CITY OF ALEXANDRIA, VIRGINIA

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NARRATIVE

THIS IS A DEPARTMENT OF RECREATION, PARKS, AND CULTURAL ACTIVITIES (RP&CA) RENOVATION PROJECT. THE PURPOSE OF THIS PROJECT IS TO RENOVATE THE EXISTING BASEBALL FIELDS AND PROVIDE SITE AND ACCESSIBILITY IMPROVEMENTS. THE LARGER FIELD WILL INCLUDE A NEW BLEACHER W/ PRESS BOX, BUILT-IN DUGOUTS, CONCESSION STAND, STORAGE FACILITIES, SAFETY NETTING, BATTING CAGES, AND BULLPENS. THE FIELD WILL ALSO BE CONVERTED FROM NATURAL TURF TO SYNTHETIC TURF. THE SMALLER FIELD WILL REMAIN IRRIGATED NATURAL TURF BUT INCLUDE A NEW BLEACHER W/ PRESS BOX, AT-GRADE DUGOUTS, BATTING CAGES, AND BULLPENS. THE EXISTING SPORTS LIGHTING FOR BOTH FIELDS WILL REMAIN IN PLACE. HOWEVER NEW SITE LIGHTING WILL BE INCLUDED FOR PARK SAFETY AND USABILITY. THIS WILL INCLUDE NEW LIGHTING FOR THE PARKING LOT, PEDESTRIAN PLAZAS AND MAIN PATHWAYS FROM PUBLIC STREET ACCESS POINTS THROUGHOUT THE PARK.

OTHER SITE IMPROVEMENTS WILL INCLUDE EXPANDED PARKING AND ACCESS, WALKING PATHWAYS WITH NEW NEIGHBORHOOD ACCESS POINTS, PEDESTRIAN PLAZAS, AND STORMWATER MANAGEMENT ENHANCEMENTS. THE ADDITION OF A PARKING ACCESS DRIVE AISLE WILL SHIFT THE BASKETBALL COURT EASTWARD. AS PART OF THIS RELOCATION, ALL NEW COURT SURFACING AND LED SPORTS LIGHTING WILL BE PROVIDED. LANDSCAPE IMPROVEMENTS WILL BE INCLUDED WITH THE PARK RENOVATION AND FEATURE NATIVE PLANTINGS (TREES, SHRUBS AND GRASSES) TO IMPROVE HABITAT AND PROVIDE OTHER ENVIRONMENTAL BENEFITS.

REQUESTED APPROVALS AND MODIFICATIONS

1. DEVELOPMENT SPECIAL USE PERMIT WITH SITE PLAN FOR THE CONSTRUCTION AND ENLARGEMENT OF ACCESSORY BUILDINGS ASSOCIATED WITH THE EXISTING ATHLETIC FIELDS AND PROVIDING MORE THAN FIVE NEW PARKING SPACES.
2. SPECIAL USE PERMIT FOR COMMUNITY RECREATION BUILDINGS.
3. SPECIAL USE PERMIT FOR CONGREGATE RECREATIONAL FACILITIES.
4. SPECIAL USE PERMIT FOR FACILITIES FOR THE LIGHTING OF ANY AREA IN THE POS ZONE FOR NIGHTTIME USE.
5. SPECIAL USE PERMIT FOR LIGHTING TALLER THAN 15 FEET.
6. SPECIAL USE PERMIT FOR ACCESSORY STRUCTURES AND NETTING TALLER THAN 15 FEET.
7. MODIFICATION FOR A REDUCTION OF THE 35-FOOT LIGHT POLE SETBACK.

OWNER/ DEVELOPER

DEPARTMENT OF PROJECT IMPLEMENTATION, CITY OF ALEXANDRIA
301 KING ST., SUITE 3200
ALEXANDRIA, VA 22314
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CONTACT PHONE NUMBER: 703.746.4045

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MID-ATLANTIC UTILITY LOCATING, LLC.
(UTILITY DESIGNATION)
44200 Waxpool Road, Suite 127, Ashburn,VA 20147
P: 703.378.0100

POLYSONICS ACOUSTICS TECHNOLOGY CONSULTING (SOUND ENGINEERS)
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TERRACON CONSULTANTS INC (GEOTECH AND ENVISION)
19955 Highland Vista Dr #170, Ashburn, VA 20147
P 703.726.8030

RIB U.S.COST (COST ESTIMATOR)
241 Garrisonville Road, Suite 202 Stafford, VA 22554
P 703.415.0835

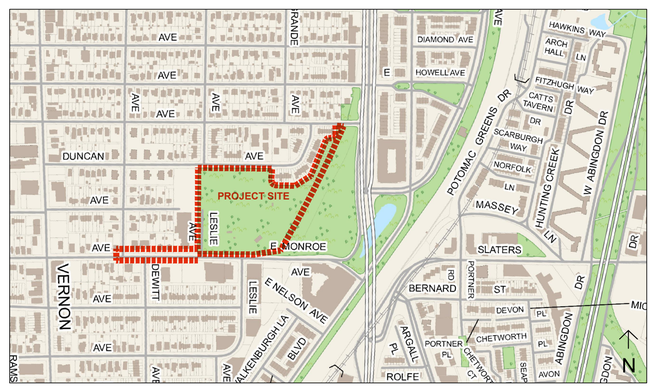
KOVACH DESIGN SOLUTIONS, LLC.
(IRRIGATION CONSULTANT)
1230 Shadowbrooke Drive, Dover, PA 17315
P 717.491.1806

60% CONSTRUCTION DOCUMENTS

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION

426 E MONROE AVE, ALEXANDRIA VA

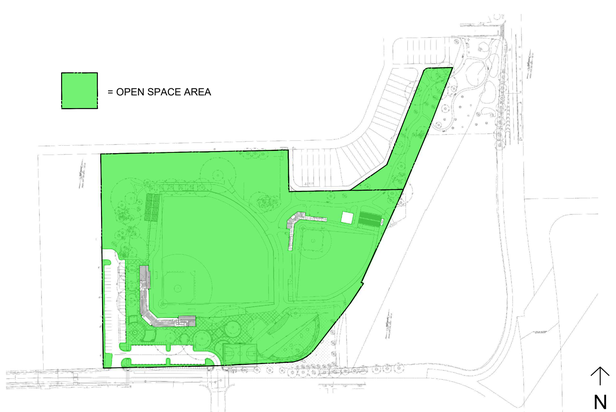


PROJECT AREA MAP

SCALE: 1" = 500'

VICINITY MAP

SCALE: 1" = 2000'



TOTAL SITE AREA: 435,636 SF
OPEN SPACE REQUIRED: N/A
OPEN SPACE PROVIDED: 389,315 SF (89.4%)

GROUND LEVEL OPEN SPACE: 389,315
ROOFTOP OPEN SPACE: 0 SF
TOTAL OPEN SPACE: 389,315 SF

PUBLIC OPEN SPACE: 389,315
PRIVATE OPEN SPACE: 0 SF
PRIVATE OPEN SPACE W/ PUBLIC ACCESS EASEMENT: 0 SF
TOTAL USABLE OPEN SPACE: 389,315 SF

OPEN SPACE DIAGRAM

SCALE: 1" = 200'

ZONING TABULATION

SIMPSON PARK - 426 E MONROE AVE, ALEXANDRIA, VA

ZONING:
PUBLIC OPEN SPACE (POS) - NO CHANGE IN ZONING REQUIRED OR REQUESTED
COORDINATED DEVELOPMENT DISTRICT #10 (CDD #10) - NO CHANGE IN ZONING REQUIRED OR REQUESTED

EXISTING USES ON SITE:
ACTIVELY USED AND MAINTAINED AS RECREATIONAL FACILITIES (BALL FIELDS), DOG PARK, PLAYGROUND AND SPORTS COURTS

PROPOSED USES ON SITE:
NO CHANGE OF USES

ZONING/ AREA TABULATIONS:
1. PARCEL ID: 044.01-01-17
2. TOTAL PARCEL AREA: 435,636 SF/ 10 ACRES (INCLUDING AREA OF KETTLE PARK WITHIN ROW)
3. LIMIT OF DISTURBANCE: 325,234 SF/ 7.47 ACRES
4. EXISTING IMPERVIOUS AREA: 88,427 SF/ 2.03 ACRES
5. PROPOSED IMPERVIOUS AREA: 195,149 SF/ 4.48 ACRES
6. EXISTING FLOOR AREA:
   - EX. STORAGE BUILDING (BIG SIMPSON) = 161 SF
   - EX. DUGOUT 1 (BIG SIMPSON) = 401 SF
   - EX DUGOUT 2 (BIG SIMPSON) = 413 SF
   - EX. BUILDING 1 (BIG SIMPSON) = 490 SF
   - EX. BUILDING 2 (BIG SIMPSON) = 129 SF
   - EX. RESTROOM BUILDING (BIG SIMPSON) = 1,406 SF
   - EX. DUGOUT 1 (LITTLE SIMPSON) = 225 SF
   - EX. DUGOUT 2 (LITTLE SIMPSON) = 226 SF
   - EX. STORAGE BUILDING (LITTLE SIMPSON) = 953 SF
   - TOTAL = 4,401 SF (1.01% OF TOTAL PARCEL AREA)
7. PROPOSED FLOOR AREA:
   - EXISTING RESTROOM AND STORAGE BUILDING (TO BE RETAINED) = 1,406 SF
   - PROPOSED CONCESSION BUILDING (BIG SIMPSON) = 347 SF (300 SF NET)
   - PROPOSED STORAGE BUILDING (BIG SIMPSON) = 751 SF (676 SF NET)
   - STORAGE OFF DUGOUT (BIG SIMPSON) = 133 SF (108 SF NET)
   - PROPOSED PRESS BOX (BIG SIMPSON) = 243 SF
   - PROPOSED DUGOUTS (BIG SIMPSON) = 633 SF (539 SF NET)
   - PROPOSED DUGOUTS (LITTLE SIMPSON) = 458 SF (390 SF NET)
   - EXISTING STORAGE BUILDING (LITTLE SIMPSON TO BE RETAINED) = 953 SF
   - PROPOSED PRESS BOX (LITTLE SIMPSON) = 97 SF
   - TOTAL = 5,021 SF (1.15% OF TOTAL PARCEL AREA)
8. FLOOR AREA RATIO: PERMITTED: N/A
   - EXISTING: 0.010 (4,401 SF)
   - PROPOSED: 0.012 (5,323 SF)
9. AVERAGE FINISHED GRADE AND HEIGHTS
   - EXISTING RESTROOM AND STORAGE BUILDING = 49.21' / 13' HT.
   - PROPOSED CONCESSION BUILDING (BIG SIMPSON) = TBD / 11.25' HT.
   - PROPOSED STORAGE BUILDING (BIG SIMPSON) = TBD / 11.25' HT.
   - PROPOSED PRESS BOX (BIG SIMPSON) = 25' HT.
   - EXISTING STORAGE BUILDING = 47.31' / 10' HT.
   - PROPOSED PRESS BOX (LITTLE SIMPSON) = 12'-8" HT.
   - PROPOSED SPORTS NETTING (BIG SIMPSON) = 30' HT.
   - PROPOSED SPORTS NETTING (LITTLE SIMPSON) = 30' HT.
   - PROPOSED SPORTS LIGHTING = 40' HT.
10. PARKING
    - EXISTING PARKING SPACES = 79 SPACES (2 ADA SPACES) [ABOVE GROUND]
    - PROPOSED PARKING SPACES = 97 SPACES (4 ADA SPACES) [ABOVE GROUND]
    - FRONT PROPERTY LINE ALONG MONROE (594')/EX. & PROP. PARKING ALONG MONROE (211') = 35.5%
    - *NO PARKING IS LOCATED WITHIN ANY REQUIRED SETBACKS*
11. TRIP GENERATION: NO CHANGE IN USE
    - EXISTING/PROPOSED AM/PM PEAK HOUR = 3 TRIPS
    - EXISTING/PROPOSED DAILY TRIPS = 22 VPD
    - (PER ITE TRIP GENERATION MANUAL, 11TH EDITION)

YARDS AND SETBACKS:
1. SIDE SETBACK: 20' REQUIRED FROM RESIDENTIAL PROPERTY (EX. AND PROP.)
   N/A FOR THIS PROJECT
2. REAR SETBACK:20' REQUIRED FROM RESIDENTIAL PROPERTY (EX. AND PROP.)
   DIMENSION FROM PROPERTY LINE TO PROPOSED BLEACHERS PROVIDED ON SHEET C-121
3. SPECIAL SETBACK: 30' REQUIRED FROM RESIDENTIAL PROPERTY (EX. AND PROP.)
   N/A FOR THIS PROJECT
4. LIGHTING FOR CONGREGATE RECREATIONAL FACILITIES: REQUIRED TO BE 35' FROM ANY ROW OR RESIDENTIAL PROPERTY.
   DIMENSION FROM ROW TO PROPOSED LIGHT POLE PROVIDED ON SHEET C-125.

TREE CANOPY CALCULATIONS
- TOTAL SITE DISTURBANCE AREA = 336,198 SF
- 25% CROWN COVER REQUIRED = 84,050 SF
- EXISTING CROWN COVER = 44,433 SF
- REMOVED CROWN COVER = 44,433 SF
- PRESERVED CROWN COVER = 0 SF
- PROPOSED CROWN COVER = 85,000 SF
- TOTAL CROWN COVER PROVIDED = 85,000 SF (25.3%)

SITE SOILS INFORMATION:
1. PARK AREA PRIMARILY SOIL TYPE - SANDY LOAM HYDROLOGIC, SOIL GROUP C
2. LIMITED AMOUNT OF 95-URBAN LAND FILL IN FORMER ROAD ALIGNMENT
3. ACTUAL SOIL COMPOSITION AND OTHER SUBSURFACE CONDITIONS ARE UNKNOWN AT THIS TIME.
4. STORMWATER MANAGEMENT COMPUTATIONS ASSUME SITE IS ALL HYDROLOGIC SOIL GROUP D

SITE CONTAMINANTS:
NO KNOWN SOIL CONTAMINANTS AT THIS TIME.

SOILS
THERE IS NO KNOWN MARINE CLAY FOUND ON SITE.

ENVIRONMENTAL
1. SITE IS OUTSIDE THE COMBINED SEWER AREA OF ALEXANDRIA.
2. THERE ARE NO RESOURCE PROTECTION AREAS (RPA) AS DEFINED IN ARTICLE XIII OF THE ZONING ORDINANCE.
3. THERE IS NO FEMA FLOODPLAIN ON THE SITE.

APPLICABLE DESIGN GUIDELINES:
1. CITY OF ALEXANDRIA LANDSCAPE GUIDELINES
2. CITY OF ALEXANDRIA PARK FACILITIES STANDARDS MANUAL
3. ALEXANDRIA ENVIRONMENTAL MANAGEMENT ORDINANCE

THIS PROJECT IS NOT A FEDERAL UNDERTAKING.

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
04-11-2023
LANDSCAPE ARCHITECT

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS
Lic. No. 46493
04-11-2023
PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
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PROFESSIONAL ENGINEER

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KNOW WHAT'S BELOW. CALL BEFORE YOU DIG. DIAL 811 IN VIRGINIA OR 1-800-552-7001

DEPARTMENT OF RECREATION. PARKS & CULTURAL ACTIVITIES
APPROVED X DATE: DIRECTOR
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES.
APPROVED X DATE: DIRECTOR
RECOMMENDED FOR APPROVAL X DATE: DEPUTY DIRECTOR OF OPERATIONS
RECOMMENDED FOR APPROVAL X DATE: DEPUTY DIRECTOR OF INFRASTRUCTURE & ENVIRONMENTAL QUALITY
RECOMMENDED FOR APPROVAL X DATE: DEPUTY DIRECTOR OF RIGHT-OF-WAY & DEVELOPMENT SERVICES
RECOMMENDED FOR APPROVAL X DATE: DEPUTY DIRECTOR OF TRANSPORTATION
DEPARTMENT OF PROJECT IMPLEMENTATION
APPROVED X DATE: DIRECTOR
RECOMMENDED FOR APPROVAL X DATE: DIVISION CHIEF

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

Gordon
PROGRAMMING AND PLANNING
CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
SURVEY AND MAPPING
SECURITY CONSULTING
4501 Daly Drive
Chantilly, VA 20151
Phone: 703-263-1900
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REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON
DES: B. CIPRIANO
DRW: P. MATHUR
CHK: B. CIPRIANO

SEAL:

COVER SHEET
EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: VERT:
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-G001.DWG
NCS: COVER SHEET
NUMBER: C-100
Gordon

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GENERAL NOTES

1. THE NATURAL SOILS OF THE SITE CONSIST OF GRIST MILL SANDY LOAM (HYDROLOGIC SOIL GROUP C). URBAN LAND AND URBAN LAND-GRIST MILL COMPLEX BASED ON THE "GENERALIZED ALEXANDRIA SOILS MAP". GRIST MILL SANDY LOAM CONSIST OF SANDY, SILTY AND CLAYEY SEDIMENTS OF THE COASTAL PLAIN THAT HAVE BEEN MIXED, GRADED AND COMPACTED DURING DEVELOPMENT AND CONSTRUCTION AND HAS FAIRLY WELL ESTABLISHED DRAINAGE. URBAN LAND CONSISTS ENTIRELY OF MAN-MADE SURFACES SUCH AS PAVEMENT CONCRETE OR ROOFTOP. URBAN LAND-GRIST MILL COMPLEX IS A MIXTURE OF IMPERVIOUS MAN-MADE MATERIALS THAT COMPRISE URBAN LAND AND THE DEVELOPMENT-DISTURBED GRIST MILL SOIL.
2. THE SITE IS LOCATED IN THE CAMERON RUN WATERSHED (HUC 0207-0010-0302), BASED ON THE CITY OF ALEXANDRIA WATERSHED MAP.
3. ALL PUBLIC AND PRIVATE EASEMENTS OR ALL KNOWN PUBLIC AND PRIVATE EASEMENTS, INCLUDING ALL UTILITY, EGRESS, AND CONSERVATION RESTRICTIONS ARE SHOWN. THE APPLICANT SHALL NOT CONSTRUCT ANY PERMANENT STRUCTURES OVER ANY EXISTING OR PROPOSED PUBLIC AND/OR PRIVATE EASEMENTS UNLESS OTHERWISE APPROVED BY THE PLANNING COMMISSION AND CITY OF ALEXANDRIA COUNCIL.
4. PLAT SUBJECT TO RESTRICTIONS OF RECORD.
5. ALL NEW CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF ALEXANDRIA AND TO THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (USBC).
6. THE DESIGN, CONSTRUCTION, FIELD PRACTICES AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH BY THE CITY OF ALEXANDRIA ZONING ORDINANCE AND DESIGN AND CONSTRUCTION STANDARDS MANUAL. FAILURE TO COMPLY WITH THE CODE, APPLICABLE MANUALS, AND PROVISIONS OF THE CONSTRUCTION AND ESCROW AGREEMENTS OR THE PERMITS SHALL BE DEEMED A VIOLATION.
7. PRIOR TO COMMENCING NEW WORK, THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING ADJACENT AREAS. IF CITY'S EXISTING PUBLIC INFRASTRUCTURE, INCLUDING BUT NOT LIMITED, TO STREETS, ALLEYWAYS, DRIVEWAY APRONS, SANITARY AND STORM SEWERS, STREET LIGHTING, TRAFFIC AND PEDESTRIAN SIGNALS, SIDEWALKS, CURB AND GUTTER, AND STORM WATER DROP INLET STRUCTURES ARE DAMAGED BY THE CONTRACTOR OR BY ACTIVITIES RELATING TO THE SITE CONSTRUCTION THEN THE APPLICANT SHALL REPAIR THE SAME TO THE SATISFACTION OF DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES). A PRE-CONSTRUCTION AND INSPECTION STAFF TO DOCUMENT EXISTING CONDITIONS PRIOR TO ANY LAND DISTURBING ACTIVITY.
8. ALL IMPROVEMENTS TO THE CITY'S RIGHT-OF-WAY SUCH AS CURB, GUTTER, SIDEWALK, AND DRIVEWAY APRONS, ETC., ARE DESIGNED PER THE CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS.
9. ALL STREET CUT AND PATCH WORK LOCATED IN PUBLIC RIGHT-OF-WAYS, REQUIRED FOR ANY UTILITY INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS AND TO THE SATISFACTION OF THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES).
10. PERMITS FROM THE CITY OF ALEXANDRIA OFFICE OF ENVIRONMENTAL QUALITY (OEQ), TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES), AND BUILDING AND FIRE CODE ADMINISTRATION SHALL BE OBTAINED BY THE CONTRACTOR, AS REQUIRED AND DOCUMENTED HEREIN. THE CONTRACTOR CAN CONTACT ALEXANDRIA FIRE AND CODE ADMINISTRATION DEPARTMENT AT (703) 746-4560 FOR ANY QUESTIONS OR ADDITIONAL INFORMATION.
11. THE CONTRACTOR SHALL OBTAIN ALL PERMITS, NOTICES, ETC. REQUIRED FOR BUILDING, GENERAL CONSTRUCTION, UTILITY, ELECTRICAL, AND ENGINEERING SYSTEMS AS REQUIRED. FEES ARE WAIVED. (CITY PROJECT)
12. ANY WORK IN THE PUBLIC RIGHT OF WAY SHALL REQUIRE A SEPARATE PERMIT FROM THE DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES. THE CONTRACTOR CAN CONTACT THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES AT (703) 746-4025 FOR ANY QUESTIONS OR ADDITIONAL INFORMATION.
13. THE PROPERTY ADDRESS MUST BE CLEARLY MARKED IN THE FRONT AND BACK OF THE PROPOSED DEVELOPMENT SITE DURING CONSTRUCTION FOR EMERGENCY RESPONSE PURPOSES IN CONTRASTING COLORS FOR EASY IDENTIFICATION.
14. THE APPLICANT SHALL CONTACT THE CRIME PREVENTION UNIT OF THE ALEXANDRIA POLICE DEPARTMENT AT (703) 746-4444 REGARDING SECURITY HARDWARE FOR NEW CONSTRUCTION. THIS SHALL BE COMPLETED PRIOR TO ISSUANCE OF BUILDING PERMIT.
15. PER THE REQUIREMENTS OF SECTION 8-1-12 OF THE CITY CHARTER AND CODE; WHEN THE BUILDING FOOTING HAS BEEN PLACED AND THE WALLS HAVE BEEN RAISED TO THE FIRST JOIST BEARING OR STORY HEIGHT ABOVE GRADE, A PLOT PLAN SHOWING THE EXACT LOCATION OF THE WALLS SHALL BE PREPARED BY A LICENSED, CERTIFIED PUBLIC LAND SURVEYOR OR PROFESSIONAL ENGINEER AND FILED WITH THE BUILDING OFFICIAL FOR APPROVAL BEFORE PROCEEDING FURTHER WITH THE CONSTRUCTION.
16. SUBMIT A SURVEY, CONSISTENT WITH THE REQUIREMENTS FOR CERTIFICATE OF OCCUPANCY CHECKLIST, TO THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES PRIOR TO REQUESTING AN INSPECTION FOR A CERTIFICATE OF OCCUPANCY.
17. ALL WATER FACILITY CONSTRUCTION SHALL CONFORM TO VIRGINIA AMERICAN WATER COMPANY STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL CONTACT VIRGINIA AMERICAN WATER COMPANY AT (703) 549-7080 TO COORDINATE CONSTRUCTION AND INSPECTION OF WATER FACILITIES.
18. THE SIDEWALKS SHALL REMAIN OPENED DURING CONSTRUCTION OR PEDESTRIAN ACCESS SHALL BE MAINTAINED TO THE SATISFACTION OF THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES THROUGHOUT THE CONSTRUCTION OF THE PROJECT.
19. A CERTIFICATE OF OCCUPANCY SHALL BE OBTAINED PRIOR TO ANY OCCUPANCY OF THE BUILDING OR PORTION THEREOF, IN ACCORDANCE WITH VIRGINIA USBC 115.0.
20. CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING TRUCKS AND/OR OTHER EQUIPMENT OF MUD PRIOR TO ENTERING THE RIGHT-OF-WAY, AND IT IS THE CONTRACTORS RESPONSIBILITY TO CLEAN STREETS OF MUD AND/OR ALLAY DUST AND TO TAKE WHATEVER MEASURES NECESSARY TO ENSURE THAT THE STREETS ARE KEPT IN A CLEAN AND DUST FREE CONDITION AT ALL TIMES.
21. ALL AREAS, ON OR OFF-SITE, WHICH ARE DISTURBED BY THIS CONSTRUCTION AND WHICH ARE NOT PROVED OR BUILT UPON, SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION. THE MINIMUM ACCEPTABLE STABILIZATION SHALL CONSIST OF PERMANENT GRASS, SEED MIXTURE TO BE AS RECOMMENDED BY THE CITY AGENT. ALL SLOPES 3:1 AND GREATER SHALL BE SODDED AND PEGGED OF OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY OF ALEXANDRIA.
22. THROUGHOUT PORTION OF WORK CONCERNED WITH DISTURBANCE OF EXISTING GRADE: IN THE EVENT THAT POSSIBLE UTILITY RUNS OR UTILITY INFRASTRUCTURE IS ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY HALT THE PROGRESS OF WORK AND NOTIFY THE CITY FOR INSTRUCTIONS PRIOR TO RESUMING OF WORK.
23. GEOTECHNICAL INVESTIGATION REPORT HAS BEEN PERFORMED AND WILL BE PROVIDED TO CONTRACTOR.
24. THE APPLICANT SHALL COMPLY WITH THE CHESAPEAKE BAY PRESERVATION ACT IN ACCORDANCE WITH ARTICLE XIII OF THE CITY'S ZONING ORDINANCE, WHICH INCLUDE THE REQUIREMENTS FOR STORMWATER POLLUTANT LOAD REDUCTIONS, TREATMENT OF WATER QUALITY VOLUME DEFAULT, AND STORMWATER QUALITY MANAGEMENT ACCORDING TO ALEXANDRIA SUPPLEMENT TO THE NORTHERN VIRGINIA BMP HANDBOOK.
25. THERE IS NO OBSERVABLE EVIDENCE OF CEMETERIES OR BURIAL GROUNDS ON THIS PROPERTY.
26. SOLID WASTE, RECYCLABLE MATERIAL PICKUP AND ANY OUTDOOR STORAGE OF SUCH MATERIALS SHALL BE HANDLED TO THE SATISFACTION OF THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES.
27. IF THESE NOTES AND THE CITY OF ALEXANDRIA DESIGN STANDARDS AND SPECIFICATIONS DO NOT COVER ANY DESIGN ASPECTS OF THE PROJECT THEN THE IMPROVEMENTS WILL BE DESIGNED PER THE STANDARDS AND SPECIFICATIONS OF VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT), VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCHB), AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), MANUAL OF TRAFFIC CONTROL DEVICES (MUTCD), VIRGINIA WORK AREA PROTECTION MANUAL (VWAPM), AND ANY OTHER STANDARDS APPROVED BY THE DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES).
28. THE CONTRACTOR SHALL EXAMINE THE JOBSITE AND DETERMINE FOR THEMSELVES PRIOR TO SUBMISSION OF BID, EXISTING CONDITIONS. SUBMISSION OF BID WILL BE TAKEN TO MEAN THAT THEY ARE FAMILIAR WITH THE SITE AND THE WORK INVOLVED AND THAT THEIR FINAL FIGURE REPRESENTS THE LOWEST FIXED SUM FOR WHICH THEY WOULD BE WILLING TO UNDERTAKE THE JOB.
29. THE CITY SHALL BE NOTIFIED WHERE DISCREPANCIES EXIST IN ORDER THAT THE DRAWINGS CAN BE REVISED PROMPTLY SO AS NOT TO HOLD UP THE PROGRESS OF THE WORK. FAILURE TO NOTIFY THE CITY COMPOUNDS MISUNDERSTANDING AND INCREASES CONSTRUCTION COSTS. FAILURE TO COOPERATE BY A SIMPLE NOTICE SHALL RELIEVE CITY OF ALEXANDRIA FROM RESPONSIBILITY FOR ALL CONSEQUENCES.
30. THE CONTRACT INCLUDES ANY WORK REQUIRED TO MAKE THE END RESULT BUILDING OPERATIVE AND OCCUPIABLE. IF EQUIPMENT, MATERIAL AND/OR METHOD ARE NOT DETAILED IN DRAWING OR SPECIFICATIONS, BUT ARE OBVIOUSLY REQUIRED AS INDUSTRY STANDARD FOR OPERATIVE PURPOSES, THE CITY WILL ACCEPT THE METHOD TO CAUSE AN OPERATIVE CONDITION AS INCLUDED IN BASE BID. IF THE CITY DOES NOT ACCEPT THE CONTRACTOR'S SELECTION, THE ADDITIONAL COST (TO THE CONTRACTOR) OF THAT EQUIPMENT OR MATERIALS CHOSEN BY THE CITY WILL BE OFFSET BY CHANGE ORDER.
31. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE MOST CURRENT APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS, INCLUDING BUT NOT LIMITED TO, ENVIRONMENTAL PROTECTION AGENCY (EPA), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), VIRGINIA OCCUPATIONAL AND SAFETY HEALTH COMPLIANCE PROGRAM (VOSH ENFORCEMENT), VIRGINIA OVERHEAD HIGH VOLTAGE LINE SAFETY ACT, NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS), AND NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH).
32. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK WITH REPRESENTATIVE UTILITY COMPANIES AND FOR THE IMPLEMENTATION OF REQUIRED UTILITY-RELATED WORK.

ARCHAEOLOGY NOTES

1. ALL REQUIRED ARCHAEOLOGICAL PRESERVATION MEASURES SHALL BE COMPLETED PRIOR TO GROUND-DISTURBING ACTIVITIES (SUCH AS CORING, GRADING, FILLING, VEGETATION REMOVAL, UNDERGROUNDING UTILITIES, PILE DRIVING LANDSCAPING AND OTHER EXCAVATION AS DEFINED IN SECTION 2-151 OF THE ZONING ORDINANCE) OR A RESOURCE MANAGEMENT PLAN MUST BE IN PLACE TO PRESERVE AND/OR RECOVER SIGNIFICANT RESOURCES IN CONCERT WITH CONSTRUCTION ACTIVITIES, TO CONFIRM, CALL ALEXANDRIA ARCHAEOLOGY AT (703) 746-4399.
2. CALL ALEXANDRIA ARCHAEOLOGY AT (703) 746-4399 TWO WEEKS BEFORE THE STARTING DATE OF ANY GROUND DISTURBANCE SO THAT AN INSPECTION OR MONITORING SCHEDULE FOR CITY ARCHAEOLOGISTS CAN BE ARRANGED.
3. THE APPLICANT SHALL CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703) 746-4399 IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIVIES, CISTERNS, ETC) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERED DURING DEVELOPMENT. WORK MUST CEASE IN THE AREA OF THE DISCOVERY UNTIL A CITY ARCHAEOLOGIST COMES TO THE SITE AND RECORDS THE FINDS.
4. THE APPLICANT SHALL NOT ALLOW ANY METAL DETECTION AND/OR ARTIFACT COLLECTION TO BE CONDUCTED ON THE PROPERTY, UNLESS AUTHORIZED BY ALEXANDRIA ARCHAEOLOGY. FAILURE TO COMPLY SHALL RESULT IN PROJECT DELAYS.

UTILITY WORK NOTES

1. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING MINIMUM STANDARDS DESCRIBED IN SECTION 4VAC50-30-40 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) AND ADDITIONAL APPLICABLE PRACTICES FOLLOWED BY THE CITY OF ALEXANDRIA.
2. ALL PRIVATE UTILITIES SHALL BE LOCATED OUTSIDE OF THE PUBLIC RIGHT-OF-WAY AND PUBLIC UTILITY EASEMENTS UNLESS THE UTILITY OWNERS HAVE FRANCHISE AGREEMENT WITH THE CITY OF ALEXANDRIA; HOWEVER, NO ELECTRIC TRANSFORMERS AND SWITCH GEARS / CONTROL BOXES SHALL BE PLACED IN THE PUBLIC RIGHT-OF-WAY.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN UTILITY SERVICES AT ALL TIMES DURING CONNECTION AND/OR CONSTRUCTION.
4. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
5. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
6. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
7. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ACCORDANCE WITH THE CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
8. SHOULD UTILITY CONSTRUCTION BE PERFORMED AFTER COMPLETING EARTHWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACHIEVING 98 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1551) COMPACTION IN ALL TRENCH BACKFILL.
9. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE VIRGINIA REGULATIONS 4VAC50-30 EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH).
10. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
11. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL CONTROL MEASURES AS NECESSARY TO PREVENT EROSION AND SEDIMENTATION, AS DETERMINED BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES, CITY OF ALEXANDRIA.
12. ALL UTILITIES SUCH AS ELECTRICAL LINES, COMMUNICATION CABLES, INCLUDING WATER AND SEWER, LATERALS ON PRIVATE PROPERTY IN THE CITY OF ALEXANDRIA SHALL BE PROVIDED WITH MINIMUM 3" WIDE 5 MIL OVERALL THICKNESS DETECTABLE UNDERGROUND WARNING TAPE (DUWT). THE DUWT SHALL BE INSTALLED AT DEPTHS OF 12" TO 18" FOR DUWT WIDTHS OF 3", AND 24" FOR WIDTHS OF 6" SO AS TO MAKE UNDERGROUND INSTALLATIONS EASY TO FIND USING A NON-FERROUS LOCATOR. THE DUWT SHALL BE WITH ALUMINUM BACKING OR SOLID ALUMINUM CORE LAMINATED WITH A PROTECTIVE CLEAR FILM ON BOTH SIDES, SEALING AND PROTECTING THE GRAPHICS FROM UNDERGROUND MOISTURE, ACIDS, ALKALIS, AND OTHER SOIL SUBSTANCES.

UTILITY OWNERSHIP NOTES

GAS: ALL GAS LINES SHOWN ON THIS PLAN ARE OWNED AND MAINTAINED BY WASHINGTON GAS COMPANY. CONTACT: KEN McCONKEY (703) 750-4756; ADDRESS: WASHINGTON GAS, 6801 INDUSTRIAL ROAD, SPRINGFIELD, VA 22151.

ELECTRIC: ALL ELECTRIC UTILITIES SHOWN ON THIS PLAN ARE OWNED AND MAINTAINED BY DOMINION ENERGY. ANY RELOCATION OF EXISTING POLES AND LINES WILL BE COORDINATED WITH DOMINION ENERGY. CONTACT: 1-866-366-4357: ADDRESS: DOMINION ENERGY, P.O. BOX 26666, RICHMOND, VA 23261.

WATER: ALL EXISTING WATER LINES AND FIRE HYDRANTS SHOWN ON THIS PLAN ARE OWNED AN MAINTAINED BY VIRGINIA AMERICAN WATER COMPANY (V.A.W.C.). EXISTING WATER SERVICES FROM METERS TO THE EXISTING BUILDING ARE OWNED AND MAINTAINED BY THE PROPERTY OWNER. PROPOSED WATER SERVICES FROM METERS TO THE PROPOSED BUILDING ARE OWNED AND MAINTAINED BY THE PROPERTY OWNER. CONTACT: NETWORK SUPERVISOR FOR THE SOUTHEAST REGION HAO (STEVEN) CHEN (703) 706-3889; ADDRESS: VIRGINIA AMERICAN WATER COMPANY, 2223 DUKE STREET, ALEXANDRIA, VA 22314.

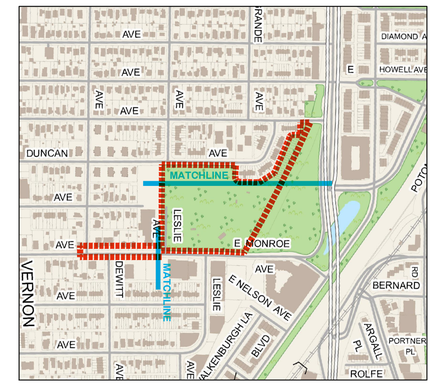
SANITARY SEWER: ALL EXISTING AND PROPOSED SANITARY SEWER MAINS SHOWN ON THIS PLAN ARE OWNED AND MAINTAINED BY THE CITY OF ALEXANDRIA. THE EXISTING AND PROPOSED SANITARY SEWERS/LATERALS LOCATED ON THE SUBJECT PROPERTY ARE OWNED AND MAINTAINED BY THE PROPERTY OWNER. CONTRACT: PUBLIC WORKS SERVICES, 2900 BUSINESS CENTER DRIVE, ALEXANDRIA, VA 22314. TELEPHONE: (703) 746-4357.

STORM SEWER: ALL EXISTING STORM SEWER LOCATED IN THE PUBLIC RIGHT-OF-WAY SHOWN ON THIS PLAN IS OWNED AND MAINTAINED BY THE CITY OF ALEXANDRIA. ALL EXISTING AND PROPOSED STORM SEWER LOCATED ON THE SUBJECT PROPERTY ARE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER. CONTACT: PUBLIC WORKS SERVICES, 2900 BUSINESS CENTER DRIVE, ALEXANDRIA, VA 22314. TELEPHONE: (703) 746-4357.

TELEPHONE: ALL TELEPHONE LINES ARE OWNED BY VERIZON. CONTACT SECTION MANAGER MIKE TYSINGER (804) 772-6625; ADDRESS: VERIZON VIRGINIA, INC., 3011 HUNGARY SPRING ROAD, 2ND FLOW, RICHMOND, VA 23228.

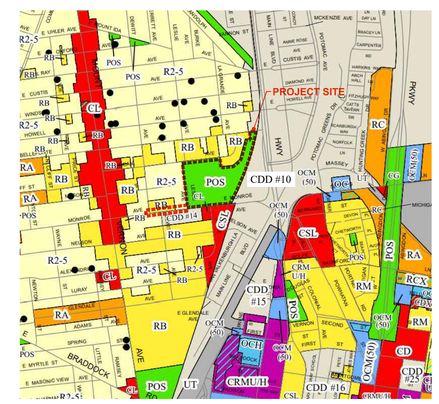
KEY PLAN

SCALE 1" = 500'



ZONING MAP

SCALE N.T.S.



APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED
INSTRUMENT NO: DEED BOOK NO. PAGE NO.

Gordon
PROGRAMMING AND PLANNING
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NUMBER	DATE	DESCRIPTION
REVISIONS		

SUR: GORDON
DES: B. CIPRIANO
DRW: P. MATHUR
CHK: B. CIPRIANO

SEAL:

GENERAL NOTES

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: VERT:
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-G001.DWG
NCS: GENERAL NOTES
NUMBER: C-101

Gordon

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STORM DRAINAGE AS-BUILTS

STRUCTURE NO.		ELEVATION	DESCRIPTION
EX. 1	TOP	42.93	STORM DRAINAGE MANHOLE
	INVER IN	28.93	21" RCP – FROM EX. 2
			UNDERGROUND STORM DETENTION BOX
EX. 2	TOP	43.43	STORM DRAINAGE MANHOLE
	INVERT IN	34.98	15" RCP – FROM EX. 3
	INVERT IN	35.07	21" RCP – FROM EX. 2A
	INVERT OUT	43.87	21" RCP – TO EX. 1
EX. 2A	TOP	42.89	STORM DRAINAGE CURB INLET
	INVERT OUT	35.74	21" RCP – TO EX. 2
EX. 3	TOP	41.62	STORM DRAINAGE CURB INLET
	INVERT OUT	36.42	15" RCP – TO EX. 2
EX, 4	TOP	43.17	STORM DRAINAGE CURB INLET
	INVERT IN	40.47	15" RCP – FROM EX. 5
			3' OF MUD IN THE BOTTOM OF STR.
			CAN NOT FIND OUTFALL PIPE IN THE STRUCTURE
EX. 5	TOP	46.96	STORM DRAINAGE MANHOLE
	INVERT IN	41.26	15" RCP – FROM EX. 5A
	INVERT IN	41.36	12" RCP – FROM EX. 6
	INVERT OUT	41.16	15" RCP – TO EX. 4
EX. 5A	TOP	46.19	STORM DRAINAG GRATE INLET
	INVER OUT	41.94	15" RCP – TO EX. 5
EX. 6	TOP	47.11	STORM DRAINAGE MANHOLE
	INVERT IN	41.68	12" RCP – FORM EX. 6A
	INVERT IN	41.61	12" RCP – FROM EX. 7
	INVERT OUT	41.51	12" RCP – TO EX. 5
EX. 6A	TOP	46.32	STORM DRAIANGE GRATE INLET
	INVERT OUT	41.97	12" RCP – TO EX. 6
EX. 7	TOP	47.22	STORM DRAINAGE GRATE INLET
	INVERT OUT	42.97	12" RCP – TO EX. 6
EX. 10	TOP	41.85	STORM DRAINAGE GRATE INLET
	INVERT IN	38.15	15" RPC – FROM EX. 11
	INVERT OUT		NO DIPS – TO NORTH EAST
EX. 11	TOP	42.86	STORM DRAINAGE GRATE INLET
	INVERT IN	41.41	6" PVC UNDERDRAIN
	INVERT IN	41.26	6" PVC UNDERDRAIN
	INVERT IN	38.62	15" RCP – FROM EX. 12
	INVERT OUT	38.45	15" RCP – TO NORTH
EX. 12	TOP	42.63	STORM DRAINAGE GRATE INLET
	INVER IN	41.13	6" PVC UNDERDRAIN
	INVER IN	38.85	18" RCP – FROM EX. 13
	INVER OUT	38.83	15" RCP – TO EX. 11
EX. 13	TOP	43.09	STORM DRAINAGE GRATE INLET
	INVERT IN	41.85	6" PVC UNDERDRAIN
	INVERT IN	41.83	6" PVC UNDERDRAIN
	INVERT IN	39.35	18" RCP – FROM EX. 14
	INVERT OUT	39.32	18" RCP – TO EX. 12
EX. 14	TOP	43.62	STORM DRAINAGE GRATE INLET
	INVERT IN	42.02	6" PVC UNDERDRAIN
	INVERT IN	41.92	6" PVC UNDERDRAIN
	INVERT IN	39.89	12" RCP – FROM ?
	INVERT IN	39.87	15" RCP – FROM EX. 15
	INVERT OUT	39.85	18" RCP – TO EX. 13
EX. 15	TOP	44.06	STORM DRAINAGE GRATE INLET
	INVERT IN	42.66	6" PVC UNDERDRAIN
	INVERT IN	42.61	6" PVC UNDERDRAIN
	INVERT IN	40.68	15" RCP – FROM EX. 15
	INVERT OUT	40.40	15" RCP – TO EX. 14
EX. 16	TOP	44.20	STORM DRAINAGE GRATE INLET
	INVERT IN	42.88	6" PVC UNDERDRAIN
	INVERT IN	42.76	6" PVC UNDERDRAIN
	INVERT IN	40.87	15" RCP – FROM EX. 17
	INVERT OUT	40.83	15" RCP – TO EX. 15
EX. 17	TOP	44.51	STORM DRAINAGE GRATE INLET
	INVERT IN	44.29	6" PVC UNDERDRAIN
	INVERT IN	43.13	6" PVC UNDERDRAIN
	INVERT IN	41.23	15" RCP – FROM EX. 18
	INVERT OUT	41.19	15" RCP – TO EX. 16
EX. 18	TOP	44.76	STORM DRAINAGE GRATE INLET
	INVERT IN	43.07	6" PVC UNDERDRAIN
	INVERT IN	42.99	6" PVC UNDERDRAIN
	INVERT IN	41.76	15" RCP – FROM EX. 19
	INVERT OUT	41.53	15" RCP – TO EX. 17
EX. 19	TOP	45.20	STORM DRAINAGE GRATE INLET
	INVERT IN	43.95	6" PVC UNDERDRAIN
	INVERT IN	43.39	6" PVC UNDERDRAIN
	INVERT IN	42.53	12" RCP – FROM EX. 20
	INVERT OUT	42.45	15" RCP – TO EX. 18
EX. 20	TOP	46.00	STORM DRAINAGE GRATE INLET
	INVERT IN	43.96	6" PVC UNDERDRAIN
	INVERT IN	43.76	6" PVC UNDERDRAIN
	INVERT IN	42.68	12" RCP – FROM EX. 21
	INVERT OUT	42.64	12" RCP – TO EX. 19
EX. 21	TOP	45.68	STORM DRAINAGE GRATE INLET
	INVERT IN	43.04	6" PVC UNDERDRAIN
	INVERT OUT	44.23	12" RCP – TO EX. 20
EX. 22	TOP	44.81	STORM DRAINAGE GRATE INLET
	INVERT OUT	42.11	10" PVC – TO WEST
			(CAN NOT FIND DOWNSTREAM STRUCTURE
			POSSIBLY UNDER PLAYGROUND MULCH)
EX. 23			STORM DRAINAGE
	INVERT		12" RCP – FROM EX. 24
			(CAN NOT FIND PIPE OUTFALL IN THE FILED)
EX. 24	TOP	45.89	STORM DRAINAGE GRATE INLET
	INVERT IN	44.09	8" PVC – FROM EX. 25
	INVERT OUT	43.89	12" RCP – TO EX. 23
EX. 25	TOP	45.51	STORM DRAINAGE GRATE INLET
	INVERT IN	44.21	10" PVC – FROM EX. 26
	INVERT OUT	44.21	8" PVC – TO EX. 24
EX. 26		46.08	STORM DRAINAGE CULVERT
	INVERT	44.78	10" PVC – TO EX. 25
EX. 27	TOP	40.45	STORM DRAIANGE MANHOLE
	INVERT IN	34.55	24" RCP – FROM WEST
	INVERT IN	34.15	24" RCP – FROM EX. 28
	INVERT OUT	33.65	30" RCP – TO NORTH
EX. 28	TOP	39.99	STORM DRAINAGE MANHOLE
	INVERT IN	35.84	24" RCP – FROM EX. 28A
	INVERT OUT	35.79	24" RCP – TO EX 27
EX. 28A	TOP	44.74	STORM DRAINAGE MANHOLE
	INVERT IN	39.29	24" RCP – FROM EX. 29
	INVERT OUT	39.24	24" RCP – TO EX. 28
EX. 29	TOP	48.71	STORM DRAINAGE MANHOLE
	INVERT IN	43.38	RCP – FROM EX. 29A
	INVERT OUT	42.61	RCP – TO EX. 28A
EX. 29A	TOP	47.83	STORM DRAINAGE STRUCTURE
	INVERT IN		12" RCP – FROM EX. 29B
	INVERT OUT		18" RCP – TO EX. 29
			(EX. 29 IS A CONCRETE STRUCTURE WITHOUT
			AN ACCESS LID – CAN NOT DIP STRUCTURE)
EX. 29B			STORM DRAINAGE CULVERT
	INVERT	44.16	12" RCP – TO EX. 29A

CURVE TABLE

CURVE	ARC LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHORD BEARING
C133	17.67'	15.00'	67°30'48"	10.03'	16.67'	N49°15'31"E
C134	80.95'	701.34'	6°36'49"	40.52'	80.91'	S28°34'26"W
C135	85.89'	94.14'	52°16'26"	46.19'	82.94'	S58°01'03"W
C136	18.78'	205.00'	5°14'52"	9.39'	18.77'	N18°30'05"E
C137	229.87'	2382.60'	5°31'40"	115.02'	229.78'	N13°06'47"E
C138	15.64'	205.00'	4°22'20"	7.83'	15.64'	N12°32'05"E
C139	176.96'	1378.00'	7°21'28"	88.60'	176.84'	S10°27'00"E
C140	74.59'	2918.50'	1°27'52"	37.30'	74.59'	S13°24'40"E
C141	117.39'	450.00'	14°56'48"	59.03'	117.06'	S05°12'20"E
C142	114.68'	220.00'	29°51'58"	58.67'	113.38'	S17°12'03"W
C143	85.88'	70.50'	69°47'40"	49.18'	80.67'	S67°01'52"W
C144	97.62'	340.00'	16°27'02"	49.15'	97.28'	N86°17'49"W

LINE TABLE

LINE	BEARING	DISTANCE
L45	S12°54'56"W	1.89'
L46	S71°46'04"E	6.19'
L47	S71°12'25"E	2.16'
L48	N14°43'12"E	16.48'

EXISTING CONDITIONS LEGEND

- HANDICAP PARKING SPACE
- FLAG POLE
- SIGN
- TREE
- BOLLARD
- WM – WATER METER
- WV – WATER VALVE
- FIRE HYDRANT
- WL MH – WATER MANHOLE
- SPRINKLER HEAD
- DRINKING FOUNTAIN
- IR – IRRIGATION VALVE
- SANITARY SEWER MANHOLE
- SA CO – SANITARY SEWER CLEANOUT
- STORM DRAINAGE MANHOLE
- STORM DRAINAGE CURB INLET
- STORM DRAINAGE GRATE INLET
- STORM DRAINAGE CULVERT
- POWER POLE
- GUY WIRE
- GUY POLE
- TR – ELECTRIC TRANSFORMER
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- ELECTRIC SWITCH BOX
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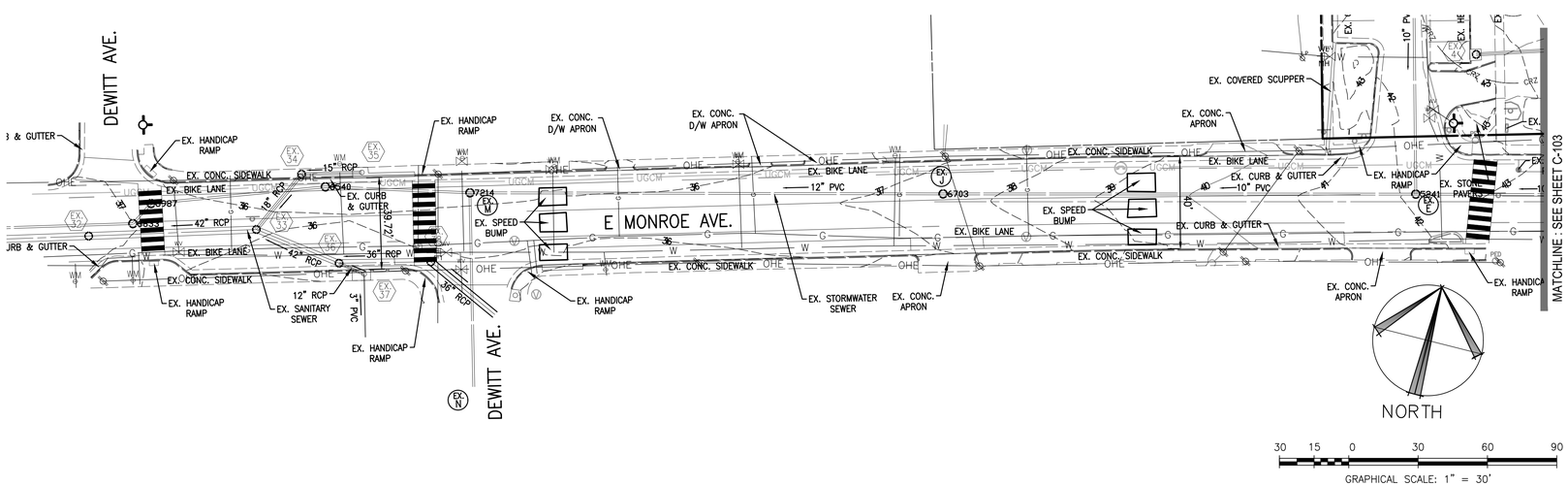
- E – ELECTRIC BOX
- COMMUNICATION MANHOLE
- GAS VALVE
- EOI – END OF INFORMATION
- PED – PEDESTRIAN SIGNAL POLE
- CROSSWALK
- UGE – DENOTES DESIGNATED UNDERGROUND ELECTRIC LINE
- UGCM – DENOTES DESIGNATED UNDERGROUND COMMUNICATION LINE
- W – DENOTES DESIGNATED UNDERGROUND WATERLINE
- G – DENOTES DESIGNATED UNDERGROUND GASLINE
- OHE – OVERHEAD WIRE
- CHAINLINK FENCE
- STORM SEWER PIPE
- SANITARY SEWER PIPE

AREA TABULATION:

MAP #044.01-01-17	407,064 SQ. FT. OR	9.34490 ACRES
MAP #044.01-08-01	179,653 SQ. FT. OR	4.12427 ACRES
RIVER TERRACE, LOTS 1 THROUGH 19	28,625 SQ. FT. OR	0.65714 ACRES
TOTAL AREA	615,342 SQ. FT. OR	14.12631 ACRES

NOTES:

1. THE PROPERTIES SHOWN HEREON ARE IDENTIFIED AS CITY OF ALEXANDRIA MAP NUMBERS 044.01-01-17, 044.01-08-01, 035.03-09-27, 035.03-09-26, 035.03-09-25, 035.03-09-24, 035.03-09-23, 035.03-09-23, 035.03-09-22, 035.03-09-21, 035.03-09-20, 035.03-09-19, 035.03-09-18, 035.03-09-17, 035.03-09-16, 035.03-09-15, 035.03-09-14, 035.03-09-13, 035.03-09-12, 035.03-09-11, 035.03-09-10 AND 035.03-09-09 AND ARE ZONED POS, AND CDD#10.
2. TOPOGRAPHIC SURVEY PREFORMED BY QUANTUM SPATIAL DATED NOVEMBER 3, 2021 AND SUPPLEMENTAL TOPOGRAPHIC SURVEY PREFORMED BY GORDON DATED JANUARY 11, 2022 AND OCTOBER 28, 2022.
3. HORIZONTAL DATUM: NAD 83.
4. VERTICAL DATUM: NAVD 88.



