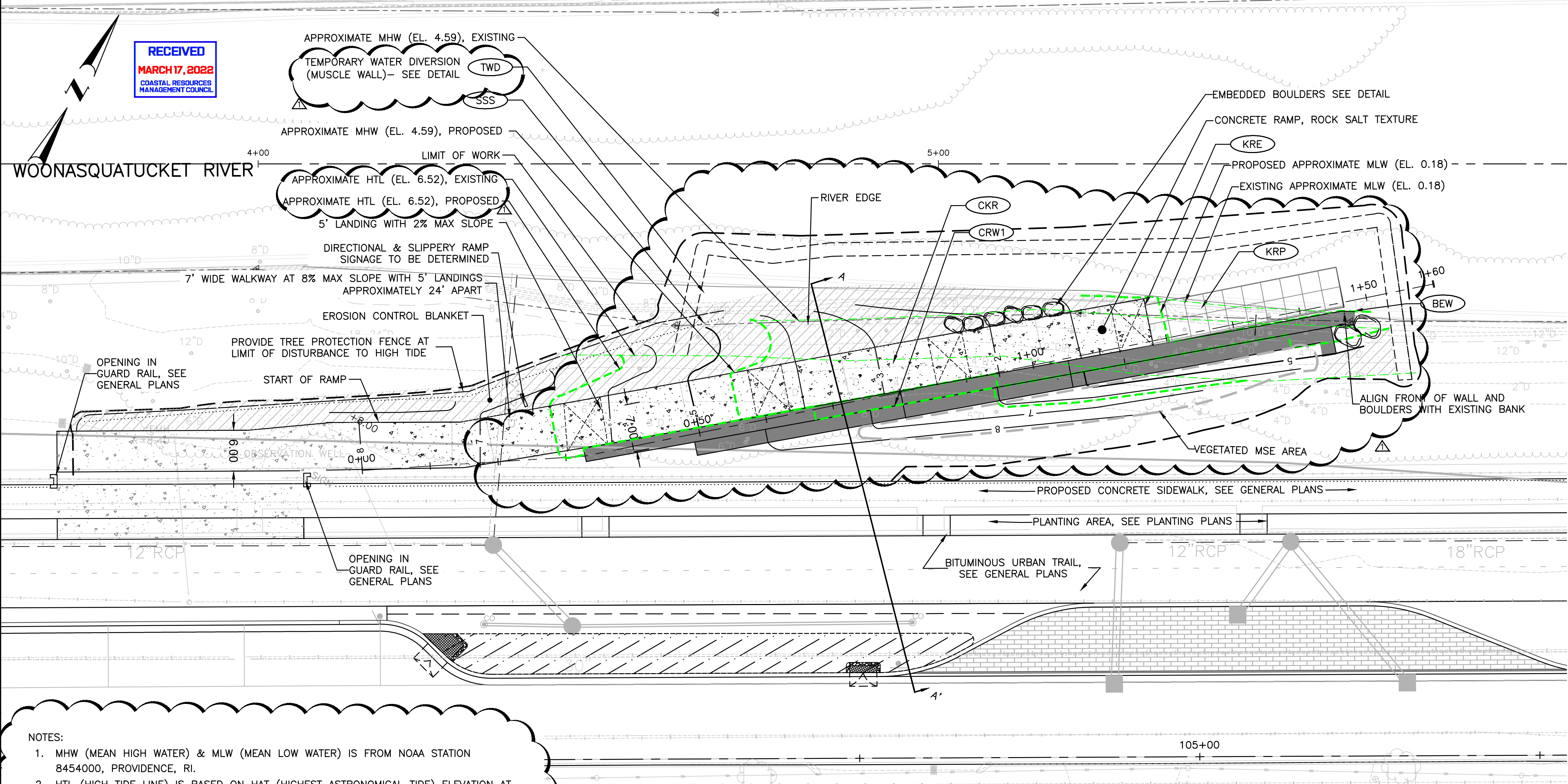
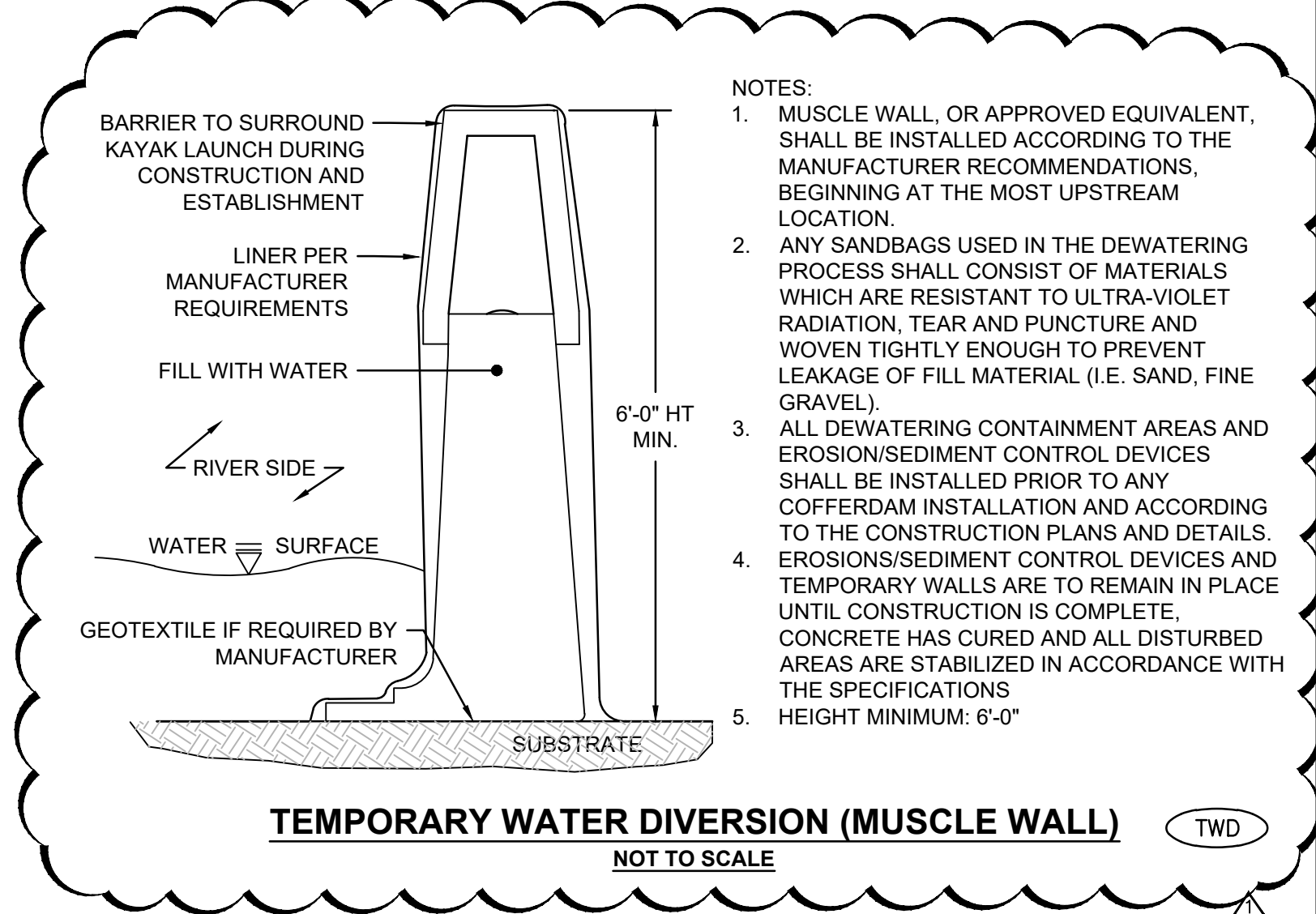
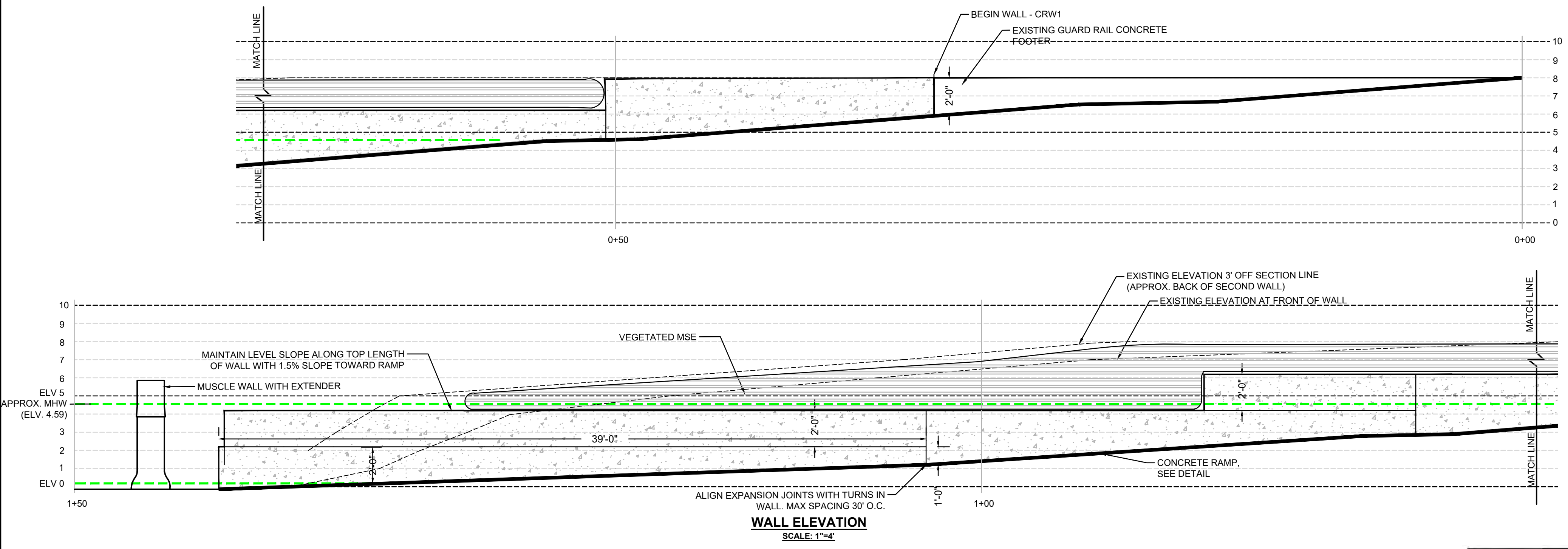


