2ND AMENDED SITE PLAN OF HAMPSTEAD WASTEWATER TREATMENT PLANT IMPROVEMENTS

CARROLL COUNTY CONTRACT NO. S-448 BID NO. 71-F-2-22/23

EXISTING SOLAR PANEL AREA

COUNTY COMMISSIONERS OF CARROLL COUNTY,

> LIMIT OF SITE DEVELOPABLE

> > **EXISTING LOW**

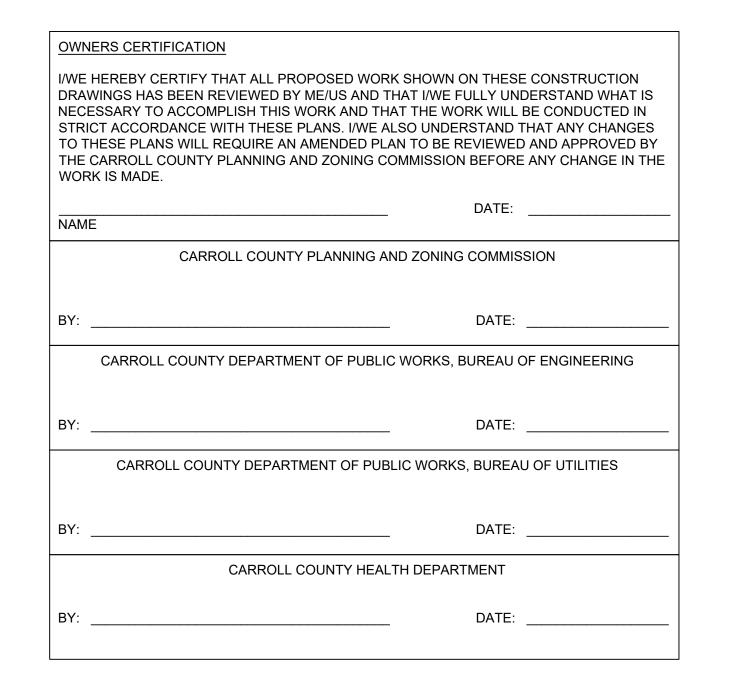
RESIDENTIAL /

PRESERVATION CONSERVATION

	ADJACENT PROPERTY OWNERS										
ID NUMBER	OWNER NAME	PREMISES ADDRESS	TAX MAP	PARCEL	TAX ID NUMBER	DEED REF	RECORD PLAT REF. NO	LOT NO	COUNTY		
1	THOMAS E. COLE	4505 BLACK ROCK RD	0041	0039	003181	5657/324	N/A	N/A	CARROLL		
2	KAREN R. & GREGORY L. MON SR.	901 HACKLE DR	0503	0742	053510	1370/33	35-20/19	241	CARROLL		
3	LISA M. & RONALD B. MALECKI	4513 NORTH WOODS TRL	0503	0742	053537	1377/472	35-20/19	243	CARROLL		
4	ROSEMARY CLARE & JOSE SAINZ	NORTH WOODS TRL	0503	0742	431690	1804/146	35-20/19	PAR D	CARROLL		
5	ROSEMARY CLARE & JOSE SAINZ	4511 NORTH WOODS TRL	0503	0742	053545	1364/35	35-20/19	244	CARROLL		
6	CHRISTINE COUGHENOUR & DENNIS STRAWDERMAN JR.	4509 NORTH WOODS TRL	0503	0742	053553	8785/95	35-20/19	245	CARROLL		
7	SUSAN E. & JEFFREY E. LEUTNER	802 DECOY DR	0503	0742	053596	1397/347	35-20/19	248	CARROLL		
8	DIANE A. & WAYNE A. WILSON	800 DECOY DR	0503	0742	053618	2729/619	35-20/19	249	CARROLL		
9	STEPHEN UITHOVEN	801 DECOY DR	0503	0742	053626	6154/108	35-20/19	250	CARROLL		
10	FIELDS HOMEOWNERS ASSOC INC	OPEN SPACE	0503	0742	053774	1327/713	35-21/19	PAR C	CARROLL		
11	FIELDS HOMEOWNERS ASSOC INC	OPEN SPACE	0503	0742	050783	1225/458	33-76/77	PAR A	CARROLL		
12	TOWN OF HAMPSTEAD	OPEN SPACE	0503	0742	070016	4490/399	33-73/75	P A1	CARROLL		
13	LINDA & FLOYD E. TALIAFERRO	BLK ROCK & TRENTON MILL RD	0041	0059	000190	10571/455	N/A	N/A	CARROLL		
14	LINDA & FLOYD E. TALIAFERRO	TRENTON MILL RD	0019	0012	2300002053	46092/490	70/31	2	BALTIMORE		
15	WILLIAM A. MCDANIEL JR.	5015 BLACK ROAD RD	0019	0012	2300002054	24506/00388	70/31	3	BALTIMORE		
16	DIANE C. & THOMAS E. COLE	4505 BLACK ROCK RD	0019	0011	0503048050	34905/174	N/A	N/A	BALTIMORE		

ALL PROPERTIES ARE LOCATED IN THE TOWN OF HAMPSTEAD, MD 21074; EXCEPT ID NUMBERS 13 & 14 WHICH ARE IN UPPERCO, MD 21155

DESIGNATES ADJACENT PROPERTY ID NUMBER



DRAWING INDEX

- **GENERAL NOTES** EXISTING CONDITIONS PLAN AND SITE DEMOLITION PLAN
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VICINITY MAP

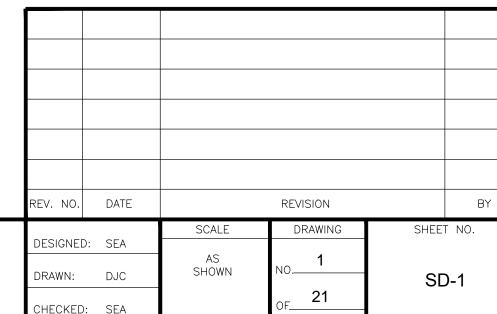
FX CLEAR VIEW

CARROLL COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS BRYAN BOKEY DIRECTOR

SITE DATA NOTES

- EXISTING ZONING: CONSERVATION.
- EXISTING AND PROPOSED USE: WASTEWATER TREATMENT PLANT (EXEMPT COMMERCIAL)
- 3. TOTAL AREA OF PARCEL: 1,252,350 SQ. FT. OR 28.759 AC.
- 4. TOTAL AREA OF SITE (SITE DEVELOPABLE): 301,713 SQ. FT. OR 6.920 AC
- 5. TOTAL AREA OF LIMIT OF DISTURBANCE: 7,520 SQ. FT. OR 0.173 AC.
- 6. PROPERTY SHOWN HEREON ARE OWNED BY: THE COUNTY COMMISSIONERS OF CARROLL COUNTY, MARYLAND AND IS RECORDED IN THE LAND RECORDS OF CARROLL COUNTY IN DEED 10876 / 0005, DATED AUGUST 29, 2022. THE TAX ACCOUNT NUMBER FOR THE PARCEL AFFECTED BY THESE PLANS IS 08-001790.
- OWNER ADDRESS: 225 NORTH CENTER STREET, WESTMINSTER, MD 21157
- 8. PROPERTY PARCEL INFORMATION: TAX MAP 41, BLOCK 10, PARCEL 0058 L.10876 / F.05, TAX ID #08-001790 AND ELECTION DISTRICT 08.
- 9. PROPERTY LOCATION: 4455 NORTH WOODS TRAIL, HAMPSTEAD, MD, 21074
- 10. DEVELOPER NAME: CARROLL COUNTY BUREAU OF UTILITIES
- DEVELOPER ADDRESS: 225 NORTH CENTER STREET, WESTMINSTER, MD 21157
- ADJACENT PROPERTY OWNERS ARE ON THE VICINITY MAP SHOWN ON THIS DRAWING
- 13. COORDINATES AS SHOWN HEREON ARE REFERENCED TO THE MARYLAND STATE PLANF
- CORRECTNESS OF THE INFORMATION GIVEN. CONTRACTOR MUST VERIFY THE EXISTENCE AND
- FLOOD MAP INFORMATION: PREMISES IS SHOWN ON MAP ENTITLED "FIRM FLOOD INSURANCE RATE MAP, CARROLL COUNTY, MD, UNINCORPORATED AREAS, PANEL 100 OF 150, COMMUNITY PANEL
- 17. SOUTH HEADWORKS FACILITY LIMIT OF DISTURBANCE IS NOT WITHIN THE MDE TIER II WATERSHED AREA. A WAIVER BY MDE IS NOT REQUIRED.
- 18. PER COORDINATION WITH USFWS, THE FEDERALLY ENDANGERED SPECIES NORTHERN LONG EARED BAT IS POTENTIALLY LOCATED WITHIN THE PROJECT AREA, BUT NO EFFECT TO THE SPECIES IS
- 19. MD DNR WILDLIFE AND HERITAGE SERVICE HAS NO RECORDS OF STATE OR FEDERAL LISTED SPECIES IN THE PROJECT AREA.
- 20. MD HISTORIC TRUST STATED NO HISTORIC PROPERTY WILL BE AFFECTED BY THE PROPOSED
- 21. WATER SERVICE AREA: SITE SERVED BY ONE EXISTING WELL ONSITE, WATERSHED: LOCH RAVEN RESERVOIR (02130805) AND PUBLIC WATER IS NOT AVAILABLE. SEWER SERVICE AREA: SITE SERVED BY WWTP ONSITE, PUBLIC FACILITY.
- 22. THIS SITE DRAINS TO LOCH RAVEN RESERVOIR THROUGH PINEY RUN STREAM, WHICH IS CLASSIFIED
- 23. THIS SITE IS LOCATED WITHIN THE CHESAPEAKE BAY CRITICAL AREA.
- 24. LANDSCAPE: NO PLANNED IMPACTS AND NO PLANNED IMPROVEMENTS
- 25. FOREST CONVERSATION: NONE OF THE EXISTING FOREST ON SITE WILL BE CUT, CLEARED, OR GRADED FOR THE PROPOSED USE; AND ALL OF THE FOREST IN THE NET TRACT AREA WILL RETAINED AND PROTECTED BY THE FOREST CONSERVATION EASEMENT.
- 26. STORM WATER MANAGEMENT: REFER TO SWM DRAWINGS AND SUBMITTED SWM REPORT
- 27. BUILDING HEIGHT: PERMITTED: 35 FT. MAX. PROPOSED < 35 FT.
- 28. ALL NEW BUILDINGS WILL BE FOR EQUIPMENT AND PLANT OPERATIONS ONLY AND CONSIDERED AS NON-OCCUPIED SPACES.
- 29. THERE WILL NOT BE ANY NEW PROPOSED LIGHTING OR SIGNAGE IMPROVEMENTS.
- 30. THERE WILL BE NO ANTICIPATED NEW EMPLOYEES AS A RESULT OF THE PLANT IMPROVEMENTS.
- 31. THERE WILL BE NO ANTICIPATED INCREASE IN VEHICLE TRIP GENERATION ON SITE AS A RESULT OF THE PLANT IMPROVEMENTS. THE ADDITIONAL PAVEMENT ADDED AROUND THE EXISTING HANDICAP PARKING SPACE IS FOR TRUCK TURN AROUND ACCESS ONLY SINCE ACCESS TO SLUDGE PRESS BUILDING WAS REVISED WITH THE PROPOSED EXPANSION OF BUILDING.
- 32. EXISTING PARKING SPACES ARE 7 INCLUDING 1 HDCP. PLANT PARKING SPACE REQUIRED 1 PER 1.5 EMPLOYEES ON A MAXIMUM SHIFT. NO PLANNED FOR ADDITIONAL PARKING SPACES OR ADDITIONAL
- 33. NO PLANNED PROPOSED UTILITY SERVICES FROM VERIZON, BGE, ALLEGHENY POWER



CONCEPT SITE DEVELOPMENT PLAN

OWNER / DEVELOPER / APPLICANT CARROLL COUNTY COMMISSIONERS 225 NORTH CENTER STREET

WESTMINSTER, MD 21557

HAMPSTEAD WASTEWATER TREATMENT PLANT IMPROVEMENTS

TITLE SHEET



PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED O

APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND,

LICENSE NO. _ EXPIRATION DATE

WIGHT AVENUE | HUNT VALLEY, MD 21030

GENERAL NOTES

- THE DEPARTMENT OF PUBLIC WORKS, BUREAU OF UTILITIES "REGULATIONS, STANDARD SPECIFICATIONS AND DESIGN DETAILS FOR WATER AND SEWERAGE CONSTRUCTION IN CARROLL COUNTY, MARYLAND" LATEST EDITION ARE HEREBY MADE A PART OF THESE DOCUMENTS, INCLUDING ALL SUBSEQUENT ADDENDA OR MODIFICATIONS HERETO.
- 2. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING COMPANIES AT LEAST 72 HOURS PRIOR TO STARTING ANY CONSTRUCTION:

BALTIMORE GAS & ELECTRIC	410-293-3147
VERIZON	410-393-5793
MISS UTILITY	1-800-257-7777
CARROLL COUNTY BUREAU OF UTILITIES	410-386-2164

- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OFFICE OF THE ENGINEER, (NAME & PHONE #) OF ANY DISCREPANCIES IN THE PLANS OR IN THE RELATIONSHIP OF FINISHED GRADES AND EXISTING GRADES PRIOR TO START OF CONSTRUCTION.
- 4. THE LOCATION OF EXISTING UTILITIES IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE BUREAU OF UTILITIES (BOU), CARROLL COUNTY OR THE ENGINEER DO NOT WARRANT OR GUARANTEE THE CORRECTNESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY THE EXISTENCE AND LOCATION OF ALL UTILITIES TO HIS OWN SATISFACTION.
- 5. ANY PAVING IN COUNTY ROADS DISTURBED BY THE CONTRACTOR'S OPERATION SHALL BE REPLACED WITH 18" OF COMPACTED CR-6 TO A MINIMUM OF 95% MODIFIED PROCTOR ASTM D-1557. PERMANENT PAVING SHALL BE IN ACCORDANCE WITH COUNTY ROADS DETAIL NO. (APPLICABLE PAVING DETAIL). PERMIT COSTS THEREFORE SHALL BE INCLUDED IN UNIT PRICES BID AND THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 6. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.
- 7. ALL SAFETY MEASURES TO BE IMPLEMENTED DURING THE CONSTRUCTION OF THIS PROJECT ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- 8. A GEOTECHNICAL ENGINEER SHOULD BE CONSULTED DURING THE CONSTRUCTION OF SLOPES GREATER THAN TEN (10) VERTICAL FEET AT SLOPES OF 2:1 OR GREATER.
- 9. HOUSE CONNECTIONS SHALL BE LOCATED AS SHOWN. IF ANY ADJUSTMENT TO THESE LOCATIONS IS PROPOSED BY THE FIELD ENGINEER OR CONTRACTOR, THE DEVELOPER OR HIS ENGINEER SHALL BE CONSULTED TO THE PROPOSED CHANGE BEFORE INSTALLATION.
- 10. THE CONTRACTOR IS REQUIRED TO OBTAIN A PERMIT FROM THE BUREAU OF ROADS OPERATIONS PRIOR TO BEGINNING WORK IN A COUNTY ROAD RIGHT OF WAY. CONTACT BUREAU OF ROADS OPERATION AT 410-386-6717 A MINIMUM OF 72 HOURS PRIOR TO START OF CONSTRUCTION.
- 11. THE PUBLIC PORTION OF THE (WHC) AND/OR (SHC) FROM THE (WATER MAIN AND/OR (SEWER MAIN) TO THE (METER VAULT AND/OR CLEAN OUT) AT THE RIGHT OF WAY OR EASEMENT LINE FALLS UNDER THE PURVIEW OF BOU. CONTRACTOR SHALL CONTACT THE BUREAU AT 410-386-2164 TO SCHEDULE PRE-CONSTRUCTION MEETING AND INSPECTION A MINIMUM OF 72 HOURS PRIOR TO START OF CONSTRUCTION.
- 12. CONTRACTOR MUST BE PRE-QUALIFIED WITH DEPARTMENT OF PUBLIC WORKS TO CONSTRUCT PUBLIC WATER AND SEWER UTILITY WORK.
- 13. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING/SUPPLYING WATER TO SITE DURING CONSTRUCTION. THE BUREAU OF UTILITIES BULK WATER SERVICE CAN BE UTILIZED AT THE CONTRACTOR'S EXPENSE. METER HYDRANTS AND CONNECTION TO EXISTING INFRASTRUCTURE IS PROHIBITED. CONTACT UTILITIES AT 410-386-2164 FOR BULK WATER SERVICE INFO.
- 14. THE PRIVATE PORTION OF THE (WHC) AND/OR (SHC) FROM THE (PRIVATE METER VAULTS AND/OR PRIVATE CLEAN OUT) TO THE (HOUSE OR BUILDING) FALLS UNDER THE PURVIEW OF BUREAU OF PERMITS AND INSPECTIONS. THE PLUMBING INSPECTOR SHALL INSPECT THE PRIVATE PORTION OF THE (WHC) AND/OR (SHC). CONTRACTOR SHALL CONTACT BUREAU OF PERMITS AND INSPECTIONS AT 410-386- 2674 TO OBTAIN REQUIRED PLUMBING PERMIT. INSPECTION OF PRIVATE WATER AND SEWER MAINS AND INFRASTRUCTURE SHALL BE THE RESPONSIBILITY OF THE DEVELOPER/CONTRACTOR.
- 15. MAINTENANCE OF PRIVATE ON-SITE WATER AND SEWER BEYOND RIGHT-OF-WAY AND/OR UTILITY EASEMENT SHALL BE RESPONSIBILITY OF PROPERTY OWNER.

WATER NOTES

- ALL PUBLIC WATER MAIN PIPE SHALL BE DUCTILE IRON PIPE (DIP) CLASS 52 OR C-900 AND APPROVED BY BOU. WATER MAIN PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THE DEPARTMENT OF PUBLIC WORKS, BUREAU OF UTILITIES "REGULATIONS, STANDARD SPECIFICATIONS AND DESIGN DETAILS FOR WATER AND SEWERAGE CONSTRUCTION IN CARROLL COUNTY, MARYLAND" LATEST EDITION.
- 2. THE BUREAU OF UTILITIES PROHIBITS THE MANIPULATION OF VALVES BY ANY PARTY OTHER THAN BUREAU OF UTILITIES STAFF.
- 3. TEES, VALVES, BENDS FITTINGS, CAPS, ETC. SHALL BE MEGA LUGGED AND BUTTRESSED IN ACCORDANCE WITH STANDARD DETAILS. PROVIDE FIELD LOCK GASKETS IN ALL BELL END PIPE CONNECTIONS WHERE MEGA LUGS ARE NOT REQUIRED.
- 4. FIRE HYDRANTS SHALL BE STRAPPED TO VALVES AND VALVES STRAPPED TO TEES AT THE MAIN IN ACCORDANCE WITH STANDARD DETAILS. FIRE HYDRANT INTERVALS SHALL BE IN ACCORDANCE WITH SPECIFICATIONS BASED ON LOT SIZE.
- 5. A VALVE IS REQUIRED IN EACH DIRECTION AT ALL TEES OR CROSSES, HIGH AND LOW POINTS AND AT SPECIFIC INTERVALS AS NOTED ON APPROVED WATER AND SEWER PLANS. AN ADJUSTABLE ROADWAY VALVE BOX SHALL BE FURNISHED AND INSTALLED WITH EACH VALVE. THE RIM OF THE VALVE BOX SHALL BE SET FLUSH WITH EXISTING GROUND OR PROPOSED GRADE.
- 6. RESIDENTIAL WATER METERS SHALL BE 1" AND LOCATED WITHIN A METER VAULT CONSTRUCTED AND SET IN ACCORDANCE WITH BOU STANDARD DETAIL W-7/W-11 LATEST VERSION. EXTEND WHC TO RIGHT OF WAY OR UTILITY EASEMENT.
- 7. RESIDENTIAL WATER HOUSE CONNECTIONS (WHC) SHALL BE 1.5" TYPE 'K' SOFT COPPER TUBING.
- 8. CONTRACTOR SHALL TUNNEL PAST EXISTING UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DISRUPTIONS OF ANY SERVICES.
- 9. CONTRACTOR SHALL NOT INTERRUPT EXISTING UTILITY SERVICES WITHOUT WRITTEN PERMISSION FROM THE OWNER OF THE UTILITY A MINIMUM OF 72 HOURS PRIOR TO THE INTERRUPTION. WATER CONNECTIONS TO EXISTING MAINS SHALL BE MADE DURING THE HOURS OF 10:00 AM AND 3:00 PM AND UNDER THE SUPERVISION OF BOU PERSONNEL.
- 10. DISINFECTION OF WATER MAINS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND DESIGN DETAILS, SECTION 4, SUBSECTION 12 DISINFECTION OF MAINS.
- 11. PUBLIC WATER MAINS AND HYDRANT CONNECTIONS SHALL BE TESTED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 4, SUBSECTION 15A AND B TESTING MAINS.
- 12. IF WATER HOUSE CONNECTIONS CROSS SEWER HOUSE CONNECTIONS, THERE SHALL BE A MINIMUM 1'- 0" VERTICAL CLEARANCE BETWEEN WATER AND SEWER UNLESS OTHERWISE SPECIFIED. WATER SHALL BE ABOVE THE SEWER.

