

Planning Commission Department of Planning, Housing, and Zoning

COUNTY COMMISSIONERS HEARING ROOM **400 HIGH STREET** CHESTERTOWN, MARYLAND

AGENDA Thursday, July 11, 2024 1:30 p.m.

Members of the public are welcome to attend meetings in person or via conference call.

Public participation and audio-only call-in number:

- 1. Dial **1-872-239-8359**
- 2. Enter Conference ID: 587 692 737#

Members of the public are asked to mute their phones/devices, until the Commission Chair opens the floor for comment.

Members of the public may also watch the live video feed and view the video after the meeting at the County's YouTube channel at https://www.youtube.com/@kentcountygovernment2757.

MINUTES

June 6, 2024

PUBLIC HEARING

24-25 John Stoltzfus – Zoning Text Amendment _______Rec to BOCC Adding Self Storage Centers as a permitted use in the Industrial District (I) **APPLICATIONS FOR REVIEW** 23-34 Morgnec Road Solar, LLC – Major Site Plan (Preliminary) ______PC Decision Map 37, Parcels 40 and 174 - Fourth Election District - Intense Village (IV), Community Residential (CR), Rural Residential (RR), and Resource Conservation District (RCD) 24-14 ESSD-M, Inc. – Camp Fairlee – Major Site Plan (Preliminary) – Sensory Cabins ______PC Decision 22242 Bay Shore Road, Chestertown – Sixth Election District – Zoned Resource Conservation District (RCD) and Agricultural Zoning District (AZD) 24-32 ESSD-M, Inc. – Camp Fairlee – Major Site Plan (Concept) – Replacing Pool and Bathhouse ______PC Review 22242 Bay Shore Road, Chestertown - Sixth Election District - Zoned Resource Conservation District (RCD) and Agricultural Zoning District (AZD)

- 24-33 Fry Family LP Variance Setback for Animal Operation ______Rec to BOA 10120 Augustine Herman Highway, Chestertown – Third Election District – Zoned Agricultural Zoning District (AZD)
- 24-27 Freedom Properties GOM, LLC Major Stie Plan (Concept) Accessory Uses and Strugger 10568 Cliff Road, Chestertown – Sixth Election District – Zoned Crimal Market Personned Special Exception – Redesignation as a Retreat
- Sixth Election District Zoned Critical Area Residential (CAR)

GENERAL DISCUSSION

STAFF REPORTS

ADJOURN

Meetings are conducted in Open Session unless otherwise indicated. All or part of the Planning Commission meetings can be held in closed session under the authority of the MD Open Meetings Law by vote of the members. Breaks are at the call of the Chairman. Meetings are subject to audio and video recordings.

All applicants will be given the time necessary to assure full public participation and a fair and complete review of all projects. Agenda items are subject to change due to cancellations.



DRAFT Planning Commission

Department of Planning, Housing, and Zoning

MINUTES

June 6, 2024 1:30 p.m.

Video recordings of the Kent County Planning Commission meeting are available online for viewing on the County's YouTube channel at https://www.youtube.com/@kentcountygovernment2757.

The Planning Commission met in regular session on Thursday, June 6, 2024, in the County Commissioners' Hearing Room at 400 High Street, Chestertown, Maryland. Members of the public were invited to attend in person or via conference call.

The following members were in attendance: Chair Joe Hickman, Vice Chair Paul Ruge, Jim Saunders, Ray Strong, Paula Reeder, Sean Jones, and William Crowding. Planning Commission Attorney Cynthia L. McCann, Esquire, was present. Staff in attendance included William Mackey, AICP, Director; Carla Gerber, AICP, Deputy Director; Mark Carper, LEED Green Associate, Associate Planner; Rob Tracey, AICP, Associate Planner; Beth Grieb, Office Manager, and serving as Acting Clerk; and Tyler Arnold, GIS Coordinator.

Representatives for the Everton project included Kevin Shearon, P.E., LEED AP, DMS & Associates; Dan Gural, Everton Industrial Development; Mark Keeley, PTP, Project Manager, Traffic Concepts, Inc.; and Charles MacLeod, Esq., of MacLeod Law Group.

Members of the public who spoke were G. Macy Nelson, Esq., representing Kent Conservation and Preservation Alliance (KCPA); Owen Bailey, Director of Land Use and Policy, Eastern Shore Land Conservancy (ESLC); Catherine Durham; Melinda Bookwalter; Elizabeth Watson, FAICP; Janet Christensen-Lewis, KCPA; Michael Kent; Doug West; Judy Gifford; Dr. Judy Tubman; and, Lawrence Green, P.E., PTOE.

Chair Hickman called the meeting to order at 1:30 p.m.

MINUTES

Ms. Paula Reeder moved to approve the minutes from May 2. Mr. Ray Strong seconded the motion. The minutes were approved unanimously.

APPLICATIONS FOR REVIEW

22-67 Everton Industrial, Lot 1 – Major Site Plan (Preliminary) 23-28 Everton Industrial, Lot 2 – Major Site Plan (Preliminary)

Prior to discussing the item, the Chair clarified his relationship with KCPA. The Chair's involvement ended three years ago.

Planning Commissioner Reeder recused herself, noting her objections to unfounded accusations made by KCPA.

Ms. Gerber provided an overview of the staff report, noting the proposed manufacturing warehouse buildings on two newly created lots near the interchange of US 301 and MD 291. Specific items highlighted included: proposed buildings of 256,924 square feet, service by public water and sewer, 45 loading dock spaces per building, sediment and erosion control and stormwater management to be reviewed collaboratively with the Kent Soil and Water Conservation District.

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Staff recommends approval of requested setback modifications, the curb cuts as requested, and preliminary site plan approval. At the Chair's request, Ms. Gerber summarized each section of the staff report.

Kevin Shearon, P.E., LEED AP of DMS & Associates; Dan Gural of Everton Industrial, and Mark Keeley, PTP of Traffic Concepts, Inc. presented information on site selection, traffic, access, environmental factors, and future plans. Charles MacLeod, Esq., of MacLeod Law Group spoke to address materials provided in the packet posted online.

Public testimony was received from G. Macy Nelson, Esq., representing both Kent Conservation and Preservation Alliance (KCPA) and its Board of Directors as individuals; Owen Bailey, Eastern Shore Land Conservancy; Catherine Durham, adjacent property owner; Melinda Bookwalter; Elizabeth Watson, FAICP; Janet Christensen-Lewis, KCPA; Michael Kent; Doug West; Judy Gifford; and Dr. Judy Tubman.

Issues raised included traffic, effects on adjacent roads and properties, environmental concerns, landscaping and screening, and compatibility with the surrounding area.

Following a break, Lawrence Green, P.E., PTOE, on behalf of KCPA, reviewed the traffic study via phone. Closing comments were made by G Macy Nelson, Esq., for KCPA and Charles MacLeod, Esq., as attorney for the applicant.

Mr. Crowding moved to grant a waiver from the 3,000-foot distance for curb cuts, citing the following findings:

- That staff finds the proposal complies with the spirit and intent of the Land Use Ordinance and the Comprehensive Plan;
- That the waiver will not cause a substantial detriment to adjacent or neighboring property;
- That the Maryland Department of Transportation said that the waiver will not create a safety hazard or increased traffic congestion;
- That the waiver is the minimum necessary to relieve the practical difficulty and is not sought for reasons of convenience, profit, or caprice.

Mr. Saunders seconded. Mr. Jones moved to amend the motion to address the line-of-sight. Mr. Crowding accepted. Mr. Strong seconded. The amended motion was carried unanimously. Ms. Reeder did not participate. Ms. Reeder was seated at the back of the room during the entire proceedings.

Mr. Crowding moved to decrease the required 100-foot setback along Chesterville Bridge Road and Edge Road to 50 feet. Mr. Strong seconded. The motion was carried unanimously. Ms. Reeder did not participate. Ms. Reeder was seated at the back of the room during the entire proceedings.

Mr. Crowding moved to grant preliminary site plan approval for Lots 1 and 2 of Millington Crossing Associates LLC, citing the following findings:

- That the proposal is consistent with many strategies and goals of the Comprehensive Plan;
- To the best of the Planning Commission's knowledge, the subdivision and site plans will conform with the provisions and all applicable rules and regulations;
- The curb cuts have been approved;
- The vehicle circulation appears to promote clearly defined access to loading and trailer parking that is separated from the employee and visitor parking. Multiple entrances per parcel will help achieve this separation;
- Sidewalks across the front of the buildings will promote pedestrian safety;
- Provisions have been made for off-street loading and unloading;
- Adequate lighting is proposed and provisions for safe internal traffic flow have been included;
- There will be no known unreasonable demands on public services or infrastructure;

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- It is believed the applicants are working with the Department of Public Works;
- The Comprehensive Water and Sewerage plan will need to be amended;
- Stormwater management will be addressed during final approval; and
- A citizens' participation meeting was held on October 19, 2022.

The following conditions are placed on the preliminary approvals, which will need to be met for the final approval:

- Provide berms, additional landscaping, and screening along Chesterville Bridge Road, adjacent to Lot 1;
- Provide an updated traffic study, based on specific tenants;
- Explore improvements such as deceleration and acceleration lanes;
- Prohibit use of off-site landscaping to meet screening requirements;
- Execution of a road maintenance agreement with County DPW for Chesterville Bridge Road; and
- Explore eliminating Chesterville Bridge Road access or converting to right-in, right-out configuration.

Mr. Jones seconded. The motion carried. Chair Hickman abstained. Ms. Reeder did not participate. Ms. Reeder was seated at the back of the room during the entire proceedings.

GENERAL DISCUSSION

Map Change Request for review by Planning Commission

The Planning Commission reviewed the map change request from the prior meeting submitted by Ms. Joyce Rogers. Ms. Rogers submitted an additional letter clarifying her prior request. Instead of asking for commercial/residential, the request was for Community Residential. Staff explained a single motion could then approve Ms. Rogers' request.

Mr. Jones moved to approve Joyce Rogers' request. Vice Chair Ruge seconded. The motion passed unanimously.

Final version of Official Zoning Map for recommendation

Staff explained that all of the Planning Commission's recommendations are included in the comprehensive, combined zoning map and chart, so a single motion may be made to recommend the final map to the County Commissioners in the same way that the Planning Commission had recommended a final, revised version of the Land Use Ordinance.

Ms. Reeder moved to approve the consolidated map change requests, prepared by the staff, which reflect the zoning changes already approved, and the amended updated map for presentation to the County Commissioners. Mr. Saunders seconded. The motion passed unanimously.

STAFF REPORTS

The Planning Commission agreed by consensus to hold its next meeting on Thursday, July 11, 2024, due to the first Thursday in July falling on the Fourth of July this year.

ADJOURN

Vice Chair Ruge made a m	otion to adjourn. Mr	. Strong seconded. I	The meeting was adjour	ned at 5:30 p.m.
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/s/ Francis J. Hickman	/s/ William Mackey	
Francis J. Hickman, Chair	William Mackey, AICP, Director	

Please note that a portion of this document was created by Claude 3 from Anthropic, utilizing a transcript created by Microsoft Teams. Due to various factors, these minutes were created mostly by a human.

PLEASE PLACE THE FOLLOWING IN THE KENT NEWS: July 4, 2024

BILL SHOULD BE SENT TO: Kent County Department of Planning, Housing, & Zoning

c/o Beth Grieb 400 High Street

Chestertown, Maryland 21620

mgrieb@kentgov.org

ANY QUESTIONS, CALL: Carla Gerber, 410-778-7474

cgerber@kentgov.org

NOTICE OF PUBLIC HEARING KENT COUNTY PLANNING COMMISSION

On **Thursday, July 11, 2024, at 1:30 p.m.,** the Planning Commission will hold a public hearing in the County Commissioners Hearing Room, 400 High Street, Chestertown, MD, on the following item:

John Stoltzfus – requesting a zoning text amendment to include self-storage centers, as a permitted use subject to site plan review in the Industrial Zoning District (I).

Members of the public may attend meetings in person or observe and/or comment via conference call.

If you have any questions concerning the application, please contact the Department at 410-778-7423. If you need communication assistance, please contact the Maryland Relay Service at www.mdrelay.org or 7-1-1 for voice/TDD.



Department of Planning, Housing, and Zoning

TO: Kent County Planning Commission FROM: Rob Tracey, AICP, Associate Planner

MEETING: July 11, 2024

SUBJECT: Zoning Text Amendment – Adding Self-Storage Centers as a permitted use in the Industrial

District (I)

Executive Summary

Request by Applicant

John Stoltzfus is requesting an amendment to Article V, Section 15.2 of the Industrial District (I), Permitted Principal Uses and Structures section, to include self-storage centers within as a permitted use within the Industrial (I) district.

Public Process

Per Article XII, Section 6 of the Kent County *Land Use Ordinance* the Planning Commission shall review a proposed amendment, supplement, or change to the *Land Use Ordinance* and make recommendations to the County Commissioners.

Summary of Staff Report

The proposed amendment would add self-storage centers as a permitted use in the Industrial District. This use would extend to the Industrial District, a permitted use that is currently permitted within the Village, Intense Village, and Commercial districts.

The Kent County Comprehensive Plan recognizes the importance of supporting existing businesses and providing for more diversity in the size, number, and types of businesses by promoting the development of small, locally owned businesses.

Staff recommends one additional, administrative amendment, as follows:

1. For consistency within the Land Use Ordinance, replace "mini storage," which is the identical use within the Commercial Zoning District (C), with the proposed terminology of self-storage centers.

Recommendation

Staff recommends sending a favorable recommendation of the zoning text amendment as amended to the Board of County Commissioners.

PRELIMINARY STAFF REPORT

TO: Kent County Planning Commission FROM: Rob Tracey, AICP, Associate Planner

SUBJECT: Zoning Text Amendment – Adding Self Storage Centers as a permitted use in the Industrial

District (I)

DATE: June 24, 2024

DESCRIPTION OF PROPOSAL

John Stoltzfus is requesting an amendment to Article V, Section 15.2 of the Industrial District (I), Permitted Principal Uses and Structures section, to include self-storage centers. The proposed amendment would add self-storage centers as a permitted use in the Industrial District. This amendment would extend to the Industrial District a permitted use that is currently permitted within the Village, Intense Village, and Commercial districts.

To amend Article V. District Regulations, Sections 15. Industrial District (AZD), §15.2 Permitted Principal Uses and Structures, by adding a new # 20, which would read as follows:

Self-storage centers provided the front façade of the center and any other façade visible from adjoining public roads reflect the scale, materials and design features common to residential or historic structures in the County. Self-storage centers are subject to site plan review.

APPLICABLE LAW

Article XII, Section 6 of the *Kent County Land Use Ordinance* establishes the standards for the review and approval of a zoning text amendment as follows.

- 1. The County Commissioners may amend, supplement, or change the boundaries of the districts or the regulations of this Ordinance. Any amendment may be initiated by a resolution of the County Commissioners, the motion of the Planning Commission, or petition of any property owner using forms specified by the Planning Commission.
- 2. The application for an amendment to the text of the Ordinance shall, at a minimum, state in particular the article section, and paragraph sought to be amended. The application shall contain the language of the proposed amendment and shall recite the reasons for the proposed change in text.

...

- 4. Before taking any action on any proposed amendment, supplement, or change, the County Commissioners shall submit the proposal to the Planning Commission for review and recommendation. The Planning Commission may hold a hearing on any proposed amendment, supplement, or change before submitting its recommendation to the County Commissioners. The Planning Commission may request any pertinent data and information as it deems necessary. In its recommendation, the Planning Commission shall address:
 - a) The public need for the proposed amendment; and
 - b) The extent to which the proposed amendment complies with or deviates from the Comprehensive Plan and the Critical Area Law.
 - c) When reviewing an amendment to the zoning map, the Planning Commission shall address the suitability of the property in question for the uses permitted under the proposed zoning. The Planning Commission shall not recommend the adoption of the amendment unless it finds that

the adoption of the amendment is in the public interest and not solely for the interest of the applicant. Failure of the Planning Commission to report to the County Commissioners within 60 days after its first meeting after the proposal was referred to them, shall be deemed approval.

COMPREHENSIVE PLAN

The proposed text amendment is consistent with multiple goals and strategies within the Kent County Comprehensive Plan.

- Expand and provide more diversity in the size, number, and type of businesses – promote development of small locally owned businesses (page 10).

STAFF COMMENTS

The public need for the amendment is to allow for greater diversity of where businesses may locate.

The Industrial District is intended for light manufacturing and support businesses. The proposed use is consistent with the intent and commercial nature of the Industrial District.

Staff recommends one additional, administrative amendment, as follows:

1. For consistency within the Land Use Ordinance, replace "mini storage," which is the identical use within the Commercial District (C), with the proposed term of self-storage center.

Please note that Staff will also request these changes to the newly adopted ordinance when the County Commissioners review the suggested changes from the Critical Area Commission.

Staff recommends sending a favorable recommendation of the zoning text amendment as amended to the Board of County Commissioners.

APPLICATION FOR TEXT AMENDMENT TO THE KENT COUNTY LAND USE ORDINANCE KENT COUNTY, MARYLAND

Kent County Department of Planning, Housing and Zoning

Kent County Government Center 400 High Street • Chestertown, MD 21620 410-778-7475 (phone) • 410-810-2932 (fax)

	5 (phone) • 410-810-2932 (fax)
Pursuant to Article XII, "Administrativ	ve Procedures" Section 6, "Amendments", of the Kent
County Land Use Ordinance, I/We	than Sto/Lets
of 11983 chesterville rd Ka	Applicant's Name 900 edy 1/1e MD 4/0-708-5170
Address	Telephone Number
//	oners to amend the Land Use Ordinance of Kent County,
Maryland, as follows: As Is current	y permitted in intense village.
artical 5 section 8.2.2	22 Self storage centers provided the front
facade of the center and any	that Ecop wistble from adjoining public
roads reflect the scale, material	's and design features comman to residential
or historic structiones in the S	outly, self storage centers shall require
Site Plan review ! I would	like to make this permitted in Industrial -
The purpose of the proposed amendment is to	permit: The building at a minin
Storage tacility an inde	striel land.
7	
	A
	Applicant's Signature
	5-21-24
	Date
Please Note: The application for an amendment to the te Section, and paragraph sought to be amended. The app	ext of this Ordinance shall, at a minimum state in particular, the Article, polication shall contain the language of the proposed amendment.
Instructions: The Land Use Ordinance requires that five	(5) copies for Zoning Text Amendment be submitted to the Executive y \$500.00 filing fee, payable to the County Commissioners of Kent
!	For Office Use Only:
	File Number 25
	Date Filed 5/21/2024 Date Referred to Planning Commission
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DEPARTMENT OF
PLANNING, HOUSING & ZONING
RECEIVED 5/21/24

Revised - 04/9/08

File Number 24 25
Date Filed
Date Referred to Planning Commission
Date Recommend. Rec'd from Plan. Comm
County Comm. Public Hearing Date
County Commissioners Action
Date of Action
Property Posted



Department of Planning, Housing, and Zoning

To: Kent County Planning Commission From: Mark Carper, Associate Planner

Meeting: July 11, 2024

Subject: Morgnec Road Solar, LLC

Preliminary Site Plan Review – Utility-Scale Solar Energy System

Executive Summary

REQUEST BY THE APPLICANT

Morgnec Road Solar, LLC is requesting preliminary site plan review of a proposed 245-acre utility-scale solar energy system. The site is located at 616 Morgnec Road near Chestertown in the Fourth Election District and is zoned Intense Village (IV), Community Residential (CR), Rural Residential (RR), and Resource Conservation District (RCD).

PUBLIC PROCESS

Per Article VI, Section 5.2 of the Kent County *Land Use Ordinance*, the Planning Commission shall review and approve major site plans.

SUMMARY OF THE STAFF REPORT

The project site is currently in agricultural production, and its topography is largely gently rolling hills with a few areas of drainage with steep slopes. The surrounding zoning districts include Intense Village to the west, Agricultural Zoning District to the north, Critical Area Residential to the east, and Commercial and Industrial to the south across Morgnec Road. The solar array is to be installed on a pile-driven post-supported racking system that will allow for the panels to pivot to track the sun. The anticipated electrical output is from 45 to 55 MW. Grid interconnection is to be at the Delmarva Power Chestertown Substation directly across Morgnec Road. A perimeter landscaping buffer has been proposed to screen the fenced facility.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission grant preliminary site plan approval. In order to receive final site plan approval, the applicant must address and/or submit the following:

- MDOT/SHA approval of the proposed facility entrance.
- Installation and maintenance standards, including the handling of solvents, removal of broken and/or waste solar modules, wiring requirements, securement of any required utility right-of-way by legally binding document, and excess noise.
- Clarification of the Forest Conservation Plan.
- Detailed landscaping and irrigation plan adhering to the requirements as specified in Article VI, Section 11 of the Land Use Ordinance, including the unforested segment of land adjacent to Parcel 488. The proposed pollinator meadows shall meet the requirements of the Maryland Pollinator-Friendly Designation Program.
- Evidence that the design of the entranceway will ensure that neighboring properties, public rightsof-ways and roads are not exposed to an unscreened view of the onsite facilities.
- Approval of erosion and sediment control and stormwater management plans.
- Submission and approval of sureties for landscaping maintenance and bond-related requirements for decommissioning as listed in Article VI, Section 11 of the Land Use Ordinance.
- The applicant obtains all state and federal permits.
- Approval of the Deed of Forest Conservation Easement and Agreement.

PRELIMINARY STAFF REPORT

TO: Kent County Planning Commission SUBJECT: #23-34 – Morgnec Road Solar, LLC

Preliminary Site Plan Review – Utility-Scale Solar Energy System

DATE: July 1, 2024

DESCRIPTION OF PROPOSAL

Morgnec Road Solar, LLC is requesting preliminary site plan review of a proposed 245-acre utility-scale solar energy system. The site is located at 616 Morgnec Road near Chestertown in the Fourth Election District and is zoned Intense Village (IV), Community Residential (CR), Rural Residential (RR), and Resource Conservation District (RCD).

The project site is currently in agricultural production, and its topography is largely gently rolling hills with a few areas of drainage with steep slopes. The surrounding zoning districts include Intense Village to the west, Agricultural Zoning District to the north, Critical Area Residential to the east, and Commercial and Industrial to the south across Morgnec Road. The solar array is to be installed on a pile-driven post-supported racking system that will allow for the panels to pivot to track the sun. The anticipated electrical output is from 45 to 55 MW. Grid interconnection is to be at the Chestertown Substation directly across Morgnec Road. A perimeter landscaping buffer has been proposed to screen the fenced facility.

There has been a change in design and engineering responsibilities, and details and formatting of current materials may differ from previous presentations.

RELEVANT ISSUES

I. Site Plan Review

A. Applicable Law: Article VI, Section 5 of the Kent County Land Use Ordinance outlines the procedures and requirements for site plan review. Site Development Plans are required to ensure that new development complies with the Comprehensive Plan, Land Use Ordinance, Village Master Plans and other agency requirements, thereby promoting the health, safety, and general welfare of Kent County residents.

Section 5.3.B.10 establishes that the preliminary review process will assess a project's compliance with the Land Use Ordinance; the Comprehensive Plan; and its feasibility, design, and environmental characteristics based on the site plan. The applicant must demonstrate adequate provisions for water supply and sewage disposal, proposed methods for fire protection, preliminary stormwater management, and forest conservation plans.

Section 5.3.B.16 establishes that the Planning Commission shall prepare findings of fact concerning the reasonable fulfillment of the objectives listed below.

- a. Conformance with the Comprehensive Plan and, where applicable, the Village Master Plan.
- b. Conformance with the provisions of all applicable rules and regulations of county, state, and federal agencies.

- c. Convenience and safety of both vehicular and pedestrian movement within the site and in relationship to adjoining ways and properties.
- d. Provisions for the off-street loading and unloading of vehicles incidental to the normal operation of the establishment, adequate lighting, and internal traffic control.
- e. Reasonable demands placed on public services and infrastructure.
- f. Adequacy of methods for sewage and refuse disposal, and the protection from pollution of both surface waters and groundwater. This includes minimizing soil erosion both during and after construction.
- g. Protection of abutting properties and County amenities from any undue disturbance caused by excessive or unreasonable noise, smoke, vapors, fumes, dust, odors, glare, stormwater runoff, etc.
- h. Minimizing the area over which existing vegetation is to be removed. Where tree removal is required, special attention shall be given to planting of replacement trees.
- i. The applicant's efforts to integrate the proposed development into the existing landscape through design features such as vegetative buffers, roadside plantings, and the retention of open space and agricultural land.
- j. The building setbacks, area, and location of parking, architectural compatibility, signage, and landscaping of the development, and how these features harmonize with the surrounding townscape and the natural landscape.

B. Staff and TAC Comments:

- The project is in conformance with applicable state regulations and has, or will be, submitting materials in conformance with Kent County regulations.
- An existing entrance from MD Route 291 will be utilized. MDOT/SHA has reviewed the application and is working with the County and the design engineering firm.
- Vehicular and pedestrian movement within the proposed facility will be limited to operations and maintenance crews, which will perform all loading and unloading in the course of operations. Site details indicate sufficient room for interior vehicular circulation and emergency services. No lighting is proposed.
- After construction, there will be limited traffic to the property; no sewer or water is to be used; there will be very limited need for emergency services; and, as a condition of Public Service Commission approval, the applicant is responsible for any road damages due to construction. The demands placed on public services and infrastructure are reasonable.
- A preliminary erosion and sediment control plan and a preliminary stormwater management plan have been submitted for review.
- A Solar Glare and Glint Analysis Report has been submitted. Based on the modeling parameters, no glare will affect traffic or specified observation points.
- Two existing hedgerows are to be removed for placement of panels. No trees are to be removed.
- The applicant has submitted a combined Forest Stand Delineation and Forest Conservation Plan for review.
- A 60-foot-wide landscape buffer plan has been proposed.
- All elements of the solar energy collection system will be a minimum 200 feet from any property line. There will be no permanent employees on site, and parking will be limited to the proposed turnaround areas within the facility.
- The applicant held a public information meeting and has submitted notes on the overview of the presentation and a summary of the comments and questions posed. The applicant has also submitted a commitment to collaborate with the Kent County Cultural Alliance and local artists to identify and fund a community improvement project in or near Chestertown.

A. *Applicable Law*: Article VI, Special Provisions, Section 11, details the requirements for setbacks, installation and maintenance standards, landscaping and irrigation requirements, and sureties.

B. Staff and TAC Comments:

- The proposed setback for the area of use is the required 200 feet or greater from any lot line of the project site.
- Compliance with the County requirements for installation and maintenance standards have not been fully addressed. Absent details include the handling of solvents, removal of broken and/or waste solar modules, wiring requirements, and securement of any required utility right-of-way by legally binding document. Installation and maintenance standards that have been addressed include noise, secure enclosure of the facilities, and avoidance of glare.
- In its point-by-point response to CPCN condition 4.i, the applicant states that noise shall be monitored by Morgnec Road Solar and that conditions will be compliant with local, state, and federal laws.
- A perimeter fence around the solar arrays is proposed.
- A Solar Glare and Glint Analysis Report has been submitted. Based on the modeling parameters, no glare will affect traffic or specified observation points at a height of six (6) feet above ground level nor along the road frontage at a height of five (5) feet or nine (9) feet, the respective heights for drivers of sedans and trucks.
- A preliminary erosion and sediment control plan and a preliminary stormwater management plan have been submitted for review.
- The applicant has submitted a combined Forest Stand Delineation and Forest Conservation Plan for review. The area of proposed Forest Conservation Easement needs to be more clearly marked on the Forest Conservation Plan, perhaps through colorization of the cross hatching designating this area.
- Panels will not be placed on wetland areas that are regulated by the MDE or the U.S. Department of the Interior nor on their associated buffer.
- Existing topsoil will not be removed from the site.
- Landscaping
 - A 60-foot-wide perimeter buffer is proposed along the western and southern boundaries
 of the solar arrays along with limited segments along the northwestern and eastern
 boundaries.
 - Existing forest that predominates the northern and eastern portions of the development site may satisfy the buffer standards. The exception to this is the unforested segment of the project site where Parcels 174 and 488 meet. A 60-foot-wide buffer will need to be added along this segment.
 - The submitted landscaping plan (Sheet CP-610) illustrates four planting zones: a hedgerow composed of mixed trees and shrubs to serve as a wind break, a low pollinator meadow around the solar array of grasses no more than 30 inches high to be mowed once annually, a pollinator habitat under the solar array to function as wildlife habitat to be mowed once annually, and a densely vegetated buffer composed of mixed trees and shrubs.
 - Details of proposed species, placements, and tree caliper and heights at time of planting have not been provided. The applicant has indicated that the final buffer detail with spacing and species list is being developed and will be provided with the final plan.
 - It is not clear whether a waiver of the 3-foot berm requirement will be requested.
- An irrigation plan has not been submitted.

- A draft landscape maintenance agreement has been submitted for review. A financial surety to cover replacement of the plantings and irrigation system is required.
- A landscape rendering depicting two years of growth at the proposed Morgnec Road entrance
 has been submitted. The applicant has indicated that the rendering depicts the typical nature
 of the buffer with varied arrangement, size, and species.
- Kent County Land Use Ordinance requires that the entryway be designed to ensure that neighboring properties, public rights-of-ways and roads are not exposed to an unscreened view through the entranceway.
- The applicant has indicated that the solar arrays may be momentarily visible to vehicles as they pass the entryway. The applicant would like to consider the use of varied fencing elements to fully obstruct the view. The Land Use Ordinance states that use of a wire mesh or chain-link gate or fence with vinyl interwoven strips is not acceptable.
- The proposed project has obtained a Certificate of Public Convenience and Necessity from the Public Service Commission. The applicant has provided a point-by-point response to each of the CPCN conditions.
- For final site plan approval, the proposed project must comply with the bond-related requirements, as specified in Article VI, Section 11.K of the Kent County Land Use Ordinance, that pertains to decommissioning and removal or non-vegetative improvements.

STAFF RECOMMENDATION:

Staff recommends that the Planning Commission grant preliminary site plan approval. In order to receive final site plan approval, the applicant must address and/or submit the following:

- MDOT/SHA approval of the proposed facility entrance.
- Installation and maintenance standards, including the handling of solvents, removal of broken and/or waste solar modules, wiring requirements, securement of any required utility right-of-way by legally binding document, and excess noise.
- Clarification of the Forest Conservation Plan.
- Detailed landscaping and irrigation plan adhering to the requirements as specified in Article VI, Section 11 of the Land Use Ordinance, including the unforested segment of land adjacent to Parcel 488. The proposed pollinator meadows shall meet the requirements of the Maryland Pollinator-Friendly Designation Program.
- Evidence that the design of the entranceway will ensure that neighboring properties, public rights-of-ways and roads are not exposed to an unscreened view of the onsite facilities.
- Approval of erosion and sediment control and stormwater management plans.
- Submission and approval of sureties for landscaping maintenance and bond-related requirements for decommissioning as listed in Article VI, Section 11 of the Land Use Ordinance.
- The applicant obtains all state and federal permits.
- Approval of the Deed of Forest Conservation Easement and Agreement.

LANDSCAPING MAINTENANCE AND INSPECTION AGREEMENT

TH	IS LANDSCAPING MAINTAINENCE AND INSPECTION AGREEMENT ("Agreement") made this
day o	f, 2023 by, a limited liability company ("Responsible Party")
	, a limited liability company (collectively, "Owner") for the benefit of the COUNTY ONERS OF KENT COUNTY, MARYLAND, a body politic and corporate of the State of Maryland.
	RECITALS:
("Project") County, Sta	HEREAS, the Responsible Party is the owner/operator of the utility-scale solar array located upon the parcel of land situated, lying and being in the 4th Election District of Kent ate of Maryland and designated as Parcel 40 of Kent County Tax Map 37, Parcel 174 of Kent Map 37, and Parcel 232 of Kent County Tax Map 37 ("Property"); and
	HEREAS, the Responsible Party received conditional plan approval from the Kent County at of Planning and Zoning ("Department") on, and final approval on, and
	OW, THEREFORE, the Responsible Party and Owner hereby make the Following declarations ments for the benefit of the County:
1.	The Responsible Party shall plant, maintain, manage, and monitor for so long as the Project is in operation, the plantings shown on the Final Landscape Plan prepared by Kimley-Horn and Associates, Inc. dated,, and maintained at the Department.
2.	The Responsible Party's maintenance and monitoring duties and the survival and planting surety release periods under Section 11 G of the Kent County land use ordinance shall commence when the Department verifies that all plantings are installed as required by the Landscape Buffer Plan.
3.	The Responsible Party shall perform all tasks necessary to ensure required survivability of the landscape buffer surrounding the Project and shall be responsible for initiating/enacting protective measures outlined on the Buffer Landscape Plan for the control of invasive species, pests, weeks, predation, and mechanical damage throughout the year period following commencement of the Responsible Party's maintenance and monitoring duties.
4.	The Responsible Party and Owner grant the County, its agents and representatives, the right to enter onto the Project site to conduct inspections within forty-eight (48) hours of notice given to the Responsible Party. The County may inspect the buffer plantings to the extent it deems necessary during the period of this Agreement to ensure that the installation and maintenance is being performed in accordance with the requirements of this Agreement and the Landscape Buffer Plan.
5.	This Agreement shall run with and bind the land should the Property transfer to new landowners while this Agreement remains in force and effect. The Responsible Party, his, her, or its successors and assigns, are solely accountable for the protection and

- maintenance of the landscape buffer and are also responsible for notifying subsequent landowners of this Agreement and the requirements of the <u>Landscape Buffer Plan</u>.
- 6. The Responsible Party agrees that the County shall record this Agreement among the Land Records for Kent County and that the Responsible Party shall pay the recording fee prior to receiving plan approval.
- 7. During the term of this Agreement, the Responsible Party shall remove dead and dying plant material and plant replacement plant material as directed by the County. In the event the Responsible Platy fails or refuses to do so, the County may enter the Property to remove dead and dying plant material and install new landscape stock. The cost incurred by the County shall be assessed as a lien against the Property if unpaid by the Responsible Party and may be collected by the County in the same manner as unpaid property taxes are collected.
- 8. Owner joins this Agreement to acknowledge the commitments made by the Responsible Party and hereby grants the County the right to enter the Property, at any time after forty-eight (48) hours of written notice from the County to the Responsible Party and Owner, for purposes of inspection and enforcement of all codes, regulations, laws, and requirements imposed upon or applicable to the Project.

[NOTARY AND SIGNATURE APPEAR ON FOLLOWING PAGES]

date first above written.
, LLC
(SEAL) ne:
ress:
, 20, before me, the subscriber, a nty aforesaid, personally appearedcknowledged the foregoing instrument to
rument for the purposes therein contained
ary Public

SIGNATURES CONTINUE ON FOLLOWING PAGE

WITNESS:	, LLC	
	Ву:	(SEAL)
	Name:	
	Title:	
	Address:	
STATE OF, COUNTY OF		
I HEREBY CERTIFY, that on this day of Notary Public of the State of, in s, known to me or satisfactorily proven to me act and who further acknowledged that executed the WITNESS my hand and Notarial Seal.	he County aforesaid, persona , who acknowledged the fore	ally appeared going instrument to b
My Commission Expires:	Notary Public	
Approved as to legal sufficiency.		

Solar Glare and Glint Analysis Report

for

Morgnec Solar Chestertown, MD

June 2024

113672001 © 2024 Kimley-Horn and Associates, Inc.



<u>Introduction</u>

The Morgnec Solar Project (Project) is 176 acres in Kent County, Maryland. The site is situated on the north side of Morgnec Rd (MD 291), half a mile east of Washington Ave (MD 213), and a little over 1 mile northeast of Chestertown's downtown. The use of the data is up to the client, including the determination if any glare is allowed for this development and if further steps should mitigation be required for any glare identified. See Figure 1 for vicinity map with receptors and Project location.



Figure 1: Project Location

Kimley Horn completed a glare analysis using the Solar Glare Hazard Analysis Tool (SGHAT) software, developed by Sandia Laboratories, now hosted by ForgeSolar. The SGHAT software is considered an industry-best practice and conservative model that effectively models the potential for glare at defined receptors from defined solar energy generating facilities.

Receptors & Methodology

Kimley Horn included as part of the analysis the six observation points within one mile of the Project and Morgnec Road along the Project frontage. The analysis is based on Preliminary Design Documents from June 2024. The points used for observation points were modeled without restricting the field of view, to ensure the results were conservative in nature. The receptors for roadways were limited to a 50-degree field of view to the left and right simulating the extent of peripheral vision. Glare that is beyond 50 degrees left or right from a driver's line-of-sight is not

considered a safety hazard for the flight approaches. The PV array was modeled with single axis tracking, smooth glass with anti-reflective coating, and shade-slope backtracking. The panel specifications, roadways, observation points, and obstruction specifications can be found in Appendix A. All receptors analyzed are listed below including route receptors, and observation points, shown in Table 1.

Receptors	Location	Description
6 Observation	Single family homes identified	Analyzed within one mile of Project
Points	all around site	
Morgnec Road	South of Project	Two-way road running north-southwest
		to south-northeast

Table 1: Receptor Descriptions

Kimley Horn utilized the ForgeSolar Glare Gauge software tool to perform the glare analysis. If any receptor showed signs of glare, the tool calculated the retinal irradiance (brightness) and subtended angle (size divided by distance) of the glare source. By considering retinal irradiance and subtended angle, the analysis could predict ocular hazards ranging from low potential for temporary after-image to retinal burn. Based on the predicted retinal irradiance (intensity) and the subtended angle (size/distance) of the glare source to the receptor, the software categories glare into three levels shown by colors. The three glare levels are: "green" grade indicating a low potential for temporary after-image, "yellow" grade indicating the potential for temporary after-image, and "red" grade indicating the potential for retinal damage. For comparison, viewing the unfiltered sun is in the upper region of yellow glare near the red border, while solar panel glare tends to be on the border of green and yellow, approximately three orders of magnitude less than direct viewing of the sun. The three levels of glare were determined in "Ho, 2011". The different levels are displayed in Figure 2, with viewing unfiltered sun shown as a reference point.

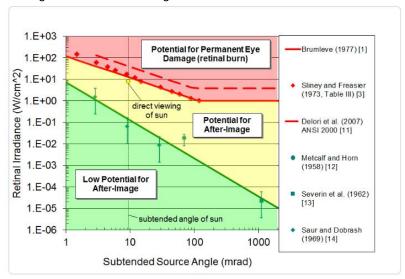


Figure 2: Glare Level Determined from "Ho, 2011"

Green and yellow glare is common from bodies of water, glass facades, and solar panel arrays. Red glare is extremely rare for PV arrays because solar panels do not concentrate glare.

According to the Federal Aviation Administration's (FAA) 2021 Final Policy, in previous years, pilots have reported glare from bodies of water and glass façades, resembling the glare produced by solar panels. The software analyzes pilot's similarly to motorists; therefore, results are similar to those found when analyzing pilots near bodies of water or existing building facades. Mitigating glare remains the focus, but it is not as significant an issue as initially thought in 2013 when the initial policy was formulated. The amount of light reflected by a surface, increases as the sunlight's angle of incidence from the surface increases as illustrated in Figure 3. The red angle of incidence yields 50% light reflected while the blue angle of incidence yields only two percent of light reflected.

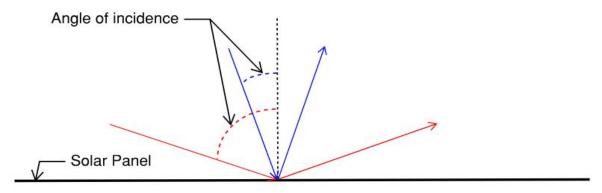


Figure 3: Reflected Light and Angle of Incidence (illustration only) on a panel

Analysis Results

The Project is not anticipated to produce any glare for the six observation points and along the adjacent route section of Morgnec Road. The tables below summarize the results for the observation points and routes. Glare is reflected in hours per year with time of day in standard time assuming clear skies, no existing topography, or manmade objects to block line of sight. Two analyses were ran simulating for trucks, sedans, and multiple proposed vegetative screening heights.

Observation Points

The observation points were modeled at a height of six foot to simulate an individual in a single-story building within one mile of the Project. All six observation points had no observed glare, see Table 2. Two existing vegetative buffers were modeled around the northern and eastern portion of the Project with a ground height of 30 feet, simulating existing trees that would block any glare in the existing condition. Additionally, two planned proposed vegetative frontage buffers were modeled on the western and southern border of the Project, each with a height of 6 and 8 foot.

Receptor	Hazard Level	Hours (per year)
	Green	0
OP 1	Yellow	0
	Red	0
	Green	0
OP 2	Yellow	0
	Red	0

	Green	0
OP 3	Yellow	0
	Red	0
	Green	0
OP 4	Yellow	0
	Red	0
	Green	0
OP 5	Yellow	0
	Red	0
	Green	0
OP 6	Yellow	0
	Red	0

Table 2: Total Yearly Glare Hazard per Observation Point Receptors

Routes

There is no expected glare for route receptors modeled along the Project frontage. The routes were modeled with a driver height of five foot to simulate an individual in a sedan vehicle as well as nine foot to model a truck drive. Morgnec Road observed no glare, see Table 3.

Receptor	Hazard Level	Hours (per year)
	Green	0
Morgnec Road	Yellow	0
J	Red	0

Table 3: Total Yearly Glare Hazard per Flight Path Receptors

Conclusion

In summary, there was no glare identified, for all receptors. The model is shown in the most conservative scenario assuming there is no terrain or man-made objects blocking the line of sight from the PV arrays and receptors. The panel specifications should resemble those shown in Appendix A to aim for the same results shown in this report.

APPENDIX A ForgeSolar Glare Analysis Report Sedans & Six Foot Vegetation

FORGESOLAR GLARE ANALYSIS

Project: Morgnec Solar

Proposed solar project located in Maryland.

Site configuration: Morgnec Solar- 0 degree

Created 13 Jun, 2024
Updated 13 Jun, 2024
Time-step 1 minute
Timezone offset UTC-5
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m²
Category 10 MW to 100 MW
Site ID 121645.20896

Ocular transmission coefficient 0.5 Pupil diameter 0.002 m Eye focal length 0.017 m Sun subtended angle 9.3 mrad PV analysis methodology V2



Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Ye	low Glare	Energy
	0	0	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Gr	nual Green Glare Annual Yellow Glar		llow Glare
	min	hr	min	hr
Morgnec Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0



Component Data

PV Arrays

Name: PV array 1

Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0°
Max tracking angle: 52.0°

Resting angle: 0.0°

Ground Coverage Ratio: 0.5

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	39.232324	-76.061807	67.81	8.00	75.81
2	39.234766	-76.061150	62.07	8.00	70.07
3	39.236412	-76.057159	68.68	8.00	76.68
4	39.236869	-76.057148	66.18	8.00	74.18
5	39.237076	-76.056687	64.48	8.00	72.48
6	39.237480	-76.053959	22.26	8.00	30.26
7	39.236196	-76.054251	53.35	8.00	61.35
8	39.235192	-76.056519	66.28	8.00	74.28
9	39.232117	-76.056733	61.74	8.00	69.74
10	39.233522	-76.053268	61.66	8.00	69.66
11	39.233991	-76.053375	58.40	8.00	66.40
12	39.234511	-76.052077	52.25	8.00	60.25
13	39.233463	-76.048440	27.18	8.00	35.18
14	39.233231	-76.043920	20.20	8.00	28.20
15	39.232294	-76.044014	17.94	8.00	25.94
16	39.227063	-76.058242	20.65	8.00	28.65
17	39.228800	-76.059410	42.81	8.00	50.81
18	39.231366	-76.052980	40.73	8.00	48.73
19	39.232413	-76.053087	63.89	8.00	71.89
20	39.229729	-76.060039	69.28	8.00	77.28



Route Receptors

Name: Morgnec Road
Path type: Two-way

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	39.226148	-76.058566	21.64	5.00	26.64
2	39.232229	-76.042775	19.02	5.00	24.02

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	39.230306	-76.038046	20.92	6.00
OP 2	2	39.228861	-76.060484	56.66	6.00
OP 3	3	39.236547	-76.069782	63.27	6.00
OP 4	4	39.244706	-76.063148	67.77	6.00
OP 5	5	39.242426	-76.046495	28.71	6.00
OP 6	6	39.234297	-76.042312	22.47	6.00



Obstruction Components

Name: Existing Vegetative Screening 1

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.240039	-76.044164	13.42
2	39.238726	-76.045752	22.01
3	39.238709	-76.047082	22.43
4	39.237895	-76.048455	30.77
5	39.237829	-76.049464	30.98
6	39.237945	-76.050386	34.36
7	39.237330	-76.051095	35.49
8	39.244061	-76.056849	51.62
9	39.243828	-76.058394	43.35
10	39.242781	-76.058716	61.92

Name: Existing Vegetative Screening 2

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.232935	-76.056216	53.34
2	39.235794	-76.053212	19.31
3	39.236691	-76.049672	16.35
4	39.236608	-76.046174	18.74
5	39.238918	-76.042076	35.98
6	39.237472	-76.040767	0.76
7	39.237173	-76.040016	5.10
8	39.236758	-76.039823	11.84
9	39.236591	-76.041110	12.27
10	39.235428	-76.041926	14.73

Name: Existing Vegetative Screening 3

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.235432	-76.041931	14.73
2	39.235108	-76.042988	19.95



Name: Existing Vegetative Screening 4

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.242793	-76.058720	62.03
2	39.241596	-76.058355	63.59
3	39.237608	-76.063237	57.50
4	39.235061	-76.061612	53.25

Name: Proposed Vegetative Screening Frontage 1

Top height: 6.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.236039	-76.062285	67.16
2	39.235395	-76.064029	71.56
3	39.226502	-76.058371	27.61
4	39.232539	-76.042655	17.10

Name: Proposed Vegetative Screening Frontage 2

Top height: 6.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.235054	-76.043147	20.28
2	39.233367	-76.042372	17.79

Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	0	0	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Morgnec Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Gro	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr	
Morgnec Road	0	0.0	0	0.0	
OP 1	0	0.0	0	0.0	
OP 2	0	0.0	0	0.0	
OP 3	0	0.0	0	0.0	
OP 4	0	0.0	0	0.0	
OP 5	0	0.0	0	0.0	
OP 6	0	0.0	0	0.0	

PV array 1 and Route: Morgnec Road

No glare found

PV array 1 and OP 1

No glare found



PV array 1 and OP 2

No glare found

PV array 1 and OP 3

No glare found

PV array 1 and OP 4

No glare found

PV array 1 and OP 5

No glare found

PV array 1 and OP 6

No glare found



Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

Analysis time interval: 1 minute
Ocular transmission coefficient: 0.5
Pupil diameter: 0.002 meters

Eye focal length: 0.017 metersSun subtended angle: 9.3 milliradians

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APPENDIX B ForgeSolar Glare Analysis Report Trucks & Nine Foot Vegetation

FORGESOLAR GLARE ANALYSIS

Project: Morgnec Solar

Proposed solar project located in Maryland.

Site configuration: Trucks and Evergreens

Created 26 Jun, 2024
Updated 26 Jun, 2024
Time-step 1 minute
Timezone offset UTC-5
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m²
Category 10 MW to 100 MW
Site ID 122644.20896

Ocular transmission coefficient 0.5 Pupil diameter 0.002 m Eye focal length 0.017 m Sun subtended angle 9.3 mrad PV analysis methodology V2



Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Ye	low Glare	Energy
	٥	0	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Gr	een Glare	Annual Yellow Glare		
	min	hr	min	hr	
Morgnec Road	0	0.0	0	0.0	
OP 1	0	0.0	0	0.0	
OP 2	0	0.0	0	0.0	
OP 3	0	0.0	0	0.0	
OP 4	0	0.0	0	0.0	
OP 5	0	0.0	0	0.0	
OP 6	0	0.0	0	0.0	



Component Data

PV Arrays

Name: PV array 1

Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0°
Max tracking angle: 52.0°

Ground Coverage Ratio: 0.5

Rated power: -

Resting angle: 0.0°

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
			. ,		
1	39.232324	-76.061807	67.81	8.00	75.81
2	39.234766	-76.061150	62.07	8.00	70.07
3	39.236412	-76.057159	68.68	8.00	76.68
4	39.236869	-76.057148	66.18	8.00	74.18
5	39.237076	-76.056687	64.48	8.00	72.48
6	39.237480	-76.053959	22.26	8.00	30.26
7	39.236196	-76.054251	53.35	8.00	61.35
8	39.235192	-76.056519	66.28	8.00	74.28
9	39.232117	-76.056733	61.74	8.00	69.74
10	39.233522	-76.053268	61.66	8.00	69.66
11	39.233991	-76.053375	58.40	8.00	66.40
12	39.234511	-76.052077	52.25	8.00	60.25
13	39.233463	-76.048440	27.18	8.00	35.18
14	39.233231	-76.043920	20.20	8.00	28.20
15	39.232294	-76.044014	17.94	8.00	25.94
16	39.227063	-76.058242	20.65	8.00	28.65
17	39.228800	-76.059410	42.81	8.00	50.81
18	39.231366	-76.052980	40.73	8.00	48.73
19	39.232413	-76.053087	63.89	8.00	71.89
20	39.229729	-76.060039	69.28	8.00	77.28



Route Receptors

Name: Morgnec Road
Path type: Two-way

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	39.226148	-76.058566	21.64	9.00	30.64
2	39.232229	-76.042775	19.02	9.00	28.02

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	39.230306	-76.038046	20.92	6.00
OP 2	2	39.228861	-76.060484	56.66	6.00
OP 3	3	39.236547	-76.069782	63.27	6.00
OP 4	4	39.244706	-76.063148	67.77	6.00
OP 5	5	39.242426	-76.046495	28.71	6.00
OP 6	6	39.234297	-76.042312	22.47	6.00



Obstruction Components

Name: Existing Vegetative Screening 1

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.240039	-76.044164	13.42
2	39.238726	-76.045752	22.01
3	39.238709	-76.047082	22.43
4	39.237895	-76.048455	30.77
5	39.237829	-76.049464	30.98
6	39.237945	-76.050386	34.36
7	39.237330	-76.051095	35.49
8	39.244061	-76.056849	51.62
9	39.243828	-76.058394	43.35
10	39.242781	-76.058716	61.92

Name: Existing Vegetative Screening 2

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.232935	-76.056216	53.34
2	39.235794	-76.053212	19.31
3	39.236691	-76.049672	16.35
4	39.236608	-76.046174	18.74
5	39.238918	-76.042076	35.98
6	39.237472	-76.040767	0.76
7	39.237173	-76.040016	5.10
8	39.236758	-76.039823	11.84
9	39.236591	-76.041110	12.27
10	39.235428	-76.041926	14.73

Name: Existing Vegetative Screening 3

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.235432	-76.041931	14.73
2	39.235108	-76.042988	19.95



Name: Existing Vegetative Screening 4

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.242793	-76.058720	62.03
2	39.241596	-76.058355	63.59
3	39.237608	-76.063237	57.50
4	39.235061	-76.061612	53.25

Name: Proposed Vegetative Screening Frontage 1

Top height: 8.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.236039	-76.062285	67.16
2	39.235395	-76.064029	71.56
3	39.226502	-76.058371	27.61
4	39.232539	-76.042655	17.10

Name: Proposed Vegetative Screening Frontage 2

Top height: 8.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.235054	-76.043147	20.28
2	39.233367	-76.042372	17.79



Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Yel	low Glare	Energy
	0	0	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare		
	min	hr	min	hr	
Morgnec Road	0	0.0	0	0.0	
OP 1	0	0.0	0	0.0	
OP 2	0	0.0	0	0.0	
OP 3	0	0.0	0	0.0	
OP 4	0	0.0	0	0.0	
OP 5	0	0.0	0	0.0	
OP 6	0	0.0	0	0.0	

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Gro	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr	
Morgnec Road	0	0.0	0	0.0	
OP 1	0	0.0	0	0.0	
OP 2	0	0.0	0	0.0	
OP 3	0	0.0	0	0.0	
OP 4	0	0.0	0	0.0	
OP 5	0	0.0	0	0.0	
OP 6	0	0.0	0	0.0	

PV array 1 and Route: Morgnec Road

No glare found

PV array 1 and OP 1

No glare found



PV array 1 and OP 2

No glare found

PV array 1 and OP 3

No glare found

PV array 1 and OP 4

No glare found

PV array 1 and OP 5

No glare found

PV array 1 and OP 6

No glare found



Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

Analysis time interval: 1 minute
Ocular transmission coefficient: 0.5
Pupil diameter: 0.002 meters

Eye focal length: 0.017 metersSun subtended angle: 9.3 milliradians

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CPCN LICENSE CONDITIONS PSC CASE NO. 9499

(Below are the CPCN conditions for Morgnec Road Solar, LLC, and a description of how each condition is being met. The response to each expressed condition is in *Iltalic*. Many Conditions are requirements post site plan approval and both pre and post construction. In those instances the response is "*Agreed*" or "*So Noted*.")

1. Applicability of Conditions - Except as otherwise provided for in the following provisions, the application ("Application") for the Certificate of Public Convenience and Necessity ("CPCN") is considered to be part of this CPCN for the Morgnec Road Solar, LLC ("Morgnec Road Solar") Project ("project"). The Application consists of the original application filed with the Maryland Public Service Commission ("PSC" or "Commission") on November 30, 2018, the amended site plan provided to PPRP on July 24, 2019 (in response to PPRP Data Request 1-7), and direct testimony filed on August 2, 2019. Construction and operation of the project shall be undertaken in accordance with these conditions, which have been prepared by the Power Plant Research Program ("PPRP") in coordination with the reviewing State agencies. If there are any inconsistencies between the conditions specified below and the Application, the conditions in this CPCN shall take precedence. If CPCN conditions incorporate federal or State laws through paraphrased language, where there is any inconsistency between the paraphrased language and the actual State or federal laws being paraphrased, the applicable federal or State laws shall take precedence.

Kevin Clark, Project Developer, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 1 of the CPCN, and the point person for the County concerning implementation of conditions and state and federal laws. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

2. Project Scope – The project shall be constructed as a single-axis tracking photovoltaic (PV) system within the limit of disturbance and approximate dimensions (surface, in total acreage, and height) as described in the Application and as modified by these conditions and the Settlement Agreement submitted herewith. Modifications to the project's specifications that are not covered by this CPCN should be reviewed by PPRP, but must be approved by the PSC.

Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 2 of the CPCN, as well as the Settlement Agreement, and the point person for the County concerning implementation of conditions and state and federal laws. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person, the County will be advised of his replacement.

3. CPCN Expiration –

a. Construction of the project shall commence within three (3) years of receiving the CPCN (established by the date of the Final Order), and the project shall be in operation no later than four (4) years after receipt of the CPCN; otherwise, the CPCN shall expire and no longer constitute authorization to construct and operate the project.

This is a statement of the term of the CPCN which Morgnec Road Solar has accepted. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for project construction until such time as the general contractor is engage, after which the County will be advised as to all applicable contact information for the general contractor.

b. This CPCN shall expire 30 years from the date of the beginning of commercial operations or 34 years from the date of the CPCN issuance (defined as receipt of a final unappealable Commission Order), whichever is sooner. Morgnec Road Solar may request that the PSC extend the expiration date if Kent County agrees to such an extension.

This is a statement of the term of the CPCN which Morgnec Road Solar has accepted. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 3b of the CPCN, and the point person for the County concerning implementation of conditions and compliance with state and federal laws. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person, the County will be advised of his replacement.

- 4. Applicable Laws and Regulations Construction and operation of the solar facility shall be undertaken in accordance with this CPCN and shall comply with all applicable local, State, and federal laws and regulations, including but not limited to the following:
- a. Nontidal Wetlands COMAR 26.23.01 applies to activities conducted in nontidal wetlands and wetland buffers. An initial wetland delineation was performed by Environmental Resource, Inc. and verified by Chris Pajak with the Maryland Department of Environment on November 21, 2016. Nontidal wetland ponds shown on the preliminary plan in the vicinity of the proposed arrays were field delineated and surveyed located by Andrews, Miller & Associates in December 2016. MDE issued a letter of concurrence on August 4, 2023 in reference to the Lane Engineering Concept & Site Improvement Plans dated July 21, 2023. Morgnec Road Solar agrees that no development activities will be conducted in nontidal wetlands or wetland buffers. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 4a. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with state and federal laws. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person, the County will be advised of his replacement.

- b. Waterway Construction COMAR 26.17.04 applies to regulations governing construction activities in nontidal waters and floodplains. No waterways have been identified within the project limits. See discussion of MDE review in the Nontidal Wetlands section above. Morgnec Road Solar agrees that no development activities or construction in any waterways. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 4b. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with state and federal laws. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person, the County will be advised of his replacement.
- c. Water Quality and Water Pollution Control COMAR 26.08.01 through COMAR 26.08.04 apply to discharges to waters of the State and maintenance of surface water quality.
- d. Erosion, Sediment and Stormwater Control COMAR 26.17.01 and COMAR 26.17.02 applies to the preparation, submittal, review, approval, and enforcement of erosion, sediment and stormwater control plans, including any dewatering plans and associated water recycling plans. Preparation of Erosion, Sediment and Stormwater plans in compliance with the applicable regulations is by Kimley-Horn and Associates, Inc. Maintenance by Morgnec Road Solar. The erosion, sediment, and stormwater control plans will be approved by Kent County. Any dewatering plans or associated water recycling plans will be approved by the State of Maryland, as applicable. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 4.d. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.
- e. Oil Pollution Control EPA 40 CFR 112 and COMAR 26.10.01.12 apply to the procedures for oil spill control. Kevin Clark, Morgnec Road Solar, (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) has reviewed the above reference regulations. Kevin Clark will be the point person for compliance with condition 4.e. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be throughout the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.
- f. Forest Conservation Maryland's Forest Conservation Act (FCA), Md. Code, Sections 5-1601 through 5-1613 of the Natural Resources Article. Preparation of plans by Kimley-Horn and Associates, Inc. propose maintenance of forest protected areas by Morgnec Road Solar. Maintenance by Morgnec Road Solar. Those plans will be approved by Kent County. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 4.f. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be throughout the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.
- g. Threatened and Endangered Species COMAR 08.03.08 applies to actions affecting

threatened or endangered species on State or private lands. The are no actions being conducted on the Property that have been determined to affect threatened or endangered species as determined by the Maryland Department of Natural Resources. Nonetheless, Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 4.g. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be throughout the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

h. Critical Area Commission for the Chesapeake and Atlantic Coastal Bays – COMAR 27 applies to development in the Critical Areas.

There will be no limits of disturbance within the Critical Areas. There are limited perimeter landscape buffers proposed within the Critical Area to satisfy County requirements. To the extent coordination with the Critical Area Commission is required, it will be undertaken by Morgnec Road Solar. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 4.h. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

i. Noise - Construction and operation of the proposed Project shall comply with the Maryland noise regulations in COMAR 26.02.03.

Agreed. Noise shall be monitored by Morgnec Road Solar. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 4.i. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be throughout the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

5. Site Control - In accordance with COMAR 20.79.03.01, prior to construction, Morgnec Road Solar shall provide the PSC and PPRP a copy of the purchase agreement, land lease, or similar agreement with the owners of the properties on which the project site is located. Morgnec Road Solar shall also identify any applicable term of the purchase agreement, land lease, or similar agreement and provide assurances to PPRP and the PSC that such term of the purchase agreement, land lease, or similar agreement meets or exceeds any applicable Power Purchase Agreement ("PPA") term and includes any time necessary for complete decommissioning closure and removal of the project facilities.

All site control documents have been, or will be supplied to PPRP/PSC. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 5. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be throughout the life of the project, and should Mr. Clark no longer be the point person the County will be

advised of his replacement.

6. Project As-Built Details – Within 60 days of commencing operations, Morgnec Road Solar shall provide to the PSC, PPRP, and Kent County, the following as-built details: engineering and construction plans for the project, including the total acreage of the project site; the PV panel and module type, dimensions, and locations; and consistent counts of the number of PV modules, and support posts for the PV modules, as well as a consistent depth of post/pile burial and height of the PV panels above grade. Where the as-built details are identical to those submitted with the CPCN application, Morgnec Road Solar shall provide a statement to this effect and not resubmit the information.

This is a future condition subsequent to construction completions and will be complied with at the applicable time by Morgnec Road Solar. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 6. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

- 7. Access Representatives of the PSC, PPRP, and Kent County shall be afforded access to the project site at any reasonable time, with appropriate notification, to conduct inspections and evaluations necessary to confirm compliance with the CPCN requirements. Morgnec Road Solar shall provide assistance as reasonably necessary to conduct inspections and evaluations effectively and safely, which may include, but need not be limited to, the following:
- a. Inspecting construction authorized under this CPCN;
- b. Accessing or copying any records that Morgnec Road Solar is required to keep pursuant to this CPCN or applicable regulations;
- c. Obtaining any photographic documentation and evidence; and
- d. Determining compliance with the conditions and regulations specified in the CPCN.

Agreed. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 7a.-d. of the CPCN, and the point person for the PSC, PPRP and County concerning implementation of conditions and compliance with local, state and federal laws related to the same and access to the Property. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

8. Spill Control – Morgnec Road Solar shall follow guidelines established by the U.S. Environmental Protection Agency (EPA) Spill Prevention, Control and Countermeasure and Facility Response Plan programs to prevent and control spills. All adjacent properties, streams and wetlands shall be protected from spills or leaks of transformer fluids or other biologically detrimental substances by appropriate containment structures.

Agreed. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir.

Stevensville, MD 21666 <u>kevin.clark@urbangridco.com</u>) will be the point person for compliance with condition 8. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

9. Sediment Control – Morgnec Road Solar shall implement soil erosion and sediment control best management practices (BMPs) provided in the Maryland Department of the Environment (MDE) document, 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control, and as otherwise may be approved or required by Kent County. All portions of the project site disturbed during construction shall be stabilized as soon as practicable after the cessation of construction activities within that portion of the site, followed by seed application, in accordance with the above-cited document.

Kimley-Horn and Associates, Inc. on behalf of Morgnec Road Solar has or shall prepare and submit Sediment Control plan to the applicable government agencies as required by State and County regulations. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 9. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

10. Forest Conservation – To satisfy Forest Conservation Act Requirements for development, Morgnec Road Solar shall prepare and submit to Maryland DNR and Kent County for review and approval a Forest Stand Delineation (FSD) as described by NRA 5-1604 and a Forest Conservation Plan (FCP) as described by NRA 5-1605. In addition, the FSD and FCP shall be compliant with Kent County Forest Conservation regulations as stated in Kent County Regulations, Part III, Chapter 222.

ECS-Mid Atlantic, LLC on behalf of Morgnec Road Solar has prepared FSD and Kimley-Horn and Associates, Inc. on behalf of Morgnec Road Solar has prepared FCP in accordance with applicable regulations. These are being submitted to the County as part of the Site Plan review process. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 10. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

11. Vegetation Management Plan – Morgnec Road Solar shall plant and establish the grounds of the project beneath and between the solar panels with native, warm season grasses and/or low-growing pollinator-friendly plant species. Further, Morgnec Road Solar shall, prior to commencement of project construction, develop and submit to PPRP for review a grounds management plan that incorporates an Integrated Vegetation Management (IVM) approach and specifically includes the following:

- a. Description of grasses and other plant species to be maintained at the site, with preference given to native (or naturalized) species;
- b. Schedule for mowing that avoids or minimizes mowing activities during the nesting season of most ground-nesting birds (i.e., May through August);
- c. Restriction of grass mowing height at all times to not less than 10 inches except in areas where this would present a fire hazard or impede required access to equipment;
- d. Protocol for managing invasive plant species, consistent with county regulations; and
- e. Description of the herbicides and pesticides to be used at the project site, details for avoiding or minimizing their use, and specific conditions under which these substances will be used. Herbicides and pesticides shall be EPA-registered at the time of application and shall only be applied in accordance with label recommendations, applicable law, and landowner requirements.

A vegetation management plan will be provided to PPRP within 30 days prior to the start of construction. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 11 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

- 12. Pollinator Habitat Morgnec Road Solar shall use native flowering plants to establish and maintain long-term pollinator habitats where possible throughout the solar facility. Morgnec Road Solar shall develop a Pollinator Habitat Plan that sets forth details of the pollinator habitat and includes the following:
- a. Maps of designated pollinator habitat areas on the project site;
- b. Lists and descriptions of all intended target native plant species for the pollinator areas;
- c. Methods for planting the pollinator areas;
- d. All management methods for the pollinator areas, including elimination of non-native invasive species, mowing, herbicides, and other pertinent criteria; and
- e. Projected success goals for the pollinator habitats, including expected percent survival statistics of all planted species during a period of five years after installation, and contingency planting for areas of nonestablishment.

Morgnec Road Solar shall submit the Pollinator Habitat Plan to PPRP and Kent County for review at least 30 days before completion of project construction and shall indicate if Morgnec Road Solar will participate in Maryland Department of Natural Resources' Pollinator-Friendly Designation Program for Solar Facilities.

A Pollinator Habitat Plan is being prepared by Kimley-Horn and Associates, Inc. and will be submitted to Kent County as part of the site plan review process. The Plan will also be provided

to PPRP for review within 30 days before completion of project construction. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 12 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be throughout the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

13. Rare, Threatened, and Endangered Species – Morgnec Road Solar shall notify and consult with the Maryland Department of Natural Resources-Wildlife and Heritage Service to determine appropriate actions if any rare, threatened, or endangered species are encountered during planning, construction, operation, or maintenance of this facility.

Included with the Site Plan submittal is a letter from Maryland Department of Natural Resources-Wildlife and Heritage Service indicating no official State or Federal Records for listed plant or animal species. Morgnec Road Solar shall continue to notify and consult with the Department as required in this condition. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 13 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

14. Grading and Stormwater Management – Morgnec Road Solar shall provide PPRP and the PSC Engineering Staff with copies of all plans that Morgnec Road Solar submits to Kent County in connection with the project for grading the site, and all permits received for such grading, within fifteen (15) calendar days of submitting such plans or receiving such permits. Grading and associated stormwater controls shall be designed to minimize hydrological changes to off- site streams and wetlands and to maintain the existing flow regime to these streams and wetlands. In no case shall such plans include removal of topsoil from the site.

Site improvement plans will be provided to the PPRP and PSC Engineering Staff as well as copies of all permits related to grading. All grading and stormwater management plan associated with the Preliminary Site Plan is being provided PPRP and PSC Engineering Staff. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 15 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be throughout the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

15. Chesapeake Bay Critical Area - Due to anticipated changes to Kent County's Critical Area Maps for this portion of Kent County, review by the Critical Area Commission for the Chesapeake and Atlantic Coastal Bays is required prior to commencement of any development activity in the Critical Area to determine if the Project is consistent with Natural Resources Article 8-1801 et seq. and COMAR Title 27. Morgnec Road Solar shall submit the Project to the

Critical Area Commission (CAC) for review. If the CAC determines that the Project requires approval, Morgnec Road Solar may not undertake development activity in the Critical Area until the required approval is obtained. A copy of the submittal to the CAC and any CAC approval and conditions shall be provided to PPRP and filed in the PSC docket for the case.

Morgnec Road Solar shall comply with these conditions; however, limits of disturbance are not proposed within the critical area. There are limited perimeter landscape buffers proposed within the Critical Area to satisfy County requirements. To the extent coordination with the Critical Area Commission is required, it will be undertaken by Morgnec Road Solar. All grading, installation of infrastructure and construction of solar panels shall be outside of the Critical Area. Morgnec Road Solar has provided CAC a copy of the Preliminary Site Plan submittal. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 15 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be throughout the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

16. Site Plan Review - Morgnec Road Solar shall certify to the PSC and to PPRP that it has designed the facility in substantial conformity to Kent County Site Plan requirements, has obtained Site Plan approval from the Kent County Planning Commission and received all required local permits prior to the commencement of construction. This certification shall demonstrate that Morgnec Road Solar has complied with all requirements of Kent County Land Use Ordinance Article VI, Section 11, as amended on February 16, 2021, including but not limited to setback and screening provisions. Morgnec Road Solar shall comply with all standard development review requirements of Kent County.

Agreed. Morgnec Road Solar shall certify to the PSC and to PPRP that it has designed the facility in substantial conformity to Kent County Site Plan requirements, has obtained Site Plan approval from the Kent County Planning Commission and received all required local permits prior to the commencement of construction. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 16 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

17. Coordination with MDOT SHA - Morgnec Road Solar shall coordinate any future maintenance of traffic concerns during construction with the MDOT SHA District 2 Engineer.

Agreed. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 17 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

18. Construction Traffic Management Plan - Prior to construction, Morgnec Road Solar shall submit to the PSC and PPRP a copy of a traffic management plan. The plan shall restrict truck deliveries to non-peak hours, limit the number of trucks that can be onsite at any given time, and limit their duration at the project site. The traffic management plan shall designate MD 291 (River Road – Morgnec Road) as the primary truck route for all non-local construction truck traffic accessing the project area from US 301, and include the condition in all contracts with suppliers or contractors. If circumstances or conditions require construction traffic to temporarily access the project site from an alternative route, Morgnec Road Solar shall obtain prior approval from the Kent County Department of Public Works, and/or Maryland Department of Transportation State Highway Administration, as appropriate, and within 30 days, shall file a certification in the record that the alternative route used received prior approval. This compliance filing shall document the approval required above, and describe the reason(s) for and duration of the alternative route.

Agreed. Kimley-Horn and Associates, Inc. is preparing a construction traffic management plan to satisfy this condition in coordination with Morgnec Road Solar and for Kent County and SHA review, as applicable. Kevin Clark, Morgnec Road Solar will be the point person for compliance with condition 18 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

19. Road Permits - Morgnec Road Solar shall comply with all permit requirements and restrictions for use, crossing and occupancy of State highways and obtain appropriate approvals, as necessary.

Agreed. Kevin Clark, Morgnec Road Solar will be the point person for compliance with condition 19 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

20. Road Damage - Prior to construction, Morgnec Road Solar shall document road, shoulder, and right-of-way (ROW) conditions on roads with direct access to the project site, and monitor road conditions weekly during the construction period, or when notified of damage or debris caused by construction vehicles. If it is determined that Morgnec Road Solar has caused damage during its work to any roadway under the authority of MDOT SHA, Morgnec Road Solar shall contact District 2 Maintenance to report such damage. Morgnec Road Solar shall reimburse MDOT SHA for repairs or correct all identified road damage that deviates from its initial reconnaissance within 48 hours of being detected or reported. Repairs performed by Morgnec Road Solar to roads, shoulders, and ROWs shall conform to MDOT SHA specifications.

