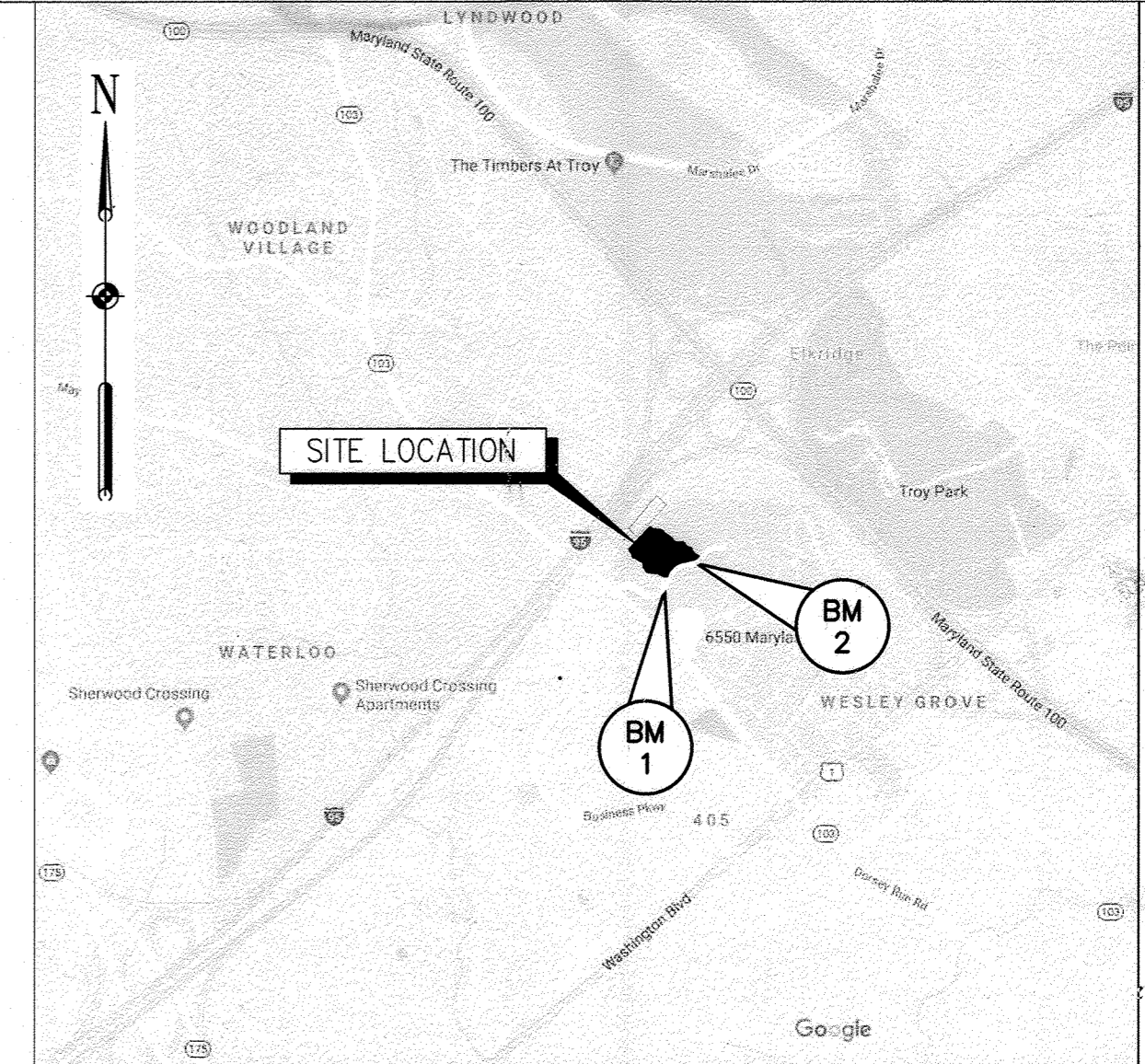


# SITE DEVELOPMENT PLAN

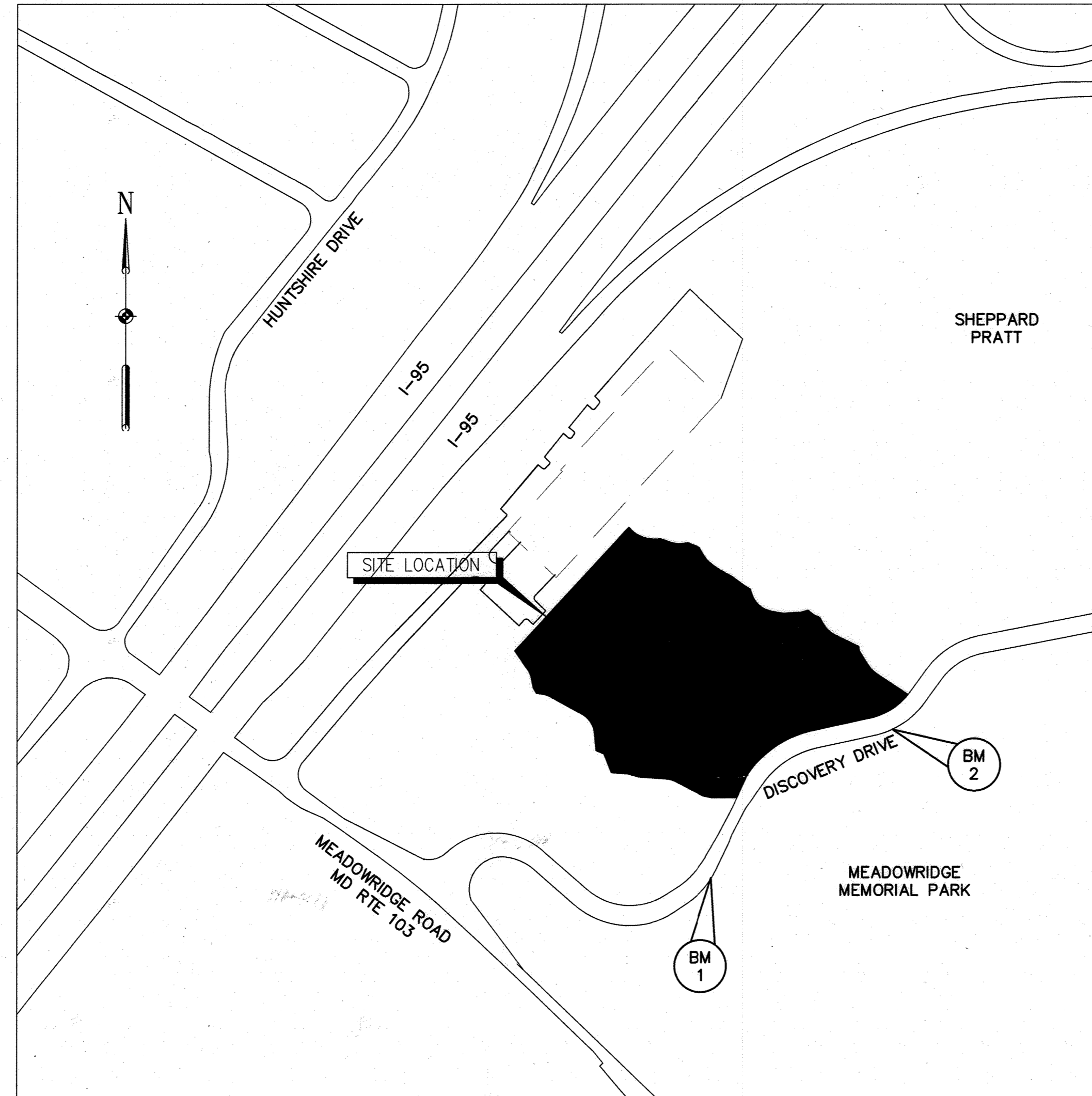
## Sheppard Pratt Medical Facility

7190 DISCOVERY DRIVE, ELKRIDGE, MARYLAND  
1st ELECTION DISTRICT

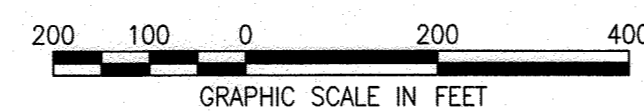


VICINITY MAP  
SCALE: 1"=2000'

SITE ANALYSIS DATA CHART					
BUILDING ADDRESS		7190 DISCOVERY DRIVE ELKRIDGE, MD 21075			
PRESENT ZONING		M-1			
PROPOSED USE		MEDICAL OFFICE BUILDING			
EXISTING USE		VACANT			
PROPERTY AREA TOTAL		28.08 AC.			
LIMIT OF DISTURBANCE (LOD)		5.15 AC.±			
GREEN OPEN AREA (LOD)		2.24 AC.			
IMPERVIOUS AREA (LOD)		2.91 AC.			
BUILDING COVERAGE OF SITE/GROSS SF		18,811 / 93,861			
FIRST FLOOR	SECOND FLOOR	THIRD FLOOR	FOURTH FLOOR	FIFTH FLOOR	ROOF
18,811 SF	18,688 SF	18,688 SF	18,688 SF	18,688 SF	298 SF
PROPOSED WATER		PUBLIC			
PROPOSED SEWER		PUBLIC			
STEEP SLOPE (15% & GREATER) AREA		0.62 AC. (W/I LOD)			
ERODIBLE SOILS					
AWB (RATING 0.55 PER SCD HSG TABLE)-		0.016 AC.			
CHB (RATING 0.43 PER SCD HSG TABLE)-		2.225 AC.			
LcC (RATING 0.64 PER SCD HSG TABLE)-		1.868 AC.			
REQUIRED PARKING COUNT: PER SECTION 133.0.D.3.b OF THE ZONING REGULATIONS (5 SPACES PER 1,000 S.F. OF GROSS FLOOR AREA)		470			
PROPOSED PARKING COUNT: BASED ON 3.1 SPACE PER 1,000 S.F. OF FLOOR AREA PER PARKING NEEDS STUDY PREPARED BY THE TRAFFIC GROUP, DATED MARCH 18, 2020		294 INCLUDING 8 HANDICAPPED			



LOCATION MAP  
SCALE: 1"=200'



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6.	PROPOSED GRADING PLAN - EAST
7.	SITE DETAILS
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9.	SITE DETAILS
10.	SITE DETAILS
11.	PROPOSED UTILITY PLAN - WEST
12.	PROPOSED UTILITY PLAN - EAST
13.	PROPOSED UTILITY PROFILES
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28.	STORMWATER MANAGEMENT PLAN - MWS3
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30.	STORMWATER MANAGEMENT PLAN - MWS5
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55.	EXTERIOR BUILDING ELEVATIONS - CONSTRUCTION
56.	EXTERIOR BUILDING ELEVATIONS - CONSTRUCTION
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### SITE NOTES

- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH ONE FOOT CONTOUR INTERVALS PREPARED BY DAFT MCCUNE WALKER, DATED MAY 2019 AND HOWARD COUNTY GIS WITH TWO FOOT CONTOUR INTERVALS.
- ALL HORIZONTAL SURVEY DATA SHOWN HEREON ARE REFERENCED TO THE MARYLAND COORDINATE SYSTEM NAD83/91 DATUM, AND ALL VERTICAL SURVEY DATA SHOWN HEREON AND CONTAINED WITHIN THE AFORESAID TOPOGRAPHIC MAPPING FILE ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AS DERIVED FROM SURVEY CONTROL POINTS PROVIDED BY DAFT MCCUNE WALKER, INC., INCLUDING:

POINT#	NORTHING	EASTING	ELEVATION	DESC.
BM1	555,075.72	1,377,805.34	213.96	X-CUT
BM2	555,372.05	1,378,169.70	206.76	X-CUT

HOWARD COUNTY REFERENCE DRAWINGS:  
WATER: CONTRACT 14-4576-D  
SEWER: CONTRACT 14-4576-D  
F-18-106, F-10-013  
SDP-08-082, SDP-18-033  
ECP-18-018, ECP-20-015

- GENERAL NOTES:
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
  - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
  - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
  - TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
  - ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
  - THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM.
  - SITE WILL BE SERVED BY PUBLIC WATER AND SANITARY. OFFSITE WATER & SEWER IS PUBLIC, CONTRACT NO. 14-4576-D.
  - PROPOSED STORMWATER MANAGEMENT LEVEL OF CONTROL WILL BE ENVIRONMENTAL SITE DESIGN (ESD) TO THE MOST EXTENT PRACTICAL (MEP) WITH SAFE PASSAGE OF THE 2, 10 AND 100-YR STORM EVENTS. ALL STORMWATER MANAGEMENT PRACTICES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME 1, CHAPTER 5; REVISED MAY 3, 2010 AND CURRENT STATE OF MARYLAND REQUIREMENTS. STORMWATER MANAGEMENT QUALITY CONTROLS WILL BE PROVIDED BY THE IMPLEMENTATION OF MICRO BIO-RETENTION AREAS, RAIN GARDENS, BIOCLEAN MODULAR WETLANDS SYSTEMS (MWS) OR OTHER APPROVED ENVIRONMENTALLY SENSITIVE DESIGN PRACTICES THROUGHOUT THE SITE.
  - SWM FACILITIES WILL BE OWNER MAINTAINED.
  - ALL EXTERIOR LIGHT FIXTURES SHALL BE ORIENTED TO DIRECT LIGHT INWARD AND DOWNWARD AND AWAY FROM ALL ADJOINING RESIDENTIAL PROPERTIES AND PUBLIC ROADS IN ACCORDANCE WITH SECTION 134.0 OF THE HOWARD COUNTY ZONING REGULATIONS.
  - ANY DAMAGE TO THE COUNTY OWNED RIGHT OF WAY SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
  - TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01.
  - ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS OR MSHA STANDARDS AS SPECIFIED ON THE PLANS.
  - ALL MATERIALS AND CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING PROPERTY WHICH MAY OCCUR AS A RESULT OF NEGLIGENCE DURING THE EXECUTION OF WORK.
  - LANDSCAPE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF \$4500 WILL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS PLAN FOR THE REQUIRED 15 SHADE TREES.
  - FLOODPLAIN SHOWN IS BASED ON FLOODPLAIN STUDY PREPARED BY GEORGE WILLIAM STEPHENS JR. & ASSOCIATES, INC., IN 2008. THE FLOODPLAIN STUDY WAS APPROVED BY HOWARD COUNTY DEVELOPMENT ENGINEERING DIVISION ON NOVEMBER 18, 2009.
  - FOREST CONSERVATION REQUIREMENTS WERE PREVIOUSLY ADDRESSED UNDER SDP-08-082 AND F-18-106 IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE. FOREST WILL BE CLEARED BACK TO THE FOREST CONSERVATION AREA LIMIT, BUT NO FOREST CLEARING IS PROPOSED WITHIN THE FOREST CONSERVATION AREA FOR THIS PROJECT.
  - NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS.
  - STORM DRAINS ARE PRIVATE.
  - MEDICAL FACILITY PROJECT AREA IS NOT WITHIN WETLANDS, WETLANDS BUFFERS, STREAM, STREAM BUFFERS OR 100-YEAR FLOODPLAIN AS DESIGNATED ON WAR PLAT NUMBERS 22384 AND 22385. THE PROJECT AREA DOES CONTAIN STEEP SLOPES 15% AND GREATER. THE OVERALL SHEPPARD PRATT PROPERTY DOES CONTAIN WETLANDS, WETLANDS BUFFERS, STREAM, STREAM BUFFERS, 100-YEAR FLOODPLAIN AND STEEP SLOPES 15% AND GREATER, BUT WILL NOT BE IMPACTED BY MEDICAL FACILITY PROJECT CONSTRUCTION.
  - MAINTENANCE OF THE RETAINING WALLS WILL BE PRIVATELY MAINTAINED BY THE OWNER.
  - THE SUBJECT PROPERTY IS ZONED M-1 IN ACCORDANCE WITH THE OCTOBER 6, 2013 ZONING REGULATIONS.
  - THE PROPOSED MEDICAL PAVILION EXCEEDS 50,000 SQUARE FEET AND REQUIRES LEED GREEN BUILDING CERTIFICATION. THE BUILDING WILL BE IN ACCORDANCE WITH SECTION 3.1003 OF THE HOWARD COUNTY CODE.
  - NO CEMETERIES OR GRAVE SITES ARE CONTAINED WITHIN THE PROJECT AREA.
  - TRAFFIC STUDY REQUIREMENTS WERE PREVIOUSLY ADDRESSED UNDER SDP-18-033 IN THE SHEPPARD PRATT HEALTH SYSTEM, ELKRIDGE CAMPUS TRAFFIC IMPACT ANALYSIS, DATED MARCH 12, 2018.
  - SEE SHEET 47 FOR THE BREAKDOWN OF PEAK MANAGEMENT AND PRE VERSUS POST 100-YEAR DISCHARGES PER STORMWATER MANAGEMENT DEVICE.

HEALTH DEPARTMENT APPROVAL OF THIS SITE DEVELOPMENT PLAN DOES NOT ENSURE APPROVAL OF BUILDING PERMIT APPLICATIONS ASSOCIATED WITH THIS PLAN. PLANS FOR CERTAIN FACILITIES TO BE CONSTRUCTED WITHIN THE LIMITS DESCRIBED BY THIS PLAN WILL REQUIRE REVIEW AND APPROVAL BY THE HEALTH DEPARTMENT. SUCH FACILITIES MAY INCLUDE, BUT ARE NOT LIMITED TO, THOSE WHICH HAVE SWIMMING POOLS, OR THAT SELL PREPARED OR PACKAGED FOODS, OR THAT MAY HAVE EQUIPMENT THAT EMITS RADIATION.

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
10/15/22  
DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
10/27/22  
DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT  
10/27/22  
DATE  
DIRECTOR

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS  
10/15/22  
DATE  
10/27/22  
DATE  
10/27/22  
DATE  
HOWARD COUNTY HEALTH DEPARTMENT

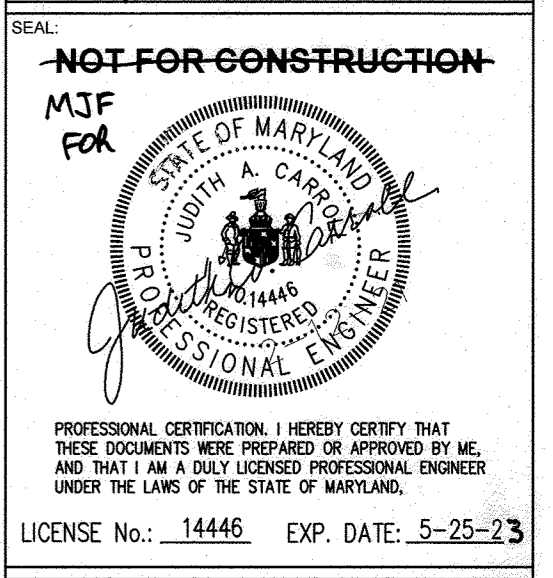
Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca.design

CIVIL ENGINEERING  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

LANDSCAPE DESIGN  
SITE RESOURCES, INC.  
14315 JARRETTVILLE PIKE  
PHOENIX, MD 21131  
410.683.3388

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MEP ENGINEERING  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWRIDGE RD #1  
ELKRIDGE, MD 21075  
410.578.8100



Sheppard Pratt

SHEPPARD PRATT  
MEDICAL PAVILION  
7190 DISCOVERY DRIVE  
ELKRIDGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCEL A

ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
CORRIDOR 95 BUSINESS PARK	N/A	A/3756

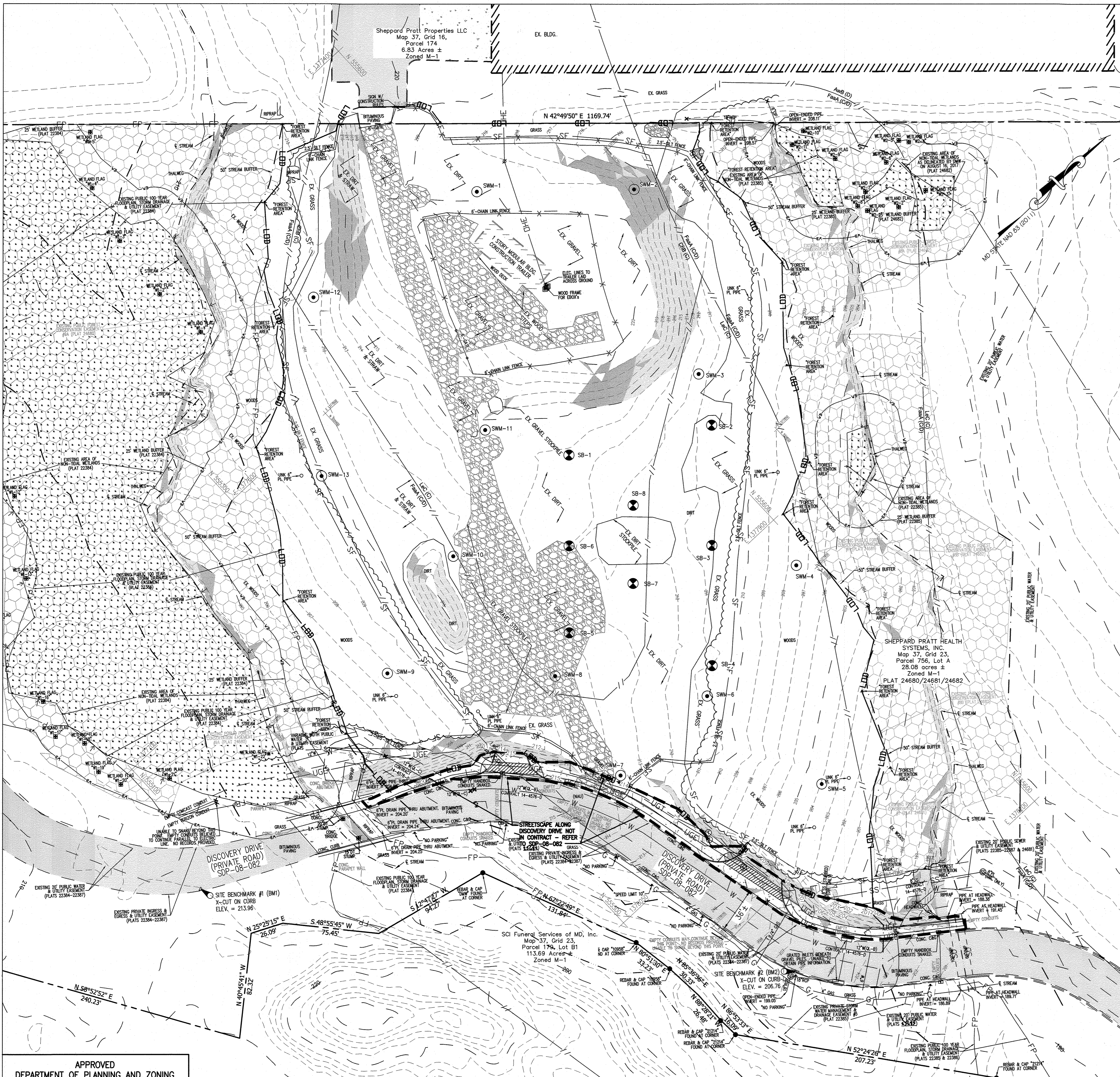
OWNER/DEVELOPER  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

MCA JOB NO.	PROJ/MANAGER	SHEET BY
19002.01	DWM	DWM

SHEET SET AND SHEET ISSUE DATE: 2/12/2021

SHEET NAME: SDP COVERSHEET

SHEET NO. 1 of 60



**EXISTING LEGEND**

	EXISTING PROPERTY LINE
	EXISTING EASEMENT
	EXISTING SETBACK
	EXISTING BUILDING
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING CURB
	EXISTING CURB & GUTTER
	EXISTING ROADWAY
	EXISTING PAVEMENT
	EXISTING ASPHALT PAVING
	EXISTING CONCRETE PAVING
	EXISTING GRAVEL
	EXISTING FENCELINE
	EXISTING SIGN
	EXISTING ELECTRIC HANDBOX
	EXISTING ELECTRIC MANHOLE
	EXISTING OVERHEAD ELECTRIC
	EXISTING UNDERGROUND ELECTRIC
	EXISTING UNDERGROUND CONDUIT
	EXISTING DUCTBANK
	EXISTING FIBER OPTIC
	EXISTING GAS LINE
	EXISTING GAS VALVE
	EXISTING SANITARY LINE
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY CLEANOUT
	EXISTING STORMDRAIN LINE
	EXISTING STORMDRAIN INLET
	EXISTING STORMDRAIN MANHOLE
	EXISTING TELEPHONE
	EXISTING TELEPHONE MANHOLE
	EXISTING TELEPHONE PEDESTAL
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING WATER LINE
	EXISTING WATER METER
	EXISTING WATER VALVE
	EXISTING WATER MANHOLE
	EXISTING FIRE HYDRANT
	EXISTING STREAM CENTERLINE
	EXISTING STREAM BUFFER
	EXISTING WETLAND
	EXISTING WETLAND BUFFER
	EXISTING WETLANDS
	EXISTING FLOODPLAIN
	EXISTING SOILS
	EXISTING TREE LINE
	EXISTING DECIDUOUS TREE
	EXISTING EVERGREEN TREE
	EXISTING SHRUB
	EXISTING PUBLIC FOREST CONSERVATION EASEMENT
	STEEP SLOPES: 15%-20%
	STEEP SLOPES: 20%+
	EXISTING IRON PIN
	EXISTING SOIL BORING

- GENERAL NOTES:**
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY PREPARED BY A/I/DATE, DATED MAY 17, 2019 AND HOWARD COUNTY GIS.
  - ALL HORIZONTAL SURVEY DATA SHOWN HEREON ARE REFERENCED TO THE MARYLAND COORDINATE SYSTEM NAD83/91 DATUM, AND ALL VERTICAL SURVEY DATA SHOWN HEREON ARE REFERENCED TO THE AFORESAID TOPOGRAPHIC MAPPING FILE ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AS DERIVED FROM SURVEY CONTROL POINTS PROVIDED BY DAFT, MCCUNE, WALKER, INC. INCLUDING:
 

POINT#	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM10	555075.72	1377805.34	213.96	X-CUT
BM11	555372.05	1378169.70	206.76	X-CUT
  - EXISTING UNDERGROUND UTILITIES DESIGNATED ON THE PLANS ARE BASED ON CURRENTLY AVAILABLE INFORMATION AND ARE SHOWN FOR REFERENCE ONLY. THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF SAID INFORMATION BEYOND THE DESIGNATION INDICATED. THE QUALITY LEVEL DESIGNATED IS IN ACCORDANCE WITH ASCE "STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA" (CI/ASCE 38-02). THE CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH THOSE STANDARDS PRIOR TO ANY RELIANCE ON THE INFORMATION SHOWN ON THESE PLANS. PRIOR TO ANY EXCAVATION, IN THE ABSENCE OF QUALITY LEVEL A OR B DESIGNATION, THE CONTRACTOR SHALL VERIFY, TO HIS OWN SATISFACTION, THE EXISTENCE, DEPTH, SIZE, MATERIAL, AND LOCATION OF ALL UNDERGROUND UTILITIES, AND DETERMINE WHETHER THOSE UTILITIES ARE LIVE. ANY EARTHWORK IN LOCATIONS WHERE UTILITIES ARE POSSIBLE SHALL BE DONE WITH EXTREME CAUTION. THE GIVING OF INFORMATION ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO SUPPORT AND PROTECT ALL DESIGNATED OR UNDESIGNATED EXISTING UTILITIES AND APPURTENANCES. SHOULD ANY EXISTING UTILITY BE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPAIR THE DAMAGE CAUSED TO THE UTILITY OWNER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.
  - LIVE UNDERGROUND UTILITIES MAY EXIST WITHIN THE WORK AREA. CONTRACTOR SHALL USE EXTREME CAUTION AND SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
  - INFORMATION SHOWN ON THIS DRAWING HAS BEEN PROVIDED AS A GUIDE TO ASSIST THE CONTRACTOR IN ESTABLISHING THE LOCATIONS OF PROPOSED CONSTRUCTION WITH RESPECT TO EXISTING SITE IMPROVEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL CONSTRUCTION SURVEY STAKEOUT REQUIRED AND TO FIELD VERIFY ALL GRADES, ELEVATIONS, DIMENSIONS, ETC. PRIOR TO STARTING CONSTRUCTION.

APPROVED  
DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 10/15/22  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 10/27/22  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 10/27/22  
DIRECTOR DATE

**EXISTING CONDITIONS PLAN**  
SCALE: 1"=40'  
40 20 0 40 80  
GRAPHIC SCALE IN FEET

**MCA ARCHITECTURE.**

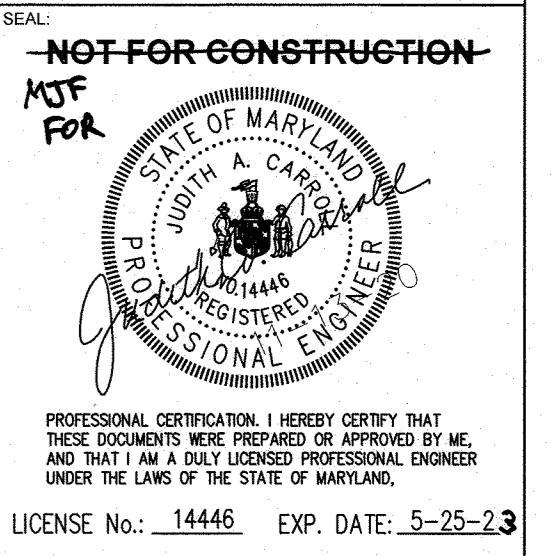
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410.579.8100



**Sheppard Pratt**

**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELKRIDGE, MARYLAND 21075  
HOWARD COUNTY

**CORRIDOR 95 BUSINESS PARK - PARCELA**

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
10000000	7190 DISCOVERY DRIVE

**REVISIONS:**

NO.	DATE	COMMENTS

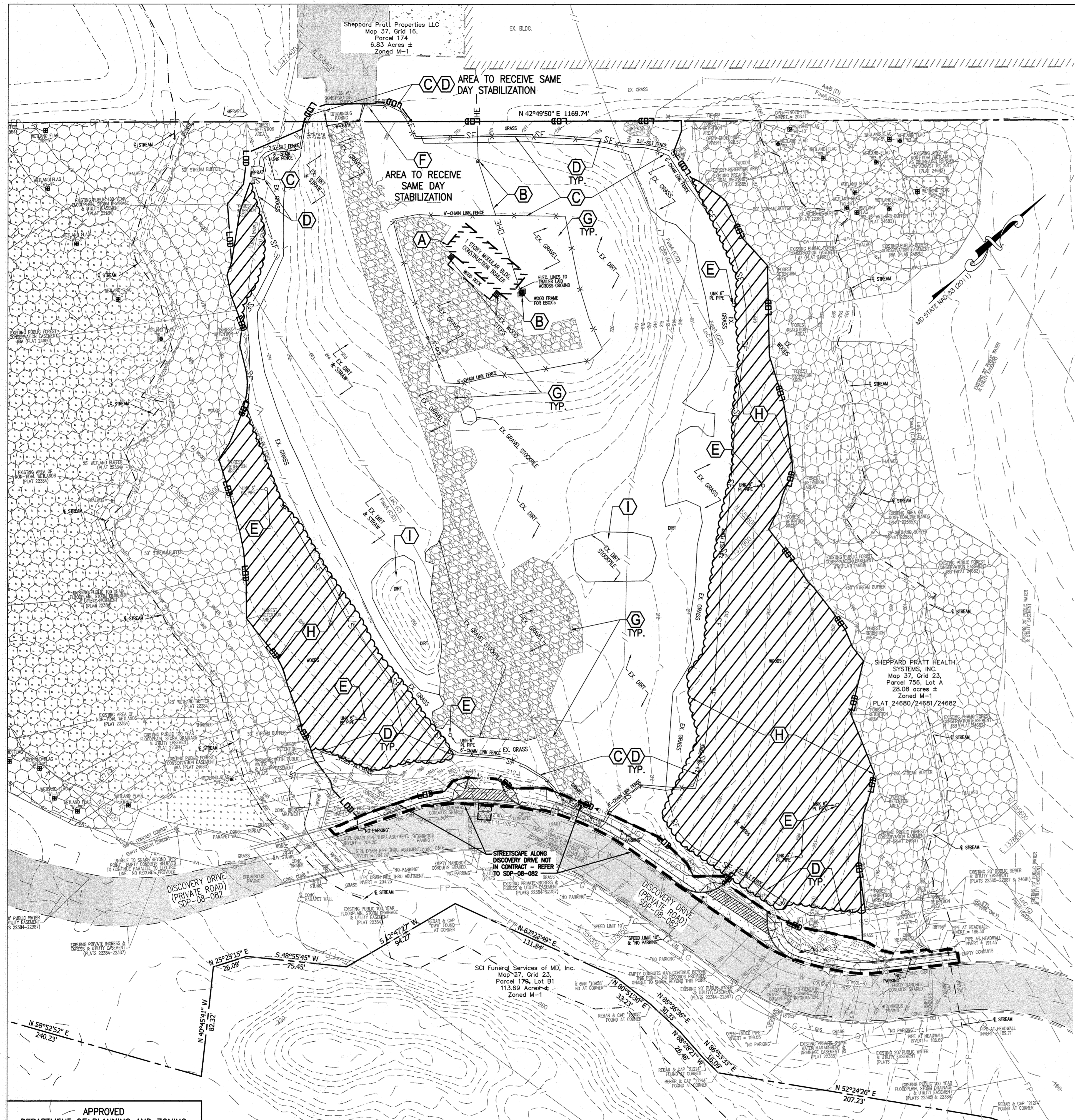
MCA JOB NO.: 190022.01  
PROJ. MANAGER: DVM  
SHEET BY: DVM

SHEET SET AND SHEET ISSUE DATE: 11/13/2020

**EXISTING CONDITIONS PLAN**

SHEET NO. **2** of 60

**SDP-20-057**



**EXISTING LEGEND**

- EXISTING PROPERTY LINE
- - - EXISTING EASEMENT
- - - EXISTING SETBACK
- EXISTING BUILDING
- 210 --- EXISTING MAJOR CONTOUR
- 209 --- EXISTING MINOR CONTOUR
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING ROADWAY
- EXISTING PAVEMENT
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING GRAVEL
- X --- EXISTING FENCELINE
- △ --- EXISTING SIGN
- --- EXISTING ELECTRIC HANDBOX
- ⊙ --- EXISTING ELECTRIC MANHOLE
- OHE --- EXISTING OVERHEAD ELECTRIC
- UGE --- EXISTING UNDERGROUND ELECTRIC
- COND --- EXISTING UNDERGROUND CONDUIT
- UGE --- EXISTING DUCTBANK
- FO --- EXISTING FIBER OPTIC
- C --- EXISTING GAS LINE
- CV --- EXISTING GAS VALVE
- SS --- EXISTING SANITARY LINE
- ⊙ --- EXISTING SANITARY MANHOLE
- ⊙ --- EXISTING SANITARY CLEANOUT
- EXISTING STORMDRAIN LINE
- ⊙ --- EXISTING STORMDRAIN INLET
- ⊙ --- EXISTING STORMDRAIN MANHOLE
- UGT --- EXISTING TELEPHONE
- ⊙ --- EXISTING TELEPHONE MANHOLE
- ⊙ --- EXISTING TELEPHONE PEDESTAL
- ⊙ --- EXISTING UTILITY POLE
- ⊙ --- EXISTING LIGHT POLE
- W --- EXISTING WATER LINE
- WM --- EXISTING WATER METER
- WV --- EXISTING WATER VALVE
- ⊙ --- EXISTING WATER MANHOLE
- ⊙ --- EXISTING FIRE HYDRANT
- EXISTING STREAM CENTERLINE
- EXISTING STREAM BUFFER
- EXISTING WETLAND
- WB --- EXISTING WETLAND BUFFER
- EXISTING WETLANDS
- FP --- EXISTING FLOODPLAIN
- AwB --- EXISTING SOILS
- CHB --- EXISTING SOILS
- EXISTING TREELINE
- ⊙ --- EXISTING DECIDUOUS TREE
- ⊙ --- EXISTING EVERGREEN TREE
- ⊙ --- EXISTING SHRUB
- ⊙ --- EXISTING PUBLIC FOREST CONSERVATION EASEMENT

**DEMOLITION LEGEND**

- UTILITY TO BE ABANDONED
- X X X X X --- UTILITY TO BE REMOVED
- ASPHALT TO BE REMOVED
- CONCRETE TO BE REMOVED
- WOODLAND TO BE REMOVED
- LIMIT OF SAWCUT/EXCAVATION
- TREE TO BE REMOVED
- GRAVEL TO BE REMOVED
- LOD --- LIMIT OF DISTURBANCE

**GENERAL NOTES:**

- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY PREPARED BY A/1/DATA, DATED MAY 17, 2019 AND HOWARD COUNTY GIS.
- ALL HORIZONTAL SURVEY DATA SHOWN HEREON ARE REFERENCED TO THE MARYLAND COORDINATE SYSTEM NAD83/91 DATUM, AND ALL VERTICAL SURVEY DATA SHOWN HEREON AND CONTAINED WITHIN THE AFORESAID TOPOGRAPHIC MAPPING FILE ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AS DERIVED FROM SURVEY CONTROL POINTS PROVIDED BY DAFT, MCCUNE, WALKER, INC. INCLUDING:
 

POINT#	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM10	555075.72	1377805.34	213.96	X-CUT
BM11	555372.05	1378169.70	206.76	X-CUT
- EXISTING UNDERGROUND UTILITIES DESIGNATED ON THE PLANS ARE BASED ON CURRENTLY AVAILABLE INFORMATION AND ARE SHOWN FOR REFERENCE ONLY. THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF SAID INFORMATION BEYOND THE DESIGNATION INDICATED. THE QUALITY LEVEL DESIGNATED IS IN ACCORDANCE WITH ASCE "STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA" (CI/ASCE 38-02). THE CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH THOSE STANDARDS PRIOR TO ANY RELIANCE ON THE INFORMATION SHOWN ON THESE PLANS. PRIOR TO ANY EXCAVATION, IN THE ABSENCE OF QUALITY LEVEL A OR B DESIGNATION, THE CONTRACTOR SHALL VERIFY, TO HIS OWN SATISFACTION, THE EXISTENCE, DEPTH, SIZE, MATERIAL, AND LOCATION OF ALL UNDERGROUND UTILITIES, AND DETERMINE WHETHER THOSE UTILITIES ARE LIVE. ANY EARTHWORK IN LOCATIONS WHERE UTILITIES ARE POSSIBLE SHALL BE DONE WITH EXTREME CAUTION. THE GIVING OF INFORMATION ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO SUPPORT AND PROTECT ALL DESIGNATED OR UNDESIGNATED EXISTING UTILITIES AND APPURTENANCES. SHOULD ANY EXISTING UTILITY BE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPAIR THE DAMAGE CAUSED TO THE UTILITY OWNER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.
- LIVE UNDERGROUND UTILITIES MAY EXIST WITHIN THE WORK AREA. CONTRACTOR SHALL USE EXTREME CAUTION AND SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
- INFORMATION SHOWN ON THIS DRAWING HAS BEEN PROVIDED AS A GUIDE TO ASSIST THE CONTRACTOR IN ESTABLISHING THE LOCATIONS OF PROPOSED CONSTRUCTION WITH RESPECT TO EXISTING SITE IMPROVEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL CONSTRUCTION SURVEY STAKEOUT REQUIRED AND TO FIELD VERIFY ALL GRADES, ELEVATIONS, DIMENSIONS, ETC. PRIOR TO STARTING CONSTRUCTION.

**SITE DEMOLITION NOTES:**

- PRIOR TO ANY CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL PROVIDE A DETAILED OUTLINE OF CONSTRUCTION PHASING AND MAINTENANCE OF ACCESS FOR OWNER'S REVIEW AND APPROVAL.
- CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION/DEMOLITION AND NOTIFY THE OWNER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLANS.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY DISTURBANCE OR DEMOLITION. ALL PROTECTIVE DEVICES SHALL BE INSTALLED PRIOR TO ANY DISTURBANCE OR DEMOLITION. REFER SHEET SET C600 FOR EROSION AND SEDIMENT CONTROL.
- PERMITS AND FEES REQUIRED FOR ANY DEMOLITION/DISPOSAL WORK MUST BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE.
- CONTRACTOR SHALL CONTACT OWNER TO SUBMIT A SCHEDULE 72 HOURS PRIOR TO COMMENCING ANY WORK.
- THE CONTRACTOR SHALL COORDINATE DEMOLITION WITH PROPOSED NEW CONSTRUCTION AND SHALL BE RESPONSIBLE FOR DESIGN AND INSTALLATION OF ALL SHEETING AND SHORING REQUIRED TO STABILIZE EXCAVATION AND/OR DEMOLITION AREAS AND TO PROTECT EXISTING IMPROVEMENTS TO REMAIN.
- CONTRACTOR SHALL PROTECT ALL FACILITIES AND UTILITIES TO REMAIN FROM DAMAGE WHETHER SHOWN HEREON OR NOT.
- CONTRACTOR SHALL PROTECT ALL AREAS BEYOND THE LIMITS OF DISTURBANCE AND SHALL RESTORE ANY AND ALL AREAS DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL OR BETTER CONDITION.
- CONTRACTOR SHALL STABILIZE ALL UNINTENTIONALLY DISTURBED AREAS OUTSIDE OF THE L.O.D. BY THE END OF THE SAME WORKING DAY.
- NO ITEMS ARE TO BE BURNED OR BURIED ON THE SITE.
- CONTRACTOR SHALL PROVIDE COMPACTED BACKFILL APPROVED BY THE GEOTECHNICAL ENGINEER IN ALL EXCAVATED AREAS.
- CONTRACTOR SHALL PROTECT ALL FACILITIES AND UTILITIES TO REMAIN FROM DAMAGE WHETHER SHOWN HEREON OR NOT.
- CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITY STRUCTURES REQUIRING THEIR RING & COVERS OR LIDS TO BE RESET TO FINISHED GRADE DURING DEMOLITION AND CONSTRUCTION ACTIVITIES AND TO PREVENT DEBRIS, SEDIMENT, OR WATER FROM ENTERING THE STRUCTURES.
- CONTRACTOR TO VERIFY TYPE, SIZE, AND LOCATION OF ALL UTILITIES PRIOR TO START OF DEMOLITION.
- CONTRACTOR SHALL COORDINATE WITH OWNER AND UTILITY PROVIDER TO MINIMIZE DURATION OF ALL UTILITY OUTAGES NECESSARY FOR CONSTRUCTION. UTILITIES CRITICAL TO OPERATIONS AND SECURITY SHALL HAVE TEMPORARY SERVICE CONNECTED TO PROVIDE UNINTERRUPTED SERVICE WHERE DEEMED NECESSARY BY THE OWNER.
- CONTRACTOR TO COORDINATE WITH OWNER AND BGE PRIOR TO COMMENCEMENT OF DEMO TO RELOCATE EXISTING GAS LINE.
- ALL UTILITY WORK SHALL BE COORDINATED WITH THE OWNER, AND SHALL BE PERFORMED IN AN EXPEDITIOUS MANNER TO MINIMIZE ANY IMPACTS ON EXISTING FACILITY OPERATIONS.
- ALL LINEAR UTILITY DISTURBANCE SHALL HAVE PAVEMENT / GROUND MATERIAL REPLACED IN KIND. ALL LINEAR UTILITY CONSTRUCTION SHALL HAVE BOUNDARIES OF THE EXCAVATION SAWCUT AND SHALL HAVE SAME DAY STABILIZATION.
- CONTRACTOR SHALL EMPLOY A PRIVATE UTILITY LOCATOR TO IDENTIFY ALL UTILITIES WITHIN THE AREA PRIOR TO ANY DISTURBANCE.
- SAWCUT AND REMOVE PAVED AREA AS INDICATED. ALL SAWCUTS ARE TO BE NEAT, CLEAN, STRAIGHT AND FULL DEPTH.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTAINMENT OF DUST AND DEBRIS DURING THE DEMOLITION. DAILY CLEANING SHALL BE COMPLETED ALONG WITH ANY ADDITIONAL CLEANING AS REQUIRED BY THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY STRUCTURES AND NECESSARY SHORING, BRACING & SUPPORT FOR EXISTING STRUCTURES THROUGHOUT DEMOLITION AND CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL ENGAGE A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MARYLAND TO DESIGN AND SEAL THE PLANS AND DRAWINGS FOR ALL SHORING, BRACING AND TEMPORARY STRUCTURES.
- CONTRACTOR TO GRIND ALL STUMPS OF TREES / SHRUBS TO BE REMOVED.
- CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING AROUND EXISTING TREES TO REMAIN SO AS TO NOT DAMAGE THE TREES, TREE BRANCHES OR TREE ROOT SYSTEM.
- CONTRACTOR SHALL INSTALL ORANGE PLASTIC MESH TREE PROTECTION FENCE (TPF) (SEE SHEET EROSION AND SEDIMENT CONTROL DETAILS) PRIOR TO ANY DEMOLITION ACTIVITIES, UNLESS OTHERWISE NOTED. SEE ESC DETAILS, SHEET SET C600 FOR PROTECTION OF EXISTING TREES TO REMAIN.
- CONTRACTOR SHALL COORDINATE WITH SITE OWNER, OWNERS OF ADJACENT PROPERTIES AND UTILITY PROVIDERS TO MINIMIZE DURATION OF UTILITY OUTAGES. UTILITIES CRITICAL TO OPERATIONS AND SECURITY SHALL HAVE TEMPORARY SERVICE CONNECTIONS TO PROVIDE UNINTERRUPTED SERVICE WHERE DEEMED NECESSARY BY THE OWNER.
- ALL SUB-BASE MATERIAL ASSOCIATED WITH ANY EXISTING MATERIALS TO BE REMOVED SHALL BE REMOVED AND DISCARDED.
- CONTRACTOR SHALL RECYCLE ALL RECYCLABLE MATERIALS AND PROVIDE DATA REPORT OF THE RECYCLED MATERIAL PER AN ATAR PROGRAM OF MARYLAND RECYCLING ACT.
- CONTRACTOR SHALL DISPOSE OF ALL DEMOLISHED AND DELETERIOUS MATERIALS IN A SAFE AND LEGAL MANNER.
- CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS FOR DEMOLITION PURPOSES.
- CONTRACTOR SHALL RESTORE ANY AND ALL AREAS DISTURBED DURING CONSTRUCTION TO ORIGINAL CONDITION OR BETTER.
- ALL EXISTING PAINT MARKINGS ADJACENT TO THE PROJECT AREA WHICH BECOME FADED OR OBTUSCURED DUE TO CONSTRUCTION ACTIVITY SHALL BE REPAINTED OR RESTORED AT NO ADDITIONAL COST TO THE OWNER.
- REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL DEMOLITION DETAILS.
- THE LIMIT OF DISTURBANCE AS SHOWN ON THIS PLAN VARIES FROM THE LIMIT OF DISTURBANCE USED FOR THE STORMWATER MANAGEMENT CALCULATIONS IN THE STORMWATER MANAGEMENT STUDY.
- CONTRACTOR SHALL REQUEST ELECTRONIC PLANS FROM ENGINEER FOR USE WITH SITE LAYOUT.

**DEMOLITION LIST**

- (A) EXISTING BUILDING AND ALL ASSOCIATED SITE WALLS/FOUNDATIONS, RAILINGS, STAIRS, SCREENS, PORCHES, DECKS, FOOTINGS AND FOUNDATIONS, ETC. TO BE RELOCATED PER BENCHMARK DIRECTION;
- (B) EXISTING UTILITY TO BE RELOCATED PER BENCHMARK'S DIRECTION. REFER TO THE ELECTRICAL DRAWING FOR DEMOLITION OF ELECTRICAL UTILITIES.
- (C) EXISTING CHAIN LINK FENCE AND ALL ASSOCIATED GATES TO BE REMOVED AND DISCARDED;
- (D) EXISTING SILT FENCE/SUPER SILT FENCE & RIPRAP TO BE REMOVED AND DISCARDED, TYP.;
- (E) EXISTING PIPE TO BE REMOVED AND DISCARDED, TYP.;
- (F) EXISTING SIGNS AND SIGN POSTS TO BE REMOVED AND DISCARDED;
- (G) EXISTING GRAVEL BEDS / STOCKPILES TO BE REMOVED AND DISCARDED;
- (H) EXISTING FOREST / SCRUB / BRUSH TO BE REMOVED AND DISCARDED. ROOTS TO BE GROUND. THIS PROJECT SHALL NOT IMPACT OR REMOVE ANY TREES IN THE EXISTING PUBLIC FOREST CONSERVATION EASEMENT.
- (I) EXISTING STOCKPILES TO BE REMOVED.

REFER TO EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
10/15/22  
DATE  
10/27/22  
DATE  
10/27/22  
DATE  
10/27/22  
DATE

DEMOLITION PLAN  
SCALE: 1"=40'  
GRAPHIC SCALE IN FEET

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca.design

**CIVIL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**LANDSCAPE DESIGN**  
SITE RESOURCES, INC.  
14315 JARRETTVILLE PIKE  
PHOENIX, MD 21131  
410.683.3388

**STRUCTURAL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**MEP ENGINEERING**  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWCROFT RD #1  
ELK RIDGE, MD 21075  
410.579.8100

NOT FOR CONSTRUCTION

STATE OF MARYLAND  
JUDICIAL BRANCH  
PROFESSIONAL ENGINEER

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt  
CORRIDOR 95 BUSINESS PARK - PARCEL A

**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
HOWARD COUNTY

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
CORRIDOR 95 BUSINESS PARK	N/A	24/0756

PLAT# OR L/T	GRID	ZONING	TAX MAP#	FLEET DIST#	CONUS TRACT
22384/21285	0023	M-1	0037	146 E.A.	6012.03

OWNER/DEVELOPER  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

REVISIONS:

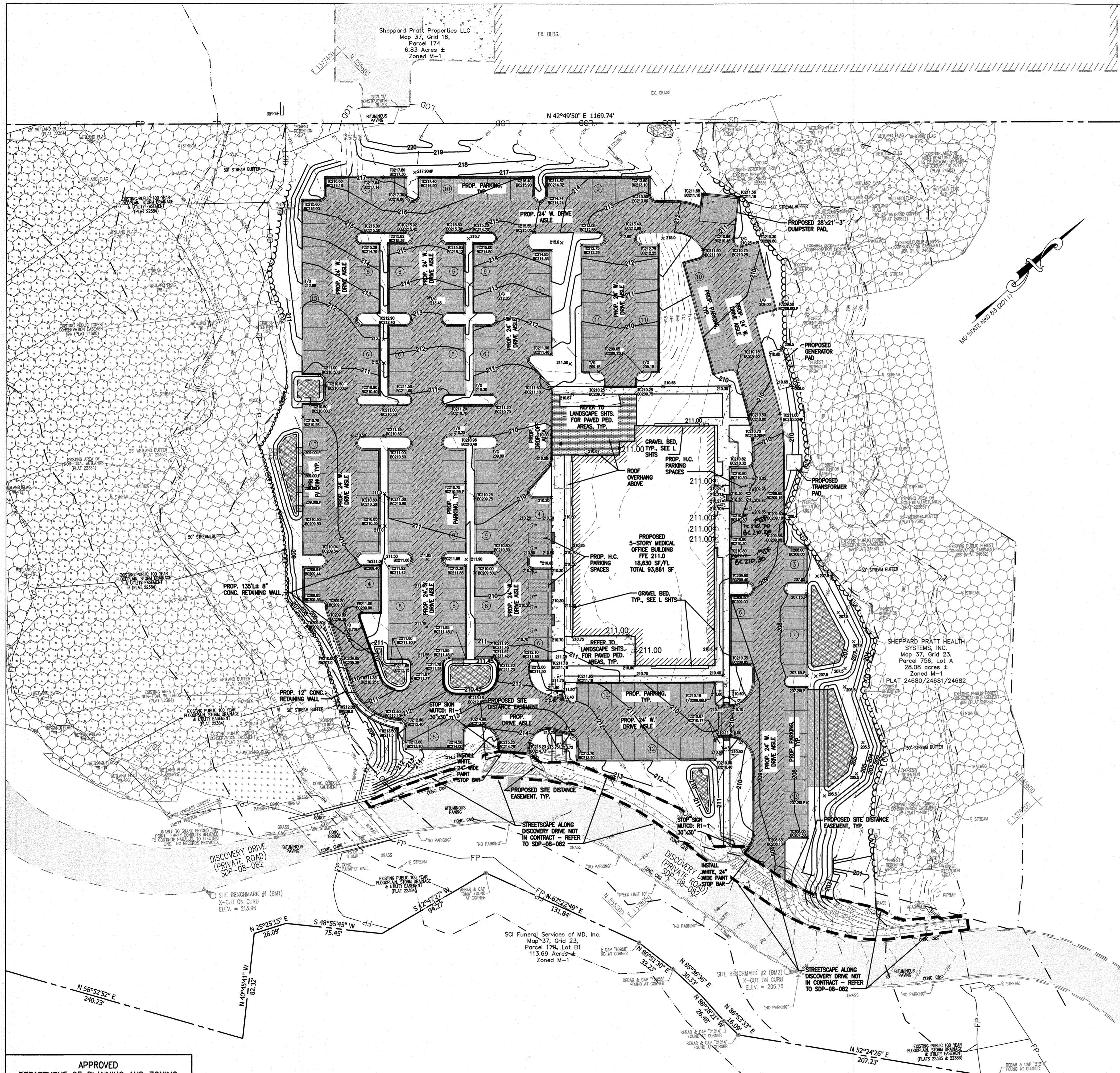
DATE	COMMENTS

MCA JOB NO: 19002.01  
PROJ/MANAGER: DWM  
SHEET BY: DWM

SHEET SET AND SHEET ISSUE DATE: SDP 11/13/2020  
SHEET NAME: SITE DEMOLITION PLAN

SHEET NO: 3 of 60

SDP-20-057



EXISTING LEGEND	PROPOSED LEGEND
--- EXISTING PROPERTY LINE	▨ PROPOSED BUILDING
- - - EXISTING EASEMENT	▨ PROPOSED REVERSE CURB & GUTTER
--- EXISTING SETBACK	▨ PROPOSED ROADWAY
▨ EXISTING BUILDING	▨ PROPOSED SIDEWALK
▨ EXISTING CURB	▨ PROPOSED CONCRETE WALK
▨ EXISTING CURB & GUTTER	▨ PROPOSED CONCRETE PAD
▨ EXISTING ROADWAY	▨ PROPOSED ASPHALT PAVING
▨ EXISTING PAVEMENT	▨ PROPOSED MEDIUM-DUTY ASPHALT
▨ EXISTING ASPHALT PAVING	▨ PROPOSED PAVERS
▨ EXISTING CONCRETE PAVING	▨ PROPOSED MICRO-BIORETENTION AREA
▨ EXISTING STREAM CENTERLINE	▨ PROPOSED RIP RAP
▨ EXISTING STREAM BUFFER	
▨ EXISTING WETLAND	
WB EXISTING WETLAND BUFFER	
▨ EXISTING WETLANDS	
FP EXISTING FLOODPLAIN	
▨ EXISTING TREELINE	
⊙ EXISTING DECIDUOUS TREE	
⊙ EXISTING EVERGREEN TREE	
⊙ EXISTING SHRUB	
⊙ EXISTING PUBLIC FOREST CONSERVATION EASEMENT	
▨ PROPOSED TREELINE	

**HOWARD COUNTY REFERENCE DRAWINGS:**  
 WATER: CONTRACT 14-4576-D  
 SEWER: CONTRACT 14-4576-D  
 F-18-106, F-10-013  
 SDP-08-082, SDP-18-033  
 ECP-18-018, ECP-20-015

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**LANDSCAPE DESIGN**  
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 14315 JARRETTVILLE PIKE  
 PHOENIX, AZ 85028  
 410.683.3388

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 LEACH WALLACE ASSOC., INC.  
 6522 MEADOWRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.579.8100

**NOT FOR CONSTRUCTION**

STATE OF MARYLAND  
 JUDICIAL & CLERICAL  
 REGISTERED PROFESSIONAL ENGINEER

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LICENSE No.: 14446 EXP. DATE: 5-25-23

**Sheppard Pratt**

**MEDICAL PAVILION**  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY  
 CORRIDOR 95 BUSINESS PARK - PARCEL A

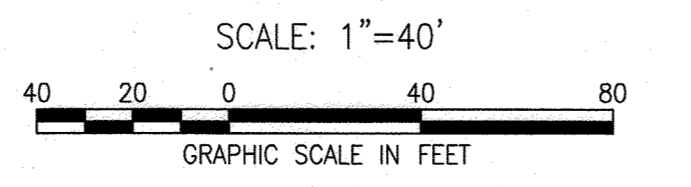
**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

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  - SEE GEOTECHNICAL REPORT PREPARED BY SCHNABEL ENGINEERING FOR GEOTECHNICAL DATA AND BORING INFORMATION, PREPARED IN SEPTEMBER 13, 2019.
  - CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS FOR CONSTRUCTION PURPOSES.
  - SEE EXISTING CONDITIONS PLAN FOR SITE BENCHMARKS. CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS THROUGHOUT THE DURATION OF THE PROJECT FOR CONSTRUCTION LAYOUT PURPOSES.
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  - IN ANY AREA WHERE GRADING OCCURS AROUND EXISTING UTILITIES TO REMAIN, THE CONTRACTOR IS RESPONSIBLE TO ADJUST THE ELEVATIONS OF ALL SURFACE FEATURES (MANHOLE COVERS, GRATES, HANDBOXES, ECT.) TO MATCH GRADING.
  - CONTRACTOR SHALL PROTECT ALL AREAS BEYOND THE LIMITS OF DISTURBANCE AND SHALL RESTORE ANY AND ALL AREAS DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL OR BETTER CONDITION. SEE EROSION AND SEDIMENT CONTROL PLAN FOR LIMITS OF DISTURBANCE.
  - CONTRACTOR SHALL FURNISH SHORING, SHEATHING, OR OTHERWISE SUPPORT EXCAVATIONS TO PROTECT EXCAVATIONS FROM CAVE-INS, AS NECESSARY, UNTIL BACKFILL PLACEMENT OR WALL CONSTRUCTION IS COMPLETE PER SPECIFICATIONS. CONTRACTOR SHALL ENGAGE A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MARYLAND TO DESIGN AND SEAL THE PLANS AND DRAWINGS FOR ALL SHORING, BRACING AND TEMPORARY STRUCTURES. CONTRACTOR SHALL PROVIDE VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL IN ACCORDANCE WITH THE MUTCD GUIDELINES, LATEST VERSION.
  - CONTRACTOR SHALL REQUEST ELECTRONIC PLANS FROM ENGINEER FOR USE WITH SITE LAYOUT.
  - REFER TO LANDSCAPE AND ELECTRICAL DRAWINGS FOR ADDITIONAL SITE LAYOUT AND DETAILING.

**PROPOSED CONDITIONS PLAN**



APPROVED  
 DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 10/15/22  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

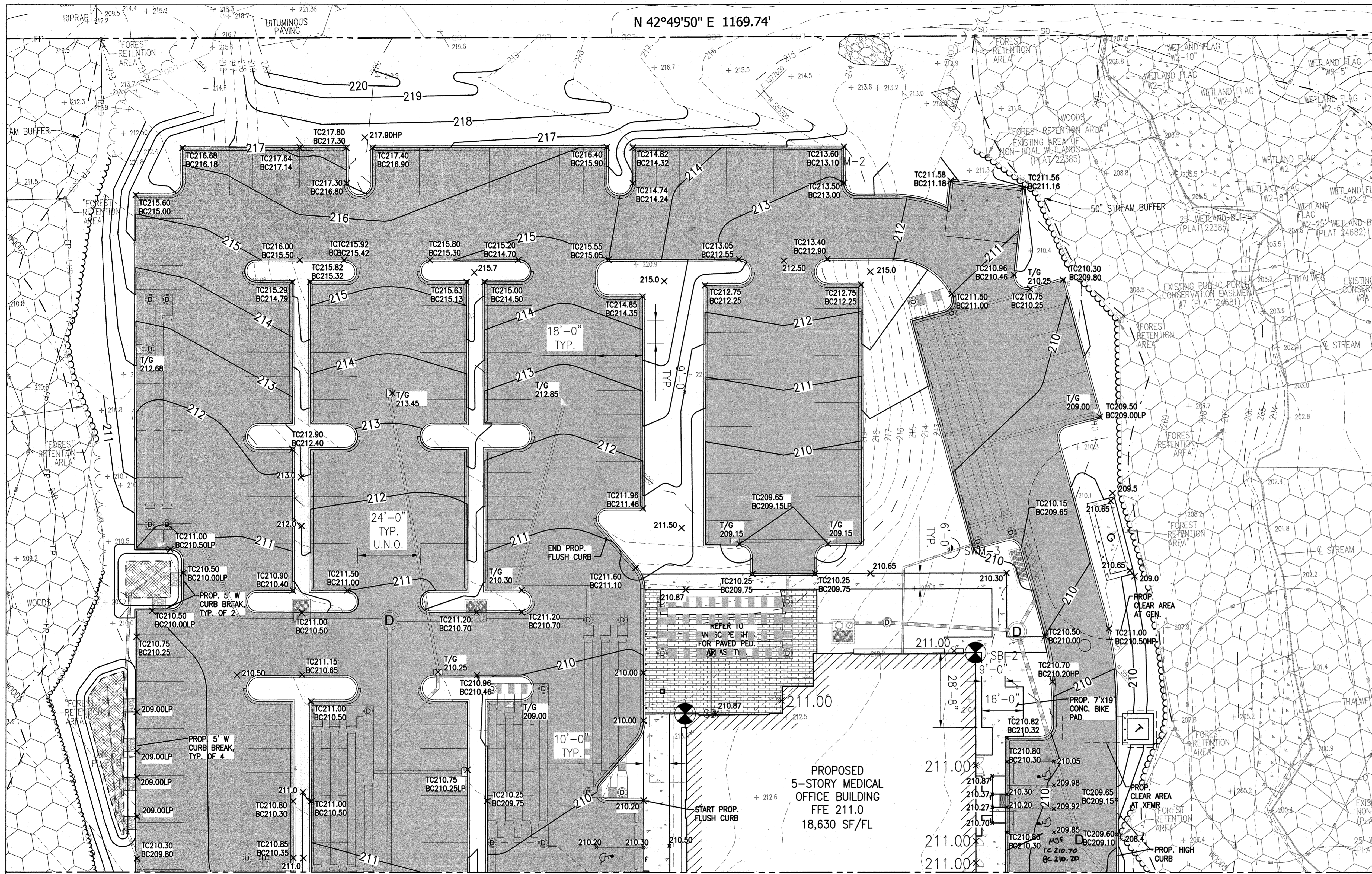
*[Signature]* 10/27/22  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 10/27/22  
 DIRECTOR DATE

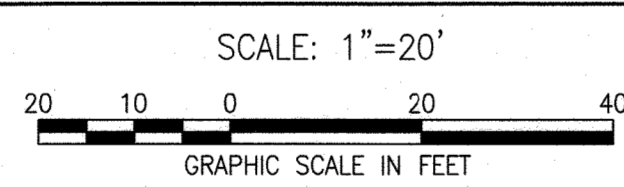
**PROPOSED CONDITIONS PLAN**

SHEET NO. **4** of 60

SDP-20-057



PROPOSED GRADING PLAN - WEST



EARTHWORK QUANTITIES CUT / FILL CALCULATIONS\*

CUT	FILL	NET
15,341± CU. YD.	3,592± CU. YD.	11,749 CU. YD. <CUT>

CUT / FILL TOTALS ARE FOR ESTIMATE PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CALCULATING ACTUAL CUT / FILL QUANTITIES. ENGINEER OFFERS NO GUARANTEE TO QUANTITIES ACTUALLY ENCOUNTERED DURING CONSTRUCTION.

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DIRECTOR

10/12/22  
10/27/22  
10/27/22

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- SEE EXISTING CONDITIONS PLAN FOR SURVEY INFORMATION AND SITE BENCHMARKS. CONTRACTOR SHALL BE RESPONSIBLE

- FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS THROUGHOUT THE DURATION OF THE PROJECT FOR CONSTRUCTION LAYOUT PURPOSES.
- CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS FOR CONSTRUCTION PURPOSES.
- PRIOR TO ANY CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL PROVIDE A DETAILED OUTLINE OF CONSTRUCTION PHASING AND MAINTENANCE OF ACCESS FOR OWNER'S REVIEW AND APPROVAL.
- CONTRACTOR SHALL COORDINATE THE FINAL GRADING IN THE FIELD TO MAINTAIN POSITIVE DRAINAGE AND AS REQUIRED TO TIE IN CORRECTLY WITH EXISTING CITY CONSTRUCTION TO REMAIN. MAXIMUM CROSS SLOPE ACROSS TRAVEL PATHWAYS SHALL NOT EXCEED 2%. MAXIMUM RUNNING SLOPE ON ALL LOCATIONS EXCLUDING RAMPS SHALL NOT EXCEED 5%.
- ANY EARTHWORK IN LOCATIONS WHERE UTILITIES TO REMAIN ARE POSSIBLE SHALL BE DONE WITH EXTREME CAUTION. THE GIVING OF INFORMATION ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO SUPPORT AND PROTECT ALL DESIGNATED OR UNDESIGNATED EXISTING UTILITIES AND APPURTENANCES. SHOULD ANY EXISTING UTILITY BE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPAIR THE DAMAGE CAUSED TO THE UTILITY OWNER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.
- IN ANY AREA WHERE GRADING OCCURS AROUND EXISTING UTILITIES TO REMAIN, CONTRACTOR IS RESPONSIBLE TO ADJUST THE ELEVATIONS OF ALL SURFACE FEATURES (MANHOLE COVERS, GRATES, HANDBOXES, ECT.) TO MATCH FINISHED GRADING. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING STRUCTURES FROM HAVING DEBRIS, SEDIMENT, OR WATER ENTER THE STRUCTURES DURING CONSTRUCTION ACTIVITIES.
- USE EXTREME CAUTION WHEN WORKING AROUND EXISTING TREES TO REMAIN SO AS NOT TO DAMAGE THE TREES OR ROOT SYSTEMS.
- CONTRACTOR SHALL PROTECT ALL AREAS BEYOND THE LIMITS OF DISTURBANCE AND SHALL RESTORE ANY AND ALL AREAS DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL OR BETTER CONDITION. SEE EROSION AND SEDIMENT CONTROL PLAN FOR LIMITS OF DISTURBANCE.
- CONTRACTOR SHALL FURNISH SHORING, SHEATHING, OR OTHERWISE SUPPORT EXCAVATIONS TO PROTECT EXCAVATIONS FROM CAVE-INS, AS NECESSARY, UNTIL BACKFILL PLACEMENT OR WALL CONSTRUCTION IS COMPLETE PER SPECIFICATIONS. CONTRACTOR SHALL PROVIDE VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL IN ACCORDANCE WITH THE MUTCD GUIDELINES, LATEST VERSION.
- REFER TO LANDSCAPE AND ELECTRICAL DRAWINGS FOR ADDITIONAL SITE LAYOUT AND DETAILING.
- REFER TO SHEET SET C500 FOR DETAILED UTILITY LAYOUT DRAWINGS.
- REFER TO SHEET SET C600 FOR DETAILED EROSION & SEDIMENT CONTROL DRAWINGS.
- REFER TO SHEET SET C700 FOR DETAILED STORMWATER MANAGEMENT DRAWINGS.
- CONTRACTOR SHALL REQUEST ELECTRONIC PLANS FROM THE ARCHITECT / ENGINEER FOR USE WITH SITE LAYOUT.

**EXISTING LEGEND**

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING BUILDING
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING ROADWAY
- EXISTING PAVEMENT
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING STREAM CENTERLINE
- EXISTING STREAM BUFFER
- EXISTING WETLAND
- EXISTING WETLAND BUFFER
- EXISTING WETLANDS
- EXISTING FLOODPLAIN
- EXISTING TREELINE
- EXISTING DECIDUOUS TREE
- EXISTING EVERGREEN TREE
- EXISTING SHRUB
- EXISTING PUBLIC FOREST CONSERVATION EASEMENT
- EXISTING IRON PIN

**PROPOSED LEGEND**

- PROPOSED BUILDING
- PROPOSED MAJOR CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED CURB & GUTTER
- PROPOSED REVERSE CURB & GUTTER
- PROPOSED ROADWAY
- PROPOSED SIDEWALK
- PROPOSED CONCRETE WALK
- PROPOSED CONCRETE PAD
- PROPOSED ASPHALT PAVING
- PROPOSED PAVERS
- PROPOSED MICRO-BIORETENTION AREA
- PROPOSED RIP RAP
- PROPOSED SANITARY MANHOLE
- PROPOSED STORMDRAIN LINE
- PROPOSED STORMDRAIN INLET
- PROPOSED STORMDRAIN MANHOLE
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- PROPOSED BIOCLEAN MODULAR WETLANDS SYSTEM (SWM)

**HOWARD COUNTY REFERENCE DRAWINGS:**

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410.785.7423

**MEP ENGINEERING**  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELK RIDGE, MD 21075  
410.579.8100

**NOT FOR CONSTRUCTION**

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

LICENSE No.: 14446 EXP. DATE: 5-25-23

**Sheppard Pratt**

**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
HOWARD COUNTY

CORRIDOR 95 BUSINESS PARK - PARCEL A

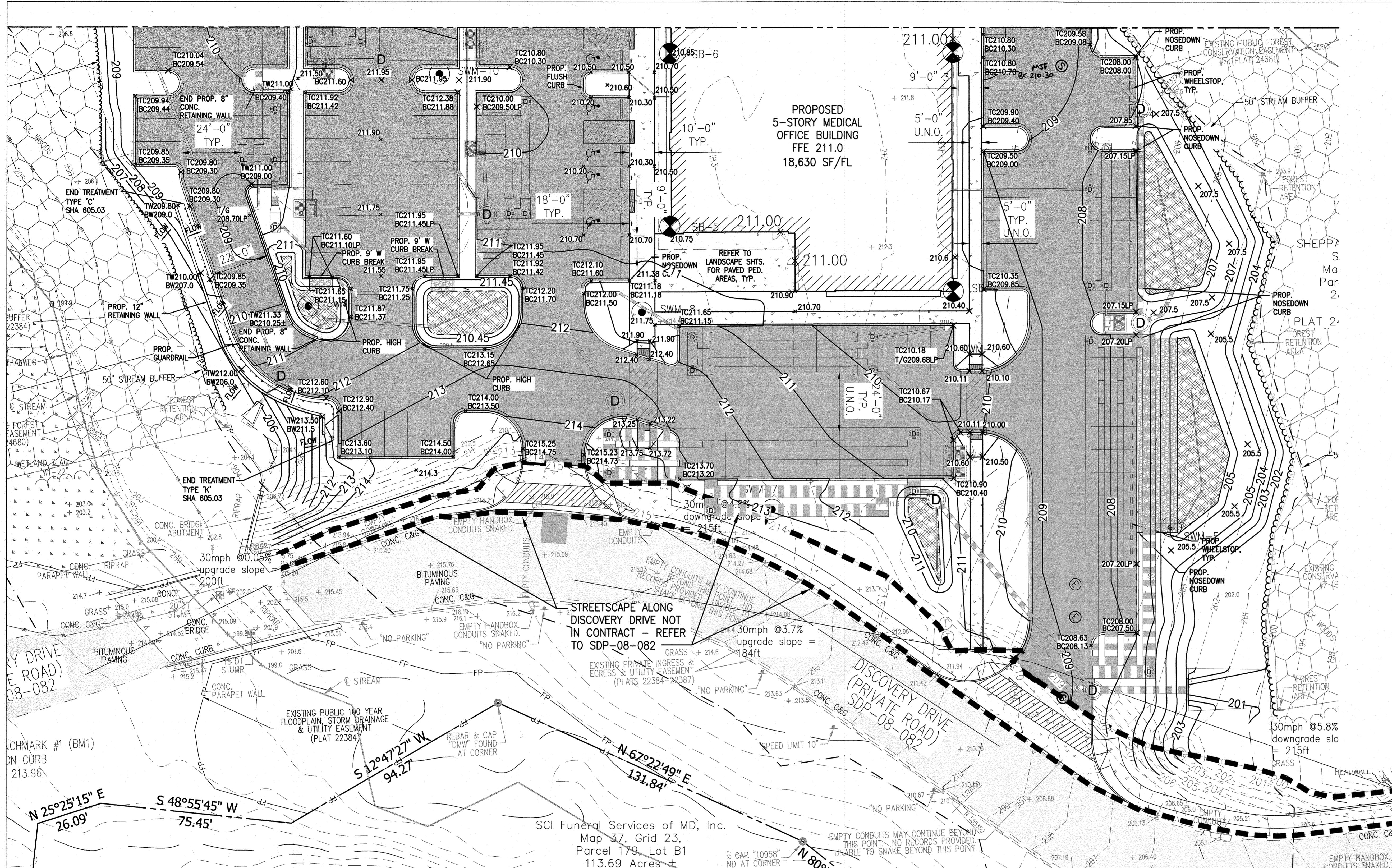
**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

**OWNER/DEVELOPER**  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

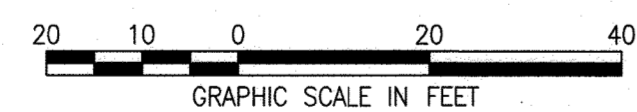
**PROPOSED GRADING PLAN - WEST**

5 of 60  
SDP-20-057



**PROPOSED GRADING PLAN - EAST**

SCALE: 1"=20'



**GENERAL NOTES:**

- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY PREPARED BY A/1/DATE, DATED MAY 17, 2019 AND HOWARD COUNTY GIS.
- ALL HORIZONTAL SURVEY DATA SHOWN HEREON ARE REFERENCED TO THE MARYLAND COORDINATE SYSTEM NAD83/91 DATUM, AND ALL VERTICAL SURVEY DATA SHOWN HEREON AND CONTAINED WITHIN THE AFORESAID TOPOGRAPHIC MAPPING FILE ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AS DERIVED FROM SURVEY CONTROL POINTS PROVIDED BY DAFT, MCCUNE, WALKER, INC. INCLUDING:
 

POINT#	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM10	555075.72	1377805.34	213.96	X-CUT
BM11	555372.05	1378169.70	206.76	X-CUT
- EXISTING UNDERGROUND UTILITIES DESIGNATED ON THE PLANS ARE BASED ON CURRENTLY AVAILABLE INFORMATION AND ARE SHOWN FOR REFERENCE ONLY. THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF SAID INFORMATION BEYOND THE DESIGNATION INDICATED. THE QUALITY LEVEL DESIGNATED IS IN ACCORDANCE WITH ASCE "STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA" (C/ASCE 38-02). THE CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH THOSE STANDARDS PRIOR TO ANY RELIANCE ON THE INFORMATION SHOWN ON THESE PLANS. PRIOR TO ANY EXCAVATION, IN THE ABSENCE OF QUALITY LEVEL A OR B DESIGNATION, THE CONTRACTOR SHALL VERIFY, TO HIS OWN SATISFACTION, THE EXISTENCE, DEPTH, SIZE, MATERIAL, AND LOCATION OF ALL UNDERGROUND UTILITIES, AND DETERMINE WHETHER THOSE UTILITIES ARE LIVE. ANY EARTHWORK IN LOCATIONS WHERE UTILITIES ARE POSSIBLE SHALL BE DONE WITH EXTREME CAUTION. THE GIVING OF INFORMATION ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO SUPPORT AND PROTECT ALL DESIGNATED OR UNDESIGNATED EXISTING UTILITIES AND APPURTENANCES. SHOULD ANY EXISTING UTILITY BE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPAIR THE DAMAGE CAUSED TO THE UTILITY OWNER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.
- LIVE UNDERGROUND UTILITIES MAY EXIST WITHIN THE WORK AREA. CONTRACTOR SHALL USE EXTREME CAUTION AND SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
- INFORMATION SHOWN ON THIS DRAWING HAS BEEN PROVIDED AS A GUIDE TO ASSIST THE CONTRACTOR IN ESTABLISHING THE LOCATIONS OF PROPOSED CONSTRUCTION WITH RESPECT TO EXISTING SITE IMPROVEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL CONSTRUCTION SURVEY STAKEOUT REQUIRED AND TO CONFIRM ALL INFORMATION SHOWN HEREON.
- SEE EXISTING CONDITIONS PLAN FOR SURVEY INFORMATION AND SITE BENCHMARKS. CONTRACTOR SHALL BE RESPONSIBLE

- FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS THROUGHOUT THE DURATION OF THE PROJECT FOR CONSTRUCTION LAYOUT PURPOSES.
- CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS FOR CONSTRUCTION PURPOSES.
- PRIOR TO ANY CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL PROVIDE A DETAILED OUTLINE OF CONSTRUCTION PHASING AND MAINTENANCE OF ACCESS FOR OWNER'S REVIEW AND APPROVAL.
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 6522 MEADOWBRIDGE RD #1  
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 410.579.8100

**NOT FOR CONSTRUCTION**

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LICENSE No.: 14446 EXP. DATE: 5-25-23

**Sheppard Pratt**

**MEDICAL PAVILION**  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY  
 CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SECTION/AREA: CORRIDOR 95 BUSINESS PARK  
 SHEET NO.: 19002.01  
 PROJECT: DVM  
 DATE: 11/13/2020

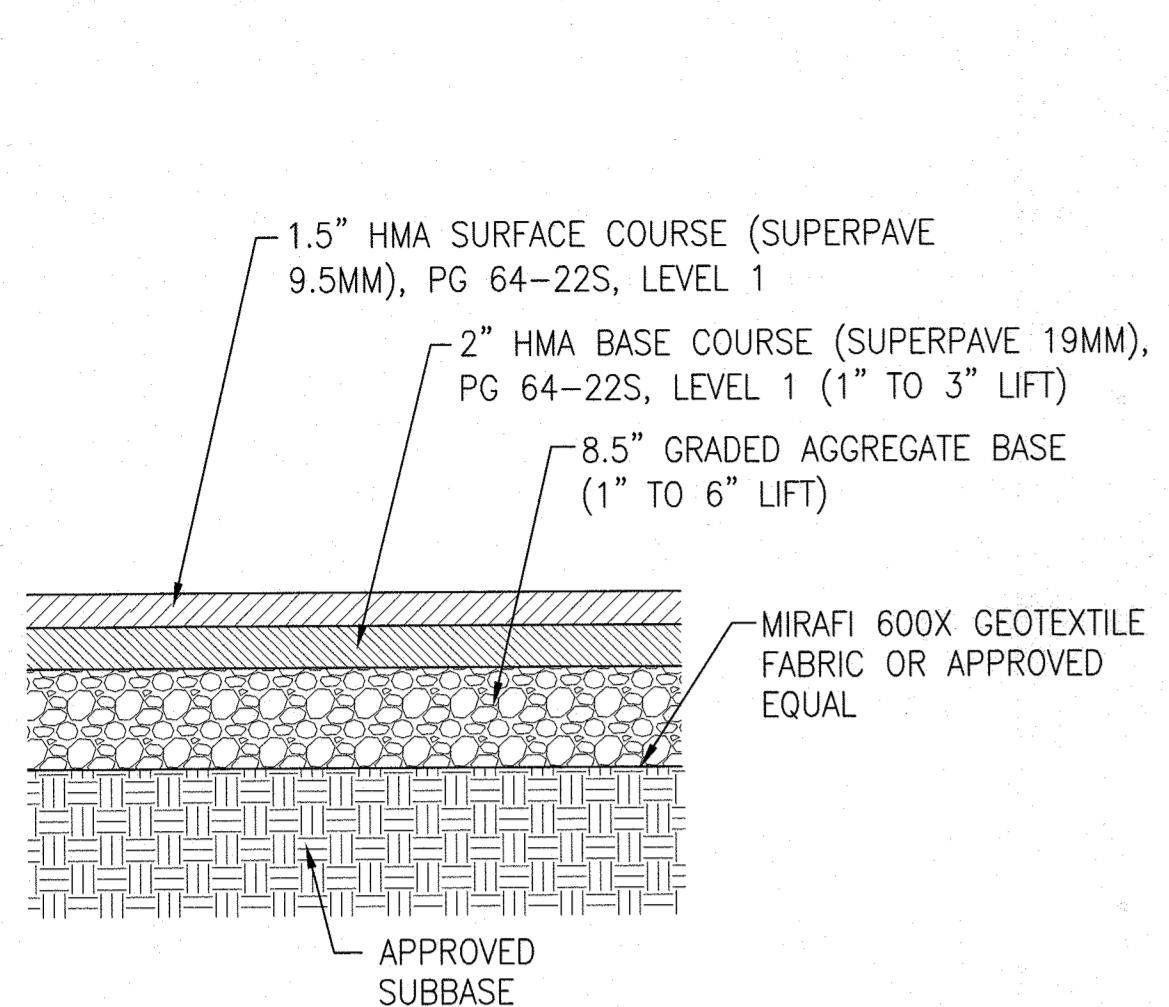
**APPROVED**

DEPARTMENT OF PLANNING AND ZONING

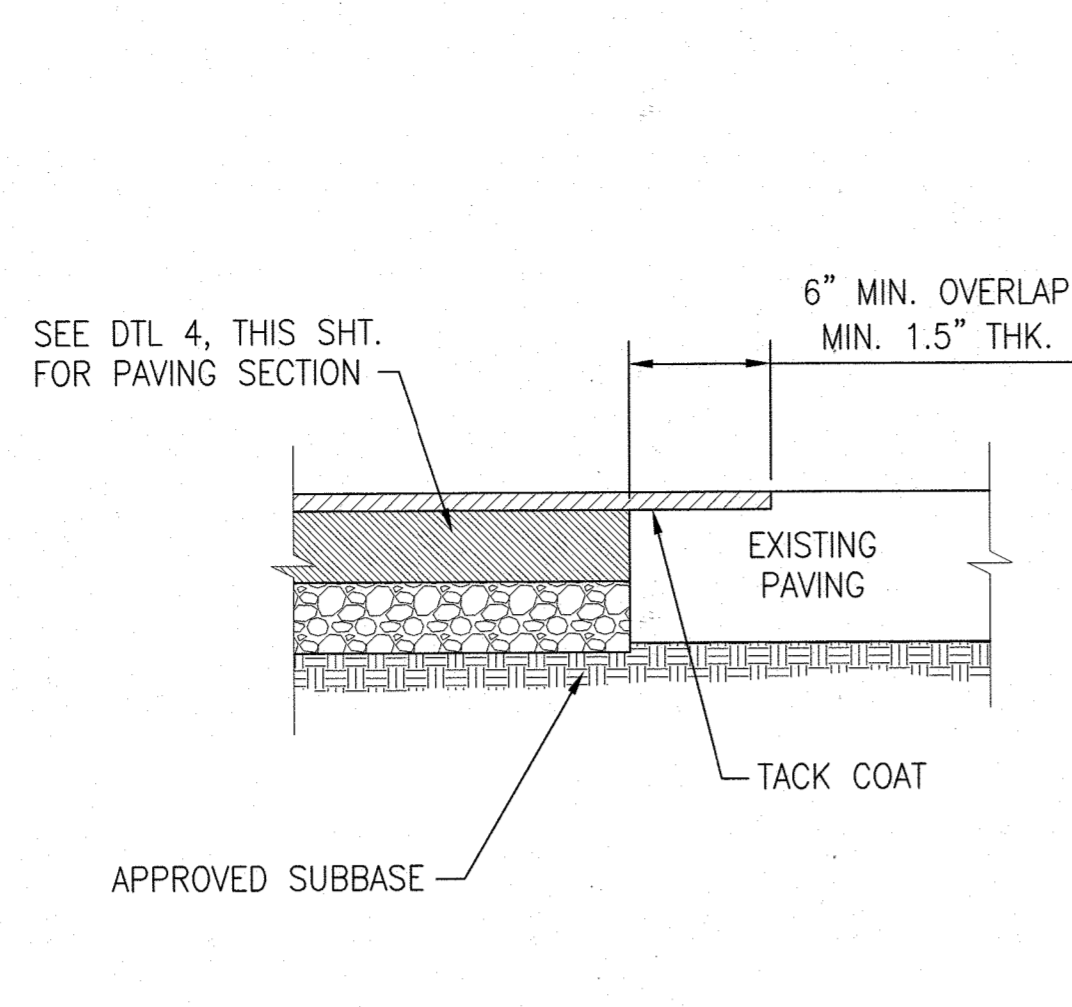
10-15-22 DATE

10-15-22 DATE

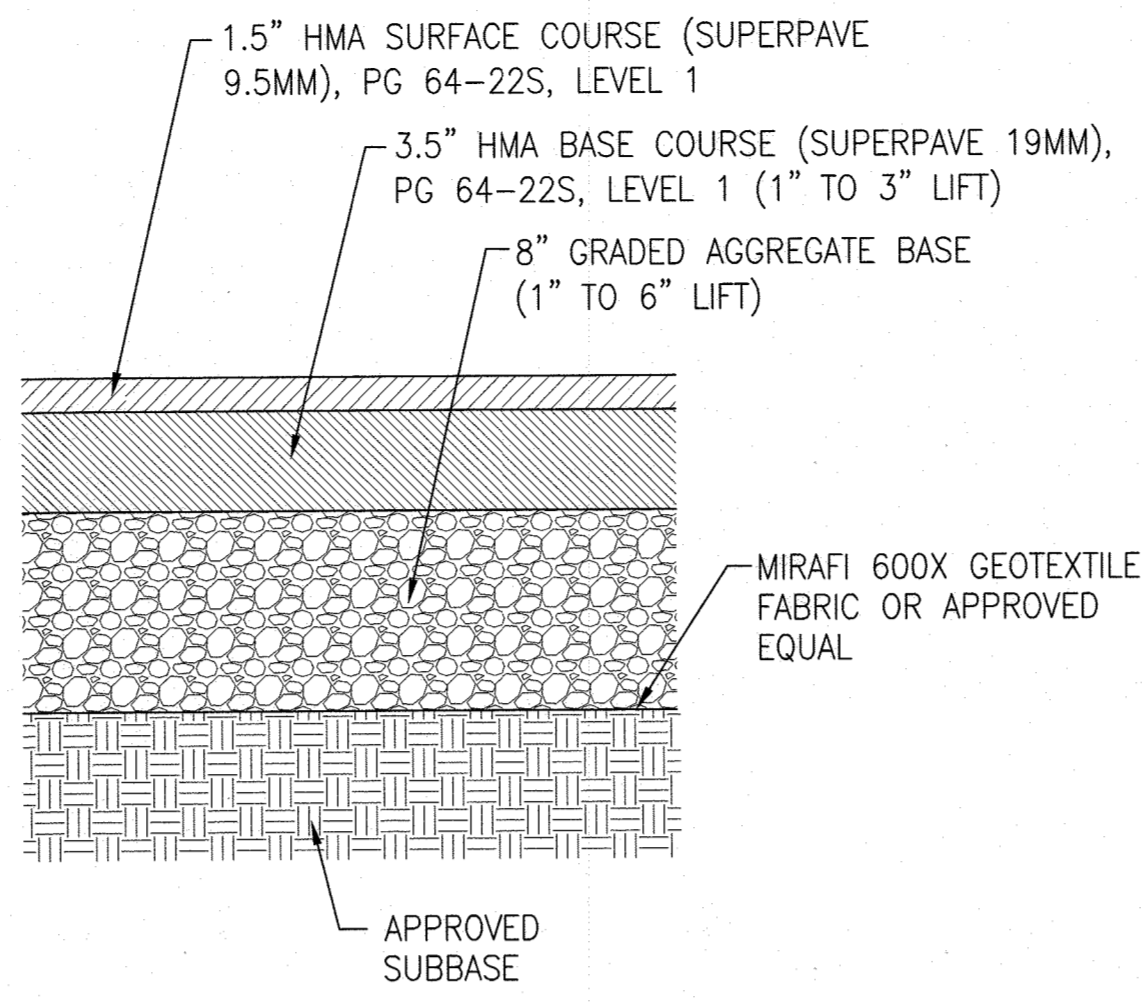
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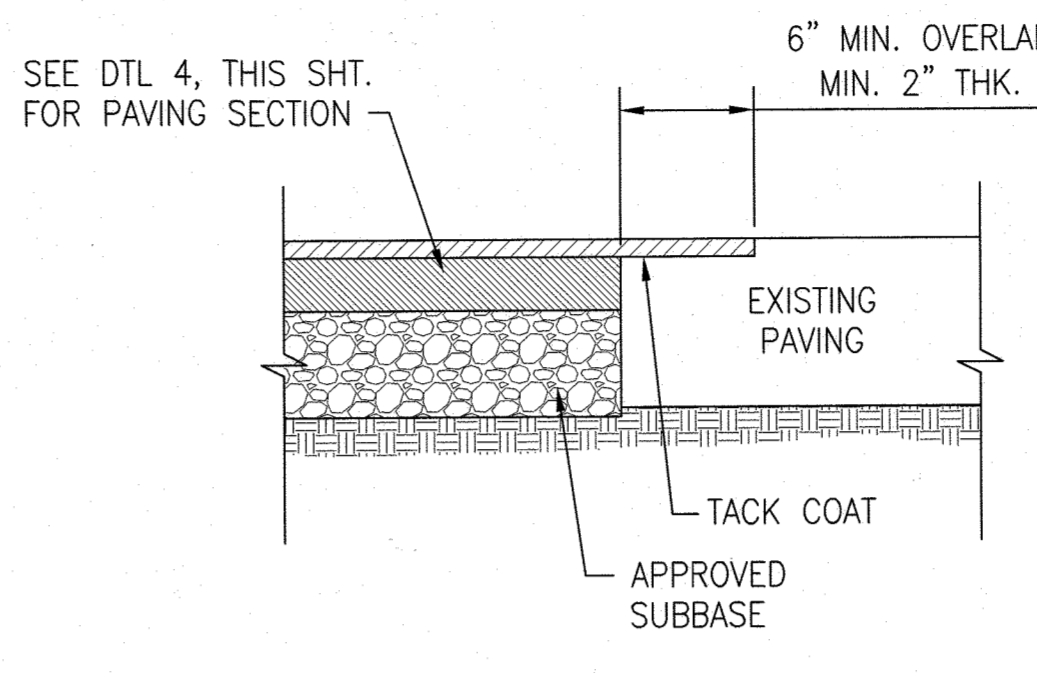
① **STD.-DUTY (P-1 SECTION) HOT MIX ASPHALT (HMA) PAVING SECTION**  
NOT TO SCALE



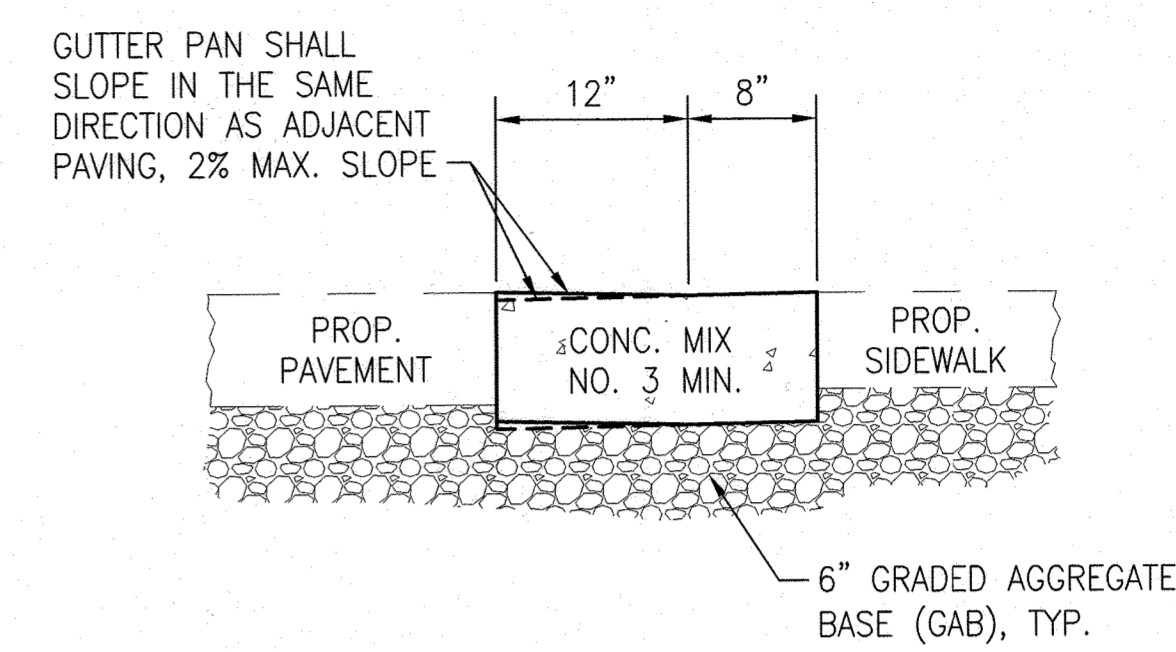
② **STD.-DUTY (P-1 SECTION) HMA PAVING TRANSITION DETAIL**  
NOT TO SCALE



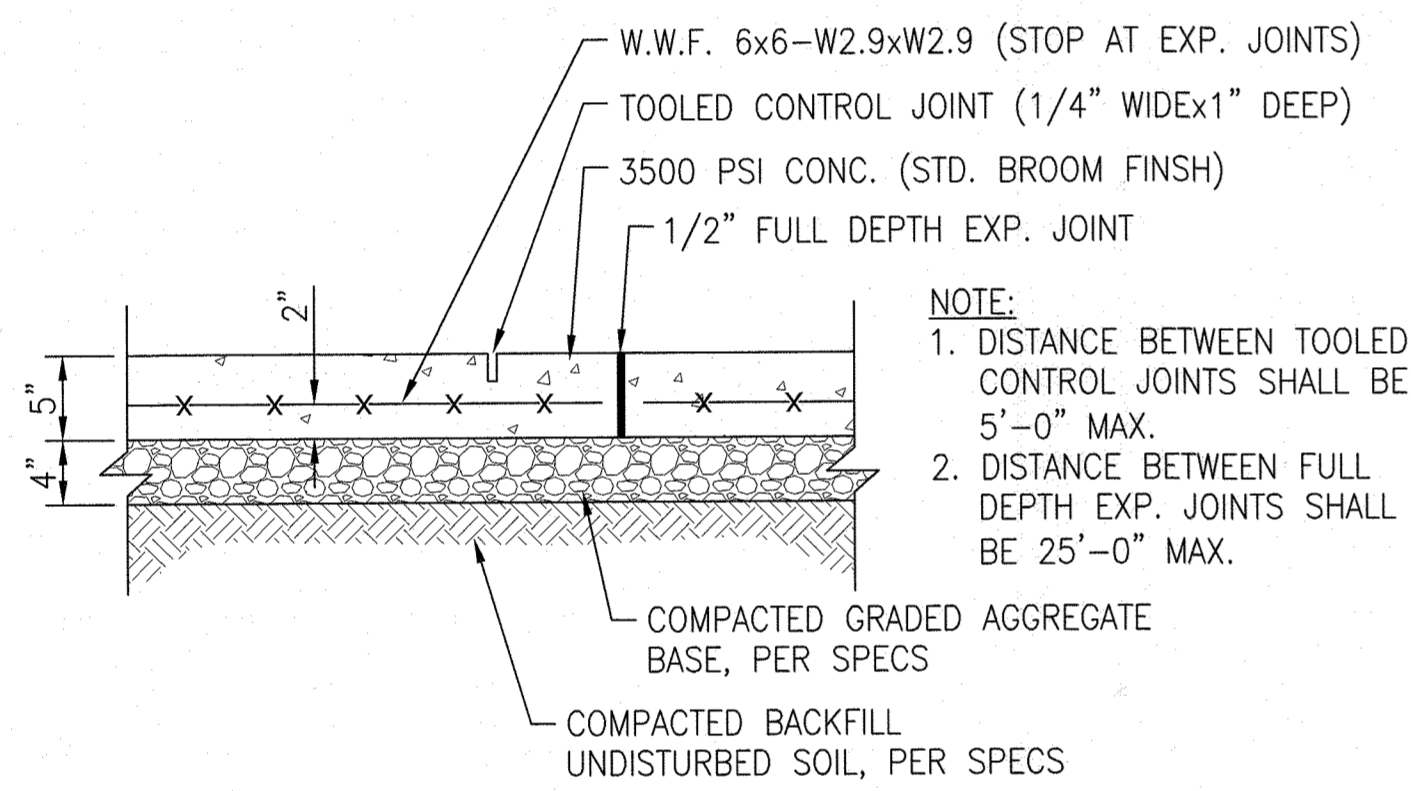
③ **MEDIUM-DUTY (P-2 SECTION) HOT MIX ASPHALT (HMA) PAVING SECTION**  
NOT TO SCALE



④ **MEDIUM-DUTY (P-2 SECTION) HMA PAVING TRANSITION DETAIL**  
NOT TO SCALE

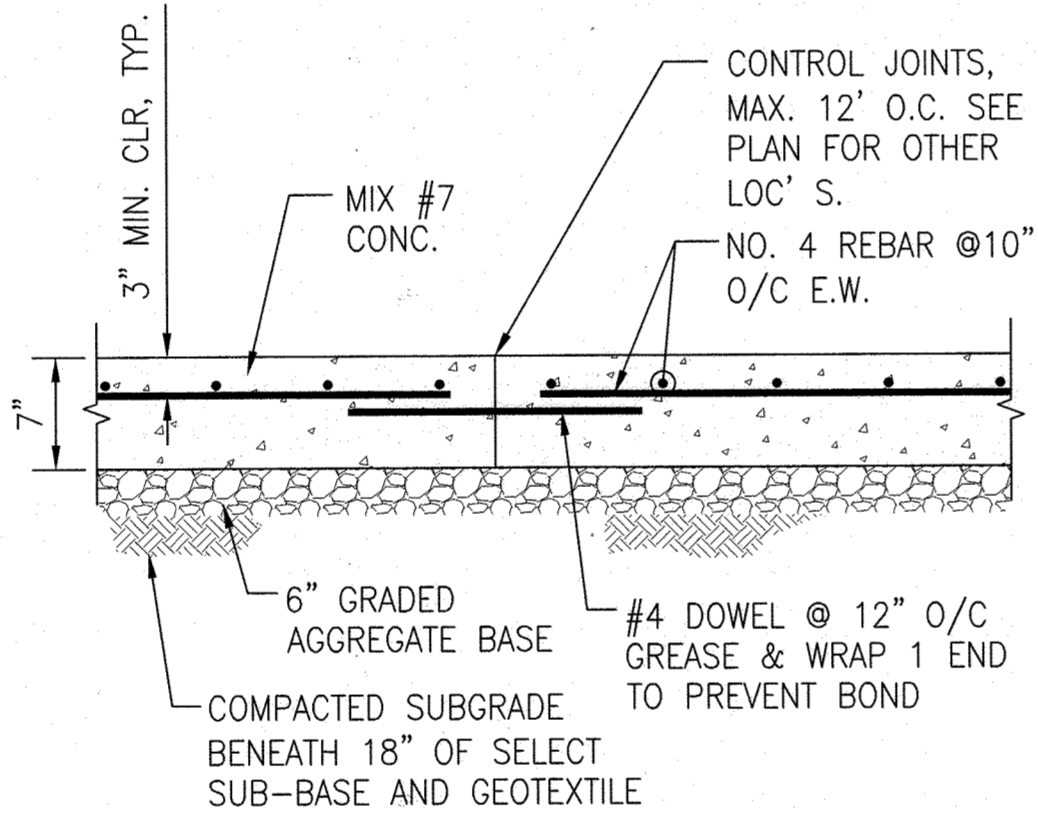


⑤ **TYPICAL FLUSH CURB**  
NOT TO SCALE

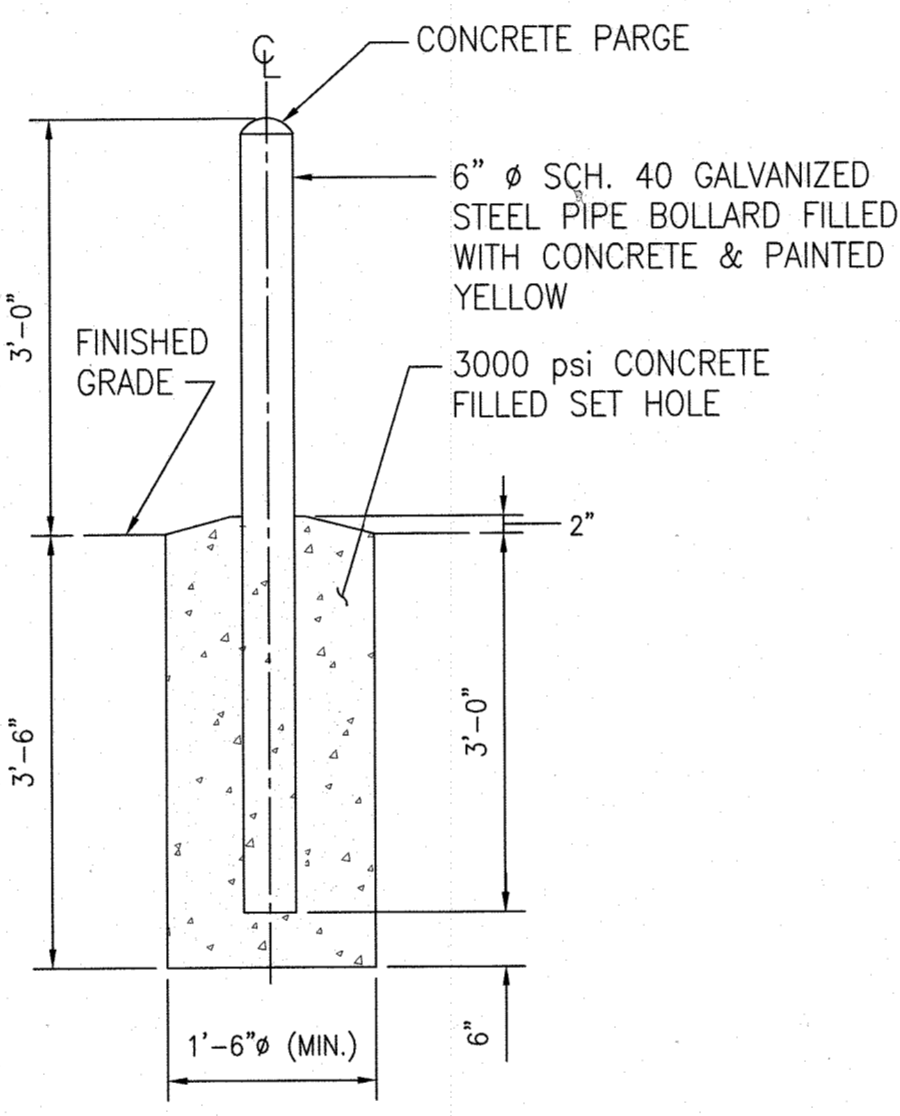


NOTE: SIDEWALK RUNNING SLOPE SHALL NOT EXCEED 5% AND CROSS SLOPE SHALL NOT EXCEED 2%.

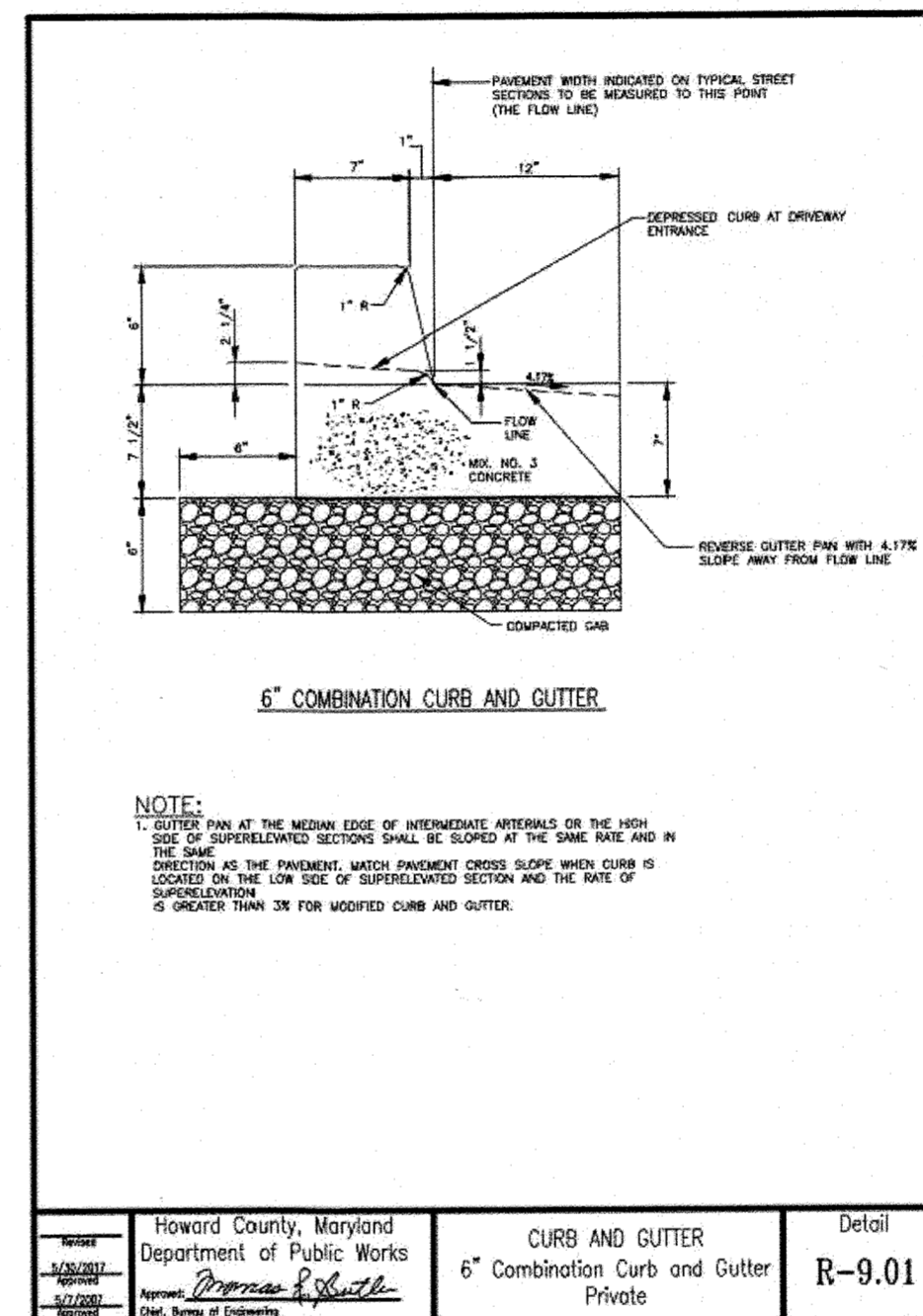
⑥ **TYPICAL CONCRETE SIDEWALK SECTION**  
NOT TO SCALE



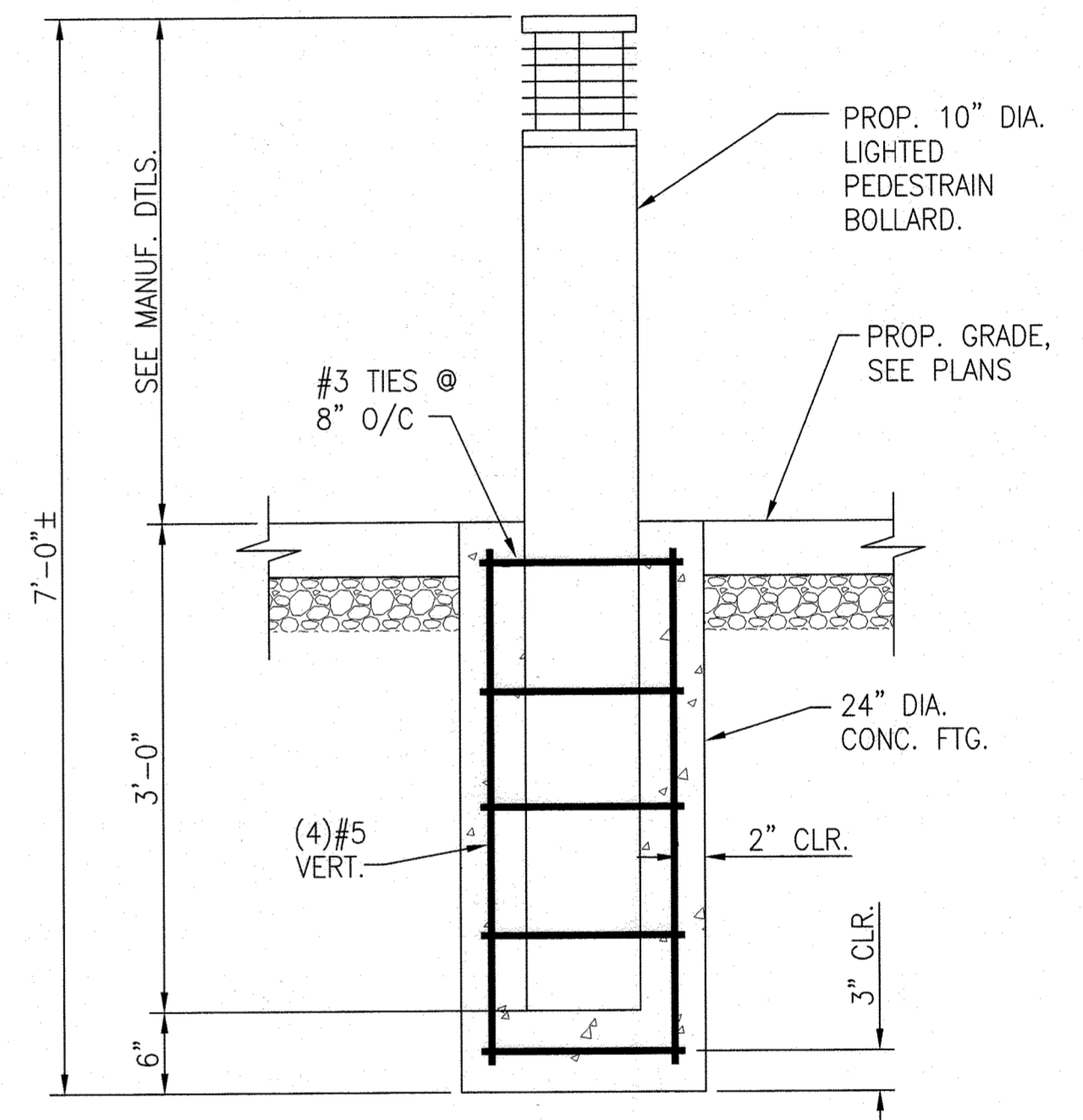
⑦ **CONCRETE PAVING SECTION**  
NOT TO SCALE



⑧ **TYPICAL PIPE BOLLARD**  
NOT TO SCALE

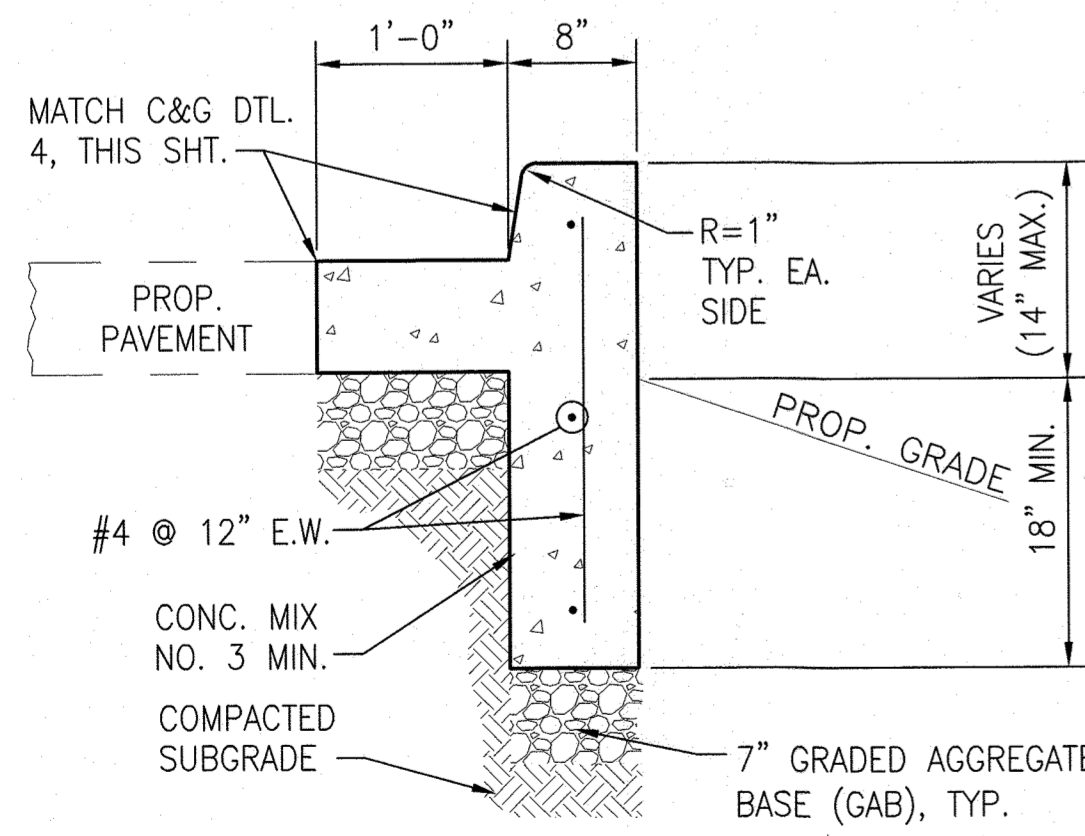


⑨ **6" COMBINATION CURB & GUTTER**  
NOT TO SCALE

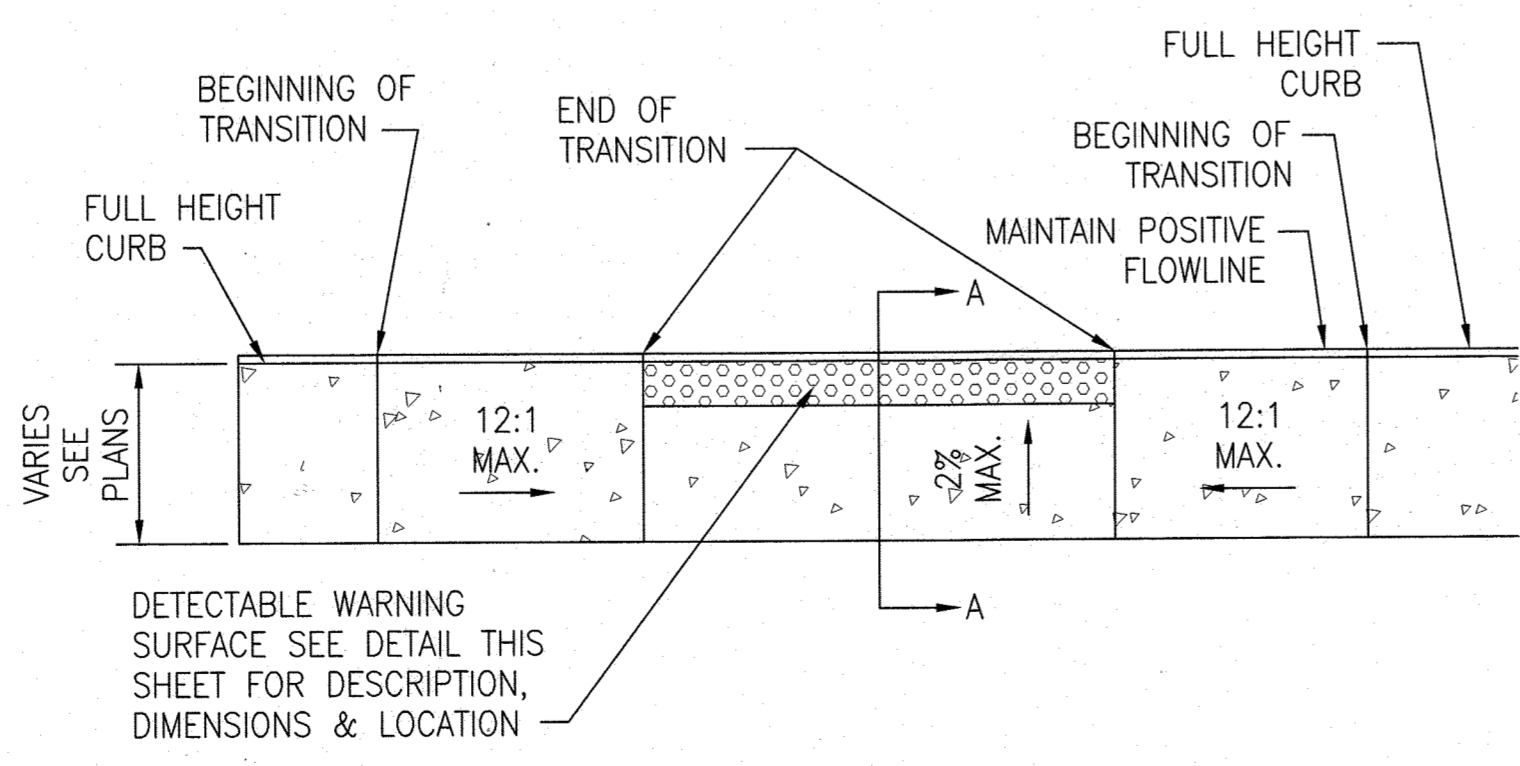


NOTE:  
1. REFER TO LANDSCAPE DRAWINGS FOR LIGHTED BOLLARD LAYOUT.  
2. REFER TO ELECTRICAL DRAWINGS FOR LIGHTED BOLLARD SPECIFICATIONS.

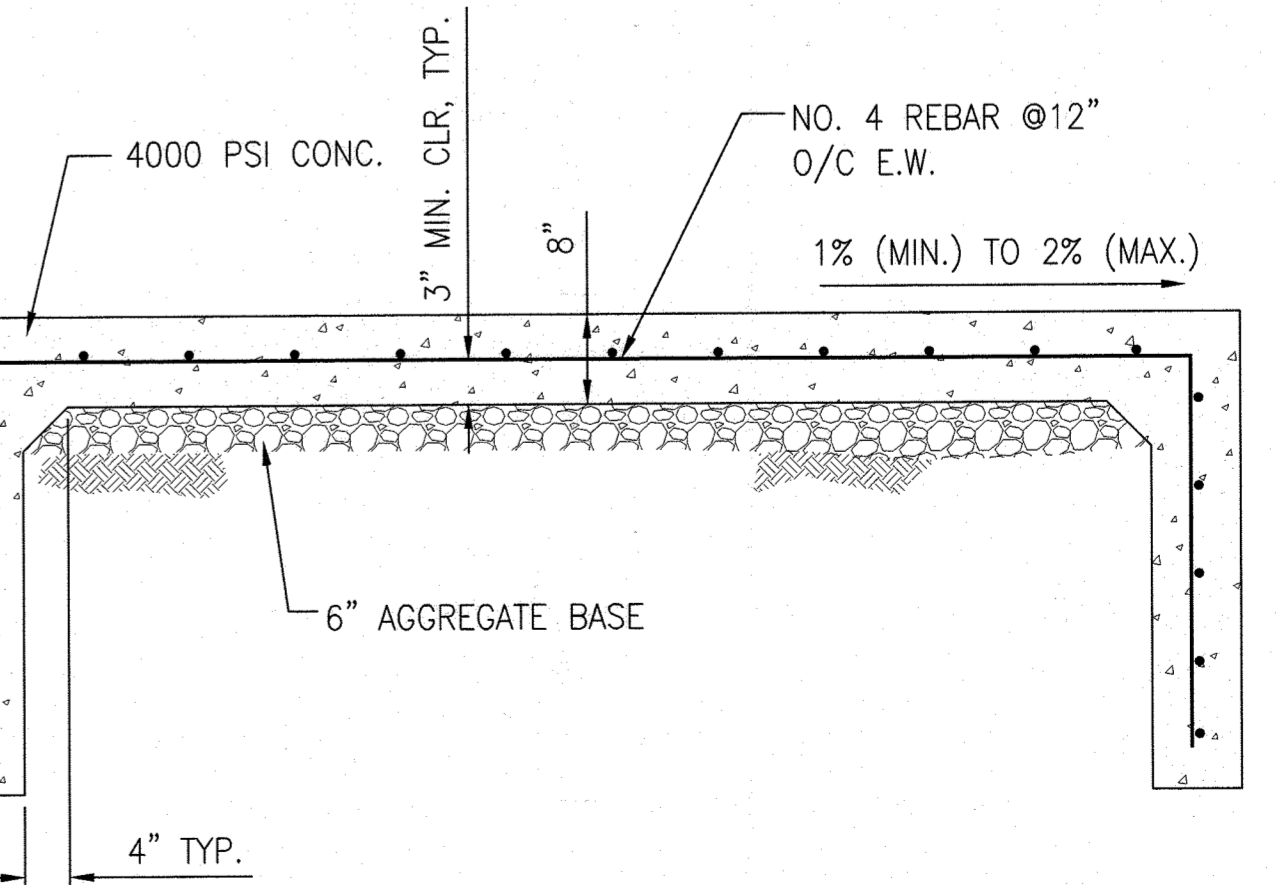
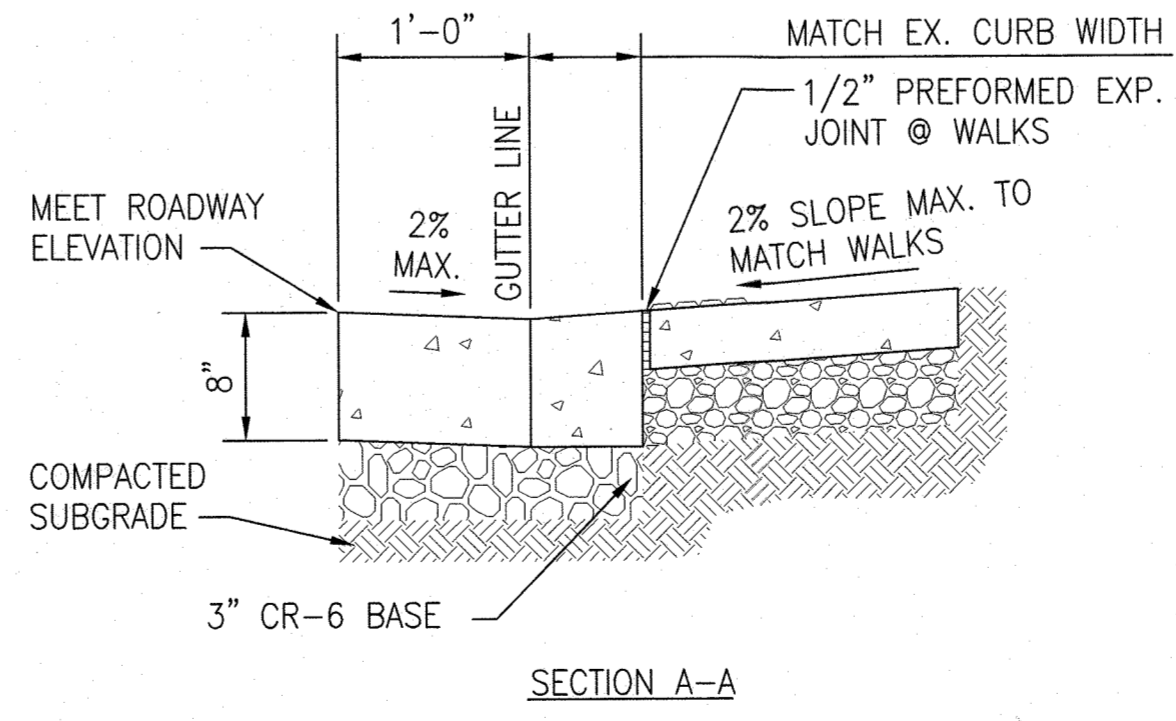
⑩ **TYPICAL LIGHTED PEDESTRIAN BOLLARD FOOTING**  
NOT TO SCALE



⑪ **TYPICAL HIGH CURB**  
NOT TO SCALE



⑫ **TYPICAL DEPRESSED SIDEWALK RAMP**  
NOT TO SCALE



NOTE: REFER TO PLANS FOR SLAB DIMENSIONS.

⑬ **TYPICAL CONCRETE PAD SECTION**  
NOT TO SCALE

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 10/15/22  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 10/27/22  
DIRECTOR  
DATE: 10/27/22

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NOT FOR CONSTRUCTION  
STATE OF MARYLAND  
JUDITH A. CARROLL  
REGISTERED PROFESSIONAL ENGINEER  
LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt  
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7190 DISCOVERY DRIVE  
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HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCEL A

ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
CORRIDOR 95 BUSINESS PARK	N/A	A-0226

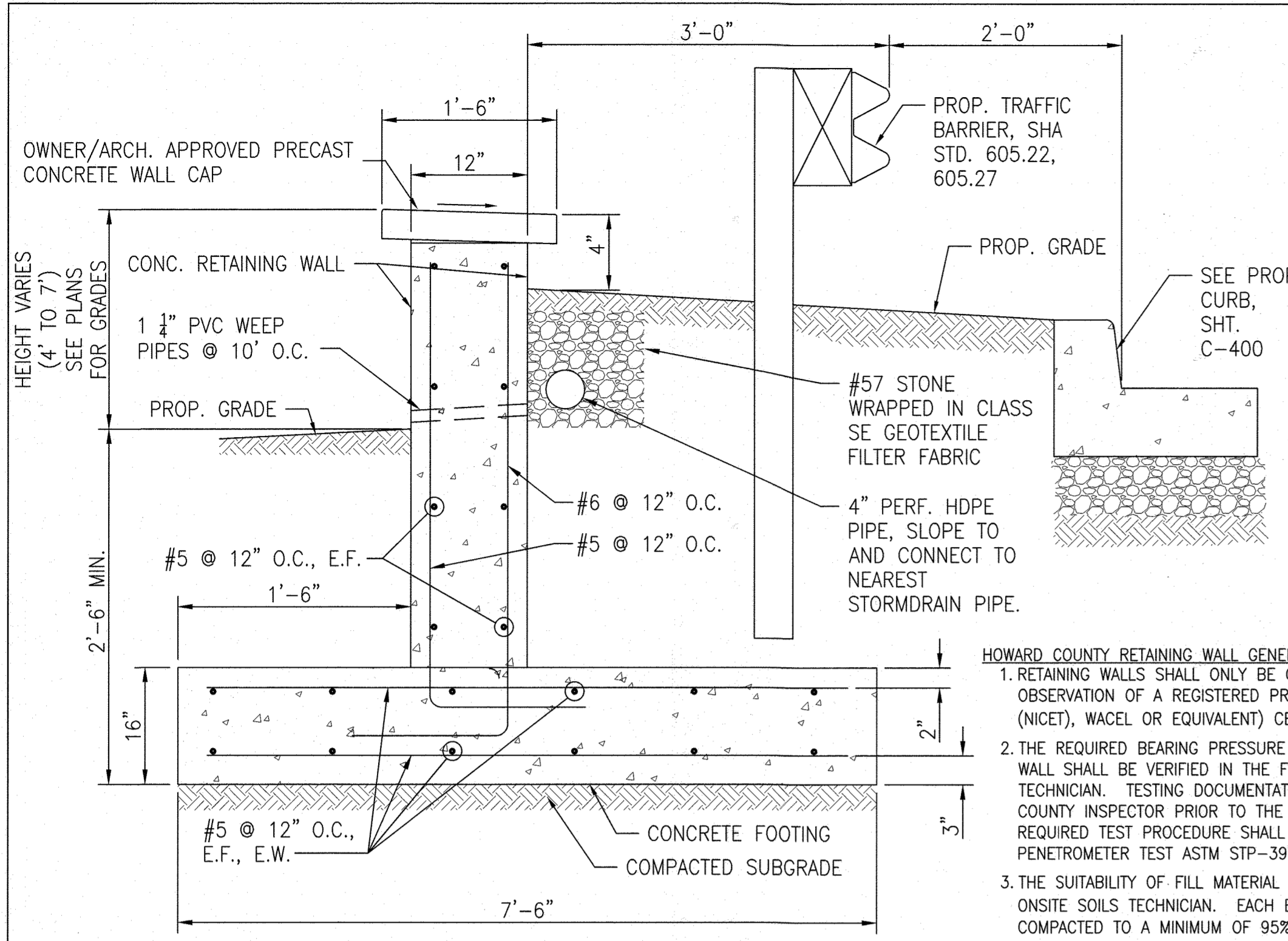
OWNER/DEVELOPER  
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BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

REVISIONS:  
DATE: COMMENTS:

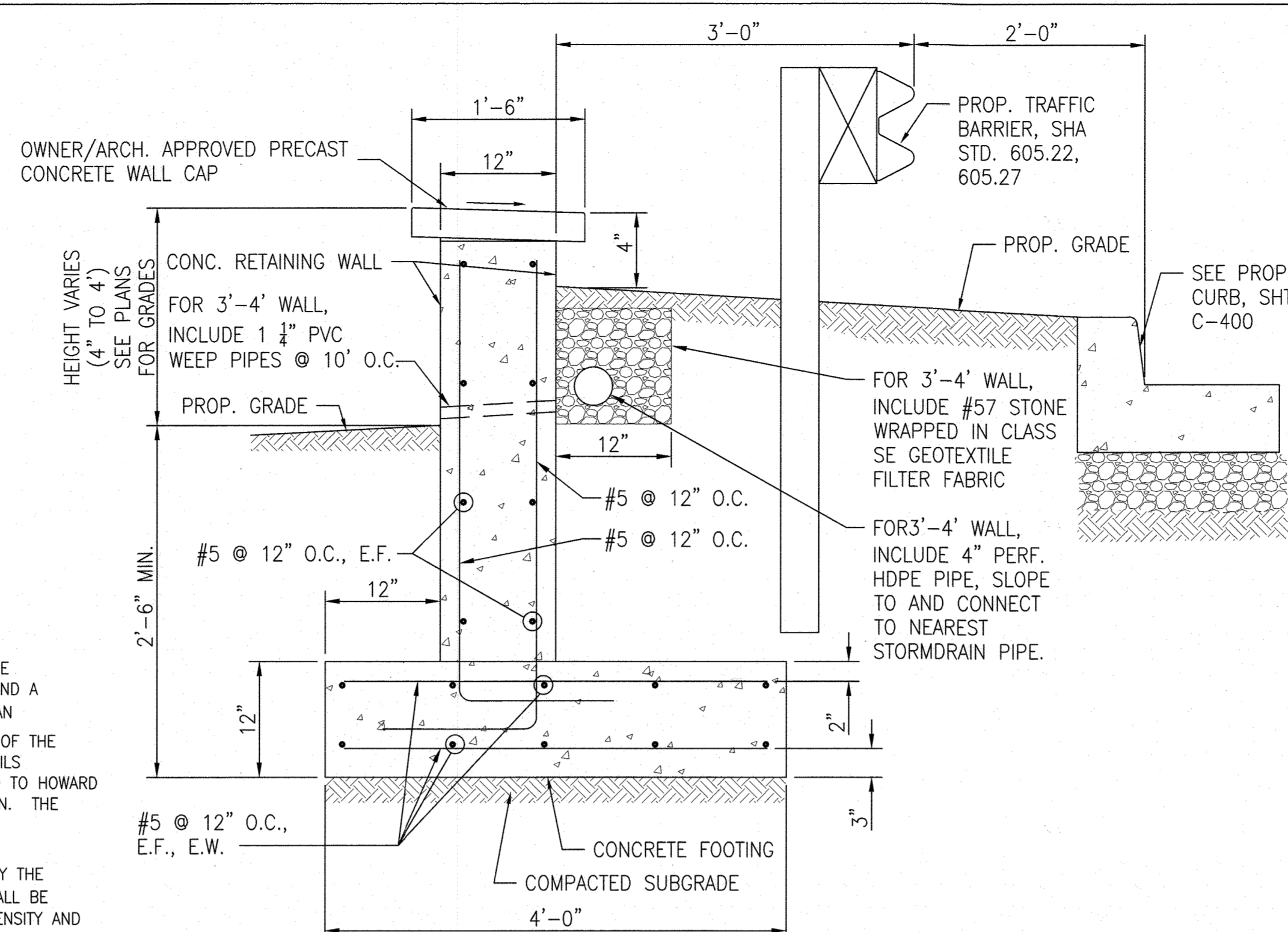
MCA JOB NO.: 19002.01  
PROJ. MANAGER: DWM  
SHEET BY: DWM  
SHEET SET AND SHEET ISSUE DATE: 11/13/2020  
SDP  
SHEET NAME:

**SITE DETAILS**

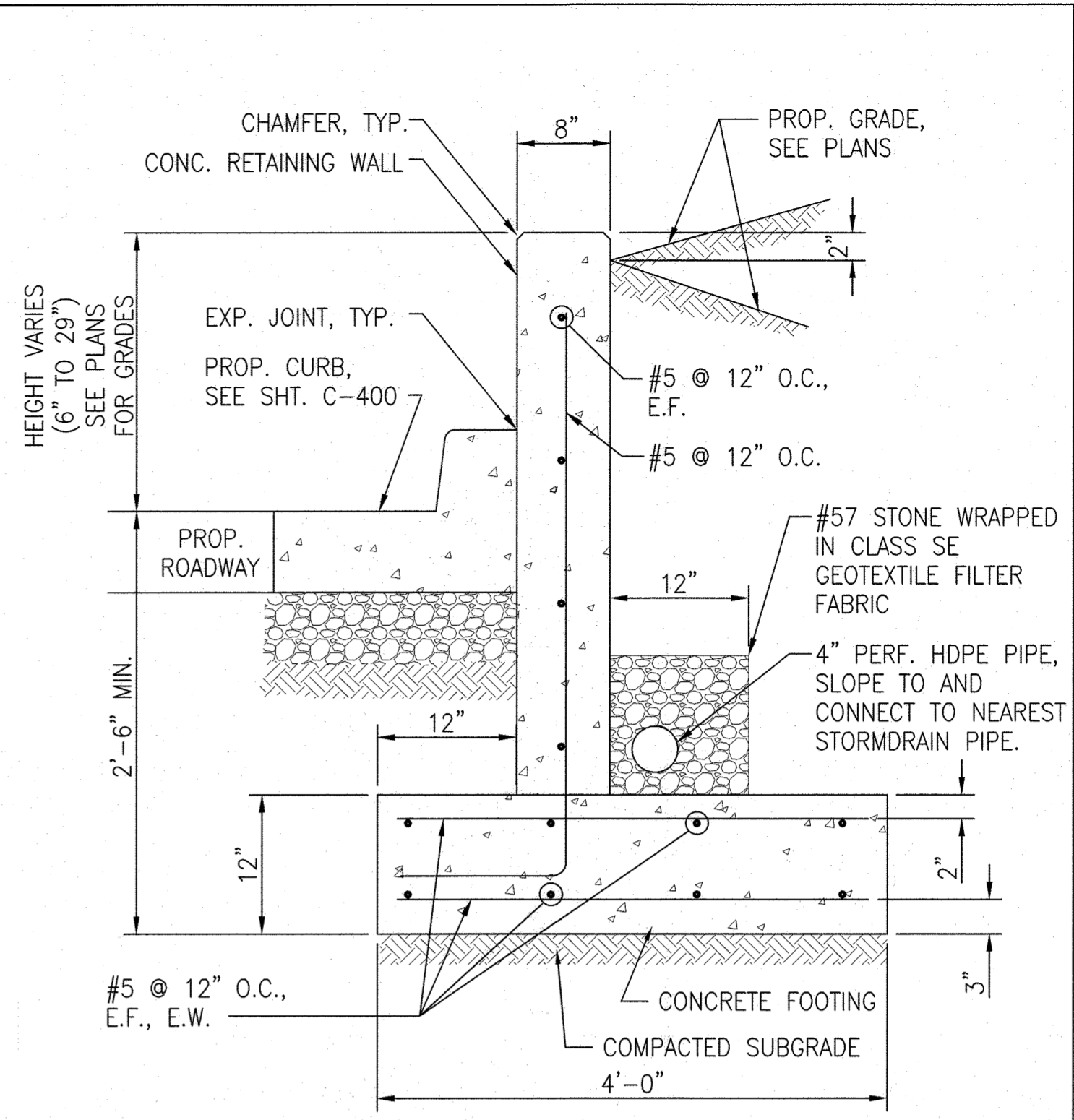
SHEET NO. **7** of 60



1 12" THICK RETAINING WALL (4'-7" TALL),  
GUARDRAIL & CURB SECTION  
NOT TO SCALE

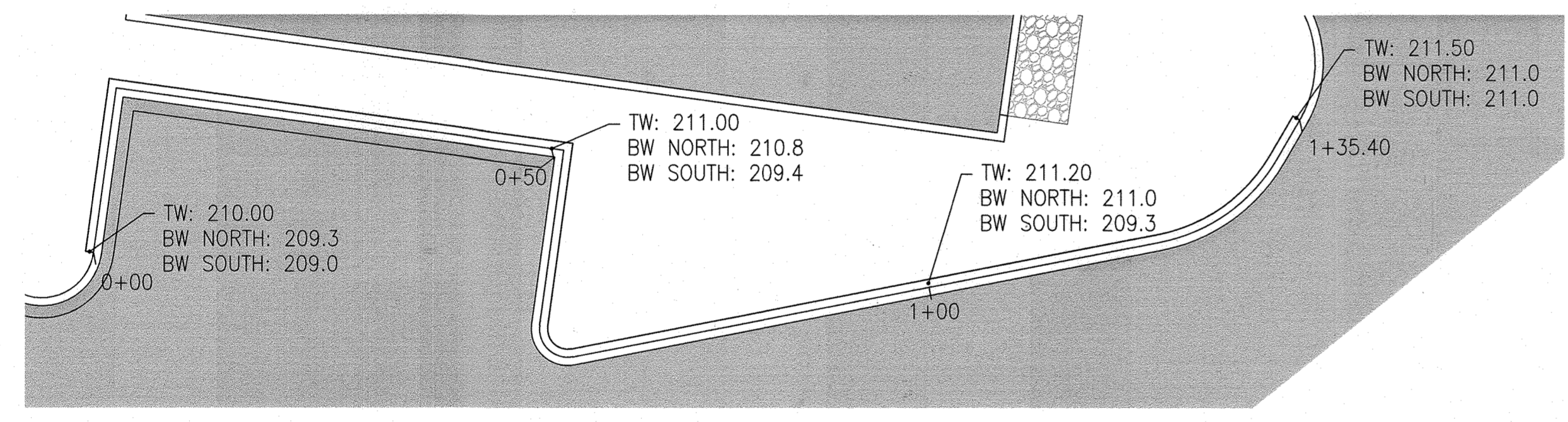


2 12" THICK RETAINING WALL (4'-4' TALL),  
GUARDRAIL & CURB SECTION  
NOT TO SCALE

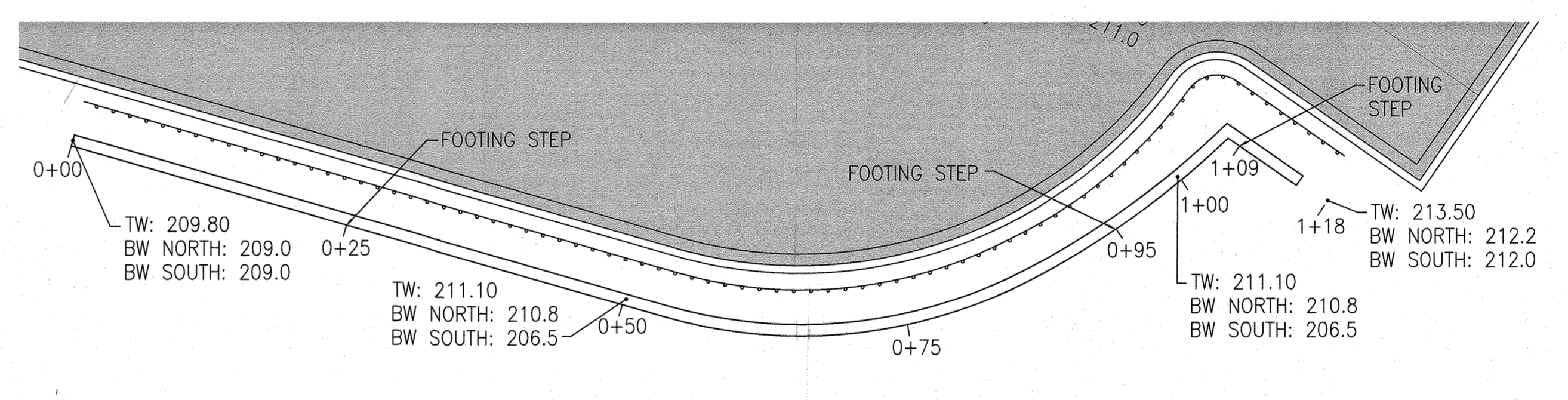


3 8" THICK RETAINING WALL (6'-29" TALL)  
NOT TO SCALE

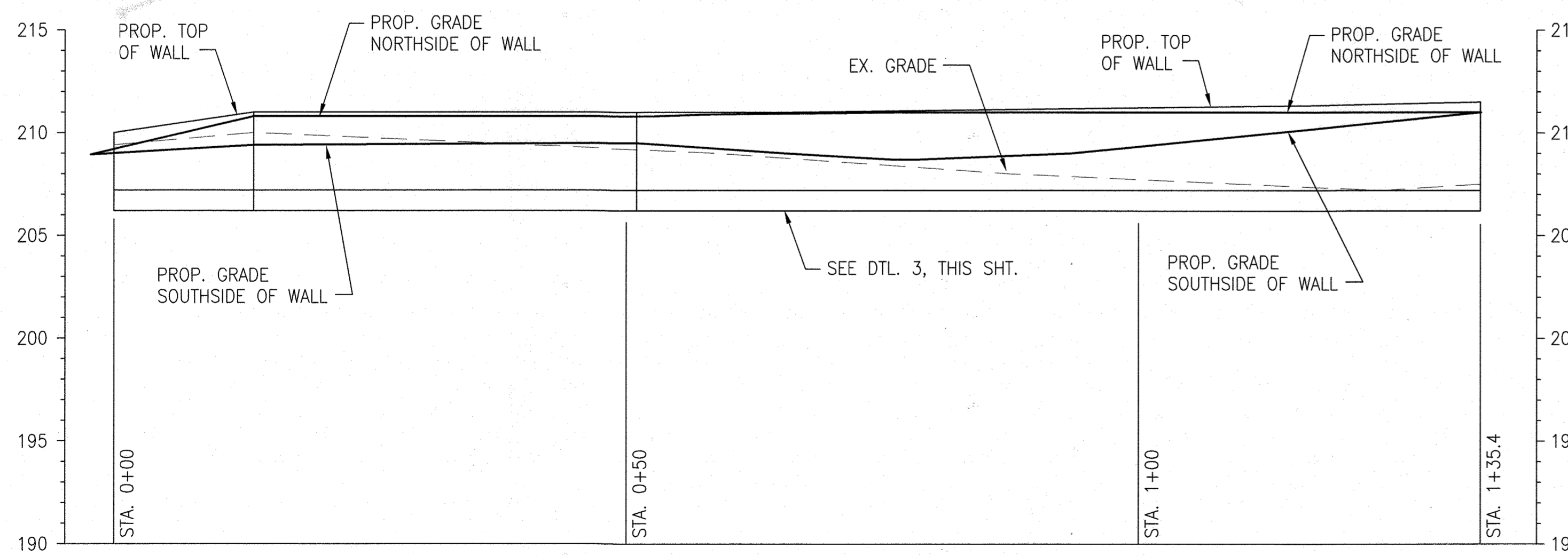
- HOWARD COUNTY RETAINING WALL GENERAL NOTES:**
1. RETAINING WALLS SHALL ONLY BE CONSTRUCTED UNDER THE OBSERVATION OF A REGISTERED PROFESSIONAL ENGINEER AND A (NICET, WACEL OR EQUIVALENT) CERTIFIED SOILS TECHNICIAN
  2. THE REQUIRED BEARING PRESSURE BENEATH THE FOOTING OF THE WALL SHALL BE VERIFIED IN THE FIELD BY A CERTIFIED SOILS TECHNICIAN. TESTING DOCUMENTATION SHALL BE PROVIDED TO HOWARD COUNTY INSPECTOR PRIOR TO THE START OF CONSTRUCTION. THE REQUIRED TEST PROCEDURE SHALL BE THE DYNAMIC CONE PENETROMETER TEST ASTM STP-399
  3. THE SUITABILITY OF FILL MATERIAL SHALL BE CONFIRMED BY THE ONSITE SOILS TECHNICIAN. EACH EIGHT (8) INCH LIFT SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY AND THE TESTING REPORT SHALL BE MADE AVAILABLE TO THE HOWARD COUNTY INSPECTOR UPON COMPLETION OF CONSTRUCTION
  4. FOR "CRITICAL" WALLS, ONE SOIL BORING SHALL BE REQUIRED EVERY 100' ALONG THE ENTIRE LENGTH OF THE WALL. COPIES OF ALL BORING REPORTS SHALL BE PROVIDED TO THE HOWARD COUNTY INSPECTOR PRIOR TO THE START OF CONSTRUCTION
  5. IF NO SURCHARGE LOADS ARE CONSIDERED ADD A NOTE TO THE CROSS SECTION DETAILS STATING, "THIS WALL NOT DESIGNED FOR SURCHARGE LOADS."