WIGHT AVENUE | HUNT VALLEY, MD 21030

SEWER NOTES

- 1. ALL PUBLIC SEWER PIPES SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM D-3034 STANDARD SPECIFICATION FOR TYPE PSM POLY VINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS. ALL PUBLIC GRAVITY SEWER SHALL BE MINIMUM SDR-26 TYPE OR EQUIVALENT FOR STANDARD DEPTHS UP TO 16'. SEWER PIPE AND FITTINGS SHALL UTILIZE A RUBBER RING JOINT. MAINLINE SHALL BE MINIMUM 8" INSIDE DIAMETER AND SHC'S SHALL BE MINIMUM 6" INSIDE DIAMETER. SEWER PIPE SHALL HAVE ASTM EMBEDDED MATERIAL CLASSIFICATION OF CL. 1, 6" OF NO. 57 STONE ALL AROUND PIPE TO 6" ABOVE TOP.
- 2. ALL PUBLIC GRAVITY SEWER 16' OR DEEPER SHALL BE C900 DR18 OR EQUIVALENT WITH JOINTS IN COMPLIANCE WITH ASTM D-3139 AND GASKETS IN COMPLIANCE WITH ASTM F-477. PUBLIC GRAVITY SEWER BELOW 25' SHALL REQUIRE FURTHER EVALUATION OF MATERIAL TYPE AND CONSTRUCTION METHODS TO BE APPROVED BY BOU.
- 3. ALL PUBLIC FORCE MAIN SEWER SHALL BE MINIMUM DIP CL. 52 TYPE OR EQUIVALENT.
- 4. SEWER HOUSE CONNECTIONS (SHC) SHALL BE MINIMUM 6" PVC SDR -26 FOR THE PUBLIC PORTION. SHC'S SHALL BE PER SPECIFICATIONS NOTED ABOVE AND CONSTRUCTED IN ACCORDANCE WITH BOU STANDARD DETAILS S-15, S-16 AND S-21 LATEST VERSION.
- 5. SEWER HOUSE CONNECTIONS (SHC) SHALL BE LOCATED AS SHOWN ON THE APPROVED WATER AND SEWER PLANS, SHEETS (PROVIDE SHEET NUMBERS) WITH RESPECT TO WATER SERVICE LOCATIONS AND MEET CLEARANCE REQUIREMENTS, ETC., AS DESCRIBED BELOW AND IN THE DESIGN MANUAL NOTED IN ITEM NO.1 OF GENERAL NOTES. ANY PROPOSED CHANGE TO THESE LOCATIONS MUST BE APPROVED BY THE BOU, DESIGN ENGINEER AND DEVELOPER.
- 6. ALL APPURTENANCES TO THE PUBLIC SEWER LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH BOU STANDARD DETAILS CITED IN THE APPROVED WATER AND SEWER CONSTRUCTION PLANS. IN THE CASE OF MANHOLES, (PROVIDE TYPE AND DETAIL NO.)
- 7. IN ADDITION TO THE CLEARANCES DESCRIBED IN THE DESIGN MANUAL REGULATIONS, THE SEWER LINES SHALL BE LOCATED A MINIMUM 3'-0" CLEAR OF THE FACE OF ANY CURBS, POLES, UTILITY BOXES, GUIDE RAIL, ETC.
- 8. SEWER MANHOLES SHALL BE SET TO FINISHED GRADE UPON INSTALLATION AND TAPERED WITH BLACK TOP TO MEET BASE PAVING GRADE UNTIL FINAL PAVING IS INSTALLED. PROTECTION OF ALL WATER AND SEWER APPURTENANCES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL PUBLIC ROAD(S) ARE CONVEYED TO CARROLL COUNTY.
- 9. UPON INSTALLATION OF SEWER MAINS AND HOUSE CONNECTIONS AND AFTER PLACEMENT OF THE COMPACTED BACK FILL TO ORIGINAL GROUND LINE OR PROPOSED PAVING SUBGRADE, THE SEWER SHALL BE TESTED FOR ACCEPTABILITY. THE PROCEDURES FOR TESTING SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF INDICATED SUBSECTIONS OF THE DESIGN MANUAL AS FOLLOWS:
- TESTS FOR ACCEPTABILITY OF SEWERS SUBSECTION 5-14.
- ELEVATION AND ALIGNMENT CHECKS SUBSECTION 5-15.
- CLEANING OF PIPELINES SUBSECTION 5-16.
 AIR TEST OF SEWER FOR ACCEPTABILITY 5-17.

GENERAL SITE NOTES

- 1. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING THAT THIS PROJECT IS CONSTRUCTED IN ACCORDANCE WITH THESE DOCUMENTS AND IN COMPLIANCE WITH CODES INDICATED HEREIN. QUALITY OF WORKMANSHIP AND INSTALLATION OF MATERIALS SPECIFIED BY ENGINEER ARE THE RESPONSIBILITY OF CONTRACTOR. ENGINEER WILL NOT BE HELD RESPONSIBLE FOR ANY SUBSTANDARD OR INSUFFICIENT WORKMANSHIP, MATERIALS, OR SERVICES PROVIDED IN EXECUTION OF ANY PHASE OF CONSTRUCTION OF THIS PROJECT.
- 2. ALL MATERIALS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. GENERAL CONTRACTOR TO ENSURE THAT ALL MANUFACTURER'S WARRANTIES WILL BE HONORED.
- 3. ALL CONDITIONS SHOWN TO BE 'EXISTING' SHALL BE VERIFIED IN FIELD BY GENERAL CONTRACTOR PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE NOTED AND SUBMITTED TO THE PROJECT CONSTRUCTION MANAGER AND ENGINEER FOR REVIEW. CHANGES TO ORIGINAL DESIGN OF PROJECT DUE TO EXISTING SITE CONDITIONS MUST BE APPROVED BY THE PROJECT CONSTRUCTION MANAGER PRIOR TO MAKING ANY CHANGES.
- 4. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING A THOROUGH KNOWLEDGE OF EXISTING FIELD CONDITIONS AD OF ALL DRAWINGS AND SPECIFICATIONS RELATED TO THEIR FIELD. FAILURE TO AQUAINT HIMSELF WITH THIS PROJECT AND HIS FIELD OF SERVICE SHALL NOT RELIEVE HIM OF ANY RESPONSIBILITY FOR PERFORMING HIS WORK PROPERLY. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED DUE TO GENERAL CONTRACTOR'S FAILURE TO CONVEY THE NECESSARY KNOWLEDGE TO FAMILIARIZE WORKERS AND SUBCONTRACTORS WITH THIS
- 5. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING SAFETY OF ALL PERSONS ON JOB SITE AT ALL TIMES INCLUDING (BUT NOT LIMITED TO) SUBCONTRACTORS, VENDORS, DESIGN STAFF, PROFESSIONALS, AND INSPECTION PERSONNEL.
- 6. GENERAL CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAG MEN, OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY
- 7. GENERAL CONTRACTOR SHALL PROVIDE DUMPSTERS, PORTABLE TOILETS, AND TEMPORARY POWER FOR UNRESTRICTED PROJECT RELATED USE BY OTHERS FOR DURATION OF PROJECT.
- 8. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING AREA CLEAN AND FREE OF DEBRIS AT ALL TIMES DURING CONSTRUCTION.
- 9. EXISTING PAVING THAT WILL REMAIN AFTER CONSTRUCTION SHALL BE PROTECTED FROM DAMAGE. AREAS OF EXISTING PAVING THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE SAW CUT THEN REMOVED AND REPLACED.
- 10. TOPOGRAPHY SHOWN IS A COMPILATION OF CARROLL COUNTY GIS AND FIELD RUN TOPOGRAPHY PREPARED BY JMT , DATED MARCH 2024.
- 11. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS, AND REQUIREMENTS, AND STANDARDS OF LOCAL GOVERNING AUTHORITY.
- 12. THE CONTRACTOR SHALL NOTIFY ENGINEER OR PROJECT CONSTRUCTION MANAGER IN CASE OF ANY DISCREPANCY BEING PRESENT BETWEEN INFORMATION CONTAINED ON THESE PLANS AND OTHER DOCUMENTS.

SITE DEVELOPMENT PLAN INSPECTION SEQUENCE NOTES

- 1. CONTRACTOR SHALL NOTIFY THE CARROLL COUNTY BUREAU OF PERMITS AND INSPECTIONS AT 410-386-2674, AT LEAST ONE DAY PRIOR TO BEGINNING ANY WORK.
- 2. SITE COMPLIANCE INSPECTIONS ARE REQUIRED AT THE FOLLOWING STAGES DURING CONSTRUCTION:
 - a. PROPOSED STRUCTURES STAKEOUT IN PROPER LOCATIONS AS SHOWN ON THESE APPROVED PLANS.

 B. PROPOSED FOUNDATIONS INSTALLED FOR ALL BUILDINGS SHOWN ON THESE APPROVED PLANS.
 - b. PROPOSED FOUNDATIONS INSTALLED FOR ALL BUILDINGS SHOWN ON THESE APPROVED PLANS.c. SUB-GRADES ESTABLISHED FOR ALL DRIVES, PARKING LOTS, AND SURROUNDING GRADING
 - d. COMPLETION OF ALL DRIVES, PARKING LOTS, AND SURROUNDING GRADING.e. COMPLETION OF ALL WORK SHOWN ON PLANS.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE CARROLL COUNTY BUREAU OF PERMITS AND INSPECTIONS AT 410-386-2674 UPON COMPLETION OF EACH PHASE OF CONSTRUCTION.
- CONTRACTOR SHALL NOTIFY CARROLL COUNTY BUREAU OF RESOURCE MANAGEMENT, ENVIRONMENTAL INSPECTION SERVICES DIVISION AT 410-386-2210 PRIOR TO BEGINNING ANY WORK. ALL FOREST CONSERVATION PLAN DEVICES MUST BE IN PLACE PRIOR TO ANY CONSTRUCTION.
- 4. NO PLANNED LANDSCAPE UNLESS OTHERWISE DIRECTED, FINAL LANDSCAPING INSPECTION SHALL BE ARRANGED THROUGH BUREAU OF RESOURCE MANAGEMENT, ENVIRONMENTAL INSPECTION SERVICES DIVISION AT 410-386-2210 BY THE CONTRACTOR/DEVELOPER OR AGENT. WRITTEN APPROVAL FROM THE LANDSCAPE REVIEW SPECIALIST, BUREAU OF RESOURCE MANAGEMENT, MUST BE OBTAINED FOR ANY DEVIATIONS FROM THE LANDSCAPING OR FOREST CONSERVATION PLANS OR MODIFICATIONS IN THE PLANT MATERIAL.
- 5. THE CONTRACTOR SHALL NOT PROCEED TO THE NEXT PHASE OF CONSTRUCTION UNTIL GIVEN APPROVAL OF PRIOR PHASES.

DEMOLITION GENERAL NOTES

VERIFIED IN WRITING BY THE PLANT OPERATOR.

GOVERNING AUTHORITIES.

- 1. SEE THIS SHEET FOR "GENERAL SITE NOTES" AND "GENERAL CONSTRUCTION NOTES".
- 2. CONTRACTOR MUST OBTAIN SEPARATE PERMIT FOR DEMOLITION OF EXISTING (EX.) STRUCTURES ON SITE
- 3. CONTRACTOR SHALL INSPECT SITE TO DETERMINE EXTENT OF DEMOLITION TO BE DONE PRIOR TO PLACING BIDS ON SUCH ITEMS.
- 4. CONTRACTOR MUST REMOVE ALL EX. FEATURES LOCATED WITHIN LIMIT OF DISTURBANCE SHOWN OR LABELED AS TO BE REMOVED (TBR) ON THIS PLAN. THOSE INCLUDE, BUT ARE NOT LIMITED TO, EX. STRUCTURES, PAVEMENT, CONCRETE, CURB, LANDSCAPING, TREES (INCLUDING STUMPS), LIGHT POLES, AND SIGNS (INCLUDING BASES), FOUNDATIONS, UTILITIES, ETC. AS REQUIRED FOR NEW CONSTRUCTION. CONTRACTOR SHALL REFER TO SITE, GRADING AND UTILITY PLANS PRIOR TO DEMOLITION OPERATIONS.
- 5. LOCATE, IDENTIFY, DISCONNECT, SEAL, CAP-OFF, OR BLOCK WITH BRICK AND MORTAR INDICATED UTILITY SERVICES SERVING STRUCTURES TO BE DEMOLISHED. ARRANGE TO SHUT-OFF INDICATED UTILITIES WITH UTILITY COMPANIES AND FOLLOW THEIR RESPECTIVE UTILITY KILL POLICY.
- 6. DO NOT START DEMOLITION WORK UNTIL UTILITY DISCONNECTING AND SEALING HAVE BEEN COMPLETED AND
- 7. EXTREME CARE SHOULD BE TAKEN IN AREAS OF ANY UTILITIES TO REMAIN. PROTECT AND SUPPORT UTILITIES IN PLACE AND PLACE SAFETY FENCE OR ADEQUATE FLAGGING AS NECESSARY.
- 8. MAINTAIN EX. UTILITIES INDICATED TO REMAIN IN SERVICE. DO NOT INTERRUPT EX. UTILITIES SERVING OCCUPIED OR OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION, PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EX. UTILITIES, AS ACCEPTABLE TO OWNER AND TO
- 9. UTILITIES ARE SHOWN FOR CONVENIENCE OF CONTRACTOR AND COMPLETENESS OR ACCURACY OF SAME IS NOT GUARANTEED. JMT AND OWNER ARE NOT RESPONSIBLE FOR DAMAGES CAUSED BY SHOWING APPROXIMATE LOCATION OF EX. UTILITIES OR THEIR OMISSION.
- 10. COMPLY WITH GOVERNING EPA NOTIFICATION REGULATIONS BEFORE STARTING DEMOLITION. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
- 11. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE.
- 12. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
- 13. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED AND USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER ADJACENT OCCUPIED AND USED FACILITIES WITHOUT PERMISSION FROM OWNER AND AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY GOVERNING REGULATIONS.
- 14. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND DEMOLITION AREA. PROTECT EX. SITE IMPROVEMENTS AND APPURTENANCES TO REMAIN.
- 15. CLEAN ADJACENT BUILDINGS AND IMPROVENTS OF DUST, DIRT, AND DEBRIS CAUSED BY DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF DEMOLITION.
- 16. CONTRACTOR MUST REPAIR IMMEDIATELY ANY DAMAGE TO OFF-SITE RIGHT-OF-WAY, ROADS, OR ADJACENT PROPERTIES. COST OF SUCH REPAIRS TO BE BORNE BY CONTRACTOR.
- 17. USE OF EXPLOSIVES WILL NOT BE PERMITTED.
- 18. DO NOT BURN DEMOLISHED MATERIALS
- 19. IF ANY MATERIALS SUSPECTED OF CONTAINING ASBESTOS ARE ENCOUNTERED, DO NOT DISTURB THE MATERIALS, IMMEDIATELY NOTIFY THE ENGINEER AND THE OWNER.
- 20. SEE EROSION & SEDIMENT CONTROL PLANS FOR SEQUENCE OF OPERATIONS AND OTHER DETAILS.
- 21. ALL AREAS DISTURBED BY DEMOLITION MUST BE GRADED FOR POSITIVE DRAINAGE, SUCH THAT NO STORM WATER IS PONDED FOR MORE THAN 24 HOURS AFTER ANY STORM EVENT.
- 22. REFER TO CIVIL PLAN SET FOR ADDITIONAL EXISTING UTILITY REMOVAL AND ABANDONMENT NOT NOTED ON THIS PLAN SET.
- 23. ITEMS NOT SPECIFICALLY CALLED OUT "TO BE REMOVED / ABANDONED" SHALL REMAIN.
- 24. GENERAL CONTRACTOR TO VERIFY WITH THE OWNER OF THIS SITE WHICH STRUCTURES SHALL BE REMOVED PRIOR TO THEIR REMOVAL.

SITE DEVELOPMENT NOTES

- 1. SEE THIS SHEET FOR "GENERAL SITE NOTES" AND "CONSTRUCTION NOTES".
- 2. ALL GRADING, BACKFILLING, EXCAVATION, ETC. SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS, AND RECOMMENDATIONS SET FORTH IN GEOTECHNICAL REPORT. REFER TO THAT REPORT FOR ADDITIONAL INFORMATION NOT TRANSFERRED TO THESE PLANS.
- 3. ALL GRADING, EROSION, AND SEDIMENT CONTROL AND RELATED WORK UNDERTAKEN ON THIS SITE SHALL BE IN ACCORDANCE WITH LOCAL JURISDICTION.
- 4. FORMS FOR CONCRETE SIDEWALKS, CURBS, GUTTERS, AND DRIVEWAYS THAT ARE TO BE CONSTRUCTED TO CONFORM TO EXISTING ROADS SHALL BE INSTALLED TO GRADES SHOWN ON THESE PLANS. PRIOR TO PLACING CONCRETE, THE FORMS SHALL BE INSPECTED AND APPROVED BY LOCAL JURISDICTION FOR CONFORMANCE TO EXISTING ROAD IMPROVEMENTS. GRADES OF NEW IMPROVEMENTS ARE SUBJECT TO FIELD ADJUSTMENT TO FIT CONDITIONS.
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR MATCHING EXISTING FACILITIES TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES OR CROSS SLOPES, LOW SPOTS, OR HAZARDOUS CONDITIONS.
- 6. CONTRACTOR SHALL NOT DISTURB ANY PERMANENT SURVEY POINTS WITHOUT CONSENT OF LOCAL JURSIDICTION. ANY POINTS DESTROYED SHALL BE REPLACED BY A LICENSED SURVEYOR AT CONTRACTOR'S EXPENSE.
- 7. WHERE UNSTABLE OR UNSUITABLE MATERIALS ARE ENCOUNTERED DURING SUBGRADE PREPARATION, AREA IN QUESTION SHALL BE OVER EXCAVATED AND REPLACED BY SELECT BACKFILL MATERIAL AS DIRECTED IN FIELD BY ENGINEER.
- 8. OWNER WILL, AT HIS SOLE EXPENSE, MAKE TESTS OVER SOIL ON WHICH ROAD SURFACING AND BASE IS TO BE CONSTRUCTED AND FURNISH TEST REPORTS TO PROJECT CONSTRUCTION MANAGER FOR USE IN DETERMINING STRUCTURAL DESIGN OF ROADBED.
- 9. REPRESENTATIVE OF GEOTECHNICAL ENGINEER SHALL BE ON-SITE DURING GRADING OPERATIONS AND SHALL OBSERVE GRADING AND IDENTIFY ANY CONDITIONS THAT SHOULD BE CORRECTED AND RECOMMEND CORRECTIVE MEASURES TO CONTRACTOR.
- 10. GRADING SHALL BE SLOPED AWAY FROM ALL EXISTING AND PROPOSED STRUCTURES AND TO MATCH EXISTING GRADE FOR PROPERTY DRAINAGE AND NO PONDING.
- 11. CONTRACTOR MUST OBTAIN APPROVED BORROW SOIL MATERIALS OFF-SITE WHEN SUFFICIENT SATISFACTORY SOIL MATERIALS ARE NOT AVAILABLE ON-SITE.
- 12. SPOT SHOT ELEVATIONS SHOWN ON THIS PLAN ARE FOR FINISH GRADE ELEVATIONS AND BOTTOM OF CURBS, UNLESS NOTED OTHERWISE.
- 13. REFER TO PROPOSED SITE PLAN FOR ALL EXISTING AND PROPOSED UTILITIES. PROPOSED STORM DRAINS SHALL BE BUILT UNDER THIS PLAN SET.

SITE DEVELOPMENT PLAN NOTES

- 1. THE PURPOSE OF THIS SITE PLAN IS TO AMEND THE PREVIOUSLY APPROVED SITE PLAN BY REMOVING EXISTING GRASS, PAVING AND CONCRETE SIDEWALKS TO CONSTRUCT PROPOSED EXPANSIONS OF TWO EXISTING BUILDINGS AND ONE NEW STORAGE/MAINTENANCE BUILDING AS SHOWN ON THE SITE PLANS, RE-ROUTING THE EXISTING STORM DRAIN AROUND THE PROPOSED PAC BUILDING AND INSTALLING TWO NON-ROOFTOP DISCONNECT (NRD) FACILITIES TO PROVIDE ENVIRONMENTAL SITE DESIGN (ESD) TO MAXIMUM EXTENT PRACTICABLE.
- 2. PROPOSED BUILDING DETAILS:

SLUDGE PRESS FACILITY (EXPANSION OFF EXISTING

SQUARE FOOTAGE: 514 BUILDING DIMENSIONS: SINGLE STORY, 30'-10" X 17'-2" X 15'-3" HIGH

COLOR: LIGHT TAN METAL SIDING WITH LIGHT GRAY STANDING SEAM METAL ROOF (MATCH EXISTING BLDG.)

PAC STORAGE AND METERING FACILITY (EXPANSION OFF EXISTING)
SOLIARE FOOTAGE: 654

BUILDING DIMENSIONS: TWO STORY, 30'-2" X 15'-8" X 23'-4" HIGH COLOR: RED BRICK & BLOCK AND BLACK ARCHITECTURAL ROOF SHINGLES (MATCH EXISTING BLDG.)

MAINTENANCE AND STORAGE FACILITY (STANDALONE BLDG.)

SQUARE FOOTAGE: 1,764
BUILDING DIMENSIONS: SINGLE STORY, 42' X 42' X 19'-11" HIGH

COLOR: LIGHT TAN METAL SIDING WITH LIGHT GRAY STANDING SEAM METAL ROOF (MATCH NEARBY BLDG.)



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

LICENSE NO. _____.