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SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

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REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON
DES: B. CIPRIANO
DRW: P. MATHUR
CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
02/17/23
STANLEY D. HEISER
Lic. No. 3709
LAND SURVEYOR
SEAL:

EXISTING CONDITIONS PLAN
EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: VERT:
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-EC101.DWG
NCS: EXISTING CONDITIONS PLAN
NUMBER: C-102
Gordon

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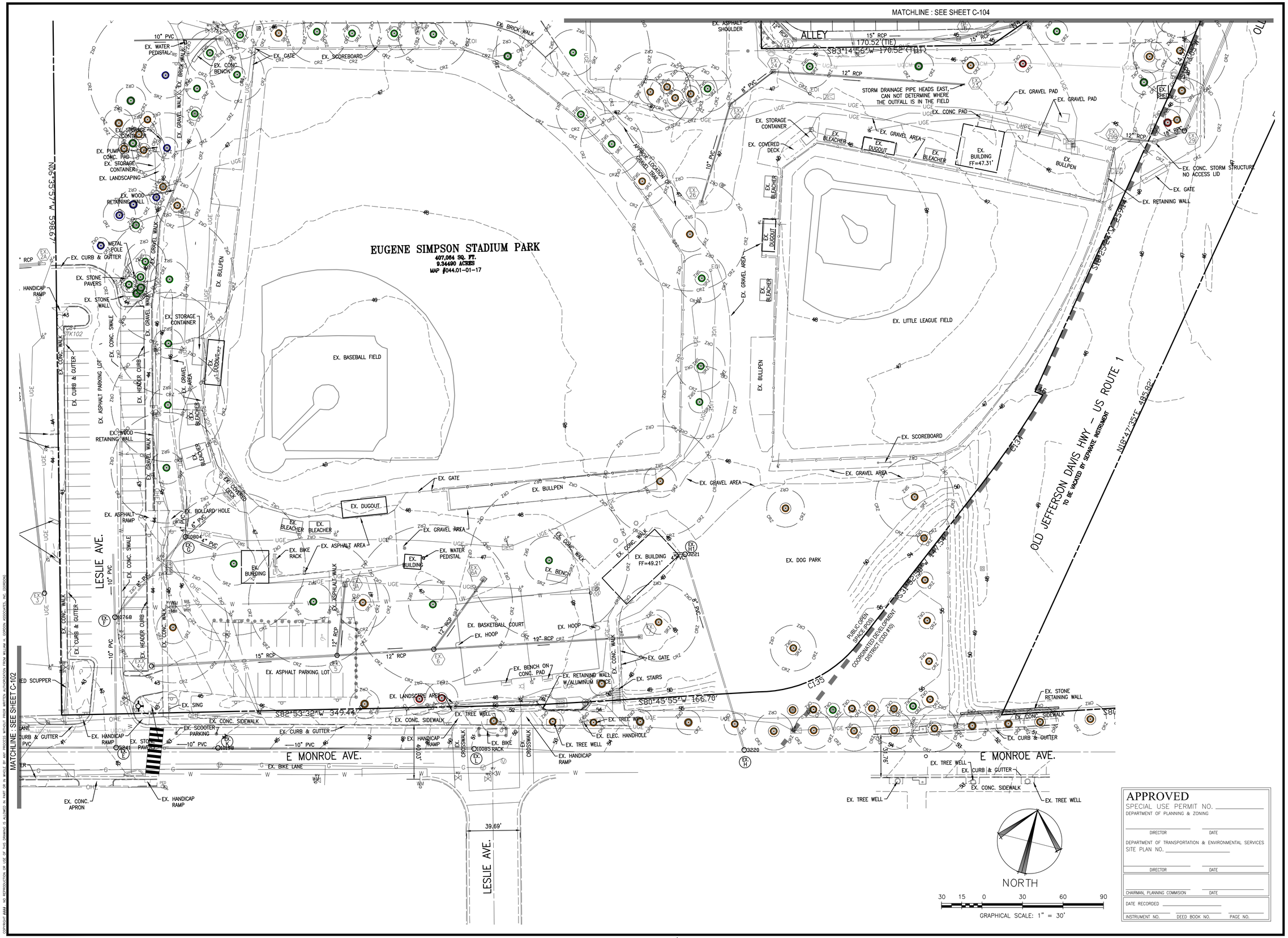
MATCHLINE : SEE SHEET C-104
EUGENE SIMPSON STADIUM PARK
407,064 SQ. FT.
9.34490 ACRES
MAP #044.01-01-17
EX. BASEBALL FIELD
EX. LITTLE LEAGUE FIELD
EX. DOG PARK
EX. BUILDING FF=47.31'
EX. BUILDING FF=49.21'
EX. BUILDING
EX. DUGOUT
EX. BLEACHER
EX. BULLPEN
EX. GRAVEL AREA
EX. GRAVEL PAD
EX. CONC PAD
EX. STORAGE CONTAINER
EX. COVERED DECK
EX. SCOREBOARD
EX. GATE
EX. BENCH
EX. HOOP
EX. BASKETBALL COURT
EX. ASPHALT PARKING LOT
EX. ASPHALT AREA
EX. ASPHALT RAMP
EX. BIKE RACK
EX. WATER PEDISTAL
EX. BOLLARD HOLE
EX. CONC. SIDEWALK
EX. CURB & GUTTER
EX. HANDICAP RAMP
EX. TREE WELL
EX. ELEC. HANDHOLE
EX. STAIRS
EX. RETAINING WALL
EX. BENCH ON CONC. PAD
EX. LANDSCAPE AREA
EX. SCOOTER PARKING
EX. BIKE LANE
EX. CONC. APRON
EX. CROSSWALK
EX. CONC. WALK
EX. GRAVEL WALK
EX. BRICK WALK
EX. CONC. SWALE
EX. HEADER CURB
EX. ASPHALT PARKING LOT
EX. WOOD RETAINING WALL
EX. STONE RETAINING WALL
EX. CONC. STORM STRUCTURE NO ACCESS LID
EX. STONE PAVERS
EX. STONE WALL
EX. LANDSCAPING
EX. PUMP CONC. PAD
EX. CONC. SIDEWALK
EX. CONC. & GUTTER
EX. HANDICAP RAMP
EX. CONC. APRON
EX. SING
EX. BIKE RACK
EX. BENCH
EX. HOOP
EX. TREE WELL
EX. GATE
EX. RETAINING WALL
EX. STONE RETAINING WALL
EX. CONC. SIDEWALK
EX. CURB & GUTTER
EX. TREE WELL
EX. CONC. SIDEWALK
EX. HANDICAP RAMP
EX. BIKE LANE
EX. CONC. SIDEWALK
EX. CURB & GUTTER
EX. TREE WELL
EX. TREE WELL
EX. TREE WELL
EX. TREE WELL
EX. HANDICAP RAMP
EX. HANDICAP RAMP
EX. HANDICAP RAMP
EX. CONC. SIDEWALK
EX. CURB & GUTTER
EX. TREE WELL
EX. TREE WELL
EX. TREE WELL
EX. TREE WELL

EXISTING CONDITIONS LEGEND

- HANDICAP PARKING SPACE
- FLAG POLE
- SIGN
- TREE
- BOLLARD
- WM – WATER METER
- WV – WATER VALVE
- FIRE HYDRANT
- WL MH – WATER MANHOLE
- SPRINKLER HEAD
- DRINKING FOUNTAIN
- IR – IRRIGATION VALVE
- SANITARY SEWER MANHOLE
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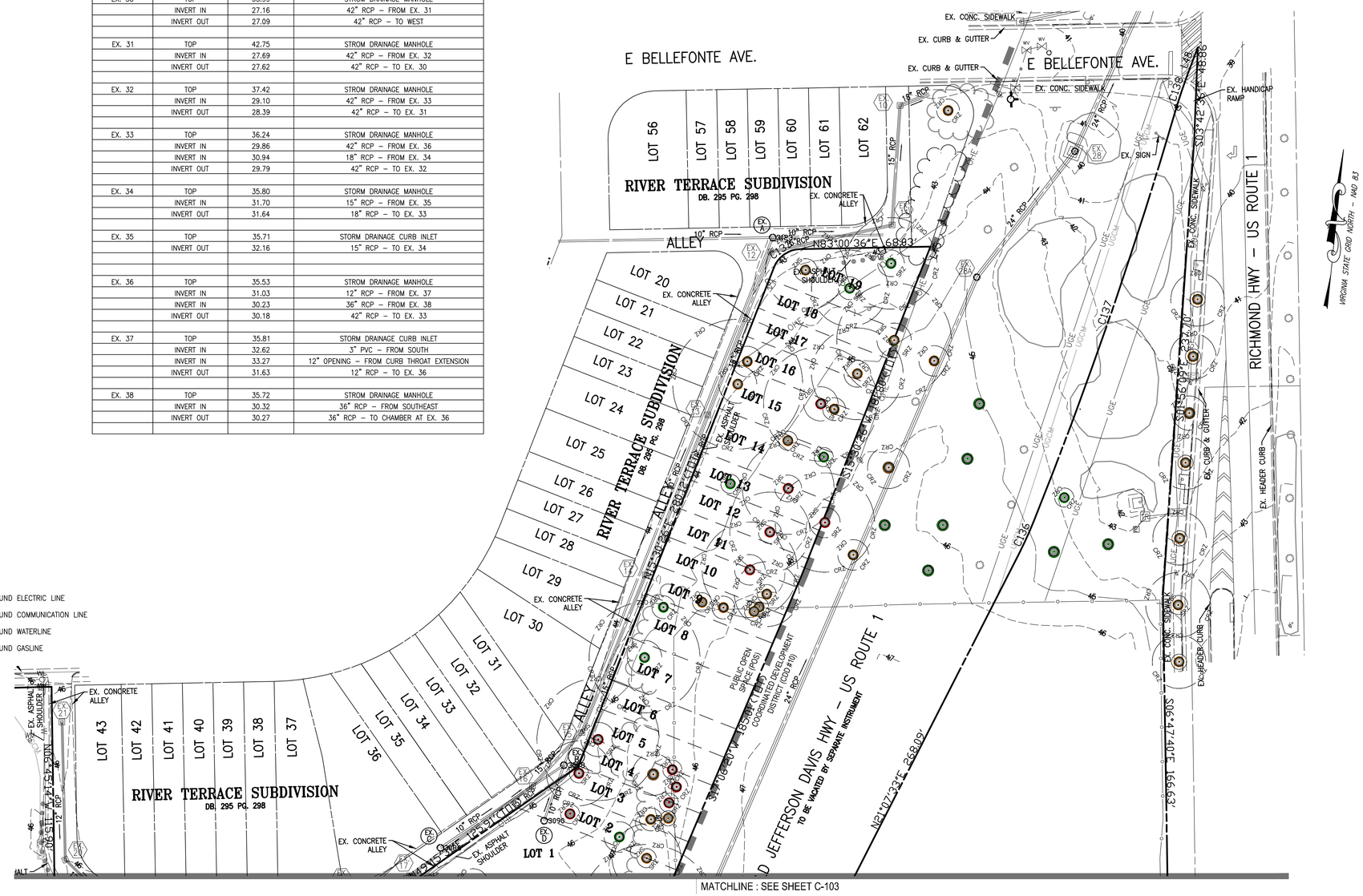
- OHE – OVERHEAD WIRE
- CHAINLINK FENCE
- STORM SEWER PIPE
- SANITARY SEWER PIPE

STORM DRAINAGE AS-BUILTS

STRUCTURE NO.		ELEVATION	DESCRIPTION
EX. 30	TOP	35.99	STROM DRAINAGE MANHOLE
	INVERT IN	27.16	42" RCP – FROM EX. 31
	INVERT OUT	27.09	42" RCP – TO WEST
EX. 31	TOP	42.75	STROM DRAINAGE MANHOLE
	INVERT IN	27.69	42" RCP – FROM EX. 32
	INVERT OUT	27.62	42" RCP – TO EX. 30
EX. 32	TOP	37.42	STROM DRAINAGE MANHOLE
	INVERT IN	29.10	42" RCP – FROM EX. 33
	INVERT OUT	28.39	42" RCP – TO EX. 31
EX. 33	TOP	36.24	STROM DRAINAGE MANHOLE
	INVERT IN	29.86	42" RCP – FROM EX. 36
	INVERT IN	30.94	18" RCP – FROM EX. 34
	INVERT OUT	29.79	42" RCP – TO EX. 32
EX. 34	TOP	35.80	STORM DRAINAGE MANHOLE
	INVERT IN	31.70	15" RCP – FROM EX. 35
	INVERT OUT	31.64	18" RCP – TO EX. 33
EX. 35	TOP	35.71	STORM DRAINAGE CURB INLET
	INVERT OUT	32.16	15" RCP – TO EX. 34
EX. 36	TOP	35.53	STROM DRAINAGE MANHOLE
	INVERT IN	31.03	12" RCP – FROM EX. 37
	INVERT IN	30.23	36" RCP – FROM EX. 38
	INVERT OUT	30.18	42" RCP – TO EX. 33
EX. 37	TOP	35.81	STORM DRAINAGE CURB INLET
	INVERT IN	32.62	3" PVC – FROM SOUTH
	INVERT IN	33.27	12" OPENING – FROM CURB THROAT EXTENSION
	INVERT OUT	31.63	12" RCP – TO EX. 36
EX. 38	TOP	35.72	STROM DRAINAGE MANHOLE
	INVERT IN	30.32	36" RCP – FROM SOUTHEAST
	INVERT OUT	30.27	36" RCP – TO CHAMBER AT EX. 36



MATCHLINE : SEE SHEET C-103

CURVE TABLE

CURVE	ARC LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHORD BEARING
C133	17.67'	15.00'	67°30'48"	10.03'	16.67'	N49°15'31"E
C134	80.95'	701.34'	6°36'49"	40.52'	80.91'	S28°34'26"W
C135	85.89'	94.14'	52°16'26"	46.19'	82.94'	S58°01'03"W
C136	18.78'	205.00'	5°14'52"	9.39'	18.77'	N18°30'05"E
C137	229.87'	2382.60'	5°31'40"	115.02'	229.78'	N13°06'47"E
C138	15.64'	205.00'	4°22'20"	7.83'	15.64'	N12°32'05"E
C139	176.96'	1378.00'	7°21'28"	88.60'	176.84'	S10°27'00"E
C140	74.59'	2918.50'	1°27'52"	37.30'	74.59'	S13°24'40"E
C141	117.39'	450.00'	14°56'48"	59.03'	117.06'	S05°12'20"E
C142	114.68'	220.00'	29°51'58"	58.67'	113.38'	S17°12'03"W
C143	85.88'	70.50'	69°47'40"	49.18'	80.67'	S67°01'52"W
C144	97.62'	340.00'	16°27'02"	49.15'	97.28'	N86°17'49"W

LINE TABLE

LINE	BEARING	DISTANCE
L45	S12°54'56"W	1.89'
L46	S71°46'04"E	6.19'
L47	S71°12'25"E	2.16'
L48	N14°43'12"E	16.48'

NOTES:

1. THE PROPERTIES SHOWN HEREON ARE IDENTIFIED AS CITY OF ALEXANDRIA MAP NUMBERS 044.01–01–17, 035.03–09–27 (LOT 1), 035.03–09–26 (LOT 2), 035.03–09–25 (LOT 3), 035.03–09–24 (LOT 4), 035.03–09–23 (LOT 5), 035.03–09–22 (LOT 6), 035.03–09–21 (LOT 7), 035.03–09–20 (LOT 8), 035.03–09–19 (LOT 9), 035.03–09–18 (LOT 10), 035.03–09–17 (LOT 11), 035.03–09–16 (LOT 12), 035.03–09–15 (LOT 13), 035.03–09–14 (LOT 14), 035.03–09–13 (LOT 15), 035.03–09–12 (LOT 16), 035.03–09–11 (LOT 17), 035.03–09–10 (LOT 18) AND 035.03–09–09 (LOT 19) AND ARE ZONED POS.
2. THE PROPERTIES ARE NOW IN THE NAME OF CITY OF ALEXANDRIA AS RECORDED BY DEED BOOK 115 AT PAGE 376, AND DEED BOOK 161 AT PAGE 279 (EUGENE SIMPSON STADIUM PARK), DEED BOOK 731 AT PAGE 756 (LOT 1), DEED BOOK 737 AT PAGE 107 (LOT 2), DEED BOOK 734 AT PAGE 577 (LOT 3), DEED BOOK 733 AT PAGE 725 (LOT 4), DEED BOOK 735 AT PAGE 640 (LOT 5), DEED BOOK 738 AT PAGE 242 (LOT 6), DEED BOOK 733 AT PAGE 599 (LOT 7), DEED BOOK 734 AT PAGE 452 (LOT 8), DEED BOOK 735 AT PAGE 444 (LOT 9), DEED BOOK 734 AT PAGE 163 (LOT 10), DEED BOOK 731 AT PAGE 664 (LOT 11), DEED BOOK 734 AT PAGE 351 (LOT 12), DEED BOOK 734 AT PAGE 507 (LOT 13), DEED BOOK 736 AT PAGE 581 (LOT 14), DEED BOOK 733 AT PAGE 396 (LOT 15), DEED BOOK 731 AT PAGE 758 (LOT 16), DEED BOOK 732 AT PAGE 701 (LOT 17), DEED BOOK 732 AT PAGE 766 (LOT 18), DEED BOOK 733 AT PAGE 534 (LOT 19), ALL AMONG THE LAND RECORDS OF THE CITY OF ALEXANDRIA.
3. CURRENT TITLE REPORT NOT FURNISHED, THEREFORE ALL UNDERLYING EASEMENTS MAY NOT BE SHOWN HEREON.
4. PLAT IS SUBJECT TO RESTRICTIONS OF RECORD.

NORTH

30 15 0 30 60 90

GRAPHICAL SCALE: 1" = 30'

APPROVED
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DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
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DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED _____
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REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON
DES: B. CIPRIANO
DRW: P. MATHUR
CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
04-11-2023
STANLEY D. HEISER
Lic. No. 2109
LAND SURVEYOR
SEAL:

EXISTING CONDITIONS PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

HORIZ:
SCALE: VERT:
DATE: MARCH 2023
PLAN:
JOB: 3395–0301
CADD: 3395–0301–L–EC101.DWG
NCS: EX CONDITIONS (2)
NUMBER: C–104

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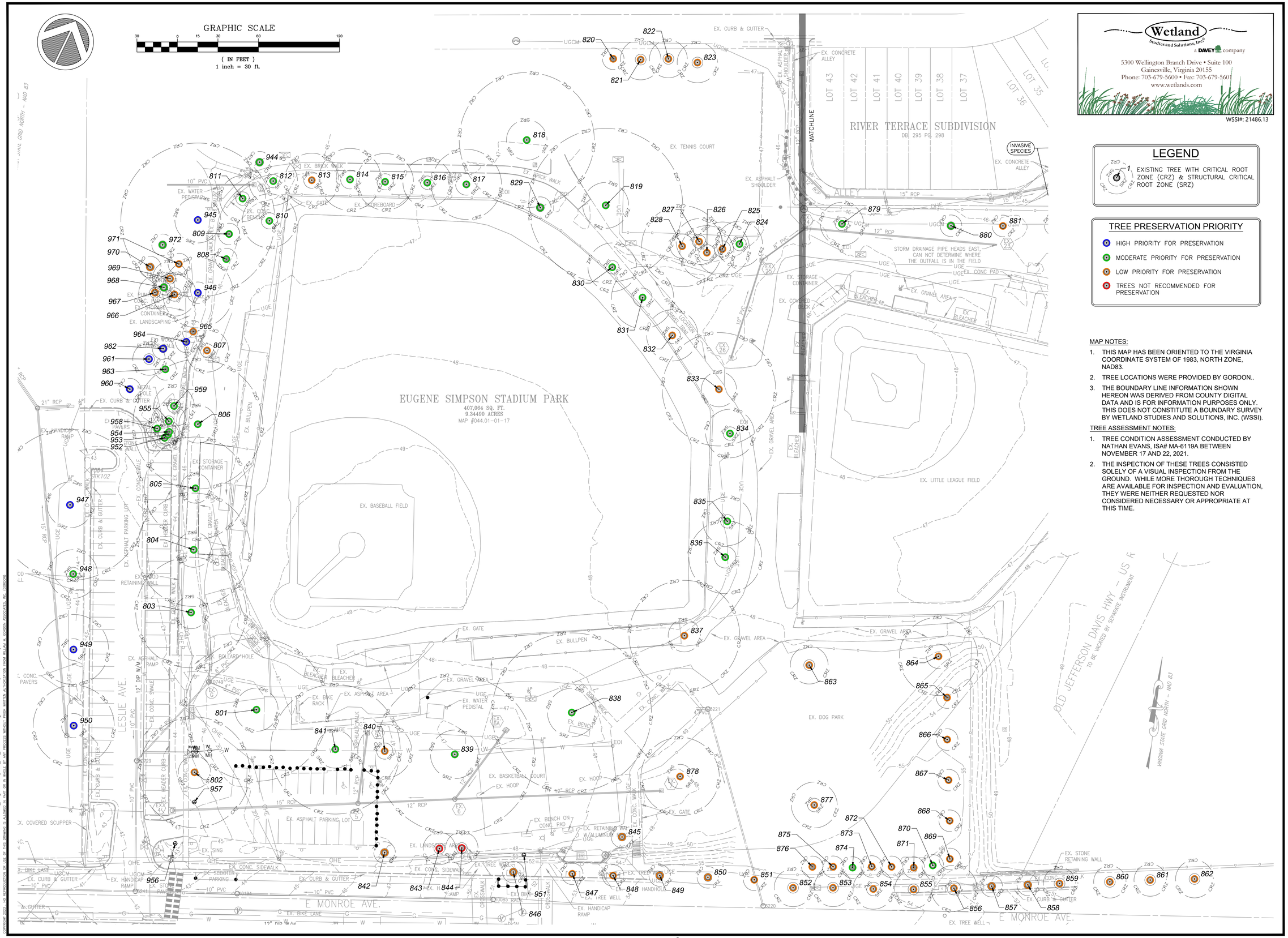

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Gainesville, Virginia 20155
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www.wetlands.com

WSSI#: 21486.13

LEGEND

1 EXISTING TREE WITH CRITICAL ROOT ZONE (CRZ) & STRUCTURAL CRITICAL ROOT ZONE (SRZ)

TREE PRESERVATION PRIORITY

- HIGH PRIORITY FOR PRESERVATION
- MODERATE PRIORITY FOR PRESERVATION
- LOW PRIORITY FOR PRESERVATION
- TREES NOT RECOMMENDED FOR PRESERVATION

MAP NOTES:

1. THIS MAP HAS BEEN ORIENTED TO THE VIRGINIA COORDINATE SYSTEM OF 1983, NORTH ZONE, NAD83.
2. TREE LOCATIONS WERE PROVIDED BY GORDON..
3. THE BOUNDARY LINE INFORMATION SHOWN HEREON WAS DERIVED FROM COUNTY DIGITAL DATA AND IS FOR INFORMATION PURPOSES ONLY. THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY BY WETLAND STUDIES AND SOLUTIONS, INC. (WSSI).

TREE ASSESSMENT NOTES:

1. TREE CONDITION ASSESSMENT CONDUCTED BY NATHAN EVANS, ISA# MA-6119A BETWEEN NOVEMBER 17 AND 22, 2021.
2. THE INSPECTION OF THESE TREES CONSISTED SOLELY OF A VISUAL INSPECTION FROM THE GROUND. WHILE MORE THOROUGH TECHNIQUES ARE AVAILABLE FOR INSPECTION AND EVALUATION, THEY WERE NEITHER REQUESTED NOR CONSIDERED NECESSARY OR APPROPRIATE AT THIS TIME.

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NUMBER	DATE	DESCRIPTION
REVISIONS		

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DES: CH
DRW: NE
CHK: CH

INTERNATIONAL SOCIETY OF ARBORICULTURE
CARY HULSE
ISA# PD-1080A
CERTIFIED ARBORIST

SEAL:

TREE INVENTORY PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION

City of Alexandria, Virginia

SCALE: HORIZ: 1" = 30'
VERT:
DATE: MARCH 10, 2023
PLAN:
JOB: 3395-0301
CADD: 21486.13_Eugene Simpson_TP_2023.03.09.dwg
NCS:
NUMBER: C-105

Gordon

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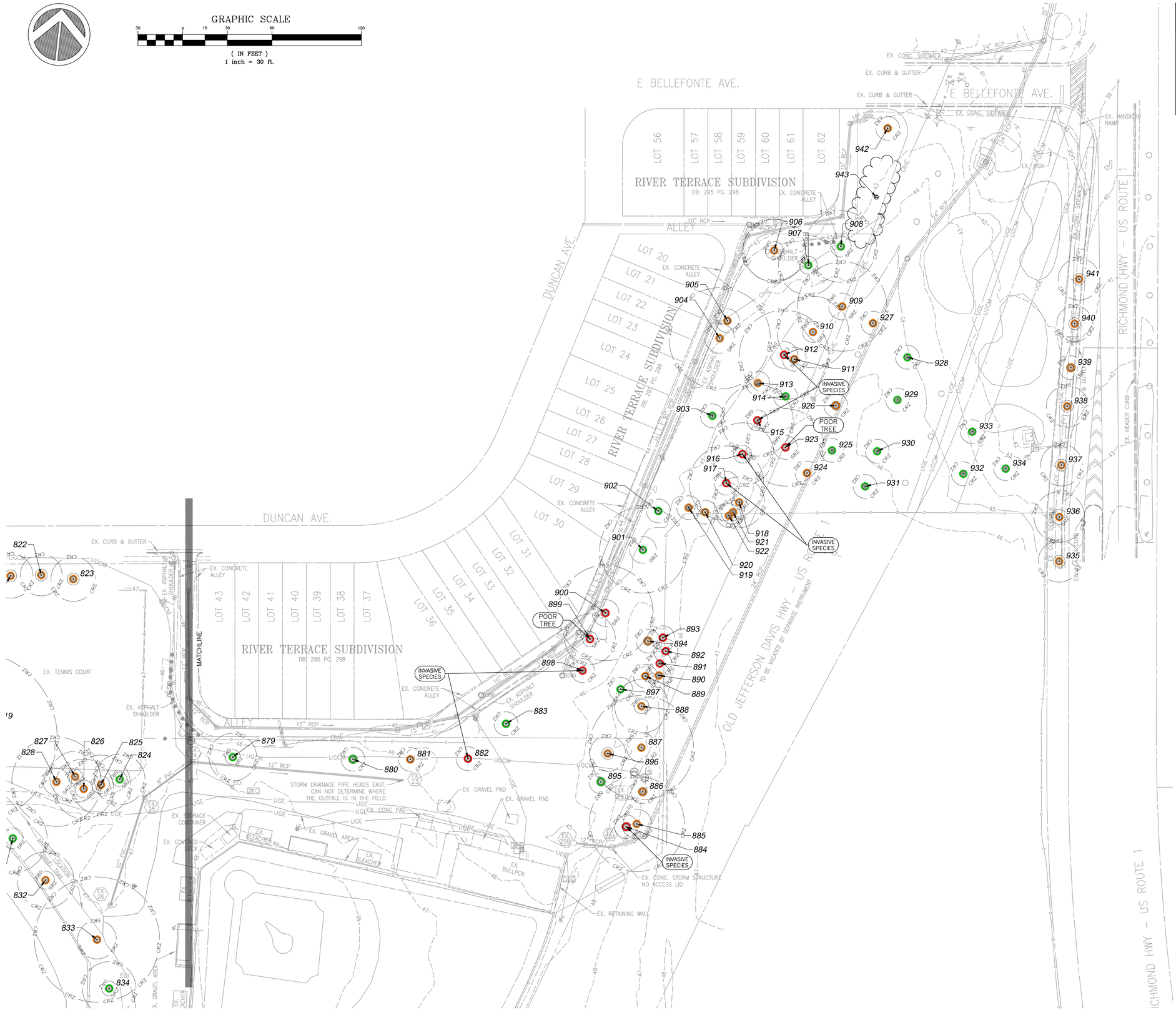
GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



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Gainesville, Virginia 20155
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www.wetlands.com

WSSI#: 21486.13

LEGEND

1 EXISTING TREE WITH CRITICAL ROOT ZONE (CRZ) & STRUCTURAL CRITICAL ROOT ZONE (SRZ)

TREE PRESERVATION PRIORITY

- HIGH PRIORITY FOR PRESERVATION
- MODERATE PRIORITY FOR PRESERVATION
- LOW PRIORITY FOR PRESERVATION
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DRW: NE	CHK: CH

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CARY HULSE
ISA# PD-1080A
CERTIFIED ARBORIST

SEAL:

TREE INVENTORY PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION

City of Alexandria, Virginia

SCALE: HORIZ:	1" = 30'
SCALE: VERT:	
DATE:	MARCH 10, 2023
PLAN:	
JOB:	3395-0301
CADD:	21486.13_Eugene Simpson_TP_2023.03.09.dwg
NCS:	
NUMBER:	C-106

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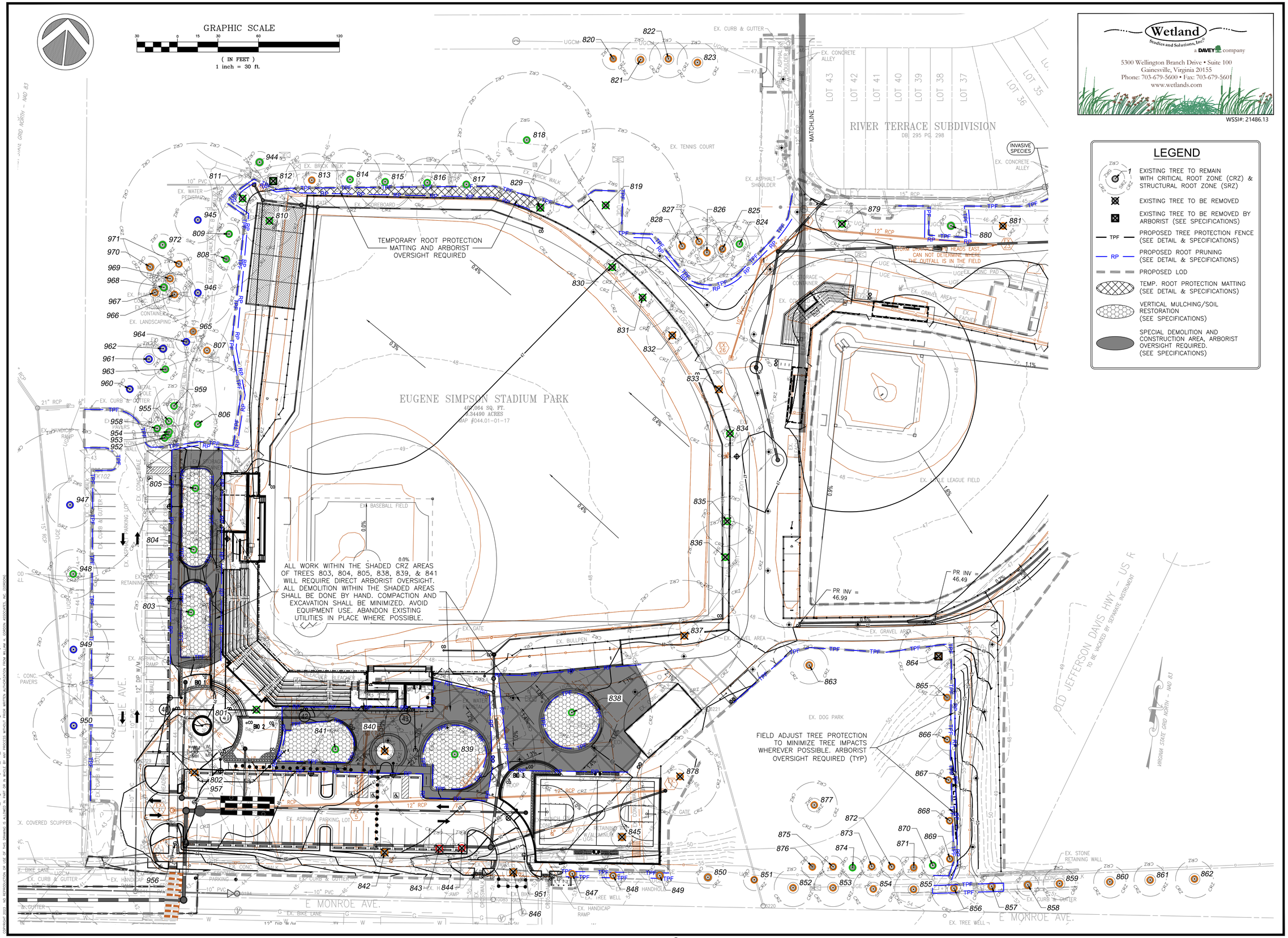

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LEGEND

- EXISTING TREE TO REMAIN WITH CRITICAL ROOT ZONE (CRZ) & STRUCTURAL ROOT ZONE (SRZ)
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO BE REMOVED BY ARBORIST (SEE SPECIFICATIONS)
- TPF — PROPOSED TREE PROTECTION FENCE (SEE DETAIL & SPECIFICATIONS)
- RP — PROPOSED ROOT PRUNING (SEE DETAIL & SPECIFICATIONS)
- PROPOSED LOD
- TEMP. ROOT PROTECTION MATTING (SEE DETAIL & SPECIFICATIONS)
- VERTICAL MULCHING/SOIL RESTORATION (SEE SPECIFICATIONS)
- SPECIAL DEMOLITION AND CONSTRUCTION AREA, ARBORIST OVERSIGHT REQUIRED. (SEE SPECIFICATIONS)

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NUMBER	DATE	DESCRIPTION
REVISIONS		

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DRW: NE	CHK: CH

INTERNATIONAL SOCIETY OF ARBORICULTURE
CARY HULSE
ISA# PD-1080A
CERTIFIED ARBORIST

SEAL:

TREE PRESERVATION PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION

City of Alexandria, Virginia

SCALE:	HORIZ: 1" = 30' VERT:
DATE:	MARCH 10, 2023
PLAN:	
JOB:	3395-0301
CADD:	21486.13_Eugene Simpson_TP_2023.03.09.dwg
NCS:	
NUMBER:	C-107

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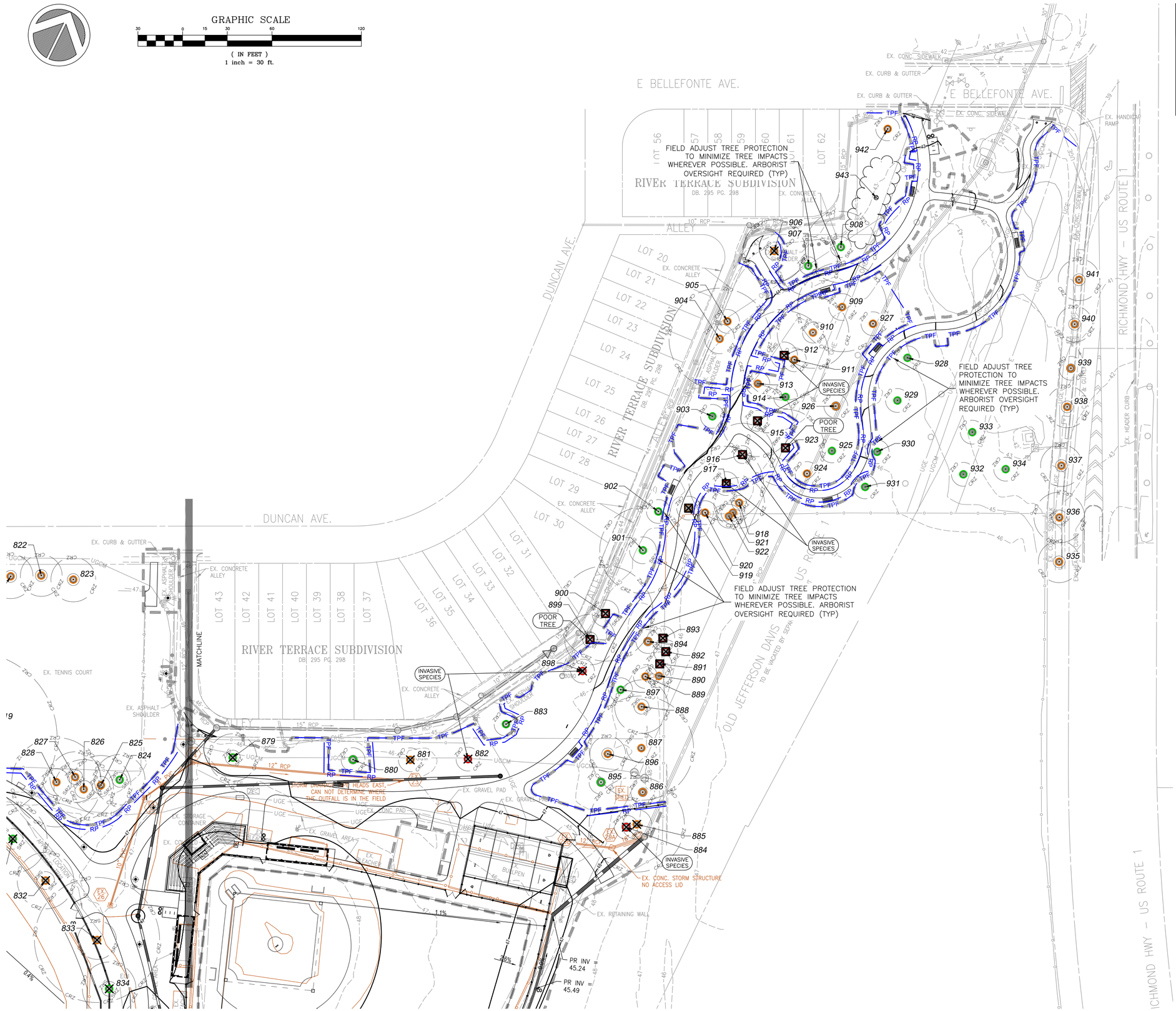
GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



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Gainesville, Virginia 20155
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WSSI#: 21486.13

LEGEND

- EXISTING TREE TO REMAIN WITH CRITICAL ROOT ZONE (CRZ) & STRUCTURAL ROOT ZONE (SRZ)
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO BE REMOVED BY ARBORIST (SEE SPECIFICATIONS)
- TPF — PROPOSED TREE PROTECTION FENCE (SEE DETAIL & SPECIFICATIONS)
- RP — PROPOSED ROOT PRUNING (SEE DETAIL & SPECIFICATIONS)
- PROPOSED LOD
- TEMP. ROOT PROTECTION MATTING (SEE DETAIL & SPECIFICATIONS)
- VERTICAL MULCHING/SOIL RESTORATION (SEE SPECIFICATIONS)
- SPECIAL DEMOLITION AND CONSTRUCTION AREA, ARBORIST OVERSIGHT REQUIRED. (SEE SPECIFICATIONS)

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REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: CH
DRW: NE	CHK: CH

INTERNATIONAL SOCIETY OF ARBORICULTURE
CARY HULSE
ISA# PD-1080A
CERTIFIED ARBORIST

SEAL:

TREE PRESERVATION PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION

City of Alexandria, Virginia

SCALE:	HORIZ: 1" = 30' VERT:
DATE:	MARCH 10, 2023
PLAN:	
JOB:	3395-0301
CADD:	21486.13_Eugene Simpson_TP_2023.03.09.dwg
NCS:	
NUMBER:	C-108

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L:\21000s\21400\21486.13\CADD\05-ENVR\21486.13_Eugene Simpson_TP_2023.03.09.dwg 108 Plotted By: Hulse, Cary, 3/10/2023 8:18 AM
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WSSI#: 21486.13

Date: MARCH 2023

Tree Protection Action Key (TPAK)

Project: EUGENE SIMPSON PARK

Tree #	DBH (Diameter at 4.5 feet above grade)	Common Name	Botanical Name	Condition Rating %	Condition Rating	Dead Tree (Y/N)	SRZ Structural Critical Root Zone (radius) in Feet	CRZ Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)	Priority (1-4)	Removal	Removal By Arborist	Preservation Measures: Root Prune	Tree Protection Fence	Mulch	Vertical Mulching	Tree Growth Regulator	Tree Condition Inspections	Borer Preventative Treatment	Temp Root Protection Mat	Trunk Protection Wrap	Construction Oversight/Monitoring	Special Demolition & Construction Techniques	Comments	Additional Notes	Condition Notes
801	35	oak, willow	Quercus phellos	65%	Good	NO	16	53	2	X														adj to building and asphalt	Compacted Soils
802	27	oak, pin	Quercus palustris	60%	Fair	NO	12	41	3	X														adj to sidewalk. Mower damage on roots.	Surface Roots, Root Damage/Decay, Trunk Decay
803	27	oak, pin	Quercus palustris	65%	Good	NO	12	41	2			X	X	X	X	X	X	X		X	X	X		adj to asphalt. Mower damage on roots.	Surface Roots, Root Damage/Decay, Basal Decay, Small DW (1-2")
804	28	oak, pin	Quercus palustris	65%	Good	NO	13	42	2			X	X	X	X	X	X	X		X	X	X		adj to asphalt and gravel path. Mower damage on roots.	Compacted Soils, Surface Roots, Root Damage/Decay
805	25	oak, pin	Quercus palustris	65%	Good	NO	11	38	2			X	X	X	X	X	X	X		X	X	X		adj to gravel path. Mower damage on roots. pruning wounds mostly closed	Compacted Soils, Root Damage/Decay, Mechanical Damage
806	32	oak, pin	Quercus palustris	70%	Good	NO	14	48	2			X	X	X			X				X			pruning wounds mostly closed. limited growing area on parking lot side ~10' from trunk to wooden retainer and gravel path	Mechanical Damage
807	6,6,6	oak, English	Quercus robur	45%	Fair	NO	5	16	3				X											columnar english oak. Q. robur 'Fastigata' small leaves multiple trunks growing close together and upward	Co-Dominant Stems, Stressed
808	3	redbud, eastern	Cercis canadensis	70%	Good	NO	1	8	2				X											starting to outgrow trunk protection	Hardware
809	5	magnolia, sweetbay	Magnolia virginiana	65%	Good	NO	2	8	2				X											minor damage at base	Mechanical Damage
810	13	baldcypress, common	Taxodium distichum	70%	Good	NO	6	20	2	X														minor mower damae at base	Mechanical Damage
811	11	oak, white	Quercus alba	70%	Good	NO	5	17	2	X															
812	12	baldcypress, common	Taxodium distichum	65%	Good	NO	5	18	2		X													adj to path	
813	13	baldcypress, common	Taxodium distichum	55%	Fair	NO	6	20	3			X	X	X			X	X	X		X			adj to path. damage at base	Mechanical Damage
814	15	baldcypress, common	Taxodium distichum	70%	Good	NO	7	23	2			X	X	X			X	X	X		X			adj to path	
815	14	baldcypress, common	Taxodium distichum	70%	Good	NO	6	21	2			X	X	X			X	X	X		X			adj to path	
816	12	baldcypress, common	Taxodium distichum	70%	Good	NO	5	18	2			X	X	X			X	X	X		X			adj to path	
817	17	baldcypress, common	Taxodium distichum	70%	Good	NO	8	26	2			X	X	X			X	X	X		X			adj to path	
818	33	oak, willow	Quercus phellos	65%	Good	NO	15	50	2			X	X	X			X	X	X		X			adj to paths	Surface Roots
819	38	oak, willow	Quercus phellos	60%	Fair	NO	17	57	2	X														adj to paths. 5 GR abg size0.5"x12"	Compacted Soils, Surface Roots, Girdling Roots
820	2	ginkgo	Ginkgo biloba	55%	Fair	NO	1	8	3				X											damage at base. guy wires still attached no stakes	Mechanical Damage, Hardware
821	7,7	pine, shortleaf	Pinus echinata	50%	Fair	NO	4	15	3				X											3"x6" scar on trunk	Co-Dominant Stems, Mechanical Damage
822	9	pine, shortleaf	Pinus echinata	60%	Fair	NO	4	14	3				X											pruning wounds healing	Mechanical Damage
823	7,7	pine, shortleaf	Pinus echinata	55%	Fair	NO	4	15	3				X												Co-Dominant Stems, Mechanical Damage
824	11	pine, eastern white	Pinus strobus	65%	Good	NO	5	17	2			X	X	X			X				X			mower damage	Root Damage/Decay
825	13	pine, eastern white	Pinus strobus	60%	Fair	NO	6	20	3			X	X	X			X				X			mower damage. four GR avg size 0.5"x5"	Root Damage/Decay, Small DW (1-2")
826	13	pine, eastern white	Pinus strobus	60%	Fair	NO	6	20	3			X	X	X			X				X			trunk scar3"x3"	Mechanical Damage
827	11	pine, eastern white	Pinus strobus	60%	Fair	NO	5	17	3				X											3 GR avg size 0.5"x6". adj to tennis court	Mechanical Damage
828	20	pine, eastern white	Pinus strobus	65%	Good	NO	9	30	3			X	X	X			X				X			3 GR avg size 0.5"x6". adj to tennis court	Mechanical Damage
829	7	maple, sugar	Acer saccharum	65%	Good	NO	3	8	2	X															
830	12	baldcypress, common	Taxodium distichum	70%	Good	NO	5	18	2	X														near gravel path	Compacted Soils
831	15	baldcypress, common	Taxodium distichum	65%	Good	NO	7	23	2	X														near gravel path.minor trunk damage at base	Compacted Soils, Mechanical Damage
832	9,9	sweetgum, American	Liquidambar styraciflua	55%	Fair	NO	6	19	3	X														near gravel path	Surface Roots, Co-Dominant Stems
833	28	oak, willow	Quercus phellos	60%	Fair	NO	13	42	3	X														adj to gravel path. 3"x6" wund. sounds hollow	Compacted Soils, Surface Roots, Root Damage/Decay, Trunk Decay
834	12	baldcypress, common	Taxodium distichum	65%	Good	NO	5	18	2	X														GR 2"x10"	Girdling Roots
835	12	baldcypress, common	Taxodium distichum	65%	Good	NO	5	18	2	X														mower damage	Root Damage/Decay
836	18	baldcypress, common	Taxodium distichum	65%	Good	NO	8	27	2	X														minor damage on trunk	Mechanical Damage
837	27	oak, willow	Quercus phellos	55%	Fair	NO	12	41	3	X														compacted gravel in most of dripline	Compacted Soils
838	39	oak, willow	Quercus phellos	65%	Good	NO	18	59	2			X	X	X	X	X	X	X		X	X	X		soil in dripline half bare due to kids running/playing. minor root damage	Compacted Soils, Surface Roots, Root Damage/Decay
839	39	oak, willow	Quercus phellos	60%	Fair	NO	18	59	2			X	X	X	X	X	X	X		X	X	X		soil in dripline bare due to kids running/playing. 3GR avg size1"x12"	Compacted Soils, Surface Roots, Girdling Roots, Small DW (1-2")
840	13	sweetgum, American	Liquidambar styraciflua	55%	Fair	NO	6	20	3	X															Small DW (1-2")
841	32	oak, willow	Quercus phellos	65%	Good	NO	14	48	2			X	X	X	X	X	X	X		X	X	X		soil in dripline bare due to kids running/playing. multiple GR avg size1"x24"	Compacted Soils, Surface Roots, Girdling Roots
842	6,3,3	hornbeam, European	Carpinus betulus	60%	Fair	NO	3	8	3	X														many branches prunned	Mechanical Damage
843	8	hornbeam, European	Carpinus betulus	0%	Dead	YES	4	12	4	X														died recently. some color inside twigs, but completely girdled	

Date: MARCH 2023

Tree Protection Action Key (TPAK)

Project: EUGENE SIMPSON PARK

Tree #	DBH (Diameter at 4.5 feet above grade)	Common Name	Botanical Name	Condition Rating %	Condition Rating	Dead Tree (Y/N)	SRZ Structural Critical Root Zone (radius) in Feet	CRZ Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)	Priority (1-4)	Removal	Removal By Arborist	Preservation Measures: Root Prune	Tree Protection Fence	Mulch	Vertical Mulching	Tree Growth Regulator	Tree Condition Inspections	Borer Preventative Treatment	Temp Root Protection Mat	Trunk Protection Wrap	Construction Oversight/Monitoring	Special Demolition & Construction Techniques	Comments	Additional Notes	Condition Notes
844	8	hornbeam, European	Carpinus betulus	40%	Poor	NO	4	12	4	X														significant trunk decay	Trunk Decay
845	5,2,2	oak, willow	Quercus phellos	60%	Fair	NO	3	8	3	X														trunk scar3"x6"	Mechanical Damage
846	6	maple, red	Acer rubrum	60%	Fair	NO	3	8	3	X														sunscald. limited growing area	Buried Root Collar, Trunk Decay
847	5	maple, red	Acer rubrum	55%	Fair	NO	2	8	3			X	X	X			X				X			sunscald. limited growing area. root damage	Root Damage/Decay, Trunk Decay
848	5	maple, red	Acer rubrum	55%	Fair	NO	2	8	3			X	X	X			X				X			limited growing area	
849	6	maple, red	Acer rubrum	55%	Fair	NO	3	8	3			X	X	X			X				X			sunscald. limited growing area. G2GR avg size 0.5"x5"	Girdling Roots, Small DW (1-2")
850	6	maple, red	Acer rubrum	55%	Fair	NO	3	8	3				X											sunscald. limited growing area. wound at base 3"x6"	Surface Roots, Mechanical Damage, Small DW (1-2")
851	5	maple, red	Acer rubrum	55%	Fair	NO	2	8	3				X											limited growing area.	Small DW (1-2")
852	9	elm, slippery	Ulmus rubra	55%	Fair	NO	4	14	3				X											limited growing area. grow over guy wire at 6'	Hardware
853	9	elm, slippery	Ulmus rubra	55%	Fair	NO	4	14	3				X											limited growing area	
854	10	elm, slippery	Ulmus rubra	55%	Fair	NO	5	15	3				X											limited growing area	
855	9	elm, slippery	Ulmus rubra	55%	Fair	NO	4	14	3				X											limited growing area	
856	11	elm, slippery	Ulmus rubra	55%	Fair	NO	5	17	3			X	X	X			X				X			limited growing area	
857	7	elm, slippery	Ulmus rubra	55%	Fair	NO	3	8	3			X	X	X			X				X			limited growing area	
858	6	elm, slippery	Ulmus rubra	55%	Fair	NO	3	8	3				X											limited growing area	
859	8	elm, slippery	Ulmus rubra	55%	Fair	NO	4	12	3				X											limited growing area	
860	8	elm, slippery	Ulmus rubra	55%	Fair	NO	4	12	3				X											limited growing area.GR 1"x4"	
861	8	elm, slippery	Ulmus rubra	55%	Fair	NO	4	12	3				X											limited growing area.GR 1"x4"	
862	9	elm, slippery	Ulmus rubra	55%	Fair	NO	4	14	3				X											limited growing area	
863	9	locust, black	Robinia pseudoacacia	60%	Fair	NO	4	14	3			X	X	X			X				X				Compacted Soils
864	19	hackberry, common	Celtis occidentalis	50%	Fair	NO	9	29	3		X													trunk scar likely secondary leader broke off. 1'x 7'	Mechanical Damage
865	3	locust, black	Robinia pseudoacacia	60%	Fair	NO	1	8	3			X	X	X			X				X				
866	4	locust, black	Robinia pseudoacacia	55%	Fair	NO	2	8	3			X	X	X			X				X				
867	4	locust, black	Robinia pseudoacacia	60%	Fair	NO	2	8	3			X	X	X			X				X			watering bag still attached	Hardware
868	4	locust, black	Robinia pseudoacacia	60%	Fair	NO	2	8	3			X	X	X			X				X				
869	4	locust, black	Robinia pseudoacacia	50%	Fair	NO	2	8	3			X	X	X			X				X			basal swelling. damage on trunk base	Trunk Decay
870	2,2,2	crapemyrtle, common	Lagerstroemia indica	70%	Good	NO	2	8	2				X												Co-Dominant Stems
871	2,2,1	crapemyrtle, common	Lagerstroemia indica	60%	Fair	NO	1	8	3				X											stump of previous stem present	Compacted Soils, Co-Dominant Stems
872	2,2,2	crapemyrtle, common	Lagerstroemia indica	60%	Fair	NO	2	8	3				X											stump of previous stem present	Compacted Soils, Co-Dominant Stems
873	2,2,2,1,1	crapemyrtle, common	Lagerstroemia indica	60%	Fair	NO	2	8	3				X												Compacted Soils, Co-Dominant Stems
874	2,2,1,1	crapemyrtle, common	Lagerstroemia indica	60%	Fair	NO	1	8	2				X												Compacted Soils, Co-Dominant Stems
875	2,2,2,1	crapemyrtle, common	Lagerstroemia indica	60%	Fair	NO	2	8	3				X												Compacted Soils, Co-Dominant Stems
876	2,1,1,1	crapemyrtle, common	Lagerstroemia indica	60%	Fair	NO	1	8	3				X											pruning wounds yet to heal	Compacted Soils, Co-Dominant Stems, Mechanical Damage
877	11	willow, black	Salix nigra	55%	Fair	NO	5	17	3				X											pruning wounds	Compacted Soils, Mechanical Damage
878	19	locust, black	Robinia pseudoacacia	55%	Fair	NO	9	29	3	X														root damage from being walked on	Compacted Soils, Surface Roots, Root Damage/Decay, Small DW (1-2")
879	8,7	elm, slippery	Ulmus rubra	65%	Good	NO	5	16	2	X															Co-Dominant Stems
880	7	elm, slippery	Ulmus rubra	65%	Good	NO	3	8	2			X	X	X			X				X				
881	4	oak, northern red	Quercus rubra	60%	Fair	NO	2	8	3	X														basal swelling	
882	4	pear, Callery	Pyrus calleryana	50%	Fair	NO	2	8	4	X														damage at base of trunk	Mechanical Damage
883	5	maple, red	Acer rubrum	65%	Good	NO	2	8	2			X	X	X			X				X			watering bag still attached	Hardware
884	3,3,3,2,2,2,1,1	honeysuckle spp.	Lonicera spp.	70%	Good	NO	3	8	4	X														bush honeysuckle	
885	11,5,6,5,9,6,7,7,6	mulberry, red	Morus rubra	45%	Fair	NO	10	32	3	X															Co-Dominant Stems
886	6	hackberry, common	Celtis occidentalis	55%	Fair	NO	3	8	3				X											minor lean	
887	15,5,16,5	boxelder	Acer negundo	45%	Fair	NO	10	35	3			X	X	X			X				X			grown into old fence	Mechanical Damage, Hardware
888	12	douglas-fir	Pseudotsuga menziesii	60%	Fair	NO	5	18	3				X											GR 3"x12"	Girdling Roots
889	4	maple, red	Acer rubrum	50%	Fair	NO	2	8	3				X											basal swelling. leader dead and decaying. trunk scars 1"x5"	Trunk Decay, Mechanical Damage
890	2,2	mulberry, red	Morus rubra	60%	Fair	NO	1	8	3				X											growing through fence	Hardware
891	3	maple, silver	Acer saccharinum	65%	Good	NO	1	8	4		X														
892	4	maple, silver	Acer saccharinum	65%	Good	NO	2	8	4		X														
893	3,2	maple, silver	Acer saccharinum	55%	Fair	NO	2	8	4		X													grape vine	Co-Dominant Stems, Vines
894	7	maple, red	Acer rubrum	50%	Fair	NO	3	8	3			X	X	X			X				X			trunk scar 6"x24"	Mechanical Damage
895	4,3,2,2	magnolia, southern	Magnolia grandiflora	65%	Good	NO	3	8	2				X												
896	7,4	locust, black	Robinia pseudoacacia	60%	Fair	NO	4	12	3			X	X	X			X				X				
897	5	magnolia, southern	Magnolia grandiflora	70%	Good	NO	2	8	2			X	X	X			X				X				
898	3	maple spp.	Acer spp.	40%	Poor	NO	1	8	4	X														trunk scar/ dead wood 2"x12" at base	Mechanical Damage, Large DW (3"+)