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 COASTAL RESOURCES
 MANAGEMENT COUNCIL



NOTES:

- MHW (MEAN HIGH WATER) & MLW (MEAN LOW WATER) IS FROM NOAA STATION 8454000, PROVIDENCE, RI.
- HTL (HIGH TIDE LINE) IS BASED ON HAT (HIGHEST ASTRONOMICAL TIDE) ELEVATION AT NOAA STATION 8454000, PROVIDENCE, RI.
- TEMPORARY WATER DIVERSION (MUSCLE WALL) TO BE REMOVED WHEN BANK IS STABILIZED AND CONCRETE HAS CURED
- SOIL TESTING AND ENGINEERING ANALYSIS TO BE PROVIDED FOR VEGETATED MSE PRIOR TO BEGINNING ANY WORK.



WOONASQUATUCKET RIVER GREENWAY

JONATHAN A. FORD
 No. 8784
 REGISTERED PROFESSIONAL ENGINEER (CIVIL)

DESIGNED BY: EH/ML/EB
 CHECKED BY: JF
 DATE: 07/2021
 SHEET: 1 OF 3

SCALE: 1" = 10'

REVISIONS		REVISIONS			
NO.	DATE	BY	NO.	DATE	BY
1	1/2022	EB			
3					

WOONASQUATUCKET RIVER GREENWAY
 PROVIDENCE RHODE ISLAND
KAYAK LAUNCH LAYOUT & EROSION CONTROL

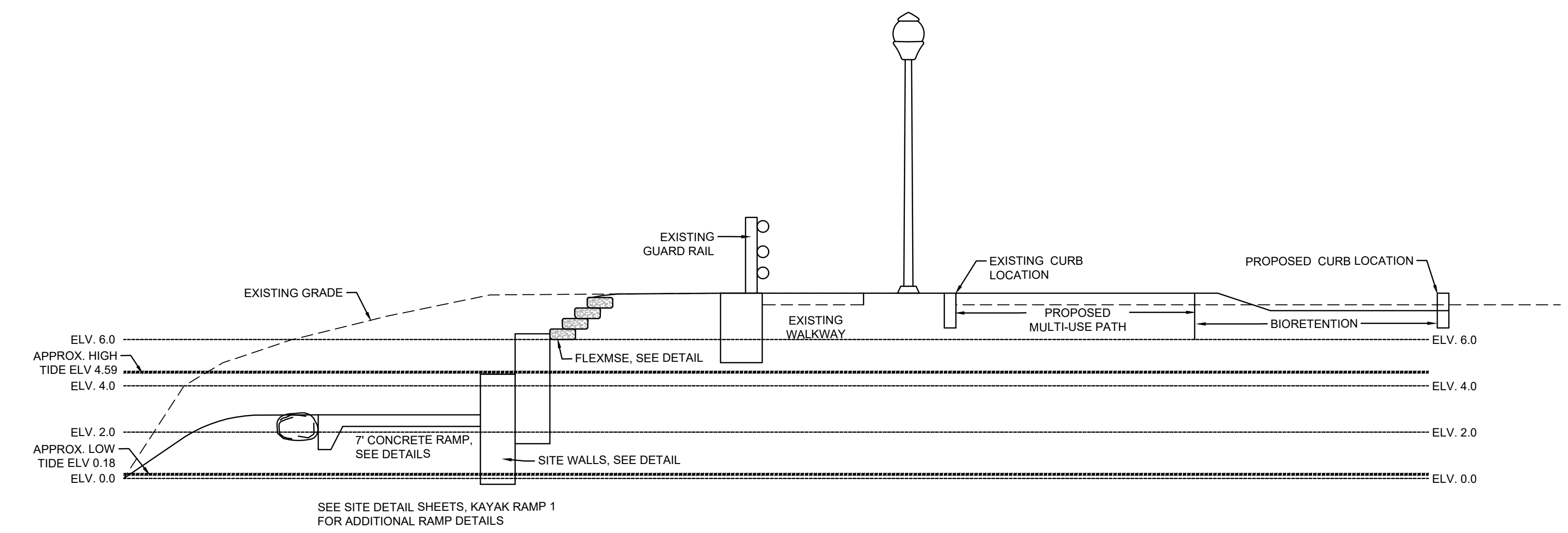
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-YYY(ZZZ)	2021	49	123