EXPIRATION DATE _____

OWNER / DEVELOPER / APPLICANT CARROLL COUNTY COMMISSIONERS

HAMPSTEAD WASTEWATER TREATMENT PLANT IMPROVEMENTS

GENERAL NOTES

REV. NO. DATE

SCALE DRAWING SHEET NO.

DESIGNED: SEA

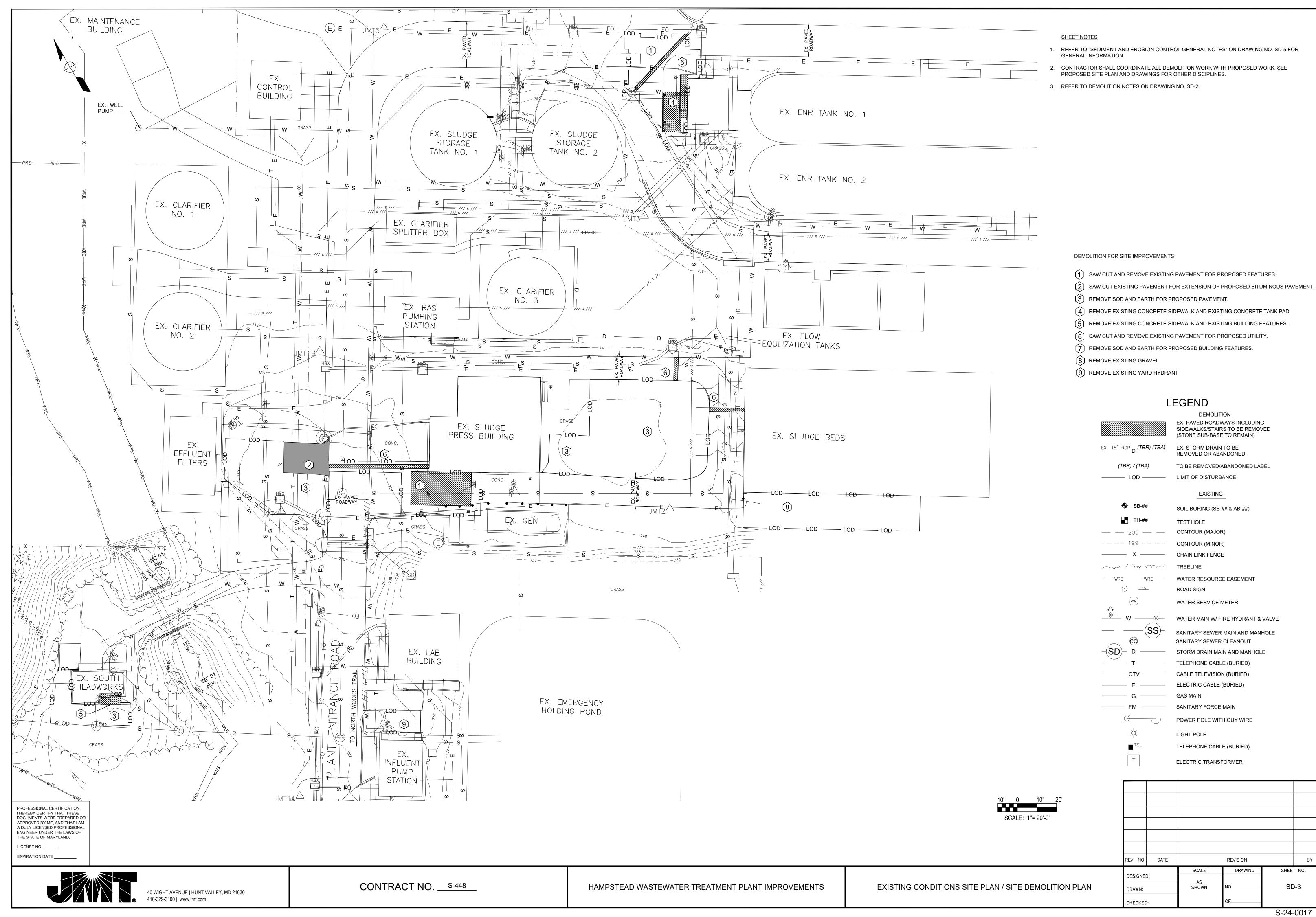
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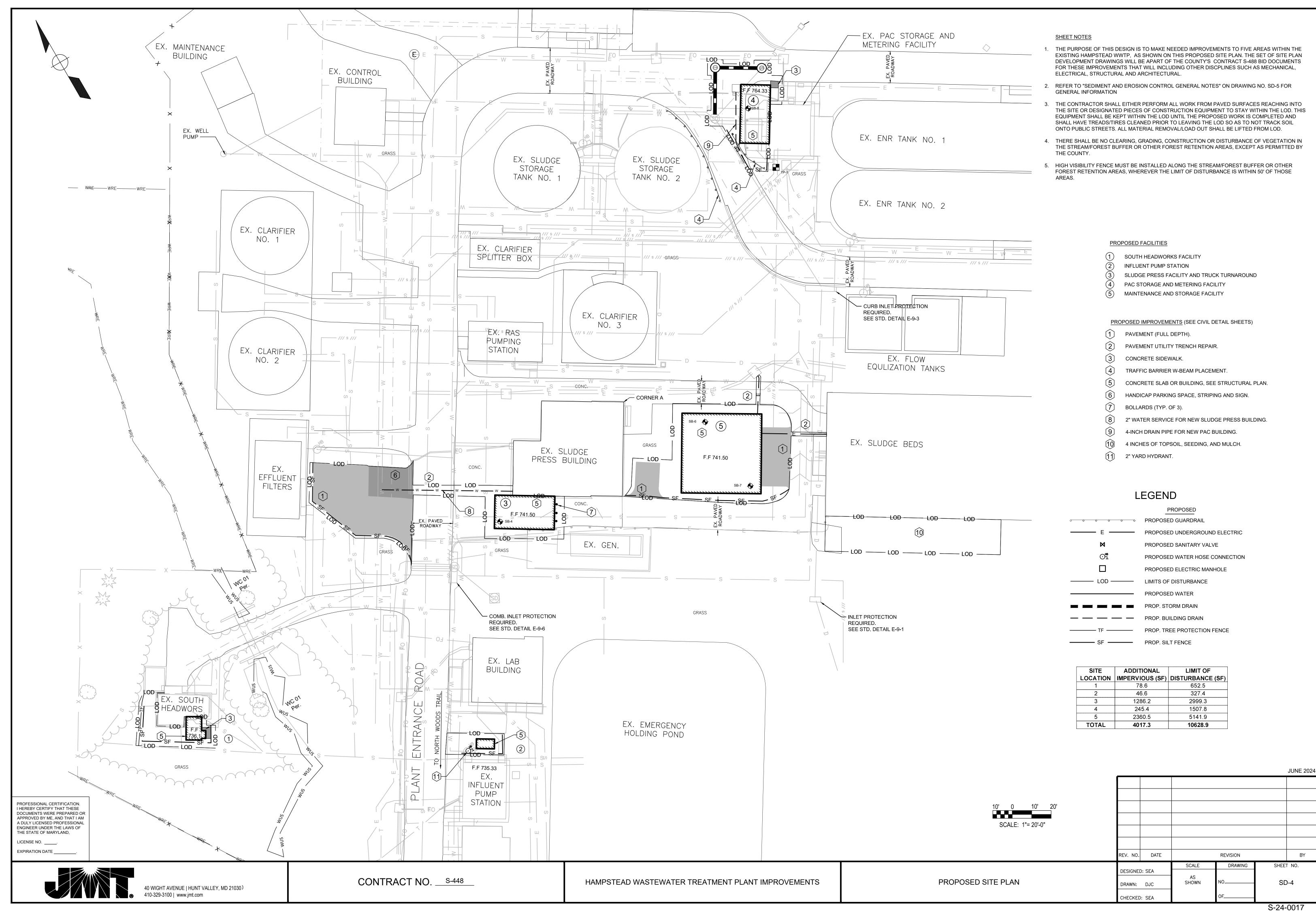
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CHECKED: SEA

BUREAU OF UTILITIES 225 NORTH CENTER STREET WESTMINSTER, MD 21557 0_.._.

S-24-0017





SEDIMENT AND EROSION CONTROL GENERAL NOTES

- 1. ALL EROSION/SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION IN ASSOCIATION WITH THE NATURAL RESOURCES CONSERVATION SERVICE AND THE MARYLAND ASSOCIATION OF SOIL CONSERVATION DISTRICTS (REFERENCED AS THE 2011 STANDARDS AND SPECS).
- 2. AREAS THAT HAVE BEEN CLEARED AND/OR GRADED, BUT WILL NOT BE CONSTRUCTED ON OR PERMANENTLY VEGETATED FOR MORE THAN 7 DAYS (3 DAYS FOR SEDIMENT CONTROL MEASURES AND FOR STEEP SLOPES) MUST BE STABILIZED WITH MULCH OR TEMPORARY STABILIZATION. ANY AREAS THAT ARE IN TEMPORARY VEGETATION FOR OVER 6 MONTHS WILL NEED TO BE PERMANENTLY VEGETATED.
- 3. FOR SPECIFICATIONS ON PERMANENT OR TEMPORARY STABILIZATION, SEE B-4-4 AND B-4-5.
- 4. MULCHING ONLY IS RESTRICTED TO USE ON DISTURBED AREAS AS A TEMPORARY COVER WHERE VEGETATION IS NOT FEASIBLE OR WHERE SEEDING GERMINATION CANNOT BE COMPLETED BECAUSE OF WEATHER CONDITIONS. FOR SPECIFICATIONS SEE B-4-3, A.1.B
- 5. FOR SPECIFICATIONS ON THE STABILIZATION OF CUT AND FILL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL, SEE INCREMENTAL STABILIZATION B-4-1
- 6. THE EXISTING TOPSOIL FROM ON OR OFF SITE THAT IS USED MUST MEET THE MINIMUM SPECIFICATION IN B-4-2
- THE REQUIRED SEQUENCE OF CONSTRUCTION MUST BE FOLLOWED DURING SITE DEVELOPMENT. ANY CHANGES IN THE SEQUENCE OF CONSTRUCTION MUST BE APPROVED BY THE SOIL CONSERVATION DISTRICT.
- 8. ANY REVISIONS TO THE SEDIMENT CONTROL PLAN, NOT COVERED UNDER THE LIST OF PLAN MODIFICATIONS THAT CAN BE APPROVED BY THE SEDIMENT CONTROL INSPECTOR, NEED TO BE SUBMITTED TO THE SOIL CONSERVATION DISTRICT FOR APPROVAL.
- 9. NO PROPOSED SLOPE THAT IS REQUIRED TO BE SEEDED AND/OR MULCHED SHALL BE STEEPER THAN 2:1. SLOPES STEEPER THEN 2:1 SHALL REQUIRE A ENGINEERED DESIGN FOR STABILIZATION
- 10. ALL SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED ONCE A WEEK AND AFTER EACH RAINFALL AND WILL BE REPAIRED, AS NEEDED, SO THAT THE STRUCTURE MEETS THE MINIMUM SPECIFICATIONS AS SHOWN IN THE 2011 STANDARDS AND SPECS.
- 11. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SEDIMENT AND EROSION CONTROL MEASURES UNTIL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED.
- 12. THE DISTRICT APPROVAL FOR THIS SEDIMENT CONTROL PLAN IS GOOD FOR 2 YEARS. AT THE END OF 2 YEARS, IF CONSTRUCTION OF THE PLAN HAS NOT STARTED, THE PLAN WILL NEED TO BE RESUBMITTED TO THE SOIL CONSERVATION DISTRICT FOR REVIEW AND RE-APPROVAL. ANY PLANS THAT ARE CURRENTLY UNDER CONSTRUCTION AFTER 2 YEARS MAY BE REQUIRED TO BE RESUBMITTED TO THE SOIL CONSERVATION DISTRICT BY THE SEDIMENT CONTROL INSPECTOR.
- 13. INSTALL REINFORCED SILT FENCE DOWNSTREAM OF THE WORK AS REQUIRED
- 14. EQUIPMENT AND METAL/WOOD MATERIALS MAY BE PLACED IN TEMPORARY STAGING AREAS. NO LOOSE MATERIAL INCLUDING DIRT, SOIL, OR STONE SHALL BE PLACED IN THIS AREA
- 15. IF THE CONTRACTOR DETERMINES THAT THE STAGING AREA IS NOT SUFFICIENT IN SIZE, THE CONTRACTOR CAN INVESTIGATE OTHER LOCATIONS AND ACQUIRE NECESSARY PERMITS. ANY DAMAGE TO EXISTING PAVEMENT, CURB, AND GUTTER, ETC. SHALL BE REPAIRED BY THE CONTRACTOR AT THE END OF CONSTRUCTION AT THE CONTRACTOR'S EXPENSE.
- 16. ANY DAMAGE TO EXISTING PAVEMENT, CURB, AND GUTTER, AND SIDEWALK OUTSIDE THE LOD SHALL BE REPAIRED BY THE CONTRACTOR AT THE END OF CONSTRUCTION AT THE CONTRACTOR'S EXPENSE.
- 17. IF THE CONTRACTOR CANNOT PLACE A STABILIZED CONSTRUCTION ENTRANCE ONSITE. ALL EQUIPMENT WHEELS AND TRACKS MUST BE WASHED BEFORE EXITING THE LOD, SEDIMENT RESULTING FROM WASHING ACTIVITIES SHALL BE SAFELY DISPOSED OF.
- 18. FENCING SHALL BE PLACED AT THE DRIP LINE OF TREES TO BE PROTECTED DURING CONSTRUCTION EXCEPT ON THE SIDE OF UTILITY TRENCHING. FENCING SHALL NOT BE PLACED CLOSER TO THE TREE THAN 1/2 THE TOTAL DISTANCE FROM THE TREE TO THE LIMITS OF THE TREE'S DRIP LINE. THIS SPACE IS TO ACCOMMODATE TRENCHING ONLY AND NOT TO ALLOW ADDITIONAL WORKING SPACE.

EXISTING UTILITIES

THE UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATION AND GUIDANCE ONLY. NO GUARANTEE IS MADE AS TO THE ACCURACY OF THE INFORMATION SHOWN.

UTILITY CONSTRUCTION NOTE

FOR ALL UTILITY CONSTRUCTION BEYOND SEDIMENT AND EROSION CONTROL MEASURES, ONLY THAT WHICH CAN BE COMPLETED AND STABILIZED AT THE END OF EACH DAY SHALL BE DONE.

MAINTENANCE OF SEDIMENT CONTROL

THE CONTRACTOR SHALL, WITHOUT EXTRA COST TO THE PROJECT, REPAIR AND MAINTAIN EXISTING SEDIMENT CONTROL DEVICES UNTIL ALL AREAS WITHIN LIMITS OF CONSTRUCTION ARE STABILIZED. ALL SEDIMENT CONTROL MEASURES REFERRED TO ON THESE PLANS SHALL BE IN ACCORDANCE WITH THE PUBLICATION ENTITLED "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL".

CONTRACTOR SHALL INSPECT AND MAINTAIN ALL SEDIMENT CONTROLS MEASURES AND DEVICES AT END OF EACH WEEK AND AFTER EVERY STORM EVENT. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO REMOVAL OF ALL ACCUMULATED SEDIMENT. GEOTEXTILE FABRIC SHALL BE REPLACED AS NEEDED TO ENSURE PROPER FUNCTION.

PERMANENT STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE, PERMANENT STABILIZATION SHALL BE COMPLETED WITHIN THE SAME DAY.

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED O APPROVED BY ME AND THAT LAN A DULY LICENSED PROFESSIONA ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. _____.

EXPIRATION DATE _____

PERMANENT SEEDING NOTES

SCOPE: PLANTING PERMANENT, LONG LIVED VEGETATIVE COVER ON GRADED AND/OR CLEARED AREAS AND AREAS THAT HAVE BEEN IN TEMPORARY VEGETATION FOR MORE THAN 6

STANDARDS: THE FOLLOWING NOTES SHALL CONFORM TO SECTION B-4 OF THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL"PUBLISHED JOINTLY BY THE MARYLAND DEPARTMENT OF ENVIRONMENT - WATER MANAGEMENT ADMINISTRATION, THE NATIONAL RESOURCE CONSERVATION SERVICE AND THE MARYLAND ASSOCIATION OF SOIL CONSERVATION DISTRICTS.

THE SEED BED SHALL BE PREPARED BY LOOSENING THE SOIL TO A DEPTH OF 3 TO 5 INCHES AND INCORPORATING THE LIME AND FERTILIZER INTO THIS LOOSENED LAYER OF SOIL, SEE SECTION B-4-2.

FOR SITES OVER 5 AC. SOIL TESTS WILL BE PERFORMED. SOIL TESTS WILL BE CONDUCTED BY THE UNIVERSITY OF MARYLAND OR A RECOGNIZED COMMERCIAL LABORATORY. MINIMUM SOIL CONDITIONS SHALL MEET THE REQUIREMENTS OF SECTION B-4-2-A-2-A, OTHERWISE SOIL AMENDMENTS OR TOPSOIL WILL NEED TO BE APPLIED. TOPSOILING MAY OCCUR WHEN SOIL CONDITIONS MEET THE MINIMUM REQUIREMENTS AS STATED IN SECTION B-4-2-B. SOIL AMENDMENTS MUST MEET THE REQUIREMENTS AS SET FORTH IN SECTION B-4-2-C AND MUST BE APPLIED AS INDICATED BY THE SOILS TESTS.

FOR SITES OF 5 AC. OR LESS OF DISTURBANCE, THE FOLLOWING FERTILIZER AND LIME RATES SHALL APPLY.

FERTILIZER SHALL CONSIST OF A MIXTURE OF 10-20-20 AND BE APPLIED AT THE FOLLOWING

N = 45 LB. PER ACRE (1 LB. PER 1000 SQ.FT.) P205 = 90 LB. PER ACRE (2 LB. PER 1000 SQ.FT.) K20 = 90 LB. PER ACRE (2 LB. PER 1000 SQ.FT.)

LIME SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE (90 LB. PER 1000 SQ.FT.)

SEED TYPE, TURFGRASS OR SOD APPLICATION SHALL MEET THE REQUIREMENTS IN SECTION B-4-5. SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY THE TYPE AND APPLICATION RATE OF SEED USED.MULCH TYPE AND ITS APPLICATION WILL MEET THE REQUIREMENTS IN SECTION B-4-3 A, B AND C, AND WILL BE APPLIED ALONG WITH SEED OR IMMEDIATELY AFTER SEEDING

SEEDING MIXTURES SHALL BE SELECTED FROM OR WILL BE EQUAL TO THOSE ON TABLE B-3. THE SEEDING CHART BELOW WILL NEED TO BE PLACED ON AND FILLED IN ON THE SEDIMENT CONTROL PLAN

PERMANENT SEEDING SUMMARY

1	DINESS ZONE (FROM FIGUI D MIXTURE (FROM TABLE E	· —			ATE	LIME RATE		
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P ₂ O ₅	K ₂ O	
	TALL FESCUE	60	FEB 15 TO APR 30; AUG 15 TO OCT 31; NOV 1 TO NOV 30	1/4-1/2 INCH				
	KENTUCKY BLUEGRASS	40	FEB 15 TO APR 30; AUG 15 TO OCT 31; NOV 1 TO NOV 30	1/4-1/2 INCH	45 lb/ac (1.0 lb/ 1000sf)	90 lb/ac (2.0 lb/ 1000sf)	90 lb/ac (2.0 lb/ 1000sf)	2 tons/ac (90 lb/ 1000sf)
	PERENNIAL RYEGRASS	20	FEB 15 TO APR 30; AUG 15 TO OCT 31; NOV 1 TO NOV 30	1/4-1/2 INCH				

B-3 STANDARDS AND SPECIFICATIONS

LAND GRADING

DEFINITION

RESHAPING THE EXISTING LAND SURFACE TO PROVIDE SUITABLE TOPOGRAPHY FOR BUILDING FACILITIES AND OTHER SITE IMPROVEMENTS.

TO PROVIDE EROSION CONTROL AND VEGETATIVE ESTABLISHMENT FOR EXTREME CHANGES IN GRADE.

CONDITIONS WHERE PRACTICE APPLIES

EARTH DISTURBANCES OR EXTREME GRADE MODIFICATIONS ON STEEP OR LONG SLOPES.

THE GRADING PLAN SHOULD BE BASED ON THE INCORPORATION OF BUILDING DESIGNS AND STREET LAYOUTS THAT FIT AND UTILIZE EXISTING TOPOGRAPHY AND DESIRABLE NATURAL SURROUNDINGS TO AVOID EXTREME GRADE MODIFICATIONS. INFORMATION SUBMITTED MUST PROVIDE SUFFICIENT TOPOGRAPHIC SURVEYS AND SOIL INVESTIGATIONS TO DETERMINE LIMITATIONS THAT MUST BE IMPOSED ON THE GRADING OPERATION RELATED TO SLOPE STABILITY, ADJACENT PROPERTIES, DRAINAGE PATTERNS, MEASURES FOR WATER REMOVAL, AND VEGETATIVE TREATMENT, ETC.