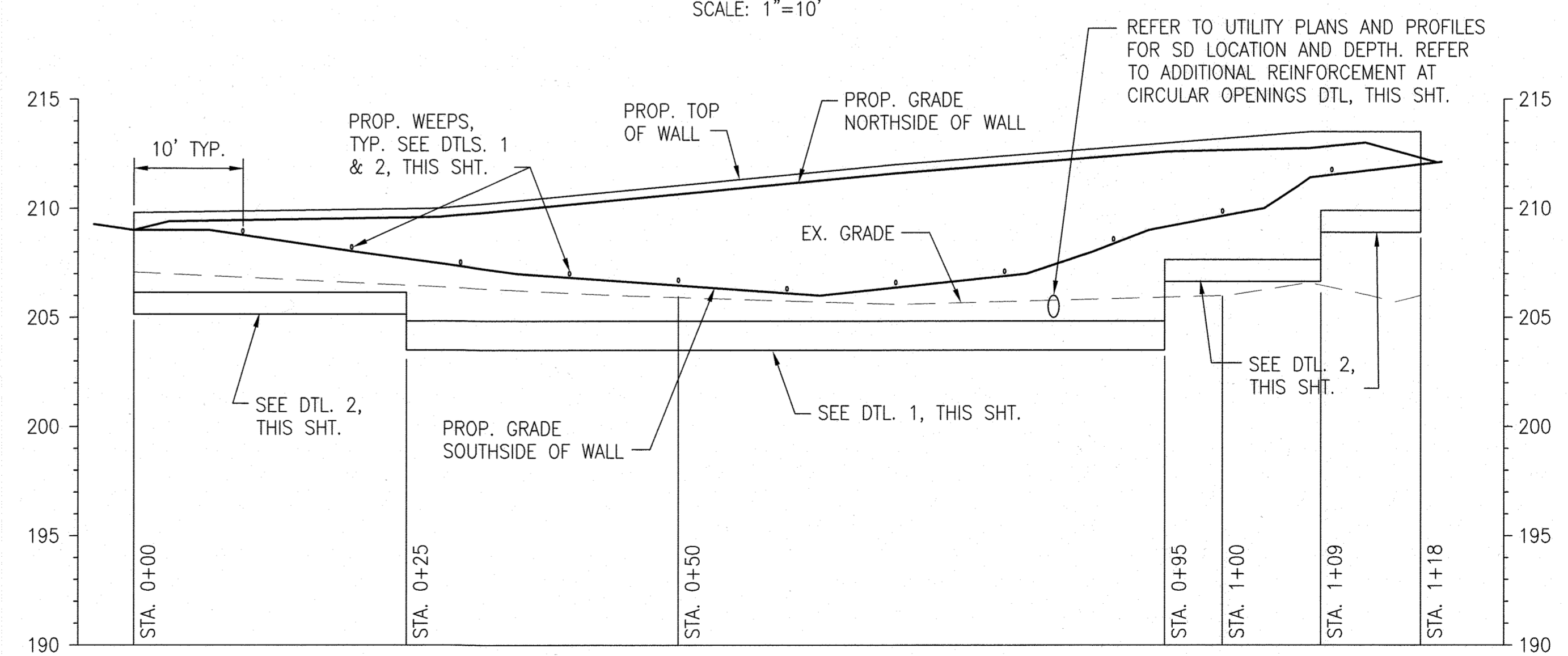
8" THICK RETAINING WALL PLAN  
SCALE: 1"=10'



12" THICK SOUTH RETAINING WALL PLAN  
SCALE: 1"=10'



8" THICK RETAINING WALL PROFILE  
SCALE:  
HORIZ. 1"=10'  
VERT. 1"=5'



12" THICK SOUTH RETAINING WALL PROFILE  
SCALE:  
HORIZ. 1"=10'  
VERT. 1"=5'

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
10-15-22  
DATE  
10/27/22  
DATE

**Marshall Craft Associates, Inc.**  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca.design

**CIVIL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**LANDSCAPE DESIGN**  
SITE RESOURCES, INC.  
14315 JARRETTSVILLE PIKE  
PHOENIX, AZ 85031  
410.683.3388

**STRUCTURAL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**MEP ENGINEERING**  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELK RIDGE, MD 21075  
410.579.8100

**NOT FOR CONSTRUCTION**

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

LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt

**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
HOWARD COUNTY

CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

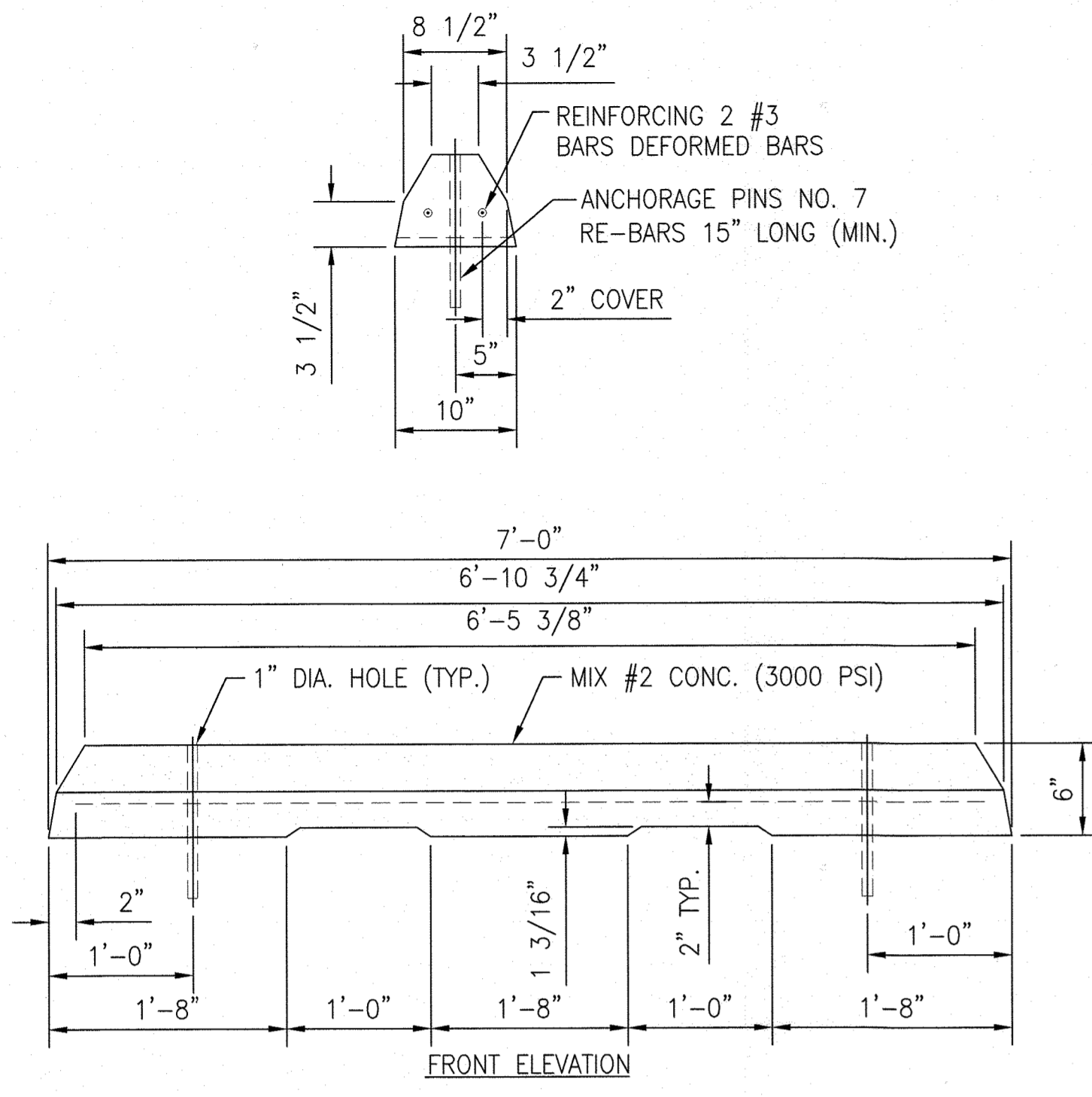
**OWNER/DEVELOPER**  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

**SITE DETAILS**

8 of 60

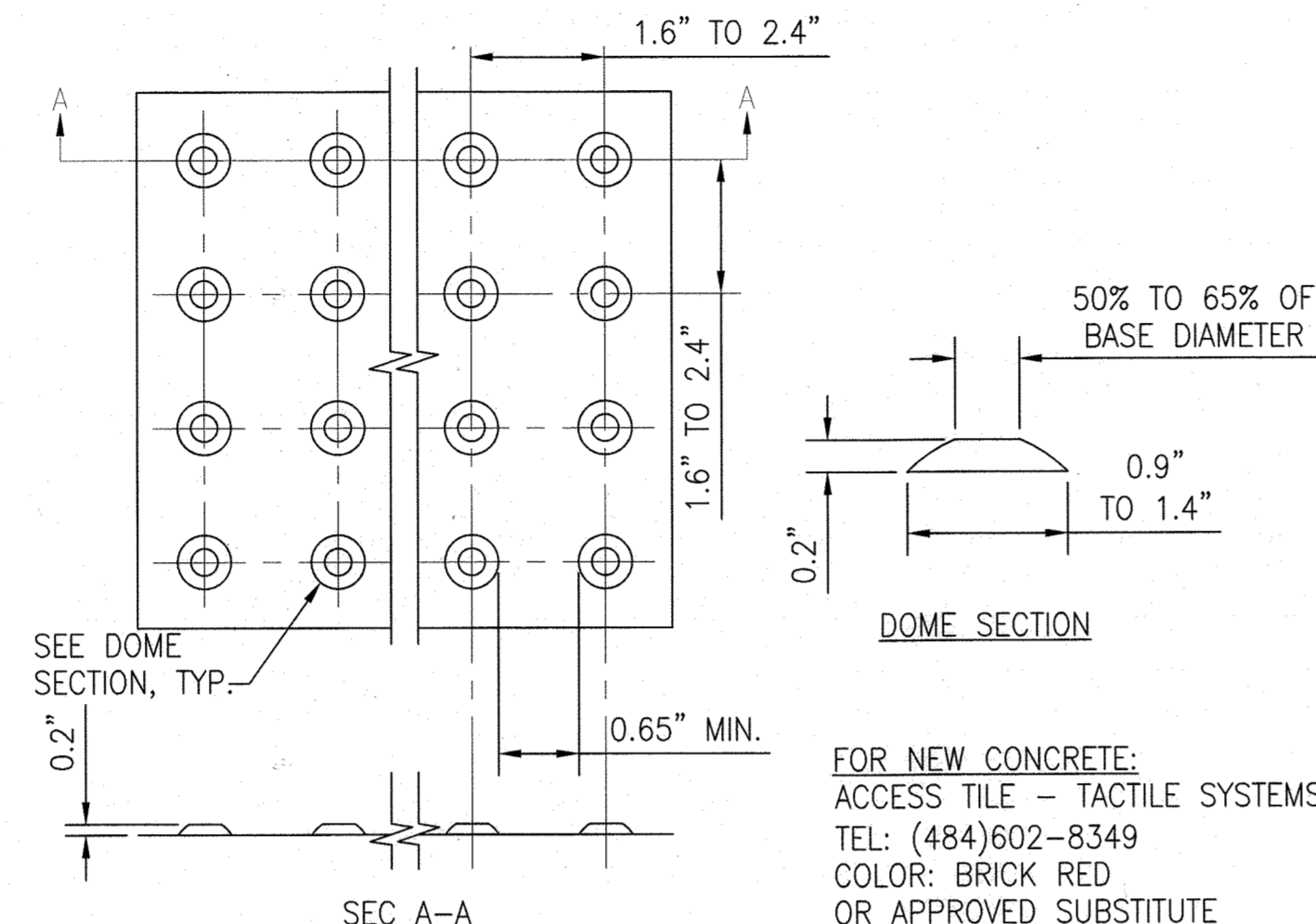
SDP-20-057



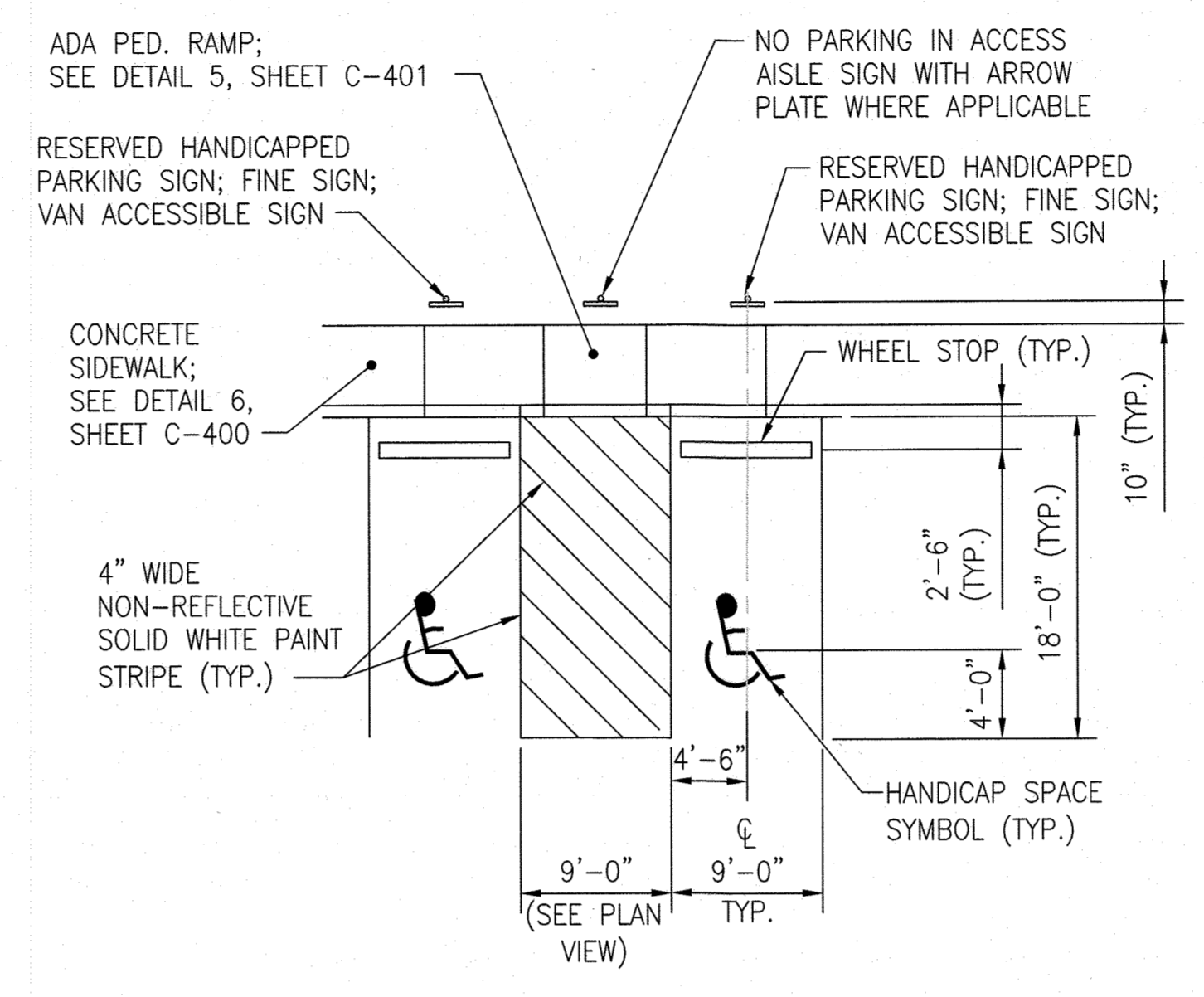


NOTE: WHEEL STOP ARE TO BE INSTALLED AT HANDICAPPED PARKING SPACES ONLY.

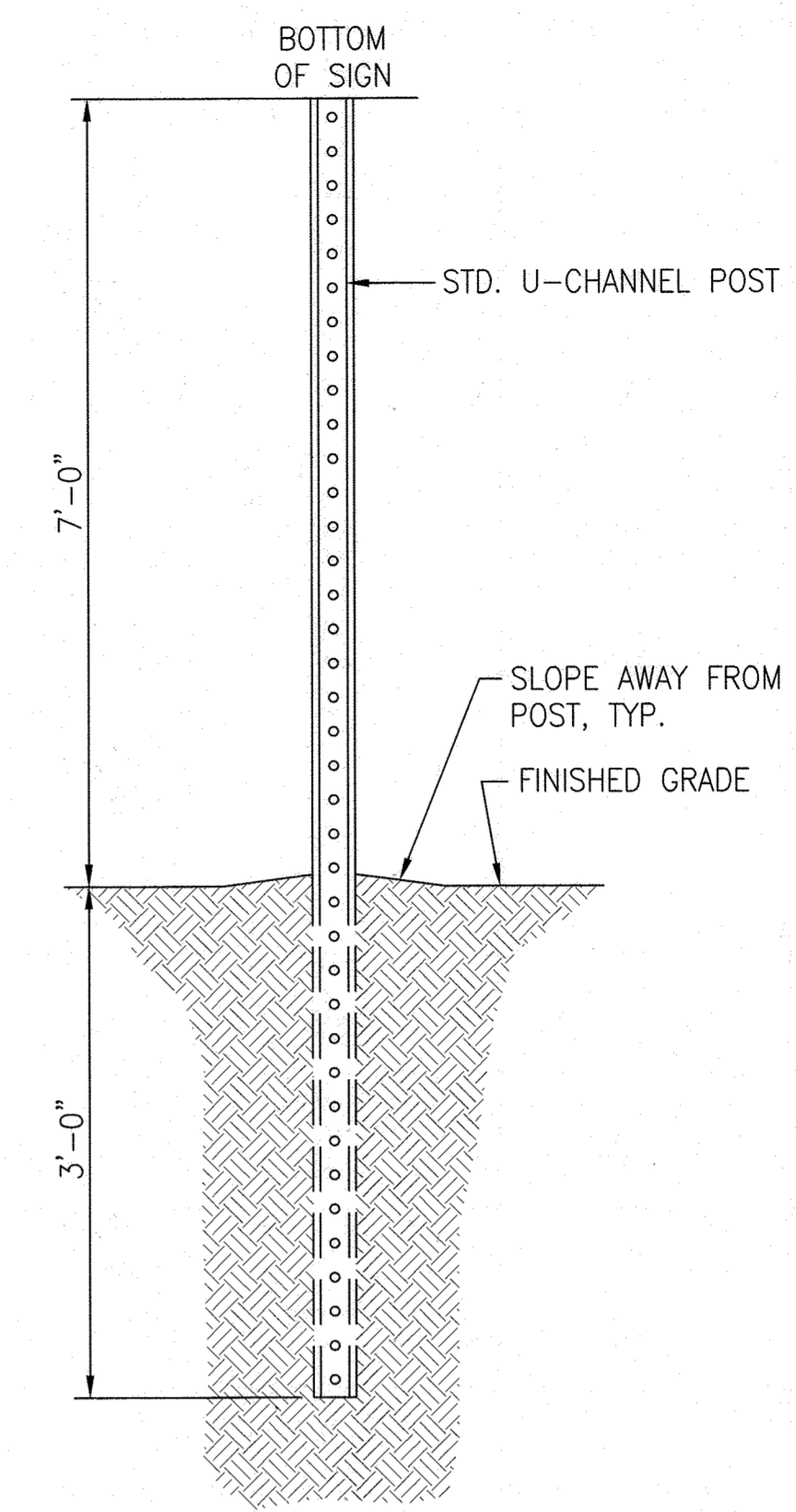
① TYPE I WHEEL STOP



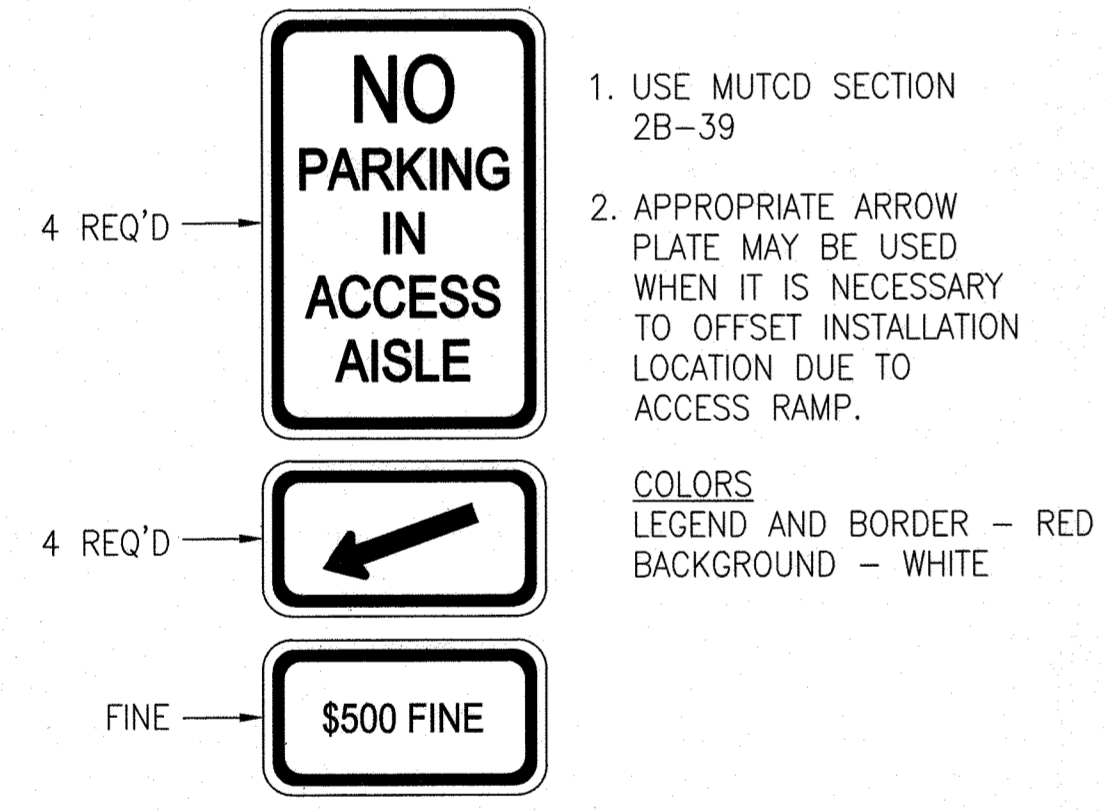
② DETECTABLE WARNING SURFACE NOT TO SCALE



③ TYPICAL HANDICAP STRIPING (WEST PARKING LOT) NOT TO SCALE



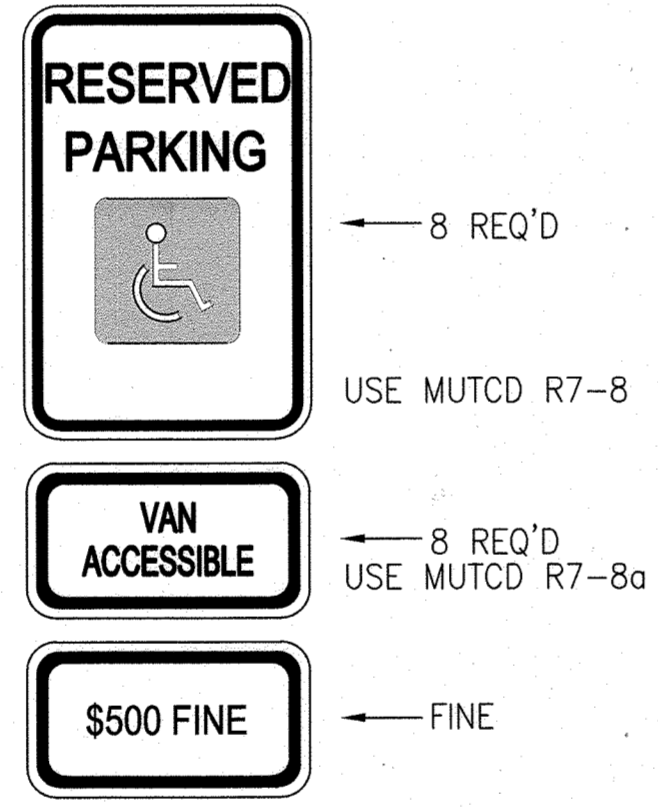
④ TYPICAL SIGN POST NOT TO SCALE



1. USE MUTCD SECTION 2B-39  
2. APPROPRIATE ARROW PLATE MAY BE USED WHEN IT IS NECESSARY TO OFFSET INSTALLATION LOCATION DUE TO ACCESS RAMP.  
COLORS  
LEGEND AND BORDER - RED  
BACKGROUND - WHITE

NOTES:  
1. ALL SIGNAGE TO COMPLY WITH CURRENT MUTCD GUIDELINES.  
2. REFER TO TYPICAL SIGN POST DETAIL, THIS SHEET, FOR MOUNTING.

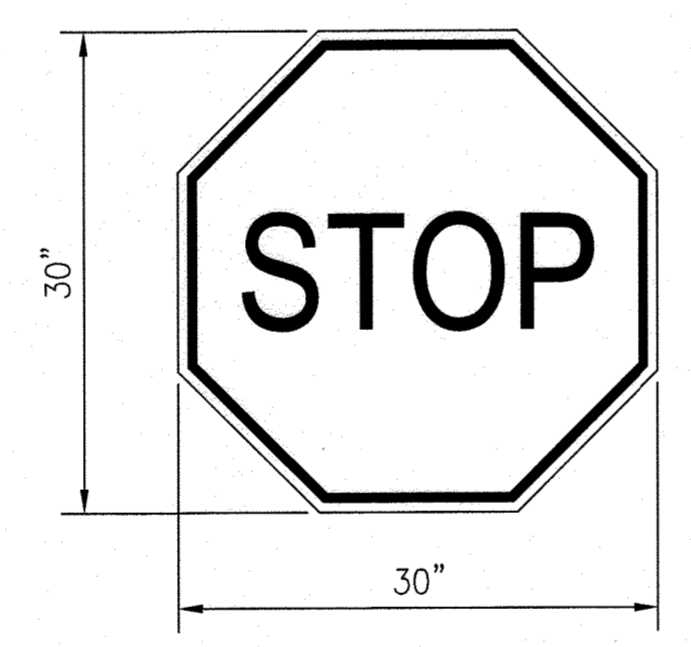
⑤ ACCESS AISLE PARKING SIGN NOT TO SCALE



COLORS  
LEGEND AND BORDER - GREEN  
SYMBOL - WHITE ON BLUE BACKGROUND  
BACKGROUND - WHITE

NOTES:  
1. EACH ACCESSIBLE PARKING SPACE SHALL BE IDENTIFIED BY AN APPROVED SIGN WITH THE BOTTOM EDGE AT LEAST 7 FEET ABOVE THE GROUND, UNLESS THE SIGN IS PLACED FLUSH AGAINST A BUILDING, STRUCTURE, OR OTHER LOCATION THAT DOES NOT OBSTRUCT VEHICLE OR PEDESTRIAN TRAFFIC, IN WHICH CASE THE SIGN SHALL BE AT LEAST 6 FEET AND NO MORE THAN 10 FEET ABOVE THE GROUND. SIGNS SHALL BEAR THE INTERNATIONAL SYMBOL OF ACCESS AND THE WORDS "RESERVED PARKING" AND SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SIGN MANUAL.  
2. ALL SIGNAGE TO COMPLY WITH CURRENT MUTCD GUIDELINES.  
3. REFER TO TYPICAL SIGN POST DETAIL, THIS SHEET, FOR MOUNTING.

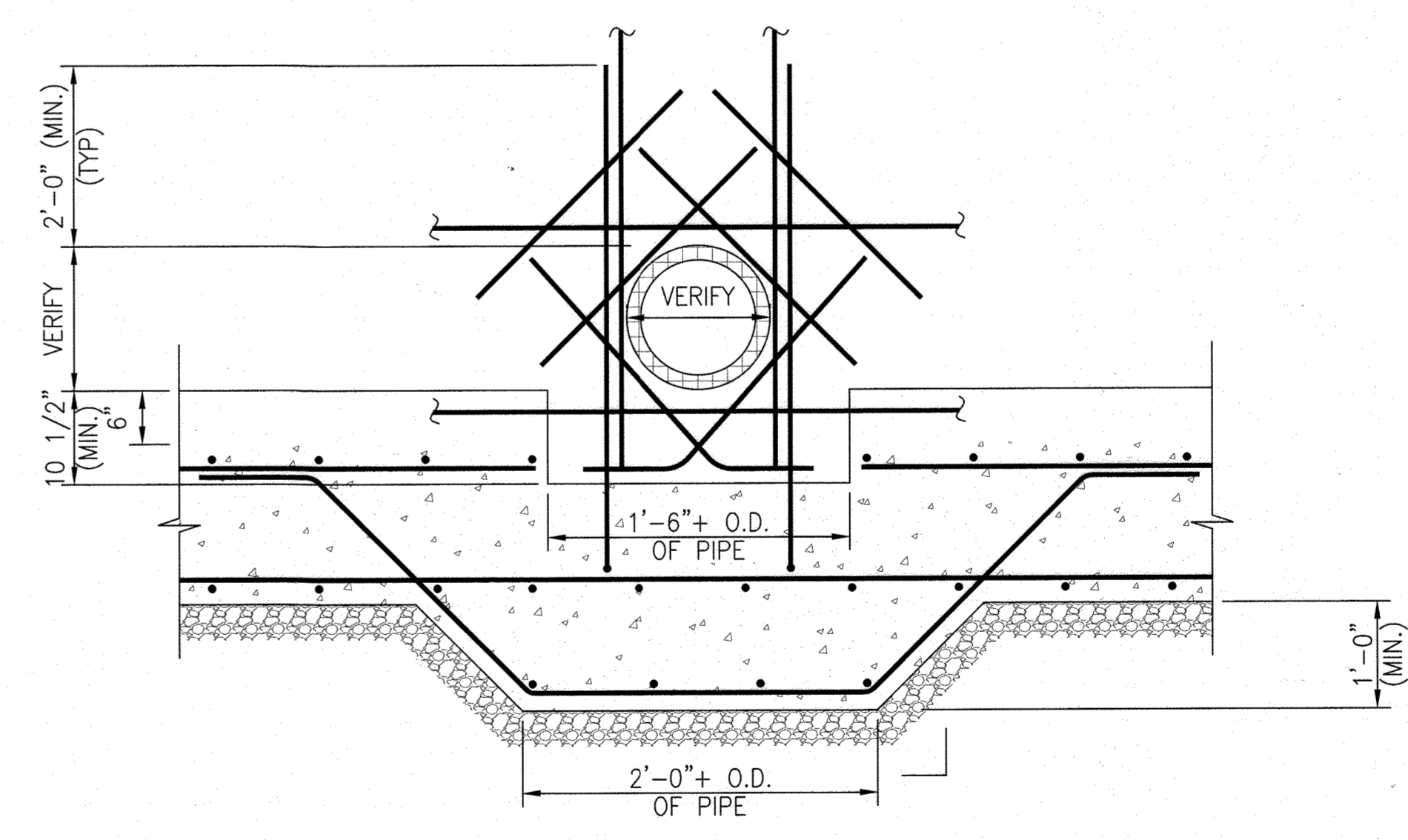
⑥ RESERVED HANDICAPPED PARKING SIGN NOT TO SCALE



COLORS  
LEGEND AND BORDER - WHITE  
BACKGROUND - RED

NOTES:  
1. EACH STOP SIGN SHALL BE POST MOUNTED. EDGE AT LEAST 7 FEET ABOVE THE GROUND.  
2. SEE DETAIL 6, THIS SHEET, FOR SIGN POST.

⑦ STOP SIGN NOT TO SCALE



NOTE: USE AS REQUIRED IN FIELD.

⑧ TYPICAL PIPE THRU FOOTING NOT TO SCALE

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
10/15/22  
DATE  
10/27/22  
DATE  
10/27/22  
DATE

**MCA ARCHITECTURE**  
Marshall Craft Associates, Inc.  
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6522 MEADOWRIDGE RD #1  
ELKRIDGE, MD 21075  
410.579.8100

NOT FOR CONSTRUCTION  
STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt  
SHEPPARD PRATT  
**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELKRIDGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCELA

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME CORRIDOR 95 BUSINESS PARK	SECTION/AREA N/A	LOT/ PARCEL NO. N/A
PLAT/ OR L/F 22384/22385	GRID 0023	ZONING M-1
TAX MAP 0023	ELECT DIST 1st E.D.	CENSUS TRACT 601203

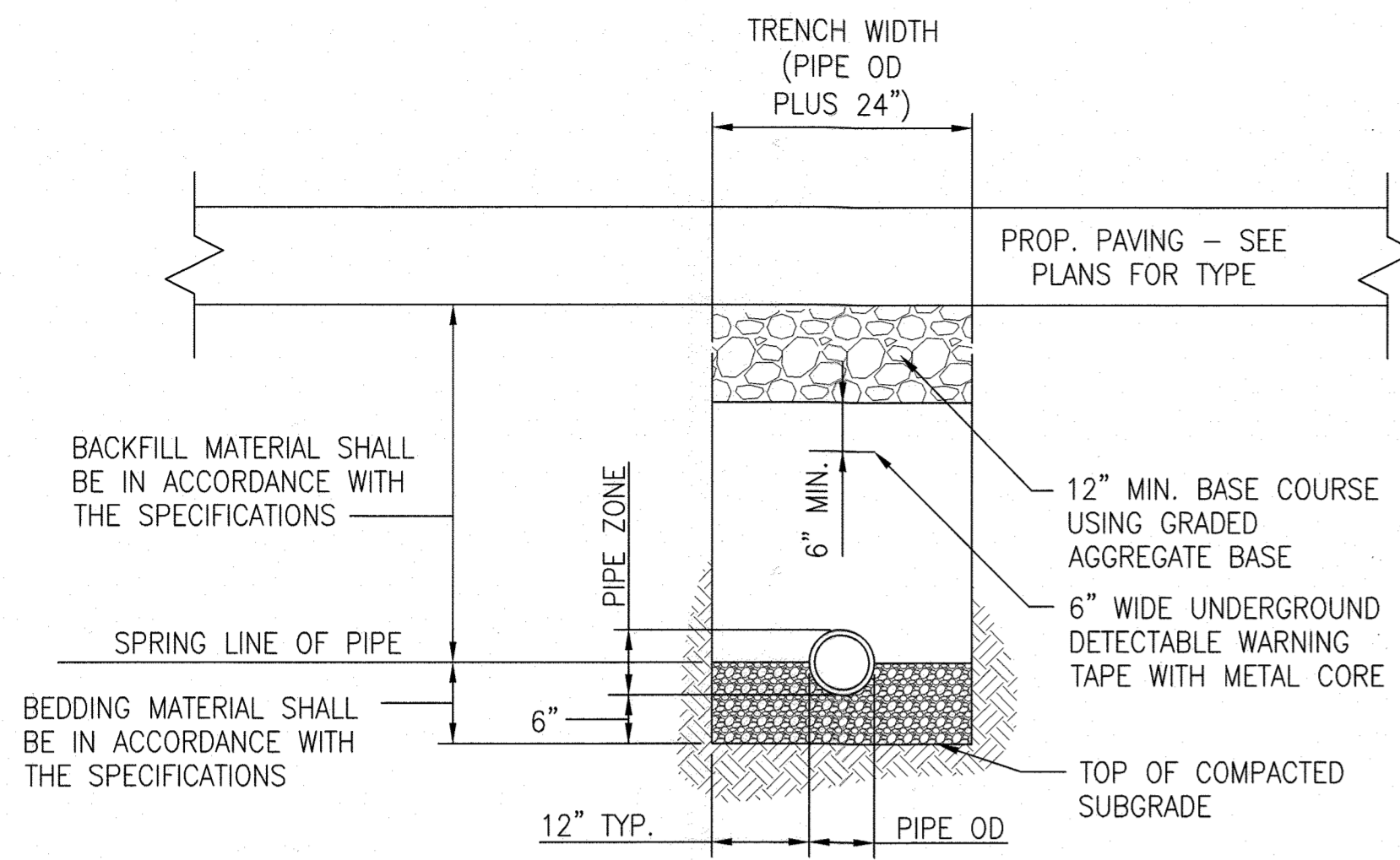
OWNER/DEVELOPER  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

REVISIONS:

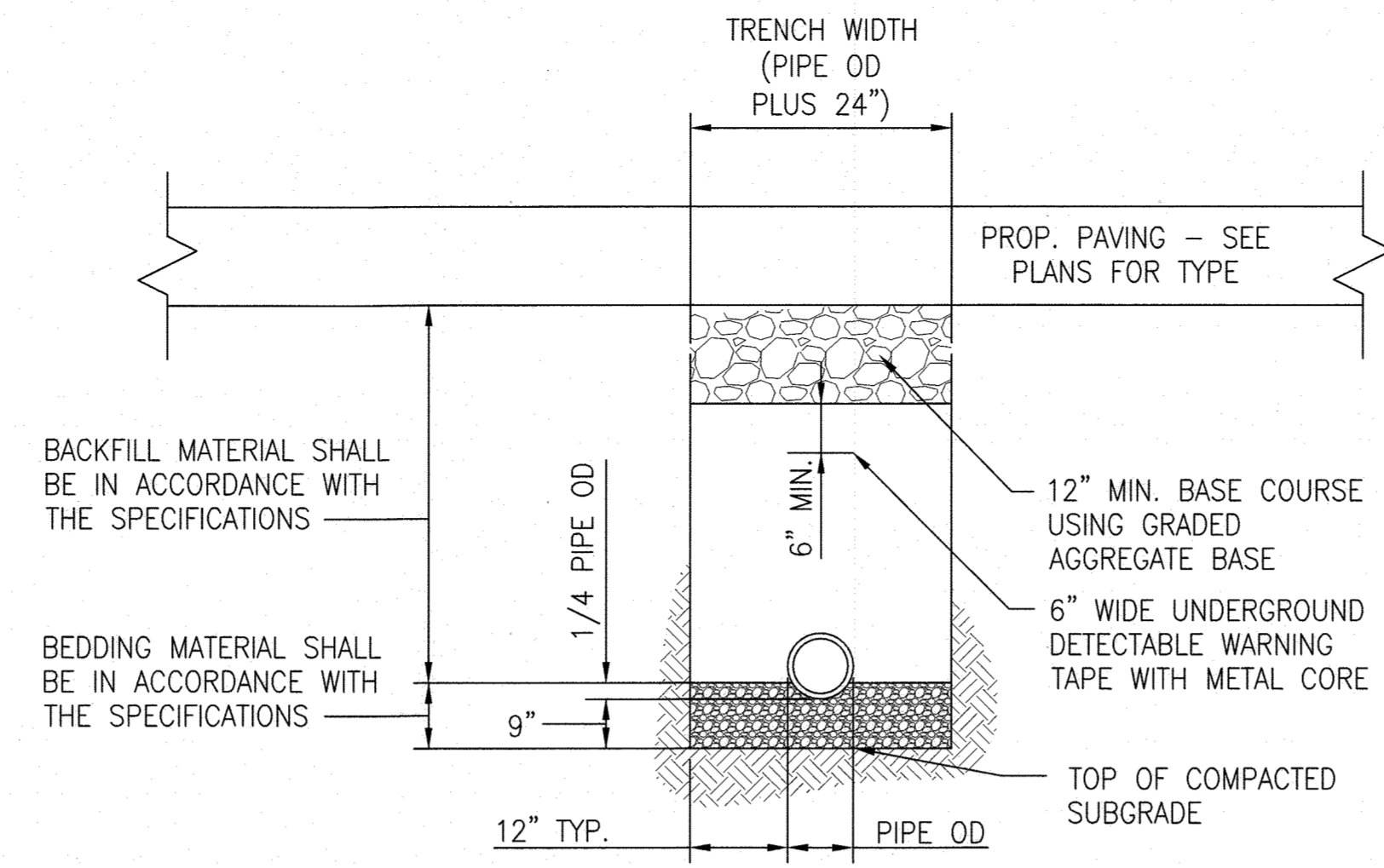
DATE	COMMENTS

MCA JOB NO. 19002.01	PROJ.MANAGER DWM	SHEET BY DWM
SHEET SET AND SHEET ISSUE DATE: SDP		11/13/2020

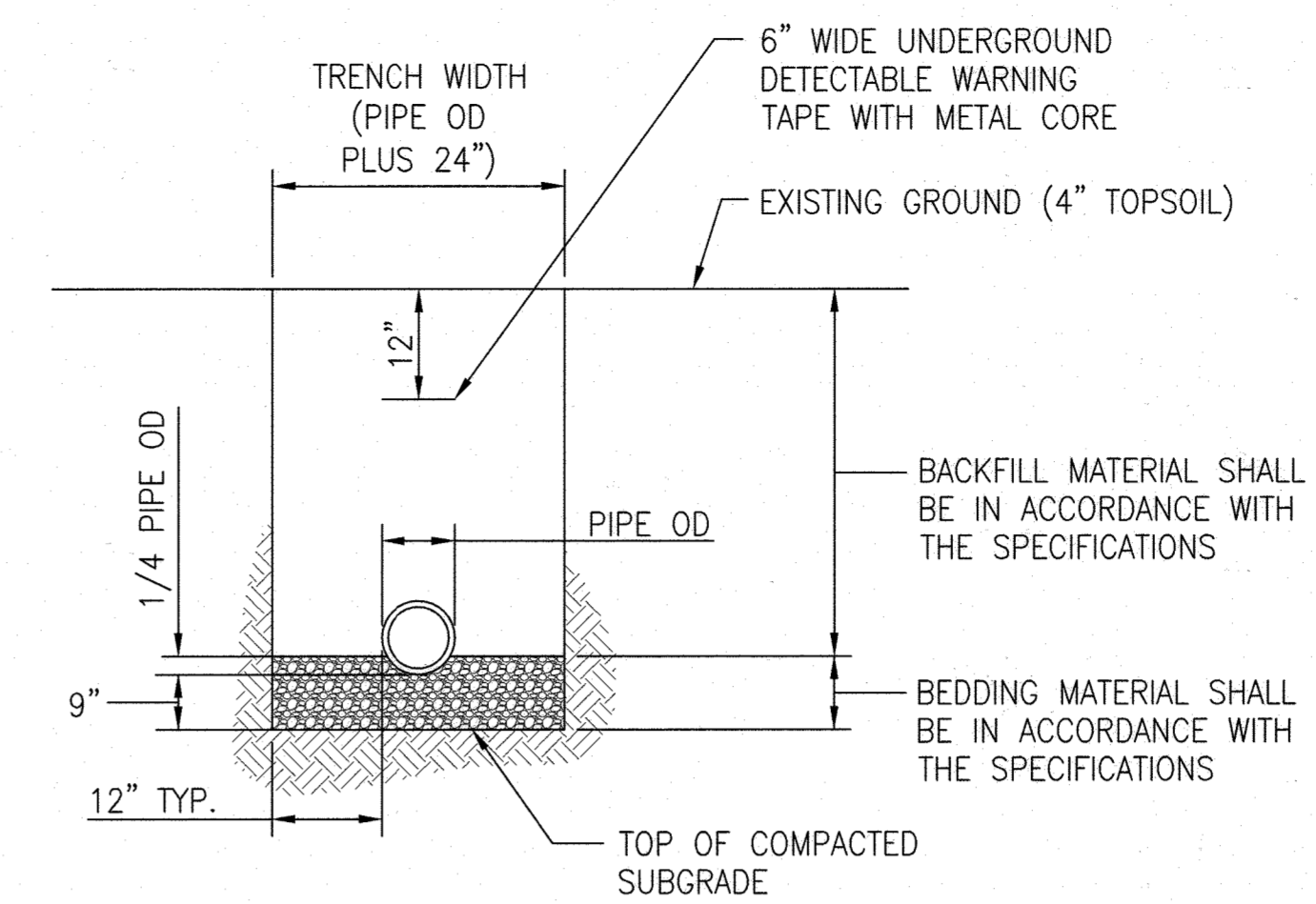
SITE DETAILS  
SHEET NO.  
**9** of 60  
SDP-20-057



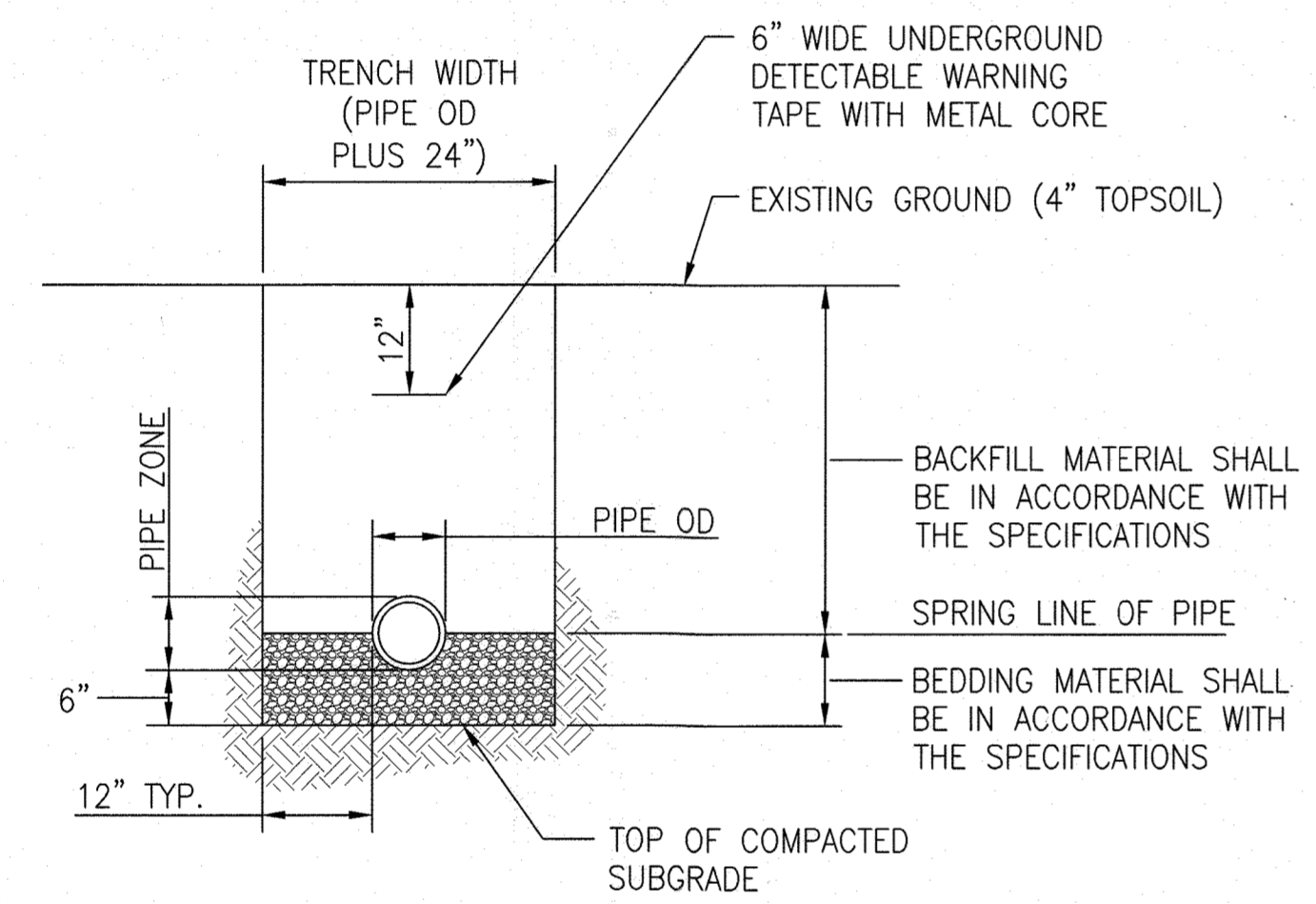
1 TRENCH FOR HDPE/PLASTIC PIPE (IN NEW PAVEMENT)  
NOT TO SCALE



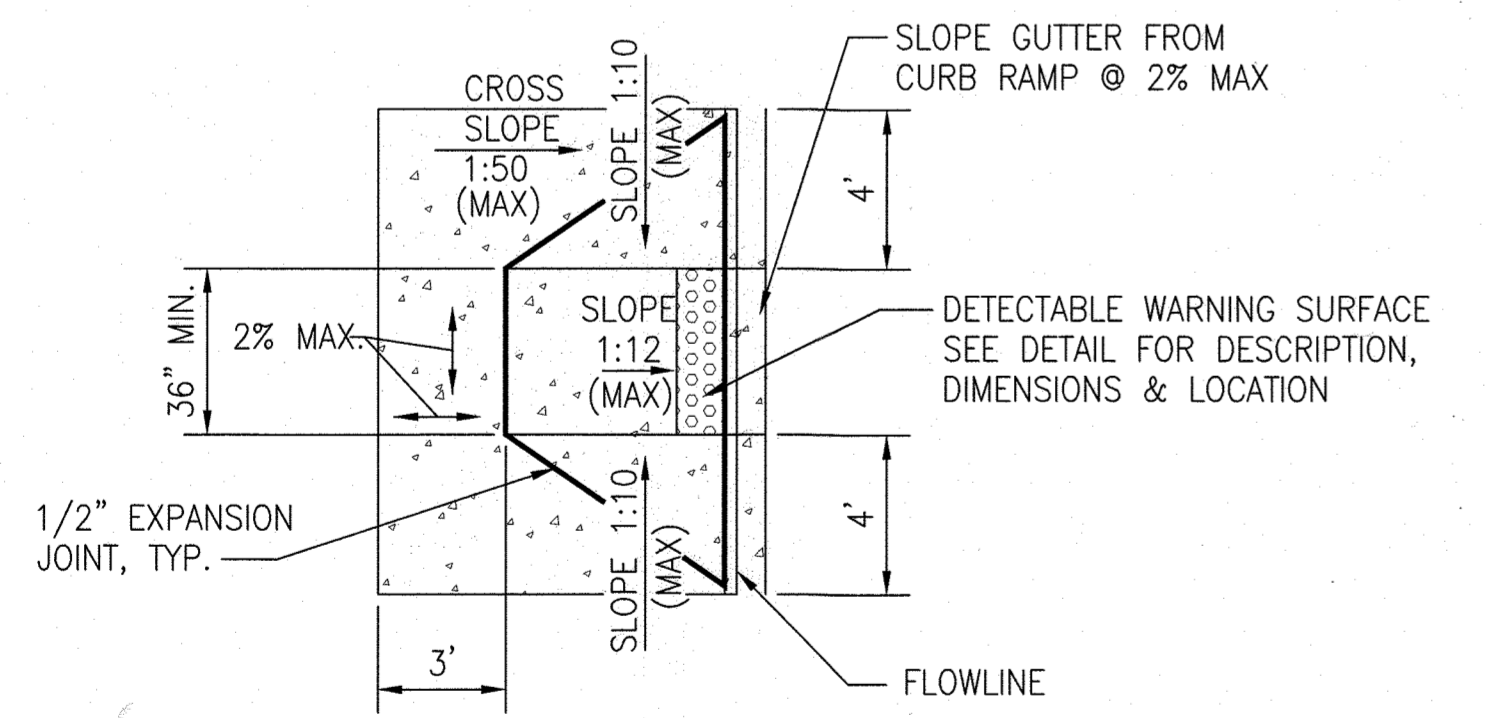
2 TRENCH FOR NON-PLASTIC PIPE (IN NEW PAVEMENT)  
NOT TO SCALE



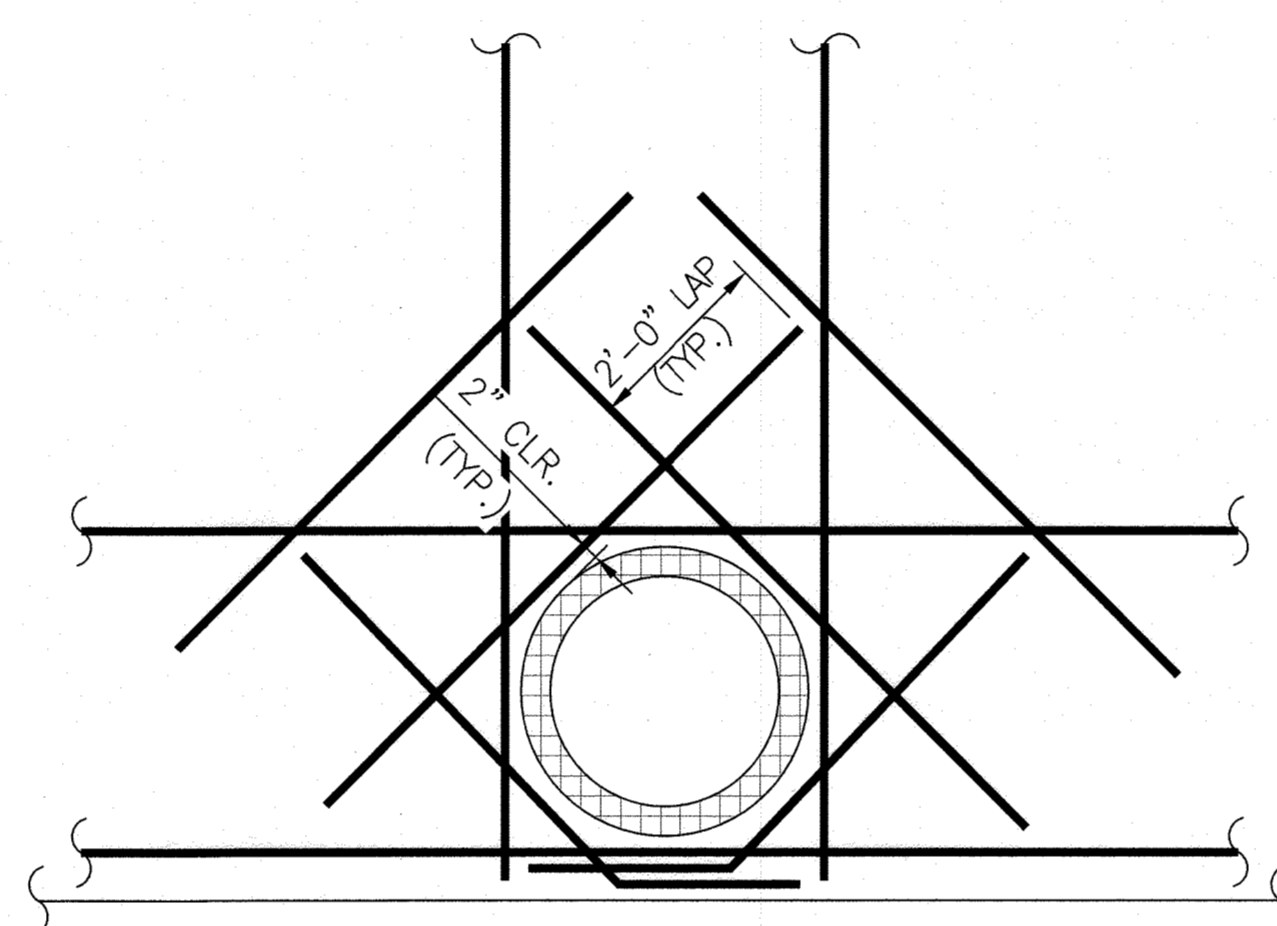
3 TRENCH FOR NON-PLASTIC PIPE (UNPAVED)  
NOT TO SCALE



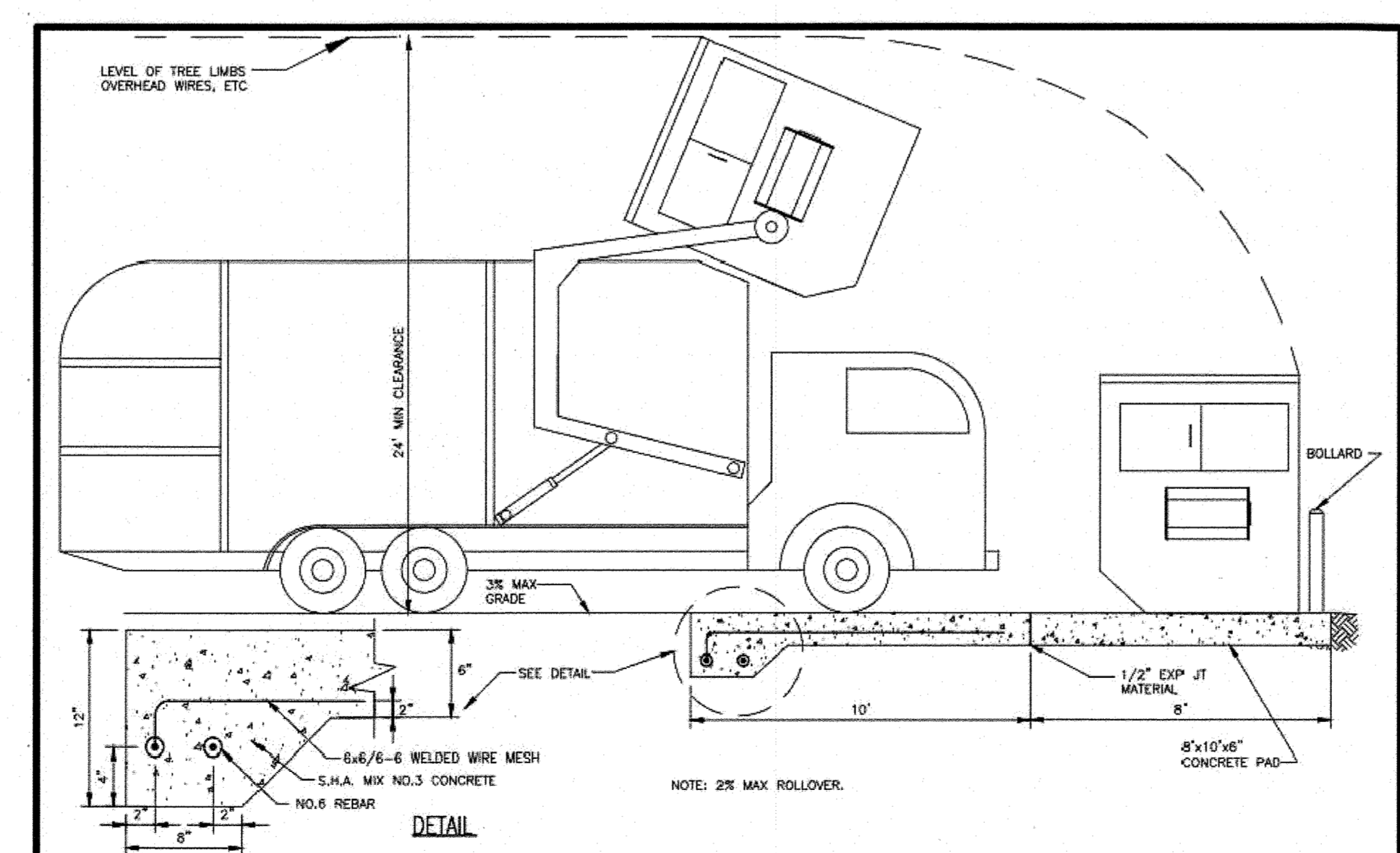
4 TRENCH FOR PLASTIC/HDPE PIPE (UNPAVED)  
NOT TO SCALE



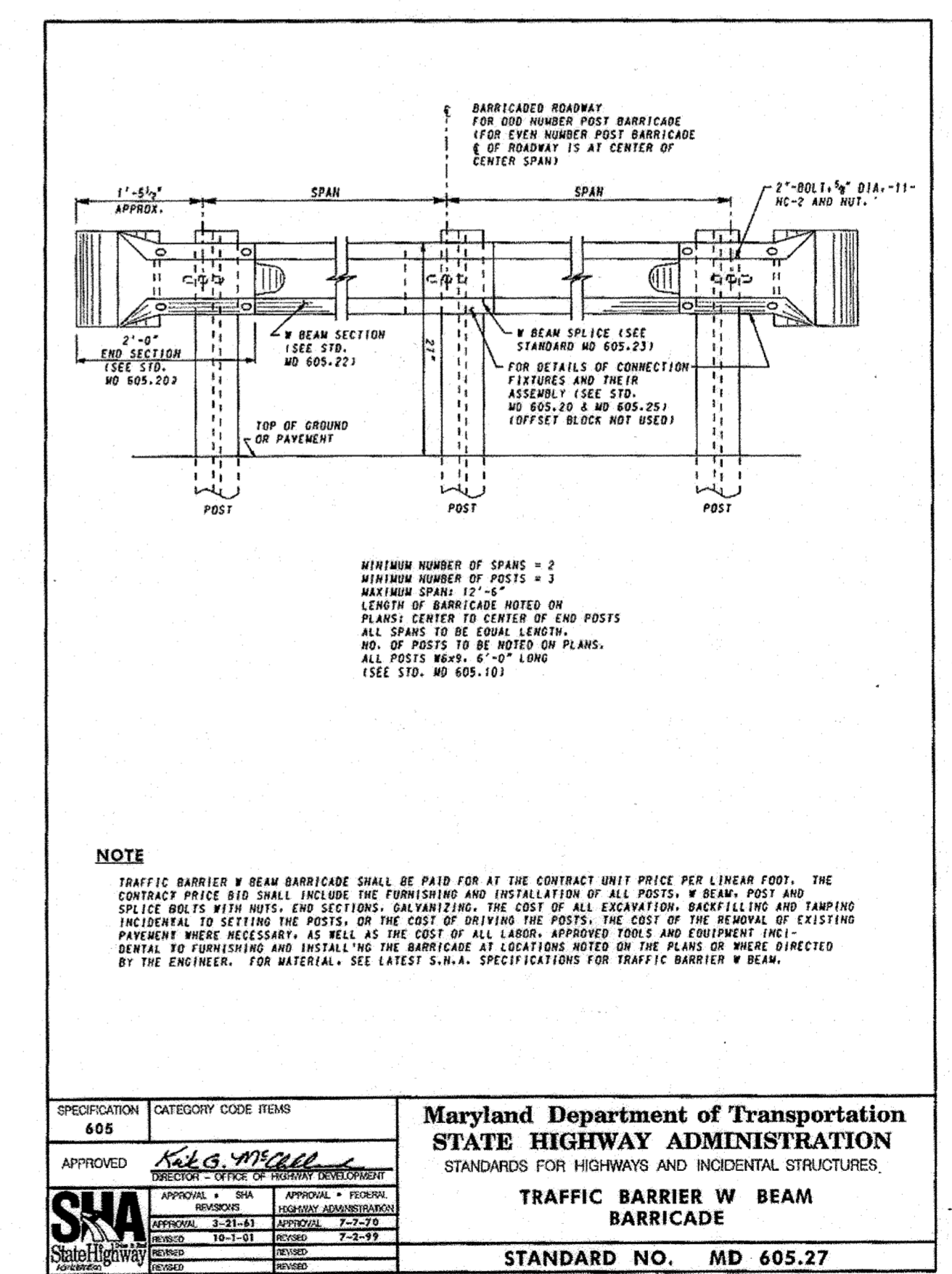
6 TYPE "E" CURB RAMP  
NOT TO SCALE



5 ADDITIONAL REINFORCEMENT AT CIRCULAR OPENINGS  
NOT TO SCALE



7 CONCRETE DUMPSTER SERVICE PAD  
NOT TO SCALE



- NOTES:
- FOOTINGS TO BE FORMED OF CONCRETE AND SHALL BE 30"Ø AND EXTEND 8" BELOW BOTTOM OF POST, 30" DEPTH MINIMUM.
  - FACE OF TRAFFIC BARRIER W-BEAM TO ALIGN WITH FACE OF ADJOINING CURB WHEN PRESENT.

8 SHA GUARD RAIL (STD NO. MD 605.27)  
NOT TO SCALE

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
10-15-22  
DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
11/27/22  
DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT  
11/27/22  
DATE  
DIRECTOR

Howard County, Maryland  
Department of Public Works  
SOLID WASTE  
Service Pad  
Detail  
R-8.03

NOTE:  
1. REFER TO LANDSCAPE DRAWING L-202 FOR LAYOUT, ENCLOSURE DETAILS AND SPECIFICATIONS.

MCA ARCHITECTURE  
Marshall Craft Associates, Inc.  
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410.785.7423  
MEP ENGINEERING  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELK RIDGE, MD 21075  
410.579.8100

NOT FOR CONSTRUCTION  
M3F  
FOR  
STATE OF MARYLAND  
JUDITH A. CARROLL  
14144  
REGISTERED  
PROFESSIONAL ENGINEER  
PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt  
SHEPPARD PRATT  
MEDICAL PAVILION  
7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 98 BUSINESS PARK - PARCELA

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
CORRIDOR 98 BUSINESS PARK	N/A	A/0236
PLAT OR L.P.	ORD#	ZONING
22384/22385	0023	M-1
TAX MAP#	ELECT. DIST.	CONTR. TRACT
0037	ME E.D.	6023.03

OWNER/DEVELOPER  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

REVISIONS:

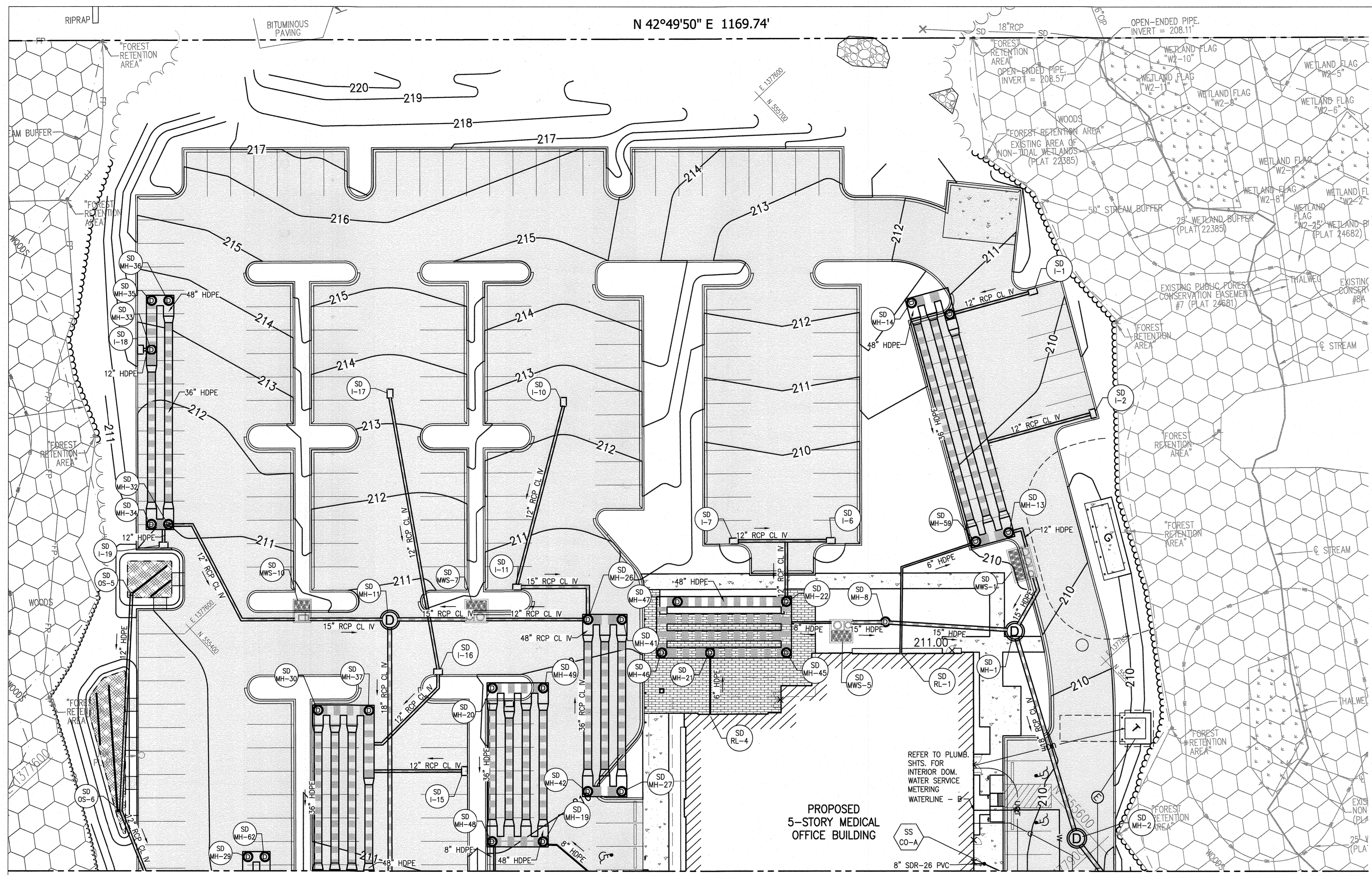
DATE	COMMENTS

MCA JOB NO.  
19002.01  
SHEET SET AND SHEET ISSUE DATE:  
SDP  
11/13/2020

PROJ/MANAGER  
DWM  
SHEET BY  
DWM

SITE DETAILS

SHEET NO.  
10 of 60  
SDP-20-057



- EXISTING LEGEND**
- EXISTING PROPERTY LINE
  - EXISTING EASEMENT
  - EXISTING SETBACK
  - EXISTING BUILDING
  - EXISTING CURB
  - EXISTING CURB & GUTTER
  - EXISTING ROADWAY
  - EXISTING PAVEMENT
  - EXISTING ASPHALT PAVING
  - EXISTING CONCRETE PAVING
  - ▲ EXISTING SIGN
  - ⊕ EXISTING ELECTRIC MANHOLE
  - ⊖ EXISTING OVERHEAD ELECTRIC
  - COND EXISTING UNDERGROUND CONDUIT
  - EXISTING DUCTBANK
  - FO EXISTING FIBER OPTIC
  - GV# EXISTING GAS LINE
  - SS EXISTING GAS VALVE
  - ⊕ EXISTING SANITARY LINE
  - ⊖ EXISTING SANITARY MANHOLE
  - ⊕ EXISTING SANITARY CLEANOUT
  - EXISTING STORMDRAIN LINE
  - EXISTING STORMDRAIN INLET
  - EXISTING STORMDRAIN MANHOLE
  - EXISTING TELEPHONE
  - ⊕ EXISTING TELEPHONE MANHOLE
  - ⊖ EXISTING TELEPHONE PEDESTAL
  - EXISTING UTILITY POLE
  - EXISTING LIGHT POLE
  - W EXISTING WATER LINE
  - WM EXISTING WATER METER
  - WV EXISTING WATER VALVE
  - ⊕ EXISTING WATER MANHOLE
  - EXISTING FIRE HYDRANT
  - EXISTING STREAM CENTERLINE
  - EXISTING STREAM BUFFER
  - EXISTING WETLAND
  - WB EXISTING WETLAND BUFFER
  - EXISTING WETLANDS
  - FP EXISTING FLOODPLAIN
  - EXISTING TREELINE
  - ⊕ EXISTING DECIDUOUS TREE
  - ⊖ EXISTING EVERGREEN TREE
  - ⊕ EXISTING SHRUB
  - EXISTING PUBLIC FOREST CONSERVATION EASEMENT
- PROPOSED LEGEND**
- PROPOSED BUILDING
  - 210 PROPOSED MAJOR CONTOUR
  - 207.40 PROPOSED SPOT ELEVATION
  - PROPOSED CURB & GUTTER
  - PROPOSED REVERSE CURB & GUTTER
  - PROPOSED ROADWAY
  - PROPOSED SIDEWALK
  - PROPOSED CONCRETE WALK
  - PROPOSED CONCRETE PAD
  - PROPOSED ASPHALT PAVING
  - PROPOSED MEDIUM-DUTY ASPHALT
  - PROPOSED PAVERS
  - PROPOSED MICRO-BIORETENTION AREA
  - PROPOSED RIP RAP
  - ⊕ PROPOSED ELECTRIC MANHOLE
  - UGE PROPOSED UNDERGROUND ELECTRIC
  - C PROPOSED GAS LINE
  - GV# PROPOSED GAS VALVE
  - SS PROPOSED SANITARY LINE
  - ⊕ PROPOSED SANITARY MANHOLE
  - PROPOSED STORMDRAIN LINE
  - PROPOSED STORMDRAIN INLET
  - PROPOSED STORMDRAIN MANHOLE
  - UGT PROPOSED TELEPHONE
  - W PROPOSED WATER LINE

**MCA ARCHITECTURE**

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6522 MEADOWBRIDGE RD #1  
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**NOT FOR CONSTRUCTION**

**MCA**

STATE OF MARYLAND  
REGISTERED PROFESSIONAL ENGINEER

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

LICENSE No.: 14446 EXP. DATE: 5-25-23

**Sheppard Pratt**

**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELKBRIDGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

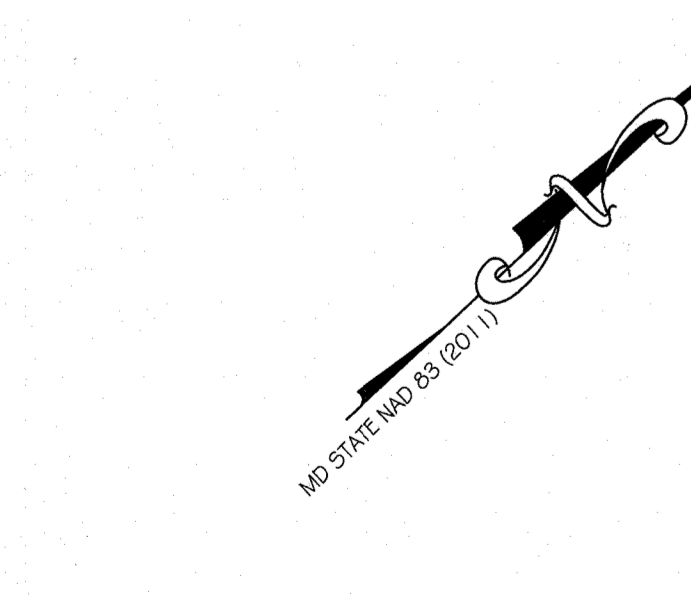
LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

**OWNER/DEVELOPER**

SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

**PROPOSED UTILITY PLAN - WEST**

11 of 60



**APPROVED**

**DEPARTMENT OF PLANNING AND ZONING**

10.15.22  
DATE

10/27/22  
DATE

10/27/22  
DATE

- GENERAL NOTES:**
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY PREPARED BY A/I/DATA, DATED MAY 17, 2019 AND HOWARD COUNTY GIS.
  - ALL HORIZONTAL SURVEY DATA SHOWN HEREON ARE REFERENCED TO THE MARYLAND COORDINATE SYSTEM NAD83/91 DATUM, AND ALL VERTICAL SURVEY DATA SHOWN HEREON AND CONTAINED WITHIN THE AFORESAID TOPOGRAPHIC MAPPING FILE ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AS DERIVED FROM SURVEY CONTROL POINTS PROVIDED BY DAFT, MCCUNE, WALKER, INC. INCLUDING:
 

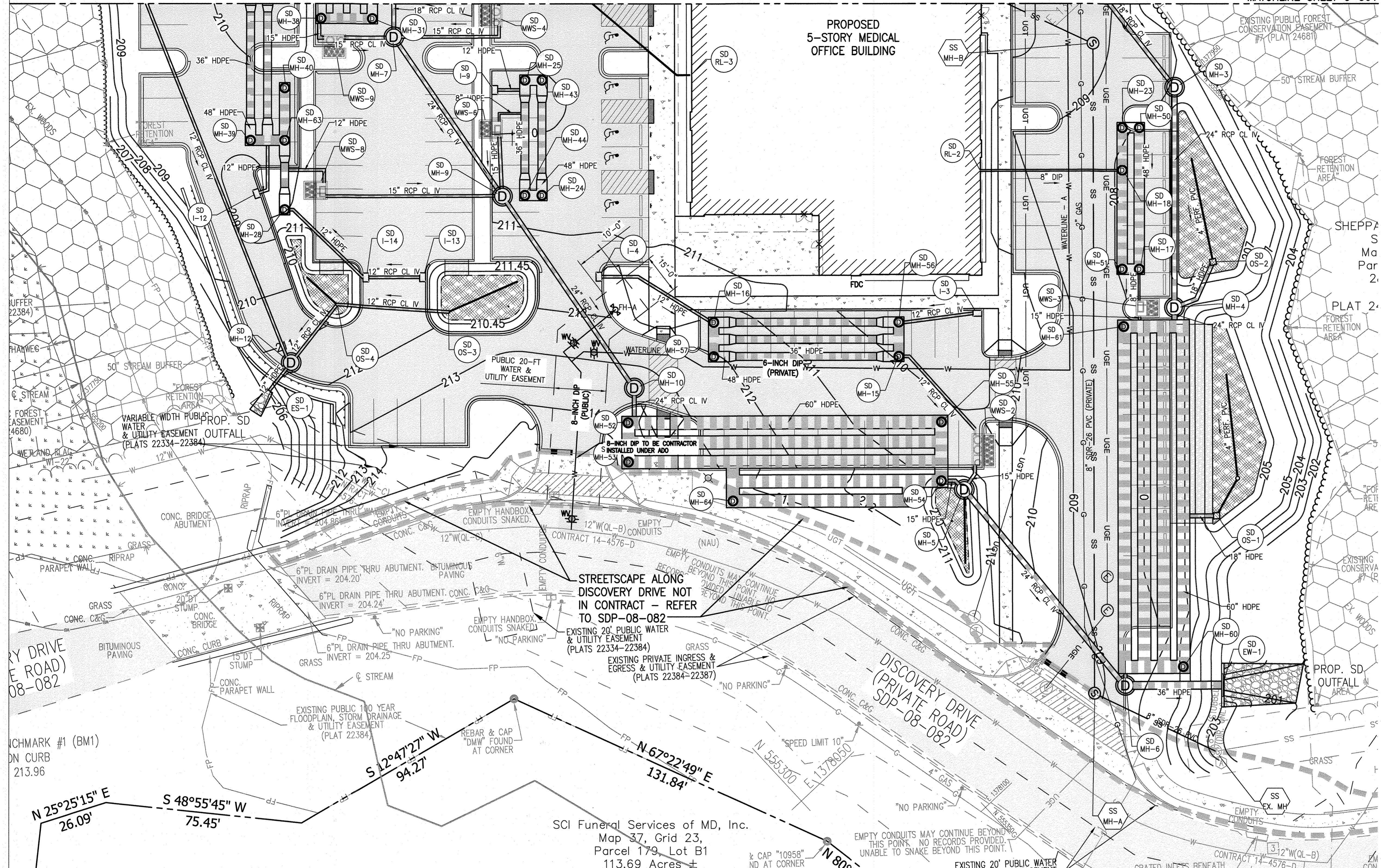
POINT#	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM10	555075.72	1377805.34	213.96	X-CUT
BM11	555372.05	1378169.70	206.76	X-CUT
  - EXISTING UNDERGROUND UTILITIES DESIGNATED ON THE PLANS ARE BASED ON CURRENTLY AVAILABLE INFORMATION AND ARE SHOWN FOR REFERENCE ONLY. THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF SAID INFORMATION BEYOND THE DESIGNATION INDICATED. THE QUALITY LEVEL DESIGNATED IS IN ACCORDANCE WITH ASCE "STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA" (CI/ASCE 38-02). THE CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH THOSE STANDARDS PRIOR TO ANY RELIANCE ON THE INFORMATION SHOWN ON THESE PLANS. PRIOR TO ANY EXCAVATION, IN THE ABSENCE OF QUALITY LEVEL A OR B DESIGNATION, THE CONTRACTOR SHALL VERIFY, TO HIS OWN SATISFACTION, THE EXISTENCE, DEPTH, SIZE, MATERIAL, AND LOCATION OF ALL UNDERGROUND UTILITIES, AND DETERMINE WHETHER THOSE UTILITIES ARE LIVE. ANY EARTHWORK IN LOCATIONS WHERE UTILITIES ARE POSSIBLE SHALL BE DONE WITH EXTREME CAUTION. THE GIVING OF INFORMATION ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO SUPPORT AND PROTECT ALL DESIGNATED OR UNDESIGNATED EXISTING UTILITIES AND APPURTENANCES. SHOULD ANY EXISTING UTILITY BE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPAIR THE DAMAGE CAUSED TO THE UTILITY OWNER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.
  - LIVE UNDERGROUND UTILITIES MAY EXIST WITHIN THE WORK AREA. CONTRACTOR SHALL USE EXTREME CAUTION AND SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
  - INFORMATION SHOWN ON THIS DRAWING HAS BEEN PROVIDED AS A GUIDE TO ASSIST THE CONTRACTOR IN ESTABLISHING THE LOCATIONS OF PROPOSED CONSTRUCTION WITH RESPECT TO EXISTING SITE IMPROVEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL CONSTRUCTION SURVEY STAKEOUT REQUIRED AND TO CONFIRM ALL INFORMATION SHOWN HEREON. SEE EXISTING CONDITIONS PLAN FOR SURVEY INFORMATION AND SITE BENCHMARKS. CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS THROUGHOUT THE DURATION OF THE PROJECT FOR CONSTRUCTION LAYOUT PURPOSES.

- PROPOSED UTILITY PLAN - WEST**
- SCALE: 1"=20'
- GRAPHIC SCALE IN FEET
- CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS FOR CONSTRUCTION PURPOSES.
  - ANY EARTHWORK IN LOCATIONS WHERE UTILITIES TO REMAIN ARE POSSIBLE SHALL BE DONE WITH EXTREME CAUTION. THE GIVING OF INFORMATION ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO SUPPORT AND PROTECT ALL DESIGNATED OR UNDESIGNATED EXISTING UTILITIES AND APPURTENANCES. SHOULD ANY EXISTING UTILITY BE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPAIR THE DAMAGE CAUSED TO THE UTILITY OWNER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.
  - IN ANY AREA WHERE GRADING OCCURS AROUND EXISTING UTILITIES TO REMAIN, CONTRACTOR IS RESPONSIBLE TO ADJUST THE ELEVATIONS OF ALL SURFACE FEATURES (MANHOLE COVERS, GRATES, HANDBOXES, ECT.) TO MATCH FINISHED GRADING. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING STRUCTURES FROM HAVING DEBRIS, SEDIMENT, OR WATER ENTER THE STRUCTURES DURING CONSTRUCTION ACTIVITIES.
  - CONTRACTOR SHALL PROTECT ALL AREAS BEYOND THE LIMITS OF DISTURBANCE AND SHALL RESTORE ANY AND ALL AREAS DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL OR BETTER CONDITION. SEE EROSION AND SEDIMENT CONTROL PLAN FOR LIMITS OF DISTURBANCE.
  - PRIOR TO ANY CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL PROVIDE A DETAILED OUTLINE OF CONSTRUCTION PHASING AND MAINTENANCE OF ACCESS FOR OWNER'S REVIEW AND APPROVAL.
  - USE EXTREME CAUTION WHEN WORKING AROUND EXISTING TREES TO REMAIN SO AS NOT TO DAMAGE THE TREES OR ROOT SYSTEMS.
  - REFER TO LANDSCAPE AND ELECTRICAL DRAWINGS FOR ADDITIONAL SITE LAYOUT AND DETAILING.
  - REFER TO C600 SERIES DRAWINGS FOR DETAILED EROSION & SEDIMENT CONTROL DRAWINGS.
  - REFER TO C700 SERIES DRAWINGS FOR DETAILED STORMWATER MANAGEMENT DRAWINGS.
  - CONTRACTOR SHALL REQUEST ELECTRONIC PLANS FROM THE ARCHITECT / ENGINEER FOR USE WITH SITE LAYOUT.

**HOWARD COUNTY REFERENCE DRAWINGS:**

WATER: CONTRACT 14-4576-D  
SEWER: CONTRACT 14-4576-D  
F-18-106, F-10-013  
SDP-08-082, SDP-18-033  
ECP-18-018, ECP-20-015

PROPOSED 5-STORY MEDICAL OFFICE BUILDING



- EXISTING LEGEND**
- EXISTING PROPERTY LINE
  - EXISTING EASEMENT
  - EXISTING SETBACK
  - EXISTING BUILDING
  - EXISTING CURB
  - EXISTING CURB & GUTTER
  - EXISTING ROADWAY
  - EXISTING PAVEMENT
  - EXISTING ASPHALT PAVING
  - EXISTING CONCRETE PAVING
  - ▲ EXISTING SIGN
  - ⊞ EXISTING ELECTRIC HANDBOX
  - ⊞ EXISTING ELECTRIC MANHOLE
  - O— EXISTING OVERHEAD ELECTRIC
  - O— EXISTING UNDERGROUND ELECTRIC
  - EXISTING DUCTBANK
  - FO— EXISTING FIBER OPTIC
  - G— EXISTING GAS LINE
  - GV#— EXISTING GAS VALVE
  - SS— EXISTING SANITARY LINE
  - ⊞ EXISTING SANITARY MANHOLE
  - ⊞ EXISTING SANITARY CLEANOUT
  - ⊞ EXISTING STORMDRAIN LINE
  - ⊞ EXISTING STORMDRAIN INLET
  - ⊞ EXISTING STORMDRAIN MANHOLE
  - UGT— EXISTING TELEPHONE
  - ⊞ EXISTING TELEPHONE MANHOLE
  - ⊞ EXISTING TELEPHONE PEDESTAL
  - ⊞ EXISTING UTILITY POLE
  - ⊞ EXISTING LIGHT POLE
  - W— EXISTING WATER LINE
  - WM— EXISTING WATER METER
  - WV— EXISTING WATER VALVE
  - ⊞ EXISTING WATER MANHOLE
  - ⊞ EXISTING FIRE HYDRANT
  - EXISTING STREAM CENTERLINE
  - EXISTING STREAM BUFFER
  - EXISTING WETLAND
  - EXISTING WETLAND BUFFER
  - EXISTING WETLANDS
  - EXISTING FLOODPLAIN
  - EXISTING TREELINE
  - EXISTING DECIDUOUS TREE
  - EXISTING EVERGREEN TREE
  - EXISTING SHRUB
  - EXISTING PUBLIC FOREST CONSERVATION EASEMENT
- PROPOSED LEGEND**
- PROPOSED BUILDING
  - 210--- PROPOSED MAJOR CONTOUR
  - 207.40--- PROPOSED SPOT ELEVATION
  - PROPOSED CURB & GUTTER
  - PROPOSED REVERSE CURB & GUTTER
  - PROPOSED ROADWAY
  - PROPOSED SIDEWALK
  - PROPOSED CONCRETE WALK
  - PROPOSED CONCRETE PAD
  - PROPOSED ASPHALT PAVING
  - PROPOSED MEDIUM-DUTY ASPHALT
  - PROPOSED PAVERS
  - PROPOSED MICRO-BIORETENTION AREA
  - PROPOSED RIP RAP
  - ⊞ PROPOSED ELECTRIC MANHOLE
  - UGE— PROPOSED UNDERGROUND ELECTRIC
  - C— PROPOSED GAS LINE
  - GV#— PROPOSED GAS VALVE
  - SS— PROPOSED SANITARY LINE
  - ⊞ PROPOSED SANITARY MANHOLE
  - ⊞ PROPOSED STORMDRAIN LINE
  - ⊞ PROPOSED STORMDRAIN INLET
  - ⊞ PROPOSED STORMDRAIN MANHOLE

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca.design

**CIVIL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

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14315 JARRETTVILLE PIKE  
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215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**MEP ENGINEERING**  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELK RIDGE, MD 21075  
410.579.8100

**NOT FOR CONSTRUCTION**

MCA FOR

STATE OF MARYLAND  
JUDICIAL BRANCH  
REGISTERED PROFESSIONAL ENGINEER  
UNDER THE LAWS OF THE STATE OF MARYLAND

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

LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt

**MEDICAL PAVILION**

7190 DISCOVERY DRIVE  
ELKBRIDGE, MARYLAND 21075  
HOWARD COUNTY

CORRIDOR 95 BUSINESS PARK - PARCEL A

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME: CORRIDOR 95 BUSINESS PARK SECTION/AREA: N/A LOT/PARCEL NO.: A/0726  
 PLAT# OR L/R: 2238/2238 GROW: 0023 ZONING: M-1 TAX MAP# DIST# 1st Ed.: 0037 CONUSS TRACT: 602203

OWNER/DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N CHARLES STREET BALTIMORE, MARYLAND 21285-6815 TEL: 410-938-3242

APPROVED

DEPARTMENT OF PLANNING AND ZONING

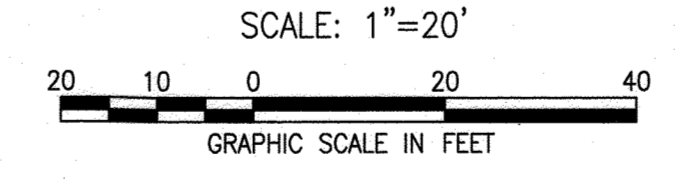
10/15/22 DATE

10/27/22 DATE

10/27/22 DATE

- GENERAL NOTES:**
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY PREPARED BY A/J/DATA, DATED MAY 17, 2019 AND HOWARD COUNTY GIS.
  - ALL HORIZONTAL SURVEY DATA SHOWN HEREON ARE REFERENCED TO THE MARYLAND COORDINATE SYSTEM NAD83/91 DATUM, AND ALL VERTICAL SURVEY DATA SHOWN HEREON AND CONTAINED WITHIN THE AFORESAID TOPOGRAPHIC MAPPING FILE ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AS DERIVED FROM SURVEY CONTROL POINTS PROVIDED BY DAFT, MCCUNE, WALKER, INC. INCLUDING:
- | POINT# | NORTHING  | EASTING    | ELEVATION | DESCRIPTION |
|--------|-----------|------------|-----------|-------------|
| BM10   | 555075.72 | 1377805.34 | 213.96    | X-CUT       |
| BM11   | 555372.05 | 1378169.70 | 206.76    | X-CUT       |
- EXISTING UNDERGROUND UTILITIES DESIGNATED ON THE PLANS ARE BASED ON CURRENTLY AVAILABLE INFORMATION AND ARE SHOWN FOR REFERENCE ONLY. THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF SAID INFORMATION BEYOND THE DESIGNATION INDICATED. THE QUALITY LEVEL DESIGNATED IS IN ACCORDANCE WITH ASCE STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA (CI/ASCE 38-02). THE CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH THOSE STANDARDS PRIOR TO ANY RELIANCE ON THE INFORMATION SHOWN ON THESE PLANS. PRIOR TO ANY EXCAVATION, IN THE ABSENCE OF QUALITY LEVEL A OR B DESIGNATION, THE CONTRACTOR SHALL VERIFY, TO HIS OWN SATISFACTION, THE EXISTENCE, DEPTH, SIZE, MATERIAL, AND LOCATION OF ALL UNDERGROUND UTILITIES, AND DETERMINE WHETHER THOSE UTILITIES ARE LIVE. ANY EARTHWORK IN LOCATIONS WHERE UTILITIES ARE POSSIBLE SHALL BE DONE WITH EXTREME CAUTION. THE GIVING OF INFORMATION ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO SUPPORT AND PROTECT ALL DESIGNATED OR UNDESIGNATED EXISTING UTILITIES AND APPURTENANCES. SHOULD ANY EXISTING UTILITY BE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPAIR THE DAMAGE CAUSED TO THE UTILITY OWNER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.
  - LIVE UNDERGROUND UTILITIES MAY EXIST WITHIN THE WORK AREA. CONTRACTOR SHALL USE EXTREME CAUTION AND SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
  - INFORMATION SHOWN ON THIS DRAWING HAS BEEN PROVIDED AS A GUIDE TO ASSIST THE CONTRACTOR IN ESTABLISHING THE LOCATIONS OF PROPOSED CONSTRUCTION WITH RESPECT TO EXISTING SITE IMPROVEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL CONSTRUCTION SURVEY STAKEOUT REQUIRED AND TO CONFIRM ALL INFORMATION SHOWN HEREON. SEE EXISTING CONDITIONS PLAN FOR SURVEY INFORMATION AND SITE BENCHMARKS. CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS THROUGHOUT THE DURATION OF THE PROJECT FOR CONSTRUCTION LAYOUT PURPOSES.

PROPOSED UTILITY PLAN - EAST



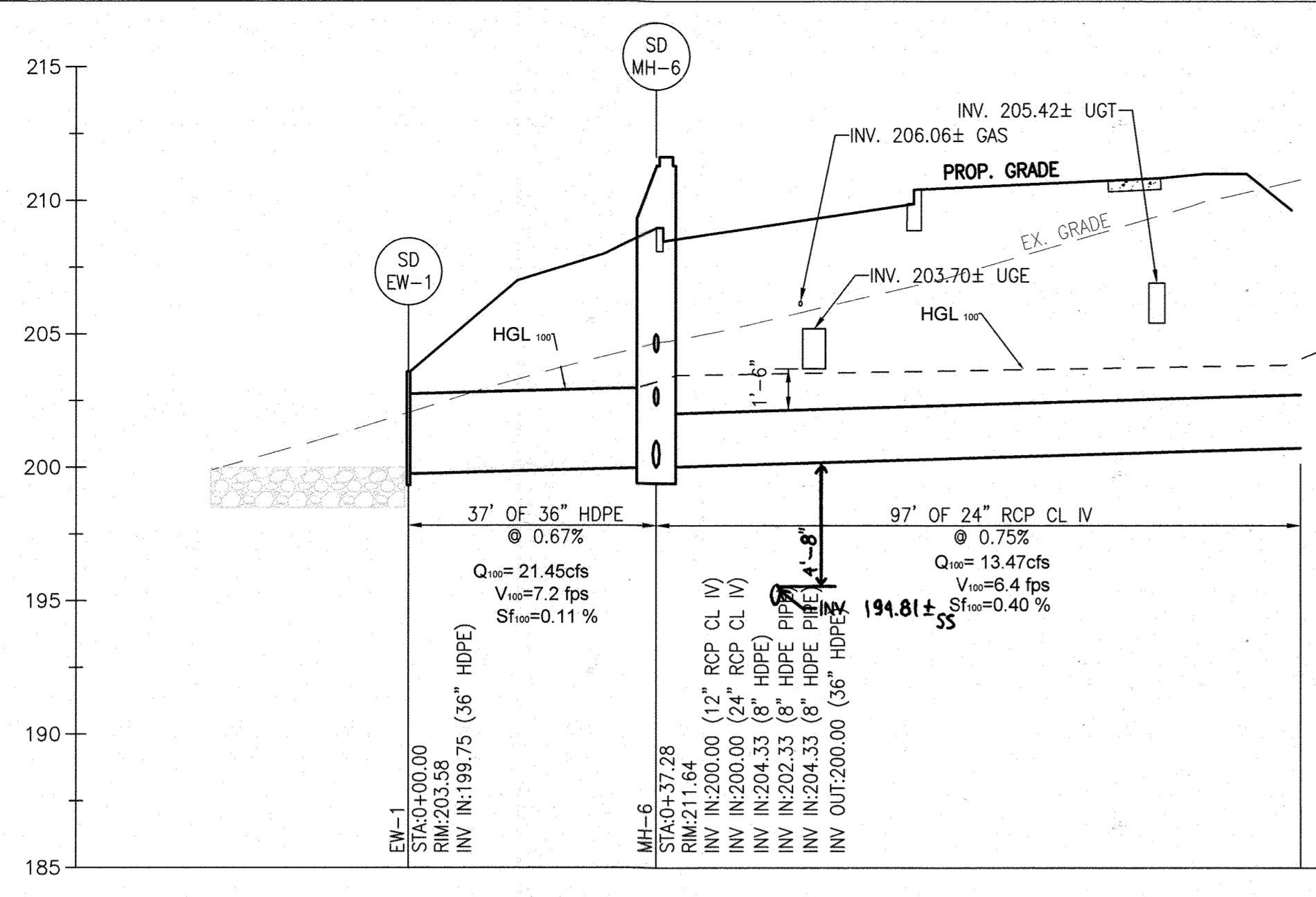
- CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS FOR CONSTRUCTION PURPOSES.
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 SEWER: CONTRACT 14-4576-D  
 F-18-106, F-10-013  
 SDP-08-082, SDP-18-033  
 ECP-18-018, ECP-20-015

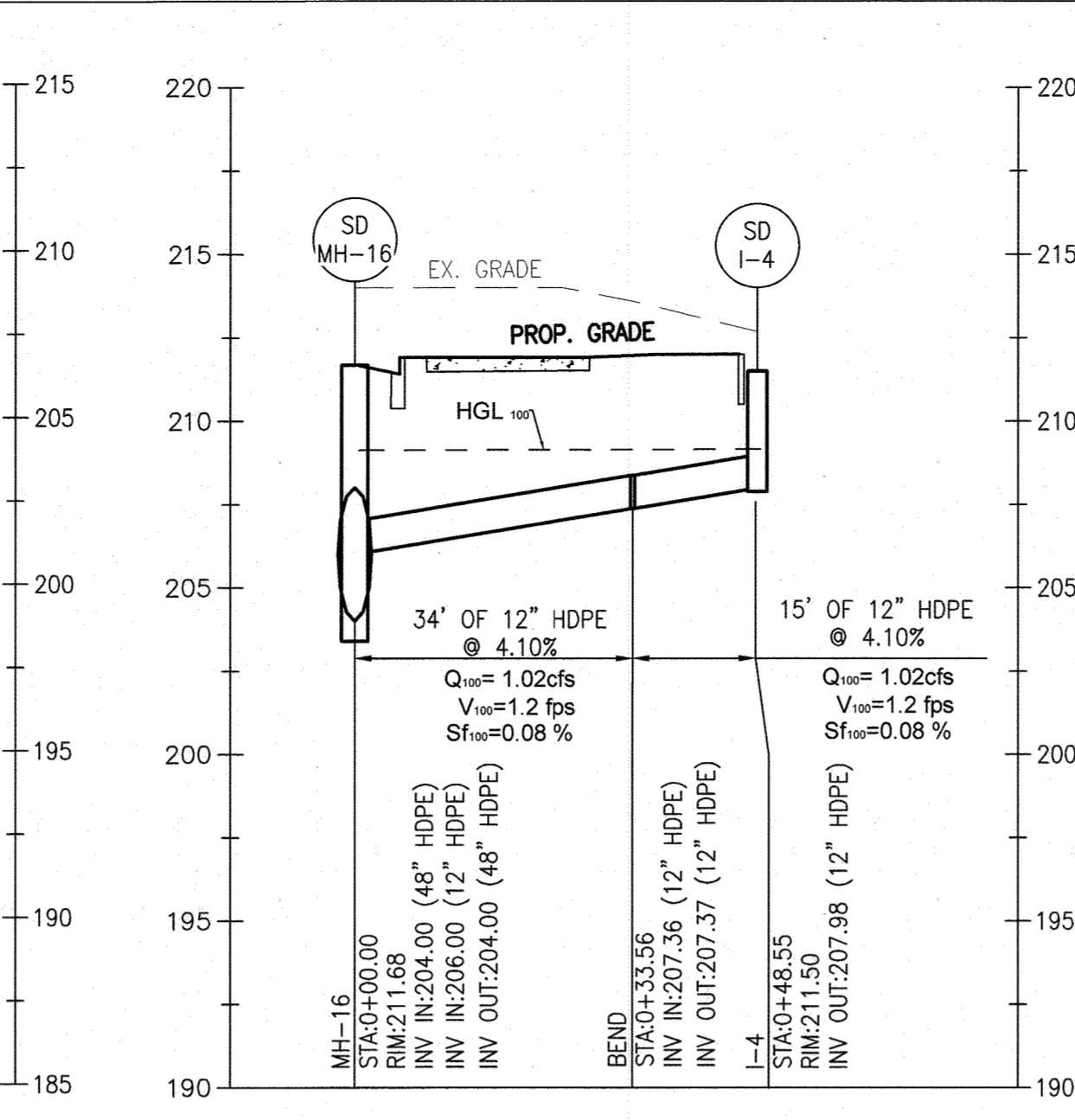
PROPOSED UTILITY PLAN - EAST

12 of 60

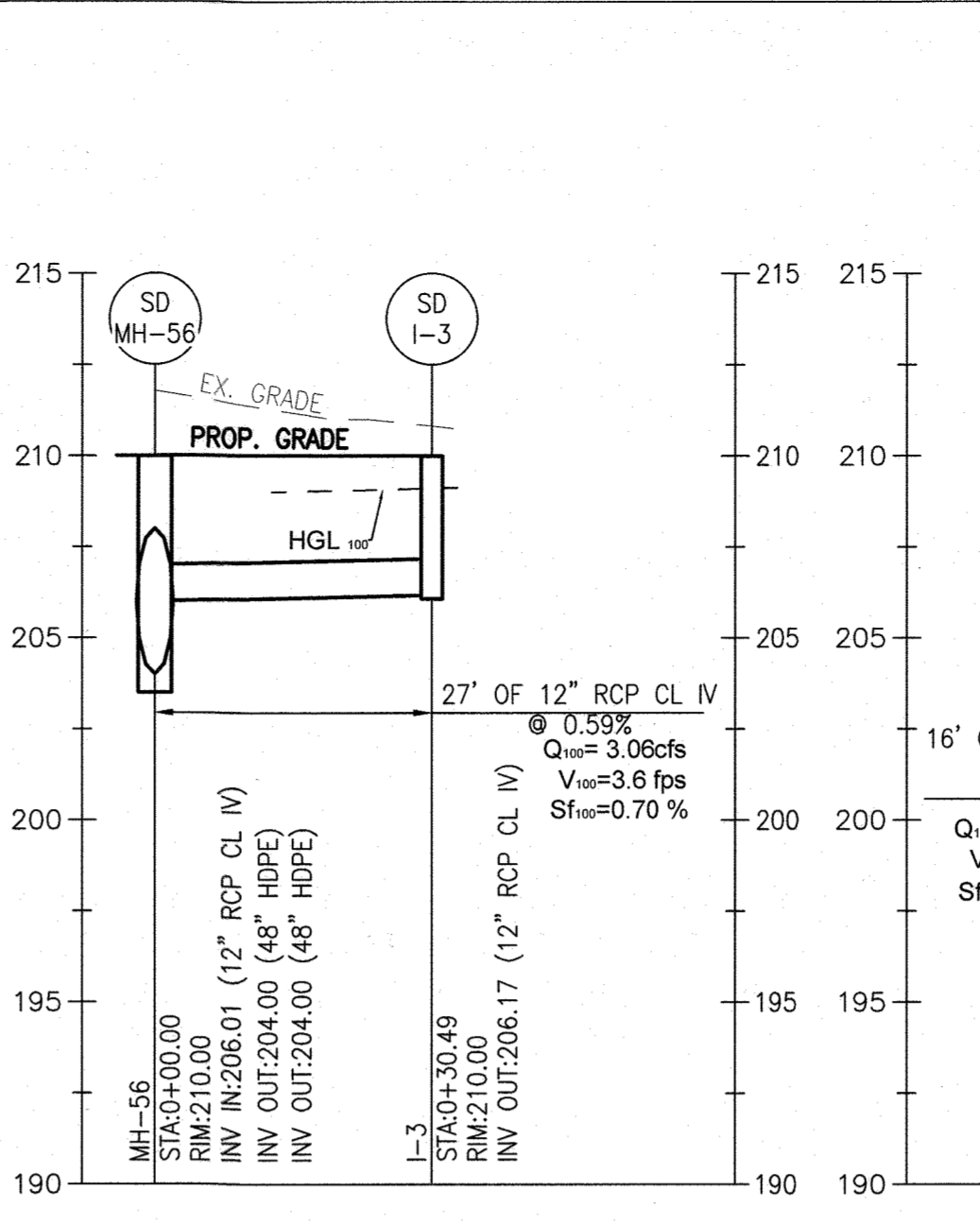
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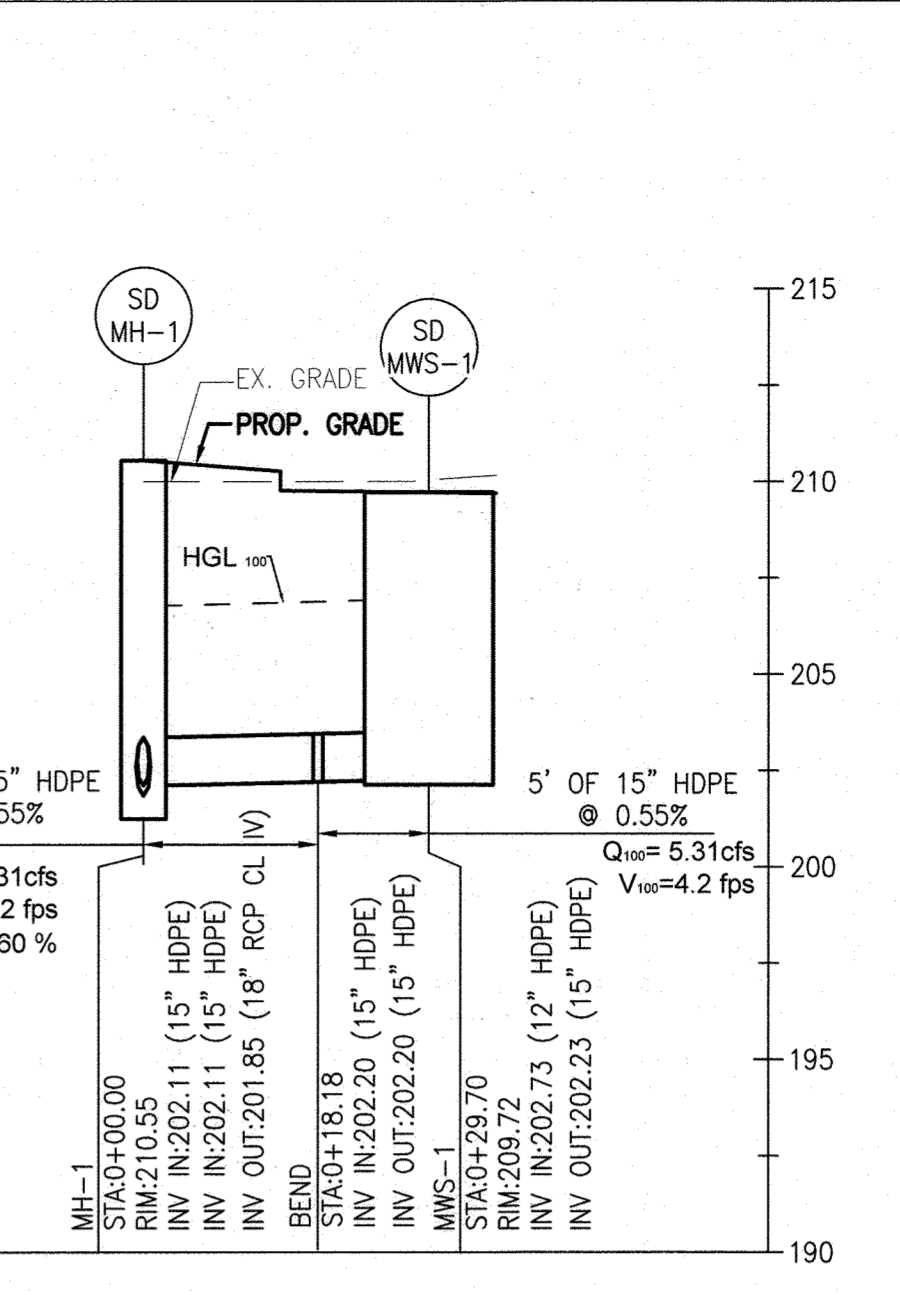
PROFILE OF PROP. SD EW-1 TO MH-5  
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1"=5' (VERT.)



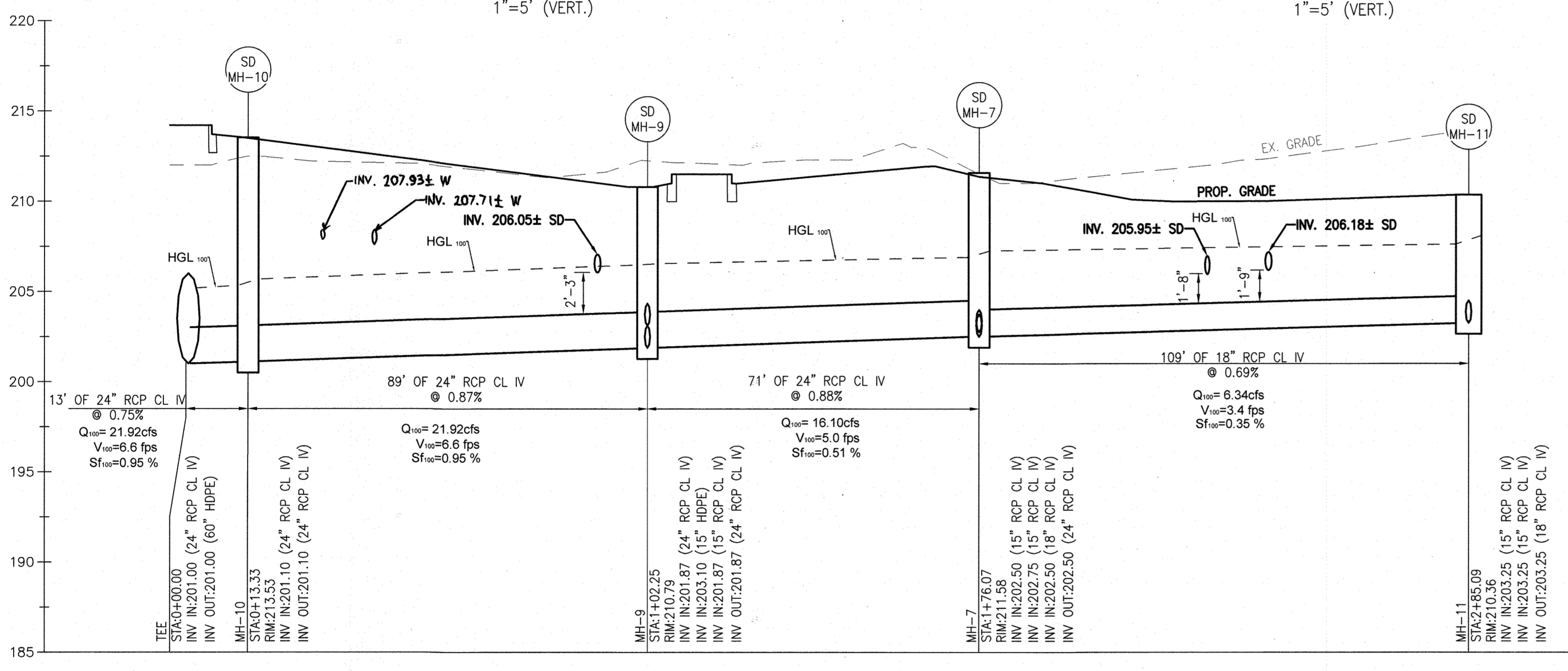
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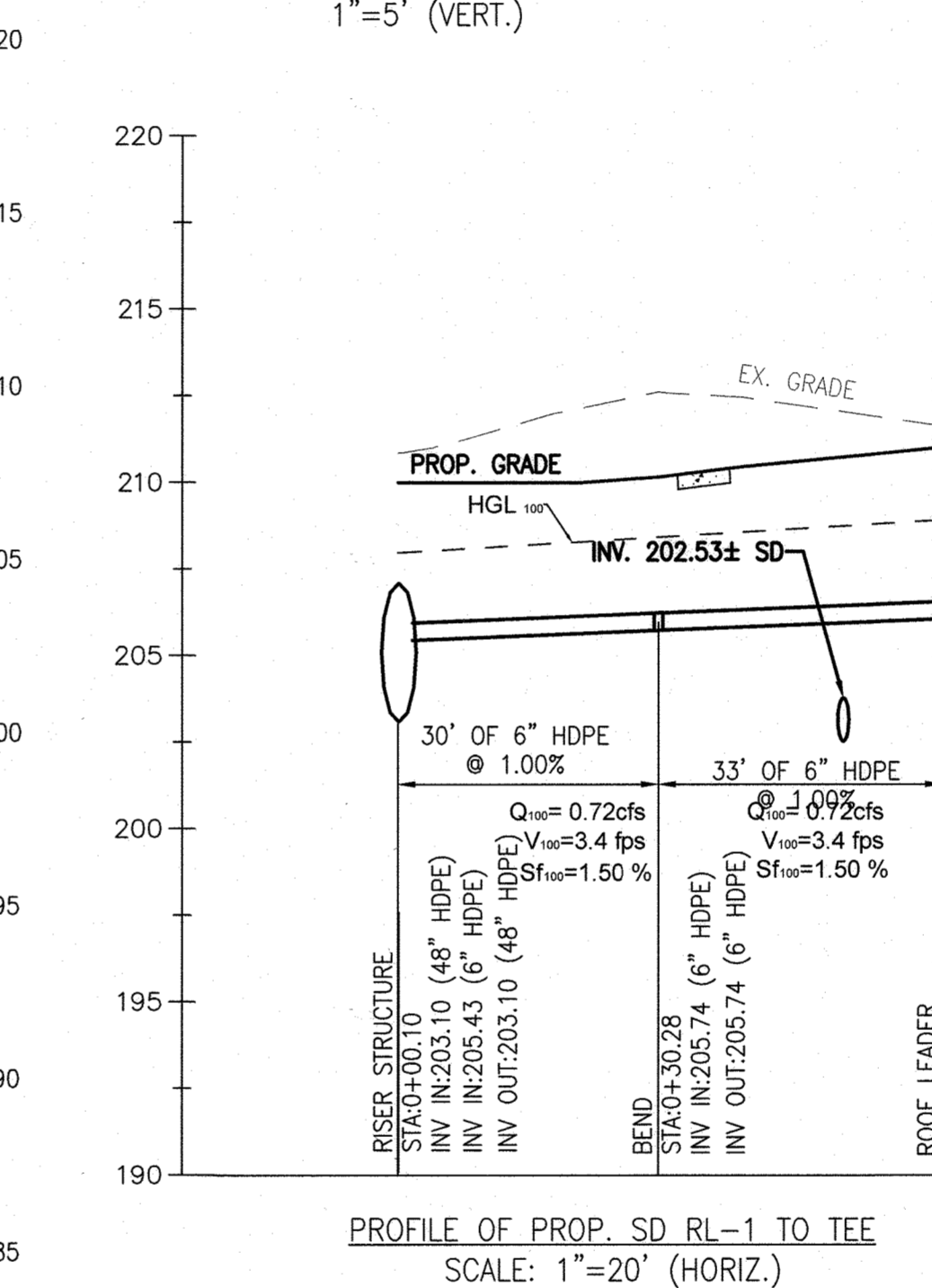
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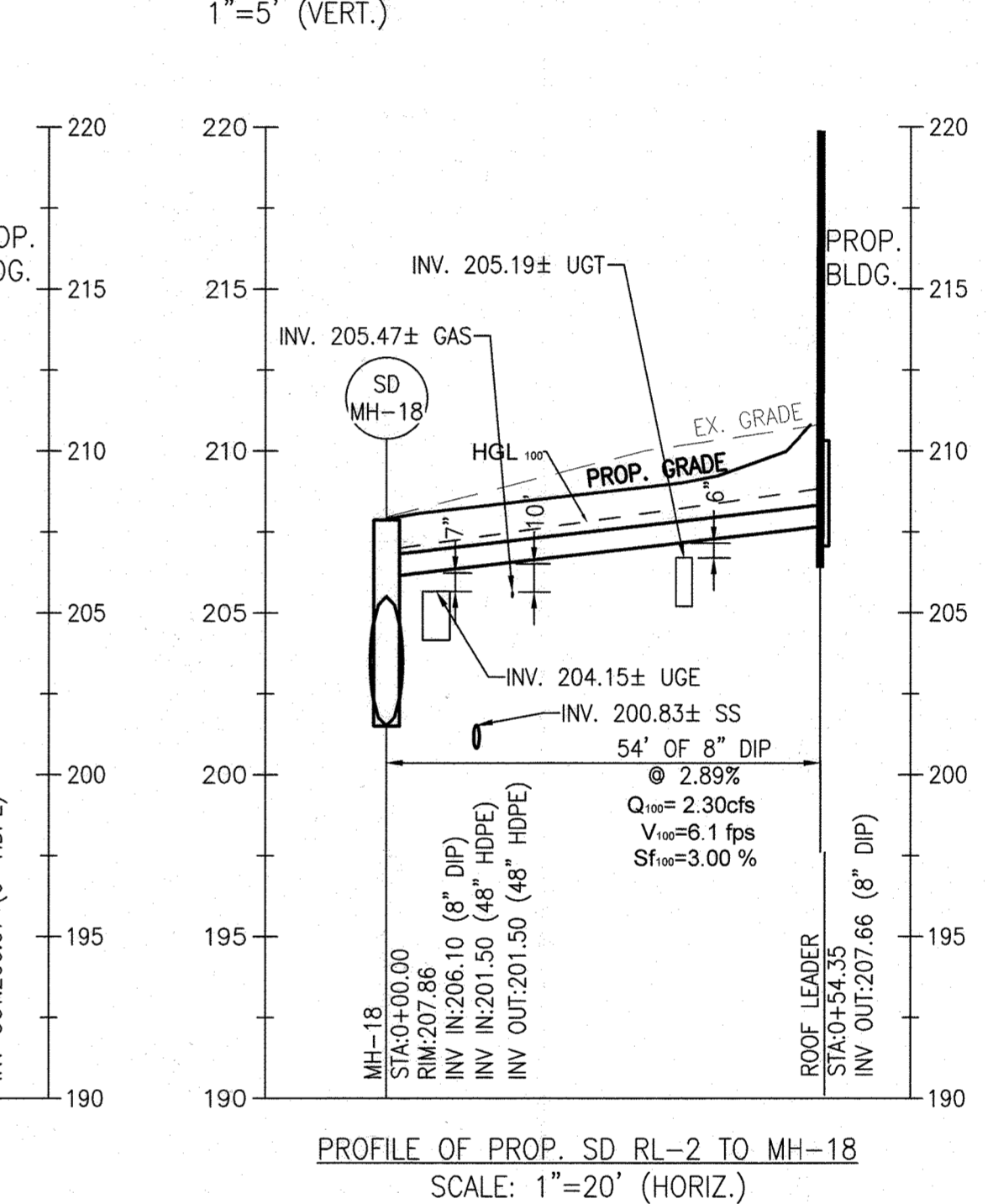
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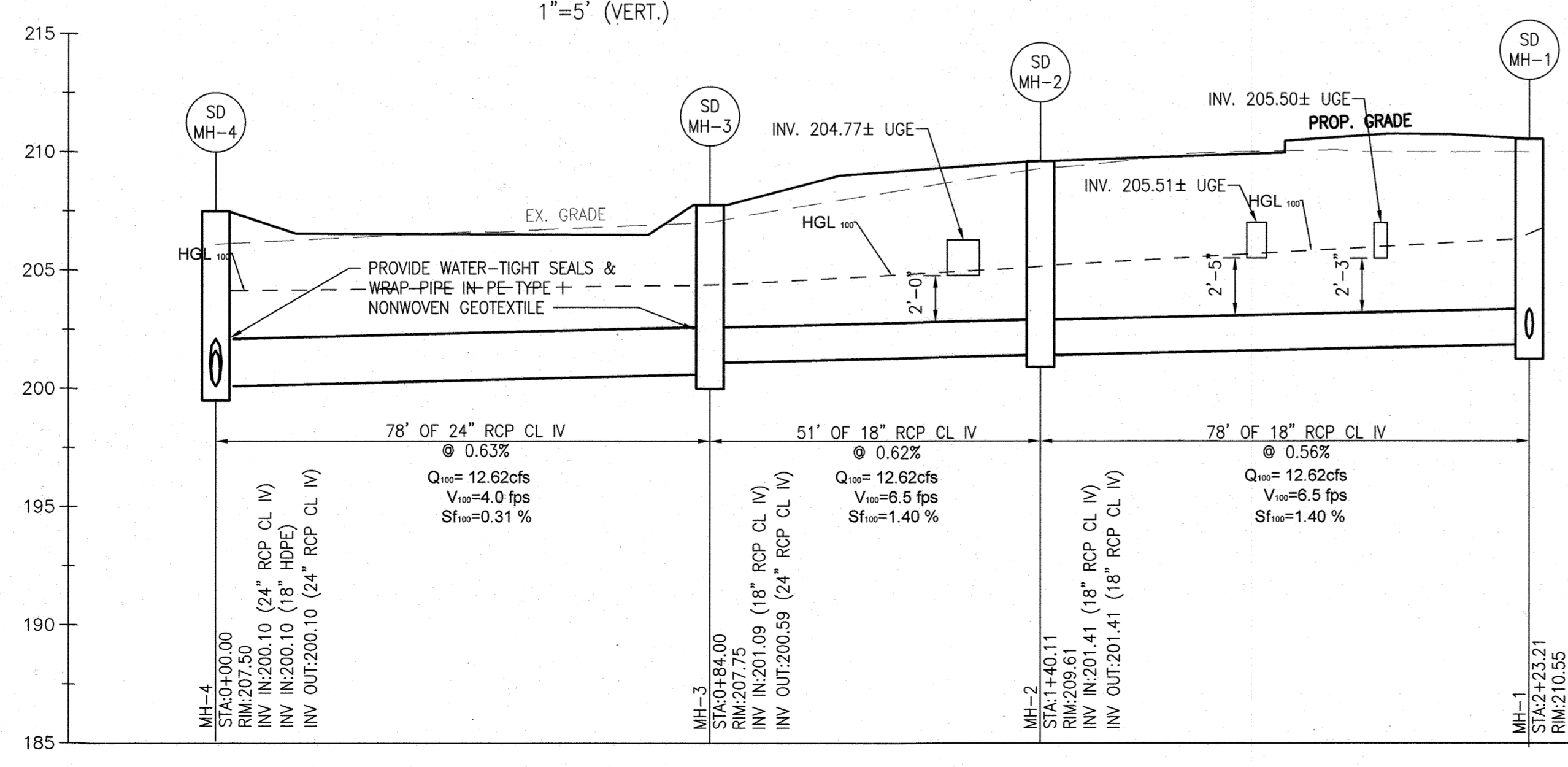
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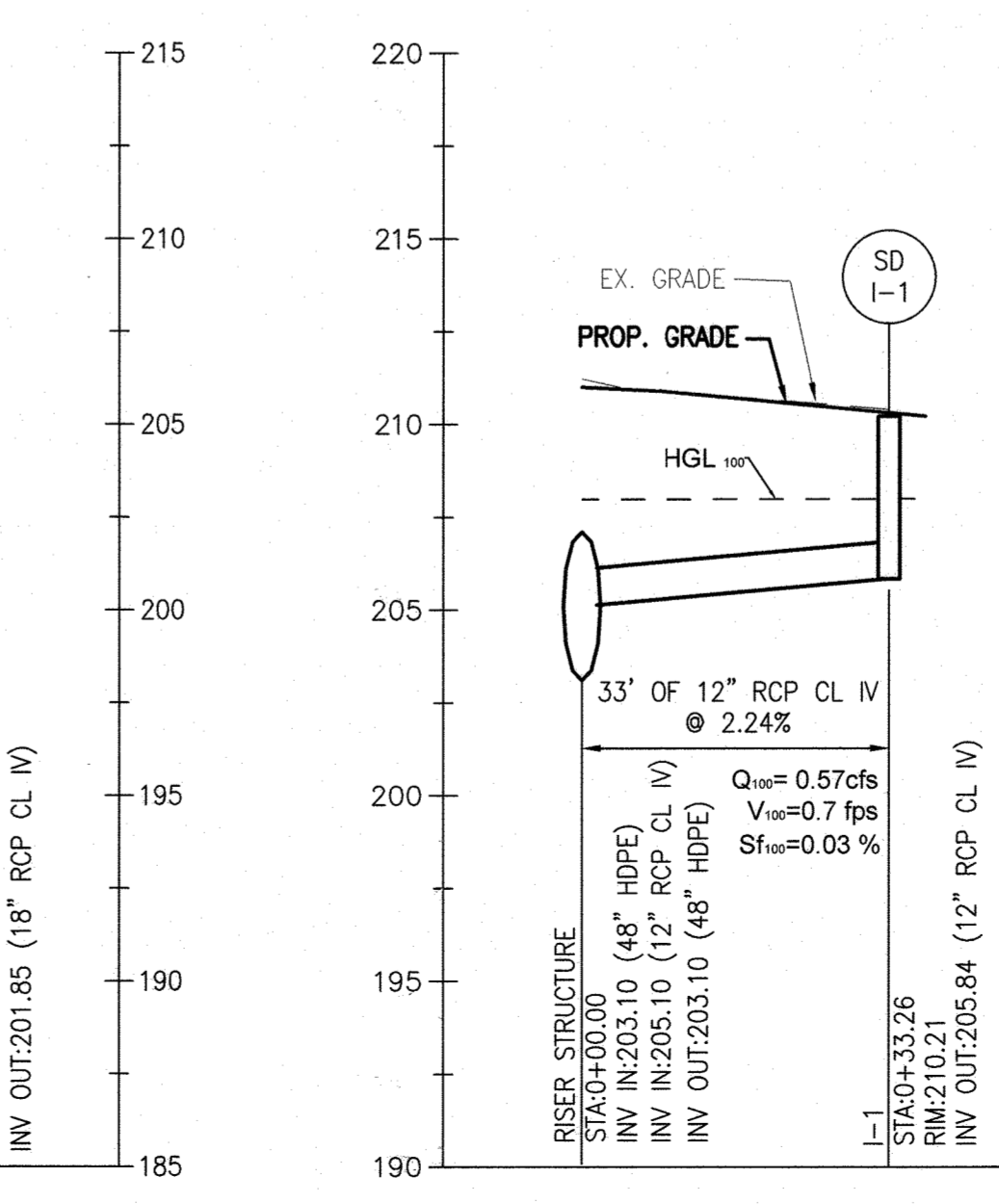
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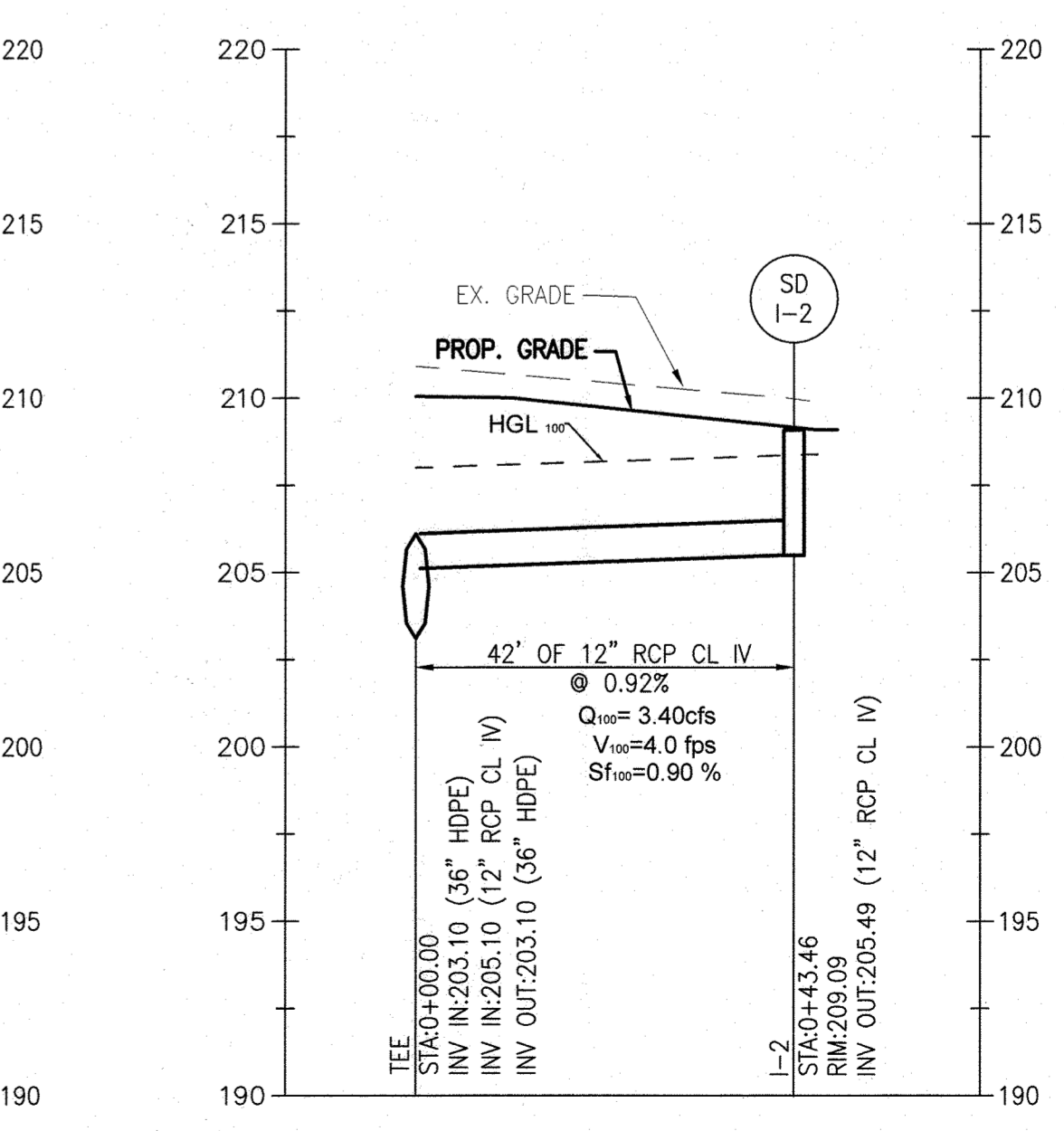
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PROFILE OF PROP. SD MH-4 TO MH-1  
SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)



PROFILE OF PROP. SD I-1 TO MH-58  
SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)



PROFILE OF PROP. SD I-2 TO TEE  
SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)

HOWARD COUNTY REFERENCE DRAWINGS:  
WATER: CONTRACT 14-4576-D  
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F-18-106, F-10-013  
SDP-08-082, SDP-18-033  
ECP-18-018, ECP-20-015

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
10/15/22  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE  
10/27/22  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE  
10/27/22  
DIRECTOR

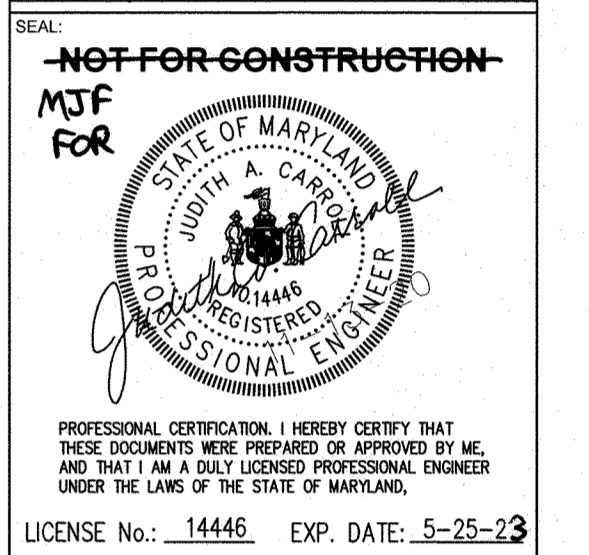
**MCA ARCHITECTURE.**  
Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca.design

**CIVIL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**LANDSCAPE DESIGN**  
SITE RESOURCES, INC.  
14315 JARRETTSVILLE PIKE  
PHOENIX, MD 21131  
410.683.3388

**STRUCTURAL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**MEP ENGINEERING**  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELK RIDGE, MD 21075  
410.579.8100



PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt  
**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELKBRIDGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCEL A

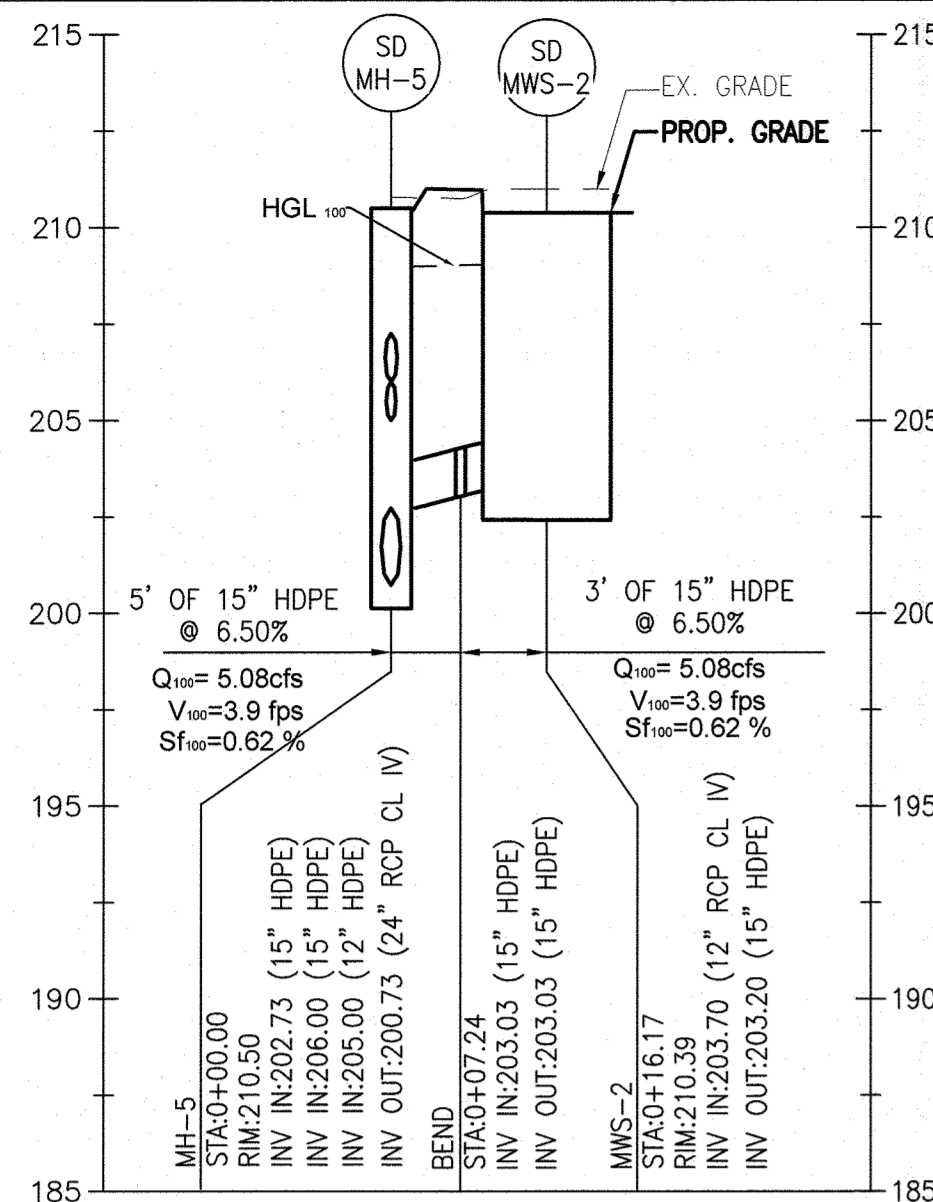
ADDRESS TABLE	
LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME		SECTION/AREA	LOT/ PARCEL NO.		
CORRIDOR 95 BUSINESS PARK		N/A	A/0728		
PLAT# OF L/F	GRID	ZONING	TAX MAP#	ELECT DIST#	CENSUS TRACT
22384/22385	0023	M-1	0037	1st Ed.	601235

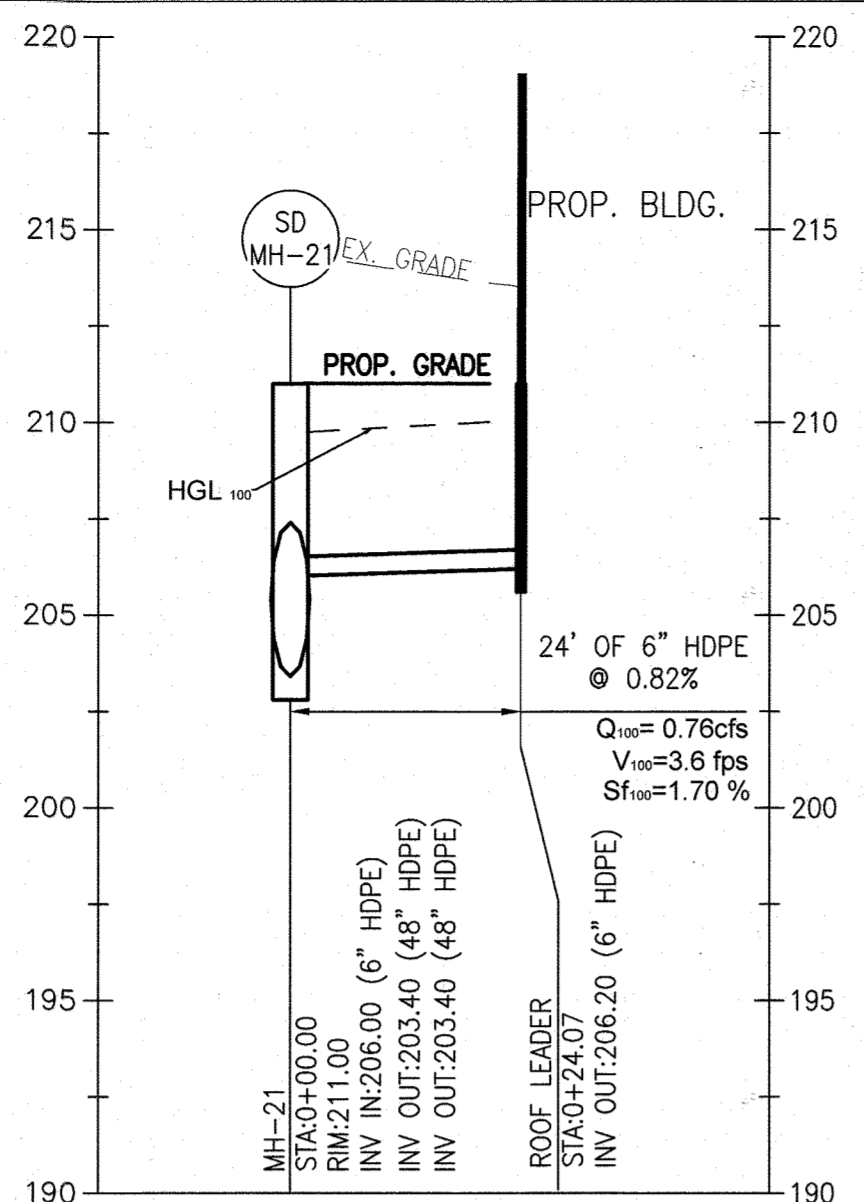
OWNER/DEVELOPER  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

REVISIONS:	
DATE:	COMMENTS:

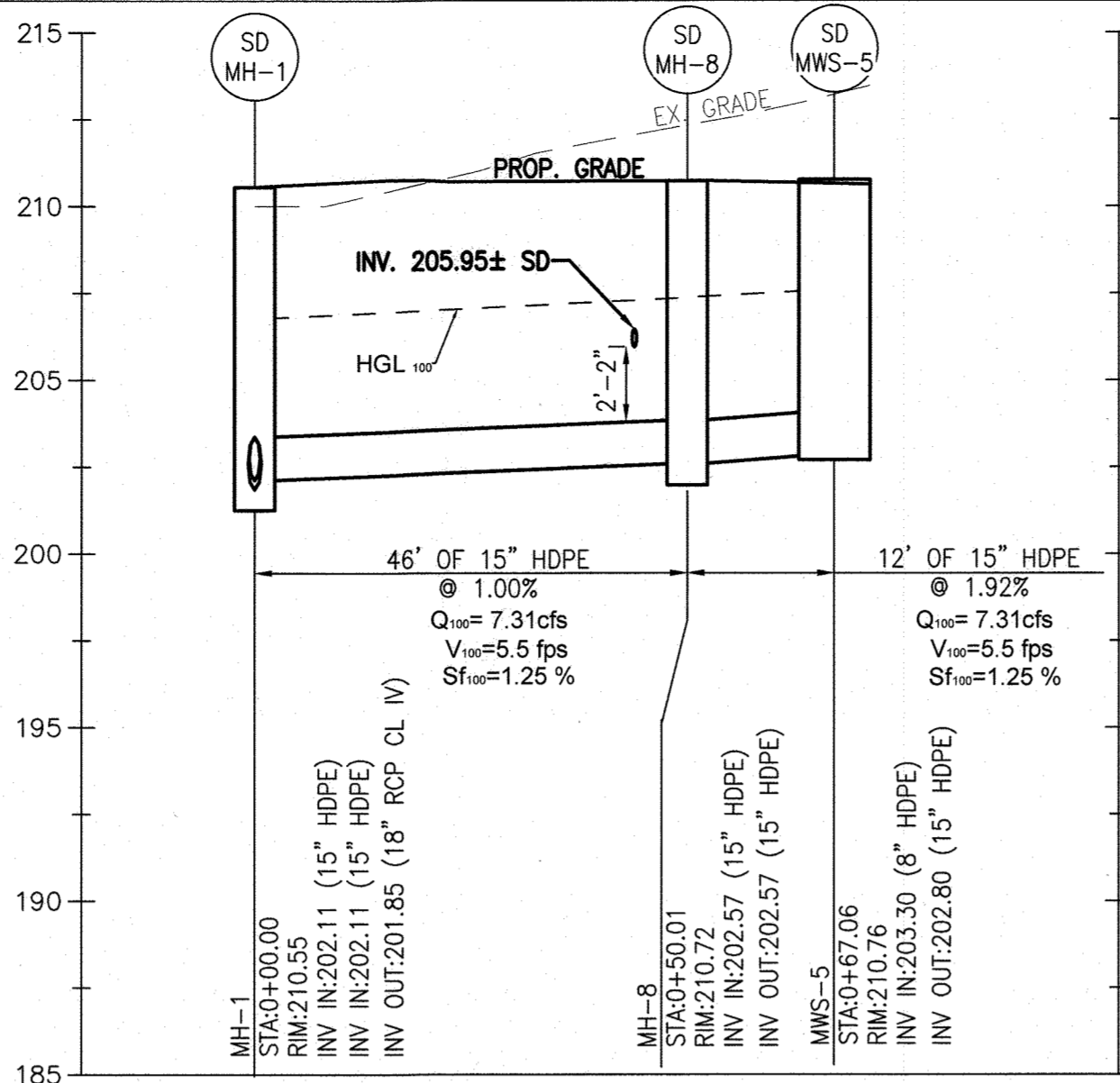
MCA JOB NO. 19002.01 PROJ. MANAGER: SHEET BY:  
19002.01 DWG DWG  
SHEET SET AND SHEET ISSUE DATE: 11/13/2020  
SDP  
SHEET NAME:  
**PROPOSED UTILITY PROFILES**



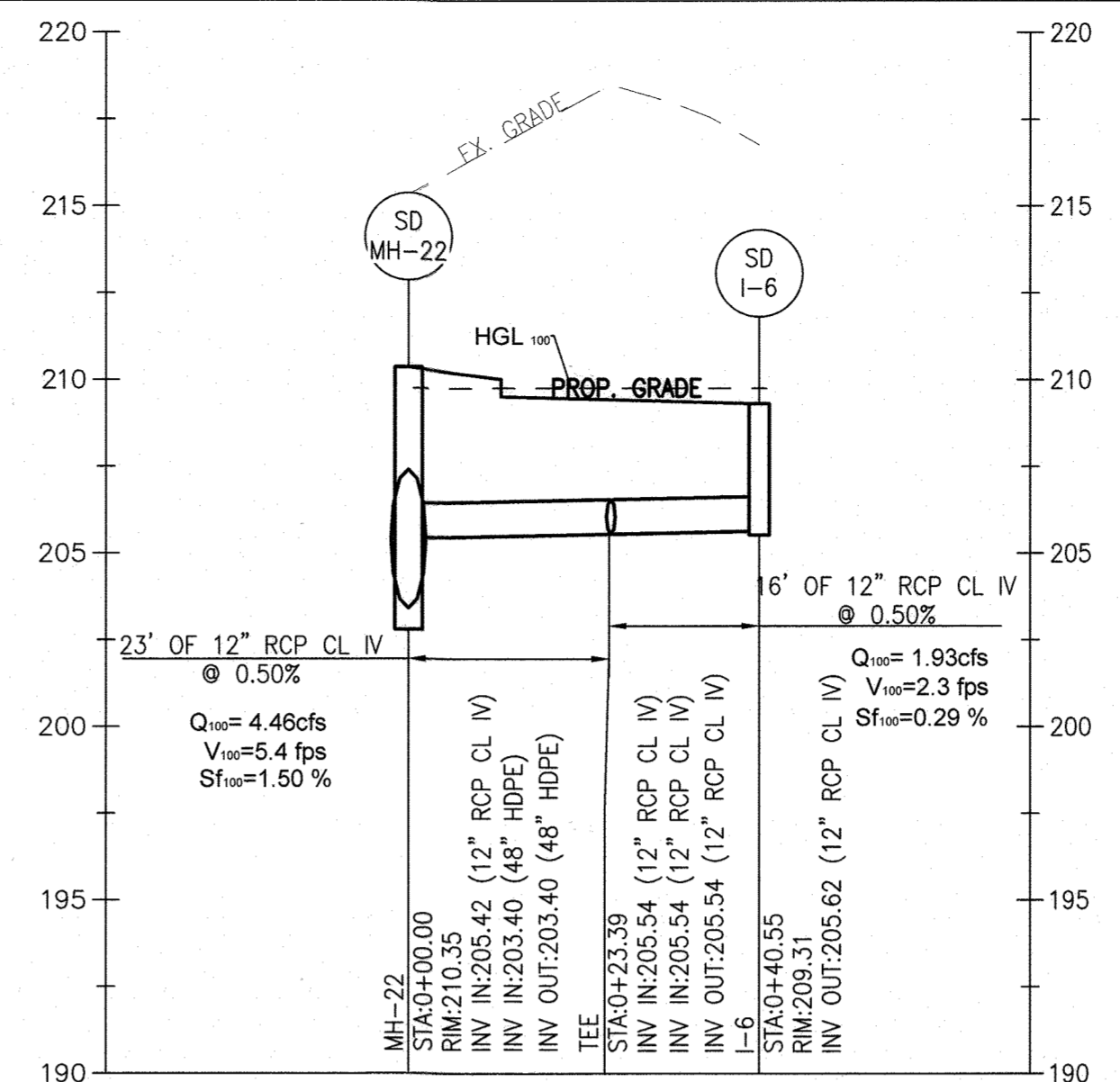
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SCALE: 1"=20' (HORIZ.)  
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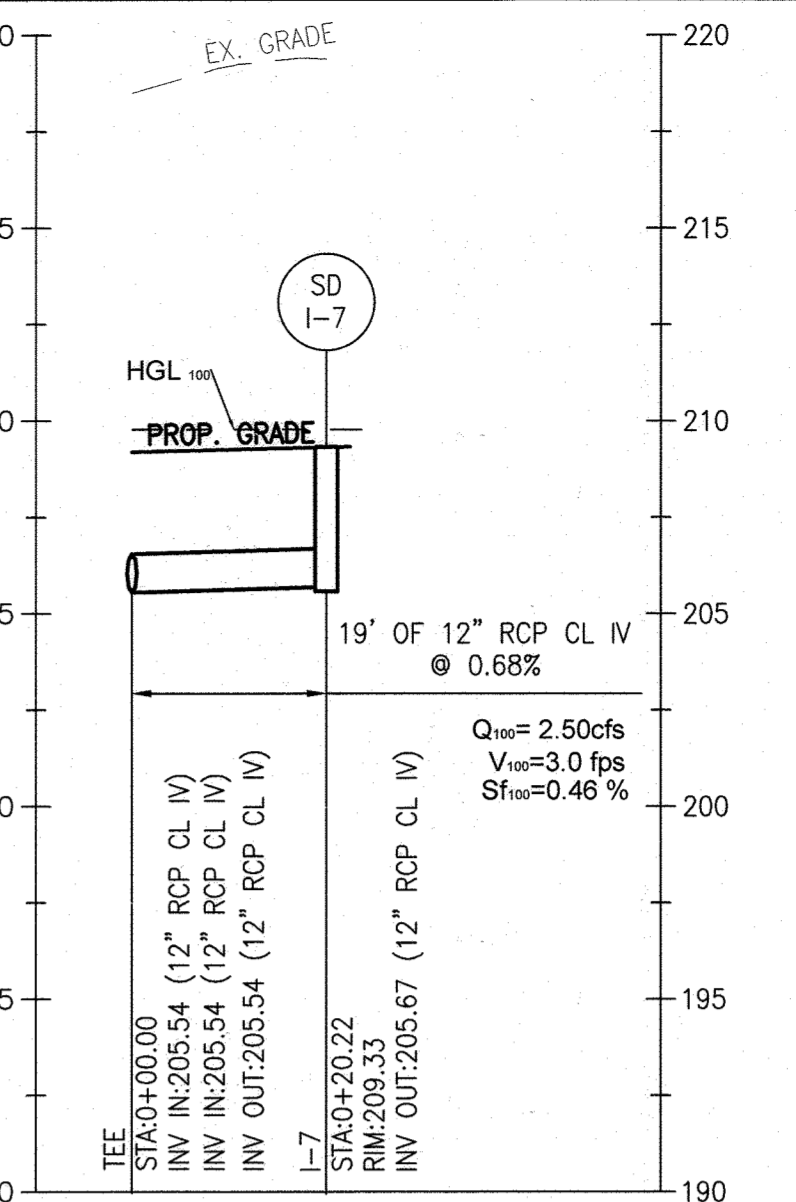
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1"=5' (VERT.)



