

MONTGOMERY COUNTY HISTORIC PRESERVATION COMMISSION
STAFF REPORT

Address:	23515 Frederick Road to 23200 Stringtown Road, Clarksburg	Meeting Date:	1/24/2024
Resource:	Multiple Resources Clarksburg Historic District	Report Date:	1/17/2024
Applicant:	MCDOT (Yasamin Esmaili, Agent)	Public Notice:	1/10/2024
Review:	HAWP	Tax Credit:	N/A
Case Number:	1054192	Staff:	Rebecca Ballo
PROPOSAL:	Revisions to retaining wall treatments associated with the previously approved shared-use path.		

STAFF RECOMMENDATION:

Staff recommends that the HPC **approve** the HAWP application.

ARCHITECTURAL DESCRIPTION:

SIGNIFICANCE: Multiple Resources within the Clarksburg Historic District
STYLE: Various
DATE: Platted Early 1790s



Fig. 1: Clarksburg Historic District.

HISTORIC CONTEXT:

The following was excerpted from *Places From the Past: The Tradition of Gardez Bien in Montgomery County, Maryland*:

13/10 CLARKSBURG HISTORIC DISTRICT (Platted Early 1790s)

Early in the county's history, Clarksburg was a substantial center of commerce and transportation. John Clark surveyed the land and subdivided lots along Frederick Road in the early 1790s, yet the town's origins extended back to the mid-1700s. Michael Dowden built a hotel and tavern about 1754. A popular stop along the well-traveled Great Road between Frederick and Georgetown, Dowden's Ordinary is said to have provided lodging and entertainment for such well-known travelers as General E. Braddock, George Washington, and Andrew Jackson. According to tradition, John Clark's father William, from Lancaster County, Pennsylvania, had chosen this location, at the intersection of two Indian trails, as early as 1735 as a site for trading with Native Americans. His trading post may have influenced Dowden's choice for locating his ordinary.

John Clark built a general store and became the community's first postmaster. The post office, established 1800, was one of the first in the county. By 1850, the town was the third most populous in the county, and the residents numbered 250 by 1879.

One of the earliest structures in the community is found at the Clark-Waters House, 23346 Frederick Road. According to tradition, John Clark constructed the rear section in 1797. The building was enlarged and updated in the 1840s with the Italianate-style front section, under the ownership of Clark's daughter and son-in-law Mary and William Willson. One of the few remaining log buildings in the community is found at 23415 Frederick Road. Thomas Kirk probably built the John Leaman House (23415), now covered with clapboard siding, in 1801. John Leaman, a carpenter, purchased the house in 1871 and built the substantial rear addition around 1890.

John Clark, a Methodist, was a leader in organizing the Clarksburg Methodist Episcopal Church in 1788. The church has one of the oldest continuous Methodist congregations in the County. A log chapel was built on this site in 1794, a brick structure in 1853, and the present Gothic Revival-style church in 1909. As a major stagecoach stop between Frederick and Georgetown, Clarksburg supported several inns and taverns. By the mid-1800s, the town also included general stores, a tannery and blacksmiths, and wheelwrights. William Willson probably built Willson's Store, 23341 Frederick Road, around 1842. In 1879, Clarksburg had 250 residents, making it the third most populous town in the County. The Queen Anne-style house at 23310 Frederick Road, known as Hammer Hill, as built c.1891-1900 by Clarksburg physician Dr. James Deetz and his wife Sarah. The name, Hammer Hill, comes from the tract name given this land in 1752. The William Hurley Shoe Shop, 23421 Frederick Road, probably built around 1842, is typical of early rural commercial structures in its simplicity and small scale. In the early 20th-century, it housed Helen Hurley's millinery shop. The house, located behind the shop, originally consisted of the rear portion that was built by Arnold Warfield about 1800. The building may contain an early log section. Hurley family owners of the house and shoe shop included shoemaker William Hurley and Clarksburg Brass Band organizer J. Mortimer Hurley.

Clarksburg has historically been a bi-racial town. While many African Americans settled, after the Civil War, in communities separate from white settlements, freed slaves in Clarksburg built houses in and around the town. In 1885, John Henry Wims built his frame house in Clarksburg's center, at 23311 Frederick Road. The location of his dwelling near the post office was a convenience for Wims, one of the few black mail carriers working in the county.

One of the County's last and most elaborate remaining examples of a two-room schoolhouse is the Clarksburg School, 13530 Redgrave Place, built in 1909. One of the County's last and most elaborate remaining examples of the two-room schoolhouse, the Clarksburg School was in continuous use from 1909 to 1972. The cruciform-shaped building has a Colonial Revival-influenced design with pedimented and pilastered doorframe, oversize cornice returns, and gable overhang. Near the school are the sites of the earlier Clarksburg Academy (1833) and a one-room school.

Growth in Clarksburg declined in the late 19th century, when the B & O Railroad bypassed the town for nearby Boyds. The advent of the automobile and improved roads brought something of an economic revival beginning in the 1920s. New boarding houses opened in town to accommodate the new auto tourism.

BACKGROUND:

The applicants previously appeared before the Commission at the February 12, 2020 HPC meeting for a preliminary consultation.¹ The applicants subsequently appeared before the Commission with a HAWP application at the October 28, 2020 HPC meeting.² During the October 28 hearing, it was determined that the application was incomplete, as some required plans and specifications were missing. The applicants submitted the missing information, and the project was approved in part at the November 18, 2020 HPC meeting.³ Although the applicants provided plans for two related projects (MD 355 – Shared Use Path and MD 355/Clarksburg Road Intersection Improvements), the Commission only approved the MD 355 – Shared Use Path project at the November 18, 2020 HPC meeting. The Commission required the MD 355/Clarksburg Road Intersection Improvements project to be submitted separately and recommended revisions to make it compatible with the streetscape of the historic district and consistent with the MD 355 – Shared Use Path project. The applicant/MCDOT submitted the final HAWP application and the HPC approved it on December 16, 2020.⁴ The final proposal included all approvals for construction an 8' wide shared-use path along the east side of MD 355 (Frederick Road) within the Clarksburg Historic District. The proposal also includes intersection improvements, tree removal/planting, and streetlamp installation.

PROPOSAL:

The applicant is proposing the installation of a stone veneer on the new retaining walls that are proposed as part of the shared use path. Staff notes that while this is a revision to a previously approved HAWP, it has a new permit number. The previously approved HAWP#13/10-20C is no longer keyed to a valid

¹ Link to February 12, 2020 HPC meeting audio/video transcript:

http://mncppc.granicus.com/MediaPlayer.php?publish_id=cf45bbd0-4e99-11ea-9ca4-0050569183fa

Link to February 12, 2020 preliminary consultation staff report: <https://montgomeryplanning.org/wp-content/uploads/2020/02/II.A-Multiple-Addresses-Clarksburg.pdf>

² Link to October 28, 2020 HPC meeting audio/video transcript:

http://mncppc.granicus.com/MediaPlayer.php?publish_id=ba4854d9-1a21-11eb-a4b6-0050569183fa

Link to October 28, 2020 HAWP application staff report: <https://montgomeryplanning.org/wp-content/uploads/2020/10/I.K-23515-Frederick-Road-to-23200-Stringtown-Road-Clarksburg.pdf>

³ Link to November 18, 2020 HPC meeting audio/video transcript:

http://mncppc.granicus.com/MediaPlayer.php?publish_id=cc6acf70-2a8c-11eb-a4b6-0050569183fa

Link to November 18, 2020 HAWP application staff report (Part 1): <https://montgomeryplanning.org/wp-content/uploads/2020/11/I.R-23515-Frederick-Road-to-23200-Stringtown-Road-Clarksburg-part-1-compressed.pdf>

Link to November 18, 2020 HAWP application staff report (Part 2): <https://montgomeryplanning.org/wp-content/uploads/2020/11/I.R-23515-Frederick-Road-to-23200-Stringtown-Road-Clarksburg-part-2-compressed.pdf>

⁴ Link to the December 16, 2020 HAWP application staff report: <https://montgomeryplanning.org/wp-content/uploads/2020/12/I.A-23515-Frederick-Road-to-23200-Stringtown-Road-Clarksburg.pdf>

numbering system since the HP Office has switched over entirely to Department of Permitting Services generated HAWP case numbers and has moved away from internally generated permit numbers.

APPLICABLE GUIDELINES:

When reviewing alterations and new construction within the Clarksburg Historic District several documents are to be utilized as guidelines to assist the Commission in developing their decision. These documents include *Montgomery County Code Chapter 24A (Chapter 24A)*, the *Vision of Clarksburg: A Long-Range Preservation Plan (Vision)*, and the *Secretary of the Interior's Standards for Rehabilitation (Standards)*. The pertinent information in these documents is outlined below.

Montgomery County Code; Chapter 24A-8

- (b) The commission shall instruct the director to issue a permit, or issue a permit subject to such conditions as are found to be necessary to ensure conformity with the purposes and requirements of this chapter, if it finds that:
 - (1) The proposal will not substantially alter the exterior features of an historic site or historic resource within an historic district; or
 - (2) The proposal is compatible in character and nature with the historical, archeological, architectural or cultural features of the historic site or the historic district in which an historic resource is located and would not be detrimental thereto or to the achievement of the purposes of this chapter; or
 - (3) The proposal would enhance or aid in the protection, preservation and public or private utilization of the historic site or historic resource located within an historic district in a manner compatible with the historical, archeological, architectural or cultural value of the historic site or historic district in which an historic resource is located; or
 - (4) The proposal is necessary in order that unsafe conditions or health hazards be remedied; or
 - (5) The proposal is necessary in order that the owner of the subject property not be deprived of reasonable use of the property or suffer undue hardship; or
 - (6) In balancing the interests of the public in preserving the historic site or historic resource located within an historic district, with the interests of the public from the use and benefit of the alternative proposal, the general public welfare is better served by granting the permit.
- (c) It is not the intent of this chapter to limit new construction, alteration or repairs to any 1 period or architectural style.
- (d) In the case of an application for work on an historic resource located within an historic district, the commission shall be lenient in its judgment of plans for structures of little historical or design significance or for plans involving new construction, unless such plans would seriously impair the historic or architectural value of surrounding historic resources or would impair the character of the historic district. (Ord. No. 9-4, § 1; Ord. No. 11-59.)

Secretary of Interior's Standards for Rehabilitation

The Secretary of the Interior defines rehabilitation as “the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features, which convey its historical, cultural, or architectural values.” The *Standards* are as follows:

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

STAFF DISCUSSION:

During previous reviews of this project in November and December 2010, the HPC considered and rejected a portion of the proposal that called for cultured stone veneer and/or stamped concrete on the retaining walls at Stations 512.00 and 513.90. Staff made findings, and the HPC concurred that typical cultured stone veneers and/or stamped concrete (or form liners) would be an inappropriate and incompatible treatment for the proposed retaining wall. Staff recommended a condition of approval, stipulating that the proposed retaining wall be plain concrete or block to be compatible with the streetscape of the historic district.

Since that time, MCDOT and HP staff have continued in conversations with residents and owners within the Clarksburg Historic District, and have heard concern about the visual blankness of the approved plain concrete walls. MCDOT has returned with a proposal to face the concrete retaining walls with the exact same stone that was used to face retaining walls in the Hyattstown Historic District. While the use of stone and brick is more prevalent within Hyattstown, the lack of brick and stone buildings or foundations, and the preponderance of frame construction in Clarksburg should not automatically lead to a finding that the stone veneer is incompatible. The character of these rural village historic districts is similar and they both date to the same period of significance beginning in the 18th centuries. Concerns that the blank concrete may attract graffiti or other nuisances were not addressed at the previous HPC hearings, and while there is no evidence or submissions from MCDOT that demonstrate graffiti is an issue in the District, staff is supportive of the desire of the residents to present a more traditionally decorative treatment on the substantial new retaining walls. The grade changes have already been approved by HPC with the previous HAWP#13/10-20C on December 16, 2020, so the decorative treatment is not furthering altering the features within the District. The stone veneers could be removed and the walls refaced in the future with a subsequent HAWP if desired by MCDOT and the community. Additionally, seeing how well the stone veneers have weathered over time in Hyattstown, staff finds that this same material would be visually compatible with the character of this historic district as well.

After full and fair consideration of the applicant's submission, staff finds the proposal, as modified by the condition, as being consistent with the Criteria for Issuance in Chapter 24A-(b)(1), (2), and (d), having found the proposal is consistent with the *Secretary of the Interior's Standards for Rehabilitation* #2 and #9 and #10 outlined above.

STAFF RECOMMENDATION:

Staff recommends that the Commission **approve** the HAWP application under the Criteria for Issuance in Chapter 24A-8(b), (1), (2) & (d), having found that the proposal, as modified by the condition, will not substantially alter the exterior features of the historic resource and is compatible in character with the district and the purposes of Chapter 24A;

and with the *Secretary of the Interior's Standards for Rehabilitation* #2 and #9 and #10;

and with the general condition that the applicant will obtain all other applicable Montgomery County or local government agency permits. After the issuance of these permits, the applicant must contact this Historic Preservation Office if any changes to the approved plan are made;

and with the general condition that final project design details, not specifically delineated by the Commission, shall be approved by HPC staff or brought back to the Commission as a revised HAWP application at staff's discretion;

and with the general condition that the applicant shall notify the Historic Preservation Staff if they propose to make any alterations to the approved plans. Once the work is completed the applicant will contact the staff person assigned to this application at 301-563-3404 or rebeccah.ballo@montgomeryplanning.org to schedule a follow-up site visit.



**APPLICATION FOR
HISTORIC AREA WORK PERMIT**
HISTORIC PRESERVATION COMMISSION
301.563.3400

FOR STAFF ONLY:
HAWP# _____
DATE ASSIGNED _____

Revision to HAWP No. 935441

APPLICANT:

Name: Ms. Yasamin Esmaili
Address: 100 Edison Park Dr, 4th Flr
Daytime Phone: 240-777-7226

E-mail: Yasamin.Esmaili@montgomerycountymd.gov
City: Gaithersburg Zip: 20878
Tax Account No.: _____

AGENT/CONTACT (if applicable):

Name: Tim Connor or Van de Jarnette
Address: 7133 Rutherford Road
Daytime Phone: 410-907-2623

E-mail: tconnor@gfnet.com
City: Milfrod Mill Zip: 21244
Contractor Registration No.: _____

LOCATION OF BUILDING/PREMISE: MIHP # of Historic Property _____

Is the Property Located within an Historic District? Yes/District Name Clarksburg Historic District
 No/Individual Site Name _____

Is there an Historic Preservation/Land Trust/Environmental Easement on the Property? If YES, include a map of the easement, and documentation from the Easement Holder supporting this application.

Are other Planning and/or Hearing Examiner Approvals /Reviews Required as part of this Application? (Conditional Use, Variance, Record Plat, etc.?) If YES, include information on these reviews as supplemental information.