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MARCH 17, 2022
COASTAL RESOURCES
MANAGEMENT COUNCIL

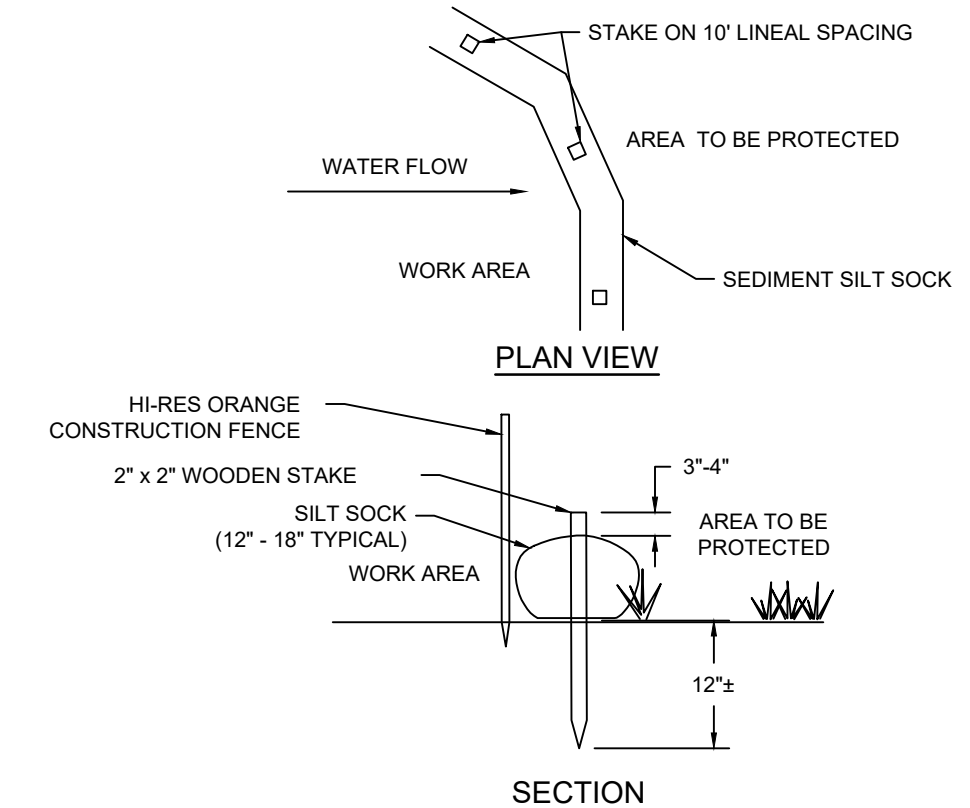
EROSION & SEDIMENT CONTROL NOTES:

- DESIGNATE THE SITE CONSTRUCTION FOREMAN AS THE 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.
- 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 AND PROTECTION FENCING 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.
- MAINTAIN A MINIMUM SURPLUS OF 200 FEET OF EROSION CONTROL BARRIER (SILT FENCE, STRAWBALE, &/OR SILT SOCK) ONSITE AT ALL TIMES.
- PROTECT THE ADJACENT RESOURCE AREAS FROM SEDIMENTATION DURING PROJECT CONSTRUCTION UNTIL ACCEPTANCE BY THE OWNER & IN CONFORMANCE WITH THE ASSENT.
- PROVIDE CONSTRUCTION EXITS, IF REQUIRED, TO SHED DIRT FROM CONSTRUCTION VEHICLE TIRES. CLEAN AND/OR REPLACE THE CRUSHED STONE PAD, AS NECESSARY, TO MAINTAIN ITS EFFECTIVENESS.
- 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 ON THE ENTIRE SITE, 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.
- 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.
- INSPECT EROSION AND SEDIMENT CONTROL DEVICES AND STABILIZED SLOPES ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT OF 0.50 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.
- SURROUND THE PERIMETER OF SOIL STOCKPILES WITH SILT SOCK, SILT FENCE, STRAWBALES, OR A COMBINATION OF SILT FENCE WITH STRAWBALE, AS DETERMINED NECESSARY.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVEL HAS BEEN INSTALLED IN AREAS TO BE PAVED.
 - A MINIMUM OF 85 PERCENT VEGETATED GROWTH HAS BEEN ESTABLISHED.
 - A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED.
 - EROSION CONTROL BLANKET HAS BEEN PROPERLY INSTALLED.
- DISTURBED AREAS AND SLOPES, NOT AT FINAL GRADE, 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 WAS INITIATED. REINFORCE TEMPORARY AREAS HAVING A SLOPE GREATER THAN 3:1 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 ENGINEER. VEGETATED AREAS SHALL BE TEMPORARILY STABILIZED IN ACCORDANCE WITH THE PLANTING PLAN.
- CUT AND FILL SLOPES SHALL BE STABILIZED BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADES. VEGETATED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANTING PLAN.
- ALL AREAS SHALL BE STABILIZED PRIOR TO WINTER AS FOLLOWS:
 - ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKET ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH NETTING ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKET OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
 - AFTER OCTOBER 15, 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 RIDOT STANDARD.
- INSTALL A SILT SACK OR APPROVED EQUIVALENT IN EACH EXISTING CATCHBASIN RECEIVING RUNOFF FROM THE SITE. UPON THE INSTALLATION OF EACH CATCH BASIN, INSTALL A 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.
- TEMPORARY WATER DIVERSIONS AND/OR SEDIMENTATION BASINS MAY BE CONSTRUCTED ON AN AS-NEEDED BASIS OR AS IDENTIFIED IN THE SESC DURING CONSTRUCTION TO AID IN THE CAPTURE OF SITE RUNOFF AND SEDIMENT UNTIL AREAS ARE STABILIZED. THESE CONTROLS SHALL BE INSTALLED PRIOR TO THE START OF EARTH DISTURBANCE. IT WILL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR, IN CONSULTATION WITH THE ENGINEER, TO SIZE AND CREATE THESE BASINS IN APPROPRIATE LOCATIONS. ALL DITCHES OR SWALES SHALL BE STABILIZED PRIOR TO DIRECTING STORMWATER RUNOFF TO THEM.
- CONTAIN ALL SEDIMENT ONSITE. 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.
- REMOVE ACCUMULATED SEDIMENT FROM ALL TEMPORARY PRACTICES AND DISPOSE OF IN A PRE-APPROVED LOCATION.
- CONTROL DUST BY WATERING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE ENGINEER.
- PROVIDE ON SITE OR MAKE READILY AVAILABLE THE NECESSARY EQUIPMENT AND SITE PERSONNEL DURING CONSTRUCTION HOURS FOR THE DURATION OF THE PROJECT TO ENSURE ALL EROSION AND SEDIMENTATION CONTROL DEVICES ARE PROPERLY MAINTAINED AND REPAIRED IN A TIMELY AND RESPONSIBLE MANNER. IF SITE WORK IS SUSPENDED DURING THE WINTER MONTHS THE CONTRACTOR MUST CONTINUE TO PROVIDE PERSONNEL AND EQUIPMENT EITHER ON SITE OR READILY AVAILABLE TO
- PROPERLY MAINTAIN AND REPAIR ALL EROSION AND SEDIMENTATION CONTROL DEVICES IN A TIMELY AND RESPONSIBLE MANNER.
- THE CONTRACTOR IS RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE DURING CONSTRUCTION OF ALL STORMWATER FACILITIES INSTALLED OR AFFECTED BY THE PROJECT.

