NORTHWEST REGIONAL PARK

SPLASH PAD AND SUPPORTING FACILITIES

OWINGS MILLS, MD

BALTIMORE COUNTY WO#971383/PO#:10010368

100% CONSTRUCTION DOCUMENT SET
07.18.2025

OWNER
BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
T. 410.887.3861

LANDSCAPE ARCHITECT
MAHAN RYKIEL ASSOCIATES, INC. (MRA)
3300 CLIPPER MILL ROAD, SUITE 200
BALTIMORE, MD 21211
T. 410.235.6001

ARCHITECT
JP2 ARCHITECTS
2811 DILLON STREET
BALTIMORE, MD 21224
T. 410.646.8300

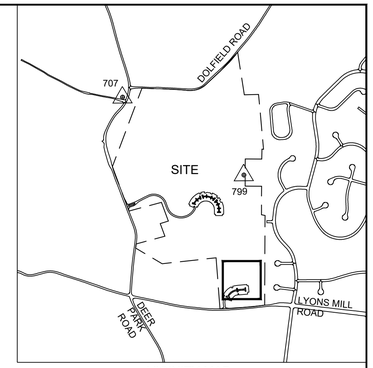
CIVIL ENGINEER
RUMMEL, KLEPPER, AND KAHL, LLP (RK&K)
700 EAST PRATT STREET, SUITE 500
BALTIMORE, MD 21202
T. 410.728.2900

MEP ENGINEER
C.C. JOHNSON & MALHOTRA, P.C. (CCJM)
400 EAST PRATT STREET, SUITE 604
BALTIMORE, MD 21202
T. 410.461.9920

STRUCTURAL ENGINEER
COLUMBIA ENGINEERING, INC. (CEI)
6210 OLD DOBBIN LANE, SUITE 150
COLUMBIA, MD 21045
T. 410.992.9970

AQUATIC
CLOWARD H2O
350 SOUTH 400 WEST, SUITE 200
LINDON, UT 84042
T. 801.375.1223

COST ESTIMATOR
RIDER LEVETT BUCKNALL (RLB)
9881 BROKEN LAND PARKWAY, SUITE 304
COLUMBIA, MD 21046
T. 347.246.4823



VICINITY MAP
SCALE: 1" = 1000'

BENCHMARK TABLE

SYMBOL	NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
△	707	630,781.77	1,360,248.73	636.92	SPIKE
△	799	629,694.69	1,361,943.93	654.66	CAPPED PIPE

SURVEY NOTES

1. THE TOPOGRAPHIC INFORMATION WAS OBTAINED BY SURVEY FROM RK&K AND AND UTILITY INFORMATION WAS OBTAINED FROM AIDATA, WITH ADDITIONAL INFORMATION SUPPLEMENTED BY GIS RECORDS. TOPOGRAPHIC AND UTILITY INFORMATION MAY NOT REFLECT CURRENT CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF ANY WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER PRIOR TO THE START OF ANY WORK.
2. BEARINGS, COORDINATES AND ELEVATIONS SHOWN ON THIS PLAN ARE SHOWN IN MARYLAND STATE PLANE NAD 83. ALL VERTICAL CONTROLS ARE BASED ON NAVD 88.

DWG. FILENAME:

SEAL
STATE OF MARYLAND — MARK E. PELUSH, JR. — 1152 — LANDSCAPE ARCHITECT
DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 1152, EXPIRATION DATE 09/18/2026.
LANDSCAPE ARCHITECT: MARK E PELUSH, JR. MAHAN RYKIEL
AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MEP
DWN BY: MNQ
CHKD BY: MEP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO.
CONTRACT COMPLETION BOX
R.O.W NO.

KEY SHEET: PNW | POSITION SHT: 35NW40

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: JM Doran
PROPERTY MANAGER
DATE: 12/23/2026

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
GENERAL - COVER SHEET
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
G0.00	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 01 OF 150
	DRAWING NUMBER
	2025-2172
	FILE NO.: 8

GENERAL

SHEET DESIGNATION	DRAWING NUMBER	SHEET TITLE
G0.00	2025-2172	GENERAL - COVER SHEET
G0.01	2025-2173	GENERAL - SHEET INDEX
G0.02	2025-2174	GENERAL - PROJECT NOTES

CIVIL

SHEET DESIGNATION	DRAWING NUMBER	SHEET TITLE
C-100	2025-2175	CIVIL - EXISTING CONDITIONS PLAN
C-101	2025-2176	CIVIL - DEMOLITION PLAN
C-200	2025-2177	CIVIL - SITE PLAN
C-201	2025-2178	CIVIL - SITE LAYOUT & GEOMETRY PLAN
C-250	2025-2179	CIVIL - SITE DETAILS
C-300	2025-2180	CIVIL - GRADING PLAN
C-400	2025-2181	CIVIL - UTILITY PLAN
C-401	2025-2182	CIVIL - PROPOSED SANITARY SEWER HOUSE CONNECTION
C-420	2025-2183	CIVIL - WATER AND SEWER PROFILES
C-421	2025-2184	CIVIL - STORM DRAIN PROFILES
C-450	2025-2185	CIVIL - WATER AND SEWER DETAILS
C-451	2025-2186	CIVIL - STORM DRAIN DETAILS
C-500	2025-2187	CIVIL - STORMWATER MANAGEMENT NOTES & DETAILS
C-501	2025-2188	CIVIL - STORMWATER MANAGEMENT EXISTING PLAN
C-502	2025-2189	CIVIL - STORMWATER MANAGEMENT PROPOSED PLAN
C-503	2025-2190	CIVIL - STORMWATER MANAGEMENT PROFILES
C-504	2025-2191	CIVIL - STORMWATER MANAGEMENT BORING LOGS & SPLASH PAD DETAILS
C-600	2025-2192	CIVIL - EROSION & SEDIMENT CONTROL NOTES
C-601	2025-2193	CIVIL - EROSION & SEDIMENT CONTROL PLAN (PHASE I)
C-602	2025-2194	CIVIL - EROSION & SEDIMENT CONTROL PLAN (PHASE II)
C-603	2025-2195	CIVIL - EROSION & SEDIMENT CONTROL PLAN (PHASE III)
C-650	2025-2196	CIVIL - EROSION & SEDIMENT CONTROL DETAILS
C-651	2025-2197	CIVIL - EROSION & SEDIMENT CONTROL DETAILS
C-652	2025-2198	CIVIL - EROSION & SEDIMENT CONTROL DETAILS

LANDSCAPE

SHEET DESIGNATION	DRAWING NUMBER	SHEET TITLE
L1.00	2025-2199	LANDSCAPE - OVERALL PLAN
L1.01	2025-2200	LANDSCAPE - MATERIALS PLAN - SPLASH PAD
L1.02	2025-2201	LANDSCAPE - MATERIALS PLAN - COMFORT STATION
L5.01	2025-2202	LANDSCAPE - HARDSCAPE DETAILS
L5.02	2025-2203	LANDSCAPE - HARDSCAPE DETAILS
L5.03	2025-2204	LANDSCAPE - HARDSCAPE DETAILS
L5.04	2025-2205	LANDSCAPE - HARDSCAPE DETAILS
L6.01	2025-2206	LANDSCAPE - SOILS PLAN - SPLASH PAD
L6.02	2025-2207	LANDSCAPE - SOILS PLAN - COMFORT STATION
L7.01	2025-2208	LANDSCAPE - PLANTING PLAN - SPLASH PAD
L7.02	2025-2209	LANDSCAPE - PLANTING PLAN - COMFORT STATION
L7.03	2025-2210	LANDSCAPE - Planting Plan - SWM
L7.10	2025-2211	LANDSCAPE - PLANT SCHEDULE
L8.01	2025-2212	LANDSCAPE - PLANTING DETAILS

ARCHITECTURE

SHEET DESIGNATION	DRAWING NUMBER	SHEET TITLE
A-001	2025-2213	ARCHITECTURE - SHEET INDEX
A-002	2025-2214	ARCHITECTURE - ANNOTATIONS AND ABBREVIATIONS
A-003	2025-2215	ARCHITECTURE - COMFORT STATION CODE DATA
A-004	2025-2216	ARCHITECTURE - SPLASH PAD OFFICE/MECH CODE DATA
A-100	2025-2217	ARCHITECTURE - COMFORT STATION SLAB CONTROL PLAN
A-101	2025-2218	ARCHITECTURE - COMFORT STATION FLOOR PLAN
A-102	2025-2219	ARCHITECTURE - COMFORT STATION CLEARSTORY PLAN
A-103	2025-2220	ARCHITECTURE - COMFORT STATION ROOF PLAN
A-104	2025-2221	ARCHITECTURE - SPLASH PAD OFFICE/MECH FLOOR AND ROOF PLAN
A-111	2025-2222	ARCHITECTURE - COMFORT STATION REFLECTED CEILING PLAN
A-112	2025-2223	ARCHITECTURE - SPLASH PAD OFFICE/MECH REFLECTED CEILING PLAN
A-121	2025-2224	ARCHITECTURE - COMFORT STATION FINISH PLAN
A-122	2025-2225	ARCHITECTURE - SPLASH PAD OFFICE/MECH FINISH PLAN
A-201	2025-2226	ARCHITECTURE - COMFORT STATION EXTERIOR ELEVATIONS
A-202	2025-2227	ARCHITECTURE - COMFORT STATION EXTERIOR ELEVATIONS
A-203	2025-2228	ARCHITECTURE - SPLASH PAD OFFICE/MECH EXTERIOR ELEVATIONS
A-301	2025-2229	ARCHITECTURE - COMFORT STATION BUILDING SECTIONS
A-302	2025-2230	ARCHITECTURE - SPLASH PAD OFFICE/MECH BUILDING SECTIONS
A-311	2025-2231	ARCHITECTURE - COMFORT STATION WALL SECTIONS
A-312	2025-2232	ARCHITECTURE - COMFORT STATION WALL SECTIONS
A-313	2025-2233	ARCHITECTURE - COMFORT STATION WALL SECTIONS
A-314	2025-2234	ARCHITECTURE - SPLASH PAD OFFICE/MECH WALL SECTIONS
A-401	2025-2235	ARCHITECTURE - COMFORT STATION ENLARGED FLOOR PLANS
A-402	2025-2236	ARCHITECTURE - COMFORT STATION INTERIOR ELEVATIONS
A-403	2025-2237	ARCHITECTURE - COMFORT STATION INTERIOR ELEVATIONS
A-404	2025-2238	ARCHITECTURE - COMFORT STATION GATE DETAILS
A-405	2025-2239	ARCHITECTURE - COMFORT STATION INTERIOR ELEVATIONS
A-501	2025-2240	ARCHITECTURE - COMFORT STATION PLAN DETAILS
A-502	2025-2241	ARCHITECTURE - COMFORT STATION PLAN DETAILS
A-503	2025-2242	ARCHITECTURE - COMFORT STATION COLUMN DETAILS
A-504	2025-2243	ARCHITECTURE - COMFORT STATION SECTION DETAILS
A-505	2025-2244	ARCHITECTURE - COMFORT STATION SECTION DETAILS
A-506	2025-2245	ARCHITECTURE - COMFORT STATION SECTION DETAILS
A-507	2025-2246	ARCHITECTURE - COMFORT STATION SECTION DETAILS
A-508	2025-2247	ARCHITECTURE - SPLASH PAD OFFICE/MECH SECTION DETAILS
A-509	2025-2248	ARCHITECTURE - SPLASH PAD OFFICE/MECH SECTION DETAILS
A-601	2025-2249	ARCHITECTURE - BUILDING ASSEMBLIES
A-602	2025-2250	ARCHITECTURE - INTERIOR PARTITION TYPES
A-603	2025-2251	ARCHITECTURE - DOOR SCHEDULE
A-604	2025-2252	ARCHITECTURE - FINISH SCHEDULE
A-605	2025-2253	ARCHITECTURE - TOILET ACCESSORIES SCHEDULE AND MOUNTING HEIGHTS
A-606	2025-2254	ARCHITECTURE - WINDOWS, LOUVERS, AND PERFORATED METAL SCREEN SCHEDULES
A-801	2025-2255	ARCHITECTURE - COMFORT STATION SIGNAGE PLAN AND DETAILS

STRUCTURAL

SHEET DESIGNATION	DRAWING NUMBER	SHEET TITLE
S0.01	2025-2321	STRUCTURAL - GENERAL NOTES
S0.02	2025-2256	STRUCTURAL - GENERAL NOTES
S0.03	2025-2257	STRUCTURAL - INSPECTION TABLES
S1.01	2025-2258	STRUCTURAL - FOUNDATION PLAN AND SCHEDULES
S1.02	2025-2259	STRUCTURAL - FRAMING PLANS
S3.01	2025-2260	STRUCTURAL - TYPICAL DETAILS
S3.02	2025-2261	STRUCTURAL - TYPICAL DETAILS
S4.01	2025-2262	STRUCTURAL - SECTIONS

MECHANICAL

SHEET DESIGNATION	DRAWING NUMBER	SHEET TITLE
M-001	2025-2263	MECHANICAL - SYMBOLS, ABBREVIATIONS AND GENERAL NOTES
M-101	2025-2264	MECHANICAL - EQUIPMENT VAULT HVAC PLAN - NEW WORK
M-102	2025-2265	MECHANICAL - COMFORT STATION HVAC PLAN - NEW WORK
M-600	2025-2266	MECHANICAL - SCHEDULES

PLUMBING

SHEET DESIGNATION	DRAWING NUMBER	SHEET TITLE
P-001	2025-2267	PLUMBING - SYMBOLS, ABBREVIATIONS, GENERAL NOTES AND SCHEDULES
P-101	2025-2268	PLUMBING - EQUIPMENT VAULT PLUMBING PLAN - NEW WORK
P-102	2025-2269	PLUMBING - COMFORT STATION PLUMBING PLAN - NEW WORK
P-500	2025-2270	PLUMBING - DETAILS
P-600	2025-2271	PLUMBING - RISER DIAGRAMS
P-601	2025-2272	PLUMBING - SCHEDULES

ELECTRICAL

SHEET DESIGNATION	DRAWING NUMBER	SHEET TITLE
E-001	2025-2273	ELECTRICAL - GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS
ED-100	2025-2274	ELECTRICAL - SITE PLAN - DEMOLITION
E-100	2025-2275	ELECTRICAL - SITE PLAN - NEW WORK
E-101	2025-2276	ELECTRICAL - EQUIPMENT VAULT ELECTRICAL PLAN - NEW WORK
E-102	2025-2277	ELECTRICAL - COMFORT STATION ELECTRICAL PLANS - NEW WORK
E-500	2025-2278	ELECTRICAL - POWER ONE-LINE DIAGRAM
E-501	2025-2279	ELECTRICAL - DETAILS
E-600	2025-2280	ELECTRICAL - PANEL SCHEDULES
E-601	2025-2281	ELECTRICAL - LIGHTING FIXTURE SCHEDULE

AQUATIC

SHEET DESIGNATION	DRAWING NUMBER	SHEET TITLE
W0-0.00	2025-2282	AQUATIC - SHEET INDEX SYMBOLS & ABBREVIATIONS
W0-0.01	2025-2283	AQUATIC - GENERAL NOTES
W1-1.01	2025-2284	AQUATIC - SPLASH PAD SITE LAYOUT PLAN
W1-1.02	2025-2285	AQUATIC - SPLASH PAD SITE PIPING PLAN
W1-1.10	2025-2286	AQUATIC - SPLASH PAD SECTIONS
W4-1.01	2025-2287	AQUATIC - SPLASH PAD FILTRATION FLOW DIAGRAM
W4-1.02	2025-2288	AQUATIC - SPLASH PAD FEATURE FLOW DIAGRAM
W4-1.20	2025-2289	AQUATIC - MECHANICAL ROOM LAYOUT PLAN
W4-1.21	2025-2290	AQUATIC - MECHANICAL ROOM HOUSEKEEPING PAD PLAN
W4-1.22	2025-2291	AQUATIC - COLLECTION TANK LAYOUT PLAN & SECTIONS
W4-1.30	2025-2292	AQUATIC - MECHANICAL ROOM & COLLECTION TANK SECTIONS
W5-1.01	2025-2293	AQUATIC - GENERAL DETAILS
W5-1.02	2025-2294	AQUATIC - GENERAL DETAILS
W5-1.03	2025-2295	AQUATIC - GENERAL DETAILS
W5-1.04	2025-2296	AQUATIC - GENERAL DETAILS
W5-1.05	2025-2297	AQUATIC - GENERAL DETAILS
W5-1.06	2025-2298	AQUATIC - GENERAL DETAILS
W6-0.01	2025-2299	AQUATIC - STRUCTURAL GENERAL NOTES
W6-0.02	2025-2300	AQUATIC - STRUCTURAL GENERAL NOTES
W6-0.03	2025-2301	AQUATIC - STRUCTURAL GENERAL NOTES
W6-1.10	2025-2302	AQUATIC - SPLASH PAD STRUCTURAL LAYOUT & SECTIONS
W6-1.20	2025-2303	AQUATIC - MECHANICAL BUILDING & COLLECTION TANK STRUCTURAL LAYOUT PLAN
W6-1.21	2025-2304	AQUATIC - ROOF FRAMING PLAN
W6-1.22	2025-2305	AQUATIC - SHEARWALL & HOLDOWN PLAN
W6-1.30	2025-2306	AQUATIC - MECHANICAL BUILDING & COLLECTION TANK STRUCTURAL SECTIONS
W6-1.31	2025-2307	AQUATIC - MECHANICAL BUILDING & COLLECITON TANK STRUCTURAL SECTIONS
W6-1.40	2025-2308	AQUATIC - FRAMING DETAILS
W6-1.41	2025-2309	AQUATIC - FRAMING DETAILS
W6-1.42	2025-2310	AQUATIC - FRAMING DETAILS
W6-1.50	2025-2311	AQUATIC - GENERAL STRUCTURAL DETAILS
WE0-0.00	2025-2312	AQUATIC - SYMBOLS AND NOTES
WE1-0.02	2025-2313	AQUATIC - SPLASH PAD ELECTRICAL SITE PLAN
WE3-1.01	2025-2314	AQUATIC - MECHANICAL ROOM POWER PLAN
WE4-1.01	2025-2315	AQUATIC - ONE-LINE DIAGRAM, CONTROL DIAGRAMS AND SCHEDULES
WE4-1.02	2025-2316	AQUATIC - CONTROL DIAGRAMS
WE5-1.01	2025-2317	AQUATIC - ELECTRICAL DIAGRAMS
WE5-1.02	2025-2318	AQUATIC - ELECTRICAL DIAGRAMS
WE5-1.03	2025-2319	AQUATIC - ELECTRICAL DIAGRAMS
WE5-1.04	2025-2320	AQUATIC - ELECTRICAL DIAGRAMS

PUBLIC UTILITY

SHEET DESIGNATION	DRAWING NUMBER	SHEET TITLE
SEWER	2025-1631	PROPOSED SANITARY HOUSE CONNECTION AMBLING WAY

DWG. FILENAME:

SEAL

STATE OF MARYLAND — MARK E. PELUSI, JR. — 1152 — LANDSCAPE ARCHITECT

DATE : OCTOBER 02, 2025

PROFESSIONAL CERTIFICATION

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

LICENSE NO. 1152, EXPIRATION DATE 09/18/2026.

LANDSCAPE ARCHITECT: MARK E. PELUSI, JR.

MAHAN RYKIEL ASSOCIATES, INC.

AS-BUILT PER RECORD PRINT

BY:

DATE:

DGN BY:	MEP
DWN BY:	MNQ
CHKD BY:	MEP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO.

CONTRACT COMPLETION BOX | R.O.W NO.

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

KEY SHEET	POSITION SHT
PNW	35NW40

DRAWING SCALE

PLAN SCALE: AS SHOWN

PROFILE SCALE:

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER

DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

GENERAL - SHEET INDEX

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
G0.01	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 02 OF 150	
DRAWING NUMBER	2025-2173
FILE NO.: 8	REV. 00/00

GENERAL NOTES:

1. NO WORK IS TO COMMENCE UNTIL ALL PERMITS HAVE BEEN OBTAINED.
2. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" (1-800-257-7777) AT LEAST 72 HOURS PRIOR TO BEGINNING ANY DEMOLITION, UTILITY, OR EXCAVATION ACTIVITY.
3. THE TOPOGRAPHIC INFORMATION WAS OBTAINED BY SURVEY FROM RK&K AND UTILITY INFORMATION WAS OBTAINED FROM AIDATA, WITH ADDITIONAL INFORMATION SUPPLEMENTED BY GIS RECORDS. TOPOGRAPHIC AND UTILITY INFORMATION MAY NOT REFLECT CURRENT CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF ANY WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER PRIOR TO THE START OF ANY WORK.
4. BEARINGS, COORDINATES AND ELEVATIONS SHOWN ON THIS PLAN ARE SHOWN IN MARYLAND STATE PLANE NAD 83. ALL VERTICAL CONTROLS ARE BASED ON NAVD 88.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION SHOWN ON THESE DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO STARTING WORK.
6. THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES PRIOR TO STARTING WORK AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT EXIST.
7. ADJUST TOP OF CURB GRADES TO PROVIDE SMOOTH TRANSITION.
8. STRIP & RESURFACE EXISTING PAVING AS NEEDED TO PROVIDE SMOOTH TRANSITION TO EX. SURFACE.
9. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLETE SUCH WORK.
10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ARCHITECT/ENGINEER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. SHOULD THE CONTRACTOR DISCOVER DISCREPENCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ARCHITECT/ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
12. THE CONTRACTOR SHALL NOTE THAT IN CASE OF ANY DISCREPANCY BETWEEN THE SCALED AND FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
13. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL TIE-IN ELEVATIONS.
14. ALL EXCAVATION SHALL BE BACKFILLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. IN THE EVENT THAT A PORTION OF A UTILITY IS TO BE REMOVED THE CONTRACTOR SHALL TERMINATE AND CAP TO THE LIMITS INDICATED IN ACCORDANCE WITH ALL STATE AND LOCAL REQUIREMENTS.
15. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF THE SUB-GRADE UNTIL IT RECEIVES FINAL SURFACE TREATMENT AND SHALL MAINTAIN THE SUB-GRADE AS SUITABLE AND ACCEPTABLE TO THE OWNER OR OWNER'S REPRESENTATIVE AT ALL TIMES. THEY SHALL BE COMPLETELY RESPONSIBLE FOR THE RESTORATION OR REPLACEMENT OF THE SUB-GRADE DUE TO MOISTURE DAMAGE, CONSTRUCTION TRAFFIC, OR ANY OTHER CAUSE. REPAIR OR REPLACEMENT OF THE SUB-GRADE SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
16. UNLESS OTHERWISE NOTED, ALL CONSTRUCTION AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH:
    A. BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR CONSTRUCTION MATERIALS, DECEMBER 2007, ERRATA & ADDENDA.
    B. NATURAL RESOURCES CONSERVATION SERVICE OF MARYLAND STANDARDS AND SPECIFICATIONS, PONDS, NCRS-MD CODE NO. 378, JANUARY 2000.
    C. MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMNISTRATION, SEPTEMBER 2023, STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS.
17. CONTRACTOR SHALL ADJUST ALL FRAMES, GRATES AND COVERS OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE CONTRACT TO THE PROPOSED GRADES, AS REQUIRED.
18. PAVING REPAIR SHALL BE IN ACCORDANCE WITH BALTIMORE COUNTY STANDARD DETAIL R-38.
19. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK SHOWN ON THESE DRAWINGS UNLESS OTHERWISE NOTED.
20. SEE STRUCTURAL AND ARCHITECTURAL PLANS FOR SIZE AND LOCATIONS OF TURNED DOWN SLABS AT EXTERIOR DOORS.
21. SOIL BORINGS WERE COMPLETED BY AB CONSULTANTS, INC. AUGUST, 2024 AND REVISED IN APRIL, 2025. A COPY OF THE GEOTECHNICAL REPORT IS INCLUDED WITH THE PROJECT SPECIFICATIONS.
22. UNLESS OTHERWISE NOTED, DIMENSIONS FROM CURB ARE MEASURED AT FACE OF CURB.
23. THE CONTRACTOR SHALL PROVIDE A TWO-FOOT AREA AT 1/2-INCH PER FOOT SLOPE BEHIND ALL PROPOSED CURB, UNLESS OTHERWISE INDICATED.
24. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE TO SWALES AND/OR STORM DRAIN SYSTEMS AT ALL TIMES.
25. FINISHED GRADES SHALL FALL AWAY FROM PROPOSED BUILDINGS AT A MINIMUM OF 1/4INCH PER FOOT FOR VEGETATED AREAS AND A MINIMUM OF 1/8-INCH PER FOOT FOR PAVED AREAS UNLESS OTHERWISE INDICATED.
26. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDINGS AND STRUCTURES AT ALL TIMES.

UTILITY NOTES:

1. CONTRACTOR SHOULD OPEN ONLY A SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE MUST BE PLACED BELOW (DOWN SLOPE OF) THE TRENCH.
2. PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF THE TRENCH.
3. ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.
4. UNLESS OTHERWISE NOTED, PIPE ELEVATIONS FOR WATER MAINS REFER TO TOP OF PIPE AND SANITARY SEWER ELEVATIONS REFER TO THE INVERT.
5. ALL UTILITY STRUCTURE DIMENSIONS SHALL REFER TO THE CENTERLINE OF THE STRUCTURES.
6. ALL CLEANOUTS LOCATED IN PAVED AREAS SHALL HAVE COUNTERSUNK LIDS.
7. SEE MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR CONTINUATION OF UTILITY CONNECTIONS TO BUILDING AND SITE LIGHTING INFORMATION.
8. CONTRACTOR SHALL CONNECT ALL ON-SITE UTILITIES TO THE PROPOSED BUILDING CONNECTIONS AS REQUIRED.
9. SEE MECHANICAL, ELECTRICAL, PLUMBING PLANS FOR ELECTRIC AND UTILITIES LOCATED WITHIN 5' OF THE BUILDING FOOTPRINT.
10. THE CONTRACTOR MUST VERIFY INFORMATION TO THEIR OWN SATISFACTION.
11. CONSTRUCTION OF THE PROPOSED UTILITIES WILL BE IN ACCORDANCE WITH THE BALTIMORE COUNTY PLUMBING CODE AND BY A QUALIFIED CONTRACTOR.
12. CONTRACTOR SHALL TEST PIT FOR LOCATION OF EXISTING UTILITIES PRIOR TO STARTING CONSTRUCTION.
13. CONTRACTOR SHALL COORDINATE THE LOCATION OF THE UNDERGROUND ELECTRIC WITH THE BALTIMORE GAS, ELECTRIC COMPANY. SEE ELECTRICAL PLANS FOR DETAILS.
14. CONTRACTOR SHALL ADJUST TOP OF EXISTING UTILITIES, I.E. MANHOLE FRAME AND COVER, INLET GRATES, ETC. TO FINISHED GRADE.
15. PRIOR TO BEGINNING ANY UTILITY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT ALL EXISTING UTILITIES WILL TIE IN WITH PROPOSED UTILITIES AS SHOWN.
16. THE CONTRACTOR SHALL PROVIDE A PRIVATE UTILITY LOCATOR TO LOCATE ALL EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING ANY CONSTRUCTION.

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" (1-800-257-7777) AT LEAST 72 HOURS PRIOR TO BEGINNING ANY DEMOLITION, UTILITY, OR EXCAVATION ACTIVITY.
2. CONTRACTOR SHALL COORDINATE ALL DISCONNECTIONS AND REMOVAL OF EXISTING ELECTRIC AND EQUIPMENT WITH BALTIMORE GAS & ELECTRIC.
3. THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES PRIOR TO STARTING WORK AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT EXIST.
4. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT AND ACCESSORIES NOT REMOVED BY LOCAL UTILITY COMPANIES OR SPECIFIED TO BE REMOVED BY OWNER.
5. CONTRACTOR SHALL SECURE THE CONSTRUCTION AREA AT THE END OF EACH WORKING DAY AND WILL INSPECT THE SECURITY FENCING TO ENSURE ITS INTEGRITY.
6. ALL CONSTRUCTION DEBRIS WILL BE REMOVED FROM THE SITE AND TAKEN TO AN APPROVED, PERMITTED DISPOSAL FACILITY. NO RUBBLE IS TO BE LEFT ON SITE.
7. CONTRACTOR SHALL PROVIDE THE NECESSARY MEANS TO CONTROL DUST AND MAINTAIN BALTIMORE COUNTY AIR QUALITY STANDARDS DURING THE DEMOLITION AND REMOVAL OF SITE DEBRIS AND THE NEW CONSTRUCTION.
8. CONTRACTOR SHALL SAWCUT EXISTING PAVING TO MINIMIZE DAMAGE TO EXISTING PAVING REMAINING.
9. CONTRACTOR SHALL REMOVE EXISTING CURBS & CONCRETE WALKS TO THE NEAREST JOINT. NO PATCHING WILL BE PERMITTED.
10. THE DEMOLITION INFORMATION SHOWN ON THIS DRAWINGS IS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LIMITS OF DEMOLITION AND REMOVAL OF AFFECTED SITE ITEMS.
11. CONTRACTOR SHALL PROVIDE 8' HIGH TEMPORARY CONSTRUCTION FENCE AROUND THE LIMITS OF DISTURBANCE AS REQUIRED. REFER TO THE EROSION AND SEDIMENT CONTROL PLANS FOR LOCATIONS OF LOD DURING PHASES.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION SHOWN ON THESE DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER PRIOR TO STARTING WORK.
13. ALL EXISTING FEATURES OUTSIDE OF THE LIMITS OF DISTURBANCE ARE TO REMAIN, UNLESS OTHERWISE NOTED.
14. ALL CUTS OF EXISTING PAVEMENT SHALL BE NEAT AND IN A STRAIGHT LINE TO FACILITATE NEW PAVING. CONTRACTOR SHALL REMOVE TWO FEET OF THE SURFACE COURSE OF PAVEMENT (2" DEPTH) BEYOND ANY SAW CUTS TO OVERLAP PAVEMENT PATCHES.
15. CONTRACTOR TO PROTECT EXISTING UTILITIES TO REMAIN WITHIN LOD DURING CONSTRUCTION.
16. CONTRACTOR TO COORDINATE WITH OWNER TO DETERMINE TIMING AND PROCEDURE FOR TURNING OFF ELECTRICITY TO EXISTING LIGHT POLE BEFORE DEMOLITION AND REINSTALLATION.
17. ALL EXISTING TREES NOT CALLED OUT TO BE REMOVED SHALL BE PROTECTED IN PLACE.
18. ELECTRICAL WIRES TO BE TEMPORARILY TERMINATED DURING CONSTRUCTION SHALL BE CAPPED AND BOXED. REFER TO ELECTRICAL DRAWINGS FOR SPECIFICATIONS.

DWG. FILENAME:

SEAL

STATE OF MARYLAND — Mark E. Pelush, Jr. — 1152 — LANDSCAPE ARCHITECT

DATE : JULY 16, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 1152, EXPIRATION DATE 09/18/2026.

LANDSCAPE ARCHITECT: MARK E PELUSH, JR
MAHAN RYKIEL
Maryland 1152 — 09/18/2026
Delaware 5011 — 6/30/2026
Virginia 0411-001844 — 12/31/2026

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MEP
DWN BY: MNQ
CHKD BY: MEP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
			R.O.W NO.		
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

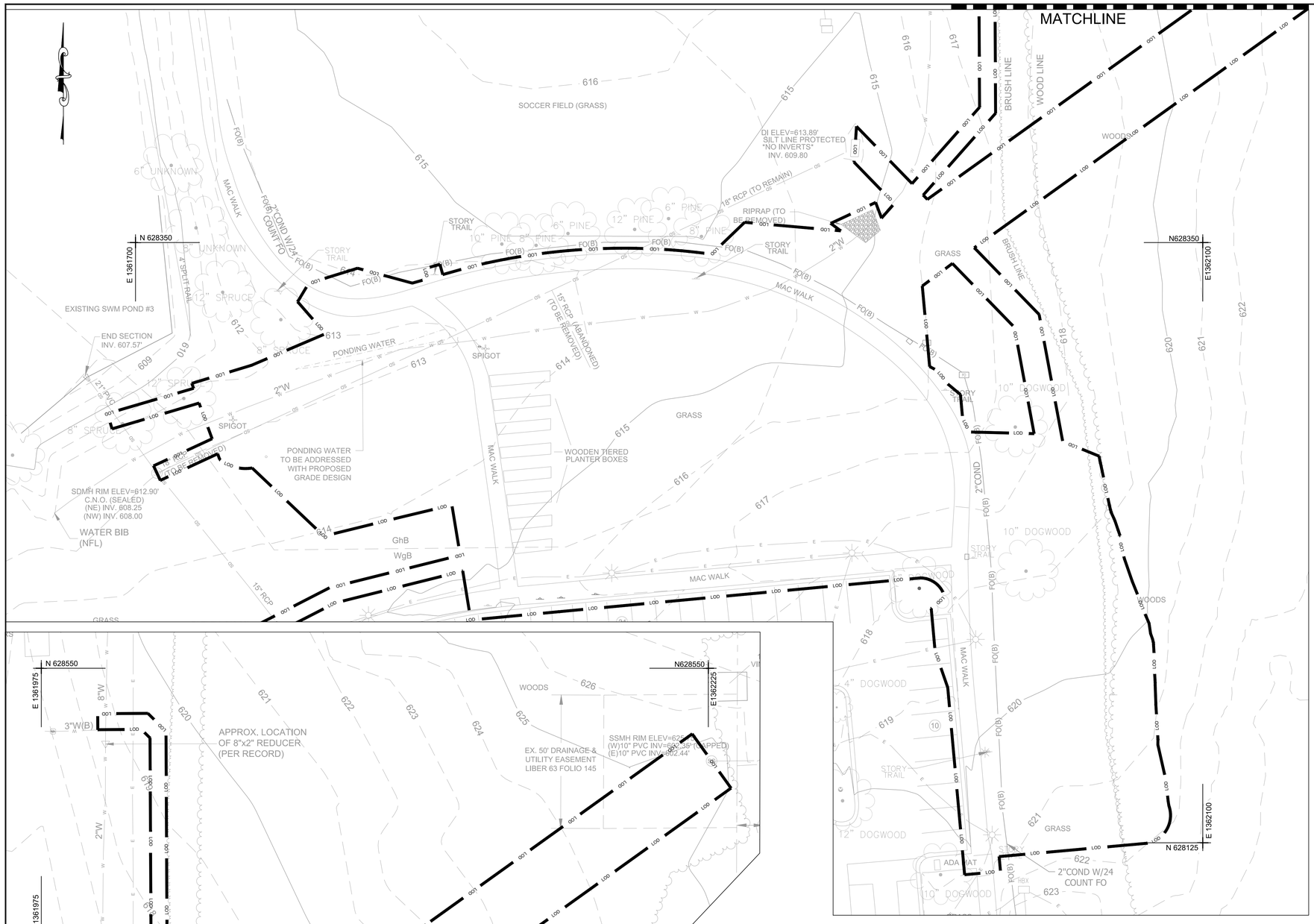
DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

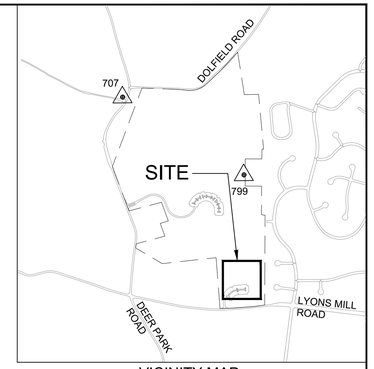
PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
GENERAL - PROJECT NOTES
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
G0.02	25114 GX0
JOB ORDER NUMBER	
PROJ-1000634	
SHEET 03 OF 150	
DRAWING NUMBER	
2025-2174	
FILE NO.: 8	REV. 00/00





VICINITY MAP
SCALE: 1" = 1000'

BENCHMARK TABLE

SYMBOL	NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
△	707	630,781.77	1,360,248.73	636.92	SPIKE
△	799	629,694.69	1,361,943.93	654.66	CAPPED PIPE

GENERAL NOTES

1. THE TOPOGRAPHIC INFORMATION WAS OBTAINED BY SURVEY FROM RK&K AND AND UTILITY INFORMATION WAS OBTAINED FROM AIDATA, WITH ADDITIONAL INFORMATION SUPPLEMENTED BY GIS RECORDS. TOPOGRAPHIC AND UTILITY INFORMATION MAY NOT REFLECT CURRENT CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF ANY WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER PRIOR TO THE START OF ANY WORK.
2. BEARINGS, COORDINATES AND ELEVATIONS SHOWN ON THIS PLAN ARE SHOWN IN MARYLAND STATE PLANE NAD 83. ALL VERTICAL CONTROLS ARE BASED ON NAVD 88.

ZONING HISTORY:

THE PROPERTY IS ZONED DR 1 "DENSITY RESIDENTIAL"

R-1974-0053 - PETITION FOR RECLASSIFICATION OF ZONING FROM RDP-DR-2 TO DR 10.5. DISMISSED ON DECEMBER 10TH, 1974.

1996-0053-SPHXA - PETITION FOR SPECIAL HEARING TO APPROVE THE UTILIZATION OF DENSITY AS SHOWN ON THE PLANNED UNIT DEVELOPMENT PLAN FOR THE OWINGS MILLS GOLF COMMUNITY. PETITION FOR SPECIAL EXCEPTION FOR A GOLF COURSE AND ASSOCIATED CLUB HOUSE, SWIMMING POOL, TWO TENNIS COURTS, A COMMUNITY BUILDING, TOGETHER WITH PERMITTED ACCESSORY USES. PETITION FOR VARIANCE TO PERMIT A SIDE BUILDING FACE TO SIDE BUILDING FACE DISTANCE OF 20 FEET IN LIEU OF THE 25 FEET REQUIRED FOR LOTS NO. 114 TO AND INCLUDING 253; TO PERMIT A FRONT YARD SETBACK OF 3 FEET IN LIEU OF THE 50 FEET REQUIRED FOR THE GOLF COURSE CLUBHOUSE AND THE COMMUNITY BUILDING; TO PERMIT A SIDE BUILDING FACE TO SIDE BUILDING FACE DISTANCE OF 16 FEET IN LIEU OF THE 20 FEET REQUIRED FOR LOTS NO. 1 TO AND INCLUDING 112; TO PERMIT TWO SIGNS AT ENTRY POINTS CONTAINING A TOTAL OF 1,220 +/- SQUARE FEET OF SPOT LIGHT ILLUMINATED IDENTIFICATION AND DIRECTIONAL SIGNAGE IN LIEU OF THE 15 SQUARE FEET ALLOWED; AND TO PERMIT THE PROPOSED SIGNS TO BE 8 FEET HIGH IN LIEU OF THE 3 FEET ALLOWED. GRANTED ON OCTOBER 6TH, 1995.

LEGEND

- PROPERTY LINE
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING STORM DRAIN
- EXISTING WATER
- EXISTING SEWER
- EXISTING ELECTRIC
- EXISTING FIBER OPTIC
- EXISTING LIGHT POLE
- EXISTING SOIL BOUNDARY
- EXISTING SIGNAGE
- EXISTING CURB AND GUTTER
- EXISTING SIDEWALK
- EXISTING TREE
- EXISTING BRUSH LINE
- EXISTING TREE LINE
- LIMIT OF DISTURBANCE

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

20 10 0 20 40
SCALE: 1" = 20'

DWG. FILENAME:

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

SEAL
STATE OF MARYLAND · MATTHEW B. THOMPSON · 41799 · PROFESSIONAL ENGINEER
DATE : JULY 18, 2025

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. 41799 , EXPIRATION DATE 04/12/2026 .

ENGINEER: RUMMEL, KLEPPER & KAHL
RK&K P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202
AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

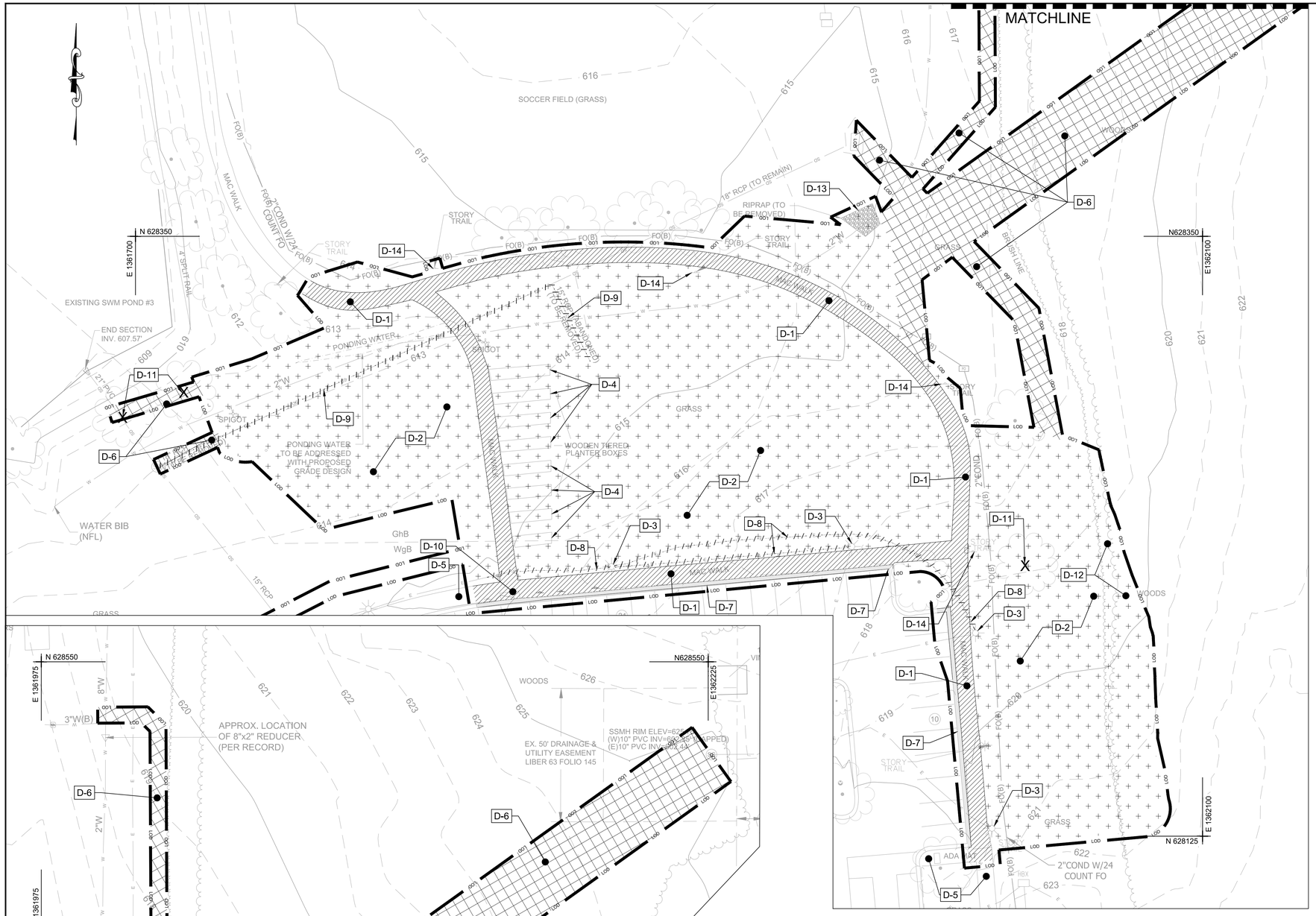
DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	AS SHOWN / AS SHOWN

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
CIVIL – EXISTING CONDITIONS PLAN
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-100	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 04 OF 150
	DRAWING NUMBER
	2025-2175
	FILE NO.: 8 REV. 00/00



GENERAL DEMOLITION NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION SHOWN ON THESE DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER PRIOR TO STARTING WORK.
2. THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES PRIOR TO STARTING WORK AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT EXIST.
3. ALL EXISTING UTILITY SURFACE FEATURES INCLUDING BUT NOT LIMITED TO INLETS, MANHOLES, HAND HOLES, MECHANICAL LIDS, FIRE HYDRANTS, VALVE BOXES, ETC. WITHIN THE LIMITS OF DISTURBANCE TO BE ADJUSTED TO FINISHED GRADE UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDINGS AND STRUCTURES AT ALL TIMES.
5. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" (1-800-257-7777) AT LEAST 72 HOURS PRIOR TO BEGINNING ANY DEMOLITION, UTILITY, OR EXCAVATION ACTIVITY.
6. ALL EXISTING FEATURES OUTSIDE OF THE LIMITS OF DISTURBANCE ARE TO REMAIN, UNLESS OTHERWISE NOTED.
7. ALL CUTS OF EXISTING PAVEMENT SHALL BE NEAT AND IN A STRAIGHT LINE TO FACILITATE NEW PAVING. CONTRACTOR SHALL REMOVE TWO FEET OF THE SURFACE COURSE OF PAVEMENT (2" DEPTH) BEYOND ANY SAW CUTS TO OVERLAP PAVEMENT PATCHES.
8. CONTRACTOR TO PROTECT EXISTING UTILITIES TO REMAIN WITHIN LOD DURING CONSTRUCTION .
9. CONTRACTOR TO COORDINATE WITH OWNER TO DETERMINE TIMING AND PROCEDURE FOR TURNING OFF ELECTRICITY TO EXISTING LIGHT POLE BEFORE DEMOLITION AND REINSTALLATION.
10. ALL EXISTING TREES NOT CALLED OUT TO BE REMOVED SHALL BE PROTECTED IN PLACE.
11. ELECTRICAL WIRES TO BE TEMPORARILY TERMINATED DURING CONSTRUCTION SHALL BE CAPPED AND BOXED. REFER TO ELECTRICAL DRAWINGS FOR SPECIFICATIONS.

DEMOLITION PLAN NOTES

KEY D-1

1. REMOVE SIDEWALK
2. REMOVE VEGETATION AREA
3. REMOVE LIGHT POLE FOUNDATIONS. SALVAGE POLES AND FIXTURES TO BE RELOCATED PER SITE PLAN
4. REMOVE PLANTER BED
5. EXISTING SIDEWALK TO REMAIN
6. UTILITY TRENCHING
7. REMOVE CURB
8. REMOVE ELECTRIC LIGHTING LINE
9. REMOVE STORM DRAIN
10. REMOVE AND REPLACE ADA RAMP WITH DETECTABLE WARNING SURFACE
11. REMOVE TREE
12. REMOVE BRUSH AND WOODED AREAS
13. REMOVE RIPRAP
14. REMOVE STORY BOARD SIGN FOUNDATIONS IF CONTRACTOR DETERMINES CONCRETE BASE PRESENT, AND SALVAGE POLES TO BE RELOCATED PER SITE PLAN

DEMOLITION PLAN LEGEND

- EXISTING SIDEWALK TO BE REMOVED
- EXISTING VEGETATION TO BE REMOVED
- UTILITY TRENCHING
- EXISTING CURB TO BE REMOVED AND REPLACED TO MEET EXISTING PARKING LOT GRADE
- EXISTING UTILITY TO BE REMOVED
- LOD — LIMITS OF DISTURBANCE
- X — TREE TO BE REMOVED

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

20 10 0 20 40

SCALE: 1" = 20'

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

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. 41799, EXPIRATION DATE 04/12/2026.
ENGINEER: RUMMEL, KLEPPER & KAHL — P: 410.728.2900, 700 E. Pratt Street, Suite 500, Baltimore, MD 21202 — DGN BY: SHK
AS-BUILT PER RECORD PRINT — DWN BY: DTP
BY: DATE: — CHKD BY: MBT

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
			R.O.W NO.		
CONTRACT COMPLETION BOX					

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	AS SHOWN / AS SHOWN

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

CIVIL – DEMOLITION PLAN

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-101	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 05 OF 150	
DRAWING NUMBER	2025-2176
FILE NO.: 8	

SITE PLAN NOTES

1. UNLESS OTHERWISE NOTED, DIMENSIONS FROM CURB ARE MEASURED AT FACE OF CURB.
2. THE CONTRACTOR SHALL PROVIDE A TWO-FOOT AREA AT 1/2-INCH PER FOOT SLOPE BEHIND ALL PROPOSED CURB, UNLESS OTHERWISE INDICATED.
3. FINISHED GRADES SHALL FALL AWAY FROM EXISTING AND PROPOSED BUILDINGS AT A MINIMUM OF 1/4INCH PER FOOT FOR VEGETATED AREAS AND A MINIMUM OF 1/8-INCH PER FOOT FOR PAVED AREAS UNLESS OTHERWISE INDICATED.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION SHOWN ON THESE DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER PRIOR TO STARTING WORK.
5. THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES PRIOR TO STARTING WORK AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT EXIST.
6. ALL EXISTING UTILITY SURFACE FEATURES INCLUDING BUT NOT LIMITED TO INLETS, MANHOLES, HAND HOLES, MECHANICAL UDS, FIRE HYDRANTS, VALVE BOXES, ETC. WITHIN THE LIMITS OF DISTURBANCE TO BE ADJUSTED TO FINISHED GRADE UNLESS OTHERWISE STATED BY ENGINEER.
7. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDINGS AND STRUCTURES AT ALL TIMES.
8. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" (1-800-257-7777) AT LEAST 72 HOURS PRIOR TO BEGINNING ANY DEMOLITION, UTILITY, OR EXCAVATION ACTIVITY.

SITE PLAN NOTES

KEY C-1

1. PROPOSED BUILDING, REFER TO ARCHITECTURAL DRAWINGS
2. PROPOSED MECHANICAL ROOM, REFER TO ARCHITECTURAL/AQUATIC/MEP DRAWINGS
3. PROPOSED SPLASH PAD, REFER TO AQUATIC DRAWINGS
4. PROPOSED MACADAM WALKWAY, REFER TO LANDSCAPE DRAWINGS
5. PROPOSED CONCRETE SIDEWALK (CAST-IN-PLACE), REFER TO LANDSCAPE DRAWINGS
6. PROPOSED ARTIFICIAL TURF, REFER TO LANDSCAPE DRAWINGS
7. PROPOSED CURB & GUTTER (FULL HEIGHT), REFER TO SITE DETAILS
8. PROPOSED FLUSH CURB, REFER TO SITE DETAILS
9. PROPOSED TRANSITION CURB, REFER TO SITE DETAILS
10. PROPOSED ADA RAMP, REFER TO SITE DETAILS
11. PROPOSED ADA SIGNAGE, REFER TO SITE DETAILS
12. PROPOSED FENCE, SEE LANDSCAPE DRAWINGS
13. PROPOSED PICNIC TABLE, REFER TO LANDSCAPE DRAWINGS
14. PROPOSED GATE, REFER TO LANDSCAPE DRAWINGS
15. PROPOSED GARBAGE CANS, REFER TO LANDSCAPE DRAWINGS
16. PROPOSED BENCH, TYP., REFER TO LANDSCAPE DRAWINGS
17. PROPOSED BIKE RACKS, REFER TO LANDSCAPE DRAWINGS
18. PROPOSED MICRO-BIORETENTION FACILITY, REFER TO SWM DRAWINGS
19. PROPOSED WATER FOUNTAIN, REFER TO LANDSCAPE DRAWINGS
20. PROPOSED SHADING AREA, REFER TO LANDSCAPE DRAWINGS
21. PROPOSED STAIRS AND HANDRAILS, REFER TO LANDSCAPE DRAWINGS
22. RELOCATED LIGHT POLE WITH NEW FOUNDATION, REFER TO ELECTRICAL DRAWINGS
23. PROPOSED LOCATION OF SALVAGED STORY BOARD, REFER TO LANDSCAPE DRAWINGS
24. PROPOSED CAMERA POLE, REFER TO LANDSCAPE & ELECTRICAL DRAWINGS

SITE PLAN LEGEND

- PROPOSED BUILDING
- PROPOSED SPLASH PAD
- PROPOSED MACADAM WALK
- PROPOSED CONCRETE PAVING
- PROPOSED ARTIFICIAL TURF
- PROPOSED CURB & GUTTER
- PROPOSED FENCE LINE
- PROPOSED PICNIC TABLES
- PROPOSED GATE
- PROPOSED GARBAGE CANS
- PROPOSED STORY BOARD
- PROPOSED BENCH
- PROPOSED BIKE RACK
- PROPOSED CAMERA POLE
- PROPOSED WATER FOUNTAIN
- PROPOSED MICROBIORETENTION FACILITY

ANY AREA NOT HATCHED WITHIN THE LOD SHALL BE PROPOSED VEGETATION

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

DWG. FILENAME:

20 10 0 20 40

SCALE: 1" = 20'

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

SEAL

STATE OF MARYLAND — STEPHEN B THOMPSON — 41799 — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
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. 41799, EXPIRATION DATE 04/12/2026					R.O.W NO.	PNW	35NW40	PLAN SCALE: AS SHOWN		APPROVED BY: PROPERTY MANAGER
								PROFILE SCALE: AS SHOWN		DATE:
		CONTRACT COMPLETION BOX								
ENGINEER: RUMMEL, KLEPPER & KAHL	DGN BY: SHK	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
RK&K P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202		REVIEWED BY:								
AS-BUILT PER RECORD PRINT	DWN BY: DTP	DATE REVIEWED:								
BY: DATE:	CHKD BY: MBT									

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

CIVIL – SITE PLAN

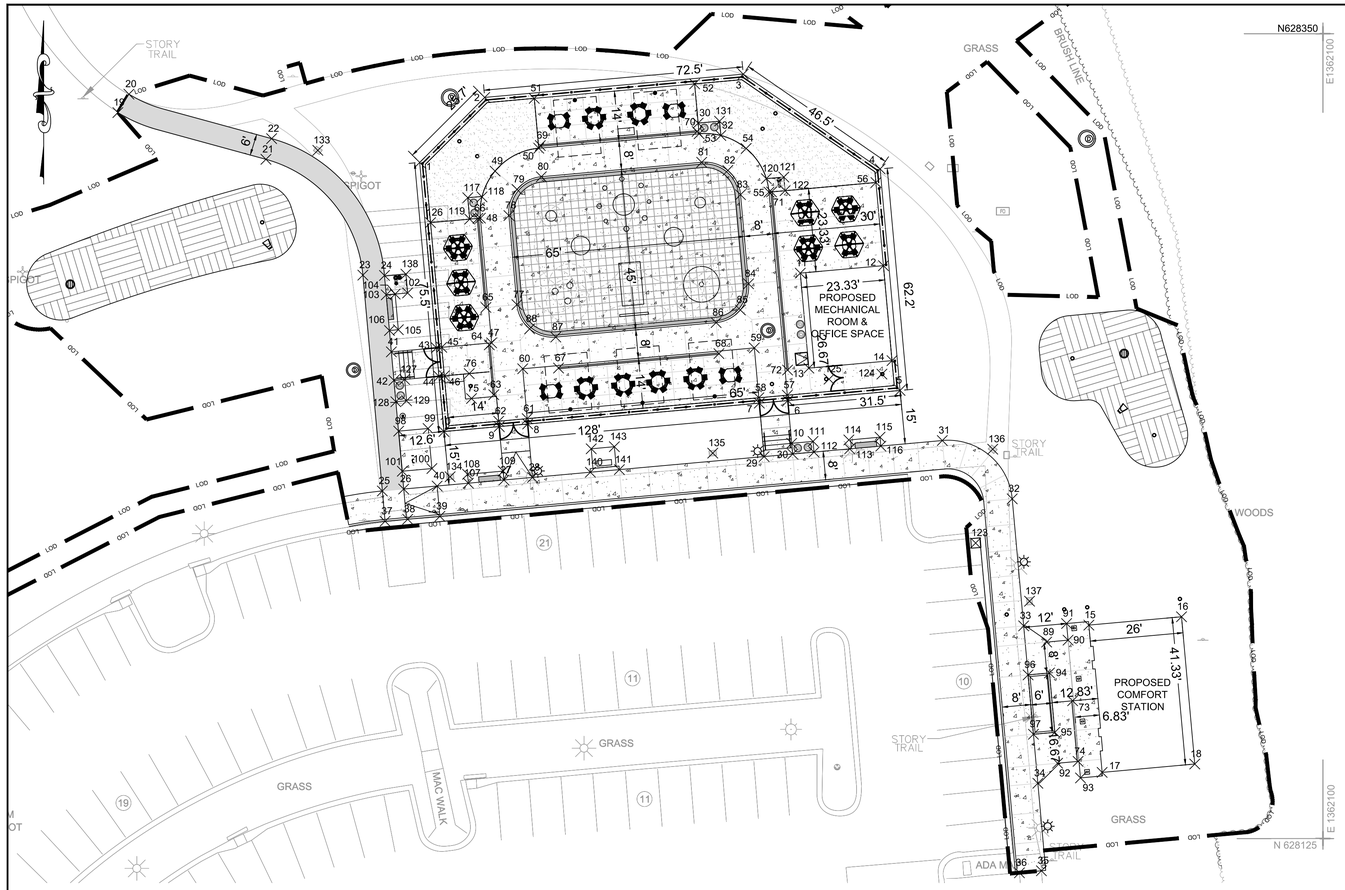
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS:

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-200	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 06 OF 150
	DRAWING NUMBER
	2025-2177
	FILE NO.: 8



Point Table				
Point #	Raw Description	Elevation	Northing	Easting
1	ENCLOSURE	616.00	628314.0127	1361847.5468
2	ENCLOSURE	616.00	628332.1835	1361865.7176
3	ENCLOSURE	616.00	628338.6946	1361937.9686
4	ENCLOSURE	616.00	628312.2009	1361976.2288
5	ENCLOSURE	616.00	628250.2726	1361981.8096
6	ENTRANCE	616.00	628247.4454	1361950.4367
7	ENTRANCE	616.00	628246.7274	1361942.4690
8	ENTRANCE	616.00	628240.8934	1361877.7314
9	ENTRANCE	616.00	628240.1753	1361869.7637
10	ENCLOSURE	616.00	628238.7842	1361854.3262
11	MECH ROOM	615.95	628283.0685	1361953.9202
12	MECH ROOM	615.95	628285.1573	1361977.1598
13	MECH ROOM	616.00	628256.5095	1361956.3136
14	MECH ROOM	616.00	628258.6037	1361979.5527
15	COMFORT STATION	620.15	628184.6699	1362034.5749
16	COMFORT STATION	620.15	628187.0035	1362060.4699
17	COMFORT STATION	620.15	628143.5034	1362038.2847
18	COMFORT STATION	620.15	628145.8370	1362064.1798
19	PATH TIE-IN	613.19	628327.9549	1361763.1892
20	PATH TIE-IN	613.38	628333.0986	1361766.2783
21	MACADAM WALK	613.88	628314.8813	1361804.5795
22	MACADAM WALK	613.94	628320.6688	1361806.1620
23	MACADAM WALK	613.88	628282.5122	1361831.6719
24	MACADAM WALK	613.95	628282.4188	1361837.7046
25	TRANSITION	615.03	628222.1638	1361837.1104
26	TRANSITION	615.16	628222.7092	1361843.0723
27	SIDEWALK	616.19	628225.2334	1361871.1102
28	SIDEWALK	616.30	628225.9511	1361879.0779
29	SIDEWALK	617.70	628231.7851	1361943.8156
30	SIDEWALK	617.72	628232.5031	1361951.7833
31	SIDEWALK	618.13	628236.2726	1361993.6113
32	SIDEWALK	619.01	628219.9636	1362013.1540
33	SIDEWALK	619.67	628184.4576	1362016.3537
34	SIDEWALK	620.35	628140.4547	1362020.3192
35	SIDEWALK TIE-IN	621.00	628115.9916	1362021.3188
36	SIDEWALK TIE-IN	620.86	628115.4237	1362015.1740
37	FLUSH CURB	614.91	628213.7062	1361837.8725
38	FLUSH CURB	615.04	628214.2615	1361844.1976
39	LEVEL PAD TC	615.66	628215.0865	1361853.1898
40	LEVEL PAD	615.78	628223.5522	1361852.4269
41	SIDEWALK	614.37	628261.0550	1361839.6299
42	SIDEWALK	614.37	628253.0873	1361840.3479
43	ENTRANCE	616.00	628262.1893	1361852.2170
44	ENTRANCE	616.00	628254.2216	1361852.9350
45	EXIT	616.00	628262.3239	1361853.7110
46	EXIT	616.00	628254.3562	1361854.4292
47	SEATING AREA	615.75	628263.5777	1361867.6547
48	SEATING AREA	615.75	628298.4392	1361864.5131
49	CONCRETE EDGE	615.89	628311.5890	1361868.6215
50	SEATING AREA	615.75	628317.9821	1361880.8249

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
51	SEATING AREA	616.00	628331.9256	1361879.5683
52	SEATING AREA	616.00	628335.9646	1361924.3871
53	SEATING AREA	615.75	628322.0211	1361925.6437
54	CONCRETE EDGE	615.89	628317.9126	1361938.7932
55	SEATING AREA	615.75	628305.7093	1361945.1855
56	SEATING AREA	616.75	628308.4019	1361975.0651
57	EXIT	616.00	628248.9394	1361950.3022
58	EXIT	616.00	628248.2213	1361942.3344
59	SEATING AREA	615.89	628262.1648	1361941.0779
60	SEATING AREA	615.89	628256.3308	1361876.3402
61	EXIT	616.00	628242.3873	1361877.5967
62	EXIT	616.00	628241.6698	1361869.6290
63	TRENCH DRAIN	615.88	628249.0761	1361868.2575
64	TRENCH DRAIN	615.76	628263.0168	1361866.9991
65	TRENCH DRAIN	615.75	628273.4772	1361866.0581
66	TRENCH DRAIN	615.75	628298.3763	1361863.8143
67	TRENCH DRAIN	615.75	628256.5295	1361886.3627
68	TRENCH DRAIN	615.75	628260.5685	1361931.1815
69	TRENCH DRAIN	615.75	628318.7259	1361881.2599
70	TRENCH DRAIN	615.75	628322.6751	1361925.0827
71	TRENCH DRAIN	615.78	628305.7723	1361945.8851
72	TRENCH DRAIN	615.75	628255.9741	1361950.3728
73	TRENCH DRAIN	620.08	628163.5107	1362030.0390
74	TRENCH DRAIN	620.07	628146.5794	1362031.5648
75	SHOWER	616.00	628248.0128	1361862.0295
76	SHOWER	615.88	628254.9845	1361861.4012
77	SPLASH PAD	615.89	628274.2582	1361874.7246
78	SPLASH PAD	615.89	628299.1573	1361872.4808
79	SPLASH PAD	615.89	628306.4627	1361874.7632
80	SPLASH PAD	615.89	628310.0144	1361881.5429
81	SPLASH PAD	615.89	628314.0534	1361926.3617
82	SPLASH PAD	615.89	628311.7709	1361933.6669
83	SPLASH PAD	615.89	628304.9914	1361937.2185
84	SPLASH PAD	615.89	628280.0922	1361939.4623
85	SPLASH PAD	615.89	628272.7730	1361937.1684
86	SPLASH PAD	615.89	628269.2350	1361930.4003
87	SPLASH PAD	615.89	628265.1961	1361885.5818
88	SPLASH PAD	615.89	628267.4785	1361878.2764
89	SIDEWALK	619.86	628179.9260	1362022.7864
90	SIDEWALK	620.10	628180.4645	1362028.7622
91	SIDEWALK	620.10	628185.1124	1362028.3433
92	SIDEWALK	620.22	628146.0633	1362025.8380
93	SIDEWALK	620.10	628141.9540	1362032.2327
94	CONCRETE CURB	619.97	628171.2944	1362023.5643
95	CONCRETE CURB	620.14	628154.6950	1362025.0602
96	CONCRETE CURB	619.88	628170.7558	1362017.5885
97	CONCRETE CURB	620.18	628154.1564	1362019.0844
98	BIKE RACK	614.73	628238.9000	1361841.6852
99	BIKE RACK	614.89	628239.6396	1361849.8913
100	BIKE RACK	615.18	628228.4402	1361850.9593

Point Table				
Point #	Raw Description	Elevation	Northing	Easting
138	FOUNTAIN	614.10	628282.7840	1361843.6986
101	BIKE RACK	615.02	628227.6955	1361842.6949
102	FOUNTAIN	614.21	628277.5288	1361844.1714
103	BENCH PAD	614.01	628276.9900	1361838.1939
104	BENCH PAD	614.11	628277.2142	1361840.6855
105	BENCH PAD	614.25	628267.2553	1361841.5830
106	BENCH PAD	614.16	628267.0308	1361839.0914
107	BENCH PAD	616.20	628224.3383	1361861.1503
108	BENCH PAD	615.83	628226.8310	1361860.9257
109	BENCH PAD	616.00	628227.7285	1361870.8853
110	GARBAGE PAD	617.57	628235.4938	1361951.5138
111	GARBAGE PAD	617.73	628236.0324	1361957.4896
112	GARBAGE PAD	617.82	628233.0445	1361957.7588
113	BENCH PAD	617.94	628233.9463	1361967.7198
114	BENCH PAD	617.91	628236.4315	1361967.4948
115	BENCH PAD	618.02	628237.2121	1361976.2068
116	BENCH PAD	617.97	628234.7180	1361976.4316
117	GARBAGE PAD	615.92	628304.1458	1361860.9867
118	GARBAGE PAD	615.89	628304.3848	1361864.9690
119	GARBAGE PAD	615.77	628298.1700	1361861.5252
120	FOUNTAIN	615.79	628309.4889	1361944.4314
121	FOUNTAIN	615.96	628309.9298	1361949.3240
122	FOUNTAIN	615.91	628306.1132	1361949.6680
123	PR INLET	619.00	628207.6155	1362002.9269
124	AREA DRAIN	616.00	628254.8441	1361976.7300
125	AREA DRAIN	616.00	628253.4391	1361961.9672
126	SEATING AREA	616.00	628297.1827	1361850.5696
127	GARBAGE PAD	614.72	628253.3565	1361843.3358
128	GARBAGE PAD	614.47	628247.1115	1361840.8864
129	GARBAGE PAD	614.62	628247.3808	1361843.8743
130	GARBAGE PAD	615.80	628325.0090	1361925.3744
131	GARBAGE PAD	615.85	628325.5475	1361931.3502
132	GARBAGE PAD	615.81	628321.5344	1361931.7119
133	STORY BOARD	613.95	628317.3913	1361819.0766
134	STORY BOARD	615.75	628226.1377	1361856.0481
135	STORY BOARD	617.32	628232.7533	1361929.4595
136	STORY BOARD	618.52	628233.8494	1362007.7046
137	STORY BOARD	619.55	628191.3561	1362017.9912
140	CONCRETE PAD	616.52	628227.4121	1361895.2621
141	CONCRETE PAD	616.63	628228.1417	1361903.3543
142	CONCRETE PAD	616.52	628233.9579	1361895.4867
143	CONCRETE PAD	616.63	628234.5432	1361901.9602

NOTE: REFER TO C-420 AND C-421 UTILITY PROFILES FOR THE UTILITY FEATURE INFORMATION IN THE STRUCTURE SCHEDULES.

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

DWG. FILENAME:

20 10 0 20 40
SCALE: 1" = 20'

SEAL
STATE OF MARYLAND · SHERI B. THOMPSON · 41799 · PROFESSIONAL ENGINEER
DATE : OCTOBER 23, 2025

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. 41799 , EXPIRATION DATE 04/12/2026 .
ENGINEER: RUMMEL, KLEPPER & KAHL
RK&K P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202
AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	AS SHOWN / AS SHOWN

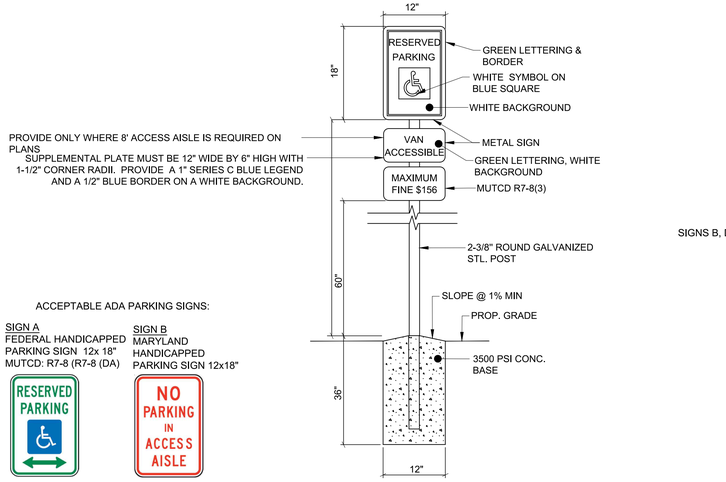
PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
SITE LAYOUT & GEOMETRY PLAN
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-201	25114 GX0

BALTIMORE COUNTY MARYLAND

JOB ORDER NUMBER
PROJ-1000634
SHEET 07 OF 150
DRAWING NUMBER
2025-2178
FILE NO.: 8



ACCEPTABLE ADA PARKING SIGNS:

SIGN A
FEDERAL HANDICAPPED PARKING SIGN 12x 18"
MUTCD: R7-8 (R7-8 (DA)

SIGN B
MARYLAND HANDICAPPED PARKING SIGN 12x18"

SIGN C
FEDERAL HANDICAPPED PARKING SIGN 12x6"
MUTCD: R7-8a

SIGN D
MARYLAND HANDICAPPED PARKING SIGN 12x6"
MUTCD: R8-1(2)

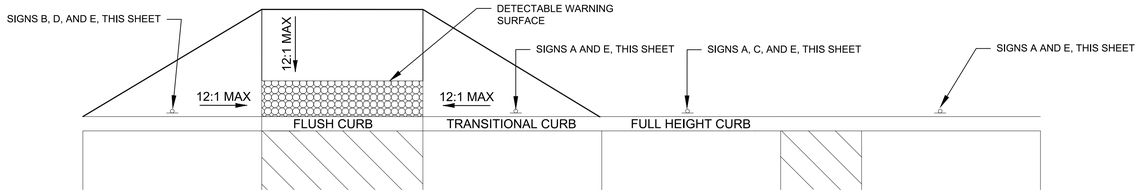
SIGN E
FEDERAL HANDICAPPED PARKING SIGN 12x6"
MUTCD: R7-8(3)

NOTES:

1. ADA PARKING SPACES AND SIGN SHALL COMPLY WITH 2010 ADA STANDARDS AND THE DEPARTMENT OF TRANSPORTATION STANDARD FOR HIGHWAY SIGNS, MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. ACCESSIBLE PARKING SPACES MUST HAVE A SIGN THAT INCLUDES THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND STATE "RESERVED PARKING." SPACES DESIGNED FOR VAN PARKING MUST ALSO HAVE A SIGN STATING "VAN ACCESSIBLE." (2010 ADA STANDARDS), (MUTCD R7-8)
3. IF REQUIRED, THE VAN ACCESSIBLE SIGN SHOULD BE 12"WX6"H AND HAVE GREEN LETTERING AND BORDER ON A WHITE BACKGROUND OR WHITE LETTERING AND BORDER ON A BLUE BACKGROUND. (MUTCD R7-8A, R&-8B)
4. SIGNS SHOULD BE MOUNTED AT LEAST 60 INCHES ABOVE THE PARKING SURFACE SO AS TO NOT BE OBSTRUCTED BY ANY PARKED VEHICLES.

TYPICAL ADA PARKING SIGN DETAIL

NOT TO SCALE



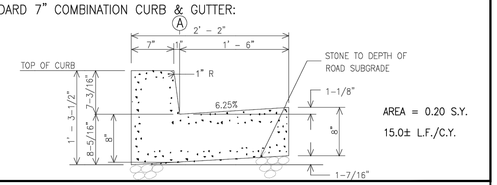
NOTES:

1. ADA PARKING SPACES AND SIGN SHALL COMPLY WITH 2010 ADA STANDARDS AND THE DEPARTMENT OF TRANSPORTATION STANDARD FOR HIGHWAY SIGNS, MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. SIGNS SHOULD BE MOUNTED AT LEAST 60 INCHES ABOVE THE PARKING SURFACE SO AS TO NOT BE OBSTRUCTED BY ANY PARKED VEHICLES.
3. CONTRACTOR TO SAWCUT AT EXISTING GUTTER ASPHALT MEETING POINT AND DISTURB THE PARKING SPACES TO THE LEAST EXTENT MANAGEABLE.
4. SIGNS AS SHOWN MATCH THE EXISTING CONDITIONS AND SHALL BE REPLACED AS SUCH UPON COMPLETION OF NEW CONCRETE SIDEWALK.

ADA RAMP REPLACEMENT DETAIL

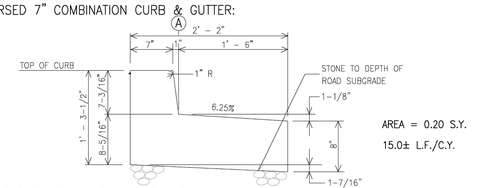
NOT TO SCALE

STANDARD 7" COMBINATION CURB & GUTTER:



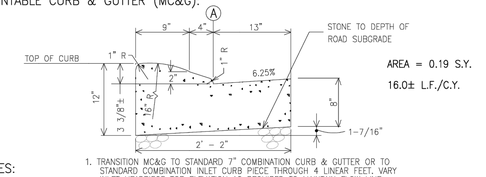
AREA = 0.20 S.Y.
15.0± L.F./C.Y.

REVERSED 7" COMBINATION CURB & GUTTER:



AREA = 0.20 S.Y.
15.0± L.F./C.Y.

MOUNTABLE CURB & GUTTER (MC&G):



AREA = 0.19 S.Y.
16.0± L.F./C.Y.

NOTES:

1. TRANSITION MC&G TO STANDARD 7" COMBINATION CURB & GUTTER OR TO STANDARD COMBINATION INLET CURB PIECE THROUGH 4 LINEAR FEET. VARY INLET HEADPIECE TOP ELEVATION AS REQUIRED TO MAINTAIN FLOW LINE.
2. MIX #2 CONCRETE WITH 25% OR LESS GROUND IRON BLAST FURNACE SLAG UNLESS OTHERWISE SPECIFIED ON PLANS.
3. MC&G SHALL NOT BE USED WHERE SIDEWALK ABUTS THE CURB.

(A) FACE OF CURB & FACE OF INLET CURB PIECE

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
BUR. OF ENGINEERING AND CONSTRUCTION
SEPTEMBER 28, 2023
DATE

ROAD AND STREET DETAILS
CONCRETE COMBINATION CURB AND GUTTER

ISSUED: SEPTEMBER 2023

PLATE R-21

DATE: 10/25/2023

FILE: R-21 CONCRETE COMBINATION CURB AND GUTTER.DWG

SEAL

STATE OF MARYLAND · STEVEN B. THOMPSON · 41799 · PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 41799, EXPIRATION DATE 04/12/2026

ENGINEER: RUMMEL, KLEPPER & KAHL
RK&K P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

CONTRACT COMPLETION BOX | R.O.W NO. | PNW | 35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE: AS SHOWN AS SHOWN

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK
CIVIL – SITE DETAILS
SPLASH PAD AND SUPPORTING FACILITIES
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

SUBDIVISION: OWINGS MILLS:
COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

DATUM

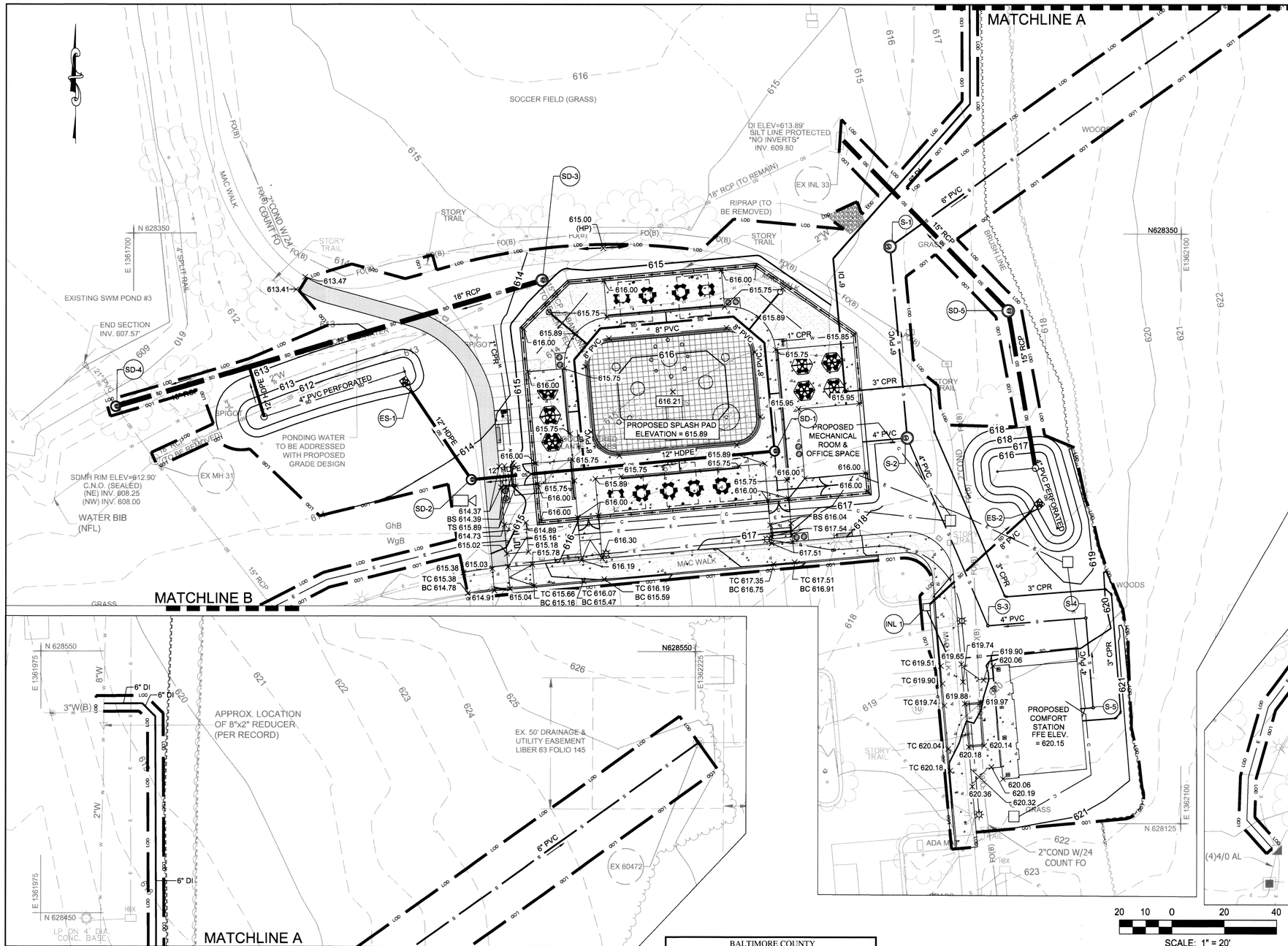
DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

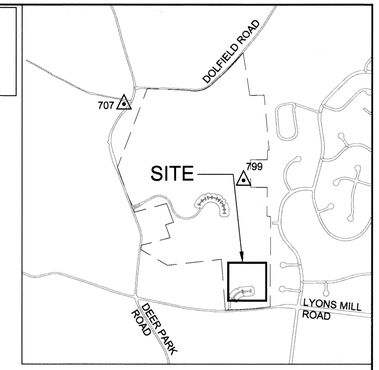
HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

SHEET DESIGNATION	CONTRACT NUMBER
C-250	25114 GX0

BALTIMORE COUNTY MARYLAND

JOB ORDER NUMBER
PROJ-1000634
SHEET 08 OF 150
DRAWING NUMBER
2025-2179
FILE NO.: 8





VICINITY MAP
SCALE: 1" = 1000'

DISTURBANCE SUMMARY:

TOTAL DISTURBED AREA = 51651 SF/1.19 AC.
TOTAL CUT = 315 CY +/-
TOTAL FILL = 450 CY +/-

SITE DATA

1. NET AREA OF TRACT: 9,094,892 SF OR 208.79 AC
2. OWNER/DEVELOPER:
   BALTIMORE COUNTY
   MARYLAND
3. TAX MAP REFERENCES:
   T.M. 0066; G.0017, P.0023; TAX ID *2200028592
   DEED: 12458 / 00512
4. PLAT REFERENCE: NONE
5. ELECTION DISTRICT: 2
6. COUNCILMANIC DISTRICT: 4
7. EXISTING ZONING: DR1 (DENSITY RESIDENTIAL)
8. EXISTING USE: PUBLIC PARK
9. CENSUS TRACT ID: 492402
   ZIP CODE: 21117
   WATERSHED: LIBERTY RESERVOIR
10. MINIMUM SETBACK REQUIREMENTS FOR NONRESIDENTIAL PRINCIPAL BUILDINGS PER SECTIONS 1B01.2.C.1 OF BCZR:

    FRONT YARD: 70 FT

    SIDE YARD INTERIOR: 40 FT

    CORNER STREET SIDE: 65 FT

    REAR YARD: 50 FT

11. NO FLOOR AREA RATIO REQUIREMENT IS NECESSARY FOR THIS ZONING.
12. ONE BUILDING IS PROPOSED FOR THIS SITE. THIS COMFORT STATION WILL INCLUDE WATER AND SEWER CONNECTIONS, CONCRETE SLAB FIRST FLOOR, AND MASONRY WALLS. A MINIMUM DISTANCE OF 8 INCHES FROM THE WOOD FRAMING TO THE PROPOSED GRADE WILL BE MAINTAINED.
13. LANDSCAPING TO COMPLY WITH BALTIMORE COUNTY LANDSCAPE MANUAL REQUIREMENTS.
14. PUBLIC WATER AND SANITARY SEWER FACILITIES ARE PRESENT ON SITE.
15. THERE ARE NO KNOWN WETLANDS REQUIRING REGULATION, CRITICAL AREAS, ARCHEOLOGICAL SITES, ENDANGERED SPECIES HABITATS, OR HAZARDOUS MATERIALS ON SITE.
16. FOREST CONSERVATION DETERMINED NOT REQUIRED WITHIN THE LIMIT OF DISTURBANCE ON THIS SITE.
17. ANY SIGNS SHALL COMPLY WITH SECTION 450 OF THE B.C.Z.R. AND ALL SIGN POLICIES.
18. THERE ARE NO HISTORIC BUILDINGS ON THIS PROPERTY.
19. FLOOD MAP INFORMATION:
    PREMISES IS SHOWN ON MAP ENTITLED "NATIONAL FLOOD HAZARD LAYER FIRMette, BALTIMORE COUNTY,
    MARYLAND UNINCORPORATED AREAS 240010,
    COMMUNITY PANEL NUMBER 2400100215G AND IS LOCATED IN ZONE X AREA OF MINIMAL FLOOD HAZARD.
20. THIS SITE IS NOT LOCATED WITHIN THE CHESAPEAKE BAY CRITICAL AREA.
21. LIGHTING SHALL BE ERECTED AS NOT TO REFLECT INTO ANY ADJOINING RESIDENTIAL AREAS AND PUBLIC ROADS.
22. THE BOUNDARY SHOWN HEREON WAS TAKEN FROM BALTIMORE COUNTY GIS DATA ON NOVEMBER 15, 2023. TOPOGRAPHIC SURVEY WAS PREPARED.
23. THE SITE HAS 12% IMPERVIOUS LAND COVER IN ITS EXISTING CONDITION, THEREFORE THE PROJECT IS CONSIDERED NEW DEVELOPMENT. THE FULL REDUCTION OF EX. IMPERVIOUS AREA COULD NOT BE ACHIEVED FOR PROPOSED DEVELOPMENT. THEREFORE AN ESD PRACTICE, MICRO-BIORETENTION OR EQUIVALENT WILL BE PROVIDED TO MEET SWM REQUIREMENTS.

BENCHMARK TABLE					
SYMBOL	NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
△	707	630,781.77	1,360,248.73	636.92	SPIKE
△	799	629,694.69	1,361,943.93	654.66	CAPPED PIPE

ZONING HISTORY:

THE PROPERTY IS ZONED DR 1 "DENSITY RESIDENTIAL"

R-1974-0053 - PETITION FOR RECLASSIFICATION OF ZONING FROM RDP-DR-2 TO DR 10.5. DISMISSED ON DECEMBER 10TH, 1974.

1996-0053-SPHXA - PETITION FOR SPECIAL HEARING TO APPROVE THE UTILIZATION OF DENSITY AS SHOWN ON THE PLANNED UNIT DEVELOPMENT PLAN FOR THE OWINGS MILLS GOLF COMMUNITY. PETITION FOR SPECIAL EXCEPTION FOR A GOLF COURSE AND ASSOCIATED CLUB HOUSE, SWIMMING POOL, TWO TENNIS COURTS, A COMMUNITY BUILDING, TOGETHER WITH PERMITTED ACCESSORY USES. PETITION FOR VARIANCE TO PERMIT A SIDE BUILDING FACE TO SIDE BUILDING FACE DISTANCE OF 20 FEET IN LIEU OF THE 25 FEET REQUIRED FOR LOTS NO. 114 TO AND INCLUDING 253; TO PERMIT A FRONT YARD SETBACK OF 3 FEET IN LIEU OF THE 50 FEET REQUIRED FOR THE GOLF COURSE CLUBHOUSE AND THE COMMUNITY BUILDING; TO PERMIT A SIDE BUILDING FACE TO SIDE BUILDING FACE DISTANCE OF 16 FEET IN LIEU OF THE 20 FEET REQUIRED FOR LOTS NO. 1 TO AND INCLUDING 112; TO PERMIT TWO SIGNS AT ENTRY POINTS CONTAINING A TOTAL OF 1,220 +/- SQUARE FEET OF SPOT LIGHT ILLUMINATED IDENTIFICATION AND DIRECTIONAL SIGNAGE IN LIEU OF THE 15 SQUARE FEET ALLOWED; AND TO PERMIT THE PROPOSED SIGNS TO BE 8 FEET HIGH IN LIEU OF THE 3 FEET ALLOWED. GRANTED ON OCTOBER 6TH, 1995.

GRADING NOTES

1. THE PROPOSED GRADING SHOWN ON THIS PLAN MEETS THE REQUIREMENTS SET FORTH BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND COMPLIES WITH ARTICLE 33, TITLE 5 OF THE BALTIMORE COUNTY CODE. HOWEVER, DUE TO BUILDING TYPES AND LAYOUT, SOME FIELD ADJUSTMENTS MAY BE REQUIRED. ALL CHANGES MUST COMPLY WITH THE ABOVE MENTIONED REQUIREMENTS.
2. ALL SWALES HAVE BEEN DESIGNED BY THE ENGINEER TO CONVEY RUNOFF ACCORDING TO BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS.
3. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST BUFFER EASEMENT OR OTHER FOREST RETENTION AREAS, EXCEPT AS PERMITTED BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY.
4. STORMWATER MANAGEMENT HAS BEEN ADDRESSED THROUGH ENVIRONMENTAL SITE DESIGN.

BALTIMORE COUNTY
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY

APPROVED FOR GRADING

06.30.25
Date

STORMWATER MANAGEMENT REQUIRED

OWNER'S/DEVELOPER'S CERTIFICATION - GRADING:

I/We hereby certify that all grading on this site will be done in accordance with the current grading requirements as set forth by the Baltimore County Department of Environmental Protection and Sustainability and with the requirements specified in Article 33, Title 5 of the Baltimore County Code.

JM Doran — Chief of Capital Construction — 6/11/2025
Signature Owner/Developer — **Title** — **Date**

Gregory M. Doran
Print Name

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

GRADING PLAN LEGEND

- LOD — LIMIT OF DISTURBANCE
- 325 — PROPOSED MAJOR CONTOUR
- 324 — PROPOSED MINOR CONTOUR

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

DWG. FILENAME:

SEAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF MARYLAND — 41799
DATE : 06/04/2025

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. 41799 EXPIRATION DATE 04/12/2026

ENGINEER: RUMMEL, KLEPPER & KAHL
RK&K P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202

AS-BUILT PER RECORD PRINT
BY:
DATE:

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
			R.O.W NO.	PNW	35NW40
CONTRACT COMPLETION BOX					

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	AS SHOWN / AS SHOWN

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

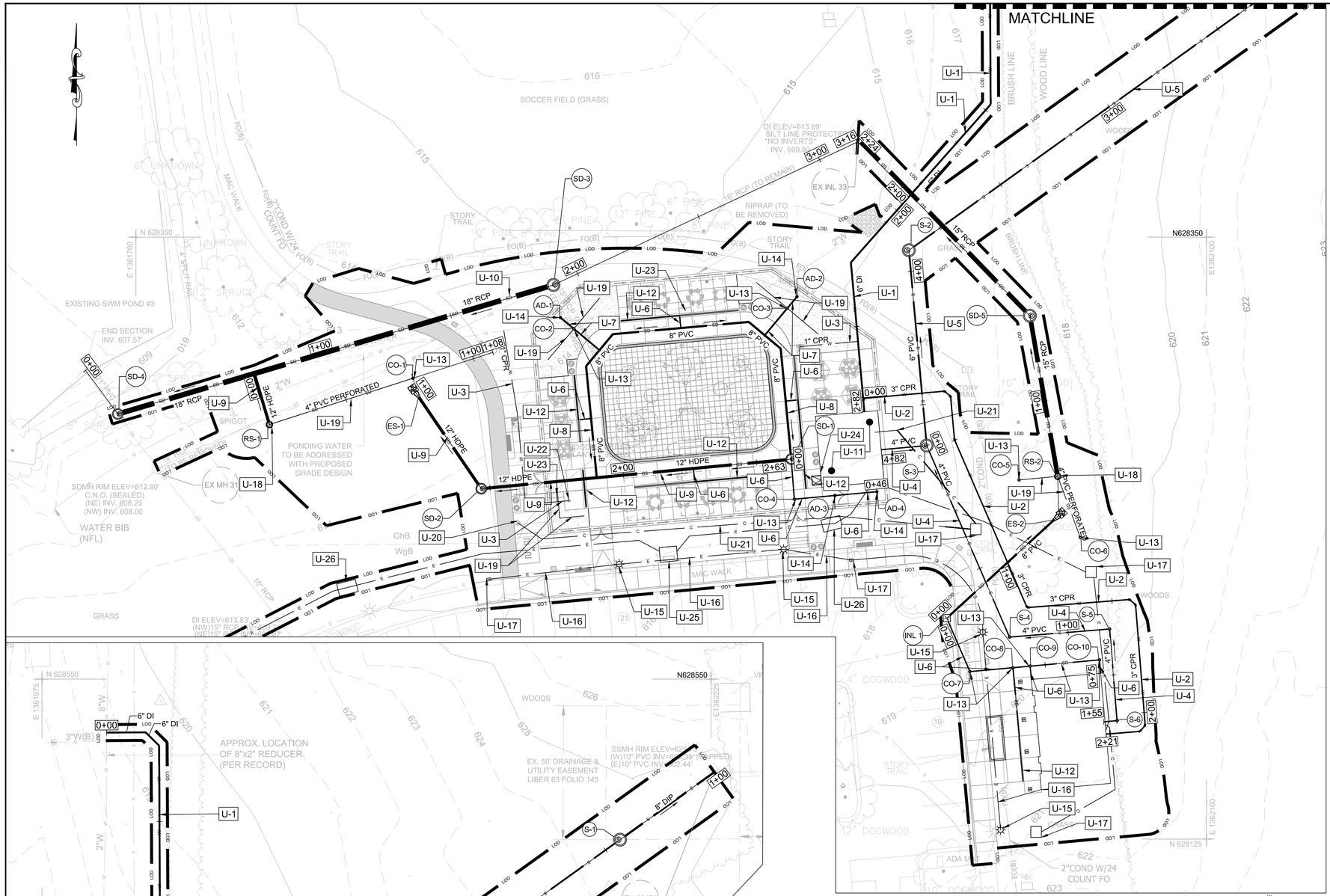
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK
CIVIL – GRADING PLAN
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS:
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-300	25114 GX0

JOB ORDER NUMBER: PROJ-1000634
SHEET 09 OF 150
DRAWING NUMBER: 2025-2180
FILE NO.: 8



OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

SITE AND UTILITY PLAN NOTES

1. UNLESS OTHERWISE NOTED, DIMENSIONS FROM CURB ARE MEASURED AT FACE OF CURB.
2. THE CONTRACTOR SHALL PROVIDE A TWO-FOOT AREA AT 1/2-INCH PER FOOT SLOPE BEHIND ALL PROPOSED CURB, UNLESS OTHERWISE INDICATED.
3. FINISHED GRADES SHALL FALL AWAY FROM EXISTING AND PROPOSED BUILDINGS AT A MINIMUM OF 1/4-INCH PER FOOT FOR VEGETATED AREAS AND A MINIMUM OF 1/8-INCH PER FOOT FOR PAVED AREAS UNLESS OTHERWISE INDICATED.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION SHOWN ON THESE DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER PRIOR TO STARTING WORK.
5. THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES PRIOR TO STARTING WORK AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT EXIST.
6. ALL EXISTING UTILITY SURFACE FEATURES INCLUDING BUT NOT LIMITED TO INLETS, MANHOLES, HAND HOLES, MECHANICAL LIDS, FIRE HYDRANTS, VALVE BOXES, ETC. WITHIN THE LIMITS OF DISTURBANCE TO BE ADJUSTED TO FINISHED GRADE UNLESS OTHERWISE NOTED.
7. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDINGS AND STRUCTURES AT ALL TIMES.
8. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" (1-800-257-7777) AT LEAST 72 HOURS PRIOR TO BEGINNING ANY DEMOLITION, UTILITY, OR EXCAVATION ACTIVITY.
9. ELECTRICAL COORDINATION WITH BGE IS ANTICIPATED TO PROVIDE POWER TO THE PROJECT SITE.
10. IT IS ASSUMED THAT PROPOSED LIGHT POLES WILL BE POWERED FROM THE FEED POWERING EXISTING LIGHT POLES
11. REFER TO SHEET C-420 AND C-421 FOR PROFILES AND STRUCTURE TABLES

UTILITY PLAN NOTES

KEY U-1

1. PROPOSED 6" DUCTILE IRON WATER LINE
2. PROPOSED 3" COPPER WATER LINE
3. PROPOSED 1" COPPER WATER LINE
4. PROPOSED 4" SANITARY LINE
5. PROPOSED 6" SANITARY LINE
6. PROPOSED 4" PVC STORM DRAIN
7. PROPOSED 6" PVC STORM DRAIN
8. PROPOSED 8" PVC STORM DRAIN
9. PROPOSED 12" HDPE STORM DRAIN
10. EXISTING 18" STORM DRAIN
11. PROPOSED MECHANICAL ROOM
12. PROPOSED TRENCH DRAIN
13. CLEANOUT
14. CLEANOUT WITH NDS FLAT GRATE
15. PROPOSED LIGHT POLES
16. PROPOSED 1" PVC CONDUIT FOR LIGHTING, SEE ELECTRICAL DRAWINGS
17. PROPOSED HANDBOX, SEE ELECTRICAL DRAWINGS
18. PROPOSED RISER STRUCTURE
19. PROPOSED 4" PERFORATED PVC UNDERDRAIN
20. PROPOSED CAMERA POLE, SEE ELECTRICAL DRAWINGS
21. PROPOSED COMMUNICATIONS LINE TO CAMERA POLE, SEE ELECTRICAL DRAWINGS
22. PROPOSED SHOWERHEAD FIXTURE, SEE LANDSCAPE DRAWINGS
23. PROPOSED FLUSH YARD HYDRANT WITH 3/4" COPPER CONNECTED TO CURB STOP VALVE AND BOX, SEE DETAILS SHEET C-450
24. PROPOSED HOSE BIB, SEE MEP DRAWINGS
25. PROPOSED UTILITY TRANSFORMER AND CONCRETE PAD, SEE ELECTRICAL DRAWINGS
26. PROPOSED UTILITY SPLICE BOX, SEE ELECTRICAL DRAWINGS

UTILITY LEGEND

- PROPOSED WATER
- PROPOSED SEWER LINE, MANHOLE AND CLEANOUT
- PROPOSED STORM DRAIN, MANHOLE AND CLEANOUT
- PROPOSED INLET
- PROPOSED AREA DRAIN
- PROPOSED RISER STRUCTURE
- PROPOSED TRENCH DRAIN
- PROPOSED END SECTION AND RIPRAP
- PROPOSED ELECTRIC
- PROPOSED HANDBOX
- RELOCATED LIGHT POLE WITH NEW FOUNDATION
- PROPOSED COMMUNICATION LINE

20 10 0 20 40
SCALE: 1" = 20'

DATUM

DESIGN AND DRAWING BASED ON
MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

DWG. FILENAME:

SEAL
STATE OF MARYLAND · STEVEN B. KAHL · 41799 · PROFESSIONAL ENGINEER
DATE : OCTOBER 23, 2025

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. 41799, EXPIRATION DATE 04/12/2026

ENGINEER: RUMMEL, KLEPPER & KAHL
RK&K P:410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
			R.O.W NO.	PNW	35NW40
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	AS SHOWN / AS SHOWN

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

UTILITY PLAN

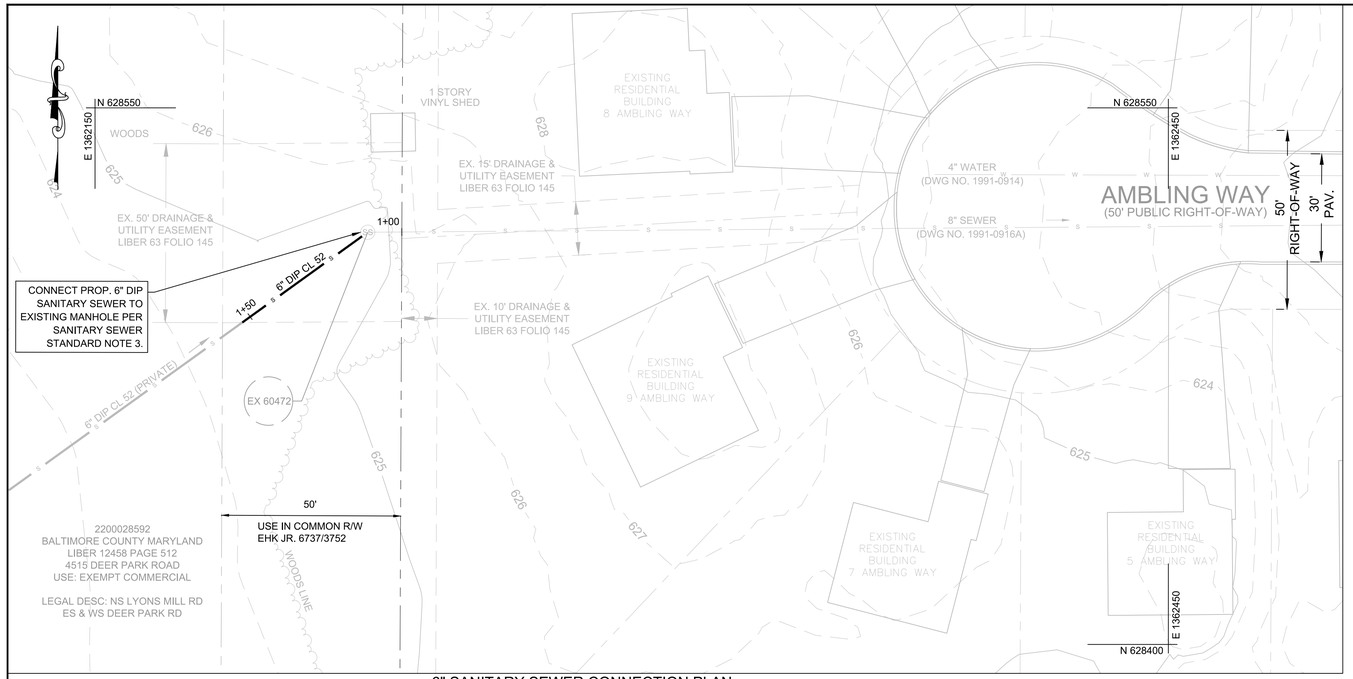
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-400	25114 GX0

JOB ORDER NUMBER: PROJ-1000634
SHEET 10 OF 150
DRAWING NUMBER: 2025-2181
FILE NO.: 8



6" SANITARY SEWER CONNECTION PLAN

SCALE: 1" = 20'

20 10 0 20 40

SCALE: 1" = 20'

GENERAL BALTIMORE COUNTY STANDARD NOTES

1. THE CONTRACTOR SHALL MAINTAIN, REPAIR, AND/OR REPLACE ANY EXISTING SEDIMENT CONTROL DEVICES ENCOUNTERED AND DISTURBED DURING THE COURSE OF CONSTRUCTION UNDER THIS CONTRACT, AND AS SHOWN ON THE APPROVED SEDIMENT CONTROL PLAN AS PART OF THE CONTRACT DOCUMENTS. AT THE END OF EACH DAY, ALL SUCH DISTURBED DEVICES SHALL BE REPAIRED OR REPLACED BEFORE LEAVING THE WORK SITE. THE COST OF PERFORMING THE WORK, INCLUDING MATERIALS, SHALL BE PAID FOR BY A LUMP SUM BID FOR MAINTENANCE AND REPAIR OF SEDIMENT CONTROL DEVICES.
2. ALL WORK UNDER THIS CONTRACT SHALL BE PERFORMED IN ACCORDANCE WITH THE APPROVED BALTIMORE COUNTY SOIL CONSERVATION PERMIT NUMBER 176-COUNTY-24.
3. ALL CONSTRUCTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH BALTIMORE COUNTY STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (SEPTEMBER 2023, AS AMENDED).
4. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT (800) 257-7777 AT LEAST 72 HOURS PRIOR TO STARTING EXCAVATION.
5. THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES.
6. THE CONTRACTOR SHALL USE EXTREME CAUTION DURING EXCAVATION AND/OR INSTALLATION OF ALL WORK SHOWN ON THESE PLANS. ALL UTILITIES SHALL BE FULLY PROTECTED FROM DAMAGE OR INTERRUPTION.
7. WHERE TWO FEET (2') CLEARANCE CANNOT BE OBTAINED BETWEEN PIPES AND STRUCTURES, SAND BACKFILL SHALL BE PLACED AS DIRECTED BY THE ENGINEER IN THE FIELD.
8. UNLESS OTHERWISE NOTED, THE BID LINE FOR EXCAVATION SHALL BE SUB-GRADE UNDER PROPOSED ROADS, ESTABLISHED GRADE UNDER TURF AREAS, AND EXISTING GRADE ALONG EXISTING PAVEMENT.
9. FULL TRENCH COMPACTION IS REQUIRED FOR A MINIMUM DISTANCE OF 20 FEET ON EACH SIDE OF ALL CROSSINGS, WITHIN ALL EXISTING ROAD RIGHTS-OF-WAY, AND WHERE SHOWN ON THE PLANS.
10. THE DEVELOPER SHALL PLACE ROADS TO SUB-GRADE FOR THE FULL WIDTH OF THE RIGHT-OF-WAY BEFORE INSTALLATION OF UTILITIES.
11. THE DEVELOPER SHALL ACCOMPLISH ALL GRADING WITHIN EASEMENT AREAS WHERE UTILITIES ARE TO BE INSTALLED BEFORE THE NOTICE TO PROCEED WILL BE ISSUED.

SANITARY SEWER STANDARD NOTES

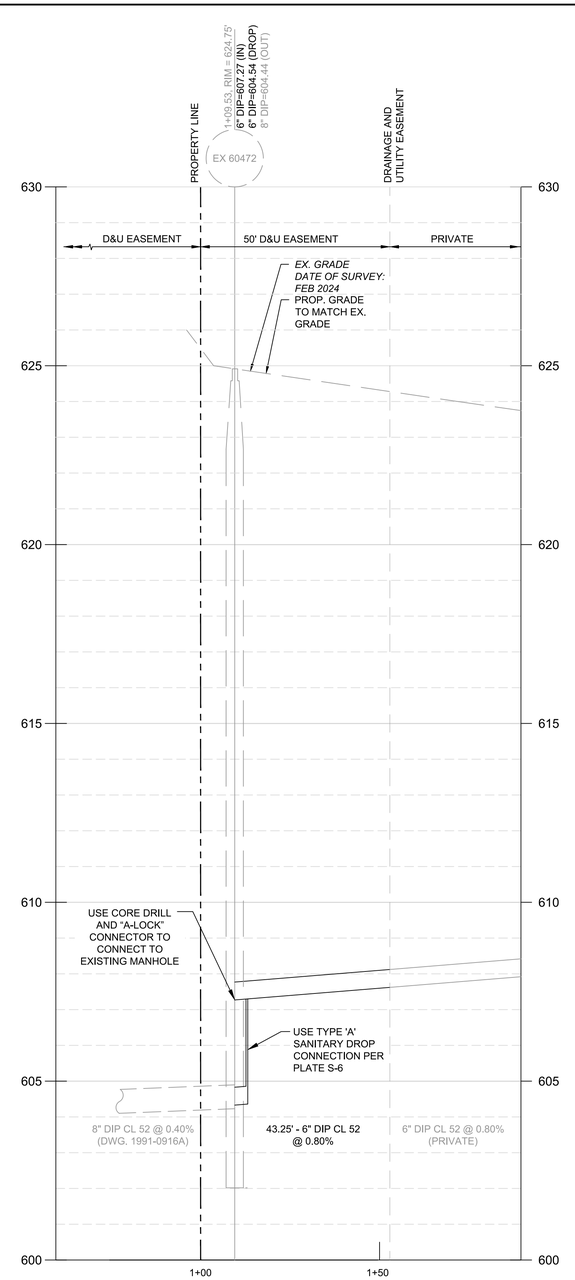
1. THE CONTRACTOR SHALL EXTEND ALL HOUSE CONNECTIONS FIVE (5) FEET INSIDE OF THE PROPERTY LINE OR THE PUBLIC SIDEWALK AND DRAINAGE AND UTILITY EASEMENT LINE, PER STANDARD DETAIL S-12A.
2. ALL CONNECTIONS TO DIP MUST BE MADE WITH DIP (CLASS 52).
3. WHEN CONNECTING TO ANY EXISTING MANHOLE, THE MANHOLE MUST BE CORE DRILLED AND AN "A-LOCK" CONNECTOR, OR APPROVED EQUAL MUST BE USED TO PROVIDE A WATERTIGHT CONNECTION.
4. ALL TOPS OF ALL NEW MANHOLES, INLETS AND VALVES LOCATED WITHIN EXISTING ROAD METAL SHALL BE BUILT TO EXISTING GRADE ELEVATIONS UNDER THIS CONTRACT.
5. EXISTING CURB AND GUTTER AND/OR SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT AND BE REPLACED AS REQUIRED WITH EQUAL OR BETTER MATERIALS, AS DIRECTED BY THE ENGINEER IN THE FIELD.
6. TRENCH REPAIR SHALL BE AS PER STANDARD DETAIL R-38. RESURFACING BEYOND THE TRENCH MAY BE REQUIRED, AT THE DISCRETION OF THE FIELD ENGINEER.

EXISTING SURVEY LEGEND

- EXISTING MAIN PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- EXISTING MINOR CONTOUR (624)
- EXISTING MAJOR CONTOUR (625)
- EXISTING WATER (W)
- EXISTING SEWER (S)
- EXISTING BUILDING
- EXISTING CURB AND GUTTER
- EXISTING WOODLINE

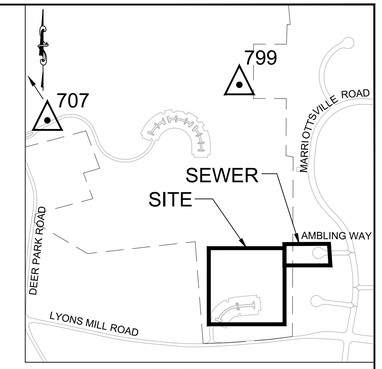
PROPOSED UTILITY LEGEND

- SANITARY SEWER LINE (S)



SANITARY SEWER CONNECTION PROFILE

SCALE: HORIZ. 1" = 20'
VERT. 1" = 2'



VICINITY MAP

SCALE: 1" = 500'

BENCHMARK TABLE

SYMBOL	NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
△	799	629,694.69	1,361,943.93	654.66	CAPPED PIPE
△	707*	630,781.77	1,360,248.73	636.92	SPIKE

*707 LOCATED AT SOUTHWEST CORNER OF DEER PARK ROAD AND BARNES AVENUE INTERSECTION

REFERENCE DRAWINGS

	EXISTING	PROPOSED
WATER	1991-0914	--
SEWER	1991-0916A	
STORM DRAIN	--	--
ROAD	--	--

BILL OF MATERIALS

QTY.	DESCRIPTION	SIZE
44 LF	DIP SANITARY SEWER LINE	6"
1 EA	STD. SANITARY DROP CONNECTION TYPE 'A'	6"

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

PLAN NOTE:

CONTRACTOR SHALL TEST PIT FOR LOCATION AND DEPTH OF EX. UTILITIES PRIOR TO BEGINNING WORK. POSSIBLE RELOCATION OF GAS, ELECTRIC, TELEPHONE, FIBER OPTIC OR CABLE TV FACILITIES TO BE DONE BY RESPECTIVE COMPANIES. COST BY OWNER. CONTRACTOR SHALL VERIFY SAN. SEWER INVERTS PRIOR TO MAKING CONNECTION.

RIGHT OF WAY CERTIFICATION

"IN MY PROFESSIONAL OPINION, THIS PLAN IS SEALED AND CERTIFIED THAT THE RIGHT(S) OF WAY AND EASEMENT(S) SHOWN HEREON CONFORM IN ALL MATERIAL RESPECTS TO THE RIGHT(S) OF WAY AND EASEMENT(S) SHOWN IN THE LAND RECORDS OF BALTIMORE COUNTY IN LIBER 12458, FOLIO 512 RECORDED OCTOBER 22, 1997. WHICH WERE PREPARED IN COMPLIANCE WITH BALTIMORE COUNTY, DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, REAL ESTATE COMPLIANCE, DRAFTING SECTION MANUAL DATED JANUARY, 1997."

NOTE:

CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING UTILITIES

CONTRACT COMPLETION BOX

CONTRACTOR: _____
DATE COMPLETED: _____
INSPECTOR: _____
PIPE MATERIAL (Pressure Only) _____

DWG. FILENAME:

MCS NOTE:
- MARYLAND HORIZONTAL DATUM NAV'83/2011
- MARYLAND VERTICAL DATUM NAVD'88

SEAL

STATE OF MARYLAND — STEVEN B. THOMSEN — 41799 — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 41799, EXPIRATION DATE 04/12/2026.

ENGINEER: RUMMEL, KLEPPER & KAHL
RK&K P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
			R.O.W NO.	PNW	35NW40
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	AS SHOWN / AS SHOWN

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

CIVIL – PROPOSED SANITARY SEWER HOUSE CONNECTION

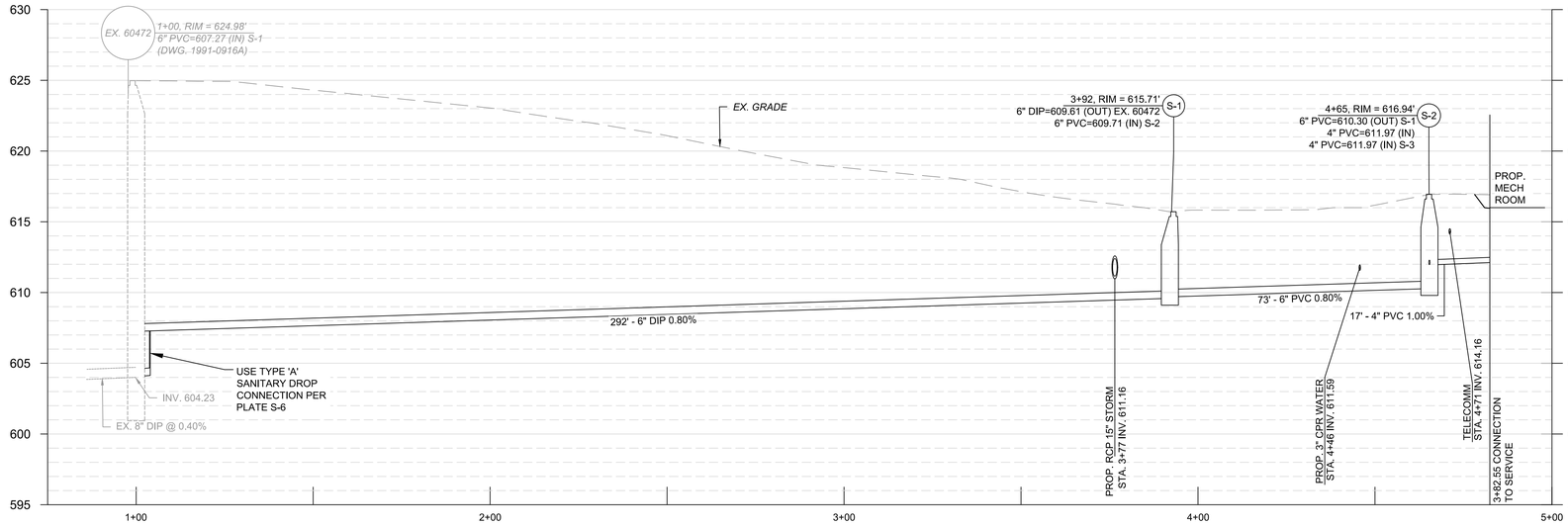
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS:

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

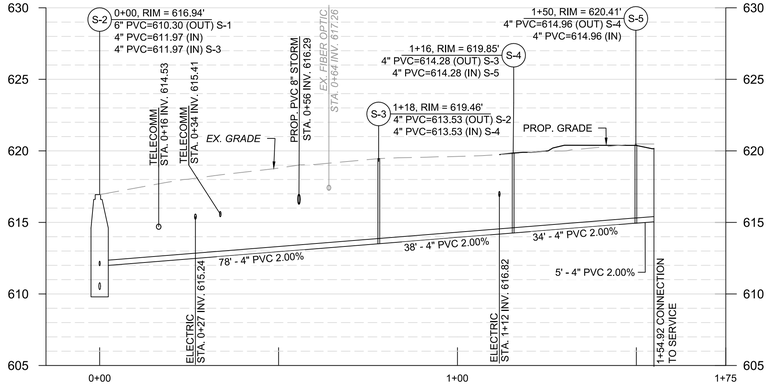
COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-401	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 11 OF 150
	DRAWING NUMBER
	2025-2182
	FILE NO.: 8



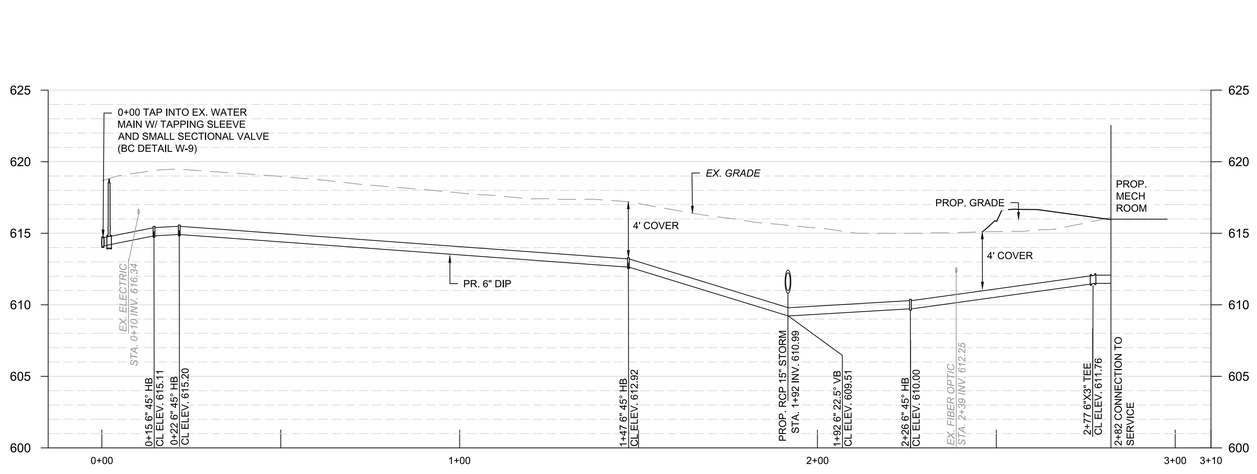
SPLASH PAD SANITARY SEWER

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



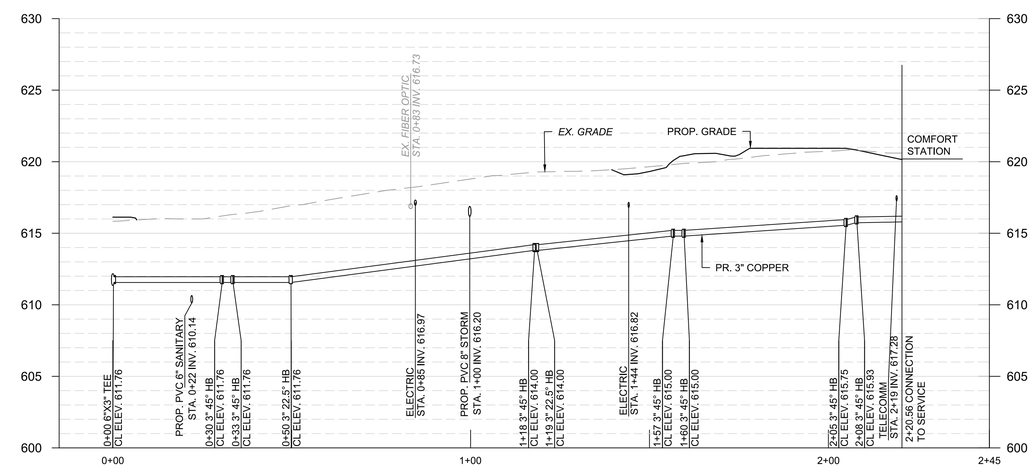
COMFORT STATION SANITARY SEWER

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



SPLASH PAD WATER

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



COMFORT STATION WATER

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

SANITARY STRUCTURE TABLE					
NAME	TOP ELEV.	INV. OUT	NORTHING	EASTING	DESCRIPTION
EX. 60472	624.98	604.23	628515.2235	1362226.22	TYPE 'A' SANITARY DROP CONNECTION (BALT. CO. DETAIL S-6)
S-1	615.71	609.71	628345.1034	1361988.83	PRECAST 48" MANHOLE (BALT. CO. DETAIL S-1)
S-2	616.94	610.30	628272.0879	1361995.48	PRECAST 48" MANHOLE (BALT. CO. DETAIL S-1)
S-3	619.46	613.53	628200.5088	1362026.40	4" CLEANOUT
S-4	619.85	614.28	628203.5254	1362063.82	4" CLEANOUT
S-5	620.41	614.96	628169.2788	1362066.59	4" CLEANOUT

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

20 10 0 20 40
SCALE: 1" = 20'

DWG. FILENAME:

SEAL

STATE OF MARYLAND — STEVEN B. THOMPSON — 41799 — REGISTERED PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 41799, EXPIRATION DATE 04/12/2026

ENGINEER: RUMMEL, KLEPPER & KAHL
RK&K P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
CONTRACT COMPLETION BOX			R.O.W NO.

KEY SHEET	POSITION SHT
PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
	AS SHOWN
PROFILE SCALE:	AS SHOWN
	AS SHOWN

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

CIVIL – WATER AND SEWER PROFILES

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS:

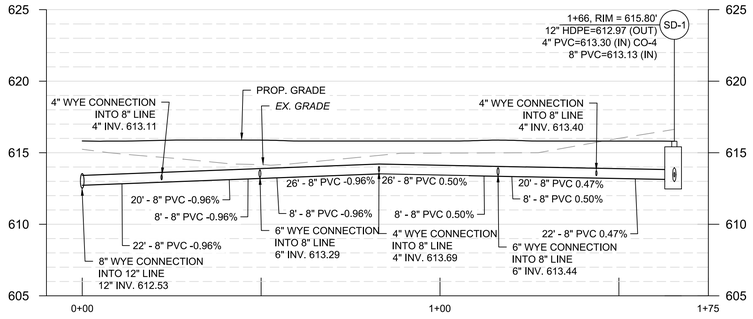
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-420	25114 GX0

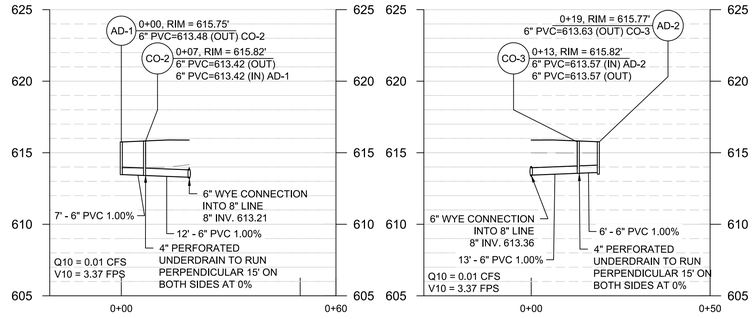
BALTIMORE COUNTY MARYLAND

JOB ORDER NUMBER
PROJ-1000634
SHEET 12 OF 150
DRAWING NUMBER
2025-2183
FILE NO.: 8



SPLASH PAD UNDERDRAIN

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

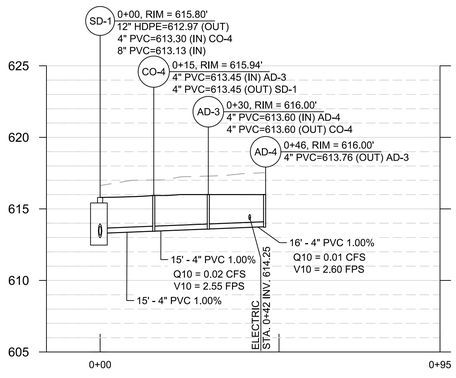


LEFT ARTIFICIAL TURF DRAIN

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

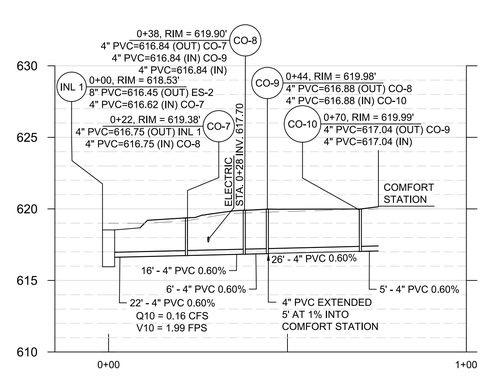
RIGHT ARTIFICIAL TURF DRAIN

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



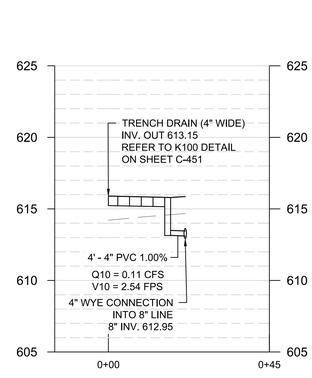
MECHANICAL ROOM AREA DRAINS

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



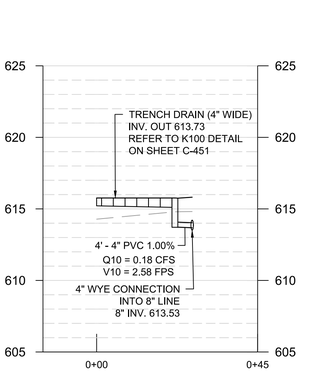
COMFORT STATION ROOF DRAIN

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



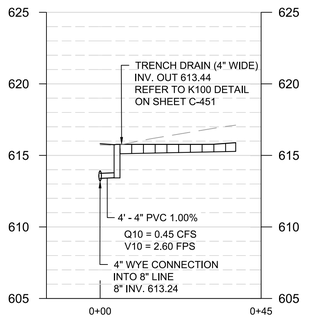
WEST TRENCH DRAIN

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



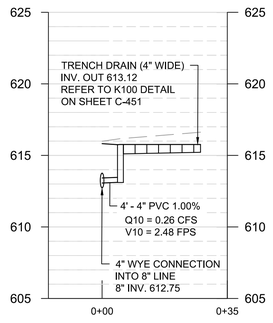
NORTH TRENCH DRAIN

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



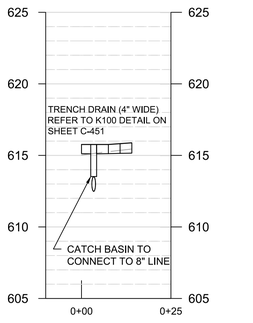
EAST TRENCH DRAIN

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



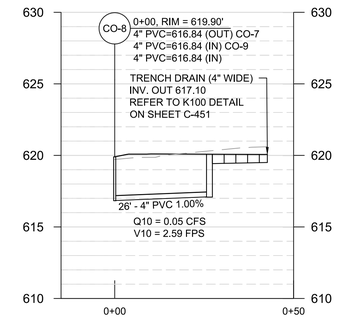
SOUTH TRENCH DRAIN

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



SOUTHWEST TRENCH DRAIN

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



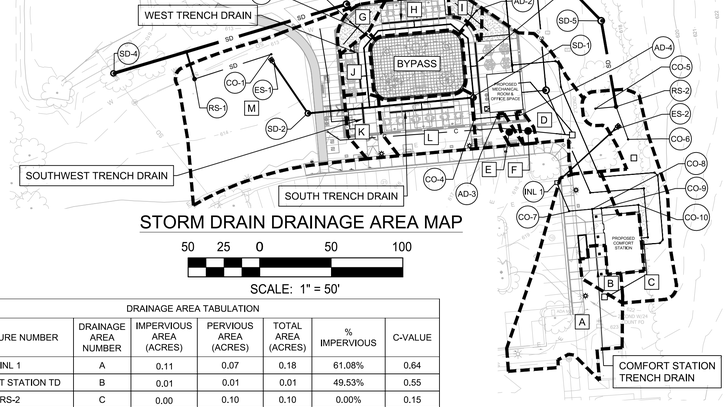
COMFORT STATION TRENCH DRAIN

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

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

STORM DRAIN STRUCTURE TABLE					
NAME	TOP ELEV.	INV. OUT	NORTHING	EASTING	DESCRIPTION
AD-1	615.75	613.48	628319.9260	1361858.65	6" CLEANOUT W/ NDS GRATE
AD-2	615.77	613.63	628327.7232	1361946.98	6" CLEANOUT W/ NDS GRATE
AD-3	616.00	613.76	628253.4375	1361961.19	6" CLEANOUT W/ NDS GRATE
AD-4	616.00	613.60	628254.8466	1361976.86	6" CLEANOUT W/ NDS GRATE
CO-1	612.75	608.58	628297.2679	1361803.52	6" CLEANOUT
CO-2	615.82	613.42	628315.7575	1361863.63	6" CLEANOUT
CO-3	615.82	613.57	628323.4197	1361943.39	6" CLEANOUT
CO-4	615.94	613.45	628252.0662	1361946.00	6" CLEANOUT
CO-5	617.00	612.83	628259.2552	1362029.99	6" CLEANOUT
CO-6	617.00	612.83	628237.7748	1362052.85	6" CLEANOUT
CO-7	619.38	616.75	628187.6204	1362011.61	6" CLEANOUT
CO-8	619.90	616.84	628189.0620	1362027.70	6" CLEANOUT
CO-9	619.98	616.88	628189.6497	1362034.13	6" CLEANOUT
CO-10	619.99	617.04	628191.9833	1362060.02	6" CLEANOUT
ES-1	612.86	611.75	628290.1769	1361805.73	12" END SECTION BALT. CO. D-1.11
ES-2	617.47	616.00	628244.3712	1362043.13	8" END SECTION BALT. CO. D-1.11
INL 1	618.53	616.45	628207.6083	1362002.98	TYPE "S" COMBINATION INLET BALT. CO. D-2.18
RS-1	612.75	608.58	628279.9521	1361749.88	12" NYLOPLAST DRAIN BASIN W/ DOME GRATE
RS-2	617.00	612.38	628260.5790	1362044.43	15" NYLOPLAST DRAIN BASIN W/ DOME GRATE
SD-1	615.80	612.97	628267.0218	1361944.86	48" PRECAST MANHOLE TYPE B (SHALLOW) BALT. CO. D-3.01
SD-2	614.29	612.07	628255.9733	1361829.04	48" PRECAST MANHOLE TYPE B (SHALLOW) BALT. CO. D-3.01
SD-3	614.65	608.93	628332.1240	1361856.03	48" PRECAST MANHOLE TYPE A (STANDARD) BALT. CO. D-3.01
SD-4	611.09	607.74	628283.8866	1361693.24	48" PRECAST DOGHOUSE MANHOLE BALT.CO. D-3.07
SD-5	617.50	611.63	628320.6262	1362034.03	48" PRECAST MANHOLE TYPE A (STANDARD) BALT. CO. D-3.01



STORM DRAIN DRAINAGE AREA MAP

50 25 0 50 100

SCALE: 1" = 50'

DRAINAGE AREA TABULATION						
STRUCTURE NUMBER	DRAINAGE AREA NUMBER	IMPERVIOUS AREA (ACRES)	PERVIOUS AREA (ACRES)	TOTAL AREA (ACRES)	% IMPERVIOUS	C-VALUE
INL 1	A	0.11	0.07	0.18	61.08%	0.64
COMFORT STATION TD	B	0.01	0.01	0.01	49.53%	0.55
RS-2	C	0.00	0.10	0.10	0.00%	0.15
EAST TD	D	0.06	0.09	0.15	38.30%	0.46
AD-3	E	0.00	0.00	0.00	36.52%	0.44
AD-4	F	0.00	0.00	0.00	20.73%	0.32
AD-1	G	0.00	0.01	0.01	0.00%	0.15
NORTH TD	H	0.03	0.00	0.03	89.67%	0.87
AD-2	I	0.00	0.01	0.01	0.00%	0.15
WEST TD	J	0.02	0.00	0.02	94.59%	0.91
SOUTHWEST TD	K	0.01	0.01	0.02	62.10%	0.65
SOUTH TD	L	0.04	0.02	0.06	65.71%	0.68
RS-1	M	0.03	0.23	0.25	10.05%	0.23
EX INL 33*	EX	0.00	3.89	3.89	0.00%	0.15

* EXISTING DRAINAGE AREA TO INL 33 BASED ON RECORD DRAWINGS SINCE DEVELOPMENT HAS NO IMPACT TO CONTRIBUTING DRAINAGE AREA

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

NOTE 1: REFER TO SHEET C-503 FOR REMAINING STORM DRAIN PROFILES RELATED TO STORMWATER MANAGEMENT.

NOTE 2: ALL ELECTRIC AND TELECOMMUNICATIONS LINES SHALL BE INSTALLED AT STANDARD DEPTHS PER MEP DRAWINGS AND SPECIFICATIONS. ANY CONFLICTS WITH STORM DRAIN LINES SHALL BE ADDRESSED WITH DRY UTILITIES CROSSING UNDER STORM DRAIN WITH 6" CLEARANCE MINIMUM.

SEAL

STATE OF MARYLAND · STEVEN B. THOMPSON · 41799 · PROFESSIONAL ENGINEER

DATE : OCTOBER 23, 2025

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. 41799, EXPIRATION DATE 04/12/2026

ENGINEER: RUMMEL, KLEPPER & KAHL

RK&K P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

AS-BUILT / REVISION | BY | DATE | P.W.A. NO.

CONTRACT COMPLETION BOX

KEY SHEET: PNW | POSITION SHT: 35NW40

R.O.W NO.

DRAWING SCALE

PLAN SCALE: AS SHOWN
PROFILE SCALE: AS SHOWN
AS SHOWN

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

STORM DRAIN PROFILES

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS:

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

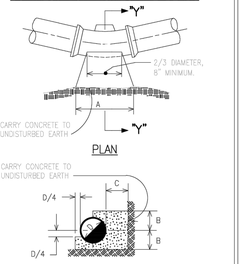
COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-421	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 13 OF 150	DRAWING NUMBER 2025-2184
FILE NO.: 8	REV. 00/00

BALTIMORE COUNTY MARYLAND

DWG. FILENAME:

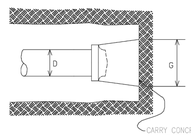
BUTTRESS FOR HORIZONTAL BENDS



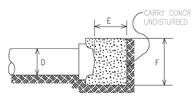
PLAN

SECTION "V-V"

BUTTRESS FOR CAPS



PLAN



SECTION

BUTTRESS FOR HORIZONTAL BENDS

		D	6"	8"	10"	12"	16"	20"	24"	30"	36"
1/64 BEND	A							1'-8"	2'-0"	2'-6"	3'-0"
	B							10"	1'-0"	1'-3"	1'-6"
	C							10"	1'-0"	1'-1"	1'-2"
1/32 BEND	A		8"	8"	10"	1'-0"	1'-4"	1'-8"	2'-0"	2'-6"	3'-0"
	B		7"	8"	9"	10"	1'-0"	1'-2"	1'-4"	1'-7"	1'-11"
	C		7"	7"	8"	8"	9"	10"	1'-0"	1'-1"	1'-2"
1/16 BEND	A		9"	1'-0"	1'-6"	1'-9"	2'-3"	3'-0"	3'-8"	4'-4"	5'-6"
	B		7"	8"	9"	10"	1'-1"	1'-3"	1'-5"	1'-10"	2'-1"
	C		8"	9"	10"	11"	1'-2"	1'-4"	1'-6"	1'-9"	2'-0"
1/8 BEND	A		1'-3"	1'-8"	2'-3"	2'-10"	3'-6"	4'-4"	5'-6"	6'-11"	8'-1"
	B		7"	9"	10"	1'-0"	1'-4"	1'-8"	1'-10"	2'-3"	2'-9"
	C		8"	9"	10"	1'-1"	1'-4"	1'-8"	2'-1"	2'-8"	3'-1"
1/4 BEND	A		2'-4"	2'-10"	3'-2"	3'-8"	5'-4"	SPECIAL DESIGN			
	B		7"	10"	1'-1"	1'-4"	1'-7"				
	C		1'-5"	1'-7"	1'-8"	1'-9"	2'-3"				

BUTTRESS FOR CAPS

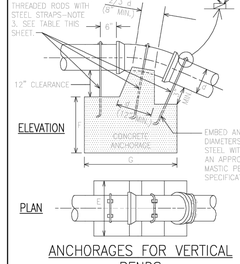
D	6"	8"	10"	12"	16"	20"	24"	30"	36"
E	6"	8"	8"	10"	1'-1"	1'-4"	1'-8"	2'-4"	2'-11"
F	1'-3"	1'-8"	2'-0"	2'-4"	3'-0"	3'-10"	4'-8"	5'-7"	6'-10"
G	1'-6"	2'-0"	2'-6"	3'-0"	4'-0"	4'-10"	5'-10"	7'-11"	9'-8"

NOTES:

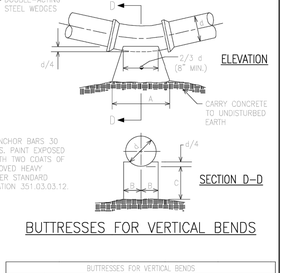
1. ALL CONCRETE TO BE MIX #3 (3,500 p.s.i.).
2. BUTTRESS DIMENSIONS SHOWN ARE MINIMUM. DIMENSIONS ARE BASED UPON SOIL BEARING PRESSURE OF 3,000 p.s.f., STATIC WATER PRESSURE OF 150 p.s.i. AND DUCTILE IRON PIPE SIZES. WHERE PRESSURE EXCEEDS 150 p.s.i. OR WHERE SOIL BEARING PRESSURE IS LESS THAN 3,000 p.s.f., SPECIAL BUTTRESS DESIGN IS REQUIRED, OR ALTERNATIVE RESTRAINT METHODS SHALL BE USED.

APPROVAL: DIRECTOR, BUR. OF ENGINEERING/CONSTRUCTION — SEPTEMBER 28, 2023 — DATE

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
STANDARD WATER DETAILS
BUTTRESS FOR CAPS AND HORIZONTAL BENDS
ISSUED: SEPTEMBER 2023
PLATE W–5



ANCHORAGES FOR VERTICAL BENDS



BUTTRESSES FOR VERTICAL BENDS

BUTTRESSES FOR VERTICAL BENDS

		PIPE SIZE: 6"	8"	10"	12"	16"	20"	24"	30"	36"
1/64 BEND	A						1'-4"	1'-8"	2'-0"	2'-6"	3'-0"
	B						8"	10"	1'-0"	1'-3"	1'-6"
	C						10"	1'-0"	1'-1"	1'-2"	1'-4"
1/32 BEND	A	8"	8"	10"	1'-0"	1'-4"	1'-8"	2'-0"	2'-6"	3'-0"	
	B	7"	8"	8"	10"	1'-0"	1'-2"	1'-4"	1'-7"	1'-11"	
	C	7"	7"	8"	8"	9"	10"	1'-0"	1'-1"	1'-2"	
1/16 BEND	A	9"	1'-0"	1'-5"	1'-9"	2'-3"	3'-0"	3'-8"	4'-4"	5'-6"	
	B	7"	8"	9"	10"	1'-1"	1'-3"	1'-5"	1'-10"	2'-1"	
	C	7"	7"	8"	8"	9"	1'-0"	1'-2"	1'-4"	1'-9"	
1/8 BEND	A	1'-3"	1'-8"	2'-3"	2'-10"	3'-6"	4'-4"	5'-6"	6'-11"	8'-1"	
	B	7"	9"	10"	1'-0"	1'-4"	1'-8"	1'-10"	2'-3"	2'-9"	
	C	7"	8"	9"	10"	1'-1"	1'-4"	1'-8"	2'-1"	2'-8"	

ANCHORAGES FOR VERTICAL BENDS

		PIPE SIZE: 6"	8"	10"	12"	16"	20"	24"	30"	36"
1/64 BEND	E						2'-0"	2'-3"	2'-8"	3'-6"	4'-0"
	F						2'-11"	3'-2"	3'-4"	4'-6"	5'-0"
	G						4'-0"	4'-6"	4'-6"	5'-0"	5'-7"
1/32 BEND	E	1'-6"	1'-8"	2'-0"	2'-0"	3'-0"	4'-0"	4'-3"	4'-3"	5'-0"	
	F	2'-0"	2'-2"	2'-6"	2'-11"	3'-5"	3'-8"	4'-4"	4'-5"	6'-3"	
	G	2'-6"	3'-0"	3'-4"	3'-5"	4'-0"	5'-0"	5'-8"	6'-6"	7'-4"	
1/16 BEND	E	2'-0"	2'-4"	3'-0"	3'-4"	4'-8"	4'-10"	5'-4"	6'-6"	6'-10"	
	F	2'-6"	3'-0"	3'-4"	4'-0"	4'-6"	5'-4"	6'-0"	6'-6"	8'-6"	
	G	3'-4"	3'-5"	3'-8"	4'-6"	5'-4"	6'-0"	6'-6"	7'-7"	8'-3"	
1/8 BEND	E	2'-10"	3'-0"	4'-2"	5'-2"	6'-5"	8'-0"	9'-6"	11'-0"	12'-0"	
	F	3'-4"	4'-2"	5'-10"	6'-10"	8'-6"	10'-6"	12'-6"	14'-6"	16'-6"	
	G	3'-4"	4'-2"	5'-10"	6'-10"	8'-6"	10'-6"	12'-6"	14'-6"	16'-6"	

ANCHOR BARS *

PIPE SIZE	1/64 BEND	1/32 BEND	1/16 BEND	1/8 BEND
6"	3–#5	3–#5	3–#5	3–#5
8"	3–#5	3–#5	3–#6	3–#6
10"	3–#5	3–#5	3–#6	3–#6
12"	3–#5	3–#5	3–#6	3–#6
16"	3–#5	3–#6	4–#6	4–#6
20"	3–#5	3–#6	4–#6	5–#6
24"	3–#5	3–#6	5–#6	5–#6
30"	3–#5	3–#6	5–#6	5–#7
36"	3–#5	3–#6	5–#7	5–#7

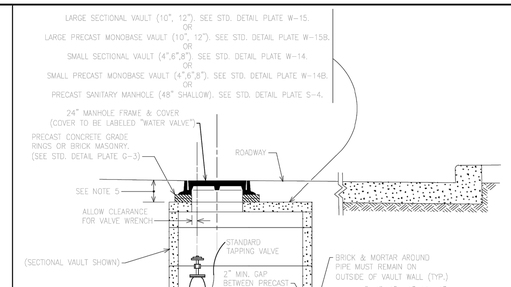
* REBAR # AS INDICATED OR EQUAL DIAM. THREADED ROD

NOTES:

1. ALL CONCRETE TO BE MIX #3 (3,500 p.s.i.).
2. BUTTRESS DIMENSIONS SHOWN ARE MINIMUM. DIMENSIONS ARE BASED UPON 3,000 P.S.F. SOIL BEARING PRESSURE, 150 P.S.I. STATIC WATER PRESSURE AND DUCTILE IRON PIPE SIZES. SPECIAL BUTTRESS DESIGN IS REQUIRED WHERE PRESSURE EXCEEDS 150 P.S.I. OR WHERE SOIL BEARING PRESSURE IS LESS THAN 3,000 P.S.F.
3. USE DEFORMED REBAR AND WEDGES (SHOWN) OR THREADED RODS, STRAPS, AND NUTS FOR ANCHORING D.I.P. SEE STD. DETAIL PLATE W–1 FOR THREADED RODS, STRAPS, AND NUTS. DEFORMED REBARS: TACK WELD STEEL WEDGES TOGETHER & TACK WELD REBAR TO TOP STEEL WEDGE AFTER PLACEMENT.
4. FOR ANCHORING HDPE PIPE, USE 3" WIDE HEAVY GAUGE 18–8 TYPE 304 S.S. STRAPS & THREADED STEEL RODS & NUTS.
5. ALTERNATE DESIGNS WILL BE CONSIDERED SUBJECT TO APPROVAL BY BUREAU OF ENGINEERING & CONSTRUCTION.

APPROVAL: DIRECTOR, BUR. OF ENGINEERING/CONSTRUCTION — SEPTEMBER 28, 2023 — DATE

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
STANDARD WATER DETAILS
BUTTRESSES AND ANCHORAGES FOR VERTICAL BENDS
ISSUED: SEPTEMBER 2023
PLATE W–6

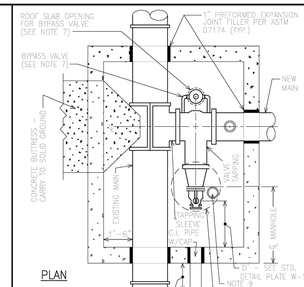


NOTES

1. SEE BALTIMORE CO. STD. DETAIL PLATE G–4 FOR MANHOLE STEP SPECIFICATIONS, PLACEMENT AND SPACING. LOCATE STEPS AS SHOWN (PRECAST SHALLOW MANHOLE ONLY).
2. MANHOLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS INDICATED ON STD. DETAIL PLATES S–4, S–5 AND S–15 (PRECAST SHALLOW MANHOLE ONLY).
3. IF PRECAST "DOGHOUSE" MANHOLE RISER IS USED, PROVIDE AND MAINTAIN A 2" GAP BETWEEN PIPE AND RISER. SEE STD. DETAIL PLATE S–15 FOR DOGHOUSE RISER REQUIREMENTS. OPENING ABOVE PIPE SPRINGLINE SHALL BE FILLED WITH PREFORMED EXPANSION JOINT MATERIAL, NONEXTRUDING AND RESILIENT BITUMINOUS TYPE.
4. BOTTOM SLAB:
   SECTIONAL AND MONOBASE VAULTS – 3'–10½" x 2'–10½" x 6", 3500 psi CONCRETE SLAB; #4 BARS @ 12" C/C E.W. AT ℄ OF SLAB.
   PRECAST MANHOLE – SEE STD. DETAIL PLATES S–4, S–15 AS APPLICABLE.
5. SECTIONAL AND MONOBASE VAULTS – 12" MINIMUM, 18" MAXIMUM.
   PRECAST MANHOLE – SEE STD. DETAIL PLATE S–4.
6. IF TAPPING VALVE FUNCTIONS AS A SERVICE VALVE TO A LARGE METER (3" OR GREATER), PIPE BETWEEN TAPPING VALVE & METER SHALL BE DIP ONLY.

APPROVAL: DIRECTOR, BUR. OF ENGINEERING/CONSTRUCTION — SEPTEMBER 28, 2023 — DATE

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
STANDARD WATER DETAILS
TAPPING SLEEVE AND VALVE
ISSUED: SEPTEMBER 2023
PLATE W–9

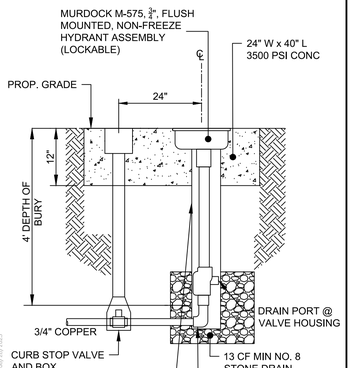


NOTES

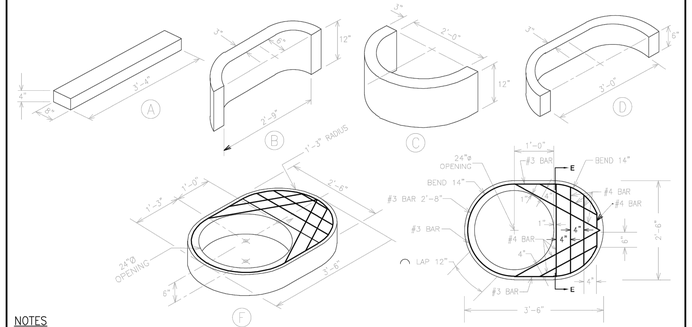
1. VAULTS SHALL BE DESIGNED TO MATCH SUPPLIED VALVES. SHOP DRAWINGS SHALL BE SUBMITTED & APPROVED FOR EACH VAULT. SHOP DRAWINGS SHALL BE SIGNED & SEALED BY A MARYLAND REGISTERED PROFESSIONAL ENGINEER.
2. LOADS: L.L. = MdSHA HS–27 (1.25% OF AASHTO H520–44 LOADING)
   D.L. = EARTH AT 110 Lbs. PER CU. FT. & 42 Lbs. PER CU. FT. EQUIVALENT FLUID PRESSURE.
3. CONCRETE & REINFORCING SHALL CONFORM TO THE STANDARD BALTIMORE COUNTY SPECIFICATION.
4. CAST–IN–PLACE CONCRETE SHALL BE MIX #3 (3,500 psi).
5. TOP SLAB MUST BE SEPARATE AND REMOVABLE FROM VAULT. TOP SLAB OPENINGS MUST ALIGN WITH VALVE CONTROLS AS INSTALLED.
6. VAULT FLOTATION TO BE ADDRESSED BY CERTIFYING ENGINEER TO SATISFACTION OF BUREAU OF ENGINEERING & CONSTRUCTION.
7. VALVES 24 INCHES IN DIAMETER OR LESS SHALL BE OF RESILIENT SEAT DESIGN WITHOUT BYPASS VALVE & WITHOUT 2 INCH FRAME & COVER.
8. FOR VALVES 30 INCHES IN DIAMETER OR LARGER, CONSULT DESIGN DIVISION OF THE BUREAU OF ENGINEERING & CONSTRUCTION.
9. SUMP– 8" PIPE, 2' LONG, PITCH FLOOR TO SUMP. ADJUST LOCATION AS NECESSARY TO BE UNDER ROOF SLAB OPENING.
10. IF TAPPING VALVE FUNCTIONS AS A SERVICE VALVE TO A LARGE METER (3" OR GREATER), PIPE BETWEEN TAPPING VALVE AND METER SHALL BE D.I.P. ONLY.
11. FOR VALVES 16" TO 24", USE F=18" AND E=6". FOR 30" VALVES, USE F=24" AND E=8".
12. PROVIDE TWO (2) LAYERS ROOFING PAPER (STD. SPECIFICATION SECTION 911.07) AS BOND BREAKER.
13. POSITION PITOMETER CORPORATION MIDWAY BETWEEN VALVE AND VAULT WALL.

APPROVAL: DIRECTOR, BUR. OF ENGINEERING/CONSTRUCTION — SEPTEMBER 28, 2023 — DATE

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
STANDARD INSTALLATION
TAPPING SLEEVE & HORIZONTAL VALVE
ISSUED: SEPTEMBER 2023
PLATE W–10



YARD HYDRANT BOX DETAIL
NOT TO SCALE



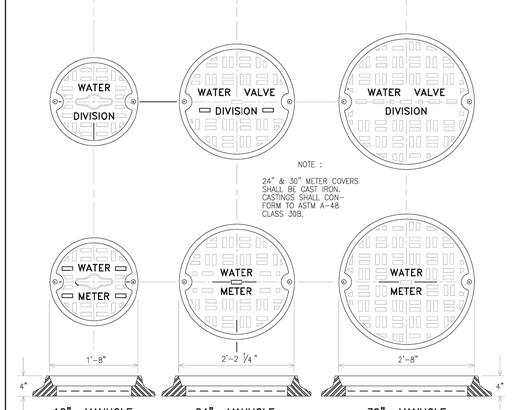
NOTES

1. ALL SECTIONS TO HAVE 4"x4" W4 x W4 WIRE MESH REINFORCING EXCEPT AS INDICATED ON SECTION E. WWF TO HAVE 3/4" COVER.
2. TOP SLAB CONCRETE TO BE MIX No. 8 (4,000 psi). ALL OTHER CONCRETE TO BE MIX No. 3 (3,500 psi).
3. TAPPING VALVE VAULT TO BE PLACED ON 6–INCH CONCRETE SLAB REINFORCED WITH NO. 4 BARS AT 12 INCHES E. W. ON CENTER LINE OF SLAB. SEE STD. DETAIL PLATE W–9.
4. SECTION JOINTS SHALL BE MORTARED. SEE STD. SPECIFICATION SECTION 903.06.
5. ALL STRAIGHT BARS SHALL HAVE 90–DEGREE BENDS AT EACH END.
6. TOP SLAB "F" FOR SMALL PRECAST SECTIONAL VAULT IS NOT INTERCHANGEABLE WITH TOP SLAB FOR SMALL PRECAST MONOBASE VAULT (DETAIL PLATE W–14C).

SECTION E–E

APPROVAL: DIRECTOR, BUR. OF ENGINEERING/CONSTRUCTION — SEPTEMBER 28, 2023 — DATE

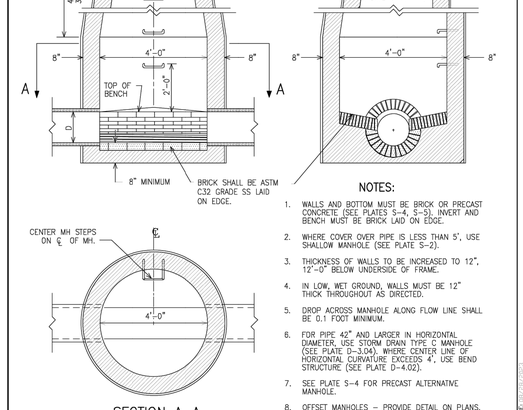
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
STANDARD WATER DETAILS
SECTION FOR SMALL PRECAST SECTIONAL VAULTS
ISSUED: SEPTEMBER 2023
PLATE W–14



NOTE : 24" & 30" METER COVERS SHALL BE CAST IRON. CASTINGS SHALL CONFORM TO ASTM A–48 CLASS 30B.

APPROVAL: DIRECTOR, BUR. OF ENGINEERING/CONSTRUCTION — SEPTEMBER 28, 2023 — DATE

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
STANDARD WATER DETAILS
STANDARD TRAFFIC FRAME AND COVER
ISSUED: SEPTEMBER 2023
PLATE W–18



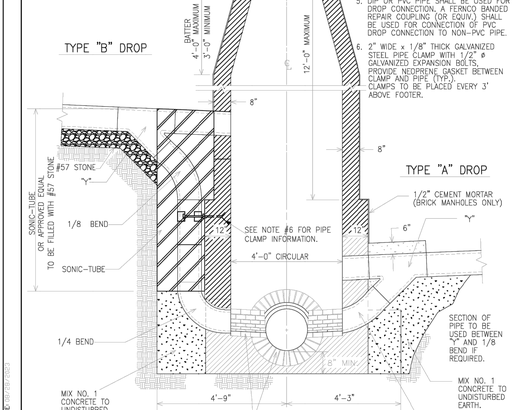
NOTES:

1. WALLS AND BOTTOM MUST BE BRICK OR PRECAST CONCRETE (SEE PLATES S–4, S–5). INVERT AND BENCH MUST BE BRICK LAID ON EDGE.
2. WHERE COVER OVER PIPE IS LESS THAN 5', USE SHALLOW MANHOLE (SEE PLATE S–2).
3. THICKNESS OF WALLS TO BE INCREASED TO 12", 12'–0" BELOW UNDERSIDE OF FRAME.
4. IN LOW, WET GROUND, WALLS MUST BE 12" THICK THROUGHOUT AS DIRECTED.
5. DROP ACROSS MANHOLE ALONG FLOW LINE SHALL BE 0.1 FOOT MINIMUM.
6. FOR PIPE 42" AND LARGER IN HORIZONTAL DIAMETER, USE STORM DRAIN TYPE C MANHOLE (SEE PLATE D–3.04). WHERE CENTER LINE OF HORIZONTAL CURVATURE EXCEEDS 4', USE BEND STRUCTURE (SEE PLATE D–4.02).
7. SEE PLATE S–4 FOR PRECAST ALTERNATIVE MANHOLE.
8. OFFSET MANHOLES – PROVIDE DETAIL ON PLANS.
9. FOR TERMINAL MANHOLE, OMIT BENCH. PROVIDE BRICK INVERT. DROP TO OUTLET MUST NOT EXCEED 0.3 FOOT.

APPROVAL: DIRECTOR, BUR. OF ENGINEERING/CONSTRUCTION — SEPTEMBER 28, 2023 — DATE

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
SANITARY SEWER DETAILS
SANITARY MANHOLE FOR PIPES 6" THRU 36" HORIZONTAL DIAMETER
ISSUED: SEPTEMBER 2023
REVISED:
REVISED:
PLATE S–1

DROP CONNECTION			
SIZE OF SEWER	TYPE A MAX. DROP	TYPE A MIN. DROP	TYPE B MIN. DROP
6"	3'–9"	2'–0"	3'–9"
8"	3'–9"	2'–0"	3'–9"
10"	4'–0"	2'–0"	4'–0"
12"	6'–0"	2'–6"	6'–0"
15"	6'–0"	2'–6"	6'–0"



NOTES:

1. FOR 15" SEWERS WITH DROP CONNECTIONS USE SPECIAL "Y" WITH 12" BRANCH.
2. WALLS SHALL BE 12" THICK THROUGHOUT WHERE DIRECTED.
3. WALLS AND BOTTOM SHALL BE BRICK OR MIX #3 CONCRETE POURED IN PLACE. INVERT SHALL BE LAID BRICK ON EDGE.
4. STANDARD MANHOLE STEPS SHALL BE PLACED 90° FROM MAIN FLOW CHANNEL. SEE DETAIL G–4.
5. DIP OR PVC PIPE SHALL BE USED FOR DROP CONNECTION. A FERNCO BANDED REPAIR COUPLING (OR EQUIV.) SHALL BE USED FOR CONNECTION OF PVC DROP CONNECTION TO NON–PVC PIPE.
6. 2" WIDE x 1/8" THICK GALVANIZED STEEL PIPE CLAMP WITH 1/2" ø GALVANIZED EXPANSION BOLTS. PROVIDE NEOPRENE GASKET BETWEEN CLAMP AND PIPE (TYP.). CLAMPS TO BE PLACED EVERY 3' ABOVE FOOTER.

APPROVAL: DIRECTOR, BUR. OF ENGINEERING/CONSTRUCTION — SEPTEMBER 28, 2023 — DATE

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
SANITARY SEWER DETAILS
DROP CONNECTIONS AT MANHOLE TYPE A AND B
ISSUED: SEPTEMBER 2023
REVISED:
REVISED:
PLATE S–6

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887–3861

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

SEAL — STATE OF MARYLAND — MICHAEL B. THOMPSON — 41799 — PROFESSIONAL ENGINEER

DATE : OCTOBER 23, 2025

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. 41799, EXPIRATION DATE 04/12/2026.

ENGINEER: RUMMEL, KLEPPER & KAHL
RK&K P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202
AS–BUILT PER RECORD PRINT
BY: DATE:

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

AS–BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
				PNW	35NW40	PLAN SCALE: AS SHOWN	APPROVED BY: PROPERTY MANAGER
CONTRACT COMPLETION BOX			R.O.W NO.			PROFILE SCALE: AS SHOWN	DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

WATER AND SEWER DETAILS

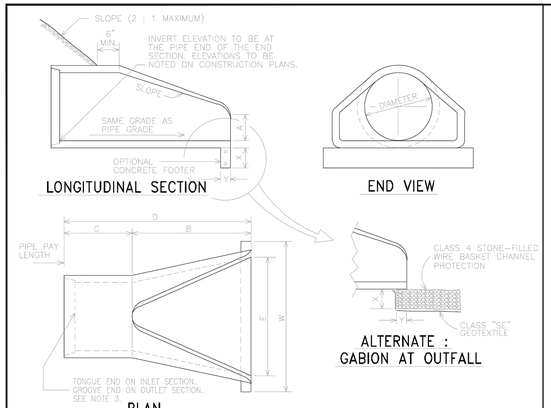
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C–450	25114 GX0
JOB ORDER NUMBER	PROJ–1000634
SHEET 14 OF 150	DRAWING NUMBER
2025–2185	FILE NO.: 8

DWG. FILENAME:



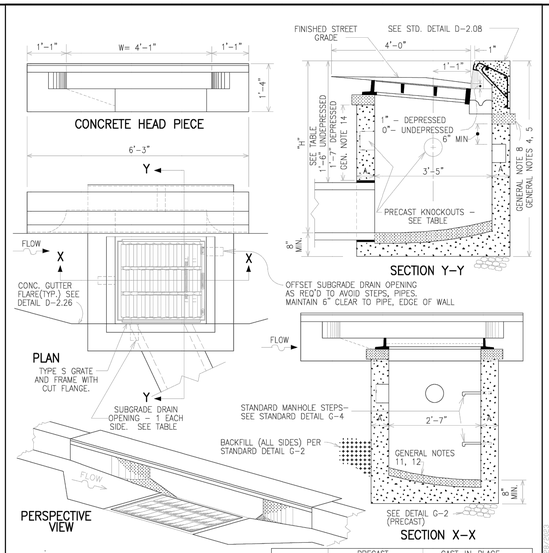
NOTES

1. END SECTIONS MUST BE REINFORCED TO CONFORM WITH CLASS IV PIPE.
2. CONCRETE FOOTER SHALL BE USED WHEN SPECIFIED ON THE PLANS. COST OF CONCRETE FOOTER TO BE PAID PER CUBIC YARD OF MIX NO. 2 CONCRETE FOR MISCELLANEOUS STRUCTURES, REINFORCEMENT TO BE #4 BARS.
3. PREFERRED USE: OUTFALLS ONLY. EXTRA CARE MUST BE TAKEN TO PROTECT ADJACENT SLOPES FROM EROSION WHEN USED IN LIEU OF A HEADWALL AT THE INLET END OF A PIPE.

TABLE OF DIMENSIONS									
CONCRETE END SECTION							CONCRETE FOOTER		
DIAMETER	SLOPE	A	B	C	D	E	W	X	Y
12"	3:1	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	3'-0"	12"	9"
15"	3:1	6"	2'-3"	3'-10"	6'-1"	2'-6"	3'-6"	12"	9"
18"	3:1	9"	2'-3"	3'-10"	6'-1"	3'-0"	4'-0"	12"	9"
21"	3:1	9"	3'-0"	3'-1 1/2"	6'-1 1/2"	3'-6"	4'-6"	12"	9"
24"	3:1	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	5'-0"	15"	9"
27"	3:1	10 1/2"	4'-1 1/2"	2'-0"	6'-1 1/2"	4'-6"	5'-6"	15"	9"
30"	3:1	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	6'-0"	15"	9"
36"	3:1	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	7'-3"	15"	9"
42"	3:1	1'-6"	5'-3"	2'-11"	8'-2"	6'-6"	7'-9"	15"	9"
48"	3:1	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	8'-6"	18"	12"
54"	2.4:1	2'-3"	5'-5"	2'-3 3/4"	8'-2 1/4"	7'-6"	9'-0"	18"	12"

NOTE: CONTRACTOR HAS OPTION OF FURNISHING END SECTIONS CONFORMING TO DETAILS ON THIS SHEET OR END SECTIONS CONFORMING TO DETAILS ON PLATE D-1.10

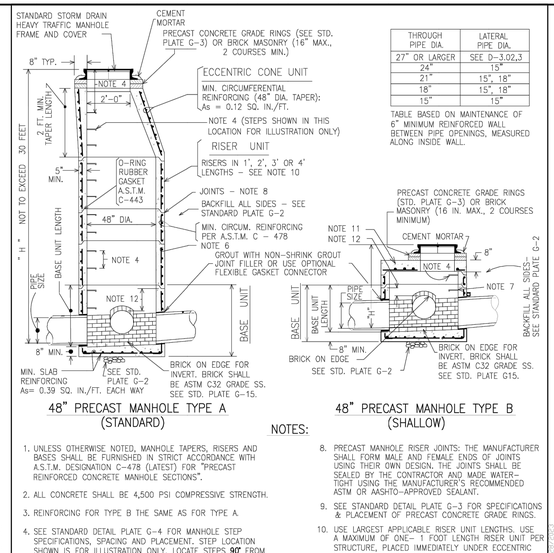
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
STORM DRAINAGE DETAILS
CONCRETE END SECTION
ROUND CONCRETE PIPE
BUR. OF ENGINEERING CONSTRUCTION — SEPTEMBER 28, 2023
ISSUED: SEPTEMBER 2023
PLATE D-1.11
FILE: STORM_DRAIN_D-1.11



NOTES:
1. SEE STD. DETAIL D-2.00 FOR GENERAL NOTES.
2. SEE NOTES 2 THROUGH 5 AS SHOWN ON STD. DETAIL D-2.19A.

	PRECAST	CAST-IN-PLACE
A	6" MIN.	8 1/2"
REINF.	2 LAYERS- 4x4 W4.0 x W4.0- WWF	#4 BARS @ 6" C/C E.W. 2" COVER (NOTE 5)
CONCRETE	4,500 PSI	MIX NO. 3
ALLOWABLE DEPTH	B.C.B.E/C APPROVAL REQUIRED OVER 15'	
SUBGRADE OPENING	SEE DETAIL D-2.00	4" x 4" OPENINGS OR AS DIRECTED.

