



COMMUNITY PRESERVATION APPLICATION FOR FUNDING

City of Newburyport
Community Preservation Committee

Applications for funding are due by **Thursday, February 6, 2020 at 4:00 p.m.** with the Community Preservation Committee, c/o Office of Planning and Development, City Hall, 60 Pleasant St., Newburyport MA 01950.

Application Instructions:

- Applicants should file ten (10) paper copies and one electronic copy of the completed application and all accompanying documents.
- Applications should be stapled or clipped. Bound applications are not required.
- Please be mindful of extraneous paper – double sided copies are acceptable.

PROJECT NAME: Clipper City Rail Trail: Closing the Gaps
PROJECT ADDRESS: Old rail corridor behind the Wastewater Treatment Facility and along Parker Street

MAP/LOT: n/a
APPLICANT NAME: Newburyport Planning Office (Group or Committee Affiliation)
CONTACT PERSON: Geordie Vining, Senior Project Manager
TELEPHONE/FAX NO.: 978/465-4400
ADDRESS: City Hall
60 Pleasant Street
Newburyport, MA 01950
EMAIL: gvining@cityofnewburyport.com

AMOUNT OF COMMUNITY PRESERVATION FUNDING REQUESTED: \$250,000

COMMUNITY PRESERVATION CATEGORY: *(Please check all that apply)*

Open Space **Historic Resource †** **Affordable Housing *** **Recreation**

† Applicants seeking Historic Preservation funds for the preservation, restoration or renovation of historic structures must, as a condition of funding award, record a perpetual Preservation Restriction (PR) on the subject structure(s) prior to any distribution of funds. Applications should attend a meeting of the Newburyport Historical Commission (NHC) as early as possible to discuss and confirm the nature and scope of the required Preservation Restriction. The NHC's advisory opinion will be incorporated as appropriate into any Community Preservation Committee (CPC) recommendation, City Council appropriation, and/or grant award letters or agreements thereunder. *Please Note: The Newburyport Historical Commission (NHC) is an official City board and should not be confused with the local Newburyport Preservation Trust (NPT), a non-profit advocacy group.*

* Applicants seeking Affordable Housing funds must attend a Newburyport Affordable Housing Trust meeting to review and discuss their application. This review must occur prior to the Community Preservation Committee deliberations.

PROJECT SUMMARY: Provide a description of the Project, including the property involved and its proposed use.

The City of Newburyport has been working on the development of a vibrant, safe, off-road Clipper City Rail Trail for a number of years, and additional work is required to close the gaps along the Merrimack River to the north and along Parker Street to the south. We are regularly asked by multiple members of the public when it will be fully connected, circular, and continuous. This CPA grant request is intended to support the “Phase III” project addressing part of the gap at Parker Street and State Street, as well as the “Phase II” project of the riverfront gap behind the Wastewater Treatment Facility (WWTF).

The City’s Phase III project to improve the dangerous State Street-Parker Street intersection for pedestrians and bicyclists and to extend the Rail Trail 500’ along Parker Street is on track to be designed and constructed this year of 2020. Many people are walking and bicycling along the edge of Parker Street and crossing State Street to access the Clipper City Rail Trail, and it is very important for public safety as well as the public’s recreational experience to re-construct this intersection and install the off-road trail. The preliminary itemized cost estimate by the City’s design consultant TEC indicates that construction of this section of trail will cost \$447,119. The City applied for and successfully received an FY20 Complete Streets grant from the state of \$400,000 in construction funding for this project. (As an aside, state officials told the City that it is one of the best Complete Streets projects in the state.) Approximately \$50,000 or more in additional funding is necessary to match the state grant and construct the project. In addition, we are continuing to work collaboratively on the other connecting sections of the Phase III trail corridor, including MassDOT’s project #608494 to construct pedestrian and bicyclist accommodations to cross Route 1 and the Rotary, as well as developer Ed Hill’s project to construct an additional 500’ of trail along Parker Street to the town line, and then the final 250’ feet in Newbury to the existing trailhead.

At the same time, the City is moving forward on addressing the riverfront trail gap behind the WWTF. A contractor is currently mobilized to the site for the PCB cleanup of a portion of that corridor. Some more PCBs were unfortunately discovered during post-excavation sampling and analysis, and we are currently initiating a second phase of excavation, transport, and disposal. Along with associated work by the City’s Licensed Site Professional (LSP), these additional requirements will consume the project budget’s contingency and our grant funding for this phase of the project. Concurrently, the City’s consultants Stantec and GZA have developed preliminary revised plans for the anticipated revetment, berm, and riverfront trail. The trail needs to be raised several feet above the existing grade in order to be at or above the Federal Emergency Management Agency (FEMA) Base Flood Elevation levels, and the shoreline needs to be protected by a reconstructed rough-faced sloped-stone revetment. This shoreline, which was created when the railroad was built in 1872, was originally protected by a stone revetment, and additional riprap was installed in the early 20th Century, but the railroad has been abandoned for nearly 50 years and the shoreline stabilization structure has fallen into substantial disrepair. In addition to protecting the trail, the revetment and berm will provide a first step towards protecting the adjacent critical infrastructure of the WWTF from storm surge and rising sea levels. Trail users have been detoured along busy Water Street around this gap in the trail, and while this interim on-road detour has been functional on a temporary basis during the short-term it is not a desirable long-term connection due to the narrowness of the road and its sidewalks, the direct proximity, volume, and speed of thousands of motor vehicles every day, the pinch points created by utility poles and fire hydrants, universal access concerns, and its substantial length.

The City is preparing to submit new permit applications for the riverfront gap project. While we will file for an Amended Order of Conditions from the Newburyport Conservation Commission, the state and federal regulatory authorities have recently determined that the City needs to prepare and submit several new permit applications (new Chapter 91 License application with DEP, new Environmental Notification Form with MEPA,

CZM Consistency, and a Pre-Construction Notification Form (PNF) with the federal Army Corps of Engineers). The City has received an FY20 reimbursable matching grant of up to \$71,160 from the state's Municipal Vulnerability Preparedness (MVP) program to support the additional required permitting and design work that we can accomplish this FY20 fiscal year. The City needs funding to support construction management and construction of this project, which our consultants currently estimate at \$1,740,754. EEOEA Secretary Kathleen Theoharides made a recent commitment to Mayor Holaday "to ensure the next phase of the project can receive full funding in the April [2020] round of grant applications" for the FY21 MVP program, and that this is "just the type of projects we want to fund through MVP and we're committed to helping you see through the full project." The MVP Grant Program requires a 25% match, and CPA funding will play a critical role in leveraging this significant construction funding.

PUBLIC BENEFIT*: Describe in detail the benefits Newburyport will receive from the Project and how the Project fulfills the Community Preservation Committee's Project Evaluation Criteria.

*** Deed Restrictions:** The City may require, as a condition for funding, that the applicant grant to the City or other authorized grantee certain restrictions, including: Preservation Restrictions on rehabilitated or acquired historic resources, Conservation Restrictions on preserved or acquired lands, and Affordability Restrictions on affordable housing projects. The restriction shall be recorded at the Southern Essex Registry of Deeds.

Newburyport's Clipper City Rail Trail has brought many benefits to the public, and the ongoing projects to close the gaps will bring even more. Working towards completion of the trail will further improve the community's quality of life and make Newburyport an even more distinctive, enjoyable and vibrant place. Newburyport's economy, identity, and place in the region are closely tied to our long-term public infrastructure investments targeting the waterfront and the core downtown area. Filling the trail gaps on both the north and the south will improve public safety and create additional opportunities for recreation, transportation, physical activity, neighborhood sociability, and connections to multiple destinations. The Phase III trail will provide a safe crossing of a busy intersection that currently has no pedestrian and bicyclist accommodations, and will provide a safe off-road section of trail along Parker Street. The Phase II riverfront trail will fill a critical network gap and connect to multiple recreational, commercial, and residential destinations. The shoreline corridor has superb views across to the vast mouth of the Merrimack River, the extensive salt marsh, boat traffic, and the ocean. The project will leverage substantial funding from other sources.

The project fulfills multiple criteria of the CPC, as follows:

- Eligible for CPA funding, as the project will support new outdoor recreation capital improvements for recreational use of land, and capital improvements to the land or the facilities thereon which make the land more functional for the intended recreational use;
- Consistent with the Newburyport Master Plan, Newburyport Open Space and Recreation Plan, and other local, regional, and statewide planning documents that have received public input and scrutiny (e.g., the Strategic Waterfront Plan, the Merrimack Valley Priority Growth Strategy, MVPC Regional Strategic Framework Plan, Merrimack River Trail Reconnaissance Planning Report, and the state's Commonwealth Connections plan);
- Enhances the essential character of the City as a vibrant, walkable, livable community;
- Protects resources that would otherwise be threatened, as the riverfront section of the trail corridor is demonstrably physically threatened by storm surge and rising sea levels;
- Serves multiple CPA purposes of Recreation and Open Space;
- Demonstrates practicality and feasibility;
- Produces an advantageous cost/benefit value due to leveraging other funding and producing significant quality of life benefits as well as long-term economic benefits for Newburyport;

- Leverages additional funding from public agencies plus potentially non-profit and private sector organizations;
- Improves the utility of currently owned City assets, as the project will improve municipal land purchased for the explicit purpose of building a Rail Trail for the public, and make connections to the existing trail facility;
- Endorsed by community and municipal departments and boards;
- Provides opportunities for passive recreation and environmental education along the Merrimack River as well as along Parker Street;
- Provides connections with existing trails and protected open space;
- Preserves scenic views of the Merrimack River and Plum Island Basin for the public;
- Provide flood control/storage along the vulnerable section of riverfront;
- Supports multiple recreational uses for pedestrians, bicyclists, wheelchair users, strollers, skaters, scooters, skateboarders, dog-walkers, etc.;
- Serves a significant number of residents as evidenced by regular observation as well as systematic trail counts documenting over 1,000 people using the completed section of the Rail Trail in a single day;
- Expands the range of recreational opportunities available to City residents of all ages and abilities;
- Jointly benefits Conservation Commission and Parks Commission initiatives by promoting recreation such as walking and bicycling;
- Promotes the creative use of an old railway corridor to create safe and healthful non-motorized recreation and transportation opportunities.

CONTROL OF SITE: Indicate whether the applicant owns or has a purchase agreement for the Project site. If the property is under agreement, include a description of the agreement and the timing and conditions. If the applicant does not have site control, explain.

The City has control of the project sites. A portion of the riverfront old rail corridor is owned in fee by the City and the rest is controlled by the City through a 99-year lease with National Grid (the lease will be updated with the revised plans). The Phase III trail will be built within the existing municipal Parker Street right-of-way.

FEASIBILITY: List all steps that may be required for completion of the Project, such as environmental assessment, zoning or other approvals, agreement on terms of any required conservation, affordability or historic preservation restrictions, and any other known issues. For projects that may impact abutters or the neighborhood, describe support or objections from those affected.

The project is fully feasible. Similar riverfront projects have been successfully implemented including the recent revetment project done by National Grid adjacent to the new rail trail along a nearby section of shoreline that had been significantly eroding, as well as the City's earlier walkway and shoreline project at Cashman Park, and numerous other coastal engineering projects throughout the country. Similar off-road multiuse pathways have been developed adjacent to roadways as well as intersection upgrades in multiple jurisdictions. Consultants are developing plans, specifications, and permit applications for both trail segments. The Planning Office has been working closely with the Parks Department and the DPS and others on both these sections of the Rail Trail. We have also worked with the abutters to these sections of trail throughout the process and they are positive about the project.

PROJECT TIMELINE: Describe the anticipated steps or phases for completion of the Project. Demonstrate whether the Project will be ready to proceed in the coming fiscal year.

- February – May, 2020: design & permitting for Parker Street Shared Use Path
 - Order of Conditions
 - Final (100%) Plans and Specifications
 - Final Cost Estimate
 - Request state wage rates
- June – July, 2020: advertisement & bidding of Parker Street Shared Use Path
 - Electronic bidding coordination
 - Advertisements to Central Register, COMMBUYS, local newspaper
 - Pre-bid meeting
 - Contractor Q&A
 - Submission of bids
 - Review and Notice of Award
 - Secure insurance certificate, payment/performance bonds, execute contract
- August – November, 2020: construction of Parker Street Shared Use Path
- February – December, 2020: design & permitting for Riverfront Gap Trail
 - Chapter 91 License
 - MEPA ENF
 - Amended Order of Conditions
 - CZM Consistency
 - ACOE PCN
- January – February, 2021: advertisement & bidding of Riverfront Gap Trail
 - Electronic bidding coordination
 - Advertisements to Central Register, COMMBUYS, local newspaper
 - Pre-bid meeting
 - Contractor Q&A
 - Submission of bids
 - Review and Notice of Award
 - Secure insurance certificate, payment/performance bonds, execute contract
- April – September, 2021: construction of Riverfront Gap Trail
 - Pre-construction meeting; Notice to Proceed
 - Contractor submittals and review of shop drawings and procedures
 - Installation of erosion controls; clearing site; mobilization
 - Removal of unsuitable riprap and debris along shoreline
 - Shaping of slope & installation of geotextile fabric and bedding stone
 - Installation of sloped stone revetment
 - Installation of gravel borrow berm & grading
 - Installation of landscaping and amenities; loam and seed; paving
 - Substantial completion; punchlist; final inspection and acceptance

FUNDING:

- A. **Project cost estimates:** Provide recent cost estimates for the proposed project, dated within the past six (6) months, detailing the scope of work and associated costs for each task.
- B. **Amount of Newburyport Community Preservation Funding Requested:**
\$250,000
- C. **Other Sources of Funding Available:** If funding from other sources may be available for the Project, please complete the following table:

SOURCE OF FUNDING	AMOUNT REQUESTED	STATUS (COMMITTED Y/N IF NOT-WHEN)	CONTINGENT ON CP FUNDS (Y/N)
MA Complete Streets Funding Program	\$400,000	Yes	Yes
MA Municipal Vulnerability Preparedness Program	\$1,400,000	Commitment from EOEEA Secretary Theoharides re. April 2020 MVP grant round	Yes
MassTrails Grant Program	\$300,000	No (awards in May 2020)	Yes

ATTACHMENTS:

Include the following with ALL copies of the application:

- Assessor’s map showing location of the Project
- Photographs
- Recent written estimates of cost with detailed scope of work
- Proposed oversight and management plan for the Project
- If the project involves public property, provide verification that the applicable public agency or department supports the project as presented and will oversee the project if funded.
- Historic resources include buildings, structures, vessel real properties, documents or artifacts that are listed or eligible for listing on the state register of historic place or determined to be significant in the history, archeology, architecture or culture of the city by the local historic preservation commission. If the project involves a historic resource, please provide evidence (date of listing on the state register or a letter from the Newburyport Historical Commission confirming its determination of significance) with the application that it meets these criteria

Include the following, if applicable and available:

- Architectural plans and specifications, for new construction or rehabilitation
- Maps, renderings, site plans
- Historic structures report, existing conditions report
- Names and addresses of project architects, contractors and consultants
- Budgets
- Letters of Support

Attach additional sheets as necessary to answer all questions.

YOU MAY BE REQUESTED TO PROVIDE ADDITIONAL INFORMATION.

For questions contact: Office of Planning and Development
Newburyport City Hall
cpc@cityofnewburyport.com
(978) 465-4400

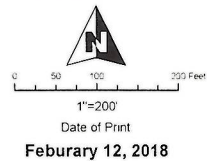
Assessor Map: Riverfront Gap Trail



Prepared by:

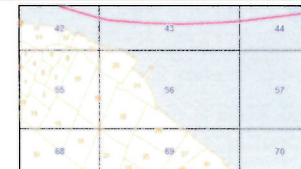


WARNING: Data and information is provided by the GIS system, with the understanding that it is not guaranteed to be correct or complete. All data is subject to change and periodic updates. The City of Newburyport makes no claims, representations or warranties, express or implied, concerning the validity, reliability or the accuracy of the GIS data and GIS data products furnished by the City specifically including the implied or expressed validity of any uses of such data.



Legend

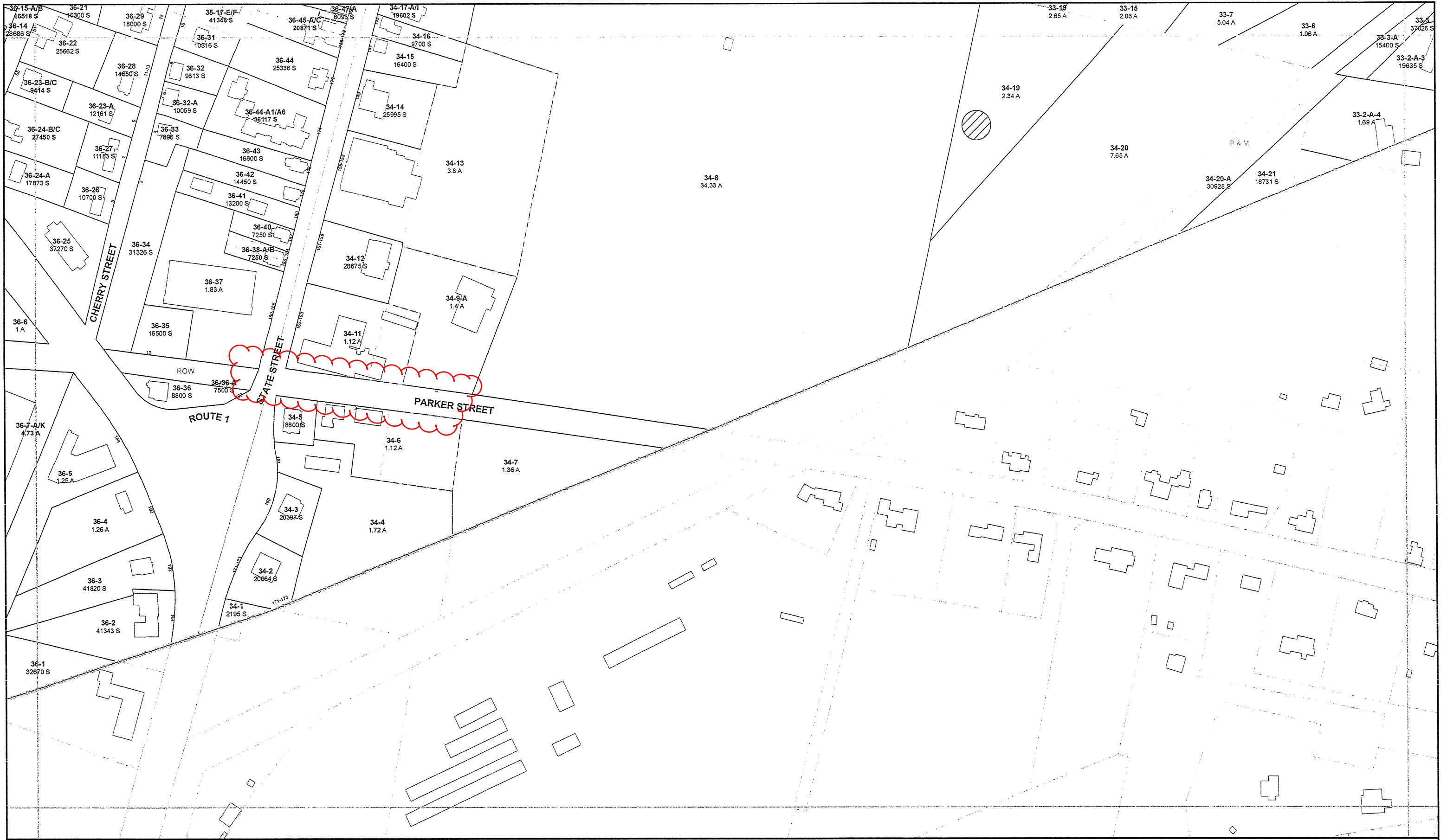
- Parcels
- Easements
- Combined Lots
- Tax Map
- Map Tile
- Municipal Boundary
- Conservation Restriction




City of Newburyport, MA

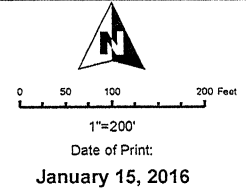
Assessor's Map Tile No. 56

Assessor Map: Parker Street Shared Use Path



Prepared by:

 Merrimack Valley
 Planning Commission

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- Legend**
- Parcels
 - Easements
 - Combined Lots
 - Tax Map
 - Map Tile
 - Municipal Boundary
 - Conservation Restriction

67	35	68	33	69	2
80	36	81		82	20
93		94		95	

City of Newburyport, MA
 Assessor's Map Tile No. 81

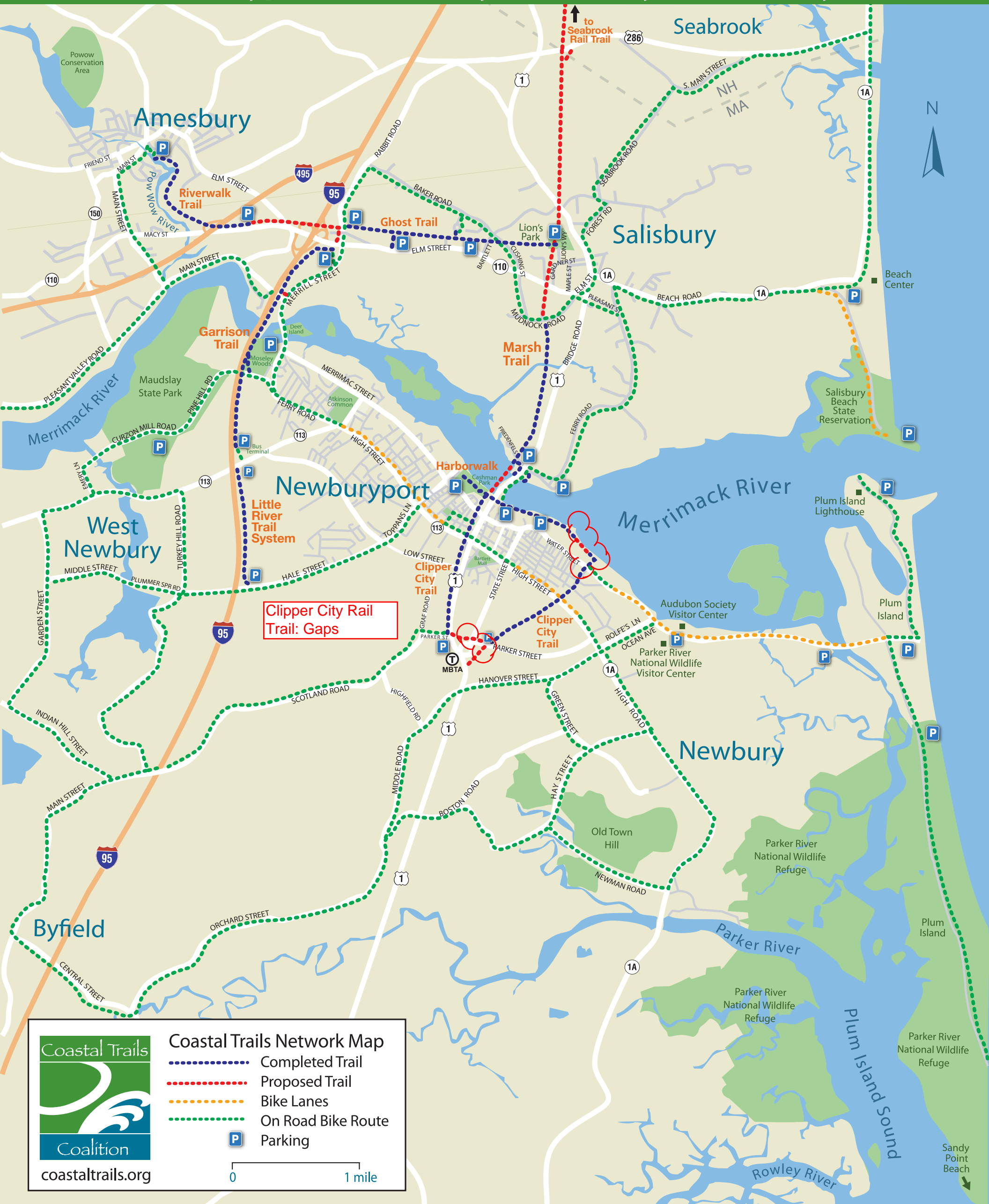
Clipper City Rail Trail: Closing the Gaps



Explore the Coastal Trails



Newburyport · Salisbury · Newbury · Amesbury



Clipper City Rail Trail: Closing the Gaps

Photos



West across State St/Parker St intersection: no crosswalk or pedestrian & bicyclist accommodations



Aerial view of project area: State St/Parker St intersection and Parker Street

Clipper City Rail Trail: Closing the Gaps

Photos



Existing conditions along Parker St westbound, including lack of pedestrian accommodations



Clipper City Rail Trail: Closing the Gaps

Photos



Pedestrians running and walking along edge of Parker Street



Clipper City Rail Trail: Closing the Gaps

Photos



Riverfront trail corridor: looking northwest towards downtown



Riverfront trail corridor looking southeast at low tide towards South End

Clipper City Rail Trail: Closing the Gaps

Photos



View from the shoreline trail corridor of the Merrimack River in autumn



View from the shoreline trail corridor of the Merrimack River in winter

Clipper City Rail Trail: Closing the Gaps

Photos



View from the shoreline trail corridor towards the American Yacht Club in summer



Aerial photo of eroded/scoured shoreline along riverfront trail corridor

Clipper City Rail Trail: Closing the Gaps

Photos



Debris from storm surge across riverfront trail corridor – eroded areas circled



Scoured riverbank of trail corridor – eroded areas circled

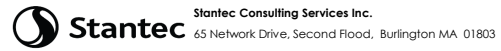
Clipper City Rail Trail: Closing the Gaps

Photos



Adjacent finished Rail Trail with shoreline protection

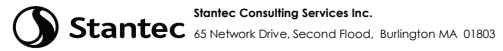
**CLIPPER CITY RAIL TRAIL - PHASE 2
NEWBURYPORT, MASSACHUSETTS**



CLIENT: CITY OF NEWBURYPORT
 STANTEC PROJECT NO. 210800843
 ESTIMATE OF QUANTITIES - 25% ENGINEER'S ESTIMATE
 PREPARED BY: STANTEC CONSULTING SERVICES INC.
 DECEMBER 16, 2019

SPEC REQ'D	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
Trail Construction Items						
	101.	CLEARING AND GRUBBING	A	0.50	\$ 35,000.00	\$ 17,500.00
*	102.52	TEMPORARY TREE PROTECTION FENCE	FT	115	\$ 15.00	\$ 1,725.00
	120.	EARTH EXCAVATION	CY	50	\$ 40.00	\$ 2,000.00
	121.	CLASS A ROCK EXCAVATION	CY	5	\$ 150.00	\$ 750.00
	141.1	TEST PIT FOR EXPLORATION	CY	80	\$ 125.00	\$ 10,000.00
	150.	ORDINARY BORROW	CY	6,060	\$ 38.00	\$ 230,280.00
	151.	GRAVEL BORROW	CY	530	\$ 50.00	\$ 26,500.00
	170.	FINE GRADING AND COMPACTING - SUBGRADE AREA	SY	1,995	\$ 5.50	\$ 10,972.50
*	180.01	ENVIRONMENTAL HEALTH AND SAFETY PROGRAM	LS	1	\$ 5,000.00	\$ 5,000.00
*	194.	GROUNDWATER OBSERVATION WELL ADJUSTED	EA	2	\$ 500.00	\$ 1,000.00
	220.	DRAINAGE STRUCTURE ADJUSTED	EA	1	\$ 450.00	\$ 450.00
	220.7	SANITARY STRUCTURE ADJUSTED	EA	1	\$ 450.00	\$ 450.00
	227.3	REMOVAL OF DRAINAGE STRUCTURE SEDIMENT	CY	4	\$ 245.00	\$ 980.00
	227.31	REMOVAL OF DRAINAGE PIPE SEDIMENT	FT	100	\$ 11.00	\$ 1,100.00
*	402.121	CRUSHED STONE AND LOAM MIX FOR SHOULDERS	CY	65	\$ 45.00	\$ 2,925.00
	440.	CALCIUM CHLORIDE FOR ROADWAY DUST CONTROL	LB	14,955	\$ 0.40	\$ 5,982.00
	443.	WATER FOR ROADWAY DUST CONTROL	MGL	10	\$ 50.00	\$ 500.00
	450.23	SUPERPAVE SURFACE COURSE - 12.5 (SSC - 12.5)	TON	125	\$ 125.00	\$ 15,625.00
	450.32	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC - 19.0)	TON	205	\$ 155.00	\$ 31,775.00
	451.	HMA FOR PATCHING	TON	5	\$ 225.00	\$ 1,125.00
	452.	ASPHALT EMULSION FOR TACK COAT	GAL	75	\$ 8.00	\$ 600.00
	453.	HMA JOINT SEALANT	FT	26	\$ 1.00	\$ 26.00
	646.172	72 INCH CHAIN LINK FENCE (PIPE TOP RAIL) VINYL COATED (LINE POST OPTION) W/ PRIVACY SLATS	FT	1,075	\$ 78.00	\$ 83,850.00
	650.172	72 INCH CHAIN LINK GATE WITH GATE POSTS & PRIVACY SLATS	FT	6	\$ 465.00	\$ 2,790.00
*	657.	TEMPORARY FENCE	FT	250	\$ 18.00	\$ 4,500.00
	665.	CHAIN LINK FENCE REMOVED AND STACKED	FT	1,135	\$ 15.00	\$ 17,025.00
	667.	CHAIN LINK FENCE GATE W/GATE POSTS REMOVED & STACKED	EA	4	\$ 700.00	\$ 2,800.00
*	696.	LANDSCAPE BOULDER	EA	10	\$ 400.00	\$ 4,000.00
*	697.1	SILT SACK	EA	5	\$ 200.00	\$ 1,000.00
	701.	CEMENT CONCRETE SIDEWALK	SY	10	\$ 65.00	\$ 650.00
*	706.8	GRANITE SLAB - COOMBS WHARF INTERPRETIVE STONES	LS	1	\$ 3,500.00	\$ 3,500.00
*	707.1	PARK BENCH	EA	2	\$ 2,800.00	\$ 5,600.00
*	707.13	PARK BENCH - SWING STYLE	EA	1	\$ 5,500.00	\$ 5,500.00
	711.	BOUND REMOVED AND RESET	EA	2	\$ 500.00	\$ 1,000.00
*	730.4	STREET NAME - SPECIAL WITH POST	EA	2	\$ 1,000.00	\$ 2,000.00
*	730.5	INTERPRETIVE PANEL (POST FRAME MOUNT)	EA	1	\$ 2,500.00	\$ 2,500.00
*	740.	ENGINEERS FIELD OFFICE AND EQUIPMENT (TYPE A)	MO	12	\$ 3,500.00	\$ 42,000.00
	748.	MOBILIZATION	LS	1	\$ 17,500.00	\$ 17,500.00
	751.	LOAM BORROW	CY	340	\$ 60.00	\$ 20,400.00
*	756.	NPDES STORMWATER POLLUTION PREVENTION PLAN	LS	1	\$ 5,000.00	\$ 5,000.00
*	765.1	SHOULDER SEED MIX (TYPE A)	SY	1,580	\$ 2.00	\$ 3,160.00
*	765.4	COASTAL SALT TOLERANT MIX (TYPE D)	SY	950	\$ 2.00	\$ 1,900.00
*	767.12	COMPOST FILTER TUBES	FT	270	\$ 11.00	\$ 2,970.00
	811.36	ELECTRIC MANHOLE ADJUSTED	EA	4	\$ 750.00	\$ 3,000.00
	832.	WARNING-REGULATORY AND ROUTE MARKER - ALUMINIUM PANEL (TYPE A)	SF	10	\$ 12.00	\$ 120.00
	847.1	SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY - STEEL	EA	1	\$ 135.00	\$ 135.00
	852.	SAFETY SIGNING FOR TRAFFIC MANAGEMENT	SF	20	\$ 20.00	\$ 400.00
	864.04	PAVEMENT ARROWS AND LEGENDS REFLECTORIZED WHITE (THERMOPLASTIC)	SF	3	\$ 10.00	\$ 30.00
	866.112	12 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)	FT	5	\$ 5.00	\$ 25.00
	867.104	4 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)	FT	55	\$ 1.00	\$ 55.00

**CLIPPER CITY RAIL TRAIL - PHASE 2
NEWBURYPORT, MASSACHUSETTS**



CLIENT: CITY OF NEWBURYPORT
 STANTEC PROJECT NO. 210800843
 ESTIMATE OF QUANTITIES - 25% ENGINEER'S ESTIMATE
 PREPARED BY: STANTEC CONSULTING SERVICES INC.
 DECEMBER 16, 2019

+	SPEC REQ'D	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
Shoreline Stabilization Items							
*	1		MOBILIZATION AND DEMOBILIZATION	LS	1	\$ 50,000.00	\$ 50,000.00
*	2		EXCAVATION AND REMOVAL	LS	1	\$ 25,000.00	\$ 25,000.00
*	3		REVTMENT CONSTRUCTION	LF	880	\$ 250.00	\$ 220,000.00
*	4		ARMOR STONE (~25% EXISTING)	TON	2,600	\$ 80.00	\$ 208,000.00
*	5		BEDDING STONE	TON	1,900	\$ 50.00	\$ 95,000.00
*	6		STONE MASONRY WALL CONSTRUCTION	LF	36	\$ 500.00	\$ 18,000.00
*	7		REINFORCED CONCRETE FOOTING	CY	20	\$ 800.00	\$ 16,000.00
*	8		RESET EXISTING STONE BLOCK WALL (15 LINEAR FEET)	LS	1	\$ 4,000.00	\$ 4,000.00
*	9		FILTER FABRIC	SY	3,000	\$ 8.00	\$ 24,000.00
*	10		UTILITY PIPE EXTENSION ALLOWANCE	LS	1	\$ 1,500.00	\$ 1,500.00
SUBTOTAL							\$ 1,262,175.50
20% CONTINGENCY							\$ 252,435.10
CONTRACT ADMINISTRATION (10%)							\$ 126,217.55
TRAFFIC POLICE							\$ -
UTILITY FORCE ACCOUNT							\$ -
TOTAL							\$ 1,640,828.15
ESCALLATION ALLOWANCE (3% PER YEAR, 2 YEARS TO 2021)							\$ 99,926.43
TOTAL							\$ 1,740,754.58

NOTE:
 UNIT PRICES BASED ON MASSDOT WEBSITE FOR DISTRICT 4 (CHART PRICES) IN NOVEMBER 2019

**COMPLETE STREETS FUNDING PROGRAM Exhibit B
PRELIMINARY ESTIMATE**

City /Town of Newburyport, Massachusetts Date: 9/24/2019

Project Rank #/Name #5 Rail Trail Connection (Phase III) - Parker Street Shared Use Path