- REMOVE SEDIMENT OR DEBRIS COLLECTED WITHIN THESE FACILITIES FROM THE PROJECT WORK PRIOR TO THE OWNER'S ACCEPTANCE.
- PRIOR TO THE INSTALLATION OF FILTER FABRIC AND MEDIA WITHIN THE BIORETENTION AREAS, REMOVE AND PROPERLY DISPOSE OF SEDIMENT ACCUMULATED IN ANY PARTIALLY CONSTRUCTED OR TEMPORARY BIORETENTION/DRAINAGE AREA USED FOR SEDIMENT CONTROL DURING CONSTRUCTION. PROVIDE A SURFACE ELEVATION AT A MINIMUM 1-FOOT ABOVE THE BOTTOM OF MEDIA ELEVATION AS SHOWN IN THE BIORETENTION SCHEDULE FOR PARTIALLY CONSTRUCTED BIORETENTION AREAS. THIS ALLOWS FOR AN OVER-DIG OF THE COLLECTED SEDIMENT FROM WITHIN THE BIORETENTION AREA PRIOR TO MEDIA/FABRIC INSTALLATION.
 - SILT SOCK OR SILT FENCE SHALL BE PROVIDED AS REQUIRED DURING THE WORK TO PREVENT SEDIMENT FROM ENTERING THE WOONASQUATUCKET RIVER.
 - ANY STOCKPILE MATERIAL SHALL BE STOCKPILED AND REMOVED IN ACCORDANCE WITH THE APPROVED RAP AND IN COORDINATION WITH RIDEM AND ENVIRONMENTAL ENGINEER AS REQUIRED. STOCKPILING AND CONSTRUCTION STAGING SHALL BE COORDINATED WITH THE CIVIL ENGINEER, ENVIRONMENTAL ENGINEER, CITY DPW, CRMC, AND DEM AS REQUIRED DUE TO PROXIMITY TO THE WOONASQUATUCKET RIVER.
 - NOTE THAT A PORTION OF THE PROJECT IS WITHIN THE TIDAL ZONE. ALL WORK SHALL BE PERFORMED IN THE DRY TO THE MAXIMUM EXTENT PRACTICABLE. CONTRACTOR SHALL COORDINATE AND BE RESPONSIBLE FOR DETERMINING MEANS AND METHODS TO MEET REQUIREMENTS (I.E. MUSCLE WALL, SCHEDULING WORK, ETC.)
 - EQUIPMENT SHALL BE PROPERLY MAINTAINED AND FUEL MANAGEMENT SHALL BE PER CRMC REQUIREMENTS.
 - CONTRACTOR SHALL IMPLEMENT AND ADHERE TO ANY PROVISIONS REQUIRED BY AND PERMITS ISSUED FOR THE WORK.

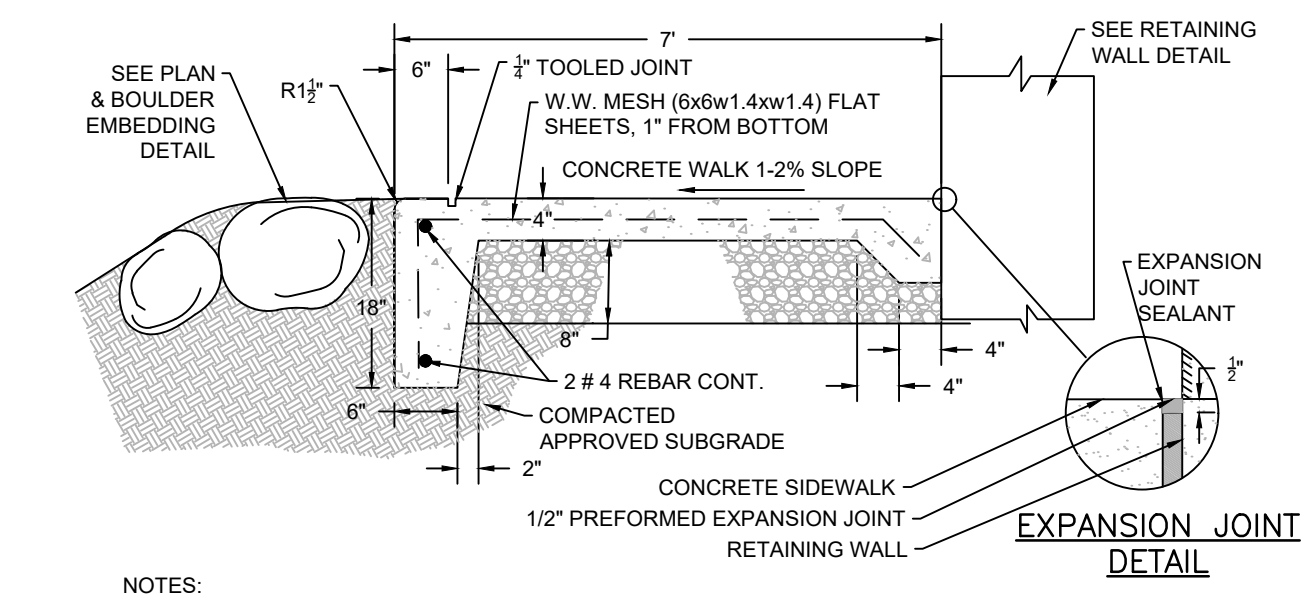


KAYAK LAUNCH 1 - SECTION A-A'
SCALE: 1"=4'



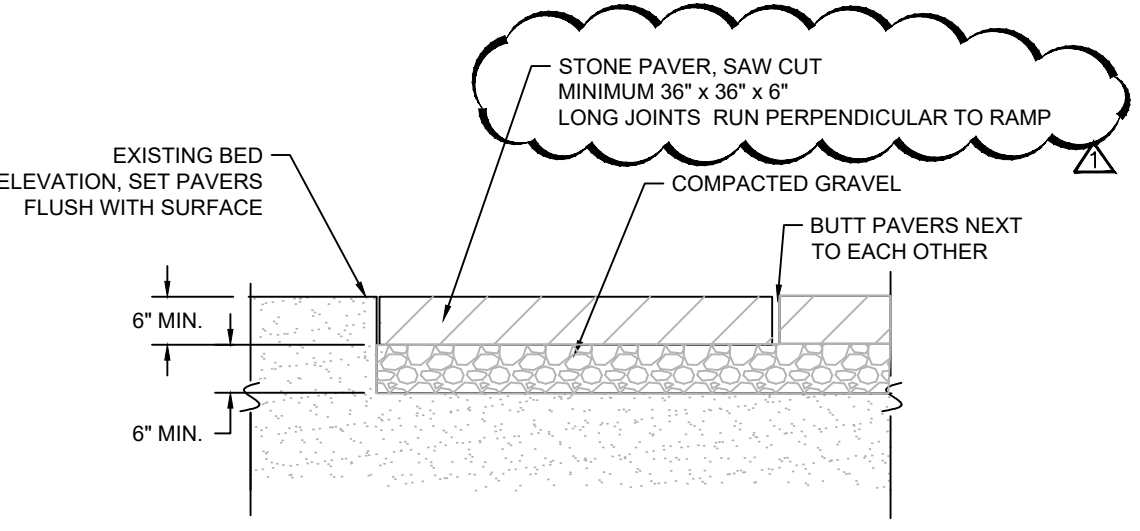
- NOTES:
1. SILT SOCK MANUFACTURER SHALL BE SILT SOCK OR ENGINEER APPROVED EQUAL.
2. ALL MATERIAL TO MEET MANUFACTURER'S SPECIFICATIONS.
3. SEDIMENT SILT SOCK TO BE FILLED WITH COMPOST AND/OR WOODY MULCH PER MANUFACTURER'S REQUIREMENTS.
4. FOLLOWING CONSTRUCTION AND SITE STABILIZATION COMPOST MATERIAL SHALL BE REMOVED OR DISPERSED ON SITE, AS APPROVED BY THE ENGINEER.