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REVISIONS

NUMBER	DATE	DESCRIPTION

SUR: GORDON
DES: CH
DRW: NE
CHK: CH

INTERNATIONAL SOCIETY OF ARBORICULTURE
CARY HULSE
ISA# PD-1080A
CERTIFIED ARBORIST

SEAL:

TREE PRESERVATION SCHEDULE

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION

City of Alexandria, Virginia

SCALE: HORIZ: 1" = 30' VERT:
DATE: MARCH 10, 2023
PLAN:
JOB: 3395-0301
CADD: 21486.13_Eugene Simpson_TP_2023.03.09.dwg
NCS:
NUMBER: C-109

Gordon

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WSSI#: 21486.13

Date: MARCH 2023

Tree Protection Action Key (TPAK)

Project: EUGENE SIMPSON PARK

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899	11	pear, Callery	Pyrus calleryana	65%	Good	NO	5	17	4	X														adj to concrete rd	Compacted Soils, Overhead Utilities
900	21	maple, silver	Acer saccharinum	35%	Poor	NO	9	32	4	X														adj to concrete rd. round 3" critter hole at 4', decay at union of two leaders. primary leader dead/ decay	Compacted Soils, Trunk Decay, Included Bark/Weak Union, Large DW (3"+), Overhead Utilities
901	14,13	sweetgum, American	Liquidambar styraciflua	65%	Good	NO	9	29	2			X	X	X			X				X			one I bolt on each stem at 6'	Co-Dominant Stems, Hardware
902	4	blackgum	Nyssa sylvatica	70%	Good	NO	2	8	2			X	X	X			X				X				
903	3	lilac, Japanese tree	Syringa reticulata	70%	Good	NO	1	8	2			X	X	X			X				X				
904	17,15	maple, silver	Acer saccharinum	50%	Fair	NO	10	34	3			X	X	X			X				X			adj to concrete rd	Compacted Soils, Co-Dominant Stems, Overhead Utilities
905	3,3,2,1,1	rose-of-sharon	Hibiscus syriacus	60%	Fair	NO	2	8	3			X	X	X			X				X				Overhead Utilities
906	11,9	sweetgum, American	Liquidambar styraciflua	60%	Fair	NO	6	21	3	X														adj to concrete rd	Compacted Soils, Co-Dominant Stems
907	13	sweetgum, American	Liquidambar styraciflua	70%	Good	NO	6	20	2			X	X	X			X				X				
908	16	sweetgum, American	Liquidambar styraciflua	65%	Good	NO	7	24	2			X	X	X			X				X			adj to concrete rd	Compacted Soils, Vines
909	20	maple, silver	Acer saccharinum	60%	Fair	NO	9	30	3			X	X	X			X				X			pruned to say under distribution line	Overhead Utilities
910	16	sweetgum, American	Liquidambar styraciflua	55%	Fair	NO	7	24	3			X	X	X			X				X			GR 2"x6"	Girdling Roots, Vines, Overhead Utilities
911	4	cherry, sweet	Prunus avium	60%	Fair	NO	2	8	3				X												
912	20	pear, Callery	Pyrus calleryana	55%	Fair	NO	9	30	4	X															Large DW (3"+), Small DW (1-2"), Broken Limbs
913	3	maple, silver	Acer saccharinum	55%	Fair	NO	1	8	3			X	X	X			X				X			trunk scar 1"x5"	Mechanical Damage
914	3	elm, slippery	Ulmus rubra	70%	Good	NO	1	8	2				X												
915	11,8,6,5	pear, Callery	Pyrus calleryana	60%	Fair	NO	7	24	4	X															Co-Dominant Stems
916	14	pear, Callery	Pyrus calleryana	65%	Good	NO	6	21	4	X															Small DW (1-2")
917	11,10,8	pear, Callery	Pyrus calleryana	55%	Fair	NO	8	25	4	X															Trunk Decay, Co-Dominant Stems, Small DW (1-2"), Vines
918	11	sweetgum, American	Liquidambar styraciflua	50%	Fair	NO	5	17	3			X	X	X			X				X				Small DW (1-2")
919	3	maple, silver	Acer saccharinum	55%	Fair	NO	1	8	3	X														growing through fence	Vines, Hardware
920	4	elm, slippery	Ulmus rubra	55%	Fair	NO	2	8	3			X	X	X			X				X				Vines
921	3	mulberry, red	Morus rubra	60%	Fair	NO	1	8	3				X												
922	3	mulberry, red	Morus rubra	60%	Fair	NO	1	8	3				X												
923	17	maple, silver	Acer saccharinum	40%	Poor	NO	8	26	4	X														significant decay at union of leaders	Trunk Decay
924	5	maple, sugar	Acer saccharum	50%	Fair	NO	2	8	3			X	X	X			X				X			trunk scar at base 5"x18"	Mechanical Damage
925	2	blackgum	Nyssa sylvatica	70%	Good	NO	1	8	2				X												
926	7	maple, red	Acer rubrum	55%	Fair	NO	3	8	3			X	X	X			X				X			1"x12" wound decay a base healing over	Trunk Decay
927	5	maple, red	Acer rubrum	55%	Fair	NO	2	8	3				X											mulch volcano. basal swelling	Buried Root Collar
928	2	oak, northern red	Quercus rubra	70%	Good	NO	1	8	2			X	X	X			X				X			too much mulch at base	Buried Root Collar
929	2	blackgum	Nyssa sylvatica	70%	Good	NO	1	8	2				X											too much mulch at base	Buried Root Collar
930	2	blackgum	Nyssa sylvatica	70%	Good	NO	1	8	2			X	X	X			X				X			too much mulch	Buried Root Collar
931	2	blackgum	Nyssa sylvatica	70%	Good	NO	1	8	2			X	X	X			X				X			too much mulch	Buried Root Collar
932	2	maple, red	Acer rubrum	70%	Good	NO	1	8	2				X												
933	3	oak, willow	Quercus phellos	70%	Good	NO	1	8	2				X												
934	2	oak, willow	Quercus phellos	70%	Good	NO	1	8	2				X											too much mulch at base	Buried Root Collar
935	9	elm, slippery	Ulmus rubra	55%	Fair	NO	4	14	3				X											limited growing area due to sidewalk and rd	Compacted Soils
936	11	elm, slippery	Ulmus rubra	55%	Fair	NO	5	17	3				X											limited growing area due to sidewalk and rd	Compacted Soils
937	9	elm, slippery	Ulmus rubra	55%	Fair	NO	4	14	3				X											limited growing area due to sidewalk and rd. damage at base	Compacted Soils, Mechanical Damage
938	9	elm, slippery	Ulmus rubra	55%	Fair	NO	4	14	3				X											limited growing area due to sidewalk and rd.	Compacted Soils
939	6	elm, slippery	Ulmus rubra	55%	Fair	NO	3	8	3				X											limited growing area due to sidewalk and rd.	Compacted Soils
940	8	elm, slippery	Ulmus rubra	55%	Fair	NO	4	12	3				X											limited growing area due to sidewalk and rd.	Compacted Soils
941	9	elm, slippery	Ulmus rubra	55%	Fair	NO	4	14	3				X											limited growing area due to sidewalk and rd.	Compacted Soils, Broken Limbs
942	4	hackberry, common	Celtis occidentalis	55%	Fair	NO	2	8	3				X												Vines
943	0	holly spp.	Ilex spp.	70%	Good	NO	0	8	3				X											european holly hedge. 10' high 6' wide. 400' long	
944	5,4	witchhazel, common	Hamamelis virginiana	65%	Good	NO	3	8	2				X												
945	38	oak, willow	Quercus phellos	65%	Good	NO	17	57	1			X	X	X			X				X				Surface Roots
946	17	sweetgum, American	Liquidambar styraciflua	70%	Good	NO	8	26	1				X												
947	37	oak, pin	Quercus palustris	70%	Good	NO	17	56	1				X												
948	12	oak, pin	Quercus palustris	55%	Fair	NO	5	18	2				X											limited growing area	
949	17	oak, pin	Quercus palustris	70%	Good	NO	8	26	1				X												
950	20	oak, pin	Quercus palustris	70%	Good	NO	9	30	1				X											GR 1"x6"	Girdling Roots
951	0	Rose spp.	Rosa spp.		0	NO	0	8	2				X											rose spp. 2' hgh 3' wide.80' long pruned back for the winter. 38 plants staggered	
952	2	pawpaw, common	Asimina triloba	65%	Good	NO	1	8	2			X	X	X			X				X				
953	3	pawpaw, common	Asimina triloba	70%	Good	NO	1	8	2			X	X	X			X				X				
954	2	pawpaw, common	Asimina triloba	65%	Good	NO	1	8	2			X	X	X			X				X				

Date: MARCH 2023

Tree Protection Action Key (TPAK)

Project: EUGENE SIMPSON PARK

Tree #	DBH (Diameter at 4.5 feet above grade)	Common Name	Botanical Name	Condition Rating %	Condition Rating	Dead Tree (Y/N)	SRZ Structural Critical Root Zone (radius) in Feet	CRZ Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)	Priority (1-4)	Removal	Removal By Arborist	Preservation Measures: Root Prune	Tree Protection Fence	Mulch	Vertical Mulching	Tree Growth Regulator	Tree Condition Inspections	Borer Preventative Treatment	Temp Root Protection Mat	Trunk Protection Wrap	Construction Oversight/Monitoring	Special Demolition & Construction Techniques	Comments	Additional Notes	Condition Notes
955	5,4,4,4	hackberry, common	Celtis occidentalis	65%	Good	NO	4	13	2				X												Co-Dominant Stems
956	0	ZZ Unknown shrub	ZZ Unknown shrub		0	NO	0	8	0				X											unknown shrub 2' tall6' wide two masses of same spp	
957	0	ZZ Unknown shrub	ZZ Unknown shrub		0	NO	0	8	0				X											unknown shrub 2.5' tall5' wide	
958	3,2,2	redbud, eastern	Cercis canadensis	65%	Good	NO	2	8	2				X												Co-Dominant Stems
959	10	willow, corkscrew	Salix matsudana	65%	Good	NO	5	15	2				X												Small DW (1-2")
960	4	pine, Japanese black	Pinus thunbergii	75%	Good	NO	2	8	1				X												
961	8	pine, Japanese black	Pinus thunbergii	75%	Good	NO	4	12	1				X												
962	7	pine, Japanese black	Pinus thunbergii	75%	Good	NO	3	8	1				X												
963	3	fringetree, white	Chionanthus virginicus	70%	Good	NO	1	8	2				X											3" dbh.	
964	3	larch, golden	Pseudolarix amabilis	75%	Good	NO	1	8	1				X											golden larch psuedolari	
965	2,2,1,1	arborvitae, eastern	Thuja occidentalis	60%	Fair	NO	1	8	3				X											gap in hedge/ branches	
966	4,4,4,4, 4,3,4,3	crapemyrtle, common	Lagerstroemia indica	65%	Good	NO	5	16	3				X												Co-Dominant Stems
967	4,4,3,3, 3,2,2	crapemyrtle, common	Lagerstroemia indica	65%	Good	NO	4	12	3				X												Co-Dominant Stems
968	7	goldenraintree	Koelreuteria paniculata	65%	Good	NO	3	8	2				X												Co-Dominant Stems
969	4,3,3,3, 3,3,2,2, 2	crapemyrtle, common	Lagerstroemia indica	65%	Good	NO	4	13	3				X												Co-Dominant Stems
970	7	redcedar, western	Thuja plicata	70%	Good	NO	3	8	3				X												
971	4,1,1	Chinese jujube	Ziziphus jujuba	55%	Fair	NO	2	8	3				X											chinese jujube. ziziphus jujuba	
972	7	Kentucky coffeetree	Gymnocladus dioicus	65%	Good	NO	3	8	2				X											mower damage. basal swelling	Root Damage/Decay

A) STANDARD TREE PRESERVATION NOTES FOR ALL PLANS REQUIRING APPROVAL:

THE FOLLOWING NOTES SHALL BE PROVIDED ON LANDSCAPE PLAN SUBMISSIONS FOR ALL PROJECTS WITH PRESERVATION AREAS

1) VEGETATION DESIGNATED FOR PROTECTION AND/OR PRESERVATION SHALL CONTINUOUSLY RECEIVE AN ENHANCED LEVEL OF MAINTENANCE THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD.

A. MAINTENANCE SHALL BE PRO–ACTIVE.

B. MAINTENANCE OPERATIONS SHALL AGGRESSIVELY MONITOR THE HEALTH, GROWTH AND VIGOR OF VEGETATION AND PRESCRIBE SELECTIVE PRUNING, REMOVAL OF VOLUNTEER AND/OR INVASIVE SPECIES, WATERING, FERTILIZATION AND INSTALLATION OF MULCH/TOPDRESSING.

C. WHEN PRESERVED VEGETATION IS LOCATED ON CITY PROPERTY, MAINTENANCE SHALL BE PERFORMED TO THE SATISFACTION OF THE CITY.

2) AREAS DESIGNATED FOR PROTECTION AND/OR PRESERVATION OF VEGETATION SHALL NOT BE ENTERED OR UTILIZED (APPROVED MAINTENANCE PROCEDURES AND WATERING EXCEPTED) THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD. PROHIBITED ITEMS/ ACTIVITIES INCLUDE, BUT ARE NOT LIMITED TO:

A. MODIFYING SITE TOPOGRAPHY IN A MANNER THAT DIRECTLY OR INDIRECTLY ALTERS EXISTING SITE DRAINAGE WITHIN PROTECTION ZONE INCLUDING TRENCHING OR GRADING OPERATIONS AND PLACING, STORING OR STOCKPILING SOIL OR CONSTRUCTION RELATED SUPPLIES.

B. FELLING AND STORING VEGETATION. III. INCINERATING MATERIALS WITHIN OR IN CLOSE PROXIMITY.

C. OPERATING MACHINERY OR EQUIPMENT, INCLUDING VEHICLE/EQUIPMENT PARKING OR STORAGE.

D. TEMPORARY OR PERMANENT UTILITY CONSTRUCTION, PAVING OR IMPERVIOUS SURFACE INSTALLATION.

E. DISPOSAL OF DEBRIS OR CHEMICALS. VII. TEMPORARY FACILITIES OR OCCUPATION BY WORK FORCE.

F. STORAGE OF CONSTRUCTION MATERIALS OR WASTE.

A STANDARD TREE PRESERVATION NOTES
NOT TO SCALE

OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA, VIRGINIA

NOTE:
THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA
Approved by: COA
Date drawn: 12/02/2019
STANDARD TREE PRESERVATION PLAN NOTES
1 OF 1
LD 017

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LANDSCAPE ARCHITECTURE
SURVEY AND MAPPING
SECURITY CONSULTING

REVISIONS

NUMBER	DATE	DESCRIPTION

SUR: GORDON
DES: CH
DRW: NE
CHK: CH

INTERNATIONAL SOCIETY OF ARBORICULTURE
CARY HULSE
ISA# PD-1080A
CERTIFIED ARBORIST
SEAL:

TREE PRESERVATION SCHEDULE
EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 30' VERT:
DATE: MARCH 10, 2023
PLAN:
JOB: 3395–0301
CADD: 21486.13_Eugene Simpson_TP_2023.03.09.dwg
NCS:
NUMBER: C–110
Gordon

L:\21000s\21400\21486.13\CADD\05-ENVR\21486.13_Eugene Simpson_TP_2023.03.09.dwg 110 Plotted By: Hulse, Cary, 3/10/2023 8:18 AM
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TREE PRESERVATION SPECIFICATIONS AND NARRATIVE

1. GENERAL
1.1. REFER TO THE TREE PROTECTION ACTION KEY (TPAK) FOR SPECIFIC RECOMMENDATIONS FOR EACH TREE.
1.2. PRIOR TO ANY DEMOLITION OR CONSTRUCTION WORK WITHIN OR ADJACENT TO TREE PROTECTION AREAS (TPA), A PRE-CONSTRUCTION SITE WALK SHALL BE HELD TO INCLUDE THE CONTRACT ARBORIST AND PROJECT ARBORIST WITH THE CONTRACTOR, ARCHITECT, *CITY ARBORIST*, AND OWNER.
1.3. SUBSTITUTIONS OR ALTERNATIVE METHODS OR MATERIALS SHALL BE REVIEWED AND APPROVED BY *CITY ARBORIST*.
1.4. ALL TREE PROTECTION MEASURES MUST BE IN PLACE PRIOR TO COMMENCEMENT OF DEMOLITION, SITE CLEARING OR CONSTRUCTION AND MAINTAINED THROUGHOUT CONSTRUCTION. TREE PROTECTION MEASURES MAY ONLY BE REMOVED WITH *CITY ARBORIST* APPROVAL.
1.5. ALL MEASURES WILL BE REVIEWED AFTER INSTALLATION AND APPROVED BY OWNER AND *CITY ARBORIST*.

2. REMOVAL BY ARBORIST
2.1. TREES DESIGNATED AS "REMOVAL BY ARBORIST" SHALL BE REMOVED BY A QUALIFIED ARBORIST "BY HAND", TO MINIMIZE POTENTIAL FOR DAMAGE TO REMAINING TREES AND ROOTS.
2.2. CREWS SHALL BE DIRECTLY SUPERVISED BY A CERTIFIED ARBORIST.
2.3. TRUCKS AND MECHANIZED EQUIPMENT SHALL NOT ENTER THE FENCED TREE PROTECTION AREAS, EXCEPT WHERE EXPLICITLY APPROVED BY THE PROJECT ARBORIST AND UTILIZING APPROVED ROOT PROTECTION DEVICE.
2.4. STUMPS SHALL BE LEFT IN PLACE OR GROUND OUT AT THE OWNERS DISCRETION. STUMPS IN TURF/LANDSCAPE AREAS OR WITHIN ROOT AERATION MATTING AREAS SHALL BE GROUND.
2.5. STUMP GRINDING SHALL BE DONE WITH SMALL MACHINES SPECIFICALLY DESIGNED FOR THAT PURPOSE. NO STUMPS SHALL BE EXCAVATED EXCEPT AS DESCRIBED HEREIN. STUMPS SHALL BE GROUND NOT MORE THAN 8" BELOW GRADE AND CARE MUST BE TAKEN TO MINIMIZE DAMAGE TO ROOTS OF RETAINED TREES.

3. TREE PROTECTION FENCE
3.1. INSTALL AND MAINTAIN TEMPORARY TREE PROTECTION FENCE FOR EACH TREE PROTECTION AREA AS SHOWN ON THE PLAN. INSTALLATION IS TYPICALLY AFTER ROOT PRUNING AND PRIOR TO CLEARING & GRADING.
3.2. FENCE SHALL BE ONE OF THE FOLLOWING: (SEE DETAIL)
3.2.1. 4' HIGH, 12.5 GAUGE WELDED WIRE FENCE MOUNTED ON 6' STEEL "T" POSTS SPACED NOT MORE THAN 10' APART. FENCE SHALL BE ATTACHED TO POSTS USING GALVANIZED STEEL CLIPS OR ALUMINUM TIES. PLASTIC "ZIP" TIES SHALL NOT BE USED.
3.2.2. 4' HIGH CHAIN LINK FENCE FABRIC MOUNTED ON 6', 1.5"ø GALVANIZED STEEL PIPE LINE POSTS. CORNER POSTS SHALL BE 2"ø. FENCE SHALL BE ATTACHED TO POSTS USING ALUMINUM TIES. PLASTIC "ZIP" TIES SHALL NOT BE USED.
3.2.3. "SUPER SILT FENCE" (SILT FENCE WITH AN INCORPORATED CHAIN LINK FENCE FABRIC) INSTALLED AS SPECIFIED BY APPROPRIATE STATE OR LOCAL EROSION AND SEDIMENT CONTROL REQUIREMENTS. SUPER SILT FENCE MAY ONLY BE USED WHERE ROOT PRUNING IS ALSO PROPOSED IN THE SAME LOCATION.
3.3. SILT FENCE SHALL BE COORDINATED FOR INSTALLATION TO ENHANCE PROTECTION AND AVOID UNNECESSARY ROOT CUTS BY SILT FENCE INSTALLATION.
3.4. FENCE SHALL REMAIN FOR THE DURATION OF CONSTRUCTION. FENCE MAY BE REMOVED ONLY AFTER ALL CONSTRUCTION AND FINAL LANDSCAPING IS COMPLETE AND WITH *CITY ARBORIST* APPROVAL.

4. TREE PROTECTION AREA SIGNS
4.1. TREE PROTECTION AREA SIGNS SHALL BE AFFIXED TO ALL TREE PROTECTION FENCE AT 30' SPACING AVERAGE.
4.2. SIGNS SHALL BE BILINGUAL (ENGLISH AND SPANISH).
4.3. SIGNS SHALL NOT BE AFFIXED DIRECTLY TO TREES. SEE DETAIL.
4.4. SIGN MATERIAL SHALL BE WATERPROOF, HEAVY VINYL OR SIMILAR.
4.5. SIGNS SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

5. ROOT PRUNE
5.1. THE EXACT LOCATION AND DEPTH WILL BE DETERMINED DURING THE PRE-CONSTRUCTION MEETING. SPECIFIC EQUIPMENT & METHODS WILL BE DETERMINED BY PROJECT ARBORIST AND *CITY ARBORIST* BASED UPON DEPTH & TREE IMPACT. (SEE DETAIL)
5.2. HAND PRUNE ROOTS OVER 1" DIAMETER WITHIN CRZS OF SIGNIFICANT TREES. STEEP SLOPES, DEEP EXCAVATIONS AND PAVEMENT/CURB REMOVAL WILL BE REVIEWED WHEN OPEN FOR HAND ROOT PRUNING DURING CONSTRUCTION.
5.3. COORDINATE WITH SILT FENCE INSTALLATION TO MINIMIZE UNNECESSARY ROOT DAMAGE.
5.4. ROOT PRUNING SHALL BE PERFORMED BY A CERTIFIED ARBORIST.

6. WOOD CHIP MULCH
6.1. INSTALL MULCH FOR DESIGNATED SIGNIFICANT TREES. MULCH AREA SHALL BE ONE OF THE FOLLOWING, AT THE DISCRETION OF THE CONTRACT ARBORIST AND OWNER:
6.1.1. INSTALL MULCH BED RINGS. MULCH SHOULD COVER AT LEAST THE ENTIRE STRUCTURAL ROOT ZONE. LARGER MULCH BEDS ARE PREFERRED.
6.1.2. PROVIDE CONTINUOUS MULCH STRIP 10' TO 15' WIDE ALONG LOD WITHIN PRESERVED CRZ AREAS.
6.2. MULCH SHALL BE INSTALLED TO A DEPTH OF 4". TOTAL MULCH DEPTH SHALL NOT EXCEED 4" SHOULD EXISTING MULCH BE PRESENT.
6.3. MULCH SHALL BE DOUBLE GROUND SHREDDED HARDWOOD, AGED FOR AT LEAST 6 MONTHS FROM AN APPROVED SOURCE. INSUFFICIENTLY OR IMPROPERLY AGED MULCH CONTAINING HIGH BACTERIAL COUNTS OR HIGH LEVELS OF BARK, WALNUT, INVASIVE SPECIES, OR OTHER MATERIALS RESISTANT TO DECOMPOSITION SHALL NOT BE USED.
6.4. MULCH SHALL NOT CONTACT TRUNK OF TREES.
6.5. EDGING SHALL NOT BE USED.

7. CONSTRUCTION MONITORING/INSPECTIONS
7.1. A CERTIFIED ARBORIST SHALL ACTIVELY MONITOR THE SITE TO ENSURE ADHERENCE TO ALL TREE PROTECTION REQUIREMENTS.
7.2. THIS WORK IS TYPICALLY PREFORMED BY THE CONTRACT ARBORIST, TO BE HIRED BY THE GENERAL CONTRACTOR OR OWNER.
7.3. SCHEDULE:
7.3.1. PHASE 1 (DURING INITIAL CLEARING AND INSTALLATION OF TREE PROTECTION AND PERIMETER E&S CONTROLS) INSPECTIONS SHALL BE AT LEAST WEEKLY.
7.3.2. PHASE 2 (DURING ALL REMAINING SITE WORK AND UNTIL PROJECT COMPLETION) INSPECTIONS SHALL BE AT LEAST MONTHLY.
7.3.3. TRANSITION FROM WEEKLY TO MONTHLY SCHEDULE SHALL REQUIRE OWNER AND *CITY ARBORIST* APPROVAL.
7.4. REPORTS SHALL BE PROVIDED TO THE OWNER AND *CITY ARBORIST*. REPORTS SHALL DOCUMENT CONDITION OF TREE PROTECTION DEVICES AND PROVIDE RECOMMENDATIONS FOR MAINTENANCE AND/OR ADDITIONAL CARE.
7.5. ADDITIONAL ARBORIST INSPECTIONS AND/OR DIRECT ARBORIST OVERSIGHT OF CRITICAL TREE PRESERVATION ACTIVITIES, TREE PRUNING, TREE REMOVAL, OR OTHER SENSITIVE ACTIVITIES MAY BE REQUIRED. WEEKLY INSPECTIONS DO NOT SATISFY THE NEED FOR DIRECT ARBORIST OVERSIGHT THAT MAY BE REQUIRED FOR SPECIFIC ACTIVITIES.

8. CONSTRUCTION STRATEGIES FOR TREE PROTECTION
8.1. CONSTRUCTION STAGING, STOCKPILING, EQUIPMENT STORAGE, MASONRY SET-UP AND WASHOUT, ETC. SHALL BE LIMITED TO AREAS OF EXISTING PAVEMENT AND AREAS WITHIN THE LOD EXCEPT AS OTHERWISE NOTED.
8.2. CONSTRUCTION EQUIPMENT ACCESS BETWEEN VARIOUS WORK AREAS SHALL REMAIN ON EXISTING PAVEMENT/IMPROVED SURFACES TO THE GREATEST EXTENT POSSIBLE. WHERE THIS IS NOT POSSIBLE AND WITHIN THE CRITICAL ROOT ZONE (CRZ) OF ANY TREE TO REMAIN, ACCESS SHALL BE MADE ON ROOT PROTECTION MATTING (RPM)(SEE DETAIL) OR APPROVED ALTERNATIVE. CONTRACTOR TO DETERMINE ACCESS NEEDS AND COORDINATE RPM INSTALLATION WITH THE CONTRACT ARBORIST AT THE PRE-CONSTRUCTION MEETING OR BEFORE.
8.3. PROPOSED LANDSCAPE PLANTINGS WITHIN TREE PROTECTION AREAS SHALL BE INSTALLED BY HAND. MECHANIZED EQUIPMENT SHALL NOT BE USED OUTSIDE THE LOD OR OFF OF EXISTING PAVED AREAS TO EXCAVATE FOR PLANTINGS OR FOR STAGING PLANT MATERIAL.
8.4. COORDINATE PLANTING LOCATIONS WITHIN CRZS WITH THE CONTRACT ARBORIST TO AVOID UNNECESSARY ROOT DAMAGE. PLANTING PITS WITHIN CRZS SHOULD BE DUG BY HAND OR USING AIRTOOL EXCAVATION EQUIPMENT. ROOTS GREATER THAN 1" SHOULD NOT BE CUT.

9. ROOT PROTECTION MATTING
9.1. TEMPORARY MATTING TO PROTECT EXISTING ROOTS AND SOILS FROM PROPOSED SHORT-TERM CONSTRUCTION TRAFFIC IMPACTS.
9.2. TO PREPARE SITE, REMOVE ANY DEBRIS BY HAND AND SPREAD AN EVEN LAYER OF WOOD CHIP MULCH 12" THICK OVER THE ENTIRE AREA TO RECEIVE MATTING.
9.3. MATTING SHALL BE INSTALLED IN A SINGLE LAYER ON MULCH.
9.4. TOPSOIL SHALL NOT BE DISTURBED OR REMOVED. NO GRUBBING, GRADING, EXCAVATION OR EQUIPMENT TRAFFIC SHALL BE ALLOWED IN THE AREA TO RECEIVE RPM. EQUIPMENT MAY TRAVEL ON RPM AFTER IT IS INSTALLED, BUT SHOULD BE MINIMIZED. TRACKED EQUIPMENT SHOULD NOT TURN ON RPM TO AVOID DAMAGE.
9.5. MATTING MATERIAL SHALL BE TENSAR ROADRAIN RD7 OR APPROVED EQUIVALENT.
9.6. RPM SHALL BE INSTALLED BY A CERTIFIED ARBORIST.
9.7. RPM SHALL NOT BE REMOVED OR DISTURBED BY SITE CONTRACTORS.
9.8. INSTALLATION OF SILT FENCE FOR EROSION CONTROL SHALL BE COORDINATED WITH THE PROJECT ARBORIST AND DESIGN TEAM TO PREVENT DAMAGE TO TREE ROOTS FROM TRENCHING OPERATIONS. TRENCHLESS EROSION CONTROL MEASURES (SUCH AS COMPOST FILTER SOCKS OR SIMILAR DEVICES) MAY BE USED IN LIEU OF OR IN COMBINATION WITH SILT FABRIC.

10. ROOT AERATION MATTING
10.1. PERMANENT MATTING TO PROTECT EXISTING ROOTS AND SOILS FROM PROPOSED GRADE FILLS AND STRUCTURES.
10.2. RAM INSTALLATION SHALL INCORPORATE GEOGRID LAYER BETWEEN RAM AND AGGREGATE FILL. REFER TO GEOGRID SECTION.
10.3. INSTALL A SINGLE LAYER OF MATTING ON EXISTING, UNDISTURBED GRADE. REMOVE DEBRIS BY HAND.
10.4. TEMPORARY FENCING (ORANGE PLASTIC OR OTHER) MUST BE INSTALLED IN THE AREAS TO RECEIVE RAM IF FILL IS NOT TO BE PLACED IMMEDIATELY AT THE BEGINNING OF CONSTRUCTION.
10.5. TOPSOIL SHALL NOT BE DISTURBED OR REMOVED. NO GRUBBING, GRADING, EXCAVATION OR EQUIPMENT TRAFFIC SHALL BE ALLOWED IN THE AREA TO RECEIVE RAM. EQUIPMENT MAY TRAVEL ON RAM AFTER IT IS INSTALLED AND FILL MATERIAL PLACED, BUT SHOULD BE MINIMIZED.
10.6. MATTING MATERIAL SHALL BE TENSAR ROADRAIN RD7 OR APPROVED EQUIVALENT.
10.7. RAM SHALL BE INSTALLED BY A CERTIFIED ARBORIST.
10.8. RAM IS PERMANENT AND SHALL NOT BE REMOVED BY SITE CONTRACTORS. FILL MATERIAL SHALL BE PLACED DIRECTLY ON RAM.
10.9. FILTER FABRIC (SILT FENCE FABRIC) SHALL BE INSTALLED IN 2 LAYERS AS SHOWN IN THE DETAIL (NOT TRENCHED) TO PROTECT THE RAM CORE FROM CONTAMINATION. INSTALLATION OF SILT FENCE FOR EROSION CONTROL SHALL BE COORDINATED WITH THE ARBORIST AND MUST BE PERFORMED BY THE ARBORIST TO PREVENT DAMAGE TO TREE ROOTS FROM TRENCHING OPERATIONS. EROSION CONTROL SOCKS MAY BE USED IN LIEU OF SILT FABRIC.

11. SPECIAL DEMOLITION PROCEDURES
11.1. DEMOLITION OF WALLS, FOOTINGS, WALKS, CURBS, AND OTHER IMPROVEMENTS OR HARDSCAPE WITHIN TREE PROTECTION AREAS (TPAS) SHALL BE PERFORMED BY THE CONTRACT ARBORIST AND DIRECTLY SUPERVISED BY A CERTIFIED ARBORIST.
11.2. MECHANIZED EQUIPMENT SHALL NOT ENTER THE TPAS, EXCEPT WHERE EXPLICITLY APPROVED BY THE PROJECT ARBORIST AND UTILIZING APPROVED ROOT PROTECTION DEVICE.
11.3. BACKFILL OF VOIDS FROM DEMOLITION WITHIN THE TPAS SHALL BE LOOSELY PLACED TOPSOIL. ONLY THE AMOUNT OF SOIL NECESSARY TO FILL THE VOID WITHOUT SPREADING OVER EXISTING ADJACENT GRADES SHALL BE ALLOWED.
11.4. ROOTS ENCOUNTERED DURING DEMOLITION SHALL BE REVIEWED ON A CASE-BY-CASE BASIS BY THE CONTRACT ARBORIST. THE ARBORIST SHALL PROVIDE APPROPRIATE TREATMENT OR PRUNING METHODS AS NEEDED AND IN GENERAL CONFORMANCE WITH ACCEPTED INDUSTRY STANDARDS AND THIS SECTION.

12. TREE CONDITION MONITORING INSPECTIONS
12.1. CONTRACT ARBORIST SHALL PROVIDE MONITORING OF THE CONDITION OF RETAINED TREES IN TREE PROTECTION AREAS, AND TREATMENT OF DETRIMENTAL CONDITIONS (INSECTS, DISEASES, NUTRIENT DEFICIENCIES, SOIL MOISTURE, ETC.), AS THEY OCCUR, OR AS APPROPRIATE FOR EFFECTIVE MANAGEMENT.
12.2. INSPECTIONS SHALL BE PERFORMED AT LEAST MONTHLY DURING THE GROWING SEASON, BEGINNING PRIOR TO CONSTRUCTION AND CONTINUING THROUGHOUT CONSTRUCTION AND FOR AT LEAST ONE YEAR SUBSEQUENT TO COMPLETION OF CONSTRUCTION ACTIVITIES.
12.3. A WRITTEN SUMMARY REPORT INCLUDING SPECIFIC TREATMENTS MADE AND RECOMMENDATIONS FOR ADDITIONAL TREATMENTS SHALL BE PROVIDED TO THE OWNER AND PROJECT ARBORIST SUBSEQUENT TO EACH INSPECTION.

13. GRADE FILL PLACEMENT WITHIN CRZS
13.1. PROPOSED GRADE FILL PROPOSED WITHIN PROTECTED TREE CRZS SHALL BE WELL DRAINED WITH HIGHER SAND/LOAM CONTENT AND LOWER CLAY IN ORDER TO PROMOTE DRAINAGE AND AERATION INTO EXISTING GRADE. GRADE FILL SHALL NOT EXCEED 6" DEPTH.
13.2. SHOULD EXISTING SOILS WITHIN PROTECTED CRZS BE DESIGNATED AS "COMPACTED", THEN DECOMPACTION (VERTICAL MULCHING) USING AN AIR-TOOL SHALL BE DONE PRIOR TO OR IN CONJUNCTION WITH FILL PLACEMENT. DEPTH OF AIR TOOL DECOMPACTION SHALL BE 12" OR UNTIL REFUSAL. PRE-WATERING DURING DROUGHT TIMES IS REQUIRED.
13.3. PLACEMENT OF FILL SHALL NOT FURTHER COMPACT EXISTING SOIL. USE OF RUBBER TRACKED, LOW-PSI EQUIPMENT IS REQUIRED, OR EQUIVALENT.
13.4. GRADE FILL SHALL NOT BE PLACED TO COVER THE ROOT FLARE. USE CAUTION TO AVOID GOUGES OR SCRAPES TO TRUNK OR ROOT FLARE.
13.5. WOOD CHIP MULCH SHALL BE INSTALLED AFTER FINAL GRADING.

14. VERTICAL MULCHING
14.1. THE AREA DESIGNATED FOR THIS OPERATION IS SHOWN ON THE PLAN AND IS GENERALLY ONLY WITHIN THE PROTECTED ROOT ZONE OF RETAINED TREES.
14.2. USE SUPERSONIC AIR TOOL (SSAT 150 OR 300CFM AS SITE DICTATES) TO VERTICALLY BORE 12" DEEP HOLES MINIMUM OF 3" DIAMETER FOLLOWING A GRID PATTERN OVER THE ENTIRE AREA.
14.3. MINIMUM GRID SPACING: HOLES SHALL BE SPACED ON A 12" GRID. CONTRACT ARBORIST MAY ADJUST SPACING AS NEEDED TO AVOID LARGE ROOTS AND OTHER OBSTACLES. BACKFILL WITH CHIP-SIZED, PRE-MOISTENED BIOCHAR UP TO TOP AND COVER.
14.4. DO NOT COMPACT
14.5. DIRECT OVERSIGHT BY AN ISA CERTIFIED ARBORIST IS REQUIRED FOR THIS WORK.
14.6. CERTIFY THAT ADEQUATE SOIL MOISTURE IS AVAILABLE OR PRE-WATER AREA.
14.7. THE OPERATOR SHALL ATTEMPT TO CAUSE HORIZONTAL FRACTURING WITH THE SSAT AMONG THE SOIL LAYERS TO INCREASE PORE SPACE.
14.8. TYPICALLY THIS OPERATION IS FOLLOWED BY HIGH PRESSURE LIQUID FERTILIZATION INJECTION. OFFSET EACH HOLE TO FILL FISSURES. REFER TO SOIL CARE/FERTILIZATION.
14.9. HAND RAKE TO SMOOTH THE AREA AND TOP WITH MUCH OR GRASS SEED PER APPROVED LANDSCAPE PLAN.

15. BORER INSECT PREVENTATIVE TREATMENTS
15.1. CONTRACT ARBORIST SHALL PROVIDE INSECTICIDE SPRAY TREATMENTS TO DESIGNATED TREES TO HELP PREVENT WOOD BORING INSECT DAMAGE.
15.2. PESTICIDE APPLICATIONS SHALL BE MADE ONLY BY A PROPERLY LICENSED FIRM AND INDIVIDUAL. ALL APPLICATIONS SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, AND ALL LABEL REQUIREMENTS.
15.3. SUBMIT CONTRACTOR LICENCE TO THE PROJECT TEAM PRIOR TO WORK.
15.4. BORER TREATMENT SHALL FOCUS ON THE TRUNKS OF DESIGNATED TREES AND TREAT AS HIGH UP AS GROUND BASED SPRAY EQUIPMENT ALLOWS.
15.5. TREATMENTS SHALL USE BIFENTHRIN INSECTICIDE WITH A BARK PENETRATING SURFACTANT SUCH AS BASELINE, ONYX, OR SIMILAR.
15.6. SUBMIT SPECIMEN LABELS TO THE PROJECT TEAM FOR PRODUCT APPROVAL PRIOR TO TREATMENT.
15.7. FIRST TREATMENT SHALL BE MADE WITHIN 5 DAYS (EITHER BEFORE OR AFTER) THE ROOT PRUNING WORK ON THE SAME TREES.
15.8. TREATMENTS SHOULD BE MADE AT LEAST TWICE PER YEAR – ONCE IN THE EARLY SPRING AND ONCE IN MID SUMMER.
15.9. RE-APPLICATION/ADDITIONAL TREATMENTS MAY BE REQUIRED IF WEATHER AFFECTS THE TREATMENTS. REFER TO PRODUCT LABELS.
15.10. TREATMENTS SHALL CONTINUE AT LEAST TWICE PER YEAR FOR AT LEAST THREE YEARS AFTER THE INITIAL TREATMENT AND IN ACCORDANCE WITH LABEL RECOMMENDATIONS.

16. TREE TRUNK PROTECTION WRAP
16.1. TRUNKS OF TREES IN CLOSE PROXIMITY TO CONSTRUCTION SHALL BE PROTECTED WITH A SINGLE WRAP OF GEOCOMPOSITE. GEOCOMPOSITE SHALL BE DOUBLE SIDED, GEONET CORE WITH NON-WOVEN COVERING (SUCH AS TENSAR ROADRAIN RD7) OR EQUIVALENT.
16.2. WRAP SHALL BE NOT LESS THAN 10' HIGH ON TRUNK OR UP TO THE LOWEST LIMB (WHICHEVER IS LESS). EXPOSED ROOT FLARE SHALL ALSO BE FULLY COVERED.
16.3. WRAP SHALL BE TIED WITH ROPE OR WIRE. TIE MATERIAL SHALL NOT CONTACT TRUNK.
16.4. WRAP SHALL BE REMOVED PROMPTLY AFTER CONSTRUCTION.

17. QUALITY ASSURANCE
17.1. GENERAL CONTRACTOR'S ON-SITE (CONTRACT) ARBORIST:
17.1.1. THE GENERAL CONTRACTOR SHALL ENTER INTO A CONTRACTUAL RELATIONSHIP WITH AN EXPERIENCED ARBORICULTURE/TREE CARE FIRM TO PERFORM THE WORK SPECIFIED HEREIN. THIS CONTRACT SHALL BE FULLY EXECUTED PRIOR TO RELEASE OF THE DEMOLITION/BUILDING PERMIT. THE GENERAL CONTRACTOR SHALL PROVIDE PROOF OF SUCH CONTRACT TO *CITY ARBORIST* TO THE EXTENT *CITY ARBORIST* IS ASSURED WORK WILL BE EXECUTED BY A COMPETENT FIRM AS OUTLINED BELOW:
17.1.2. THE CONTRACT ARBORIST IS TO BE AN ARBORIST CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) AND LICENSED IN THE JURISDICTION WHERE PROJECT IS LOCATED, AS APPLICABLE. ALL WORK PERFORMED BY THE CONTRACT ARBORIST SHALL BE REVIEWED AND APPROVED BY THE OWNER'S ARBORIST CONSULTANT OR AS APPROVED BY *CITY ARBORIST*.
17.2. CONTRACT ARBORIST FIRM QUALIFICATIONS:
17.2.1. CONTRACT ARBORIST FIRM SHALL COMPLY WITH THE FOLLOWING:
17.2.2. ESTABLISHED BUSINESS WITH DOCUMENTED EXPERIENCE OF AT LEAST FIVE YEARS.
17.2.3. EXPERIENCE WORKING ON A MINIMUM OF THREE COMMERCIAL, NONGOVERNMENTAL OR GOVERNMENTAL PROJECTS WHERE SIMILAR TREE PRESERVATION PROGRAMS HAVE BEEN SUCCESSFULLY IMPLEMENTED.
17.2.4. PROPERLY LICENSED AND INSURED TO PERFORM ARBORICULTURAL WORK IN THE JURISDICTION WHERE THE PROJECT IS LOCATED.
17.3. PROVIDE NAMES OF EACH INDIVIDUAL TO COMPLY WITH THE FOLLOWING:
17.3.1. CERTIFICATION BY ISA (CERTIFIED ARBORIST OR BOARD CERTIFIED MASTER ARBORIST)
17.3.2. MINIMUM BS OR AS DEGREE IN FORESTRY, ARBORICULTURE, OR RELATED FIELD
17.3.3. RESUMES SHOULD REFLECT COMBINED 5 YEARS FULL-TIME EXPERIENCE ON SIMILAR TREE PRESERVATION PROJECTS.
17.4. PROVIDE INDIVIDUAL(S) NAMES, CERTIFICATIONS, AND EACH ANTICIPATED ROLE IN THIS PROJECT. ROLE(S) SHALL BE DEFINED AS ONE OR MORE OF THE FOLLOWING:
17.4.1. PROJECT MANAGER
17.4.2. TECHNICAL OVERSIGHT
17.4.3. FIELD ARBORIST/TECHNICIAN
17.5. FOR EACH STAFF MEMBER, LIST A MINIMUM OF THREE CONSTRUCTION PROJECTS AND A MINIMUM THREE YEARS EXPERIENCE IN THE FOLLOWING TECHNICAL APPLICATIONS:
17.5.1. SOIL AMENDMENT PRESCRIPTIONS AND APPLICATIONS
17.5.2. ROOT PROTECTION MATTING (RPM) OR SIMILAR APPLICATIONS
17.5.3. CONSTRUCTION OVERSIGHT AND MONITORING
17.5.4. COORDINATION OF ARBORICULTURAL ACTIVITIES WITH CONSTRUCTION PROJECT MANAGERS

18. PUBLICATIONS INCLUDED BY REFERENCE
PUBLICATIONS LISTED HEREIN ARE PART OF THIS WORK TO EXTENT REFERENCED:
18.1. ANSI A300 STANDARD PRACTICES FOR TREES, SHRUBS, AND OTHER WOODY PLANT MAINTENANCE
18.1.1. PART 1 -- 2017, TREE PRUNING
18.1.2. PART 2 -- 2018, SOIL MANAGEMENT
18.1.3. PART 3 -- 2013, SUPPLEMENTAL SUPPORT SYSTEMS
18.1.4. PART 4 -- 2014, LIGHTNING PROTECTION SYSTEMS
18.1.5. PART 5 -- 2019, MANAGEMENT OF TREES AND SHRUBS DURING SITE PLANNING, SITE DEVELOPMENT, AND CONSTRUCTION
18.1.6. PART 6 -- 2018, PLANTING AND TRANSPLANTING
18.1.7. PART 8 -- 2020, ROOT MANAGEMENT
18.1.8. PART 9 -- 2017, TREE RISK ASSESSMENT
18.1.9. PART 10 -- 2016, IPM
18.2. ANSI Z133.1 -- 2017 AND MOST RECENT UPDATES, ARBORICULTURAL OPERATIONS -- SAFETY REQUIREMENTS

19. TREE GROWTH REGULATOR (TGR)
19.1. PACLOBUTRAZOL SOIL-APPLIED TREE GROWTH REGULATOR (CAMBISTAT® OR EQUIVALENT) SHALL BE APPLIED TO INDICATED TREES. APPLICATIONS SHALL FOLLOW MANUFACTURER'S LABEL AND APPLICABLE LAWS.
19.2. TGR REDUCES CANOPY GROWTH WHICH CAN INCREASE FIBROUS ROOT SYSTEM GROWTH OVER 2-3 YEARS. THIS CAN INCREASE TOLERANCE TO DROUGHT STRESS AND IMPROVE ABSORPTION OF NUTRIENTS AND MOISTURE DURING THE STRESS RECOVERY PERIOD.

ADDITIONAL NOTES:

1. *TREE LOCATIONS MAY BE APPROXIMATE. OWNER AND CONTRACT ARBORIST SHALL VERIFY ALL TREE LOCATIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND/OR TREATMENT OR REMOVAL.*
2. *PRE-CONSTRUCTION MEETING SHALL BE HELD PRIOR TO COMMENCEMENT OF DEMOLITION/CONSTRUCTION ACTIVITY. CITY ARBORIST, OWNER, DESIGN TEAM MEMBERS (PROJECT ARBORIST, LANDSCAPE ARCHITECT, ENGINEER AND ARCHITECT), CONTRACT ARBORIST, SITE AND LANDSCAPE CONTRACTORS SHALL ATTEND.*
3. *THE INSPECTION OF THESE TREES CONSISTED SOLELY OF A VISUAL INSPECTION FROM THE GROUND. WHILE MORE THOROUGH TECHNIQUES ARE AVAILABLE FOR INSPECTION AND EVALUATION, THEY WERE NEITHER REQUESTED NOR CONSIDERED NECESSARY OR APPROPRIATE AT THIS TIME.*
4. *TREES RATED "POOR" OR "DEAD" THAT ARE NOT RECOMMENDED FOR REMOVAL DUE TO CONSTRUCTION IMPACT MAY WARRANT FURTHER EVALUATION AND/OR TREATMENT OR REMOVAL.*

DEFINITIONS

- CERTIFIED ARBORIST: CREDENTIAL OF AN INDIVIDUAL ARBORIST ISSUED AND ADMINISTERED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE. THIS CREDENTIAL MUST BE CURRENT AND VALID TO QUALIFY TO USE THE COPYRIGHTED DESIGNATION OF "CERTIFIED ARBORIST". REFER TO WWW.ISA-ARBOR.COM FOR ADDITIONAL INFORMATION.
- PROJECT ARBORIST: ARBORICULTURAL FIRM CONTRACTED TO PROVIDE CONSULTING, SITE INVESTIGATION AND DOCUMENTATION (TREE INVENTORIES, ASSESSMENTS, FOREST STAND DELINEATIONS, ETC.) AND DEVELOP TREE PRESERVATION PLANS, METHODS, DETAILS AND SPECIFICATIONS IN COLLABORATION WITH THE PROJECT DESIGN TEAM.
- CONTRACT ARBORIST: ARBORICULTURAL FIRM CONTRACTED TO IMPLEMENT THE APPROVED TREE PRESERVATION PLANS ON SITE. ALL CREWS CONDUCTING ARBORICULTURAL OPERATIONS ON SITE SHALL CONSIST OF AT LEAST ONE CERTIFIED ARBORIST WHO DIRECTLY OVERSEES ALL WORK BY THAT CREW. ARBORICULTURAL OPERATIONS INCLUDE, BUT ARE NOT LIMITED TO, PRUNING, TREE PROTECTION DEVICE INSTALLATION AND MAINTENANCE (FENCE, MATTING, ETC.), ROOT PRUNING, AIR TOOL ROOT EXCAVATION/EXPLORATION, SOIL CARE ACTIVITIES, SOIL TESTING, MULCH APPLICATION, TREE INSPECTIONS, PESTICIDE/CHEMICAL APPLICATIONS AND TREE REMOVAL.

