BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

PROJECT #2020-4-1

APRIL 2020

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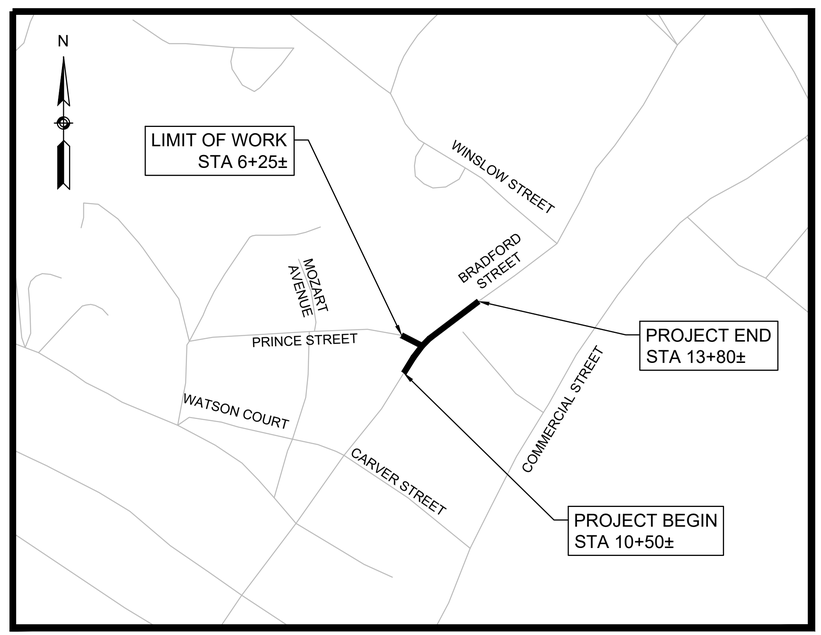
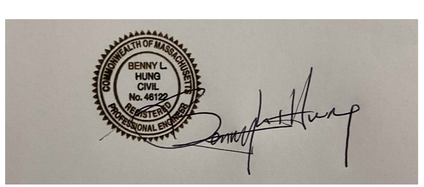


LOCUS

SCALE: 1" = 500' APPROX.



PREPARED FOR:

TOWN OF PROVINCETOWN
DEPARTMENT OF PUBLIC WORKS
2 MAYFLOWER STREET
PROVINCETOWN, MA 02657

PREPARED BY:

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ENVIRONMENTAL PARTNERS

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
JB	JB	JERSEY BARRIER
CB	CB	CATCH BASIN
		CATCH BASIN CURB INLET
FP	FP	FLAG POLE
		GAS PUMP
MB	MB	MAIL BOX
		POST SQUARE
EHH	EHH	ELECTRIC HANDHOLE
		FENCE GATE POST
GG	GG	GAS GATE
BHL #		BORING HOLE
		HYDRANT
		LIGHT POLE
CO.BD.		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
MHB	MHB	MASSACHUSETTS HIGHWAY BOUND
MON		MONUMENT
SB		STONE BOUND
TB		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
UFB	UFB	UTILITY POLE W/ FIREBOX
UPDL	UPDL	UTILITY POLE WITH DOUBLE LIGHT
ULT	ULT	UTILITY POLE W / 1 LIGHT
UPL	UPL	UTILITY POLE
		BUSH
•SIZE & TYPE		TREE
		STUMP
		SWAMP / MARSH
WG	WG	WATER GATE
PM	PM	PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
100 99		CONTOURS (ON-THE-GROUND SURVEY DATA)
100 99		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
x	x	CHAIN LINK OR METAL FENCE
		WOOD FENCE
		HAY BALES/SILT FENCE
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT

TRAFFIC SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
1	1	CONTROLLER PHASE ACTUATED
		TRAFFIC SIGNAL HEAD (SIZE AS NOTED)
		WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)
		VIDEO DETECTION CAMERA
		MICROWAVE DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
	*	EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
RRSG	RRSG	RAILROAD SIGNAL
OR		SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)
	20'	MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)
		HIGH MAST POLE OR TOWER
		SIGN AND POST
		SIGN AND POST (2 POSTS)
	20'	MAST ARM WITH LUMINAIRE
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		CONTROL CABINET, POLE MOUNTED
		FLASHING BEACON CONTROL AND METER PEDESTAL
		LOAD CENTER ASSEMBLY
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
ONLY	ONLY	LEGEND "ONLY" - WHITE
	SL	STOP LINE
	CW	CROSSWALK
	SWL	SOLID WHITE LINE
	SYL	SOLID YELLOW LINE
	BWL	BROKEN WHITE LINE
	BYL	BROKEN YELLOW LINE
	DWL	DOTTED WHITE LINE
	DYL	DOTTED YELLOW LINE
	DWLEx	DOTTED WHITE LINE EXTENSION
	DYLEx	DOTTED YELLOW LINE EXTENSION
	DBWL	DOUBLE WHITE LINE
	DBYL	DOUBLE YELLOW LINE

ABBREVIATIONS

GENERAL

AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
BB	
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CRW	CONCRETE RETAINING WALL
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
L	LENGTH OF CURVE
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PKF	PICKET FENCE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PRF	POST AND RAIL FENCE
PROJ	PROJECT
PROP	PROPOSED
PT	POINT OF TANGENCY

ABBREVIATIONS (cont.)

GENERAL

PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SHLDR	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SMRW	STONE MASONRY RETAINING WALL
SRW	STONE RETAINING WALL
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UGE	UNDERGROUND ELECTRIC
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
VCC	VERTICAL CONCRETE CURB
WCR	WHEEL CHAIR RAMP
WG	WATER GATE
WIF	WROUGHT IRON FENCE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN

TRAFFIC SIGNAL

CAB.	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
DW	STEADY DON'T WALK
FDW	FLASHING DON'T WALK
FR	FLASHING CIRCULAR RED
FRL	FLASHING RED LEFT ARROW
FRR	FLASHING RED RIGHT ARROW
FY	FLASHING CIRCULAR AMBER
FYL	FLASHING AMBER LEFT ARROW
FYR	FLASHING AMBER RIGHT ARROW
G	STEADY CIRCULAR GREEN
GL	STEADY GREEN LEFT ARROW
GR	STEADY GREEN RIGHT ARROW
GSL	STEADY GREEN SLASH LEFT ARROW
GSR	STEADY GREEN SLASH RIGHT ARROW
GV	STEADY GREEN VERTICAL ARROW
OL	OVERLAP
PED	PEDESTRIAN
PTZ	PAN, TILE, ZOOM
R	STEADY CIRCULAR RED
RL	STEADY RED LEFT ARROW
RR	STEADY RED RIGHT ARROW
TR SIG	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	STEADY WALK
Y	STEADY CIRCULAR AMBER
YL	STEADY AMBER LEFT ARROW

ENVIRONMENTAL PARTNERS

MARK	DATE	DESCRIPTION

Scale	AS NOTED
Date	MARCH 2020
Job No.	115-2003
Designed by	JRC
Drawn by	JRC
Checked by	BLH
Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

LEGEND & ABBREVIATIONS

Sheet No. 02

Drawing file: I:\Provincetown.115\115-2003 - Task Order 12- Bradford at Prince Pedestrian Accommodation\ACAD\Sheet\LEGEND.dwg Plot Date: Mar 19,2020-5:37pm

SURVEY NOTES:

1. THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AN ON-THE-GROUND SURVEY PERFORMED BY LANDTECH CONSULTANT BETWEEN FEBRUARY 2018 AND MARCH 2018 .
2. BEARINGS AND DISTANCES AND THE COORDINATES THEY ARE BASED ON SHOWN ON THIS PLAN ARE IN U.S. SURVEY FEET IN THE MA. STATE PLANE COORDINATE SYSTEM REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), CORS ADJUSTMENT (NA2011/GEOID 12A) AS DETERMINED BY GPS OBSERVATIONS PERFORMED IN FEBRUARY 2018 UTILIZING MAINE TECHNICAL SOURCE RTK GPS NETWORK.
3. BOUNDARY AND RIGHT-OF-WAY LINES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON A COMPILATION OF RECORD INFORMATION, OBSERVABLE EVIDENCE AND PHYSICAL OCCUPATION. A BOUNDARY SURVEY OF INDIVIDUAL PARCELS WAS NOT PERFORMED.
4. THE VERTICAL DATUM FOR THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), CORS ADJUSTMENT (NA2011/GEOID 12A) AS DETERMINED BY REDUNDANT GPS OBSERVATIONS PERFORMED IN MARCH 2018 UTILIZING THE MAINE TECHNICAL SOURCE RTK GPS NETWORK.
5. THE ACCURACY OF MEASURED PIPE INVERTS AND PIPE SIZES IS SUBJECT TO FIELD CONDITIONS, THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS AND OTHER CONDITIONS.

GENERAL CONSTRUCTION NOTES:

1. CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE FOLLOWING: THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 2020 EDITION, THE 2017 CONSTRUCTION STANDARD DETAILS, THE 1996 CONSTRUCTION AND TRAFFIC STANDARD DETAILS (AS RELATES TO TRAFFIC STANDARD DETAILS ONLY), THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WITH LATEST REVISIONS AND MASSACHUSETTS AMENDMENTS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.
2. IT IS THE INTENT OF THE DESIGN TO PROVIDE A MINIMUM CONSTRUCTED SIDEWALK WIDTH FOR A PATH OF TRAVEL PAST ALL OBSTRUCTIONS OF 3'-0" CLEARANCE FOR HANDICAP ACCESSIBILITY (IN ACCORDANCE WITH THE LATEST A.D.A. AND MASSDOT REQUIREMENTS). THE CONTRACTOR SHALL VERIFY THAT ALL POTENTIAL OBSTRUCTIONS HAVE BEEN ADDRESSED IN THE PLANS INCLUDING BUT NOT LIMITED TO FOUNDATIONS, SIGNS, MAILBOXES, UTILITY POLES, AND HYDRANTS SO THEY ARE LOCATED TO PROVIDE THIS MINIMUM PATH OF TRAVEL CLEARANCE AND A MINIMUM 18" TYPICAL CLEARANCE TO THE FACE OF CURB. NO UTILITY POLES OR OBSTRUCTIONS ARE PERMITTED WITHIN WHEELCHAIR RAMPS.
3. THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED HEREIN USING NEW MATERIALS OR WHERE APPLICABLE, REUSING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R). ALL OTHER MATERIALS SHALL BE "REMOVED AND DISCARDED" (R&D) OR DISPOSED OF OFF SITE WITH THE EXCEPTION OF MATERIALS LABELED AS "REMOVED AND STACKED" (R&S) WHICH SHALL BE TRANSPORTED AND AND STACKED AT A LOCATION DESIGNATED BY THE TOWN AND OR ENGINEER.
4. MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS, PAY ALL FEES INCLUDING POLICE DETAILS AND POST ALL BONDS, IF NECESSARY, ASSOCIATED WITH THE SAME, AND COORDINATE WITH THE OWNER AND THE TOWN AND OR ENGINEER.
5. THE CONTRACTOR SHALL NOT STORE ANY APPARATUS, MATERIALS, SUPPLIES, OR EQUIPMENT ON DRAINAGE STRUCTURES, PRIVATE PROPERTY OR WITHIN 100 FEET OF WETLANDS, UNLESS DIRECTED TO DO SO BY THE CONTRACT DOCUMENTS.
6. ALL EXISTING CONDITIONS SHOWN ARE APPROXIMATE AND ARE BASED ON THE BEST INFORMATION AVAILABLE. PRIOR TO THE START CONSTRUCTION VERIFY THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLING ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED.
7. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS INDICATED ON THE DRAWINGS ARE BASED ON RECORDS OF VARIOUS UTILITY COMPANIES, AND WHEREVER POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY IN THE TOWN, AND "DIGSAFE" (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK IN PREVIOUSLY UNALTERED AREAS TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR MUST RESOLVE CONFLICTS BETWEEN THE PROPOSED UTILITIES AND FIELD-LOCATED UTILITIES AND REPORT ANY DISCREPANCIES TO THE TOWN AND ENGINEER IMMEDIATELY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED, INCOMPLETELY OR INACCURATELY SHOWN. THE CONTRACTOR MUST MAINTAIN ACCURATE RECORDS OF THE LOCATION AND ELEVATION OF ALL WORK INSTALLED AND EXISTING UTILITIES FOUND DURING CONSTRUCTION FOR THE PREPARATION OF THE AS-BUILT PLAN.
8. THE CONTRACTOR SHALL COORDINATE ALL ARRANGEMENTS FOR THE ALTERATION AND OR ADJUSTMENT OF ELECTRIC, TELEPHONE, GAS AND ANY OTHER PRIVATE UTILITY.
9. SHOULD AN EXISTING UTILITY BE FOUND TO BE IN CONFLICT WITH THE PROPOSED WORK, THE LOCATION, SIZE AND TYPE SHALL BE ACCURATELY DETERMINED WITHOUT DELAY, BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE TOWN AND OR ENGINEER FOR RESOLUTION OF THE CONFLICT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING OR REMODELING ALL DRAINAGE, WATER, OR SEWER STRUCTURES TO THE FINISHED ELEVATION, WITHIN THE LIMITS OF THE PROJECT, UNLESS OTHERWISE NOTED.
11. THE CONTRACTOR SHALL PERFORM TEST PITS AT LOCATIONS SHOWN ON PLAN AND AS DIRECTED BY THE TOWN AND OR ENGINEER.
12. ALL WORK TO COMPLETE THIS PROJECT AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
13. THE CONTRACTOR MUST MAINTAIN ALL EXISTING UTILITIES IN WORKING ORDER AND FREE FROM DAMAGE DURING THE ENTIRE DURATION OF THE PROJECT. REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ALL COST RELATED TO THE REPAIR OF UTILITIES. EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES MUST BE DONE BY HAND.
14. COORDINATE ALL TRENCHING WORK WITHIN ROADWAYS WITH THE PROPER LOCAL & STATE AGENCY. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRENCH SAFETY INCLUDING ANY LOCAL AND/OR STATE PERMITS REQUIRED FOR THE TRENCH WORK. IF THIS WORK IS REQUIRED TO OCCUR OUTSIDE THE AGREED UPON HOURS OF OPERATION FOR THE FACILITY, THE CONTRACTOR MUST PLAN ACCORDINGLY.
15. INSTALL ALL UTILITY TRENCH WORK PRIOR TO INSTALLING NEW PAVEMENT AS INDICATED ON THE DRAWINGS.
16. IMPORT ONLY CLEAN MATERIAL. MATERIAL FROM AN EXISTING OR FORMER 21E SITE AS DEFINED BY THE MASSACHUSETTS CONTINGENCY PLAN 310 CMR 40.0000 WILL NOT BE ACCEPTED .
17. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH AND MAINTAIN ALL CONTROL POINTS AND BENCHMARKS DURING CONSTRUCTION INCLUDING BENCHMARK LOCATIONS AND ELEVATIONS AT CRITICAL AREAS. COORDINATE WITH THE TOWN AND OR ENGINEER THE LOCATION OF ALL CONTROL POINTS AND BENCHMARKS.
18. SITE LAYOUT SURVEY REQUIRED FOR CONSTRUCTION MUST BE PROVIDED BY THE CONTRACTOR AND PERFORMED BY A MASSACHUSETTS' REGISTERED PROFESSIONAL LAND SURVEYOR. AS INCIDENTAL TO THIS PROJECT THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SURVEYOR FOR ALL SITE SURVEY WORK.
19. MAINTAIN ALL GRADE STAKES SET BY THE SURVEYOR. GRADE STAKES ARE TO REMAIN UNTIL A FINAL INSPECTION OF THE ITEM HAS BEEN COMPLETED BY THE TOWN AND OR ENGINEER. RE-STAKING OF PREVIOUSLY SURVEYED SITE FEATURES IS THE RESPONSIBILITY (INCLUDING COST) OF THE CONTRACTOR.
20. PROVIDE ALL CONSTRUCTION SERVICE IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS REGARDING NOISE, VIBRATION, DUST, SEDIMENTATION CONTAINMENT, AND TRENCH WORK.
21. COLLECT SOLID WASTES AND STORE IN A SECURED DUMPSTER. THE DUMPSTER MUST MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS.