MANY JURISDICTIONS HAVE REGULATIONS AND DESIGN PROCEDURES ALREADY ESTABLISHED FOR LAND GRADING THAT MUST BE FOLLOWED, THE PLAN MUST SHOW EXISTING AND PROPOSED CONTOURS FOR THE AREA(S) TO BE GRADED INCLUDING PRACTICES FOR EROSION CONTROL, SLOPE STABILIZATION, AND SAFE CONVEYANCE OF RUNOFF (E.G., WATERWAYS, LINED CHANNELS, REVERSE BENCHES, GRADE STABILIZATION STRUCTURES). THE GRADING/CONSTRUCTION PLANS ARE TO INCLUDE THE PHASING OF THESE PRACTICES AND CONSIDERATION OF THE FOLLOWING:

- 1. PROVISIONS TO SAFELY CONVEY SURFACE RUNOFF TO STORM DRAINS, PROTECTED OUTLETS OR STABLE WATER COURSES TO ENSURE THAT SURFACE RUNOFF WILL NOT DAMAGE SLOPES OR OTHER GRADED AREAS.
- 2. CUT AND FILL SLOPES, STABILIZED WITH GRASSES, NO STEEPER THAN 2:L. (WHERE THE SLOPE IS TO BE MOWED, THE SLOPE SHOULD BE NO STEEPER THAN 3:L, BUT 4:L IS PREFERRED BECAUSE OF SAFETY FACTORS RELATED TO MOWING STEEP SLOPES.) SLOPES STEEPER THAN 2:L REQUIRE SPECIAL DESIGN AND STABILIZATION CONSIDERATIONS TO BE SHOWN ON THE PLANS.

SOIL CONSERVATION DISTRICT

The Development Plan is approved for Soil Erosion and Sediment Control by the Soil Conservation District.

Carroll S.C.D./Date Approved

OWNER/DEVELOPER

I certify that this plan of Soil Erosion & Sediment Control will be implemented to the fullest extent, and all structures will be installed to the design and specifications as spelled out in this plan and that any responsible personnel involved in construction of this project will have a certification of attendance at a Department of the Environment approved training program for the control of soil erosion and sediment before beginning the project. I also authorize periodic on-site evaluation by the Carroll Soil Conservation District personnel and cooperating agencies.

Developer	Date
	,
Printed Name of Developer	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
•	
Developer Company Name	

ENGINEER

Developer Phone Number

I certify that this plan of Sediment Control is designed with my personal knowledge of the site condition and has been designed to the Standards and Specifications adopted by the Carroll Soil Conservation District.

Engineer/Date

- 3. BENCHING PER DETAIL B-3-1 WHENEVER THE VERTICAL INTERVAL (HEIGHT) OF ANY 2:L SLOPE EXCEEDS 20 FEET; FOR 3:L SLOPES, WHEN IT EXCEEDS 30 FEET; AND FOR 4:L SLOPES. WHEN IT EXCEEDS 40 FEET. LOCATE BENCHES TO DIVIDE THE SLOPE FACE AS EQUALLY AS POSSIBLE AND TO CONVEY THE WATER TO A STABLE OUTLET. SOILS, SEEPS, ROCK OUTCROPS, ETC. ARE TO BE TAKEN INTO CONSIDERATION WHEN DESIGNING BENCHES. A. PROVIDE BENCHES WITH A MINIMUM WIDTH OF SIX FEET FOR EASE OF
- MAINTENANCE.
- DESIGN BENCHES WITH A REVERSE SLOPE OF 6:L OR FLATTER TO THE TOE OF THE UPPER SLOPE AND WITH A MINIMUM OF ONE FOOT IN DEPTH. GRADE THE LONGITUDINAL SLOPE OF THE BENCH BETWEEN 2 PERCENT AND 3 PERCENT, UNLESS ACCOMPANIED BY APPROPRIATE DESIGN AND COMPUTATIONS.
- THE MAXIMUM ALLOWABLE FLOW LENGTH WITHIN A BENCH IS 800 FEET UNLESS ACCOMPANIED BY APPROPRIATE DESIGN AND COMPUTATIONS.
- 4. DIVERSION OF SURFACE WATER FROM THE FACE OF ALL CUT AND FILL SLOPES USING EARTH DIKES OR SWALES. CONVEY SURFACE WATER DOWN SLOPE USING A DESIGNED STRUCTURE. AND:
- A. PROTECT THE FACE OF ALL GRADED SLOPES FROM SURFACE RUNOFF UNTIL THEY ARE STABILIZED.
- DO NOT SUBJECT THE SLOPE'S FACE TO ANY CONCENTRATED FLOW OF SURFACE WATER SUCH AS FROM NATURAL DRAINAGE WAYS, GRADED SWALES, DOWNSPOUTS, ETC.
- PROTECT THE FACE OF THE SLOPE BY SPECIAL EROSION CONTROL MATERIALS TO INCLUDE, BUT NOT BE LIMITED TO, APPROVED VEGETATIVE STABILIZATION PRACTICES, RIPRAP OR OTHER APPROVED STABILIZATION METHODS.
- 5. SERRATED SLOPE AS SHOWN IN DETAIL B-3-2. THE STEEPEST ALLOWABLE SLOPE FOR RIPABLE ROCK IS 1.5:1. FOR NON ROCK SURFACES. THE SLOPES ARE TO BE 2:1 OR FLATTER. THESE STEPS WILL WEATHER AND ACT TO HOLD MOISTURE. LIME. FERTILIZER AND SEED THUS PRODUCING A MUCH QUICKER AND LONGER LIVED VEGETATIVE COVER AND BETTER SLOPE STABILIZATION.
- 6. SUBSURFACE DRAINAGE PROVISIONS. PROVIDE SUBSURFACE DRAINAGE WHERE NECESSARY TO INTERCEPT SEEPAGE THAT WOULD OTHERWISE ADVERSELY AFFECT SLOPE STABILITY OR CREATE EXCESSIVELY WET SITE CONDITIONS.
- 7. PROXIMITY TO ADJACENT PROPERTY. SLOPES MUST NOT BE CREATED CLOSE TO PROPERTY LINES WITHOUT ADEQUATE PROTECTION AGAINST SEDIMENTATION, EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE, OR OTHER RELATED DAMAGES.
- QUALITY OF FILL MATERIAL. FILL MATERIAL MUST BE FREE OF BRUSH, RUBBISH, LOGS, STUMPS, BUILDING DEBRIS, AND OTHER OBJECTIONABLE MATERIAL. DO NOT PLACE FROZEN MATERIALS IN THE FILL NOR PLACE THE FILL MATERIAL ON A FROZEN FOUNDATION.
- 9. STABILIZATION. STABILIZE ALL DISTURBED AREAS STRUCTURALLY OR VEGETATIVELY IN COMPLIANCE WITH SECTION B4 STANDARDS AND SPECIFICATIONS FOR STABILIZATION PRACTICES.

MAINTENANCE

THE LINE, GRADE, AND CROSS SECTION OF BENCHING AND SERRATED SLOPES MUST BE MAINTAINED. BENCHES AND SERRATED SLOPES MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

SEQUENCE OF CONSTRUCTION

- 1. NOTIFY CARROLL COUNTY SEDIMENT CONTROL INSPECTION @ 410-386-2215 AND MISS UTILITY @ 811 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
- 2. THE CONTRACTOR SHALL NOTIFY CARROLL COUNTY DPW SEVEN (7) DAYS BEFORE COMMENCING ANY LAND DISTURBING ACTIVITY AND HOLD A PRE-CONSTRUCTION MEETING BETWEEN PROJECT REPRESENTATIVES AND A REPRESENTATIVE OF CARROLL COUNTY DPW.
- INSTALL SEDIMENT CONTROLS AS SHOWN ON PLANS. ENSURE THAT ALL WORK AREAS ARE PROTECTED WITH A SEDIMENT CONTROL PRACTICE. THE CONTRACTOR WILL COORDINATE THE SEQUENCE OF CONSTRUCTION WITH THE OWNER.
- 4. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE THAT THE STABILIZED AREA CONTINUOUSLY MEETS THE APPROPRIATE REQUIREMENTS OF THE CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 5. UPON COMPLETION OF THE PROPOSED IMPROVEMENTS, STABILIZE ANY REMAINING DISTURBED AREAS. OR DISTURBANCES CAUSED BY THE REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES OR DEVICES.
- 6. CONTACT THE CARROLL COUNTY SEDIMENT CONTROL INSPECTOR PRIOR TO REMOVING ANY SEDIMENT CONTROL MEASURES. APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR IS REQUIRED.

SITE INFORMATION:

28,759/0.66 TOTAL SITE AREA Sq. Ft. / Acres 10629/0.24 Sq. Ft. / Acres TOTAL DISTURBED AREA **AREA TO BE PAVED 2,940/0.07 Sq. Ft. / Acres Cu. Yd. *TOTAL CUT * TOTAL FILL Cu. Yd.

*UTILITY AND TRENCH BUILDING EXCAVATION **NEW AND REPLACEMENT PAVEMENT

OWNER/DEVELOPER: CARROLL COUNTY, MD 225 NORTH CENTER STREET SUITE 221 WESTIMINSTER, MD 21157

REV. NO.	DATE		REVISION		BY
		SCALE	DRAWING	SHEET	Γ NO.
DESIGNED: SEA		40			
DRAWN:	DJC	AS SHOWN	NO	SE)-5

CONTRACT NO. ___S-448

HAMPSTEAD WASTEWATER TREATMENT PLANT IMPROVEMENTS

EROSION AND SEDIMENT CONTROL NOTES

S-24-0017

CHECKED: SEA

B-4-3 STANDARDS AND SPECIFICATIONS

SEEDING AND MULCHING

THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

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

CONDITIONS WHERE PRACTICE APPLIES

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

CRITERIA

A. SEEDING 1. SPECIFICATIONS

- A. 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 AND SEEDING RATE.
- 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.
- C. 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.
- D. 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.

2. APPLICATION

- A. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
- I. 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.
- II. 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.
- B. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
- I. 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
- II. 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; P2O5 (PHOSPHOROUS), 200 POUNDS
- PER ACRE: K2O (POTASSIUM), 200 POUNDS PER ACRE. II. 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. III. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.

IV. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL. B. MULCHING

1. MULCH MATERIALS (IN ORDER OF PREFERENCE)

- A. 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
- B. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE. I. 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.
- II. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS
- III. 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 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 GRASS SEEDLINGS.
- IV. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
- V. 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.

2. APPLICATION

- A. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING. B. 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 PER ACRE.
- C. 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.
- 3. ANCHORING A. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF
 - THE AREA AND EROSION HAZARD: I. 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, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
- II. 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 PROHIBITED. IV. 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 FEET LONG.

B-4-6 STANDARDS AND SPECIFICATIONS

SOIL STABILIZATION MATTING

DEFINITION

MATERIAL USED TO TEMPORARILY OR PERMANENTLY STABILIZE CHANNELS OR STEEP SLOPES UNTIL GROUNDCOVER IS ESTABLISHED.

TO PROTECT THE SOILS UNTIL VEGETATION IS ESTABLISHED.

CONDITIONS WHERE PRACTICE APPLIES

ON NEWLY SEEDED SURFACES TO PREVENT THE APPLIED SEED FROM WASHING OUT; IN CHANNELS AND ON STEEP SLOPES WHERE THE FLOW HAS EROSIVE VELOCITIES OR CONVEYS CLEAR WATER; ON TEMPORARY SWALES, EARTH DIKES, AND PERIMETER DIKE SWALES AS REQUIRED BY THE RESPECTIVE DESIGN STANDARD; AND, ON STREAM BANKS WHERE MOVING WATER IS LIKELY TO WASH OUT NEW VEGETATIVE PLANTINGS.

- 1. THE SOIL STABILIZATION MATTING THAT IS USED MUST WITHSTAND THE FLOW VELOCITIES AND SHEAR STRESSES DETERMINED FOR THE AREA, BASED ON THE 2-YEAR, 24-HOUR FREQUENCY STORM FOR TEMPORARY APPLICATIONS AND THE 10-YEAR. 24-HOUR FREQUENCY STORM FOR PERMANENT APPLICATIONS. DESIGNATE ON THE PLAN THE TYPE OF SOIL STABILIZATION MATTING USING THE STANDARD SYMBOL AND INCLUDE THE CALCULATED SHEAR STRESS FOR THE RESPECTIVE TREATMENT AREA.
- 2. MATTING IS REQUIRED ON PERMANENT CHANNELS WHERE THE RUNOFF VELOCITY EXCEEDS TWO AND HALF FEET PER SECOND (2.5 FPS) OR THE SHEAR STRESS EXCEEDS TWO POUNDS PER SQUARE FOOT (2 LBS/FT2). ON TEMPORARY CHANNELS DISCHARGING TO A SEDIMENT TRAPPING PRACTICE. PROVIDE MATTING WHERE THE RUNOFF VELOCITY EXCEEDS FOUR FEET PER SECOND (4 FPS).
- 3. TEMPORARY SOIL STABILIZATION MATTING IS MADE WITH DEGRADABLE (LASTS 6 MONTHS MINIMUM), NATURAL, OR MANMADE FIBERS OF UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND IS SMOLDER RESISTANT. THE MAXIMUM PERMISSIBLE VELOCITY FOR TEMPORARY MATTING IS 6 FEET PER SECOND.
- 4. PERMANENT SOIL STABILIZATION MATTING IS AN OPEN WEAVE, SYNTHETIC MATERIAL CONSISTING OF NONDEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION OF WEAVE THROUGHOUT. THE MAXIMUM PERMISSIBLE VELOCITY FOR PERMANENT MATTING IS 8.5 FEET PER SECOND.
- 5. CALCULATE CHANNEL VELOCITY AND SHEAR STRESS USING THE FOLLOWING PROCEDURE:

SHEAR STRESS (T) IS A MEASURE OF THE FORCE OF MOVING WATER AGAINST THE SUBSTRATE AND IS CALCULATED AS:

$T = \Gamma XRXSW$ WHERE:

T = SHEAR STRESS (LB/FT2) Γ = WEIGHT DENSITY OF WATER (62.4 LB/FT3) R = AVERAGE WATER DEPTH (HYDRAULIC RADIUS) (FT) SW = WATER SURFACE SLOPE (FT/FT)

VELOCITY (V) MEASURES THE RATE OF FLOW THROUGH A DEFINED AREA AND IS CALCULATED AS:

WHERE:

1.48R³s ²

v = velocity (ft/sec) n = Manning's roughness coefficient R = hydraulic radius (ft) s = channel slope (ft/ft)

6. USE TABLE B.7 TO ASSIST IN SELECTING THE APPROPRIATE SOIL STABILIZATION MATTING FOR SLOPE APPLICATIONS BASED ON THE SLOPE, THE SLOPE LENGTH, AND THE SOIL-ERODIBILITY K FACTOR.

TABLE B.7: SOIL STABILIZATION ON SLOPES

SLOPE	20:	1 FLAT (≥5%)		20:	1 FLAT (≥5%)		20:	1 FLAT (≥5%)		20:	1 FLAT (≥5%)		20:	1 FLAT (≥5%)	TER
SLOPE LENGTH (FEET)*	0-30	30-60	60-120	0-30	30-60	60-120	0-30	30-60	60-120	0-30	30-60	60-120	0-30	30-60	60-120
STRAW MULCH/WOOD CELLULOSE FIBER					FOF	R K ≥ 0.3	5***								
TEMPORARY MATTING WITH DESIGN SHEAR STRESS ≥ 1.5 LB/SF															
TEMPORARY MATTING WITH DESIGN SHEAR STRESS ≥ 1.75 LB/SF															
TEMPORARY MATTING WITH DESIGN SHEAR STRESS ≥ 2.0 LB/SF															
TEMPORARY MATTING WITH DESIGN SHEAR STRESS ≥ 2.25 LB/SF	аннанана					аннанана									

EFFECTIVE RANGE FOR ALL K VALUES UNLESS OTHERWISE SPECIFIED

* SLOPE LENGTH INCLUDES CONTRIBUTING FLOW LENGTH. ** SLOPES STEEPER THAN 2:1 MUST BE ENGINEERED.

*** SOIL HAVING A K VALUE LESS THAN OR EQUAL TO 0.35 CAN BE STABILIZED EFFECTIVELY WITH STRAW MULCH OR WOOD CELLULOSE FIBER WHEN LOCATED ON SLOPES STEEPER THAN 5%. SOIL STABILIZATION MATTING IS REQUIRED ON ALL SLOPES STEEPER THAN 5% THAT HAVE SOIL WITH A K FACTOR GREATER THAN 0.35. K FACTOR RATINGS ARE PUBLISHED IN THE NRCS SOIL SURVEY HTTP://WEBSOILSURVEY.NRCS.USDA.GOV/APP. DURING CONSTRUCTION OR RECLAMATION, THE SOIL-ERODIBILITY K VALUE SHOULD REPRESENT THE UPPER 6 INCHES OF THE FINAL FILL MATERIAL RE-SPREAD AS THE LAST LIFT. ONLY THE EFFECTS OF ROCK FRAGMENTS WITHIN THE SOIL PROFILE ARE CONSIDERED IN THE ESTIMATION OF THE K VALUE. DO NOT ADJUST K VALUES TO ACCOUNT FOR ROCKS ON THE SOIL SURFACE OR INCREASES IN SOIL ORGANIC MATTER RELATED TO MANAGEMENT ACTIVITIES.

MAINTENANCE

VEGETATION MUST BE ESTABLISHED AND MAINTAINED SO THAT THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

B-4-8 STANDARDS AND SPECIFICATIONS

STOCKPILE AREA

A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES

PURPOSE

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.

- 1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
- 2. THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATIO NO STEEPER THAN 2:1. BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND
- 3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL
- 4. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE.
- 5. 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 MANNER.
- 6. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.
- 7. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION.
- 8. IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER SHOULD BE PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAMINATED MATERIAL MUST BE COVERED WITH IMPERMEABLE SHEETING.

MAINTENANCE

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 SLOPES, OR 40 FEET FOR 4:1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND

TEMPORARY SEEDING NOTES

SCOPE: PLANTING SHORT TERM (NO MORE THAN 6 MONTHS) VEGETATION TO TEMPORARILY STABILIZE ANY AREAS WHERE SOIL DISTURBANCE HAS OCCURRED, UNTIL THE AREA CAN BE PERMANENTLY STABILIZED WITH VEGETATIVE OR NON-VEGETATIVE

STANDARDS: THE FOLLOWING NOTES SHALL CONFORM TO SECTION B-4 OF THE"2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL"PUBLISHED JOINTLY BY THE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION, THE NATIONAL RESOURCE CONSERVATION SERVICE AND THE MARYLAND ASSOCIATION OF SOIL CONSERVATION DISTRICTS.

THE SEED BED SHALL BE PREPARED BY LOOSENING THE SOIL TO A DEPTH OF 3 TO 5 INCHES AND INCORPORATING THE LIME AND FERTILIZER INTO THIS LOOSENED LAYER OF SOIL. SEE SECTION B-4-2

FOR TEMPORARY STABILIZATION, FERTILIZER SHALL CONSIST OF A MIXTURE OF 10-20-20 AND BE APPLIED AT A RATE OF 436 LB. PER ACRE (10 LB. PER 1000 SQ. FT.) AND WILL MEET THE REQUIREMENTS IN SECTION B-4-2. LIME SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE (90 LB. PER SQ. FT.) AND SHALL MEET THE REQUIREMENTS IN SECTION B-4-2 AND

SEED TYPE AND APPLICATION SHALL MEET THE REQUIREMENTS IN SECTION B-4-3 SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY THE TYPE AND RATE OF SEED USED.MULCH TYPE AND ITS APPLICATION WILL MEET THE REQUIREMENTS IN SECTION B-4-3 A, B AND C AND WILL BE APPLIED ALONG WITH THE SEED OR IMMEDIATELY AFTER SEEDING.

SEEDING MIXTURES SHALL BE SELECTED FROM OR WILL BE EQUAL TO THOSE ON TABLE B.1 (PAGE B.20).

TEMPORARY SEEDING SUMMARY

THE SEEDING CHART BELOW WILL NEED TO BE PLACED ON AND FILLED IN ON THE SEDIMENT CONTROL PLAN.

TEMPORARY SEEDING SUMMARY

	ness Zone (from Figure B.3): Mixture (from Table B.1):	Fertilizer Rate	Lime Rate				
No.	Species	Application Rate (lb/ac)	Seeding Seeding Dates Depths		(10-20-20)		
	Annual Ryegrass	40	Feb 15 to Apr 30; Aug 15 to Nov 30	0.5			
	Barley	96	Feb 15 to Apr 30; aug 15 to Nov 30	1.0	436 lb/ac (10 lb/1000sf)	2 tons/ac (90 lb/1000sf)	
	Foxtail Millet	30	May 1 to Aug 14	0.5			

REV. NO. DATE BY REVISION SCALE DRAWING SHEET NO.

SHOWN

DESIGNED: SEA

DRAWN: DJC

CHECKED: SEA



PROFESSIONAL CERTIFICATION.