Agreed. The above required documentation will be provide prior to commencement of construction, then on a weekly basis as required. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 20 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal

laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

21. Landscape Buffer – Morgnec Road Solar shall submit to the PSC and PPRP a landscaping plan that has been approved by Kent County prior to construction and complies with Kent County requirements for vegetated buffers set forth in the Land Use Ordinance Article VI, Section 11, as amended on February 16, 2021.

Landscape Buffer plans are included with each phase of the site plan submittal. Once approved by Kent County Morgnec Road Solar shall submit the plans to PSC and PPRP. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 20 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be throughout the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

22. Landscape Maintenance - Prior to the commencement of construction, Morgnec Road Solar shall negotiate and execute a landscape maintenance and enforcement agreement with Kent County that ensures the landscape buffer is protected, monitored and maintained over the life of the project. Morgnec Road Solar shall submit to the PSC and to PPRP a copy of an executed Certificate of Maintenance Agreement for the landscape plan.

A Landscape Maintenance Agreement has been drafted as part of the preliminary plan to reviewed by the County. Copies of the executed agreement will be provided to the PSC and PPRP. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 20 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

23. Within five years after obtaining a final unappealable CPCN, the Applicant shall coordinate with PPRP and/or a reviewing State Agency, and in consultation with the County and a representative of the local community, develop and implement a plan for one or more public amenities or enhancements, which may be located adjacent to Morgnec Road Solar in the required 200-foot setback as a Gateway into the Town of Chestertown or another location in Kent County. The Applicant shall engage in these required activities in good faith and shall commit to expending \$75,000 to implement the agreed upon plan.

The use of local artwork mounted outside the buffer or on the project fence has been discussed. Morgnec Road Solar will work closely with all stakeholders to develop the gateway plan. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 23 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the

County will be advised of his replacement.

24. Visual Impact Complaint Resolution - If Kent County, PPRP or any other party to the case provides information to Morgnec Road Solar indicating that reflective glare or visibility of structures within the perimeter fence is impacting a nearby road(s) or resident(s), Morgnec Road Solar shall coordinate with the PSC, PPRP and Kent County to determine a reasonable solution to mitigate negative impacts.

No visual impacts are anticipated at buffer maturity. However, Morgnec Road Solar will work with all listed entities to insure this is the case. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 24 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

25. Exterior Lighting Plan - Morgnec Road Solar shall design a lighting distribution plan for the project to conform to standards in the Kent County Code for zoning districts where utility-scale solar energy systems are a permitted principal use, unless it is inconsistent with any other license condition of this CPCN, or any federal, State, or local laws or regulations.

No lighting is proposed for the project at this time. If lighting is proposed for the project it will be in compliance with the Kent County Code and following review and approval by the applicable regulatory agencies of the County. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 25 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

26. Archeological Discoveries - In the event that relics from unforeseen archeological sites are revealed and identified during construction, Morgnec Road Solar, in consultation with and as approved by the MHT, shall develop and implement a plan for avoidance and protection, data recovery, or destruction without recovery of such relics or sites.

Agreed. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 26 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

27. Scenic Byways Coordination - Prior to construction, Morgnec Road Solar shall certify to the PSC and to PPRP that it has consulted with the MDOT SHA Scenic Byways Coordinator to ensure the project's site layout, landscaping, and lighting maintains the byway's visual quality.

Agreed. Morgnec Road Solar is providing copies of the Preliminary Site Plan to the MDOT, SHA Scenic Byways Coordinator, and will initiate follow-up consultation prior to submitting a Final Site Plan with the County. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 27 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

28. Cycling Safety - Morgnec Road Solar shall instruct its suppliers and contractors to be aware of on-road bicycle route designations near the project and Maryland traffic laws regarding bicycles on the road, and include the condition in all contracts with suppliers or contractors.

Prior to construction Morgnec Road Solar will develop a delivery plan that will include provisions for cyclist safety. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 28 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

29. MDOT SHA Bicycle and Pedestrian Coordination - Morgnec Road Solar shall certify to the PSC and to PPRP that it has consulted with the MDOT SHA Bicycle and Pedestrian Coordinator to ensure activity during construction minimizes conflict with bicyclists.

Prior to commencement of construction Morgnec Road Solar shall provide the MDOT, SHA Bicycle and Pedestrian Coordinator copies of the approved Final Site Plan, and will initiate follow-up consultation. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 29 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

30. Fire Safety - Morgnec Road Solar shall install and maintain the project to meet the minimum guidelines set forth in the National Fire Protection Association's NFPA 1 Fire Code Handbook and NFPA 70 National Electrical Code.

Applicable building and construction permits/plans will indicate compliance with the minimum guidelines set forth in the National Fire Protection Association's NFPA 1 Fire Code Handbook and NFPA 70 National Electrical Code. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 30 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

31. Emergency Preparedness - Morgnec Road Solar shall contact the Kent County Office of Emergency Services, Chestertown Volunteer Fire Company and Kennedyville Volunteer Fire Company to develop appropriate protocols for addressing on-site emergencies.

All first responders shall be briefed on the site prior to construction. Following Final Site Plan approval and before commencement of construction Morgnec Road Solar shall contact the Kent County Office of Emergency Services, Chestertown Volunteer Fire Company and Kennedyville Volunteer Fire Company to develop appropriate protocols for addressing on-site emergencies. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 31 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

32. Solar Decommissioning

a. At least 30 days prior to the start of construction, Morgnec Road Solar shall submit a decommissioning plan to the PSC and PPRP for review. The decommissioning plan shall describe the responsible party(ies), timeframes, and estimated costs for decommissioning, dismantling, and legal disposal of all components, including cables, wiring, and foundations below and above ground. The plan shall address site conditions after decommissioning, including stabilization, grading and seeding all disturbed areas and evenly distributing topsoil if stockpiled onsite. The plan shall maximize the extent of component recycling and reuse, where practicable, and ensure all materials are handled in accordance with applicable federal, State, county, and local requirements. Morgnec Road Solar shall not begin construction until Morgnec Road Solar has addressed all written comments from the PSC and PPRP, the PSC has approved the plan, and all specified financial guaranties are in place. The approved plan, and any updated plans, shall be filed in the PSC docket for Case No. 9499.

Agreed. Morgnec Road Solar will also provide the "decommissioning plan" to the County in accordance with this condition 32 a. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 32 a. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

b. Morgnec Road Solar shall implement a financial mechanism to ensure that decommissioning costs are not borne by the State and/or the County at the end of the useful life of the project or in the event of abandonment of the project. The project will be considered to be abandoned if there is no electric generation provided to the grid for a period of twelve (12) consecutive months. The financial instrument may be in the form of a surety bond, a letter of credit issued by a financial institution, or other alternative arrangement and must be in place prior to the commencement of construction of the project. The financial mechanism is subject to the evaluation and approval of

the PSC as to the credit-worthiness and financial capabilities of the counter-party(ies).

Agreed. A financial instrument in the form of a surety bond, a letter of credit issued by a financial institution, or other alternative arrangement will be provided to the PSC and the County prior to the commencement of construction of the project. The financial instrument shall be approved by the PSC and in a form reasonably acceptable to the County. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 32 b. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be throughout the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

c. Morgnec Road Solar shall develop an estimate of decommissioning costs by a third-party consultant to determine the amount of the decommissioning surety bond letter of credit, or other alternative arrangement. The cost estimate shall address provisions for the safe removal and proper disposal of all components of the project, including any components containing hazardous or toxic materials.

The "estimate of decommissioning costs" shall be prepared prior to compliance with 32. B. above. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 32 c. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

d. Over the life of the project, Morgnec Road Solar shall update the decommissioning cost estimate and corresponding approved financial instrument every five (5) years after the issuance of the CPCN to adjust for inflation and any other necessary changes. The salvage value of the panels may only be included in a five (5) year update as an offset to decommissioning costs if Morgnec Road Solar can provide evidence that a recycling market exists for such panels and the value is commercially supported. Morgnec Road Solar shall provide the revised cost estimate to the PSC for approval, file the revised cost estimate in the PSC docket for Case No. 9499, and execute an adjustment to the financial guarantee mechanism.

The "updated decommissioning cost estimate and financial instrument" shall be provided in accordance with 32 d. Kevin Clark, Morgnec Road Solar(owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 32 d. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

e. Morgnec Road Solar shall begin implementation of the approved decommissioning plan within 12 months after the project ceases to generate electricity for sale or upon expiration of the CPCN pursuant to Condition 3(b). Prior to starting implementation of the decommissioning plan, Morgnec Road Solar shall notify the PSC and PPRP of its intent to decommission.

Agreed. Kevin Clark, Morgnec Road Solar will be the point person for compliance with condition 32 e. of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

33. Project Transfer - All provisions and requirements of this CPCN shall apply to any and all subsequent owners and/or operators of the project. In the event of any pending change in control or ownership, the current owner/operator shall notify the succeeding owner/operator of the existence of the requirements of this CPCN by letter and shall send a copy of this letter to the PSC and PPRP. Information provided to the PSC and PPRP shall also be filed in the PSC docket for Case No. 9499.

Agreed. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 33 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

34. Current Point of Contact – The Applicant or its legal successor shall specify a representative for project matters, including compliance with the CPCN conditions ("Representative"). The Applicant or its legal successor shall file in the PSC docket for Case No. 9499 the representative's contact information, including the representative's name, title, email address, and physical address. Any change in the representative or to the representative's contact information shall be filed in the PSC docket within 30 days.

Agreed. Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 34 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

35. Compliance – Issues of non-compliance with CPCN conditions raised by Kent County, PPRP, or any other party to the case shall be addressed by the project's Representative. Within 45 days of receiving notice, the project's Representative shall submit, and file in the PSC docket for Case No. 9499, a summary of the non- compliance issue and a statement of how the project has addressed or is addressing the matter.

Kevin Clark, Morgnec Road Solar (owned by Urban Grid, 337 Log Canoe Cir. Stevensville, MD 21666 kevin.clark@urbangridco.com) will be the point person for compliance with condition 35 of the CPCN, and the point person for the County concerning implementation of conditions and compliance with local, state and federal laws related to the same. The timeline will be through-out the life of the project, and should Mr. Clark no longer be the point person the County will be advised of his replacement.

36. Submissions to PPRP - Informational copies of the required communications, reports or studies referenced in the preceding license conditions shall be sent to PPRP by e-mail (and by mail if requested) at:

Director Power Plant Assessment Division Department of Natural Resources Tawes State Office Bldg., B-3 580 Taylor Avenue Annapolis, Maryland 21401

e-mail: pprp.dnr@maryland.gov

This is a statement for which no description of compliance is necessary.

Kent County Commissioners Office 400 High Stree Chestertown, MD 21620



Chestertown Town Hall 118N Cross Street Chestertown, MD 21620

June 18, 2024

Dear Kent County Commissioners and Chestertown Town Council Members,

As the owner and operator of Morgnec Solar, currently in development in Kent County, Maryland, Urban Grid is committed to ensuring our solar facility brings positive benefits to the surrounding community for years to come. Not only does Urban Grid pride itself is producing clean, renewable energy in the United States, we also take our community commitments seriously and work hard to be a good neighbor and corporate citizen in any community where we develop, construct and operate solar energy facilities.

As part of our commitment to the Kent County community, Urban Grid will collaborate with the Kent Cultural Alliance to facilitate a community art-project to benefit local residents and community members. We intend to work with the Kent Cultural Alliance and local artists to identify and fund a community improvement project in or near Chestertown. While details of the proposed community improvement project are still being worked out, we do want to convey or commitment to bringing this project to life as Morgnec Solar becomes operational.

Urban Grid strives to be an excellent community partner and we look forward to collaborating with local residents and organizations in Kent County for many years to come!

Sincerely,

Amanda Marple

Community Engagement Manager

(304) 707-1053

Amanda.marple@ubangridco.com



MEMORANDUM

To: Kent County Planning and Zoning

From: Ellen Tusing, P.E.

Kimley-Horn and Associates, Inc.

Date: 06/20/2024

Subject: Morgnec Solar Preliminary Plan - Planning Commission Submittal

SUMMARY

Kimley-Horn and Associates, Inc. is submitting this preliminary plan package on behalf of Morgnec Road Solar, LLC. The Morgnec Solar major site plan was previously submitted to the Kent County Technical Advisory Committee for Concept TAC review on February 14th, 2024. A detailed response to the comments provided during that TAC meeting is provided in this memorandum for reference.

Morgnec Road Solar, LLC requests to be placed on the agenda for the July 11th Planning Commission meeting. Please find the following items for your review and consideration:

ATTACHMENTS

- 01 Preliminary Plan Set
- 02 Preliminary Forest Conservation Plan
- 03 Glint Glare Report
- 04 Entrance Visual Rendering at 2-YR
- 05 Landscape Maintenance and Inspection Agreement
- 06 Revised CPCN Point by Point

COMMENT RESPONSE

23-34 Morgnec Road Solar, LLC – Major Site Plan (Concept)
616 Morgnec Road, Chestertown – Fourth Election District – Intense Village (IV), Community
Residential (CR), Rural Residential (RR), and Resource Conservation District (RCD)

The applicant is requesting preliminary site plan review of a 245-acre utility-scale solar energy system. The project site is currently in agricultural production. The anticipated energy output is from 45 to 55 MW, and grid interconnection is to be at the Chestertown Substation directly across Morgnec Road.

The Health Department has no objections to this application.



Response: Acknowledged.

 Per SHA, they will continue to work with the county and design engineering firm on the project, SHA Tracking Number: 24apke001xx.

Response: Acknowledged.

• The Finance Office has no objections to this application.

Response: Acknowledged.

• Per the Department of Public Works, stormwater management requires further review. The applicant proposes a total ESDv treatment of 9,460cf where the design requires 54,870cf. This is based on the applicant's contention "that despite the provided ESDv being below the target calculated, the reduction in the runoff curve number for the site due to the change in ground cover from row crops to meadow grasses clearly demonstrates that we will be improving the post-development runoff characteristics of the site, which satisfies the intention and goals of the stormwater management program." This contention is acknowledged and understood; however, Section 5.2 of the Maryland Stormwater Design Manual states "To best maintain predevelopment runoff characteristics, the target for ESD implementation should be "woods in good condition" (as opposed to existing ground cover of row crops). Section 5.2 continues "The Act requires the implementation of ESD to the MEP to mimic natural runoff characteristics..." which further reinforces that the calculations must meet the full target volume. Based on this the stormwater management design must be substantially revised to meet the requirements of the Manual, or variance relief would be required.

Response: Understood. The revised preliminary plan proposes the use of non-rooftop disconnect, grass swales along roadways, solar array disconnect, and open space disconnect methods to achieve the required ESDv (64,055 cf) and treat the required impervious area (6.64 AC) as calculated for the project site area. The recharge requirements have also been satisfied. See Sheet CP-420 for full tabulation of ESDv calculations.

• Please provide an updated narrative that addresses points of compliance with the Comprehensive Plan, the Land Use Ordinance, and the conditions for the CPCN license. Please provide a minimal overview of all items that have been submitted for review. Include details of the Citizen Participation Plan. Where not already addressed in the narrative, please include comments that address each of the standards in an ordered list (a., b., c., etc.) corresponding with and reproducing the standards by which the Planning Commission will evaluate the proposal, as is listed in Article VI, Section 5.3.B (16) of the Kent County Land Use Ordinance. Please include conformance with the Comprehensive Plan, protection of abutting properties and County amenities from any undue disturbance (noise, dust, glare, etc.), and design of the development to complement and enhance the rural and historic nature of the County and to harmonize features of development with the surrounding townscape and the natural landscape.

Response: An updated narrative that addresses the points of compliance with conditions of the CPCN license is provided in this submittal package. A letter regarding the Citizen Participation Plan is also provided in this submittal package. See above for a list of deliverables that have been provided in accordance with the Land Use Ordinance specifications and revised based on the comments herein.

 Please indicate whether the proposed temporary storage area in the northwestern corner of the project site will include a temporary pathway, of what it will be composed, what route it will take



around the drainage slopes, and how the area will be restored afterward. If that temporary storage area is not to be used, please remove it from the site plan.

Response: Acknowledged. Storage area in northwestern corner of the project site has been removed.

- Landscaping:
 - Article VI, Section 11.D.5 requires that the landscaping plan be deemed to screen elevations of the site adequately within 2 years. The submitted landscape renderings depict expected screening capability at time of planting and after 5 years of growth. Please provide expected screening capability after two years of growth. The installation of trees taller than the minimum required may be needed.
 - Response: A landscape rendering has been provided that depicts the typical buffer section along Morgnec Road at the proposed entrance location. The rendering depicts two years of growth.
 - Please vary the arrangement of plants so as to promote the growth of a natural landscape and avoid monotony and uniformity of the buffer.
 - Response: Acknowledged. A final buffer detail with spacing and species list is still being developed and will be provided with final plan. The rendering depicts the typical nature of the buffer with varied arrangement, size, and species.
 - Please indicate on renderings and landscape plans how the requirement that entranceways –
 as established in Article VI, Section 11.H are designed to ensure that neighboring
 properties, public rights-rights-of-way and roads are not exposed to an unscreened view.
 - Response: The rendering provided depicts the condition at two years of growth showing the effective screening of the site along the road frontage. Arrays may be visible at an instant that passersby are driving past the site. The applicant would like to consider use of varied fencing elements or other features to fully obstruct the view.
 - Please indicate on the site plans how the proposed gaps in the buffer for the existing drainage lanes in the northwestern portion of the project site will be screened either through new plantings or existing vegetation, which may need to be bolstered.
 - Response: See Site Plan Sheets CP-210 through CP-215 for locations of proposed buffer plantings. If additional screening is required, the existing vegetation will be supplemented with additional plantings.
 - Please indicate on the site plans how the adjacent property (26712 Morgnec Road) on the southeastern portion of the project site will be adequately screened either through new plantings or existing vegetation, which may need to be bolstered.
 - Response: See Site Plan Sheets CP-210 through CP-215 for locations of proposed buffer plantings. If additional screening is required, the existing vegetation will be supplemented with additional plantings.
 - Please provide a landscape maintenance agreement and landscape irrigation plan.
 Response: See submittal package for draft landscape maintenance and inspection agreement.



- Forest Conservation Plan:
 - A forest conservation easement is required, and it will need to include the area necessary to meet the 20% afforestation requirement.

Response: A draft Forest Conservation Plan has been provided that includes the conservation easement necessary to satisfy the site requirements.

- As Forest Conservation requirements are not applicable to the Critical Area, the easement only needs to be applied to forested areas outside of the Critical Area. The applicant is not restricted from placing more forested area into easement, however.
- Calculations to determine the afforestation and conservation thresholds are to be based on the net tract area outside of the Critical Area. Please recalculate the Forest Conservation Worksheet.

Response: The worksheet has been recalculated based on the site limits of disturbance as the applicant does not have land control over the entire tract area. The applicant will conserve existing forest stand within the lease limits to fully satisfy the requirements. Please reference the worksheet on Sheet FCP-3 of the Forest Conservation Plan for detail.

• Please update the previously submitted forest stand delineation.

Response: The forest stand delineation has been incorporated by reference into the Forest Conservation Plan. Please review the draft plan for further details.

 A glare analysis evaluating the effects of the proposed project on nearby airports was previously submitted. In accordance with Article VI, Section 11.B.9, please provide a glare analysis to determine whether adjacent properties and/or roadways will be affected by glare and/or reflectivity. Please indicate how any potential effects will be mitigated.

Response: A revised glint glare report has been included in this submittal package for review.

Please provide an Ownership and Maintenance plan.

Response: An ownership and maintenance plan is still being developed by the applicant to address all project improvements and will be provided to the County for review prior to site plan approval.

CLOSURE

Please advise how many hard copies of the attachments, if any, are requested. If there are any further comments or questions regarding the updated plans, please feel free to reach out directly at (804)-273-8380 or Ellen.Tusing@kimley-horn.com. We look forward to working with you.

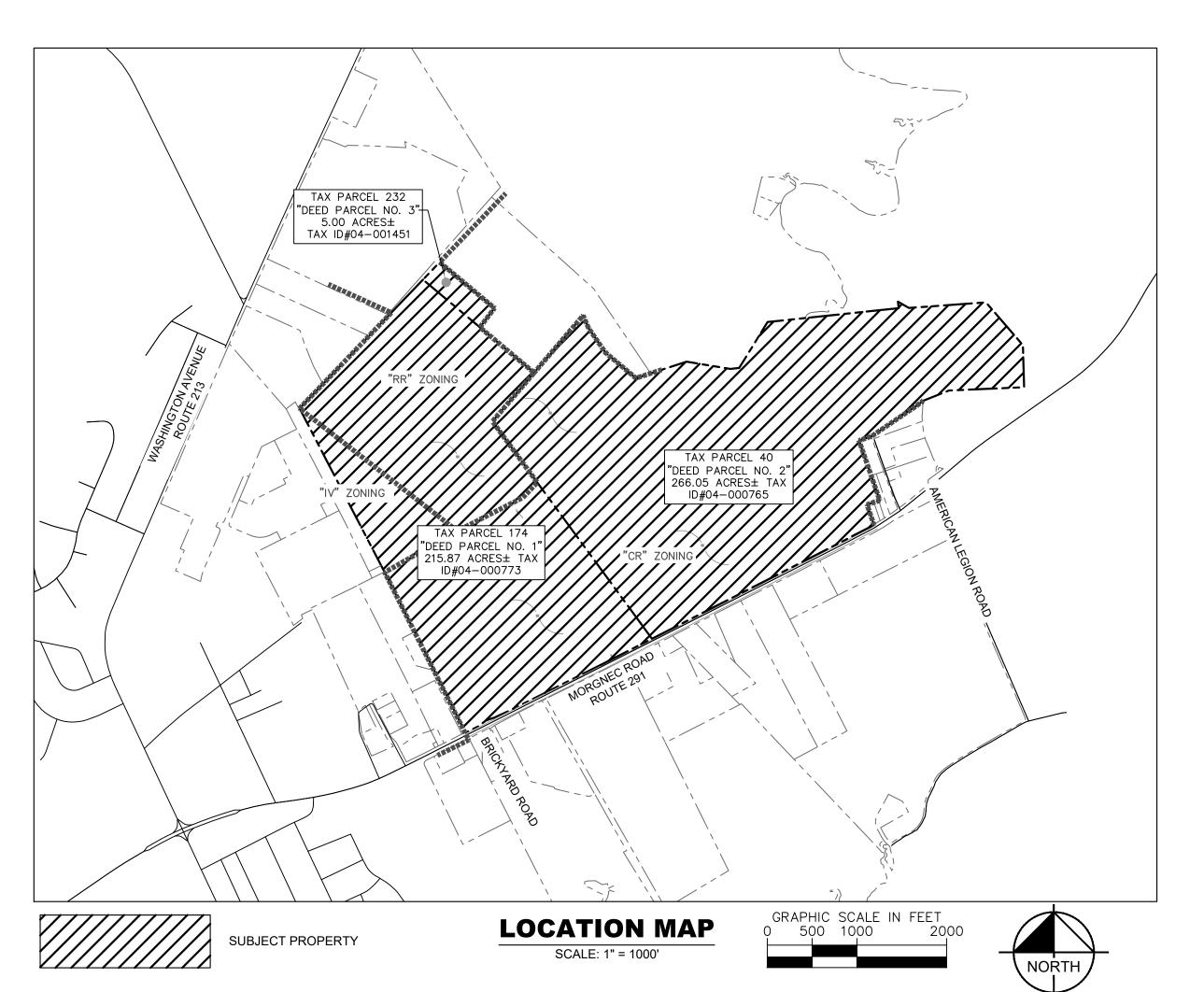
Thank you, Ellen Tusing, P.E.

MORGNEC SOLAR PRELIMINARY PLAN

616 MORGNEC ROAD, CHESTERTOWN, MD 21620 KENT COUNTY, MD

TAX PARCELS: 40, 174, 232

Sheet List Table				
Sheet Number	Number Sheet Title			
CP-000	COVER SHEET			
CP-210	OVERALL SITE PLAN			
CP-211	ENLARGED SITE PLAN (1 OF 5)			
CP-212	ENLARGED SITE PLAN (2 OF 5)			
CP-213	ENLARGED SITE PLAN (3 OF 5)			
CP-214	ENLARGED SITE PLAN (4 OF 5)			
CP-215	ENLARGED SITE PLAN (5 OF 5)			
CP-240	SITE DETAILS (1 OF 2)			
CP-241	SITE DETAILS (2 OF 2)			
CP-410	OVERALL STORMWATER MANAGEMENT PLAN			
CP-411	ENLARGED STORMWATER MANAGEMENT PLAN (1 OF 5)			
CP-412	ENLARGED STORMWATER MANAGEMENT PLAN (2 OF 5)			
CP-413	ENLARGED STORMWATER MANAGEMENT PLAN (3 OF 5)			
CP-414	ENLARGED STORMWATER MANAGEMENT PLAN (4 OF 5)			
CP-415	ENLARGED STORMWATER MANAGEMENT PLAN (5 OF 5)			
CP-420	STORMWATER MANAGEMENT NOTES & DETAILS			
CP-421	STORMWATER MANAGEMENT NOTES & DETAILS			
CP-510	OVERALL SOIL EROSION & SEDIMENT CONTROL PLAN			
CP-511	ENLARGED SOIL EROSION & SEDIMENT CONTROL PLAN (1 OF 5)			
CP-512	ENLARGED SOIL EROSION & SEDIMENT CONTROL PLAN (2 OF 5)			
CP-513	ENLARGED SOIL EROSION & SEDIMENT CONTROL PLAN (3 OF 5)			
CP-514	ENLARGED SOIL EROSION & SEDIMENT CONTROL PLAN (4 OF 5)			
CP-515	ENLARGED SOIL EROSION & SEDIMENT CONTROL PLAN (5 OF 5)			
CP-530	SOIL EROSION & SEDIMENT CONTROL DETAILS			
CP-531	SOIL EROSION & SEDIMENT CONTROL DETAILS			
CP-532	SOIL EROSION & SEDIMENT CONTROL DETAILS			
CP-533	SOIL EROSION & SEDIMENT CONTROL DETAILS			
CP-534	SOIL EROSION & SEDIMENT CONTROL DETAILS			
CP-610	OVERALL LANDSCAPE PLAN			



OWNER (TAX PARCEL 40, 174, 232):

FAIR PROMISE FAMILY LIMITED PARTNERSHIP 25260 HOWELL POINT ROAD BETTERTON, MD 21610

DEVELOPER/APPLICANT:

MORGNEC ROAD SOLAR, LLC ATTN: MICHAEL WALTERS 337 LOG CANOE CIRCLE STEVENSVILLE, MD 21666

EPC CONTRACTOR:

4900 HOPYARD ROAD, SUITE 310 PLEASANTON, CA 94588 EMAIL: SANDY.TRUONG@DEPCOMPOWER.COM

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TOWN ROT		W.		
CHES (MO 20)				



CIVIL ENGINEER/ **LANDSCAPE ARCHITECT:**

KIMLEY-HORN AND ASSOCIATES, INC. ATTN: ELLEN TUSING, PE 215 WASHINGTON AVENUE, SUITE 500 TOWSON, MD 21204 TEL: (804) 273-8380 EMAIL: ELLEN.TUSING@KIMLEY-HORN.COM

ENVIRONMENTAL:

ECS MID-ATLANTIC, LLC 114026 THUNDERBOLT PLACE, SUITE 100 CHANTILLY, VA 20151 TEL: (717) 767-4788

SURVEYOR:

DAVIS, BOWEN & FRIEDEL, INC 106 N WASHINGTON ST #103 EASTON, MD 21601

ITEM 12	TABLE
TOTAL ACREAGE	486.92 AC
ACREAGE IN 100-YR FLOODPLAIN	39.23 AC (OF PARCEL AREA)
ACREAGE IN CRITICAL AREA	139.66 AC (OF PARCE AREA)
ACREAGE IN RECREATION AND OPEN SPACE	O AC
ACREAGE OF IMPERVIOUS SURFACES	6.64 AC (WITHIN DISTURBED AREA)
TOTAL NUMBER OF DWELLING UNITS OR BUILDING TYPES	N/A
TOTAL AREA OF BUILDINGS	N/A
NUMBER AND TYPE OF MULTI-FAMILY UNITS FOR EACH STRUCTURES	N/A
TOTAL NUMBER OF PARKING AND LOADING SPACES	N/A
MAXIMUM NUMBER OF EMPLOYEES	N/A

DESIGN AND DRAWINGS BASED ON MARYLAND COORDINATE SYSTEM (MCS) HORIZONTAL: NAD 83 **VERTICAL: NAVD 88**

Kimley » Horn

TOWSON, MD 21204 PHONE: 443-743-3500 WWW.KIMLEY-HORN.COM

SHEET NUMBER CP-000

PROPERTY INFORMATION:

SITE ADDRESS: 616 MORGNEC ROAD, CHESTERTOWN, MD 21620

TAX PARCEL 174, 40, 232: 486.92 ACRES 00854/00193 DEED REFERENCE:

ZONING CLASSIFICATION: INTENSE VILLAGE (IV), RURAL RESIDENTIAL (RR), COMMUNITY RESIDENTIAL (CR)*

233.36 ACRES

NEAREST PUBLIC ROAD: MORGNEC ROAD AGRICULTURAL EXISTING LAND USE:

UTILITY-SCALE SOLAR ENERGY SYSTEM* PROPOSED LAND USE:

PROPOSED WATER SUPPLY:

PROPOSED SOLAR AREA (LOD):

STORMWATER MANAGEMENT:

PROPOSED SEWER SUPPLY: MDE WATERSHED: CHESTER-SASSAFRAS

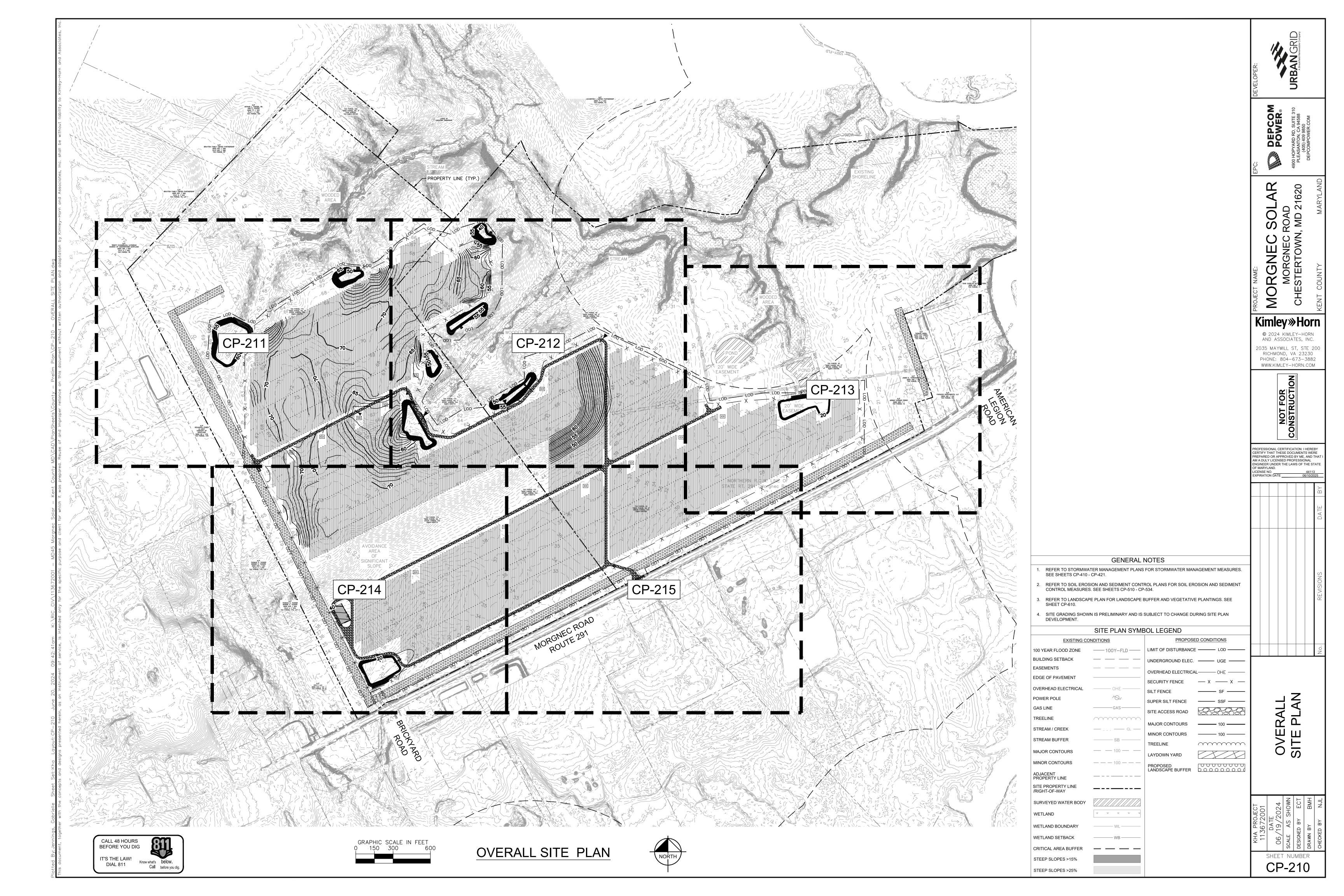
FEMA FLOOD MAP: #24029CO281D

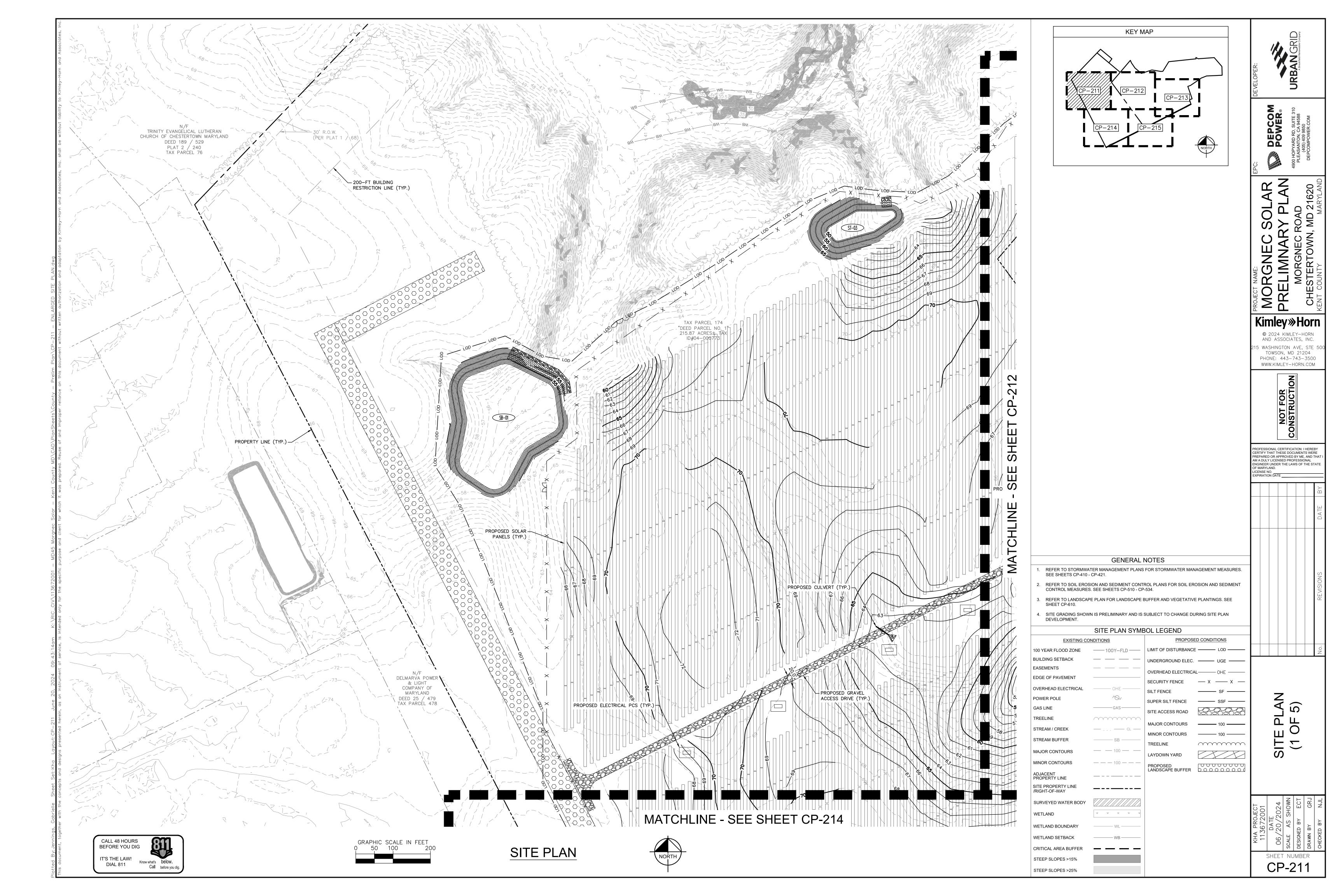
SWM IS PROVIDED ON-SITE IN ACCORDANCE WITH THE KENT COUNTY SWM MANAGEMENT ORDINANCE AND STATE DESIGN MANUAL

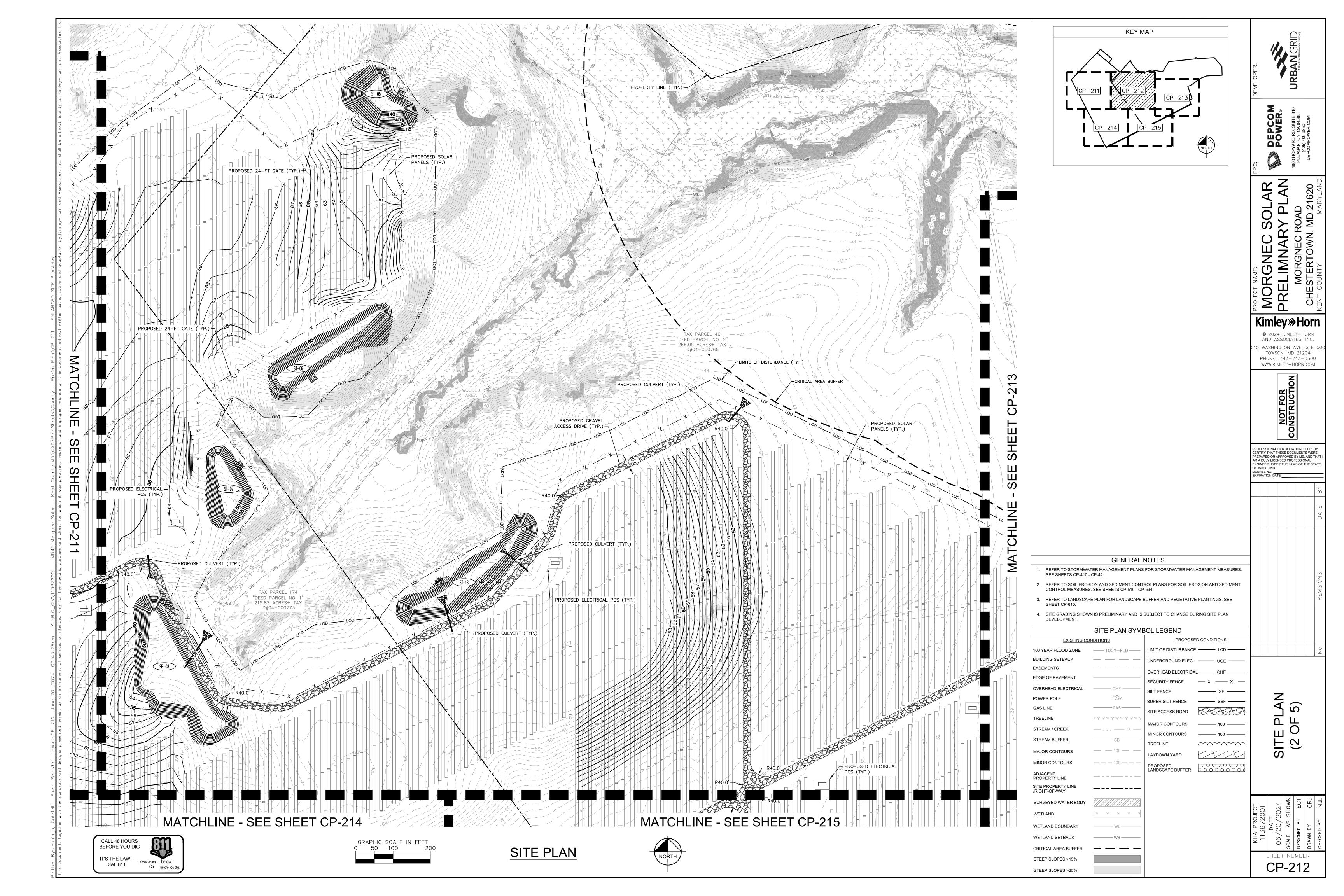
BUILDINGS: PERMANENT: 1 CONTROL ENCLOSURE AT PROJECT COLLECTOR SUBSTATION.

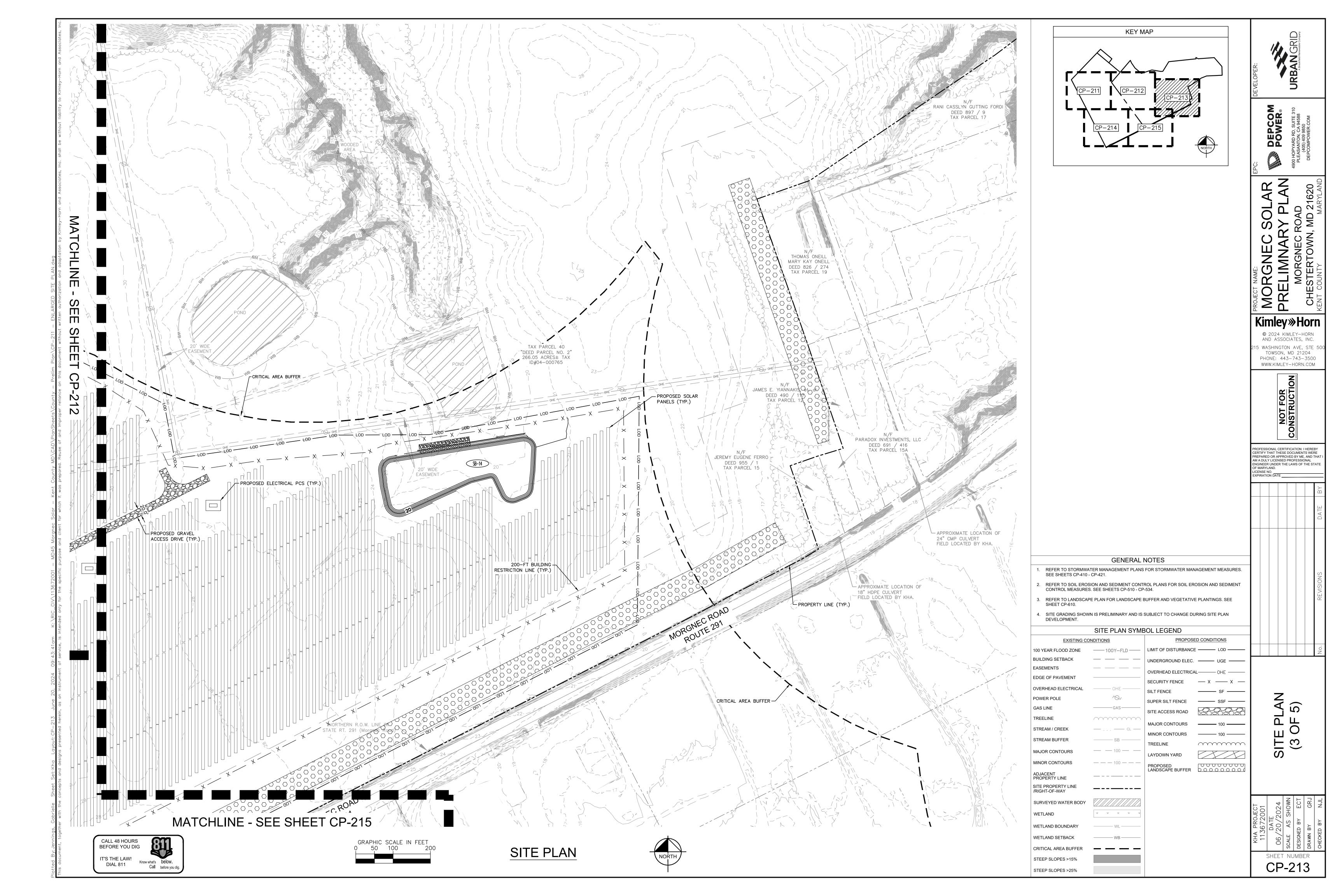
ELECTION DISTRICT:

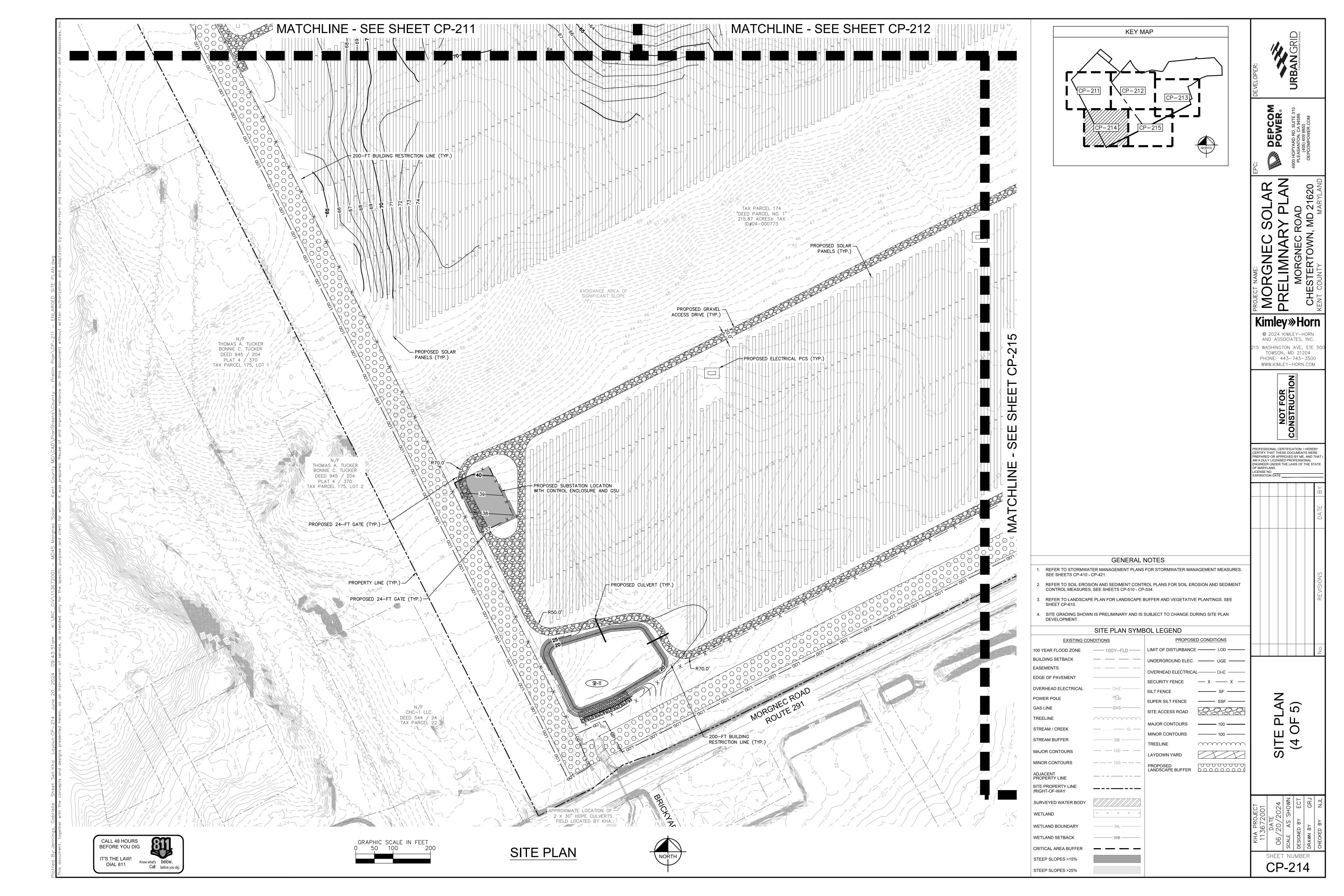
*CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY (CPCN) GRANTED BY MARYLAND PUBLIC SERVICE COMMISSION (PSC) ON APRIL 27, 2022.

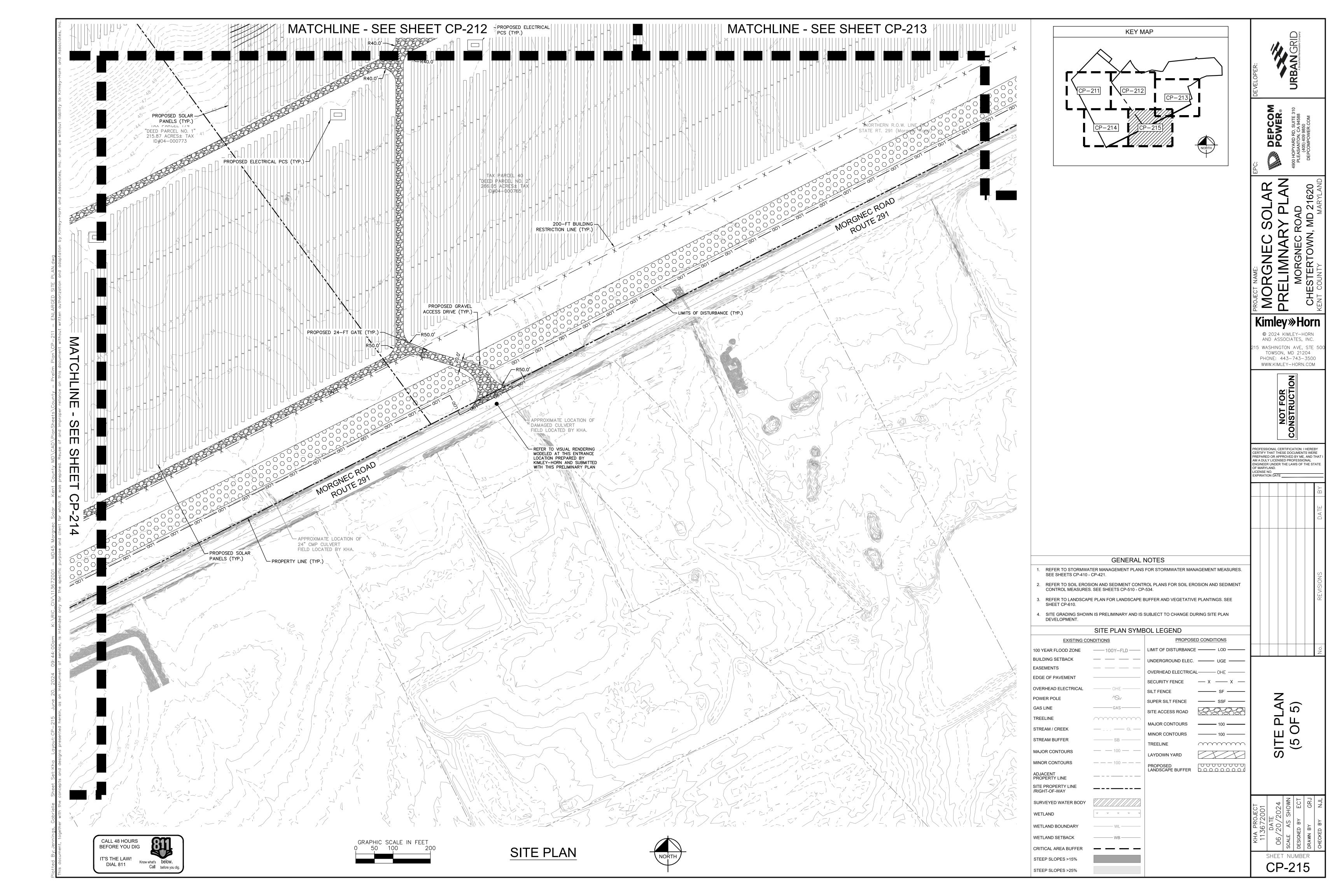


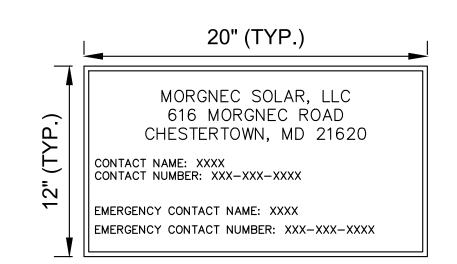










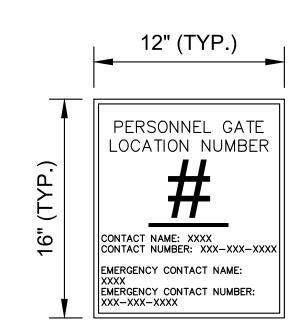


TYPICAL ENTRANCE GATE SIGN DETAIL

NOT TO SCALE

NOTES:

- CODE REQUIRED SIGNAGE WILL BE PROVIDED AROUND THE PERIMETER OF THE PROJECT FENCING, REFER TO ELECTRICAL PLANS FOR PROPOSED SIGNAGE DETAILS.
- 2. TYPICAL ENTRANCE GATE SIGNS WILL BE POSTED AT ENTRANCES FROM
- FINAL CONTACT NAME(S) AND NUMBER(S) TO BE PRINTED PER OWNER SUPPLIED INFORMATION.



TYPICAL PERSONNEL GATE LOCATION

IDENTIFICATION SIGN DETAIL

NOT TO SCALE

1. TYPICAL PERSONNEL GATE LOCATION IDENTIFICATION SIGNS WILL BE

SIGNS FOR EMS LOCATION REFERENCE.

SUPPLIED INFORMATION

POSTED AT ALL PERSONNEL GATES LOCATED ALONG THE PROPOSED SITE

2. CONSECUTIVE NUMBERING (#) SHOULD BE PROVIDED ON PERSONNEL GATE

3. FINAL CONTACT NAME(S) AND NUMBER(S) TO BE PRINTED PER OWNER

INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

GATE LEAF (TYP.)

PROVISIONS FOR

KNOX PAD LOCK

GATE POST (TYP.)

CHAIN LINK (TYP.)

CONCRETE FOOTING

FOR GATE POSTS (TYP.)

- SOLID UNDISTURBED SOIL

KNOX'

IDENTIFICATION SIGN

- 1. FINISH SHALL BE AS SELECTED BY OWNER.
- 1.1. CHAIN LINK FENCING TO BE BLACK VINYL COATED. POSTS, CAPS, BRACING AND HARDWARE TO BE PAINTED BLACK.
- 2. POST TOPS SHALL BE AS SELECTED BY OWNER.
- 3. REFER TO MANUFACTURER'S SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- *CONCRETE FOOTING DESIGN SHALL BE COMPLETED BY LICENSED STRUCTURAL ENGINEER

TYPICAL PERSONNEL GATE DETAIL

NOT TO SCALE

PER PLAN (24'-0") POST TOP — - 월" DIA. TRUSS ROD (TYP.) WIRES GATE POST — PERSONNEL GATE LOCATION PROVISION FOR KNOX PADLOCK ENTRANCE - CHAIN LINK GATE SIGN —ALL JOINTS ARE WELDED TO MAKE A RIGID FRAME - CONCRETE FOOTING FOR GATE POSTS* - SOLID UNDISTURBED SOIL

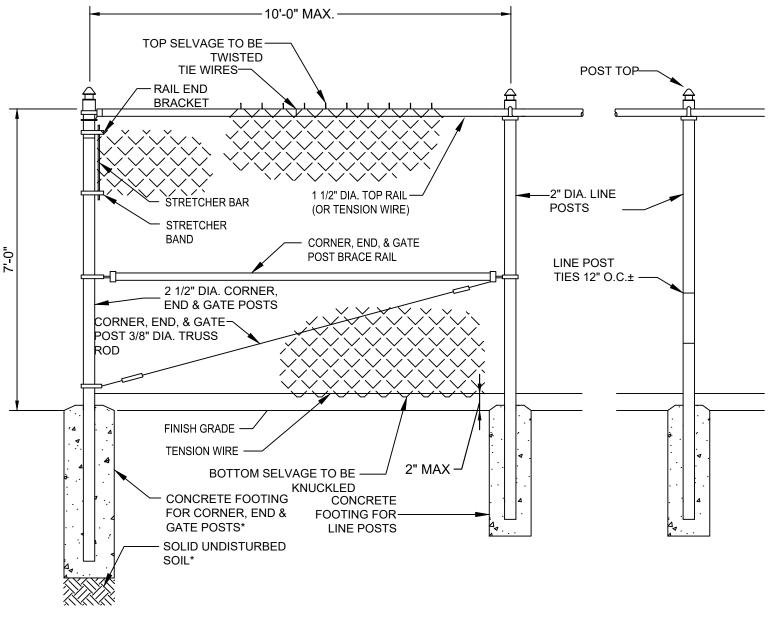
1. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

- 2. FINISH SHALL BE AS SELECTED BY OWNER.
- 2.1. CHAIN LINK FENCING TO BE BLACK VINYL COATED. 2.2. POSTS, CAPS, BRACING AND HARDWARE TO BE PAINTED BLACK.
- 3. POST TOPS SHALL BE AS SELECTED BY OWNER.
- 4. REFER TO MANUFACTURER'S SPECIFICATIONS FOR ADDITIONAL INFORMATION.

*CONCRETE FOOTING DESIGN SHALL BE COMPLETED BY LICENSED STRUCTURAL ENGINEER

TYPICAL DOUBLE LEAF GATE DETAIL

NOT TO SCALE



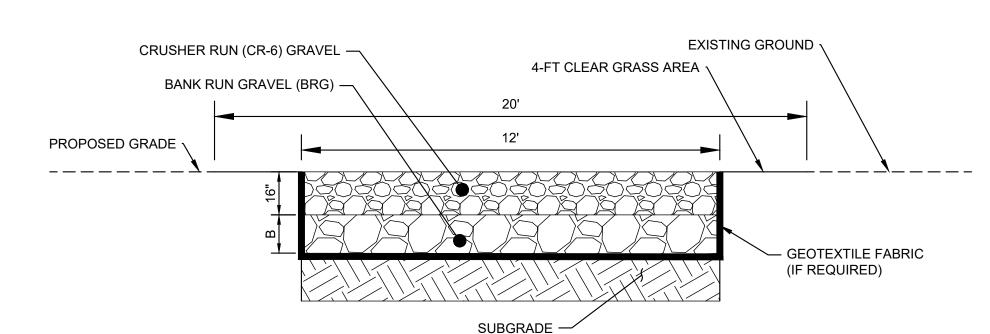
INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

- 1. FINISH SHALL BE AS SELECTED BY OWNER.
- 1.1. CHAIN LINK FENCING TO BE BLACK VINYL COATED. POSTS, CAPS, BRACING AND HARDWARE TO BE PAINTED BLACK.
- POST TOPS SHALL BE AS SELECTED BY OWNER
- 3. REFER TO MANUFACTURER'S SPECIFICATIONS FOR ADDITIONAL INFORMATION.

*CONCRETE FOOTING DESIGN SHALL BE COMPLETED BY LICENSED STRUCTURAL ENGINEER

TYPICAL FENCE DETAIL

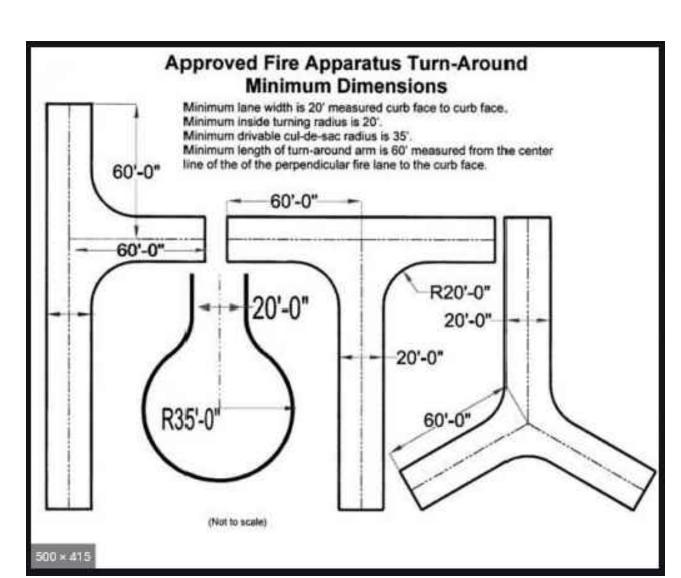
NOT TO SCALE



- 1. MINIMUM 20' WIDE IMPROVEMENTS
- 2. REMOVE AND STOCKPILE TOPSOIL ON-SITE
- 3. SUBGRADE TO BE PREPARED IN ACCORDANCE WITH GEOTECHNICAL ENGINEER SPECIFICATIONS
- 4. ACCESS DRIVE BASE AND FINAL (WEAR) COURSE TO BE PREPARED IN ACCORDANCE WITH GEOTECHNICAL ENGINEER RECOMMENDATIONS
- 5. ACCESS DRIVE SECTION TO BE DESIGNED BY GEOTECHNICAL ENGINEER TO STRUCTURALLY SUPPORT A FIRE DEPARTMENT APPARATUS UP TO 31,000 LB, TEMPORARY CONSTRUCTION LOADING (PRE-CONTRACTOR REQUIREMENTS), AND PERMANENT OPERATIONS AND MAINTENANCE LOADING (PER OWNER REQUIREMENTS)
- 6. ACCESS DRIVE DESIGN FOR REFERENCE ONLY, REFER TO GEOTECHNICAL AND STRUCTURAL DRAWINGS.
- 7. ACCESS DRIVE TO SUBSTATION TO BE PER SPECIFICATIONS PROVIDED TO DEVELOPER/CONTRACTOR.