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
STORM DRAINAGE DETAILS
TYPE S
COMBINATION INLET
BUR. OF ENGINEERING CONSTRUCTION — SEPTEMBER 28, 2023
ISSUED: SEPTEMBER 2023
PLATE D-2.18
FILE: STORM_DRAIN_D-2.18



THROUGH PIPE DIA.	LATERAL PIPE DIA.
27" OR LARGER	SEE D-3.02,3
24"	15"
21"	15", 18"
18"	15", 18"
15"	15"

TABLE BASED ON MAINTENANCE OF 6" MINIMUM REINFORCED WALL BETWEEN PIPE OPENINGS, MEASURED ALONG INSIDE WALL.

NOTES:
1. UNLESS OTHERWISE NOTED, MANHOLE TAPERS, RISERS AND BASES SHALL BE FURNISHED IN STRICT ACCORDANCE WITH A.S.T.M. DESIGNATION C-478 (LATEST) FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS".
2. ALL CONCRETE SHALL BE 4,500 PSI COMPRESSIVE STRENGTH.
3. REINFORCING FOR TYPE B THE SAME AS FOR TYPE A.
4. SEE STANDARD DETAIL PLATE G-4 FOR MANHOLE STEP SPECIFICATIONS, SPACING AND PLACEMENT. STEP LOCATION SHOWN IS FOR ILLUSTRATION ONLY. LOCATE STEPS 90° FROM MAIN FLOW CHANNEL WITHIN MANHOLE.
5. A PRECAST MANHOLE SECTION MAY BE PLACED OVER EXISTING PIPE. SEE DETAIL FOR PRECAST MANHOLE "DOGHOUSE" RISER, STANDARD DETAIL PLATE D-3.07.
6. MINIMUM CIRCUMFERENTIAL REINFORCEMENT PER A.S.T.M. C 478.
7. USE A MINIMUM OF 1 MANHOLE STEP IN BASE UNIT.
8. PRECAST MANHOLE RISER JOINTS: THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATER-TIGHT USING THE MANUFACTURER'S RECOMMENDED ASTM OR AASHTO-APPROVED SEALANT.
9. SEE STANDARD DETAIL PLATE G-3 FOR SPECIFICATIONS & PLACEMENT OF PRECAST CONCRETE GRADE RINGS.
10. USE LARGEST APPLICABLE RISER UNIT LENGTHS. USE A MAXIMUM OF ONE- 1 FOOT LENGTH RISER UNIT PER STRUCTURE. PLACED IMMEDIATELY UNDER ECCENTRIC CONE SECTION.
11. SEE DETAIL PLATE D-3.02B FOR PRECAST TOP SLAB DETAIL FOR SHALLOW MANHOLE.
12. MAINTAIN 2" MIN. FROM PIPE OPENING TO JOINT OR PROVIDE A SPECIAL REINFORCED DESIGN.

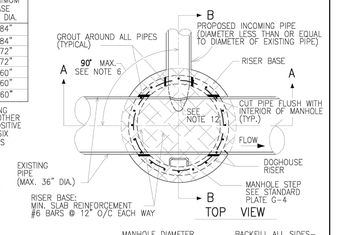
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
STORM DRAINAGE DETAILS
PRECAST A & B MANHOLES
FOR PIPES 15" THRU 24"
HORIZONTAL DIAMETER
BUR. OF ENGINEERING CONSTRUCTION — SEPTEMBER 28, 2023
ISSUED: SEPTEMBER 2023
PLATE D-3.01
FILE: STORM_DRAIN_D-3.01

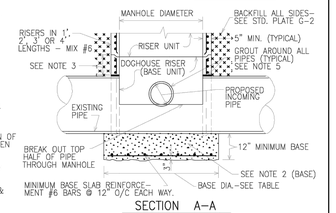
EX. PIPE DIA.	MANHOLE DIA.	MAXIMUM * LATERAL PIPE DIA.	MINIMUM BASE DIA.
42"	72"	24"	84"
30" OR 36"	72"	30"	84"
30"	60"	24"	72"
24" OR 27"	60"	SAME AS EX.	72"
24"	48"	15"	60"
21"	48"	18"	60"
UP TO 18"	48"	SAME AS EX.	60"

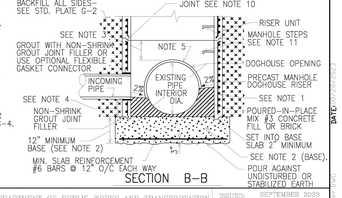
* BASED ON LATERAL PIPE AT 90° TO EXISTING PIPE, WITH ABOUT THE SAME ELEVATION. OTHER ANGLES & ELEVATIONS MAY BE USED IF POSITIVE FLOW IS MAINTAINED WITHIN MANHOLE AND SIX INCHES OF REINFORCED "DOGHOUSE" WALL IS MAINTAINED BETWEEN PIPE OPENINGS.

NOTES

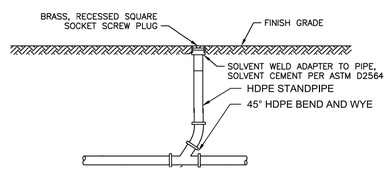
1. MANHOLE TAPERS, RISERS & BASES SHALL BE FURNISHED IN STRICT ACCORDANCE WITH ASTM DESIGNATION C-478 (LATEST) FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS".
2. MANHOLE BASE SHALL BE MIX NO. 3 (3,500 P.S.I.) POURED-IN-PLACE CONCRETE.
3. PROVIDE 12" MINIMUM CLEARANCE FROM INCOMING PIPE & FROM DOGHOUSE OPENING TOP(S) TO UPPER RISER JOINT.
4. PROVIDE 6" MINIMUM CLEARANCE FROM INCOMING PIPE OPENING TO BOTTOM OF DOGHOUSE UNIT.
5. MINIMUM 1" CLEARANCE SHALL BE MAINTAINED BETWEEN PIPES AND PRECAST DOGHOUSE PIPE OPENINGS. OPENINGS SHALL BE GROUTED WITH NON-SHRINK GROUT JOINT FILLER.
6. IN ALL CASES, A MINIMUM 12" WIDE SECTION OF MANHOLE WALL SHALL BE MAINTAINED BETWEEN PIPE OPENINGS IN DOGHOUSE RISER.
7. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60.
8. SEE STANDARD PLATE D-3.01 FOR TYPE A & TYPE B SHALLOW MANHOLE DETAILS FOR USE WITH DOGHOUSE RISER SHOWN HERE. SEE STANDARD PLATE D-3.02 FOR 60" DIA. MANHOLE DETAILS FOR USE WITH DOGHOUSE RISER SHOWN HERE.
9. MAXIMUM MANHOLE HEIGHT SHALL BE 30 FT. WHEN USING PRECAST DOGHOUSE RISER.
10. PRECAST INLET JOINTS: THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATER TIGHT USING THE MANUFACTURER'S RECOMMENDED ASTM OR AASHTO APPROVED SEALANT.
11. MANHOLE STEPS SHALL BE PROVIDED IF A RISER IS USED ABOVE THE DOGHOUSE RISER (BASE UNIT). SEE STANDARD DETAIL PLATE G-4.
12. BREAK OUT ADDITIONAL PIPE AS REQUIRED TO PROVIDE POSITIVE FLOW FROM INCOMING PIPE TO CENTER MANHOLE CHANNEL.



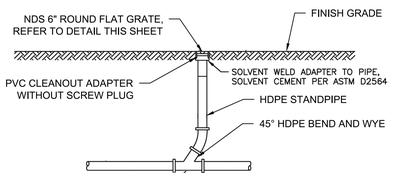




DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
STORM DRAINAGE DETAILS
PRECAST MANHOLE "DOGHOUSE"
RISER BUILT COVER OVER EXISTING DRAIN
(FOR USE WITH PIPES 36 AND SMALLER)
BUR. OF ENGINEERING CONSTRUCTION — SEPTEMBER 28, 2023
ISSUED: SEPTEMBER 2023
PLATE D-3.07
FILE: STORM_DRAIN_D-3.07



STORM DRAIN CLEANOUT DETAIL
SCALE: NONE



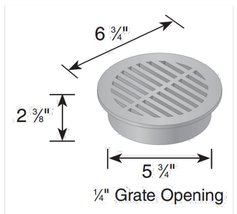
STORM DRAIN CLEANOUT DETAIL TO BE MODIFIED WITH 6" NDS FLAT ROUND GRATE
AREA DRAIN DETAIL
SCALE: NONE

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

NDS™ WE PUT WATER IN ITS PLACE — TECHNICAL SPECIFICATIONS

6" ROUND GRATE



Material: UV Protected High Density Polyethylene (HDPE)
Colors: Black (40), Green (50), Gray (60), Sand (60S)
Weight: 0.486 lbs
Fits: Use with Spee-D® Basin, 6" Sewer and Drain Fittings, 6" Corrugated, SDR-35, ABS, SCH-40, Double Wall, ASTM D-2729, Class 100 Pipe
Grate Openings: 9.10 in² open space
Will accommodate 27.84 gallons per minute with 1/2" of head.

Load Recommendation Guide

Class A
- Loads of 1-60 psi.
- Recommended for pedestrians, bicycles and wheel chair traffic.

Note: Some installations may require a concrete collar to meet load rating. Loads are based on encasing product in concrete. Product must be installed using NDS instructions.

ADA Compliance

NDS provides a wide selection of grates that are compliant with the Americans with Disabilities Act. The ADA Accessibility Guidelines For Buildings and Facilities Section 4.5.4 specifies that "ground and floor grates "shall have spaces no greater than 1/2 in (13 mm) wide in one direction."

We are pleased to provide grates that comply with these requirements, so that no individual need be limited from accessing the area safely and confidently.

To see if a grate is ADA compliant, please check the description of the product in our NDS Drainage Catalog; products that meet these requirements are marked "ADA compliant."

Like to find out more about ADA compliance and NDS? Send us your question and we'll be happy to help.

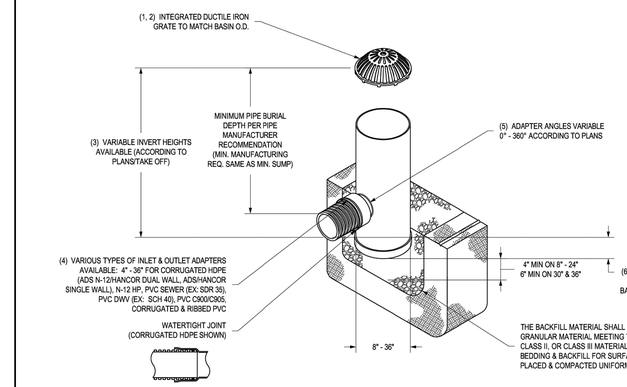
ADA Compliant/Heel-proof

851 N. Harvard Avenue
Lindsay, CA 93247
800-726-1994

Visit ndspro.com for specs, detail drawings, and case studies

NDS WE PUT WATER IN ITS PLACE

NYLOPLAST DRAIN BASIN WITH DOME GRATE



1 - 8" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 76-50-05.
2 - 8" & 10" DOME GRATES FIT ONTO THE DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
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 (4" - 36").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 8" - 30" DOME GRATES HAVE NO LOAD RATING.

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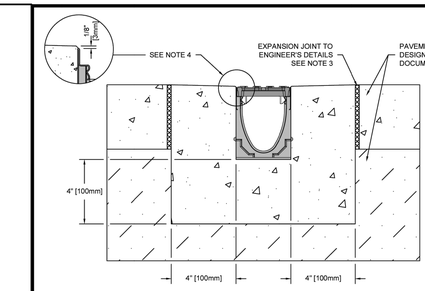
DRAWN BY	EBC	MATERIAL	
DATE	03-25-10		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	06-12-18		
DWG SIZE	A	SCALE 1:40	SHEET 1 OF 1

ADS Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE: DRAIN BASIN WITH DOME GRATE QUICK SPEC INSTALLATION DETAIL
DWG NO. 7001-110-397 REV E



NOTES:
1. IT IS NECESSARY TO ENSURE MINIMUM DIMENSIONS SHOWN ARE SUITABLE FOR EXISTING GROUND CONDITIONS. *ENGINEERING ADVICE MAY BE REQUIRED.*
2. MINIMUM CONCRETE STRENGTH OF 4,000 PSI IS RECOMMENDED. CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
3. EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE RECOMMENDED TO PROTECT CHANNEL AND CONCRETE SURROUND. *ENGINEERING ADVICE MAY BE REQUIRED.*
4. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" [3mm] ABOVE THE TOP OF THE CHANNEL EDGE.
5. CONCRETE BASE THICKNESS SHOULD MATCH SLAB THICKNESS. ENGINEERING ADVICE MAY BE REQUIRED TO DETERMINE PROPER LOAD CLASS.
6. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

SPECIFICATION CLAUSE

K100 KLASSIKDRAIN 'DRAINLOK' LOAD CLASS A

GENERAL
THE SURFACE DRAINAGE SYSTEM SHALL BE POLYMER CONCRETE K100 CHANNEL SYSTEM WITH GALVANIZED STEEL EDGE RAILS AS MANUFACTURED BY ACO POLYMER PRODUCTS, INC.

MATERIALS
CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE WITH AN INTEGRALLY CAST-IN GALVANIZED STEEL EDGE RAIL. MINIMUM PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS:

COMPRESSIVE STRENGTH:	14,000 PSI
FLEXURAL STRENGTH:	4,000 PSI
TENSILE STRENGTH:	1,500 PSI
WATER ABSORPTION:	0.07%
FROST PROOF	YES
DILUTE ACID AND ALKALI RESISTANT	YES
B117 SALT SPRAY TEST COMPLIANT	YES

THE SYSTEM SHALL BE 4" (100mm) NOMINAL INTERNAL WIDTH WITH A 5.1" (130mm) OVERALL WIDTH AND A BUILT-IN SLOPE OF 0.5%. CHANNEL INVERT SHALL HAVE DEVELOPED "V" SHAPE. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.

THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO POLYMER PRODUCTS, INC. ANY DEVIATION OR PARTIAL SYSTEM DESIGN AND/OR IMPROPER INSTALLATION WILL VOID ANY AND ALL WARRANTIES PROVIDED BY ACO POLYMER PRODUCTS, INC.

CHANNEL SHALL WITHSTAND LOADING TO PROPER LOAD CLASS AS OUTLINED BY EN 1433. GRATE TYPE SHALL BE APPROPRIATE TO MEET THE SYSTEM LOAD CLASS SPECIFIED AND INTENDED APPLICATION. GRATES SHALL BE SECURED USING 'DRAINLOK' BOLTLESS LOCKING SYSTEM. CHANNEL AND GRATE SHALL BE CERTIFIED TO MEET THE SPECIFIED EN 1433 LOAD CLASS. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

K1D-A-ECP
ACO
DATE: 08/16/17

K100 - KLASSIKDRAIN - LOAD CLASS: A
Exposed Concrete Pavement
INSTALLATION DRAWING - ACO DRAIN

ACO Polymer Products, Inc.

825 W. Beechcraft St Casa Grande, AZ 85122 Tel: 520-421-9988 Fax: 520-421-9899	9470 Pinecone Dr. Mentor, OH 44060 Tel: 440-639-7230 Fax: 440-639-7235	4211 Pleasant Rd. Fort Mill, SC 29708 Tel: 440-639-7230 Fax: 803-802-1063

Arizona Tel: 888-490-9552 e-mail: sales@acousa.com Ohio Tel: 800-543-4764 www.acousa.com South Carolina Tel: 800-543-4764

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

DWG. FILENAME:

SEAL
STATE OF MARYLAND — REVIEWED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT — 41799 — PROFESSIONAL ENGINEER
DATE : JULY 18, 2025

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. 41799 , EXPIRATION DATE 04/12/2026
ENGINEER: RUMMEL, KLEPPER & KAHL
RK&K P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202
AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

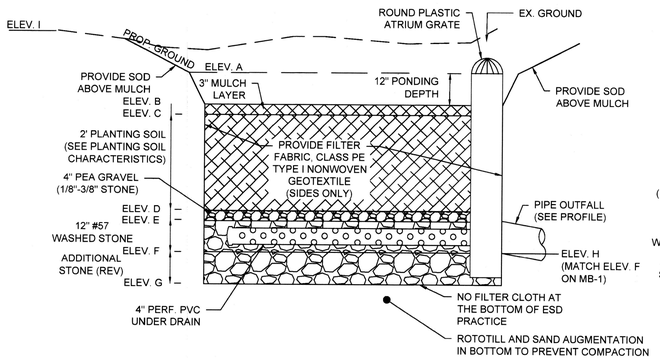
KEY SHEET	POSITION SHT
PNW	35NW40

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	AS SHOWN AS SHOWN

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

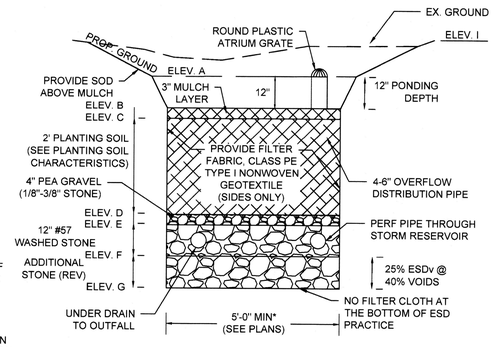
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE — PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
CIVIL — STORM DRAIN DETAILS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS:
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-451	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 15 OF 150
	DRAWING NUMBER
	2025-2186
	FILE NO.: 8



MICRO-BIORETENTION (UNDERDRAIN)

NOT TO SCALE

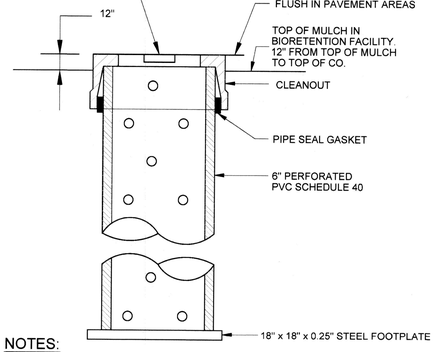


MICRO-BIORETENTION (OVERFLOW)

NOT TO SCALE

MICROBIORETENTION DATA										
FACILITY	PONDING (ELEV A)	TOP OF MULCH LAYER (ELE. B)	TOP OF BIORETENTION SOIL (BSM)- (ELEV. C)	BOTTOM OF BSM/ TOP OF CHOKER LAYER (ELEV.D)	BOTTOM OF CHOKER LAYER/ TOP OF RESERVOIR LAYER (ELEV.E)	12" #57 STONE ELEV. (ELEV.F)	BOTTOM OF MICRO-BIORETENTIO N FACILITY (ELEV. G)	OUTLET PIPE INV. ELEV (ELEV. H)	EXISTING GRADE (ELEV. I)	GROUNDWATER ELEV.
MB-1	612.75	611.75	611.50	609.50	609.17	608.17	607.92	608.58	MIN. 612.50 MAX. 613.50	NONE
MB-2	617	616	615.75	613.75	613.42	612.42	612.17	612.83	MIN. 618.00 MAX. 618.50	NONE

MATERIAL SPECIFICATIONS			
Material	Specification	Size	Notes
Underdrain	AASHTO M-278	4"	SCH 40 pip - with 3/8" perforations @ 6" on center. 4 holes per row. Perforated pipe shall be wrapped with filter fabric.
Overdrain	AASHTO M-278	2"	SCH 40 pip - with 3/8" perforations @ 6" on center. 4 holes per row. Perforated pipe shall be wrapped with filter fabric.
Planting Soil	Sand 35 - 60% Silt 30 - 55% Clay 10 - 25%	N/A	USDA soil types loamy sand, sandy loam or loam
Mulch	Shredded Hardwood	N/A	Aged 6 months, minimum
Pea Gravel Diaphragm	ASTM-D-448	N/A	No. 6
Underdrain Gravel	AASHTO M-43	3/8" to 3/4"	#57 Stone

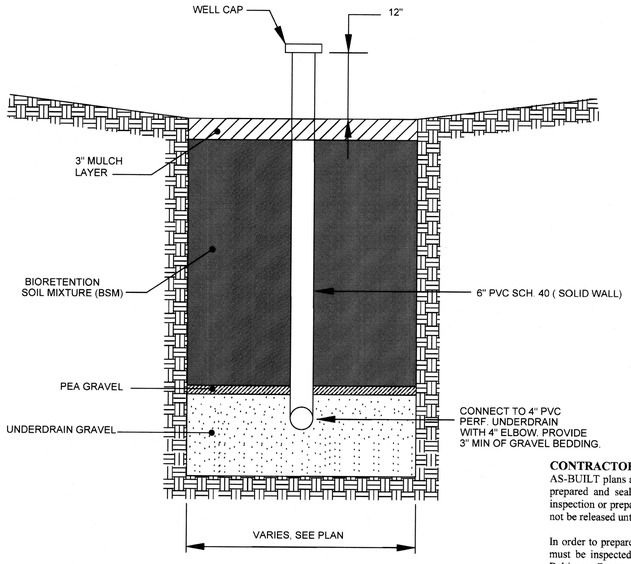


NOTES:

1. OBSERVATION WELLS (6" PVC SCH. 40 PIPE) SHALL BE PLACED IN THE FACILITY AT THE LOCATIONS INDICATED ON THE PLAN SHEETS.
2. THE WELL IS TO BE CAPPED USING A THREADED PVC FITTING AND SEWER CAP WITH A 2 INCH SQUARE LUG. THE DEPTH OF THE FACILITY IS TO BE MARKED ON THE CAP.
3. THE BOTTOM OF THE BIORETENTION FACILITY SHALL BE GRADED FLAT.
4. ENTIRE BARREL OF OBSERVATION WELL IS TO BE WRAPPED IN GEOTEXTILE.

DETAIL - OBSERVATION WELL

SCALE: N.T.S.



MICROBIORETENTION CLEANOUT DETAIL

N.T.S.

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

CONTRACTOR'S AS-BUILT NOTE:

AS-BUILT plans and certifications are required for this stormwater management facility. These must be prepared and sealed by a registered professional engineer. Baltimore County will not perform the inspection or prepare the as-built plans or certification. The stormwater management permit security will not be released until the AS-BUILT plans and certification are approved by Baltimore County.

In order to prepare the required AS-BUILT plans and certification, this stormwater management facility must be inspected by the engineer at specific stages during construction as required by the amended Baltimore County Code, Title 4, stormwater management. The contractor shall notify the engineer at least five (5) working days prior to starting any work shown on these plans.

SEQUENCE OF CONSTRUCTION FOR STORMWATER MANAGEMENT

1. CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES SHALL BE COORDINATED WITH EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION.
2. THE CONTRACTOR SHALL NOTIFY AS-BUILT CERTIFYING ENGINEER PRIOR TO BEGINNING CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES, CERTIFYING ENGINEER SHALL SUBMIT STORMWATER MANAGEMENT AS-BUILT PLANS WITHIN 30 DAYS OF COMPLETION. AS-BUILT CERTIFYING ENGINEER SHALL BE PROVIDED BY THE CONTRACTOR.
3. PERFORM PRE-CONSTRUCTION INFILTRATION TESTING. THE CONTRACTOR SHALL CONFIRM INFILTRATION RATES AT A DEPTH OF 3" BELOW THE PROPOSED BOTTOM ELEVATION OF THE FILTER MEDIA. EXCEPT AS APPENDED BY THIS NOTE, CONTRACTOR SHALL PERFORM THE TESTING USING MDE SPEC DETAILED IN "APPENDIX D.1 TESTING REQUIREMENTS FOR INFILTRATION, BIORETENTION AND SAND FILTER SUBSOILS" IN THE "MARYLAND STORMWATER DESIGN MANUAL". CONTRACTOR SHALL SEND THE RESULTS TO THE ENGINEER FOR APPROVAL 1 WEEK PRIOR TO COMMENCING CONSTRUCTION ON THE SWM FACILITIES. THE MICROBIORETENTION FACILITY WILL NOT BE AUTHORIZED FOR CONSTRUCTION UNTIL THE CONTRACTOR HAS DOCUMENTED VIA THE INFILTRATION TESTS THAT THE COMPLETED FACILITY ACHIEVES A MINIMUM INFILTRATION RATE OF 0.5 IN/HR.
4. ALL UPSTREAM AREAS SHALL BE STABILIZED BEFORE CONSTRUCTION OF THE STORMWATER MANAGEMENT PRACTICE(S).
5. WITH THE PROJECT ENGINEER'S APPROVAL, CONSTRUCT THE MICRO-BIORETENTION FACILITY.
6. THE CONTRACTOR SHALL FOLLOW THE INSPECTION SCHEDULE, SEE "INSPECTION NOTES" ON THIS SHEET.
7. PERFORM POST CONSTRUCTION INFILTRATION TEST. AT COMPLETION OF CONSTRUCTION, FOR EACH MICROBIORETENTION FACILITY, THE CONTRACTOR SHALL PERFORM AN IN-SITU INFILTRATION TEST ON THE INSTALLED MICROBIORETENTION SOILS USING MDE SPEC DETAILED IN "APPENDIX D.1 TESTING REQUIREMENTS FOR INFILTRATION, BIORETENTION AND SAND FLTER SUBSOILS" IN THE "MARYLAND STORMWATER DESIGN MANUAL", AND SUPPLEMENTS, FOR INFILTRATION TEST. THE MICROBIORETENTION FACILITY WILL NOT BE ACCEPTED UNTIL THE CONTRACTOR HAS DOCUMENTED VIA THE INFILTRATION TESTS THAT THE COMPLETED FACILITY ACHIEVES A MINIMUM INFILTRATION RATE OF 0.5 IN/HR, INCLUDING DURING THE 2-YEAR WARRANTY PERIOD.
8. PREPARE AND SUBMIT STORMWATER MANAGEMENT AS-BUILTS CERTIFIED BY CONTRACTOR'S MD LICENSED PROFESSIONAL ENGINEER.

BIORETENTION: OPERATION AND MAINTENANCE

1. 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 WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
2. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
3. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

LANDOWNER'S/DEVELOPER'S CERTIFICATION

I/We hereby certify that all work shown on these construction drawings will be accomplished pursuant to these plans. I/We also understand that it is my/our responsibility to have the construction supervised and certified, including the submittal of "AS-BUILT" plans within thirty (30) days of completion, by a Maryland registered professional engineer.

GM Doran — 6/11/2025
Signature of Owner/Developer — Date

Gregory M. Doran
Print Name

ENGINEER'S CERTIFICATION

I hereby certify that this plan has been prepared by me or under my supervision and meets the minimum standards of the Baltimore County Department of Environmental Protection and Sustainability and the Baltimore Soil Conservation District.

Signature — 41799 P.E. No.

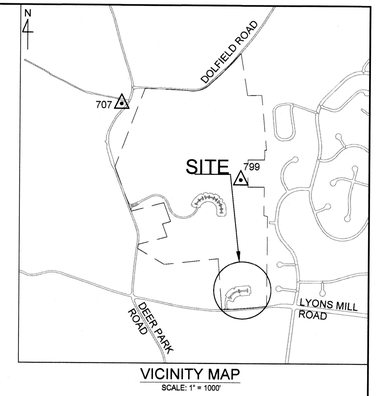
Matthew B. Thomasson, PE — 3/29/2024
Print Name — Date

AS-BUILT CERTIFICATION

I hereby certify that the facility shown on this plan was constructed as shown on the "AS-BUILT" plans and meets the approved plans and specifications.

Signature — P.E. No.

Print Name — Date



VICINITY MAP

SCALE: 1" = 1000'

BENCHMARK TABLE					
SYMBOL	NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
△	707	630,781.77	1,360,248.73	636.92	SPIKE
△	799	629,694.69	1,361,943.93	654.66	CAPPED PIPE

GENERAL NOTES

1. UNLESS OTHERWISE NOTED, ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH;
   - 1.1. BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR CONSTRUCTION MATERIALS, DECEMBER 2007, ERRATA & ADDENDA.
   - 1.2. NATURAL RESOURCES CONSERVATION SERVICE OF MARYLAND STANDARDS AND SPECIFICATIONS, POND, CODE 378, JANUARY 2000.
   - 1.3. MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTATION, JULY 2008, STANDARD SPECIFICATIONS FOR CONSTRUCTION MATERIALS.
2. STORMWATER MANAGEMENT APPROVED UNDER BILL NO. 25-10.
3. OWNERSHIP AND MAINTENANCE RESPONSIBILITY OF SWM FACILITIES WITH BE TO THE OWNER OF THE SITE AS SHOWN ON THE PLANS.

INSPECTION NOTES:

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

1. DURING EXCAVATION TO SUBGRADE
2. PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEMS.
3. DURING PLACEMENT OF FILTER MEDIA.
4. DURING CONSTRUCTION OF APPURTENANT CONVEYANCE.
5. UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.

STORMWATER MANAGEMENT SHEET INDEX

C-500 STORMWATER MANAGEMENT NOTES & DETAILS
C-501 STORMWATER MANAGEMENT EXISTING PLAN
C-502 STORMWATER MANAGEMENT PROPOSED PLAN
C-503 STORMWATER MANAGEMENT PROFILES
C-504 STORMWATER MANAGEMENT BORING LOGS & SPLASH PAD DETAILS
L7.03 PLANTING PLAN - SWM

#6357

Baltimore County Soil Conservation District

APPROVED FOR STORMWATER MANAGEMENT

DISTRICT OFFICIAL — 06.30.25 DATE — 078-2498-25 PLAN NO.

TECHNICAL REVIEW FOR DISTRICT

BY: BALTO. CO. DEPT. OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY — 06.30.25 DATE

APPROVED: Chief
STORMWATER ENGINEERING
BALTO. CO. DEPT. OF
ENVIRONMENTAL PROTECTION
AND SUSTAINABILITY

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

SEAL — STATE OF MARYLAND, MATTHEW B. THOMASSON, 41799, REGISTERED PROFESSIONAL ENGINEER

DATE : 06/04/2025

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. 41799, EXPIRATION DATE 04/12/2026.

ENGINEER: RUMMEL, KLEPPER & KAHL — RK&K — P: 410.728.2900, 700 E. Pratt Street, Suite 500, Baltimore, MD 21202

AS-BUILT PER RECORD PRINT

BY: DATE:

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW4G
CONTRACT COMPLETION BOX			R.O.W NO.		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE: PLAN SCALE: AS SHOWN; PROFILE SCALE: AS SHOWN / AS SHOWN

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

CIVIL – STORMWATER MANAGEMENT NOTES & DETAILS

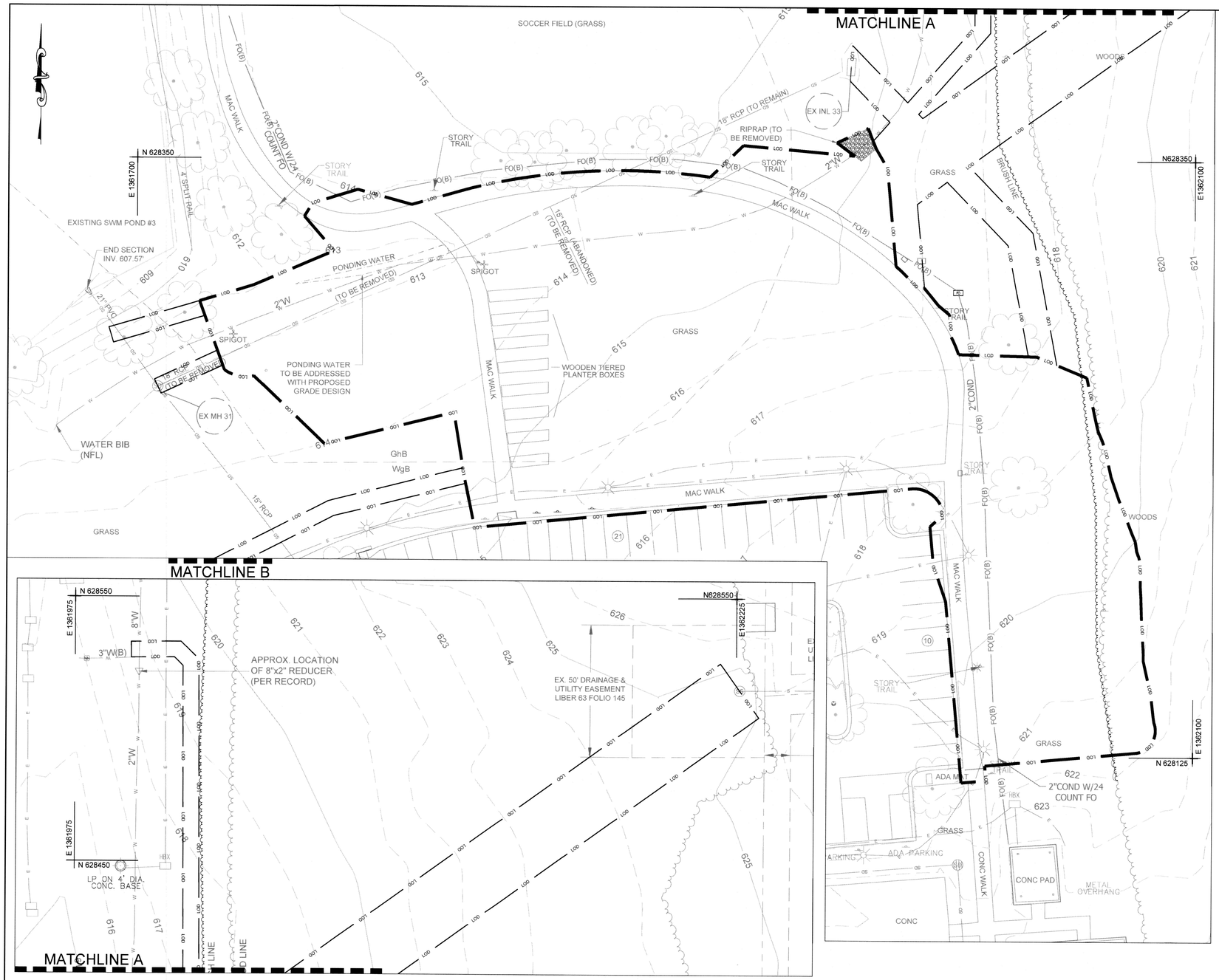
SPLASH PAD AND SUPPORTING FACILITIES

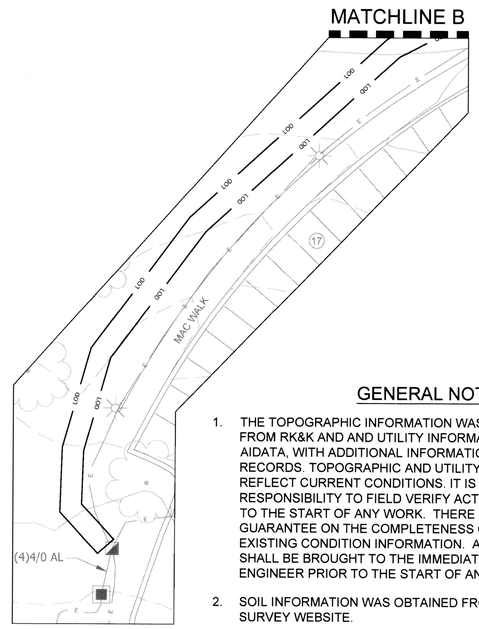
SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SWM 01 OF 06	
SHEET DESIGNATION	CONTRACT NUMBER
C-500	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 16 OF 150
	DRAWING NUMBER
	2025-2187
	FILE NO.: 8

DWG. FILENAME:





GENERAL NOTES

1. THE TOPOGRAPHIC INFORMATION WAS OBTAINED BY SURVEY FROM RK&K AND AND UTILITY INFORMATION WAS OBTAINED FROM AIDATA, WITH ADDITIONAL INFORMATION SUPPLEMENTED BY GIS RECORDS. TOPOGRAPHIC AND UTILITY INFORMATION MAY NOT REFLECT CURRENT CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF ANY WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER PRIOR TO THE START OF ANY WORK.
2. SOIL INFORMATION WAS OBTAINED FROM THE NRCS WEB SOIL SURVEY WEBSITE.

NATURAL RESOURCES AND THE CORRESPONDING REGULATORY AUTHORITIES	
FEDERAL	
WETLANDS	NONE
MAJOR WATERWAYS	NONE
FLOODPLAINS	NONE
STATE	
TIDAL AND NONTIDAL WETLANDS	NONE
WETLANDS OF SPECIAL STATE CONCERN	NONE
WETLAND BUFFERS	NONE
STREAM BUFFERS	NONE
PERENNIAL STREAMS	NONE
FLOODPLAINS	NONE
FORESTS	PRESENT
FOREST BUFFERS	PRESENT
CRITICAL AREAS	NONE
LOCAL	
STEEP SLOPES	NONE
HIGHLY ERODIBLE SOILS	NONE
ENHANCED STREAM BUFFERS	NONE
TOPOGRAPHY/SLOPES	SEE PLANS
SPRINGS	NONE
SEEPS	NONE
INTERMITTENT STREAMS	NONE
VEGETATIVE COVER	SEE PLANS
SOILS	SEE TABLE
BEDROCK/GEOLOGY	NONE
EXISTING DRAINAGE AREAS	NONE

LEGEND

- PROPERTY LINE
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING STORM DRAIN
- EXISTING WATER
- EXISTING SEWER
- EXISTING ELECTRIC
- EXISTING FIBER OPTIC
- EXISTING LIGHT POLE
- EXISTING SOIL BOUNDARY
- EXISTING SIGNAGE
- EXISTING CURB AND GUTTER
- EXISTING SIDEWALK
- EXISTING TREE
- EXISTING BRUSH LINE
- EXISTING TREE LINE
- LIMIT OF DISTURBANCE (SWM STUDY AREA)
- LIMIT OF DISTURBANCE (INCLUDING UTILITY TRENCHING)

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

SOIL SUMMARY TABLE			
SOIL SYMBOL	MAP UNIT NAME	HYDROLOGIC SOIL GROUP	% OF SITE AREA
GhB	(GLENVILLE SILT LOAM, 3-8% SLOPE)	C/D	73%
WgB	(WHEATON-GLENELG COMPLEX, 0-8% SLOPE)	B	27%

20 10 0 20 40
SCALE: 1" = 20'

APPROVED: _____ Chief
STORMWATER ENGINEERING
BALTO. CO. DEPT. OF
ENVIRONMENTAL PROTECTION
AND SUSTAINABILITY

SEAL
STATE OF MARYLAND — TIMOTHY M. KOBZA — 41799 — PROFESSIONAL ENGINEER
DATE : 06/04/2025

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. 41799 , EXPIRATION DATE 04/12/2026 .

ENGINEER: RUMMEL, KLEPPER & KAHL
RK&K P: 410.728.2900
700 E. Pratt Street, Suite 500
Baltimore, MD 21202
AS-BUILT PER RECORD PRINT
BY: _____
DATE: _____

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

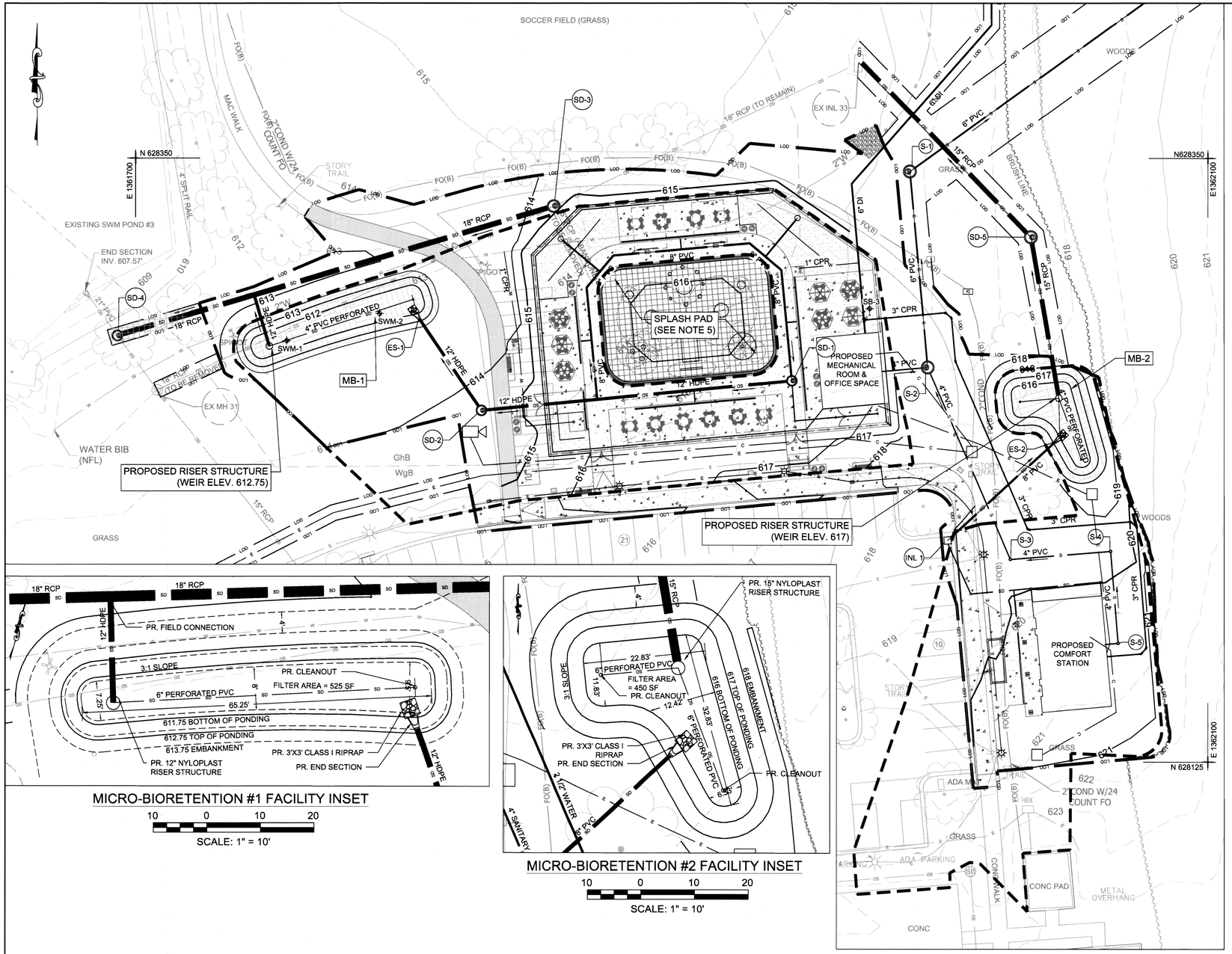
DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE: AS SHOWN

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
CIVIL – STORMWATER MANAGEMENT EXISTING PLAN
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SWM 02 OF 06	
SHEET DESIGNATION	CONTRACT NUMBER
C-501	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 17 OF 150
	DRAWING NUMBER
	2025-2188
	FILE NO.: 8

DWG. FILENAME:



MICRO-BIORETENTION #1 FACILITY INSET

10 0 10 20

SCALE: 1" = 10'

MICRO-BIORETENTION #2 FACILITY INSET

10 0 10 20

SCALE: 1" = 10'

SWM NOTES

1. THIS PROJECT IS CONSIDERED "NEW DEVELOPMENT" FOR STORMWATER MANAGEMENT PURPOSES SINCE THE EXISTING IMPERVIOUS AREA WITHIN THE PROJECT LIMIT OF DISTURBANCE IS LESS THAN 40%.
2. ON-SITE SWM FACILITIES ARE PROVIDED TO MEET 100% OF SWM REQUIREMENTS WITH TWO MICRO-BIORETENTION FACILITIES.
3. MICRO-BIORETENTION: TWO MICRO-BIORETENTION FACILITIES WILL PROVIDE TREATMENT FOR THE ENTIRE SITE. ONE IS LOCATED ON THE WEST SIDE OF THE SPLASH PAD, THE OTHER IS LOCATED ON THE EAST OF THE PARKING LOT BETWEEN THE EXISTING PLAYGROUND AND PROPOSED IMPROVEMENTS. BOTH WILL PROVIDE TREATMENT FOR THE ENTIRE SITE.
4. STORMWATER EASEMENT DEDICATION TABLE NOT REQUIRED DUE TO BALTIMORE COUNTY PROPERTY.
5. SINCE THE SPLASH PAD CIRCULATES ITS OWN WATER AND IS DISPOSED THROUGH THE SANITARY SYSTEM, THIS PORTION OF THE SITE IS NOT CONSIDERED TOWARD THE TOTAL DRAINAGE AREA. THE GRADE BREAKLINE IS LOCATED ALONG THE OUTER EDGE OF THE SPLASH PAD AREA WHERE IT MEETS THE CONCRETE SIDEWALK AS INDICATED BY THE DRAINAGE AREA DIVIDE LINE. SEE SHEET C-504 FOR DETAILS.

ENVIRONMENTAL SITE DESIGN ANALYSIS

THIS STORMWATER MANAGEMENT PLAN HAS BEEN DEVELOPED FOR THE PROJECT IN ACCORDANCE WITH THE CURRENT MDE STORMWATER DESIGN MANUAL.

WATER QUANTITY MANAGEMENT FOR THE NEW DEVELOPMENT CRITERIA OF THE PROJECT IS BASED ON A DRAINAGE AREA/STUDY POINT BASIS. THE EXISTING STORMWATER MANAGEMENT POND #3 OUTLET IS THE DISCHARGE POINT DOWNSTREAM RECEIVING CONVEYANCE FROM BOTH THE SITE AS WELL AS SURROUNDING CONTRIBUTING AREAS THROUGH THE EXISTING STORM DRAIN SYSTEM.

BECAUSE THE SITE IS NOT WITHIN THE GWYNNS FALLS, JONES FALLS OR HERRING RUN WATERSHED, THE 100-YEAR STORM IS NOT REQUIRED TO BE CONTROLLED.

THE ENTIRE IMPERVIOUS AREA WILL BE TREATED PER NEW DEVELOPMENT REQUIREMENTS.

FIELD RUN INFILTRATION TESTS SHALL BE REQUIRED FOR ALL PROPOSED INFILTRATION PRACTICES.

SWM SUMMARY TABLE

LIMIT OF DISTURBANCE (LOD)	51,651 SF (1.19 AC.)
TRENCHING AND SPLASH PAD FOOTPRINT	- 15,065 SF (0.35 AC.)
SWM STUDY AREA	= 36,586 SF (0.84 AC.)
EX. IMPERVIOUS AREA	4,504 SF (0.10 AC.)
EX. PERVIOUS AREA	30,082 SF (0.74 AC.)
% EX. IMPERVIOUSNESS	12%
PROP. IMPERVIOUS AREA	12,483 SF (0.29 AC.)
PROP. PERVIOUS AREA	24,103 SF (0.55 AC.)
% PR. IMPERVIOUSNESS	34%
REQUIRED P_E	1.7 IN
PROVIDED P_E	2.47 IN
REQUIRED IMPERVIOUS AREA TREATMENT	0.29 AC.
TOTAL IMPERVIOUS AREA TREATED	0.30 AC.
TOTAL REQUIRED ESDv	1868 CU FT
TOTAL PROVIDED ESDv	2863 CU FT
REQUIRED REv	196 CU FT
PROVIDED REv	257 CU FT

LEGEND

- LOD — LOD — LIMIT OF DISTURBANCE (SWM STUDY AREA)
- LOD — LOD — LIMIT OF DISTURBANCE (INCLUDING UTILITY TRENCHING)
- PROPOSED MICRO-BIORETENTION (M-6)
- MB-1 — MICROBIORETENTION FACILITY #1 (1360 SF)
- MB-2 — MICROBIORETENTION FACILITY #2 (1165 SF)
- DRAINAGE AREA
- SPLASH PAD AREA
- CONCRETE SIDEWALK
- ARTIFICIAL TURF AREA BY SYNLAWN (CONSIDERED PERVIOUS)
- LANDSCAPE/GRASS AREA
- SWM-1 — BORING LOCATION

ESD PRACTICE SUMMARY TABLE

NUMBER	TYPE	IMPERVIOUS AREA	TOTAL DRANAGE AREA
1	MICRO-BIORETENTION (M-6)	0.18 AC.	0.44 AC
2	MICRO-BIORETENTION (M-6)	0.12 AC.	0.29 AC

SOIL SUMMARY TABLE

SOIL SYMBOL	MAP UNIT NAME	HYDROLOGIC SOIL GROUP	% OF SITE AREA
GhB	(GLENVILLE SILT LOAM, 3-8% SLOPE)	C/D	73%
WgB	(WHEATON-GLENELG COMPLEX, 0-8% SLOPE)	B	27%

20 10 0 20 40

SCALE: 1" = 20'

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

APPROVED: _____ Chief
STORMWATER ENGINEERING
BALTO. CO. DEPT. OF
ENVIRONMENTAL PROTECTION
AND SUSTAINABILITY

SEAL — STATE OF MARYLAND — 41799 — PROFESSIONAL ENGINEER

DATE : 06/04/2025

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LICENSE NO. 41799 EXPIRATION DATE 04/12/2026		CONTRACT COMPLETION BOX			R.O.W NO.		
ENGINEER: RUMMEL, KLEPPER & KAHL RK&K P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202	DGN BY: SHK	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER
AS-BUILT PER RECORD PRINT	DWN BY: DTP	REVIEWED BY:					
BY: DATE:	CHKD BY: MBT	DATE REVIEWED:					

DRAWING SCALE		PROPERTY MANAGEMENT
PLAN SCALE:	AS SHOWN	APPROVED BY: PROPERTY MANAGER
PROFILE SCALE:	AS SHOWN	DATE:
	AS SHOWN	
WATER	FIELD ENGINEER	

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

CIVIL – STORMWATER MANAGEMENT PROPOSED PLAN

SPLASH PAD AND SUPPORTING FACILITIES

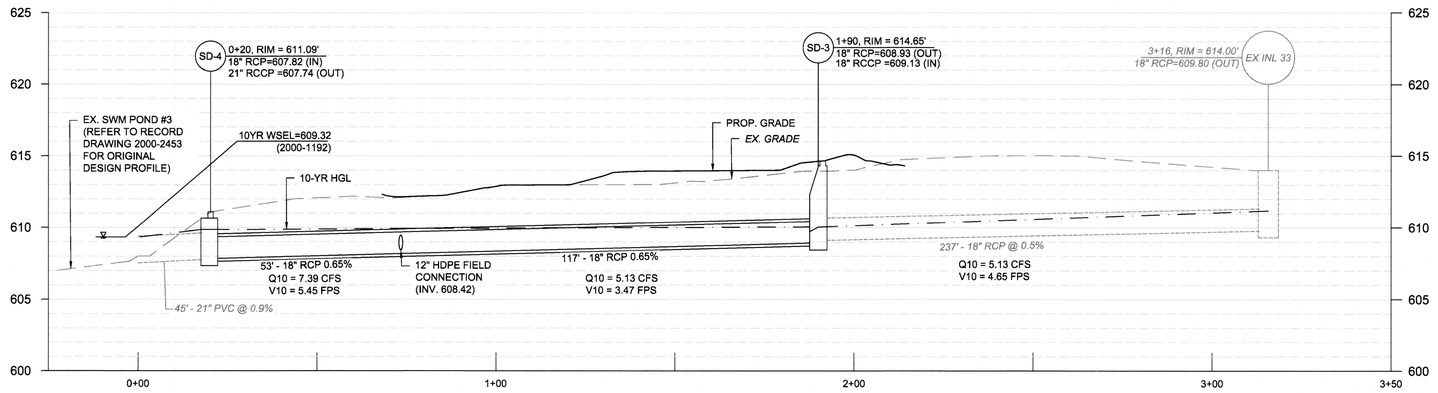
SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

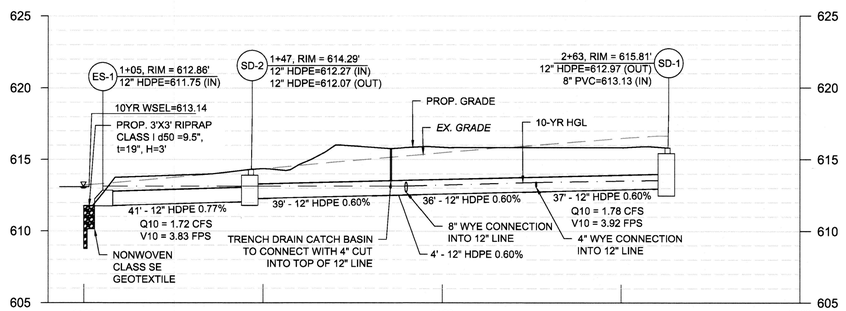
SWM 03 OF 06	
SHEET DESIGNATION	CONTRACT NUMBER
C-502	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 18 OF 150
	DRAWING NUMBER
	2025-2189
	FILE NO.: 8

DWG. FILENAME:



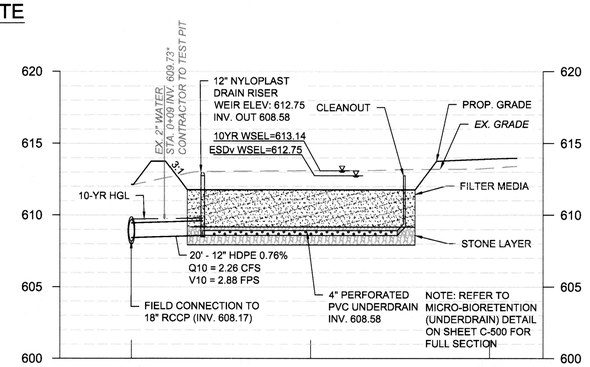
EXISTING STORM DRAIN REROUTE

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



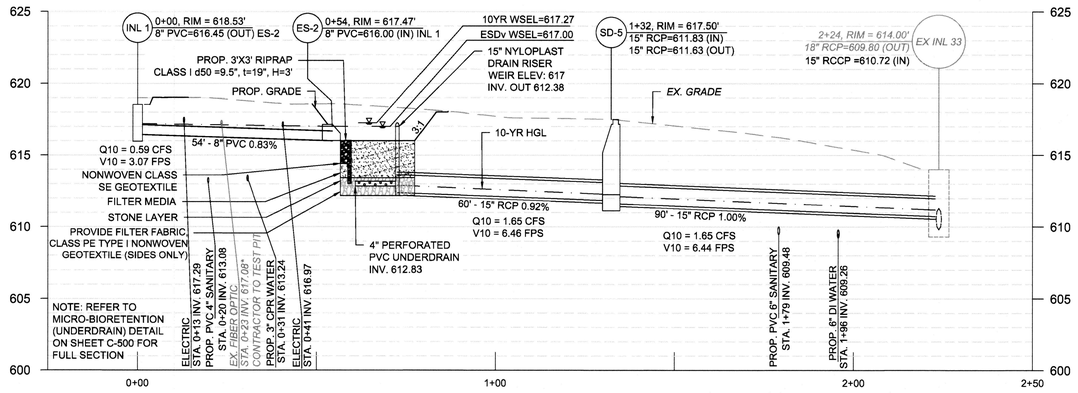
SPLASH PAD MAIN STORM DRAIN

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



MICRO-BIORETENTION FACILITY #1 OUTFALL

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



MICRO-BIORETENTION FACILITY #2 TO EX INL 33

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

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

20 10 0 20 40
SCALE: 1" = 20'

APPROVED: _____ Chief
STORMWATER ENGINEERING
BALTO. CO. DEPT. OF
ENVIRONMENTAL PROTECTION
AND SUSTAINABILITY

SEAL

PROFESSIONAL CERTIFICATION

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LICENSE NO. 41799, EXPIRATION DATE 04/12/2026

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RK&K P 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202
AS-BUILT PER RECORD PRINT
BY: DATE:

DATE : 06/04/2025

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE: AS SHOWN

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

CIVIL – STORMWATER MANAGEMENT PROFILES

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SWM 04 OF 06	DWG. FILENAME:
SHEET DESIGNATION	CONTRACT NUMBER
C-503	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 19 OF 150
	DRAWING NUMBER
	2025-2190
	FILE NO.: 8

Project No. 2021528-01 | **LOG OF BOREHOLE SWM-1** | Sheet 1 of 1

CLIENT: Mahan Rykiel Associates Inc
PROJECT: Northwest Regional Park
ARCHITECT/ENGINEER:
SITE: Baltimore County, Maryland

SURFACE ELEV.: **613.0** ft.

DEPTH (FT)	GRAPHIC LOG	SAMPLES: BLOWS/6" N-VALUE ROD	NUMBER	TYPE	IN. RECOVERED IN. DRIVEN	TESTS: MOISTURE (%)	DRY DENSITY (PCF)	Qu (TSF)	% PASSING #200 SIEVE	REMARKS/ ADDITIONAL DATA
0.3		3" Topsoil								
0.3–15.0		Moist to Wet, Medium Dense to Loose to Very Loose, Light Brown, Orange Brown and Brown, SANDY SILT (ML), with mica								
5		5-7-7 N=14	1	SS	18/18 100%	14				
		2-4-3 N=7	2	SS	10/18 56%	20			63	
		2-3-5 N=8	3	SS	10/18 56%	29			53	
10		2-1-3 N=4	4	SS	18/18 100%	44				
15		1-2-3 N=5	5	SS	18/18 100%	55				
15.0		598.0								

End of Boring @ 15 ft

Borehole was backfilled after water level reading

WATER LEVEL OBSERVATIONS

WL	▽ 13	@ Drilling	
WL	▼ 10.5	0 hrs	
WL	▼ 9	@ 24 hrs	

AB Consultants, Inc.
9450 Annapolis Road
Lanham, MD 20706
Phone: 301-306-3091
Fax: 301-306-3092

STARTED:	7/19/24	FINISHED:	7/19/24
DRILL CO.:	ABC	DRILL RIG:	CME-45
DRILLER:	AE	ASST DRILLER:	
LOGGED BY:		APPROVED:	

SOIL BORING LOGS ABOVE 2021528-01 NORTHWEST REGIONAL PARK.GPJ AB_CONS.GDT 8/5/24

Project No. 2021528-01 | **LOG OF BOREHOLE SWM-2** | Sheet 1 of 1

CLIENT: Mahan Rykiel Associates Inc
PROJECT: Northwest Regional Park
ARCHITECT/ENGINEER:
SITE: Baltimore County, Maryland

SURFACE ELEV.: **613.0** ft.

DEPTH (FT)	GRAPHIC LOG	SAMPLES: BLOWS/6" N-VALUE ROD	NUMBER	TYPE	IN. RECOVERED IN. DRIVEN	TESTS: MOISTURE (%)	DRY DENSITY (PCF)	Qu (TSF)	% PASSING #200 SIEVE	REMARKS/ ADDITIONAL DATA
0.4		4.5" Topsoil								
0.4–3.5		Moist, Loose, Orange Brown and Brown, SANDY SILT (ML), with mica								
5		4-4-5 N=9	1	SS	18/18 100%	19				
3.5–5.5		Moist, Soft, Orange Brown and Brown, SANDY CLAY (CL)								LL = 50 PL = 28 PI = 22
		1-2-2 N=4	2	SS	18/18 100%	24				
5.5–15.0		Moist, Very Loose and Loose, Orange Brown and Brown, SANDY SILT (ML), with mica								
		3-3-3 N=6	3	SS	10/18 56%	29			70	
10		1-1-2 N=3	4	SS	10/18 56%	43				
15		2-3-3 N=6	5	SS	18/18 100%	36				
15.0		598.0								

End of Boring @ 15 ft

Borehole was backfilled after water level reading

WATER LEVEL OBSERVATIONS

WL	Dry	@ Drilling	
WL	Dry, Caved-In @ 11 ft	0 hrs	
WL	▼ 8.5	@ 24 hrs	

AB Consultants, Inc.
9450 Annapolis Road
Lanham, MD 20706
Phone: 301-306-3091
Fax: 301-306-3092

STARTED:	7/19/24	FINISHED:	7/19/24
DRILL CO.:	ABC	DRILL RIG:	CME-45
DRILLER:	AE	ASST DRILLER:	
LOGGED BY:		APPROVED:	

SOIL BORING LOGS ABOVE 2021528-01 NORTHWEST REGIONAL PARK.GPJ AB_CONS.GDT 8/5/24

Project No. 2021528-01 | **LOG OF BOREHOLE SB-3** | Sheet 1 of 1

CLIENT: Mahan Rykiel Associates Inc
PROJECT: Northwest Regional Park
ARCHITECT/ENGINEER:
SITE: Baltimore County, Maryland

SURFACE ELEV.: **616.0** ft.

DEPTH (FT)	GRAPHIC LOG	SAMPLES: BLOWS/6" N-VALUE ROD	NUMBER	TYPE	IN. RECOVERED IN. DRIVEN	TESTS: MOISTURE (%)	DRY DENSITY (PCF)	Qu (TSF)	% PASSING #200 SIEVE	REMARKS/ ADDITIONAL DATA
0.3		3" Topsoil								
0.3–3.0		Dry, Stiff, Brown, SANDY CLAY (CL)								
5		10-9-10 N=19	1	SS	18/18 100%	13				
3.0–5.5		Moist, Medium Dense, Orange Brown and Brown, SILTY SAND (SM)								
		3-6-8 N=14	2	SS	14/18 78%	19			48	
5.5–8.0		Moist, Loose, Orange Brown and Brown, SANDY SILT (ML), with gravel								
		4-3-4 N=7	3	SS	18/18 100%	56			56	
8.0–15.0		Moist, Soft, Reddish Brown, SANDY CLAY (CL)								
10		1-2-2 N=4	4	SS	18/18 100%	35			67	
15		2-2-3 N=5	5	SS	18/18 100%	33				
15.0		601.0								

End of Boring @ 15 ft

Borehole was backfilled after water level reading

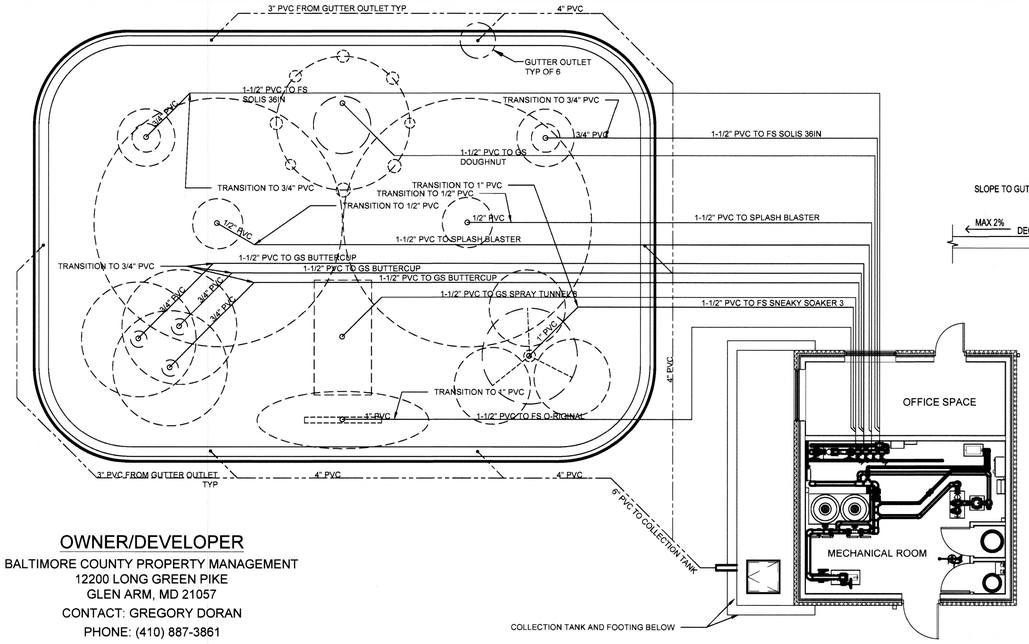
WATER LEVEL OBSERVATIONS

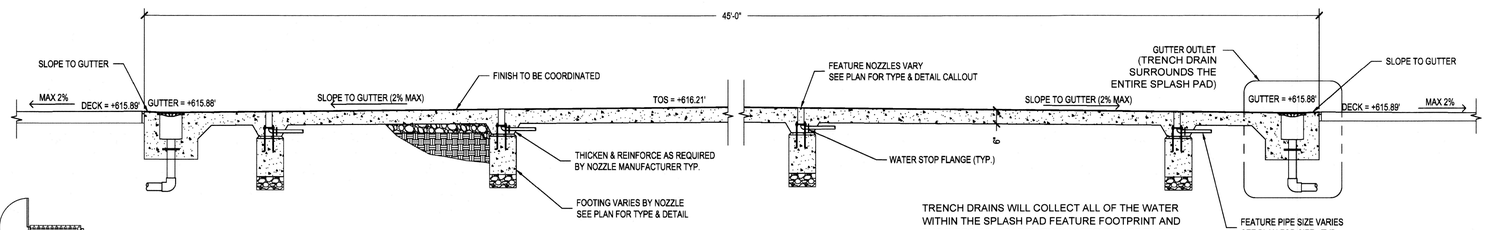
WL	Dry	@ Drilling	
WL	Dry, Caved-In @ 10.5 ft	0 hrs	

AB Consultants, Inc.
9450 Annapolis Road
Lanham, MD 20706
Phone: 301-306-3091
Fax: 301-306-3092

STARTED:	7/22/24	FINISHED:	7/22/24
DRILL CO.:	ABC	DRILL RIG:	CME-45
DRILLER:	AE	ASST DRILLER:	
LOGGED BY:		APPROVED:	

SOIL BORING LOGS ABOVE 2021528-01 NORTHWEST REGIONAL PARK.GPJ AB_CONS.GDT 8/5/24





SPLASH PAD TYPICAL CROSS SECTION

NOT TO SCALE

TRENCH DRAINS WILL COLLECT ALL OF THE WATER WITHIN THE SPLASH PAD FEATURE FOOTPRINT AND PVC PIPES WILL CARRY THE WATER OUT OF THOSE TRENCHES TO THE COLLECTION TANK IN THE VAULT. THOSE PIPES HAVE BEEN APPROPRIATELY SIZED TO TRANSPORT THE ENTIRETY OF THE WATER COLLECTED. IN ADDITION, THERE WILL BE AN OVERFLOW STANDPIPE IN THE COLLECTION TANK TO SEND ANY EXCESS WATER TO DRAIN TO SANITARY SEWER.

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

APPROVED: _____ Chief
STORMWATER ENGINEERING
BALTO. CO. DEPT. OF
ENVIRONMENTAL PROTECTION
AND SUSTAINABILITY

SEAL: STATE OF MARYLAND — 41799 — PROFESSIONAL ENGINEER
DATE: 06/04/2025

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. 41799, EXPIRATION DATE 04/12/2026

ENGINEER: RUMMEL, KLEPPER & KAHL — RK&K — P: 410.728.2900, 700 E. Pratt Street, Suite 500, Baltimore, MD 21202

AS-BUILT PER RECORD PRINT

BY: DATE:

DGN BY: SHK | DWN BY: DTP | CHKD BY: MBT

AS-BUILT / REVISION

	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER
REVIEWED BY:					
DATE REVIEWED:					

WATER	FIELD ENGINEER

DRAWING SCALE

PLAN SCALE: AS SHOWN
PROFILE SCALE: AS SHOWN AS SHOWN

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

CIVIL – STORMWATER MANAGEMENT BORING LOGS & SPLASH PAD DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SWM 05 OF 06	
SHEET DESIGNATION	CONTRACT NUMBER
C-504	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 20 OF 150
	DRAWING NUMBER
	2025-2191
	FILE NO.: 8

DWG. FILENAME:

OWNER'S/DEVELOPER'S CERTIFICATION

I/we hereby certify that any clearing, grading, construction and/or development will be done pursuant to this plan and that any responsible personnel involved in this construction will have a Certificate of Attendance at a Maryland Department of the Environment approved training program for the control sediment and erosion before beginning the project. I/we also certify that the site will be inspected at the end of each working day, and that any needed maintenance will be completed so as to insure that all sediment control practices are left in operational condition. I/we authorize the right of entry for periodic on-site evaluations by the Baltimore County Soil Conservation District Board of Supervisors or their authorized agents.

GM Doran — 6/11/2025

Signature Owner/Developer — Date

Gregory M. Doran — Chief of Capital Construction

Print Name — Title

CONSULTANT'S CERTIFICATION

I certify that this plan of erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site, and that this plan was prepared in accordance with the requirements of the Baltimore County Soil Conservation District and the current state of Maryland Specifications for Soil Erosion and Sediment Control. I have reviewed this erosion and sediment control plan with the owner/developer.

6/4/2025

Signature — Date

Matthew B. Thomasson, PE — 41799

Print Name — MD License No.

ENGINEER'S CERTIFICATION:

I hereby certify that this plan has been prepared by me or under my supervision and meets the minimum standards of the Baltimore County Department of Environmental Protection and Sustainability and the Baltimore County Soil Conservation District.

6/4/2025

Signature — P.E. No.

Matthew B. Thomasson, PE — 41799

Print Name — Date

MAINTENANCE OF SEDIMENT CONTROL DEVICES:

1. SCE: SCE MUST BE MAINTAINED IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. THIS MAY REQUIRE ADDING STONE OR MAKING OTHER REPAIRS TO MAINTAIN A CLEAN SURFACE, THE MOUNTABLE BERM, AND THE SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE ALL STONE OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS THE WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.
2. SUPER SILT FENCE: ACCUMULATED SEDIMENT AND DEBRIS MUST BE REMOVED WHEN BULGES DEVELOP IN THE SUPER SILT FENCE OR WHEN SEDIMENT REACHES 25 PERCENT OF THE FENCE HEIGHT. THE GEOTEXTILE MUST BE REPLACED IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.
3. STORM DRAIN INLET PROTECTION:TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING ACCUMULATED SEDIMENT NEEDS TO BE REMOVED AFTER EACH RAIN EVENT. IF THE INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE THE GEOTEXTILE AND STONE.

SOD MAINTENANCE:

1. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO PREVENT WILTING.
2. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.
3. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN $\frac{1}{3}$ OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.

TREE PROTECTION NOTES:

1. THE CONTRACTOR SHALL HIRE A MD LICENSED TREE EXPERT (LTE) AND A CERTIFIED ARBORIST TO PERFORM ALL TREE CARE ACTIVITIES AND SUPERVISE CONSTRUCTION IN CRITICAL ROOT ZONES OF ALL TREES REQUIRING PROTECTION.
2. THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION MEETING WITH THE MD LTE, THE OWNER , AND THE ENGINEER TO FIELD REVIEW AND DISCUSS TREE PROTECTION MEASURES AND CONSTRUCTION ACTIVITIES PRIOR TO THE COMMENCEMENT OF ANY WORK.
3. INSTALL TREE PROTECTION FENCE PRIOR TO START OF CONSTRUCTION ACTIVITIES. ALL AREAS OUTSIDE OF THE LOD SHALL BE CONSIDERED TREE PROTECTION AREAS TO REMAIN UNDISTURBED.
4. TREE PROTECTION ZONES MUST REMAIN FREE OF CONSTRUCTION ACTIVITY AND WILL BE PHYSICALLY FENCED IN THE FIELD PRIOR TO WORK COMMENCING. FENCES ARE TO REMAIN UNTIL ALL SITE WORK HAS BEEN COMPLETED. TREE PROTECTION FENCES MAY NOT BE RELOCATED WITHOUT THE WRITTEN PERMISSION OF THE ARBORIST.
5. CONSTRUCTION TRAILERS, VEHICLES, EQUIPMENT AND SUPPLIES MUST REMAIN OUTSIDE OF TREE PROTECTION FENCE AREAS AT ALL TIMES.
6. IF THERE IS NO OTHER OPTION THAN TO ACCESS AREAS OF TREE PROTECTION ZONES WITH EQUIPMENT, A 6-INCH LAYER OF MULCH OR WOODCHIPS MUST BE PLACED OVER THE AREA TO BE AFFECTED, ALONG WITH A TOPPING LAYER OF ½-INCH PLYWOOD, STEEL PLATES, OR OTHER HARD SURFACE TO PREVENT SOIL COMPACTION AND ROOT DAMAGE.
7. ANY DAMAGE TO TREES MUST BE REPORTED TO THE ARBORIST WITHIN 12 HOURS OF OCCURRENCE IN ORDER FOR REMEDIAL ACTIONS TO BE IMPLEMENTED.
8. SUPPLEMENTAL WATERING OF TREES SHALL BE CONDUCTED DURING CONSTRUCTION, AS DETERMINED NECESSARY BY THE MD LTE.
9. SEE SHEET C-651 FOR TREE PROTECTION DETAILS.

GENERAL NOTES (FOR EROSION AND SEDIMENT CONTROL PLANS ONLY)

1. REFER TO "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN.
2. WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, MINOR FIELD ADJUSTMENTS CAN AND WILL BE MADE TO INSURE THE CONTROL OF ANY SEDIMENT. CHANGES IN SEDIMENT CONTROL PRACTICES REQUIRE PRIOR APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT.
3. AT THE END OF EACH WORKING DAY, ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT IN OPERATIONAL CONDITION.
4. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN: A.) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN THREE HORIZONTAL TO ONE VERTICAL (3: I), AND B.) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.
5. ANY CHANGE TO THE GRADING PROPOSED ON THIS PLAN REQUIRES RE-SUBMISSION TO BALTIMORE COUNTY SOIL CONSERVATION DISTRICT FOR APPROVAL.
6. DUST CONTROL WILL BE PROVIDED FOR ALL DISTURBED AREAS. REFER TO "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PG. H.22, FOR ACCEPTABLE METHODS AND SPECIFICATIONS FOR DUST CONTROL.
7. ANY VARIATIONS FROM THE SEQUENCE OF OPERATIONS STATED ON THIS PLAN REQUIRES THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT PRIOR TO THE INITIATION OF THE CHANGE.
8. EXCESS CUT OR BORROW MATERIAL SHALL GO TO, OR COME FROM, RESPECTIVELY, A SITE WITH AN OPEN GRADING PERMIT AND APPROVED SEDIMENT CONTROL PLAN.
9. THE FOLLOWING ITEM MAY BE USED AS APPLICABLE: REFER TO "MARYLAND'S GUIDELINES TO WATERWAY CONSTRUCTION " BY THE WATER MANAGEMENT ADMINISTRATION OF THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, REVISED NOVEMBER 2000, FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN FOR WATERWAY CONSTRUCTION.
10. PUMPING SEDIMENT-LADEN WATER INTO WATERS OF THE STATE IS STRICTLY PROHIBITED. ANY PORTABLE DEWATERING DEVICE MUST BE LOCATED WITHIN THE LIMIT OF DISTURBANCE.
11. UPON INSTALLATION OF THE BASE PAVEMENT AND AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR, RELOCATE THE STABILIZED CONSTRUCTION ENTRANCE(S) AND INSTALL ADDITIONAL CONTROL MEASURES (STABILIZED CONSTRUCTION ENTRANCES, SILT FENCES, SUPER SILT FENCES) AS NEEDED TO CONTROL SEDIMENT RUNOFF FROM DISTURBED AREAS. THE ADDITIONAL CONTROLS MUST NOT ALTER DRAINAGE PATTERNS.

INLET PROTECTION NOTE

THE CONTRACTOR IS REQUIRED TO INSTALL INLET PROTECTION ON ALL STORM DRAIN INLETS WITH THE EXCEPTION OF THE FOLLOWING:
*1) ANY INLET OUTFALLING DIRECTLY INTO A SEDIMENT TRAPPING DEVICE.
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 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, PAGE E.23 (OR AS MAY BE AMENDED). THE REMOVAL OF ANY INLET PROTECTION DEVICES WILL REQUIRE APPROVAL FROM THE INSPECTOR.

*STORM DRAINS TO BE FLUSHED PRIOR TO TRAPPING DEVICE REMOVAL.

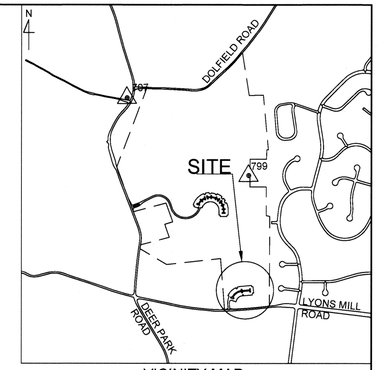
TEMPORARY STOCKPILE NOTE

EXCESS CUT OR REQUIRED BORROW MATERIAL STOCKPILED ON SITE PRIOR TO ITS DISPOSAL OR USE SHALL BE LOCATED WITHIN THE DESIGNATED LIMIT OF DISTURBANCE IN SUCH A MANNER SO AS TO NOT INTERFERE WITH THE FUNCTION OF ANY EROSION/SEDIMENT CONTROL DEVICES.

TEMPORARY STOCKPILES SHALL BE:
1.) LOCATED WITHIN THE LIMIT OF DISTURBANCE (LOD).
2.) DRAIN TO A FUNCTIONING SEDIMENT CONTROL DEVICE.
3.) POSITIONED TO NOT IMPEDE UPON, OR IMPAIR THE FUNCTION OF SAID DEVICE.
4.) POSITIONED TO NOT ALTER DRAINAGE DIVIDES.

UTILITY NOTE

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



VICINITY MAP
SCALE: 1" = 1000'

BENCHMARK TABLE

SYMBOL	NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
△	707	630,781.77	1,360,248.73	636.92	SPIKE
△	799	629,694.69	1,361,943.93	654.66	CAPPED PIPE

EROSION & SEDIMENT CONTROL SHEET INDEX

C-600 EROSION & SEDIMENT CONTROL NOTES
C-601 EROSION & SEDIMENT CONTROL PLAN (PHASE I)
C-602 EROSION & SEDIMENT CONTROL PLAN (PHASE II)
C-603 EROSION & SEDIMENT CONTROL PLAN (PHASE III)
C-650 EROSION & SEDIMENT CONTROL DETAILS
C-651 EROSION & SEDIMENT CONTROL DETAILS
C-652 EROSION & SEDIMENT CONTROL DETAILS

MAINTENANCE NOTE

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

CONTRACTOR NOTE

CONTRACTOR SHALL, WITHOUT EXTRA COST TO THE PROJECT, REPAIR AND MAINTAIN EXISTING SEDIMENT CONTROL DEVICES UNTIL ALL AREAS WITHIN LIMITS OF CONSTRUCTION ARE COMPLETE AND STABILIZED WITH ESTABLISHED VEGETATION. ALL SEDIMENT CONTROL MEASURES REFERRED TO ON THESE PLANS SHALL BE IN ACCORDANCE WITH PUBLICATION ENTITLED "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" AND THE " 2012 BCSCD URBAN POLICY MANUAL".

DAILY STABILIZATION NOTE

THIS NOTE SHOULD BE USED FOR MINIMAL AREAS WITHIN THE LIMITS OF DISTURBANCE THAT DO NOT DRAIN TO A SEDIMENT CONTROL MEASURE AND/OR WHERE THE INSTALLATION OF CONTROLS IS NOT FEASIBLE. (ROAD WIDENING, SIDEWALK INSTALLATION, ETC.). CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY. STABILIZATION SHALL BE AS FOLLOWS:
1.) FOR AREAS TO BE PAVED, THE APPLICATION OF STONE BASE.
2.) FOR AREAS TO BE VEGETATIVELY STABILIZED:
A.) PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES, CHANNELS OR SWALES.
B.) PERMANENT SEED AND MULCH FOR ALL OTHER AREAS. ANY AREAS WHICH CAN NOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SILT FENCE INSTALLED ON THE DOWNSLOPE SIDE.

Baltimore County Soil Conservation District

APPROVED FOR SEDIMENT CONTROL 6-24-25 (Date)

Dave Barbman — DISTRICT OFFICIAL — 076-24AB-25 — Plan No.

Technical Review for the District by:

Jeffrey P. Wise

This plan approval will expire three (3) years from the approval date.

DWG. FILENAME:

OWNER/DEVELOPER
BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

SEAL: STATE OF MARYLAND — MATTHEW B. THOMASSON — 41799 — PROFESSIONAL ENGINEER
DATE : 06/04/2025

PROFESSIONAL CERTIFICATION	AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
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. 41799, EXPIRATION DATE 04/12/2026.					PNW	35NW40	PLAN SCALE: AS SHOWN	APPROVED BY: PROPERTY MANAGER
				R.O.W NO.			PROFILE SCALE: AS SHOWN	DATE:
	CONTRACT COMPLETION BOX						AS SHOWN	

ENGINEER: RUMMEL, KLEPPER & KAHL (RK&K) P: 410.728.2900, 700 E. Pratt Street, Suite 500, Baltimore, MD 21202
AS-BUILT PER RECORD PRINT
DGN BY: SHK | DWN BY: DTP | CHKD BY: MBT

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BY: DATE:

NOTE: THESE PLANS TO BE USED FOR SEDIMENT CONTROL ONLY.

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
CIVIL – EROSION & SEDIMENT CONTROL NOTES
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-600	25114 GX0
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	SHEET 21 OF 150
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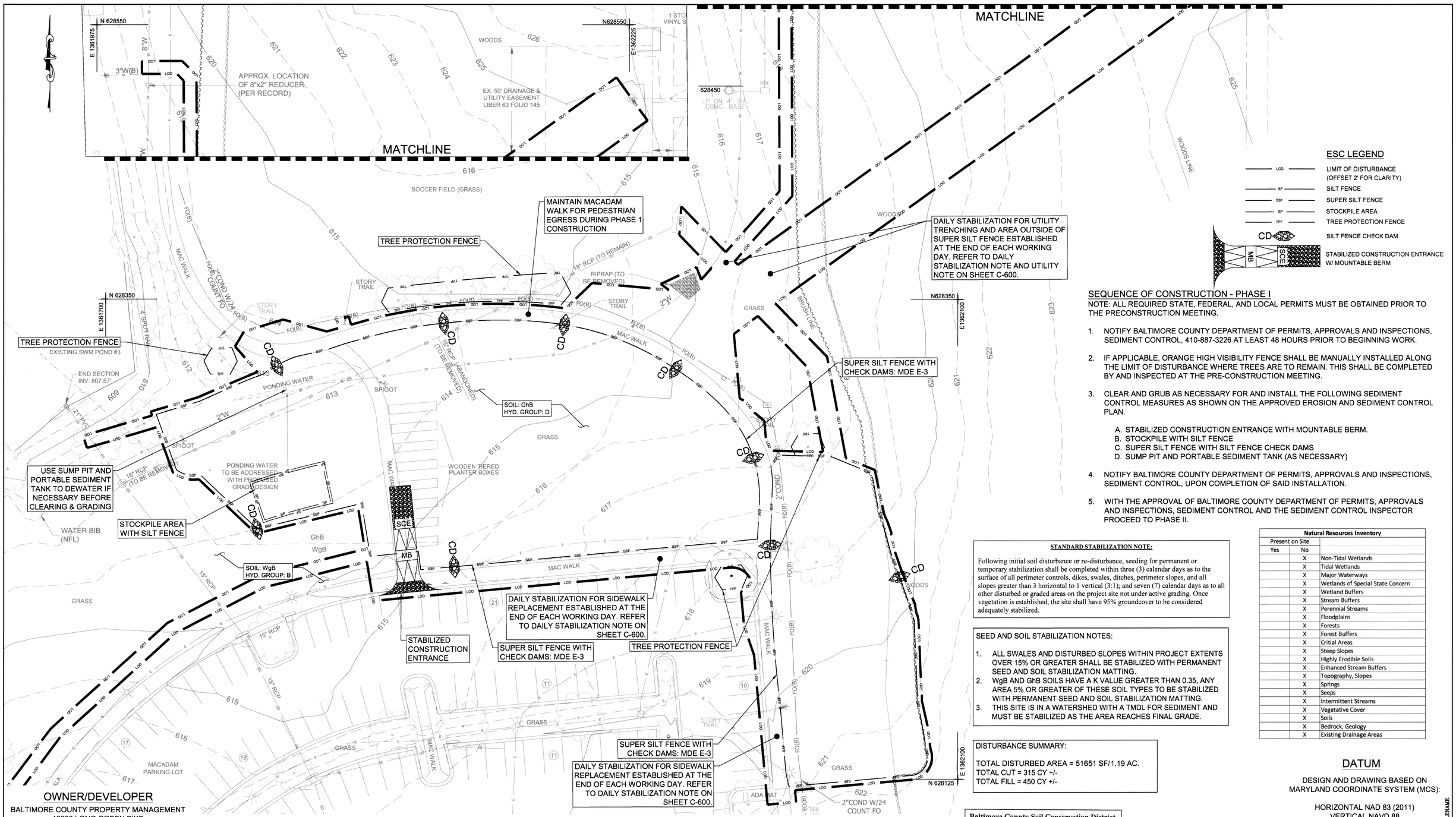

ESC LEGEND

- LOD — LIMIT OF DISTURBANCE (OFFSET 2' FOR CLARITY)
- SF — SILT FENCE
- SSF — SUPER SILT FENCE
- SP — STOCKPILE AREA
- TPF — TREE PROTECTION FENCE
- CD — SILT FENCE CHECK DAM
- SCE / MB — STABILIZED CONSTRUCTION ENTRANCE W/ MOUNTABLE BERM

SEQUENCE OF CONSTRUCTION - PHASE I

NOTE: ALL REQUIRED STATE, FEDERAL, AND LOCAL PERMITS MUST BE OBTAINED PRIOR TO THE PRECONSTRUCTION MEETING.

1. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, 410-887-3226 AT LEAST 48 HOURS PRIOR TO BEGINNING WORK.
2. IF APPLICABLE, ORANGE HIGH VISIBILITY FENCE SHALL BE MANUALLY INSTALLED ALONG THE LIMIT OF DISTURBANCE WHERE TREES ARE TO REMAIN. THIS SHALL BE COMPLETED BY AND INSPECTED AT THE PRE-CONSTRUCTION MEETING.
3. CLEAR AND GRUB AS NECESSARY FOR AND INSTALL THE FOLLOWING SEDIMENT CONTROL MEASURES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
   - A. STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM.
   - B. STOCKPILE WITH SILT FENCE
   - C. SUPER SILT FENCE WITH SILT FENCE CHECK DAMS
   - D. SUMP PIT AND PORTABLE SEDIMENT TANK (AS NECESSARY)
4. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, UPON COMPLETION OF SAID INSTALLATION.
5. WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL AND THE SEDIMENT CONTROL INSPECTOR PROCEED TO PHASE II.

STANDARD STABILIZATION NOTE:

Following initial soil disturbance or re-disturbance, seeding for permanent or temporary stabilization shall be completed within three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1); and seven (7) calendar days as to all other disturbed or graded areas on the project site not under active grading. Once vegetation is established, the site shall have 95% groundcover to be considered adequately stabilized.

SEED AND SOIL STABILIZATION NOTES:

1. ALL SWALES AND DISTURBED SLOPES WITHIN PROJECT EXTENTS OVER 15% OR GREATER SHALL BE STABILIZED WITH PERMANENT SEED AND SOIL STABILIZATION MATTING.
2. WgB AND GhB SOILS HAVE A K VALUE GREATER THAN 0.35, ANY AREA 5% OR GREATER OF THESE SOIL TYPES TO BE STABILIZED WITH PERMANENT SEED AND SOIL STABILIZATION MATTING.
3. THIS SITE IS IN A WATERSHED WITH A TMDL FOR SEDIMENT AND MUST BE STABILIZED AS THE AREA REACHES FINAL GRADE.

DISTURBANCE SUMMARY:

TOTAL DISTURBED AREA = 51651 SF/1.19 AC.
TOTAL CUT = 315 CY +/-
TOTAL FILL = 450 CY +/-

Natural Resources Inventory

Present on Site		
Yes	No	
	X	Non-Tidal Wetlands
	X	Tidal Wetlands
	X	Major Waterways
	X	Wetlands of Special State Concern
	X	Wetland Buffers
	X	Stream Buffers
	X	Perennial Streams
	X	Floodplains
	X	Forests
	X	Forest Buffers
	X	Critial Areas
	X	Steep Slopes
	X	Highly Erodible Soils
	X	Enhanced Stream Buffers
	X	Topography, Slopes
	X	Springs
	X	Seeps
	X	Intermittent Streams
	X	Vegetative Cover
	X	Soils
	X	Bedrock, Geology
	X	Existing Drainage Areas

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

DWG. FILENAME:

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL
Dave Barkman 6-24-25
Date

20 10 0 20 40
SCALE: 1" = 20'

SEAL — STATE OF MARYLAND — MICHAEL C. SCHMIDT — 41799 — PROFESSIONAL ENGINEER
DATE : 06/04/2025

PROFESSIONAL CERTIFICATION		AS–BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
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					R.O.W NO.			PROFILE SCALE: AS SHOWN	DATE:
ENGINEER: RUMMEL, KLEPPER & KAHL	DGN BY: SHK	CONTRACT COMPLETION BOX						AS SHOWN	
RK&K P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202	DWN BY: DTP	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
AS–BUILT PER RECORD PRINT	CHKD BY: MBT	REVIEWED BY:							
BY: DATE:		DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
CIVIL – EROSION & SEDIMENT CONTROL PLAN (PHASE I)
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
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SHEET DESIGNATION	CONTRACT NUMBER
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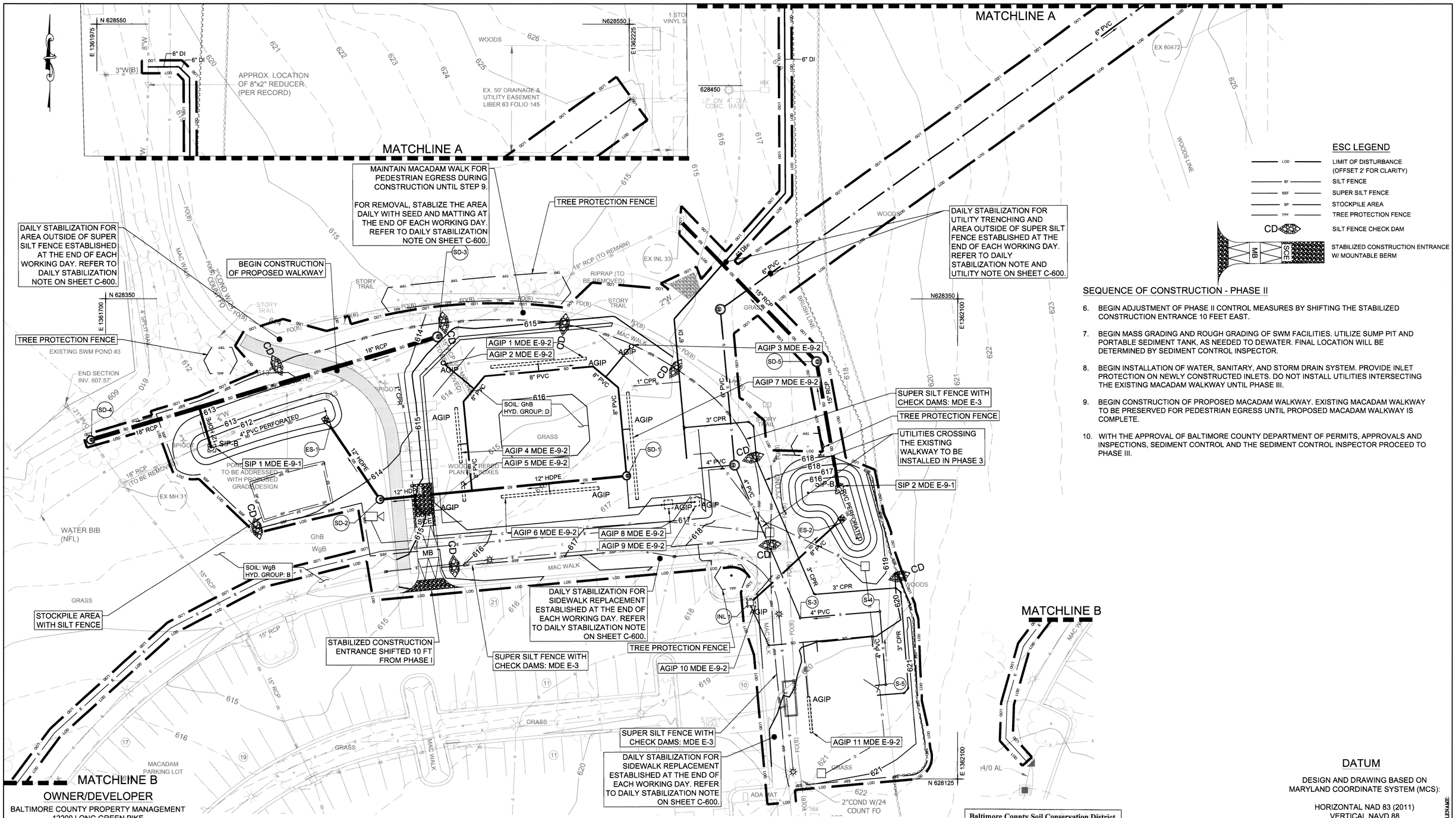


SEQUENCE OF CONSTRUCTION - PHASE II

6. BEGIN ADJUSTMENT OF PHASE II CONTROL MEASURES BY SHIFTING THE STABILIZED CONSTRUCTION ENTRANCE 10 FEET EAST.
7. BEGIN MASS GRADING AND ROUGH GRADING OF SWM FACILITIES. UTILIZE SUMP PIT AND PORTABLE SEDIMENT TANK, AS NEEDED TO DEWATER. FINAL LOCATION WILL BE DETERMINED BY SEDIMENT CONTROL INSPECTOR.
8. BEGIN INSTALLATION OF WATER, SANITARY, AND STORM DRAIN SYSTEM. PROVIDE INLET PROTECTION ON NEWLY CONSTRUCTED INLETS. DO NOT INSTALL UTILITIES INTERSECTING THE EXISTING MACADAM WALKWAY UNTIL PHASE III.
9. BEGIN CONSTRUCTION OF PROPOSED MACADAM WALKWAY. EXISTING MACADAM WALKWAY TO BE PRESERVED FOR PEDESTRIAN EGRESS UNTIL PROPOSED MACADAM WALKWAY IS COMPLETE.
10. WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL AND THE SEDIMENT CONTROL INSPECTOR PROCEED TO PHASE III.

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL
Dave Bachman 6-24-25
Date

20 10 0 20 40
SCALE: 1" = 20'

SEAL — STATE OF MARYLAND — MICHAEL B. TROCCOLI — 41799 — PROFESSIONAL ENGINEER
DATE : 06/04/2025

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. 41799 EXPIRATION DATE 04/12/2026	
ENGINEER: RUMMEL, KLEPPER & KAHL (RK&K) P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202	DGN BY: SHK
AS-BUILT PER RECORD PRINT	DWN BY: DTP
BY: DATE:	CHKD BY: MBT

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	SSNW40

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	AS SHOWN / AS SHOWN

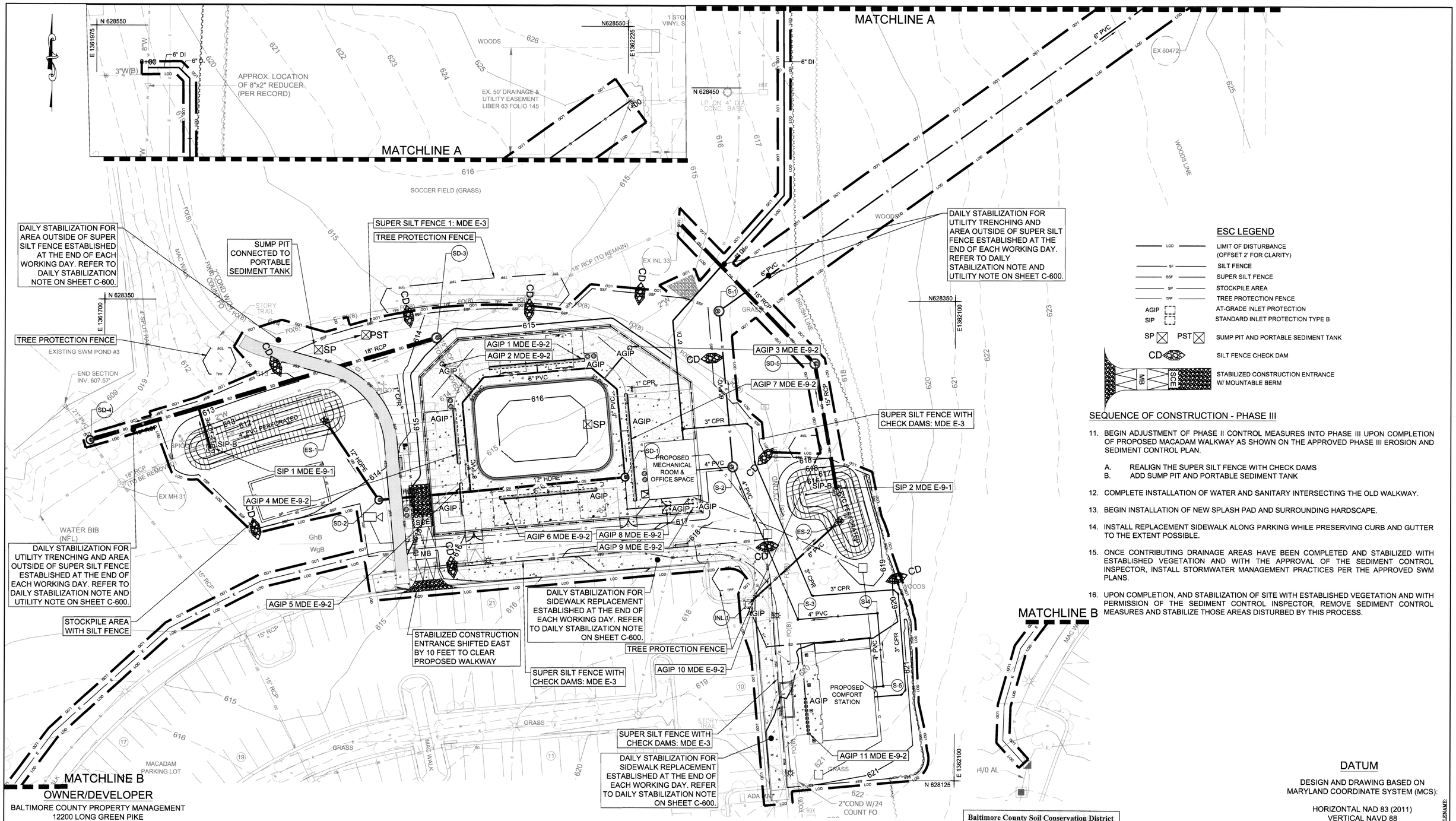
PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
CIVIL – EROSION & SEDIMENT CONTROL PLAN (PHASE II)
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS:
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-602	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 23 OF 150
	DRAWING NUMBER
	2025-2194
	FILE NO.: 8

DWG. FILENAME:



ESC LEGEND

LOD	LIMIT OF DISTURBANCE (OFFSET 2' FOR CLARITY)
SF	SILT FENCE
SSF	SUPER SILT FENCE
SP	STOCKPILE AREA
TPF	TREE PROTECTION FENCE
AGIP	AT-GRADE INLET PROTECTION
SIP	STANDARD INLET PROTECTION TYPE B
SP / PST	SUMP PIT AND PORTABLE SEDIMENT TANK
CD	SILT FENCE CHECK DAM
MB / SCE	STABILIZED CONSTRUCTION ENTRANCE W/ MOUNTABLE BERM

SEQUENCE OF CONSTRUCTION - PHASE III

11. BEGIN ADJUSTMENT OF PHASE II CONTROL MEASURES INTO PHASE III UPON COMPLETION OF PROPOSED MACADAM WALKWAY AS SHOWN ON THE APPROVED PHASE III EROSION AND SEDIMENT CONTROL PLAN.
    - A. REALIGN THE SUPER SILT FENCE WITH CHECK DAMS
    - B. ADD SUMP PIT AND PORTABLE SEDIMENT TANK
12. COMPLETE INSTALLATION OF WATER AND SANITARY INTERSECTING THE OLD WALKWAY.
13. BEGIN INSTALLATION OF NEW SPLASH PAD AND SURROUNDING HARDSCAPE.
14. INSTALL REPLACEMENT SIDEWALK ALONG PARKING WHILE PRESERVING CURB AND GUTTER TO THE EXTENT POSSIBLE.
15. ONCE CONTRIBUTING DRAINAGE AREAS HAVE BEEN COMPLETED AND STABILIZED WITH ESTABLISHED VEGETATION AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, INSTALL STORMWATER MANAGEMENT PRACTICES PER THE APPROVED SWM PLANS.
16. UPON COMPLETION, AND STABILIZATION OF SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS.

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS):

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

DWG. FILENAME:

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL
Dave Barbuso 6-24-25
Date

20 10 0 20 40
SCALE: 1" = 20'

SEAL — STATE OF MARYLAND — 41799 — PROFESSIONAL ENGINEER
DATE : 06/04/2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
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.						PNW	35NW40	PLAN SCALE: AS SHOWN	APPROVED BY: PROPERTY MANAGER
LICENSE NO. 41799 EXPIRATION DATE 04/12/2026		CONTRACT COMPLETION BOX			R.O.W NO.			PROFILE SCALE: AS SHOWN	DATE:
ENGINEER: RUMMEL, KLEPPER & KAHL, RK&K, P: 410.728.2900, 700 E. Pratt Street, Suite 500, Baltimore, MD 21202	DGN BY: SHK	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
AS-BUILT PER RECORD PRINT	DWN BY: DTP	REVIEWED BY:							
BY: DATE:	CHKD BY: MBT	DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

CIVIL – EROSION & SEDIMENT CONTROL PLAN (PHASE III)

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C–603	25114 GX0
	JOB ORDER NUMBER
	PROJ–1000634
	SHEET 24 OF 150
	DRAWING NUMBER
	2025–2195
	FILE NO.: 8

B-4-4 STANDARDS AND SPECIFICATIONS

FOR

TEMPORARY STABILIZATION

Definition

To stabilize disturbed soils with vegetation for up to 6 months.

Purpose

To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

Criteria

1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

Temporary Seeding Summary

Hardiness Zone (from Figure B.3): 7a **Seed Mixture** (from Table B.1):					**Fertilizer Rate (10-20-20)**	**Lime Rate**
No.	**Species**	**Application Rate (lb/ac)**	**Seeding Dates**	**Seeding Depths**		
	Barley (Hordeum vulgare)	96	2/15 to 4/30; 8/15 to 11/30	1.0"	436 lb/ac (10 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)
	Oats (Avena sativa)	72	2/15 to 4/30; 8/15 to 11/30	1.0"		
	Foxtail Millet (Setaria italica)	30	5/1 to 8/14	0.5"		
	Pearl Millet (Pennisetum glaucum)	20	5/1 to 8/14	0.5"		

B-4-5 STANDARDS AND SPECIFICATIONS

FOR

PERMANENT STABILIZATION

Definition

To stabilize disturbed soils with permanent vegetation.

Purpose

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for 6 months or more.

Criteria

A. Seed Mixtures

1. General Use
   a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
   b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
   c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.
   d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary .
2. Turfgrass Mixtures
   a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
   b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
      i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
      ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
      iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
      iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1½ to 3 pounds per 1000 square feet.

Notes:
Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line

Ideal Times of Seeding for Turf Grass Mixtures

Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)

Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)

Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)

Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1½ inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.

If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

COOL SEASON PERMANENT SEEDING SUMMARY

Hardiness Zone (From Figure B.3): 7a Seed Mixture (From Table B.3): Cool-Season Grass Mixes					Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/ac)	*Seeding Dates	Seeding Depths	N	P_2O_5	K_2O	
9	Turf-Type Tall Fescue Blend (3 cultivars)	60	2/15 to 4/30 8/15 - 10/31 (TYP.)	1/4" - 1/2"	45 lb/ac (1.0 lb/1000 sf)	90 lb/ac (2 lb/1000 sf)	90 lb/ac (2 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)
	Kentucky Bluegrass	40		1/4" - 1/2"				
	Perennial Ryegrass	20		1/4" - 1/2"				

* During the period from 5/1 to 8/14, add 6lbs of Foxtail Millet or Pearl Millet to seed mix 9.

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

1. General Specifications
   a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector.
   b. Sod must be machine cut at a uniform soil thickness of ¾ inch, plus or minus ¼ inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable.
   c. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
   d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
   e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation.
2. Sod Installation
   a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod.
   b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.
   c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.
   d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.
3. Sod Maintenance
   a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting.
   b. After the first week, sod watering is required as necessary to maintain adequate moisture content.
   c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

WARM SEASON/COOL SEASON PERMANENT SEEDING SUMMARY

Hardiness Zone (From Figure B.3): 7a Seed Mixture (From Table B.3): Warm-Season/Cool-Season Grass Mixes					Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates*	Seeding Depths	N	P_2O_5	K_2O	
2	Big Bluestem	6	2/15 to 4/30** 5/1 to 6/31* (TYP.)	1/4" - 1/2" (TYP.)	45 lb/ac (1.0 lb/1000 sf)	90 lb/ac (2 lb/1000 sf)	90 lb/ac (2 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)
	Indian Grass	6						
	Little Bluestem	4						
	Creeping Red Fescue	15						
	Partridge Pea	4						

** Warm-season grasses need a soil temperature of at least 50 degrees F in order to germinate. If soil temperatures are colder than 50 degrees, or moisture is not adequate, the seeds will remain dormant until conditions are favorable. In general, planting during the latter portion of this period allows more time for weed emergence and weed control prior to planting. When selecting a planting date, consider the need for weed control vs. the likelihood of having sufficient moisture for later plantings, especially on droughty sites.

* Additional planting dates during which supplemental watering may be needed to ensure plant establishment.

B-4-2 STANDARDS AND SPECIFICATIONS

FOR

SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

Definition

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

Purpose

To provide a suitable soil medium for vegetative growth.

Conditions Where Practice Applies

Where vegetative stabilization is to be established.

Criteria

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, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
   b. Apply fertilizer and lime as prescribed on the plans.
   c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.
2. Permanent Stabilization
   a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
      i. Soil pH between 6.0 and 7.0.
      ii. Soluble salts less than 500 parts per million (ppm).
      iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
      iv. Soil contains 1.5 percent minimum organic matter by weight.
      v. Soil contains sufficient pore space to permit adequate root penetration.
   b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
   c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.

   d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
   e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

B. Topsoiling

1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.
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.
   b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
   c. The original soil to be vegetated contains material toxic to plant growth.
   d. The soil is so acidic that treatment with limestone is not feasible.
4. Areas having slopes steeper than 2:1 require special consideration and design.
5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
   a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1½ inches in diameter.
   b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
   c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
6. Topsoil Application
   a. Erosion and sediment control practices must be maintained when applying topsoil.
   b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
   c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading

and seedbed preparation.

C. Soil Amendments (Fertilizer and Lime Specifications)

1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve.
4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL
Doris Bachman 6-24-25
Date

DWG. FILENAME:

SEAL

DATE : 06/04/2025

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. 41799, EXPIRATION DATE 04/12/2026

ENGINEER: RUMMEL, KLEPPER & KAHL
RK&K P 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: SHK
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AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE: AS SHOWN
AS SHOWN

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
CIVIL – EROSION & SEDIMENT CONTROL DETAILS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-650	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 25 OF 150
	DRAWING NUMBER
	2025-2196
	FILE NO.: 8

B-4-3 STANDARDS AND SPECIFICATIONS

FOR

SEEDING AND MULCHING

Definition

The application of seed and mulch to establish vegetative cover.

Purpose

To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies

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

Criteria

A. Seeding

1. Specifications
   a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.
   b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws.
   c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
   d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

2. Application
   a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
      i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries.
      ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact.

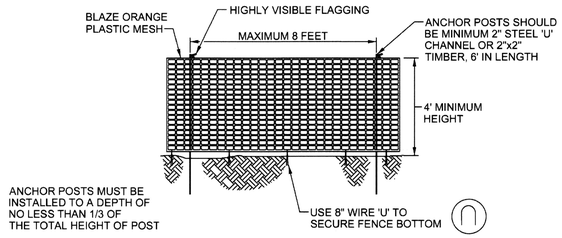
   b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
      i. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
      ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.
   c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).
      i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P_2O_5 (phosphorous), 200 pounds per acre; K_2O (potassium), 200 pounds per acre.
      ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
      iii. Mix seed and fertilizer on site and seed immediately and without interruption.
      iv. When hydroseeding do not incorporate seed into the soil.

B. Mulching

1. Mulch Materials (in order of preference)
   a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty. **Note: Use only sterile straw mulch in areas where one species of grass is desired.**
   b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.
      i. WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
      ii. WCFM, including dye, must contain no germination or growth inhibiting factors.
      iii. WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
      iv. WCFM material must not contain elements or compounds at concentration levels that will be phyto-toxic.
      v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.

2. Application
   a. Apply mulch to all seeded areas immediately after seeding.
   b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
   c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

3. Anchoring
   a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:
      i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.
      ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
      iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. **Use of asphalt binders is strictly prohibited**.
      iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.



NOTES:

1. BOUNDARIES OF CONSTRUCTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING FENCE.
2. ROOT DAMAGE SHOULD BE AVOIDED.
3. FENCE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

TEMP. TREE PROTECTION FENCE DETAIL - BLAZE ORANGE

N.T.S.

Table H.1: Geotextile Fabrics

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

[1] ALL NUMERIC VALUES EXCEPT APPARENT OPENING SIZE (AOS) REPRESENT MINIMUM AVERAGE ROLL VALUES (MARV). MARV IS CALCULATED AT THE TYPICAL MINUS TWO STANDARD DEVIATIONS. MD IS MACHINE DIRECTION; CD IS CROSS DIRECTION.

[2] VALUES FOR AOS REPRESENT THE AVERAGE MAXIMUM OPENING.

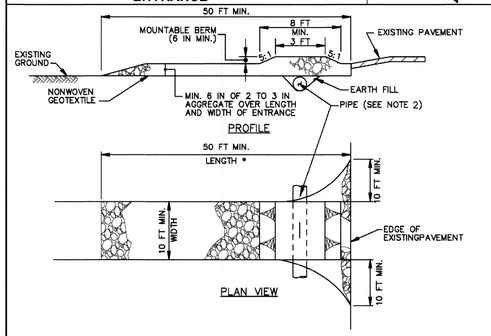
GEOTEXTILES MUST BE EVALUATED BY THE NATIONAL TRANSPORTATION PRODUCT EVALUATION PROGRAM (NTPEP) AND CONFORM TO THE VALUES IN TABLE H.1.

THE GEOTEXTILE MUST BE INERT TO COMMONLY ENCOUNTERED CHEMICALS AND HYDROCARBONS AND MUST BE ROT AND MILDEW RESISTANT. THE GEOTEXTILE MUST BE MANUFACTURED FROM FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS AND COMPOSED OF A MINIMUM OF 95 PERCENT BY WEIGHT OF POLYOLEFINS OF 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.

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE



CONSTRUCTION SPECIFICATIONS

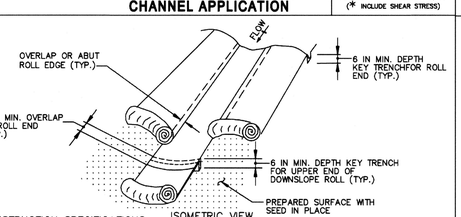
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING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

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

DETAIL B-4-6-A TEMPORARY SOIL STABILIZATION MATTING CHANNEL APPLICATION

STANDARD SYMBOL: TSSMC – *≥2.25lb/ft² (* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

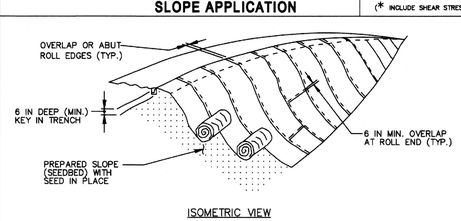
1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION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

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 B-4-6-B TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL: TSSMS – *≥2.25lb/ft² (* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

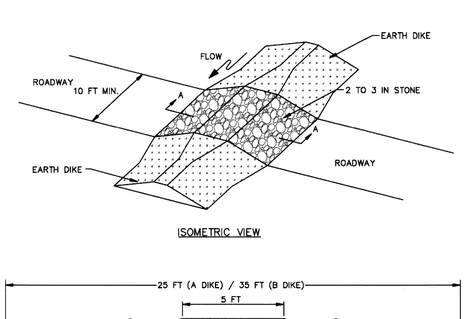
1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION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

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 C-8 MOUNTABLE BERM

STANDARD SYMBOL: MB



CONSTRUCTION SPECIFICATIONS

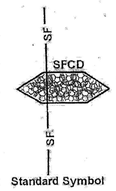
1. USE MINIMUM WIDTH OF 10 FEET TO ALLOW FOR VEHICULAR PASSAGE.
2. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE EARTH MOUND PRIOR TO PLACING STONE.
3. PLACE 2 TO 3 INCH STONE OR EQUIVALENT RECYCLED CONCRETE AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE MOUNTABLE BERM.
4. MAINTAIN LINE, GRADE, AND CROSS SECTION. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN SPECIFIED DIMENSIONS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE.

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

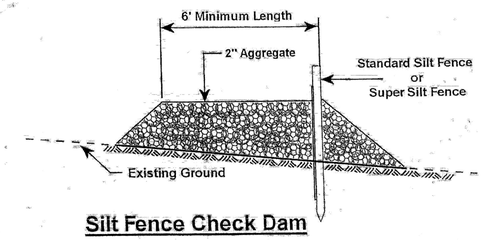
Standard Silt Fence	Super Silt Fence
# 2 Stone	# 2 Stone
12" High	24" High
24" Wide	36" Wide

Placement Engineered Based on Slope Gradient



Standard Symbol

* AT THE DISCRETION OF THE INSPECTOR EXTRA POST(S) MAY BE REQUIRED ON THE DOWNSLOPE SIDE OF THE FENCE IN LIEU OF STONE.



Silt Fence Check Dam

Not To Scale

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL
Dave Beckman 6-24-25
Date

DWG. FILENAME:

SEAL

STATE OF MARYLAND · MICHAEL B. TROCCOLI · 41799 · PROFESSIONAL ENGINEER

DATE : 06/04/2025

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. 41799, EXPIRATION DATE 04/12/2026.

ENGINEER: RUMMEL, KLEPPER & KAHL
RK&K P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202
AS-BUILT PER RECORD PRINT
BY: DATE:
DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE: AS SHOWN AS SHOWN

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

CIVIL – EROSION & SEDIMENT CONTROL DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

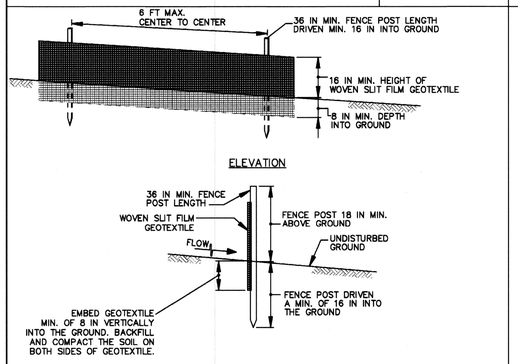
SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-651	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 26 OF 150	
DRAWING NUMBER	2025-2197
FILE NO.: 8	

DETAIL E-1 SILT FENCE

STANDARD SYMBOL: SF



JOINING TWO ADJACENT SILT FENCE SECTIONS (TOP VIEW)

1 OF 2

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 E-1 SILT FENCE

STANDARD SYMBOL: SF

CONSTRUCTION SPECIFICATIONS

1. USE WOOD POSTS 1¾ X 1¾ ± ⅛ INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
3. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

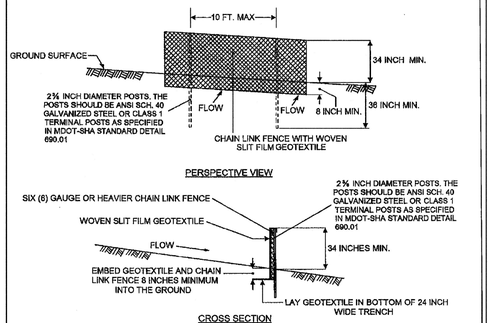
2 OF 2

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 E-3 SUPER SILT FENCE

STANDARD SYMBOL: SSF



CONSTRUCTION SPECIFICATIONS

1. INSTALL 2¾ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.15 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 6 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2⅜ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HOG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H -1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND. LAY THE GEOTEXTILE IN THE BOTTOM OF THE 24 INCH WIDE TRENCH.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BYPASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE UPHILL A MINIMUM OF 3 VERTICAL FEET TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURERS CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H - 1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF THE FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENGING AND GEOTEXTILE.

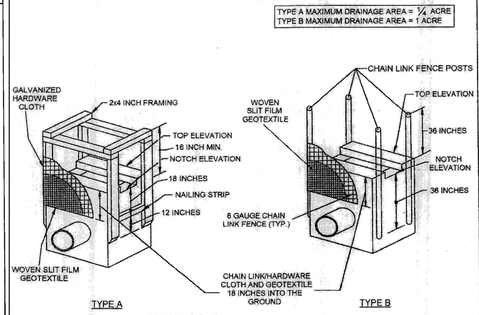
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
MODIFIED FOR USE IN BALTIMORE COUNTY

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	MODIFIED - 2012 REVISED - 5/2023	MARYLAND DEPARTMENT OF THE ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL: SIP

TYPE A MAXIMUM DRAINAGE AREA = ½ ACRE
TYPE B MAXIMUM DRAINAGE AREA = 1 ACRE



SECTION FOR TYPE A AND TYPE B

1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
MODIFIED FOR USE IN BALTIMORE COUNTY

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	MODIFIED - 2012	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL: SIP

CONSTRUCTION SPECIFICATIONS

1. USE WOVEN GEOTEXTILE (AS INDICATED ON THE STANDARD INLET PROTECTION DETAIL) AS SPECIFIED IN SECTION H - 1 MATERIALS.
2. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.
3. FOR TYPE A, USE NOMINAL 2x4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2x4 INCH FRAME AS SHOWN. STRETCH ¼ INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE WEIR CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTENED TO THE POST.

   FOR TYPE B, USE 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.15 INCH WALL THICKNESS AND 6 FOOT LENGTH, DRIVEN A MINIMUM OF 36 INCHES BELOW THE WEIR CREST AT EACH CORNER OF THE STRUCTURE. FASTEN 6 GAUGE OR HEAVIER CHAIN LINK FENCE, 42 INCHES IN HEIGHT, SECURELY TO THE FENCE POSTS WITH WIRE TIES. FASTEN GEOTEXTILE SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 18 INCHES BELOW THE WEIR CREST.
4. BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELVATION ON THE SIDES.
5. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

2 of 2

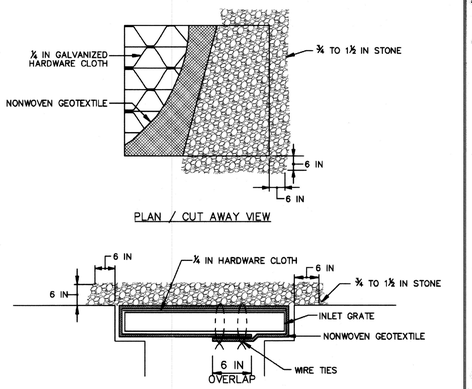
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
MODIFIED FOR USE IN BALTIMORE COUNTY

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	MODIFIED - 2012	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-2 AT-GRADE INLET PROTECTION

STANDARD SYMBOL: AGIP

MAXIMUM DRAINAGE AREA = 1 ACRE



CONSTRUCTION SPECIFICATIONS

1. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
2. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.
3. PLACE CLEAN ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE.
4. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

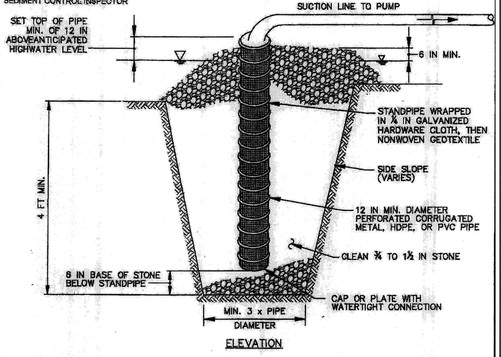
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

DETAIL F-2 SUMP PIT

STANDARD SYMBOL: SP

** THIS MEASURE SHALL BE LOCATED WHERE IT WILL BE EASILY ACCESSIBLE TO ALLOW FOR PRACTICAL USAGE. CHANGES TO THE DISCHARGE LOCATION SHOWN ON THE APPROVED PLANS SHALL BE COORDINATED WITH THE SEDIMENT CONTROL INSPECTOR



CONSTRUCTION SPECIFICATIONS

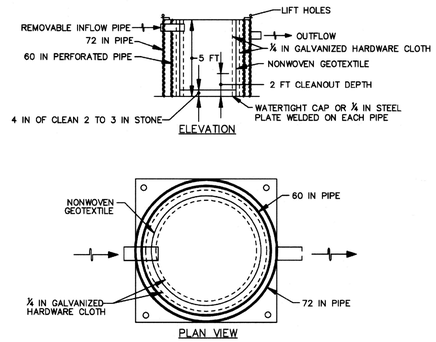
1. USE 12 INCH OR LARGER DIAMETER CORRUGATED METAL, HDPE, OR PVC PIPE WITH 1 INCH DIAMETER PERFORATIONS, 6 INCHES ON CENTER. BOTTOM OF PIPE MUST BE CAPPED WITH WATERTIGHT SEAL.
2. WRAP PIPE WITH ¼ INCH GALVANIZED HARDWARE CLOTH AND WRAP NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE HARDWARE CLOTH.
3. EXCAVATE PIT TO THREE TIMES THE PIPE DIAMETER AND FOUR FEET IN DEPTH. PLACE ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE, 6 INCHES IN DEPTH PRIOR TO PIPE PLACEMENT.
4. SET TOP OF PIPE MINIMUM 12 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.
5. BACKFILL PIT AROUND THE PIPE WITH ¾ TO 1½ INCH CLEAN STONE OR EQUIVALENT RECYCLED CONCRETE AND EXTEND STONE A MINIMUM OF 6 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.
6. DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE.
7. A SUMP PIT REQUIRES FREQUENT MAINTENANCE. IF SYSTEM CLOGS, REMOVE PERFORATED PIPE AND REPLACE GEOTEXTILE AND STONE. KEEP POINT OF DISCHARGE FREE OF EROSION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
MODIFIED FOR USE IN BALTIMORE COUNTY

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	MODIFIED - 2012	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL F-3 PORTABLE SEDIMENT TANK

STANDARD SYMBOL: PST



CONSTRUCTION SPECIFICATIONS

1. PROVIDE 1 CUBIC FOOT OF STORAGE FOR EACH GALLON PER MINUTE OF PUMP CAPACITY. REQUIRED STORAGE VOLUME MAY BE ATTAINED BY PLACEMENT OF TANKS IN PARALLEL WITH INFLOW EVENLY DISTRIBUTED AMONG TANKS. OVERTOPPING OF TANKS IS NOT PERMITTED.
2. USE 60 INCH CORRUGATED METAL OR PLASTIC PIPE WITH 1 INCH DIAMETER PERFORATIONS, 6 INCHES ON CENTER FOR THE INNER PIPE. LINE PIPE WITH NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, SANDWICHED BETWEEN, AND ATTACHED TO, ¼ INCH HARDWARE CLOTH.
3. OVERLAP GEOTEXTILE 8 INCHES MINIMUM AT VERTICAL SEAM AND AT THE BOTTOM PLATE.
4. ANCHOR GEOTEXTILE AT BOTTOM OF TANK WITH 4 INCHES OF 2 TO 3 INCH CLEAN STONE OR EQUIVALENT RECYCLED CONCRETE.
5. USE 72 INCH CORRUGATED METAL OR PLASTIC OUTER PIPE WITH PERMANENT OUTFLOW PIPE WITH INVERT LOWER THAN INFLOW PIPE
6. INFLOW PIPE MUST DISCHARGE INTO INNER PIPE AND BE REMOVABLE.
7. PLACE TANK ON LEVEL SURFACE AND DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE.
8. A PORTABLE SEDIMENT TANK REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT FROM INNER PIPE WHEN IT REACHES TWO FEET IN DEPTH. IF SYSTEM CLOGS, PULL OUT INNER PIPE, REMOVE ACCUMULATED SEDIMENT, AND REPLACE GEOTEXTILE. KEEP POINT OF DISCHARGE FREE OF EROSION.

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

Baltimore County Soil Conservation District
APPROVED FOR SEDIMENT CONTROL
Dave Beckman 6-24-25
Date

DWG. FILENAME:

SEAL

DATE : 06/04/2025

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. 41799, EXPIRATION DATE 04/12/2026

ENGINEER: RUMMEL, KLEPPER & KAHL
RK&K P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202

AS-BUILT PER RECORD PRINT

BY: DATE:

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	36NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

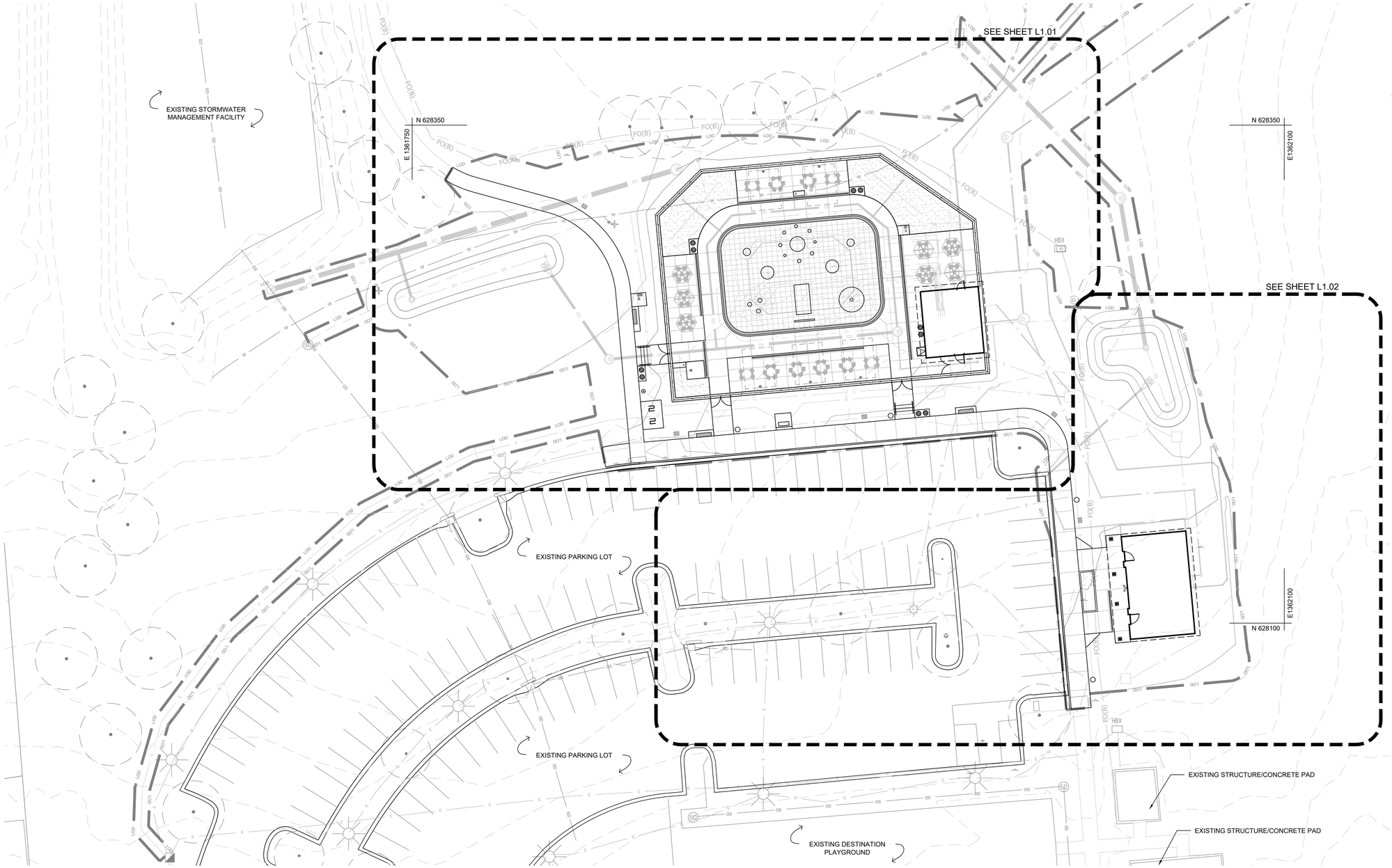
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE: AS SHOWN

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
CIVIL – EROSION & SEDIMENT CONTROL DETAILS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
C-652	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 27 OF 150	DRAWING NUMBER
2025-2198	
FILE NO.: 8	REV. NO.



1 OVERALL PLAN

1" = 20'

0 10' 20' 40' N

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS)

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

DWG. FILENAME:

SBAL

STATE OF MARYLAND — MARK E. PELUSH — 1152 — LANDSCAPE ARCHITECT

DATE : OCTOBER 02, 2025

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 1162, EXPIRATION DATE: 09/18/2026
LANDSCAPE ARCHITECT: MARK E PELUSH, JR
MAHAN RYKIEL — Mahan Rykiel Associates, Inc. — 400 E Pratt St Suite 910 Baltimore, MD 21202
AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY:	MEP
DWN BY:	MNQ
CHKD BY:	MEP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

LANDSCAPE - OVERALL PLAN

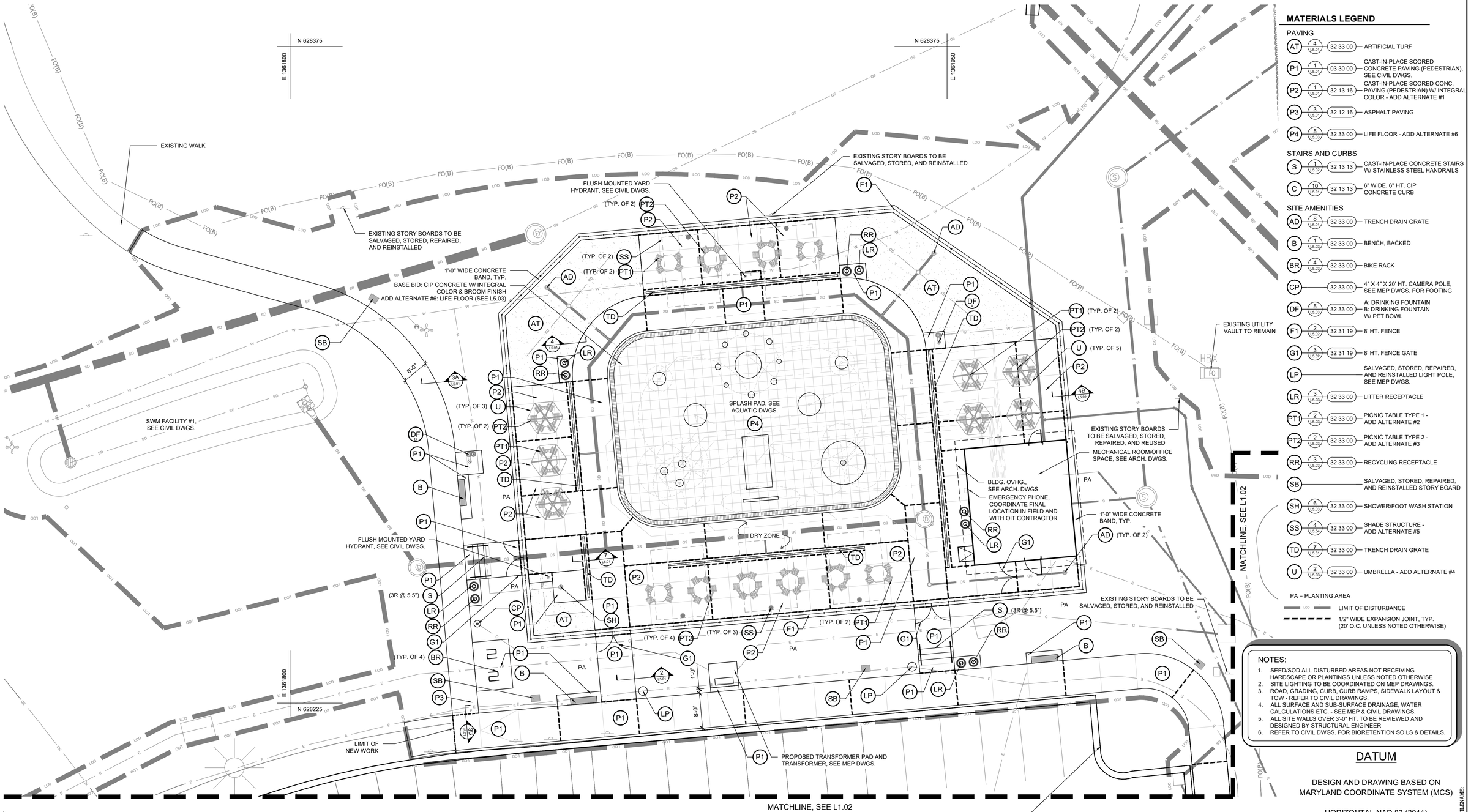
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
L1.00	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 28 OF 150
	DRAWING NUMBER
	2025-2199
	FILE NO.: 8



MATERIALS LEGEND

PAVING

AT	4 / L5.01	32 33 00	ARTIFICIAL TURF
P1	1 / L5.01	03 30 00	CAST-IN-PLACE SCORED CONCRETE PAVING (PEDESTRIAN), SEE CIVIL DWGS.
P2	1 / L5.01	32 13 16	CAST-IN-PLACE SCORED CONC. PAVING (PEDESTRIAN) W/ INTEGRAL COLOR - ADD ALTERNATE #1
P3	3 / L5.01	32 12 16	ASPHALT PAVING
P4	5 / L5.03	32 33 00	LIFE FLOOR - ADD ALTERNATE #6

STAIRS AND CURBS

S	1 / L5.02	32 13 13	CAST-IN-PLACE CONCRETE STAIRS W/ STAINLESS STEEL HANDRAILS
C	10 / L5.01	32 13 13	6" WIDE, 6" HT. CIP CONCRETE CURB

SITE AMENITIES

AD	8 / L5.01	32 33 00	TRENCH DRAIN GRATE
B	1 / L5.03	32 33 00	BENCH, BACKED
BR	4 / L5.03	32 33 00	BIKE RACK
CP		32 33 00	4" X 4" X 20' HT. CAMERA POLE, SEE MEP DWGS. FOR FOOTING
DF	5 / L5.03	32 33 00	A: DRINKING FOUNTAIN B: DRINKING FOUNTAIN W/ PET BOWL
F1	2 / L5.02	32 31 19	8' HT. FENCE
G1	3 / L5.02	32 31 19	8' HT. FENCE GATE
LP			SALVAGED, STORED, REPAIRED, AND REINSTALLED LIGHT POLE, SEE MEP DWGS.
LR	3 / L5.03	32 33 00	LITTER RECEPTACLE
PT1	2 / L5.03	32 33 00	PICNIC TABLE TYPE 1 - ADD ALTERNATE #2
PT2	2 / L5.03	32 33 00	PICNIC TABLE TYPE 2 - ADD ALTERNATE #3
RR	3 / L5.03	32 33 00	RECYCLING RECEPTACLE
SB			SALVAGED, STORED, REPAIRED, AND REINSTALLED STORY BOARD
SH	6 / L5.03	32 33 00	SHOWER/FOOT WASH STATION
SS	4 / L5.04	32 33 00	SHADE STRUCTURE - ADD ALTERNATE #5
TD	7 / L5.01	32 33 00	TRENCH DRAIN GRATE
U	2 / L5.03	32 33 00	UMBRELLA - ADD ALTERNATE #4

PA = PLANTING AREA

LOD — LIMIT OF DISTURBANCE

1/2" WIDE EXPANSION JOINT, TYP. (20' O.C. UNLESS NOTED OTHERWISE)

NOTES:

1. SEED/SOD ALL DISTURBED AREAS NOT RECEIVING HARDSCAPE OR PLANTINGS UNLESS NOTED OTHERWISE
2. SITE LIGHTING TO BE COORDINATED ON MEP DRAWINGS.
3. ROAD, GRADING, CURB, CURB RAMPS, SIDEWALK LAYOUT & TOW - REFER TO CIVIL DRAWINGS.
4. ALL SURFACE AND SUB-SURFACE DRAINAGE, WATER CALCULATIONS ETC. - SEE MEP & CIVIL DRAWINGS.
5. ALL SITE WALLS OVER 3'-0" HT. TO BE REVIEWED AND DESIGNED BY STRUCTURAL ENGINEER
6. REFER TO CIVIL DWGS. FOR BIORETENTION SOILS & DETAILS.

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS)

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

DWG. FILENAME:

1 MATERIALS PLAN - SPLASH PAD

1" = 10'

SEAL

STATE OF MARYLAND — MARK E. PELUSO, JR. — 1152 — LANDSCAPE ARCHITECT

DATE : OCTOBER 02, 2025

PROFESSIONAL CERTIFICATION

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

LICENSE NO. 1152, EXPIRATION DATE 09/18/2026.

LANDSCAPE ARCHITECT: MARK E. PELUSH, JR. — MAHAN RYKIEL ASSOCIATES INC.

AS-BUILT PER RECORD PRINT

BY: DATE:

DSN BY: MEP
DWN BY: MNQ
CHKD BY: MEP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
			R.O.W NO.	PNW	35NW40
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER

DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

LANDSCAPE - MATERIALS PLAN - SPLASH PAD

SPLASH PAD AND SUPPORTING FACILITIES

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

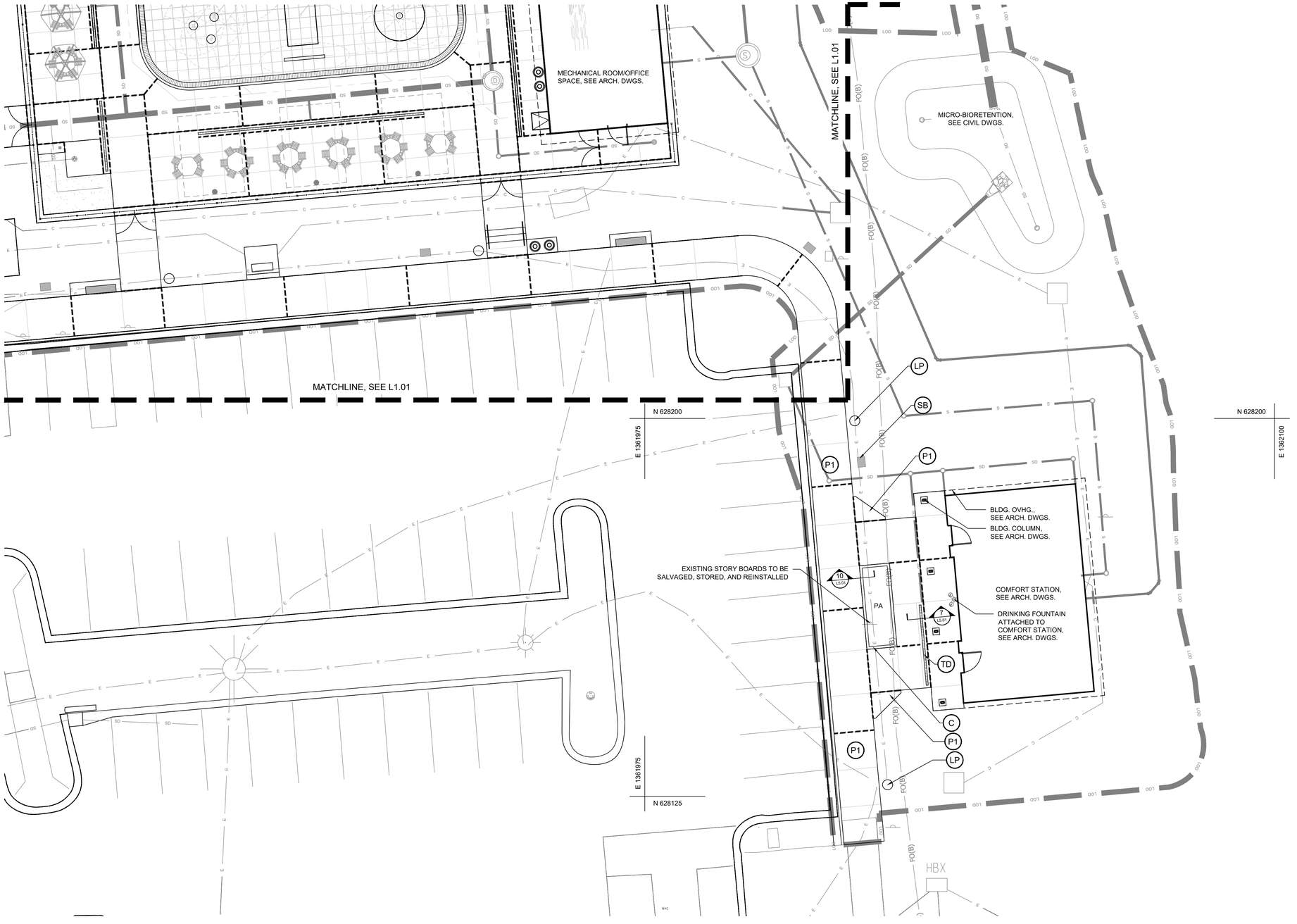
SUBDIVISION: OWINGS MILLS

ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
L1.01	25114 GX0

JOB ORDER NUMBER	PROJ-1000634
SHEET 29 OF 150	
DRAWING NUMBER	2025-2200
FILE NO.: 8	REV. 05/08



MATERIALS LEGEND

PAVING

AT	4 / LS.01	32 33 00	ARTIFICIAL TURF
P1	1 / LS.01	03 30 00	CAST-IN-PLACE SCORED CONCRETE PAVING (PEDESTRIAN), SEE CIVIL DWGS.
P2	1 / LS.01	32 13 16	CAST-IN-PLACE SCORED CONC. PAVING (PEDESTRIAN) W/ INTEGRAL COLOR - ADD ALTERNATE #1
P3	3 / LS.01	32 12 16	ASPHALT PAVING
P4	5 / LS.03	32 33 00	LIFE FLOOR - ADD ALTERNATE #6

STAIRS AND CURBS

S	1 / LS.02	32 13 13	CAST-IN-PLACE CONCRETE STAIRS W/ STAINLESS STEEL HANDRAILS
C	10 / LS.01	32 13 13	6" WIDE, 6" HT. CIP CONCRETE CURB

SITE AMENITIES

AD	8 / LS.01	32 33 00	TRENCH DRAIN GRATE
B	1 / LS.03	32 33 00	BENCH, BACKED
BR	4 / LS.03	32 33 00	BIKE RACK
CP		32 33 00	4" X 4" X 20' HT. CAMERA POLE, SEE MEP DWGS. FOR FOOTING
DF	5 / LS.03	32 33 00	A: DRINKING FOUNTAIN B: DRINKING FOUNTAIN W/ PET BOWL
F1	2 / LS.02	32 31 19	8' HT. FENCE
G1	3 / LS.02	32 31 19	8' HT. FENCE GATE
LP			SALVAGED, STORED, REPAIRED, AND REINSTALLED LIGHT POLE, SEE MEP DWGS.
LR	3 / LS.03	32 33 00	LITTER RECEPTACLE
PT1	2 / LS.03	32 33 00	PICNIC TABLE TYPE 1 - ADD ALTERNATE #2
PT2	2 / LS.03	32 33 00	PICNIC TABLE TYPE 2 - ADD ALTERNATE #3
RR	3 / LS.03	32 33 00	RECYCLING RECEPTACLE
SB			SALVAGED, STORED, REPAIRED, AND REINSTALLED STORY BOARD
SH	6 / LS.03	32 33 00	SHOWER/FOOT WASH STATION
SS	4 / LS.04	32 33 00	SHADE STRUCTURE - ADD ALTERNATE #5
TD	7 / LS.01	32 33 00	TRENCH DRAIN GRATE
U	2 / LS.03	32 33 00	UMBRELLA - ADD ALTERNATE #4

PA = PLANTING AREA

LOD — LIMIT OF DISTURBANCE

1/2" WIDE EXPANSION JOINT, TYP. (20' O.C. UNLESS NOTED OTHERWISE)

NOTES:

1. SEED/SOD ALL DISTURBED AREAS NOT RECEIVING HARDSCAPE OR PLANTINGS UNLESS NOTED OTHERWISE
2. SITE LIGHTING TO BE COORDINATED ON MEP DRAWINGS.
3. ROAD, GRADING, CURB, CURB RAMPS, SIDEWALK LAYOUT & TOW - REFER TO CIVIL DRAWINGS.
4. ALL SURFACE AND SUB-SURFACE DRAINAGE, WATER CALCULATIONS ETC. - SEE MEP & CIVIL DRAWINGS.
5. ALL SITE WALLS OVER 3'-0" HT. TO BE REVIEWED AND DESIGNED BY STRUCTURAL ENGINEER
6. REFER TO CIVIL DWGS. FOR BIORETENTION SOILS & DETAILS.

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS)

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

DWG. FILENAME:

1 MATERIALS PLAN - COMFORT STATION

1" = 10'

0 5' 10' 20' N

SBAL

STATE OF MARYLAND — MARK E PELUSH JR — 1162 — LANDSCAPE ARCHITECT

DATE : OCTOBER 02, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.					R.O.W NO.	PNW	35NW40	PLAN SCALE: AS SHOWN	APPROVED BY: PROPERTY MANAGER
LICENSE NO. 1162 . EXPIRATION DATE 09/18/2026 .		CONTRACT COMPLETION BOX						PROFILE SCALE:	DATE:
LANDSCAPE ARCHITECT: MARK E PELUSH JR MAHAN RYKIEL ASSOCIATES	DGN BY: MEP	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
	DWN BY: MNQ	REVIEWED BY:							
AS-BUILT PER RECORD PRINT BY: DATE:	CHKD BY: MEP	DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

LANDSCAPE - MATERIALS PLAN - COMFORT STATION

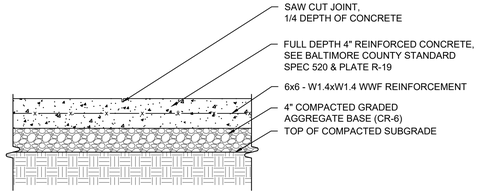
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

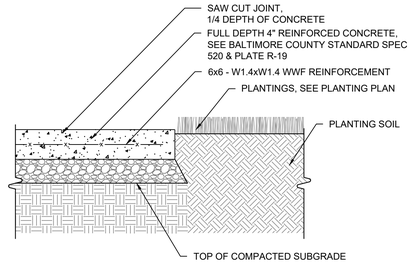
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
L1.02	25114 GX0
	JOB ORDER NUMBER
	PROJ–1000634
	SHEET 30 OF 150
	DRAWING NUMBER
	2025-2201
	FILE NO.: 8



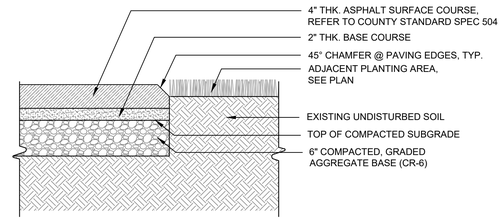
1 CONCRETE PAVING (P1 + P2)

1" = 1'-0"

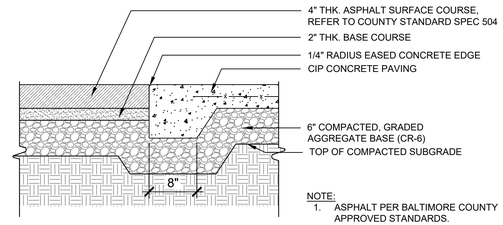


2 CONCRETE @ PLANTING AREA

1" = 1'-0"



A. @ PLANTING AREA

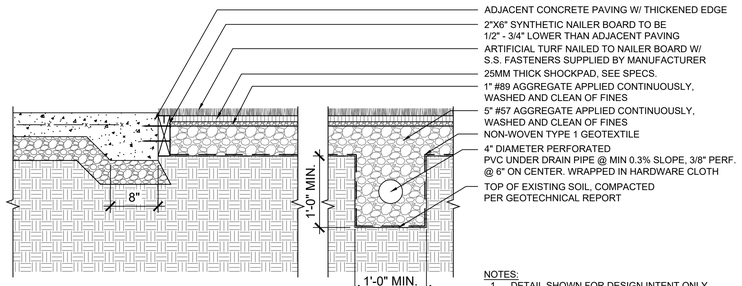


NOTE:
1. ASPHALT PER BALTIMORE COUNTY APPROVED STANDARDS.

B. @ CIP CONCRETE PAVING

3 ASPHALT PAVING (P3)

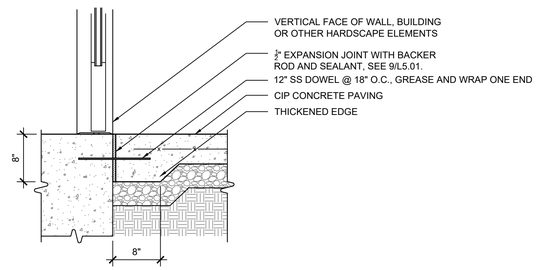
1" = 1'-0"



NOTES:
1. DETAIL SHOWN FOR DESIGN INTENT ONLY.
2. REFER TO CIVIL DWGS. FOR ALL DRAIN DETAILS.
3. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

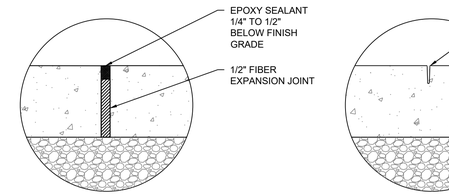
4 ARTIFICIAL TURF (AT)

1" = 1'-0"

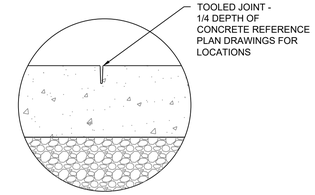


5 CONCRETE PAVING @ BUILDING

1" = 1'-0"



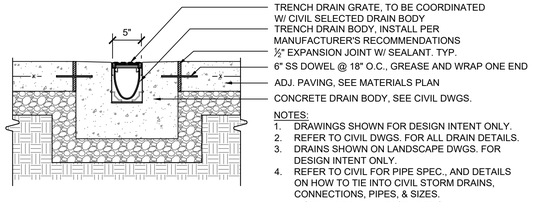
A: EXPANSION JOINT @ CONCRETE



B: CONTRACTION JOINT @ CONCRETE

6 CONCRETE JOINTS (TYPICAL)

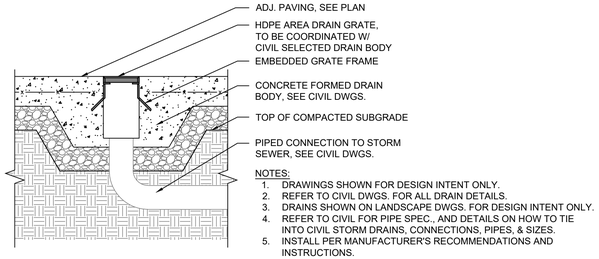
3/8"=1'-0"



NOTES:
1. DRAWINGS SHOWN FOR DESIGN INTENT ONLY.
2. REFER TO CIVIL DWGS. FOR ALL DRAIN DETAILS.
3. DRAINS SHOWN ON LANDSCAPE DWGS. FOR DESIGN INTENT ONLY.
4. REFER TO CIVIL FOR PIPE SPEC., AND DETAILS ON HOW TO TIE INTO CIVIL STORM DRAINS, CONNECTIONS, PIPES, & SIZES.
5. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

7 TRENCH DRAIN @ CONCRETE PAVING (TD)

1"=1'-0"



NOTES:
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3. DRAINS SHOWN ON LANDSCAPE DWGS. FOR DESIGN INTENT ONLY.
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5. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

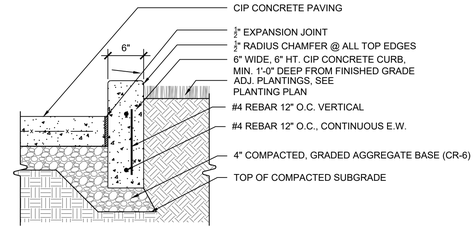
8 AREA DRAIN @ CONCRETE PAVING

1" = 1'-0"

9 NOT USED

10 CIP RAISED CONCRETE LANDSCAPE CURB (C)

1" = 1'-0"



DWG. FILENAME:

SEAL

STATE OF MARYLAND · MARK E. PELUSO, JR. · 1152 · LANDSCAPE ARCHITECT

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 1152, EXPIRATION DATE 09/18/2026.

LANDSCAPE ARCHITECT: MARK E. PELUSH, JR.
MAHAN RYKIEL ASSOCIATES INC
Baltimore Washington Metropolitan Area

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: MEP
DWN BY: MNQ
CHKD BY: MEP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

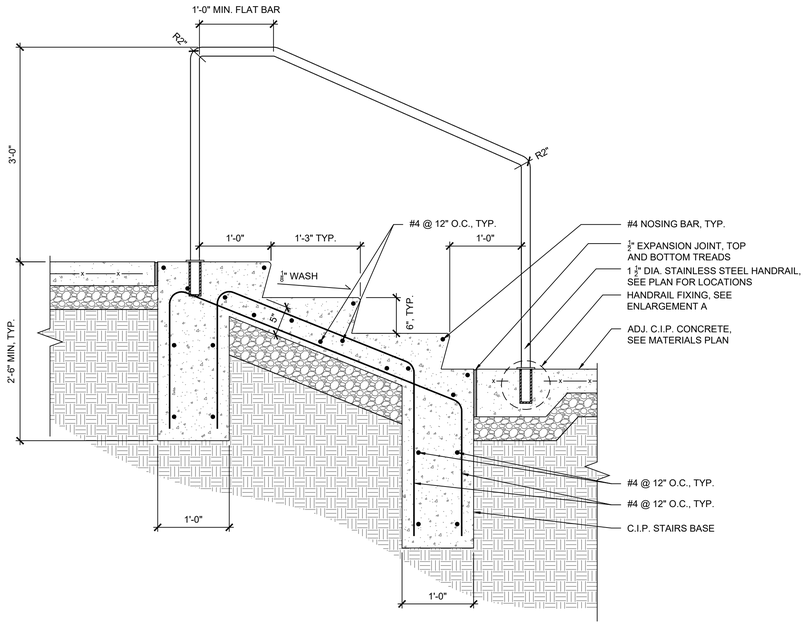
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

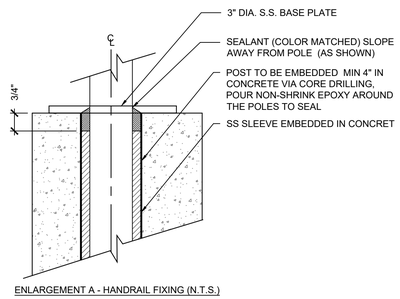
DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
LANDSCAPE - HARDSCAPE DETAILS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
L5.01	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 31 OF 150
	DRAWING NUMBER
	2025-2202
	FILE NO.: 8



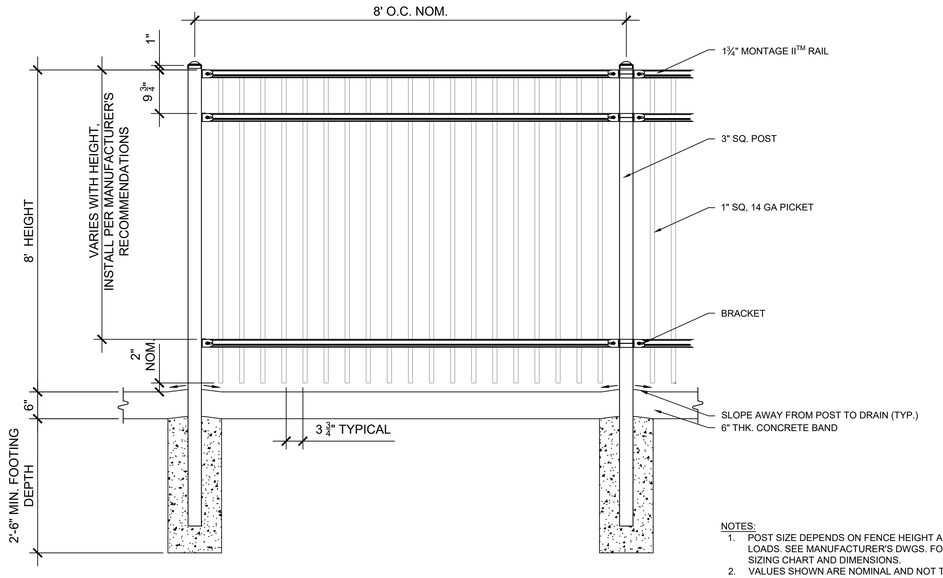


ENLARGEMENT A - HANDRAIL FIXING (N.T.S.)

NOTES:
1. FOOTING AND REINFORCEMENT REVIEWED BY SITE STRUCTURAL ENGINEER ON 06/30/2025.
2. REFER TO PLAN FOR TREAD AND RISER DIMENSIONS (RISER NOT TO BELOW 4" OR MORE THAN 7" PER CODE).
3. GRIND SMOOTH ALL WELDS.
4. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL HANDRAILS
5. ALL GUARDRAIL AND HANDRAILS - SPACING AND ANCHORING TO COMPLY WITH IBC & ALL OTHER LOCAL CODES & LOADING REQUIREMENTS.
6. STAIRS WITH MORE THAN TWO RISERS REQUIRE HANDRAILS.
7. MIDDLE POST IS REQUIRED ON STAIRS WITH SIX OR MORE RISERS.

1 CIP STAIRS WITH SS HANDRAILS (S)

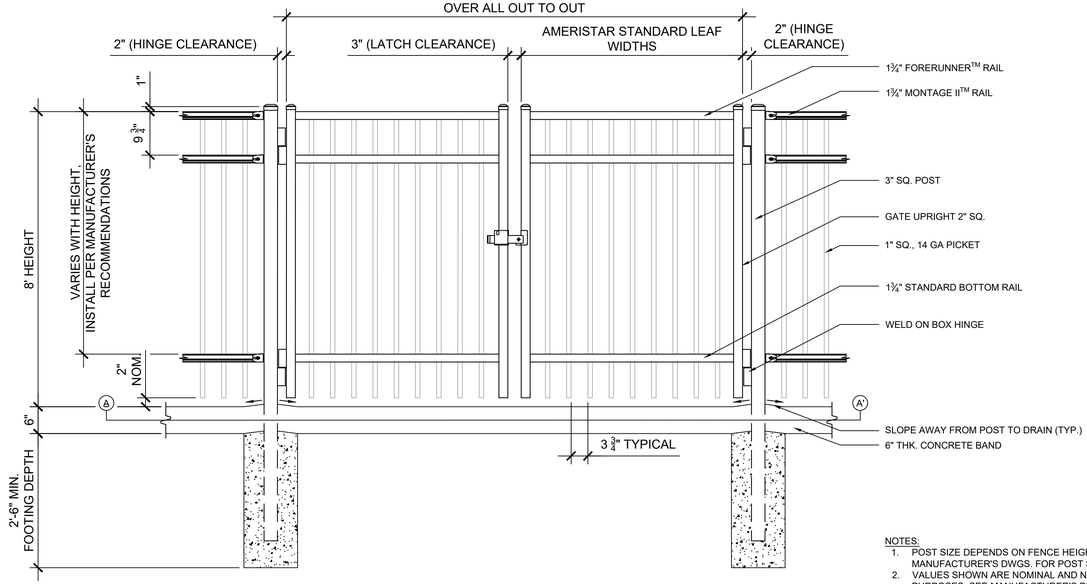
1" = 1'-0"



NOTES:
1. POST SIZE DEPENDS ON FENCE HEIGHT AND WIND LOADS. SEE MANUFACTURER'S DWGS. FOR POST SIZING CHART AND DIMENSIONS.
2. VALUES SHOWN ARE NOMINAL AND NOT TO BE USED FOR INSTALLATION PURPOSES, SEE MANUFACTURER'S DWGS. FOR INSTALLATION REQUIREMENTS.

2 FENCE (F1)

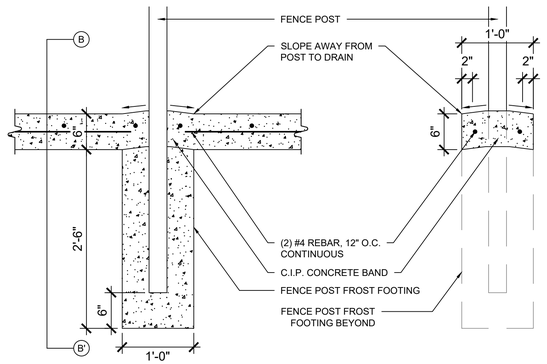
3/4" = 1'-0"



NOTES:
1. POST SIZE DEPENDS ON FENCE HEIGHT AND WIND LOADS. SEE MANUFACTURER'S DWGS. FOR POST SIZING CHART AND DIMENSIONS.
2. VALUES SHOWN ARE NOMINAL AND NOT TO BE USED FOR INSTALLATION PURPOSES, SEE MANUFACTURER'S DWGS. FOR INSTALLATION REQUIREMENTS.