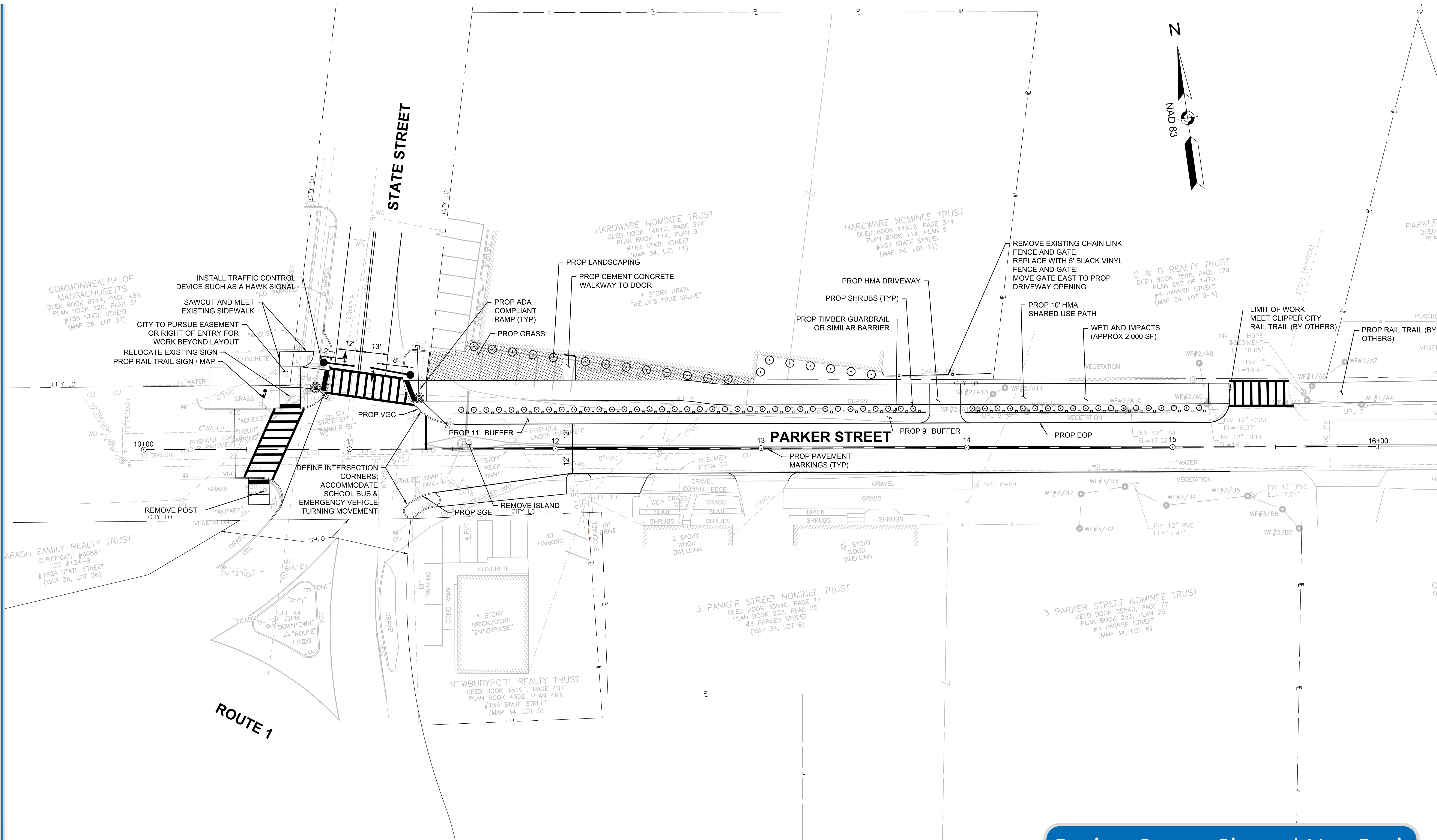
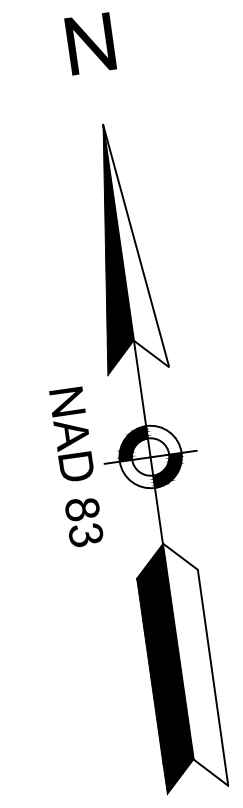
ITEM #	QTY.	UNIT	DESCRIPTION OF ELIGIBLE REIMBURSEMENT ITEMS ONLY	UNIT PRICE \$	AMOUNT
101	0.1	A	CLEARING AND GRUBBING	\$ 20,000.00	\$ 2,000.00
102.1	200	FT	TREE TRIMMING	\$ 15.00	\$ 3,000.00
102.3	16	HR	CONTROL OF INVASIVE PLANTS ON EXISTING SITE	\$ 380.00	\$ 6,080.00
120.1	375	CY	UNCLASSIFIED EXCAVATION	\$ 45.00	\$ 16,875.00
151	300	CY	GRAVEL BORROW	\$ 50.00	\$ 15,000.00
156	30	TON	CRUSHED STONE	\$ 45.00	\$ 1,350.00
170	750	SY	FINE GRADING AND COMPACTING	\$ 5.00	\$ 3,750.00
201	4	EA	CATCH BASIN	\$ 4,500.00	\$ 18,000.00
202	2	EA	MANHOLE	\$ 4,500.00	\$ 9,000.00
222.3	6	EA	FRAME AND GRATE (OR COVER) MUNICIPAL STANDARD	\$ 975.00	\$ 5,850.00
252.12	350	FT	12 INCH CORRUGATED PLASTIC (POLYETHYLENE) PIPE	\$ 80.00	\$ 28,000.00
451	75	TON	HMA FOR PATCHING	\$ 200.00	\$ 15,000.00
452	50	GAL	ASPHALT EMULSION FOR TACK COAT	\$ 10.00	\$ 500.00
472	30	TON	ASPHALT MIXTURES FOR TEMPORARY WORK	\$ 250.00	\$ 7,500.00
504	555	FT	GRANITE CURB TYPE VA4 - STRAIGHT	\$ 50.00	\$ 27,750.00
504.1	50	FT	GRANITE CURB TYPE VA4 - CURVED	\$ 55.00	\$ 2,750.00
509	50	FT	GRANITE TRANSITION CURB FOR WHEELCHAIR RAMPS - STRAIGHT	\$ 60.00	\$ 3,000.00
509.1	25	FT	GRANITE TRANSITION CURB FOR WHEELCHAIR RAMPS - CURVED	\$ 65.00	\$ 1,625.00
620.121	400	FT	GUARDRAIL, TL-2 (SINGLE FACED) WITH TIMBER BACKING	\$ 75.00	\$ 30,000.00
701.2	60	SY	CEMENT CONCRETE WHEELCHAIR RAMP	\$ 120.00	\$ 7,200.00
702	100	TON	HOT MIX ASPHALT WALK SURFACE	\$ 200.00	\$ 20,000.00
703	25	TON	HOT MIX ASPHALT DRIVEWAY	\$ 200.00	\$ 5,000.00
751	60	CY	LOAM BORROW	\$ 50.00	\$ 3,000.00
765	400	SY	SEEDING	\$ 5.00	\$ 2,000.00
767.121	200	FT	SEDIMENT CONTROL BARRIER	\$ 10.00	\$ 2,000.00
767.31	400	SY	STRAW MULCH	\$ 5.00	\$ 2,000.00
815.1	1	LS	TRAFFIC CONTROL SIGNAL LOCATION NO. 1	\$ 75,000.00	\$ 75,000.00
832	150	SF	WARNING-REGULATORY AND ROUTE MARKER - ALUM. PANEL (TYPE A)	\$ 15.00	\$ 2,250.00
847.1	10	EA	SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY - STEEL	\$ 150.00	\$ 1,500.00
852	120	SF	SAFETY SIGNING FOR TRAFFIC MANAGEMENT	\$ 20.00	\$ 2,400.00
856	180	DAY	ARROW BOARD	\$ 10.00	\$ 1,800.00
859	2,250	DAY	REFLECTORIZED DRUM	\$ 1.00	\$ 2,250.00
866.106	1,100	FT	6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)	\$ 5.00	\$ 5,500.00
866.112	450	FT	12 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)	\$ 5.00	\$ 2,250.00
867.106	1,000	FT	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)	\$ 5.00	\$ 5,000.00
<i>Subtotal</i>				\$	336,180.00
Contingency				\$	33,618.00
Construction Engineering Oversight				\$	50,427.00
Mobilization				\$	10,085.40
Police				\$	16,809.00
Total				\$	447,119.40
<i>Other Funding Source(s)</i>				\$	47,119.40
Complete Streets Funding Request Total				\$	400,000.00

Clipper City Rail Trail: Closing the Gaps

Project oversight and management plan

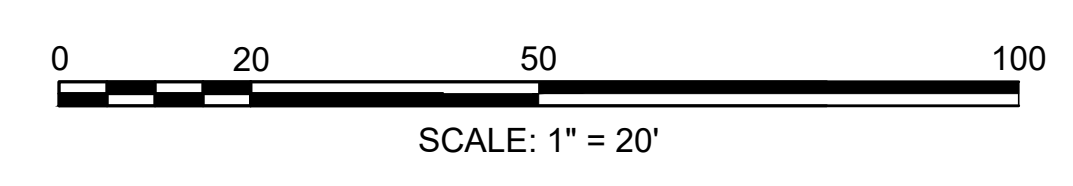
The Clipper City Rail Trail project will be managed by Senior Project Manager Geordie Vining of the Newburyport Planning Office, working with colleagues in the Parks Department, Department of Public Services, and others. Upon completion, the facility will be managed by the Newburyport Parks Department as part of the larger Clipper City Rail Trail network.

The City's design consultants for the project include GZA Geoenvironmental and Stantec for the Riverfront Trail Gap and TEC for the Parker Street Shared Use Path.



Parker Street Shared Use Path

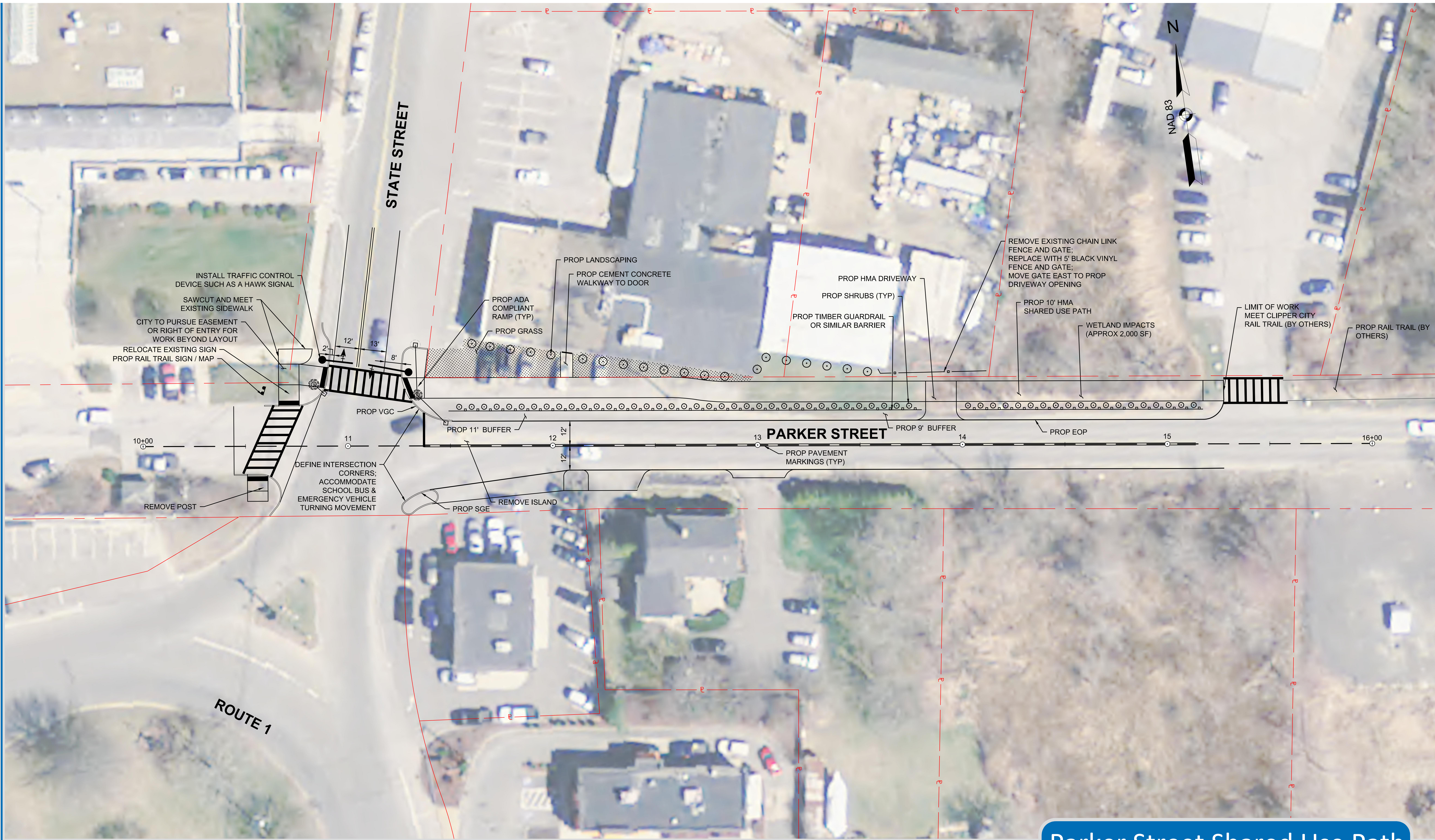
Alternative 2B
Newburyport, Massachusetts



February 5, 2020



146 Dascomb Road
Andover, MA 01810
978-794-1792
311 Main Street
2nd Floor
Worcester, MA 01608
508-868-5104
169 Ocean Blvd, Unit 3
PO Box 249
Hampton, NH 03842
603-601-8154
TheEngineeringCorp.com

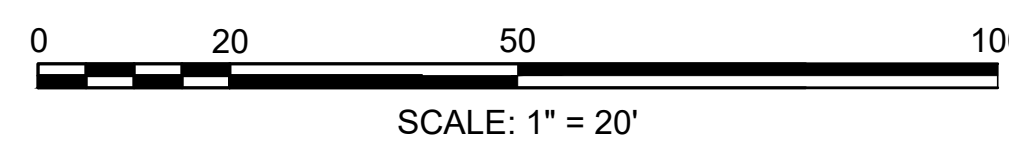


Parker Street Shared Use Path

Alternative 2B
Newburyport, Massachusetts



February 5, 2020

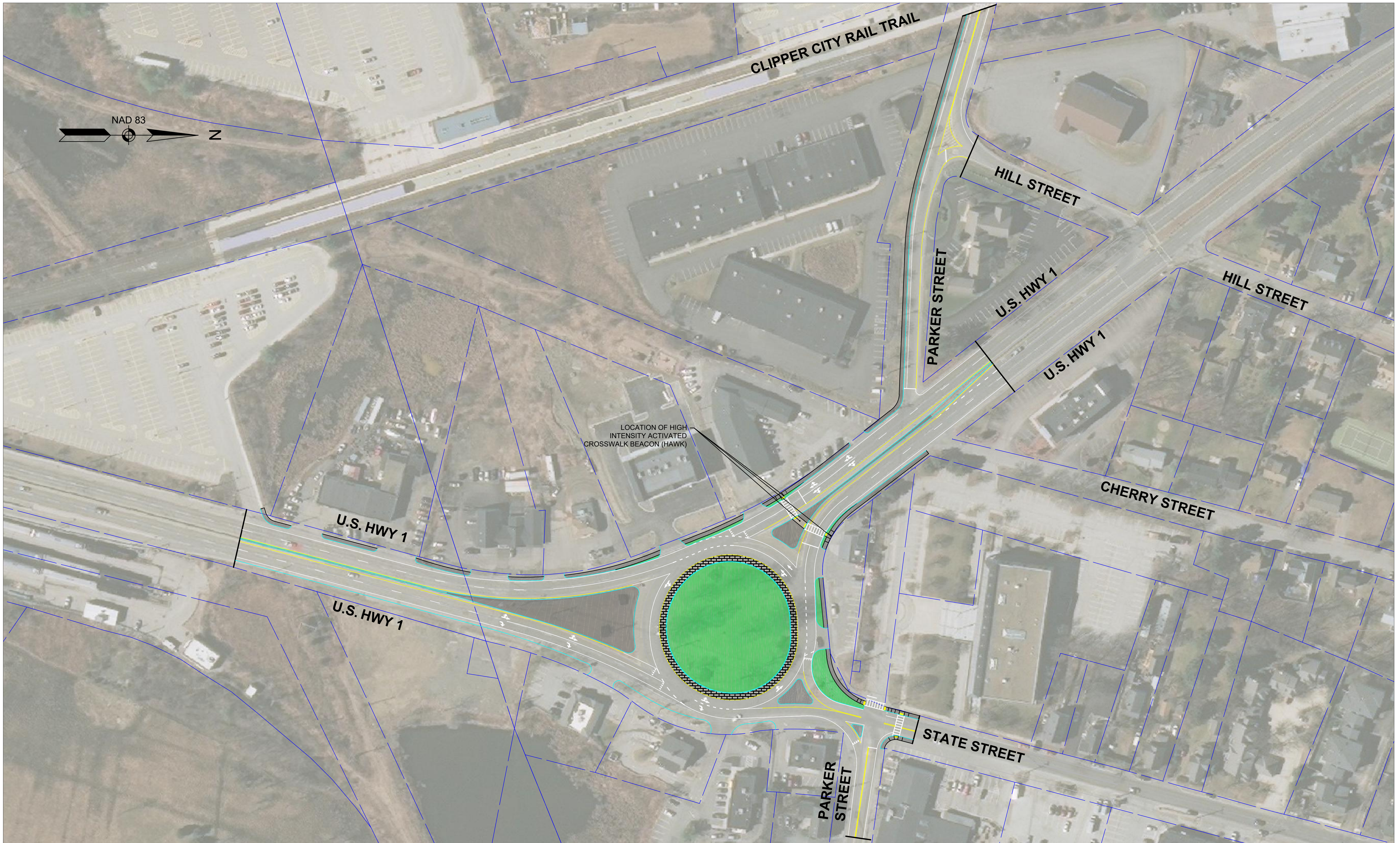


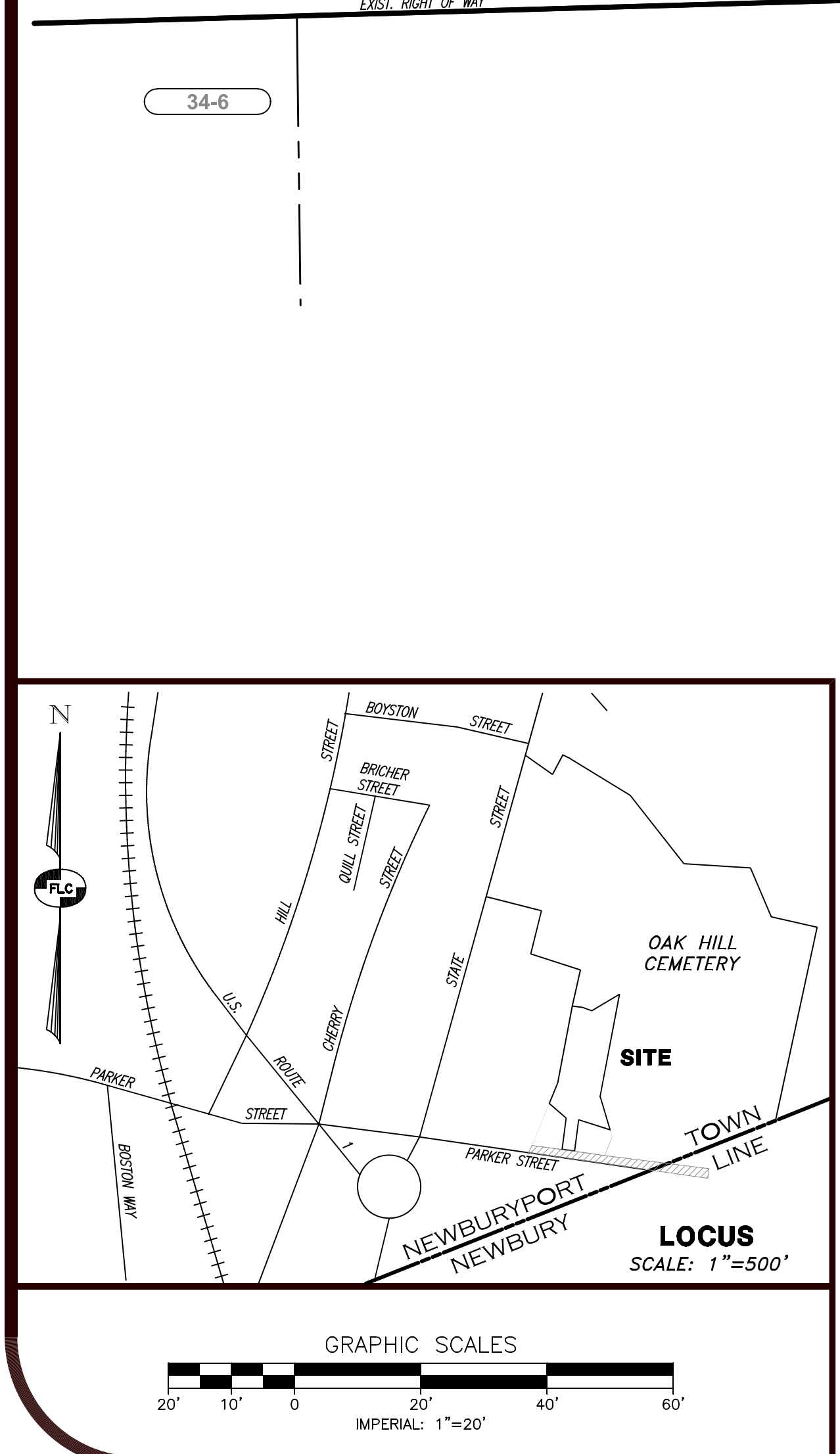
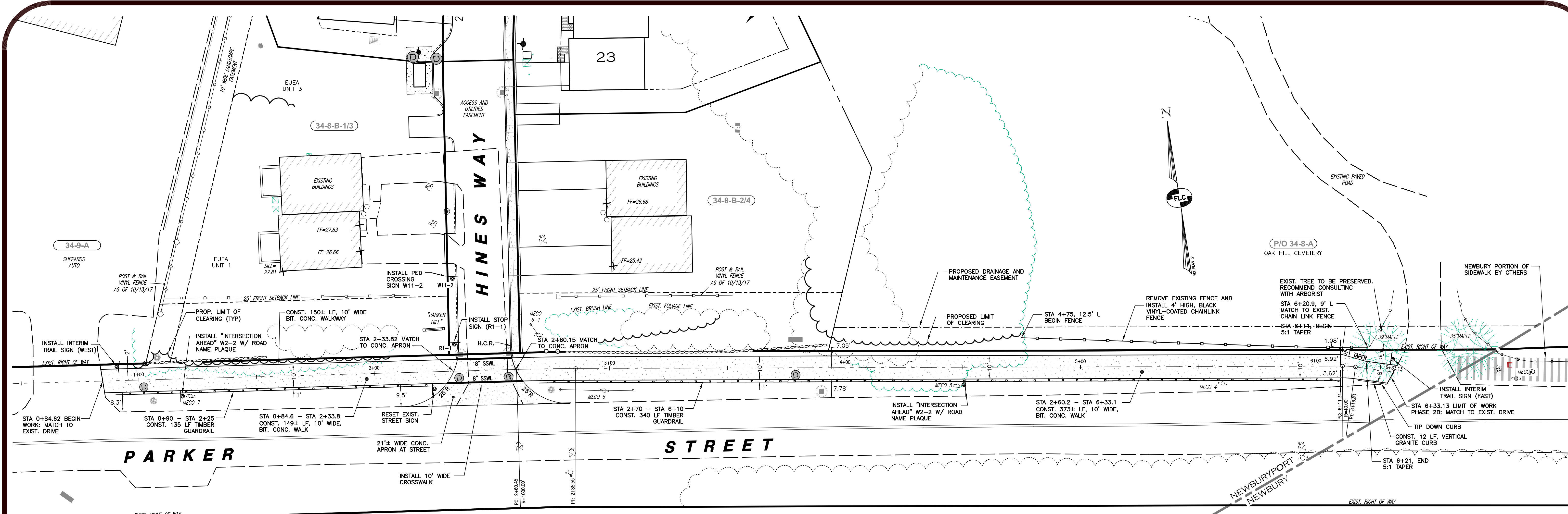
146 Dascomb Road
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Hampton, NH 03842
603-601-8154

TheEngineeringCorp.com





LEGEND:

EXISTING FEATURES		PROPOSED FEATURES	
—	RIGHT-OF-WAY LINE	—	EDGE OF PAVEMENT
—	BOUNDARY LINE	—	VERTICAL GRANITE CURB
—	ABUTTING LOT LINE	—	TIMBER GUARDRAIL
—	BUILDING SETBACK LINE	—	CHAIN LINK FENCE
—	EDGE OF PAVED ROAD	—	SILT/CONST. FENCE
—	EDGE OF GRAVEL ROAD	—	LIMITS OF CLEARING
—	EDGE OF TREE LINE	—	TRAFFIC SIGN
—	EDGE OF BRUSH LINE	—	STOP SIGN
—	90' CONTOUR INTERVAL	—	BIT. CONC. SIDEWALK
—	10' CONTOUR INTERVAL	—	CONCRETE DRIVEWAY APRON
—	2' CONTOUR INTERVAL	—	NEWBURY PORTION OF SIDEWALK (BY OTHERS)
—	CHAIN-LINK FENCE	—	CB1
—	VINYL FENCE	—	DRAINAGE CATCH BASIN
—	OVERHEAD UTILITY LINE	—	DH1
—	GAS LINE	—	DRAINAGE DROP INLET
—	WATER LINE	—	CB8
—	SEWER LINE	—	DRAINAGE MINI CATCH BASIN
—	DRAIN LINE	—	HW1
—	STONE WALL	—	DRAINAGE HEADWALL
—	TAX MAP & LOT NUMBER	—	MH1
—		—	DRAINAGE MANHOLE

- GENERAL CONSTRUCTION NOTES:**
1. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REQUIREMENTS AND SPECIFICATIONS OF THE CITY OF NEWBURYPORT.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL VERIFY THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT, COMPLETE, ACCURATE, AND CAN BE CONSTRUCTED PRIOR TO AND/OR DURING CONSTRUCTION. FIELDSTONE LAND CONSULTANTS, PLLC, AS THE DESIGN ENGINEER, SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES, ERRORS, OMISSIONS, OR EXISTING UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
 3. THE OWNER AND/OR CONTRACTOR SHALL VERIFY ALL ZONING REQUIREMENTS FOR CONFORMANCE PRIOR TO CONSTRUCTION.
 4. THE CONTRACTOR SHALL CONTACT "DIGSAFE" 72 HOURS PRIOR TO THE START OF CONSTRUCTION (811).
 5. COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND SPECIAL CONDITIONS OF TOWN/CITY AGENCIES, SUCH AS THE PLANNING BOARD, CONSERVATION COMMISSION, AND OTHERS, IS MANDATORY AND IS THE RESPONSIBILITY OF THE OWNER.
 6. ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS TOWN BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND FIELDSTONE LAND CONSULTANTS, PLLC PRIOR TO CONSTRUCTION.
 7. ALL DRAINAGE STRUCTURES SHALL CONFORM TO MADOT STANDARDS. ALL CONSTRUCTION MATERIALS SHALL CONFORM TO MASS DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
 8. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE TOWN DEPARTMENTS PRIOR TO CONSTRUCTION TO ARRANGE FOR INSPECTIONS OF THE CONSTRUCTION.
 9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCURATE AS-BUILT INFORMATION OF ALL WORK, ESPECIALLY UNDERGROUND CONSTRUCTION OF UTILITY LINES, SERVICES, CONNECTIONS, ETC. AND APPROPRIATE TIES TO ABOVE GROUND PERMANENT STRUCTURES, FIELD SURVEY COORDINATES, OR SOME OTHER METHOD OF ESTABLISHING THE AS-BUILT CONDITION OF ALL CONSTRUCTION.
 10. STUMPS ARE TO BE GROUND AND THE GRINDINGS STOCKPILED ON SITE. STUMP TAILINGS SHALL BE USED FOR EROSION CONTROL. EXCESS TAILINGS SHALL BE COMPACTED WITH SUITABLE MATERIAL IN NON STRUCTURAL FILL SLOPES. COVER WITH 4" OF LOAM AND SEED PER THE EROSION CONTROL NOTES.
 11. EXPOSED OR DISTURBED AREAS DUE TO STRIPPING OF VEGETATION, SOIL REMOVAL, AND REGRADING SHALL BE PERMANENTLY STABILIZED WITHIN 6 MONTHS OF OCCUPANCY OF A STRUCTURE.
 12. DURING CONSTRUCTION, TEMPORARY VEGETATION AND/OR MULCHING SHALL BE USED TO PROTECT EXPOSED AREAS FROM SOIL EROSION. UNTIL A DISTURBED AREA IS PERMANENTLY STABILIZED, SEDIMENT RUNOFF WATER SHALL BE TRAPPED BY USING STAKED HAY BALES OR SEDIMENT TRAPS.

B	10/04/19	ADDED DRAINAGE AND MAINTENANCE EASEMENT	NRC	CEB
A	09/19/19	ADDRESS CITY STAFF REVIEW	OPD	NRC
	DATE	DESCRIPTION	C/O	DR
			CK	

CONSTRUCTION LAYOUT PLAN

CLIPPER CITY RAIL

TRAIL - PHASE 2B

NEWBURYPORT / NEWBURY

MASSACHUSETTS

PREPARED FOR:
PARKER 2 REALTY TRUST
 160 BRIDGE ROAD, SALISBURY, MA 01952

SCALE: 1" = 20' JUNE 11, 2019

Surveying + Engineering + Land Planning + Permitting + Septic Designs

FIELDSTONE
 LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055
 Phone: (603)-413-5456 Fax: (603)-413-5456
 www.FieldstoneLandConsultants.com

FILE:1486SP00_OS_A.dwg PROJ. NO. 1486.00 SHEET: SP-1 PAGE NO. 4 OF 10

SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	1	22
STANTEC PROJECT NO. 210800843		

CITY OF NEWBURYPORT

PLAN AND PROFILE OF CLIPPER CITY RAIL TRAIL AND SHORELINE STABILIZATION

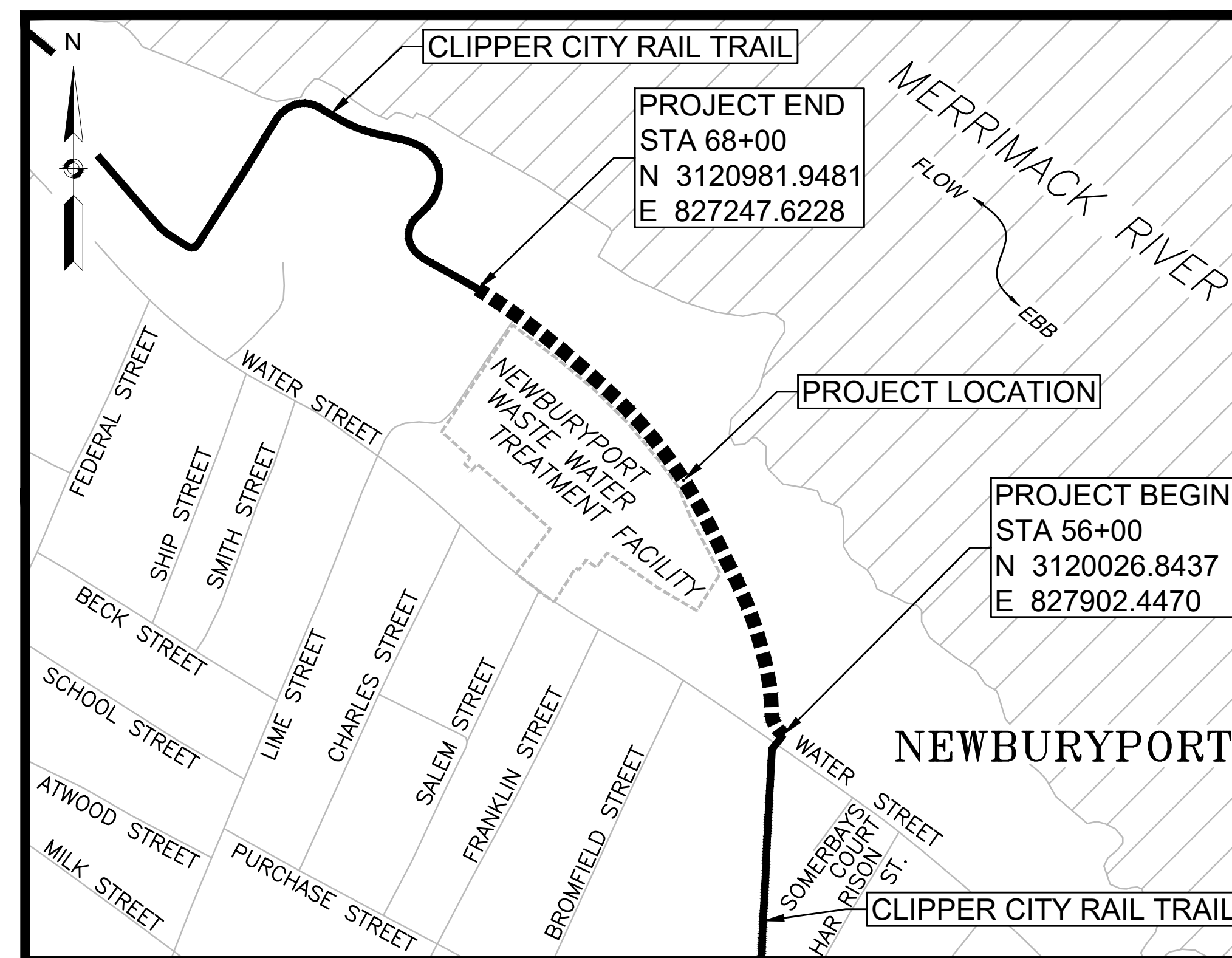
IN THE CITY OF

NEWBURYPORT

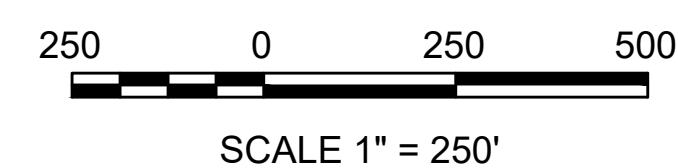
ESSEX COUNTY

25% SUBMITTAL

SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2	LEGEND & ABBREVIATIONS
3	KEY PLAN
4	TYPICAL SECTIONS
5 - 6	CONSTRUCTION PLANS
7 - 8	PROFILES
9 - 14	SHORELINE STABILIZATION PLANS
15 - 17	CONSTRUCTION DETAILS
20 - 22	RAIL TRAIL CROSS SECTIONS



THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 1988, AS AMENDED, THE SUPPLEMENTAL SPECIFICATIONS DATED APRIL 1, 2019, THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WITH 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, WILL GOVERN.