TYPICAL ACCESS DRIVE DETAIL

NOT TO SCALE



NFPA FIRE APPARATUS TURN-AROUND TYPICAL DETAIL NOT TO SCALE

EXTERIOR PADLOCK FEATURES AND BENEFITS Knox exterior padlocks utilize the same master key used with the Knox Rapid Access System. The exterior, heavy-duty Knox Padiocks (Models #3781, 3782, 3783) are built with a stainless-steel shackle designed for securing storage areas, temporary construction sites. gated communities, etc. The shrouded all-weather padlock (Model #3784) provides additional security against pry and cut attacks. The lock cylinder is UL 437 listed which demonstrates it has met the rigorous standard. Performance is tested with a battery of endurance FEATURES ✓ All-weather rust-free stainless-steel Grade 6 shackle. ✓ Weather resistant body with durable weather cover includes: cylinder protection, sealed shackle holes, and drainage system ✓ Available in 4", 3" and 2" shackle lengths ✓ Attack resistant ✓ Key retaining (when open) ✓ Precision pin cylinder ✓ High-security shroud version available (for all Knox look cores) ✓ Authorized agency identification labels available: Fire (red); EMS (white) Police (blue); Sheriff (gold); Security (white) ✓ New Shackle lengths support additional applications. ✓ Improved attack resistance provides longer service life. ✓ Key retention prevents dropped/lost keys ✓ Utilizes the Knox master key solution INTERIOR PADLOCK FEATURES AND BENEFITS Knox interior padlocks utilize the same master key used with the Knox Rapid Access System. The Interior Knox Padlock (Models 3771 and 3774) are designed to secure fire sprinkler contr systems, hazardous chemical supplies, restricted utility areas, equipment lockers, and cases. The lock cylinder is UL Listed which demonstrates it has met the rigorous standard. Performance is tested with a battery of endurance and attack tests. FEATURES ✓ Stainless steel shackle; 5/16* diameter available in 2-3/8* and 1-1/8* ✓ Heavy-duty look design and solid brass body resists pull attacks ✓ Precision pin cylinder ✓ Key retaining (when open) ✓ Authorized agency identification labels available: Fire (red); EMS (white) Police (blue); Sheriff (gold); Security (white) ✓ Two shackle lengths support additional applications ✓ Key retention prevents dropped/lost keys Model #3771 → Utilizes Knox master key solution

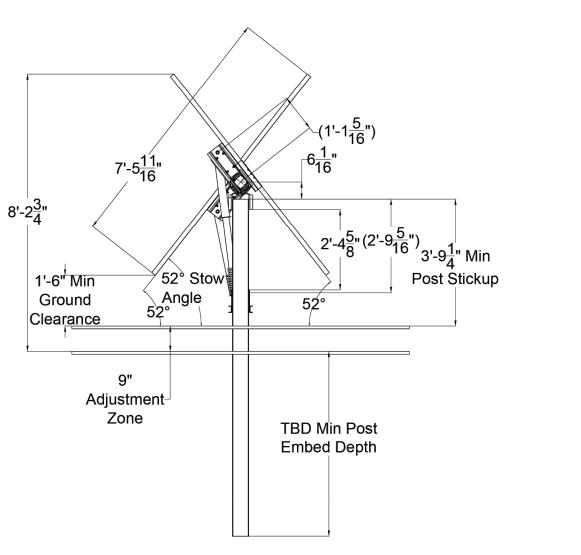
KNOX PADLOCKS"

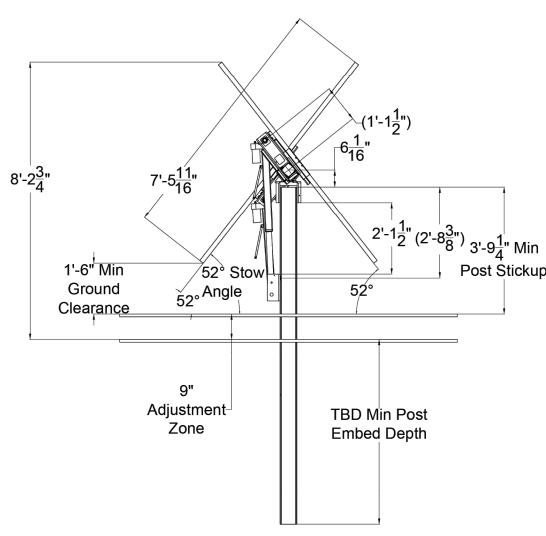
KNOX PAD LOCK DETAIL

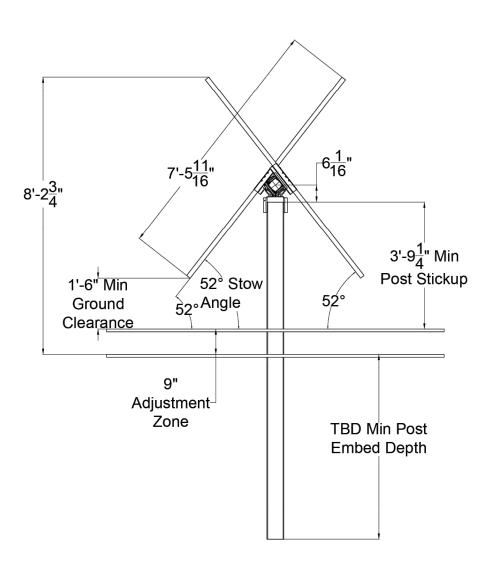
NOT TO SCALE

Kimley » Horr © 2024 KIMLEY-HORN AND ASSOCIATES, INC. 5 WASHINGTON AVE, STE TOWSON, MD 21204 PHONE: 443-743-3500 WWW.KIMLEY-HORN.COM PARED OR APPROVED BY ME. AND THA GINEER UNDER THE LAWS OF THE STAT SHEET NUMBER CP-240

DEPCOI POWER







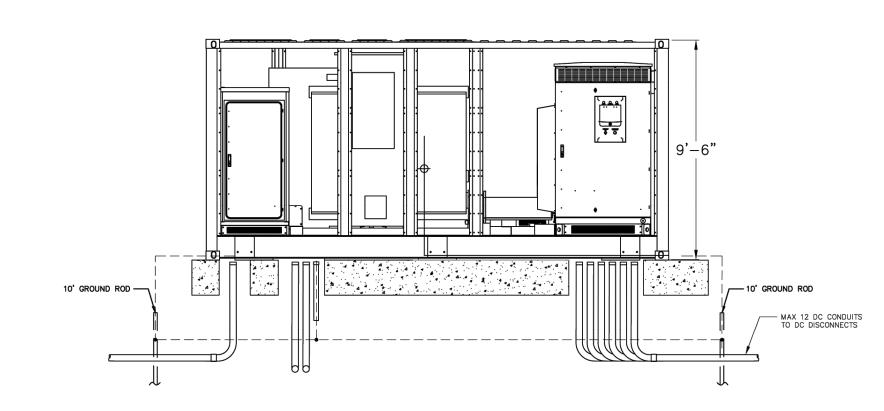
Damper Post

Center Post

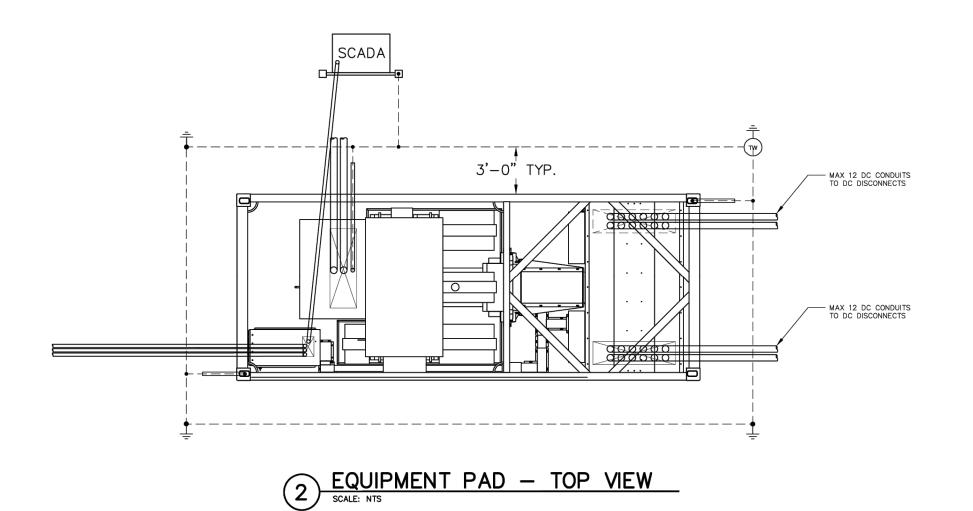
Standard Post

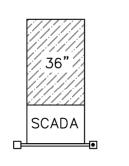
TYPICAL POST SECTION DETAIL

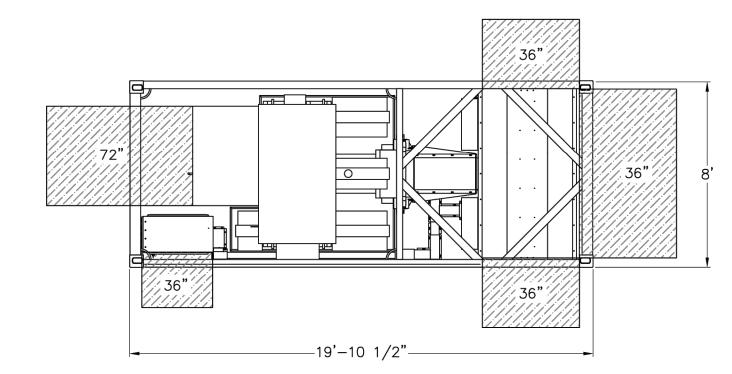
NOT TO SCALE



1 EQUIPMENT PAD - FRONT VIEW SCALE: NTS







3 WORKING CLEARANCE PLAN-TOP VEW
SCALE: NTS

POWER INVERTER PAD TYPICAL DETAIL

NOT TO SCALE

1. INVERTER DETAIL FOR REFERENCE ONLY, REFER TO FINAL STRUCTURAL AND ELECTRICAL PLANS.

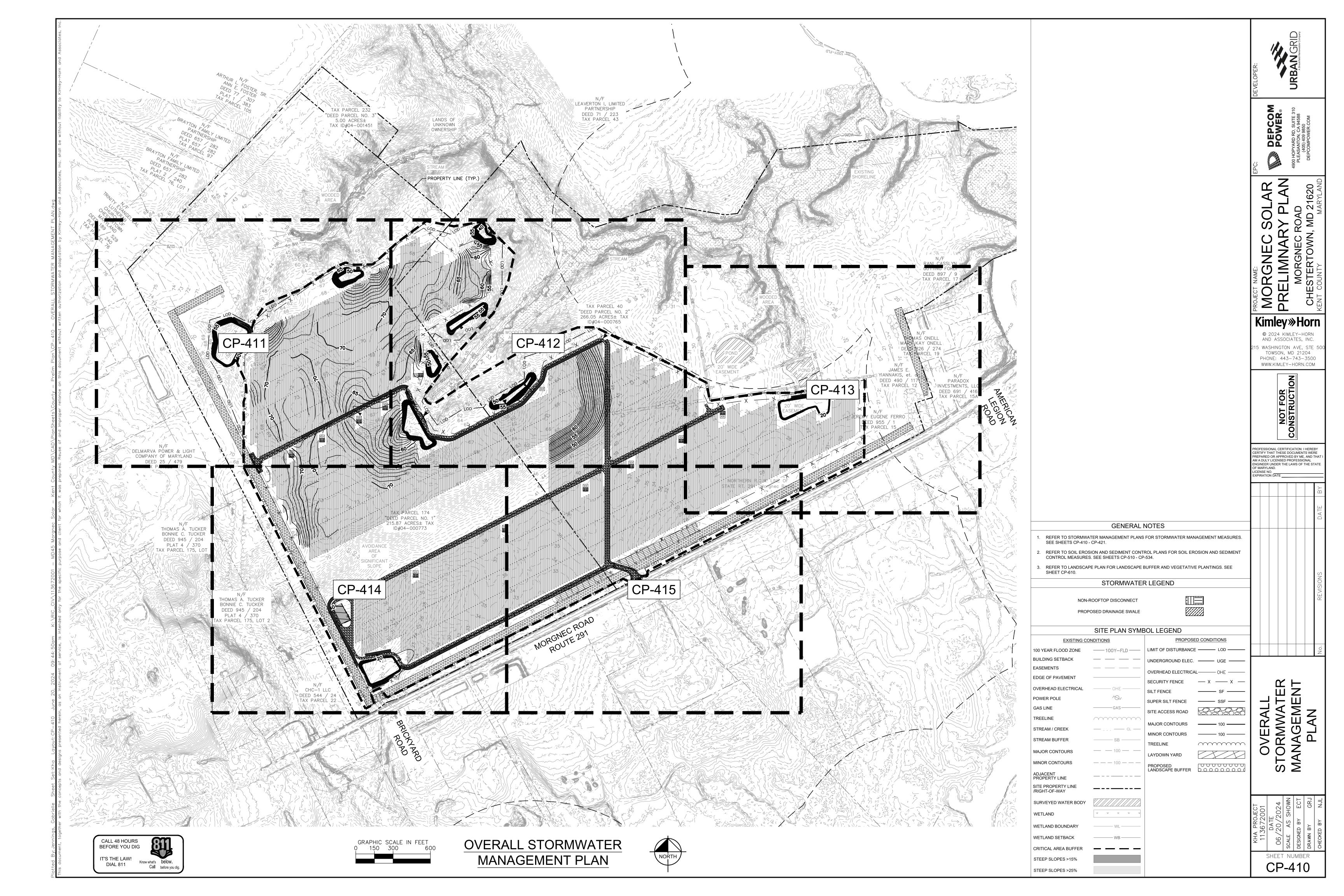
SUBJECT TO REVISION, REFER TO FINAL ELECTRICAL PLANS AND BUILDING PERMIT PLANS

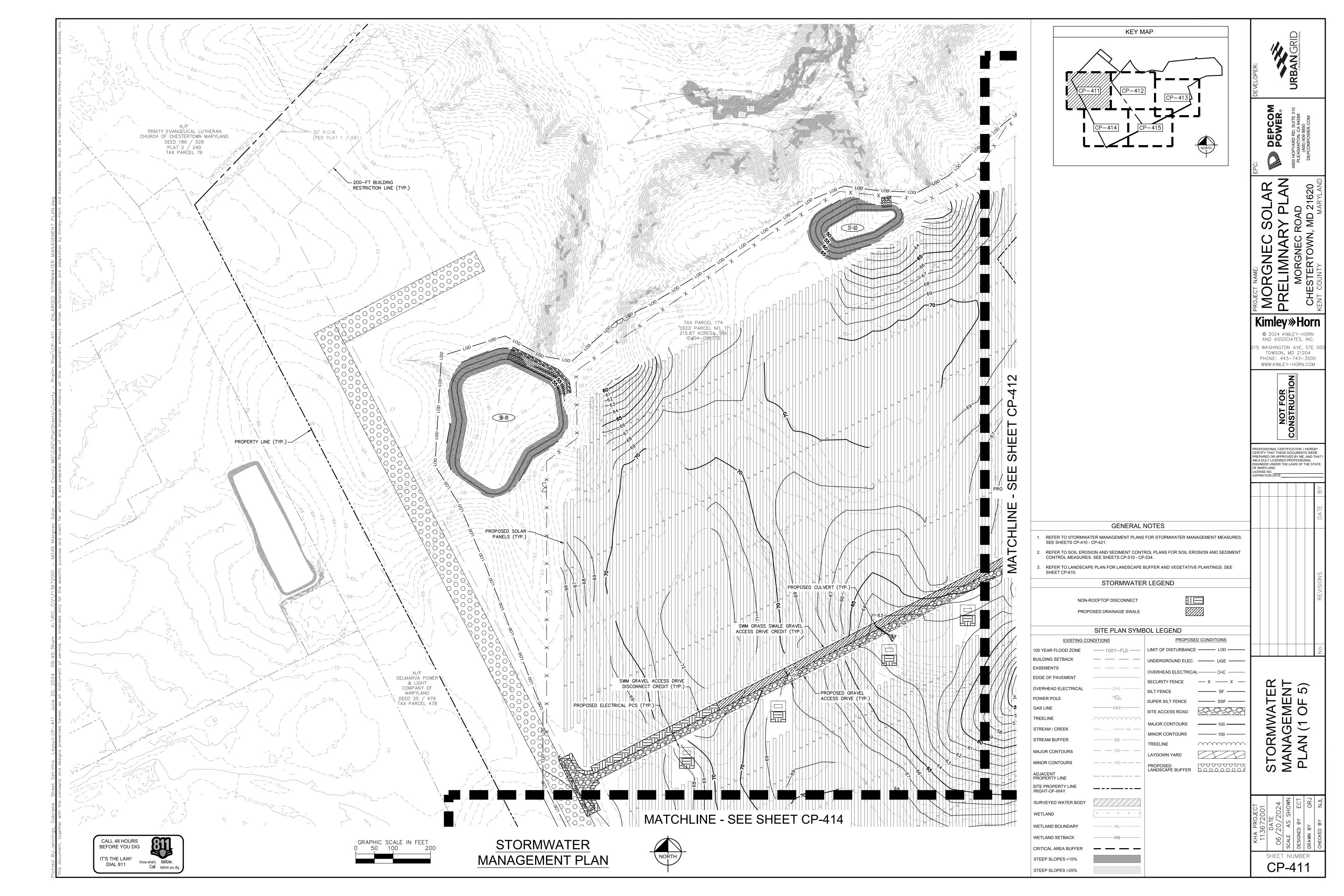
DEPCOM POWER®

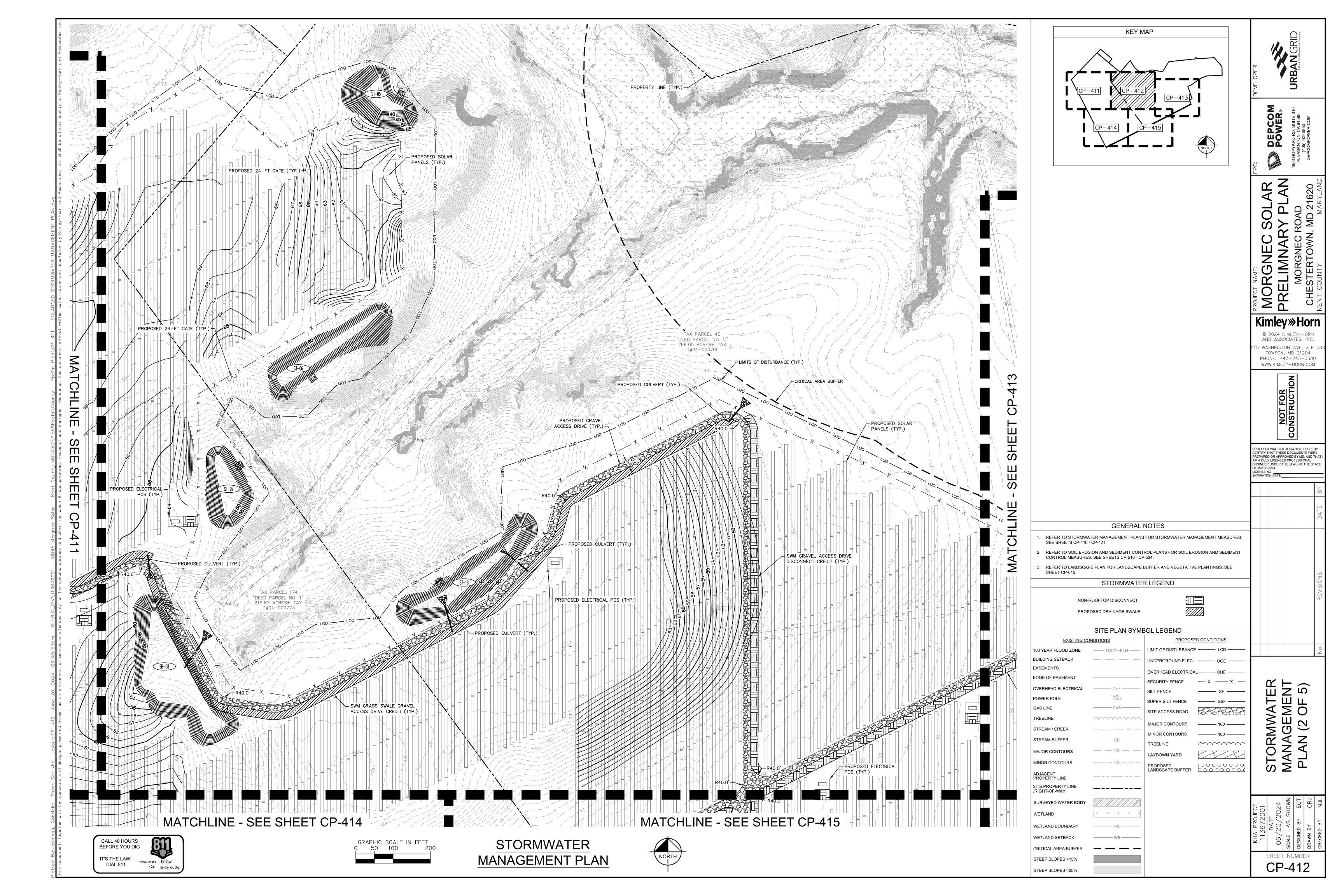
Kimley»Horn © 2024 KIMLEY—HORN AND ASSOCIATES, INC. 15 WASHINGTON AVE, STE 50 TOWSON, MD 21204 PHONE: 443—743—3500 WWW.KIMLEY—HORN.COM

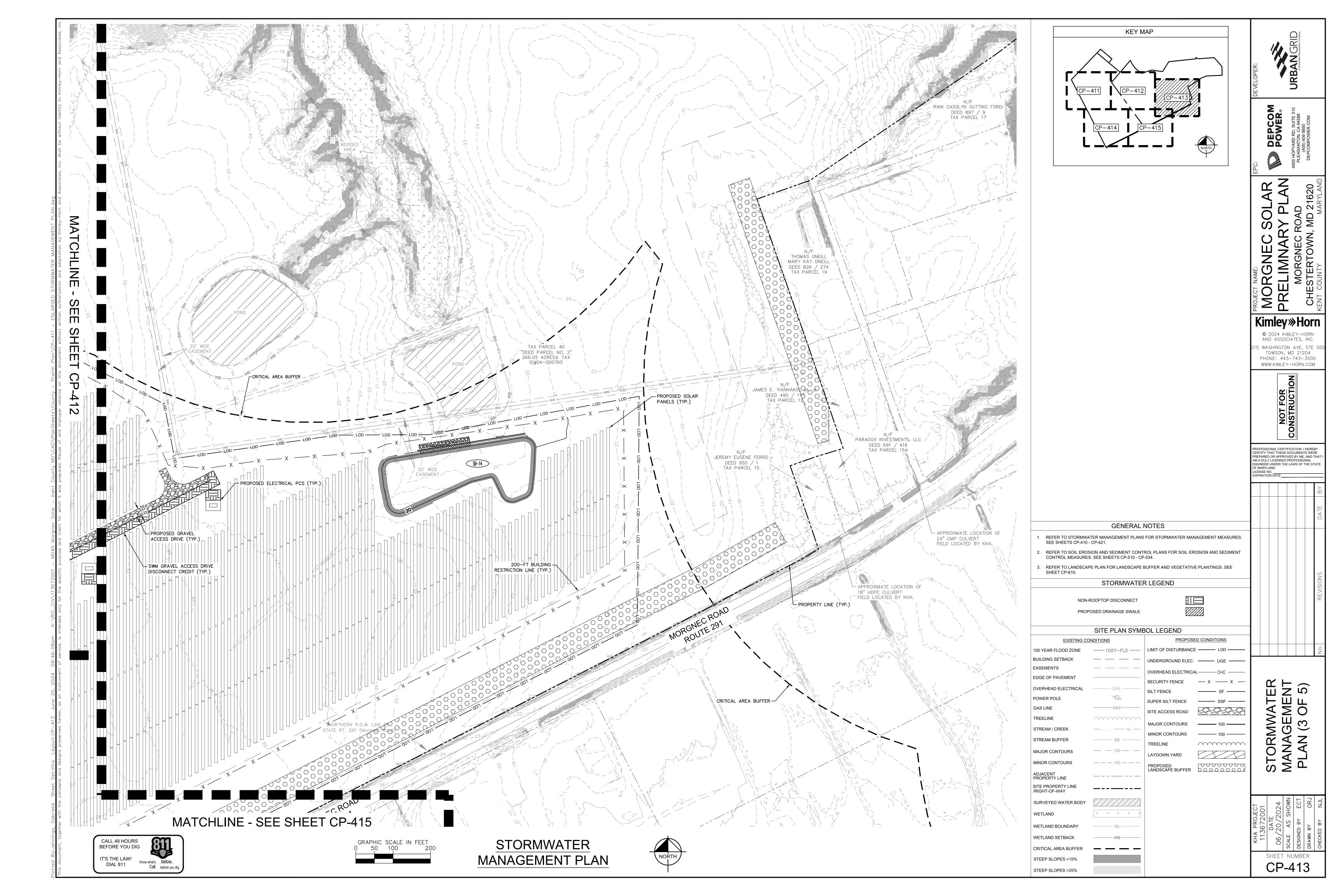
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE

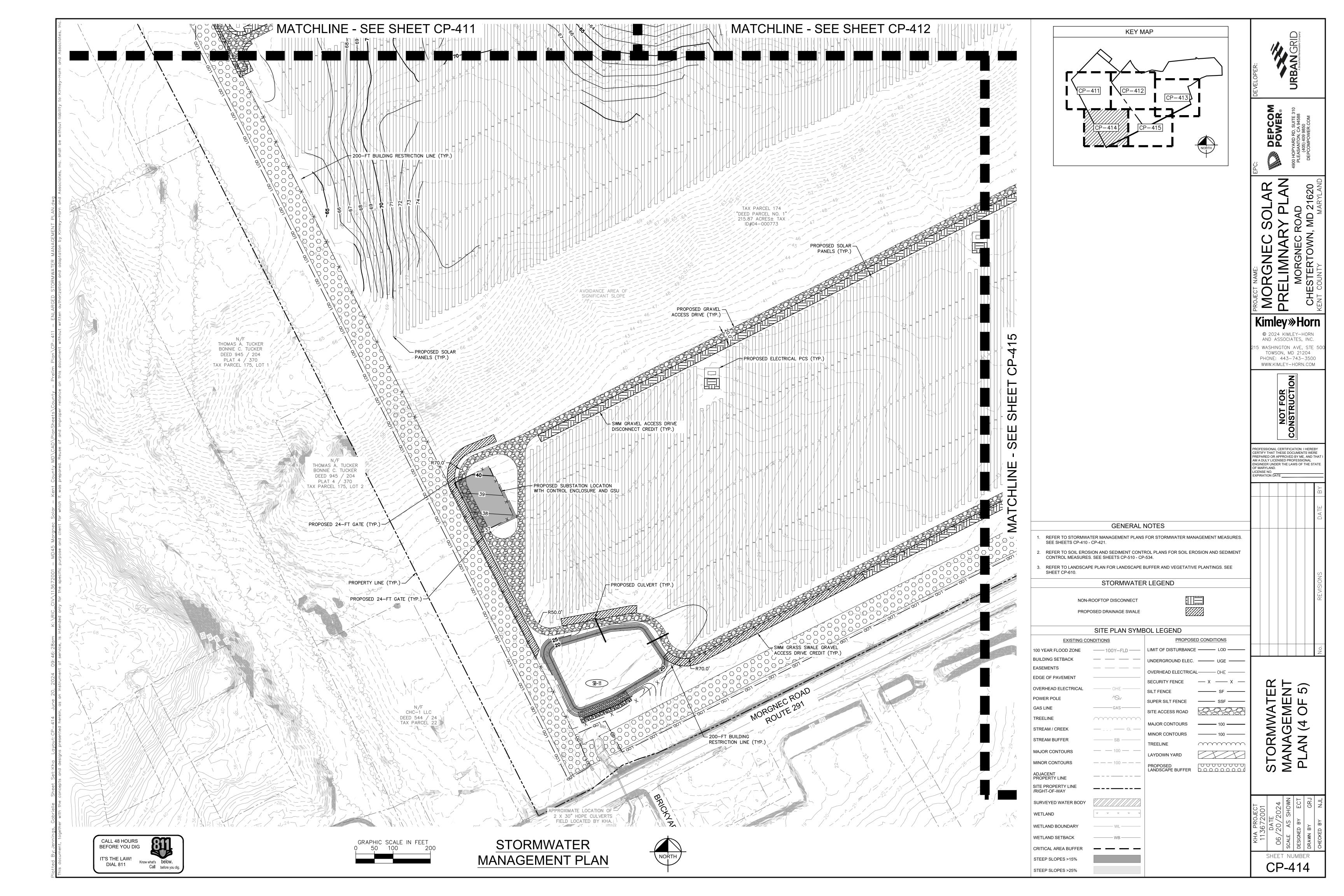
SITE DETAILS

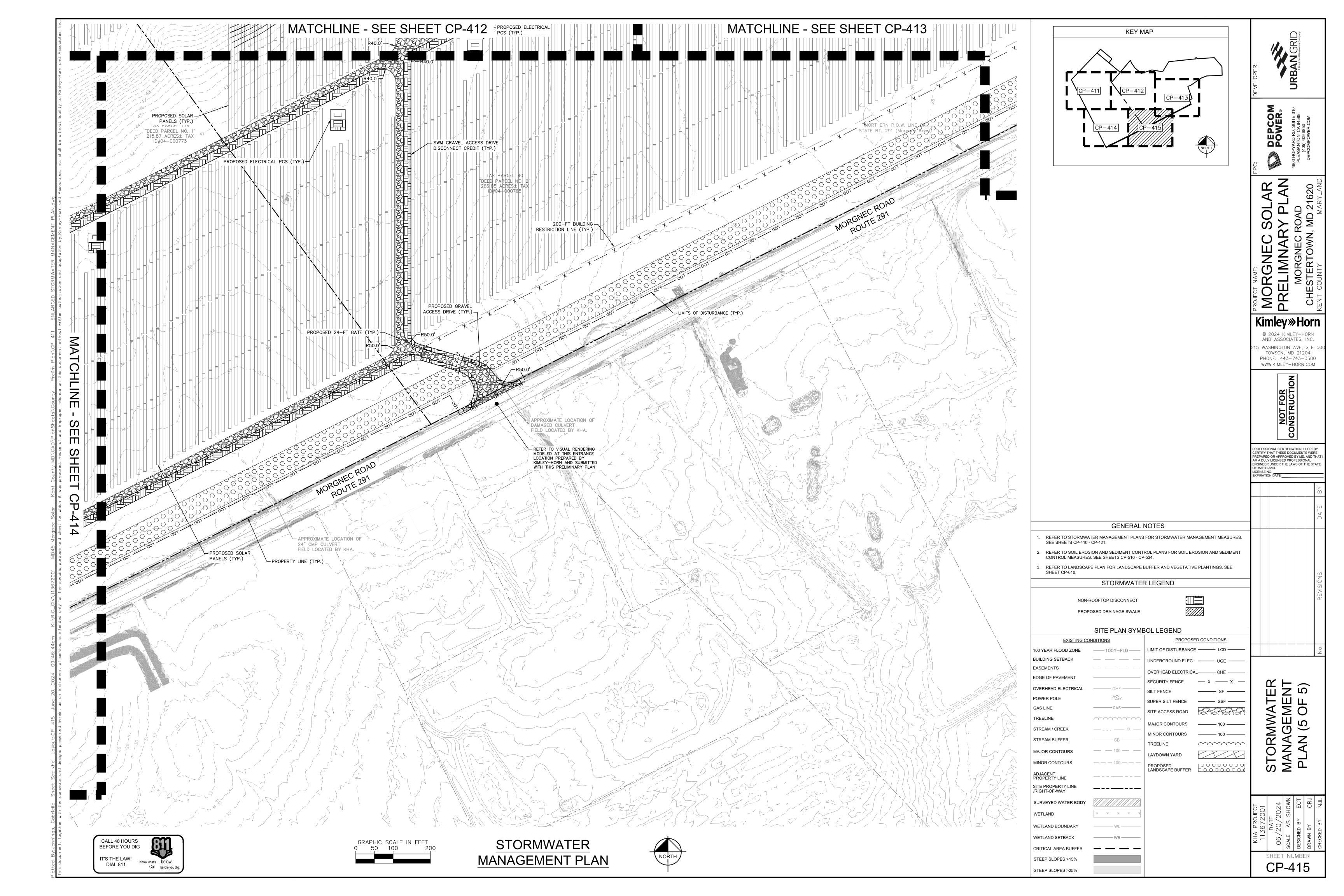


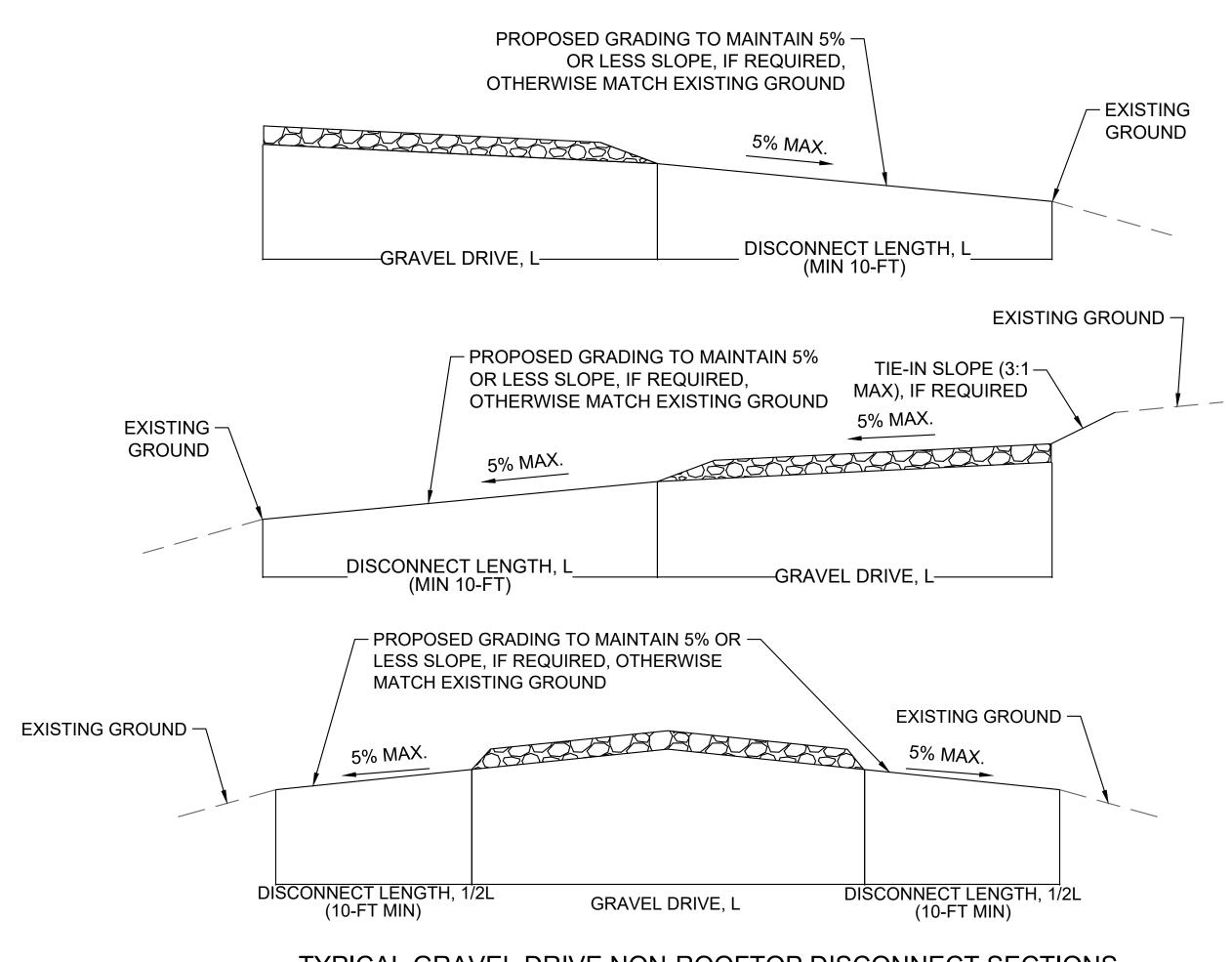




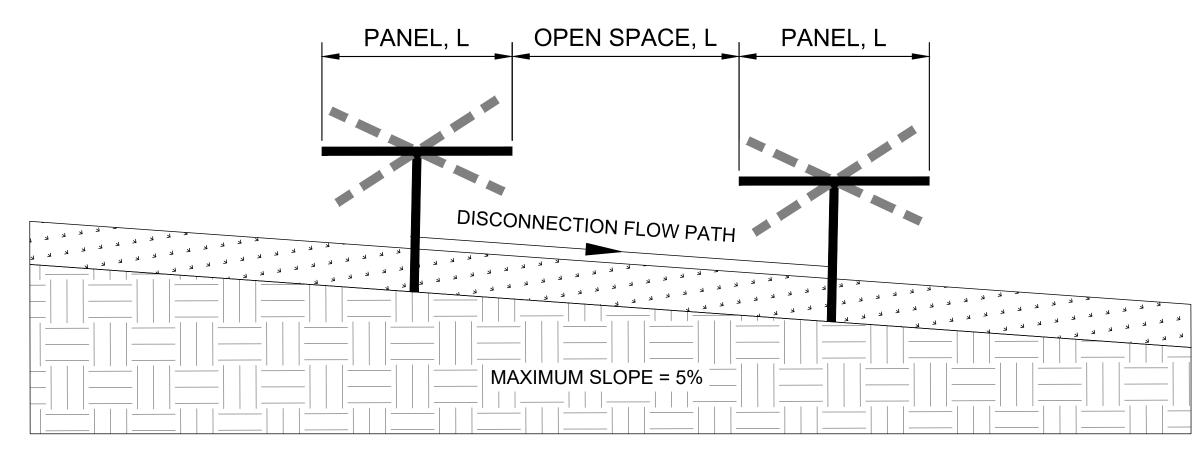








TYPICAL GRAVEL DRIVE NON-ROOFTOP DISCONNECT SECTIONS AND GRADING DETAIL FOR STANDARD AND CROWNED DRIVES SCALE: N.T.S.



TYPICAL PANEL NON-ROOFTOP DISCONNECTION - AVERAGE SLOPE LESS THAN 5% NOT TO SCALE

Kimley » Horn

	Per MD	E SWM Design Manual			
Site Name:	Morgnec Solar	Date:	06/13/24		
Project #:	113672001	By:	GRJ		
County:	Kent County	Checked:	ECT		
Stormwater Management - Environmental Site Design					

Site Drainage Area Data:

Step 1. Determine Area Requiring	g Treatment	
Project Site Area:	486.92	acres
Project Disturbed Area:	233.36	acres
Existing Impervious Area:	1.49	acres
Existing % Impervious, I:	0%	
Proposed Impervious Area(**):	6.64	acres
Proposed % Impervious, I:	2.8%	
Imp Area to Treat, A _T :	6.64	acres

(**)=Based on gravel drives, equipment pad

Step 2. Determine Required Treatment Volume

A. Determine Target P_E & ESDv Using Table 5.3 (MDE SWM Manual Section 5-page 5.21) New Development

> 2.8% 0.05 + (0.009 * (1)) 0.075617 ESDv = $[(P_E)(R_V)(A)]/12$

(Determine P_E from Table 5.3) 1.470 ac-ft

< 40%,therefore New Developmen

B. Determine SWM Treatment Provided

B. Determine Swim Treatment Provided							
	ESD Practice)	Imp.Area Treated (ac)	Volume Treated (cf)			
	N-2: Non-Rooftop Disc	onnect	3.56	12277			
	M-8: Grass Swale -	Road	3.08	10445			
	M-8: Grass Swale - F	Panels	0.00	0			
	N-2: Solar Array Disc	onnect	0.00	11493			
	N-2: Open Space Disc	onnect	0.00	29840			
		Total	6.64	64055 cf	Provide		
			6.64	64055 cf	Require		

C. Calculate Recharge (Rev) Requirements

0.204 ac-ft

[(S)(R_v)(A)]/12

Determine SWM Treatment Provided

1.245 ac-ft 54242 cf

D. Calculate Channel Protection (Cpv) Requirements Channel Protection Volume is calculated as the remainder of the required ESDv after Chapter 5 practices have been

implemented to the maximum extent practicable.

Channel Protection Required = Channel Protection Provided =

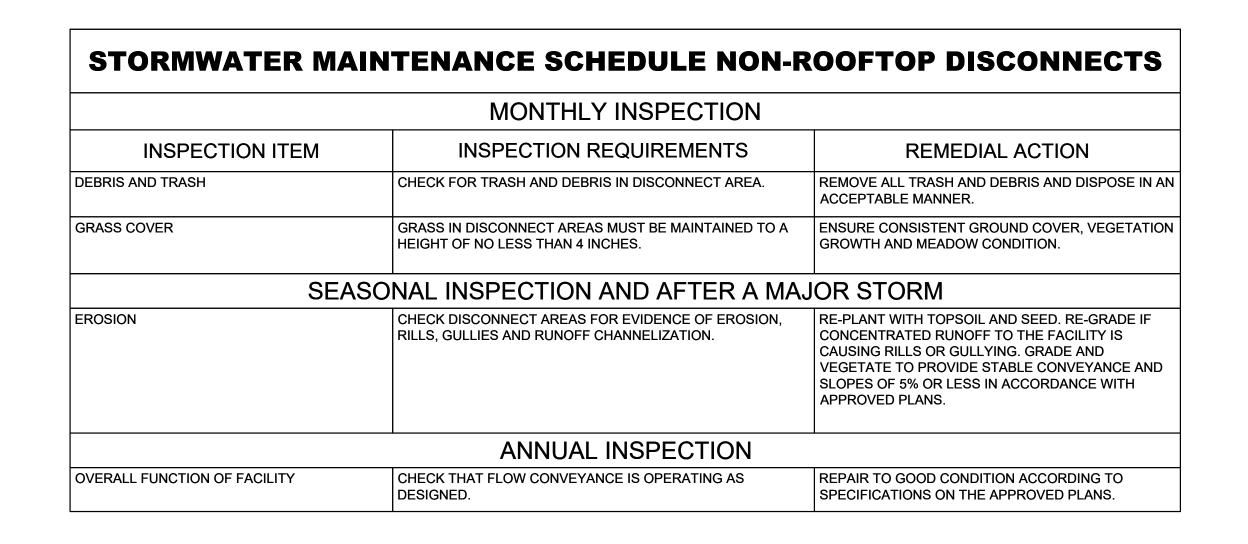
Note: ESD to the MEP has been met with Chapter 5 practices and channel protection volume is not required to

E. Calculate Overbank Flood Protection (Q_{p10}) Requirements

Refer to TR-55 computations

F. Calculate Extreme Flood Protection (Q_{p100}) Requirements

Refer to TR-55 computations





DEPCOM POWER®

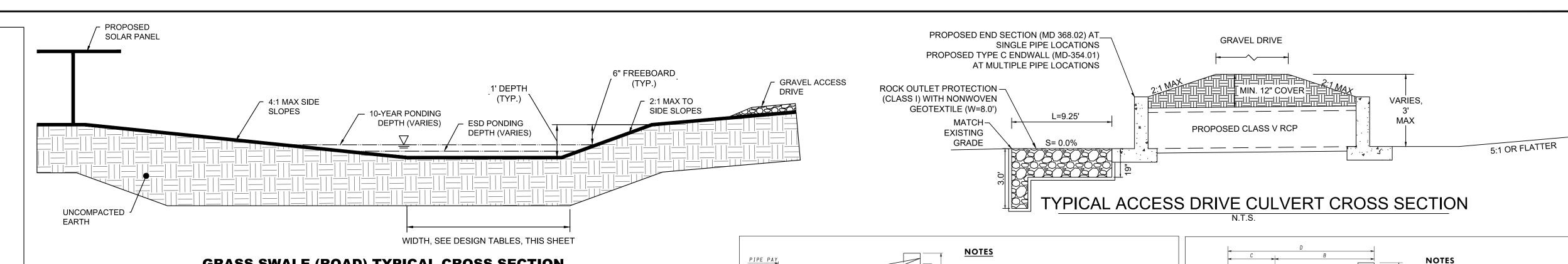
MORGNE(PRELIMNA

Kimley Morn © 2024 KIMLEY—HORN AND ASSOCIATES, INC.

WASHINGTON AVE, STE TOWSON, MD 21204 PHONE: 443-743-3500 WWW.KIMLEY-HORN.COM

RTIFY THAT THESE DOCUMENTS WERE EPARED OR APPROVED BY ME, AND THA M A DULY LICENSED PROFESSIONAL NGINEER UNDER THE LAWS OF THE STATE ENSE NO. _____ PIRATION DATE

VATER EMENT AND



GRASS SWALE
SUMMARY
TABLE TO BE
PROVIDED

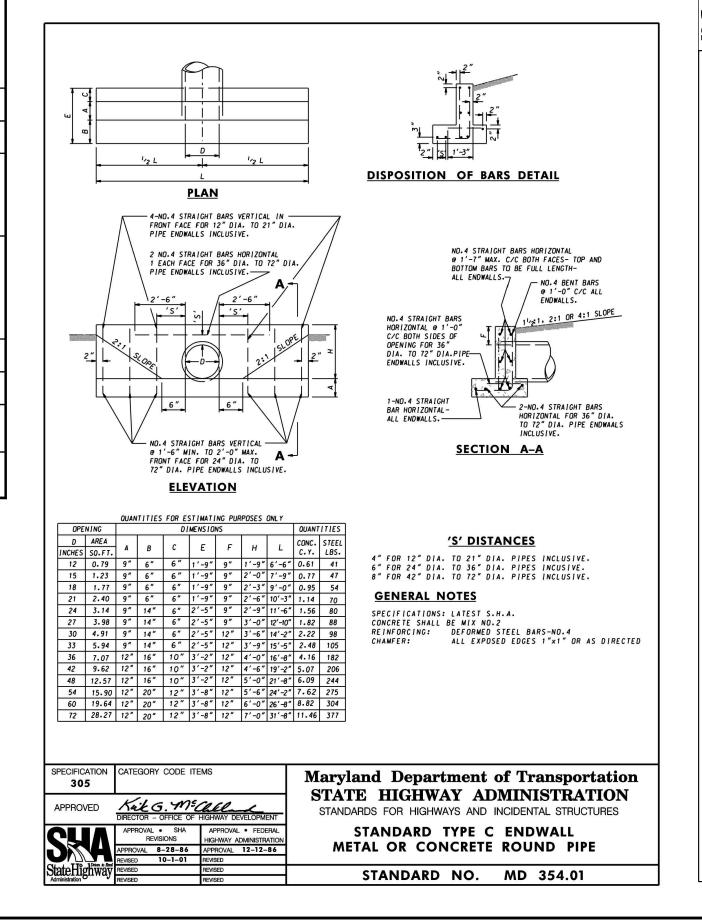
GRASS SWALE (ROAD) TYPICAL CROSS SECTION REFER TO THE

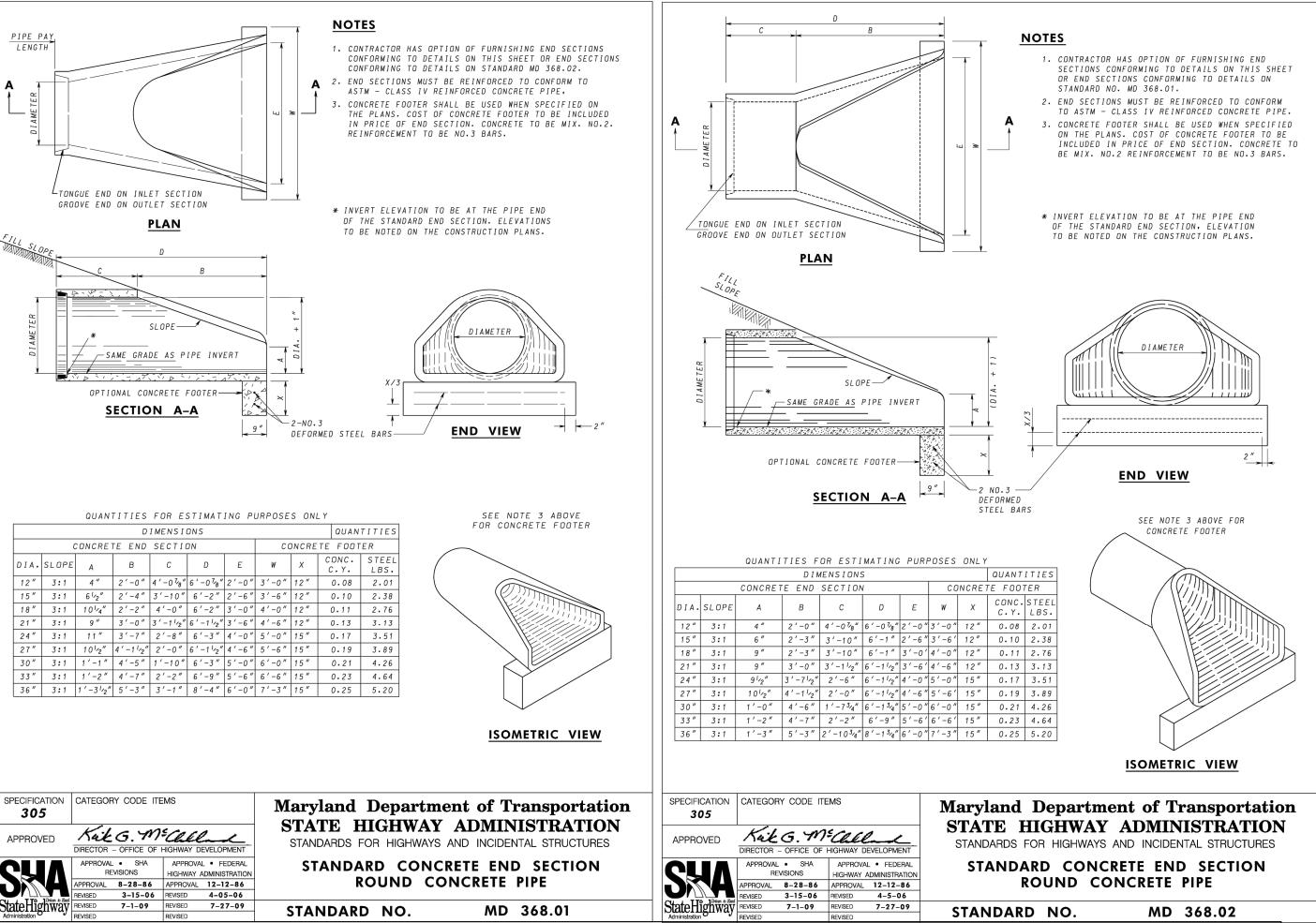
ESD FACILITY DESIGN SUMMARY TABLES, THIS SHEET SCALE = N.T.S.

NOTE:
ENVIRONMENTAL SITE DESIGN (ESD) IS THE MARYLAND DEPARTMENT OF THE ENVIRONMENT ABBREVIATION FOR STORMWATER MANAGEMENT.

STORMWATER MAINTENANCE SCHEDULE GRASS SWALE

	MONTHLY INSPECTION						
Inspection Item	Inspection Requirements	Remedial Action					
Debris and Trash	Check for trash and debris in channel including inlets, outlets, and area around	Remove all trash and debris and dispose in an acceptable manner.					
Grass Cover	facility. Grass in swale must be maintained at a height of 4 to 6 inches.	Unclog all openings. Mow side slopes when grass exceeds 12 inches in height.					
	Check for channelizing and bare spots.	Mow channel at least bi-annually. Remove grass clippings. Re-plant with topsoil, seed, and matting.					
	SEASONAL INSPECTION AND AI	FTER A MAJOR STORM					
Inspection Item	Inspection Requirements	Remedial Action					
Sediment Accumulation	Check for accumulated sediment and clogged openings.	When sediment accumulates to 2 inches in depth, remove sediment. Remove sediment from any clogged openings. Dispose of all sediment in an acceptable location.					
Erosion	Check inflow, channel, outfall, and side slopes for evidence of erosion, rills, gullies, and runoff channelization.	Re-plant with topsoil, seed, and matting. Re-grade if concentrated runoff to the facility is causing rills or gullying. Grade, vegetate, and/or armor to provide stable conveyance in accordance with approved plans.					
	ANNUAL INSPE	CTION					
Inspection Item	Inspection Requirements	Remedial Action					
Maintenance Access	Check for accessibility to facility.	Prevent excessive vegetative growth, erosion, and obstructions on access way.					
Overall Function of Facility	Check that flow conveyance is operating as designed	Repair to good condition according to specifications on the approved plans.					





CULVERT SUMMARY
TABLE TO BE
PROVIDED

JRBANGRID A Brookfeld Renewable Company

DEPCOM POWER® 30 HOPYARD RD, SUITE 310 PLEASANTON, CA 94588 (405) 409 9850

MORGNEC SOLAR
PRELIMNARY PLAN
MORGNEC ROAD
CHESTERTOWN, MD 21620
KENT COLINTY
MARYLAND

Kimley»Horn
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AND ASSOCIATES, INC.
215 WASHINGTON AVE, STE 50

AND ASSOCIATES, INC.

WASHINGTON AVE, STE
TOWSON, MD 21204
PHONE: 443-743-3500
WWW.KIMLEY-HORN.COM

NOT FOR CONSTRUCTION

PROFESSIONAL CERTIFICATION: I HEREBY DERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATIOF MARYLAND.

ICENSE NO. EXPIRATION DATE

REVISIONS DATE BY

STORMWATER
MANAGEMENT
NOTES AND
DETAILS

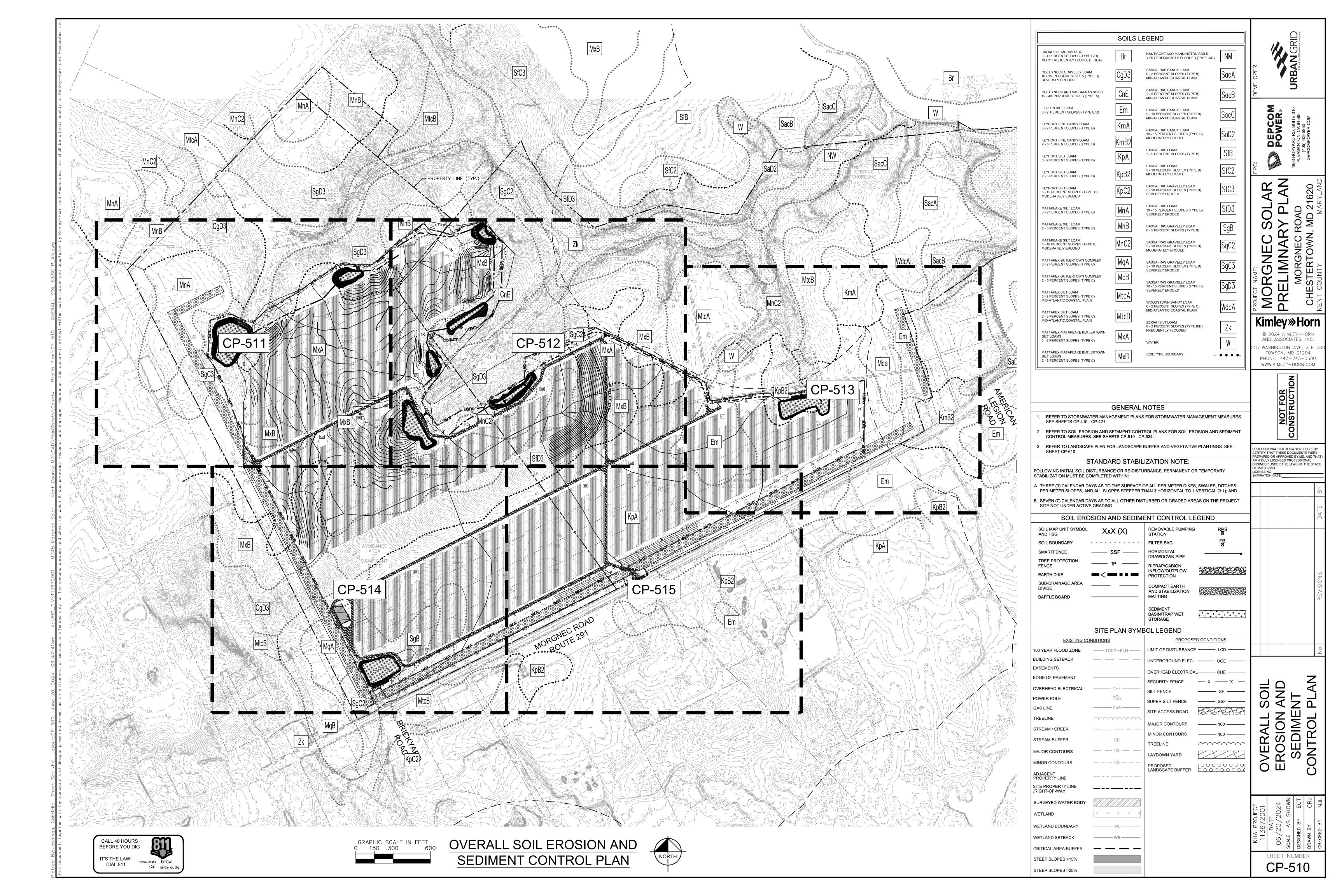
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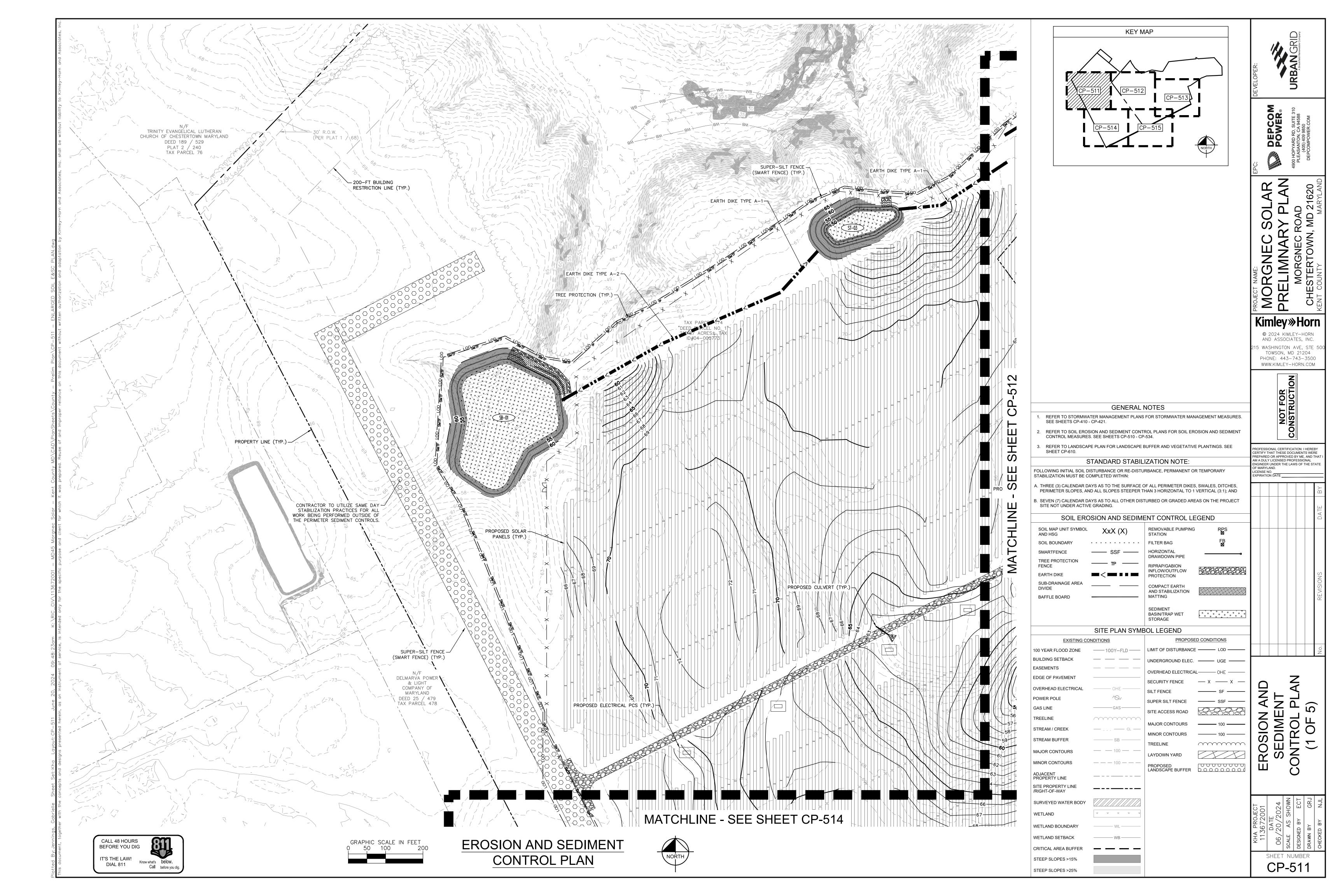
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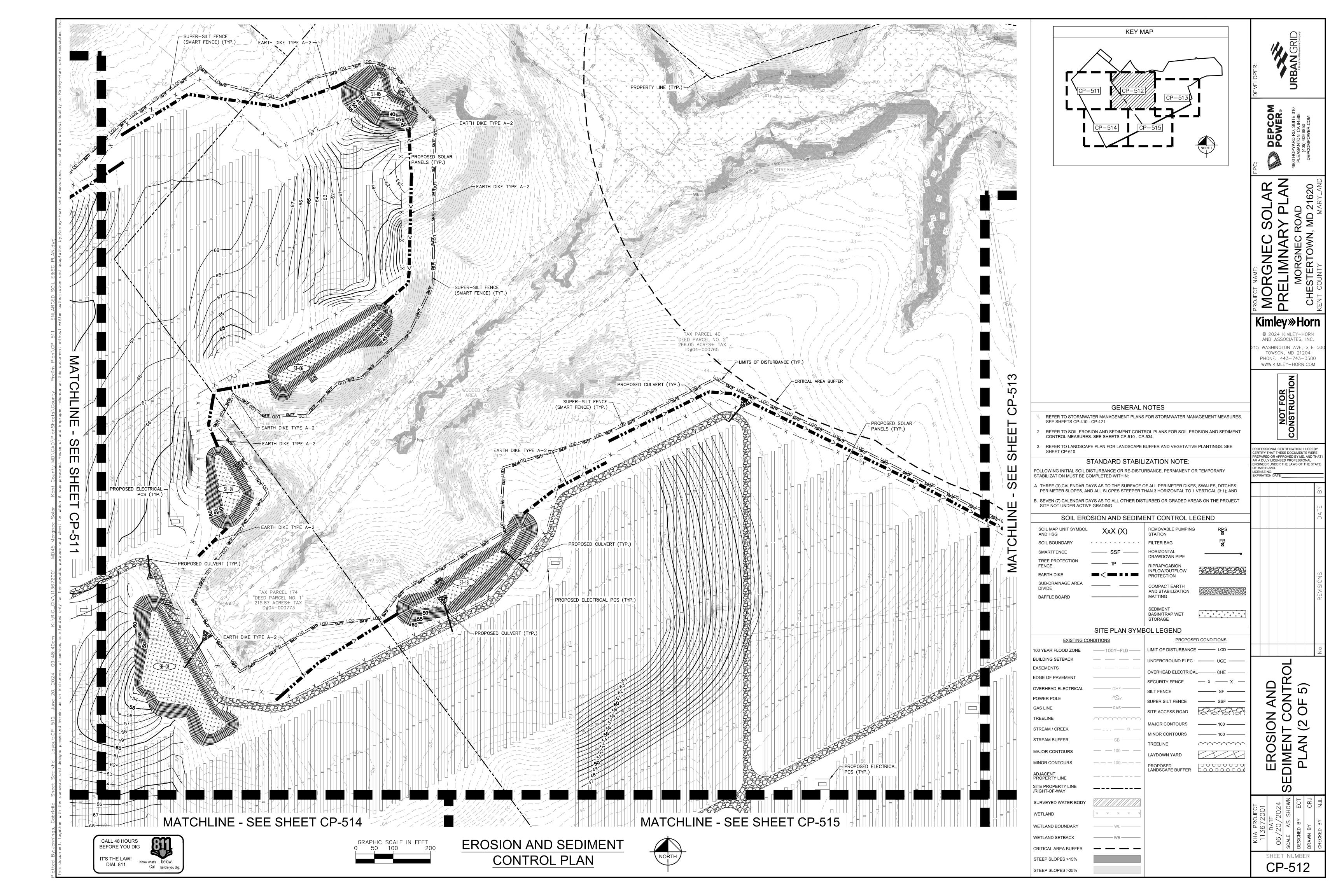
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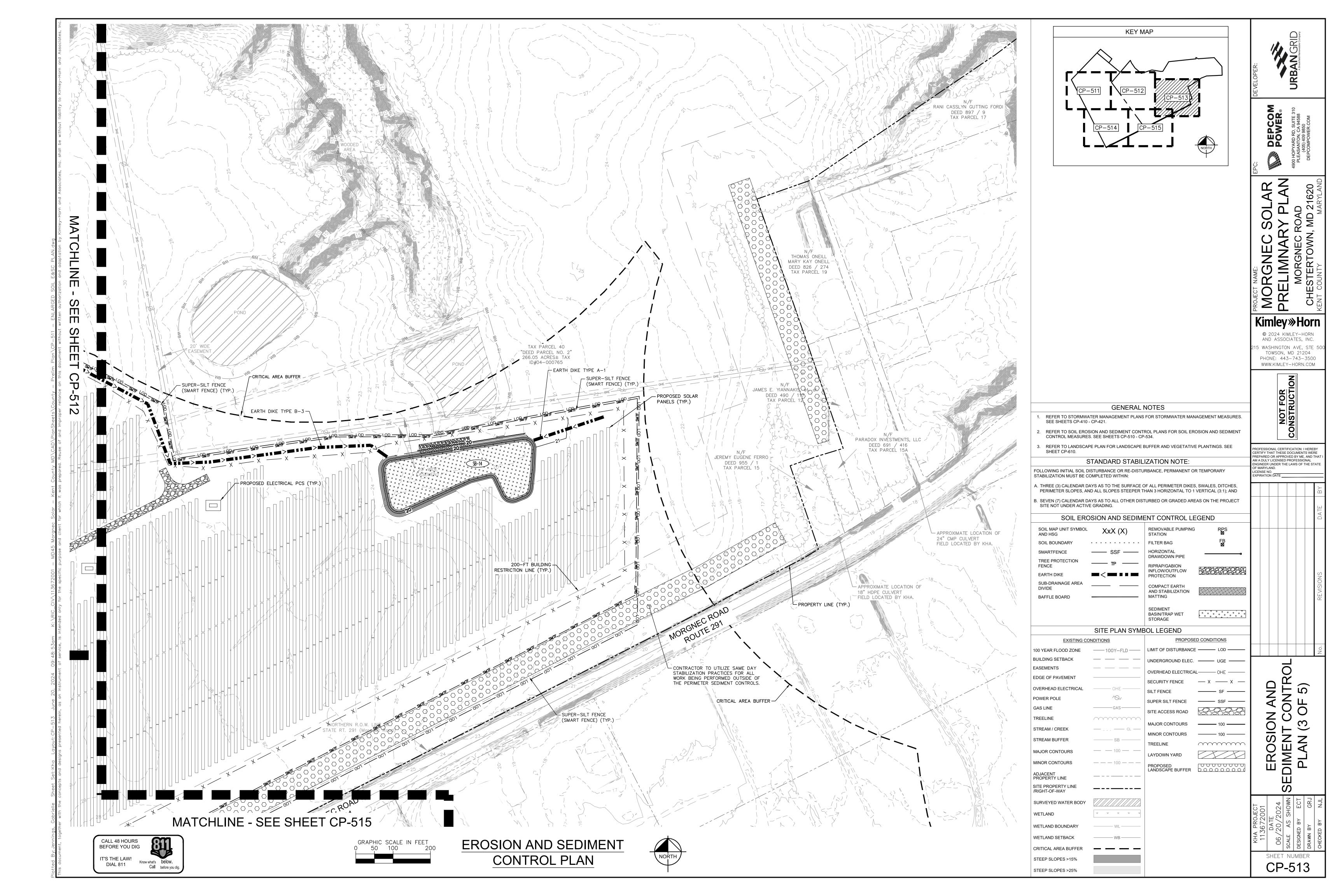
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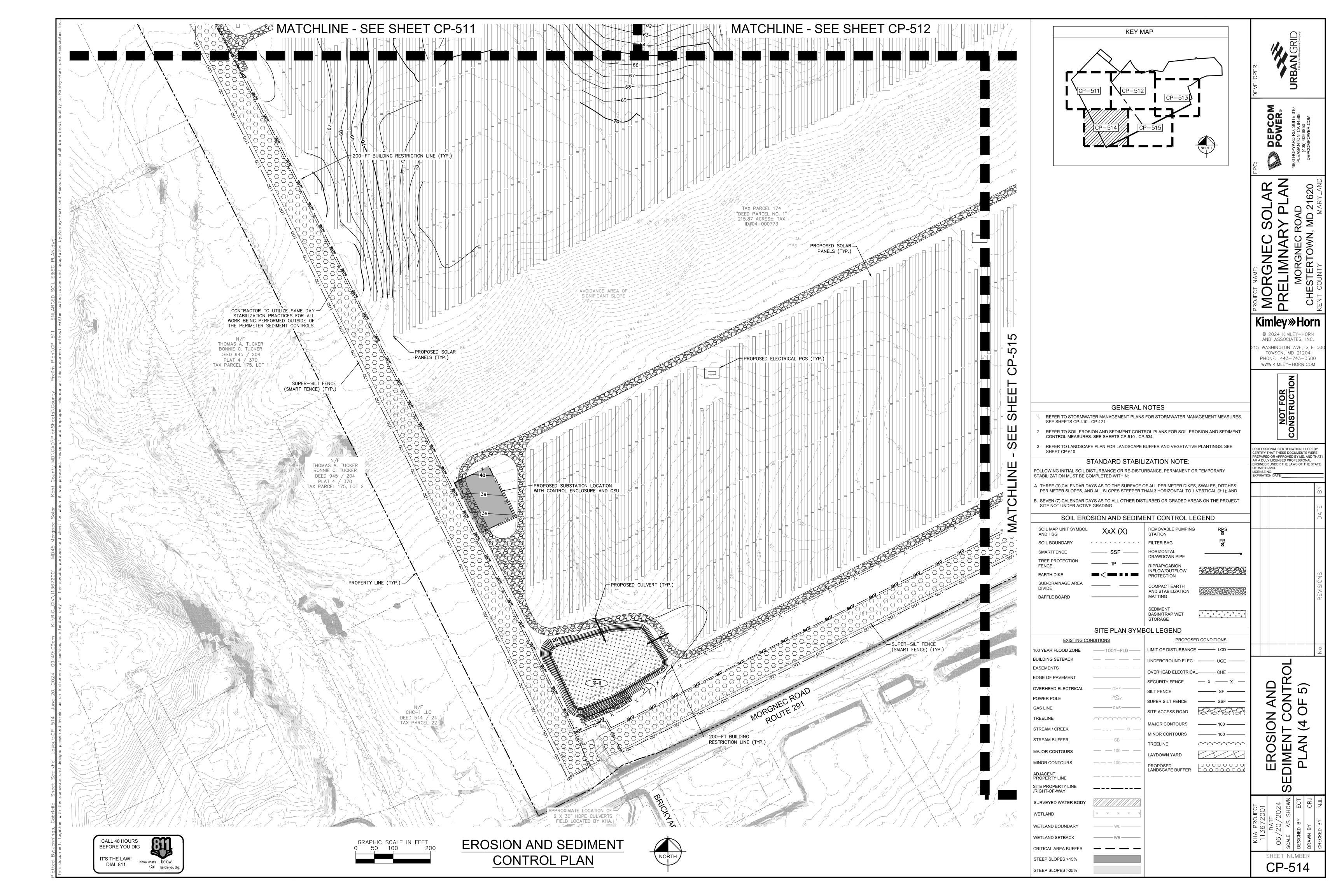
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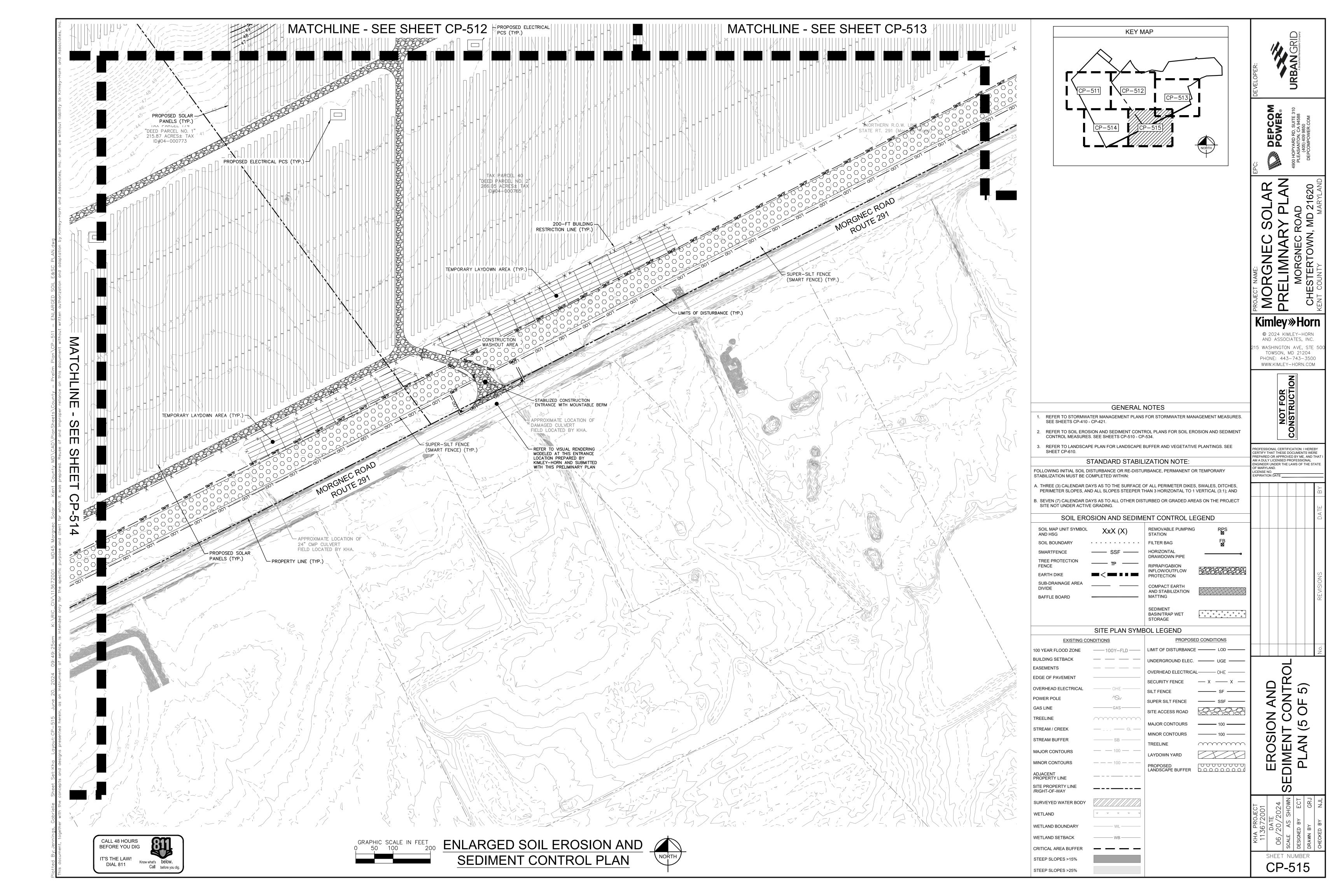












CONSTRUCTION SPECIFICATIONS

- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- . PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT
- 3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

B.2

STANDARD SYMBOL DETAIL C-2 TEMPORARY SWALE -2:1 SLOPE OR FLATTER-EXISTING GROUND CROSS SECTION 1 FT MIN. 1 FT MIN MIN. DEPTH BOTTOM WIDTH 4 FT MIN. 6 FT MIN CONTINUOUS GRADE 0.5% MIN. TO 10% MAX. SLOPE **←** FLOW \wedge PLAN VIEW

FLOW CHANNEL STABILIZATION

SEED WITH STRAW MULCH AND TACK. (NOT ALLOWED FOR CLEAR WATER DIVERSION.) SEED WITH SOIL STABILIZATION MATTING OR LINE WITH SOD. A-2/B-2

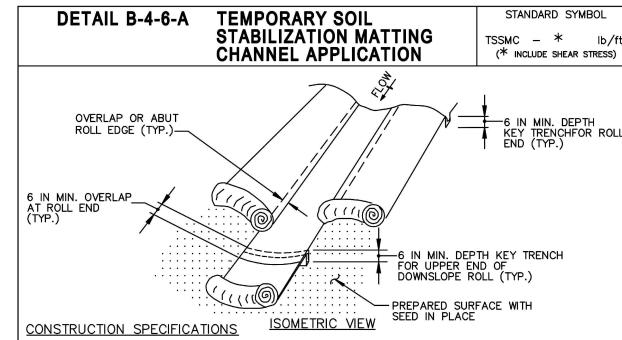
A - 3/B - 34 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE PRESSED INTO SOIL A MINIMUM OF 7 INCHES AND FLUSH WITH GROUND.