3 GATE (G1)

3/4" = 1'-0"



A-A'. LONGITUDINAL SECTION

B-B'. CROSS SECTION

4 FENCE POST @ CONCRETE CURB

1" = 1'-0"

DWG. FILENAME:

SEAL

STATE OF MARYLAND — MARK E. PELUSI, JR. — 1152 — LANDSCAPE ARCHITECT

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 1152, EXPIRATION DATE 09/16/2026.						PNW	35NW40
					R.O.W NO.		
		CONTRACT COMPLETION BOX					
LANDSCAPE ARCHITECT: MARK E PELUSI, JR	DGN BY: MEP	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER
MAHAN RYKIEL	DWN BY: MNQ	REVIEWED BY:					
AS-BUILT PER RECORD PRINT							
BY:	CHKD BY: MEP	DATE REVIEWED:					
DATE:							

DRAWING SCALE		WATER	FIELD ENGINEER
PLAN SCALE:	AS SHOWN		
PROFILE SCALE:			

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER

DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

LANDSCAPE - HARDSCAPE DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

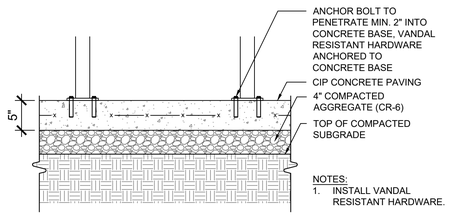
SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

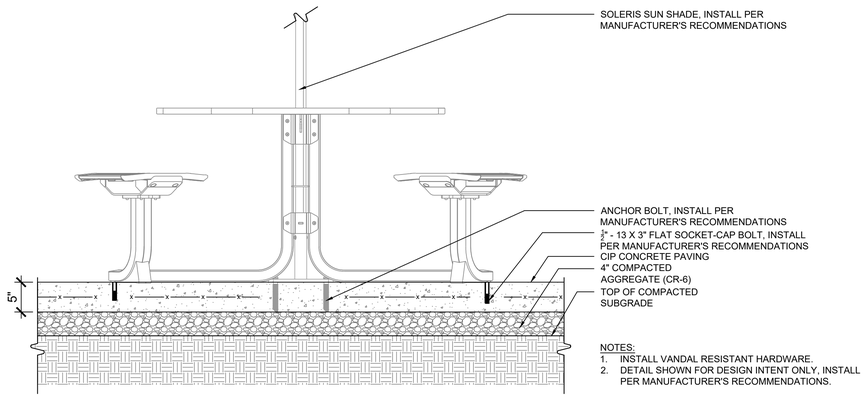
BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
L5.02	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 32 OF 150
	DRAWING NUMBER
	2025-2203
	FILE NO.: 8



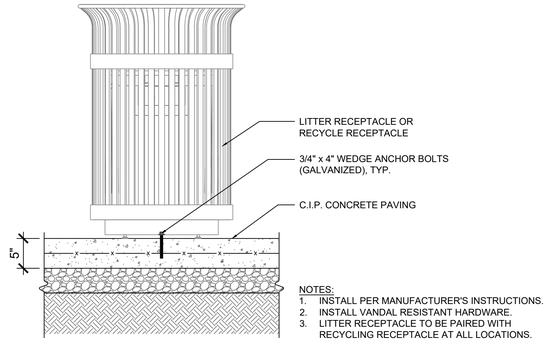
1 BENCH, BACKED (B)

1" = 1'-0"



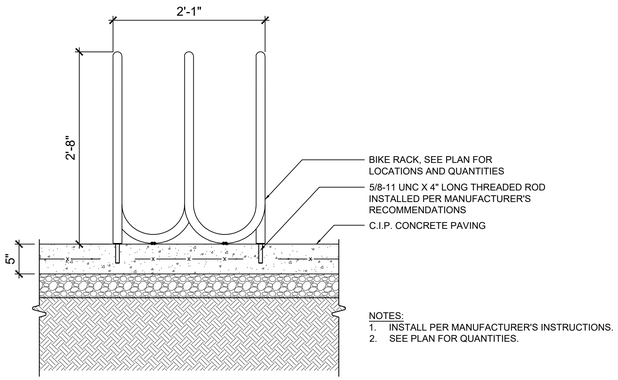
2 ADD ALTERNATES #2, #3, & #4: PICNIC TABLE TYPE 1 & 2 (PT1 + PT2); UMBRELLA (U)

1" = 1'-0"



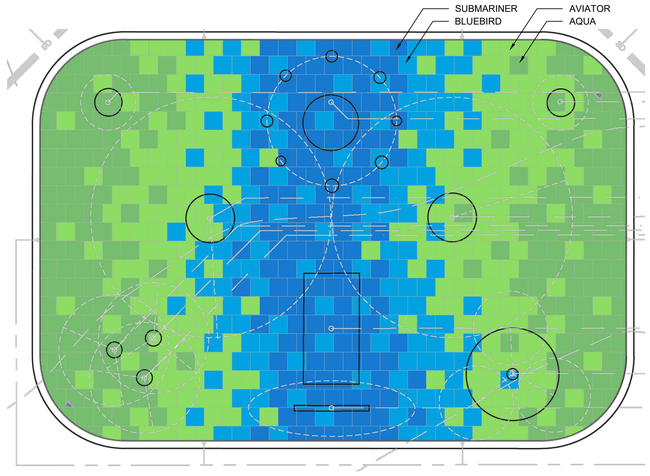
3 LITTER & RECYCLING RECEPTACLE (LR & RR)

1" = 1'-0"



4 BIKE RACK (BR)

1" = 1'-0"



PRODUCT INFORMATION

MODEL: LIFE FLOOR SQUARE PATTERN

QUANTITY: TBD

MANUFACTURER: LIFE FLOOR
2010 E. HENNEPIN AVE.
BUILDING 8, SUITE 206
MINNEAPOLIS, MN 55413
https://www.lifefloor.com/

COLOR: BLUEBIRD, AQUA, SUBMARINER, AVIATOR

5 ADD ALTERNATE #6: LIFE FLOOR - BASIS OF DESIGN PATTERN

N.T.S.

DWG. FILENAME:

SEAL

STATE OF MARYLAND — MARK E. PELUSI, JR. — 1152 — LANDSCAPE ARCHITECT

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 1152, EXPIRATION DATE 09/16/2026.

LANDSCAPE ARCHITECT: MARK E PELUSI, JR
MAHAN RYKIEL

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MEP
DWN BY: MNQ
CHKD BY: MEP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
			R.O.W NO.	PNW	35NW40
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

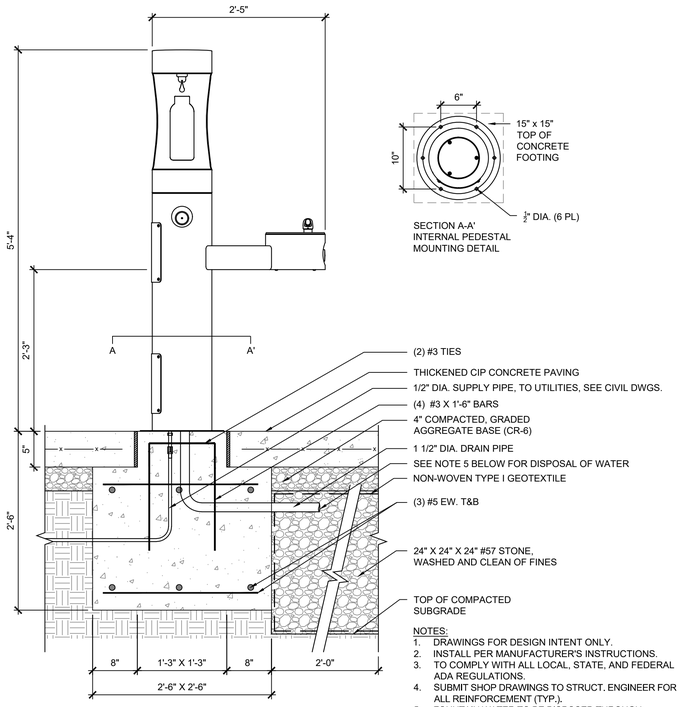
LANDSCAPE - HARDSCAPE DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
L5.03	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 33 OF 150	
DRAWING NUMBER	2025-2204
FILE NO.: 8	



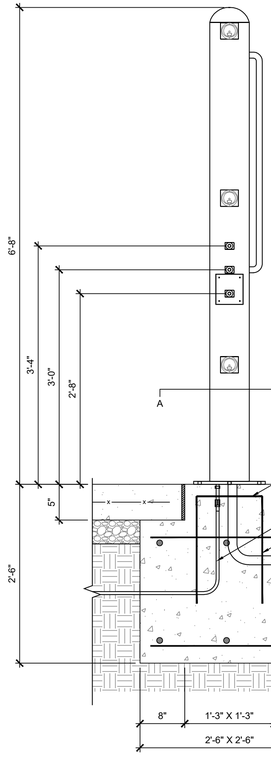
SECTION A-A'
INTERNAL PEDESTAL
MOUNTING DETAIL

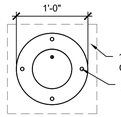
(2) #3 TIES
THICKENED CIP CONCRETE PAVING
1/2" DIA. SUPPLY PIPE, TO UTILITIES, SEE CIVIL DWGS.
(4) #3 X 1'-6" BARS
4" COMPACTED, GRADED
AGGREGATE BASE (CR-6)
1 1/2" DIA. DRAIN PIPE
SEE NOTE 5 BELOW FOR DISPOSAL OF WATER
NON-WOVEN TYPE I GEOTEXTILE
(3) #5 EW. T&B
24" X 24" X 24" #57 STONE,
WASHED AND CLEAN OF FINES
TOP OF COMPACTED
SUBGRADE

NOTES:
1. DRAWINGS FOR DESIGN INTENT ONLY.
2. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
3. TO COMPLY WITH ALL LOCAL, STATE, AND FEDERAL ADA REGULATIONS.
4. SUBMIT SHOP DRAWINGS TO STRUCT. ENGINEER FOR ALL REINFORCEMENT (TYP.).
5. FOUNTAIN WATER TO BE DISPOSED THROUGH INFILTRATION USING 'FRENCH DRAIN'-STYLE GRAVEL DIAPHRAGM AROUND PERFORATED DRAIN PIPE. GEOTECHNICAL ENGINEER TO PERFORM INFILTRATION TEST AND REPORT FINDINGS TO ENGINEER.

1 DRINKING FOUNTAIN (DFA & DFB)

1" = 1'-0"





SECTION A-A'
INTERNAL PEDESTAL
MOUNTING DETAIL

(2) #3 TIES
THICKENED CIP CONCRETE PAVING
1/2" DIA. SUPPLY PIPE, TO UTILITIES, SEE CIVIL DWGS.
(4) #3 X 1'-6" BARS
4" COMPACTED, GRADED
AGGREGATE BASE (CR-6)
1 1/2" DIA. DRAIN PIPE
SEE NOTE 5 BELOW FOR DISPOSAL OF WATER
NON-WOVEN TYPE I GEOTEXTILE
(3) #5 EW. T&B
24" X 24" X 24" #57 STONE,
WASHED AND CLEAN OF FINES
TOP OF COMPACTED
SUBGRADE

NOTES:
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4. SUBMIT SHOP DRAWINGS TO STRUCT. ENGINEER FOR ALL REINFORCEMENT (TYP.).
5. FOUNTAIN WATER TO BE DISPOSED THROUGH INFILTRATION USING 'FRENCH DRAIN'-STYLE GRAVEL DIAPHRAGM AROUND PERFORATED DRAIN PIPE. GEOTECHNICAL ENGINEER TO PERFORM INFILTRATION TEST AND REPORT FINDINGS TO ENGINEER.

2 SHOWER/FOOT WASH (SH)

1" = 1'-0"

3 NOT USED

PRODUCT INFORMATION

MODEL: PEGASUS SHADE STRUCTURE (16' x 12')
(OR APPROVED EQUAL)

QUANTITY: PER PLAN

MANUFACTURER: USA SHADE
2580 ESTERS BLVD., SUITE 100
DFW AIRPORT, TX 75261
https://www.usa-shade.com/

COLOR & FINISH: SHADE: ROYAL BLUE, POST
POWDER COAT TELE GREY

NOTE:
1. CONTRACTOR DESIGNATED STRUCTURAL ENGINEER TO DESIGN FOOTING.

4 ADD ALTERNATE #5: SHADE STRUCTURE (SS)

N.T.S

DWG. FILENAME:

SEAL

DATE : OCTOBER 02, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.						PNW	35NW40	PLAN SCALE:	AS SHOWN	APPROVED BY: PROPERTY MANAGER
LICENSE NO. 1152 , EXPIRATION DATE 09/18/2026					R.O.W NO.			PROFILE SCALE:		DATE:
LANDSCAPE ARCHITECT: MARK E. PELUSI, JR. MAHAN RYKIEL ASSOCIATES, INC.	DGN BY: MEP	CONTRACT COMPLETION BOX								
AS-BUILT PER RECORD PRINT	DWN BY: MNQ	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
BY: DATE:	CHKD BY: MEP	REVIEWED BY:								
		DATE REVIEWED:								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

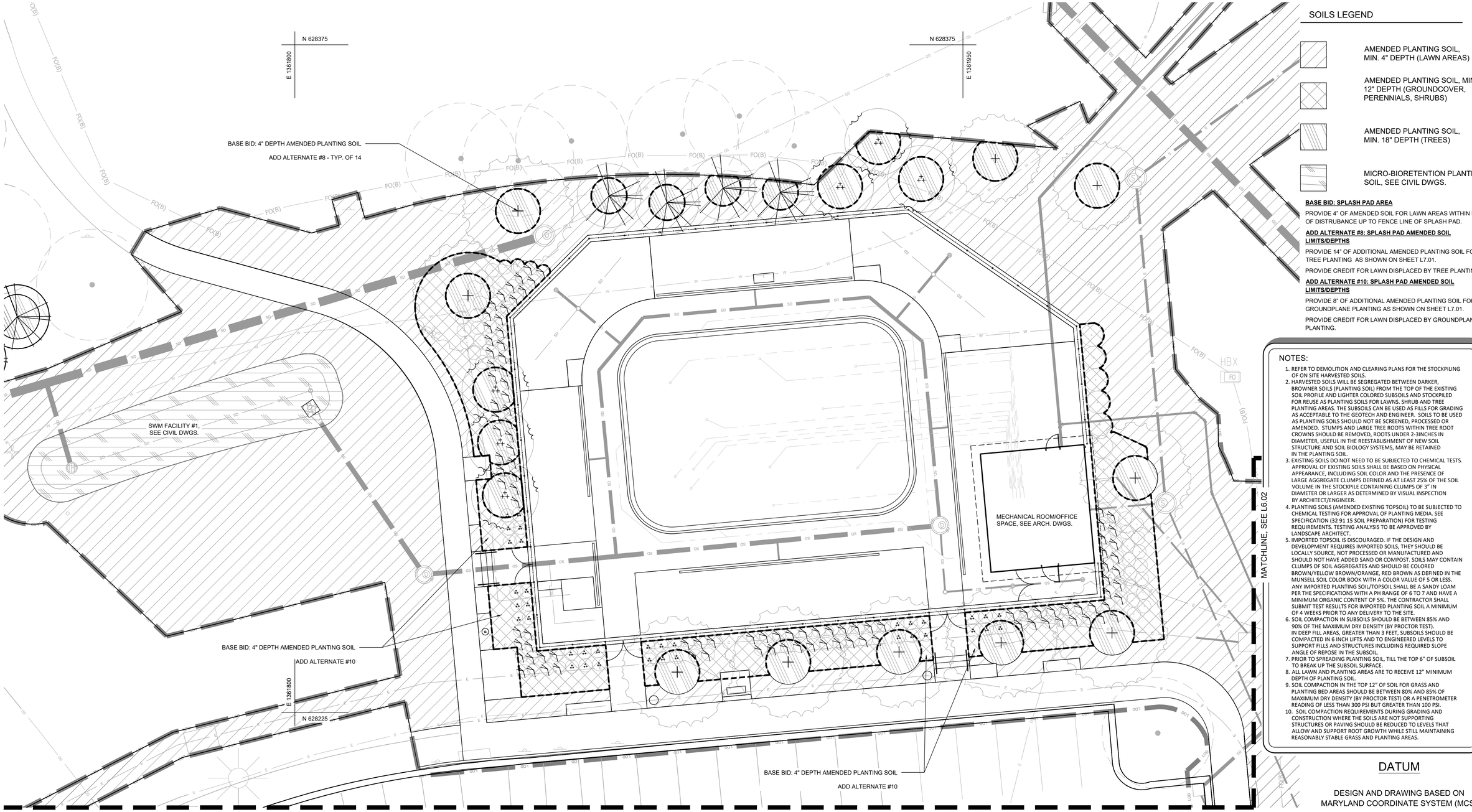
NORTHWEST REGIONAL PARK

LANDSCAPE - HARDSCAPE DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
L5.04	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 34 OF 150
	DRAWING NUMBER
	2025-2205
	FILE NO.: 8



SOILS LEGEND

- AMENDED PLANTING SOIL, MIN. 4" DEPTH (LAWN AREAS)
- AMENDED PLANTING SOIL, MIN. 12" DEPTH (GROUNDCOVER, PERENNIALS, SHRUBS)
- AMENDED PLANTING SOIL, MIN. 18" DEPTH (TREES)
- MICRO-BIORETENTION PLANTING SOIL, SEE CIVIL DWGS.

BASE BID: SPLASH PAD AREA

PROVIDE 4" OF AMENDED SOIL FOR LAWN AREAS WITHIN LIMIT OF DISTRUBANCE UP TO FENCE LINE OF SPLASH PAD.

ADD ALTERNATE #8: SPLASH PAD AMENDED SOIL LIMITS/DEPTHS

PROVIDE 14" OF ADDITIONAL AMENDED PLANTING SOIL FOR TREE PLANTING AS SHOWN ON SHEET L7.01.

PROVIDE CREDIT FOR LAWN DISPLACED BY TREE PLANTING.

ADD ALTERNATE #10: SPLASH PAD AMENDED SOIL LIMITS/DEPTHS

PROVIDE 8" OF ADDITIONAL AMENDED PLANTING SOIL FOR GROUNDPLANE PLANTING AS SHOWN ON SHEET L7.01.

PROVIDE CREDIT FOR LAWN DISPLACED BY GROUNDPLANE PLANTING.

NOTES:

1. REFER TO DEMOLITION AND CLEARING PLANS FOR THE STOCKPILING OF ON SITE HARVESTED SOILS.
2. HARVESTED SOILS WILL BE SEGREGATED BETWEEN DARKER, BROWNER SOILS (PLANTING SOIL) FROM THE TOP OF THE EXISTING SOIL PROFILE AND LIGHTER COLORED SUBSOILS AND STOCKPILED FOR REUSE AS PLANTING SOILS FOR LAWNS. SHRUB AND TREE PLANTING AREAS. THE SUBSOILS CAN BE USED AS FILLS FOR GRADING AS ACCEPTABLE TO THE GEOTECH AND ENGINEER. SOILS TO BE USED AS PLANTING SOILS SHOULD NOT BE SCREENED, PROCESSED OR AMENDED. STUMPS AND LARGE TREE ROOTS WITHIN TREE ROOT CROWNS SHOULD BE REMOVED, ROOTS UNDER 2-3INCHES IN DIAMETER, USEFUL IN THE REESTABLISHMENT OF NEW SOIL STRUCTURE AND SOIL BIOLOGY SYSTEMS, MAY BE RETAINED IN THE PLANTING SOIL.
3. EXISTING SOILS DO NOT NEED TO BE SUBJECTED TO CHEMICAL TESTS. APPROVAL OF EXISTING SOILS SHALL BE BASED ON PHYSICAL APPEARANCE, INCLUDING SOIL COLOR AND THE PRESENCE OF LARGE AGGREGATE CLUMPS DEFINED AS AT LEAST 25% OF THE SOIL VOLUME IN THE STOCKPILE CONTAINING CLUMPS OF 3" IN DIAMETER OR LARGER AS DETERMINED BY VISUAL INSPECTION BY ARCHITECT/ENGINEER.
4. PLANTING SOILS (AMENDED EXISTING TOPSOIL) TO BE SUBJECTED TO CHEMICAL TESTING FOR APPROVAL OF PLANTING MEDIA. SEE SPECIFICATION (32 91 15 SOIL PREPARATION) FOR TESTING REQUIREMENTS. TESTING ANALYSIS TO BE APPROVED BY LANDSCAPE ARCHITECT.
5. IMPORTED TOPSOIL IS DISCOURAGED. IF THE DESIGN AND DEVELOPMENT REQUIRES IMPORTED SOILS, THEY SHOULD BE LOCALLY SOURCE, NOT PROCESSED OR MANUFACTURED AND SHOULD NOT HAVE ADDED SAND OR COMPOST. SOILS MAY CONTAIN CLUMPS OF SOIL AGGREGATES AND SHOULD BE COLORED BROWN/YELLOW BROWN/ORANGE, RED BROWN AS DEFINED IN THE MUNSELL SOIL COLOR BOOK WITH A COLOR VALUE OF 5 OR LESS. ANY IMPORTED PLANTING SOIL/TOPSOIL SHALL BE A SANDY LOAM PER THE SPECIFICATIONS WITH A PH RANGE OF 6 TO 7 AND HAVE A MINIMUM ORGANIC CONTENT OF 5%. THE CONTRACTOR SHALL SUBMIT TEST RESULTS FOR IMPORTED PLANTING SOIL A MINIMUM OF 4 WEEKS PRIOR TO ANY DELIVERY TO THE SITE.
6. SOIL COMPACTION IN SUBSOILS SHOULD BE BETWEEN 85% AND 90% OF THE MAXIMUM DRY DENSITY (BY PROCTOR TEST). IN DEEP FILL AREAS, GREATER THAN 3 FEET, SUBSOILS SHOULD BE COMPACTED IN 6 INCH LIFTS AND TO ENGINEERED LEVELS TO SUPPORT FILLS AND STRUCTURES INCLUDING REQUIRED SLOPE ANGLE OF REPOSE IN THE SUBSOIL.
7. PRIOR TO SPREADING PLANTING SOIL, TILL THE TOP 6" OF SUBSOIL TO BREAK UP THE SUBSOIL SURFACE.
8. ALL LAWN AND PLANTING AREAS ARE TO RECEIVE 12" MINIMUM DEPTH OF PLANTING SOIL.
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10. SOIL COMPACTION REQUIREMENTS DURING GRADING AND CONSTRUCTION WHERE THE SOILS ARE NOT SUPPORTING STRUCTURES OR PAVING SHOULD BE REDUCED TO LEVELS THAT ALLOW AND SUPPORT ROOT GROWTH WHILE STILL MAINTAINING REASONABLY STABLE GRASS AND PLANTING AREAS.

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS)

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

DWG. FILENAME:

1 SOILS PLAN - SPLASH PAD

1" = 10'

0 5' 10' 20'

N

SBAL

STATE OF MARYLAND · MARK E. PELUSH JR. · 1152 · LANDSCAPE ARCHITECT

DATE : OCTOBER 02, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 1152, EXPIRATION DATE 09/18/2026.

LANDSCAPE ARCHITECT: MARK E PELUSH JR
MAHAN RYKIEL ASSOCIATES, INC.
Washington Metro 8000 Grovemont Circle Gaithersburg, Maryland 20877

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MEP
DWN BY: MNQ
CHKD BY: MEP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY:
PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

LANDSCAPE - SOILS PLAN - SPLASH PAD

SPLASH PAD AND SUPPORTING FACILITIES

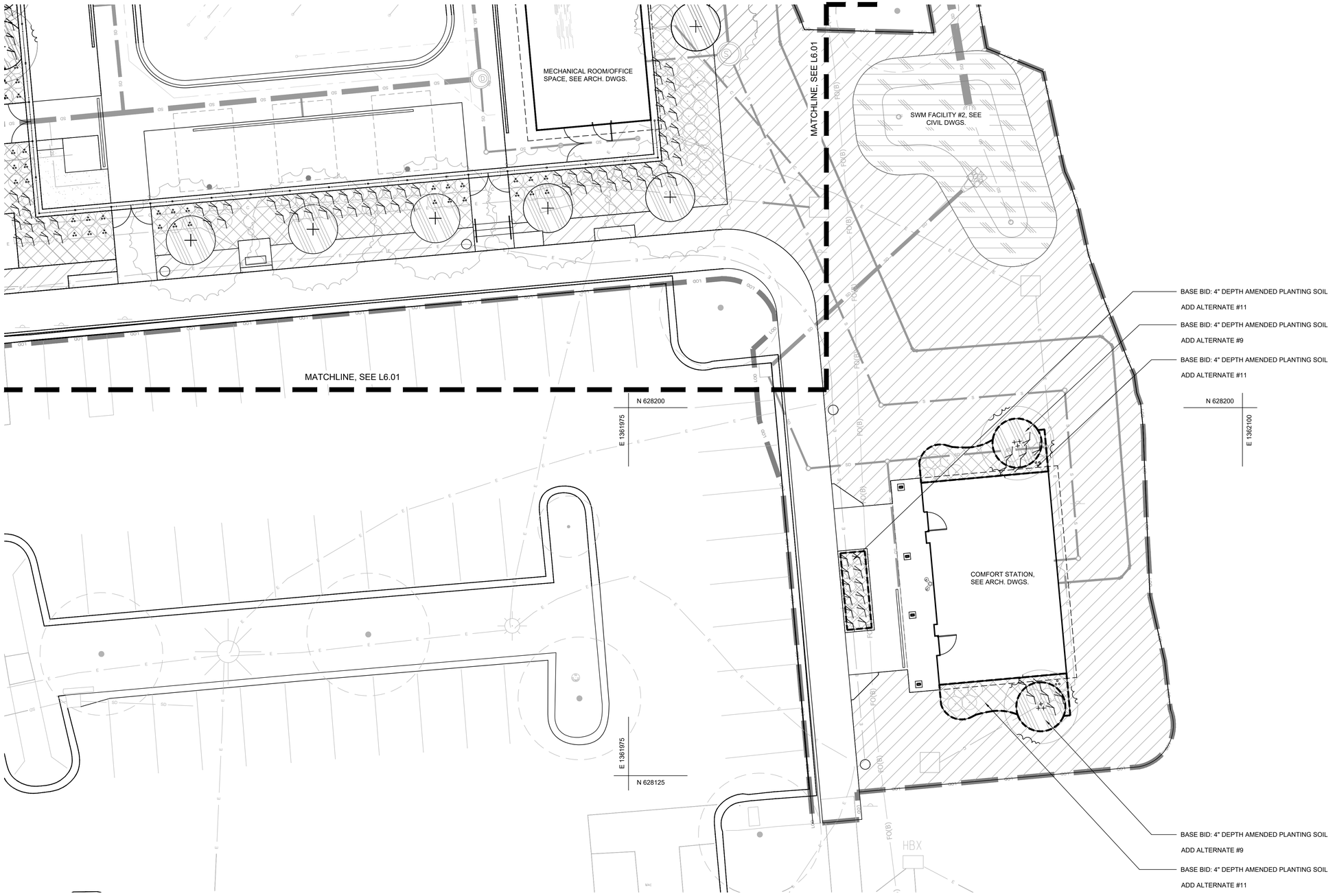
SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
L6.01	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 35 OF 150	
DRAWING NUMBER	2025-2206
FILE NO.: 8	



SOILS LEGEND

- AMENDED PLANTING SOIL, MIN. 4" DEPTH (LAWN AREAS)
- AMENDED PLANTING SOIL, MIN. 12" DEPTH (GROUNDCOVER, PERENNIALS, SHRUBS)
- AMENDED PLANTING SOIL, MIN. 18" DEPTH (TREES)
- MICRO-BIORETENTION PLANTING SOIL, SEE CIVIL DWGS.

BASE BID: COMFORT STATION AREA

PROVIDE 4" OF AMENDED SOIL FOR LAWN AREAS WITHIN LIMIT OF DISTURBANCE UP TO COMFORT STATION BUILIDNG.

ADD ALTERNATE #9: COMFORT STATION AMENDED SOIL LIMITS/DEPTHS

PROVIDE 14" OF ADDITIONAL AMENDED PLANTING SOIL FOR TREE PLANTING AS SHOWN ON SHEET L7.01.

PROVIDE CREDIT FOR LAWN DISPLACED BY TREE PLANTING.

ADD ALTERNATE #11: COMFORT STATION AMENDED SOIL LIMITS/DEPTHS

PROVIDE 8" OF ADDITIONAL AMENDED PLANTING SOIL FOR GROUNDPLANE PLANTING AS SHOWN ON SHEET L7.01.

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NOTES:

1. REFER TO DEMOLITION AND CLEARING PLANS FOR THE STOCKPILING OF ON SITE HARVESTED SOILS.
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DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS)

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

DWG. FILENAME:

1 SOILS PLAN - COMFORT STATION
1" = 10'

0 5' 10' 20' N

SEAL

DATE : OCTOBER 02, 2025

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 1152, EXPIRATION DATE 09/18/2026
LANDSCAPE ARCHITECT: MARK F. PELUSH, JR. MAHAN RYKIEL ASSOCIATES, INC.
AS-BUILT PER RECORD PRINT
BY: DATE:

DESIGNED BY: MEP
DWN BY: MNQ
CHKD BY: MEP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

KEY SHEET	POSITION SHT
PNW	35NW40

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

LANDSCAPE - SOILS PLAN - COMFORT STATION

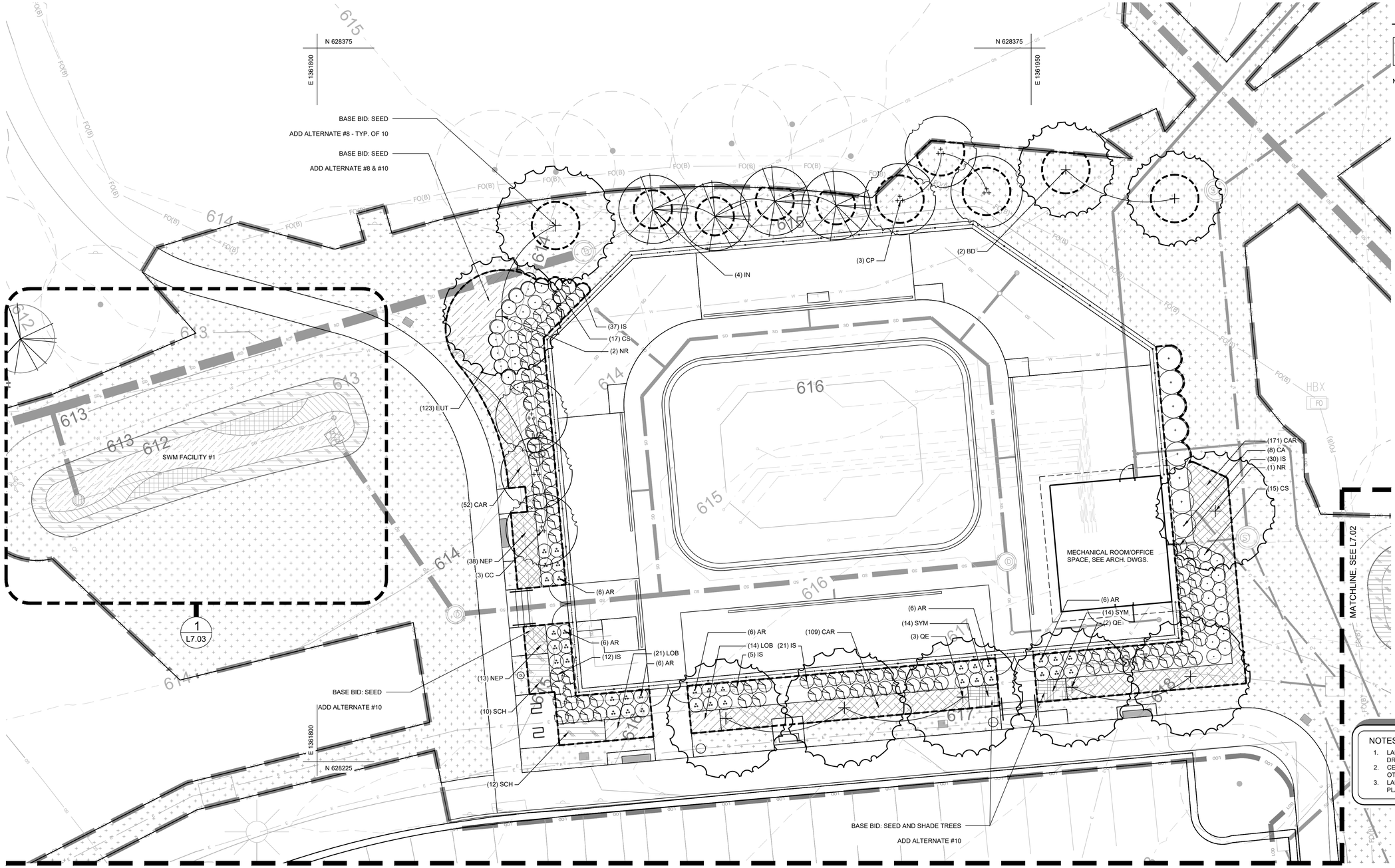
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
L6.02	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 36 OF 150
	DRAWING NUMBER
	2025-2207
	FILE NO.: 8



PLANTING LEGEND

SEED

NOTE: SEE L7.10 FOR PLANT SCHEDULE

BASE BID: SPLASH PAD PLANTING AREA

PROVIDE SEED FOR LAWN AREAS WITHIN LIMIT OF DISTRUBANCE UP TO FENCE LINE OF SPLASH PAD. PROVIDE TREES PER PLANTING SCHEDULE ON L7.10 AND PER PLANTING DETAILS ON L8.01.

ADD ALTERNATE #8: SPLASH PAD TREE PLANTING

PROVIDE SHADE, EVERGREEN AND ORNAMENTAL TREES PER PLANTING SCHEDULE ON L7.10.

PROVIDE 18" OF AMENDED PLANTING SOIL PER L6.01 AND MULCH FOR TREE PLANTING AREAS PER PLANTING DETAILS ON SHEET L8.01.

PROVIDE CREDIT FOR LAWN DISPLACED BY TREE PLANTING.

ADD ALTERNATE #10: SPLASH PAD GROUNDPLANE PLANTING

PROVIDE SHRUB, PERENNIAL, GROUNDCOVER, AND ORNAMENTAL GRASS PLANTINGS PER PLANTING SCHEDULE ON L7.10.

PROVIDE 12" OF AMENDED PLANTING SOIL PER L6.01 AND MULCH PER PLANTING DETAILS ON L8.01.

PROVIDE CREDIT FOR LAWN DISPLACED BY GROUNDPLANE PLANTING.

NOTES:

1. LANDSCAPE SITE LIGHTING TO BE COORDINATED ON MEP DRAWINGS.
2. CENTER TREES IN PLANTER BEDS UNLESS NOTED OTHERWISE.
3. LANDSCAPE ARCHITECT TO APPROVE ALL PROPOSED PLANTING LAYOUT/LOCATIONS PRIOR TO PLANTING.

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS)

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

DWG. FILENAME:

1 PLANTING PLAN - SPLASH PAD

1" = 10'

0 5' 10' 20'

N

SBAL

STATE OF MARYLAND — MARK E. PELUSI, JR. — 1152 — LANDSCAPE ARCHITECT

DATE : OCTOBER 02, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 1152, EXPIRATION DATE 09/18/2026.					R.O.W NO.	PNW	35NW40
LANDSCAPE ARCHITECT: MARK E PELUSI, JR MAHAN RYKIEL ASSOCIATES, INC.	DGN BY: MEP	CONTRACT COMPLETION BOX					
AS-BUILT PER RECORD PRINT	DWN BY: MNQ	REVIEWED BY:					
BY: DATE:	CHKD BY: MEP	DATE REVIEWED:					

DRAWING SCALE		BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
PLAN SCALE:	AS SHOWN								
PROFILE SCALE:									

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER

DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

LANDSCAPE - PLANTING PLAN - SPLASH PAD

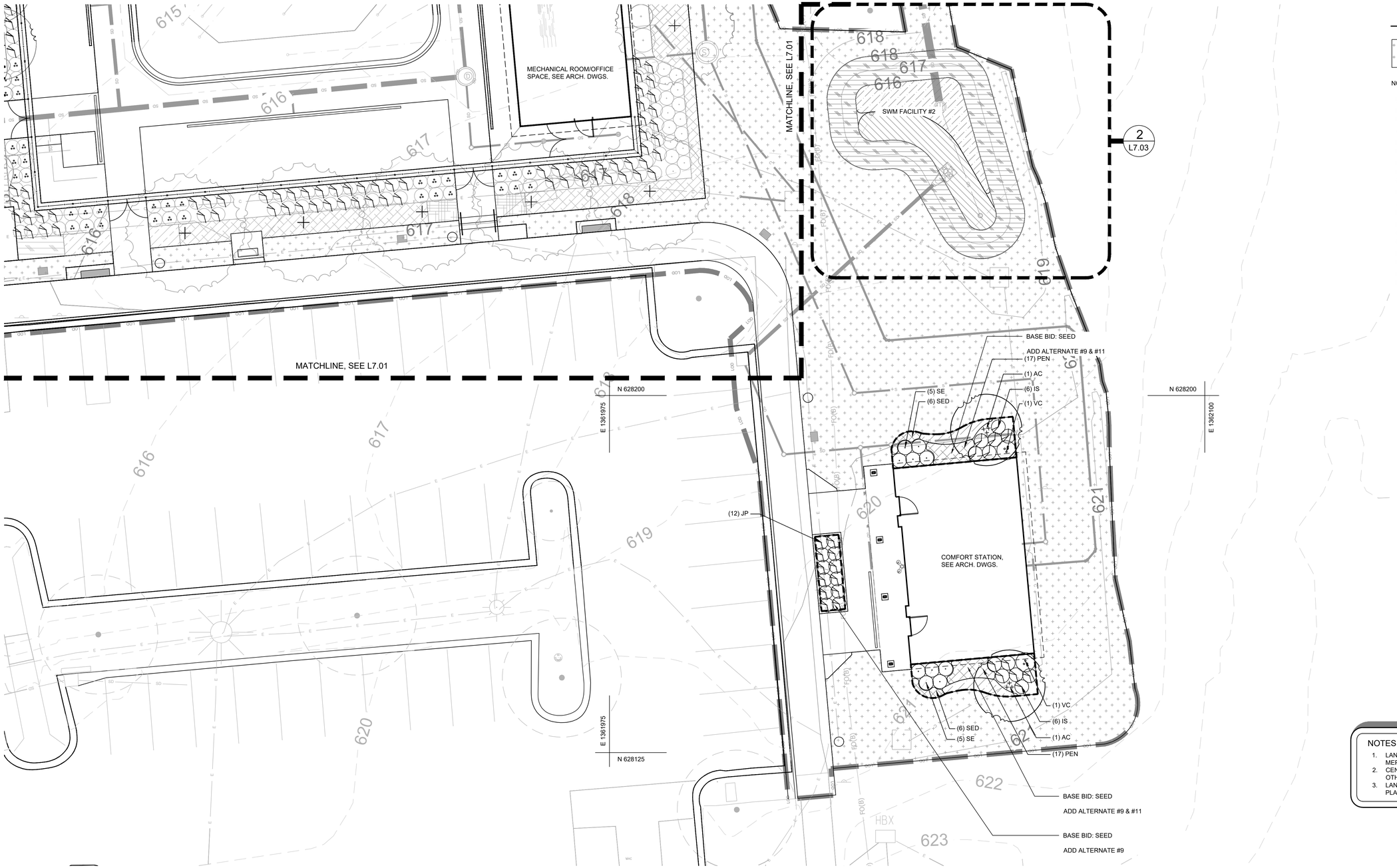
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
L7.01	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 37 OF 150	
DRAWING NUMBER	2025-2208
FILE NO.: 8	



PLANTING LEGEND

SEED

NOTE: SEE L7.10 FOR PLANT SCHEDULE

BASE BID: COMFORT STATION

PROVIDE SEED FOR LAWN AREAS WITHIN LIMIT OF DISTURBANCE UP TO COMFORT STATION BUILIDING.

ADD ALTERNATE #9: COMFORT STATION TREE PLANTING

PROVIDE SHADE, EVERGREEN AND ORNAMENTAL TREES PER PLANTING SCHEDULE ON L7.10.

PROVIDE 18" OF AMENDED PLANTING SOIL PER L6.02 AND MULCH FOR TREE PLANTING AREAS PER PLANTING DETAILS ON SHEET L8.01.

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ADD ALTERNATE #11: COMFORT STATION GROUNDPLANE PLANTING

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NOTES:

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DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS)

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

DWG. FILENAME:

1 PLANTING PLAN - COMFORT STATION

1" = 10'

0 5' 10' 20' N

SBAL

STATE OF MARYLAND — MARK E. PELUSH, JR. — 1152 — LANDSCAPE ARCHITECT

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LICENSE NO. 1152, EXPIRATION DATE 09/18/2026.		CONTRACT COMPLETION BOX					
LANDSCAPE ARCHITECT: MARK E PELUSH JR MAHAN RYKIEL ASSOCIATES, INC. 1040 Park Avenue, Suite 200 Baltimore, Maryland 21201 410-685-3214 www.mahanrykiel.com	DGN BY: MEP	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER
	DWN BY: MNQ	REVIEWED BY:					
AS-BUILT PER RECORD PRINT BY: DATE:	CHKD BY: MEP	DATE REVIEWED:					

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

LANDSCAPE - PLANTING PLAN - COMFORT STATION

SPLASH PAD AND SUPPORTING FACILITIES

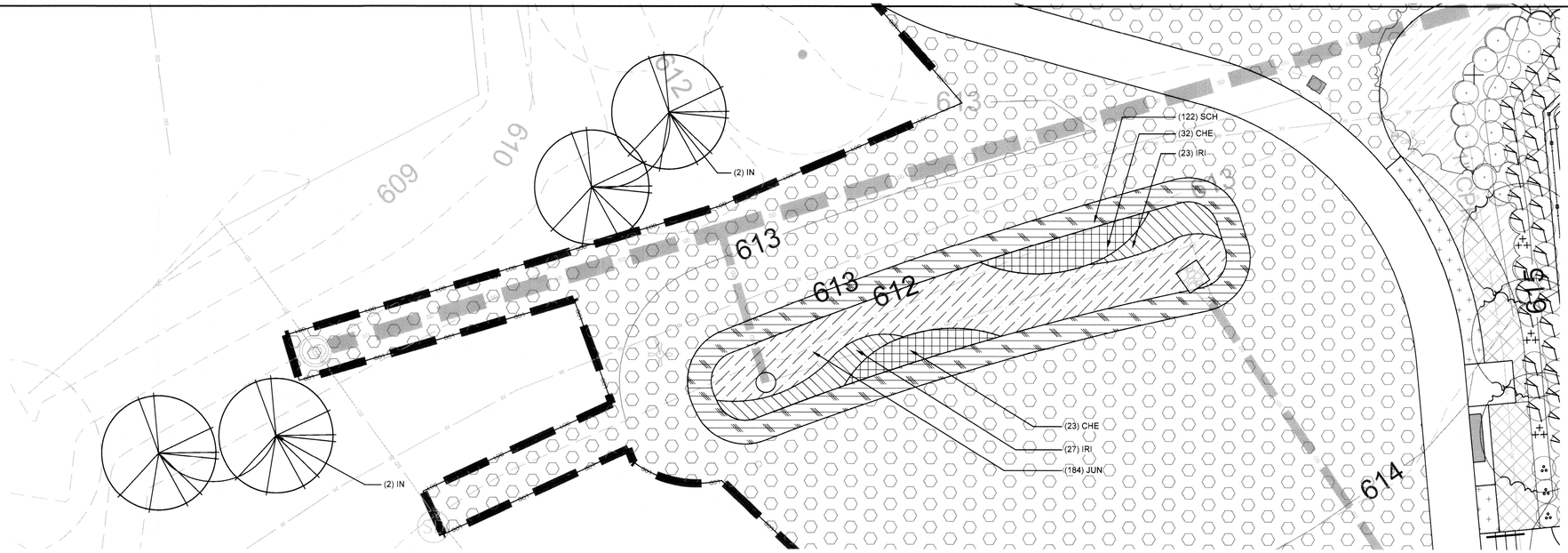
SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

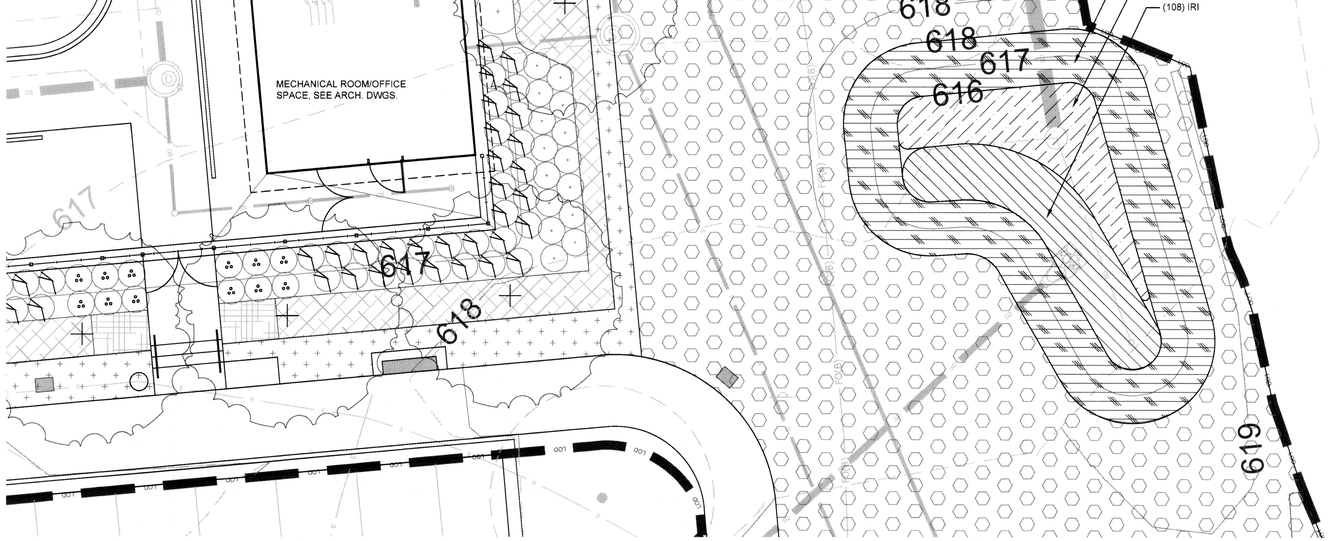
SHEET DESIGNATION	CONTRACT NUMBER
L7.02	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 38 OF 150	
DRAWING NUMBER	2025-2209
FILE NO.: 8	



1 PLANTING PLAN - SWM FACILITY #1

1/8" = 1'-0"

0 5' 8' 16' N



2 PLANTING PLAN - SWM FACILITY #2

1/8" = 1'-0"

0 4' 8' 16' N

PLANTING LEGEND

SEED
25,995 SQ. FT.

LAWN/SOD
1,104 SQ. FT.

PLANT SCHEDULE - SWM FACILITY #1

CODE	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	SPACING	REMARKS
EVERGREEN TREES						
IN	4	Ilex x 'Nellie R. Stevens' Nellie R. Stevens Holly	6` Ht.	B&B		Full To Ground, Matched
PERENNIALS, GROUNDCOVER, AND ORNAMENTAL GRASSES						
CHE	55	Chelone glabra White Turtlehead	#1	Cont.	18" o.c.	
IRI	50	Iris versicolor Blue Flag	#1	Cont.	18" o.c.	
JUN	184	Juncus effusus Soft Rush	#1	Cont.	18" o.c.	
SCH	122	Schizachyrium scoparium 'The Blues' The Blues Little Bluestem	#1	Cont.	24" o.c.	

PLANT SCHEDULE SWM FACILITY #2

CODE	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	SPACING	REMARKS
PERENNIALS, GROUNDCOVER, AND ORNAMENTAL GRASSES						
IRI	108	Iris versicolor Blue Flag	#1	Cont.	18" o.c.	
JUN	98	Juncus effusus Soft Rush	#1	Cont.	18" o.c.	
SCH	186	Schizachyrium scoparium 'The Blues' The Blues Little Bluestem	#1	Cont.	24" o.c.	

NOTES:
1. LANDSCAPE SITE LIGHTING TO BE COORDINATED ON MEP DRAWINGS.
2. CENTER TREES IN PLANTER BEDS UNLESS NOTED OTHERWISE.
3. LANDSCAPE ARCHITECT TO APPROVE ALL PROPOSED PLANTING LAYOUT/LOCATIONS PRIOR TO PLANTING.

DATUM

DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM (MCS)

HORIZONTAL NAD 83 (2011)
VERTICAL NAVD 88

APPROVED: _____ Chief
STORMWATER ENGINEERING
BALTO. CO. DEPT. OF
ENVIRONMENTAL PROTECTION
AND SUSTAINABILITY

SEAL

STATE OF MARYLAND — MARK E. PYKIEL — 1152 — LANDSCAPE ARCHITECT

DATE : JUNE 10, 2026

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.						PNW	35NW40	PLAN SCALE:	AS SHOWN	APPROVED BY: PROPERTY MANAGER
LICENSE NO. _____, EXPIRATION DATE _____.					R.O.W NO.			PROFILE SCALE:		DATE:
LANDSCAPE ARCHITECT: MAHAN RYKIEL	DGN BY: MEP	CONTRACT COMPLETION BOX								
AS-BUILT PER RECORD PRINT	DWN BY: MNQ	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
BY: DATE:	CHKD BY: MEP	REVIEWED BY:								
		DATE REVIEWED:								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

PLANTING PLAN - SWM

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SWM 06 OF 06	
SHEET DESIGNATION	CONTRACT NUMBER
L7.03	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
SHEET 39 OF 150	
DRAWING NUMBER	
2025-2210	
FILE NO.:	

DWG. FILENAME:

BASE BID - SPLASH PAD PLANT SCHEDULE

CODE	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREES					
NR	1	Nyssa sylvatica 'WFH1' Tupelo Tower™ Sour Gum	3" Cal.	B&B	Central Leader, Full Canopy, Do Not Fall Dig
QE	5	Quercus phellos 'QPSTA' Hightower® Willow Oak	3" Cal.	B&B	Central Leader, Full Canopy, Do Not Fall Dig

ADD ALTERNATE #8 - SPLASH PAD PLANT SCHEDULE

CODE	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	REMARKS
EVERGREEN TREES					
IN	4	Ilex x 'Nellie R. Stevens' Nellie R. Stevens Holly	6` Ht.	B&B	Full To Ground, Matched
ORNAMENTAL TREES					
CC	3	Cercis canadensis 'Alba' White Eastern Redbud	8` Ht.	B&B	Milti-Stem, 3-5 Canes, Matched
CP	3	Cornus florida 'Cherokee Princess' Cherokee Princess Dogwood	2" Cal.	B&B	Single Stem, Full Canopy, Matched
SHADE TREES					
BD	2	Betula nigra 'BNMTF' Dura Heat® River Birch	8-10` Ht.	B&B	Multi-Stem, 3-5 Canes, Matched
NR	2	Nyssa sylvatica 'WFH1' Tupelo Tower™ Sour Gum	3" Cal.	B&B	Central Leader, Full Canopy, Do Not Fall Dig

ADD ALTERNATE #9 - COMFORT STATION PLANT SCHEDULE

CODE	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	REMARKS
ORNAMENTAL TREES					
AC	2	Amelanchier canadensis Canadian Serviceberry	8-10` Ht.	B&B	Multi-Stem, 3-5 Canes, Specimen

ADD ALTERNATE #10 - SPLASH PAD PLANT SCHEDULE

CODE	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	REMARKS
SHRUBS					
AR	36	Abelia x 'Rose Creek' Rose Creek Abelia	24"-30" Spd.	Cont.	Full, Matched
CA	8	Cornus sericea 'Alleman's Compact' Dwarf Red Twig Dogwood	36"-42" Ht.	B&B/Cont.	Full, Matched
CS	32	Clethra alnifolia 'Sixteen Candles' Sixteen Candles Summersweet	24"-30" Ht.	Cont.	Full, Matched
IS	105	Ilex glabra 'Shamrock' Shamrock Inkberry Holly	24"-30" Ht.	Cont.	Full, Matched

CODE	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	SPACING	REMARKS
PERENNIALS, GROUNDCOVER, AND ORNAMENTAL GRASSES						
CAR	332	Carex pensylvanica Pennsylvania Sedge	#1	Cont.	18" o.c.	
EUT	123	Eutrochium dubium 'Little Joe' Little Joe Pye Weed	#1	Cont.	18" o.c.	
LOB	35	Lobelia siphilitica 'Alba' White Great Lobelia	#1	Cont.	18" o.c.	
NEP	51	Nepeta x faassenii 'Walker's Low' Walker's Low Catmint	#1	Cont.	18" o.c.	
SCH	22	Schizachyrium scoparium 'The Blues' The Blues Little Bluestem	#1	Cont.	24" o.c.	
SYM	28	Symphyotrichum novae-angliae 'Purple Dome' Purple Dome New England Aster	#1	Cont.	18" o.c.	

ADD ALTERNATE #11 - COMFORT STATION PLANT SCHEDULE

CODE	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	REMARKS
SHRUBS					
IS	12	Ilex glabra 'Shamrock' Shamrock Inkberry Holly	24"-30" Ht.	Cont.	Full, Matched
JP	12	Juniperus horizontalis 'Plumosa Compacta' Creeping Juniper	18"-24" Spd.	Cont.	Full, Matched
SE	10	Spiraea x 'Double Play Doozie' Double Play Doozie Spirea	18"-24" Spd.	Cont.	Full, Matched
VC	2	Viburnum carlesii Koreanspice Viburnum	30"-36" Ht.	B&B	Full, Specimen

CODE	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	SPACING	REMARKS
PERENNIALS, GROUNDCOVER, AND ORNAMENTAL GRASSES						
LIR	70	Liriope muscari 'Royal Purple' Royal Purple Lilyturf	SP#4	Cont.	12" o.c.	
PEN	34	Pennisetum alopecuroides 'Hameln' Hameln Fountain Grass	#1	Cont.	18" o.c.	
SED	12	Sedum x 'Autumn Joy' Autumn Joy Sedum	#1	Cont.	18" o.c.	

DWG. FILENAME:

SBAL

STATE OF MARYLAND — PAUL E. POLIDORI — 1152 — LANDSCAPE ARCHITECT

DATE : OCTOBER 02, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 1152 . EXPIRATION DATE 09/18/2026 .

LANDSCAPE ARCHITECT: MAHAN RYKIEL ASSOCIATES, INC. — Baltimore MD | Washington DC | Richmond VA | Raleigh NC | Charlotte NC | Atlanta GA | Tampa FL | Orlando FL | www.mahanrykiel.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MEP
DWN BY: MNQ
CHKD BY: MEP

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

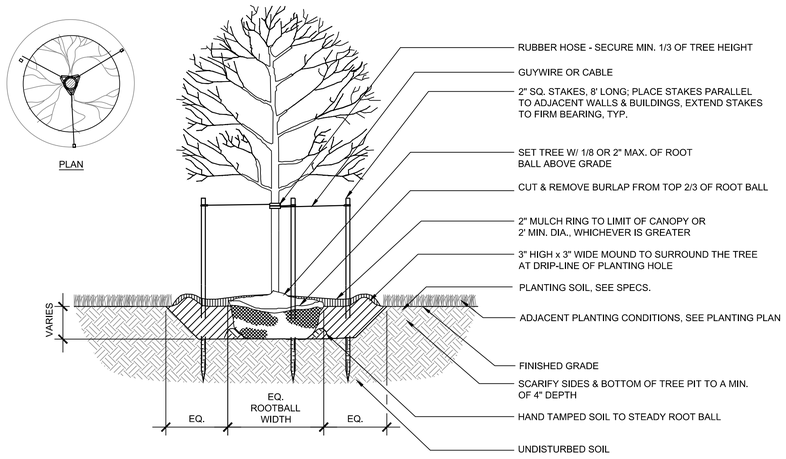
DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

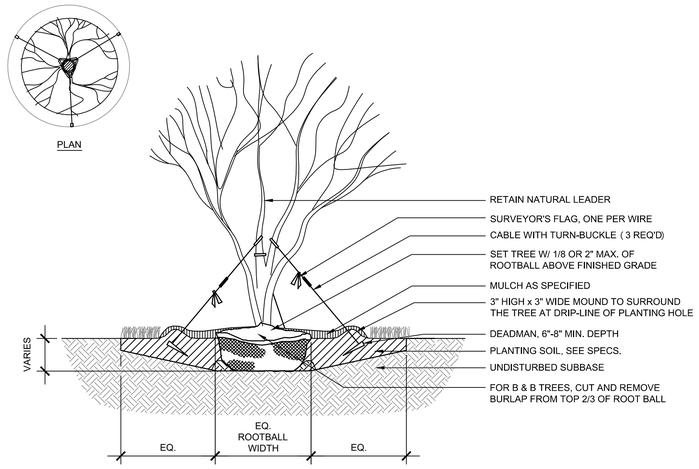
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
LANDSCAPE - PLANT SCHEDULE
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
L7.10	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 40 OF 150
	DRAWING NUMBER
	2025-2211
	FILE NO.: 8



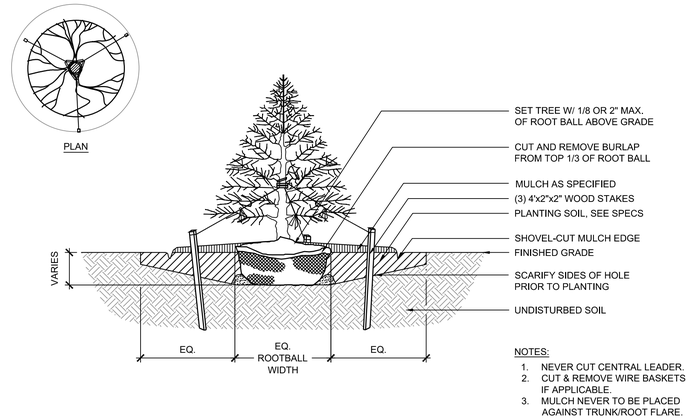
1 DECIDUOUS TREE @ GRADE

1/2" = 1'-0"



2 ORNAMENTAL TREE @ GRADE

1/2" = 1'-0"

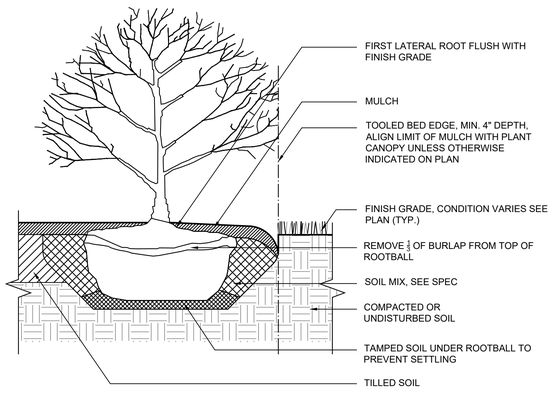


NOTES:

1. NEVER CUT CENTRAL LEADER.
2. CUT & REMOVE WIRE BASKETS IF APPLICABLE.
3. MULCH NEVER TO BE PLACED AGAINST TRUNK/ROOT FLARE.

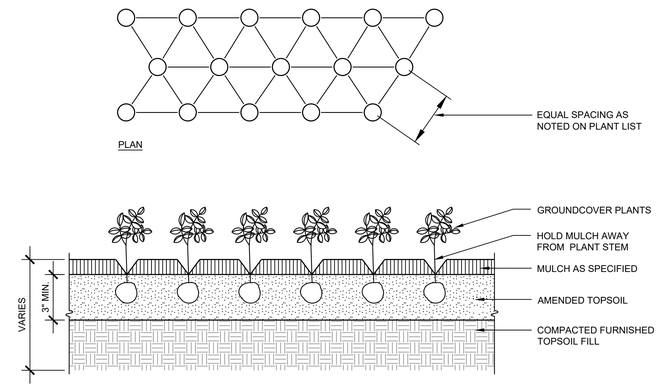
3 EVERGREEN TREE @ GRADE

1/2" = 1'-0"



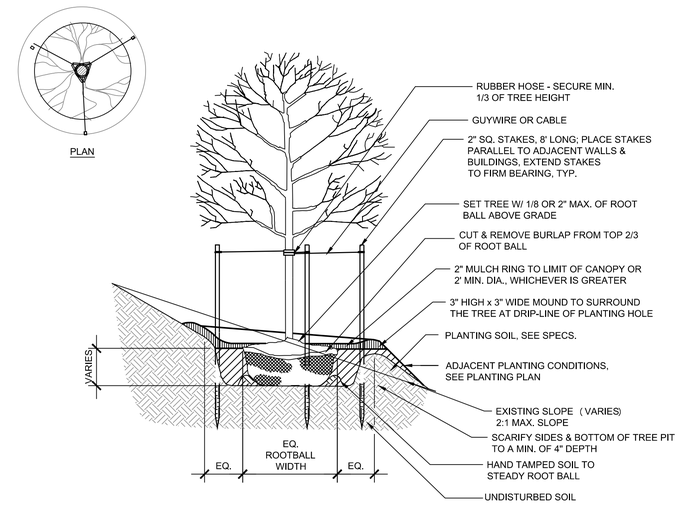
4 SHRUB @ GRADE

1" = 1'-0"



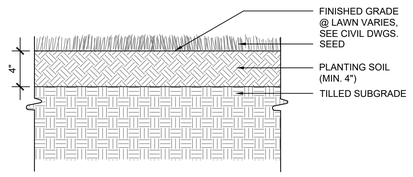
5 PERENNIAL / GROUNDCOVER @ GRADE

1/2" = 1'-0"



6 TREE @ SLOPE

1/2" = 1'-0"



7 LAWN

1" = 1'-0"

DWG. FILENAME:

SBAL

STATE OF MARYLAND — MARK E. PELUSI, JR. — 7152 — LANDSCAPE ARCHITECT

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.						PNW	35NW40	PLAN SCALE:	AS SHOWN	APPROVED BY:
LICENSE NO. 1152, EXPIRATION DATE 09/18/2026.					R.O.W NO.			PROFILE SCALE:		PROPERTY MANAGER
LANDSCAPE ARCHITECT: MARK E. PELUSI, JR. MAHAN RYKIEL Baltimore | Washington | Philadelphia	DSN BY: MEP	CONTRACT COMPLETION BOX								DATE:
AS-BUILT PER RECORD PRINT	DWN BY: MNQ	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
BY: DATE:	CHKD BY: MEP	REVIEWED BY:								
		DATE REVIEWED:								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

LANDSCAPE - PLANTING DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
L8.01	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 41 OF 150
	DRAWING NUMBER
	2025-2212
	FILE NO.: 8

SHEET DESIGNATION	DRAWING TITLE	ISSUE DATE	REVISION DATE
ARCHITECTURAL			
A-001	ARCHITECTURE - SHEET INDEX	07/18/2025	
A-002	ARCHITECTURE - ANNOTATIONS AND ABBREVIATIONS	07/18/2025	
A-003	ARCHITECTURE - COMFORT STATION CODE DATA	07/18/2025	
A-004	ARCHITECTURE - SPLASH PAD OFFICE/MECH CODE DATA	07/18/2025	
A-100	ARCHITECTURE - COMFORT STATION SLAB CONTROL PLAN	07/18/2025	
A-101	ARCHITECTURE - COMFORT STATION FLOOR PLAN	07/18/2025	
A-102	ARCHITECTURE - COMFORT STATION CLEARSTORY PLAN	07/18/2025	
A-103	ARCHITECTURE - COMFORT STATION ROOF PLAN	07/18/2025	
A-104	ARCHITECTURE - SPLASH PAD OFFICE/MECH FLOOR AND ROOF PLANS	07/18/2025	
A-111	ARCHITECTURE - COMFORT STATION REFLECTED CEILING PLAN	07/18/2025	
A-112	ARCHITECTURE - SPLASH PAD OFFICE/MECH REFLECTED CEILING PLAN	07/18/2025	
A-121	ARCHITECTURE - COMFORT STATION FINISH PLAN	07/18/2025	
A-122	ARCHITECTURE - SPLASH PAD OFFICE/MECH FINISH PLAN	07/18/2025	
A-201	ARCHITECTURE - COMFORT STATION EXTERIOR ELEVATIONS	07/18/2025	
A-202	ARCHITECTURE - COMFORT STATION EXTERIOR ELEVATIONS	07/18/2025	
A-203	ARCHITECTURE - SPLASH PAD OFFICE/MECH EXTERIOR ELEVATIONS	07/18/2025	
A-301	ARCHITECTURE - COMFORT STATION BUILDING SECTIONS	07/18/2025	
A-302	ARCHITECTURE - SPLASH PAD OFFICE/MECH BUILDING SECTIONS	07/18/2025	
A-311	ARCHITECTURE - COMFORT STATION WALL SECTIONS	07/18/2025	
A-312	ARCHITECTURE - COMFORT STATION WALL SECTIONS	07/18/2025	
A-313	ARCHITECTURE - COMFORT STATION WALL SECTIONS	07/18/2025	
A-314	ARCHITECTURE - SPLASH PAD OFFICE/MECH WALL SECTIONS	07/18/2025	
A-401	ARCHITECTURE - COMFORT STATION ENLARGED FLOOR PLANS	07/18/2025	
A-402	ARCHITECTURE - COMFORT STATION INTERIOR ELEVATIONS	07/18/2025	
A-403	ARCHITECTURE - COMFORT STATION INTERIOR ELEVATIONS	07/18/2025	
A-404	ARCHITECTURE - COMFORT STATION GATE DETAILS	07/18/2025	
A-405	ARCHITECTURE - COMFORT STATION INTERIOR ELEVATIONS	07/18/2025	
A-501	ARCHITECTURE - COMFORT STATION PLAN DETAILS	07/18/2025	
A-502	ARCHITECTURE - COMFORT STATION PLAN DETAILS	07/18/2025	
A-503	ARCHITECTURE - COMFORT STATION COLUMN DETAILS	07/18/2025	
A-504	ARCHITECTURE - COMFORT STATION SECTION DETAILS	07/18/2025	
A-505	ARCHITECTURE - COMFORT STATION SECTION DETAILS	07/18/2025	
A-506	ARCHITECTURE - COMFORT STATION SECTION DETAILS	07/18/2025	
A-507	ARCHITECTURE - COMFORT STATION SECTION DETAILS	07/18/2025	
A-508	ARCHITECTURE - SPLASH PAD OFFICE/MECH SECTION DETAILS	07/18/2025	
A-509	ARCHITECTURE - SPLASH PAD OFFICE/MECH SECTION DETAILS	07/18/2025	
A-601	ARCHITECTURE - BUILDING ASSEMBLIES	07/18/2025	
A-602	ARCHITECTURE - INTERIOR PARTITION TYPES	07/18/2025	
A-603	ARCHITECTURE - DOOR SCHEDULE	07/18/2025	
A-604	ARCHITECTURE - FINISH SCHEDULE	07/18/2025	
A-605	ARCHITECTURE - TOILET ACCESSORIES SCHEDULE AND MOUNTING HEIGHTS	07/18/2025	
A-606	ARCHITECTURE - WINDOWS, LOUVERS, AND PERFORATED METAL SCREEN SCHEDULES	07/18/2025	
A-801	ARCHITECTURE - COMFORT STATION SIGNAGE PLAN AND DETAILS	07/18/2025	

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

R.O.W NO. | PNW | 35NW40

CONTRACT COMPLETION BOX

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY:
PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – SHEET INDEX

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-001	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 42 OF 150
	DRAWING NUMBER
	2025-2213
	FILE NO.: 8

LIST OF SYMBOLS

&	AND
∠	ANGLE
@	AT
℄	CENTER LINE
X°	DEGREE(S)
/	DIVIDE BY, PER
$	DOLLAR (USD)
=	EQUALS, EQUAL TO
X'	FOOT, FEET
>	GREATER THAN
≥	GREATER THAN OR EQUAL TO
X"	INCHES
<	LESS THAN
≤	LESS THAN OR EQUAL TO
-	MINUS
x	MULTIPLY BY, BY
#	NUMBER, POUND
%	PERCENT
+	PLUS
+/- OR ±	PLUS OR MINUS
℄	PROPERTY LINE

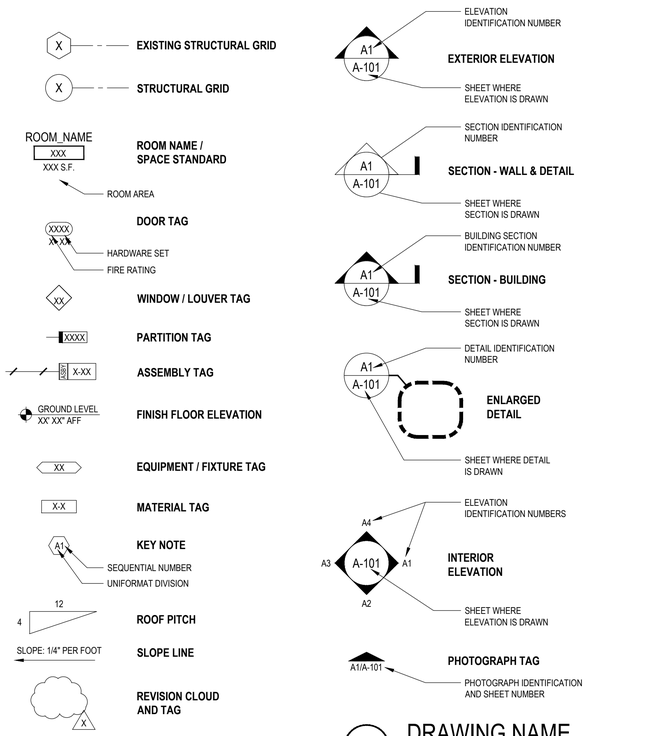
ENGLISH INCH/POUND ABBREVIATIONS

AMP	AMPERE
AWG	AMERICAN WIRE GAGE
BHP	BRAKE HORSEPOWER
BLR HP	BOILER HORSEPOWER
Btu	BRITISH THERMAL UNIT
BtuH	BRITISH THERMAL UNIT PER HOUR
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CU FT	CUBIC FEET
CU IN	CUBIC INCH
dB	DECIBEL
dBA	UNIT OF SOUND LEVEL
DEG	DEGREE
°F	DEGREE FAHRENHEIT
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FT	FEET, FOOT
GA	GAUGE
GAL	GALLON
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GT	GROSS TON
HP	HORSEPOWER
IN	INCH
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
LBS	POUND
LF	LINEAR FEET (FOOT)
MBtuH	THOUSAND Btu PER HOUR
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
R	THERMAL RESISTANCE
SCFM	STANDARD CUBIC FEET PER MINUTE
SF	SQUARE FOOT (FEET)
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
U	HEAT TRANSFER COEFFICIENT
W	WATT
YD	YARD

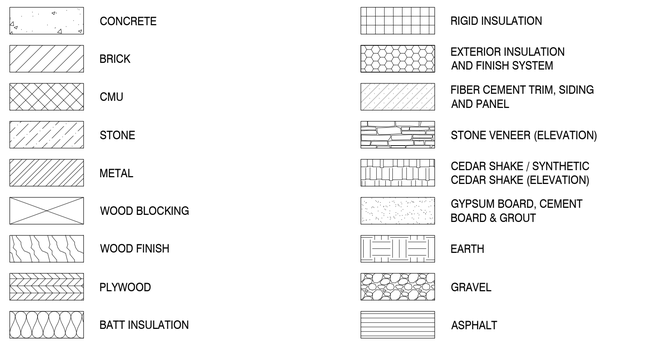
ARCHITECTURAL ABBREVIATIONS

A LABEL	CLASS A DOOR
A/E	ARCHITECT / ENGINEER
AAMA	AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION
AB	ANCHOR BOLT
ABS	ACRYLONITRILE BUTADIENE STYRENE
ACI	AMERICAN CONCRETE INSITUTE
ACOUS INSUL	ACOUSTICAL INSULATION
ACS DR	ACCESS DOOR
ACS FLR	ACCESS FLOOR
ACS PNL	ACCESS PANEL
ACST	ACOUSTIC
ACT	ACOUSTICAL CEILING TILE
ADA	AMERICANS WITH DISABILITIES ACT
ADDL	ADDITIONAL
ADDM	ADDENDUM
ADH	ADHESIVE
ADJ	ADJUSTABLE, ADJACENT
ADMIN	ADMINISTRATION
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFS	ABOVE FINISHED SLAB
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
AIA	AMERICAN INSTITUTE OF ARCHITECTS
ALT	ALTERNATE
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APA	AMERICAN PLYWOOD ASSOCIATION
APPROX	APPROXIMATE
ARCH	ARCHITECT, ARCHITECTURAL
ASBY	ASSEMBLY (FLOOR, WALL, ROOF)
ASC	ABOVE SUSPENDED CEILING
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS
ASI	ARCHITECT'S SUPPLEMENTAL INSTRUCTION
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASPH	ASPHALT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AUTO	AUTOMATIC
AUX	AUXILIARY
AVG	AVERAGE
AWG	AMERICAN WIRE GAUGE
AWI	AMERICAN WOODWORKING INSTITUTE
AWPA	AMERICAN WOOD PRESERVERS' ASSOCIATION
B LABEL	CLASS B DOOR
BD	BOARD
BFF	BELOW FINISH FLOOR
BIA	BRICK INSTITUTE OF AMERICA
BLDG	BUILDING
BLKG	BLOCKING
BLKHD	BULKHEAD
BLST	BALLAST
BLW	BELOW
BM	BEAM
BOCA	BUILIDING OFFICIALS AND CODE ADMINISTRATORS ASSOCIATION INTERNATIONAL
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BRCG	BRACING
BRG	BEARING
BSMT	BASEMENT
BTWN	BETWEEN
BUR	BUILT UP ROOFING
C LABEL	CLASS C DOOR
C TO C	CENTER TO CENTER
CAB	CABINET
CAP	CAPACITY
CBB	CEMENTITIOUS BACKER BOARD
CCTV	CLOSED CIRCUIT TELEVISION
CEM	CEMENT
CER	CERAMIC
CFLG	COUNTERFLASHING
CG	CORNER GUARD
CIP	CAST IN PLACE
CJ	CONSTRUCTION JOINT, CONTROL JOINT
CLG	CEILING
CLR	CLEAR
CMPST	COMPOSITE
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONC FLR	CONCRETE FLOOR
CONC OPNG	CONCRETE OPENING
CND	CONDUIT
CONF	CONFERENCE
CONSTR	CONSTRUCTION
CONT	CONTINUE, CONTINUOUS
COORD	COORDINATE
CORR	CORRIDOR
CP	CONCRETE PIPE, CONTROL PANEL
CPT	CARPET
CS	CAST STONE
CSI	CONSTRUCTION SPECIFICATIONS INSTITUTE
CSK	COUNTERSUNK
CSWK	CASEWORK
CT	CERAMIC TILE
CT STN	CUT STONE
CTB	CERAMIC TILE BASE
CTF	CERAMIC TILE FLOOR
CTI	CERAMIC TILE INSTITUTE OF AMERICA
CTR	CENTER
CTRL	CONTROL
CTV	CABLE TELEVISION
D	DEEP, DEPTH
D LABEL	CLASS D DOOR
DAT	DATUM
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DHI	DOOR HARWARE INSTITUTE
DIA	DIAMETER
DIM	DIMENSION
DIST	DISTANCE
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DWG	DRAWING
E LABEL	CLASS E DOOR
EA	EACH
EGB	EXTERIOR GYPSUM BOARD
EGSB	EXTERIOR GYPSUM SHEATHING BOARD
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION (ABOVE SEA LEVEL)
ELEC	ELECTRIC
ELEV	ELEVATOR
EMER	EMERGENCY
ENGR	ENGINEER
EOS	EDGE OF SLAB
EP	ELECTRICAL PANEL
EPA	ENVIRONMENTAL PROTECTION AGENCY
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EPS	EXPANDED POLYSTYRENE BOARD (INSULATION)
EQ	EQUAL
EQUIP	EQUIPMENT
ESCAL	ESCALATOR
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FA	FIRE ALARM
FAR	FLOOR AREA RATIO
FC BRK	FACE BRICK
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FACE
FFE	FINISH FLOOR ELEVATION
FF&E	FURNITURE, FIXTURE AND EQUIPMENT
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FIG	FIGURE
FIN	FINISH
FIXT	FIXTURE
FL	FLOOR LINE
FLASH	FLASHING
FLR	FLOOR
FLUOR	FLUORESCENT
FM	FACTORY MUTUAL
FO	FINISHED OPENING
FOC	FACE OF CONCRETE
FOS	FACE OF STUD
FOUNT	FOUNTAIN
FR	FIRE RATING, FIRE RESISTANT
FRG	FIBER REINFORCED GYPSUM
FRP	FIBERGLASS REINFORCED PLASTIC
FRT	FIRE RETARDANT TREATED
FS	FULL SIZE, FULL SPACE
FTG	FOOTING
FURG	FURRING
FURN	FURNISH, FURNISHINGS, FURNITURE
GA	GYPSUM ASSOCIATION
GALV	GALVANIZED
GB	GRAB BARS
GC	GENERAL CONTRACTOR
GFRC	GLASS-FIBER-REINFORCED CONCRETE
GFRG	GLASS-FIBER-REINFORCED GYPSUM
GFRP	GLASS-FIBER-REINFORCED PLASTIC
GL	GLASS
GL BLK	GLASS BLOCK
GLU LAM	GLUED LAMINATED WOOD
GOVT	GOVERNMENT
GR	GRADE
GRAN	GRANITE
GRD	GROUND
GSU	GLAZED STRUCTURAL UNIT
GT	GROUT
GWT	GLAZED WALL TILE
GYP	GYPSUM
GYP BD	GYPSUM BOARD
HC	HANDICAP
HCWD	HOLLOW CORE WOOD DOOR
HDPE	HIGH DENSITY POLYETHYLENE
HDW	HARDWARE
H	HIGH
HM	HOLLOW METAL
HMD	HOLLOW METAL DOOR
HMDF	HOLLOW METAL DOOR AND FRAME
HMF	HOLLOW METAL FRAME
HMMA	HOLLOW METAL MANUFACTURERS ASSOCIATION
HNDRL	HANDRAIL
HORIZ	HORIZONTAL
HSKPG	HOUSEKEEPING
HT	HEIGHT
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HVY	HEAVY
IBC	INTERNATIONAL BUILDING CODE
ICC	INTERNATIONAL CODE COUNCIL
ID	INSIDE DIAMETER
INSUL	INSULATION, INSULATED
INT	INTERIOR
J-BOX	JUNCTION BOX
JAN	JANITOR
JAN CLO	JANITOR CLOSET
JST	JOIST
JT	JOINT
KIT	KITCHEN
KO	KNOCK OUT
LAM	LAMINATE
LAM GL	LAMINATED GLASS
LAV	LAVATORY
LDG	LANDING
LED	LIGHT EMITTING DIODE
LIN	LINEAR
LL	LEAD LINED
LMST	LIMESTONE
LT	LIGHT
LTNG	LIGHTING
LVDR	LOUVER DOOR
LVR	LOUVER
LWC	LIGHT WEIGHT CONCRETE
MACH	MACHINE
MACH RM	MACHINE ROOM
MAINT	MAINTENANCE
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MECH RM	MECHANICAL ROOM
MEMB	MEMBRANE
MEP	MECHANICAL, ELECTRICAL & PLUMBING
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MLWK	MILLWORK
MO	MASONRY OPENING
MOD	MODIFY
MOD BIT	MODIFIED BITUMEN
MR	MOISTURE RESISTANT
MRB	MARBLE BASE
MRF	MARBLE FLOOR
MRT	MARBLE THRESHOLD
MT	METAL THRESHOLD
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
MULL	MULLION
NA	NOT APPLICABLE
NEC	NATIONAL ELECTRIC CODE
NEG	NEGATIVE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NRC	NOISE REDUCTION COEFFICIENT
NRCA	NATIONAL ROOFING CONTRACTORS ASSOCIATION
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF/CI	OWNER FURNISHED/CONTRACTOR INSTALLED
OF/OI	OWNER FURNISHED/OWNER INSTALLED
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OVHD	OVERHEAD
PCC	PRECAST CONCRETE
PH	PENTHOUSE, PHASE
PK GAR	PARKING GARAGE
PK LOT	PARKING LOT
PLAM	PASTIC LAMINATE
PLAS	PLASTER
PLBG	PLUMBING
PLYWD	PLYWOOD
PNL	PANEL
POL	POLISHED
PPM	PARTS PER MILLION
PR	PAIR
PRCST	PRECAST
PREFAB	PREFABRICATE
PREFIN	PREFINISH
PRKG	PARKING
PROJ	PROJECT
PROP	PROPERTY
PS CONC	PRESTRESSED CONCRETE
PT	PAINT, PRESSURE TREATED
PT CONC	POST-TENSIONED CONCRETE
PTN	PARTITION
PVC	POLYVINYL CHLORIDE (PLASTIC)
QT	QUARRY TILE
QTB	QUARRY TILE BASE
QTF	QUARRY TILE FLOOR
QTY	QUANTITY
R	RADIUS, RISER
RA	RETURN AIR
RB	RESILIENT BASE
RC	REINFORCED CONCRETE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN, ROAD
REC	RECESSED
RECPT	RECEPTACLE
REF	REFRIGERATOR
REINF	REINFORCE
REQ	REQUIRE
REST	RESTROOM
REV	REVISION
RF	RADIO FREQUENCY, RESILIENT FLOORING
RFG	ROOFING
RFI	REQUEST FOR INTERPRETATION
RH	ROOF HATCH
RL	ROOF LEADER
RM	ROOM
RO	ROUGH OPENING
RTU	ROOF TOP UNIT
SAN	SANITARY
SCHED	SCHEDULE
SCWD	SOLID CORE WOOD DOOR
SD	STORM DRAIN
SDI	STEEL DECK INSTITUTE, STEEL DOOR INSTITUTE
SECT	SECTION
SERV	SERVICE
SHT	SHEET
SHT MTL FLASH	SHEET METAL (FLASHING)
SHTHG	SHEATHING
SIM	SIMILAR
SK	SKETCH
SLNT	SEALANT
SP	STANDPIPE
SPEC	SPECIFICATION
SPKLR	SPRINKLER
SPKR	SPEAKER
SQ	SQUARE
SS	STANDING SEAM
SST	STAINLSESS STEEL
ST	STREET, STAIRS
STA	STATION
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STL	STEEL
STL JST	STEEL JOIST
STL LNTL	STEEL LINTEL
STL PL	STEEL PLATE
STL RF DK	STEEL ROOF DECK
STL TB	STEEL TUBE
STL TR	STEEL TRUSS
STOR	STORAGE
STRUCT	STRUCTURAL
STRUCT STL	STRUCTURAL STEEL
SUB FL	SUBFLOOR
SUSP	SUSPEND, SUSPENDED
SW	SWITCH, SIDEWALK
SYM	SYMBOL
SYS	SYSTEM
T	TREAD, TEMPERED
T&B	TOP AND BOTTOM
TCA	TILE COUNCIL OF AMERICA
TEL	TELEPHONE
TEMP	TEMPORARY
TERM	TERMINAL
TFF	TOP OF FINISH FLOOR
THK	THICKNESS
THRES	THRESHOLD
TO FDN	TOP OF FOUNDATION
TOC	TOP OF CONCRETE
TOC WALL	TOP OF CONCRETE WALL
TOF	TOP OF FOOTING
TOP	TOP OF PARAPET
TOS	TOP OF SLAB, TOP OF STEEL
TOW	TOP OF WALL
TS	TUBE STEEL
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UGND	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
VAN	VANITY
VB	VINYL BASE, VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VOC	VOLITILE ORGANIC COMPOUND
VOL	VOLUME
VWC	VINYL WALL COVERING
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WDF	WOOD DOOR AND FRAME
WP	WATERPROOFING, WORKING POINT
WPM	WATERPROOF MEMBRANE
WT	WEIGHT
WWF	WELDED WIRE FABRIC
XBRA	CROSSBRACING
XPS	EXTRUDED POLYSTYRENE BOARD (INSULATION)

SYMBOLS



MATERIALS



PLAN LEGEND

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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

LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE

CONTRACT COMPLETION BOX

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

P.W.A. NO.: R.O.W NO.

KEY SHEET: PNW
POSITION SHT: 35NW40

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – ANNOTATIONS AND ABBREVIATIONS

SPLASH PAD AND SUPPORTING FACILITIES

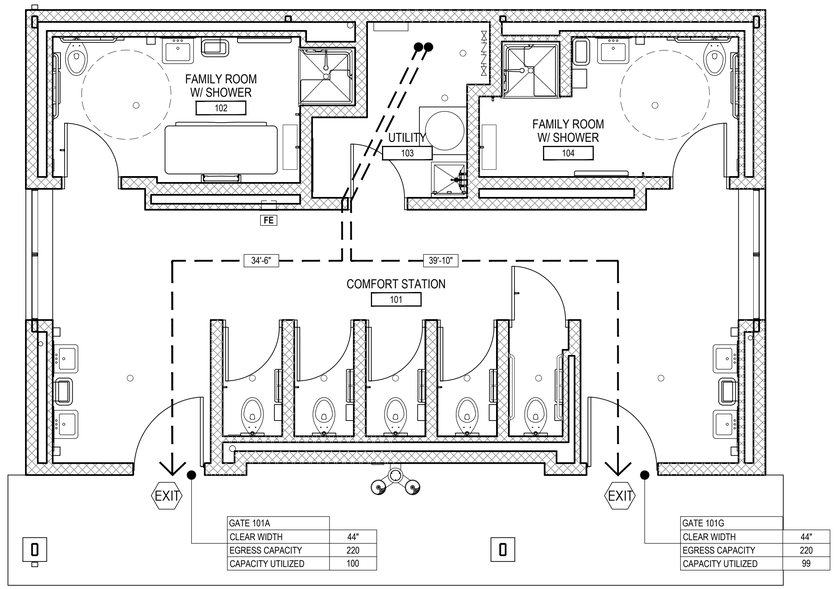
SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-002	25114 GXO
JOB ORDER NUMBER	
PROJ-1000634	
SHEET 43 OF 150	
DRAWING NUMBER	
2025-2214	
FILE NO.: 8	

COMFORT STATION - CODE ANALYSIS AND SUMMARY



B3 COMFORT STATION LIFE SAFETY PLAN

SCALE: 1/4" = 1'-0"

NORTH

LIFE SAFETY LEGEND:

- NEW WALL
- 1 HOUR RATED WALL
- 2 HOUR RATED WALL
- 3 HOUR RATED WALL
- TRAVEL DISTANCE
- ROOM NAME / 101 / 150 S.F. — SPACE IDENTIFICATION
- 15 Occ — OCCUPANT LOAD
- EXIT — BUILDING EXIT
- 36'-9" — DISTANCE - PATH OF TRAVEL

PROJECT SUMMARY:

PROJECT NAME: COMFORT STATION @ NW REGTIONAL PARK

ADDRESS: 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

BLDG. INFORMATION: JURISDICTION - BALTIMORE COUNTY
TOTAL AREA - 1481 SF
CONSTRUCTION TYPE - 5B

THE SCOPE OF WORK INCLUDES A 1-STORY, STEEL AND MASONRY FRAMED, COMFORT STATION TO SUPPORT THE OUTDOOR SPLASH PAD AT NW REGIONAL PARK, IN OWINGS MILLS, MARYLAND. THE CONSTRUCTION IS A NEW, GROUND UP BUILDING AND IS TYPE 5B CONSTRUCTION. THE BUILDING INCLUDES UNISEX/GENDER NEUTRAL SINGLE USER RESTROOMS, 2 FAMILY RESTROOMS, AND ASSOCIATED UTILITY SPACE TO SUPPORT THE REQUIREMENTS OF THE COMFORT STATION.

THE BUILDING IS A SEASONAL FACILITY AND WILL BE WINTERIZED DURING COLD MONTHS.

APPLICABLE CODES

AS SUPPLEMENTED, AMENDED OR OTHERWISE MODIFIED BY BALITMORE COUNTY, MARYLAND:

2021 INTERNATIONAL BUILDING CODE (IBC)
2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
2021 INTERNATIONAL SWIMMING POOL AND SPA CODE (ISPSC)
2021 INTERNATIONAL MECHANICAL CODE (IMC)
2021 INTERNATIONAL PLUMBING CODE (IPC)
2020 NFPA 70 NATIONAL ELECTRICAL CODE
2018 NFPA 101 LIFE SAFETY CODE
2018 NFPA 1 FIRE PREVENTION CODE
MARYLAND STATE ACCESSIBILITY CODE - COMAR 09.12.53
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

CODE DATA:

CONSTRUCTION TYPE: **5B**
NOT SPRINKLERED

USE GROUP CLASSIFICATION: **Assembly A-3 (Ancillary use for Splash Pad)**

ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE FOR A-3 USE:
(TABLE 504.3)
ALLOWED: *40'*
PROPOSED: *18'-9"*

ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE FOR A-3 USE:
(TABLE 504.4)
ALLOWED: *1*
PROPOSED: *1*

ALLOWABLE AREA IN SQUARE FEET PER FLOOR FOR A-3 USE:
(TABLE 506.2)
ALLOWED: *6,000 GSF*
PROPOSED: *1,481 GSF*

FIRE RESISTANCE RATING REQUIREMENTS (IBC TABLE 601)

BUILDING COMPONENT		TYPE 5B
PRIMARY STRUCTURAL FRAME		0 HOUR
BEARING WALLS		
	EXTERIOR	0 HOUR
	INTERIOR	0 HOUR
NON-BEARING WALLS		
	EXTERIOR	0 HOURS (PER TABLE 602)
	INTERIOR	0 HOURS
FLOOR CONSTRUCTION & ASSOCIATED SECONDARY MEMBERS		0 HOUR
ROOF CONSTRUCTION & ASSOCIATED MEMBERS		0 HOUR

FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (IBC TABLE 602)

FIRE SEPARATION DISTANCE	TYPE OF CONSTRUCTION	GROUP A
X < 5	5B	1 HOUR
5 ≤ X < 10	5B	1 HOUR
10 ≤ X < 30	5B	0 HOURS
X ≥ 30	5B	0 HOURS

OCCUPANT LOAD CALCULATION:

COMFORT STATION IS ANCILLARY USE REQUIRED BY SPLASH PAD

PER IBC TABLE 1004.5

SPLASH PAD POOL AND DECK AREAS : 9,910 SF / 1 PERSON PER 50 SF
TOTAL OCCUPANT LOAD: 199 TOTAL OCCUPANTS

PLUMBING FIXTURE CALCULATION:

TOTAL OCCUPANT LOAD OF SPLASH PAD: 199 TOTAL (OR 100 PERSONS PER SEX)

	REQUIRED	PROVIDED
WATER CLOSETS: 1 per 75 MEN, 1 per 40 WOMEN	5	7
LAVATORIES: 1 per 200 MEN, 1 per 150 WOMEN	2	6
CLEANSING SHOWER: 1 per MEN, 1 per WOMEN	2	2
DRINKING FOUNTAIN:	1	1
MOP SINK:	1	1

**UNISEX OR FAMILY ROOMS CAN BE COUNTED TOWARD THESE REQUIREMENTS*

TABLE 1006.3.1 - MINIMUM NUMBER OF EXITS OR ACCESS TO EXITS PER STORY

OCCUPANT LOAD PER STORY	MINIMUM # OF EXITS/ ACCESS TO EXITS PER STORY
1 - 500	2

TABLE 1017.2 - EXIT ACCESS TRAVEL DISTANCE

OCCUPANCY	WITHOUT SPRINKLER SYSTEM
ASSEMBLY B	*200'*

MAX. COMMON PATH OF TRAVEL IS 75' WHERE THE COMMON PATH SERVES ANY NUMBER OF OCCUPANTS.

PORTABLE FIRE EXTINGUISHERS:

PROVIDED IN ACCORDANCE WITH IBC SECTION 906 AND NFPA 10. LOCATED ON LIFE SAFETY PLANS AND DESIGNATED AS FE PROVIDE TYPE ABC EXTINGUISHER.

INTERIOR FINISHES:

WALL AND CEILING FINISHES (IBC SECTION 803):
INTERIOR WALL AND CEILING FINISHES SHALL HAVE A MINIMUM FLAME SPREAD INDEX AND SMOKE DEVELOPED INDEX IN ACCORDANCE WITH CHAPTER 8. INTERIOR FLOOR FINISHES SHALL MEET THE REQUIREMENTS OF SECTION 804.
- CLASS A - FLAME SPREAD 0-25, SMOKE DEVELOPED INDEX 0-450
- CLASS B - FLAME SPREAD 26-75, SMOKE DEVELOPED INDEX 0-450
- CLASS C - FLAME SPREAD 76-200, SMOKE DEVELOPED INDEX 0-450

INTERIOR FINISH (IBC SECTION 804):
INTERIOR FLOOR FINISH AND FLOOR COVERING MATERIALS REQUIRED BY SECTION 804.4.1 TO BE OF CLASS I OR II MATERIALS SHALL BE CLASSIFIED IN ACCORDANCE WITH NFPA 253. THE CLASSIFICATION REFERRED TO HEREIN CORRESPONDS TO THE CLASSIFICATIONS DETERMINED BY NFPA 253 AS FOLLOWS:
CLASS I, 0.45 watts/cm OR GREATER
CLASS II, 0.22 watts/cm OR GREATER

ENERGY CODE

THE COMFORT STATION IS EXEMPT FROM THE ENERGY CODE IECC 2021 PER SECTION C402.1.1 ITEM 2. THE BUILDING IS NOT CONDITIONED SPACE.

THE BUILDING IS VENTILATED PER CODE AND NOT CONDITIONED. HEATERS HAVE BEEN ADDED ONLY TO PREVENT NUISANCE FREEZING IN THE EVENT OF AN UNSEASONABLY COLD WEATHER EVENT DURING OPERATING MONTHS.

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT
JPS ARCHITECTS
Baltimore, MD 21209
P: 410-484-5000
www.jpsarchitects.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE

CONTRACT COMPLETION BOX

P.W.A. NO.
R.O.W NO.

KEY SHEET: PNW
POSITION SHT: 35NW40

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE – COMFORT STATION CODE DATA
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-003	SCON1000039
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 44 OF 150
	DRAWING NUMBER
	2025-2215
	FILE NO.: 8

SPLASH PAD OFFICE/MECH - CODE ANALYSIS AND SUMMARY

PROJECT SUMMARY:

PROJECT NAME:	SPLASH PAD OFFICE/MECH BUILDING @ NW REGIONAL PARK
ADDRESS:	4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
BLDG. INFORMATION:	JURISDICTION - BALTIMORE COUNTY TOTAL AREA - 622 SF CONSTRUCTION TYPE - 5B

THE SCOPE OF WORK INCLUDES A 1-STORY, STEEL FRAMED BUILDING TO SUPPORT THE OUTDOOR SPLASH PAD AT NW REGIONAL PARK, IN OWINGS MILLS, MARYLAND. THE CONSTRUCTION IS A NEW, GROUND UP BUILDING AND IS TYPE 5B CONSTRUCTION. THE BUILDING INCLUDES A SMALL OFFICE FOR LIFE GUARDS AND A MECHANICAL ROOM TO SUPPORT THE ADJACENT SPLASH PAD.

APPLICABLE CODES

AS SUPPLEMENTED, AMENDED OR OTHERWISE MODIFIED BY BALITMORE COUNTY, MARYLAND:

2021 INTERNATIONAL BUILDING CODE (IBC)
2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
2021 INTERNATIONAL SWIMMING POOL AND SPA CODE (ISPSC)
2021 INTERNATIONAL MECHANICAL CODE (IMC)
2021 INTERNATIONAL PLUMBING CODE (IPC)
2020 NFPA 70 NATIONAL ELECTRICAL CODE
2018 NFPA 101 LIFE SAFETY CODE
2018 NFPA 1 FIRE PREVENTION CODE
MARYLAND STATE ACCESSIBILITY CODE - COMAR 09.12.53
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

CODE DATA:

CONSTRUCTION TYPE: **5B** NOT SPRINKLERED

USE GROUP CLASSIFICATION: **Business B**

ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE FOR B USE: (TABLE 504.3)
ALLOWED: *40'*
PROPOSED: *14'-5"*

ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE FOR B USE: (TABLE 504.4)
ALLOWED: *2*
PROPOSED: *1*

ALLOWABLE AREA IN SQUARE FEET PER FLOOR FOR B USE: (TABLE 506.2)
ALLOWED: *9,000 GSF*
PROPOSED: *622 GSF*

FIRE RESISTANCE RATING REQUIREMENTS (IBC TABLE 601)		
BUILDING COMPONENT		TYPE 5B
PRIMARY STRUCTURAL FRAME		0 HOUR
BEARING WALLS		
	EXTERIOR	0 HOUR
	INTERIOR	0 HOUR
NON-BEARING WALLS		
	EXTERIOR	0 HOURS (PER TABLE 602)
	INTERIOR	0 HOURS
FLOOR CONSTRUCTION & ASSOCIATED SECONDARY MEMBERS		0 HOUR
ROOF CONSTRUCTION & ASSOCIATED MEMBERS		0 HOUR

FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (IBC TABLE 602)		
FIRE SEPARATION DISTANCE	TYPE OF CONSTRUCTION	GROUP A
$X < 5$	5B	1 HOUR
$5 \le X < 10$	5B	1 HOUR
$10 \le X < 30$	5B	0 HOURS
$X \ge 30$	5B	0 HOURS

OCCUPANT LOAD CALCULATION:

OFFICE:	160 SF / 150 GROSS	= 2 OCCUPANTS
MECHANICAL:	329 SF / 300 GROSS	= 2 OCCUPANTS
TOTAL OCCUPANT LOAD:		**4 TOTAL OCCUPANTS**

PLUMBING FIXTURE CALCULATION:

SUPPORTING FACILITIES ARE PROVIDED AT THE ADJACENT COMFORT STATION.

TABLE 1006.2.1 - SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY

OCCUPANCY	MAX OCC. LOAD	MAX. COMMON PATH OF TRAVEL W/OUT SPRINKLER SYSTEM OCCUPANT LOAD LESS THAN 30
B	49	75'

TABLE 1017.2 - EXIT ACCESS TRAVEL DISTANCE

OCCUPANCY	WITHOUT SPRINKLER SYSTEM
BUSINESS B	200'

PORTABLE FIRE EXTINGUISHERS:

PROVIDED IN ACCORDANCE WITH IBC SECTION 906 AND NFPA 10. LOCATED ON LIFE SAFETY PLANS AND DESIGNATED AS FE PROVIDE TYPE ABC EXTINGUISHER.

INTERIOR FINISHES:

WALL AND CEILING FINISHES (IBC SECTION 803):
INTERIOR WALL AND CEILING FINISHES SHALL HAVE A MINIMUM FLAME SPREAD INDEX AND SMOKE DEVELOPED INDEX IN ACCORDANCE WITH CHAPTER 8. INTERIOR FLOOR FINISHES SHALL MEET THE REQUIREMENTS OF SECTION 804.
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- CLASS C - FLAME SPREAD 76-200, SMOKE DEVELOPED INDEX 0-450

INTERIOR FINISH (IBC SECTION 804):
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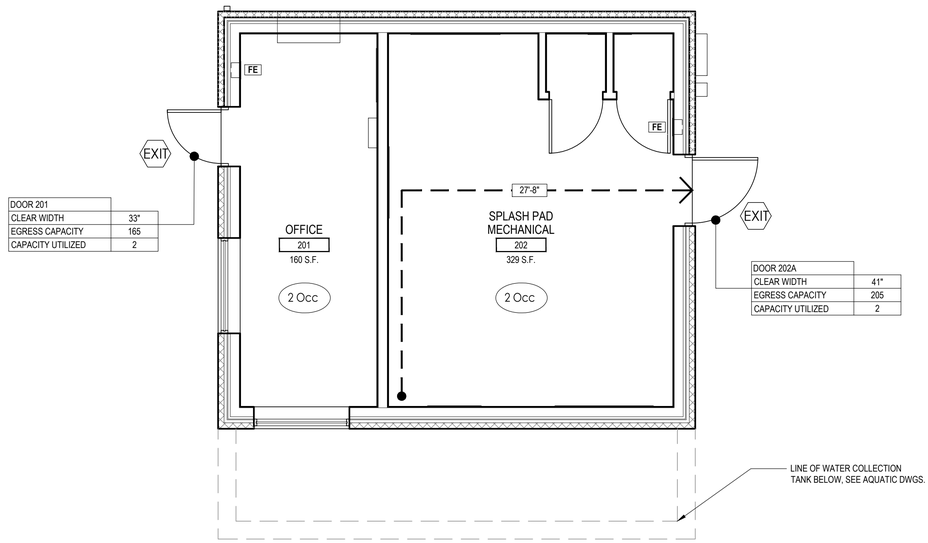
CLASS I, 0.45 watts/cm OR GREATER
CLASS II, 0.22 watts/cm OR GREATER

ENERGY CODE

OPAQUE THERMAL ENVELOPE INSULATION COMPONENT MINIMUM REQUIREMENTS, R-VALUE METHOD (IECC TABLE C402.1.3)	
CLIMATE ZONE	4 EXCEPT MARINE - ALL OTHER
ROOFS	
INSULATION ENTIRELY ABOVE ROOF DECK	R-30 ci
ATTIC AND OTHER	R-49
WALLS ABOVE GRADE	
MASS	R- 9.5 ci
METAL FRAMED	R-13 + R-7.5 ci
WOOD FRAMED	R-13 + R-3.8 ci OR R-20
WALL BELOW GRADE	
BELOW GRADE WALL	R-7.5 ci
FLOORS	
MASS	R-14.6 ci
JOIST/FRAMING	R-30
SLAB-ON-GRADE FLOORS	
UNHEATED SLABS	R-15 FOR 24" BELOW
HEATED SLABS	R-15 FOR 24" BELOW + R-5 FULL SLAB

BUILDING ENVELOPE FENESTRATION MAXIMUM U-VALUE AND SHGC REQUIREMENTS (IECC TABLE C402.2)		
CLIMATE ZONE	4 EXCEPT MARINE	
VERTICAL FENESTRATION		
U-FACTOR		
FIXED FENESTRATION	0.36	
OPERABLE FENESTRATION	0.45	
ENTRANCE DOORS	0.63	
SHGC		
ORIENTATION	FIXED	OPERABLE
PF < 0.2	0.36	0.33
0.2 ≤ PF < 0.5	0.43	0.40
PF ≥ 0.5	0.58	0.53



B3 SPLASH PAD OFFICE/MECH LIFE SAFETY PLAN
SCALE: 1/4" = 1'-0"

NORTH

LIFE SAFETY LEGEND:

- NEW WALL
- 1 HOUR RATED WALL
- 2 HOUR RATED WALL
- 3 HOUR RATED WALL
- TRAVEL DISTANCE
- ROOM NAME / 101 / 150 S.F. — SPACE IDENTIFICATION
- 15 Occ — OCCUPANT LOAD
- EXIT — BUILDING EXIT
- 36'-9" — DISTANCE - PATH OF TRAVEL

DWG. FILENAME:

SEAL
STATE OF MARYLAND — RICHARD JAMES PETT — 21615 — REGISTERED ARCHITECT
DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.
ARCHITECT: R. JAMES PETT
AS-BUILT PER RECORD PRINT
BY:
DATE:
DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

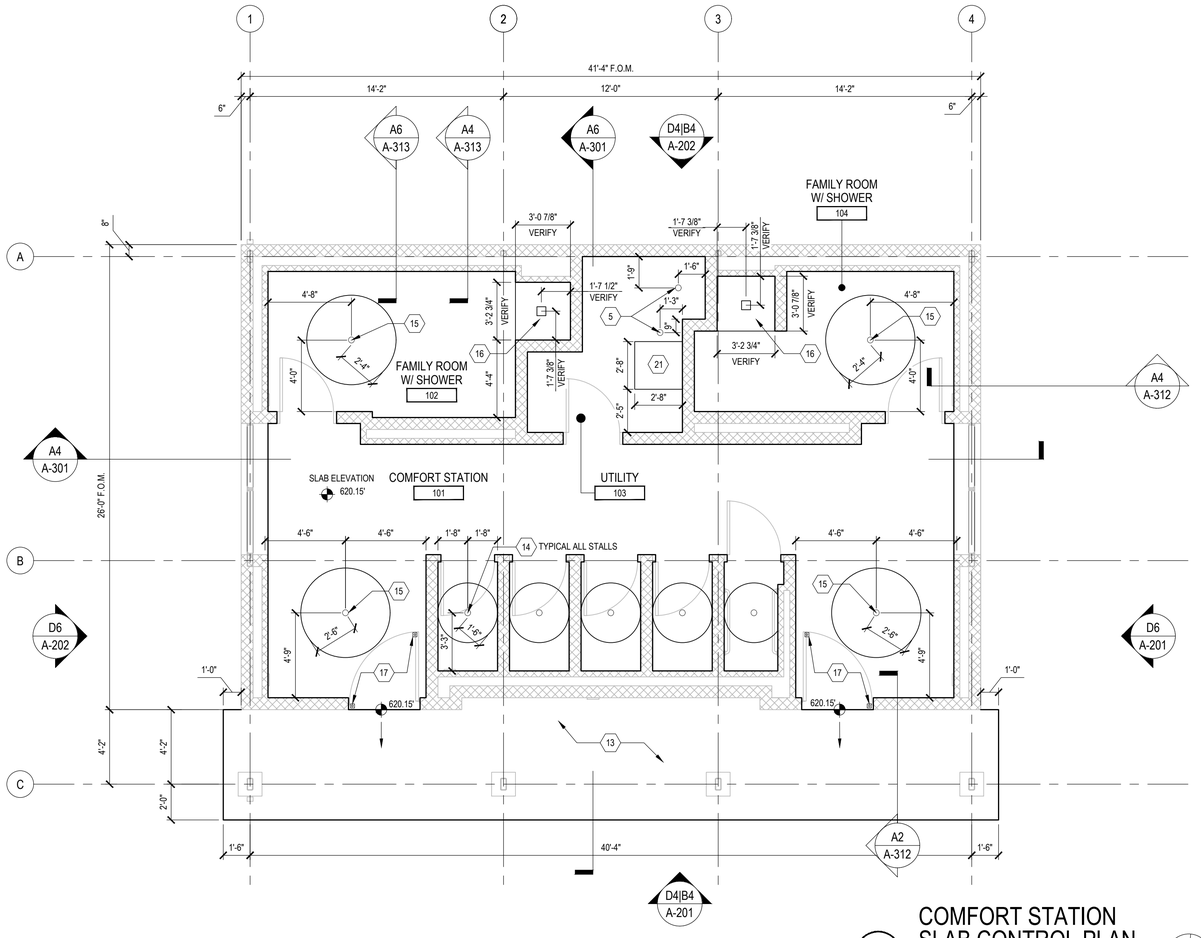
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE – SPLASH PAD OFFICE/MECH CODE DATA
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-004	25114 GXO
JOB ORDER NUMBER	PROJ-1000634
SHEET 45 OF 150	
DRAWING NUMBER	2025-2216
FILE NO.: 8	REV. NO.



B5 **COMFORT STATION SLAB CONTROL PLAN**

SCALE: 1/4" = 1'-0"

NORTH

GENERAL NOTES

1. DIMENSIONS ARE TO THE FACE OF STUD (F.O.S.) OR FACE OF MASONRY (F.O.M.), UNLESS OTHERWISE NOTED

   (F.O.C.) FACE OF CONRETE SLAB

2. REFER TO:
   A-601 FOR BUILDING ASSEMBLIES
   A-602 FOR INTERIOR PARTITION TYPES
   A-603 FOR DOOR SCHEDULE
   A-604 FOR FINISH SCHEDULE
   A-605 FOR TOILET ACCESSORIES SCHEDULE AND MOUNTING HEIGHTS
   A-606 FOR WINDOWS, LOUVERS, AND PERFORATED METAL SCREEN SCHEDULES

3. REFER TO CIVIL, LANDSCAPE, AQUATIC, STRUCTURAL, AND MEP DRAWINGS FOR MORE INFORMATION

4. **AT THE COMFORT STATION:** ALL WIRING, CONDUIT, AND PLUMBING LINES ARE TO BE CONCEALED WITHIN THE CMU WALL CHASE OR RUN WITHIN THE STUD FRAMING ABOVE AND NOT EXPOSED TO VIEW. RUNNING THESE ITEMS ON THE FACE OF THE CMU EXPOSED IS NOT PERMITTED. EXCEPTION: THE UTILITY ROOM MAY HAVE EXPOSED ROUTING

DRAWING KEYNOTES

1. TYPICAL EXPOSED TUBE STEEL COLUMN AND MASONRY BASE
2. PROVIDE PLYWOOD BACKER PANELS BEHIND SPLASH PAD EQUIPMENT, COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHTS WITH AQUATIC DRAWINGS
3. DOWNSPOUT LOCATION
4. PREFINISHED PERFORATED METAL SCREEN SYSTEM AT OPENINGS, BASIS OF DESIGN: GORDON PANELS W/ STRUCTURAL SUPPORT/FRAMING, INCLUDE INSECT SCREENING. SEE FINISH SCHEDULE FOR PERFORATED PANEL INFORMATION. CONTACT: MICHAEL MOORHOUSE | 410-422-6453 | mike@isaarchitectural.com
5. FLOOR DRAIN, FLUSH WITH SLAB, COORDINATE W/ PLUMBING.
6. STANDING SEAM METAL ROOF MTL-03
7. GUTTER ALONG ROOF EDGE MTL-03
8. PRECAST BEAM, SEE DETAIL D6|A-507 FOR PROFILE PC-01
9. 8" HIGH PRECAST LINTEL PC-01
10. PRECAST CAP TO MATCH WIDTH OF WALL BELOW. PROVIDE 1" OVERHANG ON EACH SIDE AND DRIP EDGE ON EXTERIOR SIDE OF EXTERIOR WALLS PC-01
11. EXPOSED TUBE STEEL COLUMN PER STRUCTURAL
12. 18" HIGH PRIVACY PANELS PP-01 MOUNTED ON TOP OF PRECAST CAP, CENTERED. MANUFACTURER TO PROVIDE MOUNTING DETAIL.
13. EXTERIOR CONCRETE SLAB, SLOPE AWAY FROM BUILDING PER CIVIL DRAWINGS. SCORING PATTERN IS SHOWN ON A-121.
14. DEPRESS FLOOR DRAIN ¾" AND SLOPE CIRCULAR AREA AROUND IT DOWN TO MEET FLUSH AT MAX 2% SLOPE (1:48). COORDINATE W/ PLUMBING
15. DEPRESS FLOOR DRAIN ¾" AND SLOPE CIRCULAR AREA AROUND IT DOWN TO MEET FLUSH AT MAX 2% SLOPE (1:48). COORDINATE W/ PLUMBING
16. DEPRESS SLAB 1-1/8" (VERIFY) AT SHOWER FOR PAN AND PROVIDE A 6"x6" LEAVE OUT AT DRAIN (VERIFY). **COORDINATE ALL EXACT DIMENSIONS WITH FINAL APPROVED SHOWER INSERT - DIMENSIONS INDICATED ARE COORDINATED W/ INSERT LISTED IN PLUMBING SCHEDULE.**
17. COORDINATE LOCATIONS OF GROUND CATCH FOR DROP BOLTS W/ FINAL GATE SELECTION
18. VENT THRU ROOF, RUN WITHIN CAVITY/STUD WALL TO ROOF, HIDDEN FROM VIEW, SEE PLUMBING DWGS. ALSO PROVIDE VENTSAVER, MODEL FB-151 BY SNOBLOX-SNOWJAX OR EQUAL AT VENTS PER COUNTY STANDARDS
19. SNOW GUARD MTL-03
20. FIRE EXTINGUISHER + RECESSED CABINET
21. 4" THICK CONCRETE PAD UNDER WATER HEATER, COORDINATE FINAL SIZE W/ UNIT
22. RECOMMENDED LOCATION FOR AED UNIT, PROVIDED AND INSTALLED BY COUNTY. FINAL LOCATION TO BE APPROVED BY COUNTY.
23. 3' H x 3' W PLYWOOD BACKER PANEL, TOP OF PANEL MOUNTED @ 8'-0" AFF, MAINTAIN 22" CLEAR IN FRONT FOR OIT RACK BY COUNTY
24. THROUGH WALL AC UNIT, SEE MEP DRAWINGS
25. REFER TO MEP AND AQUATIC DRAWINGS FOR ALL EQUIPMENT WITHIN THE SPLASH PAD MECHANICAL ROOM
26. MDP PANEL AND UTILITY METER, SEE MEP DRAWINGS
27. ROOFTOP EXHAUST FAN, SEE MEP DRAWINGS
28. ELECTRICAL PANEL, SEE MEP DRAWINGS

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.					R.O.W NO.	PNW	35NW40	PLAN SCALE:	AS SHOWN	APPROVED BY: PROPERTY MANAGER
		CONTRACT COMPLETION BOX						PROFILE SCALE:		DATE:
ARCHITECT: R. JAMES PETT	DGN BY: RJP	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
AS-BUILT PER RECORD PRINT	DWN BY: JGB	REVIEWED BY:								
BY: DATE:	CHKD BY: RJP	DATE REVIEWED:								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

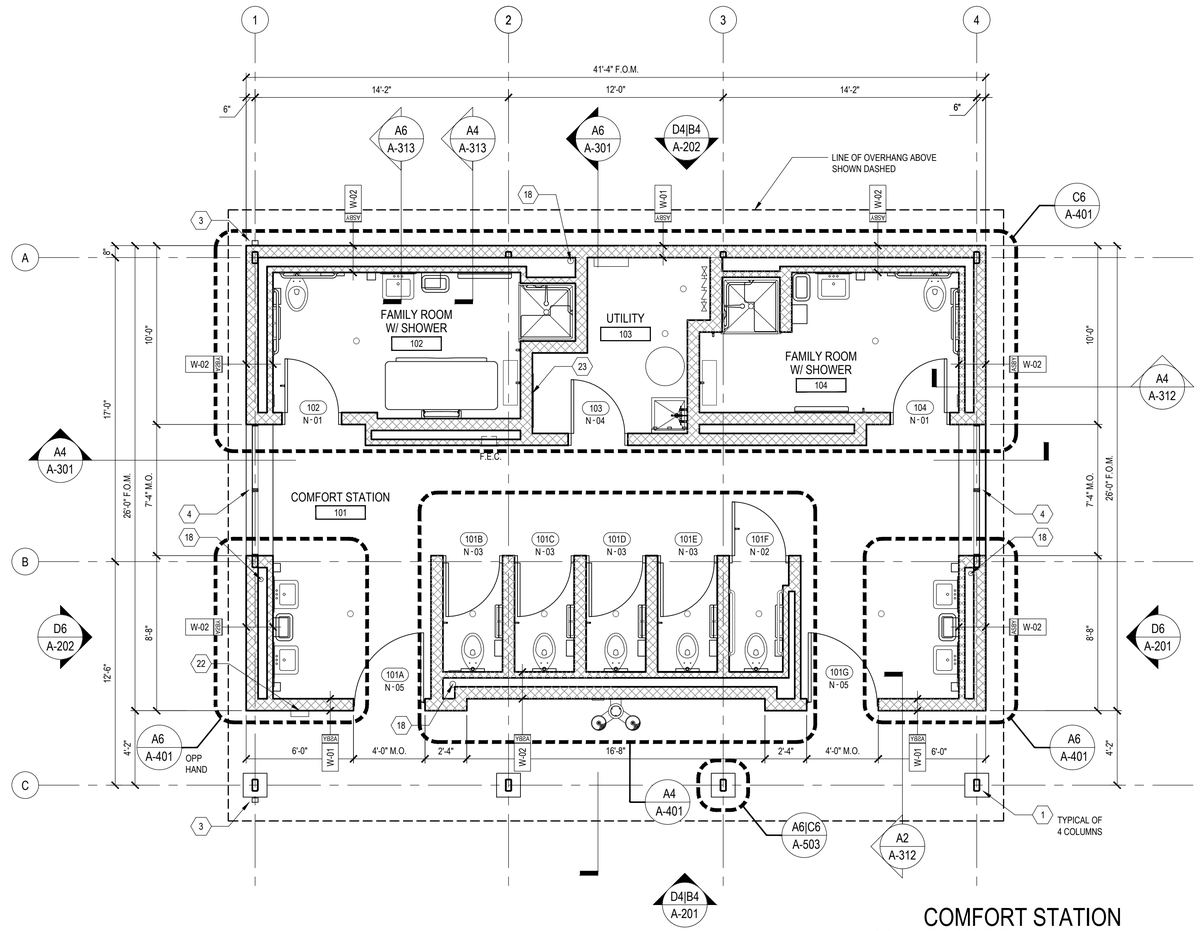
NORTHWEST REGIONAL PARK

ARCHITECTURE - COMFORT STATION SLAB CONTROL PLAN

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-100	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 46 OF 150
	DRAWING NUMBER
	2025-2217
	FILE NO.: 8



COMFORT STATION FLOOR PLAN

B5 — SCALE: 1/4" = 1'-0"

NORTH

GENERAL NOTES

1. DIMENSIONS ARE TO THE FACE OF STUD (F.O.S.) OR FACE OF MASONRY (F.O.M.), UNLESS OTHERWISE NOTED (F.O.C.) FACE OF CONCRETE SLAB
2. REFER TO:
   A-601 FOR BUILDING ASSEMBLIES
   A-602 FOR INTERIOR PARTITION TYPES
   A-603 FOR DOOR SCHEDULE
   A-604 FOR FINISH SCHEDULE
   A-605 FOR TOILET ACCESSORIES SCHEDULE AND MOUNTING HEIGHTS
   A-606 FOR WINDOWS, LOUVERS, AND PERFORATED METAL SCREEN SCHEDULES
3. REFER TO CIVIL, LANDSCAPE, AQUATIC, STRUCTURAL, AND MEP DRAWINGS FOR MORE INFORMATION
4. **AT THE COMFORT STATION:** ALL WIRING, CONDUIT, AND PLUMBING LINES ARE TO BE CONCEALED WITHIN THE CMU WALL CHASE OR RUN WITHIN THE STUD FRAMING ABOVE AND NOT EXPOSED TO VIEW. RUNNING THESE ITEMS ON THE FACE OF THE CMU EXPOSED IS NOT PERMITTED. EXCEPTION: THE UTILITY ROOM MAY HAVE EXPOSED ROUTING

DRAWING KEYNOTES

1. TYPICAL EXPOSED TUBE STEEL COLUMN AND MASONRY BASE
2. PROVIDE PLYWOOD BACKER PANELS BEHIND SPLASH PAD EQUIPMENT, COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHTS WITH AQUATIC DRAWINGS
3. DOWNSPOUT LOCATION
4. PREFINISHED PERFORATED METAL SCREEN SYSTEM AT OPENINGS, BASIS OF DESIGN: GORDON PANELS W/ STRUCTURAL SUPPORT/FRAMING, INCLUDE INSECT SCREENING. SEE FINISH SCHEDULE FOR PERFORATED PANEL INFORMATION. CONTACT: MICHAEL MOORHOUSE | 410-422-6453 | mike@isaarchitectural.com
5. FLOOR DRAIN, FLUSH WITH SLAB, COORDINATE W/ PLUMBING.
6. STANDING SEAM METAL ROOF MTL-03
7. GUTTER ALONG ROOF EDGE MTL-03
8. PRECAST BEAM, SEE DETAIL D6|A-507 FOR PROFILE PC-01
9. 8" HIGH PRECAST LINTEL PC-01
10. PRECAST CAP TO MATCH WIDTH OF WALL BELOW. PROVIDE 1" OVERHANG ON EACH SIDE AND DRIP EDGE ON EXTERIOR SIDE OF EXTERIOR WALLS PC-01
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17. COORDINATE LOCATIONS OF GROUND CATCH FOR DROP BOLTS W/ FINAL GATE SELECTION
18. VENT THRU ROOF, RUN WITHIN CAVITY/STUD WALL TO ROOF, HIDDEN FROM VIEW, SEE PLUMBING DWGS. ALSO PROVIDE VENTSAVER, MODEL FB-151 BY SNOBLOX-SNOWJAX OR EQUAL AT VENTS PER COUNTY STANDARDS
19. SNOW GUARD MTL-03
20. FIRE EXTINGUISHER + RECESSED CABINET
21. 4" THICK CONCRETE PAD UNDER WATER HEATER, COORDINATE FINAL SIZE W/ UNIT
22. RECOMMENDED LOCATION FOR AED UNIT, PROVIDED AND INSTALLED BY COUNTY. FINAL LOCATION TO BE APPROVED BY COUNTY.
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24. THROUGH WALL AC UNIT, SEE MEP DRAWINGS
25. REFER TO MEP AND AQUATIC DRAWINGS FOR ALL EQUIPMENT WITHIN THE SPLASH PAD MECHANICAL ROOM
26. MDP PANEL AND UTILITY METER, SEE MEP DRAWINGS
27. ROOFTOP EXHAUST FAN, SEE MEP DRAWINGS
28. ELECTRICAL PANEL, SEE MEP DRAWINGS

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION	
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. #7318-A, EXPIRATION DATE 10-21-26.	
ARCHITECT: R. JAMES PETT	DGN BY: RJP
AS-BUILT PER RECORD PRINT	DWN BY: JGB
BY: DATE:	CHKD BY: RJP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER

DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION FLOOR PLAN

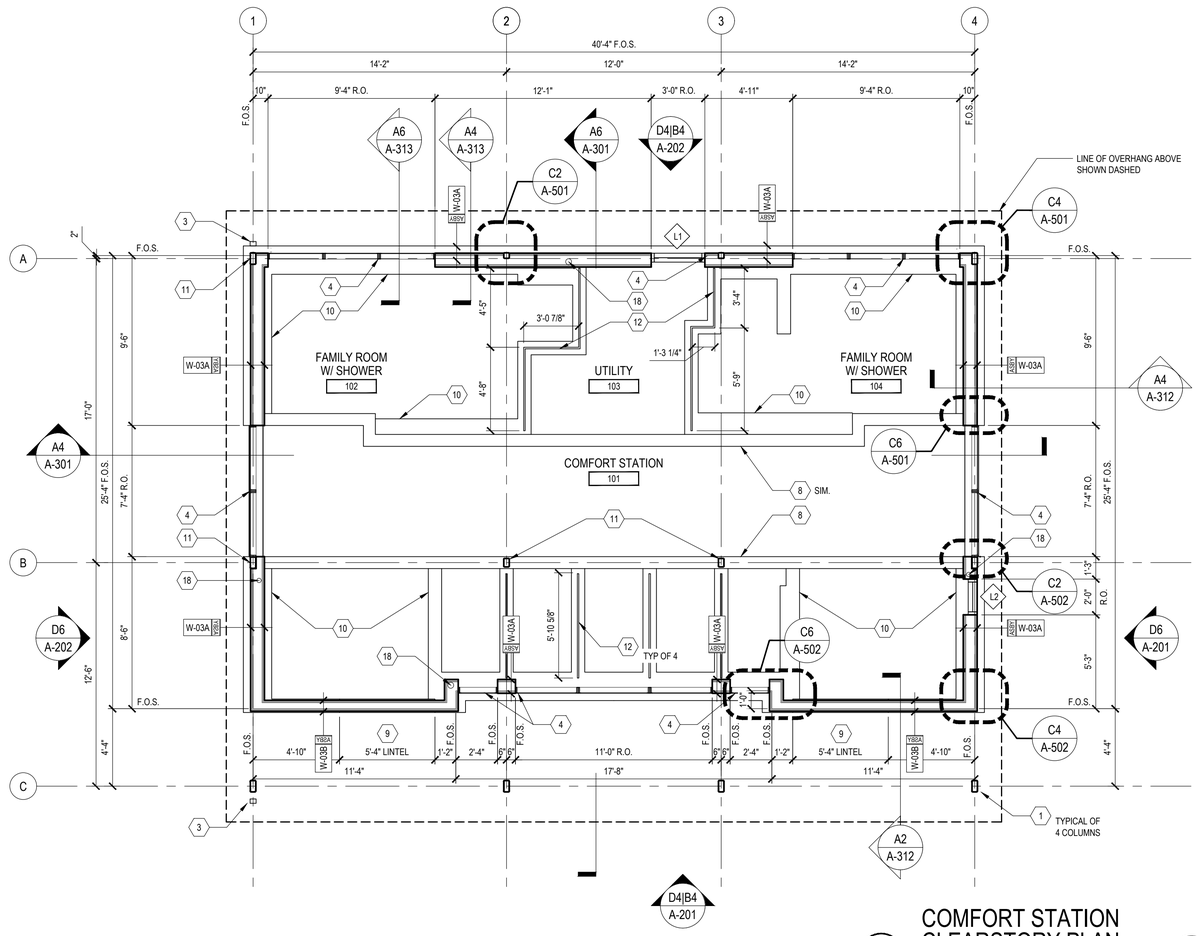
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-101	25114 GXO
JOB ORDER NUMBER	
PROJ-1000634	
SHEET 47 OF 150	
DRAWING NUMBER	
2025-2218	
FILE NO.: 8	REV. 05/08



COMFORT STATION CLEARSTORY PLAN

B5 — SCALE: 1/4" = 1'-0"

NORTH

GENERAL NOTES

1. DIMENSIONS ARE TO THE FACE OF STUD (F.O.S.) OR FACE OF MASONRY (F.O.M.), UNLESS OTHERWISE NOTED

   (F.O.C.) FACE OF CONRETE SLAB

2. REFER TO:
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   A-602 FOR INTERIOR PARTITION TYPES
   A-603 FOR DOOR SCHEDULE
   A-604 FOR FINISH SCHEDULE
   A-605 FOR TOILET ACCESSORIES SCHEDULE AND MOUNTING HEIGHTS
   A-606 FOR WINDOWS, LOUVERS, AND PERFORATED METAL SCREEN SCHEDULES

3. REFER TO CIVIL, LANDSCAPE, AQUATIC, STRUCTURAL, AND MEP DRAWINGS FOR MORE INFORMATION

4. **AT THE COMFORT STATION:** ALL WIRING, CONDUIT, AND PLUMBING LINES ARE TO BE CONCEALED WITHIN THE CMU WALL CHASE OR RUN WITHIN THE STUD FRAMING ABOVE AND NOT EXPOSED TO VIEW. RUNNING THESE ITEMS ON THE FACE OF THE CMU EXPOSED IS NOT PERMITTED. EXCEPTION: THE UTILITY ROOM MAY HAVE EXPOSED ROUTING

DRAWING KEYNOTES

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2. PROVIDE PLYWOOD BACKER PANELS BEHIND SPLASH PAD EQUIPMENT, COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHTS WITH AQUATIC DRAWINGS
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4. PREFINISHED PERFORATED METAL SCREEN SYSTEM AT OPENINGS, BASIS OF DESIGN: GORDON PANELS W/ STRUCTURAL SUPPORT/FRAMING, INCLUDE INSECT SCREENING. SEE FINISH SCHEDULE FOR PERFORATED PANEL INFORMATION. CONTACT: MICHAEL MOORHOUSE | 410-422-6453 | mike@saarchitectural.com
5. FLOOR DRAIN, FLUSH WITH SLAB, COORDINATE W/ PLUMBING.
6. STANDING SEAM METAL ROOF MTL-03
7. GUTTER ALONG ROOF EDGE MTL-03
8. PRECAST BEAM, SEE DETAIL D6|A-507 FOR PROFILE PC-01
9. 8" HIGH PRECAST LINTEL PC-01
10. PRECAST CAP TO MATCH WIDTH OF WALL BELOW. PROVIDE 1" OVERHANG ON EACH SIDE AND DRIP EDGE ON EXTERIOR SIDE OF EXTERIOR WALLS PC-01
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14. DEPRESS FLOOR DRAIN 2" AND SLOPE CIRCULAR AREA AROUND IT DOWN TO MEET FLUSH AT MAX 2% SLOPE (1:48). COORDINATE W/ PLUMBING
15. DEPRESS FLOOR DRAIN 2" AND SLOPE CIRCULAR AREA AROUND IT DOWN TO MEET FLUSH AT MAX 2% SLOPE (1:48). COORDINATE W/ PLUMBING
16. DEPRESS SLAB 1-1/8" (VERIFY) AT SHOWER FOR PAN AND PROVIDE A 6"x6" LEAVE OUT AT DRAIN (VERIFY). **COORDINATE ALL EXACT DIMENSIONS WITH FINAL APPROVED SHOWER INSERT - DIMENSIONS INDICATED ARE COORDINATED W/ INSERT LISTED IN PLUMBING SCHEDULE.**
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26. MDP PANEL AND UTILITY METER, SEE MEP DRAWINGS
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28. ELECTRICAL PANEL, SEE MEP DRAWINGS

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.					R.O.W NO.	PNW	35NW40	PLAN SCALE:	AS SHOWN	APPROVED BY: PROPERTY MANAGER
		CONTRACT COMPLETION BOX						PROFILE SCALE:		DATE:
ARCHITECT: R. JAMES PETT	DGN BY: RJP	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
AS-BUILT PER RECORD PRINT	DWN BY: JGB	REVIEWED BY:								
BY: DATE:	CHKD BY: RJP	DATE REVIEWED:								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

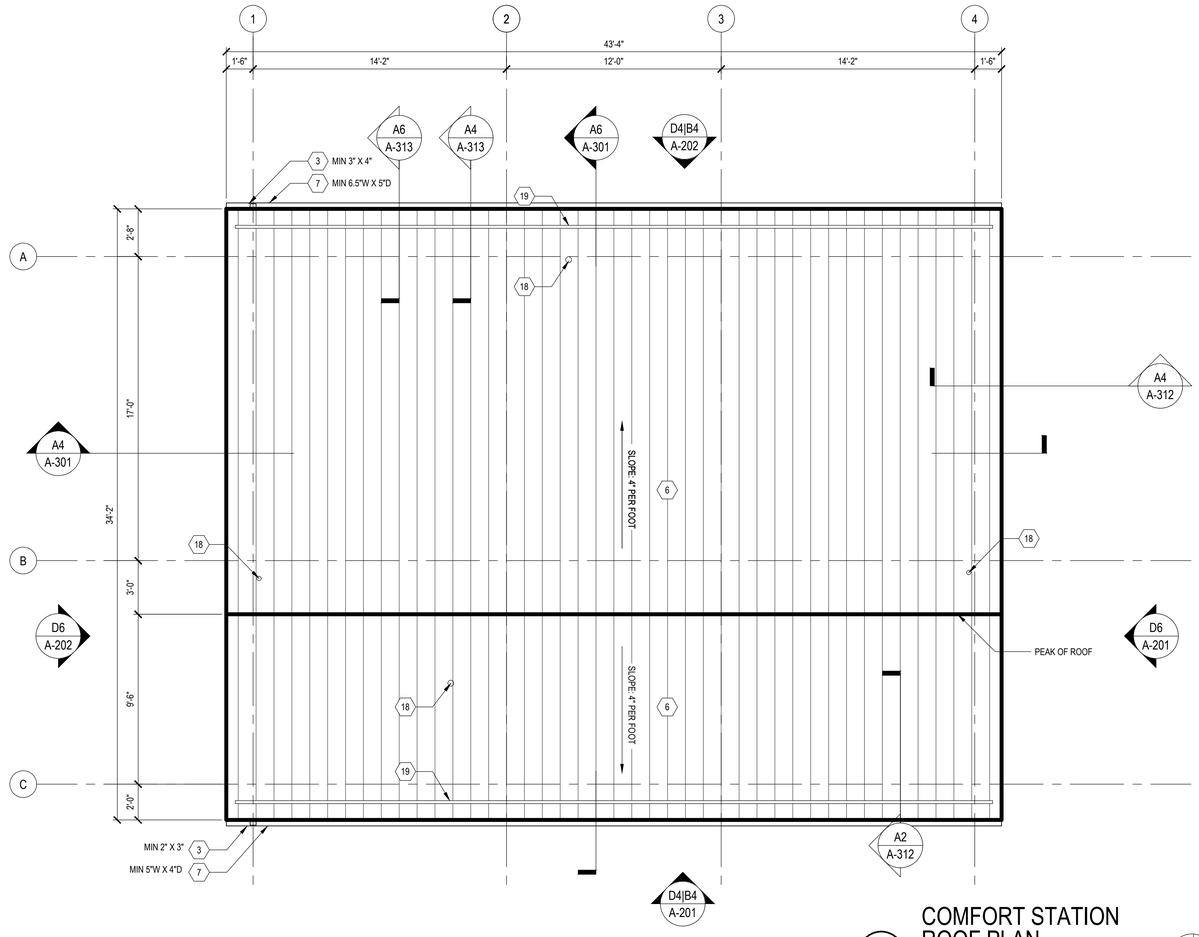
NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION CLEARSTORY PLAN

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-102	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 48 OF 150
	DRAWING NUMBER
	2025-2219
	FILE NO.: 8



COMFORT STATION ROOF PLAN

B5 — SCALE: 1/4" = 1'-0"

NORTH

GENERAL NOTES

1. DIMENSIONS ARE TO THE FACE OF STUD (F.O.S.) OR FACE OF MASONRY (F.O.M.), UNLESS OTHERWISE NOTED

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   A-603 FOR DOOR SCHEDULE
   A-604 FOR FINISH SCHEDULE
   A-605 FOR TOILET ACCESSORIES SCHEDULE AND MOUNTING HEIGHTS
   A-606 FOR WINDOWS, LOUVERS, AND PERFORATED METAL SCREEN SCHEDULES

3. REFER TO CIVIL, LANDSCAPE, AQUATIC, STRUCTURAL, AND MEP DRAWINGS FOR MORE INFORMATION

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DRAWING KEYNOTES

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2. PROVIDE PLYWOOD BACKER PANELS BEHIND SPLASH PAD EQUIPMENT, COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHTS WITH AQUATIC DRAWINGS
3. DOWNSPOUT LOCATION
4. PREFINISHED PERFORATED METAL SCREEN SYSTEM AT OPENINGS, BASIS OF DESIGN: GORDON PANELS W/ STRUCTURAL SUPPORT/FRAMING, INCLUDE INSECT SCREENING. SEE FINISH SCHEDULE FOR PERFORATED PANEL INFORMATION. CONTACT: MICHAEL MOORHOUSE | 410-422-6453 | mike@isaarchitectural.com
5. FLOOR DRAIN, FLUSH WITH SLAB, COORDINATE W/ PLUMBING.
6. STANDING SEAM METAL ROOF [MTL-03]
7. GUTTER ALONG ROOF EDGE [MTL-03]
8. PRECAST BEAM, SEE DETAIL D6|A-507 FOR PROFILE [PC-01]
9. 8" HIGH PRECAST LINTEL [PC-01]
10. PRECAST CAP TO MATCH WIDTH OF WALL BELOW. PROVIDE 1" OVERHANG ON EACH SIDE AND DRIP EDGE ON EXTERIOR SIDE OF EXTERIOR WALLS [PC-01]
11. EXPOSED TUBE STEEL COLUMN PER STRUCTURAL
12. 18" HIGH PRIVACY PANELS [PP-01] MOUNTED ON TOP OF PRECAST CAP, CENTERED. MANUFACTURER TO PROVIDE MOUNTING DETAIL.
13. EXTERIOR CONCRETE SLAB, SLOPE AWAY FROM BUILDING PER CIVIL DRAWINGS. SCORING PATTERN IS SHOWN ON A-121.
14. DEPRESS FLOOR DRAIN ¾" AND SLOPE CIRCULAR AREA AROUND IT DOWN TO MEET FLUSH AT MAX 2% SLOPE (1:48). COORDINATE W/ PLUMBING
15. DEPRESS FLOOR DRAIN ¾" AND SLOPE CIRCULAR AREA AROUND IT DOWN TO MEET FLUSH AT MAX 2% SLOPE (1:48). COORDINATE W/ PLUMBING
16. DEPRESS SLAB 1-1/8" (VERIFY) AT SHOWER FOR PAN AND PROVIDE A 6"x6" LEAVE OUT AT DRAIN (VERIFY). **COORDINATE ALL EXACT DIMENSIONS WITH FINAL APPROVED SHOWER INSERT - DIMENSIONS INDICATED ARE COORDINATED W/ INSERT LISTED IN PLUMBING SCHEDULE.**
17. COORDINATE LOCATIONS OF GROUND CATCH FOR DROP BOLTS W/ FINAL GATE SELECTION
18. VENT THRU ROOF, RUN WITHIN CAVITY/STUD WALL TO ROOF, HIDDEN FROM VIEW, SEE PLUMBING DWGS. ALSO PROVIDE VENTSAVER, MODEL FB-151 BY SNOBLOX-SNOWJAX OR EQUAL AT VENTS PER COUNTY STANDARDS
19. SNOW GUARD [MTL-03]
20. FIRE EXTINGUISHER + RECESSED CABINET
21. 4" THICK CONCRETE PAD UNDER WATER HEATER, COORDINATE FINAL SIZE W/ UNIT
22. RECOMMENDED LOCATION FOR AED UNIT, PROVIDED AND INSTALLED BY COUNTY. FINAL LOCATION TO BE APPROVED BY COUNTY.
23. 3' H x 3' W PLYWOOD BACKER PANEL, TOP OF PANEL MOUNTED @ 8'-0" AFF, MAINTAIN 22" CLEAR IN FRONT FOR OIT RACK BY COUNTY
24. THROUGH WALL AC UNIT, SEE MEP DRAWINGS
25. REFER TO MEP AND AQUATIC DRAWINGS FOR ALL EQUIPMENT WITHIN THE SPLASH PAD MECHANICAL ROOM
26. MDP PANEL AND UTILITY METER, SEE MEP DRAWINGS
27. ROOFTOP EXHAUST FAN, SEE MEP DRAWINGS
28. ELECTRICAL PANEL, SEE MEP DRAWINGS

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT — DGN BY: RJP
AS-BUILT PER RECORD PRINT — DWN BY: JGB
BY: DATE: — CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO.
R.O.W NO.
CONTRACT COMPLETION BOX

KEY SHEET: PNW | POSITION SHT: 35NW40

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

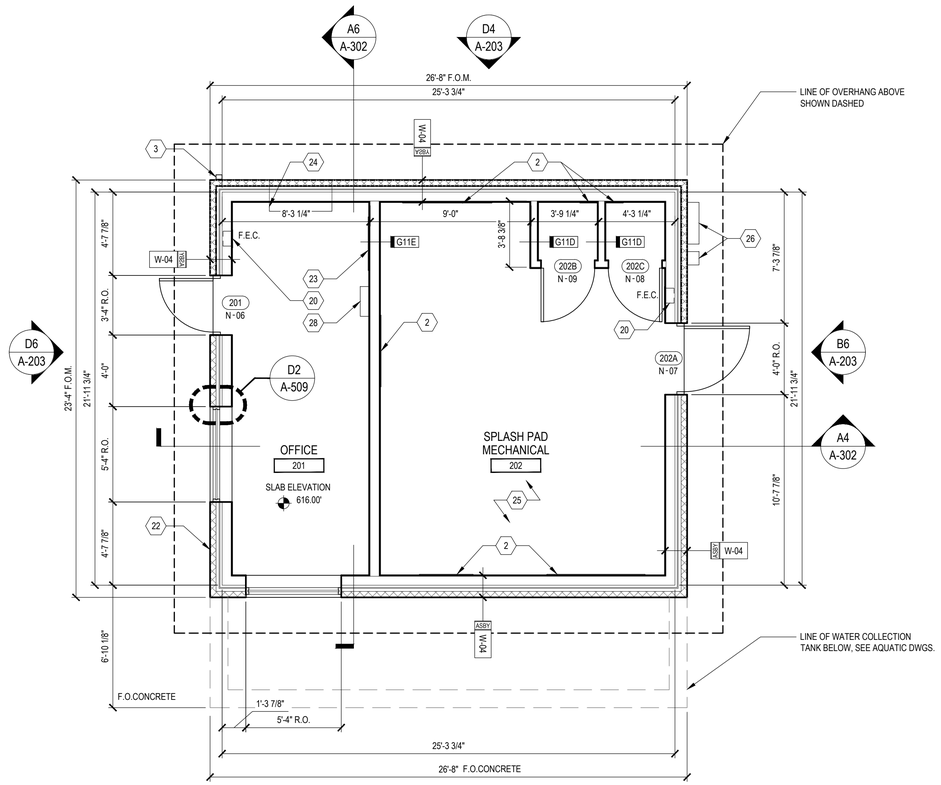
NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION ROOF PLAN

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

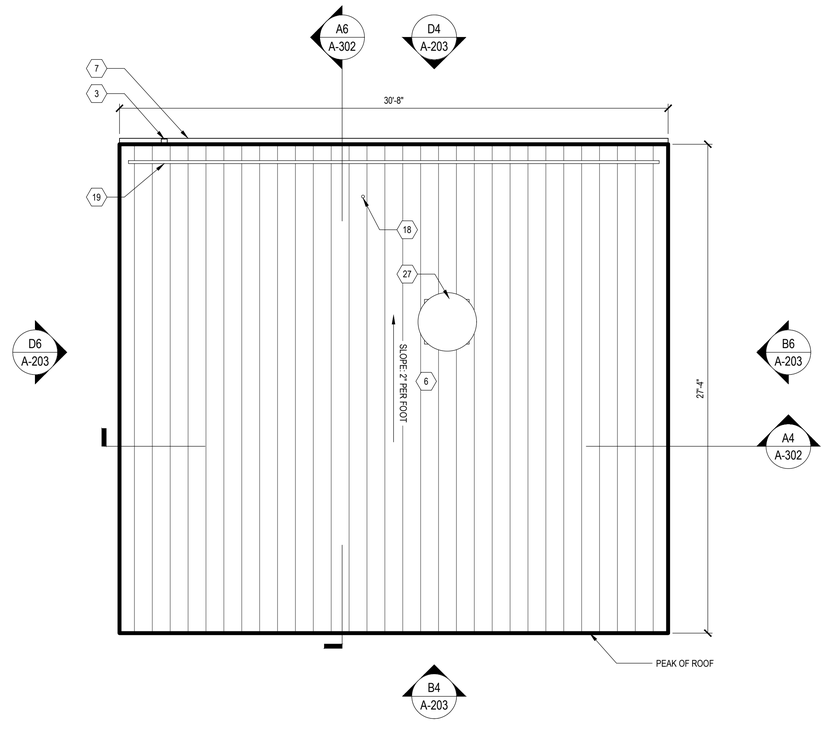
SHEET DESIGNATION	CONTRACT NUMBER
A–103	25114 GXO
	JOB ORDER NUMBER
	PROJ–1000634
	SHEET 49 OF 150
	DRAWING NUMBER
	2025-2220
	FILE NO.: 8



B3 SPLASH PAD OFFICE/MECH FLOOR PLAN

SCALE: 1/4" = 1'-0"

NORTH



B6 SPLASH PAD OFFICE/MECH ROOF PLAN

SCALE: 1/4" = 1'-0"

NORTH

GENERAL NOTES

1. DIMENSIONS ARE TO THE FACE OF STUD (F.O.S.) OR FACE OF MASONRY (F.O.M.), UNLESS OTHERWISE NOTED

   (F.O.C.) FACE OF CONCRETE SLAB

2. REFER TO:
   A-601 FOR BUILDING ASSEMBLIES
   A-602 FOR INTERIOR PARTITION TYPES
   A-603 FOR DOOR SCHEDULE
   A-604 FOR FINISH SCHEDULE
   A-605 FOR TOILET ACCESSORIES SCHEDULE AND MOUNTING HEIGHTS
   A-606 FOR WINDOWS, LOUVERS, AND PERFORATED METAL SCREEN SCHEDULES

3. REFER TO CIVIL, LANDSCAPE, AQUATIC, STRUCTURAL, AND MEP DRAWINGS FOR MORE INFORMATION

4. **AT THE COMFORT STATION:** ALL WIRING, CONDUIT, AND PLUMBING LINES ARE TO BE CONCEALED WITHIN THE CMU WALL CHASE OR RUN WITHIN THE STUD FRAMING ABOVE AND NOT EXPOSED TO VIEW. RUNNING THESE ITEMS ON THE FACE OF THE CMU EXPOSED IS NOT PERMITTED. EXCEPTION: THE UTILITY ROOM MAY HAVE EXPOSED ROUTING

DRAWING KEYNOTES

1. TYPICAL EXPOSED TUBE STEEL COLUMN AND MASONRY BASE
2. PROVIDE PLYWOOD BACKER PANELS BEHIND SPLASH PAD EQUIPMENT, COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHTS WITH AQUATIC DRAWINGS
3. DOWNSPOUT LOCATION
4. PREFINISHED PERFORATED METAL SCREEN SYSTEM AT OPENINGS, BASIS OF DESIGN: GORDON PANELS W/ STRUCTURAL SUPPORT/FRAMING, INCLUDE INSECT SCREENING. SEE FINISH SCHEDULE FOR PERFORATED PANEL INFORMATION. CONTACT: MICHAEL MOORHOUSE | 410-422-6453 | mike@isaarchitectural.com
5. FLOOR DRAIN, FLUSH WITH SLAB, COORDINATE W/ PLUMBING.
6. STANDING SEAM METAL ROOF MTL-03
7. GUTTER ALONG ROOF EDGE MTL-03
8. PRECAST BEAM, SEE DETAIL D6|A-507 FOR PROFILE PC-01
9. 8" HIGH PRECAST LINTEL PC-01
10. PRECAST CAP TO MATCH WIDTH OF WALL BELOW. PROVIDE 1" OVERHANG ON EACH SIDE AND DRIP EDGE ON EXTERIOR SIDE OF EXTERIOR WALLS PC-01
11. EXPOSED TUBE STEEL COLUMN PER STRUCTURAL
12. 18" HIGH PRIVACY PANELS PP-01 MOUNTED ON TOP OF PRECAST CAP, CENTERED. MANUFACTURER TO PROVIDE MOUNTING DETAIL.
13. EXTERIOR CONCRETE SLAB, SLOPE AWAY FROM BUILDING PER CIVIL DRAWINGS. SCORING PATTERN IS SHOWN ON A-121.
14. DEPRESS FLOOR DRAIN 3" AND SLOPE CIRCULAR AREA AROUND IT DOWN TO MEET FLUSH AT MAX 2% SLOPE (1:48). COORDINATE W/ PLUMBING
15. DEPRESS FLOOR DRAIN 3" AND SLOPE CIRCULAR AREA AROUND IT DOWN TO MEET FLUSH AT MAX 2% SLOPE (1:48). COORDINATE W/ PLUMBING
16. DEPRESS SLAB 1-1/8" (VERIFY) AT SHOWER FOR PAN AND PROVIDE A 6"x6" LEAVE OUT AT DRAIN (VERIFY). **COORDINATE ALL EXACT DIMENSIONS WITH FINAL APPROVED SHOWER INSERT - DIMENSIONS INDICATED ARE COORDINATED W/ INSERT LISTED IN PLUMBING SCHEDULE.**
17. COORDINATE LOCATIONS OF GROUND CATCH FOR DROP BOLTS W/ FINAL GATE SELECTION
18. VENT THRU ROOF, RUN WITHIN CAVITY/STUD WALL TO ROOF, HIDDEN FROM VIEW, SEE PLUMBING DWGS. ALSO PROVIDE VENTSAVER, MODEL FB-151 BY SNOBLOX-SNOWJAX OR EQUAL AT VENTS PER COUNTY STANDARDS
19. SNOW GUARD MTL-03
20. FIRE EXTINGUISHER + RECESSED CABINET
21. 4" THICK CONCRETE PAD UNDER WATER HEATER, COORDINATE FINAL SIZE W/ UNIT
22. RECOMMENDED LOCATION FOR AED UNIT, PROVIDED AND INSTALLED BY COUNTY. FINAL LOCATION TO BE APPROVED BY COUNTY.
23. 3' H x 3' W PLYWOOD BACKER PANEL, TOP OF PANEL MOUNTED @ 8'-0" AFF, MAINTAIN 22" CLEAR IN FRONT FOR OIT RACK BY COUNTY
24. THROUGH WALL AC UNIT, SEE MEP DRAWINGS
25. REFER TO MEP AND AQUATIC DRAWINGS FOR ALL EQUIPMENT WITHIN THE SPLASH PAD MECHANICAL ROOM
26. MDP PANEL AND UTILITY METER, SEE MEP DRAWINGS
27. ROOFTOP EXHAUST FAN, SEE MEP DRAWINGS
28. ELECTRICAL PANEL, SEE MEP DRAWINGS

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.					R.O.W NO.	PNW	35NW40
ARCHITECT: R. JAMES PETT	DGN BY: RJP	CONTRACT COMPLETION BOX					
AS-BUILT PER RECORD PRINT	DWN BY: JGB						
BY: DATE:	CHKD BY: RJP						

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – SPLASH PAD OFFICE/MECH FLOOR AND ROOF PLAN

SPLASH PAD AND SUPPORTING FACILITIES

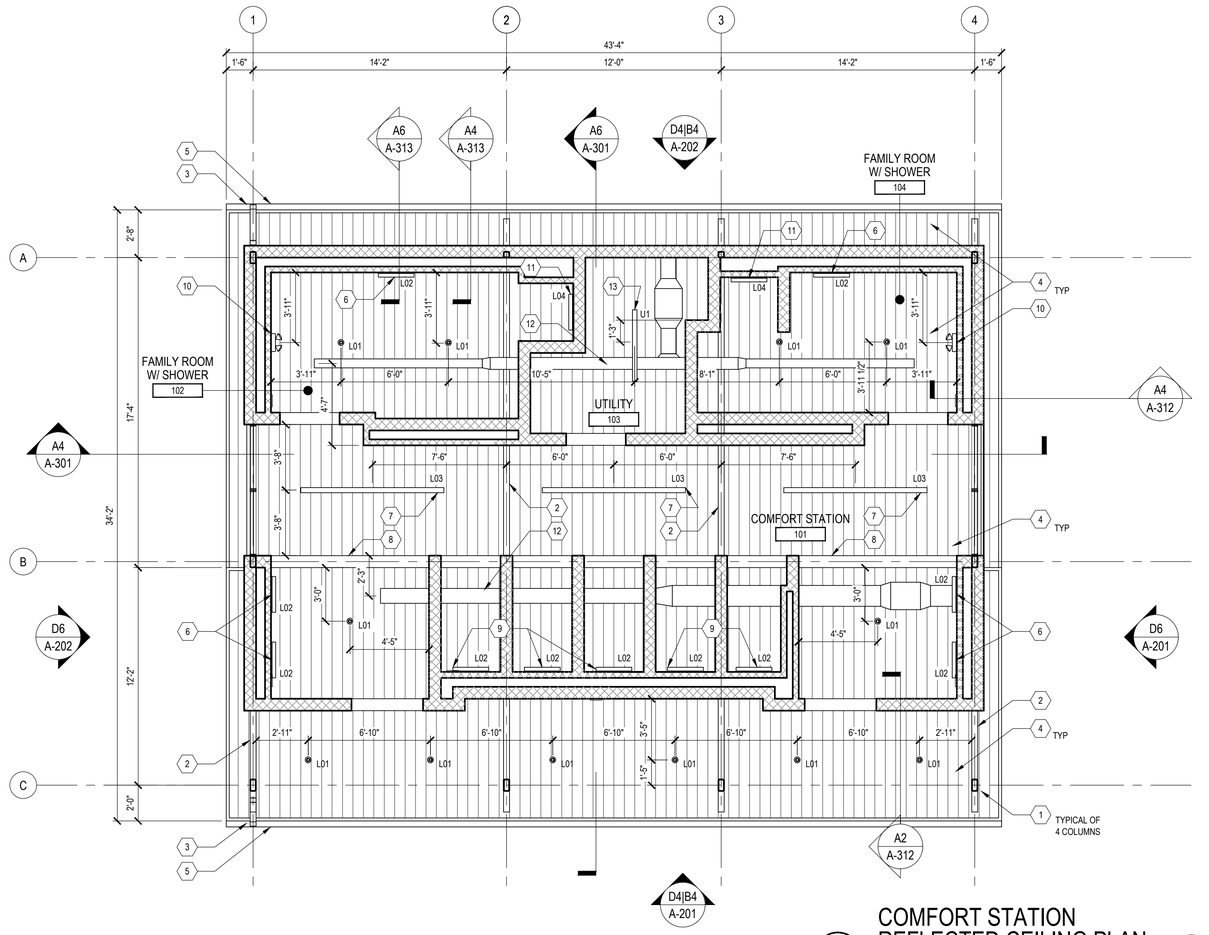
SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-104	25114 GXO

JOB ORDER NUMBER
PROJ-1000634
SHEET 50 OF 150
DRAWING NUMBER
2025-2221
FILE NO.: 8



B5 **COMFORT STATION REFLECTED CEILING PLAN**

SCALE: 1/4" = 1'-0"

NORTH

GENERAL RCP NOTES

1. ALL LIGHTING IS DIMENSIONED FROM CENTERLINE OF THE LIGHT FIXTURE TO FINISHED FACE OF WALL, UNLESS OTHERWISE NOTED.
2. REFER TO ELECTRICAL DRAWINGS FOR LIGHTING SCHEDULE AND LIGHT FIXTURE TYPES.
3. REFER TO LANDSCAPE AND ELECTRICAL DRAWINGS FOR SITE LIGHTING.

RCP KEYNOTES

1. TYPICAL EXPOSED TUBE STEEL COLUMN
2. PAINT EXPOSED ROOF STRUCTURE PNT-01
3. DOWNSPOUT LOCATION
4. WOOD LOOK METAL SOFFIT MTL-04 HEIGHT VARIES THROUGHOUT W/ SLOPE OF THE ROOF
5. GUTTER ALONG ROOF EDGE MTL-03
6. CENTER LIGHT OVER SINK BELOW, MOUNT BOTTOM OF FIXTURE AT 6'-10" AFF
7. MOUNT BOTTOM OF PENDANT FIXTURE AT 10'-6" AFF
8. PRECAST BEAM
9. CENTER LIGHT ON WALL, MOUNT BOTTOM OF FIXTURE AT 7'-6" AFF
10. EMERGENCY LIGHT FIXTURE, MOUNT FIXTURE AT 8'-0" AFF
11. CENTER LIGHT ON BACK WALL OF SHOWER, MOUNT BOTTOM OF FIXTURE AT 8'-2" AFF
12. MECHANICAL EXHAUST DUCT, MOUNT BOTTOM OF DUCT TIGHT TO UNDERSIDE OF EXPOSED ROOF BEAMS, SEE MECHANICAL DRAWINGS FOR MORE INFORMATION
13. MOUNT BOTTOM OF PENDANT FIXTURE AT 8'-0" AFF, BELOW TOP OF CMU WALLS
14. CENTER GRID WITHIN ROOM AS SHOWN ACT-01
15. MOUNT BOTTOM OF SCONCE AT 7'-2" AFF
16. NO CEILING EXPOSED STRUCTURE
17. COORDINATE EXACT LOCATION AND MOUNTING HEIGHTS WITH SPLASH PAD EQUIPMENT

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

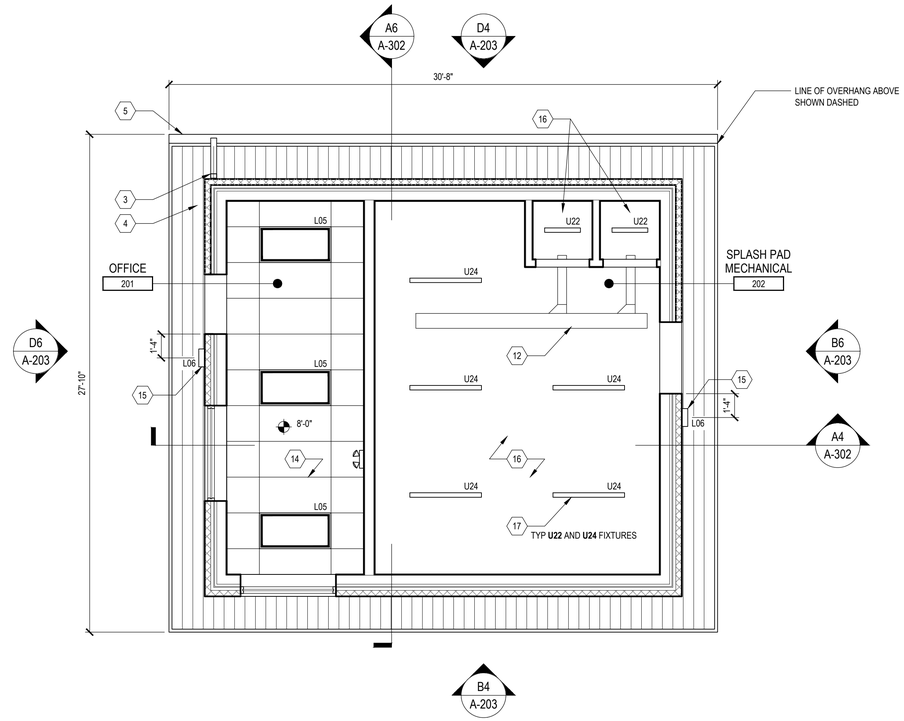
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY:
PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE – COMFORT STATION REFLECTED CEILING PLAN
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A–111	25114 GXO
	JOB ORDER NUMBER
	PROJ–1000634
	SHEET 51 OF 150
	DRAWING NUMBER
	2025-2222
	FILE NO.: 8



SPLASH PAD OFFICE/MECH REFLECTED CEILING PLAN

B6

SCALE: 1/4" = 1'-0"

NORTH

GENERAL RCP NOTES

1. ALL LIGHTING IS DIMENSIONED FROM CENTERLINE OF THE LIGHT FIXTURE TO FINISHED FACE OF WALL, UNLESS OTHERWISE NOTED.
2. REFER TO ELECTRICAL DRAWINGS FOR LIGHTING SCHEDULE AND LIGHT FIXTURE TYPES.
3. REFER TO LANDSCAPE AND ELECTRICAL DRAWINGS FOR SITE LIGHTING.

RCP KEYNOTES

1. TYPICAL EXPOSED TUBE STEEL COLUMN
2. PAINT EXPOSED ROOF STRUCTURE PNT-01
3. DOWNSPOUT LOCATION
4. WOOD LOOK METAL SOFFIT MTL-04 HEIGHT VARIES THROUGHOUT W/ SLOPE OF THE ROOF
5. GUTTER ALONG ROOF EDGE MTL-03
6. CENTER LIGHT OVER SINK BELOW, MOUNT BOTTOM OF FIXTURE AT 6'-10" AFF
7. MOUNT BOTTOM OF PENDANT FIXTURE AT 10'-6" AFF
8. PRECAST BEAM
9. CENTER LIGHT ON WALL, MOUNT BOTTOM OF FIXTURE AT 7'-6" AFF
10. EMERGENCY LIGHT FIXTURE, MOUNT FIXTURE AT 8'-0" AFF
11. CENTER LIGHT ON BACK WALL OF SHOWER, MOUNT BOTTOM OF FIXTURE AT 8'-2" AFF
12. MECHANICAL EXHAUST DUCT, MOUNT BOTTOM OF DUCT TIGHT TO UNDERSIDE OF EXPOSED ROOF BEAMS, SEE MECHANICAL DRAWINGS FOR MORE INFORMATION
13. MOUNT BOTTOM OF PENDANT FIXTURE AT 8'-0" AFF, BELOW TOP OF CMU WALLS
14. CENTER GRID WITHIN ROOM AS SHOWN ACT-01
15. MOUNT BOTTOM OF SCONCE AT 7'-2" AFF
16. NO CEILING EXPOSED STRUCTURE
17. COORDINATE EXACT LOCATION AND MOUNTING HEIGHTS WITH SPLASH PAD EQUIPMENT

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
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ARCHITECT: R. JAMES PETT	DGN BY: RJP	CONTRACT COMPLETION BOX					
AS-BUILT PER RECORD PRINT	DWN BY: JGB	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER
BY: DATE:	CHKD BY: RJP	REVIEWED BY:					
		DATE REVIEWED:					

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

WATER	FIELD ENGINEER

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – SPLASH PAD OFFICE/MECH REFLECTED CEILING PLAN

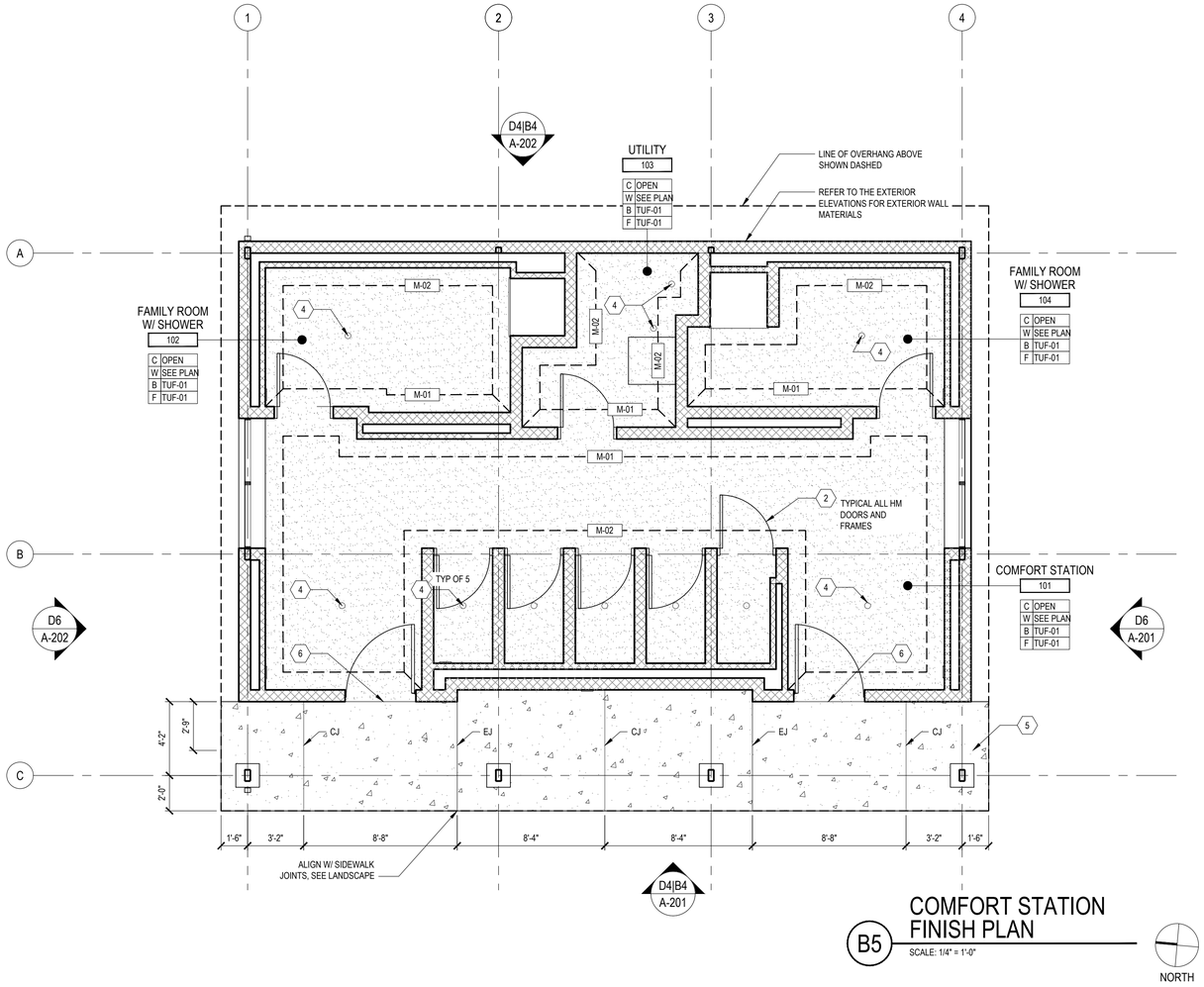
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-112	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 52 OF 150
	DRAWING NUMBER
	2025-2223
	FILE NO.: 8



COMFORT STATION FINISH PLAN

B5 — SCALE: 1/4" = 1'-0"

NORTH

GENERAL FINISH NOTES

1. SEE A-604 FOR FINISH SCHEDULE.
2. FLOORING TRANSITIONS AND THRESHOLDS NOT TO EXCEED A CHANGE IN LEVEL GREATER THAN 1/4" MAXIMUM ABOVE THE FINISHED FLOOR. CHANGES IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2.
3. ALL THRESHOLDS TO BE CENTERED IN DOORWAYS.