Building Number: _____ Street: _____
Town/City: _____ Nearest Cross Street: _____
Lot: _____ Block: _____ Subdivision: _____ Parcel: _____

TYPE OF WORK PROPOSED: See the checklist on Page 4 to verify that all supporting items for proposed work are submitted with this application. Incomplete Applications will not be accepted for review. Check all that apply:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> New Construction | <input type="checkbox"/> Deck/Porch | <input type="checkbox"/> Shed/Garage/Accessory Structure |
| <input type="checkbox"/> Addition | <input type="checkbox"/> Fence | <input type="checkbox"/> Solar |
| <input checked="" type="checkbox"/> Demolition | <input checked="" type="checkbox"/> Hardscape/Landscape | <input type="checkbox"/> Tree removal/planting |
| <input checked="" type="checkbox"/> Grading/Excavation | <input type="checkbox"/> Roof | <input type="checkbox"/> Window/Door |
| | | <input checked="" type="checkbox"/> Other: <u>Retaining wall</u> |

I hereby certify that I have the authority to make the foregoing application, that the application is correct and accurate and that the construction will comply with plans reviewed and approved by all necessary agencies and hereby acknowledge and accept this to be a condition for the issuance of this permit.

Yasamin Esmaili _____ 12-20-2023 _____
Signature of owner or authorized agent Date

Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:

There are 24 properties listed on the MD Inventory of Historic Properties within a one-mile radius of the Study Area, which includes the Clarksburg Historic District (MO:13-10). The historic district primarily contains a mix of late 18th through 20th century residential and commercial structures, but the majority of historic structures date back to the 19th century of this transportation and trade center. A Historic Built Environment Investigation was conducted and zero properties listed on the MD Inventory of Historic Properties within the proposed project study area would be affected.

Description of Work Proposed: Please give an overview of the work to be undertaken:

In association with work being performed under Permit 935441 a retaining wall is proposed along the east side of MD 355 behind the proposed 8 ft wide shared-use path beginning 300 feet north of the MD 355 at Clarksburg Rd intersection extending an additional 200 feet north. The attached figure illustrates the possible aesthetic treatments that could be incorporated into this wall. A Historic Built Environment Investigation was previously conducted and zero properties listed on the MD Inventory of Historic Properties within the proposed project study area are affected.

Work Item 1: Retaining Wall improvements

Description of Current Condition:

Refer to plans provided under Permit 935441.

Proposed Work:

Refer to attached figure for surface treatment examples.

Work Item 2: _____

Description of Current Condition:

Proposed Work:

Work Item 3: _____

Description of Current Condition:

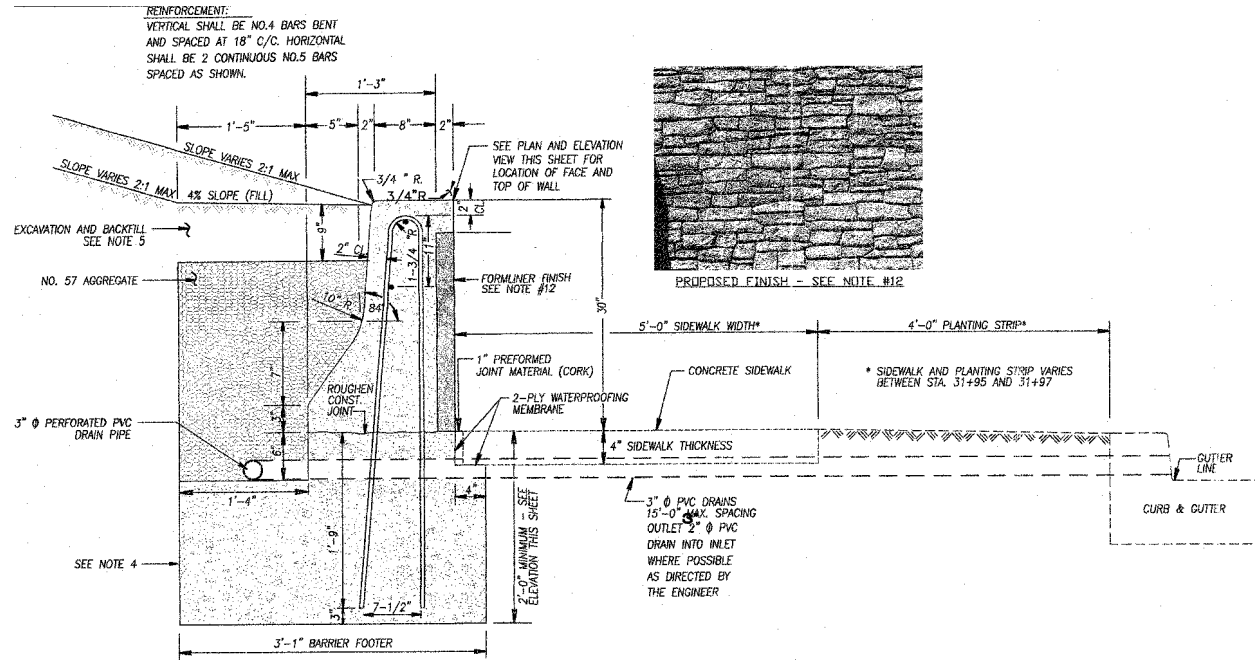
Proposed Work:

**HISTORIC AREA WORK PERMIT
CHECKLIST OF
APPLICATION REQUIREMENTS**

	Required Attachments						
Proposed Work	I. Written Description	2. Site Plan	3. Plans/ Elevations	4. Material Specifications	5. Photographs	6. Tree Survey	7. Property Owner Addresses
New Construction	*	*	*	*	*	*	*
Additions/ Alterations	*	*	*	*	*	*	*
Demolition	*	*	*		*		*
Deck/Porch	*	*	*	*	*	*	*
Fence/Wall	*	*	*	*	*	*	*
Driveway/ Parking Area	*	*		*	*	*	*
Grading/Excavation/ Landscaping	*	*		*	*	*	*
Tree Removal	*	*		*	*	*	*
Siding/ Roof Changes	*	*	*	*	*		*
Window/ Door Changes	*	*	*	*	*		*
Masonry Repair/ Repoint	*	*	*	*	*		*
Signs	*	*	*	*	*		*

Hyattstown Sidewalk Project

Clarksburg Rd at Snowden Farm Pkwy Project



MODIFIED MSHA STANDARD MD 648.47 - FACE TOWARDS THE ROADWAY

NOTES

- THE BARRIER AND FOOTER SHALL BE CAST SEPARATELY USING THE FIXED FORM OR THE SLIP FORM CONSTRUCTION METHOD USING CONCRETE MIX NO. 6 CONTINUOUSLY PLACED.
- THE CONTRACTOR HAS THE OPTION TO CONSTRUCT THE BARRIER FOOTER AND BARRIER AFTER CONSTRUCTION OF THE PAVEMENT. THE FOOTER FORMS, IF USED, SHALL BE REMOVED BEFORE PLACING PAVEMENT.
- ALL REINFORCEMENT BARS, INCLUDING ENDS, SHALL BE EPOXY COATED. ALL BAR LAPS TO BE 30 BAR DIAMETERS. TIE BARS TOGETHER. ALL BARS SHALL BE ASTM A 615 GRADE 60.
- THE REAR VERTICAL WALL SHALL BE FORMED OR THE CONCRETE PLACED AGAINST THE VERTICAL EARTH SIDE IF APPROVED BY THE ENGINEER. NO ADDITIONAL COMPENSATION FOR ADDITIONAL CONCRETE WILL BE PAID IF CONCRETE IS PLACED AGAINST THE EARTH. THE BARRIER FOOTER SHALL HAVE CONSTRUCTION JOINTS TO COINCIDE WITH THE BARRIER JOINTS.
- LIMITS OF EXCAVATION: WHEN THE BARRIER IS AT THE BOTTOM OF A CUT SLOPE THE EXCAVATION LIMITS SHALL BE THE LINES INDICATING THE BARRIER FOOTER AND A VERTICAL LINE EXTENDING FROM THE HEEL OF THE FOOTER TO ITS INTERSECTION WITH THE CUT SLOPE. WHEN THE BARRIER IS AT THE TOE OF A FILL SLOPE THE EXCAVATION LIMITS SHALL BE THE LINES INDICATING THE BARRIER FOOTER.
- SPACING OF CONTRACTION JOINTS SHALL BE 20 FEET REGARDLESS OF THE CONSTRUCTION METHOD.
- COST OF THE CONCRETE FOOTER (FORMED OR NON-FORMED), REINFORCEMENT, DRAINAGE APPURTENANCES, EXCAVATION, GEOTEXTILE, AND BACKFILLING USING SELECT BORROW SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE PER LINEAR FOOT FOR 34 INCH F SHAPE CONCRETE TRAFFIC BARRIER SINGLE FACE TYPE 3.
- TOLERANCES IN DIMENSIONS SHOWN SHALL BE WITHIN 1/4".
- CONDUIT: IF REQUIRED REFER TO STD. MD 648.50.
- WHEN BARRIER IS CONSTRUCTED USING THE SLIP FORM METHOD DIAGONAL NO. 4 BARS ARE REQUIRED. SEE STD. MD 648.49.
- THE SUITABILITY OF FOOTING SUBGRADES MUST BE VERIFIED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER PRIOR TO WALL CONSTRUCTION.
- PROVIDE A SIMULATED STONE FINISH TO THE CONCRETE RETAINING WALLS IN ACCORDANCE WITH MSHA SECTION 456. FINISH TO BE: CUSTOM ROCK FORM LINER PATTERN #1208 DRYSTACK; HUNT VALLEY DISTRIBUTORS, PHONE 410-356-9677.
- PRIOR TO CONSTRUCTION OF WALL 1 AND 2, PROVIDE A SAMPLE PANEL. WALL COLORS SHALL MATCH THE EXISTING WALLS. SEE PRESENTATION BOARD FOR NEW YORK COLOR BARRIER.

SPECIFICATIONS:

- SHA SPECIFICATIONS DATED JULY 2021
 - REVISIONS THEREOF AND ADDITIONS UTILIZED IN CONFORMANCE WITH SPECIAL PROVISIONS FOR MATERIALS AND CONSTRUCTION.

DESIGN:

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS DATED 2017 AND ALL INTERIMS.

CONCRETE LOAD AND RESISTANCE FACTOR DESIGN METHOD. THE DESIGN COMPRESSIVE STRENGTH SHALL BE $f_c = 3000$ PSI FOR ELEMENTS USING MIX NO. 3 CONCRETE

REINFORCING STEEL: $f_y = 60,000$ PSI.

CONCRETE:

ALL CONCRETE SHALL BE MIX NO. 3 (3500 PSI).

REINFORCING STEEL:

REINFORCING STEEL SHALL CONFORM TO ASTM A 615 GRADE 60

ONLY GRADE 60 CAN BE USED ON THIS PROJECT.

ALL SPLICES NOT SHOWN SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE TOP OF PIERS AND BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

KEYS:

ALL CONCRETE CONSTRUCTION KEYS ARE NOMINAL SIZE.

EXISTING STRUCTURE:

ALL DIMENSIONS AFFECTED BY THE GEOMETRICS AND/OR LOCATION OF THE EXISTING STRUCTURE(S) SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR BEFORE ANY CONSTRUCTION IS DONE AND BEFORE ANY MATERIAL IS ORDERED OR FABRICATED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS. THE ± MARKS SHOWN WITH DIMENSIONS AND STATIONS DO NOT INDICATE ANY DEGREE OF PRECISION THESE MARKS ± INDICATE EXISTING DIMENSIONS AND STATIONS THAT MAY VARY AND DO REQUIRE FIELD VERIFICATION BY THE CONTRACTOR.

- EXISTING STRUCTURE(S) SHOWN IN LONG DASHED LINES.
- PORTIONS OF EXISTING STRUCTURE(S) SHOWN HATCHED TO BE REMOVED.

RESTRICTIONS FOR PLACING AND USING EXISTING OR NEW STRUCTURE OR STORING MATERIALS ON OR AGAINST STRUCTURES:

THERE ARE RESTRICTIONS ON PLACING EQUIPMENT ON EXISTING AND NEW STRUCTURE(S) AND STORING MATERIALS ON OR AGAINST EXISTING AND NEW STRUCTURE(S) ELEMENTS. THE LIMITATIONS BASICALLY RELATE TO LOADS THAT ARE BEYOND MARYLAND'S LEGAL VEHICLES AND/OR POSTED LOAD LIMITS (WHERE APPLICABLE) AND MATERIALS STOCKPILED ON OR AGAINST STRUCTURE'S OR STRUCTURES' ELEMENTS. FOR DETAILS OF SUCH RESTRICTIONS SEE SECTION TC 614 TITLED "RESTRICTIONS FOR PLACING AND USING EQUIPMENT ON STRUCTURES OR STORING MATERIALS ON OR AGAINST STRUCTURES" IN THE IN ORDER TO COMPLY WITH THIS ARTICLE THE CONTRACT DOCUMENTS CONTRACTOR SHALL READ SECTION TC 614 PRIOR TO COMMENCING ANY WORK ON STRUCTURE(S) IN THIS CONTRACT.

DESIGN PARAMETERS:

RETAINING WALLS FOLLOW MDOT SHA TYPE C STANDARD SECTIONS FOR POOR SOIL AND TWO FOOT SURCHARGE.

DESIGN SAFE BEARING CAPACITY = 3.0 KSF

EARTH PRESSURE CALCULATED BASED ON COULOMB THEORY.

ANGLE OF INTERNAL FRICTION = 30 DEGREES

SAFE BEARING PRESSURES ARE FACTORED RESISTANCES.

CONCRETE FORM LINER:

A. THE FORM LINER FINISH SHALL MATCH THE TEXTURED FINISH SPECIFIED IN THE CONTRACT DOCUMENTS. THE MATERIALS USED IN CONSTRUCTION OF THE ARCHITECTURAL TREATMENT SHALL COMPLY WITH SECTION 420.02 FOR CONCRETE MATERIALS AND FORM WORK. THE CONTRACTOR SHALL SUBMIT SAMPLES TO THE ENGINEER FOR APPROVAL.

B. FORM LINERS SHALL BE A HIGH QUALITY REUSABLE PRODUCT MANUFACTURED OF HIGH STRENGTH URETHANE. THE FORM LINER SHALL ATTACH EASILY TO THE FORMING SYSTEM AND SHALL NOT COMPRESS MORE THAN 0.021 FT WHEN POURED VERTICALLY AT A RATE OF 10 FT/ HOUR. THE LINERS SHALL BE CAPABLE OF WITHSTANDING ANTICIPATED CONCRETE POUR PRESSURES WITHOUT LEAKING CAUSING PHYSICAL OR VISUAL DEFECTS. THE LINERS SHALL BE REMOVABLE WITHOUT CAUSING CONCRETE SURFACE DETEIORATION OR WEAKNESS IN THE SUBSTRATE.

