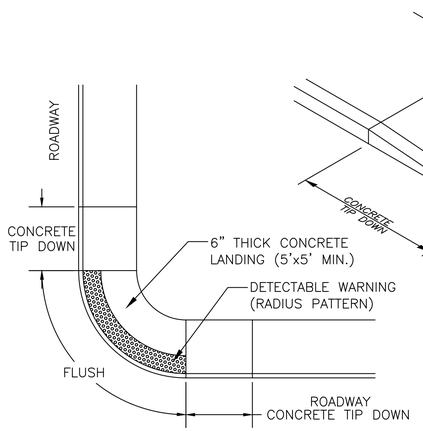
RAMPS AT DRIVEWAYS



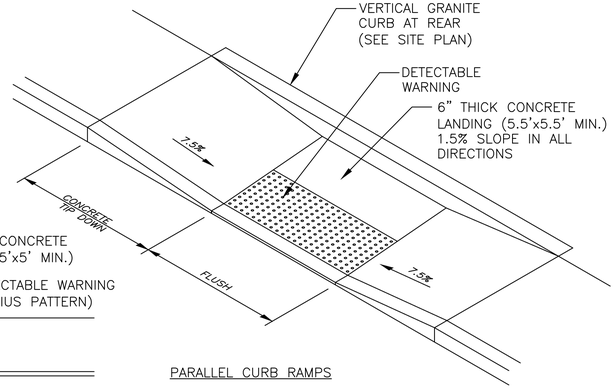
DETECTABLE WARNING TILE



DOME SECTION



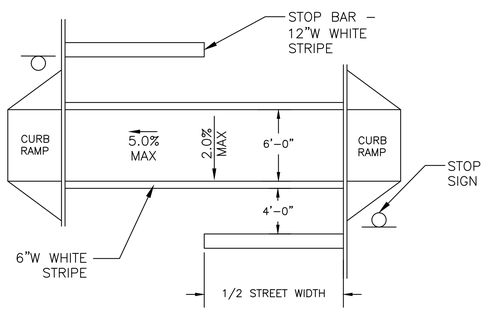
RADII CURB RAMPS



PARALLEL CURB RAMPS

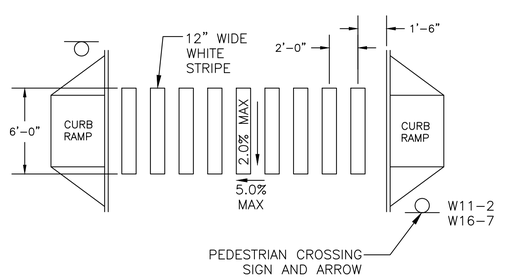
NOTES:
1. ALL CURB RAMPS AND SIDEWALKS SHALL COMPLY WITH ADA (AMERICANS WITH DISABILITIES ACT).
2. TIP DOWNS SHALL HAVE A RUNNING SLOPE OF 7.5% (8.3% MAX.) AND CROSS SLOPE OF 1.5% (2.0% MAX.).
3. THERE SHALL BE NO CHANGE IN ELEVATION (LIP) OR GAPS IN THE SIDEWALK RAMPS GREATER THAN 1/4".
4. LANDINGS AND AREAS OF CHANGE IN DIRECTION SHALL HAVE A SLOPE OF 1.5% (2.0% MAX.) IN ALL DIRECTIONS.
5. DETECTABLE WARNINGS SHALL INSTALLED SO THAT PATTERN IS IN LINE WITH DIRECTION OF TRAVEL TO THE EXTENT POSSIBLE.
6. DETECTABLE WARNING TILES SHALL BE PLACED SO THAT THE EDGE CLOSEST TO THE CURB IS BETWEEN 6"–8" FROM CURB LINE.
7. DETECTABLE WARNING TILE SHALL SPAN THE FULL WIDTH OF THE RAMP AND A MINIMUM OF 24" DEEP.
8. DETECTABLE WARNING TILE SHALL BE CAST IRON, NEENAH FOUNDRY OR APPROVED EQUAL. RADIUS ADA CURB RAMPS SHALL HAVE DETECTABLE WARNING TILES IN A RADIUS PATTERN USING TUFTILE OR APPROVED EQUAL.
9. CONCRETE AT DETECTABLE WARNING RAMPS SHALL BE FIBER REINFORCED WITH A MEDIUM BROOM FINISH.
10. BASE MATERIAL FOR CONCRETE SECTIONS SHALL BE 8" THK CRUSHED GRAVEL BASE (NHDOT 304.3).

CURB RAMP DETAILS
SCALE: N.T.S



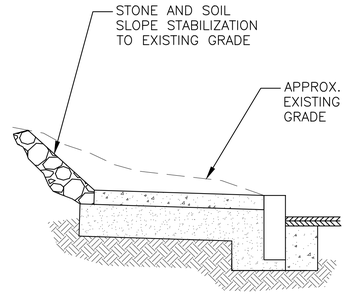
STANDARD CROSSWALK

NOTES:
1. STRIPING SHALL BE THERMO PLASTIC RETROREFLECTIVE PAVEMENT MARKING PER ASTM D 4505.
2. STANDARD CROSSWALKS SHALL BE AT CONTROLLED STOP (SIGNS OR SIGNALS) CROSSINGS WITH STOP SIGNS AND/OR LOW TRAFFIC LOCATIONS AS DIRECTED BY THE ENGINEER.
3. HI–VIS 12" WIDE CROSSWALKS SHALL BE AT CROSSINGS WITHOUT CONTROLLED STOPS (SIGNS OR SIGNALS), MID–BLOCK CROSSINGS AND/OR OTHER HIGH TRAFFIC LOCATIONS AS DIRECTED BY THE ENGINEER.
4. HI–VIS CROSSWALKS MAY REQUIRE ADDITIONAL ADVANCED PEDESTRIAN CROSSING SIGNAGE. SEE SITE PLANS FOR THESE LOCATIONS.



HI–VIS CROSSWALK

PEDESTRIAN CROSSING DETAILS
SCALE: N.T.S



NOTES:
1. STONES SHALL BE SET INTO BED OF LOAM WITH APPROXIMATELY 75% OF VISUAL AREA BEING STONE. STONE SHOULD NOT BE EASILY DISPLACED.
2. STONE SHALL BE ANGULAR IN SHAPE AND 6" TO 8" IN SIZE.
3. CONTRACTOR SHALL SEED ANY EXPOSED LOAM.
4. PAY ITEM SHALL INCLUDE ALL MATERIALS (STONE, LOAM, ETC.), SETTING TO PROPER GRADE, AND SEED.
5. CONTRACTOR SHALL COORDINATE THIS WORK WITH CITY OF PORTSMOUTH ENGINEER.

STONE SLOPE STABILIZATION
SCALE: N.T.S

NO.	REVISIONS	APP'D	DATE
1	ISSUED FOR CONSTRUCTION	MRB	4/17/25
0	ISSUED FOR BID	MRB	12/9/24

DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: MAY 2024
SCALE: AS SHOWN
PROJ. NO.: 7253
APVD BY: MRB

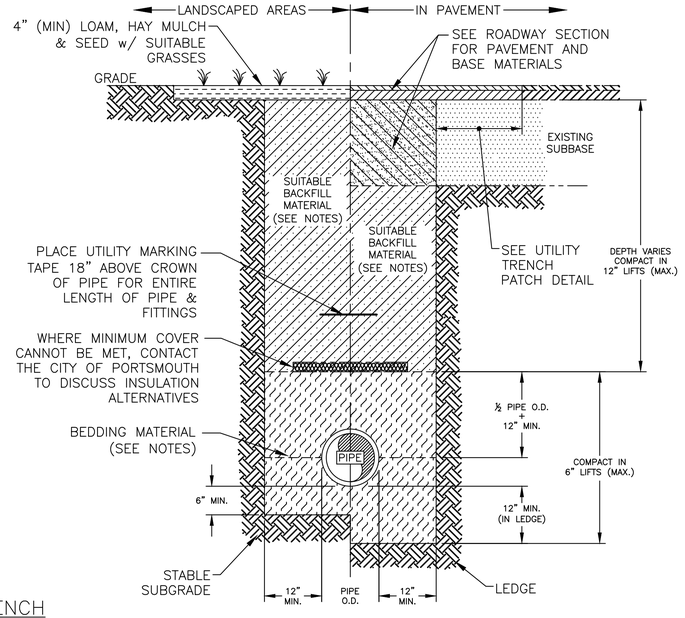
PROJECT: GREENLEAF AVENUE SIDEWALKS

TITLE: DETAILS SHEET
SIDEWALK AND CROSSWALK

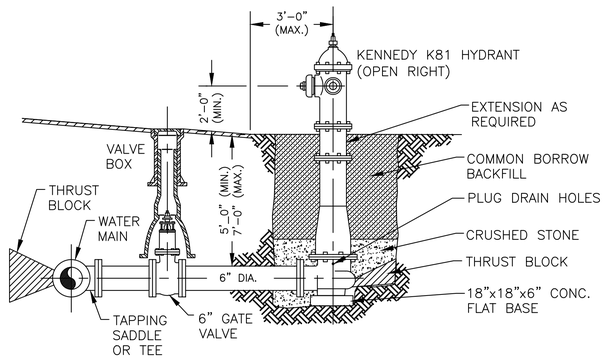
SHEET: C–202

NOTES:

1. DRAIN AND SEWER PIPE SHALL HAVE CRUSHED STONE (NHDOT 304.4) BEDDING FOR FULL WIDTH OF TRENCH UP TO 12" ABOVE TOP OF PIPE. SAND SHALL NOT BE DIRECTLY PLACED ON CRUSHED STONE. IN THE EVENT FINELY GRADED BACKFILL OR SAND IS USED ABOVE STONE, GEOTEXTILE FABRIC SHALL BE PLACED TO SEPARATE.
2. WATER PIPE SHALL HAVE SAND (NHDOT 304.1) BEDDING FOR FULL WIDTH OF TRENCH UP TO 12" ABOVE TOP OF PIPE.
3. BEDDING, FABRIC, AND COVER MATERIAL FOR ALL PIPE IS SUBSIDIARY TO THE PIPE PAY ITEM.
4. SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED LEDGE MATERIAL, AND ALL ROCKS OVER SIX INCHES IN LARGEST DIMENSION, OR ANY MATERIALS DEEMED TO BE UNACCEPTABLE BY THE ENGINEER.
5. DEPTH OF COVER SHALL BE:
   WATER – 5' MIN. & 7' MAX. (<5' REQ. RIGID INS.)
   SEWER – AS INDICATED ON PLANS (<6' REQ. RIGID INS.)
   DRAIN – AS INDICATED ON PLANS (<3' REQ. RIGID INS.)
6. WATER MAIN SHALL BE POLY WRAPPED AND HAVE THREE BRASS WEDGES AT ALL NON MECHANICAL CONNECTIONS.
7. ALL PIPES GREATER THAN 12" DIA. WITH STONE BEDDING, BEDDING SHALL BE WRAPPED IN GEOTEXTILE FABRIC. GEOTEXTILE FABRIC SHALL BE MIRAFI 140N OR APPROVED EQUAL. FABRIC SHALL BE WRAPPED COMPLETELY AROUND STONE w/12" (MIN) OVERLAP AT SEAMS.
8. 2" RIGID FOAM INSULATION SHALL BE PLACED ON TOP OF BEDDING MATERIAL. BEDDING MATERIAL SHALL BE MADE SMOOTH TO ALLOW FOAM BOARD TO SIT WITHOUT VOIDS BENEATH. FOAM SHALL BE INSTALLED THE FULL WIDTH OF THE TRENCH, NOT TO EXCEED 4' WIDE.