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OF

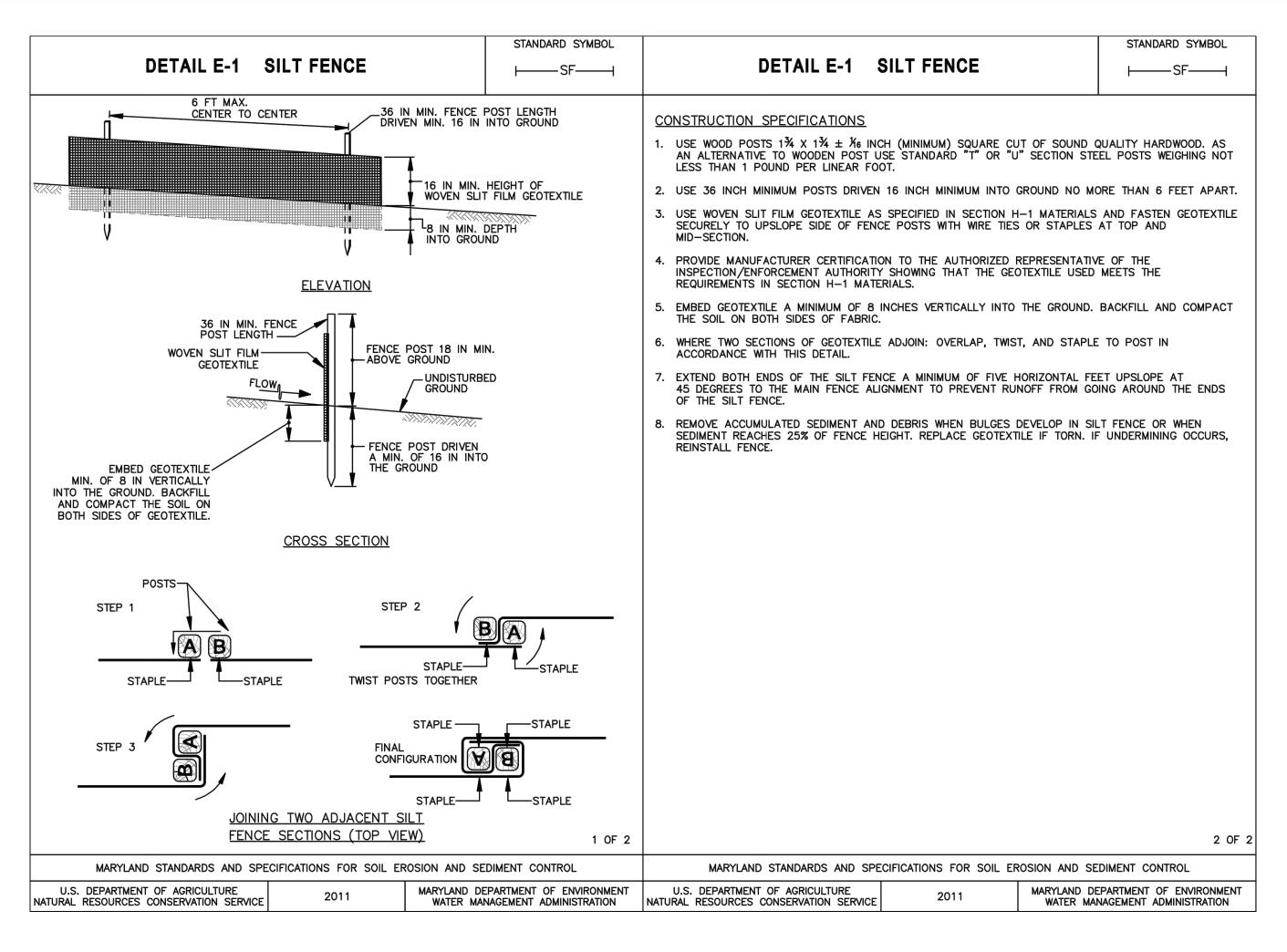
APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONA ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND,

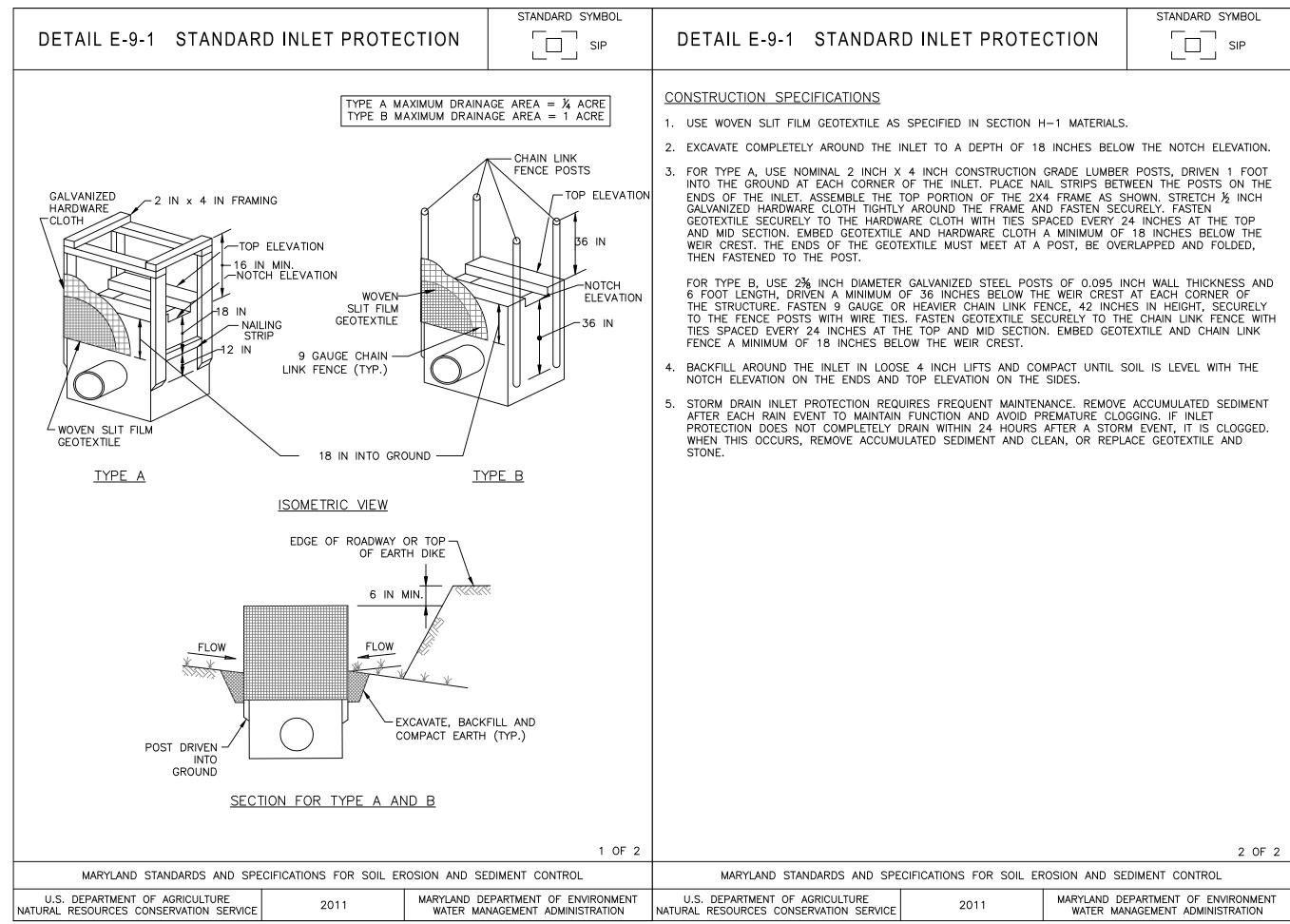
LICENSE NO. _____.

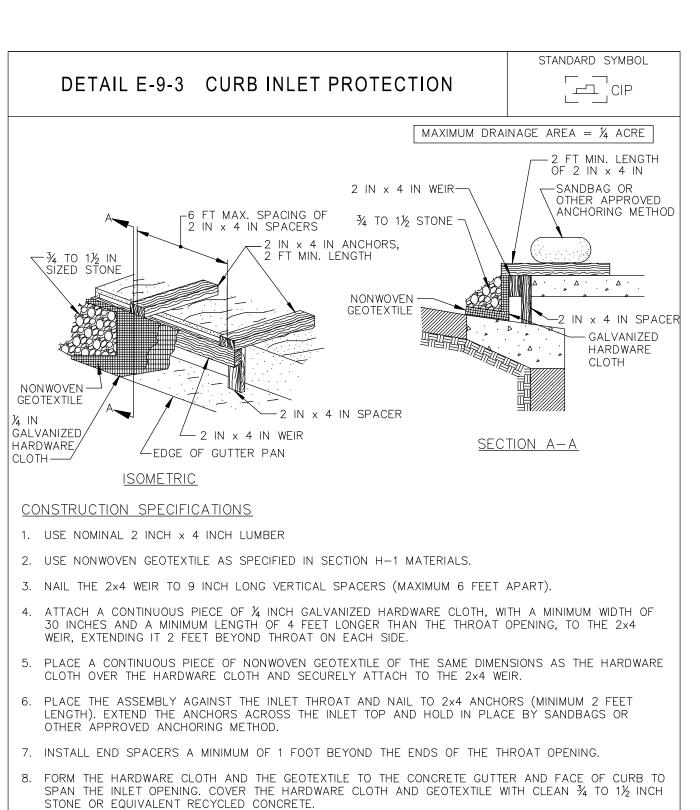
EXPIRATION DATE ______

SD-6

0 WIGHT AVENUE I HUNT VALLEY. MD 21030







9. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET

SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

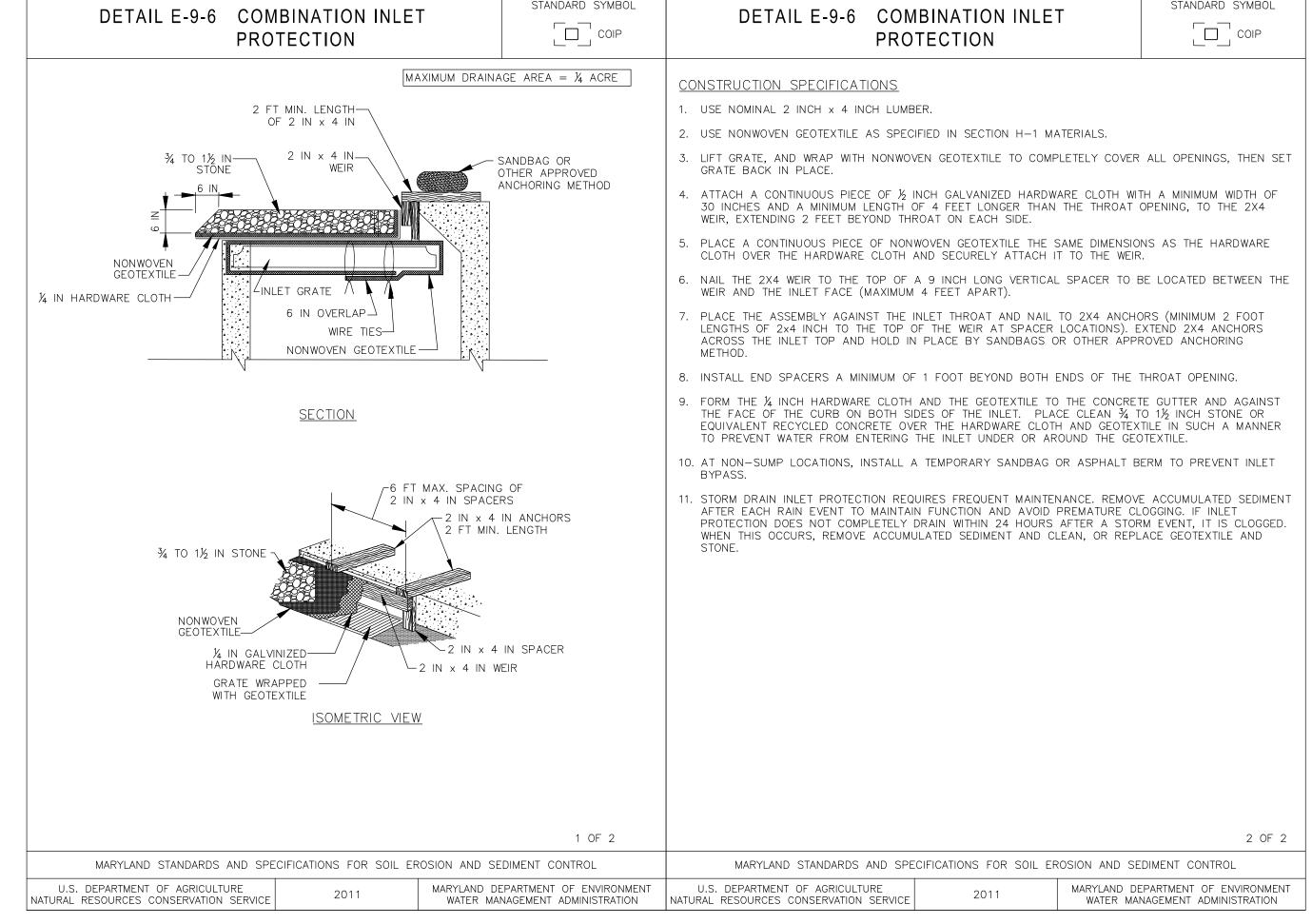
10. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED

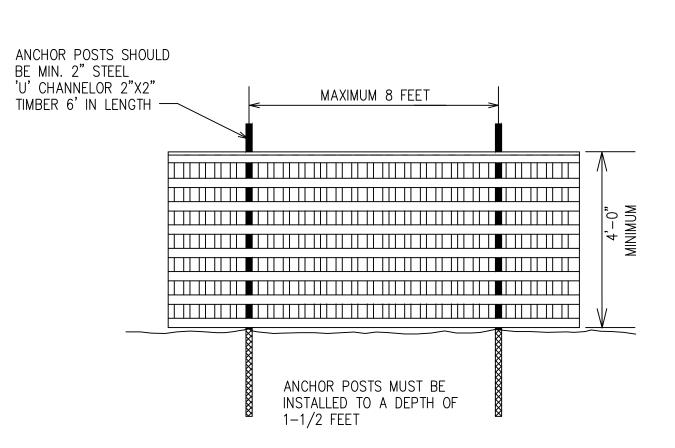
GEOTEXTILE AND STONE.

U.S. DEPARTMENT OF AGRICULTURE

NATURAL RESOURCES CONSERVATION SERVICE

40 WIGHT AVENUE | HUNT VALLEY, MD 21030





TREE PROTECTION FENCE DETAILS NOT TO SCALE

- 1. BLAZE ORANGE MESH FENCE FOREST PROTECTION DEVICE ONLY.
- 2. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE. ALL FOREST STANDS BORDERING THE LOD ARE CONSIDERED RETENTION AREAS.
- 3. INSTALL AT TREE DRIP LINE ANN AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
- 4. THE DISTANCE EACH SIGN SHALL NOT BE GREATER THAN 100 LF.
- 5. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

REV. NO.	DATE		REVISION		BY	
DESIGNE	D. MAM	SCALE	DRAWING	SHEET	Γ NO.	
DESIGNED: MAM DRAWN:		AS SHOWN	NO		SD-7	



PROFESSIONAL CERTIFICATION.

HEREBY CERTIFY THAT THESE

DOCUMENTS WERE PREPARED OF APPROVED BY ME, AND THAT I AM

A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND,

EXPIRATION DATE _____

LICENSE NO. _____.

MARYLAND DEPARTMENT OF ENVIRONMENT

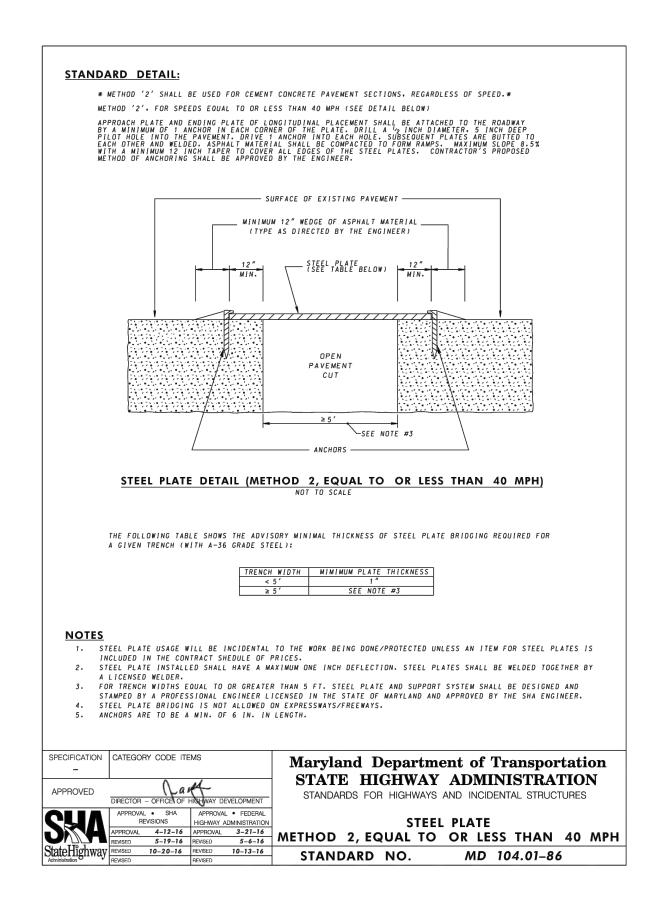
WATER MANAGEMENT ADMINISTRATION

CONTRACT NO. S-448

HAMPSTEAD WASTEWATER TREATMENT PLANT IMPROVEMENTS

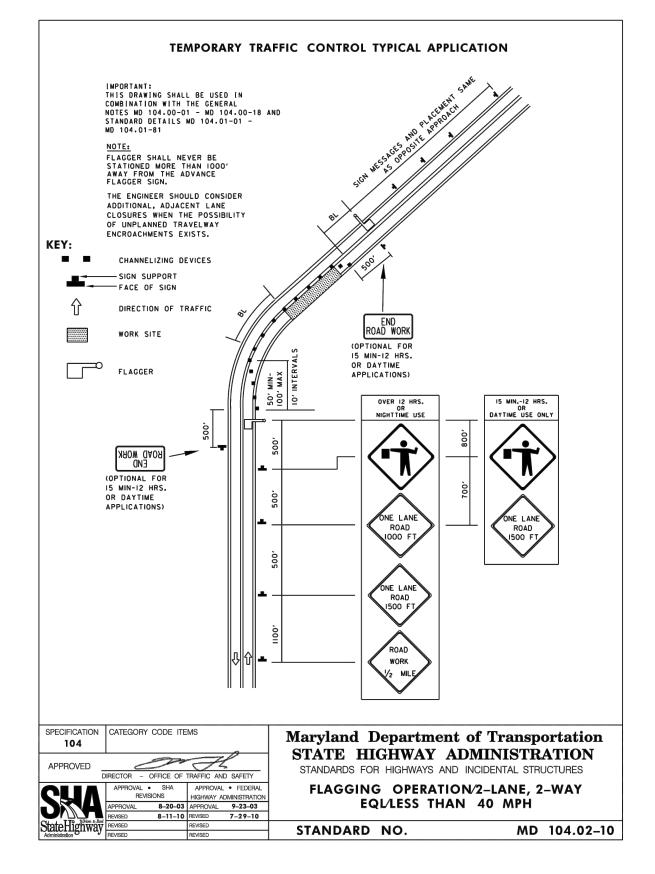
EROSION AND SEDIMENT CONTROL DETAILS

CHECKED: SGC



MDOT SHA STANDARD DETAIL 104.01-86

NOT TO SCALE



MDOT SHA STANDARD DETAIL 104.02-10

NOT TO SCALE

MAINTENANCE OF TRAFFIC NOTES

- ALL TRAFFIC CONTROL MEASURES SHALL BE IMPLEMENTED AS SHOWN ON THESE PLANS. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, MDSHA BOOK OF STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES, AND MDSHA UTILITY PERMIT.
- 2. NO WORK IS TO BEGIN UNTIL ALL ADVANCED WARNING SIGNS, CHANNELIZING DEVICES AND BARRICADES ARE IN PLACE AND OPERATIONAL. AT THE END OF THE WORKING DAY ALL ROADWAYS SHALL BE OPERATIONAL AND ANY OPEN TRENCHES OR WORK AREAS SHALL BE STEEL PLATED (MD 104.01-86) FOR PAVED ROADWAYS OR UNPAVED ROADWAYS SUCH AS SIDEWALKS AND NON-TRAFFIC AREAS TO BE BACK FILLED TO EXISTING GRADE OR INSTALL A PROTECTIVE BARRIER.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPLY, INSTALLATION AND MAINTENANCE OF ALL EXISTING TRAFFIC CONTROL DEVICES THROUGHOUT THE DURATION OF CONSTRUCTION.
- 4. THE CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS TO ALL FACILITY DOORS AND DRIVEWAYS ALONG THE LIMITS OF THE PROJECT AND COORDINATE WORK WITH OWNER AND PLANT PERSONNEL TO MINIMIZE IMPACT TO THEM
- IN GENERAL, THE CONTRACTOR MUST MAINTAIN A MINIMUM OF ONE (1) TEN-FOOT (10') LANE OF TRAFFIC AT ALL TIMES OR PROVIDE A TWO-PERSON FLAGGING OPERATION EQUIPPED WITH STOP/SLOW PADDLES. A TEN-FOOT WIDE LANE OF TRAFFIC SHALL BE OPEN TO TRAFFIC AT THE END OF EACH WORKDAY.