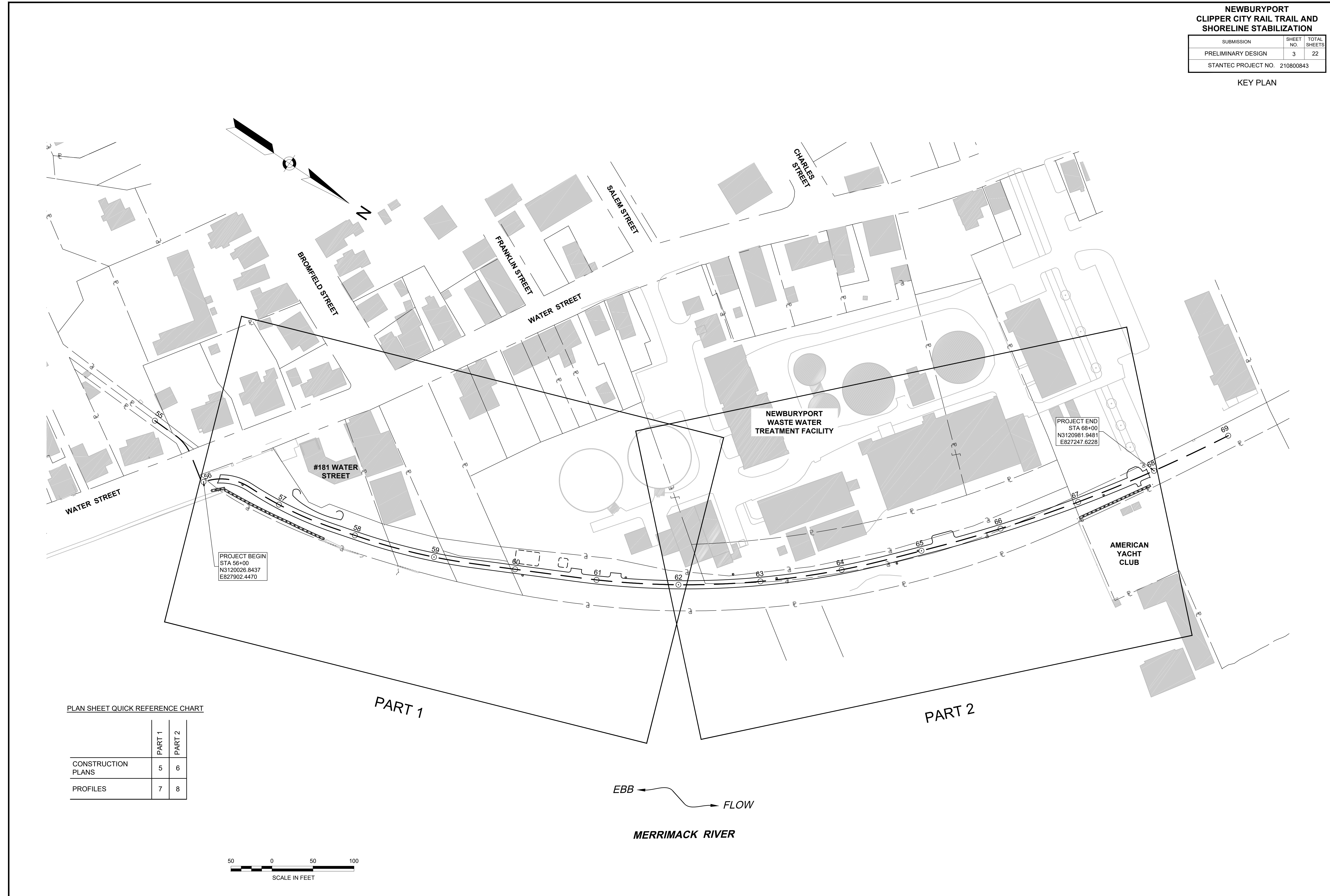
LENGTH OF PROJECT = 1,200.00 FEET = 0.227 MILES

**NEWBURYPORT
CLIPPER CITY RAIL TRAIL AND
SHORELINE STABILIZATION**

SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	3	22
STANTEC PROJECT NO. 210800843		

KEY PLAN

9-Dec-2019
CCRT_SHORELINE_GE(KEY PLAN).DWG

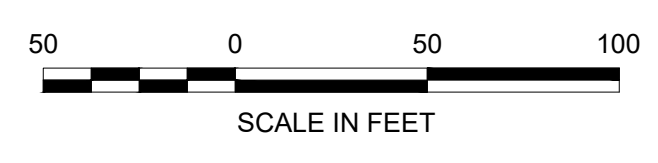


PROJECT BEGIN
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PROJECT END
STA 68+00
N3120981.9481
E827247.6228

PLAN SHEET QUICK REFERENCE CHART

	PART 1	PART 2
CONSTRUCTION PLANS	5	6
PROFILES	7	8



EBB ← FLOW

MERRIMACK RIVER

PART 1

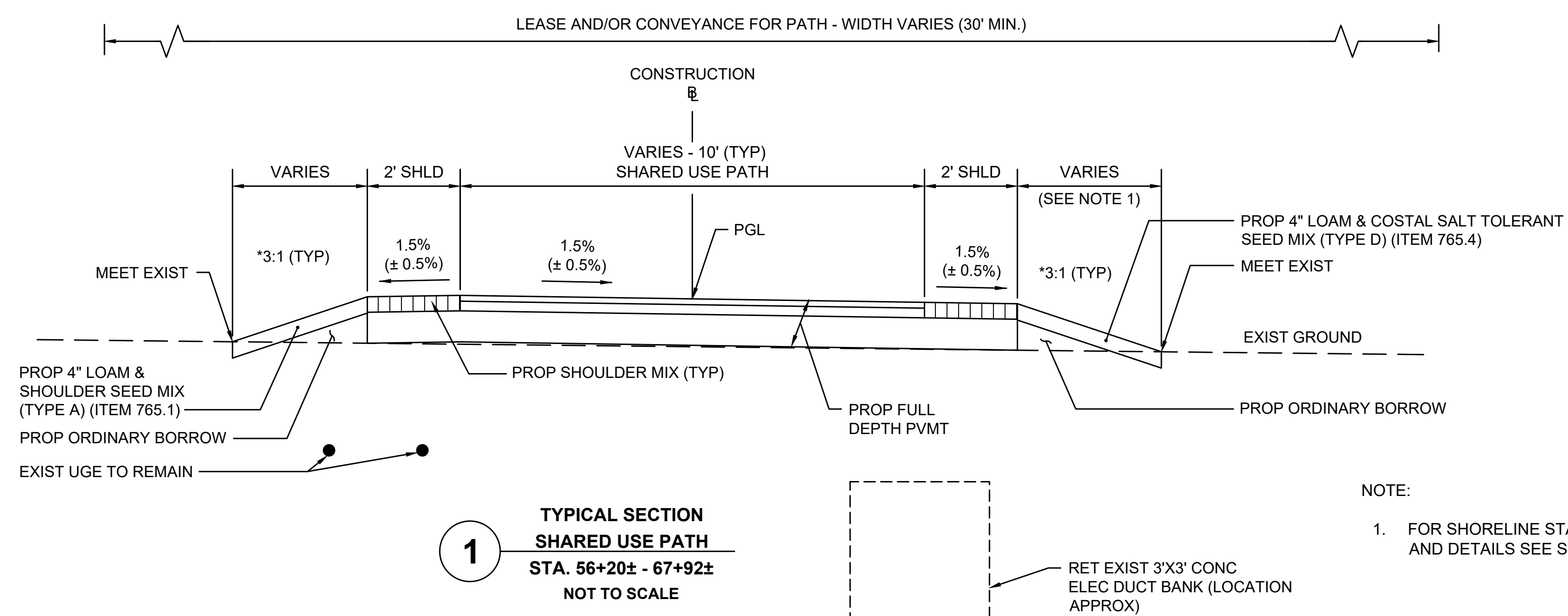
PART 2

NEWBURYPORT
CLIPPER CITY RAIL TRAIL AND
SHORELINE STABILIZATION

SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	4	22
STANTEC PROJECT NO. 210800843		

TYPICAL SECTIONS

9-Dec-2019
CCRT_SHORELINE_HD(TYPICAL SECTIONS).DWG



PAVEMENT NOTES

PROPOSED FULL DEPTH PAVEMENT

SURFACE	1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER 2.5" SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0)
BASE	8" GRAVEL BORROW, TYPE b OR EXISTING GRAVEL BORROW TO REMAIN
SHOULDERS	4" DEPTH 'CRUSHED STONE AND LOAM MIX FOR SHOULDERS' (ITEM 402.121) + SEED (ITEM 765.1 ON LANDWARD SIDE & ITEM 765.4 ON RIVER SIDE)

NOTE:

- FOR SHORELINE STABILIZATION LIMITS AND DETAILS SEE SHEET 9 - 14.

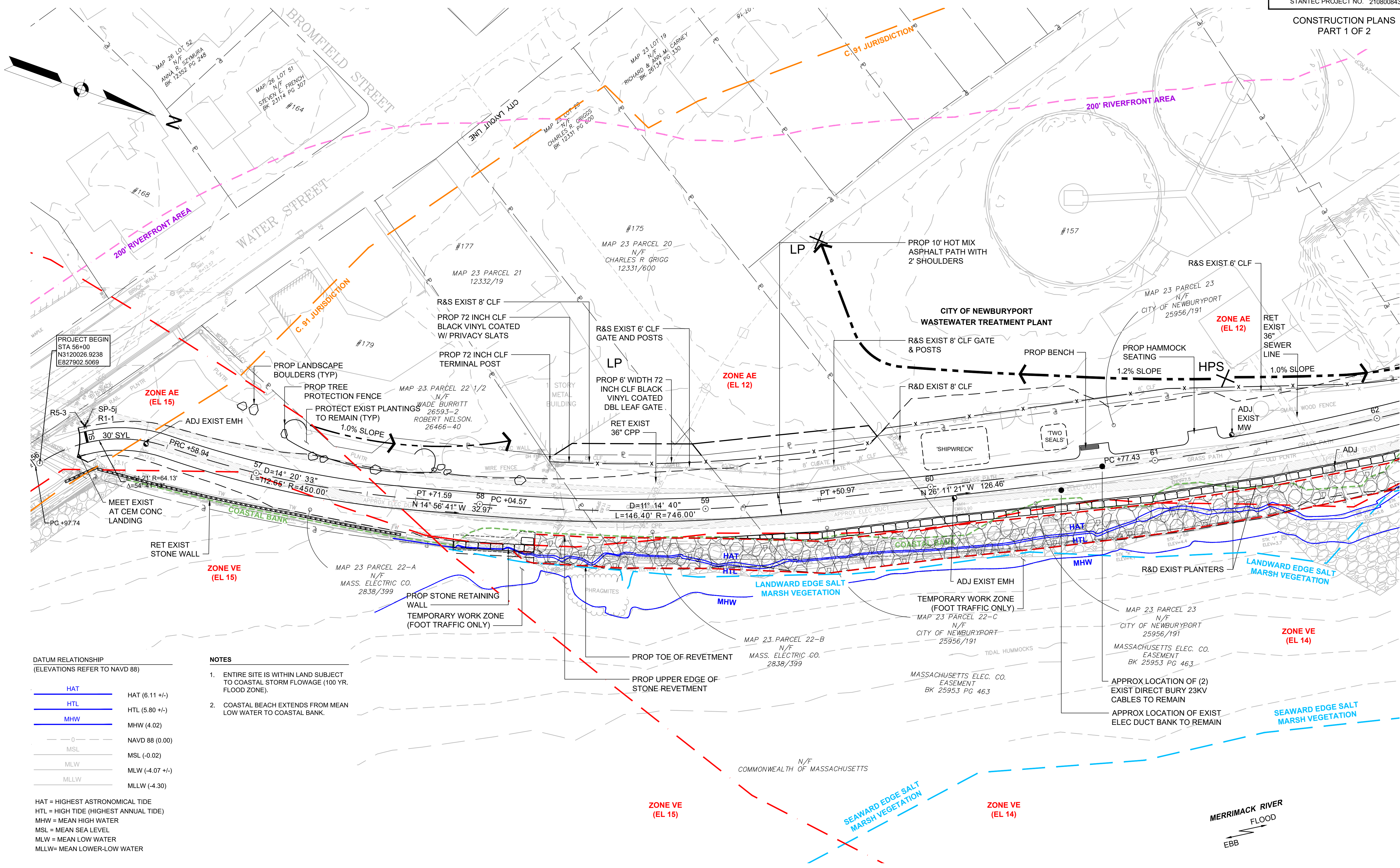
**NEWBURYPORT
CLIPPER CITY RAIL TRAIL AND
SHORELINE STABILIZATION**

SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	5	22
STANTEC PROJECT NO. 210800843		

**CONSTRUCTION PLANS
PART 1 OF 2**

9-Dec-2019 CCRT_SHORELINE_HDCONSTRUCTION PLANS.DWG

CONTINUED ON SHEET NO. 6



DATUM RELATIONSHIP
(ELEVATIONS REFER TO NAVD 88)

HAT	HAT (6.11 +/-)
HTL	HTL (5.80 +/-)
MHW	MHW (4.02)
0	NAVD 88 (0.00)
MSL	MSL (-0.02)
MLW	MLW (-4.07 +/-)
MLLW	MLLW (-4.30)

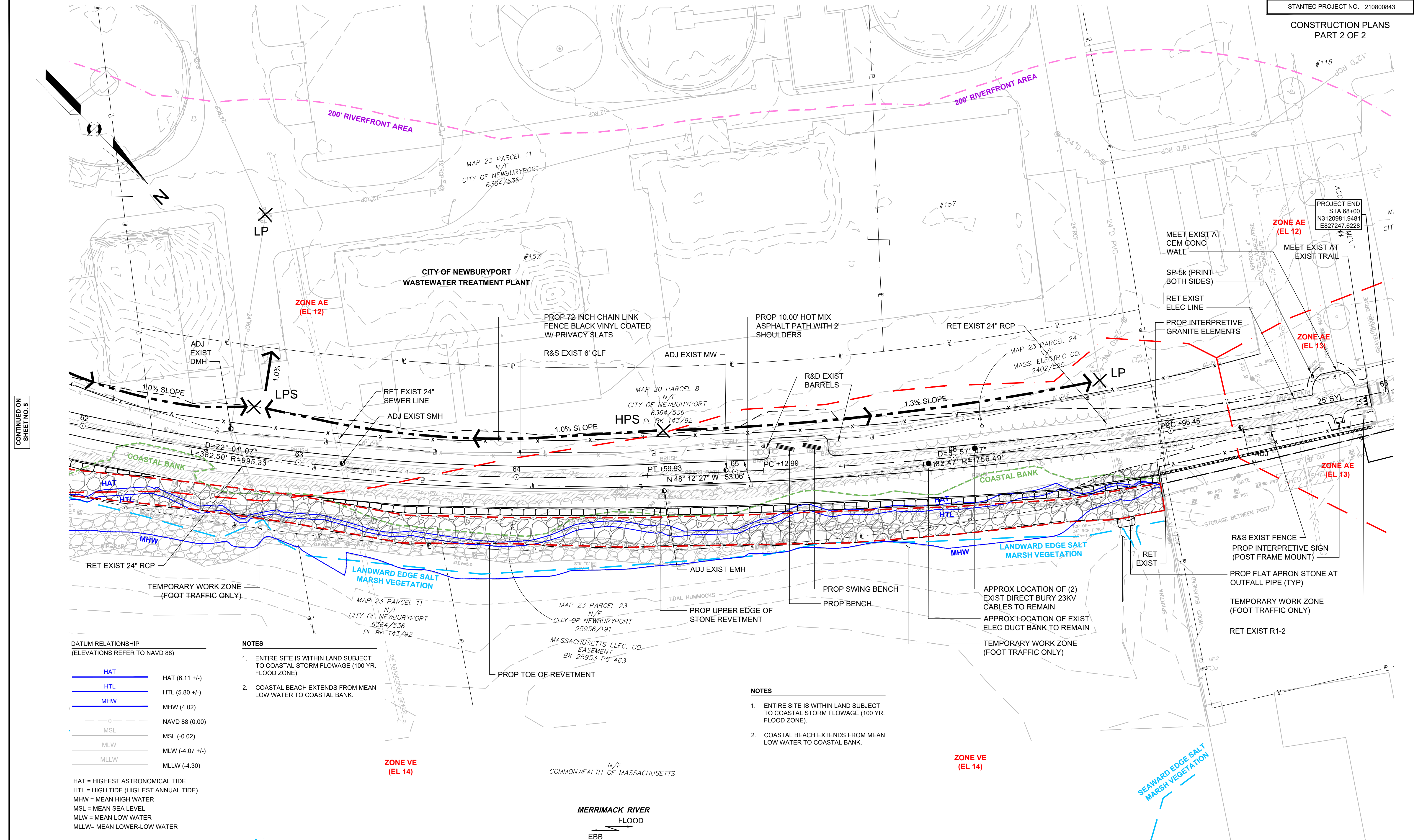
HAT = HIGHEST ASTRONOMICAL TIDE
HTL = HIGH TIDE (HIGHEST ANNUAL TIDE)
MHW = MEAN HIGH WATER
MSL = MEAN SEA LEVEL
MLW = MEAN LOW WATER
MLLW = MEAN LOWER-LOW WATER

NOTES

- ENTIRE SITE IS WITHIN LAND SUBJECT TO COASTAL STORM FLOWAGE (100 YR. FLOOD ZONE).
- COASTAL BEACH EXTENDS FROM MEAN LOW WATER TO COASTAL BANK.



CONTINUED ON SHEET NO. 6



CONTINUED ON
SHEET NO. 5

DATUM RELATIONSHIP
(ELEVATIONS REFER TO NAVD 88)

—— HAT	HAT (6.11 +/-)
—— HTL	HTL (5.80 +/-)
—— MHW	MHW (4.02)
—— 0	NAVD 88 (0.00)
—— MSL	MSL (-0.02)
—— MLW	MLW (-4.07 +/-)
—— MLLW	MLLW (-4.30)

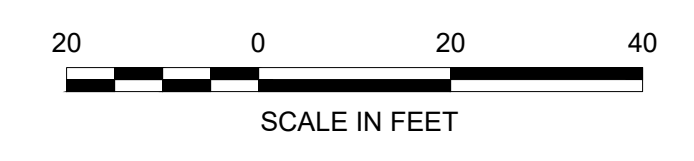
HAT = HIGHEST ASTRONOMICAL TIDE
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MHW = MEAN HIGH WATER
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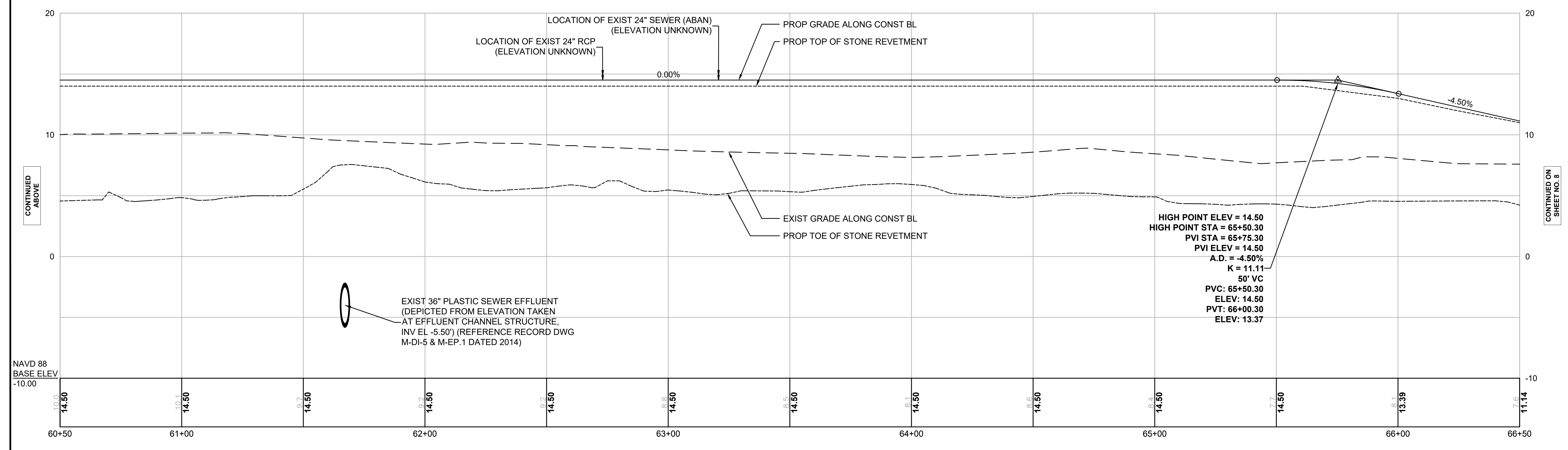
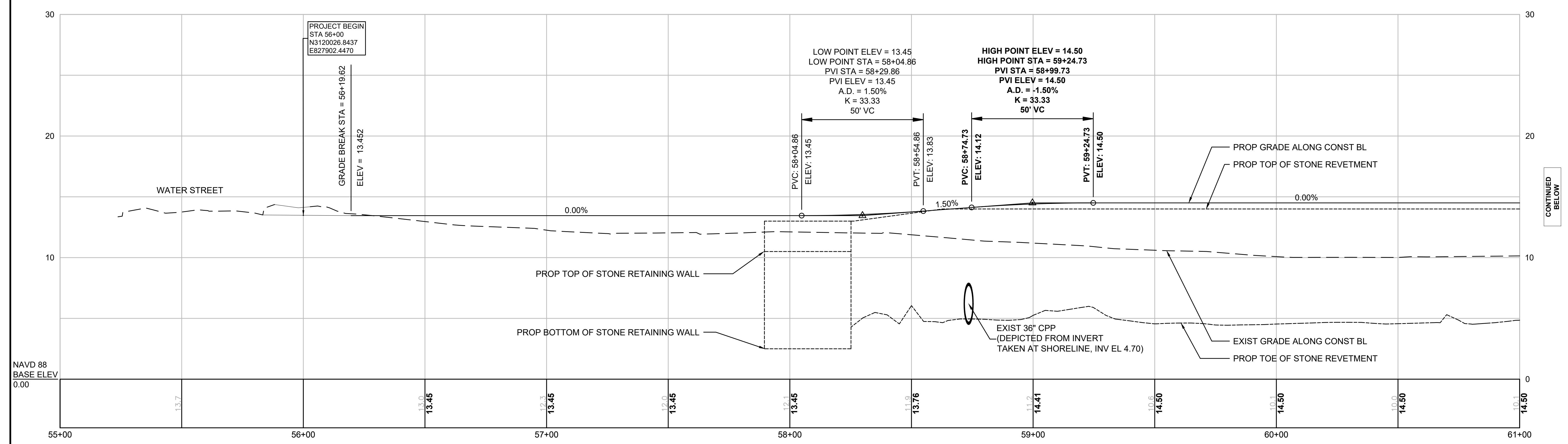
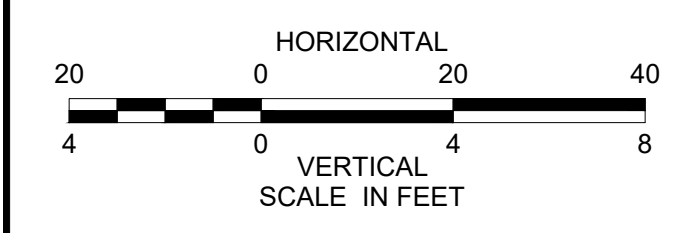
NOTES

- ENTIRE SITE IS WITHIN LAND SUBJECT TO COASTAL STORM FLOWAGE (100 YR. FLOOD ZONE).
- COASTAL BEACH EXTENDS FROM MEAN LOW WATER TO COASTAL BANK.

NOTES

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- COASTAL BEACH EXTENDS FROM MEAN LOW WATER TO COASTAL BANK.

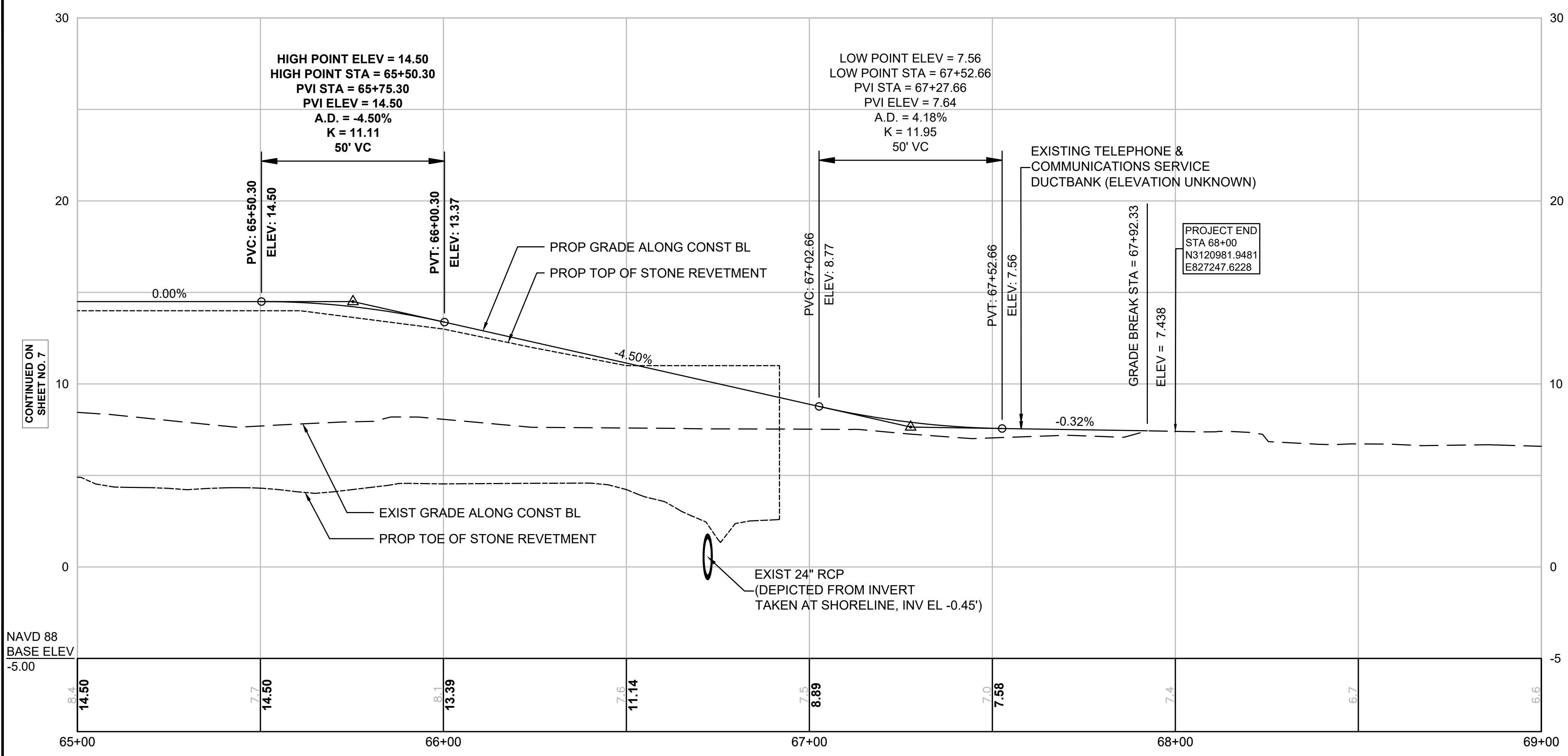
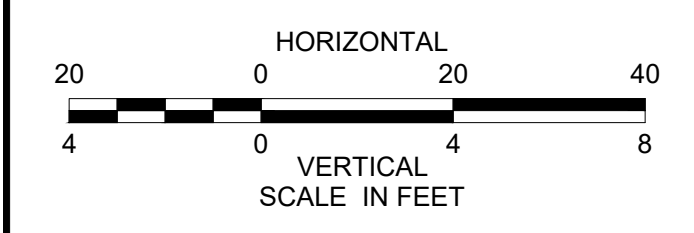


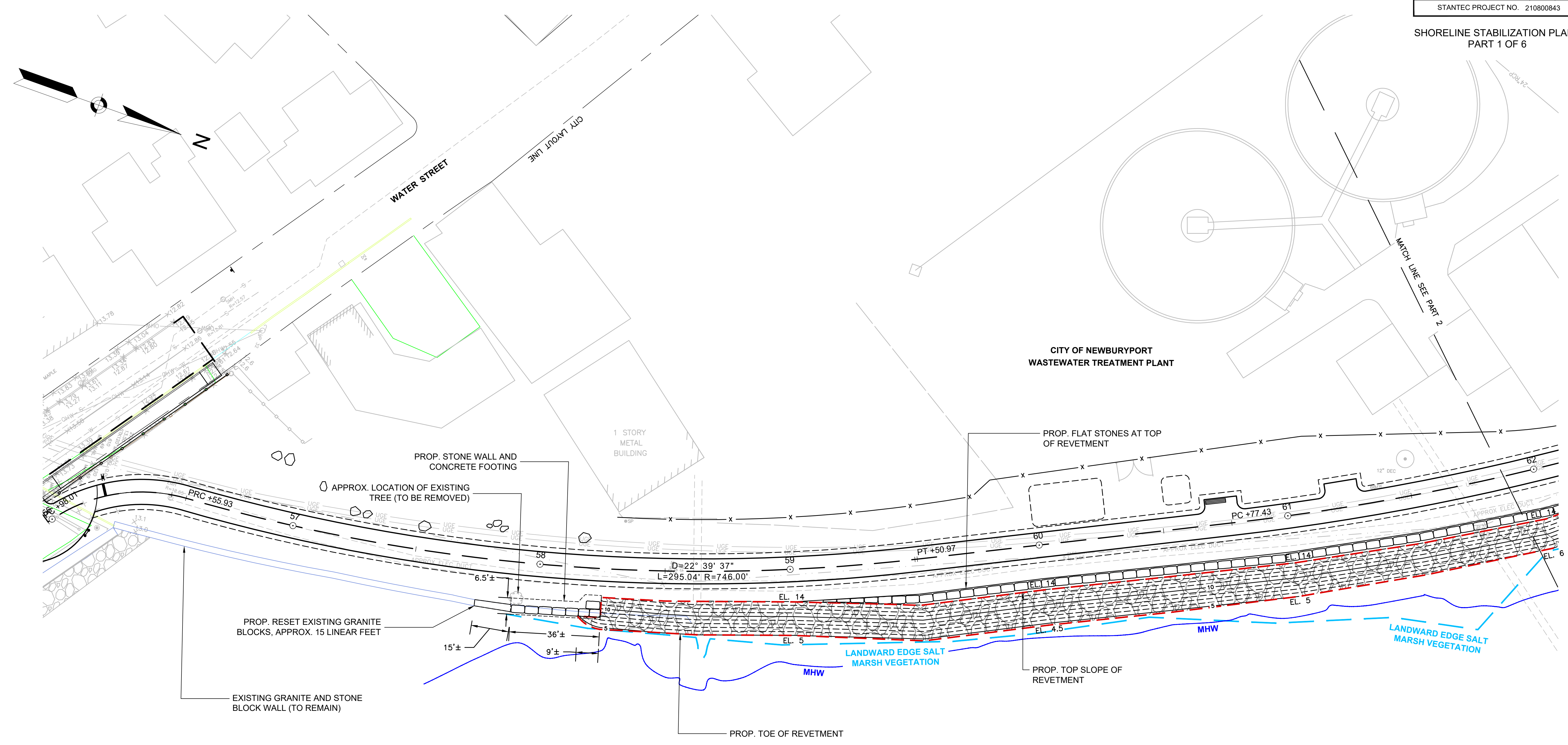


**NEWBURYPORT
CLIPPER CITY RAIL TRAIL AND
SHORELINE STABILIZATION**

SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	6	22
STANTEC PROJECT NO. 210800843		

**PROFILES
PART 2 OF 2**

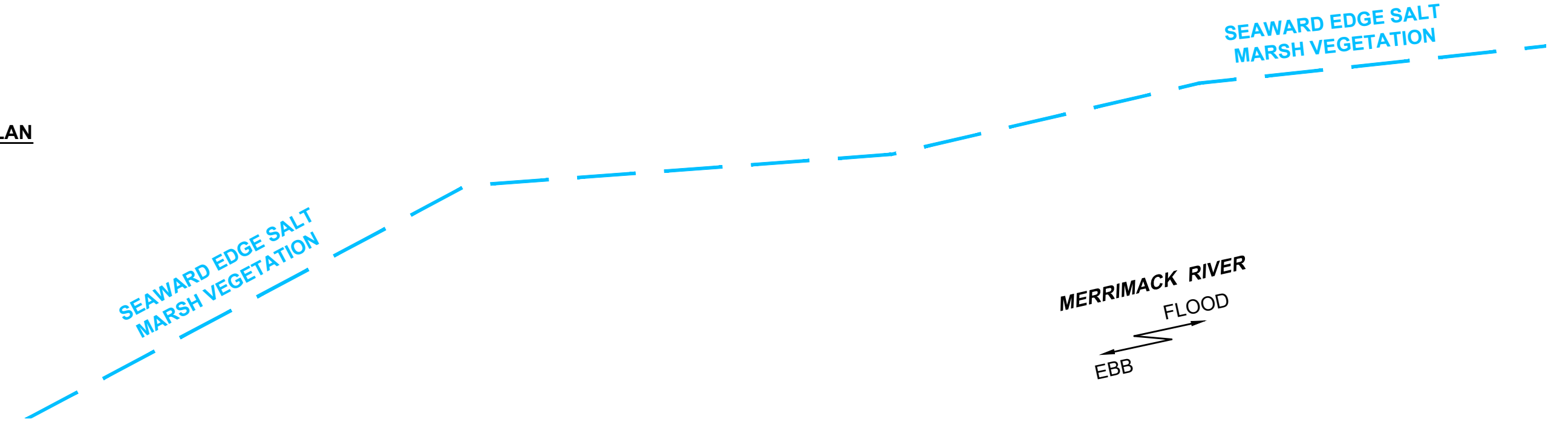
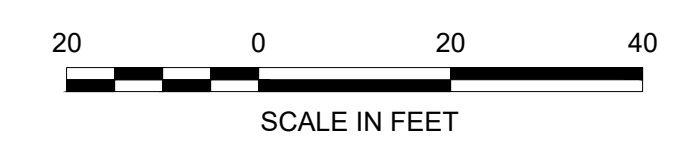