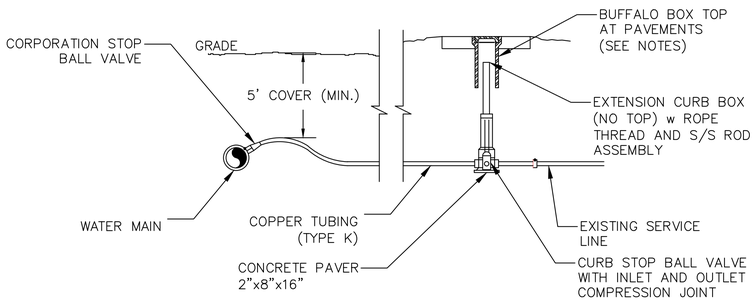
UTILITY TRENCH
SCALE: N.T.S



NOTES:

1. HYDRANT TO BE KENNEDY TYPE K–81, RIGHT OPEN (NO EQUAL). COORDINATE WITH CITY OF PORTSMOUTH WATER AND FIRE DEPARTMENT.
2. HYDRANT SHALL BE PAINTED IN ACCORDANCE WITH CITY OF PORTSMOUTH STANDARDS.
3. AREA AROUND HYDRANT SHALL BE GRADED TO ALLOW SURFACE WATER TO DRAIN AWAY.
4. CONTRACTOR SHALL INSTALL AN INDICATOR ATTACHED TO THE HYDRANT IN ACCORDANCE TO CITY OF PORTSMOUTH STANDARDS.
5. HYDRANT LATERAL SHALL BE POLY WRAPPED FROM MAIN TO HYDRANT AT GROUND LEVEL, 6" (MIN.) OF SAND FOR BEDDING AND COVER, WARNING TAPE 18" ABOVE PIPE.
6. TWO BOLLARDS REQUIRED AT EACH HYDRANT LOCATION (SEE DETAIL). BOLLARDS TO BE CONSIDERED INCIDENTAL TO THE HYDRANT PAY ITEM.

FIRE HYDRANT
SCALE: N.T.S



NOTES:

1. CONTRACTOR SHALL REMOVE AND REPLACE CURB BOX WITHIN CONSTRUCTION LIMITS.
2. CONTRACTOR SHALL VERIFY SERVICE PIPE SIZE AND MATERIAL ON BOTH SIDES OF THE CURB BOX. CONTRACTOR SHALL PROVIDE SWING TIES IDENTIFYING THE LOCATION AND SPECS OF THE PIPE TO THE CITY OF PORTSMOUTH – DPW.
3. THE FOLLOWING TOPS SHALL BE INSTALLED AT THE CURB STOP:
   3.1. A BUFFALO BOX (TOP SECTION ONLY) SHALL BE PLACED OVER CURB BOX EXTENSION PIPE (NO HAYES TOP) WHEN CURB STOP IS IN SIDEWALK OR DRIVEWAY APRON. EXTENSION PIPE SHALL BE SET 3" BELOW COVER WITH A 1" PLASTIC COVER OVER THE EXTENSION PIPE.
   3.2. A GATE BOX TOP (TOP SECTION ONLY) SHALL BE PLACED OVER CURB BOX EXTENSION PIPE WHEN CURB STOP IS IN ROADWAY PAVEMENT. EXTENSION PIPE SHALL BE SET 3" BELOW COVER WITH A 1" PLASTIC COVER OVER THE EXTENSION PIPE.
   3.3. ALL OTHER LOCATIONS (LOCATED IN LOAMED AREAS), A STANDARD HAYES COVER SHALL BE INSTALLED AT GRADE.

WATER SERVICE CONNECTION DETAIL
SCALE: N.T.S

NO.	REVISIONS	APP'D	DATE
1	ISSUED FOR CONSTRUCTION	MRB	4/17/25
0	ISSUED FOR BID	MRB	12/9/24

DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: MAY 2024
SCALE: AS SHOWN
PROJ. NO.: 7253
APVD BY: MRB

PROJECT: GREENLEAF AVENUE SIDEWALKS

TITLE: DETAILS SHEET UTILITIES

SHEET: C–203

GENERAL NOTES:

1. THESE SHEETS ARE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA), AND THE REQUIREMENTS OF THE 2011 PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT OF WAY (PROWAG).

2. NOT ALL FACILITIES CAN BE CONSTRUCTED TO MEET THE DESIGN STANDARDS. FACILITIES THAT CANNOT BE CONSTRUCTED TO MEET THE DESIGN STANDARDS SHALL BE CONSTRUCTED TO MEET THE STANDARDS TO THE GREATEST EXTENT PRACTICABLE. NONSTANDARD FEATURES SHALL BE DOCUMENTED ON TECHNICAL INFEASIBILITY FORM AND SUBMITTED TO NHDOT ADA COORDINATOR FOR APPROVAL.

3. TO CHECK FIELD LAYOUT ALL SLOPES AND GRADES SHALL BE MEASURED WITH A DIGITAL LEVEL USING AT LEAST TWO READINGS. WHERE THE READINGS VARY, THE MEASUREMENTS SHALL BE AVERAGED. GRADE (RUNNING SLOPE) SHALL BE MEASURED ALONG THE CENTERLINE AND OFFSET 1.00′ TO 1.50′ FROM THE CENTERLINE. CROSS SLOPES SHALL BE MEASURED PERPENDICULAR TO CENTERLINE AT 5.00′ TO 10.00′ INTERVALS.

4. GRADES (RUNNING SLOPES) ARE MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL. CROSS SLOPES ARE MEASURED PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.

5. JOINTS BETWEEN SIDEWALKS, CURB RAMPS, TURNING SPACES AND ROADWAYS SHALL BE FLUSH AND FREE FROM ABRUPT VERTICAL CHANGES GREATER THAN 1/4". VERTICAL SURFACE DISCONTINUITIES BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 2:1. THE BEVEL SHALL BE APPLIED ACROSS THE ENTIRE JOINT. SEE DETAIL ON SHEET 9 OF 9.

6. SIDEWALKS ARE CONNECTED TO ROADWAYS BY EITHER BLENDED TRANSITIONS OR CURB RAMPS. BLENDED TRANSITIONS ARE CONNECTIONS BETWEEN THE SIDEWALK LEVEL AND THE ROADWAY LEVEL THAT HAVE A MAXIMUM GRADE (RUNNING SLOPE) OF 5%, AND TRANSITIONS GREATER THAN 5% ARE CONSIDERED CURB RAMPS.

7. CURB RAMPS AND BLENDED TRANSITIONS MAY REQUIRE THE INSTALLATION OF DETECTABLE WARNINGS. SEE ADDITIONAL "DETECTABLE WARNING DEVICE NOTES" ON THIS SHEET, AND DETAILS ON SHEET 6 OF 10 FOR DIMENSIONS, ORIENTATION AND INSTALLATION.

8. VERTICAL ALIGMENT SHALL BE GENERALLY PLANAR. GRADE BREAKS WITHIN THE PEDESTRIAN ACCESS ROUTE SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL AND SHALL NOT BE ROUNDED.

9. THE CROSS SLOPE OF PEDESTRIAN ACCESS ROUTES (PAR) SHALL BE 2% MAXIMUM. THE FOLLOWING EXCEPTIONS ARE ALLOWED:

   A. WHERE PEDESTRIAN CROSSINGS ARE PROVIDED AT INTERSECTIONS WITHOUT YIELD OR STOP CONTROL OR WHERE THERE IS ANY TRAFFIC SIGNAL, THE CROSS SLOPE OF A PEDESTRIAN ACCESS ROUTE CONTAINED WITHIN A CROSSING SHALL BE 5% MAXIMUM.

   B. WHERE MIDBLOCK PEDESTRIAN CROSSINGS ARE PROVIDED, THE CROSS SLOPE OF A PEDESTRIAN ACCESS ROUTE CONTAINED WITHIN A MIDBLOCK CROSSING SHALL BE PERMITTED TO EQUAL THE STREET OR HIGHWAY GRADE.

10. THE MINIMUM CLEAR WIDTH FOR PEDESTRIAN ACCESS ROUTES IS 4.00′, EXCLUSIVE OF THE CURB. WHEN WALKWAY WIDTHS ARE LESS THAN 5.00′, 5.00′ x 5.00′ PASSING SPACES, OR A FEATURE OF EQUAL OR GREATER DIMENSIONS (E.G., DRIVEWAYS) THAT MEET THE SLOPE CRITERIA, SHALL BE PROVIDED AT A MAXIMUM INTERVAL OF 200′. EXISTING DRIVEWAYS AND STREET CROSSING MAY ALSO SERVE AS PASSING SPACES.

11. THE BUFFER ZONE IS A PHYSICAL DISTANCE SEPARATING THE PEDESTRIAN ACCESS ROUTE FROM THE VEHICLE TRAVELED WAY. THE BUFFER ZONE MAY BE PLANTED OR PAVED.

12. WHEN CROSSING DRIVEWAYS, THE WORK SHALL BE IN CONFORMANCE WITH NHDOT DRIVEWAY DETAILS SHEET. THE CROSS SLOPE ACROSS DRIVEWAYS SHALL BE 2% MAXIMUM.

13. FOR ACCESSIBLE PEDESTRIAN SIGNAL PUSH BUTTONS, SEE DETAILS ON SHEET 8 OF 9.

14. FOR RAMP COUNTER SLOPE REQUIREMENTS, SEE DETAILS ON SHEET 9 OF 9.

CURB RAMP NOTES:

15. THE MINIMUM WIDTH OF A CURB RAMP SHALL BE 4.00′.

16. THE FULL WIDTH OF THE RAMP OR LANDING SHALL BE CONTAINED WITHIN THE PAVEMENT MARKINGS AT MARKED CROSSWALKS.

17. CURB RAMPS ARE NOT REQUIRED IN LOCATIONS WHERE THERE IS NO ACCESSIBLE PEDESTRIAN ACCESS ROUTE. UNLESS IT IS SERVING AS A LANDING FOR A PEDESTRIAN SIGNAL.

18. THE GRADE (RUNNING SLOPE) OF A CURB RAMP SHALL BE A MAXIMUM OF 8.3%.

19. WHERE EXISTING CONDITIONS DO NOT ALLOW THE CONSTRUCTION OF A CURB RAMP WITH A GRADE (RUNNING SLOPE) OF 8.3% OR LESS, THE RAMP LENGTH SHALL NOT BE REQUIRED TO EXCEED 15.00′.

20. THE CROSS SLOPE OF THE CURB RAMP SHALL BE AS FLAT AS POSSIBLE AND STILL PROVIDE POSITIVE DRAINAGE. THE CROSS SLOPE OF A CURB RAMP 2% MAXIMUM. SEE NOTE 9 FOR EXCEPTIONS. WHERE THE EXISTING ROADWAY GRADE EXCEEDS 2%, THE CURB RAMP MAY BE WARPED ACCORDING TO THE DETAIL ON SHEET 9 OF 9 TO TIE INTO THE ROADWAY GRADE.

21. RAMP SIDE TREATMENT OPTIONS ARE DETAILED ON SHEET 7 OF 9 FOR USE WITHIN THE BUFFER ZONE. WHERE A PEDESTRIAN CIRCULATION PATH CROSSES THE CURB RAMP, FLARED SIDES SHALL BE INSTALLED WITH A SLOPE OF 10% MAXIMUM. THE SLOPE OF FLARED SIDES IS MEASURED PARALLEL TO THE CURB LINE. (ALSO SEE CURB RAMP CONFIGURATION TYPE 7 ON SHEET 3 OF 9.)