GENERAL NOTES CONTINUED:

22. REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE. PROMPTLY REMOVE ALL DEMOLITION DEBRIS FROM THE SITE TO AN APPROVED DUMP SITE.
23. ALL TRUCKS LEAVING THE SITE MUST BE COVERED.
24. DO NOT WASH ANY CONCRETE TRUCKS ONSITE. REMOVE BY HAND ANY CEMENT OR CONCRETE DEBRIS LEFT IN THE DISTURBED AREA.
25. BURIAL OF ANY STUMPS, SOLID DEBRIS, AND/OR STONES/BOULDERS ONSITE IS PROHIBITED.
26. IMMEDIATELY CONTACT AND COORDINATE WITH THE ENGINEER AND OWNER IF ANY DEVIATION OR ALTERATION OF THE WORK PROPOSED ON THESE DRAWINGS IS REQUIRED.
27. AT THE END OF CONSTRUCTION, REMOVE ALL CONSTRUCTION DEBRIS AND SURPLUS MATERIALS FROM THE SITE PERFORM A THOROUGH INSPECTION OF THE WORK PERIMETER. COLLECT AND REMOVE ALL MATERIALS AND BLOWN OR WATER CARRIED DEBRIS FROM THE SITE.
28. THE CONTRACTOR SHALL PROVIDE FOR THE SAFE AND ORDERLY PASSAGE OF VEHICULAR AND PEDESTRIAN TRAFFIC IN AREAS UNDER CONSTRUCTION.
29. SHOP DRAWINGS OF ALL CASTINGS, PRECAST CONCRETE STRUCTURES, PIPE AND MANUFACTURED COMPONENTS SHALL BE SUBMITTED TO THE TOWN FOR APPROVAL BEFORE ORDERING.
30. ALL PROPOSED PAVEMENT MARKINGS SHALL MEET EXISTING MARKINGS AT THE LIMITS OF WORK.
31. DETECTABLE WARNING PANELS SHALL BE INSTALLED ON ALL WHEELCHAIR RAMPS AND SHALL COMPLY WITH CONSTRUCTION STANDARD E 107.6.5. PAYMENT FOR DETECTABLE WARNING PANELS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF THE WHEELCHAIR RAMPS OR SIDEWALKS IN WHICH THEY ARE BEING INSTALLED. THE COLOR OF DETECTABLE WARNING PANELS SHALL BE AT THE DIRECTION OF THE TOWN AND OR ENGINEER..
32. SEE SIGNS AND PAVEMENT MARKING PLANS FOR PROPOSED SIGNS AND DISPOSITION OF THE EXISTING SIGNS WITHIN THE PROJECT LIMITS OR AS DIRECTED BY THE TOWN AND OR ENGINEER.
33. DO NOT SCALE DRAWINGS UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS SHALL PREVAIL. REPORT ANY DISCREPANCIES TO THE TOWN AND OR ENGINEER IMMEDIATELY.
34. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).THE CONTRACTOR SHALL RESTORE ALL PUBLIC AND PRIVATE PROPERTY TO ITS PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE TOWN.
35. THE CONTRACTOR SHALL RESTORE ALL PUBLIC AND PRIVATE PROPERTY TO ITS PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE TOWN.
36. IN THOSE INSTANCES WHERE POWER OR TELEPHONE POLE SUPPORT IS REQUIRED, THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR NOTIFICATION TO THE RESPECTIVE UTILITY COMPANY. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR TEMPORARY BRACING OF UTILITIES.
37. ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO THE TRENCH EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. INJURY TO ANY SUCH STRUCTURE CAUSED BY, OR RESULTING FROM, THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE RESPECTIVE UTILITY AND THE TOWN AND OR ENGINEER.
38. THE CONTRACTOR IS TO TAKE SPECIAL CARE NOT TO DAMAGE TREES, BUSHES, PLANTS, FLOWERS, STONEWALLS, FENCES, ETC. WITHIN THE CONSTRUCTION AREA UNLESS THEY ARE NOTED TO BE REMOVED. CONTRACTOR SHALL REPLACE AT NO COST TO OWNER, ALL DAMAGED ITEMS.
39. CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDEWALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY HIS CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, AND TO THE SATISFACTION OF THE TOWN AND ENGINEER.
40. ANY TRAFFIC SIGNAL EQUIPMENT (LIGHTS, CONDUITS, LOOP DETECTORS) DISTURBED SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AS DIRECTED BY THE TOWN AT THE CONTRACTOR'S EXPENSE.
41. THE CONTRACTOR SHALL INSTALL AND MAINTAIN TRAFFIC CONTROL DEVICES AS NECESSARY AND IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
42. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A TELEPHONE NUMBER WHERE THE CONTRACTOR CAN BE REACHED 24 HOURS A DAY, 7 DAYS A WEEK.
43. THE LOCATION AND LIMITS OF ALL ON-SITE WORK AND STORAGE AREAS SHALL BE REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO THE TOWN. THE CONTRACTOR SHALL LIMIT ACTIVITIES TO THESE AREAS.
44. THE CONTRACTOR SHALL BE REQUIRED TO TEMPORARILY PAVE ALL DISTURBED TRAVEL WAYS, SIDEWALKS & DRIVEWAYS NOT UNDER CONSTRUCTION OR IF LEFT DURING NON WORKING HOURS AND AS REQUIRED BY THE TOWN.

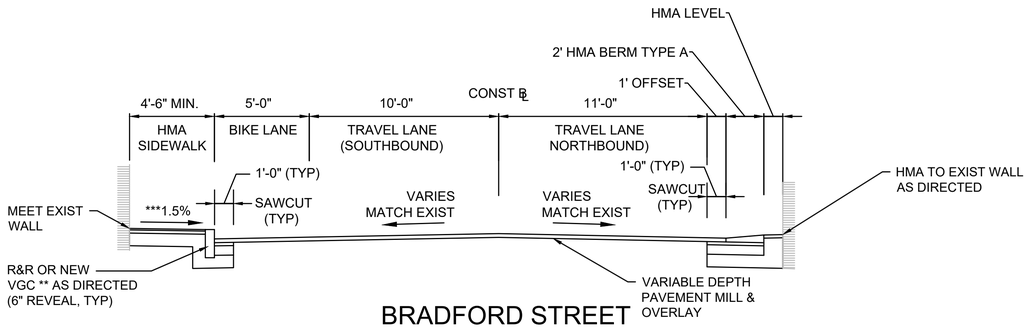
STORMWATER FACILITY OPERATION & MAINTENANCE:

THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER INSPECTION AND MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES AS OUTLINED BELOW UNTIL SUCH TIME THAT THE ROADWAYS AND ASSOCIATED UTILITIES ARE ACCEPTED BY THE OWNER AND THE ENGINEER.

1. INSPECT AND RESTORE/CLEAN ALL FACILITIES (INLETS, MANHOLES, INFILTRATION BASINS, ETC.) OF SEDIMENT AND DEBRIS PRIOR TO THE OWNER'S ACCEPTANCE.
2. REMOVE AND DISPOSE ALL SEDIMENT AND DEBRIS AT A PRE-APPROVED LOCATION AS APPROVED BY THE TOWN.
3. REFER TO THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL INFORMATION PERTAINING TO STORMWATER FACILITY OPERATION AND MAINTENANCE REQUIREMENTS. MAINTAIN A WORKING COPY OF THE SWPPP ON SITE AT ALL TIMES.
4. INSPECT AFTER EVERY MAJOR RAINFALL EVENT FOR THE ENTIRE DURATION OF THE CONSTRUCTION PROJECT AND THE FIRST 3 MONTHS AFTER CONSTRUCTION TO ENSURE PROPER STABILIZATION AND CONSTRUCTION.
5. MAINTENANCE REQUIRED FOR DRAINAGE STRUCTURES (INLETS, MANHOLES & CATCHBASINS): ALL DRAINAGE STRUCTURES WILL BE INSPECTED BY THE CONTRACTOR TO MONITOR FOR PROPER OPERATION, COLLECTION OF LITTER OR TRASH, AND STRUCTURAL DETERIORATION. THE BASINS WILL BE CLEANED OF SEDIMENT (INCLUDING SUMPS) AS NECESSARY, AND REPAIRED WHEN REQUIRED.

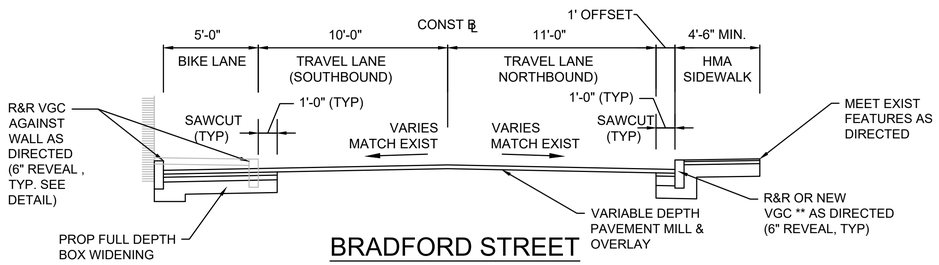
EROSION & SEDIMENT CONTROL (ESC) NOTES:

1. THE CONTRACTOR SHALL DESIGNATE ON-SITE PERSONNEL RESPONSIBLE FOR THE DAILY INSPECTION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROLS AND IMPLEMENTATION OF ALL NECESSARY MEASURES TO CONTROL EROSION AND PREVENT SEDIMENT FROM LEAVING THE SITE.
2. INSTALL ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES AS INDICATED ON DRAWINGS IN CONSULTATION WITH THE ENGINEER BEFORE ANY CONSTRUCTION ACTIVITIES BEGIN. INSPECT, MAINTAIN, REPAIR AND REPLACE EROSION CONTROL MEASURES, AS NECESSARY, DURING THE ENTIRE CONSTRUCTION PERIOD OF THE PROJECT. THE SITE PERIMETER EROSION CONTROLS ARE THE DESIGNATED LIMIT OF WORK. INFORM ALL PERSONNEL WORKING ON THE PROJECT SITE THAT NO CONSTRUCTION ACTIVITY IS TO OCCUR BEYOND THE LIMIT OF WORK AT ANY TIME THROUGHOUT THE CONSTRUCTION PERIOD.
3. KEEP THE LIMIT OF CLEARING, GRADING AND DISTURBANCES TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. PHASE THE SITE WORK IN A MANNER TO MINIMIZE AREAS OF EXPOSED SOIL. IF TREES ARE TO BE CUT, CLEAR AND GRUB ONLY THOSE AREAS WHICH ARE ACTIVELY UNDER CONSTRUCTION. PROPERLY INSTALL THE SEDIMENTATION CONTROLS PRIOR TO BEGINNING ANY LAND CLEARING ACTIVITY AND/OR OTHER CONSTRUCTION RELATED WORK.
4. MONITOR LOCAL WEATHER REPORTS DURING CONSTRUCTION AND PRIOR TO SCHEDULING EARTHMOVING OR OTHER CONSTRUCTION ACTIVITIES WHICH LEAVE LARGE DISTURBED AREAS UNSTABILIZED. IF INCLEMENT WEATHER IS PREDICTED, USE BEST PROFESSIONAL JUDGEMENT AND GOOD CONSTRUCTION PRACTICES WHEN SCHEDULING CONSTRUCTION ACTIVITIES AND ENSURE THE NECESSARY EROSION CONTROL DEVICES ARE INSTALLED AND FUNCTIONING PROPERLY TO MINIMIZE EROSION FROM ANY IMPENDING WEATHER EVENTS.
5. INSPECT EROSION AND SEDIMENT CONTROL DEVICES AND STABILIZED SLOPES ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT OF .25 INCH OR GREATER. REPAIR IDENTIFIED PROBLEMS WITHIN 24 HOURS TO ENSURE EROSION AND SEDIMENT CONTROLS ARE IN GOOD WORKING ORDER. RESET OR REPLACE MATERIALS AS REQUIRED.
6. SURROUND THE PERIMETER OF SOIL STOCKPILES WITH SILT SOCK, SILT FENCE, STRAWBALES, OR A COMBINATION OF SILT FENCE WITH STRAWBALE, AS DETERMINED NECESSARY.
7. DISTURBED AREAS AND SLOPES MUST NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON. PROVIDE APPROPRIATE STABILIZATION PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE BUT NOT MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED, REINFORCE TEMPORARY AREAS HAVING A SLOPE GREATER THAN 4:1 WITH EROSION BLANKETS OR APPROVED EQUAL UNTIL THE SITE IS PROPERLY STABILIZED. TEMPORARY SWALES MAY ALSO BE REQUIRED IF DETERMINED NECESSARY IN THE FIELD BY THE TOWN AND OR ENGINEER.
8. INSTALL A CATCH BASIN SILT SACK OR APPROVED EQUIVALENT IN EACH EXISTING CATCH BASIN RECEIVING RUNOFF FROM THE SITE. UPON THE INSTALLATION OF EACH CATCH BASIN, INSTALL SILT SACK OR APPROVED EQUIVALENT. INSPECT SILT SACKS, AFTER EACH SIGNIFICANT STORM EVENT AND REMOVE AND EMPTY AS NEEDED FOR THE DURATION OF THE CONSTRUCTION PERIOD.
9. SMALL SEDIMENTATION BASINS MAY BE CONSTRUCTED ON AN AS-NEEDED BASIS DURING CONSTRUCTION TO AID IN THE CAPTURE OF SITE RUNOFF AND SEDIMENT. IT WILL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR, IN CONSULTATION WITH THE TOWN AND OR ENGINEER, TO SIZE AND CREATE THESE BASINS IN APPROPRIATE LOCATIONS.
10. CONTAIN ALL SEDIMENT ON SITE. SWEEP ALL EXITS FROM THE SITE AS NECESSARY INCLUDING ANY SEDIMENT TRACKING. SWEEP PAVED AREAS AS NEEDED TO REMOVE SEDIMENT AND POTENTIAL POLLUTANTS ACCUMULATED DURING SITE CONSTRUCTION.
11. REMOVE ACCUMULATED SEDIMENT FROM ALL TEMPORARY PRACTICES AND DISPOSE OF IN A PRE-APPROVED LOCATION.
12. TO ENSURE ALL EROSION AND SEDIMENTATION CONTROL DEVICES ARE PROPERLY MAINTAINED AND REPAIRED IN A TIMELY AND RESPONSIBLE MANNER, PROVIDE ON SITE,OR MAKE READILY AVAILABLE, THE NECESSARY EQUIPMENT AND SITE PERSONNEL DURING CONSTRUCTION HOURS FOR THE DURATION OF THE PROJECT. IF SITE WORK IS SUSPENDED DURING THE WINTER MONTHS THE CONTRACTOR MUST CONTINUE TO PROVIDE PERSONNEL AND EQUIPMENT ON SITE OR READILY AVAILABLE .
13. CONTROL DUST BY WATERING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE TOWN AND OR ENGINEER.