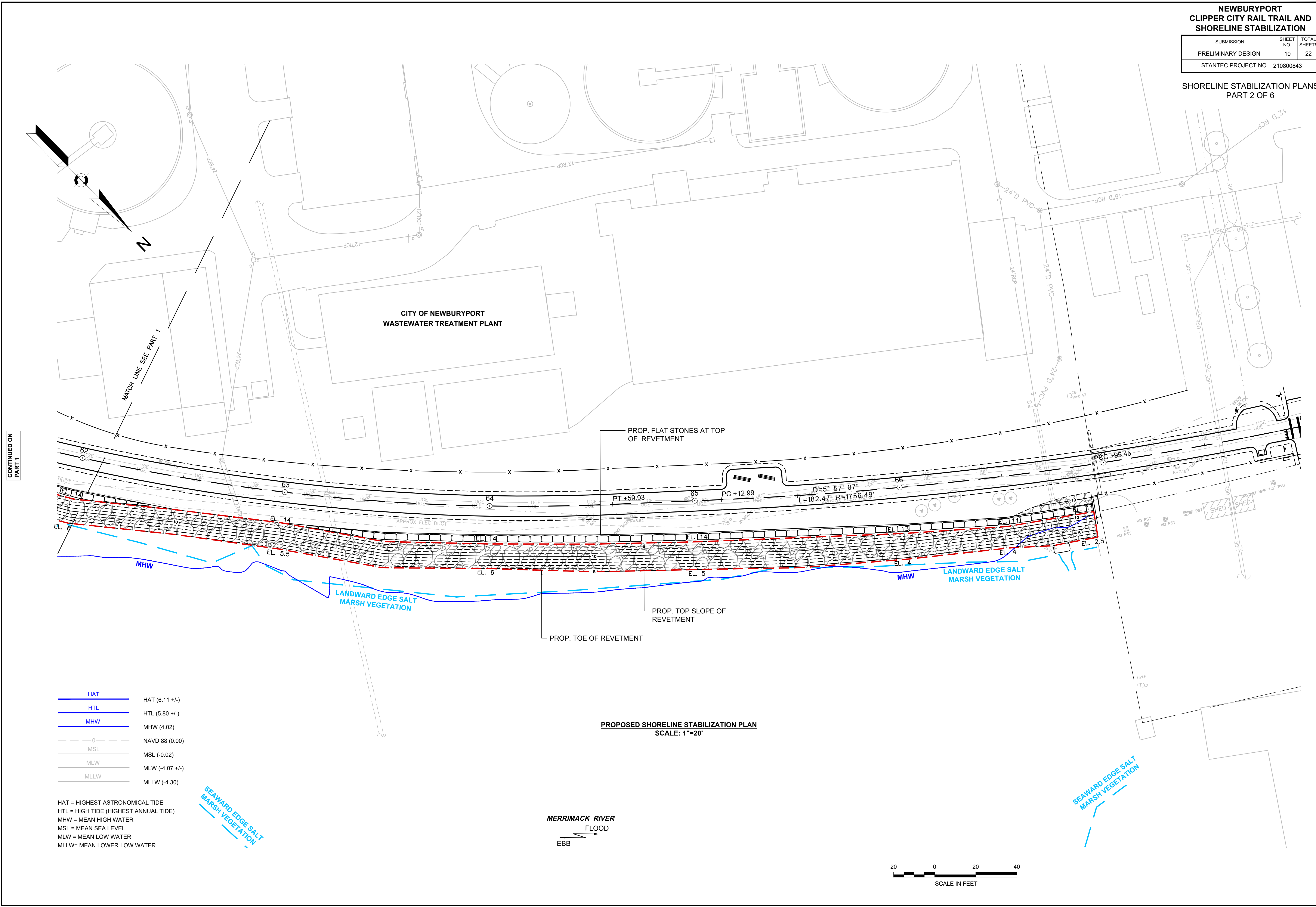
	HAT	HAT (6.11 +/-)
	HTL	HTL (5.80 +/-)
	MHW	MHW (4.02)
	0	NAVD 88 (0.00)
	MSL	MSL (-0.02)
	MLW	MLW (-4.07 +/-)
	MLLW	MLLW (-4.30)

HAT = HIGHEST ASTRONOMICAL TIDE
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 MHW = MEAN HIGH WATER
 MSL = MEAN SEA LEVEL
 MLW = MEAN LOW WATER
 MLLW = MEAN LOWER-LOW WATER

PROPOSED SHORELINE STABILIZATION SITE PLAN
SCALE: 1"=20'



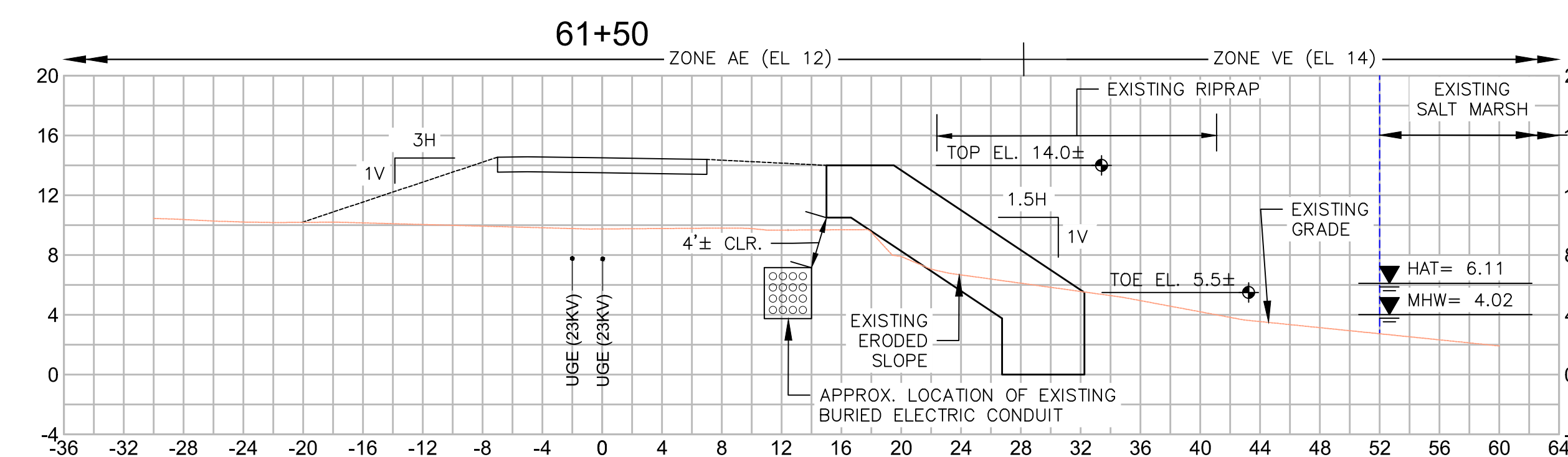
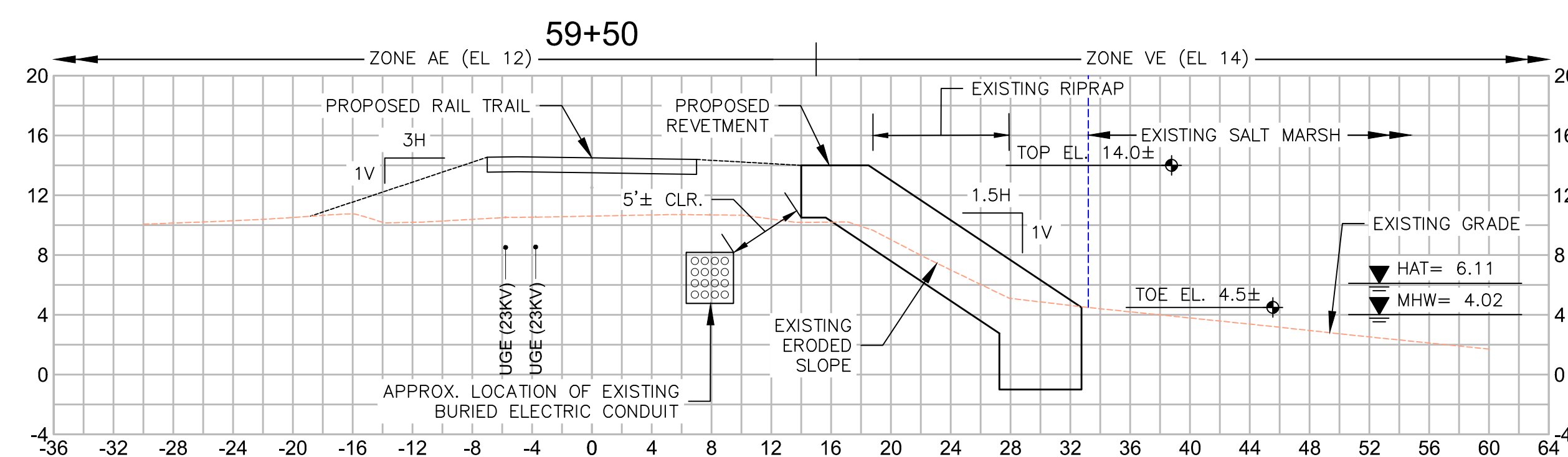
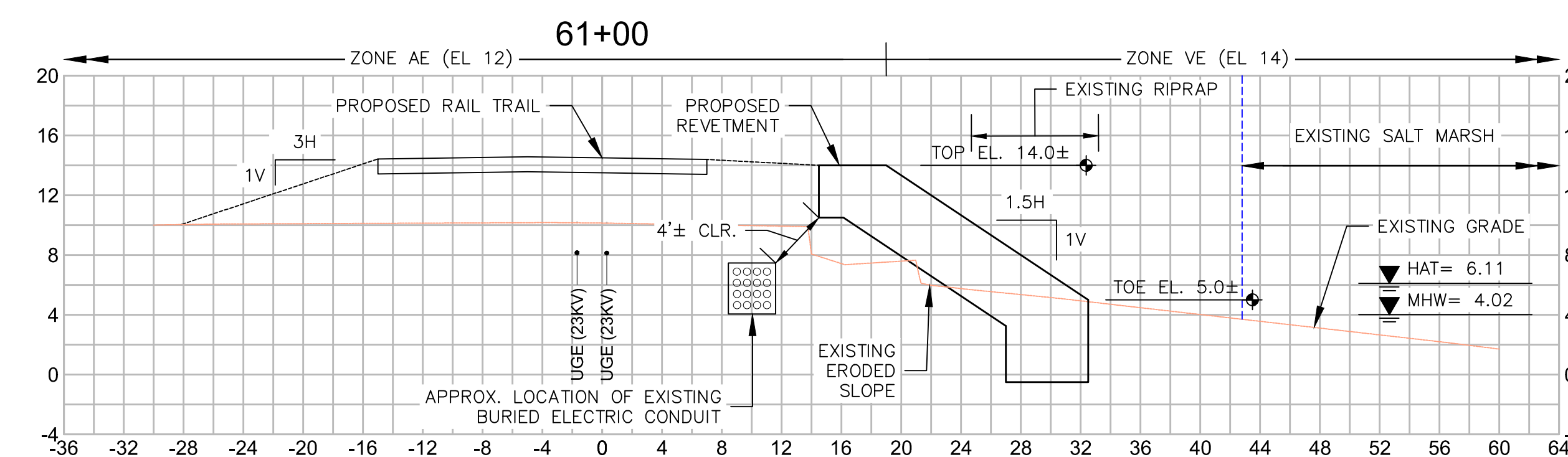
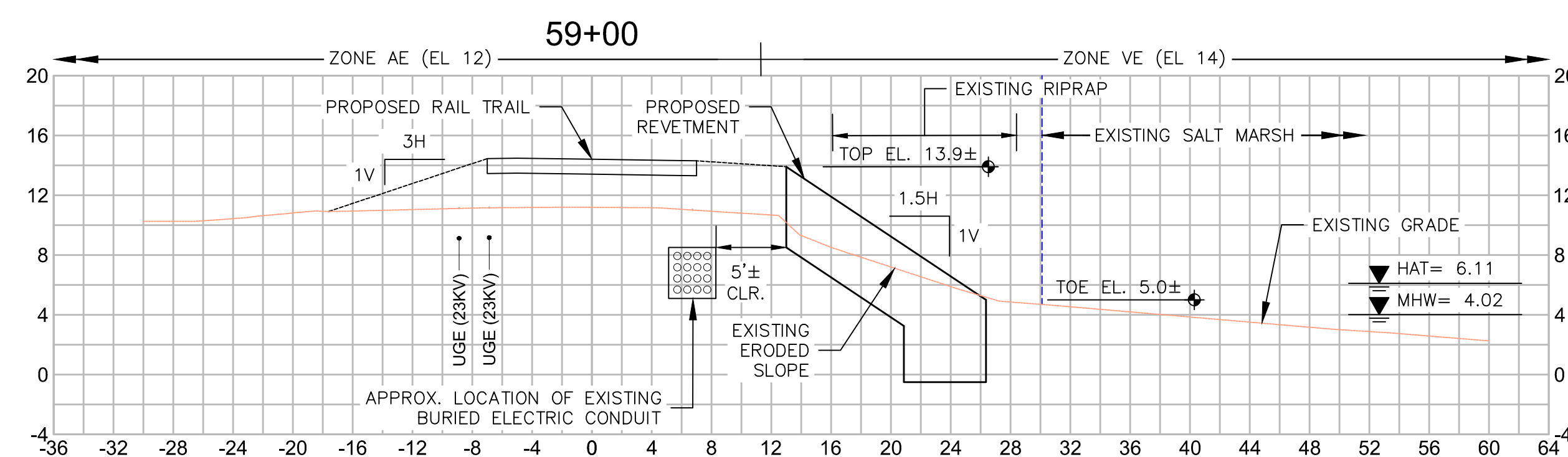
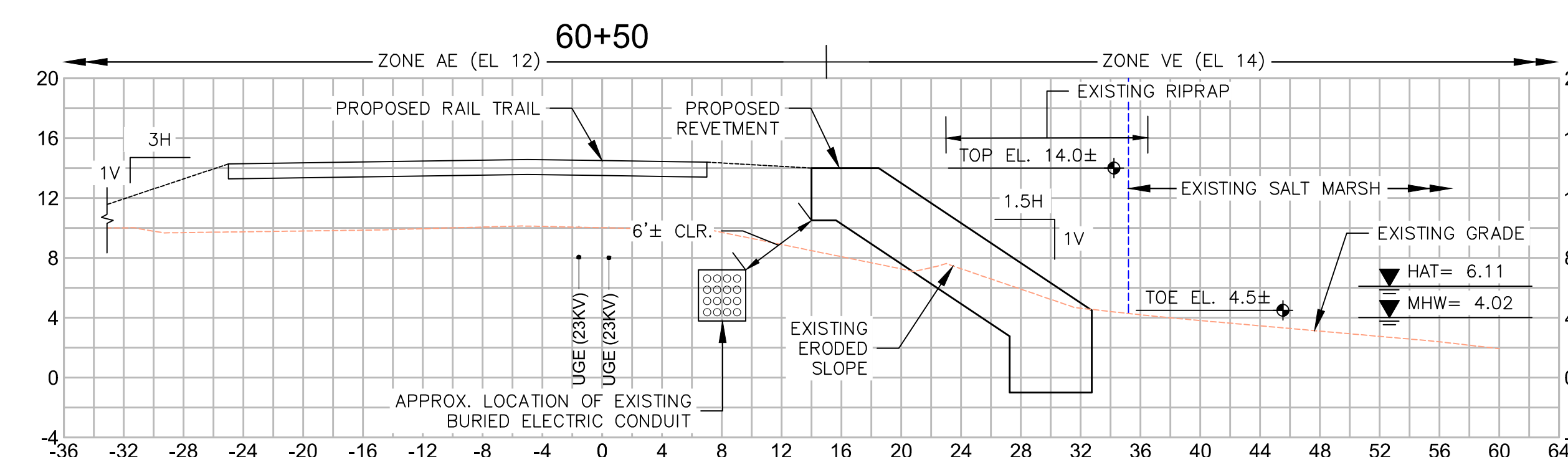
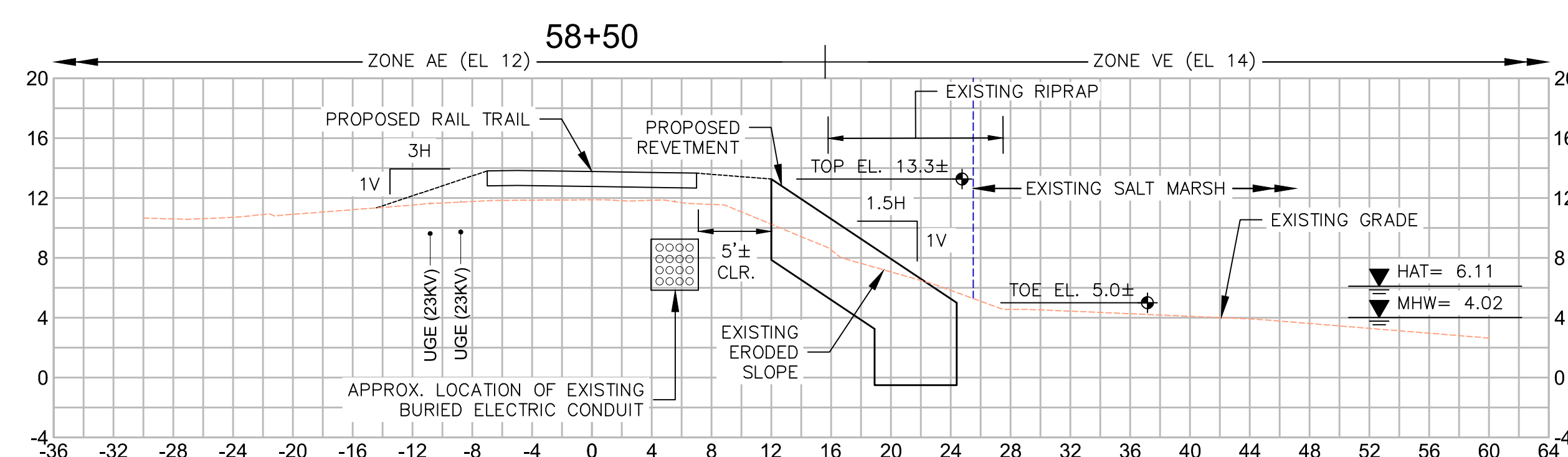
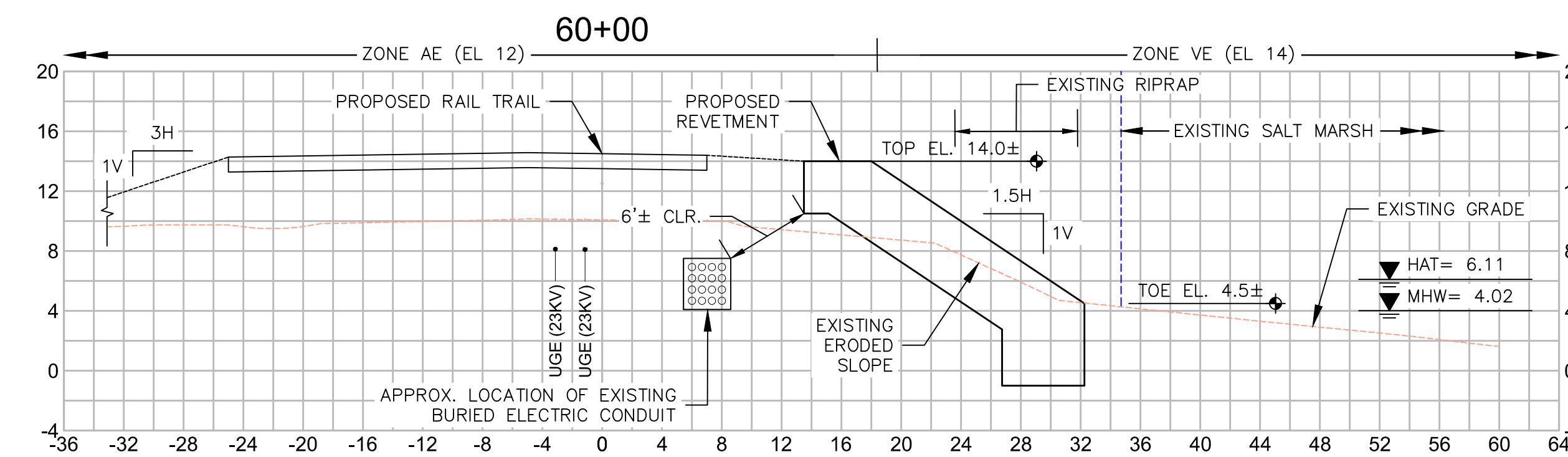
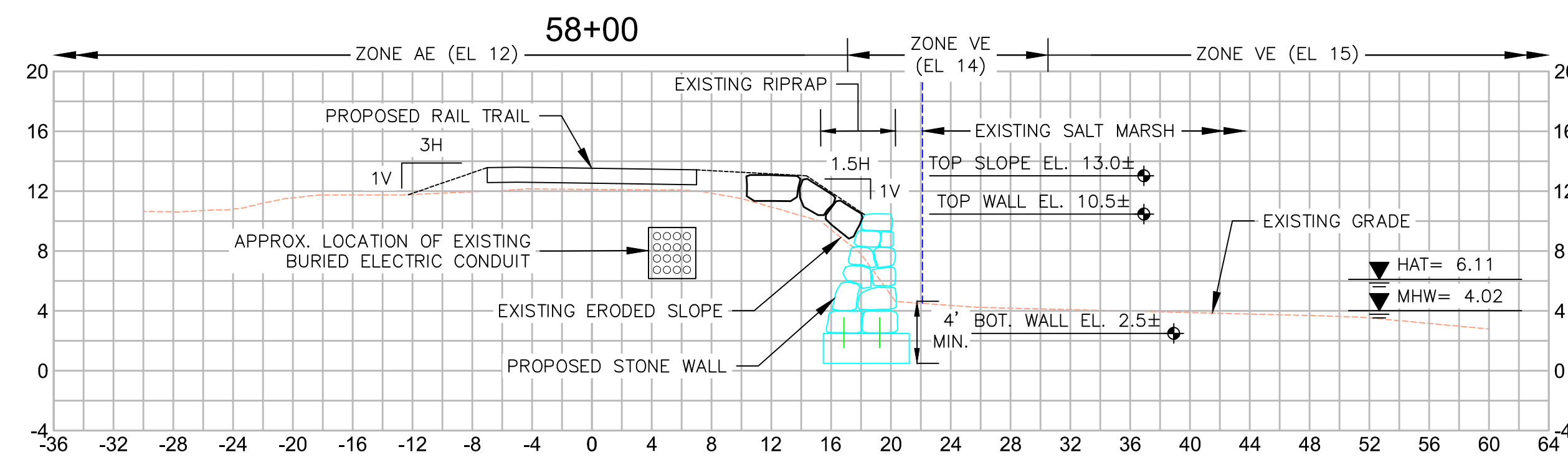
CONTINUED ON
PART 2



**NEWBURYPORT
CLIPPER CITY RAIL TRAIL AND
SHORELINE STABILIZATION**

SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	11	22
STANTEC PROJECT NO. 210800843		

**SHORELINE STABILIZATION PLANS
PART 3 OF 6**



**PROPOSED SHORELINE STABILIZATION SECTIONS
SCALE: 1"=8'**

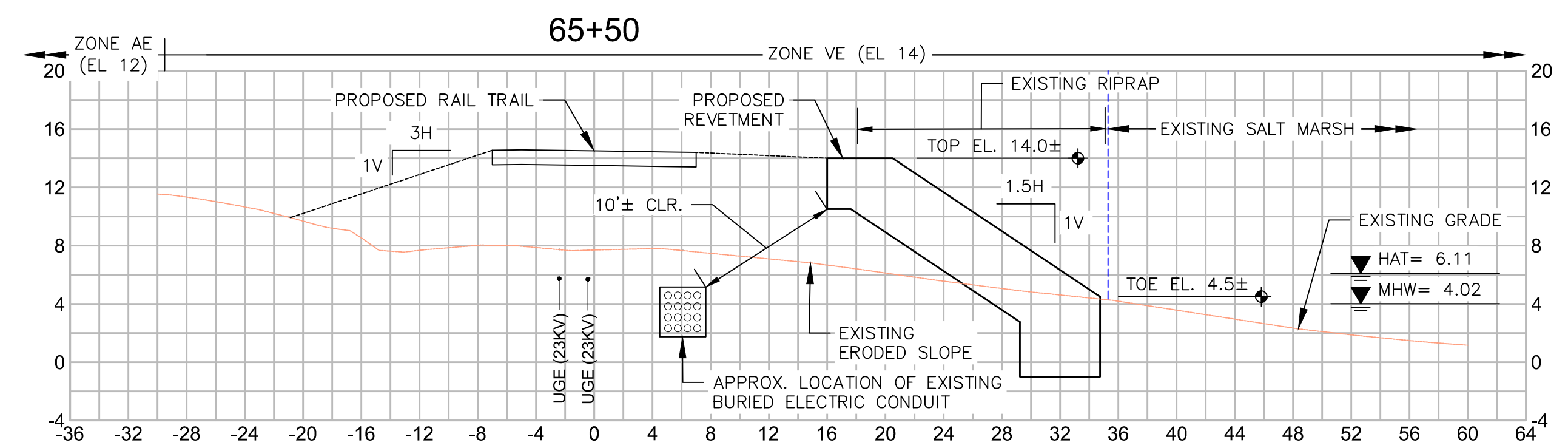
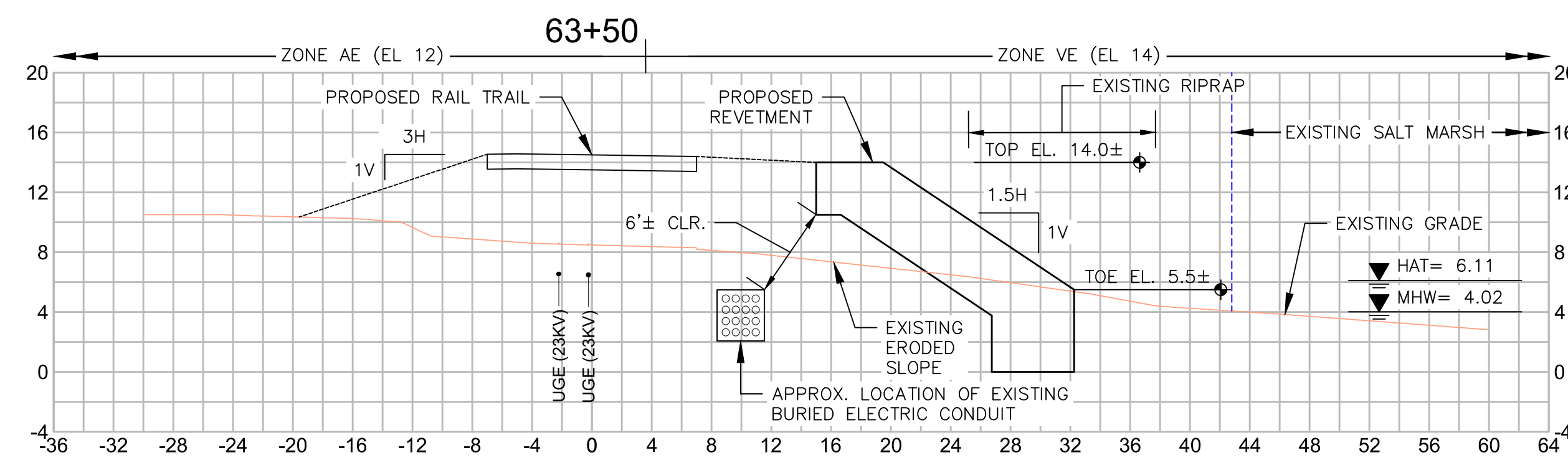
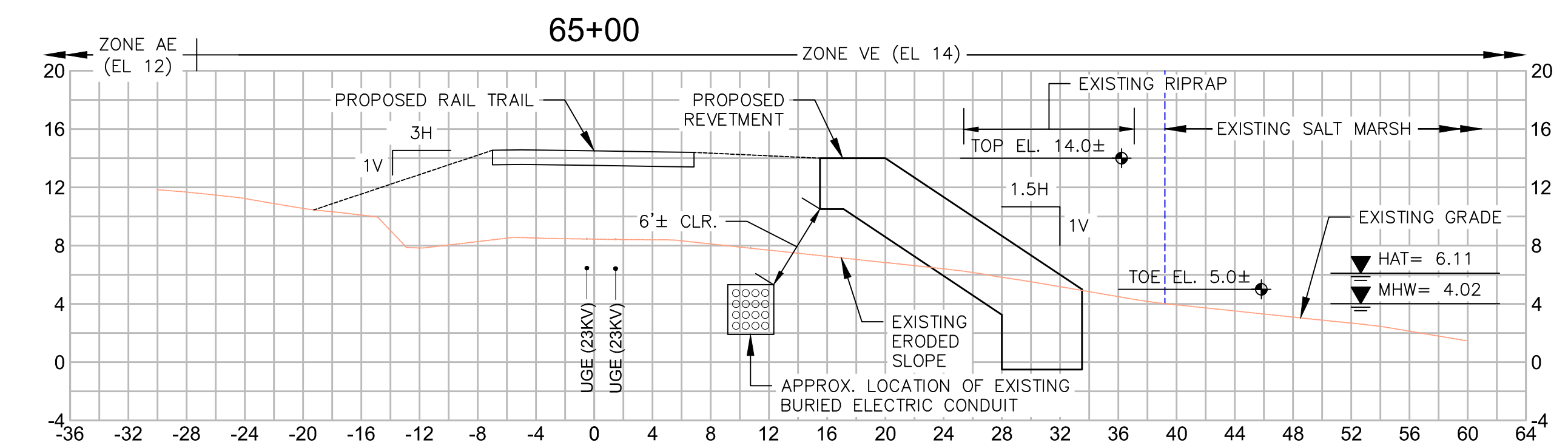
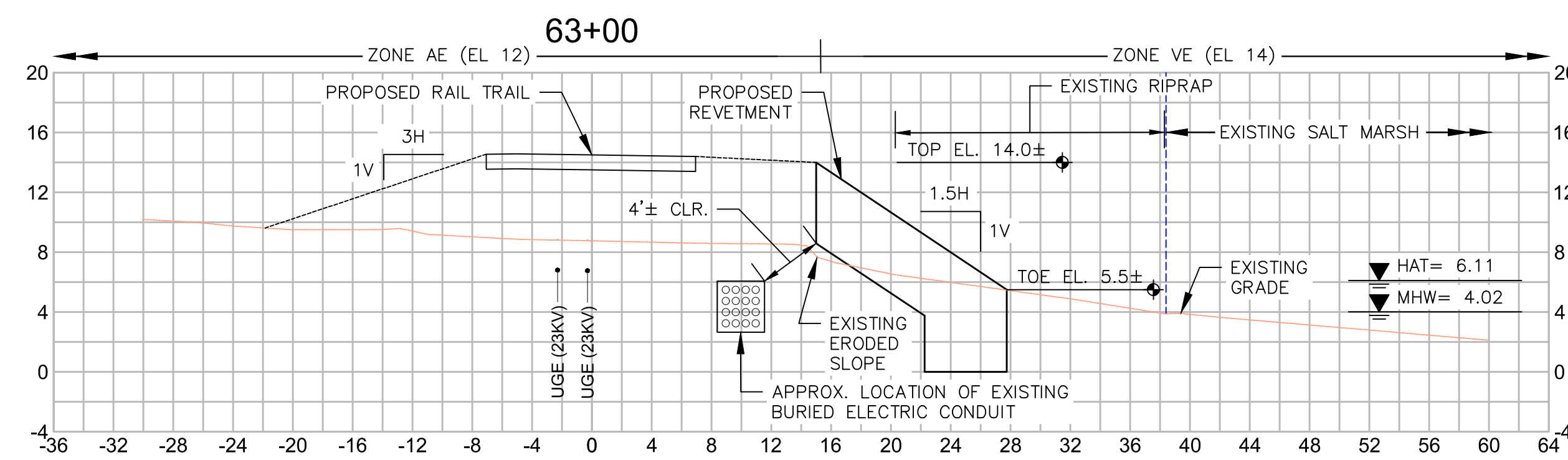
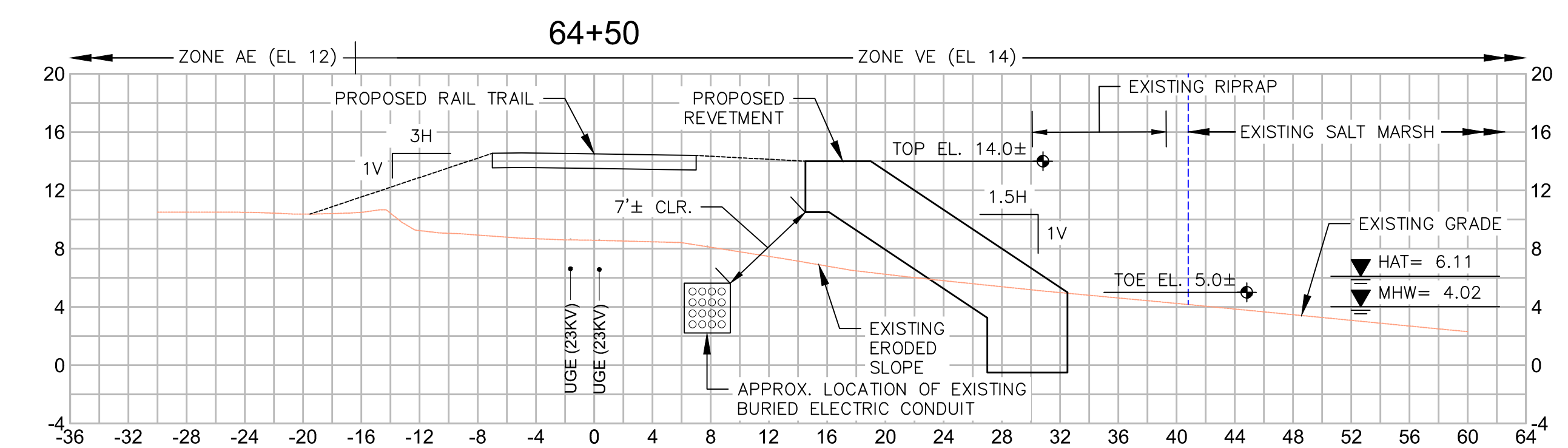
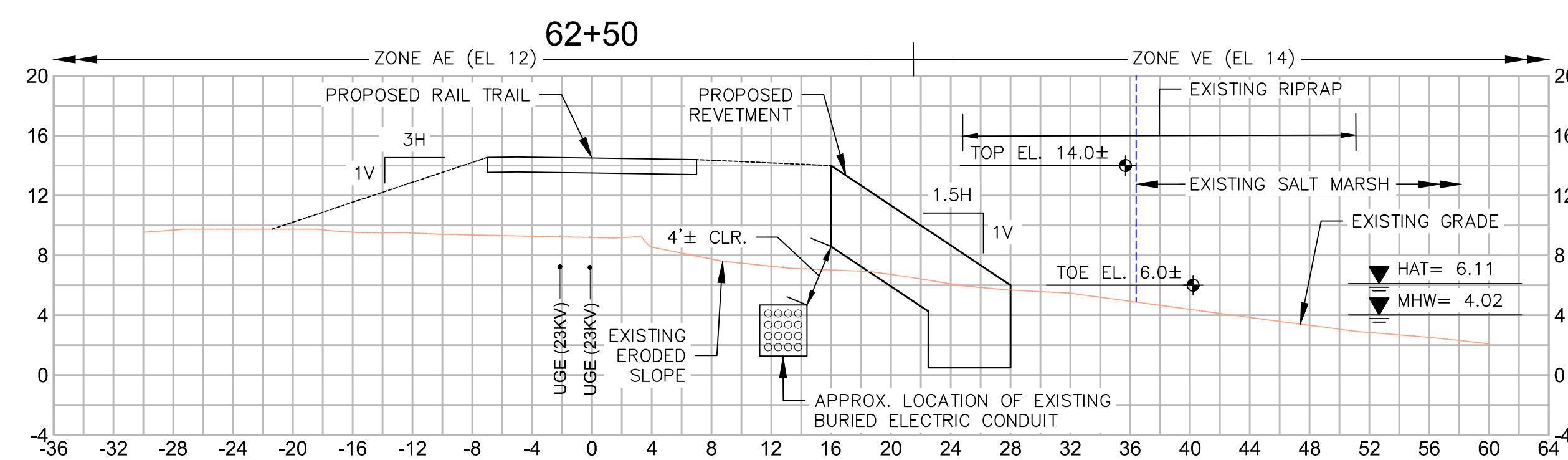
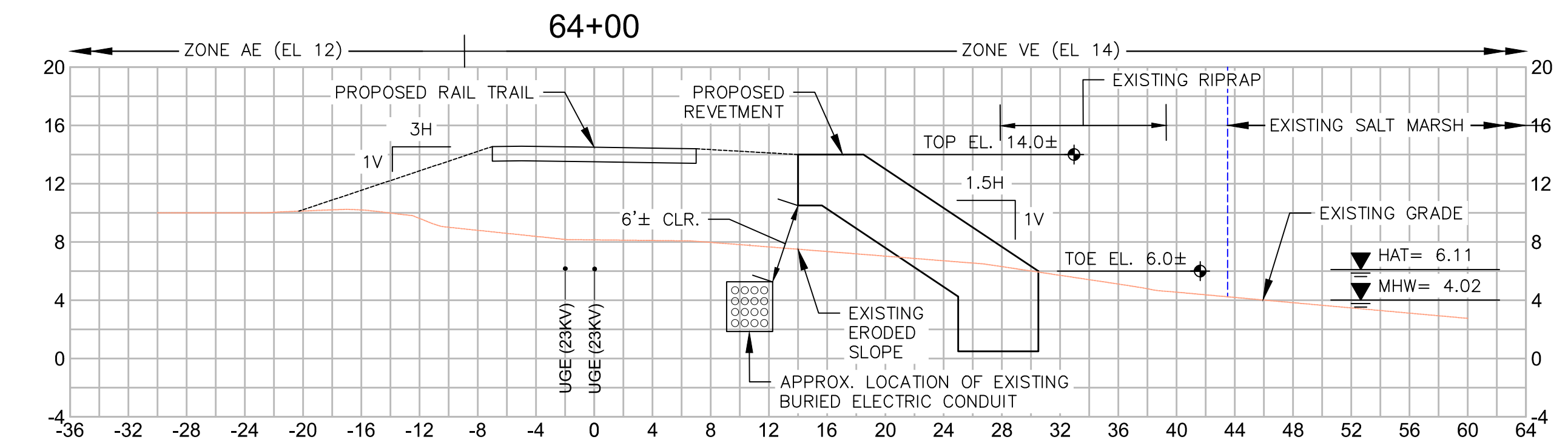
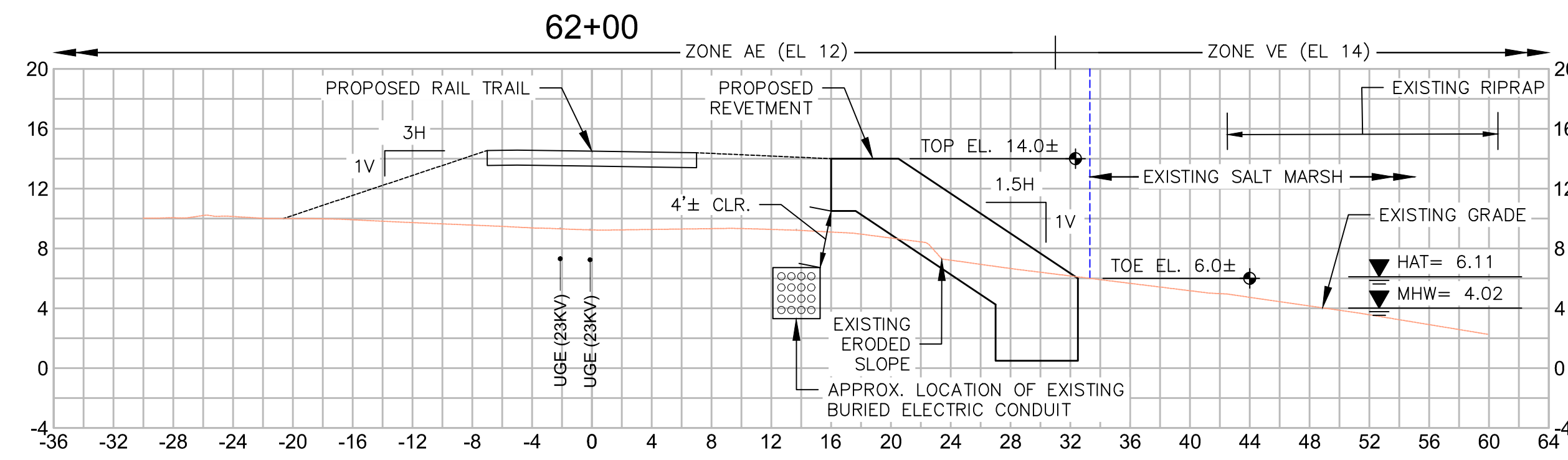