SUGGESTED MAINTENANCE OF TRAFFIC SEQUENCE

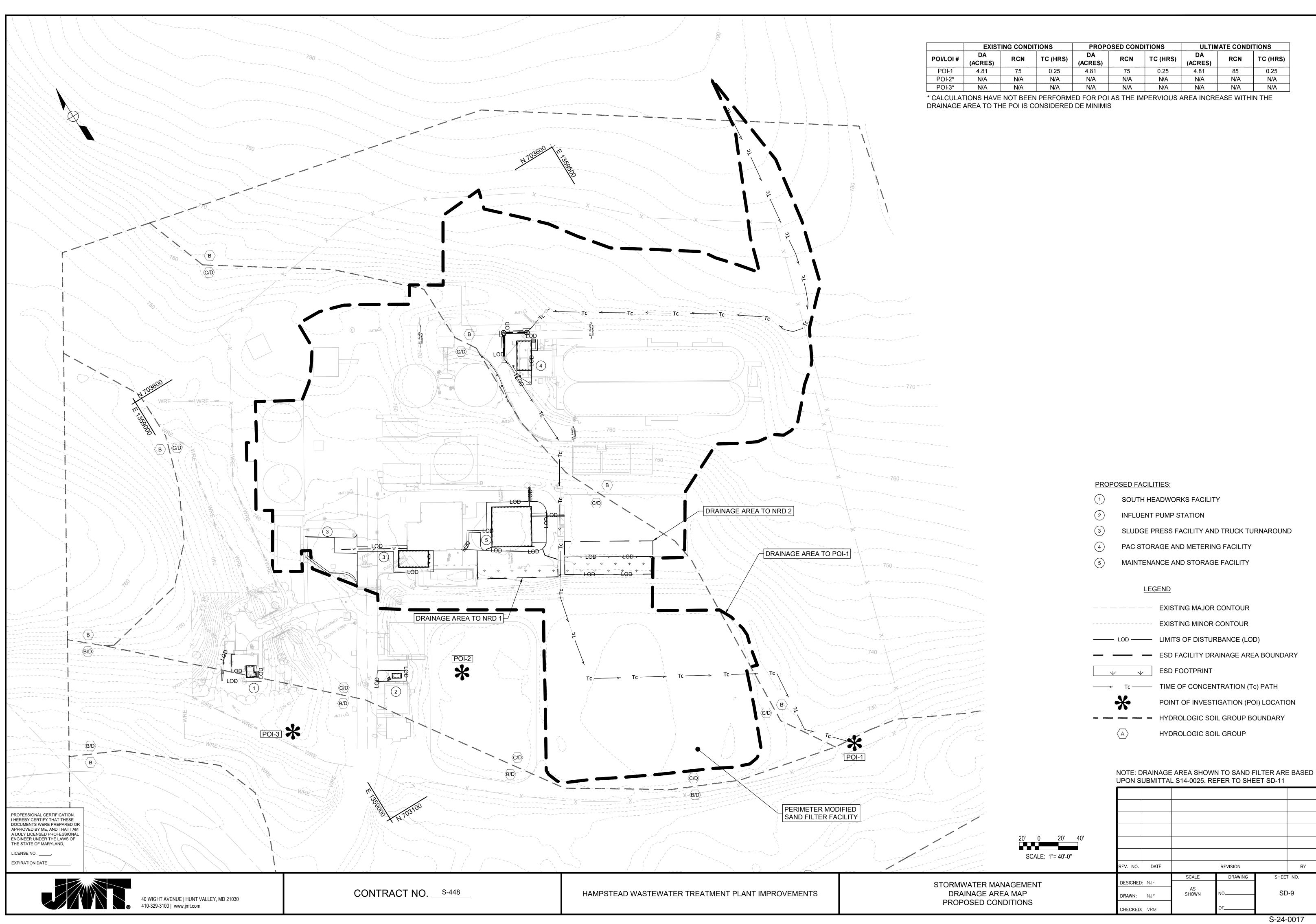
OF OPERATION

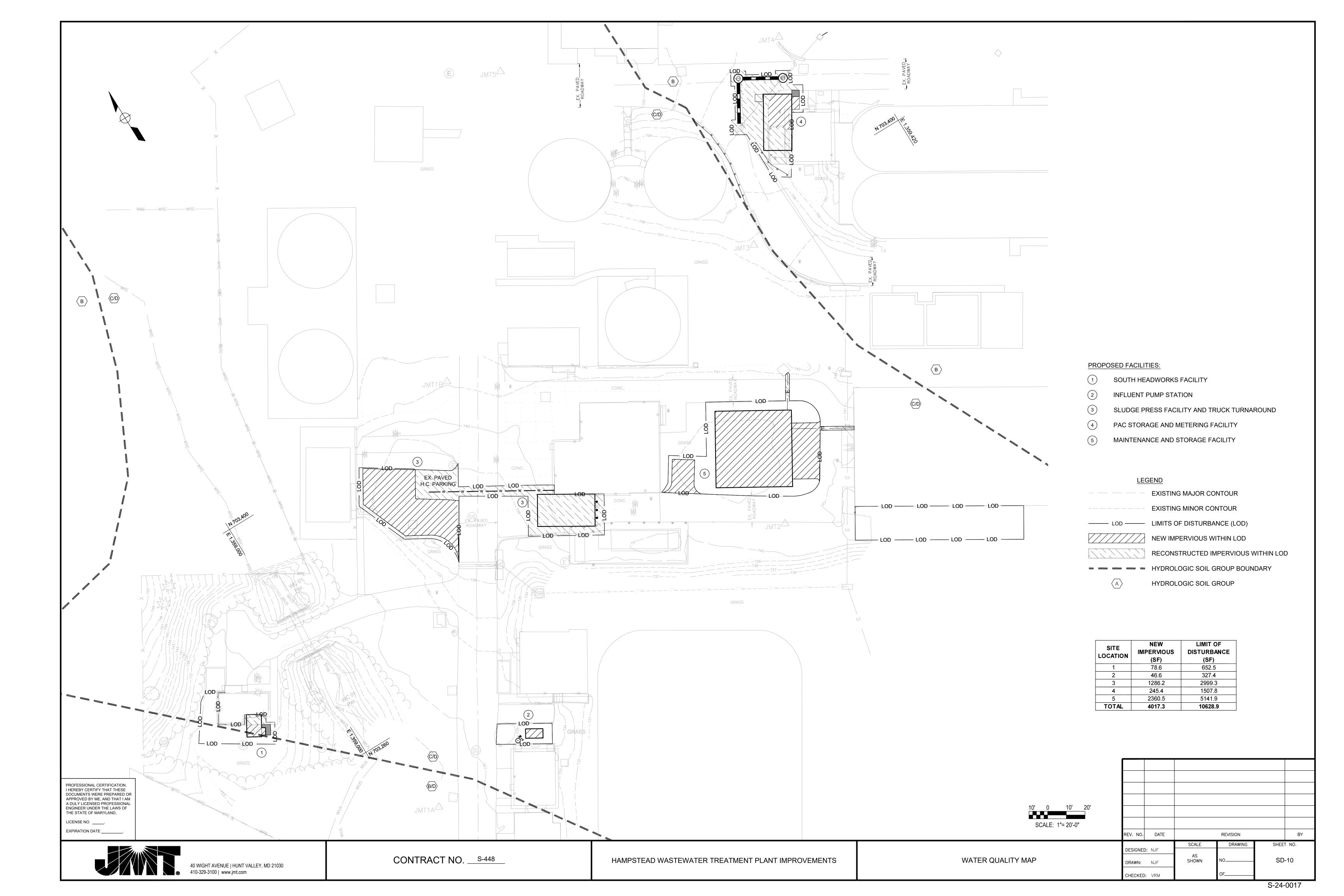
- 1. CONTRACTOR SHALL PROVIDE A TRAFFIC PLAN APPROVED BY CARROLL COUNTY DPW.
- 2. NO WORK IS TO BEGIN UNTIL ALL TEMPORARY SIGNS, BARRICADES AND CHANNELIZING DEVICES ARE IN PLACE AND OPERATIONAL.
- 3. NO ROADWAY OR LANE CLOSURES WILL BE ALLOWED UNLESS APPROVED BY CAROLL COUNTY DPW.
- 4. EXISTING TRAFFIC SHALL BE MAINTAINED AS SHOWN ON DETAILS AND STATED IN NOTES.
- 5. AT THE COMPLETION OF THE DAYS WORK, EXCAVATIONS, AND TRENCHES WILL EITHER BE CLOSED WITH ASPHALT, STEEL PLATED OR PRECAST BARRIERS TO PROTECT OR PREVENT VEHICLES FROM ENTERING.
- 6. ALL DEBRIS SHALL BE REMOVED ON A DAILY BASIS TO MINIMIZE TRAFFIC INTERRUPTIONS.

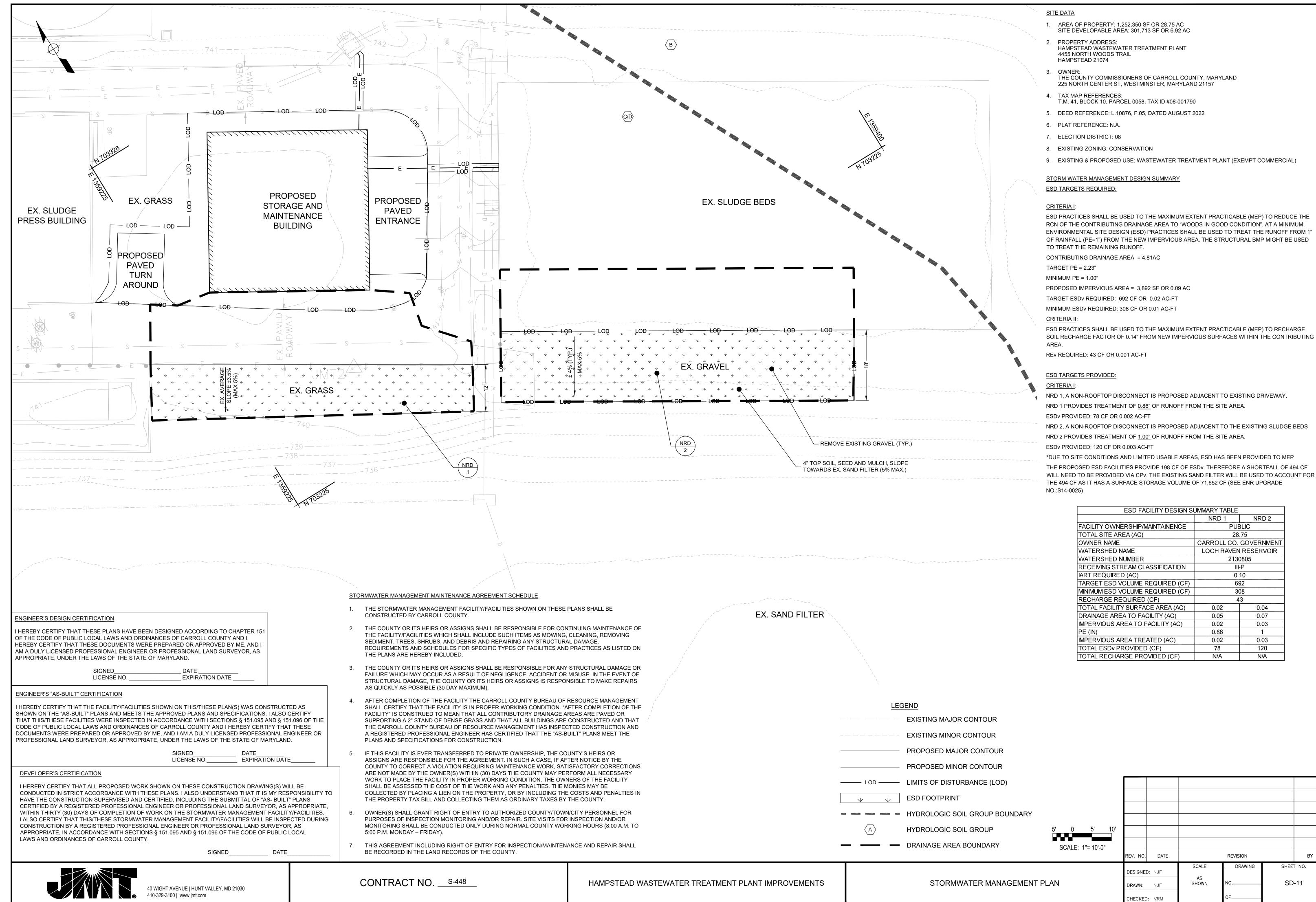
PROFESSIONAL CERTIFICATION.
I HEREBY CERTIFY THAT THESE
DOCUMENTS WERE PREPARED OR
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ENGINEER UNDER THE LAWS OF
THE STATE OF MARYLAND,
LICENSE NO. ______.

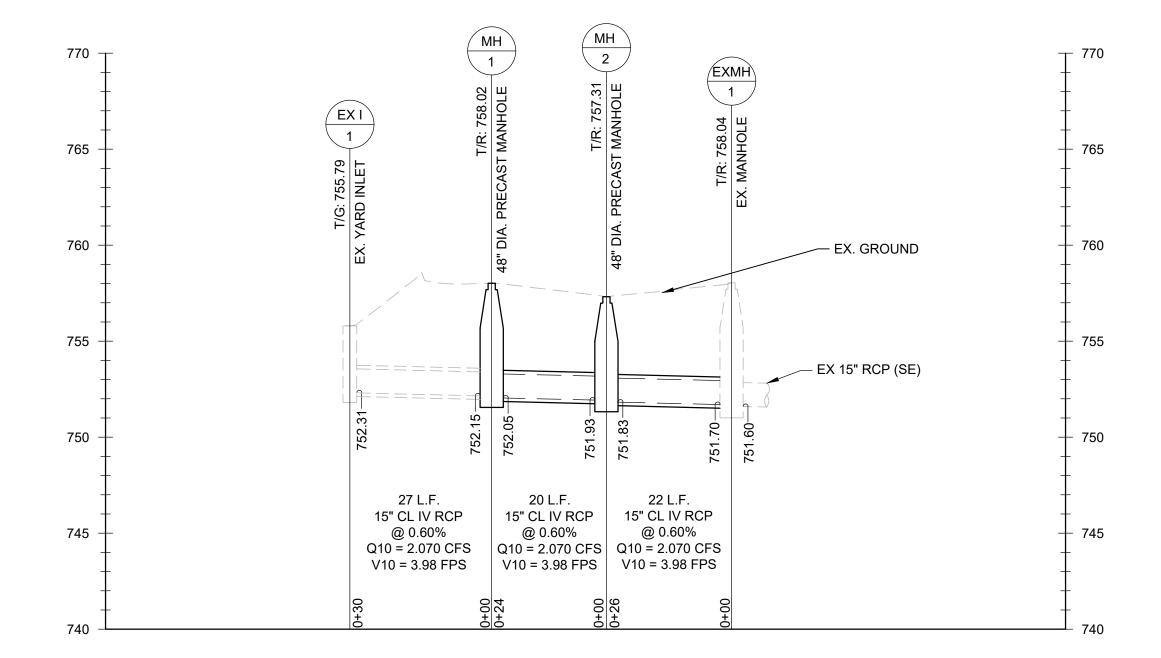
EXPIRATION DATE ______.









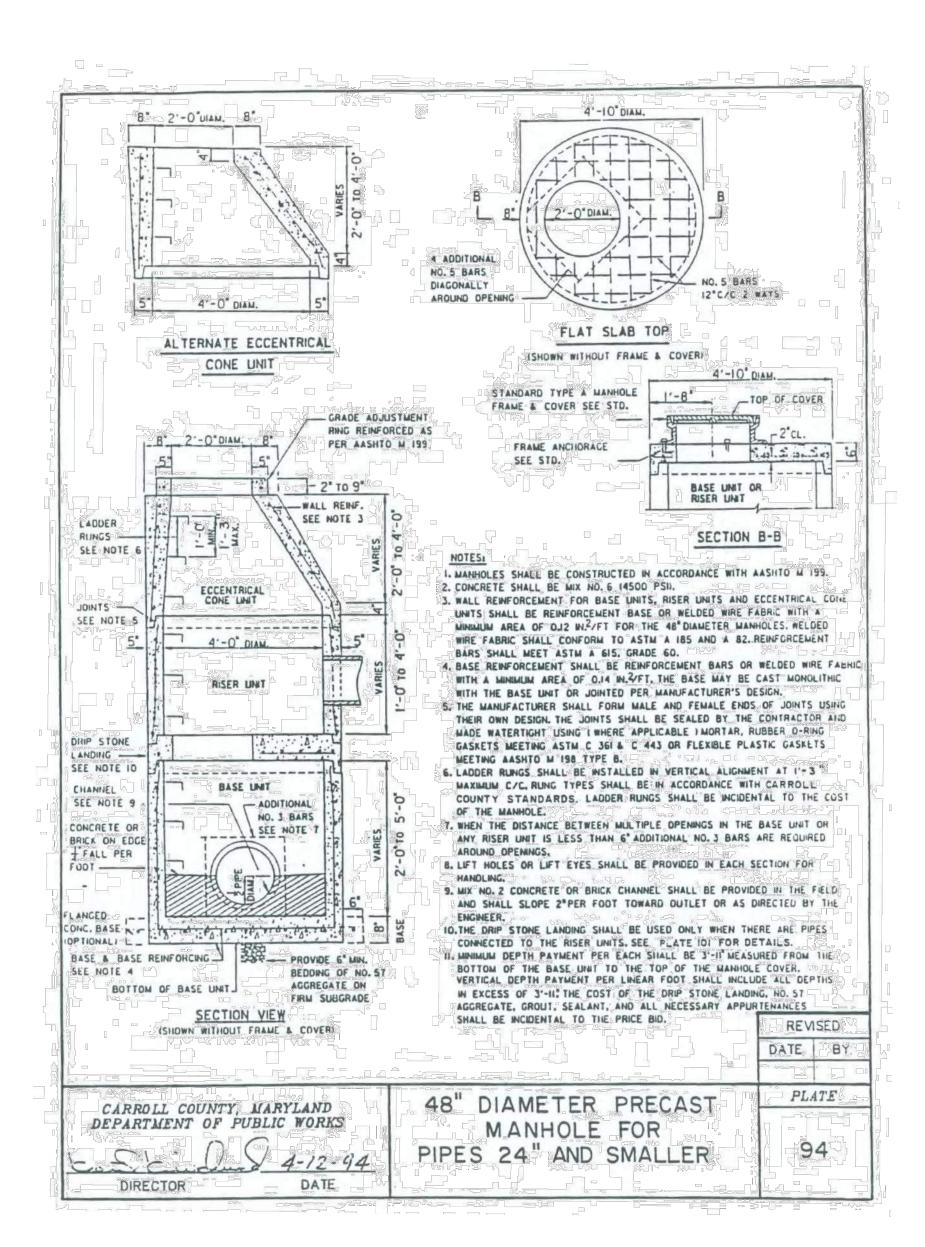


STORM DRAIN PROFILE

HORIZ. SCALE: 1" = 20' VERT. SCALE: 1" = 5'

DRAINAGE STRUCTURE TABLE										
NAME	NORTHING	EASTING	ELEVATION	STRUCTURE TYPE	STRUCTURE DETAIL					
MANHOLE NO. 1	703451.58	1359379.1373	758.02	48" DIA. PRECAST MANHOLE	CA. CO. S.D., PLATE 94					
MANHOLE NO. 2	703463.76	1359358.5613	757.31	48" DIA. PRECAST MANHOLE	CA. CO. S.D., PLATE 94					

STORM DRAIN PIPE TABLE									
FROM	ТО	PIPE SIZE	TYPE	LENGTH	U.S. INV.	DS INV			
MANHOLE NO. 1	MANHOLE NO. 2	15"	CL IV RCP	20 L.F.	752.05	751.93			
MANHOLE NO. 2	EX MANHOLE NO. 1	15"	CL IV RCP	22 L.F.	751.83	751.70			
	MANHOLE NO. 1	FROM TO MANHOLE NO. 1 MANHOLE NO. 2	FROM TO PIPE SIZE MANHOLE NO. 1 MANHOLE NO. 2 15"	FROM TO PIPE SIZE TYPE MANHOLE NO. 1 MANHOLE NO. 2 15" CL IV RCP	FROM TO PIPE SIZE TYPE LENGTH MANHOLE NO. 1 MANHOLE NO. 2 15" CL IV RCP 20 L.F.	FROM TO PIPE SIZE TYPE LENGTH U.S. INV. MANHOLE NO. 1 MANHOLE NO. 2 15" CL IV RCP 20 L.F. 752.05			