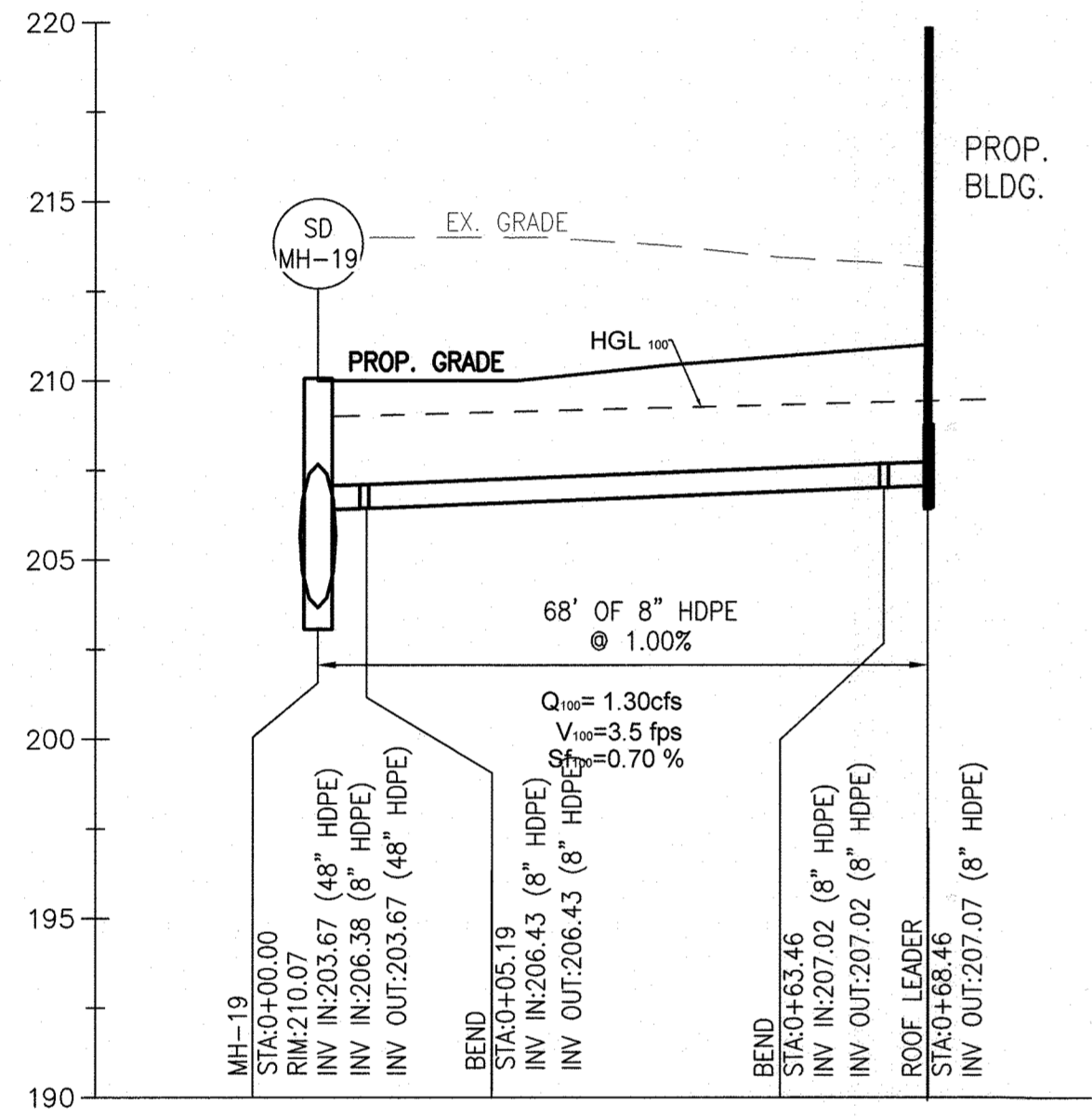
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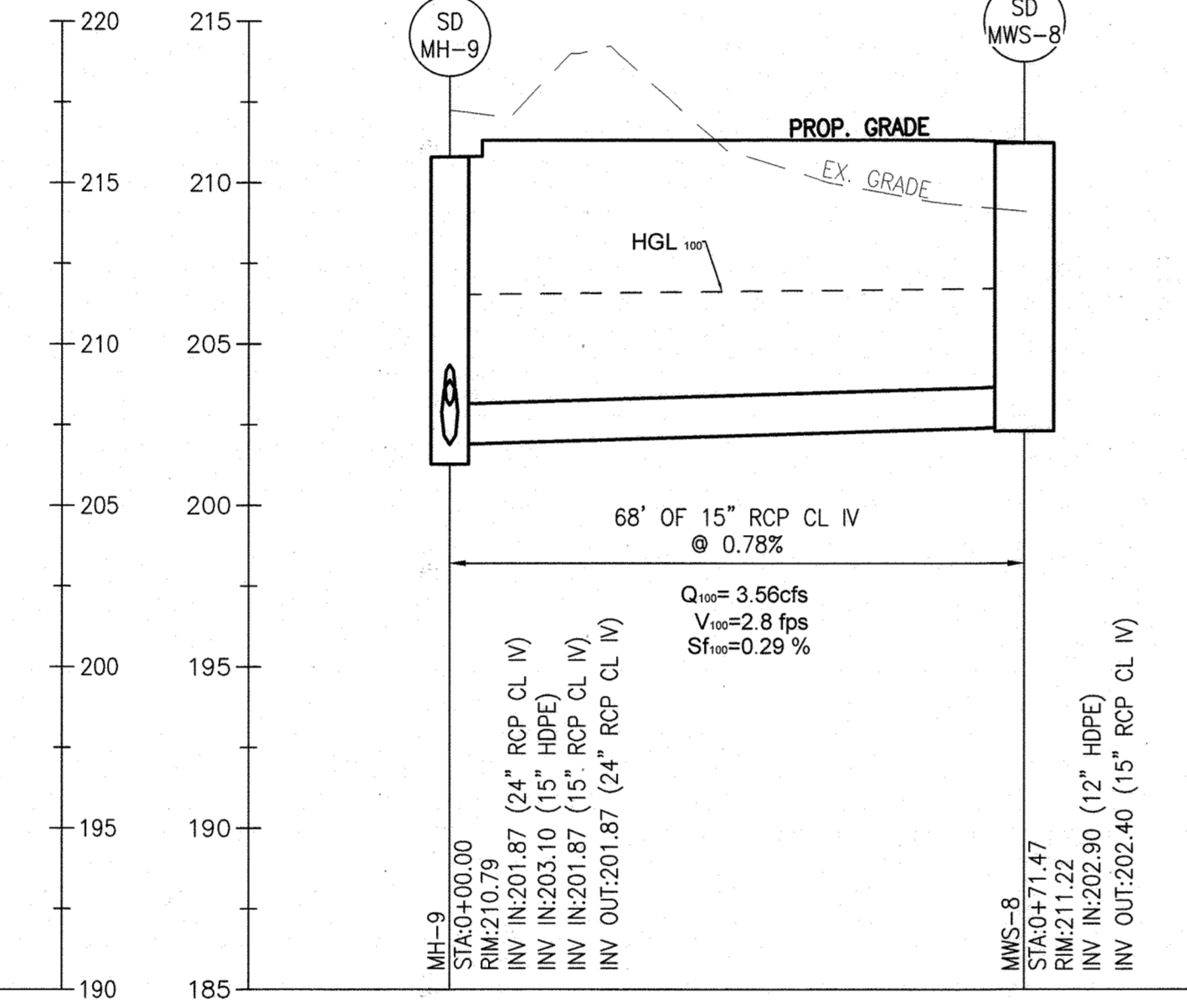
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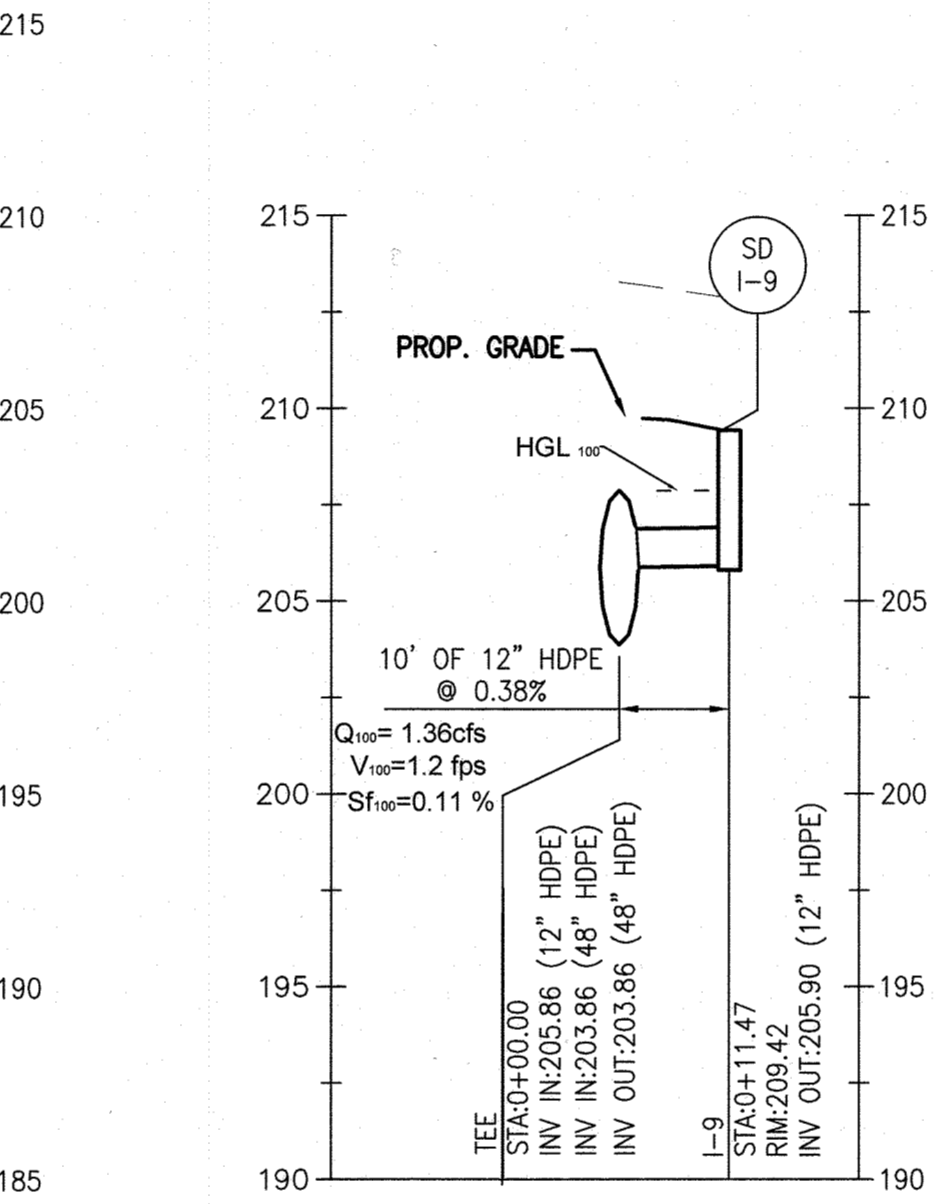
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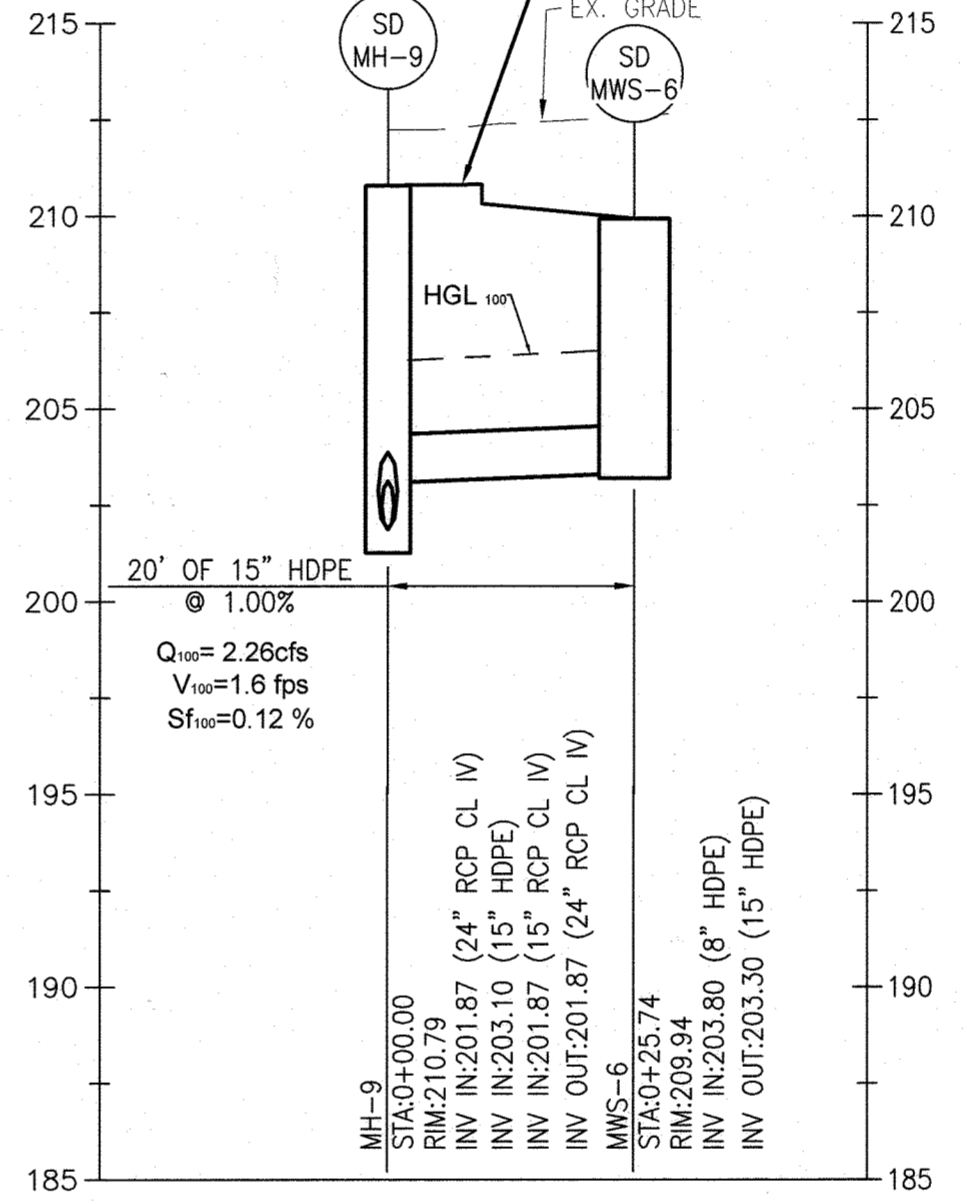
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1"=5' (VERT.)



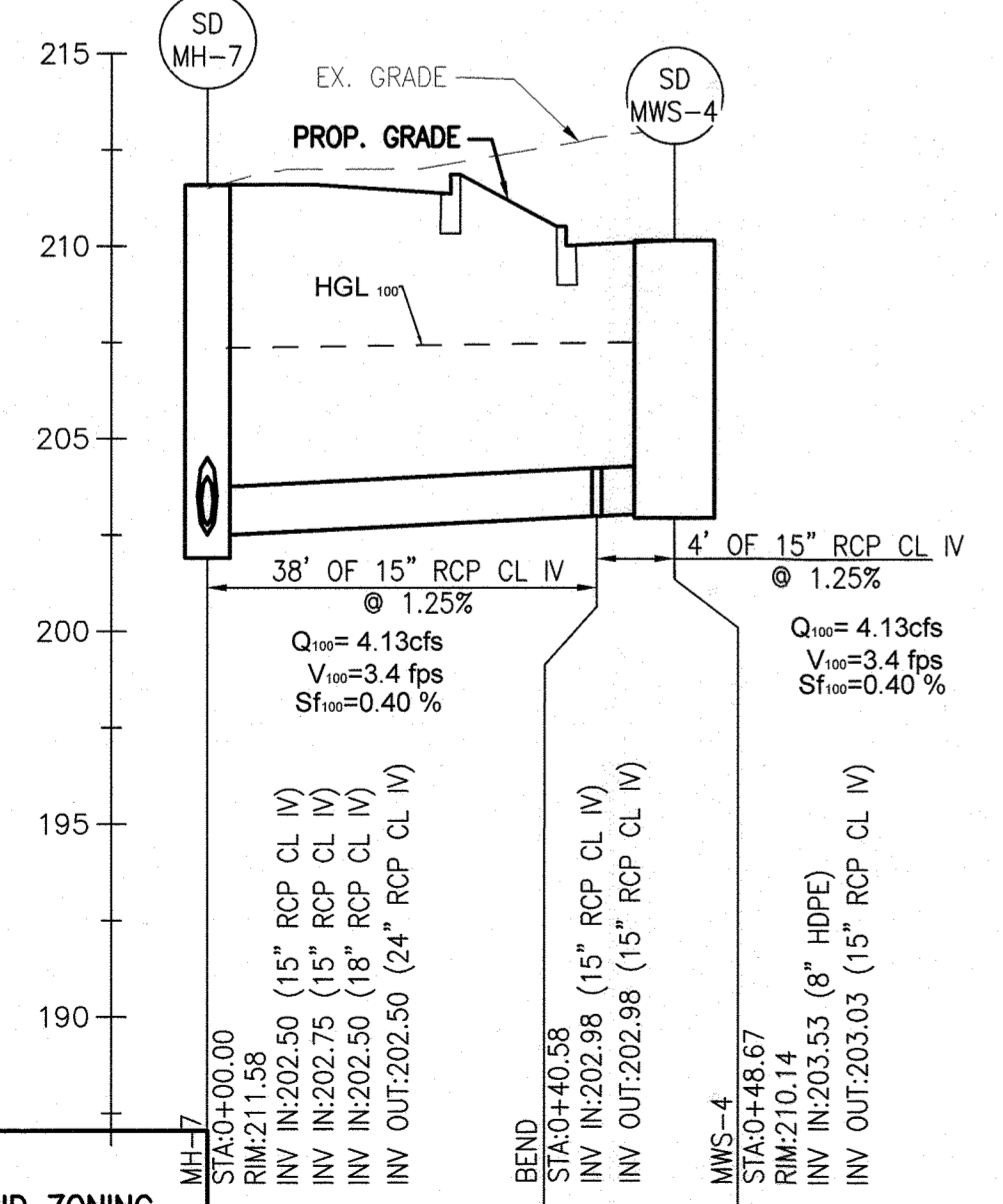
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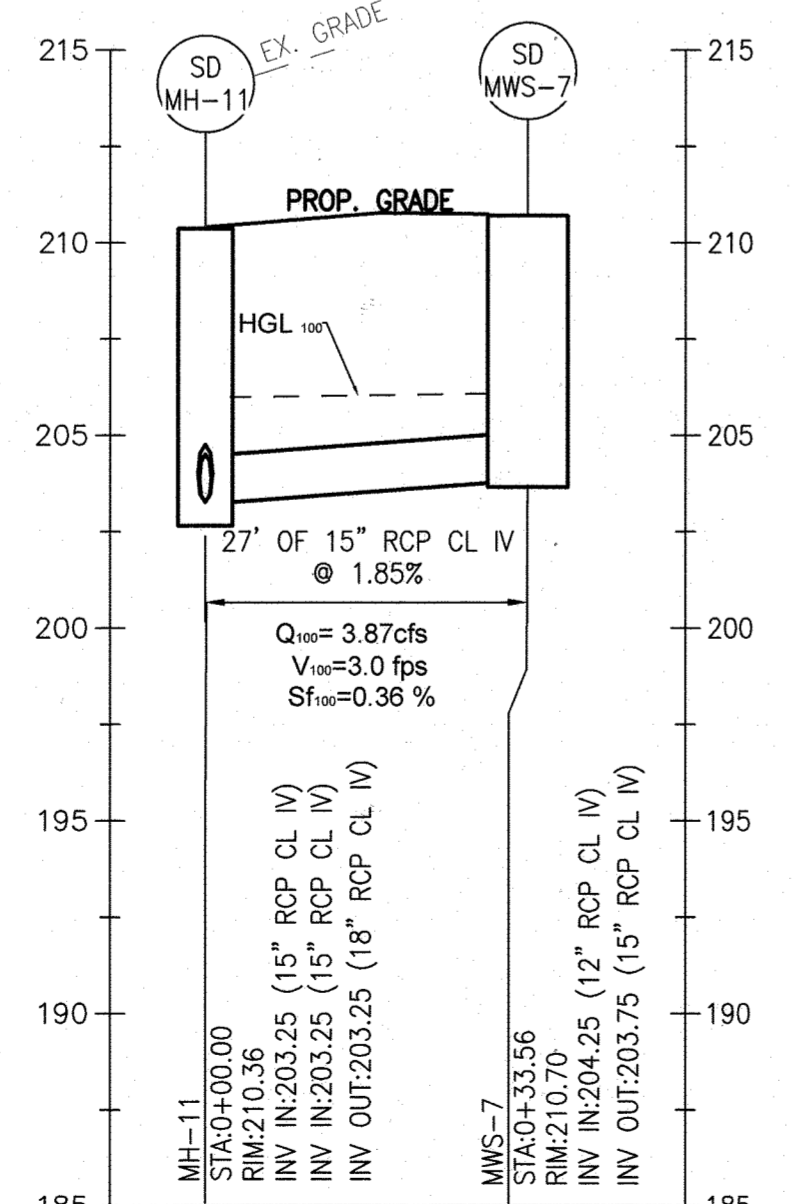
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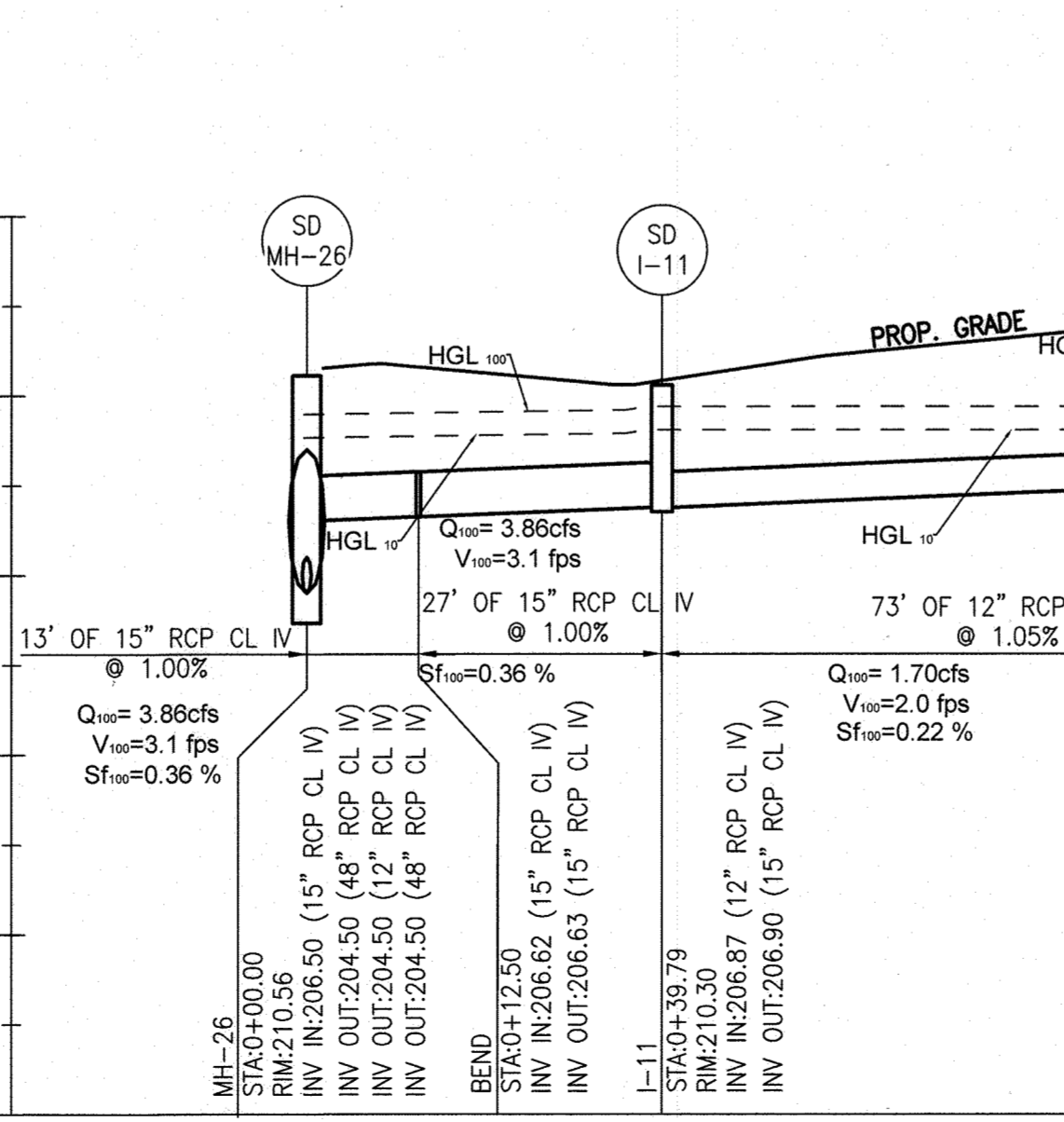
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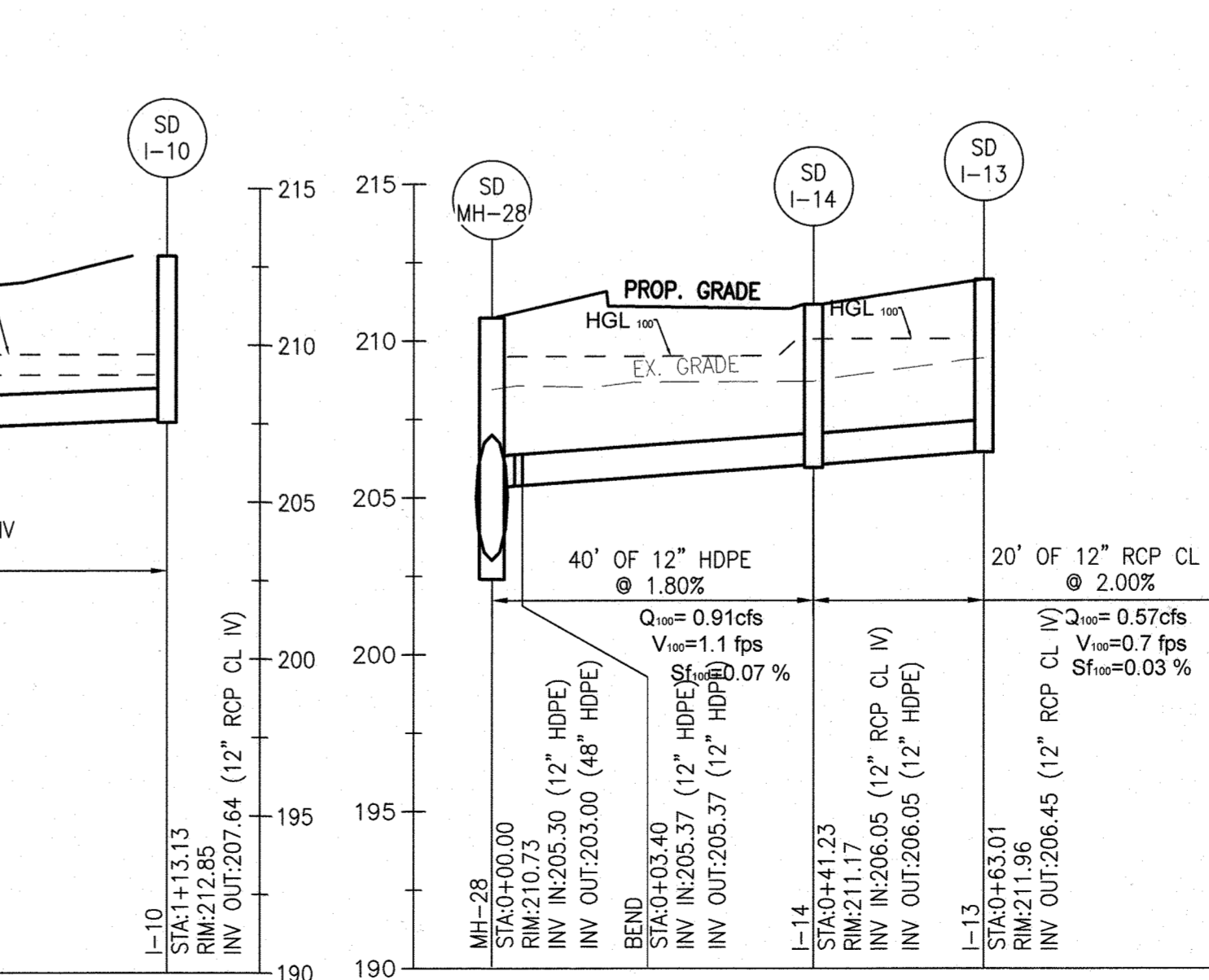
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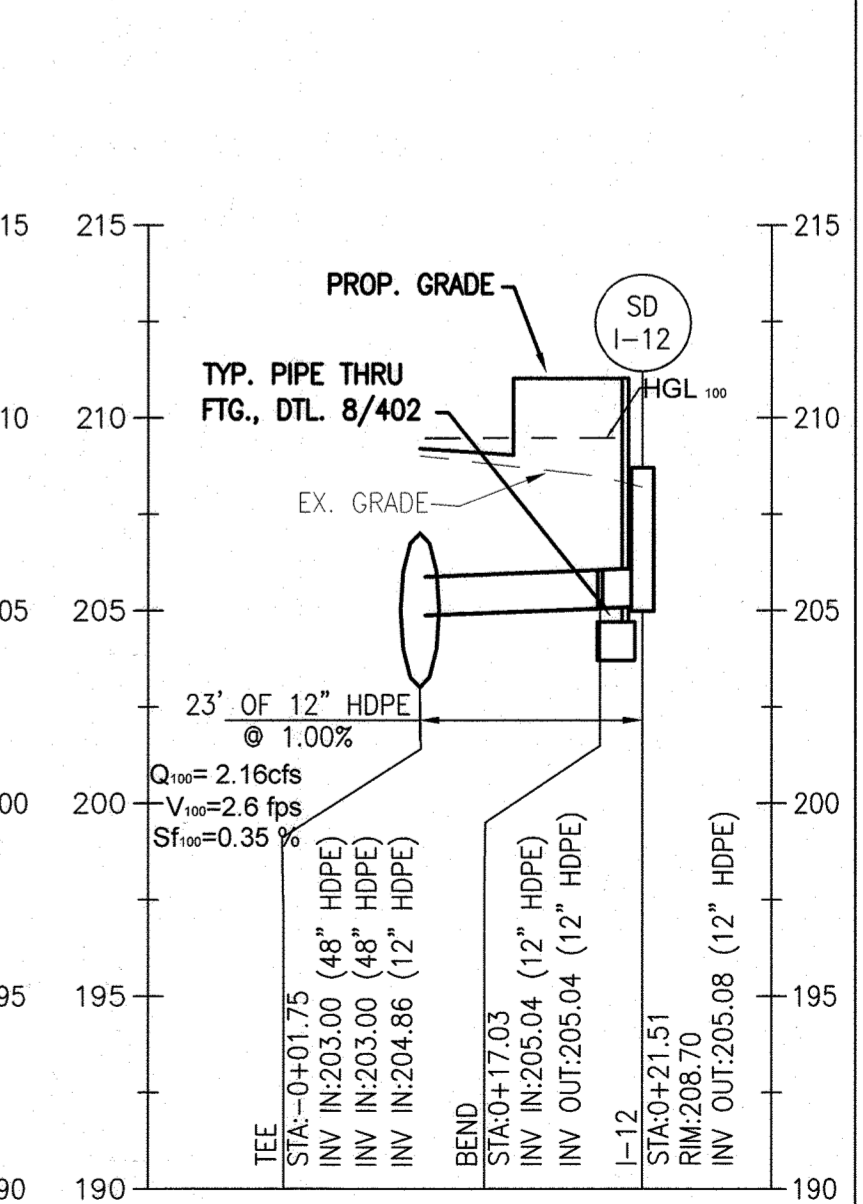
PROFILE OF PROP. SD MWS-7 TO MH-11  
SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)



PROFILE OF PROP. SD I-10 TO MH-26  
SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)



PROFILE OF PROP. SD I-13 TO MH-28  
SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)



PROFILE OF PROP. SD I-12 TO TEE  
SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DIRECTOR

DATE: 10/15/23  
DATE: 10/17/22  
DATE: 10/27/22

HOWARD COUNTY REFERENCE DRAWINGS:  
WATER: CONTRACT 14-4576-D  
SEWER: CONTRACT 14-4576-D  
F-18-106, F-10-013  
SDP-08-082, SDP-18-033  
ECP-18-018, ECP-20-015

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca.design

**CIVIL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**LANDSCAPE DESIGN**  
SITE RESOURCES, INC.  
14315 JARRETTVILLE PIKE  
PHOENIX, MD 21131  
410.683.3388

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410.785.7423

**MEP ENGINEERING**  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELKRIE, MD 21075  
410.579.8100

NOT FOR CONSTRUCTION

STATE OF MARYLAND  
REGISTERED PROFESSIONAL ENGINEER

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

LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt

**MEDICAL PAVILION**

7190 DISCOVERY DRIVE  
ELKRIE, MARYLAND 21075  
HOWARD COUNTY

CORRIDOR 95 BUSINESS PARK - PARCEL A

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME	SECTION/AREA	LOT/ PARCEL NO.
CORRIDOR 95 BUSINESS PARK	N/A	2/0756

PLAT# OR L/P	GRID	ZONING	TAX MAP	EJECT DATE	DISTRICT	CENSUS TRACT
22384/22385	0023	M-1	0037	0037	HE E.D.	6012.03

OWNER/DEVELOPER  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

REVISIONS:

DATE	COMMENTS

MCA JOB NO. 19002.01  
PROJECT MANAGER: SDP  
SHEET BY: DVM  
DATE: 5/21/2021

PROPOSED UTILITY PROFILES

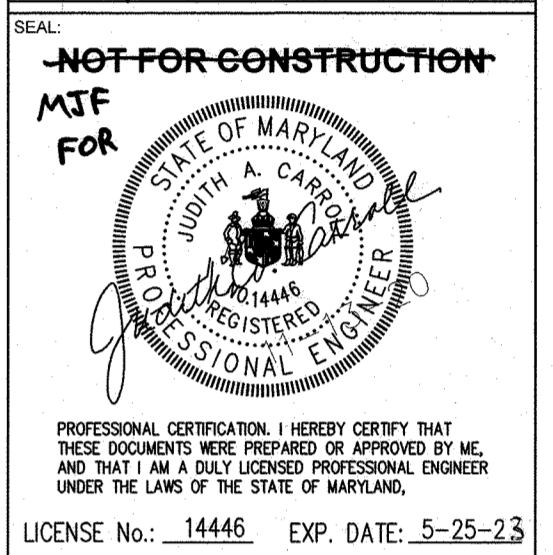
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 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY  
 CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME	SECTION/AREA	LOT/ PARCEL NO.
CORRIDOR 95 BUSINESS PARK	N/A	A/2756
PLAT# OF L/F	GRID	ZONING
22384/22385	2023	M-1
TAX MAP#	ELECT DIST#	CENSUS TRACT
2007	14 E.D.	601203

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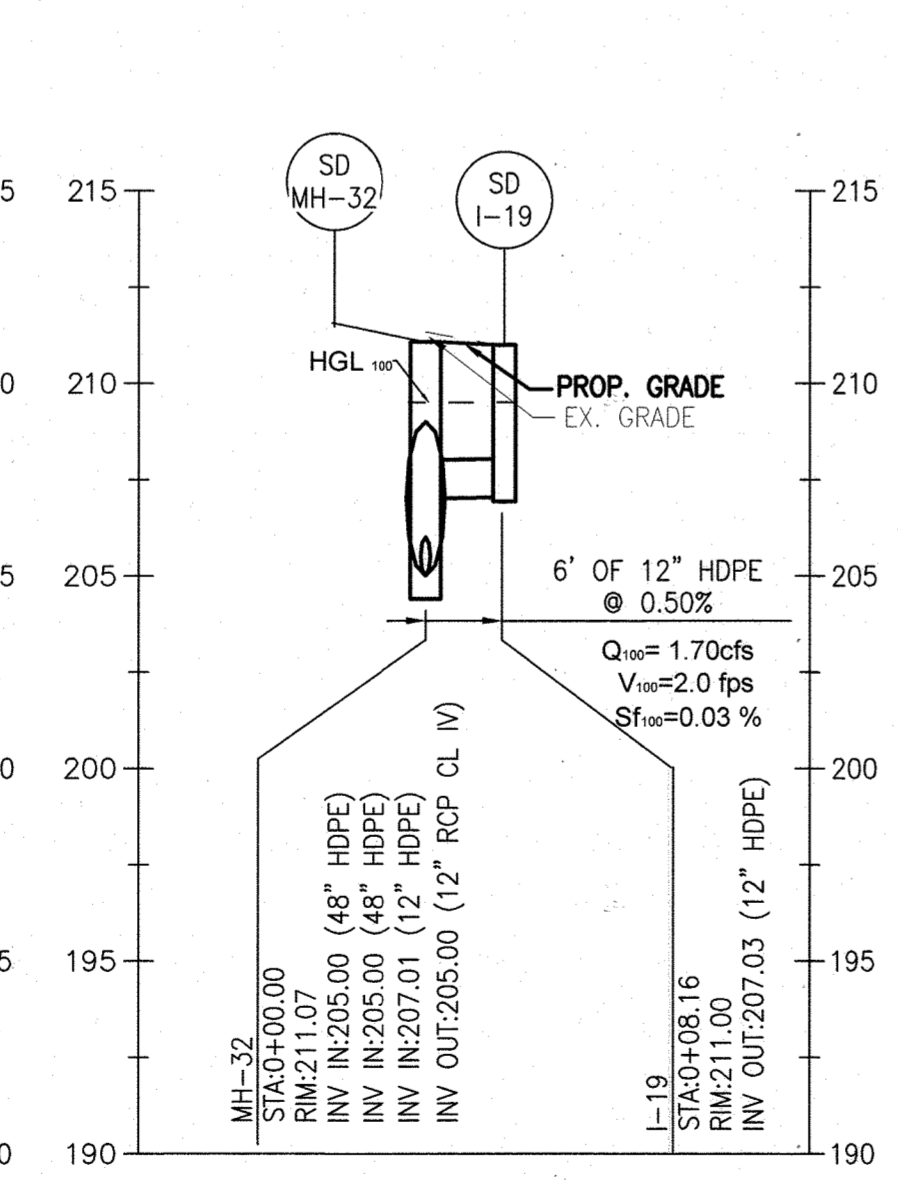
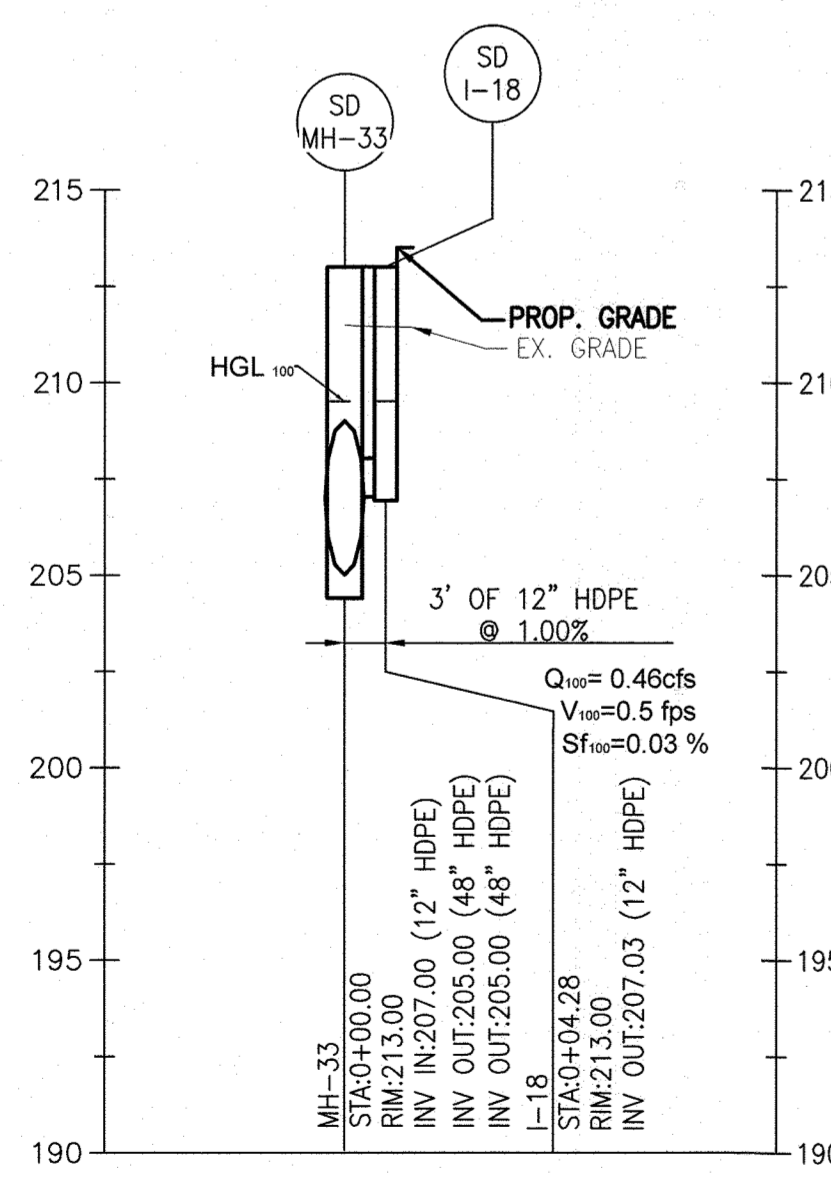
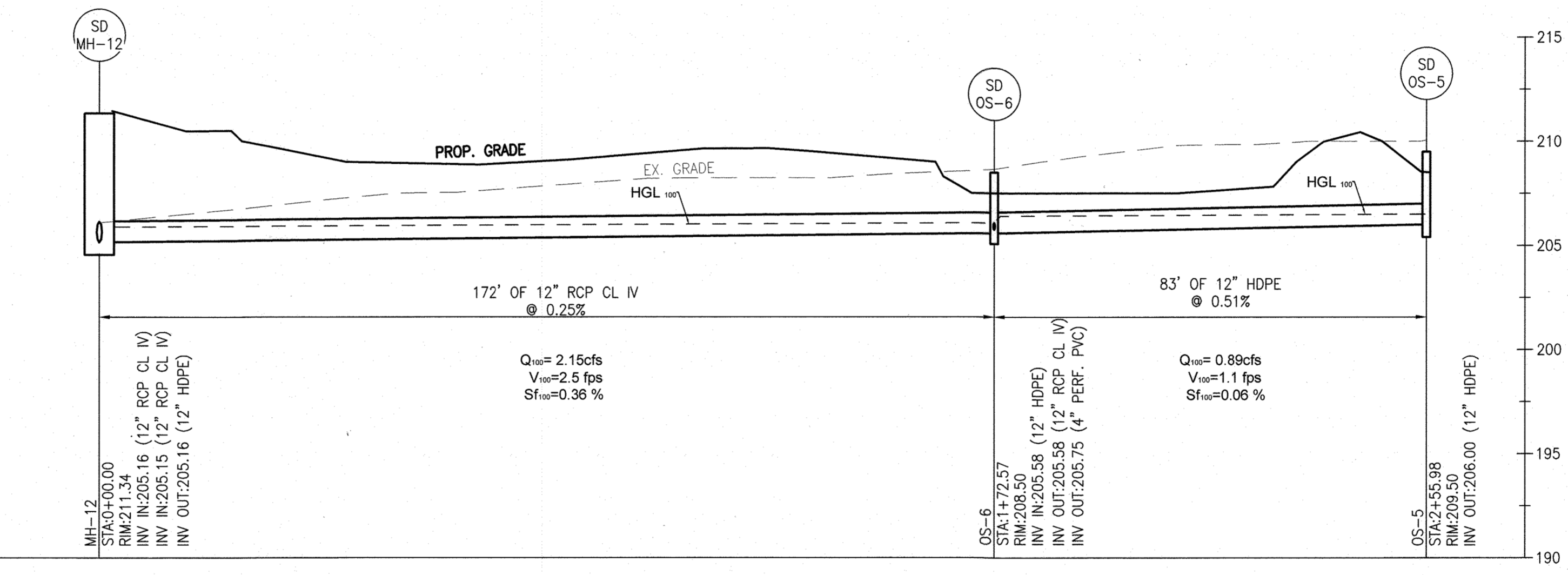
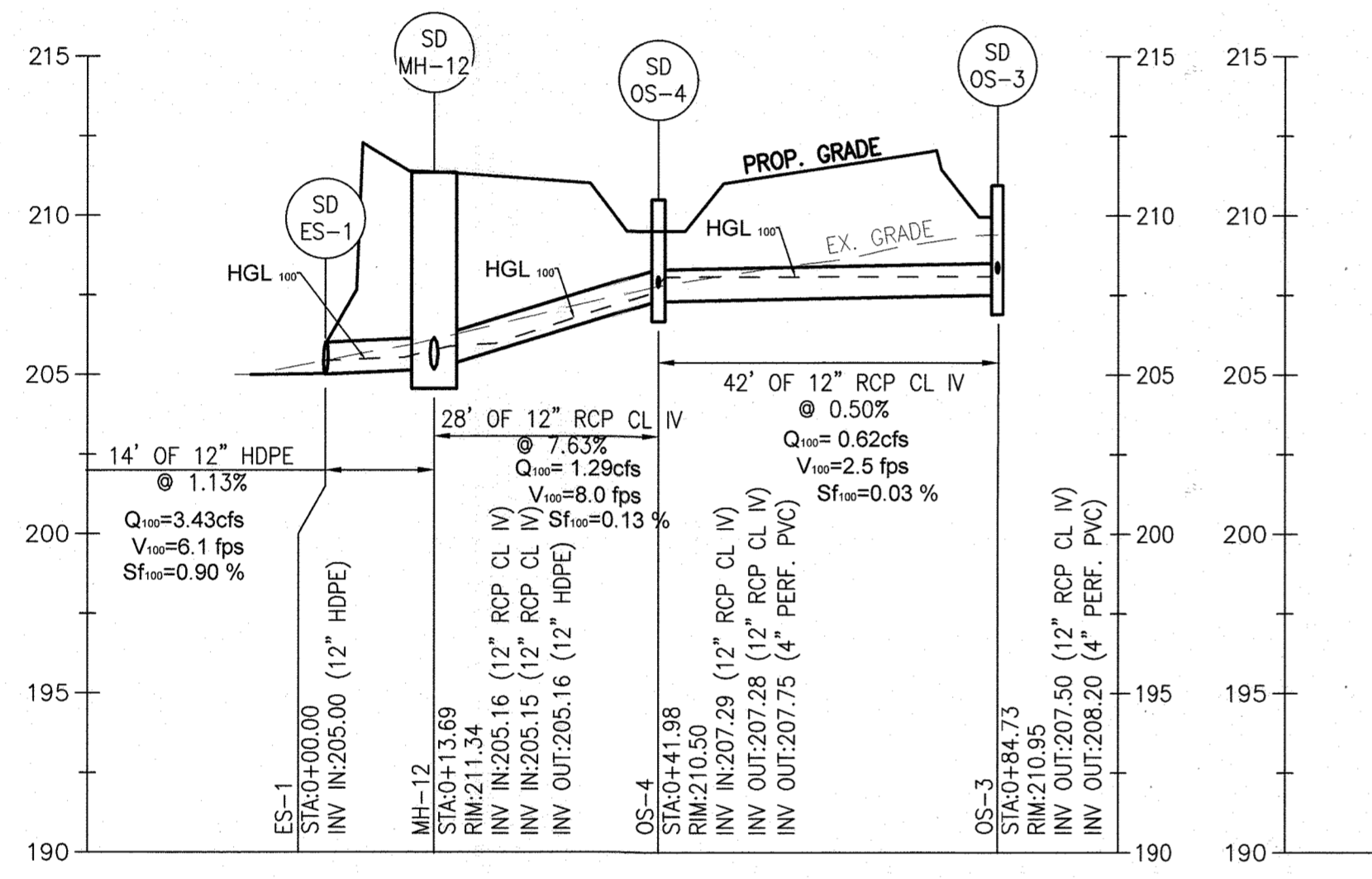
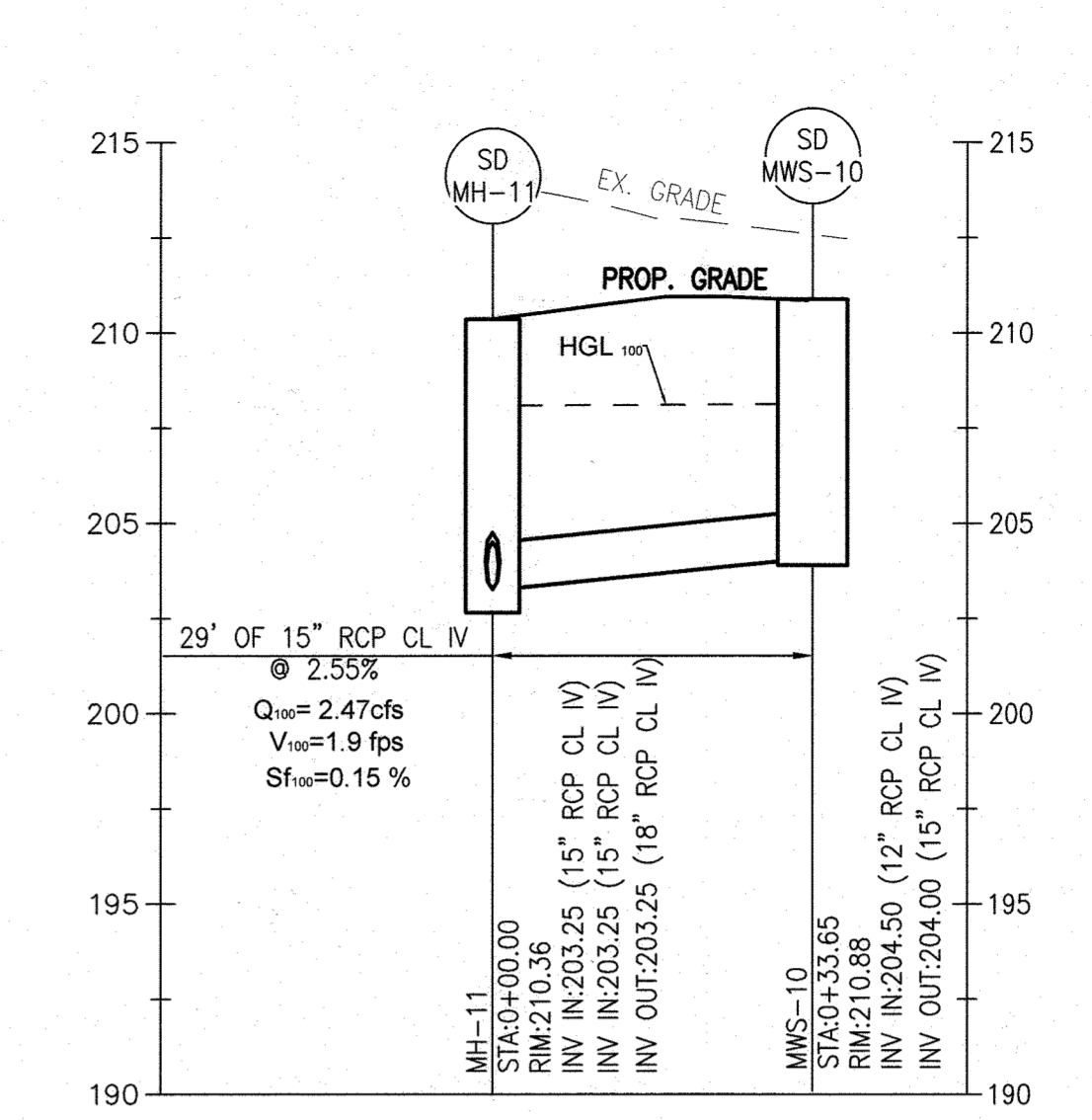
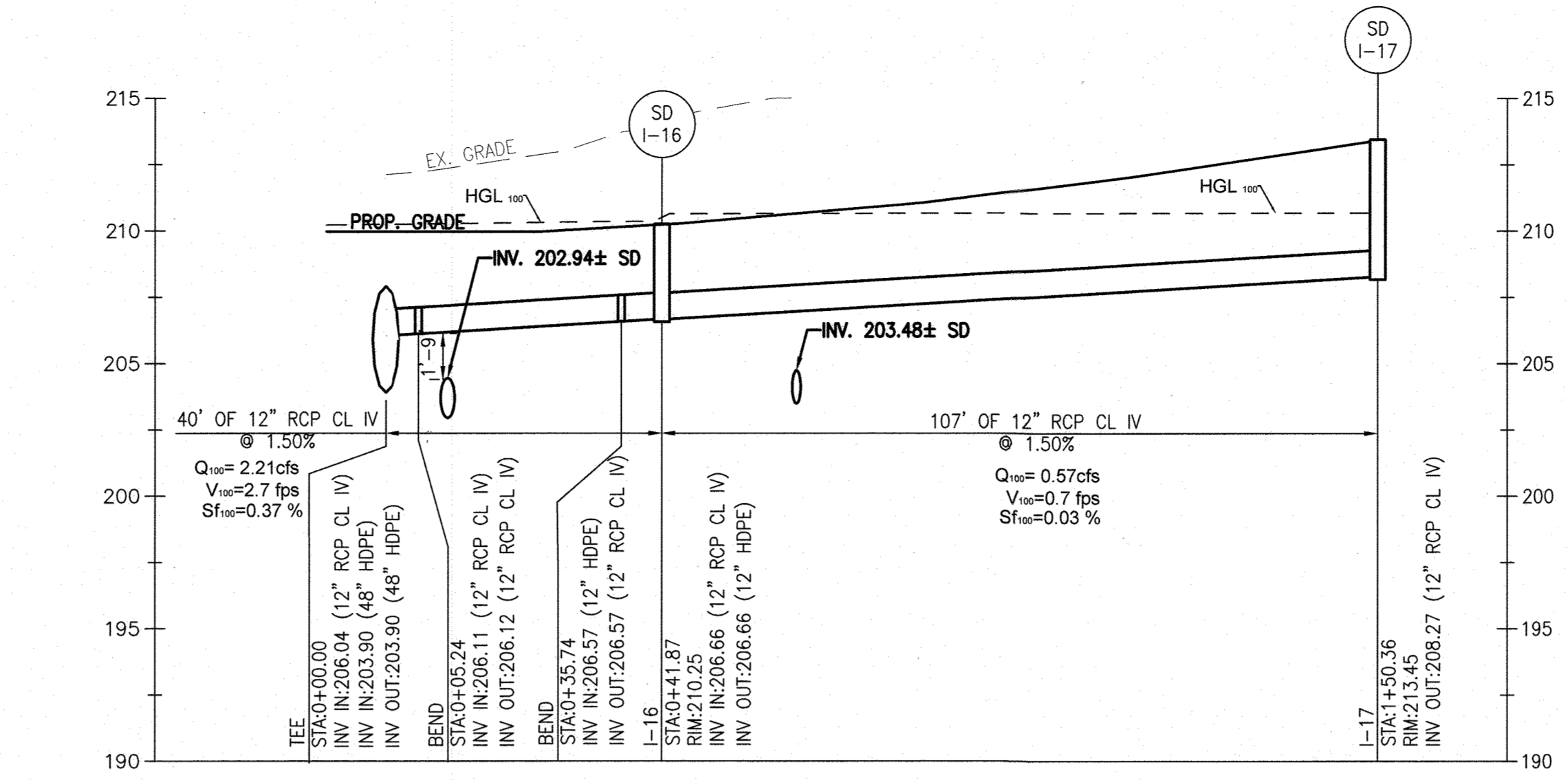
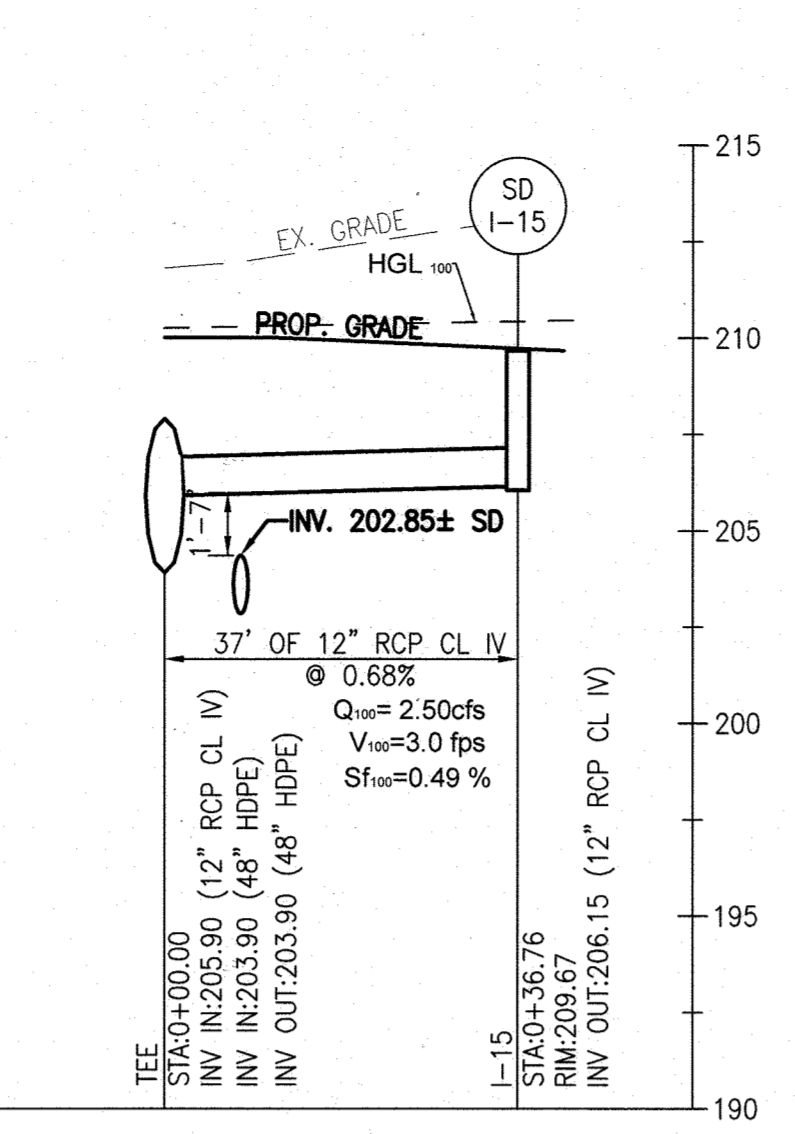
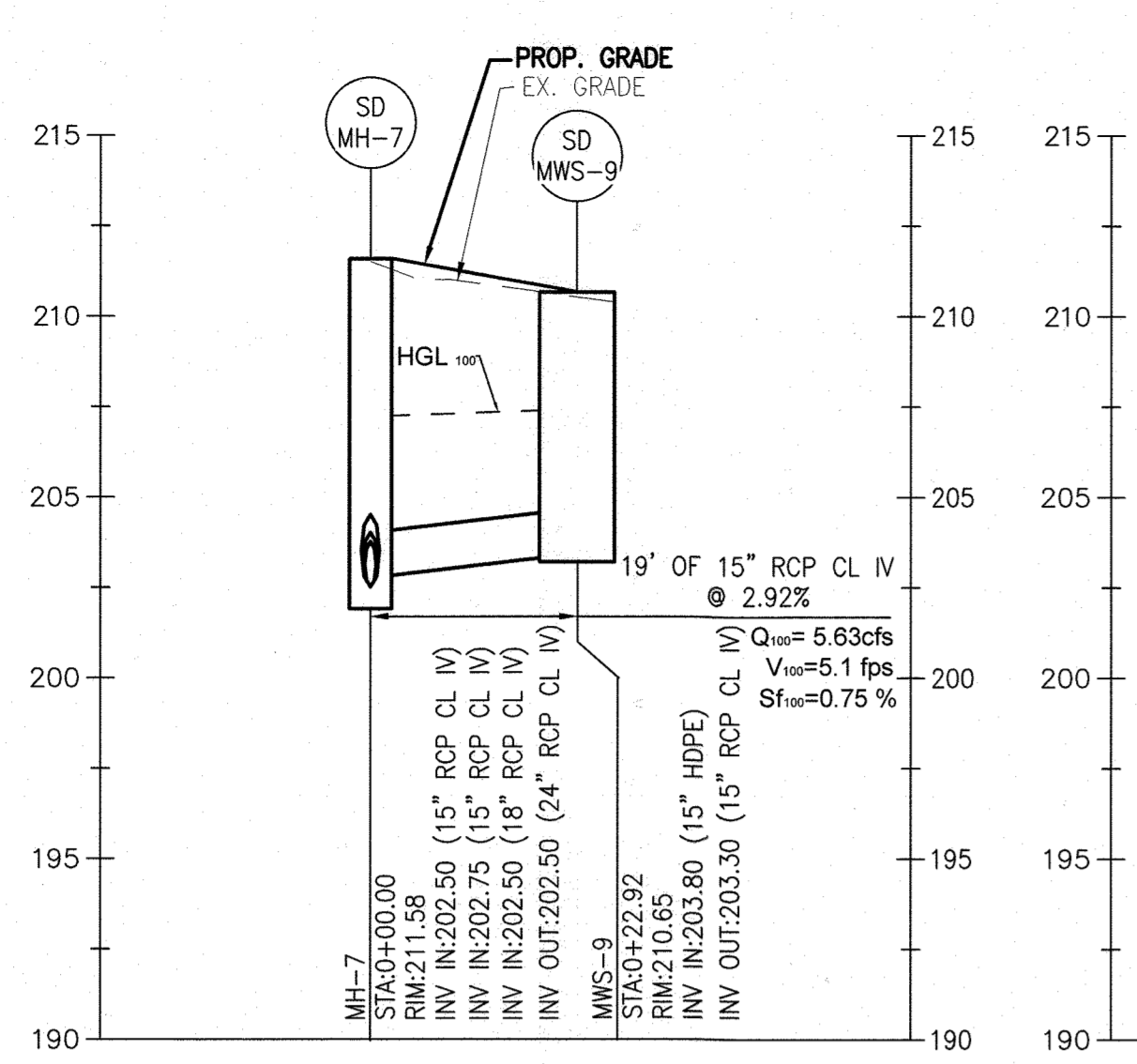
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 ECP-18-018, ECP-20-105

**REVISIONS:**

DATE	COMMENTS

MCA JOB NO. 190022.01 PROJ. MANAGER SHEET BY: SDP DWM DWM  
 SHEET SET AND SHEET ISSUE DATE: 11/13/2020  
**PROPOSED UTILITY PROFILES**  
 SHEET NO. **15** of 60

**SDP-20-057**



**APPROVED**  
 DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 10/15/22

CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 10/27/22

DIRECTOR  
 DATE: 10/27/22

STORM DRAIN PIPE SCHEDULE					
FROM	TO	SIZE	TYPE	LENGTH	OWNER
6-INCH BEND (1)	MH-59	6"	HDPE	30.18'	
RL-1	6-INCH BEND (1)	6"	HDPE	32.95'	
RL-4	MH-21	6"	HDPE	24.07'	
60X60-INCH TEE (5)	MH-6	8"	HDPE	4.72'	
4-INCH BEND (2)	MH-19	8"	HDPE	5.19'	
4-INCH BEND (1)	4-INCH BEND (2)	8"	HDPE	58.16'	
RL-3	4-INCH BEND (1)	8"	HDPE	5.00'	
RL-2	MH-18	8"	DIP	54.18'	
MH-54	MH-5	12"	HDPE	5.91'	
I-3	MH-56	12"	RCP CL IV	27.23'	
I-4	12-INCH BEND (6)	12"	HDPE	14.99'	
60X60-INCH TEE (5)	MH-6	12"	RCP CL IV	4.72'	
12X12-INCH TEE	MH-22	12"	RCP CL IV	23.39'	
I-6	12X12-INCH TEE	12"	RCP CL IV	15.65'	
I-7	12X12-INCH TEE	12"	RCP CL IV	18.72'	
I-10	I-11	12"	RCP CL IV	73.34'	
MH-26	MWS-7	12"	RCP CL IV	39.50'	
OS-3	OS-4	12"	RCP CL IV	41.92'	
I-14	12-INCH BEND (8)	12"	HDPE	37.83'	
I-13	I-14	12"	RCP CL IV	19.78'	

STORM DRAIN PIPE SCHEDULE					
FROM	TO	SIZE	TYPE	LENGTH	OWNER
12-INCH BEND (13)	12-INCH TEE (7)	12"	RCP CL IV	5.24'	
12-INCH BEND (12)	12-INCH BEND (13)	12"	RCP CL IV	30.49'	
I-16	12-INCH BEND (12)	12"	HDPE	6.12'	
I-15	12-INCH TEE (6)	12"	RCP CL IV	36.76'	
I-17	I-16	12"	RCP CL IV	107.48'	
OS-6	MH-12	12"	RCP CL IV	172.16'	
MH-12	ES-1	12"	HDPE	13.69'	
OS-4	MH-12	12"	RCP CL IV	27.87'	
12-INCH BEND (6)	MH-16	12"	HDPE	33.53'	
12-INCH BEND (2)	MH-1	15"	HDPE	15.67'	
MWS-1	12-INCH BEND (2)	15"	HDPE	5.43'	
MWS-3	DETENTION FACILITY #1	15"	HDPE	2.01'	
MWS-2	12-INCH BEND (5)	15"	HDPE	2.55'	
12-INCH BEND (5)	MH-5	15"	HDPE	4.74'	
MWS-5	MH-8	15"	HDPE	11.85'	
MH-8	MH-1	15"	HDPE	46.01'	
MWS-6	MH-9	15"	HDPE	20.14'	
15-INCH BEND (1)	MH-7	15"	RCP CL IV	38.09'	
15-INCH BEND (9)	MH-26	15"	RCP CL IV	12.52'	
I-11	15-INCH BEND (9)	15"	RCP CL IV	27.32'	

STORM DRAIN PIPE SCHEDULE					
FROM	TO	SIZE	TYPE	LENGTH	OWNER
MWS-9	MH-7	15"	RCP CL IV	18.83'	
MWS-10	MH-11	15"	RCP CL IV	29.37'	
MWS-8	MH-9	15"	RCP CL IV	67.55'	
MWS-7	MH-11	15"	RCP CL IV	27.03'	
MH-2	MH-3	18"	RCP CL IV	51.11'	
MH-1	MH-2	18"	RCP CL IV	78.11'	
MH-11	MH-7	18"	RCP CL IV	109.02'	
MH-3	MH-4	24"	RCP CL IV	78.50'	
MH-5	MH-6	24"	RCP CL IV	97.02'	
MH-10	18-INCH TEE (2)	24"	RCP CL IV	13.33'	
MH-9	MH-10	24"	RCP CL IV	88.91'	
MH-7	MH-9	24"	RCP CL IV	71.39'	
MH-4	24-INCH TEE	24"	RCP CL IV	4.66'	
MH-6	EW-1	36"	HDPE	37.30'	

STORM DRAIN STRUCTURE SCHEDULE				
NO.	TYPE	INV. ELEV.	TOP ELEV.	STANDARD DETAIL; GRATE TYPE
ES-1	END SECTION	IN=205.00 (12")	206.13	STANDARD DETAIL D-5.51
EW-1	ENDWALL	IN=199.75 (36")	203.58	STANDARD DETAIL D-5.11
I-1	INLET	OUT=205.84 (12")	210.21	STANDARD DETAIL D-4.26
I-2	INLET	OUT=205.49 (12")	209.09	STANDARD DETAIL D-4.26
I-3	INLET	OUT=206.17 (12")	210.00	STANDARD DETAIL D-4.26
I-4	INLET	OUT=207.98 (12")	211.50	STANDARD DETAIL D-4.26
I-5	INLET 2836AGR/3299CGRSB	IN=203.67 (48") OUT=203.67 (48")	209.00	2836AG/3099CGC
I-6	INLET	OUT=205.62 (12")	209.31	STANDARD DETAIL D-4.26
I-7	INLET	OUT=205.67 (12")	209.33	STANDARD DETAIL D-4.26
I-9	INLET	OUT=205.90 (12")	209.42	STANDARD DETAIL D-4.26
I-10	INLET	OUT=207.64 (12")	212.85	STANDARD DETAIL D-4.24
I-11	INLET	IN=206.87 (12") OUT=206.90 (15")	210.30	STANDARD DETAIL D-4.26
I-12	INLET	OUT=205.08 (12")	208.70	STANDARD DETAIL D-4.26
I-13	INLET	OUT=206.45 (12")	211.96	STANDARD DETAIL D-4.26

STORM DRAIN STRUCTURE SCHEDULE				
NO.	TYPE	INV. ELEV.	TOP ELEV.	STANDARD DETAIL; GRATE TYPE
I-14	INLET	IN=206.05 (12") OUT=206.05 (12")	211.17	STANDARD DETAIL D-4.26
I-15	INLET	OUT=206.15 (12")	209.67	STANDARD DETAIL D-4.26
I-16	INLET	IN=206.66 (12") OUT=206.66 (12")	210.25	STANDARD DETAIL D-4.26
I-17	INLET	OUT=208.27 (12")	213.45	STANDARD DETAIL D-4.24
I-18	INLET	OUT=207.03 (12")	213.00	STANDARD DETAIL D-4.26
I-19	INLET	OUT=207.03 (12")	211.00	STANDARD DETAIL D-4.26
MH-1	MANHOLE	IN=202.11 (15") IN=202.11 (15") OUT=201.85 (18")	210.55	STANDARD DETAIL G-5.12
MH-2	MANHOLE	IN=201.41 (18") OUT=201.41 (18")	209.61	STANDARD DETAIL G-5.12
MH-3	MANHOLE	IN=201.09 (18") OUT=200.59 (24")	207.75	STANDARD DETAIL G-5.12
MH-4	MANHOLE	IN=200.10 (24") IN=200.10 (18") OUT=200.10 (24")	207.50	STANDARD DETAIL G-5.12
MH-5	MANHOLE W/ GRATE COVER	IN=202.73 (15") IN=206.00 (15") IN=205.00 (12") OUT=200.73 (24")	210.50	STANDARD DETAIL G-5.12 W/ GRATE COVER
MH-6	MANHOLE	IN=200.00 (12") IN=200.00 (24") IN=204.33 (8") IN=202.33 (8") IN=204.33 (8") OUT=200.00 (36")	211.64	STANDARD DETAIL G-5.13
MH-7	MANHOLE	IN=202.50 (15") IN=202.75 (15") IN=202.50 (18") OUT=202.50 (24")	211.58	STANDARD DETAIL G-5.12
MH-8	MANHOLE	IN=202.57 (15") OUT=202.57 (15")	210.72	STANDARD DETAIL G-5.12

STORM DRAIN STRUCTURE SCHEDULE				
NO.	TYPE	INV. ELEV.	TOP ELEV.	STANDARD DETAIL; GRATE TYPE
MH-9	MANHOLE	IN=201.87 (24") IN=203.10 (15") IN=201.87 (15") OUT=201.87 (24")	210.79	STANDARD DETAIL G-5.12
MH-10	MANHOLE	IN=201.10 (24") OUT=201.10 (24")	213.53	STANDARD DETAIL G-5.12
MH-11	MANHOLE	IN=203.25 (15") IN=203.25 (15") OUT=203.25 (18")	210.36	STANDARD DETAIL G-5.12
MH-12	MANHOLE	IN=205.16 (12") IN=205.15 (12") OUT=205.16 (12")	211.34	STANDARD DETAIL G-5.12
OS-1	OUTLET STRUCTURE	IN=200.42 (4") OUT=200.38 (18")	205.00	STANDARD DETAIL D-4.24/TYP S
OS-2	OUTLET STRUCTURE	IN=202.42 (4") OUT=200.95 (18")	207.00	STANDARD DETAIL D-4.24/TYP S
OS-3	OUTLET STRUCTURE	OUT=207.50 (12") OUT=208.20 (4")	210.95	NYLOPLAST 2810AG/1099CGD
OS-4	OUTLET STRUCTURE	IN=207.29 (12") OUT=207.28 (12") OUT=207.75 (4")	210.50	NYLOPLAST 2812AG/1299CGD
OS-5	OUTLET STRUCTURE	IN=206.88 (4") OUT=206.00 (12")	209.50	NYLOPLAST 2810AG/1099CGD
OS-6	OUTLET STRUCTURE	IN=205.58 (12") OUT=205.58 (12") OUT=205.75 (4")	208.50	NYLOPLAST 2810AG/1099CGD

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DEPARTMENT OF PLANNING AND ZONING  
10/15/22  
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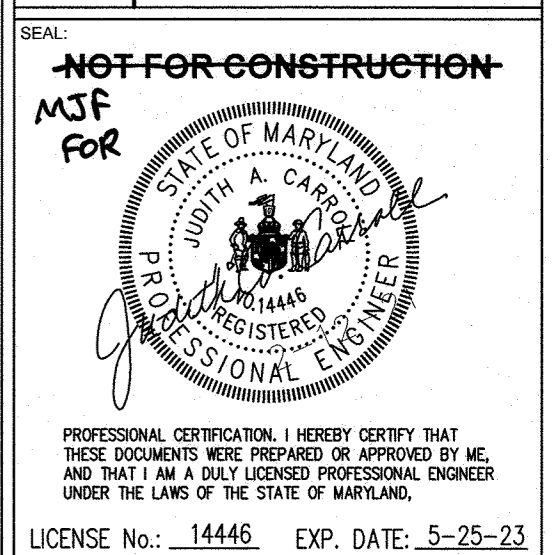
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HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCEL A

ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME	SECTION/AREA	LOT/ PARCEL NO.
CORRIDOR 95 BUSINESS PARK	N/A	A/07098

PLAT# OR LIT	GRID	ZONING	TAX MAP#	ELECT. DIST.	CONDE. TRACT
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TEL: 410-938-3242

REVISIONS:  
DATE: COMMENTS:

MCA JOB NO.	PROJ.MANAGER	SHEET BY:
19002.01	DWM	DWM

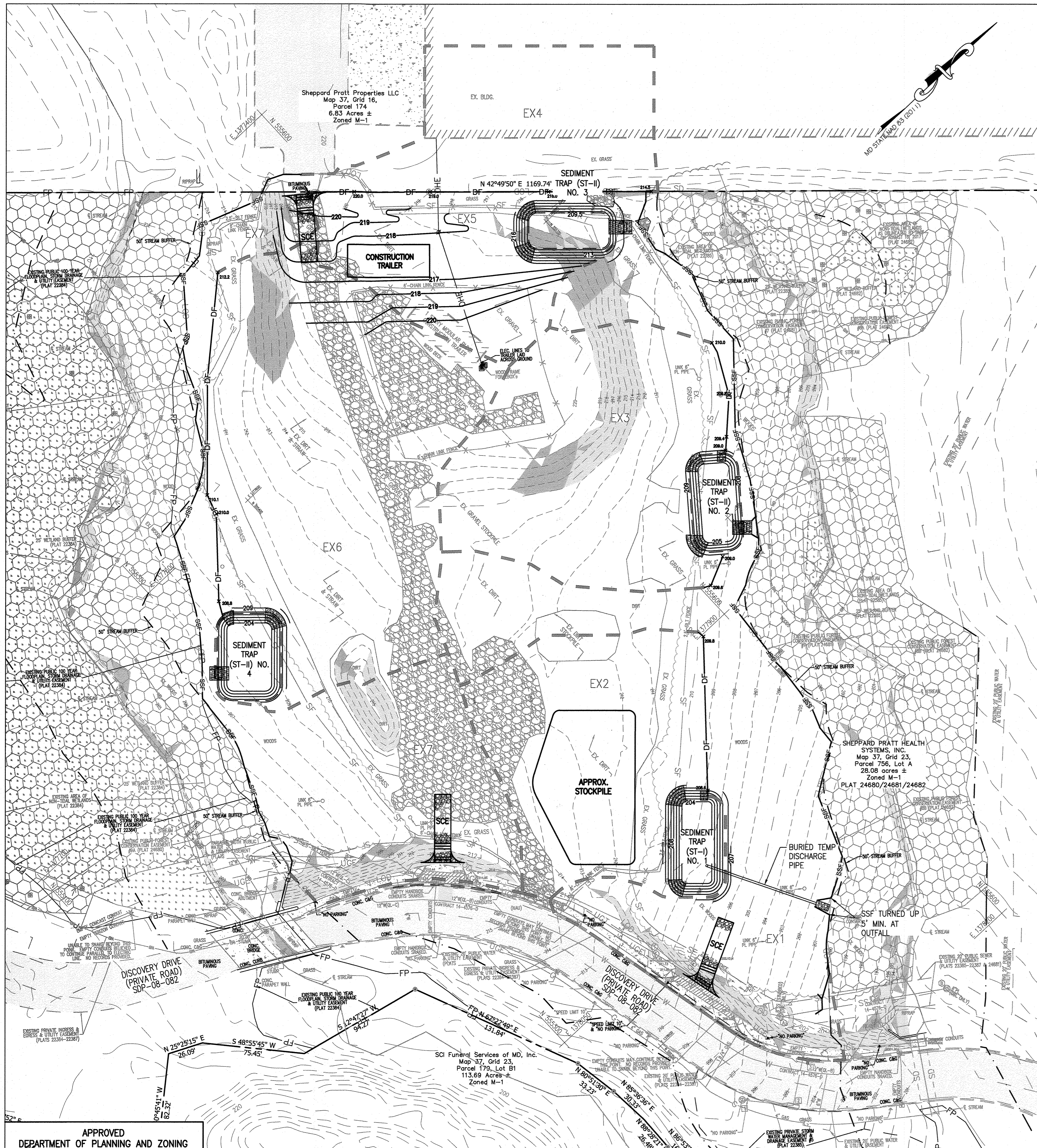
SHEET SET AND SHEET ISSUE DATE:  
SDP 5/21/2021

SHEET NAME:  
SDP

PROPOSED STORM DRAIN SCHEDULES

SHEET NO. 16 of 60





- EXISTING LEGEND**
- EXISTING PROPERTY LINE
  - EXISTING EASEMENT
  - EXISTING SETBACK
  - EXISTING BUILDING
  - 210 --- EXISTING MAJOR CONTOUR
  - 209 --- EXISTING MINOR CONTOUR
  - EXISTING CURB
  - EXISTING CURB & GUTTER
  - EXISTING ROADWAY
  - EXISTING PAVEMENT
  - EXISTING ASPHALT PAVING
  - EXISTING CONCRETE PAVING
  - ▲ EXISTING SIGN
  - ⊠ EXISTING ELECTRIC HANDBOX
  - ⊙ EXISTING ELECTRIC MANHOLE
  - OHE EXISTING OVERHEAD ELECTRIC
  - UGE EXISTING UNDERGROUND ELECTRIC
  - COND EXISTING UNDERGROUND CONDUIT
  - UGE EXISTING DUCTBANK
  - FO EXISTING FIBER OPTIC
  - G EXISTING GAS LINE
  - GV # EXISTING GAS VALVE
  - SS EXISTING SANITARY LINE
  - ⊙ EXISTING SANITARY MANHOLE
  - ⊙ EXISTING SANITARY CLEANOUT
  - EXISTING STORMDRAIN LINE
  - ⊙ EXISTING STORMDRAIN INLET
  - ⊙ EXISTING STORMDRAIN MANHOLE
  - UGT EXISTING TELEPHONE
  - ⊙ EXISTING TELEPHONE MANHOLE
  - ⊙ EXISTING TELEPHONE PEDESTAL
  - EXISTING UTILITY POLE
  - ⊙ EXISTING LIGHT POLE
  - W EXISTING WATER LINE
  - WM ○ EXISTING WATER METER
  - WV ○ EXISTING WATER VALVE
  - ⊙ EXISTING WATER MANHOLE
  - ⊙ EXISTING FIRE HYDRANT
  - EXISTING STREAM CENTERLINE
  - EXISTING STREAM BUFFER
  - EXISTING WETLAND
  - W/B EXISTING WETLAND BUFFER
  - EXISTING WETLANDS
  - FP EXISTING FLOODPLAIN
  - EXISTING TREELINE
  - ⊙ EXISTING DECIDUOUS TREE
  - ⊙ EXISTING EVERGREEN TREE
  - ⊙ EXISTING SHRUB
  - ⊙ EXISTING PUBLIC FOREST CONSERVATION EASEMENT
- ESC LEGEND**
- SCE STABILIZED CONSTRUCTION ENTRANCE
  - LOD LIMIT OF DISTURBANCE
  - DF DIVERSION FENCE
  - TPF TREE PROTECTION FENCE (INSTALL W/ SSF)
  - SSF SUPER SILT FENCE (SSF)
  - AGIP AT-GRADE INLET PROTECTION DRAINAGE AREA DELINEATION

**EXISTING DRAINAGE AREA TABLE**

DA	AREA (SF/ACRES)	ESC DEVICE
EX1	24237/0.56	SUPER SILT FENCE
EX2	29236/0.67	DIVERSION FENCE & SEDIMENT TRAP 1
EX3	14189/0.33	DIVERSION FENCE & SEDIMENT TRAP 2
EX4	20190/0.46	DIVERSION FENCE
EX5	19298/0.44	SEDIMENT TRAP 3
EX6	51827/1.19	DIVERSION FENCE & SEDIMENT TRAP 4
EX7	27707/0.64	SUPER SILT FENCE

**ENGINEER'S CERTIFICATE**  
 I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.  
 Judith A. Carroll, 03/03/2020  
 Signature of Engineer Date  
 (print name below signature)

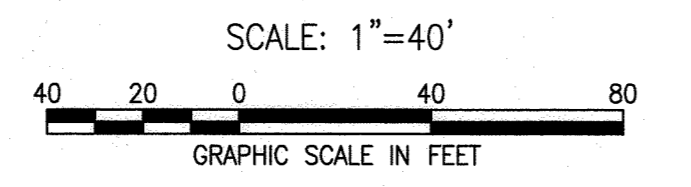
**DEVELOPER'S CERTIFICATE**  
 I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a certificate of attendance at a department of the environment approved training program for the control of sediment and erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.  
 Thomas D. Hess, 08/04/2020  
 Signature of Developer Date  
 (print name below signature)

LOD = 5.15 AC.

**GENERAL NOTE:**  
 1. SEE SHEET C-606 FOR SEQUENCE OF CONSTRUCTION.

APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 10/15/22  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 10/27/22  
 DIRECTOR  
 DATE: 10/27/22

**INITIAL EROSION AND SEDIMENT CONTROL PLAN**



This document plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT  
 Alexander Batechis, 09/15/22  
 Howard SCD Date

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
 2031 Clipper Park Road, Suite 105  
 Baltimore, Maryland 21211  
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 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**LANDSCAPE DESIGN**  
 SITE RESOURCES, INC.  
 14315 JARRETTVILLE PIKE  
 PHOENIX, MD 21131  
 410.683.3388

**STRUCTURAL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
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**MEP ENGINEERING**  
 LEACH WALLACE ASSOC., INC.  
 6522 MEADOWBRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.579.8100

**NOT FOR CONSTRUCTION**

STATE OF MARYLAND  
 JUDITH A. CARROLL  
 PROFESSIONAL ENGINEER  
 LICENSE No.: 14446 EXP. DATE: 5-25-23

**Sheppard Pratt**

**MEDICAL PAVILION**  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY  
 CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

**OWNER/DEVELOPER**  
 SHEPPARD PRATT HEALTH SYSTEM INC.  
 65011 N CHARLES STREET  
 BALTIMORE, MARYLAND 21285-6815  
 TEL: 410-938-3242

**INITIAL EROSION AND SEDIMENT CONTROL PLAN**

SUBDIVISION NAME: CORRIDOR 95 BUSINESS PARK  
 SECTION/AREA: N/A  
 LOT/PARCEL NO.: A/2756

PLAT OR L.P. OR F.P. OR G.P. OR R.P. OR S.P. OR T.P. OR U.P. OR V.P. OR W.P. OR X.P. OR Y.P. OR Z.P. OR AA.P. OR AB.P. OR AC.P. OR AD.P. OR AE.P. OR AF.P. OR AG.P. OR AH.P. OR AI.P. OR AJ.P. OR AK.P. OR AL.P. OR AM.P. OR AN.P. OR AO.P. OR AP.P. OR AQ.P. OR AR.P. OR AS.P. OR AT.P. OR AU.P. OR AV.P. OR AW.P. OR AX.P. OR AY.P. OR AZ.P. OR BA.P. OR BB.P. OR BC.P. OR BD.P. OR BE.P. OR BF.P. OR BG.P. OR BH.P. OR BI.P. OR BJ.P. OR BK.P. OR BL.P. OR BM.P. OR BN.P. OR BO.P. OR BP.P. OR BQ.P. OR BR.P. OR BS.P. OR BT.P. OR BU.P. OR BV.P. OR BW.P. OR BX.P. OR BY.P. OR BZ.P. OR CA.P. OR CB.P. OR CC.P. OR CD.P. OR CE.P. OR CF.P. OR CG.P. OR CH.P. OR CI.P. OR CJ.P. OR CK.P. OR CL.P. OR CM.P. OR CN.P. OR CO.P. OR CP.P. OR CQ.P. OR CR.P. OR CS.P. OR CT.P. OR CU.P. OR CV.P. OR CW.P. OR CX.P. OR CY.P. OR CZ.P. OR DA.P. OR DB.P. OR DC.P. OR DD.P. OR DE.P. OR DF.P. OR DG.P. OR DH.P. OR DI.P. OR DJ.P. OR DK.P. OR DL.P. OR DM.P. OR DN.P. OR DO.P. OR DP.P. OR DQ.P. OR DR.P. OR DS.P. OR DT.P. OR DU.P. OR DV.P. OR DW.P. OR DX.P. OR DY.P. OR DZ.P. OR EA.P. OR EB.P. OR EC.P. OR ED.P. OR EE.P. OR EF.P. OR EG.P. OR EH.P. OR EI.P. OR EJ.P. OR EK.P. OR EL.P. OR EM.P. OR EN.P. OR EO.P. OR EP.P. OR EQ.P. OR ER.P. OR ES.P. OR ET.P. OR EU.P. OR EV.P. OR EW.P. OR EX.P. OR EY.P. OR EZ.P. OR FA.P. OR FB.P. OR FC.P. OR FD.P. OR FE.P. OR FF.P. OR FG.P. OR FH.P. OR FI.P. OR FJ.P. OR FK.P. OR FL.P. OR FM.P. OR FN.P. OR FO.P. OR FP.P. OR FQ.P. OR FR.P. OR FS.P. OR FT.P. OR FU.P. OR FV.P. OR FW.P. OR FX.P. OR FY.P. OR FZ.P. OR GA.P. OR GB.P. OR GC.P. OR GD.P. OR GE.P. OR GF.P. OR GG.P. OR GH.P. OR GI.P. OR GJ.P. OR GK.P. OR GL.P. OR GM.P. OR GN.P. OR GO.P. OR GP.P. OR GQ.P. OR GR.P. OR GS.P. OR GT.P. OR GU.P. OR GV.P. OR GW.P. OR GX.P. OR GY.P. OR GZ.P. OR HA.P. OR HB.P. OR HC.P. OR HD.P. OR HE.P. OR HF.P. OR HG.P. OR HH.P. OR HI.P. OR HJ.P. OR HK.P. OR HL.P. OR HM.P. OR HN.P. OR HO.P. OR HP.P. OR HQ.P. OR HR.P. OR HS.P. OR HT.P. OR HU.P. OR HV.P. OR HW.P. OR HX.P. OR HY.P. OR HZ.P. OR IA.P. OR IB.P. OR IC.P. OR ID.P. OR IE.P. OR IF.P. OR IG.P. OR IH.P. OR II.P. OR IJ.P. OR IK.P. OR IL.P. OR IM.P. OR IN.P. OR IO.P. OR IP.P. OR IQ.P. OR IR.P. OR IS.P. OR IT.P. OR IU.P. OR IV.P. OR IW.P. OR IX.P. OR IY.P. OR IZ.P. OR JA.P. OR JB.P. OR JC.P. OR JD.P. OR JE.P. OR JF.P. OR JG.P. OR JH.P. OR JI.P. OR JJ.P. OR JK.P. OR JL.P. OR JM.P. OR JN.P. OR JO.P. OR JP.P. OR JQ.P. OR JR.P. OR JS.P. OR JT.P. OR JU.P. OR JV.P. OR JW.P. OR JX.P. OR JY.P. OR JZ.P. OR KA.P. OR KB.P. OR KC.P. OR KD.P. OR KE.P. OR KF.P. OR KG.P. OR KH.P. OR KI.P. OR KJ.P. OR KK.P. OR KL.P. OR KM.P. OR KN.P. OR KO.P. OR KP.P. OR KQ.P. OR KR.P. OR KS.P. OR KT.P. OR KU.P. OR KV.P. OR KW.P. OR KX.P. OR KY.P. OR KZ.P. OR LA.P. OR LB.P. OR LC.P. OR LD.P. OR LE.P. OR LF.P. OR LG.P. OR LH.P. OR LI.P. OR LJ.P. OR LK.P. OR LL.P. OR LM.P. OR LN.P. OR LO.P. OR LP.P. OR LQ.P. OR LR.P. OR LS.P. OR LT.P. OR LU.P. OR LV.P. OR LW.P. OR LX.P. OR LY.P. OR LZ.P. OR MA.P. OR MB.P. OR MC.P. OR MD.P. OR ME.P. OR MF.P. OR MG.P. OR MH.P. OR MI.P. 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OR QQ.P. OR QR.P. OR QS.P. OR QT.P. OR QU.P. OR QV.P. OR QW.P. OR QX.P. OR QY.P. OR QZ.P. OR RA.P. OR RB.P. OR RC.P. OR RD.P. OR RE.P. OR RF.P. OR RG.P. OR RH.P. OR RI.P. OR RJ.P. OR RK.P. OR RL.P. OR RM.P. OR RN.P. OR RO.P. OR RP.P. OR RQ.P. OR RR.P. OR RS.P. OR RT.P. OR RU.P. OR RV.P. OR RW.P. OR RX.P. OR RY.P. OR RZ.P. OR SA.P. OR SB.P. OR SC.P. OR SD.P. OR SE.P. OR SF.P. OR SG.P. OR SH.P. OR SI.P. OR SJ.P. OR SK.P. OR SL.P. OR SM.P. OR SN.P. OR SO.P. OR SP.P. OR SQ.P. OR SR.P. OR SS.P. OR ST.P. OR SU.P. OR SV.P. OR SW.P. OR SX.P. OR SY.P. OR SZ.P. OR TA.P. OR TB.P. OR TC.P. OR TD.P. OR TE.P. OR TF.P. OR TG.P. OR TH.P. OR TI.P. OR TJ.P. OR TK.P. OR TL.P. OR TM.P. OR TN.P. OR TO.P. OR TP.P. OR TQ.P. OR TR.P. OR TS.P. OR TT.P. OR TU.P. OR TV.P. OR TW.P. OR TX.P. OR TY.P. OR TZ.P. OR UA.P. OR UB.P. OR UC.P. OR UD.P. OR UE.P. OR UF.P. OR UG.P. OR UH.P. OR UI.P. OR UJ.P. OR UK.P. OR UL.P. OR UM.P. OR UN.P. OR UO.P. OR UP.P. OR UQ.P. OR UR.P. OR US.P. OR UT.P. OR UV.P. OR UW.P. OR UX.P. OR UY.P. OR UZ.P. OR VA.P. OR VB.P. OR VC.P. OR VD.P. OR VE.P. OR VF.P. OR VG.P. OR VH.P. OR VI.P. OR VJ.P. OR VK.P. OR VL.P. OR VM.P. OR VN.P. OR VO.P. OR VP.P. OR VQ.P. OR VR.P. OR VS.P. OR VT.P. OR VU.P. OR VV.P. OR VW.P. OR VX.P. OR VY.P. OR VZ.P. OR WA.P. OR WB.P. OR WC.P. OR WD.P. OR WE.P. OR WF.P. OR WG.P. OR WH.P. OR WI.P. OR WJ.P. OR WK.P. OR WL.P. OR WM.P. OR WN.P. OR WO.P. OR WP.P. OR WQ.P. OR WR.P. OR WS.P. OR WT.P. OR WU.P. OR WV.P. OR WW.P. OR WX.P. OR WY.P. OR WZ.P. OR XA.P. OR XB.P. OR XC.P. OR XD.P. OR XE.P. OR XF.P. OR XG.P. OR XH.P. OR XI.P. OR XJ.P. OR XK.P. OR XL.P. OR XM.P. OR XN.P. OR XO.P. OR XP.P. OR XQ.P. OR XR.P. OR XS.P. OR XT.P. OR XU.P. OR XV.P. OR XW.P. OR XX.P. OR XY.P. OR XZ.P. OR YA.P. OR YB.P. OR YC.P. OR YD.P. OR YE.P. OR YF.P. OR YG.P. OR YH.P. OR YI.P. OR YJ.P. OR YK.P. OR YL.P. OR YM.P. OR YN.P. OR YO.P. OR YP.P. OR YQ.P. OR YR.P. OR YS.P. OR YT.P. OR YU.P. OR YV.P. OR YW.P. OR YX.P. OR YY.P. OR YZ.P. OR ZA.P. OR ZB.P. OR ZC.P. OR ZD.P. OR ZE.P. 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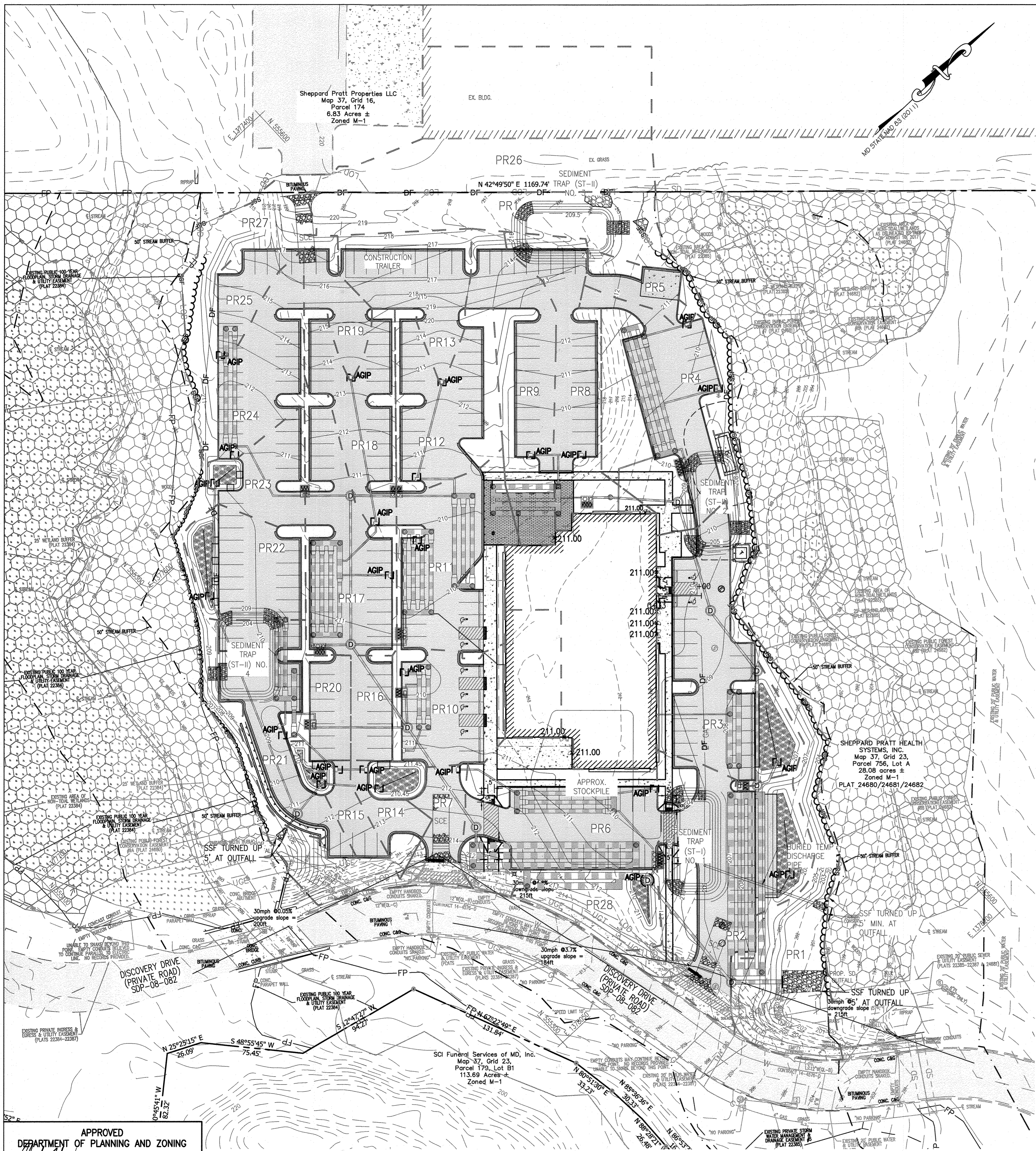
REVISIONS:  
 DATE: COMMENTS:

MCA JOB NO.: 19002.01  
 PROJ. MANAGER: DWM  
 SHEET BY: DWM  
 SHEET SET AND SHEET ISSUE DATE: 11/13/2020  
 SHEET NAME: SDP

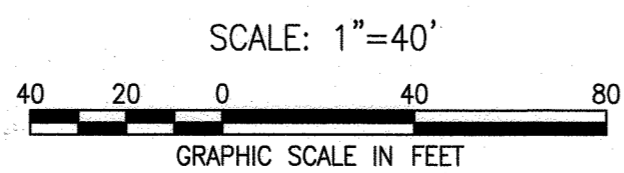
**INITIAL EROSION AND SEDIMENT CONTROL PLAN**

SHEET NO. **17** of 60

**SDP-20-057**



FINAL EROSION AND SEDIMENT CONTROL PLAN



- EXISTING LEGEND**
- EXISTING PROPERTY LINE
  - - - EXISTING EASEMENT
  - - - EXISTING SETBACK
  - - - EXISTING BUILDING
  - - - 210 EXISTING MAJOR CONTOUR
  - - - 209 EXISTING MINOR CONTOUR
  - - - EXISTING CURB
  - - - EXISTING CURB & GUTTER
  - - - EXISTING ROADWAY
  - - - EXISTING PAVEMENT
  - [ ] EXISTING ASPHALT PAVING
  - [ ] EXISTING CONCRETE PAVING
  - [ ] EXISTING SIGN
  - [ ] EXISTING ELECTRIC HANDBOX
  - [ ] EXISTING ELECTRIC MANHOLE
  - OHE- EXISTING OVERHEAD ELECTRIC
  - UGE- EXISTING UNDERGROUND ELECTRIC
  - COND- EXISTING UNDERGROUND CONDUIT
  - UGE- EXISTING DUCTBANK
  - FO- EXISTING FIBER OPTIC
  - G- EXISTING GAS LINE
  - CV#- EXISTING GAS VALVE
  - SS- EXISTING SANITARY LINE
  - [ ] EXISTING SANITARY MANHOLE
  - [ ] EXISTING SANITARY CLEANOUT
  - - - EXISTING STORMDRAIN LINE
  - [ ] EXISTING STORMDRAIN INLET
  - [ ] EXISTING STORMDRAIN MANHOLE
  - UGT- EXISTING TELEPHONE
  - [ ] EXISTING TELEPHONE MANHOLE
  - [ ] EXISTING TELEPHONE PEDESTAL
  - [ ] EXISTING UTILITY POLE
  - [ ] EXISTING LIGHT POLE
  - W- EXISTING WATER LINE
  - WM O EXISTING WATER METER
  - W e EXISTING WATER VALVE
  - [ ] EXISTING WATER MANHOLE
  - [ ] EXISTING FIRE HYDRANT
  - - - EXISTING STREAM CENTERLINE
  - - - EXISTING STREAM BUFFER
  - - - EXISTING WETLAND
  - WB- EXISTING WETLAND BUFFER
  - [ ] EXISTING WETLANDS
  - [ ] EXISTING FLOODPLAIN
  - - - EXISTING TREELINE
  - [ ] EXISTING DECIDUOUS TREE
  - [ ] EXISTING EVERGREEN TREE
  - [ ] EXISTING SHRUB
  - [ ] EXISTING PUBLIC FOREST CONSERVATION EASEMENT
- PROPOSED LEGEND**
- [ ] PROPOSED BUILDING
  - [ ] PROPOSED MAJOR CONTOUR
  - [ ] PROPOSED SPOT ELEVATION
  - [ ] PROPOSED CURB & GUTTER
  - [ ] PROPOSED REVERSE CURB & GUTTER
  - [ ] PROPOSED ROADWAY
  - [ ] PROPOSED SIDEWALK
  - [ ] PROPOSED CONCRETE WALK
  - [ ] PROPOSED CONCRETE PAD
  - [ ] PROPOSED ASPHALT PAVING
  - [ ] PROPOSED MEDIUM-DUTY ASPHALT
  - [ ] PROPOSED PAVERS
  - [ ] PROPOSED MICRO-BIORETENTION AREA
  - [ ] PROPOSED RIP RAP
  - [ ] PROPOSED ELECTRIC MANHOLE
  - UGE- PROPOSED UNDERGROUND ELECTRIC
  - G- PROPOSED GAS LINE
  - GV#- PROPOSED GAS VALVE
  - SS- PROPOSED SANITARY LINE
  - [ ] PROPOSED SANITARY MANHOLE
  - - - PROPOSED STORMDRAIN LINE
  - [ ] PROPOSED STORMDRAIN INLET
  - [ ] PROPOSED STORMDRAIN MANHOLE
  - UGT- PROPOSED TELEPHONE
  - W- PROPOSED WATER LINE
  - [ ] PROPOSED BIOCLEAN MODULAR
- ESC LEGEND**
- [ ] STABILIZED CONSTRUCTION ENTRANCE
  - LOD- LIMIT OF DISTURBANCE
  - DF- DIVERSION FENCE
  - TPF- TREE PROTECTION FENCE (INSTALL W/ SSF)
  - [ ] AT-GRADE INLET PROTECTION
  - - - DRAINAGE AREA DELINEATION

DA	AREA (SF/ACRES)	ESC DEVICE
PR1	22643/0.52	SUPER SILT FENCE
PR2	15465/0.36	AGIP
PR3	13402/0.31	AGIP
PR4	1285/0.30	AGIP
PR5	2292/0.05	AGIP
PR6	12640/0.29	AGIP
PR7	2995/0.07	AGIP
PR8	8109/0.19	AGIP
PR9	8138/0.19	AGIP
PR10	6723/0.15	AGIP
PR11	11012/0.25	AGIP
PR12	8635/0.20	AGIP
PR13	6383/0.15	AGIP
PR14	1950/0.04	AGIP
PR15	1456/0.03	AGIP
PR16	3485/0.08	AGIP
PR17	9297/0.21	AGIP
PR18	6629/0.15	AGIP
PR19	2817/0.06	AGIP
PR20	3121/0.07	AGIP
PR21	8646/0.20	AGIP
PR22	6230/0.14	AGIP
PR23	3968/0.09	AGIP
PR24	6189/0.14	AGIP
PR25	2423/0.06	AGIP
PR26	20148/0.46	DIVERSION FENCE
PR27	11865/0.27	SUPER SILT FENCE
PR28	4719/0.11	AGIP

**ENGINEER'S CERTIFICATE**

"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

*Judith A. Carroll* Judith A. Carroll 03/03/2020  
 Signature of Engineer Date  
 (print name below signature)

**DEVELOPER'S CERTIFICATE**

"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a certificate of attendance at a department of the environment approved training program for the control of sediment and erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

*Thomas D. Hess* Thomas D. Hess 08/04/2020  
 Signature of Developer Date  
 (print name below signature)

LOD = 5.15 AC.