C. PRIOR TO EACH POUR THE FORM LINERS SHALL BE CLEANED AND FREE OF BUILD-UP. EACH LINER SHALL BE VISUALLY INSPECTED FOR BLEMISHES AND TEARS. REPAIRS SHALL BE MADE IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

D. FORM LINERS SHALL BE SECURELY ATTACHED TO FORMS IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AND WITH LESS THAN A 1/4 INCH SEAM.

E. WHEN FORM OR WALL TIES ARE USED WHICH RESULT IN A PORTION OF THE TIE PERMANENTLY EMBEDDED IN THE CONCRETE, THE CONTRACTOR SHALL SUBMIT THE TYPE OF FORM TIES TO THE ENGINEER FOR APPROVAL.

F. THE RELEASE AGENT SHALL BE COMPATIBLE WITH THE SURFACE FINISH AND CONCRETE STAIN TO BE APPLIED. FORM RELEASE AGENT SHALL BE A NONSTAINING PETROLEUM DISTILLATE FREE FROM WATER, ASPHALTIC, AND OTHER INSOLUBLE RESIDUE, OR EQUIVALENT PRODUCT. THE RELEASE AGENT SHALL BE APPLIED IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

CONCRETE FORM LINER (CONT.):

G. SIMULATED STONE FORM LINERS SHALL BE INSTALLED, PREPARED, STRIPPED, HANDLED OR OTHERWISE UTILIZED IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, OR AS DIRECTED BY THE ENGINEER. LINER BUTT JOINTS SHALL BE CAREFULLY BLENDED INTO THE APPROVED PATTERN AND BE REMOVED DURING FINISHING OF THE FINAL CONCRETE SURFACE. VISIBLE VERTICAL OR HORIZONTAL SEAMS OR CONSPICUOUS FORM MARKS CREATED BY BUTT JOINTS JOINING THE SIMULATED STONE FORM LINERS SHALL BE CAUSE FOR REJECTION. FORM TIE HOLES SHALL BE PLACED IN THE GROUT PATTERN JOINTS. THE TIES SHALL BE DESIGNED SO THAT ALL MATERIAL IN THE DEVICE BE TO A DEPTH OF AT LEAST 1 INCH BEHIND THE CONCRETE FACE (BOTTOM OF GROUT PATTERN JOINT) CAN BE DISENGAGED AND REMOVED WITHOUT SPALLING OR DAMAGING THE CONCRETE. THE TIE HOLES SHALL BE FINISHED IN CONFORMANCE WITH STANDARD CONCRETE PRACTICES AND ACCEPTABLE TO THE ENGINEER. ALL PATCHING MATERIAL SHALL MATCH THE COLOR AND APPEARANCE OF THE CAST CONCRETE SURFACE.

H. COLOR AND SURFACE FINISH

1. THE APPROVED SAMPLE PANELS SHALL BE THE BASIS FOR DETERMINING THE APPROPRIATE COLORSTAIN APPLICATION. ANY AREAS LACKING A UNIFORM APPEARANCE CONSISTENT WITH THE APPROVED SAMPLES SHALL BE RECOLOR TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE COUNTY.

2. THE CONTRACTOR SHALL PRESSURE WASH THE SURFACE WITH WATER, WITH A PRESSURE WASHER SET AT 3000 PSI TO REMOVE LAITANCE. THE FAN NOZZLE SHALL BE HELD PERPENDICULAR TO THE SURFACE AT A DISTANCE OF 1 TO 2 FT. ABRASIVE BLASTING WILL BE PROHIBITED EXCEPT WHERE SPECIFIED. THE COMPLETED SURFACE SHALL BE FREE OF BLEMISHES, DISCOLORATIONS, SURFACE VOIDS, AND CONSPICUOUS FORM MARKS TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL CORRECT ANY SURFACE PROBLEMS AT NO ADDITIONAL COST TO THE COUNTY.

3. ALL MATERIALS SHALL BE FURNISHED, PREPARED, APPLIED, CURED, AND STORED IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR USE INTENDED AS SPECIFIED HEREIN, WITH SPECIAL ATTENTION GIVEN TO RECOMMENDED TEMPERATURE RANGE.

4. THE EXPANSION JOINTS SHOWN ON THE PLANS SHALL BE FINISHED IN A MANNER THAT WILL VISUALLY CONTINUE AN UNINTERRUPTED SIMULATED STONE PATTERN. A SAMPLE OF THE COLOR EXPANSION JOINT MATERIAL SHALL BE INCLUDED IN THE SAMPLE PANEL FOR APPROVAL.

5. SPECIAL SURFACE FINISH SHALL BE APPLIED TO ALL EXPOSED SIMULATED STONE FORMED CONCRETE SURFACES EXCEPT THE PARAPET CAPS, WHICH SHALL BE UNFINISHED AND SEALED WITH A MATTE FINISH TRANSPARENT WATER-PROOFING COATING.

I. THE FORM LINER PATTERN SHALL BE CUSTOM ROCK INTERNATIONAL PATTERN #1114 OR AN APPROVED EQUIVALENT. THE FORM LINER SHALL REPLICATE A REAL STONE PATTERN CONSISTING OF RANDOM CUT STONE VENEER WITH THE FOLLOWING DIMENSIONAL RANGES FOR INDIVIDUAL STONE.

- THE INDIVIDUAL STONE SIZES RANGE FROM BETWEEN 15 TO 30 INCHES.
- THE DIMENSION OF FORM LINER REVEAL FROM THE OUTERMOST FACE OF STONE TO THE INSIDE FACE OF THE GROUT PATTERN SHALL BE AN AVERAGE OF 1 3/4 INCHES, BUT A MAXIMUM OF 2 1/2 INCHES.

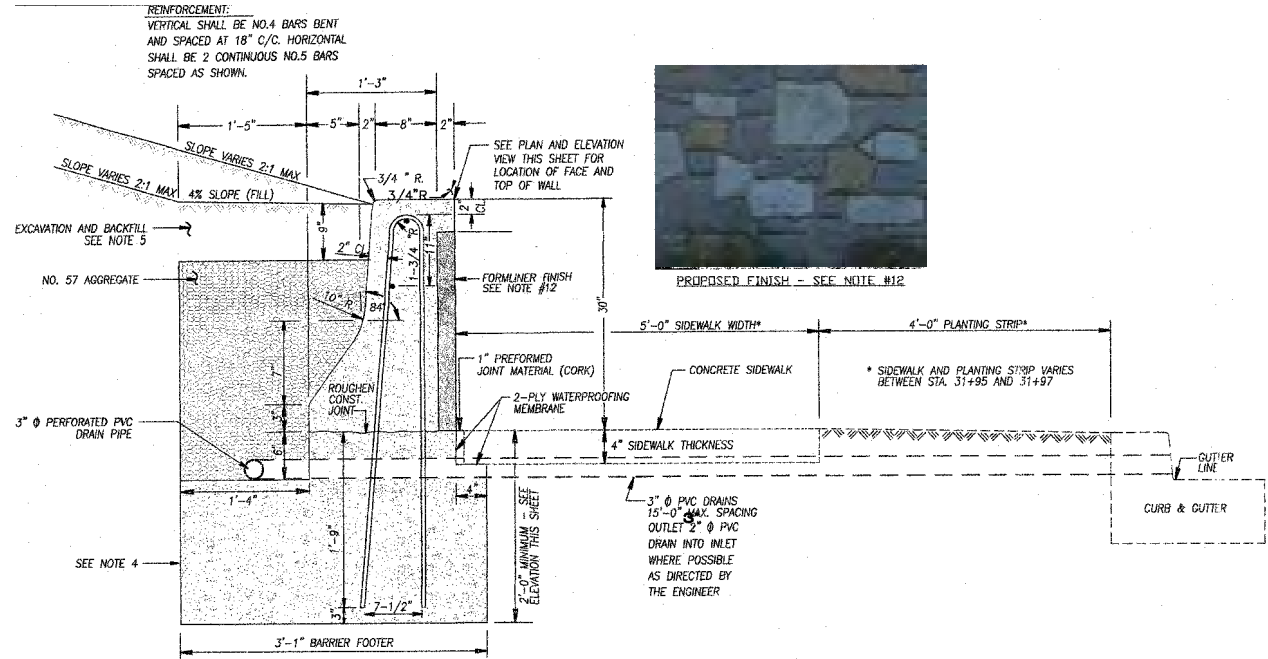
J. CONCRETE STAIN, THREE COLORS (ONE BASE COLOR, ONE SURFACE COLOR, AND ONE HIGHLIGHT COLOR) SHALL BE APPLIED TO GIVE THE APPEARANCE OF NATURAL STONE. THE BASE COLOR SHALL BE APPLIED TO THE ENTIRE SURFACE (STONES AND GROUT PATTERN JOINTS). THE SURFACE COLOR SHALL BE APPLIED TO 80% OF THE SURFACE OF SIMULATED STONE (FRONT FACE AND EDGES). THE HIGHLIGHT COLOR SHALL BE APPLIED TO 10-20% OF THE SURFACE OF THE SIMULATED STONES (FRONT FACE AND EDGES). THE SURFACE AND HIGHLIGHT COLOR SHALL BE APPLIED TO THE SIMULATED STONES USING A SPONGE AND SHALL NOT BE APPLIED TO THE GROUT PATTERN JOINTS. THE COLORS AND APPLICATION RATES SHALL BE AS FOLLOWS:

BASE COLOR	PANTONE COLOR RANGE
100	COOL GRAY 5U
80% OF STONE SURFACE & EDGES	COOL GRAY 3U
HIGHLIGHT 1	10-70
	COOL GRAY 4U



Hyattstown Sidewalk Project

Clarksburg Rd at Snowden Farm Pkwy Project



MODIFIED MSHA STANDARD MD 648.47 - FACE TOWARDS THE ROADWAY

NOTES

1. THE BARRIER AND FOOTER SHALL BE CAST SEPARATELY USING THE FIXED FORM OR THE SLIP FORM CONSTRUCTION METHOD USING CONCRETE MIX NO.6 CONTINUOUSLY PLACED.
2. THE CONTRACTOR HAS THE OPTION TO CONSTRUCT THE BARRIER FOOTER AND BARRIER AFTER CONSTRUCTION OF THE PAVEMENT. THE FOOTER FORMS, IF USED, SHALL BE REMOVED BEFORE PLACING PAVEMENT.
3. ALL REINFORCEMENT BARS, INCLUDING ENDS, SHALL BE EPOXY COATED. ALL BAR LAPS TO BE 30 BAR DIAMETERS. TIE BARS TOGETHER. ALL BARS SHALL BE ASTM A 615 GRADE 60.
4. THE REAR VERTICAL WALL SHALL BE FORMED OR THE CONCRETE PLACED AGAINST THE VERTICAL EARTH SIDE IF APPROVED BY THE ENGINEER. NO ADDITIONAL COMPENSATION FOR ADDITIONAL CONCRETE WILL BE PAID IF CONCRETE IS PLACED AGAINST THE EARTH. THE BARRIER FOOTER SHALL HAVE CONSTRUCTION JOINTS TO COINCIDE WITH THE BARRIER JOINTS.
5. LIMITS OF EXCAVATION: WHEN THE BARRIER IS AT THE BOTTOM OF A CUT SLOPE THE EXCAVATION LIMITS SHALL BE THE LINES INDICATING THE BARRIER FOOTER AND A VERTICAL LINE EXTENDING FROM THE HEEL OF THE FOOTER TO ITS INTERSECTION WITH THE CUT SLOPE. WHEN THE BARRIER IS AT THE TOE OF A FILL SLOPE THE EXCAVATION LIMITS SHALL BE THE LINES INDICATING THE BARRIER FOOTER.
6. SPACING OF CONTRACTION JOINTS SHALL BE 20 FEET REGARDLESS OF THE CONSTRUCTION METHOD.
7. COST OF THE CONCRETE FOOTER (FORMED OR NON-FORMED), REINFORCEMENT, DRAINAGE APPURTENANCES, EXCAVATION, GEOTEXTILE, AND BACKFILLING USING SELECT BORROW SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE PER LINEAR FOOT FOR 34 INCH F SHAPE CONCRETE TRAFFIC BARRIER SINGLE FACE TYPE 3.
8. TOLERANCES IN DIMENSIONS SHOWN SHALL BE WITHIN 1/4".
9. CONDUIT: IF REQUIRED REFER TO STD. MD 648.50.
10. WHEN BARRIER IS CONSTRUCTED USING THE SLIP FORM METHOD DIAGONAL NO.4 BARS ARE REQUIRED. SEE STD. MD 648.49.
11. THE SUITABILITY OF FOOTING SUBGRADES MUST BE VERIFIED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER PRIOR TO WALL CONSTRUCTION.
12. PROVIDE A SIMULATED STONE FINISH TO THE CONCRETE RETAINING WALLS IN ACCORDANCE WITH MSHA SECTION 456. FINISH TO BE: CUSTOM STONE FORM LINER PATTERN #1208 DRYSTACK; HJNT VALLEY DISTRIBUTORS, PHONE 410-356-9677.
13. PRIOR TO CONSTRUCTION OF WALL 1 AND 2, PROVIDE A SAMPLE PANEL. WALL COLORS SHALL MATCH THE EXISTING WALL 1 AND 2. PREVENTOR ROAD SEE PLAN VIEW FOR COLOR REF.

SPECIFICATIONS:

DESIGN:

CONCRETE:

REINFORCING STEEL:

KEYS:

RESTRICTIONS FOR PLACING AND USING EQUIPMENT ON EXISTING OR NEW STRUCTURE OR STORING MATERIALS ONOR AGAINST STRUCTURES:

DESIGN PARAMETERS:

CONCRETE FORM LINER:

- SHA SPECIFICATIONS DATED JULY 2021
- REVISIONS THEREOF AND ADDITIONS THERETO AND SPECIAL PROVISIONS FOR MATERIALS AND CONSTRUCTION.

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS DATED 2017 AND ALL INTERIMS.

CONCRETE LOAD AND RESISTANCE FACTOR DESIGN METHOD. THE DESIGN COMPRESSIVE STRENGTH SHALL BE:
 $f'_c = 3000$ PSI FOR ELEMENTS USING MIX NO.3 CONCRETE
REINFORCING STEEL $f_y = 60$ 000 PSI.

ALL CONCRETE SHALL BE MIX NO.3 (3500 PSI).

REINFORCING STEEL SHALL CONFORM TO ASTM A 615 GRADE 60 ONLY GRADE 60 CAN BE USED ON THIS PROJECT.

ALL SPLICES NOT SHOWN SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED WITH THE EXCEPTION OF BARS AT THE TOP OF PIERS AND BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

ALL CONCRETE CONSTRUCTION KEYS ARE NOMINAL SIZE.