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REVISIONS		

SUR: GORDON | DES: CH
DRW: NE | CHK: CH

INTERNATIONAL SOCIETY OF ARBORICULTURE
CARY HULSE
ISA# PD-1080A
CERTIFIED ARBORIST
SEAL:

TREE PRESERVATION NOTES
EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 30' VERT:
DATE: MARCH 10, 2023
PLAN:
JOB: 3395-0301
CADD: 21486.13_Eugene Simpson_TP_2023.03.09.dwg
NCS:
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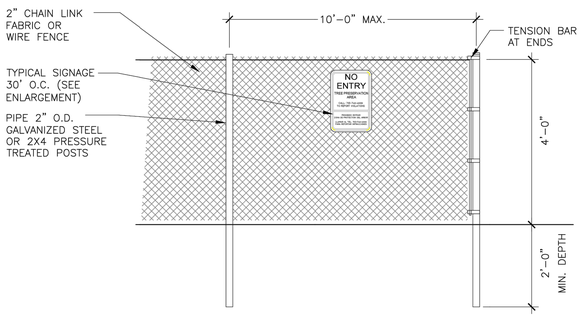
NOTES

1. TREE PROTECTION DETAIL SHALL APPLY TO ALL TREES INCLUDING STREET TREES.
2. TREE PROTECTION FENCE SHALL BE INSTALLED PRIOR TO ANY SITE WORK, CLEARING OR DEMOLITION. CITY STAFF SHALL BE NOTIFIED 72 HOURS PRIOR TO INSTALLATION OR ANY OTHER TREE PRESERVATION MEASURE SPECIFIED IN PLANS AND SHALL APPROVE LAYOUT.
3. NO PERSONNEL, VEHICLES, EQUIPMENT, CONSTRUCTION MATERIALS OR DEBRIS ALLOWED IN TREE PROTECTION AREAS. REFER TO LANDSCAPE GUIDELINES FOR ADDITIONAL RESTRICTIONS.
4. REMOVE TREE PROTECTION FENCE ONLY WITH APPROVAL FROM CITY STAFF AFTER ALL SITE WORK HAS BEEN COMPLETED.
5. SIGN MATERIAL TO BE WEATHER RESISTANT.
6. FENCE FABRIC MAY ALSO BE 2X4 WELDED WIRE FABRIC MIN. 12.5 GAUGE LAYERED WITH ORANGE SNOW FENCE FOR VISIBILITY



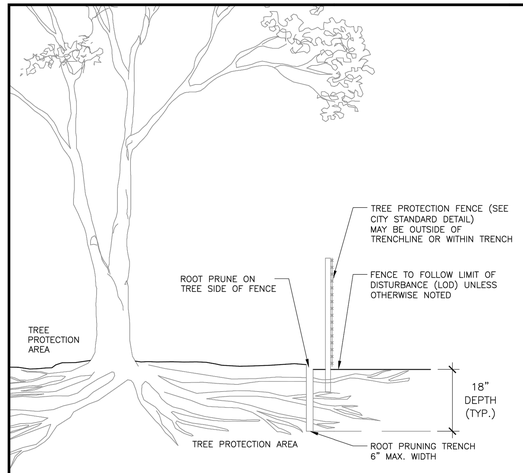
1 / C-112 TREE PROTECTION FENCE
SCALE: NTS

OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA, VIRGINIA

NOTE: THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA
Approved by: COA
TREE PROTECTION FENCE
1 OF 1
Date drawn: 01/01/19
LD 014



NOTES

1. ROOT PRUNING SHALL BE DONE WITH TRENCHER OR VIBRATORYPLOW TO DEPTH OF 18". ROOTS OVER 1.5" IN DIAMETER SHALL HAVE A CLEAN CUT MADE BY A CLEAN SAW ON THE SURFACE OF THE ROOT, WHICH IS STILL ATTACHED TO THE TREE. DO NOT BREAK OR CHOP. DO NOT PAINT THE CUT ROOT END. IF EXCAVATION IS FOR INSTALLATION OF UNDERGROUND UTILITIES, LEAVE THE ROOT INTACT AND THREAD THE LINES UNDERNEATH.
2. ROOT PRUNING SHALL TAKE PLACE PRIOR TO ANY CLEARING AND GRADING. EXACT LOCATION OF TREE PROTECTION AREAS SHALL BE STAKED OR FLAGGED PRIOR TO TRENCHING AND SHALL BE APPROVED BY CITY STAFF.
3. ROOT PRUNING SHALL BE CONDUCTED WITH THE SUPERVISION OF AN ISA CERTIFIED ARBORIST. CERTIFICATION SHALL BE PROVIDED TO THE CITY UPON COMPLETION.
4. BACKFILL THE ROOT-PRUNING TRENCH WITH APPROVED LOOSE TOPSOIL MIX AND TOP WITH 3-4" BARK MULCH AND MARK LOCATION FOR FUTURE REFERENCE. SILT FENCE MAY BE INSTALLED IN TRENCH PRIOR TO BACKFILLING AS LONG AS THE TRENCH IS NOT OPEN FOR LONGER THAN 48 HOURS WITHOUT WATERING.
5. ROOT PRUNING WORK SHALL NOT BE DONE WHEN MORE THAN THE TOP 1 INCH OF SOIL IS FROZEN. ROOT PRUNING SHALL NOT BE UNDERTAKEN WHEN THE SOIL IS WET AND CONDITIONS ARE MUDDY.
6. CITY OF ALEXANDRIA STAFF SHALL BE NOTIFIED 72 HOURS PRIOR TO TRENCHING AND WHEN ALL ROOT PRUNING AND TREE PROTECTION FENCE INSTALLATION IS COMPLETE.

2 / C-112 ROOT PRUNING
SCALE: NTS

OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA, VIRGINIA

NOTE: THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA
Approved by: COA
ROOT PRUNING
1 OF 1
Date drawn: 01/01/19
LD 015

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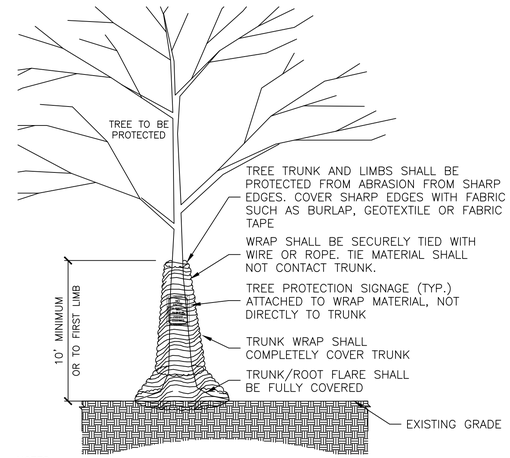
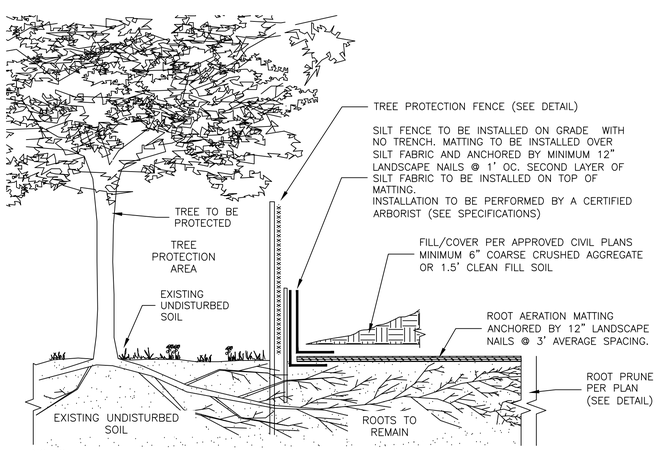


NOTES:

1. TRUNK WRAP MATERIAL SHALL BE DOUBLE SIDED GEOCOMPOSITE, GEONET CORE WITH NON-WOVEN COVERING (SUCH AS TENSAR ROADRAIN RD7) OR EQUIVALENT.
2. WRAP SHALL BE INSTALLED BY A CERTIFIED ARBORIST.
3. WRAP SHALL BE INSTALLED PRIOR TO ANY SITE WORK, CLEARING OR DEMOLITION.
4. WRAP SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. REMOVE WRAP ONLY WITH APPROVAL AND AFTER ALL SITE WORK HAS BEEN COMPLETED.
5. WRAP SHALL BE REMOVED PROMPTLY AFTER CONSTRUCTION.
6. MAJOR SCAFFOLD LIMBS MAY ALSO REQUIRE THIS PROTECTION AS DIRECTED BY THE PROJECT ARBORIST.

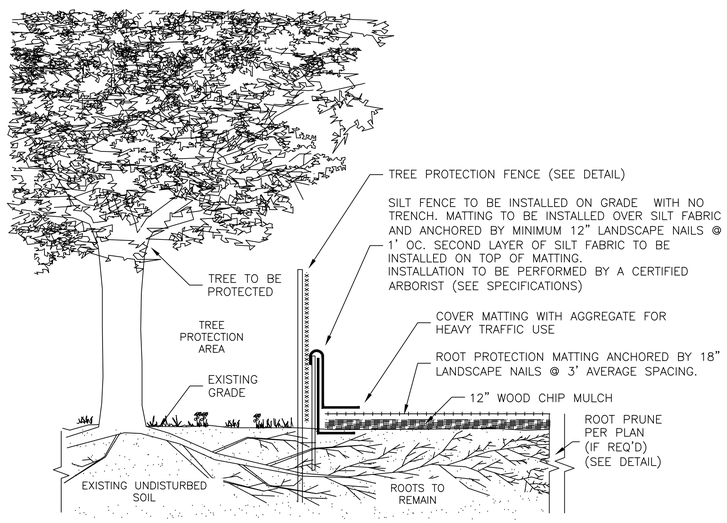
3 / C-112 TREE TRUNK & LIMB PROTECTION WRAP (TYP)
SCALE: NTS



NOTES:

1. MATTING MATERIAL SHALL BE DOUBLE SIDED GEOCOMPOSITE, GEONET CORE WITH NON-WOVEN COVERING (SUCH AS TENSAR ROADRAIN RD7) OR APPROVED EQUIVALENT.
2. RAM SHALL BE ANCHORED BY 12" LANDSCAPE NAILS @ 3' AVERAGE SPACING.
3. RAM SHALL BE INSTALLED BY A CERTIFIED ARBORIST EXPERIENCED WITH THESE SYSTEMS.
4. PROPOSED RAM IN STRUCTURAL SITUATIONS SHALL BE REVIEWED AND APPROVED BY THE PROJECT CIVIL ENGINEER. ADDITIONAL LAYERS OF MATERIALS SUCH AS GEOGRID MAY BE REQUIRED.
5. ALL SITE PREPARATION/GRADING TO BE DONE USING SSAT TO MINIMIZE ROOT DAMAGE.
6. DO NOT GRUB EXISTING SOIL.
7. ALL ADJACENT WORK SHALL BE SUPERVISED BY CERTIFIED ARBORIST.
8. RAM AREA SHALL BE FENCED TO PREVENT CONSTRUCTION TRAFFIC IMPACTING EXISTING SOILS AND ROOTS.
9. DO NOT OPERATE EQUIPMENT DIRECTLY ON RAM.

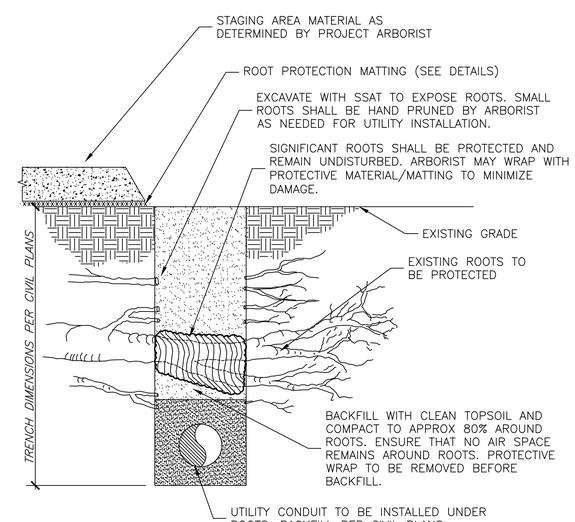
4 / C-112 ROOT AERATION MATTING (TYP)
SCALE: NTS



NOTES:

1. MATTING MATERIAL SHALL BE DOUBLE SIDED GEOCOMPOSITE, GEONET CORE WITH NON-WOVEN COVERING (SUCH AS TENSAR ROADRAIN RD7) OR APPROVED EQUIVALENT.
2. RPM SHALL BE INSTALLED BY A CERTIFIED ARBORIST.
3. TO BE USED FOR DESIGNATED TEMPORARY CONSTRUCTION ACCESS AND STOCKPILE AREAS.
4. MATTING SHALL BE PLACED ON 12" WOOD CHIP MULCH UNLESS OTHERWISE DIRECTED.
5. FOR HEAVY TRAFFIC AREAS, MATTING SHALL BE COVERED WITH 6-8" WELL GRADED CRUSHED AGGREGATE. ADDITIONAL LAYERS OF GEOTEXTILE, OR HARDENED SURFACE LAYER MAY BE NEEDED.

5 / C-112 TEMPORARY ROOT PROTECTION MATTING (TYPICAL)
SCALE: NTS



6 / C-112 ROOT PROTECTION IN UTILITY TRENCH
SCALE: NTS

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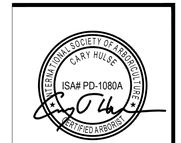
CHK: CH



SEAL:

TREE PRESERVATION DETAILS
EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 30'
VERT:
DATE: MARCH 10, 2023
PLAN:
JOB: 3395-0301
CADD: 21486.13_Eugene Simpson_TP_2023.03.09.dwg
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NUMBER: C-112
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EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION:
THIS PROJECT PROPOSES MODIFICATIONS TO THE PARKING AND BASEBALL FIELDS AS WELL AS IMPROVEMENTS FOR OTHER PARK AMENITIES TO ADDRESS DRAINAGE AND ADA ACCESSIBILITY ISSUES.

EXISTING SITE CONDITIONS:
EXISTING ON THE SITE TODAY IS TWO GRASS BASEBALL FIELDS WITH ASSOCIATED SPORTS AMENITIES AND AN ASPHALT PARKING LOT. THE SITE SLOPES IN ALL DIRECTIONS FROM THE CROWN OF THE FIELDS..

ADJACENT PROPERTY:
THE PROPERTY IS BORDERED BY LESLIE AVENUE TO THE WEST, EAST DUNCAN AVENUE TO THE NORTH, RICHMOND HWY. TO THE EAST, AND EAST MONROE AVE. TO THE SOUTH.

OFFSITE AREAS:
THE PROPOSED STORM NETWORK FOR THE PARK WILL OUTFALL TO AN EXISTING STRUCTURE LOCATED IN THE RIGHT OF WAY OF EAST MONROE AVENUE.

SOILS:
URBAN LAND CONSISTS OF ENTIRELY MAN-MADE SURFACES. URBAN LAND IS IMPERVIOUS AND WILL NOT INFILTRATE STORMWATER. RATINGS FOR THIS UNIT ARE NOT AVAILABLE. THE SOILS ONSITE CONSIST OF LEAN CLAY (CL) AND FAT CLAY (CH). BOTH ARE POOLY DRAINED SOILS IN THE HYDROLOGIC SOIL GROUP A.

CRITICAL EROSION AREAS **(MS-9)**:
THERE ARE NO 3:1 SLOPES LOCATED ON THIS SITE.

STORM WATER MANAGEMENT AND BMP:
SEE STORMWATER SHEETS FOR IMPERVIOUS AREA MAPS AND NARRATIVE.

SEDIMENT CONTROL PROGRAM:
THE EROSION AND SEDIMENT CONTROL PROGRAM HAS BEEN PROPOSED IN TWO PHASES. THE PHASE I CONTROL FACILITIES SHALL BE INSTALLED WITHIN THE INITIAL ESTABLISHED LIMITS OF CLEARING BEFORE OTHER CLEARING, GRADING, AND CONSTRUCTION STARTS. THE PHASE II CONTROL FACILITIES SHALL BE INSTALLED AS CONSTRUCTION COMMENCES. THE PHASE I CONTROLS SUCH AS INLET PROTECTION AND SILT FENCE, NOT DISTURBED DURING FINAL GRADING, ARE INTENDED TO REMAIN FOR THE DURATION OF THE PROJECT. MINIMUM GRADING, PROPER INSTALLATION, AND CONSTANT MONITORING OF THE PROPOSED EROSION CONTROL DEVICES SHALL BE EXERCISED BY THE CONTRACTOR DURING CONSTRUCTION. ADDITIONAL CONTROLS MAYBE REQUIRED. SEE GENERAL CONTROL NOTES.

EROSION AND SEDIMENT CONTROL MEASURES FOR PHASE I & II WILL INCLUDE:

1. SAFETY FENCE (3.01) – (TO INSPECTOR'S DISCRETION) TO PREVENT PEDESTRIAN ACCESS TO THE SITE. IT WILL BE INSTALLED AROUND THE PERIMETER OF THE PROJECT SITE AREA. THE DEVELOPER HAS THE OPTION TO CONSTRUCT THE SAFETY FENCE UNLESS THE PROFFERS REQUIRE IT.
2. CONSTRUCTION ENTRANCES WITH WASH RACK (3.02): TO MINIMIZE THE AMOUNT OF MUD CARRIED FROM THE SITE ONTO PUBLIC AND PRIVATE ROADS **(MS-17)**. A SOURCE OF AT LEAST NON-POTABLE WASH WATER SHALL BE PROVIDED.
3. SILT FENCE (3.05) TO FILTER RUNOFF FROM DISTURBED AREAS BEFORE IT LEAVES THE PROPERTY. SILT FENCE SHOULD BE MAINTAINED ON A REGULAR BASIS ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
4. INLET PROTECTION (3.07) TO PREVENT SEDIMENT FROM LEAVING THE SITE THROUGH THE EXISTING STORM SEWER SYSTEM AND REACHING ANY ULTIMATE OUTFALL POINT **(MS-10)**.
5. TREE PRESERVATION AND PROTECTION (3.38) TO PROTECT EXISTING TREES ONSITE. PLANS HAVE BEEN PROVIDED BY WSSI, SEE SHEETS C-107-C-112.
6. ALL PERIMETER CONTROLS INSTALLED WITH PHASE I ARE TO REMAIN FOR THE DURATION OF THE PROJECT. ADDITIONAL SILT FENCE SHALL BE INSTALLED AS REQUIRED TO CONTROL EROSION. INLET PROTECTION DEVICES SHALL BE PLACED ON THE STORM SEWER INLETS AS THEY ARE CONSTRUCTED.

MAINTENANCE:

1. ALL MEASURES ARE TO BE INSPECTED DAILY BY THE SITE SUPERINTENDENT OR THEIR REPRESENTATIVE AND INSPECTED BY A COUNTY INSPECTOR AT LEAST ONCE EVERY 14 CALENDAR DAYS. ANY DAMAGED STRUCTURAL MEASURES ARE TO BE REPAIRED BY THE END OF THE DAY.
2. INSPECTIONS SHALL BE PERFORMED WITHIN 48 HOURS OF THE END OF A STORM EVENT THAT IS 0.5 INCHES OR GREATER.
3. WHERE AREAS HAVE BEEN TEMPORALLY STABILIZED OR RUNOFF IS UNLIKELY, DUE TO WINTER CONDITIONS, SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH.
4. TRAPPED SEDIMENT IS TO BE REMOVED WHEN CAPACITY HAS BEEN DECREASED BY A MAXIMUM OF 50 PERCENT TO MAINTAIN EFFICIENCY AND TO BE DISPOSED OF BY SPREADING ON-SITE.
5. CONTROLS MAY BE REMOVED AFTER AREAS ABOVE THEM HAVE BEEN STABILIZED AND WITH APPROVAL OF THE COUNTY INSPECTOR, AND MUST BE REMOVED WITHIN 30 DAYS OF SAID STABILIZATION AND APPROVAL.

DUST CONTROL NARRATIVE:
THE CONTRACTOR SHALL UTILIZED DUST CONTROL MEASURES AS DEFINED IN THE VIRGINIA STATE EROSION AND SEDIMENT CONTROL HANDBOOK (SECTION 3.39) TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES AND REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS OR HARM ANIMAL OR PLANT LIFE.

UNDERGROUND UTILITY LINE INSTALLATION NOTES **(MS-16)**:

A. NO MORE THAN 500 LINEAR FEET OF A SINGLE TRENCH(TO ACCOMODATE MULTIPLE CREWS) MAY BE OPENED AT ONE TIME.
B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

EXCESS MATERIAL HAULING NOTE:
THE GRADING/EXCAVATION CONTRACTOR FOR THE SUBJECT SITE IS REQUIRED TO NOTIFY, IN WRITING, THE ASSIGNED SITE INSPECTOR REGARDING ANY EXCESS MATERIAL PROPOSED TO BE HAULED OFFSITE PRIOR TO HAULING. THE NOTIFICATION MUST INDICATE THE QUANTITY OF MATERIAL TO BE MOVED OFFSITE, IDENTIFICATION OF THE RECEIVING SITE WHERE THE EXCESS WILL BE TAKEN, AND ALL INFORMATION NECESSARY TO SHOW THAT SUCH RECEIVING SITE HAS BEEN PROPERLY PERMITTED AND HAS E&S CONTROLS INSTALLED.

GENERAL EROSION CONTROL NOTES:

1. DEVICES SHOWN ABOVE ARE TO BE CONSIDERED MINIMUM EROSION AND SEDIMENT CONTROLS. ADDITIONAL CONTROLS MAY BE NECESSARY DUE TO CONTRACTOR PHASING OR OTHER UNANTICIPATED CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADDITIONAL DEVICES TO THOSE SHOWN IN ORDER TO CONTROL EROSION AND SEDIMENTATION.
2. THE GRADING/EXCAVATION CONTRACTOR FOR THE SUBJECT SITE IS REQUIRED TO NOTIFY, IN WRITING, THE ASSIGNED SITE INSPECTOR REGARDING ANY EXCESS MATERIAL PROPOSED TO BE HAULED OFFSITE PRIOR TO HAULING. THE NOTIFICATION MUST INDICATE THE QUANTITY OF MATERIAL TO BE MOVED OFFSITE, IDENTIFICATION OF THE RECEIVING SITE WHERE THE EXCESS WILL BE TAKEN, AND ALL INFORMATION NECESSARY TO SHOW THAT SUCH RECEIVING SITE HAS BEEN PROPERLY PERMITTED AND HAS E&S CONTROLS INSTALLED. SOILS REQUIRED FOR FILL WILL BE OBTAINED FROM AN APPROVED/PERMITTED SITE.
3. ALL SILTATION AND EROSION MEASURES SHALL NOT BE REMOVED UNTIL APPROVAL BY THE COUNTY'S INSPECTOR.
4. TOPSOIL THAT HAS BEEN STOCKPILED IS TO BE SURROUNDED BY SILT FENCE AND SHALL BE PROTECTED BY MULCH AND/OR TEMPORARY VEGETATION **(MS-2)**.
5. ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND MULCHED WITHIN 7 DAYS OF COMPLETION OF GRADING **(MS-7)**.
6. ALL FILLS ARE TO BE LEFT WITH A LIP AT THE TOP OF THE SLOPE AT THE END OF EACH DAY'S OPERATION.
7. PIPE OUTLET PROTECTION SHALL CONFORM TO CRITERIA SPECIFIED IN SECTION 3.18 OF VESCH AND SHALL BE DESIGNED ACCORDING TO 'PIPE OUTLET TO WELL DEFINED CHANNEL.
8. NO UNPROTECTED, DISTURBED AREA SHALL DRAIN TO ROADWAY PAVEMENTS SUCH THAT THE SUBBASE, BASE OR WEARING SURFACE ARE CONTAMINATED BY SILT TRAPPED AT LOW POINT OR INLETS.
9. ROAD CLEANING, AS NEEDED, SHALL BE PERFORMED FIRST BY REMOVING DEBRIS IN THE ROADWAY, THEN BY WASHING.
10. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS SHALL BE DISPOSED OF PROPERLY BY THE END OF WORK DAY.

EROSION CONTROL REMOVAL NOTE:
ALL TEMPORARY EROSION SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION AFTER PERMISSION OF THE INSPECTOR **(MS-18)**.

GENERAL EROSION & SEDIMENT CONTROL NOTES:

ES-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS.

ES-2: THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

ES-3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING **(MS-4)**.

ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES-5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.

ES-6: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.

ES-7: ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

ES-8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

PERMANENT STABILIZATION/VEGETATIVE NOTE:
ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING **(MS-1)**. SEEDING SHALL BE SELECTED ACCORDING TO STD & SPEC 3.32, TABLES 3.32-A&B OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. THE PLANTING SOIL MUST HAVE ENOUGH FINE GRADED SOIL, FAVORABLE pH, SUFFICIENT PORE SPACE, SUFFICIENT DEPTH AND FREE FROM TOXIC AMOUNTS OF HARMFUL MATERIALS OR EXCESSIVE QUANTITIES OF ROOTS/STONES AND SHALL BE APPLIED WITH STD & SPEC 3.30. AFTER SEED IS IN PLACE, IT MUST BE PROTECTED WITH A MULCH TO HOLD MOISTURE AND MODIFY TEMPERATURE EXTREMES, AND TO PREVENT EROSION WHILE SEEDLINGS ARE GROWING.

PERMANENT STABILIZATION/VEGETATIVE MEASURES WILL INCLUDE:
TEMPORARY SEEDING

1. NO AREA SHALL REMAIN DENUDED FOR MORE THAN 7 DAYS **(MS-1)**. TEMPORARY SEEDING MAY BE USED DURING SEASONS WHEN PERMANENT SEEDING IS PROHIBITED.
2. CONTRACTOR SHALL SELECT PLANTS BASED ON THE SPECIFIC SITE (NORTHERN PIEDMONT REGION) AND SEASON AND PER VESCH TABLES 3.31-B&C (ON THIS SHEET)
3. LIMING REQUIREMENTS SHOULD BE BASED ON TABLE 3.31-A OF VESCH (ON THIS SHEET)
4. FERTILIZERS SHALL BE APPLIED AS 600 LBS PER ACRE. FERTILIZER SHALL BE INCORPORATED INTO TOP 2-4"
5. SEED SHALL BE EVENLY APPLIED AND SMALL GRAINS SHALL BE PLANTED NO MORE THAN 1-1/2 INCHES DEEP
6. SEEDING MADE IN FALL FOR WINTER COVER AND DURING HOT SUMMER MONTHS SHALL BE MULCHED

PERMANENT SEEDING:

1. ALL AREAS DENUDED BY THIS CONSTRUCTION SHALL BE STABILIZED WITH APPROPRIATE TURF GRASSES, GROUND COVER, AND/OR OTHER ACCEPTABLE MEASURES **(MS-3)**.
2. PERMANENT VEGETATION COVER MUST MEET THE REQUIREMENTS OF MINIMUM STANDARD (MS-3)
3. THE SITE IS LOCATED IN THE PROVIDENCE DISTRICT WHICH FALLS WITHIN NORTHERN PIEDMONT PHYSIOGRAPHIC PROVINCE. THE SOILS OF THIS AREA ARE HIGHLY VARIABLE TENDING TO BE SHALLOW WITH CLAYED SUBSOIL AND LOW IN PHOSPHORIUS (VESCH III-292). APPROPRIATE MATERIAL FOR THIS REGION IS PROVIDED ON TABLE 3.32-D (ON THIS SHEET) AS RECOMMENDED IN THE VESCH STD & SPEC 3.32. REFER TO TABLES 3.32-A&B OF THE VESCH FOR RECOMMENDED VARIETIES.
4. THE PLANTING SOIL MUST HAVE ENOUGH FINE GRAINED SOIL, SUFFICIENT PORE SPACE, SUFFICIENT DEPTH AND FREE FROM TOXIC OR EXCESSIVE QUANTITIES OF ROOTS AND SHALL BE APPLIED IN ACCORDANCE WITH STD. 3.30

SODDING:

1. SODDED AREAS SHALL BE BROUGHT TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLANS
2. SOIL TESTS SHOULD BE MADE TO DETERMINE THE EXACT REQUIREMENTS FOR LIME AND FERTILIZER
3. PRIOR TO LAYING SOD, SOIL SURFACE SHALL BE CLEAR OF TRASH, DEBRIS AND LARGE OBJECTS
4. QUALITY OF SOD SHALL BE STATE CERTIFIED AND ENSURE GENETIC PURITY AND HIGH QUALITY
5. SOD SHALL NOT BE LAID IN EXCESSIVELY WET OR DRY WEATHER AND BE DELIVERED AND INSTALLED WITHIN 36 HRS.
6. SOD SHOULD NOT BE LAID ON FROZEN SOIL SURFACE AND SHALL BE INSTALLED PER PLATE 3.33-1 OF VESCH

ANTICIPATED PHASING OF CONSTRUCTION:

1. FLAG LIMITS OF CONSTRUCTION ACTIVITIES.
2. OBTAIN COUNTY INSPECTOR APPROVAL.
3. INSTALL CONSTRUCTION ENTRANCE.
4. INSTALL ANY SAFETY FENCE DEEMED NECESSARY BY THE CONTRACTOR.
5. CLEARING AS REQUIRED FOR INSTALLATION OF PHASE 1 E/S CONTROLS.
6. INSTALL SILT FENCE AND TREE PROTECTION FENCE.
7. CLEAR AND GRUB REMAINDER OF SITE AS SHOWN ON PLANS, UPON APPROVAL OF COUNTY INSPECTOR.
8. PERFORM EARTH WORK, FILLING AND ROUGH GRADING OPERATIONS.
9. CONSTRUCT SURFACE AREA TRAVEL WAYS AND PARKING AREAS.
10. INSTALL PHASE 2 EROSION CONTROLS AROUND SITE.
11. FINAL GRADING AND PAVING.
12. RESTORE AND STABILIZE DISTURBED AREAS.
13. REMOVE EROSION CONTROL MEASURES WITH THE APPROVAL OF THE SITE INSPECTOR.

TABLE 3.31-A

LIMING REQUIREMENTS FOR TEMPORARY SITES

pH Test	Recommended Application of Agricultural Limestone
below 4.2	3 tons per acre
4.2 to 5.2	2 tons per acre
5.2 to 6	1 ton per acre

Source: Va. DSWC

TABLE 3.31-B

ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS

"QUICK REFERENCE FOR ALL REGIONS"

Planting Dates	Species	Rate (lbs./acre)
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (Lolium multi-florum) & Cereal (Winter) Rye (Secale cereale)	50 - 100
Feb. 16 - Apr. 30	Annual Ryegrass (Lolium multi-florum)	60 - 100
May 1 - Aug 31	German Millet (Setaria italica)	50

Source: Va. DSWC

TABLE 3.31-C

TEMPORARY SEEDING PLANT MATERIALS, SEEDING RATES, AND DATES

SPECIES	SEEDING RATE		NORTH[a]			SOUTH[b]			PLANT CHARACTERISTICS
	Acre	1000 ft²	3/1 to 4/30	5/1 to 8/15	8/15 to 11/1	2/15 to 4/30	5/1 to 9/1	9/1 to 11/15	
OATS (Avena sativa)	3 bu. (up to 100 lbs., not less than 50 lbs.)	2 lbs.	X	-	-	X	-	-	Use spring varieties (e.g., Noble).
RYE[d] (Secale cereale)	2 bu. (up to 110 lbs., not less than 50 lbs.)	2.5 lbs.	X	-	X	X	-	X	Use for late fall seedings, winter cover. Tolerates cold and low moisture.
GERMAN MILLET (Setaria italica)	50 lbs.	approx. 1 lb.	-	X	-	-	X	-	Warm-season annual. Dies at first frost. May be added to summer mixes.
ANNUAL RYEGRASS[c] (Lolium multi-florum)	60 lbs.	1½ lbs.	X	-	X	X	-	X	May be added in mixes. Will mow out of most stands.
WEEPING LOVEGRASS (Eragrostis curvula)	15 lbs.	5½ ozs.	-	X	-	-	X	-	Warm-season perennial. May bunch. Tolerates hot, dry slopes and acid, infertile soils. May be added to mixes.
KOREAN LESPEDEZA[c] (Lespedeza stipulacea)	25 lbs.	approx. 1½ lbs.	X	X	-	X	X	-	Warm season annual legume. Tolerates acid soils. May be added to mixes.

[a] Northern Piedmont and Mountain region. See Plates 3.22-1 and 3.22-2.
[b] Southern Piedmont and Coastal Plain.
[c] May be used as a cover crop with spring seeding.
[d] May be used as a cover crop with fall seeding.
X May be planted between these dates.
\- May not be planted between these dates.

1992

3.31

EROSION/SEDIMENT CONTROL LEGEND

NO.	KEY	SYMBOL	DESCRIPTION
3.01	SAF		SAFETY FENCE
3.02	CE		TEMPORARY GRAVEL CONSTRUCTION ENTRANCE WITH WASH RACK
3.05	SF	X	SILT FENCE
3.06	SSF	XX	SUPER SILT FENCE
3.07	IP, IP_2		STORM DRAIN CURB AND GRATE INLET PROTECTION
3.08	CIP		CULVERT INLET PROTECTION
3.09	DD	DD	TEMPORARY DIVERSION DIKE
3.11	RWD	RWD	TEMPORARY RIGHT OF WAY DIVERSION
3.14	SB		TEMPORARY SEDIMENT BASIN
3.18	OP		OUTLET PROTECTION
3.26	DS		PORTABLE SEDIMENT TANK
3.38	TP		TREE PROTECTION FENCE
	LOG		LIMITS OF CLEARING AND GRADING
			DRAINAGE DIVIDES
		OLR	OVERLAND RELIEF FLOW PATH

★ CRITICAL SLOPE – CRITICAL SLOPE TO BE SEEDED, MULCHED AND TACKED WITHIN 14 DAYS AFTER START OF GRADING, OR SODDED AND PEGGED WITHIN 14 DAYS AFTER START

TABLE 3.32-D
SITE SPECIFIC SEEDING MIXTURES FOR PIEDMONT AREA

	Total Lbs. Per Acre
Minimum Care Lawn	
- Commercial or Residential	175-200 lbs.
- Kentucky 31 or Turf-Type Tall Fescue	95-100%
- Improved Perennial Ryegrass	0-5%
- Kentucky Bluegrass	0-5%
High-Maintenance Lawn	200-250 lbs.
- Kentucky 31 or Turf-Type Tall Fescue	100%
General Slope (3:1 or less)	
- Kentucky 31 Fescue	128 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
	150 lbs.
Low-Maintenance Slope (Steeper than 3:1)	
- Kentucky 31 Fescue	108 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
- Crownvetch **	20 lbs.
	150 lbs.

* Use seasonal nurse crop in accordance with seeding dates as stated below:
February 16th through April ..... Annual Rye
May 1st through August 15th ..... Foxtail Millet
August 16th through October ..... Annual Rye
November through February 15th ..... Winter Rye

** Substitute Sericea lespedeza for Crownvetch east of Farmville, Va. (May through September use hulled Sericea, all other periods, use unhulled Sericea). If Flatpea is used in lieu of Crownvetch, increase rate to 30 lbs./acre. All legume seed must be properly inoculated. Weeping Lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10-20 lbs./acre in mixes.

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DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
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NUMBER	DATE	DESCRIPTION
REVISIONS		

SUR: DES:
DRW: CHK:

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS
Lic. No. 46493
3/13/23
PROFESSIONAL ENGINEER
SEAL:

EROSION & SEDIMENT CONTROL NARRATIVE
EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

HORIZ:
SCALE: VERT:
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-GC-001.DWG
NCS: C-GC-001
NUMBER: C-113
Gordon

G:\#FILES\CAD\PLANS\3395-ALEXANDRIA PARKS\BASEBALL FIELDS\C-GC-001.DWG HORIZONTAL DATUM: NAD83 VERTICAL DATUM: NAVD88
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MATCHLINE, SEE SHEET C-115

TO STR. SF
A = 0.86 AC
C = .37

TO STR. SF
A = 0.19 AC
C = .35

TO STR. SF
A = 0.35 AC
C = .38

TO STR. 25
A = 1.57 AC
C = .62

NOTE: BOTH INLET PROTECTION AND SILT FENCE HAVE BEEN PROVIDED FOR SUFFICIENT SEDIMENT CONTROL IN THIS DRAINAGE AREA

TO STR. SF
A = 1.06 AC
C = .65

TO STR. 29B
A = 1.32 AC
C = .45

NOTE: BOTH INLET PROTECTION AND SILT FENCE HAVE BEEN PROVIDED FOR SUFFICIENT SEDIMENT CONTROL IN THIS DRAINAGE AREA

TO STR. SF
A = 0.77 AC
C = .61

TO STR. SF
A = 0.14 AC
C = .35

TO STR. 6A
A = 0.73 AC
C = .58

POSSIBLE STOCKPILE AREA

POSSIBLE STOCKPILE AREA

REFERENCE SHEET C-112 FOR TREE PROTECTION DETAIL

PR. WASHRACK. WATER SOURCE TO BE PROVIDED FROM EXISTING FIRE HYDRANT OR WATER TRUCK.

PR. WASHRACK SETTLING BASIN

PUBLIC OPEN SPACE (POS) COORDINATED DEVELOPMENT DISTRICT (CDD #10)

E MONROE AVE.

OLD JEFFERSON DAVIS HWY – US ROUTE 1

VIRGINIA STATE GRID NORTH – NAD 83

N 6985621
E 1189486.3

N 6985277
E 1189492.7

N 6985400
E 1189570.7

GRAPHICAL SCALE: 1" = 30'

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REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: N. RAY
DRW: N. RAY	CHK: J.P. WILLIAMS

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS
Lic. No. 46493
4/11/23
PROFESSIONAL ENGINEER
SEAL:

EROSION & SEDIMENT CONTROL PHASE I

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: 1" = 30' VERT:
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	C-GC-101.DWG
NCS:	C-GC-101
NUMBER:	C-114

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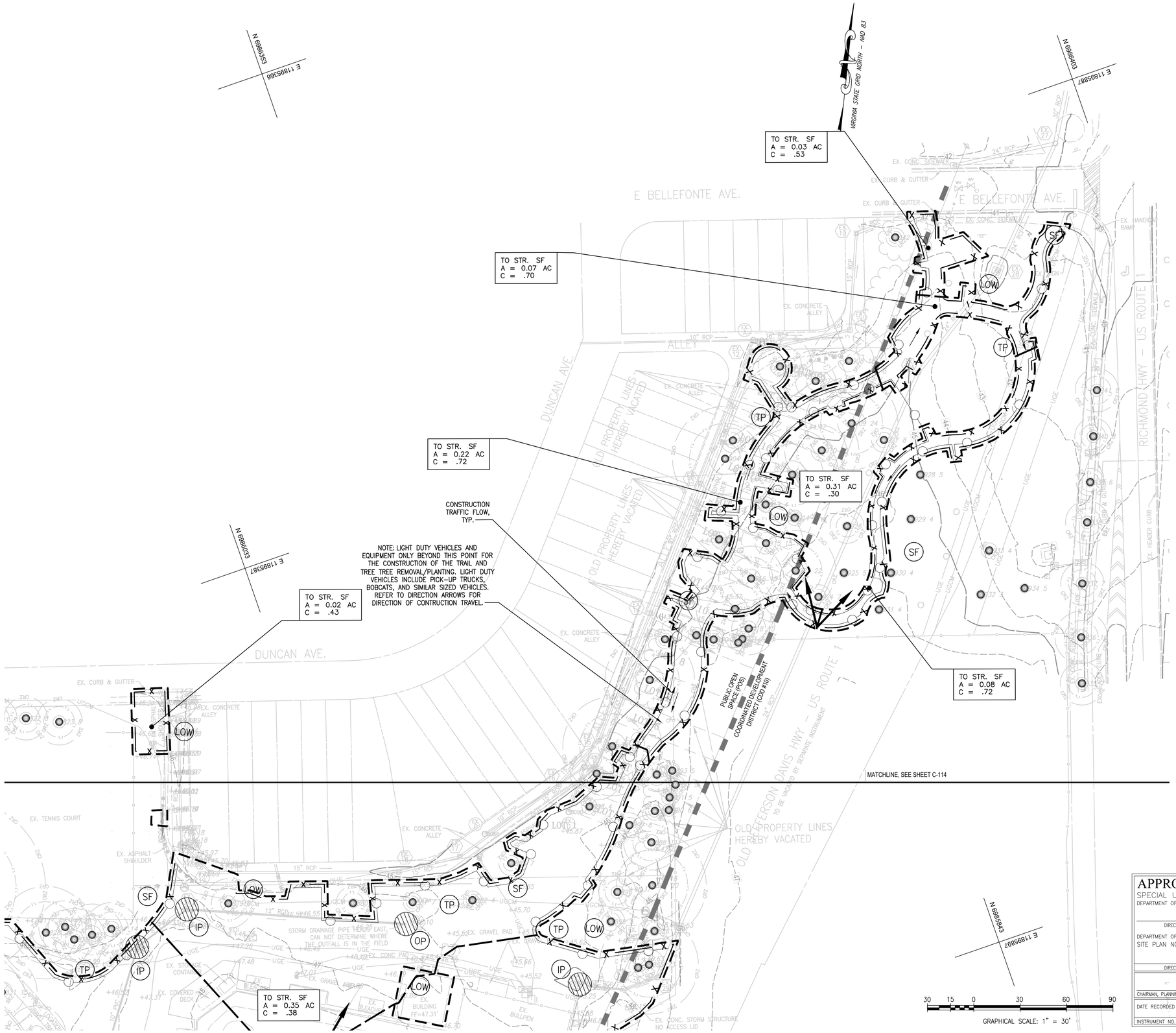

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CADD:	C-GC-101.DWG
NCS:	C-GC-101
NUMBER:	C-115

Gordon

G:\PROJECTS\AR13395 - ALEXANDRIA PARKS\DWG\C-GC-101.DWG, 4/10/2023 2:16 PM, jwoner VERT DATUM ### HORZ DATUM ###
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MATCHLINE, SEE SHEET C-117

TO STR. SF
A = 0.09 AC
C = .85

TO STR. 22
A = 0.23 AC
C = .57

TO STR. 25
A = 0.66 AC
C = .51

TO STR. SWM
A = 1.41 AC
C = .90

TO STR. 23
A = 0.13 AC
C = .69

TO STR. SWM
A = 1.65 AC
C = .90

TO STR. 30
A = 1.14 AC
C = .80

TO STR. 24
A = 0.35 AC
C = .69

TO STR. SF
A = 0.47 AC
C = .85

TO STR. TD1
A = 0.02 AC
C = .85

TO STR. TD2
A = 0.01 AC
C = .85

REFERENCE SHEET C-112 FOR TREE PROTECTION DETAIL

TO STR. BIO 1
A = 0.09 AC
C = .85

TO STR. 91
A = 0.66 AC
C = .85

TO STR. BIO 3
A = 0.28 AC
C = .85

TO STR. SF
A = 0.05 AC
C = .52

TO STR. EX.35
A = 0.36 AC
C = .85

TO STR. BIO 2
A = 0.35 AC
C = .85

PUBLIC OPEN SPACE (POS)

COORDINATED DEVELOPMENT DISTRICT (CDD #10)

OLD JEFFERSON DAVIS HWY – US ROUTE 1
TO BE VACATED BY SEPARATE INSTRUMENT

E MONROE AVE.

VIRGINIA STATE GRID NORTH – NAD 83

N 6985621
E 1189463

N 6985400
E 1189570

N 6985527
E 1189427

30 15 0 30 60 90
GRAPHICAL SCALE: 1" = 30'

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DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

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Phone: 703-263-1900
www.gordon.us.com

REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: N. RAY
DRW: N. RAY	CHK: J.P. WILLIAMS

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS
Lic. No. 46493
4/11/23
PROFESSIONAL ENGINEER
SEAL:

EROSION & SEDIMENT CONTROL PHASE II

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: 1" = 30' VERT:
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	C-GC-201.DWG
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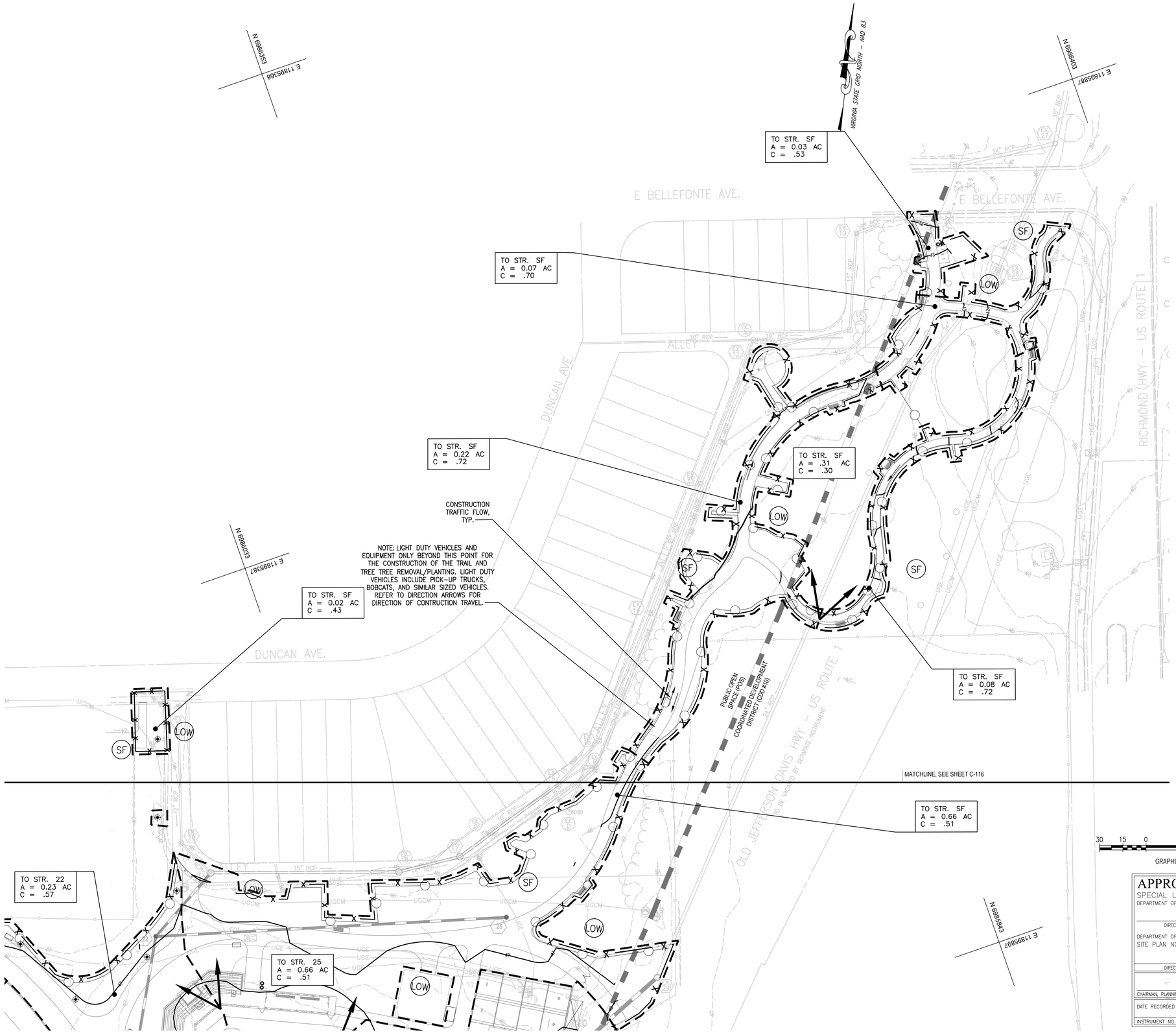

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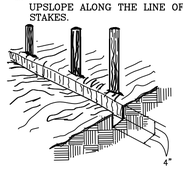
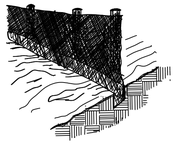
SILT FENCE

1. SET THE STAKES.

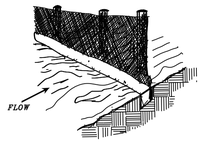
2. EXCAVATE A 4"X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.



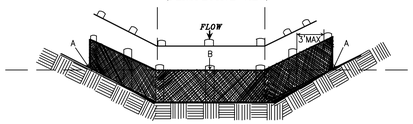
3. STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.



4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



SHEET FLOW INSTALLATION
(PERSPECTIVE VIEW)

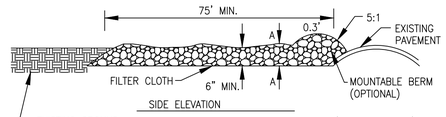


POINTS A SHOULD BE HIGHER THAN POINT B.