18.0171603.02 RAIL TRAIL REVETMENT - SECTIONS & DETAILS.DWG 11-Dec-2019

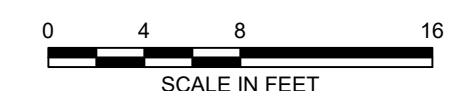
**NEWBURYPORT
CLIPPER CITY RAIL TRAIL AND
SHORELINE STABILIZATION**

SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	12	22
STANTEC PROJECT NO. 210800843		

**SHORELINE STABILIZATION PLANS
PART 4 OF 6**



PROPOSED SHORELINE STABILIZATION SECTIONS
SCALE: 1"=8'

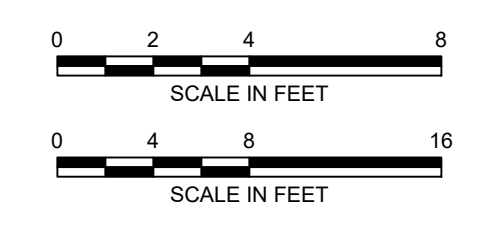
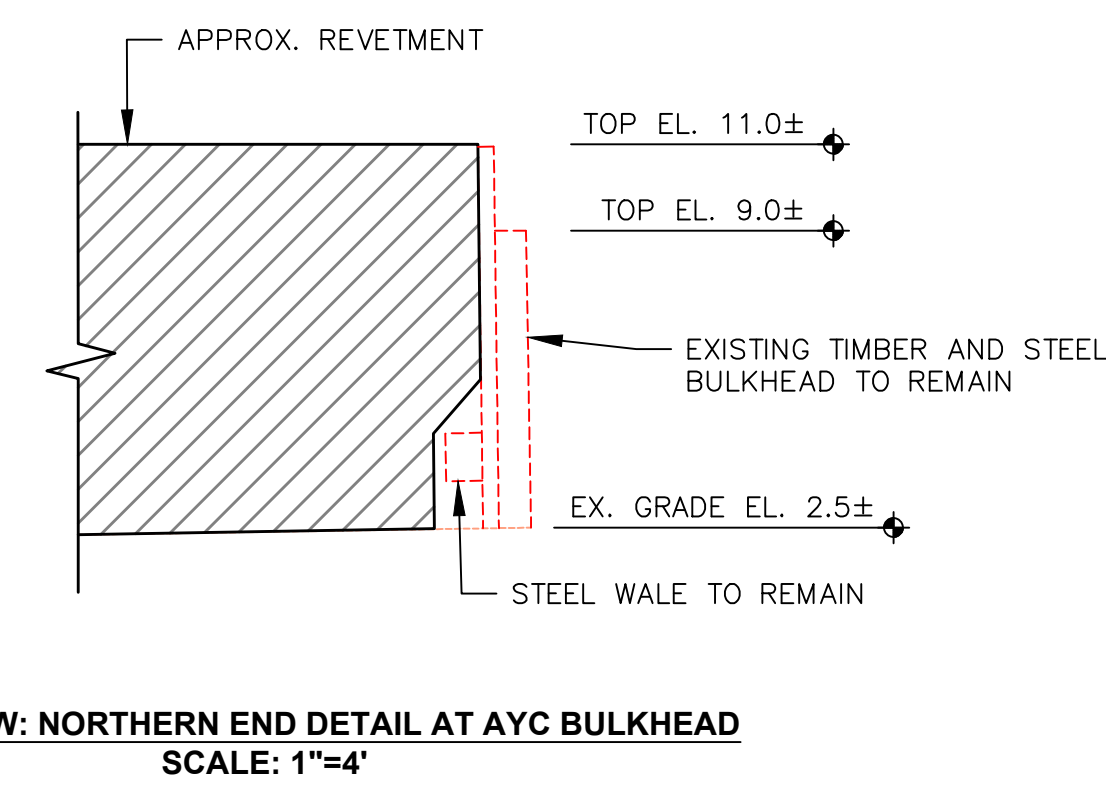
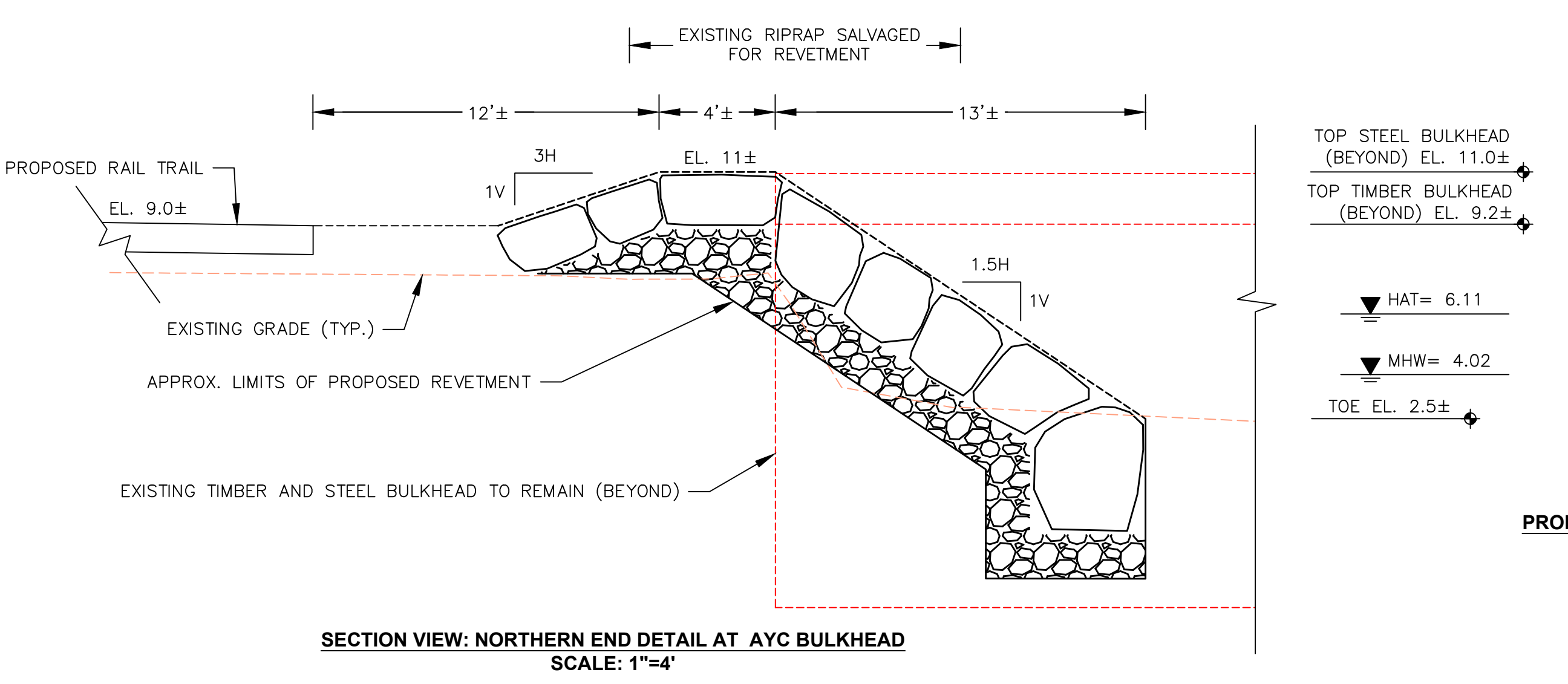
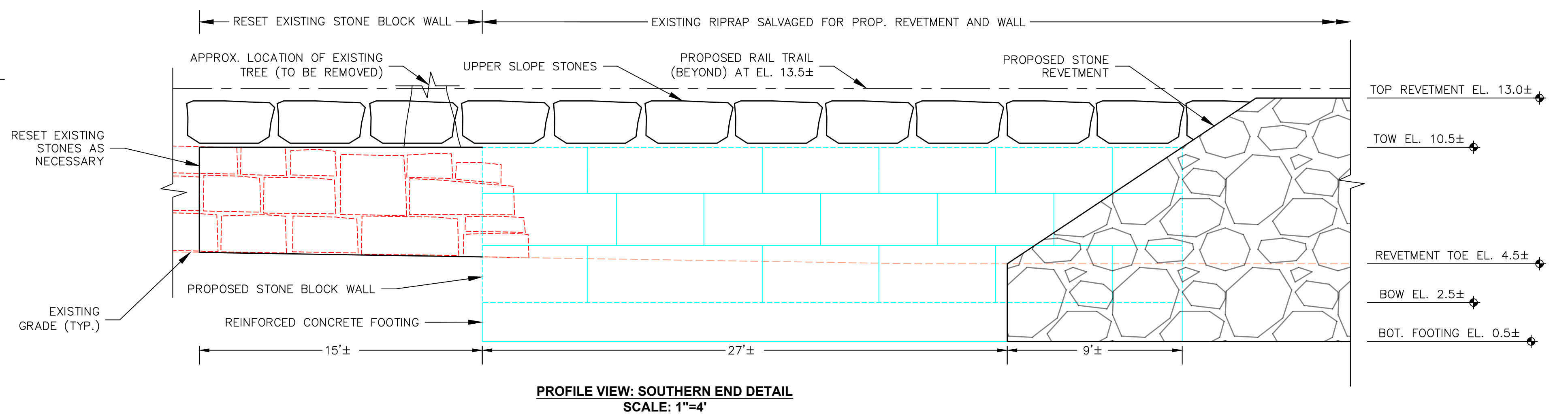
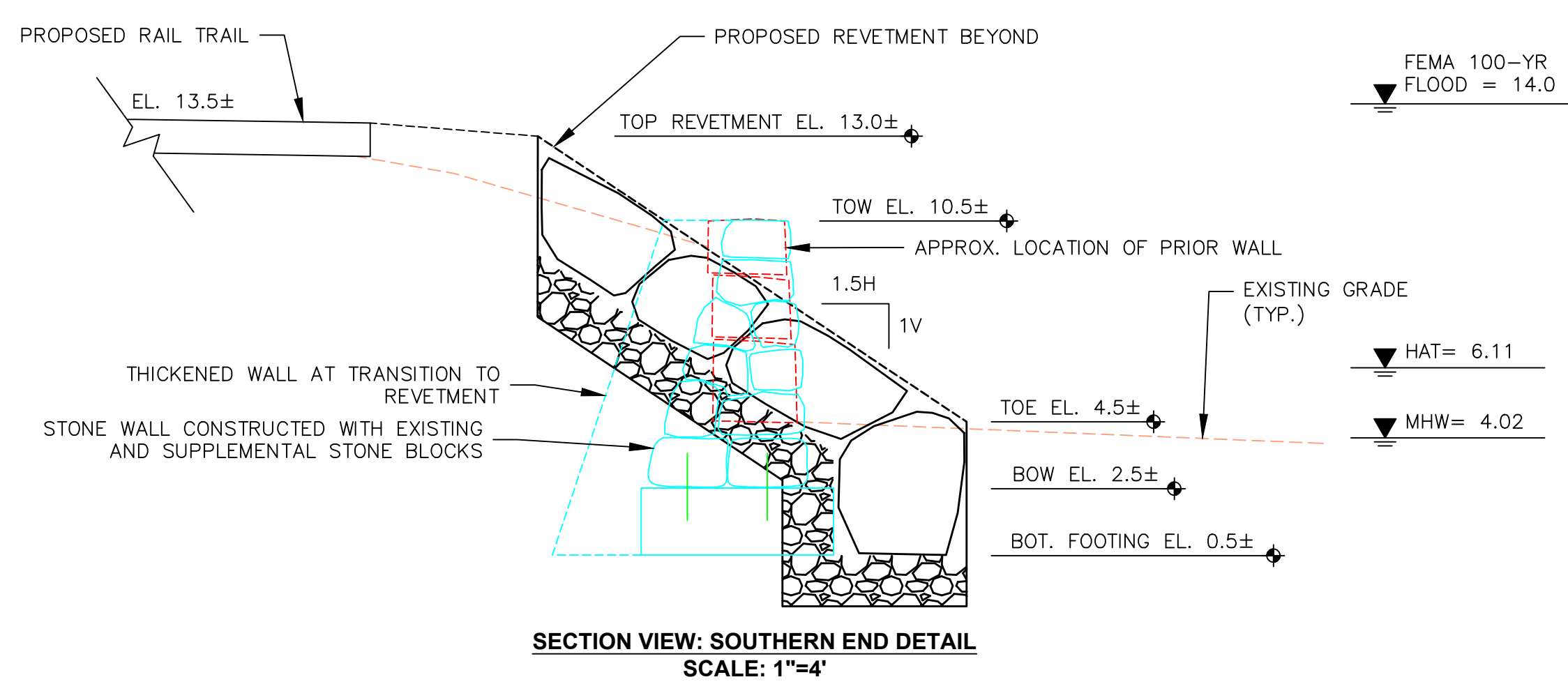
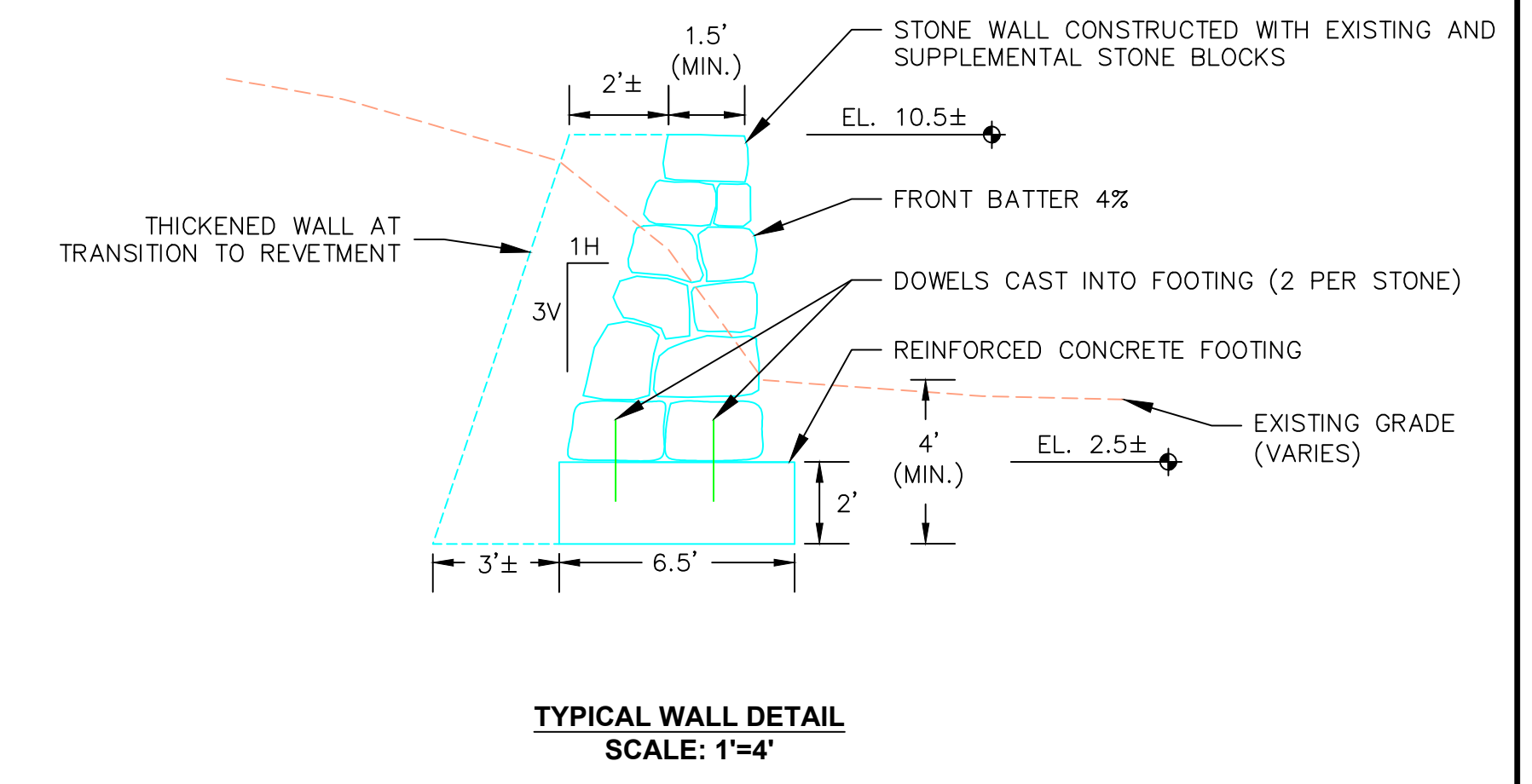
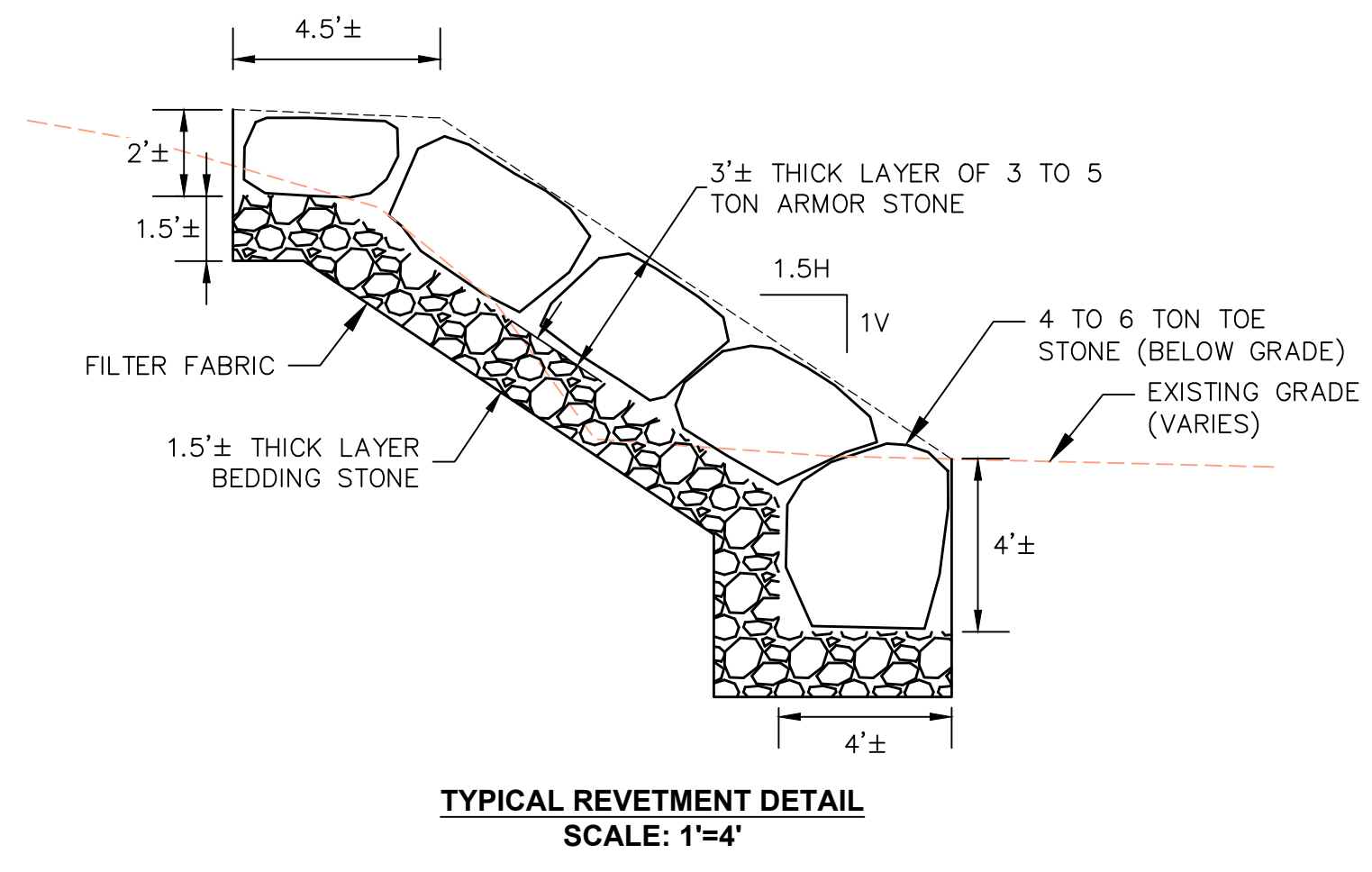
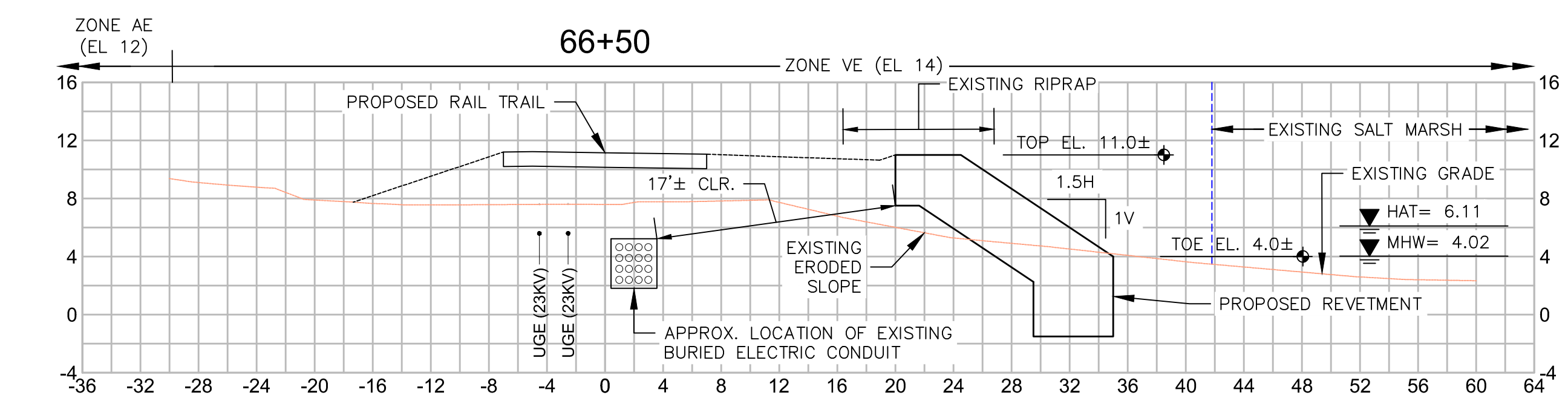
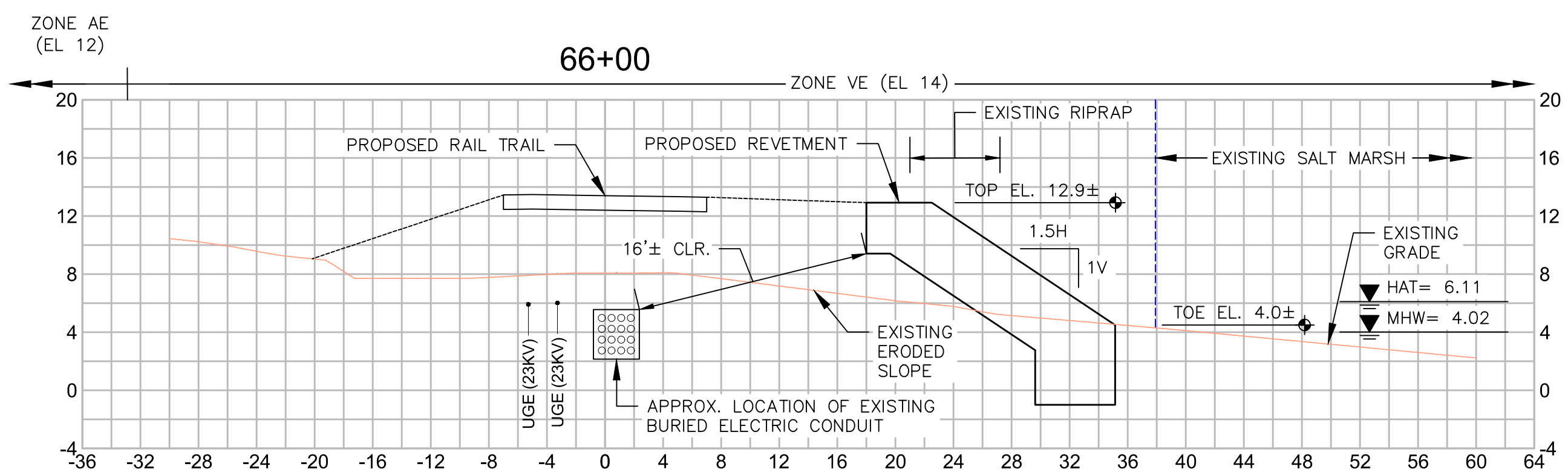


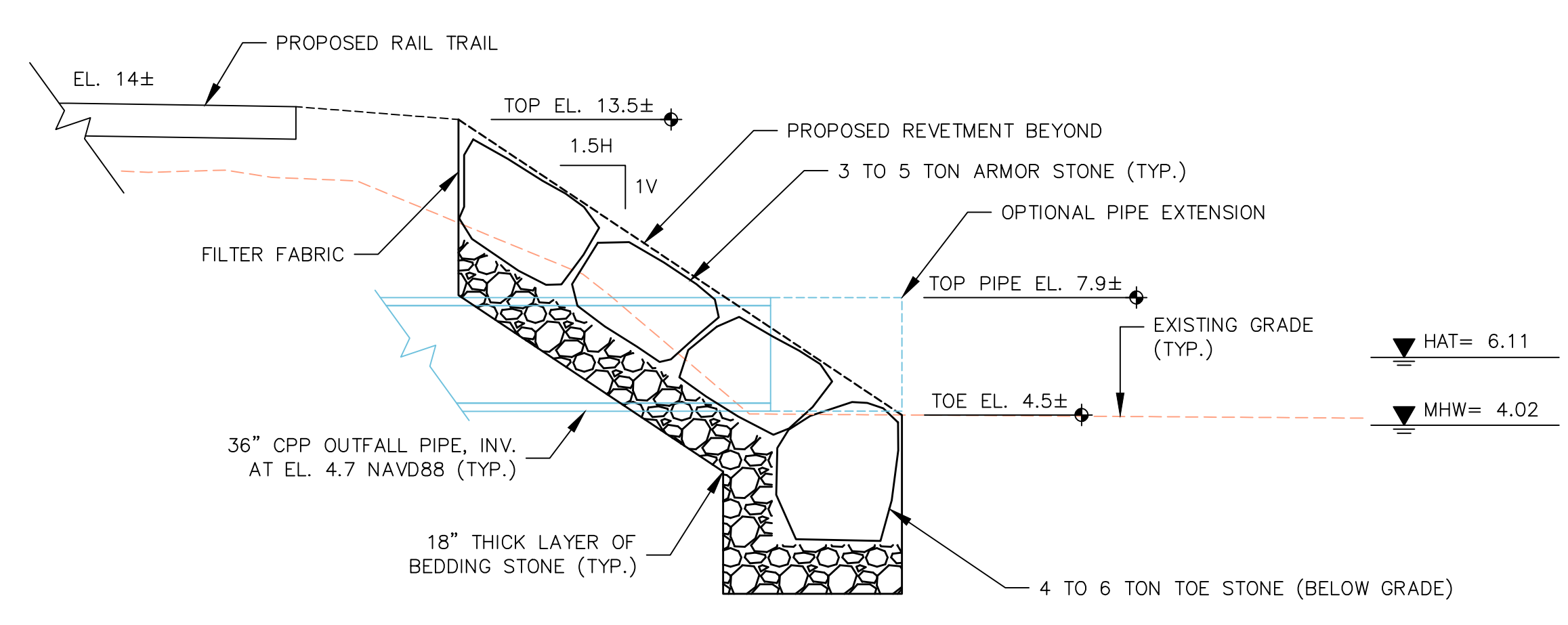
18.0171603.02 RAIL TRAIL REVETMENT - SECTIONS & DETAILS.DWG 11-Dec-2019

**NEWBURYPORT
CLIPPER CITY RAIL TRAIL AND
SHORELINE STABILIZATION**

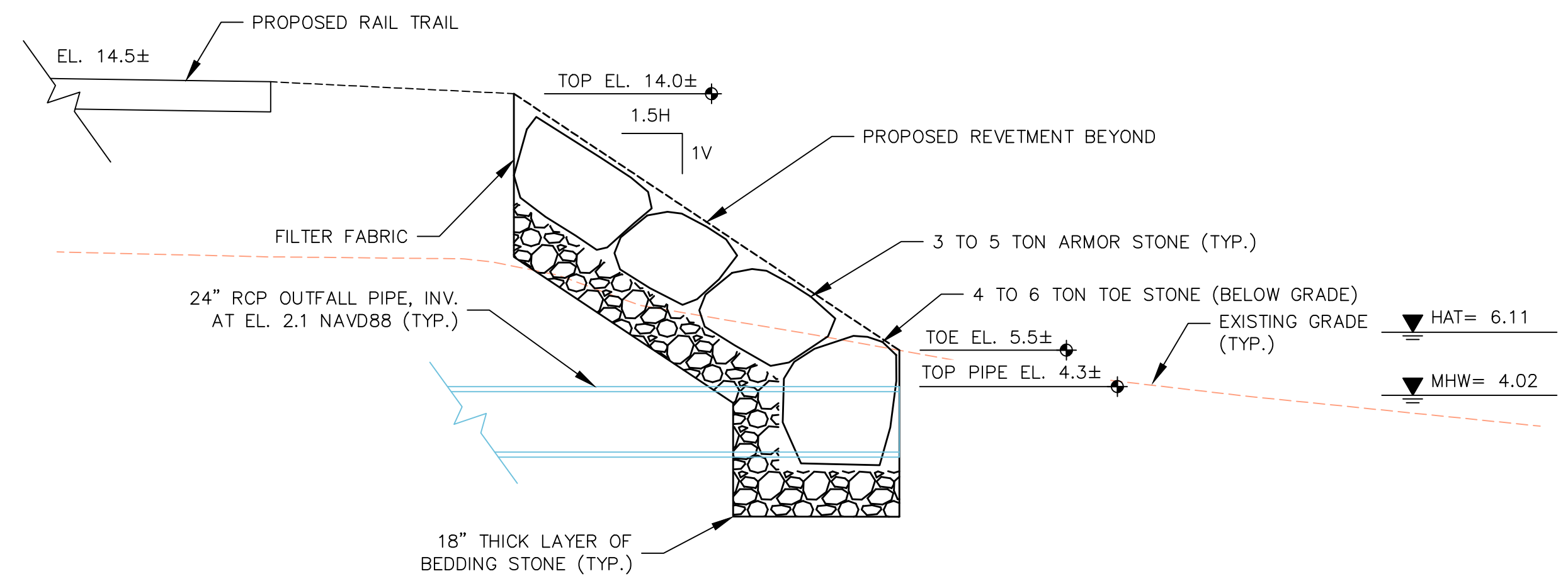
SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	13	22
STANTEC PROJECT NO. 210800843		