CONSTRUCTION SPECIFICATIONS

- . REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF TEMPORARY SWALE.
- 2. EXCAVATE OR SHAPE TEMPORARY SWALE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRREGULARITIES ARE NOT ALLOWED.
- 3. STABILIZE TEMPORARY SWALE WITHIN THREE DAYS OF INSTALLATION. STABILIZE SWALES USED FOR CLEAR WATER DIVERSION WITHIN 24 HOURS OF INSTALLATION.
- CONSTRUCT FLOW CHANNEL ON AN UNINTERRUPTED, CONTINUOUS GRADE, ADJUSTING THE LOCATION DUE TO FIELD CONDITIONS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.
- 5. PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.
- . MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS, AND MAINTAIN POSÍTIVE DRAINAGE. KEEP TEMPORARY SWALE AND POINT OF DISCHARGE FREE OF EROSION, AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.
- UPON REMOVAL OF TEMPORARY SWALE, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS OF REMOVAL STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED

MARYLAND STANDARDS AND SPE	CIFICATIONS FOR SOIL EF	ROSION AND SEDIMENT CONTROL	
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	

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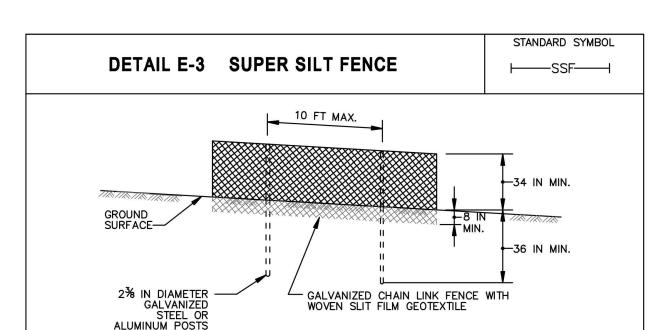
- USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
- USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN, IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
- SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH—SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
- PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTERLINE, WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MAT SMOOTHLY AND FIRMLY ON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
- KEY-IN UPSTREAM END OF EACH MAT ROLL BY DIGGING A 6 INCH (MINIMUM) TRENCH AT THE UPSTREAM END OF THE MATTING, PLACING THE ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END.
- OVERLAP OR ABUT THE ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY
- 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT
- B. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
- ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE

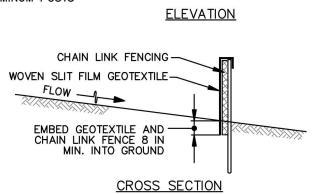
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MARYLAND	STANDARDS	AND	SPECIFICATIONS	FOR	SOIL	EROSION	AND	SEDIMENT	CONTROL	
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WATER MANAGEMENT ADMINISTRATION





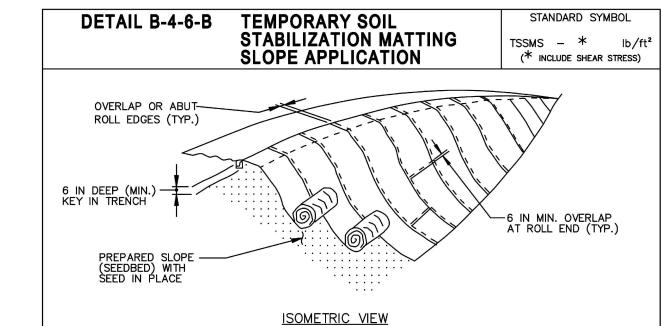
CONSTRUCTION SPECIFICATIONS

NATURAL RESOURCES CONSERV

NATURAL RESOURCES CONSERVATION SERVICE

- INSTALL 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES
- 2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (23/6 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
- 5. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
- . WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
- 5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT
- 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS
- . PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL
- CHAIN LINK FENCING AND GEOTEXTILE. MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE ATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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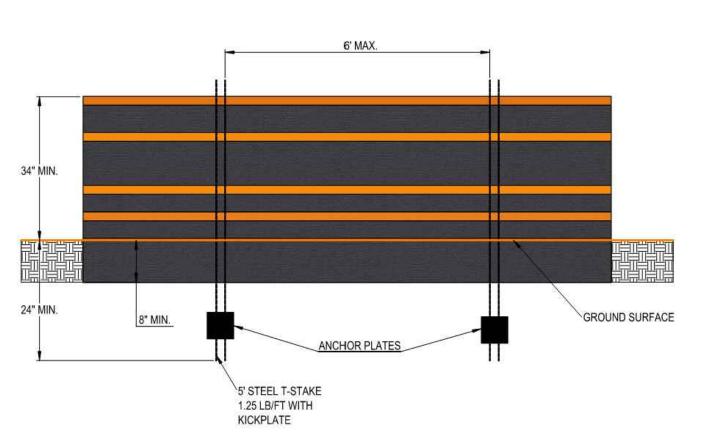
CONSTRUCTION SPECIFICATIONS

- . USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
- 2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN, IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
- 3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 11/2 INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
- . PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.
- 5. UNROLL MATTING DOWNSLOPE. LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
- 6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
- 7. KEY IN THE UPSLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
- 8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
- 9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

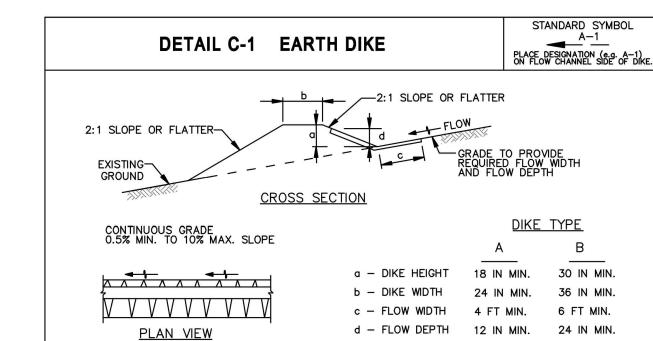
U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION B.39

SMARTfence® 42 Detail



SMARTfence® 42 is NTPEP Compliant GTX-2018-01-187





FLOW CHANNEL STABILIZATION

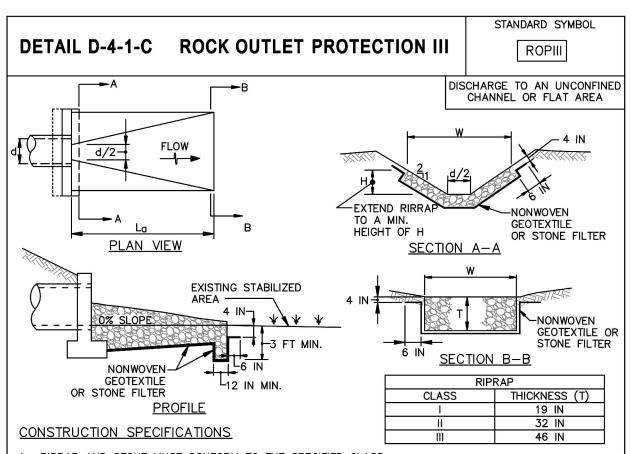
SEED WITH STRAW MULCH AND TACK. (NOT ALLOWED FOR CLEAR WATER DIVERSION.) SEED WITH SOIL STABILIZATION MATTING OR LINE WITH SOD.

4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE PRESSED INTO SOIL A

MINIMUM OF 7 INCHES AND FLUSH WITH GROUND.

- CONSTRUCTION SPECIFICATIONS REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF EARTHDIKE.
- . EXCAVATE OR SHAPE EARTH DIKE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRREGULARITIES ARE NOT ALLOWED.
- . CONSTRUCT FLOW CHANNEL ON AN UNINTERRUPTED, CONTINUOUS GRADE, ADJUSTING THE LOCATION DUE TO FIELD CONDITIONS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.
- 5. PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.
- 6. STABILIZE EARTH DIKE WITHIN THREE DAYS OF INSTALLATION. STABILIZE FLOW CHANNEL FOR CLEAR WATER DIVERSION WITHIN 24 HOURS OF INSTALLATION.
- MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS, AND MAINTAIN POSÍTIVE DRAINAGE. KEEP EARTH DIKE AND POINT OF DISCHARGE FREE OF EROSIÓN, AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH
- UPON REMOVAL OF EARTH DIKE, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS OF REMOVAL STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED ON

MARYLAND STANDARDS AND SPE	CIFICATIONS FOR SOIL EF	ROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
	C.5	



RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.

- 2. USE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING AND THE PROTECT OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROTECT OF THE PIECES OF GEOTEXTILE TOGETHER.
- PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (% TO 11/2 INCH MINIMUM STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
- . EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF RIPRAP.
- . CONSTRUCT RIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
- WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A
- CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
- MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND RIPRAP DISLODGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

MARYLAND STANDARDS AND SPE	CIFICATIONS FOR SOIL E	ROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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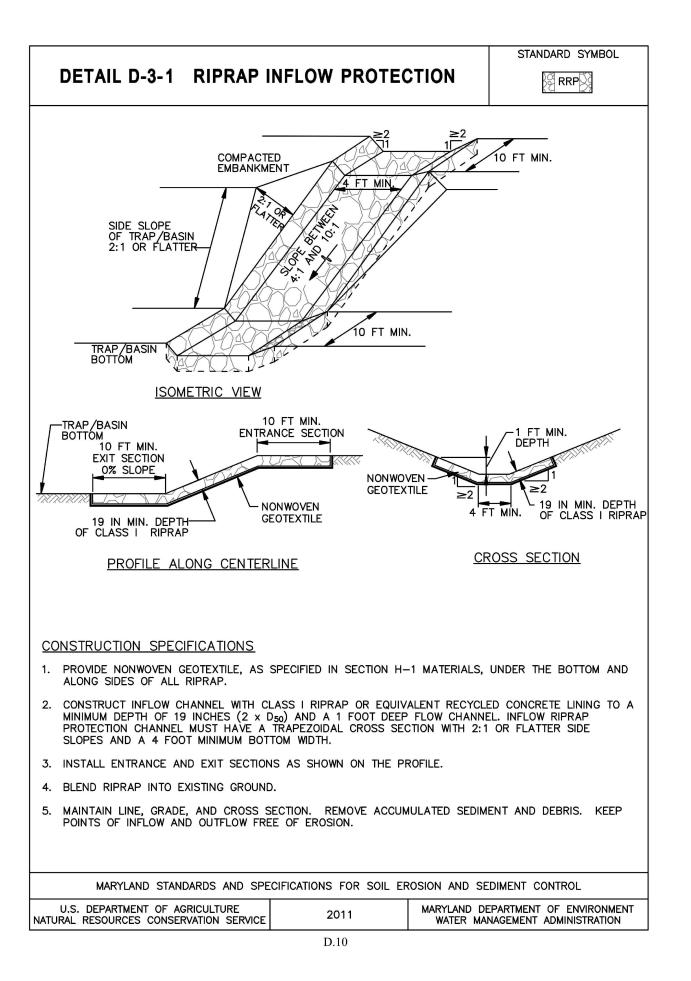
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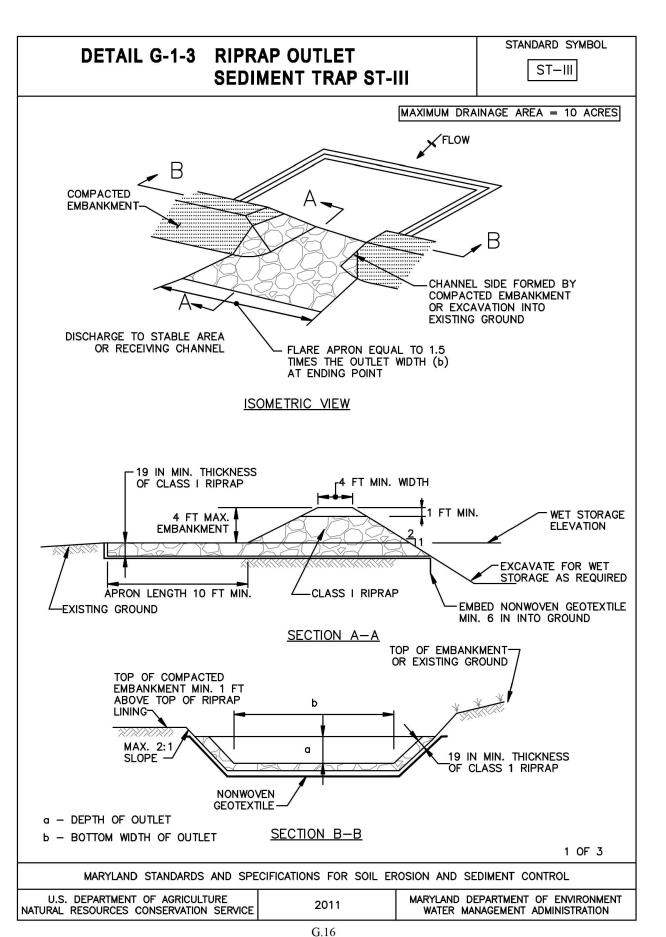
AND ASSOCIATES, INC. 5 WASHINGTON AVE, STE 5 TOWSON, MD 21204 PHONE: 443-743-3500 WWW.KIMLEY-HORN.COM

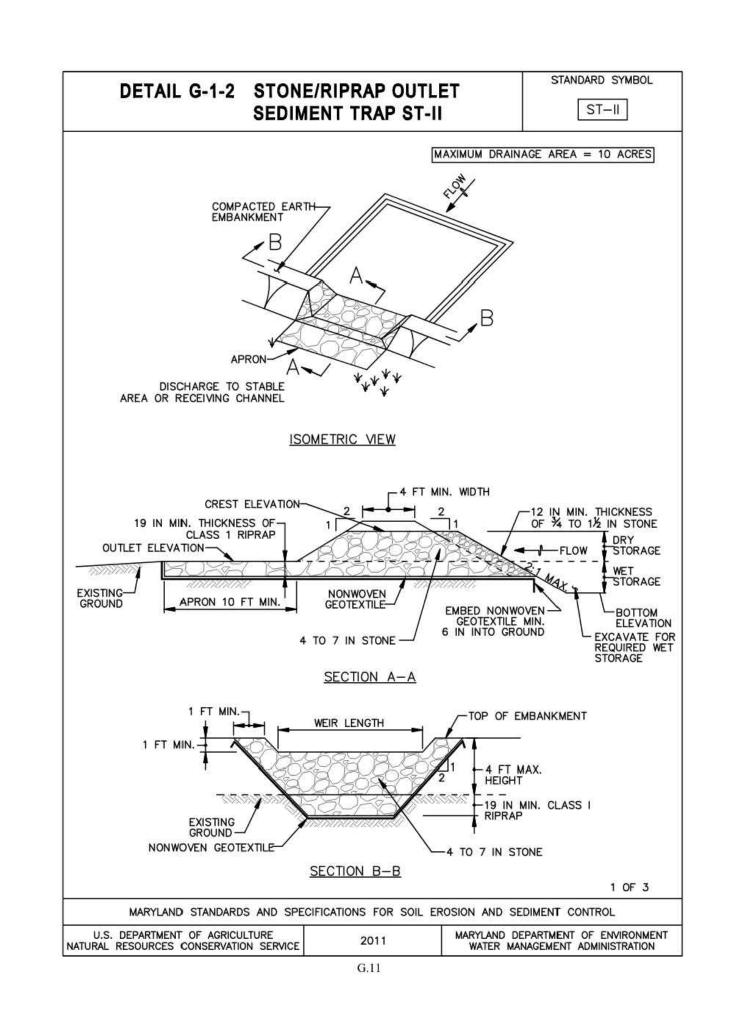
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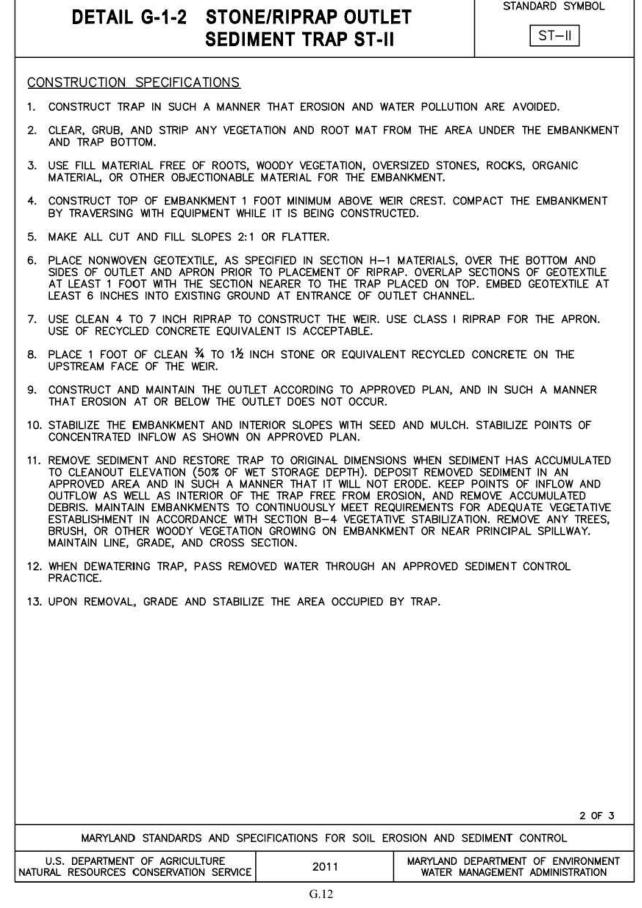
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<u>co</u>	NSTRUCTION SPECIFICATIONS		
	CONSTRUCT TRAP IN SUCH A MANNE	R THAT EROSION AND WA	ATER POLLUTION ARE AVOIDED.
2.	CLEAR, GRUB, AND STRIP ANY VEGET AND TRAP BOTTOM.	TATION AND ROOT MAT FE	ROM THE AREA UNDER THE EMBANKME
3.	USE FILL MATERIAL FREE OF ROOTS, MATERIAL, OR OTHER OBJECTIONABLE		
4.	CONSTRUCT TOP OF EMBANKMENT 1 EMBANKMENT BY TRAVERSING WITH E		
5.	MAKE ALL CUT AND FILL SLOPES 2:1	OR FLATTER.	
6.		TO PLACEMENT OF RIPRANEARER TO THE TRAP F	AP. OVERLAP SECTIONS OF GEOTEXTILE PLACED ON TOP. EMBED GEOTEXTILE AT
7.	USE CLEAN CLASS 1 RIPRAP PLACED RECYCLED CONCRETE EQUIVALENT IS		R THE OUTLET AND APRON. USE OF
8.	CONSTRUCT AND MAINTAIN THE OUTL THAT EROSION AT OR BELOW THE OU		OVED PLAN, AND IN SUCH A MANNER
9.	STABILIZE THE EMBANKMENT AND INT CONCENTRATED INFLOW AS SHOWN OF		O AND MULCH. STABILIZE POINTS OF
10.	TO CLEANOUT ELEVATION (25% OF WEAPPROVED AREA AND IN SUCH A MA OUTFLOW AS WELL AS INTERIOR OF TO DEBRIS. MAINTAIN EMBANKMENTS TO	ET STORAGE DEPTH). DEF NNER THAT IT WILL NOT HE TRAP FREE FROM ERG CONTINUOUSLY MEET REG I SECTION B-4 VEGETATI N GROWING ON EMBANKW	ERODE. KEEP POINTS OF INFLOW AND OSION AND REMOVE ACCUMULATED QUIREMENTS FOR ADEQUATE VEGETATIVIVE STABILIZATION. REMOVE ANY TREES
11.	WHEN DEWATERING TRAP, PASS THE PRACTICE.	REMOVED WATER THROUG	H AN APPROVED SEDIMENT CONTROL
12.	UPON REMOVAL, GRADE AND STABILIZ	ZE THE AREA OCCUPIED F	BY TRAP.
			2 OF
	MARYLAND STANDARDS AND SPE	CIFICATIONS FOR SOIL EF	ROSION AND SEDIMENT CONTROL
	U.S. DEPARTMENT OF AGRICULTURE		MARYLAND DEPARTMENT OF ENVIRONME
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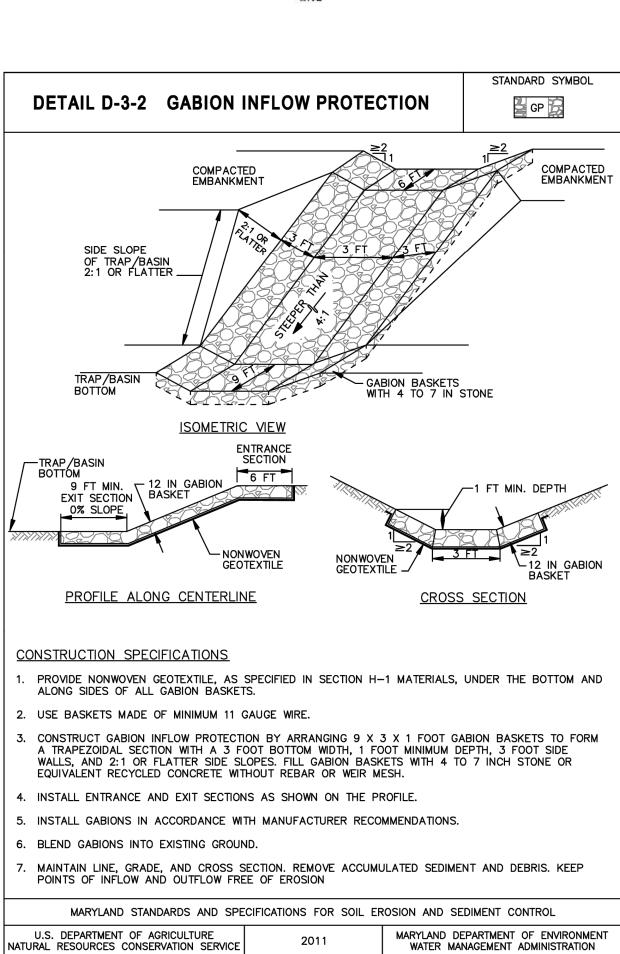
DETAIL G-1-3 RIPRAP OUTLET

SEDIMENT TRAP ST-III

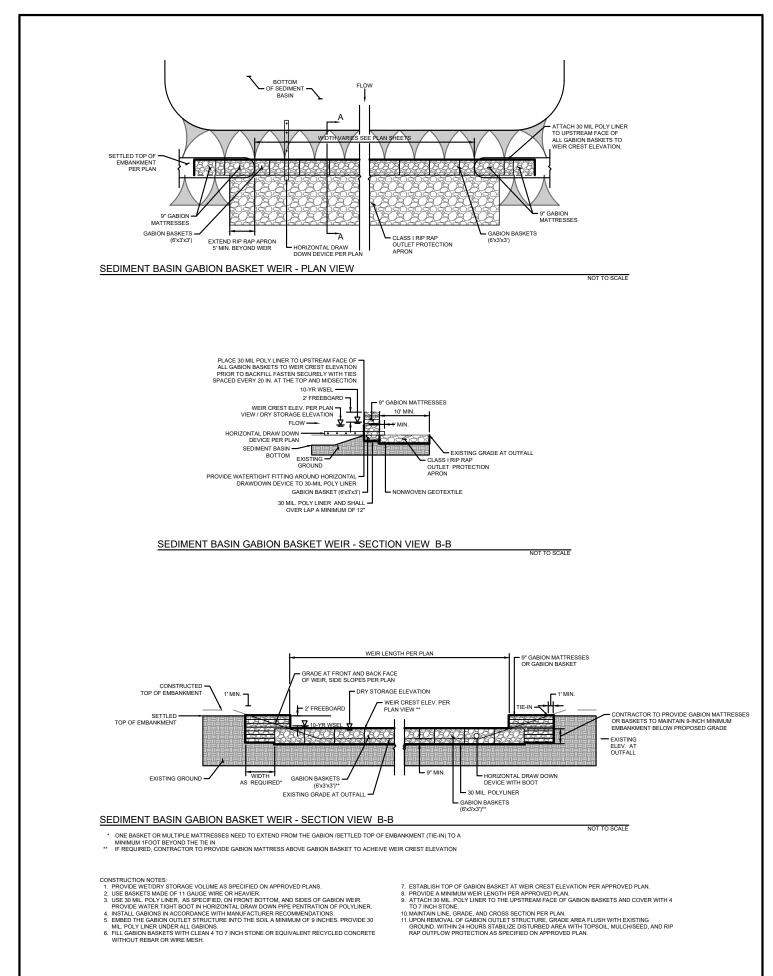
STANDARD SYMBOL

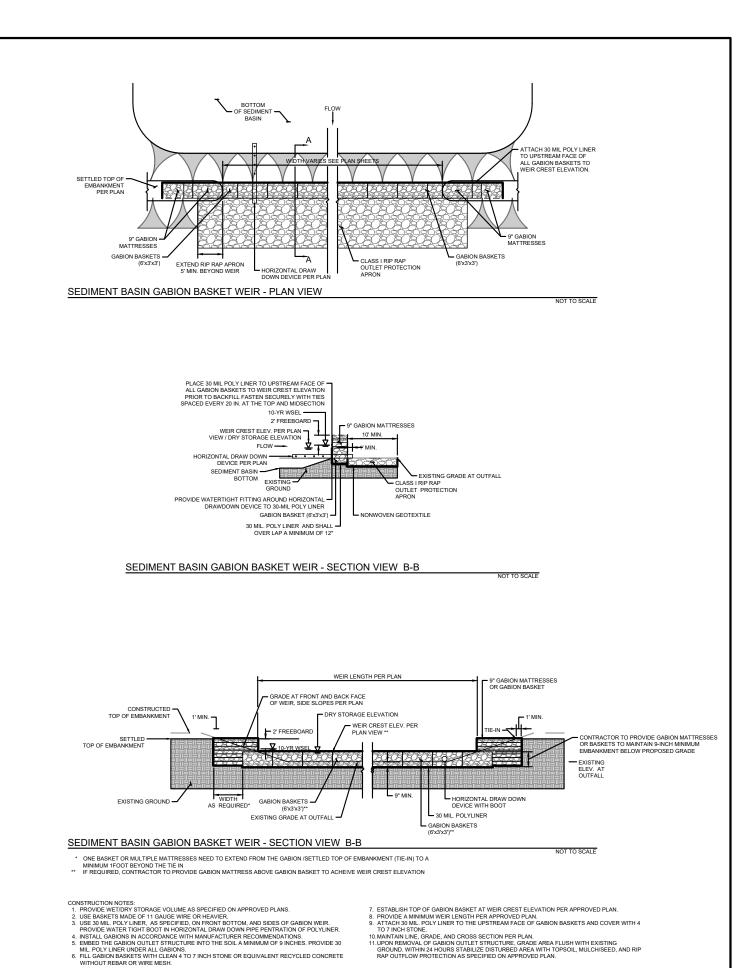
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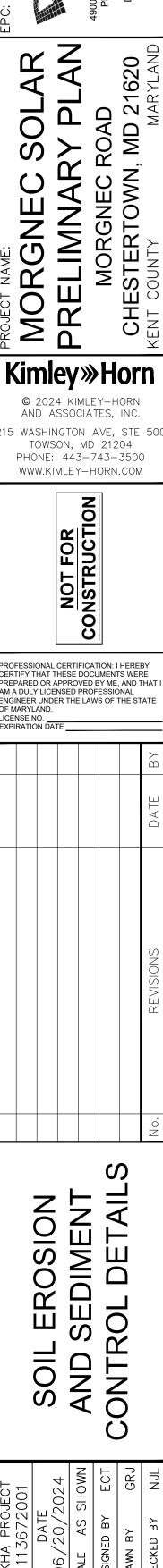




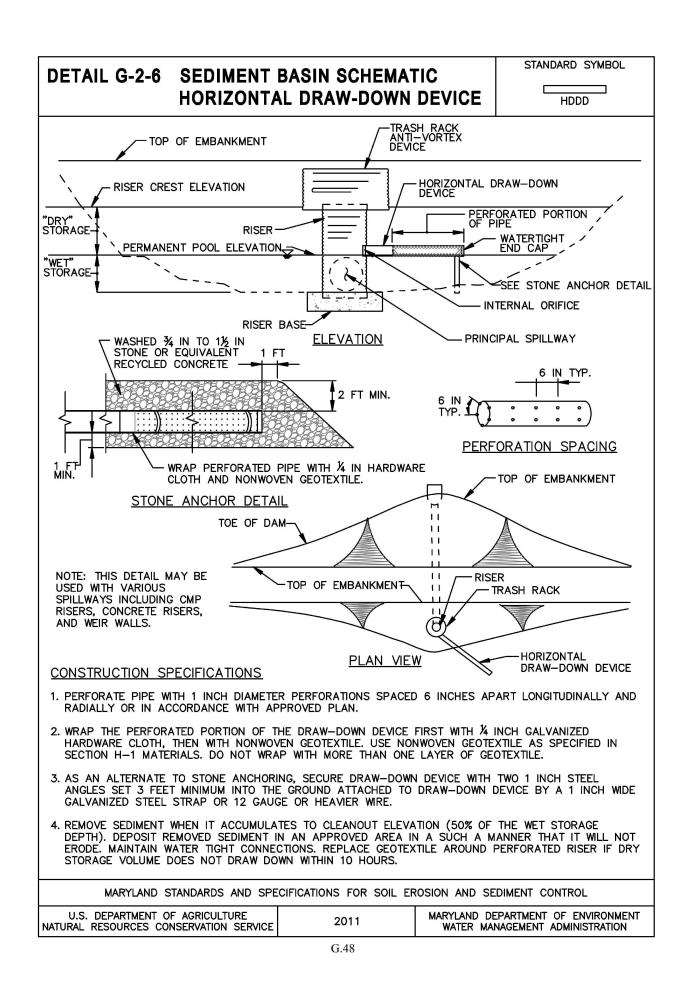
D.12







DEPCO POWER



DETAIL C-8 MOUNTABLE BERM

ISOMETRIC VIEW

-25 FT (A DIKE) / 35 FT (B DIKE)-

IN MIN.

SECTION A-A

. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE EARTH MOUND

H. MAINTAIN LINE, GRADE, AND CROSS SECTION. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

C.24

. PLACE 2 TO 3 INCH STONE OR EQUIVALENT RECYCLED CONCRETE AT LEAST 6 INCHES DEEP OVER THE

DEMAND TO MAINTAIN SPECIFIED DIMENSIONS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN

1. USE MINIMUM WIDTH OF 10 FEET TO ALLOW FOR VEHICULAR PASSAGE.

COMPACTED EARTH

18 IN MIN/A DIKE

30 IN MIN/B DIKE

ROADWAY

CONSTRUCTION SPECIFICATIONS

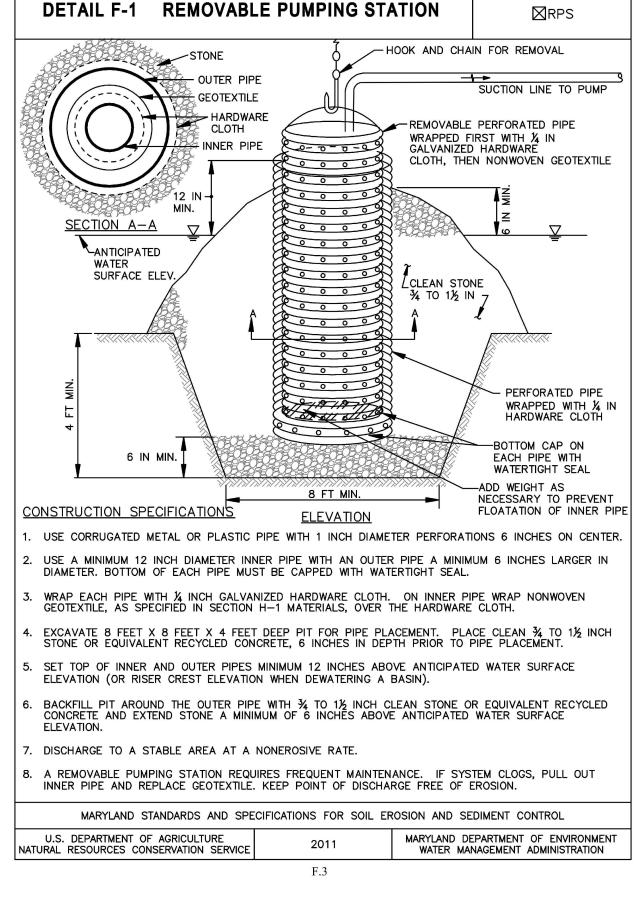
U.S. DEPARTMENT OF AGRICULTURE

EARTH DIKE

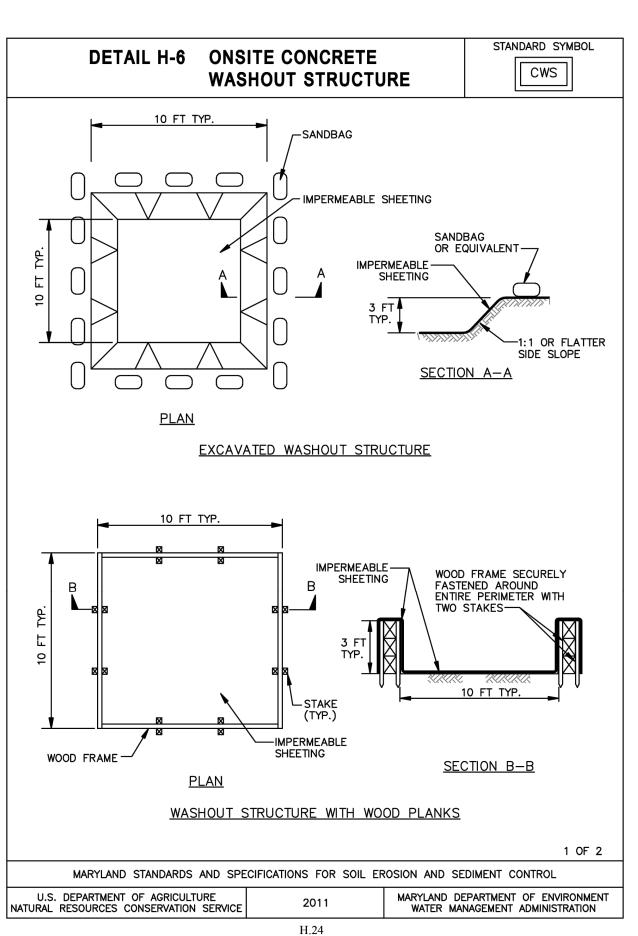
TO 3 IN STONE

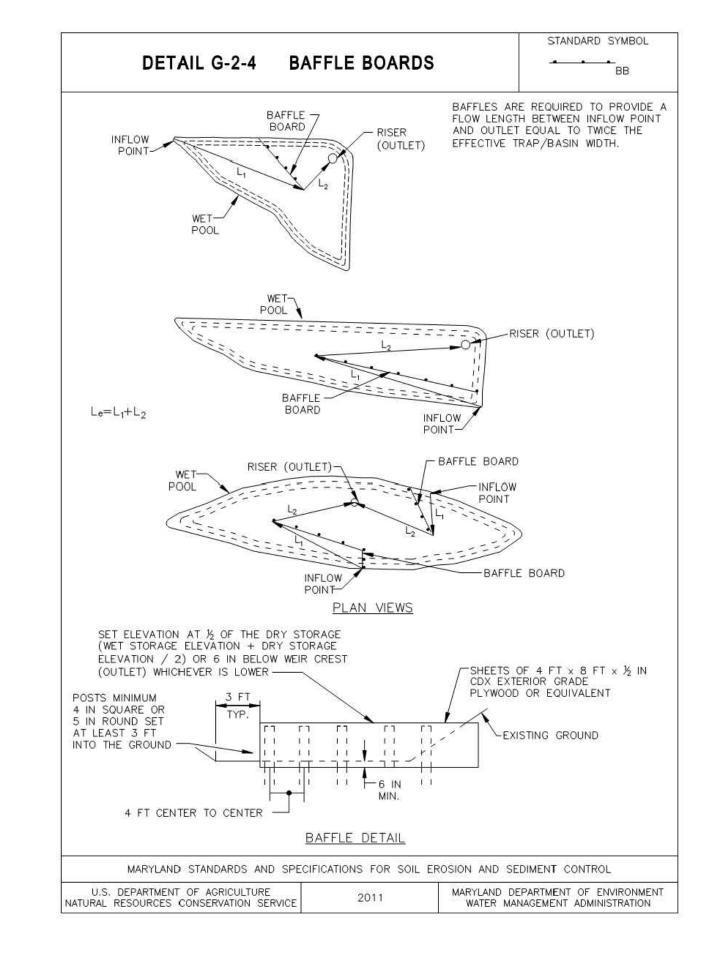
MARYLAND DEPARTMENT OF ENVIRONMENT

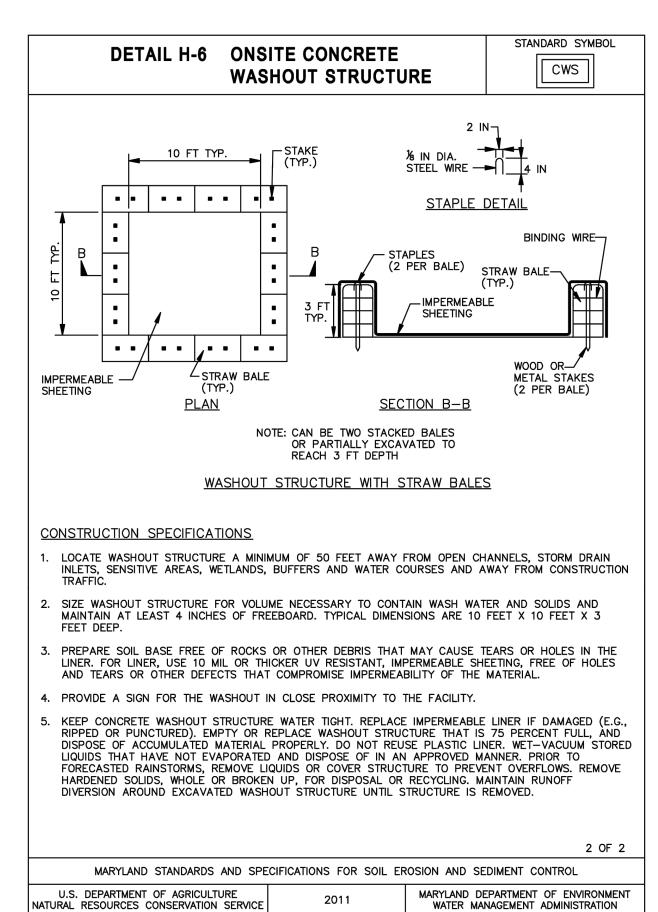
ROADWAY



STANDARD SYMBOL







H.25

F-4 STANDARDS AND SPECIFICATIONS

FILTER BAC

Definition

A geotextile bag through which sediment-laden water is pumped.

<u>Purpose</u>

To filter sediment-laden water prior to discharge.

Conditions Where Practice Applies

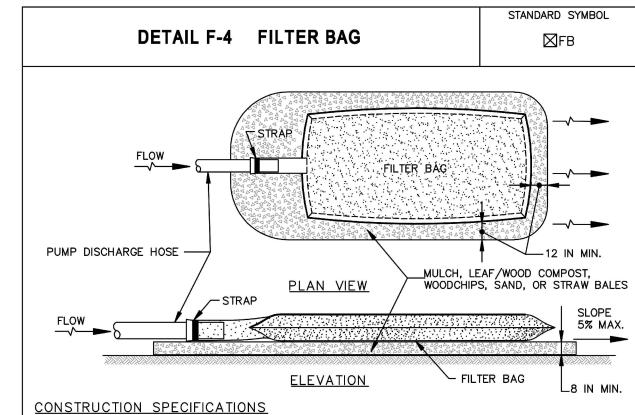
When dewatering is needed in association with excavations, trenches, cofferdams, sediment traps or basins.

Design Criteria

The filter bag should be placed in a location that allows for ease of disposal of the trapped sediment and has minimal interference with construction activities and pedestrian traffic.

<u>Maintenance</u>

If the filter bag clogs, it needs to be replaced. Rips, tears, and punctures also necessitate replacement of the filter bag. The connection between the pump hose and the filter bag needs to be kept water tight during operation. If the bedding becomes displaced, it must be replaced.



- . TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
- PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
- CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING
- REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
- USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

RAB TENSILE	250 LB	ASTM D-4632
UNCTURE	150 LB	ASTM D-4833
LOW RATE	70 GAL/MIN/FT ²	ASTM D-4491
ERMITTIVITY (SEC ⁻¹)	1.2 SEC ⁻¹	ASTM D-4491
V RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
PPARENT OPENING SIZE (AOS)	0.15-0.18 MM	ASTM D-4751
EAM STRENGTH	90%	ASTM D-4632

REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MARYLAND DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

H-1 STANDARDS AND SPECIFICATIONS

FOR

MATERIALS

Table H.1: Geotextile Fabrics

		WOVEN SLIT FILM GEOTEXTILE		WOVEN MONOFILAMENT GEOTEXTILE		NONWOVEN GEOTEXTILE	
			MINIMU	JM AVERA	GE ROLL V	ALUE ¹	
PROPERTY	TEST METHOD	MD	CD	MD	CD	MD	CD
Grab Tensile Strength	ASTM D-4632	200 lb	200 lb	370 lb	250 lb	200 lb	200 lb
Grab Tensile Elongation	ASTM D-4632	15%	10%	15%	15%	50%	50%
Frapezoidal Tear Strength	ASTM D-4533	75 lb	75 lb	100 lb	60 lb	80 lb	80 lb
Puncture Strength	ASTM D-6241	450) lb	900	lb	450 lb	
Apparent Opening Size ²	ASTM D-4751	U.S. Sieve 30		U.S. Sieve 30 U.S. Sieve 70 (0.59 mm) (0.21 mm)		U.S. Sieve 70 (0.21 mm)	
Permittivity	ASTM D-4491	0.05 sec ⁻¹		0.28 sec ⁻¹		1.1 sec ⁻¹	
Ultraviolet Resistance Retained at 500 hours	ASTM D-4355	70% strength		70% strength		70% strength	

- All numeric values except apparent opening size (AOS) represent minimum average roll values (MARV). MARV is calculated as the typical minus two standard deviations. MD is machine direction; CD is cross
- ² Values for AOS represent the average maximum opening.

Geotextiles must be evaluated by the National Transportation Product Evaluation Program (NTPEP) and conform to the values in Table H.1.

The geotextile must be inert to commonly encountered chemicals and hydrocarbons and must be rot and mildew resistant. The geotextile must be manufactured from fibers consisting of long chain synthetic polymers and composed of a minimum of 95 percent by weight of polyolefins or polyesters, and formed into a stable network so the filaments or yarns retain their dimensional stability relative to each other, including selvages.

When more than one section of geotextile is necessary, overlap the sections by at least one foot. The geotextile must be pulled taut over the applied surface. Equipment must not run over exposed fabric. When placing riprap on geotextile, do not exceed a one foot drop height.



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NGINEER UNDER THE LAWS OF THE STATE ENSE NO.

AND

B-4 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

USING VEGETATION AS COVER TO PROTECT EXPOSED SOIL FROM EROSION.

TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL.

AND PERMANENT STABILIZATION.

ON ALL DISTURBED AREAS NOT STABILIZED BY OTHER METHODS. THIS SPECIFICATION IS DIVIDED INTO SECTIONS ON INCREMENTAL STABILIZATION; SOIL PREPARATION, SOIL AMENDMENTS AND TOPSOILING; SEEDING AND MULCHING; TEMPORARY STABILIZATION;

STABILIZATION PRACTICES ARE USED TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL. WHEN SOIL IS STABILIZED WITH VEGETATION, THE SOIL IS LESS LIKELY TO ERODE AND MORE LIKELY TO ALLOW INFILTRATION OF RAINFALL, THEREBY REDUCING SEDIMENT LOADS AND RUNOFF TO DOWNSTREAM AREAS.

PLANTING VEGETATION IN DISTURBED AREAS WILL HAVE AN EFFECT ON THE WATER BUDGET, ESPECIALLY ON VOLUMES AND RATES OF RUNOFF, INFILTRATION, EVAPORATION, TRANSPIRATION, PERCOLATION, AND GROUNDWATER RECHARGE. OVER TIME, VEGETATION WILL INCREASE ORGANIC MATTER CONTENT AND IMPROVE THE WATER HOLDING CAPACITY OF THE SOIL AND SUBSEQUENT PLANT GROWTH.

VEGETATION WILL HELP REDUCE THE MOVEMENT OF SEDIMENT, NUTRIENTS, AND OTHER CHEMICALS CARRIED BY RUNOFF TO RECEIVING WATERS. PLANTS WILL ALSO HELP PROTECT GROUNDWATER SUPPLIES BY ASSIMILATING THOSE SUBSTANCES PRESENT

SEDIMENT CONTROL PRACTICES MUST REMAIN IN PLACE DURING GRADING, SEEDBED PREPARATION, SEEDING, MULCHING, AND VEGETATIVE ESTABLISHMENT.

ADEQUATE VEGETATIVE ESTABLISHMENT

INSPECT SEEDED AREAS FOR VEGETATIVE ESTABLISHMENT AND MAKE NECESSARY REPAIRS, REPLACEMENTS, AND RESEEDINGS WITHIN

- ADEQUATE VEGETATIVE STABILIZATION REQUIRES 95 PERCENT GROUNDCOVER.
- IF AN AREA HAS LESS THAN 40 PERCENT GROUNDCOVER, RESTABILIZE FOLLOWING THE ORIGINAL RECOMMENDATIONS FOR LIME, FERTILIZER, SEEDBED PREPARATION, AND SEEDING IF AN AREA HAS BETWEEN 40 AND 94 PERCENT GROUNDCOVER, OVER-SEED AND FERTILIZE USING HALF OF THE RATES ORIGINALLY
- MAINTENANCE FERTILIZER RATES FOR PERMANENT SEEDING ARE SHOWN IN TABLE B.6.

B-4-1 STANDARDS AND SPECIFICATIONS FOR INCREMENTAL STABILIZATION

ESTABLISHMENT OF VEGETATIVE COVER ON CUT AND FILL SLOPES

TO PROVIDE TIMELY VEGETATIVE COVER ON CUT AND FILL SLOPES AS WORK PROGRESSES.

- NY CUT OR FILL SLOPE GREATER THAN 15 FEET IN HEIGHT. THIS PRACTICE ALSO APPLIES TO STOCKPILES.
- EXCAVATE AND STABILIZE CUT SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDBED AND APPLY SEED AND MULCH ON ALL CUT SLOPES AS THE WORK PROGRESSES.

INCREMENTAL STABILIZATION - CUT SLOPES

- CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.1): CONSTRUCT AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO CONVEY RUNOFF
- AROUND THE EXCAVATION.
 - PERFORM PHASE 1 EXCAVATION, PREPARE SEEDBED, AND STABILIZE. PERFORM PHASE 2 EXCAVATION, PREPARE SEEDBED, AND STABILIZE. OVERSEED PHASE 1 AREAS AS
 - PERFORM FINAL PHASE EXCAVATION, PREPARE SEEDBED, AND STABILIZE. OVERSEED PREVIOUSLY SEEDED
- AREAS AS NECESSARY

NOTE: ONCE EXCAVATION HAS BEGUN THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.

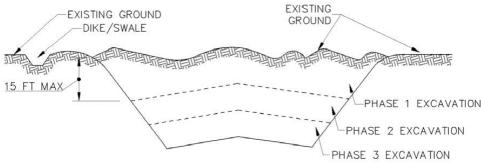


Figure B.1: Incremental Stabilization – Cut

INCREMENTAL STABILIZATION - FILL SLOPES

- CONSTRUCT AND STABILIZE FILL SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDBED AND APPLY SEED AND MULCH ON ALL SLOPES AS THE WORK PROGRESSES. STABILIZE SLOPES IMMEDIATELY WHEN THE VERTICAL HEIGHT OF A LIFT REACHES 15 FEET, OR WHEN THE GRADING
- OPERATION CEASES AS PRESCRIBED IN THE PLANS. AT THE END OF EACH DAY, INSTALL TEMPORARY WATER CONVEYANCE PRACTICE(S), AS NECESSARY, TO INTERCEPT
- SURFACE RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER. CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.2):
- CONSTRUCT AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO DIVERT RUNOFF AROUND THE FILL. CONSTRUCT SILT FENCE ON LOW SIDE OF FILL UNLESS OTHER METHODS SHOWN ON THE PLANS ADDRESS THIS AREA.
- AT THE END OF EACH DAY, INSTALL TEMPORARY WATER CONVEYANCE PRACTICE(S), AS NECESSARY, TO
- INTERCEPT SURFACE RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER. PLACE PHASE 1 FILL, PREPARE SEEDBED, AND STABILIZE.
- PLACE PHASE 2 FILL, PREPARE SEEDBED, AND STABILIZE.
 - PLACE FINAL PHASE FILL, PREPARE SEEDBED, AND STABILIZE. OVERSEED PREVIOUSLY SEEDED AREAS AS NECESSARY

NOTE: ONCE THE PLACEMENT OF FILL HAS BEGUN THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.

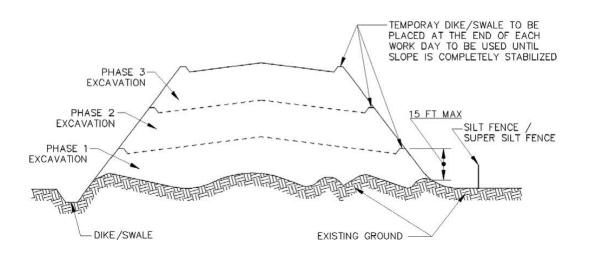


Figure B.2: Incremental Stabilization – Fill

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL **AMENDMENTS**

THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION

O PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH CONDITIONS WHERE PRACTICE APPLIES

WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

SOIL PREPARATION TEMPORARY STABILIZATION

SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.

- INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
- a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
 - SOIL PH BETWEEN 6.0 AND 7.0.

APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS

- SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM). SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE
- IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT
- V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
- APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOI SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLE TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.
- TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW
 - NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
 - TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE: THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH
 - CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
 - AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA
 - TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1S INCHES IN DIAMETER.
 - TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
 - EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
 - UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS
 - TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED
- SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
- SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO
- BE USED FOR CHEMICAL ANALYSES FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE
- LAWS AND MUST BEAR THE NAME. TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
- LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE

OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

HE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

O PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

- SPECIFICATIONS
 - ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B 4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED
- b. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS
- INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE
- INOCULANT LESS EFFECTIVE. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS
- APPLICATION a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1.
- PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH
- DIRECTION. ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
- CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH
- DIRECTION c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER) I. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE
- FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P205 (PHOSPHOROUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY
- HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
- MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION. IV. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING MULCH MATERIALS (IN ORDER OF PREFERENCE)

- STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED
- WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE. WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
- WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED. FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A
- GRASS SEEDLINGS. IV. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE

BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES

AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE

WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS. DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.

APPLICATION

ANCHORING

- APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS
- WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
- THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED

TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND,

a. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER.

THIS PRACTICE SHOULD FOLLOW THE CONTOUR.

PROHIBITED.

- WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER
- III. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY
- LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.

TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME

PERMANENT STABILIZATION PRACTICES ARE REQUIRED. I. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING

- DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN. 2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS
- ARE NOT REQUIRED FOR TEMPORARY SEEDING. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

	TEMPORARY SEEDING SUMMARY									
	HARE	FERTILIZER RATE	LIME RATE							
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	(10-20-20)	LIVIL IVATE				
	COOL SEASON GRASSES									
1	ANNUAL RYEGRASS	40	2/15 - 4/30 8/15 - 11/30	0.5"		2 TONS/AC				
2	BARLEY	96	2/15 - 4/30 8/15 - 11/30	1.0"	436 LB/AC					
3	OATS	72	2/15 - 4/30 8/15 - 11/30	1.0"	(10 LB/1000 SF)	(90 LB/1000 SF)				
4	WHEAT	120	2/15 - 4/30 8/15 - 12/15	1.0"						
	WARM SEASON GRASSES									
7	PEARL MILLET	20	5/1 - 8/14	0.5"						

SEEDING RATES FOR THE WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS), ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY. AS TESTED. ADJUSTMENTS ARE USUALLY NOT NEEDED FOR THE COOL-SEASON GRASSES.

SEEDING RATES LISTED ABOVE ARE FOR TEMPORARY SEEDINGS, WHEN PLANTED ALONE. WHEN PLANTED AS A NURSE CROP WITH PERMANENT SEED MIXES, USE 1/3 OF THE SEEDING RATE LISTED ABOVE FOR BARLEY, OATS, AND WHEAT. FOR SMALLER-SEEDED GRASSES (ANNUAL RYEGRASS. PEARL MILLET. FOXTAIL MILLET). DO NOT EXCEED MORE THAN 5% (BY WEIGHT) OF THE OVERALL PERMANENT SEEDING MIX. CEREAL RYE GENERALLY SHOULD NOT BE USED AS A NURSE CROP. UNLESS PLANTING WILL OCCUR IN VERY LATE FALL BEYOND THE SEEDING DATES FOR OTHER TEMPORARY SEEDINGS. CEREAL RYE HAS ALLELOPATHIC PROPERTIES THAT INHIBIT THE GERMINATION AND GROWTH OF OTHER PLANTS. IF IT MUST E USED AS A NURSE CROP, SEED AT 1/3 OF THE RATE LISTED ABOVE. OATS ARE THE RECOMMENDED NURSE CROP FOR VARM-SEASON GRASSES. FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE.

THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE AND MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONE.

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

TABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS. ONDITIONS WHERE PRACTICE APPLIES

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE

<u>CRITERIA</u> A. SEED MIXTURES

GENERAL USE a. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.

b. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES

- OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 - CRITICAL AREA PLANTING. c. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY
- d. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 S POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY
- TURFGRASS MIXTURES a. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES
- WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
- KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT
- KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR FOR
- AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES; CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY. INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED

KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT.

- SEEDING RATE: 1S TO 3 POUNDS PER 1000 SQUARE FEET. SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND" CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER
- PROTECTION AND ASSURES A PURE GENETIC LINE c. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES VESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5B, 6A)
- ENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B) JTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A, 7B) TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1S INCHES IN DIAMETER. THE
- RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY. e. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (S TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE

PERMANENT SEEDING SUMMARY

	HARDINESS ZONE (from Figure B.3): ZONE 7B SEED MIXTURE (from Table B.1)				HARDINESS ZONE (from Figure B.3): ZONE 7B SEED MIXTURE (from Table B.1) FERTILIZER RATE (10-20-20)					
NO	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P2O5	K2O	LIME RATE		
7	CREEPING RED FESCUE KENTUCKY BLUEGRASS	60 15	2/15 - 4/30 8/15 - 10/31 11/1 - 11/30*	1 " - 1 "						
12	CREEPING RED FESCUE HARD FESCUE SHEEP FESCUE	25 25 25 25	2/15 - 4/30 8/15 - 10/31 11/1 - 11/30*	1 " - 1 "	45 POUNDS PER ACRE (1.0 LB/1000 SF)	90 LB/AC (2 LB/1000	90 LB/AC (2 LB/1000 SF)	2 TONS/A (90 LB/10 SF)		
4	DEERTONGUE CREEPING RED FESCUE VIRGINA WILD RYE	15 20 5	2/15 - 4/30** 5/1 - 5/31***	1" - 1"	LB/1000 3F)					

THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE. THESE DATES MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS. ESPECIALLY NEAR THE BOUNDARIES OF THE ZONES. WHEN SEEDING TOWARD THE END OF THE LISTED PLANTING ATES. OR WHEN CONDITIONS ARE EXPECTED TO BE LESS THAN OPTIMAL. SELECT AN APPROPRIATE NURSE CROP FROM TABLE B.1 EMPORARY SEEDING FOR SITE STABILIZATION AND PLANT TOGETHER WITH THE PERMANENT SEEDING MIX. WHEN PLANTED DURING THE GROWING SEASON, MOST OF THESE MATERIALS MUST BE PURCHASED AND KEPT IN A DORMANT ONDITION UNTIL PLANTING. BARE-ROOT GRASSES ARE THE EXCEPTION—THEY MAY BE SUPPLIED AS GROWING (NON-DORMANT)

*ADDITIONAL PLANTING DATES FOR THE LOWER COASTAL PLAIN, DEPENDENT ON ANNUAL RAINFALL AND TEMPERATURE TRANDS. RECOMMEND ADDING A NURSE CROP. AS NOTED ABOVE. IF PLANTING DURING THIS PERIOD. **WARM-SEASON GRASSES NEED A SOIL TEMPERATURE OF AT LEAST 50 DEGREES F IN ORDER TO GERMINATE. IF SOIL

TEMPERATURES ARE COLDER THAN 50 DEGREES, OR MOISTURE IS NOT ADEQUATE, THE SEEDS WILL REMAIN DORMANT UNTIL CONDITIONS ARE FAVORABLE. IN GENERAL, PLANTING DURING THE LATTER PORTION OF THIS PERIOD ALLOWS MORE TIME FOR WEED EMERGENCE AND WEED CONTROL PRIOR TO PLANTING. WHEN SELECTING A PLANTING DATE, CONSIDER THE NEED FOR WEED CONTROL VS. THE LIKELIHOOD OF HAVING SUFFICIENT MOISTURE FOR LATER PLANTINGS. ESPECIALLY ON DROUGHTY SITES. ***ADDITIONAL PLANTING DATES DURING WHICH SUPPLEMENTAL WATERING MAY BE NEEDED TO ENSURE PLANT ESTABLISHMENT. ***OTHER MEADOW SEED MIXES MAY BE USED (REFER TO LANDSCAPE PLAN).

B. SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).

PREVENT WILTING

- a. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE
- JOB FOREMAN AND INSPECTOR. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF S INCH, PLUS OR MINUS J INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH. BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE
- STANDARD SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION. SOD MUST NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY
- SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.
- DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE
- THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO
- PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS. WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING ROLL AND TAMP, PEG OR OTHERWISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT
- EXISTS BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE. WATER THE SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS.
- a. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO
 - AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE





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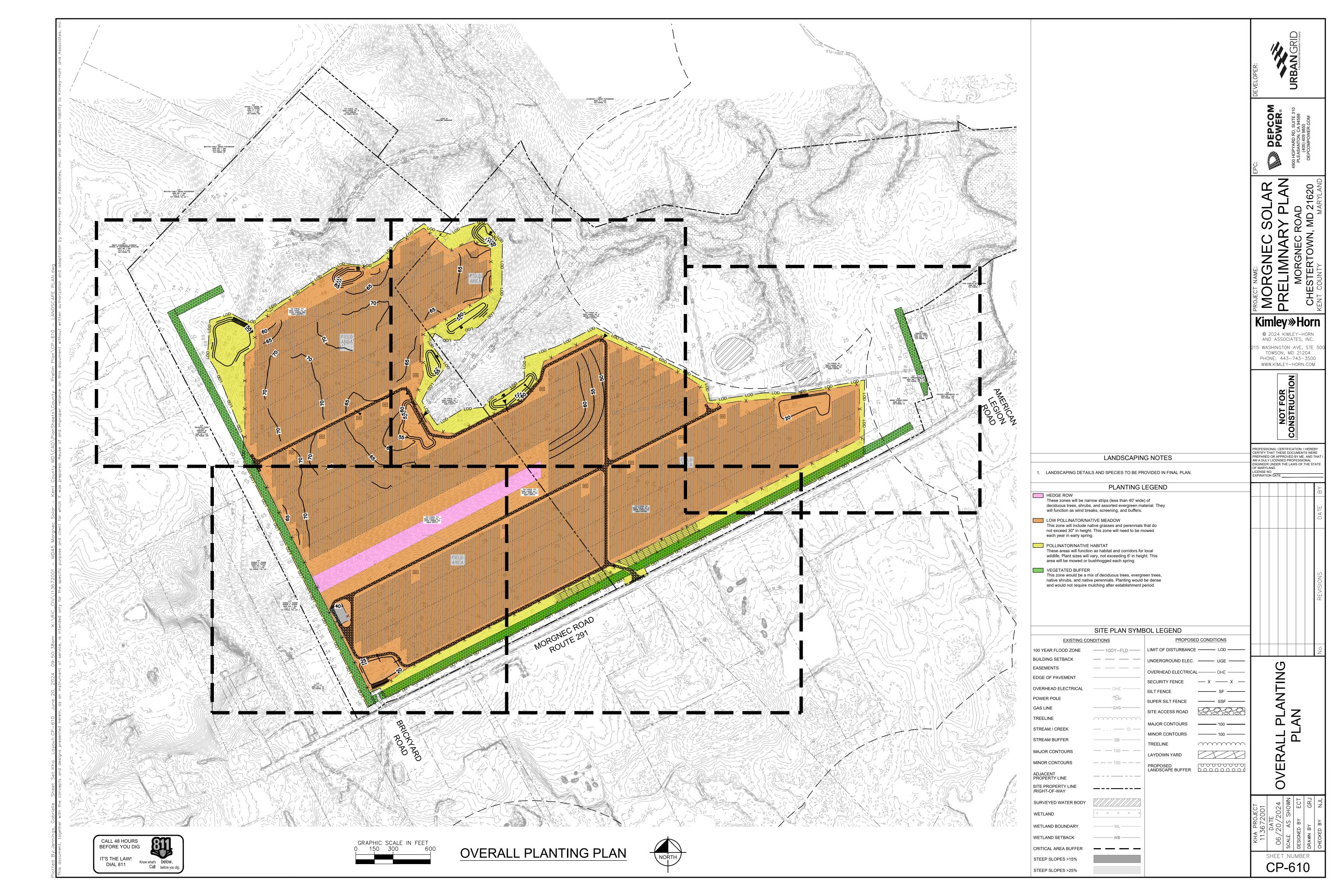
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ANTI-DEGRADATION SUMMARY: SEQUENCE OF CONSTRUCTION B-4-6 STANDARDS AND SPECIFICATIONS FOR SOIL STABILIZATION MATTING THE ENHANCED MINIMIZATION EFFORTS NOTED BELOW SHALL BE EMPLOYED FOR CONFORMANCE TO MARYLAND MATERIAL USED TO TEMPORARILY OR PERMANENTLY STABILIZE CHANNELS OR STEEP SLOPES UNTIL GROUNDCOVER IS ESTABLISHED. DEPARTMENT OF THE ENVIRONMENT, ANTI-DEGRADATION STRATEGIES, ASSOCIATED WITH IMPACTS AND THE NOTE: TO BE PROVIDED IN FINAL PLAN. PROTECTION TO WETLANDS IDENTIFIED WITHIN THE PROJECT LIMITS. PURPOSE TO PROTECT THE SOILS UNTIL VEGETATION IS ESTABLISHED. EROSION AND SEDIMENT CONTROL PLAN - GENERAL 1. THE CONTRACTOR SHALL LIMIT DISTURBED AREAS TO THOSE IDENTIFIED ON THE APPROVED PLANS. TO THE CONDITIONS WHERE PRACTICE APPLIES ON NEWLY SEEDED SURFACES TO PREVENT THE APPLIED SEED FROM WASHING OUT; IN CHANNELS AND ON STEEP SLOPES WHERE EXTENT PRACTICAL, MAINTAIN EXISTING GROUND DURING THE CONSTRUCTION PROCESS. 2. THE CONTRACTOR SHALL SEQUENCE THE LAND DISTURBING ACTIVITIES TO MINIMIZE EARTH DISTURBANCE. THE FLOW HAS EROSIVE VELOCITIES OR CONVEYS CLEAR WATER: ON TEMPORARY SWALES, EARTH DIKES, AND PERIMETER DIKE 3. WHERE PRACTICAL, WORK DONE ON ANY GIVEN DAY SHALL BE LIMITED SO AS TO DISTURB NO MORE AREA SWALES AS REQUIRED BY THE RESPECTIVE DESIGN STANDARD; AND, ON STREAM BANKS WHERE MOVING WATER IS LIKELY TO WASH THAN CAN BE STABILIZED BY THE END OF THE WORKDAY; AND/OR TEMPORARY AND PERMANENT STABILIZATION MUST COMPLY WITH THE RESPECTIVE 3- AND 7-DAY TIME FRAMES DENOTED ON THE OUT NEW VEGETATIVE PLANTINGS. APPROVED EROSION AND SEDIMENT CONTROL PLAN. 4. TO THE EXTENT PRACTICABLE THE CONTRACTOR SHALL TAKE EFFORTS TO SCHEDULE ACTIVITIES TO TAKE B-4-7 STANDARDS AND SPECIFICATIONS FOR HEAVY USE AREA PROTECTION PLACE DURING TIMES WHEN SEDIMENT CONTROL TRANSPORT IS LIKELY TO BE MINIMIZED, (BY VIRTUE OF A NOAA 1- OR 3-DAY WEATHER FORECAST). 5. CONDUCT INSPECTIONS ON A DAILY BASIS. LOGBOOKS MAY BE REVIEWED. DEPCOI POWER GRADING AND STABILIZATION: THE STABILIZATION OF AREAS FREQUENTLY AND INTENSIVELY USED BY SURFACING WITH SUITABLE MATERIALS (E.G., MULCH AND 6. THE CONTRACTOR SHALL PROVIDE INSPECTIONS OF EROSION CONTROL DEVICES, AT A MINIMUM OF 1) ONCE EVERY 7 CALENDAR DAYS, AND B) WITHIN 24 HOURS OF THE OCCURRENCE OF A STORM EVENT OF 0.25 INCHES OR GREATER. 7. STOCKPILES SHALL BE LOCATED GREATER THAN 100 FEET FROM STREAMS AND THE WETLANDS DENOTED ON THE PLAN. ALSO, SILT FENCE SHALL BE PROVIDED AROUND ALL STOCKPILES AS ILLUSTRATED ON THE TO PROVIDE A STABLE, NON-ERODING SURFACE FOR AREAS FREQUENTLY USED AND TO IMPROVE THE WATER QUALITY FROM THE APPROVED PLANS. WHEN INACTIVE, STOCKPILES SHALL BE STABILIZED IN ACCORDANCE WITH EROSION AND RUNOFF OF THESE AREAS. SEDIMENT CONTROL CRITERIA NOTED ON THE APPROVED PLANS. CONDITIONS WHERE PRACTICE APPLIES FILTERING: 8. THE CONTRACTOR SHALL INSTALL SUPER SILT FENCE AND DIVERSION FENCE IN AND AROUND THE WETLANDS THIS PRACTICE APPLIES TO INTENSIVELY USED AREAS (E.G., EQUIPMENT AND MATERIAL STORAGE, STAGING AREAS, HEAVILY USED AND WETLAND BUFFER AS ILLUSTRATED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN. 9. THE TRASH RACK MUST BE INSTALLED IN THE SEDIMENT BASIN AS ILLUSTRATED ON THE APPROVED PLAN. 10. THE CONTRACTOR SHALL UTILIZE THE BAFFLE BOARDS WITHIN THE SEDIMENT TRAPS, AS SPECIFIED ON THE 1. A MINIMUM 4-INCH BASE COURSE OF CRUSHED STONE OR OTHER SUITABLE MATERIALS INCLUDING WOOD CHIPS OVER NONWOVEN GEOTEXTILE SHOULD BE PROVIDED AS SPECIFIED IN SECTION H-1 MATERIALS. ک بے ک 7 2. SELECT THE STABILIZING MATERIAL BASED ON THE INTENDED USE, DESIRED MAINTENANCE FREQUENCY, AND RUNOFF CONTROL. 11. THE CONTRACTOR SHALL ASSURE THAT THE DEWATERING DISCHARGE OF THE SEDIMENT TRAPS AND BASIN SHALL TAKE PLACE BEYOND 100 FEET OF THE WETLAND BUFFER IDENTIFIED ON THE PLAN. NO DISCHARGE 3. THE TRANSPORT OF SEDIMENTS, NUTRIENTS, OILS, CHEMICALS, PARTICULATE MATTER ASSOCIATED WITH VEHICULAR TRAFFIC SHALL OCCUR OR BE DIRECTED INTO THE WETLAND OR THE BUFFER. AND EQUIPMENT, AND MATERIAL STORAGE NEEDS TO BE CONSIDERED IN THE SELECTION OF MATERIAL. ADDITIONAL CONTROL MEASURES MAY BE NECESSARY TO CONTROL SOME OF THESE POTENTIAL POLLUTANTS. PROJECT COMPLETION AND FINAL STABILIZATION: 12. AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL CAREFULLY REMOVE ALL TEMPORARY EROSION 4. SURFACE EROSION CAN BE A PROBLEM ON LARGE HEAVY USE AREAS. IN THESE SITUATIONS, MEASURES TO REDUCE THE FLOW AND SEDIMENT CONTROL PRACTICES SO AS TO AVOID IMPACTS TO THE WETLANDS AND WETLAND BUFFERS. LENGTH OF RUNOFF OR EROSIVE VELOCITIES NEED TO BE CONSIDERED. DISTURBED AREAS MUST BE IMMEDIATELY STABILIZED. STORMWATER MANAGEMENT PLAN 13. THIS APPROVED PLAN USES ESD PRACTICES TO COMPLY WITH THE STORMWATER MANAGEMENT CRITERIA THE HEAVY USE AREAS MUST BE MAINTAINED IN A CONDITION THAT MINIMIZES EROSION. THIS MAY REQUIRE ADDING SUITABLE OF THE COUNTY AND THE STATE. ALL PRACTICES SHALL BE CONSTRUCTED CONSISTENT WITH THE MATERIAL, AS SPECIFIED ON THE APPROVED PLANS, TO MAINTAIN A CLEAN SURFACE. APPROVED PLANS. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID CONCENTRATED FLOW FROM AREAS DESIGNATED AS SHEET FLOW. IF CONCENTRATED FLOW IS OBSERVED WITHIN AREAS DESIGNATED AS SHEET FLOW, THE CONTRACTOR SHALL GRADE THOSE AREAS TO SMOOTH OUT SAID OCCURRENCES. **B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA** MO PRE A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION, AND CHANGES TO DRAINAGE PATTERNS. CONDITIONS WHERE PRACTICE APPLIES STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE © 2024 KIMLEY-HORN AND ASSOCIATES, INC. CRITERIA A. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION WASHINGTON AVE, STE 50 TOWSON, MD 21204 PHONE: 443-743-3500 B. THE FOOTPRINT OF THE STOCKPILE MUST BE SIDED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON WWW.KIMLEY-HORN.COM A SIDE SLOPE RATION NO STEEPER THAT 2:1. BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING. C. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE. E. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE F. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE. G. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION H. IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER SHOULD BE PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING MATERIAL MUST BE COVERED WITH IMPERMEABLE SHEETING. THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. SIDE SLOPES MUST BE MAINTAINED AT NO STEEPER THAN A 2:1 RATIO. THE STOCKPILE AREA MUST BE KEPT FREE OF EROSION. IF THE VERTICAL HEIGHT OF A STOCKPILE EXCEEDS 20 FEET FOR 2:1 SLOPES, 30 FEET FOR 3:1 FESSIONAL CERTIFICATION: LHERERY SLOPES, OR 40 FEET FOR 4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING PARED OR APPROVED BY ME AND THA M A DULY LICENSED PROFESSIONAL NGINEER UNDER THE LAWS OF THE STATE H-5 STANDARDS AND SPECIFICATIONS FOR DUST CONTROL **DEFINITION** CONTROLLING THE SUSPENSION OF DUST PARTICLES FROM CONSTRUCTION ACTIVITIES. <u>PURPOSE</u> TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES TO REDUCE ON AND OFF-SITE DAMAGE INCLUDING **CONDITIONS WHERE PRACTICE APPLIES** AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT. 1. MULCHES: SEE SECTION B-4-2 SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS, SECTION B-4-3 SEEDING AND MULCHING, AND SECTION B-4-4 TEMPORARY STABILIZATION. MULCH MUST BE ANCHORED TO PREVENT BLOWING. 2. VEGETATIVE COVER: SEE SECTION B-4-4 TEMPORARY STABILIZATION. 3. TILLAGE: TILL TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT THAT MAY PRODUCE THE DESIRED EFFECT. 4. IRRIGATION: SPRINKLE SITE WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. THE SITE MUST NOT BE IRRIGATED TO THE POINT THAT RUNOFF OCCURS. 5. BARRIERS: SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. 6. CHEMICAL TREATMENT: USE OF CHEMICAL TREATMENT REQUIRES APPROVAL BY THE APPROPRIATE PLAN REVIEW AUTHORITY