SEDIMENT SILT SOCK
NOT TO SCALE



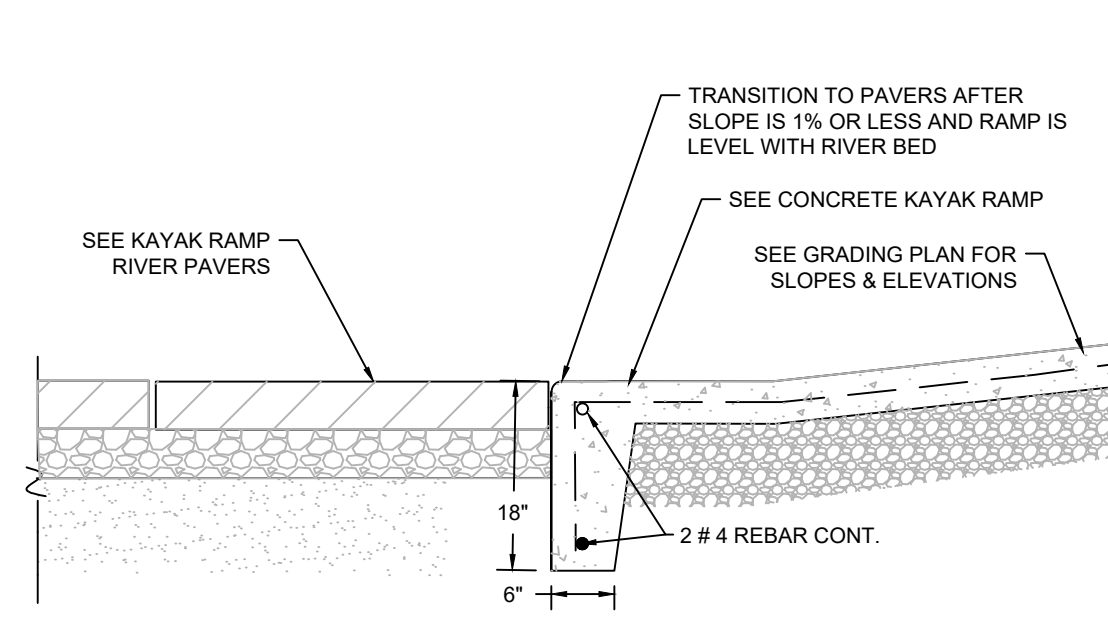
- NOTES:
1. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE-FORMED JOINT FILLER.
2. PROVIDE TOOLED CONTROL JOINTS AT 6' O.C. MAX.
3. PROVIDE ROCK SALT FINISH.
4. CEMENT CONCRETE SHALL BE 4,000 PSI-TYPE II

CONCRETE KAYAK RAMP
NOT TO SCALE

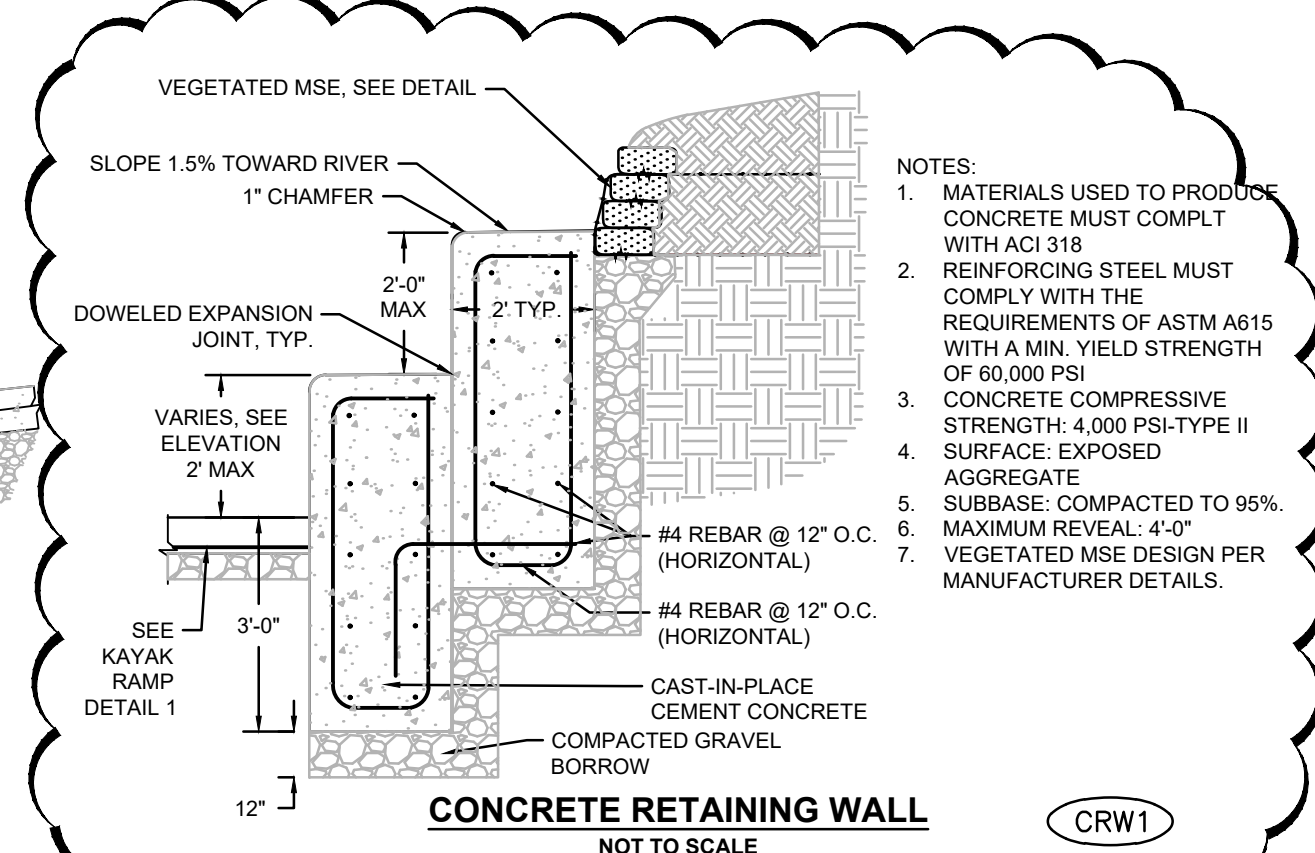


- NOTES:
1. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE-FORMED JOINT FILLER.
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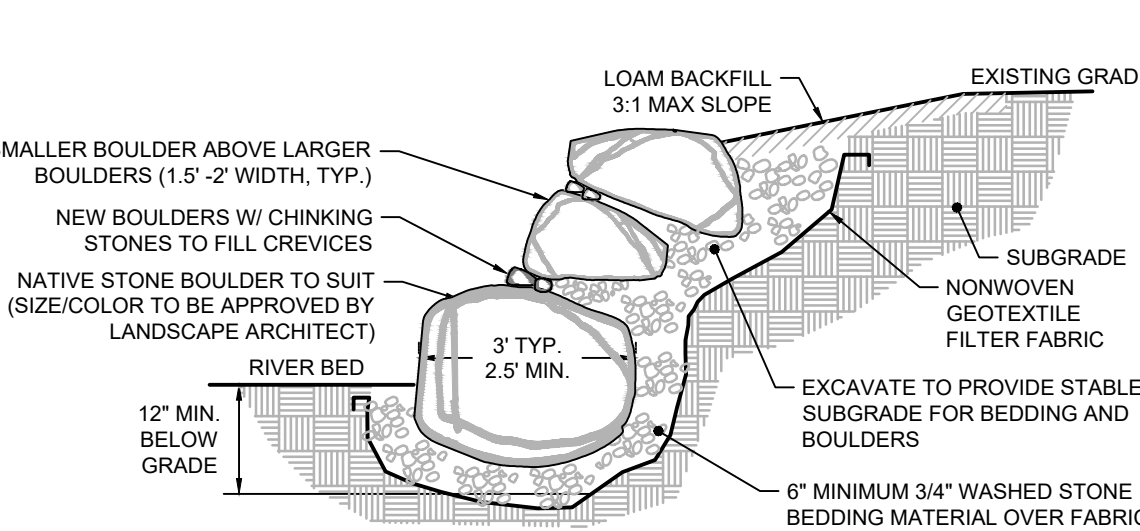
KAYAK RAMP RIVER PAVERS
NOT TO SCALE