ALL DIMENSIONS AFFECTED BY THE GEOMETRICS AND/OR LOCATION OF THE EXISTING STRUCTURE(S) SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR BEFORE ANY CONSTRUCTION IS DONE AND BEFORE ANY MATERIAL IS ORDERED OR FABRICATED. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS. THE ± MARKS SHOWN WITH DIMENSIONS AND STATIONS DO NOT INDICATE ANY DEGREE OF PRECISION. THESE MARKS ± INDICATE EXISTING DIMENSIONS AND STATIONS THAT MAY VARY AND DO REQUIRE FIELD VERIFICATION BY THE CONTRACTOR.

- EXISTING STRUCTURE(S) SHOWN IN LONG DASHED LINES.
- PORTIONS OF EXISTING STRUCTURE(S) SHOWN HATCHED TO BE REMOVED.

THERE ARE RESTRICTIONS ON PLACING EQUIPMENT ON EXISTING AND NEW STRUCTURE(S) AND STORING MATERIALS ONOR AGAINST EXISTING AND NEW STRUCTURE(S) ELEMENTS. THE LIMITATIONS BASICALLY RELATE TO LOADS THAT ARE BEYOND MARYLAND'S LEGAL VEHICLES AND/OR POSTED LOAD LIMITS (WHERE APPLICABLE) AND MATERIALS STOCKPILED ONOR AGAINST STRUCTURE(S) OR STRUCTURES. FOR DETAILS OF SUCH RESTRICTIONS SEE SECTION TC 6.14 TITLED "RESTRICTIONS FOR PLACING AND USING EQUIPMENT ON STRUCTURES OR STORING MATERIALS ONOR AGAINST STRUCTURES" IN THE IN ORDER TO COMPLY WITH THIS ARTICLE THE CONTRACT DOCUMENTS. CONTRACTOR SHALL READ SECTION TC 6.14 PRIOR TO COMMENCING ANY WORK ON STRUCTURE(S) IN THIS CONTRACT.

RETAINING WALLS FOLLOW MDOT SHA TYPE C STANDARD SECTIONS FOR "POOR" SOIL AND TWO FOOT SURCHARGE.

DESIGN SAFE BEARING PRESSURE = 3.0 KSF

EARTH PRESSURE CALCULATED BASED ON COULOMB THEORY.

ANGLE OF INTERNAL FRICTION = 30 DEGREES

SAFE BEARING PRESSURES ARE FACTORED RESISTANCES.

- A. THE FORM LINER FINISH SHALL MATCH THE TEXTURED FINISH SPECIFIED IN THE CONTRACT DOCUMENTS. THE MATERIALS USED IN CONSTRUCTION OF THE ARCHITECTURAL TREATMENT SHALL COMPLY WITH SECTION 420.02 FOR CONCRETE MATERIALS AND FORM WORK. THE CONTRACTOR SHALL SUBMIT SAMPLES TO THE ENGINEER FOR APPROVAL.
- B. FORM LINERS SHALL BE A HIGH QUALITY REUSABLE PRODUCT MANUFACTURED OF HIGH STRENGTH URETHANE. THE FORM LINER SHALL ATTACH POSITELY TO THE FORMING SYSTEM AND SHALL NOT COMPRESS MORE THAN 0.021 FT WHEN POURED VERTICALLY AT A RATE OF 10 FT/ HOUR. THE LINERS SHALL BE CAPABLE OF WITHSTANDING ANTICIPATED CONCRETE POUR PRESSURES WITHOUT LEAKING CAUSING PHYSICAL OR VISUAL DEFECTS. THE LINERS SHALL BE REMOVABLE WITHOUT CAUSING CONCRETE SURFACE DETEIORATION OR WEAKNESS IN THE SUBSTRATE.
- C. PRIOR TO EACH POUR THE FORM LINERS SHALL BE CLEANED AND FREE OF BUILD-UP. EACH LINER SHALL BE VISUALLY INSPECTED FOR BLEMISHES AND TEARS. REPAIRS SHALL BE MADE IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- D. FORM LINERS SHALL BE SECURELY ATTACHED TO FORMS IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AND WITH LESS THAN A 1/4 INCH SEAM.
- E. WHEN FORM OR WALL TIES ARE USED WHICH RESULT IN A PORTION OF THE TIE PERMANENTLY EMBEDDED IN THE CONCRETE, THE CONTRACTOR SHALL SUBMIT THE TYPE OF FORM TIES TO THE ENGINEER FOR APPROVAL.
- F. THE RELEASE AGENT SHALL BE COMPATIBLE WITH THE SURFACE FINISH AND CONCRETE STAIN TO BE APPLIED. FORM RELEASE AGENT SHALL BE A NONSTAINING PETROLEUM DISTILLATE FREE FROM WATER, ASPHALTIC AND OTHER INSOLUBLE RESIDUE OR EQUIVALENT PRODUCT. THE RELEASE AGENT SHALL BE APPLIED IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

CONCRETE FORM LINER (CONT.):

G. SIMULATED STONE FORM LINERS SHALL BE INSTALLED, PREPARED, STRIPPED, HANDLED, OR OTHERWISE UTILIZED IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR AS DIRECTED BY THE ENGINEER. LINER BUTT JOINTS SHALL BE CAREFULLY BLENDED INTO THE APPROVED PATTERN AND BE REMOVED DURING FINISHING OF THE FINAL CONCRETE SURFACE. VISIBLE VERTICAL OR HORIZONTAL SEAMS OR CONSPICUOUS FORM MARKS CREATED BY BUTT JOINTS JOINING THE SIMULATED STONE FORM LINERS WILL BE CAUSE FOR REJECTION. FORM TIE HOLES SHALL BE PLACED IN THE GROUT PATTERN JOINTS. THE TIES SHALL BE DESIGNED SO THAT ALL MATERIAL IN THE DEVICE BE TO A DEPTH OF AT LEAST 1 INCH BEHIND THE CONCRETE FACE (BOTTOM OF GROUT PATTERN JOINT) CAN BE DISENGAGED AND REMOVED WITHOUT SPALLING OR DAMAGING THE CONCRETE. THE TIE HOLES SHALL BE FINISHED IN CONFORMANCE WITH STANDARD CONCRETE PRACTICES AND ACCEPTABLE TO THE ENGINEER. ALL PATCHING MATERIAL SHALL MATCH THE COLOR AND APPEARANCE OF THE CAST CONCRETE SURFACE.

H. COLOR AND SURFACE FINISH
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2. THE CONTRACTOR SHALL PRESSURE WASH THE SURFACE WITH WATER W A PRESSURE WASHER SET AT 3000 PSI TO REMOVE LAITANCE. THE FAN NOZZLE SHALL BE HELD PERPENDICULAR TO THE SURFACE AT A DISTANCE OF 1 TO 2 FT. ABRASIVE BLASTING WILL BE PROHIBITED EXCEPT WHERE SPECIFIED. THE COMPLETED SURFACE SHALL BE FREE OF BLEMISHES, DISCOLORATIONS, SURFACE VOIDS, AND CONSPICUOUS FORM MARKS TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL CORRECT ANY SURFACE PROBLEMS AT NO ADDITIONAL COST TO THE COUNTY.

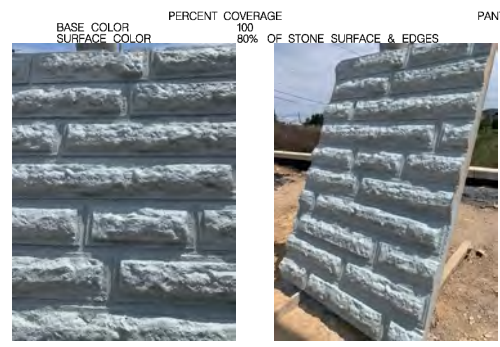
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4. THE EXPANSION JOINTS SHOWN ON THE PLANS SHALL BE FINISHED IN A MANNER THAT WILL VISUALLY CONTINUE AN UNINTERRUPTED SIMULATED STONE PATTERN. A SAMPLE OF THE COLOR EXPANSION JOINT MATERIAL SHALL BE INCLUDED IN THE SAMPLE PLAN FOR APPROVAL.

5. SPECIAL SURFACE FINISH SHALL BE APPLIED TO ALL EXPOSED SIMULATED STONE FORMED CONCRETE SURFACES EXCEPT THE PARAPET CAPS WHICH SHALL BE UNFINISHED AND SEALED WITH A MATTE FINISH TRANSPARENT WATERPROOFING COATING.

I. THE FORM LINER PATTERN SHALL BE CUSTOM ROCK INTERNATIONAL PATTERN #1114 OR AN APPROVED EQUIVALENT. THE FORM LINER SHALL REPLICATE A REAL STONE PATTERN CONSISTING OF RANDOM CUT STONE VENEER WITH THE FOLLOWING DIMENSIONAL RANGES FOR INDIVIDUAL STONE.

1. THE INDIVIDUAL STONE SIZES RANGE FROM BETWEEN 15 TO 30 INCHES.
 2. THE DIMENSION OF FORM LINER REVEAL FROM THE OUTERMOST FACE OF STONE TO THE INSIDE FACE OF THE GROUT PATTERN SHALL BE AN AVERAGE OF 1 3/4 INCHES, BUT A MAXIMUM OF 2 1/2 INCHES.
- J. CONCRETE STAIN. THREE COLORS (ONE BASE COLOR ONE SURFACE COLOR, AND ONE HIGHLIGHT COLOR) SHALL BE APPLIED TO GIVE THE APPEARANCE OF NATURAL STONE. THE BASE COLOR SHALL BE APPLIED TO THE ENTIRE SURFACE (STONES AND GROUT PATTERN JOINTS). THE SURFACE COLOR SHALL BE APPLIED TO 80% OF THE SURFACE OF SIMULATED STONE (FRONT FACE AND EDGES). THE HIGHLIGHT COLOR SHALL BE APPLIED TO 10-20% OF THE SURFACE OF THE SIMULATED STONES (FRONT FACE AND EDGES). THE SURFACE AND HIGHLIGHT COLOR SHALL BE APPLIED TO THE SIMULATED STONES USING A SPONGE AND SHALL NOT BE APPLIED TO THE GROUT PATTERN JOINTS. THE COLORS AND APPLICATION RATES SHALL BE AS FOLLOWS:





**Texture Applied at
Snowden Farm Pkwy and Clarksburg Rd
Retaining Wall**



**Texture Applied at
Snowden Farm Pkwy and Clarksburg Rd
Retaining Wall**



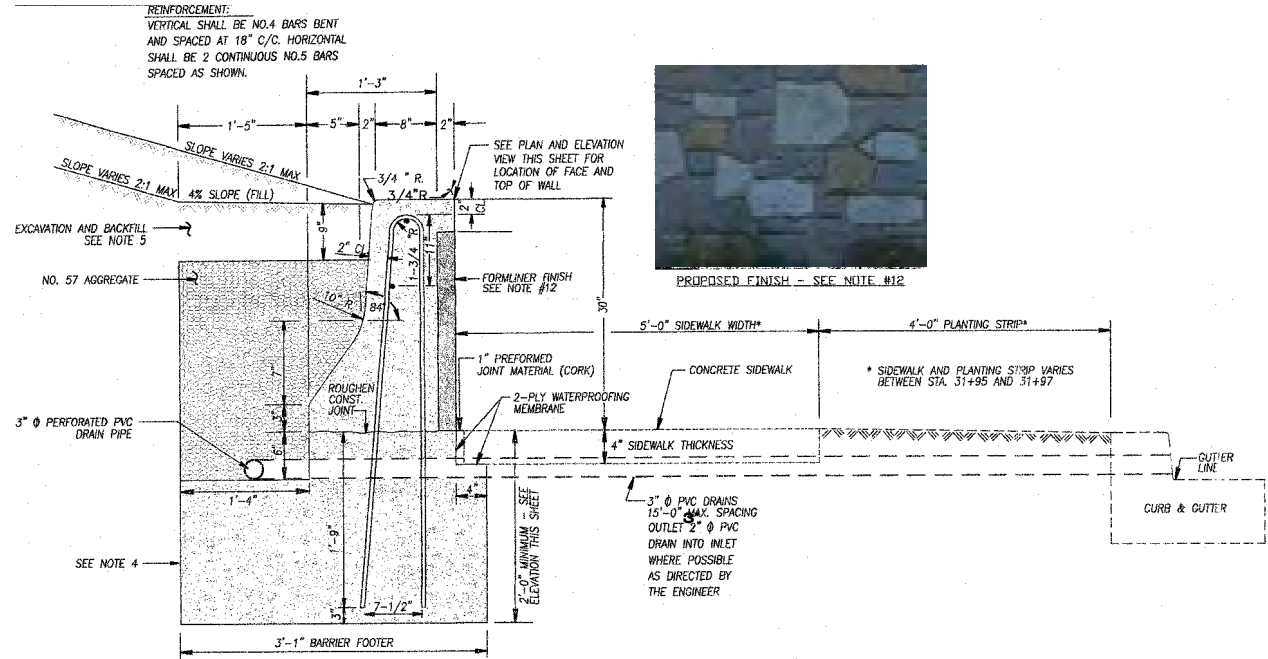
**Texture Applied at
MD 355 in Hyattstown
Retaining Wall**



**Texture Applied at
MD 355 in Hyattstown
Retaining Wall**

Hyattstown Sidewalk Project

Clarksburg Rd at Snowden Farm Pkwy Project



MODIFIED MSHA STANDARD MD 648.47 - FACE TOWARDS THE ROADWAY

NOTES

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- THE CONTRACTOR HAS THE OPTION TO CONSTRUCT THE BARRIER FOOTER AND BARRIER AFTER CONSTRUCTION OF THE PAVEMENT. THE FOOTER FORMS, IF USED, SHALL BE REMOVED BEFORE PLACING PAVEMENT.
- ALL REINFORCEMENT BARS, INCLUDING ENDS, SHALL BE EPOXY COATED. ALL BAR LAPS TO BE 30 BAR DIAMETERS. TIE BARS TOGETHER. ALL BARS SHALL BE ASTM A 615 GRADE 60.
- THE REAR VERTICAL WALL SHALL BE FORMED OR THE CONCRETE PLACED AGAINST THE VERTICAL EARTH SIDE IF APPROVED BY THE ENGINEER. NO ADDITIONAL COMPENSATION FOR ADDITIONAL CONCRETE WILL BE PAID IF CONCRETE IS PLACED AGAINST THE EARTH. THE BARRIER FOOTER SHALL HAVE CONSTRUCTION JOINTS TO COINCIDE WITH THE BARRIER JOINTS.
- LIMITS OF EXCAVATION: WHEN THE BARRIER IS AT THE BOTTOM OF A CUT SLOPE THE EXCAVATION LIMITS SHALL BE THE LINES INDICATING THE BARRIER FOOTER AND A VERTICAL LINE EXTENDING FROM THE HEEL OF THE FOOTER TO ITS INTERSECTION WITH THE CUT SLOPE. WHEN THE BARRIER IS AT THE TOE OF A FILL SLOPE THE EXCAVATION LIMITS SHALL BE THE LINES INDICATING THE BARRIER FOOTER.
- SPACING OF CONTRACTION JOINTS SHALL BE 20 FEET REGARDLESS OF THE CONSTRUCTION METHOD.
- COST OF THE CONCRETE FOOTER (FORMED OR NON-FORMED), REINFORCEMENT, DRAINAGE APPURTENANCES, EXCAVATION, GEOTEXTILE, AND BACKFILLING USING SELECT BORROW SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE PER LINEAR FOOT FOR 34 INCH F SHAPE CONCRETE TRAFFIC BARRIER SINGLE FACE TYPE 3.
- TOLERANCES IN DIMENSIONS SHOWN SHALL BE WITHIN 1/4".
- CONDUIT: IF REQUIRED REFER TO STD. MD 648.50.
- WHEN BARRIER IS CONSTRUCTED USING THE SLIP FORM METHOD DIAGONAL NO.4 BARS ARE REQUIRED. SEE STD. MD 648.49.
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- PROVIDE A SIMULATED STONE FINISH TO THE CONCRETE RETAINING WALLS IN ACCORDANCE WITH MSHA SECTION 456. FINISH TO BE: CUSTOM STONE FORM LINER PATTERN #1208 DRYSTACK; HJNT VALLEY DISTRIBUTORS, PHONE 410-356-9677.
- PRIOR TO CONSTRUCTION OF WALL 1 AND 2, PROVIDE A SAMPLE PANEL. WALL COLORS SHALL MATCH THE EXISTING WALL 1 AND 2. PREVENTOR ROAD. SEE PLAN VIEW FOR LOCATION.