DRAWING KEYNOTES

1. DOOR THRESHOLD
2. PAINT HM DOOR AND FRAME PNT-02
3. PAINT HM DOOR AND FRAME PNT-03
4. FLOOR DRAIN, SEE A-100 AND PLUMBING DRAWINGS
5. EXTERIOR CONCRETE SLAB, SLOPE AWAY FROM BUILDING PER CIVIL AND LANDSCAPE DRAWINGS. PROVIDE CONCRETE JOINTS IN BOTH DIRECTIONS AS SHOWN AND ALIGN WITH SIDEWALK JOINTING. PROVIDE EXPANSION JOINTS (EJ) AND CONTRACTION JOINTS (CJ) PER LANDSCAPE DETAILS. REFER TO LANDSCAPE PLANS FOR SIDEWALK INFORMATION BEYOND
6. PROVIDE STONEHARD STANDARD TRANSITION DETAIL FOR FLUSH TRANSITION TO EXTERIOR CONCRETE SLAB
7. PROVIDE GREENBOARD IN LIEU OF GWB IN SPLASH PAD MECHANICAL ROOM. FRP PANELS FRP-01 TO BE 8' HIGH W/ PAINTED GWB ABOVE PNT-04
8. PAINT HM DOOR AND FRAME PNT-06
9. PAINT WOOD TRIM AT WINDOW PNT-05

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. #7318-A, EXPIRATION DATE 10-21-26.

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AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: RJP
DWN BY: JGB
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AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
			R.O.W NO.		
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY:
PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE – COMFORT STATION FINISH PLAN
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

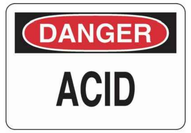
SHEET DESIGNATION	CONTRACT NUMBER
A-121	25114 GXO
JOB ORDER NUMBER	
PROJ-1000634	
SHEET 53 OF 150	
DRAWING NUMBER	
2025-2224	
FILE NO.: 8	REV. 00/00

SIGN TYPE SCHEDULE

DESIGNATION	TYPE	INFO	DIMENSIONS	MATERIAL	MANUFACTURER	WEBSITE LINK
C1	EXTERIOR CUSTOM DANGER GASEOUS OXIDIZER	DANGER GASEOUS OXIDIZER OZONE	20" HIGH x 28" WIDE (Lettering to be 4" High Min. per ISPSC, FONT: Helvetica Neue Black)	ALUMINUM + SETON ULTRATUFF OVERLAMINATE	SETON	https://www.seton.com/custom-osha-safety-signs-sl1.html#dyoAppContainer
D1	INTERIOR DANGER	DANGER ACID	7" HIGH x 10" WIDE	MAGNETIC, LAMIINATED	SETON	https://www.seton.com/chemical-hazmat-signs-danger-acid-m9398-1.html
D2	INTERIOR DANGER	DANGER CHLORINE	7" HIGH x 10" WIDE	MAGNETIC, LAMIINATED	SETON	https://www.seton.com/danger-chlorine-industrial-chemical-warning-sign-l10659.html
D3	INTERIOR DANGER	DANGER CHEMICAL STORAGE AREA AUTHORIZED PERSONNEL ONLY	7" HIGH x 10" WIDE	MAGNETIC, LAMIINATED	SETON	https://www.seton.com/chemical-signs-danger-chemical-storage-area-l7742.html#L7742EEHTEDPLA
E1	INTERIOR PRODUCT CHEMICAL HAZARD NFPA	ACID: Blue 3 (left diamond), Red 0 (top diamond), Yellow 0 (right diamond), ACID letters (bottom diamond)	5" HIGH x 5" WIDE	VINYL	SETON	https://wwwA.seton.com/nfpa-sign-kit-js240.html
E2	INTERIOR PRODUCT CHEMICAL HAZARD NFPA	CHLORINE: Blue 4 (left diamond), Red 0 (top diamond), Yellow 0 (right diamond), OX letters (bottom diamond)	5" HIGH x 5" WIDE	VINYL	SETON	https://wwwA.seton.com/nfpa-sign-kit-js240.html
F1	INTERIOR EYE WASH STATION	EMERGENCY EYE WASH STATION KEEP AREA CLEAR	10" HIGH x 7" WIDE	ALUMINUM, LAMINATED	SETON	https://www.seton.com/ansi-safety-signs-emergency-eye-wash-station-l3786.html#L3786GGVTEDVAD
G1	INTERIOR SAFETY DATA SHEETS RACK/SIGN	SINGLE STATION, (1) 3 RING BINDER, TEXT LANGUAGE: ENGLISH, SPANISH			SETON	https://www.seton.com/ghs-right-to-know-stations-es4026.html#2338C

SIGN TYPE C1

SIGN TYPE D1



SIGN TYPE D2

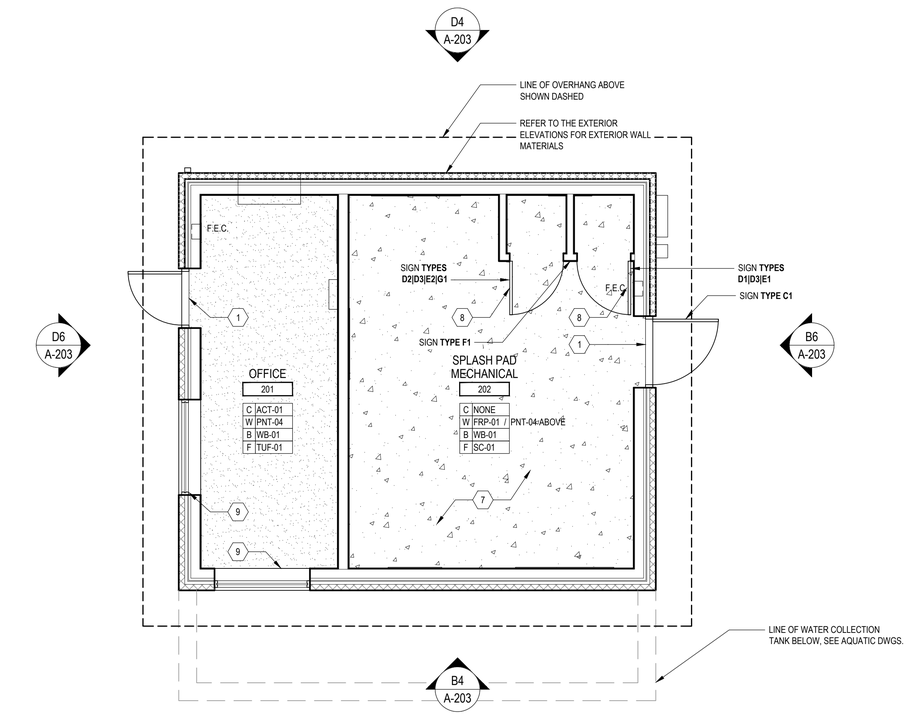
SIGN TYPE D3

SIGN TYPE E1

SIGN TYPE E2

SIGN TYPE F1

SIGN TYPE G1



SPLASH PAD OFFICE/MECH FINISH AND SIGNAGE PLAN

B6 — SCALE: 1/4" = 1'-0"

NORTH

GENERAL FINISH NOTES

1. SEE A-604 FOR FINISH SCHEDULE.
2. FLOORING TRANSITIONS AND THRESHOLDS NOT TO EXCEED A CHANGE IN LEVEL GREATER THAN 1/4" MAXIMUM ABOVE THE FINISHED FLOOR. CHANGES IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2.
3. ALL THRESHOLDS TO BE CENTERED IN DOORWAYS.

DRAWING KEYNOTES

1. DOOR THRESHOLD
2. PAINT HM DOOR AND FRAME PNT-02
3. PAINT HM DOOR AND FRAME PNT-03
4. FLOOR DRAIN, SEE A-100 AND PLUMBING DRAWINGS
5. EXTERIOR CONCRETE SLAB, SLOPE AWAY FROM BUILDING PER CIVIL AND LANDSCAPE DRAWINGS. PROVIDE CONCRETE JOINTS IN BOTH DIRECTIONS AS SHOWN AND ALIGN WITH SIDEWALK JOINTING. PROVIDE EXPANSION JOINTS (EJ) AND CONTRACTION JOINTS (CJ) PER LANDSCAPE DETAILS. REFER TO LANDSCAPE PLANS FOR SIDEWALK INFORMATION BEYOND
6. PROVIDE STONEHARD STANDARD TRANSITION DETAIL FOR FLUSH TRANSITION TO EXTERIOR CONCRETE SLAB
7. PROVIDE GREENBOARD IN LIEU OF GWB IN SPLASH PAD MECHANICAL ROOM. FRP PANELS FRP-01 TO BE 8' HIGH W/ PAINTED GWB ABOVE PNT-04
8. PAINT HM DOOR AND FRAME PNT-06
9. PAINT WOOD TRIM AT WINDOW PNT-05

SEAL

STATE OF MARYLAND — RAJESH J. PETT — 21615 — REGISTERED ARCHITECT

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

R.O.W NO. | PNW | 35NW40

CONTRACT COMPLETION BOX

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE

PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT

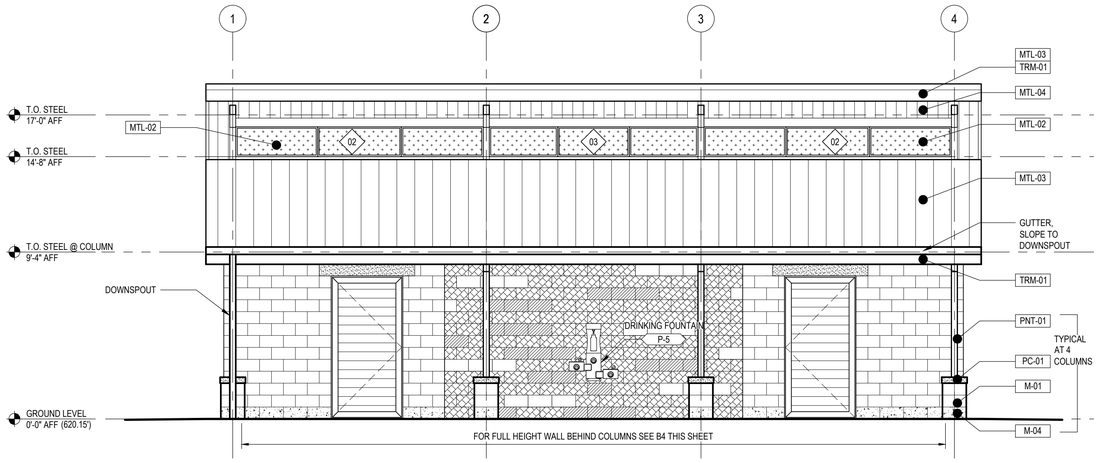
APPROVED BY:
PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE – SPLASH PAD OFFICE/MECH FINISH AND SIGNAGE PLAN
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

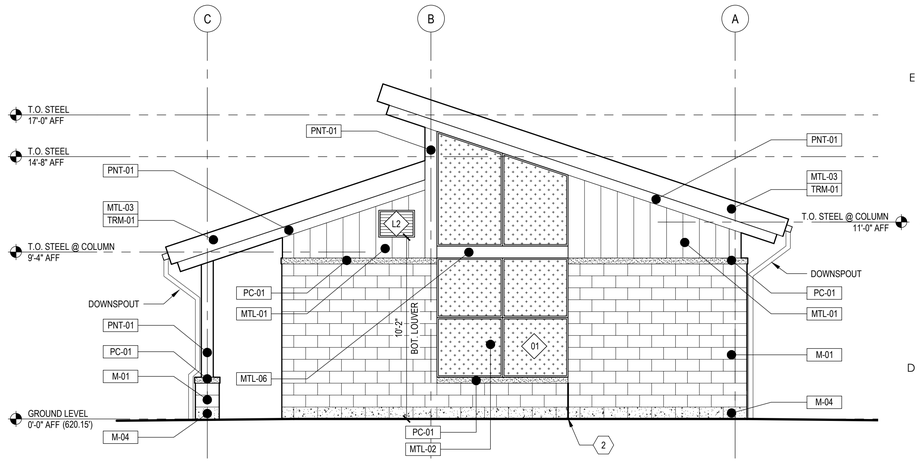
SHEET DESIGNATION	CONTRACT NUMBER
A-122	25114 GXO
JOB ORDER NUMBER	PROJ-1000634
SHEET 54 OF 150	
DRAWING NUMBER	2025-2225
FILE NO.: 8	

DWG. FILENAME:



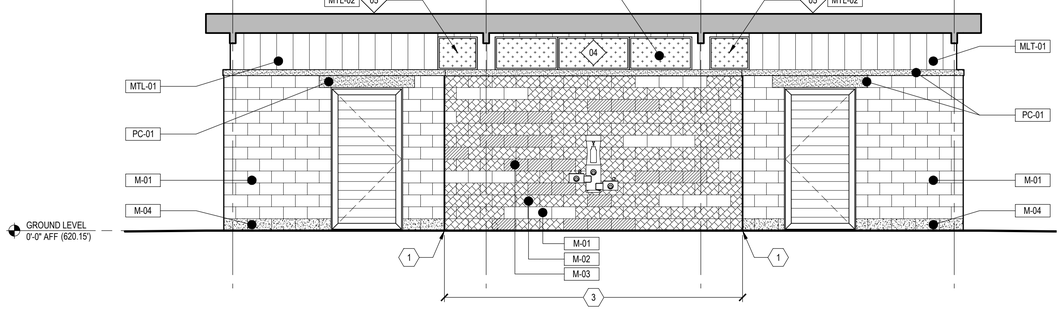
D4 WEST ELEVATION

SCALE: 1/4" = 1'-0"



D6 SOUTH ELEVATION

SCALE: 1/4" = 1'-0"



B4 WEST ELEVATION - UNDER ROOF

SCALE: 1/4" = 1'-0"

GENERAL ELEVATION NOTES

1. DIMENSIONS ARE TO THE FACE OF STUD (F.O.S.) OR FACE OF MASONRY (F.O.M.), UNLESS OTHERWISE NOTED

   (F.O.C.) FACE OF CONRETE SLAB

2. REFER TO:
   A-601 FOR BUILDING ASSEMBLIES
   A-602 FOR INTERIOR PARTITION TYPES
   A-603 FOR DOOR SCHEDULE
   A-604 FOR FINISH SCHEDULE
   A-605 FOR TOILET ACCESSORIES SCHEDULE AND MOUNTING HEIGHTS
   A-606 FOR WINDOWS, LOUVERS, AND PERFORATED METAL SCREEN SCHEDULES

3. REFER TO CIVIL, LANDSCAPE, AQUATIC, STRUCTURAL, AND MEP DRAWINGS FOR MORE INFORMATION

4. **AT THE COMFORT STATION:** ALL WIRING, CONDUIT, AND PLUMBING LINES ARE TO BE CONCEALED WITHIN THE CMU WALL CHASE OR RUN WITHIN THE STUD FRAMING ABOVE AND NOT EXPOSED TO VIEW. RUNNING THESE ITEMS ON THE FACE OF THE CMU EXPOSED IS NOT PERMITTED. EXCEPTION: THE UTILITY ROOM MAY HAVE EXPOSED ROUTING

DRAWING KEYNOTES

1. MASONRY CONTROL JOINT, AT INSIDE CORNER WHERE WALL RECESSES
2. MASONRY CONTROL JOINT, 25' MAX SPACING
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4. WALL MOUNTED SPLASH PAD SIGNAGE, DESIGN TBD, BY OTHERS
5. PREFINISHED ALUMINUM STOREFRONT DOOR W/ LOW E GLAZING
6. GATE AND FENCE, SEE LANDSCAPE DRAWINGS
7. THROUGH WALL AC UNIT, SEE MEP DRAWINGS

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT — DGN BY: RJP
AS-BUILT PER RECORD PRINT — DWN BY: JGB
BY: DATE: — CHKD BY: RJP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
			R.O.W NO.	PNW	35NW40
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

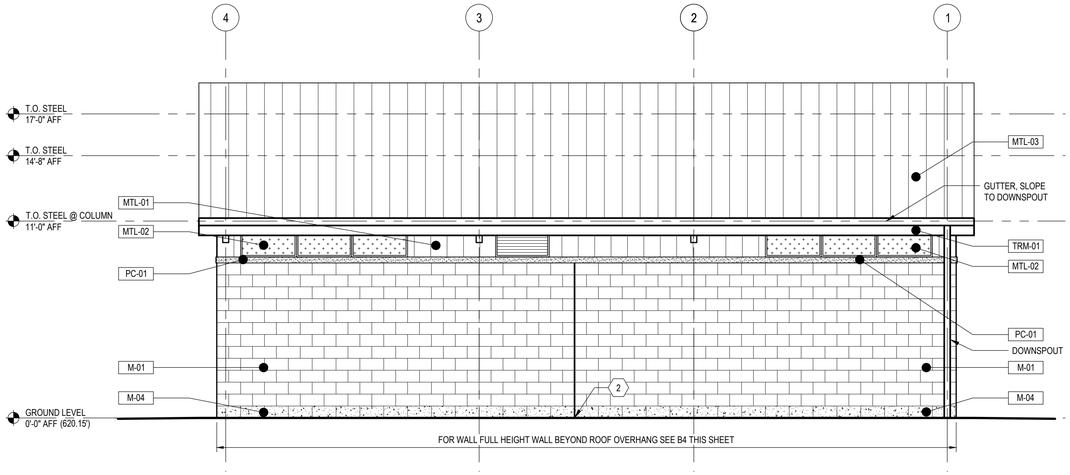
NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION EXTERIOR ELEVATIONS

SPLASH PAD AND SUPPORTING FACILITIES

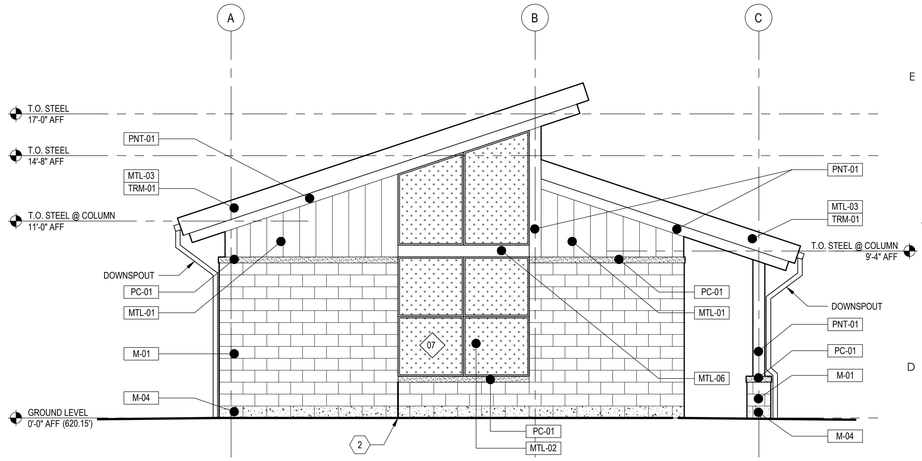
SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-201	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 55 OF 150
	DRAWING NUMBER
	2025-2226
	FILE NO.: 8



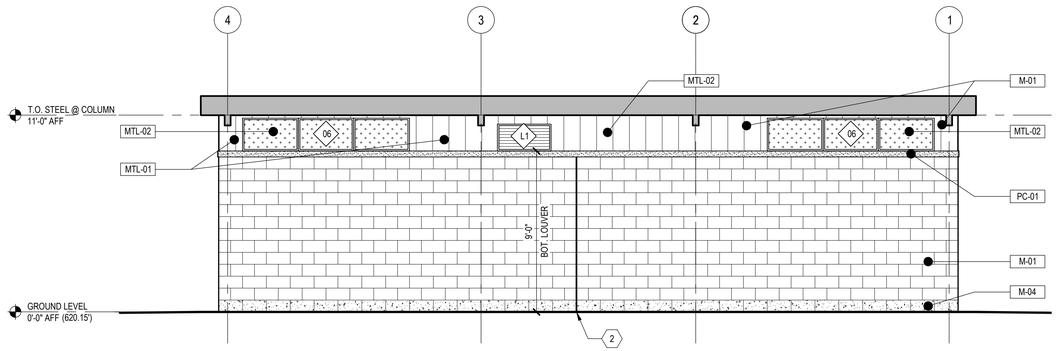
D4 EAST ELEVATION

SCALE: 1/4" = 1'-0"



D6 NORTH ELEVATION

SCALE: 1/4" = 1'-0"



B4 EAST ELEVATION - UNDER ROOF

SCALE: 1/4" = 1'-0"

GENERAL ELEVATION NOTES

1. DIMENSIONS ARE TO THE FACE OF STUD (F.O.S.) OR FACE OF MASONRY (F.O.M.), UNLESS OTHERWISE NOTED

   (F.O.C.) FACE OF CONRETE SLAB

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   A-602 FOR INTERIOR PARTITION TYPES
   A-603 FOR DOOR SCHEDULE
   A-604 FOR FINISH SCHEDULE
   A-605 FOR TOILET ACCESSORIES SCHEDULE AND MOUNTING HEIGHTS
   A-606 FOR WINDOWS, LOUVERS, AND PERFORATED METAL SCREEN SCHEDULES

3. REFER TO CIVIL, LANDSCAPE, AQUATIC, STRUCTURAL, AND MEP DRAWINGS FOR MORE INFORMATION

4. **AT THE COMFORT STATION:** ALL WIRING, CONDUIT, AND PLUMBING LINES ARE TO BE CONCEALED WITHIN THE CMU WALL CHASE OR RUN WITHIN THE STUD FRAMING ABOVE AND NOT EXPOSED TO VIEW. RUNNING THESE ITEMS ON THE FACE OF THE CMU EXPOSED IS NOT PERMITTED. EXCEPTION: THE UTILITY ROOM MAY HAVE EXPOSED ROUTING

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6. GATE AND FENCE, SEE LANDSCAPE DRAWINGS
7. THROUGH WALL AC UNIT, SEE MEP DRAWINGS

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

CONTRACT COMPLETION BOX | R.O.W NO. | PNW | 35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE

PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION EXTERIOR ELEVATIONS

SPLASH PAD AND SUPPORTING FACILITIES

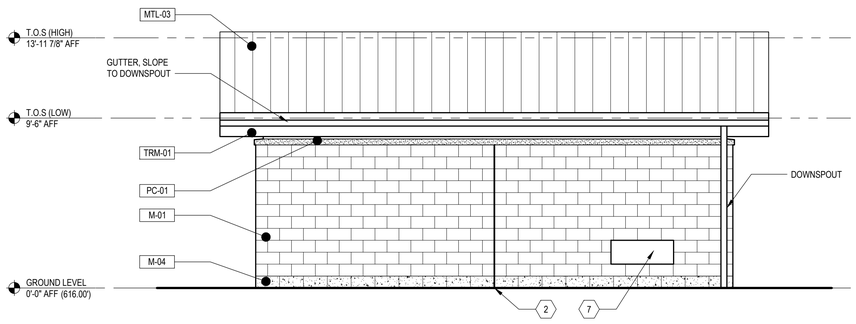
SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

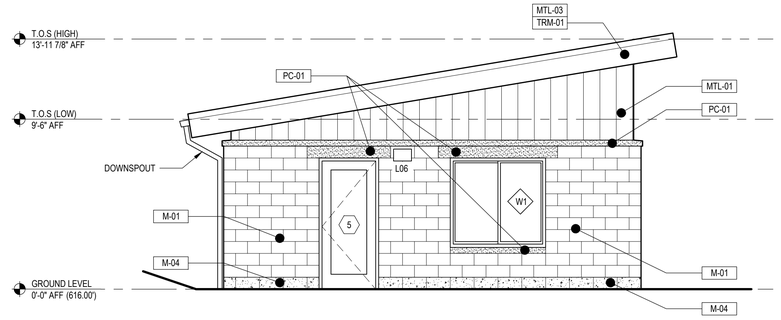
SHEET DESIGNATION	CONTRACT NUMBER
A–202	25114 GXO
	JOB ORDER NUMBER
	PROJ–1000634
	SHEET 56 OF 150
	DRAWING NUMBER
	2025-2227
	FILE NO.: 8

DWG. FILENAME:



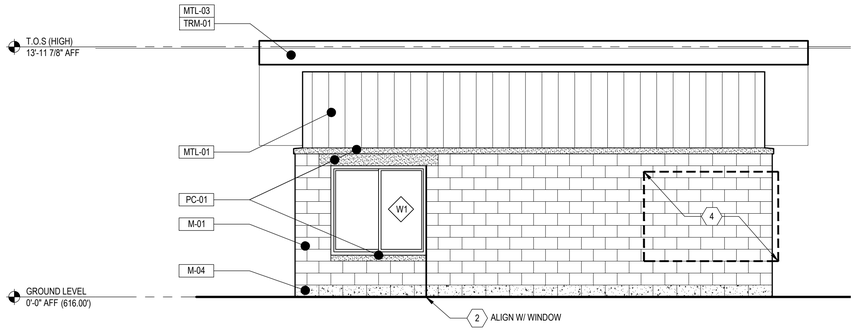
D4 EAST ELEVATION

SCALE: 1/4" = 1'-0"



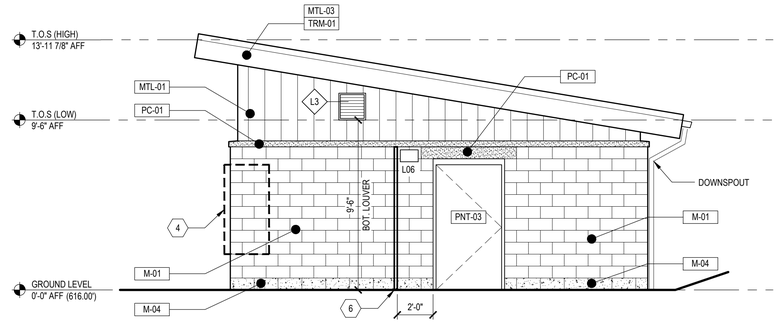
D6 NORTH ELEVATION

SCALE: 1/4" = 1'-0"



B4 WEST ELEVATION

SCALE: 1/4" = 1'-0"



B6 SOUTH ELEVATION

SCALE: 1/4" = 1'-0"

GENERAL ELEVATION NOTES

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   (F.O.C.) FACE OF CONRETE SLAB

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7. THROUGH WALL AC UNIT, SEE MEP DRAWINGS

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.						PNW	35NW40	PLAN SCALE: AS SHOWN	APPROVED BY: PROPERTY MANAGER
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.					R.O.W NO.			PROFILE SCALE:	DATE:
ARCHITECT: R. JAMES PETT	DGN BY: RJP	CONTRACT COMPLETION BOX							
AS-BUILT PER RECORD PRINT	DWN BY: JGB	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
BY: DATE:	CHKD BY: RJP	REVIEWED BY:							
		DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – SPLASH PAD OFFICE/MECH EXTERIOR ELEVATIONS

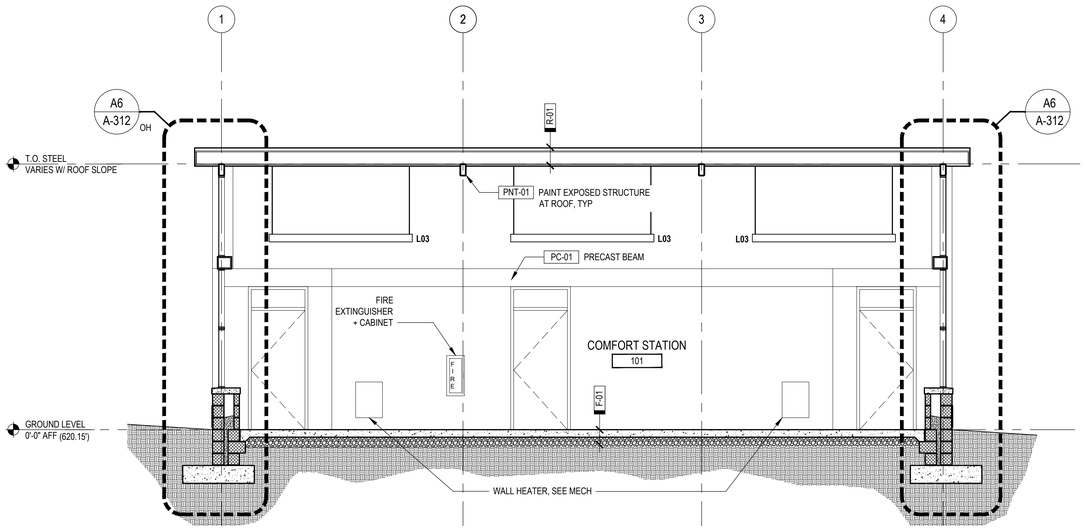
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

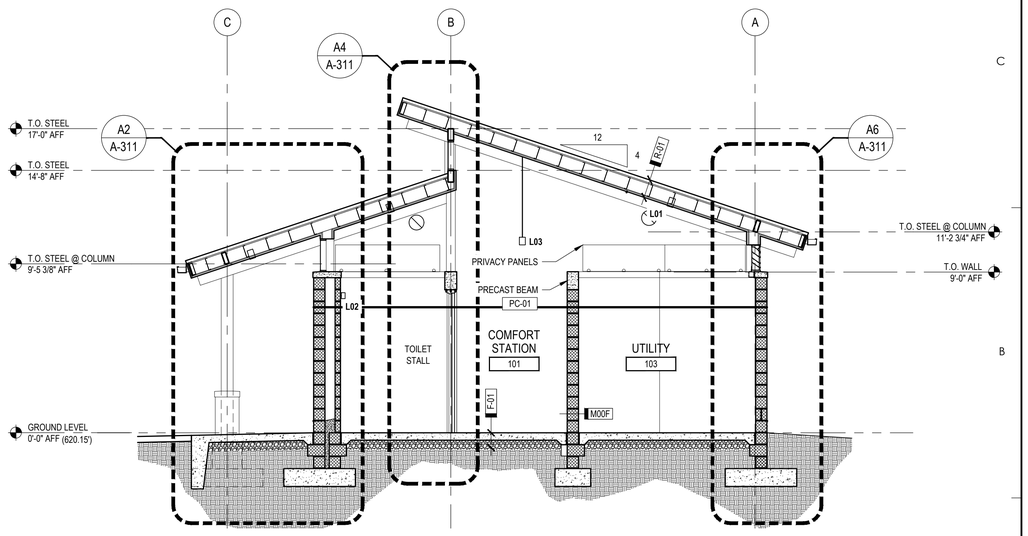
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-203	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 57 OF 150
	DRAWING NUMBER
	2025-2228
	FILE NO.: 8



A4 BUILDING SECTION LONGITUDINAL SECTION

SCALE: 1/4" = 1'-0"



A6 BUILDING SECTION CROSS SECTION

SCALE: 1/4" = 1'-0"

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT
JPS ARCHITECTS
DGN BY: RJP
DWN BY: JGB
AS-BUILT PER RECORD PRINT
BY:
DATE:
CHKD BY: RJP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
			R.O.W NO.		
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT

APPROVED BY: _____
PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION BUILDING SECTIONS

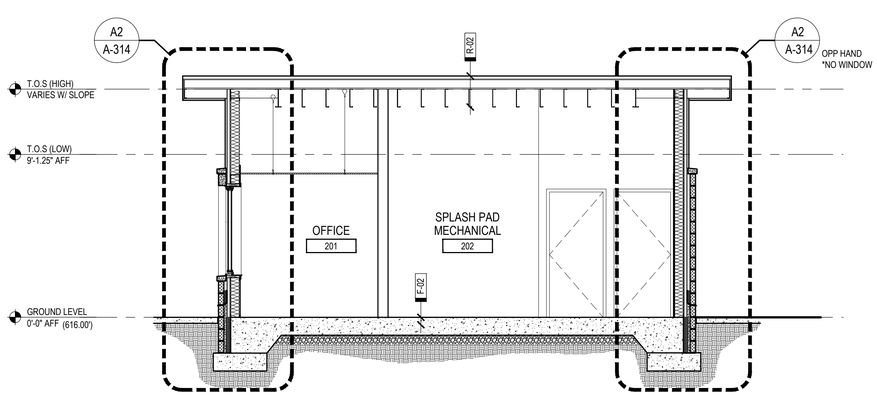
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

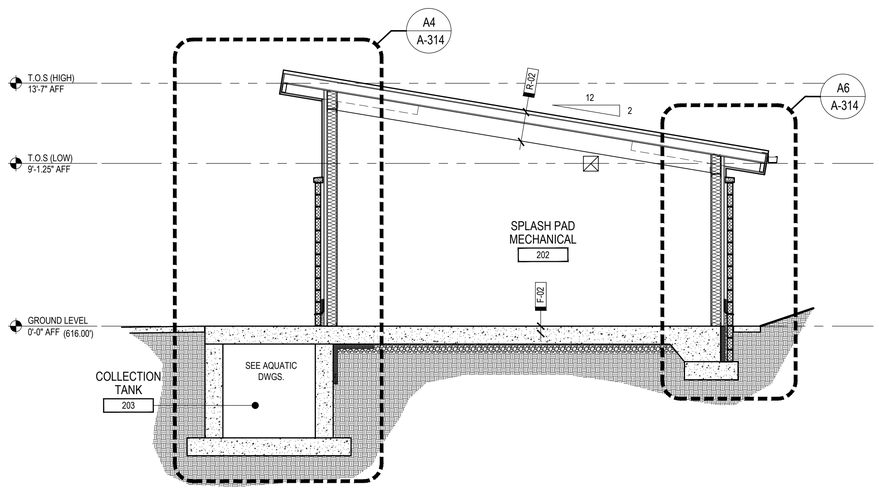
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-301	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 58 OF 150
	DRAWING NUMBER
	2025-2229
	FILE NO.: 8



A4 BUILDING SECTION LONGITUDINAL SECTION

SCALE: 1/4" = 1'-0"



A6 BUILDING SECTION CROSS SECTION

SCALE: 1/4" = 1'-0"

DWG. FILENAME:

SEAL

STATE OF MARYLAND · RICHARD JAMES PETT · 7318 · REGISTERED ARCHITECT

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT
JPS ARCHITECTS
AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO.

CONTRACT COMPLETION BOX

R.O.W NO.

KEY SHEET: PNW | POSITION SHT: 35NW40

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – SPLASH PAD OFFICE/MECH BUILDING SECTIONS

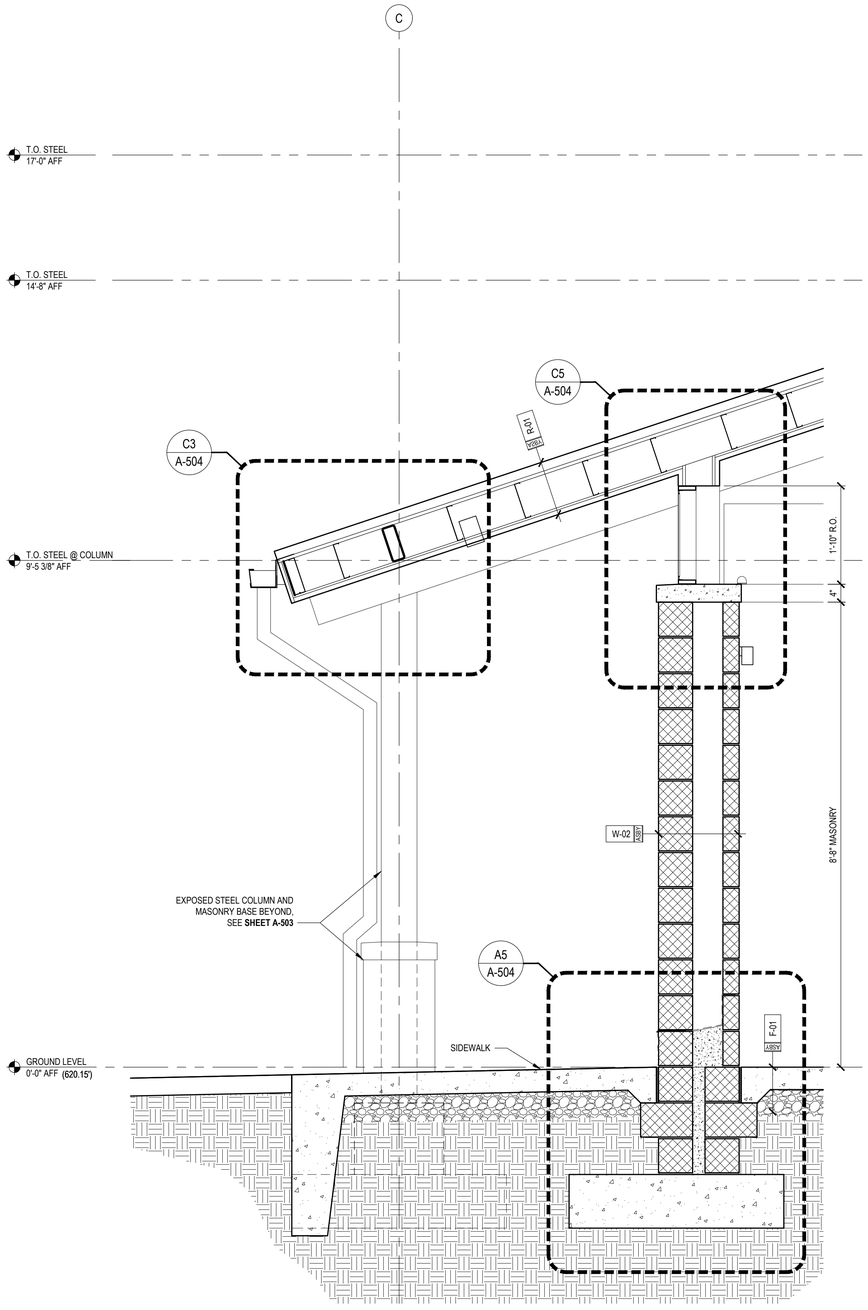
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

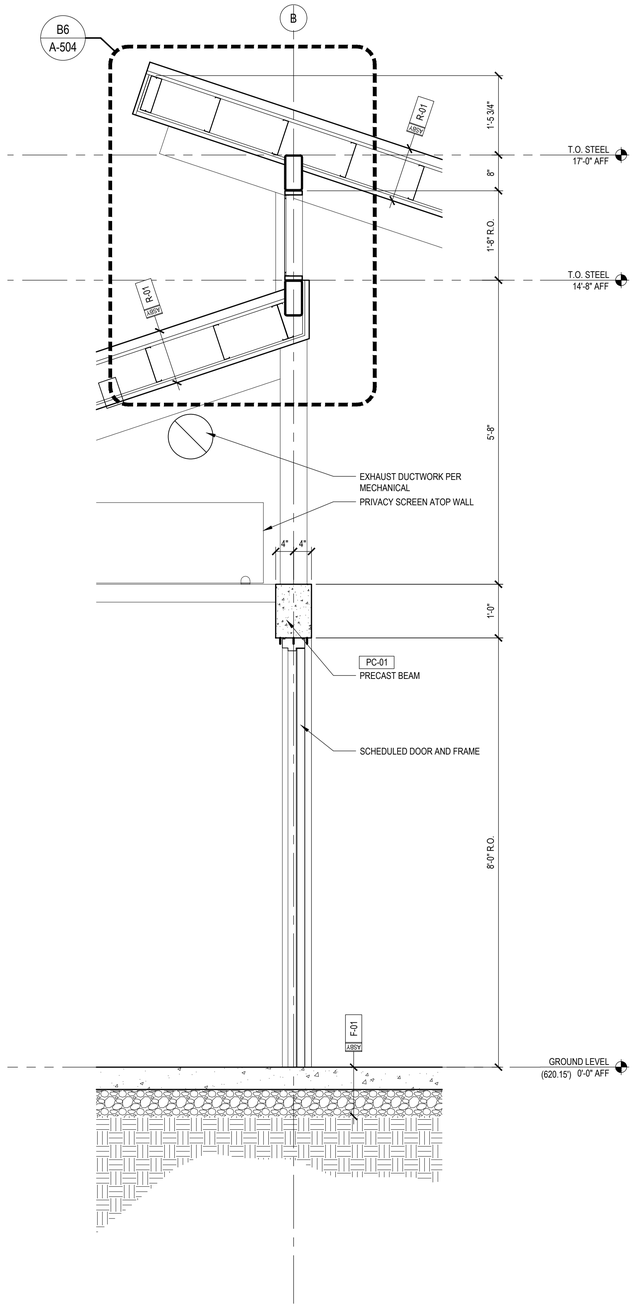
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-302	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 59 OF 150
	DRAWING NUMBER
	2025-2230
	FILE NO.: 8



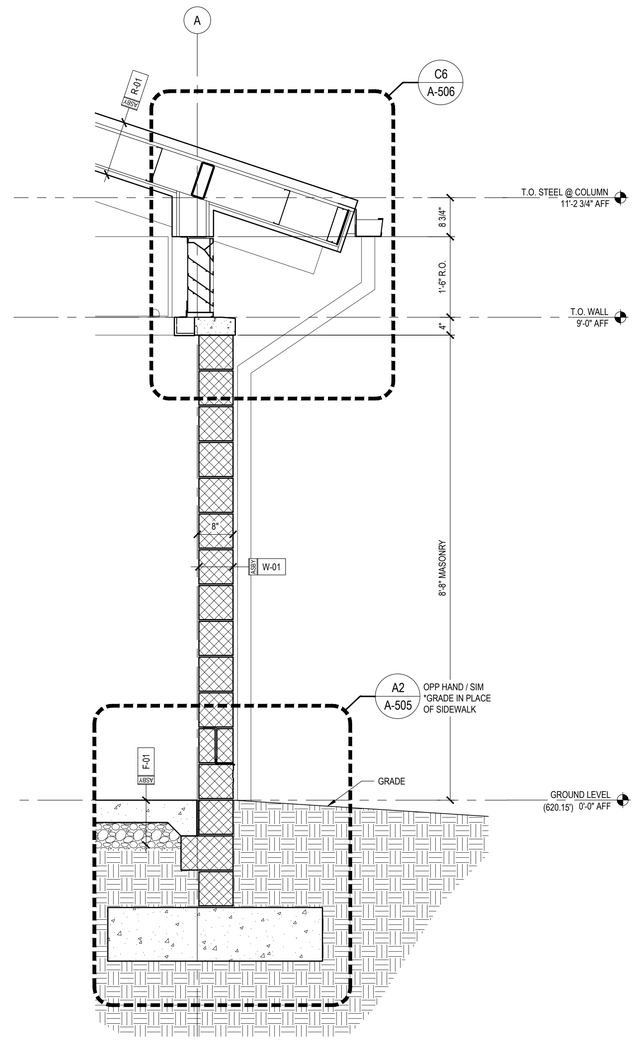
A2 WALL SECTION 03

SCALE: 3/4" = 1'-0"



A4 WALL SECTION 02

SCALE: 3/4" = 1'-0"



A6 WALL SECTION 01

SCALE: 3/4" = 1'-0"

DWG. FILENAME:

SEAL

STATE OF MARYLAND · RICHARD JAMES PETT · 21318 · ARCHITECT

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.		
ARCHITECT: R. JAMES PETT	DGN BY:	RJP
AS-BUILT PER RECORD PRINT	DWN BY:	JGB
BY: DATE:	CHKD BY:	RJP

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER

DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION WALL SECTIONS

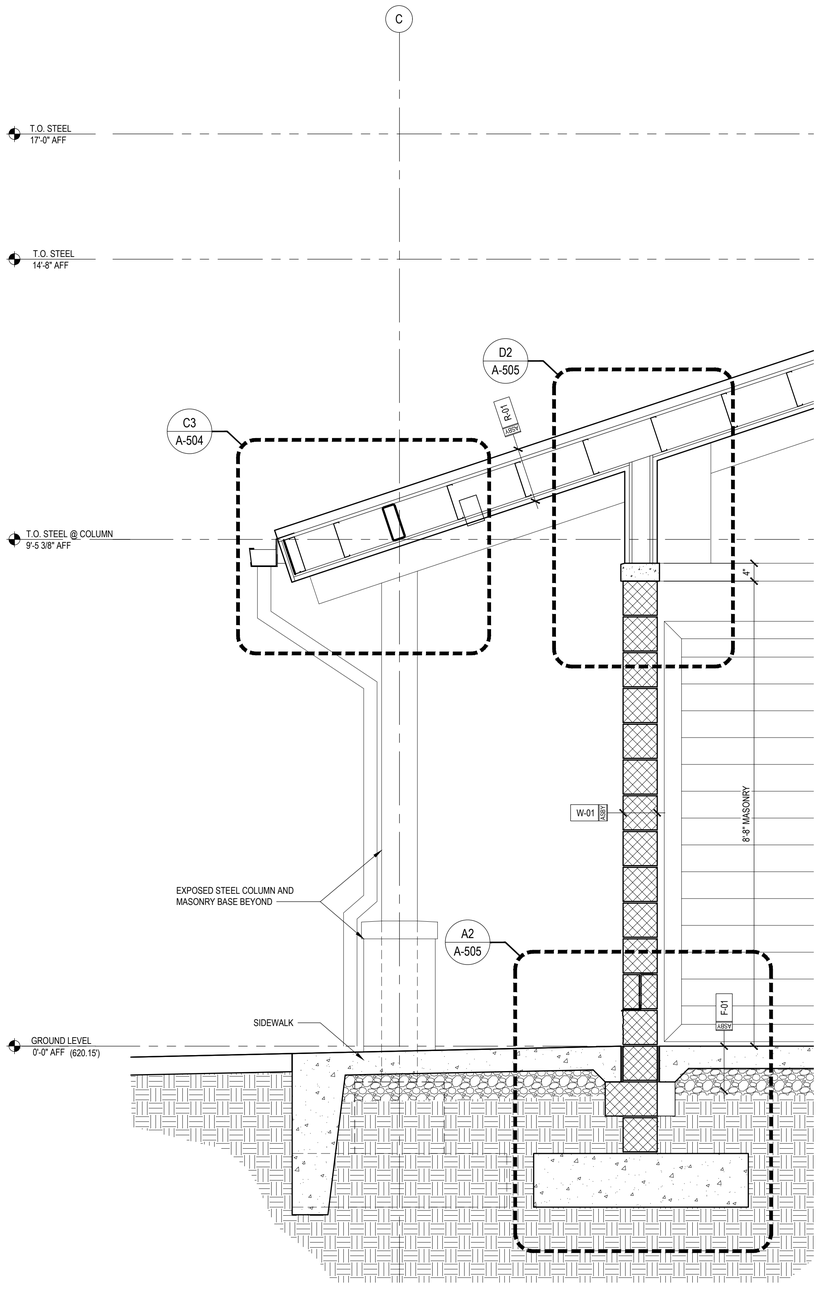
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

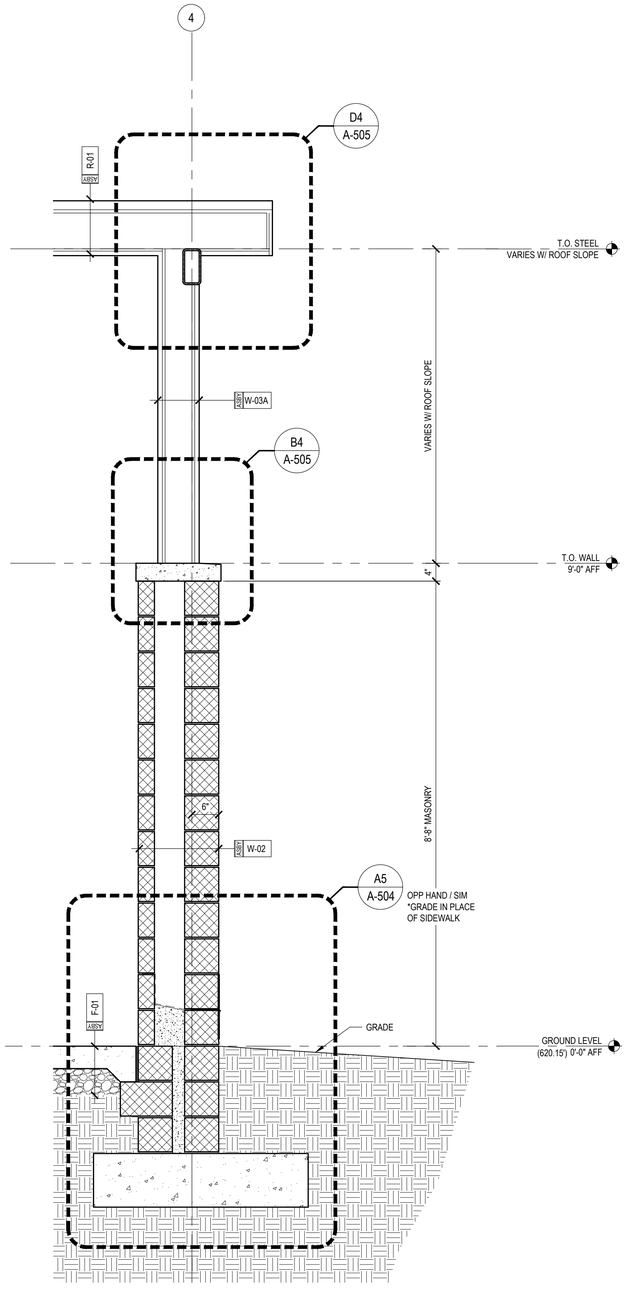
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

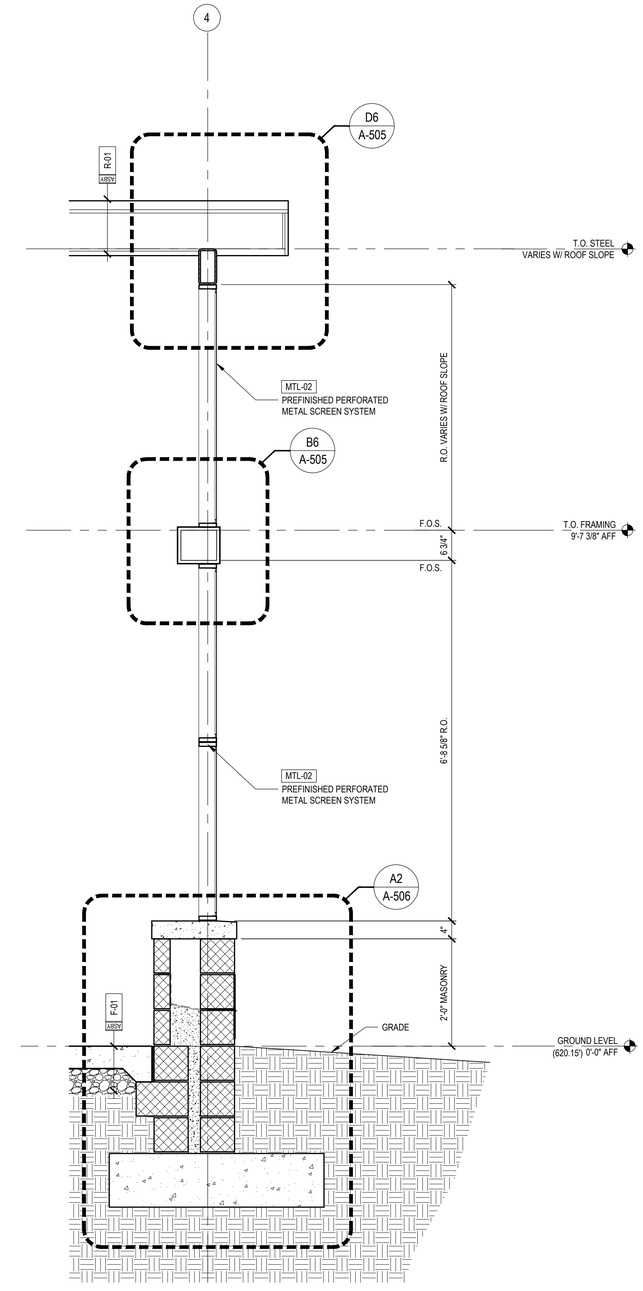
SHEET DESIGNATION	CONTRACT NUMBER
A-311	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 60 OF 150
	DRAWING NUMBER
	2025-2231
	FILE NO.: 8



A2 WALL SECTION 06
SCALE: 3/4" = 1'-0"



A4 WALL SECTION 05
SCALE: 3/4" = 1'-0"



A6 WALL SECTION 04
SCALE: 3/4" = 1'-0"

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT — DGN BY: RJP
DWN BY: JGB
AS-BUILT PER RECORD PRINT — CHKD BY: RJP
BY:
DATE:

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT
CONTRACT COMPLETION BOX | | | R.O.W NO. | PNW | 35NW40

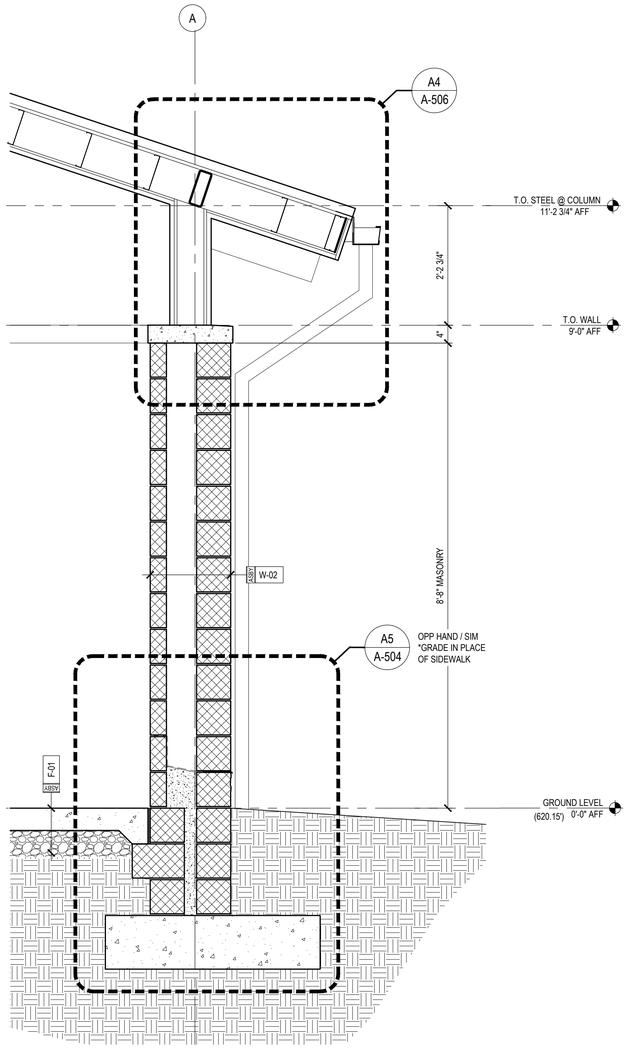
BUREAU OF ENGINEERING AND CONSTRUCTION | TRAFFIC | HIGHWAYS | STRUCTURES | STORM DRAINS | SEWER | WATER | FIELD ENGINEER
REVIEWED BY:
DATE REVIEWED:

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

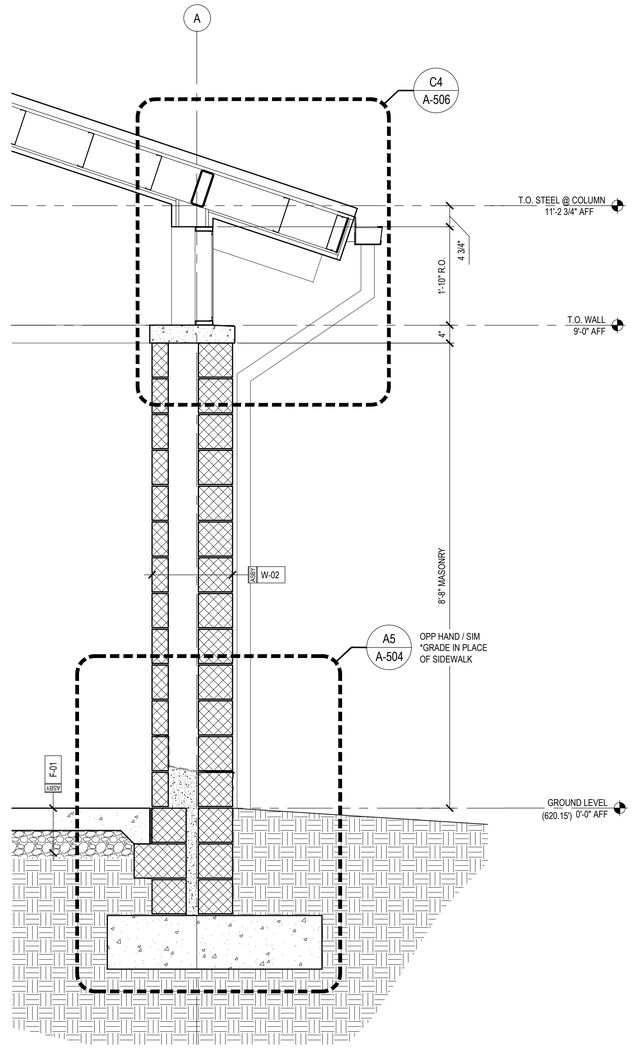
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE – COMFORT STATION WALL SECTIONS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-312	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 61 OF 150
	DRAWING NUMBER
	2025-2232
	FILE NO.: 8



A4 WALL SECTION 08

SCALE: 3/4" = 1'-0"



A6 WALL SECTION 07

SCALE: 3/4" = 1'-0"

DWG. FILENAME:

SEAL

STATE OF MARYLAND · RICHARD JAMES PETT · 7318-A · ARCHITECT

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.		
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.		
ARCHITECT: R. JAMES PETT	DGN BY:	RJP
AS-BUILT PER RECORD PRINT	DWN BY:	JGB
BY: DATE:	CHKD BY:	RJP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER

DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION WALL SECTIONS

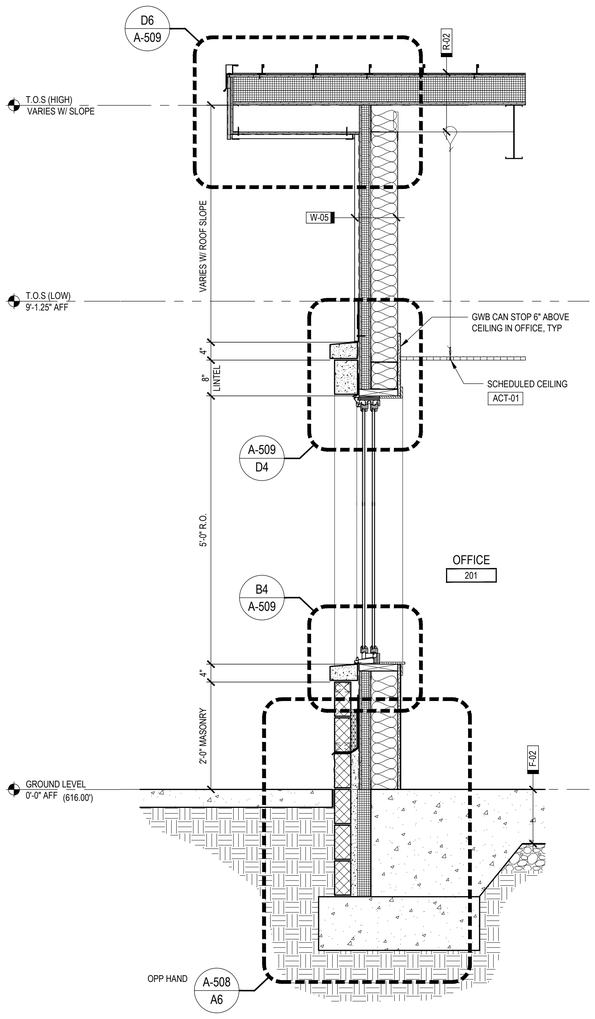
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

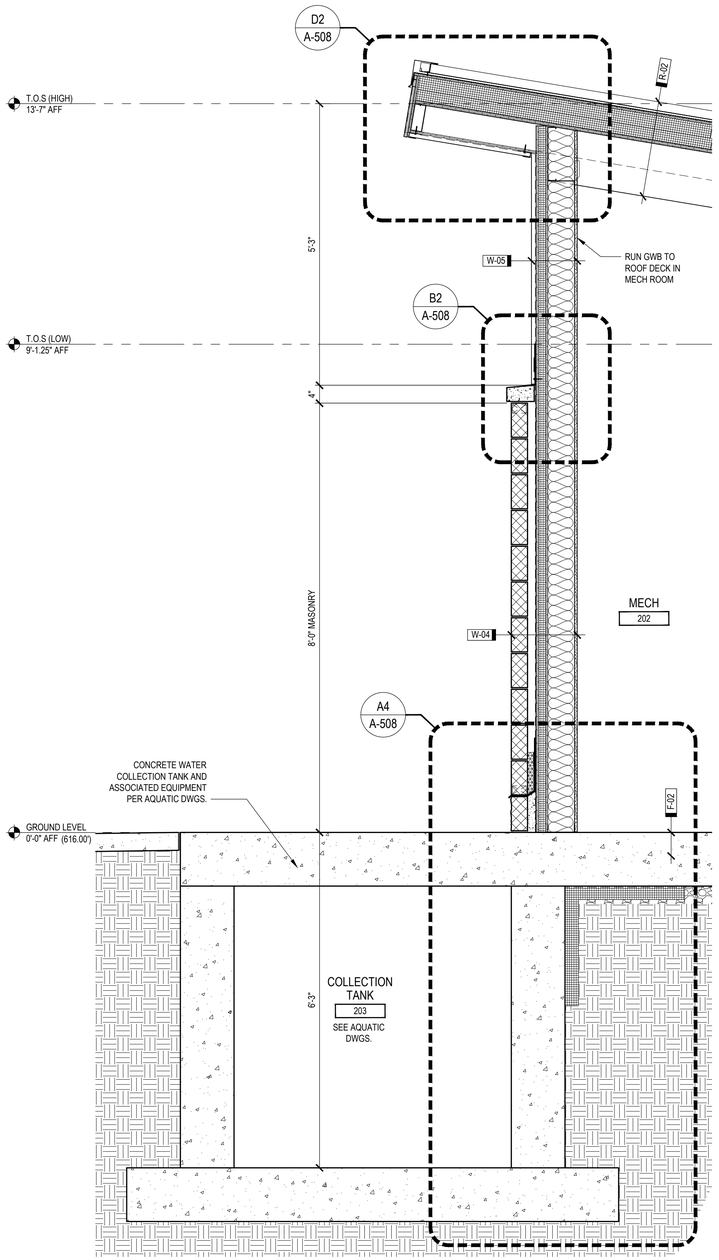
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A–313	25114 GXO
	JOB ORDER NUMBER
	PROJ–1000634
	SHEET 62 OF 150
	DRAWING NUMBER
	2025-2233
	FILE NO.: 8



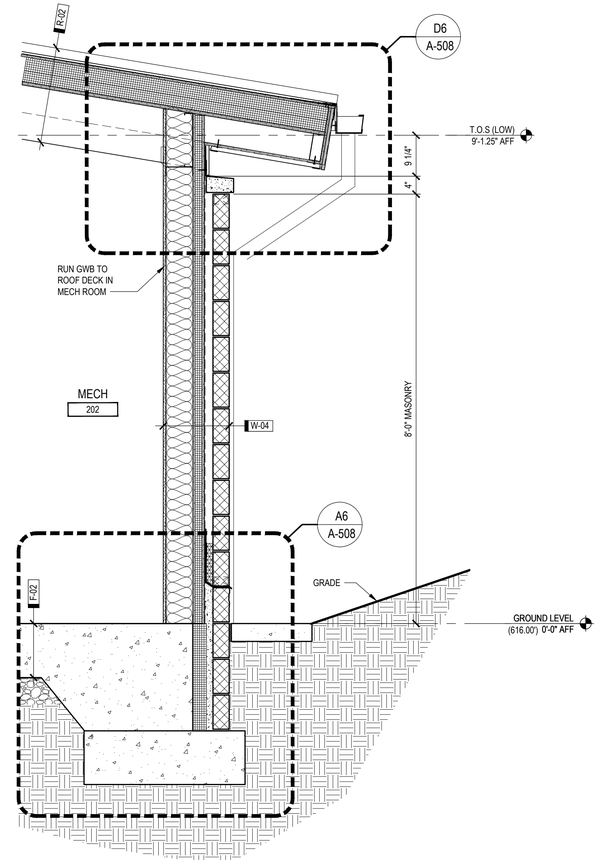
A2 WALL SECTION 11

SCALE: 3/4" = 1'-0"



A4 WALL SECTION 10

SCALE: 3/4" = 1'-0"



A6 WALL SECTION 09

SCALE: 3/4" = 1'-0"

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION	
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.	
ARCHITECT: R. JAMES PETT	DGN BY: RJP
AS-BUILT PER RECORD PRINT	DWN BY: JGB
BY: DATE:	CHKD BY: RJP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
			R.O.W NO.	PNW	35NW40
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER

DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – SPLASH PAD OFFICE/MECH WALL SECTIONS

SPLASH PAD AND SUPPORTING FACILITIES

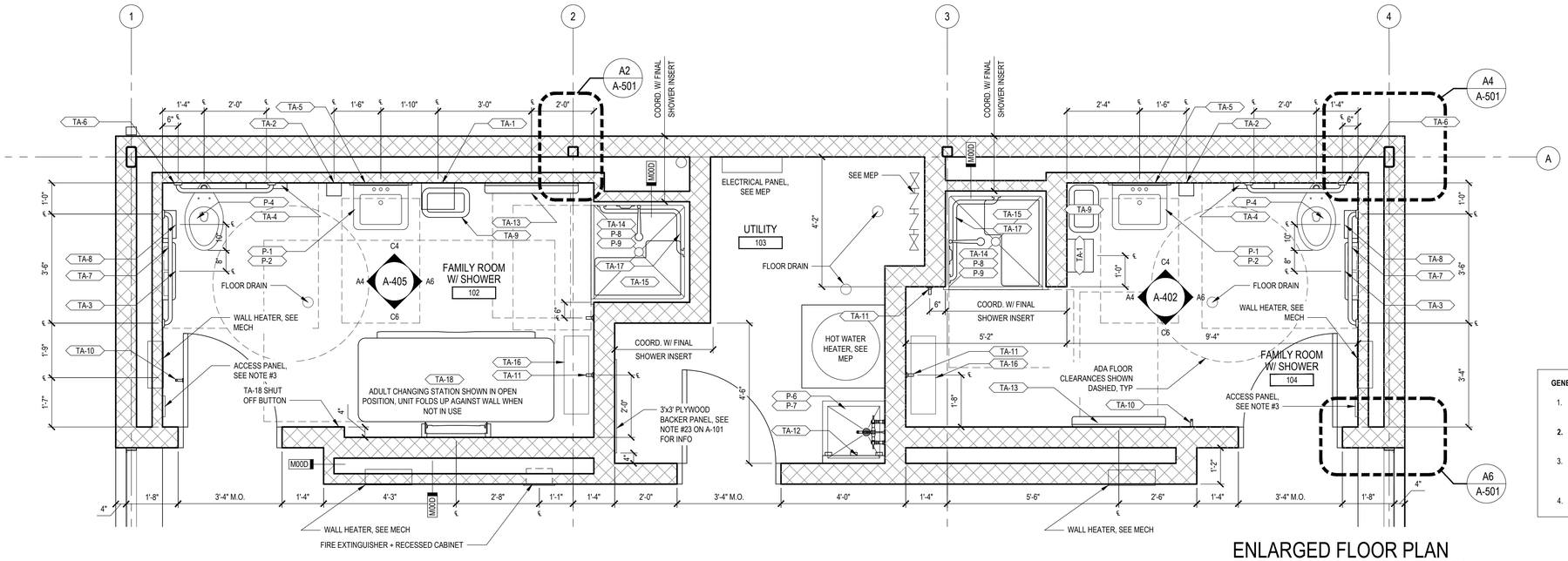
SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-314	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 63 OF 150
	DRAWING NUMBER
	2025-2234
	FILE NO.: 8

DWG. FILENAME:



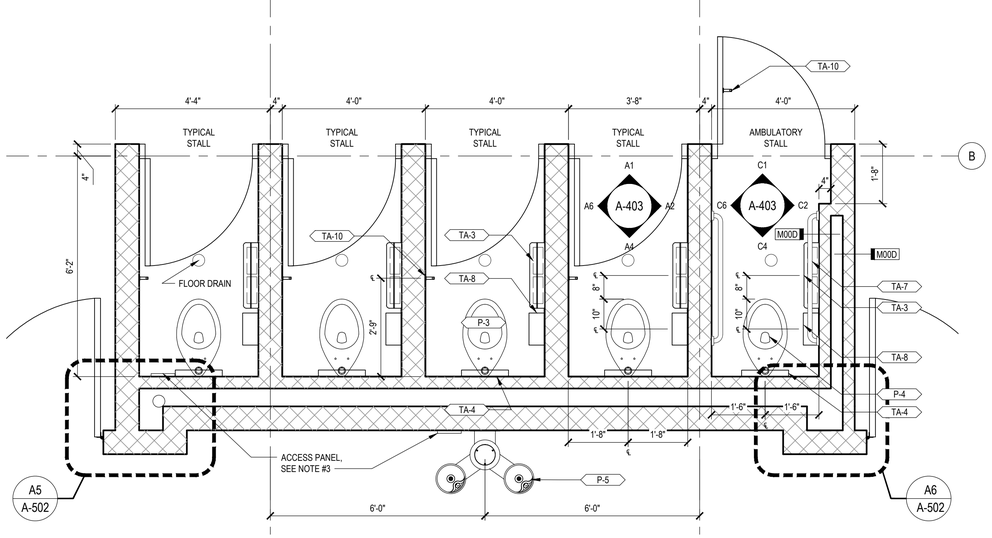
ENLARGED FLOOR PLAN @ FAMILY/SHOWER ROOM

C6 — SCALE: 1/2" = 1'-0"

NORTH

GENERAL ENLARGED PLAN NOTES:

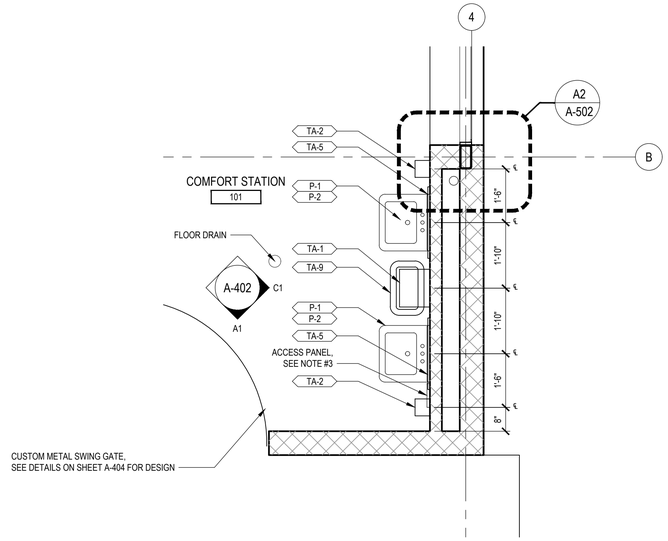
1. DIMENSIONS ARE TO FACE OF MASONRY, UNLESS OTHERWISE NOTED.
2. **TYPICAL INTERIOR WALL TYPE IS M00F, UNLESS OTHERWISE TAGGED ON THE PLANS.** SEE A-602 FOR WALL TYPES.
3. 8"x8" STAINLESS STEEL PLUMBING ACCESS PANEL, COORDINATE LOCATIONS W/ PLUMBING DRAWINGS. BOD: BEST ACCESS DOOR BA-AHD-SS 8X8 OR EQUAL
4. REFER TO A-605 FOR TOILET ACCESSORIES SCHEDULE



ENLARGED FLOOR PLAN @ UNISEX TOILET STALLS

A4 — SCALE: 1/2" = 1'-0"

NORTH



ENLARGED FLOOR PLAN @ SINKS

A6 — SCALE: 1/2" = 1'-0"

NORTH

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. #7318-A, EXPIRATION DATE 10-21-26.						PNW	35NW40	PLAN SCALE:	AS SHOWN	APPROVED BY:
ARCHITECT: R. JAMES PETT	DGN BY: RJP				R.O.W NO.			PROFILE SCALE:		PROPERTY MANAGER
AS-BUILT PER RECORD PRINT	DWN BY: JGB	CONTRACT COMPLETION BOX								DATE:
BY: DATE:	CHKD BY: RJP	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
		REVIEWED BY:								
		DATE REVIEWED:								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION ENLARGED FLOOR PLANS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

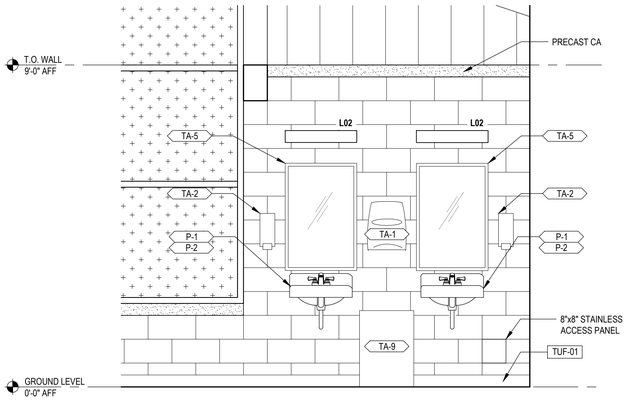
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

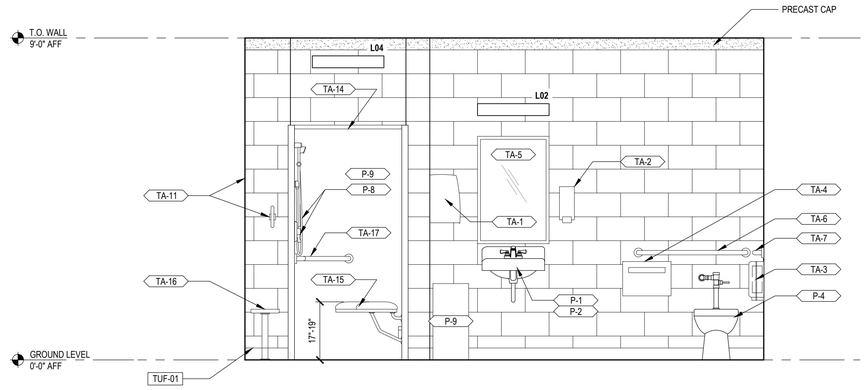
SHEET DESIGNATION	CONTRACT NUMBER
A-401	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 64 OF 150
	DRAWING NUMBER
	2025-2235
	FILE NO.: 8

GENERAL NOTES:

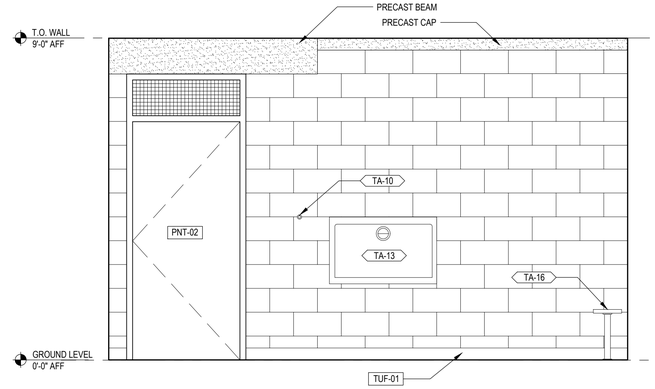
1. REFER TO A-121 FOR LOCATIONS OF DIFFERENT INTERIOR GROUND FACE BLOCK COLORS.
2. REFER TO CHART ON A-605 FOR MOUNTING HEIGHTS OF TOILET ACCESSORIES AND PLUMBING FIXTURES NOT INDICATED ON INTERIOR ELEVATIONS.
3. REFER TO A-111 FOR MOUNTING HEIGHTS OF LIGHT FIXTURES.
4. REFER TO A-605 FOR TOILET ACCESSORY SCHEDULE.
5. REFER TO A-604 FINISH SCHEDULE FOR ADDITIONAL INFO ON MATERIALS AND PAINT COLORS.



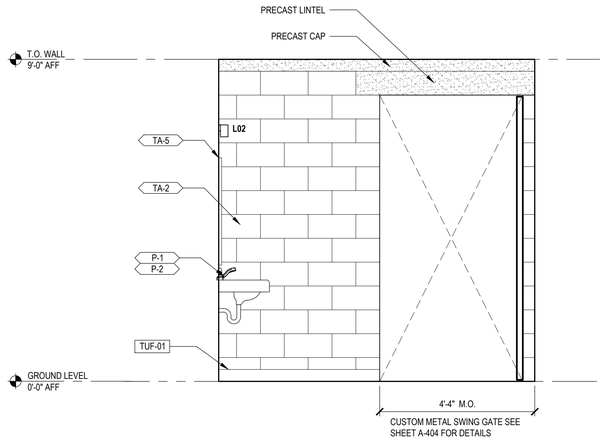
C1 ENLARGED ELEVATION @ SINKS
SCALE: 1/2" = 1'-0"



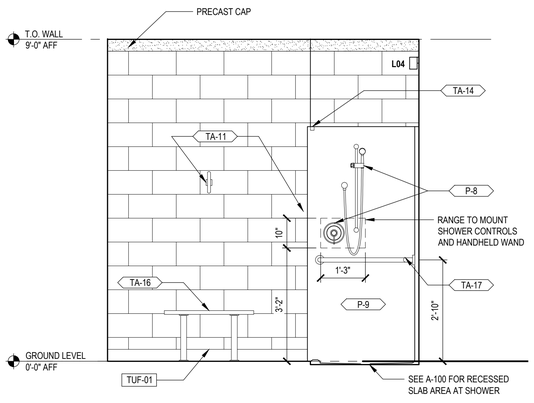
C4 ENLARGED ELEVATION @ FAMILY/SHOWER ROOM
SCALE: 1/2" = 1'-0"



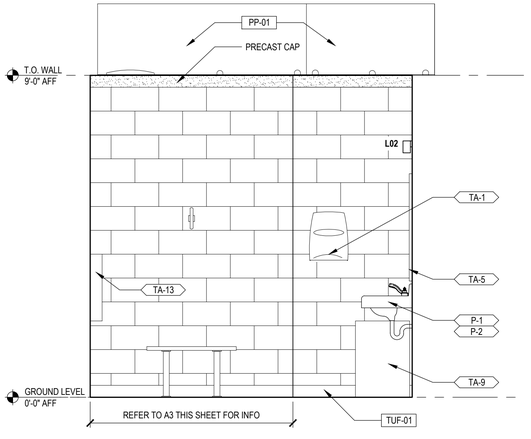
C6 ENLARGED ELEVATION @ FAMILY/SHOWER ROOM
SCALE: 1/2" = 1'-0"



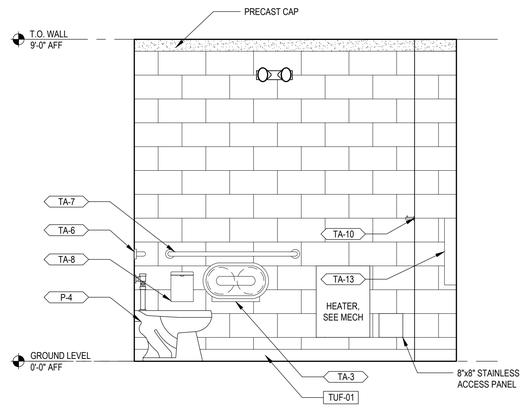
A1 ENLARGED ELEVATION @ SINKS
SCALE: 1/2" = 1'-0"



A3 ENLARGED ELEVATION @ FAMILY/SHOWER ROOM
SCALE: 1/2" = 1'-0"



A4 ENLARGED ELEVATION @ FAMILY/SHOWER ROOM
SCALE: 1/2" = 1'-0"



A6 ENLARGED ELEVATION @ FAMILY/SHOWER ROOM
SCALE: 1/2" = 1'-0"

DWG. FILENAME:

SEAL

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A, EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT
DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT PER RECORD PRINT
BY:
DATE:

DATE : JULY 18, 2025

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
			R.O.W NO.		
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

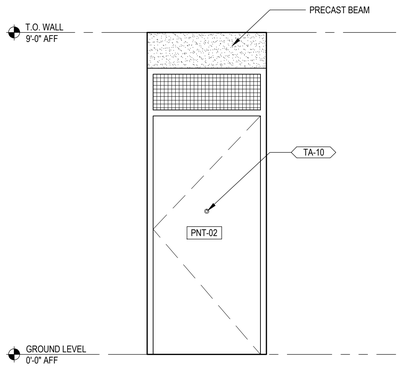
PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE – COMFORT STATION INTERIOR ELEVATIONS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

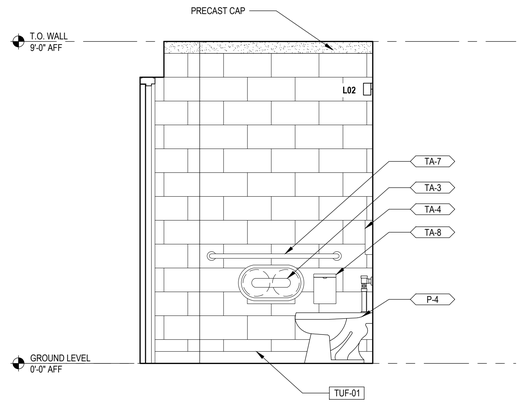
SHEET DESIGNATION	CONTRACT NUMBER
A-402	25114 GXO
JOB ORDER NUMBER	
PROJ-1000634	
SHEET 65 OF 150	
DRAWING NUMBER	
2025-2236	
FILE NO.: 8	

GENERAL NOTES:

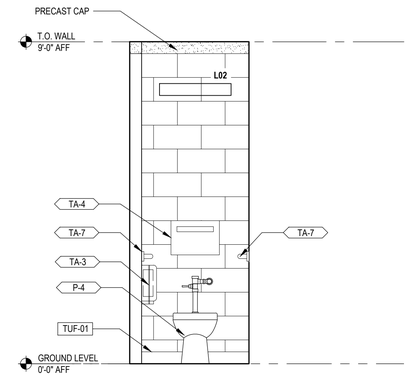
1. REFER TO A-121 FOR LOCATIONS OF DIFFERENT INTERIOR GROUND FACE BLOCK COLORS.
2. REFER TO CHART ON A-605 FOR MOUNTING HEIGHTS OF TOILET ACCESSORIES AND PLUMBING FIXTURES NOT INDICATED ON INTERIOR ELEVATIONS.
3. REFER TO A-111 FOR MOUNTING HEIGHTS OF LIGHT FIXTURES.
4. REFER TO A-605 FOR TOILET ACCESSORY SCHEDULE.
5. REFER TO A-604 FINISH SCHEDULE FOR ADDITIONAL INFO ON MATERIALS AND PAINT COLORS.



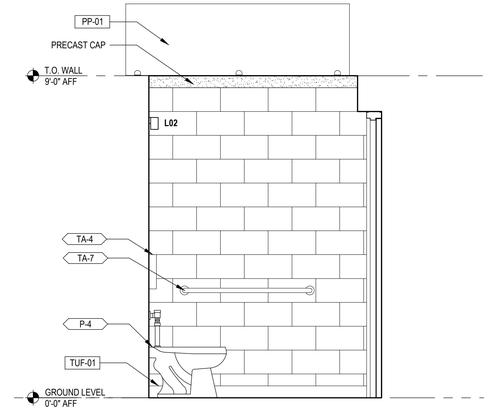
C1 ENLARGED ELEVATION @ AMBULATORY TOILET STALL
SCALE: 1/2" = 1'-0"



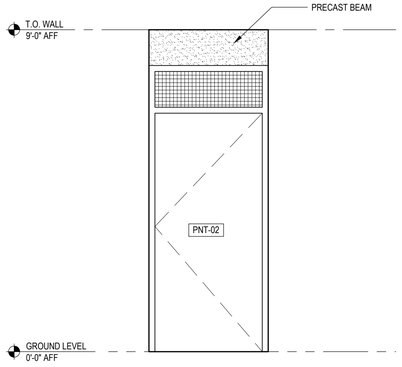
C2 ENLARGED ELEVATION @ AMBULATORY TOILET STALL
SCALE: 1/2" = 1'-0"



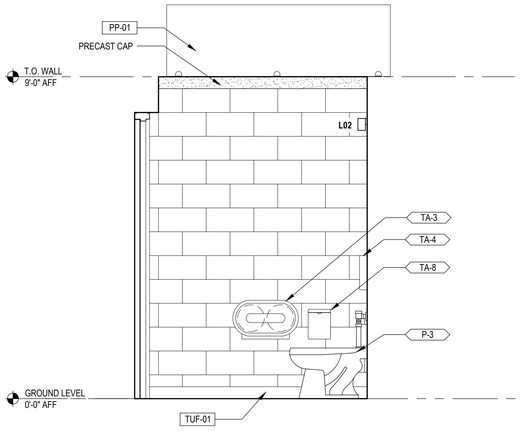
C4 ENLARGED ELEVATION @ AMBULATORY TOILET STALL
SCALE: 1/2" = 1'-0"



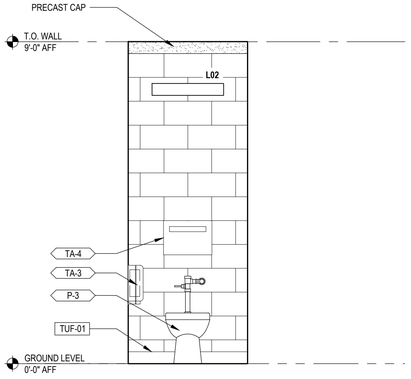
C6 ENLARGED ELEVATION @ AMBULATORY TOILET STALL
SCALE: 1/2" = 1'-0"



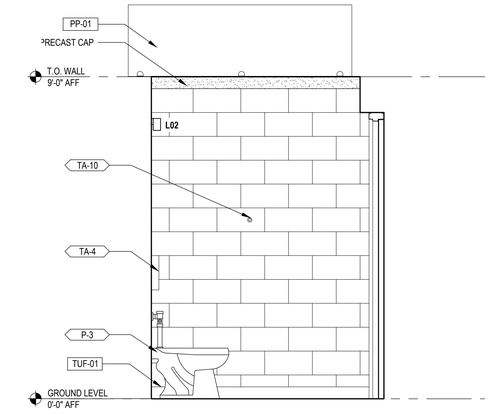
A1 ENLARGED ELEVATION @ TYPICAL UNISEX TOILET STALLS
SCALE: 1/2" = 1'-0"



A2 ENLARGED ELEVATION @ TYPICAL UNISEX TOILET STALLS
SCALE: 1/2" = 1'-0"



A4 ENLARGED ELEVATION @ TYPICAL UNISEX TOILET STALLS
SCALE: 1/2" = 1'-0"



A6 ENLARGED ELEVATION @ TYPICAL UNISEX TOILET STALLS
SCALE: 1/2" = 1'-0"

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

CONTRACT COMPLETION BOX | R.O.W NO. | PNW | 35NW40

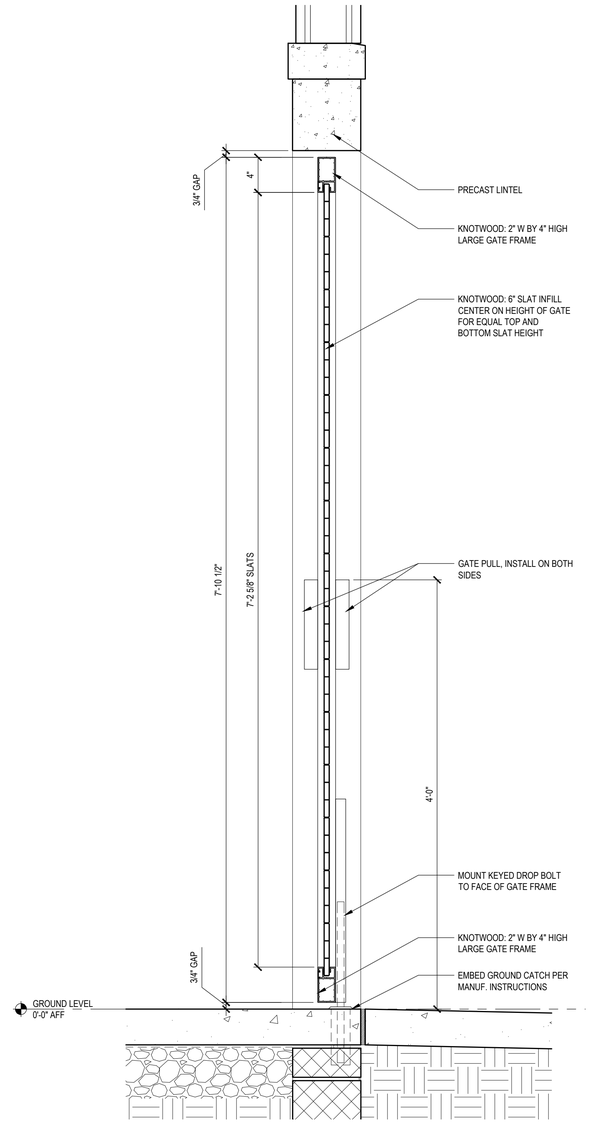
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

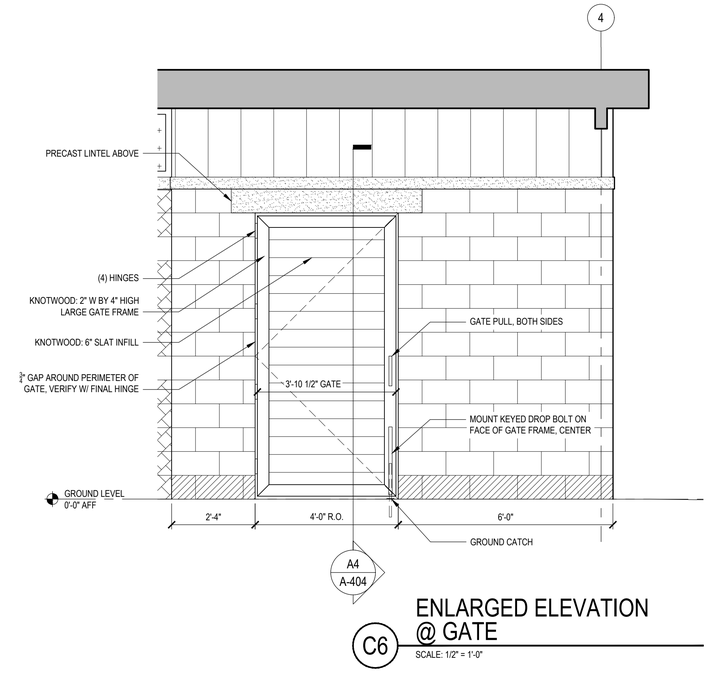
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE– COMFORT STATION INTERIOR ELEVATIONS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-403	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 66 OF 150
	DRAWING NUMBER
	2025-2237
	FILE NO.: 8



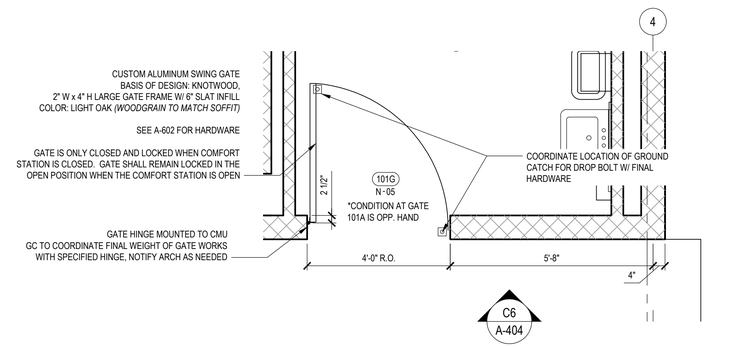
SECTION DETAIL @ SWING GATE

A4 — SCALE: 1/2" = 1'-0"



ENLARGED ELEVATION @ GATE

C6 — SCALE: 1/2" = 1'-0"



ENLARGED PLAN @ SWING GATE

A6 — SCALE: 1/2" = 1'-0"

NORTH

DWG. FILENAME:

SEAL

STATE OF MARYLAND — RICHARD JAMES PETT — 27318 — REGISTERED ARCHITECT

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT
JPS ARCHITECTS, 3910 Keswick Road, Suite B-200, Baltimore, MD 21211, P 410.444.8000, www.JPSarchitects.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
			R.O.W NO.		
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

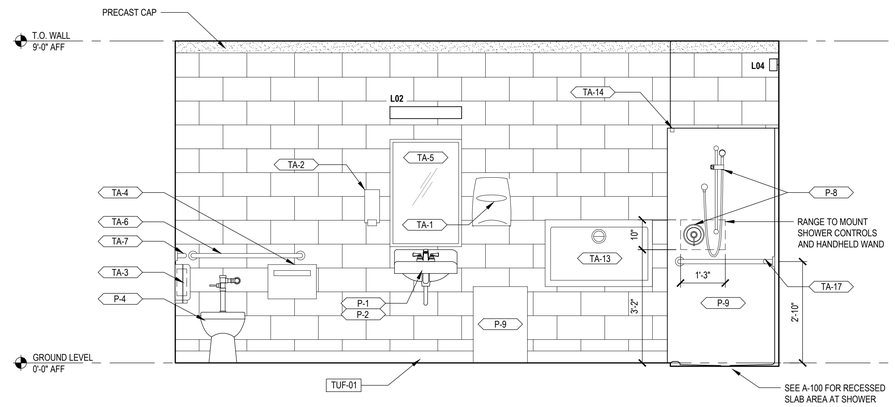
PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE – COMFORT STATION GATE DETAILS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-404	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 67 OF 150
	DRAWING NUMBER
	2025-2238
	FILE NO.: 8

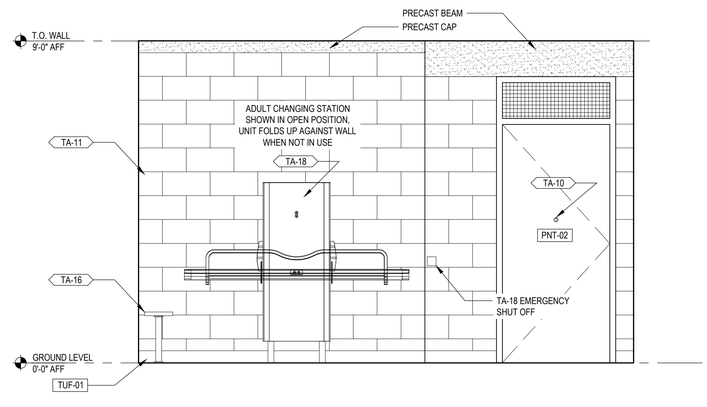
GENERAL NOTES:

1. REFER TO A-121 FOR LOCATIONS OF DIFFERENT INTERIOR GROUND FACE BLOCK COLORS.
2. REFER TO CHART ON A-605 FOR MOUNTING HEIGHTS OF TOILET ACCESSORIES AND PLUMBING FIXTURES NOT INDICATED ON INTERIOR ELEVATIONS.
3. REFER TO A-111 FOR MOUNTING HEIGHTS OF LIGHT FIXTURES.
4. REFER TO A-605 FOR TOILET ACCESSORY SCHEDULE.
5. REFER TO A-604 FINISH SCHEDULE FOR ADDITIONAL INFO ON MATERIALS AND PAINT COLORS.



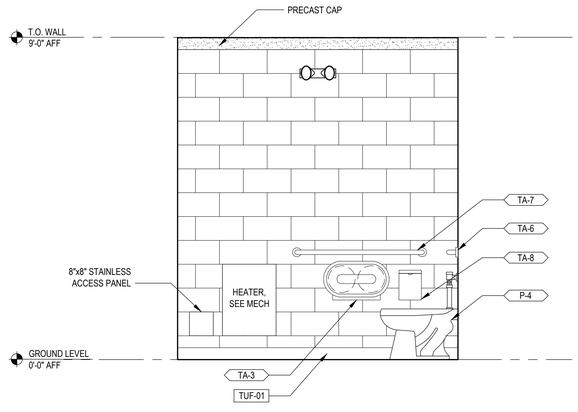
C4 ENLARGED ELEVATION @ FAMILY/SHOWER ROOM

SCALE: 1/2" = 1'-0"



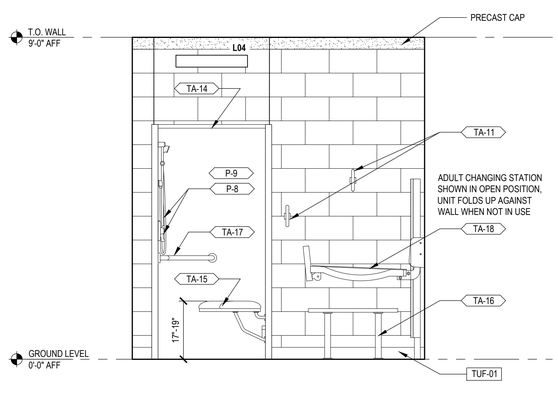
C6 ENLARGED ELEVATION @ FAMILY/SHOWER ROOM

SCALE: 1/2" = 1'-0"



A4 ENLARGED ELEVATION @ FAMILY/SHOWER ROOM

SCALE: 1/2" = 1'-0"



A6 ENLARGED ELEVATION @ FAMILY/SHOWER ROOM

SCALE: 1/2" = 1'-0"

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT
AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION INTERIOR ELEVATIONS

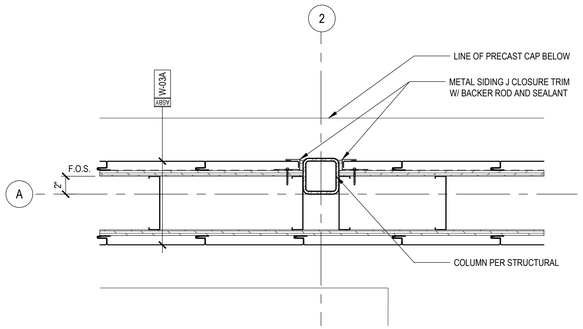
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

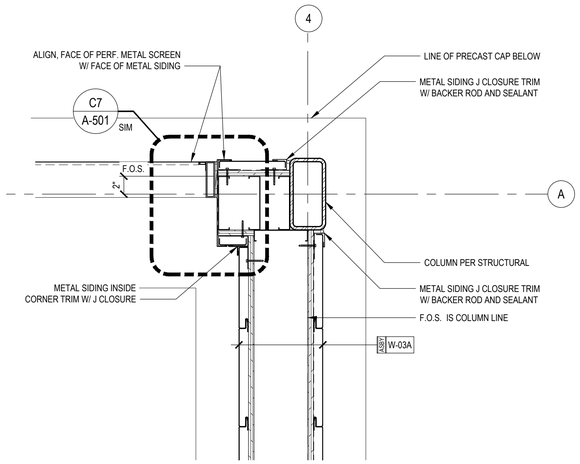
SHEET DESIGNATION	CONTRACT NUMBER
A-405	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 68 OF 150
	DRAWING NUMBER
	2025-2239
	FILE NO.: 8



PLAN DETAIL 01 @ CLEARSTORY

C2 SCALE: 1-1/2" = 1'-0"

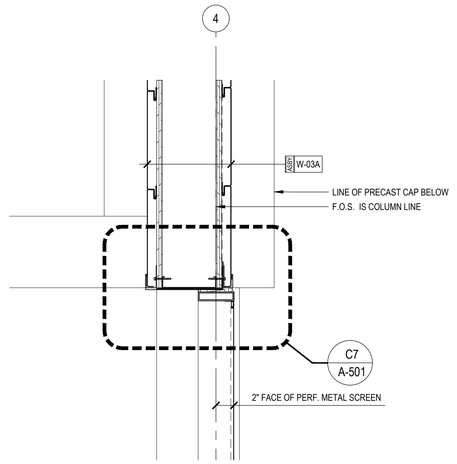
NORTH



PLAN DETAIL 02 @ CLEARSTORY

C4 SCALE: 1-1/2" = 1'-0"

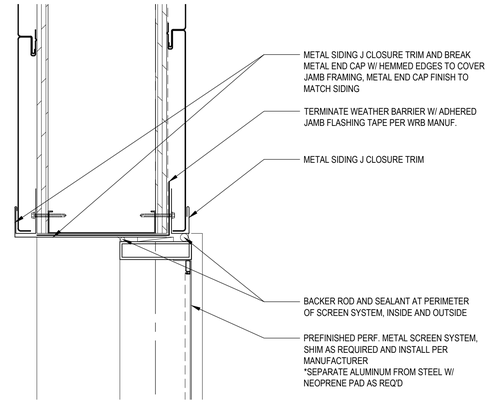
NORTH



PLAN DETAIL 03 @ CLEARSTORY

C6 SCALE: 1-1/2" = 1'-0"

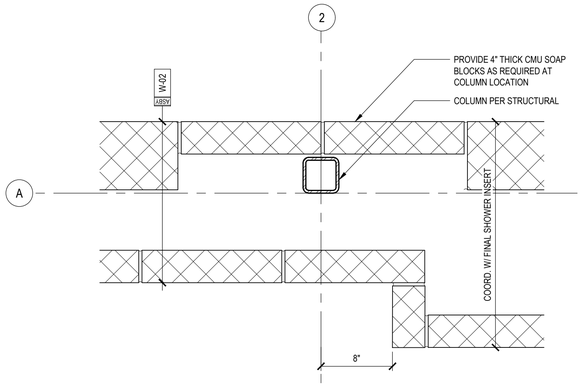
NORTH



PERF. METAL SCREEN TYPICAL JAMB @ W03A

C7 SCALE: 3" = 1'-0"

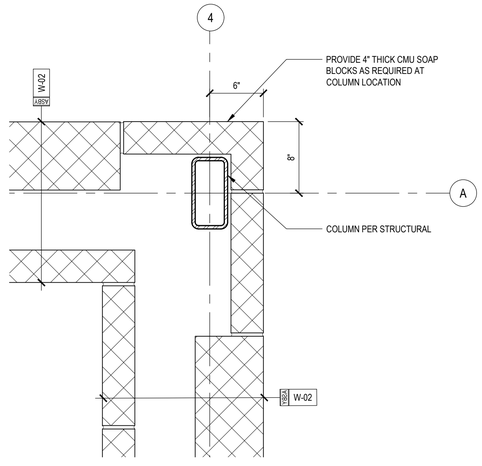
NORTH



PLAN DETAIL 01 @ MASONRY

A2 SCALE: 1-1/2" = 1'-0"

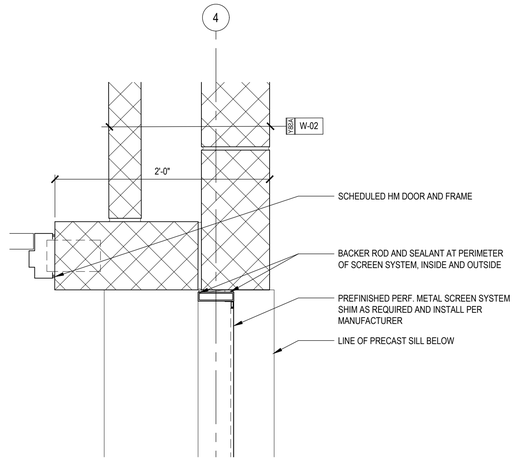
NORTH



PLAN DETAIL 02 @ MASONRY

A4 SCALE: 1-1/2" = 1'-0"

NORTH



PLAN DETAIL 03 @ MASONRY

A6 SCALE: 1-1/2" = 1'-0"

NORTH

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		
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ARCHITECT: R. JAMES PETT	DGN BY:	RJP
AS-BUILT PER RECORD PRINT	DWN BY:	JGB
BY: DATE:	CHKD BY:	RJP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER

DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION PLAN DETAILS

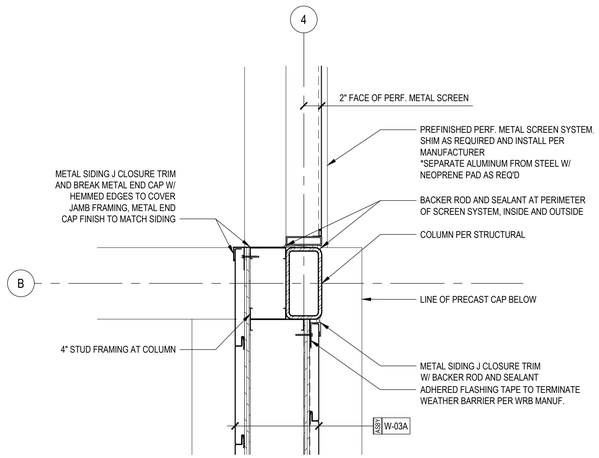
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

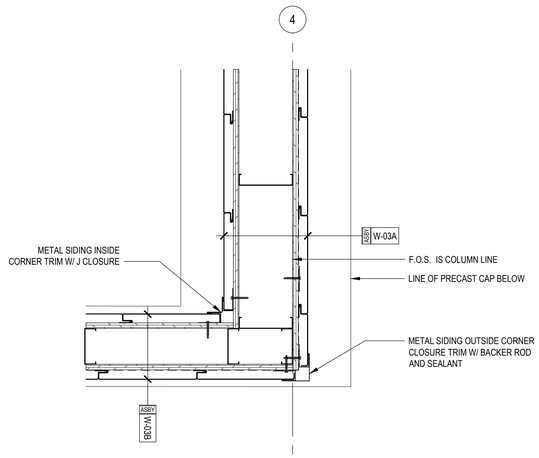
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-501	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 69 OF 150
	DRAWING NUMBER
	2025-2240
	FILE NO.: 8



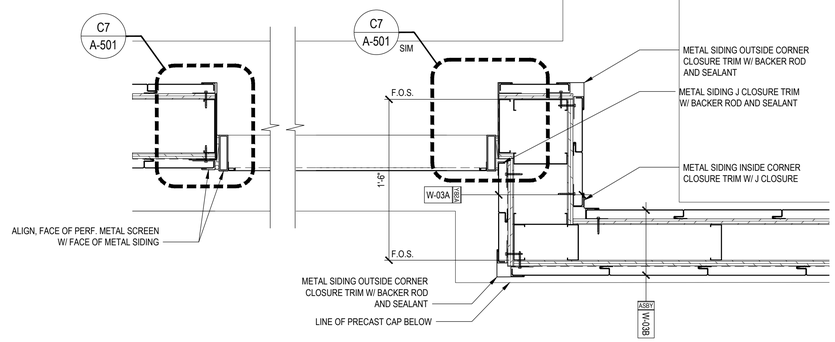
C2 PLAN DETAIL 04 @ CLEARSTORY
SCALE: 1-1/2" = 1'-0"

NORTH



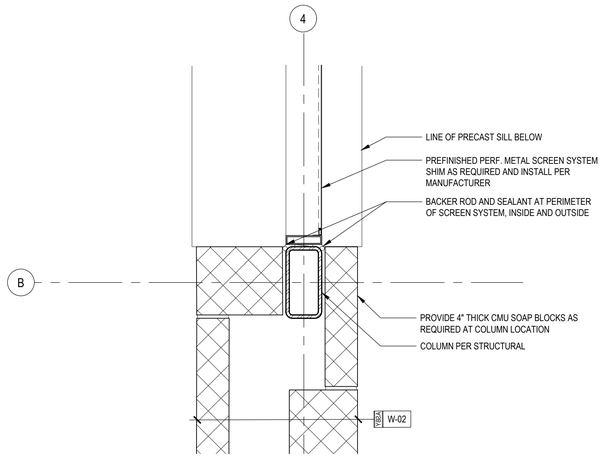
C4 PLAN DETAIL 05 @ CLEARSTORY
SCALE: 1-1/2" = 1'-0"

NORTH



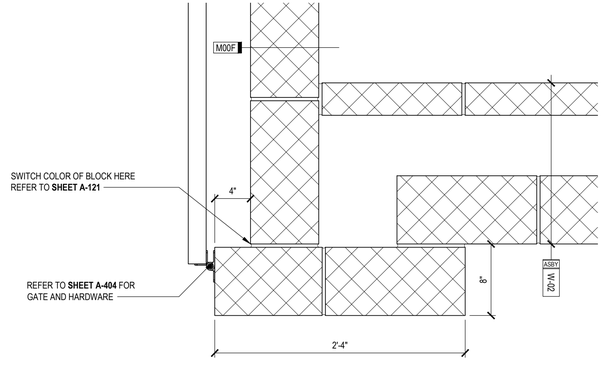
C6 PLAN DETAIL 06 @ CLEARSTORY
SCALE: 1-1/2" = 1'-0"

NORTH



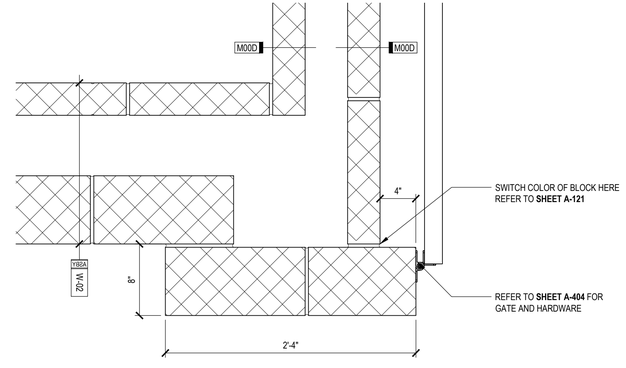
A2 PLAN DETAIL 04 @ MASONRY
SCALE: 1-1/2" = 1'-0"

NORTH



A5 PLAN DETAIL 07 @ MASONRY
SCALE: 1-1/2" = 1'-0"

NORTH



A6 PLAN DETAIL 06 @ MASONRY
SCALE: 1-1/2" = 1'-0"

NORTH

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT
dpa engineering
Baltimore, MD 21224
410-633-6105
www.dpaengineering.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

R.O.W NO. | PNW | 35NW40

CONTRACT COMPLETION BOX

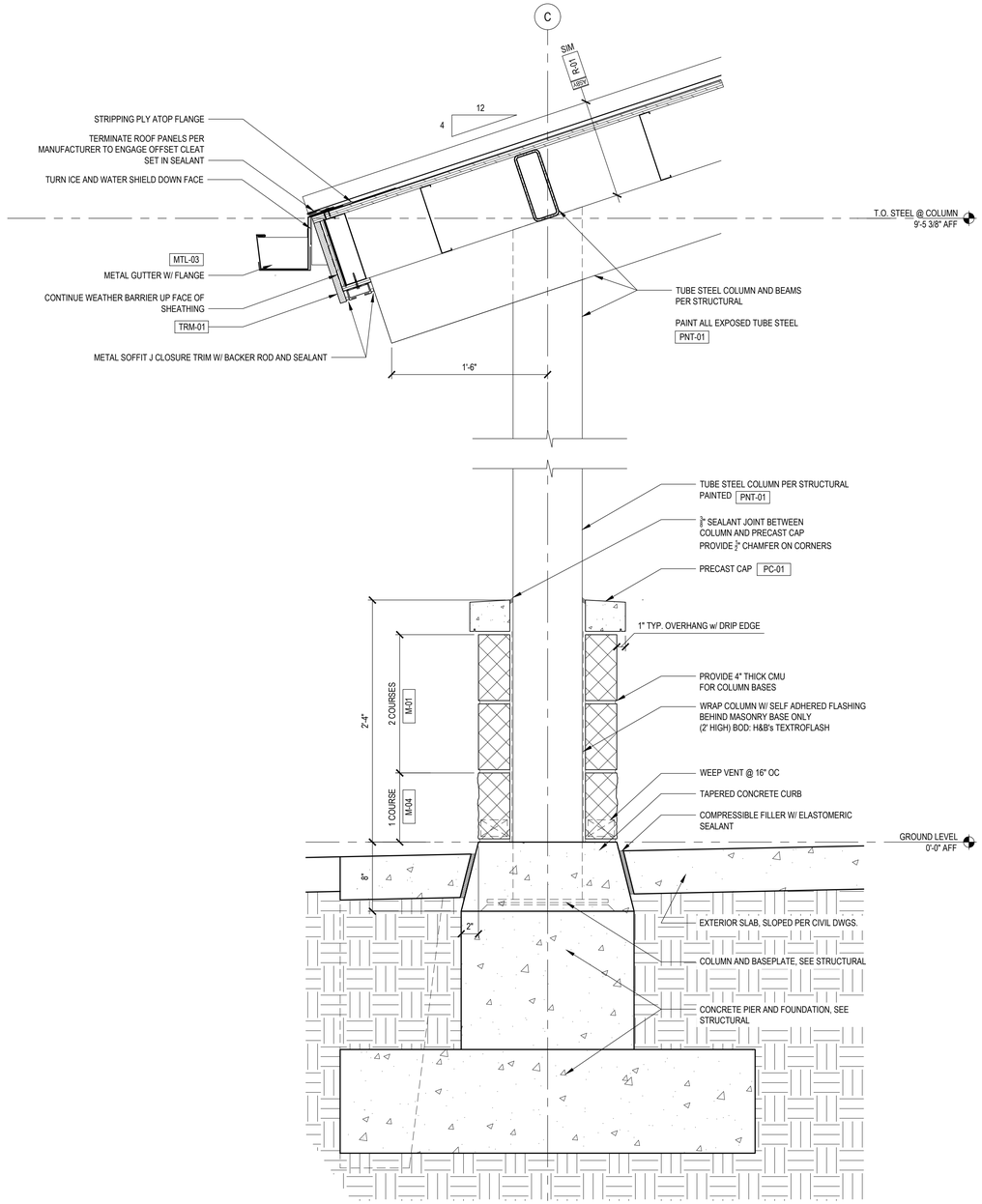
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

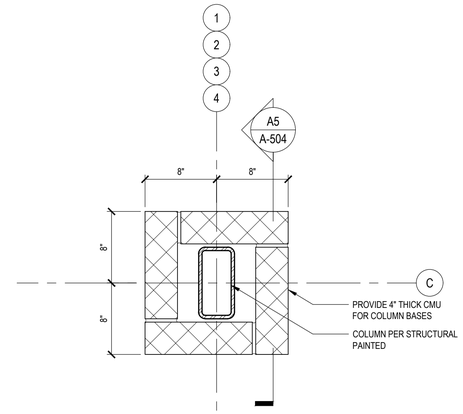
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE – COMFORT STATION PLAN DETAILS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-502	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 70 OF 150
	DRAWING NUMBER
	2025-2241
	FILE NO.: 8



SECTION DETAIL TYPICAL COLUMNS

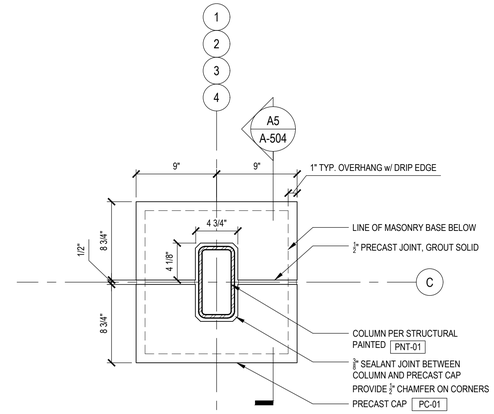
A5 — SCALE: 1-1/2" = 1'-0"



PLAN DETAIL TYPICAL COLUMN BASE

C6 — SCALE: 1-1/2" = 1'-0"

NORTH



PLAN DETAIL TYPICAL COLUMN CAP

A6 — SCALE: 1-1/2" = 1'-0"

NORTH

DWG. FILENAME:

SEAL

STATE OF MARYLAND — R. JAMES PETT — 21318 — ARCHITECT

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT

AS-BUILT PER RECORD PRINT

BY:

DATE:

DGN BY: RJP

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CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

R.O.W NO. | PNW | 35NW40

CONTRACT COMPLETION BOX

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE

PLAN SCALE: AS SHOWN

PROFILE SCALE:

PROPERTY MANAGEMENT

APPROVED BY:

PROPERTY MANAGER

DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION COLUMN DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

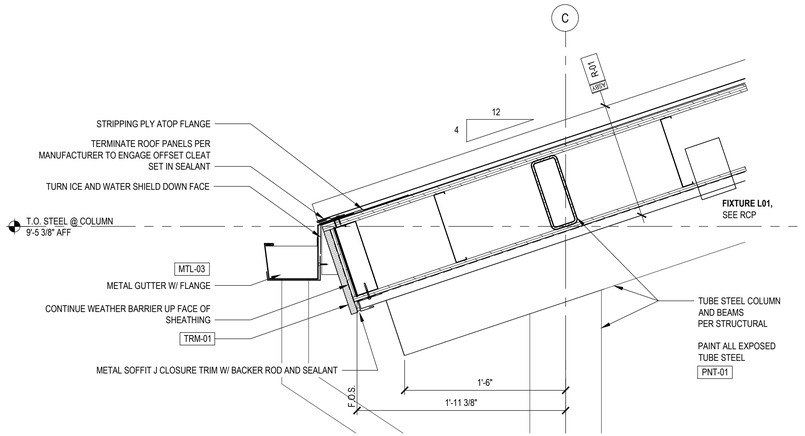
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

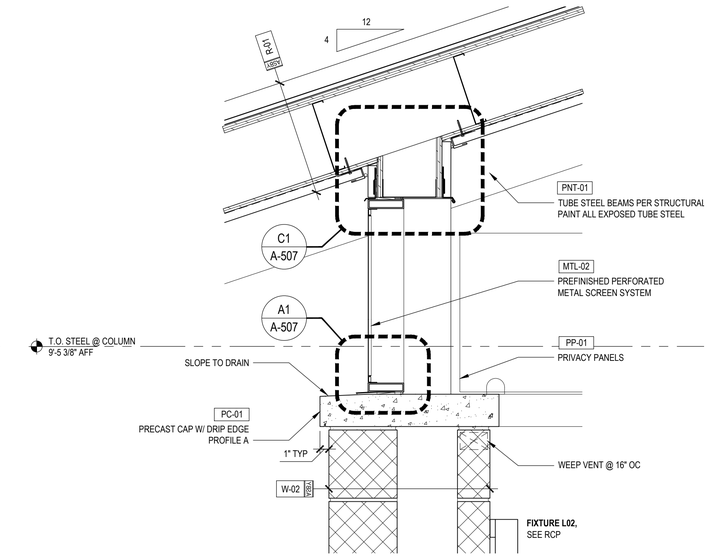
SHEET DESIGNATION	CONTRACT NUMBER
A-503	25114 GXO

BALTIMORE COUNTY MARYLAND

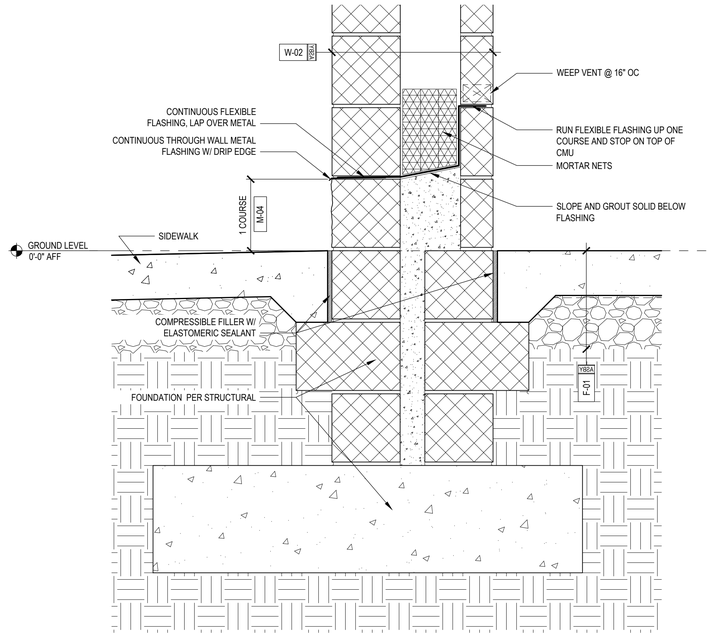
JOB ORDER NUMBER
PROJ-1000634
SHEET 71 OF 150
DRAWING NUMBER
2025-2242
FILE NO.: 8



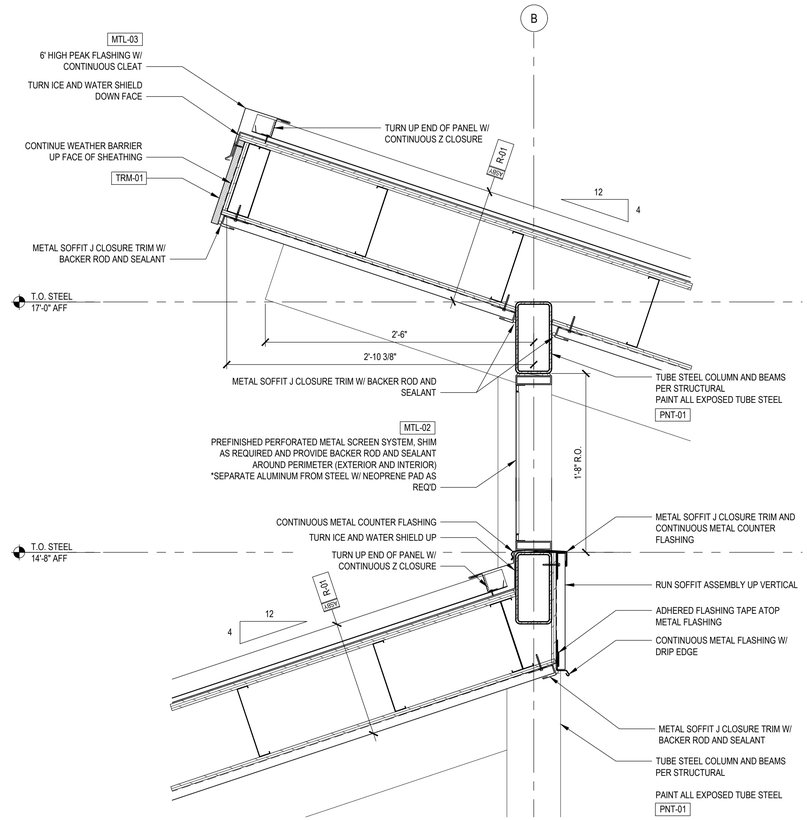
C3 SECTION DETAIL 01
SCALE: 1-1/2" = 1'-0"



C5 SECTION DETAIL 02
SCALE: 1-1/2" = 1'-0"



A5 SECTION DETAIL 03
SCALE: 1-1/2" = 1'-0"



B6 SECTION DETAIL 04
SCALE: 1-1/2" = 1'-0"

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT
DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP
AS-BUILT PER RECORD PRINT
BY:
DATE:

AS-BUILT / REVISION | BY | DATE | P.W.A. NO.
R.O.W NO.
CONTRACT COMPLETION BOX

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

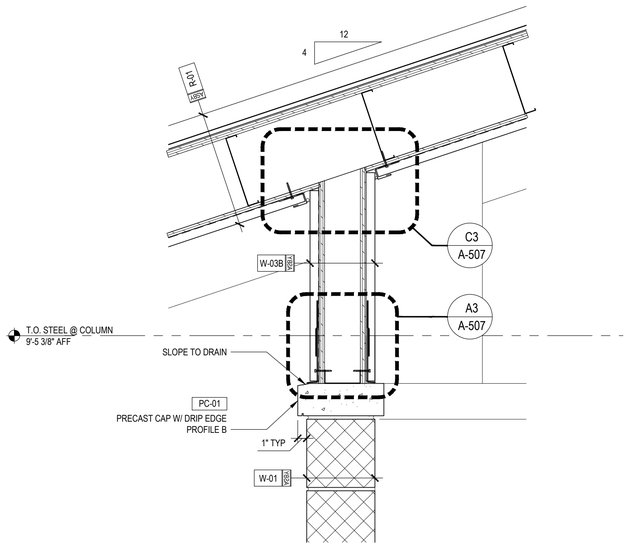
KEY SHEET	POSITION SHT
PNW	35NW40

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY:
PROPERTY MANAGER
DATE:

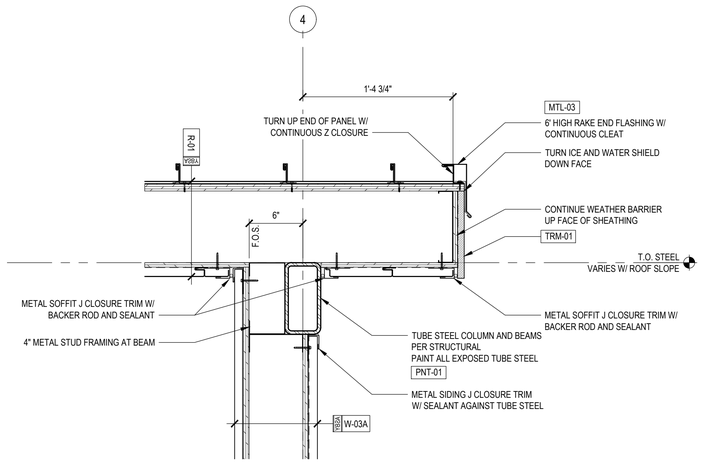
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE – COMFORT STATION SECTION DETAILS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-504	25114 GXO
JOB ORDER NUMBER	PROJ-1000634
SHEET 72 OF 150	
DRAWING NUMBER	2025-2243
FILE NO.: 8	REV. 05/08



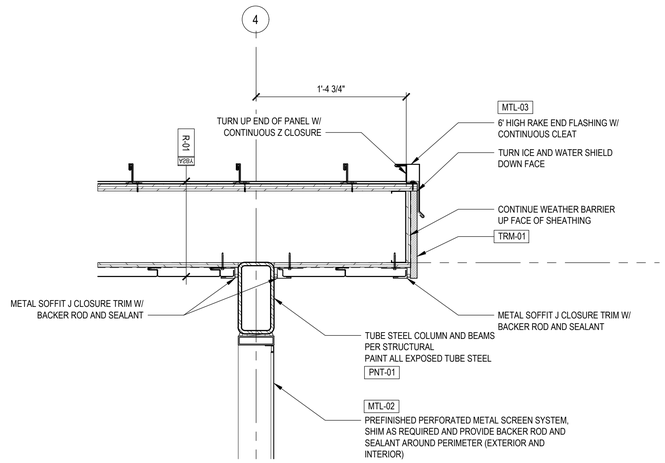
D2 SECTION DETAIL 05

SCALE: 1-1/2" = 1'-0"



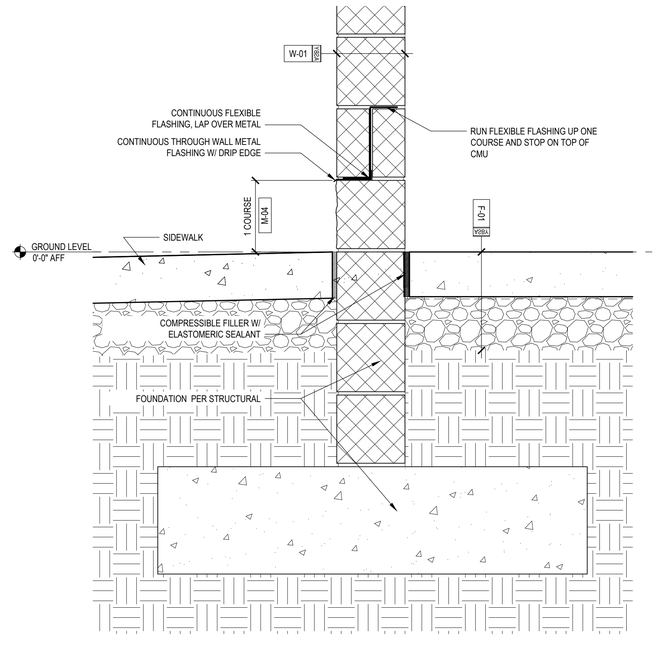
D4 SECTION DETAIL 07

SCALE: 1-1/2" = 1'-0"



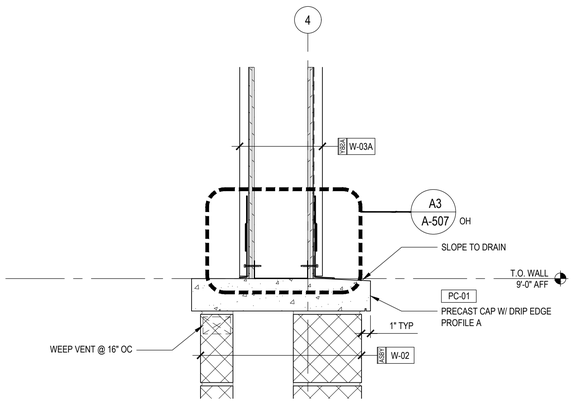
D6 SECTION DETAIL 09

SCALE: 1-1/2" = 1'-0"



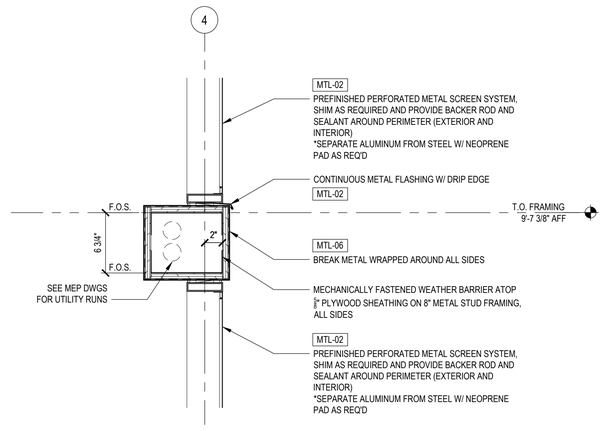
A2 SECTION DETAIL 06

SCALE: 1-1/2" = 1'-0"



B4 SECTION DETAIL 08

SCALE: 1-1/2" = 1'-0"



B6 SECTION DETAIL 09

SCALE: 1-1/2" = 1'-0"

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

CONTRACT COMPLETION BOX | R.O.W NO. | PNW | 35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION SECTION DETAILS

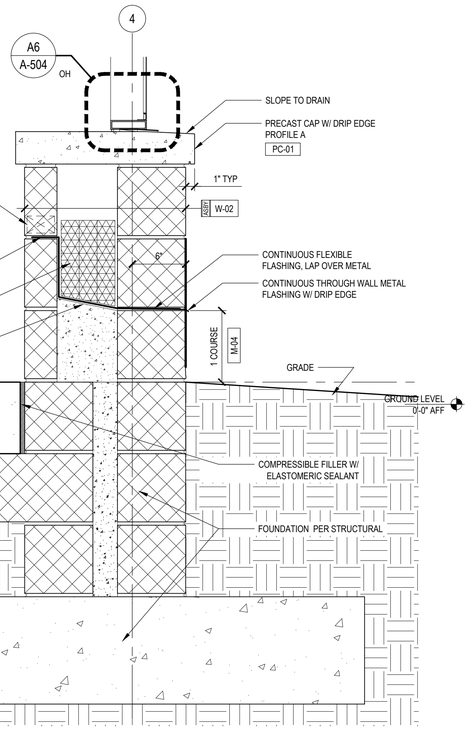
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

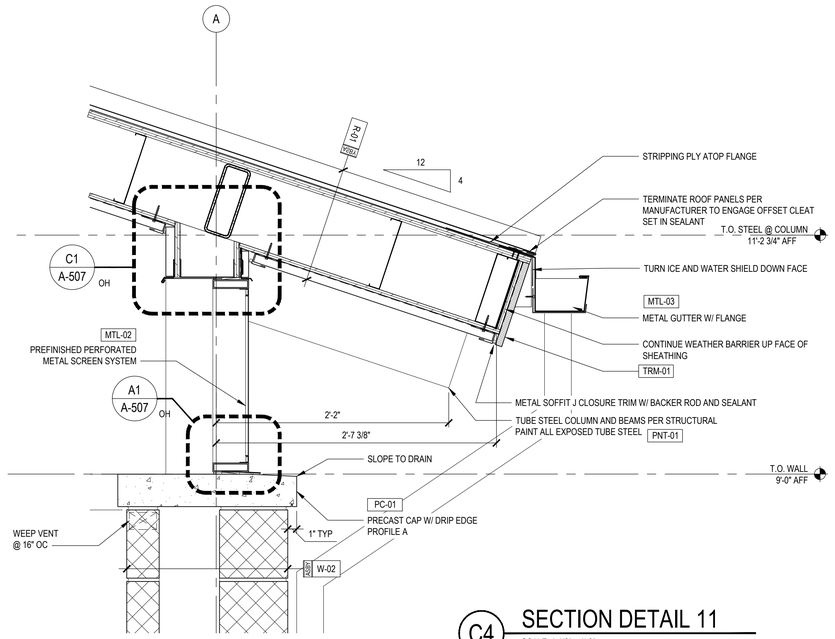
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-505	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 73 OF 150
	DRAWING NUMBER
	2025-2244
	FILE NO.: 8



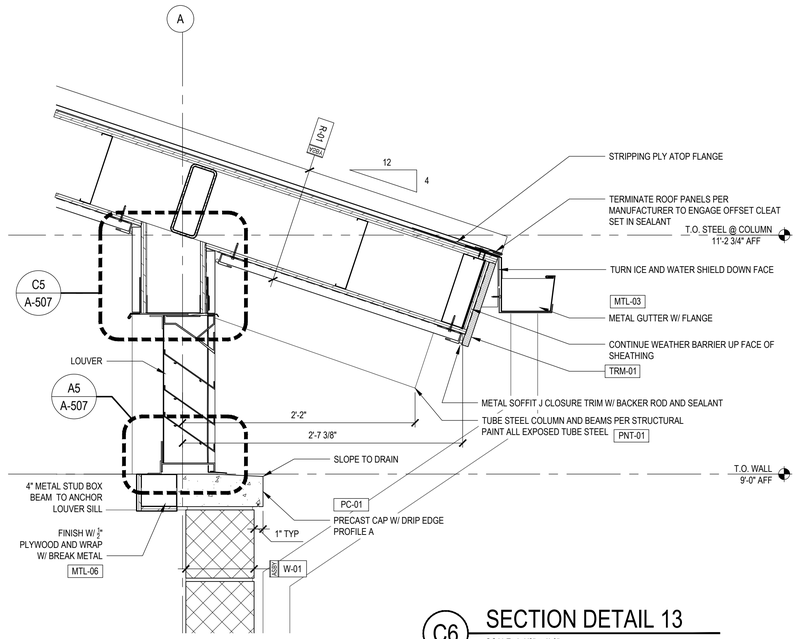
A2 SECTION DETAIL 10

SCALE: 1-1/2" = 1'-0"



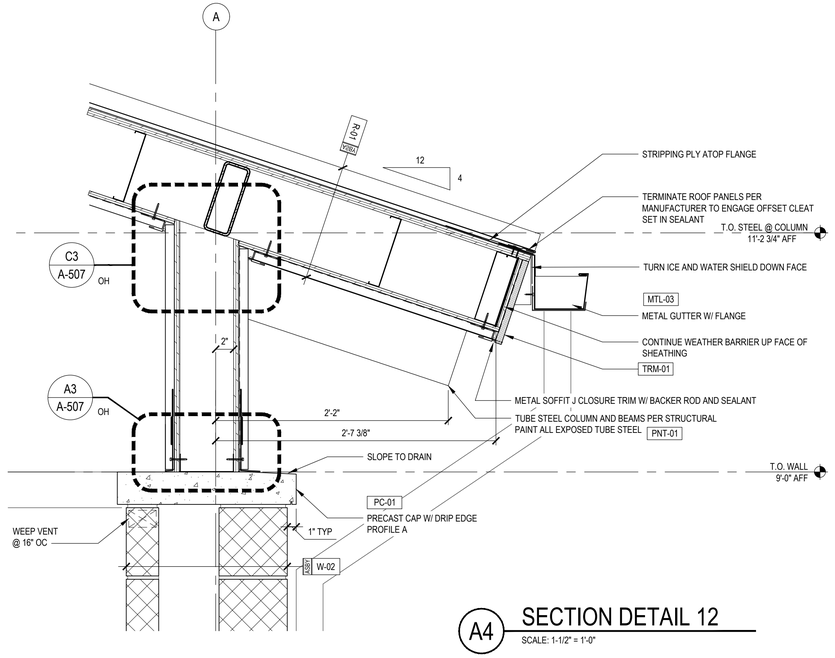
C4 SECTION DETAIL 11

SCALE: 1-1/2" = 1'-0"



C6 SECTION DETAIL 13

SCALE: 1-1/2" = 1'-0"



A4 SECTION DETAIL 12

SCALE: 1-1/2" = 1'-0"

DWG. FILENAME:

SEAL

STATE OF MARYLAND — RAMON JAMES PETT — 7318 — ARCHITECT

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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

LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT

AS-BUILT PER RECORD PRINT

BY:

DATE:

DGN BY: RJP

DWN BY: JGB

CHKD BY: RJP

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE

PLAN SCALE: AS SHOWN

PROFILE SCALE:

PROPERTY MANAGEMENT

APPROVED BY:

PROPERTY MANAGER

DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION SECTION DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

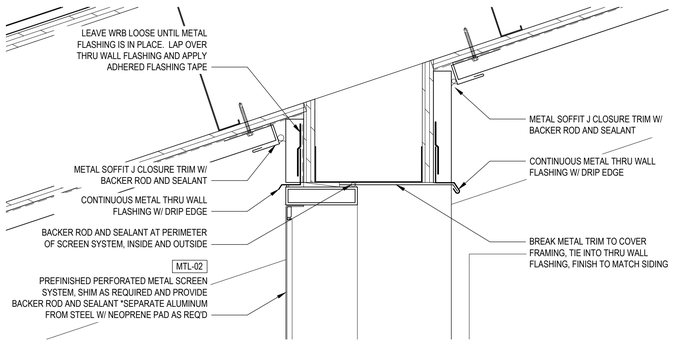
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

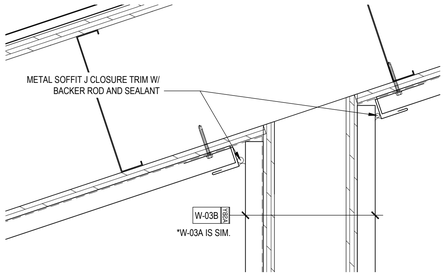
SHEET DESIGNATION	CONTRACT NUMBER
A–506	25114 GXO

BALTIMORE COUNTY MARYLAND

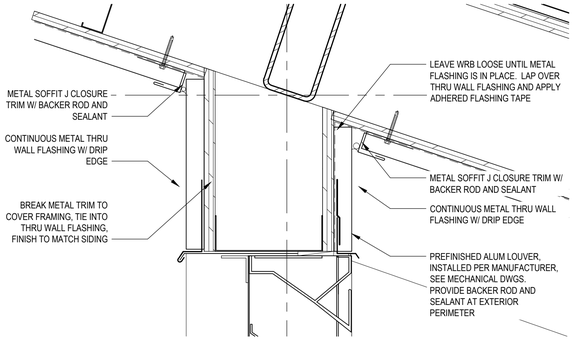
JOB ORDER NUMBER
PROJ–1000634
SHEET 74 OF 150
DRAWING NUMBER
2025-2245
FILE NO.: 8



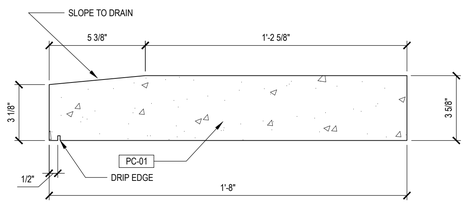
C1 TYP. SCREEN HEAD
SCALE: 3" = 1'-0"



C3 TYP. WALL TO SOFFIT
SCALE: 3" = 1'-0"

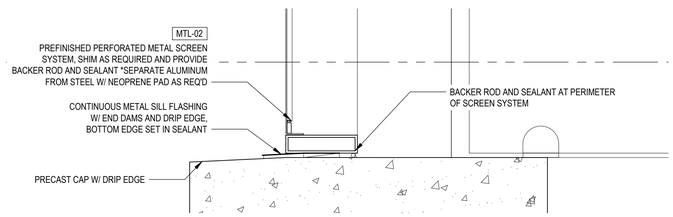


C5 TYP. LOUVER HEAD
SCALE: 3" = 1'-0"

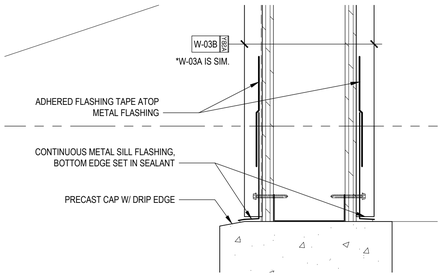


D6 PRECAST BEAM TYP. PROFILE
SCALE: 3" = 1'-0"

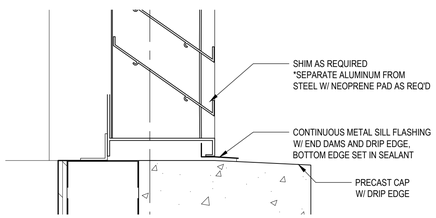
C6 PRECAST CAP PROFILE A
SCALE: 3" = 1'-0"



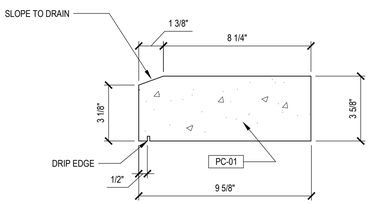
A1 TYP. SCREEN SILL
SCALE: 3" = 1'-0"



A3 TYP. WALL TO CAP
SCALE: 3" = 1'-0"



A5 LOUVER SILL
SCALE: 3" = 1'-0"



A6 PRECAST CAP PROFILE B
SCALE: 3" = 1'-0"

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. #7318-A, EXPIRATION DATE 10-21-26.					R.O.W NO.	PNW	35NW40	PLAN SCALE: AS SHOWN	APPROVED BY: PROPERTY MANAGER
		CONTRACT COMPLETION BOX						PROFILE SCALE:	DATE:
ARCHITECT: R. JAMES PETT	DGN BY: RJP	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
AS-BUILT PER RECORD PRINT	DWN BY: JGB	REVIEWED BY:							
BY: DATE:	CHKD BY: RJP	DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – COMFORT STATION SECTION DETAILS

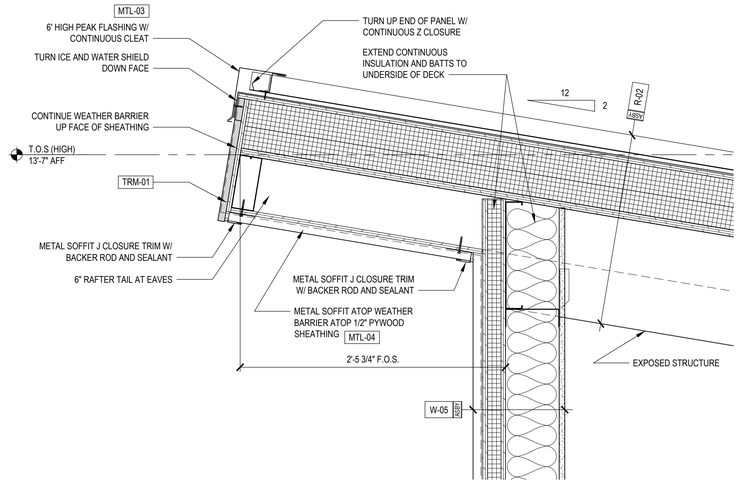
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

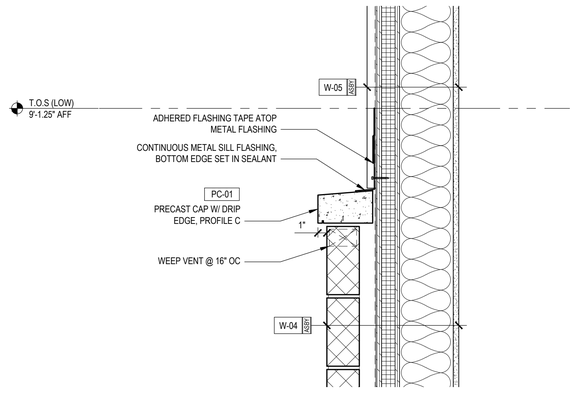
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

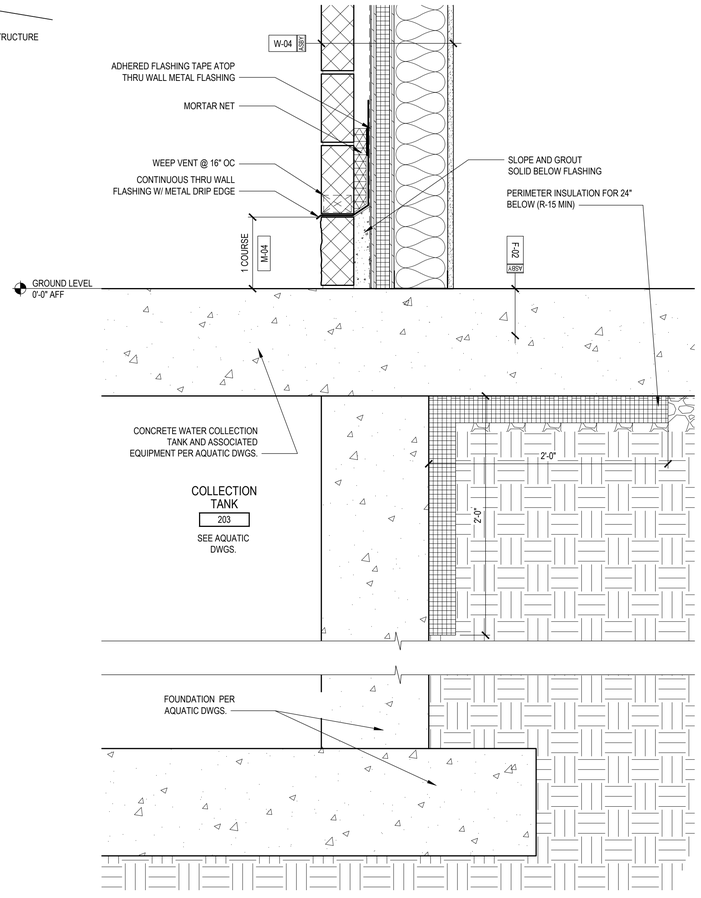
SHEET DESIGNATION	CONTRACT NUMBER
A-507	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 75 OF 150
	DRAWING NUMBER
	2025-2246
	FILE NO.: 8



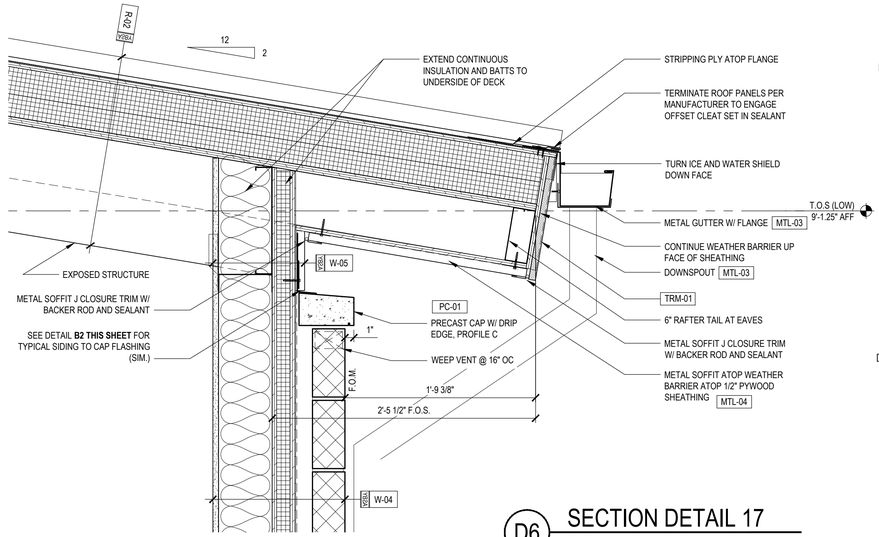
D2 SECTION DETAIL 14
SCALE: 1-1/2" = 1'-0"



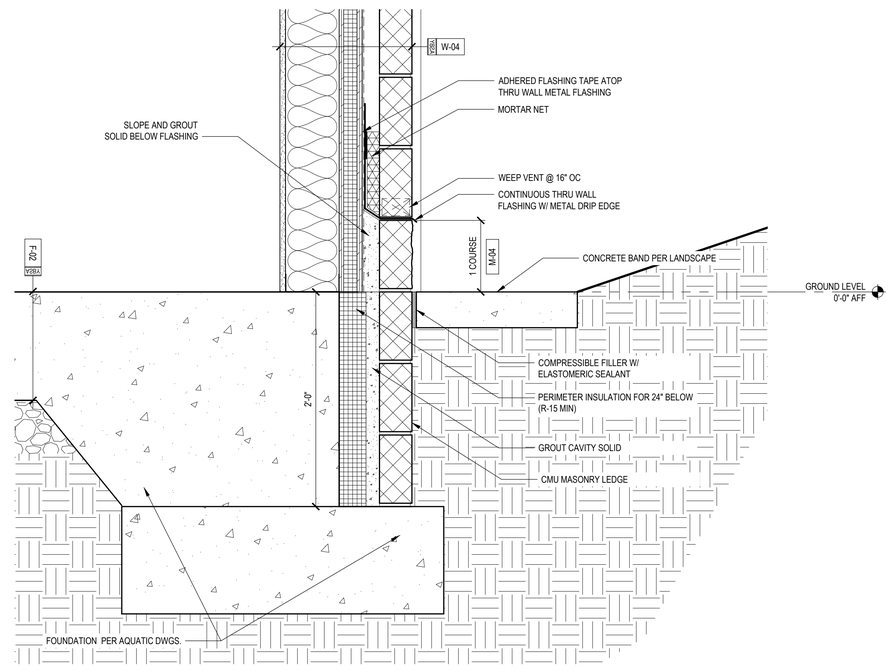
B2 SECTION DETAIL 15
SCALE: 1-1/2" = 1'-0"



A4 SECTION DETAIL 16
SCALE: 1-1/2" = 1'-0"



D6 SECTION DETAIL 17
SCALE: 1-1/2" = 1'-0"



A6 SECTION DETAIL 18
SCALE: 1-1/2" = 1'-0"

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

CONTRACT COMPLETION BOX | | | R.O.W NO. | PNW | 35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – SPLASH PAD OFFICE/MECH SECTION DETAILS

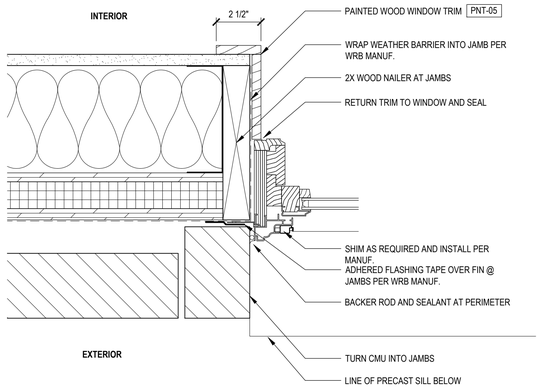
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

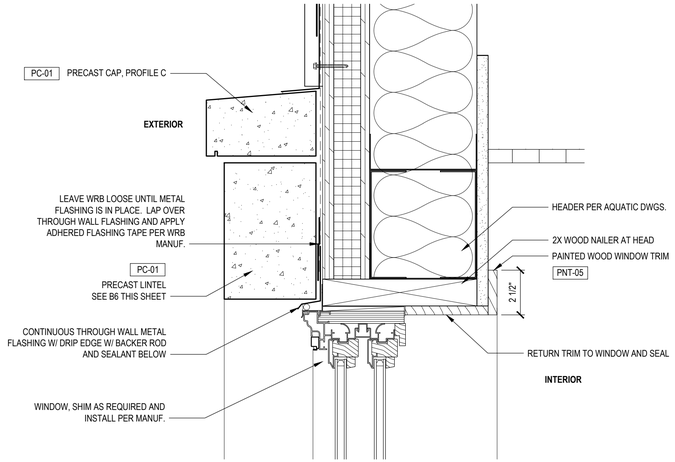
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

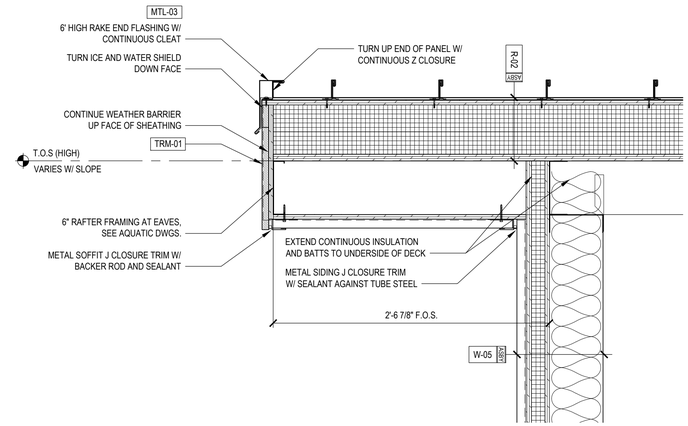
SHEET DESIGNATION	CONTRACT NUMBER
A-508	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 76 OF 150
	DRAWING NUMBER
	2025-2247
	FILE NO.: 8



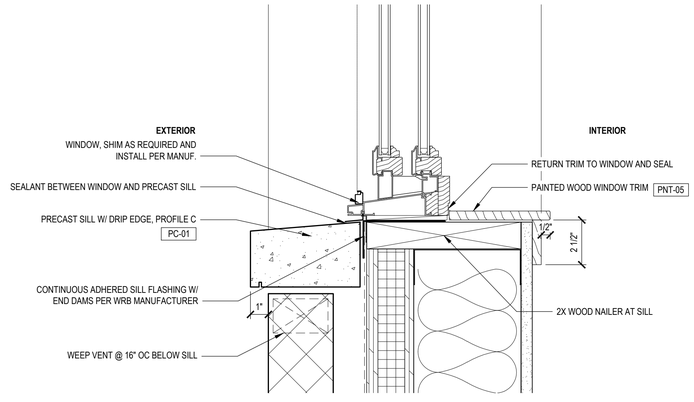
D2 TYP. WINDOW JAMB
SCALE: 1-1/2" = 1'-0"



D4 TYP. WINDOW HEAD
SCALE: 1-1/2" = 1'-0"



D6 SECTION DETAIL 19
SCALE: 1-1/2" = 1'-0"



B4 TYP. WINDOW SILL
SCALE: 1-1/2" = 1'-0"

B6 PRECAST LINTEL TYP. PROFILE
SCALE: 3" = 1'-0"

A6 PRECAST CAP PROFILE C
SCALE: 3" = 1'-0"

DWG. FILENAME:

SEAL
STATE OF MARYLAND
RICHARD JAMES PETT
21615
ARCHITECT
DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.
ARCHITECT: R. JAMES PETT
AS-BUILT PER RECORD PRINT
BY: DATE:
DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT
R.O.W NO. | PNW | 35NW40
CONTRACT COMPLETION BOX

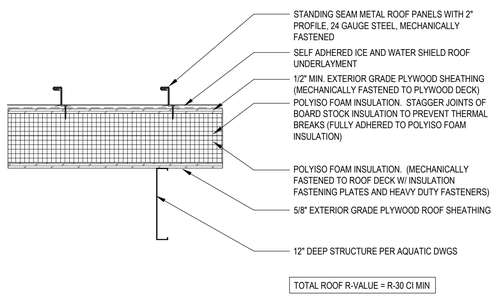
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE – SPLASH PAD OFFICE/MECH SECTION DETAILS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-509	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 77 OF 150
	DRAWING NUMBER
	2025-2248
	FILE NO.: 8

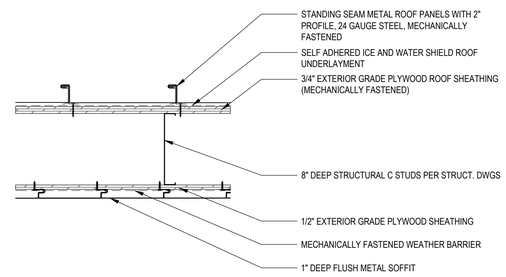


TOTAL ROOF R-VALUE = R-30 CI MIN

R02 SPLASH PAD OFFICE/MECH ROOF ASSEMBLY - STANDING SEAM

1 1/2" = 1'-0"

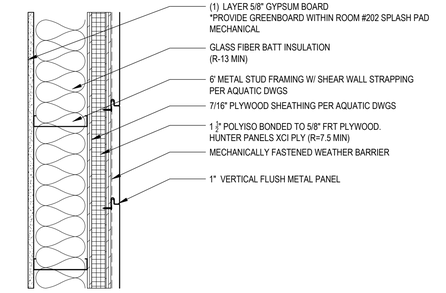
CLASS B ROOF COVERING IS REQUIRED FOR A TYPE VB BUILDING SPECIFIED ROOFING ASSEMBLY IS CLASS A



R01 COMFORT STATION ROOF ASSEMBLY - STANDING SEAM

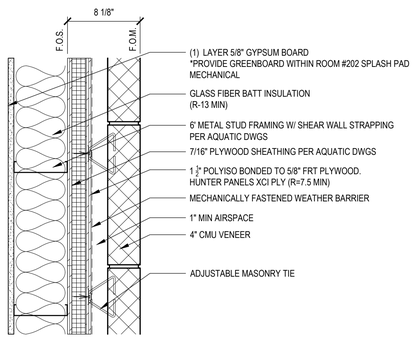
1 1/2" = 1'-0"

CLASS B ROOF COVERING IS REQUIRED FOR A TYPE VB BUILDING SPECIFIED ROOFING ASSEMBLY IS CLASS A



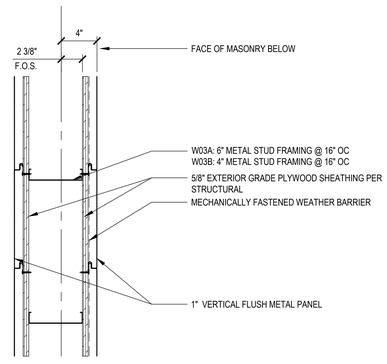
W05 SPLASH PAD OFFICE/MECH WALL ASSEMBLY - METAL SIDING

1 1/2" = 1'-0"



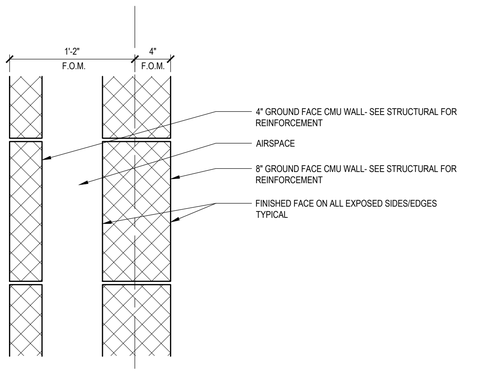
W04 SPLASH PAD OFFICE/MECH WALL ASSEMBLY - CMU VENEER

1 1/2" = 1'-0"



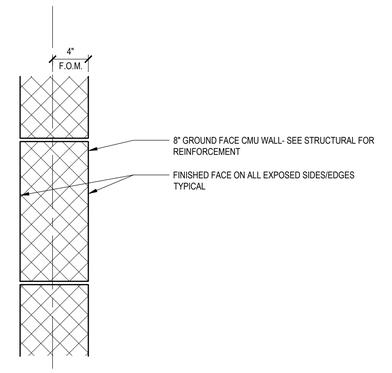
W03A W03B COMFORT STATION WALL ASSEMBLY - METAL SIDING

1 1/2" = 1'-0"



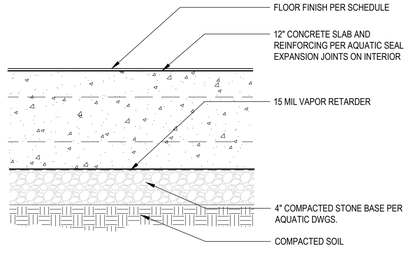
W02 COMFORT STATION WALL ASSEMBLY - SMOOTH FACE CMU

1 1/2" = 1'-0"



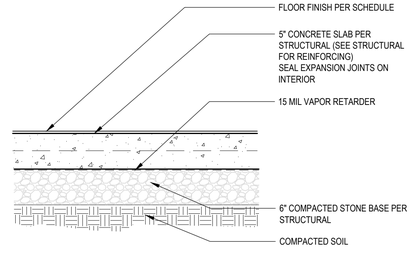
W01 COMFORT STATION WALL ASSEMBLY - SMOOTH FACE CMU

1 1/2" = 1'-0"



F02 SPLASH PAD OFFICE/MECH FLOOR ASSEMBLY - SLAB ON GRADE

1-1/2" = 1'-0"



F01 COMFORT STATION FLOOR ASSEMBLY - SLAB ON GRADE

1-1/2" = 1'-0"

BUILDING ASSEMBLY NOTES:

1. THE OFFICE/SPLASH PAD MECHANICAL BUILDING IS CONDITIONED SPACE AND WILL MEET IECC 2021.
2. THE COMFORT STATION BUILDING IS AN UNCONDITIONED SPACE, NATURALLY VENTILATED, AND WILL BE WINTERIZED DURING COLD MONTHS.

   IT IS EXEMPT FROM MEETING ENERGY CODE REQUIREMENTS PER IECC 2021 SECTION C402.1.1 ITEM 2. THE BUILDING IS NOT CONDITIONED SPACE.

   COMFORT STATION BUILDING ASSEMBLIES REFLECT THIS EXEMPTION.

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

CONTRACT COMPLETION BOX | R.O.W NO.