PROFESSIONAL CERTIFICATION.
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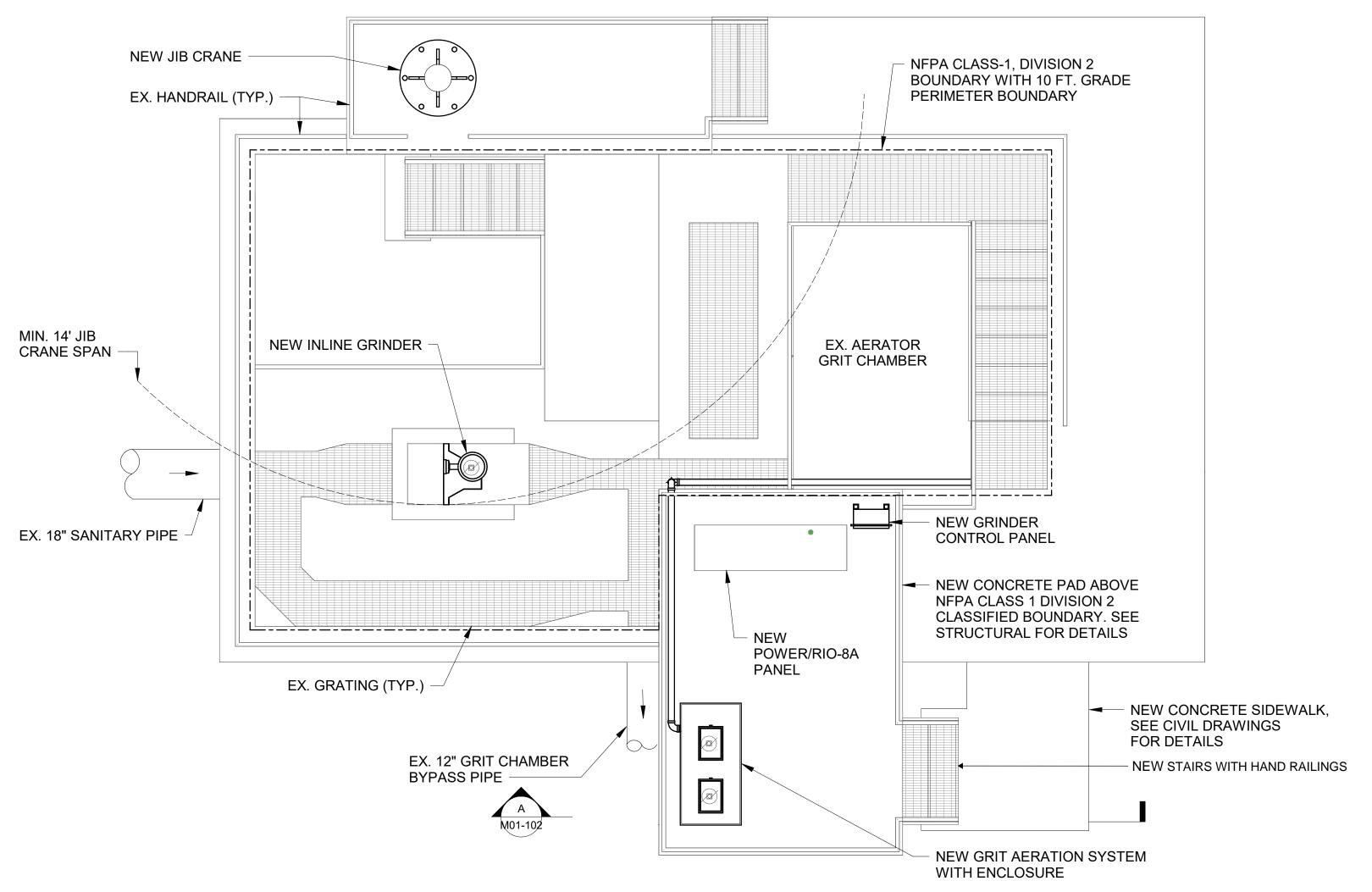


SCALE: 1"= 20'-0" VERTICAL SCALE 2.5' 0 2.5' 5' SCALE: 1"= 5'-0"

HORIZONTAL SCALE 10' 0 10' 20' REV. NO. DATE REVISION BY SHEET NO. DESIGNED: NJF SD-12 SHOWN DRAWN: NJF

CHECKED: VRM

DRAINAGE PROFILE & DETAILS



SOUTH HEADWORKS - NEW WORK PLAN AT ELEV. 746.00

GENERAL SHEET NOTES:

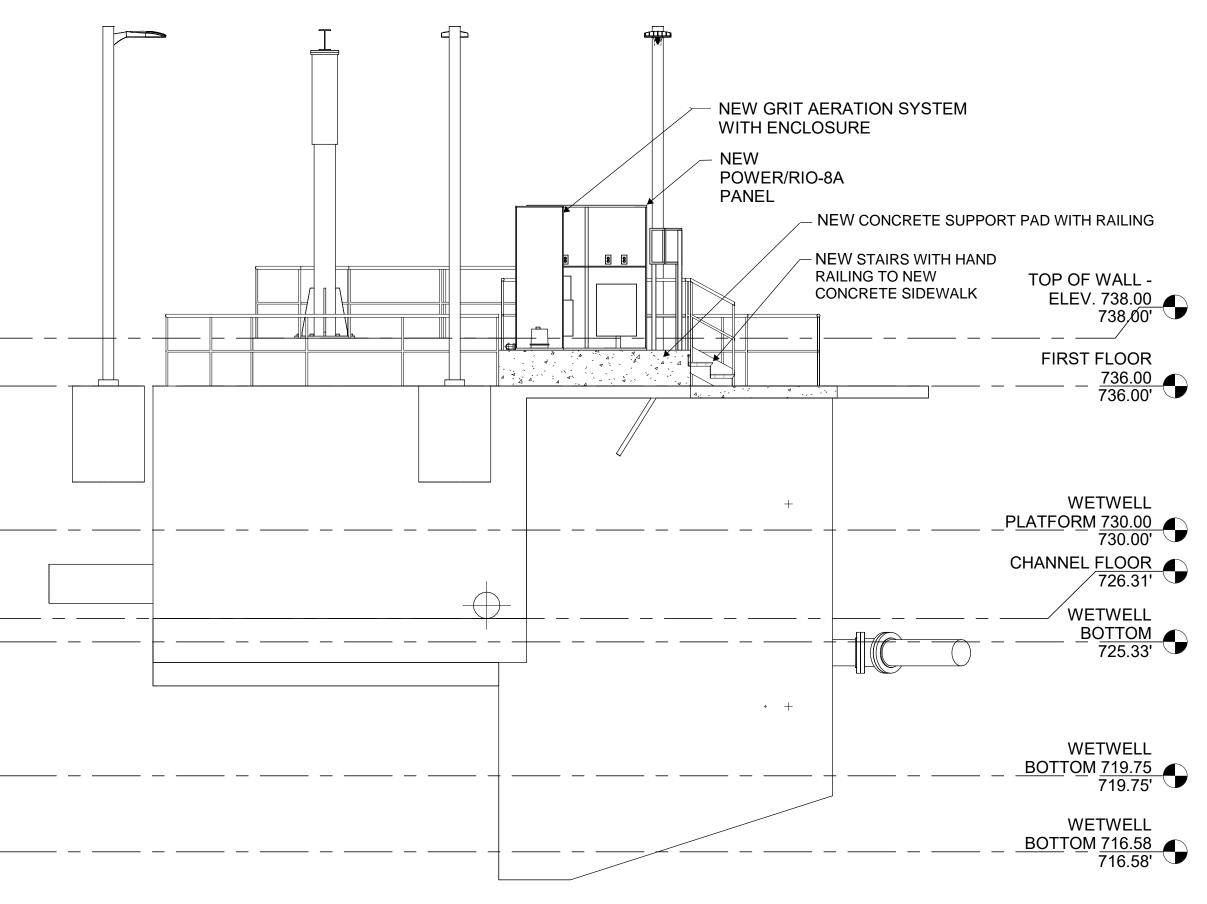
- 1. INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE AS-BUILT DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE ACTUAL EXISTING CONDITIONS IN DETAIL OR DIMENSION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
- 2. UNLESS OTHERWISE NOTED, PROCESS MECHANICAL ITEMS SHOWN HEAVY SOLID (______) SHALL BE NEW WORK AND PROCESS MECHANICAL ITEMS SHOWN LIGHT SOLID (______) SHALL BE EXISTING.
- 3. NO ATTEMPT HAS BEEN MADE TO SHOW ALL NON-PROCESS EQUIPMENT FOR THE FACILITY. THE CONTRACTOR SHALL COORDINATE FACILITY CONSTRUCTION WITH ALL DISCIPLINES TO ENSURE A COMPLETE INSTALLATION. REFER TO SUPPORT DISCIPLINE NEW WORK DRAWINGS FOR ADDITIONAL DETAILS.
- 4. AERATION SYSTEM PIPING SHALL HAVE WALL SUPPORTS AS RECOMMENDED BY MANUFACTURER.

DESIGN CRITERIA

COMPRESSOR PRESSURE: 5.25' / 65" DEPTH

AERATION NEEDED: 8.75 SCFM

MIN. CRANE SPAN: 14'-0"
JIB CRANE CAPACITY: 1/2 TON



A SOUTH HEADWORKS - NEW WORK SECTION A
M01-102 3/8" = 1'-0"

1' 0 1' 2' 3'
SCALE: 3₈"= 1'-0"

REV. NO. DATE REVISION E

SCALE DRAWING SHEET NO.



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CONTRACT NO. S-448

HAMPSTEAD WASTEWATER TREATMENT PLANT IMPROVEMENTS

PROCESS MECHANICAL - NEW WORK PLANS

REV. NO. DATE

SCALE DRAWING SHEET NO.

DESIGNED: CEG

AS
SHOWN

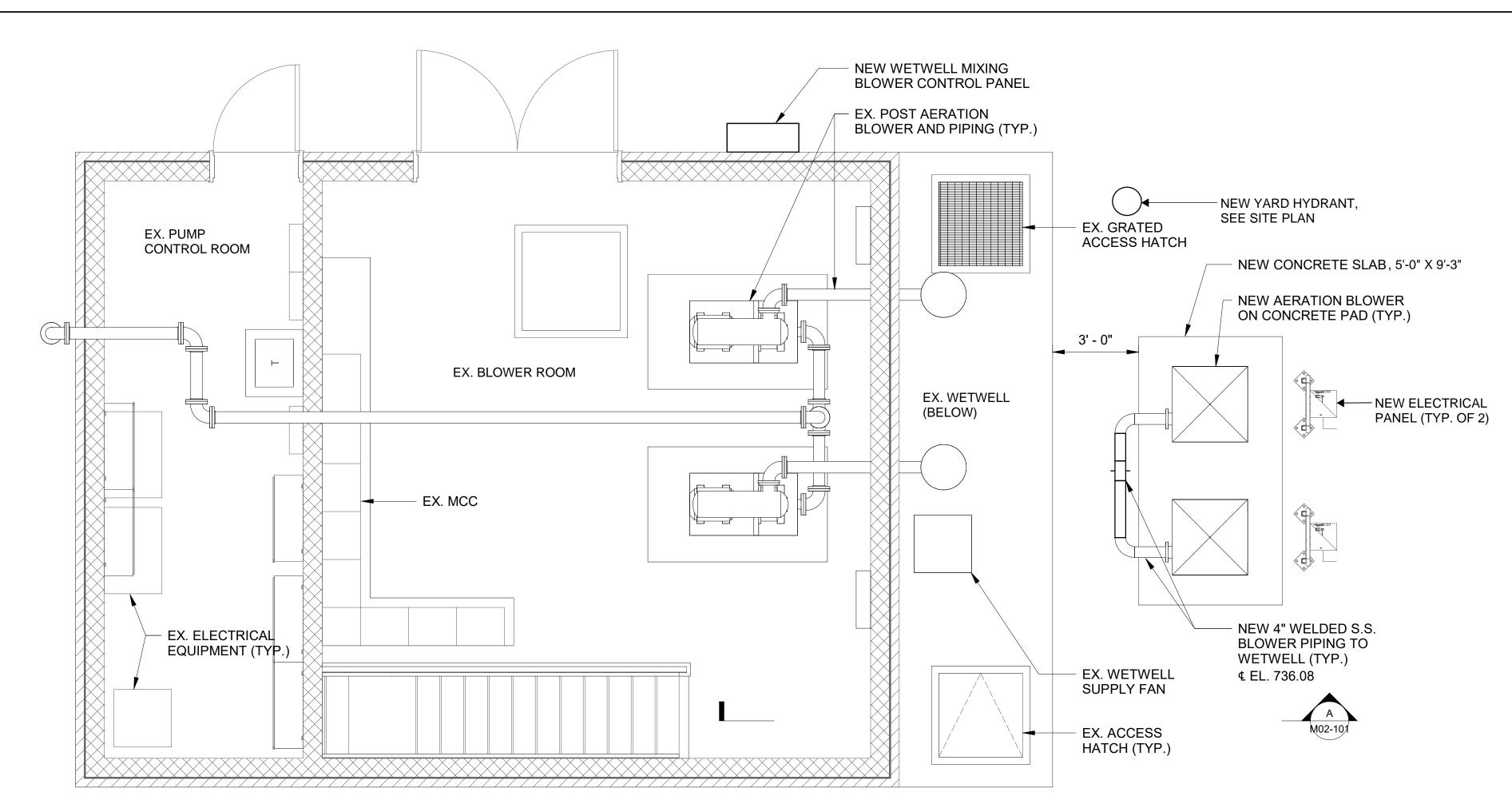
NO._____

CHECKED: SEA

REVISION

SHEET NO.

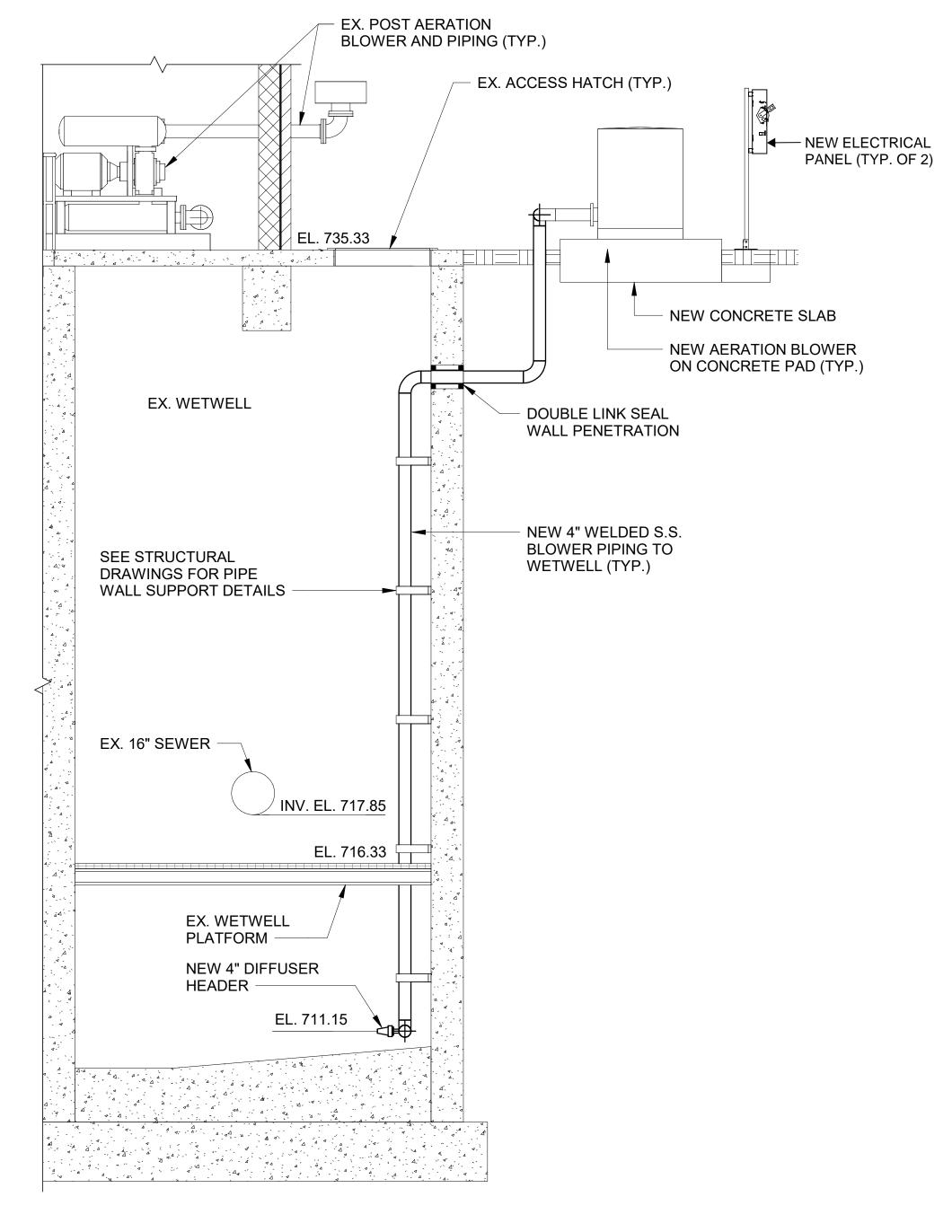
SD-13



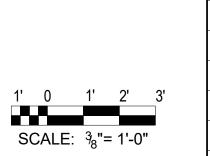


GENERAL SHEET NOTES:

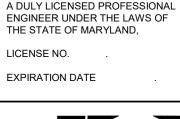
- 1. INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAS BEEN OBTAINED FROM AVAILABLE AS-BUILT DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE ACTUAL EXISTING CONDITIONS IN DETAIL OR DIMENSION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
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A INFLUENT PUMP STATION - NEW WORK SECTION A
M02-101 3/8" = 1'-0"



REV. NO.	DATE		ВҮ		
		SCALE	DRAWING	SHEE	T NO.



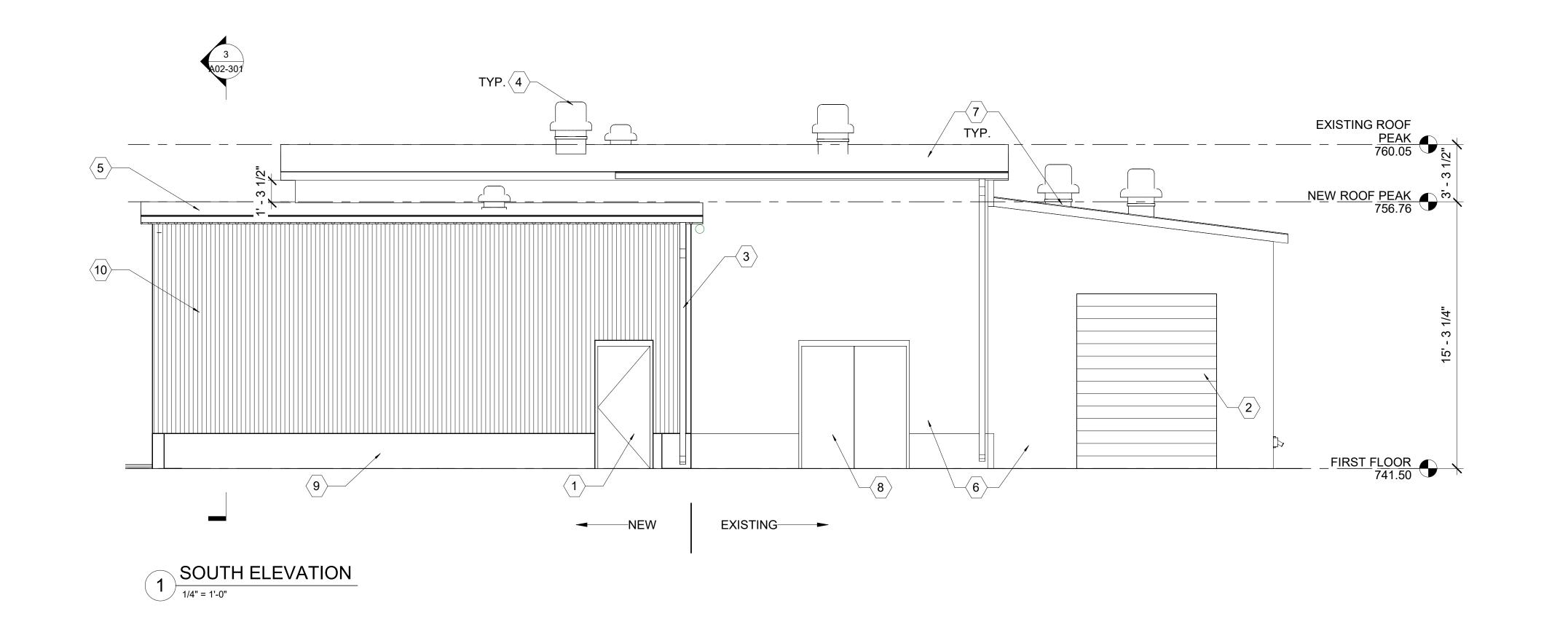
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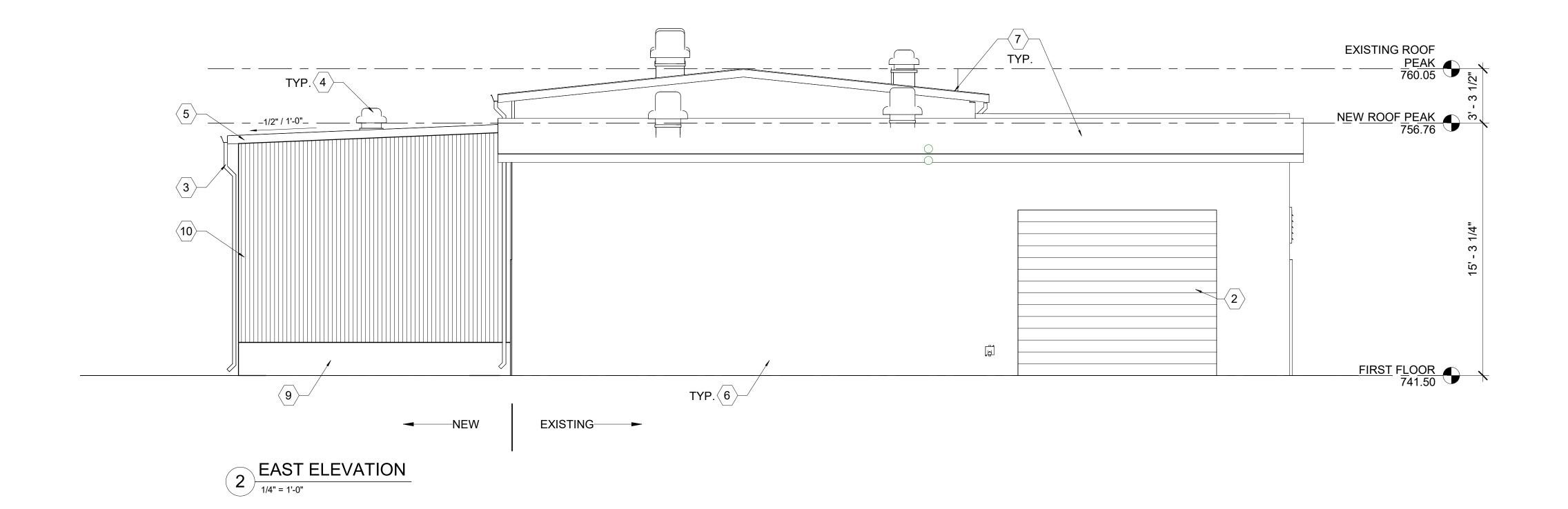


CONTRACT NO. S-448

HAMPSTEAD WASTEWATER TREATMENT PLANT IMPROVEMENTS

PROCESS MECHANICAL - NEW WORK PLANS





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EXPIRATION DATE



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CONTRACT NO. S-448

HAMPSTEAD WASTEWATER TREATMENT PLANT IMPROVEMENTS

SLUDGE PRESS FACILITY - SOUTH & EAST ELEVATIONS

REV. NO. DATE

SCALE

DRAWING

SHEET NO.