**GENERAL NOTE:**  
 1. SEE SHEET C-606 FOR SEQUENCE OF CONSTRUCTION.

This document plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT

*Alexander Bratchie* 09/15/22  
 Howard SDD Date

DEPARTMENT OF PLANNING AND ZONING

10-15-22 DATE  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

10/22/22 DATE  
 CHIEF, DIVISION OF LAND DEVELOPMENT

10/27/22 DATE  
 DIRECTOR

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
 2031 Clipper Park Road, Suite 105  
 Baltimore, Maryland 21211  
 410.532.3131 | www.mca.design

**CIVIL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**LANDSCAPE DESIGN**  
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 14315 JARRETTSVILLE PIKE  
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STATE OF MARYLAND  
 JUDICIAL & CLERICAL  
 PROFESSIONAL ENGINEER  
 LICENSE NO. 14446 EXP. DATE: 5-25-23

NOT FOR CONSTRUCTION

Sheppard Pratt

**MEDICAL PAVILION**  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY  
 CORRIDOR 95 BUSINESS PARK - PARCEL A

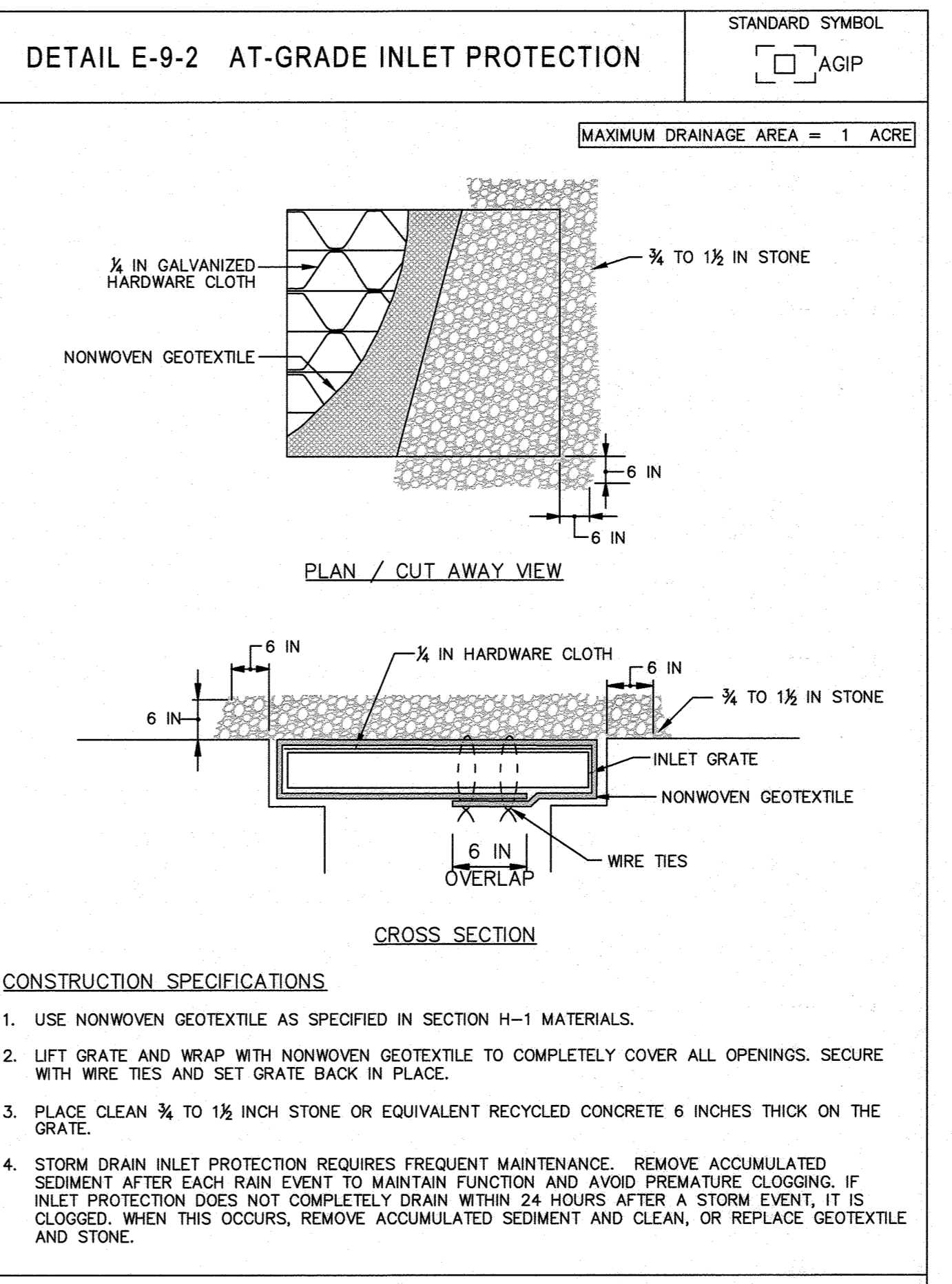
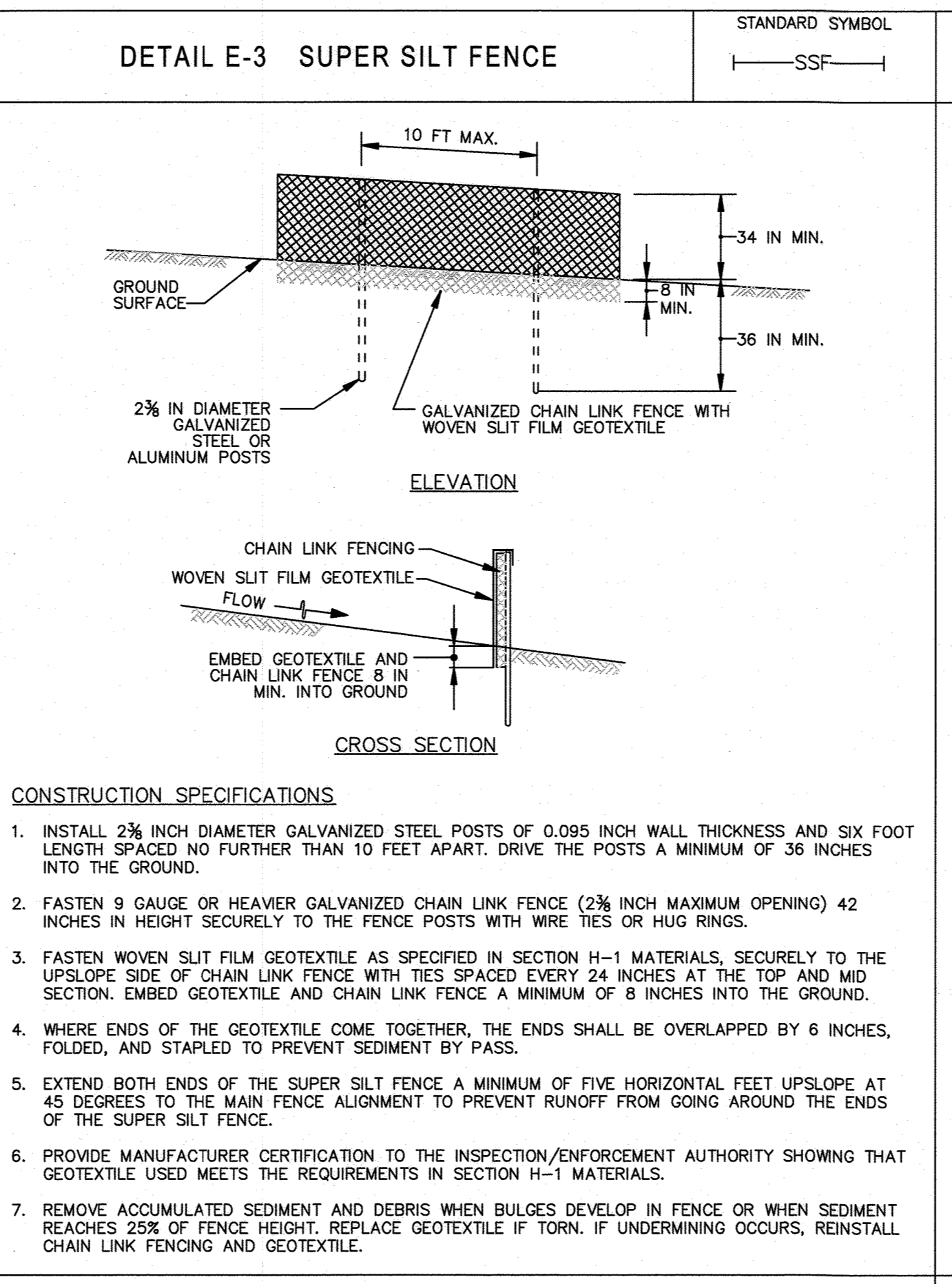
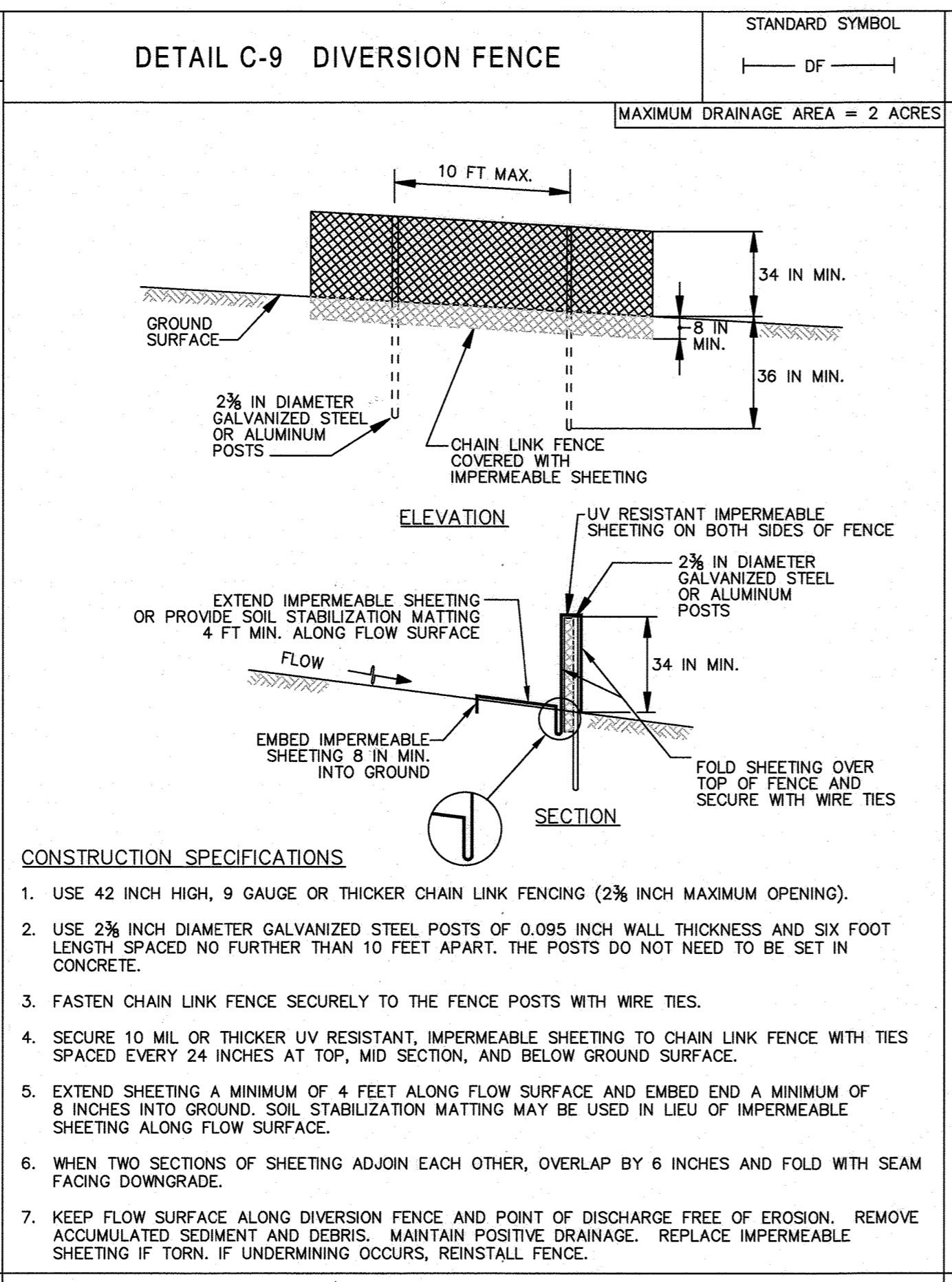
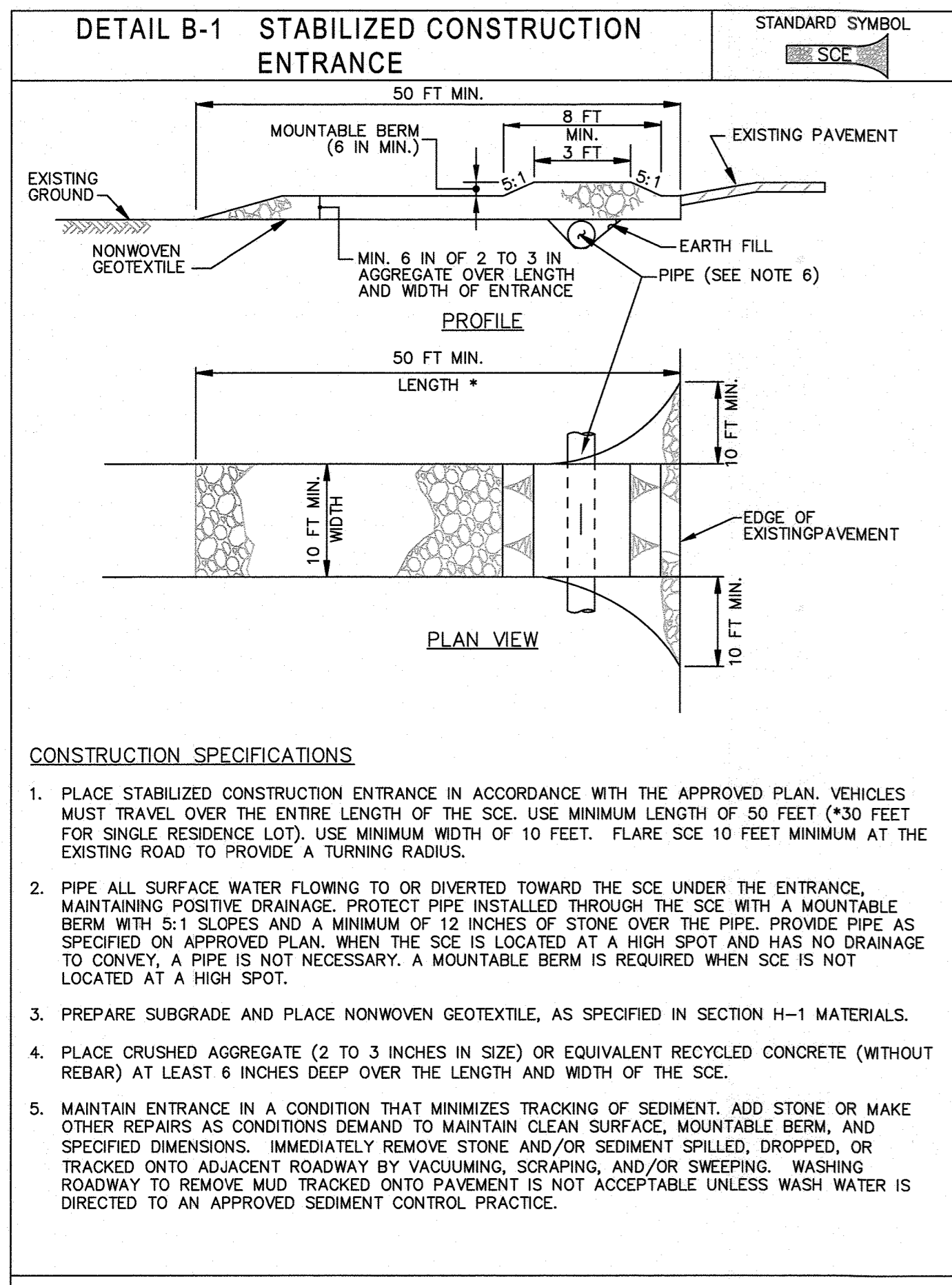
**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

**OWNER/DEVELOPER**  
 SHEPPARD PRATT HEALTH SYSTEM INC.  
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 TEL: 410-938-3242

**FINAL EROSION AND SEDIMENT CONTROL PLAN**

18 of 60  
 SDP-20-057

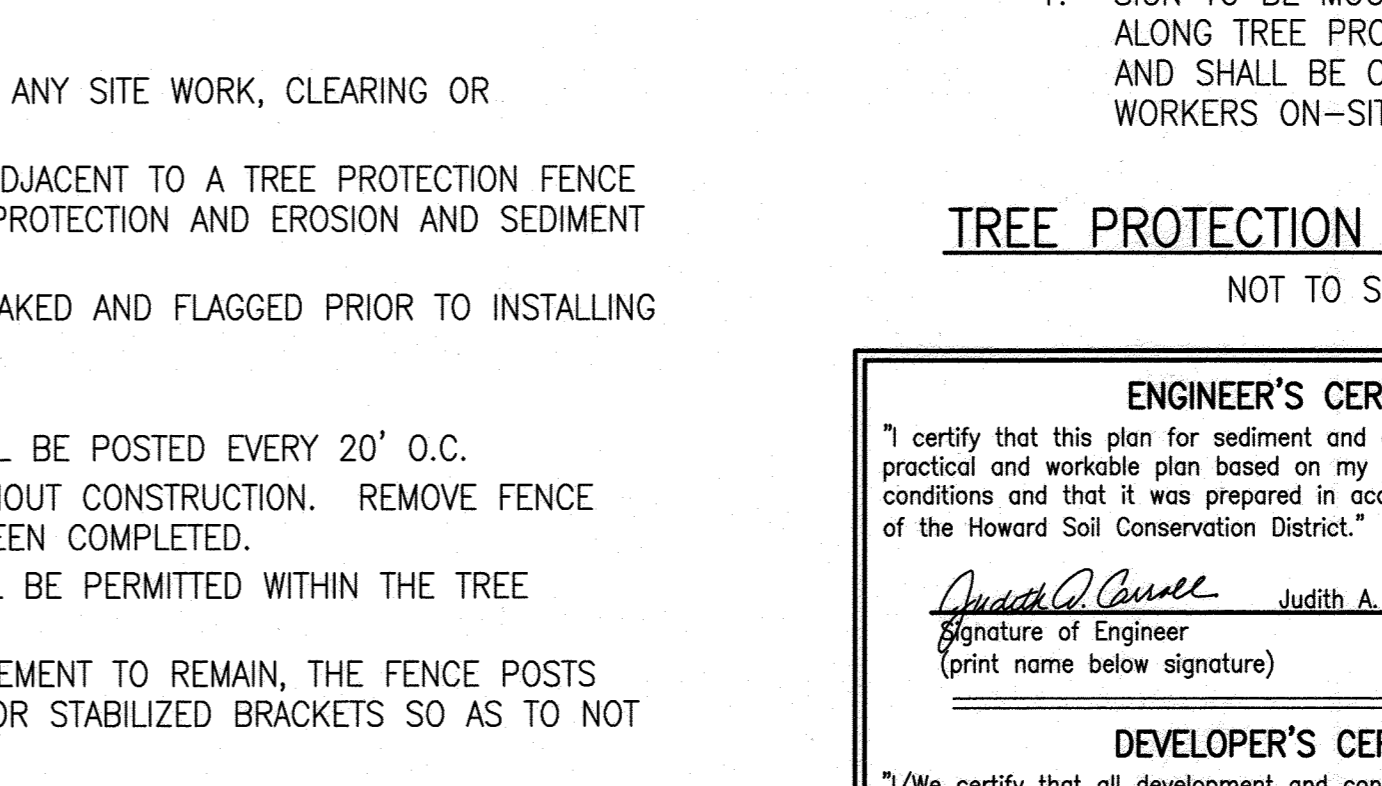
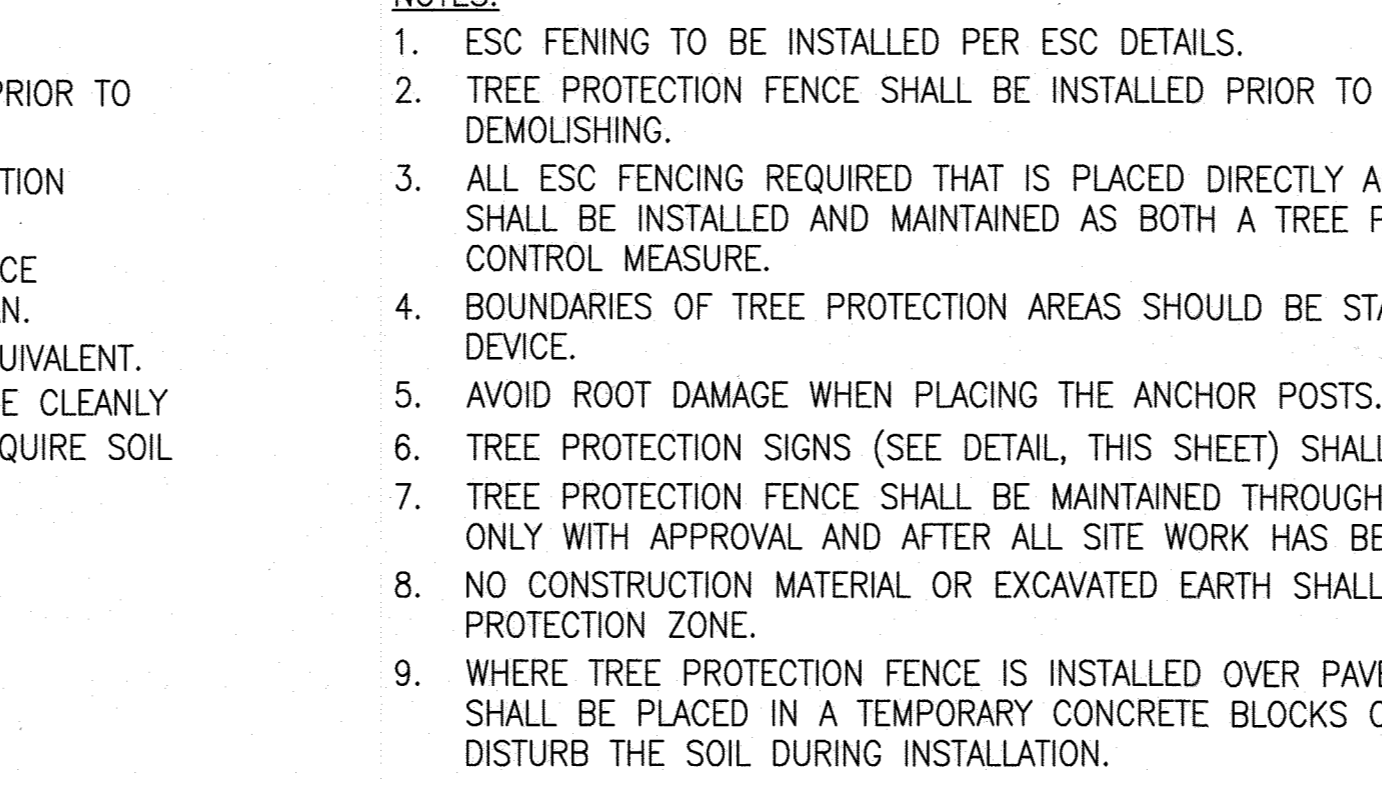
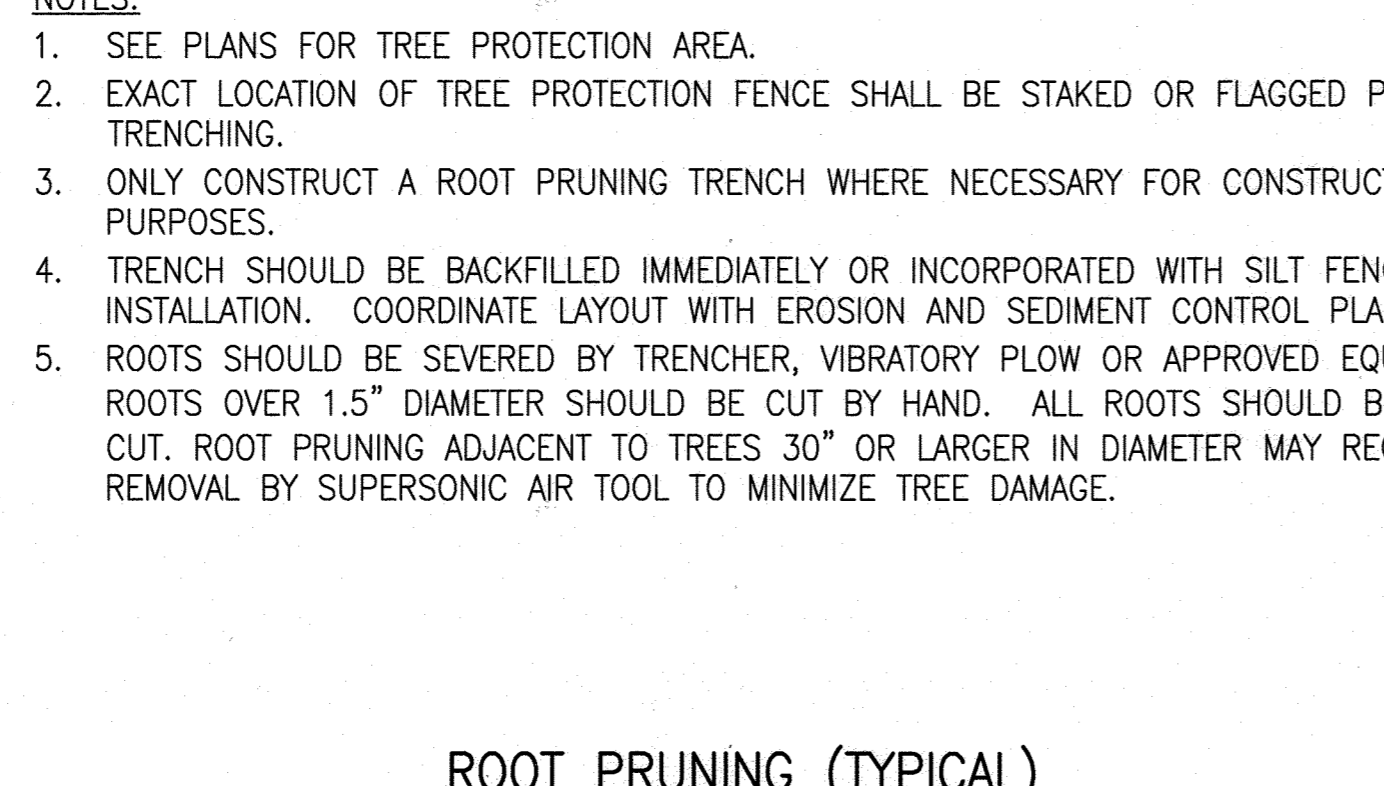
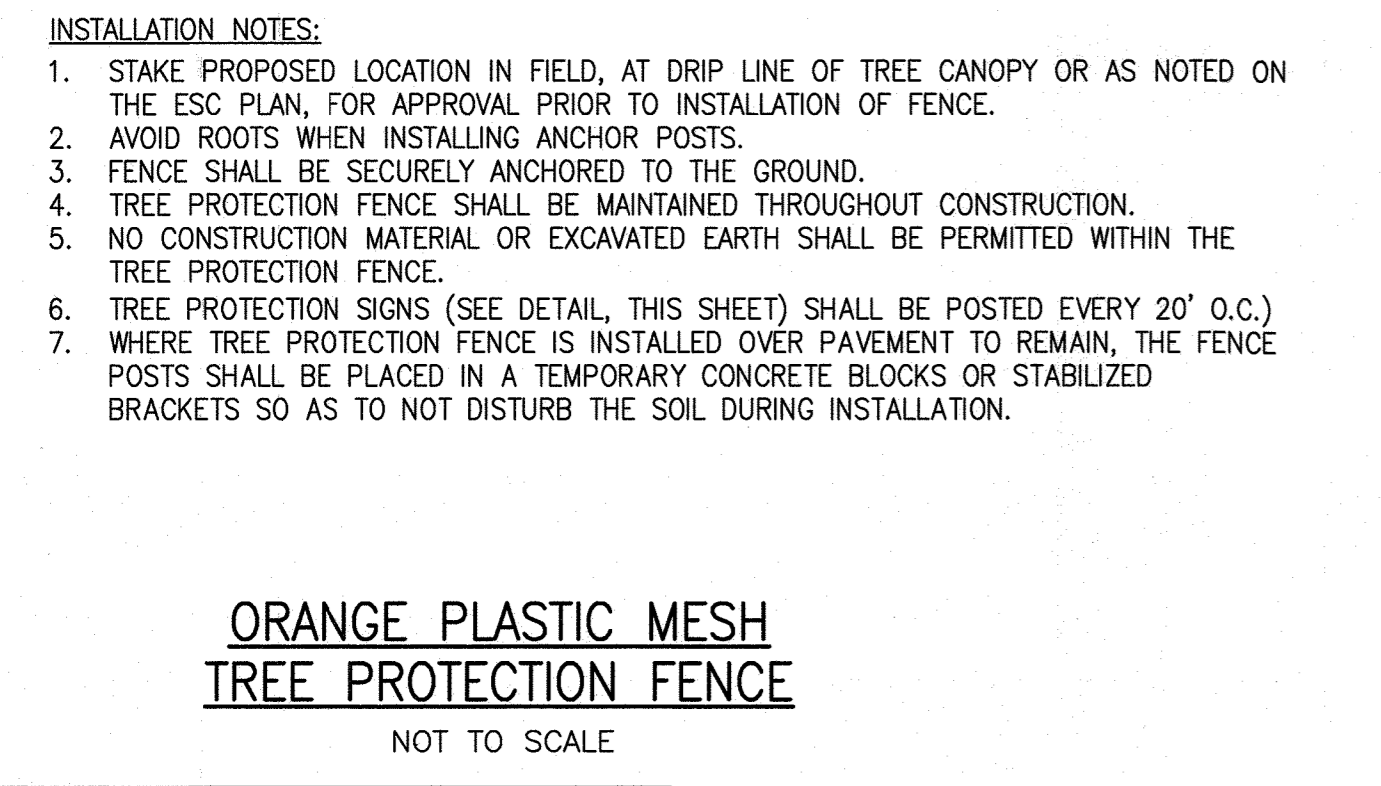
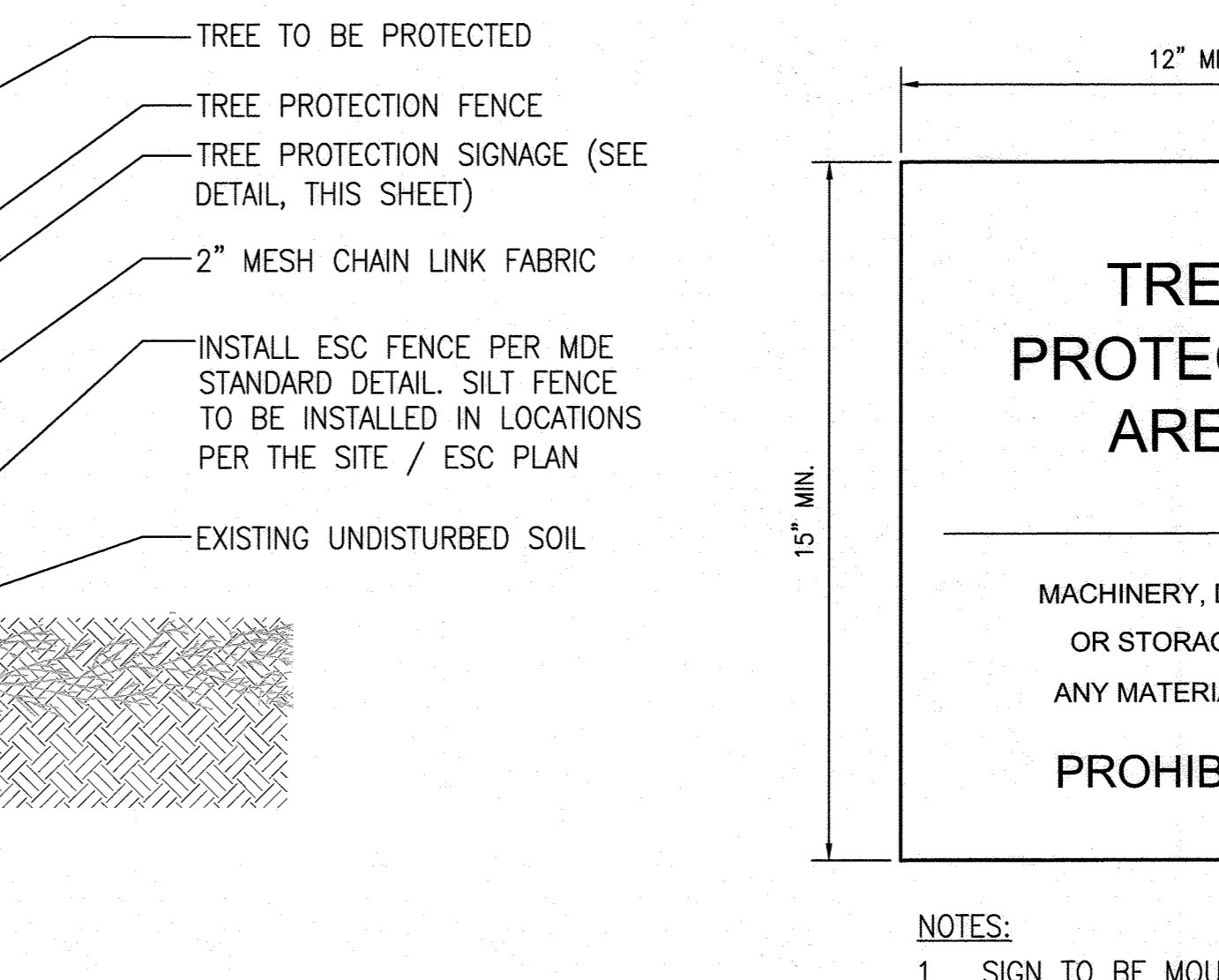
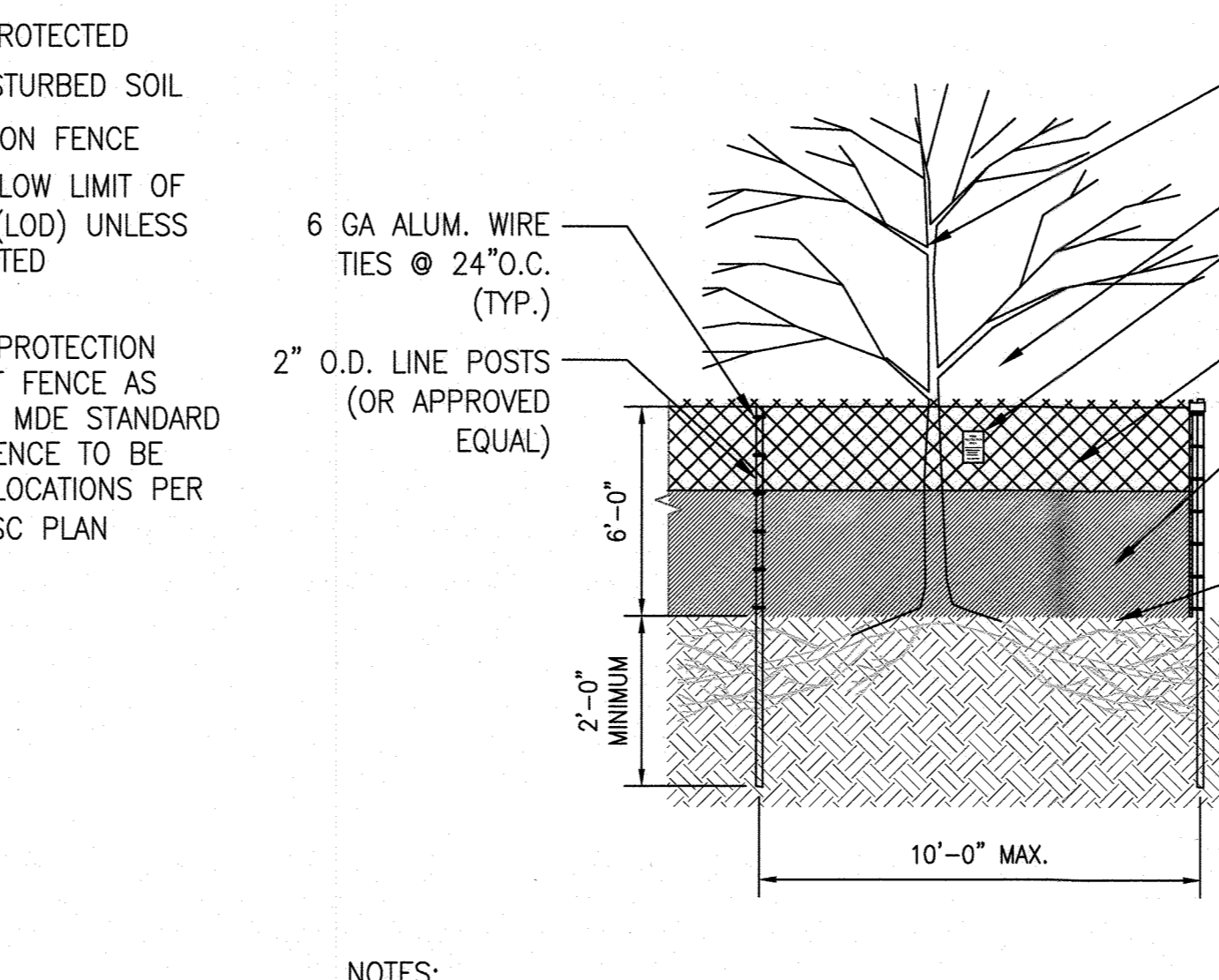
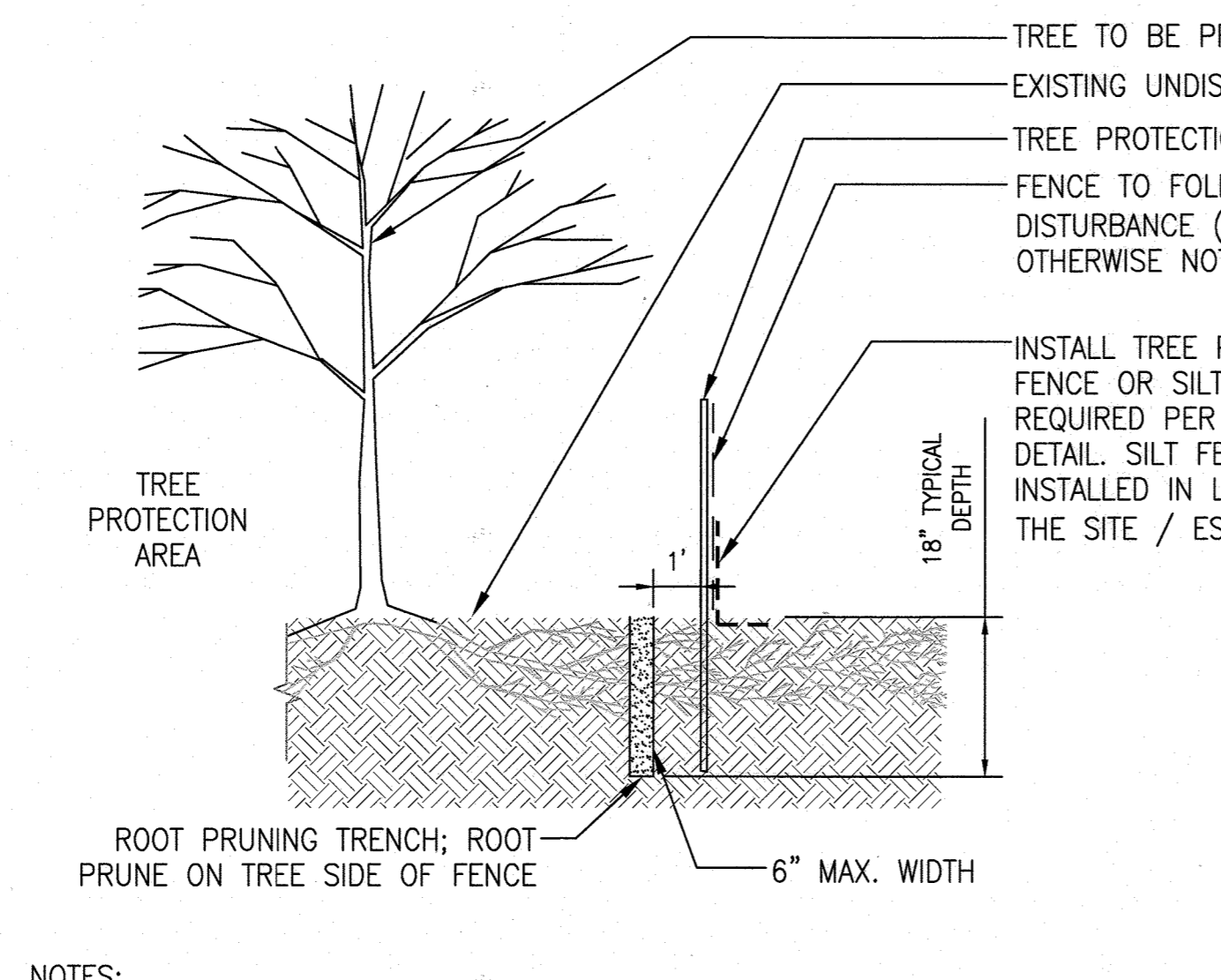
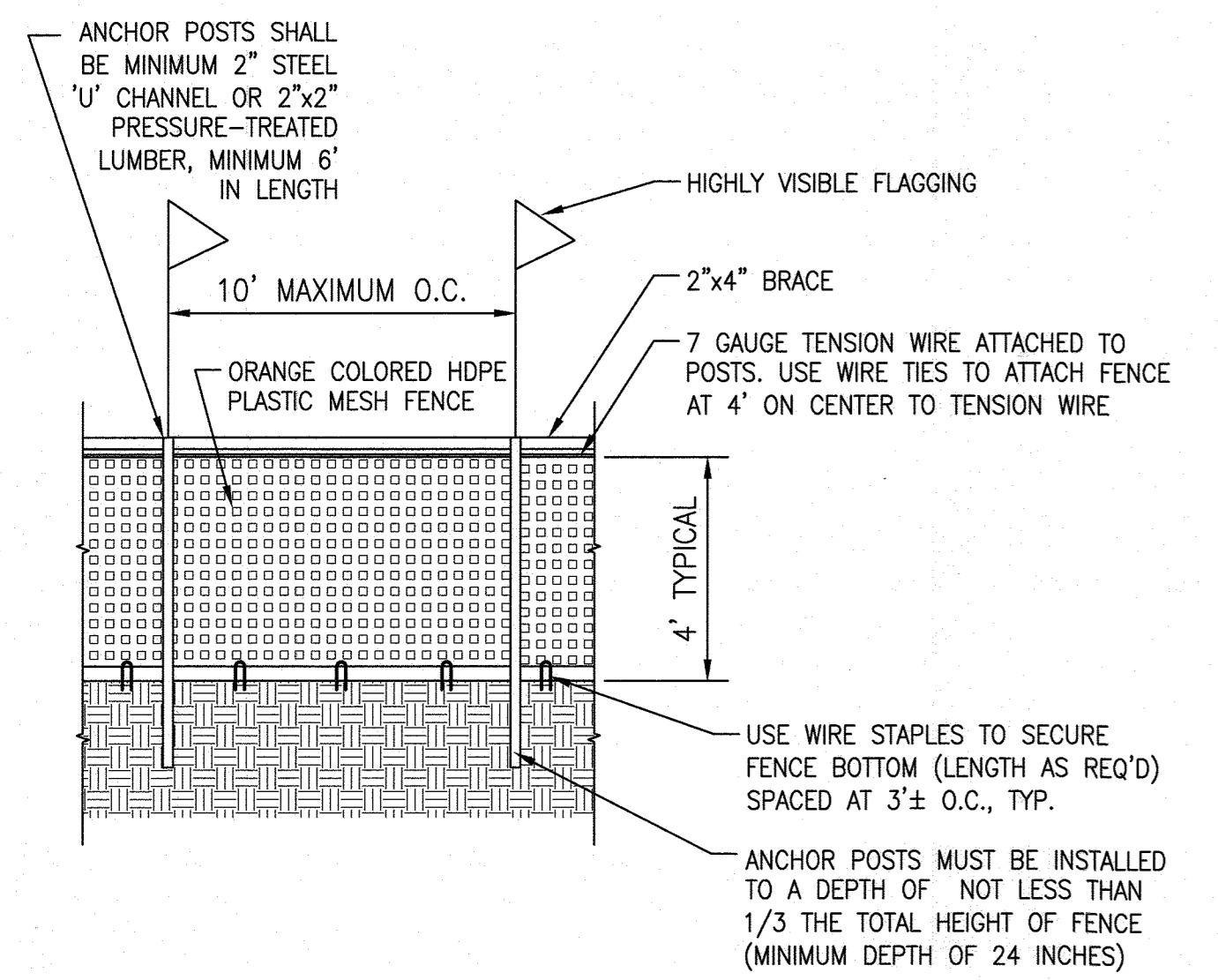


MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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APPROVED  
DEPARTMENT OF PLANNING AND ZONING

*John Smith* 10-15-22  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*John Doe* 01/27/22  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*John Doe* 10/27/22  
DIRECTOR DATE

This document plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT

*Alexander Batchi* 09/15/27  
Howard SCD Date

**ENGINEER'S CERTIFICATE**

"I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

*Judith A. Carroll* 08/21/2020  
Signature of Engineer Date

**DEVELOPER'S CERTIFICATE**

"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a certificate of attendance at a department of the environment approved training program for the control of sediment and erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Thomas D. Hess 08/04/2020  
Signature of Developer Date

**EROSION AND SEDIMENT CONTROL DETAILS**

SHEET NO. 19 of 60

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca-design.com

**CIVIL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**LANDSCAPE DESIGN**  
SITE RESOURCES, INC.  
14315 JARRETTVILLE PIKE  
PHOENIX, MD 21131  
410.683.3388

**STRUCTURAL ENGINEERING**  
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**MEP ENGINEERING**  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELK RIDGE, MD 21075  
410.579.8100

NOT FOR CONSTRUCTION

STATE OF MARYLAND  
JUDICIAL BRANCH  
PROFESSIONAL ENGINEER  
JAMES M. JEFFREY  
LICENSE NO. 14446 EXP. DATE: 5-25-23

Sheppard Pratt

**MEDICAL PAVILION**

7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
HOWARD COUNTY

CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

OWNER/DEVELOPER  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

**EROSION AND SEDIMENT CONTROL DETAILS**

SHEET NO. 19 of 60

SDP-20-057

**DETAIL G-1-1 PIPE OUTLET SEDIMENT TRAP ST-I** STANDARD SYMBOL **ST-I**

MAXIMUM DRAINAGE AREA = 5 ACRES

ISOMETRIC VIEW

SECTION

NOTE:  
 REFER TO DETAIL G-2-1 - TYPICAL ANTI-SEEP COLLARS  
 REFER TO DETAIL G-2-2 - RISER BASE  
 REFER TO DETAIL G-2-3 - CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE

1 OF 3

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**DETAIL G-1-1 PIPE OUTLET SEDIMENT TRAP ST-I** STANDARD SYMBOL **ST-I**

PIPE OUTLET SEDIMENT TRAP ST-I, TRAP NO. 1

DRAINAGE AREA - INITIAL	0.67	ACRES
DRAINAGE AREA - INTERIM	NA	ACRES
DRAINAGE AREA - FINAL	0.67	ACRES
TOTAL STORAGE REQUIRED	3600	CF
TOTAL STORAGE PROVIDED	3621	CF
WET STORAGE REQUIRED	1800	CF
WET STORAGE PROVIDED	2076	CF
DRY STORAGE REQUIRED	3600	CF
DRY STORAGE PROVIDED	3621	CF
TRAP BOTTOM ELEVATION	204.00	FT
TRAP BOTTOM DIMENSIONS	24 x 62	FT x FT
RISER CREST (DRY STORAGE) ELEVATION	206.5	FT
OUTLET (WET STORAGE) ELEVATION	205.50	FT
CLEANOUT ELEVATION	FT	FT
TOP OF EMBANKMENT ELEVATION	208.00	FT
SIDE SLOPE	2:1	H:V RATIO
EMBANKMENT TOP WIDTH	4	FT
PRINCIPAL SPILLWAY MATERIAL (BARREL, RISER, ANTI-SEEP COLLAR)	RISER	
RISER DIAMETER	21	IN
BARREL DIAMETER	15	IN
TRASH RACK DIAMETER	30	IN
TRASH RACK HEIGHT	18	IN
ANTI-SEEP COLLAR DIMENSIONS	5.75	FT
OUTLET PROTECTION - LENGTH	10	FT
OUTLET PROTECTION - WIDTH	5	FT
OUTLET PROTECTION - DEPTH	19	IN

3 OF 3

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**DETAIL G-1-1 PIPE OUTLET SEDIMENT TRAP ST-I** STANDARD SYMBOL **ST-I**

CONSTRUCTION SPECIFICATIONS

- CONSTRUCT TRAP IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE AVOIDED.
- CLEAR, GRUB, AND STRIP ANY VEGETATION AND ROOT MAT FROM THE AREA UNDER THE EMBANKMENT AND TRAP BOTTOM.
- PERFORATE THE RISER WITH 1 INCH DIAMETER HOLES SPACED 6 INCHES ON CENTER WITH THE LOWEST PERFORATIONS AT THE WET STORAGE ELEVATION OR PROVIDE A HORIZONTAL DRAW-DOWN DEVICE PERFORATED ACCORDING TO APPROVED PLAN. DO NOT PERFORATE THE RISER WITHIN 6 INCHES OF THE TOP OF THE HORIZONTAL BARREL.
- SET RISER/BARREL ASSEMBLY PRIOR TO EMBANKMENT CONSTRUCTION. MAKE ALL PIPE CONNECTIONS WATER TIGHT. OFFSET RISER FROM EMBANKMENT TO ACCOMMODATE PLACEMENT OF THE TRASH RACK. ANCHOR THE RISER WITH EITHER A REINFORCED CONCRETE BASE OR STEEL PLATE BASE TO PREVENT FLOTATION. MAKE CONCRETE BASES AT LEAST TWICE THE RISER DIAMETER AND 18 INCHES THICK WITH THE RISER EMBEDDED 9 INCHES.
- USE FILL MATERIAL FREE OF ROOTS, WOODY VEGETATION, OVERSIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL FOR THE EMBANKMENT.
- HAND COMPACT IN 4 INCH LAYERS FILL MATERIAL AROUND THE PIPE SPILLWAY. PLACE A MINIMUM OF 2 FEET OF HAND COMPACTED BACKFILL OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT.
- CONSTRUCT TOP OF EMBANKMENT 1 FOOT MINIMUM ABOVE RISER CREST. COMPACT THE EMBANKMENT BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
- MAKE ALL CUT AND FILL SLOPES 2:1 OR FLATTER.
- WRAP THE RISER WITH 1/4 INCH GALVANIZED HARDWARE CLOTH THEN WRAP WITH NONWOVEN GEOTEXTILE. DO NOT WRAP WITH MORE THAN ONE LAYER OF GEOTEXTILE. EXTEND HARDWARE CLOTH AND GEOTEXTILE AT LEAST 6 INCHES ABOVE THE HIGHEST POINTS OF INFLOW AND AT LEAST 6 INCHES BELOW THE LOWEST PERFORATIONS. OVERLAP, FOLD AND FASTEN WHERE ENDS OF GEOTEXTILE COME TOGETHER TO PREVENT BYPASS. REPLACE GEOTEXTILE AS NECESSARY TO PREVENT CLOGGING.
- USE STRAPS OR CONNECTING BANDS AT THE TOP AND BOTTOM OF THE GEOTEXTILE TO HOLD THE GEOTEXTILE AND HARDWARE CLOTH IN PLACE.
- USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
- STABILIZE THE EMBANKMENT AND INTERIOR SLOPES WITH SEED AND MULCH. STABILIZE POINTS OF CONCENTRATED INFLOW AS SHOWN ON APPROVED PLAN.
- CONSTRUCT AND MAINTAIN THE OUTLET ACCORDING TO THE APPROVED PLAN AND IN SUCH A MANNER THAT EROSION AT OR BELOW THE OUTLET DOES NOT OCCUR.
- REMOVE SEDIMENT AND RESTORE TRAP TO ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO CLEANOUT ELEVATION (50% OF WET STORAGE DEPTH). DEPOSIT REMOVED SEDIMENT IN AN APPROVED AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. KEEP POINTS OF INFLOW AND OUTFLOW AS WELL AS INTERIOR OF THE TRAP FREE FROM EROSION, AND REMOVE ACCUMULATED DEBRIS. MAINTAIN EMBANKMENTS TO CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. REMOVE ANY TREES, BRUSH, OR OTHER WOODY VEGETATION GROWING ON EMBANKMENT OR NEAR PRINCIPAL SPILLWAY. MAINTAIN LINE, GRADE, AND CROSS SECTION. MAINTAIN WATER TIGHT CONNECTIONS. REPLACE GEOTEXTILE AROUND PERFORATED RISER IF DRY STORAGE VOLUME DOES NOT DRAW DOWN WITHIN 10 HOURS.
- WHEN Dewatering TRAP, PASS REMOVED WATER THROUGH AN APPROVED SEDIMENT CONTROL PRACTICE.
- UPON REMOVAL, GRADE AND STABILIZE THE AREA OCCUPIED BY TRAP.

2 OF 3

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**DETAIL G-2-1 TYPICAL ANTI-SEEP COLLARS** STANDARD SYMBOL

CORRUGATED COLLAR WELDED IN PLACE ON BARREL SECTION

COLLAR FOR FLANGE JOINT PIPE

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

This document plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT

*Alexander Batchic* 09/15/22  
 Date

Howard #350

**DETAIL G-1-2 STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II** STANDARD SYMBOL **ST-II**

MAXIMUM DRAINAGE AREA = 10 ACRES

ISOMETRIC VIEW

SECTION A-A

SECTION B-B

1 OF 3

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**DETAIL G-1-2 STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II** STANDARD SYMBOL **ST-II**

CONSTRUCTION SPECIFICATIONS

- CONSTRUCT TRAP IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE AVOIDED.
- CLEAR, GRUB, AND STRIP ANY VEGETATION AND ROOT MAT FROM THE AREA UNDER THE EMBANKMENT AND TRAP BOTTOM.
- USE FILL MATERIAL FREE OF ROOTS, WOODY VEGETATION, OVERSIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL FOR THE EMBANKMENT.
- CONSTRUCT TOP OF EMBANKMENT 1 FOOT MINIMUM ABOVE WEIR CREST. COMPACT THE EMBANKMENT BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
- MAKE ALL CUT AND FILL SLOPES 2:1 OR FLATTER.
- PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE BOTTOM AND SIDES OF OUTLET AND APRON PRIOR TO PLACEMENT OF RIPRAP. OVERLAP SECTIONS OF GEOTEXTILE AT LEAST 1 FOOT WITH THE SECTION NEARER TO THE TRAP PLACED ON TOP. EMBED GEOTEXTILE AT LEAST 6 INCHES INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL.
- USE CLEAN 4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE ON THE APRON. USE OF RECYCLED CONCRETE EQUIVALENT IS ACCEPTABLE.
- PLACE 1 FOOT OF CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE ON THE UPSTREAM FACE OF THE WEIR.
- CONSTRUCT AND MAINTAIN THE OUTLET ACCORDING TO APPROVED PLAN, AND IN SUCH A MANNER THAT EROSION AT OR BELOW THE OUTLET DOES NOT OCCUR.
- STABILIZE THE EMBANKMENT AND INTERIOR SLOPES WITH SEED AND MULCH. STABILIZE POINTS OF CONCENTRATED INFLOW AS SHOWN ON APPROVED PLAN.
- REMOVE SEDIMENT AND RESTORE TRAP TO ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO CLEANOUT ELEVATION (50% OF WET STORAGE DEPTH). DEPOSIT REMOVED SEDIMENT IN AN APPROVED AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. KEEP POINTS OF INFLOW AND OUTFLOW AS WELL AS INTERIOR OF THE TRAP FREE FROM EROSION, AND REMOVE ACCUMULATED DEBRIS. MAINTAIN EMBANKMENTS TO CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. REMOVE ANY TREES, BRUSH, OR OTHER WOODY VEGETATION GROWING ON EMBANKMENT OR NEAR PRINCIPAL SPILLWAY. MAINTAIN LINE, GRADE, AND CROSS SECTION.
- WHEN Dewatering TRAP, PASS REMOVED WATER THROUGH AN APPROVED SEDIMENT CONTROL PRACTICE.
- UPON REMOVAL, GRADE AND STABILIZE THE AREA OCCUPIED BY TRAP.

2 OF 3

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**ENGINEER'S CERTIFICATE**

I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

*Judith A. Carroll* 08/21/2020  
 Signature of Engineer Date

**DEVELOPER'S CERTIFICATE**

I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a certificate of attendance at a department of the environment approved training program for the control of sediment and erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.

*Thomas D. Hess* 08/04/2020  
 Signature of Developer Date

**Sediment Trap Maintenance**

Sediment and debris must be removed and the trap restored to its original dimensions when sediment accumulates to the cleanout elevation (50% of the wet storage depth for ST-I and ST-II and 25% of the storage depth for STIII). Removed sediment must be deposited in an approved area in such a manner that it will not erode. The points of inflow and outflow as well as the interior of the trap must be cleared of any accumulated debris and kept free of erosion. The embankments must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Any trees, brush, or other woody vegetation growing on the embankment or near the principal spillway must be removed. The line, grade, and cross section must be maintained. Water tight connections must be maintained for ST-I. If the dry storage volume in a ST-I does not draw down within 10 hours, the geotextile around the perforated riser must be replaced.

**DETAIL G-1-2 STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II** STANDARD SYMBOL **ST-II**

STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II, TRAP NO. 2

DRAINAGE AREA - INITIAL	0.33	ACRES
DRAINAGE AREA - INTERIM	N/A	ACRES
DRAINAGE AREA - FINAL	0.33	ACRES
TOTAL STORAGE REQUIRED	3600	CF
TOTAL STORAGE PROVIDED	4305	CF
WET STORAGE REQUIRED	1800	CF
WET STORAGE PROVIDED	1888	CF
DRY STORAGE REQUIRED	3600	CF
DRY STORAGE PROVIDED	4305	CF
EXISTING GROUND ELEVATION AT OUTLET (WET STORAGE ELEVATION)	208.50/206.25	FT
TRAP BOTTOM ELEVATION	205.00	FT
TRAP BOTTOM DIMENSIONS	23' x 58'	FT x FT
WEIR LENGTH	6	FT
WEIR CREST (DRY STORAGE) ELEVATION	207.50	FT
CLEANOUT ELEVATION	206.25	FT
TOP OF EMBANKMENT ELEVATION	208.50	FT
SIDE SLOPE	2:1	H:V RATIO
EMBANKMENT TOP WIDTH	4	FT
OUTLET PROTECTION - LENGTH	5	FT
OUTLET PROTECTION - DEPTH	19	IN

3 OF 3

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**DETAIL G-1-2 STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II** STANDARD SYMBOL **ST-II**

STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II, TRAP NO. 3

DRAINAGE AREA - INITIAL	0.44	ACRES
DRAINAGE AREA - INTERIM	N/A	ACRES
DRAINAGE AREA - FINAL	0.44	ACRES
TOTAL STORAGE REQUIRED	3600	CF
TOTAL STORAGE PROVIDED	4779	CF
WET STORAGE REQUIRED	1800	CF
WET STORAGE PROVIDED	1827	CF
DRY STORAGE REQUIRED	3600	CF
DRY STORAGE PROVIDED	4779	CF
EXISTING GROUND ELEVATION AT OUTLET (WET STORAGE ELEVATION)	213.0 (210.60)	FT
TRAP BOTTOM ELEVATION	209.5	FT
TRAP BOTTOM DIMENSIONS	26' x 59'	FT x FT
WEIR LENGTH	6	FT
WEIR CREST (DRY STORAGE) ELEVATION	212.0	FT
CLEANOUT ELEVATION	210.60	FT
TOP OF EMBANKMENT ELEVATION	213.0	FT
SIDE SLOPE	2:1	H:V RATIO
EMBANKMENT TOP WIDTH	6	FT
OUTLET PROTECTION - LENGTH	5	FT
OUTLET PROTECTION - DEPTH	19	IN

3 OF 3

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**DETAIL G-1-2 STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II** STANDARD SYMBOL **ST-II**

STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II, TRAP NO. 4

DRAINAGE AREA - INITIAL	1.19	ACRES
DRAINAGE AREA - INTERIM	N/A	ACRES
DRAINAGE AREA - FINAL	1.19	ACRES
TOTAL STORAGE REQUIRED	4284	CF
TOTAL STORAGE PROVIDED	5247	CF
WET STORAGE REQUIRED	2142	CF
WET STORAGE PROVIDED	2383	CF
DRY STORAGE REQUIRED	4284	CF
DRY STORAGE PROVIDED	5247	CF
EXISTING GROUND ELEVATION AT OUTLET (WET STORAGE ELEVATION)	207.5 (205.25)	FT
TRAP BOTTOM ELEVATION	204	FT
TRAP BOTTOM DIMENSIONS	35' x 52'	FT x FT
WEIR LENGTH	6	FT
WEIR CREST (DRY STORAGE) ELEVATION	206.5	FT
CLEANOUT ELEVATION	205.25	FT
TOP OF EMBANKMENT ELEVATION	207.5	FT
SIDE SLOPE	2:1	H:V RATIO
EMBANKMENT TOP WIDTH	6	FT
OUTLET PROTECTION - LENGTH	5	FT
OUTLET PROTECTION - DEPTH	19	IN

3 OF 3

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

APPROVED  
 DEPARTMENT OF PLANNING AND ZONING

*Cheryl G. Graw* 10/15/22  
 DATE

*Cheryl G. Graw* 10/27/22  
 DATE

*Cheryl G. Graw* 10/27/22  
 DATE

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
 2031 Clipper Park Road, Suite 105  
 Baltimore, Maryland 21211  
 410.532.3131 | www.mca.design

**CIVIL ENGINEERING**  
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 410.785.7423

**LANDSCAPE DESIGN**  
 SITE RESOURCES, INC.  
 14315 JARRETTVILLE PIKE  
 PHOENIX, MD 21131  
 410.683.3388

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 410.785.7423

**MEP ENGINEERING**  
 LEACH WALLACE ASSOC., INC.  
 6822 MEADOWRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.579.8100

NOT FOR CONSTRUCTION

STATE OF MARYLAND  
 JUDICIAL BRANCH  
 REGISTERED PROFESSIONAL ENGINEER

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

LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt

**MEDICAL PAVILION**

7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY

CORRIDOR 95 BUSINESS PARK - PARCEL A

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBMISSION NAME: CORRIDOR 95 BUSINESS PARK SECTION/AREA: N/A LOT/PARCEL NO.: 10/0798  
 PLAN# OR L# F: 22384/22385 PROJ: 0023 TAX MAP# 0037 EJECT DATE: 1/4/2023 CROSSING TRST: 6012.03

OWNER/DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N CHARLES STREET BALTIMORE, MARYLAND 21285-6815 TEL: 410-938-3242

REVISIONS:

DATE	COMMENTS
------	----------

MCA JOB NO: 19002.01 PROJ MANAGER: DWMM SHEET BY: DWMM  
 SHEET SET AND SHEET ISSUE DATE: 11/13/2020

**EROSION AND SEDIMENT CONTROL DETAILS**

SHEET NO. **20** of 60

**SDP-20-057**

B-3 STANDARDS AND SPECIFICATIONS FOR LAND GRADING

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.

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.

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.

- 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 2:1.
3. Benching per Detail B-3-1 whenever the vertical interval (height) of any 2:1 slope exceeds 20 feet...

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.

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.

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; and permanent 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.

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 within the root zone.

Sediment control practices must remain in place during grading, seedbed preparation, seeding, mulching, and vegetative establishment.

Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the planting season.

- 1. Adequate vegetative stabilization requires 95 percent groundcover.
2. If an area has less than 40 percent groundcover, restabilize following the original recommendations for lime, fertilizer, seedbed preparation, and seeding.
3. If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates originally specified.
4. Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

APPROVED DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division 10/15/22
Chief, Division of Land Development 10/27/22
Director 10/27/22

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.

Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

- 1. Excavate and stabilize cut slopes in increments not to exceed 15 feet in height.
2. Construction sequence example (Refer to Figure B.1):
a. Construct and stabilize all temporary swales or dikes that will be used to convey runoff around the excavation.
b. Perform Phase 1 excavation, prepare seedbed, and stabilize.
c. Perform Phase 2 excavation, prepare seedbed, and stabilize.
d. Perform final phase excavation, prepare seedbed, and stabilize.

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.

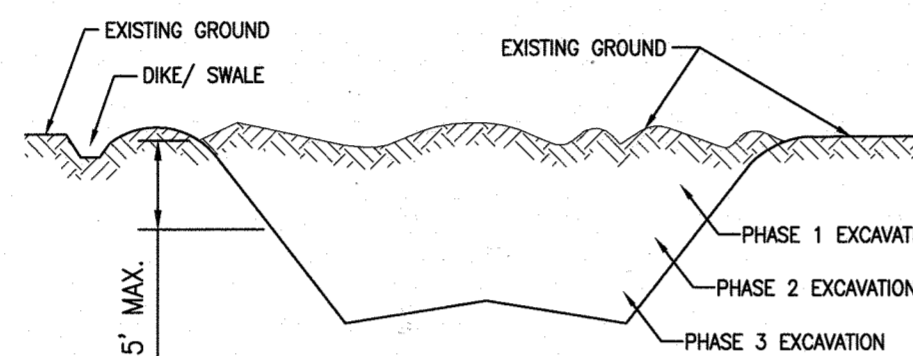


Figure B.1: Incremental Stabilization - Cut

B. Incremental Stabilization - Fill Slopes

- 1. Construct and stabilize fill slopes in increments not to exceed 15 feet in height.
2. Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading operation ceases as prescribed in the plans.
3. 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.
4. Construction sequence example (Refer to Figure B.2):
a. Construct and stabilize all temporary swales or dikes that will be used to divert runoff around the fill.
b. 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.

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.

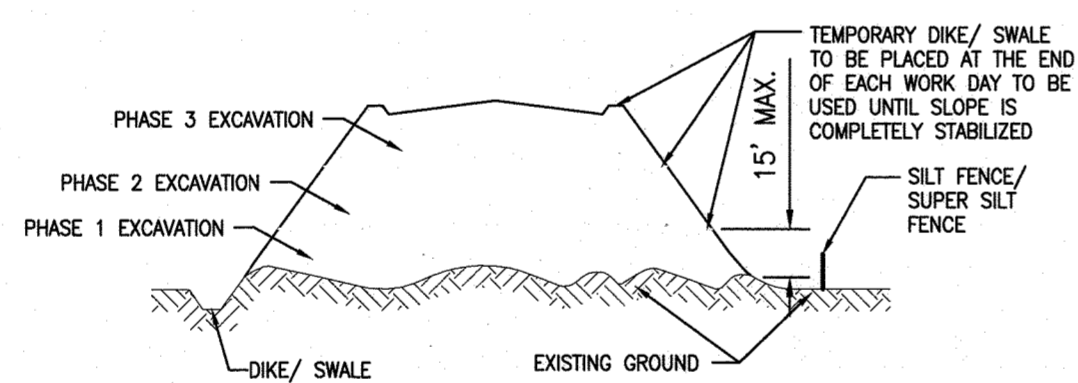


Figure B.2: Incremental Stabilization - Fill

ENGINEER'S CERTIFICATE
I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
Signature of Engineer: Judith A. Carroll, Date: 03/03/2020
DEVELOPER'S CERTIFICATE
I/we certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a certificate of attendance at a department of the environment approved training program for the control of sediment and erosion before beginning the project.
Signature of Developer: Thomas D. Hess, Date: 08/04/2020

This document plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT
Signature: Howard SCD, Date: 09/15/22

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

The process of preparing the soils to sustain adequate vegetative stabilization.

To provide a suitable soil medium for vegetative growth.

Where vegetative stabilization is to be established.

- A. Soil Preparation
1. Temporary Stabilization
a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment.
2. Permanent Stabilization
a. A soil test is required for any earth disturbance of 5 acres or more.
B. Topsoiling
1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation.
2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications.
3. Topsoiling is limited to areas having 2:1 or flatter slopes where:
a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
C. Mulching
1. Mulch Materials (in order of preference)
a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color.

B-4-3 STANDARDS AND SPECIFICATIONS FOR 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.

To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

- A. Seeding
1. Specifications
a. All seed must meet the requirements of the Maryland State Seed Law.
b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen.
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.
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.
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.
b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.
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.
c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre.
3. Anchoring
a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water.
i. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tack II, Terra Tack AR or other approved equal may be used.

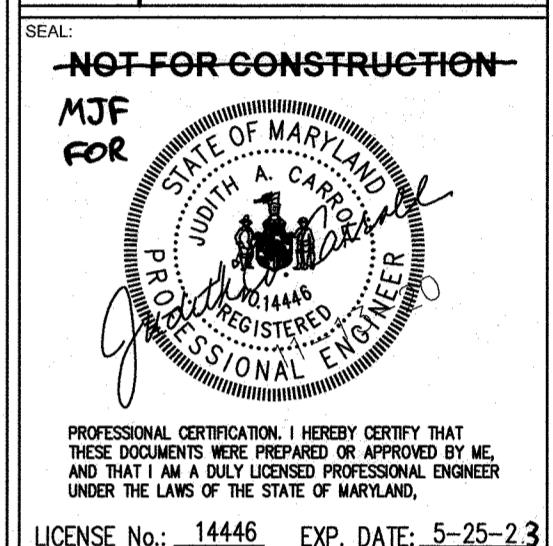
Marshall Craft Associates, Inc.
2031 Clipper Park Road, Suite 105
Baltimore, Maryland 21211
410.532.3131 | www.mca-design.com

CIVIL ENGINEERING
CARROLL ENGINEERING, INC.
215 SCHILLING CIR., SUITE 102
HUNT VALLEY, MD 21031
410.785.7423

LANDSCAPE DESIGN
SITE RESOURCES, INC.
14315 JARRETTVILLE PIKE
PHOENIX, MD 21131
410.683.5388

STRUCTURAL ENGINEERING
CARROLL ENGINEERING, INC.
215 SCHILLING CIR., SUITE 102
HUNT VALLEY, MD 21031
410.785.7423

MEP ENGINEERING
LEACH WALLACE ASSOC., INC.
6522 MEADOWBROOK RD #1
ELK RIDGE, MD 21075
410.579.8100



Sheppard Pratt
MEDICAL PAVILION
7190 DISCOVERY DRIVE
ELK RIDGE, MARYLAND 21075
CORRIDOR 95 BUSINESS PARK - PARCEL A

ADDRESS CHART
LOT/PARCEL# STREET ADDRESS
MEDICAL PAVILION 7190 DISCOVERY DRIVE
SECTION NAME SECTION/AREA LOT/PARCEL#
CORRIDOR 95 BUSINESS PARK N/A N/A
PLAT # OR L/P GRID 220NO TAX DISTRICT CROSS TRACT
2224/2225 0023 M-1 MPP 0037 H&E 602.03

PROVISIONS
DATE: COMMENTS:
MCA JOB NO. PROJ.MANAGER SHEET BY
19002.01 DWDM DWDM
SHEET SET AND SHEET ISSUE DATE:
SDP 11/13/2020

EROSION AND SEDIMENT CONTROL NOTES
SHEET NO. 21 of 60
SDP-20-057



H-1 STANDARDS AND SPECIFICATIONS FOR MATERIALS

Table H.1: Geotextile Fabrics

Table with 4 columns: PROPERTY, TEST METHOD, MINIMUM AVERAGE ROLL VALUE (MD, CD), and NONWOVEN GEOTEXTILE. Rows include Grab Tensile Strength, Grab Tensile Elongation, Trapezoidal Tear Strength, Puncture Strength, Apparent Opening Size, Permittivity, and Ultraviolet Resistance.

1 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 direction.

2 Values for AOS represent the average maximum opening.

Geotextiles must be evaluated by the National Transportation Product Evaluation Program (NTPPE) 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.

Table H.2: Stone Size

Table with 6 columns: TYPE, SIZE RANGE, d, d, AASHTO, MIDSIZE WEIGHT. Rows include NUMBER 57, RIFRAP 2 (CLASS 0), CLASS 1, CLASS 2, and CLASS 3.

1 This classification is to be used on the upstream face of stone outlets and check dams.

2 This classification is to be used for gabions.

3 Optimum gradation is 50 percent of the stone being above and 50 percent below the midsize.

Stone must be composed of a well graded mixture of stone sized so that fifty (50) percent of the pieces by weight are larger than the size determined by using the charts. A well graded mixture, as used herein, is defined as a mixture composed primarily of larger stone sizes but with a sufficient mixture of other sizes to fill the smaller voids between the stones. The diameter of the largest stone in such a mixture must not exceed the respective d100 selected from Table H.2. The d50 refers to the median diameter of the stone. This is the size for which 50 percent, by weight, will be smaller and 50 percent will be larger.

Note: Recycled concrete equivalent may be substituted for all stone classifications for temporary control measures only. Concrete broken into the sizes meeting the appropriate classification, containing no steel reinforcement, and having a minimum density of 150 pounds per cubic foot may be used as an equivalent.

H-5 STANDARDS AND SPECIFICATIONS FOR DUST CONTROL

Definition

Controlling the suspension of dust particles from construction activities

Purpose

To prevent blowing and movement of dust from exposed soil surfaces to reduce on and off-site damage including health and traffic hazards.

Conditions Where Practice Applies

Areas subject to dust blowing and movement where on and off-site damage is likely without treatment

Specifications

- 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 materials 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.

HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC.B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
6. SITE ANALYSIS: TOTAL AREA OF SITE 28.08± ACRES, AREA DISTURBED 5.15±(ON-SITE) 0.00±(OFF-SITE) ACRES, AREA TO BE ROOFED OR PAVED 2.91± ACRES, AREA TO BE VEGETATIVELY STABILIZED 2.24± ACRES, TOTAL CUT 15,341 CU. YDS., TOTAL FILL 3,592 CU. YDS., OFFSITE WASTE/BORROW ARE LOCATION 11,749 CU. YDS.

- 7. ANY SEDIMENT CONTROL PRACTICE THAT IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
8. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
9. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
10. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
11. ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
12. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
13. EXCESS CUT OR BORROW MATERIAL SHALL GO TO, OR COME FROM, RESPECTIVELY, A SITE WITH AN OPEN GRADING PERMIT.

INLET PROTECTION NOTE

THE CONTRACTOR SHALL INSTALL INLET PROTECTION ON ALL STORM DRAIN INLETS WITH THE EXCEPTION OF THE FOLLOWING:

- \*1. ANY INLET OUTFALLING DIRECTLY INTO A SEDIMENT TRAPPING DEVICE. STORM DRAINS TO BE FLUSHED PRIOR TO TRAPPING DEVICE REMOVAL.
2. INLETS ON PRIVATE OR PUBLIC PAVED ROADWAYS OPEN TO THE PUBLIC. ALL INLET PROTECTION WILL BE INSTALLED AS DIRECTED BY THE INSPECTOR IN ACCORDANCE WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" PAGE E-16-5A OR E-16-5B. THE REMOVAL OF ANY INLET PROTECTION DEVICES WILL REQUIRED APPROVAL FROM THE INSPECTOR.
\* STORM DRAINS TO BE FLUSHED PRIOR TO TRAPPING DEVICE REMOVAL.

UTILITY CONSTRUCTION NOTE

- 1. CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF THE TRENCH IS TO REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE) OF THE TRENCH.
2. PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
3. ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

TRAP FLOW DIVERSION NOTE

"TO PREVENT SLOPE EROSION, WITHIN SEDIMENT TRAPPING DEVICES, ADEQUATELY SIZED AND STABILIZED FLOW DIVERSION MEASURES (I.E., EARTH DIKE, TEMPORARY SWALE, PERIMETER DIKE/SWALE) SHALL BE INSTALLED AT THE UPSLOPE EXTENT OF TRAP, AND BASIN STORAGE AREAS TO DIVERT ALL FLOWS TO APPROPRIATE INFLOW PROTECTION DEVICES.

TEMPORARY STOCKPILES

- IF TEMPORARY STOCKPILES ARE REQUIRED, THEY SHALL BE:
1. LOCATED WITHIN THE LIMITS OF DISTURBANCE (L.O.D.).
2. DRAIN TO A FUNCTIONING SEDIMENT CONTROL DEVICE.
3. POSITIONED TO NOT IMPEDE UPON, OR IMPAIR THE FUNCTION OF SAID DEVICE.
4. POSITION TO NOT ALTER DRAINAGE DIVIDES.

SEQUENCE OF OPERATIONS/CONSTRUCTION

- 1. OBTAIN A GRADING PERMIT
2. NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS/LICENSES/PERMITS (DILP) AT 410-313-1823 AT LEAST 7 DAYS PRIOR TO COMMENCING WORK FOR ADDITIONAL NOTIFICATIONS AND PRE-CONSTRUCTION MEETING REQUIREMENTS.
3. NOTIFY THE DPW SEDIMENT CONTROL DIVISION AT 410-313-1855 SEVEN DAYS BEFORE COMMENCING ANY LAND DISTURBING ACTIVITY, AND UNLESS WAIVED BY THE DISTRICT, SHALL BE REQUIRED TO HOLD A PRE-CONSTRUCTION MEETING BETWEEN PROJECT REPRESENTATIVES. THE ON-SITE PRE-CONSTRUCTION MEETING WITH ALL PARTIES SHALL BE TO DISCUSS SITE ISSUES INCLUDING, BUT NOT LIMITED TO, SECURITY, CIRCULATION, WAYS AND MEANS, LIMITS OF RESPONSIBILITIES AND WORK, AND TO INSPECT SITE FOR ANY UNFORESEEN CONDITIONS.
INITIAL WORK
4. PROVIDE SURVEY AND LAYOUT OF THE LIMIT OF DISTURBANCE (LOD) AND SEDIMENT CONTROL DEVICES. THE LOD MUST BE FIELD MARKED AND ORANGE HIGH VISIBILITY TREE PROTECTION FENCE SHALL BE INSTALLED PRIOR TO AND INSPECTED AT THE PRE-CONSTRUCTION MEETING. 2 DAYS
5. CONDUCT ON-SITE PRE-CONSTRUCTION MEETING WITH ALL PARTIES TO DISCUSS ISSUES INCLUDING, BUT NOT LIMITED TO PHASES OF CONSTRUCTION RELATIVE TO EROSION AND SEDIMENT CONTROL (ESC), WAYS AND MEANS AND LIMITS OF RESPONSIBILITIES AND WORK, AND TO INSPECT THE SITE FOR ANY UNFORESEEN CONDITIONS. 1 DAY
6. WITH THE PERMISSION OF THE CID INSPECTOR, CLEAR AND GRUB FOR INSTALLATION OF INITIAL PERIMETER CONTROLS. INSTALL EROSION AND SEDIMENT CONTROL DEVICES INCLUDING STABILIZED CONSTRUCTION ENTRANCE, SUPER SILT FENCE BEFORE COMMENCING ANY WORK. 1 DAY
7. WITH THE PERMISSION OF THE CID INSPECTOR, CLEAR AND GRUB THE PORTIONS OF THE SITE NECESSARY TO INSTALL SEDIMENT TRAPS AND DIVERSION FENCE. 3 DAYS
8. WITH THE PERMISSION OF THE CID INSPECTOR, CLEAR, GRUB AND ROUGH GRADE CONTRACTOR'S TRAILER AREA AS DESIGNATED ON THE INITIAL EROSION AND SEDIMENT CONTROL PLAN, C-600. 2 DAYS

FINAL WORK

- 9. WITH THE PERMISSION OF THE CID INSPECTOR, CLEAR AND GRUB THE PORTIONS OF THE SITE NECESSARY TO INSTALL EW-1, MH-6, MH-5, MWS-2 (WITHOUT MEDIA & FILTER), MH-15, MH-16, I-3, I-4, DETENTION STORAGE 2 (DS2) AND MH-10. INSTALL SAID STRUCTURES AND ASSOCIATED PIPES IN A DOWN STREAM TO UP STREAM MANNER. TEMPORARILY PLUG OPENING FOR FUTURE PIPE CONNECTIONS. STABILIZE ANY DISTURBED AREA DURING THIS PROCESS IMMEDIATELY AND INSTALL AT-GRADE INLET PROTECTION. REMOVE SUPER SILT FENCE BELOW OUTFALLS. 5 DAYS
10. UPON STABILIZATION AND WITH THE PERMISSION OF THE CID INSPECTOR, REMOVE SEDIMENT TRAP #1. 2 DAYS
11. WITH THE PERMISSION OF THE CID INSPECTOR, CLEAR AND GRUB THE PORTIONS OF THE SITE NECESSARY TO INSTALL DETENTION STORAGE 1 (DS1), OS-1, MH-4, OS-2, MWS-3 (WITHOUT MEDIA & FILTER CARTRIDGE), MH-17, MH-18, MH-2, MH-1, MWS-1 (WITHOUT MEDIA & FILTER CARTRIDGE), MH-13, MH14, I-2, I-1, MH-8, MWS-5 (WITHOUT MEDIA & FILTER CARTRIDGE), MH-22, MH-21, MH-23, I-6 AND I-7. INSTALL SAID STRUCTURES AND ASSOCIATED PIPES IN A DOWN STREAM TO UP STREAM MANNER. TEMPORARILY PLUG OPENING FOR FUTURE PIPE CONNECTIONS. STABILIZE ANY DISTURBED AREA DURING THIS PROCESS IMMEDIATELY AND INSTALL AT-GRADE INLET PROTECTION. 10 DAYS
12. UPON STABILIZATION AND WITH THE PERMISSION OF THE CID INSPECTOR, REMOVE SEDIMENT TRAP #2. 2 DAYS
13. CONCURRENT WITH STEPS 11 AND 12, AND WITH THE PERMISSION OF THE CID INSPECTOR, CLEAR AND GRUB THE PORTIONS OF THE SITE NECESSARY TO INSTALL MH-9, MWS-6 (WITHOUT MEDIA & FILTER CARTRIDGE), MH-24, MH-25, I-9, I-8 AND MH-7. INSTALL SAID STRUCTURES AND ASSOCIATED PIPES IN A DOWN STREAM TO UP STREAM MANNER. TEMPORARILY PLUG OPENING FOR FUTURE PIPE CONNECTIONS. STABILIZE ANY DISTURBED AREA DURING THIS PROCESS IMMEDIATELY AND INSTALL AT-GRADE INLET PROTECTION. 5 DAYS
14. CONCURRENT WITH STEP 13, AND WITH THE PERMISSION OF THE CID INSPECTOR, CLEAR AND GRUB THE PORTIONS OF THE SITE NECESSARY TO INSTALL MWS-4 (WITHOUT MEDIA & FILTER CARTRIDGE), MH-31, MH-30, I-15, I-16, I-17, MH-1, MWS-7 (WITHOUT MEDIA & FILTER CARTRIDGE), MH-27, MH-28, I-11, I-10, MWS-10 (WITHOUT MEDIA & FILTER CARTRIDGE), MH-32, MH-33, I-18 AND I-19. INSTALL SAID STRUCTURES AND ASSOCIATED PIPES IN A DOWN STREAM TO UP STREAM MANNER. TEMPORARILY PLUG OPENING FOR FUTURE PIPE CONNECTIONS. STABILIZE ANY DISTURBED AREA DURING THIS PROCESS IMMEDIATELY AND INSTALL AT-GRADE INLET PROTECTION. 10 DAYS
15. UPON STABILIZATION AND WITH THE PERMISSION OF THE CID INSPECTOR, REMOVE SEDIMENT TRAP #3. 2 DAYS
16. WITH THE PERMISSION OF THE CID INSPECTOR, CLEAR AND GRUB THE PORTIONS OF THE SITE NECESSARY TO INSTALL ES-1, MH-12, OS-4, OS-3, OS-6 AND OS-5. INSTALL SAID STRUCTURES AND ASSOCIATED PIPES IN A DOWN STREAM TO UP STREAM MANNER. TEMPORARILY PLUG OPENING FOR FUTURE PIPE CONNECTIONS. STABILIZE ANY DISTURBED AREA DURING THIS PROCESS IMMEDIATELY AND INSTALL AT-GRADE INLET PROTECTION. REMOVE SUPER SILT FENCE BELOW OUTFALLS. 5 DAYS
17. CONCURRENT WITH STEP 16, BEGIN CONSTRUCTION OF RETAINING WALLS, CURB & GUTTERS AND VEHICULAR GUARDRAILS. 15 DAYS
18. CONCURRENT WITH STEPS 10 THROUGH 17, CONSTRUCT REMAINING UTILITIES. 20 DAYS
19. CONCURRENT WITH STEPS 10 THROUGH 18, COMPLETE BUILDING, SITE RETAINING WALLS, CURB & GUTTERS, PEDESTRIAN WALKWAYS, VEHICULAR GUARDRAILS AND VEHICULAR PAVING. 120 DAYS
20. COMPLETE FINE GRADING AND TOPSOIL OF PROPOSED LAWN AND PLANTING AREAS. INSTALL LANDSCAPE PLANT MATERIAL. COMPLETE SEEDING AND MULCHING OF LAWN AREAS. 15 DAYS
21. ONCE SITE IS STABILIZED AND WITH THE APPROVAL OF CID INSPECTOR, BEGIN CONVERSION OF MICRO BIO-RETENTION FACILITIES AND STORMWATER MANAGEMENT PRACTICES. NOTE - A THREE DAY DRY FORECAST MUST BE ESTABLISHED PRIOR TO START OF WORK PER NATIONAL OCEANIC AND ATMOSPHERIC ASSOCIATION (NOAA) WEATHER FORECAST. IN THE EVENT OF RAINFALL, REMOVABLE PUMP STATION AND PORTABLE SEDIMENT TANKS TO BE EMPLOYED TO TREAT WATER REMOVED FROM EXCAVATION. 10 DAYS
22. ONLY UPON RECEIVING PERMISSION FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE REMAINING SEDIMENT CONTROL DEVICES AND IMMEDIATELY STABILIZE ALL AREAS DISTURBED BY DEVICE REMOVAL. 1 DAY

APPROVED DEPARTMENT OF PLANNING AND ZONING. Chief, Development Engineering Division: 10-15-22. Chief, Division of Land Development: 10/27/22. Director: 10/27/22.

ENGINEER'S CERTIFICATE: I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District. Signed by Judith A. Carroll, 03/03/2020. DEVELOPER'S CERTIFICATE: I/we certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a certificate of attendance at a department of the environment approved training program for the control of sediment and erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District. Signed by Thomas D. Hess, 08/04/2020.

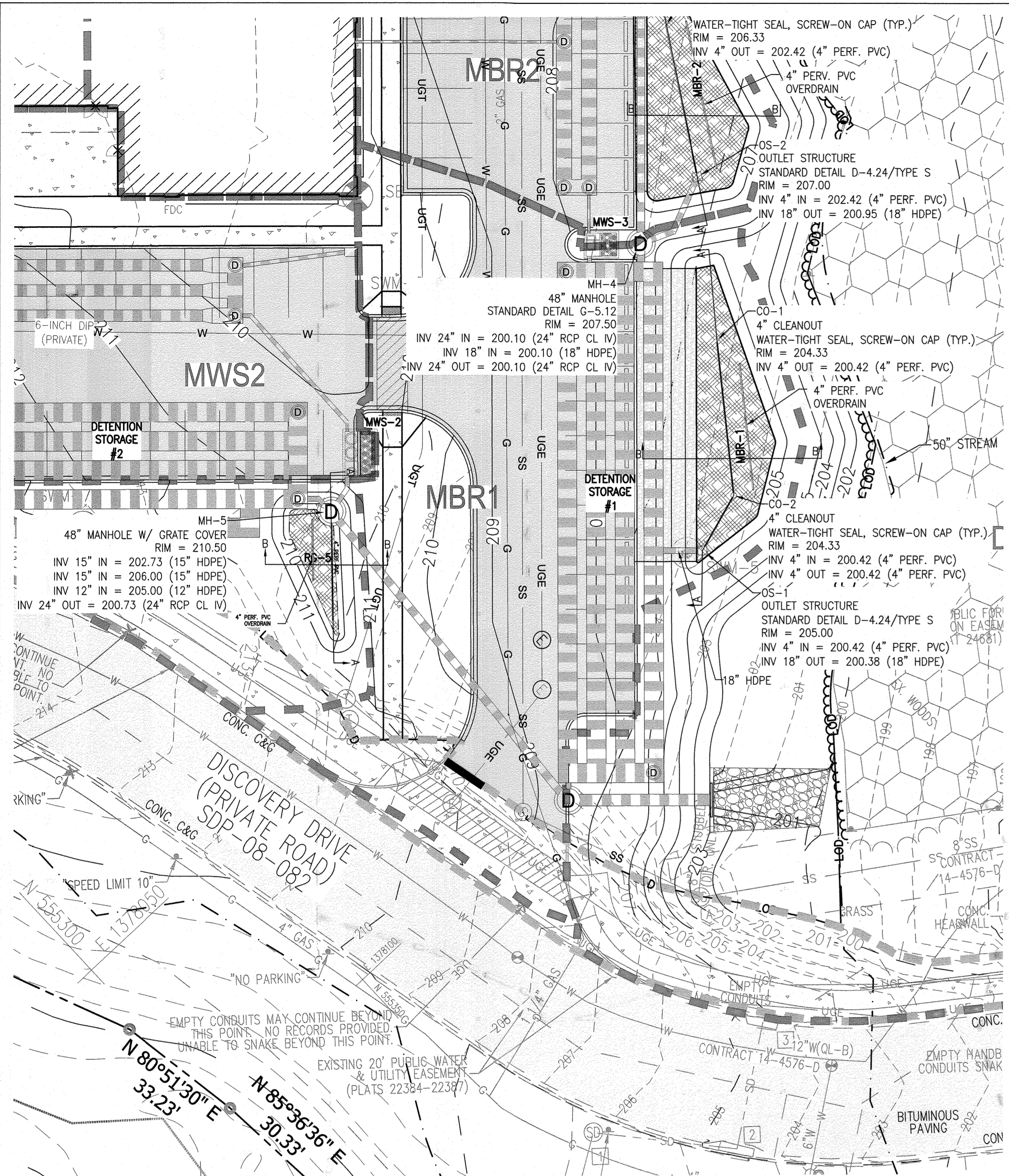
This document plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT. Signed by Alexander Butcher, 09/15/22.

MCA ARCHITECTURE logo. Marshall Craft Associates, Inc. 2031 Clipper Park Road, Suite 105 Baltimore, Maryland 21211 410.532.3131 | www.mca-design.com. CIVIL ENGINEERING: CARROLL ENGINEERING, INC. 215 SCHILLING CIR., SUITE 102 HUNT VALLEY, MD 21031 410.785.7423. LANDSCAPE DESIGN: SITE RESOURCES, INC. 14315 JARRETTVILLE PIKE PHOENIX, MD 21131 410.683.3388. STRUCTURAL ENGINEERING: CARROLL ENGINEERING, INC. 215 SCHILLING CIR., SUITE 102 HUNT VALLEY, MD 21031 410.785.7423. MEP ENGINEERING: LEACH WALLACE ASSOC. INC. 6522 MEADOWBRIDGE RD #1 ELK RIDGE, MD 21075 410.579.8100. NOT FOR CONSTRUCTION. State of Maryland Professional Engineer Seal for James H. Wallace, License No. 14446, Exp. Date: 5-25-23.

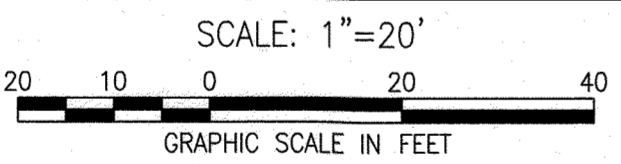
Sheppard Pratt logo. MEDICAL PAVILION. 7190 DISCOVERY DRIVE ELK RIDGE, MARYLAND 21075 HOWARD COUNTY. CORRIDOR 95 BUSINESS PARK - PARCEL A

ADDRESS CHART table with columns: LOT/PARCEL#, STREET ADDRESS. Medical Pavilion: 7190 DISCOVERY DRIVE. SUBDIVISION NAME: CORRIDOR 95 BUSINESS PARK. SECTION/AREA: N/A. LOT/PARCEL NO.: 230A/2205. TAX MAP ID: 0023. DIST. CODE: M-1. COUNTY: ELK RIDGE. OWNER/DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N CHARLES STREET BALTIMORE, MARYLAND 21285-6815 TEL: 410-938-3242.

REVISIONS table with columns: NO., DATE, COMMENTS. MCA JOB NO: 19002.01. PROJ. MANAGER: DWM. SHEET BY: DWM. SHEET SET AND SHEET ISSUE DATE: 11/13/2020. SHEET NAME: EROSION AND SEDIMENT CONTROL NOTES. SHEET NO: 23 of 60. SDP-20-057.



**STORMWATER MANAGEMENT PLAN - MBR-1**



**AS-BUILT NOTE:**

- THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:
- AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
    - SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
    - SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
    - INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
    - SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
    - THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
  - MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
  - PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
    - PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
    - PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
    - PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
  - COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.

**AS BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME	SIGNATURE
MARYLAND REGISTRATION NUMBER (PE OR LS)	DATE
FACILITY BEING CERTIFIED: MBR1 MICRO-BIORETENTION FACILITY	

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057		
AS-BUILT DATA FOR MICRO-BIORETENTION		
*TO BE COMPLETED BY THE PROJECT CONTRACTOR		
BMP ID: MBR1		
FEATURE	DESIGN	*AS-BUILT
SURFACE ELEVATION	204.00	
SURFACE DIMENSIONS (LxW)	87'x34' IRREGULAR	
BOTTOM DIMENSIONS (LxW)	75'x20' IRREGULAR	
STORAGE VOLUME AT OUTLET	1292 CF	
OBSERVATION WELL WITH DEPTH TO BOTTOM INDICATED ON CAP	4" PVC/4.43	
MEDIA TYPE / THICKNESS (SEE PS 47)	24" BSM	
SAND THICKNESS	4 INCHES	
MULCH THICKNESS	3 INCHES	
PEA GRAVEL THICKNESS	6 INCHES	
OUTLET STRUCTURE / RIM ELEVATION	18" PVC/205.00	
UNDERDRAIN SIZE & TYPE	4" PVC	
UNDERDRAIN MAX. INVERT UP / DOWN	200.42/200.42	
OUTLET PIPE SIZE & TYPE	18" HDPE	
OUTLET PIPE INVERT UP / DOWN	200.38/200.15	
RECHARGE BED BOTTOM ELEVATION	199.92	
OUTLET STRUCTURE COORDINATES	N 555490.69 E 1307878.87	

DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

**NOTES:**

- ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH CHAPTER 5 AND APPENDIX B.4 "SPECIFICATIONS FOR ENVIRONMENTAL SITE DESIGN PRACTICES" OF THE CURRENT MARYLAND STORMWATER DESIGN MANUAL. SHA BSM SOIL MEDIA MIX IS TO BE USED IN BIORETENTION FACILITIES.
- THE GRAVEL LAYER (NO. 57 STONE) SHALL BE AT LEAST 6" THICK BELOW THE UNDERDRAIN PIPE FOR THE BIORETENTION AREA..
- THE UNDERDRAIN SHALL BE INSTALLED AT A MINIMUM SLOPE OF 0.5%.
- OBSERVATION WELLS SHALL BE 4" PVC CLEANOUT EXTENDING 6" ABOVE FINISHED GRADE. (SEE DETAIL ON SHEET C720)
- BIORETENTION AREAS SHALL NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
- SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.

**EXISTING LEGEND**

- EXISTING PROPERTY LINE
- - - EXISTING EASEMENT
- - - EXISTING SETBACK
- ▭ EXISTING BUILDING
- - - 210 EXISTING MAJOR CONTOUR
- - - 209 EXISTING MINOR CONTOUR
- - - EXISTING CURB
- - - EXISTING CURB & GUTTER
- - - EXISTING ROADWAY
- - - EXISTING PAVEMENT
- ▨ EXISTING ASPHALT PAVING
- ▨ EXISTING CONCRETE PAVING
- ▲ EXISTING SIGN
- ⊕ EXISTING ELECTRIC HANDBOX
- ⊕ EXISTING ELECTRIC MANHOLE
- OHE- EXISTING OVERHEAD ELECTRIC
- UGE- EXISTING UNDERGROUND ELECTRIC
- COND- EXISTING UNDERGROUND CONDUIT
- UGCB- EXISTING DUCTBANK
- FO- EXISTING FIBER OPTIC
- G- EXISTING GAS LINE
- GV#- EXISTING GAS VALVE
- SS- EXISTING SANITARY LINE
- ⊕ EXISTING SANITARY MANHOLE
- ⊕ EXISTING SANITARY CLEANOUT
- ⊕ EXISTING STORMDRAIN LINE
- ⊕ EXISTING STORMDRAIN INLET
- ⊕ EXISTING STORMDRAIN MANHOLE
- ⊕ EXISTING TELEPHONE
- ⊕ EXISTING TELEPHONE MANHOLE
- ⊕ EXISTING TELEPHONE PEDESTAL
- ⊕ EXISTING UTILITY POLE
- ⊕ EXISTING LIGHT POLE
- ⊕ EXISTING WATER LINE
- ⊕ EXISTING WATER METER
- ⊕ EXISTING WATER VALVE
- ⊕ EXISTING WATER MANHOLE
- ⊕ EXISTING FIRE HYDRANT
- ⊕ EXISTING STREAM CENTERLINE
- ⊕ EXISTING STREAM BUFFER
- ⊕ EXISTING WETLAND
- ⊕ EXISTING WETLAND BUFFER
- ▨ EXISTING WETLANDS
- ▨ EXISTING FLOODPLAIN
- ⊕ EXISTING TREELINE
- ⊕ EXISTING DECIDUOUS TREE
- ⊕ EXISTING EVERGREEN TREE
- ⊕ EXISTING SHRUB
- ⊕ EXISTING PUBLIC FOREST CONSERVATION EASEMENT

**PROPOSED LEGEND**

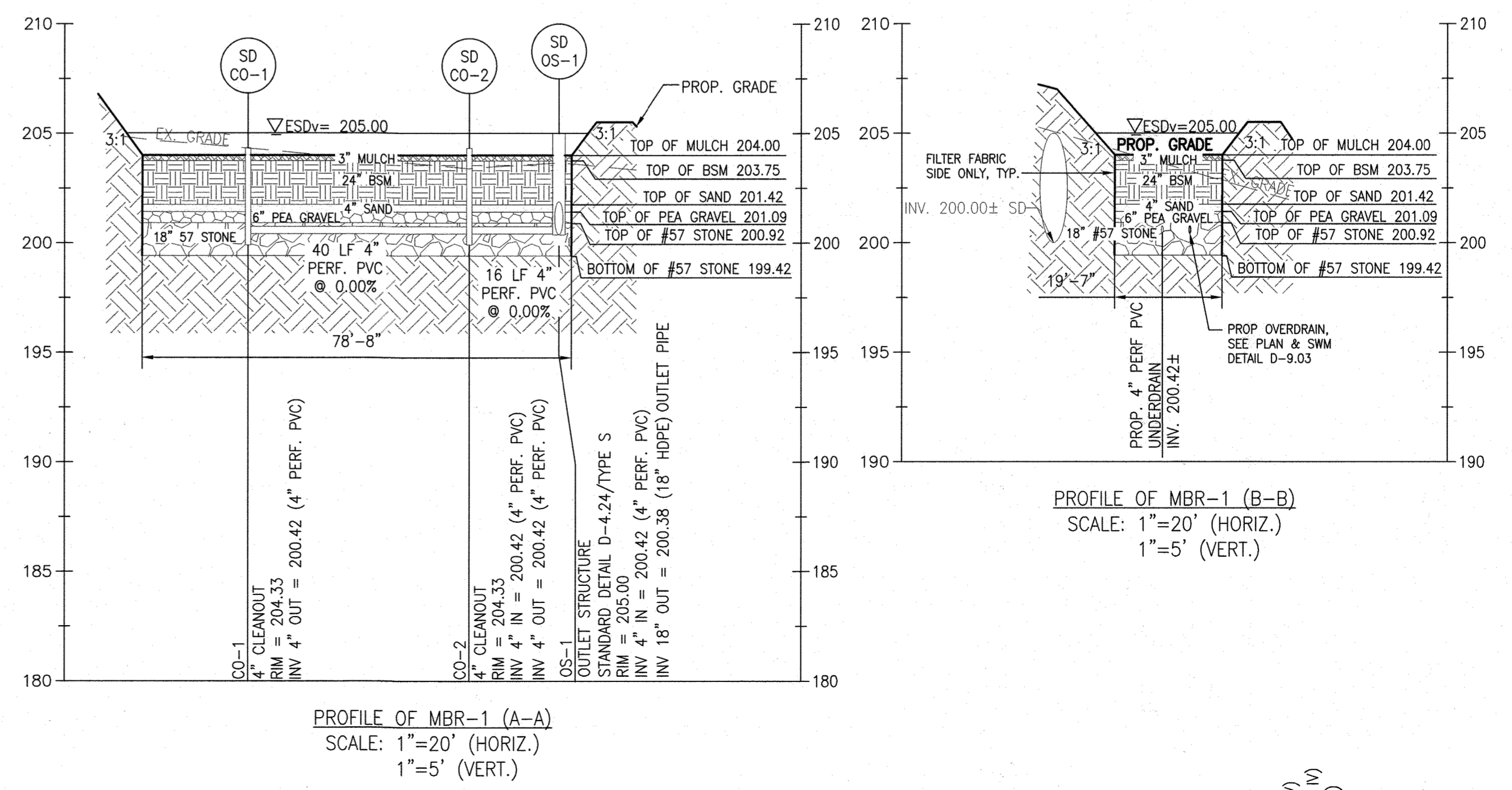
- ▨ PROPOSED BUILDING
- - - 210 PROPOSED MAJOR CONTOUR
- - - 207.40 PROPOSED SPOT ELEVATION
- - - PROPOSED CURB & GUTTER
- - - PROPOSED REVERSE CURB & GUTTER
- - - PROPOSED ROADWAY
- - - PROPOSED SIDEWALK
- ▨ PROPOSED CONCRETE WALK
- ▨ PROPOSED CONCRETE PAD
- ▨ PROPOSED ASPHALT PAVING
- ▨ PROPOSED MEDIUM-DUTY ASPHALT
- ▨ PROPOSED PAVERS
- ▨ PROPOSED MICRO-BIORETENTION AREA
- ⊕ PROPOSED RIP RAP
- ⊕ PROPOSED ELECTRIC MANHOLE
- ⊕ PROPOSED UNDERGROUND ELECTRIC
- G- PROPOSED GAS LINE
- GV#- PROPOSED GAS VALVE
- SS- PROPOSED SANITARY LINE
- ⊕ PROPOSED SANITARY MANHOLE
- ⊕ PROPOSED STORMDRAIN LINE
- ⊕ PROPOSED STORMDRAIN INLET
- ⊕ PROPOSED STORMDRAIN MANHOLE
- UGT- PROPOSED TELEPHONE
- W- PROPOSED WATER LINE
- ⊕ PROPOSED BIOCLEAN MODULAR WETLANDS SYSTEM (SWM)
- - - PROPOSED TREELINE
- - - DRAINAGE AREA DELINEATION

**INSPECTION:**

- REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:
- DURING EXCAVATION TO SUBGRADE AND PLACEMENT OF BACKFILL.
  - DURING PLACEMENT OF GRAVEL, AND INSTALLATION OF UNDERDRAIN SYSTEMS AND OBSERVATION WELLS.
  - DURING PLACEMENT OF FILTER MEDIA.
  - DURING CONSTRUCTION OF APPURTENANCE CONVEYANCE.
  - AT COMPLETION OF FINAL GRADING AND PERMANENT STABILIZATION.

**MAINTENANCE CRITERIA:**

- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER, SAND MEDIA AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTION AREAS OF EROSION OR WASHOUT. CHECK FOR DEWATERING WITHIN 48 HOURS. WHEN NECESSARY, REPLACE FILTER MEDIA PER PLAN.
- SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD, DISEASED AND EXCESSIVE VEGETATION CONSIDERED BEYOND TREATMENT. REPLACEMENT OF ALL DEAD TREES, SHRUBS, DEFICIENT STAKES AND WIRES WILL BE REQUIRED.
- MULCH LAYER SHALL BE INSPECTED EACH SPRING. ONCE EVERY 2 TO 3 YEARS, REMOVE PREVIOUS MULCH LAYER AND APPLY NEW 2 TO 3 INCH LAYER.
- SOIL EROSION AND FLOW BLOCKAGES TO BE ADDRESSED ON AN AS NEEDED BASIS WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORMS. INSPECT CLEAN OUTS AND OBSERVATION WELLS ALONG WITH OVERFLOW/OUTFALL/EXIT PIPES.



**APPROVED**  
DEPARTMENT OF PLANNING AND ZONING  
10-15-22  
10/27/22  
10/27/22

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca.design

**CIVIL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**LANDSCAPE DESIGN**  
SITE RESOURCES, INC.  
14315 JARRETTSVILLE PIKE  
PHOENIX, MD 21131  
410.683.3388

**STRUCTURAL ENGINEERING**  
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215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**MEP ENGINEERING**  
LEACH WALLACE ASSOC. INC.  
6522 MEADOWBRIDGE RD #1  
ELKRIE, MD 21075  
410.579.8100

**NOT FOR CONSTRUCTION**

STATE OF MARYLAND  
JUDICIAL & GOVERNMENT SERVICES  
REGISTERED PROFESSIONAL ENGINEER  
UNDER THE LAWS OF THE STATE OF MARYLAND  
LICENSE No.: 14446 EXP. DATE: 5-25-23

**Sheppard Pratt**

**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELKRIE, MARYLAND 21075  
HOWARD COUNTY

SHEPPARD PRATT  
CORRIDOR 98 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

**OWNER/DEVELOPER**  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-5815  
TEL: 410-938-3242

**REVISIONS:**

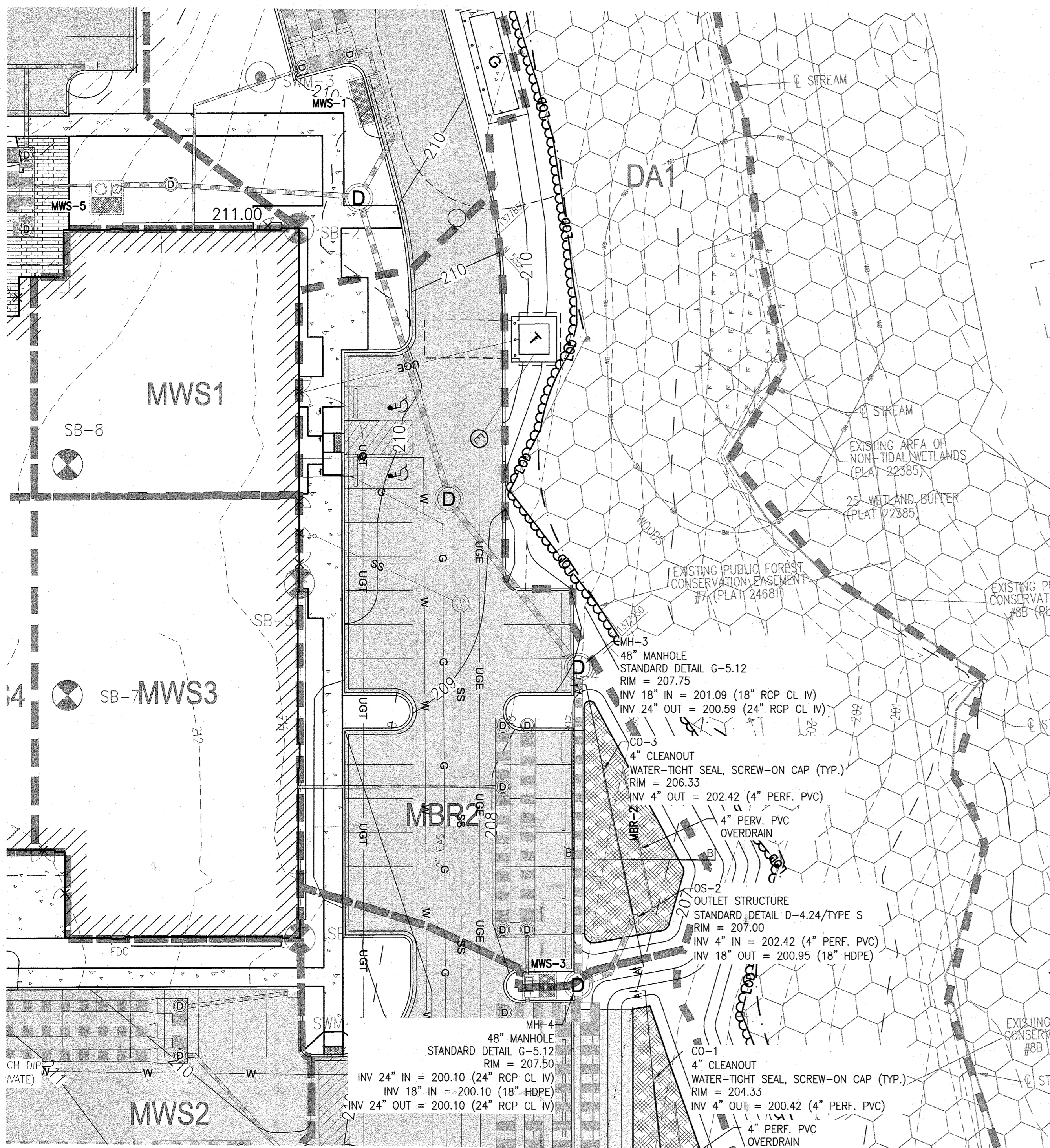
NO.	DATE	COMMENTS
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MCA JOB NO: 19002.01  
SHEET BY: DWM  
SHEET SET AND SHEET ISSUE DATE: 5/21/2021

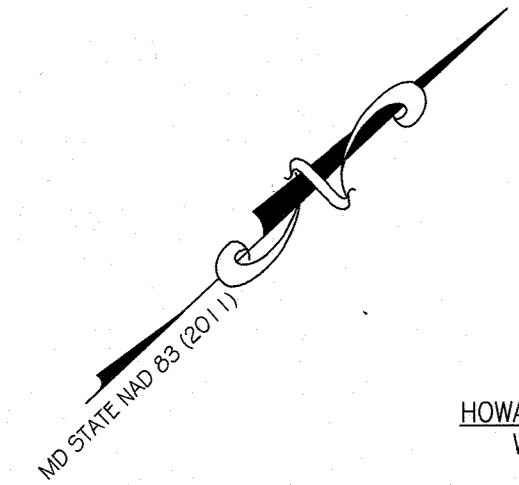
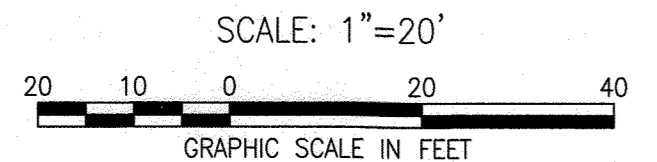
**STORMWATER MANAGEMENT PLAN - MBR1**

SHEET NO: **24** of 60  
**SDP-20-057**





**STORMWATER MANAGEMENT PLAN - MBR-2**



HOWARD COUNTY REFERENCE DRAWINGS:  
 WATER: CONTRACT 14-4576-D  
 SEWER: CONTRACT 14-4576-D  
 F-18-106, F-10-013  
 SDP-08-082, SDP-18-033  
 ECP-18-018, ECP-20-015

APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 Chief, Development Engineering Division  
 Chief, Division of Land Development  
 Director

**AS-BUILT NOTE:**

THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

- AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
  - SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
  - SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
  - INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
  - THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
- MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
- PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
  - PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
  - PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
- COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.

**AS BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY THE HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_  
 MARYLAND REGISTRATION NUMBER (PE OR LS) \_\_\_\_\_ DATE \_\_\_\_\_ SDP NO. \_\_\_\_\_  
 FACILITY BEING CERTIFIED: MBR2 MICRO-BIORETENTION FACILITY

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057		
AS-BUILT DATA FOR MICRO-BIORETENTION		
*TO BE COMPLETED BY THE PROJECT CONTRACTOR		
BMP ID: MBR2	FEATURE	DESIGN
	SURFACE ELEVATION	206.00
	SURFACE DIMENSIONS (LxW)	70'x32' IRREGULAR
	BOTTOM DIMENSIONS (LxW)	63'x26' IRREGULAR
	STORAGE VOLUME AT OUTLET	2471 CF
	OBSERVATION WELL WITH DEPTH TO BOTTOM INDICATED ON CAP	4" PVC/
	MEDIA TYPE / THICKNESS (SEE PS 47)	24" BSM
	SAND THICKNESS	4 INCHES
	MULCH THICKNESS	3 INCHES
	PEA GRAVEL THICKNESS	6 INCHES
	OUTLET STRUCTURE / RIM ELEVATION	18" PVC/207.00
	UNDERDRAIN SIZE & TYPE	4" PVC
	UNDERDRAIN MAX. INVERT UP / DOWN	202.42/202.42
	OUTLET PIPE SIZE & TYPE	18" PVC
	OUTLET PIPE INVERT UP / DOWN	200.95/200.75
	RECHARGE BED BOTTOM ELEVATION	201.92
	OUTLET STRUCTURE COORDINATES	N 555555.71 E 1378007.00

DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_  
 INSPECTION:  
 REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:

- DURING EXCAVATION TO SUBGRADE AND PLACEMENT OF BACKFILL.
- DURING PLACEMENT OF GRAVEL, AND INSTALLATION OF UNDERDRAIN SYSTEMS AND OBSERVATION WELLS.
- DURING PLACEMENT OF FILTER MEDIA.
- DURING CONSTRUCTION OF APPURTENANCE CONVEYANCE.
- AT COMPLETION OF FINAL GRADING AND PERMANENT STABILIZATION.

**MAINTENANCE CRITERIA:**

- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER, SAND MEDIA AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTION AREAS OF EROSION OR WASHOUT. CHECK FOR DEWATERING WITHIN 48 HOURS. WHEN NECESSARY, REPLACE FILTER MEDIA PER PLAN.
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- MULCH LAYER SHALL BE INSPECTED EACH SPRING. ONCE EVERY 2 TO 3 YEARS, REMOVE PREVIOUS MULCH LAYER AND APPLY NEW 2 TO 3 INCH LAYER.
- SOIL EROSION AND FLOW BLOCKAGES TO BE ADDRESSED ON AN AS NEEDED BASIS WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORMS. INSPECT CLEAN OUTS AND OBSERVATION WELLS ALONG WITH OVERFLOW/OUTFALL/EXIT PIPES.

**EXISTING LEGEND**

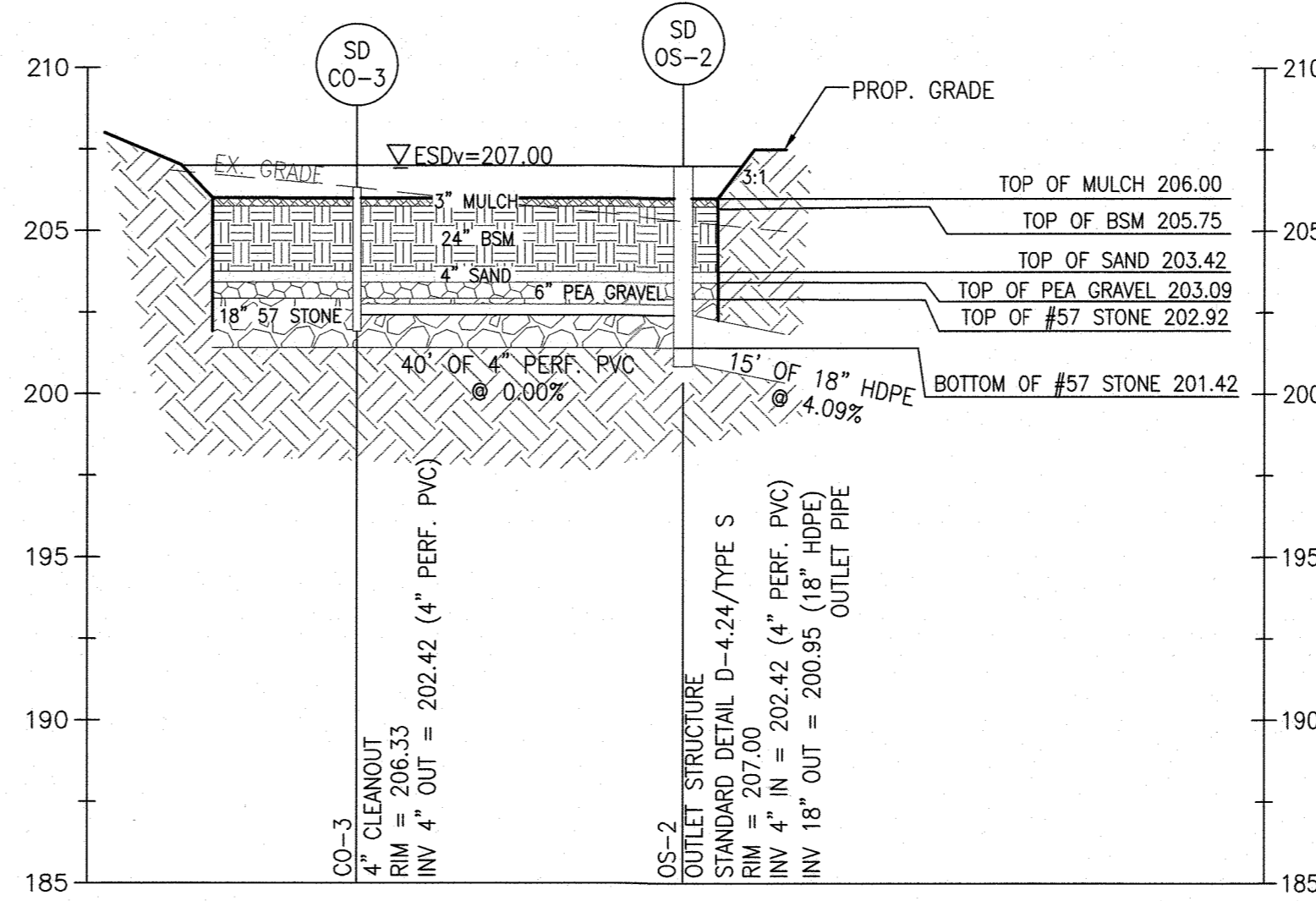
- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING BUILDING
- 210 --- EXISTING MAJOR CONTOUR
- 209 --- EXISTING MINOR CONTOUR
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING ROADWAY
- EXISTING PAVEMENT
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- ▲ EXISTING SIGN
- ⊕ EXISTING ELECTRIC MANHOLE
- OHE— EXISTING OVERHEAD ELECTRIC
- UGE EXISTING UNDERGROUND ELECTRIC
- COND EXISTING UNDERGROUND CONDUIT
- EXISTING DUCTBANK
- FO EXISTING FIBER OPTIC
- G— EXISTING GAS LINE
- CV # EXISTING GAS VALVE
- SS EXISTING SANITARY LINE
- ⊕ EXISTING SANITARY MANHOLE
- ⊕ EXISTING SANITARY CLEANOUT
- EXISTING STORMDRAIN LINE
- ⊕ EXISTING STORMDRAIN INLET
- ⊕ EXISTING STORMDRAIN MANHOLE
- EXISTING TELEPHONE
- ⊕ EXISTING TELEPHONE MANHOLE
- ⊕ EXISTING TELEPHONE PEDESTAL
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING WATER LINE
- WM ○ EXISTING WATER METER
- WV ○ EXISTING WATER VALVE
- ⊕ EXISTING WATER MANHOLE
- ⊕ EXISTING FIRE HYDRANT
- EXISTING STREAM CENTERLINE
- EXISTING STREAM BUFFER
- EXISTING WETLAND
- WB --- EXISTING WETLAND BUFFER
- EXISTING WETLANDS
- FP --- EXISTING FLOODPLAIN
- EXISTING TREELINE
- EXISTING DECIDUOUS TREE
- EXISTING EVERGREEN TREE
- EXISTING SHRUB
- EXISTING PUBLIC FOREST CONSERVATION EASEMENT

**PROPOSED LEGEND**

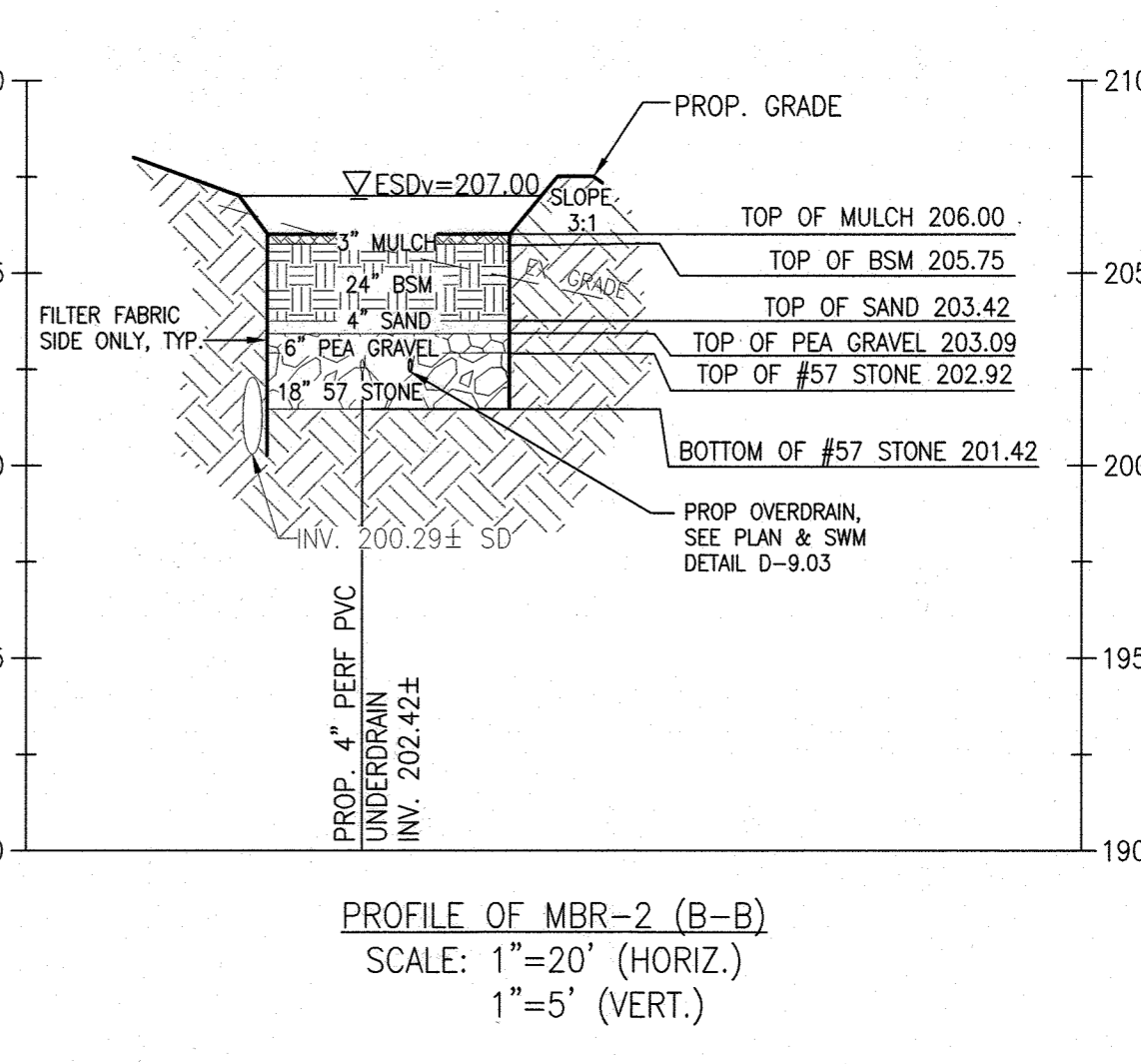
- PROPOSED BUILDING
- 210 --- PROPOSED MAJOR CONTOUR
- 207.40 --- PROPOSED SPOT ELEVATION
- PROPOSED CURB & GUTTER
- PROPOSED REVERSE CURB & GUTTER
- PROPOSED ROADWAY
- PROPOSED SIDEWALK
- PROPOSED CONCRETE WALK
- PROPOSED CONCRETE PAD
- PROPOSED ASPHALT PAVING
- PROPOSED MEDIUM-DUTY ASPHALT
- PROPOSED PAVERS
- PROPOSED MICRO-BIORETENTION AREA
- PROPOSED RIP RAP
- ⊕ EXISTING ELECTRIC MANHOLE
- UGE --- PROPOSED UNDERGROUND ELECTRIC
- G --- PROPOSED GAS LINE
- GV # --- PROPOSED GAS VALVE
- SS --- PROPOSED SANITARY LINE
- ⊕ --- PROPOSED SANITARY MANHOLE
- PROPOSED STORMDRAIN LINE
- ⊕ --- PROPOSED STORMDRAIN INLET
- ⊕ --- PROPOSED STORMDRAIN MANHOLE
- PROPOSED TELEPHONE
- W --- PROPOSED WATER LINE
- WMS --- PROPOSED BIOCLEAN MODULAR WETLANDS SYSTEM (SWM)
- PROPOSED TREELINE
- DRAINAGE AREA DELINEATION

**NOTES:**

- ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH CHAPTER 5 AND APPENDIX B.4 "SPECIFICATIONS" FOR ENVIRONMENTAL SITE DESIGN PRACTICES OF THE CURRENT MARYLAND STORMWATER DESIGN MANUAL. SHA BSM SOIL MEDIA MIX IS TO BE USED IN BIORETENTION FACILITIES.
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- THE UNDERDRAIN SHALL BE INSTALLED AT A MINIMUM SLOPE OF 0.5%.
- OBSERVATION WELLS SHALL BE 4" PVC CLEANOUT EXTENDING 6" ABOVE FINISHED GRADE. (SEE DETAIL ON SHEET C720)
- BIORETENTION AREAS SHALL NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
- SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.



PROFILE OF MBR-2 (A-A)  
 SCALE: 1"=20' (HORIZ.)  
 1"=5' (VERT.)



PROFILE OF MBR-2 (B-B)  
 SCALE: 1"=20' (HORIZ.)  
 1"=5' (VERT.)

**MCA ARCHITECTURE**  
 Marshall Craft Associates, Inc.  
 2031 Clipper Park Road, Suite 105  
 Baltimore, Maryland 21211  
 410.532.3131 | www.mca-design.com

**CIVIL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**LANDSCAPE DESIGN**  
 SITE RESOURCES, INC.  
 14315 JARRETTSVILLE PIKE  
 PHOENIX, MD 21131  
 410.683.3388

**STRUCTURAL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**MEP ENGINEERING**  
 LEACH WALLACE ASSOC., INC.  
 6522 MEADOWBRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.579.8100

**NOT FOR CONSTRUCTION**  
 SHEPPARD PRATT  
 STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 LICENSE No.: 14446 EXP. DATE: 5-25-23

**Sheppard Pratt**  
**MEDICAL PAVILION**  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY  
 CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

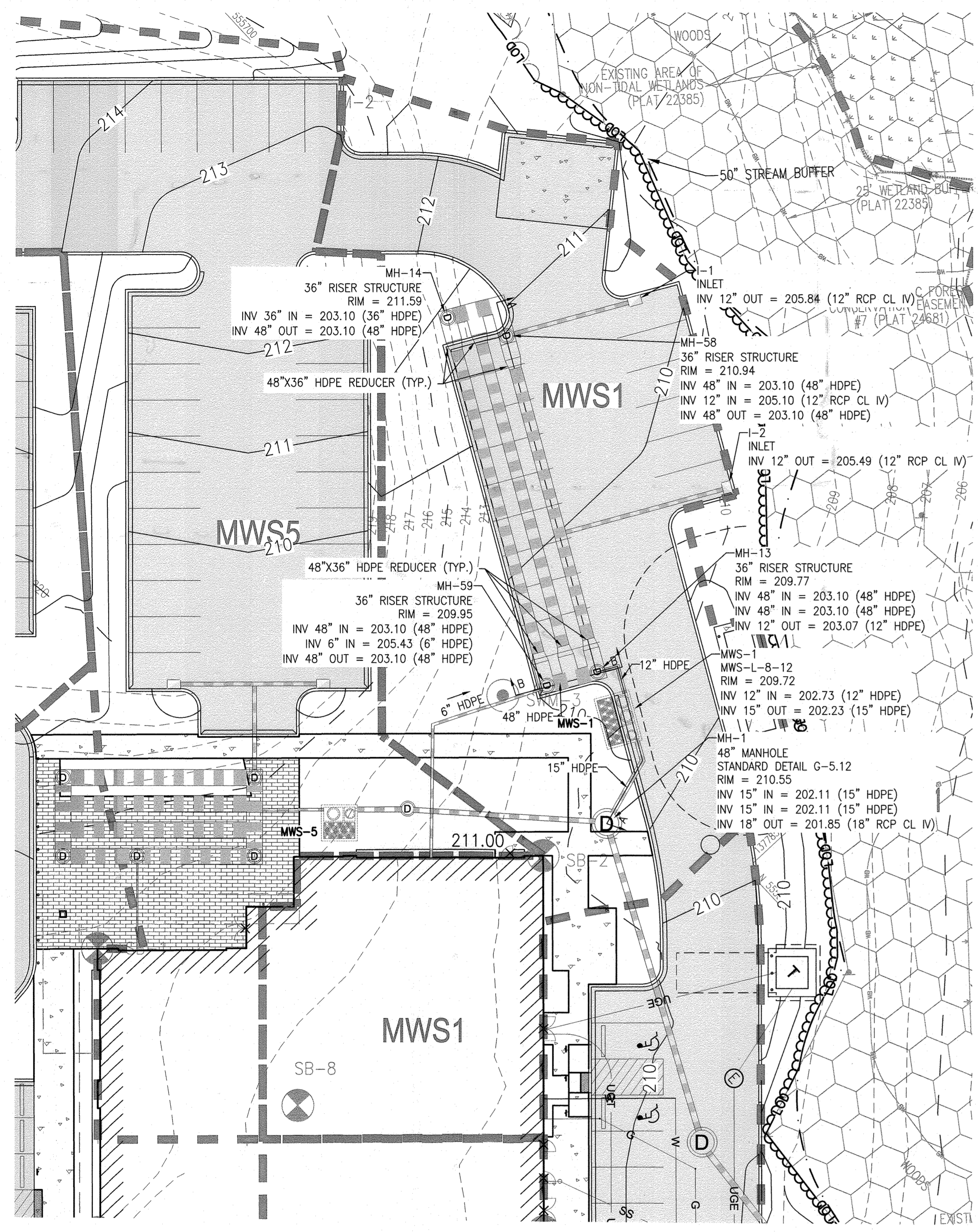
OWNER/DEVELOPER  
 SHEPPARD PRATT HEALTH SYSTEM INC.  
 6501 N CHARLES STREET  
 BALTIMORE, MARYLAND 21285-5815  
 TEL: 410-938-3242

REVISIONS:  
 DATE: \_\_\_\_\_ COMMENTS: \_\_\_\_\_

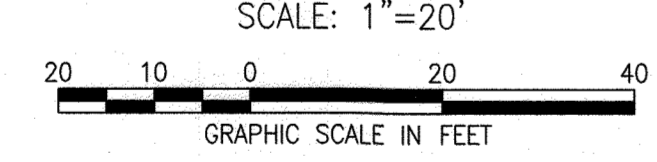
MCA JOB NO: 19002.01 PROJ MANAGER: DW M SHEET BY: DW M  
 SHEET SET AND SHEET ISSUE DATE: SDP 5/21/2021

**STORMWATER MANAGEMENT PLAN - MBR2**

SHEET NO. **25** of 60  
**SDP-20-057**



**STORMWATER MANAGEMENT PLAN - MWS1**



**AS-BUILT NOTE:**

THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

- AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
  - SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
  - SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
  - INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
  - THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
- MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
- PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
  - PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
  - PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
- COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.

**AS BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_

MARYLAND REGISTRATION NUMBER (PE OR LS) \_\_\_\_\_ DATE \_\_\_\_\_ SDP NO. \_\_\_\_\_  
 FACILITY BEING CERTIFIED: MWS1 MODULAR WETLAND FACILITY

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057

**AS-BUILT DATA FOR MODULAR WETLAND FACILITY**  
 \*TO BE COMPLETED BY THE PROJECT CONTRACTOR

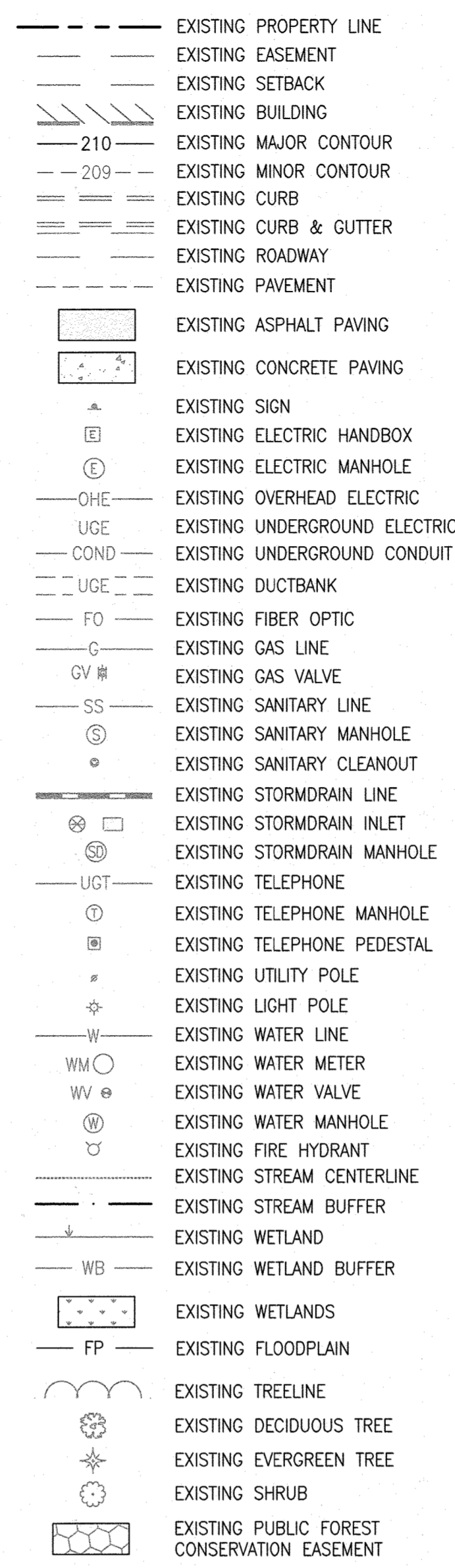
BMP ID:	FEATURE	DESIGN	*AS-BUILT
MWS1	FACILITY DETAIL	MWS-L-8-12	
	FACILITY LxW	12' x 8'	
	TOP OF FACILITY	209.72	
	BOTTOM OF FACILITY (INTERNAL)	202.23	
	BOTTOM OF FACILITY (EXTERNAL)	201.23	
	INLET SIZE & TYPE	12" HDPE	
	INLET INVERT	202.73	
	PRETREATMENT CHAMBER SIZE & TYPE	36" HDPE	
	TOTAL PRETREATMENT CHAMBER PIPE LENGTH	300 LF	
	PRETREATMENT CHAMBER INVERT	203.10	
	OUTLET PIPE/ORIFICE SIZE & TYPE	15" HDPE	
	OUTLET INVERT	202.23	

DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

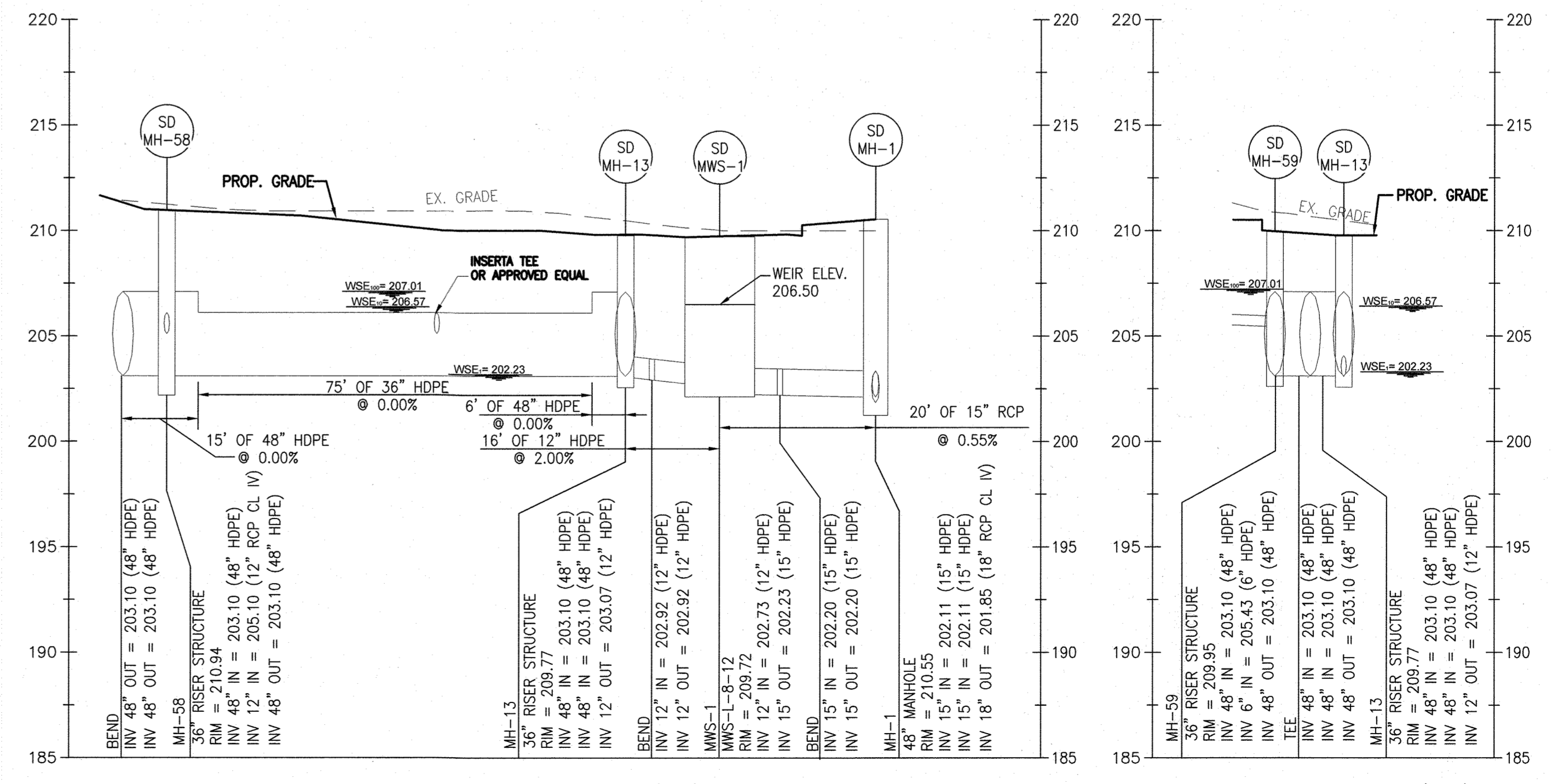
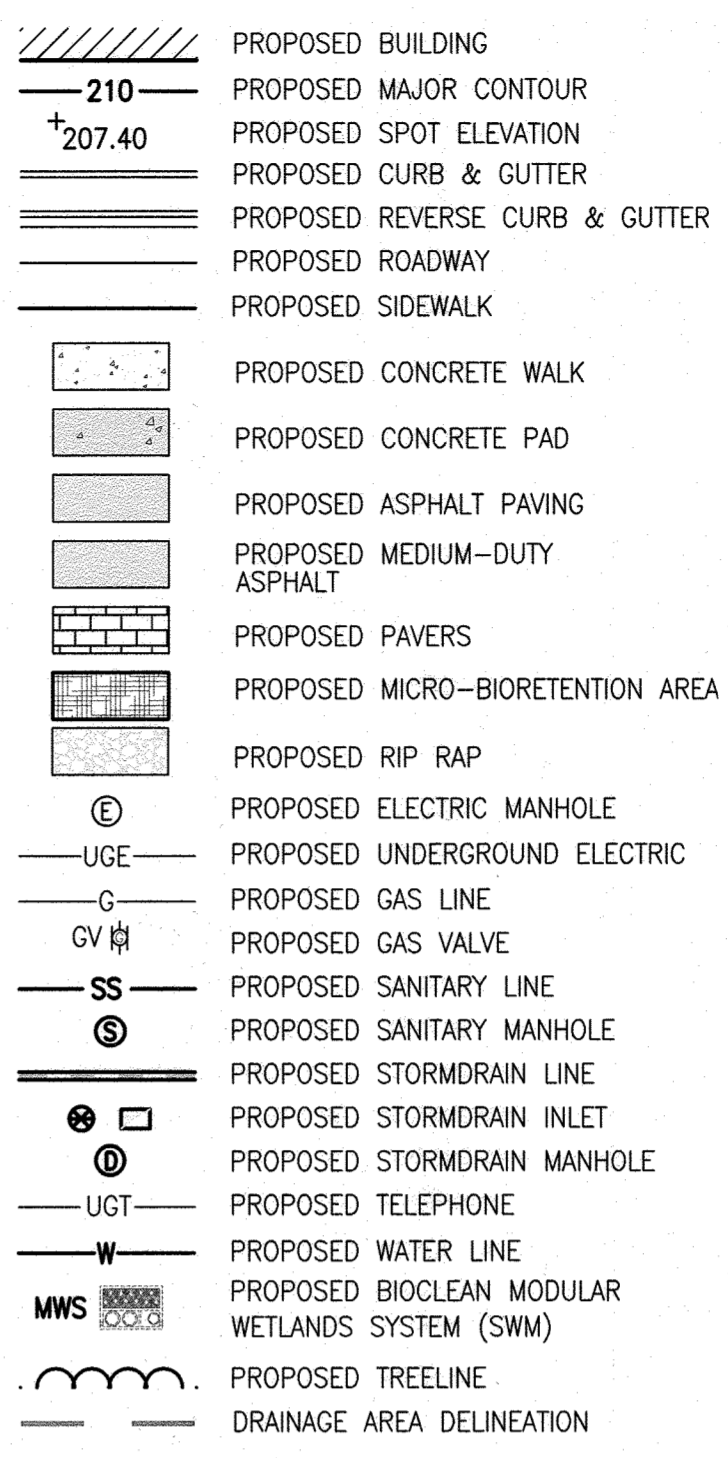
**NOTES:**

- ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH THE CURRENT MARYLAND STORMWATER DESIGN MANUAL AND CITY STANDARDS.
- UNDERDRAINS SHALL BE 4" PERFORATED PVC. PERFORATIONS SHALL BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF 4 HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/2" (NO.4 OR 4x4) GALVANIZED HARDWARE CLOTH.
- ROOF DRAINS SHALL NOT BE CONNECTED UNTIL APPROVAL BY THE COUNTY INSPECTOR, ALL ROOF AREAS SHALL BE FREE OF DEBRIS, AND OUTLET PIPE INSTALLATION HAS BEEN COMPLETED.
- SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.

**EXISTING LEGEND**



**PROPOSED LEGEND**



PROFILE OF PROP. MWS-1 (A-A)  
 SCALE: 1"=20' (HORIZ.)  
 1"=5' (VERT.)

PROFILE OF PROP. MWS-1 (B-B)  
 SCALE: 1"=20' (HORIZ.)  
 1"=5' (VERT.)

APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 10-15-22

CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 10/27/22

DIRECTOR  
 DATE: 10/27/22

HOWARD COUNTY REFERENCE DRAWINGS:  
 WATER: CONTRACT 14-4576-D  
 SEWER: CONTRACT 14-4576-D  
 F-18-106, F-10-013  
 SDP-08-082, SDP-18-033  
 ECP-18-018, ECP-20-015

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
 2031 Clipper Park Road, Suite 105  
 Baltimore, Maryland 21211  
 410.532.3131 | www.mca-design.com

**CIVIL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**LANDSCAPE DESIGN**  
 SITE RESOURCES, INC.  
 14315 JARRETTSVILLE PIKE  
 PHOENIX, MD 21131  
 410.683.3388

**STRUCTURAL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**MEP ENGINEERING**  
 LEACH WALLACE ASSOC., INC.  
 6522 MEADOWBRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.579.8100

**NOT FOR CONSTRUCTION**

STATE OF MARYLAND  
 JUDITH A. CARROLL  
 CIVIL ENGINEER  
 LICENSE NO. 14446 EXP. DATE: 5-25-23

Sheppard Pratt

**MEDICAL PAVILION**  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY  
 CORRIDOR 98 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

**REVISIONS**

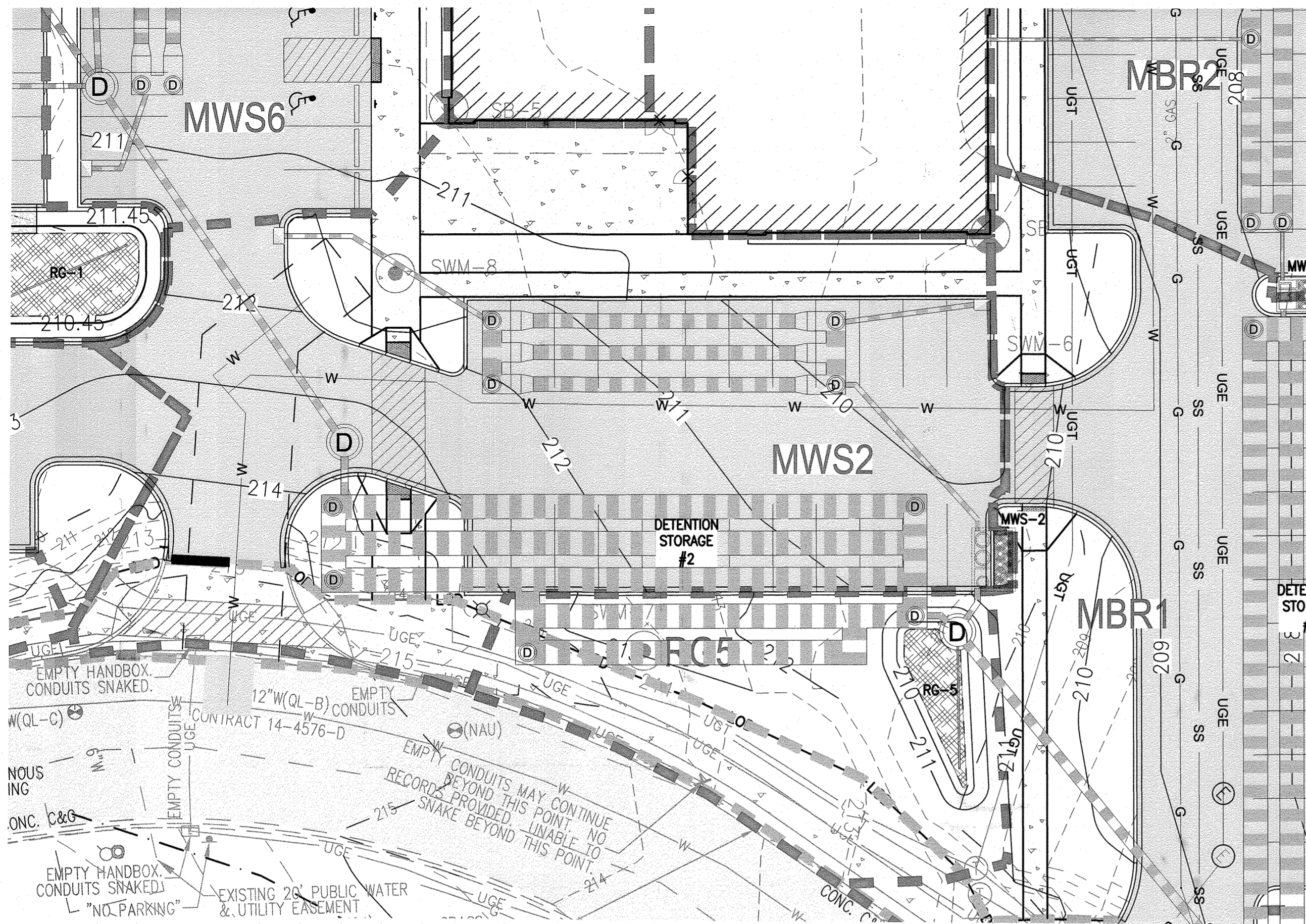
NO.	DATE	COMMENTS

MCA JOB NO: 19002.01  
 PROJ. MANAGER: DWMM  
 SHEET BY: DWMM

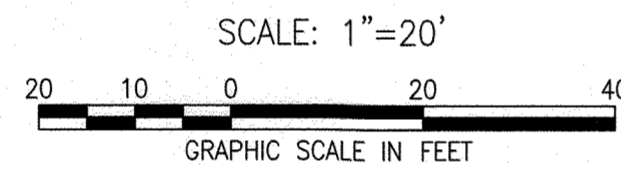
SHEET SET AND SHEET ISSUE DATE: 11/13/2020

**STORMWATER MANAGEMENT PLAN - MWS1**

SHEET NO: **26** of 60



**STORMWATER MANAGEMENT PLAN – MWS2**



**AS-BUILT NOTE:**

THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

1. AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
  - a. SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
  - b. SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
  - c. INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - d. SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
  - e. THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
2. MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
3. PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
  - a. PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
  - b. PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANT STRUCTURES IN THE BMP(S).
  - c. PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
4. COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING – SEE THIS SHEET FOR REQUIRED INFORMATION.