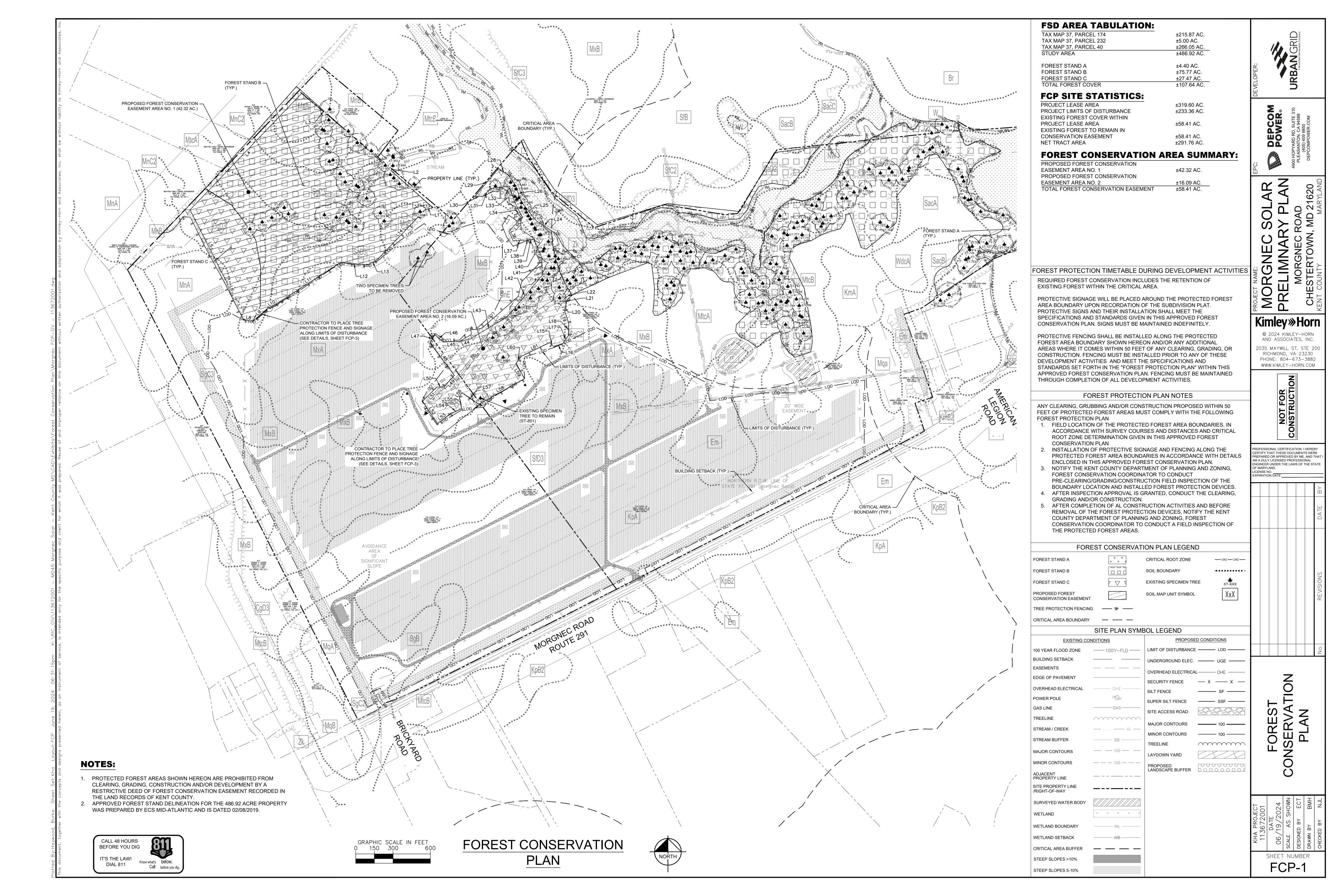
MORGNEC SOLAR- PROPOSED BUFFER PLANTING RENDERING (2 YEAR GROWTH)

DEPCOM POWER®

June 20, 2024







TREE #	SPECIES NAME	DBH (IN)	MORGNEC SOLAR SPECI CRITICAL ROOT ZONE RADIUS (FT)	CONDITION	COMMENTS
ST-719 ST-720	Southern Red Oak Sweet Gum	34 63	51.0 94.5	Fair Fair	One dead limb Double leader, dead limbs, ivy cover
ST-721	Sweet Gum	32	48.0	Fair	lvy cover
ST-722	Tulip Poplar	55	82.5	Fair	Few dead limbs, lvy cover
ST-723	Tulip Poplar	50.5	75.8	Good	Some ly at base
ST-724 ST-725	Tulip Poplar Tulip Poplar	33 57.5	49.5 86.3	Fair Good	One dead limb Double leader
ST-726	Tulip Poplar	36	54.0	Fair	Dead limbs, ly Cover
ST-727	Tulip Poplar	40.5	60.8	Good	Dead limbs
ST-728	White Oak	47	70.5	Good	Dead limbs, double leader
ST-729	Swamp Chestnut Oak	37	55.5	Fair	lvy cover
ST-730	Southern Red Oak	43	64.5	Good	n/a
ST-731 ST-732	Southern Red Oak Southern Red Oak	32 32	48.0 48.0	Good Fair	n/a lwy cover
ST-732	Southern Red Oak	33	49.5	Good	Dead limbs
ST-734	Southern Red Oak	32	48.0	Good	Dead limbs
ST-735	Southern Red Oak	34	51.0	Good	Dead limbs
ST-736	Southern Red Oak	48	72.0	Good	Dead limbs
ST-737	Southern Red Oak	32	48.0	Good	Dead limbs
ST-738 ST-739	Chestnut Oak Chestnut Oak	41 38	61.5 57.0	Good Good	Dead limbs Dead limbs
ST-740	Chestnut Oak Chestnut Oak	34	51.0	Good	Dead limbs Dead limbs
ST-741	Southern Red Oak	36	54.0	Fair	Large dead limbs
ST-742	Chestnut Oak	34.5	51.8	Fair	Dead limbs, quadruple leaders
ST-743	Chestnut Oak	33	49.5	Fair	Dead limbs, one-sided
ST-744	Tulip Poplar	60	90.0	Fair	Triple leaders, dead limbs, tree stand
ST-745	Southern Red Oak	47	70.5	Fair/Poor	Multiple large dead limbs
ST-746	Chestnut Oak	32	48.0	Good	Small dead limbs
ST-747 ST-748	White Oak American Beech	32 45	48.0 67.5	Good Fair	Dead limbs Large dead limbs
ST-748 ST-749	Chestnut Oak	38	57.0	Good	Double leader, dead limbs
ST-750	American Beech	38	57.0	Fair	Large dead limbs
ST-751	Chestnut Oak	38	57.0	Good	Dead limbs, double leader
ST-752	American Beech	33	49.5	Fair	Multiple large dead limbs
ST-753	American Beech	34	51.0	Fair	Large dead limbs
ST-754	Swamp Chestnut Oak	32 38	48.0 57.0	Fair Fair	Dead limbs
ST-755 ST-756	White Oak American Beech	38	57.0 46.5	Fair Good	Large dead limbs Dead limbs
ST-757	Tulip Poplar	53	79.5	Fair/Poor	Quadruple leaders, damage from fallen tree
ST-758	Chestnut Oak	30	45.0	Good	Slight lean
ST-759	White Oak	32	48.0	Fair	Large dead limbs
ST-760	Chestnut Oak	32	48.0	Fair	Multiple large dead limbs
ST-761	White Oak	37	55.5	Fair	Dead limbs
ST-762 ST-763	Northern Red Oak White Oak	43 42	64.5 63.0	Fair Poor	Dead limbs, water sprouts Split, many large dead limbs
ST-764	Southern Red Oak	33	49.5	Fair	Dead limbs, one-sided
ST-765	American Beech	32	48.0	Fair	Trunk damage, dead limbs
ST-766	American Sycamore	34	51.0	Good	Dead limbs
ST-767	Tulip Poplar	34	51.0	Fair	Dead leader, large dead limbs
ST-768	Northern Red Oak	33	49.5	Poor	Hollow, large dead limbs
ST-769 ST-770	Northem Red Oak American Beech	30 35	45.0 52.5	Fair Fair	Large dead limbs Large dead limbs
ST-770	Southern Red Oak	41	61.5	Fair	Large dead limbs Large dead limbs
ST-772	Southern Red Oak	35	52.5	Fair	Double leader, large dead limbs
ST-773	White Oak	31	46.5	Fair	Large dead limbs
ST-774	Northern Red Oak	32	48.0	Fair	Large dead limbs
ST-775	White Oak	45	67.5	Fair	Large dead limbs
ST-776	Northern Red Oak	36	54.0	Fair	Large dead limbs
ST-777 ST-778	White Oak Chestnut Oak	40 34	60.0 51.0	Fair Fair	Large dead limbs Triple leaders, dead limbs
ST-779	White Oak	42	63.0	Fair	Multiple large dead limbs
ST-780	Northern Red Oak	34	51.0	Fair	Double leaders, dead limbs
ST-781	Northern Red Oak	30	45.0	Fair	Dead limbs
ST-782	American Beech	30	45.0	Poor	Hollow, large dead limbs
ST-783	Chestnut Oak	40	60.0	Fair	Triple leader, dead limbs
ST-784 ST-785	Northern Red Oak Southern Red Oak	37 33	55.5 49.5	Fair Fair	Large dead limbs Leani ng, one-sided, dead limbs
ST-786	Southern Red Oak	38	57.0	Fair	Dead limbs
ST-787	Southern Red Oak	41	61.5	Fair	Large dead limbs
ST-788	Northern Red Oak	35	52.5	Fair	One-sided, dead limbs
ST-789	Tulip Poplar	46	69.0	Fair	Double leaders, dead limbs
ST-790	Tulip Poplar	34	51.0	Fair	Quadruple leaders, vines, dead limbs
ST-791 ST-792	Tulip Poplar Tulip Poplar	35 39	52.5 58.5	Fair Fair	Triple le aders, heavy vines, large dead limbs Large dead limbs, root damage
ST-792 ST-793	Tulip Poplar Tulip Poplar	39	45.0	Fair Fair/Poor	Vines, large dead limbs, root damage Vines, large dead limbs, hollow at base
ST-794	Tulip Poplar	42	63.0	Fair/Poor	Triple leader, heavy vines, dead limbs
ST-796	Northem Red Oak	44	66.0	Fair	Vines, dead limbs, double trunk
ST-797	White Oak	37	55.5	Fair	Large dead limbs
ST-798	White Oak	32	48.0	Poor	Large dead limbs
ST-799 ST-800	White Oak White Oak	41 31	61.5 46.5	Fair Fair	Triple leader, large dead limbs Large dead limbs
ST-800 ST-801	White Oak	60	90.0	Fair Fair	Vines, dead limbs
ST-802	White Oak	30	45.0	Fair	Large dead limbs
ST-803	Northern Red Oak	40	60.0	Fair	Large dead limbs, hole at base
ST-804	Northem Red Oak	42	63.0	Fair	Large dead limbs
ST-805	White Oak	41	61.5	Fair	Large dead limbs
ST-806	White Oak	37	55.5	Fair	Large dead limbs
ST-807 ST-808	Chestnut Oak	49	73.5	Fair	Double leader, dead limbs Dead limbs
ST-808 ST-809	American Beech Southern Red Oak	31 57	46.5 85.3	Good Fair	Triple leader, tree stand
ST-810	Southern Red Oak	30	45.0	Fair	Leaning, one-sided
ST-811	Northern Red Oak	36	54.0	Fair	Large dead limbs
ST-812	American Beech	32	48.0	Fair	Large dead limbs
ST-813	Tulip Poplar	44	66.0	Fair	Large dead limbs, tree stand
ST-814	Tulip Poplar	45	66.9	Poor	Double leader, dead limbs
ST-815	American Beech	30	45.0	Fair	Large dead and broken limbs
ST-816	Tulip Poplar	46	69.0 51.0	Fair Fair	Quadruple leaders, broken leader, trunk damage
ST-817 ST-818	Northern Red Oak Tulip Poplar	34 31	51.0 46.5	Fair Fair	Large dead and broken limbs Trunk hollow, large dead limbs
ST-818 ST-819	Southern Red Oak	37	46.5 55.5	Fair/Poor	Vines, many large dead limbs
ST-820	Tulip Poplar	53	79.5	Fair/Poor	Dead leader, vines
	White Oak	43	64.5	Fair	Large dead limbs
ST-821	Black Walnut	49	73.5	Fair	Large dead limbs
ST-821					
ST-822 ST-823	Northem Red Oak	41	61.5	Fair	Large dead limbs
ST-822		41 33 30	61.5 49.5 45.0	Fair Fair Good	Large dead limbs Many large dead limbs Dead limbs

Г	ST-827	American Beech	33	49.5	Fair/Poor	Broken leaders
-	ST-828	American Beech	32	48.0	Fair	Trunk damage, dead limbs
H	ST-829	American Beech	37	55.5	Fair	Large dead and broken limbs
H	ST-830	American Beech	41	61.5	Fair	Trunk damage, dead limbs
-	ST-831	American Beech	32	48.0	Fair/Poor	Rotten at base, large dead and broken limbs
H	ST-832	American Beech	35	52.5	Fair	Large dead and broken limbs
H	ST-833	American Beech	45	67.5	Fair	Large dead and broken limbs
H	ST-834	Northern Red Oak	49	73.5	Fair	Large dead limbs
-	ST-835	American Beech	32	48.0	Fair	Large dead limbs
-	ST-836	American Beech	32	48.0	Fair	Dead limbs
-	ST-837	American Beech	43	64.5	Fair	Large dead limbs
-	ST-838	American Beech	33	49.5	Fair	Large dead limbs
-	ST-839	American Beech	31	46.5	Fair	Large dead limbs
-	ST-840	Northern Red Oak	30	45.0	Fair	Large dead infibs Large dead and broken limbs
-	ST-841		32	48.0	Fair	Large dead limbs, crooked
-		Tulip Poplar				
_	ST-842	Tulip Poplar	38	57.0	Fair	Triple leaders, large dead limbs
_	ST-843	American Beech	35	52.5	Fair	Dead limbs
-	ST-844	Tulip Poplar	33	49.5	Good	Dead limbs
-	ST-845	Tulip Poplar	30	45.0	Good	Dead limbs
_	ST-846	American Beech	32	48.0	Good	Dead limbs
L	ST-847	Tulip Poplar	38	57.0	Fair	Vines, dead limbs
_	ST-848	Tulip Poplar	42	63.0	Good	Dead limbs
-	ST-849	Tulip Poplar	34	51.0	Fair	Vines, dead limbs
_	ST-850	Black Cherry	31	46.5	Fair/Poor	Heavy vines, many dead limbs
_	ST-851	Black Cherry	42	63.0	Fair/Poor	Heavy yines, many large dead and broken limbs
_	ST-852	Black Wal nut	30	45.0	Fair	Heavy vines, dead limbs
	ST-853	Black Cherry	45	67.5	Fair/Poor	Trunk hole, many dead limbs, heavy vines
_	ST-854	Tulip Poplar	32	48.0	Fair/Poor	Trunk and root damage, dead limbs
	ST-855	Black Walnut	39	58.5	Fair/Poor	Vines, many large dead limbs
	ST-856	Tulip Poplar	47	70.5	Fair	Vines, large dead limbs
	ST-857	White Oak	40	60.0	Fair	Vines, large dead limbs
	ST-858	Northern Red Oak	42	63.0	Fair	Large dead limbs
	ST-859	Southern Red Oak	34	51.0	Fair	Double leader, dead limbs
	ST-860	Northern Red Oak	37	55.5	Fair	Large dead limbs
	ST-861	Northern Red Oak	32	48.0	Fair	Dead limbs, water sprouts
	ST-862	Tulip Poplar	31	46.5	Good	Dead limbs
	ST-863	Tulip Poplar	32	48.0	Good	Dead limbs
	ST-864	Chestnut Oak	32	48.0	Fair	Dead limbs
	ST-865	Red Maple	32	48.0	Fair	Dead limbs, slight lean
	ST-866	Tulip Poplar	31	46.5	Poor	Half dead
	ST-867	Tulip Poplar	37	55.5	Fair	Dead leader
	ST-868	Tulip Poplar	39	58.5	Fair	Vines, dead limbs
	ST-869	Tulip Poplar	33	49.5	Fair	Dead limbs
	ST-870	Tulip Poplar	50	75.0	Fair	Double leader, large dead limbs
	ST-871	Tulip Poplar	43	64.7	Fair	Double leader, large dead limbs
	ST-872	Tulip Poplar	31	46.5	Fair	Dead limbs
	ST-873	Tulip Poplar	46	69.0	Good	Double leader, dead limbs
	ST-874	Tulip Poplar	32	48.0	Fair	Large dead limbs
	ST-875	Tulip Poplar	60	90.0	Fair	Double leader, dead limbs
	ST-876	Tulip Poplar	36	54.0	Fair	Large dead limbs
-	ST-877	Tulip Poplar	31	46.5	Fair	Triple leader, large dead limbs
-	ST-878	Southern Red Oak	33	49.5	Fair	One-sided, dead limbs
	ST-879	Tulip Poplar	33	49.5	Good	Dead limbs
F	ST-880	American Beech	31	46.5	Fair	One-sided, dead limbs
-	ST-881	Red Maple	34	51.0	Fair	Leaning, dead limbs
-	ST-882	Tulip Poplar	39	58.5	Fair	Double leader, dead limbs
-	ST-883	Tulip Poplar	30	45.0	Fair	Dead limbs
-	ST-884	Tulip Poplar	50	75.0	Fair	Large dead limbs
-	ST-885	American Beech	32	48.0	Fair	Dead limbs, slight lean
-	ST-886	Southern Red Oak	32	48.0	Fair	Large dead limbs
F	ST-887	American Beech	32	48.0	Fair	Large dead limbs
F	ST-888	Tulip Poplar	30	45.0	Fair	Large dead limbs
-	ST-889	Northern Red Oak	40	60.0	Fair	Vines, large dead limbs
-	ST-890	White Oak	31	46.5	Fair	Large dead limbs
-	ST-890 ST-891	White Oak	32	48.0	Fair	Double leader, dead limbs, chain in tree
-	ST-892		 	58.5		
-		Northern Red Oak	39		Fair	Large dead limbs
F	ST-893	Southern Red Oak	47	70.5	Fair	Triple leader, vines, dead limbs
-	ST-894	White Oak	32	48.0	Fair	Large dead limbs
	ST-895 ST-896	Tulip Poplar Tulip Poplar	32 35	48.0 52.5	Fair	Double leader, large dead limbs Dead limbs
-		• •			Good	
-	ST-897	Southern Red Oak	53	79.5	Fair	Double leader, large dead limbs
-	ST-898 ST-899	Tulip Poplar Tulip Poplar	32 33	48.0 49.5	Fair Fair	Large dead limbs
-	ST-899 ST-900	Tulip Poplar Tulip Poplar	33	49.5 51.0	Fair	Large dead limbs Large dead limbs
-	ST-900 ST-901	Tulip Poplar Tulip Poplar	38	51.0	Fair	Large dead limbs Large dead limbs
-	ST-901 ST-902	Tulip Poplar Tulip Poplar	38	48.0	Fair	Large dead limbs Large dead limbs
-	ST-902 ST-903	Tulip Poplar Tulip Poplar	40	60.0	Fair	Large dead limbs Large dead limbs
-	ST-903 ST-904		34	51.0	Fair	
-		Tulip Poplar Southern Red Oak		73.5		Large dead limbs
-	ST-905		49		Fair	Many large dead limbs, barbed-wire fence
L	ST-906	White Oak	30	45.0 76.5	Fair	Large dead limbs
-	ST-907	Tulip Poplar	51	76.5	Good	Large dead limbs
-	ST-908	White Oak	41	61.5	Fair Fair/Poor	Large dead limbs
F	ST-909	Tulip Poplar	36	54.0		Dead limbs
-	ST-910	American Beech	44	66.0	Fair	Dead limbs
-	ST-911	White Oak	44	66.0	Fair	Large dead limbs
	ST-912	Tulip Poplar	51	76.5	Fair	Triple leader, large dead limbs
-	ST-913	Northern Red Oak	34	51.0	Fair	Large dead limbs
F	ST-914	Tulip Poplar	36	54.0	Fair	Double leader, large dead limbs
-	ST-915	Tulip Poplar	48	72.0	Fair	Double leader, large dead limbs
-	ST-916	Tulip Poplar	38	57.0	Fair	Double leader, large dead limbs
-	ST-917	Tulip Poplar	31	46.5	Fair	Double leader, large dead limbs
	ST-918	Tulip Poplar	45	67.5	Fair	Triple leader, large dead limbs
	ST-919	Tulip Poplar	35	52.5	Fair	Large dead limbs
	ST-920	American Beech	32	48.0	Fair	Large dead limbs
	ST-921	Tulip Poplar	41	61.5	Fair	Vines, dead limbs
	ST-922	Tulip Poplar	44	66.0	Fair	Vines, large dead limbs, double leader
	ST-923	Tulip Poplar	33	49.5	Fair	Vines, large dead limbs
L	ST-924	Tulip Poplar	32	48.0	Fair	Large dead limbs
	ST-925	Tulip Poplar	76	114.0	Fair/Poor	Hollow, many large dead limbs
	ST-926	Tulip Poplar	50	75.0	Fair	Double leader, large dead limbs
	ST-927	Tulip Poplar	32	48.0	Fair	Vines, large dead limbs
	ST-928	Southern Red Oak	32	48.0	Fair	Large dead limbs
	ST-929	Tulip Poplar	42	63.0	Fair	Vines, large dead limbs
	ST-930	Tulip Poplar	50	75.0	Fair	'Vines, large dead limbs, double leader
1	ST-931	Tulip Poplar	34	51.0	Fair	Vines, large dead limbs

Vines, large dead limbs

Tulip Poplar

CONSERVATION EASEMENT METES & BOUNDS

	LINE AND	CURV	E TABL	E.
NO.	DELTA OR BRG	RADIUS	LENGTH	REMARKS
C1	Δ=31° 36′ 24″	970.00'	535.09'	
L1	N 75°46'39" E		63.53'	
L2	N 48°21'37" W		942.86	
L3	N 50°01'55" W		455.89'	
L4	S 43°47'12" W		1296.82	
L5	S 26°56'12" E		650.62	
L6	S 18°49'32" E		124.01	
L7	S 27°09'15" E		205.61	
L8	S 78°58'29" E		78.09'	
L9	N 48°51'29" E		157.25	
L10	N 61°49'52" E		97.52	
L11	N 57°13'22" E		595.98'	
L12	S 85°04'43" E		218.20'	
L13	N 61°03'42" E		91.71'	
L14	N 43°43'39" E		551.82'	
L15	S 45°00'00" E		48.14'	
L16	N 68°57'45" E		79.02'	
L17	N 34°17'13" E		75.53'	
L18	N 1°41'05" E		96.49	
L19	N 17°58'09" W		110.34	
L20	N 14°28'13" E		49.03'	
L21	N 9°00'40" W		51.41'	
L22	N 52°01'43" E		61.04'	
L24	N 56°46'50" W		148.68	
L25	N 38°03'42" W		194.85	
L26	N 19°00'22" W		137.77	
L27	N 35°43'39" W		101.62'	
L28	N 55°04'50" W		93.55'	
L29	S 40°17'16" W		295.48'	
L30	N 90°00'00" E		62.41'	
L31	N 45°46'23" E		93.80'	

NO	LINE AND			
NO.	DELTA OR BRG	RADIUS		REMARKS
L32	N 83°41'56" E		148.77	
L33	S 18°12'00" E		129.87	
L34	S 27°07'17" E		140.43	
L35	S 44°01'35" W		155.84	
L36	S 23°01'44" E		83.77	
L37	N 87°34'44" E		104.45	
L38	N 80°33'23" E		32.08'	
L39	S 85°49'21" E		34.13'	
L40	S 23°15'43" E		153.16'	
L41	S 1°50'52" E		143.38	
L42	S 40°10'54" W		437.74	
L43	S 59°08'32" W		344.40'	
L44	S 7518'53" W		88.80'	
L45	S 88°54'07" W		133.02	
L46	N 48 * 59'27" W		86.46	
L47	S 32°28'16" W		73.97'	
L48	S 36°34'23" E		328.49	
L49	S 42°16'25" W		126.51	
L50	N 90°00'00" W		56.73'	
L51	S 45°00'00" W		160.47	
L52	S 33°16'30" E		217.15'	
L53	N 51°37'57" E		127.30'	
L54	N 6513'29" E		102.52	
L55	N 10°00'29" W		97.94'	
L56	N 32°28'16" E		36.99'	
L57	S 55°29'29" E		165.24	
L58	N 60°41'03" E		422.93'	
L59	N 31°01'35" W		139.56	
L60	N 36°23'04" E		73.44	
L61	N 64°17'24" E		255.02	

Map Unit Symbol	MORGNEC SOLAR SOI Map Unit Name	Hydric Soil (Y/N)	Prime Agricultural Soils (Y/N)	K-Valu	
Ax	Axis mucky silt loam	Υ	N ,	0.32	
Bs	Bibb silt loam	Υ	N	0.49	
Bt	Bibb variant silt loam	Υ	N	0.28	
DA	Butlertown-Mattapex silt loams, 0 to 2	Y	Υ	0.40	
BuA	percent slopes	r	ī	0.49	
BuB2	Butlertown-Mattapex silt loams, 2 to 5 percent slopes, moderately eroded	Y	N	0.49	
CgD3	Colts Neck gravelly loam, 10 to 15 percent slopes, severely eroded	N	N	0.20	
	Colts Neck and Sassafras soils, 15 to			+	
CnE	40 percent slopes	Υ	N	0.20	
Em	Elkton silt loam, 0 to 2 percent slopes	Y	N	N/A	
lk	luka silt loam, rarely flooded	N	N	0.55	
IIV	Keyport fine sandy loam, 0 to 2 percent			0.55	
KmA	slopes	Y	Υ	0.32	
	Keyport fine sandy loam, 2 to 5 percent				
K.B2	slopes	Υ	N	0.32	
КрА	Keyport silt loam, 0 to 2 percent slopes	Y	Υ	0.49	
KpB2	Keyport silt loam, 2 to 5 percent slopes	Y	<u>'</u> Ү	0.49	
Прыг	Matapeake silt loam, 0 to 2 percent			0.49	
MnA	slopes	N	Υ	0.49	
MnB	Matapeake silt loam, 2 to 5 percent slopes	N	Υ	0.49	
MnC2	Matapeake silt loam, 5 to 10 percent	N	N	0.55	
	slopes, moderately eroded				
MtcA	Mattapex silt loam, 0 to 2 percent	Y	N	0.49	
	slopes, Mid-Atlantic Coastal Plain Mattapex silt loam, 2 to 5 percent				
MtcB		Y	Υ	0.49	
	slopes, Mid-Atlantic Coastal Plain Mattapex-Matapeake-Butlertown silt			 -	
MxA	loams, 0 to 2 percent slopes	Y	Υ	0.49	
	Mattapex-Matapeake-Butlertown silt			+	
MxB	loams, 2 to 5 percent slopes	Y	Υ	0.49	
	Sassafras sandy loam, 0 to 2 percent			+	
SacA	slopes, Mid-Atlantic Coastal Plain	N	Υ	0.20	
	Sassafras sandy loam, 2 to 5 percent			+	
SacB	slopes, Mid-Atlantic Coastal Plain	N	Υ	0.20	
	Sassafras sandy loam, 5 to 10 percent			+	
SacC	slopes, Mid-Atlantic Coastal Plain	N	N	0.49	
	Sassafras sandy loam, 10 to 15				
SaD2	percent slopes, moderately eroded	N	N	0.49	
	Sassafras loam, 5 to 10 percent				
SfC3	slopes, severely eroded	N	N	0.49	
	Sassafras loam, 10 to 15 percent				
SfD3	slopes, severely eroded	N	N	0.49	
	Sassafras gravelly loam, 0 to 5 percent			+	
SgB	slopes	N	Υ	0.20	
	Sassafras gravelly loam, 5 to 10			+	
SgC2	percent slopes, moderately eroded	N	N	0.20	
	Sassafras gravelly loam, 5 to 10			+	
SgC3	percent slopes, severely eroded	N	N	0.20	
	Sassafras gravelly loam, 10 to 15			 	
SgD3	percent slopes, severely eroded	N	N	0.24	
W	Water	N	N	N/A	
	Woodstown sandy loam, 0 to 2 percent				
WdcA		Y	Υ	0.15	

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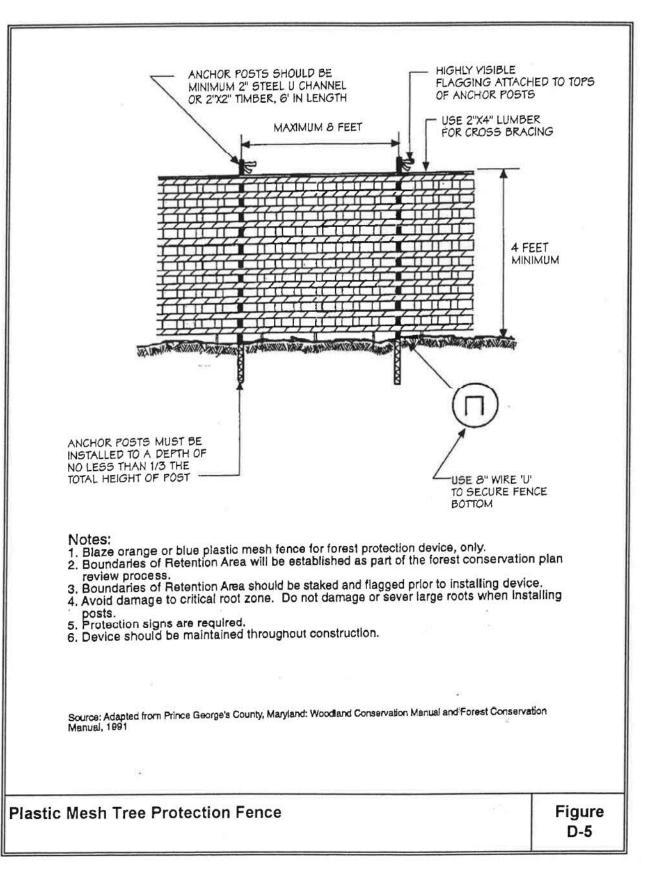
Kimley»Horn © 2024 KIMLEY—HORN AND ASSOCIATES, INC.

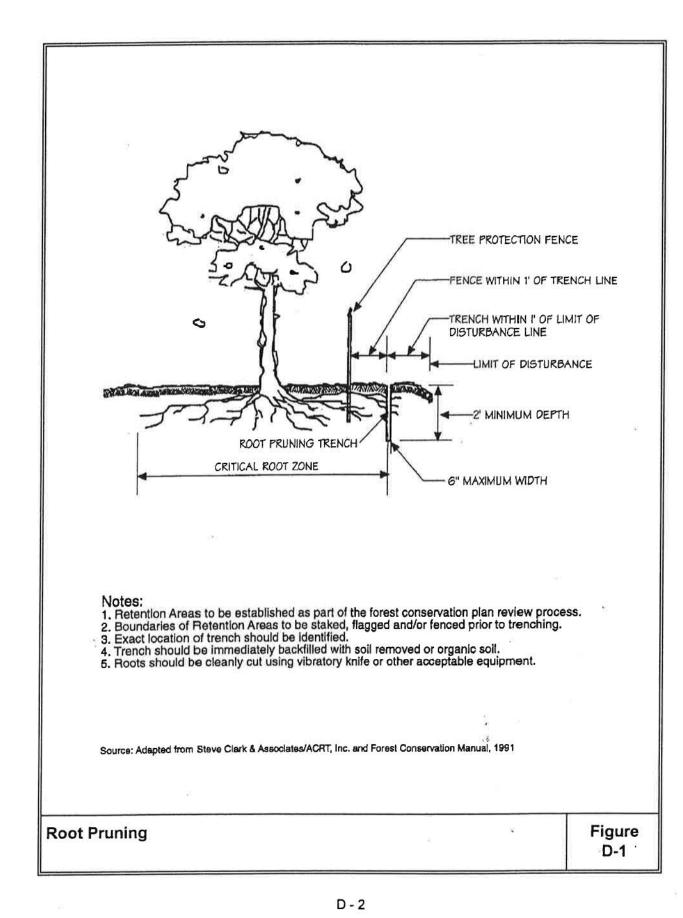
2035 MAYWILL ST, STE 200 RICHMOND, VA 23230 PHONE: 804-673-3882 WWW.KIMLEY-HORN.COM

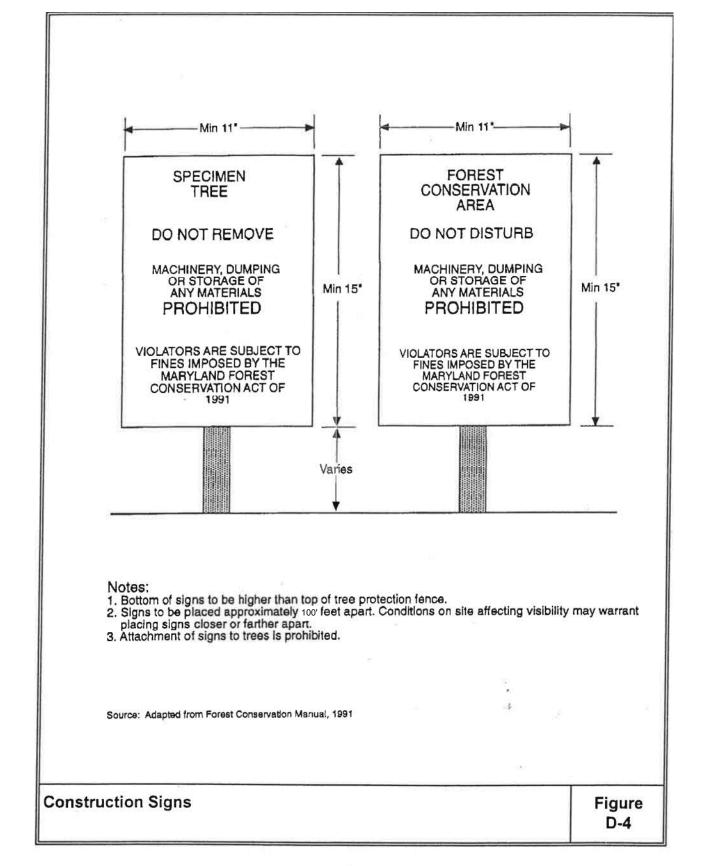
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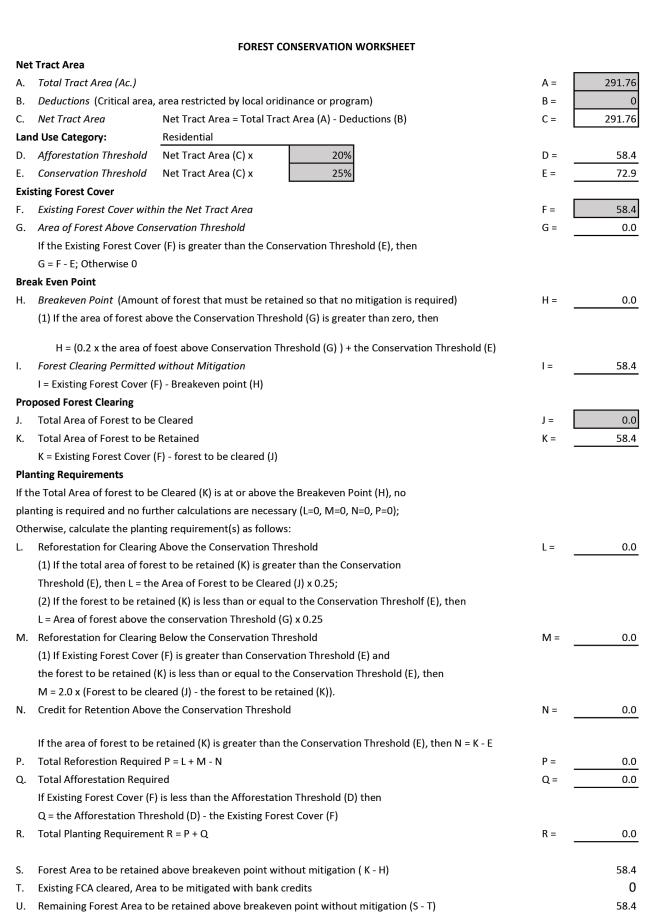
				ВУ
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D - 6



v Mitigation Required

D - 5

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CP DETAILS WORKSHEE



Department of Planning, Housing, and Zoning

To: Kent County Planning Commission From: Mark Carper, Associate Planner

Meeting: July 11, 2024

Subject: Camp Fairlee/ESSD-M, Inc.

Site Plan Review – Preliminary/Final (Sensory Cabin)

Executive Summary

REQUEST BY THE APPLICANT

The applicant is requesting a combined preliminary and final site plan approval to construct a 2,170 square-foot sensory cabin, a 20-foot-wide access lane, and an 8-foot-wide concrete walkway, all within the Critical Area.

PUBLIC PROCESS

Per Article VI, Section 5.2 of the Kent County *Land Use Ordinance*, the Planning Commission shall review and approve major site plans.

SUMMARY OF THE STAFF REPORT

The property is located at 22242 Bay Shore Road and is zoned Resource Conservation District (RCD) and Agricultural Zoning District (AZD). The property contains cottages and buildings associated with use as a camp. The proposed structures are to be located within the Critical Area/RCD portion of the property. This proposal is phase one of a larger, sensory cabin development plan. Phase two will include a laundry facility and two additional sensory cabins, one of which is also to be in the Critical Area. The Critical Area Commission has reviewed the proposal, and the applicant has incorporated its recommendations. The property has a Maryland Historical Trust Easement, and MHT has approved the proposed construction.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission approve the preliminary and final site plan for the construction of a 2,170 square-foot sensory cabin, a 20-foot-wide access lane, and an 8-foot-wide concrete walkway with the following condition:

- Approval of the project by the Maryland Department of Health, Center for Recreation and Community Environmental Services.
- Approval of erosion and sediment control and stormwater management plans.
- Submission and approval of sureties for erosion and sediment control and stormwater management.

PRELIMINARY STAFF REPORT

TO: Kent County Planning Commission SUBJECT: #24-13 – Camp Fairlee/ESSD-M, Inc.

Preliminary/Final Site Plan Review – Sensory Cabin

DATE: June 26,2024

DESCRIPTION OF PROPOSAL

Camp Fairlee/ESSD-M, Inc. is proposing to construct a 2,170 square-foot sensory cabin, a 20-foot-wide access lane, and an 8-foot-wide concrete walkway, all within the Critical Area.

The property is located at 22242 Bay Shore Road and is zoned Resource Conservation District (RCD) and Agricultural Zoning District (AZD). The property contains cottages and buildings associated with use as a camp. The proposed structures are to be located within the Critical Area/RCD portion of the property. This proposal is phase one of a larger, sensory cabin development plan. Phase two will include a laundry facility and two additional sensory cabins, one of which is also to be in the Critical Area. The Critical Area Commission has reviewed the proposal, and the applicant has incorporated its recommendations. The property has a Maryland Historical Trust Easement, and MHT has approved the proposed construction.

RELEVANT ISSUES

I. Permitted Uses and Structures

- A. Applicable Law: Article V, Section 2.2 of the Kent County Land Use Ordinance establishes that camp, day or boarding, private or commercial, is a permitted use in the RCD.
- B. Staff and TAC Comments: The property is utilized as a camp for Easter Seals.

II. Site Plan Review

- A. Comprehensive Plan: "Implement thorough design review for new development and major renovations." (Page 33) "Enhance existing and provide new, recreational programs to meet the recreational needs of all County residents." (Page 112) "Provide for the varied recreational needs and interests of citizens and visitors in Kent County by developing and enhancing facilities throughout the County." (Page 113)
- B. Applicable Law: Article VI, Section 5 of the Kent County Land Use Ordinance establishes site plan review procedures. The Planning Commission shall prepare findings of fact concerning reasonable fulfillment of the objectives listed below:
 - a. Conformance with the Comprehensive Plan and, where applicable, the Village Master Plan
 - b. Conformance with the provisions of all applicable rules and regulations of county, state, and federal agencies.
 - c. Convenience and safety of both vehicular and pedestrian movement within the site and in relationship to adjoining ways and properties.
 - d. Provisions for the off-street loading and unloading of vehicles incidental to the normal operation of the establishment, adequate lighting, and internal traffic control.
 - e. Reasonable demands placed on public services and infrastructure.
 - f. Adequacy of methods for sewage and refuse disposal, and the protection from pollution of both surface waters and groundwater. This includes minimizing soil erosion both during and after construction.

- g. Protection of abutting properties and County amenities from any undue disturbance caused by excessive or unreasonable noise, smoke, vapors, fumes, dust, odors, glare, stormwater runoff, etc.
- h. Minimizing the area over which existing vegetation is to be removed. Where tree removal is required, special attention shall be given to planting of replacement trees.
- i. The applicant's efforts to integrate the proposed development into the existing landscape through design features such as vegetative buffers, roadside plantings, and the retention of open space and agricultural land.
- j. The applicant's efforts to design the development to complement and enhance the rural and historic nature of the County including incorporating into the project forms and materials that reflect the traditional construction patterns of neighboring communities.
- k. The building setbacks, area, and location of parking, architectural compatibility, signage, and landscaping of the development, and how these features harmonize with the surrounding townscape and natural landscape.

C. Staff and TAC Comments:

- Per request of the Kent County Health Department, the applicant has submitted the project to the Maryland Department of Health, Center for Recreation and Community Environmental Services for review and is awaiting a response.
- There are no proposed changes to site access.
- Per request of the Critical Area Commission, the applicant has provided a letter from the Maryland Wildlife and Heritage Services stating that there are no official State or Federally listed plant or animal species on the site. The letter goes on to state that the forested area contains Forest Interior Dwelling Bird habitat and provides guidelines that may be incorporated into the project plan.
- The applicant has also provided a copy of the Maryland Historic Trust easement agreement and a letter from the Maryland Historical Trust approving the proposed construction.
- The proposal is consistent with the strategies and goals of the Comprehensive Plan.
- No signage or exterior lighting has been proposed.
- The property is served by public water and sewer. The applicant is working with the Department of Public Works to connect the proposed cabin to the water and sewer system. A utility plan has been submitted.
- The proposed project will create an increase of 0.221 acres (9,635 sq. ft.) in lot coverage in the Critical Area. The buffer has been determined to be fully established, and a buffer enhancement plan is not required. No trees will be removed.
- A Forest Conservation Plan is not required for improvements within the Critical Area. Forest Conservation requirements will be addressed in the next phase of development, which includes improvements outside of the Critical Area.
- The proposed cabin will be reviewed as a commercial building for building code regulations.
- Demands on public services and infrastructure appear to be reasonable.
- A stormwater management plan and an erosion and sediment control plan have been submitted for review.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission approve the preliminary and final site plan for the construction of a 2,170 square-foot sensory cabin, a 20-foot-wide access lane, and an 8-foot-wide concrete walkway with the following condition:

- Approval of the project by the Maryland Department of Health, Center for Recreation and Community Environmental Services.
- Approval of erosion and sediment control and stormwater management plans.
- Submission and approval of sureties for erosion and sediment control and stormwater management.

Kent County Department of Planning, Housing and Zoning

Kent County Government Center 400 High Street • Chestertown, MD 21620 410-778-7475 (phone) • 410-810-2932 (fax)

SITE PLAN APPLICATION

File Number:	Amount Paid:		Date: 5/	/21/2024
Project Name:(Camp Fairlee Cottages - Phase 1			
District: 6th N	Map: 35 Parcel: 2 Lot Size: 246.6	4ac.Deed Ref: _	2/286	Zoning: AZD/RCA
LOCATION: 22	2242 Bay Shore Road, Chestertown, Maryland	1 21620		
PROPOSED USE	: Continued use as a "Camp" - proposing on	e sensory cabin		
OWNER OF LAI	ND:			
Name: ESSD-M,	Inc.	Telephone:	320-221-20	016
	orate Circel, New Castle Delaware 19720			
APPLICANT:				
Name:_(same as o	owner)	Telephone:		
Address:		Email:		
AGENT/ATTOR	RNEY (if any):			
Name:		Telephone:		
Address:		Email:		
REGISTERED E	NGINEER OR SURVEYOR:			
Name: DMS & A	ssociates c/o Kevin Shearon	Telephone:	443-262-9	130
Address: P.O. Box	80, Centreville, MD 21617			
person will be con	e email of the one person who will be responsi ntacted by staff and will be the person respons ation to any other interested parties. EMAIL:	ible for forwardi	ng the comme	
Water Supply:	☑ Public System ☐ On lot system			
Sewerage:	☑ Public System ☐ On lot system			
TELEPHONE SER	VICED BY: Verizon			
ELECTRIC SERVI	CED BY: Delmarva Power			
	Planning Office is not required to make out not be held responsible for its contents.	this Application	n. If the Pla	nning Department
\mathcal{H}	-AGENT		5/22/	74
Signature of Appl	icant		Date	
☐ Concept Plan	Approving Authority:		Date	
☑ Preliminary	Approving Authority:		Date	
☑ Final	Approxing Authority		Date	



Davis, Moore, Shearon & Associates, LLC

July 1, 2024

Mr. Mark Carper Kent County Department of Planning & Zoning 400 High Street Chestertown, Maryland 21620

RE: COMBINED PRELIMINARY AND FINAL SITE PLAN FOR ONE SENSORY CABIN AT CAMP FAIRLEE ON THE LANDS OF ESSD-M, INC. KENT COUNTY TAX MAP 35, PARCEL 2

DMS & ASSOCIATES JOB #2023164

Dear Mark,

Attached please find five (5) copies of revised plans for the above referenced project. The revisions are in response to the comments in the June 12, 2024, TAC comment letter. We offer the following:

- 1. We acknowledge that the Health Department has no objections.
- 2. The project was submitted to the Maryland Department of Health, Center for Recreation and Community Environmental Health Services by the owner in March 2024. We have not received a response yet. Attached is the email correspondence.
- 3. We acknowledge that SHA has no objections.
- 4. The site statistics have been updated as follows:
 - a. The floor area has been updated as requested.
 - b. The impervious cover outside of the Critical Area has been updated.
 - c. The impervious cover within the Critical Area has been updated.
- 5. We acknowledge that forest conservation requirements can be addressed during the next phase.
- 6. Attached please find a Heritage Letter from DNR dated June 20, 2024. Also attached is a copy of the Maryland Historical Trust easement agreement.
- 7. We acknowledge that the buffer is fully established, and additional buffer enhancement is required.

We ask that you please review this information at your earliest convenience. If you have any questions, please feel free to contact me at 443-262-9130.

Sincerely,

DMS & Associates, LLC

Kevin J. Shearon, P.E., LEED AP

Enclosures

pc: Mr. Gene Aucott, Easterseals Camp Fairlee (via email)

Mr. John Hutchison, John Hutchison Architecture (via email)

PROJECT NARRATIVE

<u>Camp Fairlee Sensory Cabin</u> Easterseals Camp Fairlee 22242 Bay Shore Road, Chestertown, Maryland

In accordance with Article VI, Section 5.4.B of the Kent County Zoning Ordinance, we offer the following:

The site is located at the north side of Bay Shore Road and west of Fairlee Landing Road near the village of Fairlee. The site address is 22242 Bay Shore Road, Chestertown, Maryland 21620. The overall property is 246.64 acres according to Maryland's State Department of Taxation (SDAT) website. It is owned by ESSD-M, Inc. and operated as Easterseals Camp Fairlee. Their corporate address is 61Corporate Circle, New Castle, Delaware 19720.

The site has frontage on Fairlee Creek and contains two County Zoning Districts. The area outside of the Critical Area is zoned Agricultural Zoning District (AZD) and the area within the Critical Area is zoned Resource Conservation District (RCD). The site currently operates as a "camp" which is a permitted use in both of the zoning districts. This project will continue the use and add one Sensory Cabin for patrons of the camp.

The proposed cabin is located within the Critical Area portion of the site. The property is also under a Maryland Historical Trust easement. As the camp is served by public sewer and water, the cottages will also be connected to these systems.

The property is intended to remain under the ownership and maintenance of ESSD-M, Inc.



Kevin Shearon

From:Gene Aucott <gaucott@esdel.org>Sent:Wednesday, March 13, 2024 2:03 PMTo:nicole.alonge-smart1@maryland.gov

Cc: Sallie Price; Pamela Reuther

Subject: FW: [EXTERNAL] Proposal To Build New Sensory Cabins **Attachments:** 2024-0228-Camp Fairlee Tilghman Cabin Prototype-SD4.pdf

Greetings

Attached please find the preliminary plans for the one cabin we plan to build at Camp Fairlee in 2024. I categorize these as "preliminary" as any structures constructed at Camp Fairlee must first be approved by the Maryland Historic Trust (MHT). While the MHT may not show concern over the interior, we expect they may require minor exterior modifications which will alter the final plans.

The plans are self explanatory and I hope sufficient to satisfy your request. If you need any further information, I'd be happy to assist. Please feel free to reach out to me directly.

Gene Aucott

Vice President - Business Development and Logistics

61 Corporate Circle New Castle, DE 19720 Office: 302-221-2016 Cell: 610-869-7355



From: Nicole Alonge-Smart -MDH- <nicole.alonge-smart1@maryland.gov>

Sent: Tuesday, March 12, 2024 11:28 AM

To: Sallie Price < sprice@esdel.org >

Subject: [EXTERNAL] Proposal To Build New Sensory Cabins

<u>CAUTION! EXTERNAL EMAIL!!!</u>: This email originated from **OUTSIDE** of the organization. **DO NOT** click on any links or open attachments, unless you recognize the sender and know the content is safe.

Good afternoon,

The local health department has reached out to our office regarding your proposal to build new sensory cabins. They are waiting for our response before they can give an approval. If you could please email the complete scope of work (include plans and drawings) to me for review. There is no fee associated with this. Please feel free to reach out with any questions.

Regards,

Nicole S Alonge-Smart, LEHS

Regional

Cell Phone: 443-690-7017

Main Office Phone: 410-767-8417 Email: Nicole.Alonge-Smart1@maryland.gov

Website: https://health.maryland.gov/phpa/OEHFP/CHS/Pages/Home.aspx

Maryland Department of Health (MDH) Center for Recreation and Community Environmental Health Services 6 St Paul St, Ste 1301, Baltimore, MD 21202-1608

MDH is committed to customer service. Click here to take the Customer Satisfaction Survey.

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Maryland DEPARTMENT OF PLANNING MARYLAND HISTORICAL TRUST

April 24, 2024

Gene Aucott Easterseals Delaware & Maryland's Eastern Shore 61 Corporate Circle New Castle, DE 19720

Re: Camp Fairlee Manor, Kent County – Change/Alteration

Maryland Historical Trust Preservation Easement

Dear Mr. Aucott:

The Maryland Historical Trust (MHT) is in receipt of your request, received on April 22, 2024, requesting approval to construct a new cabin at Camp Fairlee Manor.

I have reviewed the materials provided in your email and based on the scope of work and specifications, grant staff approval to construct a new cabin, to the north of the two recently completed staff cabins and to the east of the main driveway, at Camp Fairlee Manor.

This work is consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, specifically General Rehabilitation Standards 9 and 10.

This approval is valid for a period of six months from the date of this letter. Should you require additional time to complete the project, make any changes to the scope of work as approved, or have any questions regarding this letter, please contact MHT Easement Staff via email at mht.easements@maryland.gov.

Sincerely,

Carolyn Nosacek
Easement Administrator
Maryland Historical Trust



Wes Moore, Governor
Aruna Miller, Lt. Governor
Josh Kurtz, Secretary
David Goshorn, Deputy Secretary

June 20, 2024

Mr. Kevin J. Shearon Davis, Moore, Shearon & Associates, LLC P.O. Box 80 Centreville, MD 21617

RE: Environmental Review for Proposed Sensory Cottage at Camp Fairlee on Lands of ESSD-M, Inc. - Fairlee, Tax Map 35 Parcel 2, DMS & Associates Job #2023164, Kent County, Maryland.

Dear Mr. Shearon:

The Wildlife and Heritage Service has determined that there are no official State or Federal records for listed plant or animal species within the delineated area shown on the map provided. We would like to point out, however, that our remote analysis suggests that the forested area on this property contains Forest Interior Dwelling Bird habitat. Populations of many bird species which depend on this type of forested habitat are declining in Maryland and throughout the eastern United States. The conservation of this habitat is mandated within the Chesapeake Bay Critical Area and must be addressed by the project plan. Specifically, if FIDS habitat is present, the following guidelines should be incorporated into the project plan (as applicable):

- 1. Restrict development to nonforested areas.
- 2. If forest loss or disturbance is unavoidable, concentrate or restrict development to the following areas:
 - a. the perimeter of the forest (i.e., within 300 feet of existing forest edge)
 - b. thin strips of upland forest less than 300 feet wide
 - c. small, isolated forests less than 50 acres in size
 - d. portions of the forest with low quality FIDS habitat, (i.e., areas that are already heavily fragmented, relatively young, exhibit low structural diversity, etc.)
- 3. Maximize the amount if forest "interior" (forest area >300 feet from the forest edge) within each forest tract (i.e., minimize the forest edge: area ratio). Circular forest tracts are ideal and square tracts are better than rectangular or long, linear forests.
- 4. Minimize forest isolation. Generally, forests that are adjacent, close to, or connected to other forests provide higher quality FIDS habitat than more isolated forests.
- 5. Limit forest removal to the "footprint" of houses and to that which is necessary for the placement of roads and driveways.
- 6. Minimize the number and length of driveways and roads.
- 7. Roads and driveways should be as narrow and as short as possible; preferably less than 25 and 15 feet, respectively
- 8. Maintain forest canopy closure over roads and driveways.
- 9. Maintain forest habitat up to the edges of roads and driveways; do not create or maintain mowed grassy berms.
- 10. Maintain or create wildlife corridors.

- 11. Do not remove or disturb forest habitat during April-August, the breeding season for most FIDS. This seasonal restriction may be expanded to February-August if certain early nesting FIDS (e.g., Barred Owl) are present.
- 12. Landscape homes with native trees, shrubs and other plants and/or encourage homeowners to do so.
- 13. Encourage homeowners to keep pet cats indoors or, if taken outside, kept on a leash or inside a fenced area.
- 14. In forested areas reserved from development, promote the development of a diverse forest understory by removing livestock from forested areas and controlling white-tailed deer populations. Do not mow the forest understory or remove woody debris and snags.
- 15. Afforestation efforts should target a) riparian or streamside areas that lack woody vegetative buffers, b) forested riparian areas less than 300 feet wide, and c) gaps or peninsulas of nonforested habitat within or adjacent to existing FIDS habitat.

The Critical Area Commission's document "A Guide to the Conservation of Forest Interior Dwelling Birds in the Chesapeake Bay Critical Area" provides details on development standards and information about mitigation for projects where impacts to FIDS habitat cannot be totally avoided. Mitigation plantings for impacts to FIDS habitat may be required under the local government's Critical Area Program. The amount of mitigation required is generally based in whether the guidelines listed above are followed.

If the project changes in the future such that the limits of proposed disturbance or overall site boundaries are modified, please provide us with revised project maps and we will provide you with an updated evaluation. Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at lori.byrne@maryland.gov or at (410) 260-8573.

Sincerely,

Lori A. Byrne,

Louia. Bym

Environmental Review Coordinator Wildlife and Heritage Service MD Dept. of Natural Resources

ER# 2024.0883.ke Cc: C. Jones, CAC

FINAL SITE PLAN FOR PHASE 1

CAMPIAIRE SENSORY CABINI

NEAR THE TOWN OF CHESTERTOWN SIXTH ELECTION DISTRICT, KENT COUNTY, MARYLAND

SITE STATISTICS

CURRENT USE - CAMP PROPOSED USE - CAMP = 246.64 ac. \pm (per SDAT) GROSS SITE AREA = 175.87 ac.± NON-CRITICAL AREA (ZONE - AG) CRITICAL AREA (ZONE - RCD) = 70.77 ac. \pm AREA WITHIN FLOODPLAIN = 9.40 ac.± FLOOR AREA (EXISTING) (0.16%) = 0.398 ac. \pm (17,350 sq. ft. \pm) FLOOR AREA (PROPOSED) (0.0%) = 0.050 ac. \pm (2,170 sq. ft. \pm) SENSORY CABIN = 0.050 ac. \pm (2,170 sq. ft. \pm) FLOOR AREA (FUTURE) (0.02%) = 0.150 ac. \pm (6,514 sq. ft. \pm) LAUNDRY FACILITY = 2,174 sq. ft.± = 4,340 sq. ft.± SENSORY CABINS = 0.598 ac. \pm (26,034 sq. ft. \pm) FLOOR AREA (TOTAL) (0.18%) NON-CRITICAL AREA CALCULATIONS (ZONE - AG) 3.68 ac.± IMPERVIOUS AREA (EXISTING) (2.1%) IMPERVIOUS AREA (TO BE REMOVED) $= 0.00 \text{ ac.} \pm$ IMPERVIOUS AREA (PROPOSED) = 0.002 ac. \pm (73 sq. ft. \pm) $0.002 \text{ ac.} \pm (73 \text{ sq. ft.} \pm)$ ACCESS LANE = 0.080 ac. \pm (3,478 sq. ft. \pm) IMPERVIOUS AREA (FUTURE) $0.061 \text{ ac.} \pm (2,673 \text{ sq. ft.} \pm)$ = 0.018 ac. \pm (805 sq. ft. \pm) IMPERVIOUS AREA (TOTAL) (2.1%) = 3.762 ac.± LANDSCAPE AREA (EXISTING) (97.9%) = 172.19 ac.± LANDSCAPE AREA (PROVIDED) (97.9%) $= 172.108 \text{ ac.} \pm$ <u>CRITICAL AREA CALCULATIONS (ZONE - RCD)</u> LOT COVERAGE (ALLOWED) (15%) LOT COVERAGE (EXISTING) (4.3%) 3.06 ac. \pm

LOT COVERAGE (TO BE REMOVED)

LAUNDRY FACILITY (ROOFED)

LOT COVERAGE (RESULTING) (4.8%)

LANDSCAPE AREA (EXISTING) (95.7%)

LANDSCAPE AREA (PROVIDED) (95.2%)

LOT COVERAGE (PROPOSED)

CABIN (ROOFED)

CONCRETE WALK

CABIN (ROOFED)

CONCRETE WALK

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LOT COVERAGE (FUTURE)

ACCESS LANE

PAVED WALK

0.00 ac.±

 $0.061 \text{ ac.} \pm (2,663 \text{ sq. ft.} \pm)$

 $0.069 \text{ ac.} \pm (3,005 \text{ sq. ft.} \pm)$

 $0.047 \text{ ac.} \pm (2.035 \text{ sq. ft.} \pm)$

 $0.044 \text{ ac.} \pm (1,932 \text{ sq. ft.} \pm)$

 $0.061 \text{ ac.} \pm (2,653 \text{ sq. ft.} \pm)$

0.061 ac.± (2,663 sa. ft.±

 $0.019 \text{ ac.} \pm (810 \text{ sq. ft.} \pm)$

= 3.422 ac.±

= 67.71 ac.±

= 67.348 ac. \pm

= 0.221 ac. \pm (9,635 sq. ft. \pm)

= 0.141 ac. \pm (6,126 sq. ft. \pm)

REVIEWED FOR THE KENT SOIL AND WATER CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS APPROVED: KENT SOIL AND WATER CONSERVATION DISTRICT KENT SOIL AND WATER CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR OTHERWISE ALTER THE EROSION CONTROL PROVISIONS OF THIS PLAN IN THE EVENT ADDITIONAL DEVELOPERS CERTIFICATION I (WE) CERTIFY THAT: A. ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE IN ACCORDANCE WITH THIS SEDIMENT AND EROSION CONTROL PLAN AND/OR STORMWATER MANAGEMENT PLAN, AND FURTHER, AUTHORIZED THE RIGHT OF ENTRY FOR PERIODIC ONSITÉ EVALUATION BY THE KENT SOIL AND WATER CONSERVATION DISTRICT SEDIMENT CONTROL INSPECTOR OR MARYLAND DEPARTMENT OF THE ENVIRONMENT. B. ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF ATTENDANCE AT THE DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT. C. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR OR SUBCONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THIS PLAN. ANY CHANGE MADE IN THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL PLACE RESPONSIBILITY FOR SAID CHANGE ON THE CONTRACTOR OR SUBCONTRACTOR. SIGNATURE

- 1. PROPERTY LINE INFORMATION SHOWN HEREON IS TAKEN FROM DEED INFORMATION ONLY AND IS NOT THE RESULT OF A FIELD RUN SURVEY AT THIS TIME. GROSS AREA IS TAKEN FROM STATE DEPARTMENT OF ASSESSMENT AND TAXATION RECORDS.
- 2. FOR DEED REFERENCE, SEE LIBER M.L.M. 163, FOLIO 514.
- 3. CURRENT ZONING CLASSIFICATION (AG) AGRICULTURE AND (RCD) RESOURCE CONSERVATION DISTRICT.
- 4. THE PROPERTY IS PARTIALLY LOCATED WITHIN THE CHESAPEAKE BAY CRITICAL AREA DESIGNATIONS - RCA.
- 5. SITE IS PARTIALLY LOCATED WITHIN 100 YEAR FLOODPLAIN AS SCALED FROM FLOOD INSURANCE RATE MAP COMMUNITY PANEL No. 24029C0281D AND 24029C0225D. (ZONE "AE") (ELEV. 6). EFFECTIVE DATE JUNE 9, 2014.
- 6. SOILS SHOWN HEREON ARE SCALED FROM THE WEBSITE: http://websoilsurvey.nrcs.usda.gov.
- 7. FOREST SHOWN HEREON ARE SCALED FROM ORTHO IMAGERY FLOWN IN THE FALL OF 2019 AND VERIFIED BY A SITE VISIT.
- 8. EXISTING CONTOURS WITHIN THE DEVELOPMENT AREA ARE TAKEN PREVIOUS SURVEYS. VERTICAL DATUM IS NAVD 88.

<u>OWNER/DEVELOPER:</u>

NEW CASTLE, DELAWARE 19720

PHONE No. 1-302-221-2016

CHESTERTOWN, MARYLAND 21620

c/o KEVIN J. SHEARON, PE LEED AP

PHONE No. 1-410-778-2310

CENTREVILLE, MARYLAND 21617

PHONE No. 1-443-262-9130

c/o GENE AUCOTT

<u>SURVEYOR</u>

c/o MIKE SCOTT

<u>ENGINEER</u>

P.O. BOX 80

61 CORPORATE CIRCLE

MICHAEL A. SCOTT, INC.

400 S. CROSS STREET

DMS & ASSOCIATES, LLC

9. PUBLIC SEWER WILL BE UTILIZED FOR SEWAGE DISPOSAL AND PUBLIC WATER WILL BE UTILIZED FOR POTABLE WATER SUPPLY

ESSD-M, INC. (EASTERSEALS CAMP FAIRLEE)

FAIRLEE

VICINITY MAP

TABLE OF CONTENTS SHEET C-1 - TITLE SHEET

SHEET	C-2	_	OVERALL SITE PLAN
SHEET	C-3	-	EXISTING CONDITIONS PLAN
SHEET	C-4	-	SITE, GRADING, STORMWATER MANAGEMENT AND SEDIMENT & EROSION CONTROL PLAN
SHEET	C-5	-	DRAINAGE AREA MAP, CREDIT MAP AND DETAILS

SHEET C-7 - STORMWATER MANAGEMENT SECTIONS

SHEET C-8 - UTILITY PLAN SHEET C-9 - UTILITY DETAILS

SHEET C-10 - SEDIMENT AND EROSION CONTROL DETAILS AND SPECIFICATIONS

SCALE 1'' = 4000'

SHEET	C-2	_	OVERALL SITE PLAN
SHEET	C-3	_	EXISTING CONDITIONS PLAN
SHEET	C-4	-	SITE, GRADING, STORMWATER MANAGEMENT AND SEDIMENT & EROSION CONTROL PLAN
SHEET	C-5	-	DRAINAGE AREA MAP, CREDIT MAP AND DETAILS
SHEET	C-6	_	STORMWATER MANAGEMENT SPECIFICATIONS AND DETAILS

FOREST STATISTICS

<u> 1 011221 2111112</u>	<u> </u>
GROSS SITE AREA FOREST (29.2%) FOREST WITHIN NON-CRITICAL AREA FOREST WITHIN CRITICAL AREA	= 246.64 ac.± = 72.00 ac.± = 38.60 ac.± = 33.40 ac.±
ZONE (AG) FOREST (21.9%) FOREST TO BE REMOVED FOREST TO BE RETAINED	= 175.87 ac.± = 38.60 ac.± = 0.00 ac.± = 38.60 ac.±
ZONE (RCD) FOREST (47.2%) FOREST TO BE REMOVED FOREST TO BE RETAINED	= 70.77 ac.± = 33.40 ac.± = 0.00 ac.± = 33.40 ac.±

FOREST CONSERVATION WORKSHEET (ZONE - AG)		
NET TRACT AREA TOTAL TRACT AREA DEDUCTIONS (LAND USE UNCHANGED) NET TRACT AREA		246.64 246.49 0.15
LAND USE CATEGORY		
ARA MDR IDA HDR MPD CIA 1 0 0 0 0 0		
AFFORESTATION THRESHOLD (Net Tract Area X 20%) CONSERVATION THRESHOLD (Net Tract Area X 50%)	=	
EXISTING FOREST COVER EXISTING FOREST COVER WITHIN THE NET TRACT AREA AREA OF FOREST ABOVE CONSERVATION THRESHOLD	=	0.00
BREAK EVEN POINT BREAK EVEN POINT FOREST CLEARING PERMITTED WITHOUT MITIGATION	=	0.00
PROPOSED FOREST CLEARING TOTAL AREA OF FOREST TO BE CLEARED TOTAL AREA OF FOREST TO BE RETAINED	=	0.00
PLANTING REQUIREMENTS REFORESTATION FOR CLEARING ABOVE THE CONSERVATION THRESHOLD REFORESTATION FOR CLEARING BELOW THE CONSERVATION THRESHOLD CREDIT FOR RETENTION ABOVE THE CONSERVATION THRESHOLD TOTAL REFORESTATION REQUIRED	=	0.00
TOTAL FOREST RETENTION REQUIRED TOTAL PLANTING REQUIRED	=	0.03 0.03

FOREST CONSERVATION IS BASED OF 20% OF THE PROPOSED LIMITS OF DISTURBANCE WITHIN THE NON-CRITICAL AREA 0.15 (L.O.D.) ac. \pm X 20% = 0.03 ac. \pm (REQUIRED)

0.03 ac.± (TO BE PROVIDED WITH NEXT PHASE)

GENERAL NOTES

- 1. These drawings show information obtained from the best available records regarding pipes, conduits, telephone lines, and other structures and conditions which exist along the lines of the work both at and below the surface of the ground. The owner and engineer disclaim any responsibilities for the accuracy or completeness of said information being shown only for the convenience of the contractor, who must verify the information to his own satisfaction. If the contractor relies on said information, he does so at his own risk. The giving of the information on the contract drawings will not relieve the contractor of his obligations to support and protect all pipes, conduits, telephone lines, and other structures.
- 2. The contractor shall notify the following two (2) weeks prior to the start of construction and shall coordinate construction with the utility companies involved:

Delmarva	Power & Light	t Company –		1-800-3/	5-/11/
Miss Utili	:y			1-800-44	1-8355
DMS & A	ssociates, LLC			1-443-26	2-9130
Kent Cou	nty Dept. Publi	ic Works		1-410-77	8-7439
Kent Co.	Sediment & E	rosion Contro	Inspector	- 1-410- 7	778-742
	Dept. of Water				
Maryland	Department of	the Environr	nent	-1-410-63	31-3510

- 3. All construction shall be marked for traffic and pedestrian
- 4. The Contractor shall provide all equipment, labor, and materials for any miscellaneous or test pit excavations required by the Engineer.
- 5. The owner is responsible for the acquisition of all easements, both permanent and temporary.
- 6. The Contractor assumes all responsibility for any deviations from these plans unless said deviation is approved by the Engineer. Contractor shall receive written permission from the Engineer if a deviation of the plans is necessary.
- 7. All disturbed areas shall be smoothly graded to provide positive drainage in the direction of flow arrows herein and stabilized with topsoil, seed, and mulch. If settlement occurs, topsoil, seeding, and mulching shall be repeated until settlement subsides (See Erosion and Sediment Control Specifications).
- 8. All trash, trees, and underbrush are to be cleared and removed off site to an approved dump site by the contractor.
- 9. Any excess excavated material shall be removed off site by the contractor or material shall be placed on site as directed by the Engineer and/or Owner.
- 10. Any existing survey monumentation that is disturbed during construction shall be replaced by a registered surveyor at the contractor's expense.
- 11. The Contractor shall conduct his work in easements so that there will be a minimum of disturbance of the properties crossed. Any disturbed areas shall be restored to its
- original condition. 12. All materials and methods of construction shall conform to the drawings, specifications, local building codes, and the standard specifications and details of Kent County.

during construction unless otherwise indicated on the plans.