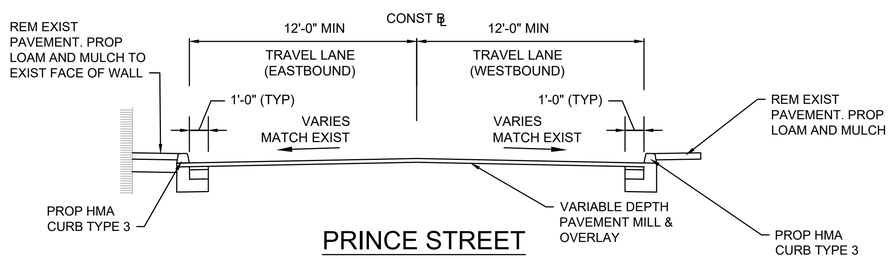
BRADFORD STREET

STA 11+04± TO STA 11+92±



BRADFORD STREET

STA 12+50± TO STA 13+80±



PRINCE STREET

STA 5+15± TO STA 6+25±

PAVEMENT NOTES

PROPOSED PAVEMENT MILLING & OVERLAY

SURFACE:	2" HOT MIX ASPHALT TOP COURSE OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.07 GAL/SY OVER
*LEVELING:	VARIABLE DEPTH AS DIRECTED OVER
MILLING:	VARIABLE DEPTH PAVEMENT MILLING

PROPOSED FULL DEPTH PAVEMENT RECONSTRUCTION / WIDENING GREATER OR EQUAL TO 4 FT

SURFACE:	2" HOT MIX ASPHALT TOP COURSE OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.05 GAL/SY OVER
INTERMEDIATE:	2" HOT MIX ASPHALT BINDER COURSE OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.05 GAL/SY OVER
BASE:	3" HOT MIX ASPHALT BASE COURSE OVER
SUBBASE:	12" GRAVEL BORROW

PROPOSED FULL DEPTH BOX WIDENING LESS THAN 4FT

SURFACE:	2" HOT MIX ASPHALT TOP COURSE OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.05 GAL/SY OVER
INTERMEDIATE:	2" HOT MIX ASPHALT BINDER COURSE OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.05 GAL/SY OVER
BASE:	6" HIGH EARLY STRENGTH CEMENT CONCRETE BASE COURSE OVER
SUBBASE:	8" GRAVEL BORROW

PROPOSED HOT MIX ASPHALT SIDEWALK

SURFACE	1 $\frac{1}{4}$" HOT MIX ASPHALT TOP COURSE OVER
INTERMEDIATE:	1 $\frac{1}{4}$ " HOT MIX ASPHALT BINDER COURSE OVER
SUBBASE:	8" GRAVEL BORROW

PROPOSED HOT MIX ASPHALT PARKING LOT AND APRON

SURFACE	2" HOT MIX ASPHALT TOP COURSE OVER
INTERMEDIATE:	2 " HOT MIX ASPHALT BINDER COURSE OVER
SUBBASE:	8" GRAVEL BORROW

PROPOSED CEMENT CONCRETE WHEELCHAIR RAMP

SURFACE:	6" CEMENT CONCRETE OVER
SUBBASE:	8" GRAVEL BORROW

PROPOSED LOAM & MULCH

SURFACE:	4" MULCH OVER
INTERMEDIATE:	4" LOAM BORROW OVER
SUBBASE:	VARIABLE DEPTH SUITABLE EXCAVATED MATERIAL OR ORDINARY BORROW (AS DIRECTED BY THE TOWN AND/OR ENGINEER)

NOTES:

* LEVELING COURSE TO BE PAID FOR UNDER ITEM 460. HOT MIX ASPHALT AT THE DIRECTION OF THE TOWN AND OR ENGINEER

** PROPOSED NEW GRANITE CURB TYPE VA-4 AS DIRECTED BY THE TOWN AND/OR ENGINEER

*** 0.5%± CONSTRUCTION TOLERANCE

1. ALL SAWCUTS INCLUDING THOSE IN DRIVEWAYS SHALL BE SEALED WITH A LIQUID ASPHALT SEALER PAID FOR UNDER ITEM 453. HMA JOINT SEALANT.
2. DURING EXCAVATION, MATERIALS DEEMED BY THE TOWN AND OR ENGINEER TO BE SUITABLE WILL BE RETAINED OR USED AS ORDINARY BORROW FOR FILL AREA. ANY UNSUITABLE SOILS DETERMINED BY THE TOWN AND OR ENGINEER SHALL BE REMOVED AND REPLACED WITH SUITABLE SUBBASE AS IDENTIFIED ABOVE.
3. GRAVEL BORROW SHALL ONLY BE USED WHEN NO SUITABLE EXCAVATED MATERIAL CAN BE UTILIZED AS APPROVED BY THE TOWN AND/OR ENGINEER.

ENVIRONMENTAL PARTNERS

MARK	DATE	DESCRIPTION

Scale	AS NOTED
Date	MARCH 2020
Job No.	115-2003
Designed by	JRC
Drawn by	JRC
Checked by	BLH
Approved by	JDF

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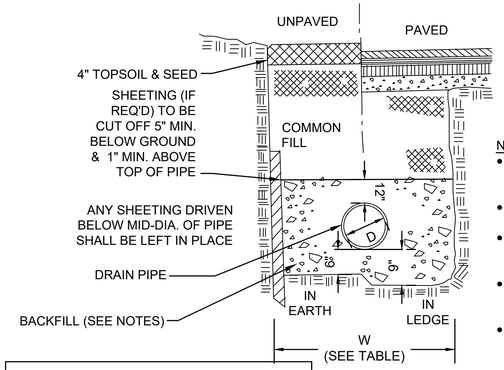
BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

TYPICAL SECTIONS

Sheet No. 04

Drawing file: Z:\Provincetown\115115-2003 - Task Order 12- Bradford at Prince Pedestrian Accommodation\ACAD\Sheet\04-TYP.dwg Plot Date: Mar 31,2020-10:38am



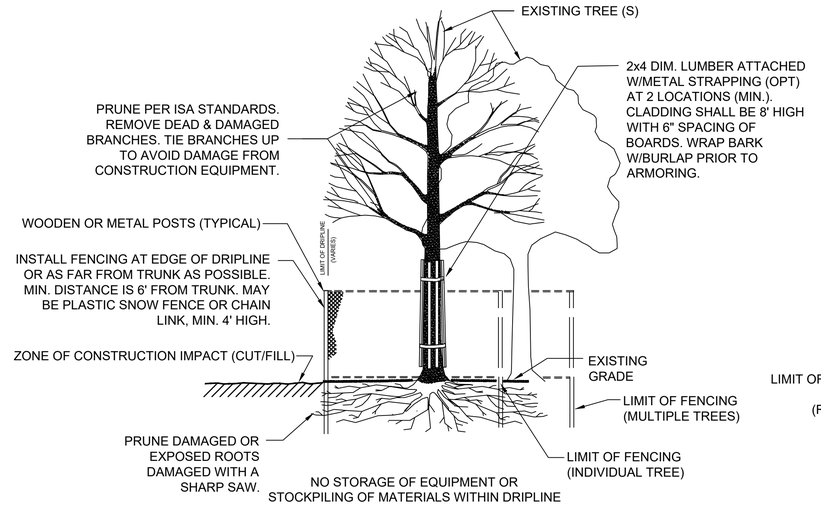
TRENCH WIDTH		
D DIAMETER OF PIPE	W UNSHEETED	W SHEETED
TO 12"	3'	4'
14" TO 24"	4'	5'
30" TO 36"	5'	6'

NOTES:

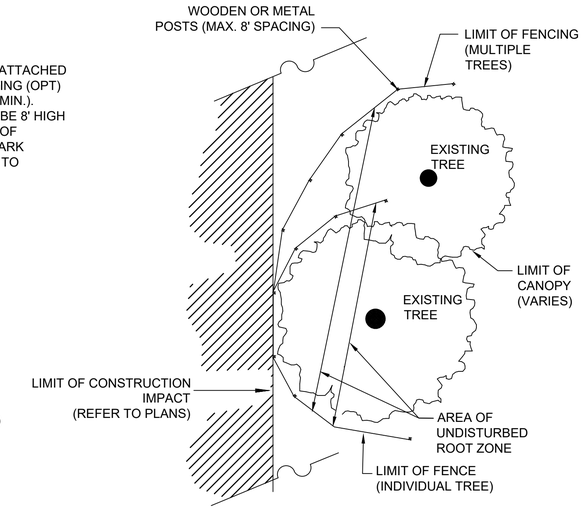
- ALL TRENCH CONSTRUCTION TO CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
- COMPACT FILL AND TAMP PIPE TO 93% MAX. DENSITY UNLESS OTHERWISE SPECIFIED.
- COMMON FILL MATERIAL TO CONSIST OF GRANULAR MATERIAL CONTAINING NO STONES LARGER THAN 6" IN GREATEST DIMENSION.
- BACKFILL WITH SELECT MATERIAL CONTAINING NO STONES LARGER THAN 3" IN GREATEST DIMENSION TO 12" OVER PIPE FOR SEWER AND DRAIN PIPES.
- PROVIDE SCREENED GRAVEL BEDDING TO MID PIPE DIAMETER WHERE GROUNDWATER IS ENCOUNTERED AS DIRECTED BY THE TOWN AND OR ENGINEER.
- REMOVE UNSUITABLE MATERIAL BELOW GRADE IF ENCOUNTERED, TO SUITABLE DEPTHS AS DIRECTED BY TOWN AND OR ENGINEER AND REPLACE WITH CLEAN GRANULAR FILL.
- PAYMENT FOR HMA TRENCH PATCHING SHALL BE PAID FOR UNDER ITEM 472. HMA FOR MISCELLANEOUS WORK.

PERMANENT TRENCH PATCH

NOT TO SCALE



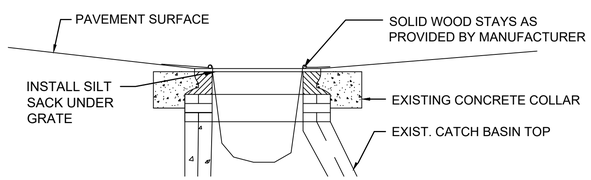
SECTION VIEW



PLAN VIEW

TREE PROTECTION DETAIL

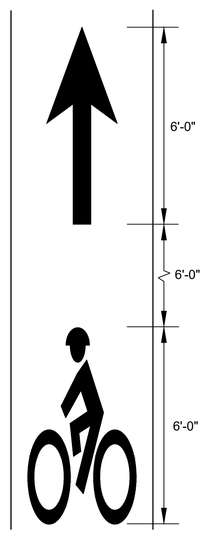
NOT TO SCALE



NOTES:
1. REMOVE ACCUMULATED SEDIMENTS AS REQUIRED TO MAINTAIN DRAINAGE.
2. INSPECT FABRIC EVERY WEEK DURING CONSTRUCTION.

SILT SACK

NOT TO SCALE

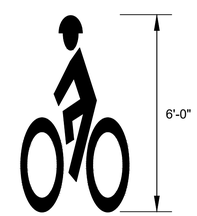


BICYCLE LANE MARKINGS

NOT TO SCALE

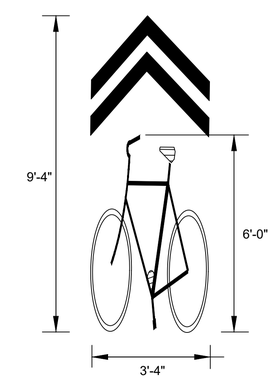
NOTES:

- ALL MARKINGS SHALL BE PAINTED UNLESS OTHERWISE DIRECTED OR SHOWN ON PLAN.
- CONTRACTOR TO PROVIDE TEMPLATES FOR TOWN APPROVAL PRIOR TO PERFORMING THE WORK.