22. THE BACKSIDE OF A PARALLEL RAMP SHOULD BE GRADED TO MATCH EXISTING TERRAIN, UNLESS OTHERWISE SHOWN IN THE CONTRACT DOCUMENTS. WHERE GRADING IS NOT FEASIBLE DUE TO LIMITED ROW OR PHYSICAL CONSTRAINTS, A BACK CURB MAY BE INSTALLED. SEE DETAILS ON SHEET 7 OF 9.

TURNING SPACE AND CLEAR SPACE NOTES:

23. WHERE A CHANGE IN DIRECTION IS REQUIRED TO UTILIZE A CURB RAMP, A TURNING SPACE SHALL BE PROVIDED AT THE BASE AND/OR THE TOP OF CURB RAMP AS APPLICABLE. TURNING SPACES SHALL BE PERMITTED TO OVERLAP CLEAR SPACES.

24. WHERE THERE ARE NO VERTICAL CONSTRAINTS AT THE BACK OF SIDEWALK, (E.G., VERTICAL CURB, BUILDINGS, FENCES) THE TURNING SPACE DIMENSIONS SHALL BE 4.00′ x 4.00′ MINIMUM. WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK OF SIDEWALK, THE TURNING SPACE SHALL BE 4.00′ X 5.00′ MINIMUM. THE 5.00′ DIMENSION SHALL BE PROVIDED PERPENDICULAR TO THE CONSTRAINT.

25. TURNING SPACE MAXIMUM CROSS SLOPE IS 2% IN ANY DIRECTION.

26. BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4.00′ x 4.00′ MINIMUM SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN CROSSWALK, AND OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. THE CLEAR SPACE MAY OVERLAP TURNING SPACES, DETECTABLE WARNING SURFACES, AND DROP CURBS.

DETECTABLE WARNING DEVICE NOTES:

27. DETECTABLE WARNING DEVICES (DWD) SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS ON PEDESTRIAN ACCESS ROUTES:

   A. CURB RAMPS AT PEDESTRIAN CROSSINGS.

   B. PEDESTRIAN REFUGE ISLANDS (WHERE THE LENGTH OF THE PEDESTRIAN ACCESS ROUTE ACROSS THE REFUGE ISLAND IS GREATER THAN OR EQUAL TO 6.00′). SEE SHEET 8 OF 9.

   C. PEDESTRIAN AT-GRADE RAIL CROSSINGS NOT LOCATED WITHIN A STREET OR HIGHWAY.

   D. DRIVEWAY CROSSINGS WITH NHDOT APPROVED AND MAINTAINED SIGNALS, YIELD OR STOP CONTROL. DETECTABLE WARNING DEVICES SHALL NOT BE PROVIDED AT CROSSINGS OF UNCONTROLLED DRIVEWAY APRONS.

28. SOME DETECTABLE WARNING PRODUCTS REQUIRE A CONCRETE BORDER FOR PROPER INSTALLATION. IF REQUIRED, THE BORDER SHALL NOT EXCEED 2" IN WIDTH OR 6" ALONG ROADWAY EDGE/CURB. THE BORDER DIMENSION SHALL BE MEASURED FROM THE INSIDE EDGE OF THE RADIUS.

29. THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE. THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING DEVICE DETAIL IS FOR ILLUSTRATION ONLY. THE SIZE OF THE DETECTABLE WARNING FIELD SHALL BE 2.00′ MINIMUM IN THE DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE, EXCLUDING ANY FLARED SIDES. THE WIDTH OF THE DETECTABLE WARNING FIELD INCLUDES A CONCRETE BORDER, IF PROVIDED. PLACEMENT AND ORIENTATION SHALL BE IN COMPLIANCE WITH THE DETAILS.

30. ON SLOPES OF 5% OR GREATER, THE ROWS OF DOMES SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE LOWER GRADE BREAK ON THE RAMP RUN. WHERE DOMES ARE ARRAYED RADIALLY THEY MAY DIFFER IN DOME DIAMETER AND CENTER-TO-CENTER SPACING WITHIN THE RANGES SPECIFIED ON SHEET 9. ON SLOPES LESS THAN 5%, DOME ORIENTATION IS LESS CRITICAL AND MAY DIFFER FROM PERPENDICULAR OR RADIAL ALIGNMENT TO THE GRADE BREAK.

31. THE DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT GUTTER, STREET OR HIGHWAY, OR PEDESTRIAN ACCESS ROUTE SURFACE.

32. DETECTABLE WARNING PANELS SHALL BE CAST IRON WITH NO SURFACE COATING AND SHALL BE ALLOWED TO TRANSITION TO THEIR NATURAL PATINA.

DEFINITION OF TERMS:

LANDING: A 4.00′ X 4.00′ CLEAR SPACE WITH A 2% SLOPE OR LESS IN ALL DIRECTIONS.

MAXIMUM EXTENT FEASIBLE: ALL CHANGES THAT ARE POSSIBLE ARE MADE TO COMPLY WITH ACCESSIBILITY STANDARDS.

PEDESTRIAN ACCESS ROUTE (PAR): A CONTINUOUS AND UNOBSTRUCTED PATH OF TRAVEL PROVIDED FOR PEDESTRIANS WITH DISABLITIES WITHIN OR COINCIDING WITH A PEDESTRIAN CIRCULATION PATH. PAR SHALL BE 4'W MIN.(EXCLUDING CURBING), 2% MAX. CROSS SLOPE AND 1/4" OR LESS VERTICAL DISCONTINUITY.

TECHNICAL INFEASIBILITY: EXISTING PHYSICAL OR SITE CONSTRAINTS THAT PROHIBIT MODIFICATIONS OR ADDITIONS OF ELEMENTS, SPACES OR FEATURES TO COMPLY WITH MINIMUM ACCESSIBILITY REQUIREMENTS.

INDEX OF SHEETS

1 OF 9	INDEX OF SHEETS AND GENERAL NOTES
2 OF 9	CURB RAMP CONFIGURATIONS TYPE 1 - 5
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4 OF 9	CURB RAMP CONFIGURATIONS TYPE 8 - 11
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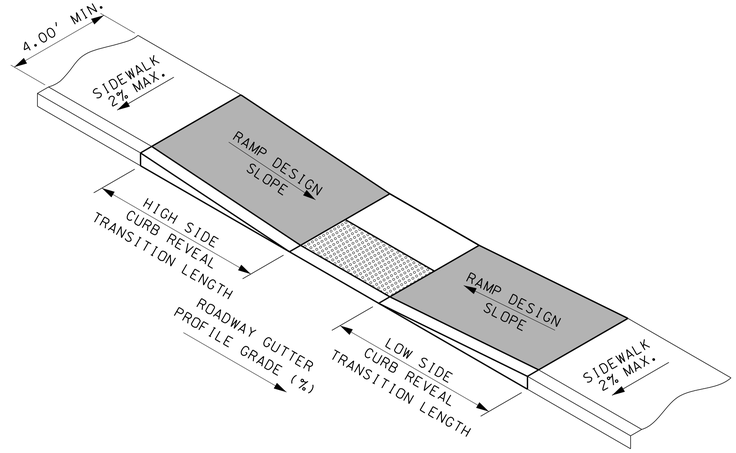
6 OF 9	DETECTABLE WARNING DEVICE PLACEMENT OPTIONS
7 OF 9	RAMP SIDE CONFIGURATIONS AND BACK TREATMENTS
8 OF 9	RR X-INGS, ROUNDABOUTS, PEDESTRIAN BUTTONS
9 OF 9	DETECTABLE WARNING DEVICE, TRUNCATED DOMES, MISCELLANEOUS DETAILS



TYPICAL CURB TRANSITION LENGTH TABLE

CURB REVEAL (INCHES)		7	6	5	4	3	2	1
	ROADWAY PROFILE GRADE (%)	Minimum Transition Length Required (FT)						
Low Side Transition Length	-10%	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	-9%	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	-8%	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	-7%	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	-6%	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	-5%	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	-4%	5.1	5.0	5.0	5.0	5.0	5.0	5.0
	-3%	5.6	5.0	5.0	5.0	5.0	5.0	5.0
	-2%	6.1	5.3	5.0	5.0	5.0	5.0	5.0
	-1%	6.9	5.9	5.0	5.0	5.0	5.0	5.0
	0%	7.8	6.7	5.6	5.0	5.0	5.0	5.0
High Side Transition Length	1%	9.0	7.7	6.4	5.1	5.0	5.0	5.0
	2%	10.6	9.1	7.6	6.1	5.0	5.0	5.0
	3%	13.0	11.1	9.3	7.4	5.6	5.0	5.0
	4%	15.0	14.3	11.9	9.5	7.1	5.0	5.0
	5%	15.0	15.0	15.0	13.3	10.0	6.8	5.0
	6%	15.0	15.0	15.0	15.0	15.0	11.3	5.3
	7%	15.0	15.0	15.0	15.0	15.0	15.0	15.0
	8%	15.0	15.0	15.0	15.0	15.0	15.0	15.0
	9%	15.0	15.0	15.0	15.0	15.0	15.0	15.0
	10%	15.0	15.0	15.0	15.0	15.0	15.0	15.0

THIS TABLE REPRESENTS THE MINIMUM LENGTH OF CURB RAMP TRANSITION BASED ON THE EXISTING ROADWAY PROFILE GRADE AND THE CURB REVEAL AT FULL HEIGHT ALONG THE SIDEWALK. THE MINIMUM TRANSITION LENGTH REQUIRED IS BASED ON 7.5% SLOPE AND INDICATED CURB REVEAL.

TREATMENT KEY LEGEND

(RESURFACING STYLE PROJECTS)

#-#-$-$

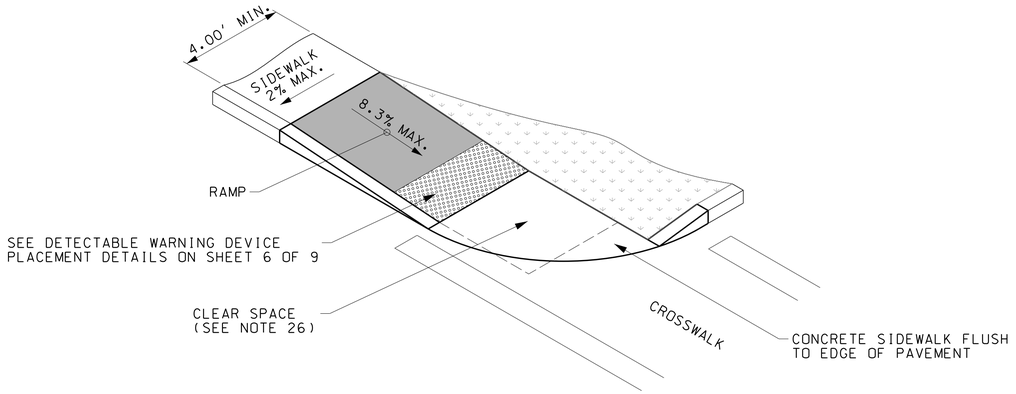
- RAMP BACK TREATMENT OPTION - SEE SHEET 7
- RAMP SIDE CONFIGURATION - SEE SHEET 7
- DETECTABLE WARNING DEVICE PLACEMENT - SEE SHEET 6
- RAMP CONFIGURATION TYPE - SEE SHEETS 2-5

(X = OMIT THIS OPTION)