SPECIFICATIONS:

DESIGN:

CONCRETE:

REINFORCING STEEL:

KEYS:

RESTRICTIONS FOR PLACING AND USING EQUIPMENT ON EXISTING OR NEW STRUCTURE OR STORING MATERIALS ONOR AGAINST STRUCTURES:

DESIGN PARAMETERS:

CONCRETE FORM LINER:

- SHA SPECIFICATIONS DATED JULY 2021
- REVISIONS THEREOF AND ADDITIONS THERETO AND SPECIAL PROVISIONS FOR MATERIALS AND CONSTRUCTION.

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS DATED 2017 AND ALL INTERIMS.

CONCRETE LOAD AND RESISTANCE FACTOR DESIGN METHOD. THE DESIGN COMPRESSIVE STRENGTH SHALL BE $f'_c = 3000$ PSI FOR ELEMENTS USING MIX NO.3 CONCRETE

REINFORCING STEEL $f_y = 60$ 000 PSI.

ALL CONCRETE SHALL BE MIX NO.3 (3500 PSI).

REINFORCING STEEL SHALL CONFORM TO ASTM A 615 GRADE 60 ONLY GRADE 60 CAN BE USED ON THIS PROJECT.

ALL SPLICES NOT SHOWN SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED WITH THE EXCEPTION OF BARS AT THE TOP OF PIERS AND BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

ALL CONCRETE CONSTRUCTION KEYS ARE NOMINAL SIZE.

ALL DIMENSIONS AFFECTED BY THE GEOMETRICS AND/OR LOCATION OF THE EXISTING STRUCTURE(S) SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR BEFORE ANY CONSTRUCTION IS DONE AND BEFORE ANY MATERIAL IS ORDERED OR FABRICATED. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS.

THE ± MARKS SHOWN WITH DIMENSIONS AND STATIONS DO NOT INDICATE ANY DEGREE OF PRECISION. THESE MARKS ± INDICATE EXISTING DIMENSIONS AND STATIONS THAT MAY VARY AND DO REQUIRE FIELD VERIFICATION BY THE CONTRACTOR.

EXISTING STRUCTURE(S) SHOWN IN LONG DASHED LINES.

PORTIONS OF EXISTING STRUCTURE(S) SHOWN HATCHED TO BE REMOVED.

THERE ARE RESTRICTIONS ON PLACING EQUIPMENT ON EXISTING AND NEW STRUCTURE(S) AND STORING MATERIALS ONOR AGAINST EXISTING AND NEW STRUCTURE(S) ELEMENTS. THE LIMITATIONS BASICALLY RELATE TO LOADS THAT ARE BEYOND MARYLAND'S LEGAL VEHICLES AND/OR POSTED LOAD LIMITS (WHERE APPLICABLE) AND MATERIALS STOCKPILED ONOR AGAINST STRUCTURE(S) OR STRUCTURES. FOR DETAILS OF SUCH RESTRICTIONS SEE SECTION TC 6.14 TITLED "RESTRICTIONS FOR PLACING AND USING EQUIPMENT ON STRUCTURES OR STORING MATERIALS ONOR AGAINST STRUCTURES" IN THE IN ORDER TO COMPLY WITH THIS ARTICLE THE CONTRACT DOCUMENTS. CONTRACTOR SHALL READ SECTION TC 6.14 PRIOR TO COMMENCING ANY WORK ON STRUCTURE(S) IN THIS CONTRACT.

RETAINING WALLS FOLLOW MDOT SHA TYPE C STANDARD SECTIONS FOR "POOR" SOIL AND TWO FOOT SURCHARGE.

DESIGN SAFE BEARING PRESSURE = 3.0 KSF

EARTH PRESSURE CALCULATED BASED ON COULOMB THEORY.

ANGLE OF INTERNAL FRICTION = 30 DEGREES

SAFE BEARING PRESSURES ARE FACTORED RESISTANCES.

A. THE FORM LINER FINISH SHALL MATCH THE TEXTURED FINISH SPECIFIED IN THE CONTRACT DOCUMENTS. THE MATERIALS USED IN CONSTRUCTION OF THE ARCHITECTURAL TREATMENT SHALL COMPLY WITH SECTION 420.02 FOR CONCRETE MATERIALS AND FORM WORK. THE CONTRACTOR SHALL SUBMIT SAMPLES TO THE ENGINEER FOR APPROVAL.

B. FORM LINERS SHALL BE A HIGH QUALITY REUSABLE PRODUCT MANUFACTURED OF HIGH STRENGTH URETHANE. THE FORM LINER SHALL ATTACH POSITELY TO THE FORMING SYSTEM AND SHALL NOT COMPRESS MORE THAN 0.021 FT WHEN POURED VERTICALLY AT A RATE OF 10 FT/HOUR. THE LINERS SHALL BE CAPABLE OF WITHSTANDING ANTICIPATED CONCRETE POUR PRESSURES WITHOUT LEAKING CAUSING PHYSICAL OR VISUAL DEFECTS. THE LINERS SHALL BE REMOVABLE WITHOUT CAUSING CONCRETE SURFACE DETEIORATION OR WEAKNESS IN THE SUBSTRATE.

C. PRIOR TO EACH POUR THE FORM LINERS SHALL BE CLEANED AND FREE OF BUILD-UP. EACH LINER SHALL BE VISUALLY INSPECTED FOR BLEMISHES AND TEARS. REPAIRS SHALL BE MADE IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

D. FORM LINERS SHALL BE SECURELY ATTACHED TO FORMS IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AND WITH LESS THAN A 1/4 INCH SEAM.

E. WHEN FORM OR WALL TIES ARE USED WHICH RESULT IN A PORTION OF THE TIE PERMANENTLY EMBEDDED IN THE CONCRETE, THE CONTRACTOR SHALL SUBMIT THE TYPE OF FORM TIES TO THE ENGINEER FOR APPROVAL.

F. THE RELEASE AGENT SHALL BE COMPATIBLE WITH THE SURFACE FINISH AND CONCRETE STAIN TO BE APPLIED. FORM RELEASE AGENT SHALL BE A NONSTAINING PETROLEUM DISTILLATE FREE FROM WATER, ASPHALTIC AND OTHER INSOLUBLE RESIDUE OR EQUIVALENT PRODUCT. THE RELEASE AGENT SHALL BE APPLIED IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

CONCRETE FORM LINER (CONT.):

G. SIMULATED STONE FORM LINERS SHALL BE INSTALLED, PREPARED, STRIPPED, HANDLED, OR OTHERWISE UTILIZED IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR AS DIRECTED BY THE ENGINEER. LINER BUTT JOINTS SHALL BE CAREFULLY BLENDED INTO THE APPROVED PATTERN AND BE REMOVED DURING FINISHING OF THE FINAL CONCRETE SURFACE. VISIBLE VERTICAL OR HORIZONTAL SEAMS OR CONSPICUOUS FORM MARKS CREATED BY BUTT JOINTS JOINING THE SIMULATED STONE FORM LINERS WILL BE CAUSE FOR REJECTION. FORM THE HOLES SHALL BE PLACED IN THE GROUT PATTERN JOINTS. THE TIES SHALL BE DESIGNED SO THAT ALL MATERIAL IN THE DEVICE BE TO A DEPTH OF AT LEAST 1 INCH BEHIND THE CONCRETE FACE (BOTTOM OF GROUT PATTERN JOINT) CAN BE DISENGAGED AND REMOVED WITHOUT SPALLING OR DAMAGING THE CONCRETE. THE TIE HOLES SHALL BE FINISHED IN CONFORMANCE WITH STANDARD CONCRETE PRACTICES AND ACCEPTABLE TO THE ENGINEER. ALL PATCHING MATERIAL SHALL MATCH THE COLOR AND APPEARANCE OF THE CAST CONCRETE SURFACE.

H. COLOR AND SURFACE FINISH

1. THE APPROVED SAMPLE PANELS SHALL BE THE BASIS FOR DETERMINING THE APPROPRIATE COLOR/STAIN APPLICATION. ANY AREAS LACKING A UNIFORM APPEARANCE CONSISTENT WITH THE APPROVED SAMPLES SHALL BE RECOLORED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITC COST TO THE COUNTY.

2. THE CONTRACTOR SHALL PRESSURE WASH THE SURFACE WITH WATER W A PRESSURE WASHER SET AT 3000 PSI TO REMOVE LAITANCE. THE FAN NOZZLE SHALL BE HELD PERPENDICULAR TO THE SURFACE AT A DISTANCE OF 1 TO 2 FT. ABRASIVE BLASTING WILL BE PROHIBITED EXCEPT WHERE SPECIFIED. THE COMPLETED SURFACE SHALL BE FREE OF BLEMISHES, DISCOLORATIONS, SURFACE VOIDS, AND CONSPICUOUS FORM MARKS TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL CORRECT ANY SURFACE PROBLEMS AT NO ADDITIONAL COST TO THE COUNTY.

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4. THE EXPANSION JOINTS SHOWN ON THE PLANS SHALL BE FINISHED IN A MANNER THAT WILL VISUALLY CONTINUE AN UNINTERRUPTED SIMULATED STONE PATTERN. A SAMPLE OF THE COLOR EXPANSION JOINT MATERIAL SHALL BE INCLUDED IN THE SAMPLE PANEL FOR APPROVAL.

5. SPECIAL SURFACE FINISH SHALL BE APPLIED TO ALL EXPOSED SIMULATED STONE FORMED CONCRETE SURFACES EXCEPT THE PARAPET CAPS WHICH SHALL BE UNFINISHED AND SEALED WITH A MATTE FINISH TRANSPARENT WATERPROOFING COATING.

I. THE FORM LINER PATTERN SHALL BE CUSTOM ROK INTERNATIONAL PATTERN #1114 OR AN APPROVED EQUIVALENT. THE FORM LINER SHALL REPLICATE A REAL STONE PATTERN CONSISTING OF RANDOM CUT STONE VENEER WITH THE FOLLOWING DIMENSIONAL RANGES FOR INDIVIDUAL STONE.

1. THE INDIVIDUAL STONE SIZES RANGE FROM BETWEEN 15 TO 30 INCHES.

2. THE DIMENSION OF FORM LINER REVEAL FROM THE OUTERMOST FACE OF STONE TO THE INSIDE FACE OF THE GROUT PATTERN SHALL BE AN AVERAGE OF 1 3/4 INCHES, BUT A MAXIMUM OF 2 1/2 INCHES.

J. CONCRETE STAIN. THREE COLORS (ONE BASE COLOR ONE SURFACE COLOR, AND ONE HIGHLIGHT COLOR) SHALL BE APPLIED TO GIVE THE APPEARANCE OF NATURAL STONE. THE BASE COLOR SHALL BE APPLIED TO THE ENTIRE SURFACE (STONES AND GROUT PATTERN JOINTS). THE SURFACE COLOR SHALL BE APPLIED TO 80% OF THE SURFACE OF SIMULATED STONE (FRONT FACE AND EDGES). THE HIGHLIGHT COLOR SHALL BE APPLIED TO 10-20% OF THE SURFACE OF THE SIMULATED STONES (FRONT FACE AND EDGES). THE SURFACE AND HIGHLIGHT COLOR SHALL BE APPLIED TO THE SIMULATED STONES USING A SPONGE AND SHALL NOT BE APPLIED TO THE GROUT PATTERN JOINTS. THE COLORS AND APPLICATION RATES SHALL BE AS FOLLOWS:

BASE COLOR SURFACE COLOR

PERCENT COVERAGE 100 80% OF STONE SURFACE & EDGES

PANTONE COLOR RANGE COOL GRAY BU COOL GRAY 3U COOL GRAY 3U 4U





**Texture Applied at
Snowden Farm Pkwy and Clarksburg Rd
Retaining Wall**



**Texture Applied at
Snowden Farm Pkwy and Clarksburg Rd
Retaining Wall**



**Texture Applied at
MD 355 in Hyattstown
Retaining Wall**



**Texture Applied at
MD 355 in Hyattstown
Retaining Wall**



Clarksburg Rd at Snowden Farm Parkway
Newly Constructed Retaining Wall

Clarksburg Rd at Snowden Farm Parkway
Newly Constructed Retaining Wall



Clarksburg Rd at Snowden Farm Parkway
Newly Constructed Retaining Wall

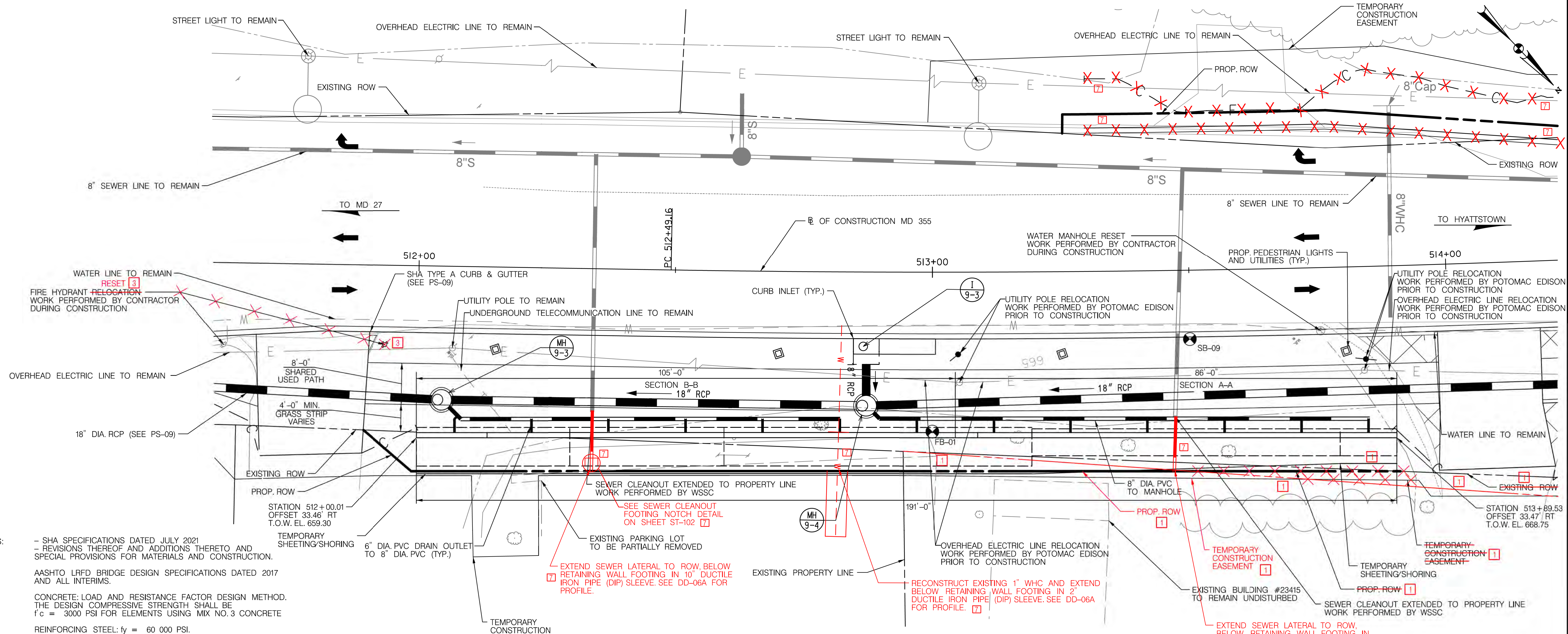


Hyattstown along Frederick Rd
Constructed Retaining Wall



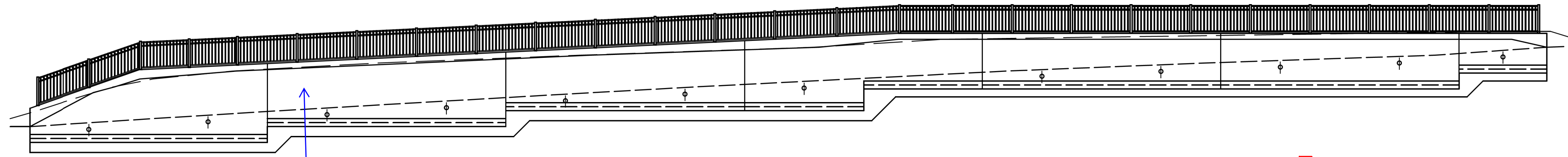
Hyattstown along Frederick Rd
Constructed Retaining Wall





GENERAL PLAN - RETAINING WALL
SCALE: 1" = 10'

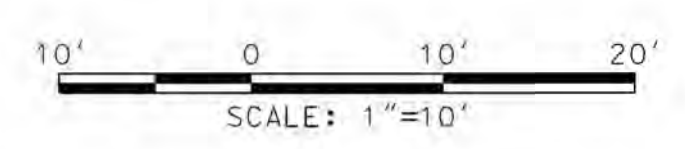
NOTE: BASELINE OFFSETS ARE MEASURED TO THE REAR FACE OF THE RETAINING WALL



ELEVATION - RETAINING WALL
SCALE: 1" = 10'

NOTE: SEE ST-102 FOR DETAILED ELEVATION

FORMLINER TREATMENT WILL COVER FULL EXTENT OF THE WALL (REFER TO PHOTOS AND RENDERING FOR VISUAL DEPICTION)



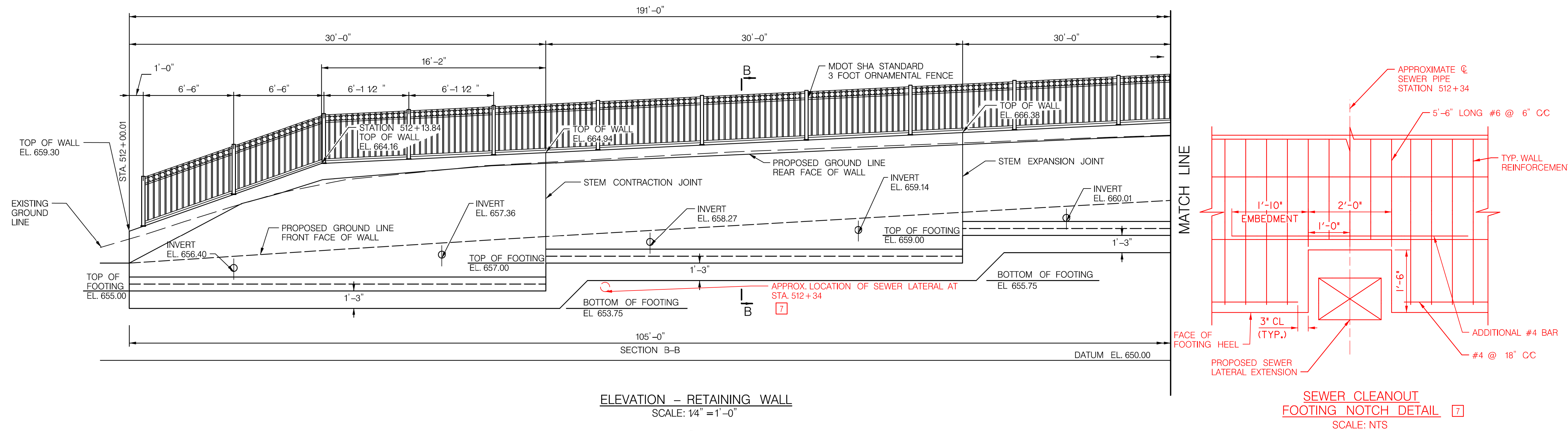
- SPECIFICATIONS:** - SHA SPECIFICATIONS DATED JULY 2021
- REVISIONS THEREOF AND ADDITIONS THERETO AND SPECIAL PROVISIONS FOR MATERIALS AND CONSTRUCTION.
- DESIGN:** AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS DATED 2017 AND ALL INTERIMS.
- CONCRETE:** LOAD AND RESISTANCE FACTOR DESIGN METHOD. THE DESIGN COMPRESSIVE STRENGTH SHALL BE $f'_c = 3000$ PSI FOR ELEMENTS USING MIX NO. 3 CONCRETE
- REINFORCING STEEL:** $f_y = 60,000$ PSI.
- CONCRETE:** ALL CONCRETE SHALL BE MIX NO. 3 (3500 PSI).
- REINFORCING STEEL:** REINFORCING STEEL SHALL CONFORM TO ASTM A 615 GRADE 60
ONLY GRADE 60 CAN BE USED ON THIS PROJECT.
- ALL SPLICES, NOT SHOWN, SHALL BE LAPPED AS PER BAR LAP CHARTS. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE TOP OF PIERS AND BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.
- KEYS:** ALL CONCRETE CONSTRUCTION KEYS ARE NOMINAL SIZE.
- EXISTING STRUCTURE:** ALL DIMENSIONS AFFECTED BY THE GEOMETRICS, AND/OR LOCATION OF THE EXISTING STRUCTURE(S) SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR BEFORE ANY CONSTRUCTION IS DONE, AND BEFORE ANY MATERIAL IS ORDERED OR FABRICATED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS. THE \pm MARKS SHOWN WITH DIMENSIONS AND STATIONS DO NOT INDICATE ANY DEGREE OF PRECISION, THESE MARKS \pm INDICATE EXISTING DIMENSIONS AND STATIONS THAT MAY VARY AND DO REQUIRE FIELD VERIFICATION BY THE CONTRACTOR.
- RESTRICTIONS FOR PLACING AND USING EQUIPMENT ON EXISTING OR NEW STRUCTURE(S) OR STORING MATERIALS ONOR AGAINST STRUCTURES:** THERE ARE RESTRICTIONS ON PLACING EQUIPMENT ON EXISTING AND NEW STRUCTURE(S) AND STORING MATERIALS ONOR AGAINST EXISTING AND NEW STRUCTURE(S) ELEMENTS. THE LIMITATIONS BASICALLY RELATE TO LOADS THAT ARE BEYOND MARYLAND'S LEGAL VEHICLES AND/OR POSTED LOAD LIMITS (WHERE APPLICABLE) AND MATERIALS STOCKPILED ONOR AGAINST STRUCTURE(S) OR STRUCTURES' ELEMENTS. FOR DETAILS OF SUCH RESTRICTIONS SEE SECTION TC 6.14 TITLED "RESTRICTIONS FOR PLACING AND USING EQUIPMENT ON STRUCTURES, OR STORING MATERIALS ONOR AGAINST STRUCTURES" IN THE IN ORDER TO COMPLY WITH THIS ARTICLE, THE CONTRACT DOCUMENTS, CONTRACTOR SHALL READ SECTION TC 6.14 PRIOR TO COMMENCING ANY WORK ON STRUCTURE(S) IN THIS CONTRACT.
- DESIGN PARAMETERS:** RETAINING WALLS FOLLOW MDOT SHA TYPE C STANDARD SECTIONS FOR "POOR" SOIL AND TWO FOOT SURCHARGE.
- DESIGN SAFE BEARING PRESSURE = 3.0 KSF
- EARTH PRESSURE CALCULATED BASED ON COULOMB THEORY.
- ANGLE OF INTERNAL FRICTION = 30 DEGREES
- SAFE BEARING PRESSURES ARE FACTORED RESISTANCES.

- NOTE:**
1. THE PROTECTIVE PIPE SLEEVE IS AS DENOTED BY THE CONTRACTOR AND SHALL MEET THE REQUIREMENTS OF AND BE APPROVED BY THE RELEVANT UTILITY COMPANY.
 2. CONTRACTOR MUST PLACE 1" FOAM TO ACT AS BOND BREAKER AROUND PIPE SLEEVE WHERE IT PASSES THROUGH THE BOTTOM THE CONCRETE FOOTING.
 3. CONTRACTOR SHALL SHIFT MAIN REINFORCEMENT VERTICAL BARS/DOWELS IN WALL STEM AND FOOTING UP TO 4" HORIZONTALLY IN EITHER DIRECTION ALONG THE FACE OF THE WALL TO ACCOMMODATE LOCATION OF SEWER PIPE.

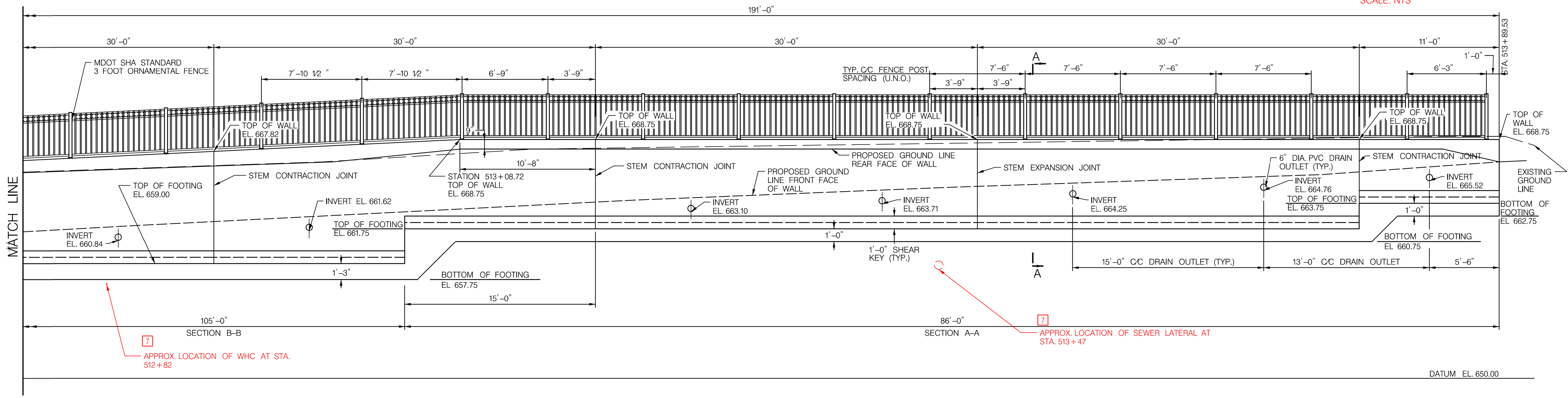
[1]	RED LINE NO. 1	8/31/22	JSK
[3]	RED LINE NO. 3	10/27/22	JSK
[7]	RED LINE NO. 7	10/18/23	NM

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING GAITHERSBURG, MARYLAND	
RECOMMENDED FOR APPROVAL SEE TITLE SHEET FOR SIGNATURES Chief, Design Section	Date
APPROVED SEE TITLE SHEET FOR SIGNATURES Chief, Division of Capital Development	Date
Designed by: <u>VTD</u>	Drawn by: <u>GMJ</u>
Checked by: <u>RGB</u>	

RETAINING WALL 15496R0 ON MD 355 NORTH OF CLARKSBURG ROAD RIGHT OF STA. 512+00 TO STA. 513+90 RETAINING WALL GENERAL PLAN, ELEVATION AND NOTES	
SCALE: AS SHOWN	DATE: DECEMBER 2021
DPS SC/SWM PERMIT SHEET NO. <u>N/A</u>	of <u>N/A</u>
C.I.P. Project No.: <u>508000</u>	<u>78</u> of <u>119</u>

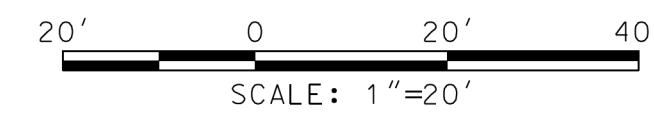


ELEVATION - RETAINING WALL
SCALE: 1/4" = 1'-0"



ELEVATION - RETAINING WALL
SCALE: 1/4" = 1'-0"

- NOTES:
- RETAINING WALL ELEVATION IS SHOWN FROM THE REAR FACE OF THE WALL TO MATCH THE GENERAL PLAN ORIENTATION SHOWN ON ST-101.
 - WEEP HOLES ARE SHOWN PROJECTED LOCATIONS ON THE OPPOSITE FACE OF THE WALL (FRONT FACE).
 - FOR STEM EXPANSION AND CONTRACTION JOINT DETAILS, SEE MDOT SHA STANDARD NO. RW-401 SHOWN ON ST-103.