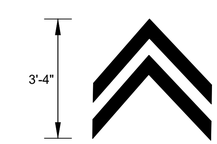
BICYCLE LANE MARKINGS (MOD)

NOT TO SCALE



SHARED LANE MARKINGS

NOT TO SCALE



SHARED LANE MARKINGS (MOD)

NOT TO SCALE

ENVIRONMENTAL PARTNERS

MARK	DATE	DESCRIPTION

Scale	AS NOTED
Date	MARCH 2020
Job No.	115-2003
Designed by	JRC
Drawn by	JRC
Checked by	BLH
Approved by	JDF

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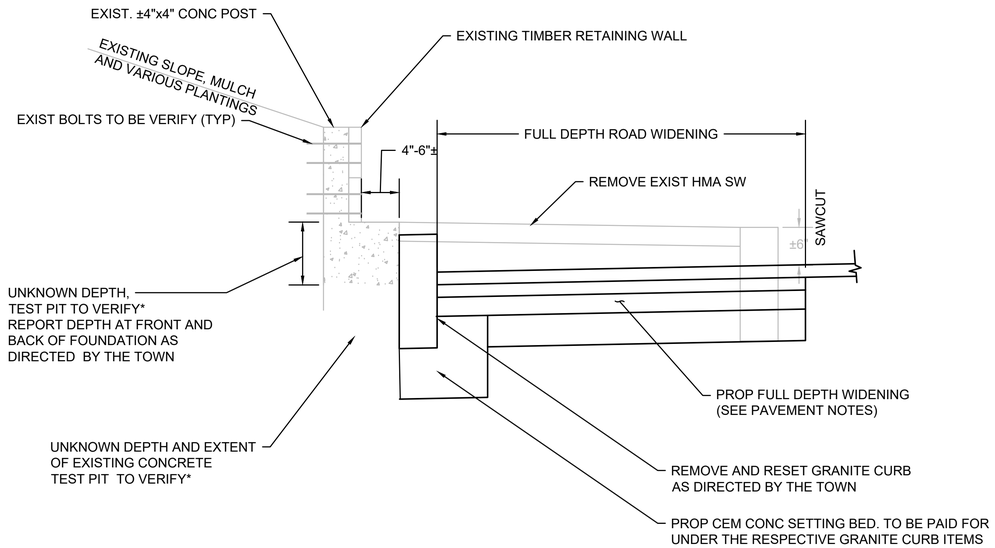
BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

CONSTRUCTION DETAILS - 01

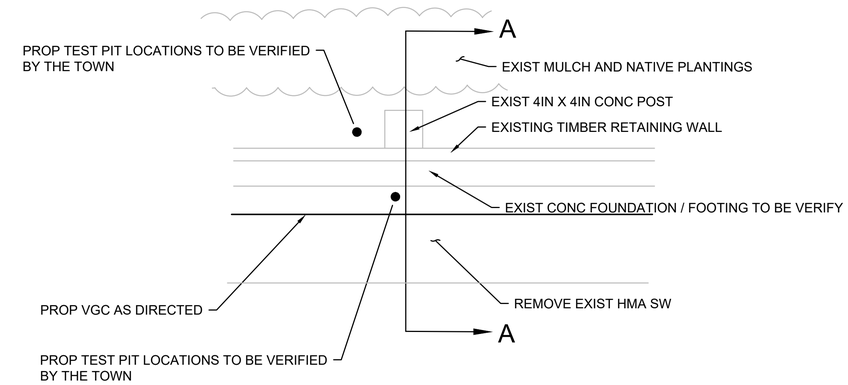
Sheet No. 05

Drawing file: Z:\Provincetown.115\115-2003 - Task Order 12- Bradford at Prince Pedestrian Accommodation\ACAD\Sheet\05-CD.dwg Plot Date: Mar 25,2020-8:33pm



SECTION A–A

NOT TO SCALE

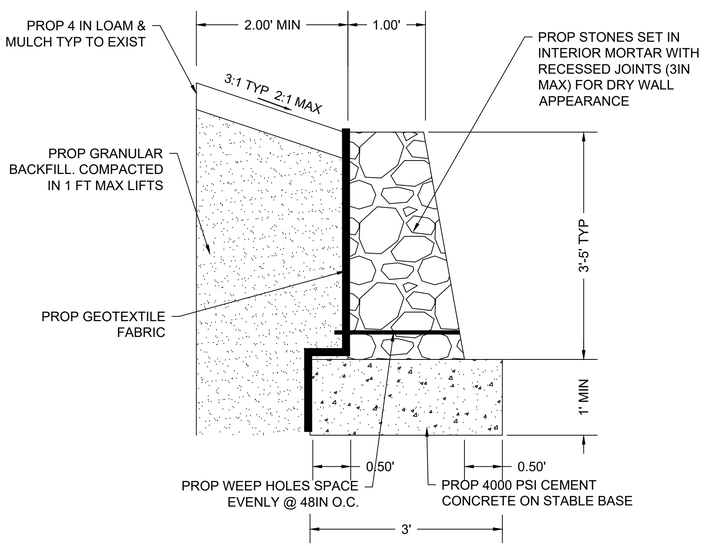


EXISTING WALL PLAN VIEW

NOT TO SCALE

NOTES:

- CONTRACTOR SHALL TEST PIT AT MINIMUM OF TWO LOCATIONS UNDER THE DIRECTION AND OBSERVATION OF THE TOWN AND OR ENGINEER.
- CONTRACTOR IS TO SAFELY EXCAVATE AND RESTORE THE TEST PIT AREA TO ENSURE THE EXISTING WALL IS NOT COMPROMISED.
- THE CONTRACTOR SHALL PROVIDE FINDINGS FROM THE TEST PITS TO THE TOWN AND ENGINEER FOR THE USE OF DETERMINING THE PROPOSED WORK TO BE PERFORMED ADJACENT TO THE EXISTING WALL.
- THE CONTRACTOR SHALL REPORT TO THE TOWN AND OR ENGINEER IF GRANITE CURB CAN BE SAFELY INSTALLED AT THE FACE OF THE EXISTING TIMBER RETAINING WALL WITHOUT COMPROMISING THE INTEGRITY OF THE EXISTING WALL.
- THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE MEANS AND METHOD TO THE TOWN FOR APPROVAL FOR THE INSTALLATION OF THE EXTENSION OF THE RETAINING WALL TO MATCH EXISTING WALL IN KIND.
- AT THE DISCRETION OF THE TOWN FOR ADD ALTERNATE No 1, THE CONTRACTOR IS RESPONSIBLE TO REMOVE THE ENTIRE EXISTING TIMBER RETAINING WALL AND REPLACE WITH A STONE MASONRY RETAINING WALL AS PROVIDED IN THE DETAIL SHEETS AND AS DIRECTED BY THE TOWN.

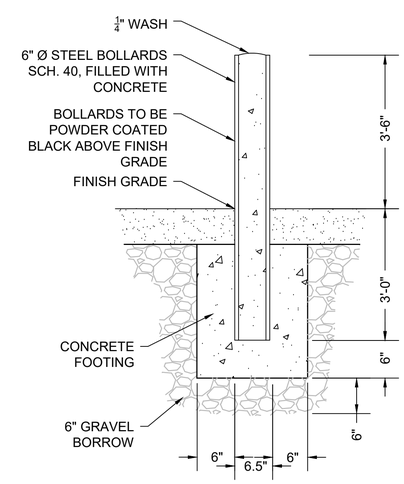


STONE MASONRY WALL (ADD ALTERNATE 1)

NOT TO SCALE

NOTES:

- ALL DIMENSIONS SHOWN ARE MINIMUM AND SHALL BE VERIFIED FOR APPROVAL BY THE TOWN AND ITS REPRESENTATIVE.
- FOUNDATION SHALL BE SET ON SUITABLE SOIL.



CONCRETE FILLED STEEL BOLLARD

NOT TO SCALE

ENVIRONMENTAL PARTNERS

MARK	DATE	DESCRIPTION

Scale	AS NOTED
Date	MARCH 2020
Job No.	115-2003
Designed by	JRC
Drawn by	JRC
Checked by	BLH
Approved by	JDF

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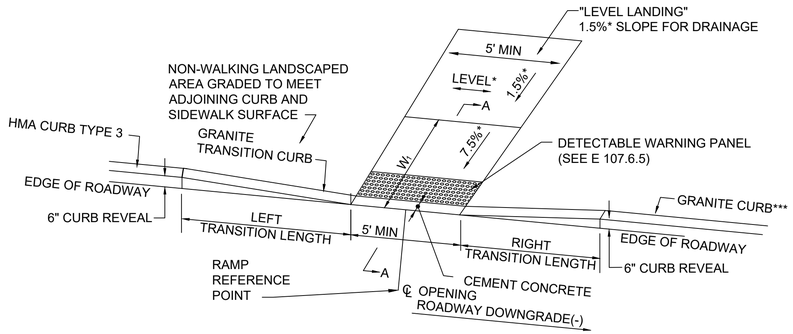
BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

CONSTRUCTION DETAILS - 02

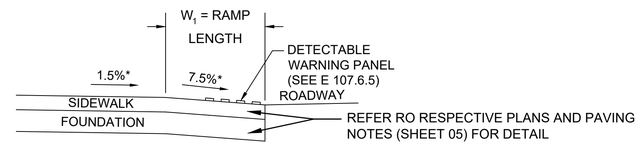
Sheet No. 06

Drawing file: Z:\Provincetown.115\115-2003 - Task Order 12- Bradford at Prince Pedestrian Accommodation\ACAD\Sheet\05-CD.dwg Plot Date: Mar 31,2020-1:47pm



WHEELCHAIR RAMP CONTINUOUS PATH OF TRAVEL

N.T.S.



SECTION A-A

LEGEND:

HSL HIGH SIDE FRONT TRANSITION LENGTH (SEE E 107.9.0)

W SIDEWALK WIDTH

W_1 PERPENDICULAR RAMP LENGTH

* TOLERANCE FOR CONSTRUCTION ±0.5%

*** SEE PLANS FOR CURB TYPE

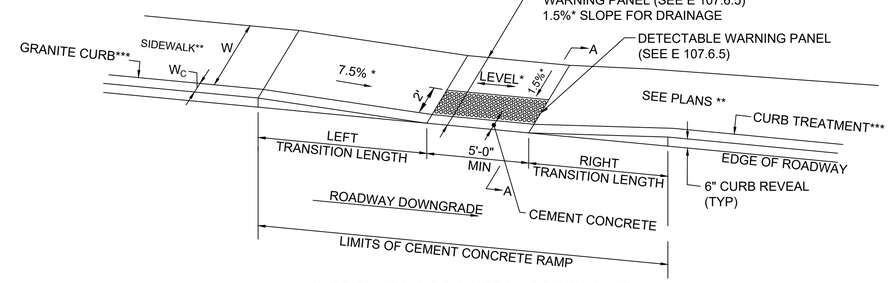
USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'0"

WHEELCHAIR RAMPS WILL BE FITTED WITH DETECTABLE WARNING PANELS (SEE E 107.6.5)

NOTE:

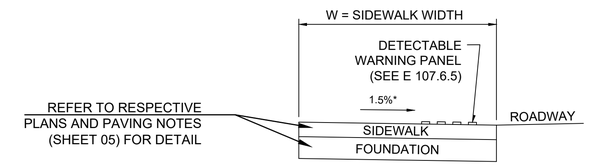
ROADWAY, GUTTER, AND FIRST 6" OF SIDEWALK TO BE ADJUSTED FOR FIELD CONDITIONS

WCR #	ALIGNMENT	RAMP REFERENCE POINT		RAMP LENGTH (W_1)	WIDTH OF RAMP (MIN 5.00')	DEPTH OF LEVEL LANDING (MIN 4.00')	ROADWAY GUTTER SLOPE (±)	TRANSITION LENGTH	
		STATION	OFFSET					LEFT	RIGHT
2	PRINCE STREET	5+19.27	22.59' RT	10.87'	8.00'	8.00'	-7.40%	15.00'	6.50'



WHEELCHAIR RAMP ON NARROW SIDEWALK WITH DETECTABLE WARNING PANEL

N.T.S.