BUREAU OF ENGINEERING AND CONSTRUCTION | TRAFFIC | HIGHWAYS | STRUCTURES | STORM DRAINS | SEWER | WATER | FIELD ENGINEER

REVIEWED BY:

DATE REVIEWED:

DRAWING SCALE

PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – BUILDING ASSEMBLIES

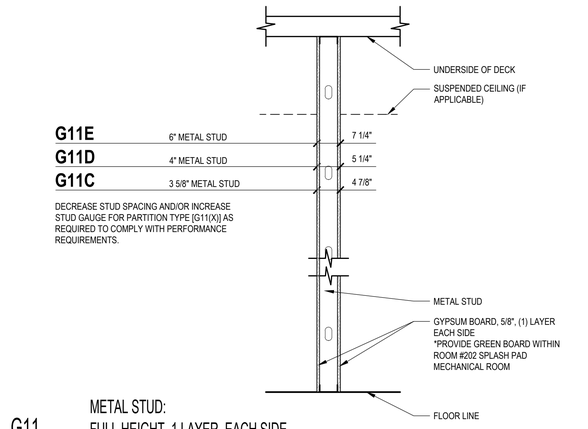
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

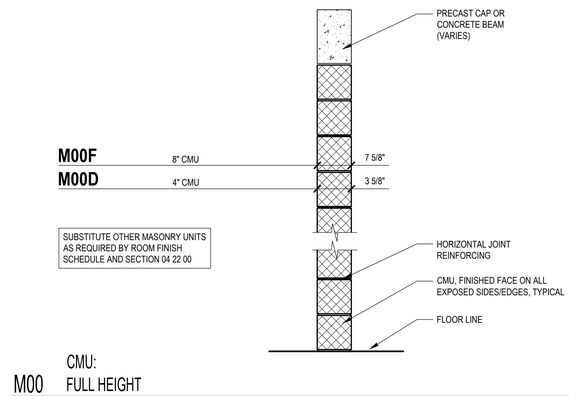
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-601	SCON1000039
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 78 OF 150
	DRAWING NUMBER
	2025-2249
	FILE NO.: 8



METAL STUD:
G11 FULL HEIGHT, 1 LAYER, EACH SIDE

SCALE: 3/4" = 1'-0"



CMU:
M00 FULL HEIGHT

SCALE: 3/4" = 1'-0"

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.						PNW	35NW40	PLAN SCALE: AS SHOWN	APPROVED BY: PROPERTY MANAGER
					R.O.W NO.			PROFILE SCALE:	DATE:
ARCHITECT: R. JAMES PETT	DGN BY: RJP	CONTRACT COMPLETION BOX							
	DWN BY: JGB	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
AS-BUILT PER RECORD PRINT		REVIEWED BY:							
BY: DATE:	CHKD BY: RJP	DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – INTERIOR PARTITION TYPES

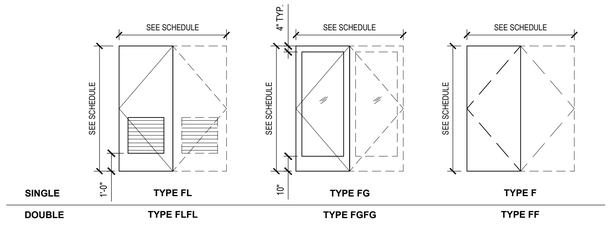
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

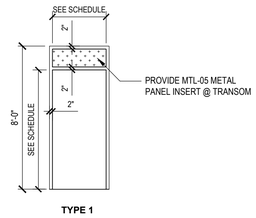
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

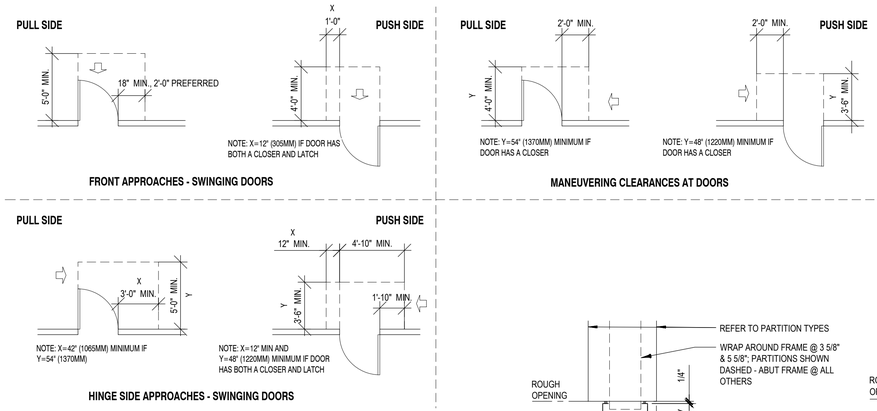
SHEET DESIGNATION	CONTRACT NUMBER
A-602	SCON1100039
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 79 OF 150
	DRAWING NUMBER
	2025-2250
	FILE NO.: 8



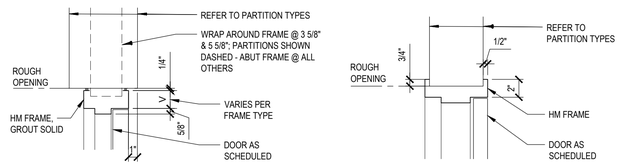
DOOR ELEVATIONS



FRAME ELEVATIONS



ADA DOOR CLEARANCES



FRAME DETAILS

DOOR SCHEDULE ANNOTATIONS & SYMBOLS

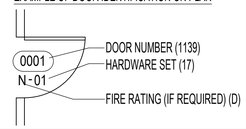
DOOR MATERIAL TYPE
WOOD - WOOD (AS SPECIFIED)
OAK - OAK WOOD
BIRCH - BIRCH WOOD
PLAM - PLASTIC LAM CLAD
HM - HOLLOW METAL
AL/GL - ALUMINUM & GLASS
TG - CLEAR TEMPERED GLASS

GLAZING TYPE
T - CLEAR TEMPERED GLASS
TT - TINTED & TEMPERED GLASS
W - CLEAR WIRE GLASS
IT - INSULATED TEMPERED GLASS
FT - FROSTED & TEMPERED GLASS

DOOR FRAME MATERIAL TYPE
HM - HOLLOW METAL
AL - ALUMINUM
WD - WOOD
STL - STEEL

FIRE RATING
A - 3 HOUR
B - 1 1/2 HOUR
C - 1 HOUR
D - 3/4 HOUR
E - TWENTY MINUTE
N - NO RATING

EXAMPLE OF DOOR IDENTIFICATION ON PLAN



DOOR AND FRAME SCHEDULE

LEVEL 01

LOCATION	DOOR #	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THK	DOOR MATL.	DOOR ELEV.	DOOR GLZ.	FRAME MATL.	FRAME ELEV.	FRAME GLZ.	FIRE RATING LABEL	HDWR SET	NOTES
COMFORT STATION	101A	CUSTOM GATE									N	05	SEE DETAILS ON SHEET A-404 FOR CUSTOM GATE
COMFORT STATION	101B	3'-0"	6'-8"	1 3/4"	HM	FL	-	HM	1	-	N	03	1,2
COMFORT STATION	101C	3'-0"	6'-8"	1 3/4"	HM	FL	-	HM	1	-	N	03	1,2
COMFORT STATION	101D	3'-0"	6'-8"	1 3/4"	HM	FL	-	HM	1	-	N	03	1,2
COMFORT STATION	101E	3'-0"	6'-8"	1 3/4"	HM	FL	-	HM	1	-	N	03	1,2
COMFORT STATION	101F	3'-0"	6'-8"	1 3/4"	HM	FL	-	HM	1	-	N	02	1,2
COMFORT STATION	101G	CUSTOM GATE									N	05	SEE DETAILS ON SHEET A-404 FOR CUSTOM GATE
COMFORT STATION	102	3'-0"	6'-8"	1 3/4"	HM	FL	-	HM	1	-	N	01	1,2
COMFORT STATION	103	3'-0"	6'-8"	1 3/4"	HM	F	-	HM	1	-	N	04	1,2
COMFORT STATION	104	3'-0"	6'-8"	1 3/4"	HM	FL	-	HM	1	-	N	01	1,2
OFFICE/MECH	201	3'-0"	7'-2"	1 3/4"	AL/GL	FG	T	AL	SF	-	N	06	3,5
OFFICE/MECH	202A	3'-8"	7'-0"	1 3/4"	HM	F	-	HM	2	-	N	07	3,4
OFFICE/MECH	202B	3'-0"	6'-8"	1 3/4"	HM	F	-	HM	3	-	N	09	
OFFICE/MECH	202C	3'-0"	6'-8"	1 3/4"	HM	F	-	HM	3	-	N	08	

NOTES

1. THERMAL PERFORMANCE IS NOT REQUIRED AT THE COMFORT STATION - BUILDING IS AN UNCONDITIONED SPACE
2. PROVIDE EXTERIOR DOORS AND FRAMES AT COMFORT STATION. SEE SPEC SECTION 08 1113 FOR COUNTY STANDARDS.
3. THERMAL PERFORMANCE IS REQUIRED AT THE OFFICE/MECHANICAL BUILDING.
4. EXTERIOR OPAQUE SWING DOORS TO HAVE U VALUE: 0.37 MAX. SEE SPEC SECTION 08 1113 FOR COUNTY STANDARDS.
5. EXTERIOR STOREFRONT ENTRANCE DOORS TO HAVE U FACTOR: 0.63 MAX, SHGC: 0.36 MAX. SEE SPEC SECTIONS 08 4313 AND 08 8000 FOR INFORMATION.
6. PRODUCTS LISTED IN HARDWARE SETS 01 THROUGH 04 AND SETS 06 THROUGH 09 BELOW ARE BALTIMORE COUNTY STANDARDS. NO SUBSTITUTIONS WITHOUT APPROVAL.

DOOR HARDWARE SETS

(QUANTITY)	HARDWARE ITEM	MODEL #	FINISH	MANUFACTURER
HARDWARE SET 01 - FAMILY RESTROOM				
(3)	HINGES	F191 4-1/2" x 4-1/2"	32D	STANLEY
(1)	PRIVACY W/ INDICATOR	APL-02-ST-626-306-Q73	626	ARROW LOCK
(1)	CLOSER	DC6210-M54	626	CORBIN RUSSWIN
(1)	MOP PLATE	90 8" H x 1" LESS DOOR WIDTH	630	DON-JO MFG
(1)	KICK PLATE	90 8" H X 2" LESS DOOR WIDTH	630	DON-JO MFG
(1)	WALL STOP	1413	626	DON-JO MFG
(3)	SILENCERS PER JAMB	ROCKWOOD 608		DOOR CONTROLS INTERNATIONAL
HARDWARE SET 02 - AMBULATORY STALL				
(3)	HINGES	F191 4-1/2" x 4-1/2"	32D	STANLEY
(1)	PRIVACY W/ INDICATOR	APL-02-ST-626-306-Q73	626	ARROW LOCK
(1)	CLOSER	DC6210-M54	626	CORBIN RUSSWIN
(1)	MOP PLATE	90 8" H x 1" LESS DOOR WIDTH	630	DON-JO MFG
(1)	KICK PLATE	90 8" H X 2" LESS DOOR WIDTH	630	DON-JO MFG
(1)	HINGE PIN STOP	1502	626	DON-JO MFG
(3)	SILENCERS PER JAMB	ROCKWOOD 608		DOOR CONTROLS INTERNATIONAL
HARDWARE SET 03 - TYPICAL STALL				
(3)	SPRING HINGES	2060R 4-1/2" x 4-1/2"	32D	STANLEY
(1)	PRIVACY W/ INDICATOR	APL-02-ST-626-306-Q73	626	ARROW LOCK
(1)	CLOSER	DC6210-M54	626	CORBIN RUSSWIN
(1)	MOP PLATE	90 8" H x 1" LESS DOOR WIDTH	630	DON-JO MFG
(1)	KICK PLATE	90 8" H X 2" LESS DOOR WIDTH	630	DON-JO MFG
(1)	WALL STOP	1413	626	DON-JO MFG
(3)	SILENCERS PER JAMB	ROCKWOOD 608		DOOR CONTROLS INTERNATIONAL

(QUANTITY)	HARDWARE ITEM	MODEL #	FINISH	MANUFACTURER
HARDWARE SET 04 - UTILITY ROOM				
(3)	HINGES	F191 4-1/2" x 4-1/2"	32D	STANLEY
(1)	STOREROOM LOCK	SURVIVOR SERIES 175-F86	26D	MARKS USA
(1)	CYLINDER	MEDECO 6 PIN X4 BCP KEYWAY, KEYS CUT ON CUSTOM BF2 KEY BLANKS		
(1)	CLOSER	DC6210-M54	626	CORBIN RUSSWIN
(2)	ARMOR PLATE	90 18" H x 2" LESS DOOR WIDTH	630	DON-JO MFG
(1)	DOOR STOP & HOLDER	1453	626	DON-JO MFG
(3)	SILENCERS PER JAMB	ROCKWOOD 608		DOOR CONTROLS INTERNATIONAL
HARDWARE SET 05 - GATE				
(4)	HINGES	KWIKFIT ALUM. WALL MOUNTED #KF3ABL	BLACK	D&D TECHNOLOGIES
(1)	KEYED DROP BOLT	P00006405-KEYDROP	BLACK	LOCINOX
(2)	GROUND CATCH	P00006488-EGS		LOCINOX
(2)	HANDLES	N16-022 MODERN GATE PULL	BLACK	NATIONAL HARDWARE
(1)	WALL STOP	1413	626	DON-JO MFG

GATE TO BE LOCKED IN OPEN POSITION DURING OPERATING HOURS, GATE TO BE LOCKED IN CLOSED POSITION WHEN NOT OPEN

GC TO VERIFY FINAL WEIGHT OF GATE WORKS WITH SPECIFIED HINGES

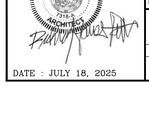
(QUANTITY)	HARDWARE ITEM	MODEL #	FINISH	MANUFACTURER
HARDWARE SET 06 - STOREFRONT ENTRY				
(1)	CONTINUOUS HINGE	XFMSLF-HD1	C	PEMKO
(1)	ENTRY LOCK	SURVIVOR SERIES 175-F109	630	MARKS USA
(1)	CYLINDER	MEDECO 6 PIN X4 BCP KEYWAY, KEYS CUT ON CUSTOM BF2 KEY BLANKS		
(1)	CLOSER	DC6210-M54	689	CORBIN RUSSWIN
(2)	THRESHOLD	172A		PEMKO
(1)	WEATHERSEAL	CONTINUOUS WEATHERSTRIP GASKETING		PEMKO
(1)	SWEEP	345CV		PEMKO
HARDWARE SET 07 - EXTERIOR MECH ROOM				
(3)	HINGES	F191 4-1/2" x 4-1/2"	32D	STANLEY
(1)	STOREROOM LOCK	SURVIVOR SERIES 175-F86	26D	MARKS USA
(1)	CYLINDER	MEDECO 6 PIN X4 BCP KEYWAY, KEYS CUT ON CUSTOM BF2 KEY BLANKS		
(1)	CLOSER	DC6210-M54	626	CORBIN RUSSWIN
(3)	SILENCERS	ROCKWOOD 608		DOOR CONTROLS INTERNATIONAL
(1)	THRESHOLD	172A		PEMKO
(1)	WEATHERSEAL	CONTINUOUS WEATHERSTRIP GASKETING		PEMKO
(1)	SWEEP	345CV		PEMKO

(QUANTITY)	HARDWARE ITEM	MODEL #	FINISH	MANUFACTURER
HARDWARE SET 08 - STORAGE CLOSET				
(3)	HINGES	F191 4-1/2" x 4-1/2"	32D	STANLEY
(1)	STOREROOM LOCK	SURVIVOR SERIES 175-F86	26D	MARKS USA
(1)	CYLINDER	MEDECO 6 PIN X4 BCP KEYWAY, KEYS CUT ON CUSTOM BF2 KEY BLANKS		
(1)	CLOSER	DC6210-M54	626	CORBIN RUSSWIN
(1)	WALL STOP	1413	626	DON-JO MFG
(1)	ARMOR PLATE	90 18" H x 2" LESS DOOR WIDTH	630	DON-JO MFG
(3)	SILENCERS	ROCKWOOD 608		DOOR CONTROLS INTERNATIONAL
HARDWARE SET 09 - STORAGE CLOSET				
(3)	HINGES	F191 4-1/2" x 4-1/2"	32D	STANLEY
(1)	STOREROOM LOCK	SURVIVOR SERIES 175-F86	26D	MARKS USA
(1)	CYLINDER	MEDECO 6 PIN X4 BCP KEYWAY, KEYS CUT ON CUSTOM BF2 KEY BLANKS		
(1)	CLOSER	DC6210-M54	626	CORBIN RUSSWIN
(1)	HINGE PIN STOP	1502	626	DON-JO MFG
(1)	ARMOR PLATE	90 18" H x 2" LESS DOOR WIDTH	630	DON-JO MFG
(3)	SILENCERS	ROCKWOOD 608		DOOR CONTROLS INTERNATIONAL

(4)

DWG. FILENAME:

SEAL



DATE : JULY 18, 2025

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ARCHITECT: R. JAMES PETT
JPI ARCHITECTS
1 Bethel Road, Suite 200
Baltimore, MD 21220
410-574-1000
www.JPIarchitects.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: RJP
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AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE – DOOR SCHEDULE
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
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PROJ-1000634	
SHEET 80 OF 150	
DRAWING NUMBER	
2025-2251	
FILE NO.: 8	

FINISH SCHEDULE

DESIG.	DESCRIPTION	FINISH/PATTERN	COLOR	MANUFACTURER	CONTACT	NOTES
MASONRY						
M-01	GROUND FACE MASONRY	GEMSTONE GROUND FACE BLOCK TO BE FINISHED ON ALL EXPOSED SIDES	FLINT	YORK BUILDING PRODUCTS	DUSTIN LOVELY 301-252-4259 dlovely@pvbrick.com	PROVIDE GEMCOAT SEALER PROTECTIVE COATING | MORTAR COLORS TO BE: WORKRITE WR 280 @ COMFORT STATION FRONT ACCENT WALL (SEE NOTE #3 ON A-201) AND WR272 EVERYWHERE ELSE **PROVIDE MOCKUP FOR APPROVAL**
M-02	GROUND FACE MASONRY	GEMSTONE GROUND FACE BLOCK TO BE FINISHED ON ALL EXPOSED SIDES	GLACIER	YORK BUILDING PRODUCTS		
M-03	GROUND FACE MASONRY	GEMSTONE GROUND FACE BLOCK TO BE FINISHED ON ALL EXPOSED SIDES	KHAKI	YORK BUILDING PRODUCTS		
M-04	SPLIT FACE MASONRY	SPLIT FACE BLOCK	FLINT	YORK BUILDING PRODUCTS		MORTAR COLOR TO BE WORKRITE WR272 **PROVIDE MOCKUP FOR APPROVAL**
METALS						
MTL-01	METAL SIDING	FLUSH WALL PANELS 11" SMOOTH PANEL 24 GA. STEEL	SLATE GRAY	PETERSEN PAC-CLAD	ERIC DAVIS 443-497-1901 edavis@petersenmail.com	
MTL-02	METAL SCREENING SYSTEM	PANEL: R18-316SF40 PATTERN 3/8" ROUND HOLES ON 3/8" STAGGERED CENTERS, 40% OPEN AREA THICKNESS: 0.090"	TO MATCH PNT-01	GORDON ARCHITECTURAL ENGINEERED SOLUTIONS	MICHAEL MOORHOUSE 410-422-6453 mike@isaarchitectural.com	GORDON TO ALSO PROVIDE 1" x 4" TUBE FRAMING SYSTEM FOR PERFORATED PANELS, FINISHED TO MATCH. INCLUDE INSECT SCREENING ON INTERIOR SIDE OF PANELS **PROVIDE MOCKUP FOR APPROVAL**
MTL-03	STANDING SEAM METAL ROOF	TITE- LOC PANELS 12" SMOOTH PANEL 24 GA. STEEL	MATTE BLACK (ONYX)	PETERSEN PAC-CLAD	ERIC DAVIS 443-497-1901 edavis@petersenmail.com	ASSOCIATED FLASHINGS, GUTTERS, DOWNSPOUTS, AND TRIM TO MATCH | PROVIDE SNOW GUARDS BAR TYPE, MECHANICALLY FASTENED TO SEAMS
MTL-04	WOOD LOOK METAL SOFFIT	FLUSH SOFFIT PANELS 7" FLUSH SOLID 24 GA. STEEL	TAN TIMBER	PETERSEN PAC-CLAD		
MTL-05	METAL SCREENING AT DOOR TRANSOM	PANEL: R18-316SF40 PATTERN 3/8" ROUND HOLES ON 3/8" STAGGERED CENTERS, 40% OPEN AREA THICKNESS: TBD	TO MATCH PNT-02	GORDON ARCHITECTURAL ENGINEERED SOLUTIONS	MICHAEL MOORHOUSE 410-422-6453 mike@isaarchitectural.com	PROVIDE NEOPRENE SPACERS AS REQUIRED TO SEPARATE DISSIMILAR METALS AT DOOR TRANSOM
MTL-06	BREAK METAL		TO MATCH PNT-02	PETERSEN PAC-CLAD		
PAINT						
PNT-01	EXTERIOR PAINT @ EXPOSED STEEL STRUCTURE	SEMIGLOSS	SW 7069 IRON ORE	SHERWIN WILLIAMS	RICA SUHANEC 215-806-3579 rica.suhanec@sherwin.com	EXTERIOR GRADE | EXPOSED STEEL COLUMNS AND BEAMS TO HAVE HIGH PERFORMANCE COATING, SEE NOTE 2
PNT-02	EXTERIOR PAINT @ HM DOORS/FRAMES	SEMIGLOSS	SW 6825 IZMIR PURPLE	SHERWIN WILLIAMS		EXTERIOR GRADE | SEE NOTE 3
PNT-03	EXTERIOR PAINT AT ROOF FASCIA TRIM AND HM DOORS/FRAMES	SEMIGLOSS	SW 7069 IRON ORE	SHERWIN WILLIAMS		EXTERIOR GRADE | SEE NOTE 3 FOR HM DOORS AND FRAMES | SEE NOTE 4 FOR ROOF FASCIA TRIM
PNT-04	INTERIOR PAINT @ GWB	EGGSHELL	SW 7035 AESTHETIC WHITE	SHERWIN WILLIAMS		INTERIOR GRADE | SEE NOTE 4
PNT-05	INTERIOR PAINT @ WINDOW AND DOOR TRIM	SEMIGLOSS	SW 7035 AESTHETIC WHITE	SHERWIN WILLIAMS		INTERIOR GRADE | SEE NOTE 4
PNT-06	INTERIOR PAINT @ HM DOORS/FRAMES	SEMIGLOSS	SW 7069 IRON ORE	SHERWIN WILLIAMS		INTERIOR GRADE | SEE NOTE 4
FLOORING / WALL BASE						
TUF-01	TEXTURED URETHANE FLOORING	STONESHIELD URT	FLAGSTONE, MEDIUM TEXTURE	STONEHARD	DOUG MACPHERSON 240-856-6127 doug.macpherson@stonhard.com	AT COMFORT STATION: INTEGRAL BASE: PROVIDE 4" HIGH STANDARD COVE BASE W/ STRIP DETAIL
SC-01	SEALED CONCRETE	SIKAGUARD 701 SEALER	CLEAR	SIKA		OR EQUAL
WB-01	4" VINYL WALL BASE	TOE TRADITIONAL WALL BASE	TA4 GATEWAY WG	JOHNSONITE		

CEILING						
ACT-01	2'x4' LAY IN CEILING	KITCHEN ZONE #672	WHITE	ARMSTRONG		PRELUDE 15/16" GRID, WHITE
WALLS						
FRP-01	FIBERGLASS REINFORCED PANELS	STANDARD FRP, SMOOTH 4'X8' PANEL	P 100 WHITE	MARLITE		8' HIGH PANELS W/ PAINT (PNT-04) ABOVE | PROVIDE PVC TRIMS IN COLOR TO MATCH
MISCELLANEOUS						
PC-01	PRECAST CAP AND LINTELS		112/113 MED GREY	NELSON PRECAST OR EQUAL		**PROVIDE MOCKUP FOR APPROVAL**
TRM-01	1X12 TRIM	SMOOTH, 1X12	FACTORY PRIMED, FIELD PAINTED PNT-03	TRU EXTERIOR		
PP-01	PRIVACY PANELS	COLOR THRU PHENOLIC	PASTEL GREY 3074	ASI GLOBAL PARTITIONS	STEVEN TAYLOR 443-552-9667 steve@setaylorassoc.com	CUSTOM - PROVIDE SHOP DRAWINGS AND MOUNTING

NOTES:

1. ALL PRODUCTS LISTED ARE BASIS OF DESIGN.
2. HIGH PERFORMANCE COATING SHALL BE AS FOLLOWS OR EQUAL:
SURFACE PREP FOR GALVANIZED STEEL: AS RECOMMENDED BY MANUFACTURER
PRIME COAT: (1) COAT MACROPOXY 646 FAST CURE PRIMER, SHOP APPLIED
INTERMEDIATE COAT: (1) COAT ACRLON ULTRA HIGH PERFORMANCE POLY (SEMI-GLOSS), SHOP OR FIELD APPLIED
TOPCOAT: (1) COAT ACRLON ULTRA HIGH PERFORMANCE POLY (SEMI-GLOSS), FIELD APPLIED
3. ALKYD ENAMEL SYSTEM SHALL BE AS FOLLOWS OR EQUAL:
PRIME COAT: (1) COAT PRO INDUSTRIAL, PRO-CRYL UNIVERSAL PRIMER
TOPCOATS: (2) COATS PRO INDUSTRIAL, WATERBASED ALKYD URETHANE ENAMEL SEMI-GLOSS
4. ALL PAINTED ITEMS TO RECEIVE (1) PRIME COAT AND (2) TOPCOATS IN COLOR / FINISH INDICATED IN SCHEDULE. SUBMIT LOW VOC PROPOSED PAINT SYSTEMS FOR EACH SUBSTRATE FOR APPROVAL. SEE SPEC SECTION 09 91 13 FOR ADDITIONAL INFORMATION.

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A, EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT
ISA ARCHITECTS
1 W. Pennsylvania Ave.
Baltimore, MD 21204
410-422-6453
www.isaarchitects.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

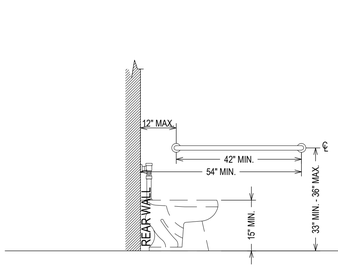
PROPERTY MANAGEMENT
APPROVED BY:
PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE – FINISH SCHEDULE
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-604	SCON1100039
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 81 OF 150
	DRAWING NUMBER
	2025-2252
	FILE NO.: 8

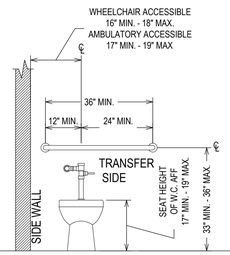
DWG. FILENAME:

ADA MOUNTING HEIGHTS FOR RESTROOM ACCESSORIES



SIDE GRAB BAR

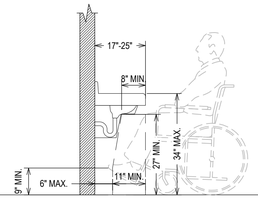
TA-7



TOILET + REAR GRAB BAR

**TOILET SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION.*

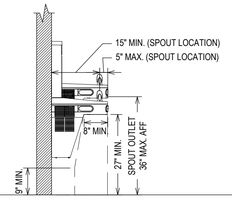
TA-6



LAVATORIES + SINKS

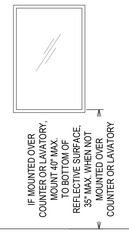
**WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.*

**PROVIDE REQUIRED KNEE AND TOE CLEARANCES*



BI-LEVEL DRINKING FOUNTAIN WITH BOTTLE FILLER

**PROVIDE REQUIRED KNEE AND TOE CLEARANCES*



MIRRORS

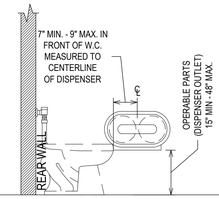
TA-5

WALL MOUNTED SOAP DISPENSER

TA-2

WALL MOUNTED HAND DRYER AND/OR PAPER TOWEL DISPENSER

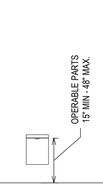
TA-1



TOILET PAPER DISPENSER

**ACCESSORY SHALL NOT BE LOCATED BEHIND GRAB BARS.*

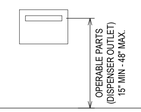
TA-3



SANITARY NAPKIN DISPENSER

**ACCESSORY SHALL NOT BE LOCATED BEHIND GRAB BARS.*

TA-8



TOILET SEAT COVER DISPENSER

**ACCESSORY SHALL NOT BE LOCATED BEHIND GRAB BARS.*

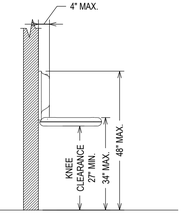
TA-4

WALL HOOK

TA-10

TOWEL HOOK

TA-11



BABY CHANGING STATION

**PROVIDE REQUIRED KNEE AND TOE CLEARANCES*

TA-13

MOUNTING HEIGHTS

- OPERABLE PARTS OF FIXTURES AND ACCESSORIES SHALL BE INSTALLED NO MORE THAN 48" MAX ABOVE THE FINISHED FLOOR. REFER TO 2010 ADA GUIDELINES CHAPTER 3 SECTION 308 AND 309.
- OPERABLE PARTS OF FIXTURES AND ACCESSORIES NOT INSTALLED OVER AN OBSTRUCTION SHALL BE INSTALLED NO MORE THAN 48" AND NO LESS THAN 15" ABOVE THE FINISHES FLOOR. REFER TO 2010 ADA GUIDELINES CHAPTER 3 SECTION 308 AND 309.
- WHERE ACCESSORIES ARE MOUNTED ABOVE AND OBSTRUCTION, THEY SHALL BE INSTALLED BETWEEN 44" AND 48" ABOVE THE FINISHED FLOOR. REFER TO 2010 ADA GUIDELINES CHAPTER 3 SECTION 308 AND 309.
- ACCOUNT FOR SIDE AND FORWARD APPROACH. REFER TO 2010 ADA GUIDELINES CHAPTER 3 AND CHAPTER 6
- ACCOUNT FOR CLEAR FLOOR SPACE AND CLEARANCES REQUIRED AT FIXTURES AND ACCESSORIES. REFER TO 2010 ADA GUIDELINES CHAPTER 3 SECTION 305 AND CHAPTER 6
- CHILDREN'S MOUNTING HEIGHTS VARY. SEE 2010 ADA GUIDELINES CHAPTER 6 SECTION 604.9

TOILET ACCESSORY SCHEDULE

DESIGNATION	ITEM	MANUFACTURER	MODEL	COLOR/FINISH	NOTES
TA-1	PAPER TOWEL	SCOTTS ESSENTIAL	46253	BLACK, PURPLE CORE	MANUAL HARD ROLL TOWEL DISPENSER
TA-2	SOAP DISPENSER	GOJO	9034-12	WHITE	800 SERIES BAG-IN-BOX DISPENSER
TA-3	TOILET PAPER DISPENSER	TORK	SCA 56TR	SMOKE	TORK TWIN JUMBO BATH TISSUE ROLL DISPENSER, 9 INCH
TA-4	TOILET SEAT COVER DISPENSER	WINCO	TSC 10	WHITE	HALF-FOLD TOILET SEAT COVER DISPENSER, PLASTIC
TA-5	MIRROR	BOBRICK	B-165 2436	STAINLESS STEEL CHANNEL FRAME	TORK TWIN JUMBO BATH TISSUE ROLL DISPENSER, 9 INCH
TA-6	GRAB BAR - 36"	BOBRICK	B-6860.99-36	STAINLESS STEEL PEENED FINISH	1 ½" DIAMETER
TA-7	GRAB BAR - 42"	BOBRICK	B-6860.99-42	STAINLESS STEEL PEENED FINISH	1 ½" DIAMETER
TA-8	SANITARY NAPKIN DISPOSAL	RUBBERMAID	6140	WHITE	
TA-9	TRASH CAN	BOBRICK	B-6860.99-42	STAINLESS STEEL PEENED FINISH	
TA-10	WALL HOOK	BOBRICK	B-9541	SATIN FINISH STEEL	
TA-11	TOWEL HOOK	BOBRICK	B-682	BRIGHT POLISHED FINISH	
TA-12	MOP HANGER	BOBRICK	B-233	STAINLESS STEEL	
TA-13	BABY CHANGING STATION	KOALA	KB300-01	GREY	
TA-14	SHOWER CURTAIN AND BAR	BOBRICK	B-6107 (ROD) + 204-2 (CURTAIN) + 204-1 (HOOKS)		36" HEAVY DUTY SHOWER CURTAIN ROD + 42" W BY 72" H VINYL SHOWER CURTAIN + STAINLESS STEEL SHOWER CURTAIN HOOKS
TA-15	ADA SHOWER SEAT	BOBRICK	B-5181		
TA-16	BENCH	SCRANTON PRODUCTS	TUFFTEC BENCHES, 2'-6" LONG	BLACK	
TA-17	ADA SHOWER GRAB BAR	BOBRICK	B-68616	STAINLESS STEEL PEENED FINISH	1 ½" DIAMETER
TA-18	ADULT CHANGING STATION	KOALA	KB3000-AHL		PROVIDE POWER TO LOCATION

GENERAL NOTES

1. COORDINATE WITH PLUMBING DRAWINGS. FIXTURES AND TOILET ACCESSORIES LISTED ARE BALTIMORE COUNTY STANDARDS. NO SUBSTITUTIONS WITHOUT APPROVAL.
2. IF THERE ARE ANY QUESTIONS OR DISCREPANCIES NOTIFY ARCHITECT.
3. ALL EXPOSED PLUMBING TO BE CONCEALED/PROTECTED.

PLUMBING FIXTURE SCHEDULE

DESIGNATION	ITEM	MANUFACTURER	MODEL	COLOR/FINISH	NOTES
P-1	WALL MOUNTED LAVATORY			REFER TO PLUMBING DRAWINGS	
P-2	LAVATORY FAUCET			REFER TO PLUMBING DRAWINGS	
P-3	FLOOR MOUNTED TOILET + FLUSHOMETER			REFER TO PLUMBING DRAWINGS	
P-4	FLOOR MOUNTED ADA TOILET + FLUSHOMETER			REFER TO PLUMBING DRAWINGS	
P-5	OUTDOOR DRINKING FOUNTAIN			REFER TO PLUMBING DRAWINGS	
P-6	MOP SINK			REFER TO PLUMBING DRAWINGS	
P-7	MOP SINK FAUCET			REFER TO PLUMBING DRAWINGS	
P-8	ADA SHOWER CONTROLS			REFER TO PLUMBING DRAWINGS	
P-9	SHOWER INSERT	AKER PRODUCTS	OPS-3636 RFF #141397-000-002-000	WHITE	INSERT ONLY, PROVIDE MODEL W/ OUTWARD FACING RETURN FLANGES

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

CONTRACT COMPLETION BOX | R.O.W NO. | PNW | 35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION | TRAFFIC | HIGHWAYS | STRUCTURES | STORM DRAINS | SEWER | WATER | FIELD ENGINEER

REVIEWED BY:

DATE REVIEWED:

DRAWING SCALE

PLAN SCALE: AS SHOWN

PROFILE SCALE:

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER

DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – TOILET ACCESSORIES SCHEDULE AND MOUNTING HEIGHTS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A-605	25114 GXO

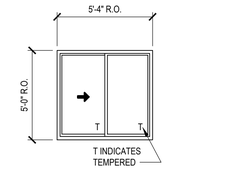
JOB ORDER NUMBER: PROJ-1000634

SHEET 82 OF 150

DRAWING NUMBER: 2025-2253

FILE NO.: 8

DWG. FILENAME:

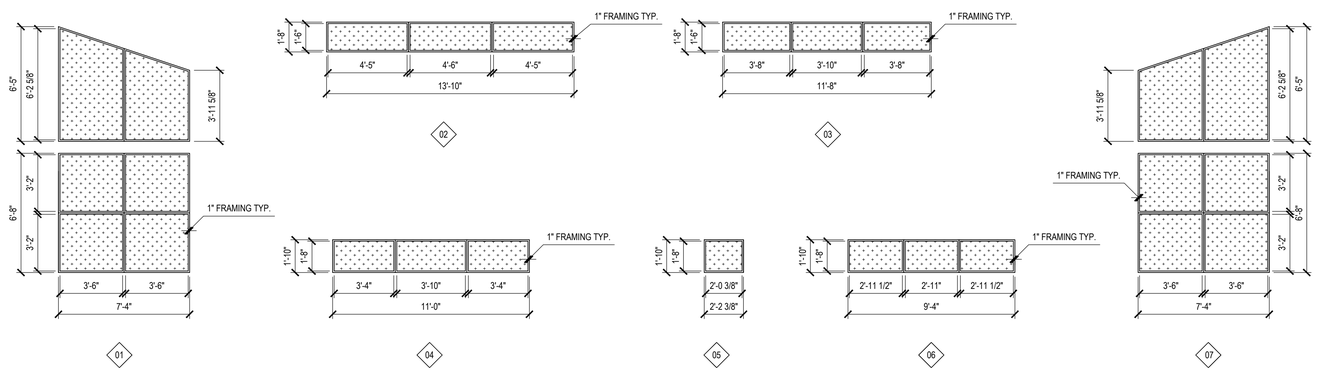


W1

SLIDING METAL CLAD WOOD WINDOW
B.O.D : ANDERSEN E SERIES,
GLIDING WINDOW
EXT FINISH: CLEAR ANODIZED
INT FINISH: PAINTED WHITE

U VALUE: 0.45 MAX
SHGC OF GLASS: 0.33 MAX

C6 WINDOW ELEVATIONS
SCALE: 1/4" = 1'-0"

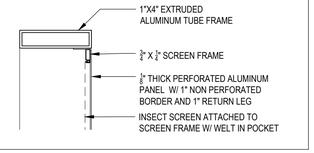


PREFINISHED PERFORATED METAL SCREEN SYSTEM AT OPENINGS. VERIFY ALL R.O. DIMENSIONS IN FIELD AND PROVIDE MOCKUP FOR APPROVAL

BASIS OF DESIGN: GORDON PANELS W/ STRUCTURAL SUPPORT/FRAMING, INCLUDE INSECT SCREENING. CUSTOM DESIGN: 1"X4" TUBES, FACTORY MITERED AND WELDED TO CREATE FRAME. PERFORATED PANELS TO BE FACTORY ATTACHED TO FRAME. INSECT SCREENING TO BE FIELD ATTACHED TO THE BACK OF THE PANELS.

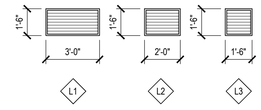
SEE MTL-02 ON FINISH SCHEDULE FOR PERFORATED PANEL INFORMATION.

CONTACT: MICHAEL MOORHOUSE | 410-422-6453 | mike@isaarchitectural.com



A4 PERF. METAL SCREEN ELEVATIONS
SCALE: 1/4" = 1'-0"

MECHANICAL LOUVERS -
REFER TO MECHANICAL DWGS. FOR MORE INFO. FINISH AS SELECTED BY ARCHITECT TO MATCH ADJACENT MATERIAL.



A6 LOUVER ELEVATIONS
SCALE: 1/4" = 1'-0"

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
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BY: DATE:	CHKD BY: RJP	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
		REVIEWED BY:							
		DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ARCHITECTURE – WINDOWS, LOUVERS, AND PERFORATED METAL SCREEN SCHEDULES

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
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	SHEET 83 OF 150
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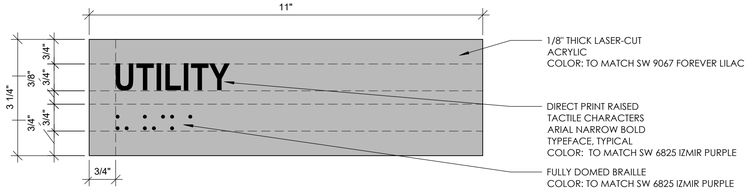
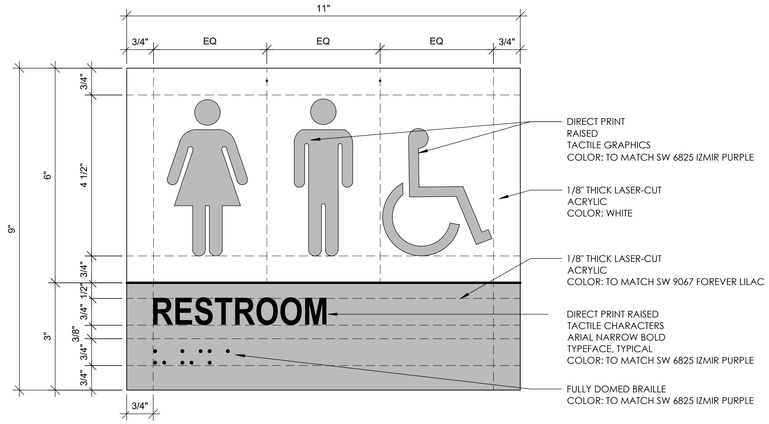


*BASIS OF DESIGN: TAKEFORM, EXTERIOR GRADE OR SIM.

E2 SIGN TYPE B1 - ROOM ID

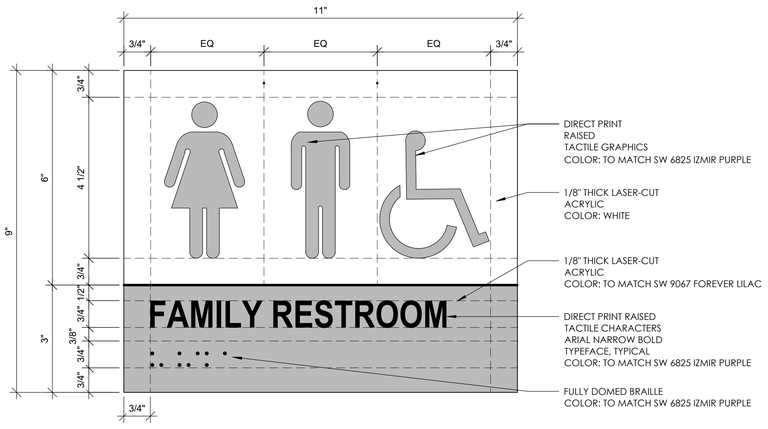
SCALE: 6" = 1'-0"



*BASIS OF DESIGN: TAKEFORM, EXTERIOR GRADE OR SIM.

C2 SIGN TYPE A3 - RESTROOM ID

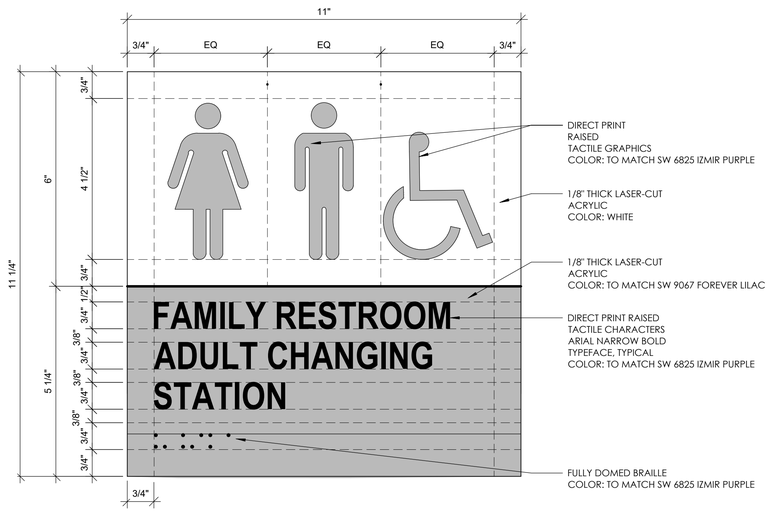
SCALE: 6" = 1'-0"



*BASIS OF DESIGN: TAKEFORM, EXTERIOR GRADE OR SIM.

A2 SIGN TYPE A1 - RESTROOM ID

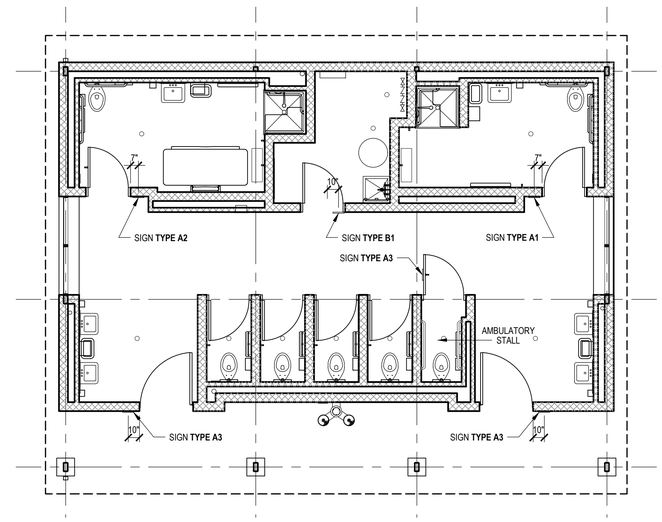
SCALE: 6" = 1'-0"



*BASIS OF DESIGN: TAKEFORM, EXTERIOR GRADE OR SIM.

A4 SIGN TYPE A2 - RESTROOM ID

SCALE: 6" = 1'-0"



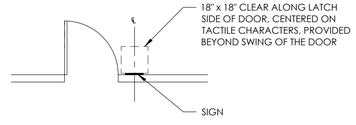
C6 SIGNAGE PLAN

SCALE: 3/16" = 1'-0"

NORTH

GENERAL NOTES:

1) BALTIMORE COUNTY TO APPROVE ALL SIGN COLORS AND FONTS, SUBMIT SAMPLES AND SHOP DRAWINGS FOR APPROVAL.
2) SIGNS TO BE MOUNTED 48" MIN ABOVE THE FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST TACTILE CHARACTER AND 60 INCHES MAXIMUM ABOVE THE FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE TO THE HIGHEST TACTILE CHARACTER.
3) MOUNT SIGN ON LATCH SIDE OF DOOR. IF THERE IS NO ROOM ON THAT WALL, THE SIGN MAY BE MOUNTED ON THE NEAREST ADJACENT WALL. LOCATE IN PLAN PER TYPICAL CONDITION DIAGRAM BELOW FOR OUTSWINGING DOORS:



SIGN TYPE SCHEDULE

DESIGNATION	TYPE	INFO SIDE 1	NOTES
A1	RESTROOM ROOM ID	ADA UNISEX FAMILY RESTROOM	W/ CORRESPONDING GRADE 2 BRAILLE
A2	RESTROOM ROOM ID	ADA UNISEX FAMILY RESTROOM, ADULT CHANGING STATION	W/ CORRESPONDING GRADE 2 BRAILLE
A3	RESTROOM ROOM ID	ADA UNISEX RESTROOM	W/ CORRESPONDING GRADE 2 BRAILLE
B1	ROOM ID	UTILITY	W/ CORRESPONDING GRADE 2 BRAILLE

DWG. FILENAME:

SEAL

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. #7318-A , EXPIRATION DATE 10-21-26.

ARCHITECT: R. JAMES PETT

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: RJP
DWN BY: JGB
CHKD BY: RJP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

CONTRACT COMPLETION BOX | R.O.W NO. | PNW | 35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION | TRAFFIC | HIGHWAYS | STRUCTURES | STORM DRAINS | SEWER | WATER | FIELD ENGINEER

REVIEWED BY:

DATE REVIEWED:

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ARCHITECTURE – COMFORT STATION SIGNAGE PLAN AND DETAILS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
A–801	25114 GXO
	JOB ORDER NUMBER
	PROJ–1000634
	SHEET 84 OF 150
	DRAWING NUMBER
	2025-2255
	FILE NO.: 8

GENERAL NOTES

FOUNDATION AND SLAB ON GRADE:

NOTE: 1
FOOTINGS ARE DESIGNED FOR A BEARING CAPACITY OF 2500 PSF BASED ON THE GEOTECHNICAL REPORT PREPARED BY AB CONSULTANTS, INC. DATED 4/9/2025. FOOTINGS SHALL BEAR ON NATURAL UNDISTURBED SOIL 1'-0" BELOW ORIGINAL GRADE OR ON STRUCTURALLY COMPACTED FILL. BOTTOM OF EXTERIOR FOOTINGS SHALL BE 2'-6" BELOW FINISHED GRADE. A GEOTECHNICAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION, HIRED BY THE CONTRACTOR, SHALL VERIFY THE SOIL BEARING CAPACITY IN THE FIELD. IF FOUND TO BE LESS THAN THE REQUIRED BEARING PRESSURE, THE FOOTINGS WILL HAVE TO BE REDESIGNED.

NOTE: 4
ALL FILL UNDER SLABS-ON-GRADE SHALL BE COARSE GRANULAR MATERIAL COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM WATER CONTENT. SLABS-ON-GRADE SHALL BE POURED IN ACCORDANCE WITH ACI 302.1R, "GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION" (LATEST LOCAL APPROVED EDITION). SAW CUT CONTROL JOINTS SUCH THAT TOTAL AREA BOUNDED BY SAW CUTS AND FORMED EDGES DOES NOT EXCEED 400 SQUARE FEET AND LONG SIDE TO SHORT SIDE DOES NOT EXCEED A 1.5:1 RATIO. PROVIDE #4 x3'-0" LONG BAR AT MID-DEPTH OF SLAB AT ALL RE-ENTRANTCORNERS ANDCOLUMN ISOLATION JOINT CORNERS THAT DO NOT HAVE A CONTROL/CONSTRUCTION JOINT TERMINATING.

CONCRETE:

NOTE: 1
CONCRETE, UNLESS OTHERWISE NOTED ON THE PLANS OR SCHEDULES, SHALL BE NORMAL WEIGHT CONCRETE WITH THE FOLLOWING 28 DAY COMPRESSIVE STRENGTHS (f'c):
- FOOTINGS -------- 3000 PSI
- PIERS --------- 3000 PSI
- SLAB ON GRADE ------- 5000 PSI

CONCRETE NOT OTHERWISE SPECIFIED SHALL BE f'c=3000 PSI NORMAL WEIGHT CONCRETE. ALL CONCRETE EXPOSED TO THE WEATHER SHALL BE f'c=5000 PSI MINIMUM AND SHALL BE AIR ENTRAINED FOR EXPOSURE CLASS F3 PER ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (LATEST LOCAL APPROVED EDITION).

NOTE: 2
ALL REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM DESIGNATION A615 (LATEST LOCAL APPROVED EDITION), GRADE 60. ALL REINFORCING STEEL SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI SP-66, "ACI DETAILING MANUAL" (LATEST LOCAL APPROVED EDITION).

NOTE: 3
ALL SPLICES IN REINFORCING SHALL BE CLASS "B" SPLICES IN ACCORDANCE WITH ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (LATEST LOCAL APPROVED EDITION) EXCEPT AS OTHERWISE NOTED.

NOTE: 4
WELDED WIRE FABRIC (W.W.F.) SHALL HAVE ENDS LAPPED ONE FULL MESH AND BE ADEQUATELY SUPPORTED BY CHAIRS OR BOLSTERS. WELDED WIRE FABRIC SHALL BE PLACED WITHIN THE UPPER THIRD OF THE SLABS ON GRADE AND ¾" CLEAR FROM THE TOPS OF THE SLABS ON METAL DECK.

NOTE: 5
WALL FOOTING REINFORCING SHALL EXTEND 2'-0" INTO ADJACENT COLUMN FOOTING, UNLESS OTHERWISE NOTED.

NOTE: 7
UNLESS OTHERWISE NOTED ON STRUCTURAL DRAWINGS, PROVIDE CONCRETE PROTECTION FOR REINFORCING AS FOLLOWS:
CAST AGAINST EARTH ----- 3"
EXPOSED TO EARTH OR WEATHER:
NO. 6 AND LARGER BARS ------ 2"
NO. 5 AND SMALLER BARS ----- 1 1/2"
NOT EXPOSED TO EARTH OR WEATHER:
SLABS AND WALLS ----- 3/4"
BEAMS AND COLUMNS ----- 1 1/2" TO TIES, STIRRUPS OR SPIRALS

NOTE: 6
CONDUITS IN STRUCTURAL MEMBERS:
a. CONDUITS SHALL ONLY BE PLACED IN THE MIDDLE THIRD OF THE DEPTH OF THE SLAB.
b. NO CONDUIT WITH AN OUTSIDE DIAMETER GREATER THAN ONE THIRD OF THE SLAB THICKNESS SHALL BE PLACED IN THE SLAB OR WALL.
c. NO CONDUITS SHALL BE PLACED IN THE SLAB UNLESS SPECIFICALLY INDICATED ON THE ELECTRICAL DRAWINGS.
d. CONDUITS WHICH CROSS OVER ONE ANOTHER IN A CONCRETE SLAB OR WALL SHALL NOT OCCUPY A TOTAL SPACE AT THE POINT OF CROSSOVER GREATER THAN ONE THIRD THE DEPTH OF THE SLAB.
e. NO CONDUITS SHALL BE PLACED IN A BEAM, COLUMN OR PIER.

NOTE: 7
CONSTRUCTION JOINTS SHALL HAVE THE SURFACE OF THE FIRST POUR ROUGHENED TO 1/4" AMPLITUDE, UNLESS OTHERWISE NOTED.

NOTE: 8
THE CONTRACTOR MUST SUBMIT A CONCRETE DESIGN MIX IN ACCORDANCE WITH ACI 318 (LATEST LOCAL APPROVED EDITION). SUCH DESIGN MIX SHALL BE ACCOMPANIED BY THE APPROPRIATE GRAPHS AND BACKGROUND DATA. CONCRETE DESIGN MIX SHALL INDICATE 7 AND 28 DAY STRENGTHS, CEMENT CONTENT, WATER-CEMENT RATIO, FINE AND COARSE AGGREGATES AND ADMIXTURES FOR EACH DESIGN STRENGTH. THE ADDITION OF WATER AT THE PLANT OR IN THE FIELD GREATER THAN THE SPECIFIED WATER CONTENT IS STRICTLY PROHIBITED.

CONCRETE CONTINUED:

NOTE: 9
ALL CONCRETE WORK SHALL CONFORM TO THE LATEST LOCAL APPROVED EDITIONS OF THE FOLLOWING ACI AND ASTM DOCUMENTS:
- ACI-301------ SPECIFICATIONS FOR STRUCTURAL CONCRETE
- ACI-318 ----- CODE
- ACI-214 ----- COMPRESSIVE TEST
- ACI-306 ----- COLD WEATHER
- ACI SP-66 ----- DETAILING
- ACI-347 ----- FORMWORK
- ACI-305 ----- HOT WEATHER
- ACI-211----- PROPORTIONS OF CONCRETE
- ACI-304 ----- PLACING CONCRETE
- ATSM C-94 ----- READY-MIX CONCRETE

NOTE: 10
ALL FIELD AND LAB TESTING OF CONCRETE SHALL CONFORM TO THE LATEST LOCAL APPROVED EDITIONS OF ASTM:
- ASTM C-31 -------- FIELD CYLINDER SPECIMENS
- ASTM C-143 ----- SLUMP TEST
- ASTM C-231 ----- AIR CONTENT (WHEN REQUIRED)
- ASTM C-39 ------ LAB TESTING CYLINDERS
- ASTM C-172 ----- SAMPLING FRESH CONCRETE
- ASTM C-42 ------- HARDENED CORES (WHEN REQUIRED)

TEST RESULTS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION.

NOTE: 11
ALL FORMWORK SHALL BE IN ACCORDANCE WITH ACI 347, "GUIDE TO FORMWORK FOR CONCRETE" (LATEST LOCAL APPROVED EDITION).

MASONRY:

NOTE: 1
CONCRETE MASONRY SHALL CONFORM TO THE LATEST EDITION OF ASTM SPECIFICATION C90. CONCRETE MASONRY SHALL BE SAMPLED AND TESTED BY THE MASONRY SUPPLIER ACCORDING TO ASTM C140. ALL CONCRETE MASONRY CONSTRUCTION SHALL CONFORM TO TMS 402, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (LATEST LOCAL APPROVED EDITION) AND TMS 602, "SPECIFICATION FOR MASONRY STRUCTURES" (LATEST LOCAL APPROVED EDITION).

NOTE: 2
UNLESS OTHERWISE NOTED, CONCRETE MASONRY UNITS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI ON THE NET AREA. ALL BRICK SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3350 PSI ON THE NET AREA.

NOTE: 3
ALL MORTAR SHALL CONFORM TO ASTM C270. MORTAR TO BE USED SHALL BE SAMPLED AND TESTED BY THE BRICK AND MASONRY SUPPLIERS ACCORDING TO ASTM C780 AND RESULTS SUBMITTED TO THE ENGINEER FOR APPROVAL. MORTAR SHALL BE PORTLAND CEMENT/LIME MORTAR TYPE "S" AS A MINIMUM.

NOTE: 4
UNLESS NOTED OTHERWISE, PROVIDE 8" MINIMUM OF BRICK OR 100% SOLID MASONRY CONTINUOUS BELOW ALL JOISTS OR SLAB BEARING LINES. PROVIDE 16" MINIMUM BRICK OR 100% SOLID MASONRY BELOW ALL LINTELS AND/OR MINOR WALL BEARING BEAMS.

NOTE: 5
LINTELS OVER OPENINGS 10'-0" WIDE OR LESS IN NON-BEARING MASONRY PARTITIONS NOT OTHERWISE SPECIFIED SHALL BE PRECAST LIGHTWEIGHT CONCRETE LINTELS REINFORCED WITH 1-#5 BAR TOP AND BOTTOM FOR EACH 4" WIDTH.

NOTE: 6
ALL SOLID CMU SHALL BE 100% SOLID BLOCK OR HOLLOW BLOCK WITH CELLS FILLED 100% SOLID WITH f'c=3000 PSI COARSE AGGREGATE GROUT CONFORMING TO ASTM C476. GROUT SHALL BE PLACED IN POUR HEIGHTS NOT TO EXCEED 4'-0" AS CMU CONSTRUCTION PROGRESSES. THE WEBS OF THE MASONRY UNITS SHALL BE FULLY MORTARED AROUND ALL GROUTED CELLS.

NOTE: 7
ALL REINFORCED CELLS IN HOLLOW BLOCK SHALL BE GROUTED 100% SOLID PER NOTE ABOVE.

NOTE: 8
ALL SPLICES IN REINFORCING STEEL FOR MASONRY WALLS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:
- #4 BAR ----- 2'-8"
- #5 BAR ----- 3'-4"

MASONRY CONTINUED:

NOTE: 9
ALL CMU WALLS 8" OR WIDER SHALL HAVE THE FOLLOWING MINIMUM REINFORCING UNLESS NOTED OTHERWISE:
- INTERIOR WALLS ----- #5 AT 48" o.c.
- EXTERIOR WALLS ----- #5 AT 32" o.c.

NOTE: 10
IN ADDITION TO REINFORCING STEEL NOTED ON PLANS, SCHEDULES AND SECTIONS, PROVIDE VERTICAL BARS OF SAME SIZE WITHIN 8" OF EACH SIDE OF WALL CONTROL JOINTS, WITHIN 8" OF THE ENDS OF WALLS, WITHIN 16" OF EACH SIDE OF OPENINGS AND AT ALL CORNERS.

NOTE: 11
REINFORCING BAR POSITIONERS SHALL BE USED TO HOLD BARS IN PROPER LOCATION. POSITIONERS SHALL BE PLACED AT A MAXIMUM VERTICAL SPACING OF 48"o.c.

NOTE: 12
ALL 6" CMU NON-BEARING WALLS SHALL BE DOWELED TO THE SUPPORTING SLAB WITH #4 AT 48"o.c. UNLESS NOTED OTHERWISE.

NOTE: 13
ALL MASONRY ANCHORS SHALL BE INSTALLED IN MASONRY THAT HAS BEEN GROUTED SOLID A MINIMUM OF 8" ABOVE AND BELOW THE ANCHOR AND A MINIMUM OF 8" EACH SIDE OF THE ANCHOR.

NOTE: 14
MASONRY CONSTRUCTION SHALL BE INSPECTED PER TMS 402, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (LATEST LOCAL APPROVED EDITION) REQUIRED QUALITY ASSURANCE LEVEL:
RISK CATEGORY 2 ----- LEVEL 2

NOTE: 15
CONDUIT PLACED IN MASONRY SHALL CONFORM TO TMS 402, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (LATEST LOCAL APPROVED EDITION). A SINGLE VERTICAL CONDUIT WITH A MAXIMUM DIAMETER OF 1" IS PERMITTED IN MASONRY PIERS. CONDUIT SHALL BE PLACED A MINIMUM 1" CLEAR FROM ALL VERTICAL REINFORCEMENT. LARGER CONDUIT AND/OR GREATER QUANTITIES ARE NOT PERMITTED IN MASONRY PIERS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD. NO CONDUIT SHALL BE PLACED IN BOND BEAMS.

MASONRY CONTROL JOINTS:

NOTE: 1
CONTROL JOINTS IN MASONRY WALLS SHALL CONFORM TO NCMA TEK 10-2D, "CONTROL JOINTS FOR CONCRETE MASONRY WALLS-EMPIRICAL METHOD".

NOTE: 2
SPACING OF CONTROL JOINTS SHALL NOT EXCEED 25 FEET OR 1.5 TIMES THE HEIGHT OF THE WALL, WHICHEVER IS SMALLER. IN ADDITION, CONTROL JOINTS SHALL BE PLACED ADJACENT TO CORNERS AND WALL INTERSECTIONS, CHANGES IN WALL HEIGHT, AND CHANGES IN WALL THICKNESS. CONTROL JOINTS AT CORNERS AND WALL INTERSECTIONS SHALL BE PLACED SUCH THAT THE DISTANCE TO THE CORNER OR WALL INTERSECTION DOES NOT EXCEED ONE HALF THE TYPICAL CONTROL JOINT SPACING.

NOTE: 3
CONTROL JOINTS SHALL BE PLACED MINIMUM 2'-0" CLEAR OF ALL WINDOW AND DOOR OPENINGS. WHEN MULTIPLE OPENINGS EXIST IN THE SAME WALL, CONTROL JOINTS SHALL BE PLACED NEAR THE MIDPOINT BETWEEN OPENINGS.

NOTE: 4
REFER TO ARCHITECTURAL DRAWINGS FOR CONTROL JOINTS IN BRICK AND MASONRY VENEER. CONTROL JOINTS IN THE VENEER DO NOT NECESSARILY ALIGN WITH THE CONTROL JOINTS IN THE SUPPORTING BACKUP WALL.

NOTE: 5
UNLESS NOTED OTHERWISE, CONTROL JOINTS SHALL TERMINATE AT THE SLAB ON GRADE OR ON TOP OF FOUNDATION WALL. JOINTS SHALL NOT BE INSTALLED BELOW GRADE. CONTROL JOINTS IN THE MASONRY WALLS SHALL ALIGN WITH CONTROL JOINTS IN THE SLAB ON GRADE TO THE GREATEST EXTENT POSSIBLE.

NOTE: 6
CONTROL JOINTS ARE PROHIBITED IN SOLID MASONRY PIERS.

NOTE: 7
CONTROL JOINTS IN BEARING WALLS SHALL BE PLACED MINIMUM 1'-6" CLEAR OF BEARING LOCATIONS AS MEASURED FROM THE CENTERLINE OF THE SUPPORTED MEMBER.

NOTE: 8
INTERRUPT ALL JOINT REINFORCEMENT AT CONTROL JOINTS AND INSTALL PREFORMED GASKET OR KEYED PAPER JOINT. REFER TO ARCHITECTURAL DRAWINGS FOR JOINT REQUIREMENT. BOND BEAM REINFORCEMENT SHALL BE INTERRUPTED AND SUPPLEMENTED WITH SMOOTH DOWELS. DE-BOND DOWEL ON ONE SIDE OF THE JOINT BY WRAPPING IN BUILDING PAPER OR PLASTIC SLEEVE.

NOTE: 9
PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PREPARE A MASONRY CONTROL JOINT LAYOUT AND SUBMIT TO THE ARCHITECT/ENGINEER FOR REVIEW. THE SUBMITTAL SHALL INCLUDE A DIMENSIONED LAYOUT OF ALL VERTICAL CONTROL JOINTS IN MASONRY WALLS AND MASONRY OR BRICK VENEER.

STEEL:

NOTE: 1
STRUCTURAL STEEL FOR WIDE FLANGE SHAPES SHALL CONFORM TO ASTM SPECIFICATION A992. STRUCTURAL STEEL FOR HSS MEMBERS SHALL CONFORM TO ASTM SPECIFICATION A500 GRADE C. STRUCTURAL STEEL FOR PIPES SHALL CONFORM TO ASTM SPECIFICATION A53 TYPE E, GRADE B. ALL OTHER STEEL SHALL CONFORM TO ASTM SPECIFICATION A36. MILL TEST REPORTS SHALL BE SUBMITTED TO THE ARCHITECT. ALL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC MANUAL, AISC SPECIFICATION AND AISC CODE OF STANDARD PRACTICE. ALL CONNECTIONS FOR NON-COMPOSITE BEAMS SHALL DEVELOP THE ALLOWABLE UNIFORM LOAD OF THE BEAM. CONNECTIONS FOR COMPOSITE BEAMS SHALL DEVELOP THE REACTION NOTED ON THE PLANS. IN GENERAL, FIELD CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER A325 BOLTS UNLESS OTHERWISE NOTED AND SHOP CONNECTIONS SHALL BE WELDED.

NOTE: 2
WELDS SHALL BE MADE WITH E70XX LOW HYDROGEN ELECTRODES.

NOTE: 3
ALL GROOVE WELDS SHALL BE FULL PENETRATION GROOVE WELDS IN ACCORDANCE WITH ANSI/AWS D1.1, "STRUCTURAL WELDING CODE" (LATEST LOCAL APPROVED EDITION). THESE WELDS SHALL BE MADE ONLY BY OPERATORS QUALIFIED BY PRESCRIBED TESTS IN THE "STRUCTURAL WELDING CODE." ACCEPTANCE SHALL BE SUBJECT TO THE INSPECTION AND REVIEW OF AN INDEPENDENT INSPECTION AGENCY. ALL FULL PENETRATION WELDS SHALL BE ULTRASONICALLY TESTED.

NOTE: 4
HOLES AND OPENINGS REQUIRED IN STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS SUBMITTED FOR REVIEW.

NOTE: 5
FIELD MODIFICATION OF THE STRUCTURAL STEEL IS NOT ALLOWED WITHOUT PRIOR REVIEW BY THE ARCHITECT AND STRUCTURAL ENGINEER.

NOTE: 6
WELDING SEQUENCE AND TECHNIQUE SHALL BE SUCH THAT DISTORTION OF STEEL MEMBERS IS MINIMIZED AND UNDUE DISTORTION IS AVOIDED.

NOTE: 7
ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED. REFER TO ARCHITECTURAL DRAWINGS FOR GALVANIZED STEEL THAT SHALL RECEIVE A PAINTED FINISH COAT.

NOTE: 8
TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL THE INSTALLATION OF THE FOLLOWING ITEMS HAS BEEN COMPLETED AND INSPECTED:
- LATERAL BRACING COMPONENTS INCLUDING ANCHOR BOLTS
- MOMENT CONNECTIONS

COLD-FORMED METAL FRAMING:

NOTE: 1
GALVANIZED STUDS, JOISTS, AND TRACKS, 12, 14, AND 16 GAGE SHALL BE FORMED FROM STEEL THAT CONFORMS TO ASTM A653, GRADE 50. GALVANIZED 18 AND 20 GAGE STUDS, JOISTS, TRACKS, AND ALL GALVANIZED BRIDGING, END CLOSURES AND ACCESSORIES SHALL BE FORMED FROM STEEL THAT CONFORMS TO THE REQUIREMENTS OF ASTM A653 GRADE 33.

NOTE: 2
ALL COLD-FORMED METAL FRAMING SHALL BE FORMED FROM STEEL HAVING A G-90 GALVANIZED COATING.

NOTE: 3
FRAMING COMPONENTS MAY BE PRE-ASSEMBLED INTO PANELS PRIOR TO ERECTING. PREFABRICATED PANELS SHALL BE SQUARE WITH COMPONENTS ATTACHED IN A MANNER AS TO PREVENT RACKING. HANDLING AND LIFTING OF PREFABRICATED FRAME PANELS SHALL BE DONE IN A MANNER AS NOT TO CAUSE DISTORTION IN ANY MEMBER.

NOTE: 4
PROVIDE UNIFORM AND LEVEL BEARING SUPPORT FOR THE BOTTOM TRACK.

NOTE: 5
AT TRACK BUTT JOINTS, ABUTTING PIECES OF TRACK SHALL BE BUTT WELDED OR SPLICED TOGETHER.

NOTE: 6
STUDS SHALL BE PLUMBED, ALIGNED, AND SECURELY ATTACHED TO THE FLANGES OR WEBS OF THE TRACKS. THE ENDS OF THE STUDS MUST BEAR AGAINST THE WEB OF BOTH UPPER AND LOWER TRACKS, UNLESS OTHERWISE NOTED.

NOTE: 7
WALL STUD BRIDGING SHALL BE INSTALLED IN A MANNER TO PROVIDE RESISTANCE TO BOTH MINOR AXIS BENDING AND ROTATION. BRIDGING ROWS SHALL BE EQUALLY SPACED NOT TO EXCEED 4'-0"o.c.

NOTE: 8
TEMPORARY BRACING SHALL BE PROVIDED UNTIL ERECTION OF THE STRUCTURAL SYSTEM IS COMPLETE.

NOTE: 9
SIZES AND GAGES OF COLD-FORMED METAL FRAMING SHOWN ON THE DRAWINGS ARE MINIMUM REQUIREMENTS. FRAMING SHALL BE DESIGNED FOR THE GRAVITY AND WIND LOADS REQUIRED BY THE LOCAL BUILDING CODE AND SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION. FOR BIDDING PURPOSES, PROVIDE MULTIPLE STUDS AT EACH SIDE OF OPENINGS EQUAL TO ONE-HALF OPENING WIDTH DIVIDED BY THE STUD SPACING.

SUPPORT FOR DUCTWORK, PIPING AND MECHANICAL UNITS:

NOTE: 1
NO MECHANICAL UNITS SHALL BE PLACED ON OR HUNG FROM JOISTS WITHOUT THE APPROVAL OF THE ENGINEER. NO UNITS SHALL BE SUPPORTED FROM THE BOTTOM CHORD OF THE JOIST.

NOTE: 2
DUCTWORK AND PIPING SHALL ONLY BE HUNG FROM THE STEEL FRAMING. AT JOISTS.

NOTE: 3
JOISTS HAVE BEEN DESIGNED FOR A UNIFORM HANGING SPRINKLER LOAD OF 3 PSF. THE SPRINKLER CONTRACTOR SHALL SPACE THE SPRINKLERS SO THAT THE UNIFORM HANGING SPRINKLER LOAD IS NOT EXCEEDED. SPRINKLER LINES 4" AND LARGER THAT RUN PARALLEL WITH THE JOISTS SHALL BE PLACED EVENLY BETWEEN TWO JOISTS. THE LOAD ON EACH INDIVIDUAL HANGER SHALL NOT EXCEED 300 POUNDS.

NOTE: 4
THE MAXIMUM TOTAL HUNG LOAD ON ANY SINGLE JOIST FROM MULTIPLE HANGERS SHALL NOT EXCEED 900 POUNDS.

POST-INSTALLED ANCHORS AND REINFORCING:

NOTE: 1
ALL ANCHORS SHALL BE THE FOLLOWING TYPES MANUFACTURED BY HILTI INC.:
a. ADHESIVE ANCHORS IN CONCRETE: HILTI HIT-HY200 V3 ANCHORING SYSTEM PER ICC ESR-4868.
b. ADHESIVE ANCHORS IN SOLID GROUTED MASONRY: HILTI HIT-HY270 MASONRY ADHESIVE SYSTEM PER ICC ESR-4143/ESR-4144 WITH HILTI HAS-E CONTINUOUSLY THREADED ROD.
c. ADHESIVE ANCHORS IN HOLLOW AND MULTI-WYTHE MASONRY: HILTI HIT-HY270 MASONRY ADHESIVE SYSTEM PER ICC ESR-4143/ESR-4144 WITH HILTI HAS-E CONTINUOUSLY THREADED ROD AND APPROPRIATE SIZE SCREEN TUBE.
d. MECHANICAL ANCHORS IN CONCRETE: HILTI KWIK BOLT TZ2 EXPANSION ANCHOR PER ICC ESR-4266
e. MECHANICAL ANCHORS IN SOLID GROUTED MASONRY: HILTI KWIK BOLT TZ2 EXPANSION ANCHOR PER ICC ESR-4561

ALTERNATE MANUFACTURERS OR ANCHORS MUST BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO USE. THE CONTRACTOR SHALL PROVIDE SIGNED AND SEALED CALCULATIONS DEMONSTRATING THAT THE PROPOSED SUBSTITUTIONS, BASED ON THEIR SPECIFIC ICC-ES EVALUATION REPORTS, ARE CAPABLE OF ACHIEVING THE PERFORMANCE VALUES EQUAL TO OR GREATER THAN THOSE OF THE ANCHORS SPECIFIED.

NOTE: 2
ADHESIVE ANCHORS AND REINFORCING SHALL NOT BE INSTALLED UNTIL THE CONCRETE OR GROUT HAS BEEN ALLOWED TO CURE FOR 21 DAYS AND HAS ATTAINED 70% OF ITS DESIGN STRENGTH.

NOTE: 3
MECHANICAL ANCHORS AND REINFORCING SHALL NOT BE INSTALLED UNTIL THE CONCRETE OR GROUT HAS ATTAINED 70% OF ITS DESIGN STRENGTH.

NOTE: 4
ALL POST INSTALLED ANCHORS AND REINFORCING SHALL BE INSTALLED IN DRY HOLES THAT HAVE BEEN DRILLED, CLEANED AND PREPARED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND THE RESPECTIVE ICC ES EVALUATION REPORTS.

NOTE: 5
THE CONTRACTOR SHALL ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL THE ANCHORING PRODUCTS SPECIFIED IN THE DRAWINGS. PRIOR TO INSTALLATION OF ANY ANCHORS, THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT DOCUMENTED CONFIRMATION FROM THE MANUFACTURER'S REPRESENTATIVE THAT THE CONTRACTOR'S PERSONNEL WHO WILL INSTALL THE ANCHORS HAVE BEEN PROPERLY TRAINED FOR THE SPECIFIED ANCHORS.

NOTE: 6
IN ADDITION TO TRAINING BY THE MANUFACTURER'S REPRESENTATIVE, THE CONTRACTOR'S PERSONNEL WHO WILL INSTALL ADHESIVE ANCHORS IN CONCRETE SHALL BE CERTIFIED BY AN ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM.

NOTE: 7
ALL ANCHORS AND REINFORCING SHALL BE INSTALLED IN ACCORDANCE WITH THE SPACING AND EDGE DISTANCES SHOWN IN THE DRAWINGS. THE CONTRACTOR SHALL INFORM THE ARCHITECT PRIOR TO INSTALLING THE ANCHORS IF THE SPACING AND EDGE DISTANCES SHOWN IN THE DRAWINGS CANNOT BE ACHIEVED. IF THIS IS THE CASE, RE-DESIGN MIGHT BE REQUIRED AND THE ANCHORS SHOULD NOT BE INSTALLED UNTIL APPROVAL HAS BEEN PROVIDED BY COLUMBIA ENGINEERING, INC.

NOTE: 8
MECHANICAL ANCHORS INSTALLED IN GROUTED MASONRY SHALL BE LOCATED A MINIMUM 1½" FROM VERTICAL MORTAR JOINTS.

NOTE: 9
DO NOT CUT ANY REINFORCING UNLESS IT IS SPECIFICALLY INDICATED IN THE DRAWINGS OR IS APPROVED BY COLUMBIA ENGINEERING INC.

POST-INSTALLED ANCHORS AND REINFORCING CONTINUED:

NOTE: 10
POST INSTALLED ANCHORS AND REINFORCING SHALL ONLY BE USED WHERE SPECIFIED IN THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM COLUMBIA ENGINEERING INC. PRIOR TO INSTALLING POST INSTALLED ANCHORS WHERE CAST IN PLACE ANCHORS ARE MISSING, MISPLACED OR DAMAGED.

NOTE: 11
POST INSTALLED ANCHORS AND REINFORCING SHALL BE PERIODICALLY INSPECTED PER IBC 2018 SECTION 1705 EXCEPT ADHESIVE ANCHORS AND REINFORCING INSTALLED IN A VERTICAL OR OVERHEAD SURFACE SHALL BE CONTINUOUSLY INSPECTED.

SUBMITTALS:

NOTE: 1
SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS MUST BE SUBMITTED FOR REVIEW BY THE CONTRACTOR. IF A CONTRACTOR FAILS TO SUBMIT THE SHOP DRAWINGS, COLUMBIA ENGINEERING, INC. WILL NOT BE RESPONSIBLE FOR THE STRUCTURAL CERTIFICATION AND/OR THE DESIGN OF THE PROJECT. AT THE TIME OF SUBMISSION, THE CONTRACTOR SHALL STATE IN WRITING ANY DEVIATIONS OR OMISSIONS FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS BEFORE SUBMISSION, MAKE NECESSARY CORRECTIONS, AND CERTIFY EACH SUBMITTAL AS FOLLOWS:

"I CERTIFY THAT THE CONTRACT DOCUMENT REQUIREMENTS HAVE BEEN MET, THE SHOP DRAWINGS ARE BASED ON THE LATEST SET OF CONSTRUCTION DOCUMENTS, THE ARCHITECT'S AND STRUCTURAL ENGINEER'S COMMENTS FROM PREVIOUS SUBMITTALS HAVE BEEN ADDRESSED, REVISIONS FROM PREVIOUS SUBMITTALS HAVE BEEN CLEARLY MARKED BY CLOUDS, AND ALL DIMENSIONS, CONDITIONS, AND QUANTITIES ARE VERIFIED AS SHOWN AND/OR AS CORRECTED ON THIS SUBMITTAL."

(FOR CONTRACTOR)

SUBMITTALS THAT ARE NOT STAMPED BY THE CONTRACTOR OR THAT DO NOT MEET THE ABOVE REQUIREMENTS SHALL BE RETURNED BY THE STRUCTURAL ENGINEER WITHOUT REVIEW OR COMMENT.

NOTE: 2
COLUMBIA ENGINEERING'S REVIEW OF SUBMITTALS SHALL BE FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT OF THE CONSTRUCTION DOCUMENTS. NO WORK SHALL BE STARTED WITHOUT SUCH REVIEW.

NOTE: 3
REPRODUCTION OF THE CONTRACT DOCUMENTS WILL NOT BE ACCEPTED AS SHOP DRAWINGS.

NOTE: 4
SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED FOR ARCHITECT/ENGINEER REVIEW:
a. CONCRETE/GROUT MIX DESIGN.
b. CONCRETE/MASONRY REINFORCING STEEL.
c. CONSTRUCTION/CONTROL JOINT LAYOUT FOR SLABS ON GRADE.
d. CONTROL JOINT LAYOUT FOR MASONRY WALLS.
e. STRUCTURAL STEEL.

SEE SPECIFICATIONS FOR ADDITIONAL REQUIRED SUBMITTALS.

NOTE: 5
THE FOLLOWING ITEMS REQUIRE DELEGATED STRUCTURAL DESIGN BY THE SUPPLIER:
a. COLD-FORMED FRAMING.
b. HANDRAILS AND GUARDS.
c. LADDERS.
d. ARCHITECTURAL ORNAMENTATIONS (FLAG POLES, SIGNS AND BANNERS, MASTS, ETC.)
e. MECHANICAL/ELECTRICAL/PLUMBING HANGER CONNECTIONS.

SUBMITTALS FOR THE ABOVE ITEMS SHALL BE PREPARED UNDER THE SUPERVISION OF A DELEGATED PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION. THE DELEGATED ENGINEER SHALL BE RESPONSIBLE FOR ENSURING COMPLIANCE WITH ALL APPLICABLE BUILDING CODES AND LOADING CONDITIONS. SHOP DRAWING AND CALCULATIONS SHALL BE SIGNED AND SEALED BY THE CERTIFYING PROFESSIONAL AND SUBMITTED FOR REVIEW. SEE SPECIFICATIONS FOR ADDITIONAL DELEGATED DESIGN SUBMITTALS AND REQUIREMENTS.

NOTE: 6
ALL SHOP DRAWINGS USED FOR CONSTRUCTION SHALL BEAR THE STAMP OF THE ARCHITECT/ENGINEER AND SHALL BE MARKED "REVIEWED" OR "REVIEWED AS NOTED".

DWG. FILENAME:

SEAL
STATE OF MARYLAND — RODRIGO CHACON — No. 14479 — PROFESSIONAL ENGINEER
DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS–BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
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. #14479 , EXPIRATION DATE 06-22-27.					R.O.W NO.	PNW	35NW40
		CONTRACT COMPLETION BOX					
ENGINEER: RODRIGO CHACON (Columbia Engineering Inc. 9210 Gd. Dobbin Lane Tel. 410.992.8670 Suite 200 Columbia, Maryland 21045 columbiaengineering.com)	DGN BY: MAR	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER
AS–BUILT PER RECORD PRINT	DWN BY: HAW	REVIEWED BY:					
BY: DATE:	CHKD BY: RAC	DATE REVIEWED:					

DRAWING SCALE		WATER	FIELD ENGINEER
PLAN SCALE:	AS SHOWN		
PROFILE SCALE:			

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
STRUCTURAL – GENERAL NOTES
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION D

GENERAL NOTES

MISCELLANEOUS:

NOTE: 1
ITEMS AND CONDITIONS NOTED OR IDENTIFIED IN SECTIONS AND DETAILS APPLY TO AREAS SIMILAR IN CONDITION TO THOSE DENOTED BY THE SECTION CUT OR DETAIL MARK.

NOTE: 2
THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER OF ANY DISCREPANCIES BETWEEN THE STRUCTURAL DOCUMENTS AND ANY OTHER DOCUMENTS OR EXISTING CONDITIONS FOR RESOLUTION PRIOR TO PROCEEDING WITH FABRICATION OR CONSTRUCTION.

NOTE: 3
THE BUILDING FRAME IS NOT SELF-SUPPORTING UNTIL THE ENTIRE STRUCTURAL SYSTEM HAS BEEN INSTALLED. TEMPORARY BRACING MUST BE PROVIDED BY THE CONTRACTOR TO SUPPORT THE FRAME UNTIL THE STRUCTURAL SYSTEM HAS BEEN COMPLETED.

NOTE: 4
LOADS GREATER THAN THE DESIGN LIVE LOADS SHALL NOT BE PLACED ON THE STRUCTURE. A CONCRETE STRUCTURE MAY NOT SUPPORT ITS DESIGN LIVE LOADS FOR 28 DAYS, UNLESS THE DESIGN STRENGTH IS ACHIEVED EARLIER BASED ON FIELD CURED CYLINDERS.

NOTE: 5
THE CONTRACTOR SHALL SUPPORT ADJACENT STRUCTURES, UTILITIES, AND EXCAVATIONS. CONTRACTOR SHALL HAVE ALL TEMPORARY FORMWORK, SHEETING, SHORING, UNDERPINNING, ETC., AS PART OF THE CONTRACTOR'S WORK, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION.

NOTE: 6
ALL WORK SPECIFIED HEREIN SHALL BE INSPECTED IN ACCORDANCE WITH IBC CHAPTER 17 (EXCEPTIONS NOTED SHALL NOT BE PERMITTED) AND ALL LOCAL ORDINANCES. INSPECTIONS REQUIRED SHALL BE PER THE STATEMENT OF SPECIAL INSPECTIONS NOTED ON THIS SHEET. THE CONTRACTOR SHALL HIRE AN EXPERIENCED, QUALIFIED INSPECTOR TO PERFORM ALL THE REQUIRED INSPECTION WORK. THE ENGINEER WILL NOT PERFORM THE REQUIRED INSPECTION AS A PART OF HIS DESIGN SERVICE. THE ENGINEER MAY VISIT THE SITE TO ASCERTAIN GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS, AND SUCH VISITS ARE NOT TO BE CONSTRUED AS MEETING INSPECTION REQUIREMENTS.

NOTE: 7
THE GENERAL CONTRACTOR AND ITS SUBCONTRACTORS SHALL HAVE A MINIMUM OF FIVE YEARS EXPERIENCE IN THE CONSTRUCTION OF WORK SIMILAR IN NATURE TO THIS PROJECT.

NOTE: 8
LEGAL USE OF DOCUMENTS
THE PLANS, SPECIFICATIONS AND OTHER INFORMATION CONTAINED IN THESE DRAWINGS (COLLECTIVELY THE "DRAWINGS") WERE PREPARED BY COLUMBIA ENGINEERING, INC. AND ARE INSTRUMENTS OF PROFESSIONAL SERVICES RENDERED AND DELIVERED PURSUANT TO THE TERMS AND CONDITIONS OF A WRITTEN AGREEMENT (THE "AGREEMENT") ONLY TO THE RECIPIENT NAMED THEREIN. ANY USE OF THE DRAWINGS BY ANY PARTY WHICH IS INCONSISTENT WITH THE TERMS AND CONDITIONS OF THE AGREEMENT IS EXPRESSLY PROHIBITED. COLUMBIA ENGINEERING, INC. EXPRESSLY RESERVES ITS COPYRIGHT AND ALL INTELLECTUAL PROPERTY AND OTHER RIGHTS IN THE DRAWINGS. NO PORTION OF THE DRAWINGS ARE TO BE REPRODUCED, CHANGED OR OTHERWISE USED IN ANY FORM OR MANNER WHATSOEVER WHICH IS INCONSISTENT WITH EITHER THE AGREEMENT OR THE PURPOSES FOR WHICH THEY WERE ORIGINALLY PREPARED, NOR ARE THEY TO BE DEEMED ASSIGNED TO ANY PERSON OR ENTITY WITHOUT OBTAINING THE EXPRESS PRIOR WRITTEN PERMISSION AND CONSENT OF COLUMBIA ENGINEERING, INC. THE RECIPIENT OF THE DRAWINGS AGREES TO INDEMNIFY AND HOLD HARMLESS COLUMBIA ENGINEERING, INC., ITS EMPLOYEES, OFFICERS, DIRECTORS AND AGENTS, FROM AND AGAINST ANY AND ALL DAMAGES WHICH ARISE OUT OF OR IN CONNECTION WITH ANY VIOLATION OF THE FOREGOING.

DESIGN CODES:

INTERNATIONAL BUILDING CODE:
IBC 2021

BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE:
ACI 318-19

BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES:
TMS 402/602-16

SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS:
AISC 360-16

DESIGN LOADS:
IBC RISK CATEGORY 2

FLOOR LIVE LOADS:
1. SLAB ON GRADE ----- 100 PSF

ROOF LOADS:
1. LIVE LOAD ----- 30 PSF
2. GROUND SNOW LOAD, pg ----- 30 PSF
3. FLAT ROOF SNOW LOAD, pf ----- 25 PSF
4. SNOW EXPOSURE FACTOR, Ce ----- 1.0
5. SNOW LOAD IMPORTANCE FACTOR, Is ----- 1.0
6. THERMAL FACTOR, Ct -----1.2

SEISMIC DESIGN DATA:
SOIL SITE CLASS D
SEISMIC DESIGN CATEGORY B
SEISMIC IMPORTANCE FACTOR, Ie = 1.0

MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS:
Ss = 0.142
S1 = 0.043

DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS:
Sds = 0.120
Sd1 = 0.160

BASIC SEISMIC FORCE RESISTING SYSTEM:
STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE AND INTERMEDIATE REINFORCED MASONRY SHEAR WALLS
RESPONSE MODIFICATION COEFFICIENT, R = 3

ANALYSIS PROCEDURE:
EQUIVALENT LATERAL FORCE PROCEDURE

WIND LOADS:
DESIGN WIND SPEED:
Vult = 115 MPH (3 SECOND GUST)
Vasd = 90 MPH (3 SECOND GUST)

WIND EXPOSURE B
INTERNAL PRESSURE COEFFICIENT, GCpi = +/- 0.18

EFFECTIVE WIND AREA	COMPONENTS AND CLADDING: ULTIMATE WIND PRESSURE				
	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5
10 FT^2	39 PSF	57 PSF	68 PSF	23 PSF	29 PSF
50 FT^2	25 PSF	39 PSF	45 PSF	21 PSF	25 PSF
200 FT_2	16 PSF	23 PSF	36 PSF	19 PSF	21 PSF
500 FT^2	16 PSF	22 PSF	36 PSF	18 PSF	18 PSF

SEAL

DATE : JULY 18, 2025

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. #14479 , EXPIRATION DATE 06-22-27.

ENGINEER: RODRIGO CHACON
Columbia Engineering Inc.
9240 Old Dobbin Lane Tel. 410.992.6870
Columbia, Maryland 21045 columbiaengineering.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MAR
DWN BY: HAW
CHKD BY: RAC

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.
R.O.W NO.

KEY SHEET: PNW
POSITION SHT: 35NW40

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
STRUCTURAL – GENERAL NOTES
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
S0.02	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 86 OF 150
	DRAWING NUMBER
	2025-2256
	FILE NO.: 8 REV. 00.00

DWG. FILENAME:

CEI 25-032

INSPECTION TABLES

STATEMENT OF SPECIAL INSPECTIONS:

NOTE 1:
INSPECTION OR TESTING SHALL BE PROVIDED FOR ALL MATERIAL, COMPONENTS AND WORK LISTED IN THE TABLES BELOW. THESE ARE MINIMUM REQUIREMENTS. INSPECTION AND TESTING TASKS MUST ALSO SATISFY ALL STANDARDS ESTABLISHED IN THE FOLLOWING APPLICABLE CODES AND ALL LOCAL ORDINANCES.

INTERNATIONAL BUILDING CODE (IBC):
IBC CHAPTER 17

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC):
SPECIFICATION FOR STEEL BUILDINGS (AISC 360), CHAPTER N
SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS (AISC 341), CHAPTER J

THE MASONRY SOCIETY (TMS):
SPECIFICATION FOR MASONRY STRUCTURES (TMS 602), SECTION 1.6

AMERICAN IRON AND STEEL INSTITUTE (AISI):
NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL STRUCTURAL FRAMING (AISI S240), CHAPTER D

NOTE 2:
DEFINITIONS:

CONTINUOUS INSPECTION:
INDICATES SPECIAL INSPECTOR SHALL BE PRESENT DURING CONTRACTOR PERFORMANCE OF THE TASK.

PERIODIC INSPECTION:
INDICATES SPECIAL INSPECTOR SHALL PROVIDE INSPECTION OR TESTING OF ALL WORK INDICATED, BUT THAT SPECIAL INSPECTOR IS NOT REQUIRED TO BE PRESENT DURING CONTRACTOR PERFORMANCE OF THE TASK. PERIODIC INSPECTION DOES NOT MEAN RANDOM INSPECTION IS ALLOWED.

OBSERVE:
INSPECTOR SHALL OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.

PERFORM:
INSPECTOR SHALL PERFORM THESE TESTS FOR EACH JOINT, MEMBER, OR ELEMENT.

QC:
QUALITY CONTROL INSPECTION TASK TO BE COMPLETED BY FABRICATOR OR ERECTOR PERSONAL.

QA:
QUALITY ASSURANCE INSPECTION TASK TO BE COMPLETED BY THIRD-PARTY INSPECTION AGENCY/SPECIAL INSPECTOR.

SOILS

INSPECTION TASK	TYPE OF INSPECTION
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	PERIODIC
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	PERIODIC
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	PERIODIC
4. DURING FILL PLACEMENT, VERIFY USE OF MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	CONTINUOUS
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	PERIODIC

CONCRETE

INSPECTION TASK	TYPE OF INSPECTION
1. INSPECTION OF REINFORCING STEEL FOR SIZE, QUANTITY AND PLACEMENT.	PERIODIC
2. INSPECTION OF ANCHORS CAST IN CONCRETE.	PERIODIC
3. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS (FOLLOW MANUFACTURERS WRITTEN INSTALLATION REQUIREMENTS). A. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS B. ALL OTHER CONDITIONS	 A. CONTINUOUS B. PERIODIC
4. VERIFY USE OF REQUIRED DESIGN MIX.	PERIODIC
5. PRIOR TO CONCRETE REPLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE. PERFORM UNIT WEIGHT TEST FOR LIGHT WEIGHT CONCRETE.	CONTINUOUS
6. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	CONTINUOUS
7. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	PERIODIC
8. VERIFY IN-SITU CONCRETE STRENGTH PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	PERIODIC

MASONRY

INSPECTION TASK	TYPE OF INSPECTION QUALITY ASSURANCE LEVEL 2
1. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS	PERIODIC
2. VERIFICATION OF f 'm a. PRIOR TO CONSTRUCTION b. DURING CONSTRUCTION EVERY 5000 SQUARE FEET	 a. PERIODIC b. N/A
3. AS MASONRY CONSTRUCTION BEGINS, VERIFY THE FOLLOWING ARE IN COMPLIANCE: a. PROPORTIONS OF SITE-PREPARED MORTAR b. GRADE, TYPE AND SIZE OF REINFORCEMENT, CONNECTIONS AND ANCHOR BOLTS c. SAMPLE PANEL CONSTRUCTION	 a. PERIODIC b. PERIODIC c. PERIODIC
4. PRIOR TO GROUTING, VERIFY THE FOLLOWING ARE IN COMPLIANCE: a. GROUT SPACE b. PLACEMENT OF REINFORCEMENT, CONNECTORS AND ANCHOR BOLTS c. PROPORTIONS OF SITE-PREPARED GROUT	 a. PERIODIC b. PERIODIC c. PERIODIC
5. VERIFY COMPLIANCE DURING CONSTRUCTION: a. PLACEMENT OF MASONRY UNITS AND MORTAR JOINT CONSTRUCTION b. SIZE AND LOCATION OF STRUCTURAL MEMBERS c. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION d. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F) e. PLACEMENT OF GROUT f. SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) WHEN SELF-CONSOLIDATING GROUT IS DELIVERED TO PROJECT SITE g. PROPORTIONS OF MATERIALS AS DELIVERED TO THE PROJECT SITE FOR PREMIXED OR PREBLENDED MORTAR AND GROUT OTHER THAN SELF-CONSOLIDATING GROUT	 a. PERIODIC b. PERIODIC c. PERIODIC d. PERIODIC e. CONTINUOUS f. PERIODIC g. N/A
6. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS	PERIODIC
7. INSTALLATION OF POST INSTALLED ANCHORS	CONTINUOUS

STEEL - PRIOR TO WELDING

INSPECTION TASK	TYPE OF INSPECTION QC	QA
1. WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS	PERFORM	OBSERVE
2. WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	PERFORM	PERFORM
3. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	PERFORM	PERFORM
4. MATERIAL IDENTIFICATION (TYPE/GRADE)	OBSERVE	OBSERVE
5. WELDER IDENTIFICATION SYSTEM	OBSERVE	OBSERVE
6. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) • JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOF FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION) • BACKING TYPE AND FIT (IF APPLICABLE)	OBSERVE	PERFORM
7. FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y- AND K- JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY) • JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOF FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	OBSERVE	PERFORM
8. CONFIGURATION AND FINISH OF ACCESS HOLES	OBSERVE	OBSERVE
9. FIT-UP OF FILLET WELDS • DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	OBSERVE	OBSERVE
10. CHECK WELDING EQUIPMENT	OBSERVE	NONE

STEEL - DURING WELDING

INSPECTION TASK	TYPE OF INSPECTION QC	QA
1. USE OF QUALIFIED WELDERS	OBSERVE	OBSERVE
2. CONTROL AND HANDLING OF WELDING CONSUMABLES • PACKAGING • EXPOSURE CONTROL	OBSERVE	OBSERVE
3. NO WELDING OVER CRACKED TACK WELDS	OBSERVE	OBSERVE
4. ENVIRONMENTAL CONDITIONS • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE	OBSERVE	OBSERVE
5. WPS FOLLOWED FOR GROOVE WELDS AND MULTI-PASS FILLET WELDS • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MINIMUM / MAXIMUM) • PROPER POSITION (F, V, H, OH)	OBSERVE	PERFORM CONTINUOUS
6. WPS FOLLOWED FOR SINGLE - PASS FILLET WELDS • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MINIMUM / MAXIMUM) • PROPER POSITION (F, V, H, OH)	OBSERVE	OBSERVE
7. WELDING TECHNIQUES FOR GROOVE WELDS AND MULTI-PASS FILLET WELDS • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS	OBSERVE	PERFORM CONTINUOUS
8. WELDING TECHNIQUES FOR SINGLE-PASS FILLET WELDS • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS	OBSERVE	OBSERVE
9. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	PERFORM	PERFORM

STEEL - AFTER WELDING

INSPECTION TASK	TYPE OF INSPECTION QC	QA
1. WELDS CLEANED	OBSERVE	OBSERVE
2. SIZE, LENGTH AND LOCATION OF WELDS	PERFORM	PERFORM
3. WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD / BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY		
4. ULTRASONICALLY TEST FULL PENETRATION GROOVE WELDS	PERFORM	PERFORM
5. ARC STRIKES	PERFORM	PERFORM
6. K - AREA (a)	PERFORM	PERFORM
7. WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES (b)	PERFORM	PERFORM
8. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	PERFORM	PERFORM
9. REPAIR ACTIVITIES	PERFORM	PERFORM
10. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	PERFORM	PERFORM
11. NO PROHIBITED WELDS HAVE BEEN ADDED WIHTOUT THE APPROVAL OF THE ENGINEER OF RECORD.	OBSERVE	OBSERVE

NOTES:

(a) WHEN WELDING OF DOUBLE PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN THREE INCHES OF THE END.

(b) AFTER ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES ARE WELDED, VISUALLY INSPECT THE WELD ACCESS HOLE FOR CRACKS.

STEEL - OTHER

INSPECTION TASK	TYPE OF INSPECTION QC	QA
1. VERIFY COMPLIANCE OF THE FABRICATED STEEL WITH THE SHOP DRAWINGS	PERFORM	NONE
2. SETTING OF ANCHOR BOLTS, BEARING PLATES AND EMBEDDED ITEMS PRIOR TO PLACEMENT OF CONCRETE. AT A MINIMUM, CONFIRM DIMETER, GRADE, TYPE, LENGTH, AND DEPTH OF EMBEDMENT	OBSERVE	PERFORM
3. STRUCTURAL MEMBERS FOR PLUMBNESS, ELEVATION AND ALIGNMENT	OBSERVE	PERFORM
4. VERIFY COMPLIANCE OF THE ERECTED STEEL FRAME WITH ERECTION DRAWINGS FOR ITEMS SUCH AS BRACES, STIFFENERS, MEMBER LOCATIONS AND CONNECTION DETAILS	PERFORM	NONE
5. COMPLIANCE OF THE FABRICATED AND ERECTED STEEL FRAME WITH CONTRACT DOCUMENTS FOR ITEMS SUCH AS BRACES, STIFFENERS, MEMBER LOCATIONS AND CONNECTION DETAILS	NONE	PERFORM

COLD-FORMED STEEL

INSPECTION TASK	TYPE OF INSPECTION
1. VERIFY SIZE AND GAGE OF FRAMING.	PERIODIC
2. VERIFY PLUMBNESS, ALIGNMENT AND PROPER BEARING OF ELEMENTS	PERIODIC
3. VERIFY COLD-FORMED FRAMING IS PROPERLY FASTENED TOGETHER	PERIODIC
4. VERIFY CONNECTIONS TO STRUCTURAL FRAME	PERIODIC
5. VERIFY TOUCH-UP GALVANIZATION IS APPLIED TO WELDS	PERIODIC

SEAL
STATE OF MARYLAND · RODRIGO H. CHACON · No. 14479 · PROFESSIONAL ENGINEER
DATE : JULY 18, 2025

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. #14479 , EXPIRATION DATE 06-22-27.

ENGINEER: RODRIGO CHACON
Columbia Engineering Inc.
8210 Old Dobbin Lane Tel 410.992.8670
Suite 100 Fax 410.992.8672
Columbia, Maryland 21045 columbiaengineering.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MAR
DWN BY: HAW
CHKD BY: RAC

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

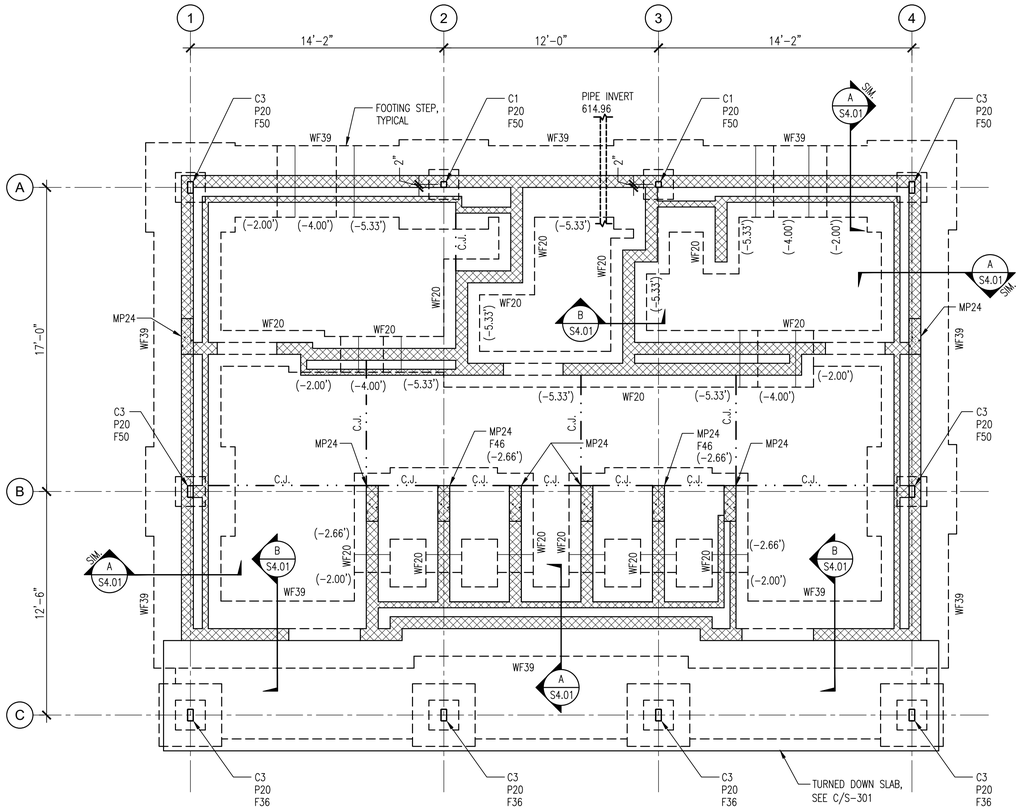
PROPERTY MANAGEMENT
APPROVED BY:
PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
STRUCTURAL – INSPECTION TABLES
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
S0.03	25114 GXO
JOB ORDER NUMBER	PROJ-1000634
SHEET 87 OF 150	
DRAWING NUMBER	2025-2257
FILE NO.: 8	REV. 00.00

DWG. FILENAME:
CEI 25-032



FOUNDATION AND SLAB ON GRADE PLAN

SCALE: 1/4"=1'-0"

NOTES:

1. SLAB ON GRADE SHALL BE 5" THICK NORMAL WEIGHT CONCRETE (f'c=5000 PSI, 145 PCF AIR ENTRAINED) REINFORCED WITH 6"x6", W4.0xW4.0 WWF ON 15 MILS VAPOR BARRIER OVER A 6" LAYER OF WASHED GRAVEL.
2. PROJECT DATUM ELEVATION (0.00') CORRESPONDENTS TO CIVIL ELEVATION 620.19'.
3. TOP OF CONCRETE PIER ELEVATION SHALL BE 8" BELOW DATUM ELEVATION UNLESS NOTED OTHERWISE, THUS: [.....].
4. TOP OF FOOTING ELEVATION MUST BE 2'-0" BELOW DATUM ELEVATION UNLESS NOTED OTHERWISE, THUS: (.....). ELEVATIONS ARE FOR BID PURPOSES ONLY AND MAY HAVE TO BE FIELD ADJUSTED. LOWER ALL FOOTINGS AS REQUIRED BELOW UTILITY LINES AND INSTALL SLEEVES THROUGH CONCRETE AND MASONRY WALLS.
5. PROVIDE 1-#4x3'-0" LONG AT MID-DEPTH OF SLAB ON GRADE FOR ALL MASONRY CORNERS THAT DO NOT HAVE A CONTROL OR CONSTRUCTION JOINT TERMINATION.
6. SEE ARCHITECTURAL DRAWINGS FOR LOCATION AND EXTENT OF DEPRESSED SLAB AREAS.
7. EXTEND WALL FOOTING REINFORCING 2'-0" INTO COLUMN FOOTING (TYPICAL).
8. C.J. DENOTES CONTROL OR CONSTRUCTION JOINT. SEE TYPICAL DETAIL B/S3.01. CONTROL JOINTS SHALL BE SAW CUT BY THE CONTRACTOR. SAW CUT CONTROL JOINTS TO $\frac{1}{4}$ THE DEPTH OF THE SLAB THICKNESS AND AS SOON AS THE CONCRETE IS FIRM ENOUGH NOT TO BE TORN OR DAMAGED BY THE BLADE AND BEFORE RANDOM CRACKING CAN FORM IN THE CONCRETE SLAB.
9. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL WALLS.

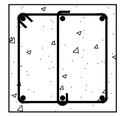
COLUMN SCHEDULE

MARK	SIZE	BASE PLATE	REMARKS
C1	HSS4x4x5/16	12"x12"x3/4"	(4) 3/4" DIAMETER ASTM F1554, 36 KSI
C2	HSS6x4x5/16	14"x12"x3/4"	(4) 3/4" DIAMETER ASTM F1554, 36 KSI
C3	HSS8x4x5/16	14"x12"x3/8"	(4) 3/4" DIAMETER ASTM F1554, 36 KSI

PIER SCHEDULE

MARK	SIZE	VERTICAL REINFORCEMENT	REMARKS
P20	20"x20"	8-#5	

TIE PATTERNS:



8 LONGITUDINAL BARS

NOTES:
1. ALTERNATE THE 180 DEGREE HOOK END OF ALL SINGLE-LEG TIES.
2. ALL TIES SHALL BE PLACED WITH 1 1/2" CONCRETE COVER UNLESS NOTED OTHERWISE.

MASONRY PIER SCHEDULE

MARK	SIZE	VERTICAL REINFORCEMENT	REMARKS
MP24	24"	3-#5	

NOTES:
1. MASONRY PIERS SHALL BE GROUTED SOLID.
2. REINFORCEMENT EXTENDS FULL HEIGHT OF THE PIER.
3. VERTICAL REINFORCEMENT SHALL BE PLACED TO AVOID LINTELS AND BEARING PLATES.
4. NO MASONRY CONTROL JOINTS ARE PERMITTED IN THE MASONRY PIERS.
5. PROVIDE DOWELS TO MATCH VERTICAL REINFORCEMENT INTO FOOTINGS.

SPREAD FOOTING SCHEDULE

MARK	SIZE	THICK	REINFORCEMENT
F36	3'-6"x3'-6"	1'-0"	4-#5 EACH WAY TOP AND BOTTOM WITH HOOKED ENDS
F50	5'-0"x5'-0"	1'-0"	6-#5 EACH WAY TOP AND BOTTOM
F46	4'-0"x6'-0"	1'-0"	6-#5 EACH WAY TOP AND BOTTOM

WALL FOOTING SCHEDULE

MARK	SIZE	THICK	REINFORCEMENT
WF20	2'-0" CONTINUOUS	1'-0"	2-#5 CONTINUOUS BOTTOM
WF39	3'-9" CONTINUOUS	1'-0"	4-#5 TOP AND BOTTOM, #5 AT 12"o.c. TRANSVERSE TOP AND BOTTOM

DWG. FILENAME:

SEAL

STATE OF MARYLAND · RODRIGO H. CHACON · No. 14479 · PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
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LICENSE NO. #14479 , EXPIRATION DATE 06-22-27.					R.O.W NO.			PROFILE SCALE:		PROPERTY MANAGER
ENGINEER: RODRIGO CHACON	DGN BY: MAR	CONTRACT COMPLETION BOX								DATE:
Columbia Engineering Inc. 8270 Old Dobbin Lane Tel: 410.992.8870 Suite 100 Fax: 410.992.0824 Columbia, Maryland 21045 columbia@columbiaeng.com	DWN BY: HAW	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
AS-BUILT PER RECORD PRINT	CHKD BY: RAC	REVIEWED BY:								
BY: DATE:		DATE REVIEWED:								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

STRUCTURAL - FOUNDATION PLAN AND SCHEDULES

SPLASH PAD AND SUPPORTING FACILITIES

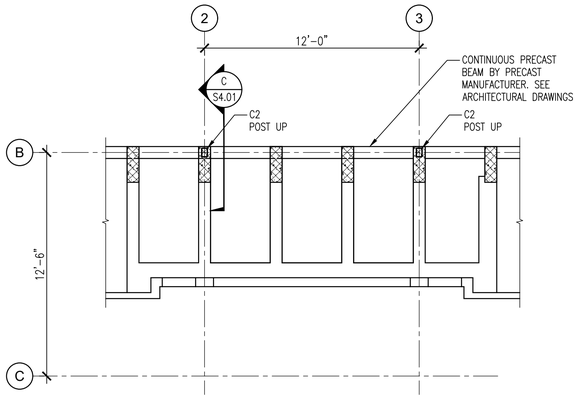
SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
S1.01	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 88 OF 150
	DRAWING NUMBER
	2025-2258
	FILE NO.: 8

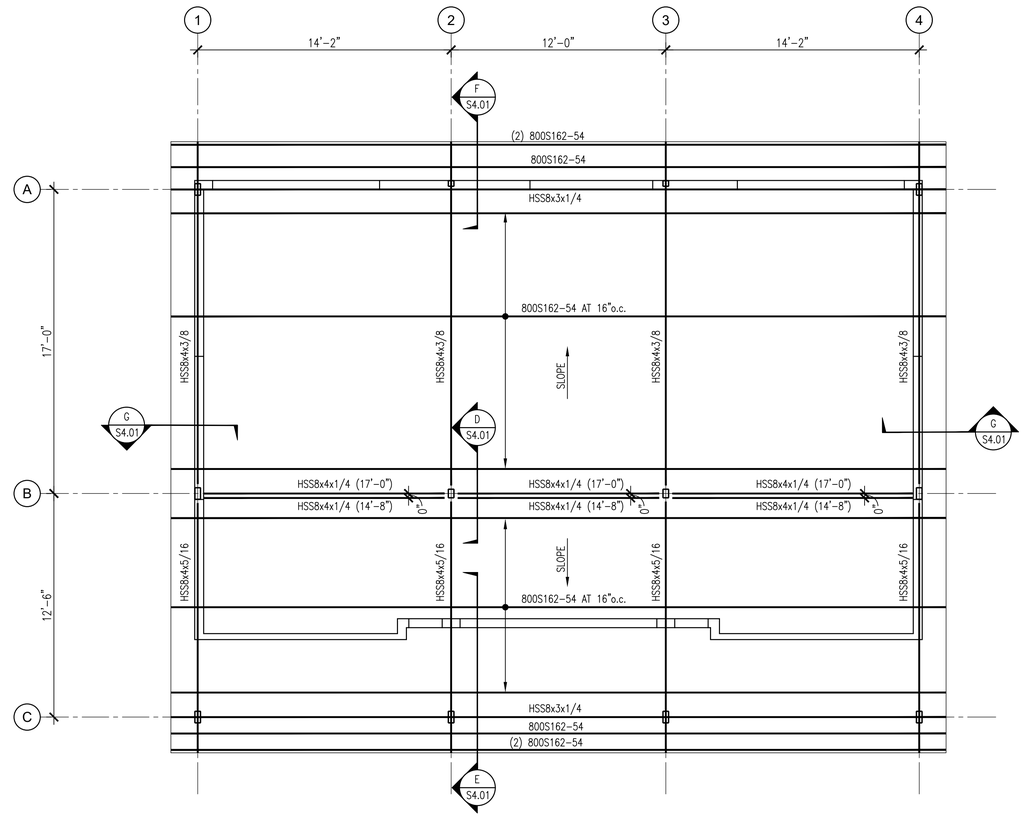
CEI 25-032



PARTIAL CLEARSTORY PLAN

SCALE: 1/4"=1'-0"

NORTH



ROOF FRAMING PLAN

SCALE: 1/4"=1'-0"

NORTH

NOTES:

1. ROOF DECK SHALL BE 3/4" APA RATED PLYWOOD SHEATHINGS. FASTEN TO METAL ROOF FRAMING WITH #12 SELF TAPPING SCREWS AT 6"o.c. AT PANEL EDGES AND 12"o.c. AT INTERMEDIATE SUPPORTS.
2. TOP OF STEEL ELEVATION NOTED ON PLAN THUS: (X.XX') IS MEASURED FROM DATUM ELEVATION (0.00').
3. PROVIDE HURRICANE ANCHORS AT EACH COLD-FORMED JOIST, TYPICAL
4. SIZES AND GAGES OF COLD-FORMED METAL FRAMING SHOWN ON THE DRAWINGS ARE MINIMUM REQUIREMENTS. FRAMING AND ALL APPLICABLE COMPONENTS AND CONNECTIONS SHALL BE DESIGNED FOR THE GRAVITY AND WIND LOADS REQUIRED BY THE LOCAL BUILDING CODE AND SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION.

SEAL

STATE OF MARYLAND · RODRIGO H. CHACON · No. 14479 · PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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		CONTRACT COMPLETION BOX					
ENGINEER: RODRIGO CHACON Columbia Engineering Inc. 8270 Old Dobbin Lane Tel: 410.992.8870 Suite 100 Fax: 410.992.0902 Columbia, Maryland 21045 columbiaengineering.com	DGN BY: MAR	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER
AS-BUILT PER RECORD PRINT	DWN BY: HAW	REVIEWED BY:					
BY: DATE:	CHKD BY: RAC	DATE REVIEWED:					

DRAWING SCALE		PROPERTY MANAGEMENT
PLAN SCALE:	AS SHOWN	APPROVED BY: PROPERTY MANAGER
PROFILE SCALE:		DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

STRUCTURAL - FRAMING PLANS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

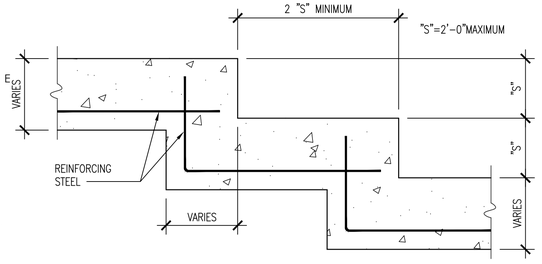
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
S1.02	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 89 OF 150
	DRAWING NUMBER
	2025-2259
	FILE NO.: 8

DWG. FILENAME:

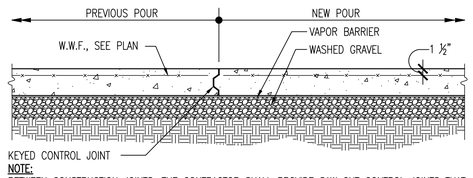
CEI 25-032



STEP FOOTING

TYPICAL DETAIL — A — S3.01

SCALE: NONE

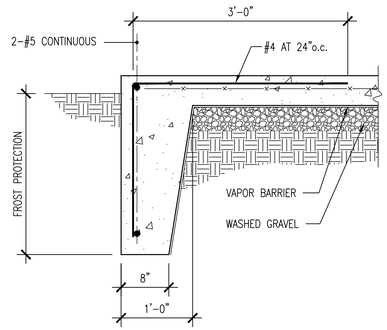


NOTE:
BETWEEN CONSTRUCTION JOINTS, THE CONTRACTOR SHALL PROVIDE SAW CUT CONTROL JOINTS THAT SHALL BE SPACED AS SHOWN ON PLANS AND/OR NOTED IN GENERAL NOTES. SAW CUT JOINTS SHALL BE ¼ OF THE SLAB THICKNESS IN DEPTH AND SHALL BE CUT AS SOON AS THE CONCRETE IS FIRM ENOUGH NOT TO BE TORN OR DAMAGED BY THE BLADE AND BEFORE RANDOM SHRINKAGE CRACKS CAN FORM IN THE CONCRETE SLAB.

CONSTRUCTION JOINT IN SLAB ON GRADE

TYPICAL DETAIL — B — S3.01

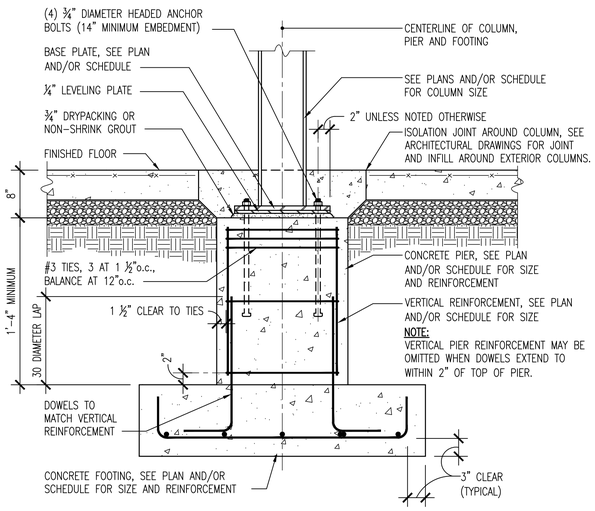
SCALE: NONE



TURNED DOWN SLAB

TYPICAL DETAIL — C — S3.01

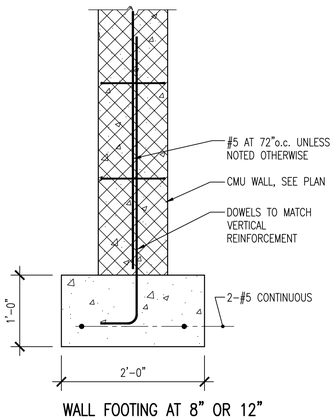
SCALE: NONE



COLUMN, PIER AND FOOTING

TYPICAL DETAIL — D — S3.01

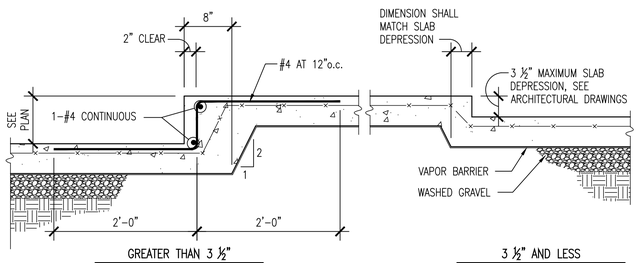
SCALE: NONE



WALL FOOTING AT 8" OR 12" NON-BEARING MASONRY WALLS

TYPICAL DETAIL — E — S3.01

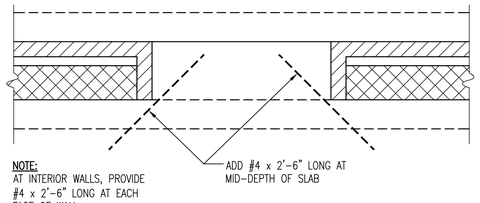
SCALE: NONE



DEPRESSED SLAB ON GRADE

TYPICAL DETAIL — F — S3.01

SCALE: NONE



NOTE:
AT INTERIOR WALLS, PROVIDE #4 x 2'-6" LONG AT EACH FACE OF WALL.

ADDED SLAB REINFORCEMENT AT WALL OPENINGS

TYPICAL DETAIL — G — S3.01

SCALE: NONE

SEAL

STATE OF MARYLAND — RODRIGO H. CHACON — No. 14479 — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. #14479 , EXPIRATION DATE 06-22-27.

ENGINEER: RODRIGO CHACON
Columbia Engineering Inc.
8270 Old Dobbin Lane Tel: 410.992.8970
Suite 100 Fax:410.992.8977
Columbia, Maryland 21045 rodrigo@columbiaengineering.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MAR
DWN BY: HAW
CHKD BY: RAC

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
			R.O.W NO.	PNW	35NW40
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

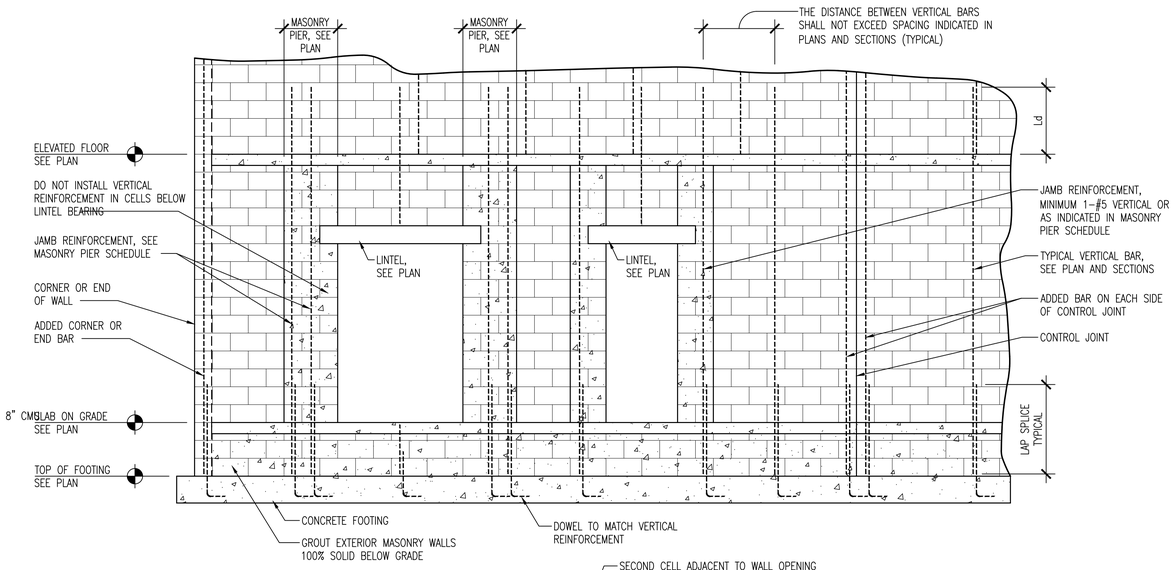
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
STRUCTURAL – TYPICAL DETAILS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

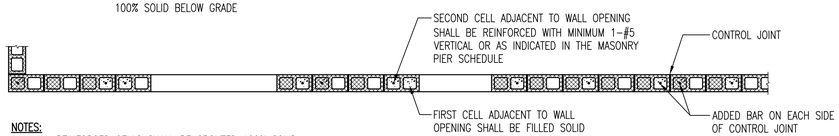
BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
S3.01	25114 GXO
JOB ORDER NUMBER	PROJ-1000634
SHEET 90 OF 150	
DRAWING NUMBER	2025-2260
FILE NO.: 8	

DWG. FILENAME:

CEI 25-032



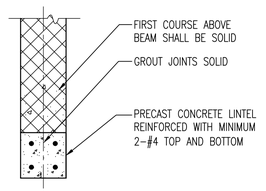


NOTES:
1. ALL REINFORCED CELLS SHALL BE GROUTED 100% SOLID.
2. REFER TO PLANS AND SECTIONS FOR SPACING OF TYPICAL VERTICAL REINFORCEMENT.
3. REFER TO GENERAL NOTES FOR PLACEMENT LIMITATIONS OF IN-WALL CONDUIT.

MASONRY WALL REINFORCEMENT

TYPICAL DETAIL — A

SCALE: NONE — S3.02

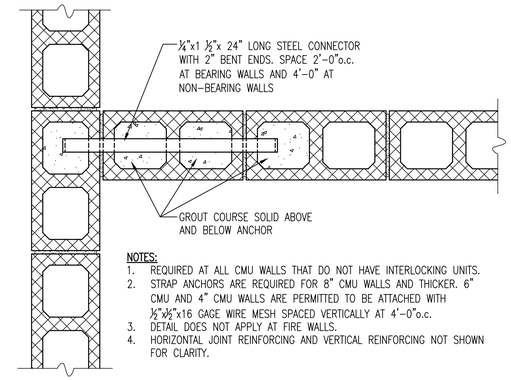


NOTES:
1. PRECAST LINTELS SHALL BE INSTALLED OVER OPENINGS IN ALL NON-BEARING PARTITIONS UNLESS NOTED OTHERWISE.
2. PRECAST LINTELS SHALL BE DESIGNED AND DETAILED BY THE PRECAST MANUFACTURER.
3. SEE ARCHITECTURAL DRAWINGS FOR PRECAST PROFILES

PRECAST LINTELS

TYPICAL DETAIL — B

SCALE: NONE — S3.02

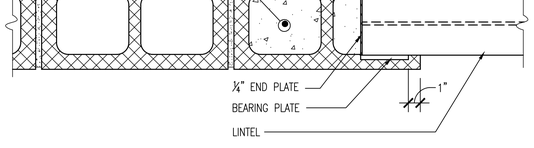


NOTES:
1. REQUIRED AT ALL CMU WALLS THAT DO NOT HAVE INTERLOCKING UNITS.
2. STRAP ANCHORS ARE REQUIRED FOR 8" CMU WALLS AND THICKER. 6" CMU AND 4" CMU WALLS ARE PERMITTED TO BE ATTACHED WITH ½"x½"x16 GAGE WIRE MESH SPACED VERTICALLY AT 4'-0"o.c.
3. DETAIL DOES NOT APPLY AT FIRE WALLS.
4. HORIZONTAL JOINT REINFORCING AND VERTICAL REINFORCING NOT SHOWN FOR CLARITY.

ABUTTING MASONRY WALL

TYPICAL DETAIL — C

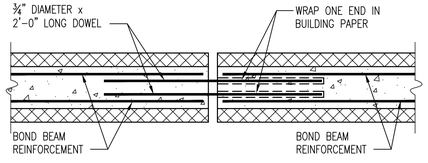
SCALE: NONE — S3.02



CMU REINFORCEMENT ADJACENT TO WALL OPENING

TYPICAL DETAIL — D

SCALE: NONE — S3.02



BOND BEAM AT CONTROL JOINT

TYPICAL DETAIL — E

SCALE: NONE — S3.02

SEAL

STATE OF MARYLAND — RODRIGO H. CHACON — No. 14479 — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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ENGINEER: RODRIGO CHACON, Columbia Engineering Inc, 8320 Old Jessup Lane Suite 150 Jessup, Maryland 21045, Tel. 410.982.8670 Fax.410.982.8677 columbiaengineering.com	DGN BY: MAR	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
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BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

STRUCTURAL – TYPICAL DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

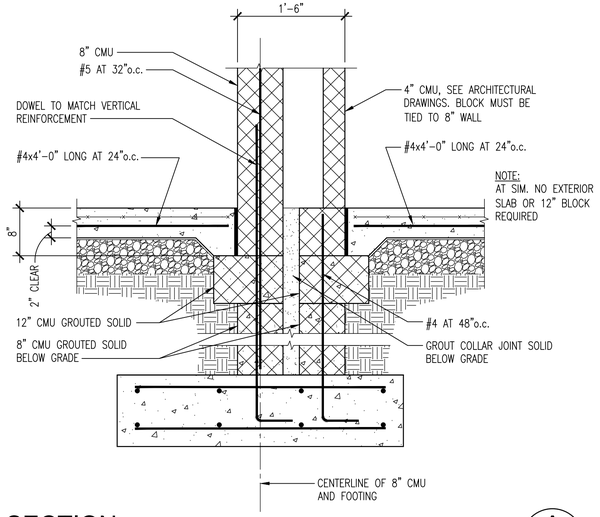
SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
S3.02	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 91 OF 150
	DRAWING NUMBER
	2025-2261
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

DWG. FILENAME:

CEI 25-032



SECTION A S4.01

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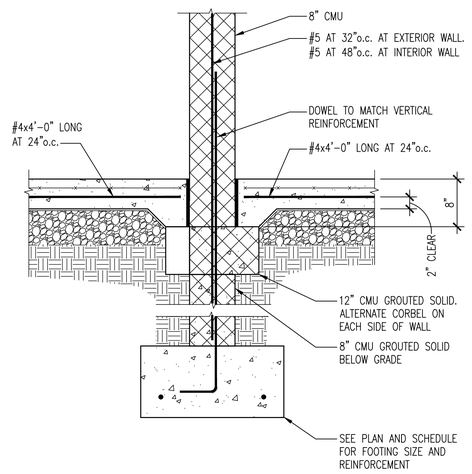

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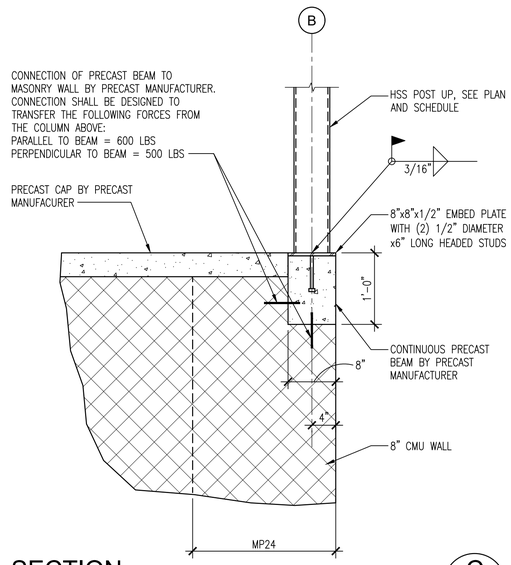

SECTION C S4.01

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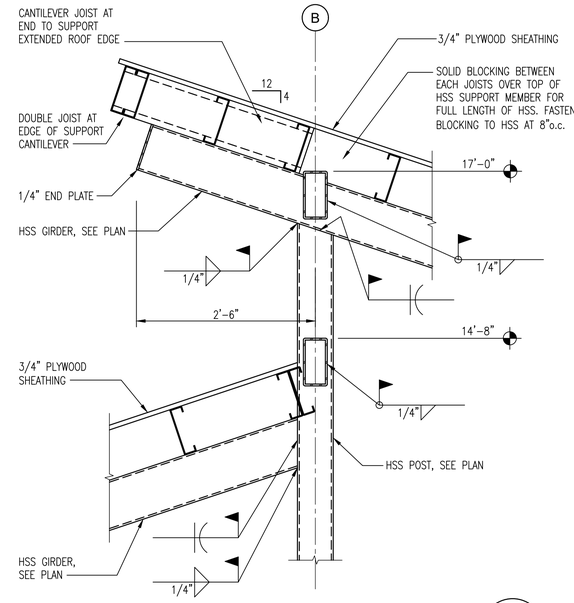

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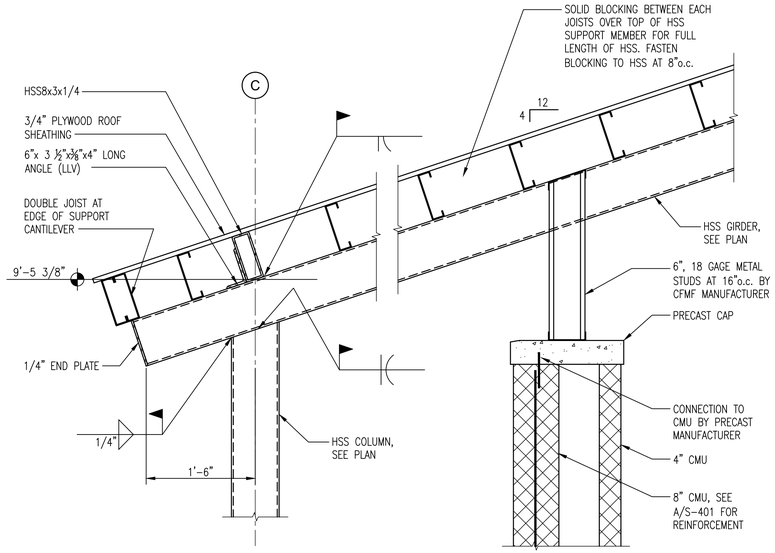

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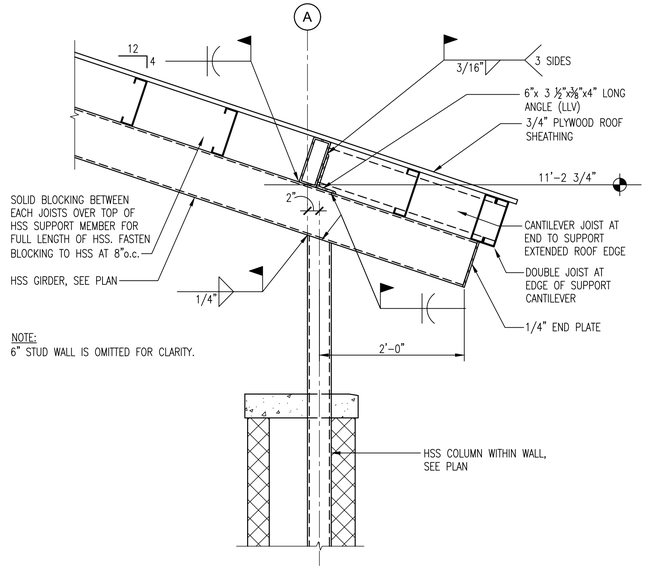

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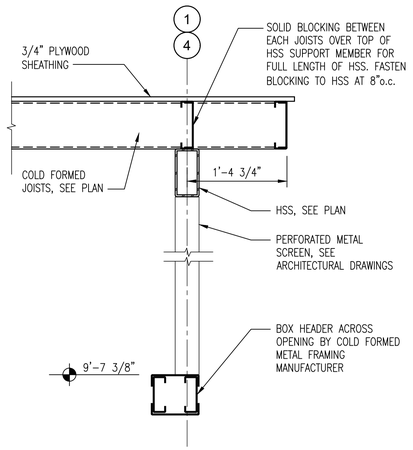


SECTION G S4.01

SCALE: 1"=1'-0"

DWG. FILENAME:

SEAL

STATE OF MARYLAND · RODRIGO H. CHACON · No. 14479 · PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. #14479 , EXPIRATION DATE 06-22-27.

ENGINEER: RODRIGO CHACON
Columbia Engineering Inc.
9250 Rt. 108 Suite 100
Columbia, Maryland 21045
Tel. 410.992.8670
Fax 410.992.8427
columbiaengineering.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY:	MAR
DWN BY:	HAW
CHKD BY:	RAC

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

STRUCTURAL – SECTIONS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
S4.01	25114 GXO
JOB ORDER NUMBER	PROJ-1000634
SHEET 92 OF 150	
DRAWING NUMBER	2025-2262
FILE NO.: 8	REV#

CEI 25-032

NOTE:
LEGENDS ARE GENERAL, NOT ALL SYMBOLS, ABBREVIATIONS, AND/OR DESIGNATIONS MAY APPEAR ON THE DRAWINGS.

HEATING, VENTILATION AND AIR CONDITIONING

ABBREVIATIONS

ABV	ABOVE	KW	KILOWATT
ACU	AIR CONDITIONING UNIT	KWH	KILOWATT HOURS
AFF	ABOVE FINISHED FLOOR		
AFG	ABOVE FINISHED GRADE	LAT	LEAVING AIR TEMPERATURE
AMP	AMPERES	LF	LINEAR FEET
APPROX	APPROXIMATE	LBS OR #	POUNDS
ARCH	ARCHITECTURAL	LDB	LEAVING DRY BULB TEMPERATURE
ASME	AMER. SOCIETY OF MECH ENG	LWB	LEAVING WET BULB TEMPERATURE
ATC	AUTOMATIC TEMP CONTROL		
AUTO	AUTOMATIC	MAX	MAXIMUM
		MAU	MAKE-UP AIR UNIT
BDD	BACK DRAFT DAMPER	MBH	THOUSAND BTU PER HOUR
BE	BOTTOM ELEVATION	MC	MECHANICAL CONTRACTOR
BEL	BELOW	MCA	MINIMUM CIRCUIT AMPACITY
BF	BELOW FLOOR	MOD	MOTOR OPERATED DAMPER (ATC)
BFG	BELOW FINISHED GRADE	MECH	MECHANICAL
BJ	BETWEEN JOISTS	MER	MECH. EQUIPMENT ROOM
BLDG	BUILDING	MFR	MANUFACTURER
BOD	BOTTOM OF DUCT	MIN	MINIMUM
BOT	BOTTOM		
BTU	BRITISH THERMAL UNIT	MTD	MOUNTED
		MTG	MOUNTING
CD	CONDENSATE DRAIN	MZ	MULTI ZONE
CFM	CUBIC FEET PER MINUTE		
COD	CENTER OF DUCT	N/A	NOT APPLICABLE
CONC	CONCRETE	N/E	NORMAL/EMERGENCY POWER
COND	CONDENSATE/CONDENSING	N/C	NORMALLY CLOSED
CONN	CONNECT OR CONNECTION	N/O	NORMALLY OPEN
CONST	CONSTRUCT/CONSTRUCTION	NC	NOISE CRITERIA
CONT	CONTINUED/CONTINUATION	NIC	NOT IN CONTRACT
C	CONVECTOR	NO	NUMBER
COORD	COORDINATE	NTS	NOT TO SCALE
CU	CONDENSING UNIT		
CUH	CABINET UNIT HEATER	OA	OUTSIDE AIR
CV	CHECK VALVE	OAI	OUTSIDE AIR INTAKE
CW	COLD WATER	OC	ON CENTER
		OPNG	OPENING
DB	DRY BULB		
DDC	DIRECT DIGITAL CONTROL	PLBG	PLUMBING
DEG	DEGREE		
DEPT	DEPARTMENT	PD	PRESSURE DROP
DIA	DIAMETER	PH	PHASE
DISC	DISCONNECT	PR	PIPE RISER
DN	DOWN	PRESS	PRESSURE
DR	DRAIN	PRV	PRESSURE REDUCING VALVE
D/R	DUCT RISER		OR PRESSURE RELIEF VENT
DS	DUCT SILENCER	PSI	POUNDS PER SQUARE INCH
DWG	DRAWING	PTR	PRESSURE TEMPERATURE RELIEF
EA	EXHAUST AIR	RA	RETURN AIR
EAT	ENTERING AIR TEMPERATURE	RAD	RADIATION or RADIATOR
EC	ELECTRICAL CONTRACTOR	RD OR Ø	ROUND
EDB	ENTERING DRY BULB TEMPERATURE	REG	REGISTER
EF	EXHAUST FAN	REL	RELIEF AIR
EG	EXHAUST GRILLE	RF	RETURN FAN
ELEC	ELECTRICAL	RG	RETURN GRILLE
ELEV	ELEVATION	RLA	RATED LOAD AMPERES
EMER	EMERGENCY	RM	ROOM
ENCL	ENCLOSURE	RTU	ROOF TOP UNIT
EQUIP	EQUIPMENT	RPM	REVOLUTIONS/MINUTE
ESP	EXTERNAL STATIC PRESSURE	RV	RELIEF VALVE
ETR	EXISTING TO REMAIN	RX	REMOVE EXISTING
EWB	ENTERING WET BULB TEMPERATURE		
EWT	ENTERING WATER TEMPERATURE	SA	SUPPLY AIR
EXH	EXHAUST OR EXHAUSTER	S/R	SUPPLY/RETURN
EXIST	EXISTING	S&C	STUB & CAP
EXP	EXPOSED		
		SG	SUPPLY GRILLE
F	FAHRENHEIT	SHT	SHEET
FD	FLOOR DRAIN	SP	STATIC PRESSURE
FLA	FULL LOAD AMPERES	SPEC	SPECIFICATIONS
FL	FLOOR	SQ	SQUARE
FLEX	FLEXIBLE	STD	STANDARD
FPM	FEET PER MINUTE	STL	STEEL
FT	FOOT OR FEET	STOR	STORAGE
FT HD	FEET OF HEAD	SUSP	SUSPEND OR SUSPENDED
FUT	FUTURE	SW	SWITCH
GA	GAUGE OR GAGE	TB	THROUGH BEAM
GAL	GALLON	TEMP	TEMPERATURE
GALV	GALVANIZED	TDH	TOTAL DYNAMIC HEAD
GEN	GENERATOR	TD	TRANSFER DUCT
GENR	GENERAL	TE	TOP ELEVATION
GC	GENERAL CONTRACTOR	THRU	THROUGH
GPH	GALLONS PER HOUR	TJ	THROUGH JOIST
GPM	GALLONS PER MINUTE	TSP	TOTAL STATIC PRESSURE
GR	GRILLE	TSTAT	THERMOSTAT
GRD	GROUND OR GRADE	TYP	TYPICAL
H OR HGT	HEIGHT	UE	UNDER ELECTRICAL
HC	HEATING (HVAC) CONTRACTOR	UG	UNDER GENERAL
HDAG	HEAVY DUTY ARCHITECTURAL GRILLE	UH	UNIT HEATER, UNDER HVAC
HGB	HOT GAS BYPASS	UP	UNDER PLUMBING
HORZ	HORIZONTAL	UNO	UNLESS NOTED OTHERWISE
HP	HORSE POWER	UV	UNIT VENTILATOR
HSTAT	HUMIDISTAT		
HR	HOUR	VAV	VARIABLE AIR VOLUME
HTG	HEATING	VD	VOLUME DAMPER (MANUAL)
HX	HEAT EXCHANGER	VFD	VARIABLE FREQUENCY DRIVE
HZ	FREQUENCY	VI	VIBRATION ISOLATOR
ID	INSIDE DIAMETER	W	WATT
IN OR "	INCH	W/	WITH
INT	INTERIOR	W/O	WITHOUT
INV	INVERT	WB	WET BULB
ISP	INTERNAL STATIC PRESSURE	WG	WATER GAUGE
IWG	INCH WATER GAUGE	WL	WEATHER LOUVER
		WP	WEATHERPROOF
		WPD	WATER PRESS DROP
		WT	WEIGHT
		XFMR	TRANSFORMER

AIR DEVICES AND COMPONENTS

SINGLE LINE / DOUBLE LINE

- SUPPLY/OUTSIDE AIR DUCT
- RETURN/RELIEF AIR DUCT
- EXHAUST AIR DUCT
- SUPPLY/OUTSIDE AIR DUCT ELBOW (UP AND DOWN)
- RETURN/RELIEF AIR DUCT ELBOW (UP AND DOWN)
- EXHAUST AIR DUCT ELBOW (UP AND DOWN)
- RECTANGULAR OR SQUARE DUCT (SIZE IN INCHES) (12x10)
- ROUND DUCT (SIZE IN INCHES) (10Ø)
- FLAT OVAL DUCT (SIZE IN INCHES) (12x10Ø)
- ROUND DUCT (UP/DOWN)
- FLAT OVAL DUCT (UP/DOWN)
- MITERED ELBOW W/ TURNING VANES
- RADIUS ELBOW
- TRANSITION-CONCENTRIC
- TRANSITION-ECCENTRIC
- MANUAL VOLUME DAMPER
- INCLINED RISE(R) OR DROP(D) ARROW IN DIRECTION OF AIR FLOW (R)
- RECTANGULAR BRANCH TAKE OFF
- ROUND BRANCH TAKE OFF
- DUCT-MOUNTED REHEAT COIL
- FLEXIBLE DUCT
- FLEXIBLE CONNECTION
- DUCT SILENCER
- DUCT ACCESS DOORS (AD)
- SUPPLY DIFFUSER
- RETURN REGISTER/ GRILLE
- EXHAUST REGISTER/ GRILLE
- LINEAR DIFFUSER
- DUCT MOUNTED HUMIDIFIER (H)
- DUCT MOUNTED PRESSURE SENSOR (P)
- FIRE DAMPER (HORIZONTAL/ VERTICAL)
- SMOKE DAMPER (S)
- SMOKE AND FIRE DAMPER
- RADIATION DAMPER (R)
- BACK DRAFT DAMPER (BDD)
- MOTOR OPERATED DAMPER (M)
- VOLUME DAMPER
- SMOKE DETECTOR (DUCT MOUNTED) (S)
- STATIC PRESSURE SENSOR (SP)

SYMBOLS

- THERMOSTAT (T)
- REVERSE ACTING THERMOSTAT (T_R)
- THERMOSTAT W/ GUARD
- PROGRAMMABLE THERMOSTAT, WITH GUARD (T_P)
- DDC TEMPERATURE SENSOR (WP - WEATHER PROOF) (T_S)
- DDC HUMIDITY SENSOR (WP - WEATHER PROOF) (H_S)
- DDC HUMIDISTAT (H)
- DDC DEWPOINT SENSOR (D_S)
- DDC OCCUPANCY SENSOR (OC)
- DDC CO_2 SENSOR (CO_2)
- DOOR LOUVER, 18x18, SEE ARCH. DWGS. (DL)
- DOOR UNDERCUT, 3/4", SEE ARCH. DWGS. (DU)
- 16x16 TRANSFER AIR OPENING ABOVE CEILING IN PARTITION (T/O)
- VARIABLE SPEED CONTROL SWITCH (S_V)
- ATC/DDC CONTROL SWITCH (S)
- EMERGENCY BOILER SHUT-OFF SWITCH (S_B)
- EMERGENCY CHILLER SHUT-OFF SWITCH (S_C)
- EMERGENCY HVAC SHUT-OFF SWITCH (S_E)
- DOOR SWITCH, ATC/DDC (S_D)
- REFRIGERANT SENSOR (R_S)
- VFD — VARIABLE FREQUENCY DRIVE
- DDC — DDC CONTROL PANEL
- LDP — DDC LOCAL DISPLAY PANEL
- NAC — DDC NETWORK AREA CONTROLLER (NAE)
- OWS — DDC OPERATOR WORK STATION
- AP — CEILING/WALL ACCESS PANEL

ANNOTATIONS

- RETURN AIR DESIGNATION
- SUPPLY AIR DESIGNATION
- AREA OF REVISION
- REVISION SEQUENCE NUMBER (XX)
- KEYED NEW WORK NOTE (XX XX)
- DEMOLITION WORK KEYED NOTE (XX)
- POINT OF CONNECTION TO EXISTING SYSTEM
- POINT OF DISCONNECTION FROM EXISTING SYSTEM
- DETAIL NUMBER (1) / SHEET NUMBER (M-X)
- SECTION NO (A) / SHEET NO (M-XX)
- PHOTO VIEW (DIRECTION OF VIEW) (M X)
- EXISTING TO REMAIN (THINNER LINES)
- NEW WORK (HEAVY LINES)
- DEMOLITION WORK
- ABC — EXISTING (INDICATED W/ SLANTED TEXT)

HVAC GENERAL NOTES

1. GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH MECHANICAL DRAWING OF THIS SET. SEE EACH DRAWING FOR SPECIFIC NOTES APPLICABLE TO THAT DRAWING.
2. ALL DIMENSIONS, AND PIPE SIZES ARE IN INCHES UNLESS NOTED OTHERWISE. VALVES AND SPECIALTIES SHALL BE LINE SIZE, EXCEPT FOR CONTROL & BALANCING VALVES OR UNLESS NOTED OTHERWISE. NO PIPING SHALL BE SMALLER THAN 3/4" UNLESS OTHERWISE NOTED. FOR PIPE SIZES NOT INDICATED ON PLANS SEE EQUIPMENT CONNECTION DETAILS, FLOW DIAGRAMS, RISER DIAGRAMS AND SCHEDULES.
3. COORDINATE WALL, ROOF, FLOOR, AND CEILING OPENINGS FOR NEW PIPE AND DUCT RISERS, AND CONDUIT PENETRATIONS. PROVIDE SLEEVES AROUND EXISTING PIPES AND DUCTS THRU NEW WALL/PARTITIONS.
4. ALL EQUIPMENT, PIPING, AND DUCTWORK SHALL BE SUPPORTED FROM JOIST TOP CHORD, UNLESS OTHERWISE NOTED. DO NOT SUPPORT ANYTHING FROM ROOF DECK.
5. ALL PIPING IN AREAS WITH CEILING SHALL BE RUN CONCEALED ABOVE ACOUSTICAL OR PLASTER CEILINGS UNLESS OTHERWISE NOTED. OVERHEAD PIPING IN SPACES WITHOUT HUNG CEILINGS SHALL BE RUN AS CLOSE TO FLOOR/ROOF DECK AS PRACTICABLE, AS CLOSE TO PARALLEL JOISTS AS POSSIBLE AND ABOVE LIGHTING FIXTURES TO CONCEAL PIPING.
6. ALL OPENINGS IN PIPES OR FITTINGS SHALL BE KEPT PLUGGED OR CAPPED UNTIL CONNECTED.
7. INSTALL SUFFICIENT NUMBER OF UNIONS/FLANGES IN ALL PIPE LINES TO ALLOW REMOVAL OF PIPES WITHOUT BREAKING FITTINGS. PROVIDE UNION OR FLANGED CONNECTIONS AT EACH PIECE OF EQUIPMENT AND ON BOTH SIDES ON CONTROL VALVES AND PRESSURE REGULATING VALVES. PROVIDE SHUT-OFF VALVES ON BOTH SIDES OF AUTOMATIC VALVES.
8. RUNOUTS TO EQUIPMENT SHALL BE RUN IN SIZES INDICATED AND INCREASED OR REDUCED AT POINT OF FINAL CONNECTION TO EQUIPMENT. COORDINATE LOCATION AND INSTALLATION OF EQUIPMENT WITH OTHER TRADES. RUNOUTS SHALL PITCH DOWN IN DIRECTION OF FLOW A MINIMUM OF 1/8" PER FOOT.
9. CONTRACTOR SHALL VERIFY ANY REFRIGERANT PIPE SIZES WITH EQUIPMENT MANUFACTURER FOR THE INDICATED INSTALLATION.
10. REFER TO ALL CONTRACT DOCUMENTS FOR ADDITIONAL REQUIREMENTS AND COORDINATE WORK ACCORDINGLY.
11. ALL FLOOR MOUNTED EQUIPMENT, AND APPURTENANCES SHALL HAVE MINIMUM 6" THICK CONCRETE HOUSEKEEPING PAD AND 6" LARGER THAN FOOT PRINT DIMENSIONS WHETHER SHOWN OR NOT. LOCATE AND SIZE CONCRETE PADS FOR MECHANICAL EQUIPMENT IN ACCORDANCE WITH ACTUAL EQUIPMENT PURCHASED.
12. DO NOT INSTALL PIPING, DUCTWORK OR EQUIPMENT OVER ELECTRICAL EQUIPMENT. PROVIDE REQUIRED CLEARANCES FOR ALL ELECTRICAL EQUIPMENT PER NEC. COORDINATE LOCATIONS OF DUCTWORK, PIPING, AND EQUIPMENT ABOVE CEILINGS WITH CABLE TRAYS.
13. PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE SPECIFICATIONS. ADDITIONAL SUPPORTS OR HANGERS SHALL BE ADJACENT TO ELBOWS, TO PREVENT WEIGHT OF PIPING BEING PLACED ON THE EQUIPMENT.
14. PENETRATIONS IN FIRE RESISTANT RATED ASSEMBLIES SHALL BE IN COMPLIANCE WITH NFPA STANDARDS AND UL LISTED AS A THROUGH-PENETRATION. FIRE STOP ANNULAR SPACE BETWEEN PIPING AND SLEEVE WITH UL LISTED FIRE RATED MATERIAL. WITH A RATING EQUAL TO THE ASSEMBLY BEING PENETRATED. PENETRATIONS AND FIRE STOPPING SHALL BE APPROVED BY THE AHJ AND IN COMPLIANCE WITH THE LATEST EDITION OF THE UL DIRECTORY OF FIRE RESISTANCE.
15. MAINTAIN THE INTEGRITY OF ALL FIRE AND SMOKE RATED ASSEMBLIES WITHIN THE BUILDING AFFECTED BY WORK UNDER THIS CONTRACT. PATCH AND/OR REPAIR ALL FIRE AND SMOKE RATED ASSEMBLIES AS REQUIRED TO MAINTAIN EXISTING OR NEW RATING.

DIFFUSERS, REGISTERS & GRILLES KEYS

GRILLE, REGISTER & DIFFUSER KEY

TAG — THROAT/NECK DIA

1D-Ø-0x0-000(QTY)

THROAT SIZE — BALANCE CFM

DWG. FILENAME:P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\12 Mech_M\02-Sheets\M-001.dwg

SEAL: STATE OF MARYLAND — JOSHUA WARSHINSKY — 22942 — PROFESSIONAL ENGINEER

DATE : AUGUST 18, 2025

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. 22942, EXPIRATION DATE 2026-12-24.

CCJM — ENGINEERING INFRASTRUCTURE SOLUTIONS — 400 East Pratt St, Suite 604, Baltimore, MD — www.ccjm.com | Baltimore@ccjm.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: JW
DWN BY: MS
CHKD BY: UNP

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

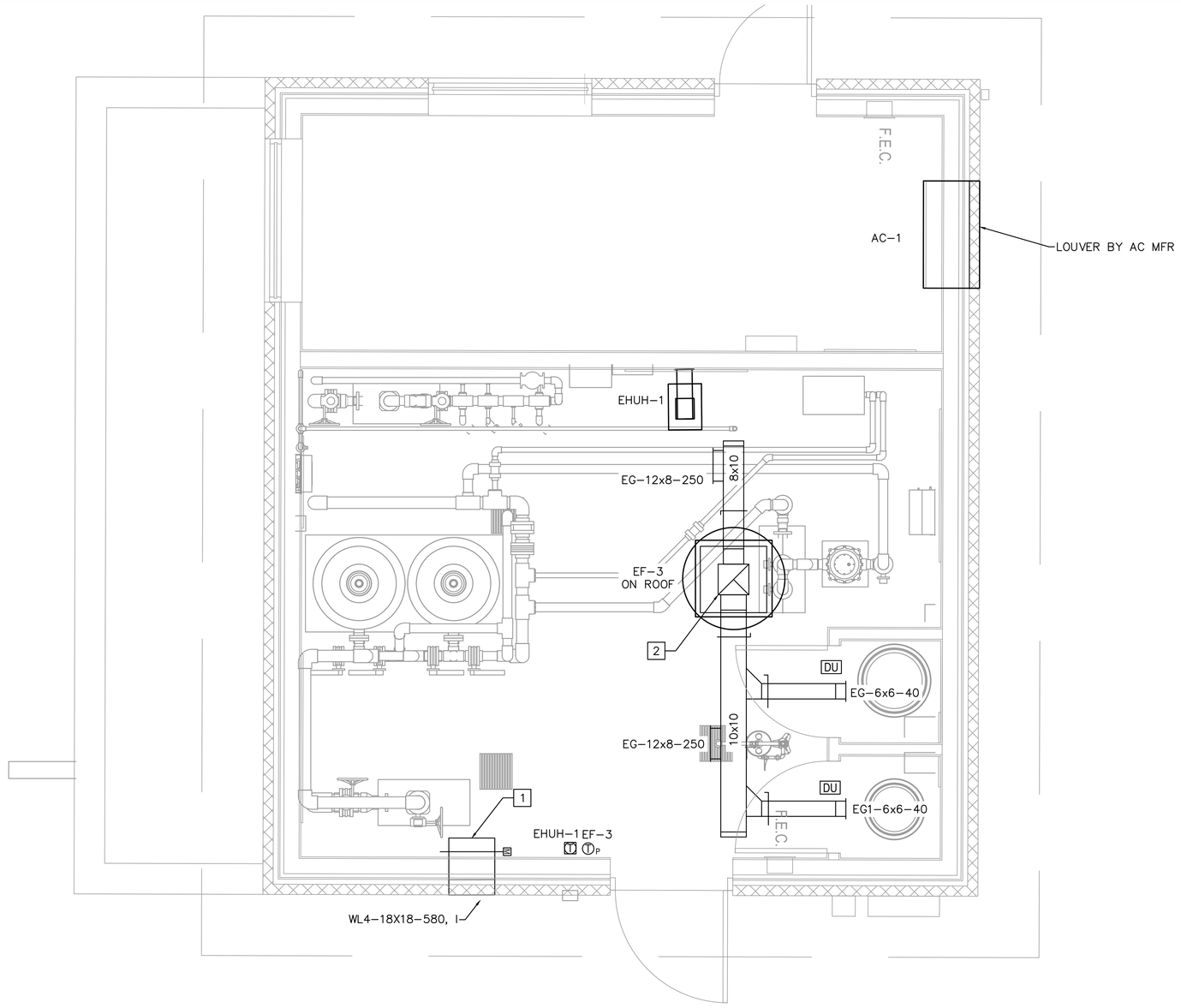
PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
MECHANICAL – SYMBOLS, ABBREVIATIONS AND GENERAL NOTES
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
M-001	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 93 OF 150
	DRAWING NUMBER
	2025-2263
	FILE NO.: 8



GENERAL NOTES

A. REFER TO DRAWING M-001 FOR ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.

DRAWING NOTES

1 PROVIDE 18x18 PLENUM FOR INTAKE LOUVER WITH MOTOR OPERATED DAMPER. INTERLOCK MOTOR OPERATED DAMPER WITH EXHAUST FAN EF-3.

2 PROVIDE 26X26 PLENUM EXHAUST DUCT RISER FROM 12X12 DUCT RISER WITH BACK DRAFT DAMPER IN CURB TRAY.

1 / M-101 EQUIPMENT VAULT DETAIL - NEW WORK
SCALE: 1/2" = 1' - 0"

2' 1' 0 2' 4'
SCALE: 1/2" = 1' - 0"

SEAL
STATE OF MARYLAND
JOSHUA HARSHBERGER
22942
PROFESSIONAL ENGINEER
DATE : AUGUST 18, 2025

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. 22942, EXPIRATION DATE 2026-12-24

CCJM ENGINEERING INFRASTRUCTURE SOLUTIONS
409 East Pratt St, Suite 604, Baltimore, MD
www.ccjm.com | Baltimore@ccjm.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: JW
DWN BY: MS
CHKD BY: UNP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
MECHANICAL - EQUIPMENT VAULT HVAC PLAN - NEW WORK
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

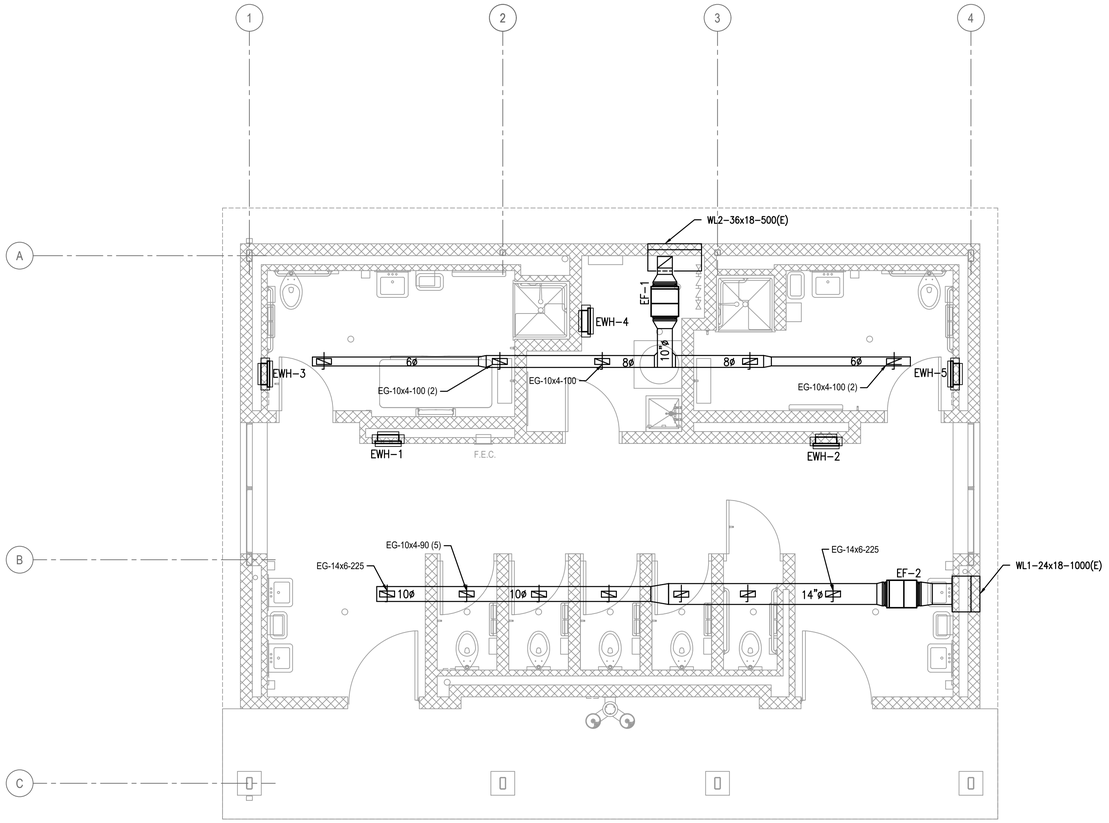
SHEET DESIGNATION	CONTRACT NUMBER
M-101	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 94 OF 150
	DRAWING NUMBER
	2025-2264
	FILE NO.: 8

DWG. FILENAME:P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\12 Mech_M\02-Sheets\M-101.dwg

GENERAL NOTES

A. REFER TO DRAWING M–001 FOR ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.

B. FINAL LOCATIONS AND ELEVATIONS OF EXPOSED DUCTWORK AND GRILLES SHALL BE AS APPROVED BY THE ARCHITECT.



1 / M-102 COMFORT STATION HVAC PLAN - NEW WORK
SCALE: 1/4" = 1' - 0"

4' 2' 0 4' 8'
SCALE: 1/4" = 1' - 0"

DWG. FILENAME:P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\12 Mech_M\02-Sheets\M-102.dwg

SEAL
STATE OF MARYLAND — WASHINGTON NARSIMHAN PANDE — 22942 — PROFESSIONAL ENGINEER
DATE : AUGUST 18, 2025

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. 22942 . EXPIRATION DATE 2026-12-24 .

CCJM ENGINEERING INFRASTRUCTURE SOLUTIONS 400 East Pratt St, Suite 604, Baltimore, MD www.ccjm.com | Baltimore@ccjm.com

AS–BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: JW
DWN BY: MS
CHKD BY: UNP

AS–BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT
| | | | | PNW | 35NW40
| | | | R.O.W NO. | | |
CONTRACT COMPLETION BOX | | | | | |

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY:
PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
MECHANICAL – COMFORT STATION HVAC PLAN – NEW WORK
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
M–102	25114 GX0
	JOB ORDER NUMBER
	PROJ–1000634
	SHEET 95 OF 150
	DRAWING NUMBER
	2025–2265
	FILE NO.: 8

AIR HANDLING EQUIPMENT/POWER VENTILATORS SCHEDULE

TAG	AREA SERVED	DESCRIPTION	MANUFACTURER - MODEL	CAPACITY				ROOF/WALL OPENING	MECHANICAL EFFICIENCY	FAN EFFICIENCY INDEX	SIZE LxWxH OR Ø x H	APPROX. WEIGHT	DETAIL	ACCESSORIES	CONTROLS	REMARKS	FAN DATA			ELECTRICAL (60 HZ)			
				DRIVE	AIRFLOW	ESP	SOUND NC										FAN SPEED	MOTOR SPEED	FAN MOTOR	FAN MOTOR	VOLTS/ PHASE	EMER. POWER	DISC. SWITCH
					CFM	IWG	dBA	INCHES	%		INCHES	LBS	#/SHT#				RPM	RPM	BHP	HP			
EF-1	MECHANICAL ROOM / FAMILY TOILETS	CEILING SUSPENDED, SQUARE INLINE CENTRIFUGAL EXHAUST FAN	LOREN COOK / 120SQN17DO91VF	DIRECT	500	0.80	61	-	38	1.34	22x22x22	120	-	1, 2, 3	ON-AUTO-OFF W/ PROGRAMMABLE TIMER		1440	1725	0.17	0.75	120 / 1	NO	MFR
EF-2	PUBLIC LAVATORY AREAS / TOILET STALLS	CEILING SUSPENDED, SQUARE INLINE CENTRIFUGAL EXHAUST FAN	LOREN COOK / 120SQN17DO92VF	DIRECT	900	0.80	61	-	45	1.43	22x22x22	120	-	1, 2, 3	ON-AUTO-OFF W/ PROGRAMMABLE TIMER		1480	1725	0.25	0.75	120 / 1	NO	MFR
EF-3	EQUIPMENT ROOM / CHEMICAL STORAGE CLOSETS	ROOF MOUNTED, UPBLAST CENTRIFUGAL EXHAUST FAN	LOREN COOK / ACRUD-XP 180RX15D	DIRECT	580	0.80	52	26 X 26	53	N/A	40 Ø x 32	160	-	1, 3, 4, 5	ON-AUTO-OFF W/ PROGRAMMABLE TIMER & SPACE THERMOSTAT		975	1550	0.14	0.50	120 / 1	NO	MFR

AHE SCHEDULE NOTES: (APPLY TO ALL NEW FANS)

1. INSTALL FIXED SHEAVES AFTER FINAL BALANCING FOR EACH BELT DRIVEN FAN.
2. BELT DRIVE FAN: INCLUDES MEDIUM DRIVE LOSS (15-20%). PROVIDE REINFORCED WHEEL, STAINLESS STEEL HARDWARE & SHAFT, EXTENDED LUBE LINES, SPARE BELT SET AND LOREN COOK'S BELT-TENSIONR-ROTARY™ ACCESSORY. 1725-1750 RPM, TEFC MOTORS WITH THERMAL OVERLOAD PROTECTION UNLESS OTHERWISE NOTED.
3. DIRECT DRIVE FANS: 1725-1750 RPM, ECM VARI-FLOW MOTORS WITH THERMAL OVERLOAD PROTECTION UNLESS OTHERWISE NOTED.
4. FACTORY FINISH AND COLOR AS SELECTED BY ENGINEER/OWNER.
5. LOOSE ACCESSORIES SHALL BE FIELD INSTALLED BY INSTALLER.