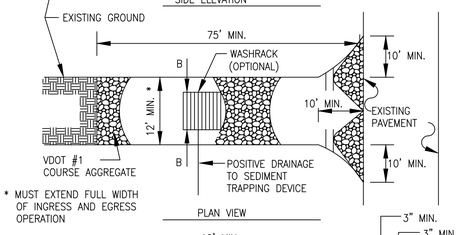
DRAINAGEWAY INSTALLATION
(FRONT ELEVATION)

SF

STONE CONSTRUCTION ENTRANCE

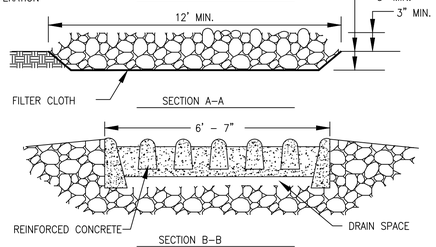


SIDE ELEVATION



* MUST EXTEND FULL WIDTH OF INGRESS AND EGRESS OPERATION

PLAN VIEW

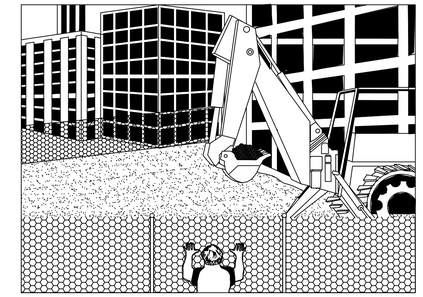


SECTION A–A

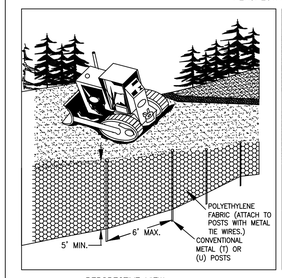
SECTION B–B

CE

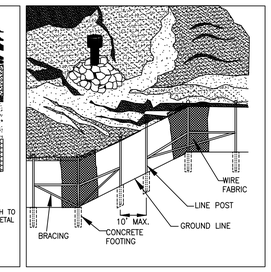
SAFETY FENCE



PERSPECTIVE VIEW

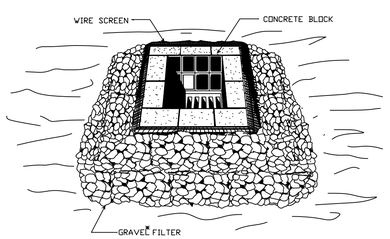


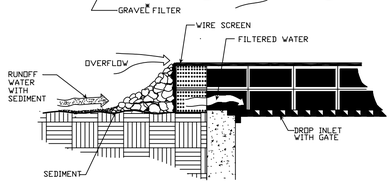
PERSPECTIVE VIEW
PLASTIC FENCE



PERSPECTIVE VIEW
METAL FENCE

BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER





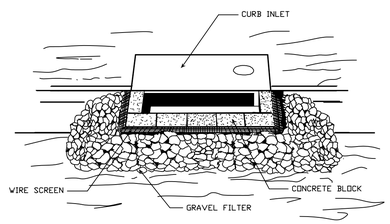
SPECIFIC APPLICATION

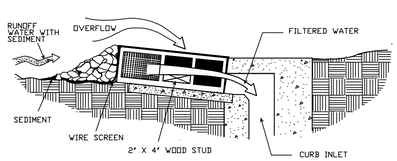
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

SOURCE: VA. DSWC PLATE. 3.07–3

BLOCK & GRAVEL CURB INLET SEDIMENT FILTER





SPECIAL APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE

IP

SOURCE: VA. DSWC PLATE 3.07–8

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COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS
Lic. No. 46493
3/13/23
PROFESSIONAL ENGINEER
SEAL:

EROSION & SEDIMENT CONTROL DETAILS

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: VERT:
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-GC-001.DWG
NCS: C-GC-001
NUMBER: C-118
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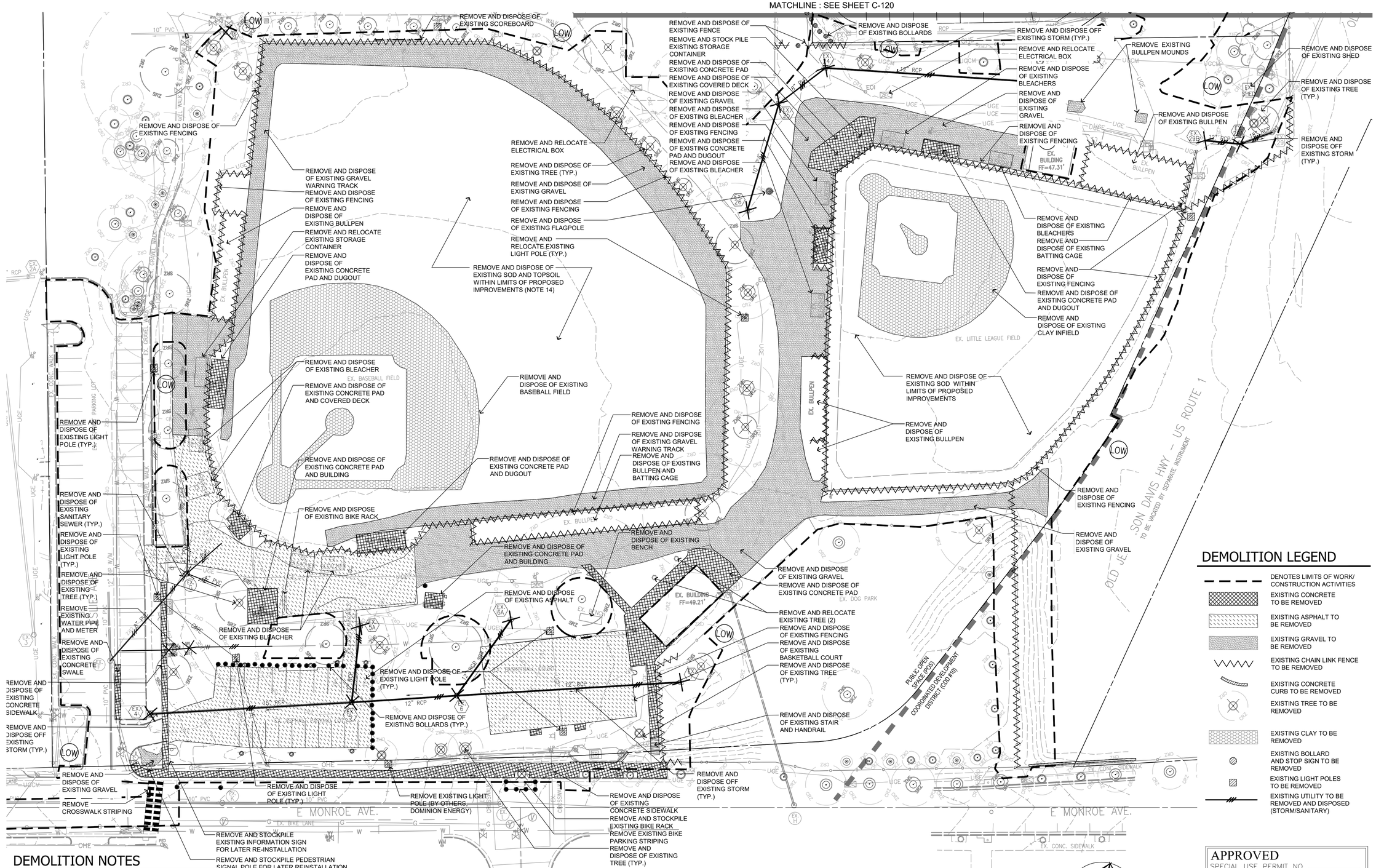

DEMOLITION LEGEND

- DENOTES LIMITS OF WORK/ CONSTRUCTION ACTIVITIES
- EXISTING CONCRETE TO BE REMOVED
- EXISTING ASPHALT TO BE REMOVED
- EXISTING GRAVEL TO BE REMOVED
- EXISTING CHAIN LINK FENCE TO BE REMOVED
- EXISTING CONCRETE CURB TO BE REMOVED
- EXISTING TREE TO BE REMOVED
- EXISTING CLAY TO BE REMOVED
- EXISTING BOLLARD AND STOP SIGN TO BE REMOVED
- EXISTING LIGHT POLES TO BE REMOVED
- EXISTING UTILITY TO BE REMOVED AND DISPOSED (STORM/SANITARY)

DEMOLITION NOTES

1. DEMOLITION PLAN IS FOR GENERAL GUIDELINES. CONTRACTOR TO VERIFY ALL ITEMS TO BE REMOVED, STOCKPILED OR TO REMAIN WITH OWNER/ OWNERS REPRESENTATIVE.
2. CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES AND FEATURES NOT SCHEDULED FOR DEMOLITION AND/ OR CONSTRUCTION FROM DAMAGE DUE TO DEMOLITION PROCEDURES.
3. ANY PAVEMENT TO REMAIN THAT IS DAMAGED DUE TO THE CONSTRUCTION, SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
4. CONTRACTOR SHALL MAINTAIN EXISTING CONDUITS TO EXISTING LIGHTING TO REMAIN. ANY DAMAGE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. CONTRACTOR SHALL PROVIDE EXISTING DAMAGE PHOTOS PRIOR TO MOBILIZING OR PERFORMING ANY WORK. LOCATIONS OF PICTURES TO BE RECORDED ON THIS SHEET.
6. CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT '811' OR (800) 552-7001, 72 HOURS PRIOR TO START OF ANY EXCAVATION OR CONSTRUCTION FOR THE MARKING OF EXISTING UNDERGROUND UTILITIES.
7. EROSION AND SEDIMENT CONTROLS AND TREE PROTECTION MEASURES SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF DEMOLITION. REFER TO EROSION AND SEDIMENT CONTROL SHEETS FOR MORE INFORMATION.
8. ALL MATERIAL FROM DEMOLITION NOT IDENTIFIED FOR REUSE SHALL BE REMOVED FROM THE SITE.
9. PAVEMENT REMOVAL (ASPHALT OR CONCRETE): INCLUDES REMOVAL OF SURFACE MATERIAL, GRAVEL BASE AND ANY REINFORCEMENT.
10. ALL PAVEMENT REMOVED SHALL BE DONE SUCH THAT REMAINING PAVEMENT IS LEFT WITH A CLEAN STRAIGHT EDGE. CONCRETE CURBING AND/ OR SIDEWALK SHALL BE REMOVED TO NEAREST JOINT.
11. CHAIN LINK FENCE REMOVAL: INCLUDES ALL FENCE FABRIC, POSTS, RAILS AND SHALL INCLUDE CONCRETE FOOTINGS.
12. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL IRRIGATION CONTROLS, VALVES, LINES, HEADS ETC, WITHIN PROJECT AREA.
13. REMOVE ALL SOD FROM AREAS WITHIN PROJECT LIMITS OF DISTURBANCE SCHEDULED FOR PROPOSED IMPROVEMENTS (TURF FIELD, HARDSCAPE, BATTING CAGES, ETC).
14. REMOVE ALL TOPSOIL (SURFICIAL SOIL) TO A DEPTH OF ±5". GRAVEL SURFACING, AND CLAY INFIELD MATERIAL WITHIN PROPOSED LIMITS OF TURF FIELD. MATERIAL SHALL BE REMOVED TO DEPTH OF COMPATIBLE SUBGRADE WHICH INCLUDES ALL ROOT REMOVAL. REFER TO GEOTECH REPORT.
15. STOCKPILE ENOUGH TOPSOIL FOR LATER USE ON DISTURBED AREAS OUTSIDE TURF AND HARDSCAPE AREAS SCHEDULED FOR SEED OR SOD. TOPSOIL SHALL BE SPREAD TO A DEPTH OF 4 INCHES.

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SUR: GORDON	DES: B. CIPRIANO
DRW: P. MATHUR	CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
04-11-2023
LANDSCAPE ARCHITECT
SEAL:

DEMOLITION PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: 1" = 30' VERT: N/A
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	3395-0301-L-DP101.DWG
NCS:	DEMOLITION PLAN
NUMBER:	C-119

Gordon

MATCHLINE : SEE SHEET C-119

DEMOLITION LEGEND

- DENOTES LIMITS OF WORK/ CONSTRUCTION ACTIVITIES
- EXISTING CONCRETE TO BE REMOVED
- EXISTING ASPHALT TO BE REMOVED
- EXISTING GRAVEL TO BE REMOVED
- EXISTING CHAIN LINK FENCE TO BE REMOVED
- EXISTING CONCRETE CURB TO BE REMOVED
- EXISTING TREE TO BE REMOVED
- EXISTING CLAY TO BE REMOVED
- EXISTING BOLLARD AND STOP SIGN TO BE REMOVED
- EXISTING LIGHT POLES TO BE REMOVED
- EXISTING UTILITY TO BE REMOVED AND DISPOSED (STORM/SANITARY)

NORTH

30 15 0 30 60 90

GRAPHICAL SCALE: 1" = 30'

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LANDSCAPE ARCHITECT

SEAL:

DEMOLITION PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION

City of Alexandria, Virginia

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JOB:	3395-0301
CADD:	3395-0301-L-DP101.DWG
NCS:	DEMO PLAN 2
NUMBER:	C-120

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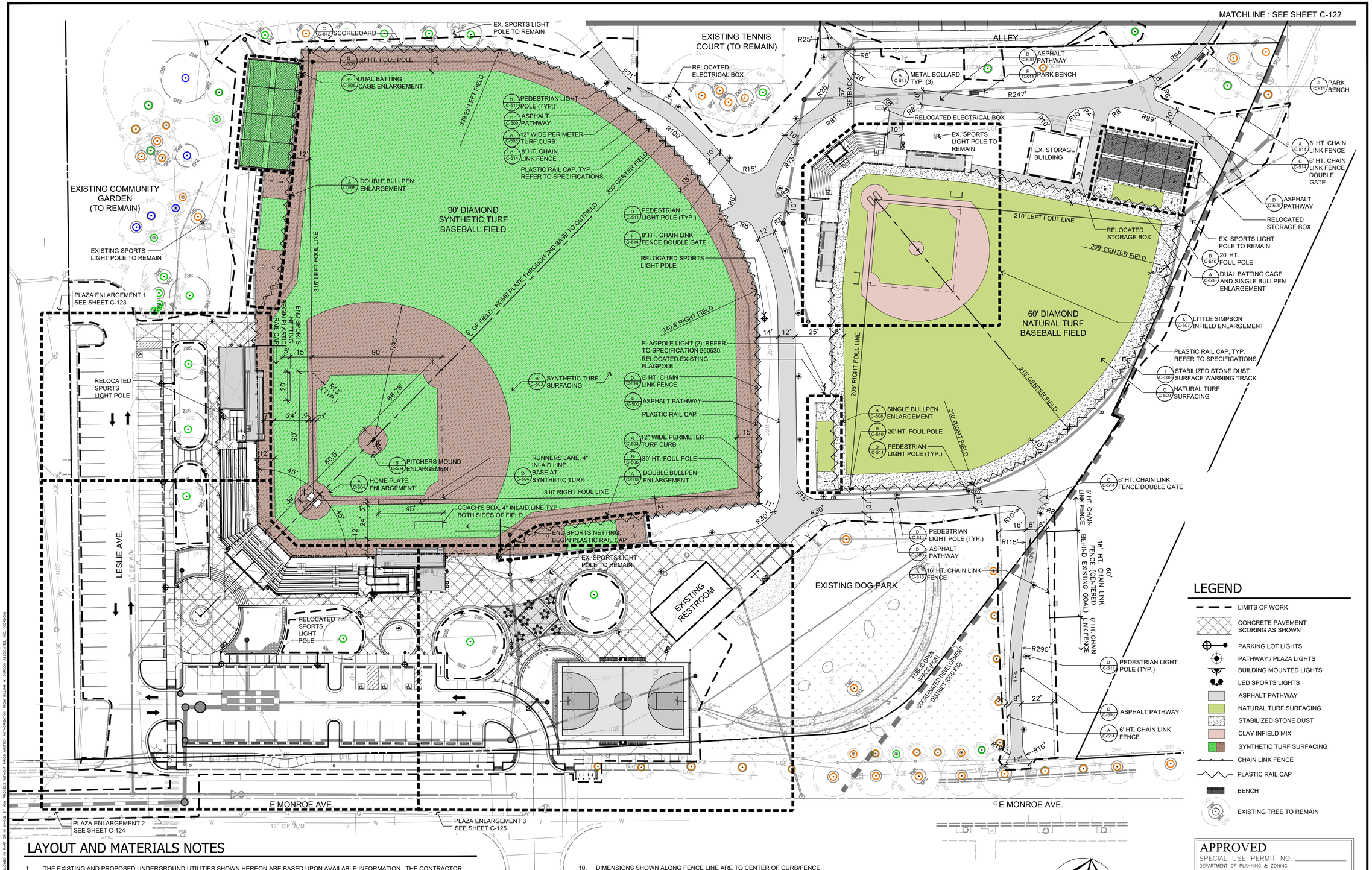

LEGEND

- LIMITS OF WORK
- CONCRETE PAVEMENT SCORING AS SHOWN
- PARKING LOT LIGHTS
- PATHWAY / PLAZA LIGHTS
- BUILDING MOUNTED LIGHTS
- LED SPORTS LIGHTS
- ASPHALT PATHWAY
- NATURAL TURF SURFACING
- STABILIZED STONE DUST
- CLAY INFIELD MIX
- SYNTHETIC TURF SURFACING
- CHAIN LINK FENCE
- PLASTIC RAIL CAP
- BENCH
- EXISTING TREE TO REMAIN

LAYOUT AND MATERIALS NOTES

1. THE EXISTING AND PROPOSED UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING MISS UTILITY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND IS RESPONSIBLE FOR ANY DAMAGES WHICH OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES.
2. ANY DAMAGE TO THE EXISTING CONDITIONS TO REMAIN DUE TO CONSTRUCTION OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. ALL HARDSCAPE INCLUDING CURB CORNERS, STRUCTURES, SPORTS NETTING POLES, LIGHT POLES, AND ATHLETIC EQUIPMENT (BASES, HOME PLATE, PITCHERS RUBBER) ETC. SHALL BE SURVEY LOCATED AT APPROPRIATE INCREMENTS TO ACHIEVE PROPER INSTALLATION.
4. BASEBALL FIELD LINES HAVE BEEN LAID OUT TO CURRENT NFHS/ NCAA STANDARDS. CONTRACTOR SHALL PROVIDE SHOP DRAWING FOR REVIEW.
5. DIMENSIONS SHOWN TO AND FROM BASEBALL FIELD LINES (FOUL, COACHES BOX, RUNNERS LANE) ARE TO OUTSIDE EDGE OF LINES.
6. WARNING TRACK DIMENSIONS ARE TAKEN FROM CENTERLINE OF FENCE.
7. CONCRETE SCORING SHALL BE APPLIED AS SHOWN ON THIS PLAN. LOCATIONS OF EXPANSION JOINTS WITHIN ENLARGEMENT AREAS ARE SHOWN ON ENLARGEMENT DETAILS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE TO TOPSOIL AND SEED/ SOD ALL AREAS WITHIN DISTURBANCE AREA NOT DESIGNATED FOR SYNTHETIC TURF AND HARDSCAPE. SPREAD A MINIMUM OF 4" EXISTING OR IMPORTED SCREENED TOPSOIL.
9. CONTRACTOR SHALL PROVIDE TICK MARKS FOR LOCATIONS OF DRAIN CLEANOUTS USING 4" SQUARE BLACK TURF.
10. DIMENSIONS SHOWN ALONG FENCE LINE ARE TO CENTER OF CURB/FENCE.
11. PROVIDE PLASTIC FENCE RAIL CAP ON ALL FENCING OUTSIDE OF SPORTS NETTING, SEE PLAN.PROVIDE FROM END OF NETTING TO END OF NETTING.
12. CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST ALL ELECTRICAL CONDUITS/ AND SURFACE BOXES AS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS AND MAINTAIN POWER TO EXISTING FEATURES TO REMAIN.
13. REFER TO UTILITY PLAN FOR LAYOUT AND MATERIALS OF PROPOSED UTILITIES.
14. CONTRACTOR IS RESPONSIBLE FOR STRIPING LITTLE SIMPSON BASEBALL FIELD LINES SHOWN HEREON PRIOR TO PROJECT ACCEPTANCE.
    A. CHALK AT INFIELD CLAY MIX
       - FOUL LINES
       - BATTERS BOXES
    B. PAINT AT TURF
       - FOUL LINES
       - COACHES BOXES

NORTH

30 15 0 30 60 90

GRAPHICAL SCALE: 1" = 30'

APPROVED
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DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

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www.gordon.us.com

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		REVISIONS

SUR: GORDON	DES: B. CIPRIANO
DRW: P. MATHUR	CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
04-11-2023
LANDSCAPE ARCHITECT
SEAL:

LAYOUT AND MATERIALS PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ:	1" = 30'
VERT:	N/A
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	3395-0301-L-LM101.DWG
NCS:	LAYOUT AND MATERIALS PLAN
NUMBER:	C-121

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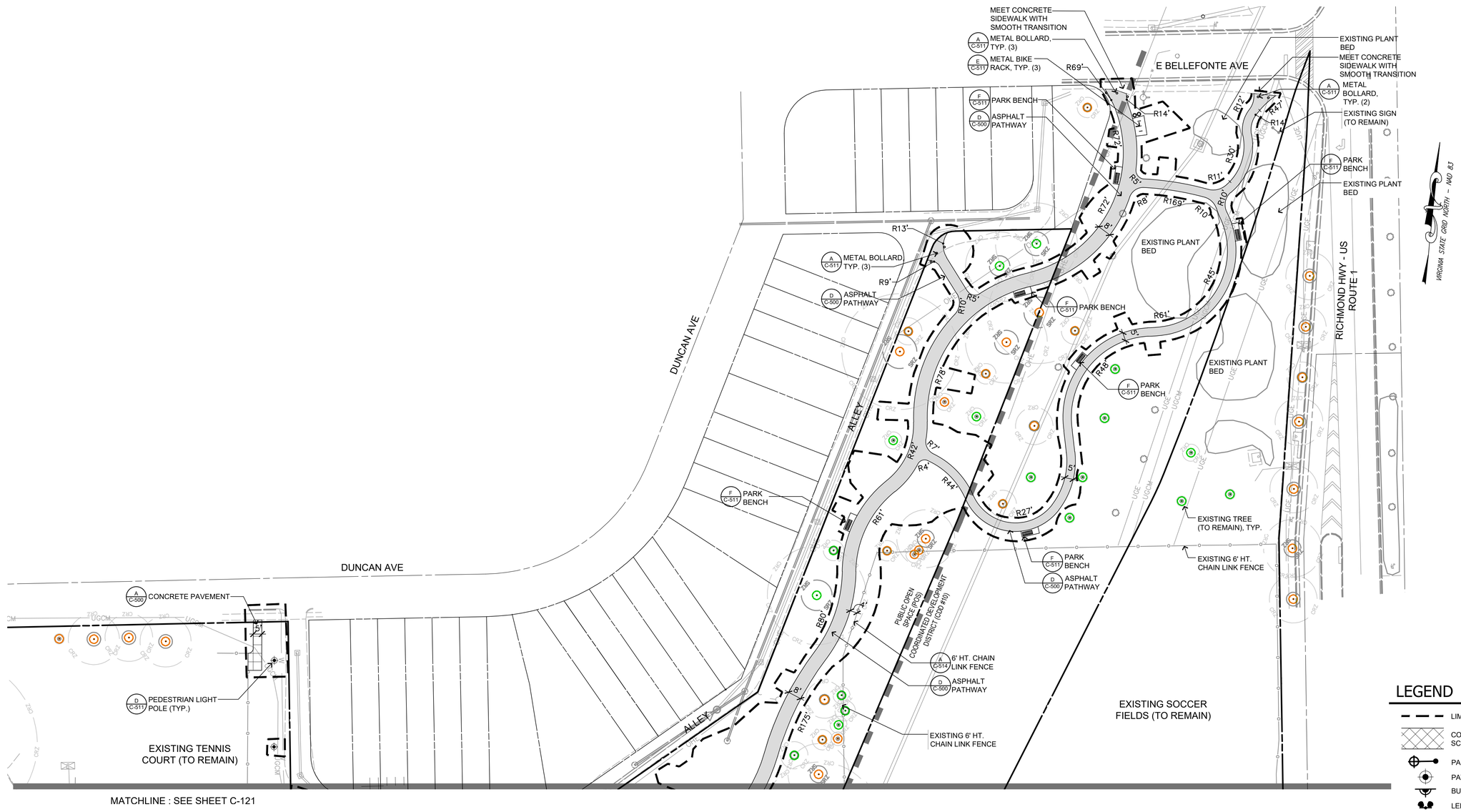

LEGEND

- LIMITS OF WORK
- CONCRETE PAVEMENT SCORING AS SHOWN
- PARKING LOT LIGHTS
- PATHWAY / PLAZA LIGHTS
- BUILDING MOUNTED LIGHTS
- LED SPORTS LIGHTS
- ASPHALT PATHWAY
- NATURAL TURF SURFACING
- STABILIZED STONE DUST
- CLAY INFIELD MIX
- SYNTHETIC TURF SURFACING
- CHAIN LINK FENCE
- PLASTIC RAIL CAP
- BENCH
- EXISTING TREE TO REMAIN

NORTH

30 15 0 30 60 90

GRAPHICAL SCALE: 1" = 30'

APPROVED
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DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

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DIRECTOR DATE

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NUMBER	DATE	DESCRIPTION

SUR: GORDON
DES: B. CIPRIANO
DRW: P. MATHUR
CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
04-11-2023
LANDSCAPE ARCHITECT
SEAL:

LAYOUT AND MATERIALS PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 30'
VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-LM101.DWG
NCS: LM102
NUMBER: C-122

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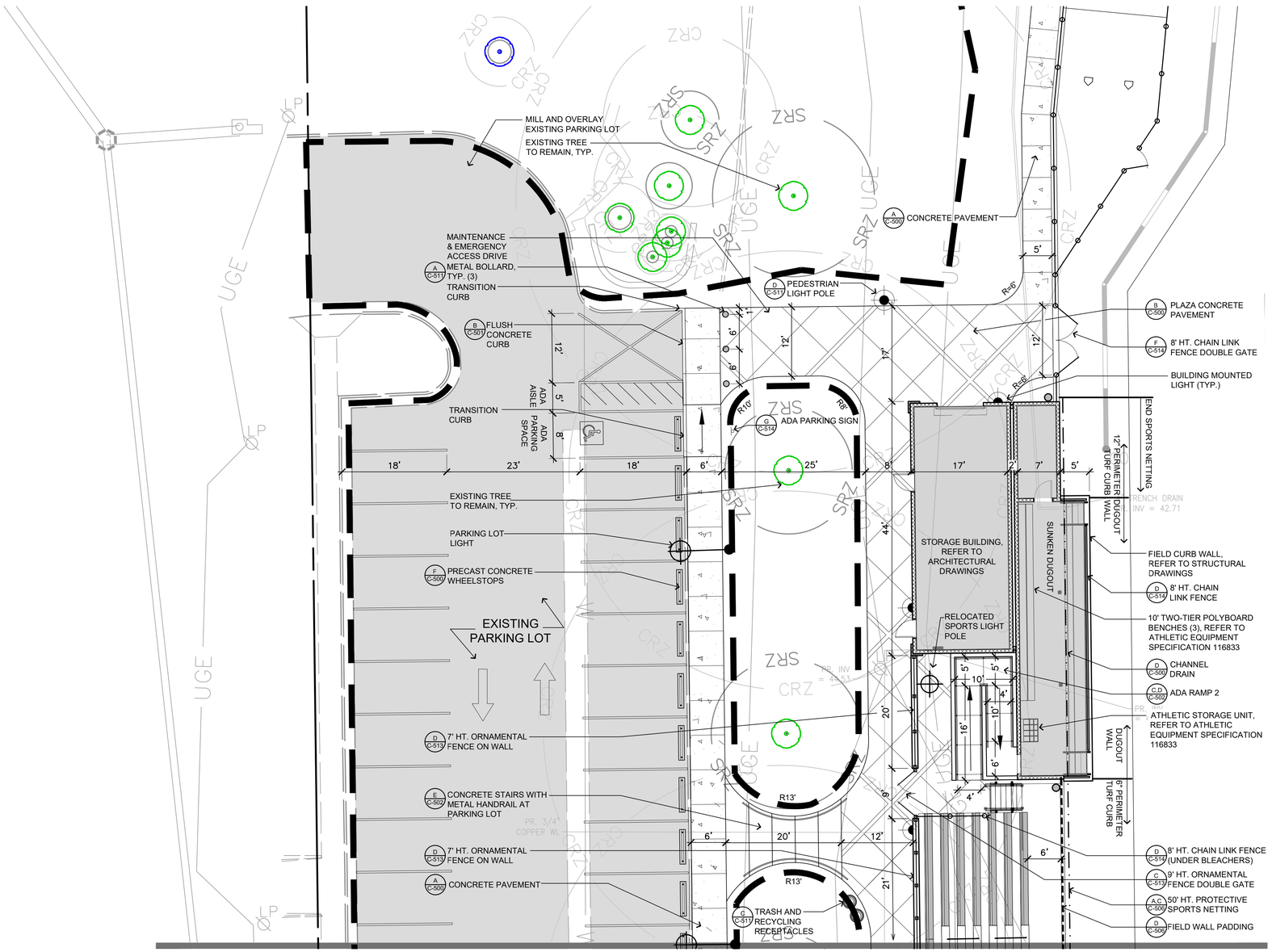
LEGEND

- LIMITS OF WORK
- CONCRETE PAVEMENT SCORING AS SHOWN
- PARKING LOT LIGHTS
- PATHWAY / PLAZA LIGHTS
- BUILDING MOUNTED LIGHTS
- LED SPORTS LIGHTS
- CHAIN LINK FENCE
- BENCH
- WHEELSTOPS
- EXISTING TREE TO REMAIN



NOTES

1. ANY STREET SIGNAGE REMOVED AS PART OF STREETSCAPE IMPROVEMENTS, INCLUDING LIGHTING, SHALL BE REINSTALLED IN SAME LOCATION.

NORTH

10 5 0 10 20 30

GRAPHICAL SCALE: 1" = 10'

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISION DATE

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DES: B. CIPRIANO
DRW: P. MATHUR
CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT

SEAL:

ENLARGEMENT PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION

City of Alexandria, Virginia

SCALE: HORIZ: 1" = 10'
VERT: N/A

DATE: MARCH 2023

PLAN:

JOB: 3395-0301

CADD: 3395-0301-L-LM401.DWG

NCS: ENLARGEMENT PLAN

NUMBER: C-123

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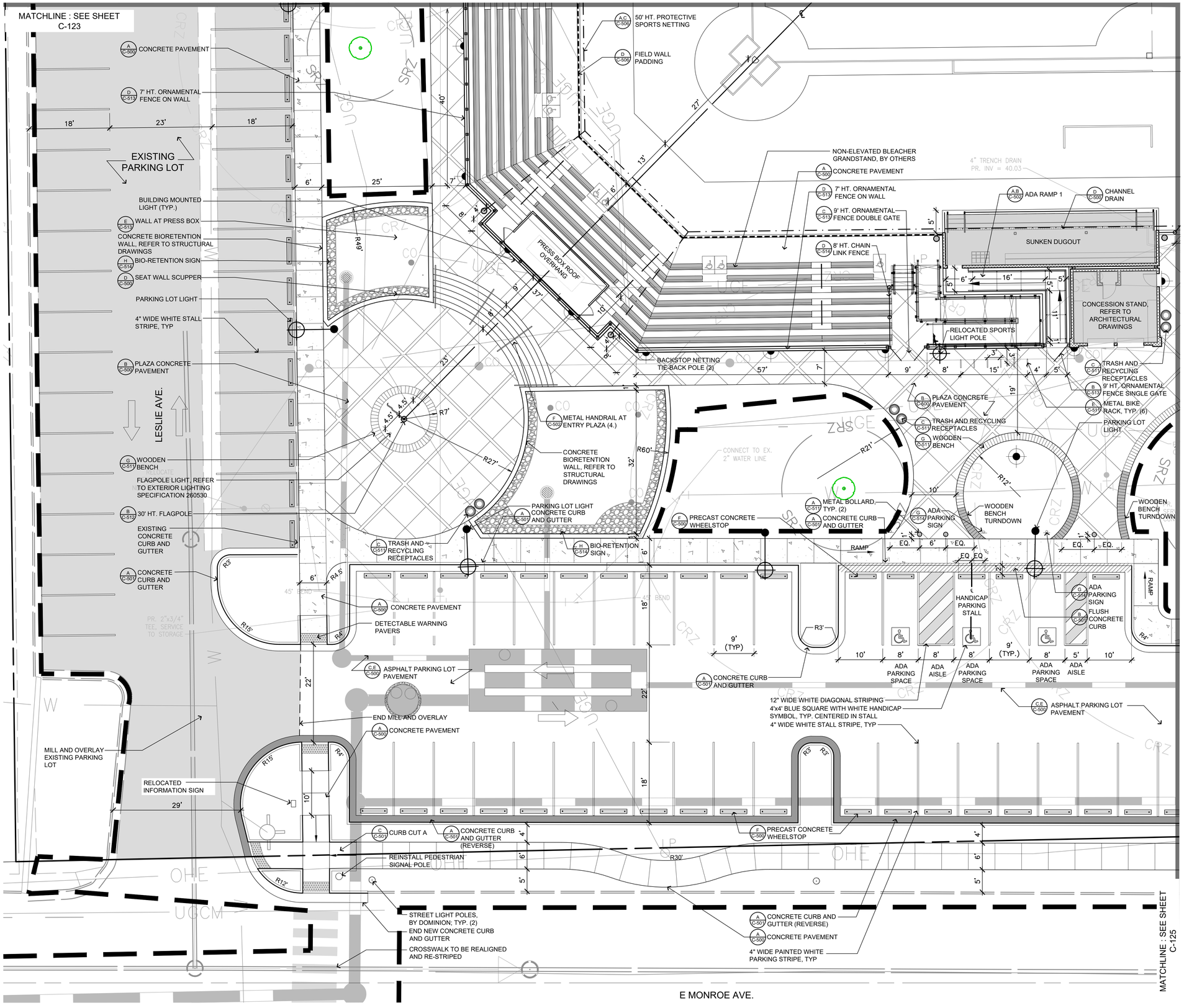

LEGEND

- LIMITS OF WORK
- CONCRETE PAVEMENT SCORING AS SHOWN
- PARKING LOT LIGHTS
- PATHWAY / PLAZA LIGHTS
- BUILDING MOUNTED LIGHTS
- LED SPORTS LIGHTS
- CHAIN LINK FENCE
- BENCH
- WHEELSTOPS
- EXISTING TREE TO REMAIN

NOTES

1. ANY STREET SIGNAGE REMOVED AS PART OF STREETSCAPE IMPROVEMENTS, INCLUDING LIGHTING, SHALL BE REINSTALLED IN SAME LOCATION.

NORTH

10 5 0 10 20 30

GRAPHICAL SCALE: 1" = 10'

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DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISION DATE

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COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

ENLARGEMENT PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: 1" = 10' VERT: N/A
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	3395-0301-L-LM401.DWG
NCS:	2
NUMBER:	C-124

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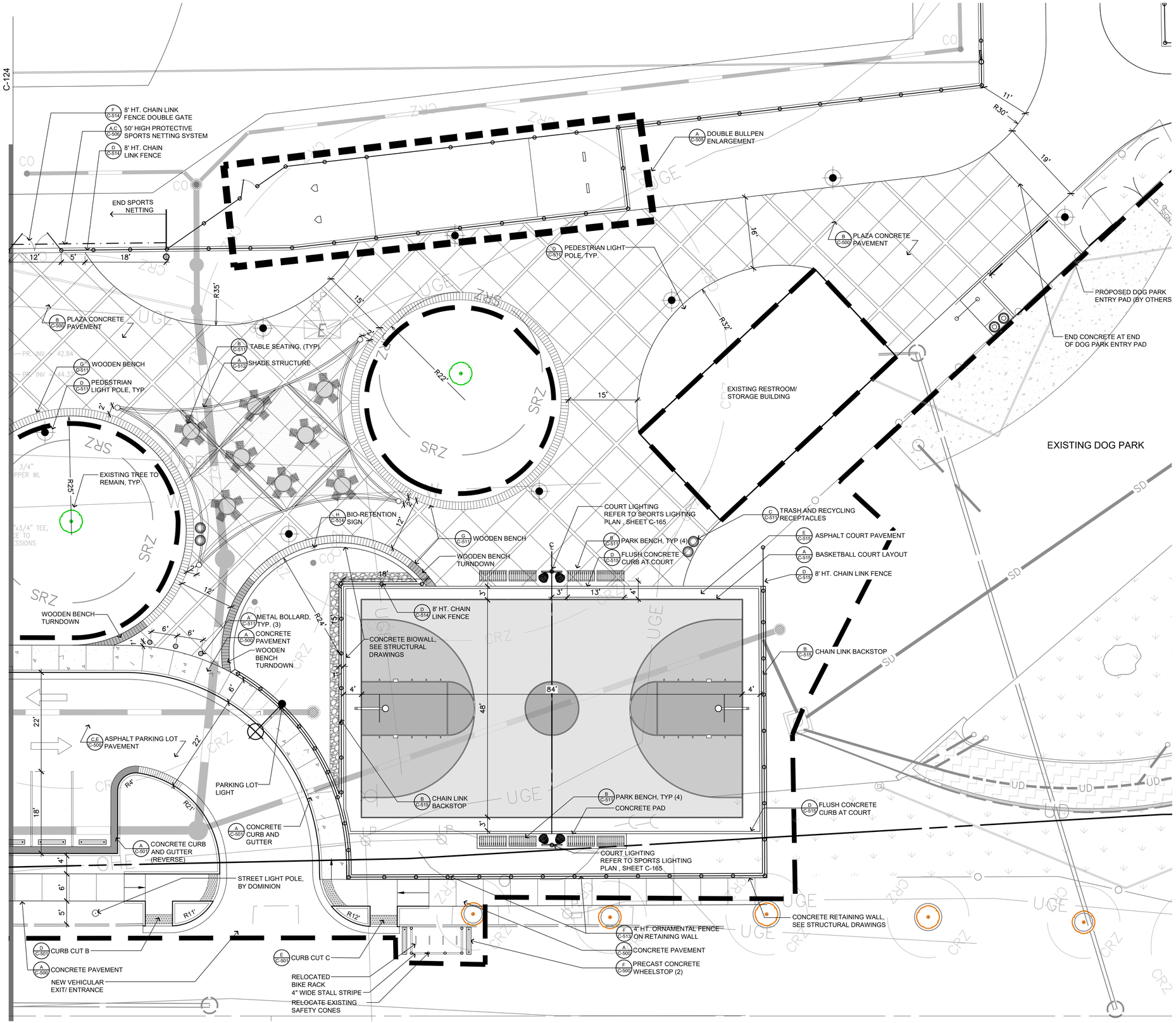

LEGEND

- LIMITS OF WORK
- CONCRETE PAVEMENT SCORING AS SHOWN
- PARKING LOT LIGHTS
- PATHWAY / PLAZA LIGHTS
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- LED SPORTS LIGHTS
- CHAIN LINK FENCE
- BENCH
- WHEELSTOPS
- EXISTING TREE TO REMAIN

NOTES

1. ANY STREET SIGNAGE REMOVED AS PART OF STREETSCAPE IMPROVEMENTS, INCLUDING LIGHTING, SHALL BE REINSTALLED IN SAME LOCATION.

NORTH

10 5 0 10 20 30

GRAPHICAL SCALE: 1" = 10'

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DIRECTOR DATE
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LANDSCAPE ARCHITECT

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ENLARGEMENT PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: 1" = 10' VERT: N/A
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	3395-0301-L-LM401.DWG
NCS:	3
NUMBER:	C-125

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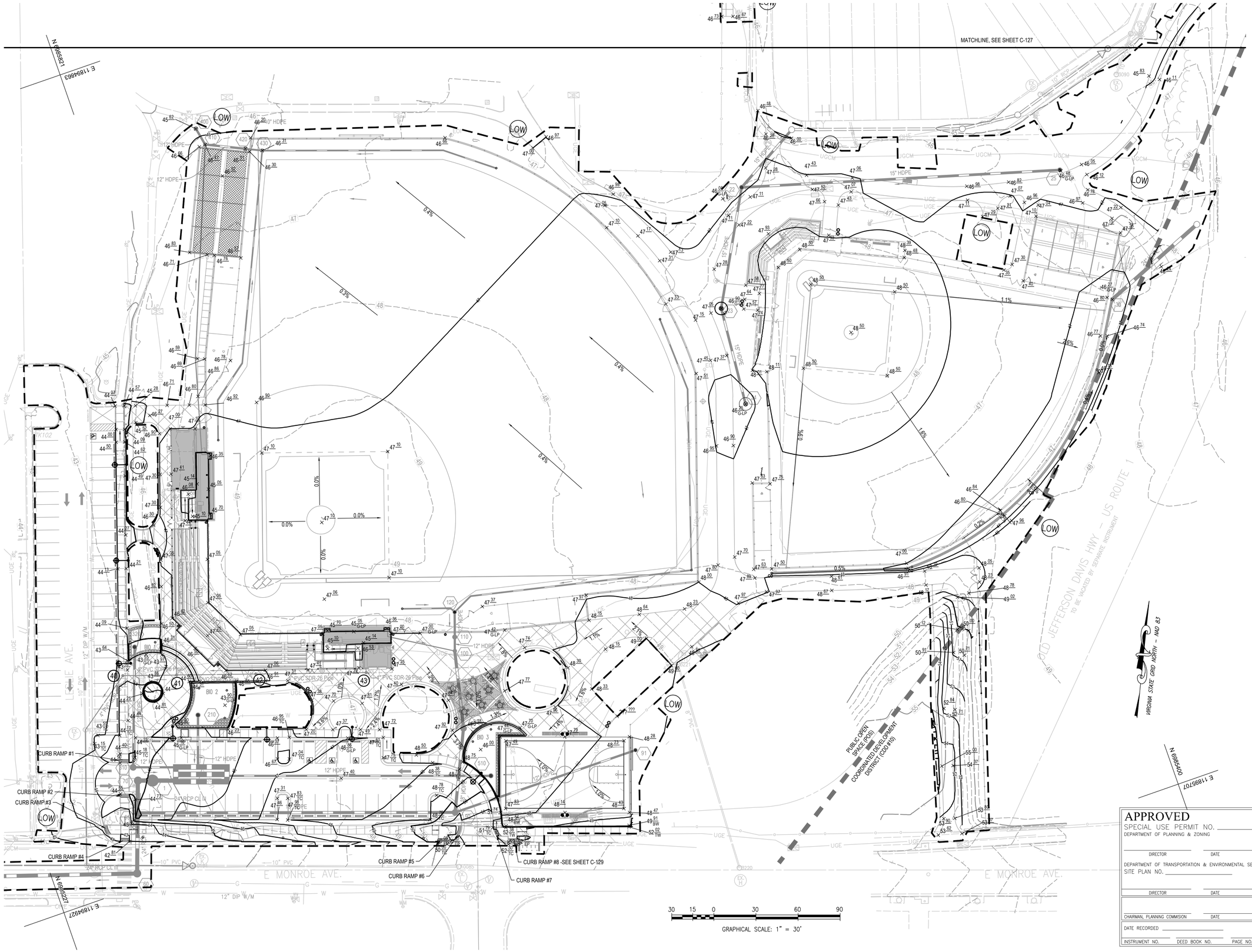

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SUR: GORDON	DES: A. COOPER
DRW: A. COOPER	CHK: J.P. WILLIAMS

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS
Lic. No. 46493
4/11/23
PROFESSIONAL ENGINEER
SEAL:

GRADING PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: 1" = 30' VERT:
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	C-CG-101.DWG
NCS:	C-CG-101
NUMBER:	C-126

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REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: A. COOPER
DRW: A. COOPER	CHK: J.P. WILLIAMS

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS
Lic. No. 46493
4/11/23
PROFESSIONAL ENGINEER
SEAL:

GRADING PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: 1" = 30' VERT:
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	C-CG-101.DWG
NCS:	C-CG-101
NUMBER:	C-127

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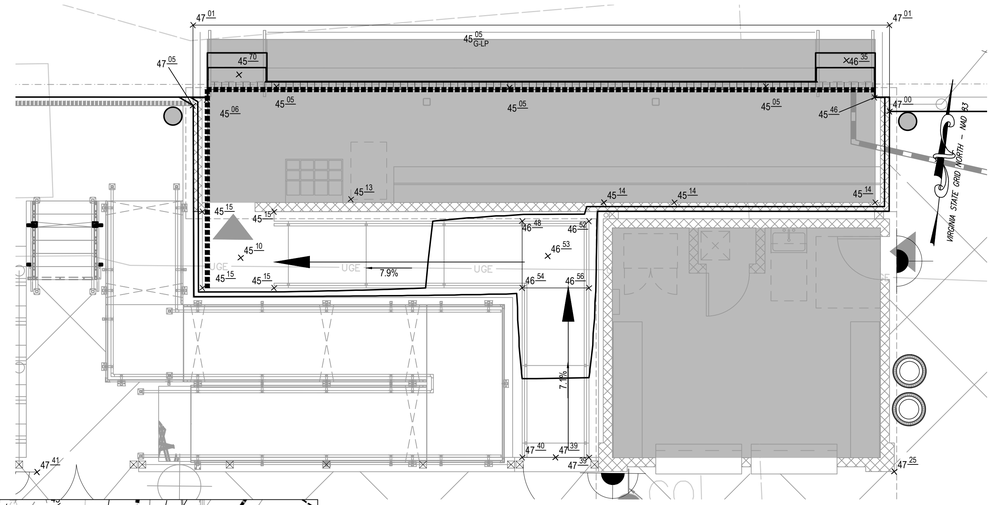
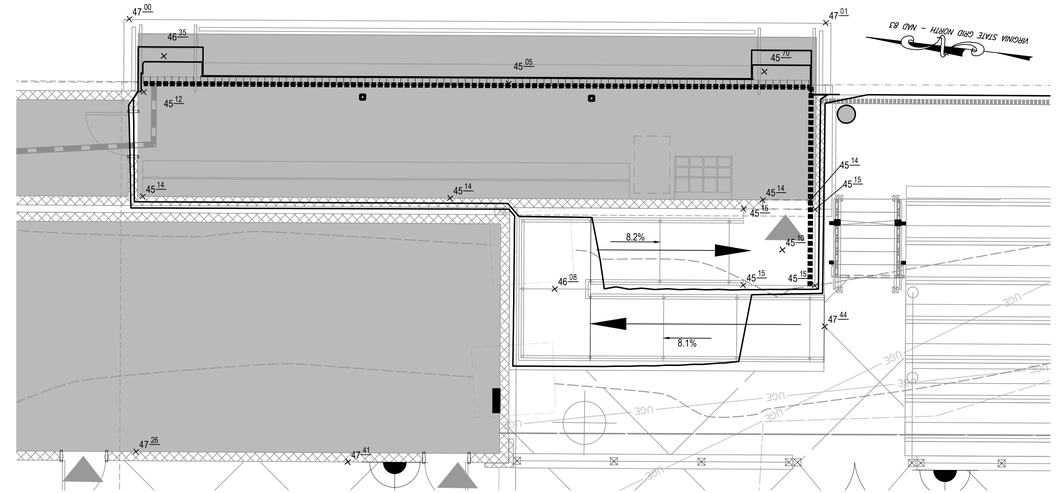


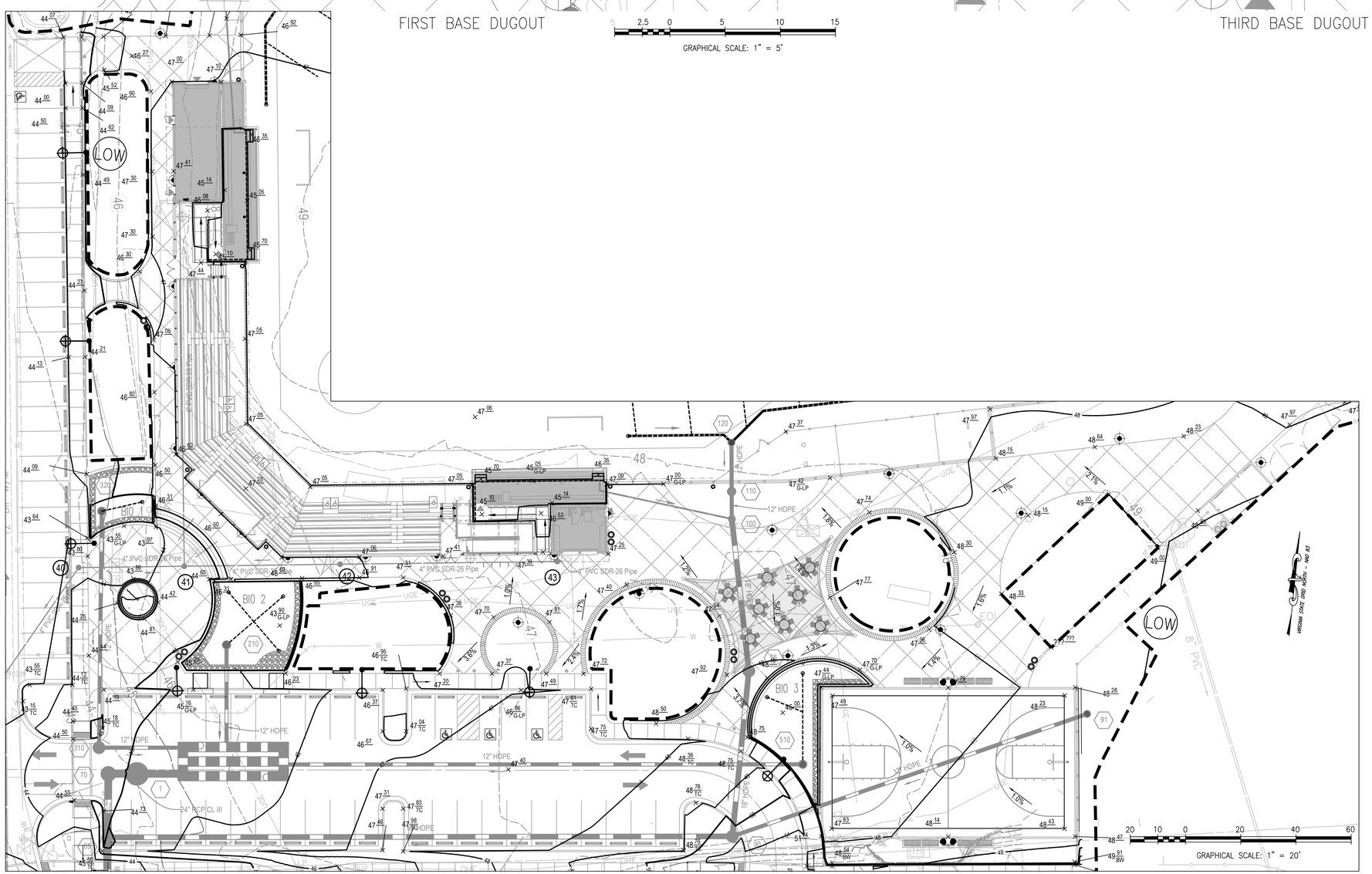
FIRST BASE DUGOUT

GRAPHICAL SCALE: 1" = 5'



THIRD BASE DUGOUT

GRAPHICAL SCALE: 1" = 5'



GRAPHICAL SCALE: 1" = 20'

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DIRECTOR DATE

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SITE PLAN NO. _____

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISION DATE

DATE RECORDED _____

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

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Chantilly, VA 20151
Phone: 703-263-1900
www.gordon.us.com

REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: A. COOPER
DRW: A. COOPER	CHK: J.P. WILLIAMS

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS
Lic. No. 46493
3/13/23
PROFESSIONAL ENGINEER
SEAL:

GRADING PLAN ENLARGEMENT I

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: AS SHOWN VERT:
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	C-CG-101.DWG
NCS:	C-CG-101
NUMBER:	C-128

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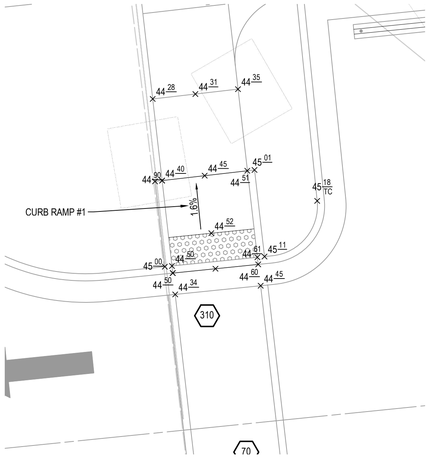

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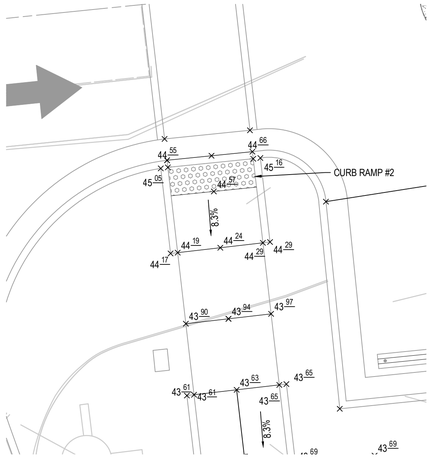

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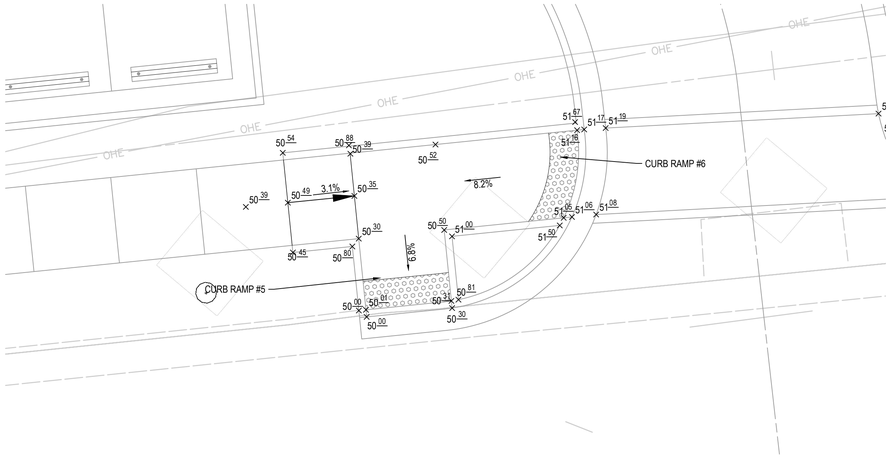
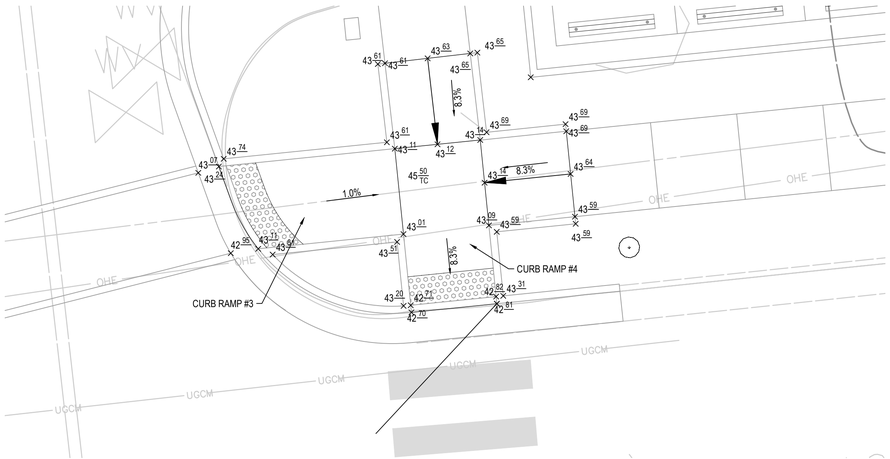