HOWARD COUNTY REFERENCE DRAWINGS:  
 WATER: CONTRACT 14-4576-D  
 SEWER: CONTRACT 14-4576-D  
 F-18-106, F-10-013  
 SDP-08-082, SDP-18-033  
 ECP-18-018, ECP-20-015

APPROVED  
 DEPARTMENT OF PLANNING AND ZONING

10-15-23  
 DATE  
 10-27-23  
 DATE  
 10-27-23  
 DATE

**AS BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_

MARYLAND REGISTRATION NUMBER (PE OR LS) \_\_\_\_\_ DATE \_\_\_\_\_ SDP NO. \_\_\_\_\_

FACILITY BEING CERTIFIED: MWS2 MODULAR WETLAND FACILITY

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION	SDP NO.: 20-057
<b>AS-BUILT DATA FOR MODULAR WETLAND FACILITY</b>	
*TO BE COMPLETED BY THE PROJECT CONTRACTOR	

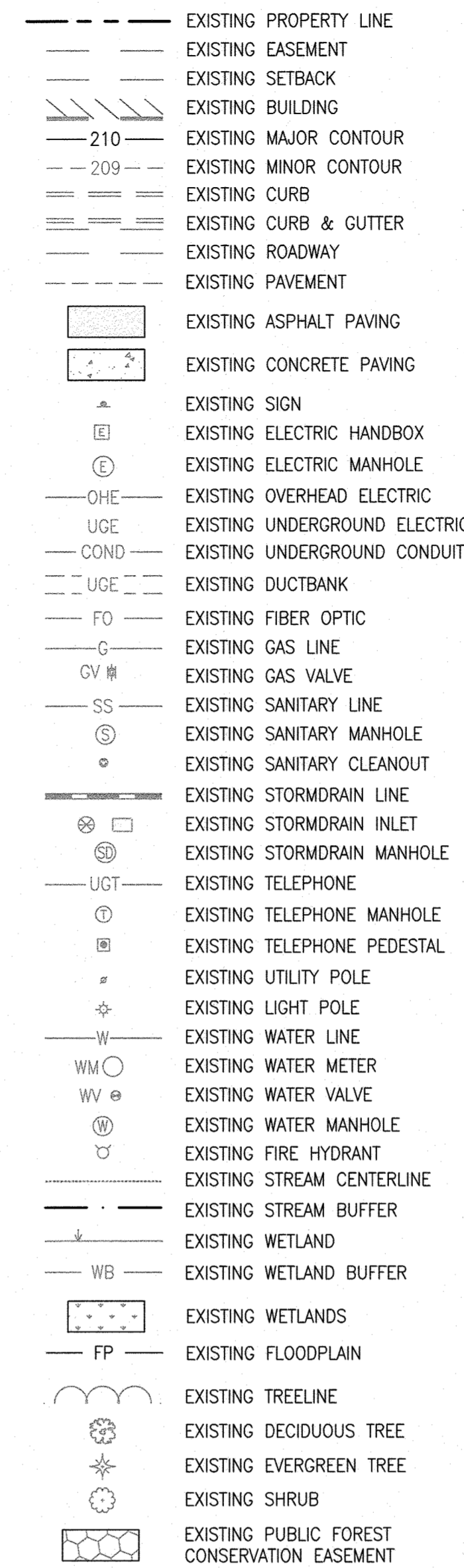
FEATURE	DESIGN	*AS-BUILT
FACILITY DETAIL	MWS-L-8-12	
FACILITY LxW	12'x8'	
TOP OF FACILITY	210.39	
BOTTOM OF FACILITY (INTERNAL)	203.20	
BOTTOM OF FACILITY (EXTERNAL)	202.20	
INLET SIZE & TYPE	12" RCP	
INLET INVERT	203.70	
PRETREATMENT CHAMBER SIZE & TYPE	36" HDPE	
TOTAL PRETREATMENT CHAMBER PIPE LENGTH	230 LF	
PRETREATMENT CHAMBER INVERT	204.00	
OUTLET PIPE/ORIFICE SIZE & TYPE	15" HDPE	
OUTLET INVERT	203.20	

DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

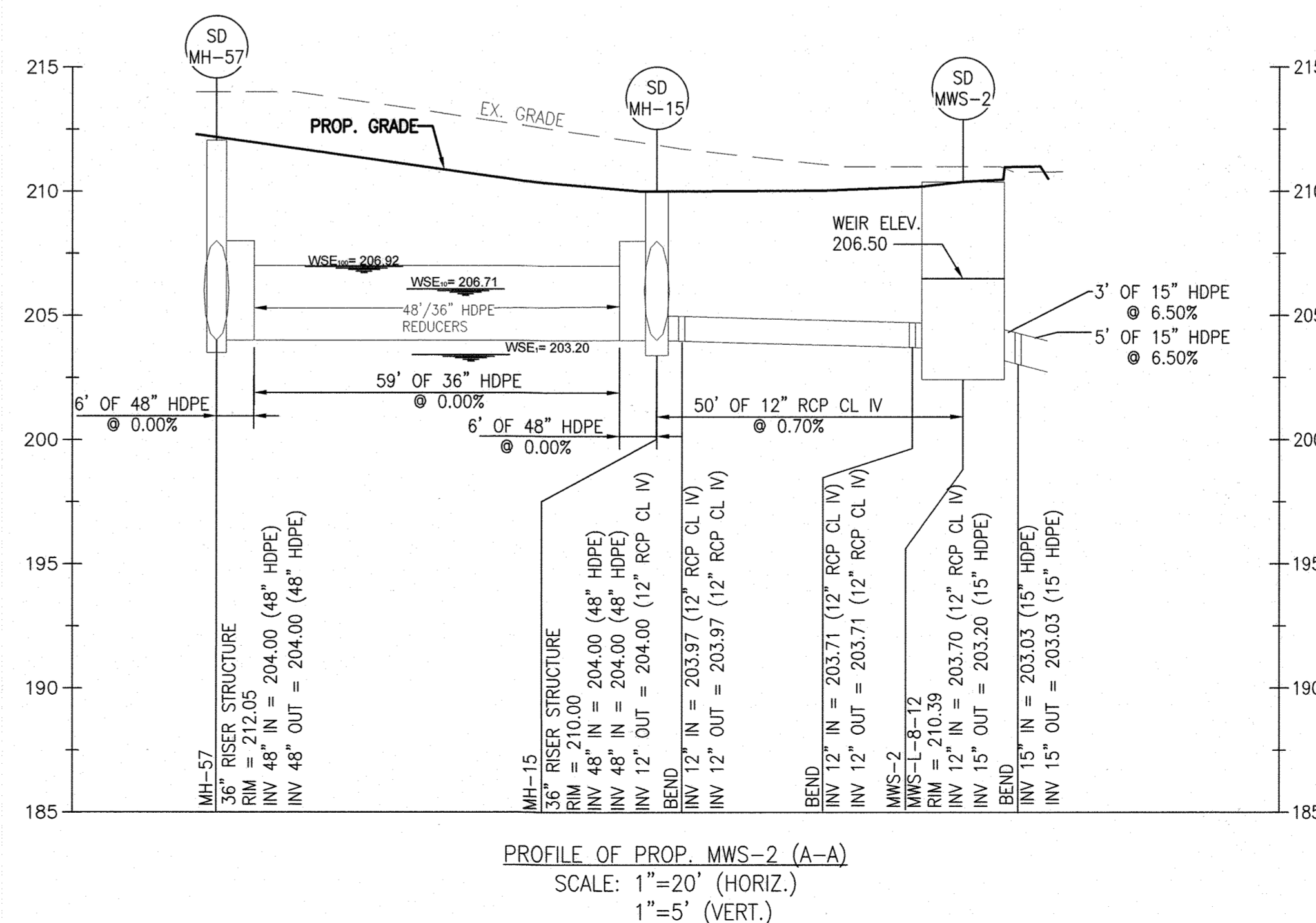
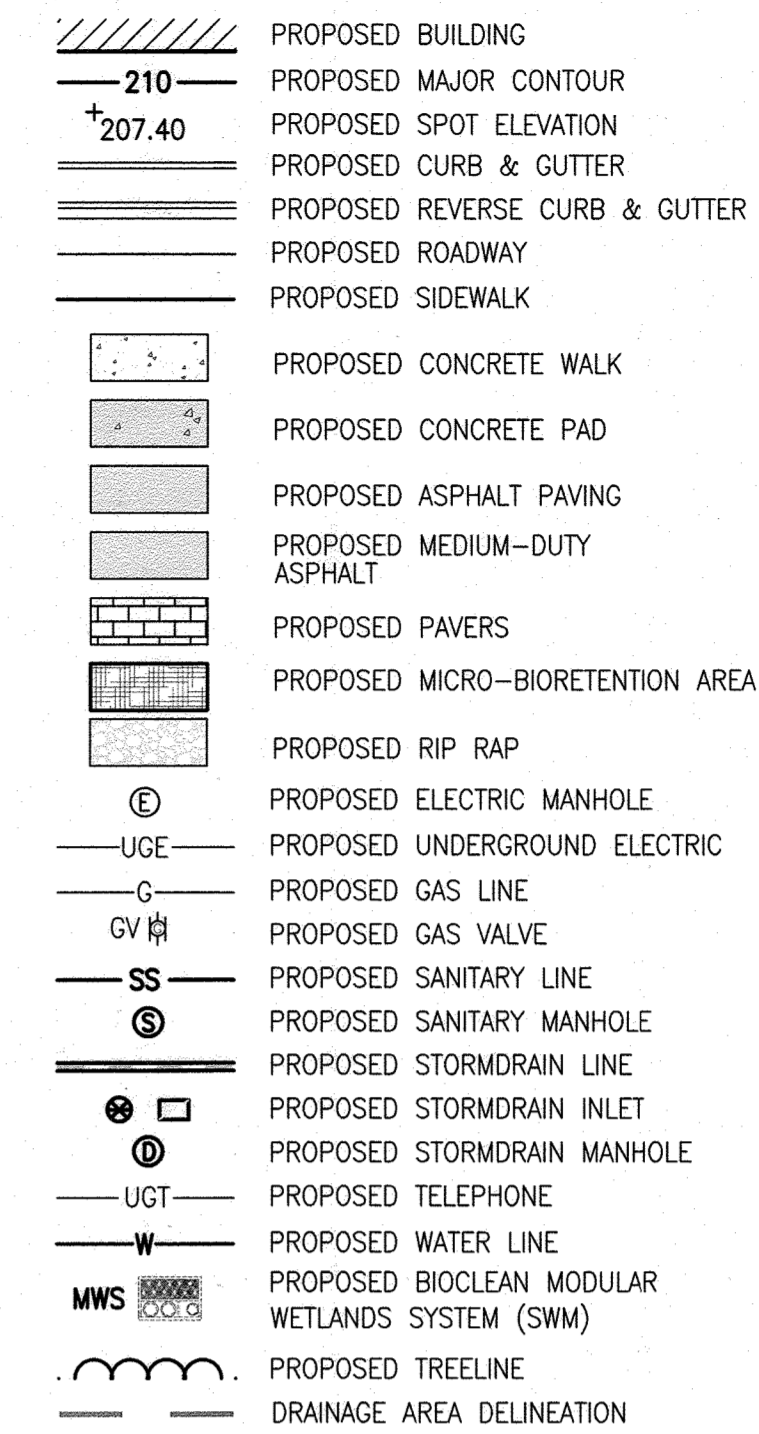
**NOTES:**

1. ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH THE CURRENT MARYLAND STORMWATER DESIGN MANUAL AND CITY STANDARDS.
2. UNDERDRAINS SHALL BE 4" PERFORATED PVC. PERFORATIONS SHALL BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF 4 HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO.4 OR 4x4) GALVANIZED HARDWARE CLOTH.
3. ROOF DRAINS SHALL NOT BE CONNECTED UNTIL APPROVAL BY THE COUNTY INSPECTOR. ALL ROOF AREAS SHALL BE FREE OF DEBRIS, AND OUTLET PIPE INSTALLATION HAS BEEN COMPLETED.
4. SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.

**EXISTING LEGEND**



**PROPOSED LEGEND**



PROFILE OF PROP. MWS-2 (A-A)  
 SCALE: 1"=20' (HORIZ.)  
 1"=5' (VERT.)

**Marshall Craft Associates, Inc.**  
 2031 Clipper Park Road, Suite 105  
 Baltimore, Maryland 21211  
 410.532.3131 | www.mca-design.com

**CIVIL ENGINEERING**  
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 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**LANDSCAPE DESIGN**  
 SITE RESOURCES, INC.  
 14315 JARRETTVILLE PIKE  
 PHOENIX, MD 21131  
 410.883.3388

**STRUCTURAL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**MEP ENGINEERING**  
 LEACH WALLACE ASSOC., INC.  
 8522 MEADOWBRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.579.8100

SEAL: **NOT FOR CONSTRUCTION**

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
 LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt

**MEDICAL PAVILION**  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY

SHEPPARD PRATT  
 CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

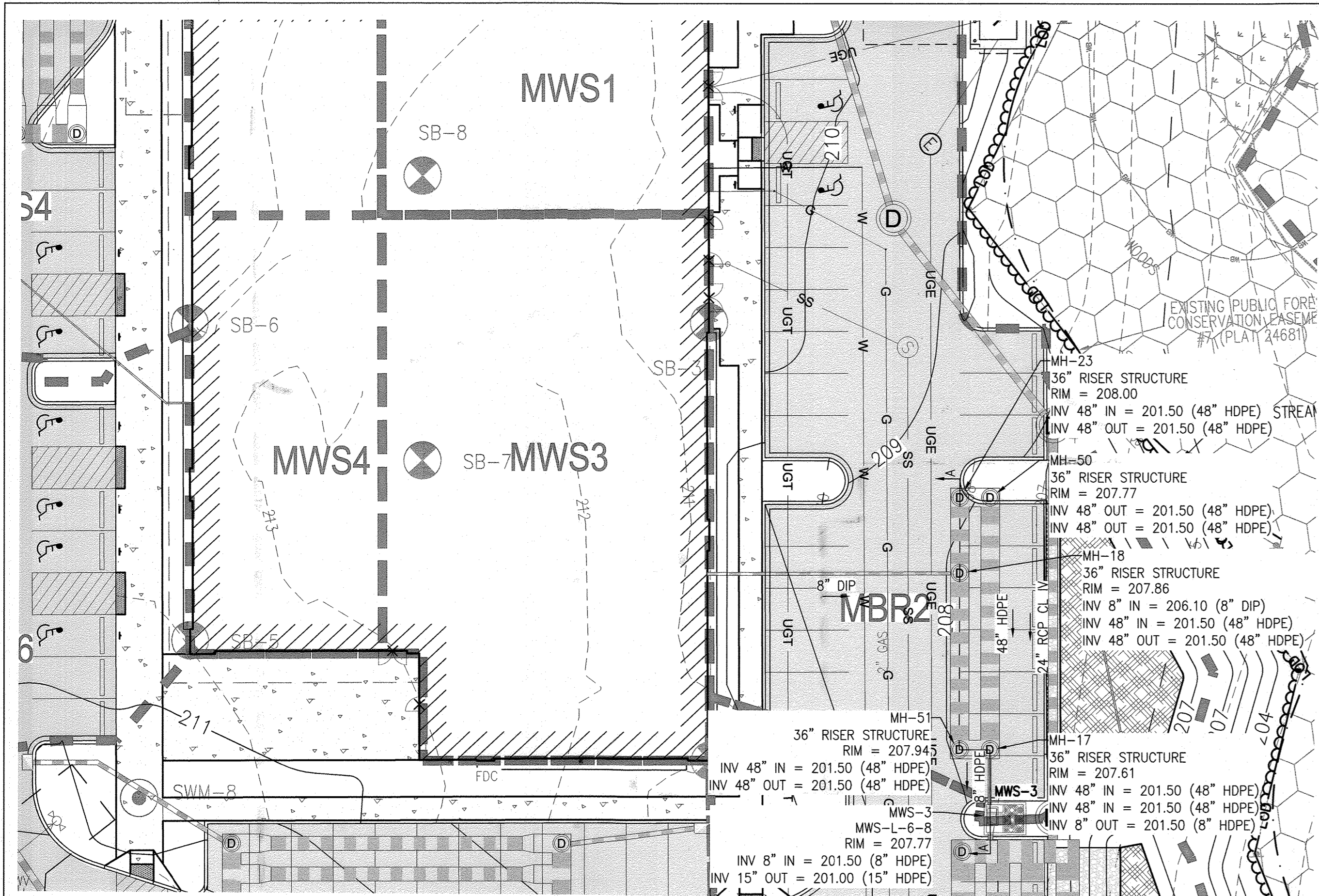
LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME CORRIDOR 95 BUSINESS PARK	SECTION/AREA M/A	LOT/ PARCEL NO. A/0796
PLAT/ OR L/F 22384/22385	GRID 0003	ZONING M-1
TAX MAP 0003	ELECT DIST. 18A.C.B.	CONDC TRACT 6001.03

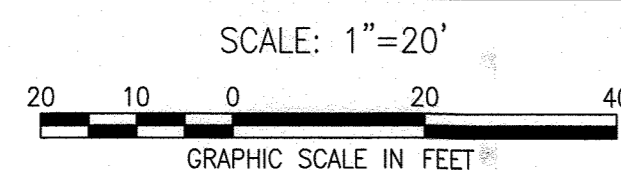
OWNER/DEVELOPER  
 SHEPPARD PRATT HEALTH SYSTEM INC.  
 6501 N CHARLES STREET  
 BALTIMORE, MARYLAND 21286-6815  
 TEL: 410-938-3242

MCA JOB NO. 19002.01	PROJ MANAGER DVM	SHEET BY DVM
SHEET SET AND SHEET ISSUE DATE: SDP		2/12/2021

**STORMWATER MANAGEMENT PLAN - MWS2**



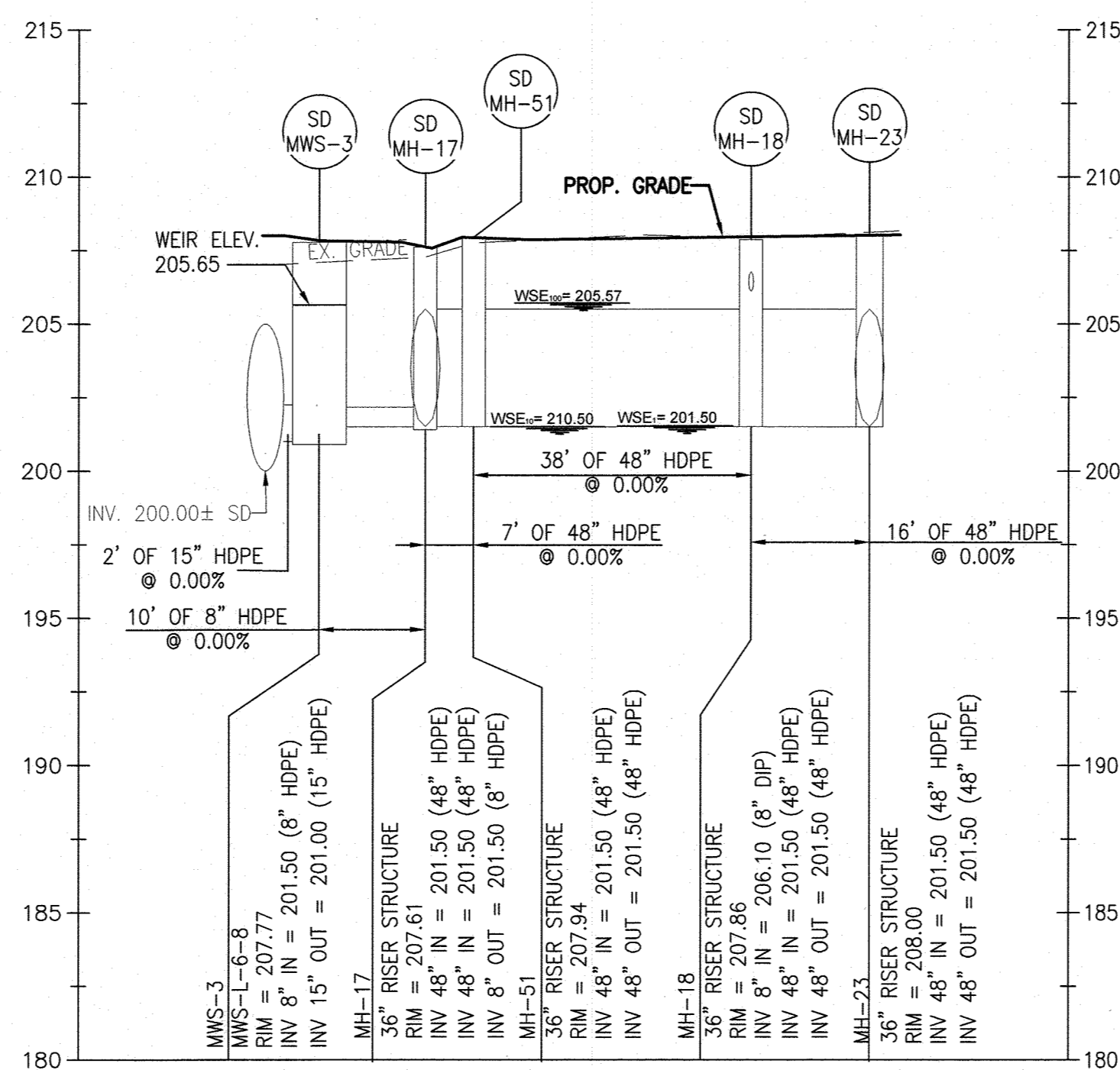
**STORMWATER MANAGEMENT PLAN - MWS3**



**AS-BUILT NOTE:**

THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

- AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
  - SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
  - SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
  - INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
  - THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
- MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
- PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
  - PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
  - PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
- COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.



PROFILE OF PROP. MWS-3 (A-A)  
SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)

**AS BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_  
 MARYLAND REGISTRATION NUMBER (PE OR LS) \_\_\_\_\_ DATE \_\_\_\_\_ SDP NO. \_\_\_\_\_  
 FACILITY BEING CERTIFIED: MWS3 MODULAR WETLAND FACILITY

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057		
AS-BUILT DATA FOR MODULAR WETLAND FACILITY		
*TO BE COMPLETED BY THE PROJECT CONTRACTOR		
BMP ID: MWS3		
FEATURE	DESIGN	*AS-BUILT
FACILITY DETAIL	MWS-L-6-8	
FACILITY LxW	8'x6'	
TOP OF FACILITY	207.77	
BOTTOM OF FACILITY (INTERNAL)	201.35	
BOTTOM OF FACILITY (EXTERNAL)	200.35	
INLET SIZE & TYPE	8" HDPE	
INLET INVERT	201.85	
PRETREATMENT CHAMBER SIZE & TYPE	36" HDPE	
TOTAL PRETREATMENT CHAMBER PIPE LENGTH	200 LF	
PRETREATMENT CHAMBER INVERT	202.00	
OUTLET PIPE/ORIFICE SIZE & TYPE	15" HDPE	
OUTLET INVERT	201.35	

DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

**NOTES:**

- ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH THE CURRENT MARYLAND STORMWATER DESIGN MANUAL AND CITY STANDARDS.
- UNDERDRAINS SHALL BE 4" PERFORATED PVC. PERFORATIONS SHALL BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF 4 HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/2" (NO.4 OR 4x4) GALVANIZED HARDWARE CLOTH.
- ROOF DRAINS SHALL NOT BE CONNECTED UNTIL APPROVAL BY THE COUNTY INSPECTOR. ALL ROOF AREAS SHALL BE FREE OF DEBRIS, AND OUTLET PIPE INSTALLATION HAS BEEN COMPLETED.
- SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.

**EXISTING LEGEND**

- EXISTING PROPERTY LINE
- - - EXISTING EASEMENT
- - - EXISTING SETBACK
- - - EXISTING BUILDING
- - - 210 EXISTING MAJOR CONTOUR
- - - 209 EXISTING MINOR CONTOUR
- - - EXISTING CURB
- - - EXISTING CURB & GUTTER
- - - EXISTING ROADWAY
- - - EXISTING PAVEMENT
- [Pattern] EXISTING ASPHALT PAVING
- [Pattern] EXISTING CONCRETE PAVING
- [Symbol] EXISTING SIGN
- [Symbol] EXISTING ELECTRIC HANDBOX
- [Symbol] EXISTING ELECTRIC MANHOLE
- OHE- EXISTING OVERHEAD ELECTRIC
- UGE- EXISTING UNDERGROUND ELECTRIC
- COND- EXISTING UNDERGROUND CONDUIT
- UGB- EXISTING DUCTBANK
- FO- EXISTING FIBER OPTIC
- G- EXISTING GAS LINE
- GV#- EXISTING GAS VALVE
- SS- EXISTING SANITARY LINE
- [Symbol] EXISTING SANITARY MANHOLE
- [Symbol] EXISTING SANITARY CLEANOUT
- [Symbol] EXISTING STORMDRAIN LINE
- [Symbol] EXISTING STORMDRAIN INLET
- [Symbol] EXISTING STORMDRAIN MANHOLE
- [Symbol] EXISTING TELEPHONE
- [Symbol] EXISTING TELEPHONE MANHOLE
- [Symbol] EXISTING TELEPHONE PEDESTAL
- [Symbol] EXISTING UTILITY POLE
- [Symbol] EXISTING LIGHT POLE
- WM- EXISTING WATER LINE
- WM#- EXISTING WATER METER
- WV#- EXISTING WATER VALVE
- [Symbol] EXISTING WATER MANHOLE
- [Symbol] EXISTING FIRE HYDRANT
- [Symbol] EXISTING STREAM CENTERLINE
- [Symbol] EXISTING STREAM BUFFER
- WB- EXISTING WETLAND
- WB#- EXISTING WETLAND BUFFER
- [Pattern] EXISTING WETLANDS
- FP- EXISTING FLOODPLAIN
- [Symbol] EXISTING TREELINE
- [Symbol] EXISTING DECIDUOUS TREE
- [Symbol] EXISTING EVERGREEN TREE
- [Symbol] EXISTING SHRUB
- [Symbol] EXISTING PUBLIC FOREST CONSERVATION EASEMENT

**PROPOSED LEGEND**

- [Pattern] PROPOSED BUILDING
- 210- PROPOSED MAJOR CONTOUR
- 207.40- PROPOSED SPOT ELEVATION
- [Pattern] PROPOSED CURB & GUTTER
- [Pattern] PROPOSED REVERSE CURB & GUTTER
- [Pattern] PROPOSED ROADWAY
- [Pattern] PROPOSED SIDEWALK
- [Pattern] PROPOSED CONCRETE WALK
- [Pattern] PROPOSED CONCRETE PAD
- [Pattern] PROPOSED ASPHALT PAVING
- [Pattern] PROPOSED MEDIUM-DUTY ASPHALT
- [Pattern] PROPOSED PAVERS
- [Pattern] PROPOSED MICRO-BIORETENTION AREA
- [Pattern] PROPOSED RIP RAP
- [Symbol] PROPOSED ELECTRIC MANHOLE
- UGE- PROPOSED UNDERGROUND ELECTRIC
- C- PROPOSED GAS LINE
- GV#- PROPOSED GAS VALVE
- SS- PROPOSED SANITARY LINE
- [Symbol] PROPOSED SANITARY MANHOLE
- [Symbol] PROPOSED STORMDRAIN LINE
- [Symbol] PROPOSED STORMDRAIN INLET
- [Symbol] PROPOSED STORMDRAIN MANHOLE
- UGT- PROPOSED TELEPHONE
- W- PROPOSED WATER LINE
- [Symbol] PROPOSED BIOCLEAN MODULAR WETLANDS SYSTEM (SWM)
- [Symbol] PROPOSED TREELINE
- [Symbol] DRAINAGE AREA DELINEATION

HOWARD COUNTY REFERENCE DRAWINGS:  
 WATER: CONTRACT 14-4576-D  
 SEWER: CONTRACT 14-4576-D  
 F-18-106, F-10-013  
 SDP-08-082, SDP-18-033  
 ECP-18-018, ECP-20-015

APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 [Signature] 10/15/22  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION, SDP DATE  
 [Signature] 10/27/22  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE  
 [Signature] 10/27/22  
 DIRECTOR DATE

**MCA ARCHITECTURE**  
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**CIVIL ENGINEERING**  
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**LANDSCAPE DESIGN**  
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 410.683.3388  
**STRUCTURAL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423  
**MEP ENGINEERING**  
 LEACH WALLACE ASSOC., INC.  
 6522 HEADROWDRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.579.8100

**NOT FOR CONSTRUCTION**  
 STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt  
**MEDICAL PAVILION**  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY  
 CORRIDOR 98 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME CORRIDOR 98 BUSINESS PARK	SECTION/AREA N/A	LOT/ PARCEL NO. A/0706
PLAT# OR L/T 32384/22385	GRID# 0003	ZONING M-1
TAX MAP# 0007	ELECT DIST. 194 E.D.	CONDIS TRACT 6091203

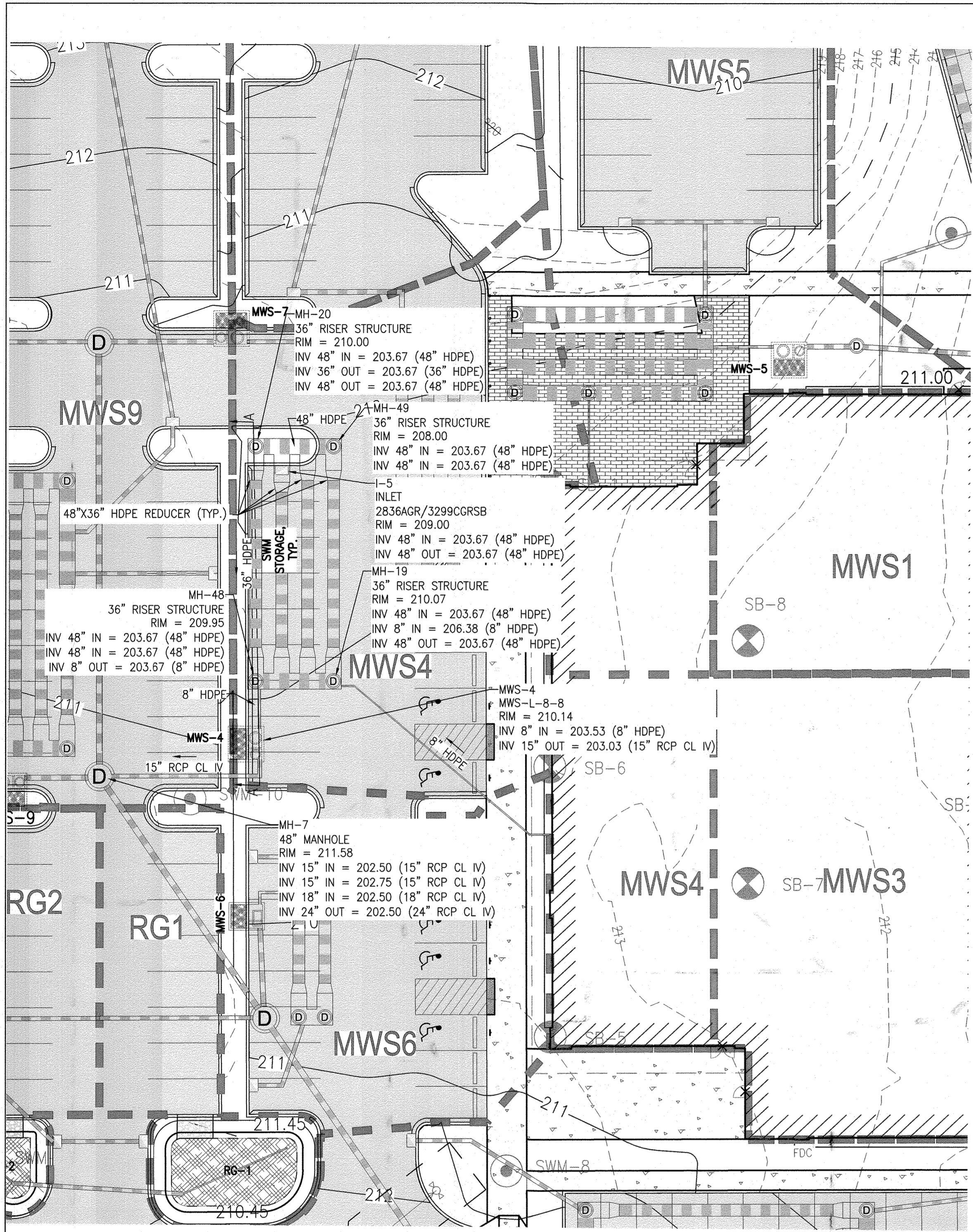
OWNER/DEVELOPER  
 SHEPPARD PRATT HEALTH SYSTEM INC.  
 6501 N CHARLES STREET  
 BALTIMORE, MARYLAND 21286-6815  
 TEL: 410-938-3242

REVISIONS:

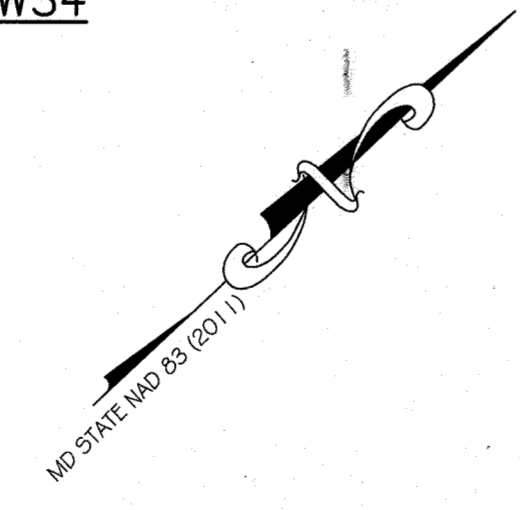
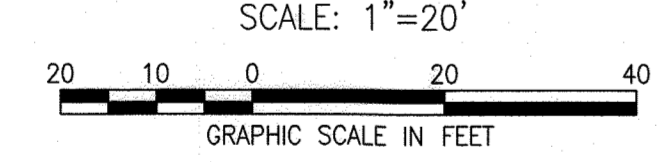
DATE:	COMMENTS:

MCA JOB NO: 19002.01  
 SHEET SET AND SHEET ISSUE DATE: SDP  
 PROJ MANAGER: DWM  
 SHEET BY: DWM  
 DATE: 11/13/2020

**STORMWATER MANAGEMENT PLAN - MWS3**



STORMWATER MANAGEMENT PLAN - MWS4



- NOTES:**
- ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH THE CURRENT MARYLAND STORMWATER DESIGN MANUAL AND CITY STANDARDS.
  - UNDERDRAINS SHALL BE 4" PERFORATED PVC. PERFORATIONS SHALL BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF 4 HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/2" (NO.4 OR 4x4) GALVANIZED HARDWARE CLOTH.
  - ROOF DRAINS SHALL NOT BE CONNECTED UNTIL APPROVAL BY THE COUNTY INSPECTOR, ALL ROOF AREAS SHALL BE FREE OF DEBRIS, AND OUTLET PIPE INSTALLATION HAS BEEN COMPLETED.
  - SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.

APPROVED  
DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 10.15.22  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 10/12/22  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 10/27/22  
DIRECTOR DATE

**AS BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_

MARYLAND REGISTRATION NUMBER (PE OR LS) \_\_\_\_\_ DATE \_\_\_\_\_ SDP NO. \_\_\_\_\_

FACILITY BEING CERTIFIED: MWS4 MODULAR WETLAND FACILITY

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057

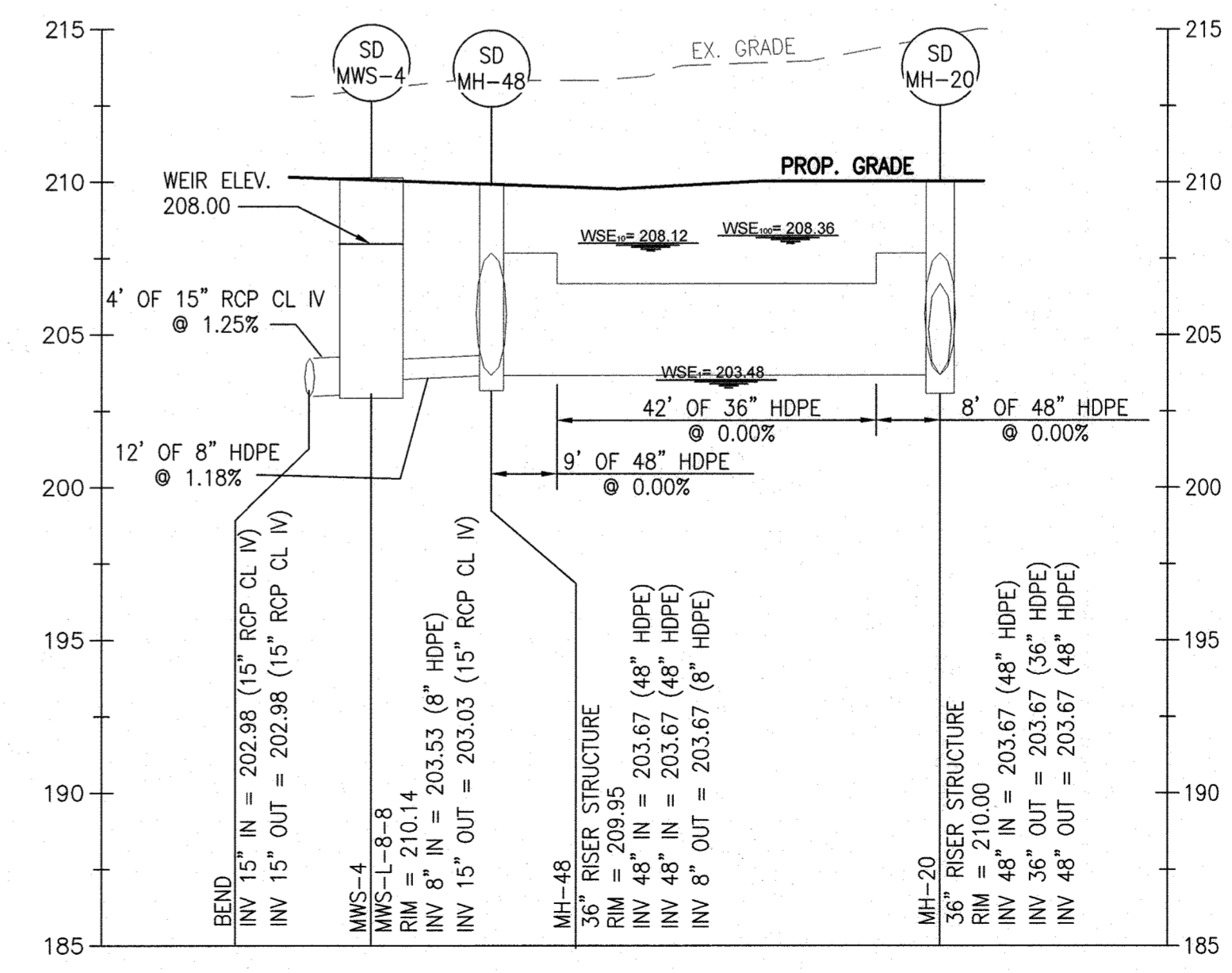
**AS-BUILT DATA FOR MODULAR WETLAND FACILITY**  
\*TO BE COMPLETED BY THE PROJECT CONTRACTOR

FEATURE	DESIGN	*AS-BUILT
BMP ID: MWS4		
FACILITY DETAIL	MWS-L-8-8	
FACILITY LxW	8'x8'	
TOP OF FACILITY	210.14	
BOTTOM OF FACILITY (INTERNAL)	203.48	
BOTTOM OF FACILITY (EXTERNAL)	202.48	
INLET SIZE & TYPE	8" HDPE	
INLET INVERT	203.53	
PRETREATMENT CHAMBER SIZE & TYPE	36" HDPE	
TOTAL PRETREATMENT CHAMBER PIPE LENGTH	268 LF	
PRETREATMENT CHAMBER INVERT	203.67	
OUTLET PIPE/ORIFICE SIZE & TYPE	15" HDPE	
OUTLET INVERT	203.03	

DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

- AS-BUILT NOTE:**
- THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:
- AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
    - SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
    - SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
    - INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
    - SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
    - THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
  - MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
  - PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
    - PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
    - PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
    - PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
  - COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.

EXISTING LEGEND		PROPOSED LEGEND	
---	EXISTING PROPERTY LINE	////	PROPOSED BUILDING
---	EXISTING EASEMENT	---+210---	PROPOSED MAJOR CONTOUR
---	EXISTING SETBACK	---+207.40---	PROPOSED SPOT ELEVATION
---	EXISTING BUILDING	---	PROPOSED CURB & GUTTER
---	EXISTING MAJOR CONTOUR	---	PROPOSED REVERSE CURB & GUTTER
---	EXISTING MINOR CONTOUR	---	PROPOSED ROADWAY
---	EXISTING CURB	---	PROPOSED SIDEWALK
---	EXISTING CURB & GUTTER	---	PROPOSED CONCRETE WALK
---	EXISTING ROADWAY	---	PROPOSED CONCRETE PAD
---	EXISTING PAVEMENT	---	PROPOSED ASPHALT PAVING
---	EXISTING ASPHALT PAVING	---	PROPOSED MEDIUM-DUTY ASPHALT
---	EXISTING CONCRETE PAVING	---	PROPOSED PAVERS
---	EXISTING SIGN	---	PROPOSED MICRO-BIORETENTION AREA
---	EXISTING ELECTRIC HANDBOX	---	PROPOSED RIP RAP
---	EXISTING ELECTRIC MANHOLE	---	PROPOSED ELECTRIC MANHOLE
---	EXISTING OVERHEAD ELECTRIC	---	PROPOSED UNDERGROUND ELECTRIC
---	EXISTING UNDERGROUND ELECTRIC	---	PROPOSED GAS LINE
---	EXISTING UNDERGROUND CONDUIT	---	PROPOSED GAS VALVE
---	EXISTING DUCTBANK	---	PROPOSED SANITARY LINE
---	EXISTING FIBER OPTIC	---	PROPOSED SANITARY MANHOLE
---	EXISTING GAS LINE	---	PROPOSED STORMDRAIN LINE
---	EXISTING GAS VALVE	---	PROPOSED STORMDRAIN INLET
---	EXISTING SANITARY LINE	---	PROPOSED STORMDRAIN MANHOLE
---	EXISTING SANITARY MANHOLE	---	PROPOSED TELEPHONE
---	EXISTING SANITARY CLEANOUT	---	PROPOSED WATER LINE
---	EXISTING STORMDRAIN LINE	---	PROPOSED BIOCLEAN MODULAR WETLANDS SYSTEM (SWM)
---	EXISTING STORMDRAIN INLET	---	PROPOSED TREETRINE
---	EXISTING STORMDRAIN MANHOLE	---	PROPOSED DRAINAGE AREA DELINEATION
---	EXISTING STORMDRAIN CLEANOUT	---	
---	EXISTING TELEPHONE	---	
---	EXISTING TELEPHONE MANHOLE	---	
---	EXISTING TELEPHONE PEDESTAL	---	
---	EXISTING UTILITY POLE	---	
---	EXISTING LIGHT POLE	---	
---	EXISTING WATER LINE	---	
---	EXISTING WATER METER	---	
---	EXISTING WATER VALVE	---	
---	EXISTING WATER MANHOLE	---	
---	EXISTING FIRE HYDRANT	---	
---	EXISTING STREAM CENTERLINE	---	
---	EXISTING STREAM BUFFER	---	
---	EXISTING WETLAND	---	
---	EXISTING WETLAND BUFFER	---	
---	EXISTING WETLANDS	---	
---	EXISTING FLOODPLAIN	---	
---	EXISTING TREETRINE	---	
---	EXISTING DECIDUOUS TREE	---	
---	EXISTING EVERGREEN TREE	---	
---	EXISTING SHRUB	---	
---	EXISTING PUBLIC FOREST CONSERVATION EASEMENT	---	



PROFILE OF PROP. MWS-4 (A-A)  
SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca-design.com

**CIVIL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**LANDSCAPE DESIGN**  
SITE RESOURCES, INC.  
14315 JARRETTSVILLE PIKE  
PHOENIX, MD 21131  
410.683.3388

**STRUCTURAL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**MEP ENGINEERING**  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELKRIEGE, MD 21075  
410.579.8100

**NOT FOR CONSTRUCTION**

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

LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt

**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELKRIEGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBVISION NAME: CORRIDOR 95 BUSINESS PARK SECTION/AREA: N/A LOT/PARCEL NO.: A/0236

PLAT/ OR L/F: 0234 ZONING: M-1 TAX MAP# 0037 ELEC. DIST. 0037 CONDS. TRACT 0023

OWNER/DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N CHARLES STREET BALTIMORE, MARYLAND 21285-6815 TEL: 410-938-3242

REVISIONS: DATE: COMMENTS:

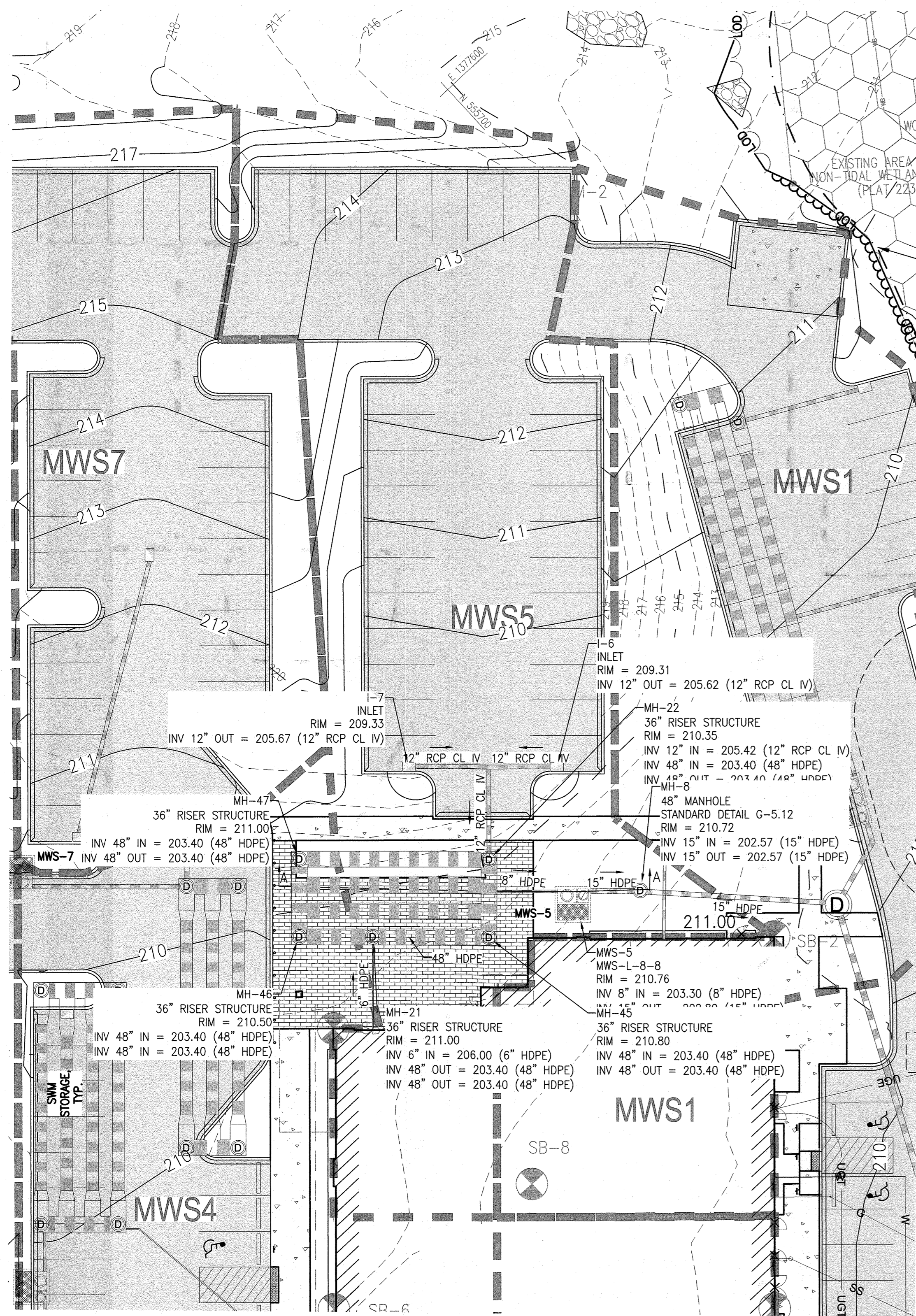
MCA JOB NO: 19002.01 PROJ/MANAGER: DWM SHEET BY: DWM

SHEET SET AND SHEET ISSUE DATE: SDP 11/13/2020

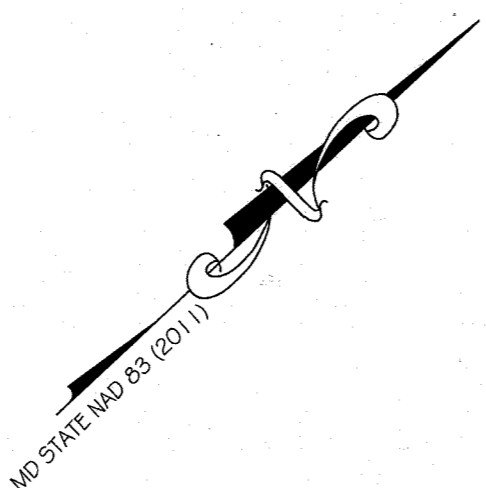
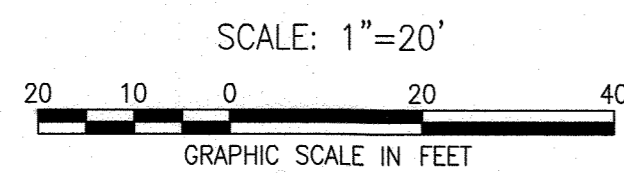
**STORMWATER MANAGEMENT PLAN - MWS4**

SHEET NO. **29** of 60

**SDP-20-057**



STORMWATER MANAGEMENT PLAN - MWS5



APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
10-15-22  
DATE  
10/27/22  
DATE  
10/27/22  
DATE

AS BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME	SIGNATURE
MARYLAND REGISTRATION NUMBER (PE OR LS)	DATE
SDP NO.	
FACILITY BEING CERTIFIED: MWS5 MODULAR WETLAND FACILITY	

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057		
AS-BUILT DATA FOR MODULAR WETLAND FACILITY		
*TO BE COMPLETED BY THE PROJECT CONTRACTOR		
BMP ID:	FEATURE	DESIGN
MWS5	FACILITY DETAIL	MWS-L-8-8
	FACILITY LxW	8'x8'
	TOP OF FACILITY	210.76
	BOTTOM OF FACILITY (INTERNAL)	202.80
	BOTTOM OF FACILITY (EXTERNAL)	201.80
	INLET SIZE & TYPE	8" HDPE
	INLET INVERT	203.30
	PRETREATMENT CHAMBER SIZE & TYPE	36" HDPE
	TOTAL PRETREATMENT CHAMBER PIPE LENGTH	300 LF
	PRETREATMENT CHAMBER INVERT	203.40
	OUTLET PIPE/ORIFICE SIZE & TYPE	15" HDPE
	OUTLET INVERT	202.80

DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

AS-BUILT NOTE:

THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

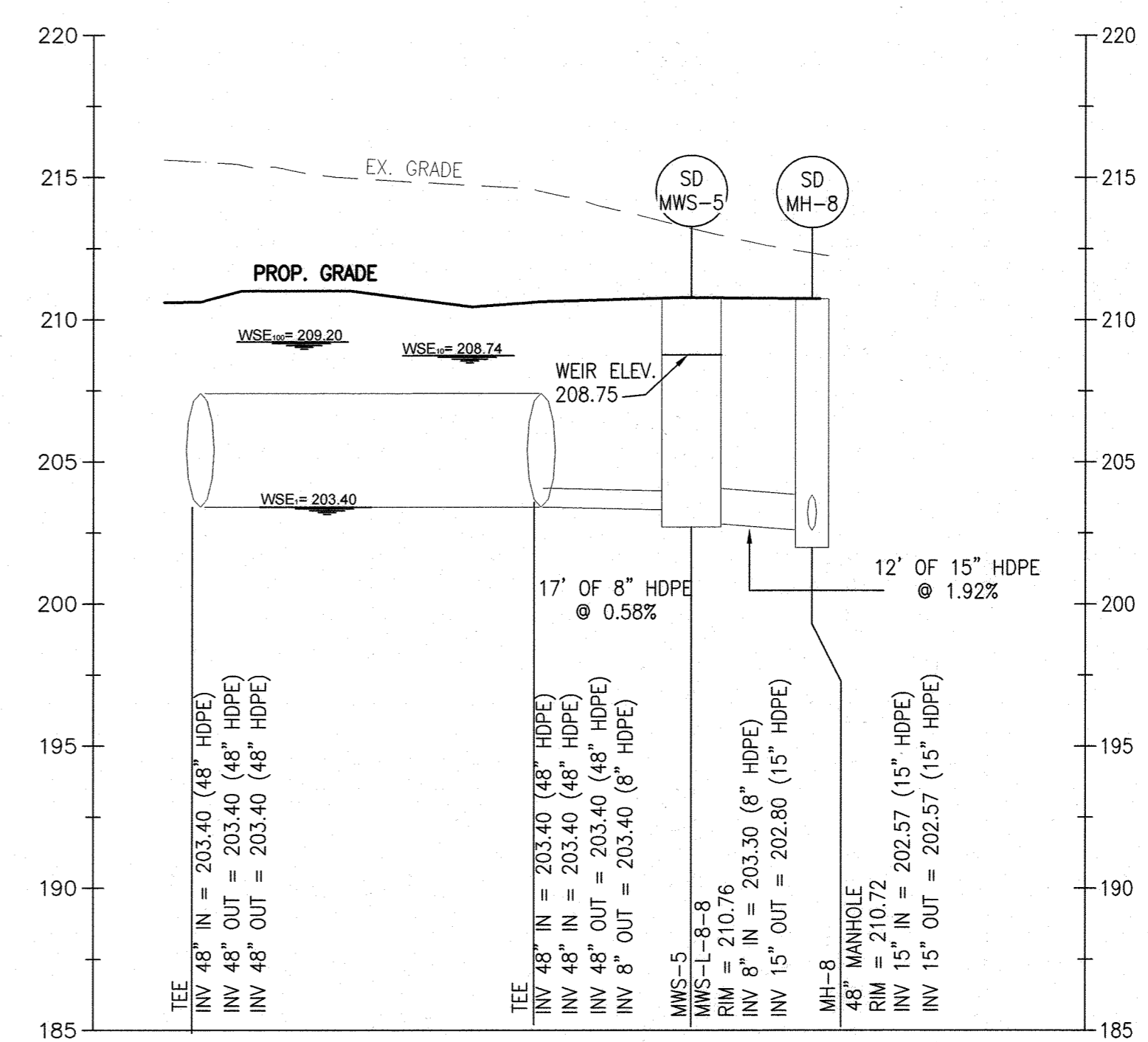
- AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
  - SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
  - SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
  - INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
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  - THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
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  - PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
  - PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANT STRUCTURES IN THE BMP(S).
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- COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.

NOTES:

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- UNDERDRAINS SHALL BE 4" PERFORATED PVC. PERFORATIONS SHALL BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF 4 HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/2" (NO.4 OR 4x4) GALVANIZED HARDWARE CLOTH.
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- SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.

EXISTING LEGEND	PROPOSED LEGEND
--- EXISTING PROPERTY LINE	--- PROPOSED BUILDING
--- EXISTING EASEMENT	--- PROPOSED MAJOR CONTOUR
--- EXISTING SETBACK	--- PROPOSED SPOT ELEVATION
--- EXISTING BUILDING	--- PROPOSED CURB & GUTTER
--- 210 EXISTING MAJOR CONTOUR	--- PROPOSED REVERSE CURB & GUTTER
--- 209 EXISTING MINOR CONTOUR	--- PROPOSED ROADWAY
--- EXISTING CURB	--- PROPOSED SIDEWALK
--- EXISTING CURB & GUTTER	--- PROPOSED CONCRETE WALK
--- EXISTING ROADWAY	--- PROPOSED CONCRETE PAD
--- EXISTING PAVEMENT	--- PROPOSED ASPHALT PAVING
--- EXISTING ASPHALT PAVING	--- PROPOSED MEDIUM-DUTY ASPHALT
--- EXISTING CONCRETE PAVING	--- PROPOSED PAVERS
--- EXISTING SIGN	--- PROPOSED MICRO-BIORETENTION AREA
--- EXISTING ELECTRIC HANDBOX	--- PROPOSED RIP RAP
--- EXISTING ELECTRIC MANHOLE	--- PROPOSED ELECTRIC MANHOLE
--- OHE EXISTING OVERHEAD ELECTRIC	--- UGE PROPOSED UNDERGROUND ELECTRIC
--- UGE EXISTING UNDERGROUND ELECTRIC	--- G PROPOSED GAS LINE
--- COND EXISTING UNDERGROUND CONDUIT	--- GV# EXISTING GAS VALVE
--- UGE EXISTING DUCTBANK	--- SS PROPOSED SANITARY LINE
--- FO EXISTING FIBER OPTIC	--- S PROPOSED SANITARY MANHOLE
--- G EXISTING GAS LINE	--- S PROPOSED STORMDRAIN LINE
--- GV# EXISTING GAS VALVE	--- S PROPOSED STORMDRAIN INLET
--- SS EXISTING SANITARY LINE	--- S PROPOSED STORMDRAIN MANHOLE
--- S EXISTING SANITARY MANHOLE	--- UGT PROPOSED TELEPHONE
--- S EXISTING SANITARY CLEANOUT	--- W PROPOSED WATER LINE
--- EXISTING STORMDRAIN LINE	--- WWS PROPOSED BIOCLEAN MODULAR WETLANDS SYSTEM (SWM)
--- EXISTING STORMDRAIN INLET	--- T PROPOSED TREELINE
--- EXISTING STORMDRAIN MANHOLE	--- DRAINAGE AREA DELINEATION
--- UGT EXISTING TELEPHONE	
--- S EXISTING TELEPHONE MANHOLE	
--- EXISTING TELEPHONE PEDESTAL	
--- EXISTING UTILITY POLE	
--- EXISTING LIGHT POLE	
--- W EXISTING WATER LINE	
--- WM EXISTING WATER METER	
--- WV EXISTING WATER VALVE	
--- W EXISTING WATER MANHOLE	
--- EXISTING FIRE HYDRANT	
--- EXISTING STREAM CENTERLINE	
--- EXISTING STREAM BUFFER	
--- EXISTING WETLAND	
--- WB EXISTING WETLAND BUFFER	
--- EXISTING WETLANDS	
--- FP EXISTING FLOODPLAIN	
--- EXISTING TREELINE	
--- EXISTING DECIDUOUS TREE	
--- EXISTING EVERGREEN TREE	
--- EXISTING SHRUB	
--- EXISTING PUBLIC FOREST CONSERVATION EASEMENT	

HOWARD COUNTY REFERENCE DRAWINGS:  
WATER: CONTRACT 14-4576-D  
SEWER: CONTRACT 14-4576-D  
F-18-106, F-10-013  
SDP-08-082, SDP-18-033  
ECP-18-018, ECP-20-015



PROFILE OF PROP. MWS-5 (A-A)  
SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca-design.com

**CIVIL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**LANDSCAPE DESIGN**  
SITE RESOURCES, INC.  
14315 JARRETTSVILLE PIKE  
PHOENIX, MD 21131  
410.683.3388

**STRUCTURAL ENGINEERING**  
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410.785.7423

**MEP ENGINEERING**  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELK RIDGE, MD 21075  
410.579.8100

**NOT FOR CONSTRUCTION**

STATE OF MARYLAND  
JUDITH A. CARROLL  
Professional Engineer  
No. 14446  
Exp. Date: 5-25-23

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt

**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 98 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME: CORRIDOR 98 BUSINESS PARK  
SECTION/AREA: N/A  
LOT/PARCEL NO.: A/0726

PLAT OR LIT.	GRD.	ZONING	TAX MAP#	ELECT. DIST.	CONTR. TRACT
2024/2205	0023	M-1	0037	HE E.2.	6092.03

OWNER/DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

REVISIONS:

DATE	COMMENTS

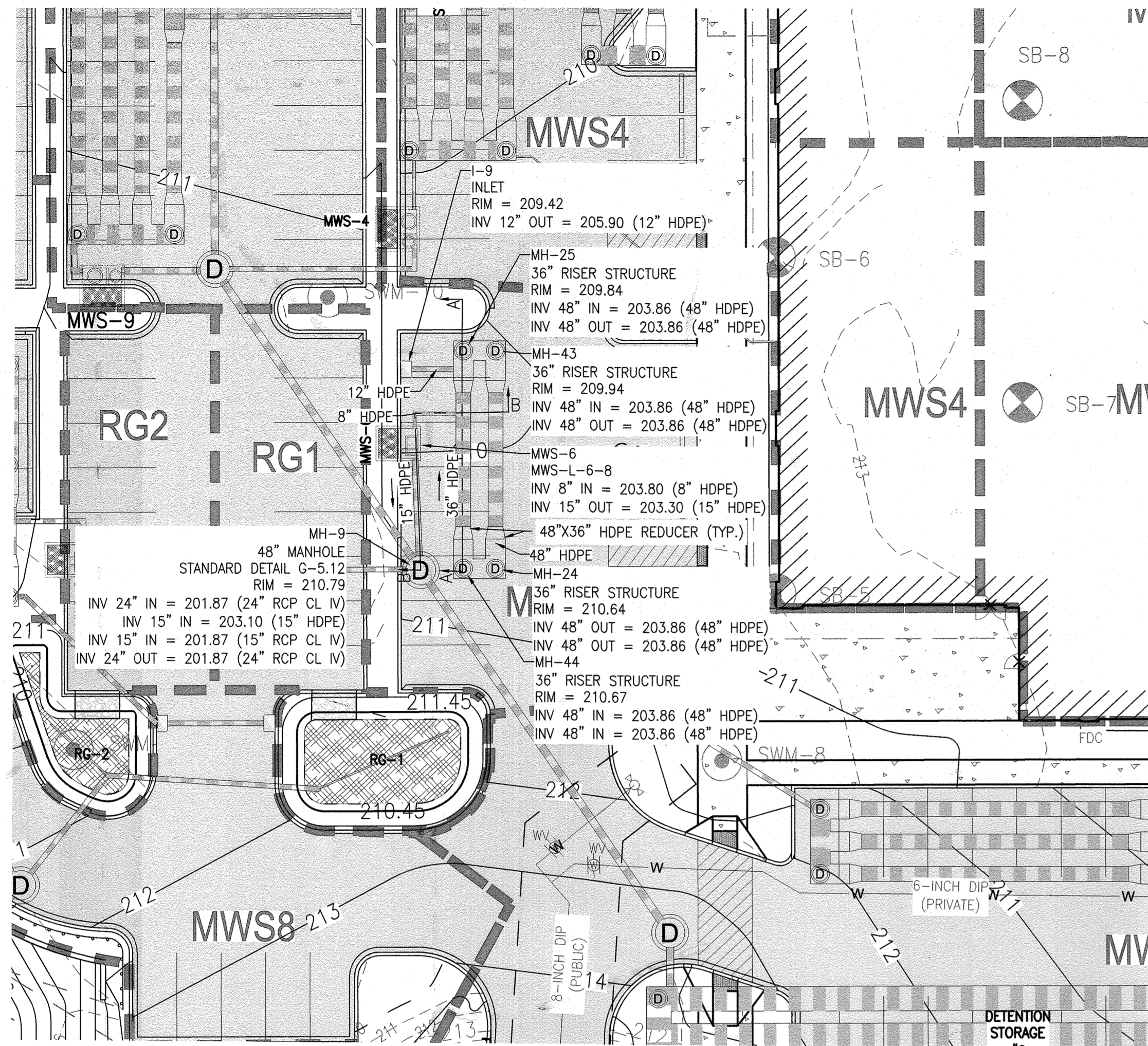
MCA JOB NO.: 19002.01  
PROJ. MANAGER: DWMM  
SHEET BY: DWMM

SHEET SET AND SHEET ISSUE DATE: 11/13/2020

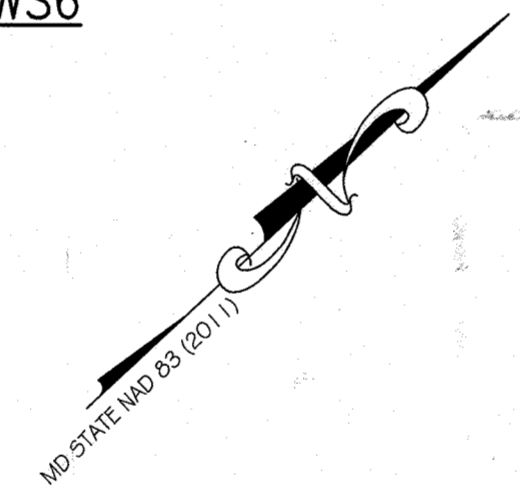
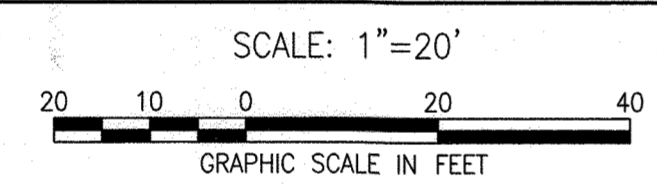
SHEET NAME: STORMWATER MANAGEMENT PLAN - MWS5

SHEET NO. **30** of 60

SDP-20-057



**STORMWATER MANAGEMENT PLAN - MWS6**



**AS BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME	SIGNATURE
MARYLAND REGISTRATION NUMBER (PE OR LS)	DATE
FACILITY BEING CERTIFIED: MWS6 MODULAR WETLAND FACILITY	

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057		
AS-BUILT DATA FOR MODULAR WETLAND FACILITY		
*TO BE COMPLETED BY THE PROJECT CONTRACTOR		
BMP ID: MWS6		
FEATURE	DESIGN	*AS-BUILT
FACILITY DETAIL	MWS-L-6-8	
FACILITY LxW	8'x6'	
TOP OF FACILITY	209.94	
BOTTOM OF FACILITY (INTERNAL)	203.30	
BOTTOM OF FACILITY (EXTERNAL)	202.30	
INLET SIZE & TYPE	8" HDPE	
INLET INVERT	203.80	
PRETREATMENT CHAMBER PIPE TYPE	36" HDPE	
TOTAL PRETREATMENT CHAMBER PIPE LENGTH	100 LF	
PRETREATMENT CHAMBER INVERT	203.86	
OUTLET PIPE/ORIFICE SIZE & TYPE	15" HDPE	
OUTLET INVERT	203.30	

DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

- NOTES:**
- ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH THE CURRENT MARYLAND STORMWATER DESIGN MANUAL AND CITY STANDARDS.
  - UNDERDRAINS SHALL BE 4" PERFORATED PVC. PERFORATIONS SHALL BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF 4 HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/2" (NO.4 OR 4x4) GALVANIZED HARDWARE CLOTH.
  - ROOF DRAINS SHALL NOT BE CONNECTED UNTIL APPROVAL BY THE COUNTY INSPECTOR, ALL ROOF AREAS SHALL BE FREE OF DEBRIS, AND OUTLET PIPE INSTALLATION HAS BEEN COMPLETED.
  - SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.

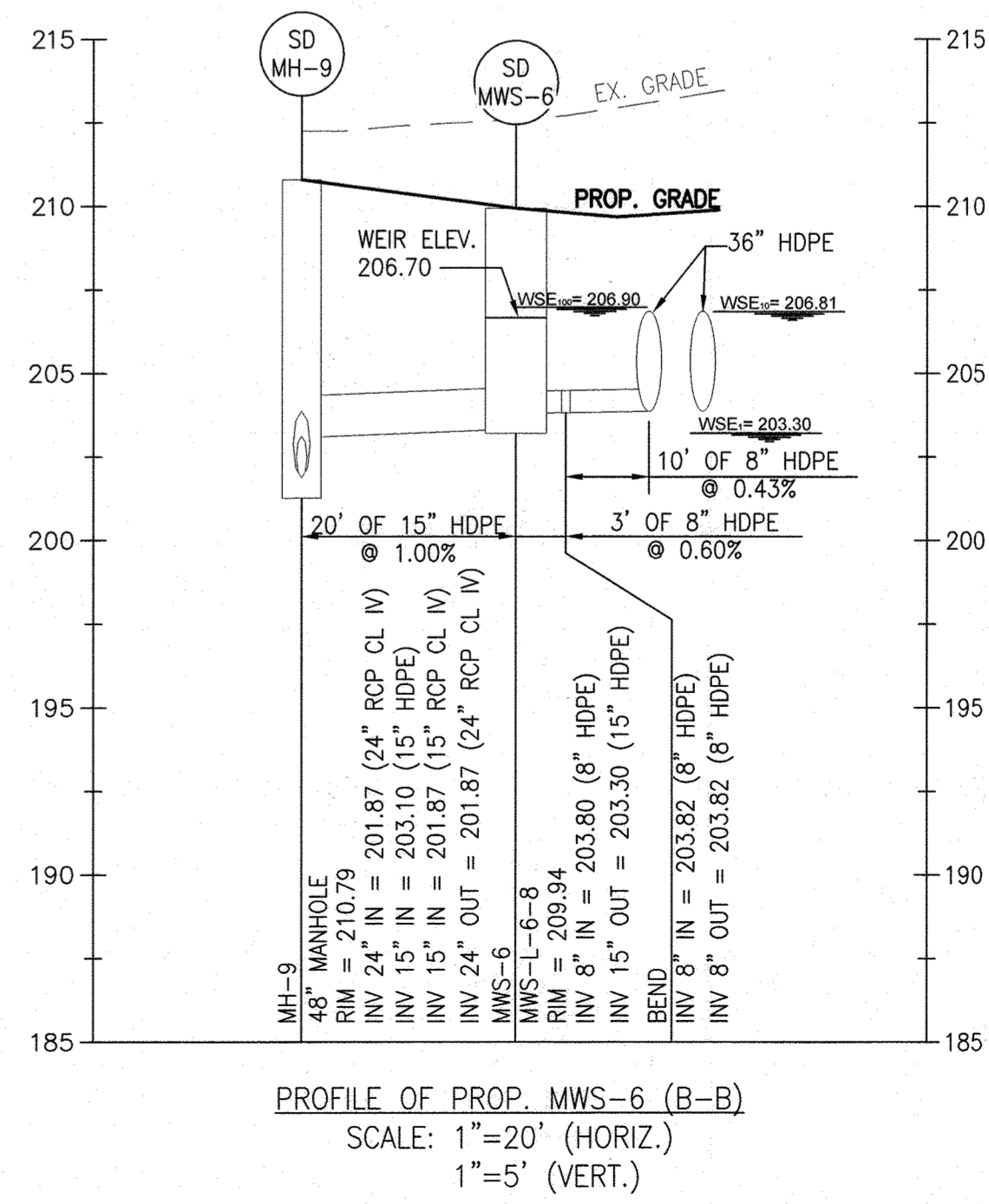
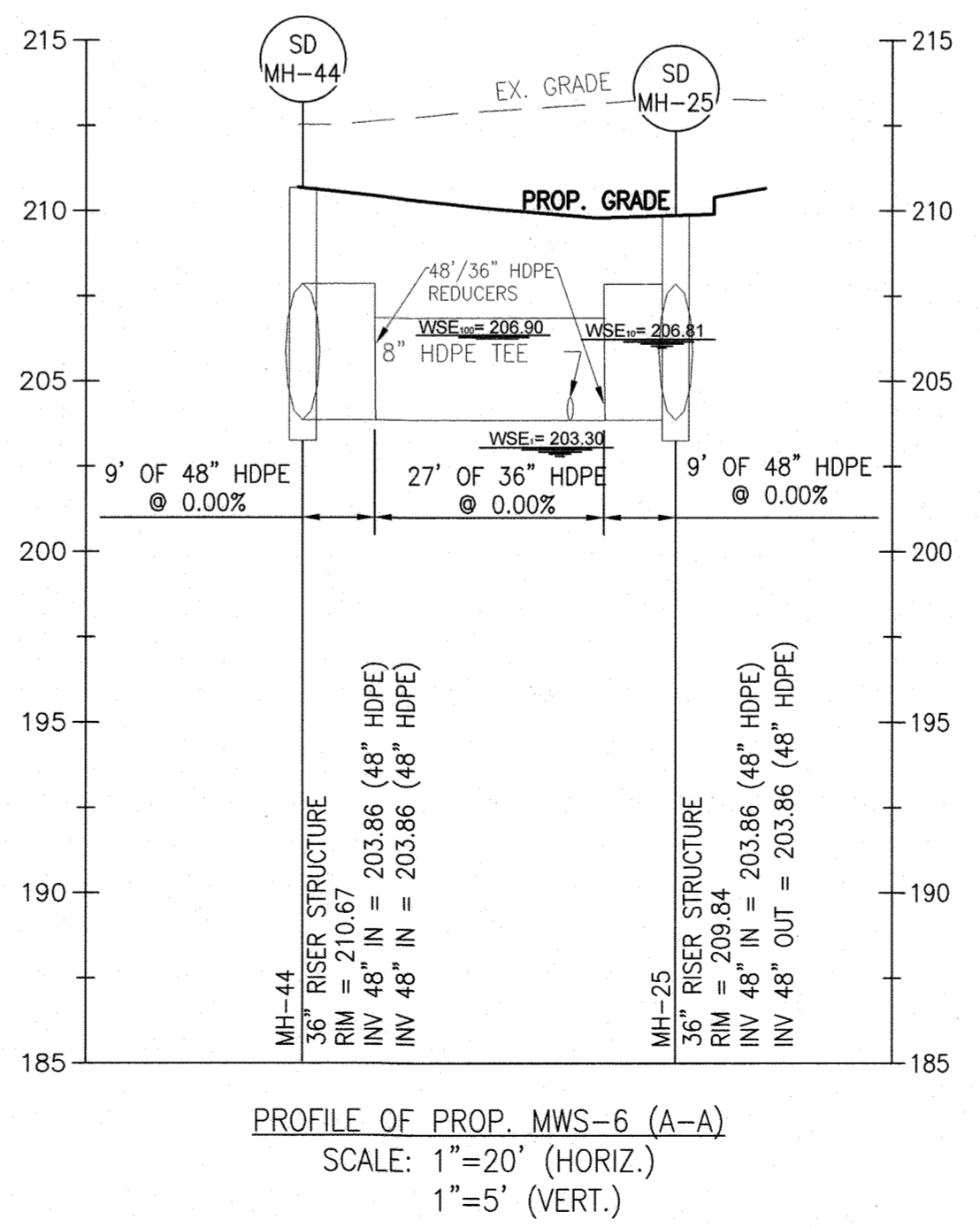
EXISTING LEGEND		PROPOSED LEGEND	
---	EXISTING PROPERTY LINE	▨	PROPOSED BUILDING
---	EXISTING EASEMENT	▨	PROPOSED MAJOR CONTOUR
---	EXISTING SETBACK	▨	PROPOSED SPOT ELEVATION
▨	EXISTING BUILDING	▨	PROPOSED CURB & GUTTER
▨	EXISTING MAJOR CONTOUR	▨	PROPOSED REVERSE CURB & GUTTER
▨	EXISTING MINOR CONTOUR	▨	PROPOSED SIDEWALK
▨	EXISTING CURB	▨	PROPOSED CONCRETE WALK
▨	EXISTING CURB & GUTTER	▨	PROPOSED CONCRETE PAD
▨	EXISTING ROADWAY	▨	PROPOSED ASPHALT PAVING
---	EXISTING PAVEMENT	▨	PROPOSED MEDIUM-DUTY ASPHALT
▨	EXISTING ASPHALT PAVING	▨	PROPOSED PAVERS
▨	EXISTING CONCRETE PAVING	▨	PROPOSED MICRO-BIORETENTION AREA
▨	EXISTING SIGN	▨	PROPOSED RIP RAP
▨	EXISTING ELECTRIC HANDBOX	▨	PROPOSED ELECTRIC MANHOLE
▨	EXISTING ELECTRIC MANHOLE	▨	PROPOSED UNDERGROUND ELECTRIC
▨	EXISTING OVERHEAD ELECTRIC	▨	PROPOSED GAS LINE
▨	EXISTING UNDERGROUND ELECTRIC	▨	PROPOSED GAS VALVE
▨	EXISTING UNDERGROUND CONDUIT	▨	PROPOSED SANITARY LINE
▨	EXISTING DUCTBANK	▨	PROPOSED SANITARY MANHOLE
▨	EXISTING FIBER OPTIC	▨	PROPOSED STORMDRAIN LINE
▨	EXISTING GAS LINE	▨	PROPOSED STORMDRAIN INLET
▨	EXISTING GAS VALVE	▨	PROPOSED STORMDRAIN MANHOLE
▨	EXISTING SANITARY LINE	▨	PROPOSED TELEPHONE
▨	EXISTING SANITARY MANHOLE	▨	PROPOSED WATER LINE
▨	EXISTING SANITARY CLEANOUT	▨	PROPOSED BIOCLEAN MODULAR WETLANDS SYSTEM (SWM)
▨	EXISTING STORMDRAIN LINE	▨	PROPOSED TREELINE
▨	EXISTING STORMDRAIN INLET	▨	EXISTING DECIDUOUS TREE
▨	EXISTING STORMDRAIN MANHOLE	▨	EXISTING EVERGREEN TREE
▨	EXISTING TELEPHONE	▨	EXISTING SHRUB
▨	EXISTING TELEPHONE MANHOLE	▨	EXISTING PUBLIC FOREST CONSERVATION EASEMENT
▨	EXISTING TELEPHONE PEDESTAL		
▨	EXISTING UTILITY POLE		
▨	EXISTING WATER LINE		
▨	EXISTING WATER METER		
▨	EXISTING WATER VALVE		
▨	EXISTING WATER MANHOLE		
▨	EXISTING FIRE HYDRANT		
▨	EXISTING STREAM CENTERLINE		
▨	EXISTING STREAM BUFFER		
▨	EXISTING WETLAND		
▨	EXISTING WETLAND BUFFER		
▨	EXISTING WETLANDS		
▨	EXISTING FLOODPLAIN		
▨	EXISTING TREELINE		
▨	EXISTING DECIDUOUS TREE		
▨	EXISTING EVERGREEN TREE		
▨	EXISTING SHRUB		
▨	EXISTING PUBLIC FOREST CONSERVATION EASEMENT		

HOWARD COUNTY REFERENCE DRAWINGS:  
 WATER: CONTRACT 14-4576-D  
 SEWER: CONTRACT 14-4576-D  
 F-18-106, F-10-013  
 SDP-08-082, SDP-18-033  
 ECP-18-018, ECP-20-015

**AS-BUILT NOTE:**

THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

- AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
  - SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
  - SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
  - INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
  - THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
- MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
- PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
  - PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
  - PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANT STRUCTURES IN THE BMP(S).
  - PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
- COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.



APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 10-15-22  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 10/27/22  
 DIRECTOR  
 DATE: 10/27/22

Marshall Craft Associates, Inc.  
 2031 Clipper Park Road, Suite 105  
 Baltimore, Maryland 21211  
 410.532.3131 | www.mca-design.com

**CIVIL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**LANDSCAPE DESIGN**  
 SITE RESOURCES, INC.  
 14315 JARRETTVILLE PIKE  
 PHOENIX, MD 21131  
 410.683.3388

**STRUCTURAL ENGINEERING**  
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 410.785.7423

**MEP ENGINEERING**  
 LEACH WALLACE ASSOC., INC.  
 6522 MEADOWRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.579.8100

**NOT FOR CONSTRUCTION**

STATE OF MARYLAND  
 JUDITH A. CARROLL  
 PROFESSIONAL ENGINEER  
 LICENSE NO. 14446 EXP. DATE: 5-25-23

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

Sheppard Pratt  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY  
 CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME: CORRIDOR 95 BUSINESS PARK  
 SECTION/AREA: N/A  
 LOT/PARCEL NO.: 60203

OWNER/DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC.  
 6501 N CHARLES STREET  
 BALTIMORE, MARYLAND 21285-6815  
 TEL: 410-938-3242

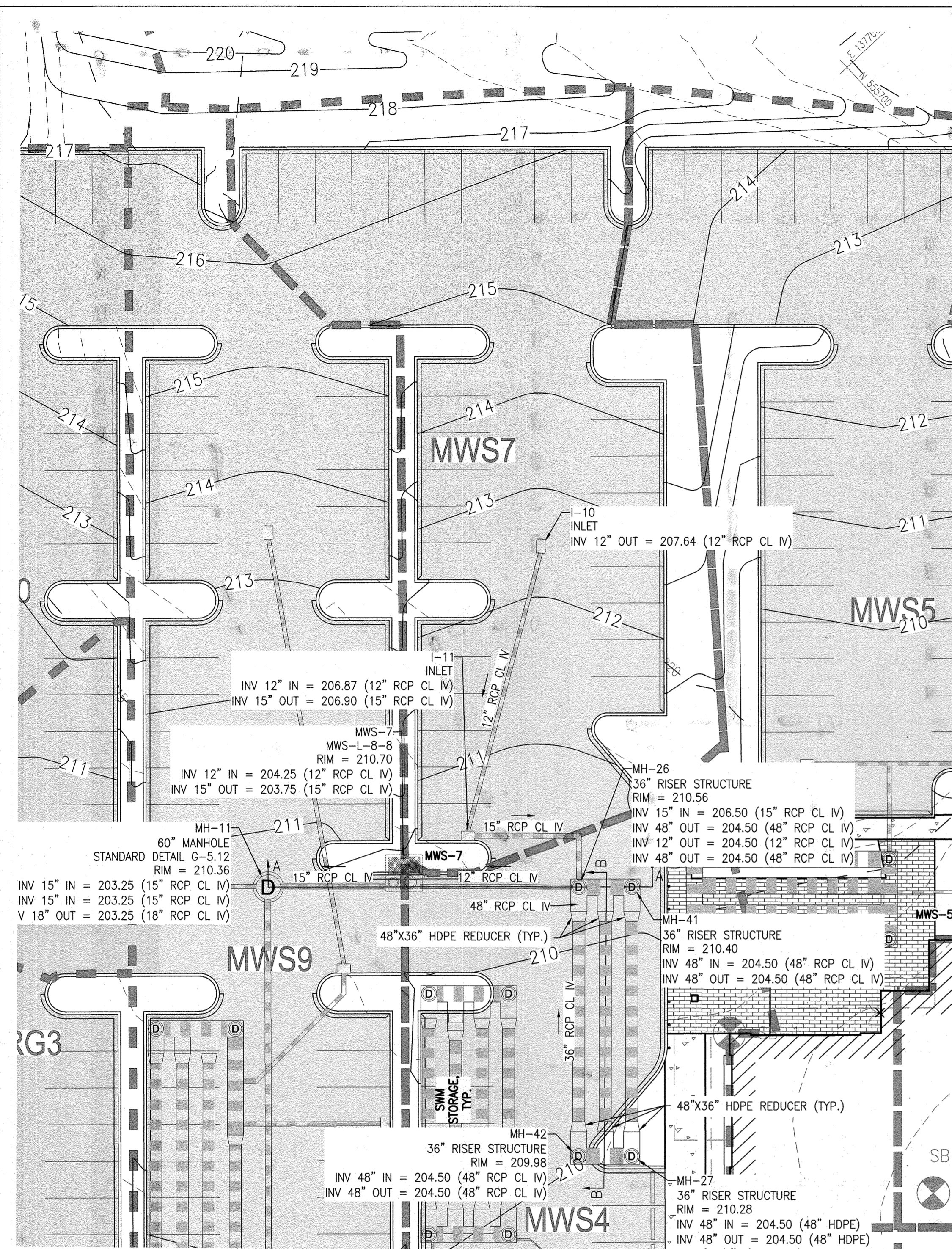
REVISIONS:  
 DATE: COMMENTS:

MCA JOB NO: 19002.01  
 PROJ/MANAGER: DWM  
 SHEET BY: DWM

SHEET SET AND SHEET ISSUE DATE: SDP 5/21/2021

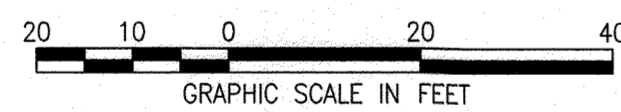
**STORMWATER MANAGEMENT PLAN - MWS6**

SHEET NO: **31** of 60



**STORMWATER MANAGEMENT PLAN - MWS7**

SCALE: 1"=20'



**AS-BUILT NOTE:**

THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

- AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
  - SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
  - SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
  - INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
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- MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
- PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
  - PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
  - PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
- COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.

APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 10/15/22  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 09/27/22  
 DIRECTOR  
 DATE: 10/27/22

**AS BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME	SIGNATURE	
MARYLAND REGISTRATION NUMBER (PE OR LS)	DATE	SDP NO.

FACILITY BEING CERTIFIED: MWS7 MODULAR WETLAND FACILITY

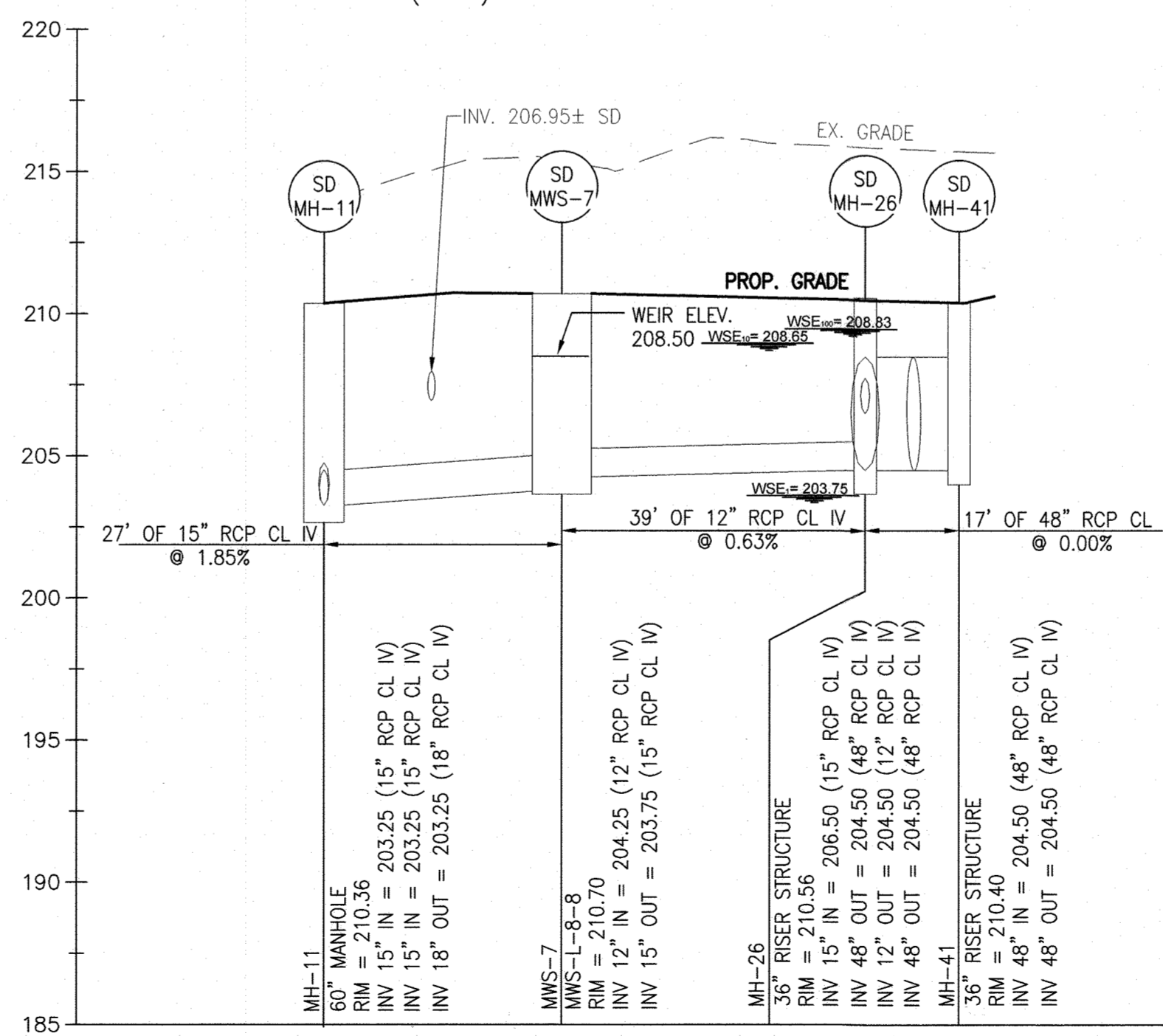
"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057			
AS-BUILT DATA FOR MODULAR WETLAND FACILITY			
*TO BE COMPLETED BY THE PROJECT CONTRACTOR			
BMP ID: MWS7	FEATURE	DESIGN	*AS-BUILT
FACILITY DETAIL	MWS-L-8-8		
FACILITY LxW	8'x8'		
TOP OF FACILITY	210.70		
BOTTOM OF FACILITY (INTERNAL)	203.75		
BOTTOM OF FACILITY (EXTERNAL)	202.75		
INLET SIZE & TYPE	12" RCP		
INLET INVERT	204.25		
PRETREATMENT CHAMBER SIZE & TYPE	36" HDPE		
TOTAL PRETREATMENT CHAMBER PIPE LENGTH	225 LF		
PRETREATMENT CHAMBER INVERT	204.50		
OUTLET PIPE/ORIFICE SIZE & TYPE	15" RCP		
OUTLET INVERT	203.75		

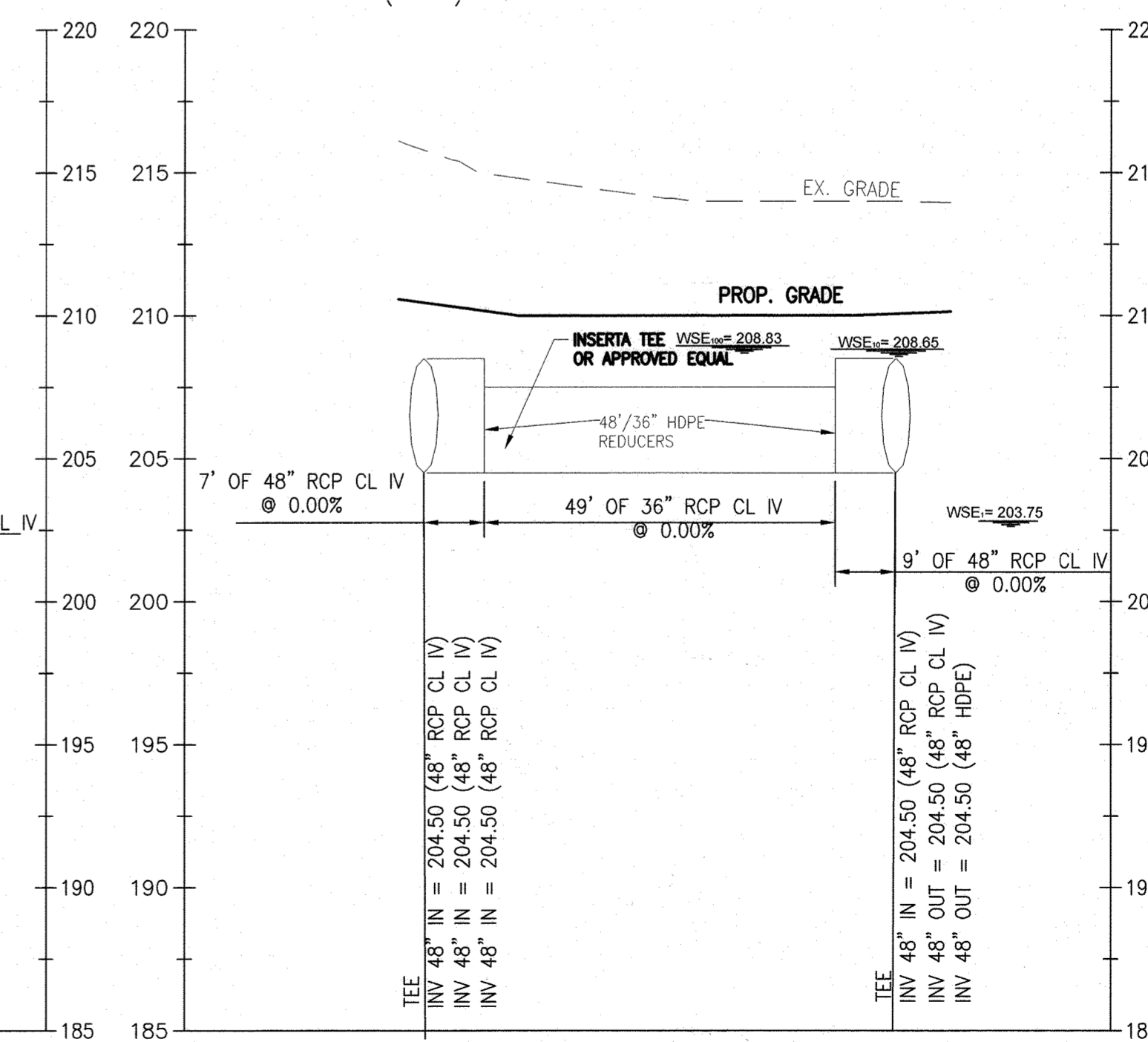
DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

**NOTES:**

- ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH THE CURRENT MARYLAND STORMWATER DESIGN MANUAL AND CITY STANDARDS.
- UNDERDRAINS SHALL BE 4" PERFORATED PVC. PERFORATIONS SHALL BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF 4 HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/2" (NO.4 OR 4x4) GALVANIZED HARDWARE CLOTH.
- ROOF DRAINS SHALL NOT BE CONNECTED UNTIL APPROVAL BY THE COUNTY INSPECTOR, ALL ROOF AREAS SHALL BE FREE OF DEBRIS, AND OUTLET PIPE INSTALLATION HAS BEEN COMPLETED.
- SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.



PROFILE OF PROP. MWS-7 (A-A)  
 SCALE: 1"=20' (HORIZ.)  
 1"=5' (VERT.)



PROFILE OF PROP. MWS-7 (B-B)  
 SCALE: 1"=20' (HORIZ.)  
 1"=5' (VERT.)

EXISTING LEGEND		PROPOSED LEGEND	
---	EXISTING PROPERTY LINE	---	PROPOSED BUILDING
---	EXISTING EASEMENT	---	PROPOSED MAJOR CONTOUR
---	EXISTING SETBACK	---	PROPOSED SPOT ELEVATION
---	EXISTING BUILDING	---	PROPOSED CURB & GUTTER
---	EXISTING MAJOR CONTOUR	---	PROPOSED REVERSE CURB & GUTTER
---	EXISTING MINOR CONTOUR	---	PROPOSED ROADWAY
---	EXISTING CURB	---	PROPOSED SIDEWALK
---	EXISTING CURB & GUTTER	---	PROPOSED CONCRETE WALK
---	EXISTING ROADWAY	---	PROPOSED CONCRETE PAD
---	EXISTING PAVEMENT	---	PROPOSED ASPHALT PAVING
---	EXISTING ASPHALT PAVING	---	PROPOSED MEDIUM-DUTY ASPHALT
---	EXISTING CONCRETE PAVING	---	PROPOSED PAVERS
---	EXISTING SIGN	---	PROPOSED MICRO-BIORETENTION AREA
---	EXISTING ELECTRIC HANDBOX	---	PROPOSED RIP RAP
---	EXISTING ELECTRIC MANHOLE	---	PROPOSED ELECTRIC MANHOLE
---	EXISTING OVERHEAD ELECTRIC	---	PROPOSED UNDERGROUND ELECTRIC
---	EXISTING UNDERGROUND ELECTRIC	---	PROPOSED GAS LINE
---	EXISTING UNDERGROUND CONDUIT	---	PROPOSED GAS VALVE
---	EXISTING DUCTBANK	---	PROPOSED SANITARY LINE
---	EXISTING FIBER OPTIC	---	PROPOSED SANITARY MANHOLE
---	EXISTING GAS LINE	---	PROPOSED STORMDRAIN LINE
---	EXISTING GAS VALVE	---	PROPOSED STORMDRAIN INLET
---	EXISTING SANITARY LINE	---	PROPOSED STORMDRAIN MANHOLE
---	EXISTING SANITARY MANHOLE	---	PROPOSED TELEPHONE
---	EXISTING SANITARY CLEANOUT	---	PROPOSED WATER LINE
---	EXISTING STORMDRAIN LINE	---	PROPOSED BIOCLEAN MODULAR WETLANDS SYSTEM (SWM)
---	EXISTING STORMDRAIN INLET	---	PROPOSED TRENCHLINE
---	EXISTING STORMDRAIN MANHOLE	---	DRAINAGE AREA DELINEATION
---	EXISTING STORMDRAIN PEDestal		
---	EXISTING UTILITY POLE		
---	EXISTING LIGHT POLE		
---	EXISTING WATER LINE		
---	EXISTING WATER METER		
---	EXISTING WATER VALVE		
---	EXISTING WATER MANHOLE		
---	EXISTING FIRE HYDRANT		
---	EXISTING STREAM CENTERLINE		
---	EXISTING STREAM BUFFER		
---	EXISTING WETLAND		
---	EXISTING WETLAND BUFFER		
---	EXISTING WETLANDS		
---	EXISTING FLOODPLAIN		
---	EXISTING TREELINE		
---	EXISTING DECIDUOUS TREE		
---	EXISTING EVERGREEN TREE		
---	EXISTING SHRUB		
---	EXISTING PUBLIC FOREST CONSERVATION EASEMENT		

HOWARD COUNTY REFERENCE DRAWINGS:  
 WATER: CONTRACT 14-4576-D  
 SEWER: CONTRACT 14-4576-D  
 F-18-106, F-10-013  
 SDP-08-082, SDP-18-033  
 ECP-18-018, ECP-20-015

**Marshall Craft Associates, Inc.**  
 2031 Clipper Park Road, Suite 105  
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 410.532.3131 | www.mca.design

**CIVIL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**LANDSCAPE DESIGN**  
 SITE RESOURCES, INC.  
 14315 JARRETTVILLE PIKE  
 PHOENIX, MD 21131  
 410.683.3388

**STRUCTURAL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**MEP ENGINEERING**  
 LEACH WALLACE ASSOC., INC.  
 6522 MEADOWRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.579.8100

**NOT FOR CONSTRUCTION**

STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 LICENSE No.: 14446 EXP. DATE: 5-25-23

**Sheppard Pratt**

**MEDICAL PAVILION**  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY  
 CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
CORRIDOR 95 BUSINESS PARK	V/A	A/0708
PLAT# OR LOT#	ORD#	ZONING
22384/22385	0023	M-1
TAX MAP#	ELECT. DIST.	CONDECT TRACT
0037	1st E.D.	6012.03

OWNER/DEVELOPER  
 SHEPPARD PRATT HEALTH SYSTEM INC.  
 6501 N CHARLES STREET  
 BALTIMORE, MARYLAND 21285-5815  
 TEL: 410-938-3242

REVISIONS  
 DATE: COMMENTS:

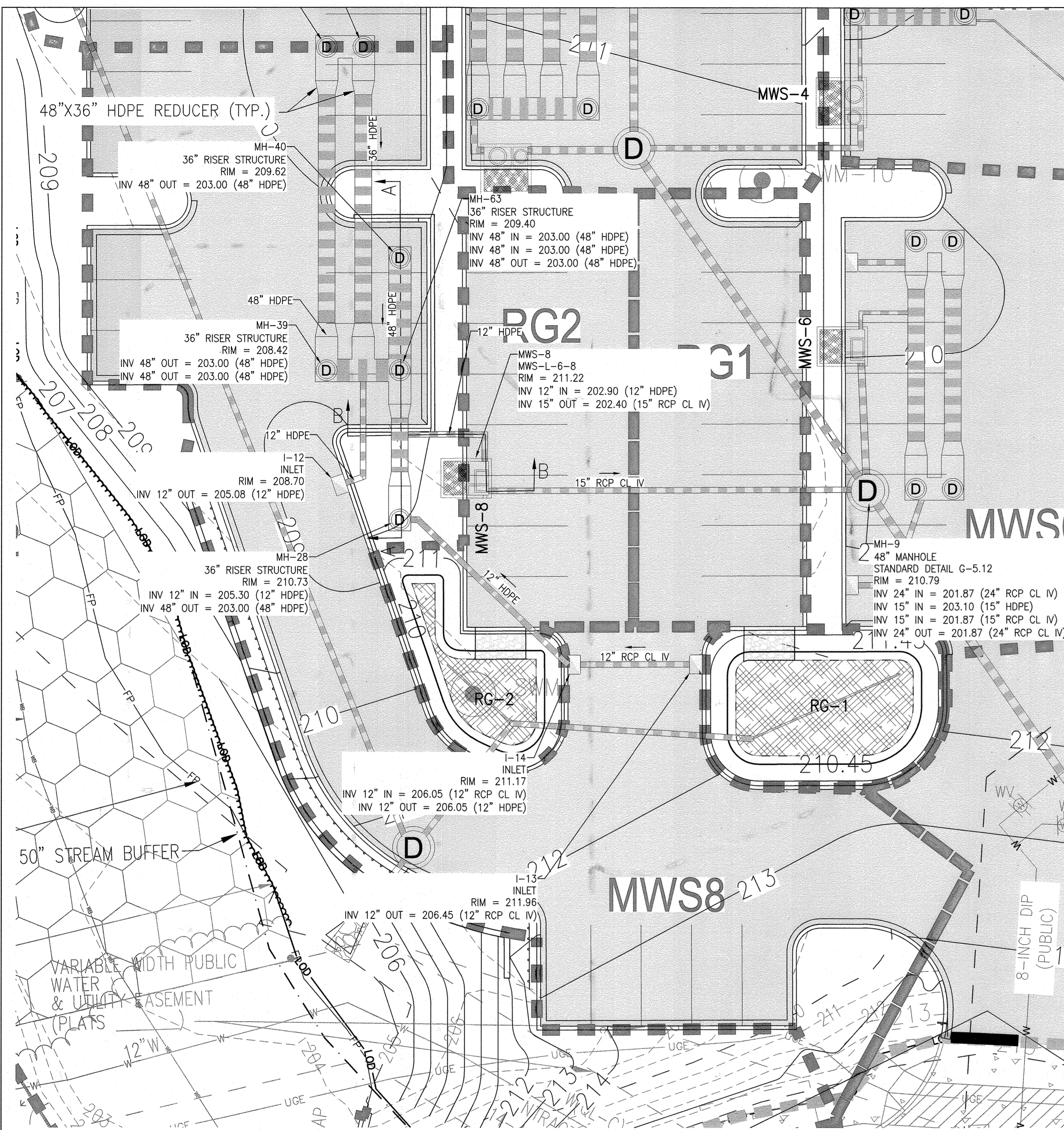
MCA JOB NO: 19002.01  
 PROJ. MANAGER: DWDM  
 SHEET BY: DWDM

SHEET SET AND SHEET ISSUE DATE:  
 SDP 2/12/2021

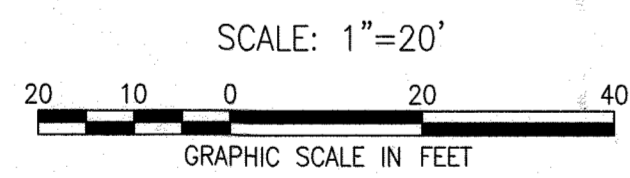
**STORMWATER MANAGEMENT PLAN - MWS7**

SHEET NO. **32** of 60





**STORMWATER MANAGEMENT PLAN - MWS8**



**AS-BUILT NOTE:**

THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

1. AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
  - a. SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
  - b. SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
  - c. INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - d. SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
  - e. THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
2. MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
3. PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
  - a. PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
  - b. PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANT STRUCTURES IN THE BMP(S).
  - c. PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
4. COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.

APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 10/15/22  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 10/27/22  
 DIRECTOR  
 DATE: 10/27/22

**AS BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

MARYLAND REGISTRATION NUMBER (PE OR LS) DATE SDP NO.

FACILITY BEING CERTIFIED: MWS8 MODULAR WETLAND FACILITY

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

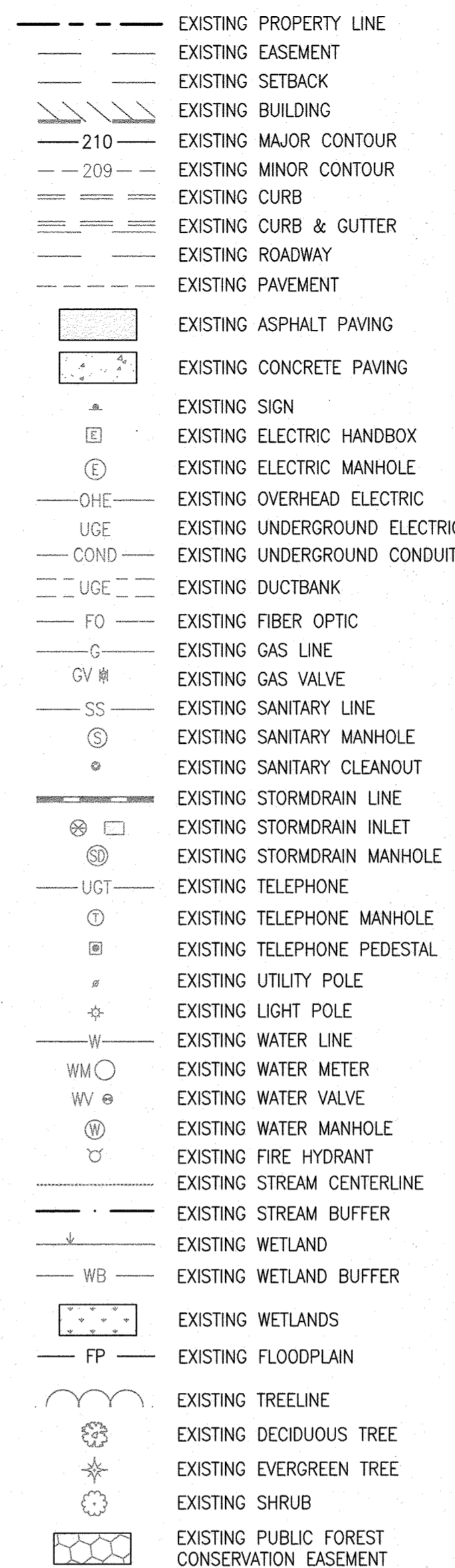
PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057		
AS-BUILT DATA FOR MODULAR WETLAND FACILITY		
*TO BE COMPLETED BY THE PROJECT CONTRACTOR		
BMP ID: MWS8	FEATURE	DESIGN
	FACILITY DETAIL	MWS-L-6-8
	FACILITY LxW	8'x6'
	TOP OF FACILITY	211.22
	BOTTOM OF FACILITY (INTERNAL)	202.40
	BOTTOM OF FACILITY (EXTERNAL)	201.40
	INLET SIZE & TYPE	12" HDPE
	INLET INVERT	202.90
	PRETREATMENT CHAMBER SIZE & TYPE	36" HDPE
	TOTAL PRETREATMENT CHAMBER PIPE LENGTH	180 LF
	PRETREATMENT CHAMBER INVERT	203.00
	OUTLET PIPE/ORIFICE SIZE & TYPE	15" HDPE
	OUTLET INVERT	202.40

DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

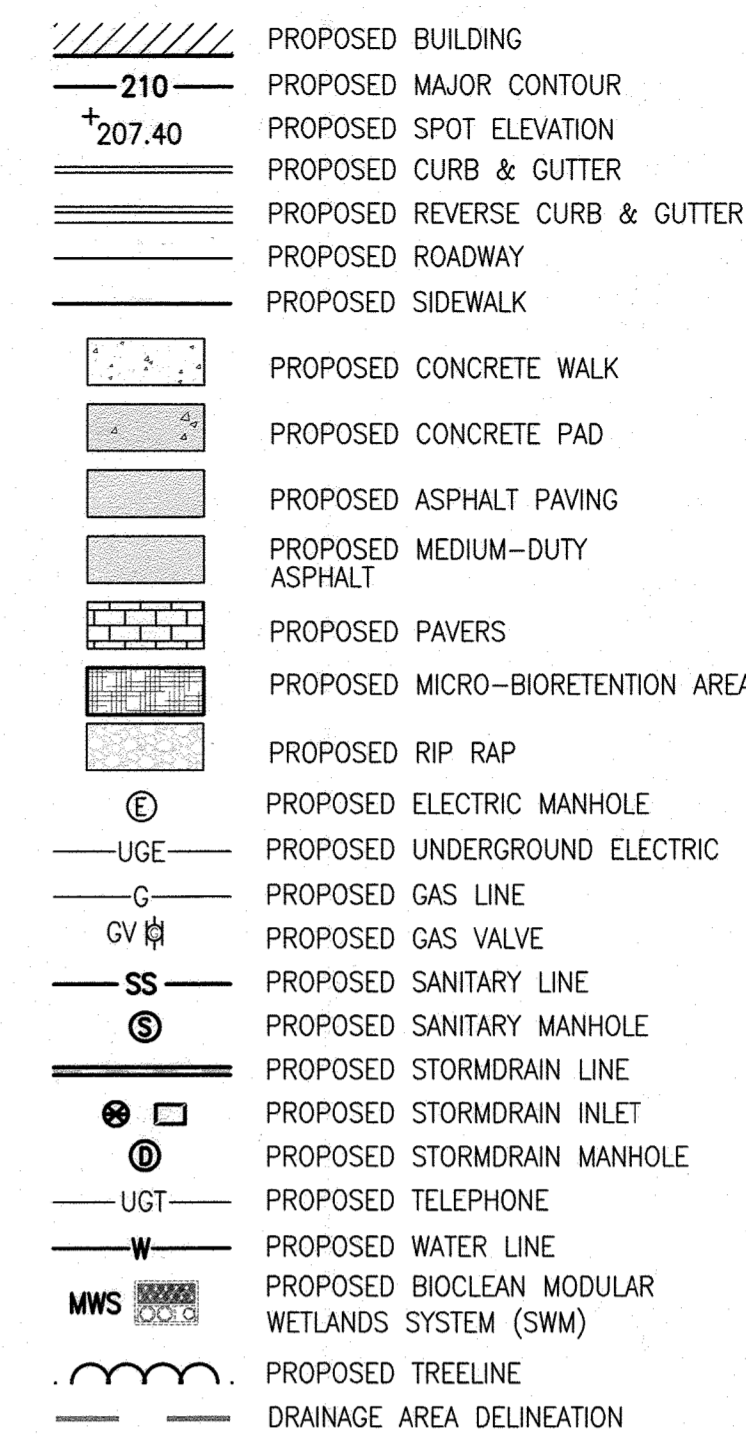
**NOTES:**

1. ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH THE CURRENT MARYLAND STORMWATER DESIGN MANUAL AND CITY STANDARDS.
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4. SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.

**EXISTING LEGEND**

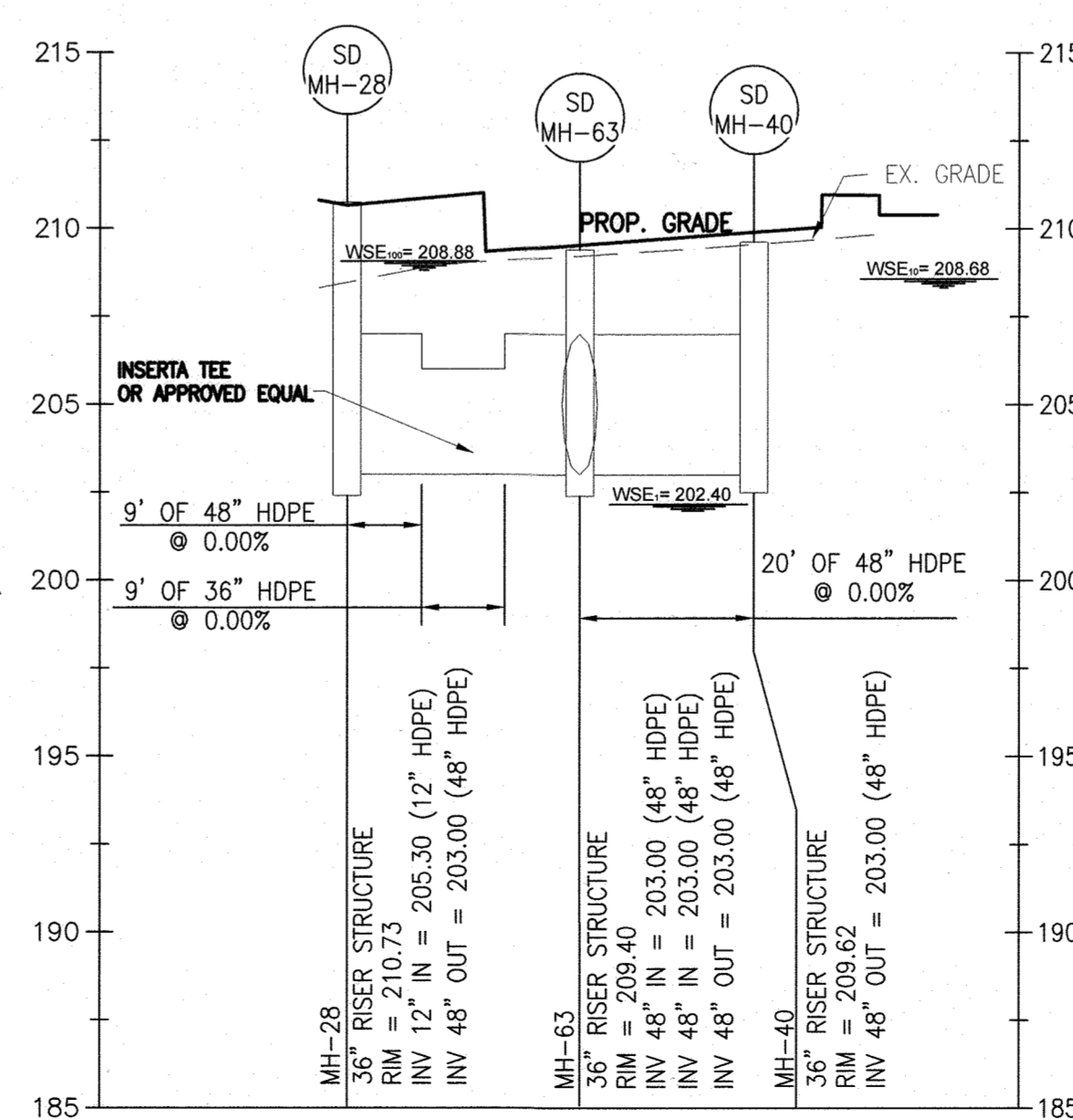


**PROPOSED LEGEND**

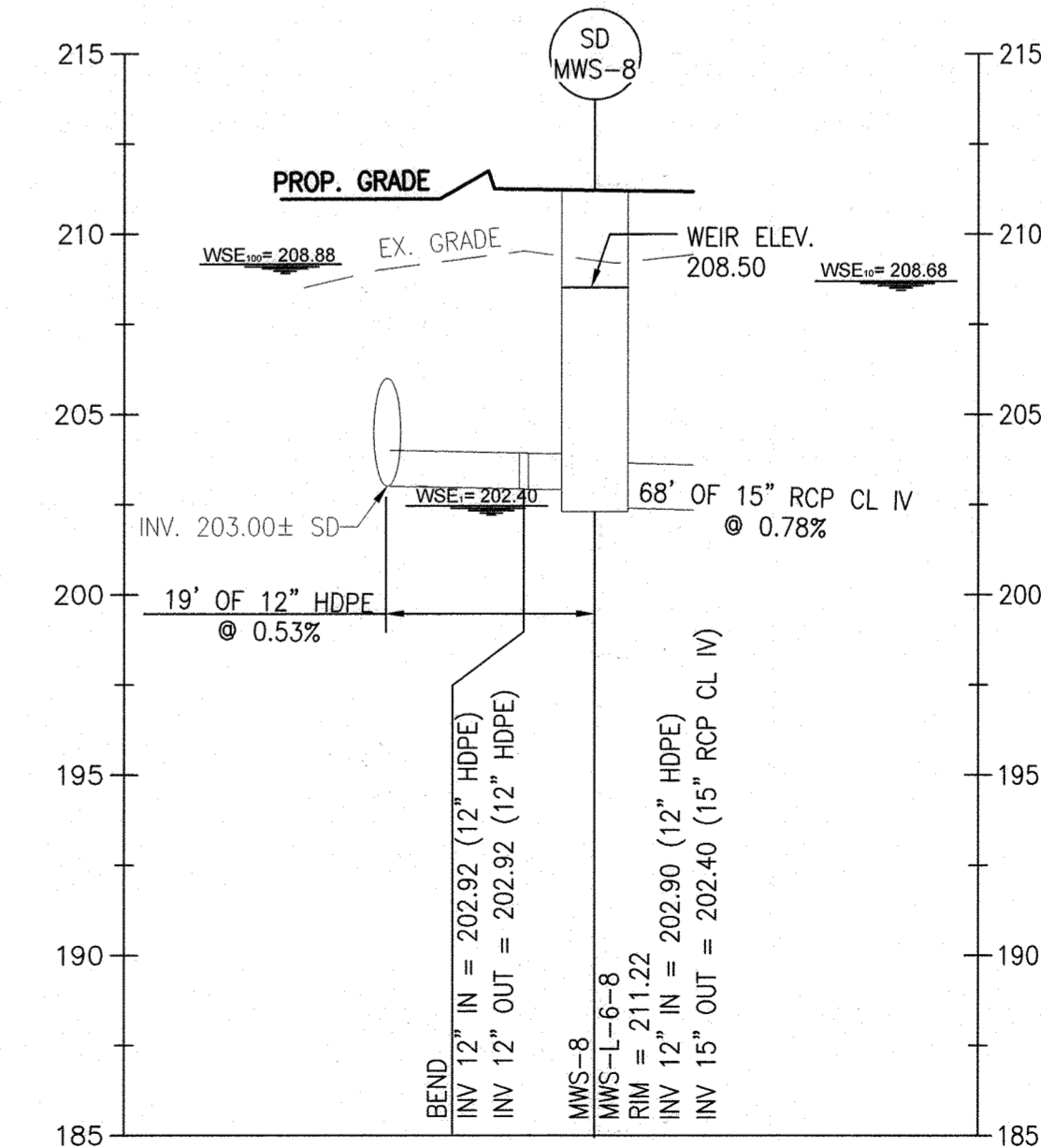


**HOWARD COUNTY REFERENCE DRAWINGS:**

WATER: CONTRACT 14-4576-D  
 SEWER: CONTRACT 14-4576-D  
 F-18-106, F-10-013  
 SDP-08-082, SDP-18-033  
 ECP-18-018, ECP-20-015



PROFILE OF PROP. MWS-8 (A-A)  
 SCALE: 1"=20' (HORIZ.)  
 1"=5' (VERT.)



PROFILE OF PROP. MWS-8 (B-B)  
 SCALE: 1"=20' (HORIZ.)  
 1"=5' (VERT.)

**MCA ARCHITECTURE**  
 Marshall Craft Associates, Inc.  
 2031 Clipper Park Road, Suite 102  
 Baltimore, Maryland 21211  
 410.532.3131 | www.mca-design.com

**CIVIL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**LANDSCAPE DESIGN**  
 SITE RESOURCES, INC.  
 14315 JARRETTVILLE PIKE  
 PHOENIX, MD 21131  
 410.683.3388

**STRUCTURAL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**MEP ENGINEERING**  
 LEACH WALLACE ASSOC., INC.  
 6522 MEADOWBRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.579.8100

**NOT FOR CONSTRUCTION**  
 STATE OF MARYLAND  
 JUDITH A. CARROLL  
 PROFESSIONAL ENGINEER  
 LICENSE NO. 14446 EXP. DATE: 5-25-23

**Sheppard Pratt**  
 MEDICAL PAVILION  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY  
 CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBMISSION NAME: CORRIDOR 95 BUSINESS PARK  
 SECTION/AREA: N/A  
 LOT/PARCEL NO.: A/0258

FLATS OR LOTS: 0258  
 ZONING: M-1  
 TAX MAP DISTRICT: 0037  
 TAX DISTRICT: 0037  
 TAX MAP NO.: 0037  
 TAX DISTRICT: 0037

OWNER/DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC.  
 6501 N CHARLES STREET  
 BALTIMORE, MARYLAND 21285-6815  
 TEL: 410-938-3242

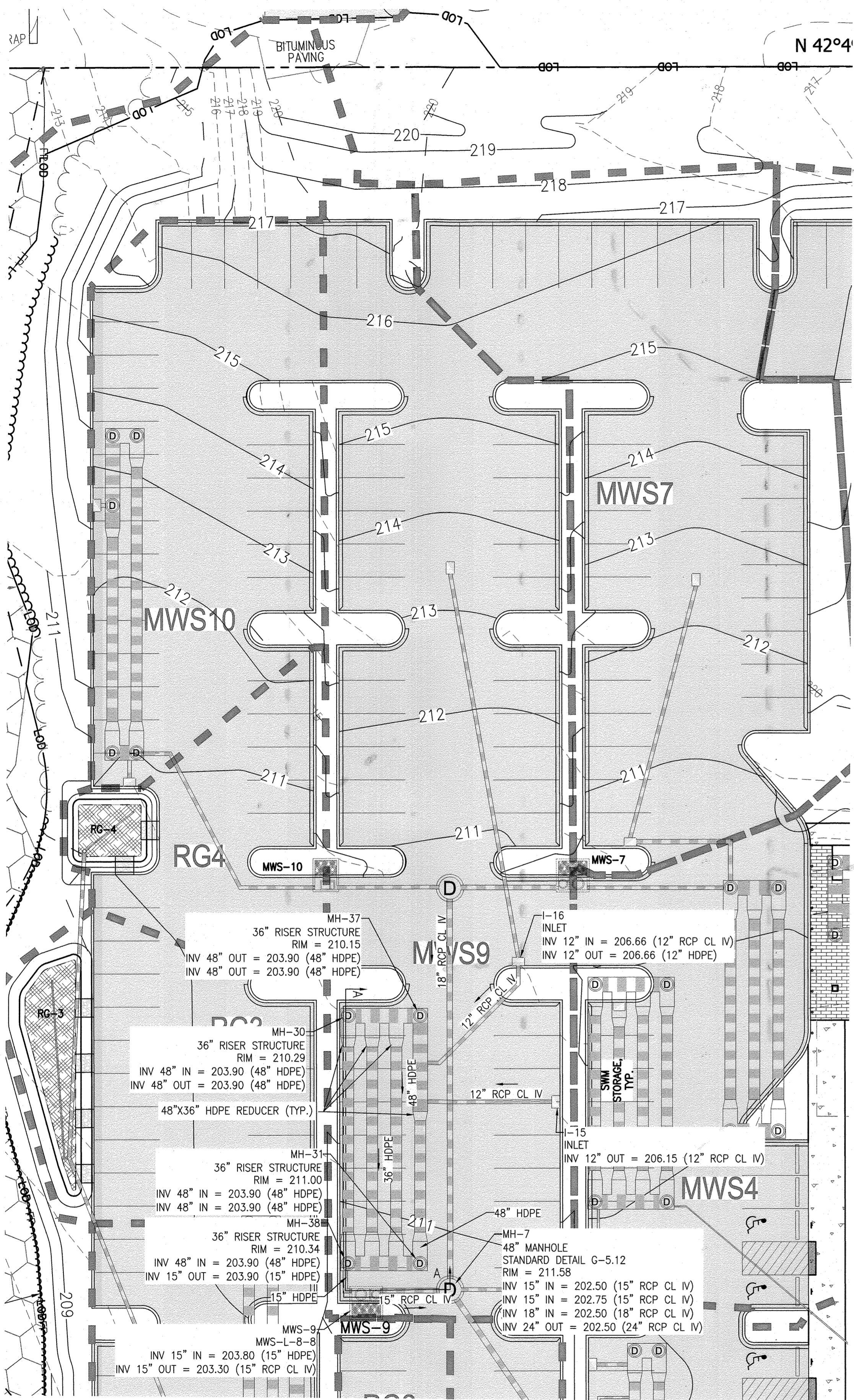
REVISIONS: \_\_\_\_\_ DATE: \_\_\_\_\_ COMMENTS: \_\_\_\_\_

MCA JOB NO: 19002.01  
 PROJECT MANAGER: DWM  
 SHEET BY: DWM

SHEET SET AND SHEET ISSUE DATE: 11/13/2020  
 SDP

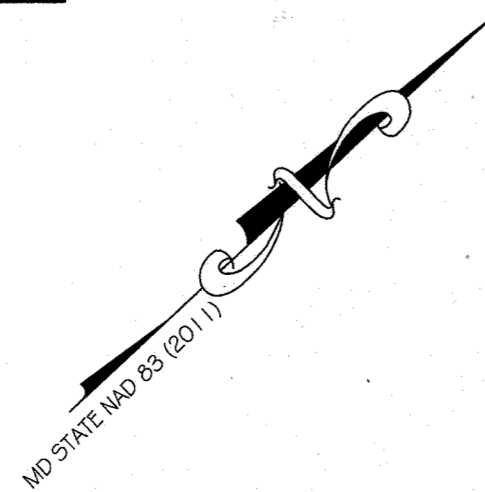
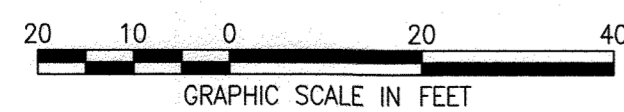
**STORMWATER MANAGEMENT PLAN - MWS8**

SHEET NO: **33** of 60  
 SDP-20-057



STORMWATER MANAGEMENT PLAN - MWS9

SCALE: 1"=20'



APPROVED  
DEPARTMENT OF PLANNING AND ZONING

10-15-22  
DATE  
10/17/22  
DATE  
10/17/22  
DATE

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME	SIGNATURE
MARYLAND REGISTRATION NUMBER (PE OR LS)	DATE
SDP NO.	
FACILITY BEING CERTIFIED: MWS9 MODULAR WETLAND FACILITY	

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057		
AS-BUILT DATA FOR MODULAR WETLAND FACILITY		
*TO BE COMPLETED BY THE PROJECT CONTRACTOR		
BMP ID:	FEATURE	DESIGN
MWS9		
FACILITY DETAIL	MWS-L-8-8	
FACILITY LxW	8'x8'	
TOP OF FACILITY	210.65	
BOTTOM OF FACILITY (INTERNAL)	203.30	
BOTTOM OF FACILITY (EXTERNAL)	202.30	
INLET SIZE & TYPE	15" HDPE	
INLET INVERT	203.80	
PRETREATMENT CHAMBER SIZE & TYPE	36" HDPE	
TOTAL PRETREATMENT CHAMBER PIPE LENGTH	300 LF	
PRETREATMENT CHAMBER INVERT	203.90	
OUTLET PIPE/ORIFICE SIZE & TYPE	15" HDPE	
OUTLET INVERT	203.30	

DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

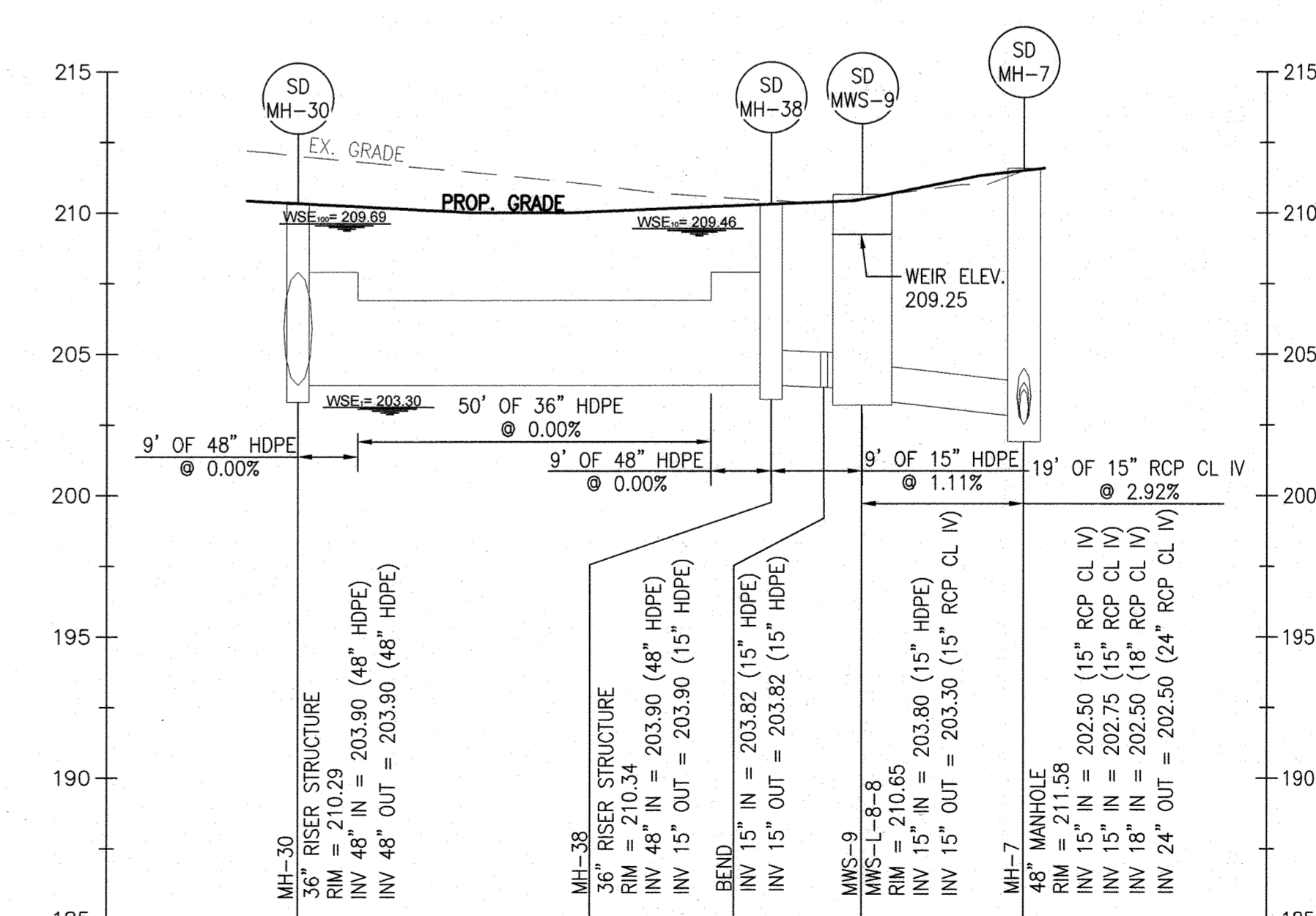
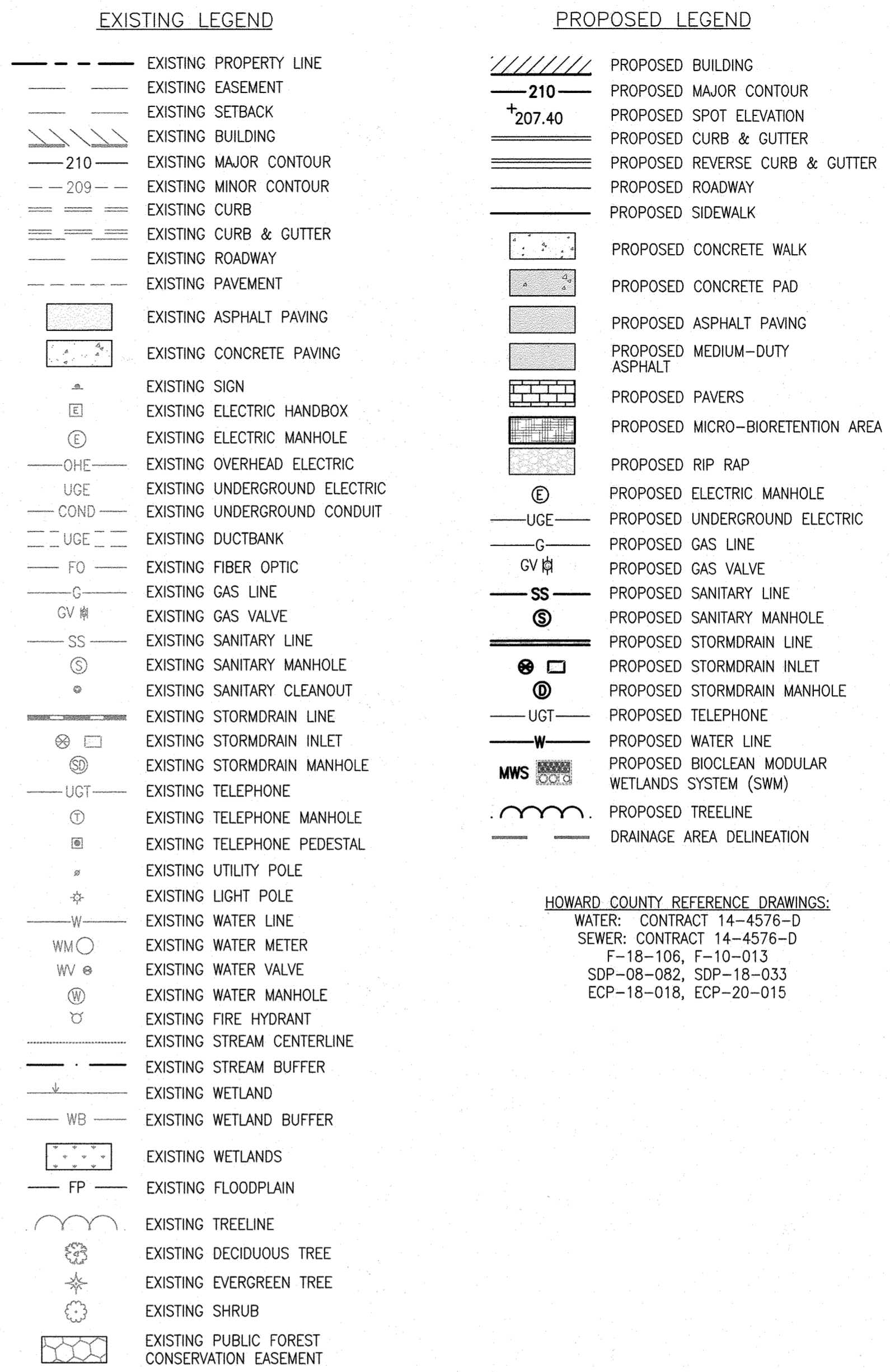
AS-BUILT NOTE:

THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

- AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
  - SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
  - SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
  - INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
  - THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
- MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
- PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
  - PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
  - PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
- COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.

NOTES:

- ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH THE CURRENT MARYLAND STORMWATER DESIGN MANUAL AND CITY STANDARDS.
- UNDERDRAINS SHALL BE 4" PERFORATED PVC. PERFORATIONS SHALL BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF 4 HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/2" (NO.4 OR 4x4) GALVANIZED HARDWARE CLOTH.
- ROOF DRAINS SHALL NOT BE CONNECTED UNTIL APPROVAL BY THE COUNTY INSPECTOR. ALL ROOF AREAS SHALL BE FREE OF DEBRIS, AND OUTLET PIPE INSTALLATION HAS BEEN COMPLETED.
- SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.



PROFILE OF PROP. MWS-9 (A-A)  
SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca-design.com

**CIVIL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**LANDSCAPE DESIGN**  
SITE RESOURCES, INC.  
14315 JARRETTSVILLE PIKE  
PHOENIX, MD 21131  
410.683.3388

**STRUCTURAL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**MEP ENGINEERING**  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELK RIDGE, MD 21075  
410.579.8100

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
LICENSE No.: 14446 EXP. DATE: 5-25-23

**NOT FOR CONSTRUCTION**

STATE OF MARYLAND  
JUDICIAL A. CARROLL  
COUNTY ENGINEER  
OFFICE OF PROFESSIONAL ENGINEERS

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt  
7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

**SUBMISSION NAME**  
CORRIDOR 95 BUSINESS PARK

**SECTION/AREA**  
N/A

**LOT/PARCEL NO.**  
A/2736

**PLAT OR L.P.**  
22384/22385

**GRID**  
0023

**ZONING**  
M-1

**TAX MAP**  
0037

**ELECT. DIST.**  
M-1

**CDMS TRACT**  
6092.03

**OWNER/DEVELOPER**  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

**REVISIONS:**

DATE	COMMENTS

**MCA JOB NO.**  
19002.01

**PROJ. MANAGER**  
DWM

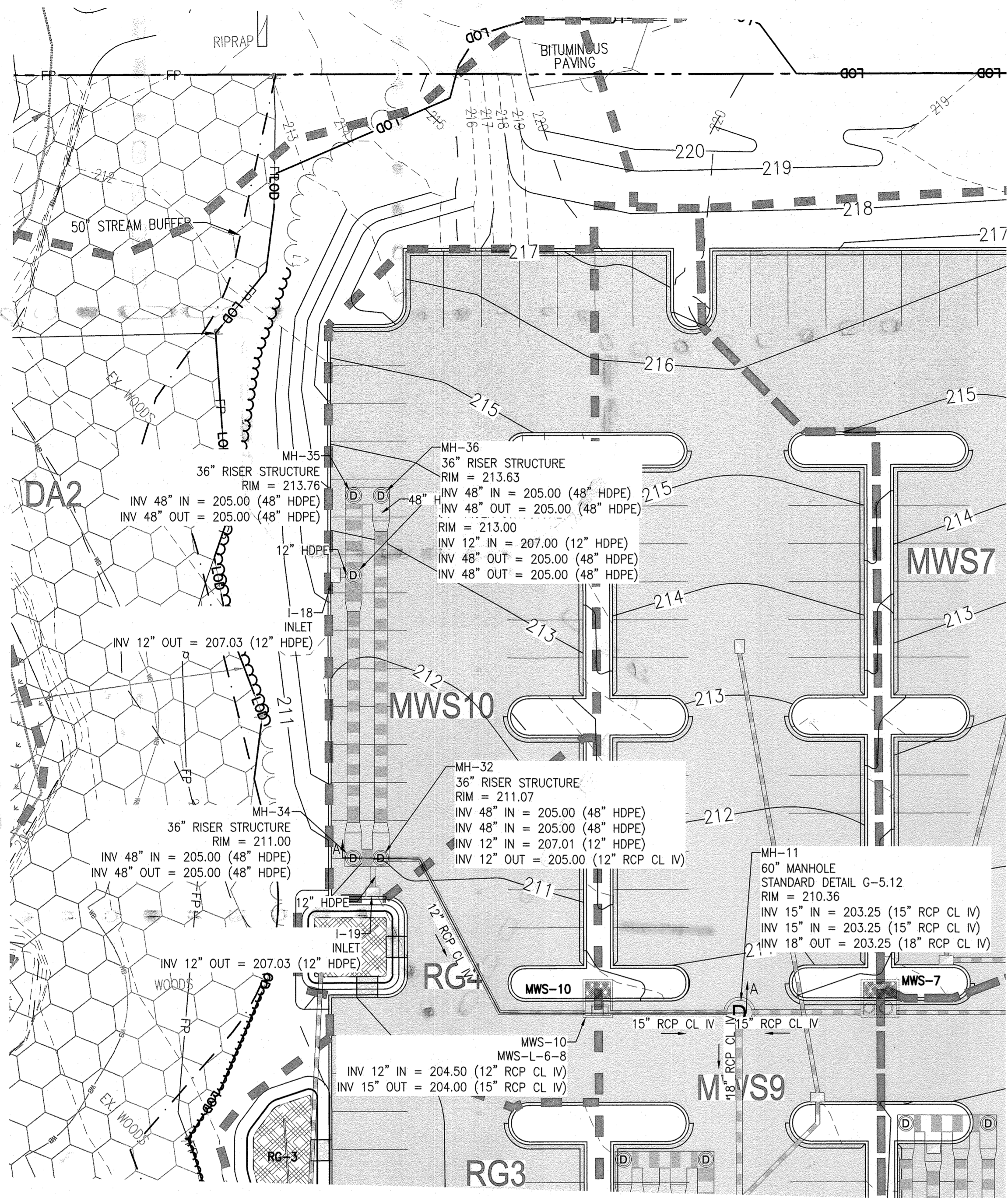
**SHEET BY**  
DWM

**SHEET SET AND SHEET ISSUE DATE:**  
SDP 11/13/2020

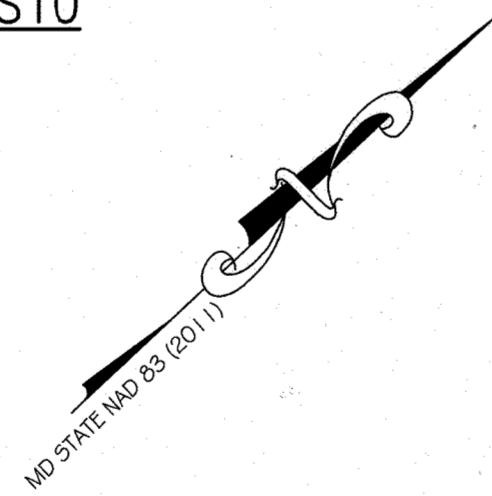
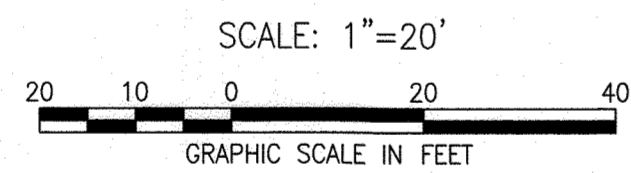
**STORMWATER MANAGEMENT PLAN - MWS9**

SHEET NO. **34** of 60

**SDP-20-057**



STORMWATER MANAGEMENT PLAN - MWS10



NOTES:

1. ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH THE CURRENT MARYLAND STORMWATER DESIGN MANUAL AND CITY STANDARDS.
2. UNDERDRAINS SHALL BE 4" PERFORATED PVC. PERFORATIONS SHALL BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF 4 HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/2" (NO.4 OR 4x4) GALVANIZED HARDWARE CLOTH.
3. ROOF DRAINS SHALL NOT BE CONNECTED UNTIL APPROVAL BY THE COUNTY INSPECTOR, ALL ROOF AREAS SHALL BE FREE OF DEBRIS, AND OUTLET PIPE INSTALLATION HAS BEEN COMPLETED.
4. SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.