AHE SCHEDULE OPTIONS/ACCESSORIES:

1. UNIT MOUNTED AND WIRED FAN SPEED CONTROLLER WITH VARI-FLOW ELECTRONICALLY COMMUTATED MOTOR (ECM) BY FAN MFR.
2. LOW LEAKAGE ALUMINUM GRAVITY BACKDRAFT DAMPER, LIGHT GRAY PHENOLIC EPOXY POWDER COATING, ORIFICE PLATE, INLET & OUTLET FLANGED DUCT CONNECTIONS, INSULATED HOUSING, RUBBER-IN-SHEAR RC-75 SET(4) CEILING MOUNTED ISOLATORS
3. NEMA 3R DISCONNECT SWITCH PRE-WIRED WITH FLEXIBLE CONDUIT BY FAN MFR.
4. 24" HIGH ALUMINUM INSULATED ROOF CURB WITH GASKETED WOOD NAILER, HINGED SUBBASE, LOCKING HASP, TIE-DOWN EYELETS. STAINLESS STEEL HARDWARE & SHAFT, ALUMINUM BIRD SCREEN. FAN AND ROOF CURB COLOR AND FINISH AS SELECTED BY ARCHITECT.
5. LOW LEAKAGE, ALUMINUM GRAVITY BACK DRAFT DAMPER IN ROOF CURB WITH DAMPER TRAY.

DESIGN CONDITIONS

AREA/SPACE	HEATING		COOLING		MAXIMUM NC	REMARKS
	DB °F	WB °F / RH %	DB °F	WB °F / DP° °F		
BALTIMORE, MD-AMBIENT (ZONE 4A)	13	-	95	78	-	-
EQUIPMENT VAULT	55	-	-	-	-	1
COMFORT STATION	50	-	-	-	-	1
OFFICE	68	-	78	-	-	-

REMARKS:

1. TAMPERED HEATING FOR FREEZE PROTECTION AND MECHANICAL VENTILATION ONLY.

TERMINAL UNITS (HEATING ONLY) SCHEDULE

TAG	DESCRIPTION	MANUFACTURER MODEL	AIRFLOW (CFM)		FAN ESP/TSP	FAN SPEED	HEATING				SIZE LxWxH	APPROX. WEIGHT	DETAIL	ACCESSORIES/OPTIONS	REMARKS	ELECTRICAL (60 HZ)				
			OA MIN	SA			TYPE	EDB	UNIT LDB	TOTAL						ELEC. HEAT	MOTOR	VOLTS/ PHASE	EMER. POWER	DISC. SWITCH
					IWG			°F	°F	MBH	INCHES	LBS	#/SHT#			KW	HP			
EHUH-1	ELECTRIC HORIZONTAL WASHDOWN/CORROSION RESISTANT UNIT HEATER	INDEECO TRIAD 234-U11N-0080	-	700	-	-	ELECTRIC	50	85	25.6	16x14x22	75	-	A	25 FEET THROW, WALL/CEILING SUSPENDED WITH BOTTOM ELEVATION AT 7'-0"	7.5	1/4	208 / 3	NO	MFR
EWH-1, EWH-2	COMMERCIAL ELECTRIC SEMI-RECESSED WALL HEATER	MARLEY QMARK AWH4408F	--	100	--	--	ELECTRIC	35	85	13.6	16x16x20	35	--	B	1" SEMI-RECESSED UNLESS OTHERWISE INDICATED. SEE PLANS FOR CONFIGURATIONS.	4.0	--	208 / 1	NO	MFR
EWH-3, EWH-4, EWH-5	COMMERCIAL ELECTRIC SEMI-RECESSED WALL HEATER	MARLEY QMARK AWH4408F	--	100	--	--	ELECTRIC	35	85	6.8	16x16x20	35	--	B	1" SEMI-RECESSED UNLESS OTHERWISE INDICATED. SEE PLANS FOR CONFIGURATIONS.	2.0	--	208 / 1	NO	MFR

TERMINAL UNIT SCHEDULE NOTES:

1. AMBIENT 95 °F DB/75 °F WB SUMMER, 10 °F DB WINTER.
2. STARTER/DISCONNECT SWITCH ON UNIT OR WALL MOUNTED AS INDICATED.

TERMINAL UNIT SCHEDULE ACCESSORIES:

A. ELECTRIC UNIT HEATER: WALL OR CEILING MOUNTING SWIVEL HANGER KIT, UNIT MOUNTED POWER DISCONNECT SWITCH, ADJUSTABLE DISCHARGE LOUVERS, "HEATER ON" PILOT LIGHT, MANUAL RESET THERMAL CUTOUT, BUILT-IN FAN RELAY, HEATER-STANDBY-FAN SELECTOR SWITCH, WALL MOUNTED TWO-STAGE NEMA 4X BULB THERMOSTAT (40-100 DEG F).

B. ELECTRIC WALL HEATER: SURFACE MOUNTING BOX FOR FULL SURFACE MOUNTING. EXTENSION SLEEVE FOR 1" OR 2" SEMI-RECESSED MOUNTING TO SUIT WALL THICKNESS & RATING. FACTORY BUILT-IN DISCONNECT SWITCH. TAMPERPROOF BUILT-IN THERMOSTAT, FAN ON/AUTO SWITCH, 24V RELAY WITH TRANSFORMER. COLOR AS SELECTED BY ARCHITECT. MODEL LFKSFCNW 14-GAUGE SECURITY FRONT COVER.

AIR CONDITIONING SYSTEM UNIT SCHEDULE

TAG	LOCATION / AREA SERVED	DESCRIPTION	MANUFACTURER / MODEL	REFERIGERANT	AIRFLOW		SA FAN ESP/TSP	COOLING			HEATING		AHRI EER / COP	SIZE (LxWxH)	APPROX. OPERATING WEIGHT	OPTIONS/ ACCESSORIES	REMARKS	ELECTRICAL (60 HZ)				
					OA CFM	SA CFM	IWG	EAT °F DB/WB	LAT °F DB/WB	COOLING MBH	HEAT PUMP MBH	ELECTRIC HEATER MBH		INCHES	LBS			MOCP	AMPS	VOLTS / PHASE	EMER. POWER	DISC. SWITCH
AC-1	EQUIPMENT BUILDING / OFFICE	PACKAGED THROUGH WALL HEAT PUMP UNIT (PTAC)	GE ZONELINE / AZHS09DRXXA	R-454B	40	400 / 290	- / -	80 / 67	-	9.6	7.9	9.4	12.4 / 3.7	42x21x16	120	A, B	COORDINATE WALL OPENING TO SUIT BLOCK COURSING	20	13.6	208 / 1	NO	ELEC

AIR CONDITIONING UNIT SCHEDULE NOTES:

1. AMBIENT 95 °F DB/77 °F WB SUMMER, 0 °F DB/-2 °F WB WINTER.
2. MAXIMUM COIL FACE VELOCITY OF 525 FPM FOR HEATING COIL AND 500 FPM FOR COOLING COILS.

COMPONENTS/OPTIONS/ACCESSORIES: (REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

A. SEE SPECIFICATIONS FOR ADDITIONAL FEATURES, OPTIONS, ACCESSORIES, ETC.
B. FRP WALL SLEEVE WITH STAINLESS STEEL LOCKING COMPONENTS, STAINLESS STEEL WALL SUPPORT BRACKETS, CARBON FILTERS, INTERNAL CONDENSATE REMOVAL, SUPPLEMENTAL ELECTRIC BOOSTER HEAT, POWER CONNECTOR KIT, EXTRUDED ALUMINUM ARCHITECTURAL GRILLE (RAG42AA)
C. --
D. --

GRILLE, REGISTER AND DIFFUSER SCHEDULE

TAG	DESCRIPTION	MANUFACTURER MODEL	MODEL	MATERIAL/FINISH NOTE 1	REMARKS
EG1	EXHAUST GRILLE	TUTTLE & BAILEY	T70DSS	STAINLESS STEEL / SATIN	HORIZONTAL, HEAVY DUTY DEFLECTED FACE BARS AT 3/4" SPACING. 316 STAINLESS STEEL OR FRP MANUAL VOLUME DAMPER IN DUCT TAKE-OFF.
EG	SPIRAL DUCT EXHAUST GRILLE	TUTTLE & BAILEY	SDAPG-R	ALUMINUM / MATCH PAINT	3/16" HOLES ON 1/4" STAGGERED CENTERS PERFORATED GRILLE WITH RADIUS ENDCAPS, FULL PERIMETER GASKETING, AND DAMPER/EXTRACTOR (DMPX).

GRD SCHEDULE NOTES:

1. MATCH PAINT TO ADJACENT SURFACES WHERE INDICATED OR SPECIFIED. FINAL FINISH AND COLOR SHALL BE AS SELECTED BY OWNER/ARCHITECT.

LOUVERS SCHEDULE

TAG	DESCRIPTION	MANUFACTURER/ MODEL	DIMENSIONS		AIRFLOW	FLOW DIRECTION	FREE AREA	FREE AREA	MAX. FREE AREA VELOCITY	PRESSURE DROP	STILL WATER PENETRATION VELOCITY	REMARKS
			WIDTH	HEIGHT								
		RUSKIN	INCHES		CFM		SQ. FT.	%	FPM	IN. W.G	FPM	
WL-1	4" EXTRUDED ALUMINUM STATIONARY DRAINABLE LOUVER	ELF375DXH	24	18	1000	EXHAUST	1.25	42	800	0.12	N/A	COORDINATE LOCATION WITH ARCH. DRAWINGS
WL-2	4" EXTRUDED ALUMINUM STATIONARY DRAINABLE LOUVER	ELF375DXH	36	18	500	EXHAUST	1.92	43	300	0.01	N/A	COORDINATE LOCATION WITH ARCH. DRAWINGS
WL-3	4" EXTRUDED ALUMINUM STATIONARY DRAINABLE LOUVER	ELF375DXH	18	18	580	EXHAUST	0.91	40	640	0.07	N/A	COORDINATE LOCATION WITH ARCH. DRAWINGS
WL-4	4" EXTRUDED ALUMINUM STATIONARY DRAINABLE LOUVER	ELF375DXH	18	18	580	INTAKE	0.91	40	640	0.08	875	COORDINATE LOCATION WITH ARCH. DRAWINGS

LOUVER SCHEDULE NOTES:

1. WINDOW/WALL OPENINGS SHALL BE FIELD COORDINATED BY CONTRACTOR AND NOTIFY THE ARCHITECT IF DIFFERENT LOUVER SIZES ARE REQUIRED.
2. REFER TO ARCHITECTURAL DRAWINGS FOR LOUVER ELEVATIONS AND INSTALLATION DETAILS.

LOUVER OPTIONS/ACCESSORIES: (APPLY TO ALL LOUVERS)

1. ALUMINUM INSECT SCREEN FOR EXHAUST LOUVERS, ALUMINUM SNOW SCREEN FOR INTAKE LOUVERS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. CONCEALED MULLION FOR ALL LOUVERS FOR SEAMLESS APPEARANCE.

GENERAL CONSTRUCTION NOTES

1. MANUFACTURERS AND MODEL NUMBERS ARE NOTED TO ESTABLISH DESIGN QUALITY AND PERFORMANCE CRITERIA ONLY, OTHER MANUFACTURERS MAY BE ACCEPTABLE.
2. EQUIPMENT/FIXTURES/SPECIALTIES MANUFACTURER AVAILABLE FOR CONSTRUCTION OF THIS PROJECT MAY DIFFER WITH RESPECT TO PHYSICAL SIZE, CONNECTION LOCATIONS AND SIZES. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE PURCHASED EQUIPMENT/FIXTURES/SPECIALTIES WITH THE CONDITIONS DEPICTED HEREIN AND MAKE ALL NECESSARY ADJUSTMENTS WITHOUT ANY ADDITIONAL COSTS.
3. ALL FIXTURES/EQUIPMENT/SPECIALTIES INDICATED HERE MAY NOT APPEAR ON THE CONTRACT DRAWINGS.

DWG. FILENAME:P:\21202d.001 NWRP Renovations_MRA\01 DRAWINGS\12 Mech_M\02-Sheets\M-600.dwg

SEAL — STATE OF MARYLAND — PROFESSIONAL ENGINEER — 22942
DATE : AUGUST 18, 2025

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. 22942, EXPIRATION DATE 2026-12-24.

CCJM — ENGINEERING INFRASTRUCTURE SOLUTIONS — 400 East Pratt St, Suite 604, Baltimore, MD — www.ccjm.com | Baltimore@ccjm.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: JW
DWN BY: MS
CHKD BY: UNP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
			R.O.W NO.	PNW	35NW40
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
MECHANICAL – SCHEDULES
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
M-600	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 96 OF 150
	DRAWING NUMBER
	2025-2266
	FILE NO.: 8

NOTE:
LEGENDS ARE GENERAL, NOT ALL SYMBOLS, ABBREVIATIONS, AND/OR DESIGNATIONS MAY APPEAR ON THE DRAWINGS.

PLUMBING

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFLR	ABOVE FLOOR LEVEL RIM
AHU	AIR HANDLING UNIT
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
AV	ACID VENT
AVR	ACID VENT RISER
AW	ACID WASTE
BLW	BELOW
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BFP	BACKFLOW PREVENTER
BJ	BETWEEN JOISTS
BLDG	BUILDING
BOT	BOTTOM
BTU	BRITISH THERMAL UNIT
CB	CATCH BASIN
CIB	CAST IRON BOOT
CIP	CAST IRON PIPE
CLG	CEILING
CO	CLEANOUT
CONC	CONCRETE
CONN	CONNECT OR CONNECTION
CONSTR	CONSTRUCT/CONSTRUCTION
CONT	CONTINUED/CONTINUATION
COORD	COORDINATE
CHKV	CHECK VALVE
CW	COLD WATER
DEG OR °	DEGREE
DF	DRINKING FOUNTAIN
DHW	DOMESTIC HOT WATER
DIA OR Ø	DIAMETER
DISC	DISCONNECT
DN	DOWN
DR	DRAIN
DWG	DRAWING
(E) /EXST	EXISTING
EC	ELECTRICAL CONTRACTOR
ECO	EXTERIOR CLEANOUT
ELEC	ELECTRICAL
EL	ELEVATION
ERD	EXISTING ROOF DRAIN
EWS	EYE WASH STATION
EWC	ELECTRIC WATER COOLER
ETR	EXISTING TO REMAIN
EXIST	EXISTING
EXP	EXPOSED
F	FAHRENHEIT
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FF EL	FINISH FLOOR ELEVATION
FIN GR	FINISH GRADE
FLR	FLOOR
FLA	FULL LOAD AMPERES
FLR SK	FLOOR SINK
FT	FOOT OR FEET
FT HD	FEET OF HEAD
FUT	FUTURE
FV	FLUSH VALVE
FV XFMR	FLUSH VALVE TRANSFORMER
GA	GAUGE OR GAGE
GAL	GALLON
GC	GENERAL CONTRACTOR
GEN	GENERAL
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
G	GROUND OR GRADE
GTV	GATE VALVE
HT	HEIGHT
HC	HEATING (HVAC) CONTRACTOR
HCP	HANDICAPPED (ACCESSIBLE)
HP	HORSE POWER
HR	HOUR
HWR	HOT WATER RECIRCULATION
Hz	HERTZ (FREQUENCY)
ID	INSIDE DIAMETER
IN OR "	INCH
INT	INTERIOR
INV	INVERT
IW	INDIRECT WASTE
KW	KILOWATT
KWH	KILOWATT HOUR
LAV	LAVATORY
LF	LINEAR FEET (FOOT)
LBS OR #	POUNDS
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MSB	MOP SERVICE BASIN
MSB (E)	MOP SERVICE BASIN (EXISTING)
MTD	MOUNTED
MTG	MOUNTING
NA	NOT APPLICABLE
N/E	NORMAL/EMERGENCY POWER
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OFD	OVERFLOW DRAIN
OPNG	OPENING
PLBG	PLUMBING
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP OR DIFFERENCE
PH	PHASE
PIP	PRE-INSULATED PIPE
PR	PUMPED RETURN
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE OR PRESSURE RELIEF VALVE
PSI	POUNDS PER SQUARE INCH
RD	ROOF DRAIN
RI	ROUGH-IN
RPM	REVOLUTIONS/MINUTE
RPZ	REDUCED PRESSURE ZONE
RV	RELIEF VALVE
RWL	RAIN WATER LEADER
S&C	STUB & CAP
S&W	SOIL AND WASTE
SAN	SANITARY
SHT	SHEET
SP	SUMP PUMP
SPEC	SPECIFICATION
SQ	SQUARE
SS	SERVICE SINK
SSD	SUBSOIL DRAIN
ST W	STORM WATER
STD	STANDARD
STL	STEEL
SUSP	SUSPENDED
SW	SWITCH
TEMP	TEMPERATURE
TDH	TOTAL DYNAMIC HEAD
THRU	THROUGH
TJ	THROUGH JOISTS
TW	TEMPERED WATER
TWMV	THERMOSTATIC WATER MIXING VAVLE
TYP	TYPICAL
UE	UNDER ELECTRICAL
UG	UNDER GENERAL
UH	UNIT HEATER, UNDER HVAC
UP	UNDER PLUMBING
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
VAC	VACUUM
V	VENT
VFD	VARIABLE FREQUENCY DRIVE
VIF	VERIFY IN FIELD
VR	VENT RISER
VS	VENT STACK
VTR	VENT THROUGH ROOF
W	WASTE
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WCO	WALL CLEANOUT
WG	WATER GAGE
WHA	WATER HAMMER ARRESTOR
WM	WATER METER
WP	WEATHERPROOF
WPD	WATER PRESS DROP
WT	WEIGHT
WTR	WATER TEMPERATURE RISE
XFMR	TRANSFORMER
YCO	YARD CLEANOUT

PIPING SPECIALTIES

- PIPE ANCHOR
- END CAP
- PIPE DROP
- PIPE RISER
- PIPE TEE OFF BOTTOM
- CONCENTRIC/ECCENTRIC REDUCER
- UNION (SCREWED)
- UNION (FLANGED)
- PRESSURE/ TEMPERATURE TEST FITTING
- ALIGNMENT GUIDE
- EXPANSION JOINT W/ ALIGNMENT GUIDES
- FLEXIBLE CONNECTOR
- EXPANSION COMPENSATOR
- EXPANSION LOOP
- STRAINER WITH HOSE END BLOW OFF VALVE
- STRAINER
- PUMP
- BALANCING VALVE
- BALL VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- DRAIN VALVE
- GATE VALVE
- GLOBE VALVE
- NEEDLE VALVE
- PLUG VALVE
- PRESSURE REDUCING VALVE
- PRESSURE REGULATOR VALVE
- PRESSURE RELIEF VALVE
- SAFETY RELIEF VALVE
- SHUT OFF VALVE
- SOLENOID VALVE
- STOP CHECK VALVE
- THROTTLE VALVE
- TRIPLE-DUTY VALVE
- DOUBLE CHECK VALVE
- HOT WATER TEMPER VALVE
- GAS COCK/GAS STOP VALVE
- COMPRESSED AIR SHUT-OFF VALVE
- THERMOMETER (DIAL TYPE)
- THERMOMETER (STEM TYPE)
- PRESSURE GAUGE WITH NEEDLE VALVE
- FLOW METER
- ROOF DRAIN (RD)
- OVERFLOW ROOF DRAIN (ORD)
- FLOOR SINK (FS)
- FLOOR DRAIN (FD)
- OPEN SITE DRAIN
- WATER HAMMER ARRESTER
- CO — FLOOR CLEANOUT
- CO — WALL CLEANOUT
- CO — OVERHEAD PIPE CLEANOUT
- HOSE BIBB (HB)
- WALL HYDRANT (WH)

PIPING DESIGNATIONS

- DOMESTIC COLD WATER PIPING
- DOMESTIC HOT WATER PIPING
- 140 — DOMESTIC 140°F HOT WATER PIPING
- DOMESTIC HOT WATER RECIRCULATION PIPING
- 140R — DOMESTIC HIGH TEMP. WATER RECIRCULATION PIPING
- TW — TEMPERED HOT WATER PIPING
- SS — SANITARY SEWER PIPING (ABOVE FLOOR)
- SS — SANITARY SEWER PIPING (BELOW FLOOR)
- SSx — SANITARY SEWER PIPING (EXISTING)
- CD — CONDENSATE DRAIN
- ST — STORM SEWER PIPING (ABOVE FLOOR)
- EST — EMERGENCY STORM SEWER PIPING (ABOVE FLOOR)
- ST — STORM SEWER PIPING (BELOW FLOOR)
- EST — EMERGENCY STORM SEWER PIPING (BELOW FLOOR)
- PSAN — PUMPED SANITARY PIPING
- V — VENT PIPING
- G — NATURAL GAS (LOW PRESSURE) PIPING
- MPG — NATURAL GAS (MEDIUM PRESSURE) PIPING
- HPG — NATURAL GAS (HIGH PRESSURE) PIPING
- GV — NATURAL GAS VENT
- A — COMPRESSED AIR
- DE — DEIONIZED WATER PIPING
- FOD — FUEL OIL DISCHARGE
- FOG — FUEL OIL GAGE
- FOS — FUEL OIL SUPPLY
- FOR — FUEL OIL RETURN
- FOV — FUEL OIL VENT
- WO — WASTE OIL
- ACID — ACID WASTE
- AV — ACID VENT
- DE — DEIONIZED WATER
- GW — GREASE WASTE WATER
- CSB — POWER WASHING SYSTEM CONDUIT, BLUE ZONE
- CSG — POWER WASHING SYSTEM CONDUIT, GREEN ZONE
- CSR — POWER WASHING SYSTEM CONDUIT, RED ZONE
- CONTINUED
- FLOW DIRECTION

NOTE:
ABOVE LEGEND IS STANDARD. ALL SYMBOLS DO NOT NECESSARILY APPEAR ON THE CONTRACT DOCUMENTS.

ANNOTATIONS

- AREA OF REVISION
- REVISION SEQUENCE NUMBER
- NEW WORK KEYED NOTE
- DEMOLITION KEYED NOTE
- POINT OF CONNECTION TO EXISTING SYSTEM
- POINT OF DISCONNECTION FROM EXISTING SYSTEM
- 1 / M-5xx — DETAIL NUMBER / SHEET NUMBER
- 1 / M-3xx — SECTION NO / SHEET NO
- #X — PHOTO SECTION (DIRECTION OF VIEW)
- EXISTING TO REMAIN
- NEW WORK
- DEMOLITION WORK
- ABCD — EXISTING (INDICATED W/ SLANTED TEXT)

NOTE:
LEGENDS ARE GENERAL, NOT ALL SYMBOLS AND/OR DESIGNATIONS MAY APPEAR ON THE DRAWINGS.

PLUMBING GENERAL NOTES

1. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE APPROXIMATE ARRANGEMENT OF THE EXISTING SYSTEMS. THE CONTRACTOR SHALL FIELD VERIFY EXACT INFORMATION, DIMENSIONS, LOCATIONS, ETC. AS NECESSARY AND PERFORM WORK ACCORDINGLY. NOT ALL INFORMATION IS SHOWN.
2. REFER TO ALL CONTRACT DOCUMENTS FOR ADDITIONAL REQUIREMENTS AND COORDINATE WORK ACCORDINGLY.
3. REFER TO STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR OPENING REINFORCEMENT, EQUIPMENT SUPPORTS, LINTELS, AND CONCRETE PADS UNLESS OTHERWISE INDICATED.
4. ALL FLOOR MOUNTED EQUIPMENT, AND APPURTENANCES SHALL HAVE MINIMUM 6" THICK CONCRETE PAD WITH CHAMFERED EDGES, WHETHER SHOWN OR NOT.
5. INCLUDE ALL INCIDENTAL WORK REQUIRED FOR THE WORK INCLUDING TEMPORARY DISCONNECTION, RELOCATION, AND REINSTALLATION OF THE OBSTRUCTIONS SUCH AS PIPING, CONDUITS, DUCTWORK, DOORS, BEAMS, JOISTS, SPRINKLERS, ETC. WHETHER SHOWN OR NOT. COORDINATE TEMPORARY SHUTDOWNS WITH OWNER'S REPRESENTATIVE AS SPECIFIED.
6. ROUGH-IN AND CONNECT STORM WATER, HW, CW, VENT, SANITARY, AND WASTE LINES TO FIXTURES AND EQUIPMENT IN ACCORDANCE WITH SIZES INDICATED ON FIXTURE & EQUIPMENT SCHEDULES, DETAILS, RISER DIAGRAMS, FLOW DIAGRAMS, AND IN ACCORDANCE WITH THE PLUMBING CODE WHICH EVER IS THE MOST STRINGENT. NO PIPING SHALL BE SMALLER THAN 3/4" UNLESS OTHERWISE NOTED.
7. ALL DIMENSIONS, AND PIPE SIZES ARE IN INCHES UNLESS NOTED OTHERWISE.
8. PROVIDE 2" MINIMUM SIZE SANITARY, WASTE, AND VENT PIPING BELOW GROUND/FLOOR INSIDE BUILDING REGARDLESS OF SIZE INDICATED ON PLUMBING FIXTURE SCHEDULE.
9. PROVIDE ALL PIPING WITHIN BUILDING THERMAL ENVELOPE, ABOVE FINISHED CEILINGS UNDER BUILDING ROOF INSULATION AND ON THE CONDITIONED SPACE SIDE OF THE BUILDING INSULATION, UNLESS NOTED OTHERWISE. UNLESS OTHERWISE NOTED, PIPING SHALL BE RUN AS HIGH AS POSSIBLE, CONCEALED ABOVE CEILINGS, IN WALLS AND PARTITIONS, AND IN PIPE CHASES.
10. PROVIDE ACCESS PANELS, FIRE-RATED WHERE REQUIRED FOR ACCESS TO ALL CONCEALED VALVES, TRAPS, COMPONENTS OR OTHER EQUIPMENT FURNISHED UNDER THIS CONTRACT WHERE NO OTHER MEANS IS PROVIDED. PROVIDE BEADED EDGE IN GYPSUM BOARD WALLS AND CEILING.
11. COORDINATE WALL, ROOF, FLOOR, AND CEILING OPENINGS FOR NEW PIPE RISERS, AND CONDUIT PENETRATIONS. PROVIDE SLEEVES AROUND PIPES THROUGH NEW WALLS/PARTITIONS.
12. FIELD VERIFY AND COORDINATE PIPING AND PROVIDE OFFSETS TO ACCOMMODATE PIPING THROUGH/BETWEEN JOISTS, BETWEEN BEAMS AND BUILDING STRUCTURE, WALL STUDS, ETC. AT NO ADDITIONAL COST.
13. EQUIPMENT, APPLIANCES, ETC.; STRUCTURAL JOISTS, BEAMS, ETC.; AND LIGHTING FIXTURES, ELECTRICAL EQUIPMENT; ETC. WHERE SHOWN ARE FOR REFERENCE ONLY. VERIFY IN FIELD. REFER TO RESPECTIVE DRAWINGS AND EXISTING RECORD DRAWINGS WHERE AVAILABLE.
14. ALL EQUIPMENT, AND PIPING SHALL BE SUPPORTED FROM JOIST TOP CHORD, UNLESS OTHERWISE NOTED. DO NOT SUPPORT ANYTHING FROM ROOF DECK.
15. ALL OPENINGS IN PIPES OR FITTINGS SHALL BE KEPT PLUGGED OR CAPPED UNTIL CONNECTED.
16. PROVIDE SUFFICIENT NUMBER OF UNIONS/FLANGES IN ALL PIPE LINES TO ALLOW REMOVAL OF PIPES WITHOUT BREAKING FITTINGS AND AT ALL EQUIPMENT CONNECTIONS.
17. RUNOUTS TO EQUIPMENT AND FIXTURES SHALL BE RUN IN SIZES INDICATED AND INCREASED OR REDUCED AT POINT OF FINAL CONNECTION TO EQUIPMENT AND FIXTURES.
18. CONNECT AND EXTEND CONDENSATE DRAIN PIPING FROM EACH AHU, RTU, AC UNITS, CRACU, DSSU, ETC. TO NEAREST ROOF DRAIN / SCUPPER OR FLOOR DRAIN OR EXTEND AT LEAST 25 FEET IN THE DIRECTION OF ROOF SLOPE WHERE ROOF DRAIN DOES NOT EXIST UNLESS OTHERWISE INDICATED. ROUTING SHALL NOT INTERFERE WITH PASSAGEWAYS AND MAINTENANCE. PROVIDE CONDENSATE TRAPS FOR ALL CONDENSATE DRAIN CONNECTS, SEE TYPICAL DETAIL FOR INSTALLATION. SLOPE SUSPENDED DRAIN PIPING.
19. DO NOT INSTALL PIPING, EQUIPMENT, AND APPURTENANCES OVER ELECTRICAL EQUIPMENT. PROVIDE REQUIRED CLEARANCES FOR ALL ELECTRICAL EQUIPMENT PER ELECTRICAL CODE (NEC). COORDINATE LOCATIONS OF PIPING, AND EQUIPMENT ABOVE CEILINGS WITH CABLE TRAYS.
20. COORDINATE MOUNTING HEIGHTS OF ALL EQUIPMENT, FIXTURES AND CONSTRUCTION BEFORE ROUGH-IN. FOR HANDICAPPED/ACCESSIBLE PLUMBING FIXTURES, CONFIRM EXACT MOUNTING HEIGHT WITH AUTHORITY HAVING JURISDICTION AND ADJUST WORK AS REQUIRED BEFORE INSTALLATION.
21. PROVIDE WATER HAMMER ARRESTORS ON DOMESTIC HW AND CW PIPING AT EVERY FIXTURE GROUP, LOCATE IN ACCESSIBLE POSITION FOR SERVICING.
22. LOCATE ALL VENTS A MINIMUM OF 10 FEET AWAY FROM HVAC OUTSIDE AIR INTAKES AND BUILDING OPENINGS. ALL VENTS THRU ROOF SHALL TERMINATE A MINIMUM OF 24" ABOVE ROOF. ALL PLUMBING VENT RISERS IN EXTERIOR WALLS SHALL BE OFF-SET A MINIMUM OF 4'-0" AT ROOF BEFORE ROOF PENETRATION.
23. FURNISH OPERATIONAL, MAINTENANCE AND EMERGENCY INSTRUCTIONS TO THE OWNER'S REPRESENTATIVES BEFORE ANY PART OF THE SYSTEM IS TURNED OVER TO THE OWNER, AND SUBMIT WRITTEN CONFIRMATION TO THE ARCHITECT/ENGINEER AND GOVERNMENT.
24. TEST INSTALLATION IN ACCORDANCE WITH THE APPROPRIATE CODE REQUIREMENTS AND SPECIFICATIONS IN PRESENCE OF OWNER'S REPRESENTATIVES. NOTIFY THE OWNER AND ENGINEER PRIOR TO TESTING SYSTEM. SUBMIT TESTING REPORTS IN OPERATION AND MAINTENANCE MANUALS.
25. FURNISH AND INSTALL WATER METER WITH REMOTE READER AT LOCATION INDICATED BY OWNER. WATER METER AND READER SHALL BE PROVIDED IN ACCORDANCE WITH OWNER'S REQUIREMENTS. ALL WIRING AND APPURTENANCES SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. FURNISH AND INSTALL A TOTAL OF 1 METER SYSTEM.
26. SHOULD ANY CHANGES OCCUR DUE TO COORDINATION WITH OTHER BUILDING TRADES AND CONFLICT WITH THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SUBMIT FOR THE ARCHITECT/ENGINEER'S APPROVAL AN ALTERNATIVE METHOD OF COMPLETING THE WORK ACCORDING TO THE INTENT OF THE CONTRACT DOCUMENTS.

DWG. FILENAME:P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\10 Plumb_P\02-Sheets\P-001.dwg

SEAL — STATE OF MARYLAND — ANDREW NARSHUTKIN — 22942 — PROFESSIONAL ENGINEER

DATE : AUGUST 18, 2025

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. 22942 , EXPIRATION DATE 2026-12-24 .

CCJM — ENGINEERING INFRASTRUCTURE SOLUTIONS — 400 East Pratt St, Suite 604, Baltimore, MD — www.ccjm.com | Baltimore@ccjm.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: JW
DWN BY: MS
CHKD BY: UNP

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

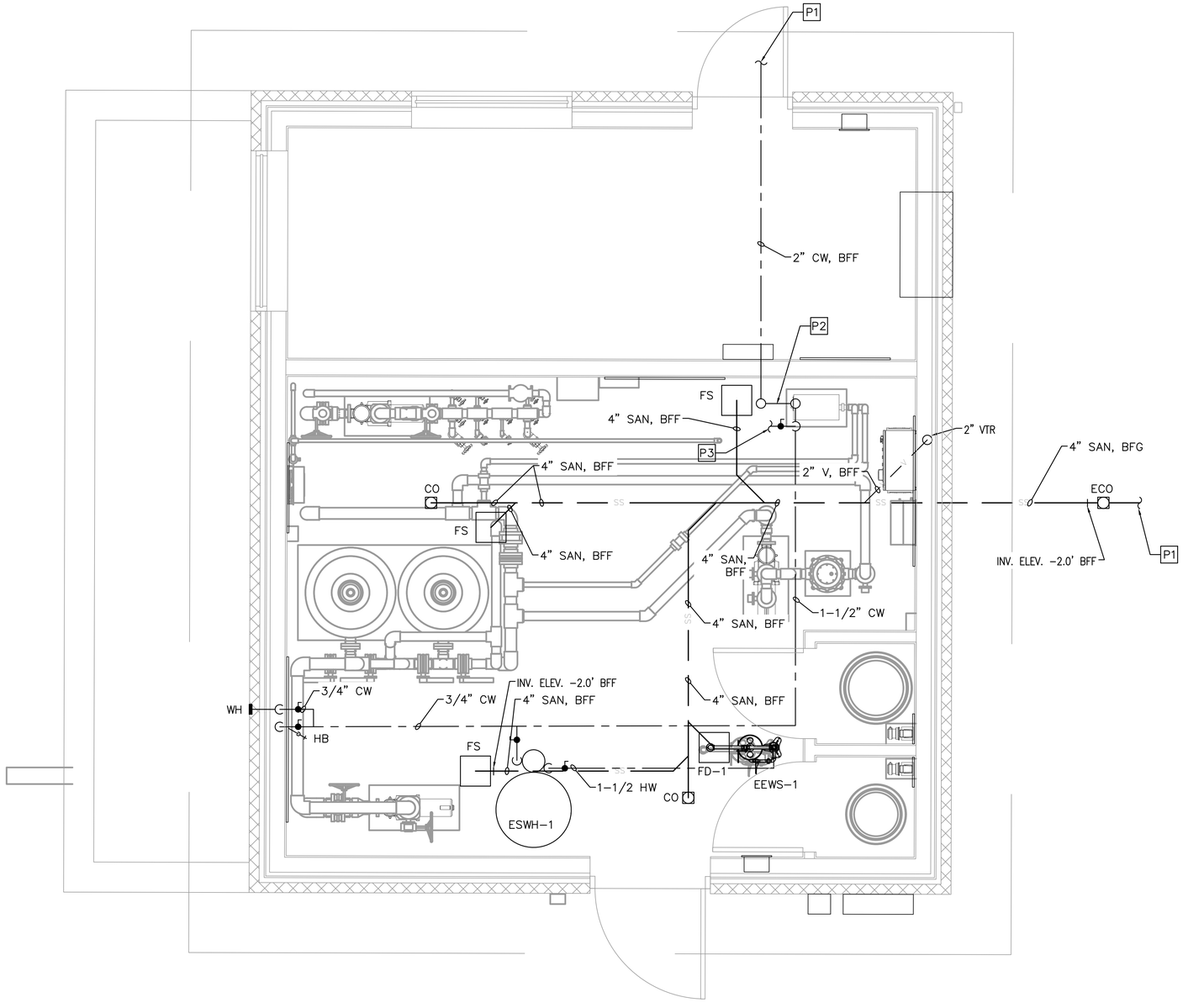
PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
PLUMBING – SYMBOLS, ABBREVIATIONS, GENERAL NOTES AND SCHEDULES
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
P-001	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 97 OF 150	
DRAWING NUMBER	2025-2267
FILE NO.: 8	REV. 00/00



XX	KEYED NEW WORK NOTES (WHERE SHOWN ON PLANS)
NOTE #	KEYED NOTE DESCRIPTION
P1	SEE CIVIL DRAWINGS FOR CONTINUATION.
P2	PROVIDE BACKFLOW PREVENTER BFP-2 WITH VERTICAL RISERS.
P3	1" COLD WATER TAP FOR PROCESS MECHANICAL USE. SEE PROCESS MECHANICAL DRAWINGS FOR CONTINUATION.

1 / P-101 EQUIPMENT VAULT PLAN - NEW WORK
SCALE: 1/2" = 1' - 0"

4' 2' 0 4' 8'
SCALE: 1/4" = 1' - 0"

DWG. FILENAME:P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\10 Plumb_P\02-Sheets\P-101.dwg

SEAL
STATE OF MARYLAND — MARK NICHOLAS SCHLOSS — 22942 — PROFESSIONAL ENGINEER
DATE : AUGUST 18, 2025

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. 22942 . EXPIRATION DATE 2026-12-24 .

CCJM ENGINEERING INFRASTRUCTURE SOLUTIONS 400 East Pratt St, Suite 604, Baltimore, MD www.ccjm.com | Baltimore@ccjm.com
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AS-BUILT / REVISION | BY | DATE
CONTRACT COMPLETION BOX

P.W.A. NO. | KEY SHEET | POSITION SHT
R.O.W NO. | PNW | 35NW40

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

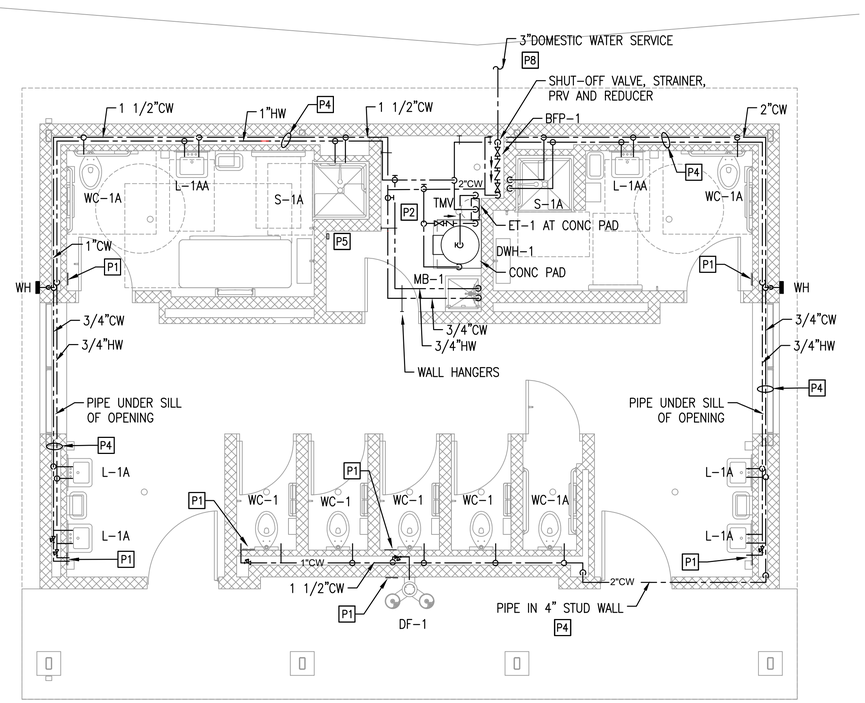
PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
PLUMBING – EQUIPMENT VAULT PLUMBING PLAN – NEW WORK
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

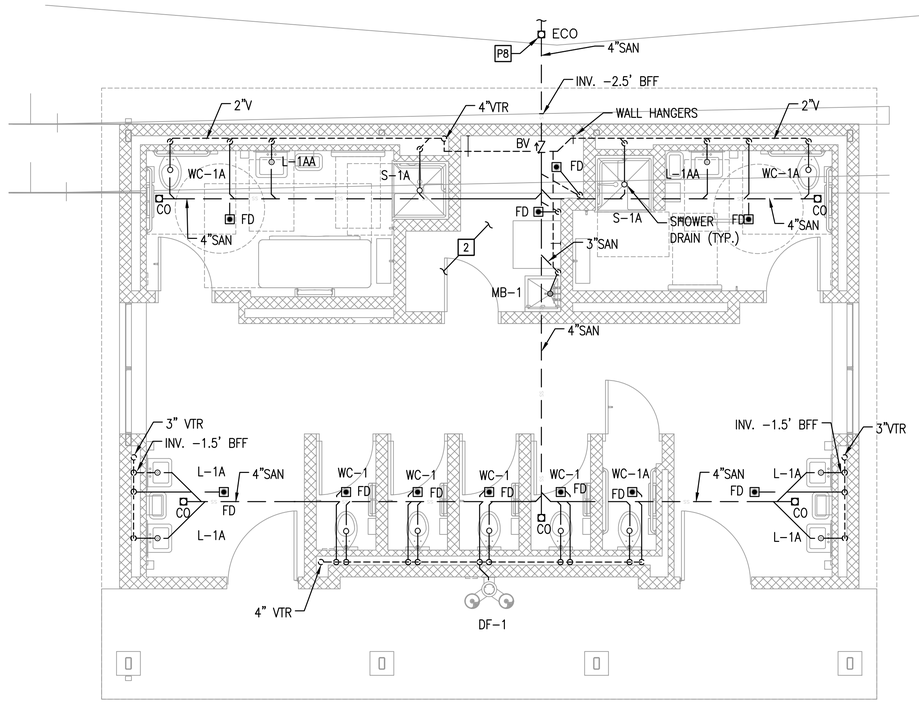
SHEET DESIGNATION	CONTRACT NUMBER
P-101	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 98 OF 150
	DRAWING NUMBER
	2025-2268
	FILE NO.: 8



1 P-102 PLUMBING PLAN DOMESTIC WATER - NEW WORK

SCALE: 1/4" = 1' - 0"

P7



2 P-102 PLUMBING PLAN SANITARY & VENT - NEW WORK

SCALE: 1/4" = 1' - 0"

P7

XX	KEYED NEW WORK NOTES (WHERE SHOWN ON PLANS)
NOTE #	KEYED NOTE DESCRIPTION
P1	SLOPE PIPING TOWARDS DRAIN VALVE. DRAIN VALVE AT LOW POINT. PROVIDE 8"X8" WALL ACCESS PANEL.
P2	INSTALL PIPE CLOSE TO WALLS AND PROVIDE WALL HANGERS IN UTILITY ROOM.
P3	NEW BACK WATER VALVE BV. PROVIDE SOIL PIPE EXTENSION TO EXTEND FERRULE AND COVER FLUSH WITH FINISHED FLOOR.
P4	PROVIDE HEAT TRACING FOR CW AND HW PIPING IN THE EXTERIOR WALL. 120V-1PH-60HZ, 3W/FT WITH POWER CONNECTION, END SEAL SPLICE TEE KIT, LINE TEMPERATURE SENSOR AND SET AT 40 DEG F ADJUSTABLE. PROVIDE ONE POWER CIRCUIT FOR CW PIPING AND ONE POWER CIRCUIT FOR HW PIPING
P5	PROVIDE ADJUSTABLE MECHANICAL THERMOSTAT FOR HEAT TRACING CABLE.
P6	RUN PIPING IN WALL CAVITY UNDER THE WINDOW SILL
P7	ANY PIPING SHALL NOT BE RUN IN FRONT OF THE WINDOWS AND SHALL BE SUBJECT TO ARCHITECT'S APPROVAL FOR AESTHETICS.
P8	REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE AND ALIGN INVERT ELEVATIONS.

4' 2' 0 4' 8'

SCALE: 1/4" = 1' - 0"

DWG. FILENAME:P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\10 Plumb_P\02-Sheets\P-102.dwg

SEAL

STATE OF MARYLAND — JOSEPH FRANKLIN NARSINGHANI — 22942 — REGISTERED PROFESSIONAL ENGINEER

DATE : AUGUST 18, 2025

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. 22942, EXPIRATION DATE 2026-12-24.

CCJM ENGINEERING INFRASTRUCTURE SOLUTIONS 400 East Pratt St, Suite 904, Baltimore, MD www.ccjm.com | Baltimore@ccjm.com

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CHKD BY: UNP

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R.O.W NO. | PNW | 35NW40

CONTRACT COMPLETION BOX

DRAWING SCALE

PLAN SCALE: AS SHOWN

PROFILE SCALE:

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER

DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

PLUMBING – COMFORT STATION PLUMBING PLAN – NEW WORK

SPLASH PAD AND SUPPORTING FACILITIES

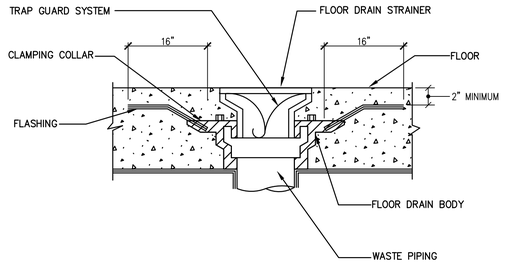
SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

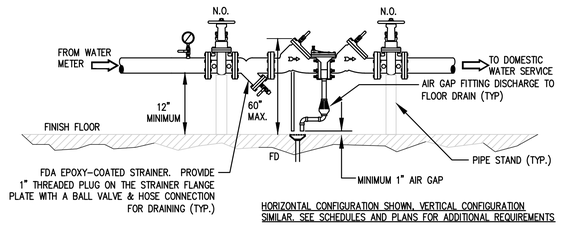
BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
P-102	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 99 OF 150
	DRAWING NUMBER
	2025-2269
	FILE NO.: 8



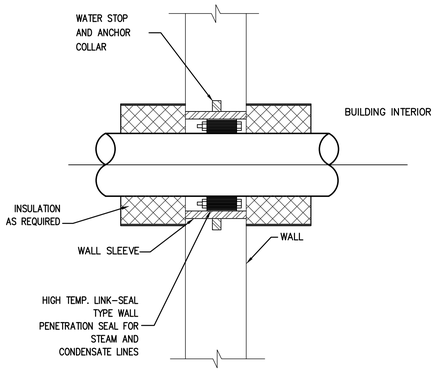
1 FLOOR DRAIN INSTALLATION – TYPICAL

SCALE: NONE



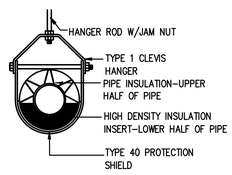
2 BACKFLOW PREVENTER – TYPICAL

SCALE: NONE



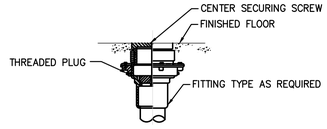
3 EXTERIOR WALL PIPE PENETRATION–TYPICAL

SCALE: NONE



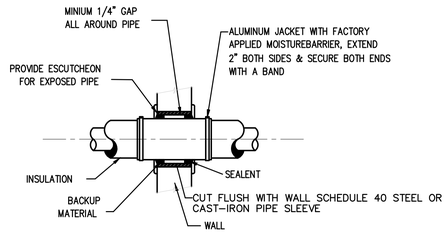
4 INSULATED PIPE HANGER–TYPICAL

SCALE: NONE



5 FLOOR CLEANOUT–TYPICAL

SCALE: NONE



6 PIPE PENETRATION–TYPICAL

SCALE: NONE

DWG. FILENAME:P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\10 Plumb_P\02-Sheets\P-500.dwg

SEAL

STATE OF MARYLAND — JOSHUA NARSINGH — 22942 — PROFESSIONAL ENGINEER

DATE : AUGUST 18, 2025

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. 22942 . EXPIRATION DATE 2026-12-24 .

CCJM ENGINEERING INFRASTRUCTURE SOLUTIONS 400 East Pratt St, Suite 604, Baltimore, MD www.ccjm.com | Baltimore@ccjm.com

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DGN BY: JW

DWN BY: MS

CHKD BY: UNP

AS–BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

R.O.W NO. | PNW | 35NW40

CONTRACT COMPLETION BOX

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE

PLAN SCALE: AS SHOWN

PROFILE SCALE:

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER

DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

PLUMBING – DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

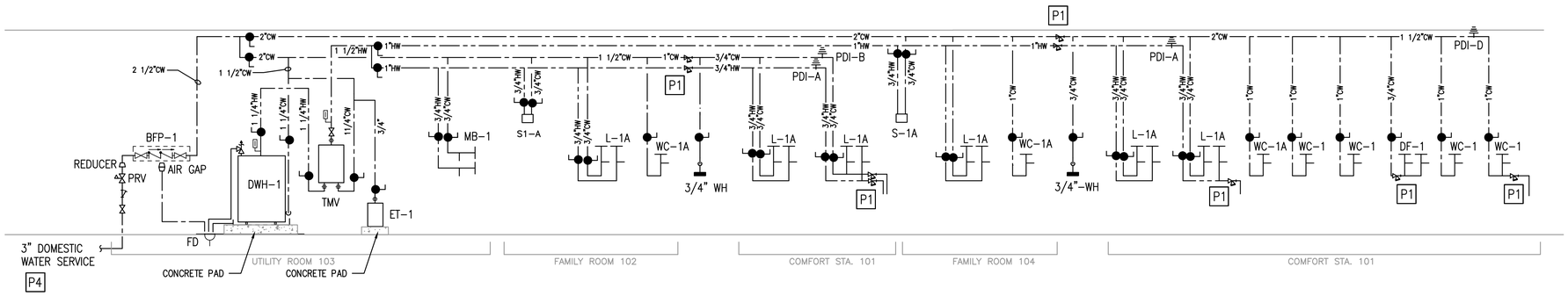
SHEET DESIGNATION	CONTRACT NUMBER
P–500	25114 GX0
	JOB ORDER NUMBER
	PROJ–1000634
	SHEET 100 OF 150
	DRAWING NUMBER
	2025–2270
	FILE NO.: 8

KEYED NEW WORK NOTES

(WHERE SHOWN ON PLANS)

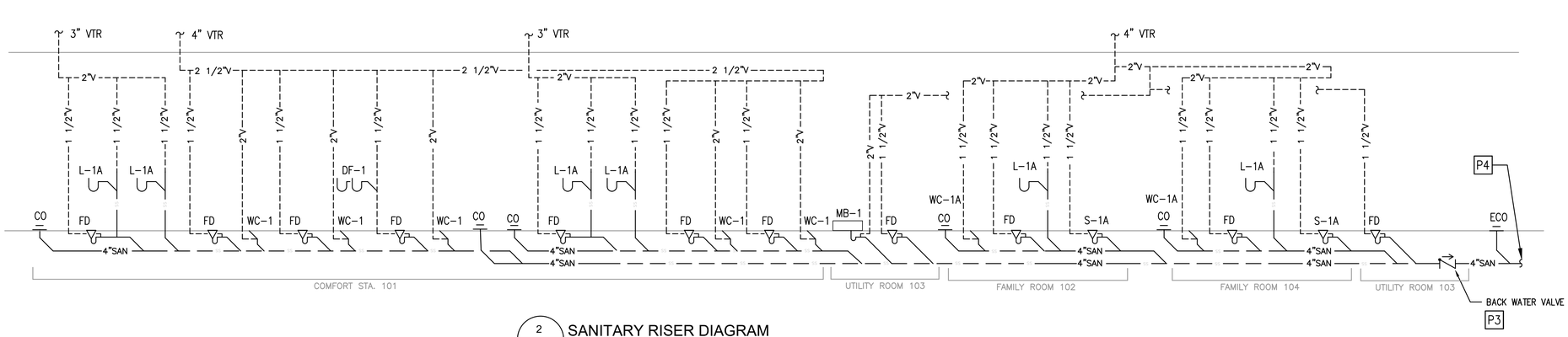
XX

NOTE #	KEYED NOTE DESCRIPTION
P1	DRAIN VALVE AT LOW POINT AND MINIMUM 8"X8" WALL ACCESS PANEL, SEE PLAN SHEET.
P2	INSTALL SHUT-OFF VALVES IN ACCESSIBLE LOCATIONS AND PROVIDE ACCESS PANELS WHERE CONCEALED.
P3	BACK WATER VALVE BV. PROVIDE SOIL PIPE EXTENSION TO EXTEND FERRULE AND COVER FLUSH WITH FINISHED FLOOR.
P4	REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE AND ALIGN INVERT ELEVATIONS.



1 / P-600 DOMESTIC WATER RISER DIAGRAM

SCALE: NONE P2



2 / P-600 SANITARY RISER DIAGRAM

SCALE: NONE

DWG. FILENAME:P:\21\2022.001 NWRP Renovations_MRA\01 DRAWINGS\10 Plumb_P\02-Sheets\P-600.dwg

SEAL

STATE OF MARYLAND — MICHAEL RAKSNIS — 22942 — PROFESSIONAL ENGINEER

DATE : AUGUST 18, 2025

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. 22942, EXPIRATION DATE 2026-12-24.	CCJM ENGINEERING INFRASTRUCTURE SOLUTIONS 400 East Pratt St, Suite 604, Baltimore, MD www.ccjm.com | Baltimore@ccjm.com	DGN BY: JW
AS-BUILT PER RECORD PRINT		DWN BY: MS
BY: DATE:		CHKD BY: UNP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
			R.O.W NO.	PNW	35NW40
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER

DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

PLUMBING – RISER DIAGRAMS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
P-600	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 101 OF 150
	DRAWING NUMBER
	2025-2271
	FILE NO.: 8

PLUMBING FIXTURES SCHEDULE

TAG	DESCRIPTION	CONNECTIONS ROUGH-IN SIZE (INCHES)					REMARKS
		COLD WATER	HOT WATER	TEMPERED WATER	WASTE	VENT	
WC-1	WATER CLOSET	1"	-	-	4"	2"	1.28 GPF, FLOOR MOUNTED TOILET WITH 15" AFF RIM HEIGHT. TOTO MODEL CT705ENG WATER CLOSET; SC534 ELONGATED OPEN FRONT SEAT, COLOR-01 COTTON, FLUSH VALVE-SLOAN REGAL 111-1.6 (CODE NO 3080053)
WC-1A	WATER CLOSET - ADA	1"	-	-	4"	2"	ACCESSIBLE, 1.28 GPF, FLOOR MOUNTED, WITH 17" AFF RIM HEIGHT. TOTO MODEL CT705ELNG WATER CLOSET; SC534 ELONGATED OPEN FRONT SEAT, COLOR-01 COTTON, FLUSH VALVE-SLOAN REGAL 111-1.6 (CODE NO 3080053)
L-1A	LAVATORY-ADA	1/2"	1/2"	-	2"	1-1/2"	ACCESSIBLE, WALL MOUNTED LAVATORY WITH FRONT INTEGRAL OVERFLOW, 4" CENTER SET, FLAT STRAINER DRAIN, COLOR 01 COTTON, TOTO MODEL LT307.4. MANUAL TYPE FAUCET WITH 4" WRIST BLADE HANDLES, 1.2 GPM LAMINAR SPRAY OUTLET MOEN MODEL 8215SMF12.
S-1A	SHOWER-ADA	1/2"	1/2"	-	3"	1-1/2"	ACCESSIBLE, 1.5 GPM, WATER SENSE CERTIFIED. BARDLEY MODEL HN300-HDT1-SF-LHV-LBJ-ST-HS-NS-NONE-AP-BP-NONE-NONE SHOWER CONTROLS. OTHER ACCESSORIES AND SHOWER MODULE SPECIFIED ON ARCHITECTURAL PLANS & SPECIFICATIONS
MB-1	MOP BASIN	3/4"	3/4"	-	3"	2"	FLOOR MOUNTED MOP BASIN 24"x24"x10"-3" CB DRAIN. MATERIAL-VERITEK, SWAN MODEL MS-2424. FIAT FAUCET MODEL 830AA000, CHROME PLATED, W/BACK FLOW PREVENTER AND VACUUM BREAKER. HOSE AND BRACKET MODEL FIAT 832AA.
EEWS-1	EMERGENCY EYE WASH / SHOWER	-	-	1-1/4"	-	-	FLOOR MOUNTED, ALL STAINLESS STEEL. BRADLEY MODEL S19314SC
DF-1	OUTDOOR WATER FOUNTAIN W/ BOTTLE FILLER - ADA	3/4"	-	-	1-1/2"	1-1/2"	ACCESSIBLE WALL MOUNTED, DUAL STATION WATER FOUNTAIN WITH BOTTLE FILLING STATION, LEAD FREE, VANDAL-RESISTANT BUBBLER, FLEXIBLE BUBBLE GUARD, STAINLESS STEEL FINISH. ELKAY MODEL LK4409BF. [NOTE 5]
FD	FLOOR DRAIN	-	-	-	3"	1 1/2"	DEEP SEAL TRAP WITH PROSET TRAP GUARD
--	--	-	-	-	-	-	-

SCHEDULE NOTES:

1. COORDINATE MOUNTING HEIGHTS AND LOCATIONS FOR ALL FIXTURES BEFORE INSTALLATION, REFER TO ARCHITECTURAL ELEVATION DRAWINGS. ROUGH-IN AND INSTALL BARRIER-FREE/ACCESSIBLE FIXTURES PER ADA REQUIREMENTS. COORDINATE AUTOMATIC FLUSH VALVE HEIGHT WITH GRAB BARS.
2. FAUCET AS SPECIFIED; OFFSET TRAP; PROVIDE INSULATION ON WASTE AND WATER SUPPLIES.
3. PROVIDE FLOOR MOUNTED CHAIR-CARRIER TYPE FIXTURE SUPPORTS FOR EACH OFF-THE-FLOOR MOUNTED FIXTURE SUCH AS LAVATORIES, URINALS, WATER CLOSETS, WATER COOLERS, AND SIMILAR OTHER FIXTURES.
4. PROVIDE STAINLESS STEEL ACCESS PANELS WHERE EQUIPMENT IS CONCEALED.
5. HEAVY DUTY, ONE-PIECE CONSTRUCTION, CHROME PLATED BRASS, VANDAL-RESISTANT BUBBLERS WITH MECHANICAL BUTTON ACTIVATION. PROVIDE CANE APRON LKAPREZL, FRONT ACCESS STAINLESS STEEL PANEL, MLP200 IN-WALL SUPPORT FRAME, AND . 8 GPH CAPACITY.
6. PIPE WASTE FROM THE FIXTURE AS INDIRECT WASTE TO NEAREST FLOOR DRAIN/FLOOR SINK. PROVIDE READY ACCESS FOR INDIRECT WASTE PIPING FOR MEANS OF FLUSH COLLECTION PER OSHA MANDATED USER TESTING.
7. PROVIDE MANUFACTURED PROTECTIVE SHIELDING PIPE COVERS AND ENCLOSURES FOR COVERING EACH ADA PLUMBING FIXTURE HOT- AND COLD-WATER SUPPLIES AND TRAP AND DRAIN PIPING TO COMPLY WITH ADA REQUIREMENTS. TRUEBRO LAV GUARD2 OR APPROVED EQUAL.

PLUMBING SPECIALTIES SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	CAPACITY	REMARKS
CO	CLEANOUT - FLOOR (VCT/CERAMIC TILE)	ZURN	ZB-1400-BP-TX	MINIMUM 4" OR LINE SIZE (UNO)	NOTE 1
ECO	CLEANOUT - EXTERIOR	ZURN	Z-1400-BP-HD	MINIMUM 4", LINE SIZE (UNO)	
WCO	CLEANOUT - WALL	ZURN	Z-1447-BP	MINIMUM 4" OR LINE SIZE (UNO)	NOTE 1
BFP-1	BACK FLOW PREVENTER-REDUCED PRESSURE	ZURN	475V-FSC-FG-V-BG	90 GPM @12 PSI WPD, 3"	PROVIDE MODEL AG AIR GAP, MODEL 1260XL SHOCK ARRESTOR, MOUNT AT MAX 36" AFF.
BFP-2	BACK FLOW PREVENTER-REDUCED PRESSURE	ZURN	975XL3-SXL-SE-U	50 GPM @12 PSI WPD, 2"	PROVIDE MODEL AG AIR GAP, MODEL 1260XL SHOCK ARRESTOR, MOUNT AT MAX 36" AFF.
CO AP	CLEANOUT - ACCESS PANEL	ACUDOR	UF-5000-PS-CL-16X16	--	PROVIDE FOR ALL WALL CLEANOUTS
FD	FLOOR DRAIN - VCT/CERAMIC TILE	ZURN	ZN-415-6S-HD-VP	6" X 6" HEAVY DUTY STRAINER, MIN. 3" OR LINE SIZE (UNO)	PROVIDE DEEP SEAL TRAP AND PROSET TRAP GUARD. NOTE 2
FD-1	FLOOR DRAIN - DRENCH / EMERGENCY SHOWER DRAIN	ZURN	Z-673-DG-SS-TS-VP	29" X 30" EXTRA HEAVY DUTY DRAIN, MIN. 4" OR LINE SIZE (UNO)	PROVIDE DEEP SEAL TRAP AND PROSET TRAP GUARD.
FS	FLOOR SINK	ZURN	ZM-1851-KC-VP-HD	12" X 12" HEAVY DUTY SLOTTED GRATE, MIN. 4" OR LINE SIZE (UNO)	PROVIDE DEEP SEAL TRAP AND PROSET TRAP GUARD. 8" DEEP BODY AND STAINLESS STEEL SEDIMENT BUCKET
WHA	WATER HAMMER ARRESTER	ZURN	Z-1260XL	SELECT SIZES AS PER PDI & MFR	SEE PLANS
PRV	PRESSURE REDUCING VALVE	ZURN	ZW209ZHPSP OR 500XL3-DU-Y-G	80 GPM @ 0.8 PSI WPD, LINE SIZE (UNO)	SEE PLANS
HB	HOSE BIBB	ACORN ENGINEERING	8131CP-LF	5 GPM - 3/4" SIZE	CHROME-PLATED POLISHED FINISH WITH ASSE 1011 VACUUM BREAKER, MOUNT 36" ABOVE FINISHED FLOOR.
WH	WALL HYDRANT	ZURN	Z-1320-CXL-WC-34EL	10GPM-3/4" SIZE	RECESSED MOUNT 36" AFF. COORDINATE WITH ARCHITECTURAL DWGS FOR WALL THICKNESS
BWV	BACKWATER VALVE FOR SANITARY	ZURN	Z1088-BV-24	4" SIZE	PROVIDE SOIL PIPE AS REQUIRED TO EXTEND FERRULE AND COVER TO LEVEL WITH FLOOR.
TMV	THERMOSTATIC MIXING VALVE	POWERS	INTELLISTATION 2 - IS2100VL	15 GPM @ 2 PSI DROP	PROVIDE SURFACE MOUNTED CABINET

PLUMBING SPECIALTIES SCHEDULE NOTES:

1. CLEANOUT COVERS TO MATCH EXISTING SIZE AND SHAPE FOR ALL FLOOR AND WALL CLEANOUTS TO SUIT FINISHES IN PROJECT WORK AREA, WHETHER SHOWN OR NOT.
2. FLOOR DRAIN STRAINERS TO MATCH SIZE AND SHAPE FOR ALL FLOOR DRAINS TO SUIT FINISHES IN PROJECT WORK AREA, WHETHER SHOWN OR NOT.

PLUMBING EQUIPMENT SCHEDULE

TAG #	DESCRIPTION	MANUFACTURER	MODEL	CAPACITY	SIZE DIA x H (INCHES)	WEIGHT (LBS.)	DETAIL	REMARKS
ET-1	EXPANSION TANK	WESSELS	TXA-50-WG	13 GALLON	14 X 24	65	--	WORKING PRESSURE 250 PSI, SMART WESSGUARD TANK PROTECTION. PROVIDE 6" CONCRETE PAD. NSF 372 COMPLIANT

DOMESTIC WATER HEATERS SCHEDULE

TAG #	SERVICE/LOCATION	TYPE	STORAGE CAPACITY (GALLONS)	GAS INPUT (MBH)	STORAGE TEMPERATURE SETTING (°F)	RECOVERY RATE (GALLONS/HOUR)	CONNECTIONS			DIMENSIONS DIA X HEIGHT (INCHES)	SHIPPING WEIGHT (LB.)	ELECTRICAL DATA (60 HZ)				BASIS OF DESIGN		EXPANSION TANK	REMARKS
							FLUE DIAMETER (IN.)	GAS (IN.)	WATER IN/OUT (IN.)			WATTS	VOLTS	PHASE	FLA	MANUFACTURER	MODEL		
DWH-1	UTILITY ROOM 103	ELECTRIC - STORAGE TANK	80	-	140	62 @ 90 °F RISE	-	-	1-1/4" 1-1/4"	26 X 60	280	13,500	208	3	37.5	AO SMITH	DRE-80A-13.5	ET-1	SEE NOTES 1, 2, 3 & 4. 3-YEAR WARRANTY. SEE RISER DIAGRAM 1/P-600.
ESWH-1	EMERGENCY SAFETY SHOWER / EQUIPMENT VAULT	ELECTRIC EMERGENCY SAFETY SHOWER WATER HEATER	119	-	170	20.5 @ 120 °F RISE	-	--	1-1/2" / 1-1/4"	30 X 70	900	6000	208	3	18	THERM OMEGA TECH	ESS 389-004060-000	INTEGRAL	SEE NOTES 4. 5-YEARS NON PRORATED TANK WARRANTY.

NOTES:

1. PROVIDE DRAIN VALVE, SURFACE MOUNTED TEMPERATURE CONTROLS, CONTACTORS, OVERLOAD PROTECTION AND PRESSURE & TEMPERATURE RELIEF VALVE. ASME CONSTRUCTION.
2. PROVIDE 2" DEEP ALUMINUM DRAIN PAN W/ 3/4" DRAIN EXTENDED TO FLOOR DRAIN.
3. PROVIDE THERMOSTATIC MIXING VALVE TMV-1 IN SURFACE MOUNT STEEL CABINET.
4. PROVIDE 6" CONCRETE PAD AND EXTEND 6" ON EACH SIDE.

DWG. FILENAME:P:\21\2022.001 NWRP Renovations_MRA\01 DRAWINGS\10 Plumb_P\02-Sheets\P-601.dwg

SEAL

STATE OF MARYLAND — JOSHUA NARSINGH PATEL — 22942 — PROFESSIONAL ENGINEER

DATE : AUGUST 18, 2025

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. 22942, EXPIRATION DATE 2026-12-24.

CCJM — ENGINEERING INFRASTRUCTURE SOLUTIONS — 400 East Pratt St, Suite 604, Baltimore, MD — www.ccjm.com | Baltimore@ccjm.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: JW
DWN BY: MS
CHKD BY: UNP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET: PNW
POSITION SHT: 35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
PLUMBING – SCHEDULES
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
P-601	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 102 OF 150	DRAWING NUMBER
2025-2272	FILE NO.: 8

GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE ALL WORK WITH EXISTING FIELD CONDITIONS AND THE WORK OF OTHER TRADES. UNRESOLVEABLE CONFLICTS OR INTERFERENCES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT, ENGINEER, AND OWNER.
2. DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL OF THE RACEWAYS, BOXES, PENETRATIONS, SUPPORTS AND OTHER COMPONENTS THAT ARE REQUIRED TO COMPLETE THE WORK. ONLY MAJOR ITEMS ARE SHOWN ON THE DRAWINGS. PROVIDE ALL WORK AS REQUIRED FOR A COMPLETE AND FULLY FUNCTIONING ELECTRICAL SYSTEM.
3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF ALL APPLICABLE CODES && REGULATIONS.
4. BEFORE BEGINNING ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 1-800-257-7777 AT LEAST 3 WORKING DAYS PRIOR TO STARTING WORK SO THEY CAN ARRANGE TO MARK THE HORIZONTAL LOCATION OF THEIR UNDERGROUND FACILITIES. ANY PERMITS OR COST ASSOCIATED WITH "MISS UTILITY" ARE THE RESPONSIBILITY OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, AT HIS OR HER OWN EXPENSE, AND TO THE SATISFACTION OF THE UTILITY OWNER, DAMAGE TO ANY UTILITY CAUSED BY HIS OR HER WORK. S/HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE UTILITY OWNER OF ANY DAMAGE TO THE UTILITY BY REASON OF HIS OR HER OPERATION.
6. SOIL EROSION AND SEDIMENT CONTROL PROCEDURES, AS DEFINED IN THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE INDICATED ON CIVIL DRAWINGS. CONTRACTOR SHALL EXERCISE CAUTION TO AVOID DAMAGE TO ALL INLETS.
7. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE PRIOR TO BIDDING AND START OF CONSTRUCTION. CONTRACTOR SHALL VISIT THE JOB SITE AND EXAMINE THE EXISTING CONDITIONS THAT MAY MAY AFFECT ITS WORK/BID. IF DISCREPANCIES ARE FOUND, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
8. FOR ALL PAVEMENT REMOVAL AREAS, NEATLY SAW CUT ALL EDGES.
9. ALL AREAS AND EXISTING ELEMENTS DISTURBED OR DAMAGED BY THE CONTRACTOR'S WORK SHALL BE RESTORED TO MATCH EXISTING CONDITIONS OR BETTER CONDITIONS ACCEPTABLE TO THE OWNER.
10. PREPARE SOIL AND SEED ALL LAWN AREAS DISTURBED BY CONTRACTORS, VEHICULAR MOVEMENT OR STORAGE IN ACCORDANCE WITH SPECIFICATIONS DUE TO INCIDENTAL ACTIVITIES NOT SHOWN ON THE DRAWINGS BUT ASSOCIATED WITH WORK.
11. THERE SHALL BE NO CONSTRUCTION ACTIVITIES AND CONSTRUCTION VEHICLES ACCESS ALLOWED OUTSIDE THE LIMITS OF WORK. NO STORAGE OF MATERIALS ALLOWED OUTSIDE THE LIMITS OF WORK. LIMITS OF WORK TO BE DETERMINED AT PRE-CONSTRUCTION MEETING.
12. MINIMIZE EQUIPMENT ACTIVITY WITHIN THE DRIP-LINE OF EXISTING TREES. THERE SHALL BE NO STORAGE OF MATERIALS OR EQUIPMENT PERMITTED WITHIN THE DRIP-LINE OF EXISTING TREES. CONTRACTOR TO SCHEDULE A PRE-CONSTRUCTION WALK TO VERIFY TREE PROTECTION REQUIREMENTS WITH THE ENGINEER.
13. ALL OUTDOOR CONNECTIONS SHALL BE WATERTIGHT.
14. UNLESS OTHERWISE NOTED ONLY THE CONDUCTORS WHICH SERVES LIGHTING STRUCTURES SHALL ENTER THE FOUNDATION OF THE STRUCTURE. ALL OTHER CONDUCTORS SHALL REMAIN UNSPLICED AND BYPASS THE FOUNDATION.
15. INSTALL ELECTRICAL EQUIPMENT AND WIRING AS PER NEC AND ALL APPLICABLE CODES & PER AUTHORITY HAVING JURISDICTION.
16. ALL ELECTRICAL MATERIAL TO BE USED SHALL BE NEW AND UL LISTED.
17. EQUIPMENT MANUFACTURER'S WRITTEN INSTALLATION AND ALL LABELS AND WARNING AFFIXED TO THE INSTALLED EQUIPMENT SHALL BE STRICTLY ADHERED TO.
18. ALL ELECTRICAL MATERIAL SHALL BE AS PER SPECIFICATIONS AND DRAWINGS AND SHALL BE APPROVED BY ENGINEER PRIOR TO SUPPLY.
19. ALL WIRING SHALL BE COPPER. MINIMUM SIZE SHALL BE #12AWG.
20. PROVIDE GROUNDING AS PER NEC ARTICLE #250 AND AUTHORITY HAVING JURISDICTION. ALL EXPOSED NON-CURRENT CARRYING METAL PARTS OF EQUIPMENT AND ENCLOSURES SHALL BE GROUNDED AS PER NEC.
21. ALL CONNECTIONS BETWEEN GROUND RODS AND GROUND CABLE SHALL BE BY MECHANICAL MEANS SUITABLE FOR DIRECT BURIAL.
22. PROVIDE INSULATED GROUND WIRE FOR ALL CIRCUIT RUNS.
23. CONDUCTORS SHALL NOT BE SPLICED EXCEPT IN STRUCTURES, HANDHOLE, AND PULL OR JUNCTION BOXES.
24. SIZE AND QUANTITY OF WIRING AND CONDUIT INDICATED ON THE PANELBOARD SCHEDULES SHALL APPLY TO THE ENTIRE LENGTH OF THE BRANCH CIRCUIT OR FEEDER, THROUGH ANY SWITCHES / DISCONNECT SWITCHES / STARTERS / JUNCTION BOXES OR OTHER INTERMEDIATE POINTS, ALL THE WAY UP TO THE FINAL LOAD UNLESS OTHERWISE NOTED.
25. PROVIDE INDEPENDENT SUPPORTS FOR ALL FREESTANDING EQUIPMENT AND DEVICES. SUPPORTS SHALL BE BOLTED TO THE FLOOR AND/OR CEILING.
26. CONTRACTOR IS RESPONSIBLE FOR PAYING ALL ELECTRICAL PERMITS REQUIRED BY THE COUNTY AND STATE.
27. CONTRACTOR SHALL BE ENTIRELY RESPONSIBLE FOR TEMPORARY POWER AS REQUIRED. CONTRACTOR SHALL MAKE THE APPLICATION TO THE ELECTRIC UTILITY; PAY FOR ALL REQUIRED FEES; AND, PROVIDE ALL TEMPORARY ELECTRICAL CONNECTIONS AND EQUIPMENT.
28. WHEN CONDUIT OR ELECTRICAL EQUIPMENT IS TO BE INSTALLED NEAR UTILITIES OR STORM DRAIN PIPES, PROVIDE A MINIMUM OF FIVE FEET HORIZONTAL AND ONE FOOT VERTICAL SEPARATION BETWEEN THE TWO FACILITIES UNLESS APPROVED OTHERWISE BY THE ENGINEER.
29. CONDUIT RUNS OR PULL BOXES SHALL NOT BLOCK OR PREVENT FULL, COMPLETE ACCESS AND/OR OPERATION OF HVAC EQUIPMENT, ACCESS DOORS, PIPING VAULTS, JUNCTION BOXES, MAIN RETURN AIR DUCTS, PULL BOXES, CLEANOUTS, ETC.
30. VERIFY CLEARANCES FOR ALL NEW ELECTRICAL WORK BEFORE PROCEEDING WITH CONSTRUCTION. COORDINATE USAGE OF AVAILABLE SPACE WITH ALL TRADES. IN THE EVENT OF CONFLICTS, NOTIFY THE ARCHITECT/ENGINEER AND OWNER BEFORE PROCEEDING WITH THE WORK.
31. SEAL ALL NEW WALL AND FLOOR CONDUIT PENETRATIONS.
32. COORDINATE ALL WORK INVOLVING SECURITY AND COMMUNICATIONS EQUIPMENT/DEVICES WITH OWNER'S OIT DEPARTMENT.

GENERAL DEMOLITION NOTES

1. INCLUDE ALL DEMOLITION REQUIRED TO COMPLETE ALL WORK JOB AS SHOWN ON PLANS. CONTRACTOR IS RESPONSIBLE FOR MAKING SITE VISIT TO VERIFY DEMOLITION REQUIREMENTS PRIOR TO BIDDING. CONTRACTOR IS DIRECTED TO REVIEW ALL PLANS, DETAILS, AND SPECIFICATIONS OF PROJECT RELATIVE TO THE EXTENT OF DEMOLITION REQUIRED. CONTRACTOR'S BID SHALL BE BASED ON THE RESULTS OF HIS OR HER OBSERVATION AS TO THE EXTENT OF DEMOLITION REQUIRED.
2. DEMOLITION ITEMS SHALL INCLUDE ALL WORK REQUIRED TO REMOVE ITEMS FROM SITE COMPLETELY.
3. REMOVE CONCRETE FOOTING 12" MIN. BELOW FINISHED GRADE. IF THE CONCRETE FOOTING PREVENTS INSTALLING PROPOSED STRUCTURES, REMOVE THE CONCRETE FOOTING IN ITS ENTIRETY.
4. NO ITEMS ARE TO BE BURNED OR BURIED ON THE SITE.
5. PERMITS AND FEES REQUIRED FOR ANY DEMOLITION / DISPOSAL WORK MUST BE OBTAINED BY THE CONTRACTOR AT HIS OR HER EXPENSE.

SYMBOLS

- H — HANDHOLE, FOR POWER. DETAIL 3/E-501
- C — HANDHOLE, FOR COMMUNICATIONS, DETAIL 3/E-501. COORDINATE ALL WORK WITH OWNER OIT DEPARTMENT.
- M — UTILITY METER
- NEW PANELBOARD
- DIRECT BURIED CONDUIT
- UGE — UNDERGROUND CONDUIT – POWER
- COMM — UNDERGROUND CONDUIT – COMMUNICATIONS/SECURITY
- BRANCH CIRCUIT WIRING, #12 UNLESS OTHERWISE NOTED. HASH MARKS INDICATE NUMBER OF WIRES. GROUND WIRE NOT SHOWN, BUT SHALL PROVIDED AS PER NEC. NO HASH MARK INDICATES 2 HOT WIRES & 1 GROUND WIRE.
- A(1,3) — HOMERUN TO PANEL. HASH MARKS INDICATE NUMBER OF WIRES. LETTER DENOTES PANEL DESIGNATION, NUMBER DENOTES CIRCUIT NUMBER, NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS,
- DUPLEX RECEPTACLE
- QUADPLEX RECEPTACLE
- GFI/WP — DUPLEX RECEPTACLE, GFI PROTECTED/WEATHERPROOF
- COMMUNICATIONS OUTLET. COORDINATE EXACT TYPE AND LOCATION WITH OWNER OIT DEPARTMENT.
- DISCONNECT SWITCH
- F — FUSED DISCONNECT SWITCH
- T — TRANSFORMER
- CIRCUIT BREAKER
- TRANSFORMER
- CAMERA LOCATION (CAMERA BY OTHERS)
- $ — SINGLE POLE SWITCH
- $T — SINGLE POLE TIMER SWITCH
- OS — OCCUPANCY SENSOR
- O , O — LIGHTING FIXTURE
- EMERGENCY LIGHTING UNIT. ADJUST FIXTURE HEAD ORIENTATION TO ILLUMINATE PATH OF EGRESS
- LIGHTING POLE
- EXIT SIGN
- J , J — JUNCTION BOX

ABBREVIATIONS

3/C	THREE CONDUCTOR
A, AMP	AMPERE
AFF	ABOVE FINISHED FLOOR
AWG	AMERICAN WIRE GAUGE
BGE	BALTIMORE GAS & ELECTRIC
BKR	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CU	COPPER
DWG	DRAWING
EL, ELV	ELEVATION
ELEC	ELECTRIC
EMT	ELECTRICAL METALLIC TUBING
EQUIP	EQUIPMENT
EX, EXIST	EXISTING
GFI	GROUND FAULT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
G, GRD	GROUND
HT	HEIGHT
JB	JUNCTION BOX
KAIC	THOUSAND AMPERE INTERRUPTING CAPACITY
KCMIL	THOUSAND CIRCULAR MIL
KVA	KILOVOLT-AMPERE
KW	KILOWATT
MCB	MAIN CIRCUIT BREAKER
NEC	NATIONAL ELECTRICAL CODE
NEUT	NEUTRAL
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
NTS	NOT TO SCALE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
MIN	MINIMUM
MTG	MOUNTING
OIT	OFFICE OF INFORMATION AND TECHNOLOGY
P	POLE
PB	PULL BOX, PUSH BUTTON
PH	PHASE
PVC	POLYVINYL CHLORIDE
RGS	RIGID GALVANIZED STEEL
SCH	SCHEDULE
SPD	SURGE PROTECTIVE DEVICE
SPEC	SPECIFICATION
SW	SWITCH
3/C	THREE CONDUCTORS CABLE
TYP	TYPICAL
UL	UNDERWRITER LABORATORY
U/G	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
V	VOLT
VA	VOLT AMPERE
W	WATTS
WP	WATERPROOF, WEATHERPROOF

DWG. FILENAME:P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\13 Elec_E\02-Sheets\E-001.dwg

SEAL — STATE OF MARYLAND — TIMOTHY CHIN — 44664 — PROFESSIONAL ENGINEER

DATE : AUGUST 18, 2025

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. 44664, EXPIRATION DATE 2027-06-18.

CCJM — ENGINEERING INFRASTRUCTURE SOLUTIONS — 409 East Pratt St, Suite 604, Baltimore, MD — www.ccjm.com | Baltimore@ccjm.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: TCL
DWN BY: JKD
CHKD BY: UNP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ELECTRICAL – GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
E-001	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 103 OF 150
	DRAWING NUMBER
	2025-2273
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

1 ED-100 ELECTRICAL LIGHTING AND POWER SITE PLAN - DEMOLITION
SCALE: 1" = 20'

GENERAL NOTES

1. REFER TO DRAWING E–001 FOR ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. COORDINATE ALL ELECTRICAL UTILITY WORK WITH LOCAL UTILITY, BGE.

DRAWING NOTES

1. EXISTING TO REMAIN.
2. EXISTING LIGHT POLE, SUPPLIED BY EXISTING PANEL PP, TO BE RELOCATED. CAREFULLY REMOVE EXISTING LIGHT POLE. REMOVE EXISTING POLE FOUNDATION IN ITS ENTIRETY. REMOVE SECTION OF CONDUIT AND WIRING AS REQUIRED TO ACCOMMODATE RELOCATION. SEE NEW WORK PLANS FOR RELOCATED LOCATION AND ADDITIONAL INFORMATION.
3. COORDINATE POWER SERVICE ALTERATIONS WORK WITH LOCAL UTILITY COMPANY (BGE).

20' 10' 0 20' 40'
SCALE: 1" = 20'

DWG. FILENAME:P:\21\2022.001 NWRP Renovations_MRA\01 DRAWINGS\13 Elec_E\02-Sheets\ED-100.dwg

SEAL — STATE OF MARYLAND — TA-CHIH LIN — 44664 — PROFESSIONAL ENGINEER
DATE : AUGUST 18, 2025

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. 44664, EXPIRATION DATE 2027-06-18.										
CCJM ENGINEERING INFRASTRUCTURE SOLUTIONS 400 East Pratt St, Suite 604, Baltimore, MD www.ccjm.com | Baltimore@ccjm.com	DGN BY: TCL									
AS–BUILT PER RECORD PRINT	DWN BY: JKD									
BY: DATE:	CHKD BY: UNP									

AS–BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
			R.O.W NO.		
CONTRACT COMPLETION BOX					

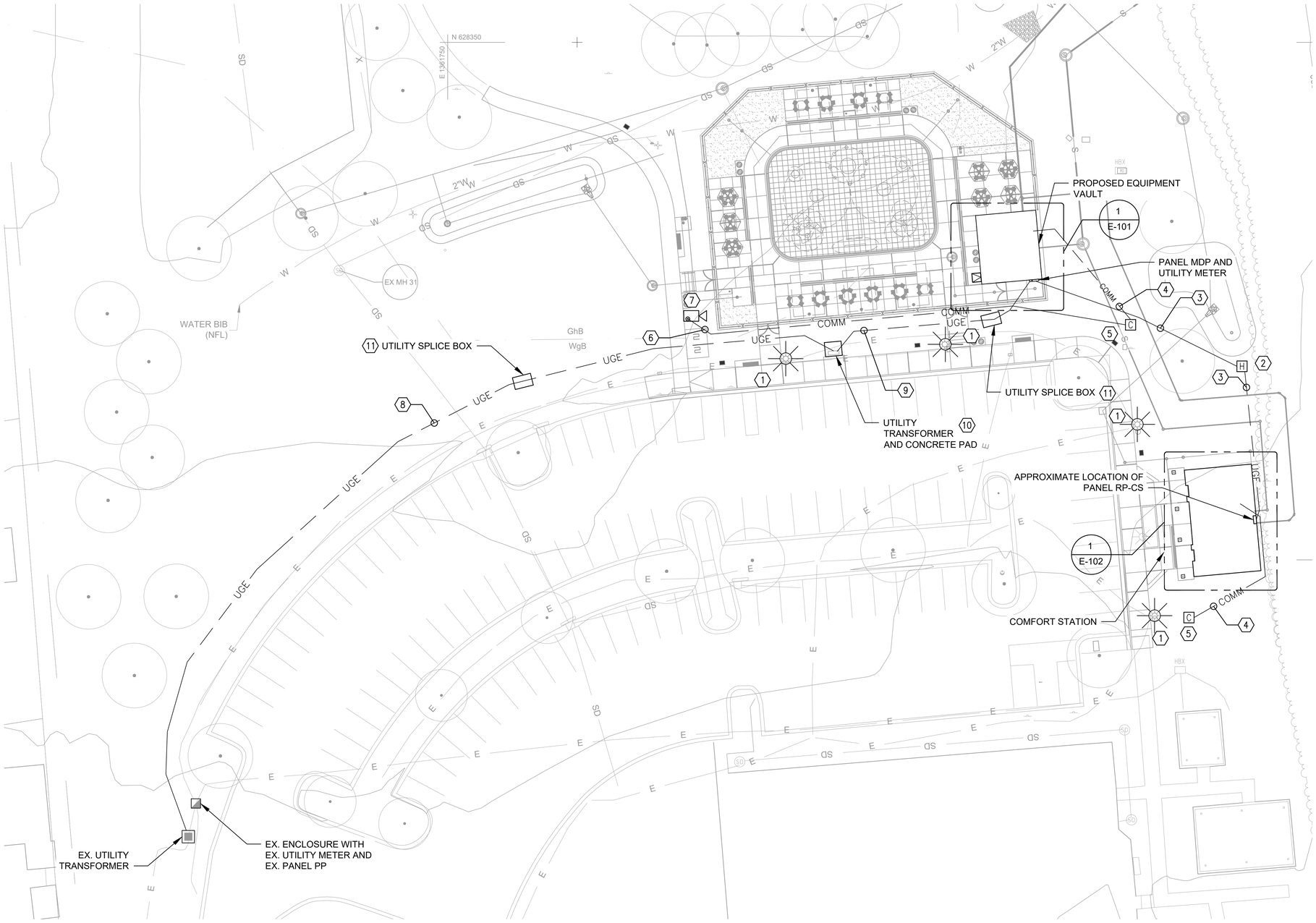
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ELECTRICAL – SITE PLAN – DEMOLITION
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
ED–100	25114 GX0
	JOB ORDER NUMBER
	PROJ–1000634
	SHEET 104 OF 150
	DRAWING NUMBER
	2025–2274
	FILE NO.: 8



1 E-100 ELECTRICAL LIGHTING AND POWER SITE PLAN - NEW WORK
SCALE: 1" = 20'

GENERAL NOTES

1. REFER TO DRAWING E–001 FOR ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. CONDUIT PATHING SHOWN IS DIAGRAMMATIC ONLY. COORDINATE EXACT CONDUIT ROUTING IN THE FIELD. PROVIDE HAND HOLES AS REQUIRED AS INDICATED IN "HANDHOLE DETAIL – TYPICAL" ON E–501. CONDUIT TO RUN PARALLEL WITH EXISTING AND PROPOSED WALKWAYS WHERE FEASIBLE. PROVIDE MINIMUM DISTANCE OF 3 FEET FROM EXISTING TREES, VEGETATION, AND STORM WATER MANAGEMENT FACILITIES.
3. IN CASE OF ANY CONFLICT WITH LAYOUT OF CABLE WITH TREES OR OTHER UTILITIES, CONTRACTOR IS AUTHORIZED TO RE–ROUTE THE CABLE LAYOUT DURING CONSTRUCTION WITHOUT ANY COST TO THE CITY. OBTAIN WRITTEN APPROVAL FROM THE ENGINEER BEFORE ALTERING CABLE ROUTING.
4. SEE CIVIL PLANS FOR EXACT LOCATION OF LIGHTING FIXTURES.
5. ALL DUCT BANKS THAT RUNS UNDER AREAS WITH VEHICULAR TRAFFIC SHALL BE CONCRETE ENCASED.
6. COORDINATE ALL SECURITY CAMERA AND COMMUNICATIONS SYSTEMS WORK, INCLUDING BUT NOT LIMITED TO ASSOCIATED CONDUIT, HANDHOLE, AND POLE LOCATIONS, WITH OWNER OIT DEPARTMENT. FINAL TERMINATIONS AND CAMERA INSTALLATION BY OWNER OIT CONTRACTOR.

(#) DRAWING NOTES

1. REINSTALL EXISTING LIGHTING FIXTURE AT NEW LOCATION AND PROVIDE NEW POLE BASE. COORDINATE EXACT LOCATION WITH CIVIL DRAWINGS. SPLICE, EXTEND, AND PROVIDE WIRING AND CONDUIT AND HANDHOLES AS REQUIRED TO EXISTING LIGHTING FIXTURE CIRCUIT. RESTORE LIGHTING FIXTURE TO EXISTING ORIENTATION. RESTORE LIGHTING CONTROLS TO EXISTING OPERATIONAL CONDITION.
2. HANDHOLE FOR CONDUIT FOR COMFORT STATION. COORDINATE EXACT LOCATION IN THE FIELD.
3. PROVIDE (2) 3" CONDUIT TO COMFORT STATION. COORDINATE EXACT CONDUIT ROUTING IN THE FIELD.
4. PROVIDE 2" EMPTY CONDUIT WITH PULL STRING FOR SECURITY CAMERA AND COMMUNICATIONS CABLING. COORDINATE EXACT CONDUIT ROUTING IN THE FIELD.
5. PROVIDE COMMUNICATIONS HANDHOLE. COORDINATE EXACT LOCATION IN THE FIELD AND WITH OIT CONTRACTOR.
6. PROVIDE 1–1/2" EMPTY CONDUIT WITH PULL STRING FOR SECURITY CAMERA. COORDINATE EXACT ROUTING IN THE FIELD.
7. POLE FOR POLE MOUNTED SECURITY CAMERA, LITHONIA LIGHTING MODEL SSS OR APPROVED EQUAL. CAMERA TO BE PROVIDED BY OTHERS. COORDINATE EXACT LOCATION AND POLE HEIGHT WITH CIVIL DRAWINGS AND OWNER SECURITY AND OIT DEPARTMENT.
8. CONDUIT FOR SERVICE PRIMARY FEEDER. SEE "POWER ONE–LINE DIAGRAM – NEW WORK" FOR SIZING AND ADDITIONAL INFORMATION.
9. CONDUIT FOR SERVICE SECONDARY FEEDER. SEE "POWER ONE–LINE DIAGRAM – NEW WORK" FOR SIZING AND ADDITIONAL INFORMATION.
10. UTILITY TRANSFORMER. PROVIDE PRECAST CONCRETE PAD, BGE NO. 12–668 OR UTILITY APPROVED EQUAL. COORDINATE EXACT LOCATION WITH LANDSCAPE AND CIVIL PLANS.
11. SPLICE BOX FOR UTILITY PRIMARY FEEDER, BGE NO 12–E23 OR UTILITY APPROVED EQUAL. COORDINATE EXACT LOCATION IN THE FIELD.

DWG. FILENAME:P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\13 Elec_E\02-Sheets\E-100.dwg

20' 10' 0 20' 40'
SCALE: 1" = 20'

SEAL: STATE OF MARYLAND · YI-CHIN LAN · 44664 · PROFESSIONAL ENGINEER
DATE : AUGUST 18, 2025

PROFESSIONAL CERTIFICATION
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LICENSE NO. 44664, EXPIRATION DATE 2027-06-18.

CCJM ENGINEERING INFRASTRUCTURE SOLUTIONS 400 East Pratt St, Suite 604, Baltimore, MD www.ccjm.com | Baltimore@ccjm.com
AS–BUILT PER RECORD PRINT
BY: DATE:
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AS–BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

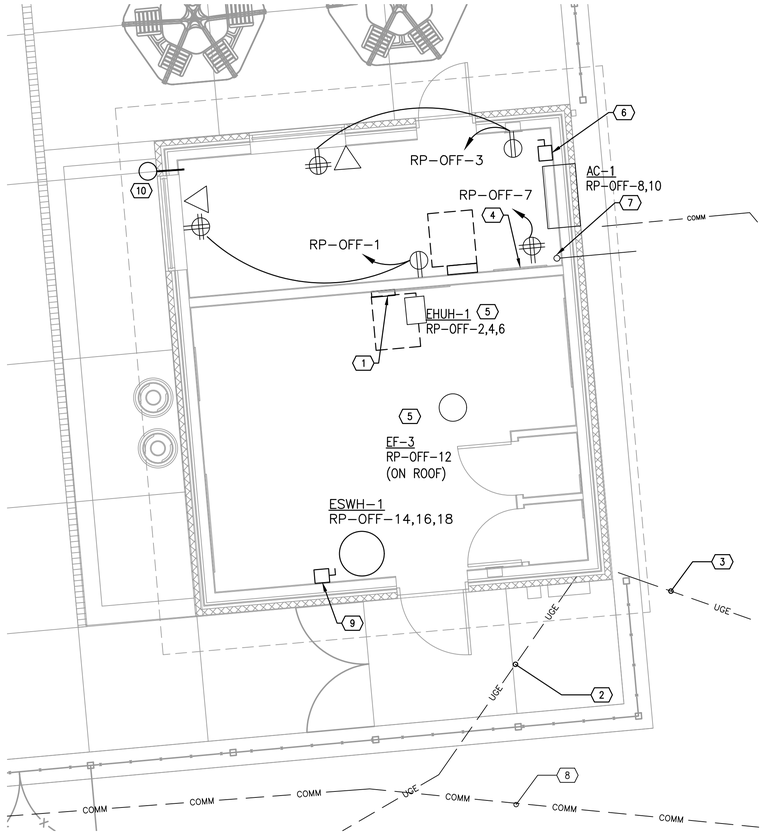
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

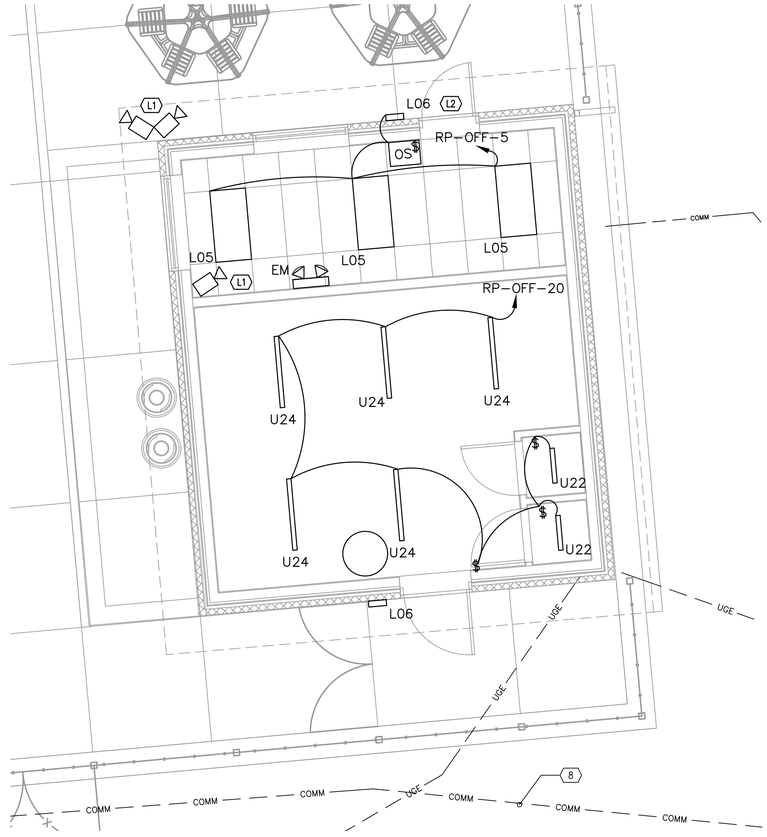
PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ELECTRICAL – SITE PLAN – NEW WORK
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
E–100	25114 GX0
	JOB ORDER NUMBER
	PROJ–1000634
	SHEET 105 OF 150
	DRAWING NUMBER
	2025–2275
	FILE NO.: 8



1 E-101 EQUIPMENT VAULT POWER PLAN - NEW WORK
SCALE: 1/4" = 1' - 0"



2 E-101 EQUIPMENT VAULT LIGHTING PLAN - NEW WORK
SCALE: 1/4" = 1' - 0"

GENERAL NOTES

1. REFER TO DRAWING E-001 FOR ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. CONDUIT PATHING SHOWN IS DIAGRAMMATIC ONLY. COORDINATE EXACT CONDUIT ROUTING IN THE FIELD. PROVIDE HAND HOLES AS REQUIRED AS INDICATED IN "HANDHOLE DETAIL – TYPICAL" ON E-501. CONDUIT TO RUN PARALLEL WITH EXISTING AND PROPOSED WALKWAYS WHERE FEASIBLE. PROVIDE MINIMUM DISTANCE OF 3 FEET FROM EXISTING TREES, VEGETATION, AND STORM WATER MANAGEMENT FACILITIES.
3. IN CASE OF ANY CONFLICT WITH LAYOUT OF CABLE WITH TREES OR OTHER UTILITIES, CONTRACTOR IS AUTHORIZED TO RE-ROUTE THE CABLE LAYOUT DURING CONSTRUCTION WITHOUT ANY COST TO THE CITY. OBTAIN WRITTEN APPROVAL FROM THE ENGINEER BEFORE ALTERING CABLE ROUTING.
4. CABLE/CONDUITS UNDER WALKWAYS SHALL BE PUSHED OR BORED.
5. SEE CIVIL PLANS FOR EXACT LOCATION OF LIGHTING FIXTURES.
6. ALL DUCT BANKS THAT RUNS UNDER AREAS WITH VEHICULAR TRAFFIC SHALL BE CONCRETE ENCASED.
7. COORDINATE EXACT LOCATION AND ORIENTATION OF ALL CAMERA POLES AND OPENINGS WITH OWNER SECURITY AND INFORMATION TECHNOLOGY DEPARTMENTS
8. COORDINATE EXACT LOCATION OF ALL PENDANT MOUNTED AND SUSPENDED LIGHTING FIXTURES WITH AREA CEILING MOUNTED AND ELEVATED EQUIPMENT INCLUDING BUT NOT LIMITED TO MECHANICAL EQUIPMENT, PIPING, AND DUCTWORK.

(1) DRAWING NOTES

1. PANELBOARD RP-EQV FOR PUMP EQUIPMENT. SEE PUMP EQUIPMENT DRAWINGS FOR PANEL SCHEDULE AND ADDITIONAL INFORMATION. COORDINATE ALL WORK WITH PUMP EQUIPMENT SUPPLIER.
2. UTILITY SECONDARY DUCTBANK. SEE "ELECTRICAL SITE PLAN – NEW WORK" AND "ELECTRICAL ONE-LINE DIAGRAM – NEW WORK" FOR ADDITIONAL DETAILS.
3. FOR COMFORT STATION. SEE "ELECTRICAL SITE PLAN – NEW WORK" FOR ADDITIONAL DETAILS.
4. FOR DATA RACK. COORDINATE EXACT LOCATION WITH OWNER OIT DEPARTMENT. DATA RACK TO BE PROVIDED BY OWNER OIT. COORDINATE ALL WORK WITH OWNER OIT DEPARTMENT.
5. UNIT HAS BUILT-IN DISCONNECT.
6. PROVIDE 2P, 240V, 30A, NON-FUSIBLE DISCONNECT SWITCH IN NEMA 1 ENCLOSURE. COORDINATE EXACT LOCATION IN THE FIELD.
7. 2" CONDUIT WITH PULL STRING FOR DATA CONNECTION, STUBBED UP TO 12" AFF. COORDINATE EXACT STUB UP LOCATION WITH OWNER OIT DEPARTMENT. COORDINATE EXACT PATH TO OIT HANDHOLE WITH BUILDING STRUCTURAL WORK, CIVIL DRAWINGS, AND OIT CONTRACTOR.
8. UNDERGROUND CONDUIT FOR SECURITY CAMERAS. SEE "ELECTRICAL SITE PLAN – NEW WORK" FOR ADDITIONAL DETAILS.
9. PROVIDE 3P, 240V, 30A, NON-FUSIBLE DISCONNECT SWITCH IN NEMA 4X ENCLOSURE. COORDINATE EXACT LOCATION IN THE FIELD.
10. JUNCTION BOX FOR WIRELESS ANTENNA AT BUILDING EXTERIOR. COORDINATE EXACT LOCATION WITH OWNER OIT. PROVIDE 1-1/4" CONDUIT WITH PULL STRING TO BUILDING DATA RACK AS DIRECTED BY OWNER OIT. CONDUIT SHALL BE CONCEALED INSIDE THE WALLS AND CHASES; EXPOSED CONDUITS ARE NOT ACCEPTABLE. OWNER OIT TO PROVIDE CABLING AND FINAL TERMINATIONS. COORDINATE ALL WORK WITH OWNER OIT.

(1) DRAWING NOTES

L1. SECURITY CAMERA, BY OTHERS. COORDINATE EXACT LOCATION WITH OWNER OIT. PROVIDE 1-1/4" CONDUIT WITH PULL STRING TO BUILDING DATA RACK AS DIRECTED BY OWNER OIT. CONDUIT SHALL BE CONCEALED INSIDE THE WALLS AND CHASES; EXPOSED CONDUITS ARE NOT ACCEPTABLE. OWNER OIT TO PROVIDE CABLING AND FINAL TERMINATIONS. COORDINATE ALL WORK WITH OWNER OIT.

L2. EXTERIOR FIXTURE WITH BUILT-IN OCCUPANCY SENSOR.

4' 2' 0 4' 8'
SCALE: 1/4" = 1' - 0"

DWG. FILENAME-P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\13 Elec_E\02-Sheets\E-101.dwg

SEAL — STATE OF MARYLAND — MICHIN LEE — 43884 — PROFESSIONAL ENGINEER
DATE : AUGUST 18, 2025

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. 44664 , EXPIRATION DATE 2027-06-18 .

CCJM — ENGINEERING INFRASTRUCTURE SOLUTIONS — 400 East Pratt St, Suite 604, Baltimore, MD — www.ccjm.com | Baltimore@ccjm.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: TCL
DWN BY: JKD
CHKD BY: UNP

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

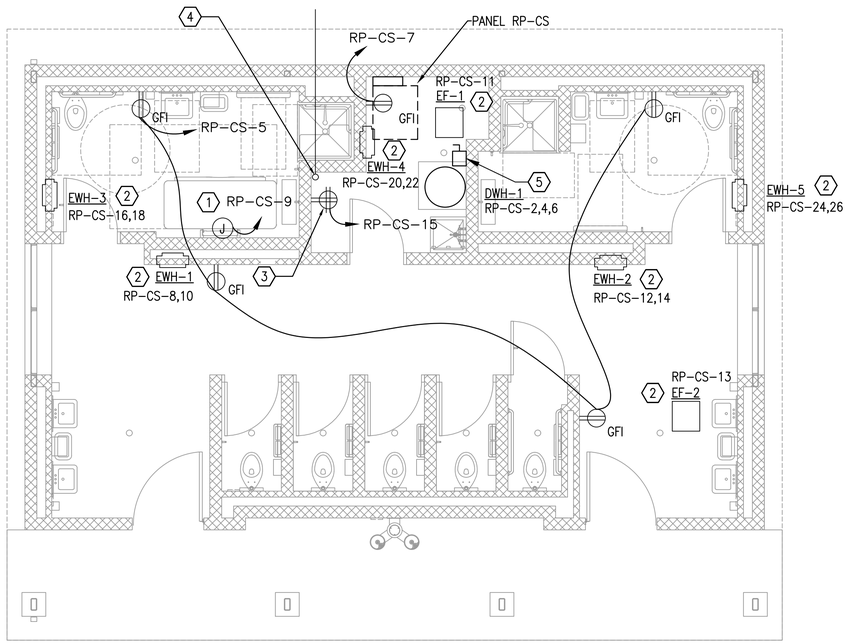
DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

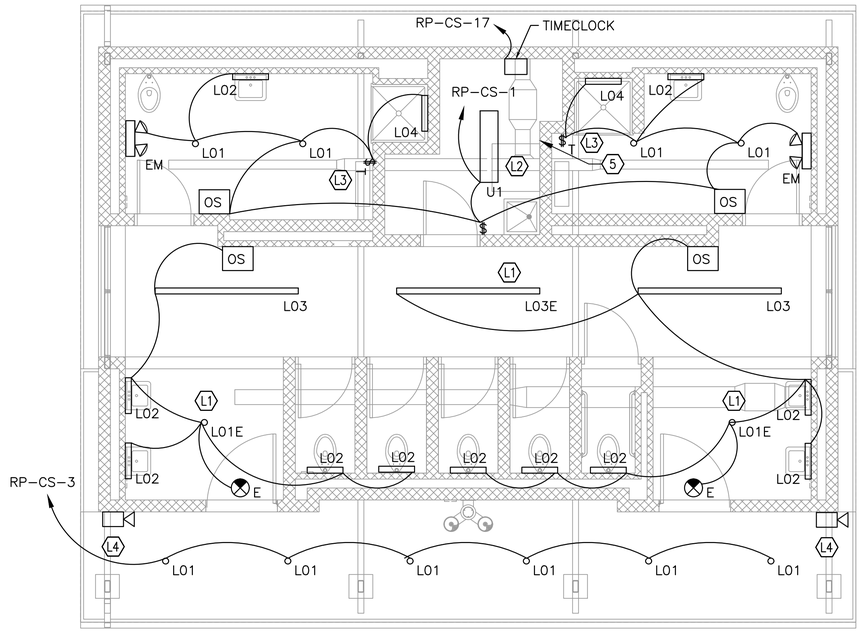
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ELECTRICAL – EQUIPMENT VAULT ELECTRICAL PLAN – NEW WORK
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
E-101	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 106 OF 150
	DRAWING NUMBER
	2025-2276
	FILE NO.: 8



1 / E-102 COMFORT STATION POWER PLAN - NEW WORK
SCALE: 1/4" = 1' - 0"



2 / E-102 COMFORT STATION LIGHTING PLAN - NEW WORK
SCALE: 1/4" = 1' - 0"

GENERAL NOTES

1. REFER TO DRAWING E-001 FOR ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES.
2. ALL RECEPTACLES ACCESSIBLE TO THE PUBLIC SHALL BE GFCI TYPE WITH LOCKABLE, VANDAL RESISTANT COVER.
3. ALL LIGHTING FIXTURES TO BE HOMERUN THROUGH ASTRONOMICAL TIMECLOCK. COORDINATE TIMECLOCK SETTINGS WITH OWNER.

(#) DRAWING NOTES

1. FOR ADULT CHANGING STATION. COORDINATE EXACT CONNECTION TYPE AND LOCATION WITH EQUIPMENT SUPPLIER.
2. UNIT HAS BUILT IN DISCONNECTING MEANS.
3. FOR DATA RACK. COORDINATE EXACT LOCATION WITH OWNER OIT DEPARTMENT. DATA RACK TO BE PROVIDED BY OWNER OIT. COORDINATE ALL WORK WITH OWNER OIT DEPARTMENT.
4. 2" CONDUIT WITH PULL STRING FOR DATA CONNECTION, STUBBED UP TO 12" AFF. COORDINATE EXACT STUB UP LOCATION WITH OWNER OIT DEPARTMENT. COORDINATE EXACT PATH TO OIT HANDHOLE WITH BUILDING STRUCTURAL WORK, CIVIL DRAWINGS, AND OIT CONTRACTOR.
5. PROVIDE 3P, 240V, 60A, NON-FUSIBLE DISCONNECT SWITCH IN NEMA 1 ENCLOSURE. COORDINATE EXACT LOCATION IN THE FIELD.

L1. PROVIDE UNIT WITH INTEGRAL BATTERY BACKUP FOR EMERGENCY LIGHTING.

L2. COORDINATE EXACT LOCATION OF LIGHTING FIXTURE WITH AREA CEILING MOUNTED AND ELEVATED EQUIPMENT INCLUDING BUT NOT LIMITED TO MECHANICAL EQUIPMENT, PIPING, AND DUCTWORK.

L3. TIMER SWITCH FOR FIXTURE AT SHOWER, SUITABLE FOR DAMP LOCATION INSTALLATION.

L4. SECURITY CAMERA, BY OTHERS. COORDINATE EXACT LOCATION WITH OWNER OIT. PROVIDE 1-1/4" CONDUIT WITH PULL STRING TO BUILDING DATA RACK AS DIRECTED BY OWNER OIT. CONDUIT SHALL BE CONCEALED INSIDE THE WALLS AND CHASES; EXPOSED CONDUITS ARE NOT ACCEPTABLE. OWNER OIT TO PROVIDE CABLING AND FINAL TERMINATIONS. COORDINATE ALL WORK WITH OWNER OIT.

DWG. FILENAME:P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\13 Rec_E\02-Sheets\E-102.dwg

4' 2' 0 4' 8'
SCALE: 1/4" = 1' - 0"

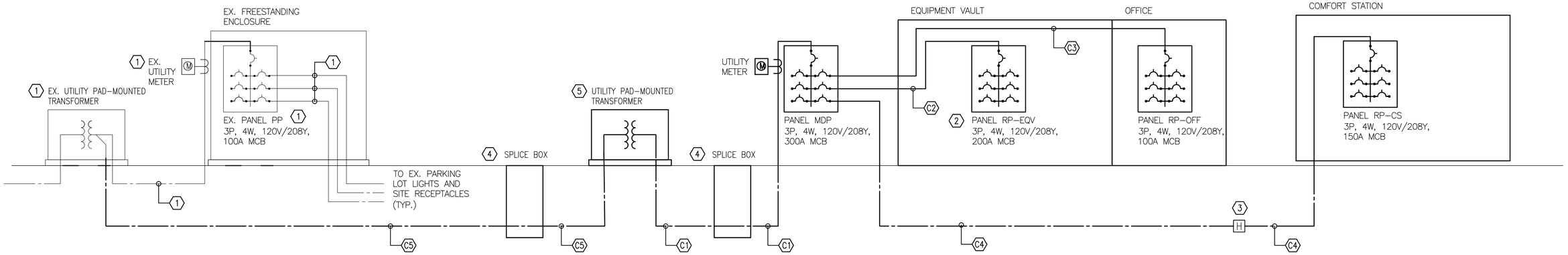
SEAL
STATE OF MARYLAND — CHIH LIN — 44664 — PROFESSIONAL ENGINEER
DATE : AUGUST 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
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.						PNW	35NW40	PLAN SCALE: AS SHOWN	APPROVED BY: PROPERTY MANAGER
LICENSE NO. 44664, EXPIRATION DATE 2027-06-18.					R.O.W NO.			PROFILE SCALE:	DATE:
CCJM ENGINEERING INFRASTRUCTURE SOLUTIONS 400 East Pratt St, Suite 604, Baltimore, MD www.ccjm.com | Baltimore@ccjm.com	DGN BY: TCL	CONTRACT COMPLETION BOX							
AS-BUILT PER RECORD PRINT	DWN BY: JKD	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
BY: DATE:	CHKD BY: UNP	REVIEWED BY:							
		DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ELECTRICAL - COMFORT STATION ELECTRICAL PLANS - NEW WORK
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
E-102	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 107 OF 150
	DRAWING NUMBER
	2025-2277
	FILE NO.: 8



1 / E-500 POWER ONE-LINE DIAGRAM - NEW WORK
NOT TO SCALE

DIAGRAM NOTES

1. EXISTING EQUIPMENT TO REMAIN. COORDINATE WORK WITH BGE.
2. FOR PUMP EQUIPMENT. SEE PUMP EQUIPMENT VAULT ELECTRICAL DRAWINGS FOR PANEL SCHEDULE AND SIZING INFORMATION. COORDINATE EXACT QUANTITY AND SIZE OF BREAKERS WITH PUMP EQUIPMENT SUPPLIER DRAWINGS. COORDINATE ALL WORK WITH PUMP EQUIPMENT SUPPLIER.
3. ELECTRICAL HANDHOLE SIZED PER NEC REQUIREMENTS. COORDINATE EXACT LOCATION IN THE FIELD.
4. SPLICE BOX. SEE SITE PLAN FOR ADDITIONAL INFORMATION AND DETAILS.
5. UTILITY TRANSFORMER WITH CONCRETE PAD. SEE SITE PLAN FOR ADDITIONAL INFORMATION AND DETAILS.

C1. PROVIDE 2 SETS OF (3-350KCMIL & #2G IN 4"C).

C2. PROVIDE 4#3/0 & #6G IN 2"C.

C3. PROVIDE 4#2 & #6G IN 1-1/2"C.

C4. PROVIDE 4#1/0 & #6G IN 2"C. PROVIDE 3"C SPARE CONDUIT WITH PULL STRING AS INDICATED ON SITE PLAN.

C5. PROVIDE 2 SETS OF 5"C WITH PULL STRING FOR UTILITY PRIMARY FEEDER.

DWG. FILENAME:P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\13 Elec_E\02-Sheets\E-500.dwg

SEAL
STATE OF MARYLAND — TERRENCE CHIN — 44664 — REGISTERED PROFESSIONAL ENGINEER
DATE : AUGUST 18, 2025

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. 44664, EXPIRATION DATE 2027-06-18

CCJM ENGINEERING INFRASTRUCTURE SOLUTIONS 409 East Pratt St, Suite 604, Baltimore, MD www.ccjm.com | Baltimore@ccjm.com

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BY:
DATE:

DGN BY: TCL
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CHKD BY: UNP

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

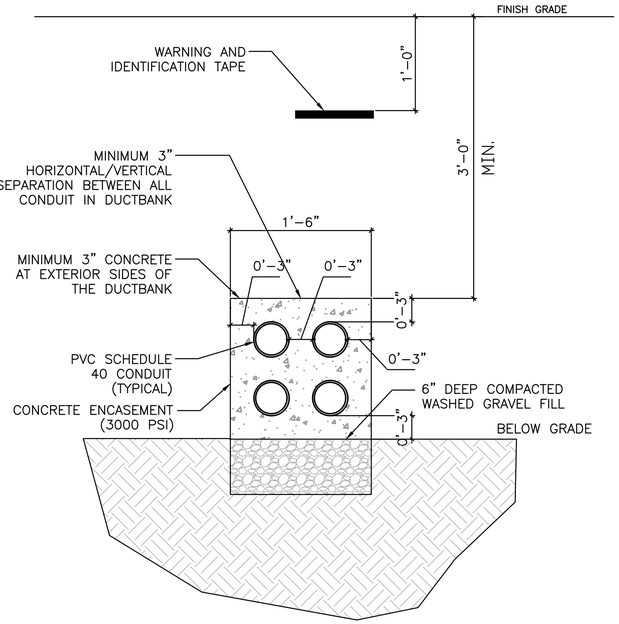
DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

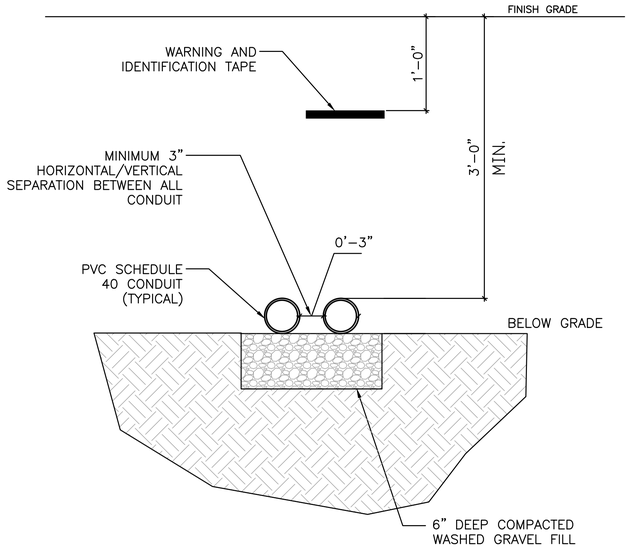
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ELECTRICAL - POWER ONE-LINE DIAGRAM
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

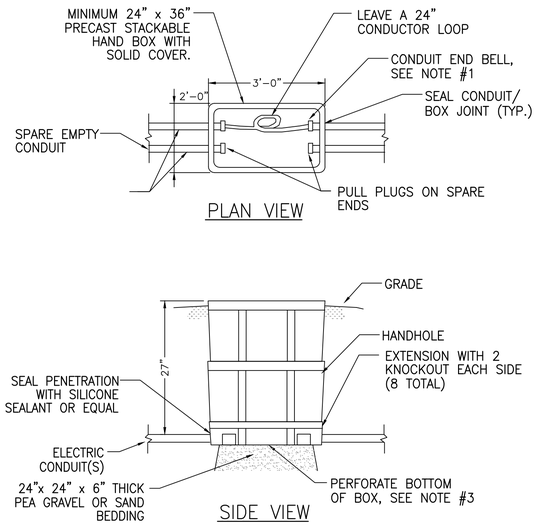
SHEET DESIGNATION	CONTRACT NUMBER
E-500	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 108 OF 150
	DRAWING NUMBER
	2025-2278
	FILE NO.: 8



1 E-501 TYPICAL CONCRETE ENCASED DUCTBANK DETAIL
NOT TO SCALE



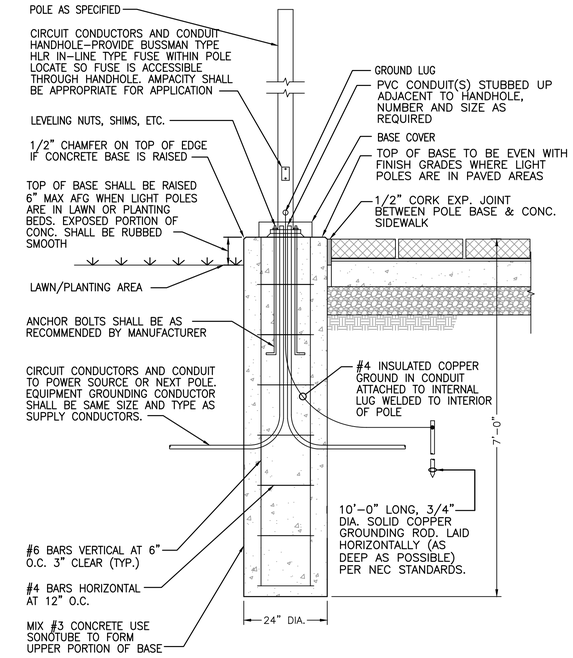
2 E-501 TYPICAL DIRECT BURIED CONDUIT DETAIL
NOT TO SCALE



NOTES

1. PROVIDE SMOOTH SURFACE AT END OF CONDUIT TO PREVENT DAMAGE TO WIRE INSULATION WHILE PULLING WIRES THROUGH CONDUIT. SEAL UPGRADIENT OPENINGS WITH DUCT SEAL PUTTY OR EQUAL SEALING COMPOUND.
2. PERFORATE BOTTOM OF BOX IF FABRICATED WITH SOLID BOTTOM WITH 3/16" HOLES TO ALLOW DRAINAGE OF MOISTURE OR CONDENSATE.
3. PROVIDE IN-GROUND HANDHOLE (PULL BOX) WHERE SHOWN AND EVERY 200 FEET OF FEEDERS RUN.

3 E-501 HANDHOLE DETAIL - TYPICAL
NOT TO SCALE



4 E-501 LIGHTING POLE AND SECURITY POLE BASE DETAIL
NOT TO SCALE

UNDERGROUND CONDUIT AND DUCTBANK NOTES:

A. DETAIL SHOWS A TYPICAL DUCTBANK SECTIONS BUT DISTANCING AND MATERIAL PRINCIPLES SHALL APPLY TO ALL DUCTBANK SIZES AND CONFIGURATIONS

B. CONCRETE ENCASED DUCTBANK REQUIREMENTS NOTED SHALL APPLY TO THE ENTIRE LENGTH OF CONCRETE ENCASED DUCTBANKS.

C. THE REQUIREMENTS NOTED SHALL APPLY TO NON-CONCRETE ENCASED DUCTBANKS WITH THE FOLLOWING ADDITIONAL NOTES:
   1. PROVIDE CONCRETE ENCASEMENT AT THE FOLLOWING LOCATIONS ONLY:
   2. ALL BENDS AND ELBOWS ALONG THE DUCTBANK
   3. ANY SEGMENT OF DUCTBANK THAT PASSES WITHIN 24" OF THE EXTERIOR PERIMETER WALL OF ANY AND ALL BUILDINGS OR PERMANENT STRUCTURE.
   4. WHERE DUCTBANK PASSES UNDER ROADWAYS OR SIMILAR AREAS WITH VEHICULAR TRAFFIC.

D. PROVIDE PULL STRINGS FOR ALL SPARE AND EMPTY CONDUITS.

E. WHERE DUCTBANK IS TO EMERGE FROM GRADE, PROVIDE TRANSITION FROM PVC CONDUITS TO PVC COATED RGS CONDUITS AT 6" BELOW FINISHED GRADE

F. PROVIDE MINIMUM SEPARATION OF 12" BETWEEN DUCTBANKS DESIGNATED FOR POWER AND DUCTBANKS DESIGNATED FOR COMMUNICATIONS.

G. COORDINATE EXACT PATH OF DUCTBANK IN THE FIELD TO AVOID PASSING THROUGH OR UNDERNEATH ANY AND ALL STRUCTURAL FOOTINGS.

H. FOR DUCTBANKS DESIGNATED FOR LOCAL UTILITIES:
   1. WHERE THERE IS A CONFLICT BETWEEN THIS DETAIL AND LOCAL UTILITY REQUIREMENTS, LOCAL UTILITY REQUIREMENTS SHALL TAKE PRECEDENCE.
   2. COORDINATE FINAL STUB UP LOCATION AND CONDUIT SPACING AND ARRANGEMENT WITH LOCAL UTILITY PRIOR TO COMMENCING ANY WORK.

BGE PROPOSED CLASS OF SERVICE CONDITIONS

A. CONTRACTOR TO OBTAIN ALL PERMITS/PERMISSIONS REQUIRED BY OTHERS ON PRIVATE PROPERTY. ALL MATERIALS USED SHALL CONFORM TO BGE SPECIFICATIONS. ALL WORK MUST BE DONE IN ACCORDANCE WITH BGE STANDARDS AND SPECIFICATIONS. THE CONTRACTOR SHALL PAY ANY AND ALL FEES FOR SERVICE.

B. WORK SHALL BE DONE IN A MANNER ACCEPTABLE TO BGE AND INSPECTED BY THEIR CONDUIT DEPARTMENT BEFORE ENCASEMENT OR BACKFILLING. (CONTRACTOR MUST FIRST SUBMIT A DRAWING OF THE FACILITIES TO BE BUILT FOR THEIR APPROVAL). CALL IN ADVANCE TO ARRANGE INSPECTION. CALL BETWEEN 7:00 – 9:00 AM OR 3:00 – 4:00 PM.

C. ALL RACEWAY FOR MEDIUM VOLTAGE/PRIMARY SERVICE CONDUCTORS SHALL BE MINIMUM 5 INCH PVC SCHEDULE 40 CONCRETE ENCASED. CONDUIT SHALL BE BUILT IN ACCORDANCE WITH BGE SPECIFICATIONS. COORDINATE WITH BGE. ALL SECONDARY SERVICE CONDUCTOR CONDUITS SHALL BE 4 INCH PVC SCHEDULE 40 CONCRETE ENCASED.

D. SWEEP BENDS SHALL COMPLY WITH BGE REQUIREMENTS.

E. NYLON PULL LINES SHALL BE INSTALLED IN EACH DUCT FOR FUTURE CABLE INSTALLATION.

F. NO MORE THAN 180 DEGREES OF BENDS OF DUCT LINE IS ALLOWED.

G. DUCT BANKS MUST HAVE MINIMUM OF THREE FEET OF COVER (TOP OF DUCT TO FINISHED GRADE).

H. CONDUIT SHALL BE ENCASED IN MINIMUM 3000 PSI CONCRETE WITH PEA GRAVEL. NO METALLIC MATERIALS (REBARS, HOLD DOWN WIRES, ETC.) SHALL BE PERMITTED IN SPACES BETWEEN EACH DUCT.

I. CONTRACTOR SHALL ROD ALL CONDUITS, CLEAR ANY OBSTRUCTIONS, AND PROVIDE NYLON PULL LINES PRIOR TO THE INSTALLATION OF BGE CABLES.

J. FOR LOCATIONS OF UTILITIES, CALL 24 HOURS A DAY 1-800-257-7777, 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY.

K. ALL METERING CURRENT TRANSFORMER MOUNTING DIMENSIONS, DRILLINGS, SPACING, AND STUDS MUST COMPLY WITH BGE SPECIFICATIONS. THE MINIMUM ACCEPTABLE DIMENSIONS, DRILLINGS, ETC. FOR BGE LINE CONNECTIONS TO C/T CABINETS/COMPARTMENTS (INCLUDING SAFETY BARRIER WHERE APPLICABLE).

L. BGE SHALL BE NOTIFIED 48 HOURS (2 WORKING DAYS) BEFORE POURING ANY CONCRETE AND/OR BACK FILLING OF ANY TRENCH TO MAKE ARRANGEMENTS FOR THE INSPECTION AND APPROVAL OF ON SITE CONNECTION STRUCTURAL EQUIPMENT.

M. ALL OTHER UNDERGROUND UTILITIES IN THE VICINITY SHALL BE SHOWN BY THE CONTRACTOR. MAINTAIN THE MINIMUM HORIZONTAL AND VERTICAL CLEARANCES SET BY BGE. MAINTAIN 5'-0" MINIMUM (HORIZONTAL) AND 1'-0" (VERTICAL) CLEARANCE FROM ALL UNDERGROUND UTILITIES.

N. CALL BGE FOR BGE INSPECTIONS AND COORDINATION.

DWG. FILENAME:P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\19 Elec_E\02-Sheets\E-501.dwg

SEAL

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. 44664, EXPIRATION DATE 2027-06-18.

CCJM ENGINEERING INFRASTRUCTURE SOLUTIONS 409 East Pratt St, Suite 604, Baltimore, MD www.ccjm.com | Baltimore@ccjm.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DATE : AUGUST 18, 2025

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DGN BY: TCL
DWN BY: JKD
CHKD BY: UNP

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

ELECTRICAL – DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
E-501	25114 GX0
JOB ORDER NUMBER	
PROJ-1000634	
SHEET 109 OF 150	
DRAWING NUMBER	
2025-2279	
FILE NO.: 8	REV. 00/00

PANEL SCHEDULE MDP

BUS: 400A	VOLTAGE: 208Y/120V	PHASE(S): 3	WIRES: 4 + 1 G	LOCATION: FREESTANDING ENCLOSURE	
MAIN: 300A	MIN AIC RATING: 25,000	BRANCH CKT. DEVICE: CIRCUIT BREAKER		FED BY: UTILITY TRANSFORMER	
TYPE: MCB	NEMA ENCLOSURE: 3R	MAKE & MODEL:		MOUNTING: SURFACE	

CKT NO	POLE	TRIP	WIRE	G	C	LOAD ITEM DESCRIPTION	KVA ~ A		KVA ~ B		KVA ~ C		LOAD ITEM DESCRIPTION	C	G	WIRE	TRIP	POLE	CKT NO
1	3	200	POL	POL	POL	PANEL RP-EQV (PES)	9.39	6.97	——	——	——	——	PANEL RP-OFF	POL	POL	POL	100	3	2
3	–	–	––	––	––	––	——	——	10.57	6.77	——	——	––	––	––	––	–	–	4
5	–	–	––	––	––	––	——	——	——	——	10.09	6.86	––	––	––	––	–	–	6
7	3	150	POL	POL	POL	PANEL RP-CS	13.52	XX	——	——	——	——	SPARE	––	––	––	50	3	8
9	–	–	––	––	––	––	——	——	9.20	XX	——	——	––	––	––	––	–	–	10
11	–	–	––	––	––	––	——	——	——	——	11.02	XX	––	––	––	––	–	–	12
13	1	20	––	––	––	SPARE	XX	XX	——	——	——	——	SPACE	––	––	––	–	–	14
15	1	20	––	––	––	SPARE	——	——	XX	XX	——	——	SPACE	––	––	––	–	–	16
17	–	–	––	––	––	SPACE	——	——	——	——	XX	XX	SPACE	––	––	––	–	–	18
19	–	–	––	––	––	SPACE	XX	XX	——	——	——	——	SPACE	––	––	––	–	–	20
21	–	–	––	––	––	SPACE	——	——	XX	XX	——	——	SPACE	––	––	––	–	–	22
23	–	–	––	––	––	SPACE	——	——	——	——	XX	XX	SPACE	––	––	––	–	–	24
25	–	–	––	––	––	SPACE	XX	XX	——	——	——	——	SPACE	––	––	––	–	–	26
27	–	–	––	––	––	SPACE	——	——	XX	XX	——	——	SPACE	––	––	––	–	–	28
29	–	–	––	––	––	SPACE	——	——	——	——	XX	XX	SPACE	––	––	––	–	–	30
						CONNECTED KVA PER PHASE	29.88		26.54		27.97								

TOTAL CONNECTED KVA: 84.39

234.24
TOTAL DEMAND AMPERES

NOTES:
SERVICE ENTRANCE RATED

PANEL SCHEDULE RP-CS

BUS: 225A	VOLTAGE: 208Y/120V	PHASE(S): 3	WIRES: 4 + 1 G	LOCATION: COMFORT STATION - UTILITY ROOM	
MAIN: 150A	MIN AIC RATING: 25,000	BRANCH CKT. DEVICE: CIRCUIT BREAKER		FED BY: PANEL MDP (AT EQUIPMENT VAULT EXTERIOR)	
TYPE: MCB	NEMA ENCLOSURE: 1	MAKE & MODEL:		MOUNTING: SURFACE	

CKT NO	POLE	TRIP	WIRE	G	C	LOAD ITEM DESCRIPTION	KVA ~ A		KVA ~ B		KVA ~ C		LOAD ITEM DESCRIPTION	C	G	WIRE	TRIP	POLE	CKT NO
1	1	20	#12	#12	3/4"	LIGHTING (INTERIOR)	0.50	4.50	——	——	——	——	DWH-1	1"	#6	#4	50	2	2
3	1	20	#12	#12	3/4"	LIGHTING (EXTERIOR)	——	——	0.20	4.50	——	——	––	––	––	––	––	––	4
5	1	20	#12	#12	3/4"	RECEPTACLES	——	——	——	——	0.36	4.50	––	––	––	––	––	––	6
7	1	20	#12	#12	3/4"	RECEPTACLES	0.36	2.00	——	——	——	——	EWH-1	3/4"	#10	#10	25	2	8
9	1	20	#12	#12	3/4"	ADULT CHANGING STATION	——	——	0.50	2.00	——	——	––	––	––	––	––	––	10
11	1	20	#12	#12	3/4"	EF-1	——	——	——	——	1.66	2.00	EWH-2	3/4"	#10	#10	25	2	12
13	1	20	#12	#12	3/4"	EF-2	1.66	2.00	——	——	——	——	––	––	––	––	––	––	14
15	1	20	#12	#12	3/4"	QUAD RECEP (DATA RACK)	——	——	XX	1.00	——	——	EWH-3	3/4"	#12	#12	20	2	16
17	1	20	#12	#12	3/4"	TIMECLOCK	——	——	——	——	0.50	1.00	––	––	––	––	––	––	18
19	1	20	––	––	––	RESERVED FOR CAMERAS	0.50	1.00	——	——	——	——	EWH-4	3/4"	#12	#12	20	2	20
21	1	20	––	––	––	SPARE	——	——	XX	1.00	——	——	––	––	––	––	––	––	22
23	1	20	––	––	––	SPARE	——	——	——	——	XX	1.00	EWH-5	3/4"	#12	#12	20	2	24
25	––	––	––	––	––	SPACE	XX	1.00	——	——	——	——	––	––	––	––	––	––	26
27	–	–	––	––	––	SPACE	——	——	XX	XX	——	——	SPACE	––	––	––	––	––	28
29	–	–	––	––	––	SPACE	——	——	——	——	XX	XX	SPACE	––	––	––	–	–	30
						CONNECTED KVA PER PHASE	13.52		9.20		11.02								

TOTAL CONNECTED KVA: 33.74

93.65
TOTAL DEMAND AMPERES

NOTES:

PANEL SCHEDULE RP-OFF

BUS: 125A	VOLTAGE: 208Y/120V	PHASE(S): 3	WIRES: 4 + 1 G	LOCATION: EQUIPMENT VAULT - OFFICE	
MAIN: 100A	MIN AIC RATING: 25,000	BRANCH CKT. DEVICE: CIRCUIT BREAKER		FED BY: PANEL MDP (EQUIPMENT VAULT EXTERIOR)	
TYPE: MCB	NEMA ENCLOSURE: 1	MAKE & MODEL:		MOUNTING: SURFACE	

CKT NO	POLE	TRIP	WIRE	G	C	LOAD ITEM DESCRIPTION	KVA ~ A		KVA ~ B		KVA ~ C		LOAD ITEM DESCRIPTION	C	G	WIRE	TRIP	POLE	CKT NO
1	1	20	#12	#12	3/4"	RECEPTACLES	0.36	2.50	——	——	——	——	EHUH-1	3/4"	#10	#8	40	3	2
3	1	20	#12	#12	3/4"	RECEPTACLES	——	——	0.36	2.50	——	——	––	––	––	––	––	––	4
5	1	20	#12	#12	3/4"	LIGHTING (OFFICE)	——	——	——	——	0.20	2.50	––	––	––	––	––	––	6
7	1	20	#12	#12	3/4"	QUAD RECEP (DATA RACK)	0.50	1.41	——	——	——	——	AC-1	3/4"	#12	#12	15	1	8
9	1	20	#12	#12	3/4"	DAMPER	——	——	0.50	1.41	——	——	––	––	––	––	––	1	10
11	1	20	––	––	––	RESERVED FOR CAMERA	——	——	——	——	0.50	1.66	EF-3	3/4"	#12	#12	20	1	12
13	1	20	––	––	––	SPARE	XX	2.00	——	——	——	——	ESWH-1	3/4"	#10	#10	25	3	14
15	1	20	––	––	––	SPARE	——	——	XX	2.00	——	——	––	––	––	––	––	––	16
17	––	––	––	––	––	SPACE	——	——	——	——	XX	2.00	––	––	––	––	––	––	18
19	–	–	––	––	––	SPACE	XX	0.20	——	——	——	——	LIGHTING (VAULT)	3/4"	#12	#12	20	1	20
21	–	–	––	––	––	SPACE	——	——	XX	XX	——	——	SPACE	––	––	––	–	–	22
23	–	–	––	––	––	SPACE	——	——	——	——	XX	XX	SPACE	––	––	––	–	–	24
25	–	–	––	––	––	SPACE	XX	XX	——	——	——	——	SPACE	––	––	––	–	–	26
27	–	–	––	––	––	SPACE	——	——	XX	XX	——	——	SPACE	––	––	––	–	–	28
29	–	–	––	––	––	SPACE	——	——	——	——	XX	XX	SPACE	––	––	––	–	–	30
						CONNECTED KVA PER PHASE	6.97		6.77		6.86								

TOTAL CONNECTED KVA: 20.60

57.18
TOTAL DEMAND AMPERES

NOTES:

PANEL SCHEDULE LEGEND

PES PROVIDED BY PUMP EQUIPMENT SUPPLIER

POL SEE POWER ONE-LINE DIAGRAM FOR WIRE AND CONDUIT QUANTITY AND SIZING INFORMATION.

SEAL
STATE OF MARYLAND — TECHIN LAW — 54564 — PROFESSIONAL ENGINEER
DATE : AUGUST 18, 2025

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. 44664, EXPIRATION DATE 2027-06-18.

CCJM ENGINEERING INFRASTRUCTURE SOLUTIONS
400 East Pratt St, Suite 604, Baltimore, MD
www.ccjm.com | Baltimore@ccjm.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: TCL
DWN BY: JKD
CHKD BY: UNP

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

CONTRACT COMPLETION BOX | R.O.W NO. | PNW | 35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ELECTRICAL - PANEL SCHEDULES
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
E-600	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 110 OF 150
	DRAWING NUMBER
	2025-2280
	FILE NO.: 8

DWG. FILENAME:P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\13 Elec_E\02-Sheets\E-600.dwg

LIGHTING FIXTURES SCHEDULE

TYPE	DESCRIPTION	BASIS OF DESIGN		LAMPS				VOLTS	MOUNTING	REMARKS
		MANUFACTURER	CATALOG NUMBER	TYPE	LUMENS	EFFICACY (LPW)	WATTS			
L01	4" ROUND ADJUSTABLE ACCENT LIGHT	SPECTRUM LIGHTING	FIXTURE: RAF04XT-30L-35K-MD-DS10-1-BH27 TRIM: RA4FXT-MW-SOW	LED	2280	66	34.6	120V	RECESSED	ADJUST FIXTURE AIM AS DIRECTED BY ARCHITECT
L01E	4" ROUND ADJUSTABLE ACCENT LIGHT, WITH INTEGRAL BATTERY BACKUP FOR EMERGENCY OPERATION	SPECTRUM LIGHTING	FIXTURE: RAF04XT-30L-35K-MD-DS10-1-BH27-EM TRIM: RA4FXT-MW-SOW	LED	2280	66	34.6	120V	RECESSED	ADJUST FIXTURE AIM AS DIRECTED BY ARCHITECT
L02	2' LINEAR WALL MOUNTED DIRECT/INDIRECT	AXIS LIGHTING	FIXTURE: WBDIWLED-300-750-80-35K-SO-SO-2-W-UNV-DP-1	LED	--	--	--	(120V)/ 277V	SURFACE	MOUNTED ABOVE MIRRORS
L03	8' PENDANT MOUNTED LINEAR	AXIS LIGHTING	FIXTURE: WBDILED-400-1000-80-35K-SO-SO-8-W-UNV-DP-1-SASL(L)	LED	--	--	--	(120V)/ 277V	PENDANT	COORDINATE PENDANT MOUNTING LENGTH AT ANGLED CEILING FOR A LEVEL FIXTURE MOUNTING PARALLEL TO FINISHED FLOOR
L03E	8' PENDANT MOUNTED LINEAR, WITH INTEGRAL BATTERY BACKUP FOR EMERGENCY OPERATION	AXIS LIGHTING	FIXTURE: WBDILED-400-1000-80-35K-SO-SO-8-W-UNV-DP-1+E(#)-SASL(L)	LED	--	--	--	(120V)/ 277V	PENDANT	COORDINATE PENDANT MOUNTING LENGTH AT ANGLED CEILING FOR A LEVEL FIXTURE MOUNTING PARALLEL TO FINISHED FLOOR
L04	2' LINEAR DIRECT FIXTURE, SUITABLE FOR WET LOCATIONS	AXIS LIGHTING	FIXTURE: WBDWLED-0-750-80CRI-35-SO-2-W-UNV-DP	LED	--	--	--	(120V)/ 277V	SURFACE	
L05	2'x4' RECESSED LED TROFFER	LITHONIA LIGHTING	FIXTURE: 2GTL-4-48L-EZ1-LP835	LED	4777	133	35.79	(120V)/ 277V	RECESSED	
L06	LED OUTDOOR WALLPACK, IP66 RATED, WITH INTEGRAL PHOTOCELL AND EMERGENCY EGRESS BATTERY PACK	LITHONIA LIGHTING	FIXTURE: WPX1-LED-P2-40K-MVOLT-E4WH-PE-DBLXD	LD	2912	121	24	(120V)/ 277V	SURFACE	
U1	1'X4' PENDANT MOUNTED UTILITY FIXTURE	LITHONIA LIGHTING	FIXTURE: CSS-L48-4000LM-MVOLT-40K-80CRI	LED	4298	122	35.3	(120V)/ 277V	PENDANT	COORDINATE PENDANT MOUNTING LENGTH AT ANGLED CEILING FOR A LEVEL FIXTURE MOUNTING PARALLEL TO FINISHED FLOOR
U22	1'x2' SURFACE MOUNTED LED UTILITY FIXTURE, WET LOCATION	LITHONIA LIGHTING	FIXTURE: FEM-L24-2000LM-LPPCL-MD-MVOLT-GZ10-35K-80CRI	LED	2202	169	13	(120V)/ 277V	SURFACE	COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH AREA EQUIPMENT. PROVIDE ADDITIONAL MOUNTING EQUIPMENT AS REQUIRED.
U24	1'x4' SURFACE MOUNTED LED UTILITY FIXTURE, WET LOCATION	LITHONIA LIGHTING	FIXTURE: FEM-L48-4000LM-LPPCL-MD-MVOLT-GZ10-35K-80CRI	LED	4039	168	24	(120V)/ 277V	SURFACE	COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH AREA EQUIPMENT. PROVIDE ADDITIONAL MOUNTING EQUIPMENT AS REQUIRED.
E	EMERGENCY EXIT SIGN WITH INTEGRAL BATTERY PACK WITH VANDAL RESISTANT WIRE GUARD. GREEN LETTERING	LITHONIA LIGHTING	FIXTURE: LQM-S-W-3-G-MVOLT-ELN WIRE GUARD: ELA-WG	LED	--	--	--	(120V)/ 277V	SURFACE, MIN 7.5' AFF	PROVIDE WIRING AND CONDUIT TO UNSWITCHED LINE SIDE OF ASSOCIATED CIRCUITS AS INDICATED ON FLOOR PLANS
EM	EMERGENCY LED WALLPACK WITH INTEGRAL BATTERY BACKUP AND VANDAL RESISTANT SHIELD	LITHONIA LIGHTING	FIXTURE: ELM6L-WPVS	LED	--	--	--	(120V)/ 277V	SURFACE, MIN 7.5' AFF	PROVIDE WIRING AND CONDUIT TO UNSWITCHED LINE SIDE OF ASSOCIATED CIRCUITS AS INDICATED ON FLOOR PLANS

SCHEDULE NOTES

1. PROVIDE ALL ACCESSORIES AND EQUIPMENT AS REQUIRED FOR A COMPLETE AND FULLY OPERATING LIGHTING FIXTURE INCLUDING BUT NOT LIMITED TO MOUNTING BRACKETS, DRILL TEMPLATES, COUPLINGS, AND BASE COVERS.
2. PROVIDE VANDAL RESISTANT COVER AND SHIELDS AS AVAILABLE FOR ALL FIXTURES INSTALLED AT LOCATIONS ACCESSIBLE TO THE PUBLIC.
3. SEE ARCHITECTURAL DRAWINGS FOR EXACT FIXTURE MOUNTING HEIGHT AND LOCATIONS.

DWG. FILENAME:P:\2112022.001 NWRP Renovations_MRA\01 DRAWINGS\13 Elec_E\02-Sheets\E-601.dwg

SEAL — STATE OF MARYLAND — TE-CHIN LIN — 14664 — PROFESSIONAL ENGINEER
DATE : AUGUST 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. 44664 . EXPIRATION DATE 2027-06-18 .

CCJM — ENGINEERING INFRASTRUCTURE SOLUTIONS — 400 East Pratt St, Suite 604, Baltimore, MD — www.ccjm.com | Baltimore@ccjm.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: TCL
DWN BY: JKD
CHKD BY: UNP

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
ELECTRICAL – LIGHTING FIXTURE SCHEDULE
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
E-601	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 111 OF 150
	DRAWING NUMBER
	2025-2281
	FILE NO.: 8

SHEET INDEX

		NOVEMBER 17, 2023 - 30% SD	APRIL 05, 2024 - 60% DD - PRICING SET	APRIL 19, 2024 - 60% DD	JULY 19, 2024 - 90% CD	MAY 27, 2025 - 90% CD	JULY 10, 2025 - 100% CD - PERMIT SET	JULY 18, 2025 - 100% CD
W0-0.00	AQUATIC - SHEET INDEX SYMBOLS & ABBREVIATIONS	☒	☒	☒	☒	☒	☒	■
W0-0.01	AQUATIC - GENERAL NOTES	☒	☒	☒	☒	☒	☒	■
W1-1.01	AQUATIC - SPLASH PAD SITE LAYOUT PLAN	☒	☒	☒	☒	☒	☒	■
W1-1.02	AQUATIC - SPLASH PAD SITE PIPING PLAN	☒	☒	☒	☒	☒	☒	■
W1-1.10	AQUATIC - SPLASH PAD SECTIONS	☒	☒	☒	☒	☒	☒	■
W4-1.01	AQUATIC - SPLASH PAD FILTRATION FLOW DIAGRAM	☒	☒	☒	☒	☒	☒	■
W4-1.02	AQUATIC - SPLASH PAD FEATURE FLOW DIAGRAM	☒	☒	☒	☒	☒	☒	■
W4-1.20	AQUATIC - MECHANICAL ROOM LAYOUT PLAN		☒	☒	☒	☒	☒	■
W4-1.21	AQUATIC - MECHANICAL ROOM HOUSEKEEPING PAD PLAN				☒	☒	☒	■
W4-1.22	AQUATIC - COLLECTION TANK LAYOUT PLAN & SECTIONS					☒	☒	■
W4-1.30	AQUATIC - MECHANICAL ROOM & COLLECTION TANK SECTIONS		☒	☒	☒	☒	☒	■
~~W4-1.31~~	~~MECHANICAL ROOM & COLLECTION TANK SECTIONS~~ REMOVED FROM SET				☒			
W5-1.01	AQUATIC - GENERAL DETAILS	☒	☒	☒	☒	☒	☒	■
W5-1.02	AQUATIC - GENERAL DETAILS	☒	☒	☒	☒	☒	☒	■
W5-1.03	AQUATIC - GENERAL DETAILS		☒	☒	☒	☒	☒	■
W5-1.04	AQUATIC - GENERAL DETAILS					☒	☒	■
W5-1.05	AQUATIC - GENERAL DETAILS					☒	☒	■
W5-1.06	AQUATIC - GENERAL DETAILS					☒	☒	■
W6-0.01	AQUATIC - STRUCTURAL GENERAL NOTES					☒	☒	■
W6-0.02	AQUATIC - STRUCTURAL GENERAL NOTES					☒	☒	■
W6-0.03	AQUATIC - STRUCTURAL GENERAL NOTES					☒	☒	■
W6-1.10	AQUATIC - SPLASH PAD STRUCTURAL LAYOUT & SECTIONS				☒	☒	☒	■
W6-1.20	AQUATIC - MECHANICAL BUILDING & COLLECTION TANK STRUCTURAL LAYOUT PLAN				☒	☒	☒	■
W6-1.21	AQUATIC - ROOF FRAMING PLAN					☒	☒	■
W6-1.22	AQUATIC - FOOTING & FOUNDATION PLAN & SHEARWALL & HOLDOWN PLAN					☒	☒	■
W6-1.30	AQUATIC - MECHANICAL BUILDING & COLLECTION TANK STRUCTURAL SECTIONS				☒	☒	☒	■
W6-1.31	AQUATIC - MECHANICAL BUILDING & COLLECTION TANK STRUCTURAL SECTIONS				☒	☒	☒	■
W6-1.40	AQUATIC - FRAMING DETAILS					☒	☒	■
W6-1.41	AQUATIC - FRAMING DETAILS					☒	☒	■
W6-1.42	AQUATIC - FRAMING DETAILS					☒	☒	■
W6-1.50	AQUATIC - GENERAL STRUCTURAL DETAILS					☒	☒	■
WE0-0.00	AQUATIC - SYMBOLS AND NOTES				☒	☒	☒	■
WE1-0.02	AQUATIC - SPLASH PAD ELECTRICAL SITE PLAN				☒	☒	☒	■
~~WE2-1.01~~	~~ENLARGED OFFICE ELECTRICAL PLAN~~ REMOVED FROM SET					☒		
WE3-1.01	AQUATIC - MECHANICAL ROOM POWER PLAN				☒	☒	☒	■
WE4-1.01	AQUATIC - ONE-LINE DIAGRAM, CONTROL DIAGRAMS AND SCHEDULES				☒	☒	☒	■
WE4-1.02	AQUATIC - CONTROL DIAGRAMS					☒	☒	■
WE5-1.01	AQUATIC - ELECTRICAL DIAGRAMS				☒	☒	☒	■
WE5-1.02	AQUATIC - ELECTRICAL DIAGRAMS				☒	☒	☒	■
WE5-1.03	AQUATIC - ELECTRICAL DIAGRAMS				☒	☒	☒	■
WE5-1.04	AQUATIC - ELECTRICAL DIAGRAMS				☒	☒	☒	■

SYMBOLS & ABBREVIATIONS

ABBREVATION	NAME	SYMBOL
X" PVC	X" DIA. PVC PIPE	
X" HDPE	X" DIA. HDPE PIPE	
GPM	GALLONS PER MINUTE	
NC	NORMALLY CLOSED	
NO	NORMALLY OPEN	
PC	PARTIALLY CLOSED	
BV	BALL VALVE	
BFV	BUTTERFLY VALVE	
CHK	CHECK VALVE, FLANGED	
PN	PNEUMATIC VALVE	PN
FM	FLOW METER MAGNETIC	FM, M
PG	PRESSURE GAUGE	PG
CF	CHEMICAL FEED PUMP	
RD	REDUCER/ENLARGER	RD
FLG	FLANGE	FLNG
PSV	PRESSURE SUSTAINING VALVE	V-101

ABBREVATION	NAME	SYMBOL
DS	DISCONNECT SWITCH	DS
△	ANALOG INPUT	
▽	ANALOG OUTPUT	
▲	DIGITAL INPUT	
▼	DIGITAL OUTPUT	
VFD	VARIABLE FREQUENCY DRIVE	
FM	ROTO METER	
PIPE CONNECTION		
WLS	ULTRA SONIC WATER LEVEL SENSOR	
ORP	OXIDATION REDUCTION POTENTIAL PROBE	ORP
PT	PRESSURE TRANSDUCER	PT
FS	FLOAT SWITCH	
ARROW INDICATES DIRECTION OF FLOW		
PRV	SAFETY PRESSURE RELIEF VALVE	V-101
HOA	HAND, OFF, AUTO	
SMV	SAMPLING VALVE	

KEY

- ☒ ISSUED FOR INFORMATION AND COORDINATION
- ◪ ISSUED FOR INFORMATION AND COORDINATION, AND PRICING
- ■ ISSUED FOR CONSTRUCTION
- ▩ ISSUED FOR PRICING

NUMBERING SYSTEM:

DISCIPLINE:
W-WATER FEATURES
WE-WATER FEATURE ELECTRICAL

SERIES IDENTIFIER
DRAWING NUMBER

W1-1.01

SEAL

STATE OF MARYLAND — ALLEN D. CLAWSON — No. 0044243 — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD H2O

AS-BUILT PER RECORD PRINT
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AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

CONTRACT COMPLETION BOX | R.O.W NO. | PNW | 35NW40

DRAWING SCALE
PLAN SCALE: NTS
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - SHEET INDEX SYMBOLS & ABBREVIATIONS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W0-0.00	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 112 OF 150	
DRAWING NUMBER	2025-2282
FILE NO.: 8	

GENERAL NOTES & SPECIFICATIONS

A. GENERAL REQUIREMENTS

1. The Plans will govern the Work and are intended to be complimentary, to describe and provide for a complete project.
2. All work shall be performed in accordance with current Local State, County and City Standards, Specifications and adopted building Codes.
3. "Contractor" refers to the contractor or sub-contractor responsible for the installation and construction of the work contained in the W- and WE- series documents and is responsible for meeting all the requirements contained on the drawings and notes.
4. The Contractor is responsible for coordinating all phases of work contained in the W- and WE- series documents with other construction trades and construction documents including but not limited to civil, structural, mechanical, electrical and architectural trade work.
5. The Contractor is responsible for providing complete installation of the systems included in the W- and WE- series documents including piping, mechanical equipment and electrical equipment, components and power in coordination with other project documents and trades.
6. The Contractor is responsible for coordinating the installation and purchase of all the electrical components, including electrical devices, power panels, control panels etc…as indicated on the electrical (WE series) drawings for the complete operation of the systems.
7. The Contractor shall notify the Owners Representative of any discrepancies, omissions or conflicts between various elements of the contract documents prior to proceeding with any work involved in the discrepancy, omission or conflict. Generally, the most stringent requirements shall govern the work.
8. The Contractor shall verify the location of all existing utilities including cables, conduits, pipes, water lines, gas lines, etc. and shall take proper precautions to avoid damage to such components. In the event of a conflict or discrepancy, the contractor shall promptly notify the Owner and engineer and request for necessary relocation. Failure to follow this procedure places upon the contractor the responsibility of making repair or replace such damage at his own expense.
9. The Contractor shall provide necessary safeguards and exercise caution against damage to existing and new structures, structural components and finishes. The contractor shall be responsible for any damage resulting from his operations and shall repair or replace such damage.
10. Prior to construction the Contractor shall verify all existing conditions, dimensions, elevations, etc. on the site and shall coordinate the work to be performed with all trades.
11. Shop drawings shall be submitted by the Contractor and reviewed and approved by the Owners Representative prior to fabrication, erection, manufacturing of components or purchasing materials.
12. The Contractor is responsible for safety and protection within and adjacent to the job site during construction.

B. SITE WORK

1. Refer to soils report and geotechnical engineer for additional requirements for excavation, backfill materials, ground water elevations, dewatering requirements, etc. Soils report will govern the work related to excavation and backfill.
2. The Contractor shall excavate to required sub-grade elevations for all piping, footings, foundations, slabs, vaults and structures necessary to complete the work described in these documents.
3. All footings, slabs and concrete shells shall bear on undisturbed natural material or properly placed engineered backfill. If a portion of the structure is on engineered fill then the entire structure shall be excavated and backfilled so the entire structure is on engineered fill to minimize differential settlement.
4. Pipe layouts shown on the contract drawings represent the desired pipe routing, allowing for minor realignment required by field conditions. Engineer of Record approval is required for all major rerouting of piping.
5. All Pipe runs shall be installed with the least number of fittings and without air entrapping high points or reverse slopes.
6. Gravity drain lines must be installed with constant slope and great care to not have high points in the line.
7. Piping shall be fully supported along its entire length to prevent pipe deflections and in accordance with contract specifications. All fittings shall be adequately supported to resist thrust, vibration, and movement. Provide thrust blocks and bracing where needed.

C. WATER FEATURE REQUIREMENTS

1. All work shall be in strict accordance with the Local Health/Building Department requirements.
2. Surface treatment of wet deck areas shall be impervious and slip resistant. See architectural documents for materials. Wet deck includes the deck immediately around the feature and the first 15 feet (4.5 m) of walkways to sanitary facilities.
3. Install backflow prevention device at all water feature fill connections to main potable supply line.
4. Provide Automatic Fill Valve with level sensor and controller manufactured by AquatiControl Technology as shown on the drawings.
5. Provide a potable water fill/makeup supply for each water feature system with a 6 inch (15 cm) minimum air gap above the high water level in the chamber.

D. WATER FEATURE PIPING REQUIREMENTS

1. All circulation and treatment equipment that comes in contact with the water feature water shall be NSF approved and meet potable water standards.
2. Provide PVC Swing Check Valves as shown on the drawings. PVC Swing Check Valves shall have a one piece Thermoplastic PVC body construction conforming to Cell Classification 12454 with top-entry access to internal parts without removing flanges. Body shall be flanged type conforming to ANSI B 16.5 bolt circle. External lever and weight shall be of non-slam design. Shaft and bolts shall be 316 Stainless Steel. Gasket material and seats composed of Viton® or EPDM.
3. Provide PVC Butterfly Valves manufactured by Asahi or Spears as shown on the drawings for pipe size 4" and up. 4" valves may be lever actuated, 6" and larger shall be gear operated. Stem and metallic fasteners shall be 316 St. Steel, seals shall be EPDM or Viton. Submerged valves shall be supplied with stem extensions or 2 in. square operating nuts.
4. Provide PVC Ball Valves manufactured by Asahi or Spears as shown on the drawings for pipe sizes 3" and smaller. Valves shall be Tru-Union with PTFE seats and seals of Viton or EPDM. Valves shall have a minimum pressure rating of 150 psi.
5. All PVC pipe and fittings shall be schedule 40 conforming to ASTM D1785. All PVC pipe exposed to sunlight shall be coated to resist deterioration due to ultraviolet radiation. All fitting connections shall be flanged or solvent welded, no slip type or push on gasketed joints will be permitted. Solvent Cement to comply with ASTM D2564.
6. All piping shall be adequately supported with anchor blocks, thrust blocks and pipe supports to prevent sagging, shaking and motion of the piping system.
7. Install water stop flange with a bead of swell seal around pipe at base of flange for all horizontal wall penetrations as shown on the drawings.
8. Perform hydrostatic pressure test on all newly laid and installed pipe. Prior to testing, verify all piping, valves, and fittings have been properly installed and that all flange bolts are tight and secure. The pipeline shall be flushed or vacuumed to remove all construction debris and foreign material from the pipeline prior to testing & protected from foreign material introduction thereafter.

E. WATER FEATURE EQUIPMENT REQUIREMENTS

1. Contractor may submit equipment alternatives of the same quality & performance characteristics for approval by engineer.
2. Provide flow meters capable of reading 1.5 times the designed flow at the installation point indicated on the drawings & correctly sized for the pipe diameter. Install flow meter in a location where it is easily read per manufacturers instructions including minimum straight pipe diameters up & down stream from insertion point.
3. Pressure and Compound Gauges shall be 2.5" OR 4" diameter liquid filled Stainless Steel style & rated for no more than 2x the intended pressure reading at the installation point.
4. Provide and install treatment circulation and feature pumps as shown on the drawings. Pumps shall be manufactured of non-corrosive materials with integral molded body basket strainers with transparent lid design. Motors shall be NEMA premium efficiency.
5. Water feature chemicals shall be stored in accordance with manufacturer's recommendations under roofed areas that are non-accessible to unauthorized persons.
6. Provide and install mechanical identification for all pipe, valves, and equipment. Install plastic nameplates with corrosion-resistant mechanical fasteners or sufficient adhesive to ensure permanent adhesion. Identify all piping, concealed or exposed, with plastic pipe markers or stenciled painting. Identify service, flow direction, and pressure. Install in clear view and align with axis of piping. Spacing between indentifying markers/stencils not to exceed 20 feet (6 meters).
7. Provide housekeeping pads of concrete, minimum 4 inches (100 mm) thick and extending a minimum of 3 inches (75 mm) beyond supported equipment. Provide templates, anchor bolts and accessories for mounting and anchoring equipment. Provide shims, anchors, support straps, angles, grouted bases, or other items required to accomplish proper installation.

F. ELECTRICAL REQUIREMENTS

1. All electrical work shall be in strict compliance with the latest edition of the National Electric Code (NEC) and local ordinances. The most stringent requirements shall take precedence.
2. All system treatment and feature pumps shall be supplied with a General duty quick-make, quick-break type, non-fused disconnect switch compliant with NEC requirements. Disconnects for motor circuits shall be horsepower rated.
3. Feature pumps shall be electrically interlocked with the treatment pumps such that feature pumps may not operate unless treatment pump(s) are on.
4. Water features shall be grounded as required by the National Electric Code (NEC) including reinforcing, spray features, handrails, anchors, etc. Make grounding conductor connections to grounding electrodes using approved bolted clamps of bronze or brass designed for such use. Connections to structural steel, ground rods, or splices shall be made using exothermic welds or high pressure compression type connectors.
5. All outlets within the water feature areas shall be GFCI rated.
6. Control panels, power panels, etc. shall be installed in locations where the panels are easily accessible and meet NEC code clearance requirements. Enclosures shall be NEMA 4X outdoor rated.
7. High water level switch shall be incorporated as shown in electrical diagrams to monitor high water levels in the pump pit and provide shunt-trip shutdown of electrical power de-energizing all water feature equipment. The switch shall be installed near the floor as shown in the contract documents.
8. Contractor shall verify all electrical loads (voltage, phase, connection requirements, etc.) of equipment furnished before beginning rough in work. Notify the engineer if there are any discrepancies between equipment furnished and contract documents.
9. Contractor shall insure that all components of the control system are fully operational and function as originally intended. Operation of the system shall meet the requirements as indicated in the control specifications and in the construction drawings.