**SHORELINE STABILIZATION PLANS
PART 5 OF 6**

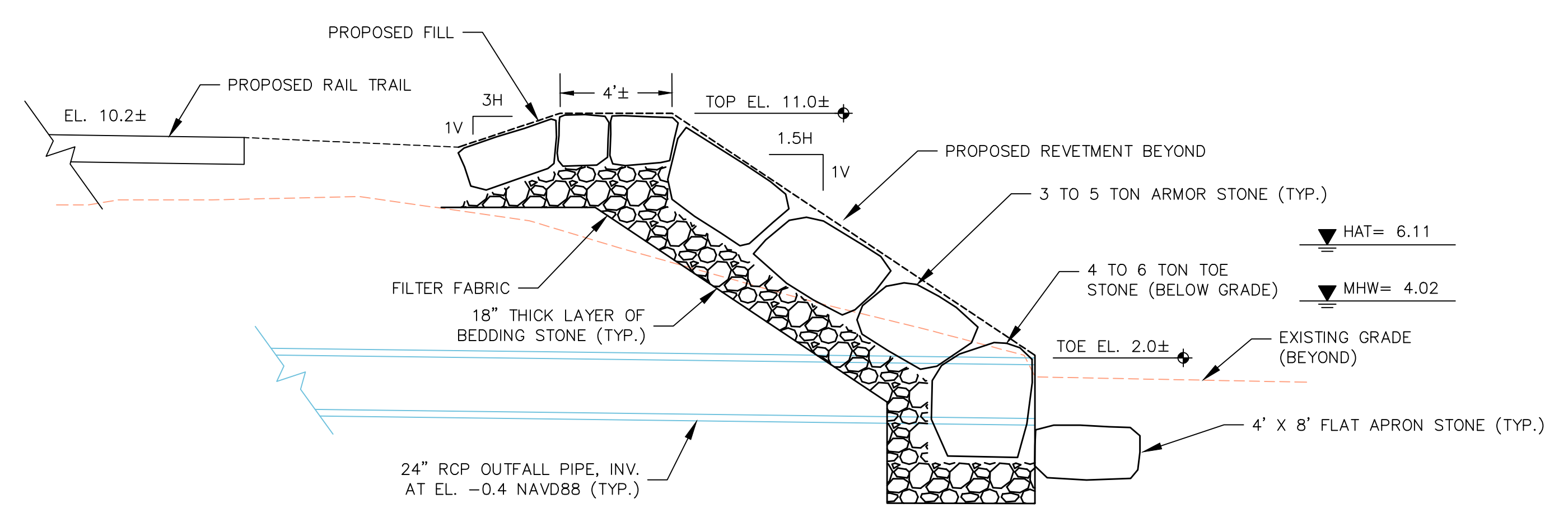




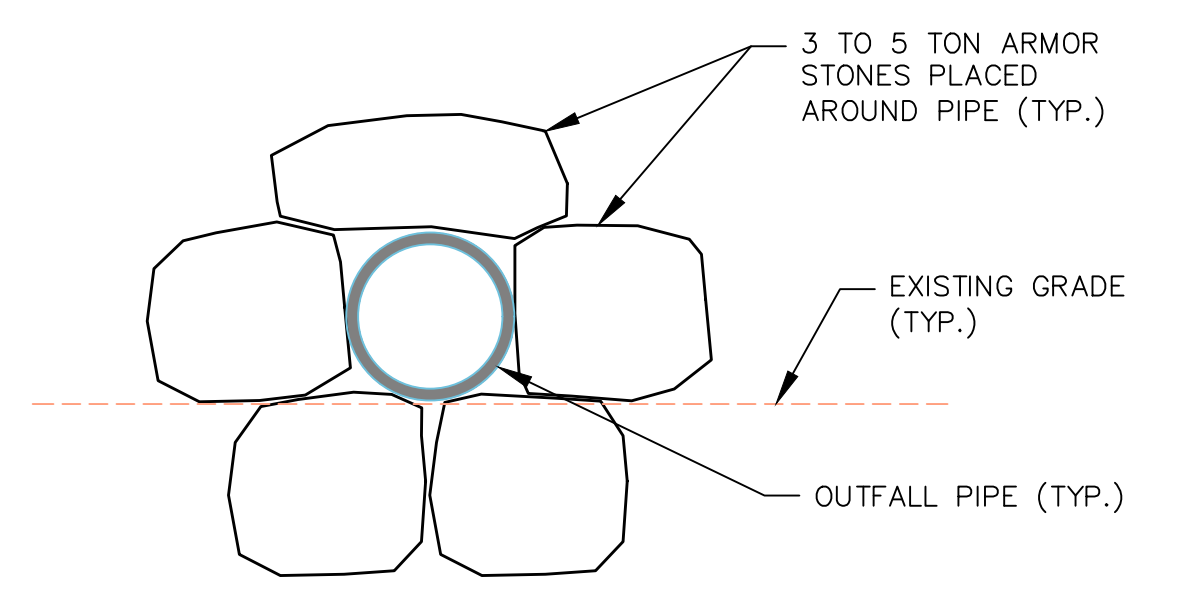
OUTFALL PIPE DETAIL: 36" CPP AT STA 58+62
SCALE: 1"=4'



OUTFALL PIPE DETAIL: 24" RCP AT STA 62+72
SCALE: 1"=4'



OUTFALL PIPE DETAIL: 24" RCP AT STA 66+72
SCALE: 1"=4'



PROFILE VIEW: TYPICAL OUTFALL PIPE DETAIL
SCALE: N.T.S

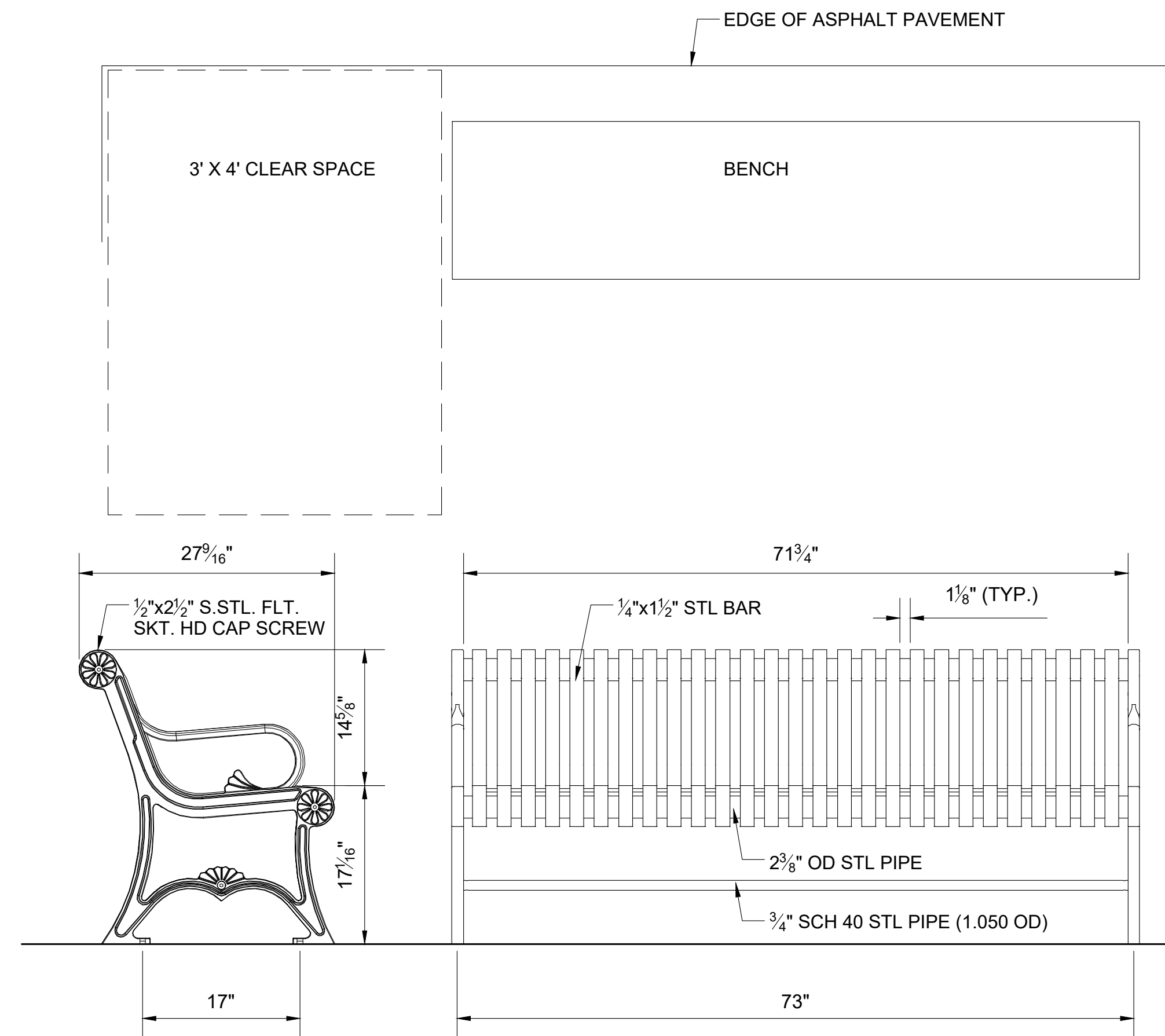


NEWBURYPORT
CLIPPER CITY RAIL TRAIL AND
SHORELINE STABILIZATION

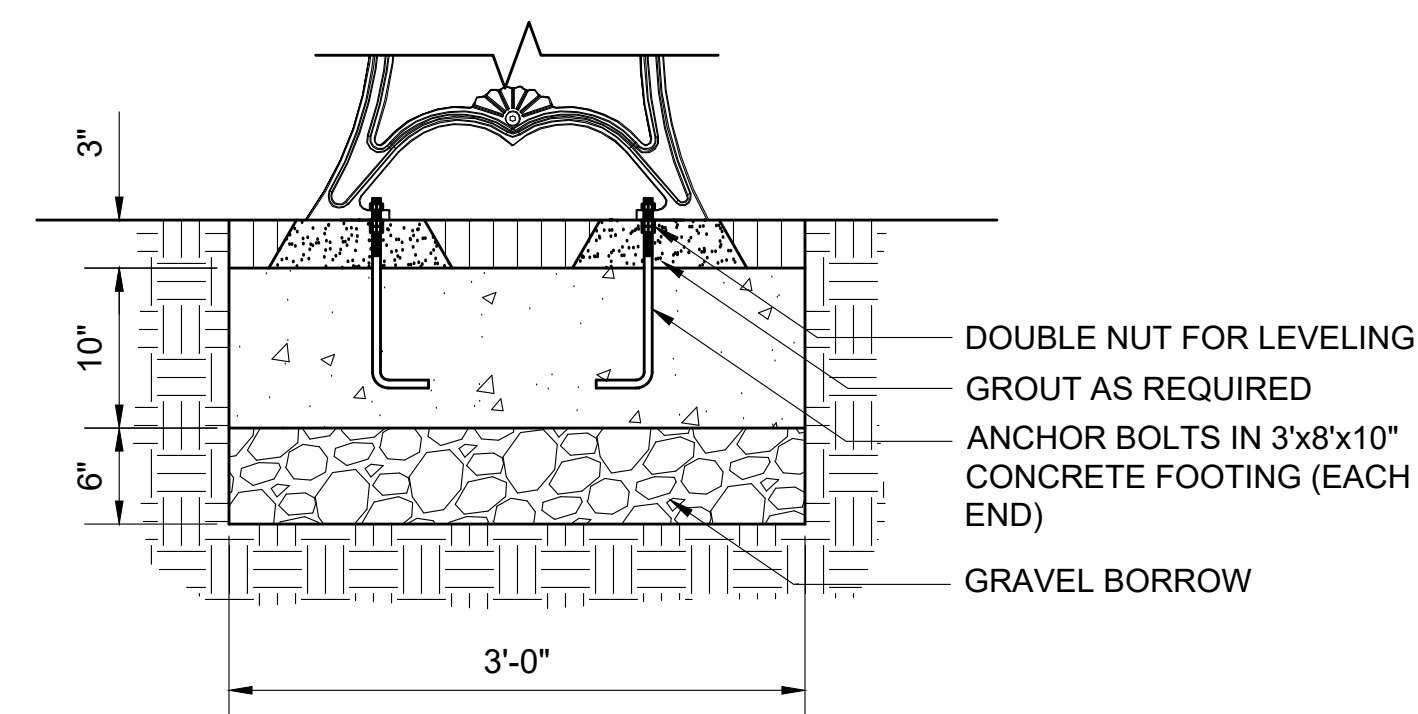
SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	15	22
STANTEC PROJECT NO. 210800843		

CONSTRUCTION DETAILS
PART 1 OF 5

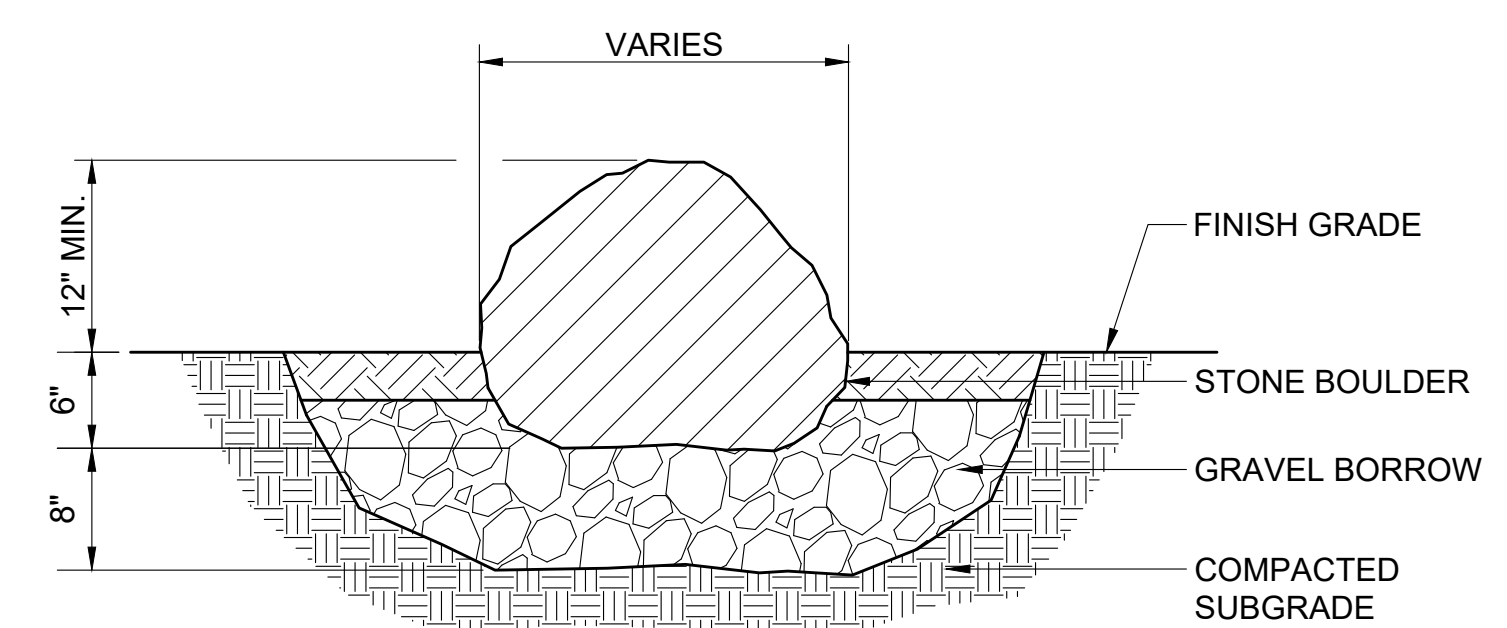
CCRT_SHORELINE_HD(CONST DETAILS).DWG 9-Dec-2019



1 6' BENCH
SCALE: 1"=1'-0"



2 TYPICAL BENCH FOOTING
SCALE: 1"=1'-0"

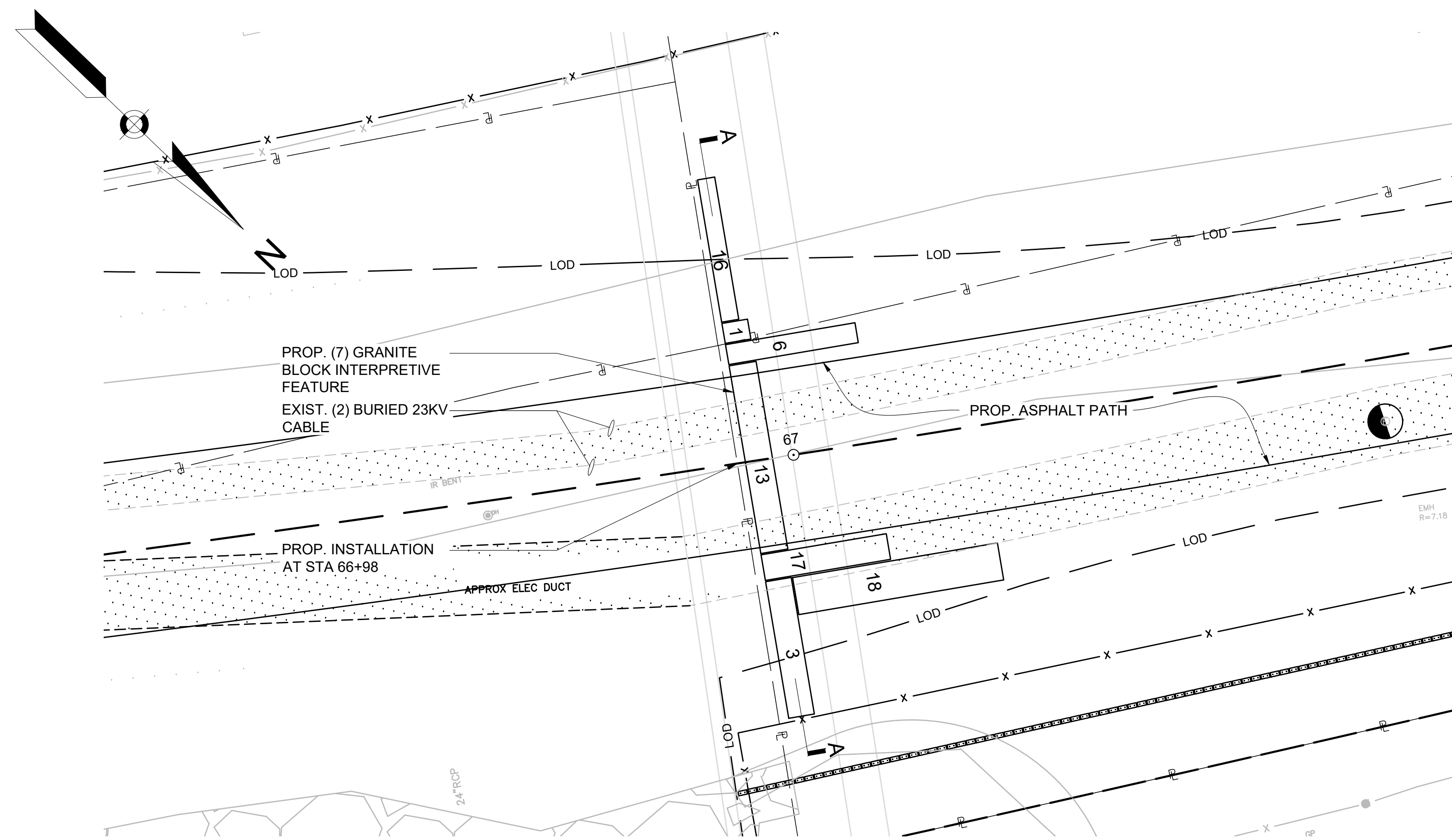


3 LANDSCAPE BOULDER RESET
NOT TO SCALE

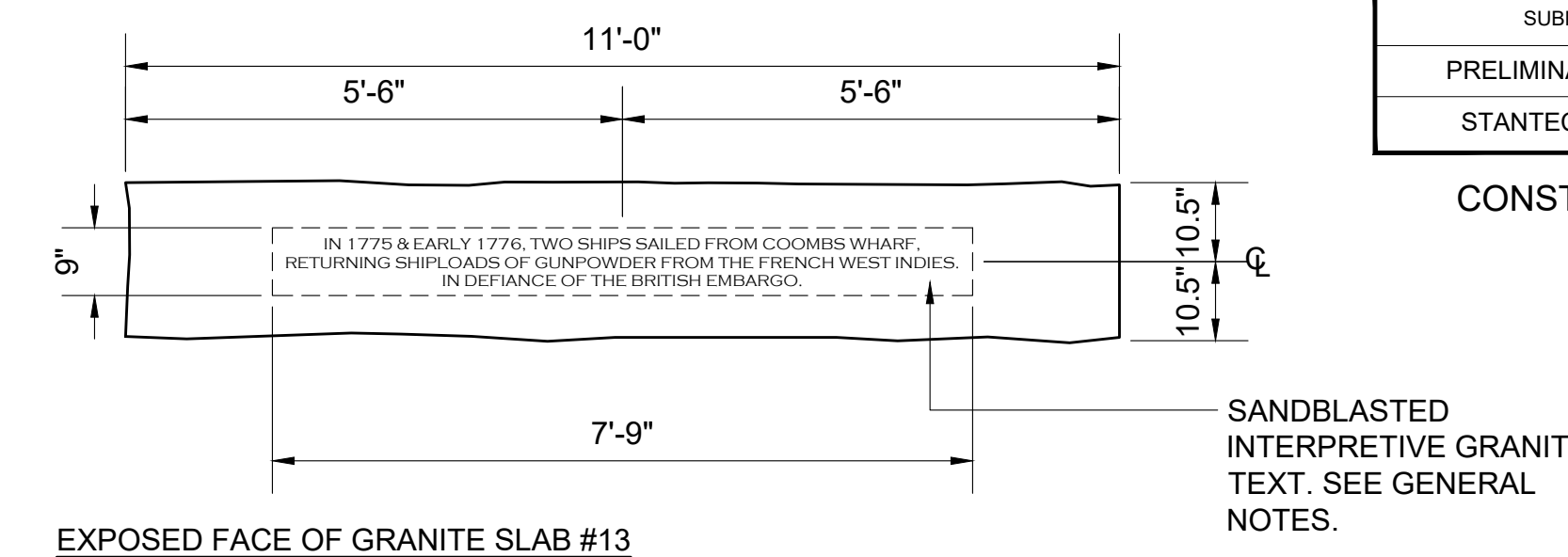
NEWBURYPORT
CLIPPER CITY RAIL TRAIL AND
SHORELINE STABILIZATION

SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	16	22
STANTEC PROJECT NO. 210800843		

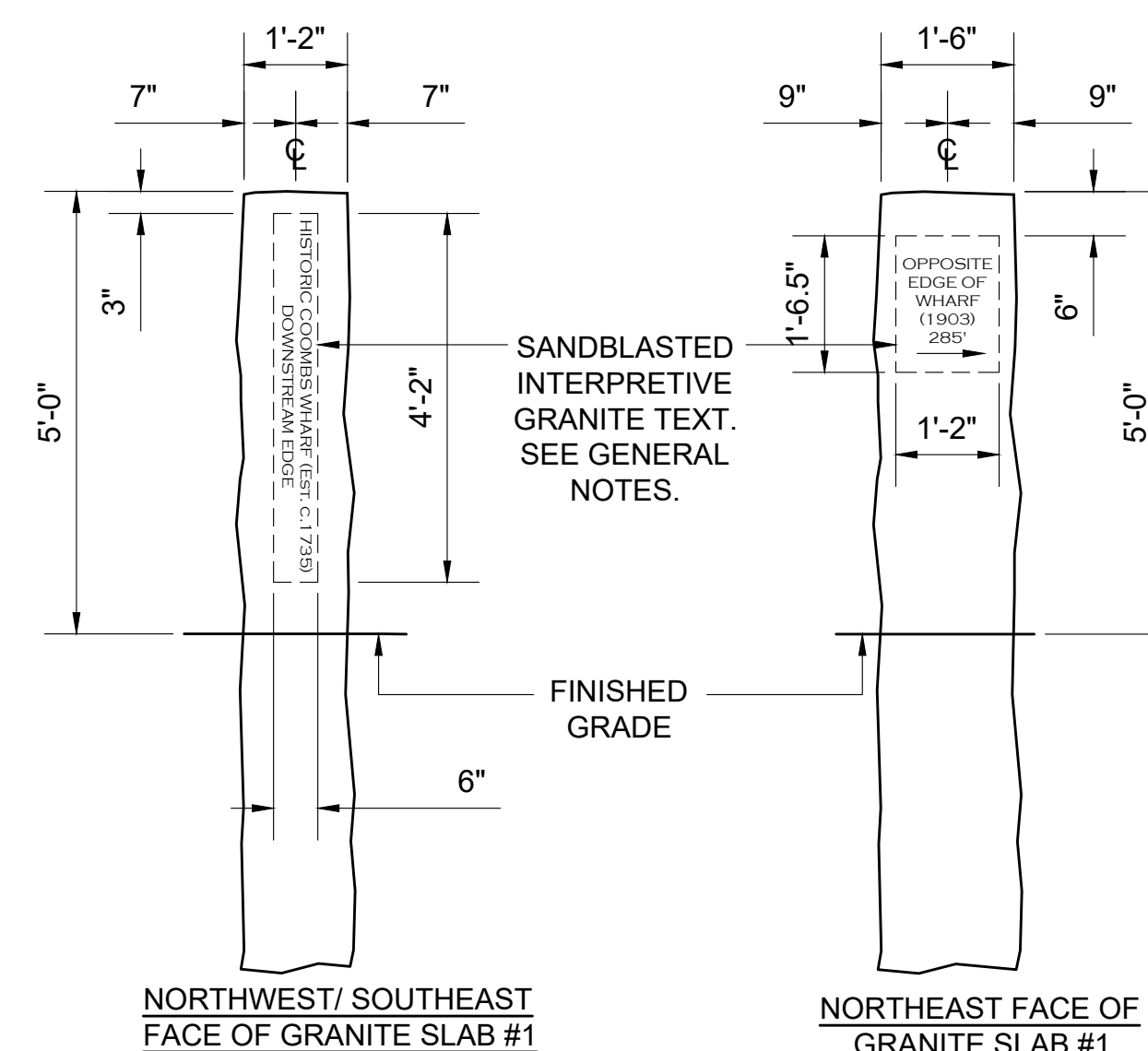
CONSTRUCTION DETAILS
PART 2 OF 5



1 INTERPRETIVE GRANITE LAYOUT: STA 66+98
SCALE: 3/16" = 1'-0"



EXPOSED FACE OF GRANITE SLAB #13

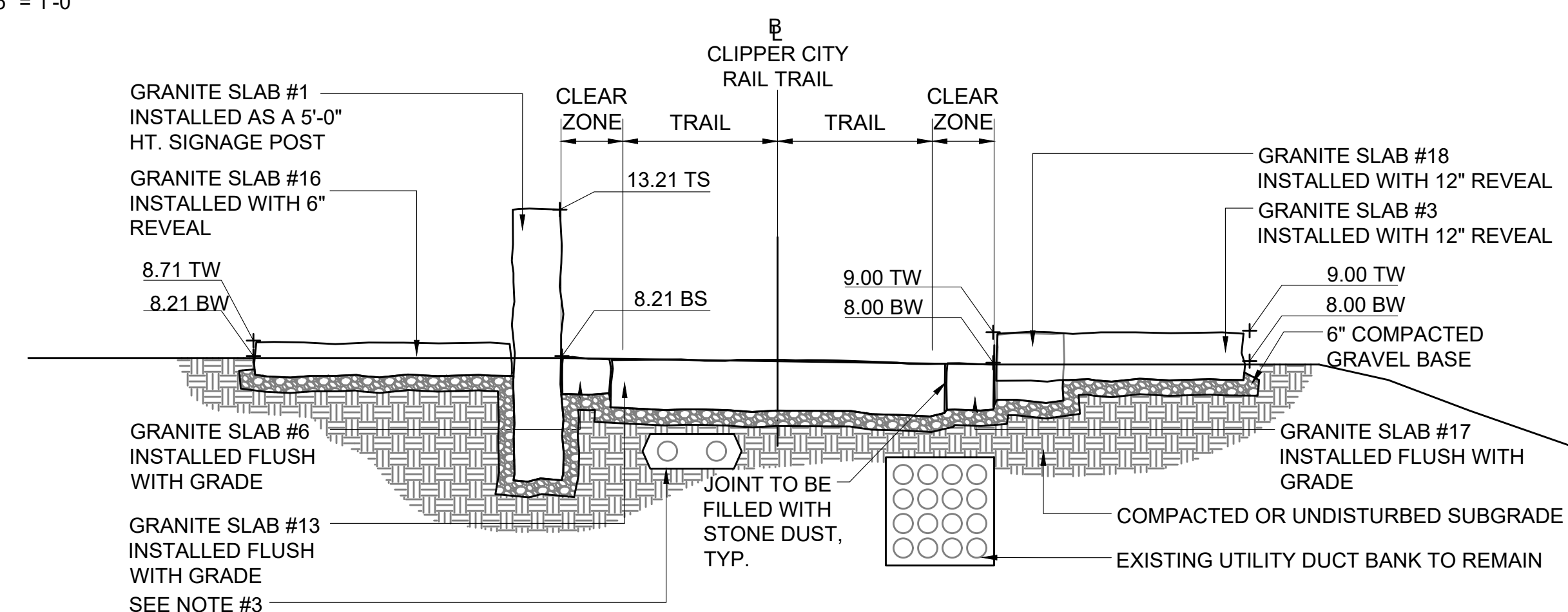


NORTHWEST/ SOUTHEAST
FACE OF GRANITE SLAB #1

NORTHEAST FACE OF
GRANITE SLAB #1

3 INTERPRETIVE GRANITE: TEXT ENGRAVING
Scale: 1/2"=1'-0"

- INTERPRETIVE GRANITE TEXT - GENERAL NOTES:
- SHOP DRAWINGS: SUBMIT SHOP DRAWINGS OF LAYOUT AND DETAILING OF DONOR RECOGNITION AND INTERPRETIVE COPY AND GRAPHICS ON GRANITE. SANDBLAST TEXT IN THE SHOP WITH RUBBER MASKS AND SAND BLASTING IN ACCORDANCE WITH SHOP DRAWINGS AND APPROVED PROOFS.
 - SANDBLASTED TEXT: "V SUNK" DEEP SANDBLASTED TEXT. LETTERS UP TO AND INCLUDING 2" HEIGHT SHALL HAVE 1/8" TO 3/16" MINIMUM DEPTH BLAST AND LETTERS UP TO 3" HIGH SHALL HAVE TO 3/8" MINIMUM DEPTH BLAST. THE TYPE FONT USED THROUGHOUT IS BAKER SIGNET CAPS. NO SUBSTITUTIONS FOR TYPE FONT, ARTWORK, LAYOUT AND POSITIONING WILL BE ACCEPTED WITHOUT PRIOR APPROVAL BY ARCHITECT/ENGINEER.
 - ELECTRONIC FILES: ARCHITECT/ENGINEER TO PROVIDE ELECTRONIC FILES OF LETTERING AND GRAPHICS; PREPARED IN ADOBE ILLUSTRATOR AS OUTLINE FILES IN EPS FORMAT, INDICATING LAYOUT AND SIZES OF LETTERING AND GRAPHICS AND LOCATIONS ON EACH PIECE OF GRANITE. CONTRACTOR TO USE ELECTRONIC FILES FOR FABRICATION OF RUBBERIZED MASKS AND PROOFS USED IN THE SANDBLASTING WORK.
 - INTERPRETIVE TEXT: BLACK STAIN FILL TEXT USING LITHICROME STONE STAIN AS APPROVED BY ARCHITECT/ENGINEER.



2 INTERPRETIVE GRANITE SECTION: SECTION A-A
SCALE: 1/4" = 1'-0"

INTERPRETIVE GRANITE LEGEND		
NUM.	DESCRIPTION	DIMENSIONS
#1	UPRIGHT STONE W/ ENGRAVING ON UPLAND SIDE OF THRESHOLD AS WHARF EDGE	8'-10"L. X 1'-6"W. X 1'-2"H.
#3	RAISED SEAT HEIGHT STONE ON WATERSIDE OF THRESHOLD AS WHARF EDGE	8'-0"L. X 1'-6"W. X 1'-3"H.
#5	UPLAND ADDITIONAL STONE 1	6'-6"L. X 1'-3"W. X 1'-4"H.
#6	FLUSH THRESHOLD STONE: 10' LONG	7'-7"L. X 1'-2"W. X 1'-6"H.
#7	UPLAND ADDITIONAL STONE 2	7'-10"L. X 1'-0"W. X 1'-10"H.
#13	NOTABLE STONE TO BE SET FLUSH AT THRESHOLD OF RAIL TRAIL	11'-0"L. X 1'-9"W. X 1'-6"H.

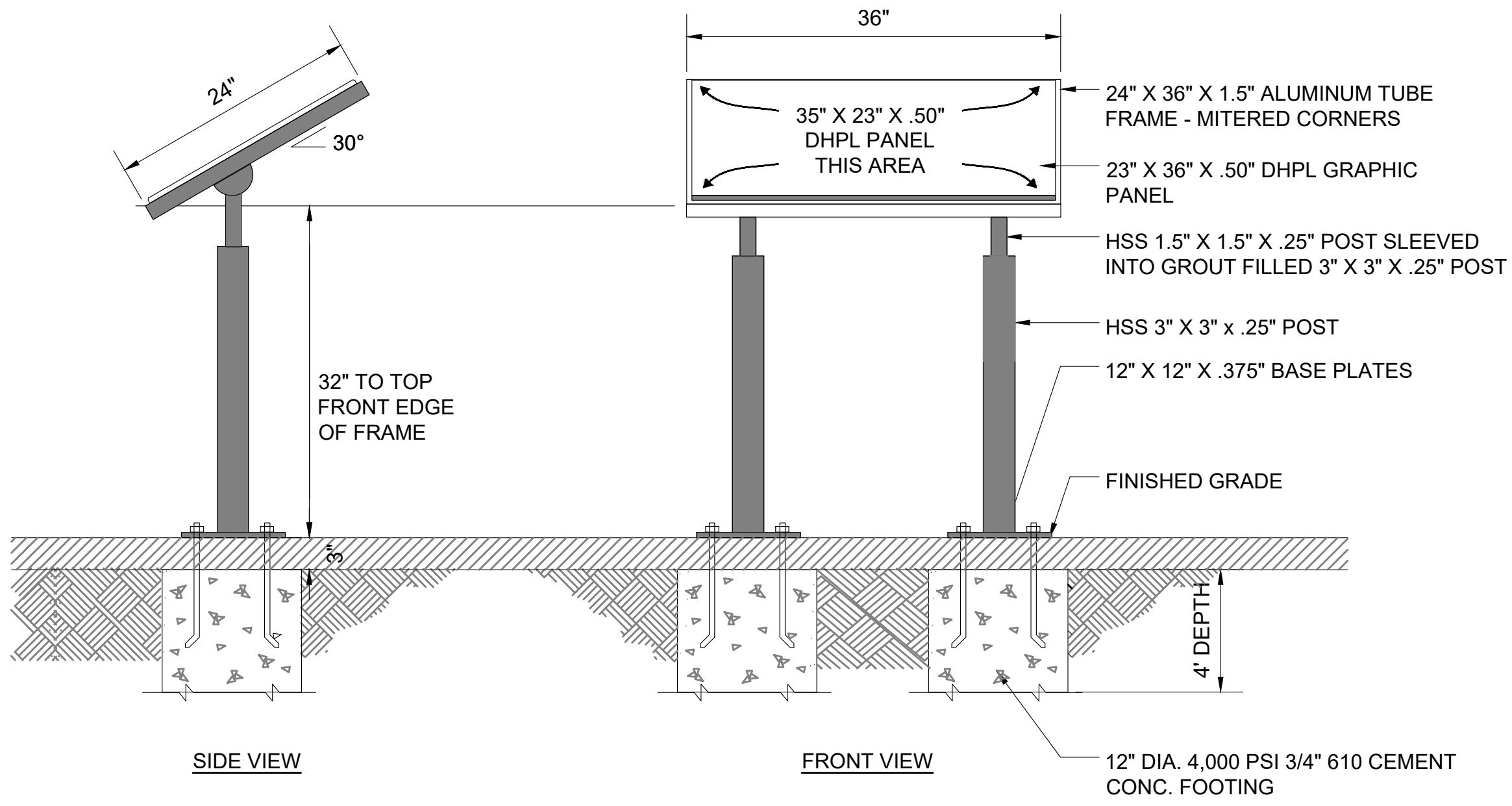
INTERPRETIVE GRANITE LEGEND		
NUM.	DESCRIPTION	DIMENSIONS
#16	ADDITIONAL WATERS EDGE STONE 2	8'-4"L. X 1'-0"W. X 1'-3"H.
#17	ADDITIONAL WATERS EDGE STONE 3	7'-4"L. X 1'-6"W. X 1'-3"H.
#18	UPLAND ADDITIONAL STONE 3	12'-0"L. X 2'-2"W. X 1'-4"H.