7	REDLINE NO. 7	10/18/23	NM
NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING
GAIHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
SEE TITLE SHEET FOR SIGNATURES _____ Date _____
Chief, Design Section

APPROVED
SEE TITLE SHEET FOR SIGNATURES _____ Date _____
Chief, Division of Capital Development

Designed by: VTD Drawn by: GMJ Checked by: RGB

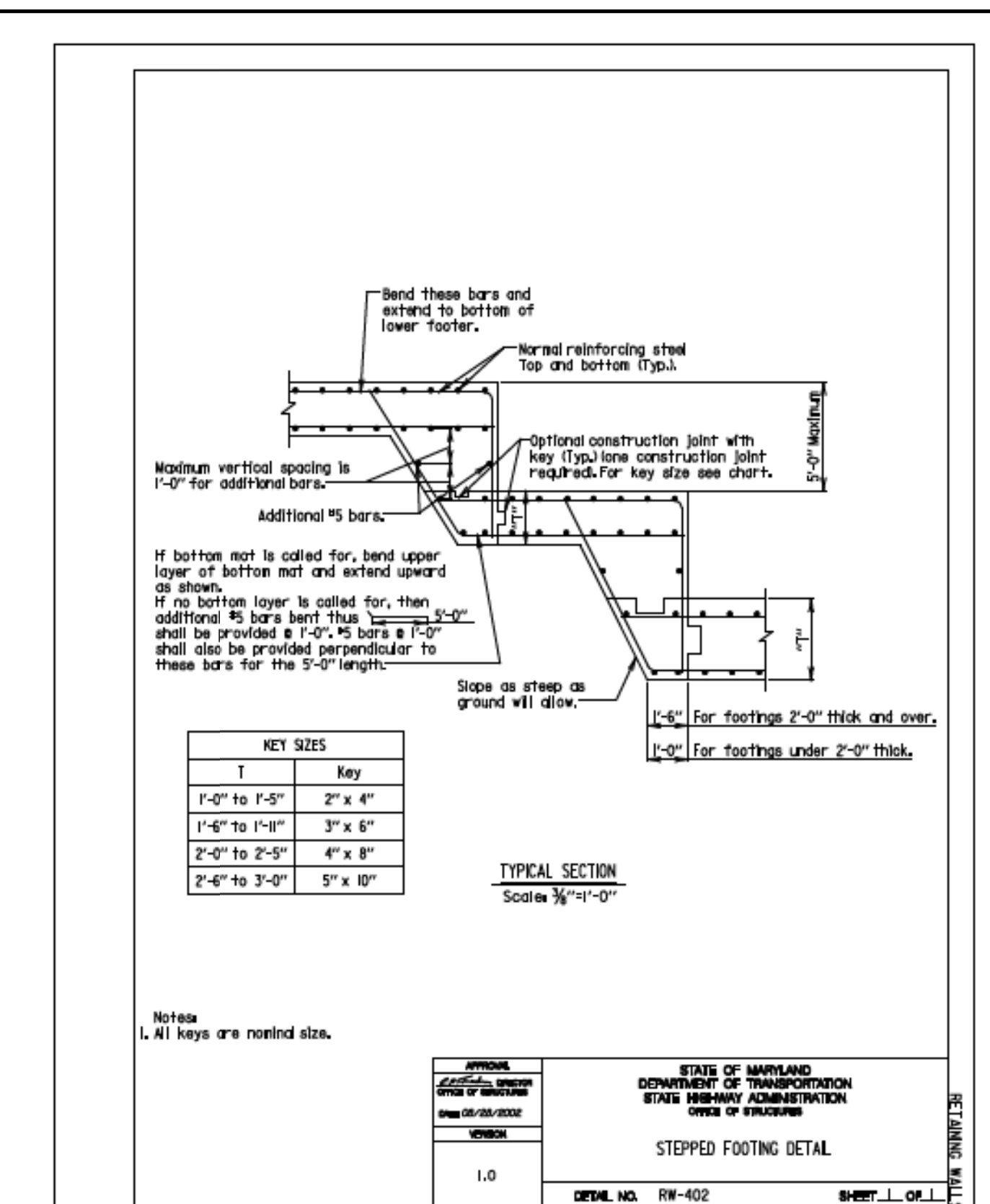
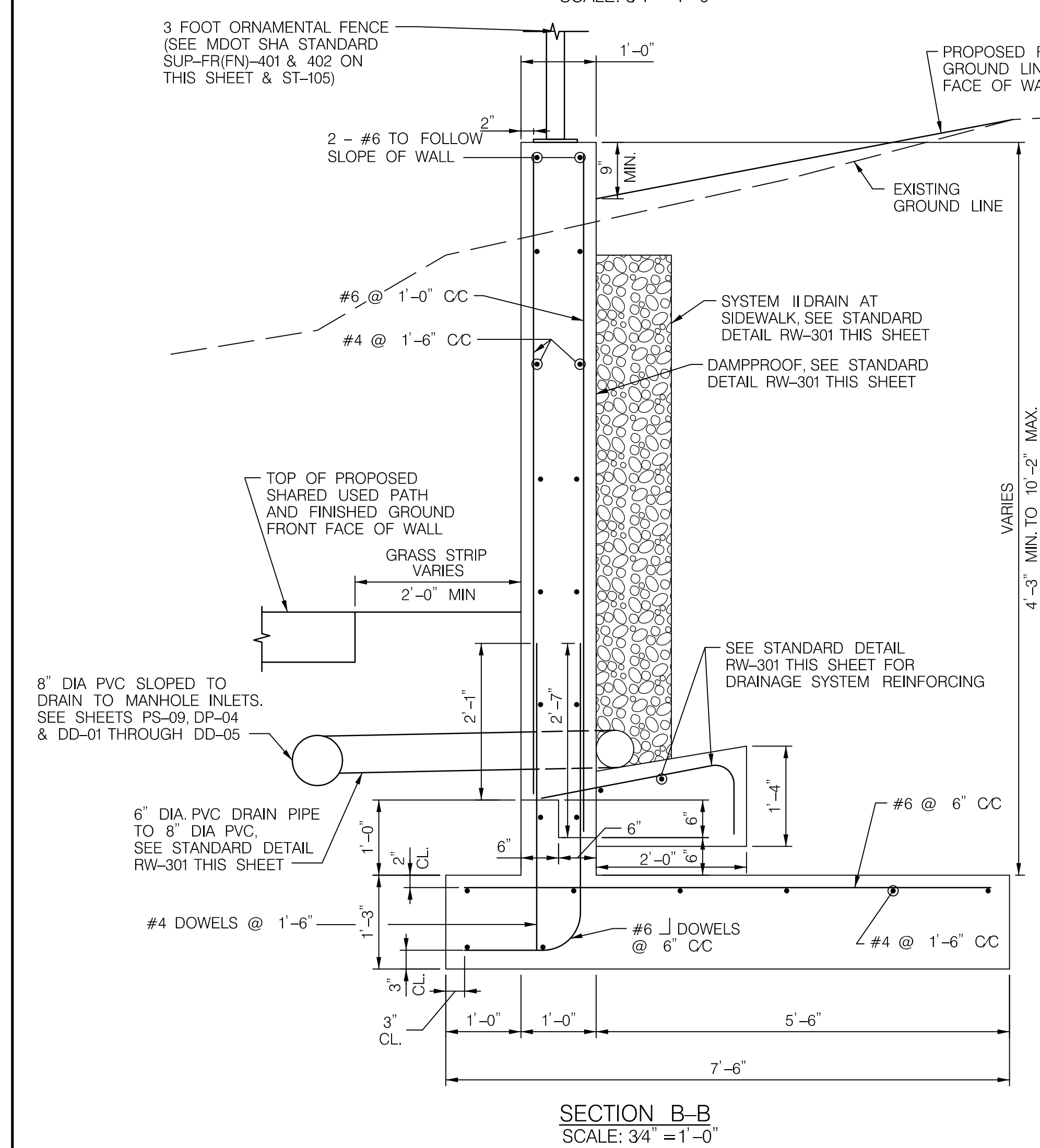
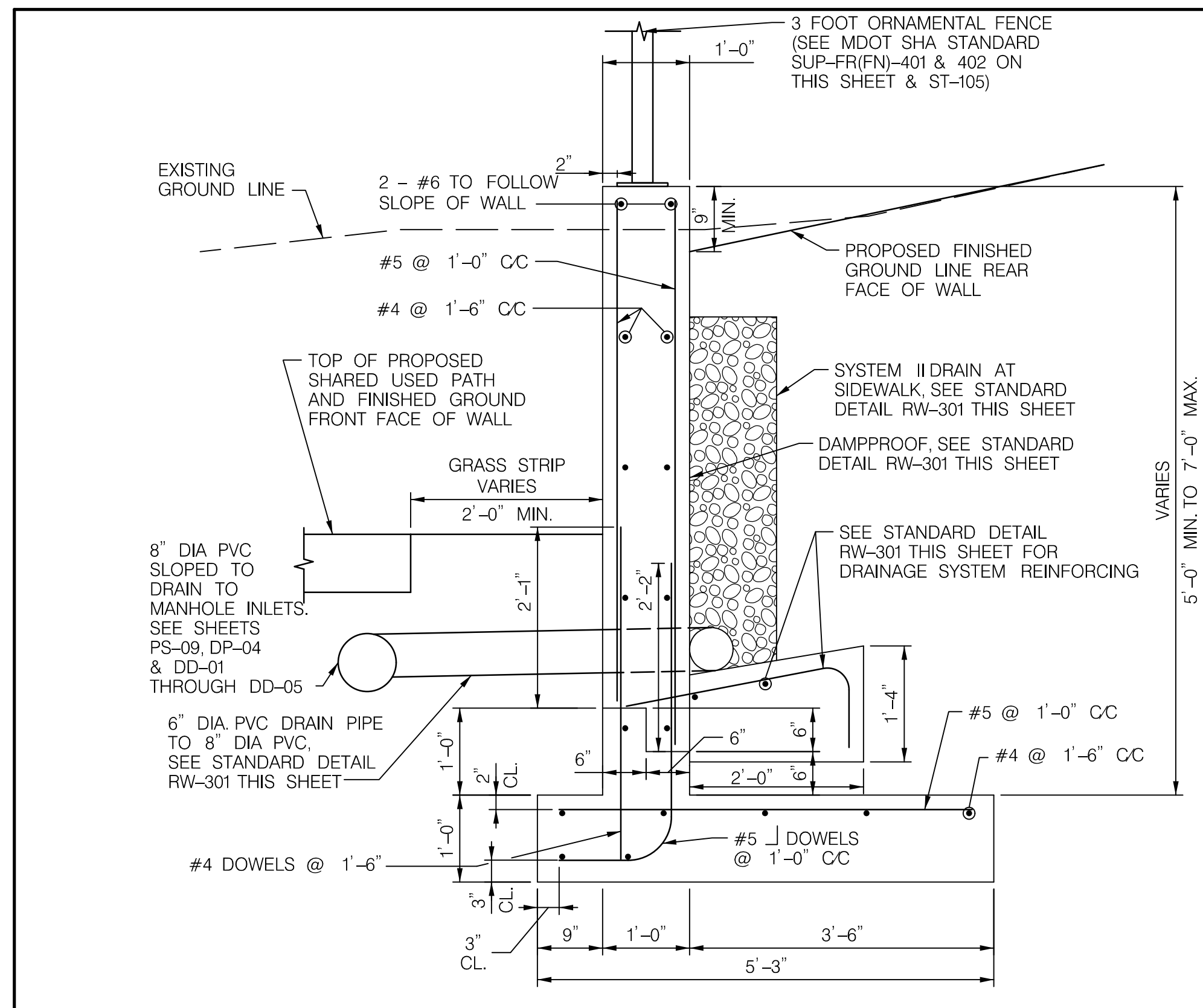
RETAINING WALL 15496R0 ON MD 355
NORTH OF CLARKSBURG ROAD RIGHT
OF STA. 512+00 TO STA. 513+90