SEAL

STATE OF MARYLAND · ALLEN D. CLAWSON · No. 0044243 · PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD H2O

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: CGB
DWN BY: DSB
CHKD BY: ADC

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

R.O.W NO. | PNW | 35NW40

CONTRACT COMPLETION BOX

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: NTS
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

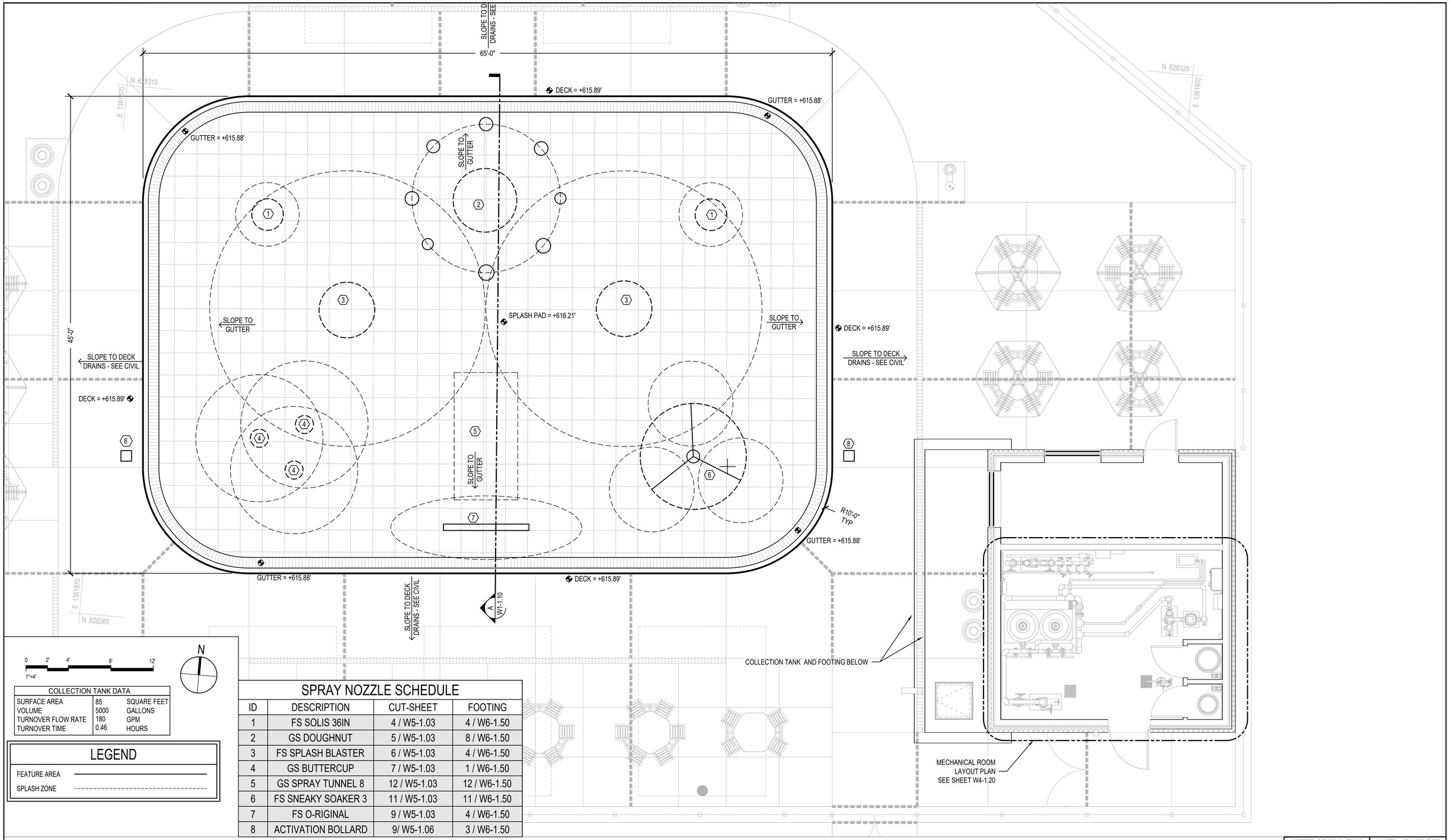
AQUATIC - GENERAL NOTES

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
W0-0.01	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 113 OF 150
	DRAWING NUMBER
	2025-2283
	FILE NO.: 8



0 2' 4' 8' 12'

1"=4'

N

COLLECTION TANK DATA		
SURFACE AREA	85	SQUARE FEET
VOLUME	5000	GALLONS
TURNOVER FLOW RATE	180	GPM
TURNOVER TIME	0.46	HOURS

LEGEND

FEATURE AREA ——————

SPLASH ZONE - - -

SPRAY NOZZLE SCHEDULE			
ID	DESCRIPTION	CUT-SHEET	FOOTING
1	FS SOLIS 36IN	4 / W5-1.03	4 / W6-1.50
2	GS DOUGHNUT	5 / W5-1.03	8 / W6-1.50
3	FS SPLASH BLASTER	6 / W5-1.03	4 / W6-1.50
4	GS BUTTERCUP	7 / W5-1.03	1 / W6-1.50
5	GS SPRAY TUNNEL 8	12 / W5-1.03	12 / W6-1.50
6	FS SNEAKY SOAKER 3	11 / W5-1.03	11 / W6-1.50
7	FS O-RIGINAL	9 / W5-1.03	4 / W6-1.50
8	ACTIVATION BOLLARD	9/W5-1.06	3 / W6-1.50

NOTES:

ALL NOZZLE SUPPLY PIPING TO BE 1-1/2" PVC. TRANSITION TO NOZZLE CONNECTION SIZE WITHIN 5' OF NOZZLE LOCATION.

3 W5-1.03 GUTTER OUTLET TYP OF 6

3" PVC FROM GUTTER OUTLET TYP

4" PVC

1-1/2" PVC TO FS SOLIS 36IN

3/4" PVC

TRANSITION TO 3/4" PVC

1-1/2" PVC TO GS DOUGHNUT

TRANSITION TO 1/2" PVC

1/2" PVC

1-1/2" PVC TO SPLASH BLASTER

1-1/2" PVC TO GS BUTTERCUP

1-1/2" PVC TO GS SPRAY TUNNEL 8

1-1/2" PVC TO FS SNEAKY SOAKER 3

1" PVC

TRANSITION TO 1" PVC

1-1/2" PVC TO FS O-RIGINAL

6" PVC TO COLLECTION TANK

COLLECTION TANK AND FOOTING BELOW

MECHANICAL ROOM LAYOUT PLAN
SEE SHEET W4-1.20

E 1361860

N 628260

N

0 2' 4' 8' 12'

1"=4'

PIPING LEGEND

FEATURE PIPING

DRAIN PIPING

SEAL

STATE OF MARYLAND · ALLEN D. CLAWSON · No. 0044243 · PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD H2O

AS-BUILT PER RECORD PRINT
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DGN BY: CGB
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AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: 1" = 4'
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - SPLASH PAD SITE PIPING PLAN

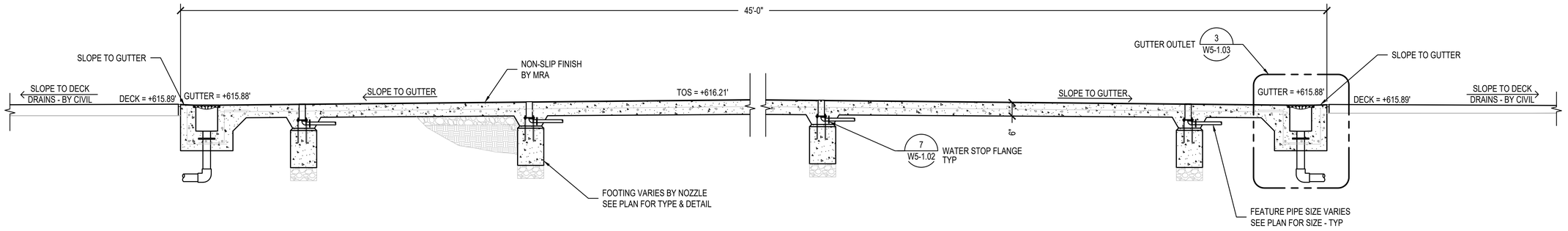
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W1-1.02	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 115 OF 150
	DRAWING NUMBER
	2025-2285
	FILE NO.: 8



NOTES:

SEE SHEET W5-1.03 FOR INDIVIDUAL NOZZLE FOOTING DETAILS
SEE SHEET W6-1.10 FOR STRUCTURAL NOTES

SPLASH PAD SECTION A

SCALE 1/2" = 1'-0"

SEAL

STATE OF MARYLAND · ALLEN D. CLAWSON · No. 0044243 · PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD H2O WATER PERFECTED 2

AS-BUILT PER RECORD PRINT
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DWN BY: DSB
CHKD BY: ADC

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

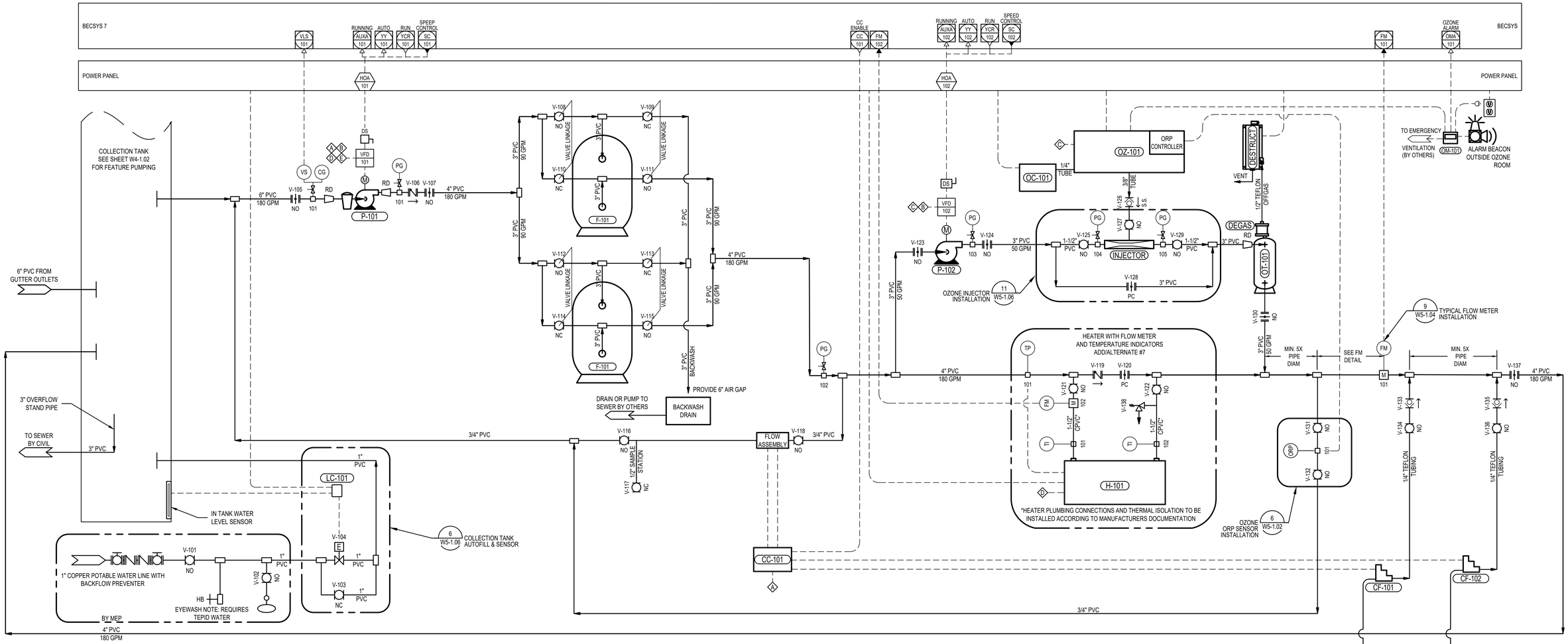
DRAWING SCALE
PLAN SCALE: 1/2" = 1'
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
AQUATIC - SPLASH PAD SECTIONS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
W1-1.10	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 116 OF 150	
DRAWING NUMBER	2025-2286
FILE NO.: 8	REV. 40/36



MECHANICAL EQUIPMENT SCHEDULE

ITEM TAG	DESCRIPTION	SPECIFICATION	KW	HP	RPM	VAC	PHASE	Hz
P-101	TREATMENT PUMP	PENTAIR WHISPERFLO XF VS, 3" x 3", INTEGRAL VFD, 180 GPM @ 50' TDH, 022035 W/356324Z	3.7	5	VAR	208	3	60
P-102	BOOSTER PUMP	PENTAIR INTELLIFLO3 VSF, 3" x 3", INTEGRAL VFD, 50 GPM @ 75' TDH, 011078	2.2	3	VAR	208	1	60
F-101, F-102	SAND FILTER	TRITON, TR-140C-3, 7.07 SQ. FT. PER FILTER, 3 INCH FLANGE CONNECTIONS						
OZ-101	OZONE GENERATOR	ATAVIS OZONE, GEN-35-1, 35G/HR (INCLUDES SIGNET ORP CONTROLLER & PROBE)	0.7			120	1	60
OC-101	OXYGEN CONCENTRATOR	ATAVIS OXY-35-1	0.1			120	1	60
OT-101	CONTACT TANK	CTA-35-3-1 (INCLUDES DEGAS TOWER & VALVE, OZONE DESTRUCT, AND 1584 INJECTOR ASSY)	0.1			120	1	60
CF-101	CHLORINE FEED PUMP	STENNER, 85M1, MAX FEED RATE 5 GPD W/ VAPOR SHIELD	0.2			120	1	60
CF-102	pH FEED PUMP	STENNER, 45M1, MAX FEED RATE 3 GPD W/ VAPOR SHIELD	0.2			120	1	60
CT-101	CHLORINE TANK	CHEM-TAINER, TC1548AA, 36 GALLONS, INCLUDE LID						
CT-102	CONTAINMENT TANK	CHEM-TAINER, TC1840AA, 40 GALLONS						
CT-103	ACID TANK	CHEM-TAINER, TC1321AA, 10 GALLONS, INCLUDE LID						
CT-104	CONTAINMENT TANK	CHEM-TAINER, TC1516AA, 12 GALLON						
CC-101	CHEMICAL CONTROLLER	BECS TECHNOLOGY, BECSYS7 WITH CHEMLOCK, INCLUDE INDUSTRIAL PROBES	3.8			120	1	60
LC-101	LEVEL CONTROLLER	AQUATICONTROL, ELC-810 SURGE TANK LEVEL SENSOR & CONTROLLER	0.1			120	1	60
OM-101	OZONE MONITOR	ANALYTICAL TECHNOLOGIES, INC. A12 OZONE GAS MONITOR						
FM-101, FM-102*	FLOW METER	SIGNET 2551, MAGMETER FLOW SENSOR W/ 9900 FLOW MONITOR (4-20mA ouput)						
PG-101 THRU PG-105	PRESSURE GAUGE	WIKA (TYPE PER INSTALLATION), LIQUID FILLED 4 INCH (100mm) DIA.						
CG-101	COMPOUND GAUGE	WIKA (TYPE PER INSTALLATION), LIQUID FILLED 2.5 INCH (63mm) DIA. 0-30 Hg/0-30 PSI RANGE						
VS-101	VACUUM SWITCH	MERCOID VACUUM LIMIT SWITCH, ADJUSTABLE SET POINTS (2-3 IN Hg)						
ADD ALTERNATE*								
TP-101*	TEMPERATURE PROBE	TERICE BX PLUS, THERMOMETER W/ RTD AND THERMOWELL						
TI-101*, TI-102*	THERMOMETER	TRERICE AX9, 7 INCH (180mm)ADJUSTABLE ANGLE W/ THERMOWELL						
H-101*	HEATER	COATES ELECTRIC, CE 32012CE, 12 kW, 40,946 BTU/HR, 1-1/2 NPT WATER CONNECTIONS	12			208	3	60

BALANCE TANK GEOMETRY

VOLUME	5,000	GALLONS

TREATMENT INFORMATION

TURNOVER FLOW RATE	180	GPM
TURNOVER TIME	0.46	HOURS
	27	MINUTES
MAX. BATHER LOAD	-	PEOPLE

EQUIPMENT TAG LEGEND

EQUIPMENT CALL OUT → EQ-100 ← IDENTIFICATION NUMBER

NOTES

1) AIR RELIEF VALVES MAY NEED TO BE ADDED IN HIGH POINTS OF PIPING BUT ARE NOT SHOWN ON SCHEMATIC DRAWINGS.
2) ALL VALVES LOCATED 7 FEET ABOVE THE FINISHED FLOOR REQUIRE CHAIN OPERATORS.

INTERLOCKS

INTERLOCK TAG	CONNCECTIONS	DESCRIPTION
A	P-101 TO CC-101	AUX SIGNAL FROM FILTRATION PUMP VFD TO ENABLE CHEMICAL CONTROLLER WHEN P-101 IS OPERATING IN NORMAL FILTER MODE
B	P-101 TO P-102	AUX SIGNAL FROM FILTRATION PUMP VFD TO ENABLE OZONE BOOSTER PUMP VFD WHEN P-101 IS OPERATING IN NORMAL FILTER MODE
C	P-102 TO OZ-101	AUX SIGNAL FROM BOOSTER PUMP VFD TO ENABLE OZONE WHEN P-102 IS OPERATING
D	P-101 TO H-101	AUX SIGNAL FROM FILTRATION PUMP VFD TO ENABLE H-101 WHEN P-101 IS OPERATING IN NORMAL FILTER MODE
E	P-101 TO FEATURE PUMPS	AUX SIGNAL FROM FILTRATION PUMP VFD TO ENABLE ALL FEATURE PUMPS WHEN P-101 IS OPERATING IN NORMAL FILTER MODE (SEE SHEET W4-1.02)

SEAL — STATE OF MARYLAND · ALLEN D. CLAWSON · No. 0044243 · PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 44243 EXPIRATION DATE 07/17/2027

CLOWARD H2O

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: CGB
DWN BY: DSB
CHKD BY: ADC

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
			R.O.W NO.		
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: NTS
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

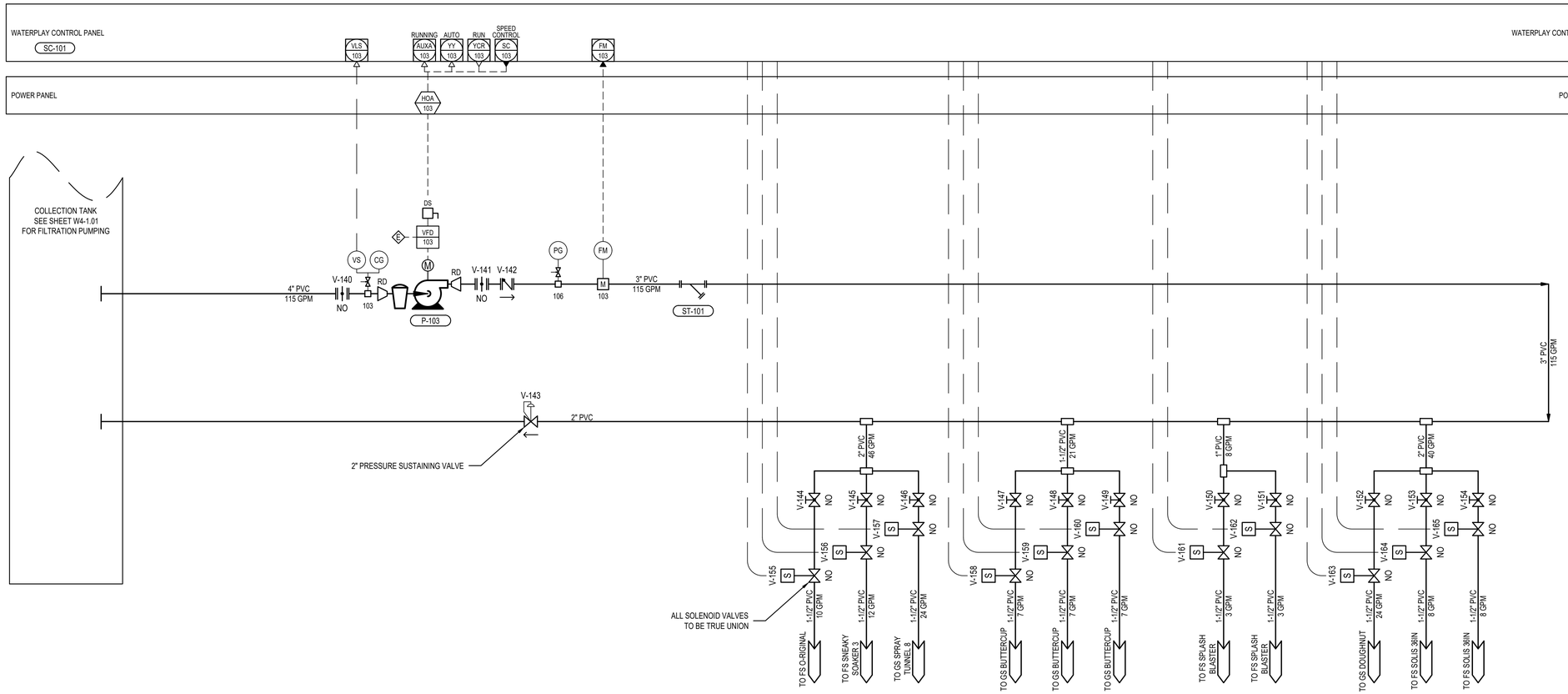
NORTHWEST REGIONAL PARK

AQUATIC - SPLASH PAD FILTRATION FLOW DIAGRAM

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W4-1.01	25114 GX0
JOB ORDER NUMBER	
PROJ-1000634	
SHEET 117 OF 150	
DRAWING NUMBER	
2025-2287	
FILE NO.: 8	REV. 00/00



NOTE:
SEE PIPING PLAN FOR PIPE SIZE TRANSITIONS AT OR NEAR NOZZLES

MECHANICAL EQUIPMENT SCHEDULE

ITEM TAG	DESCRIPTION	SPECIFICATION	KW	HP	RPM	VAC	PHASE	Hz
P-103	FEATURE PUMP	PENTAIR WHISPERFLO XF VS, 3 X 3", INTEGRAL VFD, 115 GPM @ 55' TDH, 022035	3.7	5	VAR	208	3	60
FM-103	FLOW METER	SIGNET 2551, MAGMETER FLOW SENSOR W/ 9900 FLOW MONITOR (4-20mA ouput)						
PG-106	PRESSURE GAUGE	WIKA (TYPE PER INSTALLATION), LIQUID FILLED 4 INCH (100mm) DIA.						
CG-103	COMPOUND GAUGE	WIKA (TYPE PER INSTALLATION), LIQUID FILLED 2.5 INCH (63mm) DIA. 0-30 Hg/0-30 PSI RANGE						
VS-103	VACUUM SWITCH	MERCOID VACUUM LIMIT SWITCH, ADJUSTABLE SET POINTS (2-3 IN Hg)						
ST-101	WYE STRAINER	3-INCH WYE STRAINER						
SC-101	SPRAY CONTROLLER	WATERPLAY SMARTPLAY CONTROLLER (0010-1954) ON 15-AMP BREAKER	1.8			120	1	60
V-155 THRU V-165	SOLENOID VALVES	RAIN BIRD, SOLENOID VALVE, PGA 150 OR SIMILAR						

INTERLOCKS

INTERLOCK TAG	CONNCECTIONS	DESCRIPTION
E	P-101 TO FEATURE PUMPS	AUX SIGNAL FROM FILTRATION PUMP VFD TO ENABLE ALL FEATURE PUMPS WHEN P-101 IS OPERATING IN NORMAL FILTER MODE (SEE SHEET W4-1.01)

SEAL

STATE OF MARYLAND · ALLEN D. CLAWSON · No. 0044243 · PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION

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LICENSE NO. 44243, EXPIRATION DATE 07/17/2027.

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BY:
DATE:

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CHKD BY: ADC

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
			R.O.W NO.		
CONTRACT COMPLETION BOX					

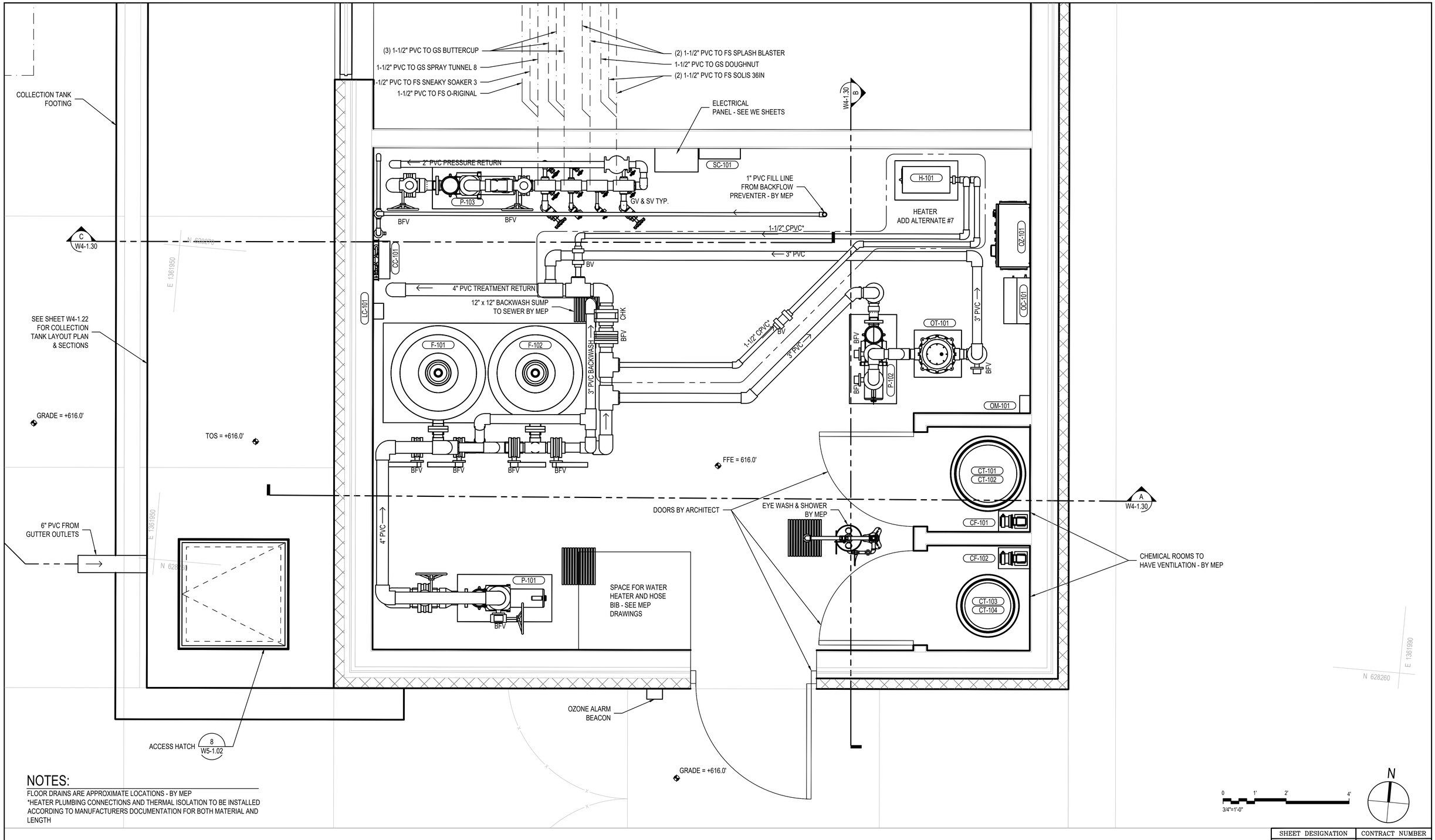
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: NTS
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY:
PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
AQUATIC - SPLASH PAD FEATURE FLOW DIAGRAM
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W4-1.02	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 118 OF 150
	DRAWING NUMBER
	2025-2288
	FILE NO.: 8



NOTES:

FLOOR DRAINS ARE APPROXIMATE LOCATIONS - BY MEP
*HEATER PLUMBING CONNECTIONS AND THERMAL ISOLATION TO BE INSTALLED ACCORDING TO MANUFACTURERS DOCUMENTATION FOR BOTH MATERIAL AND LENGTH

SEAL

STATE OF MARYLAND · ALLEN D. CLAWSON · No. 0044243 · PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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DATE:

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CHKD BY: ADC

AS-BUILT / REVISION

	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
			R.O.W NO.	PNW	35NW40
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE

PLAN SCALE: 3/4" = 1'
PROFILE SCALE:

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - MECHANICAL ROOM LAYOUT PLAN

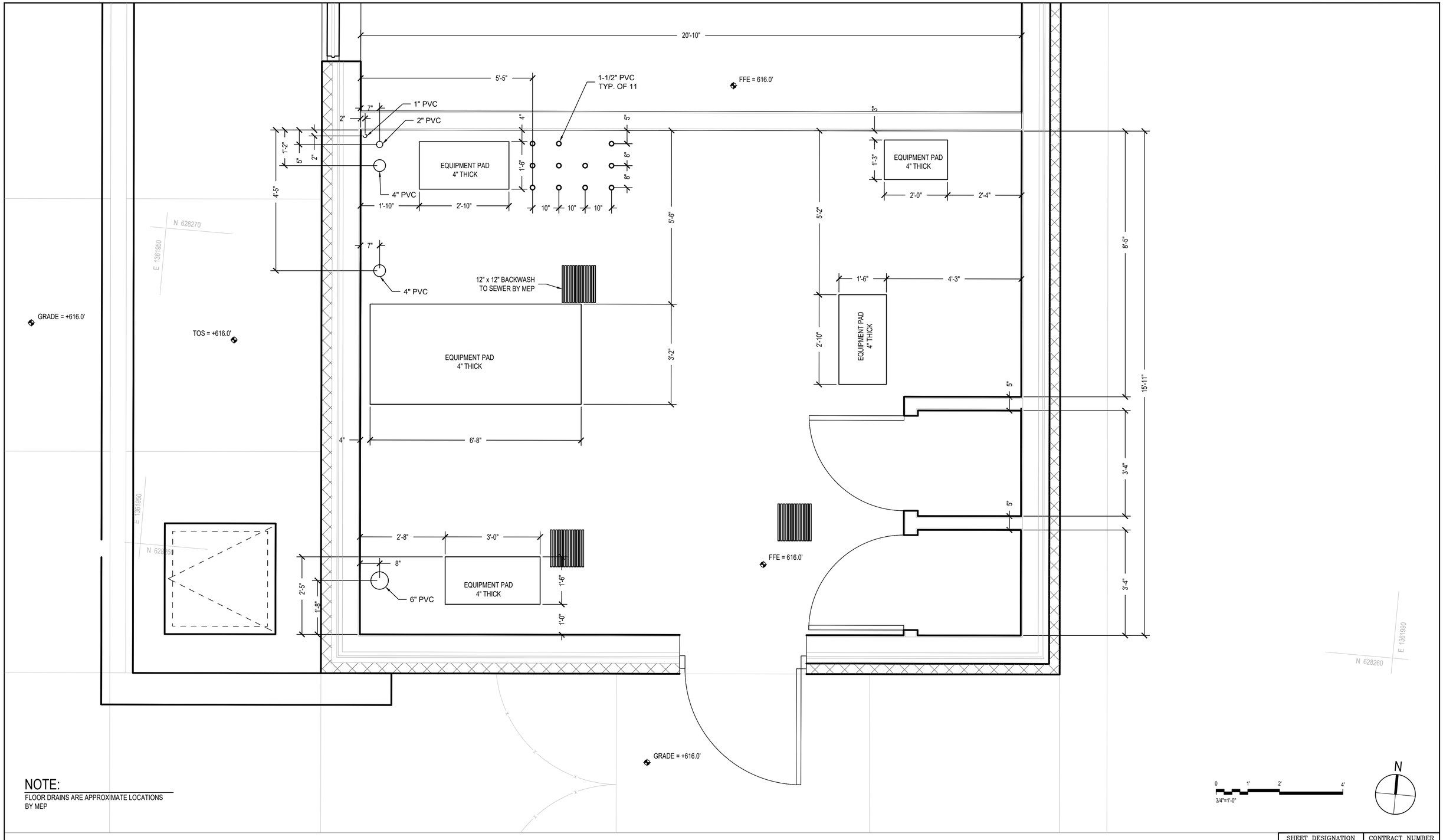
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W4-1.20	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 119 OF 150
	DRAWING NUMBER
	2025-2289
	FILE NO.: 8



NOTE:
FLOOR DRAINS ARE APPROXIMATE LOCATIONS BY MEP

SEAL
STATE OF MARYLAND
ALLEN D. CLARKSON
No. 0044243
PROFESSIONAL ENGINEER
DATE : JULY 18, 2025

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CLOWARD H2O

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BY:
DATE:

DGN BY: CGB
DWN BY: DSB
CHKD BY: ADC

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
CONTRACT COMPLETION BOX			R.O.W NO.

KEY SHEET	POSITION SHT
PNW	35NW40

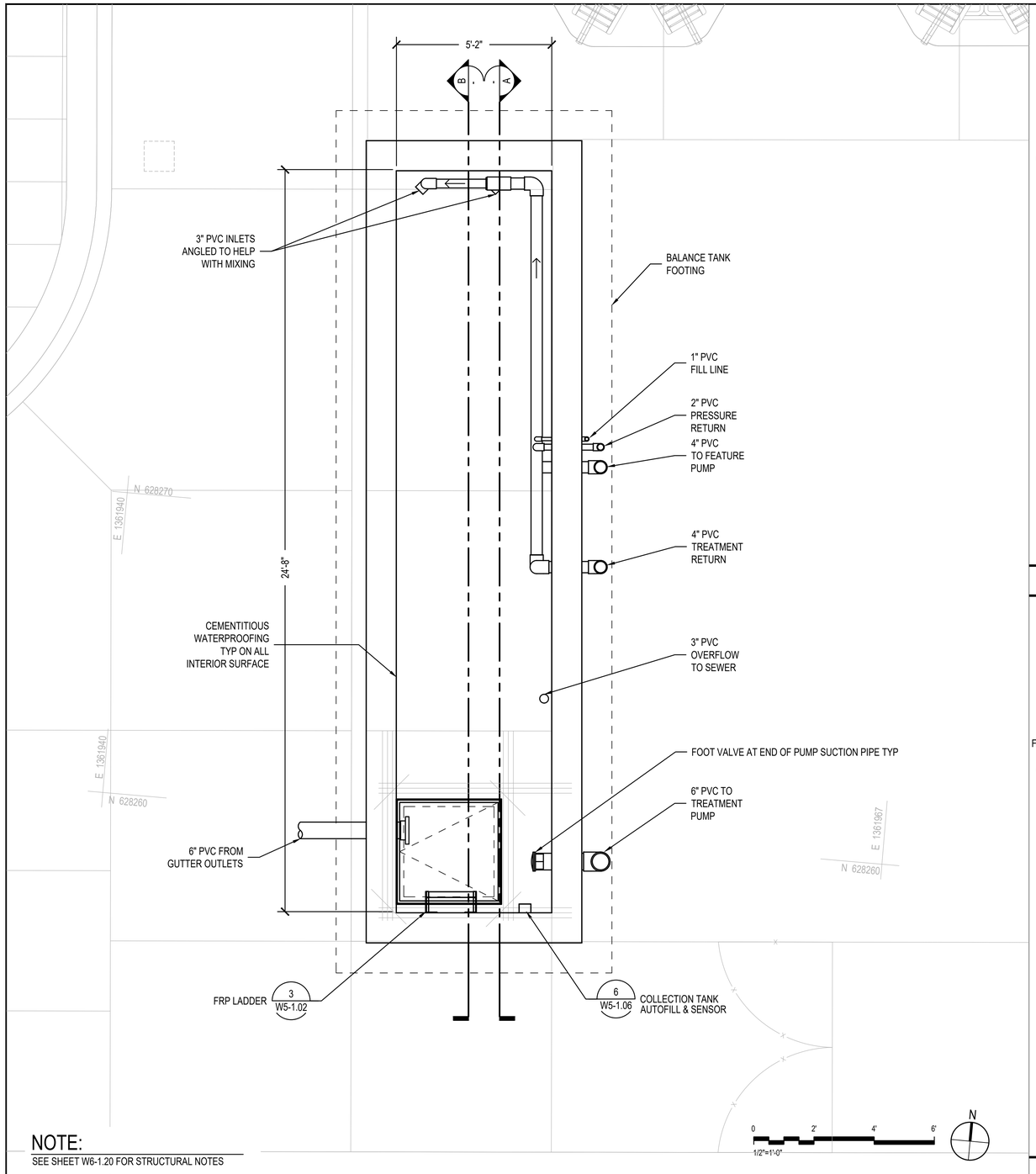
DRAWING SCALE
PLAN SCALE: 3/4" = 1'
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

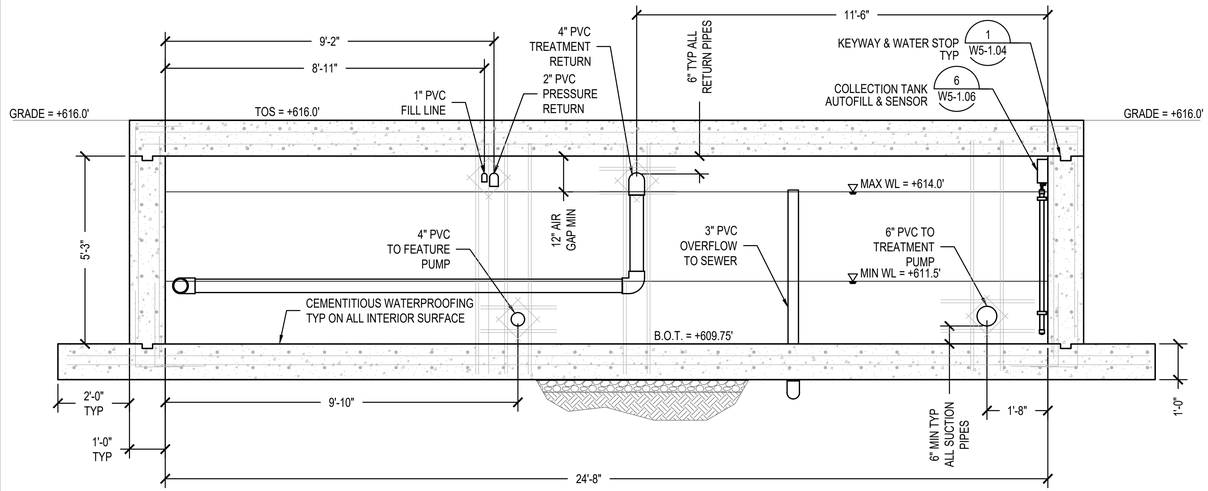
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
AQUATIC - MECHANICAL ROOM HOUSEKEEPING PAD PLAN
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W4-1.21	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 120 OF 150
	DRAWING NUMBER
	2025-2290
	FILE NO.: 8

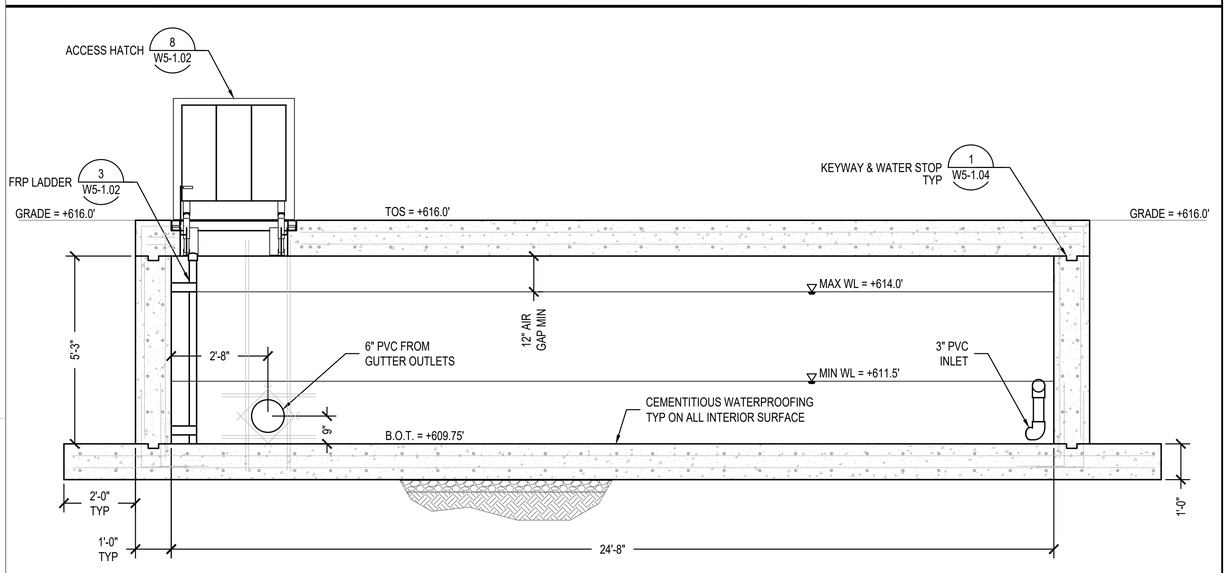


NOTE:
SEE SHEET W6-1.20 FOR STRUCTURAL NOTES



COLLECTION TANK - SECTION A

SCALE 1/2" = 1'-0"



NOTE:
SEE SHEET W6-1.20 FOR STRUCTURAL NOTES

COLLECTION TANK - SECTION B

SCALE 1/2" = 1'-0"

SEAL
STATE OF MARYLAND · ALLEN D. CLAWSON · No. 0044243 · PROFESSIONAL ENGINEER
DATE : JULY 18, 2025

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LICENSE NO. 44243 , EXPIRATION DATE 07/17/2027 .

CLOWARD H2O

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: CGB
DWN BY: DSB
CHKD BY: ADC

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

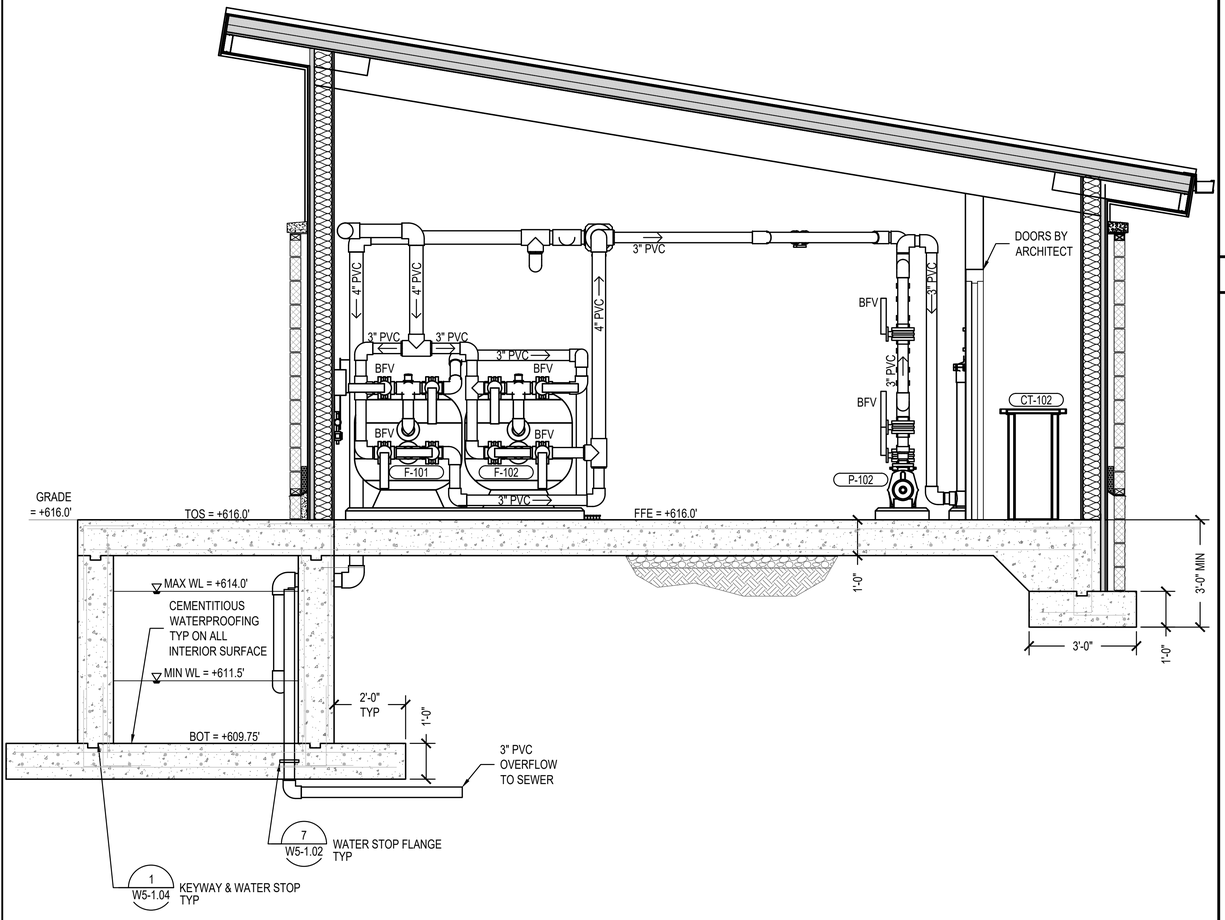
DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
AQUATIC - COLLECTION TANK LAYOUT PLAN & SECTIONS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
W4-1.22	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 121 OF 150	
DRAWING NUMBER	2025-2291
FILE NO.: 8	

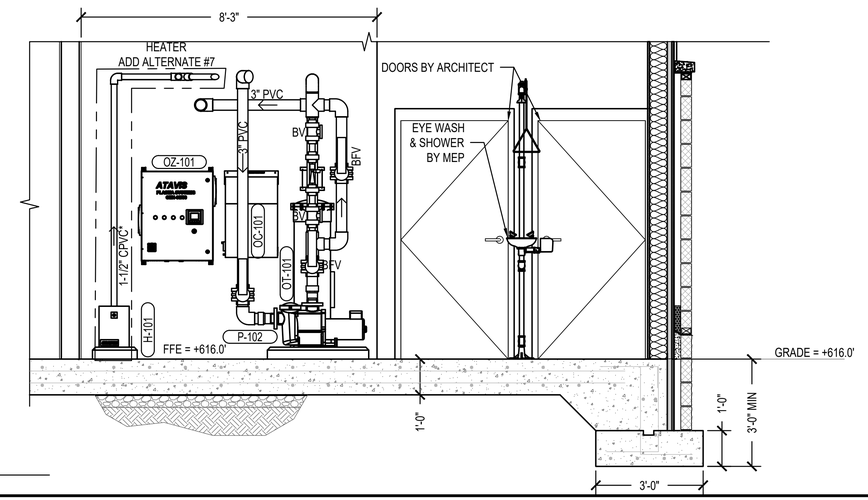


NOTES:

SEE SHEET W6-1.30 FOR STRUCTURAL NOTES

MECHANICAL ROOM & COLLECTION VAULT SECTION A

1/2" = 1'-0"

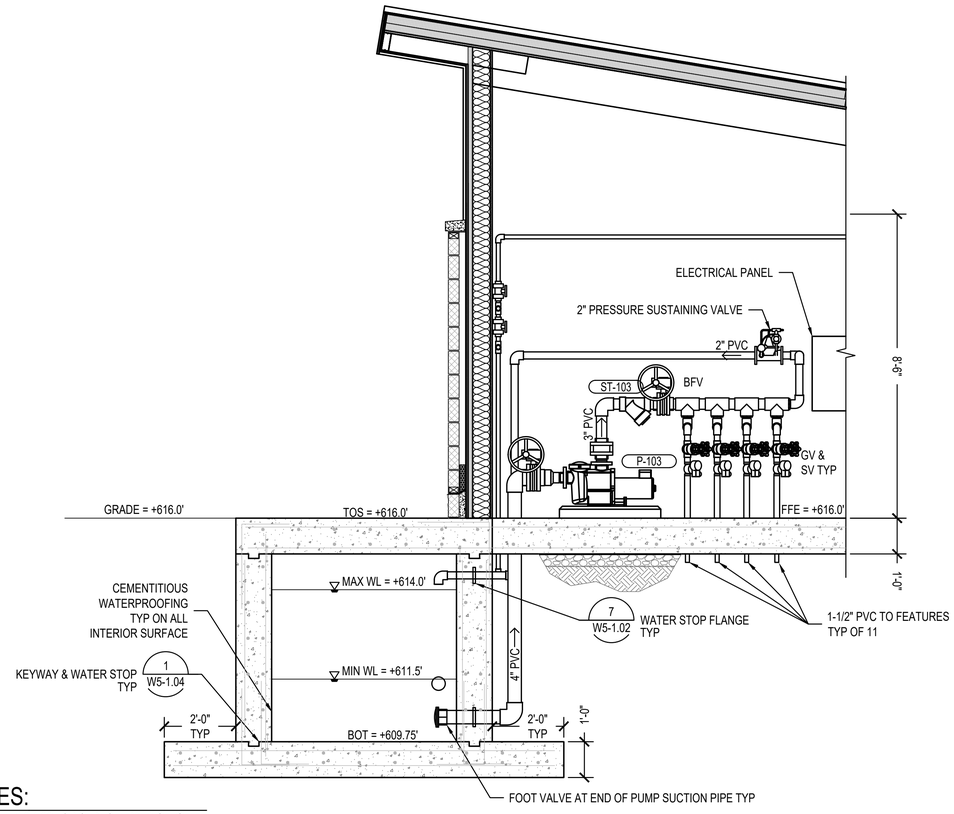


NOTES:

SEE SHEET W6-1.31 FOR STRUCTURAL NOTES

MECHANICAL ROOM & COLLECTION VAULT SECTION B

1/2" = 1'-0"



NOTES:

SEE SHEET W6-1.30 FOR STRUCTURAL NOTES

MECHANICAL ROOM & COLLECTION VAULT SECTION C

1/2" = 1'-0"

SEAL

STATE OF MARYLAND — ALLEN D. CLAWSON — No. 0044243 — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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CLOWARD H2O	DWN BY:	DSB
AS-BUILT PER RECORD PRINT	CHKD BY:	ADC
BY: DATE:		

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER

DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - MECHANICAL ROOM & COLLECTION TANK SECTIONS

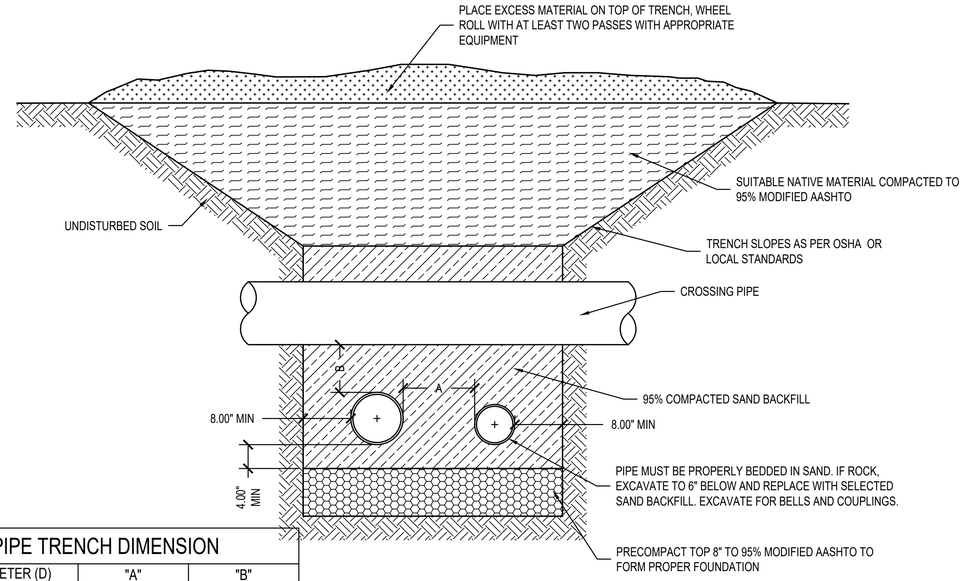
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W4-1.30	25114 GX0
JOB ORDER NUMBER	PROJ–1000634
SHEET 122 OF 150	
DRAWING NUMBER	2025-2292
FILE NO.: 8	REV. 00/00

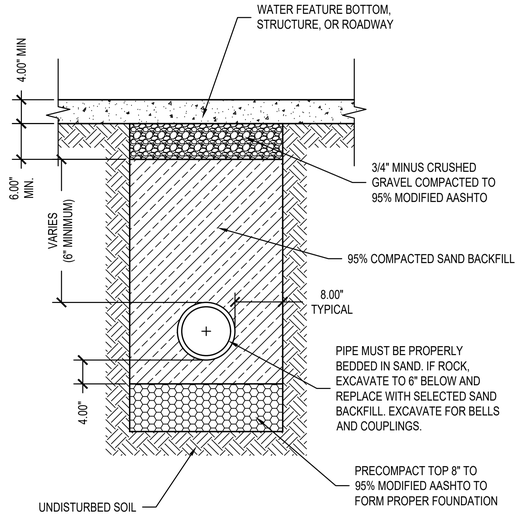


PIPE TRENCH DIMENSION		
PIPE DIAMETER (D)	"A"	"B"
1" - 3" (25mm - 80mm)	6" (150mm) MIN	6" (150mm) MIN
4" - 12" (100mm - 300mm)	12" (300mm) MIN	6" (150mm) MIN
12" - 24" (300mm - 600mm)	1.5 D	0.5 D

NOTES:
1. THE LARGEST PIPE DIAMETER SHALL BE USED TO DETERMINE THE SPACING DIMENSION
2. INSTALL PIPE IN ACCORDANCE WITH ALL MANUFACTURER'S RECOMMENDATIONS.
3. PIPES RUNNING PARALLEL AND ABOVE OTHER PIPES ARE ALLOWED ONLY BY SPECIAL APPROVAL BY THE ENGINEER.
4. ALL PIPES SHALL BE SLOPED TO LOCAL CODES, AS REQUIRED.

⑪ MULTIPLE PIPE TRENCH SECTION

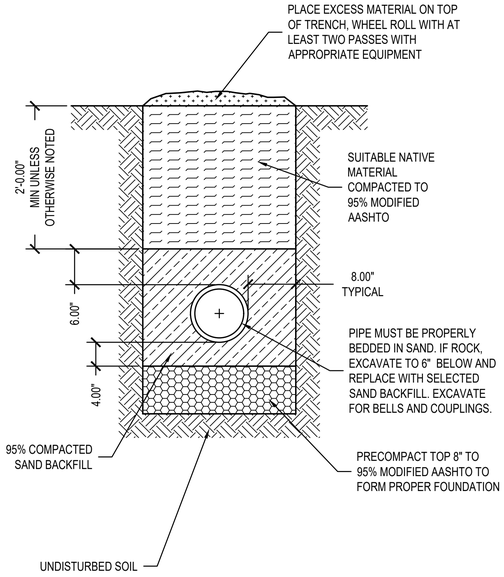
SCALE 1" = 1'-0"



NOTES:
1. INSTALL PIPE IN ACCORDANCE WITH ALL MANUFACTURER'S RECOMMENDATIONS.
2. PIPES RUNNING PARALLEL AND ABOVE OTHER PIPES ARE ALLOWED ONLY BY SPECIAL APPROVAL BY THE ENGINEER.
3. ALL PIPES SHALL BE SLOPED TO LOCAL CODES, AS REQUIRED.

⑤ TYP. PIPE TRENCH BENEATH STRUCTURE

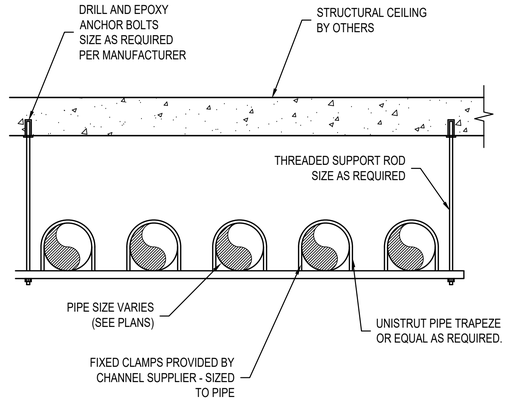
SCALE 1" = 1'-0"



NOTES:
1. AVOID LARGE TREE AND SHRUB ROOT BALLS. COORDINATE PLACEMENT WITH LANDSCAPE CONTRACTOR.
2. INSTALL PIPE IN ACCORDANCE WITH ALL MANUFACTURER'S RECOMMENDATIONS.
3. PIPES RUNNING PARALLEL AND ABOVE OTHER PIPES ARE ALLOWED ONLY BY SPECIAL APPROVAL BY THE ENGINEER.
4. ALL PIPES SHALL BE SLOPED TO LOCAL CODES, AS REQUIRED.

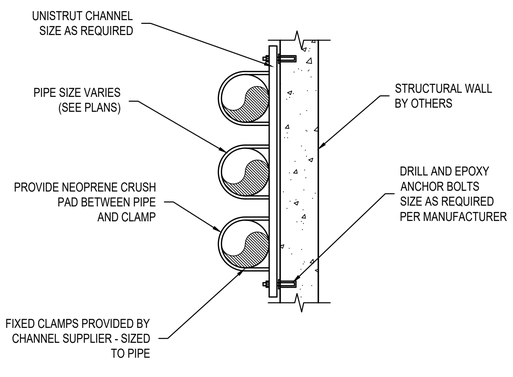
② SHALLOW PIPE TRENCH IN LANDSCAPE

SCALE 1" = 1'-0"



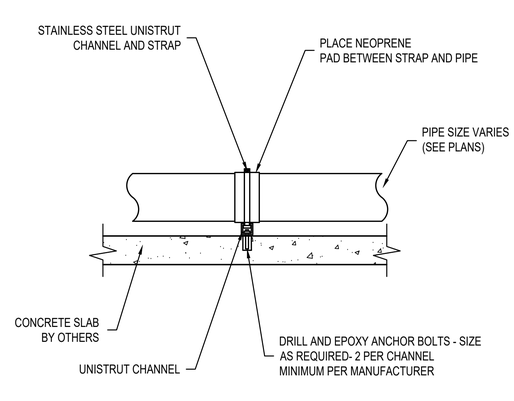
⑫ MULTIPLE PIPE CEILING SUPPORT

SCALE 1" = 1'-0"



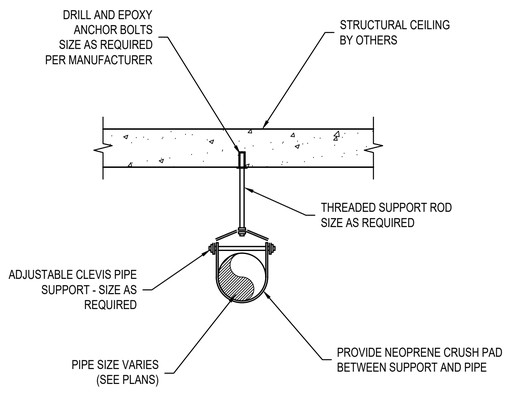
⑨ MULTIPLE PIPE WALL SUPPORT

SCALE 1" = 1'-0"



⑥ FLOOR PIPE SUPPORT

SCALE 1" = 1'-0"



③ CEILING PIPE SUPPORT

SCALE 1" = 1'-0"

SEAL

STATE OF MARYLAND — ALLEN D. CLARKSON — No. 0044243 — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 44243 , EXPIRATION DATE 07/17/2027 .

CLOWARD H2O — 100 SOUTH CHARLES STREET, SUITE 1100, BALTIMORE, MD 21201 — 410.539.1230 — WWW.CLOWARDH2O.COM

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: CGB
DWN BY: DSB
CHKD BY: ADC

AS-BUILT / REVISION

BY	DATE	P.W.A. NO.
		R.O.W NO.

CONTRACT COMPLETION BOX

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

KEY SHEET	POSITION SHT
PNW	35NW40

DRAWING SCALE

PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

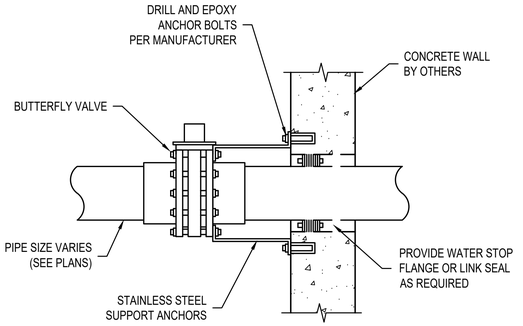
AQUATIC - GENERAL DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

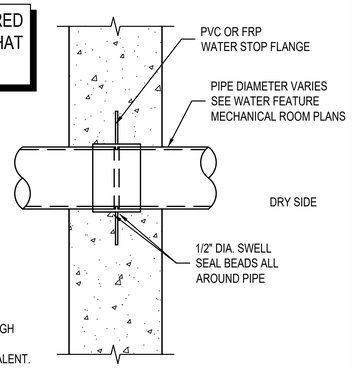
SHEET DESIGNATION	CONTRACT NUMBER
W5-1.01	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 123 OF 150	
DRAWING NUMBER	2025-2293
FILE NO.: 8	



⑩ BUTTERFLY VALVE WALL ANCHOR

SCALE 1"=1'-0"

WATER STOP FLANGES REQUIRED THROUGH ALL STRUCTURES THAT CONTAIN WATER.

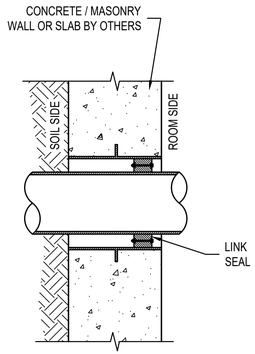


GENERAL NOTES:
1. WATER STOPS WILL BE CAST IN PLACE.
2. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.
3. SIZE FLANGE TO PIPE AS PER MANUFACTURER'S SPECIFICATIONS.
4. WATER STOP FLANGES REQUIRED THROUGH ALL STRUCTURES THAT CONTAIN WATER.
5. ASA MFG WATERSTOP FLANGE OR EQUIVALENT.

⑦ WATER STOP FLANGE

SCALE 1"=1'-0"

LINK SEALS REQUIRED THROUGH ALL EXTERIOR BLDG. WALLS & STRUCTURES THAT DO NOT CONTAIN WATER.



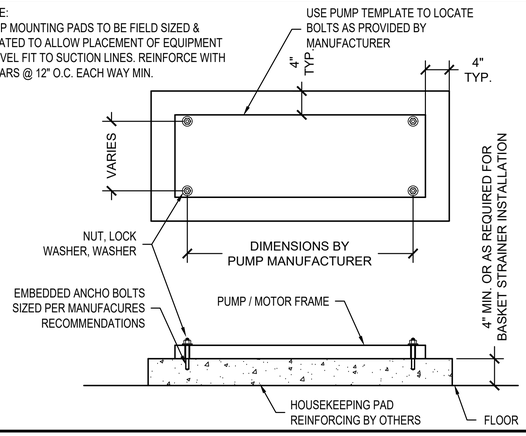
PVC NOMINAL PIPE SIZE		CAST OR CORE BIT DRILLED HOLE SIZE		PVC NOMINAL PIPE SIZE		CAST OR CORE BIT DRILLED HOLE SIZE	
[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]
1/2	21	2	51	10	250	14	356
3/4	26	2.5	64	12	300	16	406
1	33	3	76	14	350	18	457
1 1/4	42	3	76	16	400	20	508
1 1/2	48	3.5	89	18	450	22	559
2	60	4	102	20	500	24	610
2 1/2	73	4	102	24	600	28	711
3	90	5	127	30	750	34	864
4	110	6	152	36	900	40	1016
6	150	10	254	42	1100	46	1168
8	200	12	305	48	1200	52	1321

GENERAL NOTES:
1. INSTALL LINK SEALS AS PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE PLASTIC SLEEVE OR CAST IN PLACE OR CORE DRILLED HOLE. SIZED AS PER MANUFACTURER'S SPECIFICATIONS.
3. LINK SEALS REQUIRED THROUGH ALL EXTERIOR BLDG. WALLS & STRUCTURES THAT DO NOT CONTAIN WATER.
4. PIPE DIAMETER VARIES SEE WATER FEATURE MECHANICAL ROOM PLANS.

④ LINK SEAL

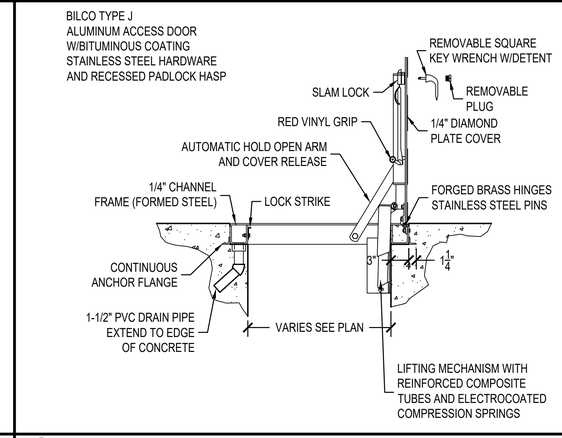
SCALE 1"=1'-0"

NOTE:
PUMP MOUNTING PADS TO BE FIELD SIZED & LOCATED TO ALLOW PLACEMENT OF EQUIPMENT & LEVEL FIT TO SUCTION LINES. REINFORCE WITH #4 BARS @ 12" O.C. EACH WAY MIN.



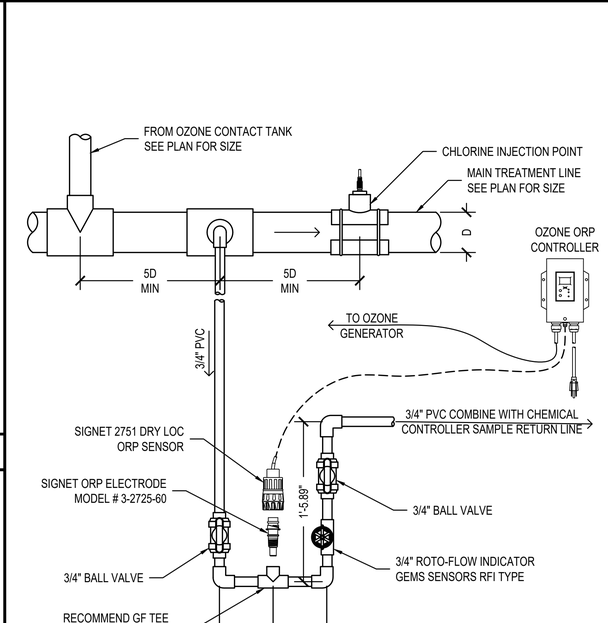
⑪ TYPICAL PUMP MOUNTING DETAIL

SCALE 1"=1'-0"



⑧ ACCESS HATCH

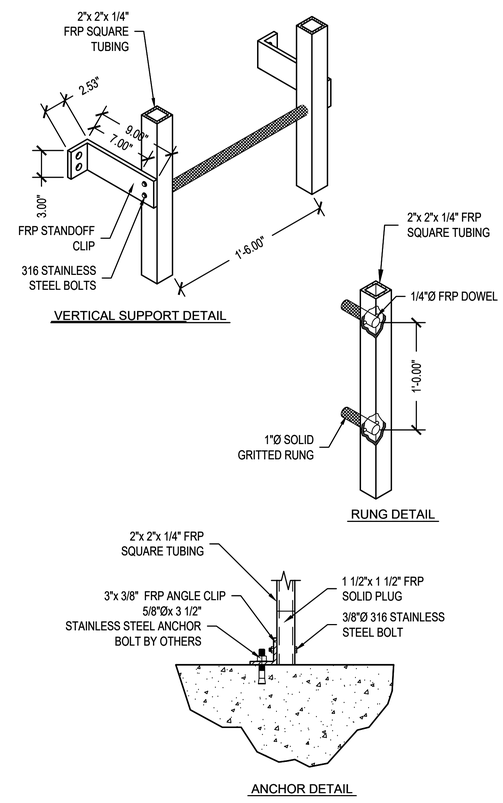
SCALE 1"=1'-0"



NOTES:
1. OZONE ORP SENSOR SHALL BE INSTALLED IN A SIDE STREAM LOOP AS SHOWN IN THIS DETAIL.
2. ASSEMBLY SHALL BE ANCHORS TO A WALL OR UNISTRUT SUPPORT STRUCTURE.
3. THE SAMPLE LINE SHALL BE LOCATED A MINIMUM OF 5 PIPE DIAMETERS DOWNSTREAM OF THE OZONE LOOP RETURN AND A MINIMUM OF 5 PIPE DIAMETERS UPSTREAM OF THE CHLORINE INJECTION POINT.
4. ORP SENSOR SHALL BE PLACED IN AN OPERATOR ACCESSIBLE LOCATION & REGULARLY CLEANED

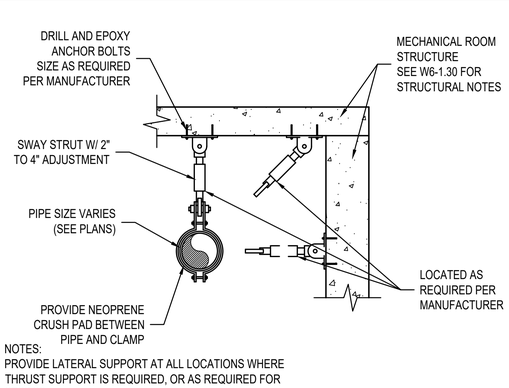
⑥ OZONE ORP SENSOR INSTALLATION

SCALE 1-1/2"=1'-0"



③ FRP LADDER

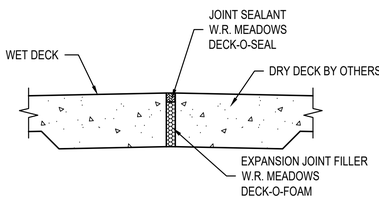
SCALE 1-1/2"=1'-0"



NOTES:
PROVIDE LATERAL SUPPORT AT ALL LOCATIONS WHERE THRUST SUPPORT IS REQUIRED, OR AS REQUIRED FOR SEISMIC.

⑫ LATERAL PIPE SUPPORT

SCALE 1"=1'-0"



⑨ ISOLATION JOINT

SCALE 1-1/2"=1'-0"

SEAL

STATE OF MARYLAND · ALLEN D. CLAWGES · No. 0044243 · PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 44243, EXPIRATION DATE 07/17/2027.	
CLOWARD H2O	DGN BY: CGB
AS-BUILT PER RECORD PRINT	DWN BY: DSB
BY: DATE:	CHKD BY: ADC

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
			R.O.W NO.		
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - GENERAL DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

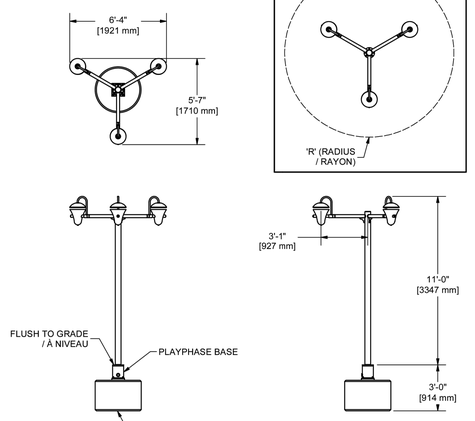
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W5-1.02	25114 GX0
JOB ORDER NUMBER	
PROJ-1000634	
SHEET 124 OF 150	
DRAWING NUMBER	
2025-2294	
FILE NO.: 8	

FS SNEAKY SOAKER 3 — 0011-4286

LIST OF MATERIALS / LISTE DE MATÉRIAUX (IF / SI APPLICABLE)	
BASE MATERIAL / MATÉRIEL	304 STAINLESS STEEL / ACIER INOXYDABLE
BUCKETS / SEAUX	POLYPROPYLENE / POLYPROPYLÈNE

IMPACT SPRAY AREA / ZONE D'ASPERSION D'IMPACT



RECOMMENDED SPRAY AREA / ZONE D'ASPERSION POTENTIELLE			FLOW RATE / DÉBIT D'EAU		SOLD SEPARATELY / VENDUE SÉPARÉMENT					INITIAL:
R (ft/mm)	L (ft/mm)	W (ft/mm)	GPM/LPM	PSI/kPa	PLAYPHASE JAG / GABARIT	JR QTY / GABARIT QTÉ	PLAYPHASE SML QTY / QTÉ	PLAYPHASE MED QTY / QTÉ	PLAYPHASE LRG QTY / QTÉ	
5.5/1676	-/-	-/-	12/45	5/34	-	-	-	-	-	DRAWING ID: 0011-4286 SHEET: 1 OF: 1
NOZZLES / BUSES		8	WAS: 191.9 lbmass		DIMENSIONAL ACCURACY / PRÉCISION DIMENSIONELLE +/- 1" [300mm]					

ALL PLANS AND DESIGNS AT ALL TIMES REMAIN THE PROPERTY OF THE WATERPLAY AND CANNOT BE USED OR REPRODUCED WITHOUT WRITTEN PERMISSION.

TOUS LES PLANS ET DESSINS QUE WATERPLAY ONT CONÇUS, LEUR APPARTIENNENT ET NE PEUVENT ÊTRE UTILISÉS OU REPRODUITS SANS AVOIR UNE PERMISSION ÉCRITE DE LEUR PART.

REFER TO THE COMPONENT WRITTEN SPECIFICATION DOCUMENT FOR COMPLETE PRODUCT SPECIFICATIONS. WATERPLAY RESERVES THE RIGHT TO CHANGE THIS SPECIFICATION WITHOUT NOTICE.

SE RÉFÉRER AU DOCUMENT DE SPÉCIFICATION ÉCRIT POUR LES SPÉCIFICATIONS COMPLÈTES DU PRODUIT. WATERPLAY A LE DROIT DE CHANGER CES DERNIERS SANS PRÉAVIS.

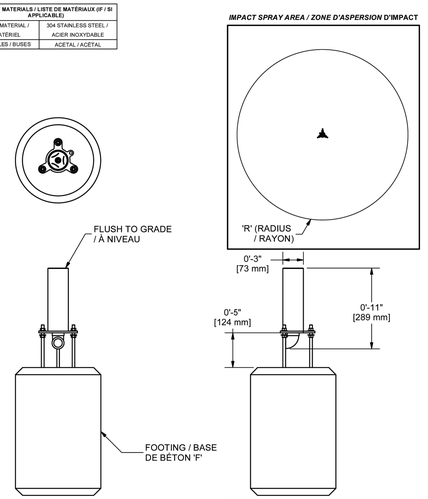
805 CROWLEY AVE.
KELOWNA, BRITISH COLUMBIA
CANADA, V1Y 7G6
P: 250-861-4814
E: productsupport@waterplay.com
W: waterplay.com

11 FS SNEAKY SOAKER 3 — N.T.S.

GS BUTTERCUP — 0010-7474

LIST OF MATERIALS / LISTE DE MATÉRIAUX (IF / SI APPLICABLE)	
BASE MATERIAL / MATÉRIEL	304 STAINLESS STEEL / ACIER INOXYDABLE
NOZZLES / BUSES	ACETAL / ACÉTAL

IMPACT SPRAY AREA / ZONE D'ASPERSION D'IMPACT



FOOTING BY OTHER, REFER TO LOCAL CODE / BASE DE BÉTON PAR D'AUTRES, SE RÉFÉRER AU CODE LOCAL

DESCRIPTION / LA DESCRIPTION	SIZE / TAILLE	QTY / QTÉ
INLET / ENTRÉE	1" F-NPT	1
ELECTRICAL / ÉLECTRIQUE	-	-
DRAIN	-	-

RECOMMENDED SPRAY AREA / ZONE D'ASPERSION POTENTIELLE			FLOW RATE / DÉBIT D'EAU		SOLD SEPARATELY / VENDUE SÉPARÉMENT					CLIENT APPROVAL:
R (ft/mm)	L (ft/mm)	W (ft/mm)	GPM/LPM	PSI/kPa	PLAYPHASE JAG / GABARIT	JR QTY / GABARIT QTÉ	PLAYPHASE SML QTY / QTÉ	PLAYPHASE MED QTY / QTÉ	PLAYPHASE LRG QTY / QTÉ	
9/1834	-/-	-/-	70/8	50/0	-	-	-	-	-	DRAWING ID: 0010-7474 SHEET: 1 OF: 1
NOZZLES / BUSES		1	WAS: 7.804 lbmass		DIMENSIONAL ACCURACY / PRÉCISION DIMENSIONELLE +/- 1" [300mm]					

ALL PLANS AND DESIGNS AT ALL TIMES REMAIN THE PROPERTY OF THE WATERPLAY AND CANNOT BE USED OR REPRODUCED WITHOUT WRITTEN PERMISSION.

TOUS LES PLANS ET DESSINS QUE WATERPLAY ONT CONÇUS, LEUR APPARTIENNENT ET NE PEUVENT ÊTRE UTILISÉS OU REPRODUITS SANS AVOIR UNE PERMISSION ÉCRITE DE LEUR PART.

REFER TO THE COMPONENT WRITTEN SPECIFICATION DOCUMENT FOR COMPLETE PRODUCT SPECIFICATIONS. WATERPLAY RESERVES THE RIGHT TO CHANGE THIS SPECIFICATION WITHOUT NOTICE.

SE RÉFÉRER AU DOCUMENT DE SPÉCIFICATION ÉCRIT POUR LES SPÉCIFICATIONS COMPLÈTES DU PRODUIT. WATERPLAY A LE DROIT DE CHANGER CES DERNIERS SANS PRÉAVIS.

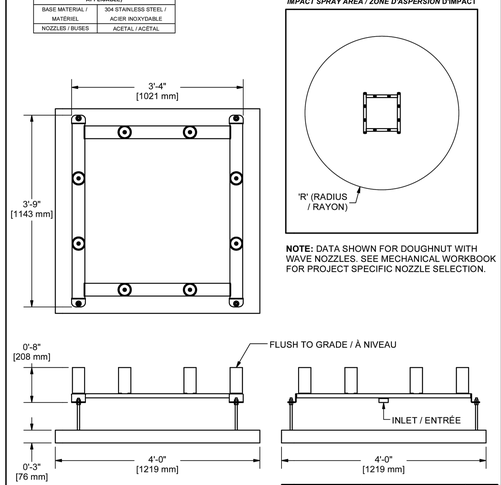
805 CROWLEY AVE.
KELOWNA, BRITISH COLUMBIA
CANADA, V1Y 7G6
P: 250-861-4814
E: productsupport@waterplay.com
W: waterplay.com

7 GS BUTTERCUP — N.T.S.

GS DOUGHNUT — 0010-7494

LIST OF MATERIALS / LISTE DE MATÉRIAUX (IF / SI APPLICABLE)	
BASE MATERIAL / MATÉRIEL	304 STAINLESS STEEL / ACIER INOXYDABLE
NOZZLES / BUSES	ACETAL / ACÉTAL

IMPACT SPRAY AREA / ZONE D'ASPERSION D'IMPACT



NOTE: DATA SHOWN FOR DOUGHNUT WITH WAVE NOZZLES. SEE MECHANICAL WORKBOOK FOR PROJECT SPECIFIC NOZZLE SELECTION.

FOOTING BY OTHER, REFER TO LOCAL CODE / BASE DE BÉTON PAR D'AUTRES, SE RÉFÉRER AU CODE LOCAL

DESCRIPTION	SIZE / TAILLE	QTY / QTÉ
INLET / ENTRÉE	1-1/2" F-NPT	2
ELECTRICAL / ÉLECTRIQUE	-	-
DRAIN	-	-

RECOMMENDED SPRAY AREA / ZONE D'ASPERSION POTENTIELLE			FLOW RATE / DÉBIT D'EAU		SOLD SEPARATELY / VENDUE SÉPARÉMENT					CLIENT APPROVAL:
R (ft/mm)	L (ft/mm)	W (ft/mm)	GPM/LPM	PSI/kPa	PLAYPHASE JAG / GABARIT	JR QTY / GABARIT QTÉ	PLAYPHASE SML QTY / QTÉ	PLAYPHASE MED QTY / QTÉ	PLAYPHASE LRG QTY / QTÉ	
7/2134	-/-	-/-	24/91	30/1	-	-	-	-	-	DRAWING ID: 0010-7494 SHEET: 1 OF: 1
NOZZLES / BUSES		8	WAS: 72.831 lbmass		DIMENSIONAL ACCURACY / PRÉCISION DIMENSIONELLE +/- 1" [300mm]					

ALL PLANS AND DESIGNS AT ALL TIMES REMAIN THE PROPERTY OF THE WATERPLAY AND CANNOT BE USED OR REPRODUCED WITHOUT WRITTEN PERMISSION.

TOUS LES PLANS ET DESSINS QUE WATERPLAY ONT CONÇUS, LEUR APPARTIENNENT ET NE PEUVENT ÊTRE UTILISÉS OU REPRODUITS SANS AVOIR UNE PERMISSION ÉCRITE DE LEUR PART.

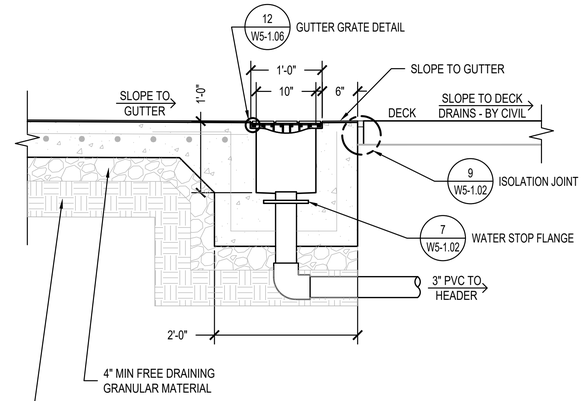
REFER TO THE COMPONENT WRITTEN SPECIFICATION DOCUMENT FOR COMPLETE PRODUCT SPECIFICATIONS. WATERPLAY RESERVES THE RIGHT TO CHANGE THIS SPECIFICATION WITHOUT NOTICE.

SE RÉFÉRER AU DOCUMENT DE SPÉCIFICATION ÉCRIT POUR LES SPÉCIFICATIONS COMPLÈTES DU PRODUIT. WATERPLAY A LE DROIT DE CHANGER CES DERNIERS SANS PRÉAVIS.

805 CROWLEY AVE.
KELOWNA, BRITISH COLUMBIA
CANADA, V1Y 7G6
P: 250-861-4814
E: productsupport@waterplay.com
W: waterplay.com

5 GS DOUGHNUT — N.T.S.

SEE SECTION A ON SHEET W6-1.10 FOR STRUCTURAL NOTES



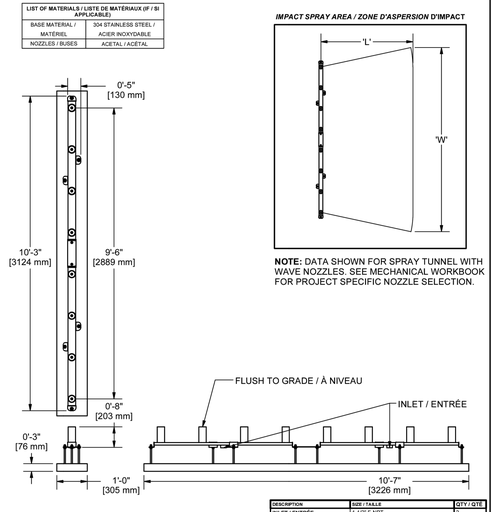
ENGINEERED FILL AND PROPERLY PREPARED SUBGRADE PER GEOTECHNICAL ENGINEER. PROVIDE VAPOR BARRIER IF REQUIRED BY GEOTECHNICAL ENGINEER. CONTRACTOR TO VERIFY

3 GUTTER OUTLET — SCALE 1" = 1'-0"

GS SPRAY TUNNEL 8 — 0010-7497

LIST OF MATERIALS / LISTE DE MATÉRIAUX (IF / SI APPLICABLE)	
BASE MATERIAL / MATÉRIEL	304 STAINLESS STEEL / ACIER INOXYDABLE
NOZZLES / BUSES	ACETAL / ACÉTAL

IMPACT SPRAY AREA / ZONE D'ASPERSION D'IMPACT



NOTE: DATA SHOWN FOR SPRAY TUNNEL WITH WAVE NOZZLES. SEE MECHANICAL WORKBOOK FOR PROJECT SPECIFIC NOZZLE SELECTION.

FOOTING BY OTHER, REFER TO LOCAL CODE / BASE DE BÉTON PAR D'AUTRES, SE RÉFÉRER AU CODE LOCAL

DESCRIPTION	SIZE / TAILLE	QTY / QTÉ
INLET / ENTRÉE	1-1/2" F-NPT	2
ELECTRICAL / ÉLECTRIQUE	-	-
DRAIN	-	-

RECOMMENDED SPRAY AREA / ZONE D'ASPERSION POTENTIELLE			FLOW RATE / DÉBIT D'EAU		SOLD SEPARATELY / VENDUE SÉPARÉMENT					CLIENT APPROVAL:
R (ft/mm)	L (ft/mm)	W (ft/mm)	GPM/LPM	PSI/kPa	PLAYPHASE JAG / GABARIT	JR QTY / GABARIT QTÉ	PLAYPHASE SML QTY / QTÉ	PLAYPHASE MED QTY / QTÉ	PLAYPHASE LRG QTY / QTÉ	
-/-	6/1829	12/3658	24/91	3/21	-	-	-	-	-	DRAWING ID: 0010-7497 SHEET: 1 OF: 1
NOZZLES / BUSES		8	WAS: 87.456 lbmass		DIMENSIONAL ACCURACY / PRÉCISION DIMENSIONELLE +/- 1" [300mm]					

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TOUS LES PLANS ET DESSINS QUE WATERPLAY ONT CONÇUS, LEUR APPARTIENNENT ET NE PEUVENT ÊTRE UTILISÉS OU REPRODUITS SANS AVOIR UNE PERMISSION ÉCRITE DE LEUR PART.

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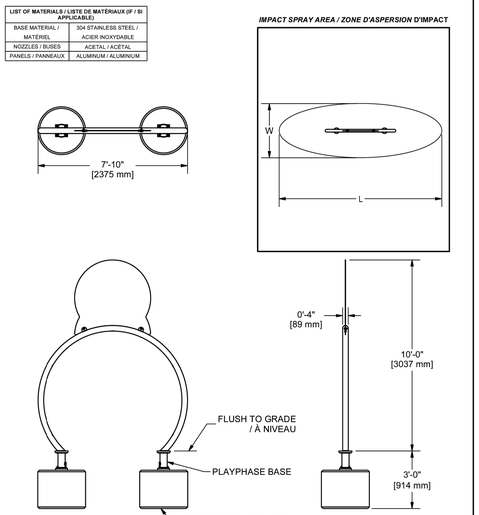
805 CROWLEY AVE.
KELOWNA, BRITISH COLUMBIA
CANADA, V1Y 7G6
P: 250-861-4814
E: productsupport@waterplay.com
W: waterplay.com

12 GS SPRAY TUNNEL 8 — N.T.S.

FS O-RIGINAL — 0010-2321

LIST OF MATERIALS / LISTE DE MATÉRIAUX (IF / SI APPLICABLE)	
BASE MATERIAL / MATÉRIEL	304 STAINLESS STEEL / ACIER INOXYDABLE
NOZZLES / BUSES	ACETAL / ACÉTAL
PANELS / PANNEAUX	ALUMINUM / ALUMINIUM

IMPACT SPRAY AREA / ZONE D'ASPERSION D'IMPACT



RECOMMENDED SPRAY AREA / ZONE D'ASPERSION POTENTIELLE			FLOW RATE / DÉBIT D'EAU		SOLD SEPARATELY / VENDUE SÉPARÉMENT					INITIAL:
R (ft/mm)	L (ft/mm)	W (ft/mm)	GPM/LPM	PSI/kPa	PLAYPHASE JAG / GABARIT	JR QTY / GABARIT QTÉ	PLAYPHASE SML QTY / QTÉ	PLAYPHASE MED QTY / QTÉ	PLAYPHASE LRG QTY / QTÉ	
-/-	18/5486	6/1829	10/38	6/41	0011-4472 1	- 0	2	-	-	DRAWING ID: 0010-2321 SHEET: 1 OF: 1
NOZZLES / BUSES		5	WAS: 121.0 lbmass		DIMENSIONAL ACCURACY / PRÉCISION DIMENSIONELLE +/- 1" [300mm]					

ALL PLANS AND DESIGNS AT ALL TIMES REMAIN THE PROPERTY OF THE WATERPLAY AND CANNOT BE USED OR REPRODUCED WITHOUT WRITTEN PERMISSION.

TOUS LES PLANS ET DESSINS QUE WATERPLAY ONT CONÇUS, LEUR APPARTIENNENT ET NE PEUVENT ÊTRE UTILISÉS OU REPRODUITS SANS AVOIR UNE PERMISSION ÉCRITE DE LEUR PART.

REFER TO THE COMPONENT WRITTEN SPECIFICATION DOCUMENT FOR COMPLETE PRODUCT SPECIFICATIONS. WATERPLAY RESERVES THE RIGHT TO CHANGE THIS SPECIFICATION WITHOUT NOTICE.

SE RÉFÉRER AU DOCUMENT DE SPÉCIFICATION ÉCRIT POUR LES SPÉCIFICATIONS COMPLÈTES DU PRODUIT. WATERPLAY A LE DROIT DE CHANGER CES DERNIERS SANS PRÉAVIS.

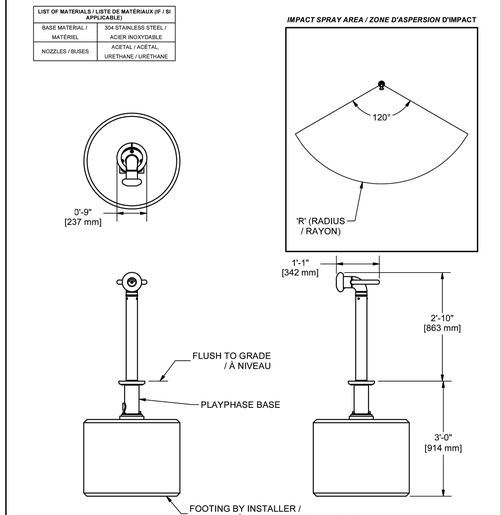
805 CROWLEY AVE.
KELOWNA, BRITISH COLUMBIA
CANADA, V1Y 7G6
P: 250-861-4814
E: productsupport@waterplay.com
W: waterplay.com

9 FS O-RIGINAL — N.T.S.

FS SPLASH BLASTER — 0010-0403

LIST OF MATERIALS / LISTE DE MATÉRIAUX (IF / SI APPLICABLE)	
BASE MATERIAL / MATÉRIEL	304 STAINLESS STEEL / ACIER INOXYDABLE
NOZZLES / BUSES	ACETAL / ACÉTAL URETHANE / URÉTHANE

IMPACT SPRAY AREA / ZONE D'ASPERSION D'IMPACT



RECOMMENDED SPRAY AREA / ZONE D'ASPERSION POTENTIELLE			FLOW RATE / DÉBIT D'EAU		SOLD SEPARATELY / VENDUE SÉPARÉMENT					CLIENT APPROVAL:
R (ft/mm)	L (ft/mm)	W (ft/mm)	GPM/LPM	PSI/kPa	PLAYPHASE JAG / GABARIT	JR QTY / GABARIT QTÉ	PLAYPHASE SML QTY / QTÉ	PLAYPHASE MED QTY / QTÉ	PLAYPHASE LRG QTY / QTÉ	
13/3965	-/-	-/-	3/11	7/48	-	-	-	-	-	DRAWING ID: 0010-0403 SHEET: 1 OF: 1
NOZZLES / BUSES		1	WAS: 32.026 lbmass		DIMENSIONAL ACCURACY / PRÉCISION DIMENSIONELLE +/- 1" [300mm]					

ALL PLANS AND DESIGNS AT ALL TIMES REMAIN THE PROPERTY OF THE WATERPLAY AND CANNOT BE USED OR REPRODUCED WITHOUT WRITTEN PERMISSION.

TOUS LES PLANS ET DESSINS QUE WATERPLAY ONT CONÇUS, LEUR APPARTIENNENT ET NE PEUVENT ÊTRE UTILISÉS OU REPRODUITS SANS AVOIR UNE PERMISSION ÉCRITE DE LEUR PART.

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SE RÉFÉRER AU DOCUMENT DE SPÉCIFICATION ÉCRIT POUR LES SPÉCIFICATIONS COMPLÈTES DU PRODUIT. WATERPLAY A LE DROIT DE CHANGER CES DERNIERS SANS PRÉAVIS.

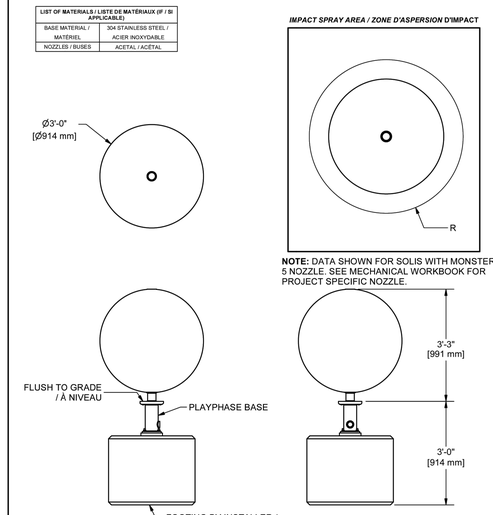
805 CROWLEY AVE.
KELOWNA, BRITISH COLUMBIA
CANADA, V1Y 7G6
P: 250-861-4814
E: productsupport@waterplay.com
W: waterplay.com

6 FS SPLASH BLASTER — N.T.S.

FS SOLIS 36IN — 0010-0379

LIST OF MATERIALS / LISTE DE MATÉRIAUX (IF / SI APPLICABLE)	
BASE MATERIAL / MATÉRIEL	304 STAINLESS STEEL / ACIER INOXYDABLE
NOZZLES / BUSES	ACETAL / ACÉTAL

IMPACT SPRAY AREA / ZONE D'ASPERSION D'IMPACT



NOTE: DATA SHOWN FOR SOLIS WITH MONSTER 5 NOZZLE. SEE MECHANICAL WORKBOOK FOR PROJECT SPECIFIC NOZZLE.

RECOMMENDED SPRAY AREA / ZONE D'ASPERSION POTENTIELLE			FLOW RATE / DÉBIT D'EAU		SOLD SEPARATELY / VENDUE SÉPARÉMENT					INITIAL:
R (ft/mm)	L (ft/mm)	W (ft/mm)	GPM/LPM	PSI/kPa	PLAYPHASE JAG / GABARIT	JR QTY / GABARIT QTÉ	PLAYPHASE SML QTY / QTÉ	PLAYPHASE MED QTY / QTÉ	PLAYPHASE LRG QTY / QTÉ	
2/610	-/-	-/-	8/30	3/14	-	-	-	-	-	DRAWING ID: 0010-0379 SHEET: 1 OF: 1
NOZZLES / BUSES		1	WAS: 170.1 lbmass		DIMENSIONAL ACCURACY / PRÉCISION DIMENSIONELLE +/- 1" [300mm]					

ALL PLANS AND DESIGNS AT ALL TIMES REMAIN THE PROPERTY OF THE WATERPLAY AND CANNOT BE USED OR REPRODUCED WITHOUT WRITTEN PERMISSION.

TOUS LES PLANS ET DESSINS QUE WATERPLAY ONT CONÇUS, LEUR APPARTIENNENT ET NE PEUVENT ÊTRE UTILISÉS OU REPRODUITS SANS AVOIR UNE PERMISSION ÉCRITE DE LEUR PART.

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805 CROWLEY AVE.
KELOWNA, BRITISH COLUMBIA
CANADA, V1Y 7G6
P: 250-861-4814
E: productsupport@waterplay.com
W: waterplay.com

4 FS SOLIS 36 IN — N.T.S.

SEAL

STATE OF MARYLAND — ALLEN D. CLARKSON — No. 22044243 — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD HO — 120 South Hill Drive, Ste. 100, Lindale, GA 30147, USA — Phone: (678) 407-0123 — www.clowardho.com

AS-BUILT PER RECORD PRINT

BY:

DATE:

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

DRAWING SCALE

PLAN SCALE: AS SHOWN

PROFILE SCALE: ———

PROPERTY MANAGEMENT

APPROVED BY: ———— PROPERTY MANAGER

DATE: ————

DGN BY: CGB

DWN BY: DSB

CHKD BY: ADC

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - GENERAL DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

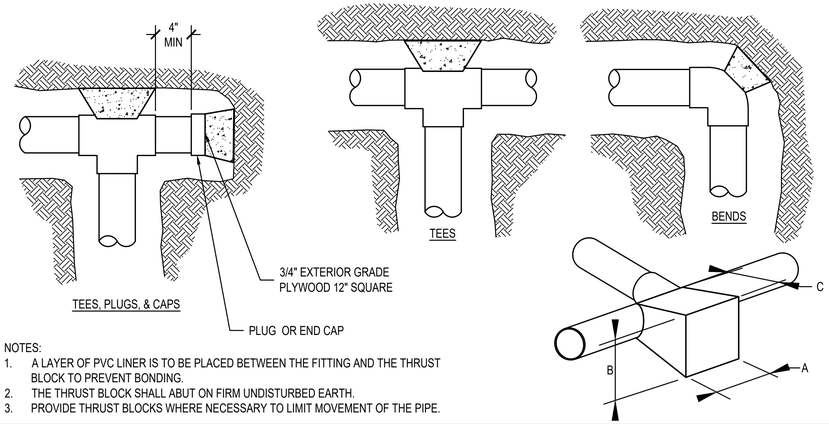
SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
W5-1.03	25114 GX0
JOB ORDER NUMBER	
PROJ-1000634	
SHEET 125 OF 150	
DRAWING NUMBER	
2025-2295	
FILE NO.: 8	REV. 4/1/08



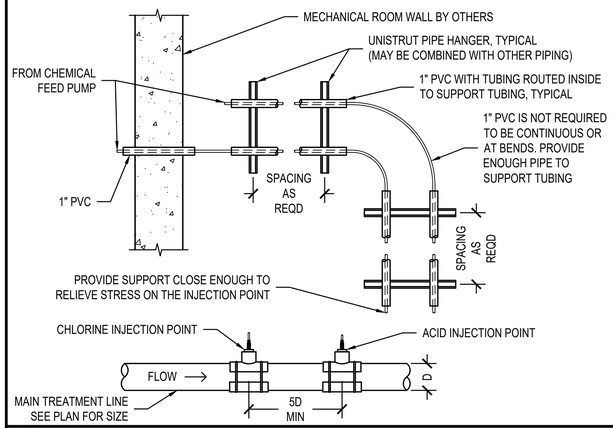
NOTES:
1. A LAYER OF PVC LINER IS TO BE PLACED BETWEEN THE FITTING AND THE THRUST BLOCK TO PREVENT BONDING.
2. THE THRUST BLOCK SHALL ABUT ON FIRM UNDISTURBED EARTH.
3. PROVIDE THRUST BLOCKS WHERE NECESSARY TO LIMIT MOVEMENT OF THE PIPE.

MINIMUM DIMENSIONS

FITTING SIZE	TEES, PLUGS & END CAPS		90° BEND		45° BEND & Y		22.5° BEND		
	A	B	A	B	A	B	A	B	C
4" (100)	7.5" (190)	7.5" (190)	9" (230)	9" (230)	8" (200)	8" (200)	8" (200)	8" (200)	B/2
5" (130)	9" (230)	9" (230)	10" (260)	10" (260)	9" (230)	9" (230)	9" (230)	9" (230)	B/2
6" (150)	11.5" (290)	11.5" (290)	14" (350)	14" (350)	12" (310)	12" (310)	11.5" (290)	11.5" (290)	B/2
8" (200)	14" (350)	14" (350)	17" (430)	17" (430)	14" (350)	14" (350)	14" (350)	14" (350)	B/2
10" (250)	18" (450)	18" (450)	20" (520)	20" (520)	18" (450)	18" (450)	18" (450)	18" (450)	B/2
12" (300)	22" (560)	22" (560)	25" (650)	25" (650)	22" (560)	22" (560)	22" (560)	22" (560)	B/2
14" (350)	25" (650)	25" (650)	29" (740)	29" (740)	25" (650)	25" (650)	25" (650)	25" (650)	B/2
16" (400)	28" (720)	28" (720)	33" (830)	33" (830)	28" (720)	28" (720)	28" (720)	28" (720)	B/2
20" (500)	42" (1120)	42" (1120)	47" (1200)	47" (1200)	42" (1120)	42" (1120)	42" (1120)	42" (1120)	B/2
24" (600)	47" (1200)	47" (1200)	55" (1410)	55" (1410)	48" (1220)	48" (1220)	47" (1200)	47" (1200)	B/2
30" (750)	62" (1580)	62" (1580)	78" (1880)	78" (1880)	65" (1650)	65" (1650)	62" (1580)	62" (1580)	B/2
36" (900)	70" (1780)	70" (1780)	84" (2120)	84" (2120)	72" (1850)	72" (1850)	70" (1780)	70" (1780)	B/2
42" (1050)	78" (1980)	78" (1980)	92" (2350)	92" (2350)	80" (2050)	80" (2050)	78" (1980)	78" (1980)	B/2

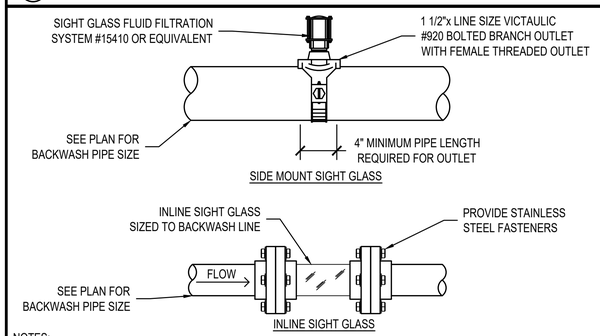
⑩ TYPICAL PIPE THRUST BLOCK

SCALE 1-1/2" = 1-0'



⑪ TYPICAL CHEMICAL TUBING SUPPORT

SCALE 1" = 1'-0"



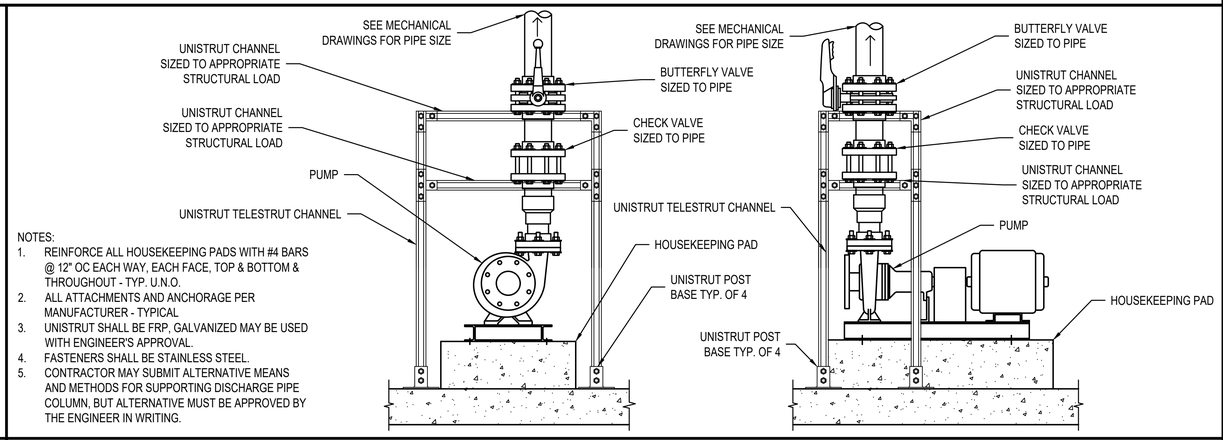
NOTES:
1. PROVIDE SIGHT GLASS FOR ALL FILTERS. IF BACKWASH LINE IS COMBINED ONE SIGHT GLASS MAY BE SUFFICIENT.
2. FOR 1-1/2" AND 2" BACKWASH LINES USE A HAYWARD SP1072S
3. FOR 3", 4" OR 6" BACKWASH LINES USE WMS AQUATICS IN-LINE SIGHT GLASS
4. FOR 8" AND LARGER USE A SIDE MOUNTED SIGHT GLASS
5. IF THE BACKWASH LINES EMPTY INTO A BACKWASH TANK WITHIN THE ROOM THEN THE SIGHT GLASS MAY BE OMITTED.

⑫ TYPICAL BACKWASH SIGHT GLASS

SCALE 1-1/2" = 1-0'

⑧ DISCHARGE PIPE COLUMN SUPPORT DETAIL

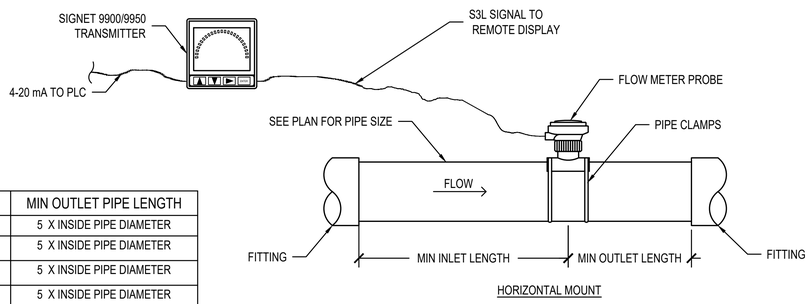
SCALE 1" = 1'-0"



NOTES:
1. REINFORCE ALL HOUSEKEEPING PADS WITH #4 BARS @ 12" OC EACH WAY, EACH FACE, TOP & BOTTOM & THROUGHOUT - TYP. U.N.O.
2. ALL ATTACHMENTS AND ANCHORAGE PER MANUFACTURER - TYPICAL
3. UNISTRUT SHALL BE FRP, GALVANIZED MAY BE USED WITH ENGINEER'S APPROVAL.
4. FASTENERS SHALL BE STAINLESS STEEL.
5. CONTRACTOR MAY SUBMIT ALTERNATIVE MEANS AND METHODS FOR SUPPORTING DISCHARGE PIPE COLUMN, BUT ALTERNATIVE MUST BE APPROVED BY THE ENGINEER IN WRITING.

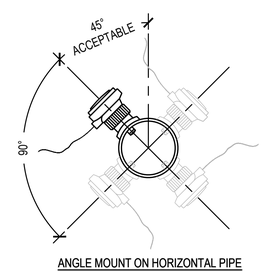
⑨ TYPICAL FLOW METER INSTALLATION

SCALE 1-1/2" = 1-0'

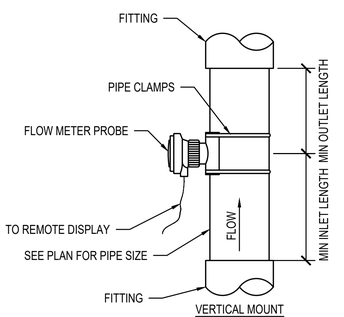


HORIZONTAL MOUNT

TYPE OF DISTURBANCE	MIN INLET PIPE LENGTH	MIN OUTLET PIPE LENGTH
FLANGE	10 X INSIDE PIPE DIAMETER	5 X INSIDE PIPE DIAMETER
REDUCER	15 X INSIDE PIPE DIAMETER	5 X INSIDE PIPE DIAMETER
90° ELBOW	20 X INSIDE PIPE DIAMETER	5 X INSIDE PIPE DIAMETER
TWO 90° ELBOW - 1 DIRECTION	25 X INSIDE PIPE DIAMETER	5 X INSIDE PIPE DIAMETER
TWO 90° ELBOW - 2 DIRECTIONS	40 X INSIDE PIPE DIAMETER	5 X INSIDE PIPE DIAMETER
PUMP OR GATE VALVE	50 X INSIDE PIPE DIAMETER	5 X INSIDE PIPE DIAMETER



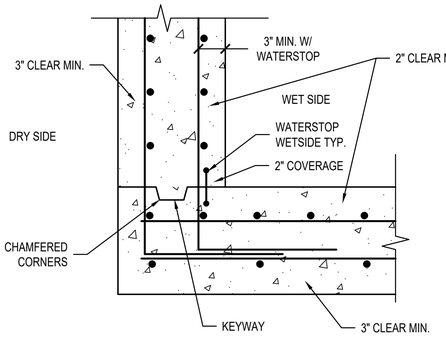
ANGLE MOUNT ON HORIZONTAL PIPE



VERTICAL MOUNT

① KEYWAY & WATER STOP

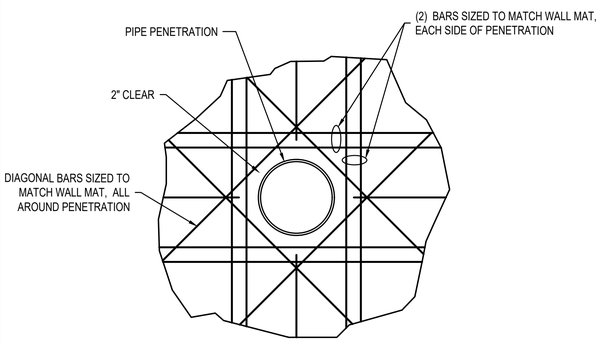
SCALE 1-1/2" = 1-0'



REBAR SIZES AND SPACING VARIES
FOLLOW NOTES ON STRUCTURAL SHEETS

② TYPICAL PIPE PENETRATION REINFORCING

SCALE 1" = 1'-0"



SEAL

STATE OF MARYLAND — ALLEN D. CLAWSON — 36106.0044243 — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD H2O — AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: CGB
DWN BY: DSB
CHKD BY: ADC

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

R.O.W NO.

CONTRACT COMPLETION BOX

PNW | 35NW40

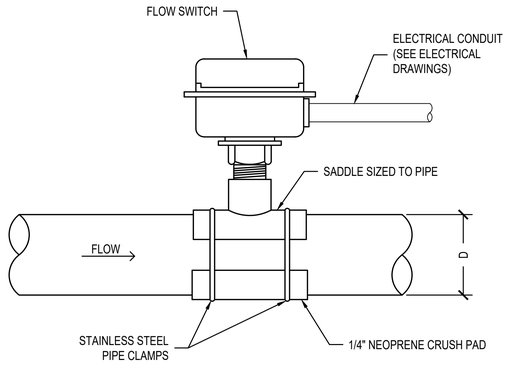
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
AQUATIC - GENERAL DETAILS
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W5-1.04	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 126 OF 150	
DRAWING NUMBER	2025-2296
FILE NO.: 8	

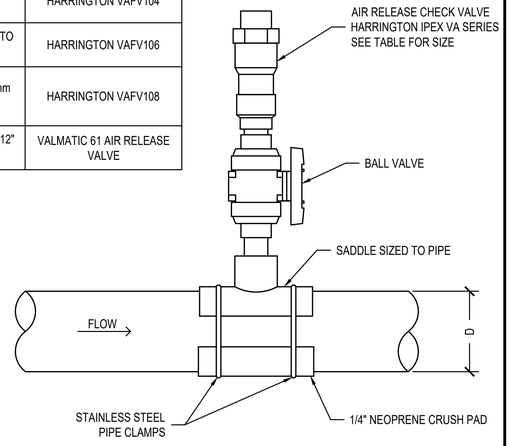


NOTES:
1. BREAK OFF FLOW SWITCH PADDLE EXTENSION AS REQUIRED FOR PIPE SIZE.

⑩ TYPICAL FLOW SWITCH INSTALLATION

SCALE 3"-1'-0"

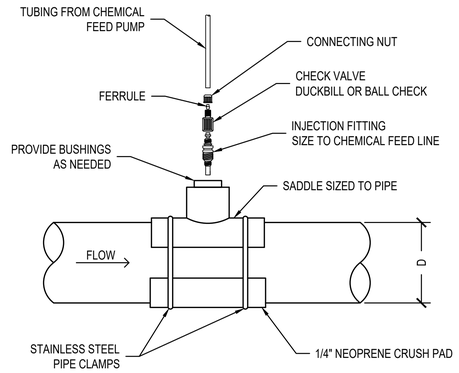
SIZE OF PIPE (D)	AIR RELEASE VALVE
LESS THAN 4" (110mm)	HARRINGTON VAFV104
6" TO 8" (150mm TO 200mm)	HARRINGTON VAFV106
10" TO 12" (250mm TO 300mm)	HARRINGTON VAFV108
GREATER THAN 12" (300mm)	VALMATIC 61 AIR RELEASE VALVE



NOTES:
1. PROVIDE AIR RELEASE CHECK VALVE IN HIGH POINTS OF PIPE IN THE MECHANICAL ROOM.
2. PLUMB DISCHARGE TO NEARBY FLOOR DRAIN.

⑦ TYPICAL AIR RELEASE VALVE

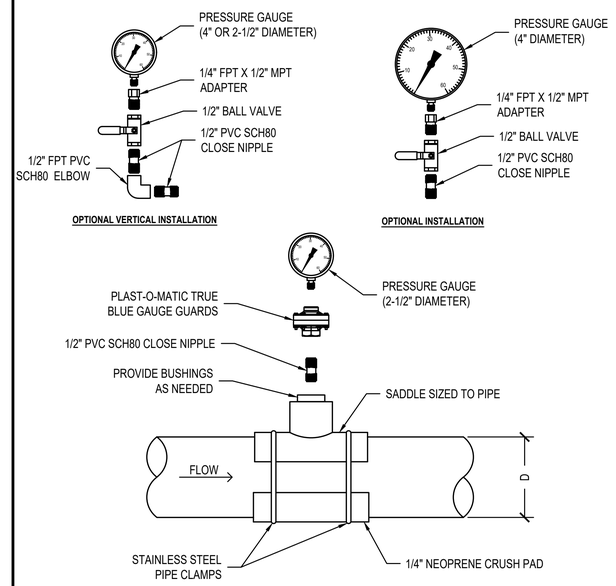
SCALE 3"-1'-0"



NOTES:
1. THE CHLORINE INJECTION POINT SHOULD BE UPSTREAM OF THE ACID INJECTION POINT.
2. PROVIDE A MINIMUM OF 5 PIPE DIAMETERS (D) BETWEEN OZONE ORP SAMPLE LINE AND CHLORINE INJECTION POINT AND ANOTHER 5 PIPE DIAMETERS BETWEEN CHLORINE AND ACID INJECTION POINTS.
3. PROVIDE INJECTION FITTINGS AND CHECK VALVES FROM THE SAME MANUFACTURER OF THE CHEMICAL FEED PUMP OR CONFIRM COMPATIBILITY BETWEEN DIFFERENT SUPPLIERS.
4. INSTALL INJECTION POINT IN THE TOP HALF OF THE PIPE.

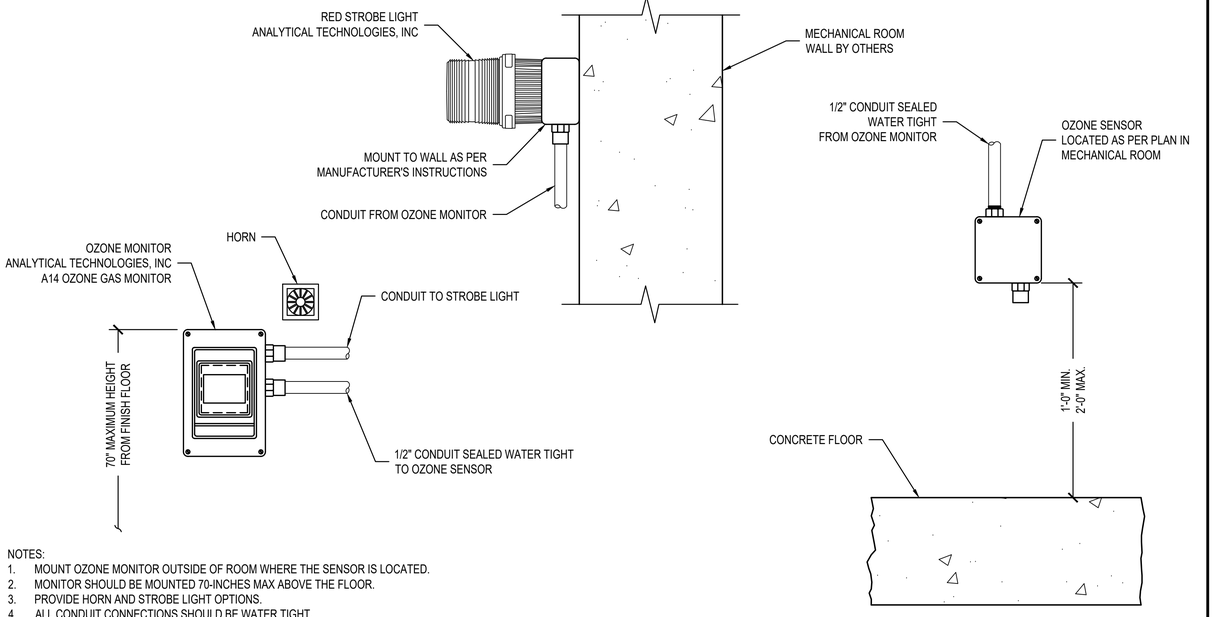
④ TYPICAL CHEMICAL INJECTION INSTALLATION

SCALE 3"-1'-0"



① TYPICAL PRESSURE GAUGE INSTALLATION

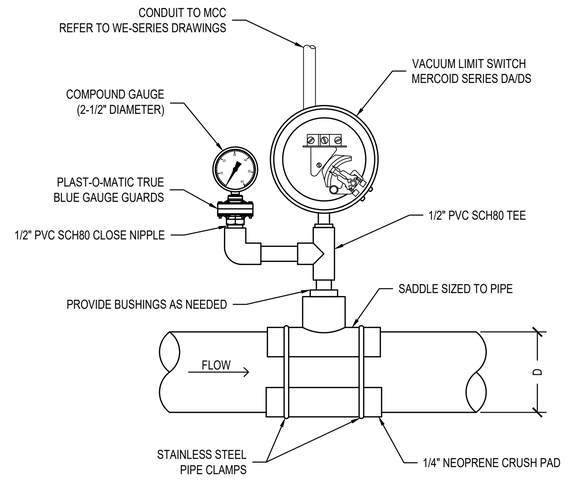
SCALE 3"-1'-0"



NOTES:
1. MOUNT OZONE MONITOR OUTSIDE OF ROOM WHERE THE SENSOR IS LOCATED.
2. MONITOR SHOULD BE MOUNTED 70-INCHES MAX ABOVE THE FLOOR.
3. PROVIDE HORN AND STROBE LIGHT OPTIONS.
4. ALL CONDUIT CONNECTIONS SHOULD BE WATER TIGHT.
5. STROBE LOCATED ABOVE DOOR OF MECHANICAL ROOM

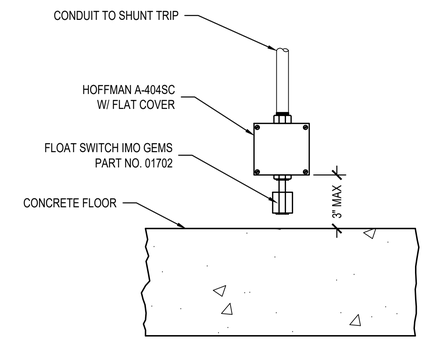
⑫ AMBIENT OZONE MONITOR INSTALLATION

SCALE 3"-1'-0"



⑥ TYPICAL VACUUM LIMIT SWITCH INSTALLATION

SCALE 3"-1'-0"



NOTES:
1. PROVIDE FLOAT SWITCH IN LOWEST POINT IN THE MECHANICAL ROOM.
2. REFER TO THE WE-SERIES DRAWINGS FOR CONNECTION TO THE SHUNT TRIP.
3. CONTACT INFORMATION FOR THE FLOAT SWITCH:
   GEMS SENSORS, INC
   V: (860) 747-3000
   WWW.GEMSSENSORS.COM

③ SHUNT TRIP FLOAT SWITCH INSTALLATION

SCALE 3"-1'-0"

SEAL

STATE OF MARYLAND · ALLEN D. CLARKSON · No. 0044243 · PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD H2O

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: CGB
DWN BY: DSB
CHKD BY: ADC

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
			R.O.W NO.		
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - GENERAL DETAILS

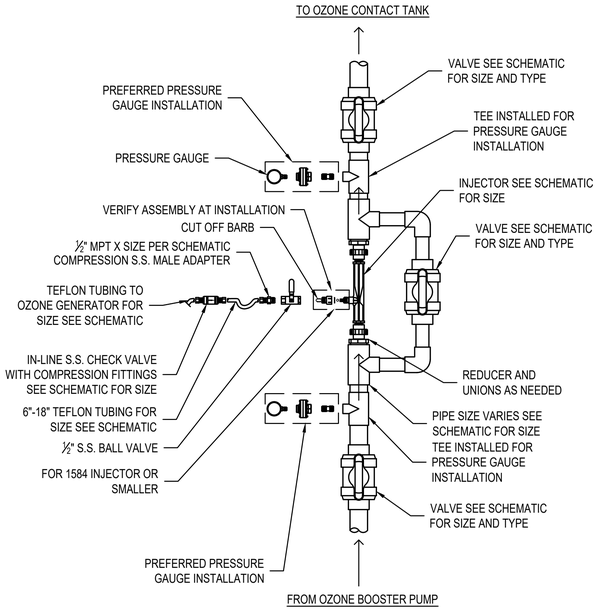
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

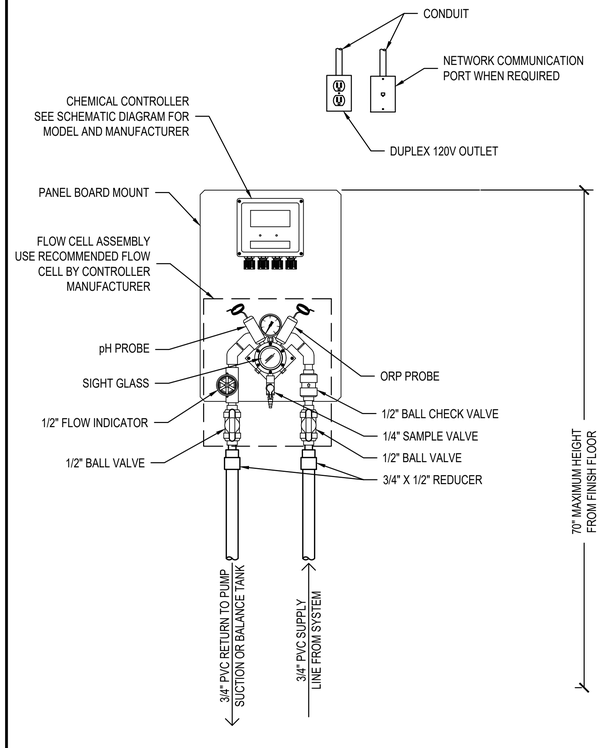
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W5-1.05	25114 GX0
JOB ORDER NUMBER	
PROJ-1000634	
SHEET 127 OF 150	
DRAWING NUMBER	
2025-2297	
FILE NO.: 8	



⑪ OZONE INJECTOR INSTALLATION

SCALE 1-1/2" = 1-0'



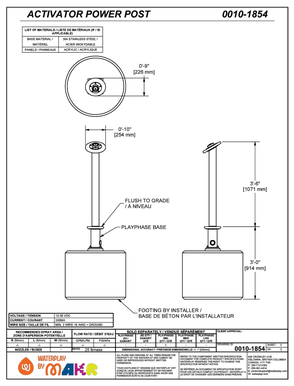
NOTES:
1. CONTROL WIRING TO CHEMICAL FEED PUMPS SHOULD BE ROUTED IN CONDUIT.
2. FOR FLOW CELL ASSEMBLIES WITH 3/8" TUBING CONNECTIONS, PROVIDE 3/4" PVC HARD PIPE TO CELL THEN TRANSITION AFTER THE ISOLATION BALL VALVE TO TUBING.
3. PROVIDE A DUPLEX OUTLET WITHIN 5' FEET OF THE CONTROLLER.
4. PROVIDE A NETWORK COMMUNICATION PORT WITHIN 5' FEET OFF THE CONTROLLER, WHEN REQUIRED.

⑧ TYP. CHEMICAL CONTROLLER INSTALLATION

SCALE 1-1/2" = 1-0'

⑫ GUTTER GRATE DETAIL

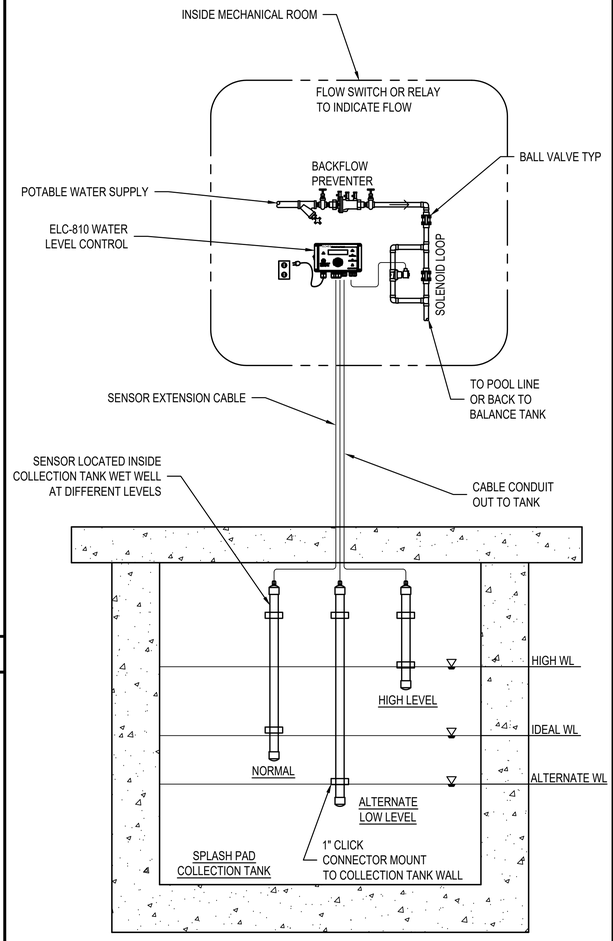
SCALE 3" = 1-0'



⑨ ACTIVATOR BOLLARD

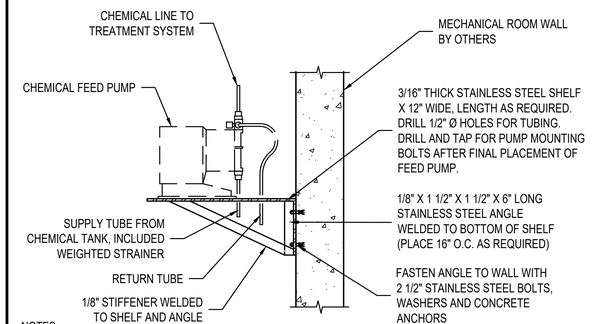
NTS

NOTE: UNIT CAN SENSE UP TO THREE LEVELS - NORMAL, ALTERNATE, AND HIGHT



⑥ COLLECTION TANK AUTOFILL & SENSOR

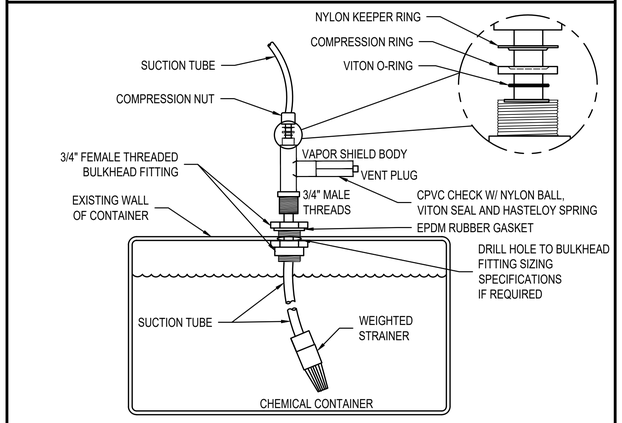
SCALE 1" = 1'-0"



NOTES:
1. ACCEPTABLE OPTION: INSTALL PER MANUFACTURER'S RECOMMENDATIONS USING WALL MOUNTING INSTRUCTIONS.
2. ACCEPTABLE OPTION: PROVIDE A PRE-MANUFACTURED SHELF UNITS CAPABLE OF WITHSTANDING THE CHEMICAL STORAGE AREA ENVIRONMENT.
3. CHEMICAL FEED PUMPS SHOULD NOT BE INSTALLED DIRECTLY OVER CHEMICAL TANKS.

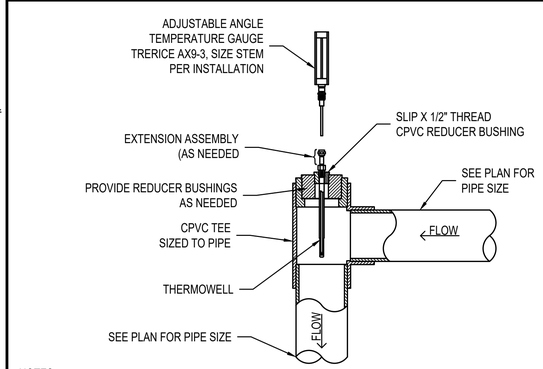
① TYP. CHEMICAL FEED PUMP INSTALLATION

SCALE 1" = 1'-0"



② VAPOR SHIELD

SCALE 1" = 1'-0"



NOTES:
1. GAUGE MAY BE INSTALLED IN A STRAIGHT TEE WITH THE GAUGE IN THE BRANCH LEG.
2. PROVIDE A TRERICE BX9-3 GAUGE WITH INTEGRATE RTD WHEN NEEDED.
3. USE CPVC OR COPPER PIPE FOR HIGH WATER TEMPERATURE APPLICATIONS, SEE PLANS

③ TYP. TEMPERATURE GAUGE INSTALLATION

SCALE 1" = 1'-0"

SEAL

STATE OF MARYLAND · ALLEN D. CLAWSON · No. 0044243 · PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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CLOWARD H2O	DGN BY: CGB											
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BY: DATE:	DATE REVIEWED:											

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER

DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - GENERAL DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	W5-1.06
CONTRACT NUMBER	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET	128 OF 150
DRAWING NUMBER	2025-2298
FILE NO.:	8

DESIGN CODE

2021 INTERNATIONAL BUILDING CODE (IBC) & 2024 BALTIMORE COUNTY BLDG CODE

DESIGN CRITERIA

SEISMIC DESIGN CRITERIA

RISK CATEGORY	= II
SEISMIC IMPORTANCE FACTOR, IE	= 1.0
SOIL SITE CLASS	= D
SEISMIC DESIGN CATEGORY	= B
CALCULATED BUILDING PERIOD, T	= 0.1 SECONDS
MAPPED SPECTRAL RESPONSE ACCELERATIONS	
SHORT PERIOD ACCELERATION, SS	= 0.142G
1-SECOND ACCELERATION, S1	= 0.043G
DESIGN SPECTRAL RESPONSE ACCELERATIONS	
SHORT PERIOD ACCELERATION, SDS	= 0.152G
1-SECOND ACCELERATION, SD1	= 0.069G

LATERAL FORCE RESISTING SYSTEM

SPECIAL REINFORCED CONCRETE SHEAR WALLS:	
RESPONSE MODIFICATION FACTOR, R	= 6.5
SYSTEM OVERSTRENGTH FACTOR, ΩO	= 3
DEFLECTION AMPLIFICATION FACTOR, CD	= 4.0
SEISMIC RESPONSE COEFFICIENT, CS	= 0.023
SEISMIC ANALYSIS PROCEDURE	= EQUIVALENT
LATERAL FORCE	
CALCULATED SEISMIC BASE SHEAR, VS	= 0.96 KIPS

WIND DESIGN CRITERIA

3 SECOND GUST WIND SPEED	= 115 MPH
WIND EXPOSURE	= C
INTERNAL PRESSURE COEFFICIENT	= ± 0.18
COMPONENT & CLADDING DESIGN PRESSURE HT)	= 30 PSF (VARIES BY
WIND ANALYSIS PROCEDURE:	= DIRECTIONAL
CALCULATED WIND BASE SHEAR, VW	= 3 KIPS

DESIGN LOADS

FLOOR LOADS

FLOOR DEAD LOAD	= 250 PSF

SERVICEABILITY CRITERIA

DEFLECTION LIMITS

TOTAL LOAD	LIVE LOAD
=L/240	=L/360

EARTHWORK

DESIGN CRITERIA

SOILS REPORT BY:	AB CONSULTANTS INC.
PROJECT NO.	2021528-01
DATE:	AUG 14, 2024
SOIL BEARING PRESSURE:	1500 PSF
FROST PROTECTION:	30 INCHES
LATERAL EARTH PRESSURES:	
COEFFICENT OF FRICTION	0.4

REQUIREMENTS

1. ALL EARTHWORK, MATERIALS AND PLACEMENT MUST MEET THE APPROVAL OF THE GEOTECHNICAL / SOILS ENGINEER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL SITE SOIL CONDITIONS. THE CONTRACTORS REPORT SHALL BE SUBMITTED TO THE OWNER/OWNER'S ENGINEER FOR PROPER APPROVAL.
3. ANY UNFORESEEN CONDITIONS ENCOUNTERED DURING SITE PREPARATION SHALL BE BROUGHT TO THE ATTENTION OF THE SOILS ENGINEER AND ARCHITECT.
4. CONTRACTOR SHALL STRIP THE BUILDING AREA FROM ALL VEGETATION, DEBRIS AND TOPSOIL. CONTRACTOR SHALL EXCAVATE ANY REMAINING LOOSE NATURAL OR FILL SOILS TO EXPOSE COMPETENT NATURAL SOILS. CONTRACTOR SHALL REMOVE EXISTING FOOTINGS, FOUNDATIONS, SLABS, SITE PAVING, DEBRIS, AND STRUCTURES AS REQUIRED.
5. CONTRACTOR SHALL CHECK FOR SOFT SPOTS OR OTHER UNSUITABLE SOILS BY PROOF ROLLING THE ENTIRE BUILDING PAD AREA WITH NORMAL COMPACTION EQUIPMENT. REMOVE UNSUITABLE MATERIALS AND REPLACE WITH COMPACTED ENGINEERED STRUCTURAL FILL OR 2,000 PSI LEAN CONCRETE, (FLOWABLE FILL).
6. ENGINEERED OR STRUCTURAL FILL MATERIAL BENEATH FOOTINGS SHALL MEET THE REQUIREMENTS OF SOILS REPORT AND SPECIFICATIONS.
7. SEE PLANS FOR THICKNESS OF ALL FLOOR SLABS. UNDERLAY ALL SLABS WITH AT LEAST A 4" THICK LAYER OF FREE-DRAINING GRANULAR MATERIAL. GRANULAR MATERIAL SHALL BE "PEA" GRAVEL OR 1" MINUS CLEAN GAP-GRADED GRAVEL.
8. BACKFILL AROUND FOUNDATION WALLS SHALL BE PERFORMED USING GRANULAR MATERIAL. CARE SHALL BE TAKEN IN PLACING BACKFILL MATERIALS SO AS NOT TO DAMAGE THE FOUNDATION. CONTRACTOR SHALL MONITOR BACKFILL OPERATIONS AS NEEDED.
9. REFER TO THE PROJECT SPECIFICATIONS AND SOILS REPORT FOR FURTHER EARTHWORK REQUIREMENTS.

GENERAL STRUCTURAL NOTES

1. GENERAL STRUCTURAL NOTES ARE INTENDED TO COMPLEMENT PROJECT STRUCTURAL PLANS AND PROJECT SPECIFICATIONS. SPECIFIC NOTES ON PLANS, DETAILS, AND SCHEDULES SHALL GOVERN OVER THE GENERAL NOTES.
2. TYPICAL DETAILS AND SECTIONS SHALL APPLY WHERE SPECIFIC DETAILS ARE NOT SHOWN.
3. DIMENSIONS SHOWN ON PLANS SHALL ARE FOR INFORMATION ONLY. CONSTRUCTION DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS FOR CONSTRUCTION OR SHOP DRAWINGS.
4. CHANGES TO THE CONTRACT DOCUMENTS MAY BE MADE ONLY BY WRITTEN AUTHORIZATION FROM AN AUTHORIZED REPRESENTATIVE OF CLOWARD H2O. CLOWARD H2O SHALL BE HELD HARMLESS FOR ANY CLAIMS ARISING DIRECTLY OR INDIRECTLY FROM CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM AN AUTHORIZED REPRESENTATIVE OF CLOWARD H2O.
5. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS PRIOR TO CONSTRUCTION/FABRICATION AND SHALL IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
6. THE STRUCTURAL DRAWINGS SHALL NOT BE CONSIDERED ALL INCLUSIVE AND DO NOT CONTAIN ALL DIMENSIONS, ELEVATIONS, AND OPENINGS, NEEDED FOR CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH ARCHITECTURAL DRAWINGS, SITE CONDITIONS, AND OTHER TRADES INCLUDING BUT NOT LIMITED TO: ARCHITECTURAL, MECHANICAL, CIVIL, ELECTRICAL, AND PLUMBING.
7. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND/OR ENGINEER OF ANY DISCREPANCIES, OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE CONSTRUCTION DOCUMENTS, SPECIFICATIONS, AND EXISTING CONDITIONS BEFORE PROCEEDING WITH THE CONSTRUCTION/FABRICATION OF ANY AFFECTED ELEMENTS. IN CASE OF CONFLICT, THE MOST STRINGENT REQUIREMENTS AS DIRECTED BY THE ARCHITECT/ENGINEER SHALL GOVERN AND BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
8. THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST TO THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH ANY CHANGES, SUBSTITUTIONS, OR MODIFICATIONS. ANY CONSTRUCTION, FABRICATION, OR INSTALLATION PERFORMED BEFORE RECEIVING THE ARCHITECT/ENGINEERS WRITTEN APPROVAL WILL BE AT THE CONTRACTOR'S RISK/EXPENSE.
9. THE CONTRACTOR SHALL COORDINATE THE WORK PERFORMED BY ALL TRADES AND IS ULTIMATELY RESPONSIBLE FOR COMPLIANCE WITH CONTRACT DOCUMENTS AND CODE REQUIREMENTS. THE CONTRACTOR SHALL MEET ALL NOTED REQUIREMENTS AND SHALL INCLUDE THE ASSOCIATED COSTS IN THEIR RESPECTIVE BID.
10. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ALL TRADES AND SHALL NOTIFY ENGINEER OF SIZE AND LOCATION OF ANY EQUIPMENT OR OTHER ADDITIONAL LOADS NOT SHOWN ON STRUCTURAL PLANS OR TYPICAL DETAILS BEFORE CONSTRUCTION/FABRICATION.
11. FAILURE TO FOLLOW PLANS AND CONSTRUCTION DOCUMENTS CONSTITUTES CHANGE IN PROJECT SCOPE. THE ENGINEER RESERVES THE RIGHT TO REQUEST REPLACEMENT OF ANY PORTION OF THE STRUCTURE DEVIATING FROM THE PLANS WHERE WRITTEN APPROVAL HAS NOT BEEN OBTAINED. DEVIATION FROM CONSTRUCTION DOCUMENTS WITHOUT WRITTEN APPROVAL RELIEVES ENGINEER OF ALL LIABILITY, AND CONTRACTOR ASSUMES FULL LIABILITY. STRUCTURE DEVIATING FROM THE PLANS WHERE WRITTEN APPROVAL HAS NOT BEEN OBTAINED.
12. STRUCTURAL ELEMENTS SHALL NOT BE CUT FOR PIPES, DUCTS, SLEEVES, ETC. UNLESS NOTED OTHERWISE IN THE PLANS AND TYPICAL DETAILS. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE ARCHITECT/ENGINEER FOR INSTALLATION OF ANY ADDITIONAL PIPES, DUCTS, OPENINGS, ETC NOT EXPLICITLY SHOWN ON CONTRACT DOCUMENTS.
13. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION.
14. THE CONTRACTOR SHALL BE RESPONSIBLE ALL TEMPORARY SHORING AND BRACING AS NECESSARY. SHORING AND BEAMS SHALL SUPPORT ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED (I.E. WIND, CONSTRUCTION LOADING, ETC.). SHORING SHALL REMAIN IN PLACE AS LONG AS SAFETY REQUIRES AND/OR UNTIL ALL THE STRUCTURAL ELEMENTS ARE IN PLACE AND CONNECTED AS REQUIRED IN THE CONTRACT DOCUMENTS.
15. DURING AND AFTER CONSTRUCTION, THE LOADS IMPOSED ON THE STRUCTURE BY THE CONTRACTOR AND OWNER SHALL BE WITHIN THE LIMITS OF THE OCCUPANCY DESIGN LOADS. SEE STRUCTURAL PLANS AND CALCULATIONS FOR THE OCCUPANCY DESIGN LOADINGS AND CRITERIA.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY AND PROTECTION WITHIN AND ADJACENT TO THE JOB SITE.
17. VISITS TO THE JOB SITE BY REPRESENTATIVES OF CLOWARD H2O DO NOT CONSTITUTE APPROVAL OR SPECIAL INSPECTION OF THE WORK PERFORMED BY THE CONTRACTOR OR HIS SUBCONTRACTORS.
18. CLOWARD H2O SHALL RECEIVE COPIES OF ALL SPECIAL INSPECTION REPORTS COMPLETED BY THE REVIEWING AUTHORITY OR THIRD PARTY REGARDING STRUCTURAL ITEMS LISTED FOR SPECIAL INSPECTION.
19. ALL DEFERRED SUBMITTAL ITEMS, COMPONENTS, AND SYSTEMS NOT SPECIFICALLY ENGINEERED BY THE ENGINEER OF RECORD SHALL BE "DESIGN-BUILD" BY THE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SHOP DRAWINGS OR AS-BUILT DRAWINGS STAMPED BY A PROFESSIONAL ENGINEER IF REQUIRED BY THE REVIEWING AUTHORITY OR JURISDICTION. IF PRE-ENGINEERED SYSTEM IMPACTS THE ORIGINAL DESIGN FOR INTENT OF THE PROJECT IN ANY WAY, CONTRACTOR SHALL COORDINATE WITH ENGINEER OF RECORD PRIOR TO INSTALLATION.
20. REVIEW OF SHOP DRAWING SUBMITTAL ITEMS BY CLOWARD H2O SHALL BE FOR GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS AND IS NOT INTENDED FOR APPROVAL. SHOP DRAWING REVIEW DOES NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF COMPLETING THE PROJECT ACCORDING TO CONTRACT DOCUMENTS.
21. STRUCTURAL SHOP DRAWINGS SHALL BE APPROVED BY THE ENGINEER AND ARCHITECT OF RECORD PRIOR TO FABRICATION AND ERECTION.
22. THE FOLLOWING LIST INCLUDES, BUT IS NOT LIMITED TO, SPECIFIC ITEMS FOR WHICH SHOP DRAWING SUBMITTALS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO FABRICATION/INSTALLATION:
    - A. CONCRETE MIX DESIGN
    - B. CONCRETE REINFORCING

SEAL

PROFESSIONAL CERTIFICATION

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LICENSE NO. 47023, EXPIRATION DATE 07/17/2027

CLOWARD H2O

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BY:
DATE:

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BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
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DGN BY: CGB
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P.W.A. NO	KEY SHEET	POSITION SHT
PWA NO	PNW	35NW40
R.O.W NO.		
ROW		

DRAWING SCALE
PLAN SCALE: NTS
PROFILE SCALE: N/A N/A

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - STRUCTURAL GENERAL NOTES

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W6-0.01	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 129 OF 150
	DRAWING NUMBER
	2025-2299
	FILE NO.: 8

BUILDING CONCRETE NOTES

1. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE IBC, LOCAL ORDINANCES, AND THE MOST CURRENTLY ADOPTED VERSION OF THE AMERICAN CONCRETE INSTITUTE (ACI) ACI 318.
2. CONTRACTOR SHALL COORDINATE OPENINGS, BLOCK OUTS, CURBS, DOWELS, SLEEVES, CONDUITS, BOLTS, AND ANY OTHER EMBEDDED ITEMS WITH MECHANICAL, ELECTRICAL, AND ARCHITECTURAL PRIOR TO PLACING CONCRETE.
3. NO OPENINGS, PIPES, DUCTS, SLEEVES, ETC. SHALL BE PLACED IN STRUCTURAL CONCRETE INCLUDING BUT NOT LIMITED TO WALLS, BEAMS, COLUMNS, FOOTINGS, GRADE BEAMS AND SUSPENDED SLABS (INCLUDED CONCRETE OVER METAL DECK) UNLESS SPECIFICALLY DETAILED OR WRITTEN APPROVAL IS GIVEN BY ENGINEER. FOOTINGS SHALL BE STEPPED TO AVOID PIPING UNLESS OTHERWISE DETAILED.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER PLACEMENT OF ALL ANCHOR BOLTS, SEISMIC ANCHORS OR STRAPS, ETC... INSTALL PER MANUFACTURER'S SPECIFICATIONS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, DETAILING, CARE, PLACEMENT AND REMOVAL OF ALL FORMWORK AND SHORES. DO NOT REMOVE FORMS AND SHORING UNTIL STRUCTURAL MEMBERS ACQUIRE SUFFICIENT STRENGTH TO SUPPORT THEIR OWN WEIGHT PLUS CONSTRUCTION LOADS.
6. ONLY ONE GRADE OR TYPE OF CONCRETE SHALL BE POURED ON SITE AT ANY GIVEN TIME.
7. CONTRACTOR SHALL SEE CIVIL DRAWINGS AND PROJECT SPECIFICATIONS FOR ADDITIONAL SITE CONCRETE REQUIREMENTS NOT GIVEN IN THIS SECTION.
8. CONSTRUCTION ACTIVITY OR STORAGE OF MATERIALS SHALL NOT TAKE PLACE ON NEWLY PLACED CONCRETE UNTIL CONCRETE HAS ACHIEVED 75% OF SPECIFIED CONCRETE STRENGTH OR 7-DAYS, WHICHEVER IS SOONEST. DAMAGED SLABS OR OTHER STRUCTURAL CONCRETE BECAUSE OF CONSTRUCTION ACTIVITIES SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL EXPENSE TO THE OWNER.
9. CONTRACTOR SHALL FOLLOW RECOMMENDATIONS IN ACI 305R FOR HOT WEATHER CONCRETE PLACEMENT AND ACI 306R FOR COLD WEATHER CONCRETE PLACEMENT.

CONCRETE MATERIALS

1. ALL CONCRETE ON SITE SHALL BE TYPE I/II CEMENT PER ASTM C150 FOR ALL CONCRETE OR 1L U.N.O.
   A. OTHER CEMENT TYPES (III,IV,V) MAY BE USED AT THE DISCRETION OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER U.N.O.
2. CONTRACTOR SHALL PROVIDE VERIFICATION THAT NORMAL WEIGHT CONCRETE OVER METAL DECK SHALL NOT EXCEED 145 POUNDS PER CUBIC FOOT.
3. CONTRACTOR SHALL PROVIDE VERIFICATION THAT LIGHTWEIGHT CONCRETE OVER METAL DECK SHALL NOT EXCEED 115 POUNDS PER CUBIC FOOT.
4. NO ALUMINUM CONDUIT, PRODUCT CONTAINING ALUMINUM, OR ANY OTHER MATERIAL THAT MAY BE INJURIOUS TO CONCRETE SHALL BE EMBEDDED IN CONCRETE.
5. MAXIMUM SLUMP OF CONCRETE IS EQUAL TO 4 INCHES PLUS OR MINUS 1 INCH.
6. CEMENTITIOUS MATERIALS AND AGGREGATES, UNO:
   A. MIXING WATER — ASTM C1602
   B. FLY ASH AND POZZOLAN — ASTM C618
   C. (25% MAX CEMENTITOUS CONTENT, TYP)
   D. NORMAL WEIGHT AGGREGATES — ASTM C 33
   E. LIGHT WEIGHT AGGREGATES — ASTM C330
   F.MAX AGGREGATE SIZE USED:
   i. 1/5 NARROWEST DIMENSION BTWN FORMS
   ii. 1/3 DEPTH OF THE SLAB
   iii. 3/4 THE MIN CLEAR SPACING BTWN BARS
7. ADMIXTURES WHEN USED, UNO:
   A. WATER REDUCING AND RETARDING ADMIXTURE — ASTM C494
   B. AIR ENTRAINING ADMIXTURES — ASTM C260
   C. CHLORIDE ION CORROSION PREVENTION — ASTM C1582
   D. CALCIUM CHLORIDE SHALL NOT BE ADDED TO CONCRETE MIX
   E. ADMIXTURES NOT MENTIONED AS PART OF THIS SECTION SHALL BE SUBMITTED TO ENGINEER FOR REVIEW BEFORE USE.

CONCRETE STRENGTH

CONCRETE SHALL BE SUPPLIED TO MEET THE FOLLOWING STRENGTH REQUIREMENTS AND REQUIREMENTS SPECIFIC TO THE EXPOSURE CLASSES INCLUDING LIMITS ON WATER/CEMENT RATIO AND AIR CONTENT FOR GIVEN IN ACCORDANCE WITH ACI 318:

CONCRETE ELEMENT:	STRENGTH:
FOOTINGS & FOUNDATION WALLS:	4000 PSI
INTERIOR SLABS ON GRADE:	3500 PSI
SITE CONCRETE:	4500 PSI

REINFORCEMENT & ANCHORAGE

1. REINFORCING STEEL
   G. TYPICAL REINFORCING BAR — ASTM 615 GRADE 60
      i. FIELD BENT DOWELS — ASTM 615 GRADE 40 (OPTIONAL)
   H. WELDED WIRE FABRIC — ASTM 185
2. DEFORMED BAR ANCHORS (DBA): — ASTM A496
3. HEADED STUD ANCHORS (HSA): — ASTM A108
4. ANCHOR BOLTS:
   A. TYPICAL:
      i. ANCHOR BOLTS: — ASTM F1554 GRADE 36
      ii. NUTS: — ASTM A563 NUTS AND
      iii. HARDENED WASHERS: — ASTM F436 (5/16" THICK UNO)
5. FOR ALL BOLTS AND ANCHORS EMBEDDED IN CONCRETE SEE "TYPICAL BOLT EMBEDMENT SCHEDULE".
6. ALL SPLICES IN REINFORCING BARS SHALL MEET THE REQUIREMENTS OF "REINFORCING LAP SPLICE SCHEDULE".
7. DO NOT SPLICE STIRRUPS AND TIES. DO NOT SPLICE VERTICAL BARS IN RETAINING WALLS UNLESS SPECIFICALLY SHOWN IN DETAILS.
8. MECHANICAL SPLICES SHALL BE POSITIVE CONNECTING COUPLERS AND SHALL MEET ALL APPLICABLE CODE REQUIREMENTS. ADJACENT MECHANICAL SPLICES SHALL BE STAGGERED A MINIMUM OF 24 INCHES ALONG THE REINFORCING BARS. TENSILE CAPACITY OF MECHANICAL SPLICES SHALL BE 125% OF THE SPLICED BAR.
9. ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH THE ACI DETAILING MANUAL AND ACI STANDARDS.
10. CONCRETE TO BE MECHANICALLY CONSOLIDATED DURING PLACEMENT PER ACI STANDARDS.
11. USE CHAIRS OR OTHER SUPPORT DEVICES RECOMMENDED BY THE CRSI TO SUPPORT AND TIE REINFORCEMENT BARS AND WWF PRIOR TO PLACING CONCRETE. WWF SHALL BE ADEQUATELY SUPPORTED ABOVE GRADE OR DECK. IT IS RECOMMENDED THAT CONTINUOUS SUPPORTS ARE PLACED AT 36" O.C. MAXIMUM.
12. LIFTING OF REINFORCING OFF GRADE OR DECK DURING PLACEMENT OF CONCRETE IS NOT PERMITTED.
13. REINFORCING STEEL AND EMBEDS SHALL BE PROPERLY TIED INTO PLACE PRIOR TO PLACING CONCRETE.
14. HORIZONTAL REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION AND CONTROL JOINTS OR PROVIDE REINFORCING DOWELS TO MATCH MEMBER REINFORCING, UNO.
15. PROVIDE CORNER BARS AT INTERSECTING WALL CORNERS USING THE SAME BAR SIZE AND SPACING AS THE HORIZONTAL WALL REINFORCING, SEE DETAILS.
16. DO NOT WELD REINFORCING BARS. DO NOT SUBSTITUTE REINFORCING BARS FOR DEFORMED BAR ANCHORS OR HEADED STUD ANCHORS.
17. SEE ACI 315 FOR ADDITIONAL DETAILING REQUIREMENTS FOR REINFORCING.
18. CAST-IN-PLACE REINFORCEMENT SHALL HAVE THE FOLLOWING CLEAR COVER:
   A. CAST AGAINST/PERMANENTLY EXPOSED TO EARTH — 3"
   B. FORMED CONCRETE EXPOSED TO EARTH/WEATHER:
      i. #6 THRU #18 BARS — 2"
      ii. #5 AND SMALLER BARS — 1-1/2"
   C. CONCRETE NOT EXPOSED EARTH/WEATHER:
      i. SLABS, WALLS, JOISTS (#11 AND SMALLER) — 3/4"
      ii. BEAMS, COLUMNS, TIES, STIRRUPS — 1-1/2"

CONSTRUCTION AND CONTROL JOINTS:

1. CONSTRUCTION OR CONTROL JOINTS IN ALL EXPOSED CONCRETE NOT SHOWN ON PLANS SHALL BE COORDINATED WITH THE ARCHITECT/ENGINEER BEFORE CONCRETE IS PLACED.
2. SPACING BETWEEN CONSTRUCTION OR CONTROL JOINTS SHALL MEET THE FOLLOWING REQUIREMENTS:
   A. CONCRETE SLAB ON GRADE:
      i. 4" THICK -10' O.C. MAX
         5" THICK - 10' O.C. MAX
         6" THICK - 12' O.C. MAX
         8" THICK - 12' O.C. MAX
3. SAWCUT CONTROL JOINTS SHALL BE MADE 1-HR IN HOT WEATHER OR 4-HRS IN COLD WEATHER AFTER COMPLETING THE FINISHING OF THE SLAB IN THAT JOINT LOCATION. CUTTING SHALL BE COMPLETED BEFORE SLAB CONCRETE COOLING OCCURS, SUBSEQUENT TO THE PEAK HEAT OF HYDRATION, USE EARLY ENTRY SAW.
4. CONSTRUCTION JOINTS SHALL NOT EXCEED A DISTANCE OF 125'-0" O.C. IN ANY DIRECTION, HOWEVER DISTANCE MAY BE INCREASE TO 150'-200' UNDER IDEAL CONDITIONS AT CONTRACTORS RISK.
5. THE LENGTH TO WIDTH RATIO OF CONTROL JOINTS SHALL NOT EXCEED 1.25:1.
6. PROVIDE 2 - #4 BARS X 48 INCHES AT ALL DISCONTINUOUS CONTROL OR CONSTRUCTION JOINTS IN SLAB-ON-GRADE.
7. PROVIDE (1) DIAGONAL #3 OR #4 BAR X 48" AT ALL INSIDE CORNERS.
8. CONTRACTOR MAY SUBMIT IN WRITING CHANGES OR MODIFICATIONS TO REQUIREMENTS FOR CONTROL AND CONSTRUCTION JOINTS FOR ARCHITECT, OWNER, AND ENGINEER REVIEW.

FOOTINGS

1. SEE FOOTING SCHEDULE AND DETAILS FOR SIZE AND REINFORCING REQUIREMENTS, TYP. INTERIOR FOOTINGS MAY BE MONOLITHIC WITH SLAB.
2. CONTRACTOR TO ENSURE THAT ALL EXTERIOR FOOTINGS SHALL BEAR BELOW FROST DEPTH AS NOTED IN "EARTHWORK" SECTION. CONTRACTOR SHALL STEP FOOTINGS & FOUNDATION AS REQUIRED.
3. NO FOOTING SHALL BE PLACED IN WATER OR ON FROZEN GROUND.

FOUNDATION AND RETAINING WALLS

1. BRACE WALLS AS REQUIRED UNTIL FLOOR SLABS AND/OR FLOOR FRAMING ARE IN PLACE, AND UNTIL WALLS HAVE PROPERLY CURED.
2. FOUNDATION WALLS AND RETAINING WALLS SHALL NOT BE BACKFILLED UNTIL CONCRETE HAS ACHIEVED THE DESIGN STRENGTH OR IS PROPERLY SHORED.
3. BACKFILL ADJACENT TO FOUNDATION WALLS OR IN LANDSCAPED AREAS SHALL BE PLACED IN 8 INCH MAXIMUM LOOSE LIFTS. FILL SHALL HAVE MOISTURE CONTENT WITHIN 2% OF OPTIMUM AND SHALL BE COMPACTED TO AT LEAST 90% MAXIMUM DENSITY (ASTM D 1557). HEAVY EQUIPMENT SHALL NOT BE USED TO BACKFILL WITHOUT PRIOR CONSENT OF THE ENGINEER.
4. SEE ARCHITECTURAL DRAWINGS AND DETAILS FOR DRAINAGE METHOD BEHIND FOUNDATION AND RETAINING WALLS.
5. CONSTRUCTION JOINTS (COLD JOINTS) IN WALLS SHALL BE WATERPROOFED TO PREVENT LEAKS.
6. CONTRACTOR SHALL COORDINATE ALL STEPS IN WALLS WITH THE ARCHITECTURAL PRIOR TO PLACEMENT.

SLAB ON GRADE

1. THE QUALITY OF THE SLAB-ON-GRADE, INCLUDING CONCRETE AND WORKMANSHIP ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND THE CONCRETE SUB-CONTRACTOR.
2. THE CONSTRUCTION OF THE SLAB-ON-GRADE IS A MEANS AND METHODS OF CONSTRUCTION. VARIATIONS FROM THESE RECOMMENDATIONS SHALL BE SUBMITTED IN WRITING PRIOR TO DOING THE WORK. CONTRACTOR IS ENCOURAGED TO MAKE APPROVED MODIFICATIONS IN ORDER TO PROVIDE THE BEST SLAB POSSIBLE.
3. THE THICKNESS AND REINFORCING OF SLABS ON GRADE SHALL BE AS INDICATED ON THE FOOTING AND FOUNDATION PLAN. ALTERNATE THICKNESS AND REINFORCING MAY BE SUBMITTED TO ARCHITECT FOR OWNER'S CONSIDERATION, BASED ON CONTRACTORS EXPERIENCE.
4. DEPRESSED SLABS: LOCATION AND DEPTH OF ALL DEPRESSIONS IN SLAB ON GRADE AS REQUIRED IN AREAS OF CERAMIC TILE, SPECIAL ENTRY MATS, HARDWOOD FLOORS, ETC. SHALL BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS.
5. VAPOR RETARDER: PLACEMENT OF SLAB ON GRADE UNDERLAYMENT IS REQUIRED BENEATH FINISHED OFFICE AREAS OR AS OTHERWISE DIRECTED BY ARCHITECT, GEOTECHNICAL ENGINEER, OR OWNER. (OPTION: PROVIDE UNDER ALL SLABS-ON-GRADE.)

A. VAPOR RETARDER SHOULD MEET THE FOLLOWING REQUIREMENTS UNLESS NOTED OTHERWISE BY SOILS REPORT:

ii. MEET OR EXCEED REQUIREMENTS OF ASTM E1745, CLASS A MINIMUM

ii. 10 MIL THICKNESS (MINIMUM) U.N.O.

iii. TAPE ALL SEAMS AND PENETRATIONS WITH 6" WIDE TAPE AS RECOMMENDED BY MANUFACTURER.

7. PROVIDE ISOLATION JOINT OR BLOCKOUTS AROUND COLUMNS.
8. SLAB-ON-GRADE SHALL NOT BE IN DIRECT CONTACT WITH INTERIOR FOOTINGS. PROVIDE HORIZONTAL ISOLATION USING FREE-DRAINING GRANULAR MATERIAL OR A VAPOR RETARDER, OR APPROVED EQUAL, U.N.O.
9. THE SLAB REINFORCING STEEL SHALL BE PLACED IN THE TOP OF THE SLAB AND SHALL BE 2" CLEAR FOR 6" (OR THICKER) SLAB AND 1.5" CLEAR FOR 5" (OR THINNER) SLAB.
10. ALL REINFORCING STEEL SHALL BE PROPERLY CHAIRED TO ENSURE PROPER PLACEMENT. CHAIRS MUST HAVE A BASE FOR SLABS-ON-GRADE.
11. REINFORCING SHALL BE CONTINUOUS THROUGH CONTROL JOINTS U.N.O. EVERY OTHER BAR MAY BE CUT AT JOINTS AT THE DISCRETION OF THE CONTRACTOR, OR #3 x 36" @ 18" O.C. MAY BE USED, U.N.O. SEE PLAN FOR ALTERNATES.
12. SAWCUT CONTROL JOINTS 1" MIN DEEP (BUT NOT DEEPER THAN TOP BAR CLEARANCE). USE AN EARLY-ENTRY DRY-CUT SAW WITH "NEW" OR" LIKE NEW" SKID PLATES. CUT JOINTS 1-HOUR IN HOT WEATHER OR 4 HOURS IN COLD WEATHER AFTER COMPLETING THE FINISHING OF THE SLAB IN THAT JOINT LOCATION. SAW CUTTING SHOULD BE COMPLETED BEFORE SLAB CONCRETE COOLING OCCURS, SUBSEQUENT TO THE PEAK HEAT OF HYDRATION. SAW CUT 1.25" ± 0.25" & OR 1" - 1.5".
13. HOT WEATHER CONCRETING IN COMPLIANCE WITH THE MOST RECENT ACI STANDARD, ACI 305R IS REQUIRED WHEN TEMPERATURES REACH 80 DEGREES FAHRENHEIT, OR WHEN THE TEMPERATURE OF FRESHLY MIXED CONCRETE RISES ABOVE 77 DEGREES FAHRENHEIT.
14. COLD WEATHER CONCRETING IN COMPLIANCE WITH THE MOST RECENT ACI STANDARD, ACI 306R IS REQUIRED WHEN FOR MORE THAN THREE SUCCESSIVE DAYS THE AVERAGE DAILY AIR TEMPERATURE DROPS BELOW 40 DEGREES FAHRENHEIT AND STAYS BELOW 50 DEGREES FAHRENHEIT FOR MORE THAN ONE-HALF OF ANY 24-HOUR PERIOD.
15. OPTION: USE TYPE MS CEMENT OR EQUAL, WITH 1.5" MAXIMUM COARSE AGGREGATE TO HELP MINIMIZE SHRINKAGE.
16. USE A LOW-SHRINK MIX DESIGN. 28 DAY SHRINKAGE TO BE 0.04% OR LESS.
17. PROPERLY WET BASE AND ENSURE REINFORCING BARS ARE COOL PRIOR TO PLACING CONCRETE, AND TO PREVENT SOILS FROM PULLING MOISTURE FROM SLAB.
18. DO NOT PLACE CONCRETE DURING WINDY CONDITIONS. TO AVOID CANYON BREEZES, CONCRETE MAY NEED TO BE PLACED AT NIGHT.
19. DO NOT PLACE CONCRETE IN THE HEAT OF THE DAY.
20. DO NOT OVERWORK THE SURFACE OF THE CONCRETE AND DO NOT ADD WATER.
21. SEE "CONCRETE MATERIALS" UNDER GENERAL CONCRETE NOTES FOR MAXIMUM SLUMP, ETC.
22. U.N.O. PROPERLY CURE THE SLAB-ON-GRADE SURFACE IMMEDIATELY AFTER POWER TROWLING. ALLOW ANY BLEED WATER TO DISSIPATE OR REMOVE EXCESS WATER PRIOR TO APPLYING THE CURING COMPOUND. ACCEPTABLE CURING INCLUDES WET CURING, OR THE USE OF A CURING COMPOUND. THE BOND BREAKER IS NOT A CURING COMPOUND. LACK OF MOISTURE AT THE SURFACE OF THE CONCRETE WHILE THE CONCRETE IS STILL HYDRATING IS TYPICALLY DUE TO IMPROPER CURING, INADEQUATE CURING, OR LACK OF CURING, AND MAY RESULT IN CRACKING. WET CURING IS FOR 7 DAYS OR UNTIL 70% OF THE SPECIFIED COMPRESSION STRENGTH IS ACHIEVED. THE APPLICATION OF THE CURING COMPOUND SHALL COMPLY WITH THE MANUFACTURES SPECIFICATIONS OR RECOMMENDATIONS AND SHALL BE BASED ON THE RATE OF EVAPORATION AND OTHER ENVIRONMENTAL CONDITIONS AT THE SITE, AT THE TIME OF APPLICATION. CONTRACTOR TO COORDINATE WITH SUPPLIER. SUPPLIER TO ENSURE PROPER APPLICATION OF CURING COMPOUND.