SECTION A-A

LEGEND:

HSL HIGH SIDE FRONT TRANSITION LENGTH (SEE E 107.9.0)

W SIDEWALK WIDTH

* TOLERANCE FOR CONSTRUCTION ±0.5%

** SEE PLANS FOR SURFACE TREATMENT

*** SEE PLANS FOR CURB TYPE

USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'0"

WHEELCHAIR RAMPS WILL BE FITTED WITH DETECTABLE WARNING PANELS (SEE E 107.6.5)

NOTE:

- ROADWAY, GUTTER, AND FIRST 6" OF SIDEWALK TO BE ADJUSTED FOR FIELD CONDITIONS

WCR #	ALIGNMENT	RAMP REFERENCE POINT		WIDTH OF SIDEWALK (W)	WIDTH OF RAMP (MIN 5.00')	DEPTH OF LEVEL LANDING (MIN 4.00')	ROADWAY GUTTER SLOPE (±)	TRANSITION LENGTH	
		STATION	OFFSET					LEFT	RIGHT
1	PRINCE STREET	5+22.42	23.83' LT	5.42'	5.00'	5.42'	+3.03%	14.00'	6.50'
3	BRADFORD STREET	12+61.50	12.00' RT	4.50'	5.00'	4.50'	-9.30%	6.50'	15.00'

ENVIRONMENTAL PARTNERS

MARK	DATE	DESCRIPTION

Scale	AS NOTED
Date	MARCH 2020
Job No.	115-2003
Designed by	JRC
Drawn by	JRC
Checked by	BLH
Approved by	JDF

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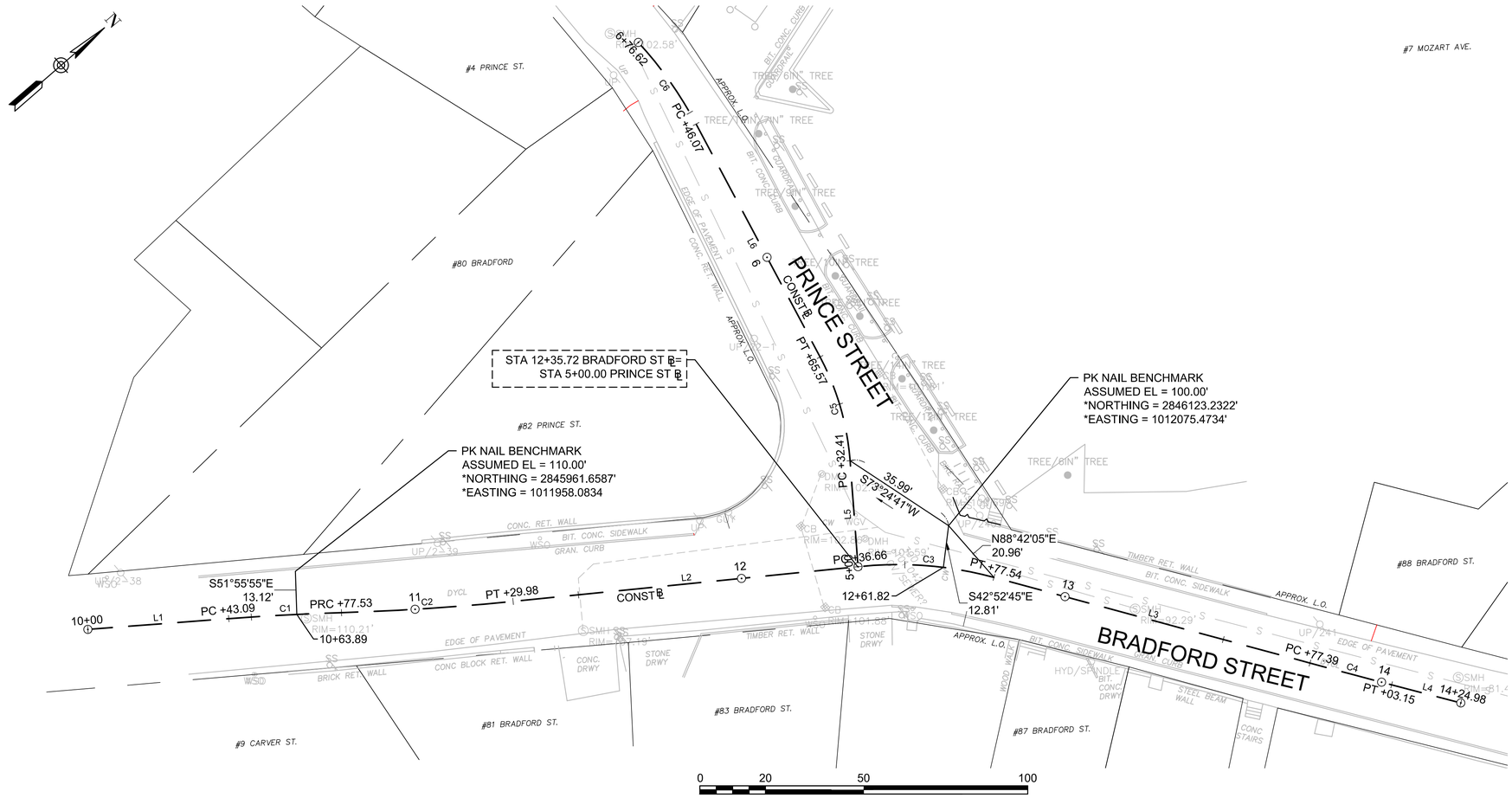
BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

WHEELCHAIR RAMP DETAILS

Sheet No. 07

Drawing file: Z:\Provincetown.115\115-2003 - Task Order 12- Bradford at Prince Pedestrian Accommodation\ACAD\Sheet\05-CD.dwg Plot Date: Mar 25,2020-6:34pm



BRADFORD STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	10+00.00	2845901.819	1011930.956		N35°38'01"E 43.09'	10+43.09	2845936.837	1011956.058
C1	10+43.09	2845936.837	1011956.058	R=750.00' Δ=2°37'53" L=34.44' T=17.23'		10+77.53	2845964.361	1011976.761
C2	10+77.53	2845964.361	1011976.761	R=750.00' Δ=4°00'26" L=52.45' T=26.24'		11+29.98	2846006.647	1012007.779
L2	11+29.98	2846006.647	1012007.779		N34°15'28"E 106.68'	12+36.66	2846094.820	1012067.831
C3	12+36.66	2846094.820	1012067.831	R=112.00' Δ=20°54'42" L=40.88' T=20.67'		12+77.54	2846123.707	1012096.432
L3	12+77.54	2846123.707	1012096.432		N55°10'10"E 99.85'	13+77.39	2846180.736	1012178.393
C4	13+77.39	2846180.736	1012178.393	R=3000.00' Δ=0°29'31" L=25.76' T=12.88'		14+03.15	2846195.543	1012199.478
L4	14+03.15	2846195.543	1012199.478		N54°40'39"E 21.83'	14+24.98	2846208.163	1012217.288

PRINCE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L5	5+00.00	2846094.028	1012067.292		N54°16'25"W 32.41'	5+32.41	2846112.956	1012040.978
C5	5+32.41	2846112.956	1012040.978	R=80.00' Δ=23°44'51" L=33.16' T=16.82'		5+65.57	2846126.269	1012010.868
L6	5+65.57	2846126.269	1012010.868		N78°01'16"W 80.50'	6+46.07	2846142.976	1011932.122
C6	6+46.07	2846142.976	1011932.122	R=120.00' Δ=14°35'01" L=30.54' T=15.35'		6+76.62	2846145.465	1011901.763

ENVIRONMENTAL PARTNERS

MARK	DATE	DESCRIPTION

Scale	AS NOTED
Date	MARCH 2020
Job No.	115-2003
Designed by	JRC
Drawn by	JRC
Checked by	BLH
Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

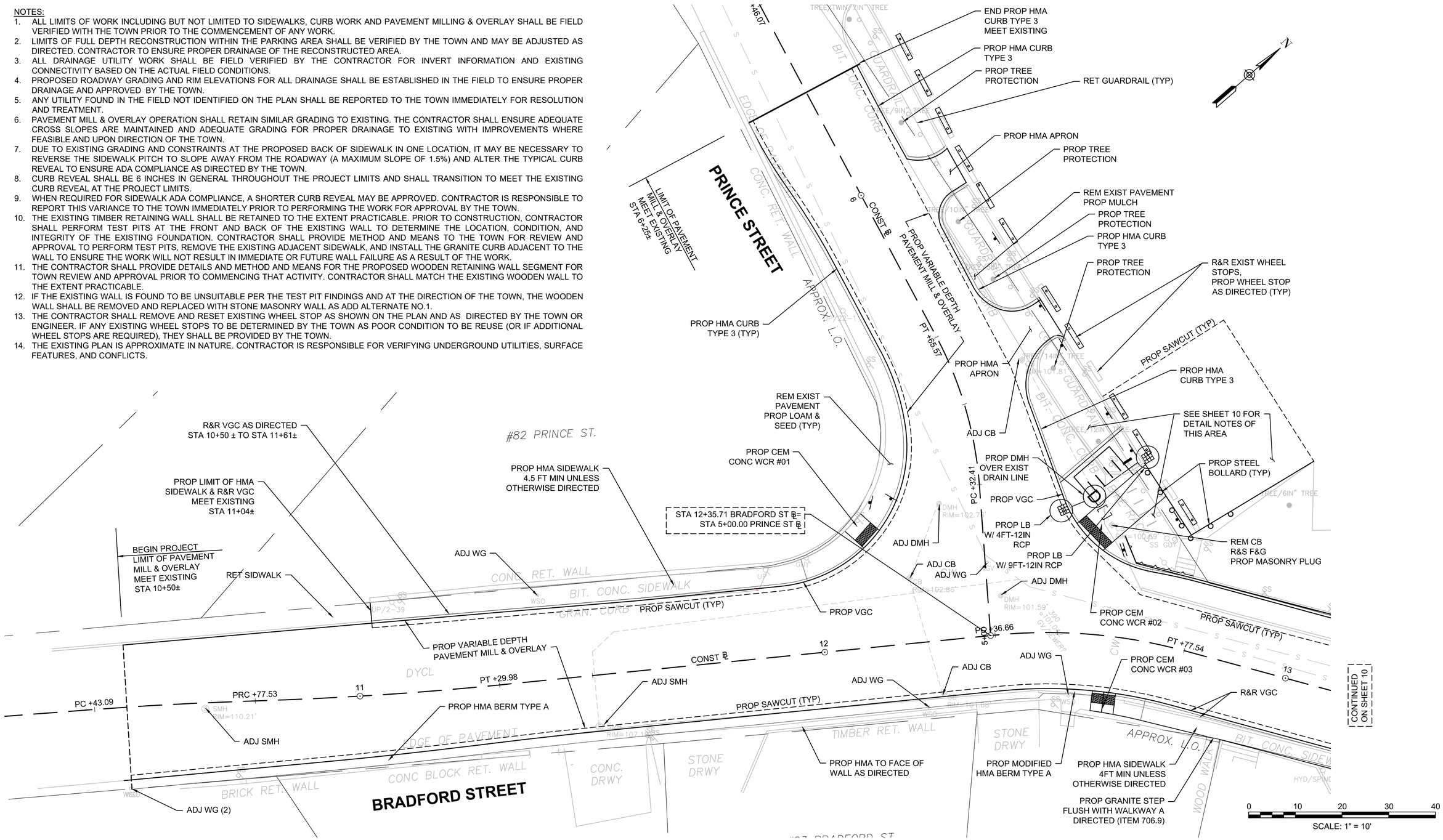
SURVEY CONTROL PLAN

Sheet No.
08

Drawing file: Z:\Provincetown.115\115-2003 - Task Order 12- Bradford at Prince Pedestrian Accommodation\ACAD\Sheet\08-SV.dwg Plot Date: Mar 25,2020-8:56pm

NOTES:

1. ALL LIMITS OF WORK INCLUDING BUT NOT LIMITED TO SIDEWALKS, CURB WORK AND PAVEMENT MILLING & OVERLAY SHALL BE FIELD VERIFIED WITH THE TOWN PRIOR TO THE COMMENCEMENT OF ANY WORK.
2. LIMITS OF FULL DEPTH RECONSTRUCTION WITHIN THE PARKING AREA SHALL BE VERIFIED BY THE TOWN AND MAY BE ADJUSTED AS DIRECTED. CONTRACTOR TO ENSURE PROPER DRAINAGE OF THE RECONSTRUCTED AREA.
3. ALL DRAINAGE UTILITY WORK SHALL BE FIELD VERIFIED BY THE CONTRACTOR FOR INVERT INFORMATION AND EXISTING CONNECTIVITY BASED ON THE ACTUAL FIELD CONDITIONS.
4. PROPOSED ROADWAY GRADING AND RIM ELEVATIONS FOR ALL DRAINAGE SHALL BE ESTABLISHED IN THE FIELD TO ENSURE PROPER DRAINAGE AND APPROVED BY THE TOWN.
5. ANY UTILITY FOUND IN THE FIELD NOT IDENTIFIED ON THE PLAN SHALL BE REPORTED TO THE TOWN IMMEDIATELY FOR RESOLUTION AND TREATMENT.
6. PAVEMENT MILL & OVERLAY OPERATION SHALL RETAIN SIMILAR GRADING TO EXISTING. THE CONTRACTOR SHALL ENSURE ADEQUATE CROSS SLOPES ARE MAINTAINED AND ADEQUATE GRADING FOR PROPER DRAINAGE TO EXISTING WITH IMPROVEMENTS WHERE FEASIBLE AND UPON DIRECTION OF THE TOWN.
7. DUE TO EXISTING GRADING AND CONSTRAINTS AT THE PROPOSED BACK OF SIDEWALK IN ONE LOCATION, IT MAY BE NECESSARY TO REVERSE THE SIDEWALK PITCH TO SLOPE AWAY FROM THE ROADWAY (A MAXIMUM SLOPE OF 1.5%) AND ALTER THE TYPICAL CURB REVEAL TO ENSURE ADA COMPLIANCE AS DIRECTED BY THE TOWN.
8. CURB REVEAL SHALL BE 6 INCHES IN GENERAL THROUGHOUT THE PROJECT LIMITS AND SHALL TRANSITION TO MEET THE EXISTING CURB REVEAL AT THE PROJECT LIMITS.
9. WHEN REQUIRED FOR SIDEWALK ADA COMPLIANCE, A SHORTER CURB REVEAL MAY BE APPROVED. CONTRACTOR IS RESPONSIBLE TO REPORT THIS VARIANCE TO THE TOWN IMMEDIATELY PRIOR TO PERFORMING THE WORK FOR APPROVAL BY THE TOWN.
10. THE EXISTING TIMBER RETAINING WALL SHALL BE RETAINED TO THE EXTENT PRACTICABLE. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL PERFORM TEST PITS AT THE FRONT AND BACK OF THE EXISTING WALL TO DETERMINE THE LOCATION, CONDITION, AND INTEGRITY OF THE EXISTING FOUNDATION. CONTRACTOR SHALL PROVIDE METHOD AND MEANS TO THE TOWN FOR REVIEW AND APPROVAL TO PERFORM TEST PITS, REMOVE THE EXISTING ADJACENT SIDEWALK, AND INSTALL THE GRANITE CURB ADJACENT TO THE WALL TO ENSURE THE WORK WILL NOT RESULT IN IMMEDIATE OR FUTURE WALL FAILURE AS A RESULT OF THE WORK.
11. THE CONTRACTOR SHALL PROVIDE DETAILS AND METHOD AND MEANS FOR THE PROPOSED WOODEN RETAINING WALL SEGMENT FOR TOWN REVIEW AND APPROVAL PRIOR TO COMMENCING THAT ACTIVITY. CONTRACTOR SHALL MATCH THE EXISTING WOODEN WALL TO THE EXTENT PRACTICABLE.
12. IF THE EXISTING WALL IS FOUND TO BE UNSUITABLE PER THE TEST PIT FINDINGS AND AT THE DIRECTION OF THE TOWN, THE WOODEN WALL SHALL BE REMOVED AND REPLACED WITH STONE MASONRY WALL AS ADD ALTERNATE NO.1.
13. THE CONTRACTOR SHALL REMOVE AND RESET EXISTING WHEEL STOP AS SHOWN ON THE PLAN AND AS DIRECTED BY THE TOWN OR ENGINEER. IF ANY EXISTING WHEEL STOPS TO BE DETERMINED BY THE TOWN AS POOR CONDITION TO BE REUSE (OR IF ADDITIONAL WHEEL STOPS ARE REQUIRED), THEY SHALL BE PROVIDED BY THE TOWN.
14. THE EXISTING PLAN IS APPROXIMATE IN NATURE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING UNDERGROUND UTILITIES, SURFACE FEATURES, AND CONFLICTS.