AS
SHOWN

NO.

CHECKED: AKM/GD

REVISION

BY

SCALE

DRAWING

SHEET NO.

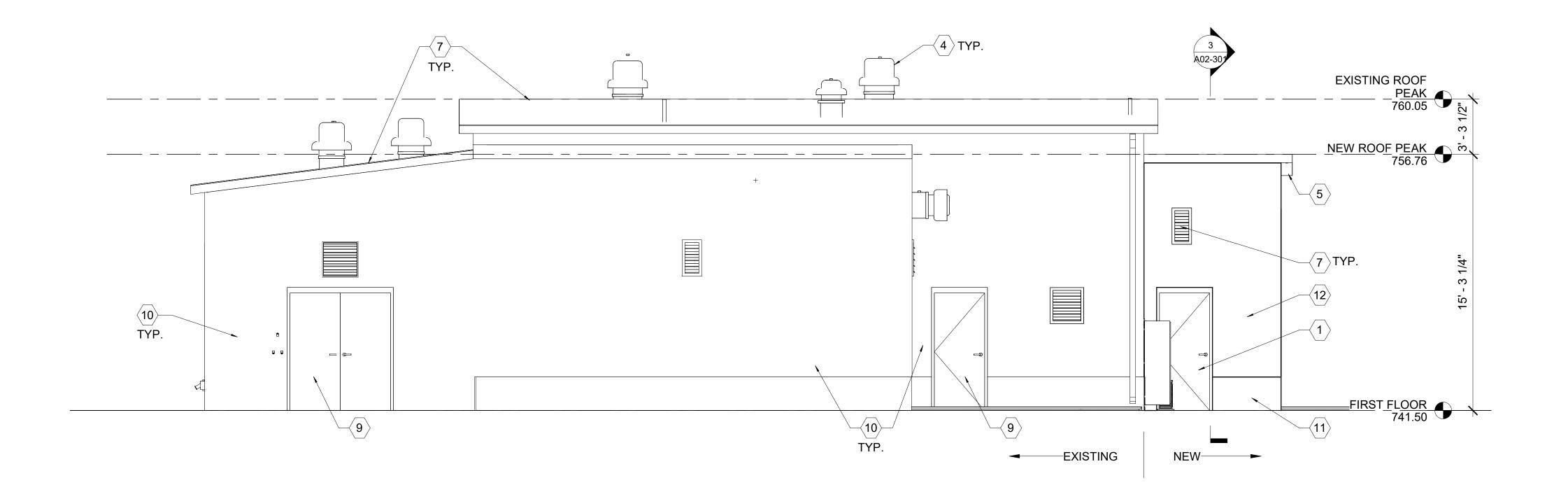
SD-15

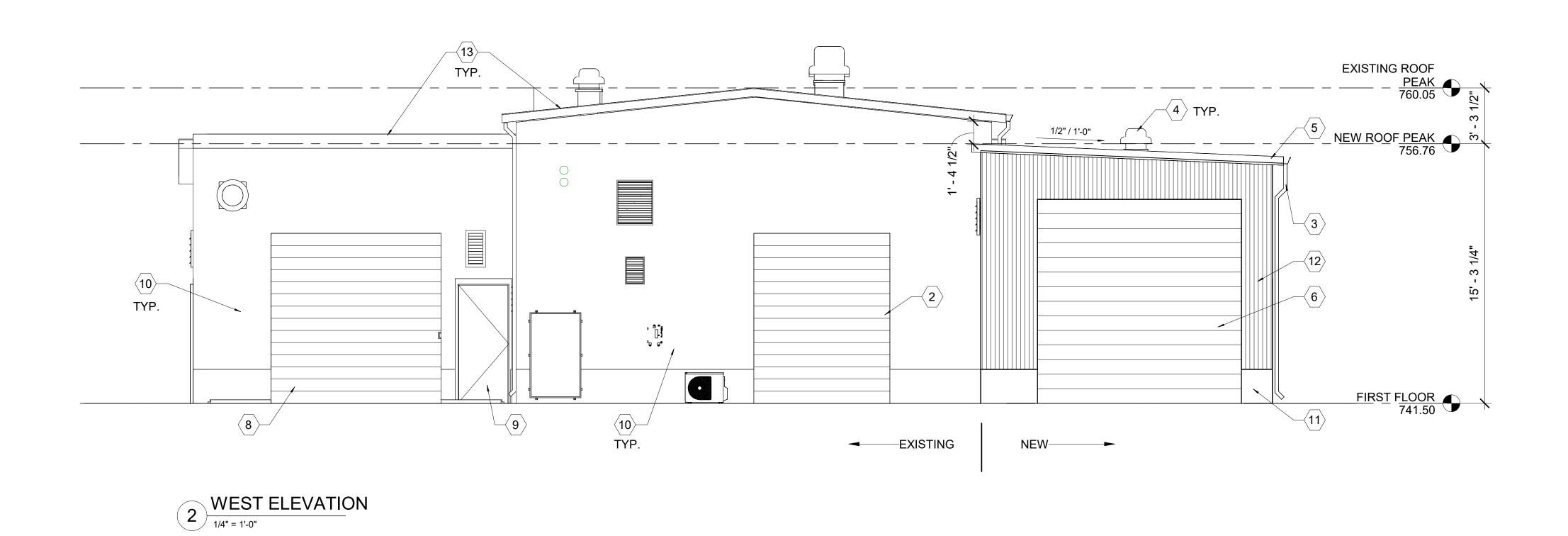
GENERAL SHEETS NOTES:

- MATERIALS AND / OR FINISH DAMAGED DUE TO NEW CONSTRUCTION WILL BE REPAIRED TO MATCH ADJOINING MATERIALS AND FINISHES AT NO COST TO THE OWNER.
- 2. OPENINGS IN EXTERIOR WALLS AND /OR ROOF WILL BE PROTECTED TO BE WEATHERTIGHT AT ALL TIMES. NEW ROOF OPENINGS AND /OR PENETRATIONS WILL BE FLASHED INTO THE EXISTING ROOF CONSTRUCTION TO MAINTAIN A WEATHERTIGHT INSTALLATION.
- 3. COORDINATE ALL WORK WITH OTHER TRADES.

KEY PLAN NOTES: (X)

- 1. NEW 3'-0" x 7'-0" HM DOOR AND FRAME.
- 2. EXISTING STEEL COILING ROLL-UP DOOR.
- 3. NEW ALUM. GUTTER AND DOWNSPOUT TO MATCH EXISTING.
- 4. NEW ROOF MOUNTED EXHAUST VENTILATOR. SEE MECH. DWGS.
- 5. NEW STANDING SEAM METAL ROOF.
- 6. EXISTING METAL WALL PANELS TO REMAIN.
- 7. EXISTING STANDING SEAM METAL ROOF TO REMIAN.
- 8. EXISTING HM DOOR(S) AND FRAME(S) TO REMAIN.
- 9. NEW 2'-0" HIGH CONC. CURB MATCH EXISTING SEE STRUCTURAL DWGS. FOR DETAILS AND NOTES.
- 10. NEW INSULATED METAL WALL PANELS.





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NORTH ELEVATION

1/4" = 1'-0"

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CONTRACT NO. S-448

HAMPSTEAD WASTEWATER TREATMENT PLANT IMPROVEMENTS

SLUDGE PRESS FACILITY - NORTH & WEST ELEVATIONS

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- 3. NEW ALUM. GUTTER AND DOWNSPOUT TO MATCH EXISTING.
- 1. NEW ROOF MOUNTED EXHAUST VENTILATOR. SEE MECH. DWGS.
- NEW STANDING SEAM METAL ROOF.
- 6. NEW STEEL COILING ROLL-UP DOOR AND STEEL CHANNEL FRAME.
- 7. NEW MECH. LOUVERS SEE MECH DWGS FOR SPECS.
- 8. NEW OH COILING DOOR MATCH EXISTING SIZE.
- 9. EXISTING HM DOOR(S) AND FRAME(S) TO REMAIN.
- 10. EXISTING METAL WALL PANELS TO REMAIN.
- 11. NEW 2'-0" HIGH CONC. CURB MATCH EXISTING SEE STRUCTURAL DWGS. FOR DETAILS AND NOTES.
- 12. NEW INSULATED METAL WALL PANELS.
- 13. EXISTING STANDING SEAM METAL ROOF.



1 3D VIEW 1



3D VIEW 2

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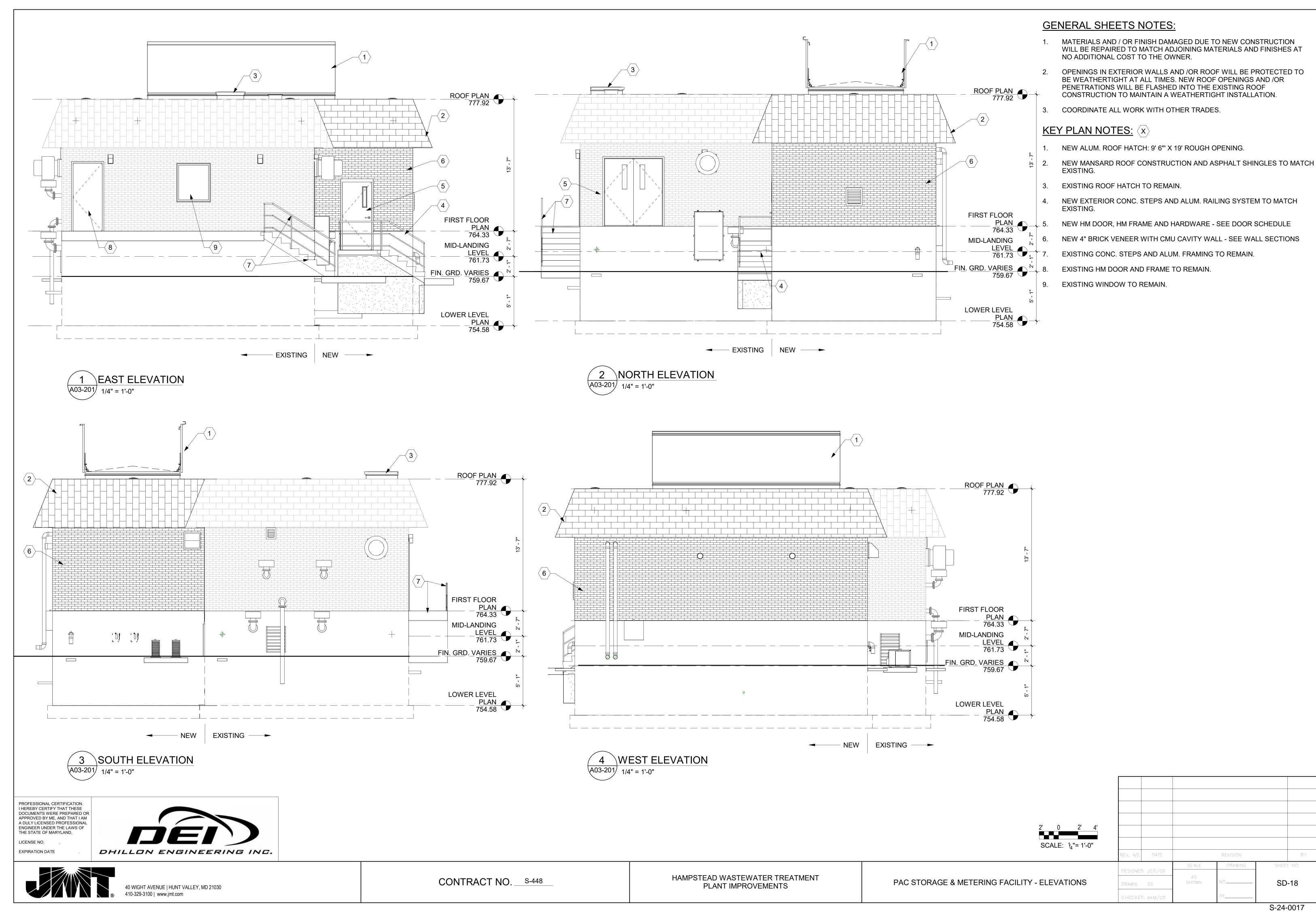
EXPIRATION DATE



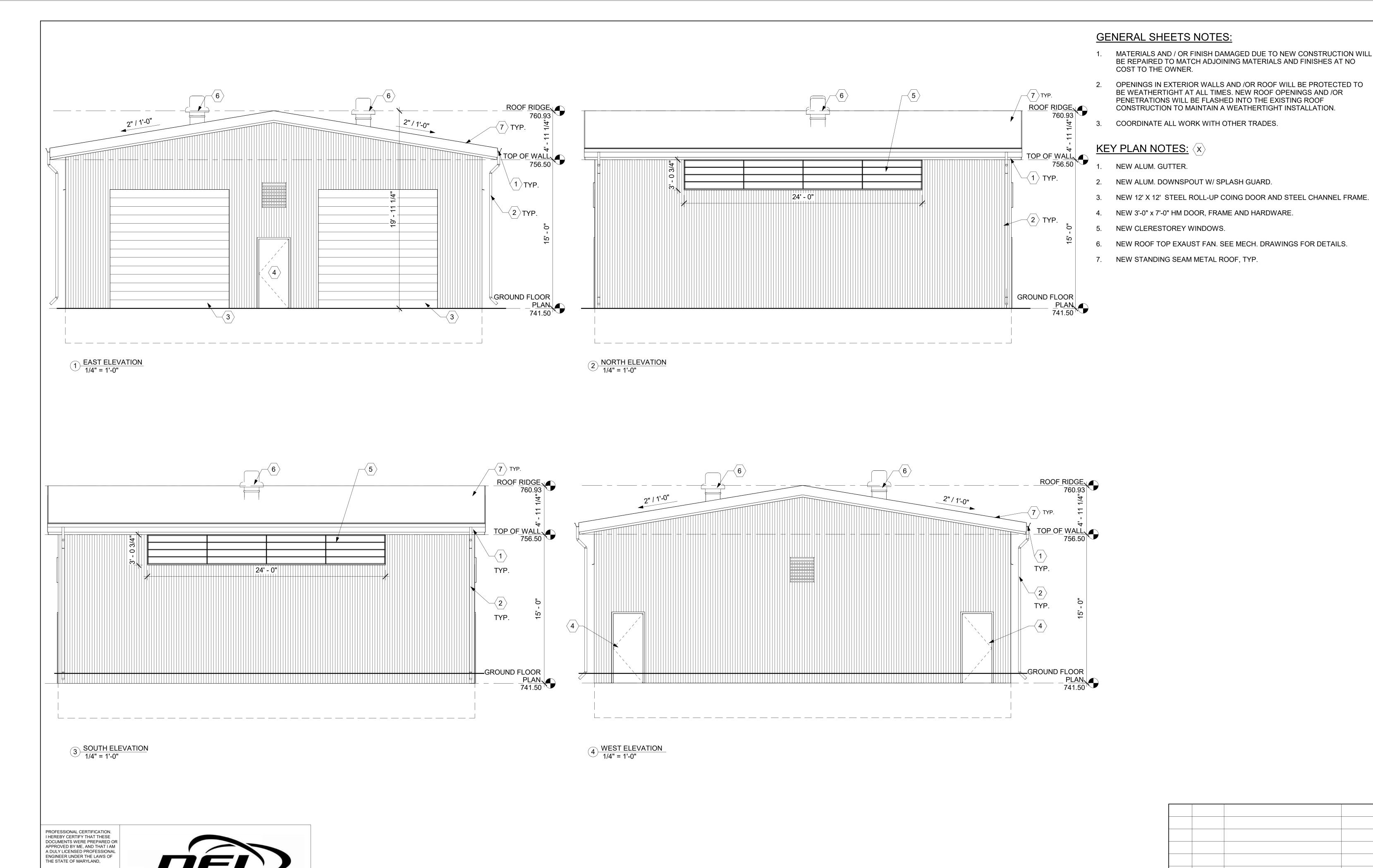
REV. NO.	DATE		BY		
DESIGNED: JCD/GD		SCALE	DRAWING	SHEET	T NO.



SD-17









DHILLON ENGINEERING INC.

LICENSE NO.

EXPIRATION DATE

HUNT VALLEY, MD 21030 CONTRACT NO. S-448

S-448

HAMPSTEAD WASTEWATER TREATMENT PLANT IMPROVEMENTS

STORAGE / MAINTENANCE BUILDING - ELEVATIONS

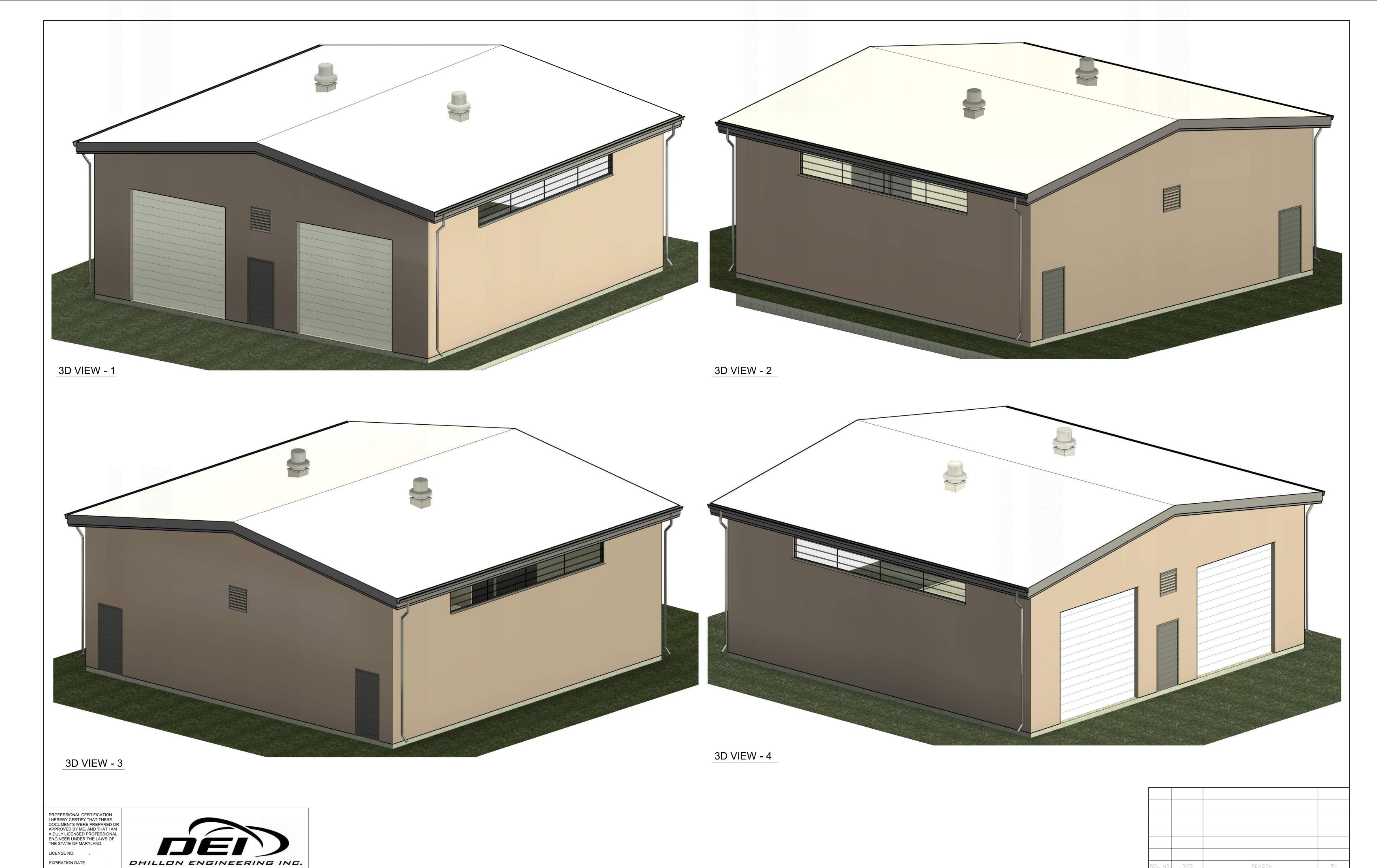
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DESIGNED: JCD/GD

AS
SHOWN

NO. SD-20

CHECKED: AM/GD



40 V 410

LEY MD 21030 CONTRACT NO. S-448

HAMPSTEAD WASTEWATER TREATMENT PLANT IMPROVEMENTS

PROPOSED MAINTENANCE / STORAGE BUILDING - 3D VIEWS

REV. NO. DATE REVISION

SCALE DRAWING

DESIGNED: JCD/GD

AS
SHOWN

CHECKED: AM/GD

REVISION

OF______

S-24-0017