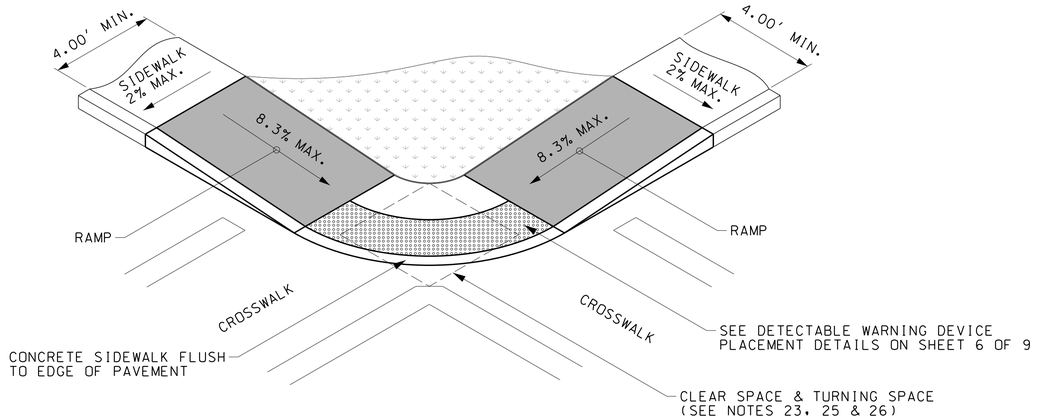
STATE OF NEW HAMPSHIRE
SPECIAL DETAILS
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

SIDEWALK CURB RAMP DETAILS (SHEET 1 OF 9)

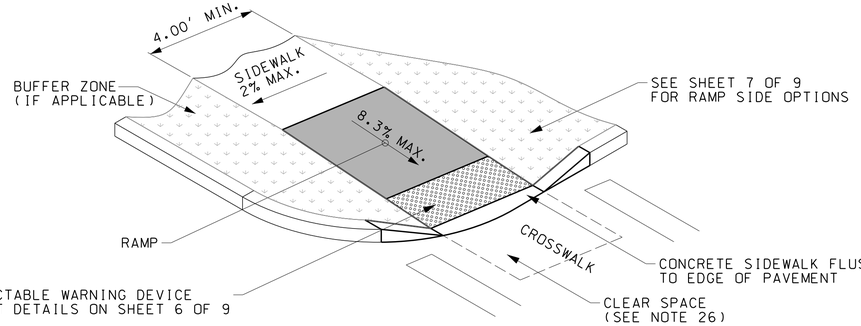
REVISION DATE	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
6-18-18	Curb-Ramp-1	crb_ramp_1-9	_	1	9



TYPE 1



TYPE 4
NOT FOR NEW DESIGNS - RETROFITS ONLY



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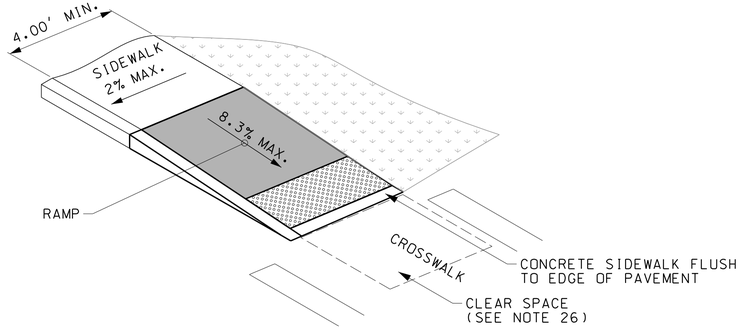
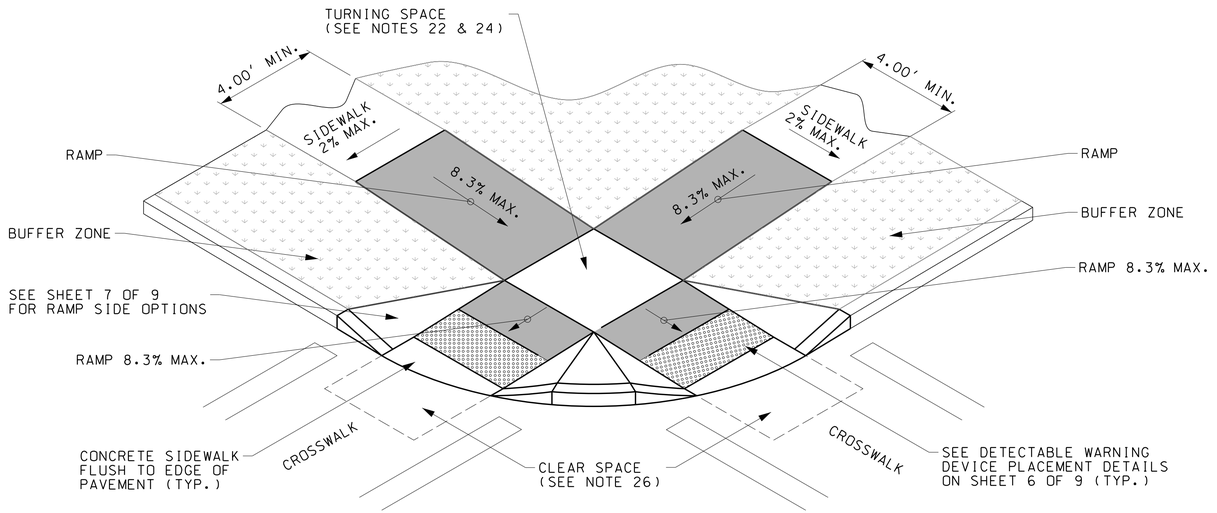


TYPE 3



TYPE 5

CURB RAMP CONFIGURATIONS

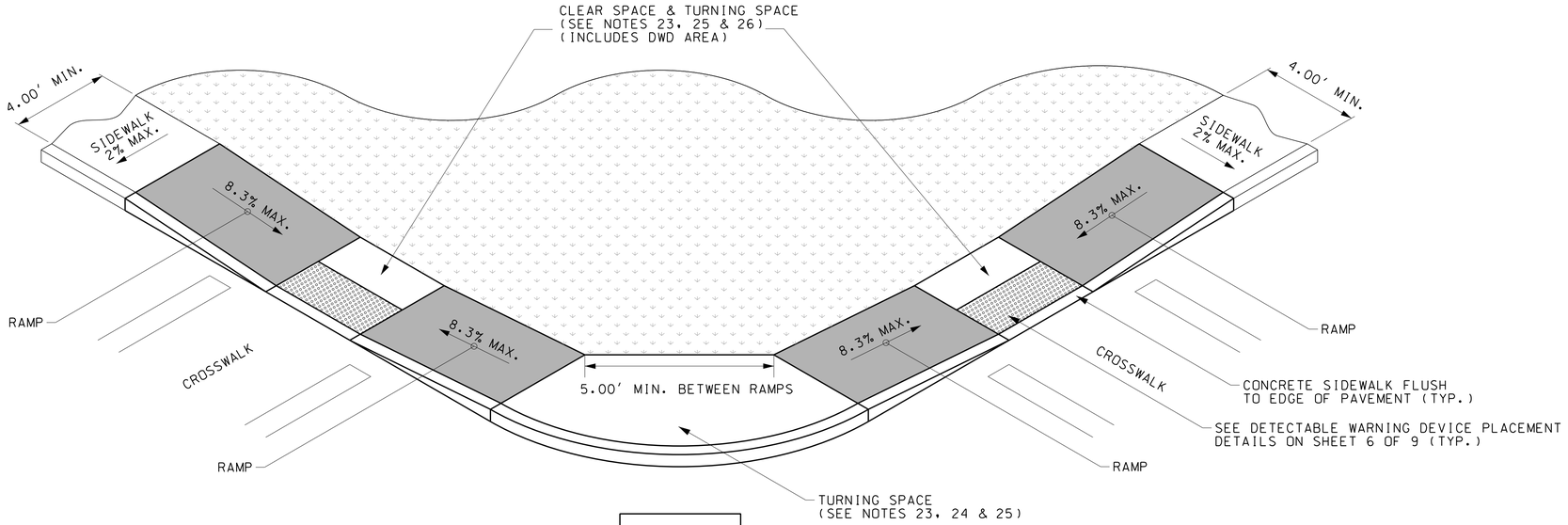
NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON SIDEWALK CURB RAMP DETAILS, SHEET 1 OF 9.

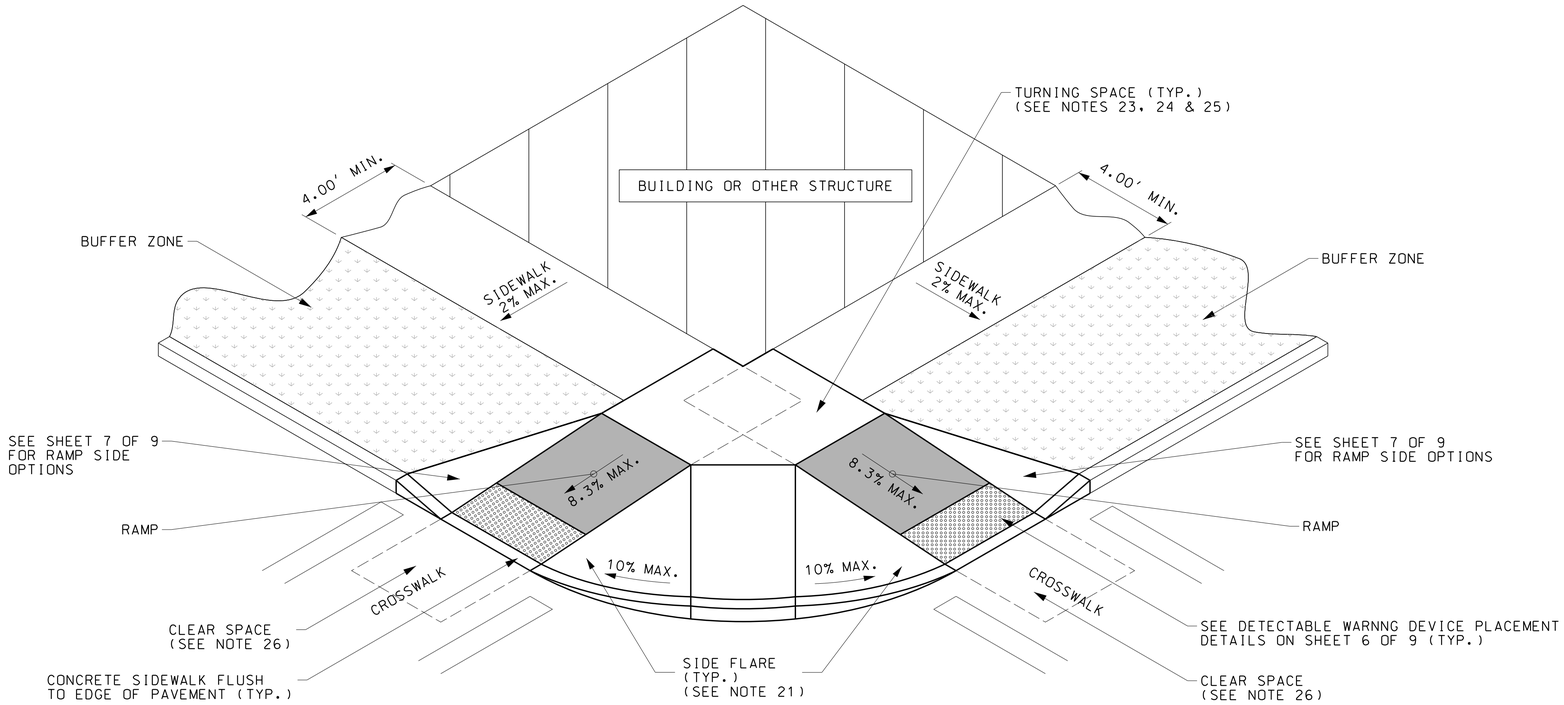
STATE OF NEW HAMPSHIRE
SPECIAL DETAILS
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