ENVIRONMENTAL PARTNERS

MARK	DATE	DESCRIPTION

Scale	AS NOTED
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Approved by	JDF

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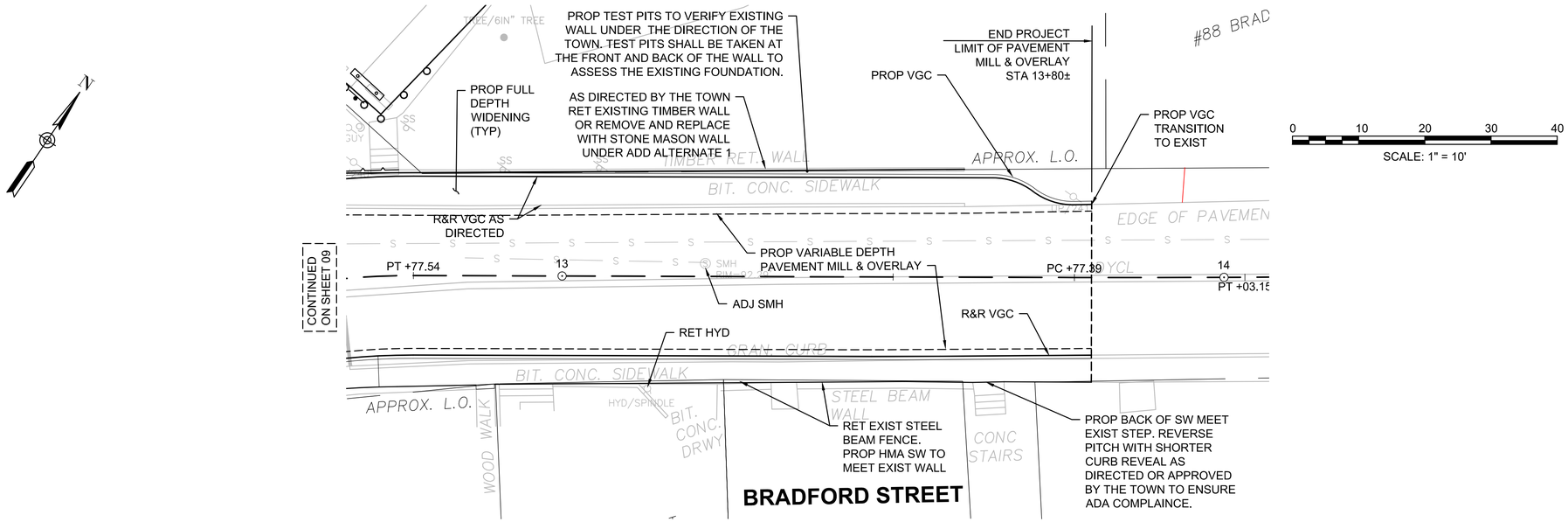
BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

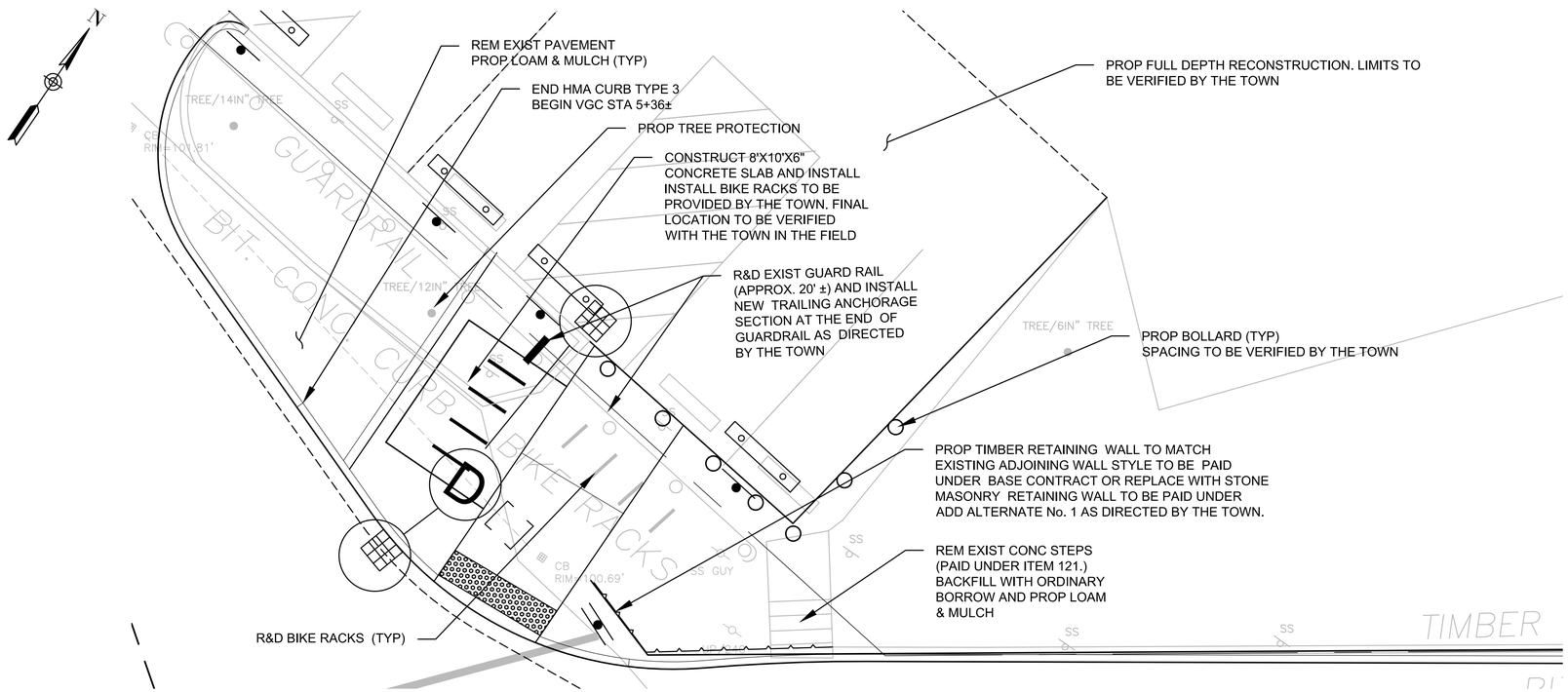
GENERAL PLAN - 01

Sheet No. 09

Drawing file: Z:\Provincetown.115\115-2003 - Task Order 12- Bradford at Prince Pedestrian Accommodations\CAD\Sheet\09-GP.dwg Plot Date: Mar 31,2020-11:45am



NOTES:
- REFER TO NOTES ON PREVIOUS SHEET



NORTHEAST CORNER DETAIL BLOW UP
SCALE: 1"=5'

ENVIRONMENTAL PARTNERS

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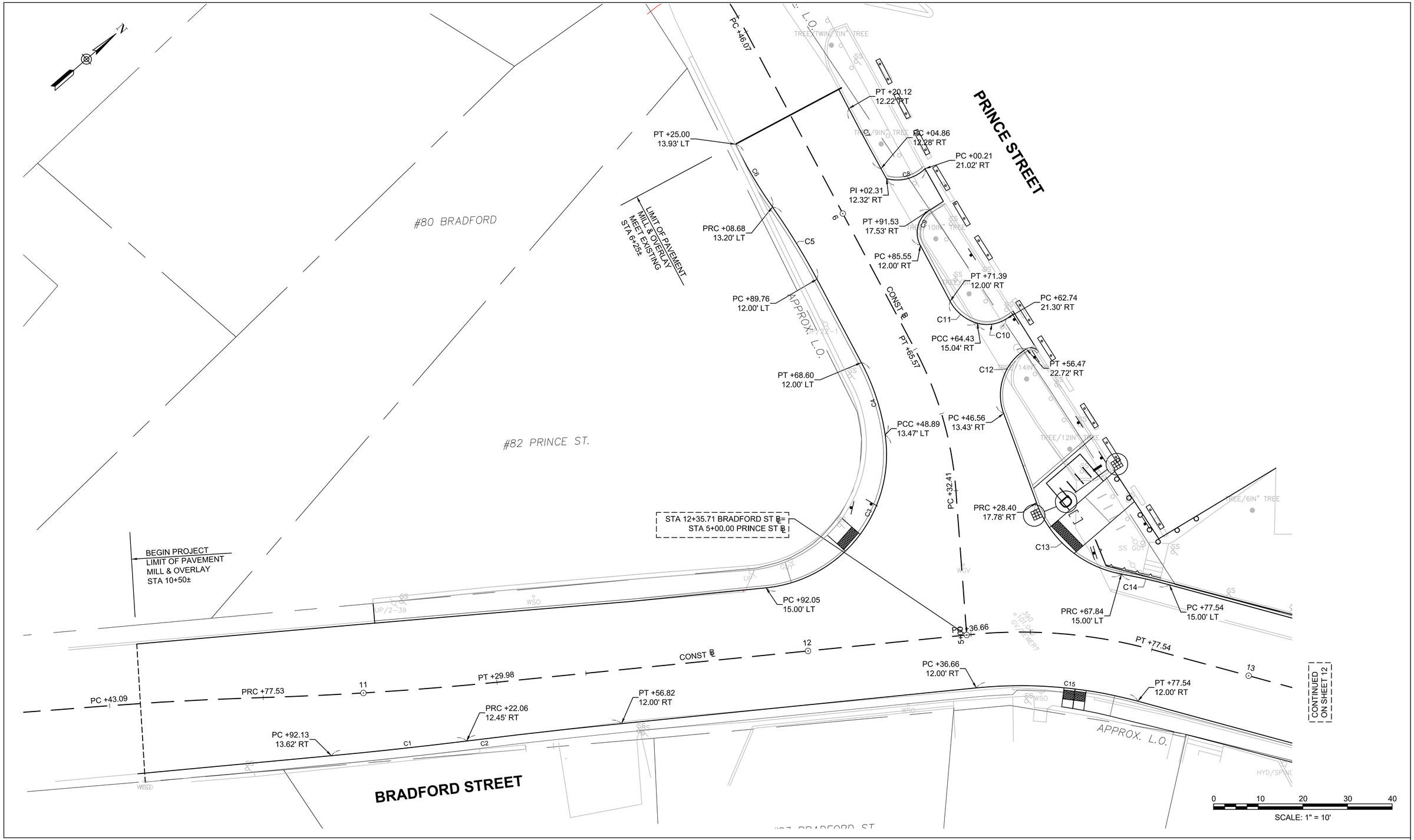
BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

GENERAL PLAN - 02

Sheet No. 10

Drawing file: Z:\Provincetown\115\115-2003 - Task Order 12- Bradford at Prince Pedestrian Accommodation\ACAD\Sheet\09-GP.dwg Plot Date: Mar 31,2020-11:44am



ENVIRONMENTAL PARTNERS

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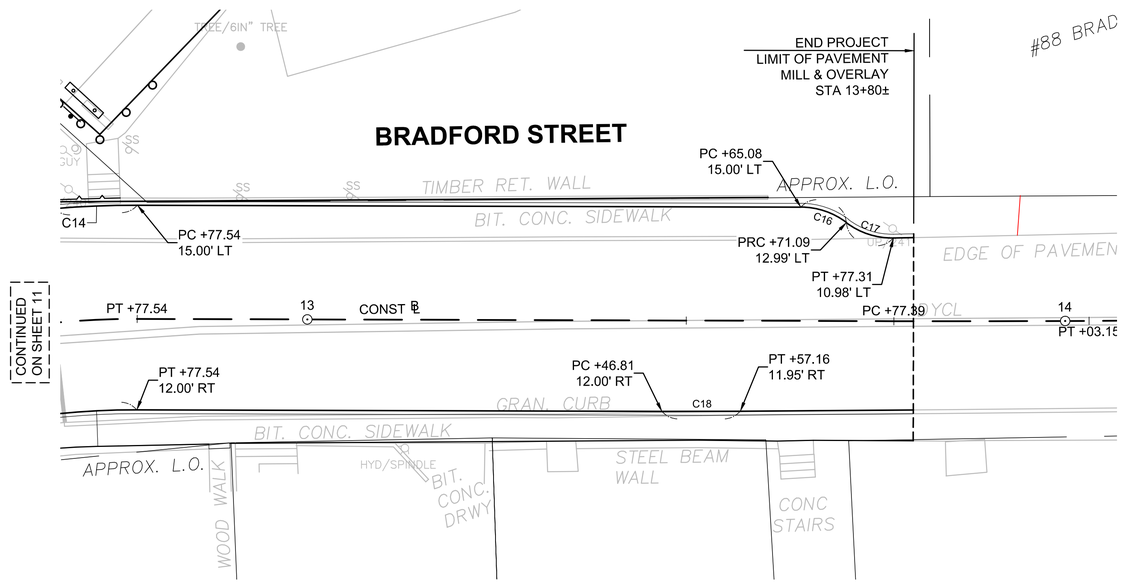
BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

CURB TIE PLAN - 01

Sheet No.
11

Drawing file: Z:\Provincetown\115\115-2003 - Task Order 12- Bradford at Prince Pedestrian Accommodation\ACAD\Sheet\11-CT.dwg Plot Date: Mar 25,2020-7:04pm



0 10 20 30 40

SCALE: 1" = 10'