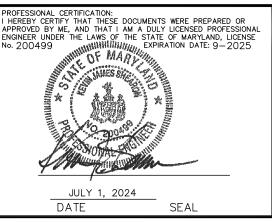
- 13. All drainage structures and swales shall remain functional
- 14. All water valves, boxes and hydrants shall be set and adjusted to finish grade.
- 15. Wherever sewer or water mains or services run parallel to each other, a minimum horizontal separation of 10' shall be provided.
- 16. Minimum cover over the sewer main shall be 42".
- 17. All concrete used for utility work shall be in accordance with MD SHA Standards and Specifications for Mix No. 2.
- 18. All paving materials and methods shall be in accordance with the latest MD SHA Standards and Specifications and be supplied by a State Certified plant.
- 19. Trenches shall not remain open overnight. If it is necessary for trenches to remain open, steel plates capable of bearing traffic shall be used to completely cover the trench openings.
- 20. Erosion and Sediment Control will be strictly enforced by the Kent County Sediment and Erosion Control Inspector.

STATEMENT OF PURPOSE AND INTENT

THE SITE IS LOCATED ON THE NORTH SIDE OF BAY SHORE ROAD AND WEST OF FAIRLEE LANDING ROAD NEAR THE VILLAGE OF FAIRLEE, MARYLAND. THE SITE IS THE LOCATION OF EASTER SEALS CAMP FAIRLEE. THE INTENT OF THIS PRELIMINARY/FINAL SITE PLAN IS TO PROVIDE ONE (1) NEW CABIN IN THE CRITICAL AREA (ZONE - RCD) WITH A CONCRETE WALK AND PAVED ACCESS LANE.

THE PURPOSE OF THIS PRELIMINARY/FINAL SITE PLAN IS TO OBTAIN APPROVAL FROM THE KENT COUNTY PLANNING COMMISSION FOR THE PROPOSED IMPROVEMENTS ON THE SITE.

KENT COUNTY DEPARTMENT OF PUBLIC WORKS KENT COUNTY DEPARTMENT OF PLANNING AND ZONING KENT COUNTY HEALTH DEPARTMENT APPROVING AUTHORI



Davis, Moore, Shearon & ASSOCIATES, LLC ENGINEERING. DRAFTING/DESIGN. ENVIRONMENTAL SERVICES & SURVEYING

P.O. BOX 80

CENTREVILLE, MARYLAND 21617 PHONE: 1-443-262-9130

FAX: 1-443-262-9148

PER TAC COMMENTS

FOR PHASE 1 CAMP FAIRLEE SENSORY CABIN

TITLE SHEET

NEAR THE TOWN OF CHESTERTOWN

TAX MAP - 35, GRID - 2D, PARCEL - 2 SIXTH ELECTION DISTRICT, KENT COUNTY, MARYLAND

PREPARED FOR: ESSD-M, INC.

SHEET No. - C-1 CADD FILE - 22168C01

MAY '2

2023164

DLDER Ref.

35-2023164

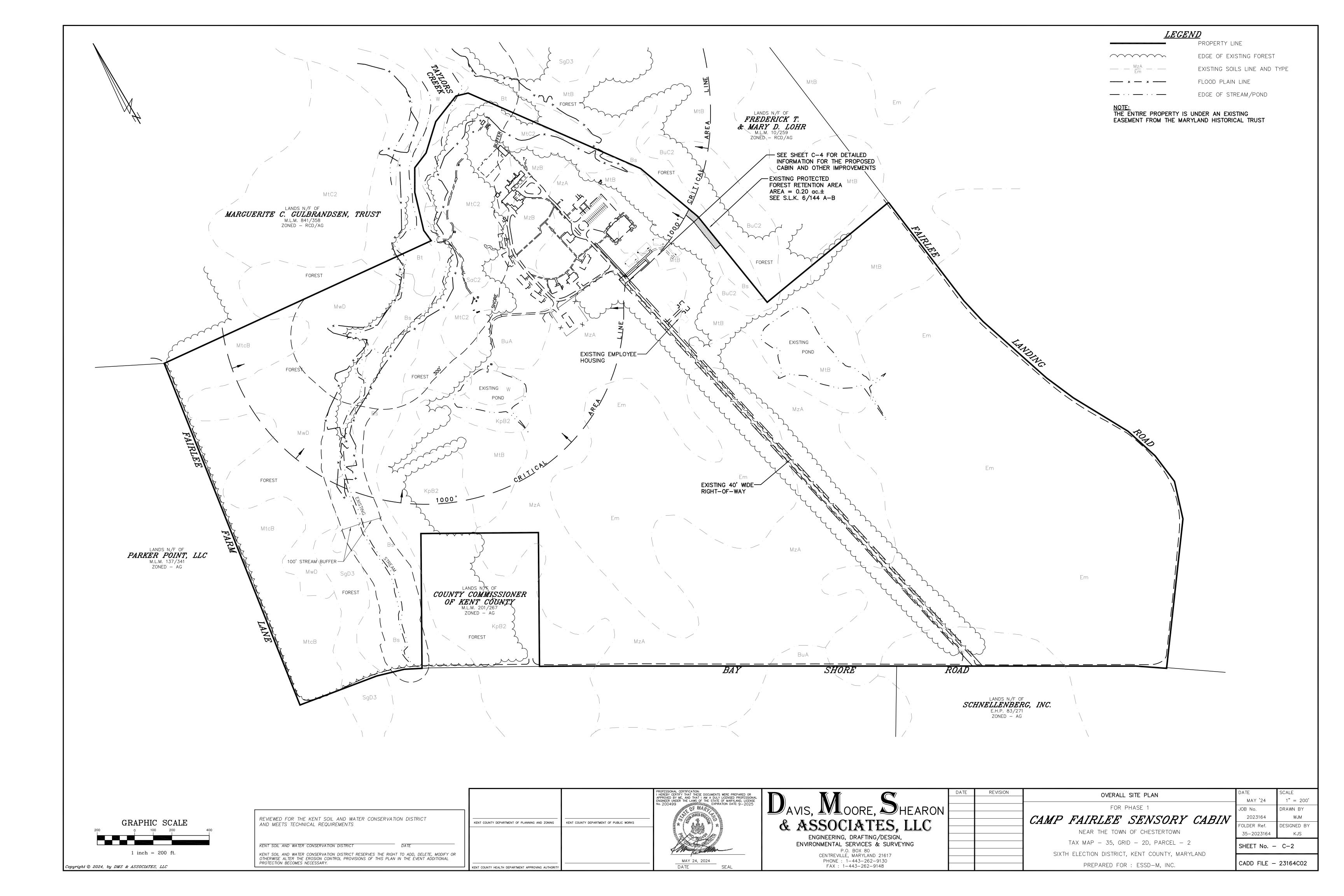
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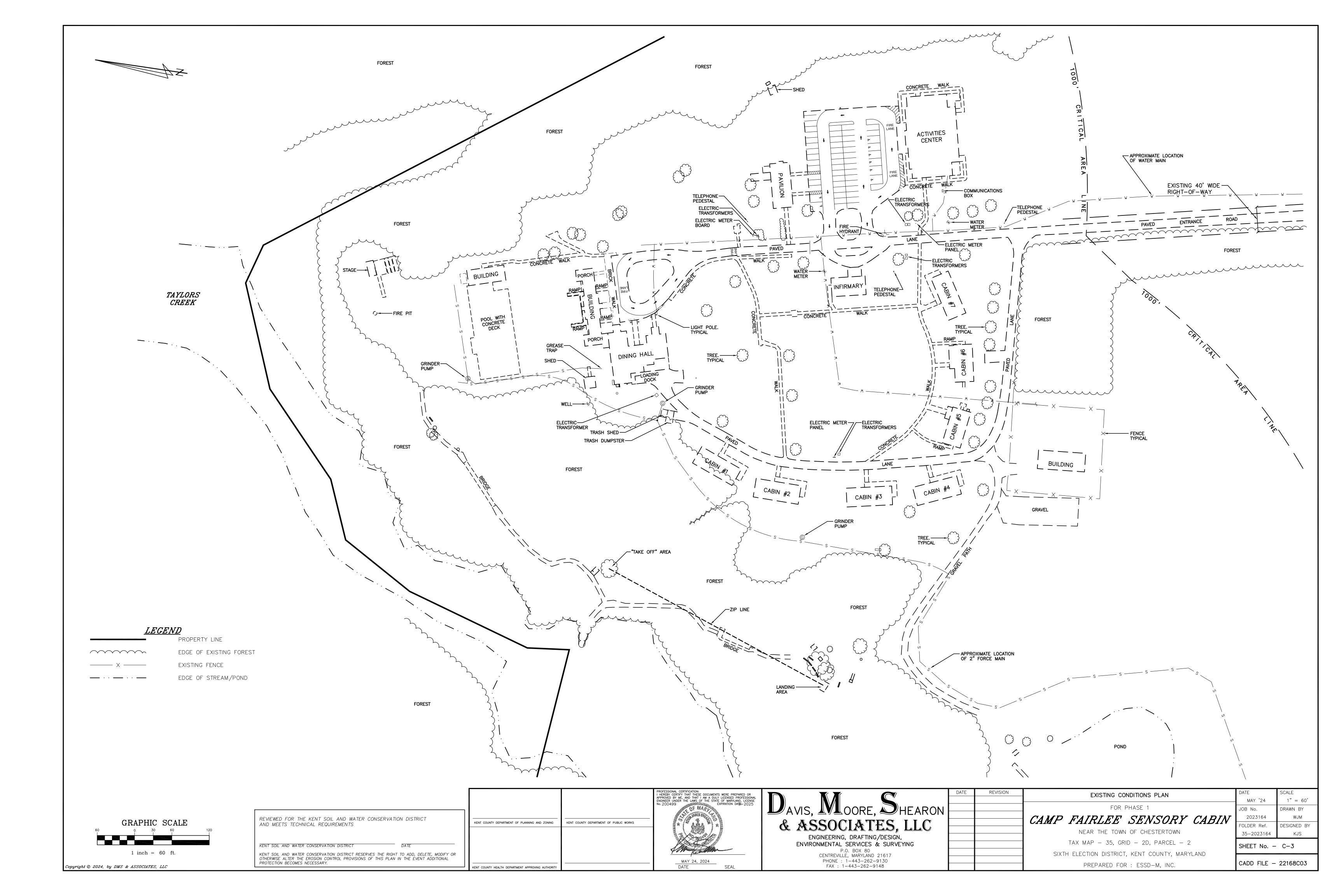
AS SHOWN

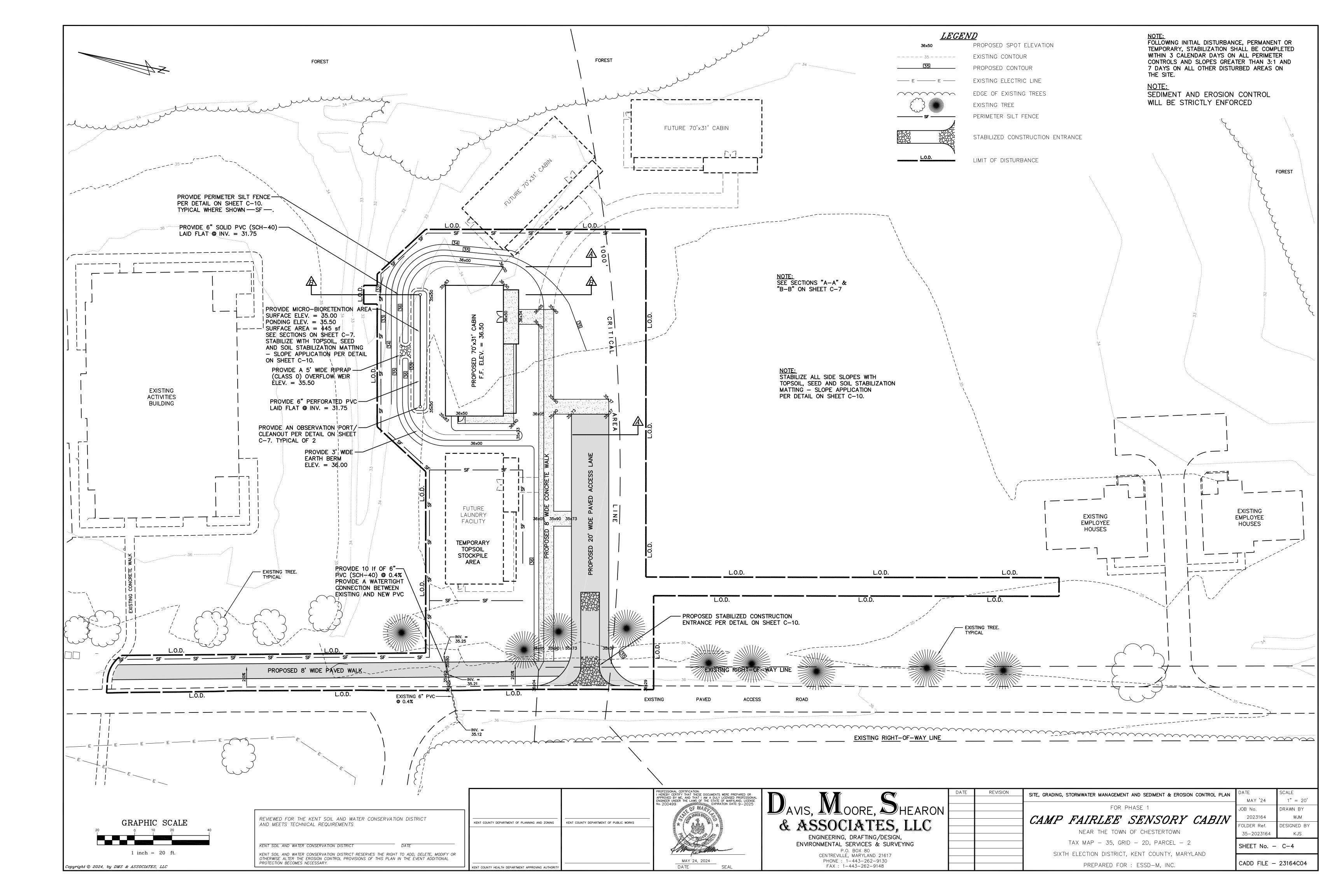
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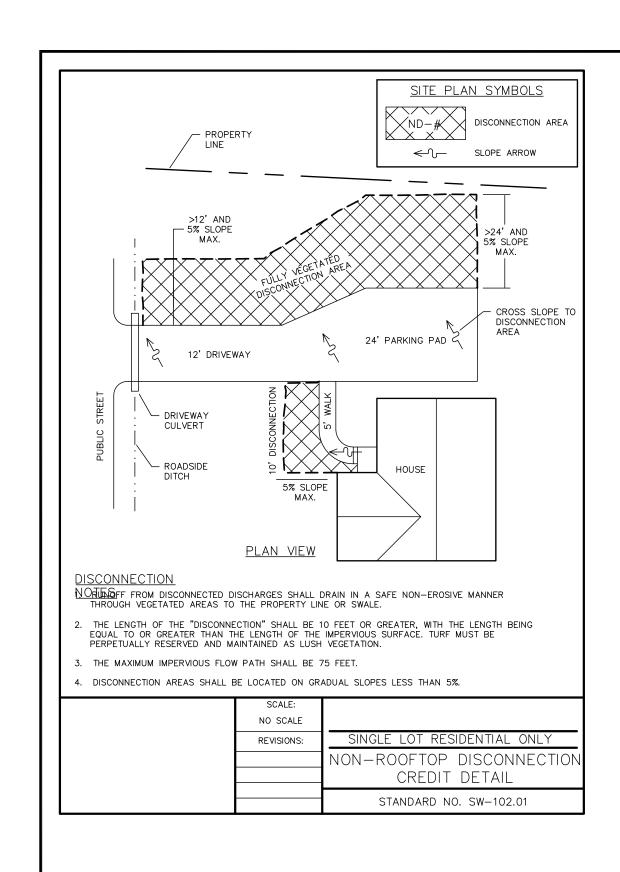
ESIGNED BY

KJS









STORMWATER MANAGEMENT SUMMARY TABLE

STEP No.	REQUIREMENT	VOLUME REQ.	VOLUME PRO.	NOTES
1	WATER QUALITY (WQv)	1,359 cu. ft.	1,451 cu. ft.	MICRO-BIORETENTION AND & NON-ROOFTOP DISCONNECTION
2	RECHARGE (Rev)	1,302 sf	6,905 sf	NON-ROOFTOP DISCONNECTION
3	CHANNEL PROTECTION (Cpv)	N/A	N/A	N/A
4	EXTREME FLOOD (Qf)	N/A	N/A	N/A

AND MEETS TECHNICAL REQUIREMENTS

KENT SOIL AND WATER CONSERVATION DISTRICT

REVIEWED FOR THE KENT SOIL AND WATER CONSERVATION DISTRICT KENT SOIL AND WATER CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR OTHERWISE ALTER THE EROSION CONTROL PROVISIONS OF THIS PLAN IN THE EVENT ADDITIONAL PROTECTION BECOMES NECESSARY.

KENT COUNTY HEALTH DEPARTMENT APPROVING AUTHORITY

thuman 34

PROVIDE MICRO-BIORETENTION AREA-

PROVIDE 5, WIDE RIPRAP OVERFLOW WEIR

ELEV. = 35.50

PROVIDE 3' WIDE EARTH BERM ELEV. = $36^{1}_{r}00$

PROVIDE 6" PERFORATED PVC -

PROPOSED 8' WIDE PAVED WALK

LAID FLAT @ INV. = 31.75

PROVIDE AN OBSERVATION PORT/-CLEANOUT PER DETAIL ON SHEET

SURFACE ELEV. = 35.00 PONDING ELEV. = 35.50SURFACE AREA = 445 sf SEE SECTIONS ON SHEET C-7.

C-7. TYPICAL OF 2

- EXISTING TREE.

PROVIDE 6" SOLID PVC (SCH-40)

LAID FLAT @ INV. = 31.75

EXISTING ACTIVITIES

BUILDING

Davis, Moore, Shearon & ASSOCIATES, LLC ENGINEERING, DRAFTING/DESIGN, ENVIRONMENTAL SERVICES & SURVEYING

EXISTING 6" PVC—— © 0.4%

DRAINAGE AREA MAP, CREDIT MAP AND DETAILS FOR PHASE 1

<u>LEGEND</u>

EXISTING CONTOUR

PROPOSED CONTOUR

CAMP FAIRLEE SENSORY CABIN NEAR THE TOWN OF CHESTERTOWN

FUTURE 70'x31' CABIN

,-----]

2023164 OLDER Ref. DESIGNED BY KJS 35-2023164 SHEET No. - C-5

TAX MAP - 35, GRID - 2D, PARCEL - 2 SIXTH ELECTION DISTRICT, KENT COUNTY, MARYLAND

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KENT COUNTY DEPARTMENT OF PLANNING AND ZONING KENT COUNTY DEPARTMENT OF PUBLIC WORKS

STORMWATER MANAGEMENT CREDIT MAP

P.O. BOX 80 CENTREVILLE, MARYLAND 21617 PHONE: 1-443-262-9130 FAX: 1-443-262-9148

PROVIDE 10 If OF 6"— PVC (SCH-40) @ 0.4%

50

FUTURE LAUNDRY FACILITY

PREPARED FOR : ESSD-M, INC.

CADD FILE - 22168C05

MAY '24

AS SHOWN

DRAWN BY

NONROOFTOP DISCONNECTION

NONROOFTOP DISCONNECTION

CREDIT AREA

TREATMENT AREA.

B.4.C Specifications for Micro-Bioretention

Materials Specifications

The allowable materials to be used in bioretention area are detailed in Table B.4.1

2. Filtering Media or Planting Soil

The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the bioretention area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.

The planting soil shall be tested and shall meet following criteria:

-Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textural Classification)
-Organic Content - Minimum 10% by dry weight (ASTM D 2974). In general, this can be met with a mixture of loamy sand (60%-65%) and compost (35% to 40%) or sandy loam (30%), coarse sand (30%), and compost (40%).
-Clay Content - Media shall have a clay content of less than 5%.

-clay content — media shall have a clay content of less than 5%.

-pH Range — Should be between 5.5 — 7.0. Amendments (e.g., lime, iron sulfate plus sulfur) may be mixed into the soil to increase or decrease pH.

There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was excavated.

3. Compaction

It is very important to minimize compaction of both the base of bioretention practices and the required backfill. When possible, use excavation hoes to remove original soil. If practices are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

4. Plant Material

See Landscape Plans.

5. Plant Installation

Compost is a better organic material source, is less likely to float, and should be placed in the invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2" to 3". 3?. Shredded or chipped hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.

Rootstock of the plant materials shall be kept moist during transport and on—site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non—grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. only add fertilizer if wood chips or mulch are used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

6. Underdrains

Underdrains should meet the following criteria (See profiles for modifications to specifications below):

- -Pipe-Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTMF 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4" rigid pipe (e.g., PVC or HDPE).
- —Perforations—If perforated pipe is used, perforations should be ?? diameter located 6" on center with a minimum of four holes per row. Pipe shall be wrapped with a ¼? (No. 4 or 4x4) galvanized hardware cloth.
- -Gravel-The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain.

REVIEWED FOR THE KENT SOIL AND WATER CONSERVATION DISTRICT

KENT SOIL AND WATER CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR

KENT COUNTY HEALTH DEPARTMENT APPROVING AUTHORI

OTHERWISE ALTER THE EROSION CONTROL PROVISIONS OF THIS PLAN IN THE EVENT ADDITIONAL

AND MEETS TECHNICAL REQUIREMENTS

KENT SOIL AND WATER CONSERVATION DISTRICT

PROTECTION BECOMES NECESSARY.

- -The main collector pipe shall be at a minimum 0.5% slope.
 -A rigid, non-perforated observation well must be provided (one per every 1,0000 square feet) to provide
- a clean—out port and monitor performance of the filter.
- -A 4" layer of pea gravel (1/8" to 3/8" stone) shall be located between the filter media and underdrain to prevent migration of fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".

The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean—out pipes must be provided (one minimum per every 1000 square feet of surface area).

7. Miscellaneous

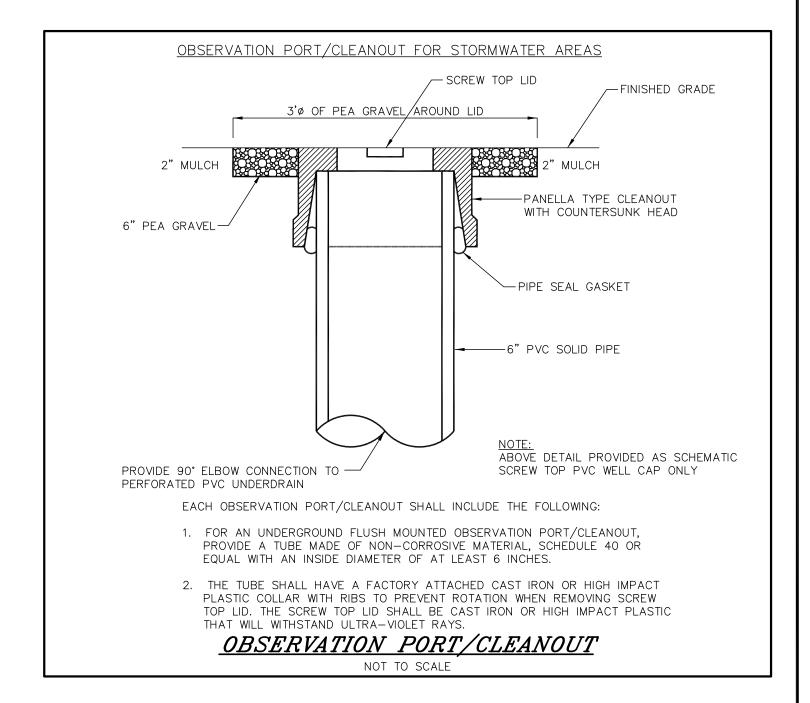
The bioretention facility may not be constructed until all contributing drainage area has been stabilized.

MATERIAL SPECIFICATIONS FOR MICRO-BIORETENTION,

MATERIAL	L SPECIFICATION		NOTES	
PLANTINGS	SEE LANDSCAPE PLANS	SEE PLAN	PLANTINGS ARE SITE-SPECIFIC - SEE LANDSCAPE PLAN	
PLANTINGS SOILS (2' to 4' DEEP)	LOAMY SAND (60% to 65%) & COMPOST (35% to 40%) or SANDY LOAM (30%), COARSE SAND (30%) & COMPOST (40%)	N/A	USDA SOIL TYPES LOAMY SAND OR SANDY LOAM; CLAY CONTENT < 5%	
ORGANIC CONTENT	Min. 10% BY DRY WEIGHT (ASTM D 2974)			
PEA GRAVEL DIAPHRAGM	PEA GRAVEL; ASTM-D-448	No. 8 or No. 9 (1/8" to 3/8")		
CURRENT DRAIN	ORNAMENTAL STONE; WASHED COBBLES	STONE: 2" to 5"		
GEOTEXTILE	SEE APPENDIX A, TABLE A.4	N/A	PE TYPE 1 NONWOVEN	
GRAVEL (UNDERDRAINS AND INFILTRATION BERMS)	AASHTO M-43	No. 57 or No. 6 AGGREGATE (3/8" to 3/4")		
UNDERDRAIN PIPING	F 758, TYPE PS 28 or AASHTO M-278	4" to 6" RIGID (SCH-40) PVC or SDR-35	SLOTTED OR PERFORATED PIPE; 3/8" PERF. @ 6" ON CENTER, 4 HOLES PER ROW; MINIMUM OF 3" OF GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES. PERFORATED PIPE SHALL BE WRAPPED WITH 1/4" GALVANIZED HARDWARE CLOTH	
POURED IN PLACE CONCRETE (IF REQUIRED)	MSHA MIX No. 3; f _C = 3500 psi @ 28 DAYS, NORMAL WEIGHT, AIR-ENTRAINED; REINFORCING TO MEET ASTM-615-60	N/A	ON-SITE TESTING OF POURED-IN-PLACE CONCRETE REQUIRED: 28 DAY STRENGTH AND SLUMP TEST; ALL CONCRETE DESIGN (CAST-IN-PLACE OR PRE-CAST) NOT USING PREVIOUSLY APPROVED STATE OR LOCAL STANDARDS REQUIRES DESIGN DRAWINGS SEALED AND APPROVED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MARYLAND - DESIGN TO INCLUDE MEETING ACI CODE 350.R/89; VERTICAL LOADING [H-10 OR H-20]; ALLOWABLE HORIZONTAL LOADING (BASED ON SOIL PRESSURES); AND ANALYSIS OF POTENTIAL CRACKING	
SAND	AASHTO M-6 or ASTM-C-33	0.02" to 0.04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE (AASHTO) #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTION ARE ACCEPTABLE. NO "ROCK DUST" CAN BE USED FOR SAND	

MICRO-BIORETENTION MAINTENANCE SCHEDULE

DESCRIPTION	METHOD	FREQUENCY	TIME OF THE YEAR
SOIL			
INSPECT AND REPAIR EROSION, RESEED	VISUAL	MONTHLY	MONTHLY
ORGANIC LAYER			
TOPSOIL MEDIA SHALL BE REMOVED AND REPLACED WHEN PONDING DRAWDOWN EXCEEDS 48 HOURS	VISUAL	AFTER MAJOR STORM EVENTS	WHENEVER NEEDED
PLANTS			
REMOVAL AND REPLACEMENT OF ALL DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT	SEE PLANTING SPECS.	TWICE A YEAR	3/15 to 4/30 AND 10/1 to 11/30
INSPECT FOR DISEASE/PEST PROBLEMS	VISUAL	ONCE A MONTH (AVERAGE)	INSPECT MORE FREQUENTLY IN WARMER MONTHS
DETERMINE IF TREATMENT IS WARRANTED. USE LEAST TOXIC TREATMENT APPROACH	BY HAND	N/A	VARIES, DEPENDS ON DISEASE OR INSECT INFESTATION
WATERING OF PLANT MATERIAL SHALL TAKE PLACE FOR FOURTEEN CONSECUTIVE DAYS AFTER PLANTING HAS BEEN COMPLETED UNLESS THERE IS SUFFICIENT NATURAL RAINFALL	BY HAND	IMMEDIATELY AFTER COMPLETION OF PROJECT	N/A



RENT COUNTY DEPARTMENT OF PLANNING AND ZONING

KENT COUNTY DEPARTMENT OF PUBLIC WORKS

RENT COUNTY DEPARTMENT OF PUBLIC WORKS

CENTREVILLE, MARYLAND 21617 PHONE: 1-443-262-9130

FAX: 1-443-262-9148

STORMWATER MANAGEMENT SPECIFICATIONS AND DETAILS

FOR PHASE 1

CAMP FAIRLEE SENSORY CABIN

PREPARED FOR : ESSD-M, INC.

P FAIRLEE SENSORY CABIN

NEAR THE TOWN OF CHESTERTOWN

TAX MAP - 35, GRID - 2D, PARCEL - 2

SIXTH ELECTION DISTRICT, KENT COUNTY, MARYLAND

MAY '24 AS SHOWN

JOB No. DRAWN BY

2023164 WJM

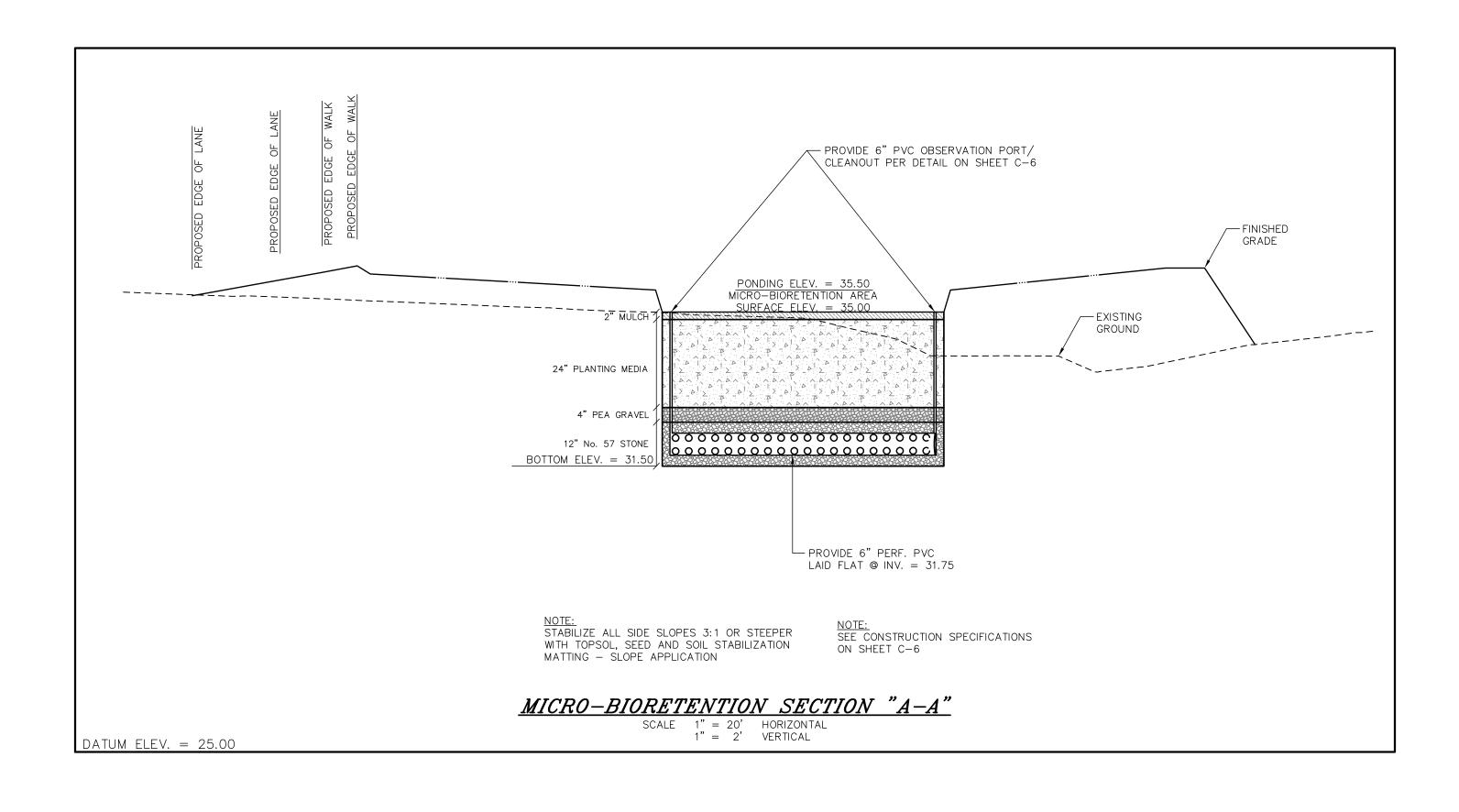
FOLDER Ref. DESIGNED BY

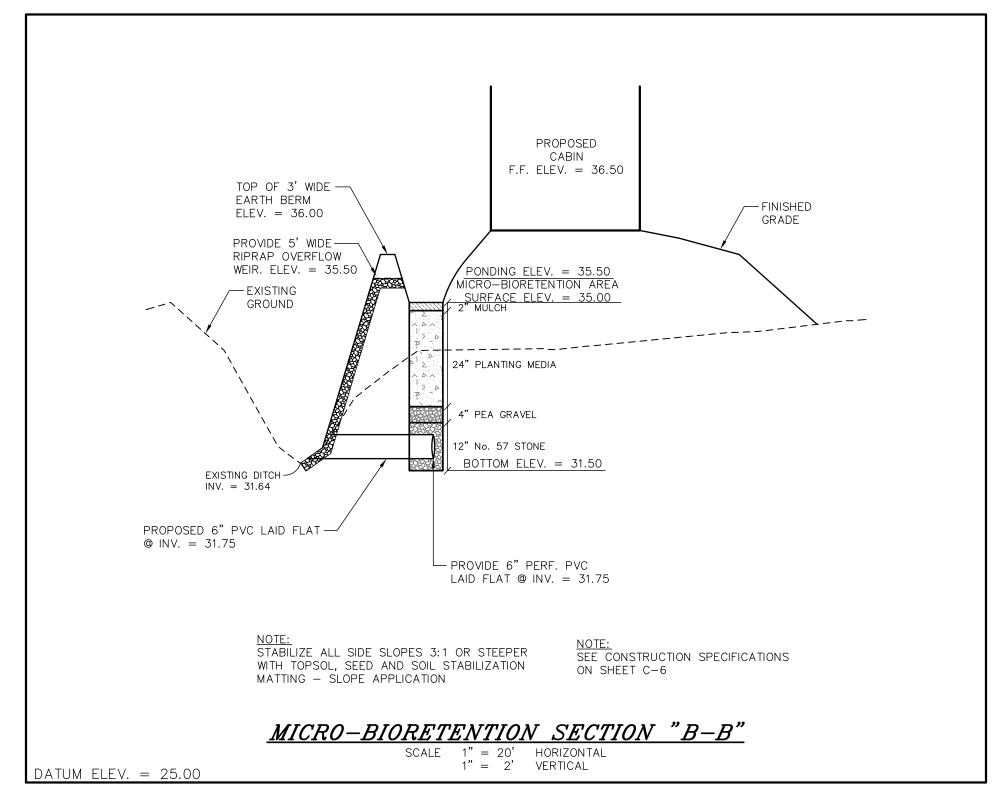
35-2023164 KJS

SHEET No. - C-6

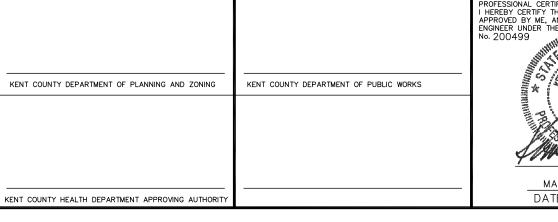
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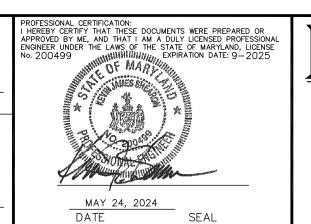
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REVIEWED FOR THE KENT SOIL AND WATER CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS KENT SOIL AND WATER CONSERVATION DISTRICT DATE KENT SOIL AND WATER CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR OTHERWISE ALTER THE EROSION CONTROL PROVISIONS OF THIS PLAN IN THE EVENT ADDITIONAL PROTECTION BECOMES NECESSARY.





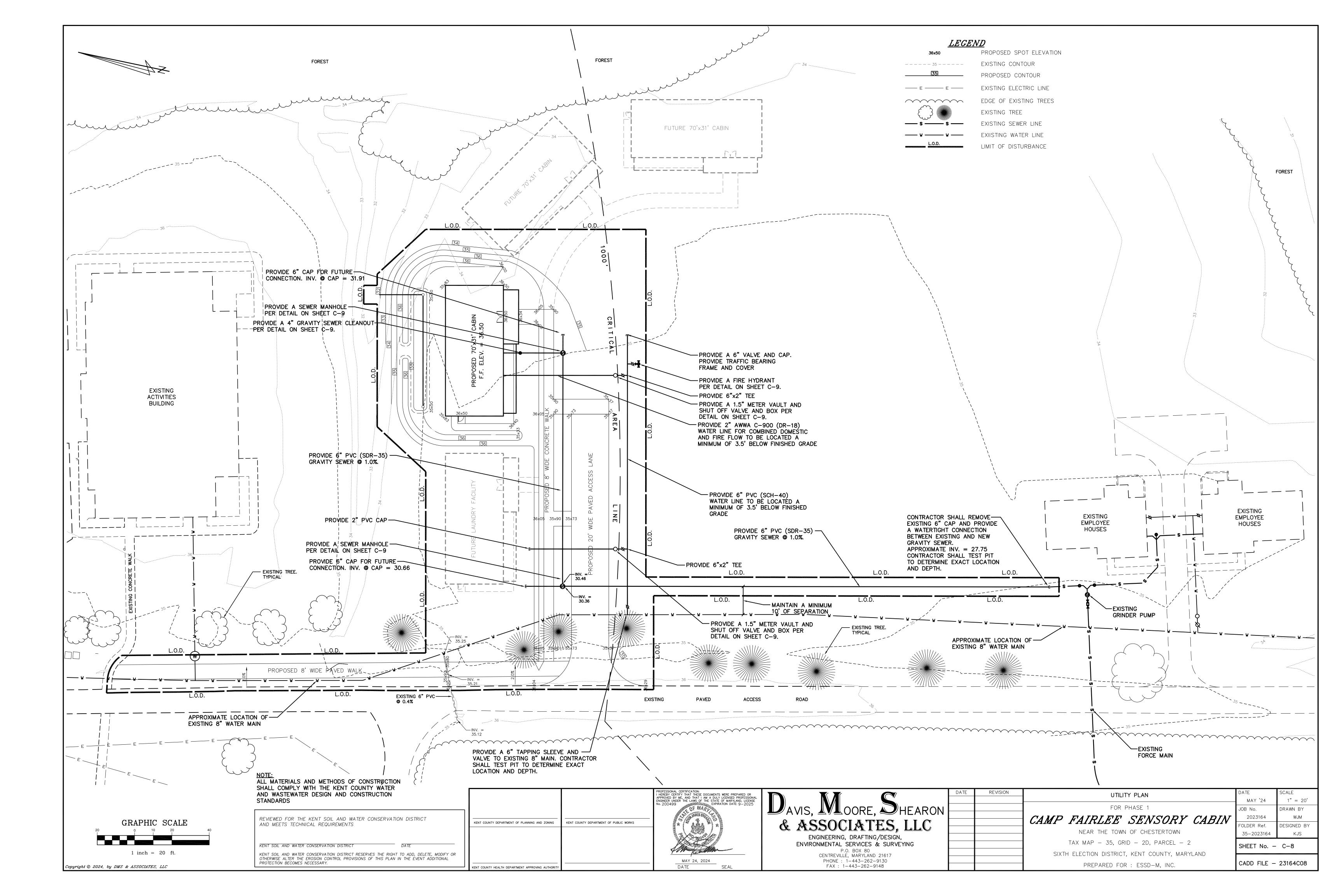
Davis, Moore, Shearon & ASSOCIATES, LLC ENGINEERING, DRAFTING/DESIGN, ENVIRONMENTAL SERVICES & SURVEYING P.O. BOX 80 CENTREVILLE, MARYLAND 21617 PHONE : 1-443-262-9130 FAX : 1-443-262-9148

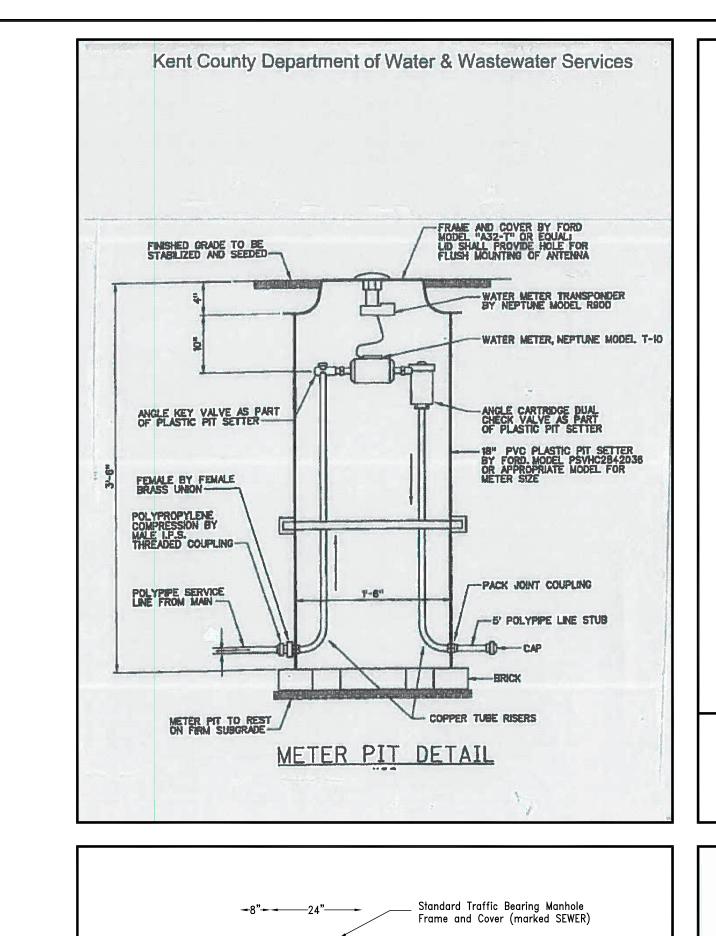
DATE	REVISION	STORMWATER MANAGEMENT SECTIONS
		FOR PHASE 1
		CAMP FAIRLEE SENSORY CABI
		NEAR THE TOWN OF CHESTERTOWN
		TAX MAP - 35, GRID - 2D, PARCEL - 2

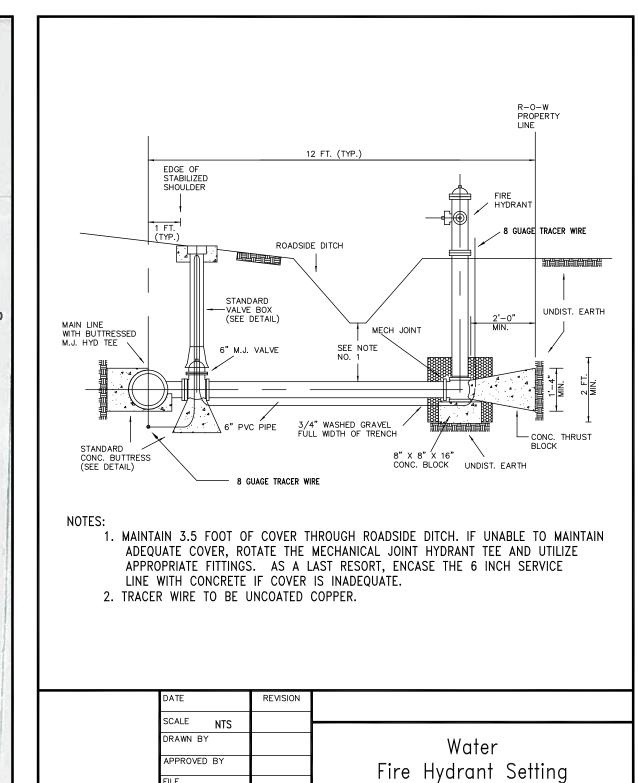
PREPARED FOR : ESSD-M, INC.

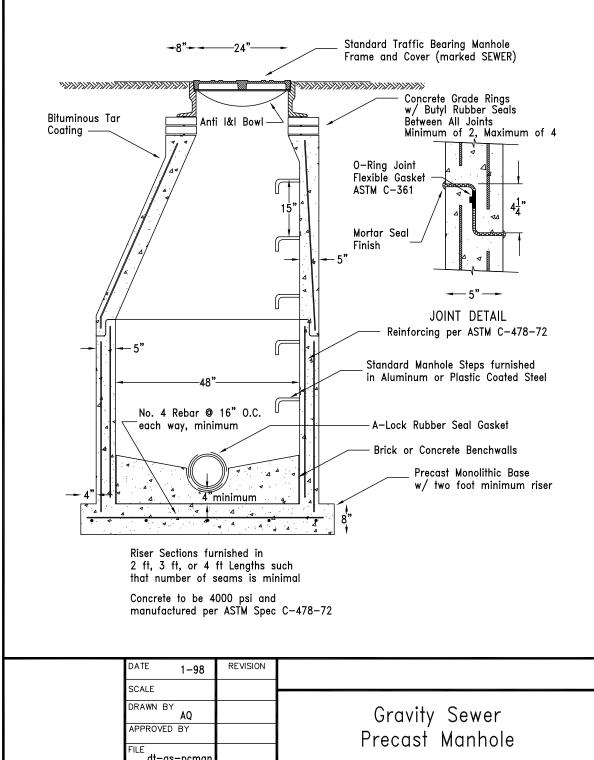
MAY '24 AS SHOWN JOB No. DRAWN BY 2023164 WJM OLDER Ref. DESIGNED BY KJS 35-2023164 SHEET No. - C-7 SIXTH ELECTION DISTRICT, KENT COUNTY, MARYLAND

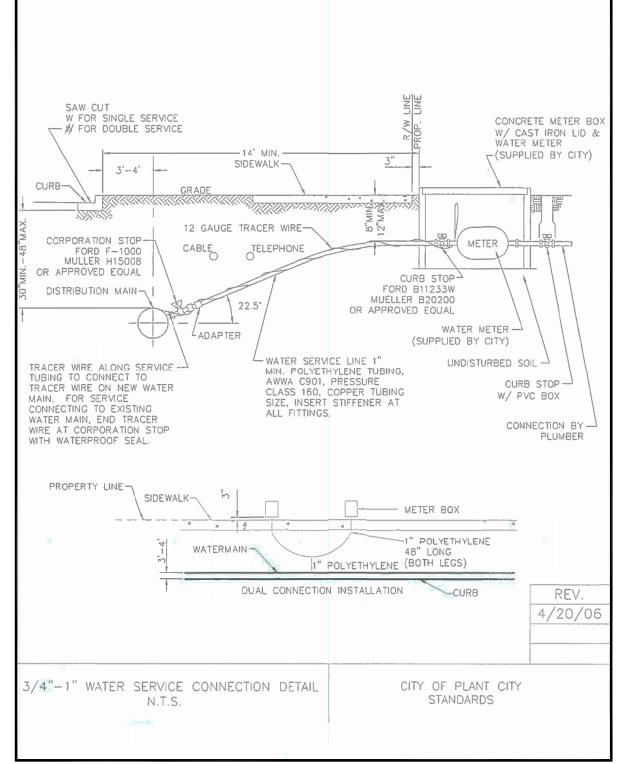
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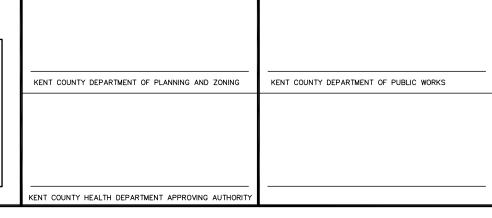








REVIEWED FOR THE KENT SOIL AND WATER CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS	
KENT SOIL AND WATER CONSERVATION DISTRICT DATE	
KENT SOIL AND WATER CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR OTHERWISE ALTER THE EROSION CONTROL PROVISIONS OF THIS PLAN IN THE EVENT ADDITIONAL PROTECTION BECOMES NECESSARY.	







ATE	REVISION	UTILITY DETAILS
		FOR PHASE 1
		CAMP FAIRLEE SENSORY CABIN
		CAMI PAINLEE DENDOM CADIN
		NEAR THE TOWN OF CHESTERTOWN
		TAY 144B - 75 - 0B/B - 0B - B4B05/
		TAX MAP — 35, GRID — 2D, PARCEL — 2

JOB No. 2023164 FOLDER Ref. 35-2023164 SHEET No. - C-9 SIXTH ELECTION DISTRICT, KENT COUNTY, MARYLAND PREPARED FOR : ESSD-M, INC.

CADD FILE - 22168C09

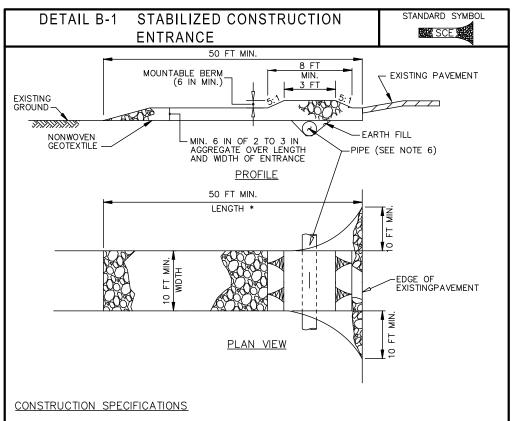
AS SHOWN

WJM

DESIGNED BY KJS

DRAWN BY

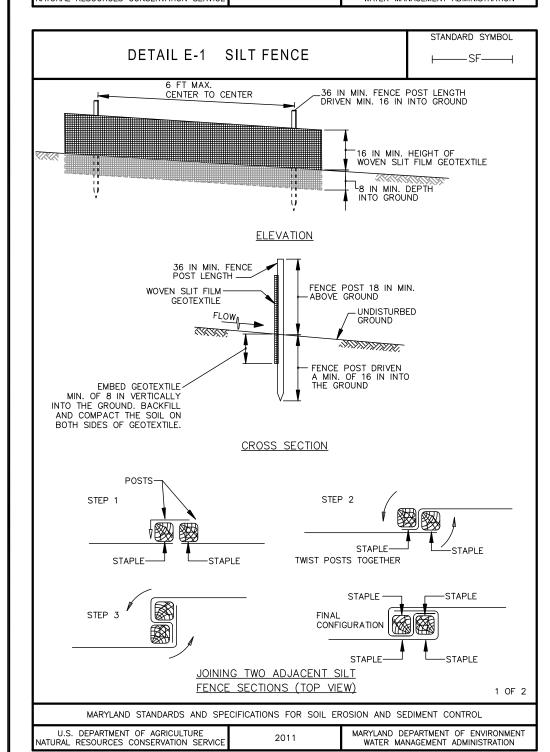
MAY '24

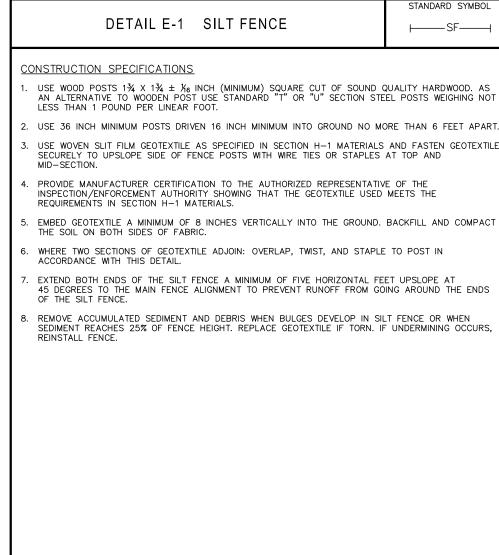


PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET

- FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS. . PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE D CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT
- PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOU' REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT, ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERN, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR ACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL





MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

ISOMETRIC VIEW

USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS

USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OF

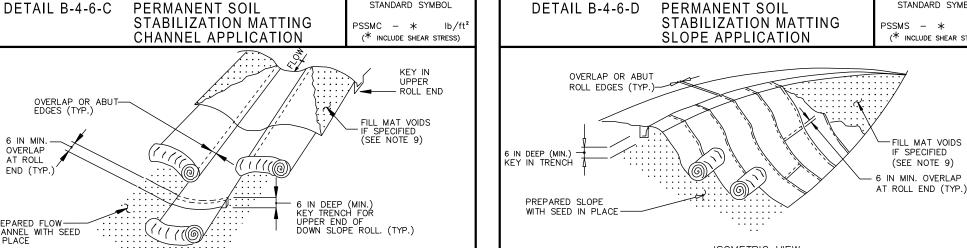
GENERALIS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. I PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2X2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.

SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 ½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH—SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM

PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

CHANNEL WITH SEED IN PLACE

CONSTRUCTION SPECIFICATIONS:



ISOMETRIC VIEW CONSTRUCTION SPECIFICATIONS

- USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS. USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
- SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL . SECORE MAINING USING SIELL STAPLES ON WOOD STAKES, STAPLES MUST BE U OR I SHAPED STELL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE POTTOM.
- PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL
- OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM). WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
- KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH. PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND
- IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT . ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION $B\!-\!4$ VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING. UNROLL MATTING DOWN SLOPE. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT. D. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL ⊢----SF------

MARYLAND DEPARTMENT OF ENVIRONMI WATER MANAGEMENT ADMINISTRATION

GENERAL NOTES

- 1. Notification of Kent County (410-778-7457) at least five (5) days prior to the start of work.
- 2. Prior to the start of work, the Contractor is to obtain County approval of any proposed plan changes and sequence of construction, specifically relating to installation, inspection, maintenance and removal of erosion and sediment
- control measures. 3. Sediment control measures are not to be removed until the areas served have established vegetative cover, or with the

permission of the Kent County Sediment Control Inspector.

- 4. When pumping sediment—laden water, the discharge must be directed to an approved sediment trapping measure prior to release from the site.
- 5. All temporary stockpiles are to be located within areas protected by sediment control measures, and are to be temporary stabilized.
- 6. All sediment control dikes, swales, basins and flow lines to basins will be temporarily seeded immediately upon
- installation to reduce the contribution to sediment loading. 7. Disposal of excess earth materials on State or Federal property requires MDE Approval, otherwise materials are to be disposed of at a location approved by the local authority.
- 8. Temporary soil erosion control and sediment control measures are to be provided as per the approved plan prior to grading operations. Location adjustments are to be made in the field as necessary. The minimum area practical shall be disturbed for the minimum possible time.
- 9. If grading is completed out of a seeding season, graded areas are to be temporarily stabilized by mulch and mulch anchoring. Mulch material shall be unweathered, unchopped small grain straw spread at the rate of 1« to 2 tons per acre. Mulch anchoring to be accomplished by an approved method, use of a mulch anchoring tool is recommended where possible.

accordance with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", of the Department.

maintenance of the approved plan, and all other measures necessary to control, filter, or prevent sediment from leaving the site.

site development, removal of sediment control structures may not be accomplished before the contributing drainage area to the stormwater management structure is dewatered and stabilized.

control of stormwater, extreme care must be taken to prevent all runoff from entering the structure during construction.

designed controls:

each working day.

- (a) Excavated trench material shall be placed on the high
- side of the trench. (b) Immediately following pipe installation the trench shall be backfilled, compacted and stabilized at the end of
- (c) Temporary silt fence or straw bale dikes shall be placed immediately downstream of any disturbed area intended to remain disturbed longer than one working day.

protected to prevent tracking of mud onto public ways.

Total Area of Site 246.64 Acres 0.85 Acres Area Disturbed Area to be Roofed or Paved 0.22 Acres Total Fill 508 cy* * - CUT AND FILL AMOUNTS ARE APPROXIMATE THE CONTRACTOR SHALL DO A SEPARATE TAKE-OFF

PHASE OF CONSTRUCTION

- 1. CONTACT THE KENT COUNTY SEDIMENT AND EROSION CONTROL INSPECTOR AT 410-778-7457 A MINIMUM OF 2 WEEKS PRIOR TO THE START OF CONSTRUCTION TO SCHEDULE A PRE- CONSTRUCTION MEETING PRIOR TO INITIATION OF ANY GRADING ACTIVITY.
- 2. INSTALL A STABILIZED CONSTRUCTION ENTRANCE AT THE LOCATION SHOWN.
- 3. INSTALL PERIMETER SILT FENCE AT LOCATIONS SHOWN.
- 4. STRIP THE TOPSOIL FROM THE LIMITS OF THE DRIVEWAY AND CABIN PAD AND STOCKPILE ONSITE. PLACE CR-6 ON ACCESS TO STABILIZE DURING BUILDING CONSTRUCTION.
- 5. PREPARE THE CABIN FOUNDATION AND BEGIN CONSTRUCTION.
- 6. REMOVE EXCESS TOPSOIL AND OTHER MATERIALS OFFSITE TO AN APPROVED LOCATION.
- 7. FINE GRADE SITE AND STABILIZE WITH TOPSOIL, SEED, AND STABILIZATION MATTING FOR ALL SLOPES 3:1 AND STEEPER. MAINTAIN PERIMETER
- 8. UPON APPROVAL FROM THE KENT COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES AND STABILIZE ALL DISTURBED AREAS PER PERMANENT STABILIZATION SPECIFICATIONS FOUND ON THIS SHEET.

EROSION & SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS

- 1.) Contractor shall install soil erosion and sediment control devices prior to any grading. Following initial disturbance or re-disturbance, permanent or temporary stabilization shall be completed within three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes greater than three (3) horizontal to one (1) vertical (3:1) and seven days (7) as to all other disturbed or graded areas on the project site.
- 2.) All temporary erosion and sediment control devices are to be provided as indicated on this plan, with location adjustments to be made in the field as necessary, and to be

maintained at the end of each working day until project completion. The minimum area

3.) Clearing and grubbing shall include all trees, brush, debris, root mat and organic

practical shall be disturbed for the minimal amount of time possible.

- 4.) Temporary seeding shall be accomplished between February 15th through April 30th, or August 15th through November 30th. During other times, temporary mulching shall be
- 5.) Temporary seeding shall conform to the following applications: 436 lbs. per acre of 0-20-20; 4,000 lbs. per acre of ground limestone, to be incorporated into the soil by disking or other suitable means. Annual rye grass shall be applied at a rate of 50 lbs. per acre using suitable equipment. Mulching shall be accomplished immediately after

Seed Mixture (For Hazard Zone 7a) (From Table B—1)						Lime	
No.	Species	Appl. Rate (Ibs./ac.)	Seeding Dates	Seeding Depths	Fertilizer Rate (10-20-20)	Rate	
	ANNUAL RYE GRASS	50 lbs.	2/15-4/30 8/15-11/30	1/2"			
	BARLEY OATS WHEAT CEREAL RYE	72 lbs. 120 lbs.	2/15-4/30, 8/15-11/30 2/15-4/30, 8/15-11/30 2/15-4/30, 8/15-11/30 2/15-4/30, 8/15-12/15	1" 1" 1" 1"	436 lb/ac 10 lb/ 1000 sf	2 tons/ac 90 lb/ 1000 sf	
	FOXTAIL MILLET PEARL MILLET	30 lbs. 20 lbs.	5/1-8/14 5/1-8/14	1/2"			

- 6.) Mulching shall be unchopped, unrotted, small grain straw applied at a rate of 2-2 1/2 tons per acre. Anchor mulch with a mulch anchoring tool on the contour. Wood cellulose fiber may be used for anchoring straw at 750 lbs. per acre mixed with water at a maximum of 50 lbs. of wood cellulose fiber per 100 gals of water, or with a synthetic liquid binder according to manufacture recommendations. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1,500 lbs. per acre. Mix wood cellulose fiber with water to attain a mixture with a maximum of 50 lbs. of wood cellulose fiber per 100 gals. of water.
- 7.) Permanent seeding shall be accomplished between March 1st through May 15th, or August 15th through October 15th. Permanent seeding at other than specified times will be allowed only upon written approval. Permanent seeding shall conform to the following applications: Permanent seeding for sites having disturbed over five (5) acres shall use fertilizer rates recommended by a soil testing agency and the recommendations provided in the Permanent Seeding Summary Table. Permanent seeding for conditions other than listed above shall be performed at the rates and dates as provided in the Permanent Seeding Summary Table below. Fertilizer and lime amendments shall be incorporated into the top 3" — 5" of the soil be disking or other suitable means. Mulching shall be accomplished as discussed in Item #6 of these specifications.

Seed Mixture (For Hazard Zone 7a) (From Table B-3)				Fertilizer Rate (10-20-20)				
No.	Species	Appl. Rate (lbs./ac.)	Seeding Dates	Seeding Depths	N	P205	K20	Lime Rate
7	CREEPING RED FESCUE	60 lbs	3/1-5/15	1/4"				
7	KENTUCKY 1 BLUEGRASS 1	15 lbs.	8/15-10/15	to 1/2"				
	TALL FESCUE 100		3/1-5/15	1/4"	45 lb/ac 1 lb/	90 lb/ac 2 lb/	90 lb/ac 2 lb/	2 tons/ac 90 lb/
8		100 lbs.	8/15-10/15	to 1/2"	1000 sf	1000 sf	1000 sf	1000 sf
9	TALL FESCUE	60 lbs	3/1-5/15	1/4"				
	KENTUCKY BLUEGRASS 40 lbs.	3/1-3/13						
	PERENNIAL RYEGRASS	20 lbs.	8/15-10/15	1/2"				

- 8.) Any spoil or borrow will be placed at a site approved by the Soil Conservation District.
- 9.) All areas remaining or intended to remain disturbed for longer than seven (7) days shall be stabilized in accordance with the USDA, Natural Resources Conservation Service Standards and Specifications for Soil Erosion and Sediment Control in developing areas for critical area stabilization.
- 10) It will be the responsibility of the Contractor or Subcontractor to notify the Engineer of any deviation from this plan. Any change made in this plan without written authorization from the Engineer will place responsibility of said change on the Contractor or the Subcontractor.

MAINTENANCE SCHEDULE

PREVENTATIVE MAINTENANCE SHALL BE ENSURED THROUGH INSPECTION OF ALL INFILTRATION SYSTEMS, RETENTION, OR DETENTION STRUCTURES BY THE KENT COUNTY INSPECTOR. THE INSPECTION SHALL OCCUR DURING THE FIRST YEAR OF OPERATION AND AT LEAST ONCE EVERY 2 YEARS THEREAFTER.

DATE

AN ASBUILT SURVEY OF THE STORMWATER MANAGEMENT FACILITY WILL BE PERFORMED AND IF THE AS-BUILT DOES NOT SUBSTANTIALLY REFLECT THE STORMWATER FACILITY DESIGN, THE CONTRACTOR SHALL MAKE ANY CHANGES OR ADDITIONS TO BRING THE FACILITY IN COMPLIANCE WITH THE DESIGN AS DIRECTED BY THE SOIL CONSERVATION TECHNICIAN OF KENT COUNTY.

ASBUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THE "ASBUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

SIGNATURE	P.E. No.

INSPECTION CHECKLIST

THE CONTRACTOR SHALL NOTIFY THE KENT COUNTY SEDIMENT AND EROSION CONTROL INSPECTOR AT (778-7457) AT THE FOLLOWING POINTS:

- 1. THE REQUIRED PRECONSTRUCTION MEETING.
- 2. FOLLOWING INSTALLATION OF SEDIMENT CONTROL MEASURES.
- 3. PRIOR TO REMOVAL OR MODIFICATION OF ANY SEDIMENT CONTROL STRUCTURE.
- 4. PRIOR TO REMOVAL OF ALL SEDIMENT AND EROSION CONTROL DEVICES.
- 5. PRIOR TO FINAL ACCEPTANCE.

REVIEWED FOR THE KENT SOIL AND WATER CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS KENT SOIL AND WATER CONSERVATION DISTRICT KENT SOIL AND WATER CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR OTHERWISE ALTER THE EROSION CONTROL PROVISIONS OF THIS PLAN IN THE EVENT ADDITIONAL PROTECTION BECOMES NECESSARY.

KENT COUNTY DEPARTMENT OF PLANNING AND ZONING KENT COUNTY DEPARTMENT OF PUBLIC WORKS KENT COUNTY HEALTH DEPARTMENT APPROVING AUTHORI



Davis, Moore, Dhearon & ASSOCIATES, LLC ENGINEERING, DRAFTING/DESIGN, ENVIRONMENTAL SERVICES & SURVEYING P.O. BOX 80

CENTREVILLE, MARYLAND 21617

PHONE: 1-443-262-9130

FAX: 1-443-262-9148

SIXTH ELECTION DISTRICT, KENT COUNTY, MARYLAND

SEDIMENT AND EROSION CONTROL DETAILS AND SPECIFICATIONS FOR PHASE 1 CAMP FAIRLEE SENSORY CABIN NEAR THE TOWN OF CHESTERTOWN

PREPARED FOR : ESSD-M, INC.

AS SHOWN MAY '2 RAWN BY JOB No. 2023164 DLDER Ref. DESIGNED BY KJS 35-2023164 TAX MAP - 35, GRID - 2D, PARCEL - 2

CADD FILE - 22168C10

SHEET No. - C-10

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GENERAL CONSTRUCTION NOTES

1. DESIGN LIVE LOADS: FLOOR: DESIGN DEAD LOADS:

FLOORS:

115 MPH, ULTIMATE DESIGN WIND SPEED 3 SECOND GUST. EXPOSURE CATEGORY C

SEISMIC: DESIGN CATEGORY A.

2. FOOTINGS: PLACE FOOTINGS ON FIRM, DRY NON FROZEN, NON-ORGANIC SUB-GRADE. VERIFY MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF. REMOVE SOFT SOILS ENCOUNTERED DURING EXCAVATION FOR FOOTINGS. BACKFILL THESE EXCAVATIONS AND AREAS REQUIRING STRUCTURAL FILL WITH CLEAN, MOIST, GRANULAR SELECT MATERIAL TYPE GW, GP, GM, SM, SW, OR SP PER USCS. PLACE IN 8" MAXIMUM LIFTS. COMPACT TO 95% MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR TEST (ASTM D1557). THE EXISTING SUB-GRADE MATERIAL IS BELIEVED TO BE UNDISTURBED, CLEAN, AND GRANULAR (SAND), HOWEVER CERTAIN AREAS OF THE SITE MAY BE OTHERWISE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY, BY MEANS AND METHODS TO BE DETERMINED BY HIM, THAT THE BEARING CAPACITY OF THE SUB-GRADE IS SUFFICIENT AND MEETS THESE SPECIFICATIONS. AT A MINIMUM, THE EXPOSED SUB-GRADE BELOW ALL FOOTINGS SHALL BE DENSIFIED IN PLACE BY A HAND-HELD VIBRATORY COMPACTOR OR SIMILAR DEVICE. ANY SOFT AREAS IDENTIFIED

3. CONCRETE: COMPLY WITH AMERICAN CONCRETE INSTITUTE ACI 301 "SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS" (LATEST EDITION). COMPRESSIVE STRENGTH @ 28 DAYS, 3000 PSI. AIR ENTRAINMENT: ASTM C260, AIR ENTRAIN ALL EXTERIOR CONCRETE. REINFORCING STEEL: ASTM A615, 60 KSI DEFORMED BARS.

4. CONCRETE UNIT MASONRY: COMPLY WITH AMERICAN CONCRETE INSTITUTE ACI 531.1 "SPECIFICATION FOR CONCRETE MASONRY CONSTRUCTION (LATEST EDITION). HOLLOW LOAD BEARING (HLB): ASTM C90 GRADE N, TYPE I MOISTURE CONTROLLED UNITS. COMPRESSIVE STRENGTH: FM = 1500 PSI MINIMUM. MORTAR: ASTM C270, TYPE S. GROUT: ASTM C476 OR 3000 PSI CONCRETE PER NOTE 3. HORIZONTAL JOINT REINFORCEMENT: ASTM A82, GALVANIZED. REINFORCED STEEL: ASTM A615, 60 KSI DEFORMED BARS.

5. CRUSHED STONE: ASHTON #57 AGGREGATE, WASHED, UNIFORMLY GRADED AND FREE DRAINING. MECHANICALLY COMPACT OR ROLL

6. STRUCTURAL STEEL: COMPLY WITH AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS (LATEST EDITION). STEEL SHAPES AND PLATES: ASTM A36. FASTENERS: ASTM A325. ANCHOR BOLTS: ASTM A307. PRIMER PAINT: FABRICATOR'S STANDARD RUST INHIBITING PRIMER. WELDS: COMPLY WITH AWS D1.1 "STRUCTURAL WELDING CODE." GROUT FOR BASE PLATES: NON-SHRINK, HIGH EARLY STRENGTH.

7. FASTENERS: IN ACCORDANCE WITH INTERNATIONAL RESIDENTIAL CODE FOR ONE AND TWO FAMILY DWELLINGS (2000), TABLE NO. R-402.3A, "FASTENING SCHEDULE FOR STRUCTURAL MEMBERS." PROVIDE BLOCKING, BRIDGING AND BRACING PER SAME CODE. AT A MINIMUM, PROVIDE BRIDGING AT EACH END OF JOIST, AND SOLID BRIDGING OR VERTICAL 2X6 BLOCKING BELOW ALL INTERIOR BEARING

8. FRAMING SPECIALTIES: ARE TO BE AS MANUFACTURED BY SIMPSON OR APPROVED EQUAL, AND ARE TO BE USED ONLY IN STRICT

9. FRAMING CLIPS AND ANCHORS: ASTM A526, MINIMUM 16 GAUGE. PROVIDE TIE DOWN ANCHORS FOR ALL JOISTS AND RAFTERS. FASTENERS AND ANCHORS FOR EXTERIOR LOCATIONS. IN GROUND CONTACT, HIGH HUMIDITY LOCATIONS, AND WHERE CONNECTED TO

10. JOIST HANGERS: ASTM A526 MINIMUM, 16 GAUGE, SIZED AND PROFILE TO SUIT APPLICATION (UNLESS OTHERWISE NOTED), GALVANIZED FINISH. PROVIDE HANGERS FOR ALL FLUSH FRAMED JOISTS. HANGERS FOR EXTERIOR LOCATIONS, IN GROUND CONTACT, HIGH HUMIDITY LOCATIONS, AND WHERE CONNECTED TO TREATED WOOD SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.