RETAINING WALL ELEVATION

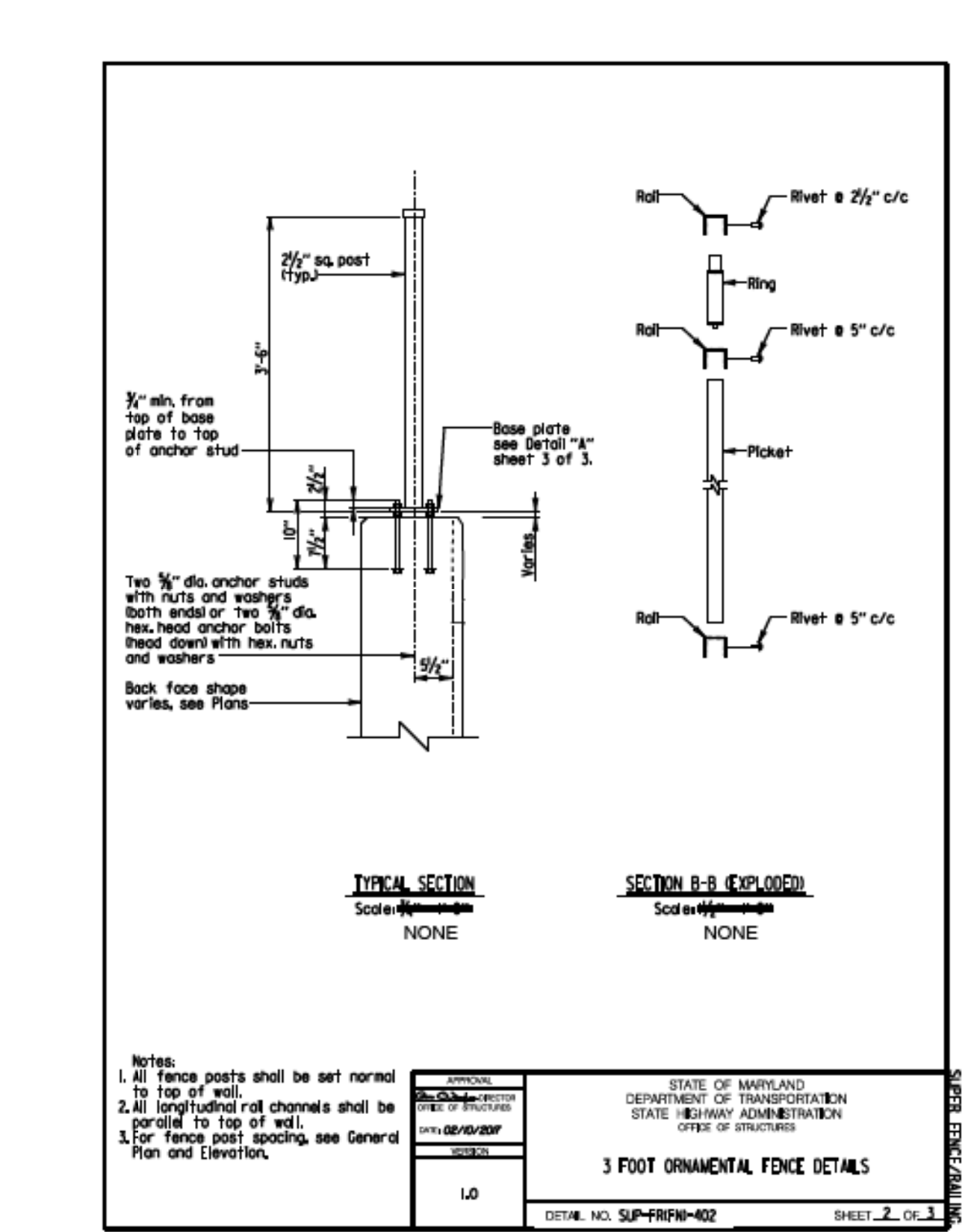
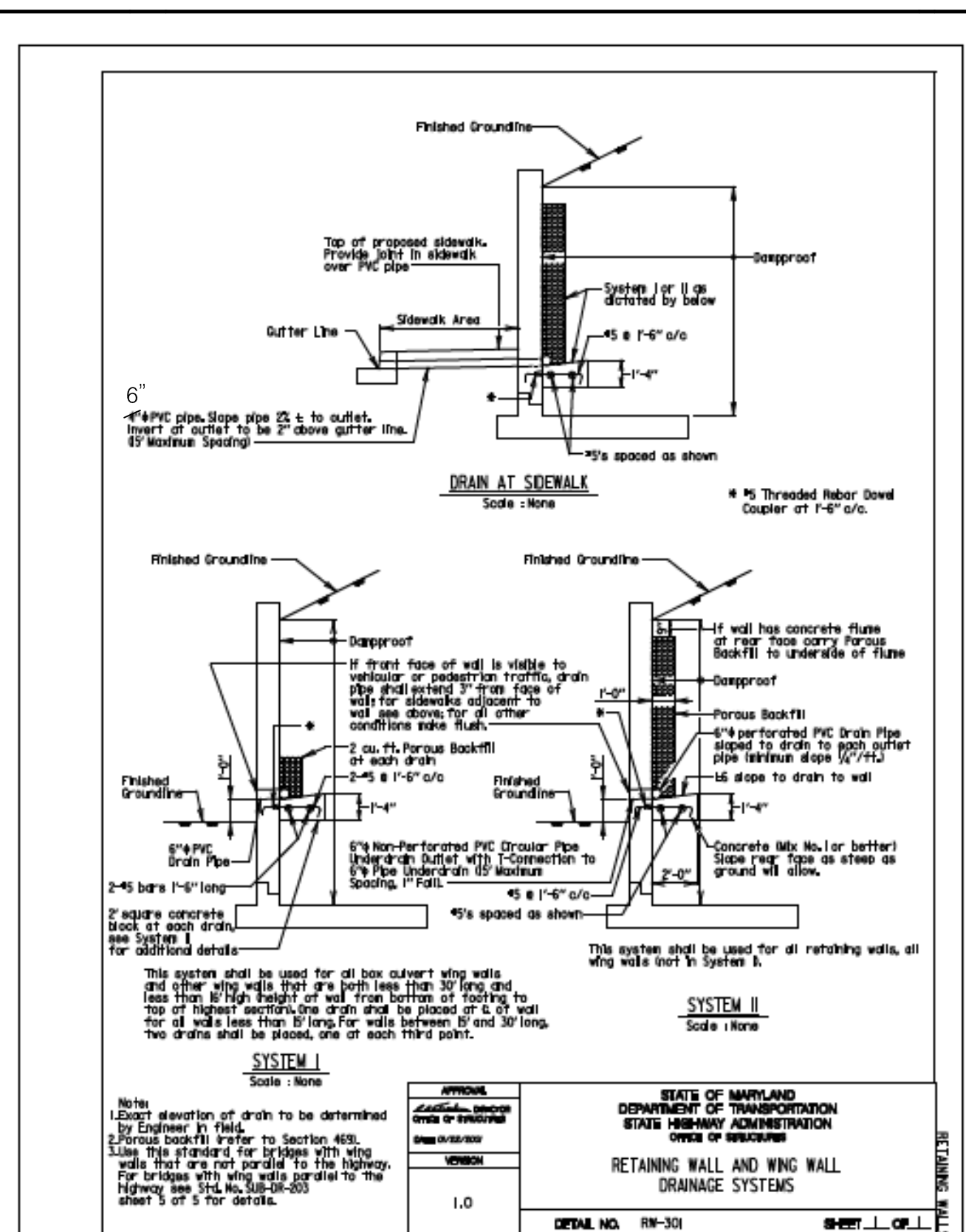
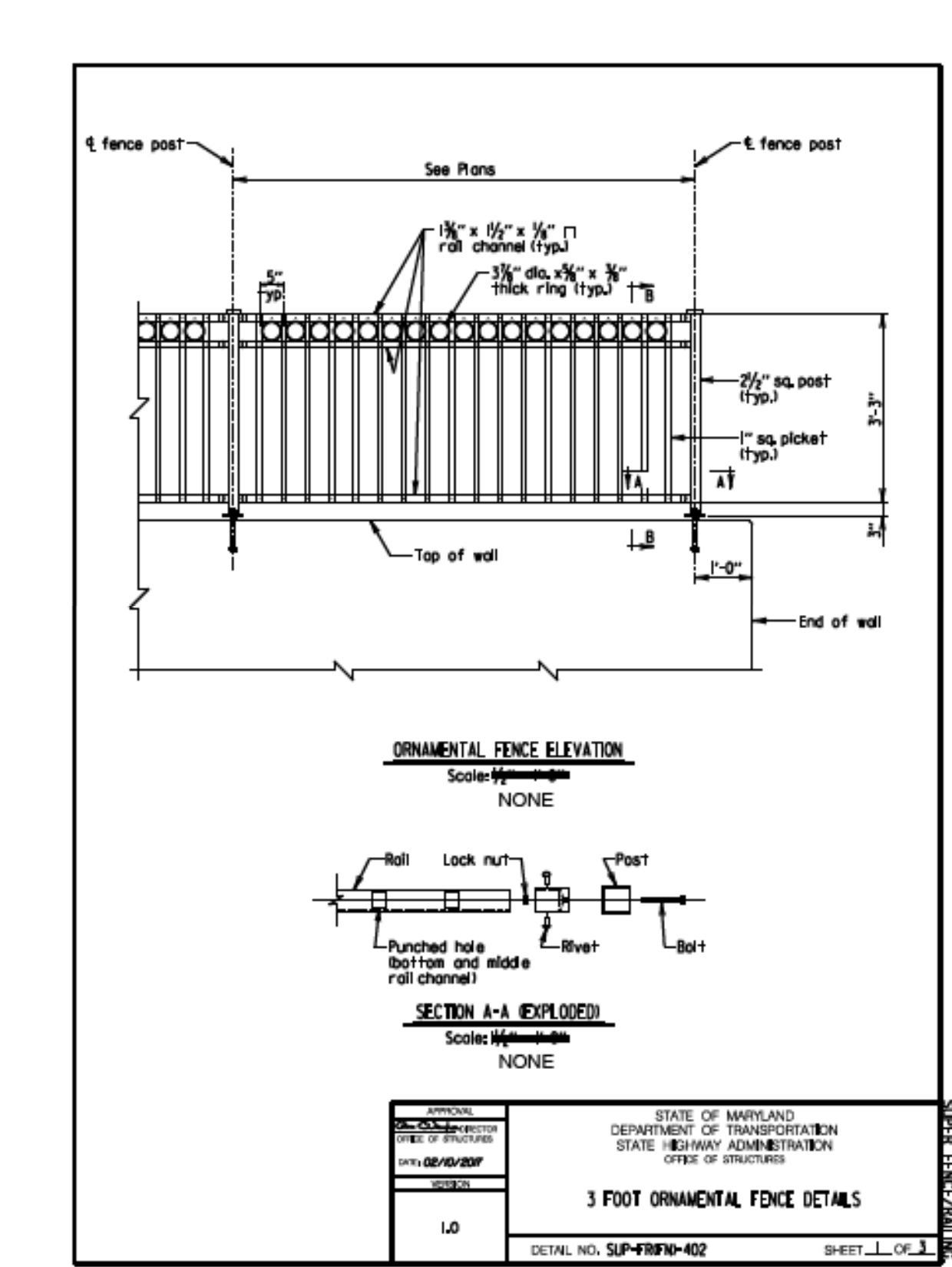
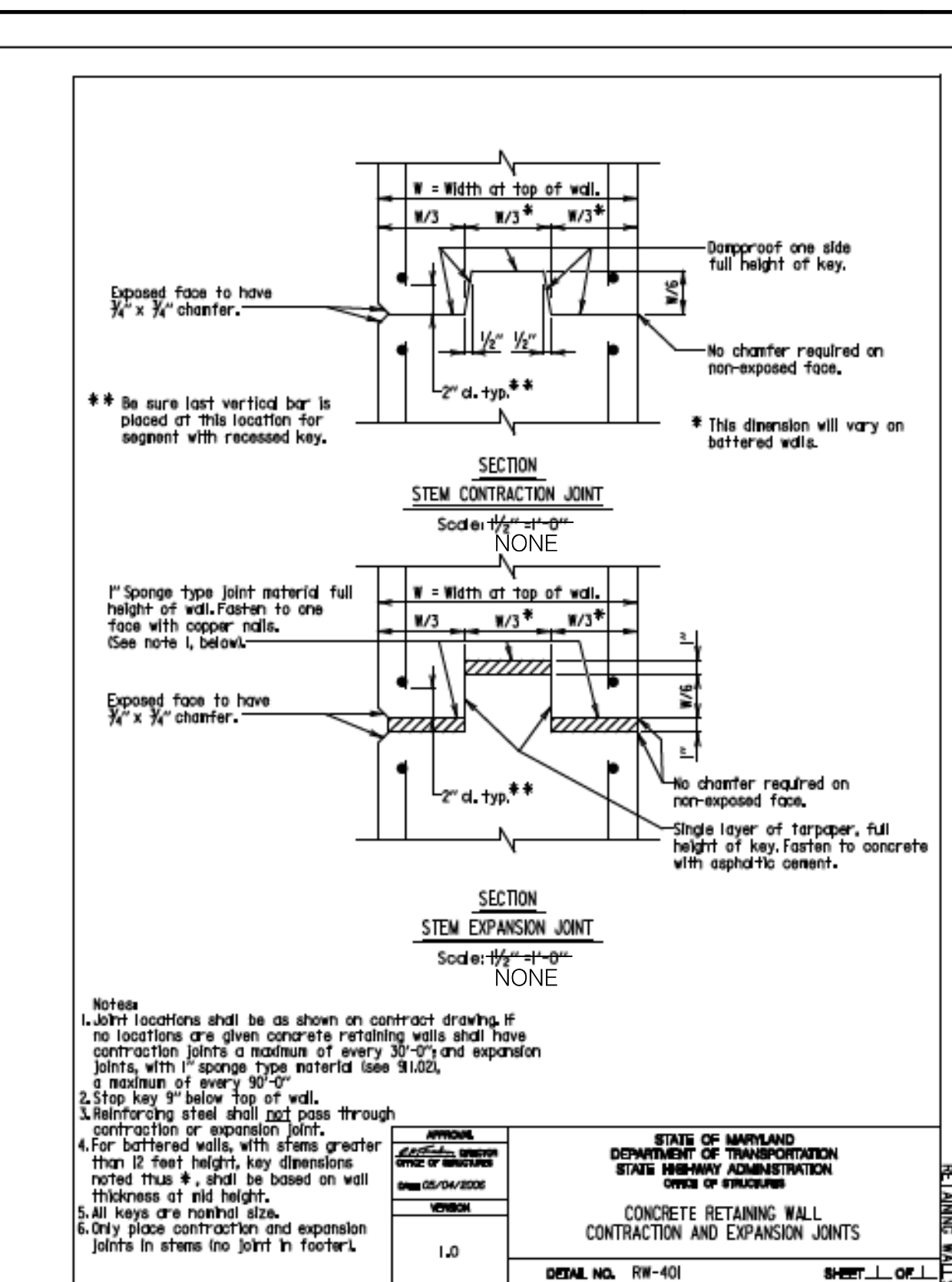
SCALE : AS SHOWN DATE: DECEMBER 2021 ST-102

DPS SC/SWM PERMIT SHEET NO. _____ N/A of _____

C.I.P. Project No. : 508000 _____ 79 of 119



- NOTES:
- THE DESIGN OF THE TEMPORARY SHEETING/SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE DONE BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MARYLAND.
 - ALL SHOP DRAWINGS, INCLUDING TEMPORARY SHEETING/SHORING, SHALL BE REVIEWED AND ACCEPTED BY THE ENGINEER-OF-RECORD AND MDOT SHA OFFICE OF STRUCTURES.
 - FOR RETAINING WALL ELEVATION, REFER TO SHEET ST-102.
 - FOR STANDARD JOINT AND WALL DRAINAGE SYSTEM DETAILS, REFER TO SHEET ST-103.
 - FOR STANDARD REINFORCING DETAILS, REFER TO SHEETS ST-104 & ST-105.
 - FOR BORING LOGS REFER TO SHEET ST-106.
 - BASELINE OFFSETS ARE MEASURED TO THE REAR FACE OF THE RETAINING WALL.
 - FOR 8" DIA PVC AND ADDITIONAL DRAINAGE DETAILS SEE SHEETS PS-09, DP-04 & DD-01 THROUGH DD-05.
 - THE CONTRACTOR IS FULLY RESPONSIBLE FOR MAINTAINING THE STRUCTURAL COMPETENCY OF THE ADJACENT BUILDING #23415 DURING CONSTRUCTION AS PER MDOT SHA STANDARD SPECIFICATIONS SECTION 404 - PROTECTION OF EXISTING STRUCTURES, WITH ALL ASSOCIATED COSTS INCIDENTAL TO THE RETAINING WALL ITEM.



MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

SEE TITLE SHEET FOR SIGNATURES _____ Date _____

Chief, Design Section

APPROVED

SEE TITLE SHEET FOR SIGNATURES _____ Date _____

Chief, Division of Capital Development

Designed by: VTD Drawn by: CMJ Checked by: RGB

RETAINING WALL 15496R0 ON MD 355 NORTH OF CLARKSBURG ROAD RIGHT OF STA. 512+00 TO STA. 513+90

RETAINING WALL SECTIONS AND RETAINING WALL DETAILS

SCALE: AS SHOWN DATE: DECEMBER 2021 ST-103

DPS SC/SWM PERMIT SHEET NO. N/A of N/A

C.I.P. Project No.: 508000 80 of 119



NO.	REVISION	DATE	BY