SIDEWALK CURB RAMP DETAILS (SHEET 2 OF 9)

REVISION DATE	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
7-2-18	Curb-Ramp-2	crb_ramp_1-9	_	2	9



TYPE 6



TYPE 7

CURB RAMP CONFIGURATIONS

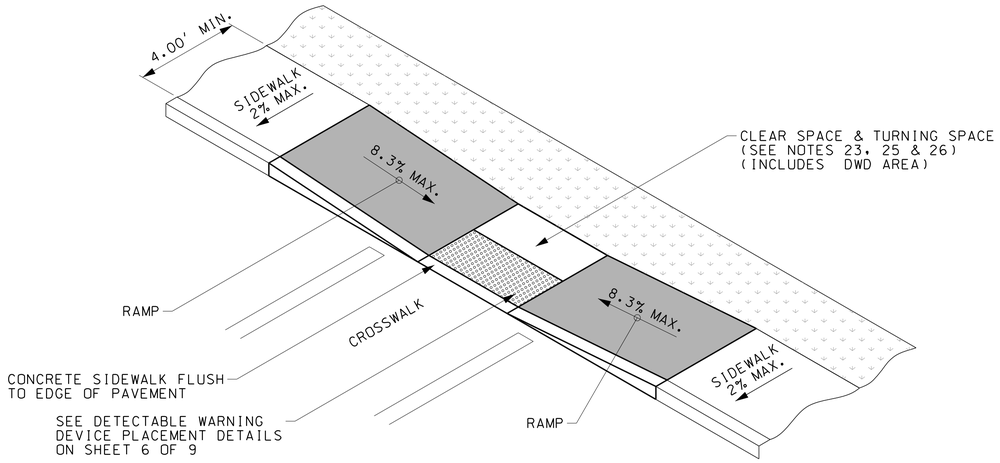
NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON SIDEWALK CURB RAMP DETAILS, SHEET 1 OF 9.

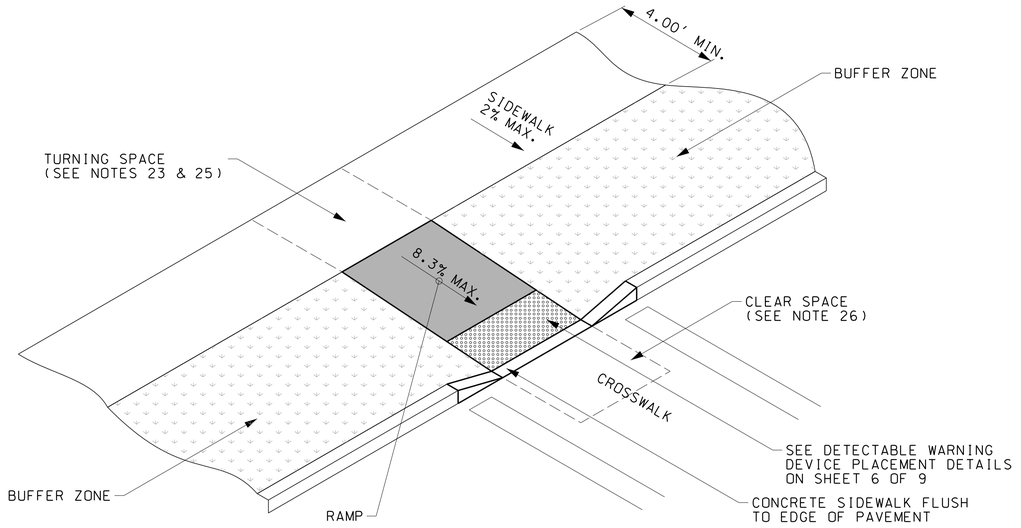
STATE OF NEW HAMPSHIRE
SPECIAL DETAILS
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

SIDEWALK CURB RAMP DETAILS (SHEET 3 OF 9)

REVISION DATE	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
6-18-18	Curb-Ramp-3	crb_ramp_1-9	_	3	9



TYPE 8
MID BLOCK CROSSING OR T INTERSECTION



TYPE 10
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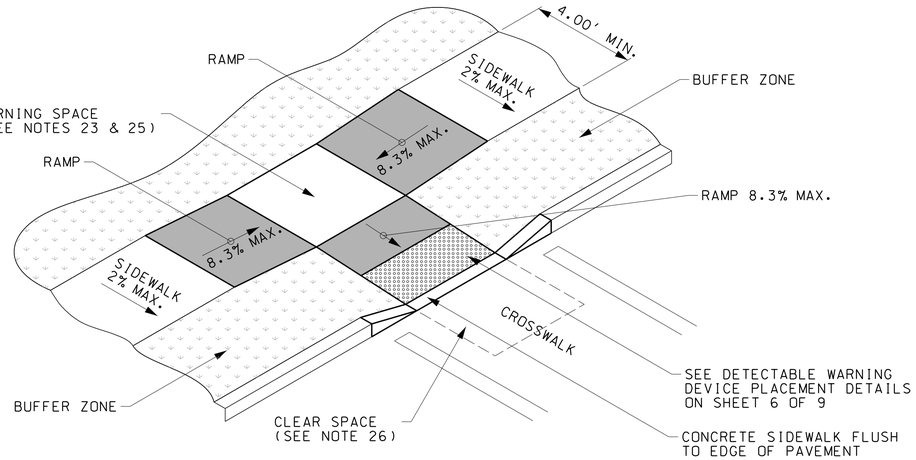

TYPE 9
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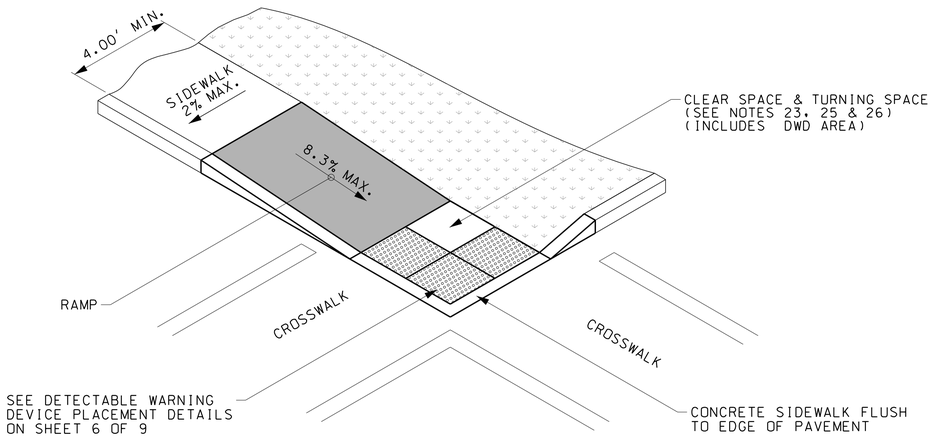


TYPE 11

CURB RAMP CONFIGURATIONS

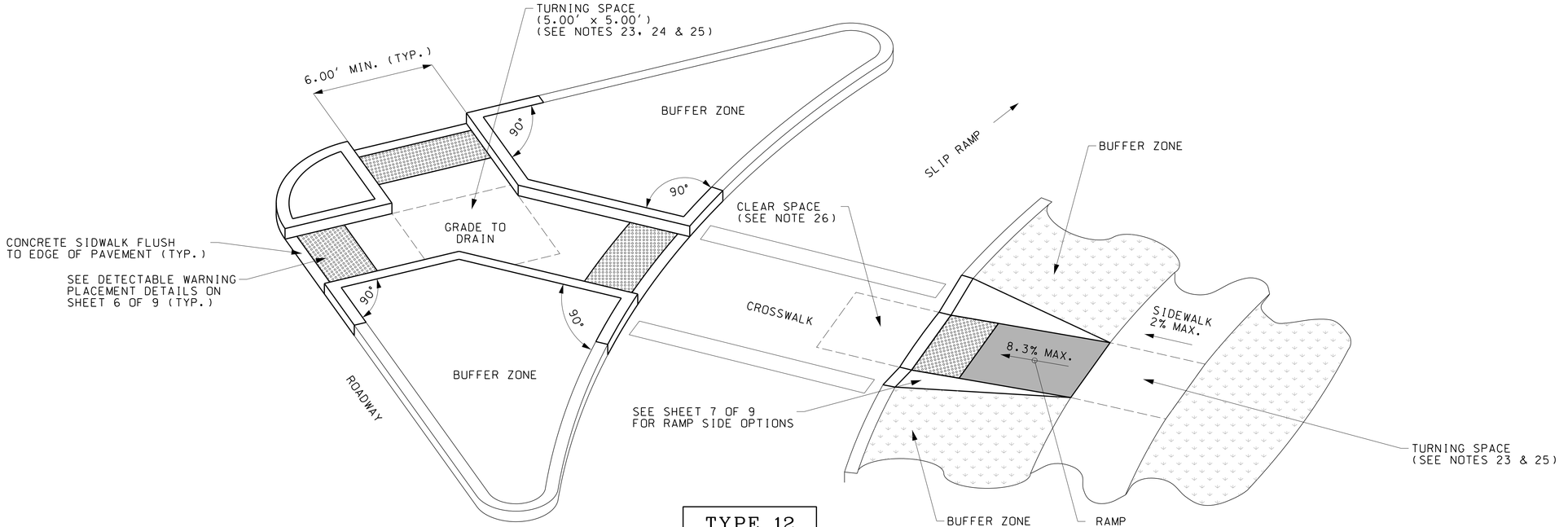
NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON SIDEWALK CURB RAMP DETAILS, SHEET 1 OF 9.

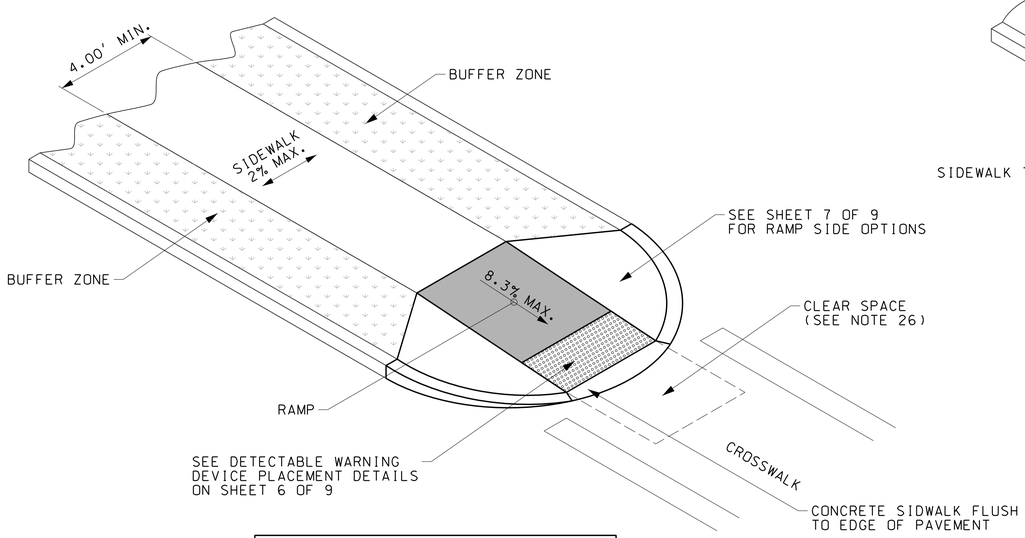
STATE OF NEW HAMPSHIRE
SPECIAL DETAILS
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

SIDEWALK CURB RAMP DETAILS (SHEET 4 OF 9)