CURB RAMP #5 AND #6



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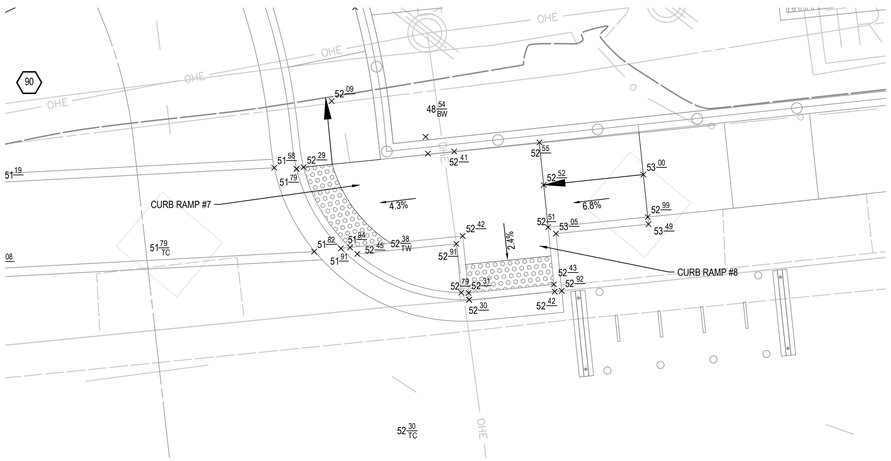

CURB RAMP #7 AND #8

VIRGINIA STATE GRID NORTH – NAD 83

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DIRECTOR DATE

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SITE PLAN NO. _____

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISION DATE

DATE RECORDED _____

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REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: A. COOPER
DRW: A. COOPER	CHK: J.P. WILLIAMS

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS
Lic. No. 46493
3/13/23
PROFESSIONAL ENGINEER
SEAL:

GRADING PLAN ENLARGEMENT II

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: 1" = 3' VERT:
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	C-CG-101.DWG
NCS:	C-CG-101
NUMBER:	C-129

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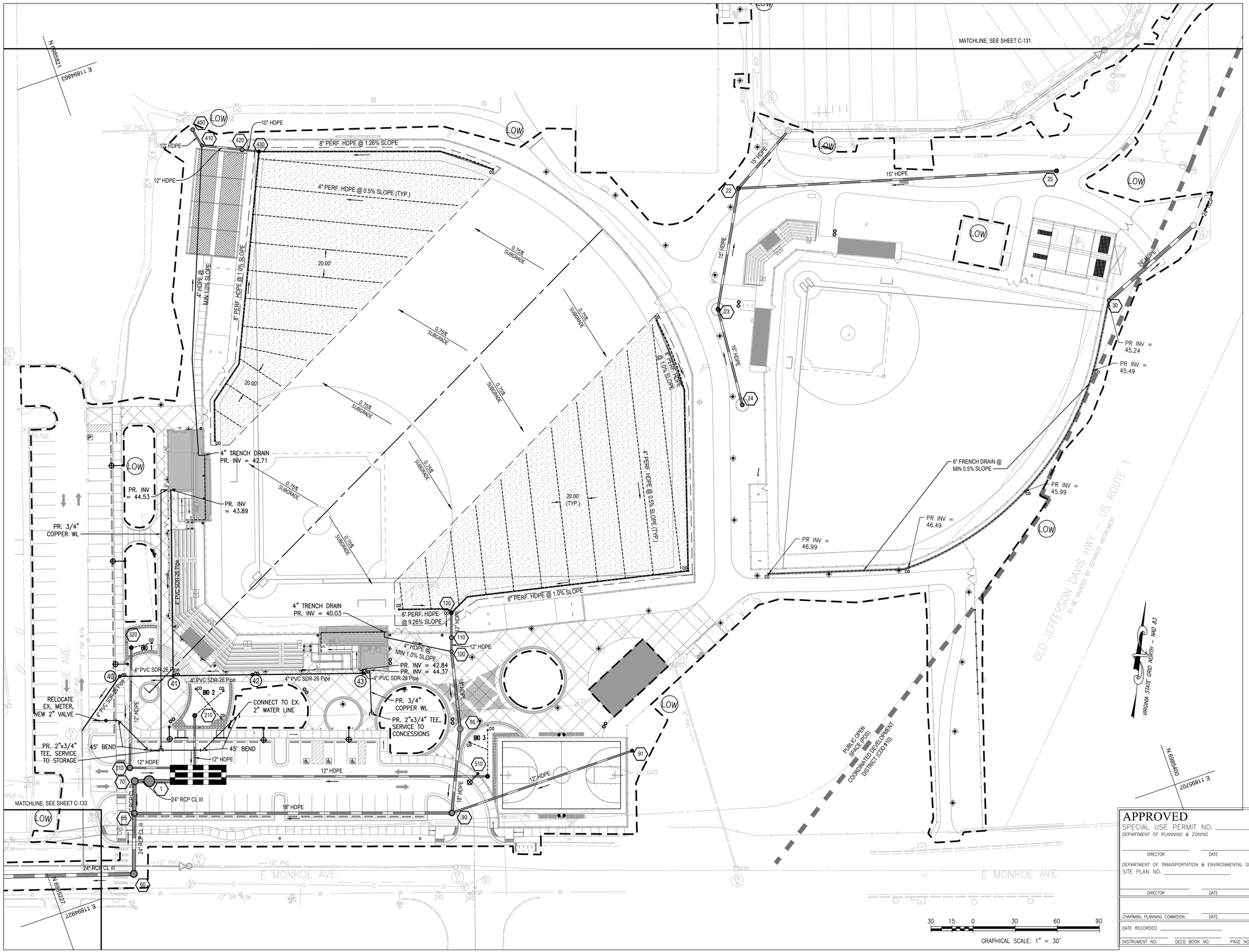

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DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISION DATE

DATE RECORDED _____

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

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SECURITY CONSULTING
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Phone: 703-263-1900
www.gordon.us.com

REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: N. RAY
DRW: N. RAY	CHK: J.P. WILLIAMS

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS
Lic. No. 46493
4/11/23
PROFESSIONAL ENGINEER
SEAL:

SITE UTILITY PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: 1" = 30' VERT:
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	C-CS-101.DWG
NCS:	C-CS-101
NUMBER:	C-130

Gordon

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DIRECTOR DATE
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Phone: 703-263-1900
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REVISIONS

NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: N. RAY
DRW: N. RAY	CHK: J.P. WILLIAMS

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS
Lic. No. 46493
4/11/23
PROFESSIONAL ENGINEER
SEAL:

SITE UTILITY PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: 1" = 30' VERT:
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	C-CS-101.DWG
NCS:	C-CS-101
NUMBER:	C-131

Gordon

G:\PROJECTS\AR3395 - ALEXANDRIA RAMSEY\AR3395-SITEWK\AR3395-SITEWK_R1\03231231PM.pcmpr VERT DATUM ### HORZ DATUM ###
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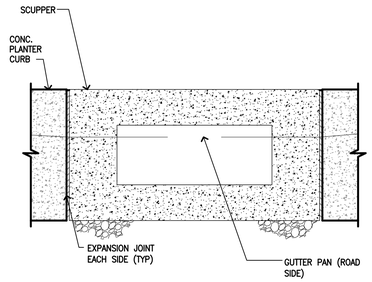
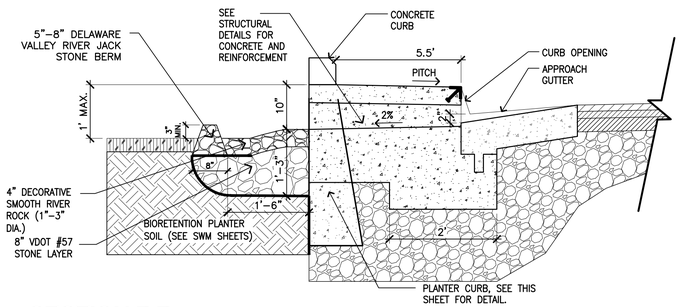


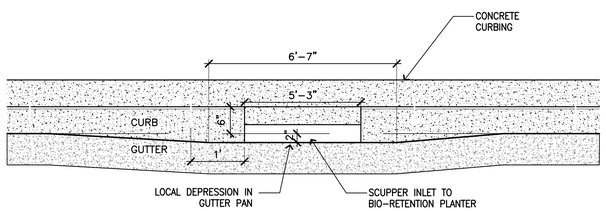
SECTION C-C

SCALE: 1" = 1'-0"



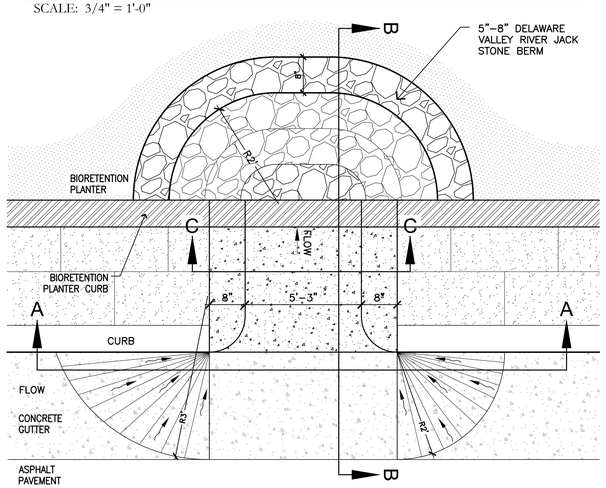
SECTION B-B

SCALE: 3/4" = 1'-0"



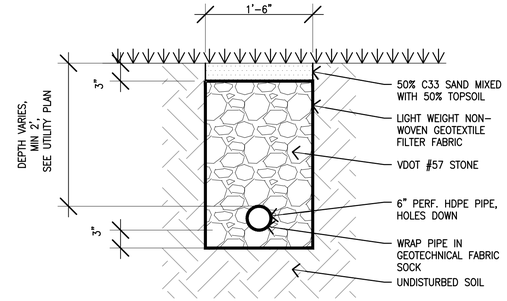
SECTION A-A

SCALE: 3/4" = 1'-0"



A STREET SCUPPER ENLARGEMENT

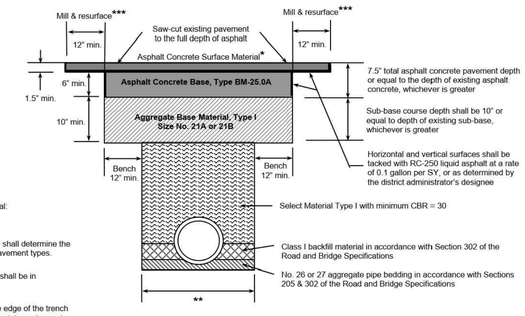
SCALE: 3/4" = 1'-0"



B FRENCH DRAIN

SCALE: 1"=1'-0"

Asphalt Pavement Restoration for Open Cut Utility Installations



NOTES:

* Asphalt Concrete Surface Material:
SM-9.5A for ADT < 10,000
SM-9.5D for ADT > 10,000

The district administrator's designee shall determine the restoration requirements for other pavement types.

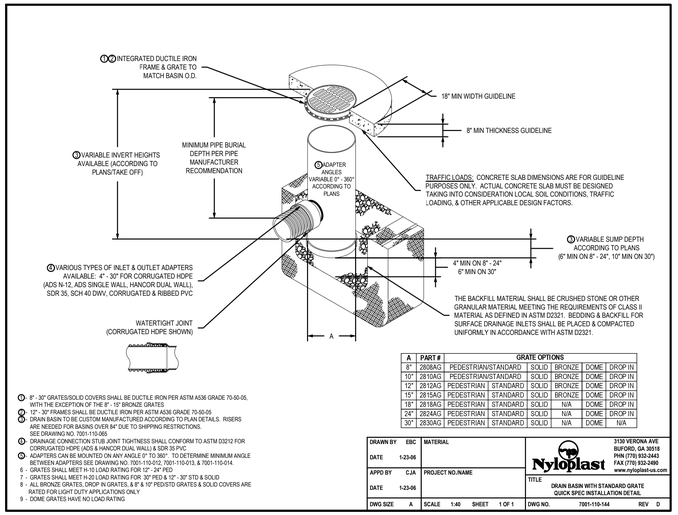
** Trench width and pipe bedding shall be in accordance with VDOT Std. PB-1

*** 12 inches minimum beyond the edge of the trench on longitudinal open cuts, or 25 feet minimum beyond the trench centerline on perpendicular open cuts, or as determined by the district administrator's designee.

Date: March 26, 2014 **Not to Scale**

C ASPHALT PAVEMENT CUT RESTORATION

NOT TO SCALE



1. 8" - 30" GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE 8" - 10" BRONZE GRATES
2. 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
5. ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012, 7001-110-013, & 7001-110-014.
6 - GRATES SHALL MEET H-10 LOAD RATING FOR 12" - 24" PED.
7 - GRATES SHALL MEET H-20 LOAD RATING FOR 30" PED & 12" - 30" STD & SOLID
8 - ALL BRONZE GRATES, DROP IN GRATES, & 8" & 10" PED/STD GRATES & SOLID COVERS ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY
9 - DOME GRATES HAVE NO LOAD RATING

A	PART #	GRATE OPTIONS				
8"	2808AG	PEDESTRIAN/STANDARD	SOLID	BRONZE	DOME	DROP IN
10"	2810AG	PEDESTRIAN/STANDARD	SOLID	BRONZE	DOME	DROP IN
12"	2812AG	PEDESTRIAN	STANDARD	SOLID	BRONZE	DOME	DROP IN
15"	2815AG	PEDESTRIAN	STANDARD	SOLID	BRONZE	DOME	DROP IN
18"	2818AG	PEDESTRIAN	STANDARD	SOLID	N/A	DOME	DROP IN
24"	2824AG	PEDESTRIAN	STANDARD	SOLID	N/A	DOME	DROP IN
30"	2830AG	PEDESTRIAN	STANDARD	SOLID	N/A	DOME	N/A

DRAWN BY	EBC	MATERIAL	
DATE	1-23-06		
APPD BY	CJA	PROJECT NO./NAME	
DATE	1-23-06		
DWG SIZE	A	SCALE 1:40	SHEET 1 OF 1

Nyloplast — 3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2460 www.nyloplast-us.com

TITLE: DRAIN BASIN WITH STANDARD GRATE QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-144 REV D

D NYLOPLAST BASIN

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISION DATE

DATE RECORDED _____

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

Gordon
PROGRAMMING AND PLANNING
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SURVEY AND MAPPING
SECURITY CONSULTING
4501 Daly Drive
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Phone: 703-263-1900
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REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: N. RAY
DRW: N. RAY	CHK: J.P. WILLIAMS

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS
Lic. No. 46493
3/13/23
PROFESSIONAL ENGINEER
SEAL:

UTILITY DETAILS

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: VERT:
DATE:	MARCH 2023
PLAN:	
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CADD:	C-CS-201.DWG
NCS:	C-CS-201
NUMBER:	C-132

Gordon

G:\PROJECTS\3395\3395 - ALEXANDRIA HARBOUR\TP\ARCHC-CS-201.DWG, 3/13/2023 2:08 PM, ray VERT. DATUM ####, HORIZ. DATUM ####
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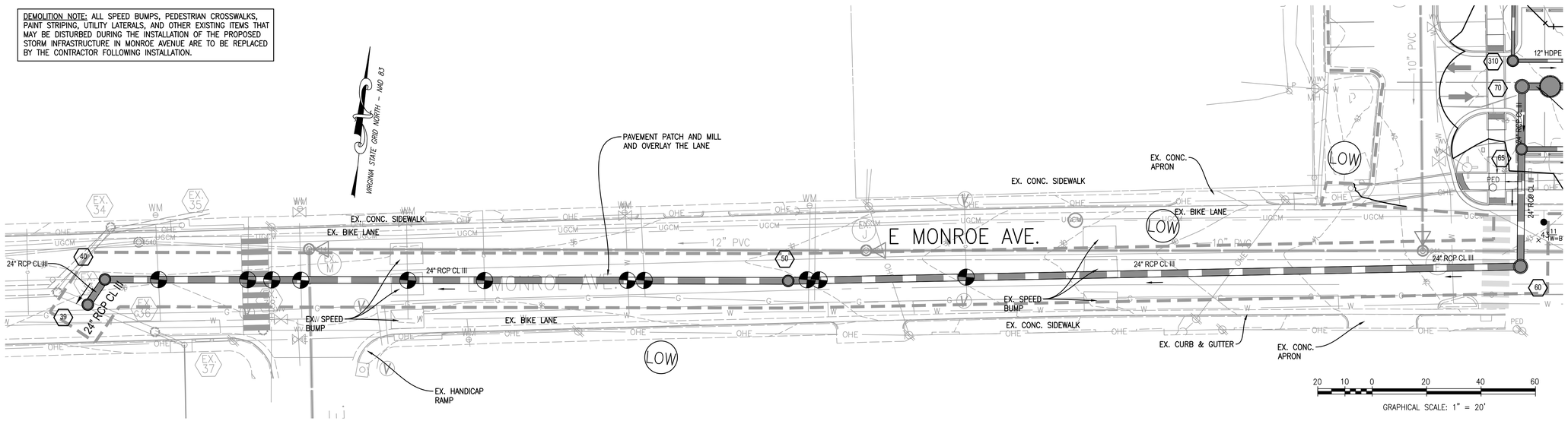
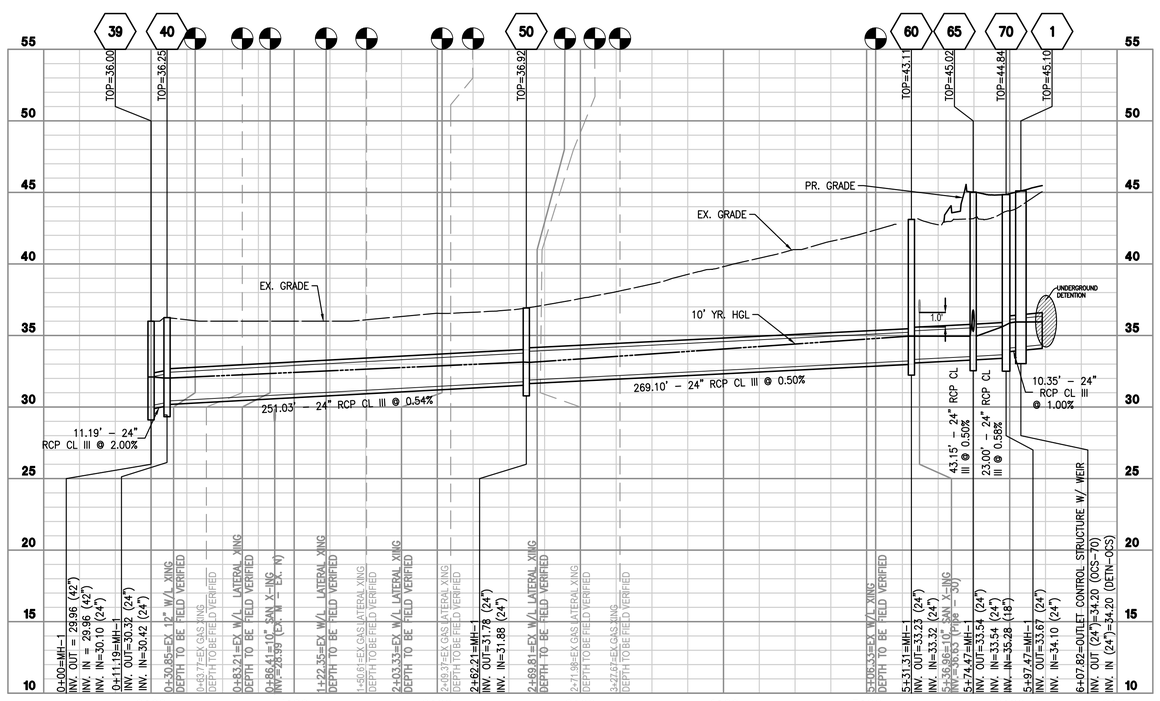
DEMOLITION NOTE: ALL SPEED BUMPS, PEDESTRIAN CROSSWALKS, PAINT STRIPING, UTILITY LATERALS, AND OTHER EXISTING ITEMS THAT MAY BE DISTURBED DURING THE INSTALLATION OF THE PROPOSED STORM INFRASTRUCTURE IN MONROE AVENUE ARE TO BE REPLACED BY THE CONTRACTOR FOLLOWING INSTALLATION.





EAST MONROE AVENUE OUTFALL PROFILE

CONTRACTOR NOTE: CONTRACTOR IS RESPONSIBLE TO PERFORM A TEST PIT TO LOCATE ALL UTILITY LATERALS IN THE RIGHT-OF-WAY OF EAST MONROE AVENUE BEFORE STARTING CONSTRUCTION. ALL CONFLICTING LATERALS MUST BE RELOCATED TO AVOID CONFLICT WITH THE PROPOSED STORM OUTFALL. CONTRACTOR TO COORDINATE WITH APPROPRIATE UTILITY PROVIDER(S) TO RELOCATE THE LATERAL.

HORIZONTAL GRAPHICAL SCALE: 1" = 50'

VERTICAL GRAPHICAL SCALE: 1" = 5'

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED _____
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SECURITY CONSULTING

REVISIONS

NUMBER	DATE	DESCRIPTION

SUR: GORDON
DES: A. COOPER
DRW: A. COOPER
CHK: J.P. WILLIAMS

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS
Lic. No. 46493
3/13/23
PROFESSIONAL ENGINEER
SEAL:

MONROE AVENUE OUTFALL PLAN & PROFILE

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: AS SHOWN VERT: AS SHOWN
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CU-201.DWG
NCS: C-CU-201
NUMBER: C-133
Gordon

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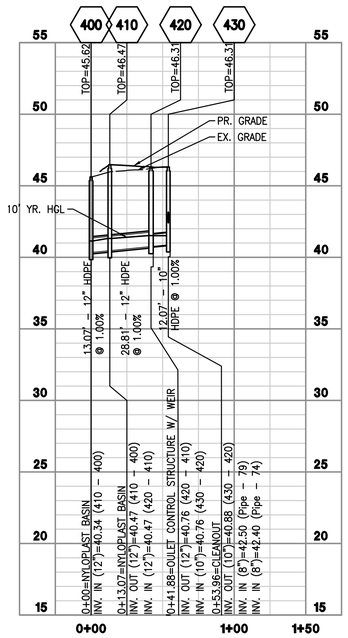
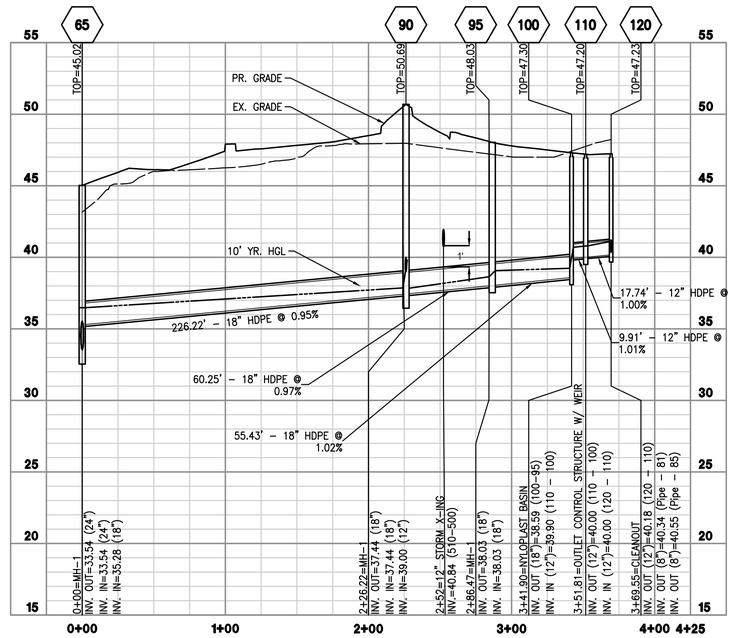
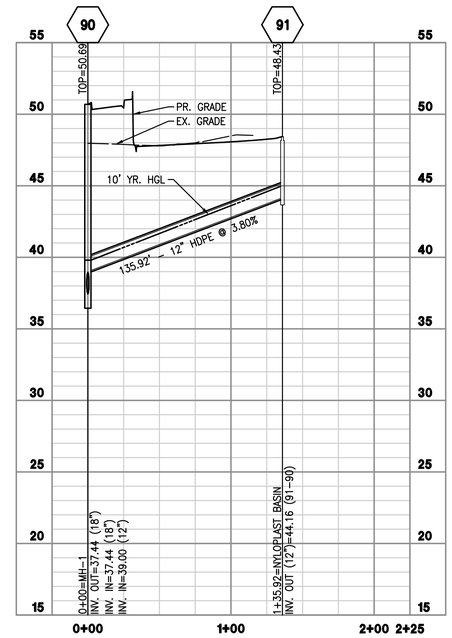


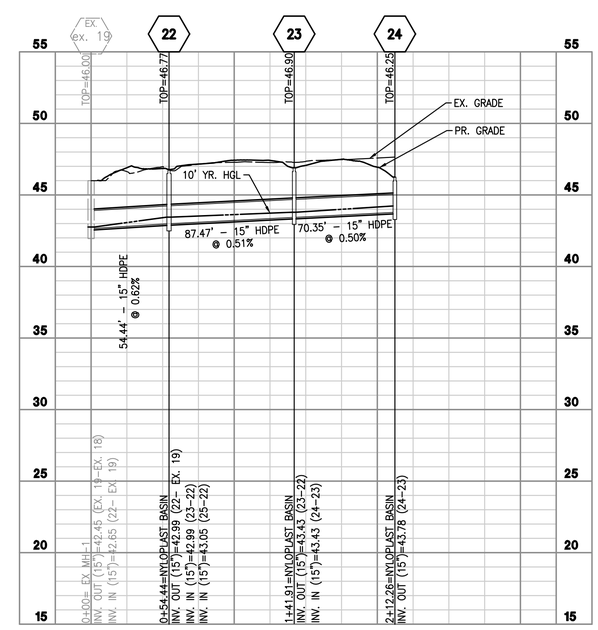
FIELD OUTFALL #1 PROFILE



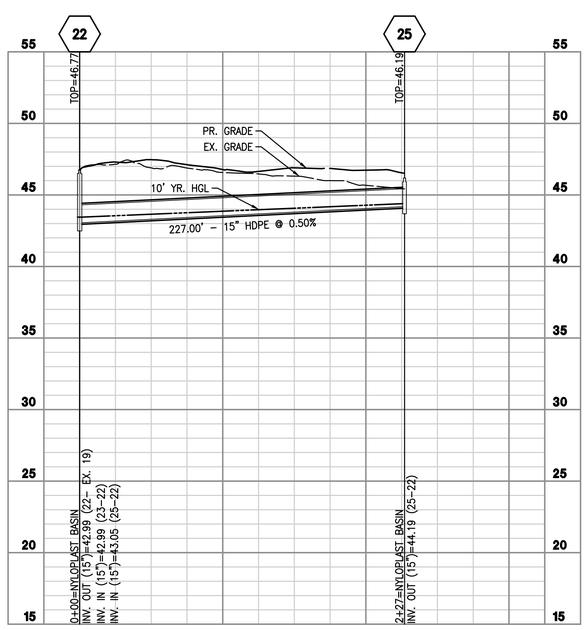
FIELD OUTFALL #2 PROFILE



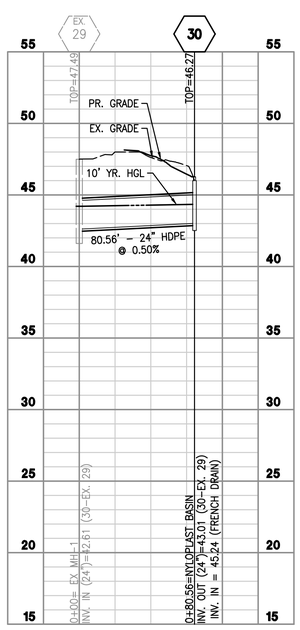
91–90 PROFILE



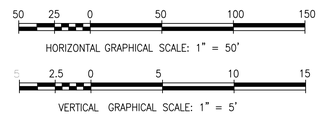
24–EX. 19 PROFILE



25–22 PROFILE



30–29 PROFILE



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DRW: A. COOPER	CHK: J.P. WILLIAMS

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS
Lic. No. 46493
3/13/23
PROFESSIONAL ENGINEER
SEAL:

PROPOSED STORM PLAN & PROFILE

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

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STORM SEWER PIPE DESIGN

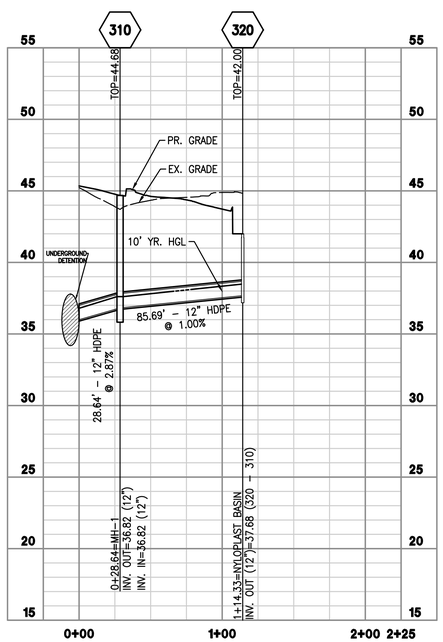
Structure Up	Structure Down	LineID	DrainageArea (ac)	RunoffCoeff (C)	IncrCxA	TotalCxA	InletTime (min)	iSys (in/hr)	Incr Flow Rate (cfs)	KnownQ (cfs)	Total FlowRate (cfs)	InvertUp (ft)	InvertDn (ft)	LineLength (ft)	LineSlope (%)	LineSize (in)	Manning's Roughness Coefficient n	CapacityFull (cfs)	Vel Partial (ft/s)	PipeTravel (min)	Tc Total (min)	Grnd/Rim Elev Up (ft)	Cap	Tc Total Down (min)
1	2	2A	3	4	5	6	7	8	9A	9B	9	10	11	12	13	14	14A	15	16	17	17A	A	B	C
40	39	40-39	0.00	0.90	0.00	0.60	5.00	6.51	0.00	0.00	10.83	30.32	30.10	11.19	1.99	24	0.013	31.94	8.9	0.02	7.66	36.00	34%	7.68
50	40	50-40	0.00	0.90	0.00	0.60	5.00	6.70	0.00	0.00	10.94	31.78	30.42	251.03	0.54	24	0.013	16.62	5.7	0.74	6.92	36.92	66%	7.66
60	50	60-50	0.00	0.90	0.00	0.60	5.00	6.93	0.00	0.00	11.08	33.23	31.88	269.10	0.50	24	0.013	16.03	5.5	0.81	6.11	34.76	69%	6.92
65	60	65-60	0.00	0.90	0.00	0.60	5.00	6.97	0.00	0.00	11.10	33.54	33.32	43.15	0.50	24	0.013	16.00	5.5	0.13	5.98	45.02	69%	6.11
70	65	70-65	0.00	0.90	0.00	0.00	5.00	7.26	0.00	0.00	4.73	33.67	33.54	23.01	0.58	24	0.013	17.20	4.5	0.08	5.03	44.84	27%	5.12
1	70	1-70	0.00	0.90	0.00	0.00	5.00	7.27	0.00	0.00	4.73	34.20	34.10	10.35	1.01	24	0.013	22.68	5.4	0.03	5.00	45.10	21%	5.03
2	1	2-1	0.00	0.90	0.00	0.00	5.00	7.27	0.00	0.00	0.00	34.35	34.20	14.90	1.01	24	0.013	22.70		0.00	5.00	45.47	0%	5.00
90	65	90-65	0.00	0.60	0.00	0.60	5.00	7.15	0.00	0.00	6.48	37.44	35.28	226.22	0.95	18	0.013	10.26	6.2	0.61	5.37	50.69	63%	5.98
91	90	91-90	0.00	0.90	0.00	0.00	5.00	7.27	0.00	0.00	0.00	44.16	39.00	135.92	3.80	12	0.013	6.94		0.00	5.00	48.43	0%	5.00
95	90	95-90	0.67	0.90	0.60	0.60	5.00	7.20	4.34	0.00	6.51	38.03	37.44	60.25	0.97	18	0.013	10.37	6.2	0.16	5.21	48.03	63%	5.37
100	95	100-95	0.00	0.90	0.00	0.00	5.00	7.27	0.00	2.17	2.17	38.59	38.03	55.44	1.02	18	0.013	10.59	4.5	0.21	5.00	47.30	20%	5.21
110	100	110-100	0.00	0.90	0.00	0.00	5.00	7.27	0.00	0.00	0.00	40.00	39.90	9.91	1.01	12	0.013	3.58	0.0	0.00	5.00	47.20	0%	5.00
120	110	120-110	0.00	0.90	0.00	0.00	5.00	7.27	0.00	0.00	0.00	40.18	40.00	17.74	1.00	12	0.013	3.56		0.00	5.00	47.24	0%	5.00
310	300	310-300	0.00	0.90	0.00	0.00	5.00	7.27	0.00	0.00	0.00	36.82	36.00	28.64	2.87	12	0.013	6.04	0.0	0.00	5.00	44.68	0%	5.00
320	200	320-200	0.00	0.90	0.00	0.00	5.00	7.27	0.00	0.00	0.00	37.68	36.82	85.69	1.00	12	0.013	3.56		0.00	5.00	42.00	0%	5.00
210	500	210-500	0.00	0.90	0.00	0.00	5.00	7.27	0.00	0.00	0.00	37.43	36.55	35.34	2.50	12	0.013	5.63	0.0	0.00	5.00	43.90	0%	5.00
510	500	510-500	0.00	0.90	0.00	0.00	5.00	7.27	0.00	0.00	0.00	41.59	35.50	186.25	3.27	12	0.013	6.44		0.00	5.00	46.00	0%	5.00
410	400	410-400	0.00	0.90	0.00	0.00	5.00	7.23	0.00	0.00	2.19	40.47	40.34	13.07	1.00	12	0.013	3.57	4.8	0.05	5.10	46.47	61%	5.15
420	410	420-410	0.00	0.90	0.00	0.00	5.00	7.27	0.00	2.19	2.19	40.76	40.47	28.81	1.00	12	0.013	3.57	4.8	0.10	5.00	242.36	61%	5.10
430	420	430-420	0.00	0.90	0.00	0.00	5.00	7.27	0.00	0.00	0.00	40.88	40.76	12.07	1.00	10	0.013	2.19	0.0	0.00	5.00	242.75	0%	5.00
ex. 17	ex. 16	ex. 17-ex. 16	0.00	0.90	0.00	0.62	5.00	6.91	0.00	0.00	4.29	41.19	40.87	79.63		15	0.013	4.10	3.8	0.35	6.18	44.93		6.53
ex. 18	ex. 17	ex. 18-ex. 17	0.00	0.90	0.00	0.62	5.00	6.95	0.00	0.00	4.31	41.53	41.23	40.64	0.74	15	0.013	5.55	5.0	0.13	6.04	45.00	78%	6.18
ex. 19	ex. 18	ex. 19-ex. 18	0.21	0.90	0.19	0.62	5.00	7.08	1.34	0.00	4.40	42.45	41.76	121.60	0.57	15	0.013	4.87	4.6	0.44	5.60	46.14		6.04
22	ex. 19	22-ex. 19	0.13	0.90	0.12	0.43	5.00	7.14	0.84	0.00	3.09	42.99	42.65	54.44	0.62	15	0.013	5.08	4.3	0.21	5.39	46.77	61%	5.60
23	22	23-22	0.35	0.90	0.32	0.32	5.00	7.27	2.29	0.00	2.29	43.43	42.99	87.47	0.51	15	0.013	4.61	3.7	0.39	5.00	46.90	50%	5.39
24	23	24-23	0.00	0.90	0.00	0.00	5.00	7.27	0.00	0.00	0.00	43.79	43.43	70.35	0.50	15	0.013	4.57	0.0	0.00	5.00	46.25	0%	5.00
25	22	25-22	0.00	0.90	0.00	0.00	5.00	7.27	0.00	0.00	0.00	44.19	43.05	227.01		15	0.013	4.57		0.00	5.00	46.39	0%	5.00
30	ex. 29	30-ex. 29	1.04	0.90	0.94	0.94	5.00	7.27	6.80	0.00	6.80	43.01	42.61	80.56	0.50	24	0.013	16.00	4.8	0.28	5.00	46.27	43%	5.28
0	0	0-0	0.25	0.90	0.23	0.23	5.00	7.27	1.64	0.00	1.64	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.013	#VALUE!	3.1	0.44	5.00	#N/A	10%	5.44

STORM SEWER HGL DESIGN

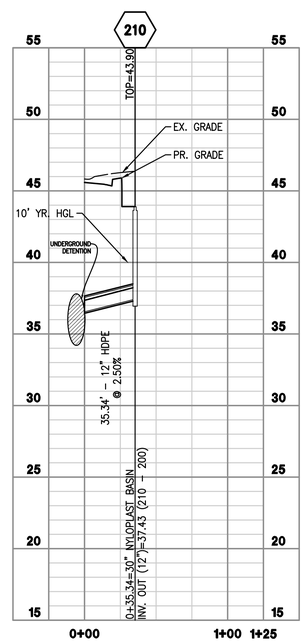
INLET STATION Up	INLET STATION Down	Outlet Water Surface Elev. Elev.	Outlet Water Surface Elev. 0.8D or 10Yr WSEL	D_O	Q_D	L_d	S_{TD} % full	H_f	JUNCTION LOSS V_d	H_d Loss Coefficient k	H_D	Q_L	V_i	V_iQ_L	$V_i^2/2g$	H_i	Angle	K	H_b	H_h	1.3 H_i	0.5 H_i	0.5 IS-1 App=sato *	Final H	Inlet Water Surface Elev.	Inlet Invert + 0.8D Elev.	Check if 0.8D > than Final H	Rim/Flow Line Elev.
1	1A	2	2A	3	4	5	6	7	8	9A	9	10	11	12	12A	13	14	14a	15	16	17	18	18A	19	20	20A	A	B
40	39	31.70	0.8d	24	10.83	11.19	0.23%	0.03	8.95	0.25	0.31	10.94	5.66	61.94	0.50	0.17		0.000	0	0.48	0.00	0.24	Y	0.27	**31.97**	31.92		36.00
50	40	32.02	0.8d	24	10.94	251.03	0.23%	0.59	5.66	0.25	0.12	11.08	5.51	61.04	0.47	0.17	0	0.000	0	0.29	0.00	0.14	Y	0.73	**32.76**	33.38	33.38	36.25
60	50	33.48	0.8d	24	11.08	269.10	0.24%	0.65	5.51	0.25	0.12	11.10	5.50	61.07	0.47	0.16	88	0.692	0.325	0.61	0.00	0.30	Y	0.95	**34.43**	34.83	34.83	34.09
65	60	34.92	0.8d	24	11.10	43.15	0.24%	0.10	5.50	0.25	0.12	6.48	6.15	39.88	0.59	0.21	89	0.696	0.409	0.73	0.00	0.37	Y	0.47	**35.39**	35.14		44.35
70	65	35.39	WSE	24	4.73	23.01	0.04%	0.01	4.54	0.25	0.08	4.73	5.41	25.61	0.46	0.16	89	0.696	0.317	0.56	0.00	0.28	Y	0.29	**35.68**	35.27		44.17
1	70	35.70	0.8d	24	4.73	10.35	0.04%	0.00	5.41	0.25	0.11						0	0.000	0	0.11	0.00	0.06	Y	0.06	**35.76**	35.80	35.80	44.43
2	1	35.80	0.8d	24	0.00	14.90	0.00%	0.00	0.00	0.25	0.00							0.000	0	0.00	0.00	0.00	Y	0.00	**35.80**	35.95	35.95	44.80
90	65	36.48	0.8d	18	6.48	226.22	0.38%	0.86	6.15	0.25	0.15	6.51	6.22	40.50	0.60	0.21	84	0.676	0.406	0.76	0.99	0.50	Y	1.36	**37.84**	38.64	38.64	50.02
91	90	39.80	0.8d	12	0.00	135.92	0.00%	0.00	0.00	0.25	0.00							0.000	0	0.00	0.00	0.00	Y	0.00	**39.80**	44.96	44.96	47.76
95	90	38.64	0.8d	18	6.51	60.25	0.38%	0.23	6.22	0.25	0.15	2.17	4.49	9.75	0.31	0.11	12	0.154	0.048	0.31	0.40	0.20	Y	0.43	**39.07**	39.23	39.23	47.36
100	95	39.23	0.8d	18	2.17	55.44	0.04%	0.02	4.49	0.25	0.08						6	0.074	0	0.08	0.00	0.04	Y	0.06	**39.29**	39.79	39.79	46.63
110	100	40.70	0.8d	12	0.00	9.91	0.00%	0.00	0.00	0.25	0.00						0	0.000	0	0.00	0.00	0.00	Y	0.00	**40.70**	40.80	40.80	46.53
120	110	40.80	0.8d	12	0.00	17.74	0.00%	0.00	0.00	0.25	0.00							0.000	0	0.00	0.00	0.00	Y	0.00	**40.80**	40.98	40.98	46.57
310	300	36.80	0.8d	12	0.00	28.64	0.00%	0.00	0.00	0.25	0.00							0.000	0	0.00	0.00	0.00	Y	0.00	**36.80**	37.62	37.62	44.01
320	200	37.62	0.8d	12	0.00	85.69	0.00%	0.00	0.00	0.25	0.00							0.000	0	0.00	0.00	0.00	Y	0.00	**37.62**	38.48	38.48	41.33
210	500	37.35	0.8d	12	0.00	35.34	0.00%	0.00	0.00	0.25	0.00							0.000	0	0.00	0.00	0.00	Y	0.00	**37.35**	38.23	38.23	43.23
510	500	36.30	0.8d	12	0.00	186.25	0.00%	0.00	0.00	0.25	0.00							0.000	0	0.00	0.00	0.00	Y	0.00	**36.30**	42.39	42.39	45.33
410	400	41.14	0.8d	12	2.19	13.07	0.38%	0.05	4.77	0.25	0.09	2.19	4.77	10.45	0.35	0.12		0.000	0	0.21	0.00	0.11	Y	0.16	**41.29**	41.27		45.80
420	410	41.29	WSE	12	2.19	28.81	0.38%	0.11	4.77	0.25	0.09						0	0.000	0	0.09	0.00	0.04	Y	0.15	**41.44**	41.56	41.56	241.69
430	420	41.44	WSE	10	0.00	12.07	0.00%	0.00	0.00	0.25	0.00							0.000	0	0.00	0.00	0.00	Y	0.00	**41.44**	41.54	41.54	242.08
ex. 17	ex. 16	41.87	0.8d	15	4.29	79.63	0.44%	0.35	3.84	0.25	0.06	4.31	5.02	21.65	0.39	0.14		0.000	0	0.19	0.00	0.10	Y	0.45	**42.32**	42.19		44.26
ex. 18	ex. 17	42.32	WSE	15	4.31	40.64	0.45%	0.18	5.02	0.25	0.10	4.40	4.56	20.04	0.32	0.11	14	0.178	0.057	0.27	0.00	0.13	Y	0.32	**42.63**	42.53		44.33
ex. 19	ex. 18	42.76	0.8d	15	4.40	121.60	0.46%	0.56	4.56	0.25	0.08	3.09	4.35	13.42	0.29	0.10	49	0.493	0.145	0.33	0.43	0.21	Y	0.78	**43.54**	43.45		45.47
22	ex. 19	43.65	0.8d	15	3.09	54.44	0.23%	0.12	4.35	0.25	0.07	2.29	3.72	8.52	0.22	0.08	31	0.358	0.077	0.23	0.29	0.15	Y	0.27	**43.92**	43.99	43.99	46.10
23	22	43.99	0.8d	15	2.29	87.47	0.13%	0.11	3.72	0.25	0.05						24	0.289	0	0.05	0.07	0.03	Y	0.14	**44.13**	44.43	44.43	46.23
24	23	44.43	0.8d	15	0.00	70.35	0.00%	0.00	0.00	0.25	0.00							0.000	0	0.00	0.00	0.00	Y	0.00	**44.43**	44.79	44.79	45.58
25	22	44.05	0.8d	15	0.00	227.01	0.00%	0.00	0.00	0.25	0.00							0.000	0	0.00	0.00	0.00	Y	0.00	**44.05**	45.19	45.19	45.72
30	ex. 29	44.21	0.8d	24	6.80	80.56	0.09%	0.07	4.84	0.25	0.09							0.000	0	0.09	0.12	0.06	Y	0.13	**44.34**	44.61	44.61	45.60

STRUCTURE TABLE

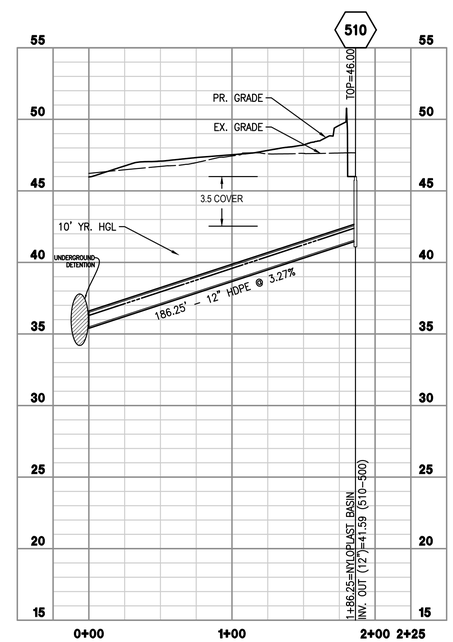
INLET TABLE				
STRUCTURE NUMBER	BASIN SIZE (IN)	BASIN TYPE	LID SIZE (IN)	LID TYPE
1	30	OCS W/ WEIR	24	SOLID
22	36	NYLOPLAST BASIN	30	GRATE
23	24	NYLOPLAST BASIN	24	GRATE
24	24	NYLOPLAST BASIN	24	GRATE
25	24	NYLOPLAST BASIN	24	GRATE
30	24	NYLOPLAST BASIN	24	GRATE
39	48	MANHOLE	24	SOLID
40	48	MANHOLE	24	SOLID
50	48	MANHOLE	24	SOLID
60	48	MANHOLE	24	SOLID
65	48	MANHOLE	24	SOLID
70	60	MANHOLE	24	SOLID
90	48	MANHOLE	24	SOLID
91	24	NYLOPLAST BASIN	24	GRATE
95	24	MANHOLE	24	SOLID
100	24	NYLOPLAST BASIN	8	SOLID
110	30	OCS W/ WEIR	24	SOLID
120	24	CLEANOUT	8	SOLID
210	30	NYLOPLAST BASIN	30	GRATE
310	48	MANHOLE	24	SOLID
320	15	NYLOPLAST BASIN	15	GRATE
400	24	NYLOPLAST BASIN	24	SOLID
410	24	NYLOPLAST BASIN	24	SOLID
420	30	OCS W/ WEIR	24	SOLID
430	24	CLEANOUT	8	SOLID
510	18	NYLOPLAST BASIN	18	GRATE



BIO 1 PROFILE



BIO 2 PROFILE



BIO 3 PROFILE

50 25 0 50 100 150

HORIZONTAL GRAPHICAL SCALE: 1" = 50'

10 2.5 0 5 10 15

VERTICAL GRAPHICAL SCALE: 1" = 5'

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www.gordon.us.com

NUMBER	DATE	DESCRIPTION
		REVISIONS

SUR: GORDON
DES: A. COOPER
DRW: A. COOPER
CHK: J.P. WILLIAMS

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS V
Lic. No. 46493
3/13/23
PROFESSIONAL ENGINEER
SEAL:

PROPOSED STORM COMPUTATIONS

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 50' VERT: 1" = 5'
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CU-201.DWG
NCS: C-CU-201
NUMBER: C-135

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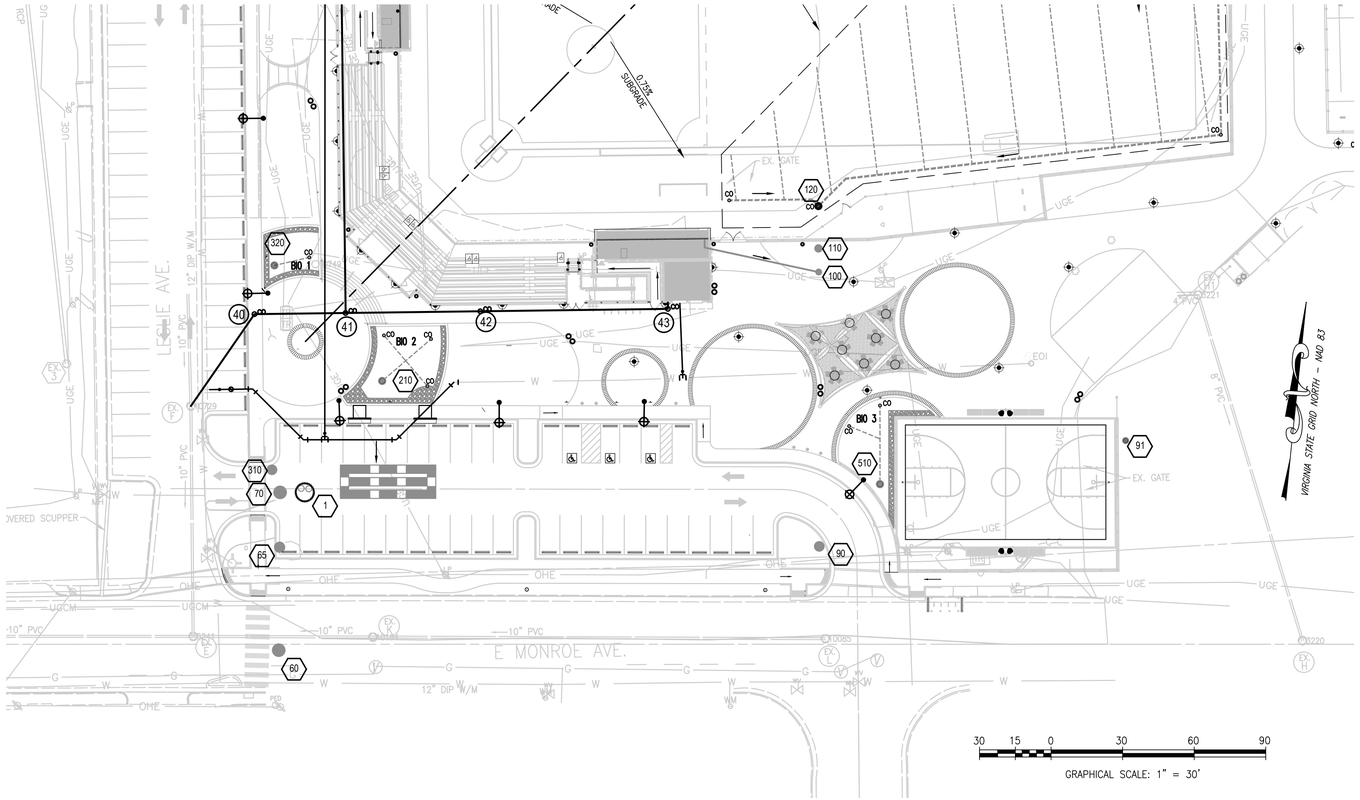
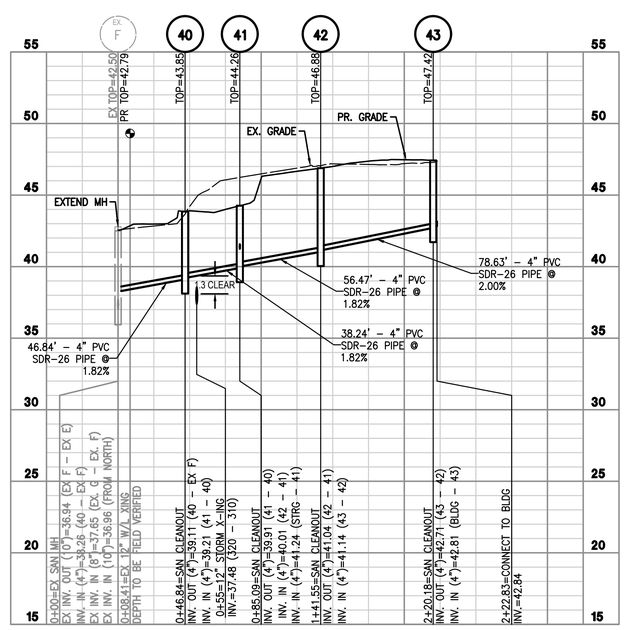
SANITARY SEWER OUTFALL ANALYSIS NARRATIVE:

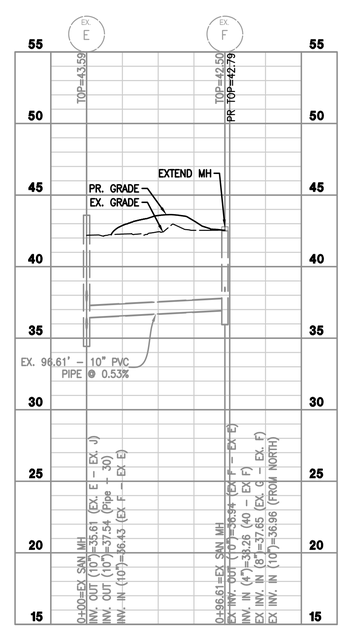
THE SANITARY FLOW GENERATED BY THE PROPOSED IMPROVEMENTS IS LIMITED TO A SINK WITHIN THE CONCESSION STAND. THE ESTIMATED FLOW FOR THIS PROPOSED USE IS 3 GALLONS/DAY (GPD).