MACROSYTHETIC FIBER REINFORCED CONCRETE

1. MACROSYTHETIC FIBER REINFORCING IS APPROVED FOR USE IN CONSTRUCTION ONLY WHEN PRIOR WRITTEN CONSENT HAS BEEN OBTAINED BY AEURBIA/JMWA AND OWNER.
2. FIBERS SHALL MEET ALL REQUIREMENTS SET FORTH PER ASTM C1116 AND ASTM D7508.
3. FIBER DESCRIPTION:

A. FIBER LENGTHS SHALL BE 2.0 INCHES OR GREATER.

B. BEFORE MIXING, FIBERS ARE COLLATED BY TWISTING WITH AN INITIAL BUNDLE ASPECT RATIO LESS THAN 25.

C. AFTER MIXING MACRO SYNTHETIC FIBERS ARE TO HAVE AN ASPECT RATIO OF 80 OR GREATER.

D. FIBER DOSAGE, SIZE, AND MATERIAL SHALL BE DETERMINED BY MANUFACTURER (EUCLID, FORTA, OR OTHERS MAY BE APPROVED WITH WRITTEN CONSENT FROM JMWA/AEURBIA).

i. DOSAGE SHALL BE 4 LBS PER CUBIC YARD MINIMUM.

4. FIBERS MAY BE USED IN ADDITION TO REBAR FOR ENHANCED CRACK CONTROL.

POST INSTALLED ANCHOR NOTES

1. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS FOR POST INSTALLED ANCHORS, ACI STANDARDS, AND MSJC SPECIFICATIONS.
2. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFICALLY CALLED FOR IN THE CONTRACT DOCUMENTS. IF POST-INSTALLED ANCHORS ARE DESIRABLE TO BE USED IN LIEU OF CAST-IN-PLACE ANCHORS CONTRACTOR MUST SUBMIT FORMAL WRITTEN REQUEST TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
3. ANY USE OF POST-INSTALLED ANCHORS FOR RETROFIT OR PLACEMENT/REPLACEMENT OF MISSING ANCHORS MUST FIRST BE APPROVED IN WRITING FROM THE ARCHITECT/ENGINEER.
4. CONTRACTOR SHALL FOLLOW ICC EVALUATION REPORTS AND ALL MANUFACTURERS RECOMMENDATIONS AND REQUIREMENTS FOR INSTALLATION OF ALL POST-INSTALLED ANCHORS.
5. ALTERNATIVE ANCHORS NOT LISTED AS PART OF THIS SECTION MAY BE SUBMITTED FOR REVIEW TO THE ENGINEER BY THE CONTRACTOR. THE CONTRACTOR MUST SUBMIT CALCULATIONS AND ASSOCIATED ICC REPORTS FOR THE REQUESTED ALTERNATIVE TO THE ENGINEER FOR REVIEW PRIOR TO USE.

EPOXY ANCHORS AND DOWELS IN CONCRETE

1. USE HILTI HIT-RE 500-V3 (ESR-3814) OR SIMPSON SET-XP (ESR-2508) FOR ALL EPOXIED IN ANCHORS AND DOWELS. NO SUBSTITUTIONS PERMITTED WITHOUT APPROVAL FROM THE ENGINEER OF RECORD.
2. INSTALL EPOXY/ADHESIVE AND ANCHORS OR DOWELS PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
3. EPOXY ANCHORS MAY ONLY BE PLACED WITHIN THE MANUFACTURER'S RECOMMENDED TEMPERATURE RANGES, SEE ICC REPORT AND MANUFACTURER'S RECOMMENDATIONS.
4. CONTRACTOR TO ENSURE THAT EPOXY IS USED PRIOR TO THE MANUFACTURER GIVEN EXPIRATION DATE. DO NOT USE EPOXY THAT HAS BEEN STORED CONTRARY TO INSTRUCTIONS GIVEN BY THE MANUFACTURER.
5. ALL DRILLED HOLES SHALL BE 1/8" LARGER THAN THE BAR OR ANCHOR BOLT BEING INSTALLED.
6. CLEAN THE WALL AND HOLE WITH A NYLON BRUSH AND/OR COMPRESSED AIR. THE HOLE MUST BE COMPLETELY DRY AND FREE OF DUST, DEBRIS AND STANDING WATER.
7. UNLESS NOTED OTHERWISE, MINIMUM EMBEDMENT OF EPOXIED ANCHORS SHALL COMPLY WITH "POST-INSTALLED ANCHOR EMBEDMENT" SCHEDULE.

EXPANSION ANCHORS

1. USE HILTI HDA UNDERCUT ANCHOR (ESR-1546) OR HILTI HSL-3 EXPANSION ANCHOR (ESR-1545) OR HILTI KB-TZ EXPANSION ANCHOR (ESR-1917) OR SIMPSON STRONG BOLT (ESR-1771) OR REDHEAD TRUBOLT+ EXPANSION ANCHOR (ESR-2427) FOR ALL EXPANSION ANCHORS. NO SUBSTITUTIONS PERMITTED WITHOUT APPROVAL FROM THE ENGINEER OF RECORD.
2. ALL DRILLED HOLES SHALL BE THE SAME DIAMETER AS THE NOMINAL DIAMETER OF THE EXPANSION BOLT BEING INSTALLED. CLEAN THE HOLE WITH COMPRESSED AIR.
3. UNLESS NOTED OTHERWISE, MINIMUM EMBEDMENT OF EXPANSION ANCHORS SHALL COMPLY WITH "TYPICAL BOLT EMBEDMENT SCHEDULE".

SEAL

STATE OF MARYLAND — JAMES W. WHITLATCH — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD H2O — WATER PERFECTED

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: CGB
DWN BY: DSB
CHKD BY: ADC

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

DRAWING SCALE
PLAN SCALE: NTS
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
AQUATIC - STRUCTURAL GENERAL NOTES
SPLASH PAD AND SUPPORTING FACILITIES
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
SUBDIVISION: OWINGS MILLS
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
W6-0.02	25114 GX0
JOB ORDER NUMBER	
PROJ–1000634	
SHEET 130 OF 150	
DRAWING NUMBER	
2025-2300	
FILE NO.: 8	REV. 4676

SCREW ANCHORS

1. USE TITEN HD (ICC-ES ESR-2712) BY SIMPSON STRONG-TIE, OR KWIK HUS-EZ (ICC-ES ESR-3027) BY HILTI INC FOR ALL SCREW ANCHORS, UNO.

COLD FORMED STEEL

1. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE MOST CURRENTLY ADOPTED VERSION OF "THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS" BY AMERICAN IRON AND STEEL INSTITUTE (AISI).
2. INSTALL THESE PRODUCTS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
3. ALL COLD FORMED STEEL CONNECTORS SHALL BE PROVIDED BY THE STEEL NETWORK, SIMPSON, OR APPROVED EQUAL. IF ONE OF THESE SUPPLIERS IS NOT USED THE CONTRACTOR SHALL PROVIDE A COMPARISON LIST.

PREFABRICATED SYSTEMS

1. SUBMIT FOR REVIEW SHOP DRAWINGS AND CALCULATIONS OF ALL ELEMENTS TO JMWA/AEURBIA.
2. SHOP DRAWINGS SHALL BE SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.

LIGHT GAUGE STEEL FRAMING

1. 97 MIL, 68 MIL, AND 54 MIL (12 GA, 14GA, 16 GA) — ASTM A653 (50 KSI)
2. 43 MIL (18 GA) AND LIGHTER — ASTM A653 (33 KSI)
3. GALVANIZED COATINGS MUST MEET THE ASTM A924 SPECIFICATION.
4. WELDED ALL CONNECTIONS PER AWS STANDARDS, UNO.
5. BRACE ALL INTERIOR NON-BEARING STEEL-STUD WALLS THAT EXTEND ABOVE THE CEILING, BUT DO NOT ATTACH DIRECTLY TO THE STRUCTURE. BRACE WITH DIAGONAL METAL-STUD BRACING AT 45 DEGREES. MAXIMUM KL/R RATIO OF THE BRACE SHALL NOT EXCEED 200 AND SHALL NOT BE SPACED FURTHER THAN 10'-0" O.C, U.N.O.
6. CONNECT DIAGONAL BRACES TO THE TOP OF THE STEEL STUD WALLS AND TO THE TOP FLANGE OF THE STEEL BEAMS AND TOP TRACK WITH TWO #10 TEK SCREWS MINIMUM (OR EQUAL). PROVIDE TWO POWDER-DRIVEN FASTENERS (OR EQUAL) PER DIAGONAL BRACE AT CONCRETE DECKS, U.N.O.

FRAMING NOTES

1. ALL WORK TO BE IN STRICT ACCORDANCE WITH THE IBC, THE MOST CURRENTLY ADOPTED VERSION OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS) WHERE APPLICABLE, AND LOCAL ORDINANCES.
2. THE CONTRACTOR SHALL NOT CUT, CORE, NOTCH, OR MITER ANY STRUCTURAL MEMBER THAT IS NOT SHOWN IN STRUCTURAL DETAILS OR WITHOUT PRIOR WRITTEN CONSENT FROM CLOWARD H2O.
3. ALL FASTENERS INSTALLED IN PRESERVATIVE TREATED WOOD SHALL MEET THE REQUIREMENTS OF IBC 2304.10.5

MATERIALS

1. SHEATHING
   - A. ROOF SHEATHING:
     - i. THICKNESS: 5/8" APA EXP. 1 RATED SHEATHING OR EQUAL
     - ii. SPAN RATING (40/20)
   - B. WALL SHEATHING:
     - i. THICKNESS: 7/16" APA EXP. 1 RATED SHEATHING OR EQUAL
     - j. SPAN RATING (40/20)
   - C. AT SHEAR WALLS:
     - k. PANEL EDGE NAILING IS TO INCLUDE TOP AND BOTTOM PLATES, END POSTS, ALL VERTICAL ELEMENTS @ HOLDOWN ANCHORS, AND HORIZONTAL BLOCKING.
     - ii. ALL PANEL EDGES MUST BE BLOCKED.

STRUCTURAL CONNECTIONS

1. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE TO PROVIDE ADEQUATE STRUCTURAL CONNECTIONS. CONNECTIONS MUST CARRY THE BEARING CAPACITY OF THE MEMBER AND ANY UPLIFT OR SEISMIC FORCES GENERATED IN THE MEMBER. SPECIAL CONSIDERATION SHALL BE GIVEN TO PREVENT CRUSHING OF THE MEMBER AT BEARING, SPLITTING AND / OR CRACKING OF THE WOOD, ETC.
2. PRIOR WRITTEN APPROVAL FROM CLOWARD H2O IS REQUIRED FOR ANY DEVIATION FROM THE CONSTRUCTION DOCUMENTS. CLOWARD H2O NOT RESPONSIBLE FOR CONNECTIONS NOT APPROVED PRIOR TO CONSTRUCTION OR INSTALLATION.
3. PROVIDE SIMPSON CONNECTIONS OR EQUAL IF CONNECTION DETAILS ARE NOT PROVIDED IN THE CONSTRUCTION DOCUMENTS. INSTALL PER MANUFACTURERS RECOMMENDATIONS. REQUEST ADDITIONAL ASSISTANCE FROM CLOWARD H2O IF NON-STANDARD CONNECTIONS ARE REQ'D.
4. ALL STRUCTURAL MEMBERS SHALL HAVE 1 3/4" BEARING (MINIMUM).

BLOCKING, BRIDGING, MISCELLANEOUS.

1. ALL JOISTS AND RAFTERS SHALL HAVE FULL-HEIGHT SOLID BLOCKING AT THEIR BEARING POINTS. CONNECT EACH BLOCK TO THE TOP OF EXTERIOR WALLS WITH SIMPSON CLIPS (U.N.O.) OR EQ. EACH RAFTER SHALL BE ANCHORED WITH SIMPSON HURRICANE ANCHOR OR EQ.
2. C-JOISTS USED AS JOISTS SHALL HAVE FULL-HEIGHT SOLID BLOCKING AT THEIR BEARING POINTS. CONNECT EACH BLOCK TO THE TOP OF EXTERIOR WALLS WITH SIMPSON CLIPS (U.N.O.) OR EQ.
3. BIRDS MOUTHS AND/OR NOTCHING OF STRUCTURAL MEMBERS NOT SPECIFICALLY DETAILED ON THE STRUCTURAL PLANS IS NOT PERMITTED WITHOUT PRIOR WRITTEN APPROVAL.

MASONRY OR STONE VENEER

1. OTHER METHODS OF ATTACHMENT MAY BE USED WITH WRITTEN PERMISSION FROM THE ARCHITECT AND STRUCTURAL ENGINEER.
2. PROVIDE STEEL ANGLE LINTELS AT ALL OPENINGS. SEE THE STEEL ANGLE LINTEL SCHEDULE FOR SIZE AND REQUIREMENTS.

BRICK VENEER WITH WOOD

A. ATTACH TO STEEL AND STUD WALLS WITH DUR-O-WAL DA 213 SEISMIC VENEER ANCHORS OR HOHMANN & BARNARD DW-10 OR DW-10HS SEISMIC VENEER ANCHORS SPACED AT 16" O.C. EACH WAY. ATTACH VENEER ANCHORS TO STUDS WITH #10 CORROSION RESISTANT SELF-DRILLING SCREWS. ATTACH THE VENEER TO THE ANCHORS WITH DUR-O-WAL SEISMIC STEEL PINTELS OR HOHMANN & BARNARD 3/16" DIAMETER BYNA-TIE WITH SEISMICLIPS. ANCHOR TIES MUST ENGAGE A CONTINUOUS, HORIZONTAL GALVANIZED #9 GAUGE WIRE PLACED IN THE CENTER OF THE VENEER AT 16" O.C. (MAX.).

AQUATIC CONCRETE NOTES

1. Concrete placement shall be in accordance with the latest edition of ACI-301 and ACI-302. When concrete is placed during hot weather conform to the latest edition of ACI 305R. When concrete is place during cold weather conform to the latest edition of ACI 306R.
2. All work shall be in strict accordance with ACI 318, ACI 350 and local building codes.
3. Contractor shall provide Owner with Concrete Supplier's statements of mix proportions, anticipated 28 day compressive strength and test reports.
4. Concrete tests cylinders shall be made and stored in accordance with ASTM C-31. Records of test cylinders and test results shall be sent to the owner and the engineer of record for approval. If test cylinders are not prepared at time of concrete installation Contractor shall be fully responsible for obtaining cored test samples and repairing concrete surface to the satisfaction of the engineer. All tests and samples shall be performed in accordance with ASTM standards and per the written specifications.
5. Contractor shall coordinate location of penetrations with all other trades prior to placing concrete and install sleeves, block outs, etc. as required.
6. All penetrations through walls or slabs subjected to water shall be installed with a mechanical water stop or link seal.
7. Contractor shall be responsible for proper placement of all anchor bolts, imbeds, plates, and etc. as required.
8. Contractor shall be responsible for the design, detailing, care, placement and removal of all formwork and shoring. Do not remove forms and shoring until structural members acquire sufficient strength to support their own weight plus construction loads.
9. All expansion joints shown on the plans shall be installed without change to the number or location except with the written approval of the Engineer of Record.
10. Joint sealant shall be either fiber expansion joint type conforming to ASTM D1751 or closed cell neoprene sponge rubber conforming to ASTM D1752.
11. All concrete structures holding or retaining water shall have water stops or water bars placed at all construction joints to protect reinforcement.
12. Concrete mixture shall meet the following requirements unless noted otherwise.
    - a. 28 day compressive strength: 5,000 psi
    - b. Portland cement type: Type II, with C3A≤5% per ASTM C150
    - c. Maximum water to cement ratio: 0.50
    - d. Maximum concrete slump: 4 inches (plus or minus 1")
    - e. Air entraining: as recommended by ACI 318 & ASTM C-260
    - f. Aggregate: normal weight conforming to ASTM C33 and that are clean, washed, non-friable and uniformly graded from coarse to fine.
    - g. Do not add calcium chloride to concrete mix
13. See project specifications for additional Concrete requirements and admixtures.
14. All concrete shall be water (damp) cured as described in project specifications unless the Engineer of Record has provided written approval of an alternative method.

G. 15. Contractor shall be responsible for the clean up and removal from the site of all concrete debris and associated materials upon completion of the work.

SEAL

STATE OF MARYLAND — BRIAN WILLIAM CLOWARD — 44243 — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD H2O

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: CGB
DWN BY: DSB
CHKD BY: ADC

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

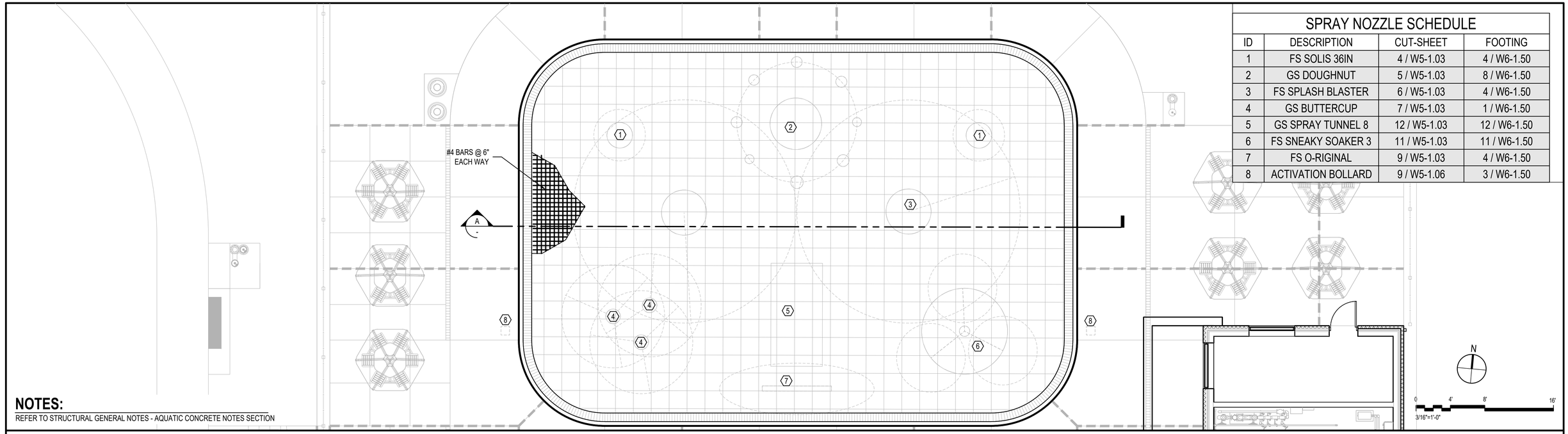
DRAWING SCALE
PLAN SCALE: NTS
PROFILE SCALE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
AQUATIC - STRUCTURAL GENERAL NOTES
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W6-0.03	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 131 OF 150
	DRAWING NUMBER
	2025-2301
	FILE NO.: 8

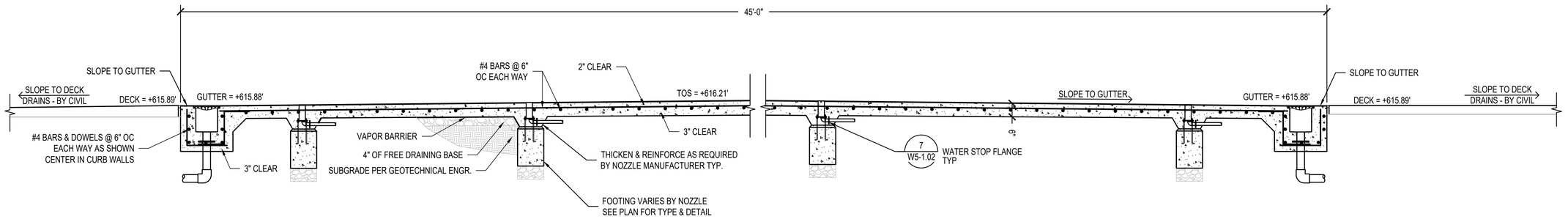


SPRAY NOZZLE SCHEDULE			
ID	DESCRIPTION	CUT-SHEET	FOOTING
1	FS SOLIS 36IN	4 / W5-1.03	4 / W6-1.50
2	GS DOUGHNUT	5 / W5-1.03	8 / W6-1.50
3	FS SPLASH BLASTER	6 / W5-1.03	4 / W6-1.50
4	GS BUTTERCUP	7 / W5-1.03	1 / W6-1.50
5	GS SPRAY TUNNEL 8	12 / W5-1.03	12 / W6-1.50
6	FS SNEAKY SOAKER 3	11 / W5-1.03	11 / W6-1.50
7	FS O-RIGINAL	9 / W5-1.03	4 / W6-1.50
8	ACTIVATION BOLLARD	9 / W5-1.06	3 / W6-1.50

NOTES:

REFER TO STRUCTURAL GENERAL NOTES - AQUATIC CONCRETE NOTES SECTION

SPLASH PAD STRUCTURAL LAYOUT PLAN



NOTES:

SEE SHEET W6-1.50 FOR INDIVIDUAL NOZZLE FOOTING STRUCTURAL DETAILS

SPLASH PAD STRUCTURAL SECTION A

SCALE 1/2" = 1'-0"

SEAL

DATE : JULY 18, 2025

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. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD H2O

AS-BUILT PER RECORD PRINT

BY:

DATE:

DGN BY: CGB

DWN BY: DSB

CHKD BY: ADC

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER

DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - SPLASH PAD STRUCTURAL LAYOUT & SECTIONS

SPLASH PAD AND SUPPORTING FACILITIES

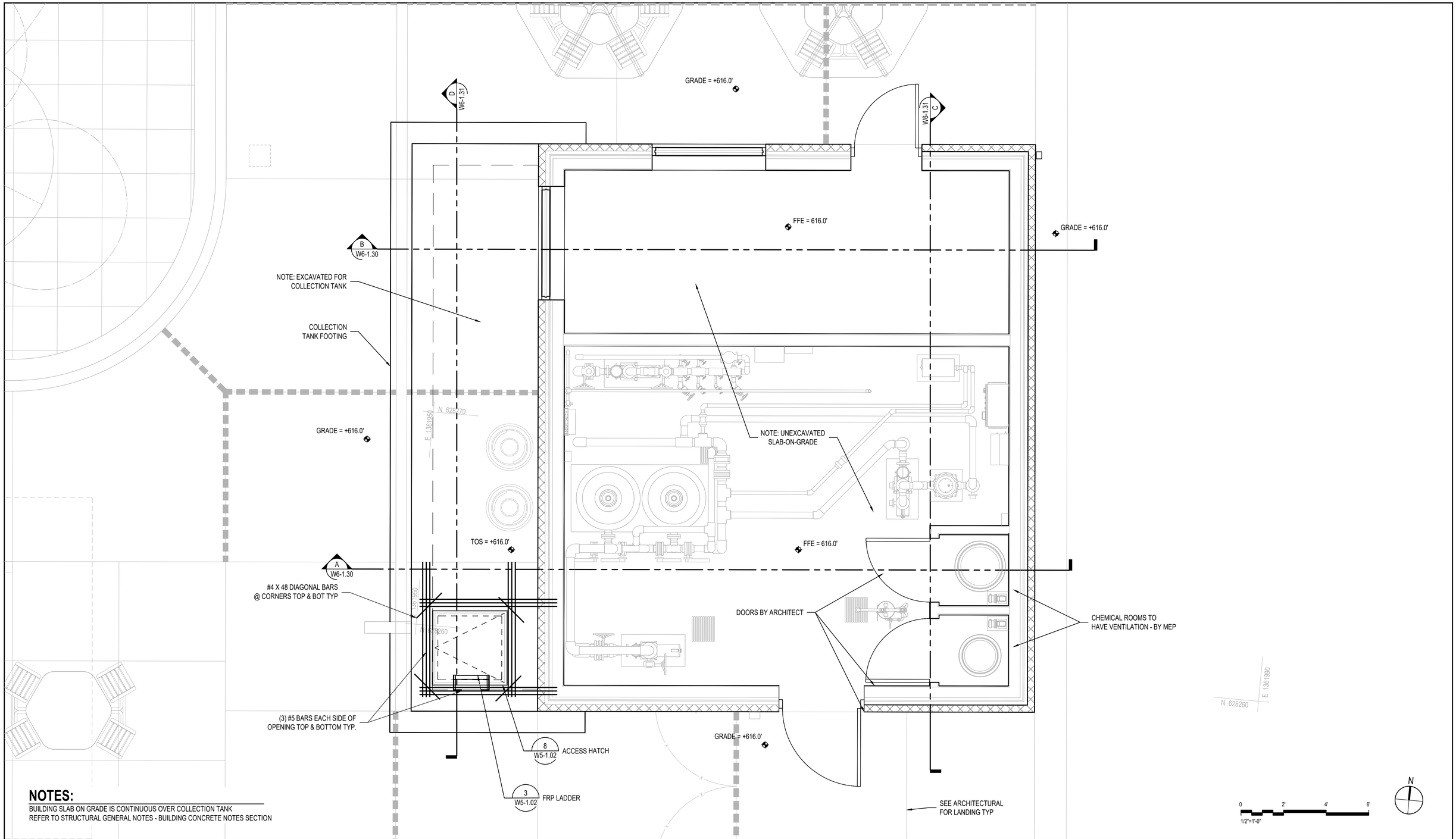
SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W6-1.10	25114 GX0

JOB ORDER NUMBER
PROJ-1000634
SHEET 132 OF 150
DRAWING NUMBER
2025-2302
FILE NO.: 8



NOTES:

BUILDING SLAB ON GRADE IS CONTINUOUS OVER COLLECTION TANK
REFER TO STRUCTURAL GENERAL NOTES - BUILDING CONCRETE NOTES SECTION

SEAL

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. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD H2O

AS-BUILT PER RECORD PRINT
BY:
DATE:

DATE : JULY 18, 2025

DGN BY:	CGB
DWN BY:	DSB
CHKD BY:	ADC

AS-BUILT / REVISION | BY | DATE | P.W.A. NO.
CONTRACT COMPLETION BOX | R.O.W NO.

KEY SHEET: PNW | POSITION SHT: 35NW40

DRAWING SCALE
PLAN SCALE: 1/2" = 1'
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

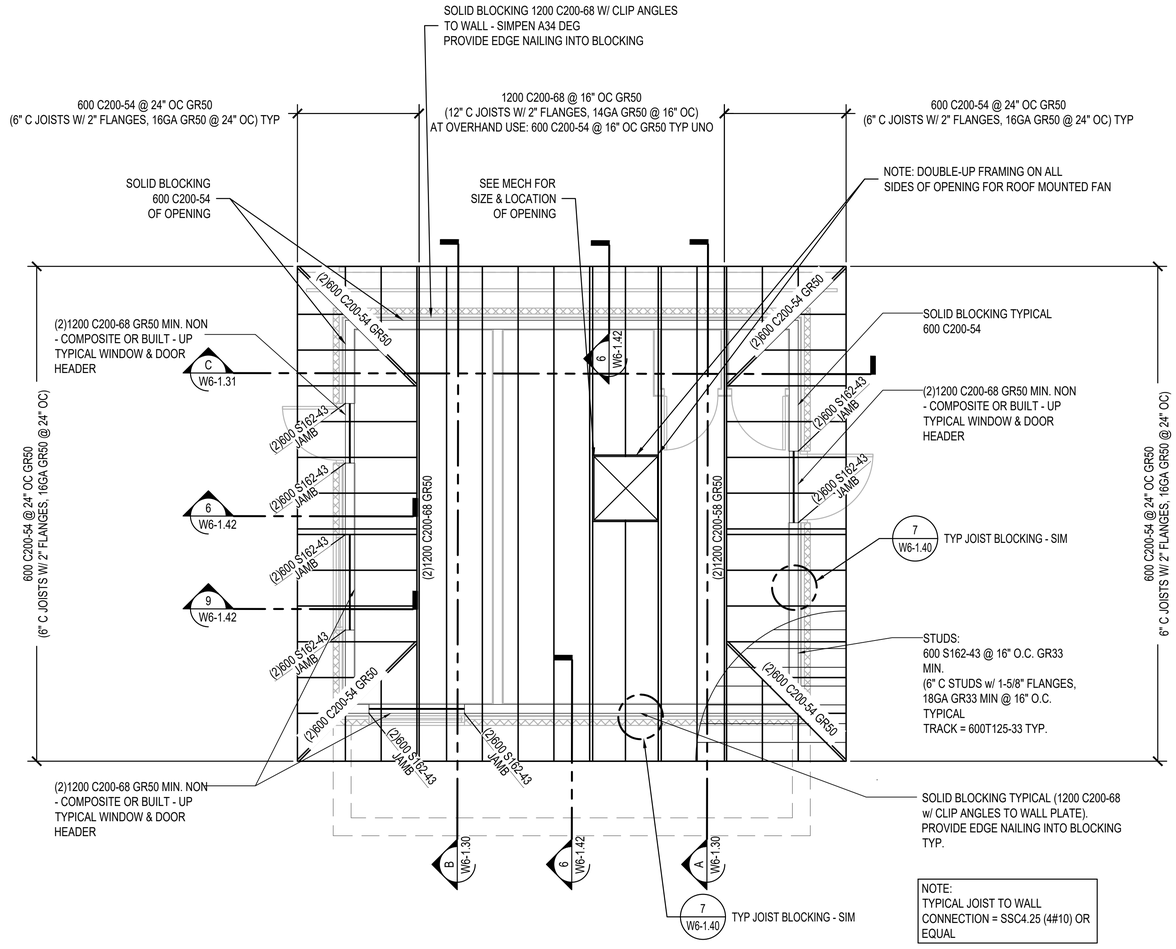
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK

AQUATIC - MECHANICAL BUILDING & COLLECTION TANK STRUCTURAL LAYOUT PLAN

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W6-1.20	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 133 OF 150	
DRAWING NUMBER	2025-2303
FILE NO.: 8	



FRAMING NOTES

1. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. ROOF AND FLOOR ELEVATIONS, WHERE SHOWN, ARE TO BE PROVIDED AND VERIFIED BY THE ARCHITECT.
2. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS TO STEEL COLUMNS AND TYPICAL DIMENSIONS.
3. SEE SHEET W6-1.42 FOR ALL TYPICAL ROOF DETAILS.
4. SCHEDULED MARK DESIGNATIONS ARE TYPICAL TO THE PROJECT AND MAY NOT NECESSARILY BE FOUND ON THIS PLAN.
5. FOR CLARITY, DETAILS MAY SHOW ONLY ONE SIDE OF FRAMING CONDITION.
6. FOR CLARITY, ALL FLOOR AND ROOF OPENINGS MAY NOT BE SHOWN ON PLANS. FOR EXACT SIZE, NUMBER AND LOCATION OF OPENINGS, SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS.
7. VERIFY EXACT SIZE, WEIGHT AND LOCATIONS OF ALL EQUIPMENT ON AND HANGING FROM ROOF WITH MECHANICAL DRAWINGS. NOTIFY EOR WHERE ANY RTU PLACED ABOVE OR BELOW ROOF DECK THAT IS NOT SHOWN ON THIS SHEET WEIGHS MORE THAN 100 LBS.

DESIGN LOADS:

ROOF DEAD LOAD = 17 PSF
ROOF SNOW LOAD = 30 PSF
TOTAL LOAD = 47 PSF

NOTE:
SEE STRUCTURAL SECTIONS FOR FOUNDATION AND REINFORCING TYPICAL.

0 2' 4' 8' 12'
1"=4'
N

SEAL

STATE OF MARYLAND · DANIEL C. WILLIAMS · 44243 · PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD H2O

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: CGB
DWN BY: DSB
CHKD BY: ADC

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

DRAWING SCALE
PLAN SCALE: 1/4" = 1"
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
AQUATIC - ROOF FRAMING PLAN
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

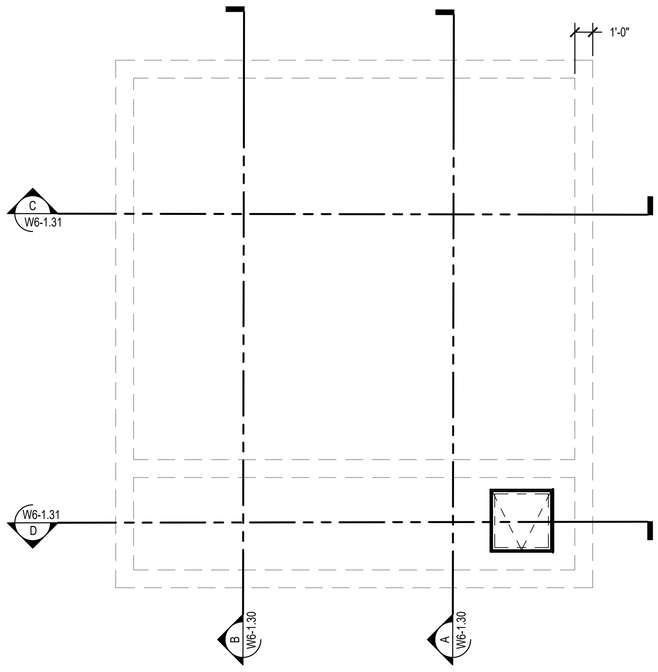
SHEET DESIGNATION	CONTRACT NUMBER
W6-1.21	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 134 OF 150
	DRAWING NUMBER
	2025-2304
	FILE NO.: 8

GENERAL NOTES:

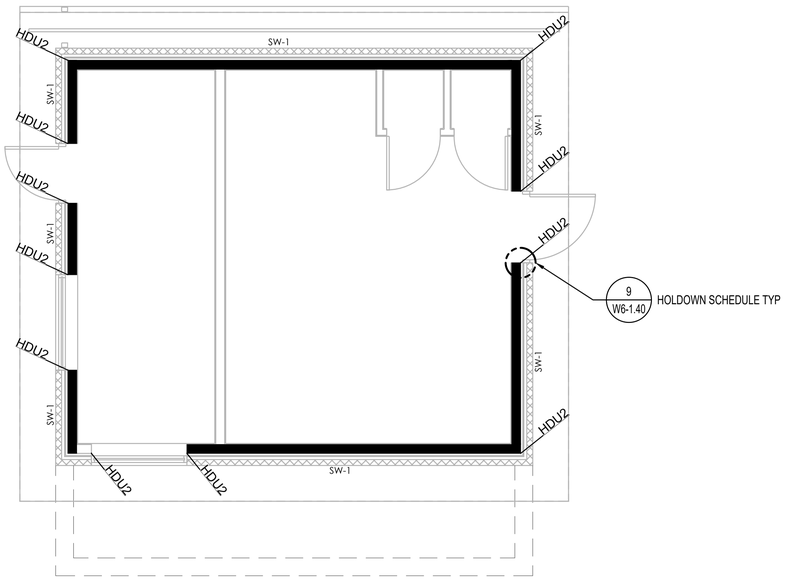
1: SEE SHEAR WALL, HOLDOWN PLAN, AND DETAIL 9/W6-1.40 FOR HOLDOWN ANCHORS TO BE CAST INTO THE CONCRETE FOUNDATION
2: SEE SHEAR WALL AND HOLDOWN PLAN AND SHEAR WALL SCHEDULE 4/W6-1.40 FOR ANCHOR BOLTS OPTIONS: ANCHOR BOLTS MAY BE CAST IN PLACE (OR USE TIE INS).

LEGEND:

SN-1 = SHEAR WALL - SEE DETAIL 4/W6-1.40
HDU2 = HOLD DOWN ANCHOR - SEE DETAIL 9/W6-1.40



1 W6-1.22 FOOTING & FOUNDATION PLAN
SCALE (24x36): 1/4"=1'-0"



2 W6-1.22 SHEARWALL AND HOLDOWN PLAN
SCALE (24x36): 1/4"=1'-0"

0 4' 8' 12'
1/4"=1'-0"
N

SEAL
STATE OF MARYLAND JAMES W. WILLIAMS No. 44243 PROFESSIONAL ENGINEER
DATE : JULY 18, 2025

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. 44243 , EXPIRATION DATE 07/17/2027 .
CLOWARD H2O WATER RESOURCES, P.C.
AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: CGB
DWN BY: DSB
CHKD BY: ADC

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT
CONTRACT COMPLETION BOX | | | R.O.W NO. | PNW | 35NW40

DRAWING SCALE
PLAN SCALE: 1/4" = 1"
PROFILE SCALE:

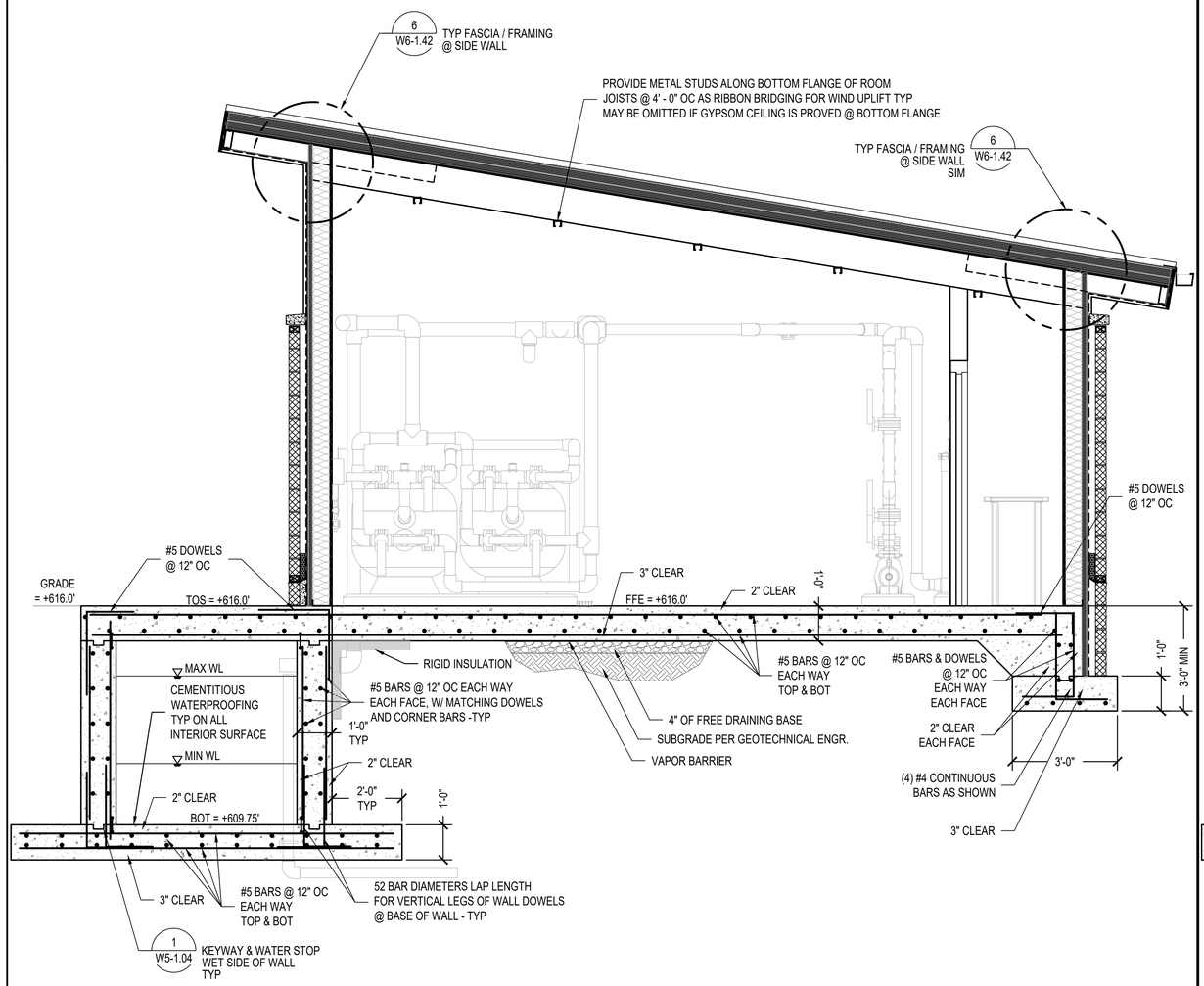
PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
AQUATIC - FOOTING & FOUNDATION PLAN & SHEARWALL & HOLDOWN PLAN
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
W6-1.22	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 135 OF 150	
DRAWING NUMBER	2025-2305
FILE NO.: 8	REV. 07/08

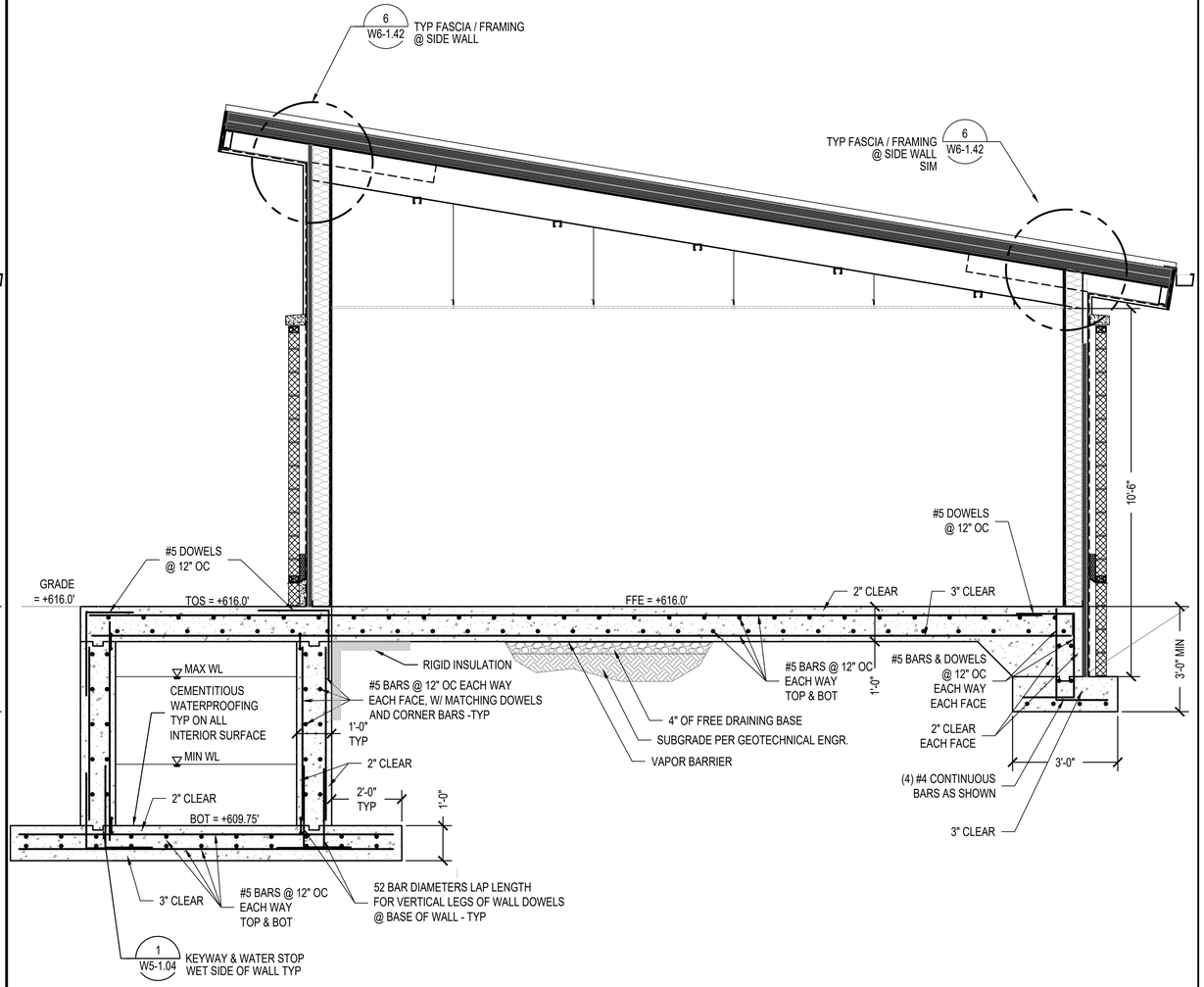


NOTES:

BUILDING SLAB ON GRADE IS CONTINUOUS OVER COLLECTION TANK. REFER TO STRUCTURAL GENERAL NOTES - BUILDING CONCRETE NOTES SECTION
FOR COLLECTION TANK WALLS AND FLOOR SEE STRUCTURAL GENERAL NOTES - AQUATIC CONCRETE NOTES SECTION
SEE ARCHITECTURAL PLANS FOR ALL FINISHES

MECHANICAL ROOM & COLLECTION VAULT STRUCTURAL SECTION A

1/2" = 1'-0"



NOTES:

BUILDING SLAB ON GRADE IS CONTINUOUS OVER COLLECTION TANK. REFER TO STRUCTURAL GENERAL NOTES - BUILDING CONCRETE NOTES SECTION
FOR COLLECTION TANK WALLS AND FLOOR SEE STRUCTURAL GENERAL NOTES - AQUATIC CONCRETE NOTES SECTION
SEE ARCHITECTURAL PLANS FOR ALL FINISHES

MECHANICAL ROOM & COLLECTION VAULT STRUCTURAL SECTION B

1/2" = 1'-0"

SEAL

STATE OF MARYLAND — JAMES W. MILLER — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 44243, EXPIRATION DATE 07/17/2027.		
CLOWARD H2O	DGN BY: CGB	
AS-BUILT PER RECORD PRINT	DWN BY: DSB	
BY: DATE:	CHKD BY: ADC	

AS-BUILT / REVISION	BY	DATE
CONTRACT COMPLETION BOX		

P.W.A. NO.	KEY SHEET	POSITION SHT
R.O.W NO.	PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER

DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - MECHANICAL BUILDING & COLLECTION TANK STRUCTURAL SECTIONS

SPLASH PAD AND SUPPORTING FACILITIES

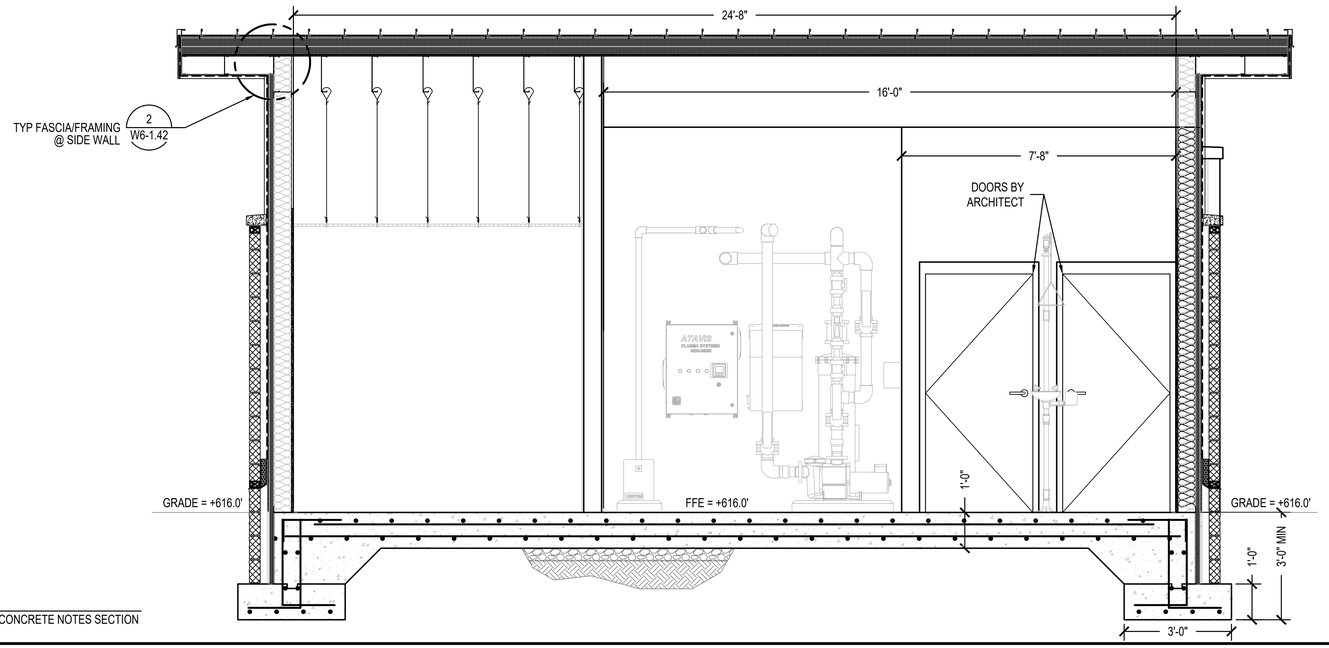
SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
W6-1.30	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 136 OF 150
	DRAWING NUMBER
	2025-2306
	FILE NO.: 8

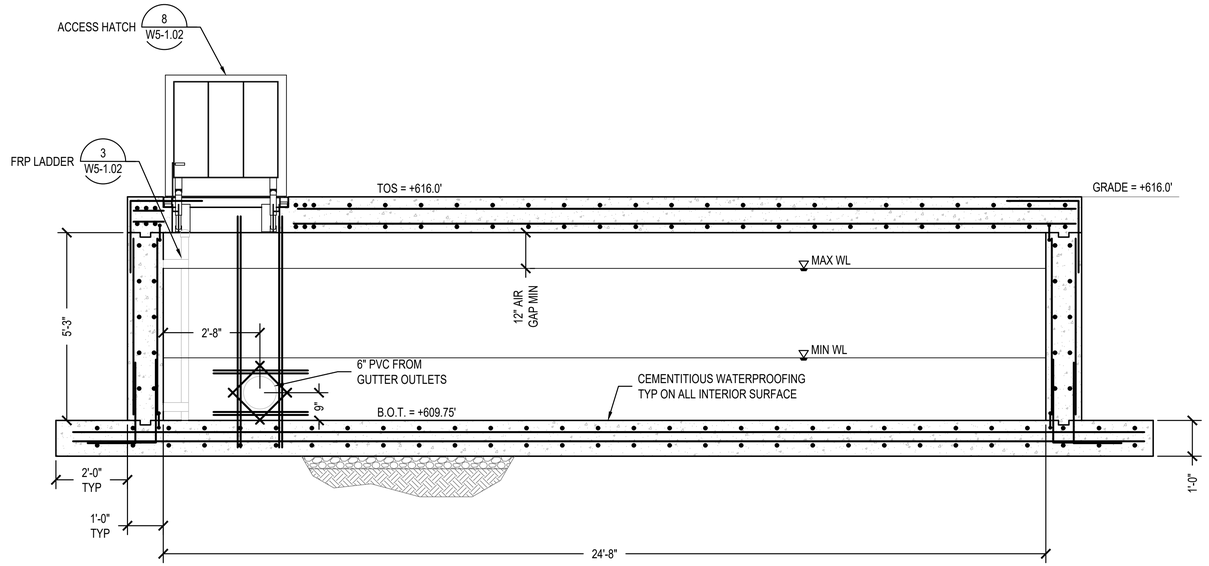


NOTES:

FOR BUILDING SLAB ON GRADE SEE STRUCTURAL GENERAL NOTES - BUILDING CONCRETE NOTES SECTION

MECHANICAL ROOM & COLLECTION VAULT SECTION C

1/2" = 1'-0"



NOTES:

BUILDING SLAB ON GRADE IS CONTINUOUS OVER COLLECTION TANK. REFER TO STRUCTURAL GENERAL NOTES - BUILDING CONCRETE NOTES SECTION FOR COLLECTION TANK WALLS AND FLOOR SEE STRUCTURAL GENERAL NOTES - AQUATIC CONCRETE NOTES SECTION

MECHANICAL ROOM & COLLECTION VAULT SECTION D

1/2" = 1'-0"

SEAL

STATE OF MARYLAND — JAMES W. WHITLOW — 44243 — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD H2O

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: CGB
DWN BY: DSB
CHKD BY: ADC

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

R.O.W NO.

CONTRACT COMPLETION BOX

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

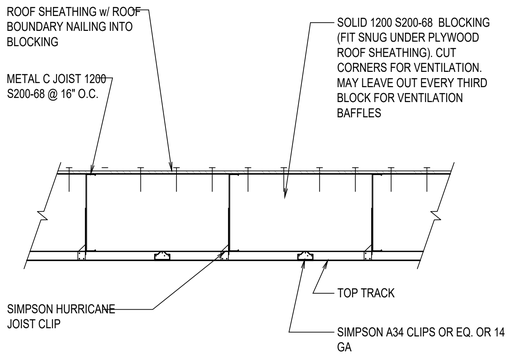
NORTHWEST REGIONAL PARK

AQUATIC - MECHANICAL BUILDING & COLLECTION TANK STRUCTURAL SECTIONS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W6-1.31	25114 GXO
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 137 OF 150
	DRAWING NUMBER
	2025-2307
	FILE NO.: 8



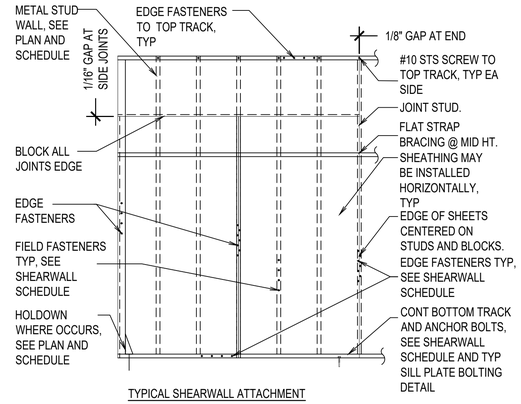
7 TYPICAL JOIST BLOCKING

W6-1.40 SCALE: N.T.S.

SHEARWALL SCHEDULE								
LABEL	WALL FRAMING & ANCHORAGE				WALL SHEATHING			
	METAL STUD SIZE & SPACING	BOTTOM TRACK	TOP TRACK	BOTTOM TRACK FASTENER	SHEATHING	FASTENER SIZE	EDGE FASTENER	FIELD FASTENER
SW-1	600S162-43 @ 16" O.C.	600T125-33	SEE NOTE 10	1/2" DIA x 4.1/2" TITEN HD @ 32" O.C.	7/16" SHEATHING	#10 STS *	6" O.C.	12" O.C.

*OR #10-24 X 1-7/16 WAFER HEAD - SELF TAPPING PLYWOOD TO METAL STUDS. IF SCREWING THROUGH INSULATION, VERIFY LENGTH OF FASTENERS

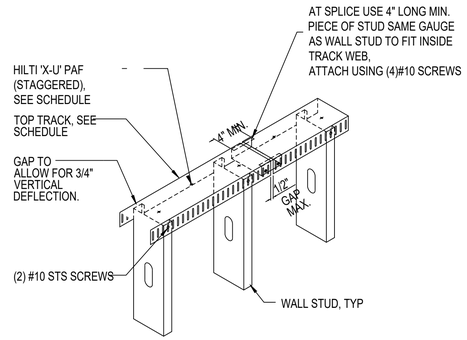
1. SHEAR WALL PANELS INDICATED ON SCHEDULE ARE TO BE SHEATHED FOR FULL HEIGHT OF WALL, SEE DETAIL.
2. CONTRACTOR COORDINATE W/ ARCHITECTURAL DRAWINGS FOR WALL SIZES AND LOCATIONS.
3. 3.5/8" METAL STUDS MAY BE REPLACED WITH 6" METAL STUDS WHERE REQUIRED BY ARCHITECTURAL TO MATCH GAUGE AND OTHER REQUIREMENTS SPECIFIED FOR 3.5/8" STUDS.
4. STUDS SHALL BE A MINIMUM OF 1.5/8" WIDE WITH A 3/8" MIN RETURN LIP.
5. TRACKS SHALL BE 1.1/4" WIDE MINIMUM.
6. STEEL SHEET SHEATHING SHALL BE ASTM A1003 STRUCTURAL GRADE 33.
7. FASTENERS/SCREWS SHALL PENETRATE FRAMING MEMBER (3) THREADS MINIMUM.
8. WALL STUDS SHALL HAVE BLOCKING/BRIDGING INSTALLED A T 6'-0" O.C. MAX, FULL HEIGHT OF WALL, SEE DETAIL.
9. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS FOR COLD FORMED STEEL.
10. TOP TRACK TO HAVE VERTICAL SLOTTED HOLES TO ALLOW FOR 1" (MIN) VERTICAL DEFLECTION. TOP TRACK WIDTH AND GAUGE TO MATCH WALL STUDS. AT INTERIOR WALLS ONLY.



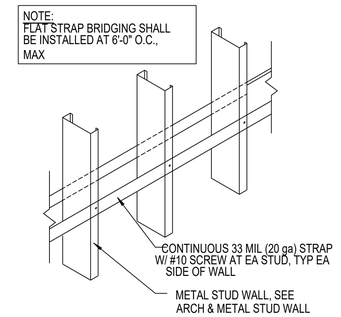
TYPICAL SHEARWALL ATTACHMENT

4 SHEAR WALL SCHEDULE

W6-1.40 SCALE: N.T.S.



TOP TRACK AT STUDS - INTERIOR WALLS

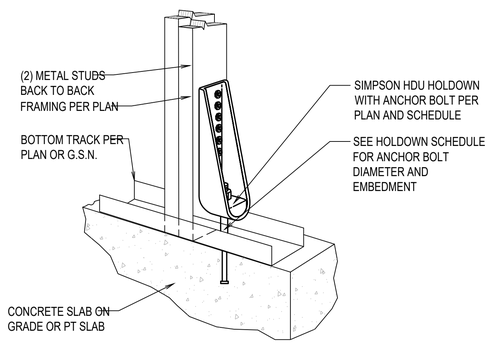


TYPICAL FLAT STRAP BRIDGING AT NON - BEARING INT. WALL

HOLDOWN SCHEDULE					
HOLDOWN	EDGE MEMBER	ANCHOR & EMBEDMENT		EDGE MEMBER ATTACHEMENT	NOTES
		SIZE	CONCRETE EMBEDMENT		
HDU2	(2) STUDS	5/8" DIA	N/A	(6)1/4x2 1/2 SDS	OR EQUAL

NOTES:

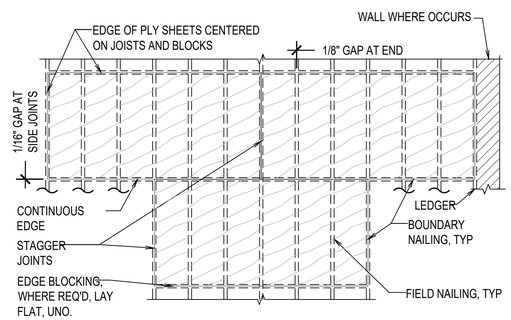
1. ALL ANCHORS ARE SIMPSON OR EQUAL.
2. ANCHOR RODS SHALL BE ASTM F1554 Gr. 36 OR A36 THREADED ROD. POST INSTALLING IS NOT ALLOWED
3. INSTALLATION OF HOLDOWN ANCHORS AND STRAPS SHALL BE PER MANUFACTURERS RECOMMENDATIONS & SPECIFICATIONS.
4. PROVIDE EDGE NAILING ALONG STUDS CONNECTED TO HOLDOWN ANCHORS AND STRAPS.
5. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.



HOLDOWN CONCRETE SLAB

5 METAL STUD TRACKS & BRIDGING

W6-1.40 SCALE: N.T.S.



SHEATHING SCHEDULE							
LOCATION	SHEATHING	FASTENERS	EDGE NAIL		FIELD NAIL	BOUNDARY NAIL	EDGE BLOCK
			CONT. EDGE	OTHER EDGE			
ROOF	5/8" THICK APA EXP 1	10g TEK SCREWS	6" O.C.	6" O.C.	12" O.C.	6" O.C.	NO

NOTES:

1. CONTINUOUS EDGE NAILING ONLY REQUIRED WHEN EDGE BLOCKING IS REQUIRED.

9 HOLDOWN SCHEDULE TYP.

W6-1.40 SCALE: N.T.S.

6 SHEATHING SCHEDULE ROOF

W6-1.40 SCALE: N.T.S.

SEAL

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. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD H2O

AS-BUILT PER RECORD PRINT
BY:
DATE:

DATE : JULY 18, 2025

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
			R.O.W NO.	PNW	35NW40
CONTRACT COMPLETION BOX					

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

DGN BY:	CGB
DWN BY:	DSB
CHKD BY:	ADC

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - FRAMING DETAILS

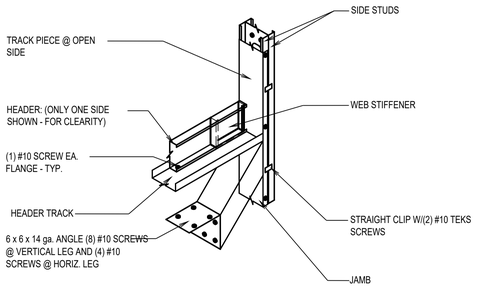
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

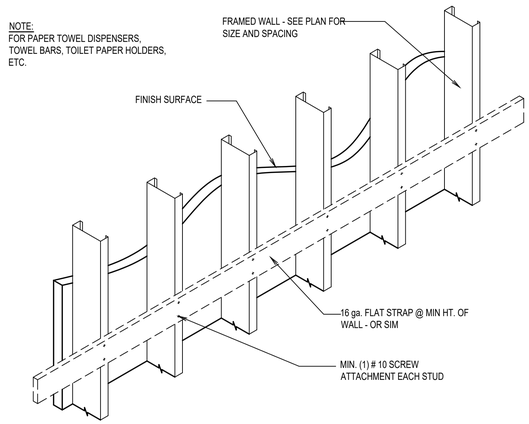
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

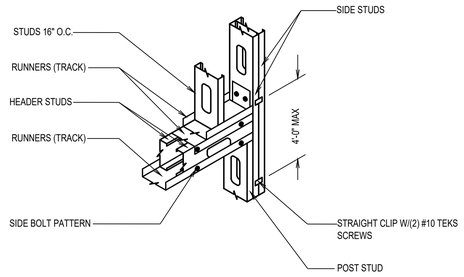
SHEET DESIGNATION	CONTRACT NUMBER
W6-1.40	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 138 OF 150
	DRAWING NUMBER
	2025-2308
	FILE NO.: 8



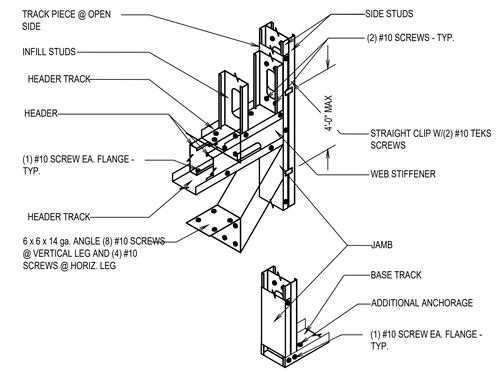
7 W6-1.47 WEB STIFFENER DETAIL -TYP.
SCALE:N.T.S.



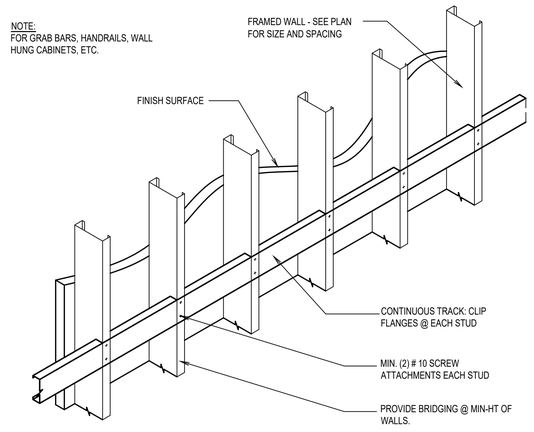
5 W6-1.47 "LIGHT LOAD" BACKING DETAIL - NON BEARING INT. -TYP.
SCALE:N.T.S.



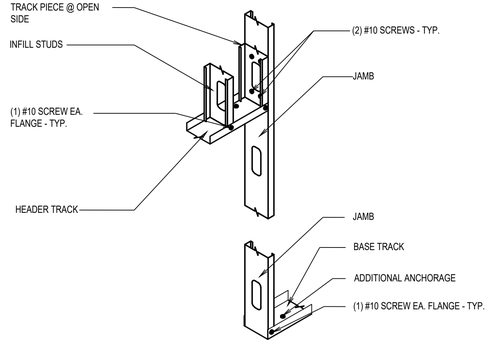
3 W6-1.47 EXTERIOR WINDOW HEADER DETAIL -TYP.
SCALE:N.T.S.



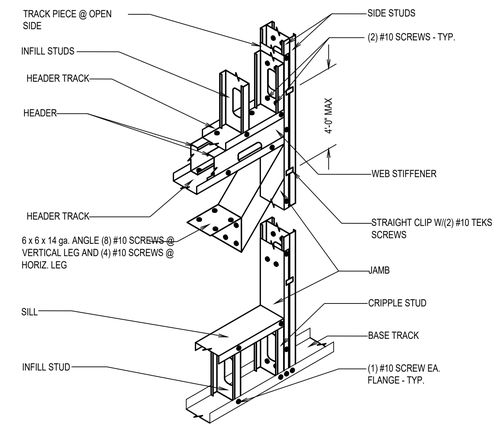
1 W6-1.47 EXTERIOR DOOR DETAIL -TYP.
SCALE:N.T.S.



6 W6-1.47 "HEAVY LOAD" BACKING DETAIL EXTERIOR STUDS -TYP.
SCALE:N.T.S.



4 W6-1.47 INTERIOR DOOR (NON - LOAD BEARING) DETAIL -TYP.
SCALE:N.T.S.



2 W6-1.47 EXTERIOR WINDOW DETAIL -TYP.
SCALE:N.T.S.

SEAL

STATE OF MARYLAND — JAMES W. WILLIAMS — No. 21521 — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

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. 44243, EXPIRATION DATE 07/17/2027.

CLOWARD H2O — WATER RESOURCES, P.C. — 100 South Hill Drive, Ste. 300, Lindon, UT 84042, USA — Tel: (+1) 801.375.2701 — www.CLOWARDH2O.com

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: CGB
DWN BY: DSB
CHKD BY: ADC

AS-BUILT / REVISION | BY | DATE | P.W.A. NO.

CONTRACT COMPLETION BOX | R.O.W NO.

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

KEY SHEET	POSITION SHT
PNW	35NW40

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

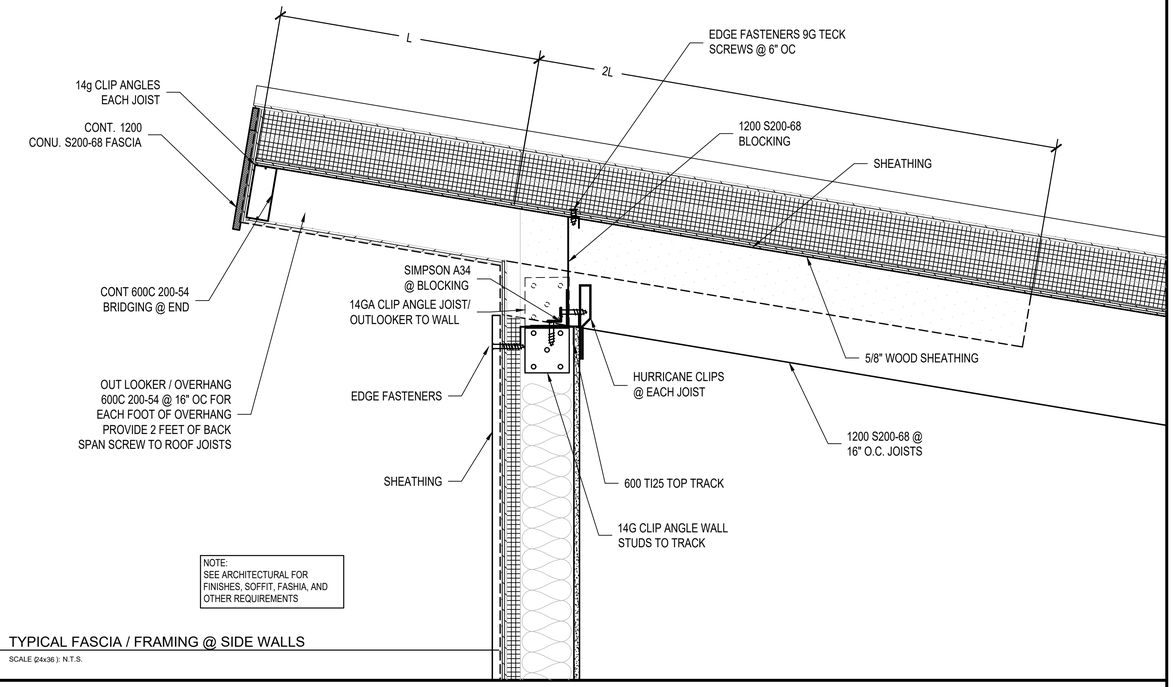
AQUATIC - FRAMING DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS
4515 DEER PARK ROAD, OWINGS MILLS, MD 21117
ELECTION DISTRICT: 2C4

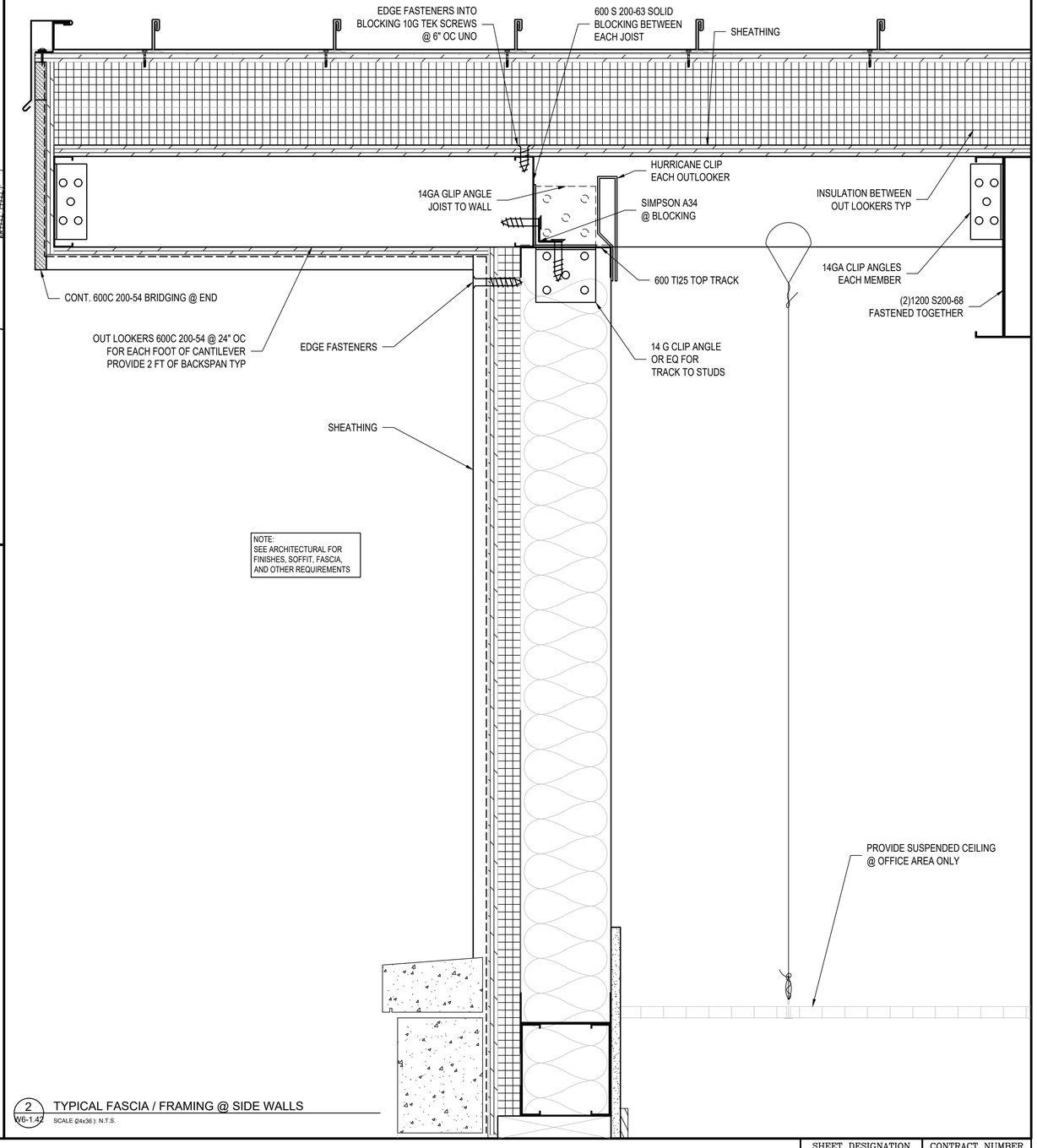
BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
W6-1.41	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 139 OF 150
	DRAWING NUMBER
	2025-2309
	FILE NO.: 8



6 W6-1.42 TYPICAL FASCIA / FRAMING @ SIDE WALLS

SCALE (24x36): N.T.S.

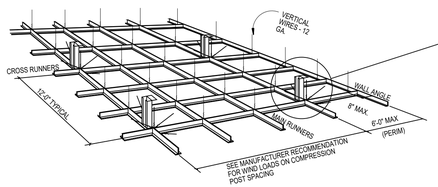


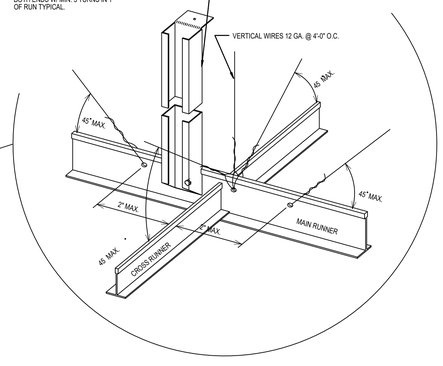
2 W6-1.42 TYPICAL FASCIA / FRAMING @ SIDE WALLS

SCALE (24x36): N.T.S.

CEILING GRID NOTES

1. A HEAVY DUTY T-BAR GRID SYSTEM SHALL BE USED.
2.THE WIDTH OF THE PERIMETER SUPPORTING CLOSURE ANGLE SHALL BE NOT LESS THAN 2.0 IN. (50 mm). IN EACH ORTHOGONAL HORIZONTAL DIRECTION, ONE END OF THE CEILING GRID SHALL BE ATTACHED TO THE CLOSURE ANGLE 8" MAX. FROM WALL. THE OTHER END IN EACH HORIZONTAL DIRECTION SHALL HAVE A SPACER BAR WITH A 3/4 IN. (19mm)CLEARANCE FROM THE WALL AND SHALL REST UPON AND BE FREE TO SLIDE ON A CLOSURE ANGLE.
3. FOR CEILING AREAS EXCEEDING 1000 SQ.FT. (92.9 SQ/mm), HORIZONTAL RESTRAINT OF THE CEILING TO THE STRUCTURAL SYSTEM SHALL BE PROVIDED. PER DETAIL SHOWN BELOW.
4. FOR CEILING AREAS EXCEEDING 2500 SQ.FT. (232 SQ/mm), A SEISMIC SEPARATION JOINT OR FULL HEIGHT PARTITION THAT BREAKS THE CEILING UP INTO AREAS NOT EXCEEDING 2500 SQ.FT. SHALL BE PROVIDED UNLESS STRUCTURAL ANALYSIS ARE PERFORMED OF THE CEILING BRACING SYSTEM FOR THE PRESCRIBED SEISMIC FORCES WHICH DEMONSTRATE CEILING SYSTEM PENETRATIONS AND CLOSURE ANGLES PROVIDE SUFFICIENT CLEARANCE TO ACCOMMODATE THE ADDITIONAL MOVEMENT. EACH AREA SHALL BE PROVIDED WITH CLOSURE ANGLES IN ACCORDANCE WITH ITEM B AND HORIZONTAL RESTRAINTS OR BRACING IN ACCORDANCE WITH ITEM C.
5. ALL SUSPENDED CEILING TRACK LOCATED IN PARKING GARAGE SHALL BE 15/16" ARMSTRONG PRELUDE XL OR OTHER APPROVED EXTERIOR CEILING GRID SYSTEM.





5. EXCEPT WHERE RIGID BRACES ARE USED TO LIMIT LATERAL DEFLECTIONS, SPRINKLER HEADS AND OTHER PENETRATIONS SHALL HAVE A 2 in. (50mm) OVERSIZE RING, SLEEVE, OR ADAPTER THROUGH THE CEILING TILE TO ALLOW FOR FREE MOVEMENT OF AT LEAST 1 IN. (25 mm) OF CEILING MOVEMENT IN ALL HORIZONTAL DIRECTIONS ARE PERMITTED TO BE PROVIDED AT THE TOP OF THE SPRINKLER HEAD EXTENSION.
6. CHANGES IN CEILING PLAN ELEVATION SHALL BE PROVIDED WITH POSITIVE BRACING.
7. CABLE TRAYS AND ELECTRICAL CONDUITS SHALL BE SUPPORTED INDEPENDENTLY OF THE CEILING.
8. CEILING AREAS OF 144 SQ. ft. OR LESS SURROUNDED BY WALLS WHICH CONNECT DIRECTLY TO THE STRUCTURE ABOVE SHALL NOT REQUIRE THE DIAGONAL BRACING WIRES.
9. EACH VERTICAL WIRE SHALL BE ATTACHED EACH END WITH MIN. 3 TURNS.
10. CEILING GRID SHALL BE INSTALLED LEVEL TO WITHIN 1/8" IN 12 FEET.
11. LOCAL KINKS OR BENDS SHALL NOT BE MADE IN HANGER WIRES AS A MEANS OF LEVELING MAIN RUNNERS.
12. ALL WIRE LOOPS SHALL BE TIGHTLY WRAPPED AND SHARPLY BENT.15. INTEGRAL
13. CEILINGSPRINKLER CONSTRUCTION: AS AN ALTERNATIVE TO PROVIDING LARGE CLEARANCES AROUND SPRINKLER SYSTEM PENETRATIONS THROUGH CEILING SYSTEMS, THE SPRINKLER SYSTEM AND CEILING GRID ARE PERMITTED TO BE DESIGNED AND TIED TOGETHER AS AN INTEGRAL UNIT. SUCH A DESIGN SHALL CONSIDER THE MASS AND FLEXIBILITY OF ALL ELEMENTS INVOLVED, INCLUDING CEILING SYSTEM, SPRINKLER APPURTENANCES. THE DESIGN SHALL BE PERFORMED BY A REGISTERED DESIGN PROFESSIONAL.
14. CEILING MOUNTED LIGHT FIXTURES: ALL CEILING MOUNTED LIGHT FIXTURES SHALL BE ATTACHED TO SUSPENDED CEILING GRID. IN ADDITION 12 GA. HANGER WIRES SHALL BE ATTACHED AT OPPOSITE CORNERS TO THE GRID WITHIN 3" OF EACH CORNER OF THE FIXTURE. TWO ADDITIONAL WIRES SHALL BE CONNECTED TO THE LIGHT HOUSING AND TO THE STRUCTURE ABOVE (THESE WIRES MAY BE BLACK). WIRES SHALL NOT ATTACH TO OR BEND AROUND INTERFERING MATERIAL OR EQUIPMENT, NOR SHALL THEY BE CLOSER THAN 6" FROM ANY UN-BRACED HORIZONTAL PIPING OR DUCTWORK. A TRAPEZE OR SIMILAR DEVICE SHALL BE USED WHERE OBSTRUCTIONS OCCUR. IBC 1621.2.5.2.2 SEISMIC DESIGN CATEGORIES D, E, OR F
15. SPREADER BARS: SPREADER (SPACER, STABILIZER) BARS SHALL BE USED TO PREVENT THE ENDS OF THE MAIN BEAMS AND CROSS TEES AT PERIMETER WALLS FROM SPREADING OPEN DURING A SEISMIC EVENT. PERIMETER WIRES SHALL NOT BE USED IN LIEU OF SPREADER BARS. IF APPROVED BY THE LOCAL JURISDICTION, PERIMETER CLIPS MAY BE USED TO SATISFY THE REQUIREMENTS FOR SPREADER BARS.

9 W6-4.12 CENTERAL CEILING GRID NOTES - TYP

SCALE (24x36): N.T.S.

SEAL

STATE OF MARYLAND — JAMES W. MCMILLIAN — NO. 21401 — PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
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. 44243, EXPIRATION DATE 07/17/2027.					R.O.W NO.	PNW	35NW40	PLAN SCALE: AS SHOWN	APPROVED BY: PROPERTY MANAGER
		CONTRACT COMPLETION BOX						PROFILE SCALE:	DATE:
CLOWARD HO	DGN BY: CGB	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
AS-BUILT PER RECORD PRINT	DWN BY: DSB	REVIEWED BY:							
BY: DATE:	CHKD BY: ADC	DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - FRAMING DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

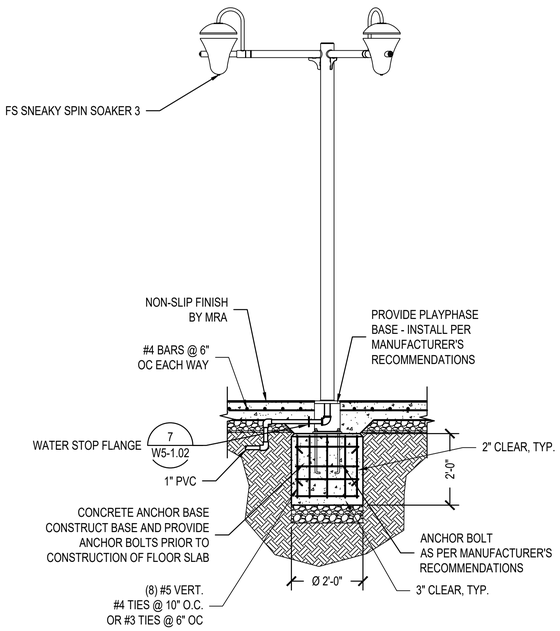
SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
W6-1.42	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 140 OF 150
	DRAWING NUMBER
	2025-2310
	FILE NO.: 8

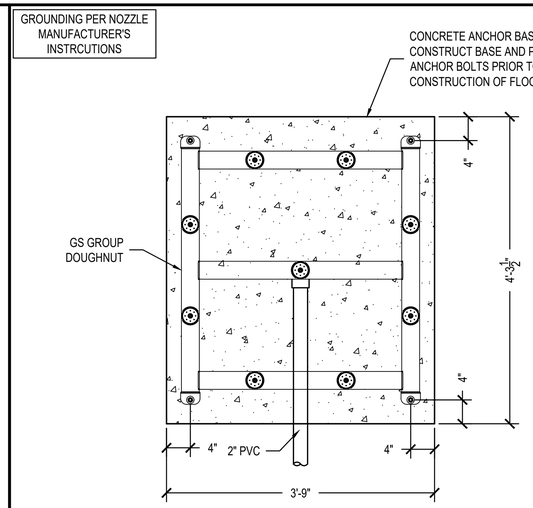
GROUNDING PER NOZZLE MANUFACTURER'S INSTRCUTIONS

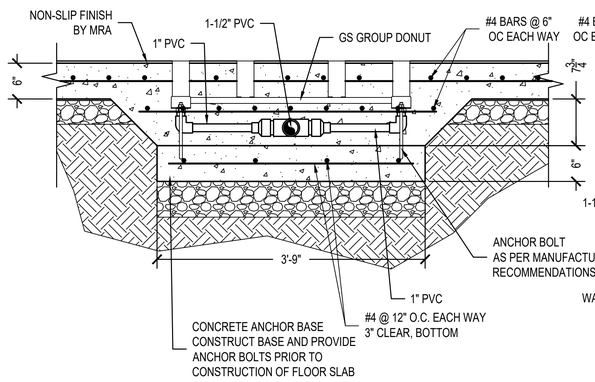


⑪ SNEAKY SOAKER 3 STRUCTURAL

SCALE 1/2" = 1'-0"

GROUNDING PER NOZZLE MANUFACTURER'S INSTRCUTIONS

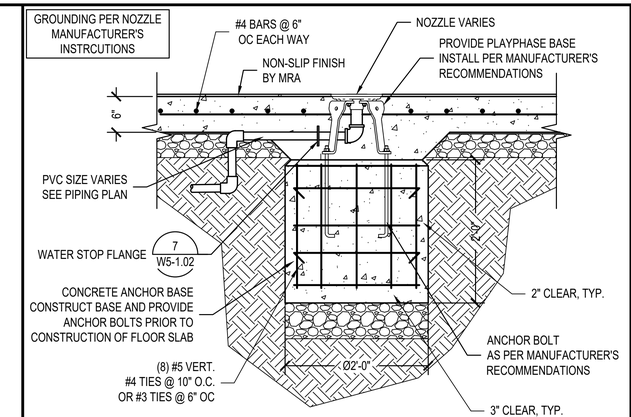




⑧ GROUND SPRAY DOUGHNUT FOOTING

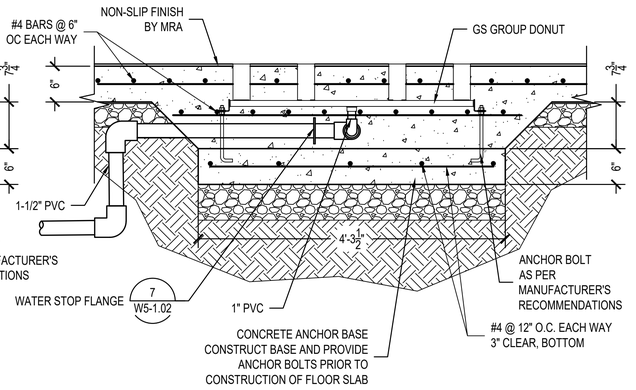
SCALE 1" = 1'-0"

GROUNDING PER NOZZLE MANUFACTURER'S INSTRCUTIONS

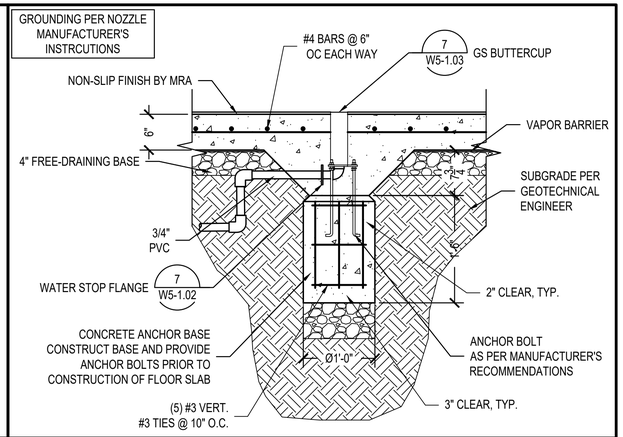


④ TYP GROUND SPRAY FOOTING

SCALE 1" = 1'-0"



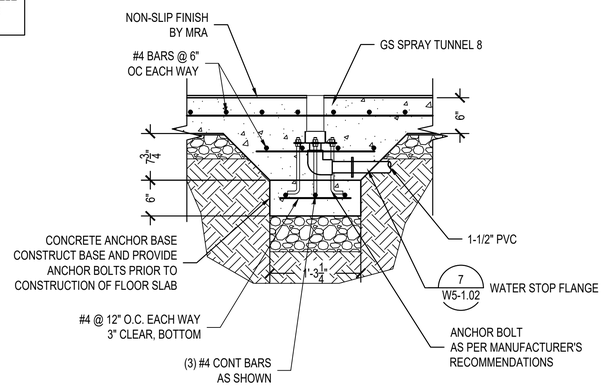
GROUNDING PER NOZZLE MANUFACTURER'S INSTRCUTIONS

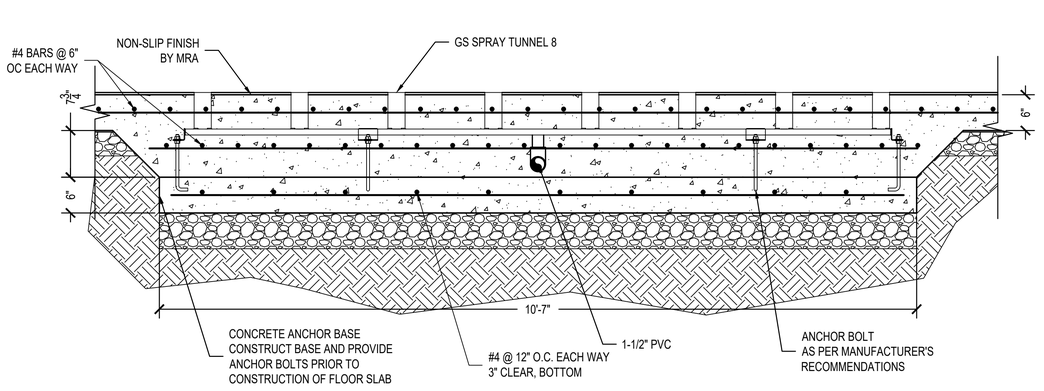


① GROUND SPRAY BUTTERCUP FOOTING

SCALE 1" = 1'-0"

GROUNDING PER NOZZLE MANUFACTURER'S INSTRCUTIONS

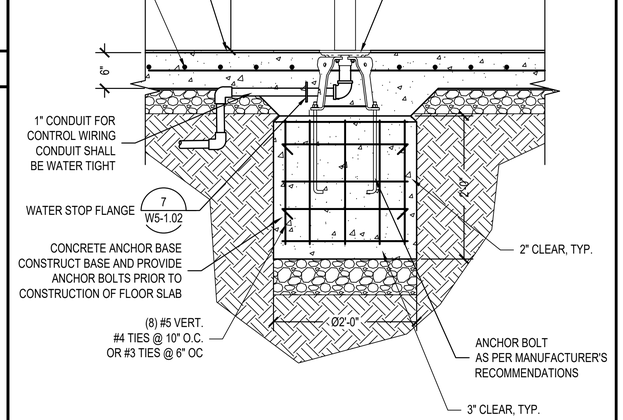




⑫ GROUND SPRAY TUNNEL 8

SCALE 1" = 1'-0"

GROUNDING PER NOZZLE MANUFACTURER'S INSTRCUTIONS



③ ACTIVATION BOLLARD FOOTING

SCALE 1" = 1'-0"

SEAL

STATE OF MARYLAND JAMES W. WILLIAMS PROFESSIONAL ENGINEER

DATE : JULY 18, 2025

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
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. 44243, EXPIRATION DATE 07/17/2027.						PNW	35NW40	PLAN SCALE: AS SHOWN	APPROVED BY: PROPERTY MANAGER
					R.O.W NO.			PROFILE SCALE:	DATE:
		CONTRACT COMPLETION BOX							
CLOWARD H2O	DGN BY: CGB	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
AS-BUILT PER RECORD PRINT	DWN BY: DSB	REVIEWED BY:							
BY: DATE:	CHKD BY: ADC	DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - GENERAL STRUCTURAL DETAILS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	W6-1.50
CONTRACT NUMBER	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 141 OF 150	
DRAWING NUMBER	2025-2311
FILE NO.: 8	

SHEET INDEX

WE0-0.00	AQUATIC - SYMBOLS AND NOTES
WE1-0.02	AQUATIC - SPLASH PAD ELECTRICAL SITE PLAN
WE3-1.01	AQUATIC - MECHANICAL ROOM POWER PLAN
WE4-1.01	AQUATIC - ONE-LINE DIAGRAM, CONTROL DIAGRAMS AND SCHEDULES
WE4-1.02	AQUATIC - CONTROL DIAGRAMS
WE5-1.01	AQUATIC - ELECTRICAL DIAGRAMS
WE5-1.02	AQUATIC - ELECTRICAL DIAGRAMS
WE5-1.03	AQUATIC - ELECTRICAL DIAGRAMS
WE5-1.04	AQUATIC - ELECTRICAL DIAGRAMS

SYMBOL LEGEND

NOTES:

1. SEE FIXTURE SCHEDULE FOR TYPE, MOUNTING AND WATTAGE.
2. HEIGHT MEASURED TO CENTER LINE OF THE BOX FROM THE FINISHED FLOOR.
3. REFER TO DRAWINGS FOR DIRECTIONAL ARROWS.
4. SUBSCRIPT INDICATES FIXTURES TO BE CONTROLLED.
5. NEMA TYPE 'ND' NON-FUSED UNLESS NOTED 'F' (FUSED). USE 'HD' 480 V.
6. HEIGHT MEASURED TO TOP OF THE BOX FROM FINISHED FLOOR.
7. PROVIDE H.O.A. AND S.S. PUSHBUTTONS AS REQUIRED.
8. DOUBLE ARROWS INDICATES A DOUBLE FACE UNIT.
9. DEVICES NOTED WITH AN 'A' INDICATE TO COORDINATE WITH MILLWORK SHOP DRAWINGS AND ELEVATIONS FOR HEIGHT.
10. SUBSCRIPT INDICATES NEMA CONFIGURATION.
11. SOLID BOX AROUND DEVICE INDICATES INSTALLED IN FLOOR. DASHED BOX AROUND DEVICE INDICATES INSTALLED IN CEILING.
12. COORDINATE WITH DOOR HARDWARE SUPPLIER.
13. FOR WATER COOLER LOCATION, SEE DIAGRAM R002. FOR ALL OTHER LOCATIONS, MOUNT AT +16" TO BOTTOM OF BOX FROM FINISHED FLOOR, OR AS NOTED.
14. ARROWS SHOWN ON DEVICE INDICATE AIMING DIRECTION.
15. CAMERA NUMBERS ARE SHOWN INSIDE THE CAMERA SYMBOL. CAMERA TYPES ARE INDICATED IN TAG.
16. MOUNT ON TRACK OF OVERHEAD DOOR, 6" FROM TOP OF DOOR, UNLESS OVERHEAD DOOR IS A ROLL UP DOOR, THEN MOUNT PER MANUFACTURER'S INSTRUCTIONS.
17. INSTALL DEVICES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
18. DASHED LINE INDICATES EQUIPMENT CLEARANCES. ARROW INDICATES FRONT OF RACK.
19. SPEAKER TO BE MOUNTED IN HORIZONTAL POSITION.
20. MOUNTING HEIGHT IS TO BOTTOM OF DISPLAY.

*TYPICAL SYMBOL SCHEDULE. SOME SYMBOLS MAY NOT BE USED ON THIS SET OF DRAWINGS.

STANDARD MOUNTING HEIGHT UNLESS OTHERWISE NOTED ON PLANS

GENERAL

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
	ONE CIRCUIT, HOME RUN TO PANEL		
	2 CIRCUIT, HOME RUN TO PANEL		
	3 CIRCUIT, HOME RUN TO PANEL		
	CONDUIT RUN CONCEALED IN WALL OR CEILING		
	CONDUIT RUN CONCEALED IN FLOOR OR GROUND		
	CONDUIT UP		
	CONDUIT DOWN		
	CONDUIT STUB LOCATION	CAP CONDUIT	
	CONDUIT / CIRCUIT CONTINUATION		

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
	EQUIPMENT PANEL, SEE DRAWINGS	+72"	6.
	CABLE TRAY	AS NOTED	
	GROUND BUS BAR	+18"	6.
X	LIGHT FIXTURE (LETTER DESIGNATES TYPE)		
X/X	EQUIPMENT NUMBER		
X	ARCHITECTURAL ROOM NUMBER		
X	DEVICE / EQUIPMENT (TEXT DESIGNATES TYPE) SEE SCHEDULE		
X	DEVICE / EQUIPMENT (TEXT DESIGNATES TYPE) SEE SCHEDULE / LEGEND		

MULTIPLE SYSTEM SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
R	RECEPTACLE SWITCH PACK	ABOVE CEILING	
	DUPLEX RECEPTACLE UPPER OUTLET SWITCH CONTROLLED	+18" OR AS NOTED	2. 9.
	SIMPLEX RECEPTACLE	+18" OR AS NOTED	2. 9.
	DUPLEX RECEPTACLE	+18" OR AS NOTED	2. 9. 11.
A	DUPLEX RECEPTACLE		9.
G	5mA GFCI CIRCUIT BREAKER PROTECTED RECEPTACLE		13.
WP	WEATHERPROOF RECEPTACLE	+24" OR AS NOTED	2. 9.
	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE	+18" OR AS NOTED	2. 9.
	DUPLEX RECEPTACLE EMERGENCY POWER (RED)	+18" OR AS NOTED	2. 9. 11.
	FOURPLEX RECEPTACLE	+18" OR AS NOTED	2. 9. 11.
	GROUND FAULT INTERRUPTER FOURPLEX RECEPT	+18" OR AS NOTED	2. 9.

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
J F	JUNCTION BOX ('F' IN FLOOR)	AS NOTED	
	MOTOR OUTLET	TO SUIT EQUIP.	2.
	PUSHBUTTON	+46"	2.
	NON-FUSED DISCONNECT SWITCH	+60"	5. 6.
F	FUSED DISCONNECT SWITCH	+60"	5. 6.
B	BREAKER DISCONNECT SWITCH	+60"	5. 6.
S	SINGLE POLE SWITCH	+46"	2. 4.
S^T	MANUAL STARTER THERMAL OVERLOAD SWITCH WITH PILOT LIGHT	+46"	2.
	MAGNETIC STARTER	+60"	6. 7.
	MAGNETIC STARTER / DISCONNECT COMBINATION	+60"	6. 7.
VFD	VARIABLE FREQUENCY DRIVE	+66"	6.

COLOR LEGEND

	LIGHTING FIXTURES		POWER DEVICES		AUDIOVISUAL
	LIGHTING DEVICES		TELECOMMUNICATIONS		SECURITY
	POWER EQUIPMENT		FIRE ALARM		NURSECALL
	CABLE TRAY		CONDUIT		

SEAL

STATE OF MARYLAND — RICHARD J. RAMSEY — 22564 — PROFESSIONAL ENGINEER

DATE: JULY 18, 2025

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. 62664, EXPIRATION DATE 03/25/2026.

CLOWARD HO

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: KMS
DWN BY: KMS
CHKD BY: RJR

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - SYMBOLS AND NOTES

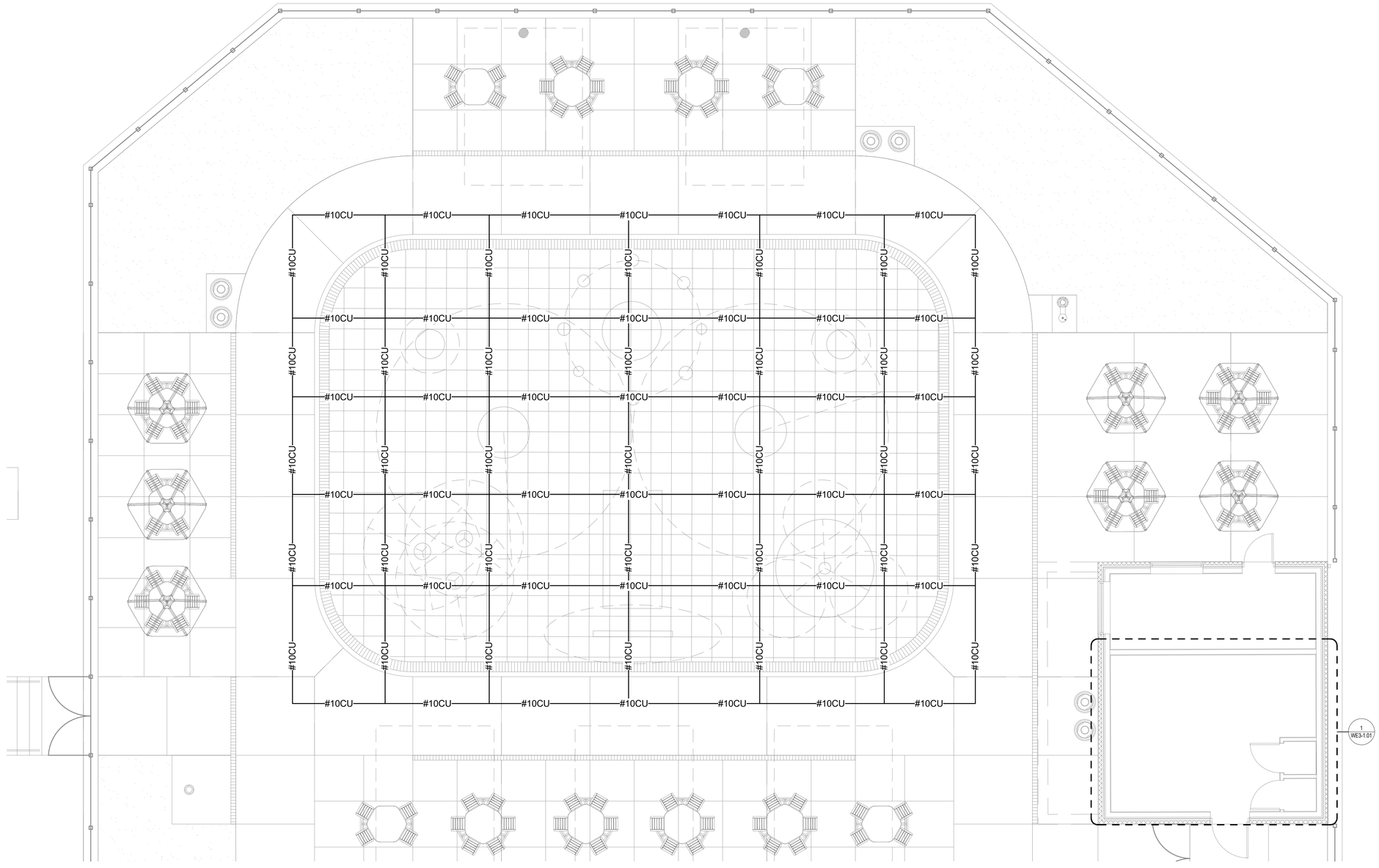
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
WE0-0.00	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 142 OF 150	
DRAWING NUMBER	2025-2312
FILE NO.: 8	

DWG. FILENAME:



SPLASH PAD ELECTRICAL SITE PLAN

SCALE = 3/16" = 1'-0"

GROUNDING GENERAL SHEET NOTES

1. SPLASH PAD GROUNDING SHALL COMPLY WITH NEC ARTICLE 680 IN ALL ASPECTS. THE DESIGN IS BASED ON UNCOATED REBAR AS PER NEC 680.26.

   a. IF COATED REBAR IS USED FOR REINFORCEMENTS OF THE POOL AND SPA, 12X12 K#8 COPPER GROUNDING GRID TO BE USED FOR EQUIBIPOTENTIAL GROUNDING GRID AND SHALL BE FORMED AROUND THE BOTTOM AND SIDES OF POOL AND SPA, AND BE ENCAPSULATED IN THE IN THE CONCRETE FOR THE SHELL. GRID SHEETS SHALL BE MECHANICALLY AND ELECTRICALLY BONDED TOGETHER WITH LISTED MEANS, AND SHALL BE TIED TO THE ELECTRICAL AND BUILDING GROUNDING SYSTEMS.

   b. IF UNCOATED REBAR IS USED FOR REINFORCEMENT OF POOL SIDES AND BOTTOM, THIS MAY BE USED TO FORM THE EQUIBIPOTENTIAL GROUND PLANE TO MEET THE REQUIREMENTS OF NEC 680. THIS SHALL BE ACCOMPLISHED BY A #8 SOLID COPPER WIRE RUNNING AT THE BOTTOM OF THE POOL AND SPA, ENCASED IN THE CONCRETE, WITH LISTED CONNECTION TO THE REBAR IN ROUGHLY 30 INCREMENTS. ADDITIONALLY, #8 SOLID COPPER WIRES SHALL BE CONNECTED FROM LINE IN THE BOTTOM, TO THE #8 PERIMETER WIRE, IN APPROXIMATELY 30' INTERVALS. IN ALL CASES, LISTED CRIMP, COMPRESSION, OR EXOTHERMIC WELD CONNECTIONS SHALL BE MADE. EQUIBIPOTENTIAL GROUNDING SHALL BE TIED TO THE ELECTRICAL AND BUILDING GROUNDING SYSTEMS.

2. EXTEND THE EQUIBIPOTENTIAL PLANE OUT TO 3' PAST THE POOL AND SPA AREA, BY RUNNING #8 SOLID BARE COPPER WIRE AROUND THE OUTSIDE THE POOL AND SPA PERIMETER AT APPROXIMATELY 17" TO 24", AS PRESCRIBED IN NEC 680. #8 PERIMETER WIRE SHALL BE MECHANICALLY AND ELECTRICAL CONNECTED TO BONDING GRID, IN THE POOL AND SPA, AND TO THE ELECTRICAL AND BUILDING GROUNDING SYSTEMS. ADDITIONALLY, CONNECTION FROM GRID TO WIRE OUTSIDE POOL SHALL BE MADE AT APPROXIMATELY 10' INTERVALS

3. #8 COPPER BONDING WIRE SHALL BE ATTACHED WITH LISTED MEANS TO EACH PEDESTAL, HANDRAIL, PROTECTIVE GRATE, ETC. WHETHER SHOWN OR NOT, IN CONFORMANCE WITH NEC ARTICLE 680, FROM #8 COPPER PERIMETER WIRE.

4. #8 COPPER BONDING WIRE SHALL EXTEND FROM #8 COPPER PERIMETER WIRE, TO EACH UNDERWATER POOL LIGHT FIXTURE

5. GROUND PER WATER OF ELECTRICALLY OPERATED POOL WITH #8 SOLID COPPER WIRE

SEAL

STATE OF MARYLAND — ROBERT J. SCHMIDT — 22664 — PROFESSIONAL ENGINEER

DATE: JULY 18, 2025

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. 62664, EXPIRATION DATE 03/25/2026.

CLOWARD H

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: KMS
DWN BY: KMS
CHKD BY: RJR

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - SPLASH PAD ELECTRICAL SITE PLAN

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

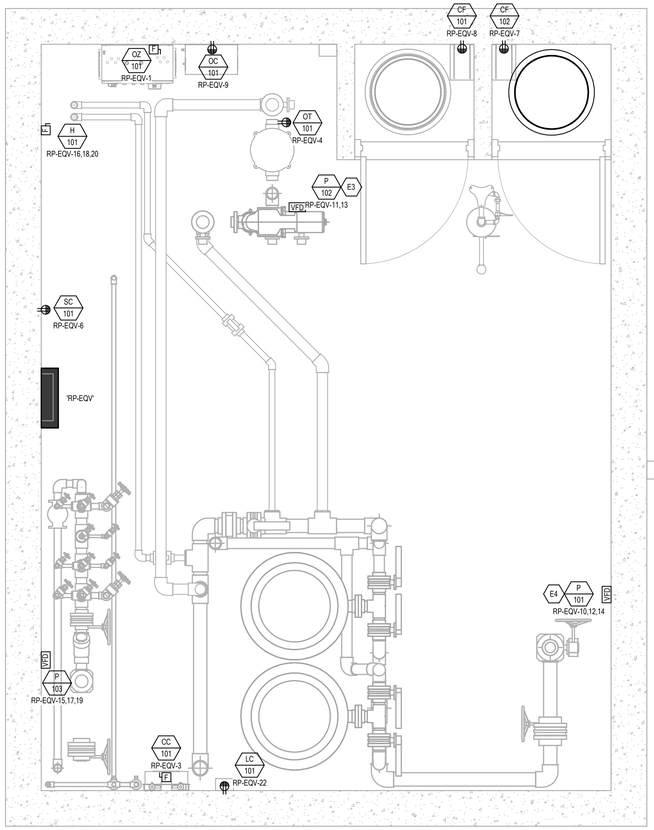
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
WE1-0.02	25114 GX0

BALTIMORE COUNTY MARYLAND

JOB ORDER NUMBER
PROJ-1000634
SHEET 143 OF 150
DRAWING NUMBER
2025-2313
FILE NO.: 8

DWG. FILENAME:



MECHANICAL ROOM POWER PLAN

SCALE = 1/2" = 1'-0"

SEAL

STATE OF MARYLAND — JOHN RICHARD JACKSON — 62664 — PROFESSIONAL ENGINEER

DATE: JULY 18, 2025

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. 62664, EXPIRATION DATE 03/25/2026.

CLOWARD H2O

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: KMS
DWN BY: KMS
CHKD BY: RJR

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
			R.O.W NO.		
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - MECHANICAL ROOM POWER PLAN

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
WE3-1.01	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 144 OF 150	
DRAWING NUMBER	2025-2314
FILE NO.: 8	

DWG. FILENAME:

PANELBOARD SCHEDULE

PANEL: RP-EQV **TYPE:** Type 1 **VOLTS:** 120/208 Y **PHASE:** 3 **WIRES:** 4

MOUNTING: SURFACE **LOCATION:** **MAINS:** MCB (SHUNT TRIP)

BUSSING: COPPER **FED FROM:** ____ SUBFEED LUGS

AMP: 200 A ___X___ DOOR-IN-DOOR

____ ISO GROUND

____ 200% NEUTRAL

____ SPD

BRANCH BREAKERS

ITEM	AMPS	TYPE	POLE	WIRE SIZE	CIR. NO.	A	B	C	A	B	C	CIR. NO.	WIRE SIZE	POLE	TYPE	AMPS	ITEM
OZ-101, OZONE GENERATOR	15 A	GF	1	12	1	700			720			2	8	1	GF	20 A	RECEPT
CC-101, CHEMICAL...	50 A	GF	1	8	3		3800			100		4	12	1	GF	15 A	OT-101, CONTAC TANK
RECEPT	20 A	GF	1	8	5			720			1800	6	12	1	GF	25 A	SC-101, SPRAY CONTROLLER
CF-102, pH FEED PUMP	15 A	GF	1	12	7	200			200			8	12	1	GF	15 A	CF-101, CHLORINE FEED PUMP
OC-101, OXYGEN...	15 A		1	12	9		100			1233		10	12	3		20 A	P-101, TREATMENT PUMP
P-102, BOOSTER PUMP	15 A		2	12	11			1100			1233	12	--	--	--	--	--
--	--	--	--	--	13	1100			1233			14	--	--	--	--	--
P-103, FEATURE PUMP	20 A		3	12	15		1233			4000		16	6	3		50 A	H-101, HEATER
--	--	--	--	--	17			1233			4000	18	--	--	--	--	--
--	--	--	--	--	19	1233			4000			20	--	--	--	--	--
					21					100		22	12	1	GF	15 A	LC-101, LEVEL CONTROLLER
					23							24					
					25							26					
					27							28					
					29							30					
					31							32					
SPARE	20 A	--	1	--	33		0			0		34	--	1	--	20 A	SPARE
SPARE	20 A	--	1	--	35			0			0	36	--	1	--	20 A	SPARE
SPARE	20 A	--	1	--	37	0			0			38	--	1	--	20 A	SPARE
SPARE	20 A	--	1	--	39		0			0		40	--	1	--	20 A	SPARE
SPARE	20 A	--	1	--	41			0			0	42	--	1	--	20 A	SPARE
						9387	10567	10087	**TOTAL (VA)**								
						78 A	89 A	85 A	**AMPS/PHASE**								

FEED THRU LOAD 0 VA

CONNECTED LOAD TOTAL 30040 VA

AIC RATING (BY SITE ENGINEER) **AMPS RMS SYSM.**

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	28600 VA	100.00%	28600 VA		
RECEPT	1440 VA	100.00%	1440 VA	**Total Conn. Load:**	30040 VA
				Total Est. Demand:	30040 VA
				Total Conn. Current:	83 A
				Total Est. Demand Current:	83 A

NOTES:

CIRCUIT BREAKER TYPE:

EQUIPMENT SCHEDULE

CONNECTION TYPE NOTES:

1. NON-FUSED DISCONNECT SWITCH
2. FUSED DISCONNECT SWITCH
3. BREAKER IN ENCLOSURE
4. MANUAL STARTER WITH THERMAL OVERLOAD
5. MAGNETIC STARTER
6. MAGNETIC STARTER/NON-FUSED DISCONNECT COMBINATION
7. MAGNETIC STARTER/FUSED DISCONNECT COMBINATION
8. MAGNETIC STARTER/BREAKER COMBINATION
9. VARIABLE FREQUENCY DRIVE
10. REDUCED VOLTAGE STARTER
11. DIRECT CONNECTION
12. RECEPTACLE/SPECIAL PURPOSE OUTLET/ETC.
13. TWO-SPEED STARTER. COORDINATE WITH MOTOR TYPE
14. SOLID STATE SOFT-STARTER

RESPONSIBILITY LEGEND:

A. FURNISHED, INSTALLED AND CONNECTED UNDER DIVISION 26(16)
B. FURNISHED AND INSTALLED UNDER ANOTHER DIVISION. REQUIRED CONNECTION UNDER DIVISION 26(16)
C. FURNISHED UNDER ANOTHER DIVISION BUT INSTALLED AND CONNECTED UNDER DIVISION 26(16)
D. FURNISHED, INSTALLED AND CONNECTED UNDER ANOTHER DIVISION

CB = CIRCUIT BREAKER

NOTE 1: PER 250.122(A), EQUIPMENT GROUND IS NOT REQUIRED TO BE LARGER THAN THE PHASE CONDUCTOR
NOTE 2: OVERCURRENT PROTECTION DEVICE (OCPD) SHOWN IS LOCATED AT POWER PANEL. ALL FUSING TO BE SIZED IN ACCORDANCE WITH FUSE MFR RECOMMENDATION FOR MOTOR NAME PLATE RATING.
NOTE 3: ALL EQUIPMENT TO BE RATED FOR THE ENVIRONMENT FOR WHICH IT IS INSTALLED.

UNIT	#	DESCRIPTION	ELECTRICAL EQUIPMENT INFORMATION							CONDUIT SIZE	WIRE(CU)				OCPD		STARTER/ DISC/ VFD OTHER (SEE NOTES)	REMARKS
			LOAD				VOLTAGE	PHASE	FULL LOAD AMPS		SETS	QTY	SIZE	EQ. GROUND	TYPE	AMPS		
			HP	FLA	MCA	VA												
CC	101	CHEMICAL CONTROLLER	0.00	0 A	0 A	3800 VA	120 V	1	31.7 A	3/4"	1	2	8	10	CB	50 A	2 A	
CF	101	CHLORINE FEED PUMP	0.00	0 A	0 A	200 VA	120 V	1	1.7 A	3/4"	1	2	12	12	CB	15 A	12 A	
CF	102	pH FEED PUMP	0.00	0 A	0 A	200 VA	120 V	1	1.7 A	3/4"	1	2	12	12	CB	15 A	12 A	
H	101	HEATER	0.00	0 A	0 A	12000 VA	208 V	3	33.3 A	3/4"	1	3	6	8	CB	50 A	2 A	
LC	101	LEVEL CONTROLLER	0.00	0 A	0 A	100 VA	120 V	1	0.8 A	3/4"	1	2	12	12	CB	15 A	12 A	
OC	101	OXYGEN CONCENTRATOR	0.00	0 A	0 A	100 VA	120 V	1	0.8 A	3/4"	1	2	12	12	CB	15 A	12 A	
OT	101	CONTAC TANK	0.00	0 A	0 A	100 VA	120 V	1	0.8 A	3/4"	1	2	12	12	CB	15 A	12 A	
OZ	101	OZONE GENERATOR	0.00	0 A	0 A	700 VA	120 V	1	5.8 A	3/4"	1	2	12	12	CB	15 A	2 A	
P	101	TREATMENT PUMP	0.00	0 A	0 A	3700 VA	208 V	3	10.3 A	3/4"	1	3	12	12	CB	20 A	9 A	
P	102	BOOSTER PUMP	0.00	0 A	0 A	2200 VA	208 V	1	10.6 A	3/4"	1	2	12	12	CB	20 A	9 A	
P	103	FEATURE PUMP	0.00	0 A	0 A	3700 VA	208 V	3	10.3 A	3/4"	1	3	12	12	CB	20 A	9 A	
SC	101	SPRAY CONTROLLER	0.00	0 A	0 A	1800 VA	120 V	1	15.0 A	3/4"	1	2	12	12	CB	25 A	12 A	

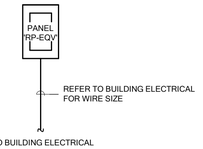


DIAGRAM 1 ONE-LINE DIAGRAM
NTS

COPPER CONDUCTOR & CONDUIT SCHEDULE

TYPE	AMP.	COND. SIZE	CONDUCTOR QUAN.	CONDUCTOR SIZE	INSULATION	EQ. GND. COND.
20	30	3/4"	2	10	THHN THWN	10
30	30	3/4"	3	10	THHN THWN	10
40	30	3/4"	4	10	THHN THWN	10
28	40	1"	2	8	THHN THWN	10
38	40	1"	3	8	THHN THWN	10
48	40	1"	4	8	THHN THWN	10
26	55	1"	2	6	THHN THWN	8
36	55	1"	3	6	THHN THWN	8
46	55	1"	4	6	THHN THWN	8
24	70	1"	2	4	THHN THWN	8
34	70	1-1/4"	3	4	THHN THWN	8
44	70	1-1/4"	4	4	THHN THWN	8
23	85	1-1/4"	2	3	THHN THWN	8
33	85	1-1/4"	3	3	THHN THWN	8
43	85	1-1/2"	4	3	THHN THWN	8
32	95	1-1/2"	3	2	THHN THWN	6
42	95	1-1/2"	4	2	THHN THWN	6
31	110	1-1/2"	3	1	THHN THWN	6
41	110	2"	4	1	THHN THWN	6
51	88	2"	5*	1	THHN THWN	6
31X	150	2"	3	1/0	THHN THWN	6
41X	150	2"	4	1/0	THHN THWN	6
51X	120	2"	5*	1/0	THHN THWN	6
32X	175	2"	3	2/0	THHN THWN	6
42X	175	2"	4	2/0	THHN THWN	6
52X	140	2"	5*	2/0	THHN THWN	6
33X	200	2"	3	3/0	THHN THWN	6
43X	200	2"	4	3/0	THHN THWN	6
53X	160	2-1/2"	5*	3/0	THHN THWN	6
34X	230	2-1/2"	3	4/0	THHN THWN	4
44X	230	2-1/2"	4	4/0	THHN THWN	4
54X	184	2-1/2"	5*	4/0	THHN THWN	4
325	255	3"	3	250	THHN THWN	4
425	255	3"	4	250	THHN THWN	4
525	204	3"	5*	250	THHN THWN	4
335	310	3"	3	350	THHN THWN	3
435	310	3"	4	350	THHN THWN	3
535	248	3"	5*	350	THHN THWN	3
350	380	4"	3	500	XHHW	3
450	380	4"	4	500	XHHW	3
550	304	4"	5*	500	XHHW	3

COPPER CONDUCTOR & CONDUIT SCHEDULE FOR PARALLEL RUNS

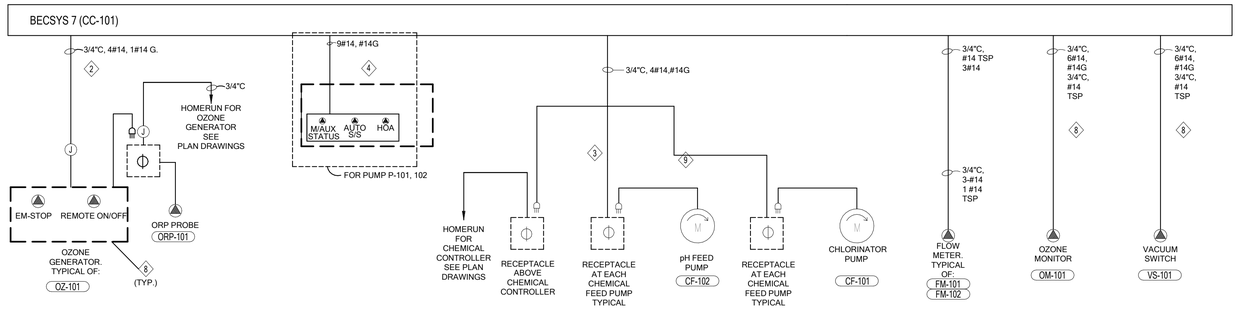
TYPE	MAX. O.C. PROT.	COND. AMPS	SETS	CONDUCTOR QUAN.	CONDUCTOR SIZE	CONDUIT SIZE	EQ. GND. COND.
44X-2	400	460	2	4	4/0	2-1/2"	3
54X-2	400	368	2	5*	4/0	3"	3
335-2	600	620	2	3	350	3"	1
435-2	600	620	2	4	350	3"	1
550-2	600	608	2	5*	500	3"	1
350-2	800	760	2	3	500	4"	1/0
450-2	800	760	2	4	500	4"	1/0
535-3	800	744	3	5*	350	4"	1/0
350-3	1000	1140	3	3	500	4"	2/0
450-3	1000	1140	3	4	500	4"	2/0
550-4	1000	1216	4	5*	500	4"	2/0
335-4	1200	1240	4	3	350	3"	3/0
435-4	1200	1240	4	4	350	3"	3/0
550-4	1200	1216	4	5*	350	3"	3/0
340-5	1600	1675	5	3	400	3"	4/0
440-5	1600	1675	5	4	400	3"	4/0
540-6	1600	1675	6	5*	400	4"	4/0
440-6	2000	2010	6	4	400	4"	250
450-7	2500	2665	7	4	500	4"	350
450-8	3000	3040	8	4	500	4"	400
450-11	4000	4180	11	4	500	4"	500

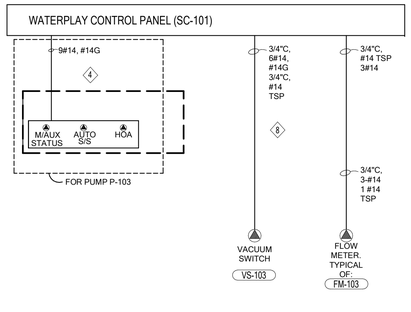
NOTES:
IN PARALLEL RUNS SIZE GND. COND. IN ACCORDANCE WITH NEC PARA. 250-122.

GND. CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS

* 200% NEUTRAL, DERATED TO 80% BASED ON NEC 310.15.B(5)(C)

** COPPER CONDUCTOR (XHHW)





NOTES:

1. CONDUIT FOR OPTIONAL POWER AND ALARM SIGNAL.
2. CONDUIT FOR OPTIONAL EMERGENCY STOP AND REMOTE ON/OFF.
3. DOSE ENABLE (CRP AND CRC).
4. H-O-A IN REMOTE, M/AUX3, START, SHUTDOWN AND 120 VOLT POWER.
5. H-O-A IN REMOTE, M/AUX3, START, EMERGENCY STOP.
6. H-O-A IN REMOTE, M/AUX3 AND START.
7. POWER AND ALARM.
8. POWER, SIGNAL AND ALARMS.
9. DOSE ENABLE, TREATMENT PUMP START/STOP.

DIAGRAM OL01 CONTROL ONE-LINE DIAGRAM
NTS

GENERAL NOTES:
1. REFER TO W SHEETS FOR LOCATIONS OF DEVICES

SEAL

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. 52664 , EXPIRATION DATE 03/25/2026 .

DATE: JULY 18, 2025

CLOWARD HQ

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: KMS
DWN BY: KMS
CHKD BY: RJR

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

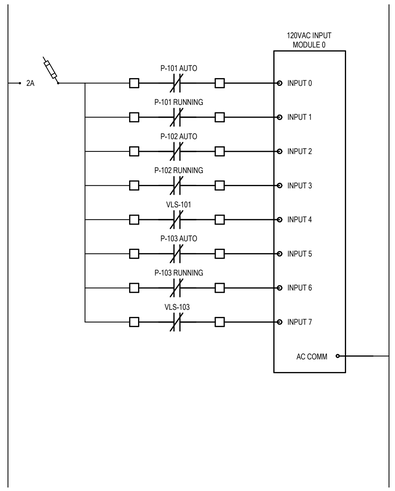
PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

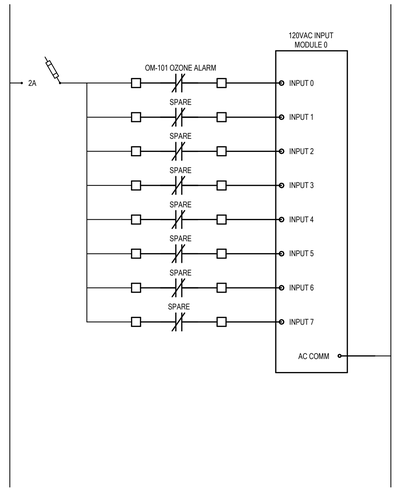
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT
NORTHWEST REGIONAL PARK
AQUATIC - ONE-LINE DIAGRAM, CONTROL DIAGRAMS AND SCHEDULES
SPLASH PAD AND SUPPORTING FACILITIES
SUBDIVISION: OWINGS MILLS 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
WE4-1.01	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 145 OF 150
	DRAWING NUMBER
	2025-2315
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

DWG. FILENAME:





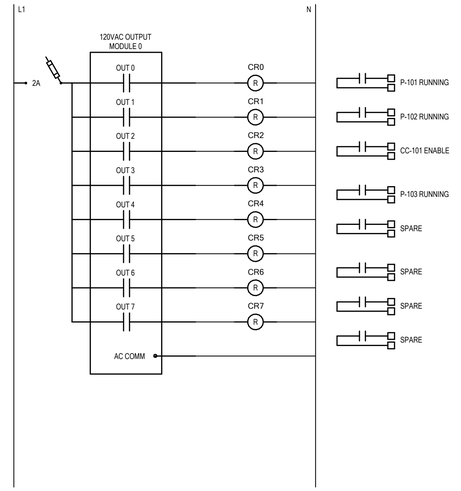
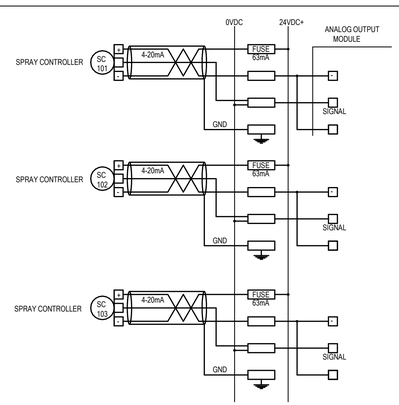
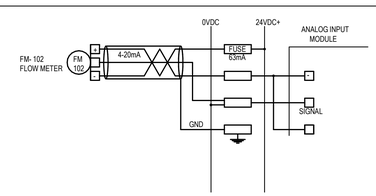


DIAGRAM V405 DIGITAL INPUT/OUTPUT DIAGRAM
NTS





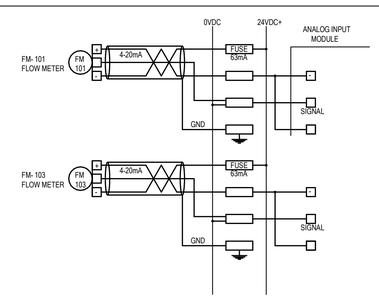


DIAGRAM V406 ANALOG TO DIGITAL INPUTS AND OUTPUTS DIAGRAM
NTS

IMG. FILENAME:

SEAL

STATE OF MARYLAND · RICHARD J. RAUCH · 32564 · PROFESSIONAL ENGINEER

DATE: JULY 18, 2025

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. 32664, EXPIRATION DATE 03/25/2026.

CLOWARD H2O

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: KMS
DWN BY: KMS
CHKD BY: RJR

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
			R.O.W NO.		
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - CONTROL DIAGRAMS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
WE4-1.02	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 146 OF 150	
DRAWING NUMBER	2025-2316
FILE NO.: 8	

BURNDY CATALOG NUMBER	① GROUND CONNECTOR TABLE	
	CABLE TO GROUND ROD	
	ELEMENT "A"	ELEMENT "B"
YGL2C2	- -	- -
YGL29C2	1/2"-5/8" ROD	#5 SOL. (.162) - #2 STR. (.292)
YGL29C29		#2 STR. (.292) - 250 KCMIL (.575)
YGL34C2	5/8"-3/4" ROD	#5 SOL. (.162) - #2 STR. (.292)
YGL34C29		#2 STR. (.292) - 250 KCMIL (.575)
YGL34C34		250 KCMIL (.575) - 500 KCMIL (.813)

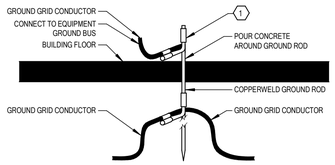


DIAGRAM O026 GROUND ROD DIAGRAM
NTS

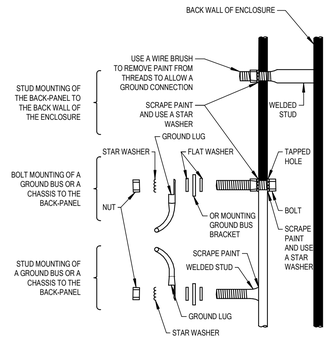


DIAGRAM O027 ENCLOSURE GROUND DETAIL
NTS

NOTES:

1. LUGGED AND BOLTED, INSULATED WITH 1/2 LAPPED LAYER OF VARNISHED CAMBRIC TAPE AND TWO 1/2 LAPPED LAYERS OF VINYL PLASTIC ELECTRICIANS TAPE WITH IRREGULAR SURFACES PADDED PER SPEC.

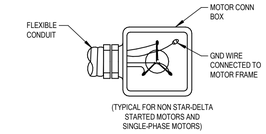
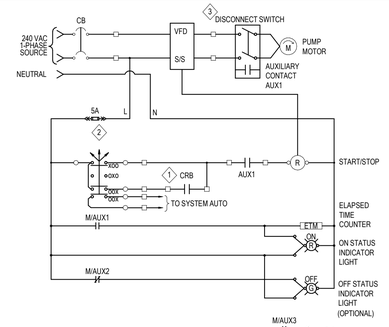


DIAGRAM R018 MAKEUP AT MOTOR DETAIL
NTS

MOTOR NOTES:

1. PLC CONTROLLED INTERPOSE RELAY CRB IN CONTROL PANEL. CLOSES FOR NORMAL START, OPENS FOR NORMAL STOP.
2. H-O-A SWITCH LOCATED AT MOTOR CONTROL CABINET.
3. FIELD MOUNTED NON-FUSED DISCONNECT SWITCH NOT REQUIRED FOR MOTORS WITHIN SITE OF MOTOR CONTROLLER. PROVIDE SWITCH FOR MOTORS NOT WITHIN SITE OF MOTOR CONTROLLER. REFER TO EQUIPMENT ROOM PLANS.
4. ROUTE START THROUGH AUX CONTACTS INSTALLED IN DISCONNECT



APPLICATION TABLE:

TAG	DESCRIPTION
P-101	TREATMENT PUMP
P-103	FEATURE PUMP
P-201	TREATMENT PUMP
P-203	FEATURE PUMP

DIAGRAM R019 PUMPS WITH VFD CONTROL DIAGRAM
NTS

DWG. FILENAME:

SEAL

STATE OF MARYLAND — ROBERT JOSEPH RIGHTMIRE — 32664 — PROFESSIONAL ENGINEER

DATE: JULY 18, 2025

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. 32664, EXPIRATION DATE 03/25/2026.

CLOWARD H2O

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: KMS
DWN BY: KMS
CHKD BY: RJR

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - ELECTRICAL DIAGRAMS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
WE5-1.01	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 147 OF 150
	DRAWING NUMBER
	2025-2317
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

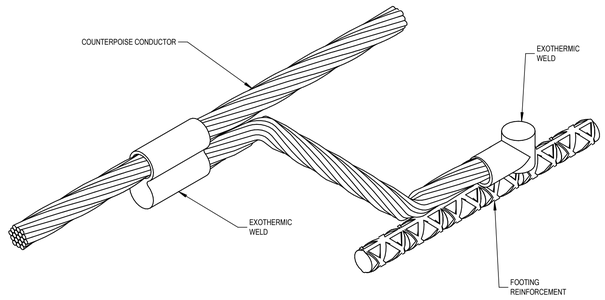


DIAGRAM O022 COUNTERPOISE TO REBAR
NTS

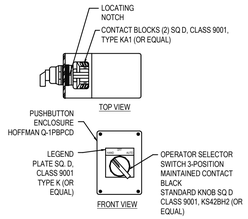


DIAGRAM R021 HAND-OFF-AUTO SWITCH
NTS

BURNDY CATALOG NUMBER	① GROUND CONNECTOR TABLE	
	CABLE TO CABLE	
	ELEMENT "A"	ELEMENT "B"
YGL2C2	#5 SOL. (.162) - #2 STR. (.292)	#5 SOL. (.162) - #2 STR. (.292)
YGL29C2	#1 STR. (.322) - 250 KCMIL (.575)	
YGL29C29	#2 STR. (.292) - 250 KCMIL (.575)	#2 STR. (.292) - 250 KCMIL (.575)
YGL34C2		#5 SOL. (.162) - #2 STR. (.292)
YGL34C29	250 KCMIL (.575) - 500 KCMIL (.813)	#2 STR. (.292) - 250 KCMIL (.575)
YGL34C34		250 KCMIL (.575) - 500 KCMIL (.813)

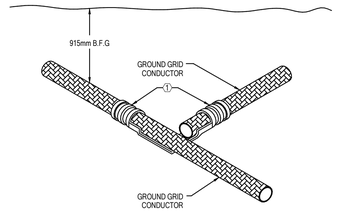


DIAGRAM O028 COPPER GROUNDING CABLE TIE-IN
NTS

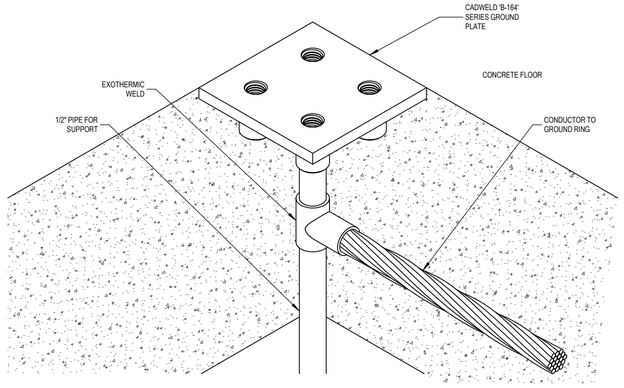


DIAGRAM O020 GROUND PLATE
NTS

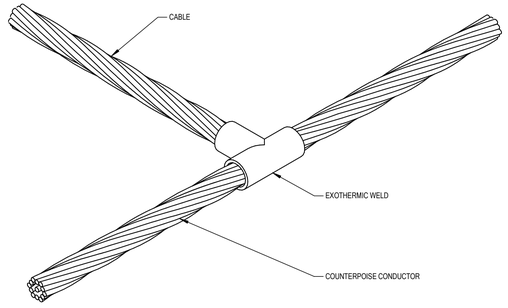


DIAGRAM O023 COUNTERPOISE TO CABLE
NTS

SEAL

STATE OF MARYLAND — REGISTERED — 32664 — PROFESSIONAL ENGINEER

DATE: JULY 18, 2025

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. 32664, EXPIRATION DATE 03/25/2026.

CLOWARD H2O

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: KMS
DWN BY: KMS
CHKD BY: RJR

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
CONTRACT COMPLETION BOX			R.O.W NO.		

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE
PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - ELECTRICAL DIAGRAMS

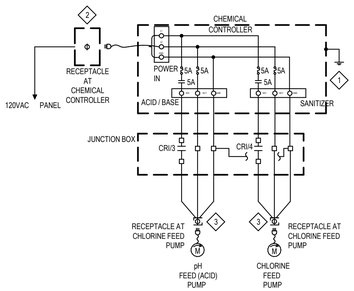
SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
WE5-1.02	25114 GX0
JOB ORDER NUMBER	
PROJ-1000634	
SHEET 148 OF 150	
DRAWING NUMBER	
2025-2318	
FILE NO.: 8	

DWG. FILENAME:



NOTES:

1. GROUND CHEMICAL CONTROLLER ACCORING TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. INSTALL RECEPTACLE NEAR CHEMICAL CONTROLLER. REFER TO ELECTRICAL PLANS FOR LOCATION(S).
3. INSTALL TECEPTACLE NEAR CHEMICAL FEED PUMPS. REFER TO ELECTRICAL PLANS FOR LOCATION(S).

APPLICATION TABLE:

TAG	DESCRIPTION
CC - 201	CHEMICAL CONTROLLER

DIAGRAM R024 CHEMICAL CONTROLLER CONNECTION DIAGRAM

NTS

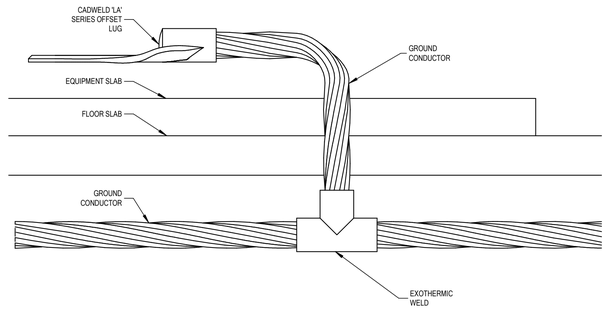


DIAGRAM O025 CABLE TO EQUIPMENT

NTS

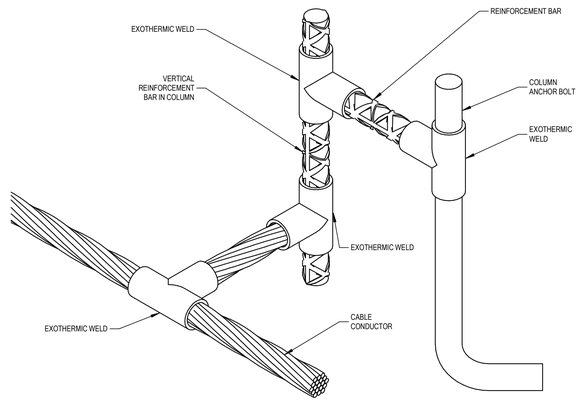
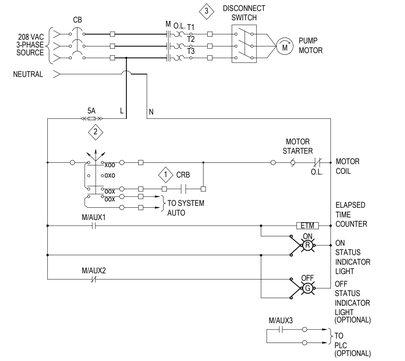


DIAGRAM O024 CABLE TO COLUM

NTS

MOTOR NOTES:

1. PLC CONTROLLED INTERPOSE RELAY CRB IN CONTROL PANEL CLOSES FOR NORMAL START, OPENS FOR NORMAL STOP.
2. H-O-A SWITCH LOCATED AT MOTOR CONTROL CABINET.
3. FIELD MOUNTED NON-FUSED DISCONNECT SWITCH NOT REQUIRED FOR MOTORS WITHIN SITE OF MOTOR CONTROLLER. PROVIDE SWITCH FOR MOTORS NOT WITHIN SITE OF MOTOR CONTROLLER. REFER TO EQUIPMENT ROOM PLANS.



APPLICATION TABLE:

TAG	DESCRIPTION
P-102	BOOSTER PUMP
P-202	BOOSTER PUMP
BL-201	SPA BLOWER

DIAGRAM R025 TREATMENT PUMP CONTROL DIAGRAM

NTS

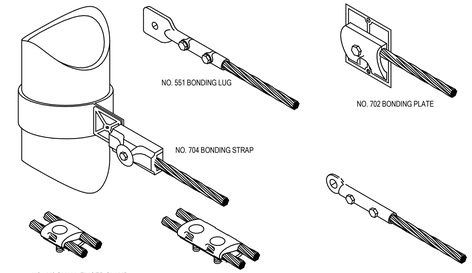


DIAGRAM O007 BONDING

NTS

DWG. FILENAME:

SEAL

STATE OF MARYLAND — 62664 — PROFESSIONAL ENGINEER

DATE: JULY 18, 2025

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. 62664, EXPIRATION DATE 03/25/2026.

CLOWARD H2O

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: KMS
DWN BY: KMS
CHKD BY: RJR

AS-BUILT / REVISION | BY | DATE | P.W.A. NO. | KEY SHEET | POSITION SHT

R.O.W NO.

CONTRACT COMPLETION BOX

PNW | 35NW40

DRAWING SCALE

PLAN SCALE: AS SHOWN
PROFILE SCALE:

PROPERTY MANAGEMENT

APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NORTHWEST REGIONAL PARK

AQUATIC - ELECTRICAL DIAGRAMS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS | 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 | ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
WE5-1.03	25114 GX0
JOB ORDER NUMBER	PROJ-1000634
SHEET 149 OF 150	
DRAWING NUMBER	2025-2319
FILE NO.: 8	

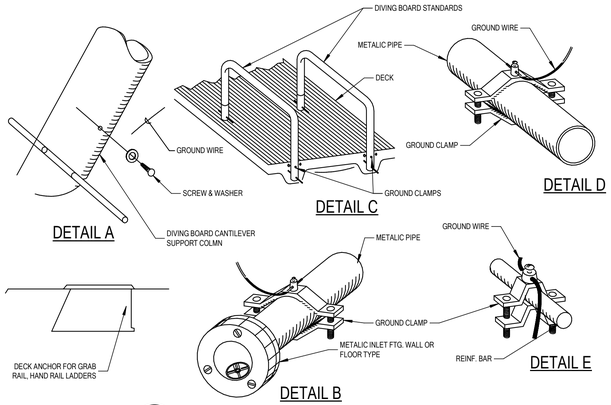


DIAGRAM R013 POOL GROUNDING DETAILS
NTS

GENERAL NOTES

1. ALL AROUND WIRE SHALL BE #8 COPPER GROUNDING CABLE, EXCEPT AS INDICATED FOR POWER SUPPLY CONDUITS.
2. ALL METAL FITTINGS SUCH AS INLETS, VACUUM FITTINGS, METALIC CUP ANCHORS MUST BE GROUNDED TO POOL REINFORCING STEEL INDEPENDENTLY.
3. ALL METAL PIPING MUST BE GROUNDED TO POOL REINFORCING STEEL.
4. WHEN METAL MAIN OUTLET FRAME AND GRATE IS USED, FRAME MUST. BE GROUNDED TO REINFORCED STEEL.
5. ALL ELECTRICAL EQUIPMENT USED IN SWIMMING POOLS SHALL BE U.L. LISTED UNDER SWIMMING POOL EQUIPMENT GUIDE #380 UO.
6. ALL WORK SHALL BE IN ACCORDANCE WITH THE N.E.C. ART. #680 CURRENT EDITION.
7. METALIC COMPONENTS IN NON-METEALIC FITTINGS DO NOT REQUIRE BONDING.
8. WHEN RIGID NON-METALIC CONDUIT IS USED AN ADDITIONAL GROUNDING CONDUCTOR (#8 AWG) MUST BE INSTALLED WITHIN THE CONDUIT ALONG WITH THE FLEXABLE CORD. THE GROUNDING CONDUCTOR MUST BE TERMINATED IN BOTH THE FORMING SHELL & JUNCTION BOX WITH APPROVED TERMINALS.
9. IF ENCAPSULATED (EPOXY COATED) REINFORCING STEEL IF USED PROVIDE A 12"x12" GRID OF #8 BARE SOLID COPPER CONDUCTORS PER N.E.C. ART. 680.26.

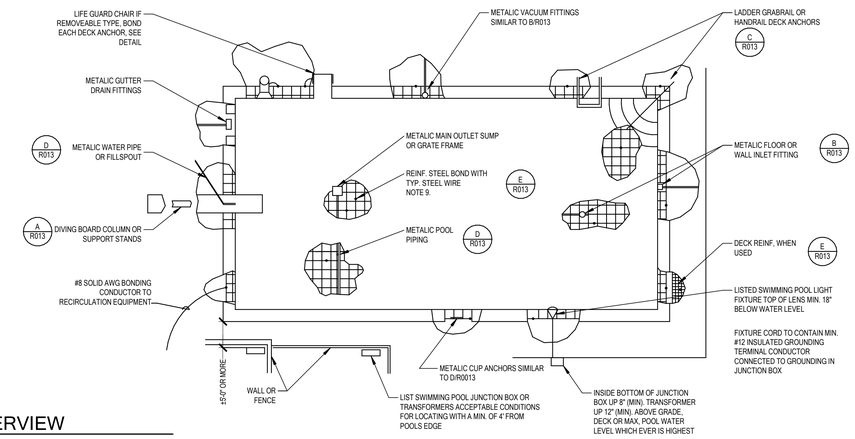
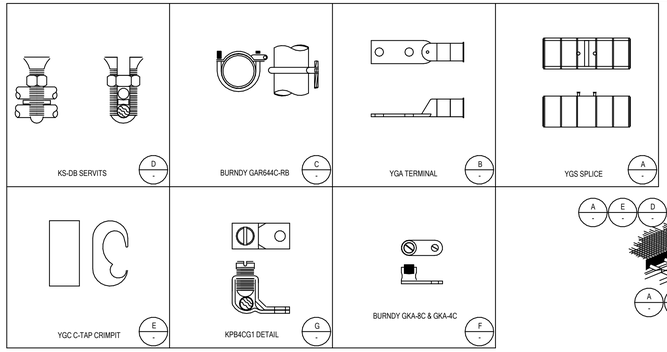


DIAGRAM R010 POOL GROUNDING OVERVIEW
NTS



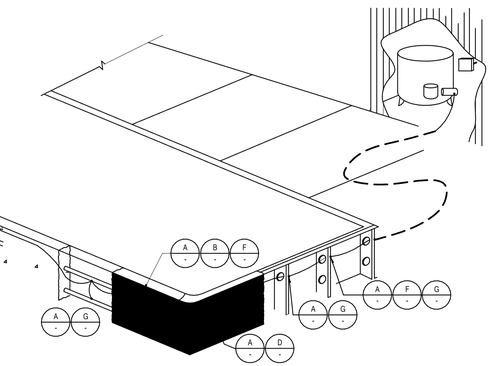


DIAGRAM R020 POOL GROUNDING SIDE PROFILE
NTS

ELECTRICAL CONTROLS LEGEND	
OFF / ON / REMOTE	SELECTOR SWITCH 3 POSITION MAINTAINED CONTACT
	LEVEL SWITCH CLOSES ON FALLING LEVEL
	LEVEL SWITCH CLOSES ON RISING LEVEL
W	INDICATOR LIGHT
	NORMALLY (NC) CLOSED RELAY CONTACT
	NORMALLY (NO) OPEN RELAY CONTACT
	WIRE TERMINAL OR CONNECTION POINT
	DIN RAIL MOUNTED FUSE BLOCK
	VACUUM SWITCH CLOSES ON RISING VACUUM
	THERMAL OVERLOAD RELAY
ETM	ELAPSED TIME COUNTER
M	SINGLE PHASE MOTOR
	MOTOR OVERLOAD RELAY
R CR1	CONTROL RELAY
	CONTROL SWITCH, PUSH BUTTON MOMENTARY CONTACT NORMALLY CLOSED
	CONTROL SWITCH, PUSH BUTTON MOMENTARY CONTACT NORMALLY CLOSED
	GROUND CONNECTION
	MOTOR (HP SHOWN)
	CIRCUIT BREAKER

NOTE: THIS IS A STANDARD LEGEND AND NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT.

DWG. FILENAME:

SEAL

STATE OF MARYLAND — KEVIN M. SCHMIDT — 52664 — PROFESSIONAL ENGINEER

DATE: JULY 18, 2025

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. 52664, EXPIRATION DATE 03/25/2026.

CLOWARD H2O

AS-BUILT PER RECORD PRINT

BY:
DATE:

DGN BY: KMS
DWN BY: KMS
CHKD BY: RJR

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.	KEY SHEET	POSITION SHT
				PNW	35NW40
			R.O.W NO.		
CONTRACT COMPLETION BOX					

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

DRAWING SCALE	
PLAN SCALE:	AS SHOWN
PROFILE SCALE:	

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE – PROPERTY MANAGEMENT

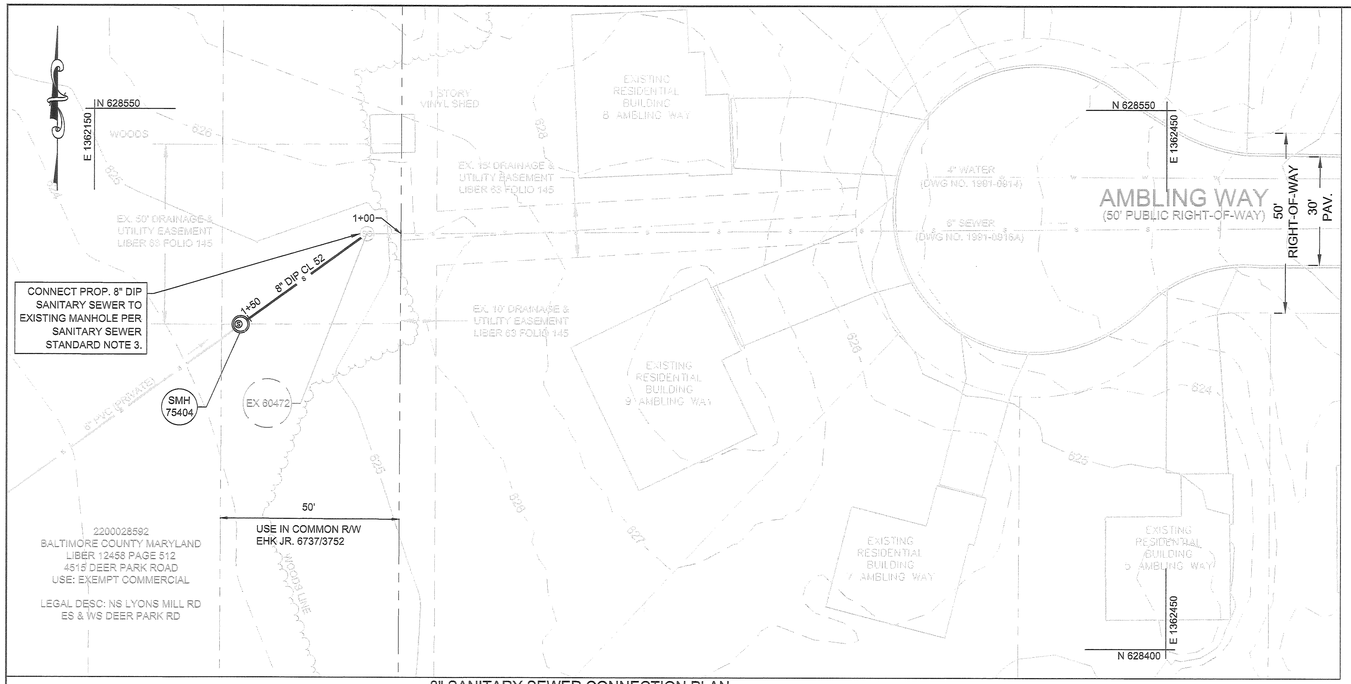
NORTHWEST REGIONAL PARK

AQUATIC - ELECTRICAL DIAGRAMS

SPLASH PAD AND SUPPORTING FACILITIES

SUBDIVISION: OWINGS MILLS — 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 — ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
WE5-1.04	25114 GX0
	JOB ORDER NUMBER
	PROJ-1000634
	SHEET 150 OF 150
	DRAWING NUMBER
	2025-2320
	FILE NO.: 8



8" SANITARY SEWER CONNECTION PLAN

SCALE: 1" = 20'

20 10 0 20 40

SCALE: 1" = 20'

GENERAL BALTIMORE COUNTY STANDARD NOTES

1. THE CONTRACTOR SHALL MAINTAIN, REPAIR, AND/OR REPLACE ANY EXISTING SEDIMENT CONTROL DEVICES ENCOUNTERED AND DISTURBED DURING THE COURSE OF CONSTRUCTION UNDER THIS CONTRACT, AND AS SHOWN ON THE APPROVED SEDIMENT CONTROL PLAN AS PART OF THE CONTRACT DOCUMENTS. AT THE END OF EACH DAY, ALL SUCH DISTURBED DEVICES SHALL BE REPAIRED OR REPLACED BEFORE LEAVING THE WORK SITE. THE COST OF PERFORMING THE WORK, INCLUDING MATERIALS, SHALL BE PAID FOR BY A LUMP SUM BID FOR MAINTENANCE AND REPAIR OF SEDIMENT CONTROL DEVICES.
2. ALL WORK UNDER THIS CONTRACT SHALL BE PERFORMED IN ACCORDANCE WITH THE APPROVED BALTIMORE COUNTY SOIL CONSERVATION PERMIT NUMBER 176-COUNTY-24.
3. ALL CONSTRUCTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH BALTIMORE COUNTY STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (SEPTEMBER 2023, AS AMENDED).
4. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT (800) 257-7777 AT LEAST 72 HOURS PRIOR TO STARTING EXCAVATION.
5. THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES.
6. THE CONTRACTOR SHALL USE EXTREME CAUTION DURING EXCAVATION AND/OR INSTALLATION OF ALL WORK SHOWN ON THESE PLANS. ALL UTILITIES SHALL BE FULLY PROTECTED FROM DAMAGE OR INTERRUPTION.
7. WHERE TWO FEET (2') CLEARANCE CANNOT BE OBTAINED BETWEEN PIPES AND STRUCTURES, SAND BACKFILL SHALL BE PLACED AS DIRECTED BY THE ENGINEER IN THE FIELD.
8. UNLESS OTHERWISE NOTED, THE BID LINE FOR EXCAVATION SHALL BE SUB-GRADE UNDER PROPOSED ROADS, ESTABLISHED GRADE UNDER TURF AREAS, AND EXISTING GRADE ALONG EXISTING PAVEMENT.
9. FULL TRENCH COMPACTION IS REQUIRED FOR A MINIMUM DISTANCE OF 20 FEET ON EACH SIDE OF ALL CROSSINGS, WITHIN ALL EXISTING ROAD RIGHTS-OF-WAY, AND WHERE SHOWN ON THE PLANS.
10. THE DEVELOPER SHALL PLACE ROADS TO SUB-GRADE FOR THE FULL WIDTH OF THE RIGHT-OF-WAY BEFORE INSTALLATION OF UTILITIES.
11. THE DEVELOPER SHALL ACCOMPLISH ALL GRADING WITHIN EASEMENT AREAS WHERE UTILITIES ARE TO BE INSTALLED BEFORE THE NOTICE TO PROCEED WILL BE ISSUED.

SANITARY SEWER STANDARD NOTES

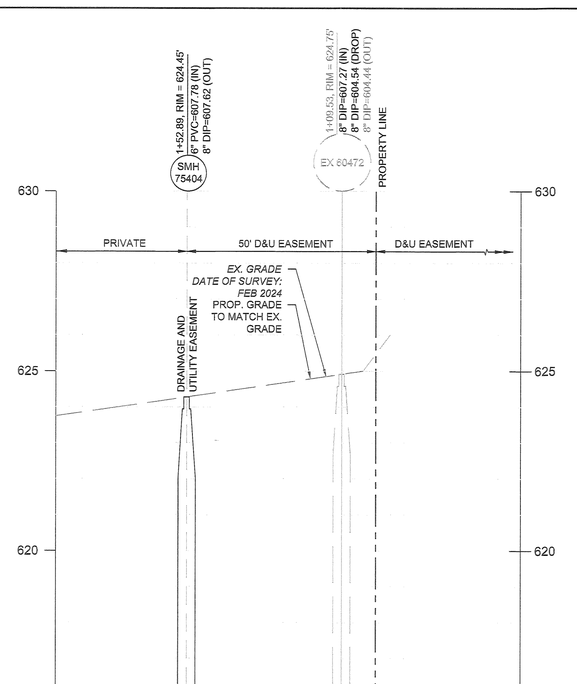
1. THE CONTRACTOR SHALL EXTEND ALL HOUSE CONNECTIONS FIVE (5) FEET INSIDE OF THE PROPERTY LINE OR THE PUBLIC SIDEWALK AND DRAINAGE AND UTILITY EASEMENT LINE, PER STANDARD DETAIL S-12A.
2. ALL CONNECTIONS TO DIP MUST BE MADE WITH DIP (CLASS 52).
3. WHEN CONNECTING TO ANY EXISTING MANHOLE, THE MANHOLE MUST BE CORE DRILLED AND AN "A-LOCK" CONNECTOR, OR APPROVED EQUAL MUST BE USED TO PROVIDE A WATERTIGHT CONNECTION.
4. ALL TOPS OF ALL NEW MANHOLES, INLETS AND VALVES LOCATED WITHIN EXISTING ROAD METAL SHALL BE BUILT TO EXISTING GRADE ELEVATIONS UNDER THIS CONTRACT.
5. EXISTING CURB AND GUTTER AND/OR SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT AND BE REPLACED AS REQUIRED WITH EQUAL OR BETTER MATERIALS, AS DIRECTED BY THE ENGINEER IN THE FIELD.
6. TRENCH REPAIR SHALL BE AS PER STANDARD DETAIL R-38. RESURFACING BEYOND THE TRENCH MAY BE REQUIRED, AT THE DISCRETION OF THE FIELD ENGINEER.

EXISTING SURVEY LEGEND

- EXISTING MAIN PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- EXISTING MINOR CONTOUR (624)
- EXISTING MAJOR CONTOUR (625)
- EXISTING WATER (W)
- EXISTING SEWER (S)
- EXISTING BUILDING
- EXISTING CURB AND GUTTER
- EXISTING WOODLINE

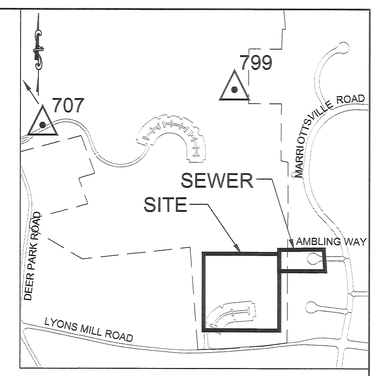
PROPOSED UTILITY LEGEND

- SANITARY SEWER LINE (S)



SANITARY SEWER CONNECTION PROFILE

SCALE: HORIZ. 1" = 20'
VERT. 1" = 2'



VICINITY MAP

SCALE: 1" = 500'

BENCHMARK TABLE

SYMBOL	NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
△	799	629,694.69	1,361,943.93	654.66	CAPPED PIPE
△	707*	630,781.77	1,360,248.73	636.92	SPIKE

*707 LOCATED AT SOUTHWEST CORNER OF DEER PARK ROAD AND BARNES AVENUE INTERSECTION

REFERENCE DRAWINGS

	EXISTING	PROPOSED
WATER	1991-0914	--
SEWER	1991-0916A	
STORM DRAIN	--	--
ROAD	--	--

BILL OF MATERIALS

QTY.	DESCRIPTION	SIZE
44 LF	DIP SANITARY SEWER LINE	8"
1 EA	STD. SANITARY DROP CONNECTION TYPE 'A'	8"
1 EA	STD. PRECAST MANHOLE (BALT. CO. DETAIL S-4)	48"

OWNER/DEVELOPER

BALTIMORE COUNTY PROPERTY MANAGEMENT
12200 LONG GREEN PIKE
GLEN ARM, MD 21057
CONTACT: GREGORY DORAN
PHONE: (410) 887-3861

PLAN NOTE:

CONTRACTOR SHALL TEST PIT FOR LOCATION AND DEPTH OF EX. UTILITIES PRIOR TO BEGINNING WORK. POSSIBLE RELOCATION OF GAS, ELECTRIC, TELEPHONE, FIBER OPTIC OR CABLE TV FACILITIES TO BE DONE BY RESPECTIVE COMPANIES. COST BY OWNER. CONTRACTOR SHALL VERIFY SAN. SEWER INVERTS PRIOR TO MAKING CONNECTION.

RIGHT OF WAY CERTIFICATION

"IN MY PROFESSIONAL OPINION, THIS PLAN IS SEALED AND CERTIFIED THAT THE RIGHT(S) OF WAY AND EASEMENT(S) SHOWN HEREON CONFORM IN ALL MATERIAL RESPECTS TO THE RIGHT(S) OF WAY AND EASEMENT(S) SHOWN IN THE LAND RECORDS OF BALTIMORE COUNTY IN LIBER 12458, FOLIO 512 RECORDED OCTOBER 22, 1997. WHICH WERE PREPARED IN COMPLIANCE WITH BALTIMORE COUNTY, DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, REAL ESTATE COMPLIANCE, DRAFTING SECTION MANUAL DATED JANUARY, 1997."

NOTE:

CONTRACTOR TO USE CAUTION WHEN EXCAVATING AROUND EXISTING UTILITIES

CONSTRUCTION DOCUMENT SET DESIGNATION: C-401

CONTRACT COMPLETION BOX

CONTRACTOR: _____
DATE COMPLETED: _____
INSPECTOR: _____
PIPE MATERIAL (Pressure Only) _____

DWG. FILENAME:

SEAL

DATE : JULY 30, 2025

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. 41799 , EXPIRATION DATE 04/18/2026

ENGINEER: RUMMEL, KLEPPER & KAHL
RK&K P 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: SHK
DWN BY: DTP
CHKD BY: MBT

AS-BUILT / REVISION	BY	DATE	P.W.A. NO.
			R.O.W NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
PNW	35NW40

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:	—	Vishnu Desai	—		AED		
DATE REVIEWED:		8/5/2025			8/29/25		

DRAWING SCALE
PLAN SCALE: 1"=20'
PROFILE SCALE: 1"=20' / 1"=8'

DPW AND TRANSPORTATION
APPROVED BY: _____ DIRECTOR
DATE: 9-2-2025

MCS NOTE:
- MARYLAND HORIZONTAL DATUM NAV'83/2011
- MARYLAND VERTICAL DATUM NAVD'88

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION – BUREAU OF ENGINEERING & CONSTRUCTION

PROPOSED SANITARY SEWER HOUSE CONNECTION

AMBLING WAY

430' ± WEST OF MARRIOTTSVILLE ROAD

4515 DEER PARK ROAD, OWINGS MILLS, MD 21117

SUBDIVISION: NORTHWEST REGIONAL PARK – SPLASH PAD AND SUPPORTING FACILITIES

COUNCILMAN DISTRICT:
ELECTION DISTRICT: 2C4

SHEET DESIGNATION	CONTRACT NUMBER
SEWER	25066-UA0
JOB ORDER NUMBER	PROJ-1000634
SHEET 01 OF 01	DRAWING NUMBER 2025-1631
FILE NO.: 1	

08/05/25