- NOTES:
- GRANITE SLABS HAVE BEEN PRE-SELECTED AND NUMBERED BASED ON LOCATION IN THE FIELD. NUMBERING BEGINS WITH THE EASTERN MOST STONE BEING LABELED #1 AND THE WESTERN MOST STONE BEING LABELED #18. DIMENSIONS SHOULD BE TAKEN TO ENSURE ACCURACY BEFORE THE ARE PLACED.
 - REFER TO DETAIL 3 FOR REQUIRED GRANITE TEXT.
 - (2) EXIST. 23KV BURIED ELECTRICAL LINES. CONTRACTOR SHALL LOCATE AND PROTECT THROUGHOUT INTERPRETIVE GRANITE EXCAVATION AND INSTALLATION.

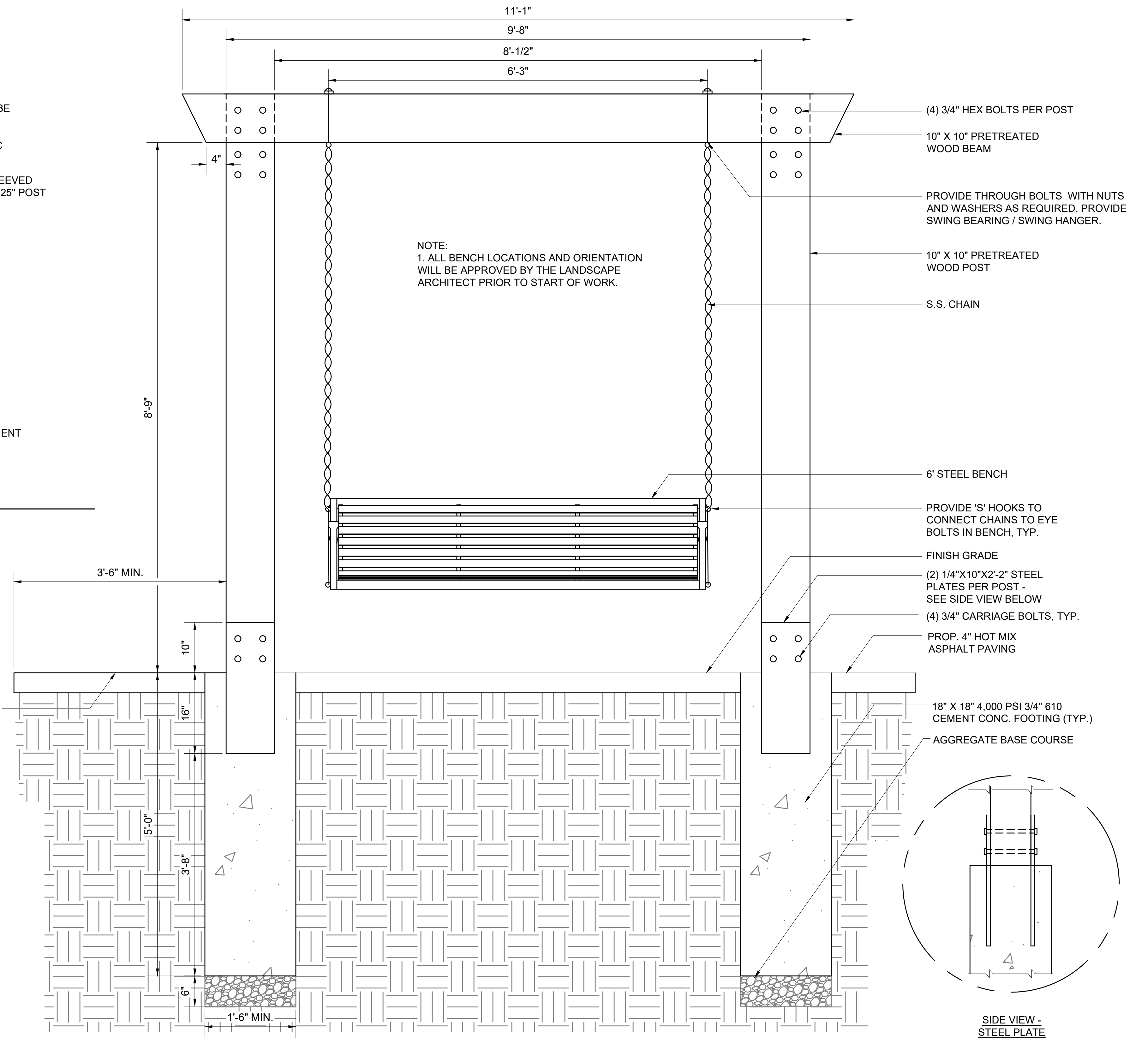
**NEWBURYPORT
CLIPPER CITY RAIL TRAIL AND
SHORELINE STABILIZATION**

SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	17	22
STANTEC PROJECT NO. 210800843		

**CONSTRUCTION DETAILS
PART 3 OF 5**

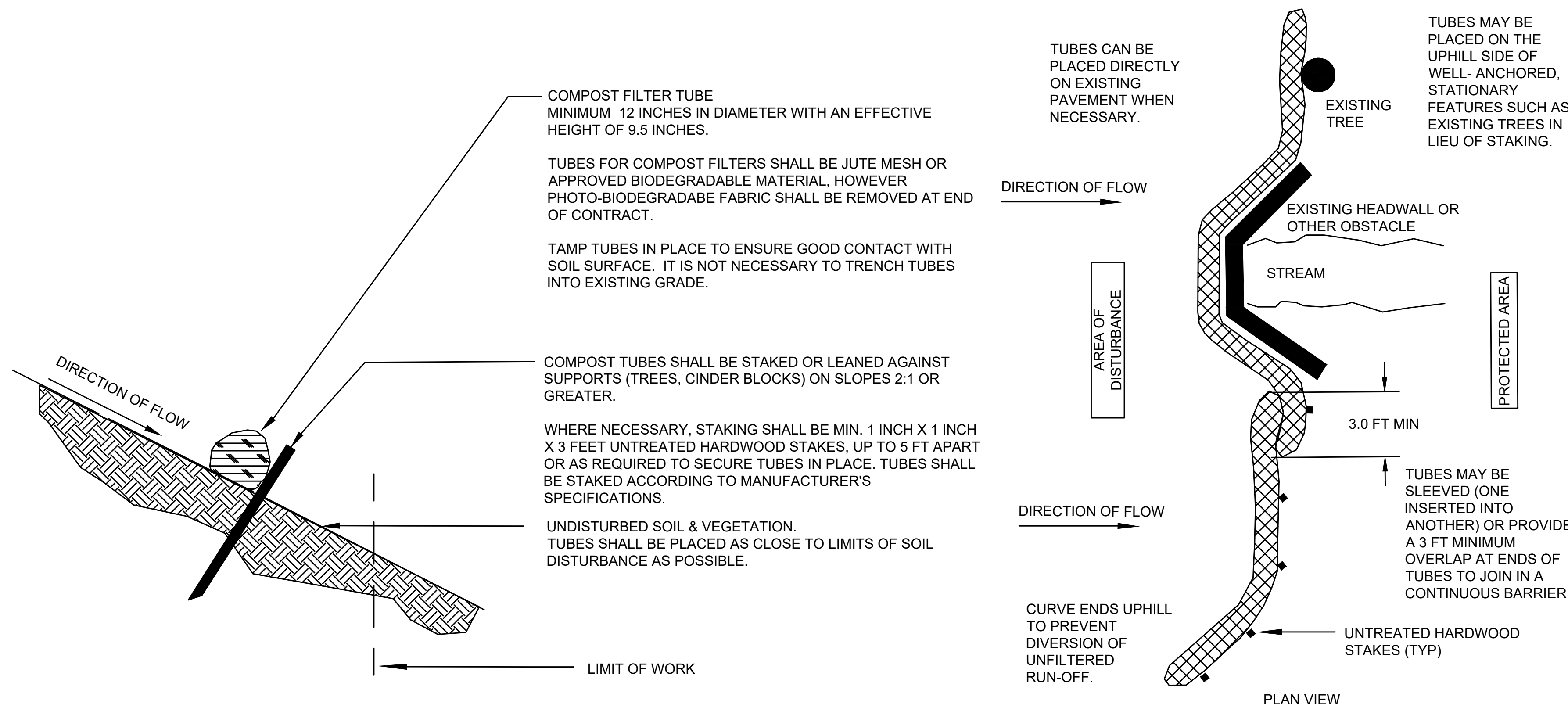


1 INTERPRETIVE SIGN
NOT TO SCALE

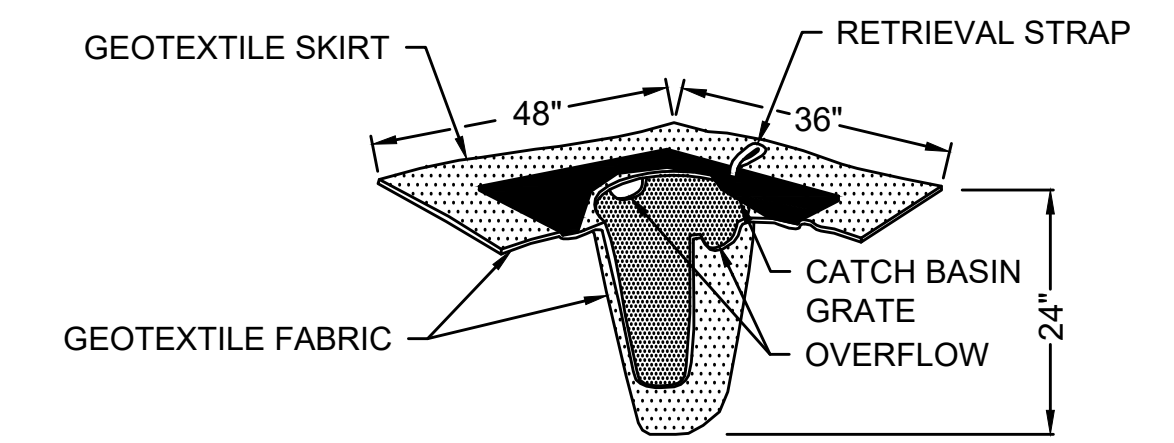


2 SWINGING BENCH
NOT TO SCALE

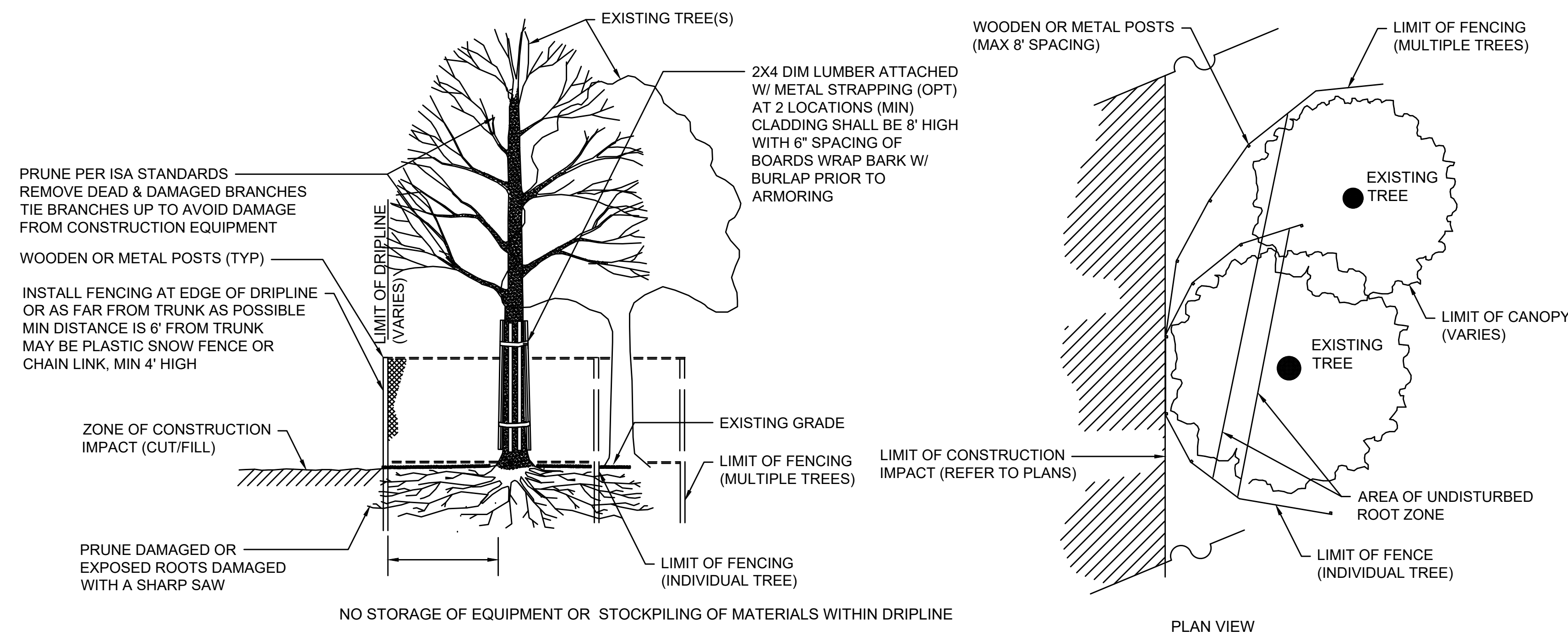
SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	18	22
STANTEC PROJECT NO. 210800843		



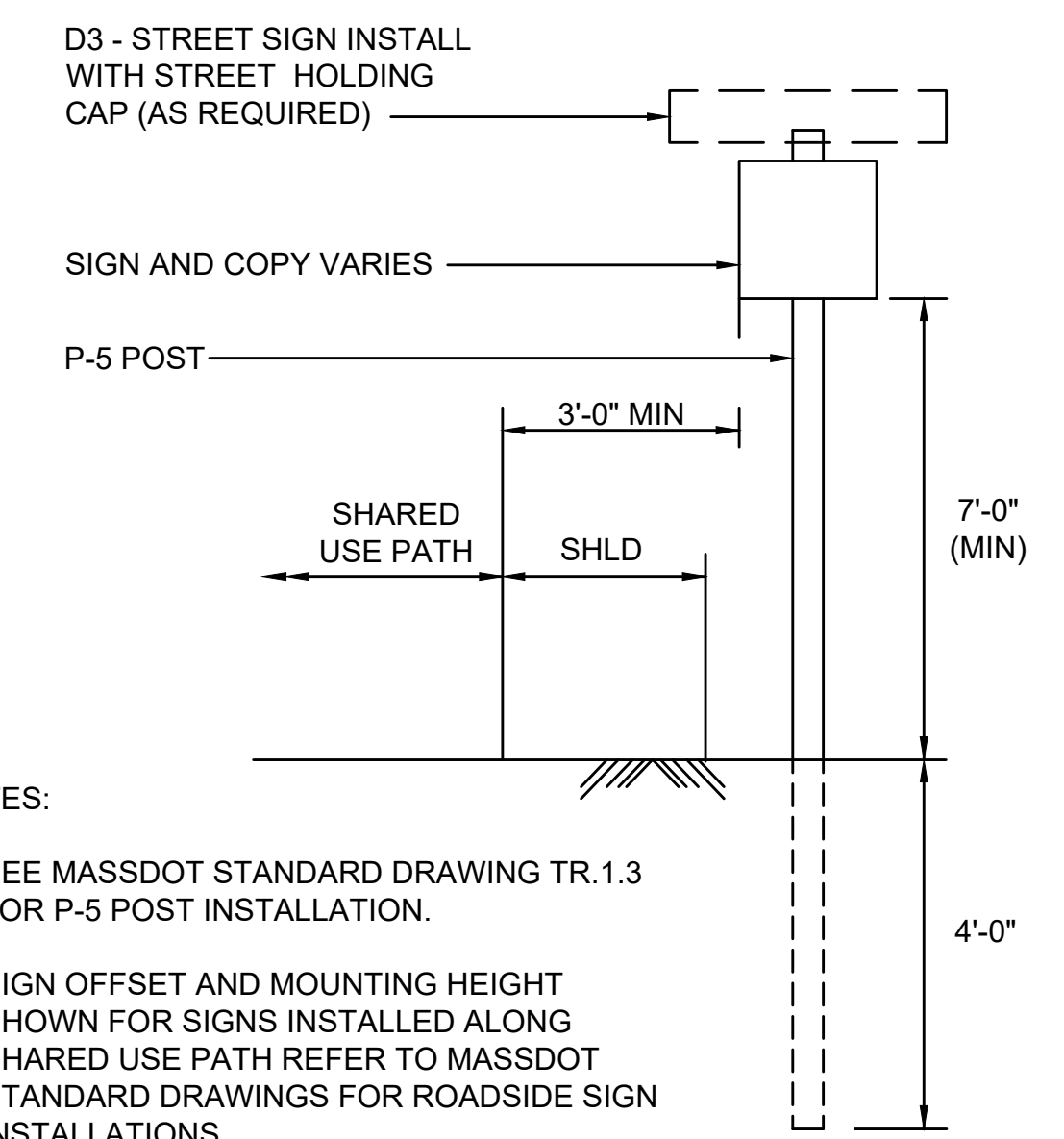
12" COMPOST FILTER TUBE DETAILS
NOT TO SCALE



SILT SACK FOR SEDIMENT CONTROL
NOT TO SCALE



TREE PROTECTION - EXISTING TREE(S)
NOT TO SCALE

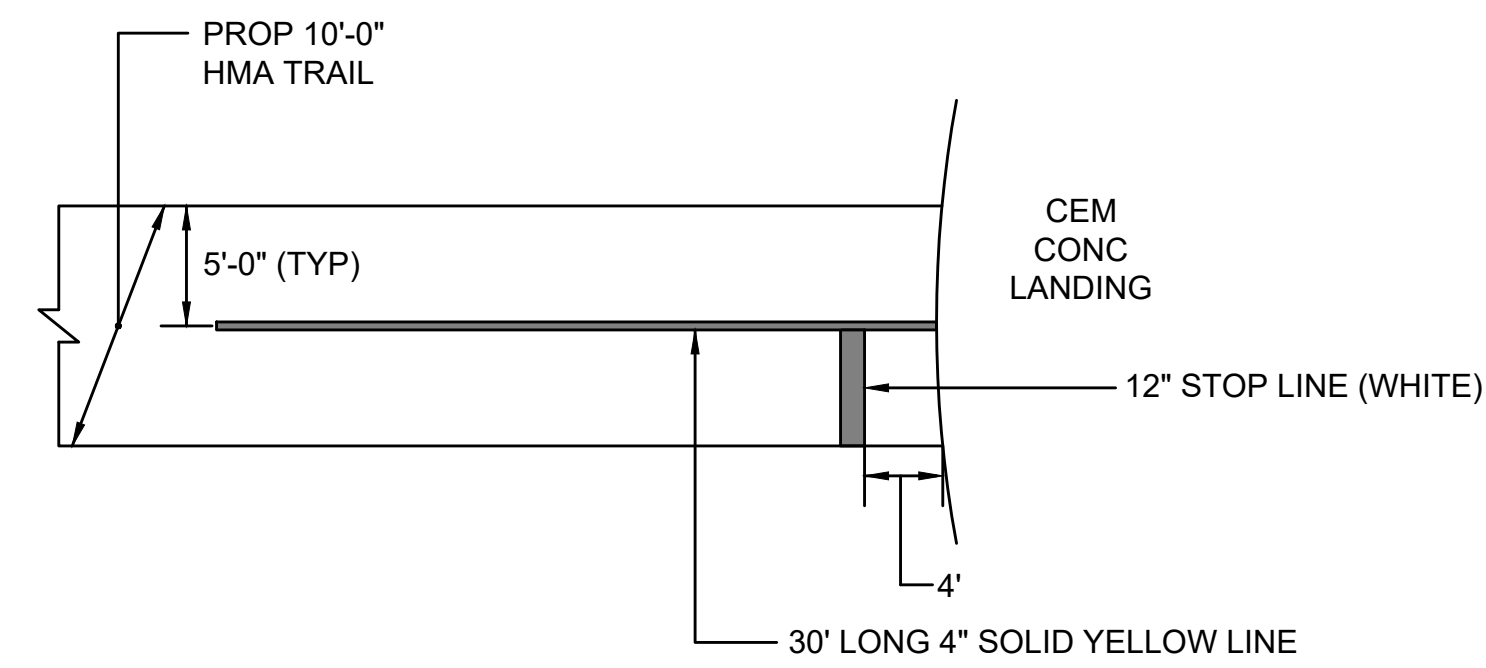


TYPICAL SIGN LOCATION
NOT TO SCALE

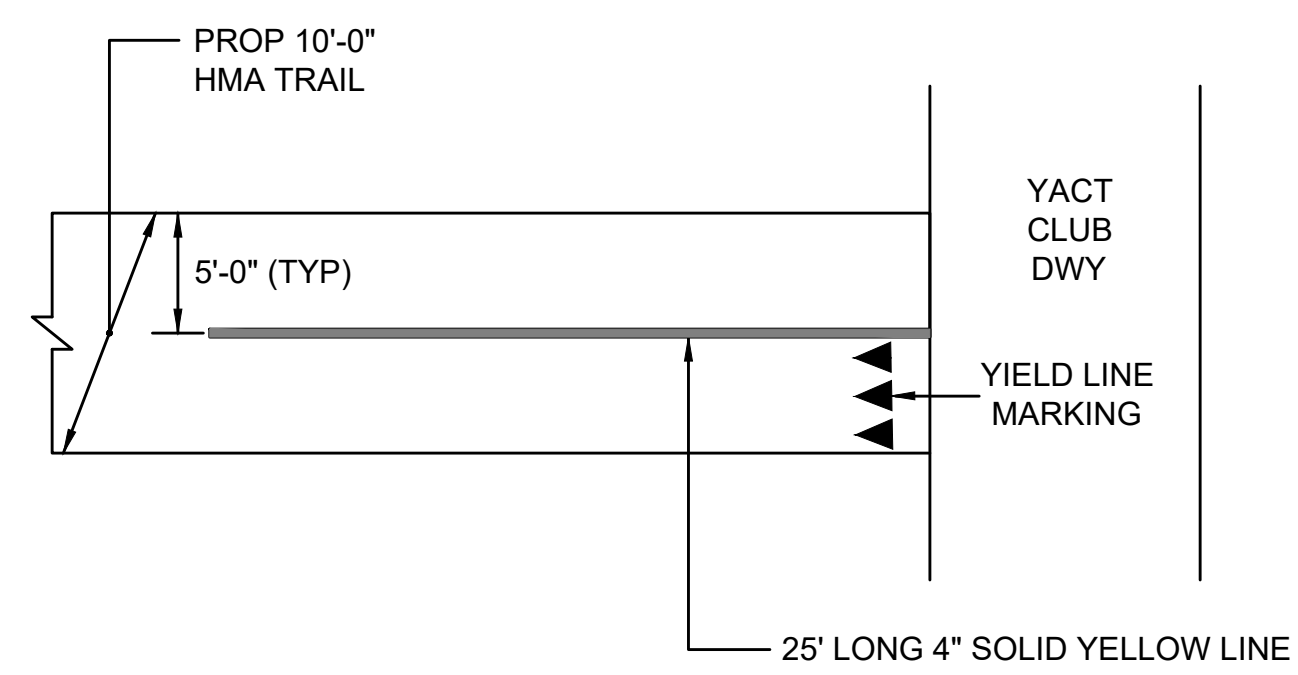
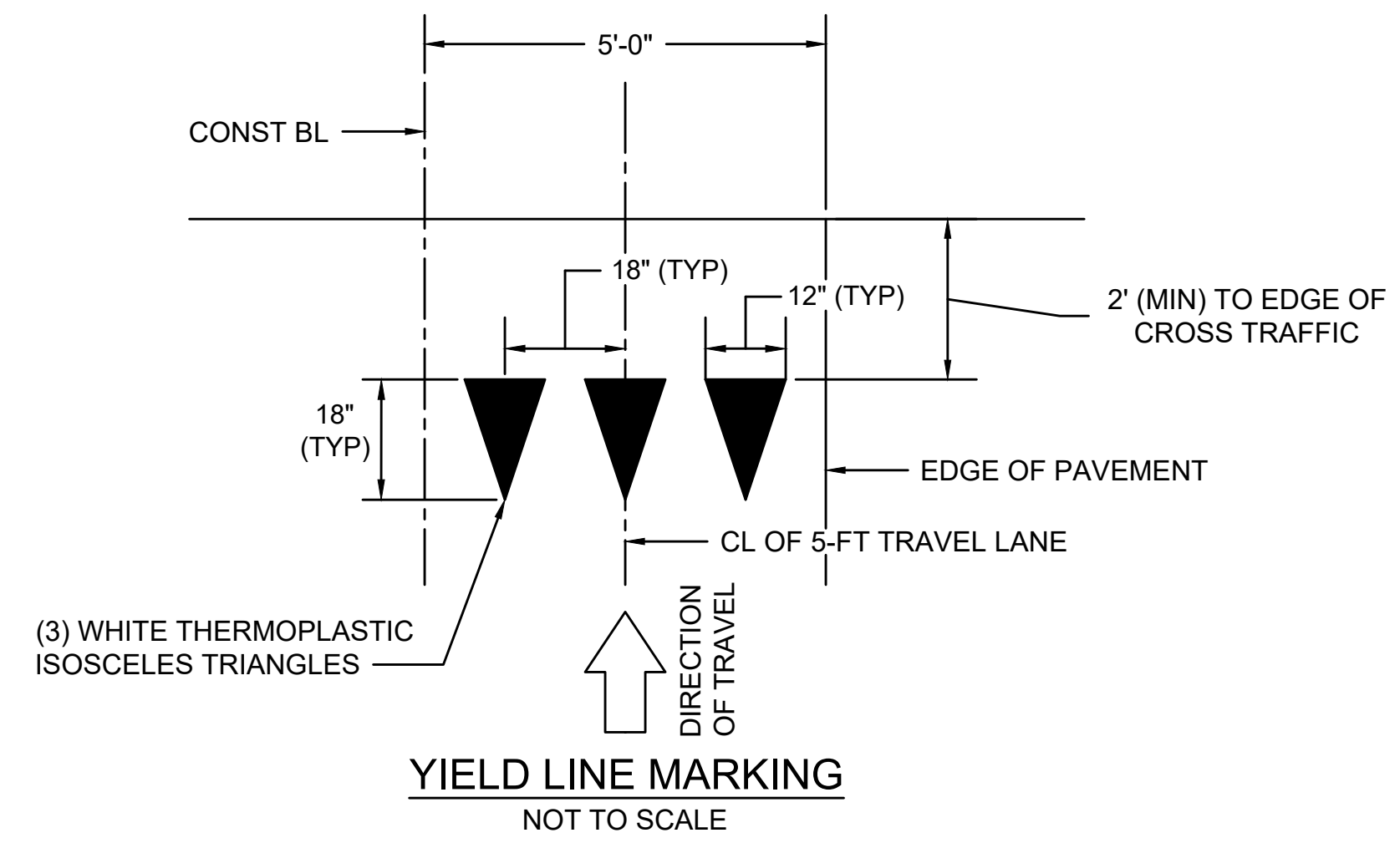
NEWBURYPORT
CLIPPER CITY RAIL TRAIL AND
SHORELINE STABILIZATION

SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	19	22
STANTEC PROJECT NO. 210800843		