THE ESTIMATED FLOW OF 3 GPD FROM THE PROPOSED CONCESSION STAND IS UNDER THE 10,000 GPD THRESHOLD DEFINED IN MEMO TO INDUSTRY 06-14 AND THEREFORE NO FURTHER ANALYSIS IS REQUIRED.





PR SSWR PROFILE



EX SSWR 1 PROFILE

HORIZONTAL GRAPHICAL SCALE: 1" = 50'

VERTICAL GRAPHICAL SCALE: 1" = 5'

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REVISIONS

NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: A. COOPER
DRW: A. COOPER	CHK: J.P. WILLIAMS

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS V
Lic. No. 46493
3/13/23
PROFESSIONAL ENGINEER
SEAL:

PROPOSED SANITARY PLAN & PROFILE

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ:	AS SHOWN
VERT:	AS SHOWN
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	C-CU-501.DWG
NCS:	C-CU-501
NUMBER:	C-136

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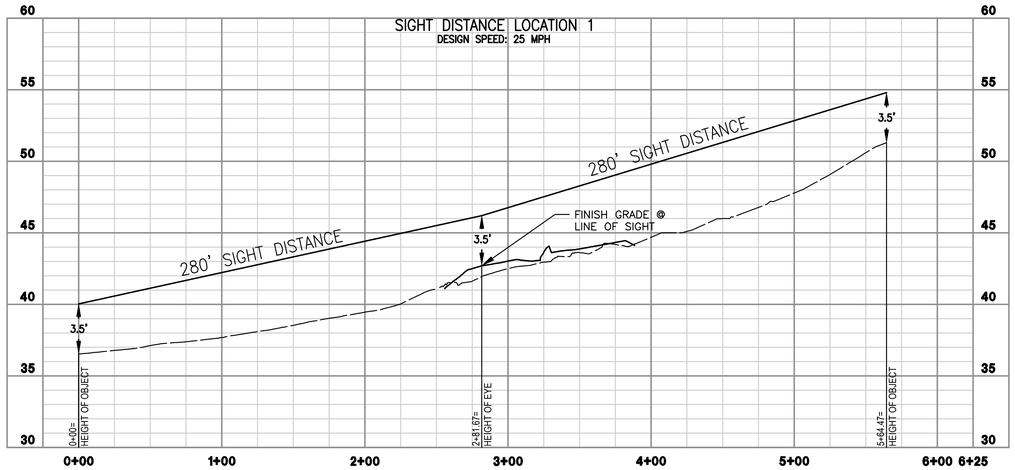
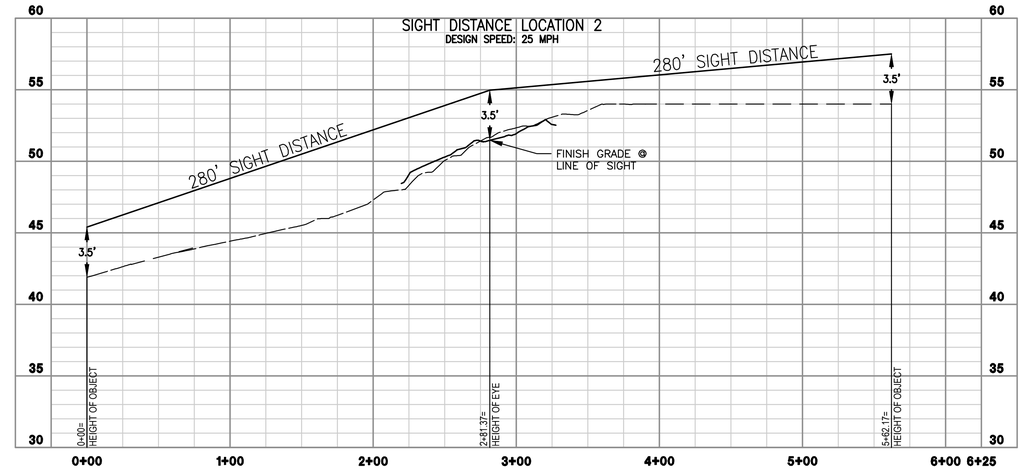


SIGHT DISTANCE 1 PROFILE



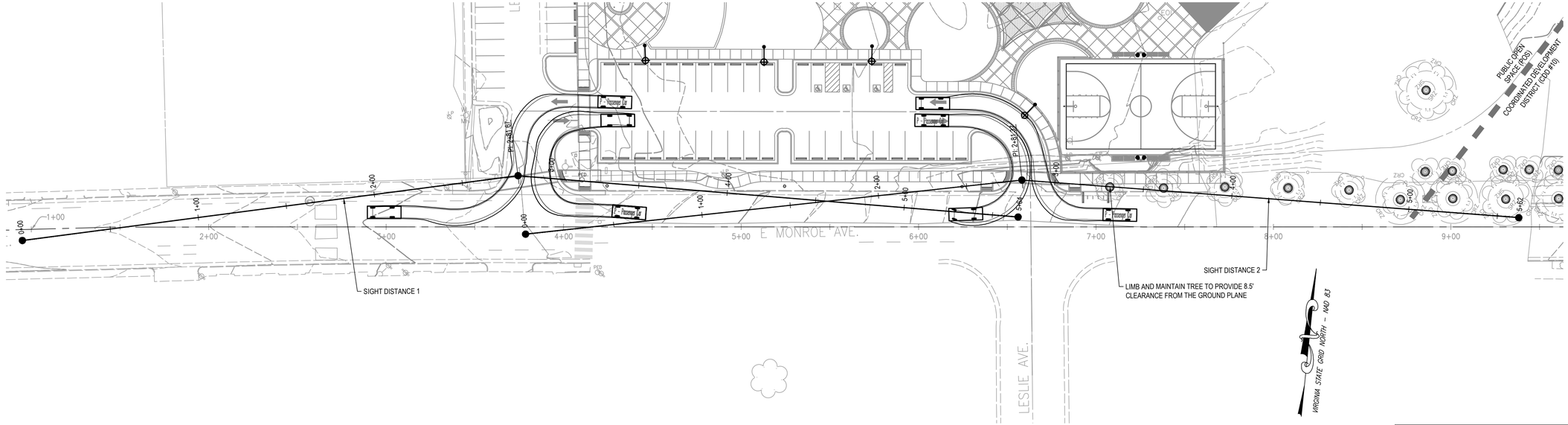
SIGHT DISTANCE 2 PROFILE

50 25 0 50 100 150

HORIZONTAL GRAPHICAL SCALE: 1" = 50'

5 2.5 0 5 10 15

VERTICAL GRAPHICAL SCALE: 1" = 5'



30 15 0 30 60 90

GRAPHICAL SCALE: 1" = 30'

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REVISIONS		
NUMBER	DATE	DESCRIPTION

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DRW: A. COOPER	CHK: J.P. WILLIAMS

COMMONWEALTH OF VIRGINIA
JAMES P. WILLIAMS V
Lic. No. 46493
4/11/23
PROFESSIONAL ENGINEER
SEAL:

SIGHT DISTANCE PROFILES

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION

City of Alexandria, Virginia

SCALE: HORIZ:	AS SHOWN
SCALE: VERT:	AS SHOWN
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	C-CT-101.DWG
NCS:	C-CT-101
NUMBER:	C-137

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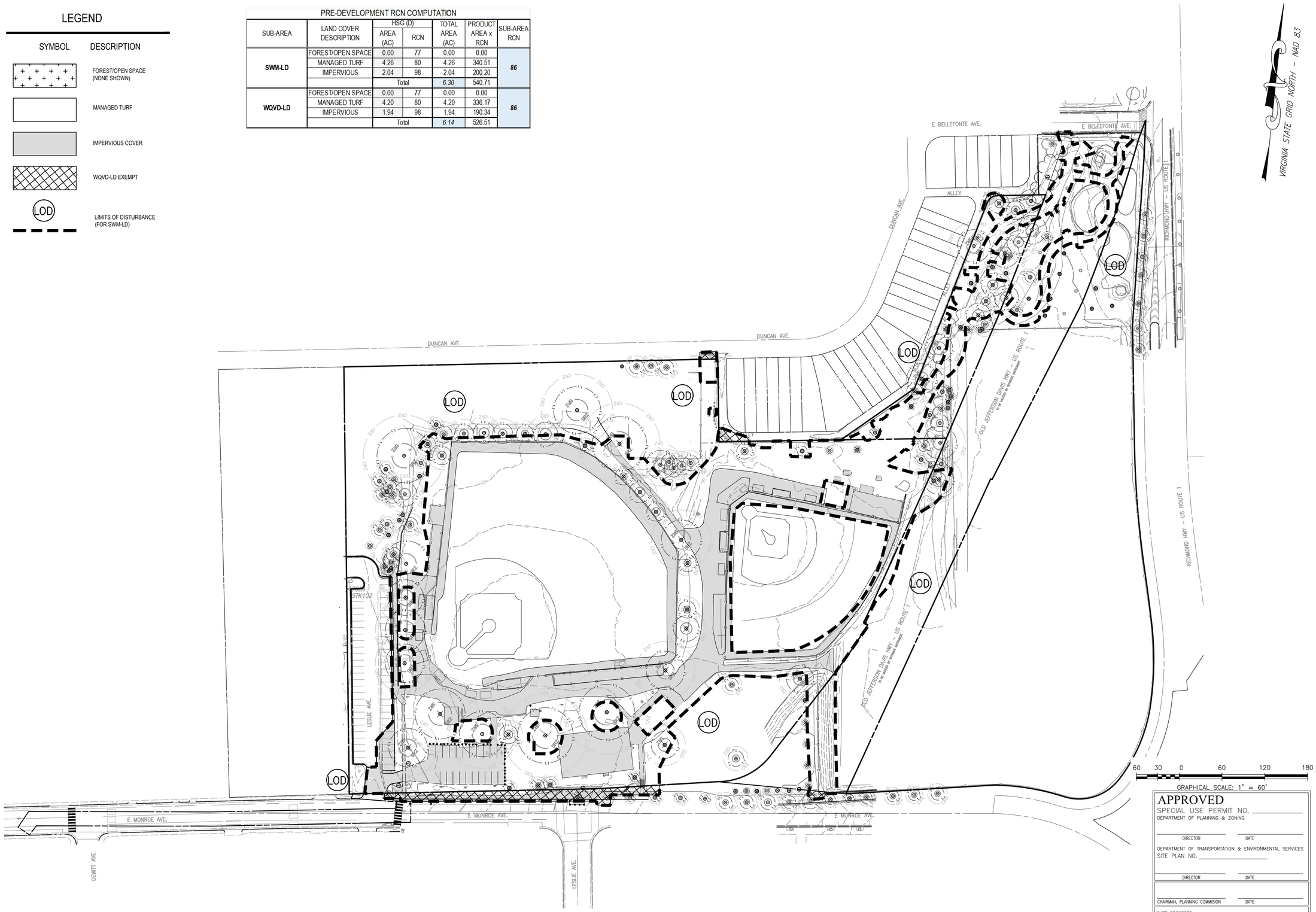
PRE-DEVELOPMENT LAND COVER MAP

LEGEND

SYMBOL	DESCRIPTION
	FOREST/OPEN SPACE (NONE SHOWN)
	MANAGED TURF
	IMPERVIOUS COVER
	WQVD-LD EXEMPT
LOD	LIMITS OF DISTURBANCE (FOR SWM-LD)

PRE-DEVELOPMENT RCN COMPUTATION

SUB-AREA	LAND COVER DESCRIPTION	HSG (D) AREA (AC)	HSG (D) RCN	TOTAL AREA (AC)	PRODUCT AREA x RCN	SUB-AREA RCN
SWM-LD	FOREST/OPEN SPACE	0.00	77	0.00	0.00	86
	MANAGED TURF	4.26	80	4.26	340.51	
	IMPERVIOUS	2.04	98	2.04	200.20	
		Total		6.30	540.71	
WQVD-LD	FOREST/OPEN SPACE	0.00	77	0.00	0.00	86
	MANAGED TURF	4.20	80	4.20	336.17	
	IMPERVIOUS	1.94	98	1.94	190.34	
		Total		6.14	526.51	



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REVISIONS

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SUR: GORDON
DES: M. BAUMAN
DRW: S. MOORE
CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

PRE-DEVELOPMENT LAND COVER MAP

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 60'
VERT: N/A
DATE: FEBRUARY 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-101.DWG
NCS: C-CJ-101
NUMBER: C-138

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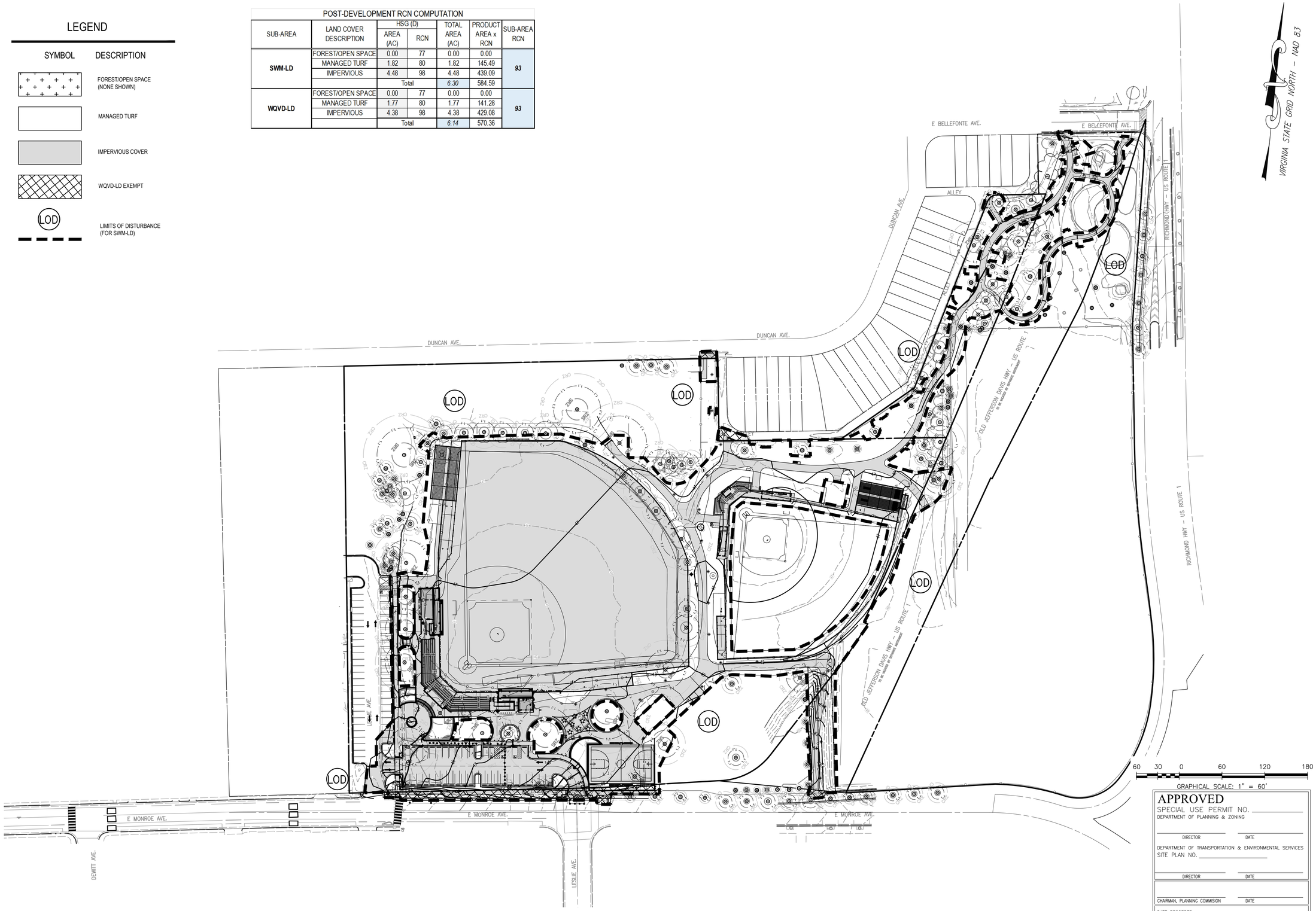
POST-DEVELOPMENT LAND COVER MAP

LEGEND

SYMBOL	DESCRIPTION
	FOREST/OPEN SPACE (NONE SHOWN)
	MANAGED TURF
	IMPERVIOUS COVER
	WQVD-LD EXEMPT
LOD	LIMITS OF DISTURBANCE (FOR SWM-LD)

POST-DEVELOPMENT RCN COMPUTATION

SUB-AREA	LAND COVER DESCRIPTION	HSG (D) AREA (AC)	HSG (D) RCN	TOTAL AREA (AC)	PRODUCT AREA x RCN	SUB-AREA RCN
SWM-LD	FOREST/OPEN SPACE	0.00	77	0.00	0.00	***93***
	MANAGED TURF	1.82	80	1.82	145.49	
	IMPERVIOUS	4.48	98	4.48	439.09	
	Total			*6.30*	584.59	
WQVD-LD	FOREST/OPEN SPACE	0.00	77	0.00	0.00	***93***
	MANAGED TURF	1.77	80	1.77	141.28	
	IMPERVIOUS	4.38	98	4.38	429.08	
	Total			*6.14*	570.36	



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DES: M. BAUMAN
DRW: S. MOORE
CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
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KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

POST–DEVELOPMENT LAND COVER MAP

EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 60'
VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395–0301
CADD: C–CJ–102.DWG
NCS: C–CJ–102
NUMBER: C–139
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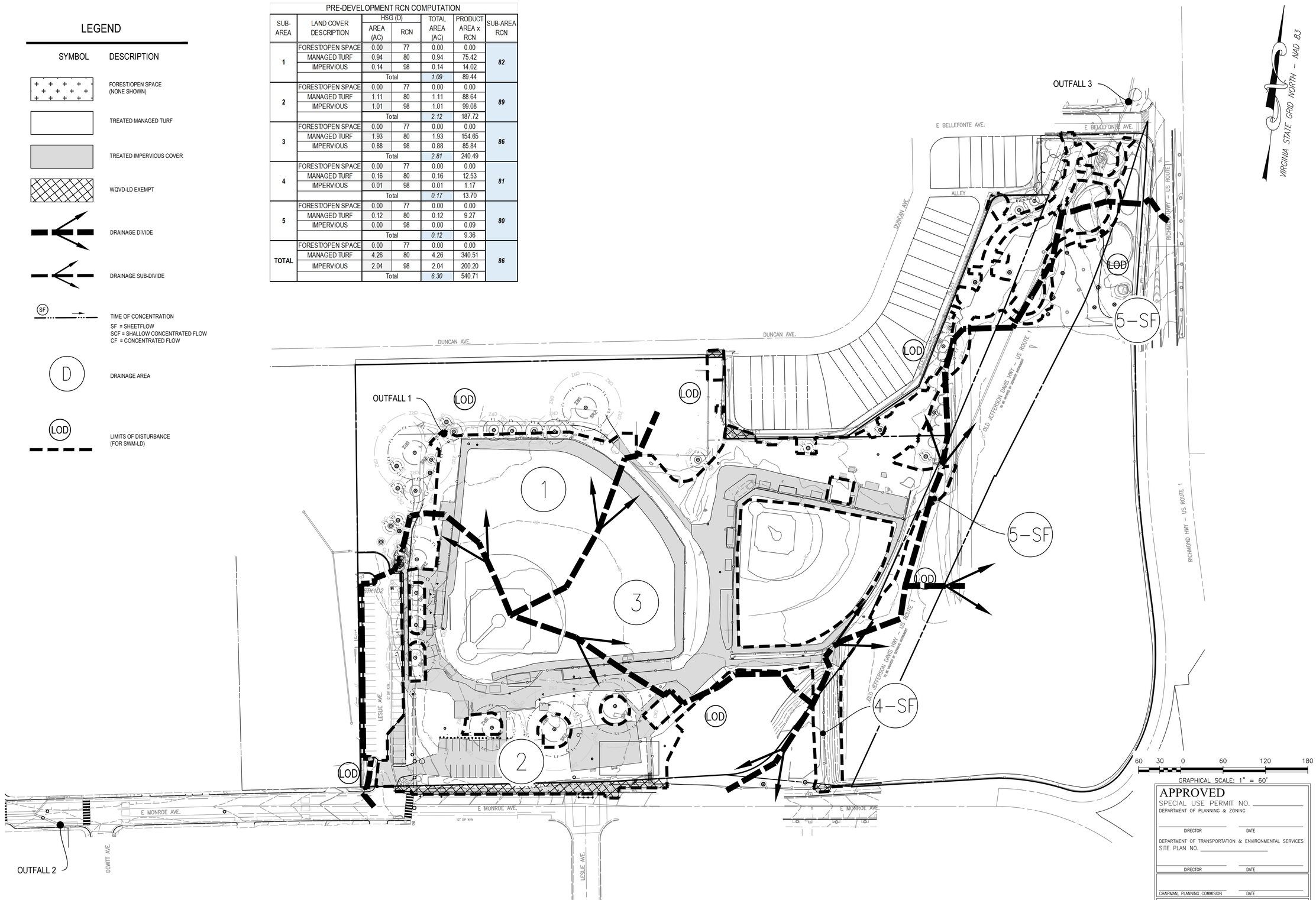
PRE-DEVELOPMENT DRAINAGE AREA MAP

LEGEND

SYMBOL	DESCRIPTION
	FOREST/OPEN SPACE (NONE SHOWN)
	TREATED MANAGED TURF
	TREATED IMPERVIOUS COVER
	WQVD-LD EXEMPT
	DRAINAGE DIVIDE
	DRAINAGE SUB-DIVIDE
SF	TIME OF CONCENTRATION SF = SHEETFLOW SCF = SHALLOW CONCENTRATED FLOW CF = CONCENTRATED FLOW
D	DRAINAGE AREA
LOD	LIMITS OF DISTURBANCE (FOR SWM-LD)

PRE-DEVELOPMENT RCN COMPUTATION

SUB-AREA	LAND COVER DESCRIPTION	HSG (D) AREA (AC)	HSG (D) RCN	TOTAL AREA (AC)	PRODUCT AREA x RCN	SUB-AREA RCN
1	FOREST/OPEN SPACE	0.00	77	0.00	0.00	82
	MANAGED TURF	0.94	80	0.94	75.42	
	IMPERVIOUS	0.14	98	0.14	14.02	
	Total			1.09	89.44	
2	FOREST/OPEN SPACE	0.00	77	0.00	0.00	89
	MANAGED TURF	1.11	80	1.11	88.64	
	IMPERVIOUS	1.01	98	1.01	99.08	
	Total			2.12	187.72	
3	FOREST/OPEN SPACE	0.00	77	0.00	0.00	86
	MANAGED TURF	1.93	80	1.93	154.65	
	IMPERVIOUS	0.88	98	0.88	85.84	
	Total			2.81	240.49	
4	FOREST/OPEN SPACE	0.00	77	0.00	0.00	81
	MANAGED TURF	0.16	80	0.16	12.53	
	IMPERVIOUS	0.01	98	0.01	1.17	
	Total			0.17	13.70	
5	FOREST/OPEN SPACE	0.00	77	0.00	0.00	80
	MANAGED TURF	0.12	80	0.12	9.27	
	IMPERVIOUS	0.00	98	0.00	0.09	
	Total			0.12	9.36	
TOTAL	FOREST/OPEN SPACE	0.00	77	0.00	0.00	86
	MANAGED TURF	4.26	80	4.26	340.51	
	IMPERVIOUS	2.04	98	2.04	200.20	
	Total			6.30	540.71	



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EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 60'
VERT: N/A
DATE: MARCH 2023
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POST-DEVELOPMENT DRAINAGE AREA MAP

LEGEND

SYMBOL	DESCRIPTION
	FOREST/OPEN SPACE (NONE SHOWN)
	TREATED MANAGED TURF
	TREATED IMPERVIOUS COVER
	WQVD-LD EXEMPT
	DRAINAGE DIVIDE
	DRAINAGE SUB-DIVIDE
D	DRAINAGE AREA
LOD	LIMITS OF DISTURBANCE (FOR SWM-LD)

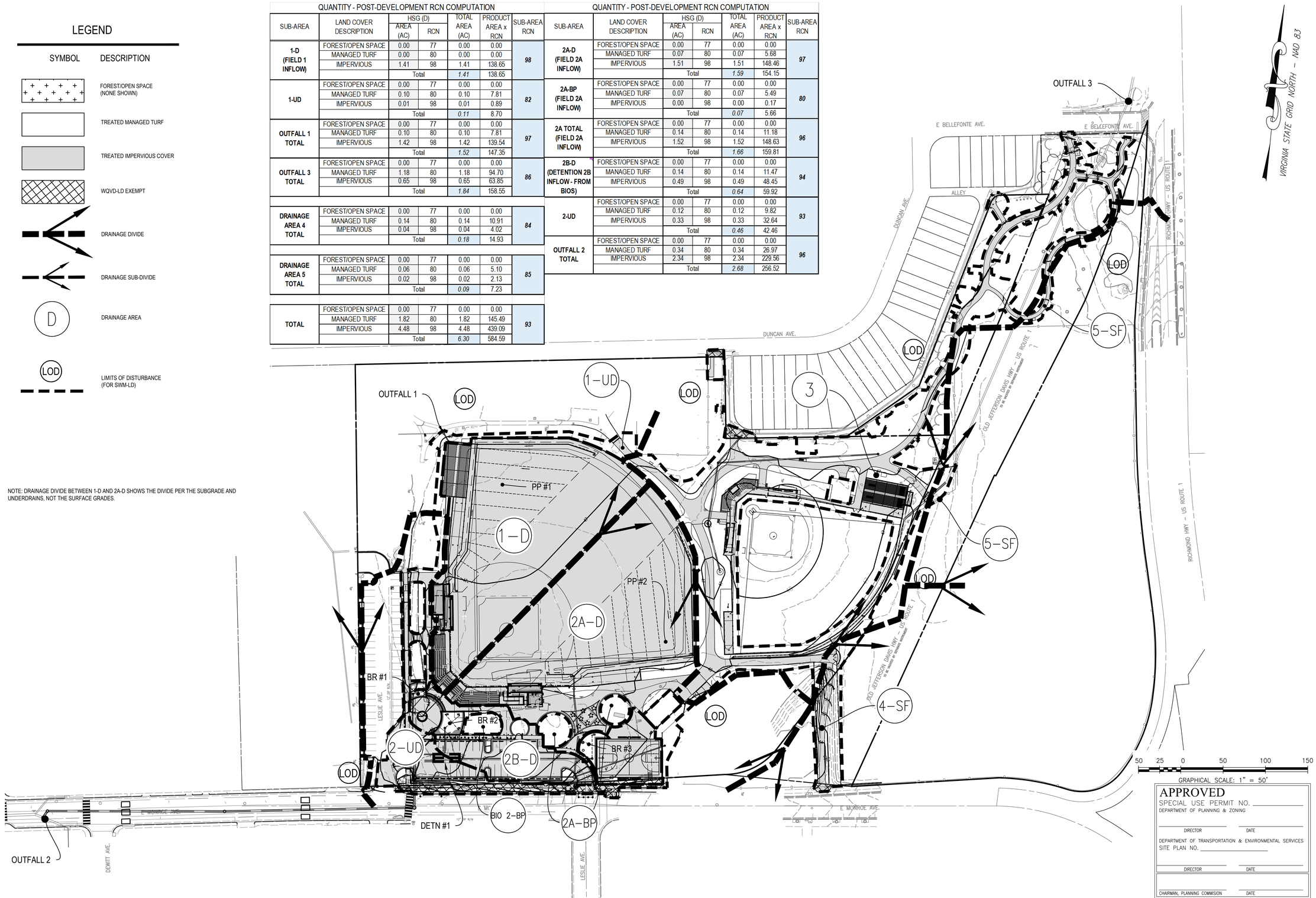
NOTE: DRAINAGE DIVIDE BETWEEN 1-D AND 2A-D SHOWS THE DIVIDE PER THE SUBGRADE AND UNDERDRAINS, NOT THE SURFACE GRADES.

QUANTITY - POST-DEVELOPMENT RCN COMPUTATION

SUB-AREA	LAND COVER DESCRIPTION	HSG (D) AREA (AC)	HSG (D) RCN	TOTAL AREA (AC)	PRODUCT AREA x RCN	SUB-AREA RCN
1-D (FIELD 1 INFLOW)	FOREST/OPEN SPACE	0.00	77	0.00	0.00	98
	MANAGED TURF	0.00	80	0.00	0.00	
	IMPERVIOUS	1.41	98	1.41	138.65	
	Total			1.41	138.65	
1-UD	FOREST/OPEN SPACE	0.00	77	0.00	0.00	82
	MANAGED TURF	0.10	80	0.10	7.81	
	IMPERVIOUS	0.01	98	0.01	0.89	
	Total			0.11	8.70	
OUTFALL 1 TOTAL	FOREST/OPEN SPACE	0.00	77	0.00	0.00	97
	MANAGED TURF	0.10	80	0.10	7.81	
	IMPERVIOUS	1.42	98	1.42	139.54	
	Total			1.52	147.35	
OUTFALL 3 TOTAL	FOREST/OPEN SPACE	0.00	77	0.00	0.00	86
	MANAGED TURF	1.18	80	1.18	94.70	
	IMPERVIOUS	0.65	98	0.65	63.85	
	Total			1.84	158.55	
DRAINAGE AREA 4 TOTAL	FOREST/OPEN SPACE	0.00	77	0.00	0.00	84
	MANAGED TURF	0.14	80	0.14	10.91	
	IMPERVIOUS	0.04	98	0.04	4.02	
	Total			0.18	14.93	
DRAINAGE AREA 5 TOTAL	FOREST/OPEN SPACE	0.00	77	0.00	0.00	85
	MANAGED TURF	0.06	80	0.06	5.10	
	IMPERVIOUS	0.02	98	0.02	2.13	
	Total			0.09	7.23	
TOTAL	FOREST/OPEN SPACE	0.00	77	0.00	0.00	93
	MANAGED TURF	1.82	80	1.82	145.49	
	IMPERVIOUS	4.48	98	4.48	439.09	
	Total			6.30	584.59	

QUANTITY - POST-DEVELOPMENT RCN COMPUTATION

SUB-AREA	LAND COVER DESCRIPTION	HSG (D) AREA (AC)	HSG (D) RCN	TOTAL AREA (AC)	PRODUCT AREA x RCN	SUB-AREA RCN
2A-D (FIELD 2A INFLOW)	FOREST/OPEN SPACE	0.00	77	0.00	0.00	97
	MANAGED TURF	0.07	80	0.07	5.68	
	IMPERVIOUS	1.51	98	1.51	148.46	
	Total			1.59	154.15	
2A-BP (FIELD 2A INFLOW)	FOREST/OPEN SPACE	0.00	77	0.00	0.00	80
	MANAGED TURF	0.07	80	0.07	5.49	
	IMPERVIOUS	0.00	98	0.00	0.17	
	Total			0.07	5.66	
2A TOTAL (FIELD 2A INFLOW)	FOREST/OPEN SPACE	0.00	77	0.00	0.00	96
	MANAGED TURF	0.14	80	0.14	11.18	
	IMPERVIOUS	1.52	98	1.52	148.63	
	Total			1.66	159.81	
2B-D (DETENTION 2B INFLOW - FROM BIOS)	FOREST/OPEN SPACE	0.00	77	0.00	0.00	94
	MANAGED TURF	0.14	80	0.14	11.47	
	IMPERVIOUS	0.49	98	0.49	48.45	
	Total			0.64	59.92	
2-UD	FOREST/OPEN SPACE	0.00	77	0.00	0.00	93
	MANAGED TURF	0.12	80	0.12	9.82	
	IMPERVIOUS	0.33	98	0.33	32.64	
	Total			0.46	42.46	
OUTFALL 2 TOTAL	FOREST/OPEN SPACE	0.00	77	0.00	0.00	96
	MANAGED TURF	0.34	80	0.34	26.97	
	IMPERVIOUS	2.34	98	2.34	229.56	
	Total			2.68	256.52	



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POST-DEVELOPMENT DRAINAGE AREA MAP

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 50' VERT: N/A
DATE: MARCH 2023
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POST-DEVELOPMENT DRAINAGE AREA MAP

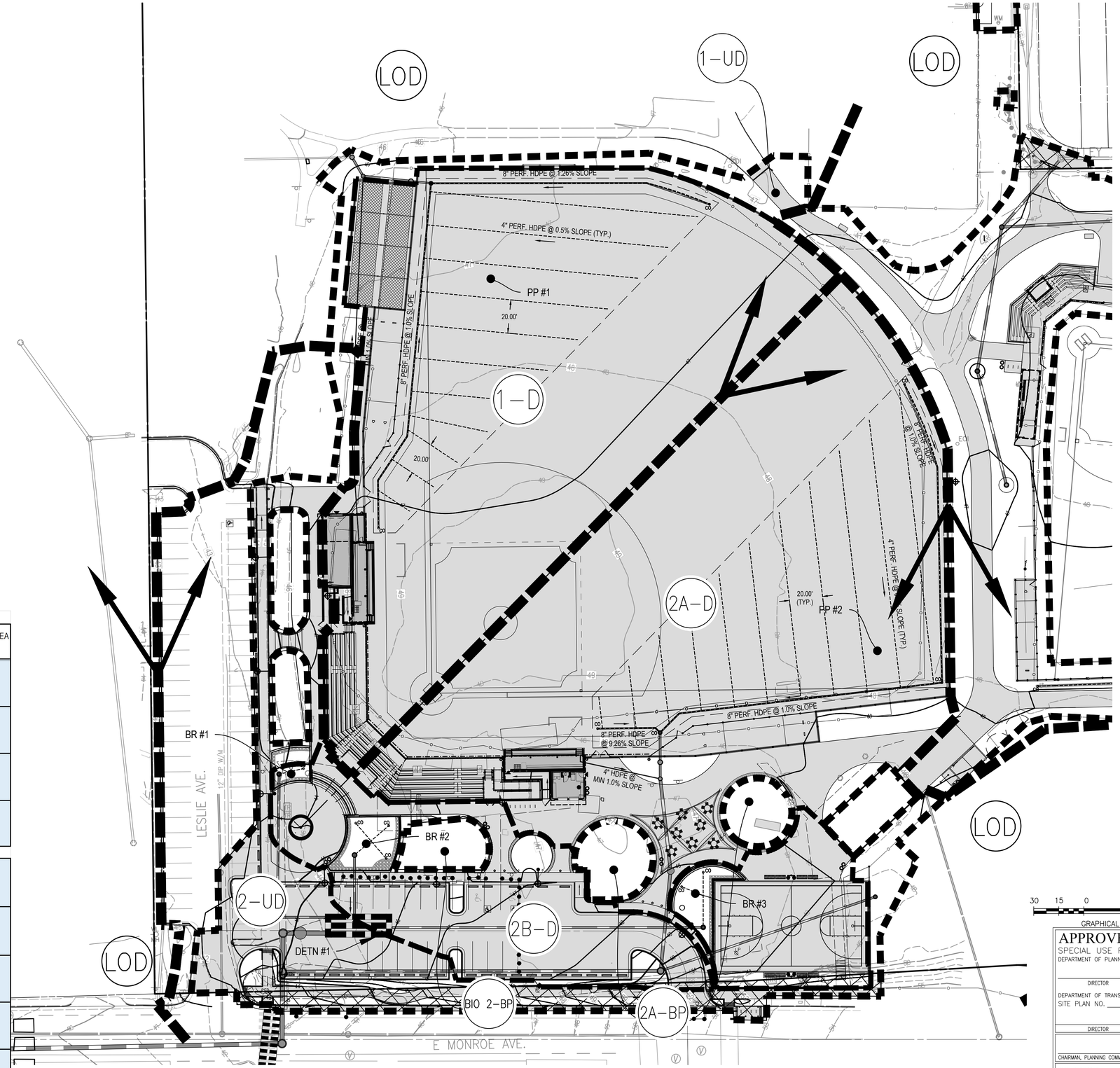
LEGEND

SYMBOL	DESCRIPTION
	FOREST/OPEN SPACE (NONE SHOWN)
	TREATED MANAGED TURF
	TREATED IMPERVIOUS COVER
	WQVD-LD EXEMPT
	DRAINAGE DIVIDE
	DRAINAGE SUB-DIVIDE
D	DRAINAGE AREA
LOD	LIMITS OF DISTURBANCE (FOR SWM-LD)

NOTE: DRAINAGE DIVIDE BETWEEN 1-D AND 2A-D SHOWS THE DIVIDE PER THE SUBGRADE AND UNDERDRAINS, NOT THE SURFACE GRADES.

QUALITY - POST-DEVELOPMENT RCN COMPUTATION

SUB-AREA	LAND COVER DESCRIPTION	HSG (D) AREA (AC)	HSG (D) RCN	TOTAL AREA (AC)	PRODUCT AREA x RCN	SUB-AREA RCN
1-D (FIELD 1 INFLOW)	FOREST/OPEN SPACE	0.00	77	0.00	0.00	98
	MANAGED TURF	0.00	80	0.00	0.00	
	IMPERVIOUS	1.41	98	1.41	138.65	
	Total			1.41	138.65	
2A-D (FIELD 2A INFLOW)	FOREST/OPEN SPACE	0.00	77	0.00	0.00	97
	MANAGED TURF	0.07	80	0.07	5.68	
	IMPERVIOUS	1.51	98	1.51	148.46	
	Total			1.59	154.15	
2A-BP (FIELD 2A INFLOW)	FOREST/OPEN SPACE	0.00	77	0.00	0.00	80
	MANAGED TURF	0.07	80	0.07	5.49	
	IMPERVIOUS	0.00	98	0.00	0.17	
	Total			0.07	5.66	
2A TOTAL (FIELD 2A INFLOW)	FOREST/OPEN SPACE	0.00	77	0.00	0.00	96
	MANAGED TURF	0.14	80	0.14	11.18	
	IMPERVIOUS	1.52	98	1.52	148.63	
	Total			1.66	159.81	
BIO 1	FOREST/OPEN SPACE	0.00	77	0.00	0.00	97
	MANAGED TURF	0.01	80	0.01	0.44	
	IMPERVIOUS	0.06	98	0.06	6.06	
	Total			0.07	6.50	
BIO 2	FOREST/OPEN SPACE	0.00	77	0.00	0.00	95
	MANAGED TURF	0.06	80	0.06	4.92	
	IMPERVIOUS	0.27	98	0.27	26.87	
	Total			0.34	31.79	
BIO 2 - BP	FOREST/OPEN SPACE	0.00	77	0.00	0.00	80
	MANAGED TURF	0.03	80	0.03	2.66	
	IMPERVIOUS	0.00	98	0.00	0.00	
	Total			0.03	2.66	
BIO 2 TOTAL	FOREST/OPEN SPACE	0.00	77	0.00	0.00	93
	MANAGED TURF	0.09	80	0.09	7.58	
	IMPERVIOUS	0.27	98	0.27	26.87	
	Total			0.37	34.45	
BIO 3	FOREST/OPEN SPACE	0.00	77	0.00	0.00	94
	MANAGED TURF	0.04	80	0.04	3.45	
	IMPERVIOUS	0.16	98	0.16	15.53	
	Total			0.20	18.97	



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GRAPHICAL SCALE: 1" = 30'

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WATER QUALITY COMPUTATIONS

DEQ Virginia Runoff Reduction Method Re-Development Compliance Spreadsheet - **Version 3.0**

○ 2011 BMP Standards and Specifications ◉ 2013 Draft BMP Standards and Specifications

Project Name:	Simpson Park
Date:	1/17/2023
Linear Development Project?	No

CLEAR ALL (Ctrl+Shift+R)

data input cells | constant values | calculation cells | final results

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* → 6.30

Maximum reduction required:	*20%*
The site's net increase in impervious cover (acres) is:	*2.440059688*
Post-Development TP Load Reduction for Site (lb/yr):	*5.38*

Check:

BMP Design Specifications List:	2013 Draft Stds & Specs
Linear project?	No
Land cover areas entered correctly?	✓
Total disturbed area entered?	✓

Pre-ReDevelopment Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed forest/open space					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be				4.26	4.26
Impervious Cover (acres)				2.04	2.04
					6.30

Post-Development Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be				1.82	1.82
Impervious Cover (acres)				4.48	4.48
Area Check	OK.	OK.	OK.	OK.	6.30

Constants

Annual Rainfall (inches)	43
Target Rainfall Event (inches)	1.00
Total Phosphorus (TP) EMC (mg/L)	0.26
Total Nitrogen (TN) EMC (mg/L)	1.86
Target TP Load (lb/acre/yr)	0.41
Pj (unitless correction factor)	0.90

Runoff Coefficients (Rv)

	A Soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

LAND COVER SUMMARY -- PRE-REDEVELOPMENT

Land Cover Summary-Pre

Pre-ReDevelopment	Listed	Adjusted[1]
Forest/Open Space Cover (acres)	0.00	0.00
Weighted Rv(forest)	0.00	0.00
% Forest	0%	0%
Managed Turf Cover (acres)	4.26	1.82
Weighted Rv(turf)	0.25	0.25
% Managed Turf	68%	47%
Impervious Cover (acres)	2.04	2.04
Rv(impervious)	0.95	0.95
% Impervious	32%	53%
Total Site Area (acres)	**6.30**	**3.86**
Site Rv	**0.48**	**0.62**

LAND COVER SUMMARY -- POST DEVELOPMENT

Land Cover Summary-Post (Final)

Post ReDev. & New Impervious	
Forest/Open Space Cover (acres)	0.00
Weighted Rv(forest)	0.00
% Forest	0%
Managed Turf Cover (acres)	1.82
Weighted Rv (turf)	0.25
% Managed Turf	29%
Impervious Cover (acres)	4.48
Rv(impervious)	0.95
% Impervious	71%
Final Site Area (acres)	**6.30**
Final Post Dev Site Rv	**0.75**

Land Cover Summary-Post

Post-ReDevelopment	
Forest/Open Space Cover (acres)	0.00
Weighted Rv(forest)	0.00
% Forest	0%
Managed Turf Cover (acres)	1.82
Weighted Rv (turf)	0.25
% Managed Turf	47%
ReDev. Impervious Cover (acres)	2.04
Rv(impervious)	0.95
% Impervious	53%
Total ReDev. Site Area (acres)	**3.86**
ReDev Site Rv	**0.62**

Land Cover Summary-Post

Post-Development New Impervious	
New Impervious Cover (acres)	2.44
Rv(impervious)	0.95

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)	0.2503	0.1994	**Final Post-Development Treatment Volume (acre-ft)**	0.3926	**Post-Development Treatment Volume (acre-ft)**	0.1932
Pre-ReDevelopment Treatment Volume (cubic feet)	10,901	8,687	**Final Post-Development Treatment Volume (cubic feet)**	17,102	**Post-ReDevelopment Treatment Volume (cubic feet)**	8,687	**Post-Development Treatment Volume (cubic feet)**	8,415
Pre-ReDevelopment TP Load (lb/yr)	**6.85**	**5.46**	**Final Post-Development TP Load (lb/yr)**	**10.74**	**Post-ReDevelopment Load (TP) (lb/yr)***	**5.46**	**Post-Development TP Load (lb/yr)**	**5.29**
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	1.09	1.41	Final Post-Development TP Load per acre (lb/acre/yr)	1.71	Post-ReDevelopment TP Load per acre (lb/acre/yr)	1.41
Baseline TP Load (lb/yr) (**0.41 lbs/acre/yr** applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)	*1.58*				**Max. Reduction Required (Below Pre-ReDevelopment Load)**	**20%**
					TP Load Reduction Required for Redeveloped Area (lb/yr)	**1.09**	**TP Load Reduction Required for New Impervious Area (lb/yr)**	**4.29**

[1] *Adjusted Land Cover Summary:*
Pre ReDevelopment land cover minus pervious land cover (forest/open space or managed turf) acreage proposed for new impervious cover.

Adjusted total acreage is consistent with Post-ReDevelopment acreage (minus acreage of new impervious cover).

Column I shows load reduction requriement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).

WATER QUALITY VOLUME DEFAULT (WQVD) COMPUTATIONS

Project Description

Development: Re-development

Drainage Area	Impervious	Pervious	Total
	acres	acres	acres
Site Area	4.38	1.77	6.14
On-site treated	3.43	0.28	3.71
Off-site treated	0	0	0
Total treated	3.43	0.28	3.71
Any on-site disconnected by a vegetated buffer (25 ft)	0		
Total on-site treated or disconnected			3.71

Water Treatment On-site

BMP Type	Area treated by BMP	Impervious area treated by BMP	BMP efficiency
	acres	acres	%
Permeable Pavement #1	1.41	1.41	100%
Permeable Pavement #2	1.66	1.52	92%
Bioretention #1	0.07	0.06	92%
Bioretention #2	0.37	0.27	73%
Bioretention #3	0.20	0.16	79%

Miscellaneous

Total WQV Treated	Yes	No
Detention onsite	Yes	No

Project is within which watershed? HUC12: 0207-0010-0302, PL26; HUC12: 0207-0010-0301, PL 25
Project discharges to which body of water? Cameron Run, Potomac River-Four Mile Run

WQVD Computations	# of Trees	Impervious area within WQV-LD	WQVD 0.5" * Impr Area
		acres	CF
Required		4.38	7,947
Provided - Drainage to BMP		3.43	6,225
Provided - Tree planting	99	0.33	
Remaining (in-lieu fee)		0.62	1,127

WATER QUALITY NARRATIVE

THE TOTAL LAND DISTURBANCE (TLD) IS APPROXIMATELY 7.72 ACRES, WHICH CONSTITUTES LESS THAN 50% OF THE TAX PARCEL AREA. THE TLD CONSISTS OF A SYNTHETIC TURF FIELD CONVERSION, MAINTENANCE, NEW PLAY COURTS, RECONFIGURED PARKING, TRAIL IMPROVEMENTS, AND ASSOCIATED INFRASTRUCTURE.

THE STORMWATER LAND DISTURBANCE (SWM-LD) IS APPROXIMATELY 6.3 ACRES. THE SWM-LD DOES NOT INCLUDE THE FOLLOWING PROPOSED IMPROVEMENTS IN THE TLD:

- OFFSITE STORM IMPROVEMENTS - THE OFFSITE STORM IMPROVEMENTS ARE SUBJECT TO DEQ GUIDANCE MEMO NO. 15-2003, TITLED "POST DEVELOPMENT STORMWATER MANAGEMENT IMPLEMENTATION GUIDANCE FOR LINEAR UTILITY PROJECTS UNDER THE VIRGINIA STORMWATER MANAGEMENT PROGRAM REGULATION, 9VAC25-870", DATED APRIL 23, 2015. THE EXISTING LAND COVER WILL BE RESTORED TO THE PRE-DEVELOPMENT CONDITION, AND THERE WILL BE NO CHANGE TO THE PRE-DEVELOPMENT RUNOFF CHARACTERISTICS OF THE LAND SURFACE AFTER THE COMPLETION OF CONSTRUCTION AND FINAL STABILIZATION. THEREFORE, THIS DISTURBANCE IS EXEMPT FROM THE PREPARATION AND IMPLEMENTATION OF A STORMWATER MANAGEMENT PLAN
- EXISTING FIELD MAINTENANCE OPERATIONS - THE FIELD MAINTENANCE OPERATIONS ARE LIMITED TO REPLACEMENT OF SOD AND RESTORATION OF APPROXIMATELY THE ORIGINAL LINE AND GRADE (WITH A GRADE CHANGE OF NO MORE THAN 6"). THEREFORE, THIS ACTIVITY IS CONSIDERED AN EXEMPT ACTIVITY PER SECTION 13-123.B.3 OF THE CITY OF ALEXANDRIA ENVIRONMENTAL ORDINANCE.

THE WATER QUALITY VOLUME DEFAULT LAND DISTURBANCE (WQVD-LD) IS APPROXIMATELY 6.14 ACRES. THE WQVD-LD DOES NOT INCLUDE THE FOLLOWING PROPOSED IMPROVEMENTS IN THE SWM-LD.

- ROAD RIGHT OF WAY DISTURBANCE - PER THE CITY OF ALEXANDRIA POLICY, ROAD RIGHT OF WAY DISTURBANCE IS EXCLUDED FROM THE WQVD-LD AREA.

WATER QUALITY REQUIREMENTS

THE SWM-LD IS SUBJECT TO THE REQUIREMENTS OF SECTION 13-109.E.4.C OF THE ENVIRONMENTAL MANAGEMENT ORDINANCE FOR LAND-DISTURBING ACTIVITIES THAT RESULT IN A NET INCREASE IN IMPERVIOUS COVER.

SEE REQUIREMENT COMPUTATIONS ON THIS SHEET.

WATER QUALITY COMPLIANCE

WATER QUALITY COMPLIANCE IS ACHIEVED THROUGH THE USE OF THE FOLLOWING FACILITIES:

- PERMEABLE PAVEMENT: THE SYNTHETIC TURF FIELD IS DESIGNED WITH TWO (2) -LEVEL 2 PERMEABLE PAVEMENT FACILITY. SEE DESIGN NARRATIVE, SIZING COMPUTATIONS, CONSTRUCTION DETAILS/PROFILES, AND SPECIFICATIONS ON SHEETS C-148 TO C-151.
- BIORETENTION: THREE (3) - LEVEL (1) BIORETENTIONS ARE PROPOSED. SEE DESIGN NARRATIVE, SIZING COMPUTATIONS, CONSTRUCTION DETAILS/PROFILES, AND SPECIFICATIONS ON SHEETS C-152 TO C-155.

SEE WATER QUALITY COMPUTATIONS ON SHEET C-144.

WATER QUALITY VOLUME DEFAULT REQUIREMENTS

THE WQVD-LD IS SUBJECT TO THE REQUIREMENTS OF SECTION 13-109.E.5 OF THE ENVIRONMENTAL MANAGEMENT ORDINANCE. THE WATER QUALITY VOLUME DEFAULT IS EQUIVALENT TO THE FIRST 0.5 INCH OF RUNOFF OVER THE TOTAL IMPERVIOUS AREA OF THE WQVD-LD.

WATER QUALITY VOLUME DEFAULT COMPLIANCE

WATER QUALITY VOLUME DEFAULT COMPLIANCE IS ACHIEVED THROUGH THE TREATMENT PROVIDED BY THE TWO (2) PERMEABLE PAVEMENTS, THREE (3) BIORETENTIONS, AND A FEE IN-LIEU CONTRIBUTION TO THE ALEXANDRIA WATER QUALITY IMPROVEMENT FUND, AS PERMITTED BY SECTION 13-110.A.2 OF THE ENVIRONMENTAL MANAGEMENT ORDINANCE. THE POST-DEVELOPMENT IMPERVIOUS AREA HAS BEEN DIRECTED TO THE PROPOSED SWM FACILITIES TO THE MAXIMUM EXTENT FEASIBLE, GIVEN SITE LAYOUT, GRADING, AND EXISTING TREE CONSTRAINTS.

SEE COMPLIANCE COMPUTATIONS ON THIS SHEET.

SWM/BMP FACILITY NAME	TYPE OF FACILITY	IMPERVIOUS AREA TREATED	TOTAL AREA TREATED	LATITUDE	LONGITUDE	DESCRIPTION OF DISCHARGE POINT
		acres	acres	DECIMAL DEGREES	DECIMAL DEGREES	
PP #1	PERMEABLE PAVEMENT LEVEL 2	1.41	1.41	38.8222	-77.0533	Discharges to proposed storm sewer to exisitng storm sewer.
PP #2	PERMEABLE PAVEMENT LEVEL 2	1.52	1.66	38.8217	-77.0526	Discharges to proposed storm sewer.
BIO #1	BIORETENTION LEVEL 1	0.06	0.07	38.8214	-77.0537	Discharges to proposed Detention System #1.
BIO #2	BIORETENTION LEVEL 1	0.27	0.37	38.8213	-77.0535	Discharges to proposed Detention System #1.
BIO #3	BIORETENTION LEVEL 1	0.16	0.20	38.8212	-77.0528	Discharges to proposed Detention System #1.
DETENTION SYSTEM #1	UNDERGROUND CMP DETENTION SYSTEM	0.49	0.64	38.8211	-77.0535	Discharges to proposed storm sewer to exisitng storm sewer.