Curve Table				
Curve #	Delta	Radius	Length	Tangent
C1	1°44'46"	1000.00	30.47	15.24
C2	1°19'59"	1500.00	34.90	17.45
C3	92°38'46"	30.00	48.51	31.42
C4	19°37'58"	50.00	17.13	8.65
C5	7°14'56"	150.00	18.98	9.50
C6	9°21'58"	100.00	16.35	8.19
C7	1°44'55"	500.00	15.26	7.63
C8	59°57'48"	9.00	9.42	5.19
C9	85°27'42"	6.00	8.95	5.54
C10	48°41'49"	8.00	6.80	3.62
C11	45°50'29"	10.00	8.00	4.23
C12	79°04'03"	12.00	16.56	9.90
C13	59°39'29"	25.00	26.03	14.33
C14	4°57'50"	127.00	11.00	5.50
C15	20°54'42"	100.00	36.50	18.45
C16	36°58'37"	10.00	6.45	3.34
C17	38°09'17"	10.00	6.66	3.46
C18	0°35'34"	1000.00	10.35	5.17

ENVIRONMENTAL PARTNERS

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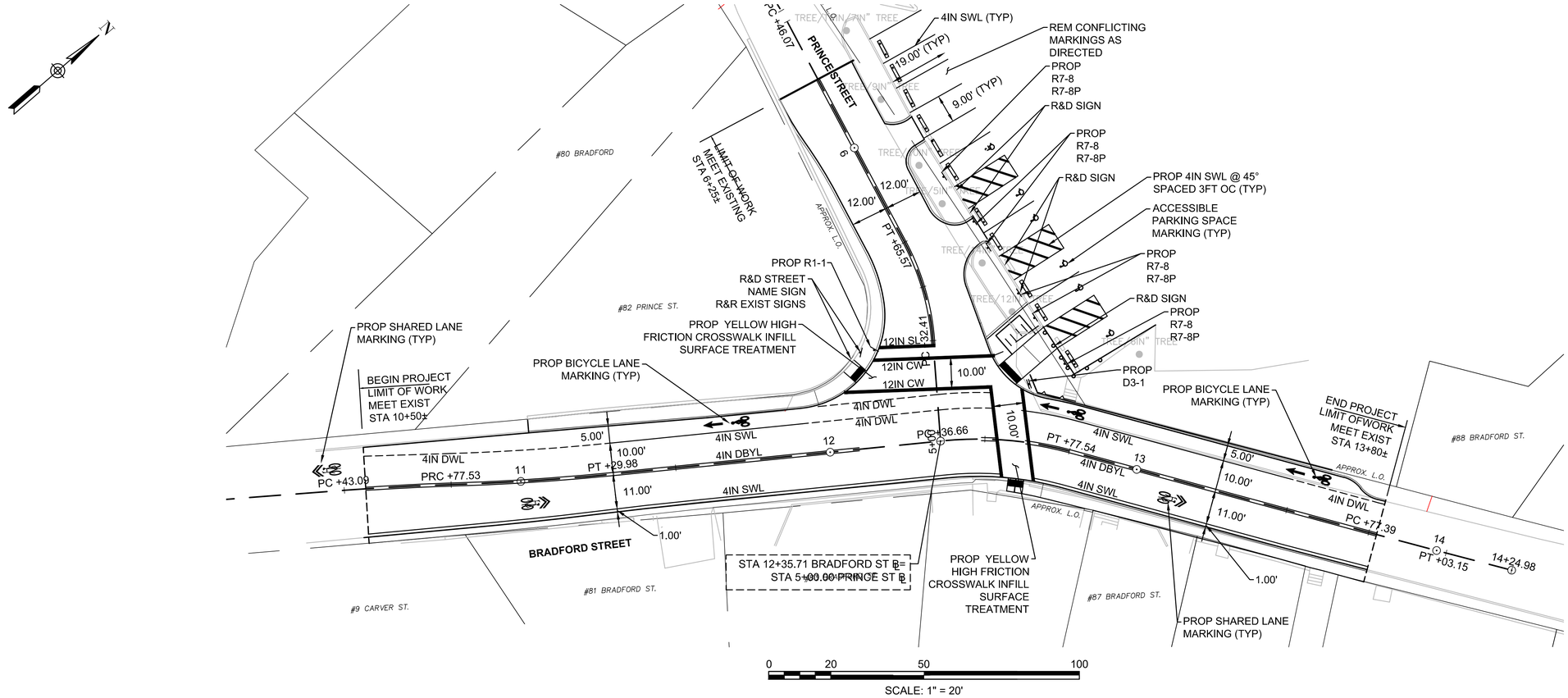
BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

CURB TIE PLAN - 02

Sheet No.
12

Drawing file: Z:\Provincetown.115\115-2003 - Task Order 12- Bradford at Prince Pedestrian Accommodation\ACAD\Sheet11-CT.dwg Plot Date: Mar 25,2020-7:06pm



NOTES:

1. ALL EXISTING SIGNS TO BE RETAINED UNLESS OTHERWISE NOTES OR DIRECTED BY THE TOWN
2. ALL PAVEMENT MARKINGS SHALL BE PAINT UNLESS OTHERWISE NOTED OR DIRECTED
3. EXISTING MARKINGS NOT SHOWN ON PLAN TO BE REVIEWED AND VERIFIED BY THE TOWN TO BE REPLACED
4. BICYCLE LANE AND SHARROW MARKINGS SHOWN ARE APPROXIMATE AND SHALL BE REVIEWED AND APPROVED BY THE TOWN IN THE FIELD PRIOR TO INSTALLATION.
5. EXISTING MARKINGS IN THE PARKING LOT THAT CONFLICT WITH THE PROPOSED LAYOUT SHALL BE GRIND OUT TO THE SATISFACTION AND DIRECTION OF THE TOWN AND PAID FOR UNDER ITEM 854.1
6. PAVEMENT FAILURES DUE TO PAVEMENT MARKING REMOVAL PROCESS SHALL BE REPORTED IMMEDIATELY TO THE TOWN AND AT THE DIRECTION OF THE TOWN SHALL BE REPAIRED AND PAID FOR UNDER ITEM 472.
7. PEDESTRIAN CROSSING (WARNING) SIGNS TO BE ADDRESSED BY THE TOWN AT THEIR DIRECTION OUTSIDE OF THIS PROJECT. PS

TRAFFIC SIGN SUMMARY

IDENTIFI-CATION NUMBER	SIZE OF SIGN (INCHES)		TEXT	TEXT DIMENSIONS (INCHES)		NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING		BACK-GROUND	LEGEND	BORDER			
D3-1 (PBS)	VARIES	12	Prince St	MUTCD STANDARD		1	MUTCD STANDARD			P5 (1)	EACH	EACH
R1-1	30	30	STOP			1				P5 (1)	6.25	6.25
R7-8	12	18	RESERVED PARKING			6				P5 (6)	1.50	9.00
R7-8P	18	9	VAN ACCESSIBLE			6				MOUNT WITH R7-8 (6)	1.12	6.75

SEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 2009 EDITION WITH LATEST REVISIONS AND MASSACHUSETTS AMENDMENTS FOR LATEST SPECIFICATIONS ON TEXT DIMENSIONS AND COLOR.

ENVIRONMENTAL PARTNERS

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BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

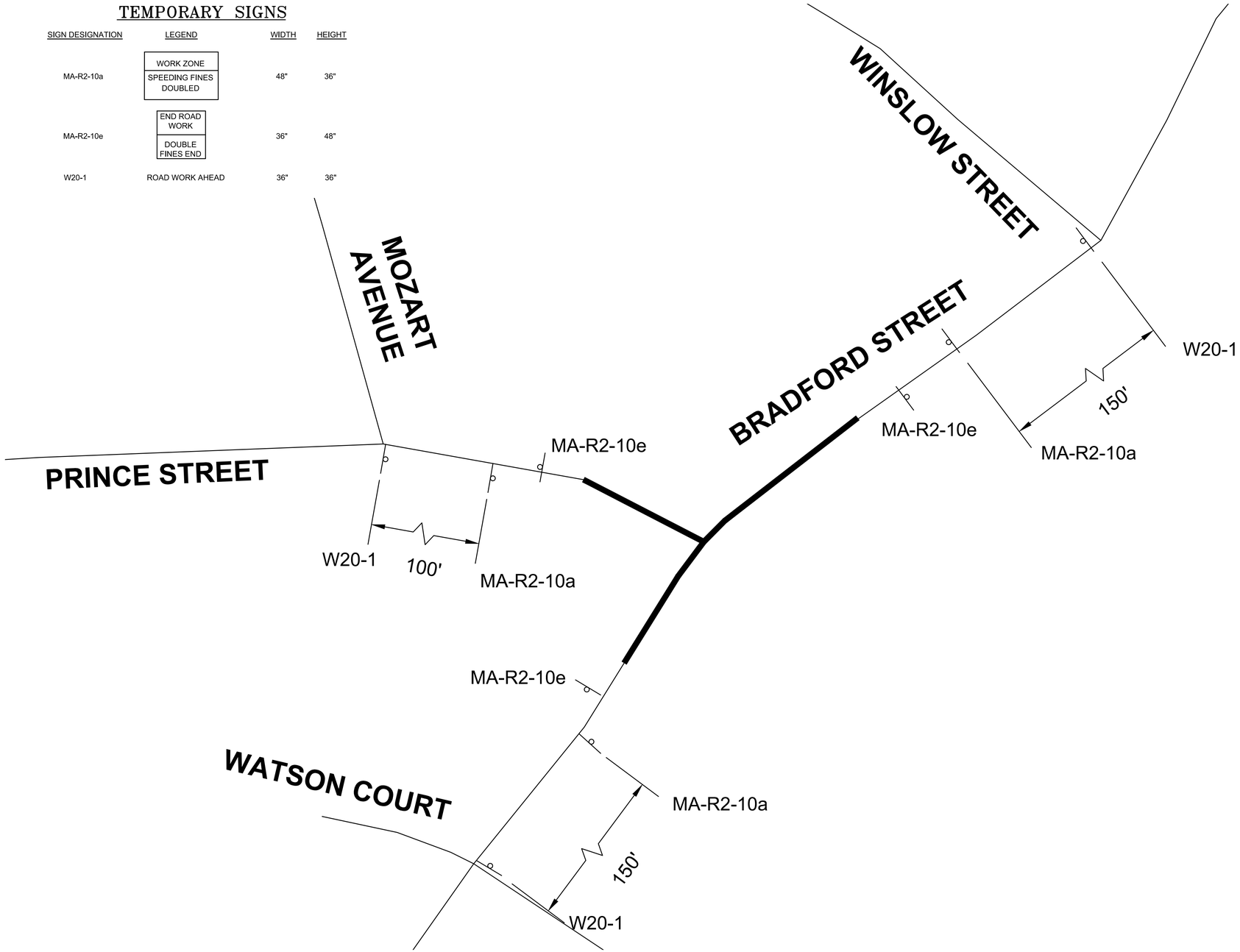
TRAFFIC SIGN AND PAVEMENT MARKING PLAN
& SIGN SUMMARY

Sheet No.
13

Drawing file: Z:\Provincetown\115\115-2003 - Task Order 12- Bradford at Prince Pedestrian Accommodation\ACAD\Sheet\13-TR.dwg Plot Date: Mar 31,2020-11:55am

TEMPORARY SIGNS

SIGN DESIGNATION	LEGEND	WIDTH	HEIGHT
MA-R2-10a	WORK ZONE / SPEEDING FINES DOUBLED	48"	36"
MA-R2-10e	END ROAD WORK / DOUBLE FINES END	36"	48"
W20-1	ROAD WORK AHEAD	36"	36"



ADVANCED SIGNING

N.T.S.

GENERAL NOTES

1. ALL CONSTRUCTION SIGNING, DRUMS, BARRICADES AND OTHER DEVICES SHALL CONFORM WITH PART 6 OF THE LATEST EDITION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.)
2. ALL CHANNELIZING DEVICES SHALL BE SET @ 25' O.C. MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE TOWN AND OR ENGINEER.
3. ALL DRUMS SHALL BE APPROPRIATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORK HOURS, TO MAINTAIN SUCH ACCESS.
4. ALL DISTANCE MAY BE ADJUSTED TO FIT FIELD CONDITIONS, AS DIRECTED BY THE TOWN AND OR ENGINEER, HOWEVER MINIMUM DISTANCES, WHERE INDICATED SHALL BE MAINTAINED.
5. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
6. THE CONTRACTOR SHALL NOTIFY THE TOWN OF PROVINCETOWN POLICE, FIRE, AND DEPARTMENT OF PUBLIC WORKS AT LEAST 48 HOURS IN ADVANCE OF LANE CLOSURES.
7. A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
8. DETOURS FOR ONE LANE CLOSURES FOR TRAVEL WAY SURFACE RESTORATION WORK ONLY (I.E. PAVEMENT MILL AND OVERLAY). EXCEPTIONS MAY BE MADE FOR MAJOR INTERSECTION WORK, BUT MUST BE APPROVED IN WRITING BY THE TOWN AND OR ENGINEER AND COORDINATED WITH THE APPROPRIATE LOCAL AUTHORITIES.
9. GRADE SEPARATIONS IN EXCESS OF 2 INCHES DURING NON-WORKING HOURS WILL REQUIRE DELINEATION BY USE OF DRUMS.
10. EXCAVATION EDGES IN EXCESS OF 4 INCHES DEEP SHALL BE PROTECTED DURING NON-WORKING HOURS BY BACKFILLING WITH A WEDGE OF GRAVEL OR SOIL COMPACTED TO A 4:1 SLOPE.
11. REMOVE EXISTING PAVEMENT MARKINGS AND PROVIDE TEMPORARY PAVEMENT MARKINGS AS APPLICABLE TO EACH PHASE OF THE CONSTRUCTION AS DIRECTED BY THE TOWN AND OR ITS REPRESENTATIVE. 11' MINIMUM TRAVEL LANE WIDTHS SHALL BE PROVIDED DURING CONSTRUCTION.
12. NONESSENTIAL TEMPORARY CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS. THE GENERAL SEQUENCE OF WORK IS DEPENDENT UPON THE REMOVAL AND
13. RELOCATION OF THE EXISTING UTILITY POLES AND WIRES THAT ARE FOUND TO BE IN CONFLICT WITH THE PROPOSED WORK, BY THE UTILITY COMPANIES. THE CONTRACTOR SHALL SCHEDULE THE WORK IN EACH AREA TO COORDINATE WITH THE POLE RELOCATION WORK.
14. ADVISORY SPEED PLATES (W13-1) SHALL BE USED IF APPROPRIATE AND AS DIRECTED BY THE TOWN AND OR ENGINEER. SUPPORTS FOR ALL TRAFFIC MANAGEMENT SIGNS SHALL BE 4" X 4" PRESSURE TREATED.
15. TREATED WOOD POSTS. ANY LANE CLOUSURE WORK MUST BE PERFORMED BETWEEN THE HOURS OF 9:00 AM - 3:30 PM
16. ONLY, EXCEPTION FOR A SHORT PERIOD OF TIME AS APPROVED BY THE TOWN. WORKING BEYOND THESE HOURS OR OVER THE WEEKEND MUST BE APPROVED BY THE TOWN.
17. ALL TEMPORARY TRAFFIC CONTROL WORK FOR SIDEWALK CLOSURE AND PEDESTRIAN DETOURS SHALL CONFORM TO THE LATEST EDITION OF THE MASSDOT STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TEMPORARY TRAFFIC CONTROL PLANS FIGURE PED-1 TO FIGURE PED-7. THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THIS PROJECT. NO ADDITIONAL COMPENSATION SHALL BE REQUESTED TO THE TOWN.