CONSTRUCTION DETAILS
PART 5 OF 5



WATER STREET INTERSECTION DETAIL
NOT TO SCALE



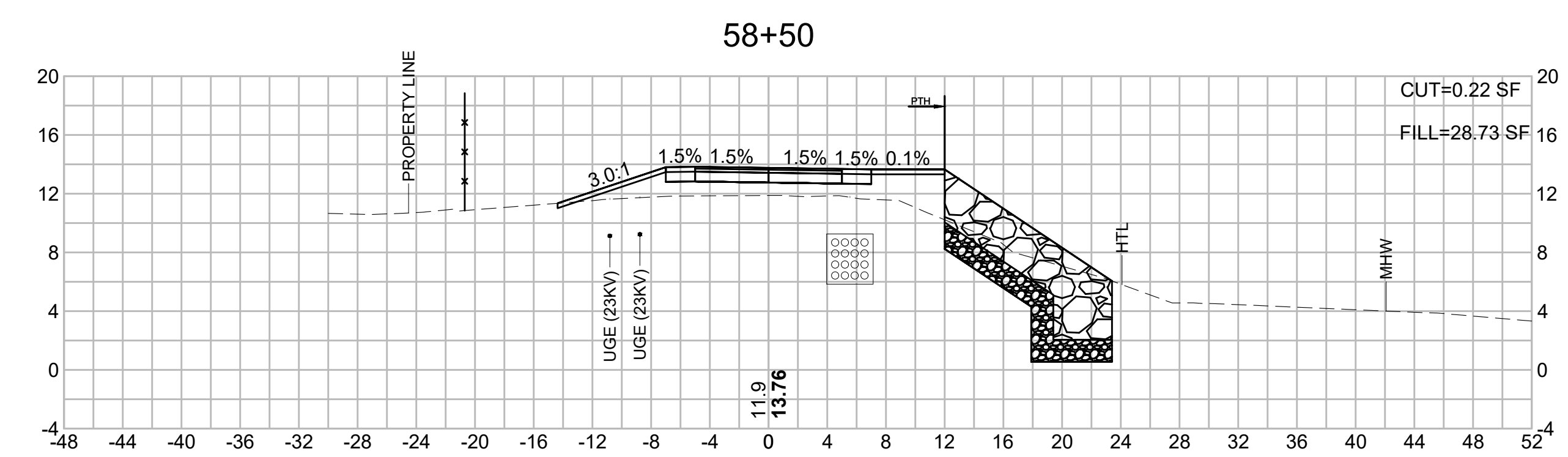
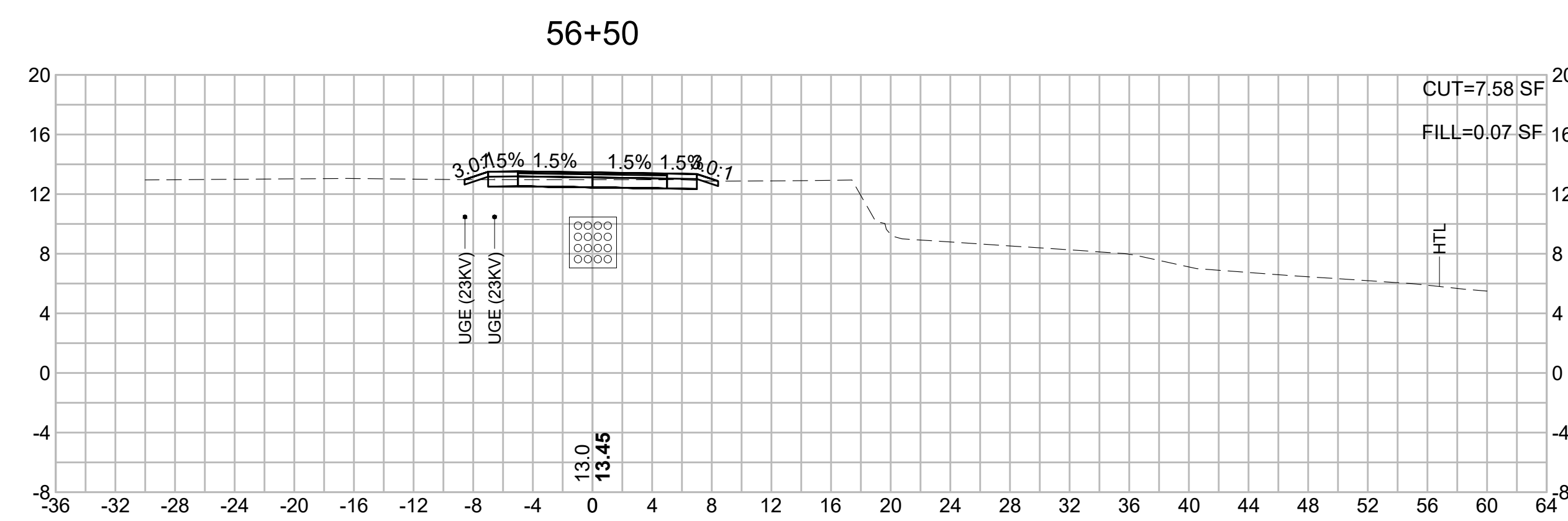
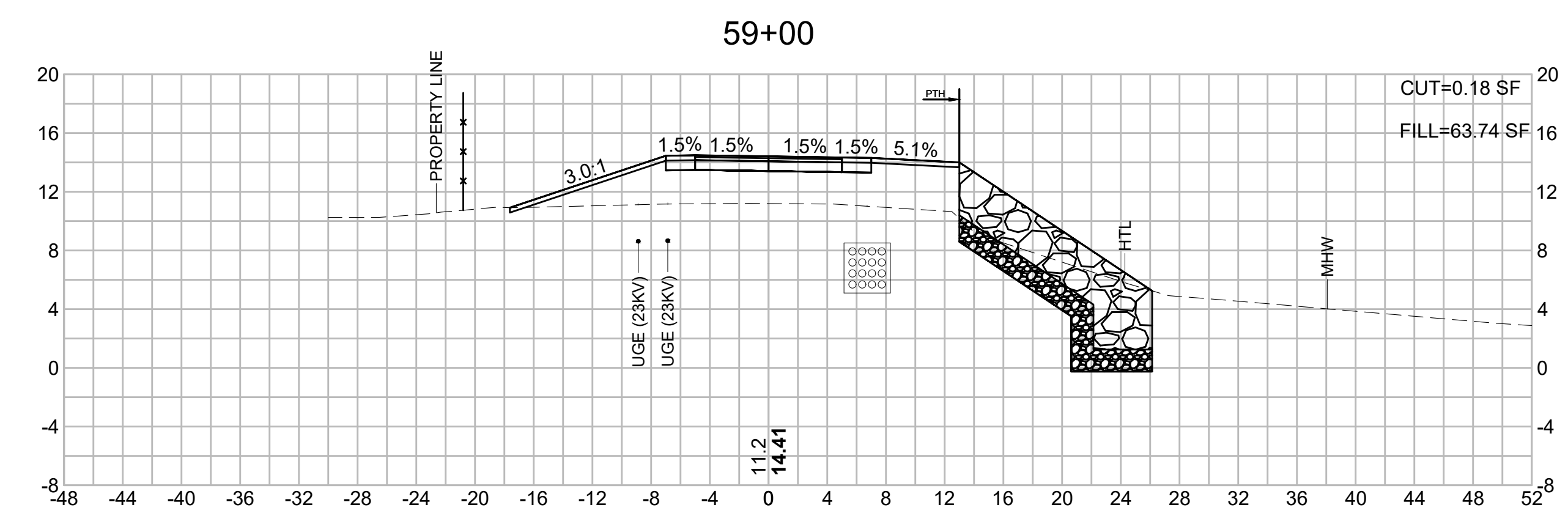
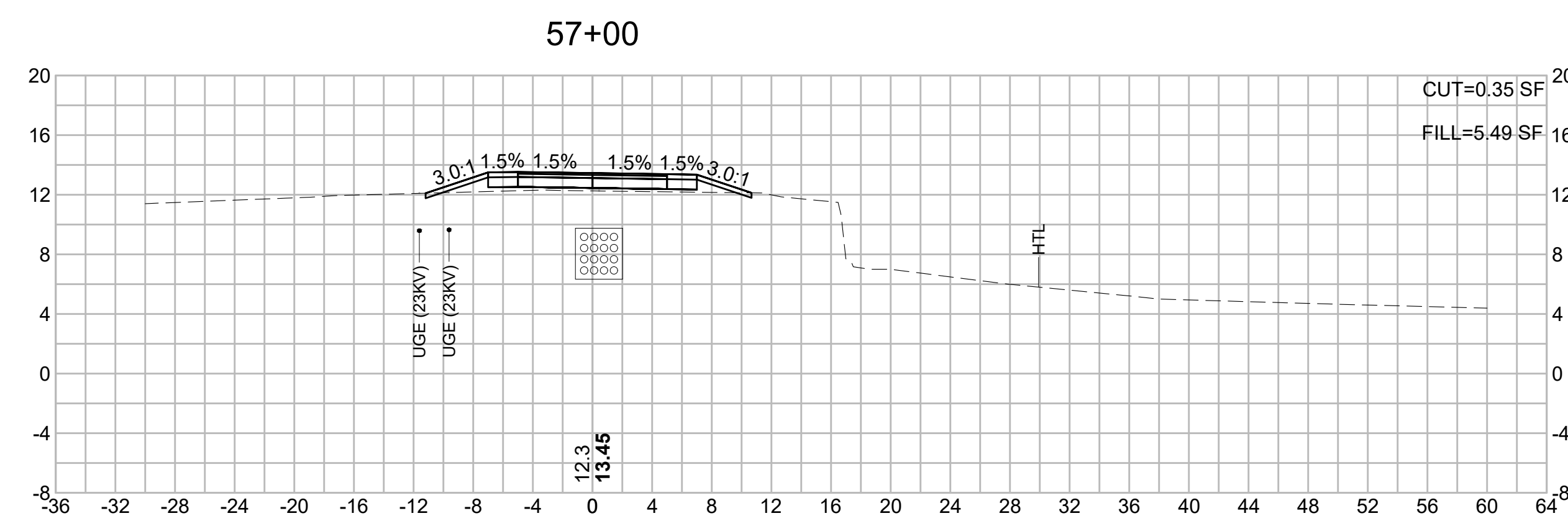
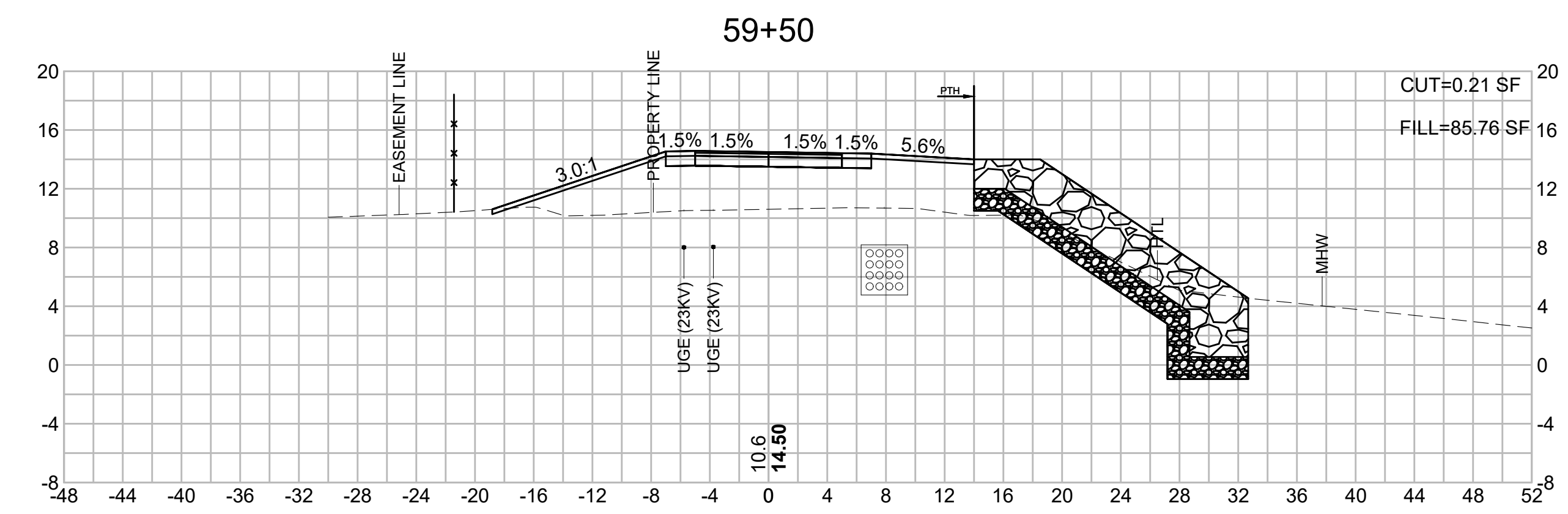
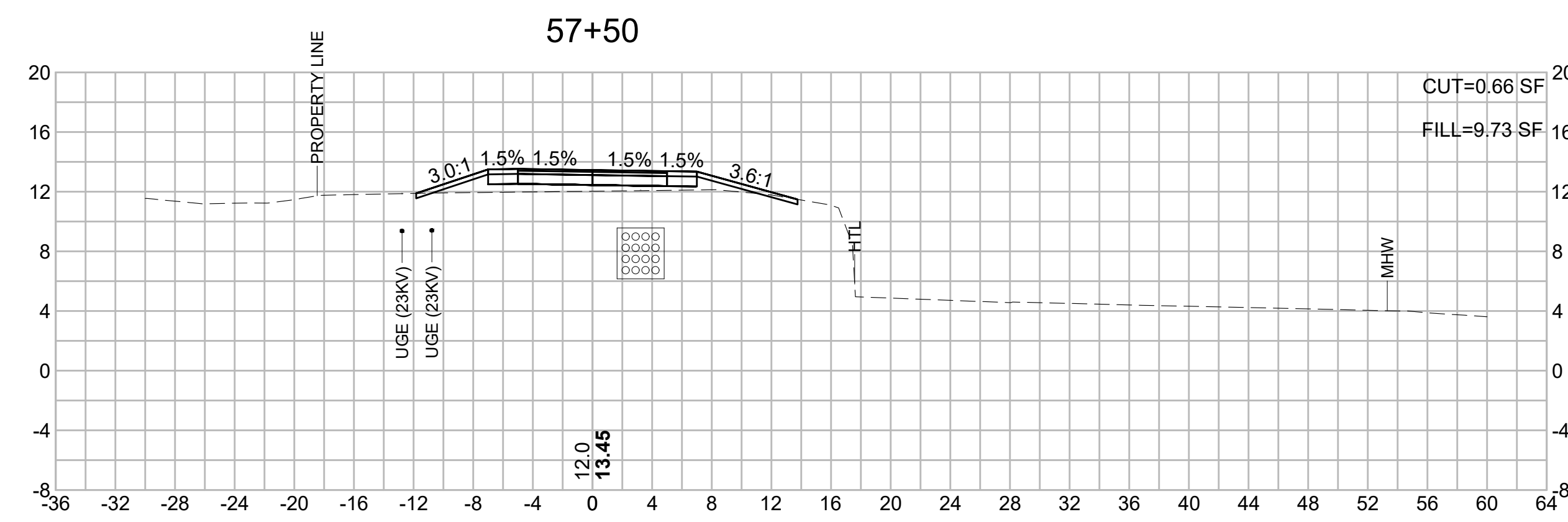
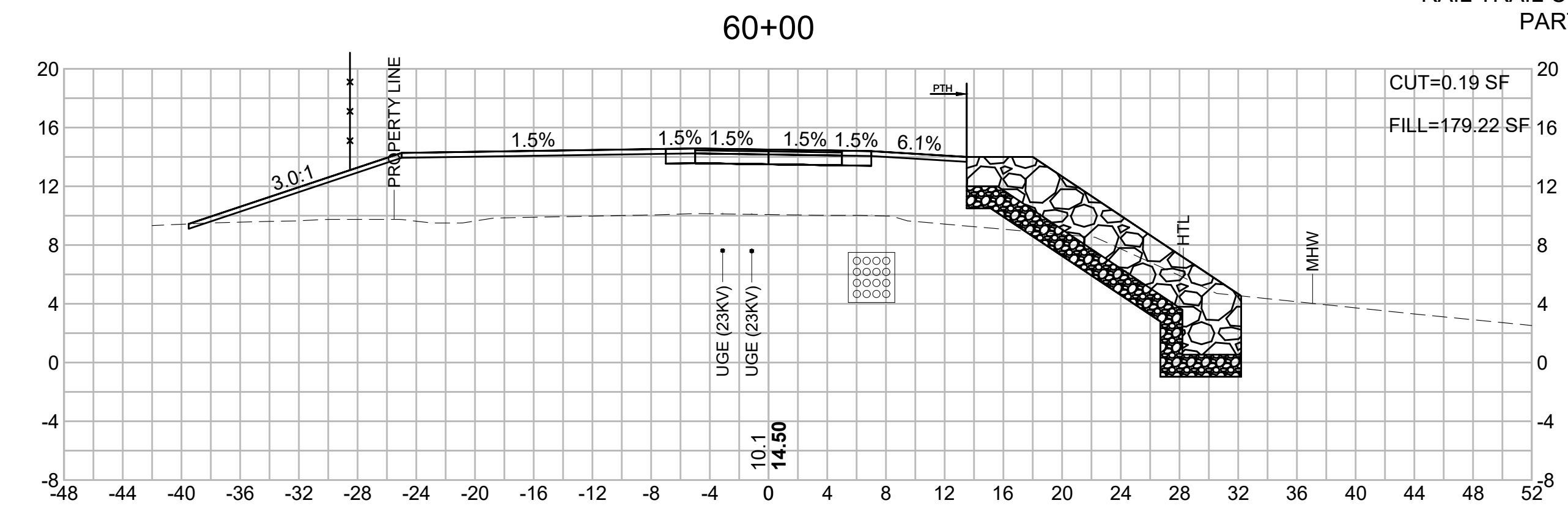
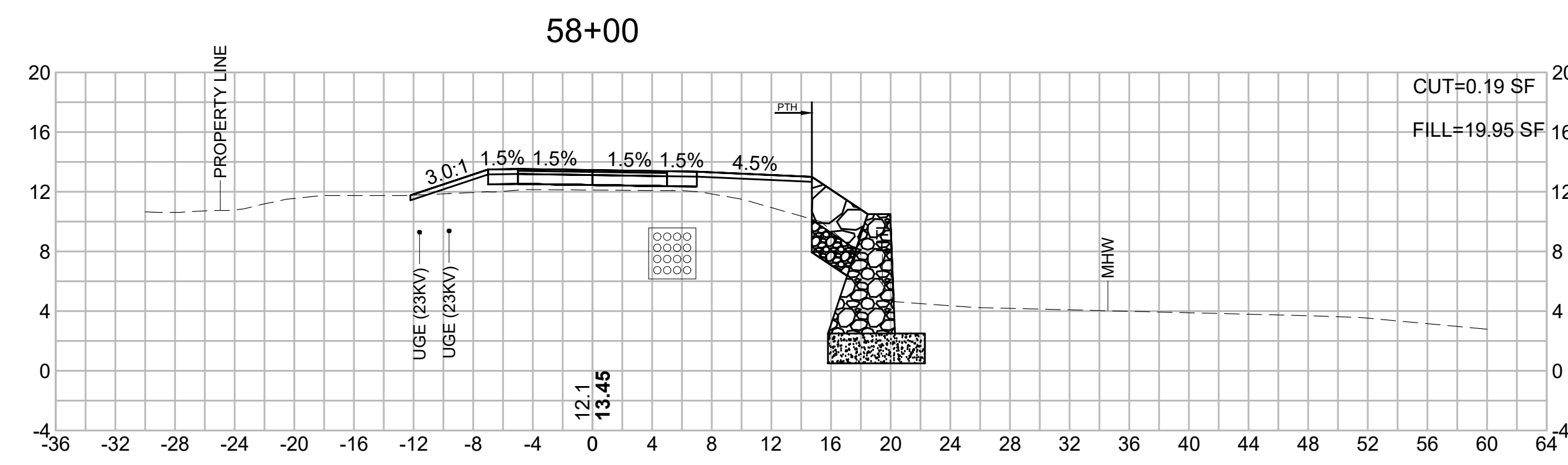
YACT CLUB DRIVEWAY INTERSECTION DETAIL
NOT TO SCALE

**NEWBURYPORT
CLIPPER CITY RAIL TRAIL AND
SHORELINE STABILIZATION**

SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	20	22
STANTEC PROJECT NO. 210800843		

**RAIL TRAIL CROSS SECTIONS
PART 1 OF 3**

NOTE: FOR SHORELINE STABILIZATION CROSS SECTIONS SEE SHEETS 9 - 14.

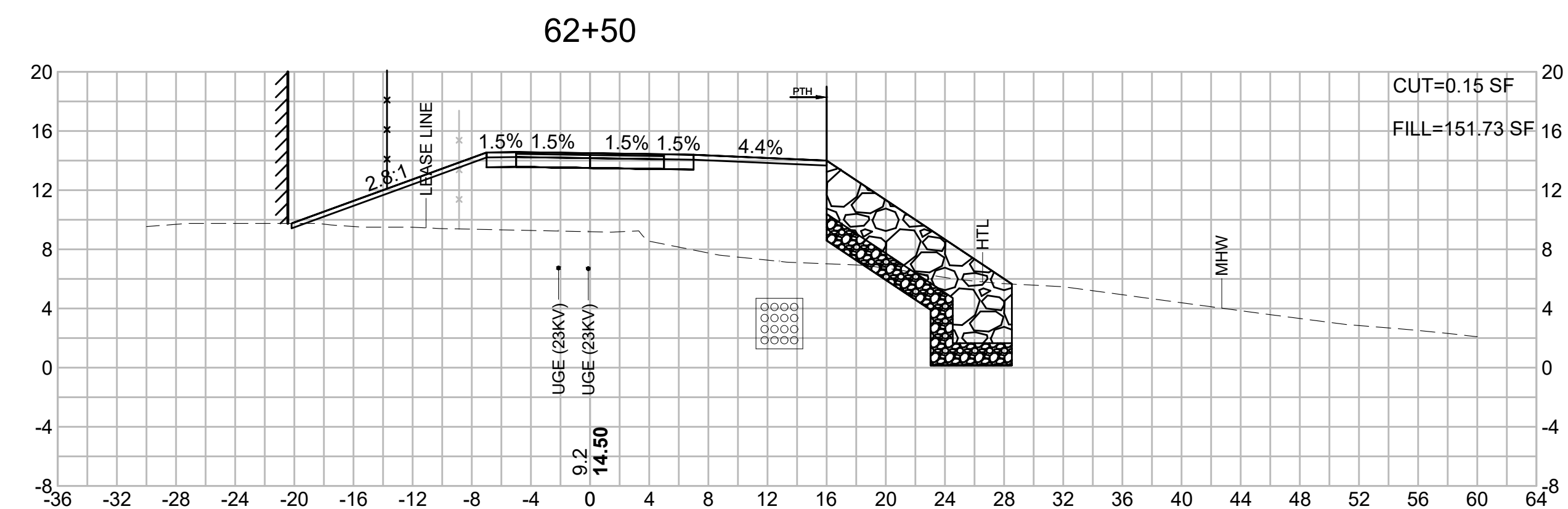
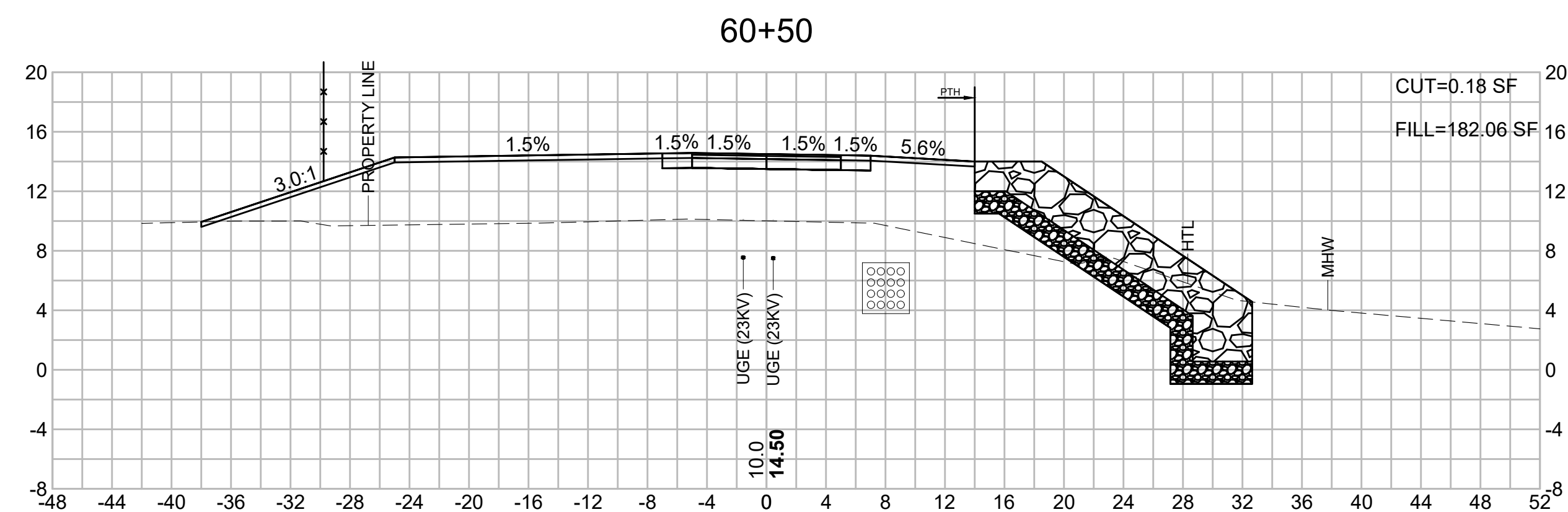
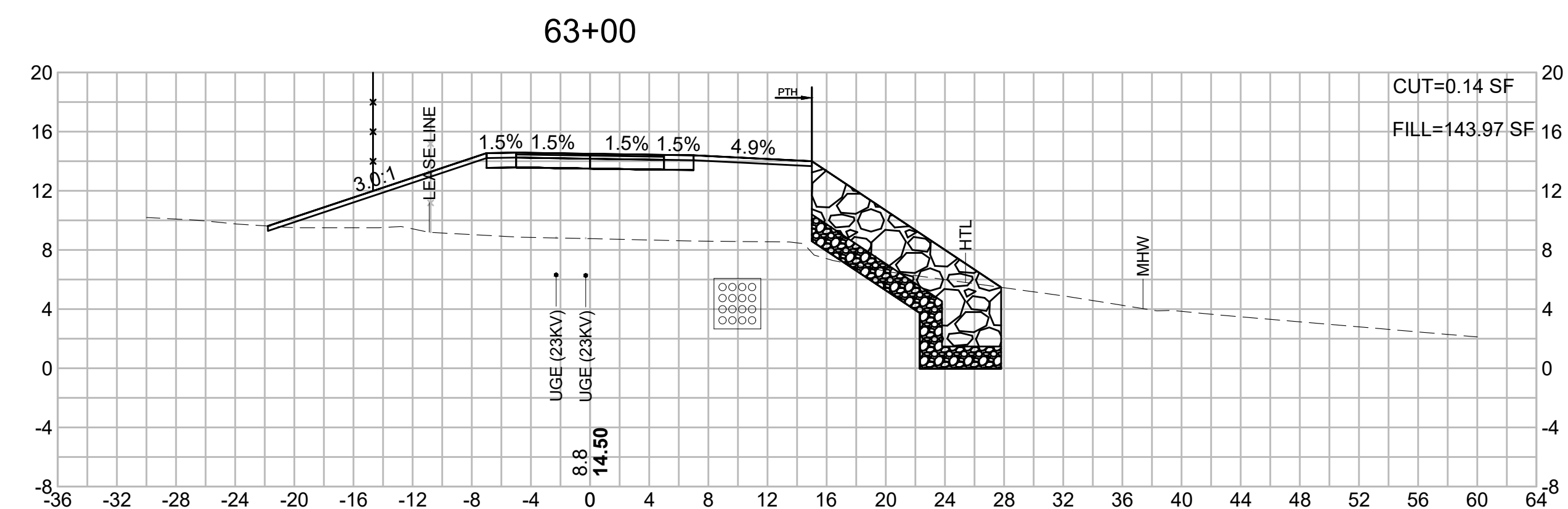
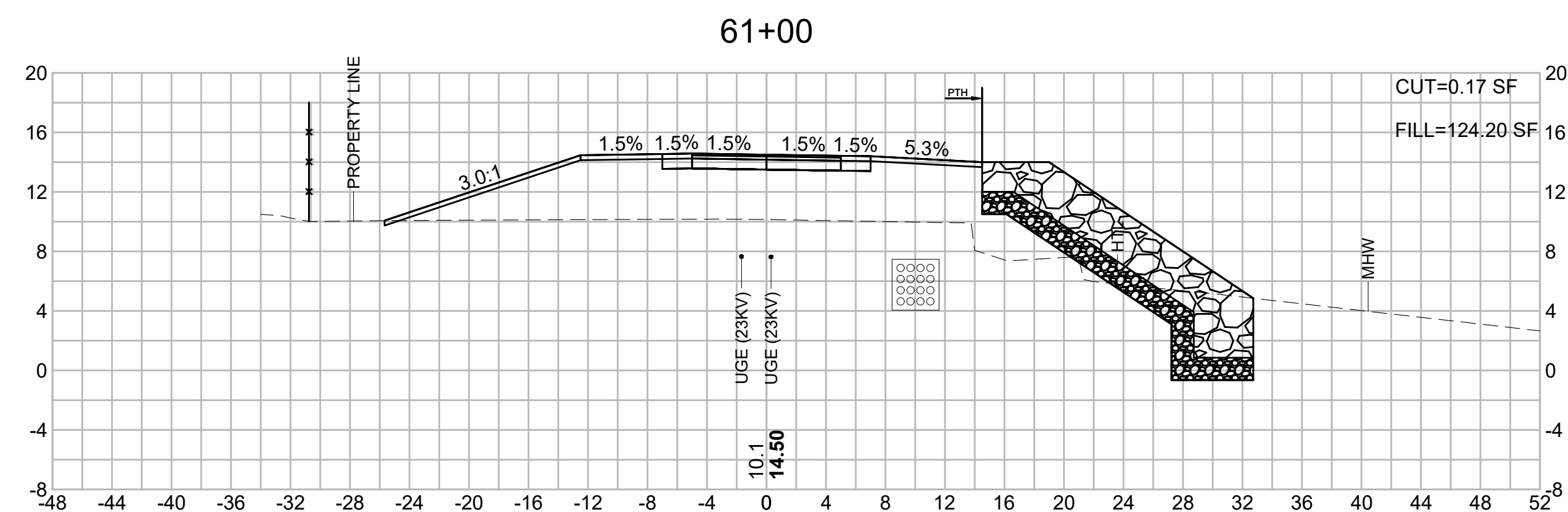
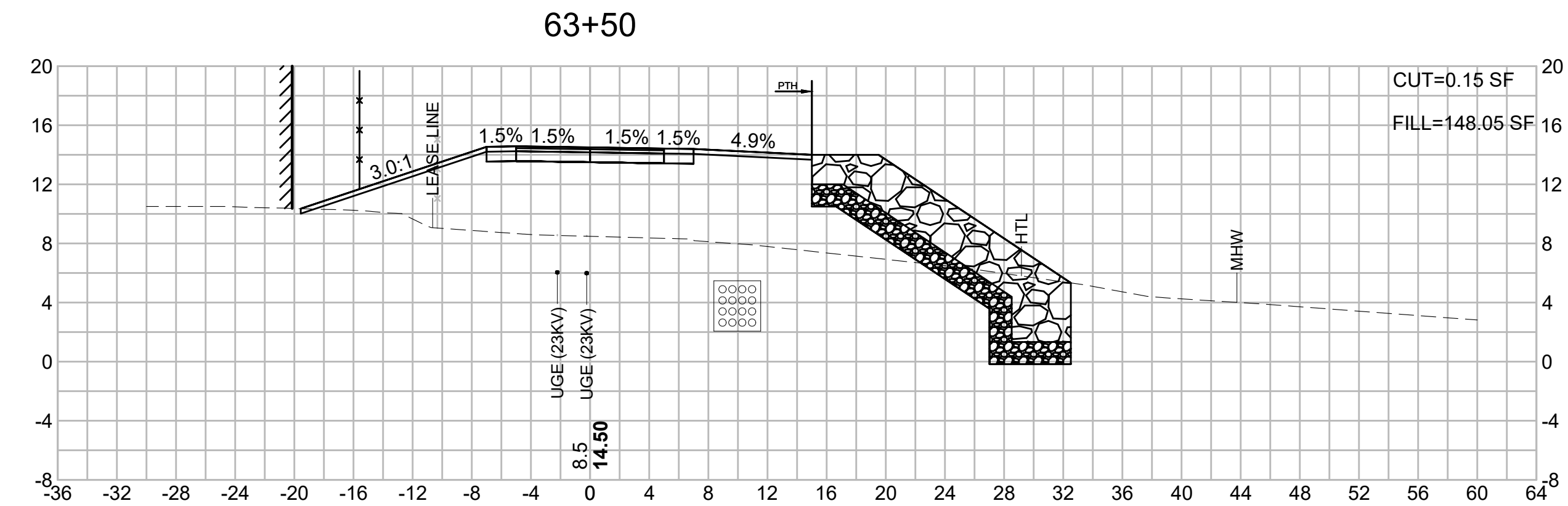
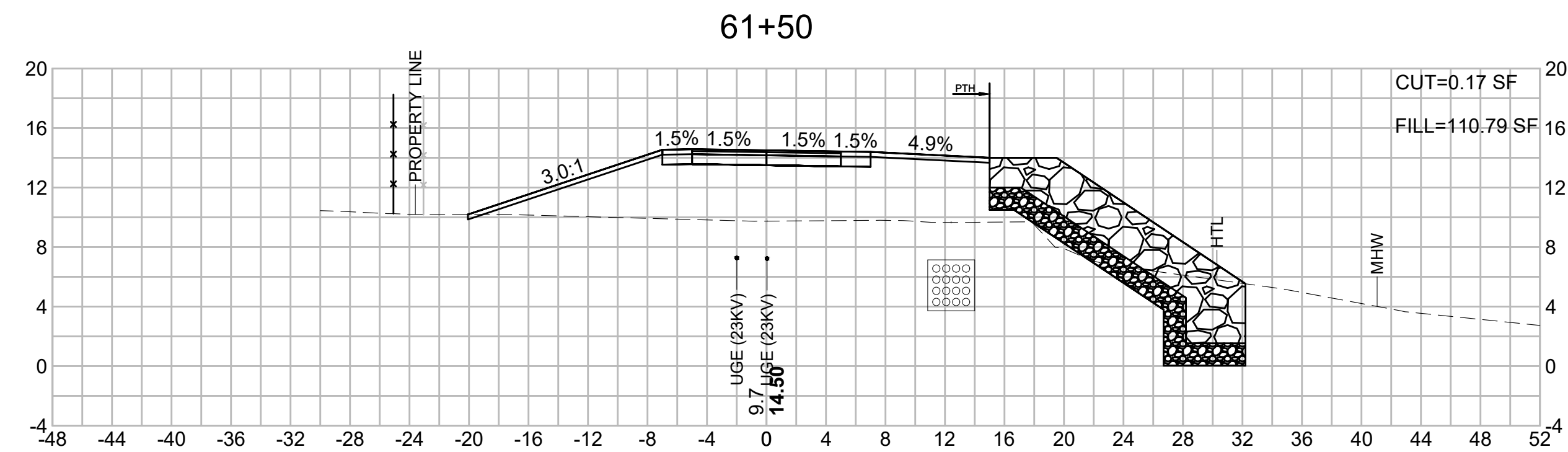
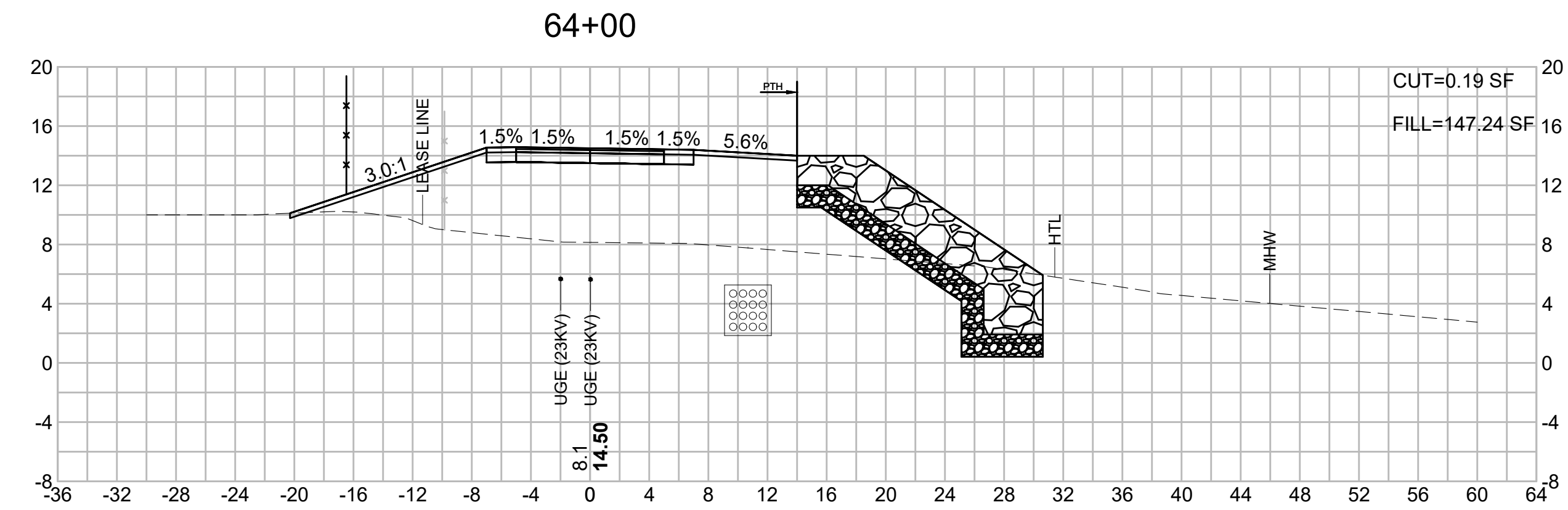
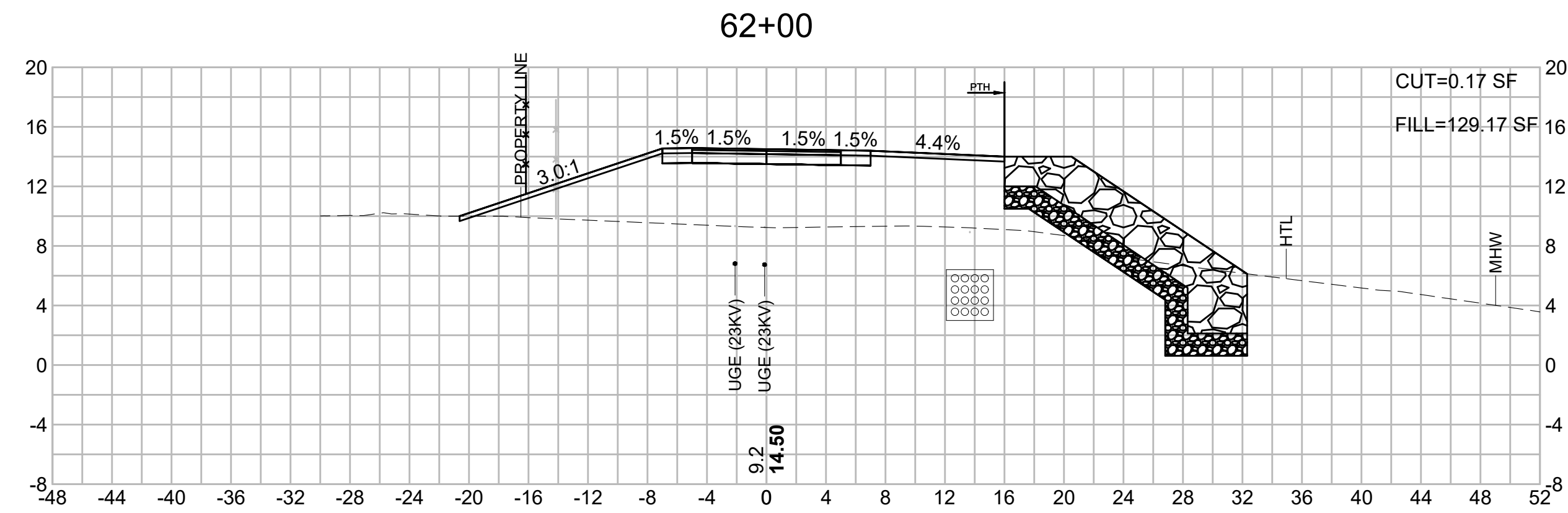


**NEWBURYPORT
CLIPPER CITY RAIL TRAIL AND
SHORELINE STABILIZATION**

SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	21	22
STANTEC PROJECT NO. 210800843		

**RAIL TRAIL CROSS SECTIONS
PART 2 OF 3**

NOTE: FOR SHORELINE STABILIZATION CROSS SECTIONS SEE SHEETS 9 - 14.



**NEWBURYPORT
CLIPPER CITY RAIL TRAIL AND
SHORELINE STABILIZATION**

SUBMISSION	SHEET NO.	TOTAL SHEETS
PRELIMINARY DESIGN	22	22
STANTEC PROJECT NO. 210800843		

**RAIL TRAIL CROSS SECTIONS
PART 3 OF 3**

NOTE: FOR SHORELINE STABILIZATION CROSS SECTIONS SEE SHEETS 9 - 14.