KAYAK RAMP END
NOT TO SCALE



CONCRETE RETAINING WALL
NOT TO SCALE



BOULDER EMBANKMENT WALL
NOT TO SCALE



WOONASQUATUCKET RIVER GREENWAY

JONATHAN A. FORD
DESIGNED BY: EH/ML/EB
CHECKED BY: JF
DATE: 07/2021
SHEET:
OF:

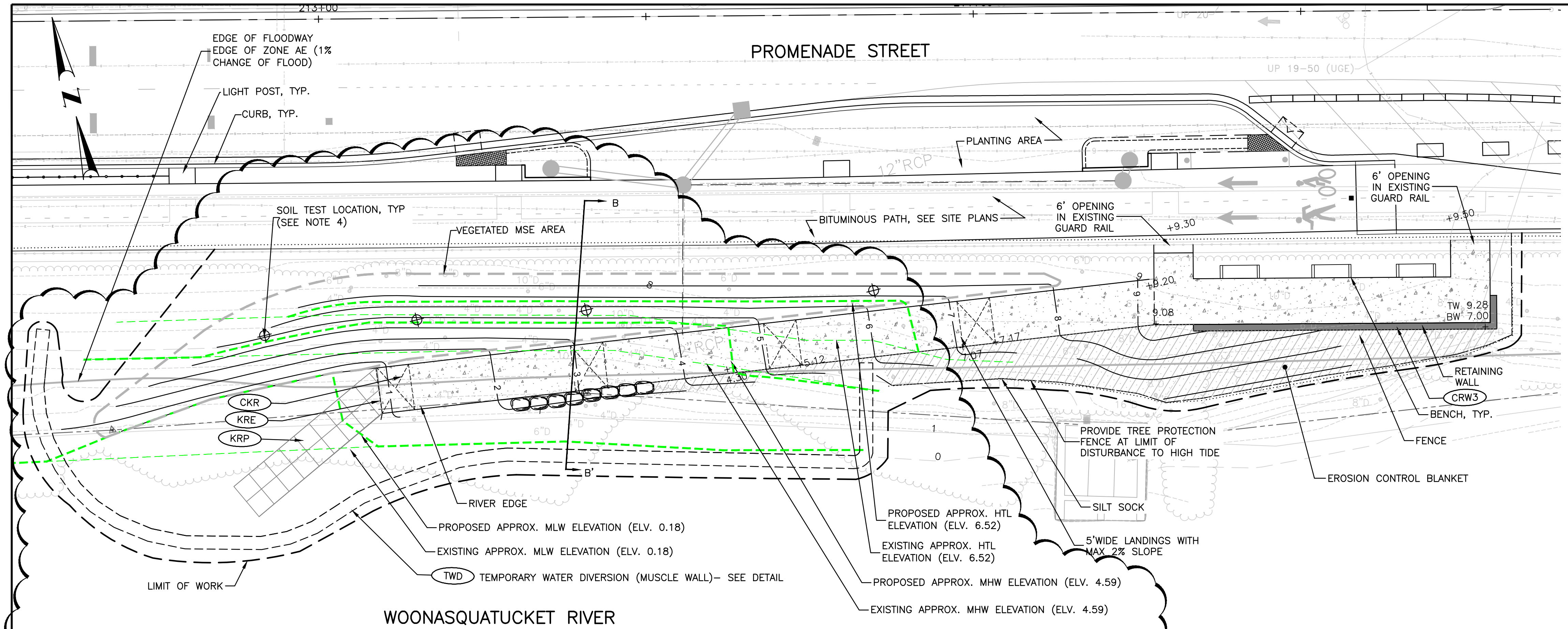
SCALE: 1" = 10'

NO.		DATE		BY		REVISIONS	
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1	1/2022	EB					
2							
3							