LEGEND

⊙	CHANNELIZING DEVICE
→	PROPOSED TRAFFIC FLOW
▨	WORK ZONE
	TYPE III BARICADE
Ⓟ	POLICE DETAIL
Ⓕ	FLAGGER
	CONSTRUCTION SIGN
N.T.S.	NOT TO SCALE

ENVIRONMENTAL PARTNERS

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BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

TRAFFIC MANAGEMENT PLAN - 01

Sheet No. 14

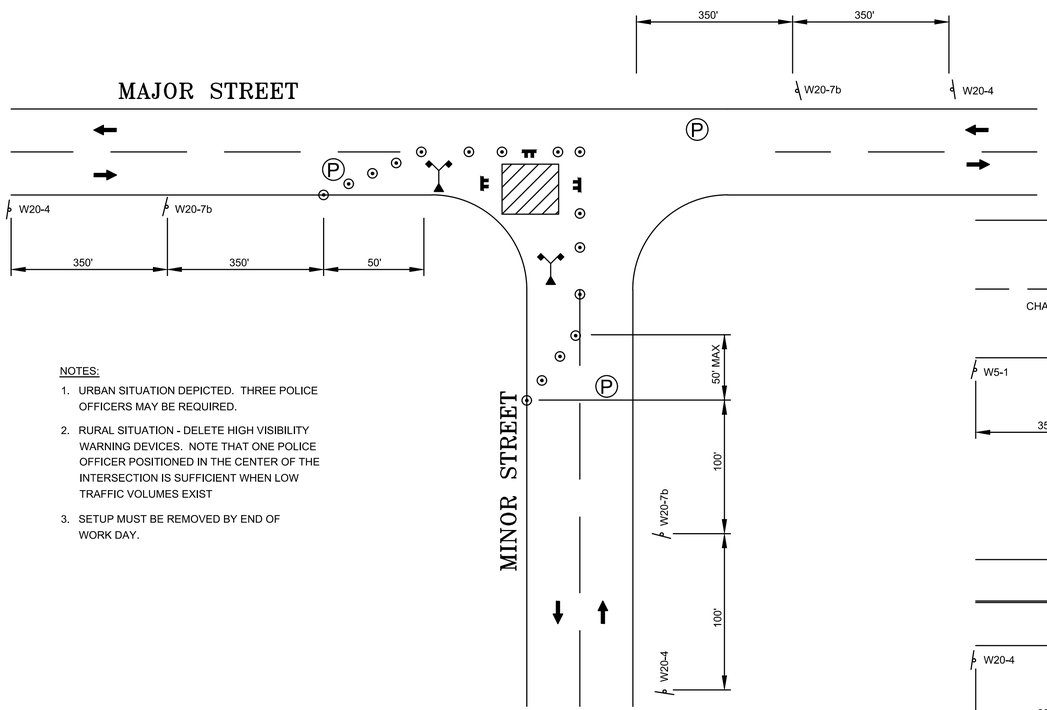
Drawing file: Z:\Provincetown.115\115-2003 - Task Order 12- Bradford at Prince Pedestrian Accommodation\ACAD\Sheet\14-TTCP.dwg Plot Date: Mar 25,2020-7:26pm

LEGEND

- HIGH LEVEL WARNING DEVICE - FLAG TREE
- REFLECTORIZED CONE
- REFLECTORIZED DRUM
- PROPOSED TRAFFIC FLOW
- WORK ZONE
- TYPE III BARICADE
- POLICE DETAIL
- CONSTRUCTION SIGN
- N.T.S. — NOT TO SCALE

TEMPORARY SIGNS

SIGN DESIGNATION	LEGEND	HEIGHT	WIDTH
R9-9	SIDEWALK CLOSED	30"	18"
W1-4R		30"	30"
W1-4L		30"	30"
W5-1	ROAD NARROWS	36"	36"
W13-1	XX MPH	24"	24"
W20-1	ROAD WORK AHEAD	36"	36"
W20-4	ONE LANE ROAD AHEAD	36"	36"
W20-7a	FLAGGER AHEAD	36"	36"
W20-7b	POLICE OFFICER AHEAD	36"	36"



NOTES:

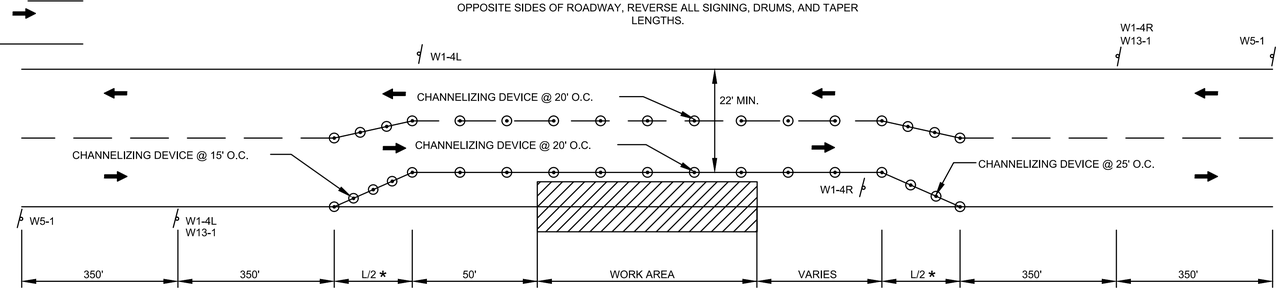
1. URBAN SITUATION DEPICTED. THREE POLICE OFFICERS MAY BE REQUIRED.
2. RURAL SITUATION - DELETE HIGH VISIBILITY WARNING DEVICES. NOTE THAT ONE POLICE OFFICER POSITIONED IN THE CENTER OF THE INTERSECTION IS SUFFICIENT WHEN LOW TRAFFIC VOLUMES EXIST
3. SETUP MUST BE REMOVED BY END OF WORK DAY.

TYPICAL MOVABLE WORK AREA "OPERATIONAL" (DAY-TO-DAY) PLAN

N.T.S.

OPERATIONAL SIGNING

TEMPORARY LANE CLOSURES SHOWN ARE FOR ROADWAY CONSTRUCTION. ALL DRUMS AND SIGNS ARE SHOWN AS THEY SHOULD APPEAR DURING THE WORKING DAY, OR WHILE OPERATING IN THE WORK ZONE. FOR WORK ON OPPOSITE SIDES OF ROADWAY, REVERSE ALL SIGNING, DRUMS, AND TAPER LENGTHS.

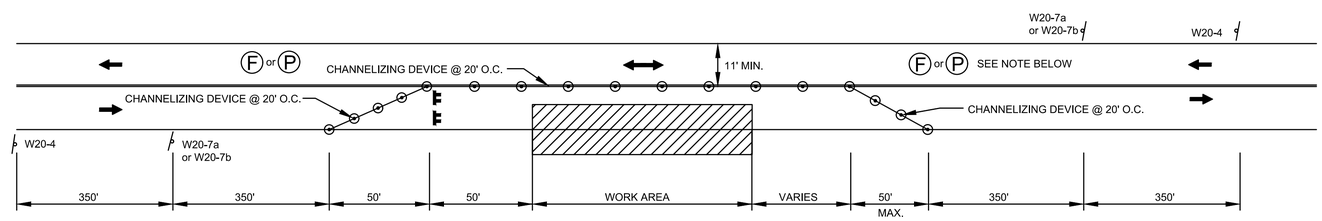


TYPICAL TWO WAY STREET LANE SHIFT

N.T.S.

* $L=\frac{WS^2}{60}$

L=TAPER LENGTH
W=WIDTH OF ROADWAY TO BE SHIFTED OR REDIRECTED
S=POSTED SPEED LIMIT



TYPICAL TWO WAY STREET LANE CLOSURE

N.T.S.

NOTE:

WORK THAT WILL DISRUPT EXISTING TRAFFIC PATTERNS WITHIN THE EXISTING ROADWAYS (LANE REDUCTION, ETC.) SHALL ONLY BE DONE DURING OFF PEAK HOURS. NUMBERS AND LOCATION OF FLAGGERS FOR WORK ZONE AND/OR DETOUR MANAGEMENT SHALL BE DETERMINED BY THE TOWN AND OR ENGINEER ON A CASE BY CASE BASIS, AS WORK PROGRESSES. WHEN WORK IS IN THE VICINITY OF AN INTERSECTION A POLICE DETAIL SHALL REPLACE FLAGGERS AS DIRECTED BY THE TOWN AND OR ENGINEER

ENVIRONMENTAL PARTNERS

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BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

TRAFFIC MANAGEMENT PLAN - 02

Sheet No. 15

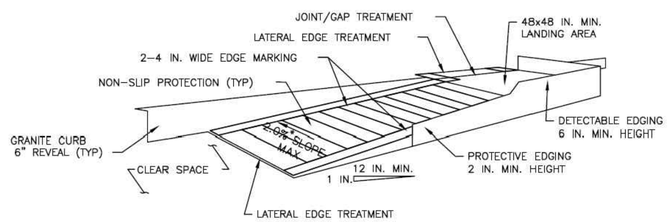
Drawing file: Z:\Provincetown.115\115-2003 - Task Order 12- Bradford at Prince Pedestrian Accommodation\ACAD\Sheet\4-TTCP.dwg Plot Date: Mar 25,2020-7:29pm

TEMPORARY SIGNS

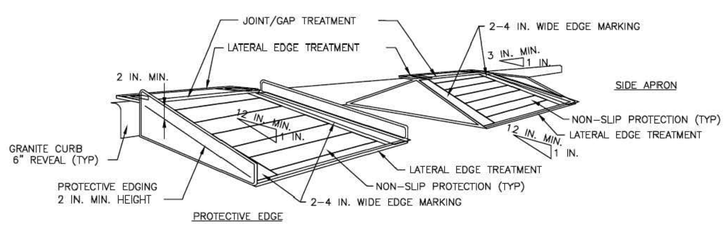
SIGN DESIGNATION	LEGEND	HEIGHT	WIDTH
R9-9	SIDEWALK CLOSED	30"	18"

LEGEND

	HIGH LEVEL WARNING DEVICE - FLAG TREE
	REFLECTORIZED CONE
	REFLECTORIZED DRUM
	PROPOSED TRAFFIC FLOW
	WORK ZONE
	TYPE III BARICADE
P	POLICE DETAIL
	CONSTRUCTION SIGN
N.T.S.	NOT TO SCALE



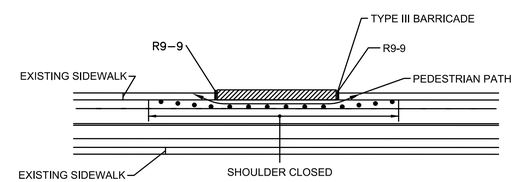
TEMPORARY CURB RAMP-PARALLEL TO CURB



TEMPORARY CURB RAMP-PERPENDICULAR TO CURB

NOTES:

1. CURB RAMPS SHALL BE 60 IN. MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
2. PROTECTIVE EDGING WITH A 2 IN. MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6 IN. OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDER WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3 IN. OR MORE.
3. DETECTABLE EDGE WITH 6 IN. MINIMUM HEIGHT AND CONTRAST COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX. CROSS-S;LOPE.
5. CLEAR SPACE OF 48X48 IN. MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
6. THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A CONTRASTING COLOR 2 TO 4 IN. WIDE MARKING. THE MARKING IS OPTIONAL WHERE COLOR CONTRASTING EDGING IS USED.
7. WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5 IN. WIDTH
9. CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5 IN. LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25 IN. HIGH, AND BEVELED AT 1:2 BETWEEN 0.25 IN. AND 0.5. IN. HEIGHT.



TYPE I

NOTES

1. ADDITIONAL ADVANCE WARNING MAY BE NECESSARY.
2. CONTROLS ONLY FOR PEDESTRIAN TRAFFIC ARE SHOWN. VEHICULAR TRAFFIC SHOULD BE HANDLED AS SHOWN ELSEWHERE.
3. IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT AS SHOWN, PEDESTRIANS MAY BE REQUIRED TO CROSS TO THE OPPOSITE SIDE OF THE STREET AS DIRECTED BY THE RESIDENT ENGINEER.
4. BYPASS IS TO BE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING, AS DIRECTED BY THE RESIDENT ENGINEER.

PEDESTRIAN BYPASS

N.T.S.

ENVIRONMENTAL PARTNERS

MARK	DATE	DESCRIPTION

Scale	AS NOTED
Date	MARCH 2020
Job No.	115-2003
Designed by	JRC
Drawn by	JRC
Checked by	BLH
Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

BRADFORD STREET AT PRINCE STREET
INTERSECTION IMPROVEMENTS
PROVINCETOWN, MA

TRAFFIC MANAGEMENT PLAN - 03

Sheet No. 16

Drawing file: Z:\Provincetown.115\115-2003 - Task Order 12- Bradford at Prince Pedestrian Accommodation\ACAD\Sheet\4-TTCP.dwg Plot Date: Mar 25,2020-7:31pm