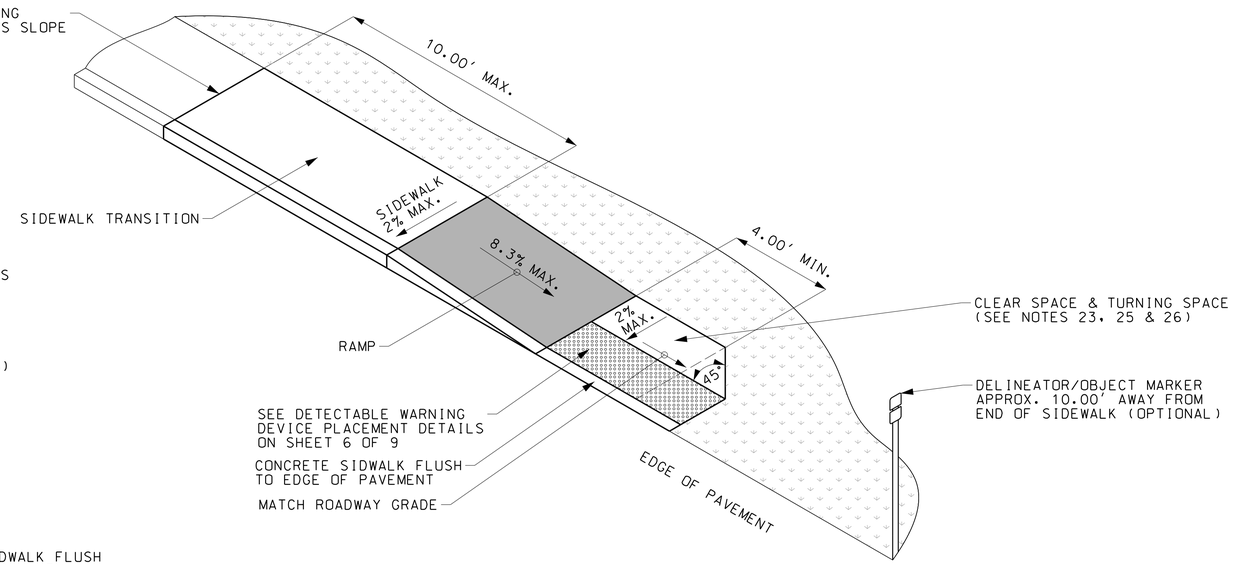
REVISION DATE	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
6-18-18	Curb-Ramp-4	crb_ramp_1-9	_	4	9



TYPE 12
SLIP RAMP



TYPE 13
ACCESS ISLAND CURB RAMP



TYPE 14
SIDEWALK TO SHOULDER TRANSITION

CURB RAMP CONFIGURATIONS

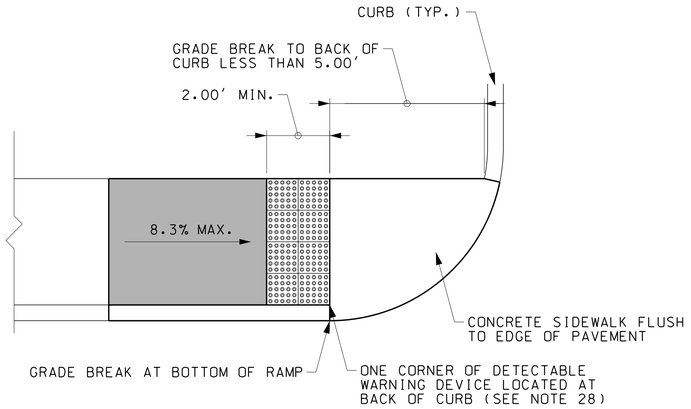
NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON SIDEWALK CURB RAMP DETAILS, SHEET 1 OF 9.

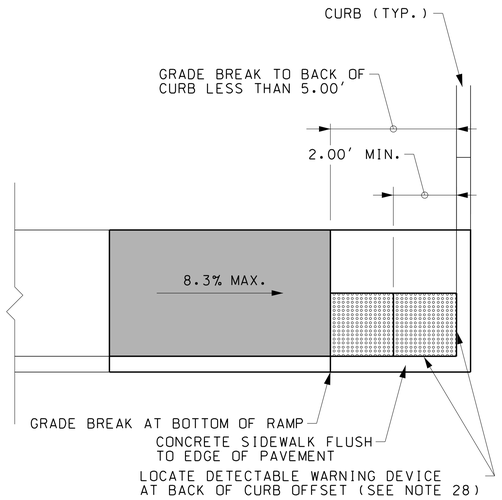
STATE OF NEW HAMPSHIRE
SPECIAL DETAILS
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

SIDEWALK CURB RAMP DETAILS (SHEET 5 OF 9)

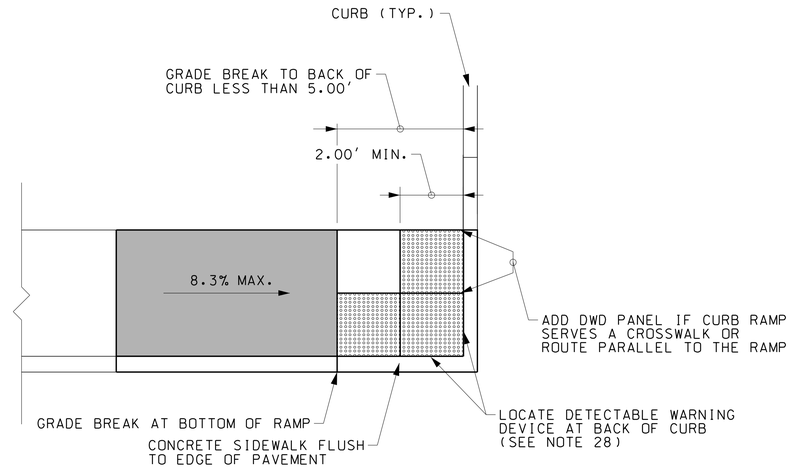
REVISION DATE	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
6-18-18	Curb-Ramp-5	crb_ramp_1-9	_	5	9



OPTION 1

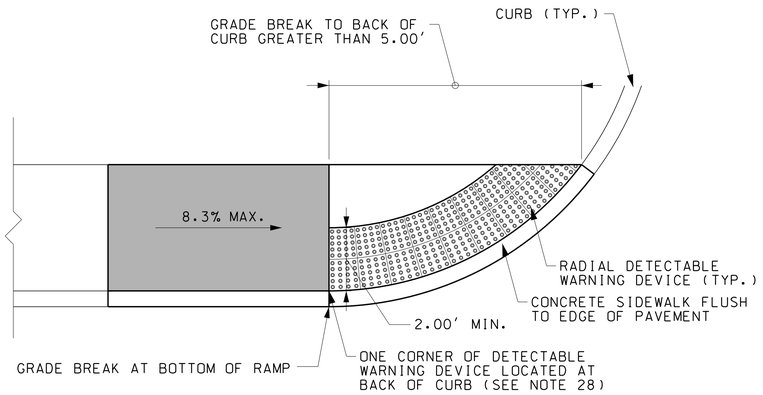


OPTION 2

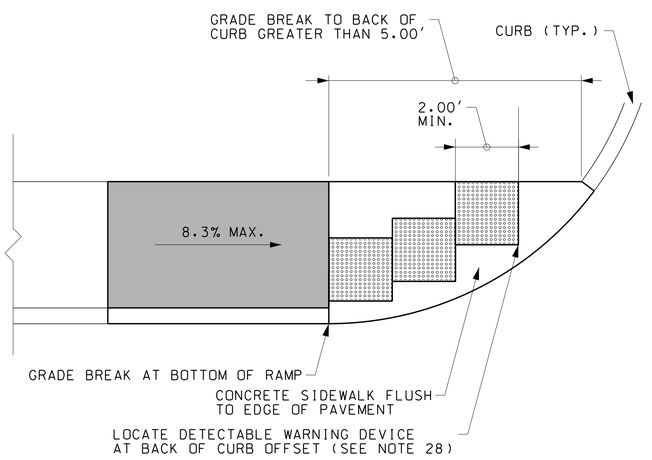


OPTION 2A

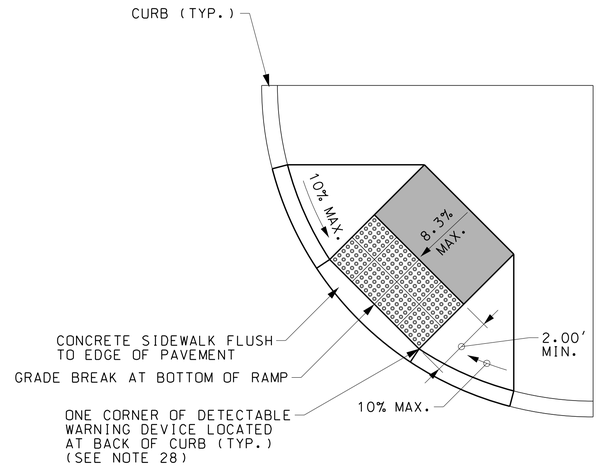
GRADE BREAK TO BACK OF CURB LESS THAN 5.00'



OPTION 3



OPTION 4



OPTION 5

GRADE BREAK TO BACK OF CURB GREATER THAN 5.00'

DETECTABLE WARNING DEVICE (DWD) PLACEMENT OPTION DETAILS

NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON SIDEWALK CURB RAMP DETAILS, SHEET 1 OF 9.

STATE OF NEW HAMPSHIRE
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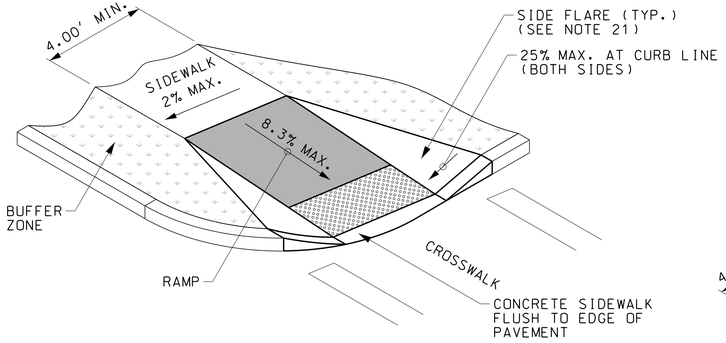
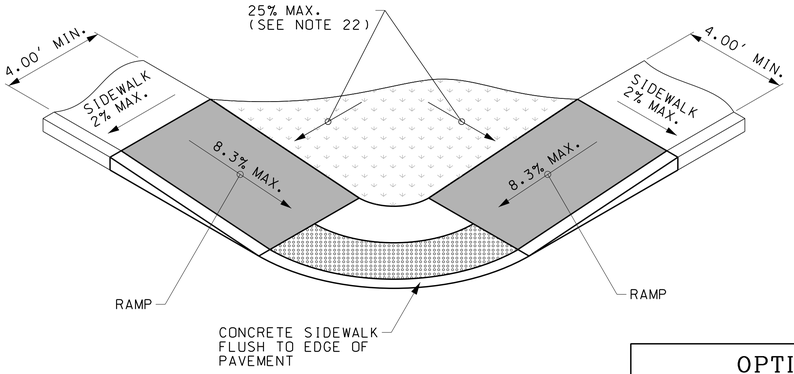
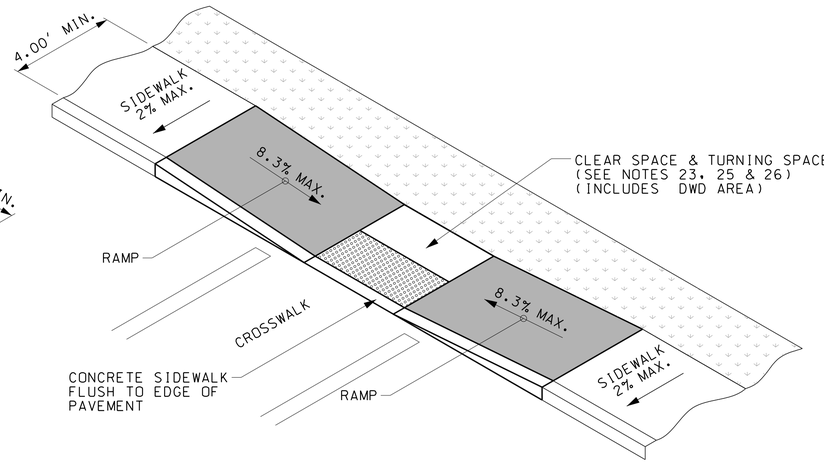
SIDEWALK CURB RAMP DETAILS (SHEET 6 OF 9)