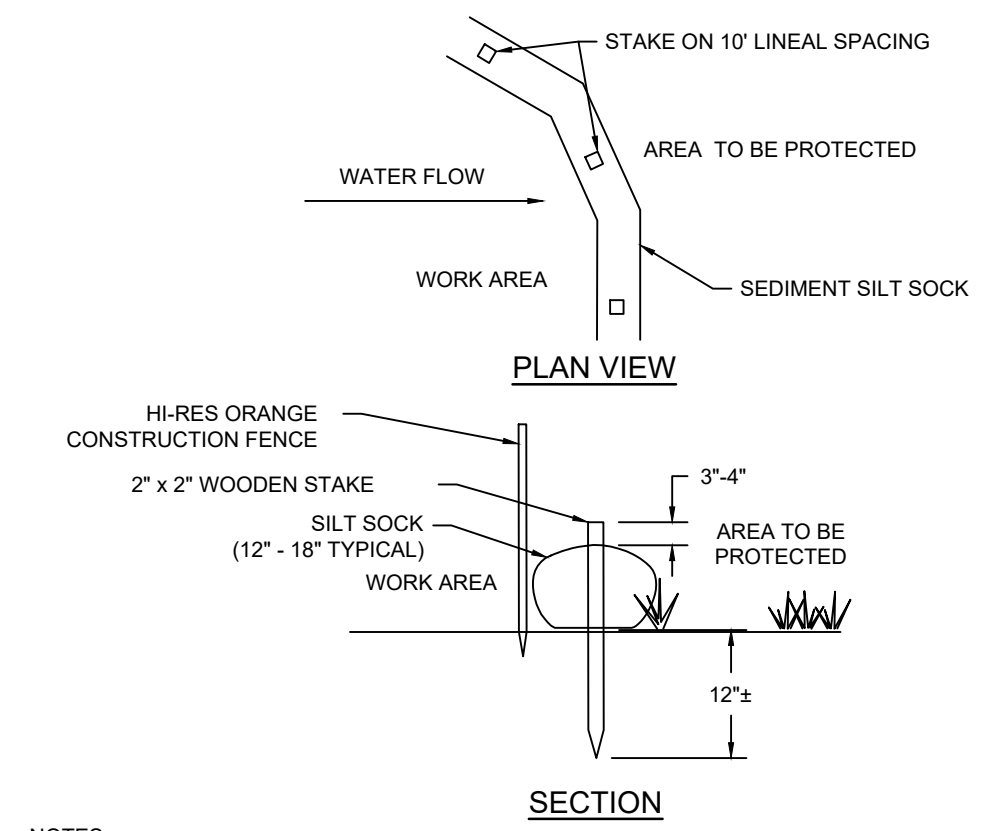
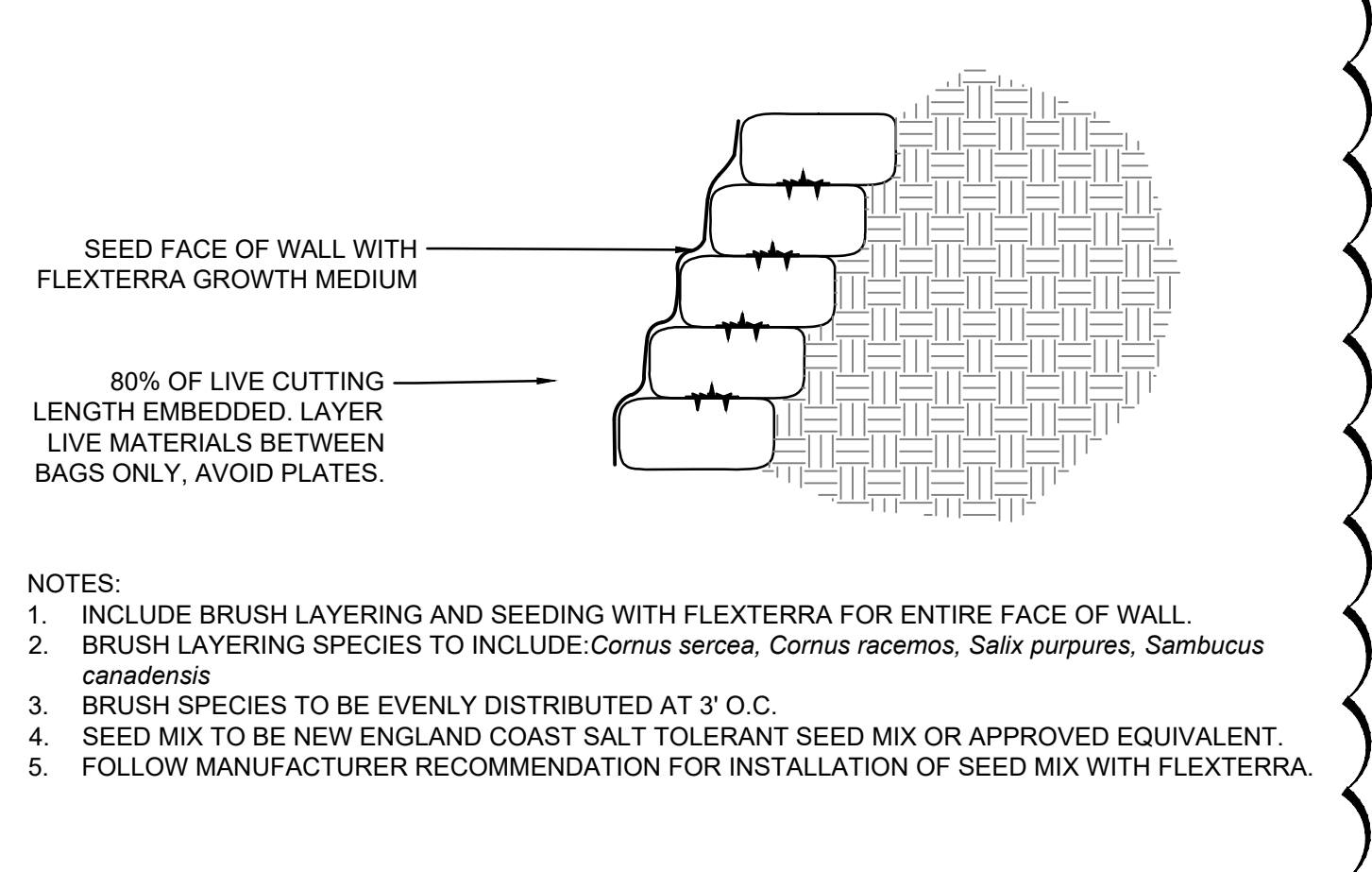
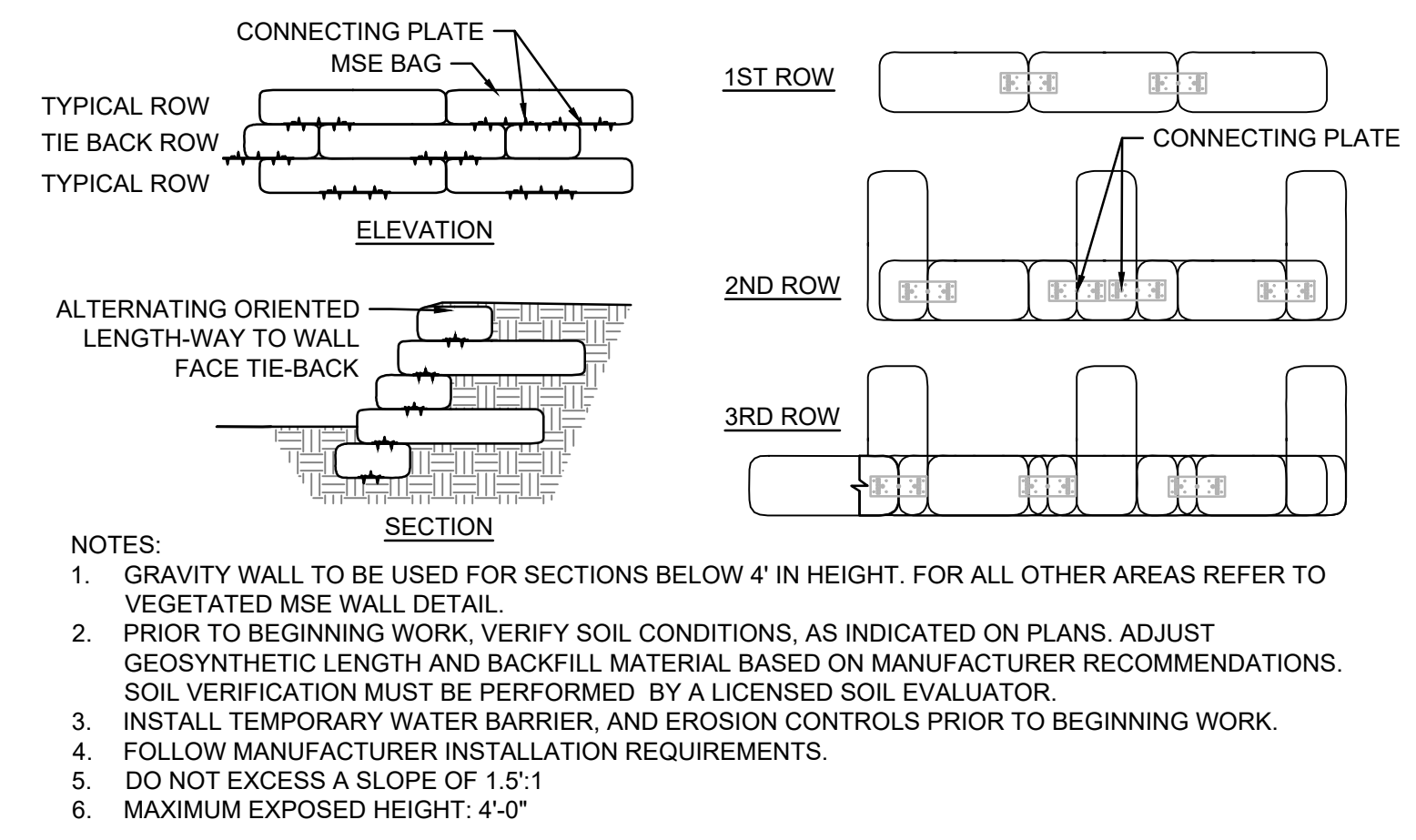
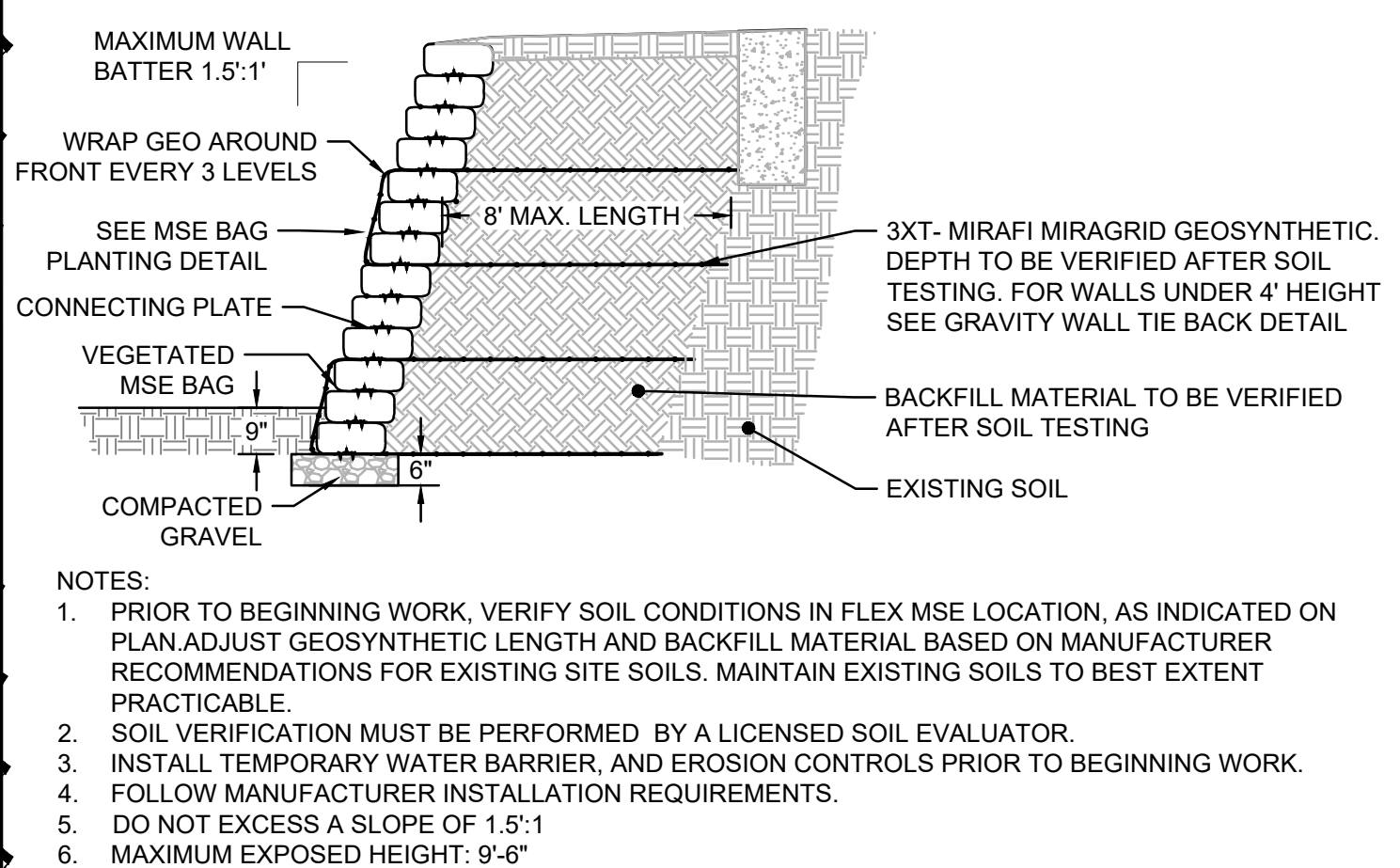
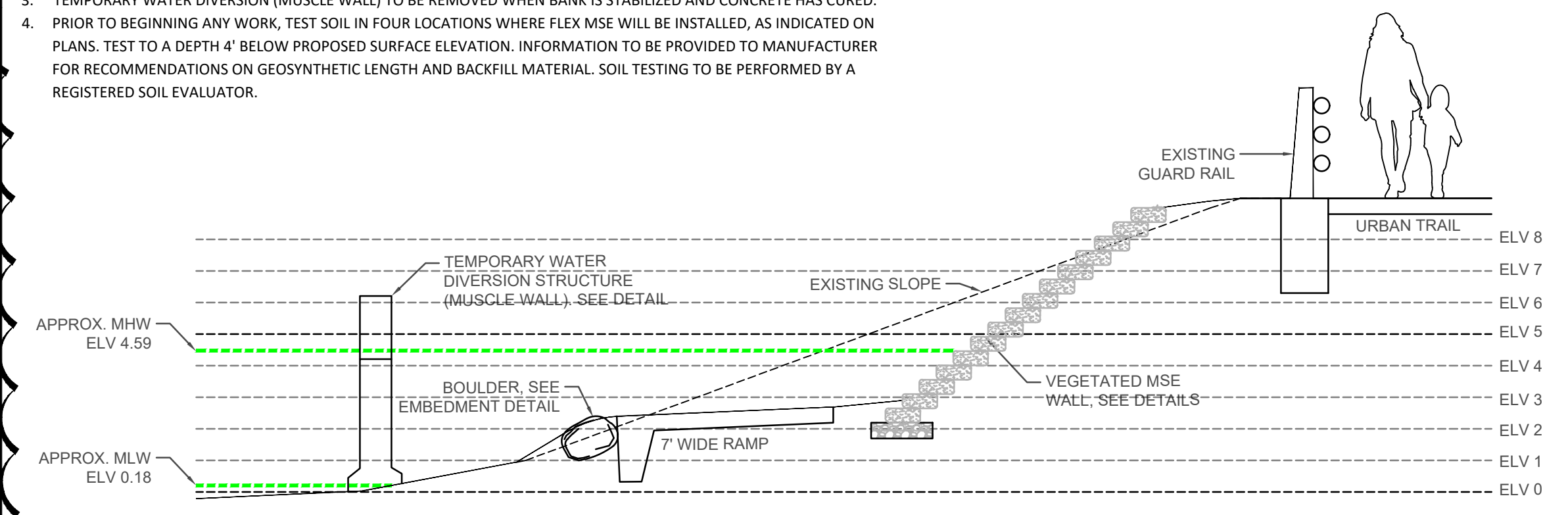
WOONASQUATUCKET RIVER GREENWAY
PROVIDENCE RHODE ISLAND
KAYAK LAUNCH LAYOUT & EROSION CONTROL
KAYAK LAUNCH LAYOUT & EROSION CONTROL