11. PRESSURE TREATED LUMBER: WOOD EXPOSED TO THE ENVIRONMENT, WOOD DESIGNATED "PRESSURE TREATED", AND WOOD BOLTED IN CONTACT WITH MASONRY, SHALL BE #2 SOUTHERN PINE OR BETTER. PRESSURE IMPREGNATED WITH ALKALINE COPPER QUAT (ACQ) IN ACCORDANCE WITH AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) STANDARD C1. P.T. SILL PLATES TO BE BOLTED TO FOUNDATION USING GALVANIZED ANCHOR BOLTS. ALL FASTENERS (NAILS, BOLTS, STRAPS, ETC) SHALL COMPLY WITH ASTM A153. HANGERS TO BE SIMPSON STRONG-TIE ZMAX OR EQUIV. FLASHING AND PRESSURE TREATED LUMBER TO BE COPPER OVER ICE AND WATER SHIELD

12. POINT LOADS: UNLESS OTHERWISE NOTED, COLUMNS IN EXTERIOR WALLS TO BE (3) 2X6'S. NAIL EACH FACE OF OUTSIDE (2) STUDS WITH (2) 10D NAILS AT 6" O.C. STAGGERED. PROVIDE SOLID BLOCKING BELOW ALL COLUMNS, TO TRANSFER LOAD DIRECTLY TO SOLID FRAMING,

13. OPENINGS: UNLESS OTHERWISE NOTED, PROVIDE DOUBLE JOIST AROUND ALL FLOOR AND ROOF OPENINGS.

14. MULTI-PLY DIMENSIONAL LUMBER BEAMS: SHALL BE NAILED WITH 3 ROWS OF 10D NAILS AT 8" O.C. STAGGERED. BEAMS LOADED ON ONE FACE ONLY SHALL BE BOLTED WITH 5/8" DIA. BOLTS AT 16"O.C. STAGGERED (U.N.O.).

15. EXTERIOR WALLS: UNLESS OTHERWISE NOTED, TO BE 2X6 STUDS AT 16" O.C., WITH 1/2" A.P.A. RATED GROUP 1 SHEATHING. NAIL ALL PANEL EDGES WITH 8D NAILS AT 24" O.C. AND INTERMEDIATE STUDS WITH 8D NAILS AT 6" O.C.

16. INTERIOR SHEAR WALLS: SHOWN ON THE PLAN ARE TO BE SHEATHED ON BOTH FACES WITH 1/2" A.P.A. RATED GROUP 1 SHEATHING. BLOCK ALL UNSUPPORTED EDGES. NAIL ALL PANEL EDGES WITH 10D NAILS AT 3" O.C. AND INTERMEDIATE STUDS WITH 10D NAILS AT 6" O.C. INTERIOR SHEAR WALLS SHALL EXTEND TO THE UNDERSIDE OF THE FLOOR SHEATHING ABOVE. NAIL THROUGH SHEATHING INTO WALL DOUBLE TOP PLATE WITH (2) 10D NAILS @ 4"O.C. AS AN ALTERNATIVE, LOCATE JOIST(S) DIRECTLY ABOVE SHEAR WALL AND EXTEND SHEATHING UP SIDE OF JOIST(S). NAIL SHEATHING TO JOISTS(S) AS INDICATED ABOVE.

17. ALL WORK SHALL COMPLY WITH APPLICABLE LOCAL AND STATE CODES, ORDINANCES, REGULATIONS, AMENDMENTS, AND OTHER AUTHORITIES HAVING JURISDICTION. WORK SHALL COMPLY WITH INTERPRETATIONS OF LOCAL BUILDING OFFICIALS. IF LOCAL INTERPRETATIONS OF LOCAL BUILDING OFFICIALS ARE AT VARIANCE WITH THESE DOCUMENTS, INFORM THE ARCHITECT PRIOR TO

18. ALL EXISTING CONSTRUCTION AND FEATURES THAT ARE TO REMAIN AS PART OF THE PROJECT SHALL BE PROTECTED FROM DAMAGE THROUGHOUT THE PERIOD OF CONSTRUCTION WORK. ANY DAMAGED CONSTRUCTION OR FEATURES SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE OWNER WITH MATERIALS EQUIVALENT OR SUPERIOR TO THE ORIGINAL ITEM(S). 19. CONTROL DUST AND DEBRIS AND PREVENT FROM CONTAMINATING ADJACENT AREAS.

20. ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR AT THE SITE PRIOR TO COMMENCEMENT OF WORK. VERIFY LAYOUT OF NEW WORK PRIOR TO COMMENCEMENT OF WORK; COORDINATE LAYOUT WITH ARCHITECT

21. HOLD INDICATED DIMENSIONS. DO NOT SCALE DRAWINGS. RESOLVE ANY DISCREPANCIES BEFORE BEGINNING WORK.

22. WHERE DRAWINGS ARE IN CONFLICT WITH OTHER DRAWINGS, SPECIFICATIONS, OR DETAILS, CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION PRIOR TO INSTALLATION.

23. GENERAL NOTED AND TYPICAL DETAILS APPLY THROUGHOUT THE JOB UNLESS OTHERWISE NOTED. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN OR DETAILED. THE WORK SHALL COMPLY WITH THE DETAILS INDICATED FOR SIMILAR CONDITIONS.

24. UNLESS OTHERWISE NOTED, ALL FRAMING DIMENSIONS FOR NEW CONSTRUCTION ARE TO FACE OR CENTERLINE OF FRAMING MEMBERS AS INDICATED ON DRAWINGS.

25. KEEP CONSTRUCTION SITE SECURE FROM UNAUTHORIZED ENTRY AT ALL TIMES AND PROVIDE REQUIRED SAFETY PROTECTION FOR ALL BUILDING OCCUPANTS.

26. KEEP WORK AREA BROOM CLEAN AT END OF EACH DAY. REMOVE DEBRIS DAILY FROM JOB SITE. UPON COMPLETION PROVIDE FINAL CLEANING TO MEET CLIENT'S APPROVAL.

27. PROVIDE TEMPORARY LIGHTING AND SWITCHING THROUGHOUT PRIOR TO COMMENCEMENT OF CONSTRUCTION.

28. PROJECT WORK SHALL NOT INTERRUPT THE OWNER'S GENERAL BUILDING OPERATION OF PROJECT SITE. OWNER SHALL BE GIVEN WRITTEN NOTICE OF ANY FORESEEABLE INTERRUPTION 72 HOURS PRIOR TO INTERRUPTION.

29. COORDINATE PROJECT SITE ACCESS, DUMPSTER LOCATION, EQUIPMENT STORAGE, STAGING AREAS, MATERIAL STORAGE, MATERIAL DELIVERY AND DEBRIS REMOVAL WITH OWNER. COORDINATION SHALL INCLUDE APPROPRIATE SCHEDULING TO MEET OWNER'S DAILY

30. IMMEDIATELY ALERT CLIENT AND ARCHITECT OF ANY UNSAFE OR QUESTIONABLE CONDITIONS DISCOVERED OR CAUSED DURING THE

31. CONTACT ARCHITECT OF FIELD CONDITIONS WHICH DO NOT AGREE WITH INTENDED WORK DESCRIBED IN CONSTRUCTION DOCUMENTS OR CONFLICTING SITUATIONS WHICH EFFECT INTENDED SCOPE OF WORK.





0.01

Sheet Index						
ID	Drawing #	Drawing Name	Change IDs in Current Revision	Comments	Change ID	Name
CS						
	0.01	Cover Sheet				
A						
	1.00	1st Floor & Foundation Plans - Proposed				
	1.01	Attic & Roof Plans - Proposed				
	2.01	Exterior Elevations 1 - Proposed				
	3.01	Building Sections 1 - Proposed				
	4.01	Detailed Building Section-1				
	9.01	3D Views 1 - Proposed				
	9.02	3D Views 2 - Proposed				
	9.03	Birdseye Views - Proposed				

Camp Fairlee 2024 Cabin Prototype

Camp Fairlee 22242 Bay Shore Road Chestertown , MD 21620 Kent County

Easterseals Delaware

Applicable Codes:

2021 International Residential Code (IRC) and local amendments. 2021 International Existing Building Code (IEBC) and local amendments.

Mechanical Requirements:
2021 International Plumbing Code 2021 International Mechanical Code

Electrical Requirements:
NFPA 70 National Electrical Code Handbook 2017

Energy Requirements: 2021 International Energy Conservation Code

Accessibility Code:
Not Applicable

Fire Code: 2018 NFPA 1 Uniform Fire Code 2018 NFPA 101 Life Safety Code

Building Data:

Number of Stories: Building Height: Area of Conditioned Building: Per drawings

Building is Sprinklered: Building has Fire Alarm: TBD Mater Service: Sewage Disposal: Public Sewer

zoning Information

Property Address:

Date

Lot and Block Info: Zoning Designation: Min. Front Yard Setback: Min. Side Yard Setback:

Min. Rear Yard Setback:

Camp Fairlee 22242 Bay Shore Road Chestertown, MD 21620 #Site Parcel Number Resource Conservation District

302 Park Row., Flr 1st Chestertown, MD 21620 410.449.0466 johnhutcharch@gmail.con www.johnhutcharch.com

Hutchison

Note: Drawings are not authorized for Permit or Construction unless affixed with a Professional Seal and Signature of the Architect below. Drawings authorized for Construction must also be stamped "Issued for Construction" above the Sheet Title below. Drawings stamped "Preliminary" or "For Permit Only" are not authorized for Construction.

rawings and Specifications as instruments of ervice are and shall remain the property of the architect. They are not to be used on extensions o the project, or other projects, except by agreement n writing and appropriate compensation to the

The General Contractor is responsible for confirming and correlating dimensions at the job site. The Architect will not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs connection with the project. © John Hutchison Architecture

Project Number: JHA 23-041

Camp Fairlee 2024 Cabin Prototype

Camp Fairlee 22242 Bay Shore Road Chestertown, MD 21620 Kent County

Easterseals Delaware

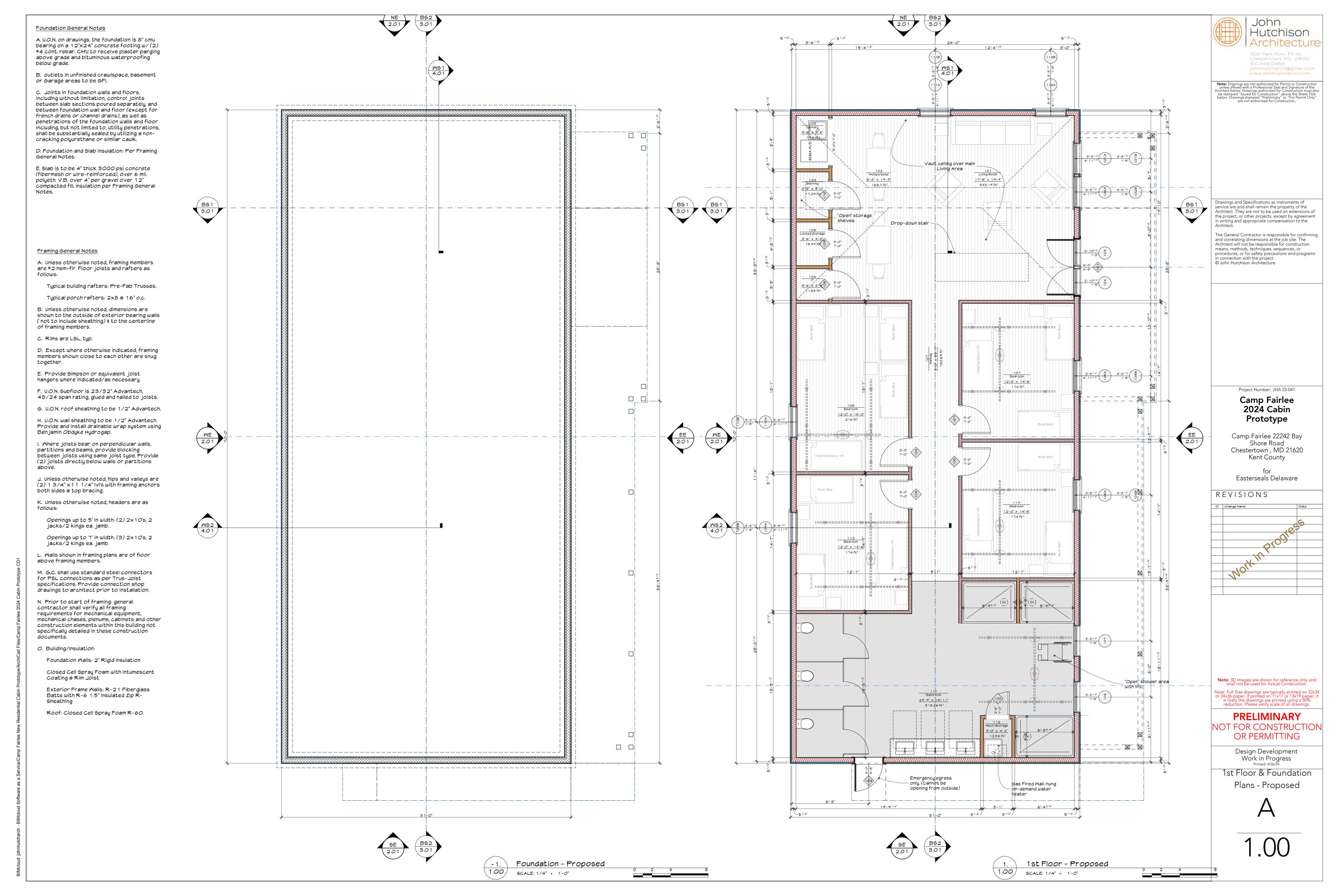
REVISIONS

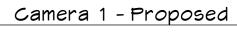
Note: 3D Images are shown for reference only and shall not be used for Actual Construction. Note: Full Size drawings are typically printed on 22x34 or 24x36 paper. If printed on 11x17 or 13x19 paper, it is likely the drawings are printed using a 50% reduction. Please verify scale of all drawings.

PRELIMINARY NOT FOR CONSTRUCTION OR PERMITTING

> Design Development Work in Progress

Cover Sheet







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Project Number: JHA 23-041

Camp Fairlee 2024 Cabin Prototype

Camp Fairlee 22242 Bay Shore Road Chestertown , MD 21620 Kent County

for Easterseals Delaware

REVISIONS

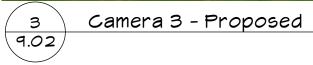
Note: 3D Images are shown for reference only and shall not be used for Actual Construction.

PRELIMINARY NOT FOR CONSTRUCTION OR PERMITTING

Design Development Work in Progress Printed: 4/26/24

3D Views 1 - Proposed









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© John Hutchison Architecture

Project Number: JHA 23-041

Camp Fairlee 2024 Cabin Prototype

Camp Fairlee 22242 Bay Shore Road Chestertown , MD 21620 Kent County

for Easterseals Delaware

REVISIONS

NOTA IN S

Note: 3D Images are shown for reference only and shall not be used for Actual Construction.

Note: Full Size drawings are typically printed on 22 or 24x36 paper. If printed on 11x17 or 13x19 paper is likely the drawings are printed using a 50% reduction. Please verify scale of all drawings.

PRELIMINARY NOT FOR CONSTRUCTION OR PERMITTING

Design Development Work in Progress Printed: 4/26/24

3D Views 2 - Proposed

Δ

9.02



Department of Planning, Housing, and Zoning

To: Kent County Planning Commission From: Mark Carper, Associate Planner

Meeting: July 11, 2024

Subject: Camp Fairlee/ESSD-M, Inc.

Site Plan Review – Concept (Pool and Bathhouse Replacement)

Executive Summary

REQUEST BY THE APPLICANT

The applicant is requesting a concept site plan review for the replacement of an inground swimming pool and a bathhouse within the Critical Area.

PUBLIC PROCESS

Per Article VI, Section 5.2 of the Kent County *Land Use Ordinance*, the Planning Commission shall review and approve major site plans.

SUMMARY OF THE STAFF REPORT

The property is located at 22242 Bay Shore Road and is zoned Resource Conservation District (RCD) and Agricultural Zoning District (AZD). The property contains cottages and buildings associated with use as a camp. The application will be sent to the Critical Area Commission for review. The property has a Maryland Historical Trust Easement. The applicant will need to send a copy of the proposed activity to MHT for review.

STAFF RECOMMENDATION

In order to receive preliminary site plan approval, the applicant must address and/or submit the following outstanding items:

- Preliminary plan for connection to public sewer and water.
- Preliminary sediment and erosion control and stormwater management plans.

PRELIMINARY STAFF REPORT

TO: Kent County Planning Commission SUBJECT: #24-32 – Camp Fairlee/ESSD-M, Inc.

Concept Site Plan Review – Pool and Bathhouse Replacement

DATE: June 26, 2024

DESCRIPTION OF PROPOSAL

Camp Fairlee/ESSD-M, Inc. is requesting concept site plan review for the replacement of an inground swimming pool and a bathhouse within the Critical Area. The property is located at 22242 Bay Shore Road and is zoned Resource Conservation District (RCD) and Agricultural Zoning District (AZD). The property contains cottages and buildings associated with use as a camp. The proposed improvements are in the front yard of a waterfront property.

The pool size will increase from 3,010 square feet to 4,992 square feet and will be made more accessible with an entrance/exit ramp, handrails, depth markers, and a water depth ranging from 3.5 to 5 feet. The bathhouse will increase from 1,525 square feet to 1,710 square feet. The existing pavilion and pool equipment shed are to be removed, and an existing 6-foot-wide path to the pool area will be enlarged to a 10-foot-wide service/emergency route.

The project will cause an increase of 3,308 square feet of lot coverage in the Critical Area. The buffer has been determined to be fully established, and a buffer enhancement plan for the increase in lot coverage is not required. The application will be sent to the Critical Area Commission for review. The property has a Maryland Historical Trust Easement. The applicant will need to send a copy of the proposed activity to MHT for review and comment.

RELEVANT ISSUES

I. Permitted Uses and Structures

A. Applicable Laws: Article V, Section 2.2 of the Kent County Land Use Ordinance establishes that camp, day or boarding, private or commercial, is a permitted use in the RCD.

Article V, Section 2.3 of the *Kent County Land Use Ordinance* establishes that an accessory structure in the front yard of a waterfront property may be permitted as a special exception.

Article V, Section 2.4 of the *Kent County Land Use Ordinance* establishes that a swimming pool is a permitted accessory structure in the Resource Conservation District (RCD).

B. Staff and TAC Comments: The property is utilized as a camp for Easter Seals. The existing swimming pool and bathhouse predate current regulations, and the granting of a special exception is not required.

II. Site Plan Review

A. Comprehensive Plan: "Implement thorough design review for new development and major renovations." (Page 33) "Enhance existing and provide new, recreational programs to meet the recreational needs of all County residents." (Page 112) "Provide for the varied recreational needs and

interests of citizens and visitors in Kent County by developing and enhancing facilities throughout the County." (Page 113)

- B. Applicable Law: Article VI, Section 5 of the Kent County Land Use Ordinance establishes site plan review procedures. For concept site plan review, the Planning Commission will comment and provide guidance as to the feasibility, design, and environmental characteristics of the proposal based on the standards set forth in this Ordinance, the Village Master Plans, and Comprehensive Plan. The Planning Commission shall prepare findings of fact concerning reasonable fulfillment of the objectives listed below:
 - a. Conformance with the Comprehensive Plan and, where applicable, the Village Master Plan
 - b. Conformance with the provisions of all applicable rules and regulations of county, state, and federal agencies.
 - c. Convenience and safety of both vehicular and pedestrian movement within the site and in relationship to adjoining ways and properties.
 - d. Provisions for the off-street loading and unloading of vehicles incidental to the normal operation of the establishment, adequate lighting, and internal traffic control.
 - e. Reasonable demands placed on public services and infrastructure.
 - f. Adequacy of methods for sewage and refuse disposal, and the protection from pollution of both surface waters and groundwater. This includes minimizing soil erosion both during and after construction.
 - g. Protection of abutting properties and County amenities from any undue disturbance caused by excessive or unreasonable noise, smoke, vapors, fumes, dust, odors, glare, stormwater runoff, etc.
 - h. Minimizing the area over which existing vegetation is to be removed. Where tree removal is required, special attention shall be given to planting of replacement trees.
 - i. The applicant's efforts to integrate the proposed development into the existing landscape through design features such as vegetative buffers, roadside plantings, and the retention of open space and agricultural land.
 - j. The applicant's efforts to design the development to complement and enhance the rural and historic nature of the County including incorporating into the project forms and materials that reflect the traditional construction patterns of neighboring communities.
 - k. The building setbacks, area, and location of parking, architectural compatibility, signage, and landscaping of the development, and how these features harmonize with the surrounding townscape and natural landscape.

C. Staff and TAC Comments:

- The proposal is consistent with the goals of the Comprehensive Plan.
- The property is served by public water and sewer. The applicant will need to work with the Department of Public Works to connect the proposed replacement pool and bathhouse to the water and sewer system.
- Per the Kent County Health Department, the Maryland Department of Health (MDH) must receive an application for construction of the pool.
- The property has a Maryland Historical Trust Easement. The applicant will need to send a copy of the proposed activity to MHT for review.
- The proposed exterior post lighting for the pool appears to be dark sky compatible.
- There are no proposed changes to site access.

- The proposed project will create an increase of 3,308 square feet of lot coverage in the Critical Area. The buffer has been determined to be fully established, and a buffer enhancement plan is not required. No trees will be removed.
- The application will be sent to the Critical Area Commission for review.
- A Forest Conservation Plan is not required for improvements within the Critical Area.
- The proposed pool and bathhouse will be reviewed as a commercial building for building code regulations.
- Demands on public services and infrastructure appear to be reasonable.

STAFF RECOMMENDATION

In order to receive preliminary site plan approval, the applicant must address and/or submit the following outstanding items:

- Preliminary plan for connection to public sewer and water.
- Preliminary sediment and erosion control and stormwater management plans.

Kent County Department of Planning, Housing and Zoning

Kent County Government Center 400 High Street • Chestertown, MD 21620 410-778-7423 (phone) • 410-810-2932 (fax)

SITE PLAN APPLICATION

File Number:		Amount Pa	id:		Date:	05-29-24	
Project Name:	Camp Fairlee Manor						
	fap: 0035 Parcel: 00		ac	Deed Ref:	00163/00514	Zoning:	RCD
LOCATION: 222	242 Bay Shore Rd, Chest	ertown, MD 216	320				
PROPOSED USE	No use changes propo	osed					
OWNER OF LAN	ND:						
Name: ESSD-M, Inc) .			Telephone:_	302-221-2016		
Address: 61 Corpor	ate Circle, New Castle, D	E 19720		Email: ga u	ıcott@esdel.org		
APPLICANT:							
Name: South Fork	Studio Landscape Archit	ecture		Telephone:_	410-778-1098		
Address: 10810 Clif	f Rd, Chestertown, MD 2	1620		Email: miles@southforkstudio.com			
AGENT/ATTOR	NEY (if any):						
Name:				Telephone:_			
Address:				Email:			
REGISTERED EI	NGINEER OR SURVEY	OR:					
Name: Davis, Moor	e, Shearon, and Associa	tes, LLC		Telephone:_	443-262-9130		
Address: 207 E Wat	er St, Centreville, MD 216	617		Email: kjs@dmsandassociates.com			
person will be con	email of the one person tacted by staff and will b ation to any other interes	e the person re	sponsib	le for forward	ling the comme	•	
Water Supply:	■ Public System □ On	lot system					
Sewerage:	■ Public System □ On	•					
TELEPHONE SER	VICED BY:						
	CED BY:						
	Planning Office is not re not be held responsible fo		ke out tl	his Application	on. If the Plan	nning Depa	rtment
					05-29)-24	
Signature of Appli	icant				Date		
☐ Concept Plan	Approving Authority:				Date		
☐ Preliminary	Approving Authority:						
☐ Final	Approving Authority:				Date		

PROJECT NARRATIVE

Camp Fairlee Swimming Pool & Bath House Easterseals Camp Fairlee 22242 Bay Shore Road, Chestertown, Maryland

In accordance with Article VI, Section 5.4.B of the Kent County Zoning Ordinance, we offer the following:

The site is located at the north side of Bay Shore Road and west of Fairlee Landing Road near the village of Fairlee. The site address is 22242 Bay Shore Road, Chestertown, Maryland 21620. The overall property is 246.64 acres according to Maryland's State Department of Taxation (SDAT) website. It is owned by ESSD-M, Inc. and operated as Easterseals Camp Fairlee. Their corporate address is 61 Corporate Circle, New Castle, Delaware 19720.

The site has frontage on Fairlee Creek and contains two County Zoning Districts. The area outside of the Critical Area is zoned Agricultural Zoning District (AZD) and the area within the Critical Area is zoned Resource Conservation District (RCD). The site currently operates as a "camp" which is a permitted use in both of the zoning districts. The camp currently has a swimming pool and bath house, both of which are aging and not fully accessible to the patrons of the camp. The proposed project will replace the swimming pool and bath house, improving function and accessibility, while continuing the same use for patrons of the camp.

The existing site has a 35' x 86' swimming pool (minimum depth of 4 feet, maximum depth of 10 feet) surrounded by a concrete pool deck and 6' tall chain link fence. The existing site also has an 18.5' x 11' shed for pool equipment and a 30' x 30' covered pavilion, both of which are to be removed, and a 25' x 61' bath house, to be replaced.

The proposed swimming pool, bath house, and fence are located in the same area of disturbance as the existing pool, shed, bath house, and fence. The proposed swimming pool is 104' x 48' with 1:12 entrance/exit ramp, appropriate handrails, depth markers, and signage. The proposed pool has a minimum depth of 3.5' and a maximum depth of 5', making it more accessible for the majority of camp patrons. The proposed fence is 6' tall with 6' tall gates secured with magnetic and locking

safety latches and self-closing hinges, and completely encloses the pool area. Like the existing, pool, the proposed pool is surrounded by a concrete pool deck. The pool equipment is to be housed in a 12' x 21' extension of the proposed bath house. The proposed bath house is 28'-6" x 60', architecturally and functionally similar to the existing bath house with sex-segregated bathrooms and changing areas with separate entrances/exits to the pool area, and a separate janitorial and storage space. A 52' x 12' covered porch is attached to the proposed bath house to provide ample shade and maneuverability.

In addition to the pool and bath house, an existing 6' wide path to the pool area will be converted to a 10' wide path and service/emergency route to the pool.

Increases in lot coverage will be mitigated with new native plantings. However, the 100' buffer is currently fully established with vegetation, so mitigation planting will be located outside the Buffer.

The proposed swimming pool and bath house are located within the Critical Area portion of the site. The property is also under a Maryland Historical Trust easement. As the camp is served by public sewer and water, the pool and bath house will also be connected to these systems.

The property is intended to remain under the ownership and maintenance of ESSD-M, Inc.

CAMP FAIRLEE MANOR 22242 Bay Shore Rd Chestertown, MD 21620 SITE PLAN REVIEW Map 35 Grid 4d Parcel 02 MAY 29, 2024

LEGEND

Ex. Tree to remain

Ex. Tree to be removed

POOL AND SITE

TITLE SHEET

EXISTING CONDITIONS / DEMOLITION

OVERALL SITE PLAN & BUFFER MANAGEMENT PLAN

DETAILED PROPOSED SITE PLAN

SITE DETAILS SITE DETAILS

SITE DETAILS

BATH HOUSE

COVER SHEET

FOUNDATION PLANS - PROPOSED

FIRST FLOOR PLAN - PROPOSED

ATTIC PLAN - PROPOSED

ROOF PLAN - PROPOSED

EXTERIOR ELEVATIONS NORTH - PROPOSED

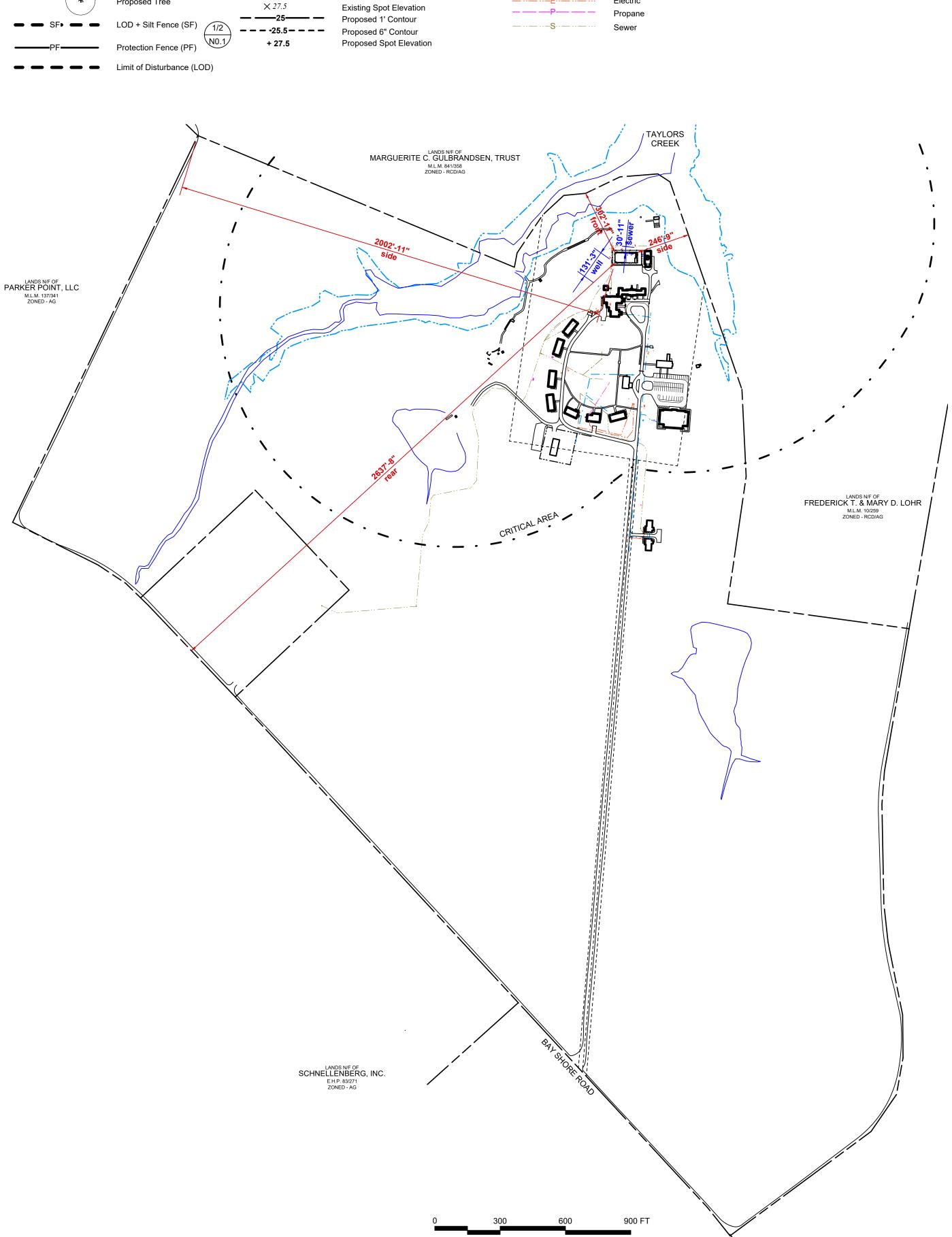
EXTERIOR ELEVATIONS SOUTH - PROPOSED

EXTERIOR ELEVATIONS EAST - PROPOSED

EXTERIOR ELEVATIONS WEST - PROPOSED

3D VIEWS 1 - PROPOSED

3D VIEWS 2 - PROPOSED BIRDSEYE VIEWS - PROPOSED



•••••

PVC Drainline

LOD Area

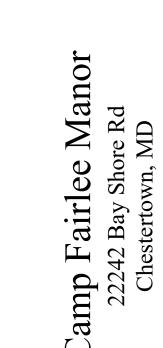
Existing 1' Contour

Stabilized Construction Entrance









Permit

Construction

SOUTH FORK FORK

LANDSCAPE ARCHITECTURE

10810 CLIFF ROAD

CHESTERTOWN, MD 21620

www.southforkstudio.com

Camp Fairle

Approval

represented thereby are and shall remain the property of the Landscape Architect. No part nereof shall be copied or used in connection wit any work or project or by any other person for an urpose other than for the specific project for whic they have been prepared and developed without the written consent of the Landscape Architect.

NOT FOR CONSTRUCTION



Scale: As Noted Drawn by : DMB

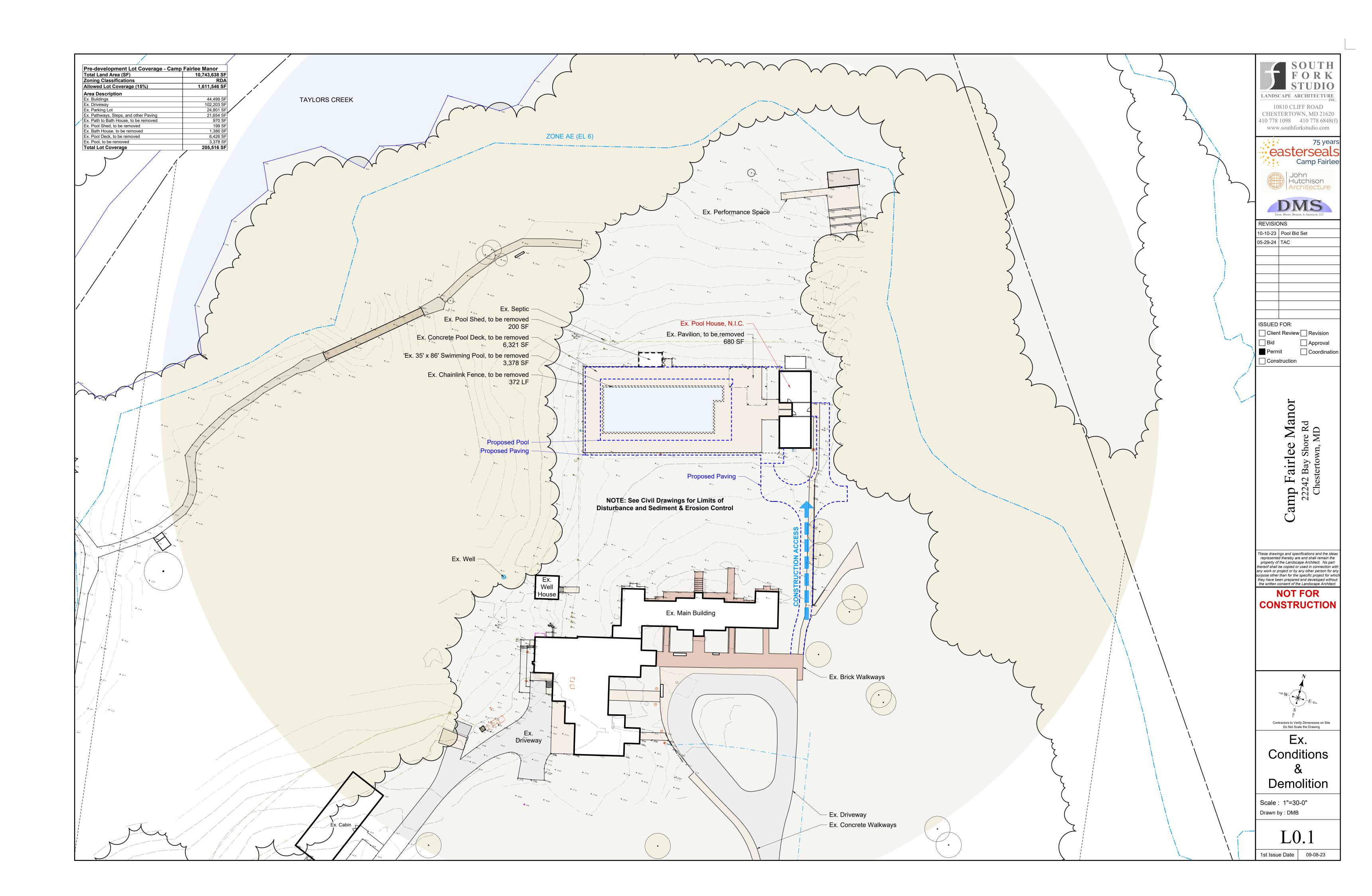
1st Issue Date

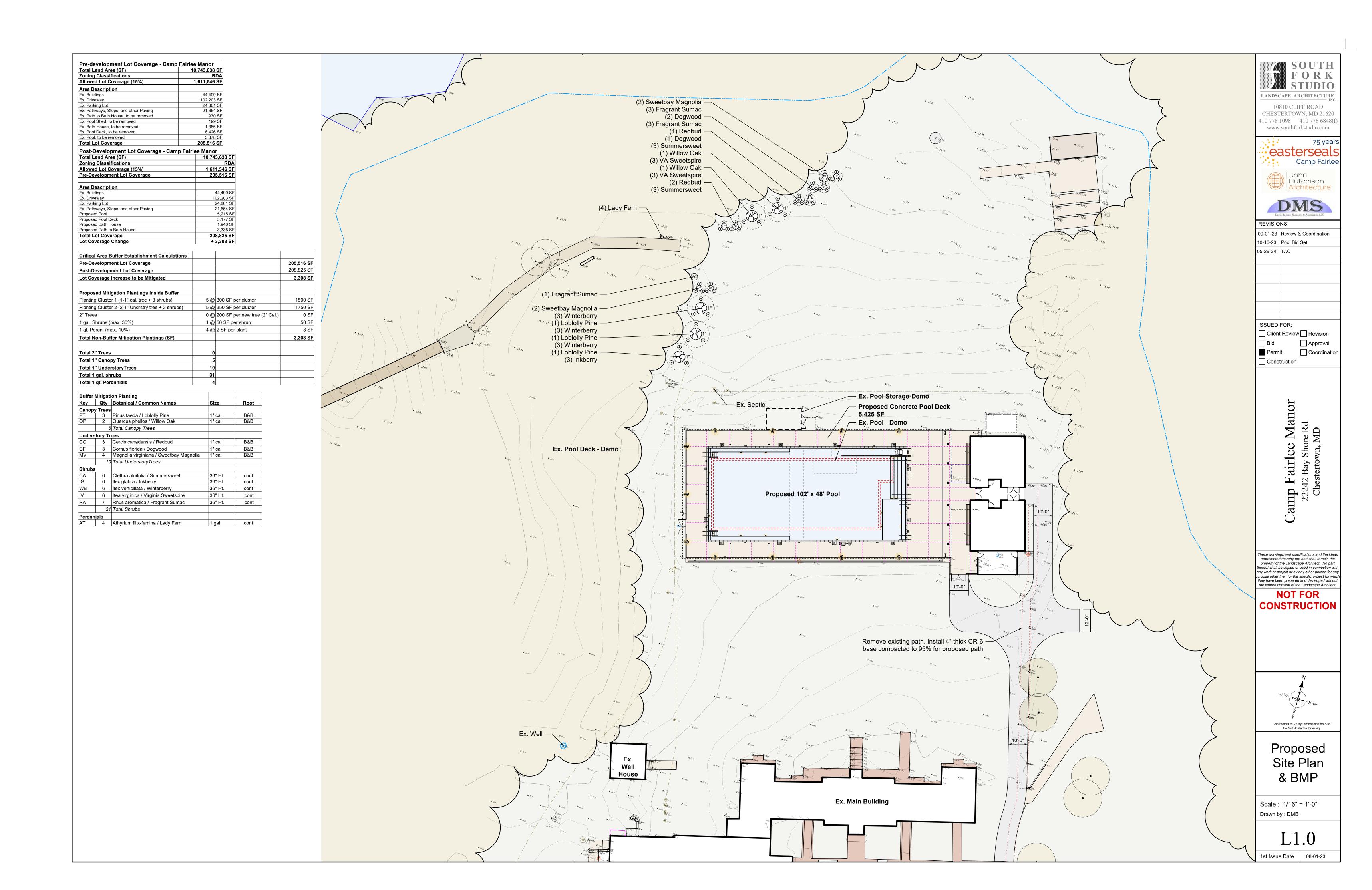
REVIEWED FOR KENT SOIL AND WATER CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

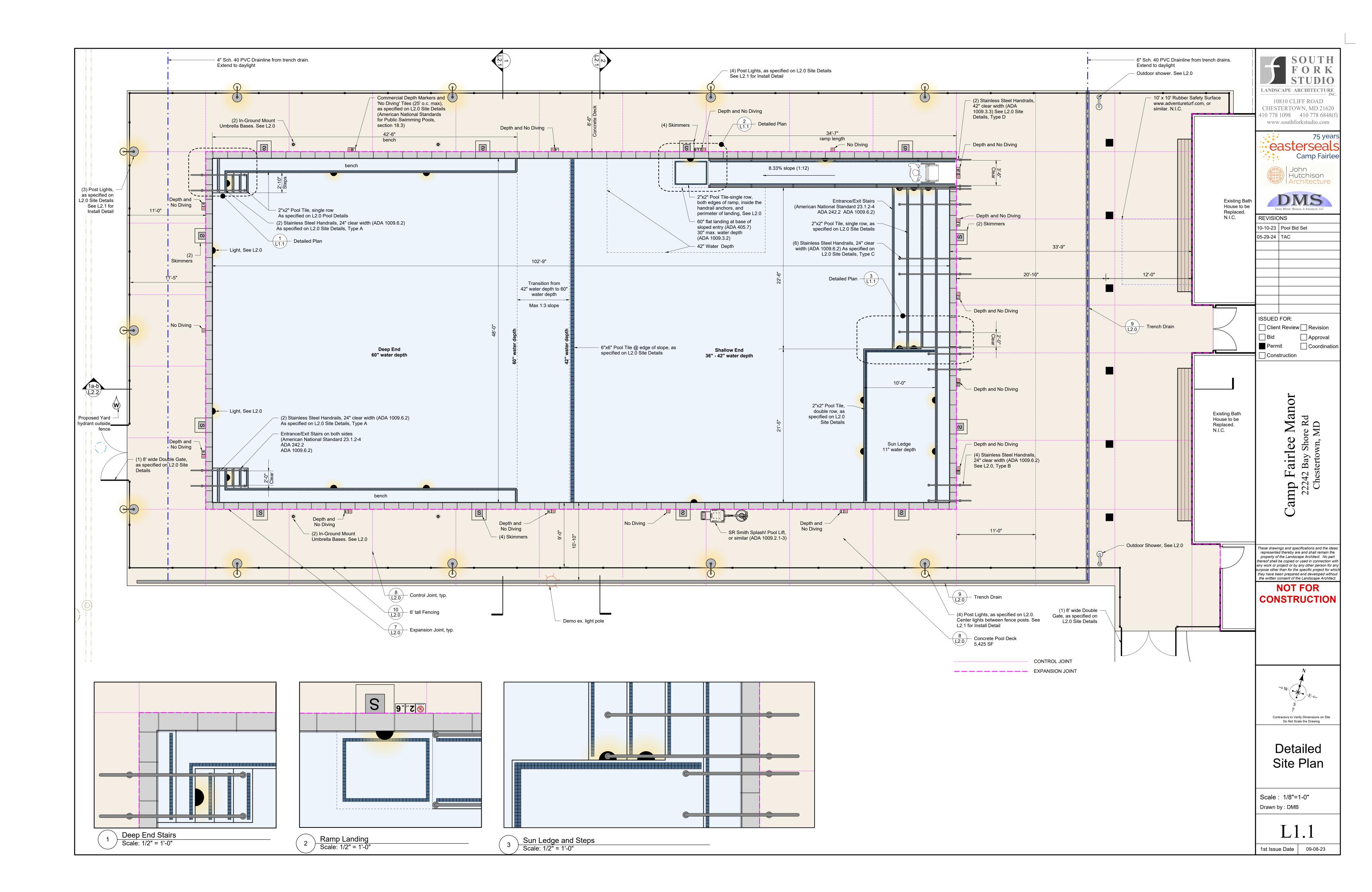
KENT SOIL AND WATER CONSERVATION DISTRICT KENT SOIL & WATER CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR OTHERWISE ALTER THE SEDIMENT CONTROL PROVISIONS

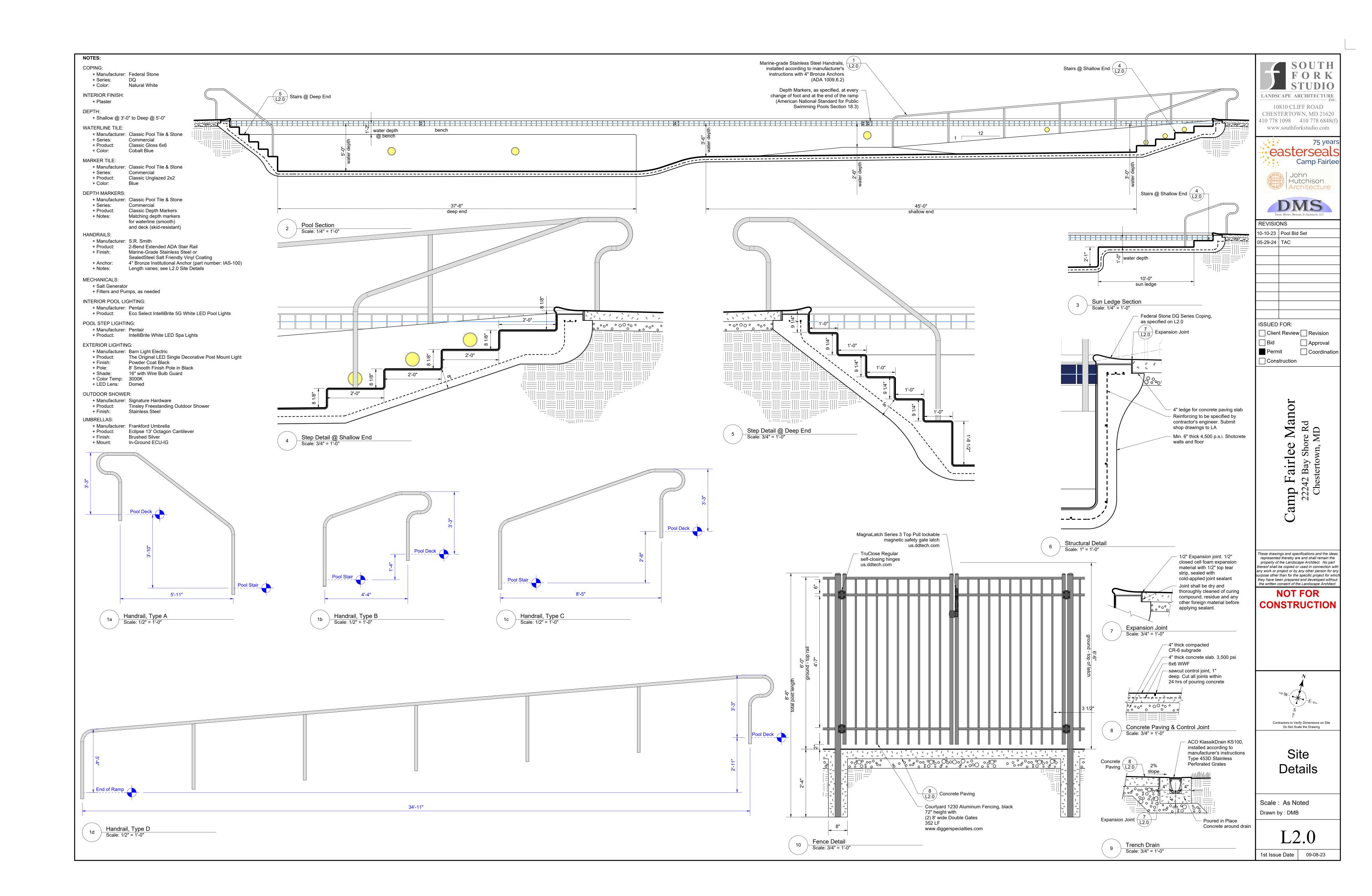
OF THIS PLAN IN THE EVENT ADDITIONAL PROTECTION BECOMES NECESSARY.

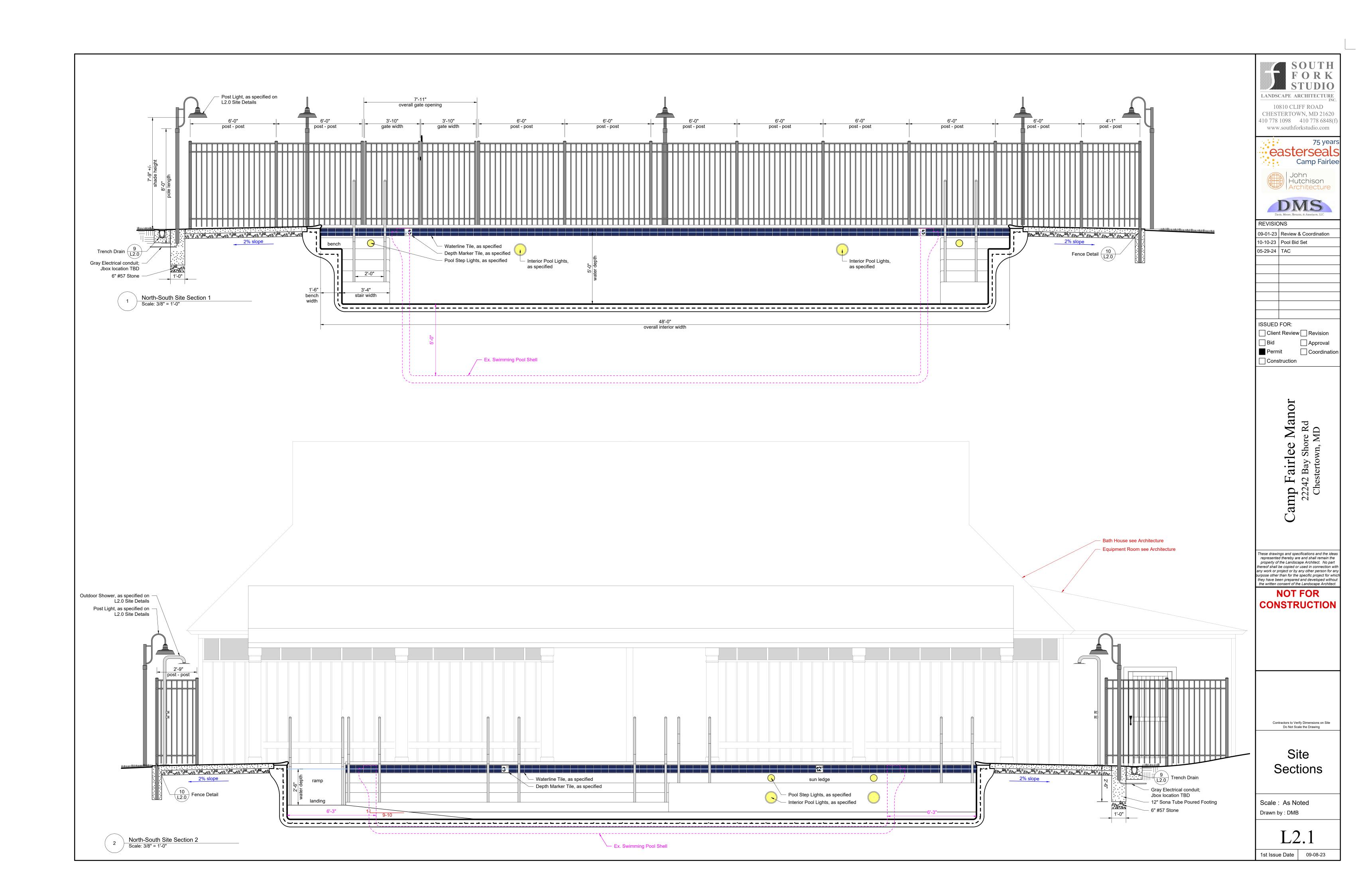
SCALE: 1" = 300'-0"

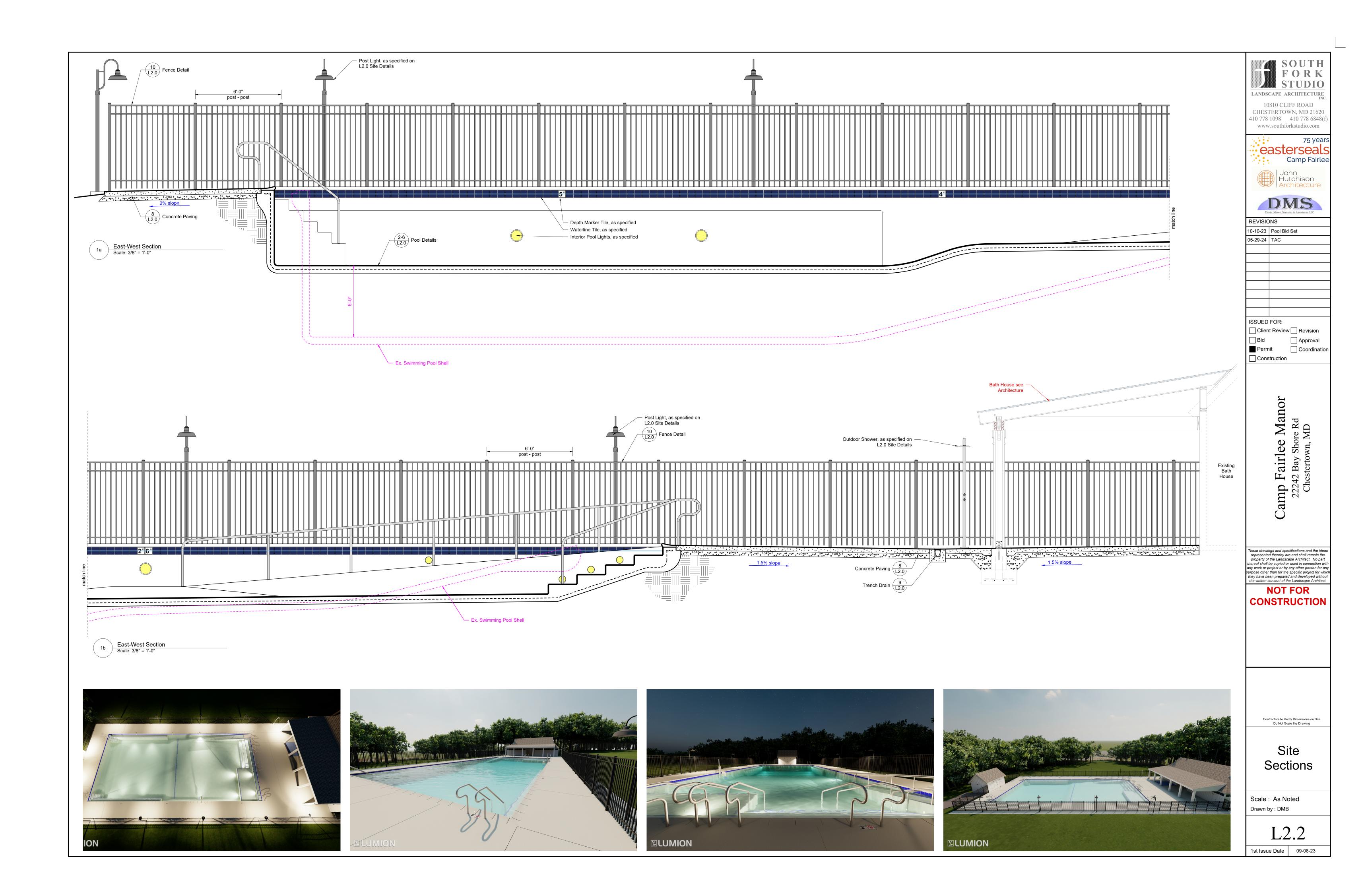












DESIGN CATEGORY A

2. FOOTINGS: PLACE FOOTINGS ON FIRM, DRY NON FROZEN, NON-ORGANIC SUB-GRADE. VERIFY MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF. REMOVE SOFT SOILS ENCOUNTERED DURING EXCAVATION FOR FOOTINGS. BACKFILL THESE EXCAVATIONS AND AREAS REQUIRING STRUCTURAL FILL WITH CLEAN, MOIST, GRANULAR SELECT MATERIAL TYPE GW, GP, GM, SM, SW, OR SP PER USCS. PLACE IN 8" MAXIMUM LIFTS. COMPACT TO 95% MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR TEST (ASTM D1557). THE EXISTING SUB-GRADE MATERIAL IS BELIEVED TO BE UNDISTURBED, CLEAN, AND GRANULAR (SAND), HOWEVER CERTAIN AREAS OF THE SITE MAY BE OTHERWISE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY, BY MEANS AND METHODS TO BE DETERMINED BY HIM, THAT THE BEARING CAPACITY OF THE SUB-GRADE IS SUFFICIENT AND MEETS THESE SPECIFICATIONS. AT A MINIMUM, THE EXPOSED SUB-GRADE BELOW ALL FOOTINGS SHALL BE DENSIFIED IN PLACE BY A HAND-HELD VIBRATORY COMPACTOR OR SIMILAR DEVICE. ANY SOFT AREAS IDENTIFIED DURING THE COMPACTION PROCESS SHALL BE REMOVED.

3. CONCRETE: COMPLY WITH AMERICAN CONCRETE INSTITUTE ACI 301 "SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS" (LATEST EDITION). COMPRESSIVE STRENGTH @ 28 DAYS, 3000 PSI. AIR ENTRAINMENT: ASTM C260, AIR ENTRAIN ALL EXTERIOR CONCRETE. REINFORCING STEEL: ASTM A615, 60 KSI DEFORMED BARS.

4. CONCRETE UNIT MASONRY: COMPLY WITH AMERICAN CONCRETE INSTITUTE ACI 531.1 "SPECIFICATION FOR CONCRETE MASONRY CONSTRUCTION (LATEST EDITION). HOLLOW LOAD BEARING (HLB): ASTM C90 GRADE N, TYPE I MOISTURE CONTROLLED UNITS. COMPRESSIVE STRENGTH: FM = 1500 PSI MINIMÚM. MORTAR: ASTM C270, TÝPE Ś. GROUT: ASTM C476 OR 3000 PSI CONCRETE PER NOTE 3. HORIZONTAL JOINT REINFORCEMENT: ASTM A82, GALVANIZED. REINFORCED STEEL: ASTM A615, 60 KSI DEFORMED BARS.

5. CRUSHED STONE: ASHTON #57 AGGREGATE, WASHED, UNIFORMLY GRADED AND FREE DRAINING. MECHANICALLY COMPACT OR ROLL. 6. STRUCTURAL STEEL: COMPLY WITH AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS (LATEST EDITION). STEEL SHAPES AND PLATES: ASTM A36. FASTENERS: ASTM A325. ANCHOR BOLTS: ASTM A307. PRIMER PAINT: FABRICATOR'S STANDARD RUST INHIBITING PRIMER. WELDS: COMPLY WITH AWS D1.1 "STRUCTURAL WELDING CODE." GROUT FOR BASE PLATES: NON-SHRINK, HIGH EARLY STRENGTH.

7. FASTENERS: IN ACCORDANCE WITH INTERNATIONAL RESIDENTIAL CODE FOR ONE AND TWO FAMILY DWELLINGS (2000), TABLE NO. R-402.3A, "FASTENING SCHEDULE FOR STRUCTURAL MEMBERS." PROVIDE BLOCKING, BRIDGING AND BRACING PER SAME CODE. AT A MINIMUM, PROVIDE BRIDGING AT EACH END OF JOIST, AND SOLID BRIDGING OR VERTICAL 2X6 BLOCKING BELOW ALL INTERIOR BEARING

8. FRAMING SPECIALTIES: ARE TO BE AS MANUFACTURED BY SIMPSON OR APPROVED EQUAL, AND ARE TO BE USED ONLY IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.

9. FRAMING CLIPS AND ANCHORS: ASTM A526, MINIMUM 16 GAUGE. PROVIDE TIE DOWN ANCHORS FOR ALL JOISTS AND RAFTERS. FASTENERS AND ANCHORS FOR EXTERIOR LOCATIONS, IN GROUND CONTACT, HIGH HUMIDITY LOCATIONS, AND WHERE CONNECTED TO TREATED WOOD SHALL BE AS PER NOTE #11.

10. JOIST HANGERS: ASTM A526 MINIMUM, 16 GAUGE, SIZED AND PROFILE TO SUIT APPLICATION (UNLESS OTHERWISE NOTED), GALVANIZED FINISH. PROVIDE HANGERS FOR ALL FLUSH FRAMED JOISTS. HANGERS FOR EXTERIOR LOCATIONS, IN GROUND CONTACT, HIGH HUMIDITY LOCATIONS, AND WHERE CONNECTED TO TREATED WOOD SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.

11. PRESSURE TREATED LUMBER: WOOD EXPOSED TO THE ENVIRONMENT, WOOD DESIGNATED "PRESSURE TREATED", AND WOOD BOLTED IN CONTACT WITH MASONRY, SHALL BE #2 SOUTHERN PINE OR BETTER. PRESSURE IMPREGNATED WITH ALKALINE COPPER QUAT (ACQ) IN ACCORDANCE WITH AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) STANDARD C1. P.T. SILL PLATES TO BE BOLTED TO FOUNDATION USING GALVANIZED ANCHOR BOLTS. ALL FASTENERS (NAILS, BOLTS, STRAPS, ETC) SHALL COMPLY WITH ASTM A153. HANGERS TO BE SIMPSON STRONG-TIE ZMAX OR EQUIV. FLASHING AND PRESSURE TREATED LUMBER TO BE COPPER OVER ICE AND WATER SHIELD.

12. POINT LOADS: UNLESS OTHERWISE NOTED, COLUMNS IN EXTERIOR WALLS TO BE (3) 2X6'S. NAIL EACH FACE OF OUTSIDE (2) STUDS WITH (2) 10D NAILS AT 6" O.C. STAGGERED. PROVIDE SOLID BLOCKING BELOW ALL COLUMNS, TO TRANSFER LOAD DIRECTLY TO SOLID FRAMING,

13. OPENINGS: UNLESS OTHERWISE NOTED, PROVIDE DOUBLE JOIST AROUND ALL FLOOR AND ROOF OPENINGS.

14. MULTI-PLY DIMENSIONAL LUMBER BEAMS: SHALL BE NAILED WITH 3 ROWS OF 10D NAILS AT 8" O.C. STAGGERED. BEAMS LOADED ON ONE FACE ONLY SHALL BE BOLTED WITH 5/8" DIA. BOLTS AT 16"O.C. STAGGERED (U.N.O.).

15. EXTERIOR WALLS: UNLESS OTHERWISE NOTED, TO BE 2X6 STUDS AT 16" O.C., WITH 1/2" A.P.A. RATED GROUP 1 SHEATHING. NAIL ALL PANEL EDGES WITH 8D NAILS AT 24" O.C. AND INTERMEDIATE STUDS WITH 8D NAILS AT 6" O.C.

16. INTERIOR SHEAR WALLS: SHOWN ON THE PLAN ARE TO BE SHEATHED ON BOTH FACES WITH 1/2" A.P.A. RATED GROUP 1 SHEATHING. BLOCK ALL UNSUPPORTED EDGES. NAIL ALL PANEL EDGES WITH 10D NAILS AT 3" O.C. AND INTERMEDIATE STUDS WITH 10D NAILS AT 6" O.C. INTERIOR SHEAR WALLS SHALL EXTEND TO THE UNDERSIDE OF THE FLOOR SHEATHING ABOVE. NAIL THROUGH SHEATHING INTO WALL DOUBLE TOP PLATE WITH (2) 10D NAILS @ 4"O.C. AS AN ALTERNATIVE, LOCATE JOIST(S) DIRECTLY ABOVE SHEAR WALL AND EXTEND SHEATHING UP SIDE OF JOIST(S). NAIL SHEATHING TO JOISTS(S) AS INDICATED ABOVE.

17. ALL WORK SHALL COMPLY WITH APPLICABLE LOCAL AND STATE CODES, ORDINANCES, REGULATIONS, AMENDMENTS, AND OTHER AUTHORITIES HAVING JURISDICTION. WORK SHALL COMPLY WITH INTERPRETATIONS OF LOCAL BUILDING OFFICIALS. IF LOCAL INTERPRETATIONS OF LOCAL BUILDING OFFICIALS ARE AT VARIANCE WITH THESE DOCUMENTS, INFORM THE ARCHITECT PRIOR TO

18. ALL EXISTING CONSTRUCTION AND FEATURES THAT ARE TO REMAIN AS PART OF THE PROJECT SHALL BE PROTECTED FROM DAMAGE THROUGHOUT THE PERIOD OF CONSTRUCTION WORK. ANY DAMAGED CONSTRUCTION OR FEATURES SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE OWNER WITH MATERIALS EQUIVALENT OR SUPERIOR TO THE ORIGINAL ITEM(S). 19. CONTROL DUST AND DEBRIS AND PREVENT FROM CONTAMINATING ADJACENT AREAS.

20. ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR AT THE SITE PRIOR TO COMMENCEMENT OF WORK. VERIFY LAYOUT OF NEW WORK PRIOR TO COMMENCEMENT OF WORK; COORDINATE LAYOUT WITH ARCHITECT

21. HOLD INDICATED DIMENSIONS. DO NOT SCALE DRAWINGS. RESOLVE ANY DISCREPANCIES BEFORE BEGINNING WORK.

22. WHERE DRAWINGS ARE IN CONFLICT WITH OTHER DRAWINGS, SPECIFICATIONS, OR DETAILS, CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION PRIOR TO INSTALLATION. 23. GENERAL NOTED AND TYPICAL DETAILS APPLY THROUGHOUT THE JOB UNLESS OTHERWISE NOTED. WHERE CONDITIONS ARE NOT

SPECIFICALLY SHOWN OR DETAILED, THE WORK SHALL COMPLY WITH THE DETAILS INDICATED FOR SIMILAR CONDITIONS. 24. UNLESS OTHERWISE NOTED, ALL FRAMING DIMENSIONS FOR NEW CONSTRUCTION ARE TO FACE OR CENTERLINE OF FRAMING MEMBERS

25. KEEP CONSTRUCTION SITE SECURE FROM UNAUTHORIZED ENTRY AT ALL TIMES AND PROVIDE REQUIRED SAFETY PROTECTION FOR ALL

26. KEEP WORK AREA BROOM CLEAN AT END OF EACH DAY. REMOVE DEBRIS DAILY FROM JOB SITE. UPON COMPLETION PROVIDE FINAL

27. PROVIDE TEMPORARY LIGHTING AND SWITCHING THROUGHOUT PRIOR TO COMMENCEMENT OF CONSTRUCTION.

28. PROJECT WORK SHALL NOT INTERRUPT THE OWNER'S GENERAL BUILDING OPERATION OF PROJECT SITE. OWNER SHALL BE GIVEN WRITTEN NOTICE OF ANY FORESEEABLE INTERRUPTION 72 HOURS PRIOR TO INTERRUPTION.

29. COORDINATE PROJECT SITE ACCESS, DUMPSTER LOCATION, EQUIPMENT STORAGE, STAGING AREAS, MATERIAL STORAGE, MATERIAL DELIVERY AND DEBRIS REMOVAL WITH OWNER. COORDINATION SHALL INCLUDE APPROPRIATE SCHEDULING TO MEET OWNER'S DAILY

30. IMMEDIATELY ALERT CLIENT AND ARCHITECT OF ANY UNSAFE OR QUESTIONABLE CONDITIONS DISCOVERED OR CAUSED DURING THE PERIOD OF CONSTRUCTION.

31. CONTACT ARCHITECT OF FIELD CONDITIONS WHICH DO NOT AGREE WITH INTENDED WORK DESCRIBED IN CONSTRUCTION DOCUMENTS OR CONFLICTING SITUATIONS WHICH EFFECT INTENDED SCOPE OF WORK.

Sheet Index





ID	Drawing #	Drawing Name	Change IDs in Current Revision	Comments	Change ID	Name
G]	
	0.01	Cover Sheet]	
A						
	1.00	Foundation Plans - Proposed				
	1.01	1st Floor Plan - Proposed				
	1.02	Attic Plan - Proposed				
	1.03	Roof Plan - Proposed				
	2.01	Exterior Elevations North - Proposed				
	2.02	Exterior Elevations South - Proposed				
	2.03	Exterior Elevations East - Proposed				
	2.04	Exterior Elevations West - Proposed				
	9.01	3D Views 1 - Proposed				
	9.02	3D Views 2 - Proposed				
	9.03	Birdseye Views - Proposed				

Camp Fairlee Bath House

Camp Fairlee 22242 Bay Shore Road Chestertown , MD 21620 Kent County

Easterseals Delaware

Applicable Codes:

Building Requirements: 2021 International Residential Code (IRC) and local amendments. 2021 International Existing Building Code (IEBC) and local amendments.

Mechanical Requirements: 2021 International Plumbing Code 2021 International Mechanical Code

Electrical Requirements:
NFPA 70 National Electrical Code Handbook 2017

Energy Requirements: 2021 International Energy Conservation Code

Accessibility Code:
Not Applicable

Fire Code: 2018 NFPA 1 Uniform Fire Code 2018 NFPA 101 Life Safety Code

Building Data:

Number of Stories: Building Height: Area of Conditioned Building: Per drawings

Building is Sprinklered: Building has Fire Alarm: Mater Service: Sewage Disposal:

Zoning Information

Property Address:

Date

Change List

Camp Fairlee 22242 Bay Shore Road Chestertown, MD 21620

TBD

Public Sewer

Zoning Designation: Min. Front Yard Setback: Min. Side Yard Setback: Min. Rear Yard Setback:

Resource Conservation District



302 Park Row., Flr 1st Chestertown, MD 21620 410.449.0466 johnhutcharch@gmail.con

Note: Drawings are not authorized for Permit or Construction unless affixed with a Professional Seal and Signature of the Architect below. Drawings authorized for Construction must also be stamped "Issued for Construction" above the Sheet Title below. Drawings stamped "Preliminary" or "For Permit Only" are not authorized for Construction.



Professional Certification: I certify that these documents were prepared or approved by me, and that I am a duly Licensed Architect under the Laws of the State of Maryland, License Number 18603, Expiration Date 6/14/2024.