REVISION DATE	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
6-18-18	Curb-Ramp-6	crb_ramp_1-9	_	6	9

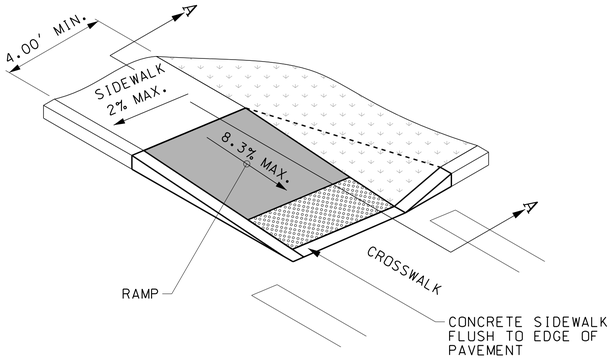


OPTION A
FLARED CONCRETE

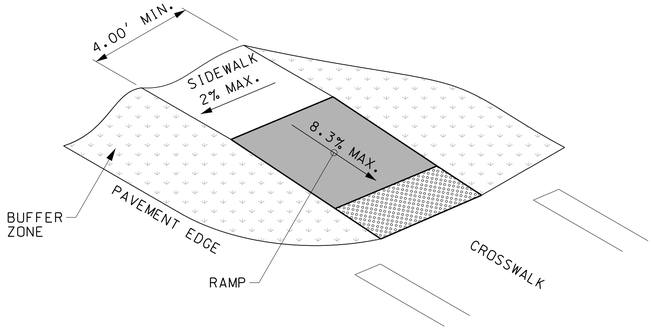




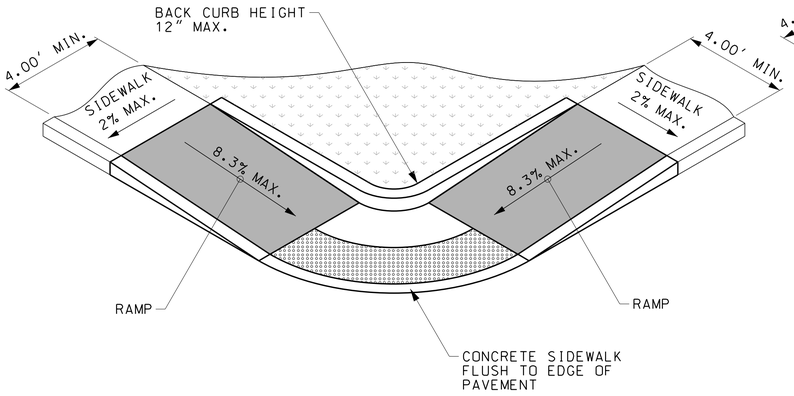
OPTION A
GRADED EARTH AND TURF

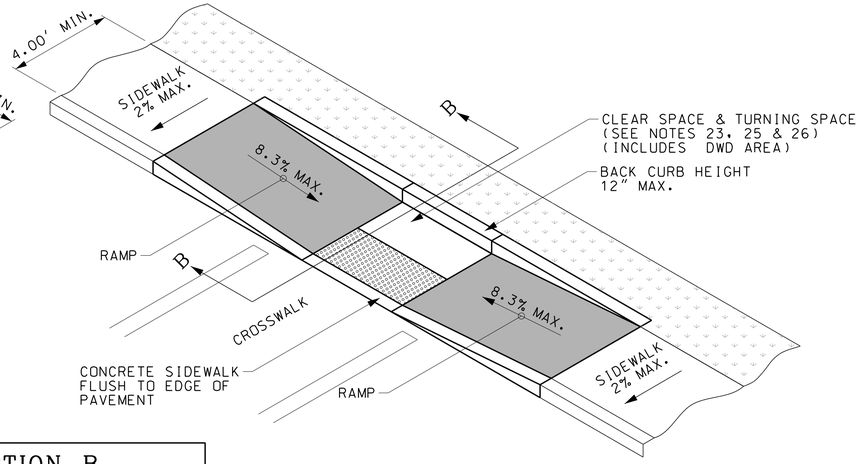


OPTION B
GRADED EARTH



OPTION C
UNCURBED INTERSECTION





OPTION B
BACK CURB

RAMP SIDE CONFIGURATIONS

RAMP BACK TREATMENTS

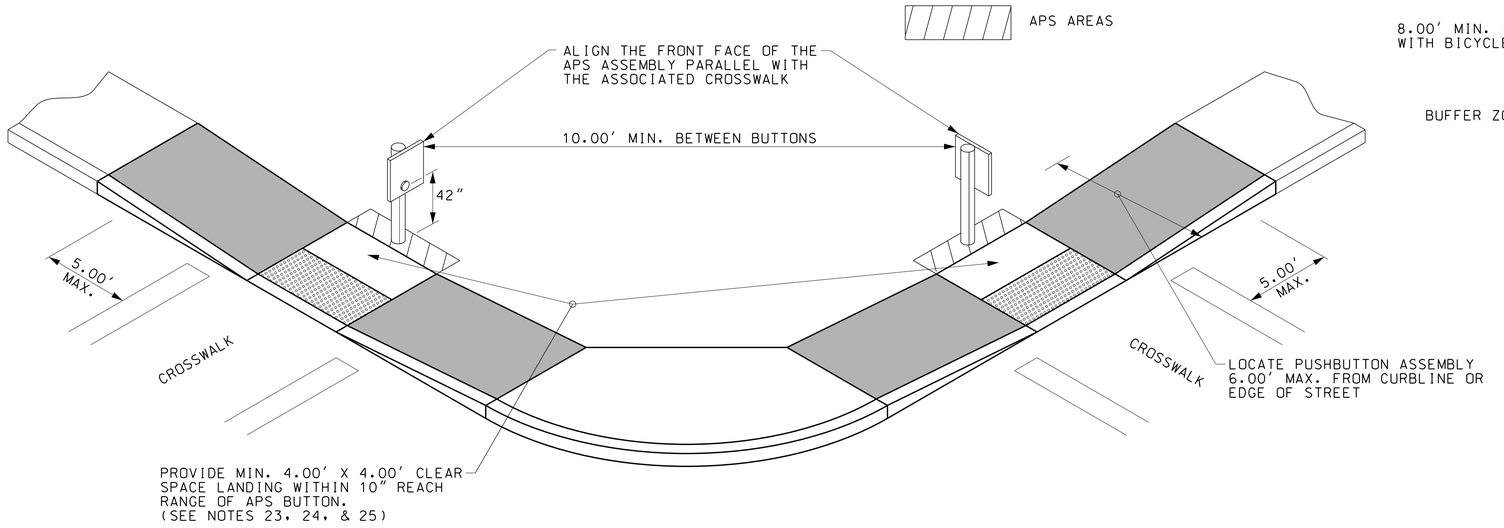
NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON SIDEWALK CURB RAMP DETAILS, SHEET 1 OF 9.

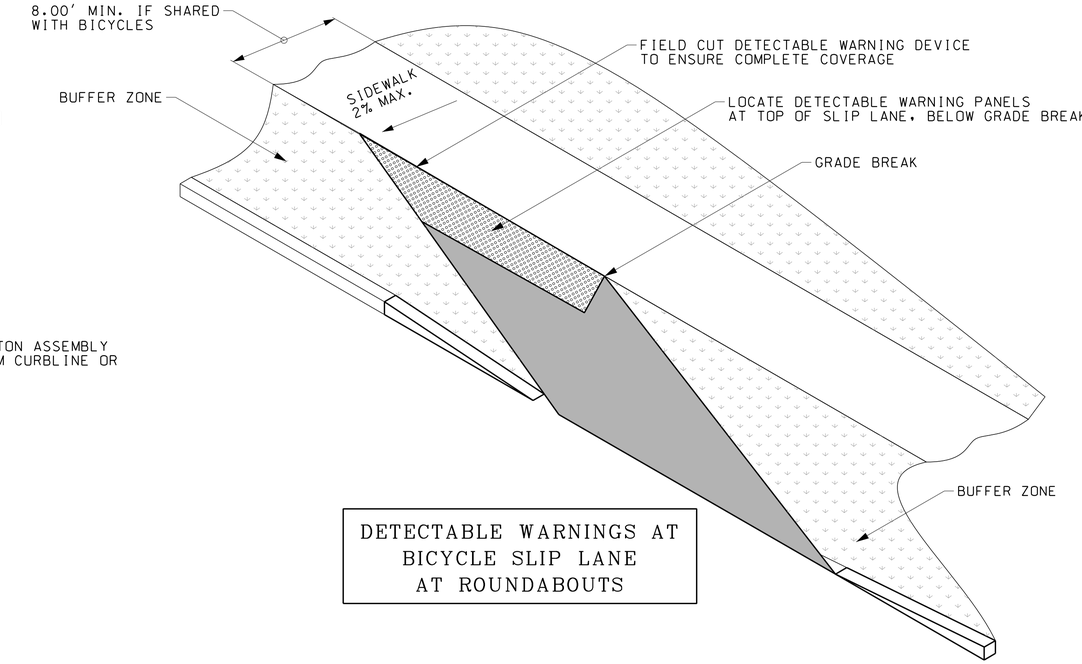
STATE OF NEW HAMPSHIRE
SPECIAL DETAILS
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

SIDEWALK CURB RAMP DETAILS (SHEET 7 OF 9)

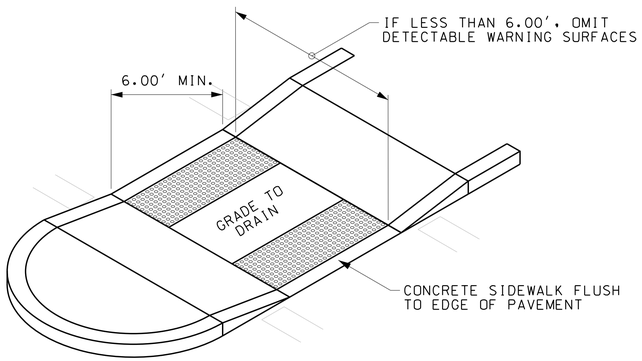
REVISION DATE	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
6-18-18	Curb-Ramp-7	crb_ramp_1-9	_	7	9