APPROVED  
DEPARTMENT OF PLANNING AND ZONING

10-19-22  
DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

10/27/22  
DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT

10/27/22  
DATE  
DIRECTOR

AS BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_

MARYLAND REGISTRATION NUMBER (PE OR LS) \_\_\_\_\_ DATE \_\_\_\_\_ SDP NO. \_\_\_\_\_  
FACILITY BEING CERTIFIED: MWS10 MODULAR WETLAND FACILITY

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057

AS-BUILT DATA FOR MODULAR WETLAND FACILITY		
*TO BE COMPLETED BY THE PROJECT CONTRACTOR		
FEATURE	DESIGN	*AS-BUILT
FACILITY DETAIL	MWS-L-6-8	
FACILITY LxW	8'x6'	
TOP OF FACILITY	210.88	
BOTTOM OF FACILITY (INTERNAL)	204.00	
BOTTOM OF FACILITY (EXTERNAL)	203.00	
INLET SIZE & TYPE	12" RCP	
INLET INVERT	204.50	
PRETREATMENT CHAMBER SIZE & TYPE	36" HDPE	
TOTAL PRETREATMENT CHAMBER PIPE LENGTH	200 LF	
PRETREATMENT CHAMBER INVERT	205.00	
OUTLET PIPE/ORIFICE SIZE & TYPE	15" RCP	
OUTLET INVERT	204.00	

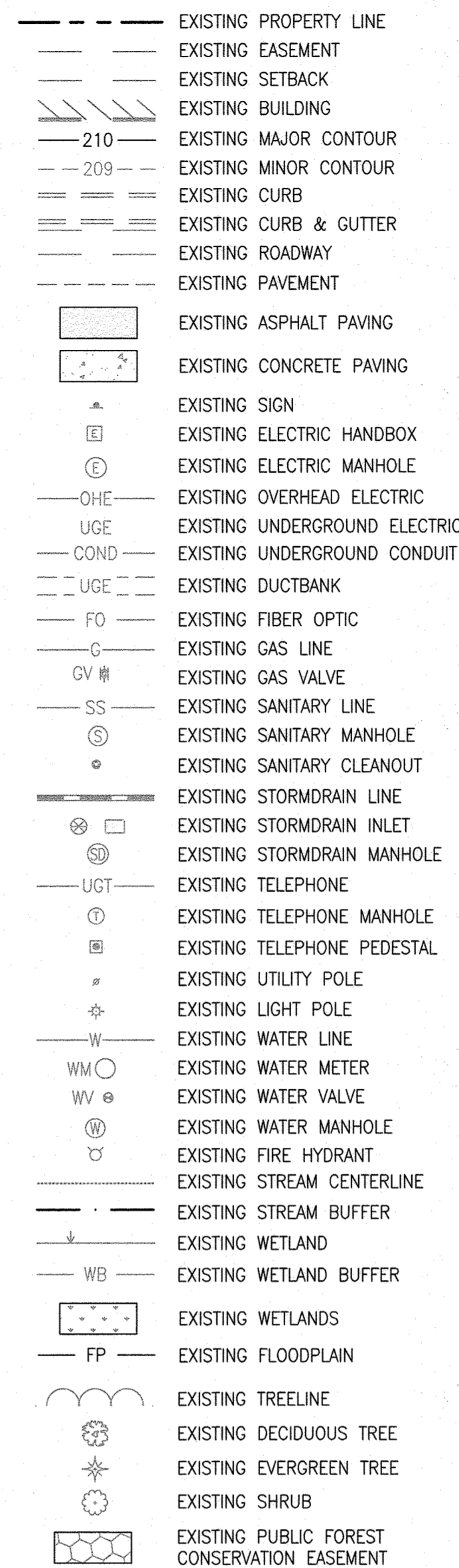
DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

AS-BUILT NOTE:

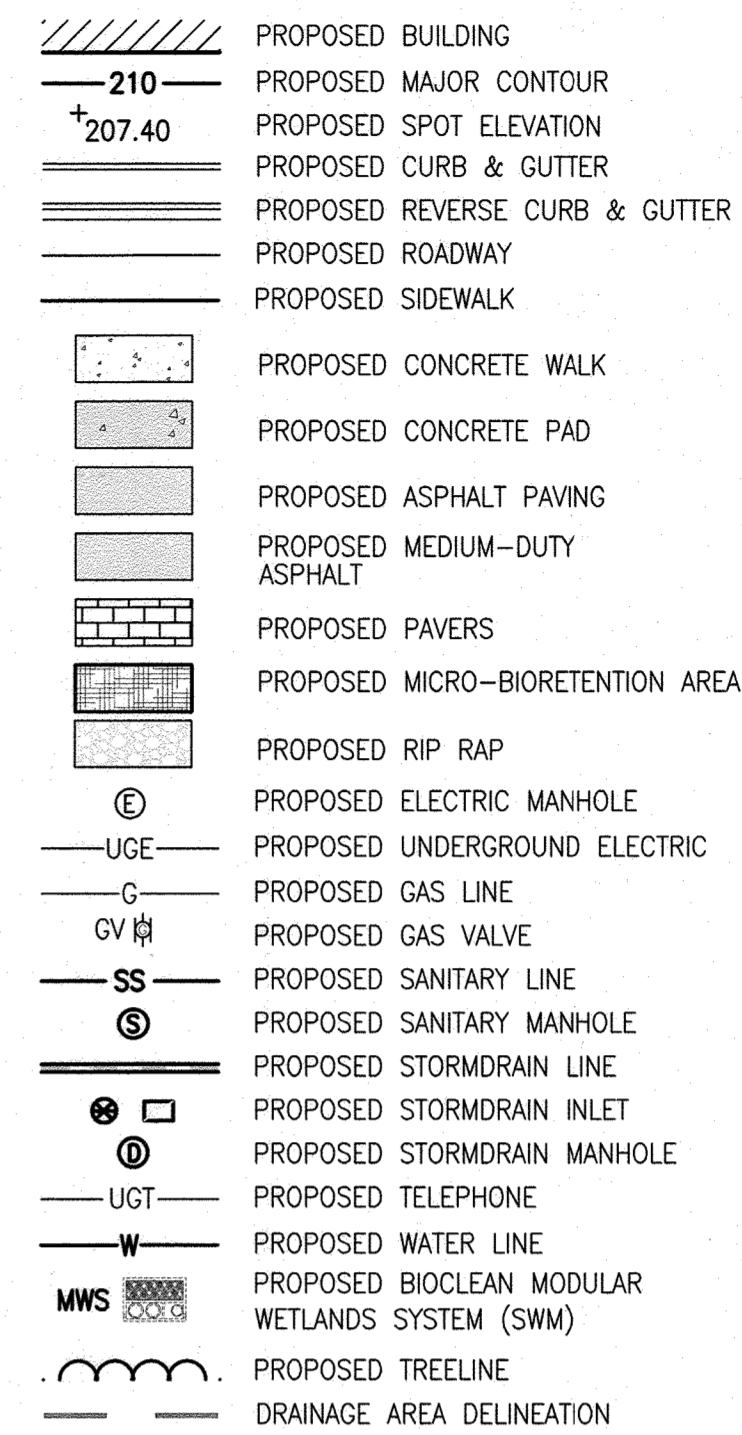
THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

1. AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
  - a. SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
  - b. SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL N THE BMP(S).
  - c. INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - d. SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
  - e. THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
2. MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
3. PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
  - a. PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
  - b. PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANT STRUCTURES IN THE BMP(S).
  - c. PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
4. COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.

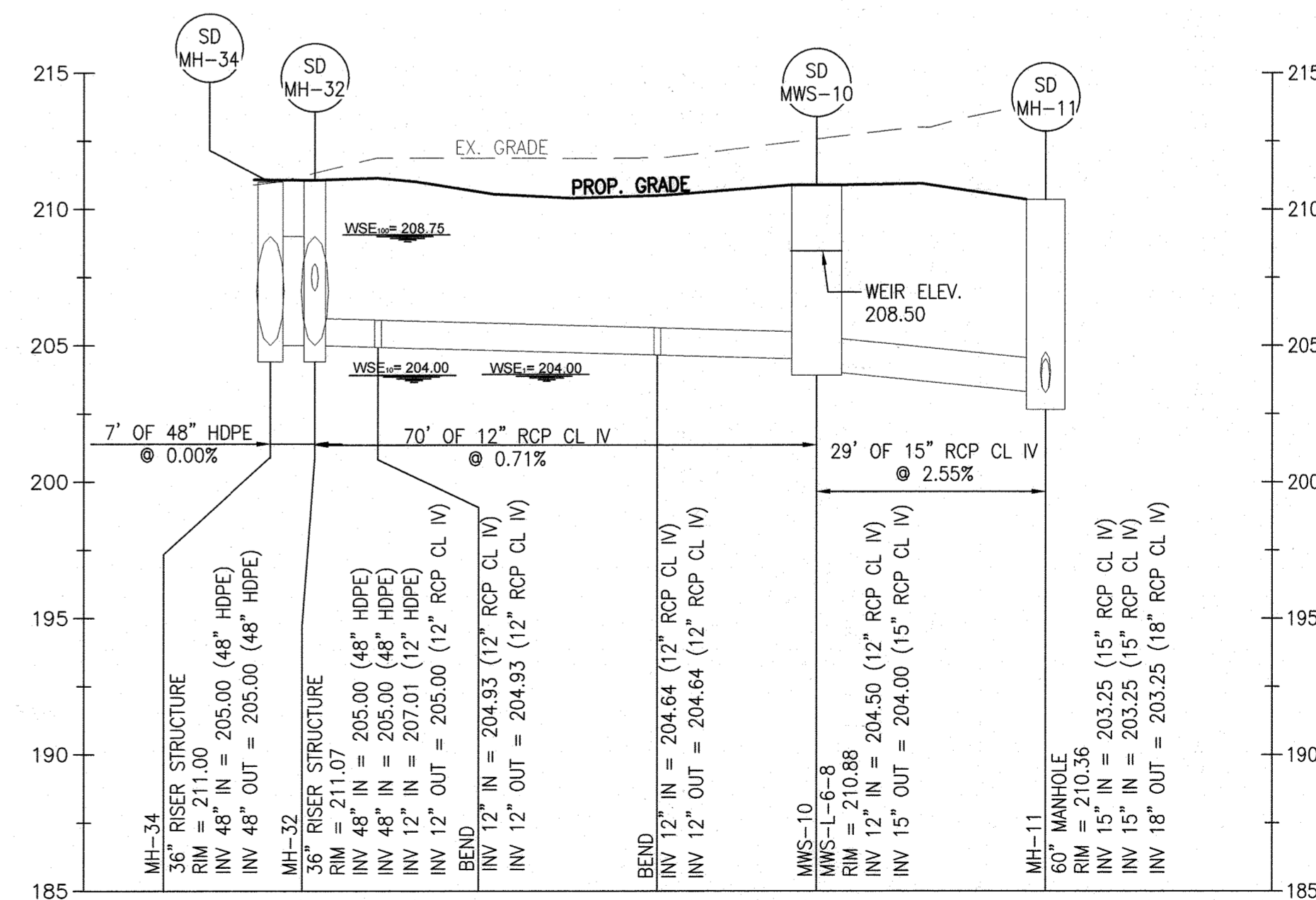
EXISTING LEGEND



PROPOSED LEGEND



HOWARD COUNTY REFERENCE DRAWINGS:  
WATER: CONTRACT 14-4576-D  
SEWER: CONTRACT 14-4576-D  
F-18-106, F-10-013  
SDP-08-082, SDP-18-033  
ECP-18-018, ECP-20-015



PROFILE OF PROP. MWS-10 (A-A)  
SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca.design

**CIVIL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**LANDSCAPE DESIGN**  
SITE RESOURCES, INC.  
14315 JARRETTVILLE PIKE  
PHOENIX, MD 21131  
410.683.3388

**STRUCTURAL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**MEP ENGINEERING**  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWRIDGE RD #1  
ELK RIDGE, MD 21075  
410.579.8100

NOT FOR CONSTRUCTION

STATE OF MARYLAND  
JUDICIAL AGENCY  
REGISTERED PROFESSIONAL ENGINEER  
LICENSE NO. 14446 EXP. DATE: 5-25-23

Sheppard Pratt

**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCEL A

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME: CORRIDOR 95 BUSINESS PARK SECTION/AREA: N/A LOT/PARCEL NO.: A/07096

PLAT# OR LVT: 22384/22385 ORD# 0023 ZONING: M-1 TAX MAP# 0037 DIST# 10011 CORP# TRACT 6092.03

OWNER/DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N CHARLES STREET BALTIMORE, MARYLAND 21285-6815 TEL: 410-938-3242

REVISIONS:

DATE	COMMENTS

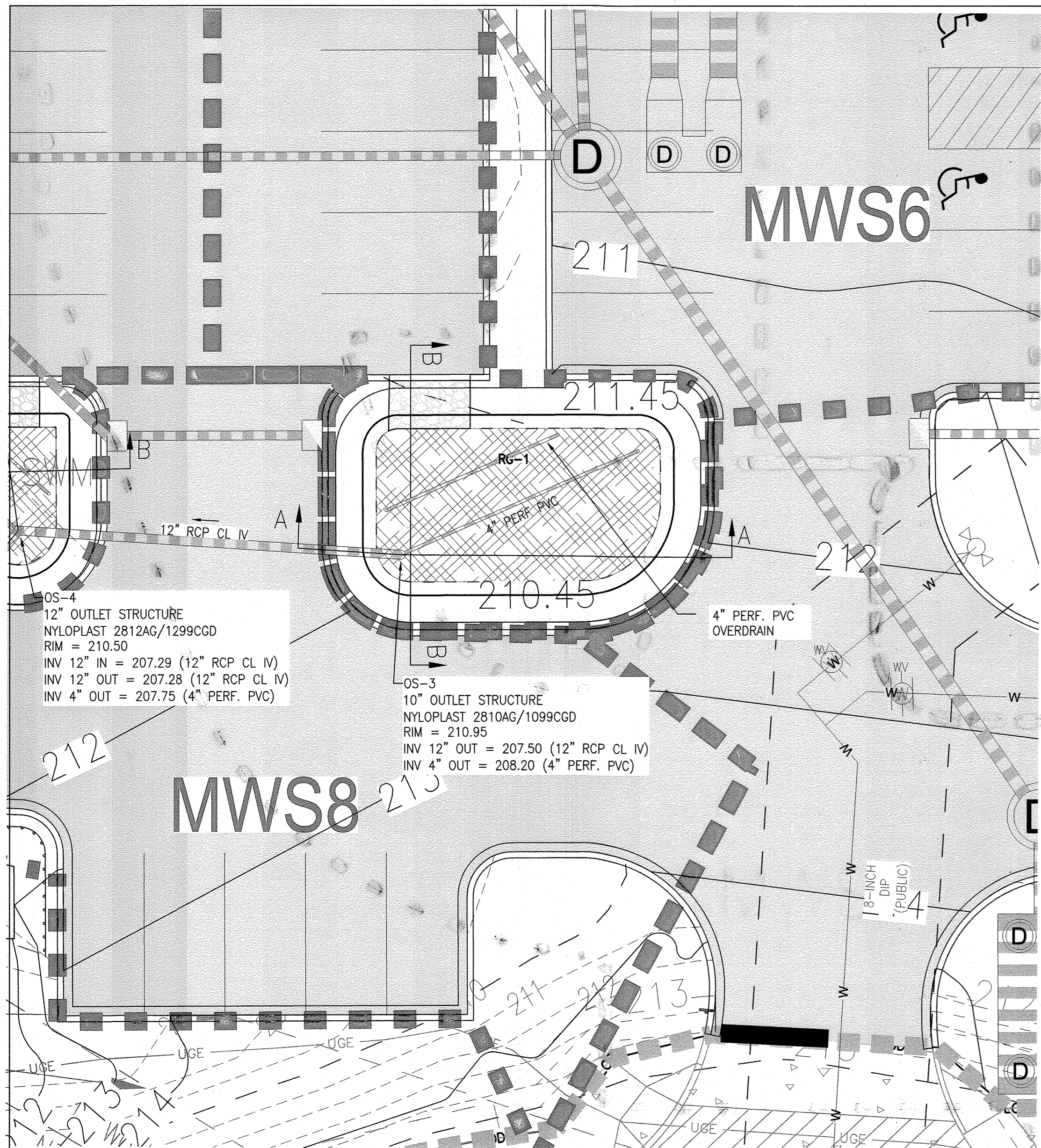
MCA JOB NO: 19002.01 PROJ/MANAGER: DWM SHEET BY: DWM

SHEET SET AND SHEET ISSUE DATE: SDP 11/13/2020

STORMWATER MANAGEMENT PLAN - MWS10

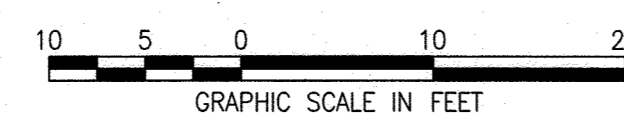
SHEET NO. **35** of 60

SDP-20-057



**STORMWATER MANAGEMENT PLAN - RG1**

SCALE: 1"=10'



**NOTES:**

- ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH CHAPTER 5 AND APPENDIX B.4 "SPECIFICATIONS FOR ENVIRONMENTAL SITE DESIGN PRACTICES" OF THE CURRENT MARYLAND STORMWATER DESIGN MANUAL. SHA BSM SOIL MEDIA MIX IS TO BE USED IN RAIN GARDEN FACILITIES.
- THE GRAVEL LAYER (NO. 57 STONE) SHALL BE AT LEAST 6" THICK BELOW THE UNDERDRAIN PIPE FOR THE RAIN GARDEN AREA.
- THE UNDERDRAIN SHALL BE INSTALLED AT A MINIMUM SLOPE OF 0.5%.
- OBSERVATION WELLS SHALL BE 4" PVC CLEANOUT EXTENDING 6" ABOVE FINISHED GRADE. (SEE DETAIL ON SHEET C720)
- RAIN GARDEN AREAS SHALL NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
- SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.

**AS-BUILT NOTE:**

THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

- AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
  - SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
  - SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
  - INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
  - THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
- MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
- PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
  - PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
  - PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
- COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.

**AS BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_

MARYLAND REGISTRATION NUMBER (PE OR LS) \_\_\_\_\_ DATE \_\_\_\_\_ SDP NO. \_\_\_\_\_  
 FACILITY BEING CERTIFIED: RG1 RAIN GARDEN FACILITY

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057		
AS-BUILT DATA FOR RAIN GARDEN		
*TO BE COMPLETED BY THE PROJECT CONTRACTOR		
BMP ID: RG1		
FEATURE	DESIGN	*AS-BUILT
SURFACE ELEVATION	209.95	
SURFACE DIMENSIONS (LxW)	40'x26' IRREGULAR	
BOTTOM DIMENSIONS (LxW)	32'x17' IRREGULAR	
STORAGE VOLUME AT OUTLET	658 CF	
OBSERVATION WELL WITH DEPTH TO BOTTOM INDICATED ON CAP	4" PVC/	
MEDIA TYPE / THICKNESS (SEE PS 47)	12" BSM	
SAND THICKNESS	-	
MULCH THICKNESS	3 INCHES	
PEA GRAVEL THICKNESS	-	
OUTLET STRUCTURE / RIM ELEVATION	10" PVC/210.95	
UNDERDRAIN SIZE & TYPE	4" PVC	
UNDERDRAIN MAX. INVERT UP / DOWN	208.20/208.20	
OUTLET PIPE SIZE & TYPE	12" PVC	
OUTLET PIPE INVERT UP / DOWN	207.50/207.28	
RECHARGE BED BOTTOM ELEVATION	206.70	
OUTLET STRUCTURE COORDINATES	N 555328.31 E 1377821.06	

DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

**EXISTING LEGEND**

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING BUILDING
- 210- EXISTING MAJOR CONTOUR
- 209- EXISTING MINOR CONTOUR
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING ROADWAY
- EXISTING PAVEMENT
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING SIGN
- EXISTING ELECTRIC HANDBOX
- EXISTING ELECTRIC MANHOLE
- OHE EXISTING OVERHEAD ELECTRIC
- UGE EXISTING UNDERGROUND ELECTRIC
- COND EXISTING UNDERGROUND CONDUIT
- UGE EXISTING UNDERGROUND ELECTRIC
- UGE EXISTING DUCTBANK
- FO EXISTING FIBER OPTIC
- G EXISTING GAS LINE
- CV# EXISTING GAS VALVE
- SS EXISTING SANITARY LINE
- S EXISTING SANITARY MANHOLE
- S EXISTING SANITARY CLEANOUT
- S EXISTING STORMDRAIN LINE
- S EXISTING STORMDRAIN INLET
- S EXISTING STORMDRAIN MANHOLE
- S EXISTING TELEPHONE
- S EXISTING TELEPHONE MANHOLE
- S EXISTING TELEPHONE PEDESTAL
- S EXISTING UTILITY POLE
- S EXISTING LIGHT POLE
- S EXISTING WATER LINE
- WM EXISTING WATER METER
- WV EXISTING WATER VALVE
- S EXISTING WATER MANHOLE
- S EXISTING FIRE HYDRANT
- S EXISTING STREAM CENTERLINE
- S EXISTING STREAM BUFFER
- S EXISTING WETLAND
- WB EXISTING WETLAND BUFFER
- S EXISTING WETLANDS
- FP EXISTING FLOODPLAIN
- S EXISTING TREELINE
- S EXISTING DECIDUOUS TREE
- S EXISTING EVERGREEN TREE
- S EXISTING SHRUB
- S EXISTING PUBLIC FOREST CONSERVATION EASEMENT

**PROPOSED LEGEND**

- PROPOSED BUILDING
- 210- PROPOSED MAJOR CONTOUR
- 207.40- PROPOSED SPOT ELEVATION
- PROPOSED CURB & GUTTER
- PROPOSED REVERSE CURB & GUTTER
- PROPOSED ROADWAY
- PROPOSED SIDEWALK
- PROPOSED CONCRETE WALK
- PROPOSED CONCRETE PAD
- PROPOSED ASPHALT PAVING
- PROPOSED MEDIUM-DUTY ASPHALT
- PROPOSED PAVERS
- PROPOSED MICRO-BIORETENTION AREA
- PROPOSED RIP RAP
- S EXISTING SANITARY MANHOLE
- S EXISTING STORMDRAIN LINE
- S EXISTING STORMDRAIN INLET
- S EXISTING STORMDRAIN MANHOLE
- S EXISTING TELEPHONE
- S EXISTING TELEPHONE MANHOLE
- S EXISTING TELEPHONE PEDESTAL
- S EXISTING UTILITY POLE
- S EXISTING LIGHT POLE
- S EXISTING WATER LINE
- WM EXISTING WATER METER
- WV EXISTING WATER VALVE
- S EXISTING WATER MANHOLE
- S EXISTING FIRE HYDRANT
- S EXISTING STREAM CENTERLINE
- S EXISTING STREAM BUFFER
- S EXISTING WETLAND
- WB EXISTING WETLAND BUFFER
- S EXISTING WETLANDS
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- S EXISTING TREELINE
- S EXISTING DECIDUOUS TREE
- S EXISTING EVERGREEN TREE
- S EXISTING SHRUB
- S EXISTING PUBLIC FOREST CONSERVATION EASEMENT

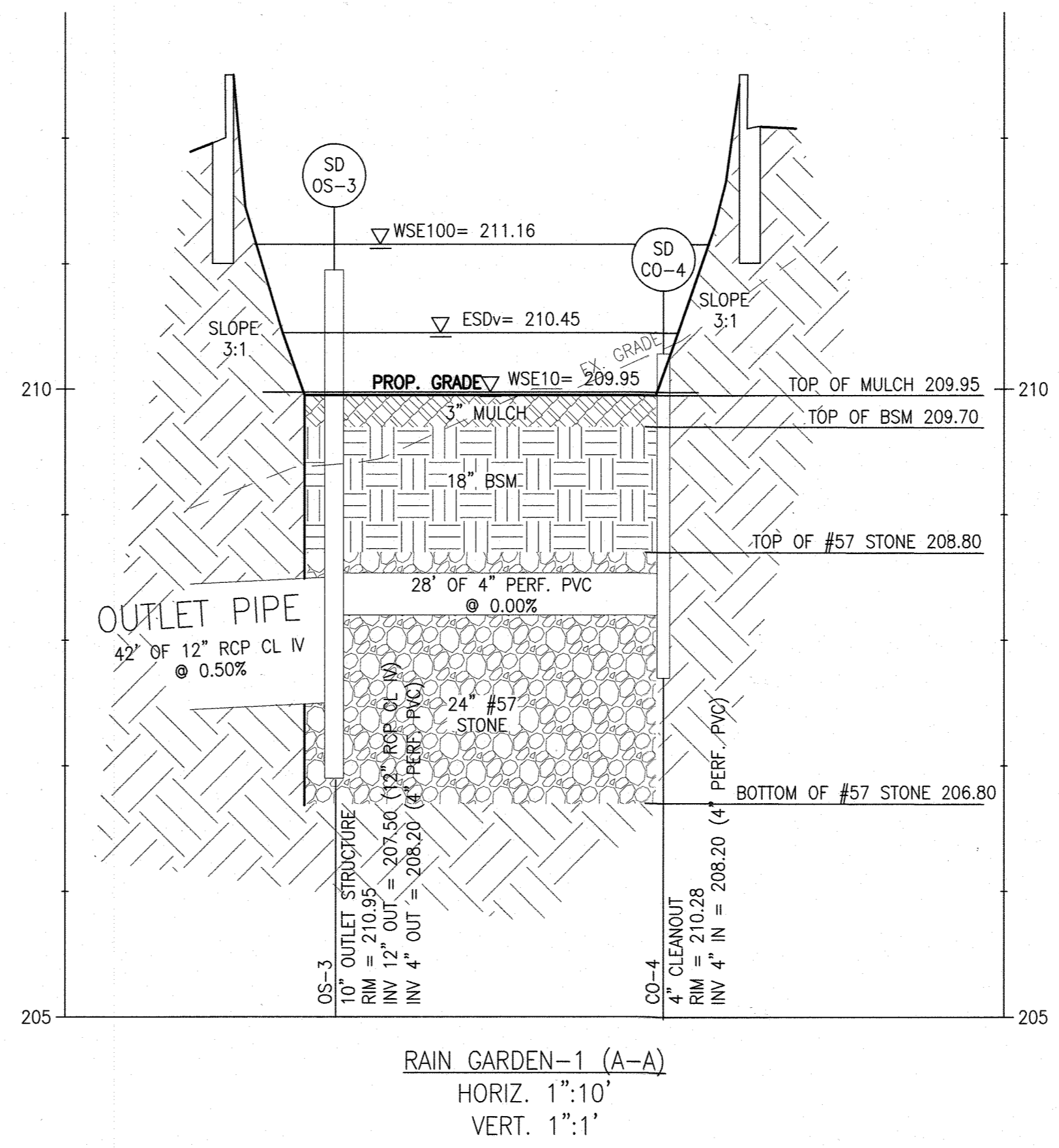
**INSPECTION:**

REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:

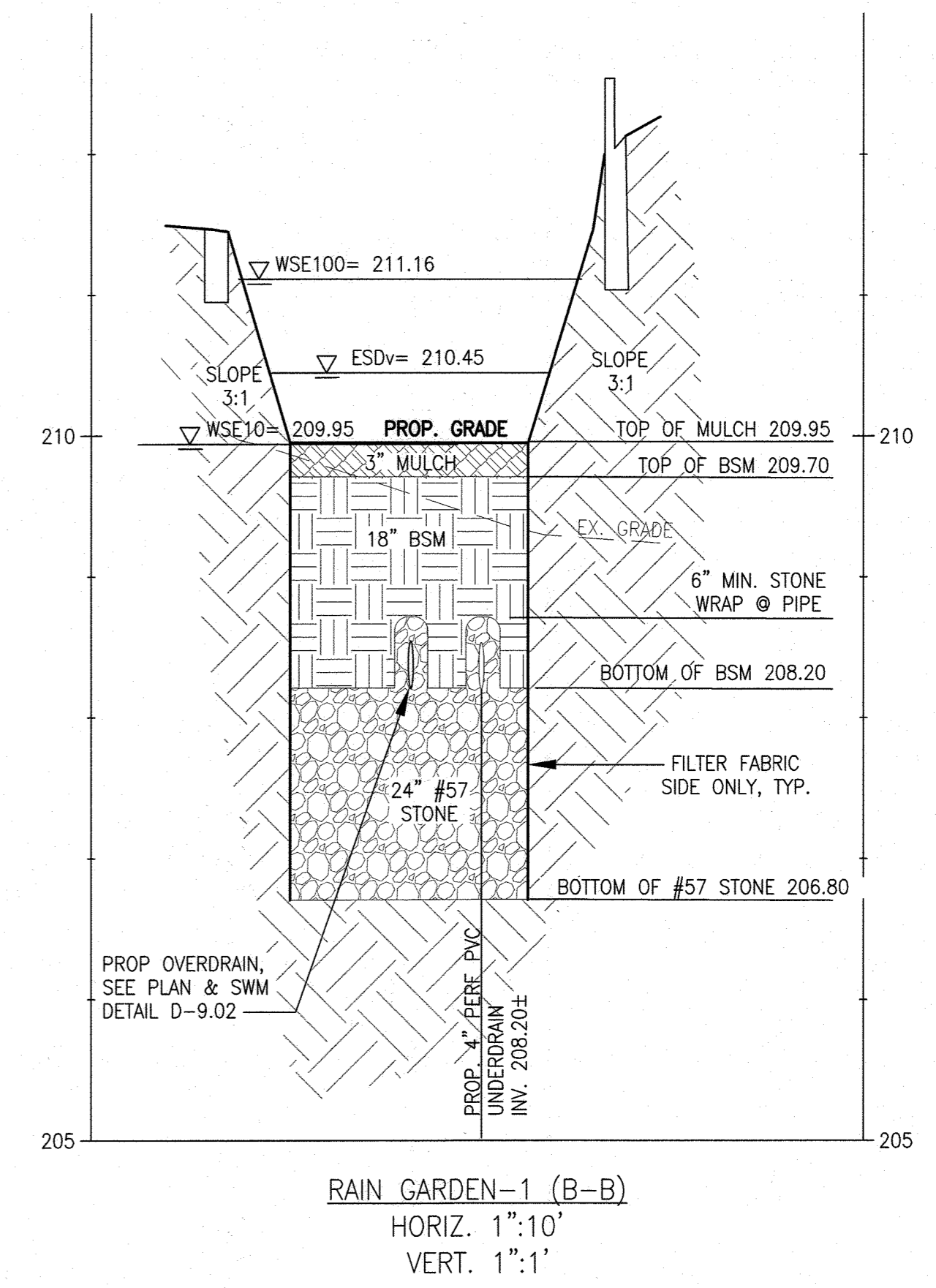
- DURING EXCAVATION TO SUBGRADE AND PLACEMENT OF BACKFILL.
- DURING PLACEMENT OF GRAVEL, AND INSTALLATION OF UNDERDRAIN SYSTEMS AND OBSERVATION WELLS.
- DURING PLACEMENT OF FILTER MEDIA.
- DURING CONSTRUCTION OF APPURTENANCE CONVEYANCE.
- AT COMPLETION OF FINAL GRADING AND PERMANENT STABILIZATION.

**MAINTENANCE CRITERIA:**

- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASHOUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION.
- OCCASIONAL PRUNING AND REPLACEMENT OF DEAD VEGETATION IS NECESSARY. IF SPECIFIC PLANTS ARE NOT SURVIVING, MORE APPROPRIATE NATIVE SPECIES SHOULD BE USED. WATERING MAY BE REQUIRED DURING PROLONGED DRY PERIODS.
- WHERE PRACTICES ARE USED TO TREAT AREAS WITH HIGHER CONCENTRATIONS OF HEAVY METALS (PARKING LOT, ROAD) MULCH SHOULD BE REPLACED ANNUALLY. OTHERWISE, THE TOP 2 TO 3 INCHES SHOULD BE REPLACED AS NECESSARY.
- THE TOP FEW INCHES OF THE PLANTING SOIL SHOULD BE REMOVED AND REPLACED WHEN WATER PONDS FOR MORE THAN 48 HOURS. SILTS AND SEDIMENT SHOULD BE REMOVED FROM THE SURFACE OF THE BED AS NEEDED.
- PRIVATELY OWNED PRACTICES SHALL HAVE A MAINTENANCE PLAN AND SHALL BE PROTECTED BY EASEMENT, DEED RESTRICTION, ORDINANCE OR OTHER LEGAL MEASURES PREVENTING ITS NEGLIGENCE, ADVERSE ALTERATION AND REMOVAL.



**RAIN GARDEN-1 (A-A)**  
 HORIZ. 1":10'  
 VERT. 1":1'



**RAIN GARDEN-1 (B-B)**  
 HORIZ. 1":10'  
 VERT. 1":1'

HOWARD COUNTY REFERENCE DRAWINGS:  
 WATER: CONTRACT 14-4576-D  
 SEWER: CONTRACT 14-4576-D  
 F-18-106, F-10-013  
 SDP-08-082, SDP-18-033  
 ECP-18-018, ECP-20-015

APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DIRECTOR

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
 2031 Clipper Park Road, Suite 105  
 Baltimore, Maryland 21211  
 410.532.3131 | www.mca.design

**CIVIL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**LANDSCAPE DESIGN**  
 SITE RESOURCES, INC.  
 14315 JARRETTSVILLE PIKE  
 PHOENIX, MD 21131  
 410.683.3388

**STRUCTURAL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**MEP ENGINEERING**  
 LEACH WALLACE ASSOC., INC.  
 6522 MEADOWBRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.579.8100

**NOT FOR CONSTRUCTION**

STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt

**MEDICAL PAVILION**  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY  
 CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBMISSION NAME: CORRIDOR 95 BUSINESS PARK  
 SECTION/AREA: N/A  
 LOT/PARCEL NO.: A/0298

PLAT/ OR L/F: 22384/22385  
 ORD# ZONING: 0023 M-1  
 TAX MAP: 0007  
 ELEC. DIST. NO. E.S.: 6023.03

OWNER/DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC.  
 6501 N CHARLES STREET  
 BALTIMORE, MARYLAND 21285-6815  
 TEL: 410-938-3242

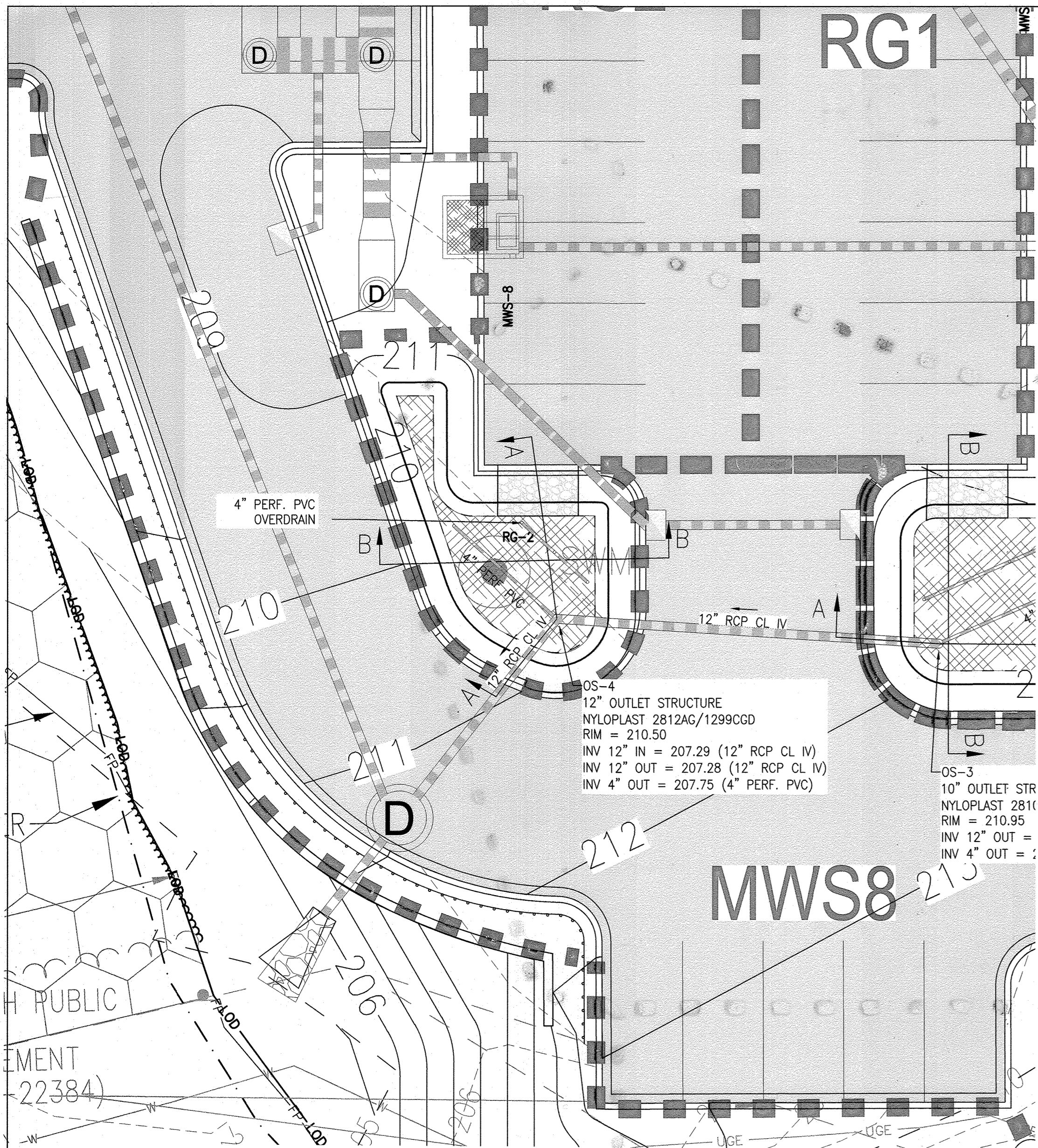
REVISIONS:  
 DATE: \_\_\_\_\_ COMMENTS: \_\_\_\_\_

MCA JOB NO: 19002.01  
 PROJ. MANAGER: DWM  
 SHEET BY: DWM

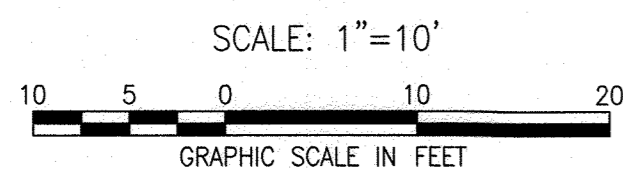
SHEET SET AND SHEET ISSUE DATE: SDP 5/21/2021

**STORMWATER MANAGEMENT PLAN - RG1**

SHEET NO. **36** of 60  
**SDP-20-057**



**STORMWATER MANAGEMENT PLAN - RG2**



**NOTES:**

- ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH CHAPTER 5 AND APPENDIX B.4 "SPECIFICATIONS FOR ENVIRONMENTAL SITE DESIGN PRACTICES" OF THE CURRENT MARYLAND STORMWATER DESIGN MANUAL. SHA BSM SOIL MEDIA MIX IS TO BE USED IN RAIN GARDEN FACILITIES.
- THE GRAVEL LAYER (NO. 57 STONE) SHALL BE AT LEAST 6" THICK BELOW THE UNDERDRAIN PIPE FOR THE RAIN GARDEN AREA.
- THE UNDERDRAIN SHALL BE INSTALLED AT A MINIMUM SLOPE OF 0.5%.
- OBSERVATION WELLS SHALL BE 4" PVC CLEANOUT EXTENDING 6" ABOVE FINISHED GRADE. (SEE DETAIL ON SHEET C720)
- RAIN GARDEN AREAS SHALL NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
- SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.

**AS-BUILT NOTE:**

THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

- AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
  - SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
  - SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
  - INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
  - THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
- MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
- PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
  - PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
  - PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
- COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.

**AS BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_

MARYLAND REGISTRATION NUMBER (PE OR LS) \_\_\_\_\_ DATE \_\_\_\_\_ SDP NO. \_\_\_\_\_

FACILITY BEING CERTIFIED: RG2 RAIN GARDEN FACILITY

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057		
AS-BUILT DATA FOR RAIN GARDEN		
*TO BE COMPLETED BY THE PROJECT CONTRACTOR		
FEATURE	DESIGN	*AS-BUILT
SURFACE ELEVATION	209.50	
SURFACE DIMENSIONS (LxW)	38'x20' IRREGULAR	
BOTTOM DIMENSIONS (LxW)	34'x17' IRREGULAR	
STORAGE VOLUME AT OUTLET	377 CF	
OBSERVATION WELL WITH DEPTH TO BOTTOM INDICATED ON CAP	4" PVC/	
MEDIA TYPE / THICKNESS (SEE PS 47)	12" BSM	
SAND THICKNESS	-	
MULCH THICKNESS	3 INCHES	
PEA GRAVEL THICKNESS	-	
OUTLET STRUCTURE / RIM ELEVATION	12" PVC/210.50	
UNDERDRAIN SIZE & TYPE	4" PVC	
UNDERDRAIN MAX. INVERT UP / DOWN	207.25/207.25	
OUTLET PIPE SIZE & TYPE	12" PVC	
OUTLET PIPE INVERT UP / DOWN	207.28/207.13	
RECHARGE BED BOTTOM ELEVATION	206.25	
OUTLET STRUCTURE COORDINATES	N 555298.95 E 1377789.98	

DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

**EXISTING LEGEND**

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING BUILDING
- 210 EXISTING MAJOR CONTOUR
- 209 EXISTING MINOR CONTOUR
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING ROADWAY
- EXISTING PAVEMENT
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING SIGN
- EXISTING ELECTRIC HANDBOX
- EXISTING ELECTRIC MANHOLE
- OHE EXISTING OVERHEAD ELECTRIC
- UGE EXISTING UNDERGROUND ELECTRIC
- COND EXISTING UNDERGROUND CONDUIT
- UGE EXISTING DUCTBANK
- FO EXISTING FIBER OPTIC
- G EXISTING GAS LINE
- GV# EXISTING GAS VALVE
- SS EXISTING SANITARY LINE
- SS EXISTING SANITARY MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING STORMDRAIN LINE
- EXISTING STORMDRAIN INLET
- EXISTING STORMDRAIN MANHOLE
- UGT EXISTING TELEPHONE
- EXISTING TELEPHONE MANHOLE
- EXISTING TELEPHONE PEDESTAL
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- W EXISTING WATER LINE
- WM EXISTING WATER METER
- WV EXISTING WATER VALVE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING STREAM CENTERLINE
- EXISTING STREAM BUFFER
- EXISTING WETLAND
- WB EXISTING WETLAND BUFFER
- EXISTING WETLANDS
- FP EXISTING FLOODPLAIN
- EXISTING TREELINE
- EXISTING DECIDUOUS TREE
- EXISTING EVERGREEN TREE
- EXISTING SHRUB
- EXISTING PUBLIC FOREST CONSERVATION EASEMENT

**PROPOSED LEGEND**

- PROPOSED BUILDING
- 210 PROPOSED MAJOR CONTOUR
- 207.40 PROPOSED SPOT ELEVATION
- PROPOSED CURB & GUTTER
- PROPOSED REVERSE CURB & GUTTER
- PROPOSED ROADWAY
- PROPOSED SIDEWALK
- PROPOSED CONCRETE WALK
- PROPOSED CONCRETE PAD
- PROPOSED ASPHALT PAVING
- PROPOSED MEDIUM-DUTY ASPHALT
- PROPOSED PAVERS
- PROPOSED MICRO-BIORETENTION AREA
- PROPOSED RIP RAP
- PROPOSED ELECTRIC MANHOLE
- UGE PROPOSED UNDERGROUND ELECTRIC
- G PROPOSED GAS LINE
- GV# PROPOSED GAS VALVE
- SS PROPOSED SANITARY LINE
- SS PROPOSED SANITARY MANHOLE
- PROPOSED STORMDRAIN LINE
- PROPOSED STORMDRAIN INLET
- PROPOSED STORMDRAIN MANHOLE
- UGT PROPOSED TELEPHONE
- W PROPOSED WATER LINE
- MWS PROPOSED BIOCLEAN MODULAR WETLANDS SYSTEM (SWM)
- PROPOSED TREELINE
- DRAINAGE AREA DELINEATION

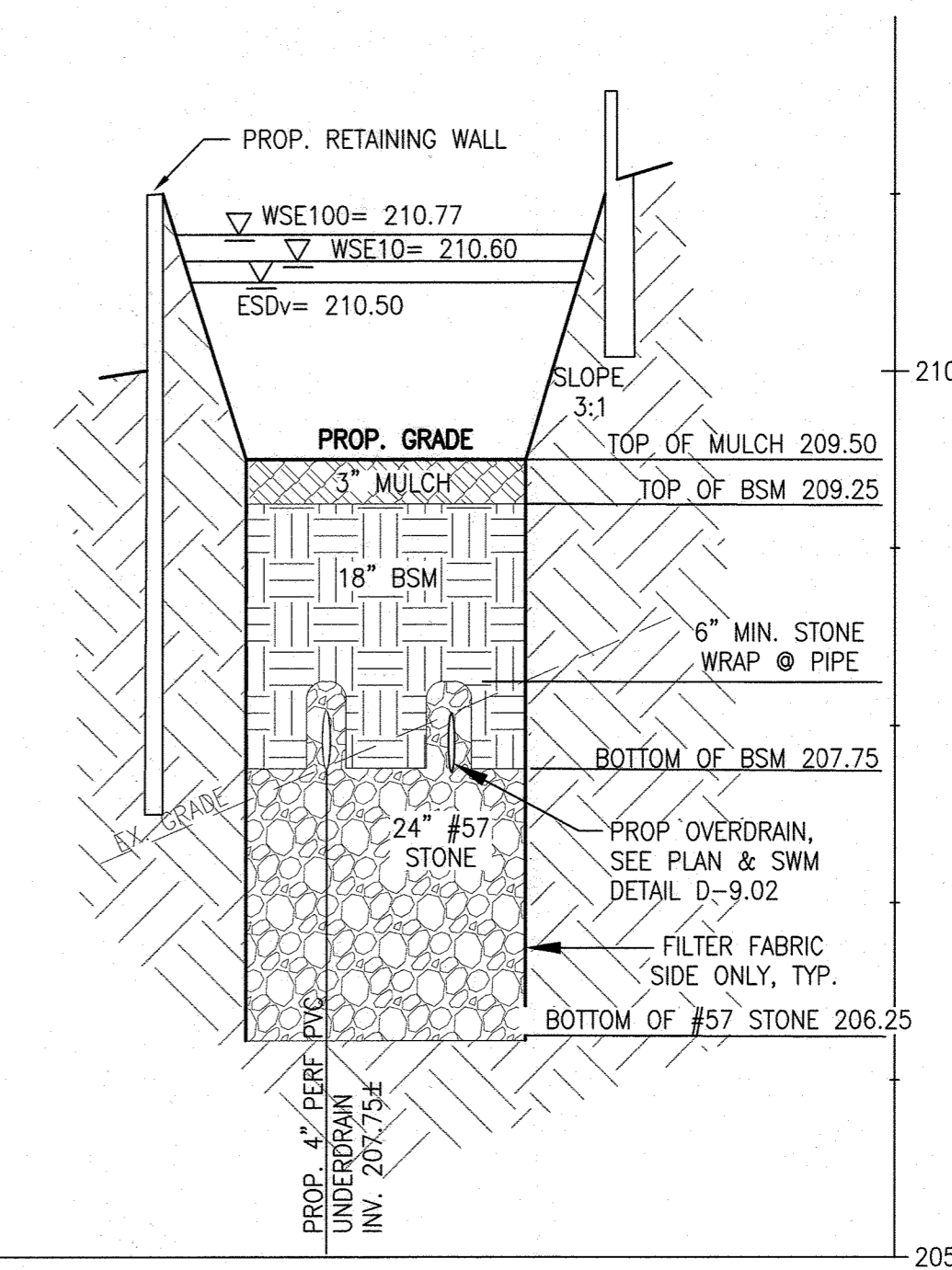
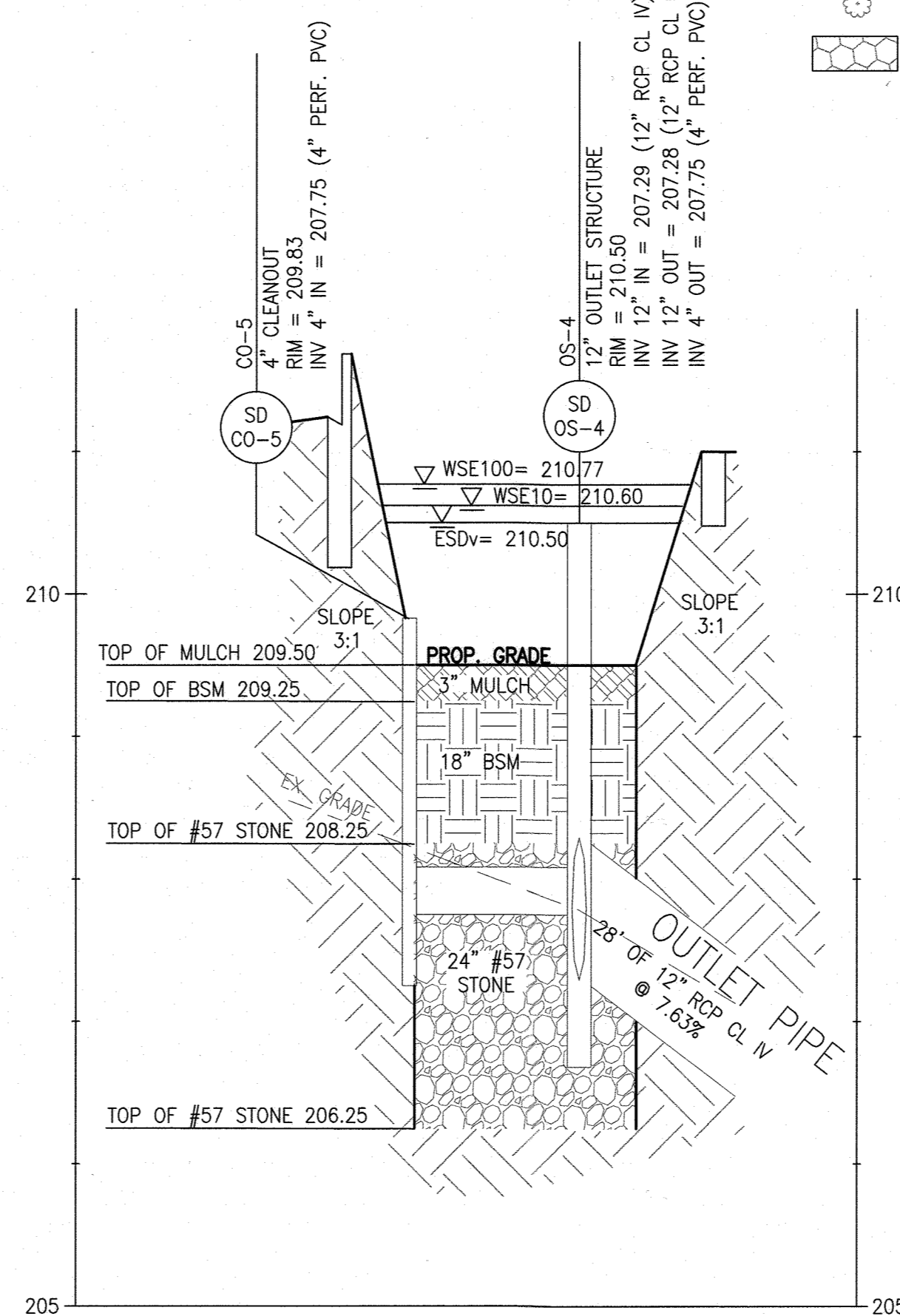
**INSPECTION:**

REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:

- DURING EXCAVATION TO SUBGRADE AND PLACEMENT OF BACKFILL.
- DURING PLACEMENT OF GRAVEL, AND INSTALLATION OF UNDERDRAIN SYSTEMS AND OBSERVATION WELLS.
- DURING PLACEMENT OF FILTER MEDIA.
- DURING CONSTRUCTION OF APPURTENANCE CONVEYANCE.
- AT COMPLETION OF FINAL GRADING AND PERMANENT STABILIZATION.

**MAINTENANCE CRITERIA:**

- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASHOUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION.
- OCCASIONAL PRUNING AND REPLACEMENT OF DEAD VEGETATION IS NECESSARY. IF SPECIFIC PLANTS ARE NOT SURVIVING, MORE APPROPRIATE NATIVE SPECIES SHOULD BE USED. WATERING MAY BE REQUIRED DURING PROLONGED DRY PERIODS.
- WHERE PRACTICES ARE USED TO TREAT AREAS WITH HIGHER CONCENTRATIONS OF HEAVY METALS (PARKING LOT, ROAD) MULCH SHOULD BE REPLACED ANNUALLY. OTHERWISE, THE TOP 2 TO 3 INCHES SHOULD BE REPLACED AS NECESSARY.
- THE TOP FEW INCHES OF THE PLANTING SOIL SHOULD BE REMOVED AND REPLACED WHEN WATER PONDS FOR MORE THAN 48 HOURS. SILTS AND SEDIMENT SHOULD BE REMOVED FROM THE SURFACE OF THE BED AS NEEDED.
- PRIVATELY OWNED PRACTICES SHALL HAVE A MAINTENANCE PLAN AND SHALL BE PROTECTED BY EASEMENT, DEED RESTRICTION, ORDINANCE OR OTHER LEGAL MEASURES PREVENTING ITS NEGLECT, ADVERSE ALTERATION AND REMOVAL.



HOWARD COUNTY REFERENCE DRAWINGS:  
 WATER: CONTRACT 14-4576-D  
 SEWER: CONTRACT 14-4576-D  
 F-18-106, F-10-013  
 SDP-08-082, SDP-18-033  
 ECP-18-018, ECP-20-015

APPROVED  
 DEPARTMENT OF PLANNING AND ZONING

10-19-22 DATE  
 10/27/22 DATE  
 10/27/22 DATE

**MCA ARCHITECTURE.**

Marshall Craft Associates, Inc.  
 2031 Clipper Park Road, Suite 105  
 Baltimore, Maryland 21211  
 410.532.3131 | www.mca.design

**CIVIL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**LANDSCAPE DESIGN**  
 SITE RESOURCES, INC.  
 14315 JARRETTVILLE PIKE  
 PHOENIX, MD 21131  
 410.683.3388

**STRUCTURAL ENGINEERING**  
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 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**MEP ENGINEERING**  
 LEACH WALLACE ASSOC., INC.  
 6522 MEADOWBRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.579.8100

STATE OF MARYLAND PROFESSIONAL ENGINEER

LICENSE No.: 14446 EXP. DATE: 5-25-23

**NOT FOR CONSTRUCTION**

**MCA ARCHITECTURE**

**SHEPPARD PRATT**

**MEDICAL PAVILION**

7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY

CORRIDOR 98 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME: CORRIDOR 98 BUSINESS PARK SECTION/AREA: N/A LOT/PARCEL NO.: A/0758

OWNER/DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N CHARLES STREET BALTIMORE, MARYLAND 21285-6815 TEL: 410-938-3242

PROVISIONS: DATE: COMMENTS:

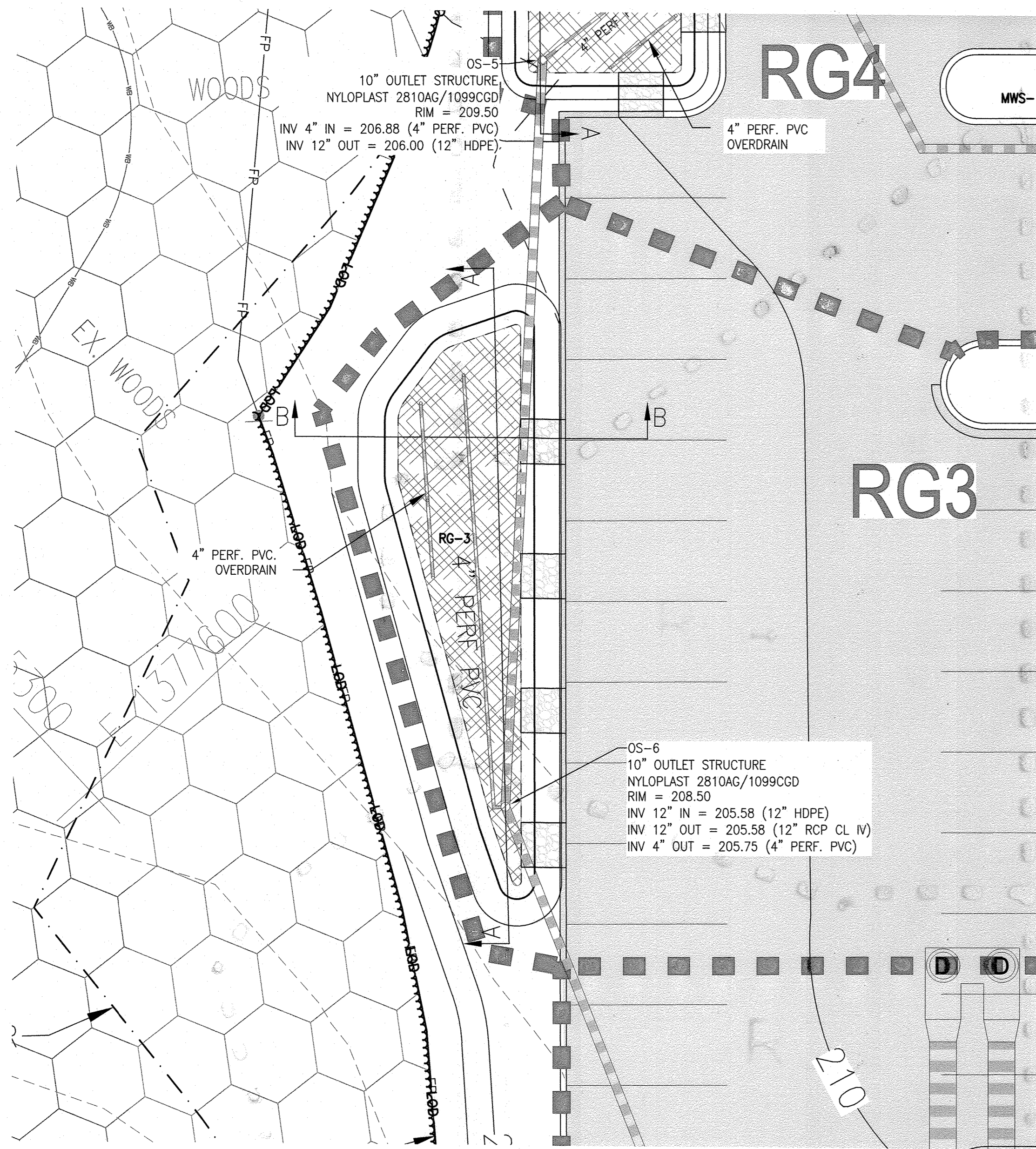
MCA JOB NO.: 19002.01 PROJ/MANAGER: DWM SHEET BY: DWM

SHEET SET AND SHEET ISSUE DATE: SDP 5/21/2021

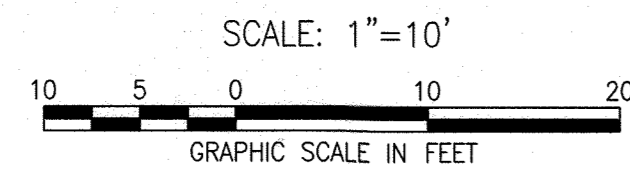
SHEET NAME: **STORMWATER MANAGEMENT PLAN - RG2**

SHEET NO. **37** of 60

**SDP-20-057**



STORMWATER MANAGEMENT PLAN - RG3



AS-BUILT NOTE:

THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

- AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
  - SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
  - SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
  - INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
- THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
- MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
- PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
  - PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
  - PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
- COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.

NOTES:

- ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH CHAPTER 5 AND APPENDIX B.4 "SPECIFICATIONS FOR ENVIRONMENTAL SITE DESIGN PRACTICES" OF THE CURRENT MARYLAND STORMWATER DESIGN MANUAL. SHA BSM SOIL MEDIA MIX IS TO BE USED IN RAIN GARDEN FACILITIES.
- THE GRAVEL LAYER (NO. 57 STONE) SHALL BE AT LEAST 6" THICK BELOW THE UNDERDRAIN PIPE FOR THE RAIN GARDEN AREA.
- THE UNDERDRAIN SHALL BE INSTALLED AT A MINIMUM SLOPE OF 0.5%.
- OBSERVATION WELLS SHALL BE 4" PVC CLEANOUT EXTENDING 6" ABOVE FINISHED GRADE. (SEE DETAIL ON SHEET C720)
- RAIN GARDEN AREAS SHALL NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
- SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
10-15-22  
DATE  
10-27-22  
DATE  
10-27-22  
DATE

AS BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_  
 MARYLAND REGISTRATION NUMBER (PE OR LS) DATE SDP NO.  
 FACILITY BEING CERTIFIED: RG3 RAIN GARDEN FACILITY

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057		
AS-BUILT DATA FOR RAIN GARDEN		
*TO BE COMPLETED BY THE PROJECT CONTRACTOR		
BMP ID: RG3		
FEATURE	DESIGN	*AS-BUILT
SURFACE ELEVATION	207.50	
SURFACE DIMENSIONS (LxW)	71'x23' IRREGULAR	
BOTTOM DIMENSIONS (LxW)	62'x14' IRREGULAR	
STORAGE VOLUME AT OUTLET	747 CF	
OBSERVATION WELL WITH DEPTH TO BOTTOM INDICATED ON CAP	4" PVC/	
MEDIA TYPE / THICKNESS (SEE PS 47)	12" BSM	
SAND THICKNESS	-	
MULCH THICKNESS	3 INCHES	
PEA GRAVEL THICKNESS	-	
OUTLET STRUCTURE / RIM ELEVATION	10" PVC/208.50	
UNDERDRAIN SIZE & TYPE	4" PVC	
UNDERDRAIN MAX. INVERT UP / DOWN	205.25/205.25	
OUTLET PIPE SIZE & TYPE	12" PVC	
OUTLET PIPE INVERT UP / DOWN	205.58/205.10	
RECHARGE BED BOTTOM ELEVATION	203.75	
OUTLET STRUCTURE COORDINATES	N 555332.81 E 1377633.07	

DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

EXISTING LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING BUILDING
- 210 EXISTING MAJOR CONTOUR
- 209 EXISTING MINOR CONTOUR
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING ROADWAY
- EXISTING PAVEMENT
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING SIGN
- EXISTING ELECTRIC HANDBOX
- EXISTING ELECTRIC MANHOLE
- OHE EXISTING OVERHEAD ELECTRIC
- UGE EXISTING UNDERGROUND ELECTRIC
- COND EXISTING UNDERGROUND CONDUIT
- UGE EXISTING DUCTBANK
- FO EXISTING FIBER OPTIC
- G EXISTING GAS LINE
- GV# EXISTING GAS VALVE
- SS EXISTING SANITARY LINE
- SS EXISTING SANITARY MANHOLE
- SS EXISTING SANITARY CLEANOUT
- SS EXISTING STORMDRAIN LINE
- SS EXISTING STORMDRAIN INLET
- SS EXISTING STORMDRAIN MANHOLE
- UGT EXISTING TELEPHONE
- UGT EXISTING TELEPHONE MANHOLE
- UGT EXISTING TELEPHONE PEDESTAL
- UGT EXISTING UTILITY POLE
- UGT EXISTING LIGHT POLE
- UGT EXISTING WATER LINE
- UGT EXISTING WATER METER
- UGT EXISTING WATER VALVE
- UGT EXISTING WATER MANHOLE
- UGT EXISTING FIRE HYDRANT
- UGT EXISTING STREAM CENTERLINE
- UGT EXISTING STREAM BUFFER
- UGT EXISTING WETLAND
- UGT EXISTING WETLAND BUFFER
- UGT EXISTING WETLANDS
- FP EXISTING FLOODPLAIN
- EXISTING TREELINE
- EXISTING DECIDUOUS TREE
- EXISTING EVERGREEN TREE
- EXISTING SHRUB
- EXISTING PUBLIC FOREST CONSERVATION EASEMENT

PROPOSED LEGEND

- PROPOSED BUILDING
- 210 PROPOSED MAJOR CONTOUR
- +207.40 PROPOSED SPOT ELEVATION
- PROPOSED CURB & GUTTER
- PROPOSED REVERSE CURB & GUTTER
- PROPOSED ROADWAY
- PROPOSED SIDEWALK
- PROPOSED CONCRETE WALK
- PROPOSED CONCRETE PAD
- PROPOSED ASPHALT PAVING
- PROPOSED MEDIUM-DUTY ASPHALT
- PROPOSED PAVERS
- PROPOSED MICRO-BIORETENTION AREA
- PROPOSED RIP RAP
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- SS PROPOSED STORMDRAIN INLET
- SS PROPOSED STORMDRAIN MANHOLE
- UGT PROPOSED TELEPHONE
- UGT PROPOSED WATER LINE
- UGT PROPOSED BIOCLEAN MODULAR WETLANDS SYSTEM (SWM)
- PROPOSED TREELINE
- DRAINAGE AREA DELINEATION

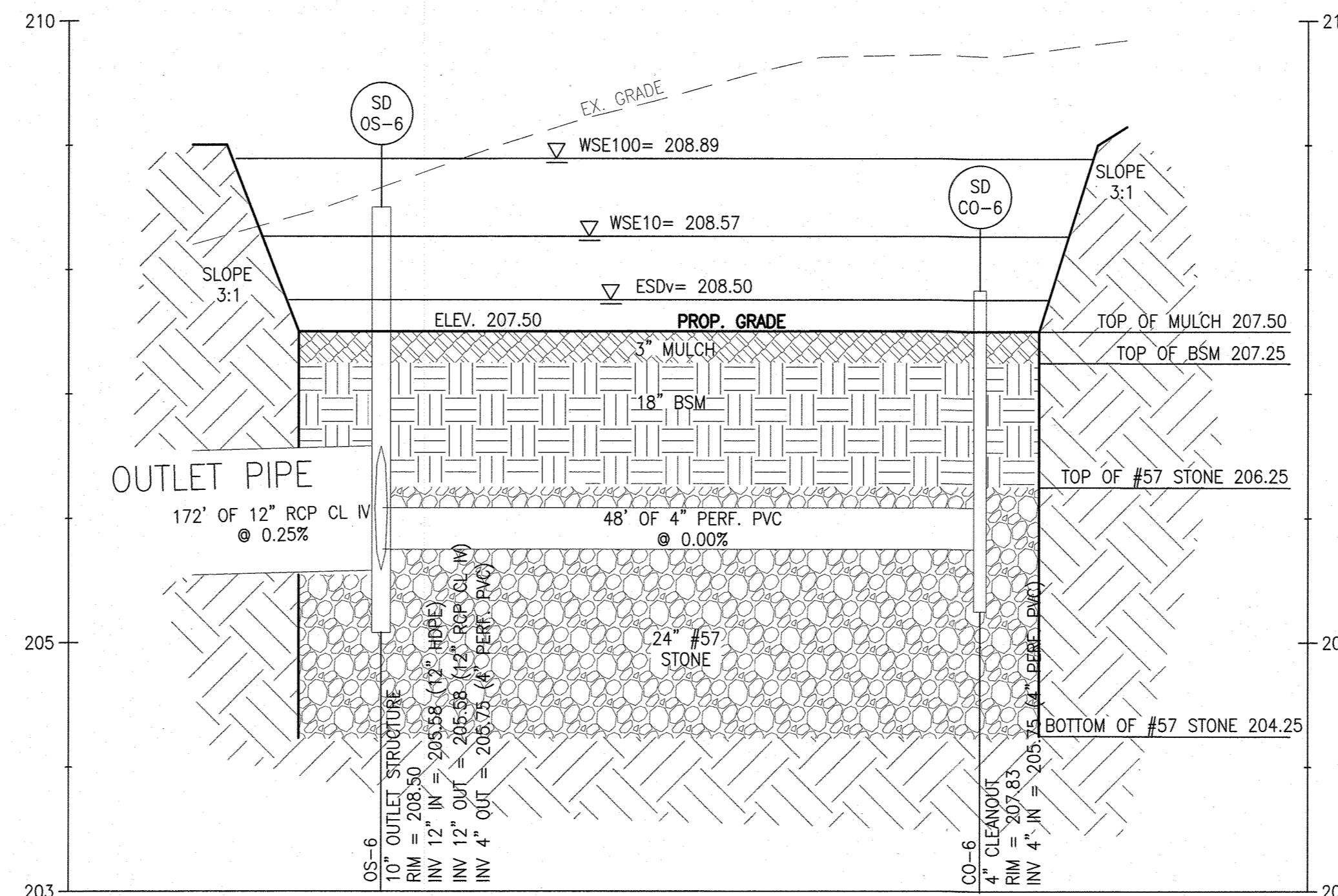
HOWARD COUNTY REFERENCE DRAWINGS:  
 WATER: CONTRACT 14-4576-D  
 SEWER: CONTRACT 14-4576-D  
 F-18-106, F-10-013  
 SDP-08-082, SDP-18-033  
 ECP-18-018, ECP-20-015

INSPECTION:

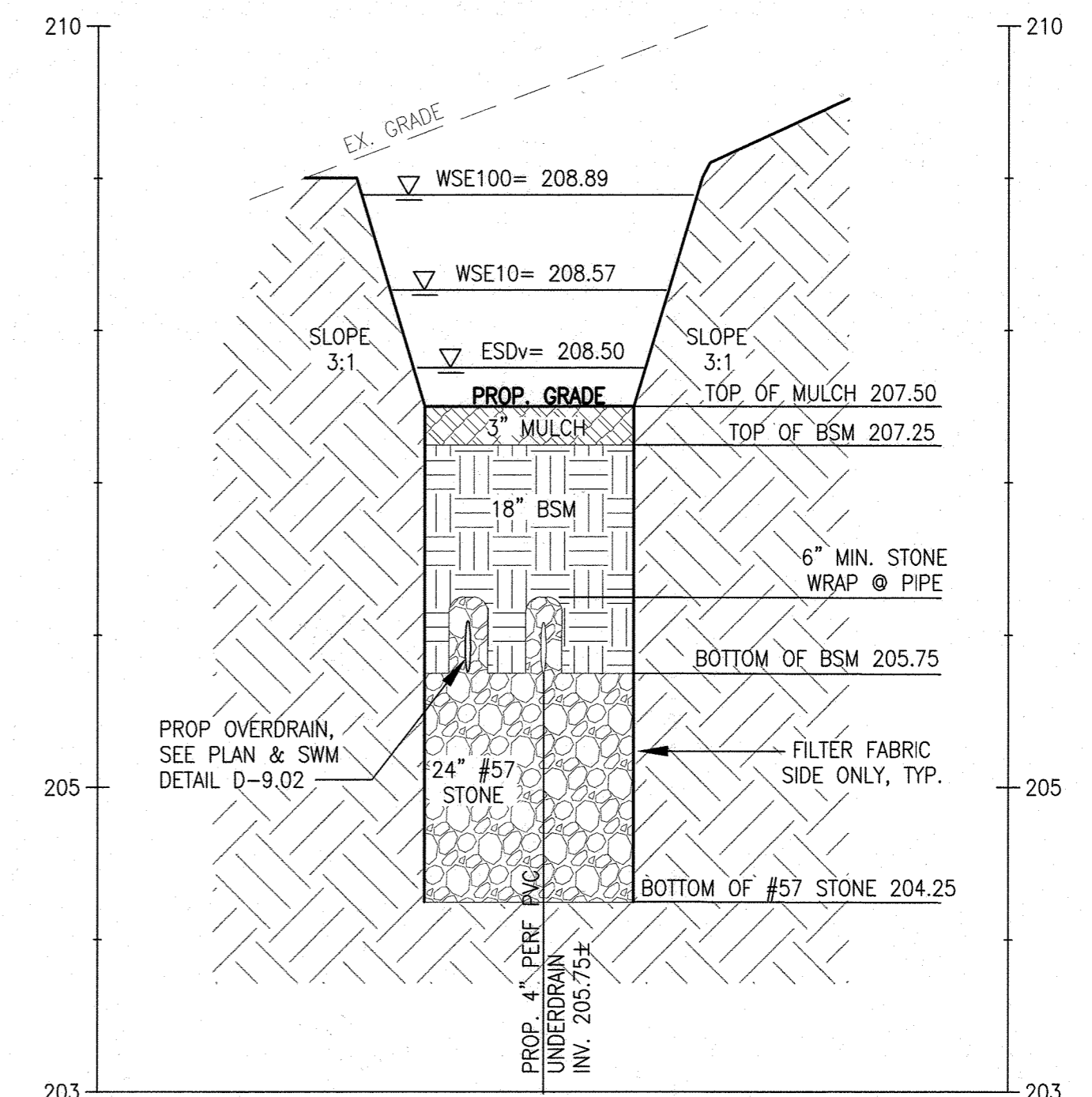
- REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:
- DURING EXCAVATION TO SUBGRADE AND PLACEMENT OF BACKFILL.
  - DURING PLACEMENT OF GRAVEL, AND INSTALLATION OF UNDERDRAIN SYSTEMS AND OBSERVATION WELLS.
  - DURING PLACEMENT OF FILTER MEDIA.
  - DURING CONSTRUCTION OF APPURTENANCE CONVEYANCE.
  - AT COMPLETION OF FINAL GRADING AND PERMANENT STABILIZATION.

MAINTENANCE CRITERIA:

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- WHERE PRACTICES ARE USED TO TREAT AREAS WITH HIGHER CONCENTRATIONS OF HEAVY METALS (PARKING LOT, ROAD) MULCH SHOULD BE REPLACED ANNUALLY. OTHERWISE, THE TOP 2 TO 3 INCHES SHOULD BE REPLACED AS NECESSARY.
- THE TOP FEW INCHES OF THE PLANTING SOIL SHOULD BE REMOVED AND REPLACED WHEN WATER PONDS FOR MORE THAN 48 HOURS. SILTS AND SEDIMENT SHOULD BE REMOVED FROM THE SURFACE OF THE BED AS NEEDED.
- PRIVATELY OWNED PRACTICES SHALL HAVE A MAINTENANCE PLAN AND SHALL BE PROTECTED BY EASEMENT, DEED RESTRICTION, ORDINANCE OR OTHER LEGAL MEASURES PREVENTING ITS NEGLIGENCE, ADVERSE ALTERATION AND REMOVAL.



RAIN GARDEN-3 (A-A)  
 HORIZ. 1"=10'  
 VERT. 1"=1'



RAIN GARDEN-3 (B-B)  
 HORIZ. 1"=10'  
 VERT. 1"=1'

**MCA ARCHITECTURE**  
 Marshall Craft Associates, Inc.  
 2031 Clipper Park Road, Suite 105  
 Baltimore, Maryland 21211  
 410.532.3131 | www.mca-design.com  
**CIVIL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423  
**LANDSCAPE DESIGN**  
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 14315 JARRETTVILLE PIKE  
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 410.683.3388  
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 410.785.7423  
**MEP ENGINEERING**  
 LEACH WALLACE ASSOC., INC.  
 6522 MEADOWBRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.579.8100

NOT FOR CONSTRUCTION  
 SHEPPARD PRATT  
 PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
 LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt  
**MEDICAL PAVILION**  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY  
 CORRIDOR 98 BUSINESS PARK - PARCEL A

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME: CORRIDOR 98 BUSINESS PARK  
 SECTION/AREA: N/A  
 LOT/PARCEL NO.: A/2756  
 PLATS OR L/T: 0214 ZONING: M-1 TAX MAP# 0027 DISTRICT: 0027 MET. E.D. 6012.03

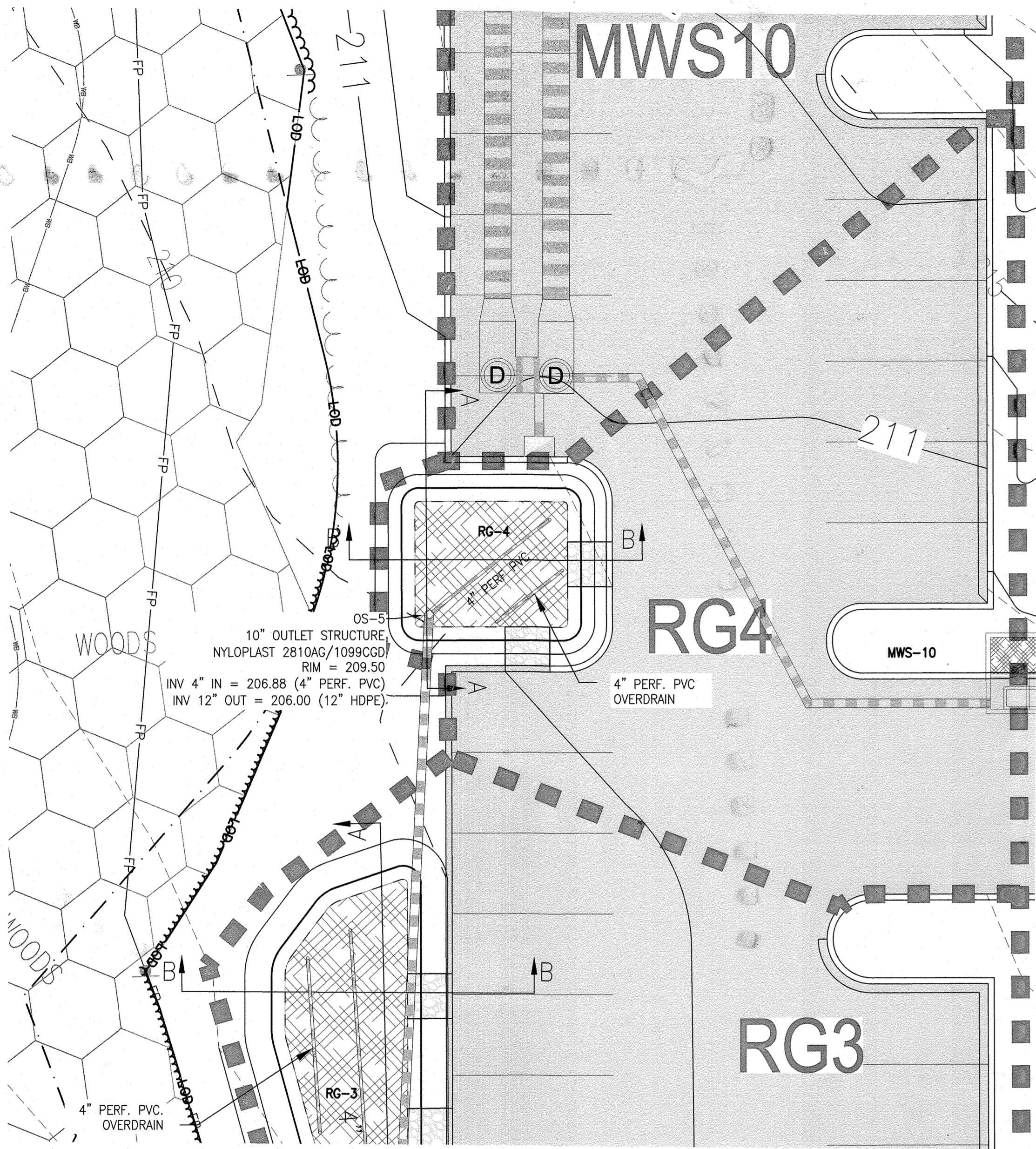
OWNER/DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC.  
 6501 N CHARLES STREET  
 BALTIMORE, MARYLAND 21285-6815  
 TEL: 410-938-3242

REVISIONS:

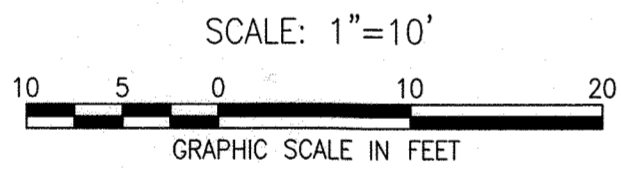
DATE	COMMENTS

MCA JOB NO: 19002.01  
 PROJECT MANAGER: DWMM  
 SHEET BY: DWMM  
 SHEET SET AND SHEET ISSUE DATE: SDP 5/21/2021

STORMWATER MANAGEMENT PLAN - RG3  
 SHEET NO. 38 of 60



STORMWATER MANAGEMENT PLAN - RG4



**AS-BUILT NOTE:**

THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

1. AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
  - a. SIZE, ELEVATIONS, AND GRADES OF EXCAVATION FOR BMP(S).
  - b. SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S).
  - c. INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - d. SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(S) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.
  - e. THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
2. MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCTION OF THE BMP(S).
3. PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
  - a. PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(S)
  - b. PHOTOS OF PLACEMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
  - c. PHOTOS OF THE COMPLETED BMP(S) INCLUDING ALL STABILIZATION AND LANDSCAPING.
4. COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.

**NOTES:**

1. ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH CHAPTER 5 AND APPENDIX B.4 "SPECIFICATIONS FOR ENVIRONMENTAL SITE DESIGN PRACTICES" OF THE CURRENT MARYLAND STORMWATER DESIGN MANUAL. SHA BSM SOIL MEDIA MIX IS TO BE USED IN RAIN GARDEN FACILITIES.
2. THE GRAVEL LAYER (NO. 57 STONE) SHALL BE AT LEAST 6" THICK BELOW THE UNDERDRAIN PIPE FOR THE RAIN GARDEN AREA.
3. THE UNDERDRAIN SHALL BE INSTALLED AT A MINIMUM SLOPE OF 0.5%.
4. OBSERVATION WELLS SHALL BE 4" PVC CLEANOUT EXTENDING 6" ABOVE FINISHED GRADE. (SEE DETAIL ON SHEET C720)
5. RAIN GARDEN AREAS SHALL NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
6. SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.

**AS BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_

MARYLAND REGISTRATION NUMBER (PE OR LS) \_\_\_\_\_ DATE \_\_\_\_\_ SDP NO. \_\_\_\_\_

FACILITY BEING CERTIFIED: RG4 RAIN GARDEN FACILITY

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057		
AS-BUILT DATA FOR RAIN GARDEN		
*TO BE COMPLETED BY THE PROJECT CONTRACTOR		
BMP ID: RG4		
FEATURE	DESIGN	*AS-BUILT
SURFACE ELEVATION	208.50	
SURFACE DIMENSIONS (LxW)	23'x20' IRREGULAR	
BOTTOM DIMENSIONS (LxW)	17'x14' IRREGULAR	
STORAGE VOLUME AT OUTLET	341 CF	
OBSERVATION WELL WITH DEPTH TO BOTTOM INDICATED ON CAP	4" PVC/	
MEDIA TYPE / THICKNESS (SEE PS 47)	12" BSM	
SAND THICKNESS	-	
PEA GRAVEL THICKNESS	-	
OUTLET STRUCTURE / RIM ELEVATION	10" PVC/209.50	
UNDERDRAIN SIZE & TYPE	4" PVC	
UNDERDRAIN MAX. INVERT UP / DOWN	206.25/206.25	
OUTLET PIPE SIZE & TYPE	12" PVC	
OUTLET PIPE INVERT UP / DOWN	206.00/205.58	
RECHARGE BED BOTTOM ELEVATION	205.25	
OUTLET STRUCTURE COORDINATES	N 555392.57 E 1377574.88	

DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

**EXISTING LEGEND**

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING BUILDING
- 210 --- EXISTING MAJOR CONTOUR
- 209 --- EXISTING MINOR CONTOUR
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING ROADWAY
- EXISTING PAVEMENT
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING SIGN
- EXISTING ELECTRIC HANDBOX
- EXISTING ELECTRIC MANHOLE
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND ELECTRIC
- EXISTING UNDERGROUND CONDUIT
- EXISTING DUCTBANK
- EXISTING FIBER OPTIC
- EXISTING GAS LINE
- EXISTING GAS VALVE
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- EXISTING SANITARY CLEANOUT
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- EXISTING STORMDRAIN INLET
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- EXISTING TELEPHONE MANHOLE
- EXISTING TELEPHONE PEDESTAL
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
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- EXISTING WATER METER
- EXISTING WATER VALVE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING STREAM CENTERLINE
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- EXISTING WETLAND
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- EXISTING SHRUB
- EXISTING PUBLIC FOREST CONSERVATION EASEMENT

**PROPOSED LEGEND**

- PROPOSED BUILDING
- 210 --- PROPOSED MAJOR CONTOUR
- +207.40 --- PROPOSED SPOT ELEVATION
- PROPOSED CURB & GUTTER
- PROPOSED REVERSE CURB & GUTTER
- PROPOSED ROADWAY
- PROPOSED SIDEWALK
- PROPOSED CONCRETE WALK
- PROPOSED CONCRETE PAD
- PROPOSED ASPHALT PAVING
- PROPOSED MEDIUM-DUTY ASPHALT
- PROPOSED PAVERS
- PROPOSED MICRO-BIORETENTION AREA
- PROPOSED RIP RAP
- PROPOSED ELECTRIC MANHOLE
- PROPOSED UNDERGROUND ELECTRIC
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- PROPOSED STORMDRAIN LINE
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- PROPOSED STORMDRAIN MANHOLE
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- PROPOSED WATER LINE
- PROPOSED BIOCLEAN MODULAR WETLANDS SYSTEM (SWM)
- PROPOSED TREELINE
- DRAINAGE AREA DELINEATION

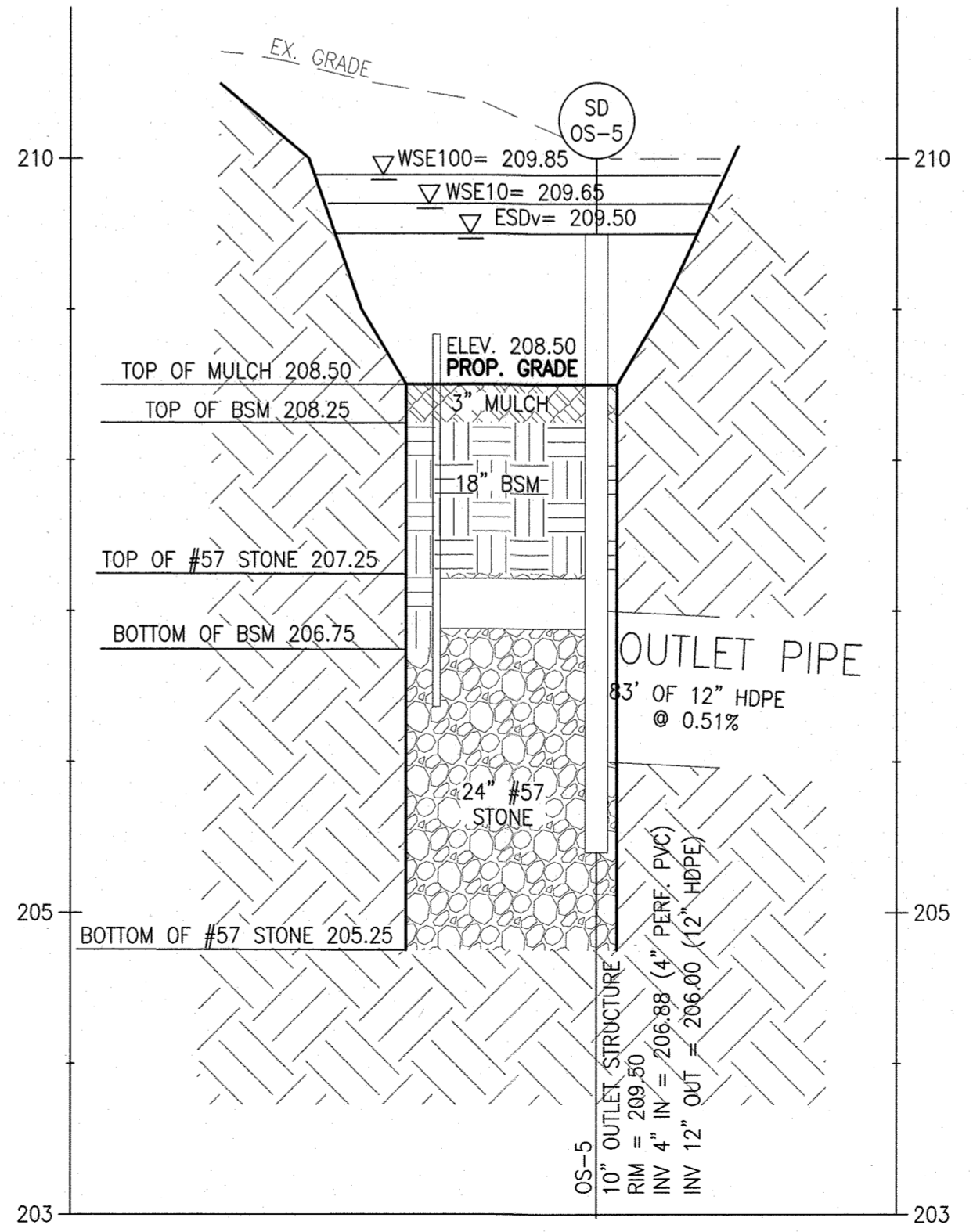
**INSPECTION:**

REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:

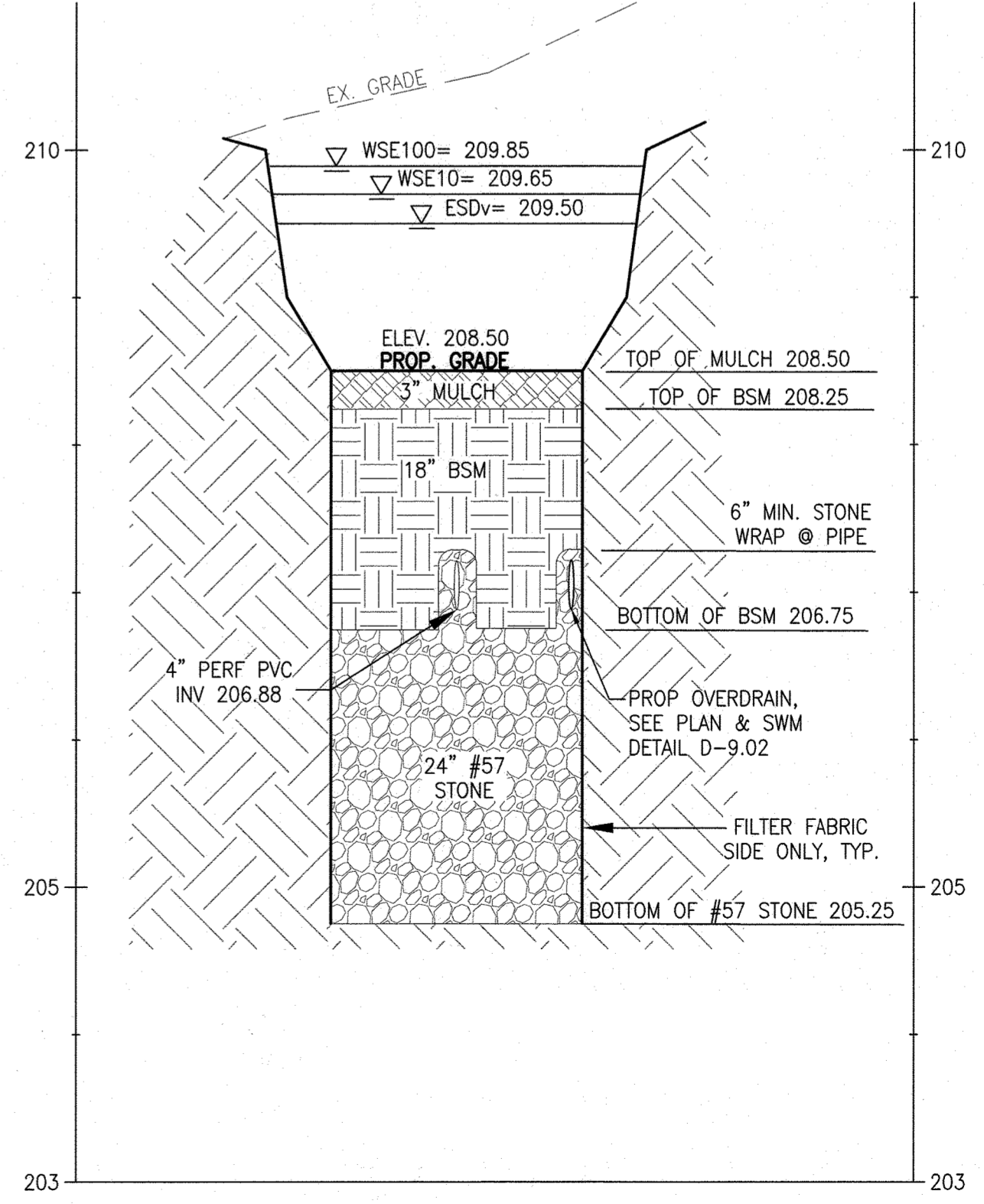
- a. DURING EXCAVATION TO SUBGRADE AND PLACEMENT OF BACKFILL.
- b. DURING PLACEMENT OF GRAVEL, AND INSTALLATION OF UNDERDRAIN SYSTEMS AND OBSERVATION WELLS.
- c. DURING PLACEMENT OF FILTER MEDIA.
- d. DURING CONSTRUCTION OF APPURTENANCE CONVEYANCE.
- e. AT COMPLETION OF FINAL GRADING AND PERMANENT STABILIZATION.

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RAIN GARDEN-4 (A-A)  
HORIZ. 1":10'  
VERT. 1":1'



RAIN GARDEN-4 (B-B)  
HORIZ. 1":10'  
VERT. 1":1'

HOWARD COUNTY REFERENCE DRAWINGS:  
WATER: CONTRACT 14-4576-D  
SEWER: CONTRACT 14-4576-D  
F-18-106, F-10-013  
SDP-08-082, SDP-18-033  
ECP-18-018, ECP-20-015

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
10-15-21  
DATE  
10/27/21  
DATE  
10/27/21  
DATE

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca-design.com

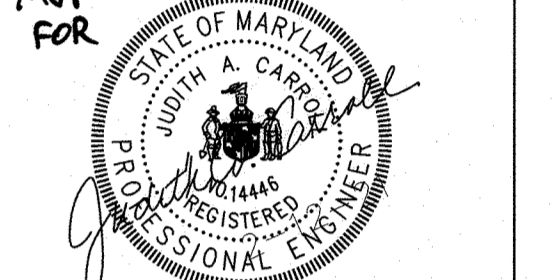
CIVIL ENGINEERING  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

LANDSCAPE DESIGN  
SITE RESOURCES, INC.  
14315 JARRETTSVILLE PIKE  
PHOENIX, MD 21131  
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STRUCTURAL ENGINEERING  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
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MEP ENGINEERING  
LEACH WALLACE ASSOC. INC.  
6522 MEADOWRIDGE RD #1  
ELK RIDGE, MD 21075  
410.579.8100

NOT FOR CONSTRUCTION



PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt

SHEPPARD PRATT  
**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

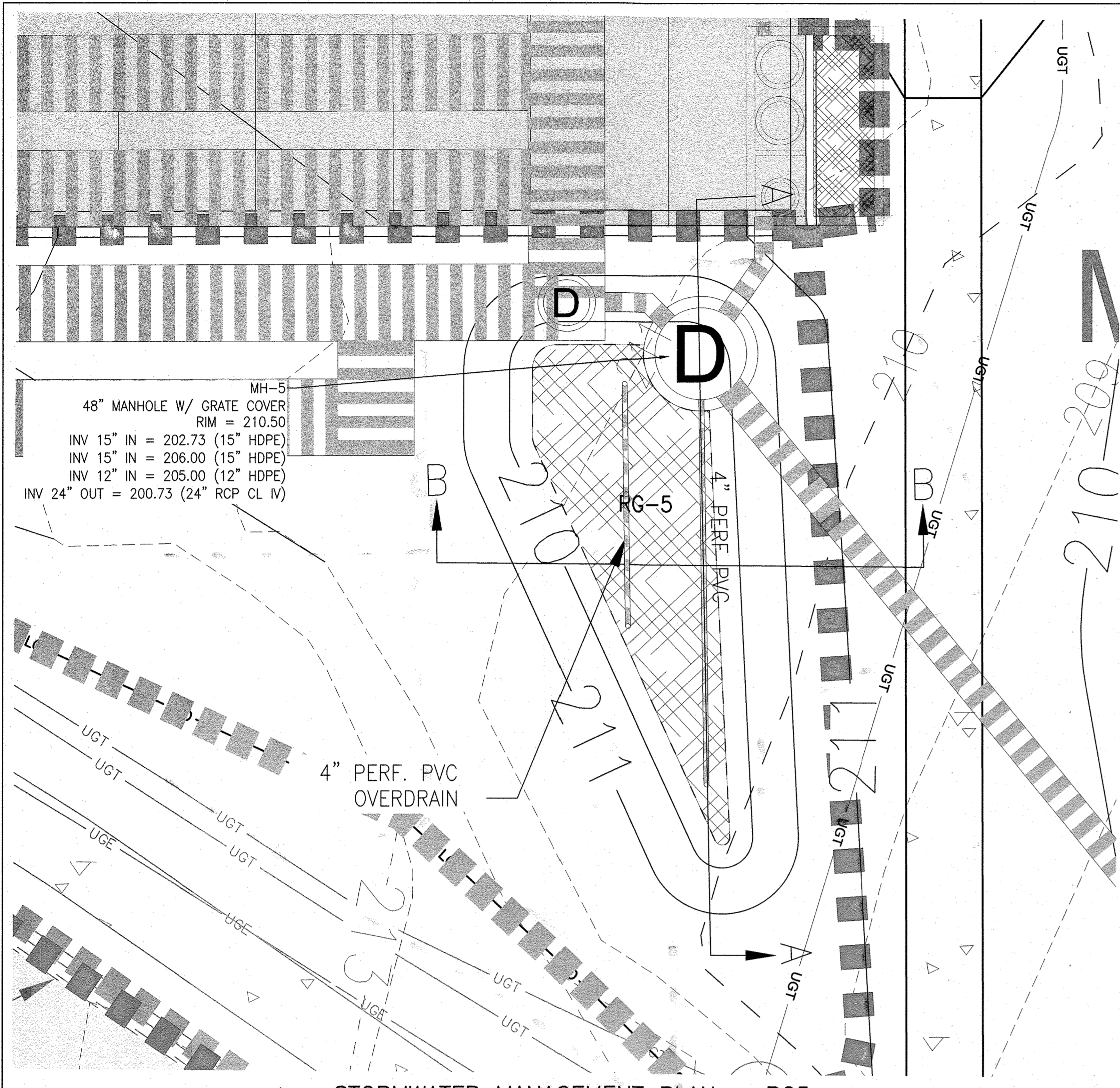
LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBMISSION NAME: CORRIDOR 95 BUSINESS PARK  
SECTION/AREA: N/A  
LOT/PARCEL NO.: 2238A/2238S  
FLAT# OR LVT: 0023  
ZONING: M-1  
TAX MAP DISTRICT: 0037  
ELECT. DISTRICT: 6012.03  
OWNER/DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-5815  
TEL: 410-938-3242

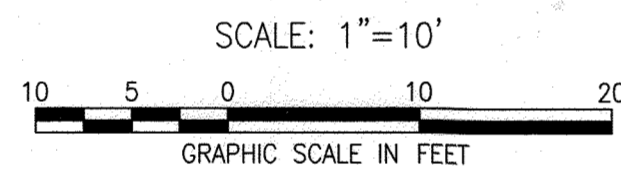
PROJ/MANAGER: DWM  
SHEET BY: DWM  
SDP  
5/21/2021

STORMWATER MANAGEMENT PLAN - RG4

39 of 60



**STORMWATER MANAGEMENT PLAN - RG5**



**AS-BUILT NOTE:**

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  - INVERT ELEVATIONS FOR ALL UNDERDRAINS, STORM PIPING, AND APPURTENANCE STRUCTURES IN THE BMP(S).
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- COMPLETED AS-BUILT TABLES WITH THE INSPECTOR'S INITIALS IN ORIGINAL HANDWRITING - SEE THIS SHEET FOR REQUIRED INFORMATION.

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- THE GRAVEL LAYER (NO. 57 STONE) SHALL BE AT LEAST 6" THICK BELOW THE UNDERDRAIN PIPE FOR THE RAIN GARDEN AREA.
- THE UNDERDRAIN SHALL BE INSTALLED AT A MINIMUM SLOPE OF 0.5%.
- OBSERVATION WELLS SHALL BE 4" PVC CLEANOUT EXTENDING 6" ABOVE FINISHED GRADE. (SEE DETAIL ON SHEET C702)
- RAIN GARDEN AREAS SHALL NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
- SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.

**INSPECTION:**

REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:

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- DURING CONSTRUCTION OF APPURTENANCE CONVEYANCE.
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- OCCASIONAL PRUNING AND REPLACEMENT OF DEAD VEGETATION IS NECESSARY. IF SPECIFIC PLANTS ARE NOT SURVIVING, MORE APPROPRIATE NATIVE SPECIES SHOULD BE USED. WATERING MAY BE REQUIRED DURING PROLONGED DRY PERIODS.
- WHERE PRACTICES ARE USED TO TREAT AREAS WITH HIGHER CONCENTRATIONS OF HEAVY METALS (PARKING LOT, ROAD) MULCH SHOULD BE REPLACED ANNUALLY. OTHERWISE, THE TOP 2 TO 3 INCHES SHOULD BE REPLACED AS NECESSARY.
- THE TOP FEW INCHES OF THE PLANTING SOIL SHOULD BE REMOVED AND REPLACED WHEN WATER PONDS FOR MORE THAN 48 HOURS. SILTS AND SEDIMENT SHOULD BE REMOVED FROM THE SURFACE OF THE BED AS NEEDED.
- PRIVATELY OWNED PRACTICES SHALL HAVE A MAINTENANCE PLAN AND SHALL BE PROTECTED BY EASEMENT, DEED RESTRICTION, ORDINANCE OR OTHER LEGAL MEASURES PREVENTING ITS NEGLIGENCE, ADVERSE ALTERATION AND REMOVAL.

**AS BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITIES (BOTH BMP AND ESD PRACTICES) SHOWN ON THE PLANS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS APPROVED BY HOWARD COUNTY, EXCEPT AS NOTED IN RED ON THE "AS-BUILT" DRAWINGS.

NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_

MARYLAND REGISTRATION NUMBER (PE OR LS) \_\_\_\_\_ DATE \_\_\_\_\_ SDP NO. \_\_\_\_\_

FACILITY BEING CERTIFIED: RG5 RAIN GARDEN FACILITY

"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

PROJECT NAME: SHEPPARD PRATT MEDICAL PAVILION SDP NO.: 20-057		
AS-BUILT DATA FOR RAIN GARDEN		
*TO BE COMPLETED BY THE PROJECT CONTRACTOR		
BMP ID:	FEATURE	DESIGN
RG5		
	SURFACE ELEVATION	209.50
	SURFACE DIMENSIONS (LxW)	42'x18' IRREGULAR
	BOTTOM DIMENSIONS (LxW)	31'x9' IRREGULAR
	STORAGE VOLUME AT OUTLET	364 CF
	OBSERVATION WELL WITH DEPTH TO BOTTOM INDICATED ON CAP	4" PVC/
	MEDIA TYPE / THICKNESS (SEE PS 47)	12" BSM
	SAND THICKNESS	-
	MULCH THICKNESS	3 INCHES
	PEA GRAVEL THICKNESS	-
	OUTLET STRUCTURE / RIM ELEVATION	24" RC/210.50
	UNDERDRAIN SIZE & TYPE	4" PVC
	UNDERDRAIN MAX. INVERT UP / DOWN	207.75/207.75
	OUTLET PIPE SIZE & TYPE	12" PVC
	OUTLET PIPE INVERT UP / DOWN	200.73/200.00
	RECHARGE BED BOTTOM ELEVATION	206.25
	OUTLET STRUCTURE COORDINATES	N 555426.75 E 1378005.61

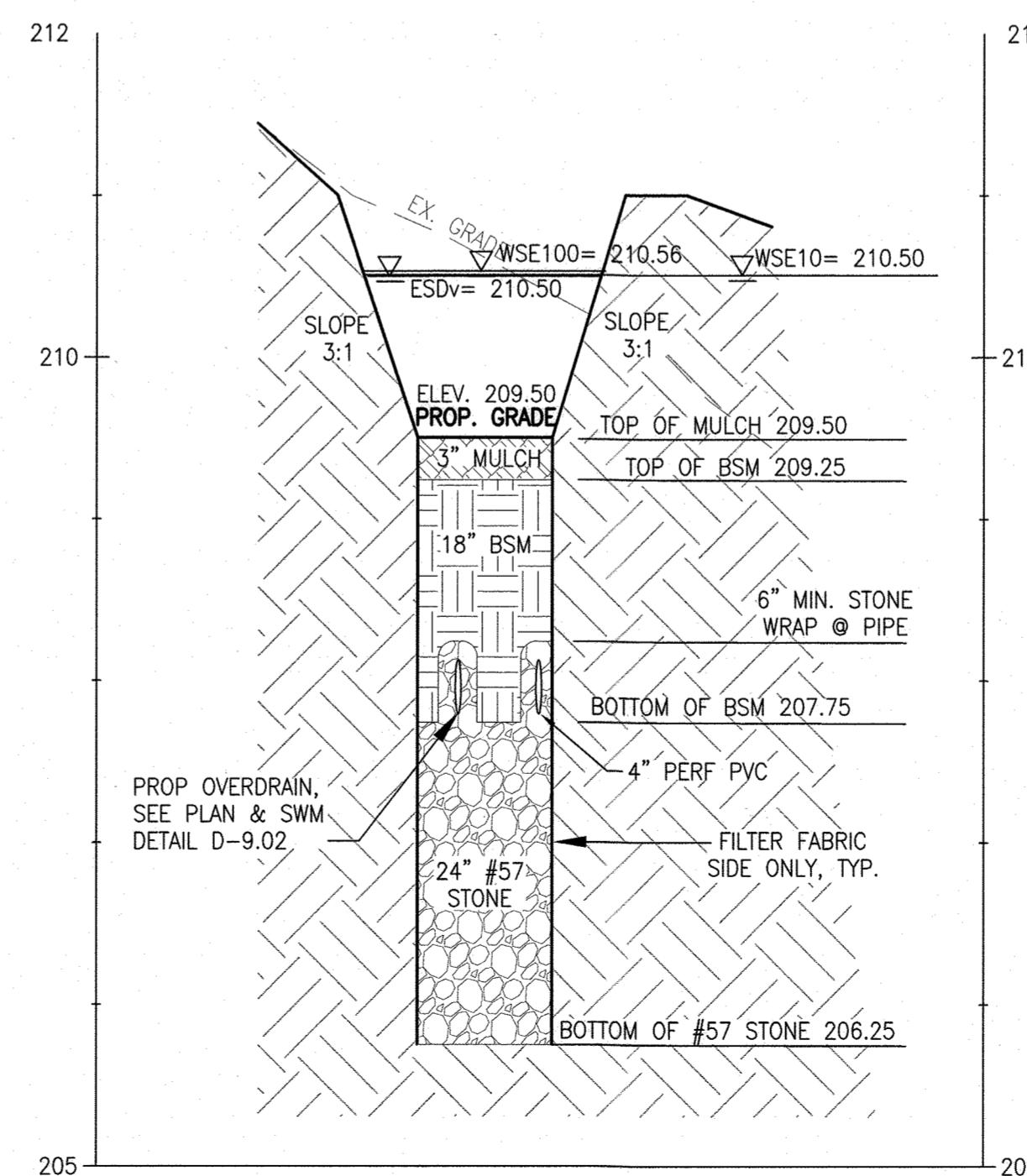
DATE AS-BUILT ACCEPTED BY HOWARD COUNTY: \_\_\_\_\_

**EXISTING LEGEND**

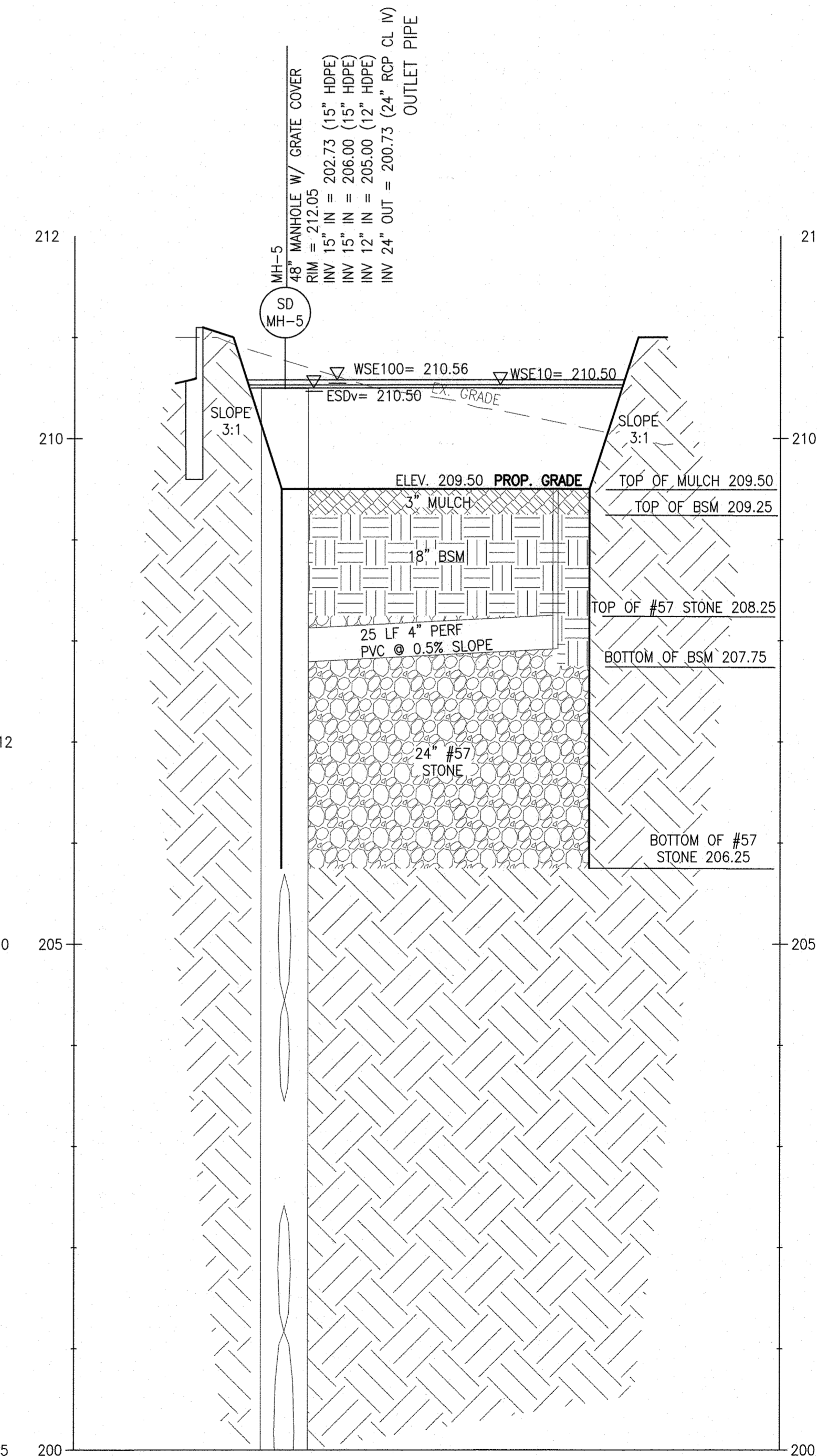
- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING BUILDING
- 210 EXISTING MAJOR CONTOUR
- 209 EXISTING MINOR CONTOUR
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING ROADWAY
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- ⊕ EXISTING WATER VALVE
- ⊕ EXISTING WATER MANHOLE
- ⊕ EXISTING FIRE HYDRANT
- EX— EXISTING STREAM CENTERLINE
- EXISTING STREAM BUFFER
- EXISTING WETLAND
- EXISTING WETLAND BUFFER
- EXISTING WETLANDS
- EXISTING FLOODPLAIN
- ⊕ EXISTING TREELINE
- ⊕ EXISTING DECIDUOUS TREE
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- ⊕ EXISTING SHRUB
- ⊕ EXISTING PUBLIC FOREST CONSERVATION EASEMENT

**PROPOSED LEGEND**

- PROPOSED BUILDING
- 210 PROPOSED MAJOR CONTOUR
- 207.40 PROPOSED SPOT ELEVATION
- PROPOSED CURB & GUTTER
- PROPOSED REVERSE CURB & GUTTER
- PROPOSED ROADWAY
- PROPOSED SIDEWALK
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- W— PROPOSED WATER LINE
- PROPOSED BIOCLEAN MODULAR WETLANDS SYSTEM (SWM)
- PROPOSED TREELINE
- DRAINAGE AREA DELINEATION



**RAIN GARDEN-5 (B-B)**  
HORIZ. 1":10'  
VERT. 1":1'



**RAIN GARDEN-5 (A-A)**  
HORIZ. 1":10'  
VERT. 1":1'

**APPROVED**  
DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 10/15/22

CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 10/27/22

DIRECTOR  
DATE: 10/27/22

**MCA ARCHITECTURE**  
Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca.design

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6522 MEADOW RIDGE RD #1  
ELK RIDGE, MD 21075  
410.579.8100

**NOT FOR CONSTRUCTION**  
STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
LICENSE No.: 14446 EXP. DATE: 5-25-23

**Sheppard Pratt**  
MEDICAL PAVILION  
7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

**OWNER/DEVELOPER**  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

**REVISIONS:**

NO.	DATE	COMMENTS

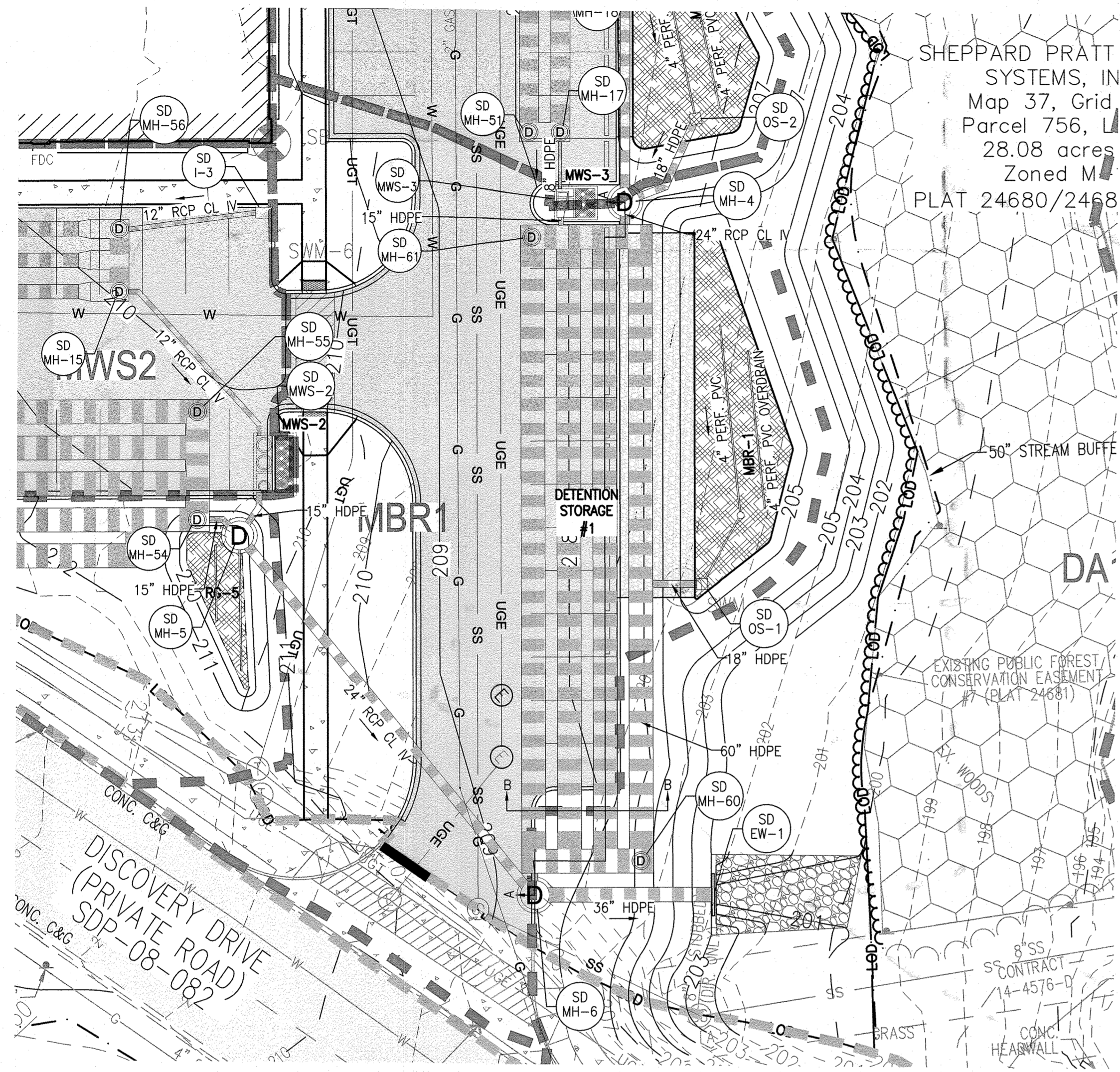
**MCA JOB NO:** 19002.01  
**PROJ MANAGER:** DVM  
**SHEET BY:** DVM

**SHEET SET AND SHEET ISSUE DATE:** SDP 5/21/2021

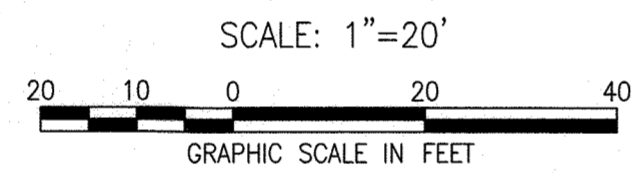
**STORMWATER MANAGEMENT PLAN - RG5**

SHEET NO. **40** of 60  
**SDP-20-057**





**STORMWATER MANAGEMENT PLAN - DS1**



**NOTES:**

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F-18-106, F-10-013  
SDP-08-082, SDP-18-033  
ECP-18-018, ECP-20-015

APPROVED  
DEPARTMENT OF PLANNING AND ZONING

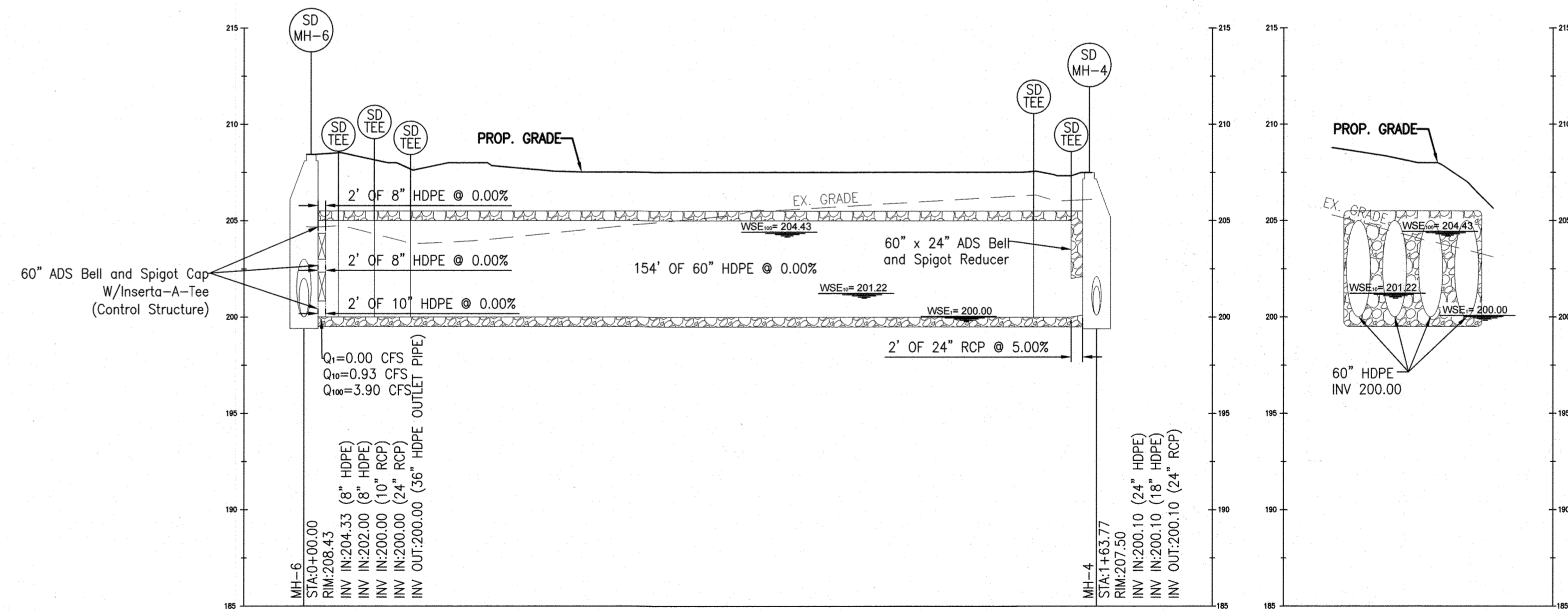
10/15/23  
DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
10/27/22  
DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT  
10/27/22  
DATE  
DIRECTOR

**EXISTING LEGEND**

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- PROPOSED TREELINE
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DETENTION STORAGE #1 (A-A)  
SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)

DETENTION STORAGE #1 (B-B)  
SCALE: 1"=20' (HORIZ.)  
1"=5' (VERT.)

**MCA ARCHITECTURE**

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410.579.8100

NOT FOR CONSTRUCTION

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

LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt

**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELKRIDGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBMISSION NAME CORRIDOR 95 BUSINESS PARK	SECTION/AREA N/A	LOT# A/2796
PLAT# OR L/F 22394/22395	GRID 0023	ZONING M-1
OWNER/DEVELOPER SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N CHARLES STREET BALTIMORE, MARYLAND 21285-6815 TEL: 410-938-3242	TAX MAP# 0007	ELECT DIST# 0001

REVISIONS:

DATE	COMMENTS

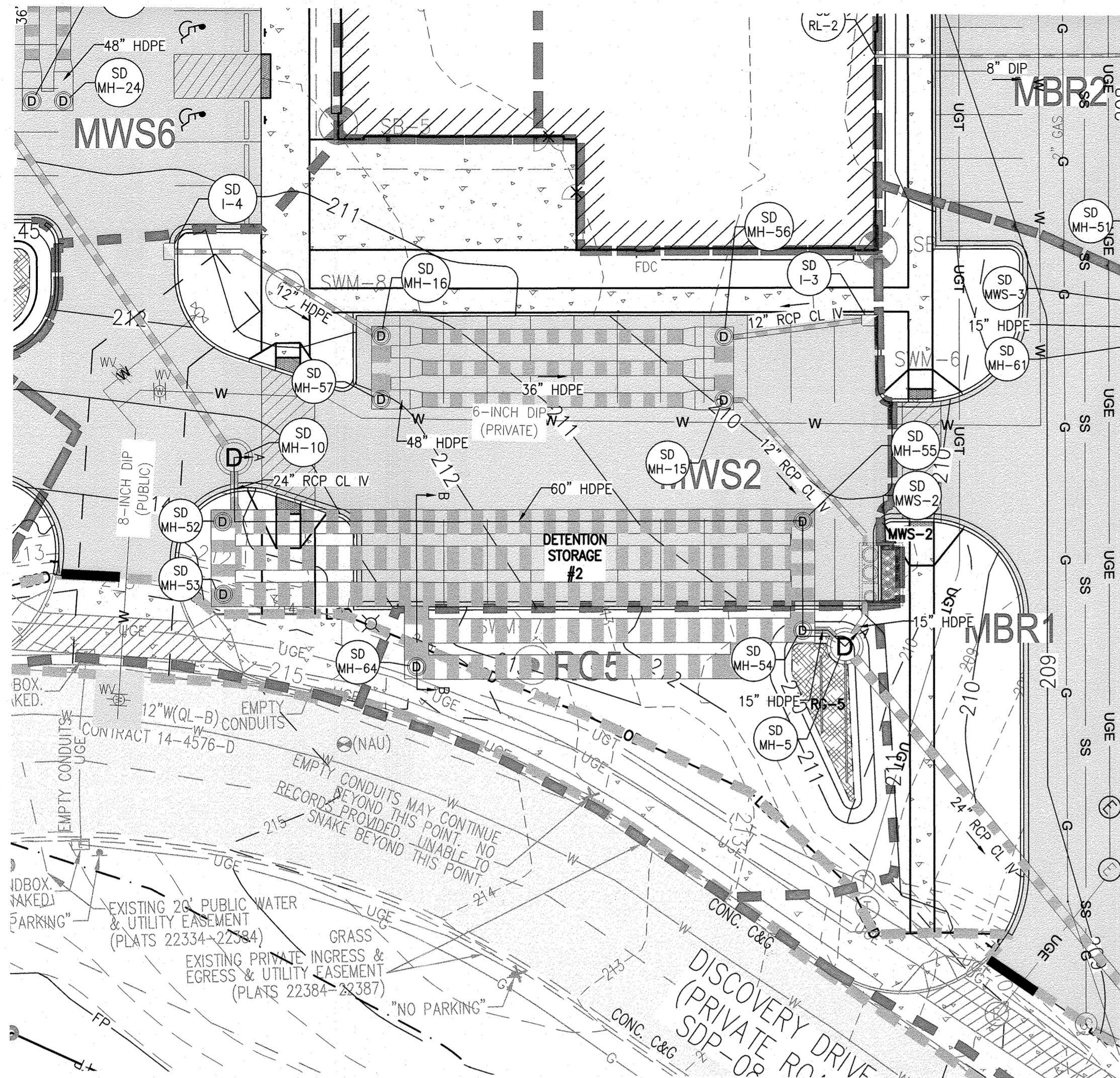
MCA JOB NO: 19002.01  
SHEET SET AND SHEET ISSUE DATE: SDP

PROJ MANAGER: DWDM  
SHEET BY: DWDM

SHEET NAME: SDP  
DATE: 5/21/2021

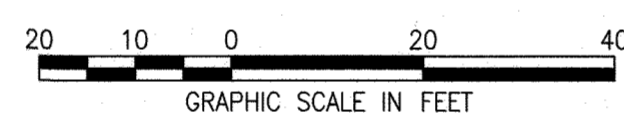
**STORMWATER MANAGEMENT PLAN - DS1**

SHEET NO. **41** of 60



**STORMWATER MANAGEMENT PLAN - DS2**

SCALE: 1"=20'



**NOTES:**

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APPROVED  
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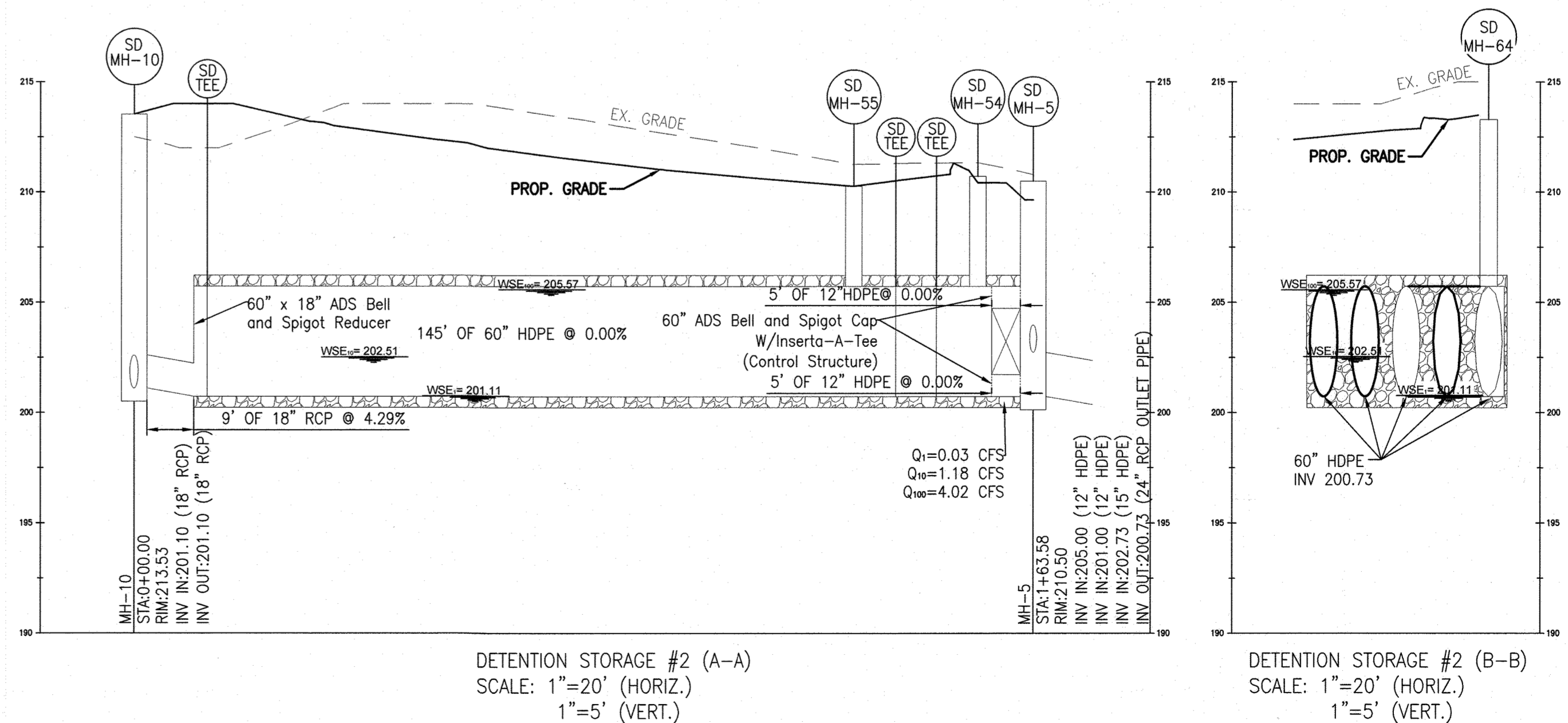
CHIEF, DEVELOPMENT ENGINEERING DIVISION *[Signature]* 10/15/22  
 CHIEF, DIVISION OF LAND DEVELOPMENT *[Signature]*  
 DIRECTOR *[Signature]* 10/27/22

**EXISTING LEGEND**

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DETENTION STORAGE #2 (A-A)  
 SCALE: 1"=20' (HORIZ.)  
 1"=5' (VERT.)

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MEDICAL PAVILION	7190 DISCOVERY DRIVE

**REVISIONS:**

DATE	COMMENTS:

MCA JOB NO: 19002.01  
 SHEET SET AND SHEET ISSUE DATE: SDP 5/21/2021

PROJ/MANAGER: DWM  
 SHEET BY: DWM

**STORMWATER MANAGEMENT PLAN - DS2**

SHEET NO. **42** of 60

B.4.C Specifications for Micro-Bioretenment, Rain Gardens, Landscape Infiltration & Infiltration Berms

1. Material Specifications

The allowable materials to be used in these practices 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 micro-bioretenment practice that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations.

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

See SHA Standard Specification for Construction Materials Section 920.01.05 on this sheet.

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 textual 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 hoists 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.

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 restructure the soil profile through the 12 inch compaction zone.

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.

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.

4. Plant Material

Recommended plant material for micro-bioretenment practices can be found in Appendix A, Section A.2.3.

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". Shredded or chipped hardwood mulch is the only accepted mulch.

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8" of the ball is above final grade surface.

Grasses and legume seeds 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.

6. Underdrains

Underdrains should meet the following criteria:

- Pipe- Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTM F 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 3/4" diameter located 6" on center with a minimum of four holes per row.

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

These practices may not be constructed until all contributing drainage area has been stabilized

SHA Standard Specification for Construction Materials Section 920.01.05

920.01.05 Bioretention Soil Mix (BSM). A homogeneous mixture composed by loose volume of 5 parts Coarse Sand, 3 parts Base Soil, and 2 parts Fine Bark. BSM shall conform to the following:

(a) Components. Components of BSM shall be sampled, tested and approved before mixing as follows:

(1) Coarse Sand. MSMT 356. Coarse Sand shall be washed silica sand or crushed glass that conforms to ASTM Fine Aggregate C-33. Coarse Sand shall include less than 1% by weight of clay or silt size particles, and less than 5% by weight of any combination of diabase, gneiss, calcareous or dolomitic sand.

(2) Base Soil. Base Soil shall be tested and certified by the producer to conform to the following requirements:

Table with 3 columns: TEST PROPERTY, TEST METHOD, TEST VALUE AND AMENDMENT. Rows include Prohibited Weeds, Debris, Grading Analysis, Textural Analysis, Soil pH, Organic Matter, Soluble Salts, Harmful Materials.

(3) Fine Bark. Fine Bark shall be the bark of hardwood trees that is milled and screened to a uniform particle size of 2 in. or less. Fine Bark shall be composted and aged for 6 months or longer, and be free from sawdust and foreign materials.

A 1 to 2 lb sample of Fine Bark shall be submitted to the Landscape Operations Division for examination.

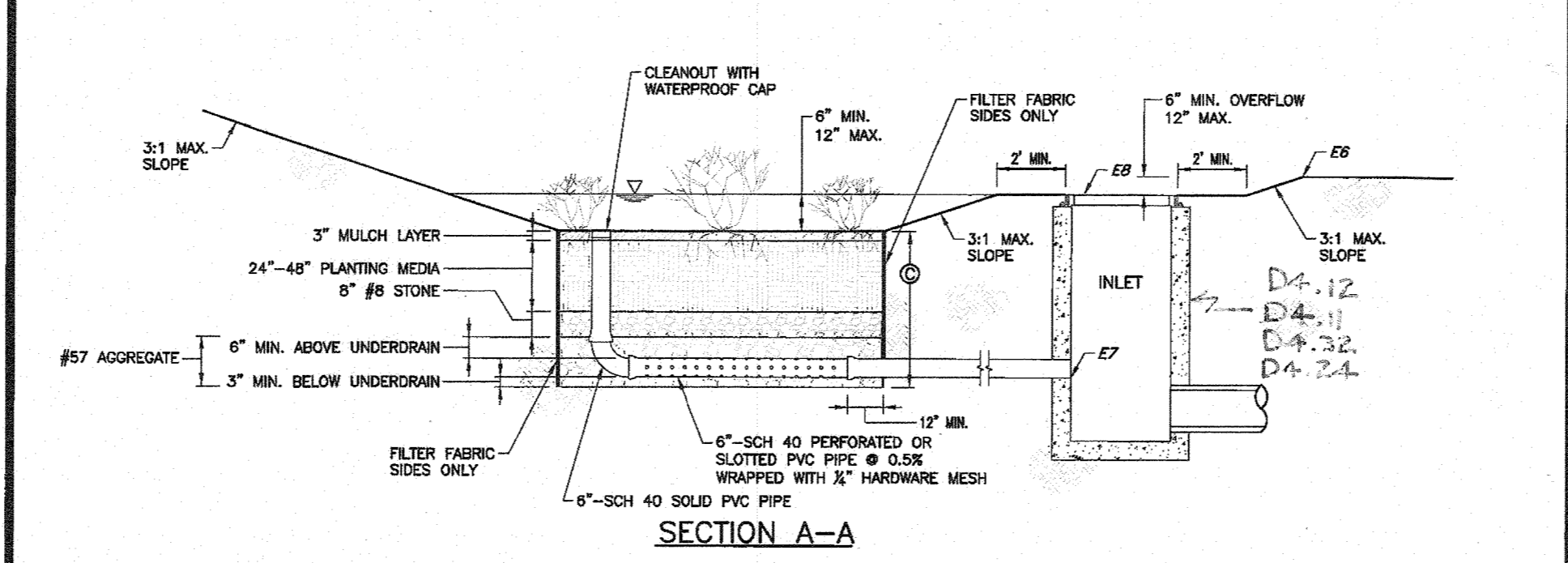
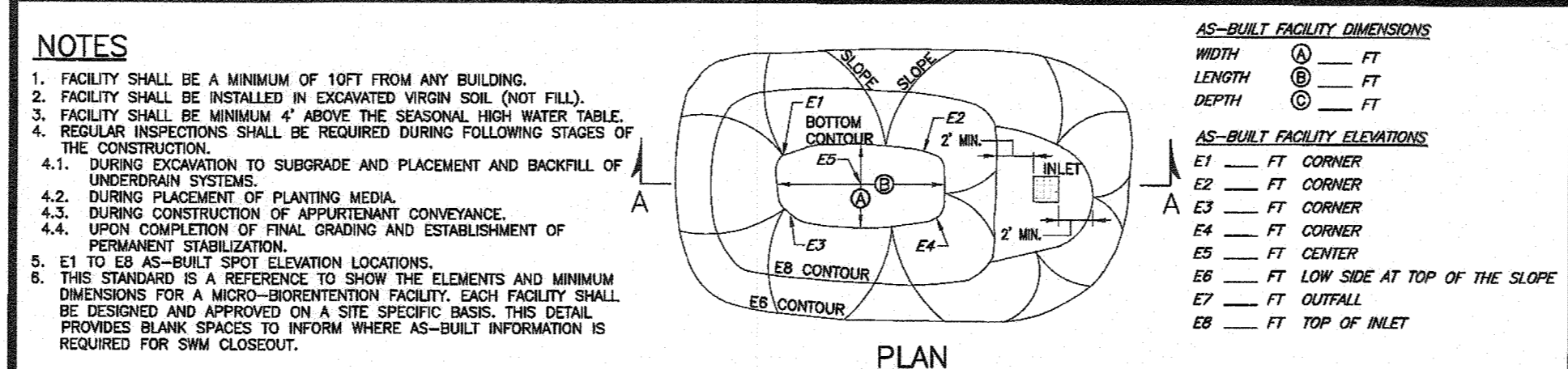
(b) Composition. BSM shall be sampled and tested according to the requirements of MSMT 356 and conform to the following:

Table with 3 columns: TEST PROPERTY, TEST METHOD, TEST VALUE AND AMENDMENT. Rows include Weeds, Debris, Textural Analysis, Soil pH, Organic Matter, Nutrient Analysis and Soluble Salts, Harmful Materials.

(c) Amendment or Failure. BSM that does not conform to composition requirements for pH or nutrient analysis shall be amended as specified by the NMP. BSM that exceeds maximum phosphorus concentration or fails other composition requirements will not be accepted, and shall not be delivered or used as BSM.

(d) Storage. 920.01.02(b). BSM shall be stored in a stockpile that is protected from weather under tarp or shed. BSM stored for 6 months or longer shall be resampled, retested, and reapproved before use.

Table B.4.1 Materials Specifications for Micro-Bioretenment, Rain Gardens & Landscape Infiltration. Columns: Material, Specification, Size, Notes.



Howard County, Maryland Department of Public Works. Micro-Bioretenment Facility Private For Reference. Detail D-9.03.

STORMWATER MANAGEMENT AS-BUILT NOTE:

- THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEMS. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DAY OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER.
- AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM USED IN THE DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING: A. INVERT AND/OR RIM ELEVATIONS OF ALL PIPES, FITTINGS, AND INLETS/OUTLET B. SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED FACILITIES IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS. C. THE COMPLETED FACILITIES AND SLOPE DRAIN SURFACES.

FACILITY DESIGN SUMMARY TABLE. Columns: PRACTICE ID, DIMENSIONS, DRAINAGE AREA, IMPERVIOUS AREA, ESDv VOLUME, TREATMENT VOLUME, RECHARGE VOLUME, TARGET PE, PE PROVIDED, FILTER AREA, Q100 IN, Q100 OUT, IS FACILITY USED FOR 10-8-100-YEAR QUANTITY CONTROL?, SUBAREA.

APPROVED DEPARTMENT OF PLANNING AND ZONING. Chief, Development Engineering Division. Date: 10/15/22.

HOWARD COUNTY REFERENCE DRAWINGS: WATER: CONTRACT 14-4576-D SEWER: CONTRACT 14-4576-D. Date: 10/15/22.

DESIGN CERTIFICATION. I hereby certify that this plan has been designed in accordance with the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control. Date: 8/29/2022.

OWNER / DEVELOPER CERTIFICATION. I / We hereby certify that all clearing, grading, construction, and/or development will be done pursuant to this plan and that any responsible personnel involved in the construction project will have a certificate of attendance at a Maryland Department of the Environment approved training program. Date: 8/29/2022.

MAINTENANCE & LIABILITY. Maintenance of the stormwater management facilities and appurtenant drainage structures shall be the responsibility of the property owner. Date: 8/29/2022.