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The General Contractor is responsible for confirming and correlating dimensions at the job site. The Architect will not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs n connection with the project. © John Hutchison Architecture

Project Number: JHA 23-036

Camp Fairlee Bath House

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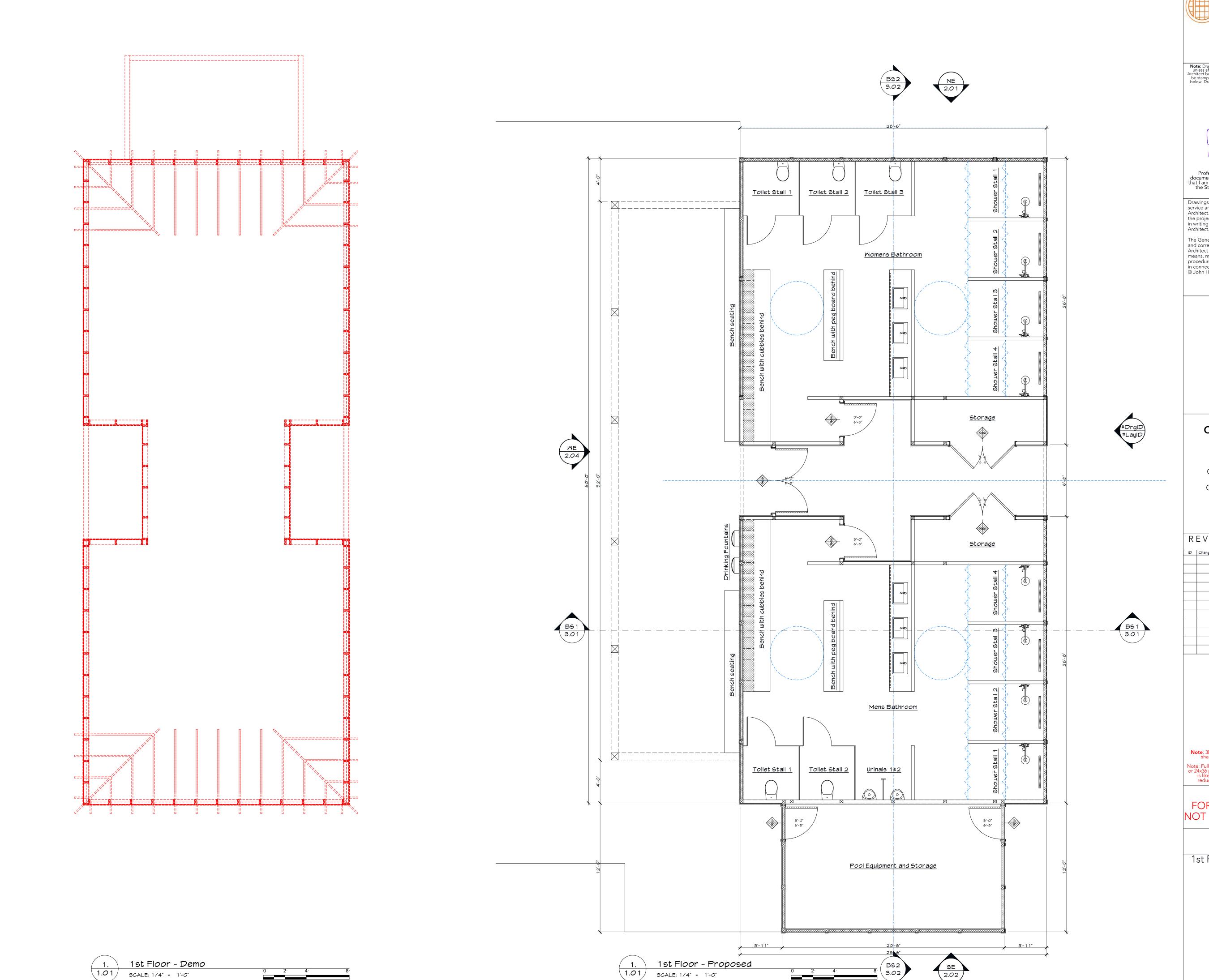
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Cover Sheet





John
Hutchison
Architecture

302 Park Row., Fir 1st
Chestertown, MD 21620
410.449.0466

johnhutcharch@gmail.com
www.johnhutcharch.com

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Camp Fairlee Bath House

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PRELIMINARY

FOR PERMITTING ONLY NOT FOR CONSTRUCTION

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1st Floor Plan - Proposed

A

Roof Plan - Proposed

3. Roof Plan - Pro 1.03 SCALE: 1/4" = 1'-0"



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Camp Fairlee Bath House

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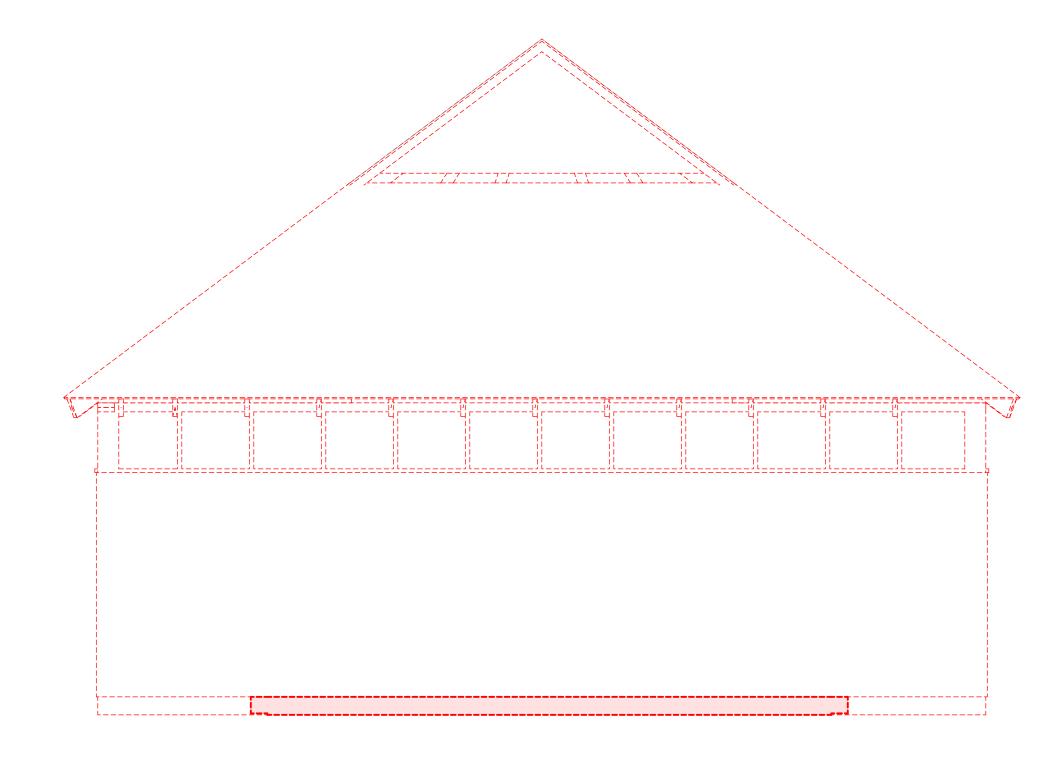
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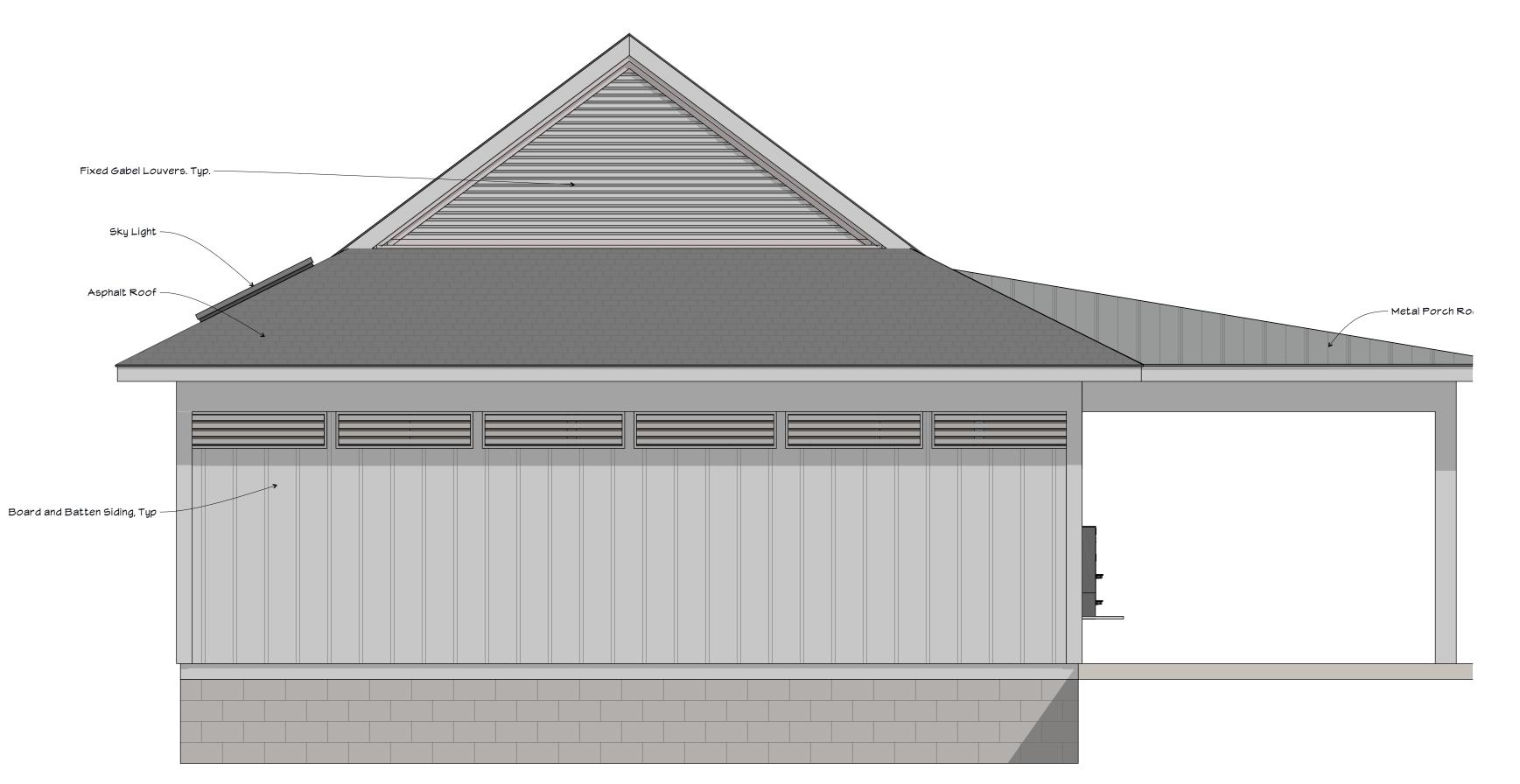
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Roof Plan - Proposed







NE North Elevation - Proposed

2.01 SCALE: 3/8" = 1'-0"

0 2' 4' 6'



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Camp Fairlee Bath House

Camp Fairlee 22242 Bay Shore Road Chestertown , MD 21620 Kent County

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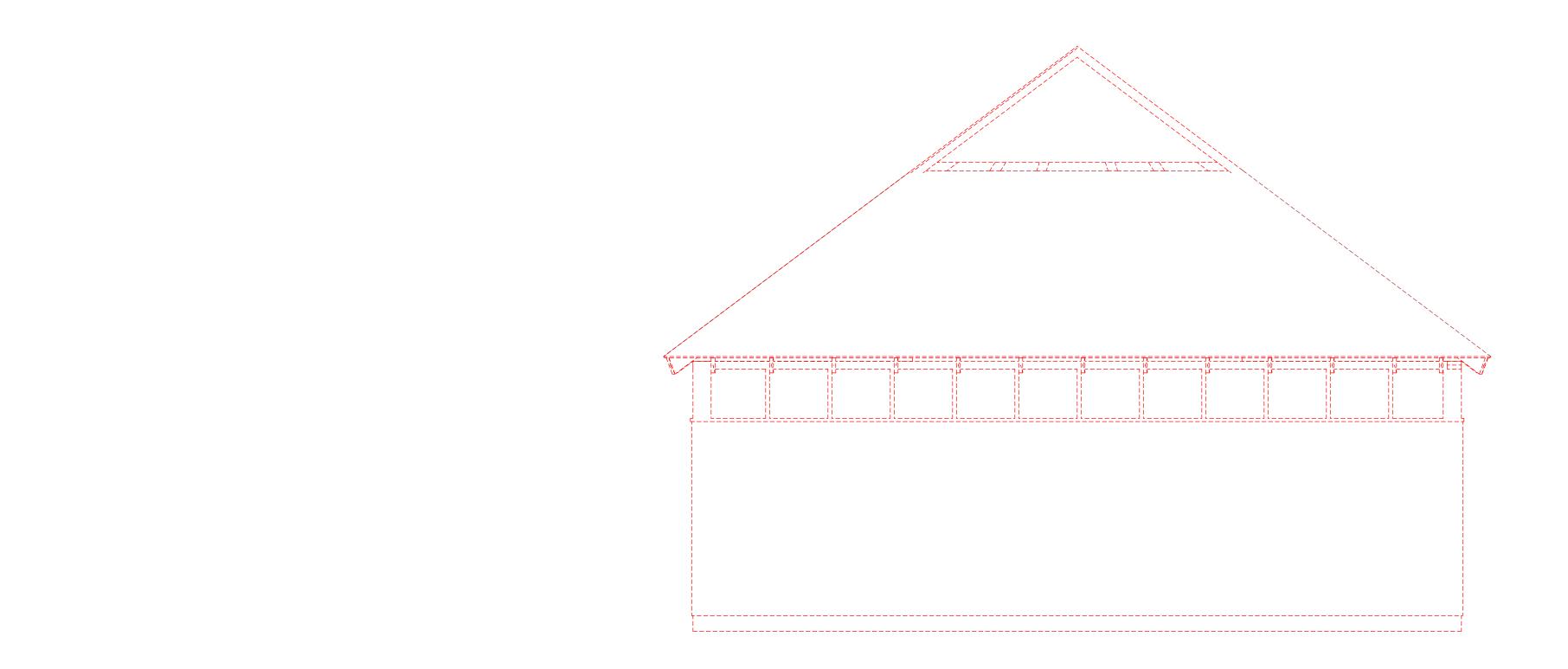
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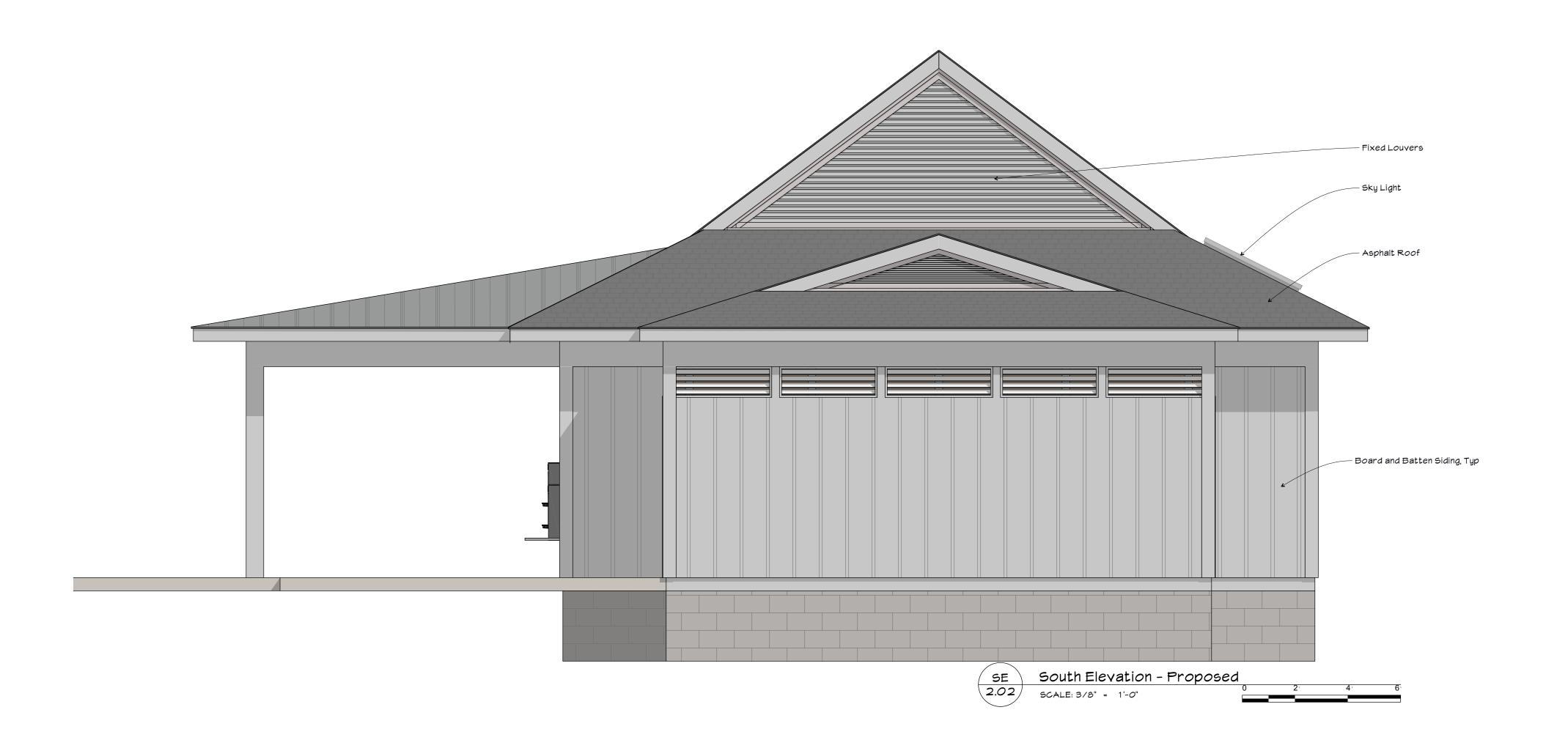
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Exterior Elevations North -Proposed

A









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Camp Fairlee Bath House

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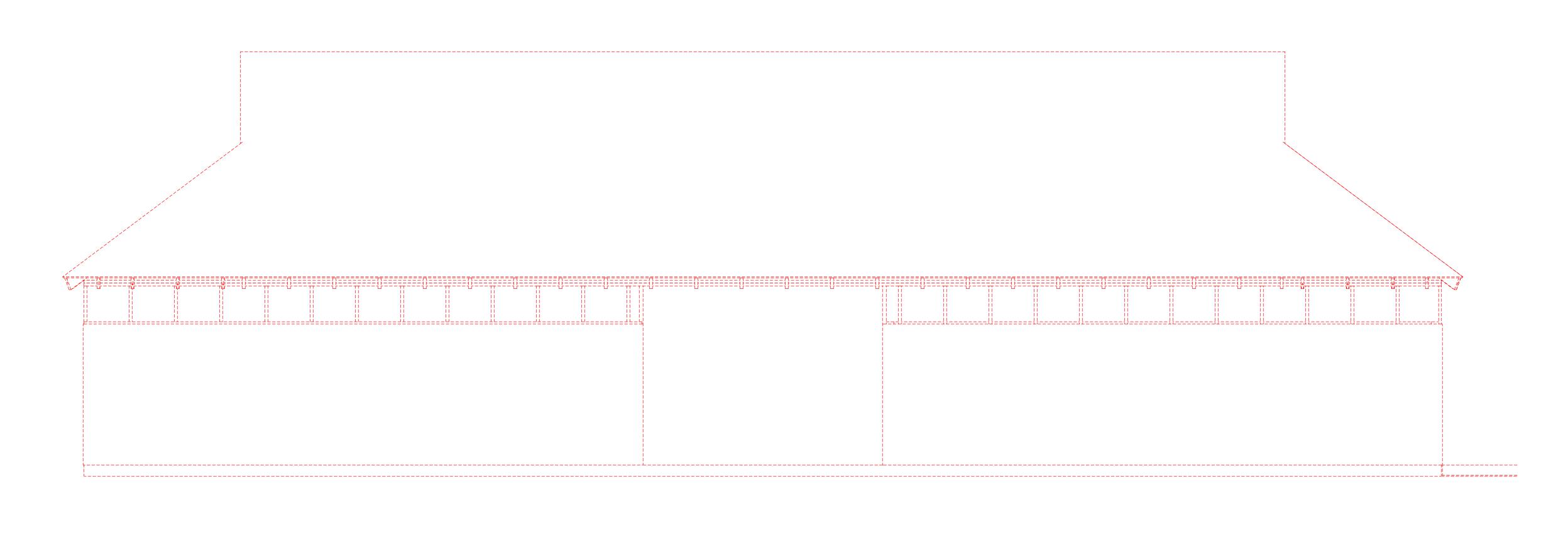
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Exterior Elevations South - Proposed

Δ







EE 2.03

East Elevation - Demo

SCALE: 3/8" = 1'-0"



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Camp Fairlee Bath House

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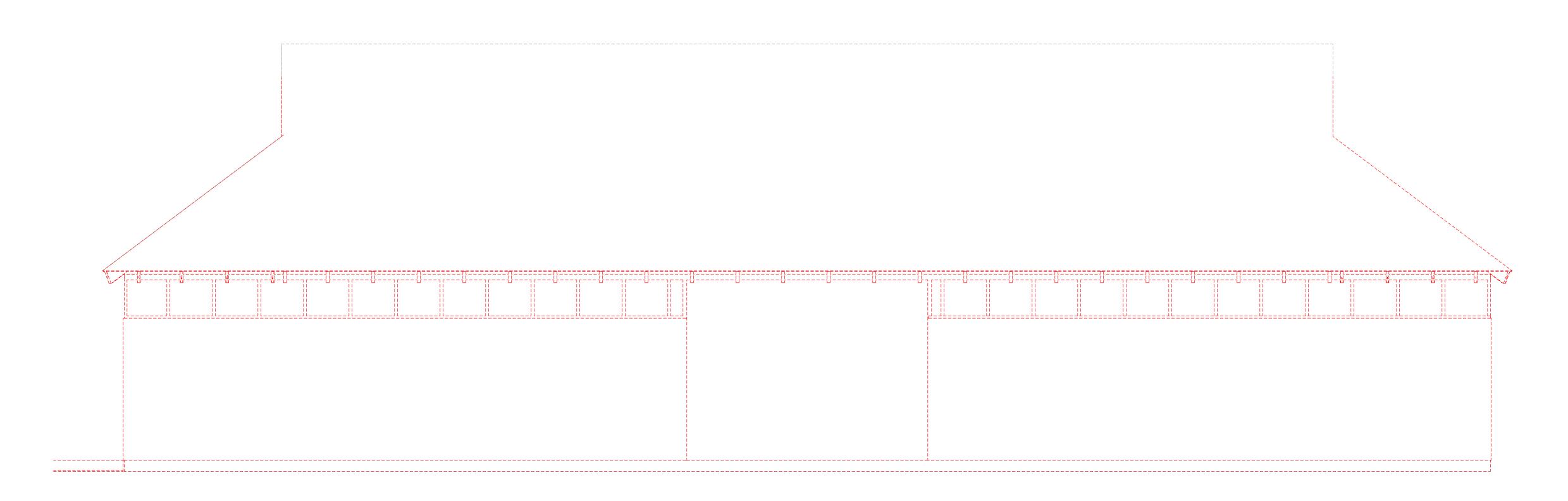
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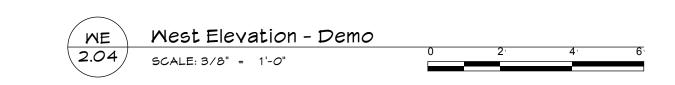
PRELIMINARY FOR PERMITTING ONLY NOT FOR CONSTRUCTION

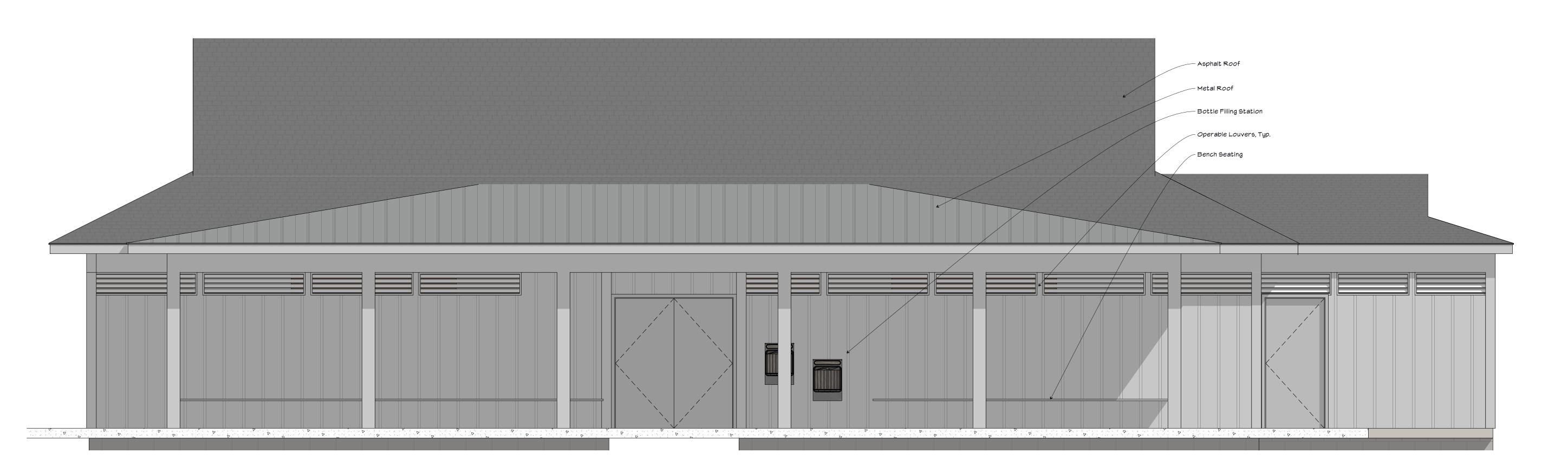
TAC Submission 5/29/24 Printed: 5/29/24

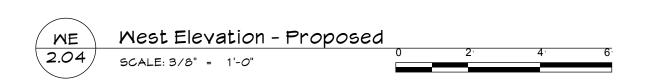
Exterior Elevations East -Proposed













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www.johnhutcharch.com

Professional Certification: I certify that these documents were prepared or approved by me, and that I am a duly Licensed Architect under the Laws of the State of Maryland, License Number 18603, Expiration Date 6/14/2024.

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The General Contractor is responsible for confirming and correlating dimensions at the job site. The Architect will not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the project.

© John Hutchison Architecture

Project Number: JHA 23-036

Camp Fairlee Bath House

Camp Fairlee 22242 Bay Shore Road Chestertown , MD 21620 Kent County

Easterseals Delaware

REVISIONS

ID	Change Name	Date	
1			

Note: 3D Images are shown for reference only and shall not be used for Actual Construction.

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TAC Submission 5/29/24 Printed: 5/29/24

Exterior Elevations West -Proposed

 \triangle



Camera 2 - Existing



Camera 1 - Existing





Camera 2 - Proposed





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Project Number: JHA 23-036

Camp Fairlee Bath House

Camp Fairlee 22242 Bay Shore Road Chestertown , MD 21620 Kent County

for Easterseals Delaware

REVISIONS

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PRELIMINARY

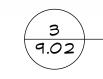
FOR PERMITTING ONLY NOT FOR CONSTRUCTION

TAC Submission 5/29/24 Printed: 5/29/24

3D Views 1 - Proposed

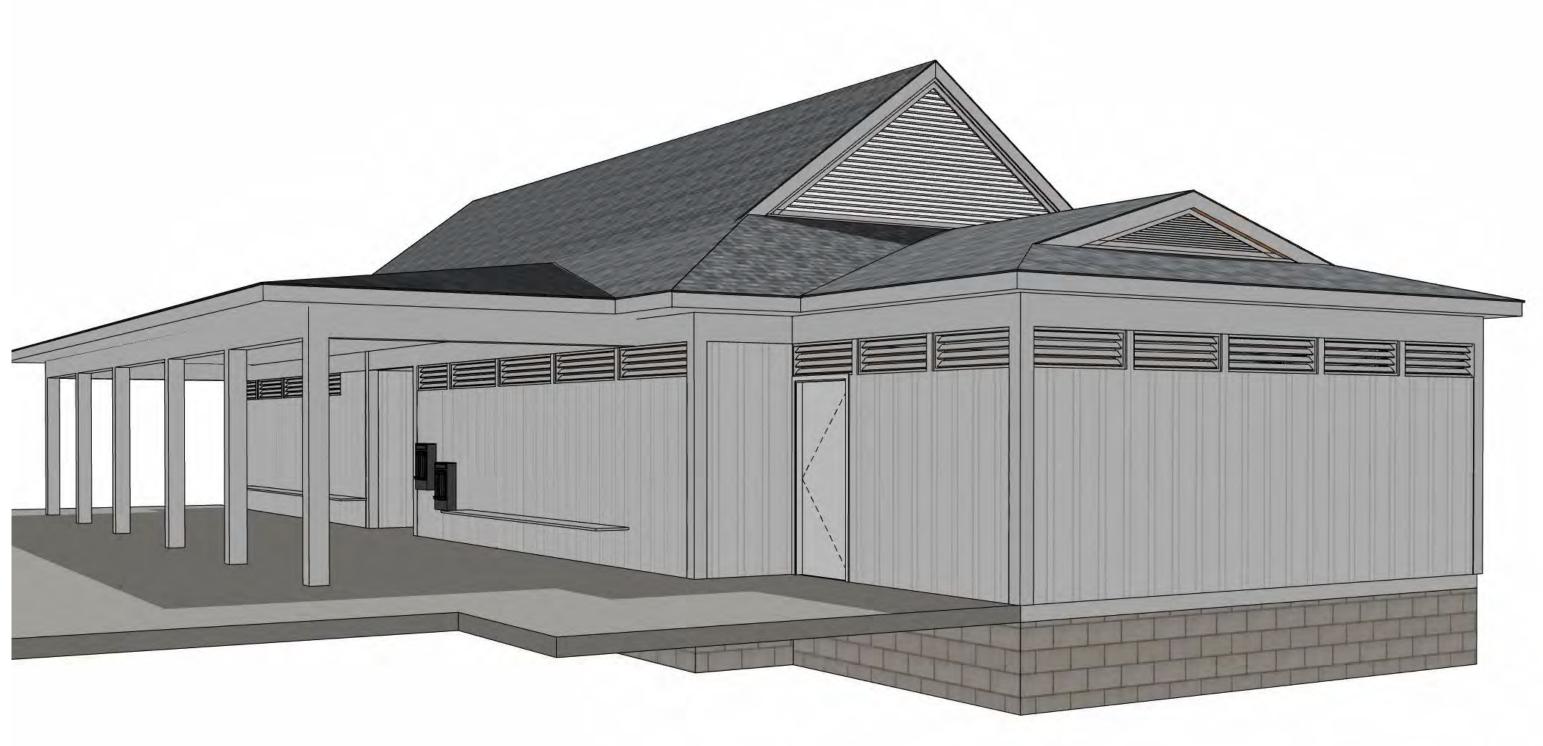






Camera 3 - Existing

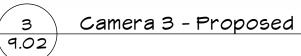




4 9.02

Camera 4 - Proposed

Camera 4 - Existing



John Hutchison Architecture 302 Park Row., Fir 1st Chestertown, MD 21620 410.449.0466

johnhutcharch@gmail.com
www.johnhutcharch.com

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Project Number: JHA 23-036

Camp Fairlee Bath House

Camp Fairlee 22242 Bay Shore Road Chestertown , MD 21620 Kent County

for Easterseals Delaware

REVISIONS

ID Change Name

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Note: Full Size drawings are typically printed on 22x3

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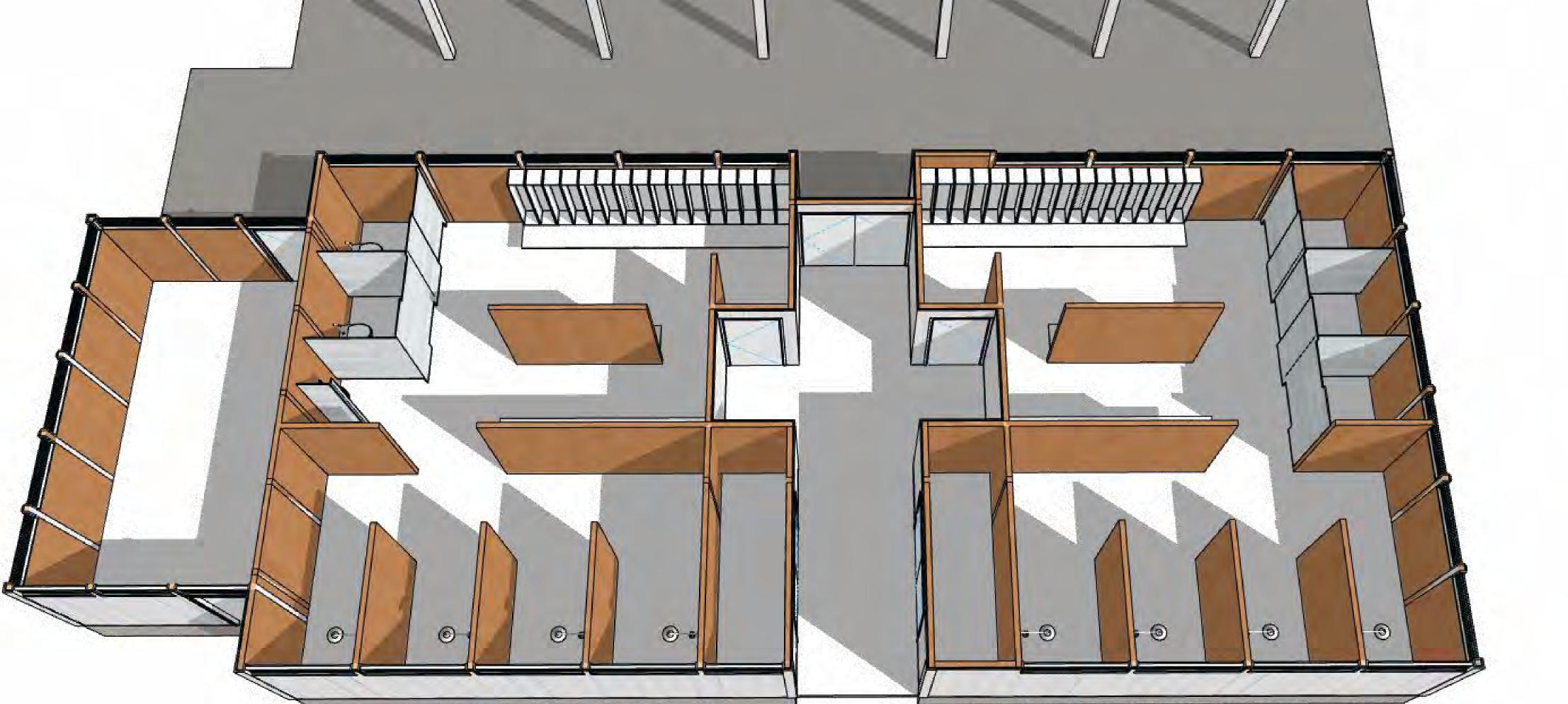
PRELIMINARY

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TAC Submission
5/29/24
Printed: 5/29/24

O Views 2 - Propos

3D Views 2 - Proposed





Hutchison 302 Park Row., Flr 1st Chestertown, MD 21620

410.449.0466 johnhutcharch@gmail.com www.johnhutcharch.com

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Project Number: JHA 23-036

Camp Fairlee Bath House

Camp Fairlee 22242 Bay Shore Road Chestertown , MD 21620 Kent County

for Easterseals Delaware

REVISIONS

ר	Change Name	Date

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TAC Submission 5/29/24 Printed: 5/29/24

Birdseye Views - Proposed



Department of Planning, Housing, and Zoning

To: Kent County Planning Commission From: Rob Tracey, AICP, Associate Planner

Meeting: July 11, 2024

Subject: Fry Family Limited Partnership

Setback Variance for Animal Operations

Executive Summary

REQUEST BY THE APPLICANT

Matt Fry, Fry Family Limited Partnership, is requesting a 585-foot variance from the 600-foot setback requirement to build a new feed mixing and grain handling facility that will provide storage of feed, dry storage of minerals and seed along with some equipment for their existing confined dairy operation. The farm is located at 10120 Augustine Herman Highway near Chestertown in the Third Election District and is zoned Agricultural Zoning District (AZD).

PUBLIC PROCESS

Per Article IX, Section 2.2 of the Kent County *Land Use Ordinance*, the Planning Commission shall review and make a recommendation to the Board of Appeals for variances. The Board of Appeals may authorize variance from the yard requirements so as to relieve practical difficulties or other injustices arising out of the strict application of the provisions of this Ordinance.

SUMMARY OF THE STAFF REPORT

The proposed feed blending/mixing and grain handling facility will be located in the center of the 404-acre property in proximity to the other farm buildings. The surrounding area is agricultural in nature and all the surrounding properties are zoned AZD, Agricultural Zoning District.

The construction of this structure is not expected to cause significant detriment to neighboring properties or to alter the character of the district. The request is consistent with the Comprehensive Plan, which promotes Kent County as an agriculturally friendly county and promotes the use of best management practices. The practical difficulty arises from the irregular shape of the property and is not a result of any action of the property owner.

STAFF RECOMMENDATION

Staff recommends forwarding a favorable recommendation to the Board of Appeals for approval of the setback variance.

PRELIMINARY STAFF REPORT

TO: Kent County Planning Commission SUBJECT: Fry Family Limited Partnership

Setback Variance for Animal Operations

DATE: July 1, 2024

DESCRIPTION OF PROPOSAL

Matt Fry, Fry Family Limited Partnership, is requesting a 585-foot variance from the 600-foot side yard setback requirement to build a new feed mixing and grain handling facility that will provide storage of feed, dry storage of minerals and seed along with some equipment for their existing confined dairy operation. The farm is located at 10120 Augustine Herman Highway near Chestertown in the Third Election District and is zoned Agricultural Zoning District (AZD).

The parcel is located on Maryland Route 213, which is a National Scenic Byway, and is currently improved by a dairy facility including a milking facility, two free stall barns, two calf barns, manure storage shed, seed/dry storage sheds, straw shed, and a machine shop/storage building. The surrounding area is agricultural in nature and all the surrounding properties are zoned AZD.

HISTORY

On June 9, 2011, the Board of Appeals granted a variance of 325 feet from the 600-foot setback requirements to replace and update the manure handling system. The existing dairy operations on the property have been conducted since at least 1960. The Board's 2011 decision states that the practical difficulty for the variance is due to its irregular shape and the fact that the dairy operations are located on a portion of the property that is proximate to many property lines.

RELEVANT ISSUES

- I. Accessory Structure & Yard Requirement
 - A. Applicable Law: Article VII, Section 7.25 of the Kent County Land Use Ordinance establishes the conditions for feedlots and confinement dairies. All buildings, corals, and waste management structures are to be 600 feet from the nearest property line.
 - B. Staff and TAC Comments: The applicant is requesting to place the closest corner of the proposed facility 15 feet from the closest property line, which requires a 585-foot variance from the 600-foot setback requirement.

II. Variance

A. Applicable Law: Article IX, Section 2.2 of the Kent County Land Use Ordinance authorizes the Board of Appeals to grant variances of the yard requirements so as to relieve practical difficulties or other injustices arising out of the strict application of the provisions of this Ordinance. Such granting of a variance shall comply, as nearly as possible, in every respect to

the spirit, intent and purpose of this ordinance; it being the purpose of this provision to authorize the granting of variation only for reasons of demonstrable practical difficulties as distinguished from variations sought for purposes or reasons of convenience, profit, or caprice.

In order to grant a variance, the Board of Appeals must find all of the following:

- a. That the variance will not cause a substantial detriment to adjacent or neighboring property.
- b. That the variance will not change the character of the neighborhood or district.
- c. That the variance is consistent with the Comprehensive Plan and the general intent of this Ordinance.
- d. That the practical difficulty or other injustice was caused by the following:
 - i. Some unusual characteristics of size or shape of the property.
 - ii. Extraordinary topographical or other condition of the property.
 - iii. The use or development of property immediately adjacent to the property, except that this criterion shall not apply in the Critical Area.
- e. That the practical difficulty or other injustice was not caused by the applicant's own actions.

B. Staff and TAC Comments:

Granting the variance will not cause a substantial detriment to adjacent or neighboring property. The variance will not change the character of the neighborhood or district. The Comprehensive Plan supports this application as it recognizes that agriculture, including animal husbandry, is the preferred use in the Agricultural Zoning District. The practical difficulty is due to the size, shape, and configuration of the parcel. The 2011 Board of Appeals decision for a waste management setback variance speaks to the practical difficulty: "The Property although large, has an irregular shape and the diary operations are located on a portion of the Property that is proximate to many property lines."

STAFF RECOMMENDATION:

Staff recommends forwarding a favorable recommendation to the Board of appeals for approval of the setback variance.

BOARD OF APPEALS APPLICATION

Kent County Department of Planning, Housing and Zoning Kent County Government Center

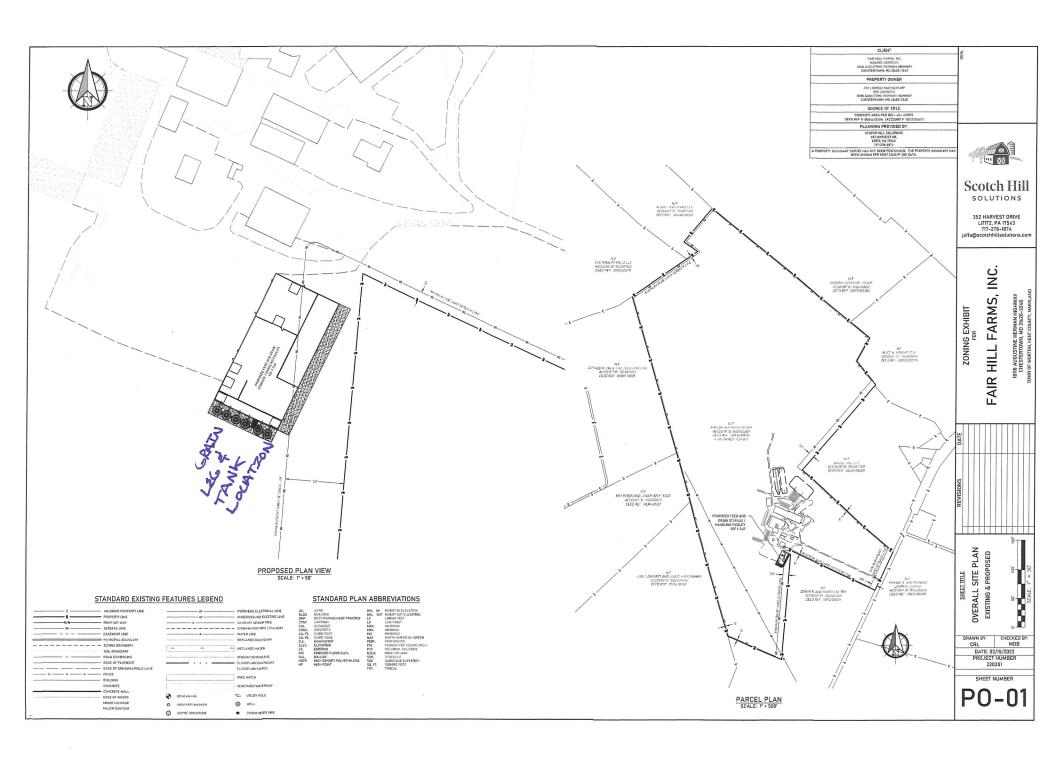
Kent County Government Center 400 High Street • Chestertown, MD 21620 410-778-7423 (phone) • 410-810-2932 (fax)

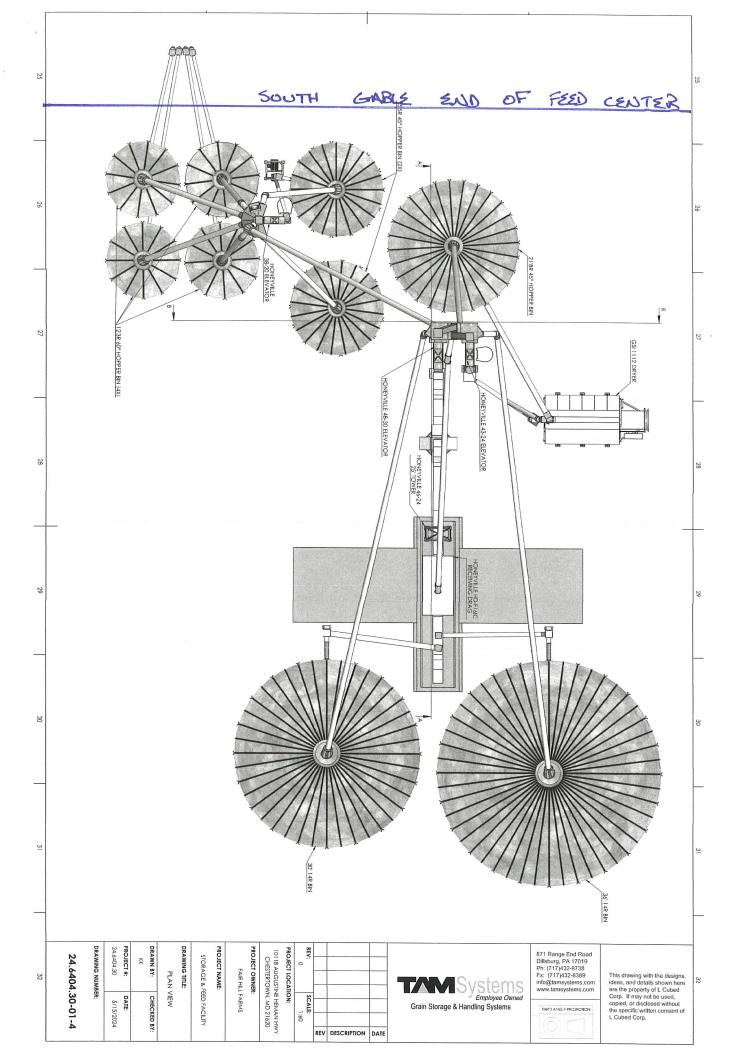
IN THE MATTER OF THE APPLICATION OF: (Name, Address and Telephone Number of Applicant))	For Office Use Only: Case Number/Date Filed:				
Fry Family Limited Partnership	Filed by:				
101 A Augustine Herman Hwy. Chestertown, MD 21620					
Matt Env (410) 739,6204					
Matt Fry (410) 739-6204	Parties Notified:				
	Notice in Paper:				
	Property Posted:				
Email: fry.fhf@gmail.com					
Please provide the email of the one person who will be person will be contacted by staff and will be the person additional information to any other interested parties.	responsible for forwarding the comments or requests for				
TO THE KENT COUNTY BOARD OF APPEALS: In	n accordance with Article Section				
of the Kent County Zoning Ordinance, as amended, requ	lest is hereby made for:				
Appealing Decision of Kent County Zoning Administrator X Variance Special Exception Nonconforming Use					
DESCRIPTION OF PROPERTY INVOLVED:					
Located on: (Name of Road, etc.) 213 north of Chestertown					
In the Election District of Kent County.					
Size of lot or parcel of Land: 404 ac Map: 0028 Parcel: 0022 Lot #:	Deed Ref: 546/314				
	ng facility, 2 freestall barns, 2 calf barns, manure storage shed, seed/ dry storage she				
straw shed, machine shop, machine storage building					
If subdivision, indicate lot and block number:					
If there is a homeowner's association, give name and add	lress of association:				
PRESENT ZONING OF PROPERTY: AZD					
DESCRIPTION OF RELIEF REQUESTED: (List here	e in detail what you wish to do with property that requires				
the Appeal Hearing.) See attached					
If appealing decision of Zoning Administrator, list date o	f their decision:				
Present owner(s) of property: Fry Family Limited Partnership	Telephone: (410) 739-6204 Matt Fry				
	PLANNING, HOUSING & ZONING				

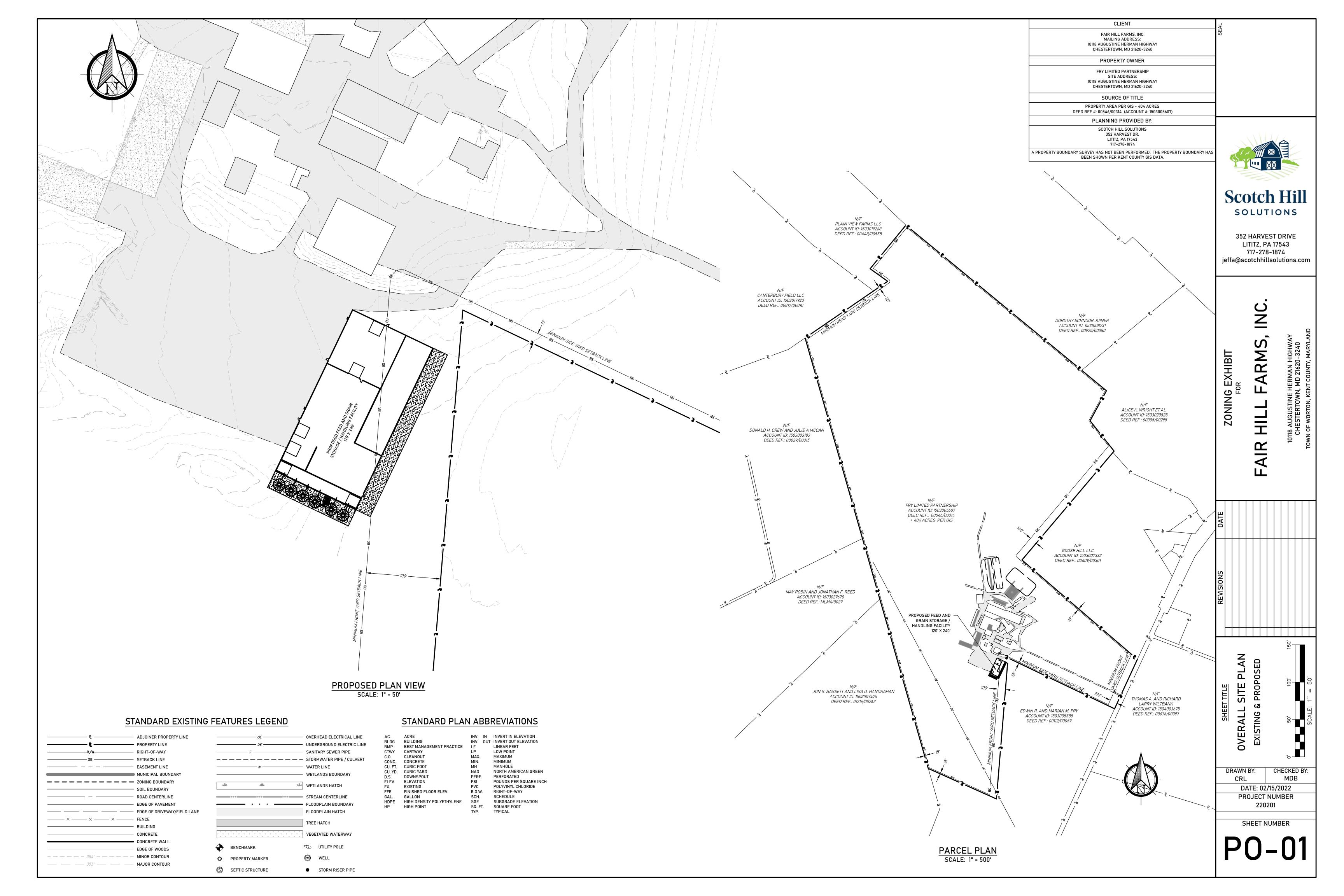
PLANNING, HOUSING & ZONING RECEIVED 5/3/24

Fry Family Limited Partnership application for variance- description of relief requested:

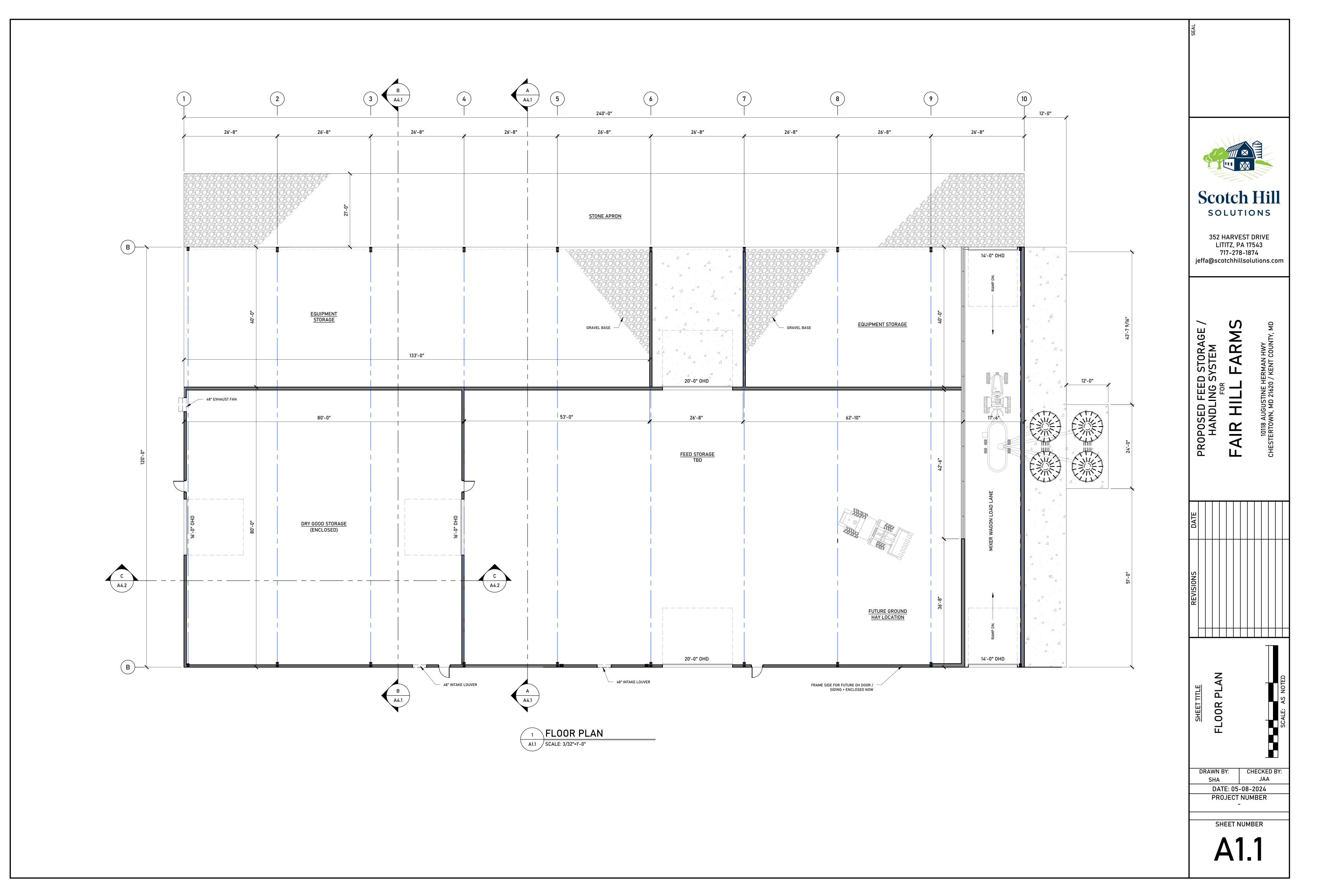
The Fry family is seeking a variance on their property to construct a new feed mixing and grain handling facility. The facility is to process grains and blend total mixed rations for their organic dairy operation. It will consist of a grain leg, bins, grain processing and a barn that will provide storage of feed, dry storage of mineral and seed along with some equipment. The planned site ties into the existing forage storage, the traffic flow pattern from existing truck scales and the farmstead itself. The main farmstead is located on the property where the property narrows in an odd shape adjoining neighboring properties. Much of the farmstead falls within the CAFO set-back area as it pre-dates the regulations. This provides a challenge for growth of the farm, as a large portion of the main infrastructure including electrical service, wells, milking facility, livestock housing, manure handling and storage is located within the set-back areas. It would be cost prohibitive, and topography becomes more challenging to relocate this infrastructure to allow for growth outside of the set-back. The proposed building site was selected as its' proximity to current infrastructure allows electrical service to be pulled from existing, for traffic flow and efficiency within the operations and topography that lends itself to minimal excavation and run-off. The site was also selected to maintain distance from neighboring homes and not change the open landscape by keeping it close to existing buildings. It also meets the requirements of building setbacks from MD 213 as defined by the scenic easement on the property. The adjoining property in which the variance is being requested is owned by an owner and active partner in the farming operation.

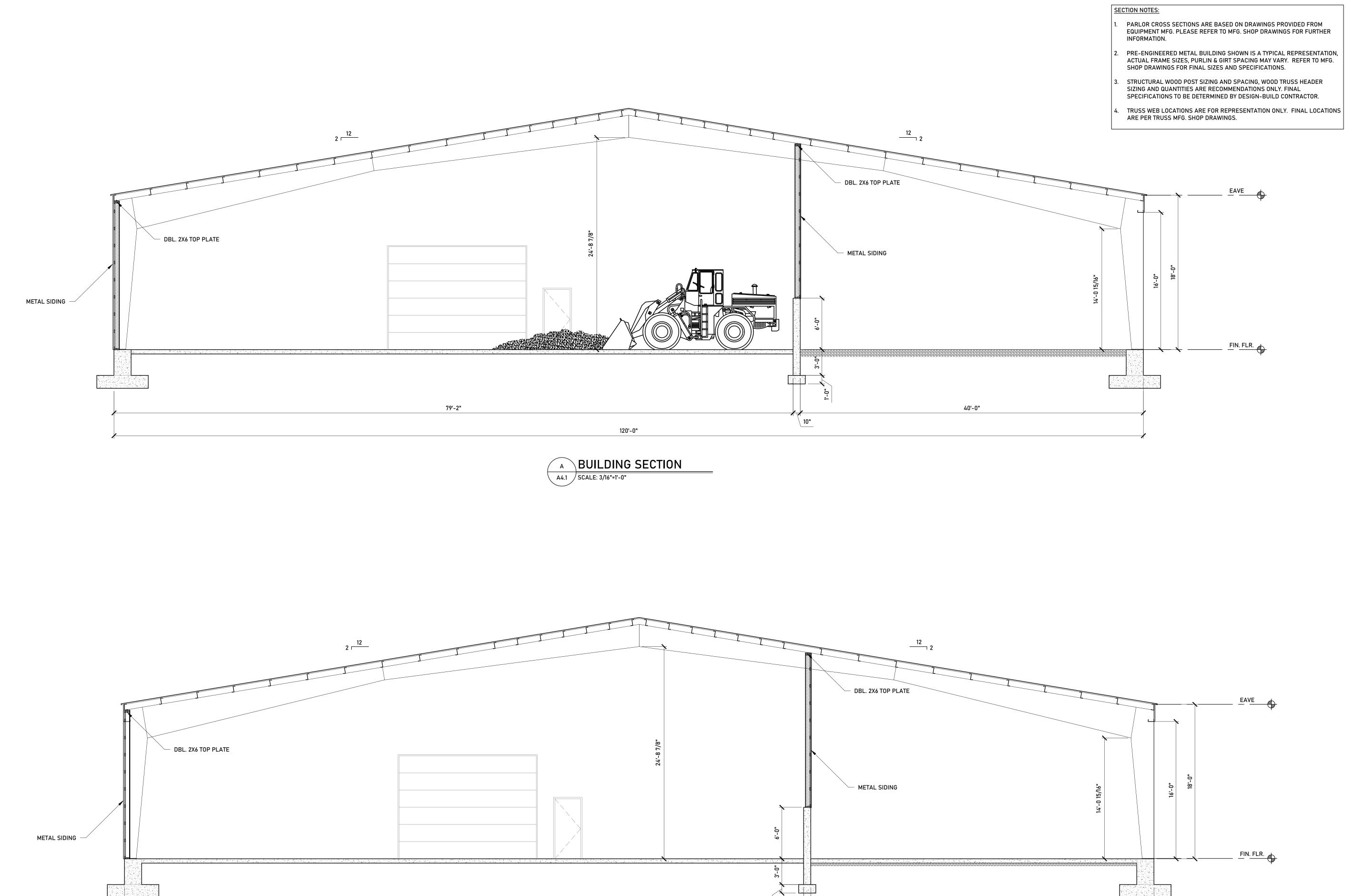






ABBREVIATIONS PROPOSED FEED STORAGE / HANDLING SYSTEM ABV. HOUR(S) ACOUSTICAL CEILING TILE HEIGHT A.C.T. ACOUS. INSIDE DIAMETER INSULATION FAIR HILL FARMS INSTALL(ATION) INVERT JOINT ALUM. LABORATORY LADDER 10118 AUGUSTINE HERMAN HWY LAMINATED APPROX. **APPROXIMATE** LAVATORY CHESTERTOWN, MD 21620 / KENT COUNTY, MD AVE. AVG. LIGHT WEIGHT MACHINE BET. **MASONRY** MATERIAL MAXIMUM **Scotch Hill** BOT. MECHANICAL MANUFACTURING(ER) SOLUTIONS MINIMUM **MISCELLANEOUS** BSMT. MASONRY OPENING 352 HARVEST DRIVE METAL LITITZ, PA 17543 **NOT IN CONTRACT** 717-278-1874 NUMBER jeffa@scotchhillsolutions.com CRS. NOMINAL CAB. NOT TO SCALE ON CENTER CEM. 0.D. **OUTSIDE DIAMETER** CER. OVERHEAD DOOR **OPPOSITE CENTER LINE** PRE-CAST) FEED STORAGE / LING SYSTEM CLG. PERFORATED PRE-ENGINEERED METAL BUILDING PERIMETER PLT. PLATE **PLYWD** PLYW00D PLASTIC LAMINATE CORRUGATED PAINT **CODE INFORMATION GENERAL NOTES** TABLE OF CONTENTS CNTR. PREFAB. PRE-FABRICATED PTN. PARTITION SHEET TITLE SHEET NO. PROPOSED | HANDLI POLYVINYL CHLORIDE **BUILDING CODE: INTERNATIONAL BUILDING CODE 2018** THESE DRAWINGS HAVE BEEN PRODUCED WITH GUIDANCE FROM THE PROJECT DEVELOPER AND OTHER MEMBERS OF THE DTL. DESIGN TEAM, GENERAL CODE APPLICATION AND STANDARD INDUSTRY PRACTICES. USE GROUP: U - UTILITY AND MISCELLANEOUS COVER SHEET QUANTITY BUILDER/CONTRACTOR IS RESPONSIBLE TO VERIFY CODE COMPLIANCE AND REQUIRED INSPECTIONS WITH LOCAL CODE FLOOR PLAN CONSTRUCTION TYPE: 5 - COMBUSTIBLE QUARTER **BUILDING SECTION** RISER **DESIGN LOADS:** OWNER IS RESPONSIBLE FOR ALL PERMITS AND APPROVALS PRIOR TO CONSTRUCTION RADIUS BUILDING SECTION RISK CATEGORY: **ROOF DRAIN** BUILDER/CONTRACTOR IS RESPONSIBLE FOR STRUCTURAL DESIGN AND VERIFICATION OF DIMENSIONS. DR. DOOR REINFORCING 2. GRAVITY - SUPERIMPOSED DEAD LOADS BUILDER/CONTRACTOR SHALL CONDUCT THEIR OWN SITE SURVEY OF EXISTING CONDITIONS TO VERIFY GROUND ELEVATIONS SOIL CONDITIONS, AND OBSTRUCTIONS/CONFLICTS WITH THESE DRAWINGS. PSF TOP CHORD DRAWING R.0. ROUGH OPENING PSF PSF BOTTOM CHORD ALL DIMENSIONS ARE IN FEET AND INCHES (0'-0") UNLESS NOTED OTHERWISE. SCHEDULE EIFS. EXTERIOR INSULATION FINISHING SYSTEM SQUARE FEET SOIL BEARING CAPACITY IS ASSUMED TO BE A MINIMUM OF 3,000 PSF. 3. GRAVITY - FLOOR LIVE LOADS **EXPANSION JOINT** SHTH. SHEATHING 150 PSF 4" SLABS ON GRADE . PRE-ENGINEERED WOOD TRUSS MANUFACTURER SHOP DRAWINGS SHALL BE PROVIDED BY BUILDER/CONTRACTOR. SPECIFICATIONS 5" SLABS ON GRADE 250 PSF SECOND FLOOR LIVE LOAD 200 PSF ELEC. STL STEEL ALL LUMBER MUST BE NO.2 SPRUCE, PINE, FIR OR BETTER UNLESS NOTED OTHERWISE. ALL EXPOSED LUMBER MUST BE ELEV. SSMR. STANDING SEAM METAL ROOF 4. GRAVITY - ROOF LIVE LOADS 30 PSF NON-REDUCIBLE LIVE LOAD STRUCTURAL ETHYLENE PROPYLENE DIENE MONOMER TEMPORARY 5. SNOW LOAD (PLUS DRIFTING WHERE APPLICABLE) 30 PSF EQ. TRENCH DRAIN 6. LATERAL LOADS - BASIC WIND SPEED EQUIP. **EQUIPMENT** THICK EXTG. THROUGH 7. WIND EXPOSURE CATEGORY: EXPOSURE C TOP OF FOOTING FEET (FOOT) TOM TOP OF MASONRY F.D. FLOOR DRAIN TOP OF PLATE FIRE EXTINGUISHER TOP OF PIER SITE MAP + PROJECT LOCATION **KEY PLAN** FINISHED FLOOR TOP OF WALL FG. **FIBERGLASS** FIN. UNDERWRITERS LABORATORIES FINISH(ED) UNFINISHED **FOUNDATION UNLESS NOTED OTHERWISE** FIBERGLASS REINFORCED PLASTIC VAPOR BARRIER FRT. FIRE RETARDANT TREATED VINYL COMPOSITION TILE FTG. VEST. VESTIBULE GALVANIZED **VERIFY IN FIELD GYPSUM WALL BOARD** SH VOLUME H.B. HOSE BIE HDWD WITHOUT WATER CLOSET WATER HEATER HORZ. HORIZONTAL WELDED WIRE FABRIC DRAWN BY: CHECKED BY: **HATCHES** DATE: 05-08-2024 CONCRETE STONE/GRAVEL BASE PROJECT NUMBER GYPSUM/ MORTOR SHEET NUMBER EARTH FILL PLYWOOD/LAMINATED BEAMS **KEY PLAN** CELLULOSE/SPRAY FOAM INSULATION STONE/CLAY RIGID INSULATION BOARD CONCRETE MASONRY





120'-0"

BUILDING SECTION

A4.1 SCALE: 3/16"=1'-0"

40'-0"

79'-2"

Scotch Hill SOLUTIONS

352 HARVEST DRIVE LITITZ, PA 17543 717-278-1874 jeffa@scotchhillsolutions.com

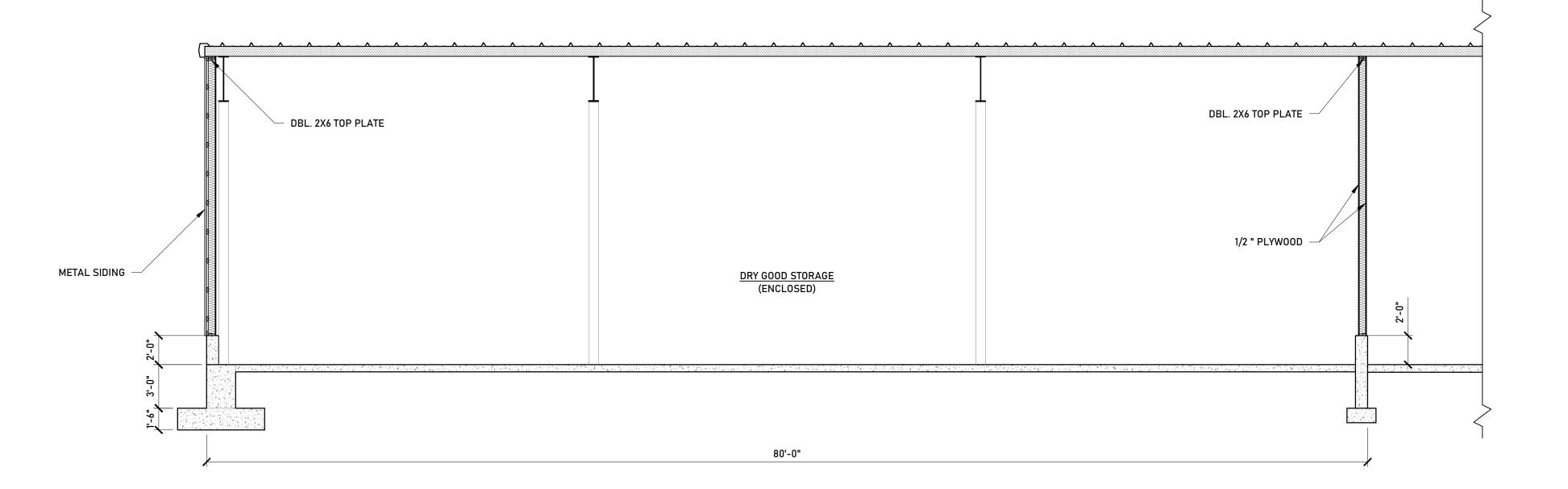
PROPOSED FEED STORAGE HANDLING SYSTEM FOR

BUILDING SECTION

DRAWN BY: CHECKED BY: DATE: 05-08-2024

PROJECT NUMBER

SHEET NUMBER





SECTION NOTES:

- PARLOR CROSS SECTIONS ARE BASED ON DRAWINGS PROVIDED FROM EQUIPMENT MFG. PLEASE REFER TO MFG. SHOP DRAWINGS FOR FURTHER INFORMATION.
- PRE-ENGINEERED METAL BUILDING SHOWN IS A TYPICAL REPRESENTATION, ACTUAL FRAME SIZES, PURLIN & GIRT SPACING MAY VARY. REFER TO MFG. SHOP DRAWINGS FOR FINAL SIZES AND SPECIFICATIONS.
- STRUCTURAL WOOD POST SIZING AND SPACING, WOOD TRUSS HEADER SIZING AND QUANTITIES ARE RECOMMENDATIONS ONLY. FINAL SPECIFICATIONS TO BE DETERMINED BY DESIGN-BUILD CONTRACTOR.
- TRUSS WEB LOCATIONS ARE FOR REPRESENTATION ONLY. FINAL LOCATIONS ARE PER TRUSS MFG. SHOP DRAWINGS.



Scotch Hill SOLUTIONS

352 HARVEST DRIVE LITITZ, PA 17543 717-278-1874 jeffa@scotchhillsolutions.com

PROPOSED FEED STORAGE / HANDLING SYSTEM FOR

AIR

BUILDING SECTION

DRAWN BY: CHECKED BY:
SHA JAA

DATE: 05-08-2024

PROJECT NUMBER -

SHEET NUMBER