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-YYY(ZZZ)	2021	50	123

RECEIVED
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COASTAL RESOURCES
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- GENERAL NOTES:
- MHW (MEAN HIGH WATER) & MLW (MEAN LOW WATER) ARE FROM NOAA STATION 8454000, PROVIDENCE, RI.
 - HTL (HIGH TIDE LINE) IS BASED ON HAT (HIGHEST ASTRONOMICAL TIDE) ELEVATION AT NOAA STATION 8454000, PROVIDENCE, RI.
 - TEMPORARY WATER DIVERSION (MUSCLE WALL) TO BE REMOVED WHEN BANK IS STABILIZED AND CONCRETE HAS CURED.
 - PRIOR TO BEGINNING ANY WORK, TEST SOIL IN FOUR LOCATIONS WHERE FLEX MSE WILL BE INSTALLED, AS INDICATED ON PLANS. TEST TO A DEPTH 4' BELOW PROPOSED SURFACE ELEVATION. INFORMATION TO BE PROVIDED TO MANUFACTURER FOR RECOMMENDATIONS ON GEOSYNTHETIC LENGTH AND BACKFILL MATERIAL. SOIL TESTING TO BE PERFORMED BY A REGISTERED SOIL EVALUATOR.



- NOTES:
- SILT SOCK MANUFACTURER SHALL BE SILT SOCK OR ENGINEER APPROVED EQUAL.
 - ALL MATERIAL TO MEET MANUFACTURER'S SPECIFICATIONS.
 - SEDIMENT SILT SOCK TO BE FILLED WITH COMPOST AND/OR WOOLLY MUD PER MANUFACTURER'S REQUIREMENTS.
 - FOLLOWING CONSTRUCTION AND SITE STABILIZATION COMPOST MATERIAL SHALL BE REMOVED OR DISPERSED ON SITE, AS APPROVED BY THE ENGINEER.



WONASQUATUCKET RIVER GREENWAY

JONATHAN A. FORD
No. 8784
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

DESIGNED BY: EH/ML/EB
CHECKED BY: JF
DATE: 07/2021
SHEET: 3
OF: 3

SCALE: 1" = 10'

GRAPHIC SCALE

REVISIONS			REVISIONS		
NO.	DATE	BY	NO.	DATE	BY
1	1/2022	EB			

WONASQUATUCKET RIVER GREENWAY
PROVIDENCE RHODE ISLAND
KAYAK LAUNCH LAYOUT & EROSION CONTROL