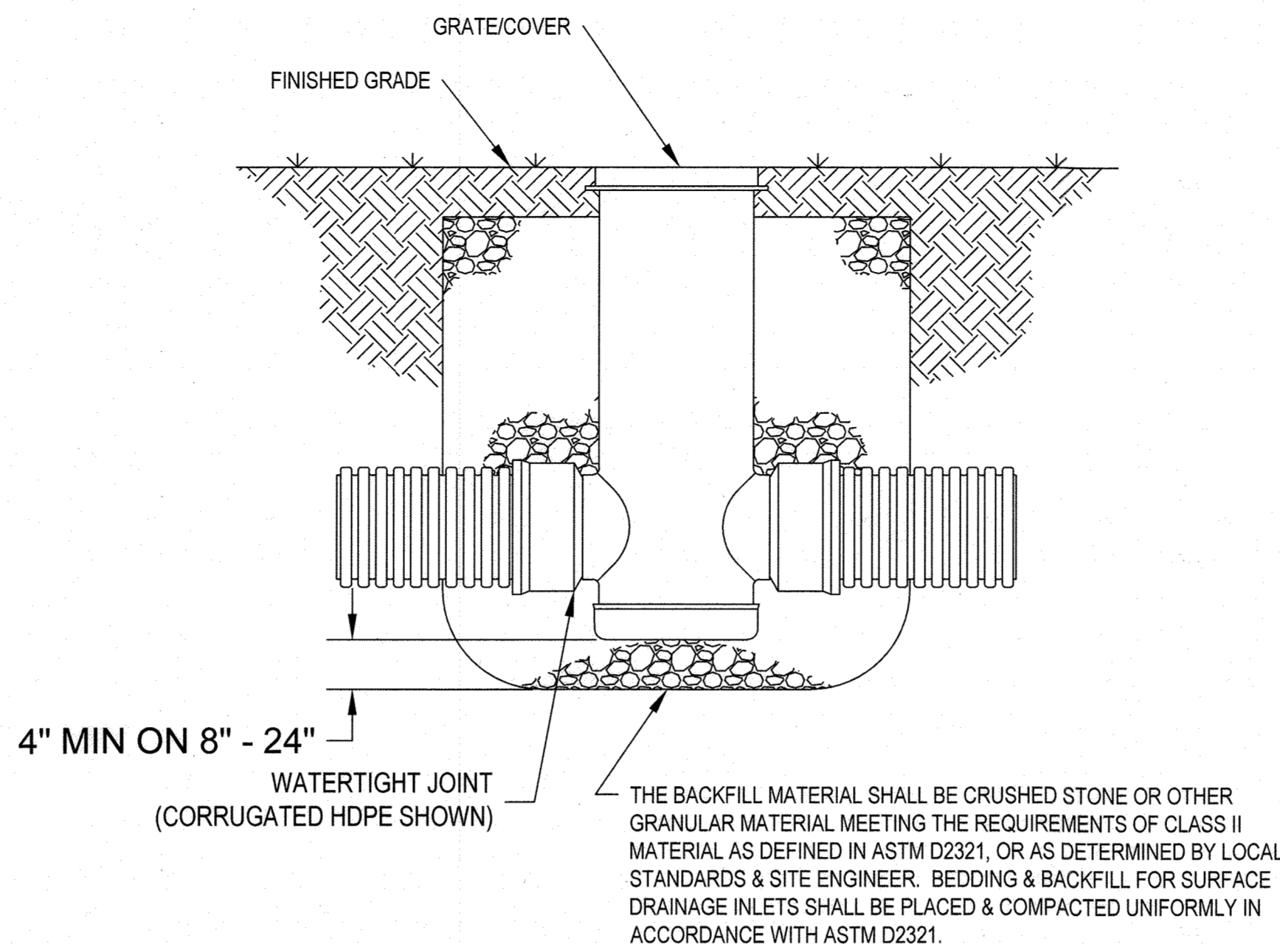
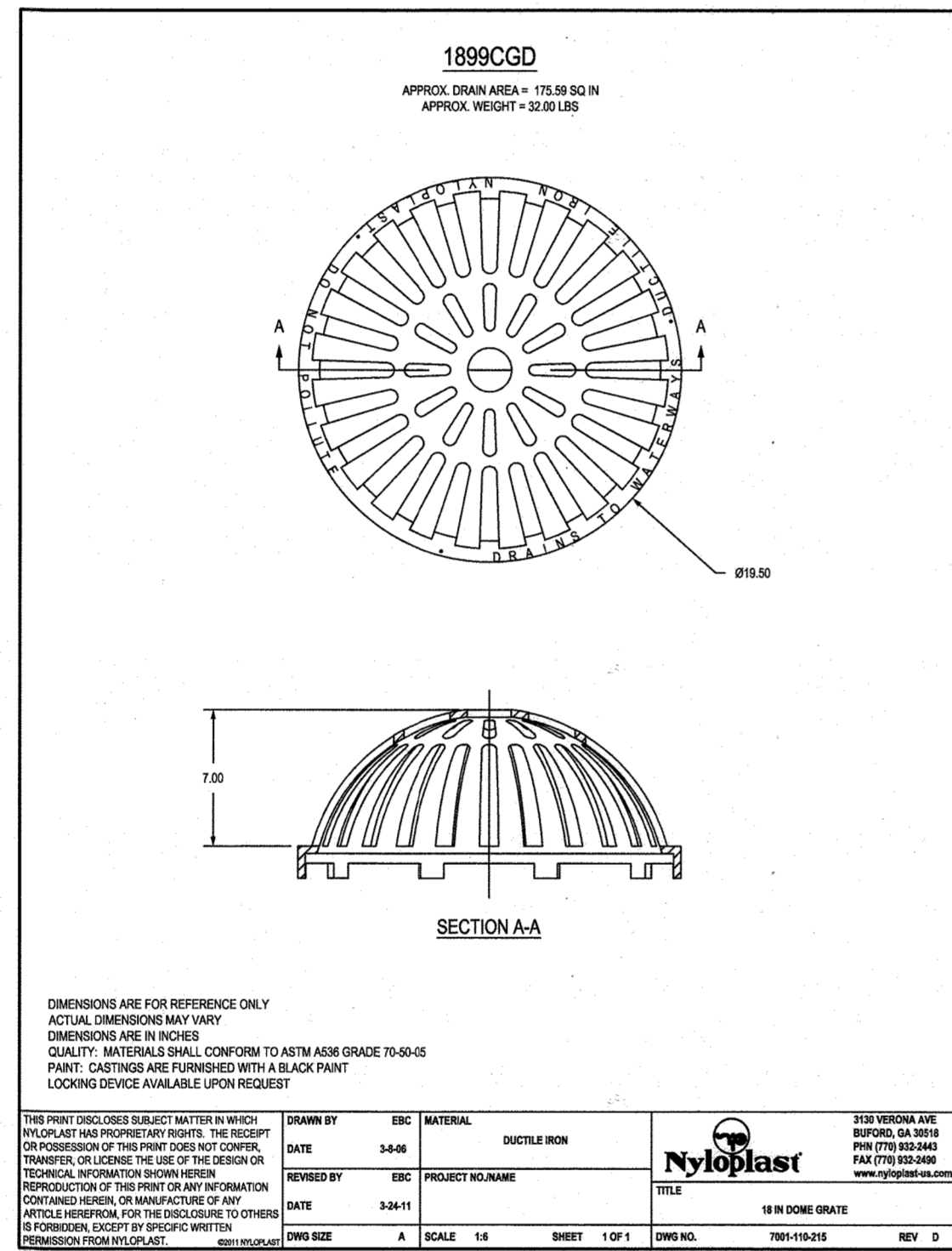
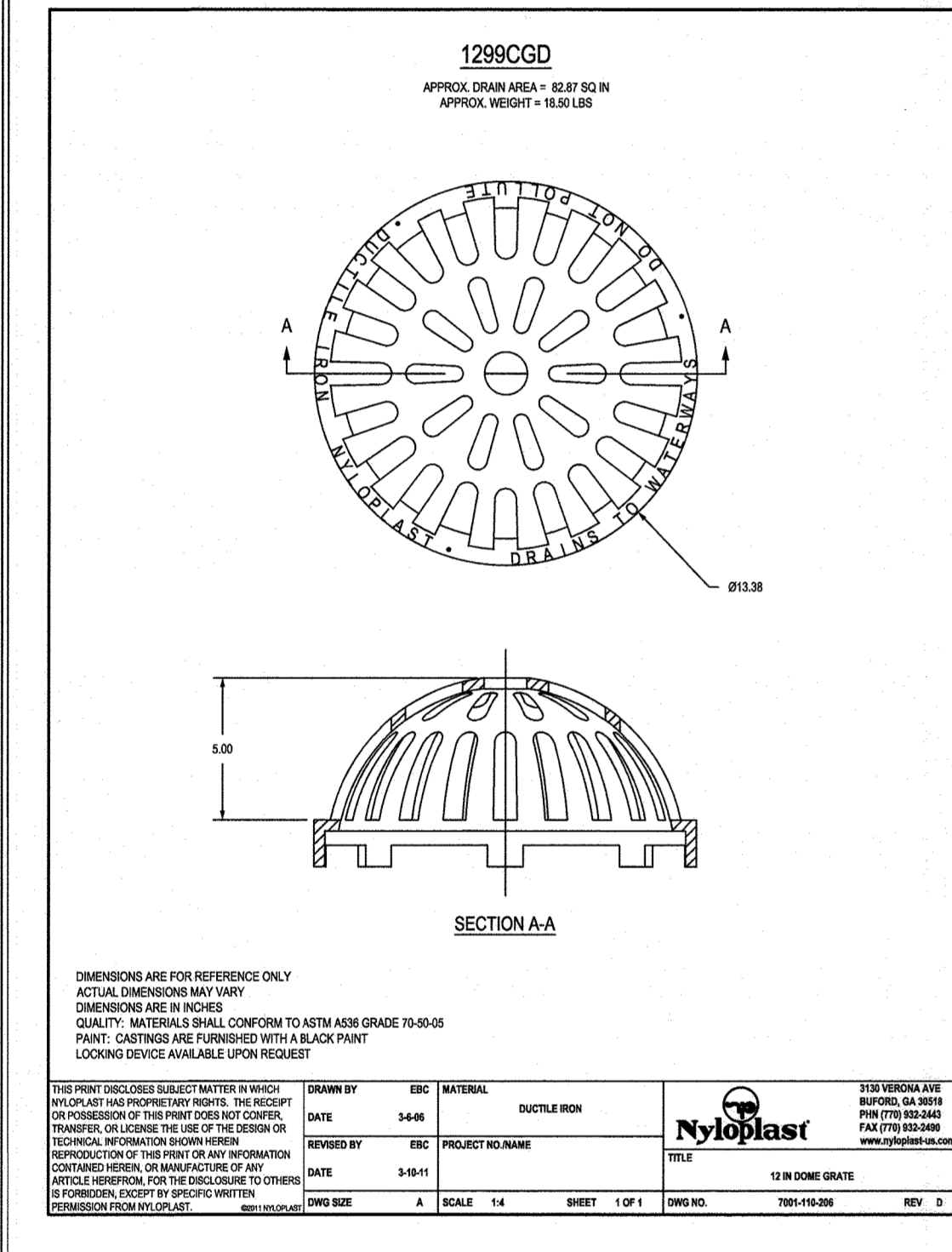
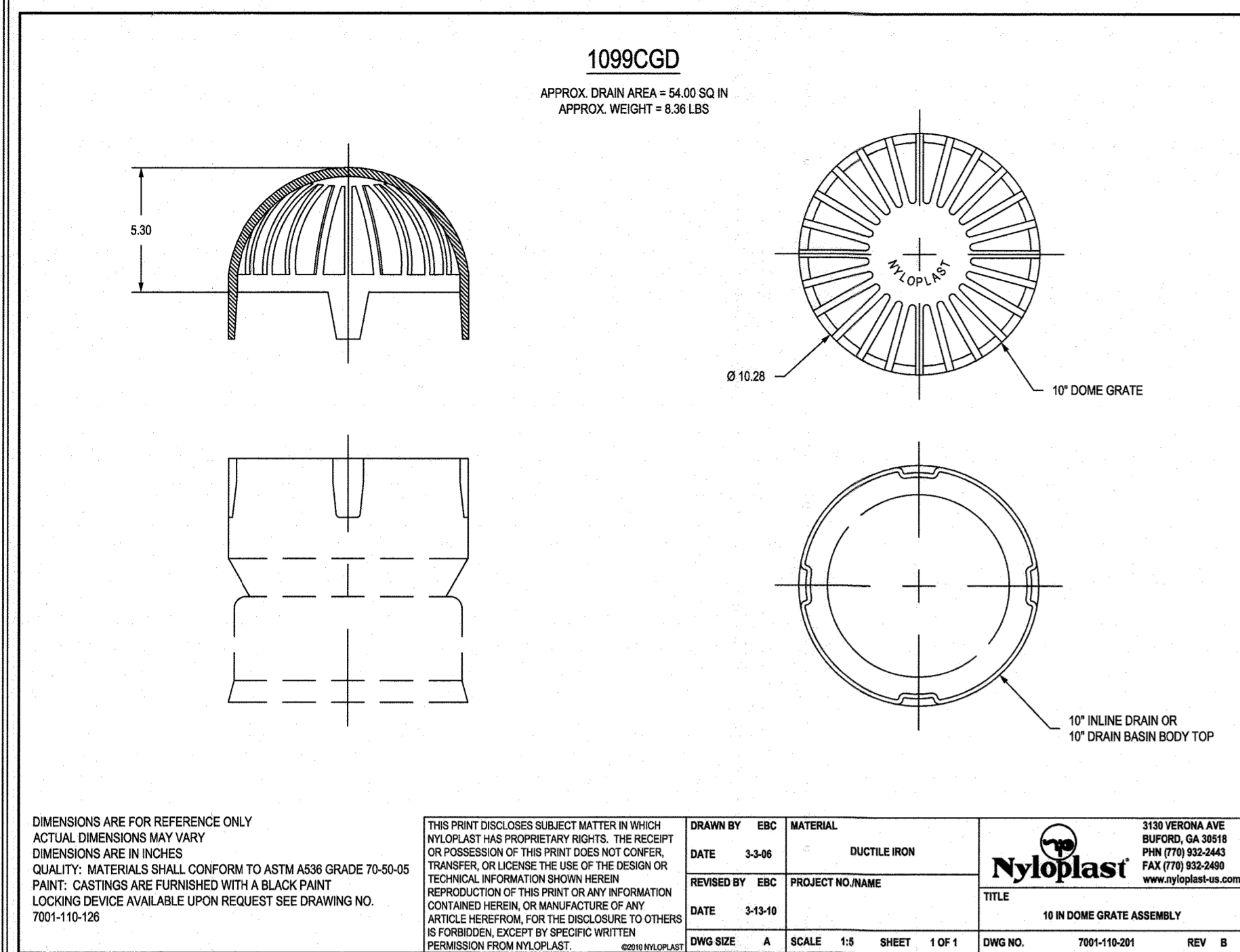
STORMWATER MANAGEMENT DETAILS. SHEPPARD PRATT. 7190 DISCOVERY DRIVE, ELK RIDGE, MARYLAND 21075. SHEET NO. 43 of 60.

MCA ARCHITECTURE. Marshall Craft Associates, Inc. CIVIL ENGINEERING. CARROLL ENGINEERING, INC. LANDSCAPE DESIGN. STRUCTURAL ENGINEERING. MEP ENGINEERING.

Professional Engineer Seal for Sheppard Pratt. License No.: 14446. Exp. Date: 5-25-23.

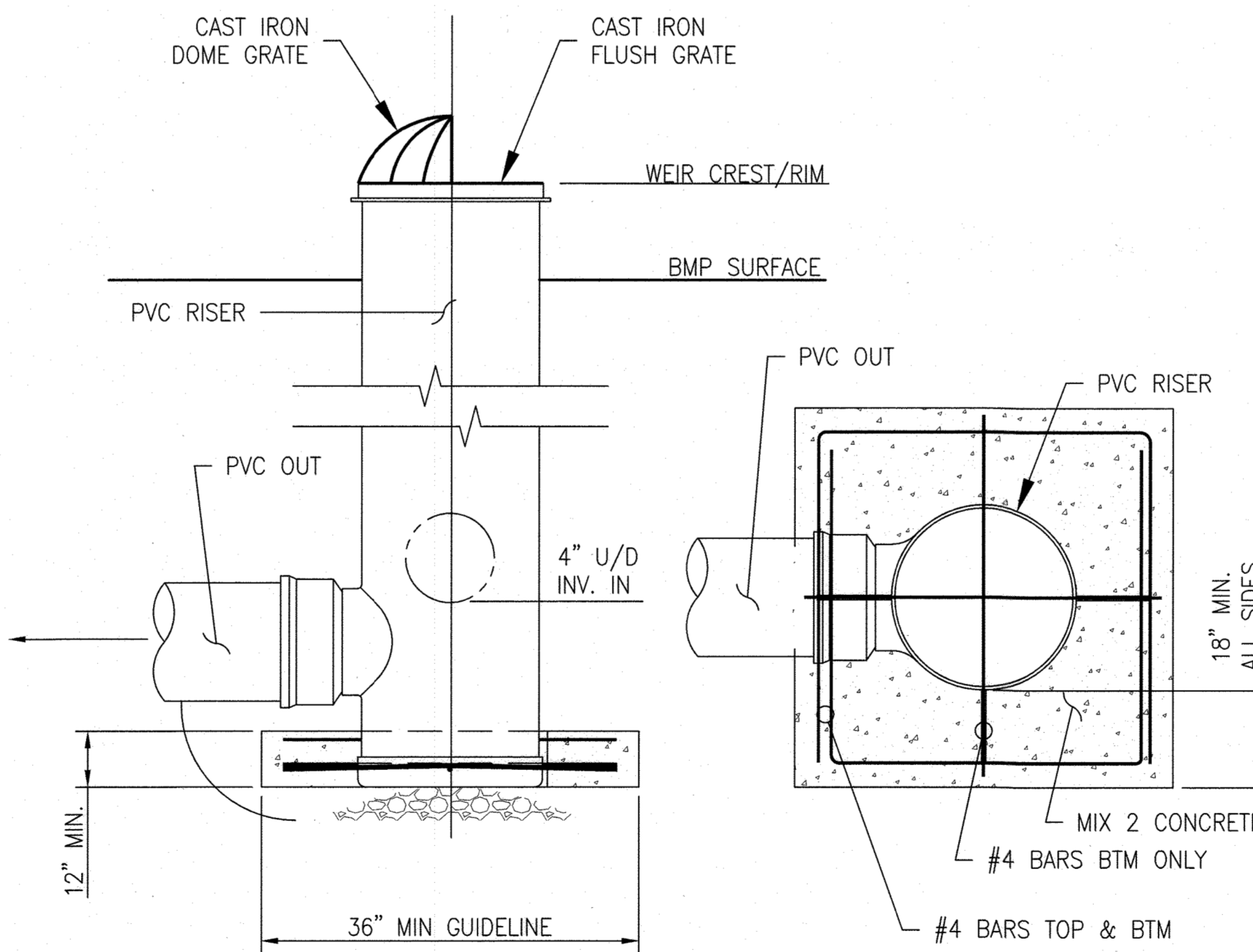
ADDRESS CHART. LOT/PARCEL #, STREET ADDRESS. MEDICAL PAVILION, 7190 DISCOVERY DRIVE.

REVISIONS table. SHEET SET AND SHEET ISSUE DATE: SDP 5/21/2021. SHEET NO. 43 of 60. SDP-20-057.



- 1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- 2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- 3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
- 4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP & PVC SEWER.
- 5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°.

**NYLOPLAST STRUCTURE DETAIL**  
N.T.S.

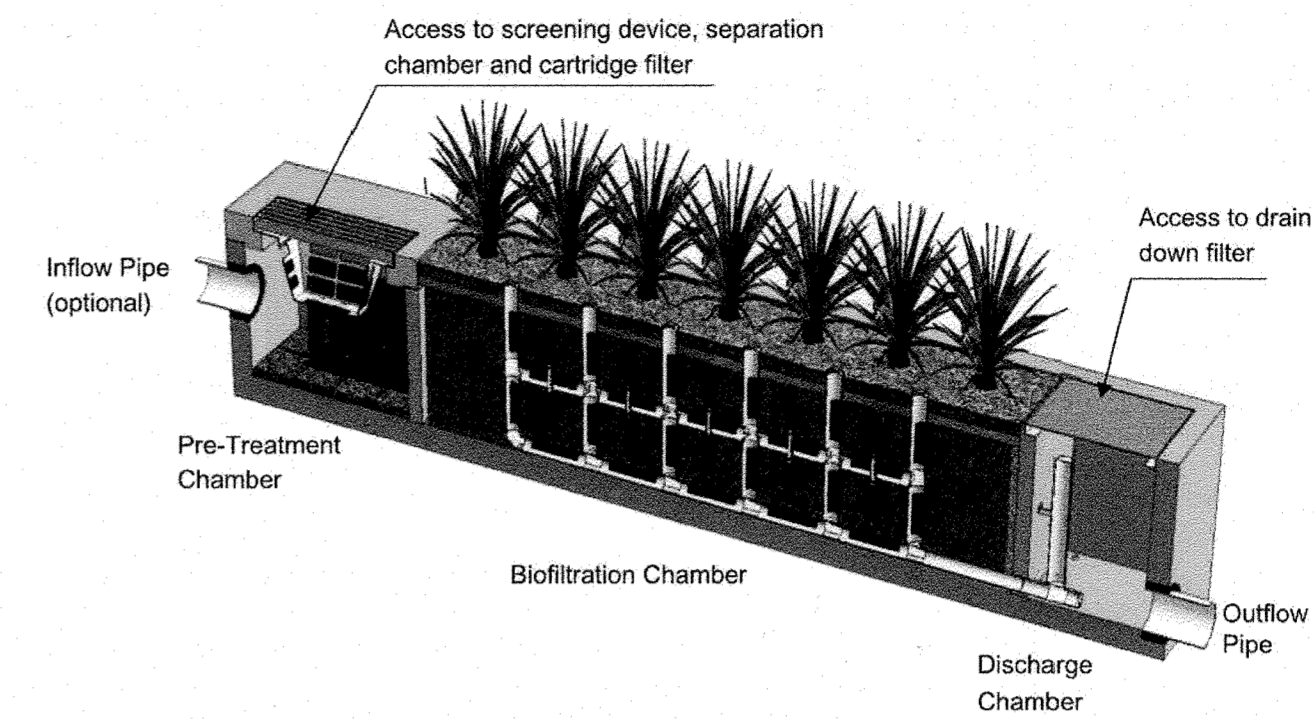


**RISER AND CONCRETE BASE**

NOT TO SCALE

- MAINTENANCE SCHEDULE - MODULAR WETLAND SYSTEM**
1. REMOVE TRASH FROM SCREENING DEVICE - MAINTENANCE INTERVAL IS 6 TO 12 MONTHS.
  2. REMOVE SEDIMENT FROM SEPARATION CHAMBER - MAINTENANCE INTERVAL IS 12 TO 24 MONTHS.
  3. REPLACE CARTRIDGE FILTER MEDIA - MAINTENANCE INTERVAL IS 12 TO 24 MONTHS.
  4. REPLACE DRAIN DOWN FILTER MEDIA - MAINTENANCE INTERVAL IS 12 TO 24 MONTHS.

**SYSTEM DIAGRAM**



**MAINTENANCE PROCEDURES**

**SCREENING DEVICE**

1. REMOVE GRATE OR MANHOLE COVER TO GAIN ACCESS TO THE SCREENING DEVICE IN THE PRE-TREATMENT CHAMBER. VAULT TYPE UNITS DO NOT HAVE SCREENING DEVICE. MAINTENANCE CAN BE PERFORMED WITHOUT ENTRY.
2. REMOVE ALL POLLUTANTS COLLECTED BY THE SCREENING DEVICE. REMOVAL CAN BE DONE MANUALLY OR WITH THE USE OF A VACUUM TRUCK. THE HOSE OF THE VACUUM TRUCK WILL NOT DAMAGE THE SCREENING DEVICE.
3. SCREENING DEVICE CAN EASILY BE REMOVED FROM THE PRE-TREATMENT CHAMBER TO GAIN ACCESS TO SEPARATION CHAMBER AND MEDIA FILTERS BELOW. REPLACE GRATE OR MANHOLE COVER WHEN COMPLETED.

**SEPARATION CHAMBER**

1. PERFORM MAINTENANCE PROCEDURES OF SCREENING DEVICE LISTED ABOVE BEFORE MAINTAINING THE SEPARATION CHAMBER.
2. WITH A PRESSURE WASHER, SPRAY DOWN POLLUTANTS ACCUMULATED ON WALLS AND CARTRIDGE FILTERS.
3. VACUUM OUT SEPARATION CHAMBER AND REMOVE ALL ACCUMULATED POLLUTANTS. REPLACE SCREENING DEVICE, GRATE OR MANHOLE COVER WHEN COMPLETED.

**CARTRIDGE FILTERS**

1. PERFORM MAINTENANCE PROCEDURES ON SCREENING DEVICE AND SEPARATION CHAMBER BEFORE MAINTAINING CARTRIDGE FILTERS.
2. ENTER SEPARATION CHAMBER.
3. UNSCREW THE TWO BOLTS HOLDING THE LID ON EACH CARTRIDGE FILTER AND REMOVE LID.
4. REMOVE EACH OF 4 TO 8 MEDIA CAGES HOLDING THE MEDIA IN PLACE.
5. SPRAY DOWN THE CARTRIDGE FILTER TO REMOVE ANY ACCUMULATED POLLUTANTS.
6. VACUUM OUT OLD MEDIA AND ACCUMULATED POLLUTANTS.
7. REINSTALL MEDIA CAGES AND FILL WITH NEW MEDIA FROM MANUFACTURER OR OUTSIDE SUPPLIER. MANUFACTURER WILL PROVIDE SPECIFICATION OF MEDIA AND SOURCES TO PURCHASE.
8. REPLACE THE LID AND TIGHTEN DOWN BOLTS. REPLACE SCREENING DEVICE, GRATE OR MANHOLE COVER WHEN COMPLETED.

**DRAIN DOWN FILTER**

1. REMOVE HATCH OF MANHOLE COVER OVER DISCHARGE CHAMBER AND ENTER CHAMBER.
2. UNLOCK AND LIFT DRAIN DOWN FILTER HOUSING AND REMOVE OLD MEDIA BLOCK. REPLACE WITH NEW MEDIA BLOCK. LOWER DRAIN DOWN FILTER HOUSING AND LOCK INTO PLACE.
3. EXIT CHAMBER AND REPLACE HATCH OR MANHOLE COVER.

**MAINTENANCE NOTES**

1. FOLLOWING MAINTENANCE AND/OR INSPECTION, IT IS RECOMMENDED THE MAINTENANCE OPERATOR PREPARE A MAINTENANCE/INSPECTION RECORD. THE RECORD SHOULD INCLUDE ANY MAINTENANCE ACTIVITIES PERFORMED, AMOUNT AND DESCRIPTION OF DEBRIS COLLECTED, AND CONDITION OF THE SYSTEM AND ITS VARIOUS FILTER MECHANISMS.
2. THE OWNER SHOULD KEEP MAINTENANCE/INSPECTION RECORD(S) FOR A MINIMUM OF FIVE YEARS FROM THE DATE OF MAINTENANCE. THESE RECORDS SHOULD BE MADE AVAILABLE TO THE GOVERNING MUNICIPALITY FOR INSPECTION UPON REQUEST AT ANY TIME.
3. TRANSPORT ALL DEBRIS, TRASH, ORGANICS AND SEDIMENTS TO AN APPROVED FACILITY FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REQUIREMENTS.
4. ENTRY INTO CHAMBERS MAY REQUIRE CONFINED SPACE TRAINING BASED ON STATE AND LOCAL REGULATIONS.
5. NO FERTILIZER SHALL BE USED IN THE BIOTREATMENT CHAMBER.
6. IRRIGATION SHOULD BE PROVIDED AS RECOMMENDED BY THE MANUFACTURER AND/OR LANDSCAPE ARCHITECT. THE AMOUNT OF IRRIGATION REQUIRED IS DEPENDENT ON PLANT SPECIES. SOME PLANTS MAY REQUIRE IRRIGATION.

**MEDIA MATERIAL SPECIFICATION FOR MODULAR WETLANDS:**

MEDIA SHALL CONSIST OF CERAMIC MATERIAL PRODUCED BY EXPANDING AND VITRIFYING SELECT MATERIAL IN A ROTARY KILN. MEDIA MUST BE PRODUCED TO MEET THE REQUIREMENTS OF ASTM C530, ASTM C631, AND AASHTO M195. AGGREGATES MUST HAVE A MINIMUM 24-HOUR WATER ABSORPTION OF 10.5% MASS. MEDIA SHALL NOT CONTAIN ANY ORGANIC MATERIAL. FLOW THROUGH MEDIA SHALL BE HORIZONTAL FROM THE OUTER PERIMETER OF THE CHAMBER TOWARD THE CENTRALIZED AND VERTICALLY EXTENDING UNDERDRAIN. THE RETENTION TIME IN THE MEDIA SHALL BE AT LEAST 3 MINUTES. DOWNWARD FLOW FILTERS ARE NOT ACCEPTABLE ALTERNATIVES. THE THICKNESS OF THE MEDIA SHALL BE AT LEAST 19" FROM INFLUENT END TO EFFLUENT END. THE LOADING RATE ON THE MEDIA SHALL NOT EXCEED 1.1 GALLONS PER MINUTE PER SQUARE FOOT SURFACE AREA. MEDIA MUST BE CONTAINED WITHIN STRUCTURE THAT SPACES THE SURFACE OF THE MEDIA AT LEAST 2" FROM ALL VERTICALLY EXTENDING WALLS OF THE CONCRETE STRUCTURE. MEDIA MUST BE CONTAINED WITHIN STRUCTURE THAT SPACES THE SURFACE OF THE MEDIA AT LEAST 2" FROM ALL VERTICALLY EXTENDING WALLS OF THE CONCRETE STRUCTURE. MEDIA SHALL BE PROPRIETARY MEDIA FROM MODULAR WETLAND SYSTEM MANUFACTURER OR APPROVED EQUAL.

**PRE-TREATMENT STORAGE MAINTENANCE CRITERIA:**

1. THE UNDERGROUND STORMWATER MANAGEMENT FACILITY SHALL BE INSPECTED YEARLY AT A MINIMUM AND AFTER SEVERE STORM EVENTS.
2. THE FACILITY SHALL BE CLEANED WHEN SEDIMENT HAS ACCUMULATED TO THE POINT THE PIPE INVERT AND JOINTS CANNOT BE PROPERLY INSPECTED.
3. WHEN ANY DEBRIS THAT MIGHT OBSTRUCT THE OUTFALL IS OBSERVED, THE FACILITY SHALL BE CLEANED.
4. THE FACILITY SHALL BE CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS.
5. THE INLET AND OUTLET PIPES SHALL BE CHECKED FOR ANY OBSTRUCTIONS AT LEAST ONCE EVERY (6) MONTHS. IF OBSTRUCTIONS ARE FOUND, THE OWNER SHALL HAVE THEM REMOVED AND PROPERLY DISPOSED OF.
6. ALL SPOILS/DEBRIS FROM THE UNDERGROUND STORAGE SHALL BE HAULED TO AN APPROVED MARYLAND DEPARTMENT OF THE ENVIRONMENT DISPOSAL SITE. ORIGINAL TRIP TICKETS, WITH THE SITE DESCRIPTION, WILL BE REQUIRED AND SHALL BE MAILED TO THE BUREAU OF ENVIRONMENTAL SERVICES ATTENTION JOHN SLATER.

HOWARD COUNTY REFERENCE DRAWINGS:  
WATER: CONTRACT 14-4576-D  
SEWER: CONTRACT 14-4576-D  
F-18-106, F-10-013  
SDP-08-082, SDP-18-033  
ECP-18-018, ECP-20-015

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
10.15.22  
DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
10.27.22  
DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT  
10.27.22  
DATE  
DIRECTOR

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca-design

**CIVIL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**LANDSCAPE DESIGN**  
SITE RESOURCES, INC.  
14315 JARRETTVILLE PIKE  
PHOENIX, MD 21131  
410.683.3388

**STRUCTURAL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**MEP ENGINEERING**  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELKRIDGE, MD 21075  
410.579.8100

**NOT FOR CONSTRUCTION**

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

LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt

**MEDICAL PAVILION**

7190 DISCOVERY DRIVE  
ELKRIDGE, MARYLAND 21075  
HOWARD COUNTY

CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

OWNER/DEVELOPER  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

REVISIONS:

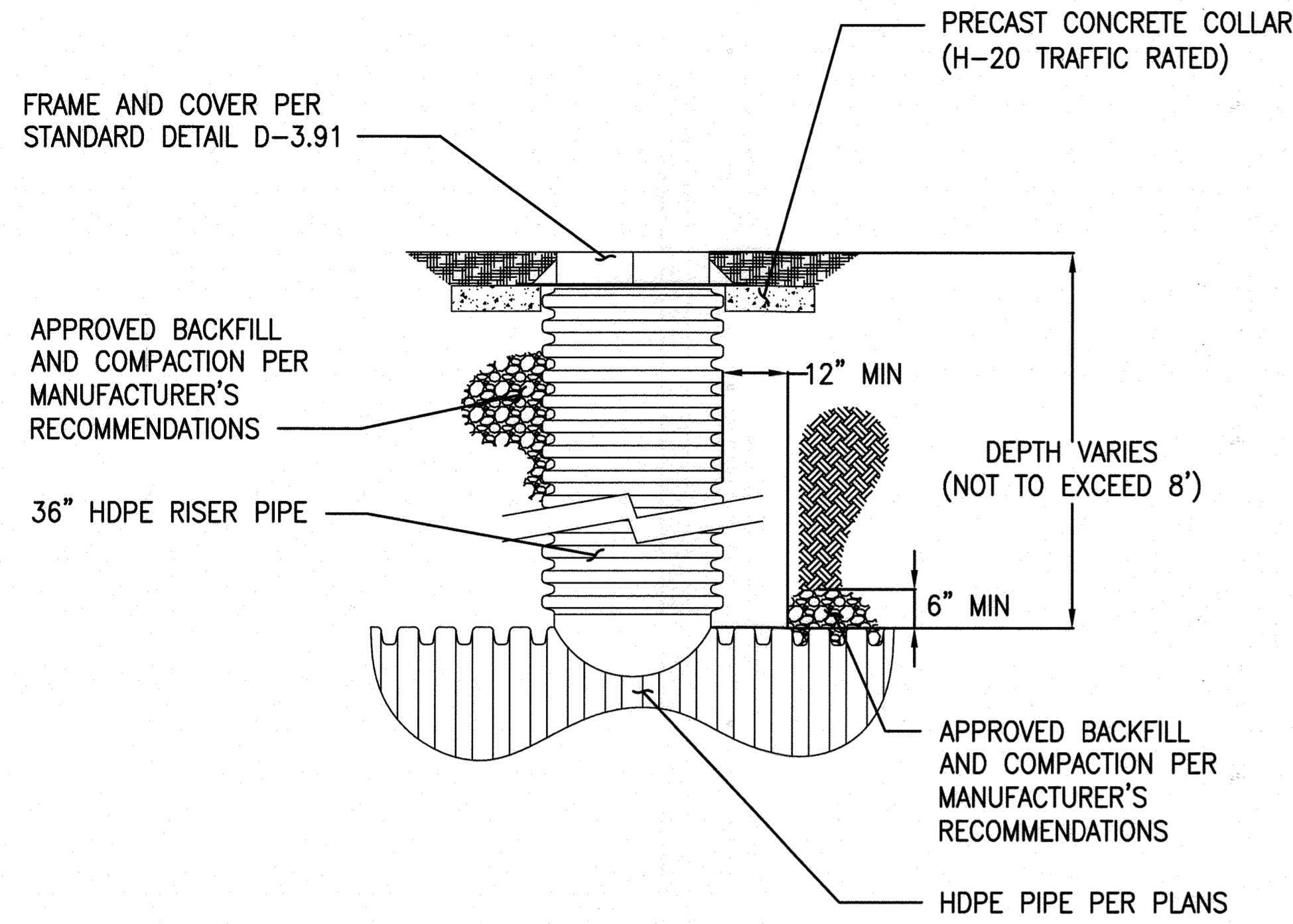
NO.	DATE	COMMENTS

MCA JOB NO: 19002.01  
SHEET SET AND SHEET ISSUE DATE: SDP 11/13/2020

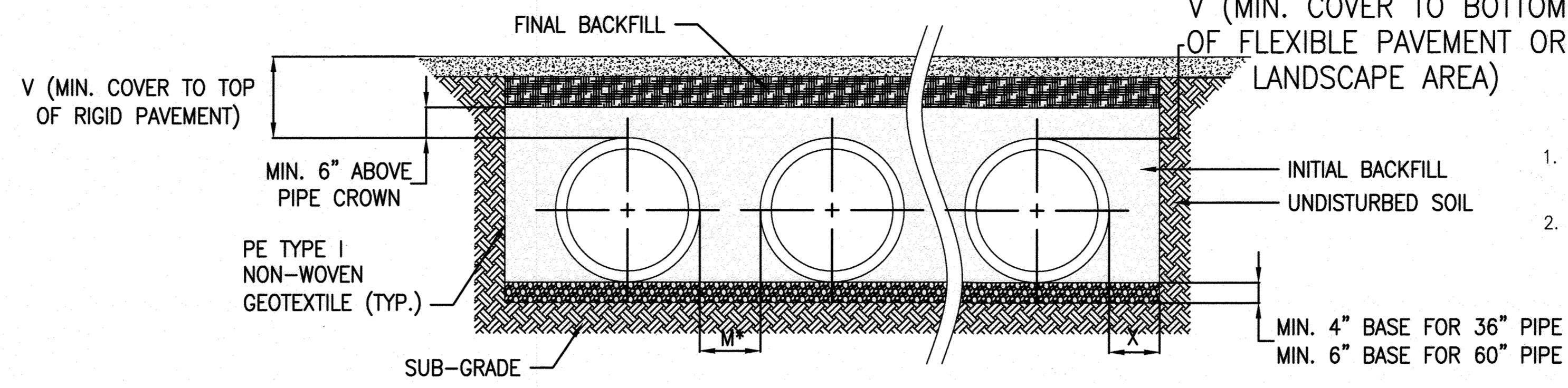
PROJ/MANAGER: DVM  
SHEET BY: DVM

**STORMWATER MANAGEMENT DETAILS**

SHEET NO. **44** of 60  
**SDP-20-057**



HDPE RISER STRUCTURE DETAIL  
N.T.S.



NOTES:

- RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF ASTM D2321 AND THE MANUFACTURER'S INSTALLATION GUIDELINES.
- SUB-GRADE: TRENCH BOTTOMS WITH UNSTABLE OR UNYIELDING MATERIAL SHALL BE EXCAVATED TO A DEPTH DIRECTED BY THE GEOTECHNICAL ENGINEER AND REPLACED WITH SUITABLE MATERIAL. FOR UNSTABLE MATERIALS, GEOTEXTILE MAY BE USED TO STABILIZE THE TRENCH BOTTOM, IF DIRECTED BY THE ENGINEER.
- BASE MATERIAL: SUITABLE MATERIAL SHALL BE CLASS I OR II, AS SPECIFIED BY ASTM D2321.
- INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II, AS SPECIFIED BY ASTM D2321. COMPACTION AND BACKFILL LIFTS SHALL BE IN ACCORDANCE WITH ASTM D2321. INITIAL BACKFILL SHALL EXTEND TO NOT LESS THAN 6" ABOVE THE TOP OF THE PIPE.
- MINIMUM COVER: FOR UP TO H-25 TRAFFIC APPLICATIONS A MINIMUM OF 12" FOR PIPE DIAMETER UP TO 36" DIAMETER, AND 18" FOR 60" DIAMETER. MINIMUM COVER, V, SHALL BE MEASURED FROM THE TOP OF THE PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO THE TOP OF RIGID PAVEMENT. ADDITIONAL COVER MAY BE REQUIRED FOR CONSTRUCTION LOADS, VEHICLES OVER 25T, OR TO PREVENT FLOATATION.
- FINAL BACKFILL: SUITABLE MATERIALS DIRECTED BY THE ENGINEER SHALL BE USED IN LANDSCAPE OR NON-TRAFFIC APPLICATIONS. FOR AREAS SUBJECTED TO TRAFFIC A HIGHER DEGREE OF COMPACTION IS REQUIRED AND A SEPARATION LAYER OF NON-WOVEN GEOTEXTILE MAY BE REQUIRED. COMPACTION LEVELS AND/OR GEOTEXTILE MAY BE SPECIFIED AT THE DISCRETION OF THE DESIGN ENGINEER.

MAINTENANCE SCHEDULE -- PIPE STORAGE

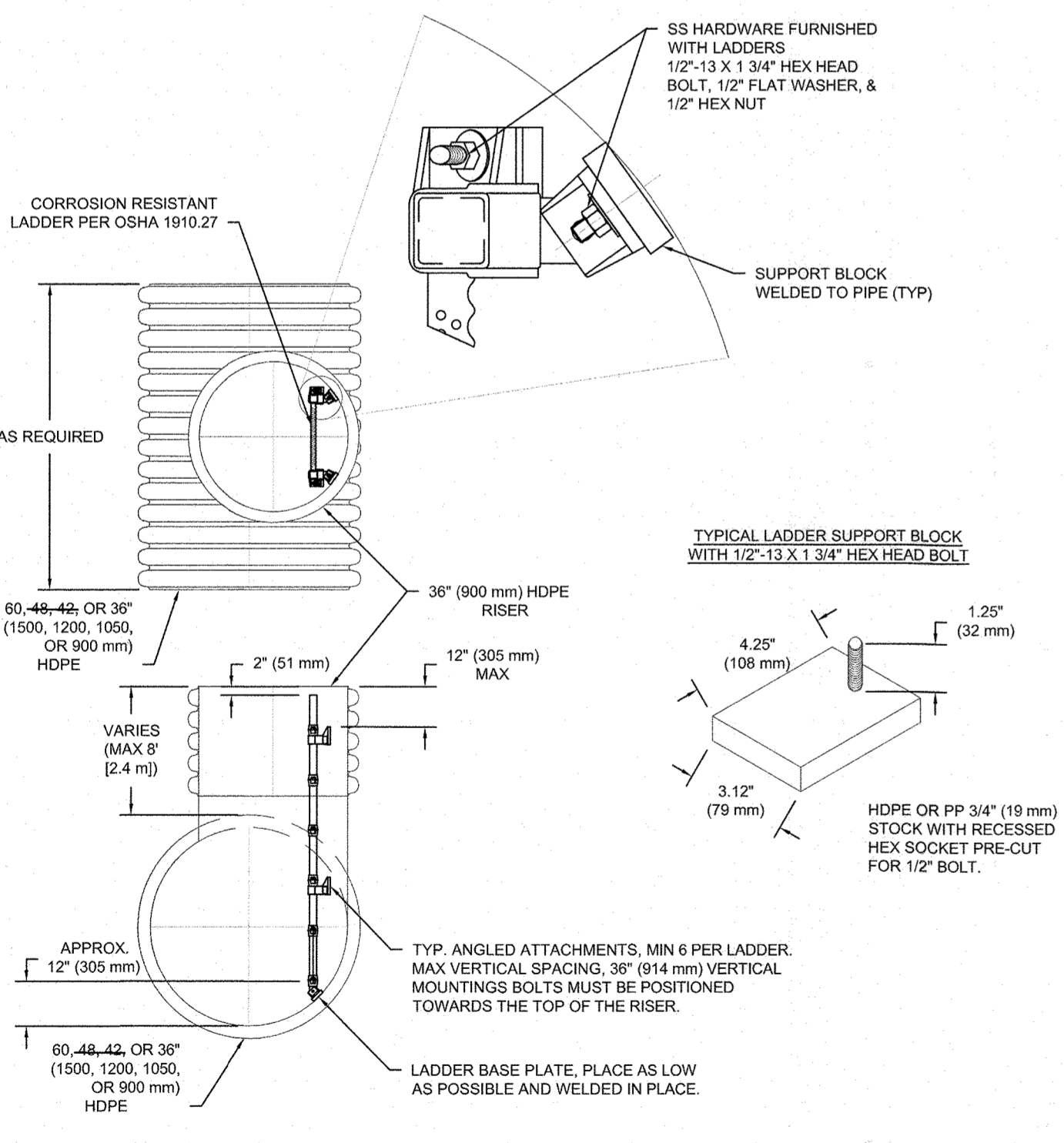
- REMOVE TRASH FROM PIPE/RISER -- MAINTENANCE INTERVAL IS 6 TO 12 MONTHS.
- REMOVE SEDIMENT FROM PIPE/RISER -- MAINTENANCE INTERVAL IS 12 TO 24 MONTHS.

NOMINAL I.D.	APPROX O.D.	MIN. DISTANCE TO SIDE WALL "X"	*SPACING "M"	MIN. COVER "V"
36"	40.6"	18"	21"	12"
48"	54.1"	18"	23"	18"
60"	66.8"	18"	27"	18"

\*MINIMUM SPACING "M" MEASURED FROM OUTSIDE DIAMETERS

TYPICAL STORAGE PIPE SECTION  
N.T.S.

- NOTES:
- LADDERS MUST MEET OSHA 1910.27
  - CORROSION RESISTANT BRACKETS, WITH STAINLESS STEEL HARDWARE, SHALL BE ATTACHED TO THE LADDER BY THE PIPE FABRICATOR. THE HARDWARE IS INCLUDED WITH LADDER.
  - USE STAINLESS STEEL BOLTS, WASHERS, AND NUTS TO ATTACH THE LADDER BRACKETS THROUGH THE SUPPORT BLOCKS.
  - SUPPORT BLOCKS SHALL BE POSITIONED AND WELDED TO THE PIPE WALLS AS FOLLOWS:



HDPE RISER STRUCTURE LADDER DETAIL  
N.T.S.

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
10-15-21  
DATE  
10/27/22  
DATE  
10/27/22  
DATE

HOWARD COUNTY REFERENCE DRAWINGS:  
WATER: CONTRACT 14-4576-D  
SEWER: CONTRACT 14-4576-D  
F-18-106, F-10-013  
SDP-08-082, SDP-18-033  
ECP-18-018, ECP20-015

SWM PRE-TREATMENT STRUCTURE SCHEDULE

NO.	TYPE	INV. ELEV.	TOP ELEV.	STANDARD DETAIL; GRATE TYPE
MH-13	RISER STRUCTURE	IN=203.10 (48") IN=203.10 (48") OUT=203.07 (12")	209.77	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-14	RISER STRUCTURE	IN=203.10 (36") OUT=203.10 (48")	211.59	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-15	RISER STRUCTURE	IN=204.00 (48") IN=204.00 (12") OUT=204.00 (48")	210.00	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-16	RISER STRUCTURE	IN=204.00 (48") IN=204.00 (12") OUT=204.00 (48")	211.68	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-17	RISER STRUCTURE	IN=201.50 (48") IN=201.50 (48") OUT=201.50 (8")	207.61	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-18	RISER STRUCTURE	IN=206.10 (8") IN=201.50 (48") OUT=201.50 (48")	207.86	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-19	RISER STRUCTURE	IN=203.67 (48") IN=206.38 (8") OUT=203.67 (48")	210.07	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-20	RISER STRUCTURE	IN=203.67 (48") OUT=203.67 (36") OUT=203.67 (48")	210.00	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-21	RISER STRUCTURE	IN=206.00 (8") OUT=203.40 (48") OUT=203.40 (48")	211.00	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-22	RISER STRUCTURE	IN=205.42 (12") IN=203.40 (48") OUT=203.40 (48")	210.35	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-23	RISER STRUCTURE	IN=201.50 (48") OUT=201.50 (48")	208.00	HDPE RISER W/ STANDARD DETAIL D-3.91

SWM PRE-TREATMENT STRUCTURE SCHEDULE

NO.	TYPE	INV. ELEV.	TOP ELEV.	STANDARD DETAIL; GRATE TYPE
MH-46	RISER STRUCTURE	IN=203.40 (48") OUT=203.40 (48")	210.50	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-47	RISER STRUCTURE	IN=203.40 (48") OUT=203.40 (48")	211.00	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-48	RISER STRUCTURE	IN=203.67 (48") IN=203.67 (48") OUT=203.67 (8")	209.95	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-49	RISER STRUCTURE	IN=203.67 (48") IN=203.67 (48") OUT=203.67 (8")	208.00	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-50	RISER STRUCTURE	OUT=201.50 (48") OUT=201.50 (48")	207.77	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-51	RISER STRUCTURE	IN=201.50 (48") OUT=201.50 (48")	207.94	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-52	RISER STRUCTURE	IN=201.00 (60") OUT=201.00 (60")	214.09	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-53	RISER STRUCTURE	IN=201.00 (60") OUT=201.00 (60")	214.79	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-54	RISER STRUCTURE	IN=201.00 (60") OUT=201.00 (60") OUT=204.75 (15") OUT=205.00 (12")	210.43	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-55	RISER STRUCTURE	IN=201.00 (60") OUT=201.00 (60")	210.27	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-56	RISER STRUCTURE	IN=206.01 (12") OUT=204.00 (48") OUT=204.00 (48")	210.00	HDPE RISER W/ STANDARD DETAIL D-3.91

SWM PRE-TREATMENT STRUCTURE SCHEDULE

NO.	TYPE	INV. ELEV.	TOP ELEV.	STANDARD DETAIL; GRATE TYPE
MH-24	RISER STRUCTURE	OUT=203.86 (48") OUT=203.86 (48")	210.64	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-25	RISER STRUCTURE	IN=203.86 (48") OUT=203.86 (48")	209.84	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-26	RISER STRUCTURE	IN=206.50 (15") OUT=204.50 (48") OUT=204.50 (12") OUT=204.50 (48")	210.56	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-27	RISER STRUCTURE	IN=204.50 (48") OUT=204.50 (48")	210.28	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-28	RISER STRUCTURE	IN=205.30 (12") OUT=203.00 (48")	210.73	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-29	RISER STRUCTURE	IN=203.00 (48") OUT=203.00 (48")	210.05	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-30	RISER STRUCTURE	IN=203.90 (48") IN=203.90 (48")	210.29	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-31	RISER STRUCTURE	IN=203.90 (48") IN=203.90 (48")	211.00	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-32	RISER STRUCTURE	IN=205.00 (48") IN=205.00 (48") OUT=207.01 (12") OUT=205.00 (12")	211.07	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-33	RISER STRUCTURE	IN=207.00 (12") OUT=205.00 (48") OUT=205.00 (48")	213.00	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-34	RISER STRUCTURE	IN=205.00 (48") OUT=205.00 (48")	211.00	HDPE RISER W/ STANDARD DETAIL D-3.91

SWM PRE-TREATMENT STRUCTURE SCHEDULE

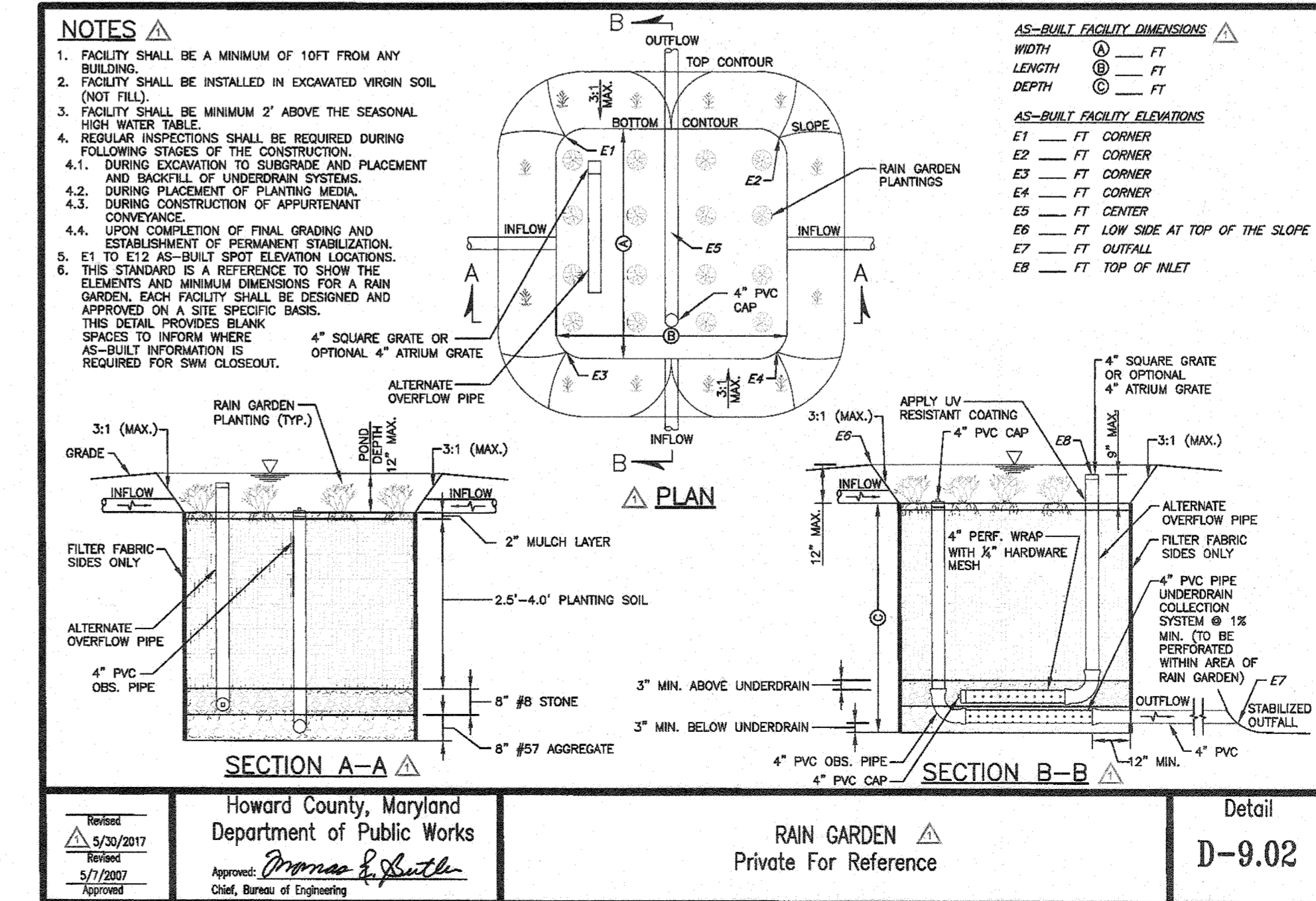
NO.	TYPE	INV. ELEV.	TOP ELEV.	STANDARD DETAIL; GRATE TYPE
MH-57	RISER STRUCTURE	IN=204.00 (48") OUT=204.00 (48")	212.05	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-58	RISER STRUCTURE	IN=203.10 (48") IN=205.10 (12") OUT=203.10 (48")	210.94	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-59	RISER STRUCTURE	IN=203.10 (48") IN=205.45 (6") OUT=203.10 (48")	209.95	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-60	RISER STRUCTURE	IN=200.00 (60") OUT=200.00 (60")	206.66	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-61	RISER STRUCTURE	IN=200.00 (60") OUT=200.00 (60")	208.19	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-62	RISER STRUCTURE	IN=203.00 (48") IN=203.00 (48")	210.19	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-63	RISER STRUCTURE	IN=203.00 (48") IN=203.00 (48") OUT=203.00 (48")	209.40	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-64	RISER STRUCTURE	IN=201.00 (60") OUT=201.00 (60")	213.56	HDPE RISER W/ STANDARD DETAIL D-3.91

MATERIALS QUANTITY  
(SWM PRE-TREATMENT)

EST.	DESCRIPTION	QUANTITY
48 EA	48"x36" HDPE REDUCER	

SWM PRE-TREATMENT STRUCTURE SCHEDULE

NO.	TYPE	INV. ELEV.	TOP ELEV.	STANDARD DETAIL; GRATE TYPE
MH-35	RISER STRUCTURE	IN=205.00 (48") OUT=205.00 (48")	213.76	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-36	RISER STRUCTURE	IN=205.00 (48") OUT=205.00 (48")	213.63	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-37	RISER STRUCTURE	OUT=203.90 (48") OUT=203.90 (48")	210.15	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-38	RISER STRUCTURE	IN=203.90 (48") OUT=203.90 (15")	210.34	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-39	RISER STRUCTURE	OUT=203.00 (48") OUT=203.00 (48")	208.42	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-40	RISER STRUCTURE	OUT=203.00 (48")	209.62	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-41	RISER STRUCTURE	IN=204.50 (48") OUT=204.50 (48")	210.40	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-42	RISER STRUCTURE	IN=204.50 (48") OUT=204.50 (48")	209.98	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-43	RISER STRUCTURE	IN=203.86 (48") OUT=203.86 (48")	209.94	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-44	RISER STRUCTURE	IN=203.86 (48") IN=203.86 (48") IN=205.89 (12")	210.67	HDPE RISER W/ STANDARD DETAIL D-3.91
MH-45	RISER STRUCTURE	IN=203.40 (48") OUT=203.40 (48")	210.80	HDPE RISER W/ STANDARD DETAIL D-3.91



Howard County, Maryland  
Department of Public Works  
Approved: [Signature]  
Chief, Bureau of Engineering

RAIN GARDEN  
Private For Reference  
Detail  
D-9.02

MCA ARCHITECTURE

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca-design

CIVIL ENGINEERING  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

LANDSCAPE DESIGN  
SITE RESOURCES, INC.  
14315 JARRETTVILLE PIKE  
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410.683.3388

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410.785.7423

MEP ENGINEERING  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELKRIDGE, MD 21075  
410.579.8100

NOT FOR CONSTRUCTION

STATE OF MARYLAND  
JUDICIAL A. CARROLL  
PROFESSIONAL ENGINEER

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

LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt

MEDICAL PAVILION

7190 DISCOVERY DRIVE  
ELKRIDGE, MARYLAND 21075  
HOWARD COUNTY

CORRIDOR 95 BUSINESS PARK - PARCEL A

ADDRESS CHART

LOT/PARCEL #	STREET ADDRESS
	MEDICAL PAVILION 7190 DISCOVERY DRIVE

SUBMISSION NAME: CORRIDOR 95 BUSINESS PARK SECTION/AREA: N/A LOT#: PARCEL NO. A/256

DATE OF L.F. (OR) RFP: 02/03/2022 TAX MAP ID: 0007 USE: CDD3 TRACT: 82236/22385

OWNER/DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N CHARLES STREET BALTIMORE, MARYLAND 21285-6815 TEL: 410-938-3242

REVISIONS:

NO.	DATE	COMMENTS

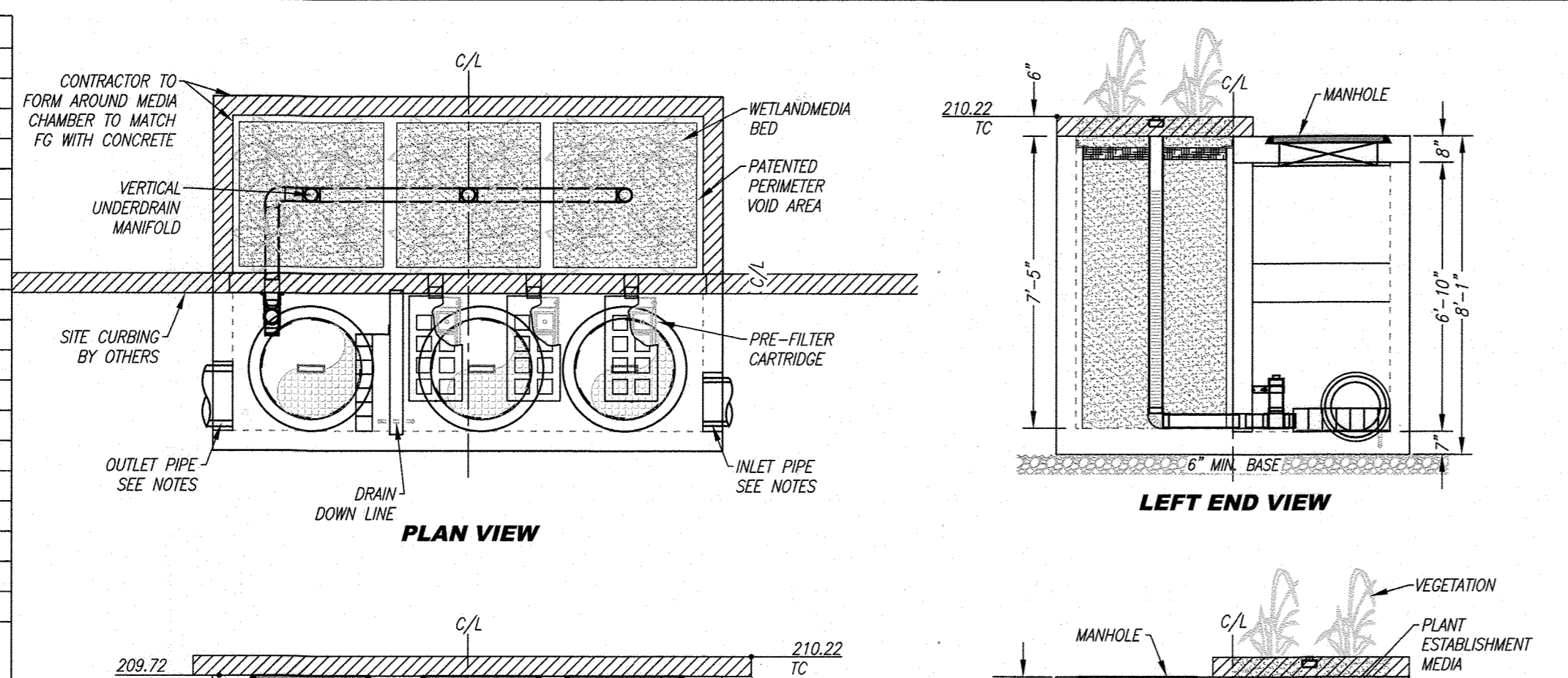
MCA JOB NO: 19002.01 PROJECT MANAGER: DWM SHEET BY: DWM

SHEET SET AND SHEET ISSUE DATE: SDP 5/21/2021

STORMWATER MANAGEMENT DETAILS

45 of 60  
SDP-20-057

SITE SPECIFIC DATA			
PROJECT NUMBER	11482		
PROJECT NAME	SHEPPARD PRATT		
PROJECT LOCATION	ELK RIDGE, MD		
STRUCTURE ID	MWS-1		
TREATMENT REQUIRED		FLOW BASED (CFS)	
VOLUME BASED (CF)	N/A		
TREATMENT HGL AVAILABLE (FT)	N/A		
PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE	N/A		
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	202.73	HDPE	12"
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE	202.23	HDPE	15"
PRETREATMENT		DISCHARGE	
RIM ELEVATION	SEE PLAN	VIEW	
SURFACE LOAD	H20	N/A	H20
FRAME & COVER	2EA #30"	OPEN PLANTER	#30"
WETLANDMEDIA VOLUME (CY)	11.27		
ORIFICE SIZE (DIA. INCHES)	#2.66"		



**INSTALLATION NOTES**

- CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
- UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT ENGINEER'S RECOMMENDED BASE SPECIFICATIONS. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATER TIGHT PER MANUFACTURER'S STANDARD CONNECTION DETAIL.
- CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL PIPES, RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
- VEGETATION SUPPLIED AND INSTALLED BY MANUFACTURER.
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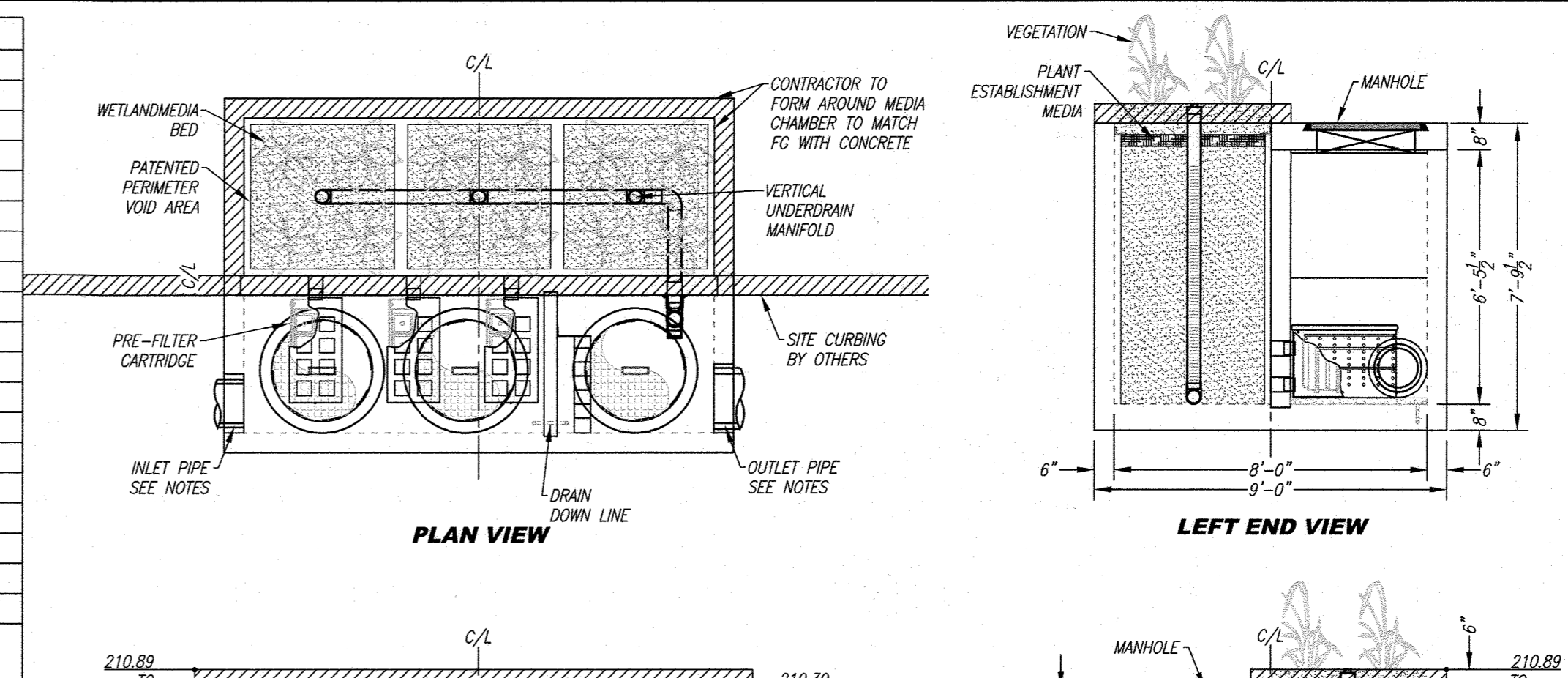
**GENERAL NOTES**

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- ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT BIO CLEAN.

MWS1	
TREATMENT FLOW (CFS)	0.346
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	2.0
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

**MWS-L-8-12-7'-5"-V**  
STORMWATER BIOFILTRATION SYSTEM  
STANDARD DETAIL

SITE SPECIFIC DATA			
PROJECT NUMBER	11482		
PROJECT NAME	SHEPPARD PRATT		
PROJECT LOCATION	ELK RIDGE, MD		
STRUCTURE ID	MWS-2		
TREATMENT REQUIRED		FLOW BASED (CFS)	
VOLUME BASED (CF)	N/A		
TREATMENT HGL AVAILABLE (FT)	N/A		
PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE	N/A		
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	203.70	RCP	12"
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE	203.20	HDPE	15"
PRETREATMENT		DISCHARGE	
RIM ELEVATION	SEE PLAN	VIEW	
SURFACE LOAD	H20	N/A	H20
FRAME & COVER	2EA #30"	OPEN PLANTER	#30"
WETLANDMEDIA VOLUME (CY)	10.81		
ORIFICE SIZE (DIA. INCHES)	#2.66"		



**INSTALLATION NOTES**

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- CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL PIPES, RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
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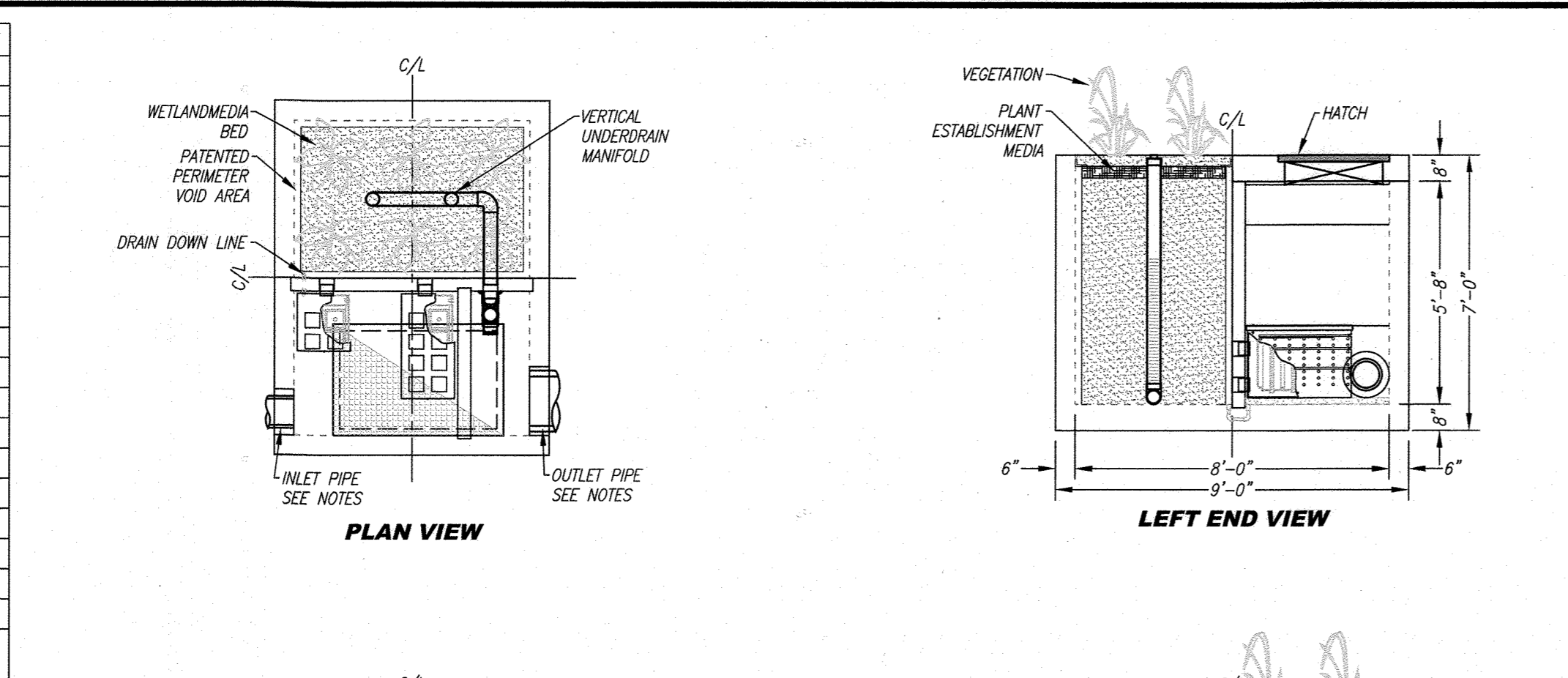
**GENERAL NOTES**

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MWS2	
TREATMENT FLOW (CFS)	0.346
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	2.0
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

**MWS-L-8-12-7'-1.5"-V**  
STORMWATER BIOFILTRATION SYSTEM  
STANDARD DETAIL

SITE SPECIFIC DATA			
PROJECT NUMBER	11482		
PROJECT NAME	SHEPPARD PRATT		
PROJECT LOCATION	ELK RIDGE, MD		
STRUCTURE ID	MWS-3		
TREATMENT REQUIRED		FLOW BASED (CFS)	
VOLUME BASED (CF)	N/A		
TREATMENT HGL AVAILABLE (FT)	N/A		
PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE	N/A		
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	201.50	HDPE	8"
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE	201.00	HDPE	15"
PRETREATMENT		DISCHARGE	
RIM ELEVATION	207.77	207.77	207.77
SURFACE LOAD	PEDESTRIAN	N/A	PEDESTRIAN
FRAME & COVER	30" X 48"	OPEN PLANTER	N/A
WETLANDMEDIA VOLUME (CY)	4.65		
ORIFICE SIZE (DIA. INCHES)	#1.73"		



**INSTALLATION NOTES**

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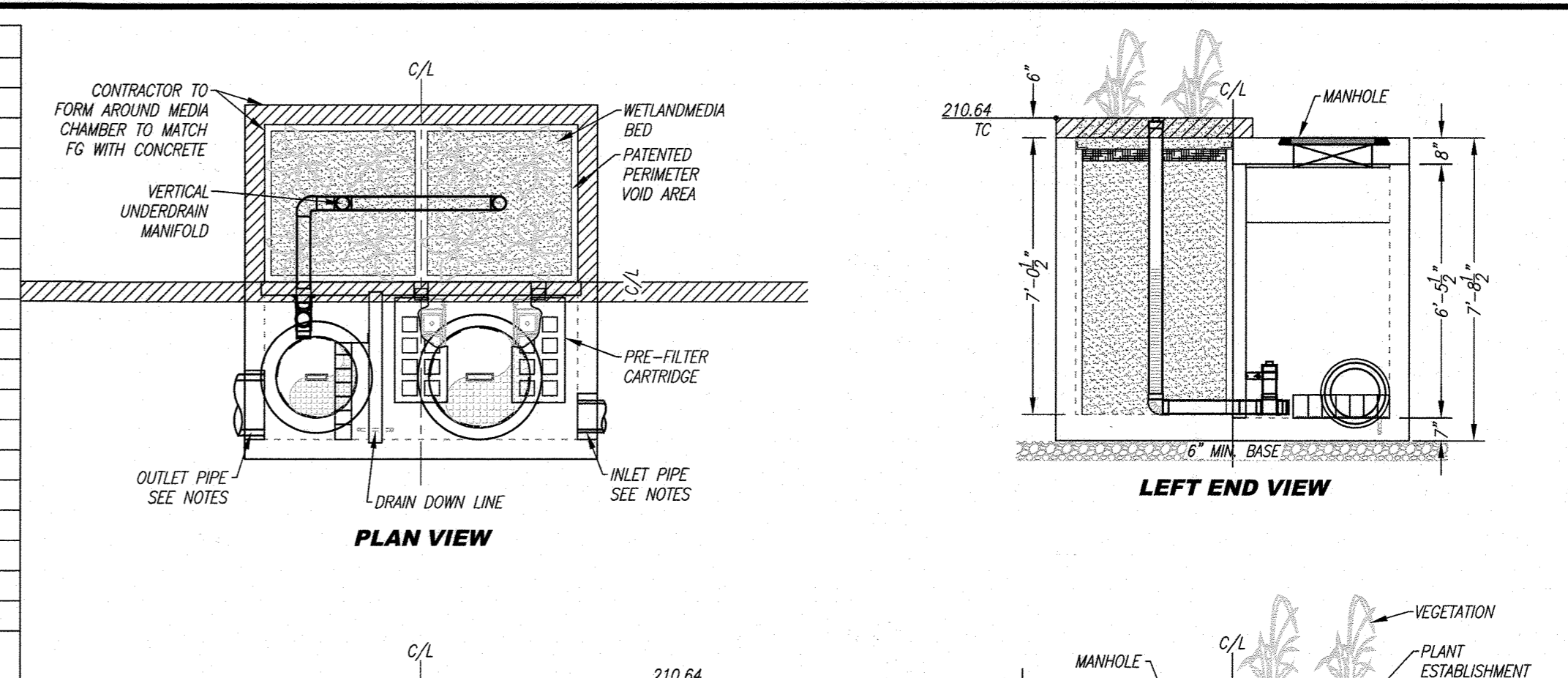
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MWS3	
TREATMENT FLOW (CFS)	0.147
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	1.7
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

**MWS-L-6-8-6'-4"-V**  
STORMWATER BIOFILTRATION SYSTEM  
STANDARD DETAIL

SITE SPECIFIC DATA			
PROJECT NUMBER	11482		
PROJECT NAME	SHEPPARD PRATT		
PROJECT LOCATION	ELK RIDGE, MD		
STRUCTURE ID	MWS-4		
TREATMENT REQUIRED		FLOW BASED (CFS)	
VOLUME BASED (CF)	N/A		
TREATMENT HGL AVAILABLE (FT)	N/A		
PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE	N/A		
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	203.53	HDPE	8"
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE	203.03	RCP	15"
PRETREATMENT		DISCHARGE	
RIM ELEVATION	SEE PLAN	VIEW	
SURFACE LOAD	H20	N/A	H20
FRAME & COVER	#30"	OPEN PLANTER	#24"
WETLANDMEDIA VOLUME (CY)	7.13		
ORIFICE SIZE (DIA. INCHES)	#2.17"		



**INSTALLATION NOTES**

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**GENERAL NOTES**

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MWS4	
TREATMENT FLOW (CFS)	0.231
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	2.0
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

**MWS-L-8-8-7'-0.5"-V**  
STORMWATER BIOFILTRATION SYSTEM  
STANDARD DETAIL

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 10-15-22  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 10/27/22  
DIRECTOR  
DATE: 10/27/22

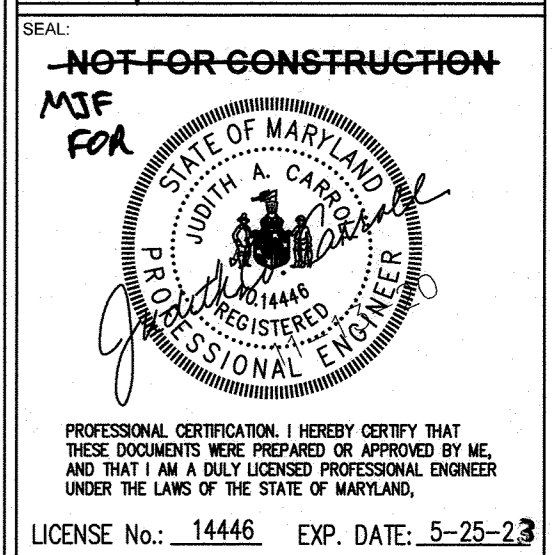
Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca-design.com

CIVIL ENGINEERING  
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LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELK RIDGE, MD 21075  
410.579.8100



Sheppard Pratt  
7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
CORRIDOR 95 BUSINESS PARK - PARCEL A

**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
CORRIDOR 95 BUSINESS PARK - PARCEL A

ADDRESS CHART			
LOT/PARCEL#	STREET ADDRESS		
MEDICAL PAVILION	7190 DISCOVERY DRIVE		
SUBDIVISION NAME	SECTION/AREA	LOT/ PARCEL NO.	LOT/ PARCEL AREA
CORRIDOR 95 BUSINESS PARK	N/A	N/A	A/6796
PLAT OR REF	ORIG	ZONING	USE
22384/22385	0023	M-1	0037
OWNER/DEVELOPER	SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N CHARLES STREET BALTIMORE, MARYLAND 21285-6815 TEL: 410-938-3242		

REVISIONS	
DATE:	COMMENTS:

MCA JOB NO. 19002.01  
PROJ MANAGER: SDP  
SHEET BY: DWM  
SHEET SET AND SHEET ISSUE DATE: 11/13/2020  
SHEET NAME: MODULAR WETLANDS SYSTEMS DETAILS  
MWS1 - MWS4  
SHEET NO. 46 of 60



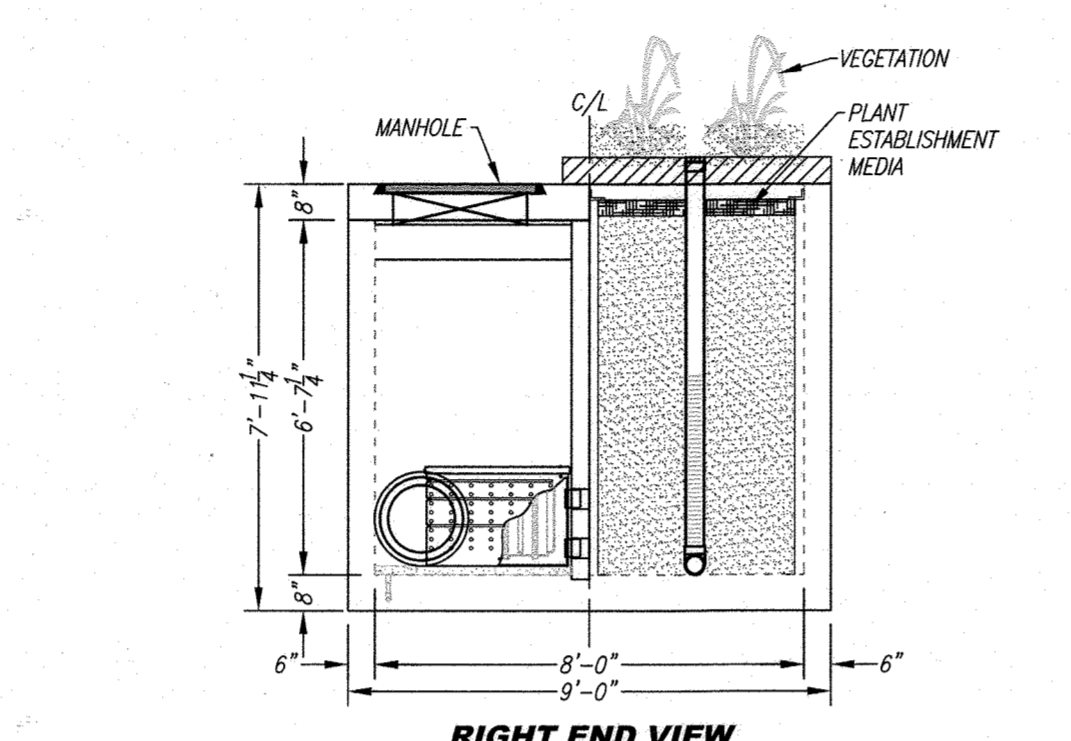
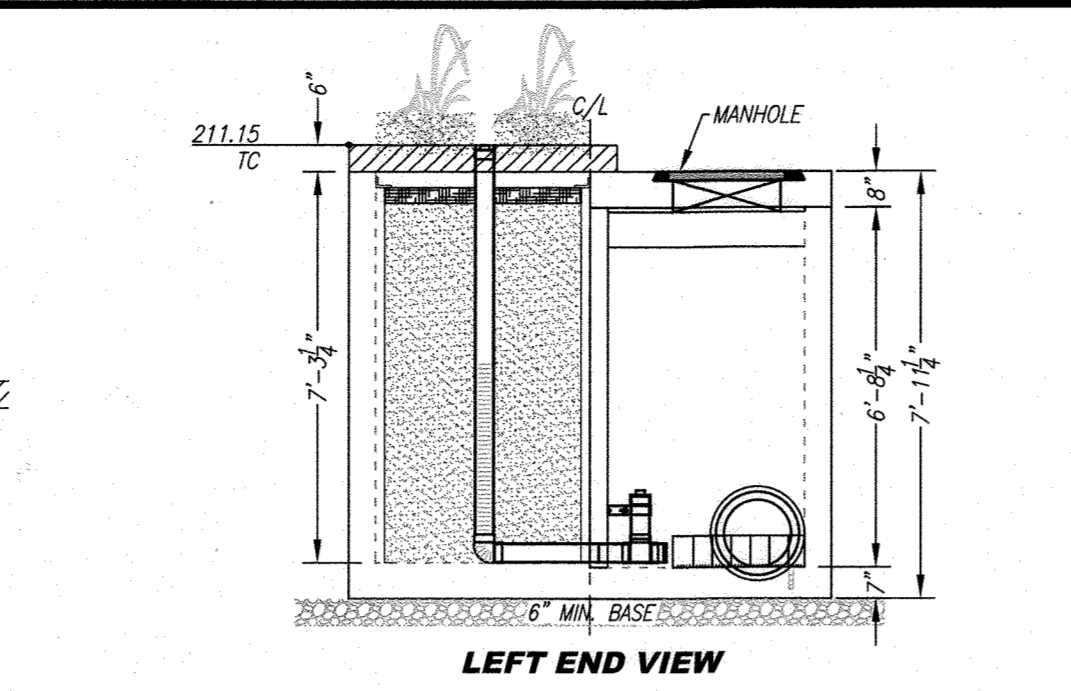
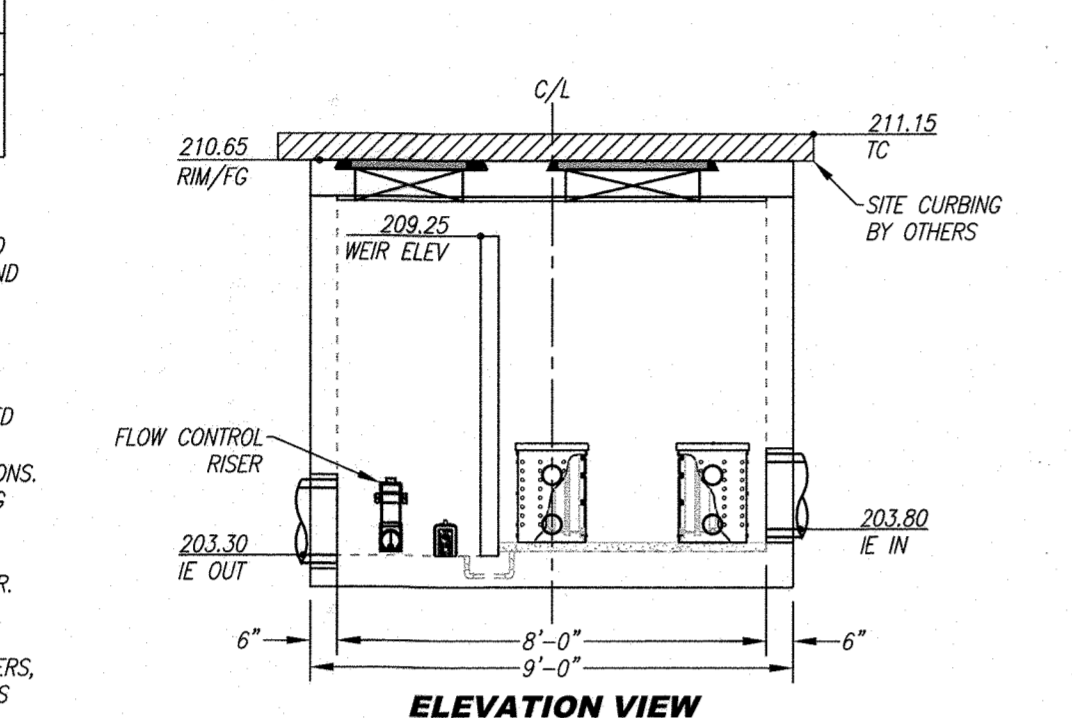
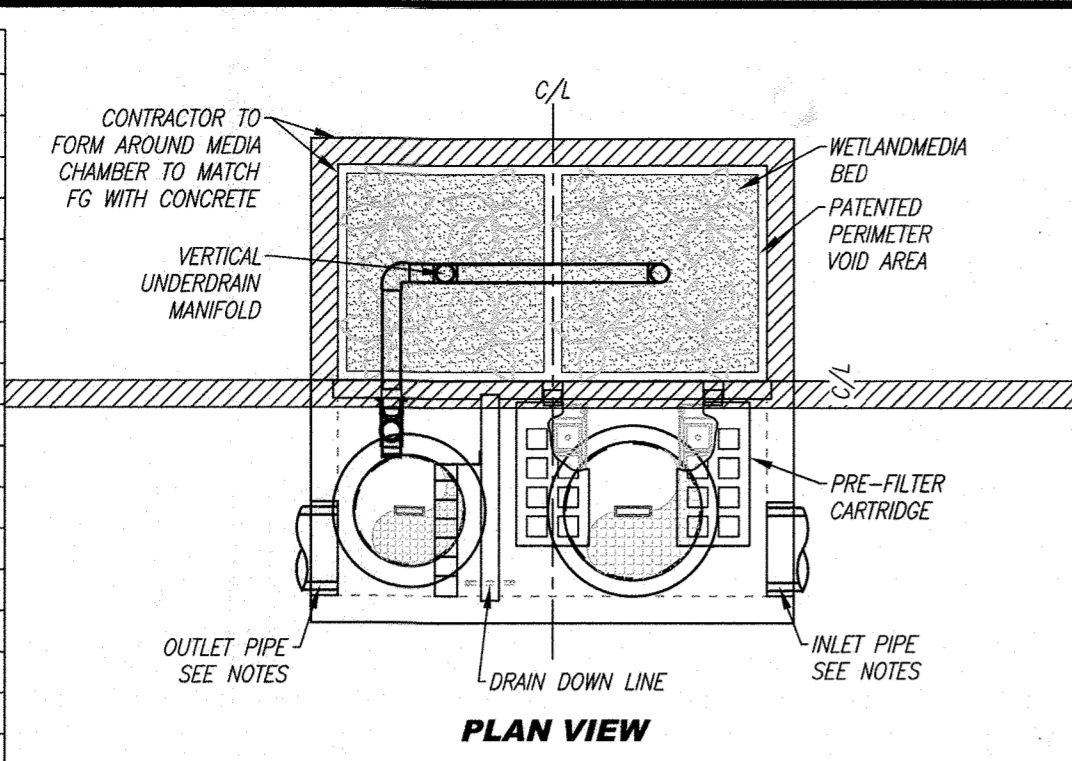
SITE SPECIFIC DATA			
PROJECT NUMBER	11482		
PROJECT NAME	SHEPPARD PRATT		
PROJECT LOCATION	ELKBRIDGE, MD		
STRUCTURE ID	MWS-9		
TREATMENT REQUIRED			
VOLUME BASED (CF)	FLOW BASED (CFS)		
N/A	0.231		
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE	N/A		
PIPE DATA			
I.E.	MATERIAL	DIAMETER	
INLET PIPE 1	203.80	HDPE	15"
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE	203.30	RCP	15"
PRETREATMENT BIOFILTRATION DISCHARGE			
RIM ELEVATION	SEE	PLAN	VIEW
SURFACE LOAD	H20	N/A	H20
FRAME & COVER	#30"	OPEN PLANTER	#24"
WETLANDMEDIA VOLUME (CY)	7.37		
ORIFICE SIZE (DIA. INCHES)	#2.17"		

**INSTALLATION NOTES**

- CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
- UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT ENGINEER'S RECOMMENDED BASE SPECIFICATIONS.
- CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATER TIGHT PER MANUFACTURER'S STANDARD CONNECTION DETAIL.
- CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL PIPES, RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
- VEGETATION SUPPLIED AND INSTALLED BY MANUFACTURER.
- CONTRACTOR RESPONSIBLE FOR CONTACTING BIO CLEAN FOR ACTIVATION OF UNIT. MANUFACTURER'S WARRANTY IS VOID WITHOUT PROPER ACTIVATION BY A BIO CLEAN REPRESENTATIVE.

**GENERAL NOTES**

- MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT BIO CLEAN.



MWS9	
TREATMENT FLOW (CFS)	0.231
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	2.0
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

**MWS-L-8-8-7'-3.2"-V**  
STORMWATER BIOFILTRATION SYSTEM  
STANDARD DETAIL

PROPRIETARY AND CONFIDENTIAL: THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE SOLE PROPERTY OF FORTERRA AND ITS COMPANIES. THIS DOCUMENT, IN WHOLE OR IN PART, THEREOF, MAY BE USED, REPRODUCED OR MOIFIED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF FORTERRA.



A Forterra Company

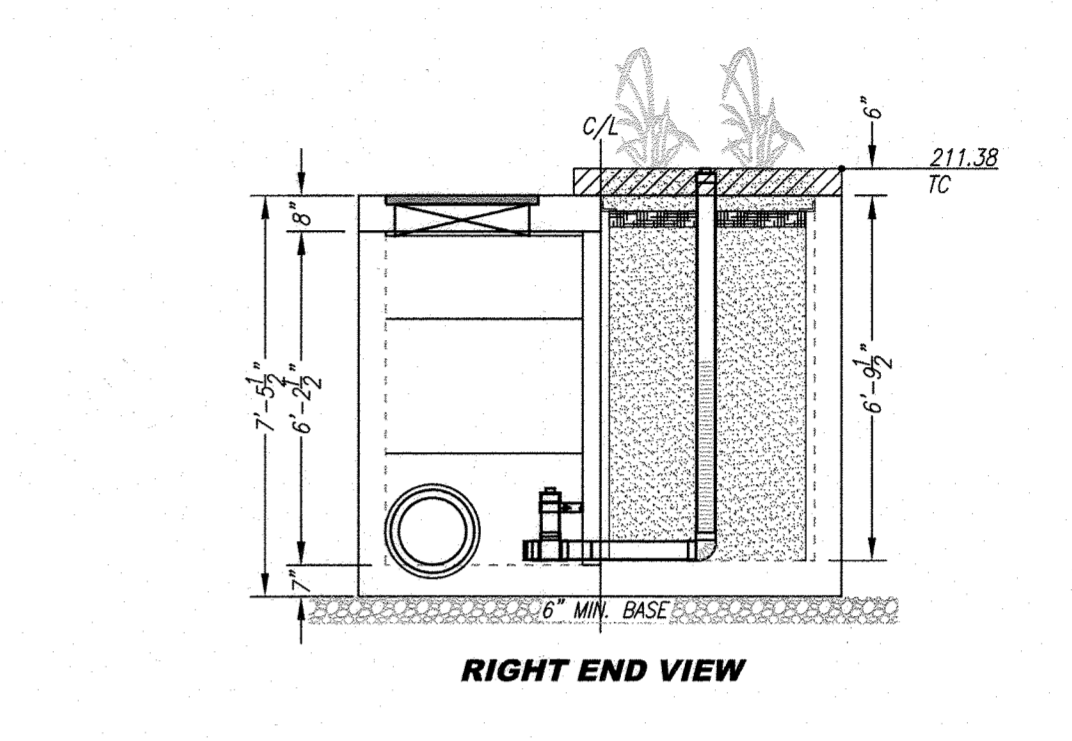
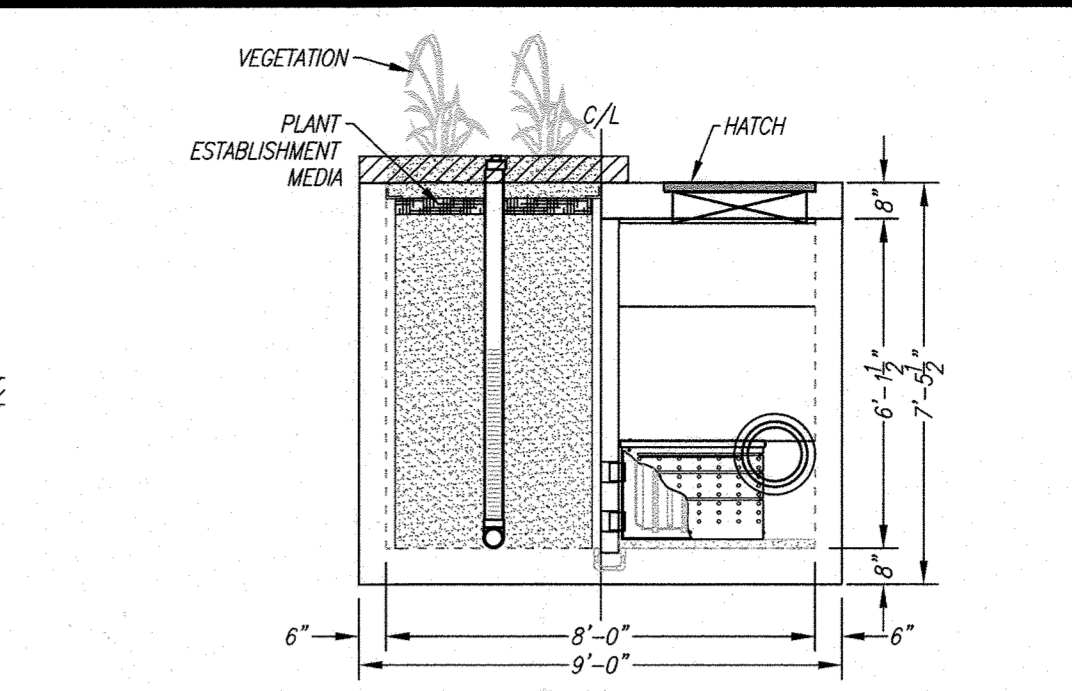
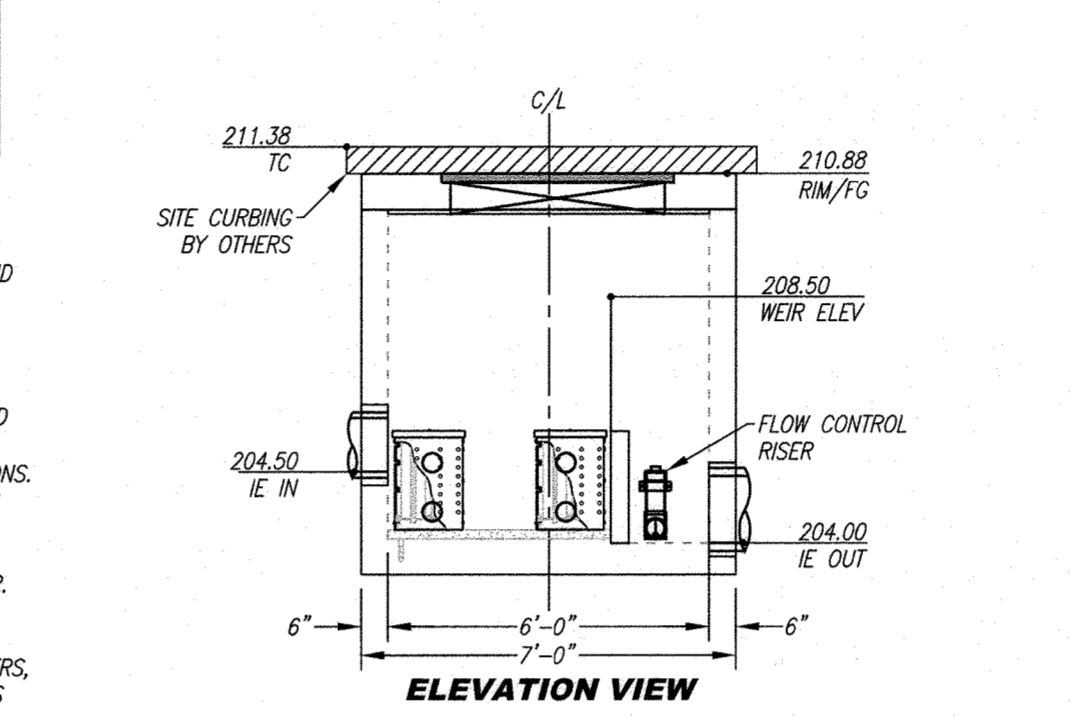
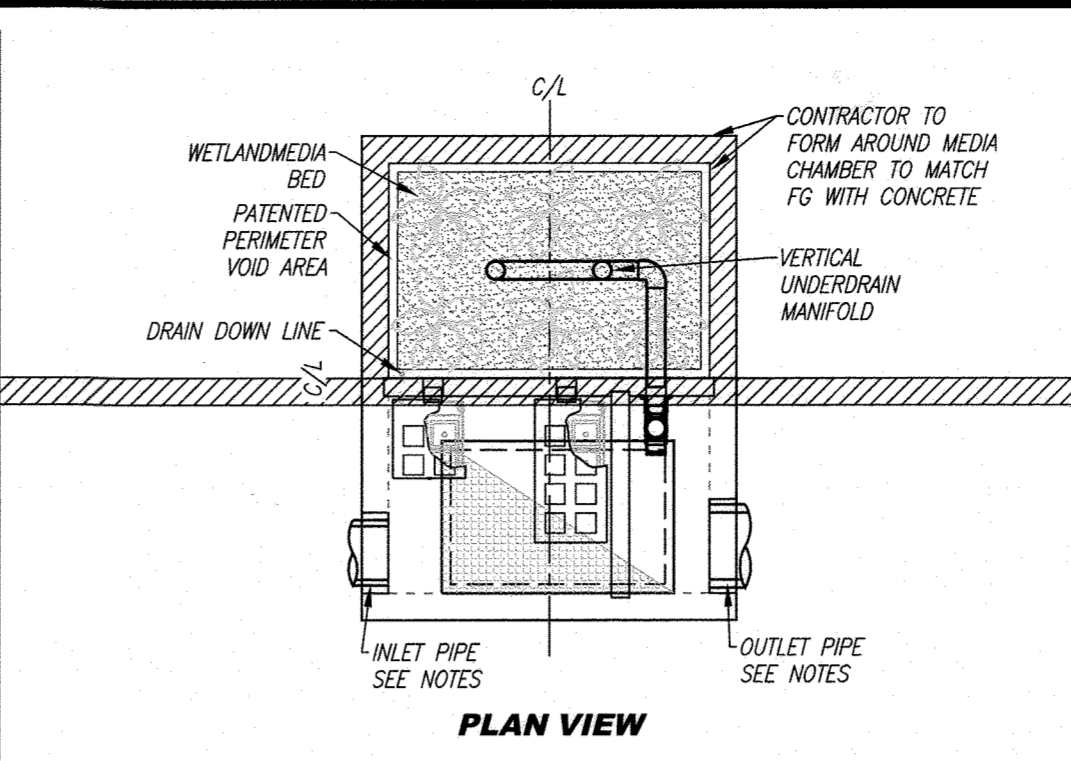
SITE SPECIFIC DATA			
PROJECT NUMBER	11482		
PROJECT NAME	SHEPPARD PRATT		
PROJECT LOCATION	ELKBRIDGE, MD		
STRUCTURE ID	MWS-10		
TREATMENT REQUIRED			
VOLUME BASED (CF)	FLOW BASED (CFS)		
N/A	0.147		
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE	N/A		
PIPE DATA			
I.E.	MATERIAL	DIAMETER	
INLET PIPE 1	204.50	RCP	12"
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE	204.00	RCP	15"
PRETREATMENT BIOFILTRATION DISCHARGE			
RIM ELEVATION	SEE	PLAN	VIEW
SURFACE LOAD	H20	N/A	H20
FRAME & COVER	30" X 48"	OPEN PLANTER	N/A
WETLANDMEDIA VOLUME (CY)	5.31		
ORIFICE SIZE (DIA. INCHES)	#1.73"		

**INSTALLATION NOTES**

- CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
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- CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL PIPES, RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
- VEGETATION SUPPLIED AND INSTALLED BY MANUFACTURER.
- CONTRACTOR RESPONSIBLE FOR CONTACTING BIO CLEAN FOR ACTIVATION OF UNIT. MANUFACTURER'S WARRANTY IS VOID WITHOUT PROPER ACTIVATION BY A BIO CLEAN REPRESENTATIVE.

**GENERAL NOTES**

- MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT BIO CLEAN.



MWS10	
TREATMENT FLOW (CFS)	0.147
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	1.7
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

**MWS-L-6-8-6'-9.6"-V**  
STORMWATER BIOFILTRATION SYSTEM  
STANDARD DETAIL

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A Forterra Company

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
10-15-22  
DATE  
10/27/22  
DATE  
10/27/22  
DATE

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca.design

CIVIL ENGINEERING  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

LANDSCAPE DESIGN  
SITE RESOURCES, INC.  
14315 JARRETTSVILLE PIKE  
PHOENIX, MD 21131  
410.683.3888

STRUCTURAL ENGINEERING  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

MEP ENGINEERING  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWRIDGE RD #1  
ELKBRIDGE, MD 21075  
410.579.8100

NOT FOR CONSTRUCTION  
MJP  
RJR  
PROFESSIONAL ENGINEER  
LICENSE No.: 14446 EXP. DATE: 5-25-23

Sheppard Pratt

SHEPPARD PRATT  
**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELKBRIDGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCEL A

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.			
CORRIDOR 95 BUSINESS PARK	N/A	4-0709			
PLAT# OR L/F	GRID	ZONING	TAX MAP	ELECT DESK.	CENSUS TRACT
22384/22385	0023	M-1	0037	141 E.D.	6012.03

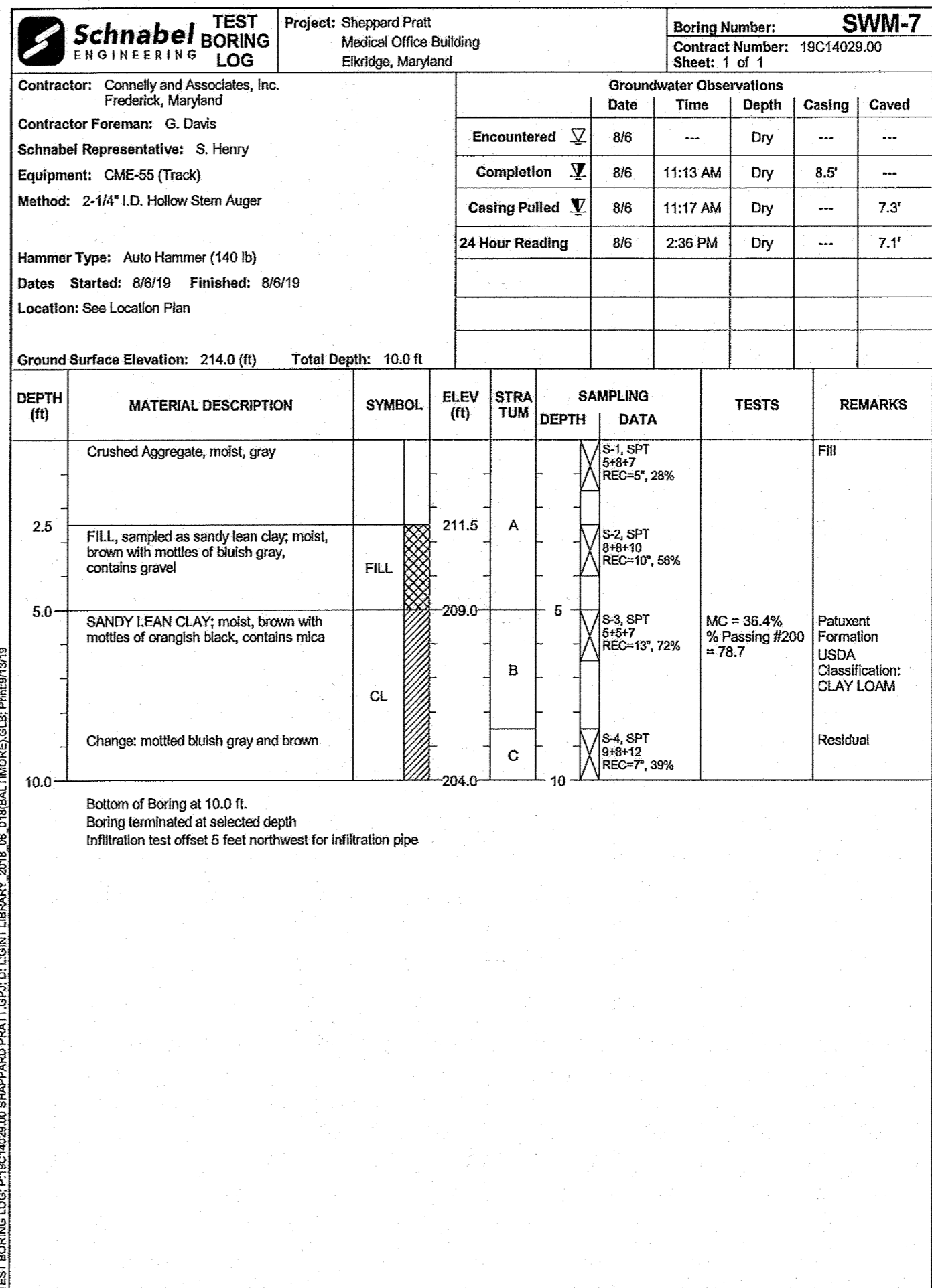
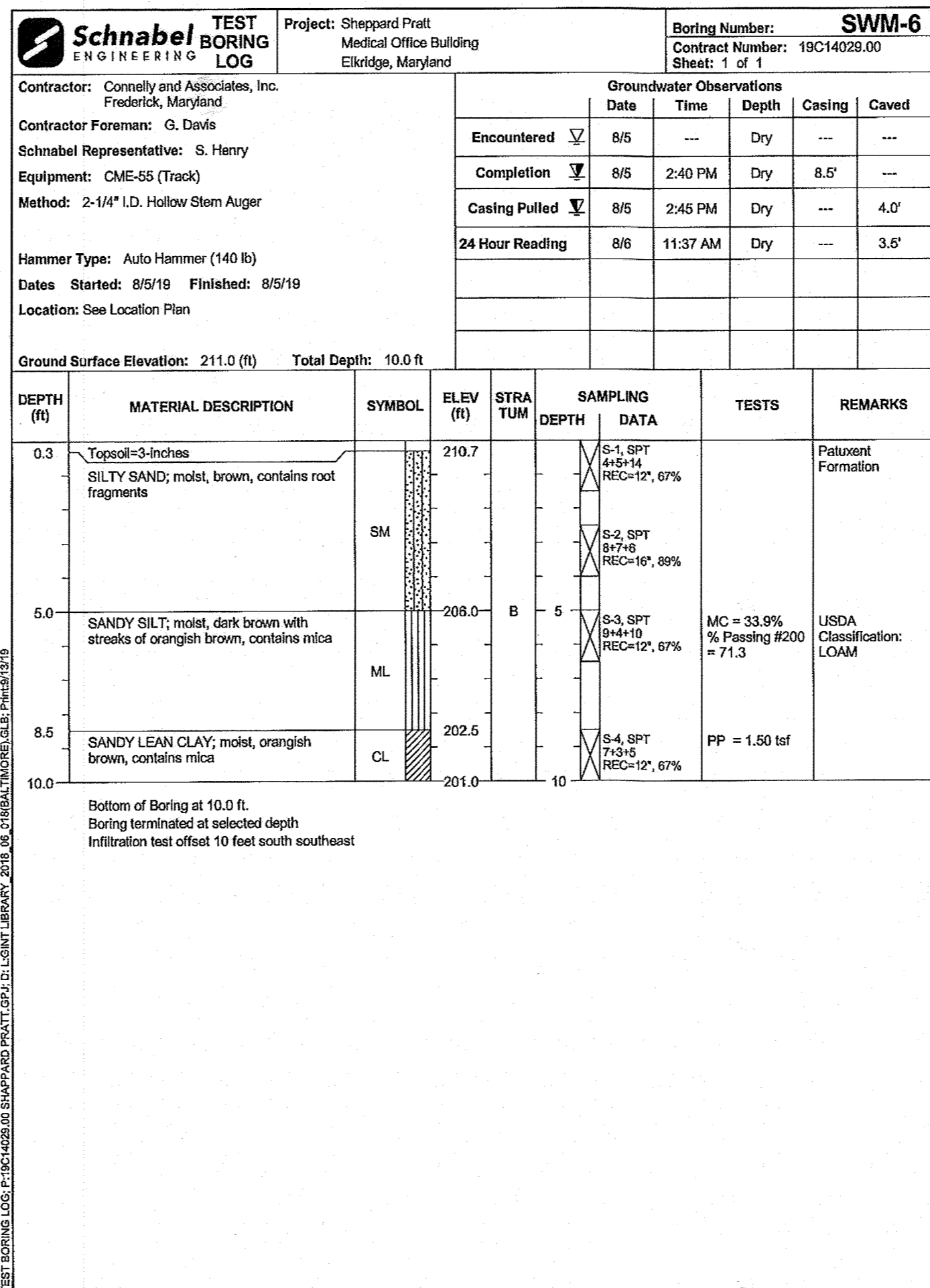
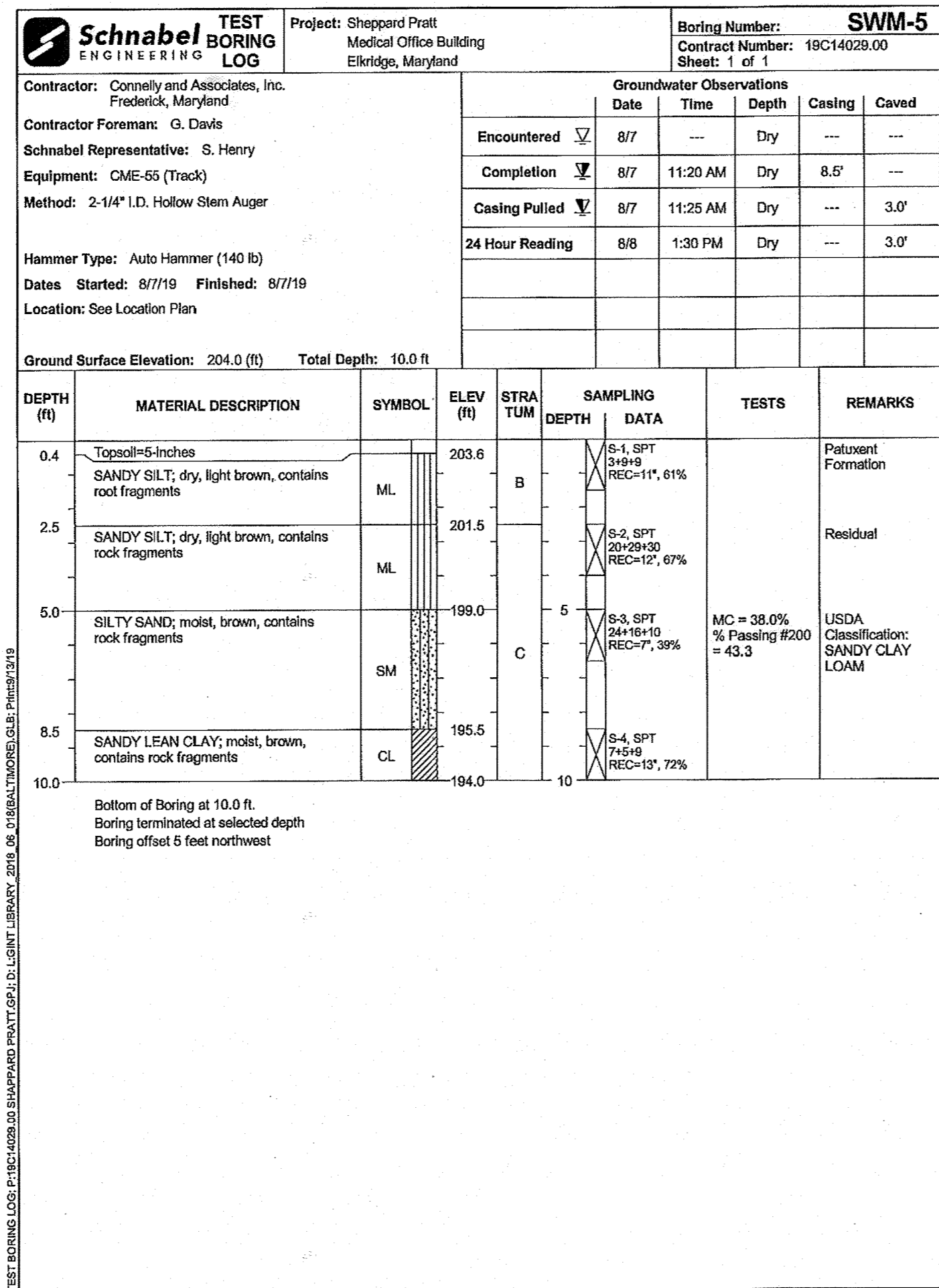
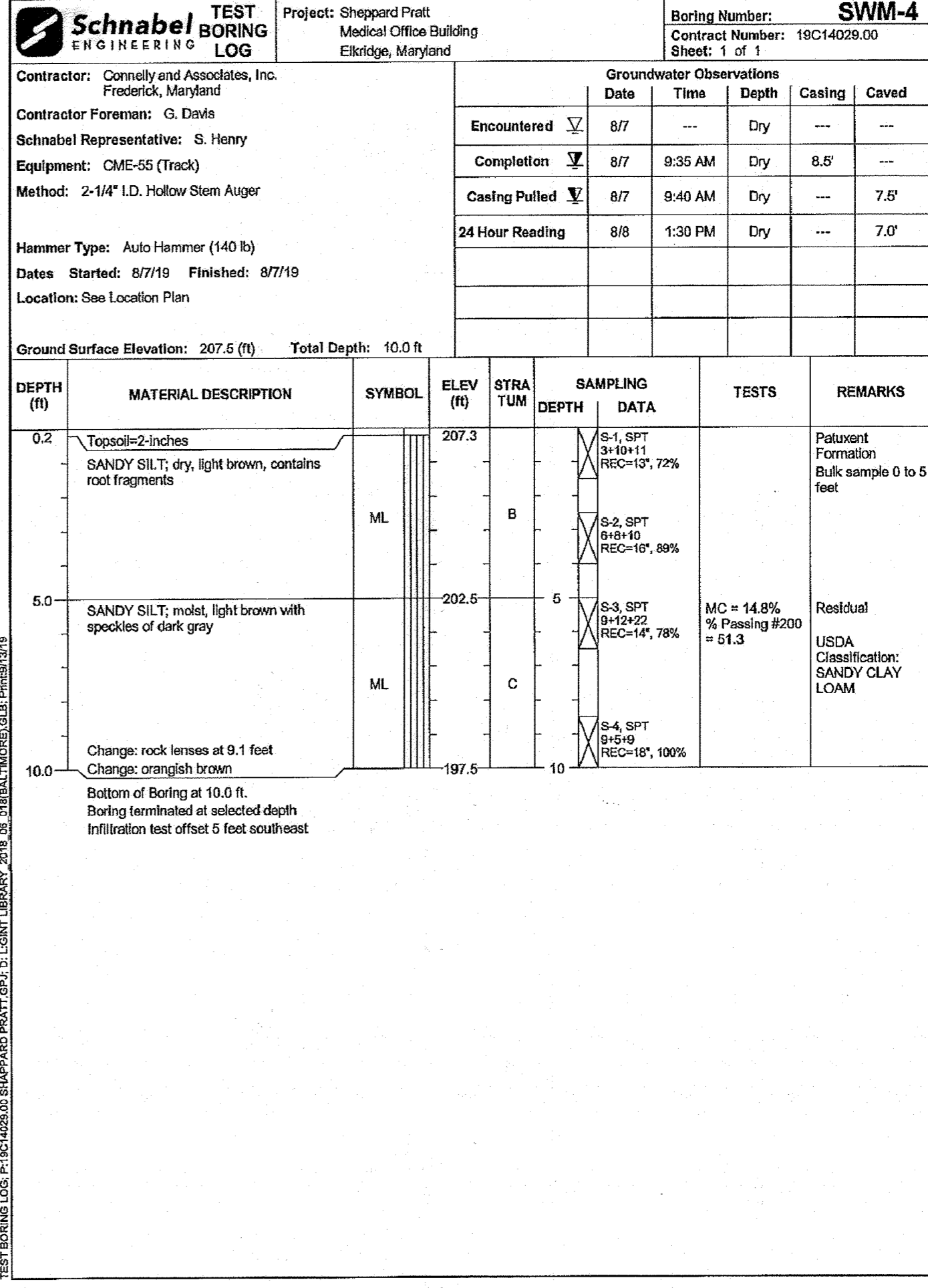
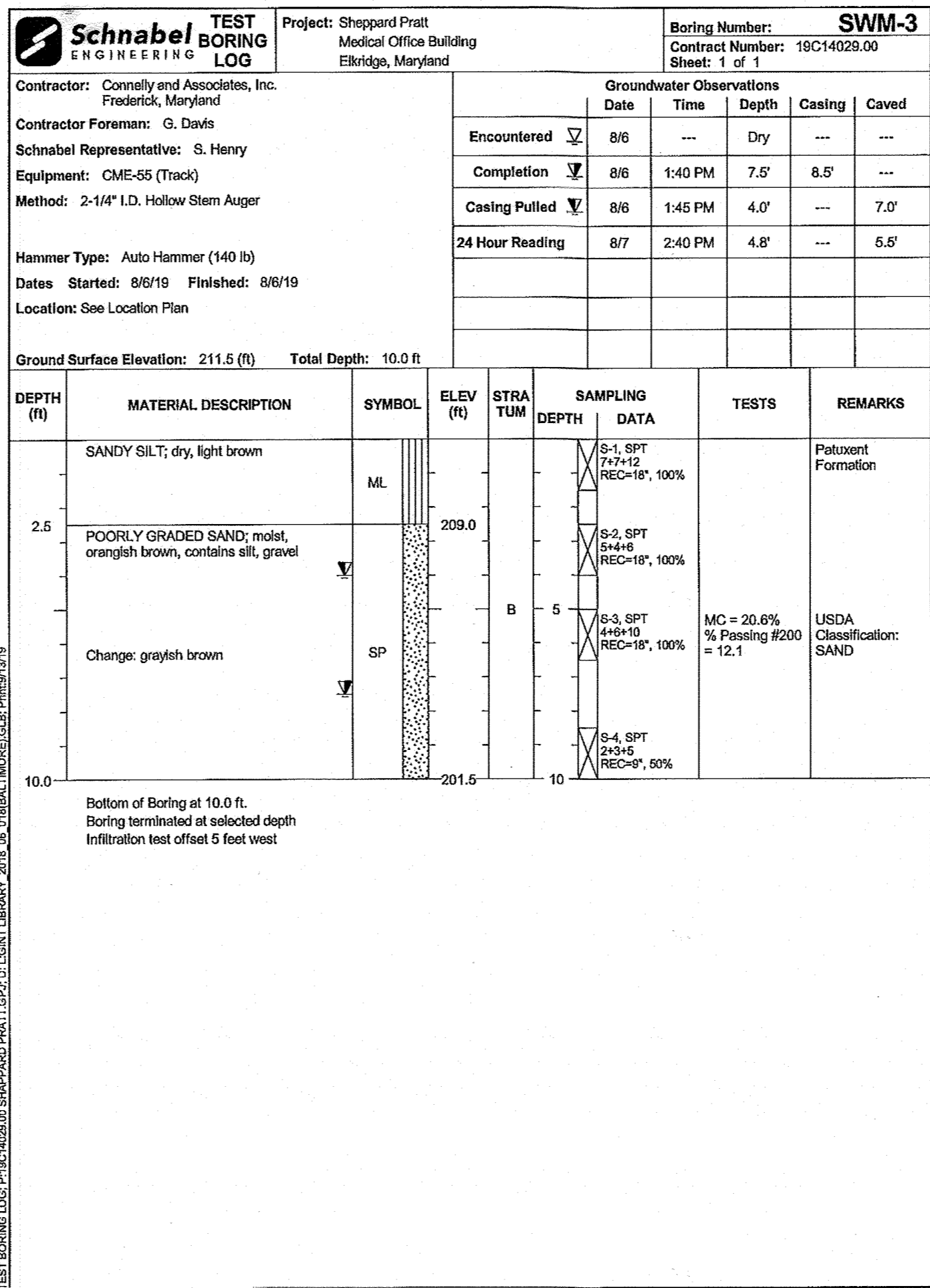
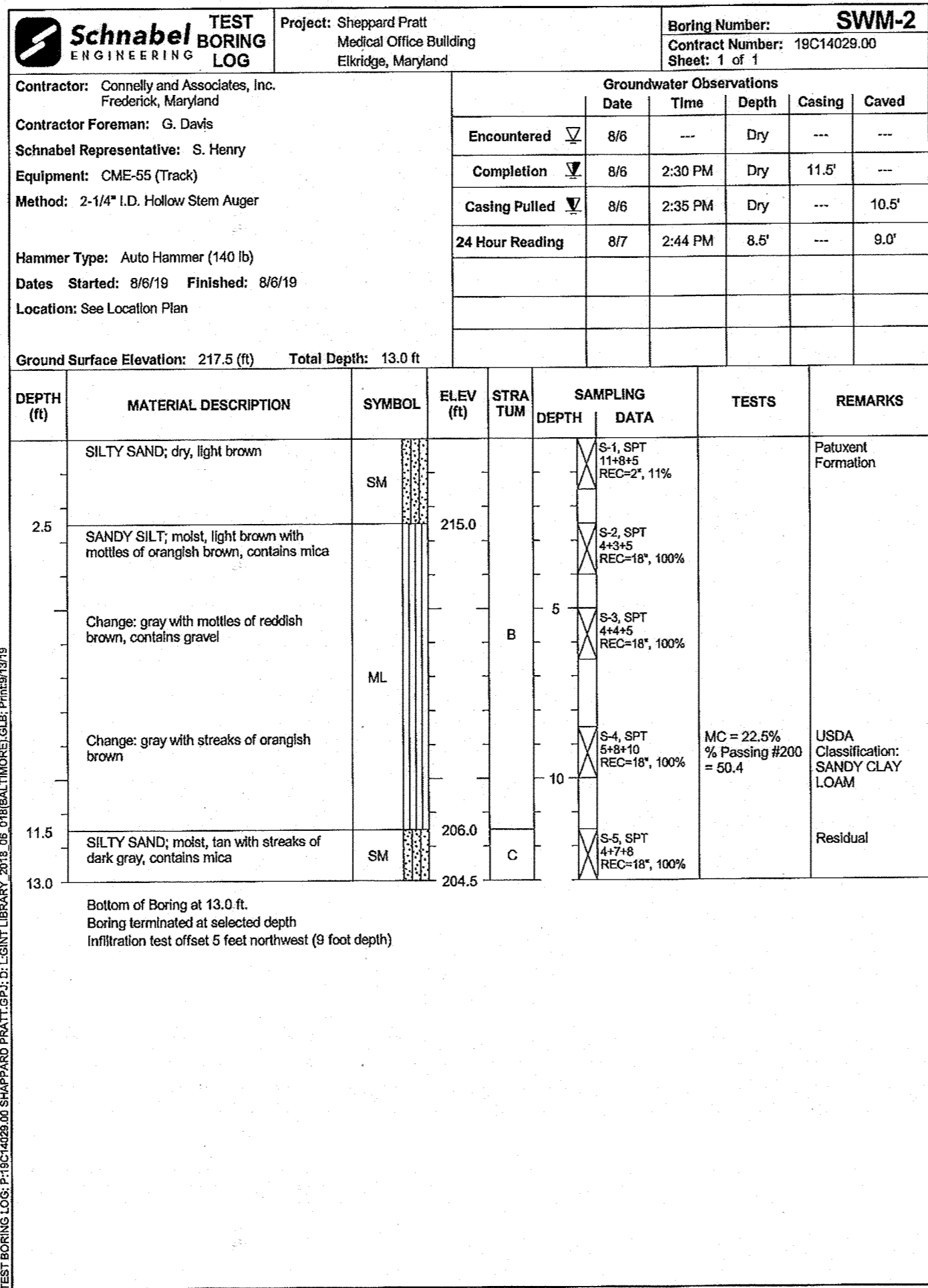
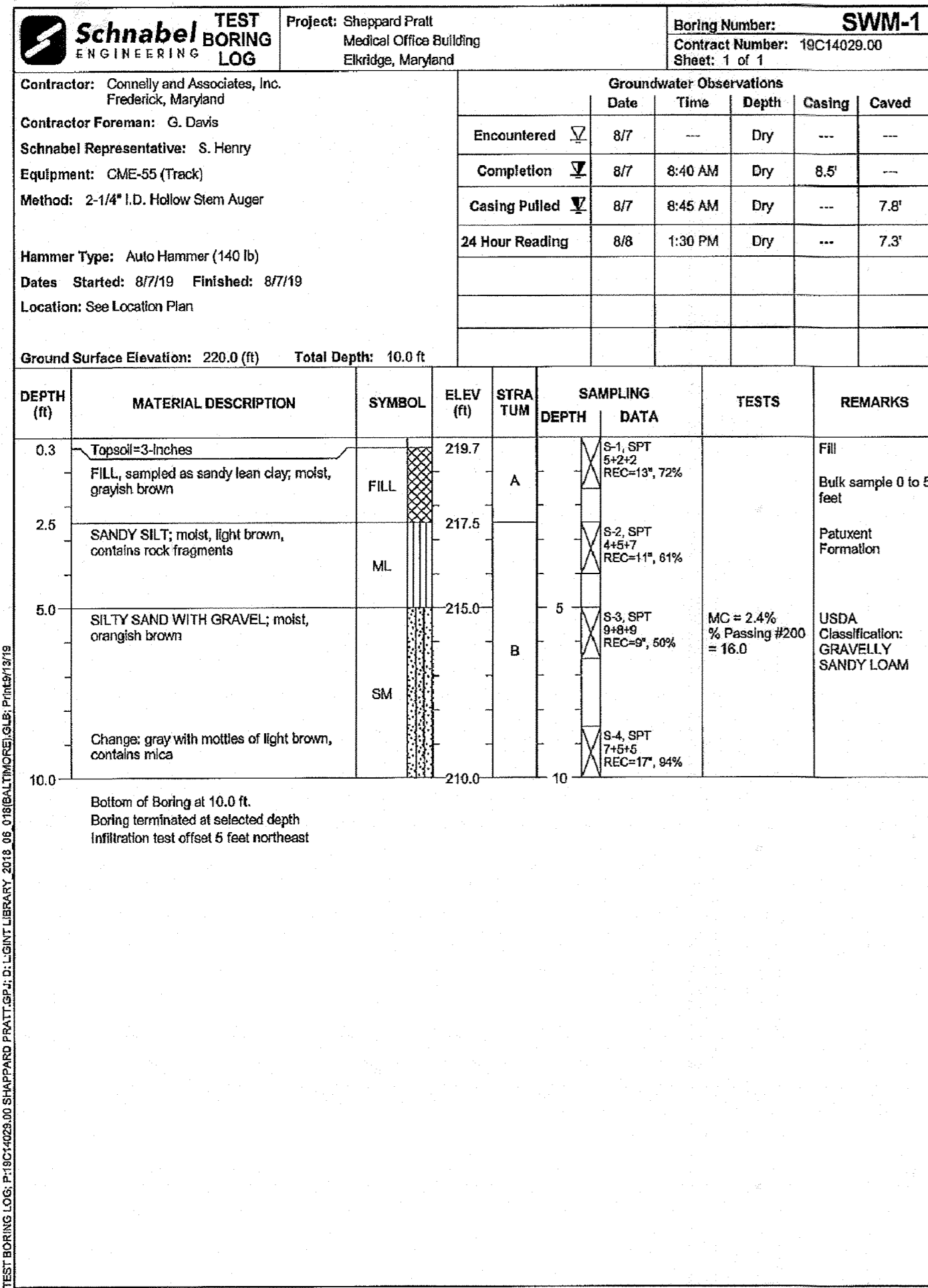
OWNER/DEVELOPER  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

REVISIONS:

DATE	COMMENTS

MCA JOB NO. 19002.01 PROJ.MANAGER: DWM SHEET BY: DWM  
SHEET SET AND SHEET ISSUE DATE: 11/13/2020  
SDF  
SHEET NAME: MODULAR WETLANDS SYSTEMS DETAILS MWS9 - MWS10  
SHEET NO. 48 of 60





APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
10/15/22  
DATE  
10/27/22  
DATE  
10/27/22  
DATE

**MCA ARCHITECTURE**  
Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca.design

**CIVIL ENGINEERING**  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**LANDSCAPE DESIGN**  
SITE RESOURCES, INC.  
14315 JARRETTVILLE PIKE  
PHOENIX, MD 21131  
410.683.3388

**STRUCTURAL ENGINEERING**  
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215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**MEP ENGINEERING**  
LEACH WALLACE ASSOC. INC.  
6522 MEADOWRIDGE RD #1  
ELKTRIDGE, MD 21075  
410.579.8100

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
LICENSE No.: 14446 EXP. DATE: 5-25-23

NOT FOR CONSTRUCTION  
MTP  
For

PROFESSIONAL ENGINEER  
SHEPPARD PRATT  
7190 DISCOVERY DRIVE  
ELKTRIDGE, MARYLAND 21075  
CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