ACCESSIBLE PEDESTRIAN SIGNAL (APS) PUSHBUTTON LOCATION

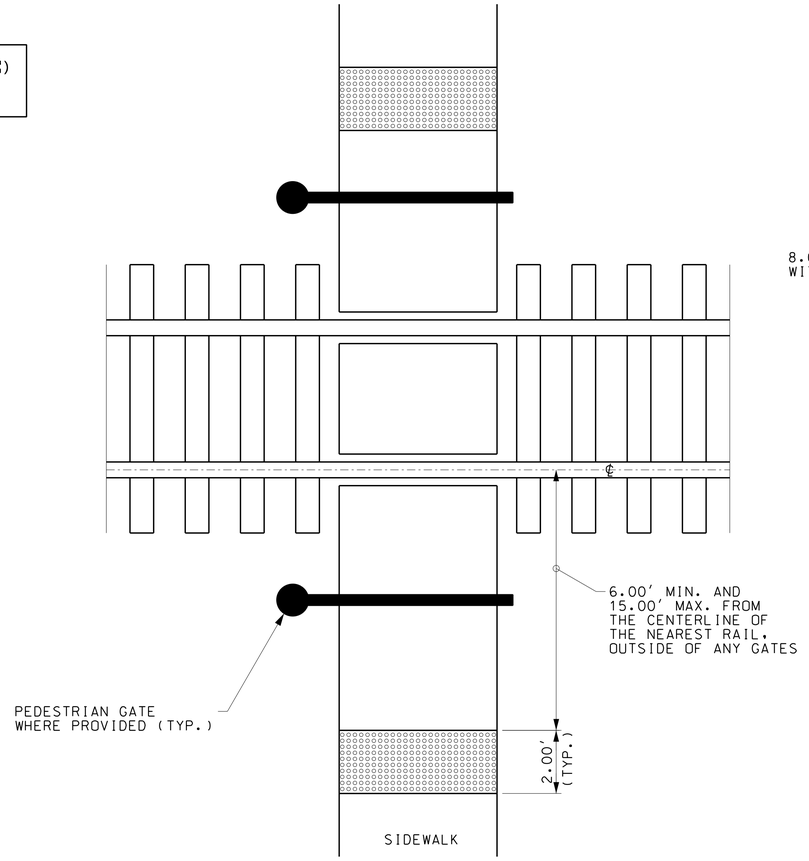


DETECTABLE WARNINGS AT BICYCLE SLIP LANE AT ROUNDABOUTS

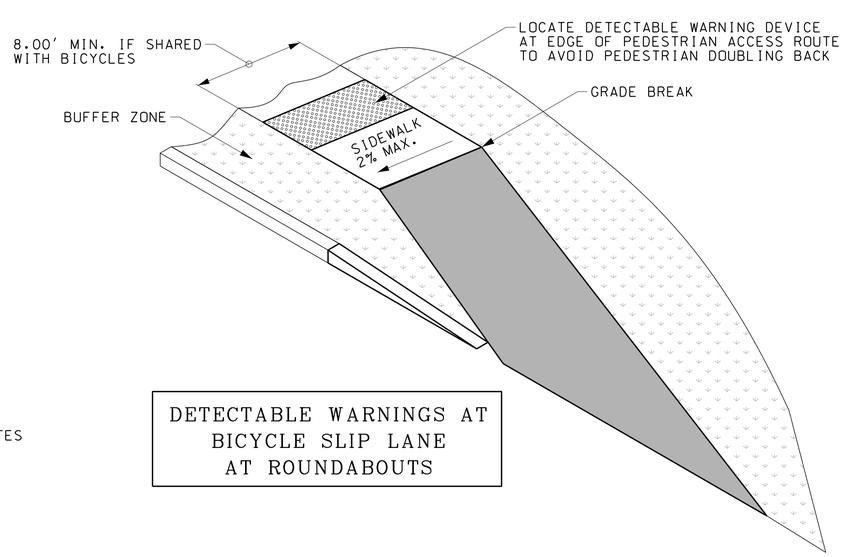


DETECTABLE WARNINGS AT PEDESTRIAN REFUGE ISLANDS

NON-ELEVATED CROSSING



DETECTABLE WARNINGS AT RAILROAD CROSSING



DETECTABLE WARNINGS AT BICYCLE SLIP LANE AT ROUNDABOUTS

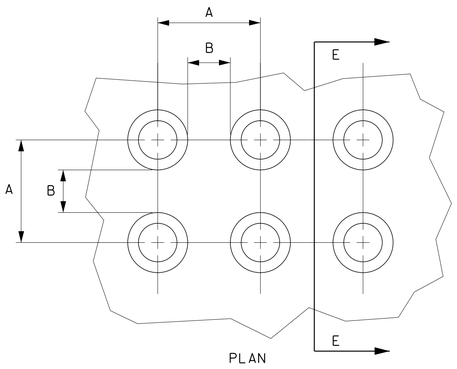
NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON SIDEWALK CURB RAMP DETAILS, SHEET 1 OF 9.

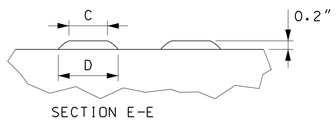
STATE OF NEW HAMPSHIRE
SPECIAL DETAILS
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

SIDEWALK CURB RAMP DETAILS (SHEET 8 OF 9)

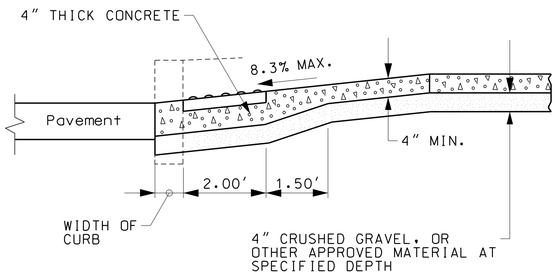
REVISION DATE	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
6-18-18	Curb-Ramp-8	crb_ramp_1-9	_	8	9



TRUNCATED DOME DIMENSIONS		
DIM.	MIN. (IN)	MAX. (IN)
A	1.6"	2.4"
B	0.65"	1.5"
C	50% - 65% OF D DIM.	
D	0.9"	1.4"

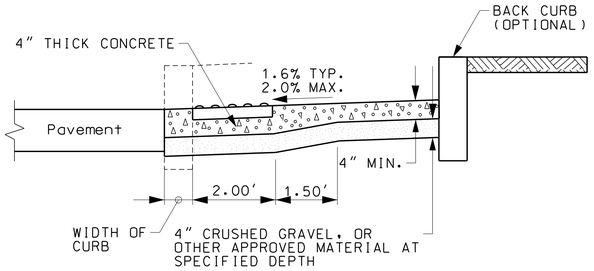


DETECTABLE WARNING DEVICES (DWD) TRUNCATED DOME DETAILS



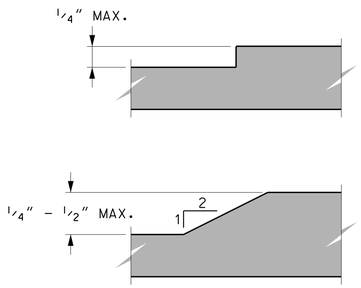
SECTION A-A

SEE SHEET 7 OF 9



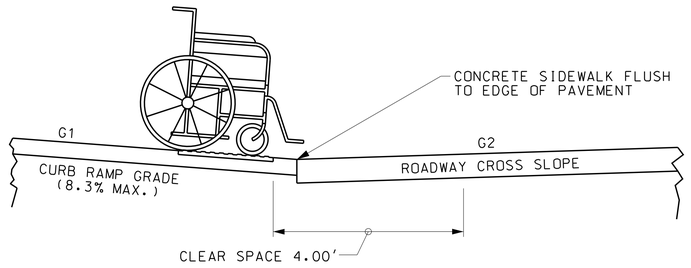
SECTION B-B

SEE SHEET 7 OF 9



VERTICAL SURFACE DISCONTINUITIES

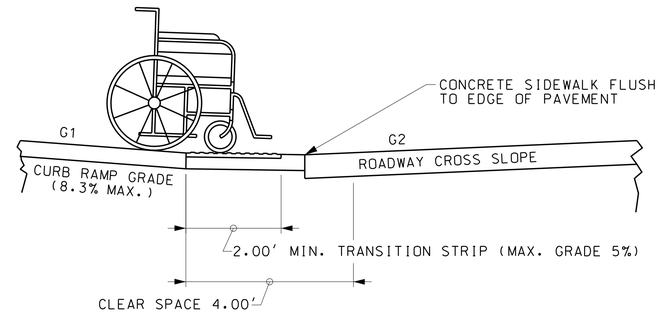
SEE NOTE 5



COUNTER SLOPE CONDITION 1

A = G2 - G1

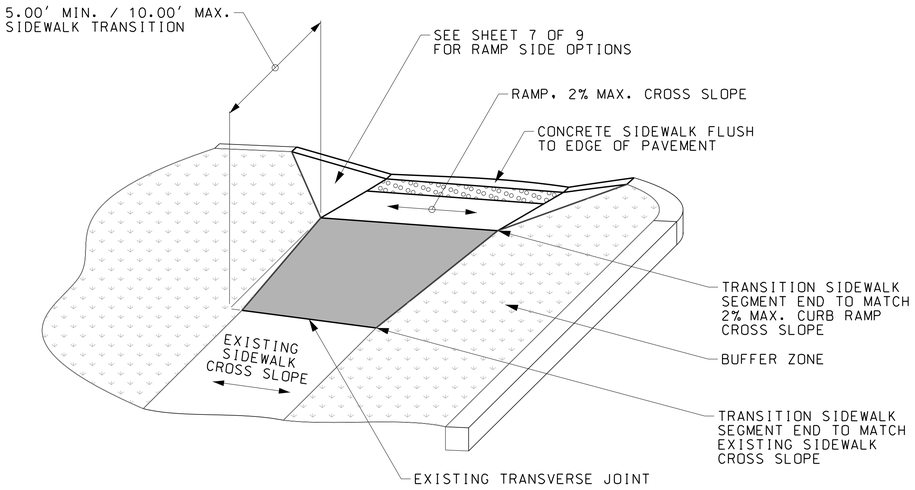
ALGEBRAIC DIFFERENCE (A) BETWEEN ROADWAY CROSS SLOPE AND CURB RAMP GRADE IS LESS THAN 13.3%.



COUNTER SLOPE CONDITION 2

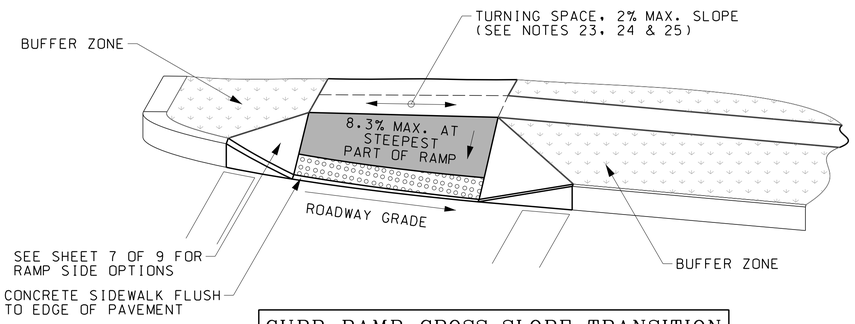
A = G2 - G1

ALGEBRAIC DIFFERENCE (A) BETWEEN ROADWAY SLOPE AND CURB RAMP GRADE IS GREATER THAN 13.3%. TRANSITION STRIP REQUIRED (MAX. GRADE 5%)



TRANSITION BETWEEN CURB RAMP AND EXISTING SIDEWALK

USE FOR CROSS SLOPE AND WIDTH TRANSITIONS



CURB RAMP CROSS SLOPE TRANSITION

REFER TO NOTE 20 FOR CROSS SLOPE REQUIREMENTS

NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON SIDEWALK CURB RAMP DETAILS, SHEET 1 OF 9.

STATE OF NEW HAMPSHIRE
SPECIAL DETAILS
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

SIDEWALK CURB RAMP DETAILS (SHEET 9 OF 9)

REVISION DATE	MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
6-18-18	Curb-Ramp-9	crb_ramp_1-9	_	9	9