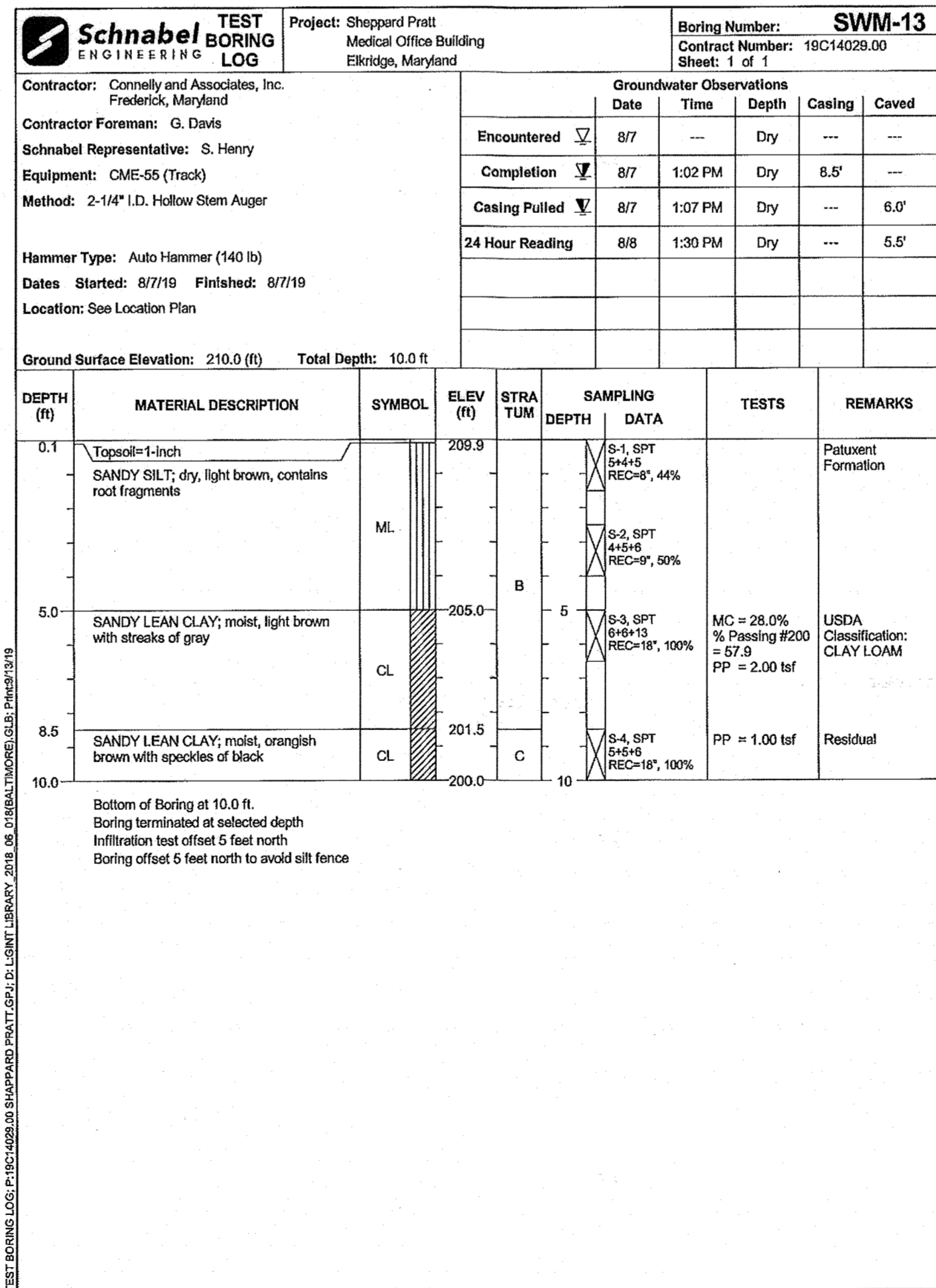
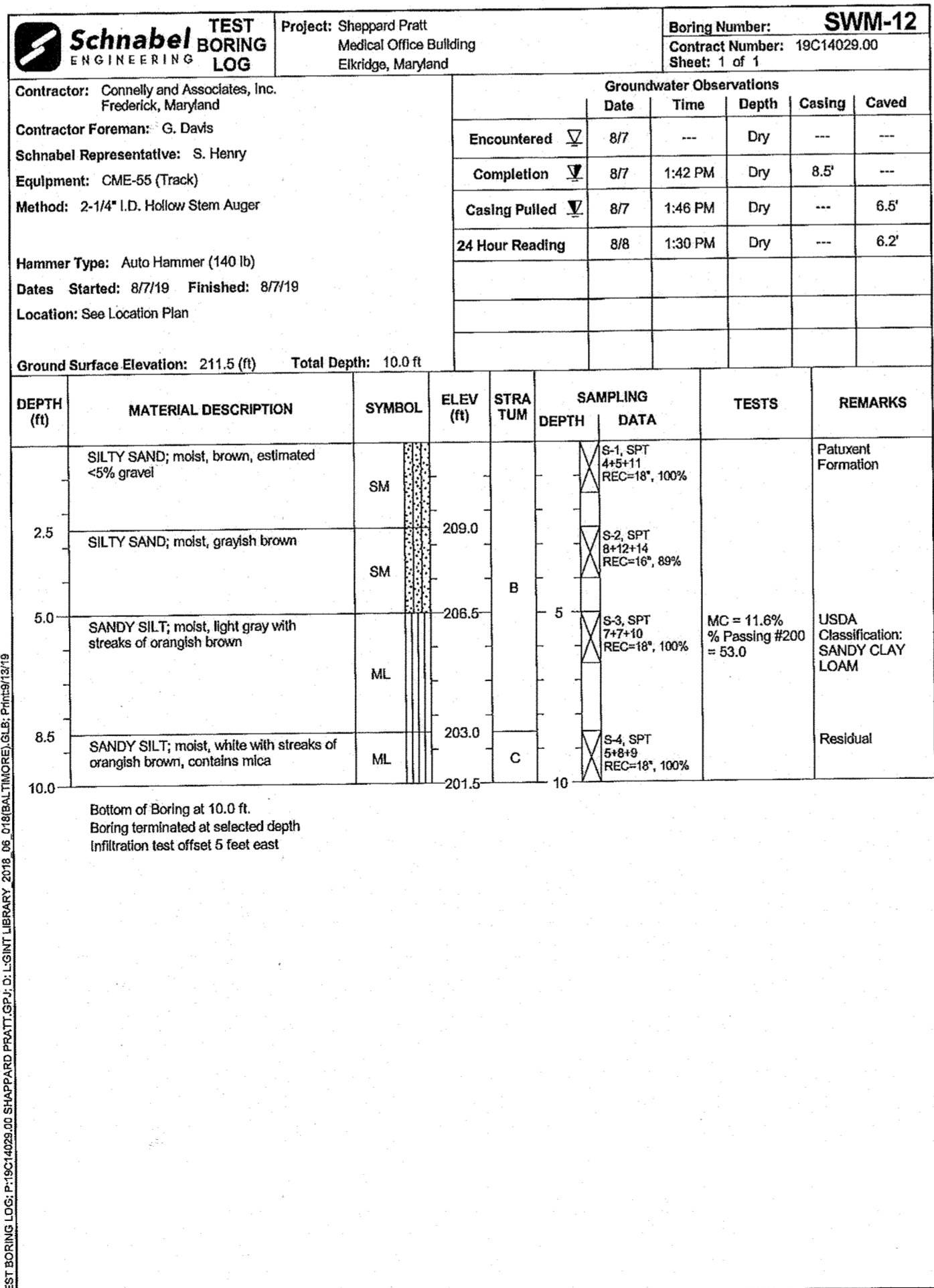
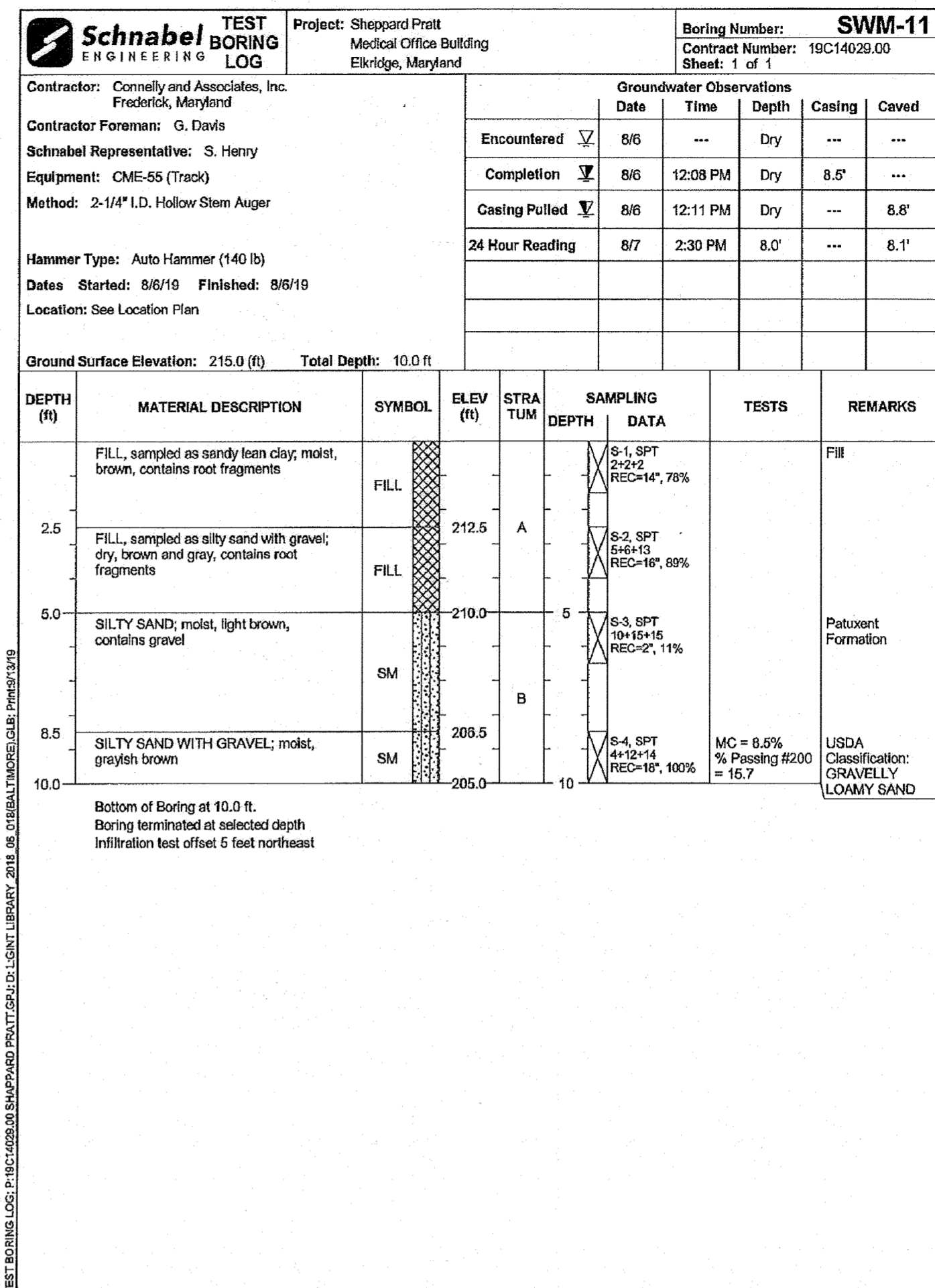
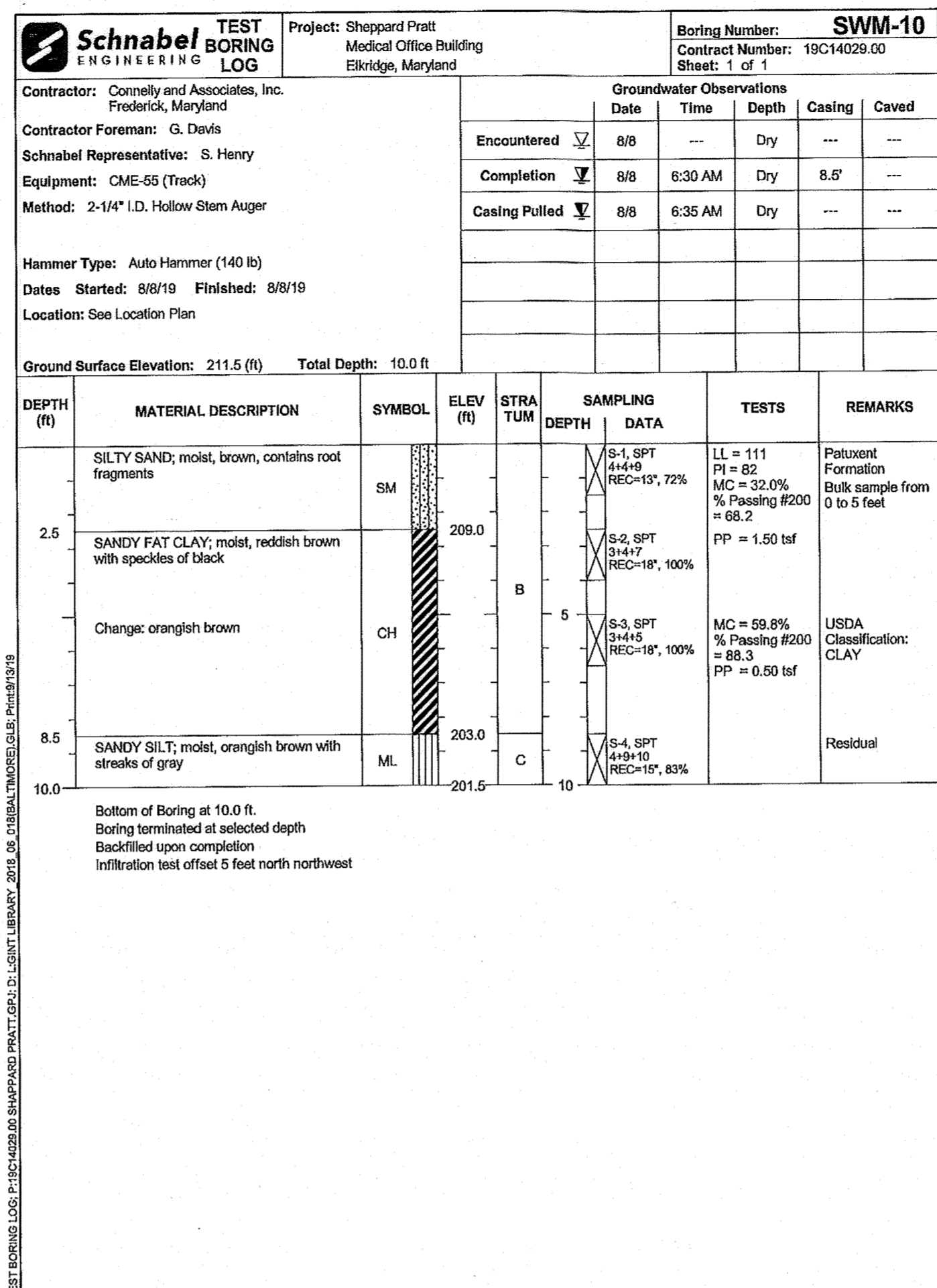
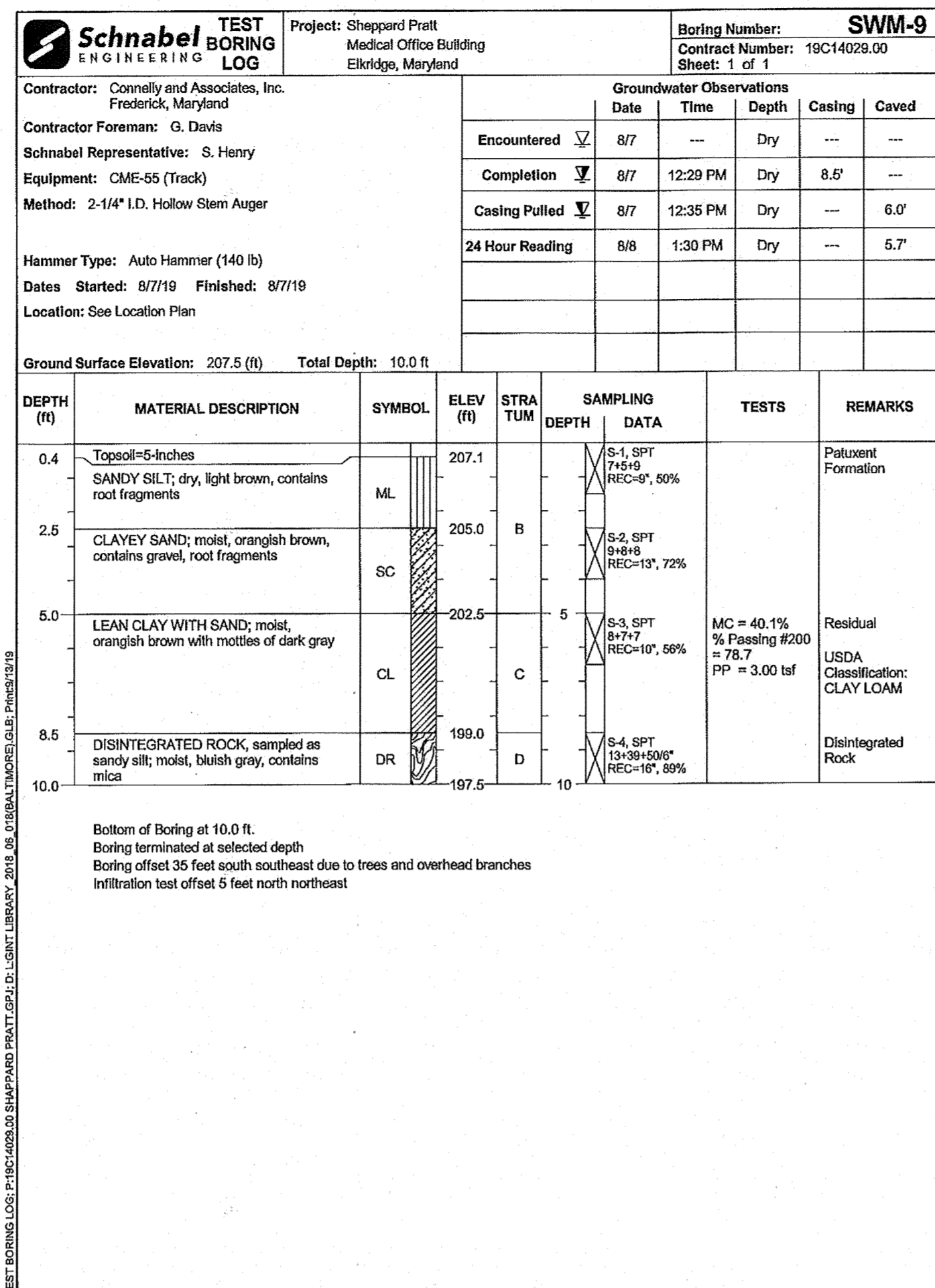
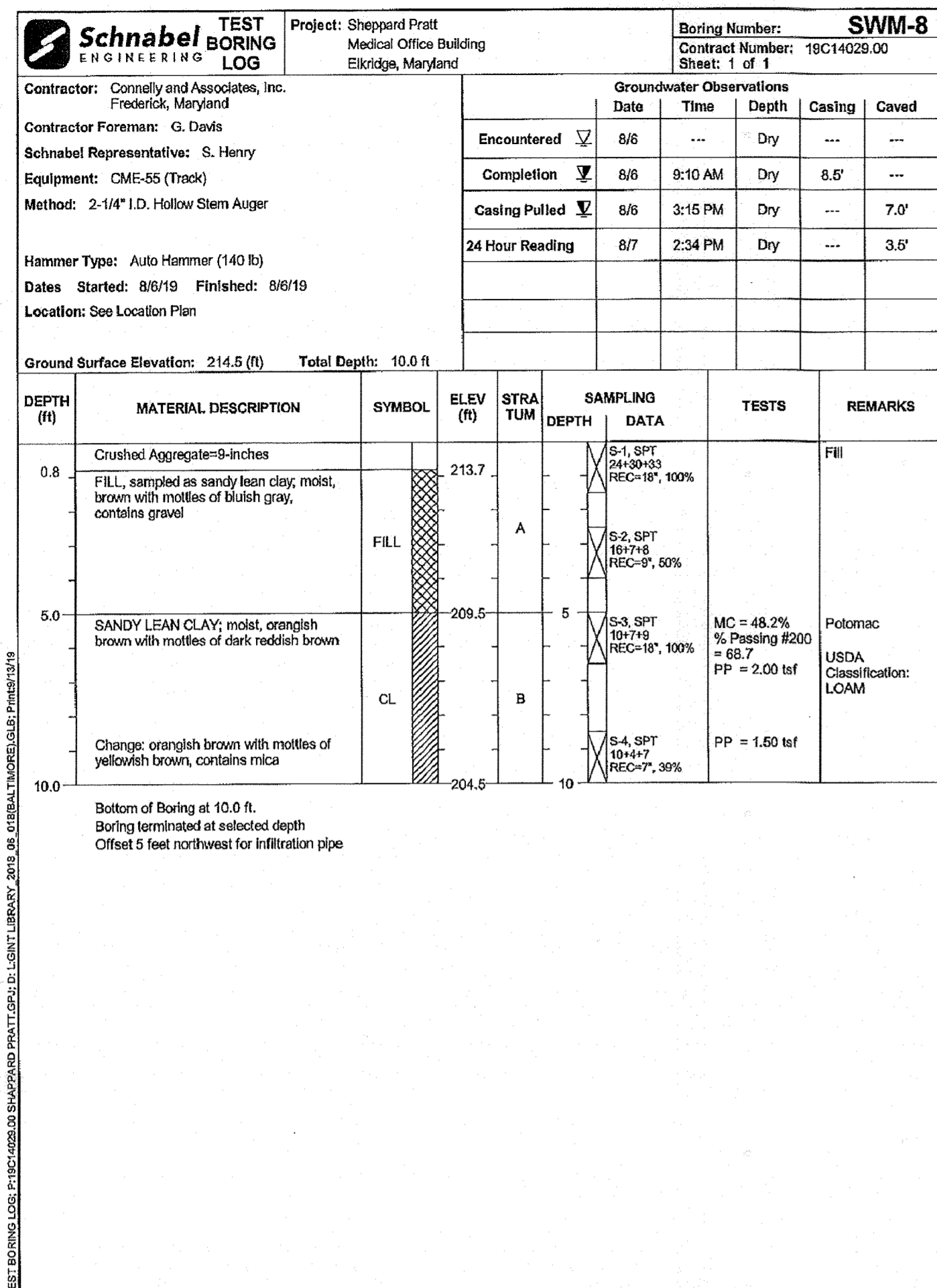
LOT/PARCEL #	STREET ADDRESS
7190	DISCOVERY DRIVE

SUBDIVISION NAME	SECTION/AREA	LOT/ PARCEL NO.			
CORRIDOR 95 BUSINESS PARK	N/A	410798			
PLAT OR L/P	GRID	ZONING	TAX MAP	ELECT. SECT.	CENSUS TRACT
22384/22385	0023	M-1	0037	MI E.D.	6012.03

OWNER/DEVELOPER  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

REVISIONS:  
DATE: COMMENTS:

MCA JOB NO. 19002 01 PROJ. MANAGER: DWDM SHEET BY: DWDM  
SHEET SET AND SHEET ISSUE DATE: SDP 11/13/2020  
SHEET NAME:  
**SOIL BORINGS**



APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
DATE: 10/15/22  
DATE: 10/27/22  
DATE: 10/27/22

**MCA ARCHITECTURE**

**Marshall Craft Associates, Inc.**  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca.design

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215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

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SITE RESOURCES, INC.  
14315 JARRETTSVILLE PIKE  
PHOENIX, MD 21131  
410.683.3388

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215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**MEP ENGINEERING**  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELK RIDGE, MD 21075  
410.579.8100

**NOT FOR CONSTRUCTION**

**MJP FOR**

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

LICENSE No.: 14446 EXP. DATE: 5-25-23

**Sheppard Pratt**

**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME: CORRIDOR 95 BUSINESS PARK SECTION/AREA: N/A LOT/PARCEL NO.: A/0736  
FLAT/ OR L/P: 22384/22385 ORDF: 0023 ZONING: M-1 LID MAP#: 0037 ELECT. DIST.: 1st E.D. CENSUS TRACT: 8012.03

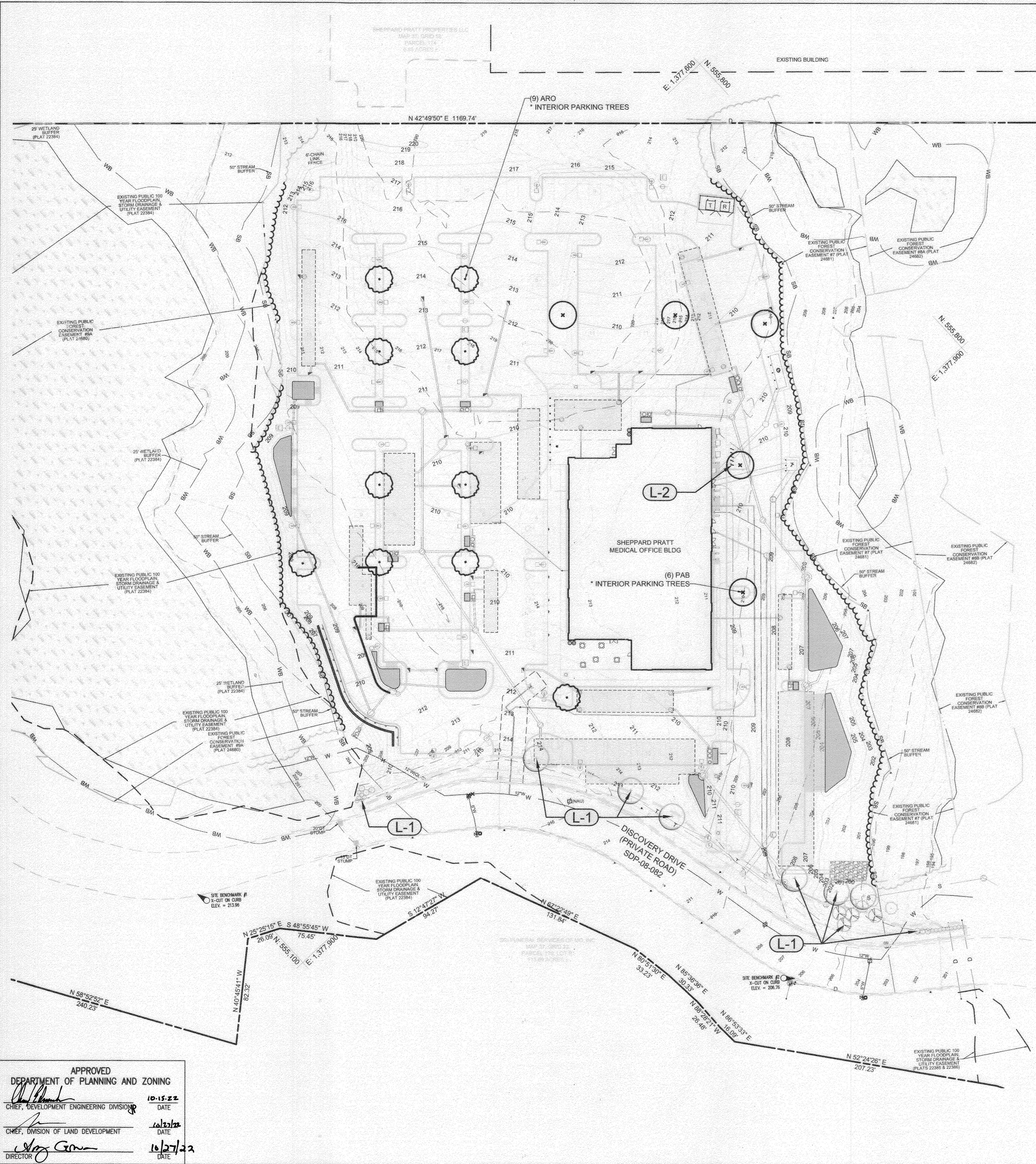
OWNER/DEVELOPER: SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N CHARLES STREET BALTIMORE, MARYLAND 21285-6815 TEL: 410-938-3242

REVISIONS: DATE: COMMENTS:

MCA JOB NO.: 19002.01 PROJ/MANAGER: DWM SHEET BY: DWM  
SHEET SET AND SHEET ISSUE DATE: SDP DATE: 11/13/2020

**SOIL BORINGS**

SHEET NO. **50** of 60  
**SDP-20-057**



**LANDSCAPE SHEET LIST**

PAGE	SHEET NO.	DRAWING TITLE	PLAN SET
1	L-101	Internal Parking Lot Tree Plan	SDP-20-057
2	L-102	Stormwater Management Planting Plan	SDP-20-057
3	L-201	Planting Details & Notes I	SDP-20-057
4	L-301	Materials Plan	CONSTRU. DOC.
5	L-302	Layout Plan Enlargements I	CONSTRU. DOC.
6	L-303	Layout Plan Enlargements II	CONSTRU. DOC.
7	L-304	Composite Planting Plan	CONSTRU. DOC.
8	L-305	Soil Preparation Plan	CONSTRU. DOC.
9	L-306	Foundation Planting Plan Enlargement	CONSTRU. DOC.
10	L-401	Site Details I	CONSTRU. DOC.
11	L-402	Site Details II	CONSTRU. DOC.
12	L-403	Planting Details & Notes II	CONSTRU. DOC.

**LANDSCAPE NOTES**

- THESE NOTES PERTAIN TO CL-101 ONLY.
- (L-1)** STREETSCAPE PLANTING ALONG DISCOVERY DRIVE IS NOT IN CONTRACT. ALL REQUIRED STREET TREES WERE BONDED UNDER SDP-08-082. THESE PLANTS ARE SHOWN IN GRAY FOR REFERENCE ONLY AND ARE NOT A PART OF SDP-20-057.
  - (L-2)** 5 BIKE RACK TOTAL MODEL: LOOP MANUFACTURER: LANDSCAPE FORMS OR APPROVED EQUAL

**GENERAL NOTES:**

- REFER TO SHEET L-201 FOR PLANT SCHEDULE, DETAILS AND NOTES.
- AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREE LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.

THE OWNER, TENANTS, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

PLANTING SHOWN BEYOND THE REQUIRED PERIMETER AND PARKING LOT LANDSCAPING IS PROVIDED IN ACCORDANCE WITH THE CONCEPT PLANS PRESENTED TO THE COUNTY DURING DESIGN SELECTION.

**LANDSCAPE REQUIREMENT NOTES:**

- THE NORTH, EAST, AND WEST PERIMETERS OF THE PROJECT SITE ARE PART OF THE SAME PROPERTY OR UNDER THE OWNERSHIP OF THE PROJECT OWNER, THIS EXEMPT FROM THE PERIMETER LANDSCAPE EDGE REQUIREMENTS AS OUTLINED ON PAGE 17, CHAPTER 4 OF THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, THE PERIMETER LANDSCAPING ALONG THE SOUTHERN PROPERTY LINE WAS PROVIDED AS PART OF SDP-08-082.
- DISCOVERY DRIVE IS AN ACCESS DRIVEWAY WITHIN THE PROPERTY, AND FORMAL STREET TREE REQUIREMENTS WERE A PART OF SDP-08-082.
- A FINANCIAL SURETY IN THE AMOUNT OF \$4,500 FOR 15 SHADE TREES SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS PLAN.

SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING	
NUMBER OF PARKING SPACES	294
NUMBER OF TREES REQUIRED	15
NUMBER OF TREES PROVIDED (SHADE TREES)	15

**LEGEND**

	PROPERTY LINE
	EXISTING TREELINE
	EXISTING WALK
	EXISTING ROAD
	EXISTING CURB
	EXISTING BUILDING
	EXISTING WETLANDS
	EXISTING FOREST BUFFER
	WETLAND BUFFER
	EXISTING STREAM
	EXISTING STREAM BUFFER
	EXISTING 100 YR FLOODPLAIN
	EXISTING STORM DRAIN
	EXISTING WATER
	EXISTING SANITARY SEWER
	EXISTING TELEPHONE
	EXISTING ELECTRIC
	EXISTING CONTOURS
	PROPOSED BUILDING
	PROPOSED BUILDING OVERHANG
	PROPOSED RETAINING WALL
	PROPOSED CONCRETE WALK
	PROPOSED ASPHALT PAVING
	PROPOSED HEAVY DUTY CONCRETE
	PROPOSED SWM FACILITY
	PROPOSED CURB
	PROPOSED WOODSLINE
	PROPOSED STORM DRAIN
	PROPOSED WATER
	PROPOSED SANITARY SEWER
	PROPOSED TELECOMM
	PROPOSED ELECTRIC
	PROPOSED GAS
	PROPOSED SECURITY & WIFI POLE LOCATION
	PROPOSED ELECTRICAL HANDBOX
	PROPOSED MODULAR WETLAND SYSTEM
	PROPOSED UNDERGROUND SWM STORAGE
	ARO-PROPOSED INTERNAL PARKING LOT TREE
	PAB-PROPOSED INTERNAL PARKING LOT TREE
	PROPOSED CONTOURS

**DEVELOPER'S/BUILDER'S CERTIFICATE**

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Thomas Hess 9/12/2022  
 SIGNATURE OF DEVELOPER DATE  
 (PRINT NAME BELOW)

PREPARED BY: HAKEEM WILSON, PLA  
 STATE OF MARYLAND  
 REGISTERED LANDSCAPE ARCHITECT  
 REGISTRATION NO. 4184

8/31/22

APPROVED  
 DEPARTMENT OF PLANNING AND ZONING

10-15-22  
 DATE

10/27/22  
 DATE

**MCA ARCHITECTURE.**

Marshall Craft Associates, Inc.  
 2031 Clipper Park Road, Suite 105  
 Baltimore, Maryland 21211  
 410.532.3131 | www.mca.design

**CIVIL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**LANDSCAPE DESIGN**  
 SITE RESOURCES, INC.  
 14315 JARRETTSVILLE PIKE  
 PHOENIX, MD 21131  
 410.683.3388

**STRUCTURAL ENGINEERING**  
 CARROLL ENGINEERING, INC.  
 215 SCHILLING CIR., SUITE 102  
 HUNT VALLEY, MD 21031  
 410.785.7423

**MEP ENGINEERING**  
 LEACH WALLACE ASSOC., INC.  
 6522 MEADOWRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.578.8100

**Sheppard Pratt**

**MEDICAL PAVILION**  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY  
 CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

**OWNER/DEVELOPER**  
 SHEPPARD PRATT HEALTH SYSTEM INC.  
 6501 N CHARLES STREET  
 BALTIMORE, MARYLAND 21285-6815  
 TEL: 410-938-3242

**REVISIONS**

NO.	DATE	COMMENTS

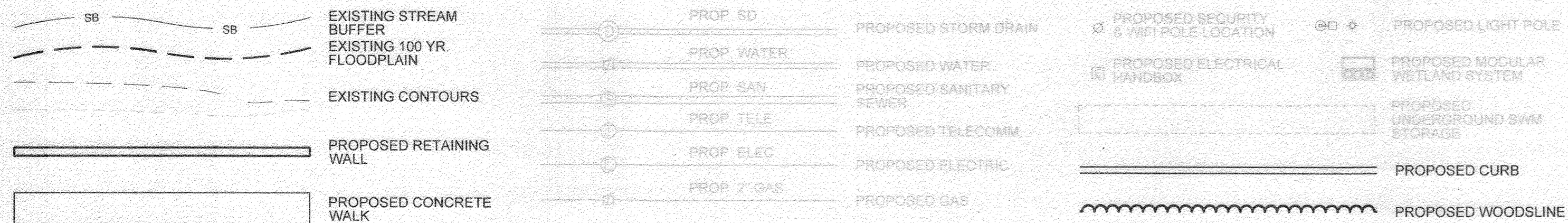
MCA JOB NO: 19002.01  
 PROJ. MANAGER: KPR  
 SHEET BY: HAW  
 SHEET SET AND SHEET ISSUE DATE: 09/01/2022  
 SDP

**INTERNAL PARKING LOT TREE PLAN**

SHEET NO. **L-101** 51 of 60

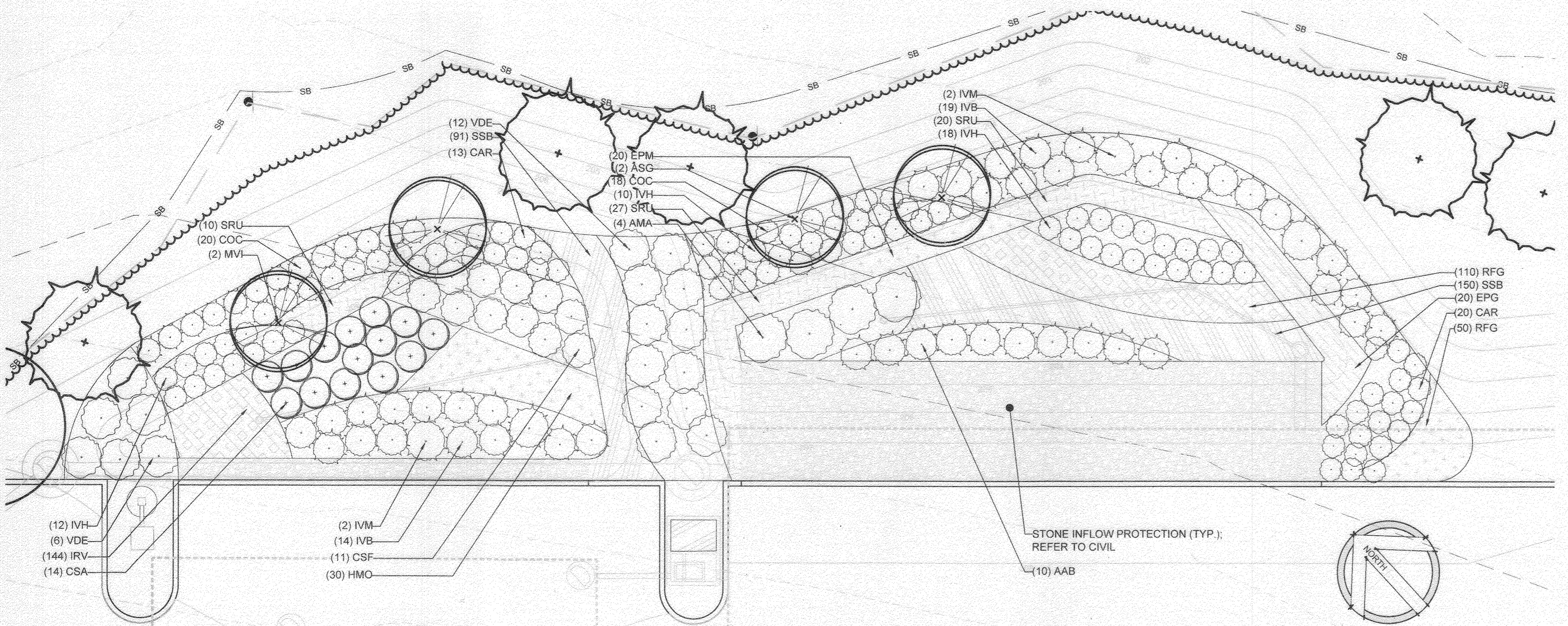
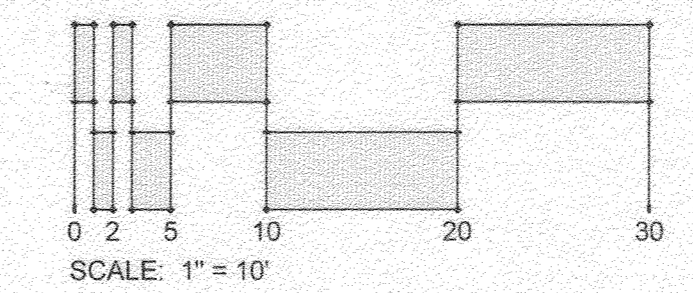
**SDP-20-057**

**LEGEND**



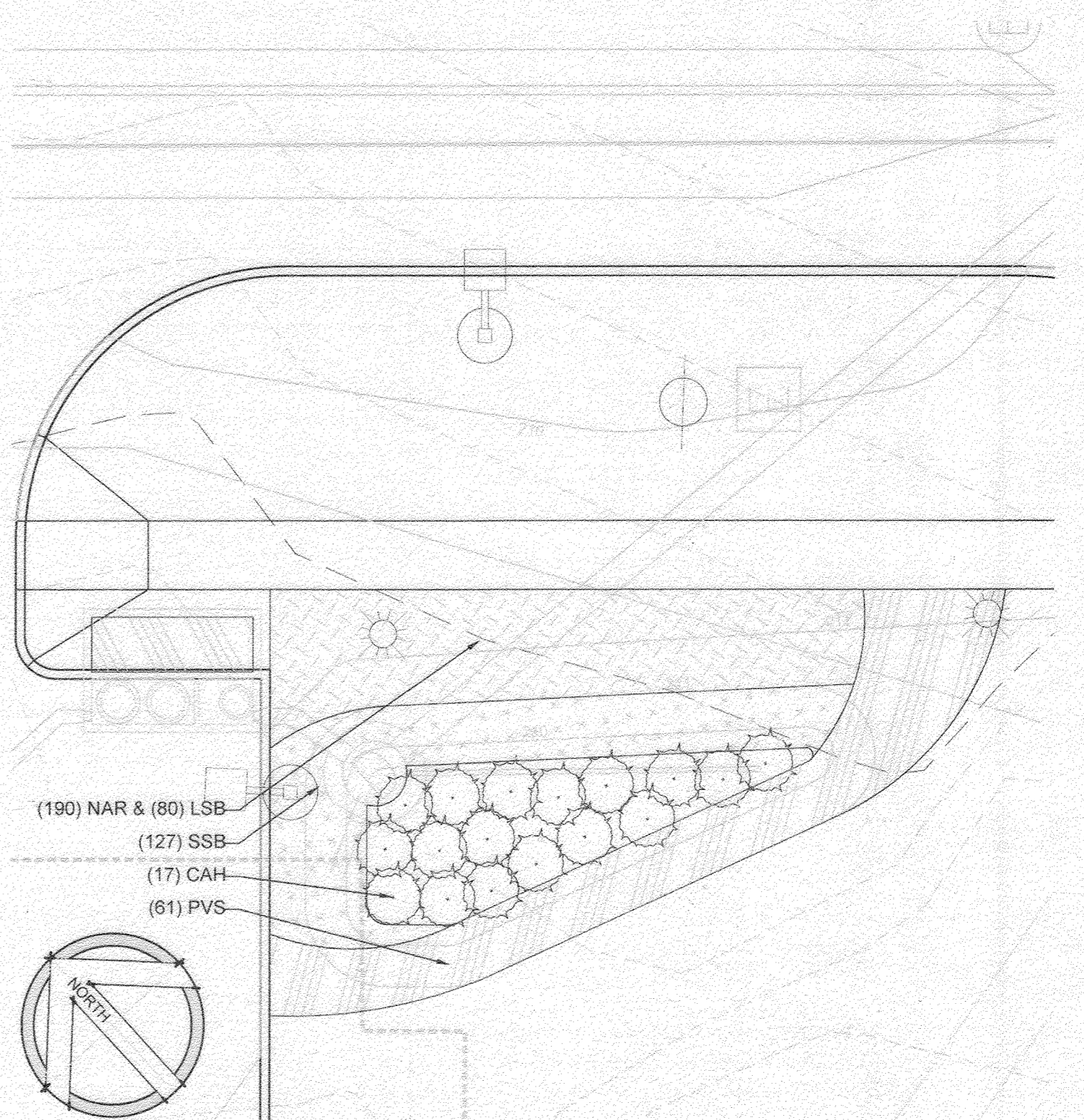
**GENERAL NOTE:**

REFER TO SHEET L-201 FOR THE PROPOSED PLANT SCHEDULE FOR ALL STORMWATER MANAGEMENT FACILITIES



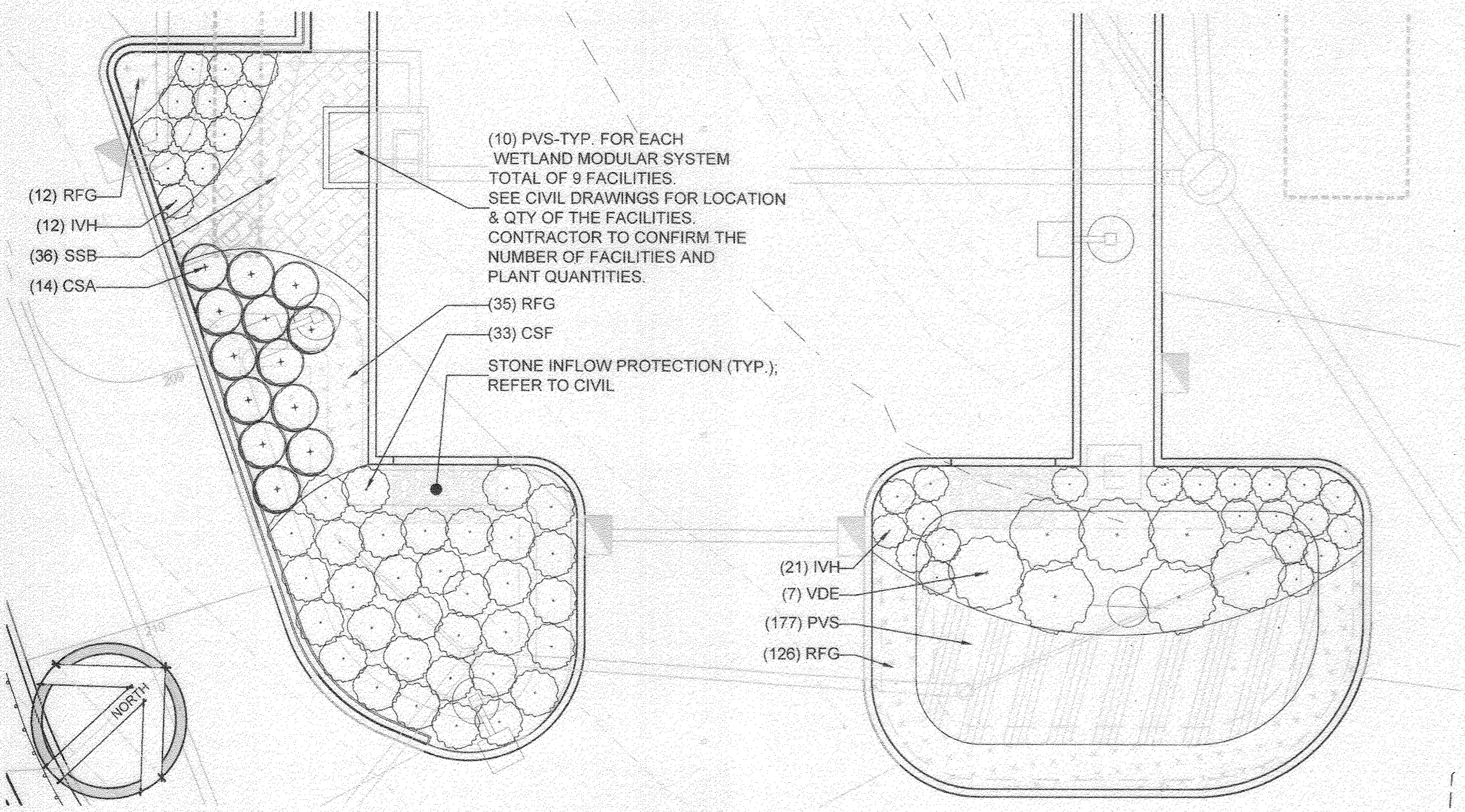
**1 PROPOSED MICRO-BIORETENTION 1 & 2**

SCALE: 1"=10'



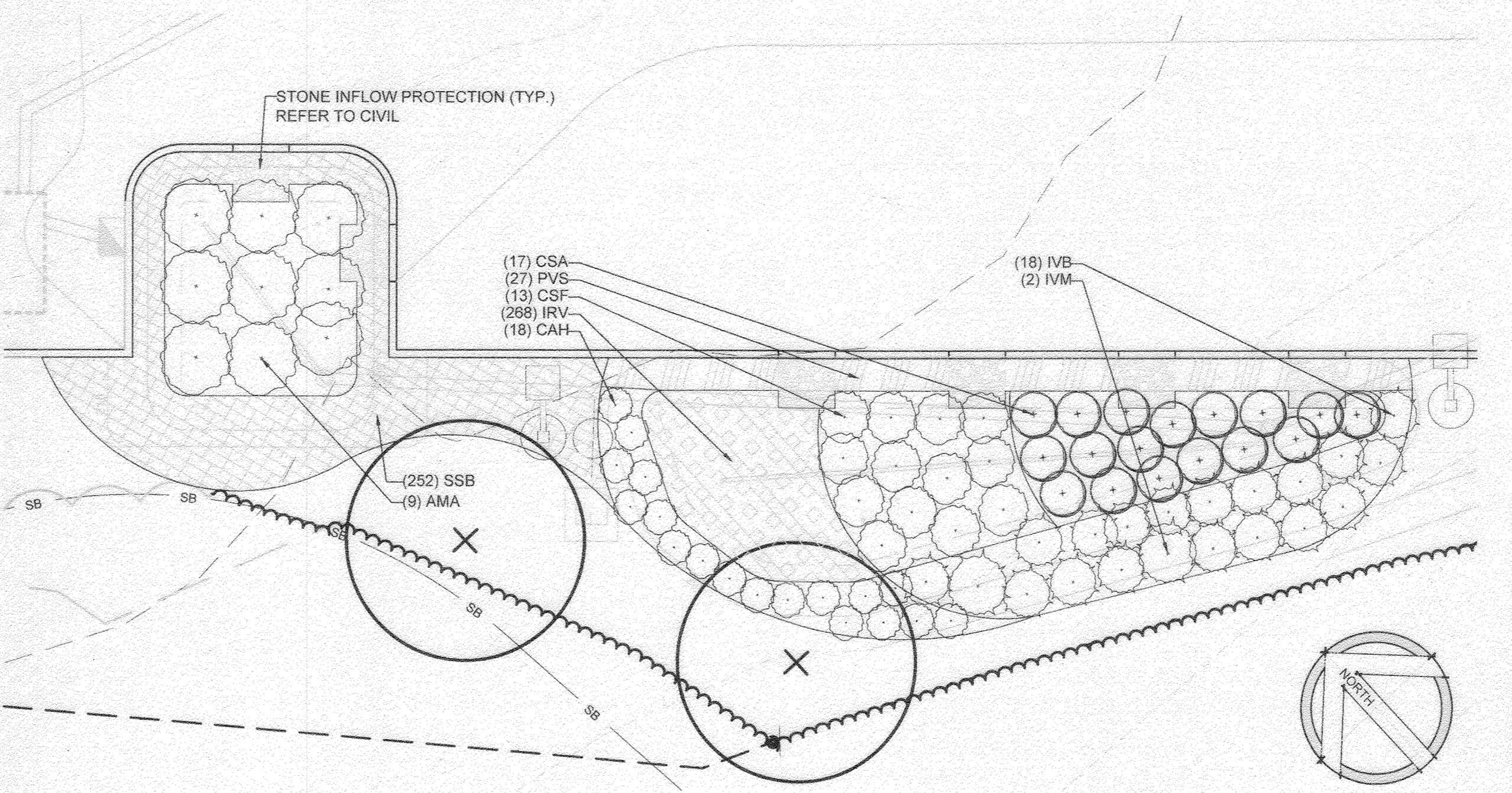
**2 PROPOSED RAIN GARDEN 5**

SCALE: 1"=10'



**3 PROPOSED RAIN GARDEN 1 & 2**

SCALE: 1"=10'



**4 PROPOSED RAIN GARDEN 3 & 4**

SCALE: 1"=10'

APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
10-15-22  
DATE  
10/27/22  
DATE  
10/27/22  
DATE

PREPARED BY:  
HAKEEM WILSON, PLA  
STATE OF MARYLAND  
REGISTERED LANDSCAPE ARCH.  
REGISTRATION NO. 4184  
8/31/22  
SIGNATURE

DEVELOPER'S/BUILDER'S CERTIFICATE  
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Thomas Hess  
SIGNATURE OF DEVELOPER  
(PRINT NAME BELOW)

9/12/2022  
DATE

**Marshall Craft Associates, Inc.**  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca.design

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**LANDSCAPE DESIGN**  
SITE RESOURCES, INC.  
14315 JARRETSVILLE PIKE  
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6522 MEADOWBRIDGE RD #1  
ELK RIDGE, MD 21075  
410.579.8100

DESIGNER:  
SHEPPARD PRATT

**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
HOWARD COUNTY  
CORRIDOR 95 BUSINESS PARK - PARCEL A

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
CORRIDOR 95 BUSINESS PARK	N/A	A/0756

PLAT# OR L/F	ORIG	ZONING	TAX MAP	ELECT. DIST.	CENSUS TRACT
22384/22385	2023	M-1	2007	1st E.D.	6025.03

OWNER/DEVELOPER  
SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-538-3242

REVISIONS	DATE	COMMENTS

MCA JOB NO.	PROJ/MANAGER	SHEET BY
19002.01	KPR	HAW

SHEET SET AND SHEET ISSUE DATE:  
SDP: 09/01/2022

**STORMWATER MANAGEMENT PLANTING PLAN**

© SITE RESOURCES, INC. 2/19/19(1) - SheppardPratt/Arch/Offices/Big/Big-CV/ML-102 SWM Planting Plan.dwg-L-102 Aug 31, 2022 09:22am haw

GENERAL NOTES:

- (THESE NOTES APPLY TO ALL COUNTY REQUIRED PLANTING IN THIS CONTRACT)
1. AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREE LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.
2. THE OWNER, TENANTS, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

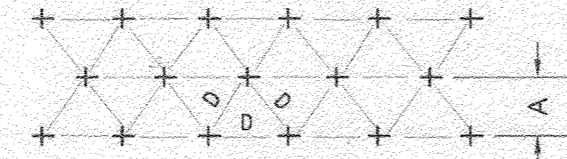
LANDSCAPE NOTES

- (THESE NOTES APPLY TO ALL COUNTY REQUIRED PLANTING IN THIS CONTRACT)
1. QUANTITIES SHOWN ON THE PLANT LIST ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. SYMBOLS ON THE PLAN SHALL TAKE PRECEDENCE. CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES TO HIS OWN SATISFACTION.
2. PLANT MATERIAL SUBSTITUTIONS ARE SUBJECT TO APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT.
3. PLANT MATERIAL SHALL BE TAGGED AT THE SOURCE BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE UNLESS THE REQUIREMENT IS SPECIFICALLY WAIVED.
4. LOCATIONS OF ALL PLANT MATERIAL SHALL BE STAKED FOR APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT.
5. ALL SHRUB AND GROUND COVER AREAS SHALL BE PLANTED IN CONTINUOUS PREPARED BEDS MULCHED WITH COMPOSTED HARDWOOD MULCH AS DETAILED AND SPECIFIED.
6. PLANTING BEDS SHALL HAVE POSITIVE DRAINAGE WITH A MINIMUM 2% SLOPE.
7. CONTRACTOR SHALL VERIFY ACCURACY OF BASE INFORMATION AND EXISTING CONDITIONS AND UTILITIES IN THE FIELD TO HIS OWN SATISFACTION. UTILITIES BID SHALL BE BASED ON ACTUAL SITE CONDITIONS. NO EXTRA PAYMENT SHALL BE MADE FOR WORK ARISING FROM SITE CONDITIONS DIFFERING FROM THOSE INDICATED ON DRAWINGS AND SPECIFICATIONS.
8. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 A MINIMUM OF TWO WORKING DAYS PRIOR TO BEGINNING PLANTING AND CONSTRUCTION.
9. DAMAGE TO EXISTING CONDITIONS AND UTILITIES SHALL BE REPAIRED AND RESTORED AT THE EXPENSE OF THE CONTRACTOR.
10. ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND SHALL CONFORM TO AMERICAN NURSERY & LANDSCAPE ASSOCIATION'S AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1.

MINIMUM LANDSCAPE MAINTENANCE REQUIREMENTS

- 1. LAWN AREAS SHALL BE MOWED TO A HEIGHT OF 2 TO 3 INCHES AND NOT ALLOWED TO REACH A HEIGHT OF 4 INCHES BEFORE MOWING.
2. ALL CURBS AND WALKS SHALL BE EDGED AS NEEDED.
3. ALL LAWN AREAS ADJACENT TO BUILDING FACES OR STRUCTURES SHALL BE TRIMMED.
4. A SLOW RELEASE NITROGEN BALANCED FERTILIZER WITH A 2-1-1 RATIO SHALL BE APPLIED AT A RATE OF 2 POUNDS OF NITROGEN PER 1000 SQUARE FEET IN SEPTEMBER, OCTOBER, AND FEBRUARY.
5. LIME SHALL BE APPLIED AT THE RATE DETERMINED BY A SOILS REPORT.
6. IT IS RECOMMENDED THAT LAWN AREAS BE TREATED IN MID-MARCH TO EARLY APRIL WITH PRE-EMERGENT HERBICIDE (BETASAN) OR EQUAL APPLIED AT THE MANUFACTURER'S RECOMMENDED RATE.
7. A POST-EMERGENT HERBICIDE (TRIMEC) OR EQUAL IS RECOMMENDED TO BE SPRAYED ON LAWN AREAS IN THE LATE SPRING OR THE EARLY FALL. FOLLOW MANUFACTURER'S RATES AND RECOMMENDATIONS.
8. INSECTICIDES AND FUNGICIDES ARE RECOMMENDED FOR INSECT AND DISEASE CONTROL.
9. RESEED BARE AREAS OF LAWN AS NECESSARY. YEARLY AERATION IS RECOMMENDED.
10. ALL TRASH, LITTER, AND DEBRIS SHALL BE REMOVED FROM LAWN AREAS, PARKING LOTS, AND SHRUB BEDS AS NEEDED.
11. MULCH ALL SHRUB AND GROUND COVER BEDS YEARLY WITH 3 INCHES OF SHREDDED HARDWOOD BARK.
12. PERMIT SHRUBS AND TREES TO GROW AND ENLARGE TO THEIR DESIGN SIZE. CONSULT PROJECT LANDSCAPE ARCHITECT FOR DETAILS.
13. PRUNE TREES IN ACCORDANCE WITH LANDSCAPE CONTRACTORS ASSOCIATION GUIDELINES.

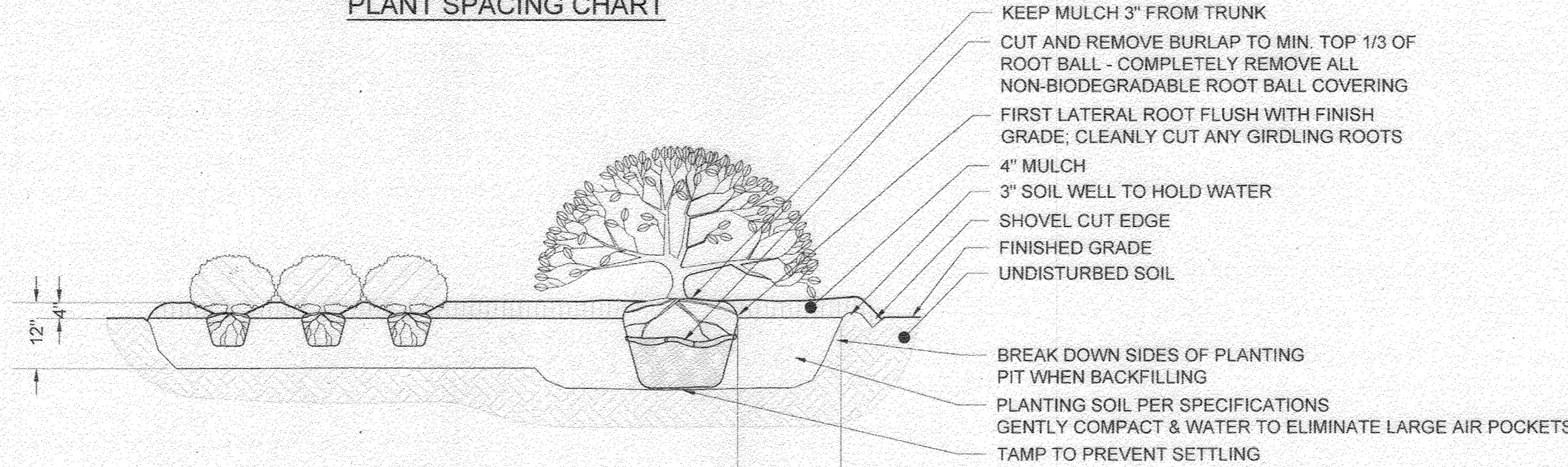
PLANT SCHEDULE FOR COUNTY REQUIRED INTERNAL PARKING LOT TREES & SWM FACILITIES ONLY. Table with columns: KEY, QTY, BOTANICAL NAME, COMMON NAME, SIZE, SPACING, REMARKS, MARYLAND NATIVE. Includes categories for Shade Trees, Ornamental Trees, Shrubs, Perennials, and Bulbs.



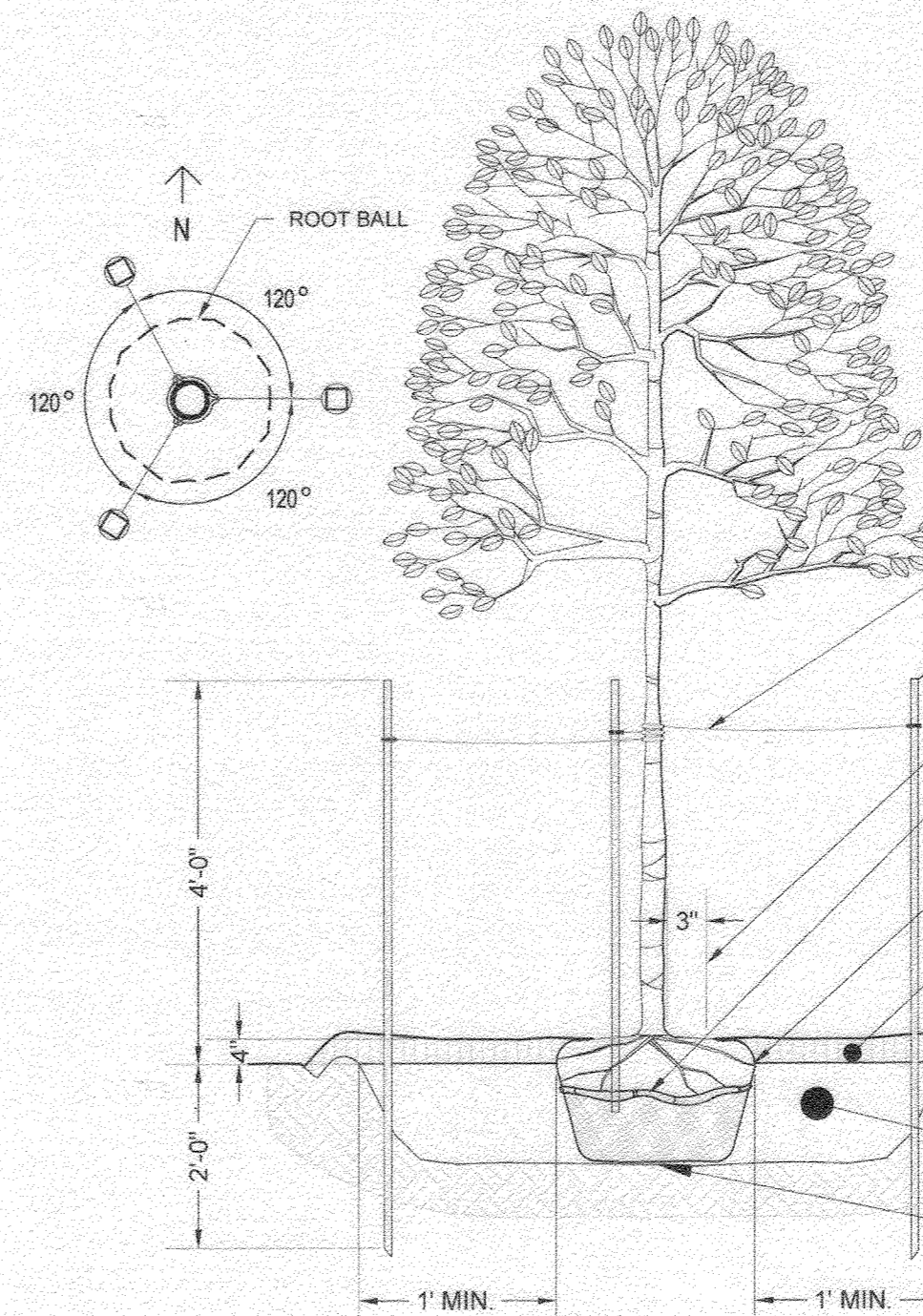
NOTE: FOR USE ONLY WHEN PLANTS ARE SPACED EQUIDISTANT FROM EACH OTHER AS SHOWN, AND SPECIFIED IN THE PLANT LIST.

Table with columns: SPACING 'D', ROW 'A', PLANTS / S.F. Lists various spacing and row configurations.

PLANT SPACING CHART



SHRUB/ PERENNIAL DETAIL



DECIDUOUS TREE DETAIL

- NOTES:
1. THE CENTRAL LEADER SHALL NOT BE CUT.
2. CONTRACTOR SHALL LOOSEN ROOTS OF ALL CONTAINER GROWN MATERIAL TO ENCOURAGE LATERAL GROWTH OF ROOTS.
3. CONTRACTOR SHALL SCARIFY SIDES OF TREE PIT TO ELIMINATE SPADE GLAZING.

- #10 GAUGE WIRE W/ BLACK RUBBER HOSE @ TRUNK (LEAVE SLACK IN WIRE TO ALLOW FREE MOVEMENT OF TRUNK)
(3) EVENLY SPACED 2"X2" HARDWOOD STAKES
KEEP MULCH 3" FROM TRUNK
CUT AND REMOVE BURLAP AND/OR WIRE BASKET TO MIN. TOP 1/3 OF ROOT BALL - COMPLETELY REMOVE ALL NON-BIODEGRADABLE ROOT BALL COVERING
FIRST LATERAL ROOT FLUSH WITH FINISH GRADE; CLEANLY CUT ANY GIRDLING ROOTS
4" MULCH
3" SOIL WELL TO HOLD WATER
SHOVEL CUT EDGE
FINISHED GRADE
UNDISTURBED SOIL
BREAK DOWN SIDES OF PLANTING PIT WHEN BACKFILLING
PLANTING SOIL PER SPECIFICATIONS
GENTLY COMPACT & WATER TO ELIMINATE LARGE AIR POCKETS
TAMP TO PREVENT SETTLING

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 18.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Thomas Hess 9/12/2022
SIGNATURE OF DEVELOPER DATE
(PRINT NAME BELOW)

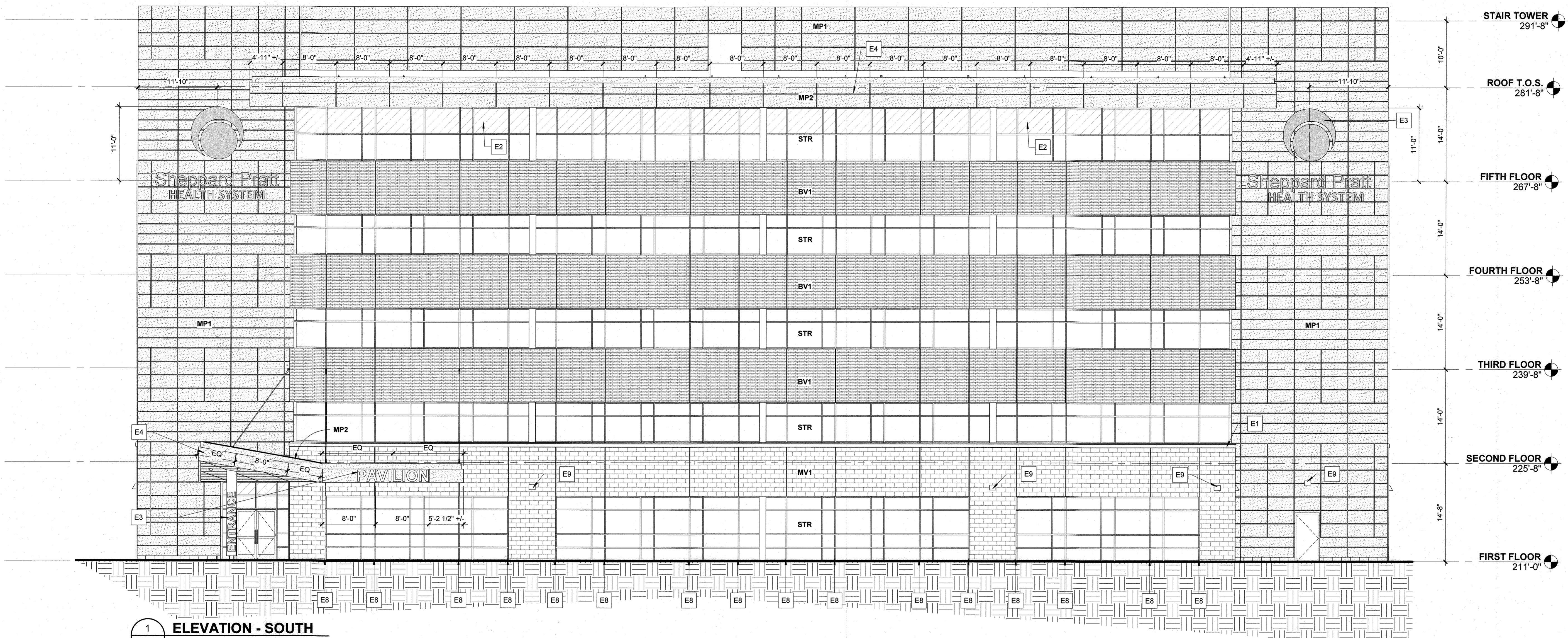
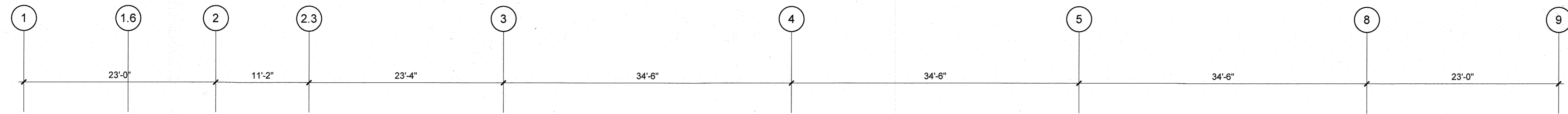
APPROVED DEPARTMENT OF PLANNING AND ZONING. Includes signatures and dates for Chief Development Engineering Division and Chief, Division of Land Development.

PREPARED BY: HAKEEM WILSON, PLA STATE OF MARYLAND REGISTERED LANDSCAPE ARCH. REGISTRATION NO. 4184. Includes signature and date 8/31/22.

MCA ARCHITECTURE. Includes contact information for Marshall Craft Associates, Inc., Civil Engineering, Landscape Design, Structural Engineering, MEP Engineering, and Carroll Engineering, Inc.

Sheppard Pratt MEDICAL PAVILION. 7190 DISCOVERY DRIVE, ELK RIDGE, MARYLAND 21075. CORRIDOR 98 BUSINESS PARK - PARCEL A.

ADDRESS CHART, REVISIONS, and PROJECT INFORMATION. Includes lot/parcel details, owner/developer info (Sheppard Pratt Health System Inc.), and project details (SDP 09/01/2022, SHEET NAME).

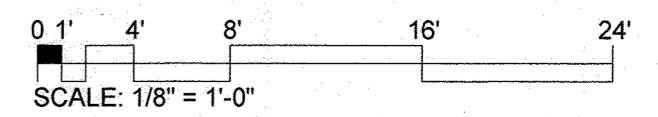


1  
A-210  
**ELEVATION - SOUTH**  
SCALE: 1/8" = 1'-0"

EXTERIOR FINISH SCHEDULE						
TYPE MARK	GRAPHIC PATTERN	DESCRIPTION	MANUFACTURER	STYLE	COLOR	REMARKS
BV1	[Pattern]	VENEER BRICK	REDLAND	MODULAR RUNNING BOND	SMOOTH RED (102)	BRICK TO MATCH HOSPITAL BUILDING
MV1	[Pattern]	VENEER BLOCK	ECHOLON MASONRY BY OLDCASTLE	8X16 OR 12 X16 RUNNING BOND	TBD	
FC1	[Pattern]	FIBER CEMENT RAINSCREEN	EQUITONE	NATURA	N074	
MP1	[Pattern]	METAL PANEL RAINSCREEN	DRI-DESIGN	EN-V	SILVER	USED AT STAIR TOWER AND SCREEN WALL LOCATIONS
MP2	[Pattern]	REVEAL METAL PANEL RAINSCREEN	PAC-CLAD	FLUSH / REVEAL	SILVER TO MATCH MP1	USED AT SOFFIT AND FASCIA LOCATIONS
STR	[Pattern]	STOREFRONT / WINDOWWALL SYSTEM	KAWNEER	TRIFAB VERSA GLAZE 451T	TO MATCH MP1	

**DRAWING NOTES - ELEVATION - CONSTRUCTION**

- E8** (APPLY TO THIS SHEET ONLY)
- E1 PRECAST CONCRETE WALL CAP
  - E2 SPANDREL PANEL, SEE WINDOW SCHEDULE
  - E3 ILLUMINATED BUILDING SIGNAGE. COORDINATE ANCHORAGE AND WIRING WITH METAL PANEL. ALL HOLES IN METAL PANEL TO BE CUT NEATLY. SEAL OR PAINT ALL CUT EDGES AS REQUIRED BY MANUFACTURER TO MAINTAIN FACADE FINISH WARRANTY
  - E4 METAL PANEL FASCIA AND SOFFIT TO MATCH METAL PANEL AT STAIR TOWERS
  - E5 ROOFTOP MECHANICAL EQUIPMENT, SEE MECHANICAL PLANS
  - E8 MASONRY CONTROL JOINT, ALIGN JOINT IN VENEER BLOCK AND VENEER BRICK FOR ENTIRE HEIGHT OF BUILDING
  - E9 WALL MOUNTED LIGHT, CENTER ON BRICK PIER OR OVER DOORWAY. SEE ELECTRICAL DRAWINGS FOR MORE INFO.



APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* 10/15/22  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*[Signature]* 10/17/22  
CHIEF, DIVISION OF LAND DEVELOPMENT  
*[Signature]* 10/27/22  
DIRECTOR

**MCA ARCHITECTURE**

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
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MEP ENGINEERING  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELKRIDGE, MD 21075  
410.579.8100



**Sheppard Pratt**

**MEDICAL PAVILION**

7190 DISCOVERY DRIVE  
ELKRIDGE, MARYLAND 21075  
HOWARD COUNTY

ADDRESS CHART

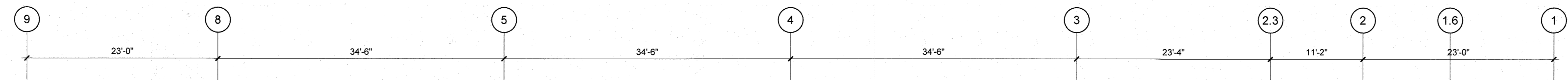
LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME	SECTION/AREA	LOT/ PARCEL NO.
OWNER/DEVELOPER	SHEPPARD PRATT HEALTH SYSTEM INC.	6501 N CHARLES STREET BALTIMORE, MARYLAND 21285-6815 TEL: 410-938-3242

REVISIONS:	DATE:	COMMENTS:

MCA JOB NO.	PROJ. MANAGER	SHEET BY:
190022.02	UA	TPO
SHEET SET AND SHEET ISSUE DATE:	03/27/2020	

**EXTERIOR BUILDING ELEVATIONS - CONSTRUCTION**

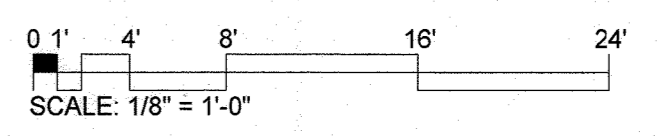


1 ELEVATION - NORTH  
A-211 SCALE: 1/8" = 1'-0"

EXTERIOR FINISH SCHEDULE						
TYPE MARK	GRAPHIC PATTERN	DESCRIPTION	MANUFACTURER	STYLE	COLOR	REMARKS
BV1		VENEER BRICK	REDLAND	MODULAR RUNNING BOND	SMOOTH RED (102)	BRICK TO MATCH HOSPITAL BUILDING
MV1		VENEER BLOCK	ECHELON MASONRY BY OLDCASTLE	8X16 OR 12 X16 RUNNING BOND	TBD	
FC1		FIBER CEMENT RAINSCREEN	EQUITONE	NATURA	N074	
MP1		METAL PANEL RAINSCREEN	DRI-DESIGN	EN-V	SILVER	USED AT STAIR TOWER AND SCREEN WALL LOCATIONS
MP2		REVEAL METAL PANEL RAINSCREEN	PAC-CLAD	FLUSH / REVEAL	SILVER TO MATCH MP1	USED AT SOFFIT AND FASCIA LOCATIONS
STR		STOREFRONT / WINDOWWALL SYSTEM	KAWNEER	TRIFAB VERSA GLAZE 451T	TO MATCH MP1	

**DRAWING NOTES - ELEVATION - CONSTRUCTION**

- (APPLY TO THIS SHEET ONLY)
- E1 PRECAST CONCRETE WALL CAP
  - E5 ROOFTOP MECHANICAL EQUIPMENT, SEE MECHANICAL PLANS
  - E7 METAL COPING
  - E7 PAINTED MECHANICAL EXHAUST LOUVER WITH BIRD SCREEN
  - E8 MASONRY CONTROL JOINT, ALIGN JOINT IN VENEER BLOCK AND VENEER BRICK FOR ENTIRE HEIGHT OF BUILDING
  - E9 WALL MOUNTED LIGHT, CENTER ON BRICK PIER OR OVER DOORWAY. SEE ELECTRICAL DRAWINGS FOR MORE INFO.



APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
10/15/22  
DATE

*[Signature]*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
10/27/22  
DATE

*[Signature]*  
DIRECTOR  
10/27/22  
DATE

**MCA ARCHITECTURE.**  
Marshall Craft Associates, Inc.  
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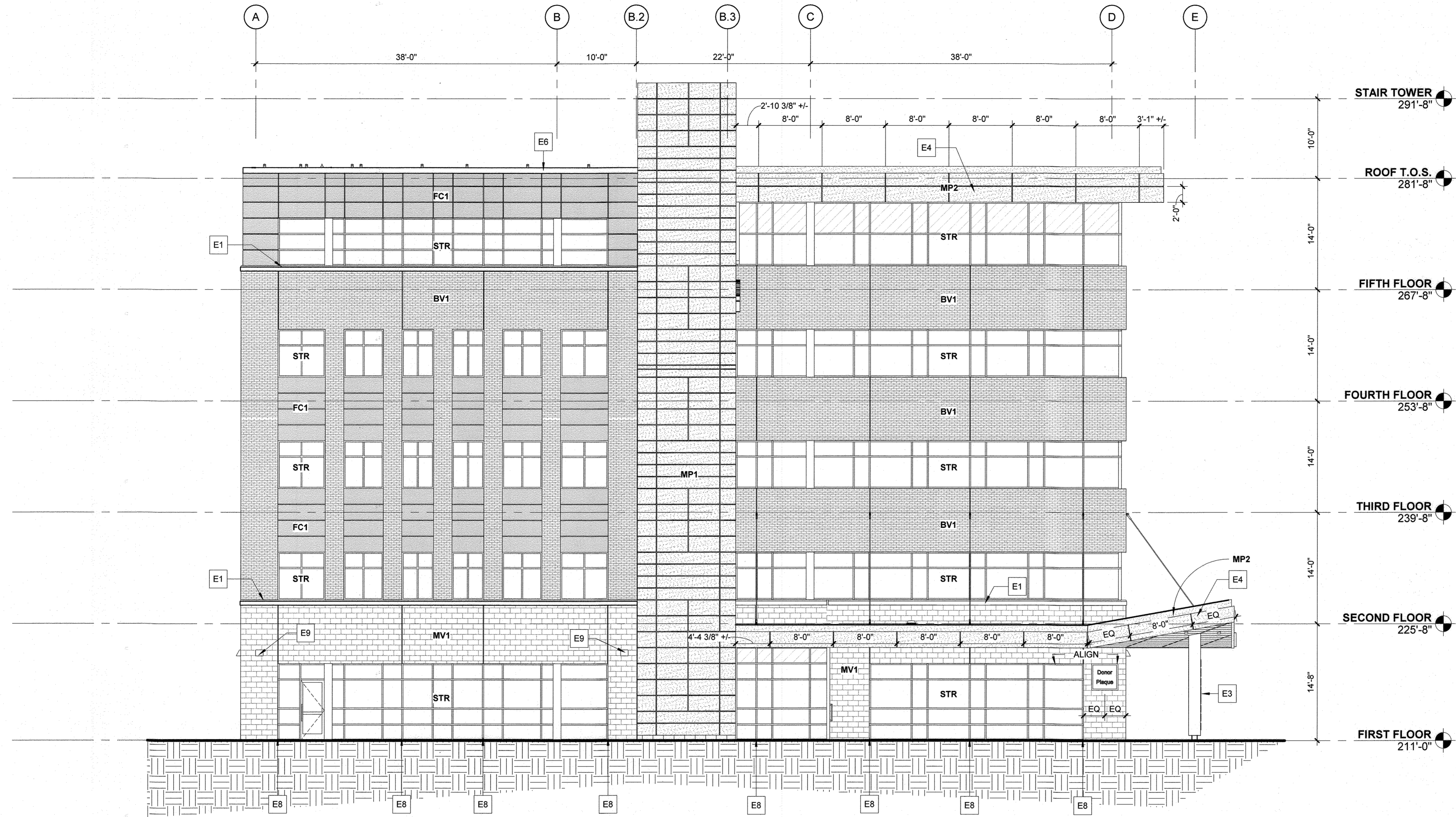
Sheppard Pratt  
**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELKRIDGE, MARYLAND 21075  
HOWARD COUNTY

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME CORRIDOR 95 BUSINESS PARK	SECTION/AREA M-1	LOT/ AVENUE
DATE 10/27/22	DATE 10/27/22	DATE 10/27/22
OWNER/DEVELOPER SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N CHARLES STREET BALTIMORE, MARYLAND 21205-6815 TEL: 410-938-3242		

MCA JOB NO: 19002.02  
PROJ. MANAGER: UA  
SHEET SET AND SHEET ISSUE DATE: 03/27/2020  
SHEET NAME: EXTERIOR BUILDING ELEVATIONS - CONSTRUCTION  
SHEET NO: 55 of 60  
SDP-20-057

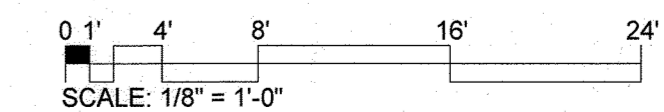


1  
A-212 ELEVATION - WEST  
SCALE: 1/8" = 1'-0"

EXTERIOR FINISH SCHEDULE						
TYPE MARK	GRAPHIC PATTERN	DESCRIPTION	MANUFACTURER	STYLE	COLOR	REMARKS
BV1		VENEER BRICK	REDLAND	MODULAR RUNNING BOND	SMOOTH RED (102)	BRICK TO MATCH HOSPITAL BUILDING
MV1		VENEER BLOCK	ECHOLON MASONRY BY OLDCASTLE	8X16 OR 12 X16 RUNNING BOND	TBD	
FC1		FIBER CEMENT RAINSCREEN	EQUITONE	NATURA	N074	
MP1		METAL PANEL RAINSCREEN	DRI-DESIGN	EN-V	SILVER	USED AT STAIR TOWER AND SCREEN WALL LOCATIONS
MP2		REVEAL METAL PANEL RAINSCREEN	PAC-CLAD	FLUSH / REVEAL	SILVER TO MATCH MP1	USED AT SOFFIT AND FASCIA LOCATIONS
STR		STOREFRONT / WINDOW WALL SYSTEM	KAWNEER	TRIFAB VERSA GLAZE 451T	TO MATCH MP1	

**DRAWING NOTES - ELEVATION - CONSTRUCTION**

- E# (APPLY TO THIS SHEET ONLY)
- E1 PRECAST CONCRETE WALL CAP
  - E3 ILLUMINATED BUILDING SIGNAGE. COORDINATE ANCHORAGE AND WIRING WITH METAL PANEL. ALL HOLES IN METAL PANEL TO BE CUT NEATLY. SEAL OR PAINT ALL CUT EDGES AS REQUIRED BY MANUFACTURER TO MAINTAIN FACADE FINISH WARRANTY.
  - E4 METAL PANEL FASCIA AND SOFFIT TO MATCH METAL PANEL AT STAIR TOWERS
  - E6 METAL COPING
  - E8 MASONRY CONTROL JOINT, ALIGN JOINT IN VENEER BLOCK AND VENEER BRICK FOR ENTIRE HEIGHT OF BUILDING
  - E9 WALL MOUNTED LIGHT. CENTER ON BRICK PIER OR OVER DOORWAY. SEE ELECTRICAL DRAWINGS FOR MORE INFO.



APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
10-15-22  
DATE

*[Signature]*  
10/27/22  
DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]*  
10/27/22  
DATE  
DIRECTOR

**MCA ARCHITECTURE**

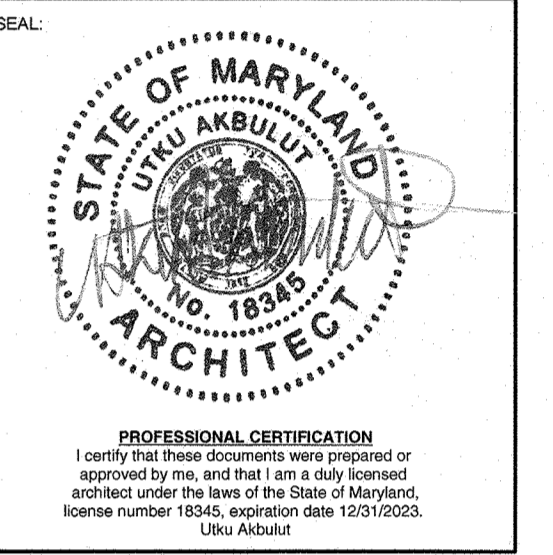
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410.683.3388

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410.785.7423

MEP ENGINEERING  
LEACH WALLACE ASSOC., INC.  
6522 MEADOWRIDGE RD #1  
ELKRIDGE, MD 21075  
410.579.8100



Sheppard Pratt

**MEDICAL PAVILION**

7190 DISCOVERY DRIVE  
ELKRIDGE, MARYLAND 21075  
HOWARD COUNTY

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

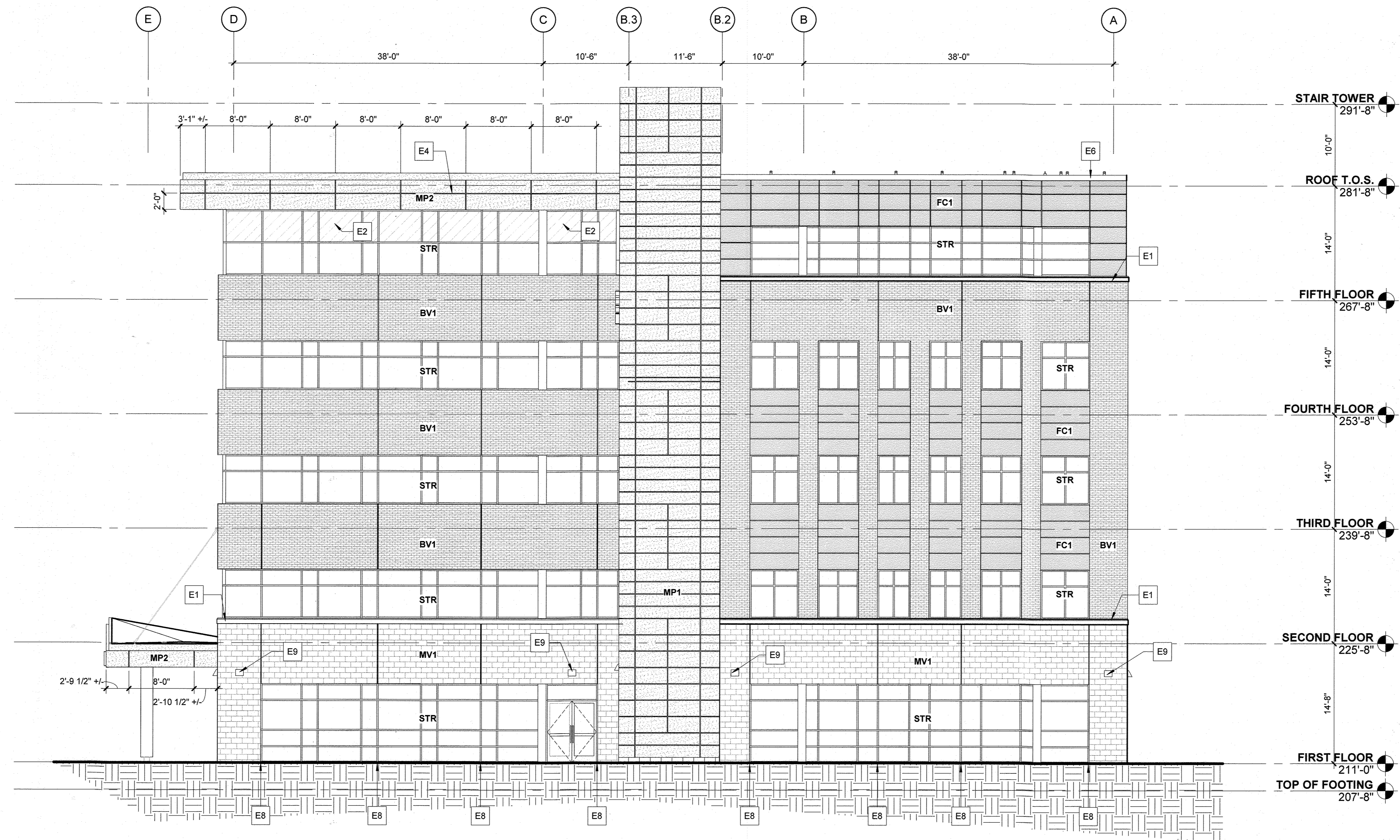
SUBVISION NAME CORRIDOR 35 BUSINESS PARK	SECTION/AREA M-1	ED/7 PARCEL NO. 21075B
PLAT# OR LOT 22384/22385	GRID 0023	DATE 03/27/2020
OWNER/DEVELOPER SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N CHARLES STREET BALTIMORE, MARYLAND 21285-6815 TEL: 410-938-3242	DATE 03/27/2020	COMMENTS

MCA JOB NO. 19002.02	PROJ. MANAGER / SHEET BY UA TPO
SHEET SET AND SHEET ISSUE DATE SDP	03/27/2020
SHEET NAME <b>EXTERIOR BUILDING CONSTRUCTION</b>	

SHEET NO.  
**56 of 60**

SDP-20-057



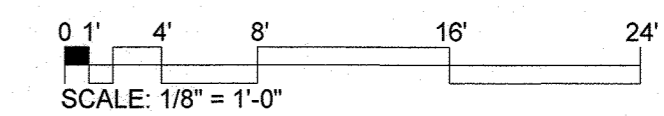


1 ELEVATION - EAST  
A-213 SCALE: 1/8" = 1'-0"

EXTERIOR FINISH SCHEDULE						
TYPE MARK	GRAPHIC PATTERN	DESCRIPTION	MANUFACTURER	STYLE	COLOR	REMARKS
BV1	[Pattern]	VENEER BRICK	REDLAND	MODULAR RUNNING BOND	SMOOTH RED (102)	BRICK TO MATCH HOSPITAL BUILDING
MV1	[Pattern]	VENEER BLOCK	ECHOLON MASONRY BY OLDCASTLE	8X16 OR 12 X16 RUNNING BOND	TBD	
FC1	[Pattern]	FIBER CEMENT RAINSCREEN	EQUITONE	NATURA	N074	
MP1	[Pattern]	METAL PANEL RAINSCREEN	DRH-DESIGN	EN-V	SILVER	USED AT STAIR TOWER AND SCREEN WALL LOCATIONS
MP2	[Pattern]	REVEAL METAL PANEL RAINSCREEN	PAC-CLAD	FLUSH / REVEAL	SILVER TO MATCH MP1	USED AT SOFFIT AND FASCIA LOCATIONS
STR	[Pattern]	STOREFRONT / WINDOWWALL SYSTEM	KAWNEER	TRIFAB VERSA GLAZE 451T	TO MATCH MP1	

**DRAWING NOTES - ELEVATION - CONSTRUCTION**

- E# (APPLY TO THIS SHEET ONLY)
- E1 PRECAST CONCRETE WALL CAP
  - E2 SPANDREL PANEL, SEE WINDOW SCHEDULE
  - E3 METAL PANEL FASCIA AND SOFFIT TO MATCH METAL PANEL AT STAIR TOWERS
  - E4 METAL COPING
  - E5 MASONRY CONTROL JOINT, ALIGN JOINT IN VENEER BLOCK AND VENEER BRICK FOR ENTIRE HEIGHT OF BUILDING
  - E6 WALL MOUNTED LIGHT, CENTER ON BRICK PIER OR OVER DOORWAY, SEE ELECTRICAL DRAWINGS FOR MORE INFO.



APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
[Signature]  
CHIEF, DEVELOPMENT ENGINEERING DIVISION 10/15/22  
[Signature]  
CHIEF, DIVISION OF LAND DEVELOPMENT 10/27/22  
[Signature]  
DIRECTOR 10/27/22

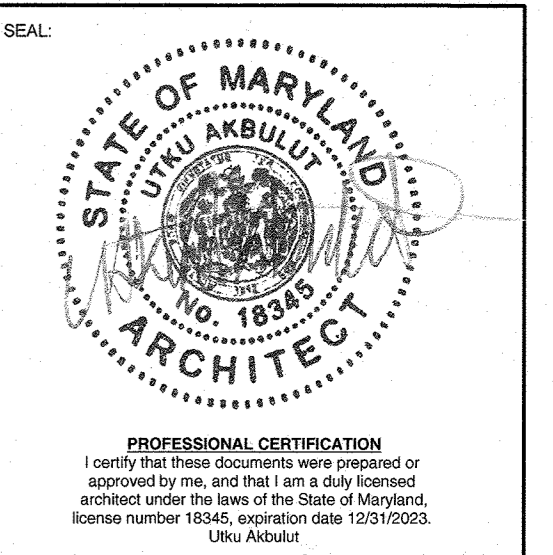
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CARROLL ENGINEERING, INC.  
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410.785.7423

LANDSCAPE DESIGN  
SITE RESOURCES, INC.  
14315 JARRETTVILLE PIKE  
PHOENIX, MD 21131  
410.683.3388

STRUCTURAL ENGINEERING  
CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
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MEP ENGINEERING  
LEACH WALLACE ASSOC., INC.  
8522 MEADOWRIDGE RD #1  
ELKRIDGE, MD 21075  
410.579.8100



Sheppard Pratt  
**MEDICAL PAVILION**  
7190 DISCOVERY DRIVE  
ELKRIDGE, MARYLAND 21075  
HOWARD COUNTY

ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBDIVISION NAME	SECTION/AREA	DATE
CORRIDOR 95 BUSINESS PARK	10A	10/15/22

OWNER/DEVELOPER	PROJ. MANAGER	SHEET BY
SHEPPARD PRATT HEALTH SYSTEM INC. 6501 N CHARLES STREET BALTIMORE, MARYLAND 21285-6815 TEL: 410-938-3242	UA	TPO

REVISIONS:	DATE:	COMMENTS:

PLA. JOB NO.	SHEET SET AND SHEET ISSUE DATE
19002.02	03/27/2020

**EXTERIOR BUILDING ELEVATIONS - CONSTRUCTION**

SHEET NO. **57 of 60**

SDP-20-057

# ELECTRICAL LEGEND

SYMBOLS	DESCRIPTION
	DOWNLIGHT LIGHTING FIXTURE
	WALL MOUNTED LIGHTING FIXTURE
	LIGHTING FIXTURE ON EMERGENCY CIRCUIT
	POLE MOUNTED SITE LIGHT
	JUNCTION BOX / WALL MOUNTED
	PUSHBUTTON STATION
	SAFETY SWITCH - UNFUSED, FUSED (SUBSCRIPT = SWITCH AMP/FUSE AMPS)
	FIRE ALARM SYSTEM ADDRESSABLE CONTROL MODULE
	FIRE ALARM SYSTEM ADDRESSABLE MONITOR MODULE

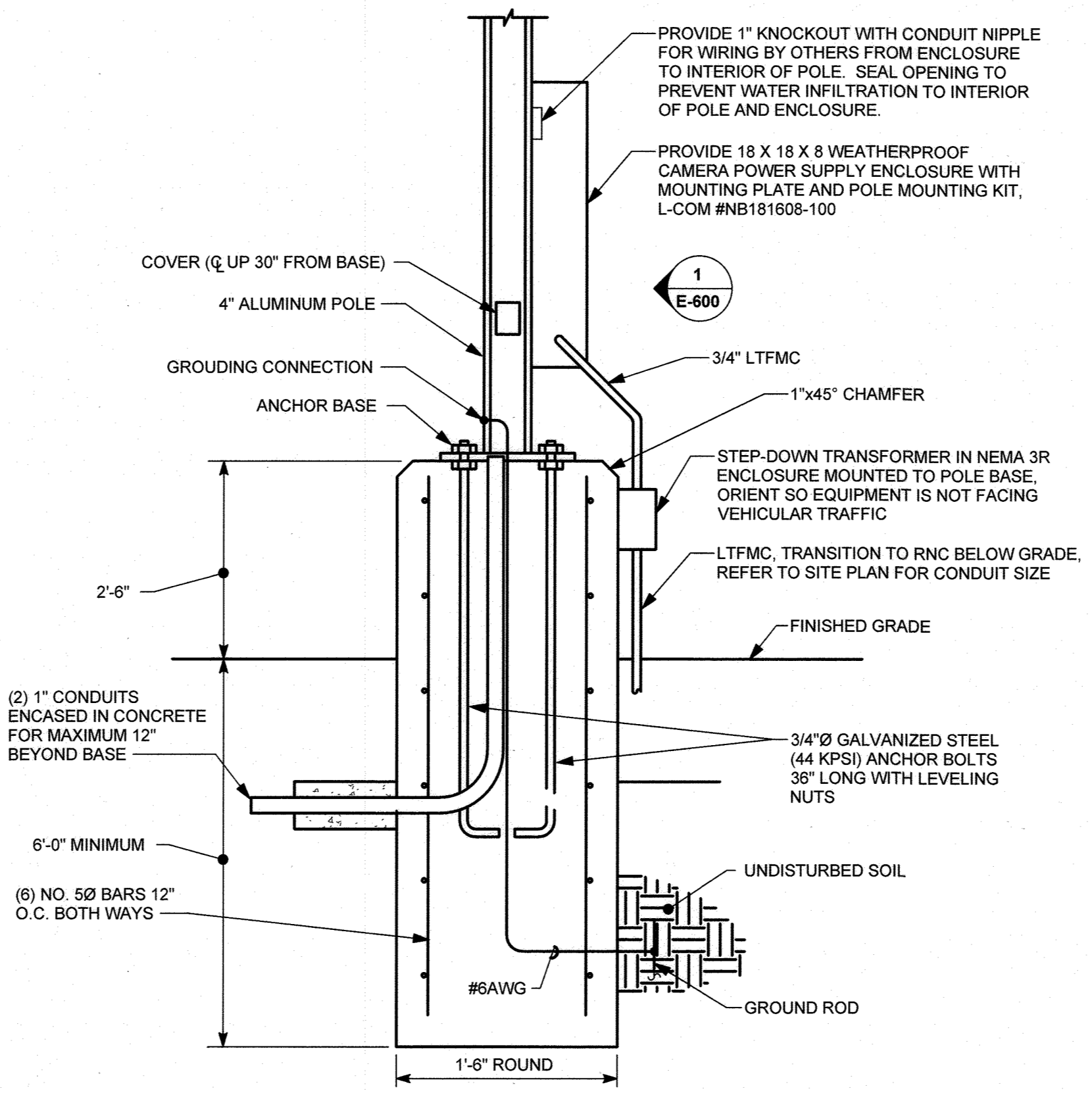
# ABBREVIATIONS

A	AMPS OR AMPERE
AC	ALTERNATING CURRENT
ACU	AIR CONDITIONING UNIT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
DISC	DISCONNECT
DN	DOWN
DWG	DRAWING
ECB	ENCLOSED CIRCUIT BREAKER
EMT	ELECTRICAL METALLIC TUBING
ETR	EXISTING TO REMAIN
EX	EXISTING
FDR	FEEDER
FSS	FUSED SAFETY SWITCH
FT	FOOT OR FEET
GRD	GROUND
Hz	HERTZ
IC	INSULATED CASE
IMC	INTERMEDIATE METAL CONDUIT
JB	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KW	KILOWATT
LCP	LIGHTING CONTROL PANEL
LTG	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MH	MOUNTING HEIGHT
MLO	MAIN LUG ONLY
MTD	MOUNTED
MTG	MOUNTING
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
NFSS	NON-FUSED SAFETY SWITCH
P	POLE OR POLES
PB	PUSHBUTTON
PNL	PANELBOARD
RX	REMOVE EXISTING
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
V	VOLTS OR VOLTAGE
W	WIRE
WV	WITH
WP	WEATHERPROOF (NEMA 3R)
#	NUMBER
Ø	PHASE

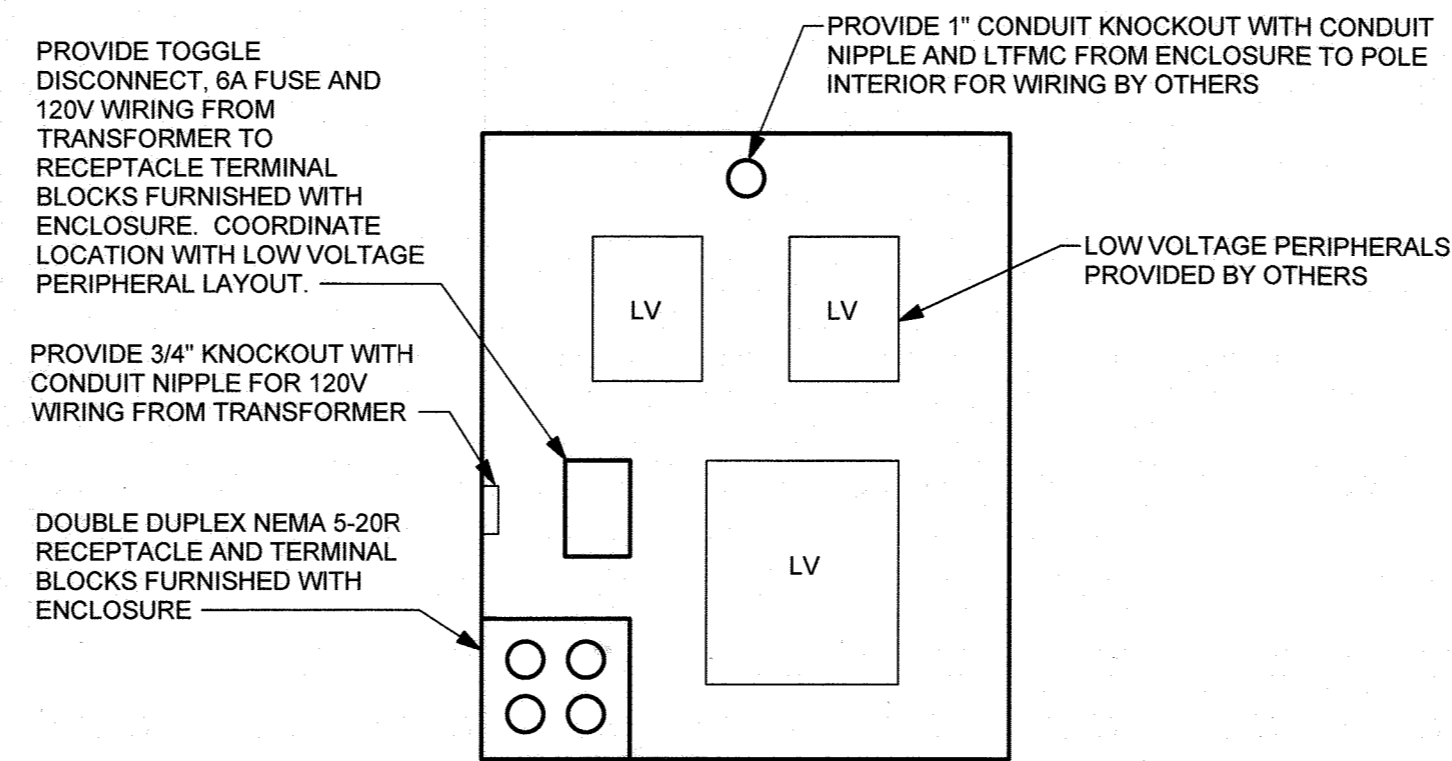
# CONVENTIONS

	ELECTRICAL EQUIPMENT DENOTED BY DASHED, HEAVY LINEWEIGHT SHALL BE DISPOSED OF, UNLESS INDICATED TO BE REUSED OR TURNED OVER TO THE OWNER
	ELECTRICAL EQUIPMENT DENOTED BY LIGHT, SOLID LINEWEIGHT INDICATES EXISTING TO REMAIN, UNLESS INDICATED OTHERWISE
	ELECTRICAL EQUIPMENT DENOTED BY HEAVY, SOLID LINEWEIGHT SHALL BE NEW WORK PROVIDED BY CONTRACTOR
	INDICATES SPACE OR POLE NUMBER
	BRANCH CIRCUIT HOMERUN TO PANELBOARD, SWITCHBOARD, MCC
	PANELBOARD DESIGNATION
	INDICATES PHASE, SWITCHED, AND TRAVELER CONDUCTORS (IF NOT SHOWN, PROVIDE 2#12 AWG & 1#12 GROUND)
	BRANCH CIRCUIT - CONCEALED IN CEILING OR WALL
	BRANCH CIRCUIT - CONCEALED IN SLAB OR BELOW GRADE
	BRANCH CIRCUIT - EXPOSED ON CEILING OR WALL
	INDICATES NUMBER OF SWITCHES IN GROUP
	LIGHTING TOGGLE SWITCH
	DENOTES SWITCH DESIGNATION
	DRAWING NOTE
	GENERAL NOTE - APPLIES TO ALL SHEETS WITHIN THE ELECTRICAL DRAWING SET
	LIGHTING FIXTURE TYPE (REFER TO SCHEDULE)
	LIGHTING FIXTURE
	INDICATES SWITCH DESIGNATION (X DENOTES PANEL, # DENOTES CIRCUIT NUMBER)
	INDICATES CIRCUIT DESIGNATION (X DENOTES PANEL, # DENOTES CIRCUIT NUMBER)
	FEEDER NUMBER (REFER TO SCHEDULE)
	CONNECT TO EXISTING

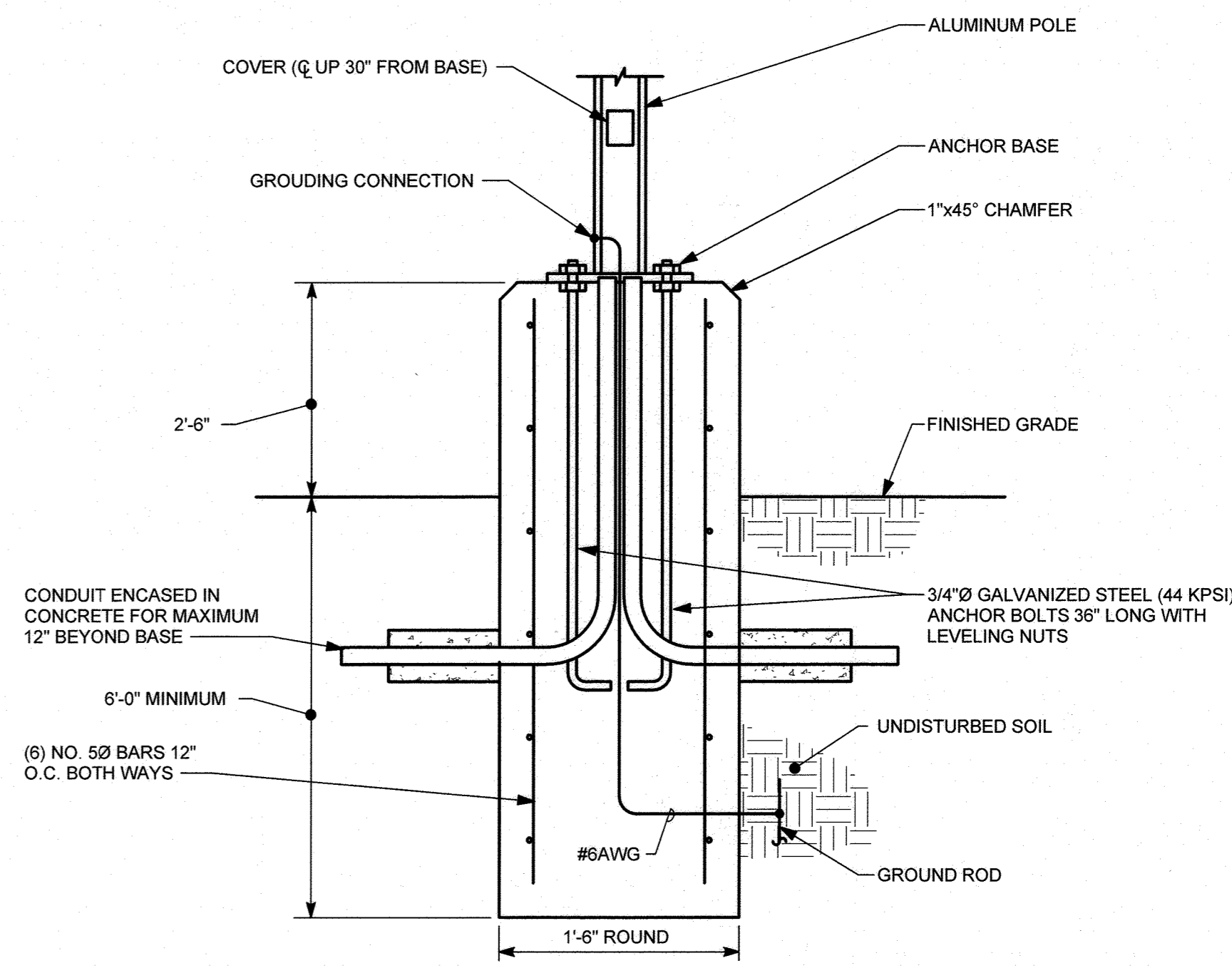
GENERAL NOTES:  
 A. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) APPROVED NRTL'S SHALL BE RECOGNIZED BY OSHA IN ACCORDANCE WITH 29 CFR 1910.7



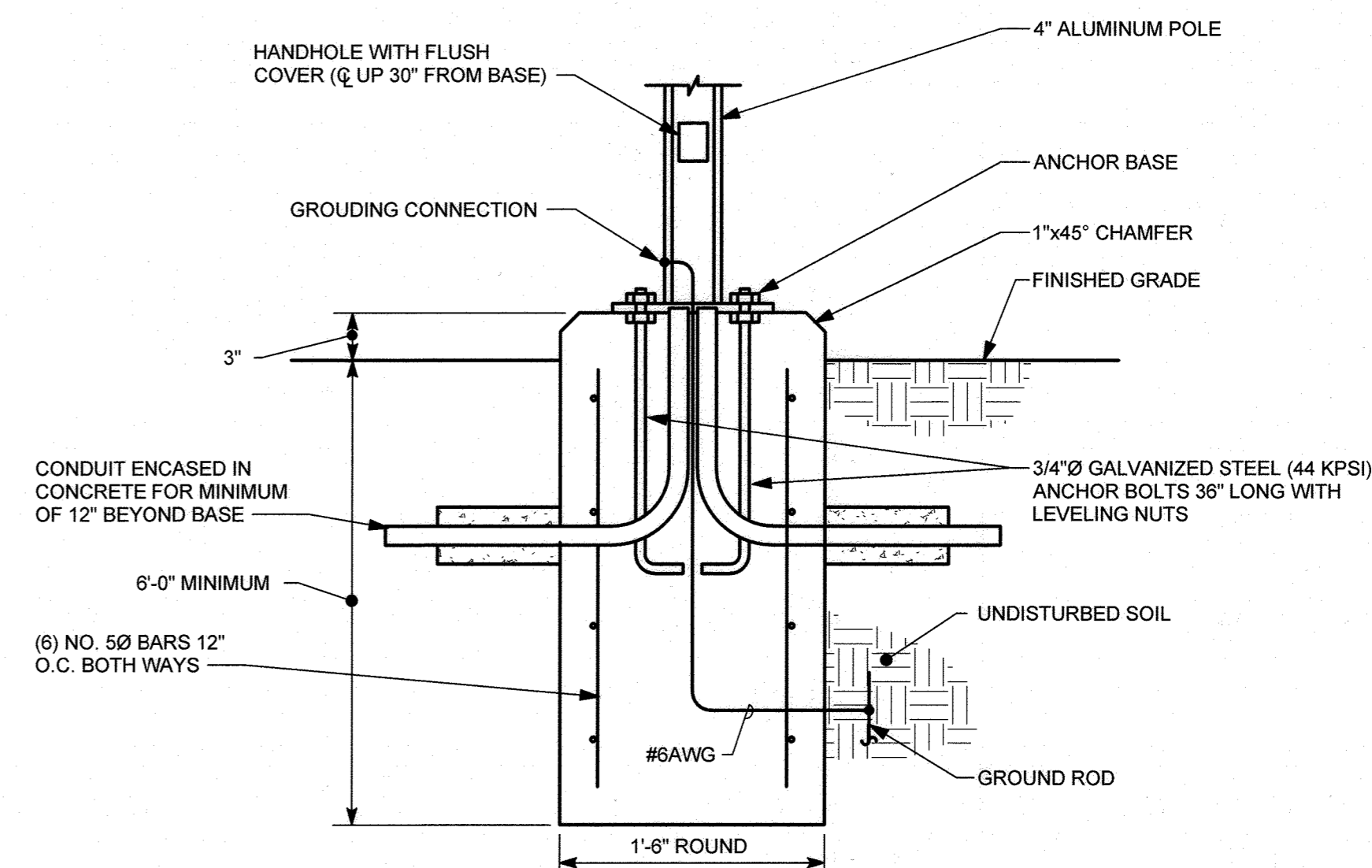
DETAIL - SITE POLE BASE - TYPE D7  
NOT TO SCALE



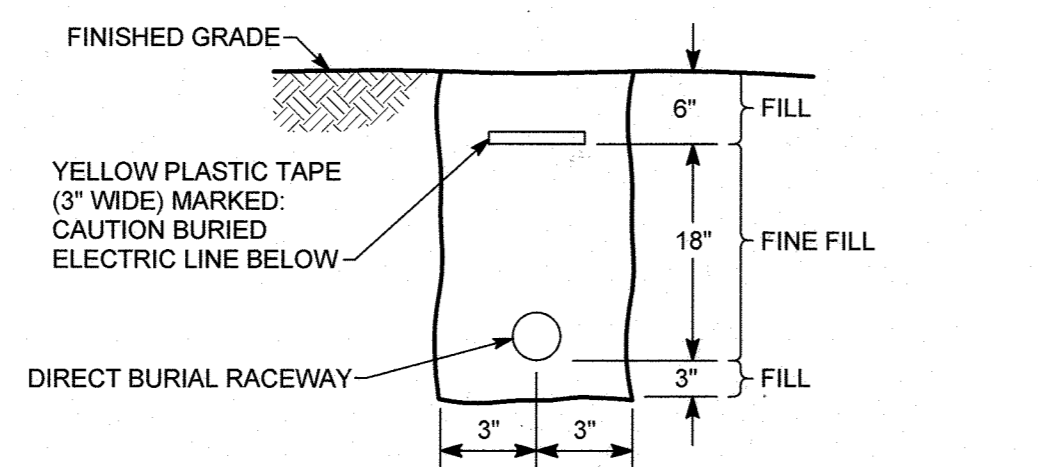
ELEVATION - CAMERA POWER SUPPLY ENCLOSURE  
NOT TO SCALE



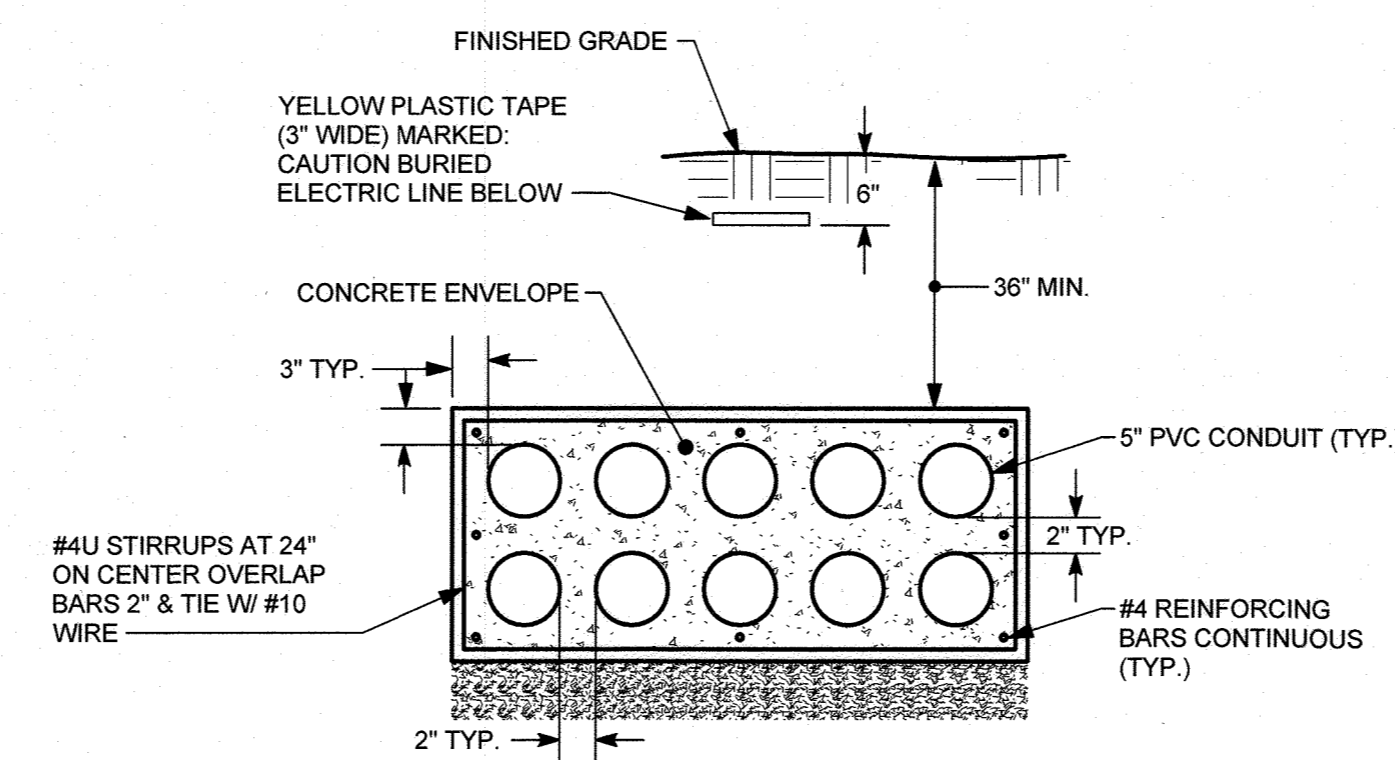
DETAIL - SITE LIGHTING POLE BASE - TYPES D1, D2, D3  
NOT TO SCALE



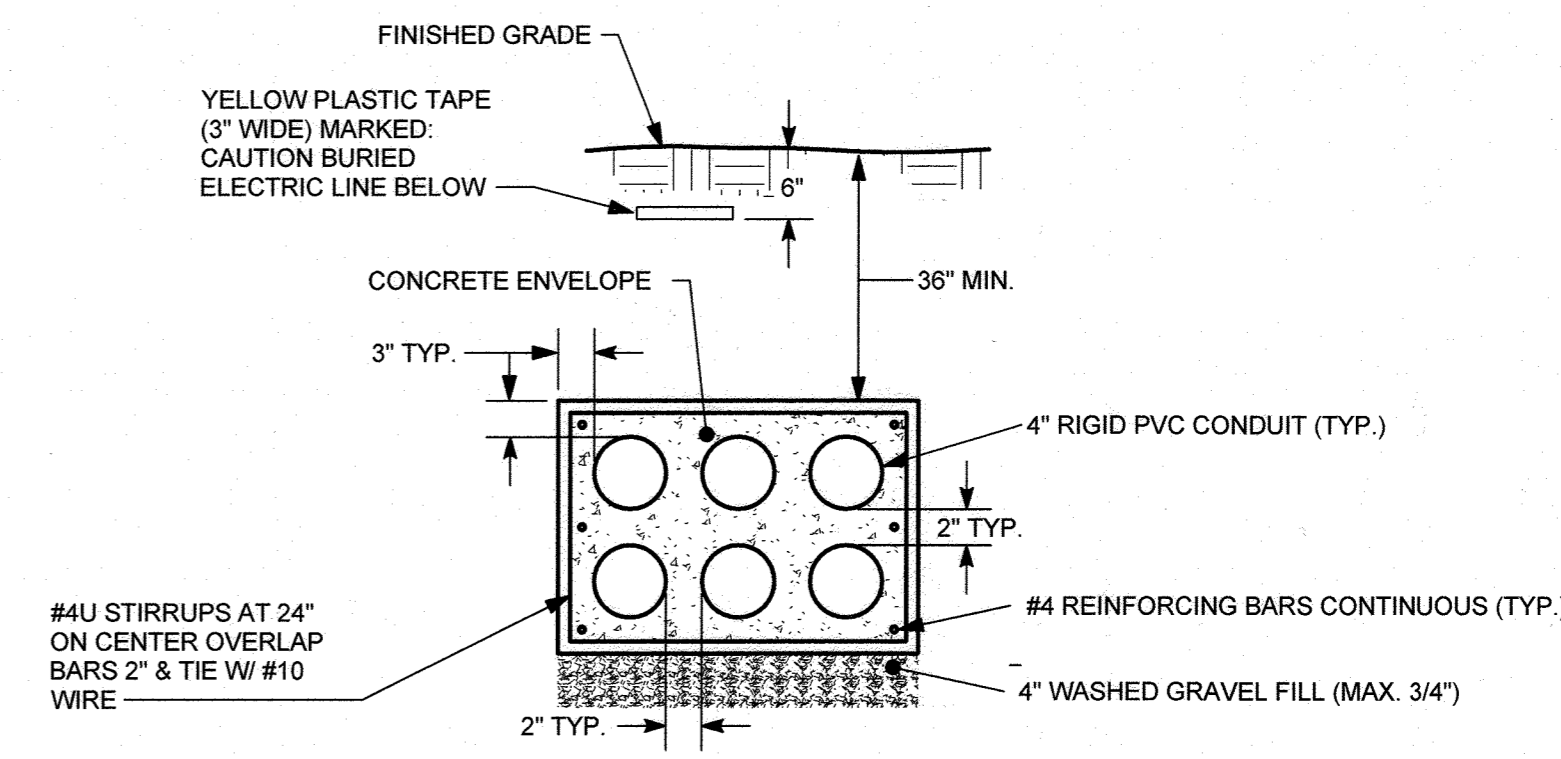
DETAIL - SITE LIGHTING POLE BASE - TYPE D8  
NOT TO SCALE



DETAIL - DIRECT BURIAL RACEWAY INSTALLATION  
NOT TO SCALE



DETAIL - 2x5 ELECTRICAL DUCTBANK  
NOT TO SCALE



DETAIL - 2x3 ELECTRICAL DUCTBANK  
NOT TO SCALE

APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 Chief, Development Engineering Division  
 Chief, Division of Land Development  
 Director

10/15/22  
 DATE  
 10/17/22  
 DATE  
 10/17/22  
 DATE

NOTE: NOT ALL SYMBOLS AND ABBREVIATIONS APPLY TO THIS PROJECT

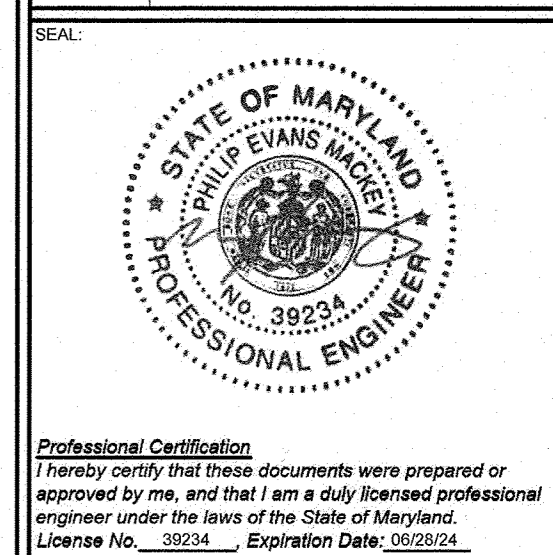
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 14315 JARRETTVILLE PIKE  
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 410.683.3388

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 CARROLL ENGINEERING, INC.  
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 410.785.7423

MEP ENGINEERING  
 LEACH WALLACE ASSOC., INC.  
 6522 MEADOWBRIDGE RD #1  
 ELK RIDGE, MD 21075  
 410.579.8100



Professional Certification  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 39234, Expiration Date 02/28/2024.

**Sheppard Pratt**  
 HEALTH SYSTEM

**MEDICAL PAVILION**  
 7190 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY

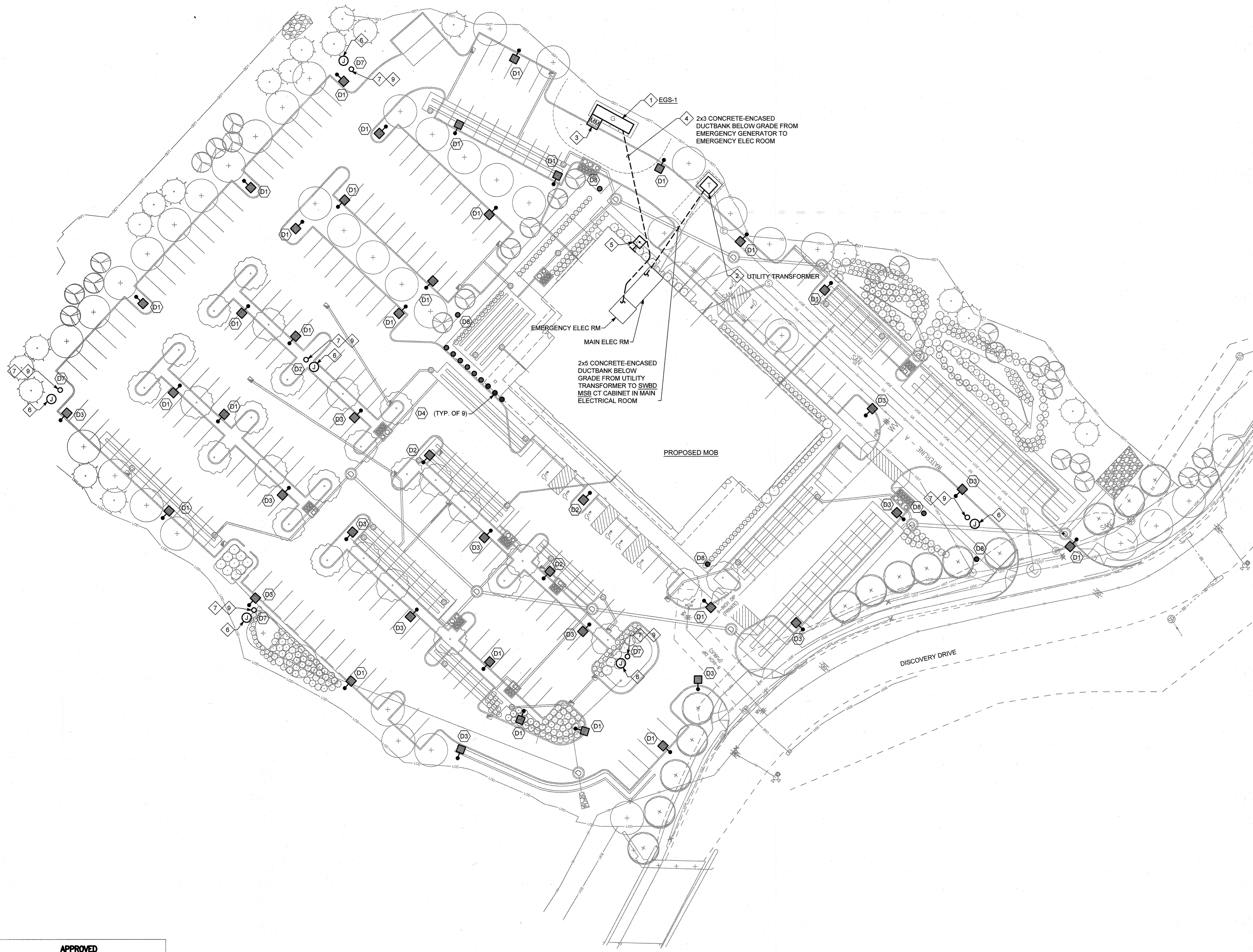
ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

REVISIONS:

DATE	COMMENTS

PROJECT NO: 19002.01  
 SHEET SET AND SHEET ISSUE DATE: 03/27/2020  
 SHEET NAME: ELECTRICAL LEGEND AND DETAILS  
 SHEET NO: 58 of 60  
 SDP



- DRAWING NOTES:**
1. PROVIDE EMERGENCY GENERATOR IN SOUND-ATTENUATED, WEATHERPROOF ENCLOSURE ON GRADE WITH SUB-BASE FUEL OIL CAPACITY SIZED FOR 48 HOUR OF RUNTIME AT 100% RATED LOAD.
  2. REFER TO CIVIL FOR RACEWAYS PROVIDED FOR MEDIUM VOLTAGE, UTILITY-OWNED FEEDERS.
  3. PROVIDE MONITOR MODULES FOR GENERATOR RUN AND GENERATOR FAULT ALARMS.
  4. EMERGENCY FEEDER SHALL BE SEPARATED FOR ENTIRE LENGTH OF FEEDER FROM GENERATOR ECB IN ELECTRICAL ROOM IN ACCORDANCE WITH NEC 700.
  5. PROVIDE GENERATOR EMERGENCY-STOP SWITCH IN A LOCKABLE NEMA 3R ENCLOSURE.
  6. PROVIDE (2) HANDHOLES FOR POWER AND LOW VOLTAGE CABLING TO SITE LIGHTING, CAMERAS, AND PERIPHERALS. ONE HANDHOLE SHALL READ "ELECTRIC" AND ONE HANDHOLE SHALL READ "COMMUNICATIONS".
  7. PROVIDE (3) 1" CONDUITS FROM POLE BASE TO ADJACENT HANDHOLES. (1) CONDUIT ROUTED TO FROM TRANSFORMER ENCLOSURE ON EXTERIOR OF POLE BASE TO ELECTRICAL HANDHOLE AND (2) CONDUITS ROUTED FROM INTERIOR OF POLE BASE TO COMMUNICATIONS HANDHOLE.
  8. PROVIDE 480V-120V, 500 VA TRANSFORMER WITH PRIMARY AND SECONDARY FUSES IN NEMA 3R ENCLOSURE MOUNTED TO POLE BASE FOR POLE-MOUNTED CAMERAS AND LOW VOLTAGE PERIPHERALS BY OTHERS. CONNECT TRANSFORMER TO 480V/120V BRANCH CIRCUIT SERVING CAMERA/MPI PERIPHERALS ON SITE. PROVIDE 120V CONNECTION TO POWER SUPPLY PROVIDED BY OTHERS. COORDINATE HOLE PATTERNS FOR CAMERA MOUNTS WITH VENDOR.
  9. POLE BASE SHALL BE A MINIMUM 4' FROM SITE LIGHTING POLE BASE.

**APPROVED**  
**DEPARTMENT OF PLANNING AND ZONING**  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION *[Signature]* 10-15-22 DATE  
 CHIEF, DIVISION OF LAND DEVELOPMENT *[Signature]* 10/27/22 DATE  
 DIRECTOR *[Signature]* 10/27/22 DATE

**SITE PLAN - NEW WORK - ELECTRICAL**  
 SCALE: 1" = 30'-0"

**MCA ARCHITECTURE**

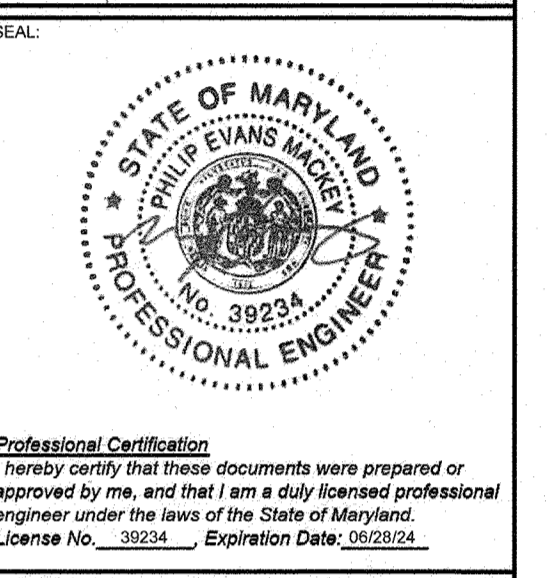
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**Sheppard Pratt**  
 HEALTH SYSTEM

**MEDICAL PAVILION**  
 7180 DISCOVERY DRIVE  
 ELK RIDGE, MARYLAND 21075  
 HOWARD COUNTY

**ADDRESS CHART**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

SUBMISSION NAME	SECTION/AREA	SUIT/ PARCEL NO.
CORRIDOR 95 BUSINESS PARK	N/A	N/A

PLATE OR L/P	GRID	ZONING	TAX	ELECT	CONDS TRACT
22384/22385	0033	M-1	MARY 0033	0033	6012.03

OWNER/DEVELOPER  
 SHEPPARD PRATT HEALTH SYSTEM INC.  
 6501 N CHARLES STREET  
 BALTIMORE, MARYLAND 21285-6815  
 TEL: 410-938-3242

REVISIONS:

NO.	DATE	COMMENTS

MCA JOB NO: 19002.01 PROJ/MANAGER: PEM SHEET BY: KRG  
 SHEET SET AND SHEET ISSUE DATE: SDP 03/27/2020

**SITE PLAN - NEW WORK - ELECTRICAL**

SHEET NO: **59 of 60**

SDP-20-057

LIGHTING FIXTURE SCHEDULE *					
TYPE	DESCRIPTION	MANUFACTURER / CATALOG NO.	LAMPS	VOLTAGE	NOTES
D1	SINGLE HEAD, DIRECT POT TOP MOUNT, ALUMINUM HOUSING, ALUMINUM LENS FRAME, TYPE II DISTRIBUTION, FLAT GLASS LENS, CLEAR INJECTION MOLDED ACRYLIC OPTICAL LENS, PLATINUM SILVER FINISH, 20" OVERALL HEIGHT, 0-10V DIMMING, 10-100% DIMMING RANGE, IP66 RATED FOR WET LOCATIONS	KIM LIGHTING UR20	LED (INCLUDED) 2800 LM 3000K CRI 80+	MVOLT	NOTES 1,2 25 FW
D2	SAME AS 'D1' BUT TYPE II DISTRIBUTION	KIM LIGHTING UR20	LED (INCLUDED) 2700 LM 3000K CRI 80+	MVOLT	NOTES 1,2 25 FW
D3	SAME AS 'D1' BUT TYPE IV DISTRIBUTION	KIM LIGHTING UR20	LED (INCLUDED) 2800 LM 3000K CRI 80+	MVOLT	NOTES 1,2 25 FW
D4	10" DIAMETER X 34" HIGH ROUND BOLLARD, ALUMINUM HOUSING, GLASS DIFFUSER WITH WHITE INTERIOR, SILVER FINISH, FULLY GASKETED, IP65 RATED	BEGA 99 777	LED (INCLUDED) 700 LM 3000K CRI 80+	MVOLT	NOTE 5 34 FW
D7	EXTRUDED ALUMINUM POLE, PLATINUM SILVER FINISH, 6" STRAIGHT ROUND SHAFT, 20" OVERALL HEIGHT	KIM LIGHTING PRA20-6188			NOTES 1,4
D8	SINGLE HEAD FULL CUT OFF POST TOP MOUNT, 500 mA DRIVE CURRENT, ALUMINUM HOUSING, ALUMINUM HOOD WITH WHITE PAINTED INTERIOR, TYPE III DISTRIBUTION, NO UPLIGHT FINISH, 14" OVERALL HEIGHT, SILVER FINISH, IP65 RATED FOR WET LOCATIONS	SELUX SACL	LED (INCLUDED) 3400 LM 3000K CRI 80+	MVOLT	NOTES 1,3 51 FW

- NOTES:
- \* EQUALS WILL BE CONSIDERED IF SUBMITTED TO AND APPROVED BY ENGINEER AND ARCHITECT PRIOR TO BID DATE.
- PROVIDE BASE/MOUNTING PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE WITH LANDSCAPE ARCHITECT/CIVIL ENGINEER.
  - PROVIDE KIM LIGHTING PRA20-4188 4" ROUND ALUMINUM NON-TAPERED POLE, FINISH TO MATCH LIGHTING FIXTURE HEAD.
  - PROVIDE SELUX A35 4" ROUND ALUMINUM POLE, FINISH TO MATCH LIGHTING FIXTURE HEAD.
  - FIELD DRILL HOLES FOR CAMERA MOUNTING BRACKETS. COORDINATE EXACT REQUIREMENTS IN FIELD WITH CCTV VENDOR.
  - PROVIDE UNIT PRICE. ALTERNATES WILL NOT BE ACCEPTED.
- FW = FIXTURE WATTS

### KIM LIGHTING

URO™ LED KL\_ur20post\_spec.pdf

JOB: \_\_\_\_\_ TYPE: \_\_\_\_\_

NOTES: \_\_\_\_\_ APPROVALS: \_\_\_\_\_

**FEATURES**

- 20" size in post top, pole and wall mount
- High performance optics up to 17,000 delivered lumens
- Elegant form factor
- Diffusion lens option
- Silex™ wireless control options

**CERTIFICATIONS**

UL, ENEC, IFC, CE, FCC, RoHS, REACH, Energy Star, DLC E-6, IESNA, IESNA E-7, IESNA E-8, IESNA E-9, IESNA E-10, IESNA E-11, IESNA E-12, IESNA E-13, IESNA E-14, IESNA E-15, IESNA E-16, IESNA E-17, IESNA E-18, IESNA E-19, IESNA E-20, IESNA E-21, IESNA E-22, IESNA E-23, IESNA E-24, IESNA E-25, IESNA E-26, IESNA E-27, IESNA E-28, IESNA E-29, IESNA E-30, IESNA E-31, IESNA E-32, IESNA E-33, IESNA E-34, IESNA E-35, IESNA E-36, IESNA E-37, IESNA E-38, IESNA E-39, IESNA E-40, IESNA E-41, IESNA E-42, IESNA E-43, IESNA E-44, IESNA E-45, IESNA E-46, IESNA E-47, IESNA E-48, IESNA E-49, IESNA E-50, IESNA E-51, IESNA E-52, IESNA E-53, IESNA E-54, IESNA E-55, IESNA E-56, IESNA E-57, IESNA E-58, IESNA E-59, IESNA E-60, IESNA E-61, IESNA E-62, IESNA E-63, IESNA E-64, IESNA E-65, IESNA E-66, IESNA E-67, IESNA E-68, IESNA E-69, IESNA E-70, IESNA E-71, IESNA E-72, IESNA E-73, IESNA E-74, IESNA E-75, IESNA E-76, IESNA E-77, IESNA E-78, IESNA E-79, IESNA E-80, IESNA E-81, IESNA E-82, IESNA E-83, IESNA E-84, IESNA E-85, IESNA E-86, IESNA E-87, IESNA E-88, IESNA E-89, IESNA E-90, IESNA E-91, IESNA E-92, IESNA E-93, IESNA E-94, IESNA E-95, IESNA E-96, IESNA E-97, IESNA E-98, IESNA E-99, IESNA E-100

**SPECIFICATIONS**

Weight: 25 lbs

**ORDERING CODE**

Series	LED Engine	CCF	Distribution	Interior	Voltage	Mounting
UR20	UR20	UR20	UR20	UR20	UR20	UR20

**Finish**

UR20: 25 lbs

**Options**

UR20: 25 lbs

**Central Options**

UR20: 25 lbs

**Central Accessories**

UR20: 25 lbs

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P.O. Box 968, 5666 | F: 626.363.2695 | www.kimlighting.com | Rev. Oct. 21, 2019

### BEGA LED system bollard - luminaire head with unshielded light with safety guard - 360°

Enclosure: Housing constructed of die-cast aluminum. Die-castings are marine grade, copper free (0.05% copper content) A3600 aluminum alloy. Glass diffuser: frosted white, fully gasketed for weather-tight operation using molded silicone gasket.

Installation: BEGA LED system bollards are designed for easy attachment to system bollard tubes using an interlocking stainless steel mechanism and stainless steel set screw threaded into stainless steel bracket. An accompanying bollard tube must be selected for proper installation, see below chart for compatible tube options.

Electrical: 50-Watt LED luminaire, 24 total system watts, -30°C start temperature. Integral 120V through 277V electronic LED driver, 0-10V dimming, LED module(s) are available from factory for easy replacement. Standard LED color temperature is 3000K with a 90 CRI. Available in 4000K (p-90 CRI); add suffix K4 to order.

Note: LEDs supplied with luminaire. Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change as the discussion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK), White (WHT), Bronze (BRZ), Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

CSA certified to U.S. and Canadian standards, suitable for wet locations. Protection class IP65.

Weight: 24.5 lbs.

Luminaire Lumens: 708

**Ordering Code**

Series	LED Engine	CCF	Distribution	Interior	Voltage	Mounting
99 777	99 777	99 777	99 777	99 777	99 777	99 777

**Options**

99 777: 24.5 lbs

**Central Accessories**

99 777: 24.5 lbs

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P.O. Box 968, 5666 | F: 626.363.2695 | www.bega-us.com | Rev. Oct. 21, 2019

### APPROVED DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 10/15/22

CHIEF, DIVISION OF LAND DEVELOPMENT

DATE: 10/27/22

DIRECTOR

DATE: 10/27/22

### FIXTURE TYPE (D1)(D2)(D3)

DATE: \_\_\_\_\_ CUSTOMER: \_\_\_\_\_

PROJECT: \_\_\_\_\_

TYPE: \_\_\_\_\_ QTY: \_\_\_\_\_

### Saturn Cutoff LED

**Order Code:**

SACL	Series	SACL	Series	Height	Finish	Options
	R1	R2	R3	R5		
	1	1A	2	W		
	LG4500	LG4700	LG4105			
	30'	35'	40'	50'		
	8'-1"	10'-1"	12'-1"	14'-1"	16'-1"	18'-1"
	WH	BK	BL	BZ	SV	SP
	120	208	240	277	347*	480*
	DS*	HS*	FS*	PCT	DM*	DMY*

**Product Modifications**

\_\_\_\_\_

**Approvals**

\_\_\_\_\_

DATE: \_\_\_\_\_

### selux

**Address Chart**

LOT/PARCEL#	STREET ADDRESS
MEDICAL PAVILION	7190 DISCOVERY DRIVE

**OWNER/DEVELOPER**

SHEPPARD PRATT HEALTH SYSTEM INC.  
6501 N CHARLES STREET  
BALTIMORE, MARYLAND 21285-6815  
TEL: 410-938-3242

**REVISIONS:**

NO.	DATE	COMMENTS

**PROJECT INFORMATION**

PROJECT NO: 19002.01  
SHEET SET AND SHEET ISSUE DATE: 03/27/2020  
SHEET NAME: LIGHTING FIXTURE SCHEDULE AND CUTSHEETS

**DESIGNER**

PROJ. MANAGER: PEM  
SHEET BY: KRG

**60 of 60**

SDP-20-057

### MCA ARCHITECTURE

Marshall Craft Associates, Inc.  
2031 Clipper Park Road, Suite 105  
Baltimore, Maryland 21211  
410.532.3131 | www.mca.design

**CIVIL ENGINEERING**

CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**LANDSCAPE DESIGN**

SITE RESOURCES, INC.  
14315 JARRETTVILLE PIKE  
PHOENIX, AZ 85032  
410.683.3388

**STRUCTURAL ENGINEERING**

CARROLL ENGINEERING, INC.  
215 SCHILLING CIR., SUITE 102  
HUNT VALLEY, MD 21031  
410.785.7423

**MEP ENGINEERING**

LEACH WALLACE ASSOC., INC.  
6522 MEADOWBRIDGE RD #1  
ELK RIDGE, MD 21075  
410.578.8100

**Professional Certification**

PHILIP J. EVANS, P.E.  
PROFESSIONAL ENGINEER  
STATE OF MARYLAND  
NO. 39234  
EXPIRES 12/31/2024

**Sheppard Pratt HEALTH SYSTEM**

**MEDICAL PAVILION**

7190 DISCOVERY DRIVE  
ELK RIDGE, MARYLAND 21075  
HOWARD COUNTY