A BMP SUMMARY TABLE

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	**5.38**

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	49.00	Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	76.87

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CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED _____
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REVISIONS

NUMBER	DATE	DESCRIPTION

SUR: GORDON | DES: M. BAUMAN
DRW: S. MOORE | CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

WATER QUALITY COMPUTATIONS

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-120.DWG
NCS: C-CJ-120
NUMBER: C-143

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S:\PROJECTS\JAN1395 - ALEXANDRIA FAIRGROUNDS\PLANS\C-CJ-120.DWG, 3/13/2023 10:38 AM, krrenn VERT DATUM: NAVD 88 HORIZ DATUM: NAD 83
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WATER QUALITY COMPUTATIONS

Drainage Area A - OUTFALL 1

CLEAR BMP AREAS

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)					0.00	0.00
Managed Turf (acres)				0.10	0.10	0.25
Impervious Cover (acres)				1.42	1.42	0.95
				Total	1.52	

Total Phosphorus Available for Removal in D.A. A (lb/yr)	3.14
Post Development Treatment Volume in D.A. A (ft^3)	4,999

Stormwater Best Management Practices (RR = Runoff Reduction)

--Select from dropdown lists--

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft^3)	Runoff Reduction (ft^3)	Remaining Runoff Volume (ft^3)	Total BMP Treatment Volume (ft^3)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
3. Permeable Pavement (RR)													
3.b. Permeable Pavement #2 (Spec #7)	75		1.41		3,659	1,220	4,879	25		3.06	2.49	0.57	

Practice	Nitrogen Removal Efficiency (%)	Nitrogen Load from Upstream Practices (lbs)	Untreated Nitrogen Load to Practice (lbs)	Nitrogen Removed By Practice (lbs)	Remaining Nitrogen Load (lbs)
3. Permeable Pavement (RR)					
	25		21.90	17.80	4.11

Drainage Area B - OUTFALL 2

CLEAR BMP AREAS

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)					0.00	0.00
Managed Turf (acres)				0.34	0.34	0.25
Impervious Cover (acres)				2.34	2.34	0.95
				Total	2.68	

Total Phosphorus Available for Removal in D.A. B (lb/yr)	5.27
Post Development Treatment Volume in D.A. B (ft^3)	8,384

Stormwater Best Management Practices (RR = Runoff Reduction)

--Select from dropdown lists--

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft^3)	Runoff Reduction (ft^3)	Remaining Runoff Volume (ft^3)	Total BMP Treatment Volume (ft^3)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
3. Permeable Pavement (RR)													
3.b. Permeable Pavement #2 (Spec #7)	75		1.52		3,924	1,308	5,233	25		3.28	2.67	0.62	
6. Bioretention (RR)													
6.a. Bioretention #1 or Micro-Bioretention #1 or Urban Bioretention (Spec #9)	40	0.14	0.49	0	734	1,101	1,835	25	0.00	1.15	0.63	0.52	

Practice	Nitrogen Removal Efficiency (%)	Nitrogen Load from Upstream Practices (lbs)	Untreated Nitrogen Load to Practice (lbs)	Nitrogen Removed By Practice (lbs)	Remaining Nitrogen Load (lbs)
3. Permeable Pavement (RR)					
	25		23.49	19.09	4.40
6. Bioretention (RR)					
	40	0.00	8.24	5.27	2.97

DRAINAGE AREA A:

TOTAL IMPERVIOUS COVER TREATED (ac)	1.41	AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (ac)	0.00	AREA CHECK: OK.
TOTAL PHOSPHORUS REMOVAL REQUIRED ON SITE (lb/yr)	5.38	
TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. A (lb/yr)	3.14	
TOTAL PHOSPHORUS REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	0.00	
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	2.49	
TOTAL PHOSPHORUS LOAD REDUCTION ACHIEVED IN D.A. A (lb/yr)	2.49	
TOTAL PHOSPHORUS REMAINING AFTER APPLYING BMP LOAD REDUCTIONS IN D.A. A (lb/yr)	0.65	

SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS

NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	17.80
NITROGEN REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	0.00
TOTAL NITROGEN REMOVED IN D.A. A (lb/yr)	17.80

DRAINAGE AREA B:

TOTAL IMPERVIOUS COVER TREATED (ac)	2.01	AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (ac)	0.14	AREA CHECK: OK.
TOTAL PHOSPHORUS REMOVAL REQUIRED ON SITE (lb/yr)	5.38	
TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. B (lb/yr)	5.27	
TOTAL PHOSPHORUS REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. B (lb/yr)	0.00	
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. B (lb/yr)	3.30	
TOTAL PHOSPHORUS LOAD REDUCTION ACHIEVED IN D.A. B (lb/yr)	3.30	
TOTAL PHOSPHORUS REMAINING AFTER APPLYING BMP LOAD REDUCTIONS IN D.A. B (lb/yr)	1.97	

SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS

NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. B (lb/yr)	24.36
NITROGEN REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. B (lb/yr)	0.00
TOTAL NITROGEN REMOVED IN D.A. B (lb/yr)	24.36

A COMPLIANCE COMPUTATIONS

Site Results (Water Quality Compliance)

Area Checks	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
FOREST/OPEN SPACE (ac)	0.00	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER (ac)	1.42	2.34	0.00	0.00	0.00	OK.
IMPERVIOUS COVER TREATED (ac)	1.41	2.01	0.00	0.00	0.00	OK.
MANAGED TURF AREA (ac)	0.10	0.34	0.00	0.00	0.00	OK.
MANAGED TURF AREA TREATED (ac)	0.00	0.14	0.00	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

Site Treatment Volume (ft^3)	17,102

Runoff Reduction Volume and TP By Drainage Area

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	TOTAL
RUNOFF REDUCTION VOLUME ACHIEVED (ft^3)	3,659	4,658	0	0	0	8,318
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	3.14	5.27	0.00	0.00	0.00	8.41
TP LOAD REDUCTION ACHIEVED (lb/yr)	2.49	3.30	0.00	0.00	0.00	5.79
TP LOAD REMAINING (lb/yr)	0.65	1.97	0.00	0.00	0.00	2.62
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	17.80	24.36	0.00	0.00	0.00	42.16

Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	10.74
TP LOAD REDUCTION REQUIRED (lb/yr)	5.38
TP LOAD REDUCTION ACHIEVED (lb/yr)	5.79
TP LOAD REMAINING (lb/yr):	4.96
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.00 **

** TARGET TP REDUCTION EXCEEDED BY 0.41 LB/YEAR **

Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	76.87
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	42.16
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	34.71

B COMPLIANCE SUMMARY COMPUTATIONS

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DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
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DIRECTOR DATE
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REVISIONS
NUMBER DATE DESCRIPTION

SUR: GORDON DES: M. BAUMAN
DRW: S. MOORE CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

WATER QUALITY COMPUTATIONS
EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-120.DWG
NCS: C-CJ-120
NUMBER: C-144
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WATER QUANTITY COMPUTATIONS - OUTFALL 1

OUTFALL 1: 1-YR

PRE-DEVELOPMENT

Hyd. No. 1

PRE (1)

Hydrograph type	= SCS Runoff	Peak discharge	= 2.331 cfs
Storm frequency	= 1 yrs	Time to peak	= 718 min
Time interval	= 1 min	Hyd. volume	= 4,681 cuft
Drainage area	= 1.090 ac	Curve number	= 82
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 2.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

POST-DEVELOPMENT

Hyd. No. 2

FIELD INFLOW (1)

Hydrograph type	= SCS Runoff	Peak discharge	= 5.564 cfs
Storm frequency	= 1 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 13,035 cuft
Drainage area	= 1.410 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 2.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Hyd. No. 3

FIELD OUTFLOW (1)

Hydrograph type	= Reservoir	Peak discharge	= 0.204 cfs
Storm frequency	= 1 yrs	Time to peak	= 804 min
Time interval	= 1 min	Hyd. volume	= 13,039 cuft
Inflow hyd. No.	= 2 - FIELD INFLOW (1)	Max. Elevation	= 44.75 ft
Reservoir name	= FIELD (1)	Max. Storage	= 6,172 cuft

Storage Indication method used.

Hyd. No. 4

UD (1)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.235 cfs
Storm frequency	= 1 yrs	Time to peak	= 718 min
Time interval	= 1 min	Hyd. volume	= 472 cuft
Drainage area	= 0.110 ac	Curve number	= 82
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 2.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Hyd. No. 5

POST (1)

Hydrograph type	= Combine	Peak discharge	= 0.399 cfs
Storm frequency	= 1 yrs	Time to peak	= 718 min
Time interval	= 1 min	Hyd. volume	= 13,446 cuft
Inflow hyds.	= 3, 4	Contrib. drain. area	= 0.110 ac

OUTFALL 1: 10-YR

PRE-DEVELOPMENT

Hyd. No. 1

PRE (1)

Hydrograph type	= SCS Runoff	Peak discharge	= 6.427 cfs
Storm frequency	= 10 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 13,296 cuft
Drainage area	= 1.090 ac	Curve number	= 82
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

POST-DEVELOPMENT

Hyd. No. 2

FIELD INFLOW (1)

Hydrograph type	= SCS Runoff	Peak discharge	= 10.84 cfs
Storm frequency	= 10 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 26,195 cuft
Drainage area	= 1.410 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Hyd. No. 3

FIELD OUTFLOW (1)

Hydrograph type	= Reservoir	Peak discharge	= 2.192 cfs
Storm frequency	= 10 yrs	Time to peak	= 726 min
Time interval	= 1 min	Hyd. volume	= 26,199 cuft
Inflow hyd. No.	= 2 - FIELD INFLOW (1)	Max. Elevation	= 45.38 ft
Reservoir name	= FIELD (1)	Max. Storage	= 11,367 cuft

Storage Indication method used.

Hyd. No. 4

UD (1)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.649 cfs
Storm frequency	= 10 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 1,342 cuft
Drainage area	= 0.110 ac	Curve number	= 82
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Hyd. No. 5

POST (1)

Hydrograph type	= Combine	Peak discharge	= 2.336 cfs
Storm frequency	= 10 yrs	Time to peak	= 725 min
Time interval	= 1 min	Hyd. volume	= 27,383 cuft
Inflow hyds.	= 3, 4	Contrib. drain. area	= 0.110 ac

PERMEABLE PAVEMENT FACILITY #1: 1-YR STAGE-STORAGE

Pond Report

5

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 — Wednesday, Mar 8, 2023

Pond No. 1 - FIELD (1)

Pond Data

Contours - User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 40.76 ft. Voids = 40.00%

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	40.76	01	0	0
3.24	44.00	01	1	1
3.24	44.00	20,500	21	22
5.24	46.00	20,500	16,359	16,381

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	2.00	0.00	0.00
Span (in)	= 12.00	2.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 40.76	40.76	0.00	0.00
Length (ft)	= 29.00	0.00	0.00	0.00
Slope (%)	= 1.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 2.50	0.00	0.00	0.00
Crest El. (ft)	= 45.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)
TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	40.76	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
3.24	1	44.00	0.19 ic	0.18 ic	---	---	0.00	---	---	---	---	---	0.183
3.24	22	44.00	0.19 ic	0.18 ic	---	---	0.00	---	---	---	---	---	0.183
5.24	16,381	46.00	7.64 ic	0.08 ic	---	---	7.56 s	---	---	---	---	---	7.644

WATER QUANTITY NARRATIVE

IN THE POST-DEVELOPMENT CONDITION, THERE ARE THREE (3) CONCENTRATED OUTFALLS AND ONE (2) SHEETFLOW DRAINAGE AREAS.

OUTFALL 1 IS LOCATED AT EXISTING STORM STRUCTURE 22 AT THE NORTHWEST CORNER OF THE SITE. OUTFALL 1 AND 2 CONFLUENCE DOWNSTREAM OFFSITE ON MONROE STREET.

OUTFALL 2 IS LOCATED AT EXISTING STORM STRUCTURE 39 ON MONROE STREET, SOUTHWEST OF THE SITE. OUTFALL 1 AND 2 CONFLUENCE DOWNSTREAM OFFSITE ON MONROE STREET.

OUTFALL 3 IS LOCATED AT EXISTING STORM STRUCTURE 27 AT THE NORTHEAST CORNER OF THE SITE ALONG E BELLEFONTE AVENUE.

DRAINAGE AREA 4 IS A SHEETFLOW AREA THAT LEAVES THE SITE TO THE SOUTHEAST.

DRAINAGE AREA 5 IS A SHEETFLOW AREA THAT LEAVES THE SITE TO THE NORTHEAST.

THERE ARE KNOWN DOWNSTREAM FLOODING CONDITIONS IN THE AREA, AS REPORTED BY THE CITY OF ALEXANDRIA.

WATER QUANTITY REQUIREMENTS

THE SWM-LD FOR OUTFALLS 1, 2, AND 3 ARE SUBJECT TO THE FOLLOWING REQUIREMENTS OF THE ENVIRONMENTAL MANAGEMENT ORDINANCE:

- 13-109.F.1.A.II - WHERE THE STORMWATER FROM A DEVELOPMENT IS DISCHARGED TO A MANMADE CONVEYANCE SYSTEM AND THE MAXIMUM PEAK FLOW RATE FOR THE 1-YR, 24-HR STORM IS CALCULATED PER THE ENERGY BALANCE METHODOLOGY
- 13-109-F.2.B - WHERE STORMWATER FROM A DEVELOPMENT IS DISCHARGED TO A STORMWATER CONVEYANCE SYSTEM THAT CURRENTLY EXPERIENCES LOCALIZED FLOODING DURING THE 10-YR, 24-HR STORM AND THE MAXIMUM POST-DEVELOPMENT PEAK FLOW RATE FOR THE 10-YR, 24-HR STORM EVENT IS LESS THAT THE PRE-DEVELOPMENT PEAK FLOW RATE FOR THE 10-YR, 24-HR STORM EVENT
- 13-109-F.2.C - WHERE THE STORMWATER CONVEYANCE SYSTEM IS ANALYZED TO A POINT WHERE THE SITE'S CONTRIBUTING DRAINAGE AREA IS LESS THAN OR EQUAL TO 1% OF THE TOTAL WATERSHED AREA

THE SWM-LD FOR DRAINAGE AREAS 4 AND 5 ARE SUBJECT TO THE FOLLOWING REQUIREMENTS OF THE ENVIRONMENTAL MANAGEMENT ORDINANCE.

- 13-109-F.3 - WHERE INCREASED VOLUMES OF SHEETFLOW RESULTING FROM PERVIOUS OR DISCONNECTED IMPERVIOUS AREAS DOES NOT CAUSE OR CONTRIBUTE TO EROSION, SEDIMENTATION, OR FLOODING OF DOWN GRADIENT PROPERTIES OR RESOURCES.

SEE REQUIREMENT COMPUTATIONS ON THIS SHEET AND SHEETS C-146 - C-147.

WATER QUANTITY COMPLIANCE

WATER QUANTITY COMPLIANCE IS ACHIEVED FOR OUTFALL 1 BY THE DETENTION PROVIDED IN PERMEABLE PAVEMENT FACILITY 1.

- PERMEABLE PAVEMENT 1: THE SYNTHETIC TURF FIELD IS DESIGNED AS A DETENTION FACILITY. SEE DESIGN NARRATIVE, SIZING COMPUTATIONS, CONSTRUCTION DETAILS/PROFILES, AND SPECIFICATIONS ON SHEETS C-148 TO C-151 AND C-161 - C-162.

WATER QUANTITY COMPLIANCE IS ACHIEVED FOR OUTFALL 2 BY THE DETENTION PROVIDED IN PERMEABLE PAVEMENT FACILITY 1 AND DETENTION FACILITY 1 .

- PERMEABLE PAVEMENT 2: THE SYNTHETIC TURF FIELD IS DESIGNED AS A DETENTION FACILITY. SEE DESIGN NARRATIVE, SIZING COMPUTATIONS, CONSTRUCTION DETAILS/PROFILES, AND SPECIFICATIONS ON SHEETS C-149 TO C-151 AND C-161 - C-162.
- DETENTION FACILITY 1: A CMP DETENTION FACILITY IS PROPOSED IN THE PARKING LOT. SEE DESIGN NARRATIVE, SIZING COMPUTATIONS, CONSTRUCTION DETAILS/PROFILES, AND SPECIFICATIONS ON SHEETS C-156 TO C-162.

WATER QUANTITY COMPLIANCE IS ACHIEVED FOR OUTFALL 3 BY A REDUCTION IN DRAINAGE AREA FROM THE PRE-DEVELOPMENT CONDITION. ADEQUACY COMPUTATIONS FOR THE ONSITE AND OFFSITE STORM SEWER TO THE SITE OUTFALL IS PROVIDED ON SHEET C-147.

WATER QUANTITY COMPLIANCE FOR DRAINAGE AREAS 4 AND 5 ARE ACHIEVED WITH A NOMINAL INCREASE IN SHEETFLOW VOLUME FROM THE PRE-DEVELOPMENT CONDITION. DRAINAGE AREA 4 HAS INCREASE IN FLOW AND VOLUME. DRAINAGE AREA 5 HAS DECREASE IN FLOW AND VOLUME. A SITE VISIT WAS CONDUCTED ON 3/3/21 AND 1/19/22 , AND THERE WERE NO SIGNS OF DOWNSTREAM EROSION, SEDIMENTATION, OR FLOODING. THEREFORE, IT IS THE OPINION OF THE SIGNING ENGINEER THAT THE INCREASED VOLUMES OF SHEETFLOW WILL NOT CAUSE OR CONTRIBUTE TO EROSION, SEDIMENTATION, OR FLOODING OF DOWN-GRADIENT PROPERTIES OR RESOURCES.

THE DOWNSTREAM STORM SEWER FROM ALL OUTFALLS HAS BEEN EXTENSIVELY STUDIED BY THE CITY OF ALEXANDRIA AND THEIR CONSULTANT TEAMS. THESE DRAINAGE STUDIES HAVE INFORMED THE DETENTION DESIGN PROVIDED ON THE SITE AND HAVE DEMONSTRATED THAT THERE IS KNOWN DOWNSTREAM FLOODING. THEREFORE, IT IS THE OPINION OF THE SIGNING ENGINEER THAT THIS SATISFIES THE REGULATORY REQUIREMENT TO STUDY THE DOWNSTREAM OUTFALL TO THE LIMITS OF ANALYSIS FOR FLOODING.

THE SITE HAS BEEN DESIGNED IN ACCORDANCE WITH THE MINIMUM STANDARDS OF 9VAC25-870-66 OF THE VSMP REGULATIONS. THEREFORE, THE MINIMUM STANDARDS OF SUBDIVISION 19 OF SECTION 9VAC25-840-40 HAVE BEEN MET.

SEE COMPLIANCE COMPUTATIONS ON THIS SHEET.

WATER QUANTITY COMPLIANCE (OUTFALL 1)

	CHANNEL PROTECTION 1-year		
	PRE	POST (Adjusted)	
LOD AREA (acre) =	1.09	1.52	
P (in)	2.7	2.7	
CN	82	90	(1)
S=1000/CN-10	2.20	1.11	
0.2S	0.44	0.22	
RV=(P-0.2S)²/(P-0.2S)+S (in)	1.15	1.70	

FLOOD PROTECTION 10-year		
PRE	POST (Adjusted)	
1.09	1.52	
5.2	5.2	
82	91	(1)
2.20	0.99	
0.44	0.20	
3.26	4.18	

(1) PRE CN on sheet C-140; POST CN on sheet C-141

(2) $Q_{Allowable}$ <= I.F.* ($Q_{pre\text{-}development}$*$RV_{Pre\text{-}development}$*$Area_{pre\text{-}development}$)/($RV_{Developed}$*$Area_{developed}$)

(3) $Q_{Allowable}$ <= $Q_{pre\text{-}development}$

I.F 0.8

CHANNEL PROTECTION (1-YR)		Hydrograph #
$Q_{pre\text{-}development}$ (cfs) for LOD	2.33	#1
$Q_{Allowable}$ (cfs) for LOD	**0.90**	(2)
$Q_{Post\ Development}$ (cfs) for Outfall	**0.40**	#5

FLOOD PROTECTION (10-YR)		Hydrograph #
$Q_{pre\text{-}development}$ (cfs) for LOD	6.43	#1
$Q_{Allowable}$ (cfs) for LOD	**6.43**	(3)
$Q_{Post\ Development}$ (cfs) for Outfall	**2.34**	#5

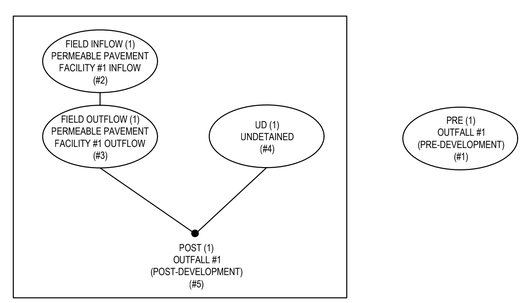
Drainage Area A		A Soils	B Soils	C Soils	D Soils
Forest/Open Space -- undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00
	CN	30	55	70	77
Managed Turf -- disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	0.00	0.10
	CN	39	61	74	80
Impervious Cover	Area (acres)	0.00	0.00	0.00	1.42
	CN	98	98	98	98

Total Area (acres): 1.52
Runoff Reduction Volume (ft^3): 3,659

$CN_{(D.A.\ A)}$ = **97**

	1-year storm	2-year storm	10-year storm
$RV_{Developed}$ *(watershed-inch)* with no Runoff Reduction*	2.36	2.86	4.85
$RV_{Developed}$ *(watershed-inch)* with Runoff Reduction*	1.70	2.19	4.18
Adjusted CN*	**90**	**90**	**91**

A WATER QUANTITY COMPLIANCE



B SCHEMATIC LAYOUT DIAGRAM

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR — DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR — DATE
CHAIRMAN, PLANNING COMMISION — DATE
DATE RECORDED _____
INSTRUMENT NO. — DEED BOOK NO. — PAGE NO.

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REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON — DES: M. BAUMAN
DRW: S. MOORE — CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

WATER QUANTITY COMPUTATIONS – OUTFALL 1

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-130.DWG
NCS: C-CJ-130
NUMBER: C-145
Gordon

G:\PROJECTS\AMERICAN - ALEXANDRIA\PARKS\EUGENE SIMPSON\C-CJ-130.DWG 3/13/2023 10:39 AM unknown VERT DATUM: NAVD 88 HORIZ DATUM: NAD 83
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WATER QUANTITY COMPUTATIONS - OUTFALL 2

OUTFALL 2: 1-YR

PRE-DEVELOPMENT

Hyd. No. 7

PRE (2)

Hydrograph type	= SCS Runoff	Peak discharge	= 6.285 cfs
Storm frequency	= 1 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 12,944 cuft
Drainage area	= 2.120 ac	Curve number	= 89
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 2.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

POST-DEVELOPMENT

Hyd. No. 8

TOTAL FIELD INFLOW (2A)

Hydrograph type	= SCS Runoff	Peak discharge	= 6.287 cfs
Storm frequency	= 1 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 14,027 cuft
Drainage area	= 1.660 ac	Curve number	= 96
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 2.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Hyd. No. 9

FIELD OUTFLOW (2A)

Hydrograph type	= Reservoir	Peak discharge	= 0.241 cfs
Storm frequency	= 1 yrs	Time to peak	= 803 min
Time interval	= 1 min	Hyd. volume	= 14,676 cuft
Inflow hyd. No.	= 8 - TOTAL FIELD INFLOW (2A)	Max. Elevation	= 45.47 ft
Reservoir name	= FIELD (2A)	Max. Storage	= 6,984 cuft

Storage Indication method used.

Hyd. No. 10

DETENTION INFLOW (2B)

Hydrograph type	= SCS Runoff	Peak discharge	= 2.424 cfs
Storm frequency	= 1 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 5,408 cuft
Drainage area	= 0.640 ac	Curve number	= 96
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 2.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Hyd. No. 11

DETENTION OUT 1YR (2B)

Hydrograph type	= Reservoir	Peak discharge	= 1.297 cfs
Storm frequency	= 1 yrs	Time to peak	= 722 min
Time interval	= 1 min	Hyd. volume	= 4,937 cuft
Inflow hyd. No.	= 10 - DETENTION INFLOW (2B)	Max. Elevation	= 36.60 ft
Reservoir name	= DETENTION (2B) - 1YR	Max. Storage	= 802 cuft

Storage Indication method used.

Hyd. No. 13

UD (2)

Hydrograph type	= SCS Runoff	Peak discharge	= 1.479 cfs
Storm frequency	= 1 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 3,088 cuft
Drainage area	= 0.460 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 2.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Hyd. No. 14

POST (2) 1YR

Hydrograph type	= Combine	Peak discharge	= 3.006 cfs
Storm frequency	= 1 yrs	Time to peak	= 718 min
Time interval	= 1 min	Hyd. volume	= 22,989 cuft
Inflow hyds.	= 9, 11, 13	Contrib. drain. area	= 0.460 ac

OUTFALL 2: 10-YR

PRE-DEVELOPMENT

Hyd. No. 7

PRE (2)

Hydrograph type	= SCS Runoff	Peak discharge	= 14.32 cfs
Storm frequency	= 10 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 30,627 cuft
Drainage area	= 2.120 ac	Curve number	= 88
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

POST-DEVELOPMENT

Hyd. No. 8

TOTAL FIELD INFLOW (2A)

Hydrograph type	= SCS Runoff	Peak discharge	= 12.59 cfs
Storm frequency	= 10 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 29,401 cuft
Drainage area	= 1.660 ac	Curve number	= 96
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Hyd. No. 9

FIELD OUTFLOW (2A)

Hydrograph type	= Reservoir	Peak discharge	= 2.166 cfs
Storm frequency	= 10 yrs	Time to peak	= 727 min
Time interval	= 1 min	Hyd. volume	= 30,121 cuft
Inflow hyd. No.	= 8 - TOTAL FIELD INFLOW (2A)	Max. Elevation	= 46.13 ft
Reservoir name	= FIELD (2A)	Max. Storage	= 13,258 cuft

Storage Indication method used.

Hyd. No. 10

DETENTION INFLOW (2B)

Hydrograph type	= SCS Runoff	Peak discharge	= 4.855 cfs
Storm frequency	= 10 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 11,335 cuft
Drainage area	= 0.640 ac	Curve number	= 96
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Hyd. No. 12

DETENTION OUT 10YR(2B)

Hydrograph type	= Reservoir	Peak discharge	= 4.728 cfs
Storm frequency	= 10 yrs	Time to peak	= 718 min
Time interval	= 1 min	Hyd. volume	= 10,355 cuft
Inflow hyd. No.	= 10 - DETENTION INFLOW (2B)	Max. Elevation	= 37.12 ft
Reservoir name	= DETENTION (2B) - 10YR	Max. Storage	= 996 cuft

Storage Indication method used.

Hyd. No. 13

UD (2)

Hydrograph type	= SCS Runoff	Peak discharge	= 3.277 cfs
Storm frequency	= 10 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 7,192 cuft
Drainage area	= 0.460 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Hyd. No. 15

POST (2) 10YR

Hydrograph type	= Combine	Peak discharge	= 8.720 cfs
Storm frequency	= 10 yrs	Time to peak	= 718 min
Time interval	= 1 min	Hyd. volume	= 48,175 cuft
Inflow hyds.	= 9, 12, 13	Contrib. drain. area	= 0.460 ac

DETENTION FACILITY #1: 1-YR STAGE-STORAGE

Pond Report

14

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 — Wednesday, Mar 8, 2023

Pond No. 4 - DETENTION (2B) - 1YR

Pond Data

UG Chambers - Invert elev. = 34.20 ft, Rise x Span = 3.50 x 3.50 ft, Barrel Len = 40.00 ft, No. Barrels = 3, Slope = 0.50%, Headers = No

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	34.20	n/a	0	0
0.37	34.57	n/a	42	42
0.74	34.94	n/a	103	145
1.11	35.31	n/a	131	276
1.48	35.68	n/a	147	423
1.85	36.05	n/a	154	578
2.22	36.42	n/a	154	732
2.59	36.79	n/a	147	879
2.96	37.16	n/a	131	1,010
3.33	37.53	n/a	103	1,113
3.70	37.90	n/a	42	1,155

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 24.00	6.00	0.00	0.00
Span (in)	= 24.00	6.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 34.20	34.20	0.00	0.00
Length (ft)	= 20.67	0.00	0.00	0.00
Slope (%)	= 0.60	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 7.00	0.00	0.00	0.00
Crest El. (ft)	= 36.83	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)
TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	34.20	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.37	42	34.57	0.30 ic	0.30 ic	---	---	0.00	---	---	---	---	---	0.296
0.74	145	34.94	0.62 oc	0.62 ic	---	---	0.00	---	---	---	---	---	0.616
1.11	276	35.31	0.81 oc	0.81 ic	---	---	0.00	---	---	---	---	---	0.811
1.48	423	35.68	0.99 oc	0.97 ic	---	---	0.00	---	---	---	---	---	0.971
1.85	578	36.05	1.14 oc	1.11 ic	---	---	0.00	---	---	---	---	---	1.113
2.22	732	36.42	1.24 oc	1.24 ic	---	---	0.00	---	---	---	---	---	1.239
2.59	879	36.79	1.40 oc	1.36 ic	---	---	0.00	---	---	---	---	---	1.356
2.96	1,010	37.16	5.57 oc	1.14 ic	---	---	4.42	---	---	---	---	---	5.557
3.33	1,113	37.53	14.53 oc	0.88 ic	---	---	13.65	---	---	---	---	---	14.53
3.70	1,155	37.90	21.94 oc	0.66 ic	---	---	21.27 s	---	---	---	---	---	21.94

DETENTION FACILITY #1: 10-YR STAGE-STORAGE

Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 — Thursday, Jan 12, 2023

Pond No. 5 - DETENTION (2B) - 10YR

Pond Data

UG Chambers - Invert elev. = 34.20 ft, Rise x Span = 3.50 x 3.50 ft, Barrel Len = 40.00 ft, No. Barrels = 3, Slope = 0.50%, Headers = No

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	34.20	n/a	0	0
0.37	34.57	n/a	42	42
0.74	34.94	n/a	103	145
1.11	35.31	n/a	131	276
1.48	35.68	n/a	147	423
1.85	36.05	n/a	154	578
2.22	36.42	n/a	154	732
2.59	36.79	n/a	147	879
2.96	37.16	n/a	131	1,010
3.33	37.53	n/a	103	1,113
3.70	37.90	n/a	42	1,155

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 24.00	6.00	0.00	0.00
Span (in)	= 24.00	6.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 34.20	34.20	0.00	0.00
Length (ft)	= 20.67	0.00	0.00	0.00
Slope (%)	= 0.60	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 7.00	0.00	0.00	0.00
Crest El. (ft)	= 36.83	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)
TW Elev. (ft) = 35.74

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	34.20	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.37	42	34.57	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.74	145	34.94	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
1.11	276	35.31	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
1.48	423	35.68	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
1.85	578	36.05	0.53 ic	0.52 ic	---	---	0.00	---	---	---	---	---	0.525
2.22	732	36.42	0.78 ic	0.78 ic	---	---	0.00	---	---	---	---	---	0.777
2.59	879	36.79	0.97 ic	0.97 ic	---	---	0.00	---	---	---	---	---	0.966
2.96	1,010	37.16	5.48 ic	1.08 ic	---	---	4.42	---	---	---	---	---	5.480
3.33	1,113	37.53	14.53 ic	0.88 ic	---	---	13.65	---	---	---	---	---	14.53
3.70	1,155	37.90	20.15 ic	0.59 ic	---	---	19.56 s	---	---	---	---	---	20.15

PERMEABLE PAVEMENT FACILITY #2: 1-YR/10-YR STAGE-STORAGE

Pond Report

11

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 — Wednesday, Mar 8, 2023

Pond No. 2 - FIELD (2A)

Pond Data

Contours - User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 39.99 ft. Voids = 40.00%

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	39.99	01	0	0
4.75	44.74	01	2	2
4.76	44.75	24,000	48	50
6.74	46.73	24,000	19,008	19,058

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	2.00	0.00	0.00
Span (in)	= 12.00	2.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 39.99	39.99	0.00	0.00
Length (ft)	= 115.00	0.00	0.00	0.00
Slope (%)	= 0.50	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

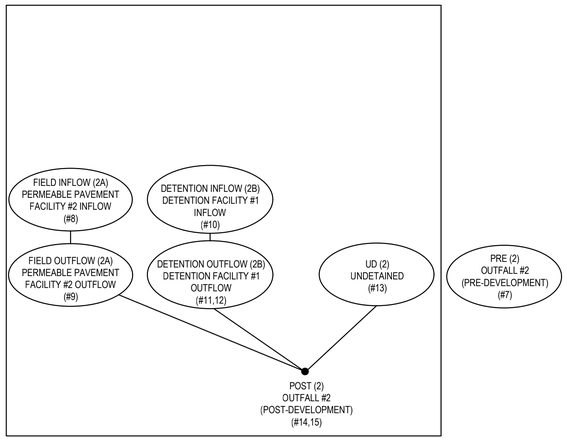
	[A]	[B]	[C]	[D]
Crest Len (ft)	= 2.50	0.00	0.00	0.00
Crest El. (ft)	= 45.75	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)
TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	39.99	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
4.75	2	44.74	0.22 ic	0.22 ic	---	---	0.00	---	---	---	---	---	0.223
4.76	50	44.75	0.22 ic	0.22 ic	---	---	0.00	---	---	---	---	---	0.224
6.74	19,058	46.73	6.78 oc	0.07 ic	---	---	6.70 s	---	---	---	---	---	6.775



B SCHEMATIC LAYOUT DIAGRAM

Drainage Area B		A Soils	B Soils	C Soils	D Soils
Forest/Open Space -- undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00
	CN	30	55	70	77
Managed Turf -- disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	0.00	0.34
	CN	39	61	74	80
Impervious Cover	Area (acres)	0.00	0.00	0.00	2.34
	CN	98	98	98	98

Total Area (acres): 2.68
Runoff Reduction Volume (ft^3): 4,658

$CN_{(D.A.\ B)}$: 96

	1-year storm	2-year storm	10-year storm
$RV_{Developed}$ *(watershed-inch)* with no Runoff Reduction*	2.26	2.75	4.73
$RV_{Developed}$ *(watershed-inch)* with Runoff Reduction*	1.78	2.27	4.25
Adjusted CN*	91	91	92

A WATER QUANTITY COMPLIANCE

WATER QUANTITY COMPLIANCE (OUTFALL 2)

	CHANNEL PROTECTION 1-year PRE	CHANNEL PROTECTION 1-year POST (Adjusted)	
LOD AREA (acre) =	2.12	2.68	
P (in)	2.7	2.7	
CN	89	91	(1)
S=1000/CN-10	1.24	0.99	
0.2S	0.25	0.20	
RV=(P-0.2S)²/(P-0.2S)+S (in)	1.63	1.78	

FLOOD PROTECTION 10-year PRE	FLOOD PROTECTION 10-year POST (Adjusted)	
2.12	2.68	
5.2	5.2	
89	92	(1)
1.24	0.87	
0.25	0.17	
3.96	4.25	

(1) PRE CN on sheet C-140; POST CN on sheet C-141

(2) $Q_{Allowable} <= I.F.*(Q_{pre\text{-}development}*RV_{Pre\text{-}development}*Area_{pre\text{-}development})/(RV_{Developed}*Area_{developed})$

(3) $Q_{Allowable} <= Q_{pre\text{-}development}$

I.F 0.8

CHANNEL PROTECTION (1-YR)		Hydrograph #
$Q_{pre\text{-}development}$ (cfs) for LOD	6.03	#7
$Q_{Allowable}$ (cfs) for LOD	3.49	(2)
$Q_{Post\ Development}$ (cfs) for Outfall	3.01	#14

FLOOD PROTECTION (10-YR)		Hydrograph #
$Q_{pre\text{-}development}$ (cfs) for LOD	14.32	#7
$Q_{Allowable}$ (cfs) for LOD	14.32	(3)
$Q_{Post\ Development}$ (cfs) for Outfall	8.72	#15

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REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON
DES: M. BAUMAN
DRW: S. MOORE
CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

WATER QUANTITY COMPUTATIONS – OUTFALL 2

EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-130.DWG
NCS: C-CJ-130
NUMBER: C-146
Gordon

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WATER QUANTITY COMPUTATIONS - OUTFALL 3 AND DRAINAGE AREAS 4 & 5

OUTFALL 3: 2-YR

PRE-DEVELOPMENT

Hyd. No. 17

PRE (3)

Hydrograph type	= SCS Runoff	Peak discharge	= 9.435 cfs
Storm frequency	= 2 yrs	Time to peak	= 718 min
Time interval	= 1 min	Hyd. volume	= 19,304 cuft
Drainage area	= 2.810 ac	Curve number	= 86
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 3.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

POST-DEVELOPMENT

Hyd. No. 18

POST (3)

Hydrograph type	= SCS Runoff	Peak discharge	= 6.178 cfs
Storm frequency	= 2 yrs	Time to peak	= 718 min
Time interval	= 1 min	Hyd. volume	= 12,640 cuft
Drainage area	= 1.840 ac	Curve number	= 86
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 3.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

OUTFALL 3: 10-YR

PRE-DEVELOPMENT

Hyd. No. 17

PRE (3)

Hydrograph type	= SCS Runoff	Peak discharge	= 18.21 cfs
Storm frequency	= 10 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 38,437 cuft
Drainage area	= 2.810 ac	Curve number	= 86
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

POST-DEVELOPMENT

Hyd. No. 18

POST (3)

Hydrograph type	= SCS Runoff	Peak discharge	= 11.92 cfs
Storm frequency	= 10 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 25,169 cuft
Drainage area	= 1.840 ac	Curve number	= 86
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

DRAINAGE AREA 4: 2-YR

PRE-DEVELOPMENT

Hyd. No. 20

PRE (4)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.465 cfs
Storm frequency	= 2 yrs	Time to peak	= 718 min
Time interval	= 1 min	Hyd. volume	= 935 cuft
Drainage area	= 0.170 ac	Curve number	= 81
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 3.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

POST-DEVELOPMENT

Hyd. No. 21

POST (4)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.559 cfs
Storm frequency	= 2 yrs	Time to peak	= 718 min
Time interval	= 1 min	Hyd. volume	= 1,134 cuft
Drainage area	= 0.180 ac	Curve number	= 84
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 3.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

DRAINAGE AREA 4: 10-YR

PRE-DEVELOPMENT

Hyd. No. 20

PRE (4)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.977 cfs
Storm frequency	= 10 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 2,013 cuft
Drainage area	= 0.170 ac	Curve number	= 81
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

POST-DEVELOPMENT

Hyd. No. 21

POST (4)

Hydrograph type	= SCS Runoff	Peak discharge	= 1.115 cfs
Storm frequency	= 10 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 2,327 cuft
Drainage area	= 0.180 ac	Curve number	= 84
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

DRAINAGE AREA 5: 2-YR

PRE-DEVELOPMENT

Hyd. No. 23

PRE (5)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.313 cfs
Storm frequency	= 2 yrs	Time to peak	= 718 min
Time interval	= 1 min	Hyd. volume	= 630 cuft
Drainage area	= 0.120 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 3.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

POST-DEVELOPMENT

Hyd. No. 24

POST (5)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.291 cfs
Storm frequency	= 2 yrs	Time to peak	= 718 min
Time interval	= 1 min	Hyd. volume	= 592 cuft
Drainage area	= 0.090 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 3.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

DRAINAGE AREA 5: 10-YR

PRE-DEVELOPMENT

Hyd. No. 23

PRE (5)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.671 cfs
Storm frequency	= 10 yrs	Time to peak	= 718 min
Time interval	= 1 min	Hyd. volume	= 1,378 cuft
Drainage area	= 0.120 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

POST-DEVELOPMENT

Hyd. No. 24

POST (5)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.571 cfs
Storm frequency	= 10 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 1,197 cuft
Drainage area	= 0.090 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= USER	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

WATER QUANTITY COMPLIANCE (OUTFALL 3)

	CHANNEL PROTECTION 1-year			FLOOD PROTECTION 10-year		
	PRE	POST		PRE	POST	
LOD AREA (acre) =	2.81	1.84		2.81	1.84	
P (in)	2.7	2.7		5.2	5.2	
CN	86	86	(1)	86	86	(1)
S=1000/CN-10	1.63	1.63		1.63	1.63	
0.2S	0.33	0.33		0.33	0.33	
RV=(P-0.2S)²/(P-0.2S)+S (in)	1.41	1.41		3.65	3.65	

(1) PRE CN on sheet C-140; POST CN on sheet C-141

(2) $Q_{Allowable}$ <= I.F.* ($Q_{pre\text{-}development}$*$RV_{Pre\text{-}development}$*$Area_{pre\text{-}development}$)/($RV_{Developed}$*$Area_{developed}$)

(3) $Q_{Allowable}$ <= $Q_{pre\text{-}development}$

I.F 0.8

CHANNEL PROTECTION (1-YR)		Hydrograph #	FLOOD PROTECTION (10-YR)		Hydrograph #
$Q_{pre\text{-}development}$ (cfs) for LOD	9.44	#17	$Q_{pre\text{-}development}$ (cfs) for LOD	18.21	#17
$Q_{Allowable}$ (cfs) for LOD	**11.55**	(2)	$Q_{Allowable}$ (cfs) for LOD	**18.21**	(3)
$Q_{Post\ Development}$ (cfs) for Outfall	**6.18**	#18	$Q_{Post\ Development}$ (cfs) for Outfall	**11.92**	#18

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NUMBER	DATE	DESCRIPTION

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DES: M. BAUMAN
DRW: S. MOORE
CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

WATER QUANTITY COMPUTATIONS – OUTFALLS 3, 4, & 5

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-130.DWG
NCS: C-CJ-130
NUMBER: C-147
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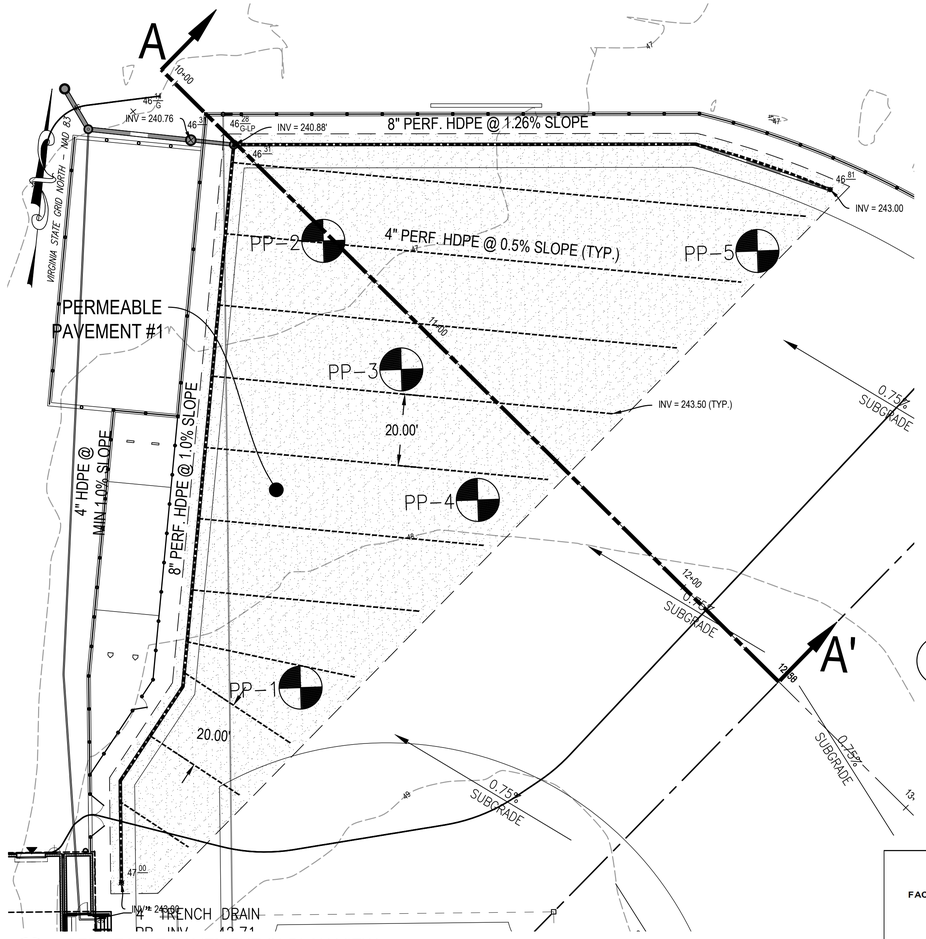
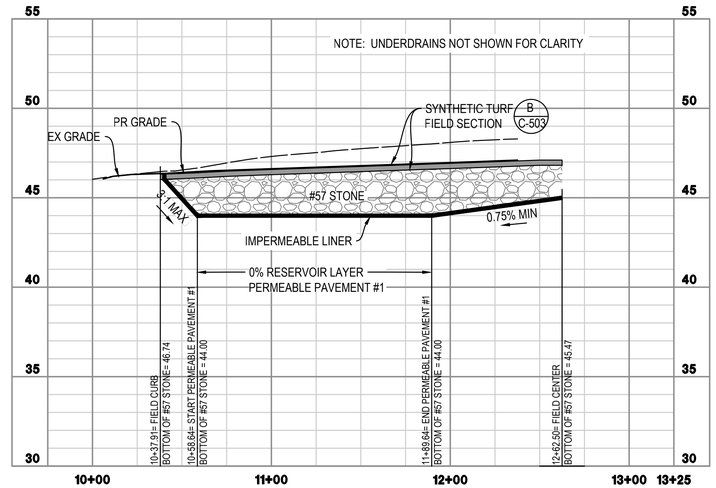
PERMEABLE PAVEMENT DESIGN



A PERMEABLE PAVEMENT #1 PLAN VIEW

HORIZONTAL SCALE: 1" = 20'

GRAPHICAL SCALE: 1" = 20'



PP1 PROFILE

B PERMEABLE PAVEMENT CROSS SECTION A - A'

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'

HORIZONTAL SCALE: 1" = 40'

VERTICAL SCALE: 1" = 4'

PERMEABLE PAVEMENT NARRATIVE

- PURPOSE: TWO (2) PERMEABLE PAVEMENT FACILITIES ARE PROPOSED ON THE SITE TO PROVIDE QUALITY AND QUANTITY CONTROL ON THE SITE.
- APPLICABLE DESIGN STANDARDS: VA DESIGN SPECIFICATION NO. (DRAFT 2013, VERSION 2.0)
- LOCATION: THE FACILITIES ARE LOCATED WITHIN THE PROPOSED SYNTHETIC TURF FIELD, ONE ON THE NORTHWEST CORNER AND ONE ON THE SOUTHEAST CORNER.
- TYPE: THE PERMEABLE PAVEMENTS ARE SYNTHETIC TURF SYSTEMS.
- WATER QUALITY SIZING: THE PERMEABLE PAVEMENT FACILITIES ARE DESIGNED AS LEVEL 2 FACILITIES. THE FACILITIES ARE SIZED TO TREAT THE 1.1" WATER QUALITY VOLUME. THE FACILITIES ARE DESIGNED PER OPTION 3 IN TABLE 7.4, WITH A MINIMUM 48 HOUR DRAIN DOWN TIME PROVIDED FOR THE TREATMENT VOLUME.
- WATER QUANTITY SIZING: THE PERMEABLE PAVEMENTS IS AN ONLINE FACILITY DESIGNED TO DETAIN THE 1-YEAR AND 10-YEAR STORMS. THE 10-YEAR WATER SURFACE ELEVATION IS CONTAINED WITHIN THE RESERVOIR STORAGE LAYER, WITH A MINIMUM OF 6" OF FREEBOARD FROM THE MAXIMUM 10-YEAR WATER SURFACE ELEVATION TO THE BOTTOM OF THE INFILL (TOP OF THE GRAVEL).
- CONTRIBUTING DRAINAGE AREA: THE FACILITY IS PERMITTED A CONTRIBUTING DRAINAGE AREA NO MORE THAN 2.5 TIMES THE PERMEABLE PAVEMENT AREA. DRAINAGE DIVIDE BETWEEN 1-D AND 2A-D SHOWS THE DIVIDE PER THE SUBGRADE AND UNDERDRAINS, NOT THE SURFACE GRADES.
- GEOTECHNICAL: PER THE GEOTECHNICAL REPORT PROVIDED BY TERRACON DATED NOVEMBER 3, 2022, THE GEOTECHNICAL ENGINEER HAS RECOMMENDED THAT THE ENCOUNTERED PERCHED WATER TABLE BE TREATED AS THE SEASONAL HIGH WATER TABLE (SHWT). THEREFORE, THE SEPARATION FROM THE FACILITY BOTTOM TO THE SHWT IS NOT PROVIDED, THEREFORE AN IMPERMEABLE LINER IS PROVIDED, AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- PERMEABILITY RATE: THE MINIMUM PERMEABILITY RATES OF THE SYNTHETIC TURF SYSTEM (INFILL, CARPET, PAD, AND BEDDING STONE) SHALL BE A MINIMUM OF 20 IN/HR.

SEE PERMEABLE PAVEMENT DESIGN INFORMATION ON THIS SHEET.

SEE PERMEABLE PAVEMENT DETAILS ON SHEET C-150.

SEE PERMEABLE PAVEMENT SPECIFICATIONS ON SHEET C-151.

GEOTECHNICAL TESTING RESULTS

SOURCE: GEOTECH REPORT BY TERRACON DATED 11/3/22

FACILITY	BORING	BOTTOM ELEVATION	LOWEST UNDERDRAIN ELEVATION	SHWT ELEVATION	SHWT SOURCE	SEPARATION	LINER SELECTED
		(FT)	(FT)	(FT)		(FT)	
PP #1	PP-1	44.00	40.88	45.40	PERCHED WATER TABLE	-4.52	IMPERMEABLE LINER ON BOTTOM AND SIDES PER GEOTECH RECOMMENDATION
	PP-2			38.80	NOT ENCOUNTERED, BOTTOM OF BORING	2.08	
	PP-3			39.30		1.58	
	PP-4			39.90		0.98	
	PP-5			39.50		1.38	

D GEOTECHNICAL BORINGS

FACILITY	DESIGN LEVEL	TOTAL DRAINAGE AREA	CONTRIBUTING IMPERVIOUS AREA (Rv=0.95) (A_i)	CONTRIBUTING PERVIOUS AREA (Rv=0.25) (A_i)	PERMEABLE PAVEMENT AREA (Rv=0.95) (A_p)	RAINFALL DEPTH (P)	RAINFALL DEPTH (P)	WEIGHTED Rv (Rv)	REQUIRED STORAGE (Tv)(1)	EXTERNAL CDA (A_i) : FOOTPRINT (A_p) RATIO (2)	EXTERNAL CDA Rv (R_v)	POROSITY OF RESERVOIR LAYER (n_r)	REQUIRED DEPTH OF RESERVOIR LAYER (d_{stone})(3)	PROVIDED DEPTH OF RESERVOIR LAYER	PROVIDED STORAGE	% WATER QUALITY VOLUME	PERMEABLE PAVEMENT AREA (A_p)	BOTTOM OF SWM STORAGE AREA (0% RESERVOIR ELEVATION)
		REQUIREMENTS								COMPLIANCE							DESIGN	
		(ACRES)	(ACRES)	(ACRES)	(ACRES)	(IN)	(FT)	-	(CF)	-	-	-	(FT)	(FT)	(CF)	%	(SF)	(FT)
PP #1	Level 2	1.41	0.94	0.00	0.47	1.10	0.092	0.95	5,367	2.01	0.95	0.4	0.67	1.99	16,304	304%	20,500	44.00

(1) Tv = P * Rv* A/12; DEQ Spec. No. 7 (2013), Table 7.4

(2) EXTERNAL CDA (CONTRIBUTING IMPERVIOUS Ai + CONTRIBUTING PERVIOUS Ai) : FOOTPRINT (Ap) RATIO TO BE EQUAL TO OR LESS THAN 2.5:1, TABLE 7.4

(3) dstone = [(P * Ai * Rvi) + (P * Ap)] / (nr * Ap); DEQ Spec. No. 7 (2013), Equation 7.1; nr = 0.4

C PERMEABLE PAVEMENT SIZING SPREADSHEET

Extended Detention Computations PP#1			
Method 1 - Maximum Hydraulic Head Method, VA SWM Handbook, Chapter 5, Section 5-6.2			
Available Storage Volume (SV) (cf) (1)	16,304		
h max (ft) (2)	1.99		
Minimum drawdown time Dt (hr) (3)	48	Maximum drawdown time Dt (hr) (3)	72
Q average (cfs) (4)	0.09	Q average (cfs) (4)	0.06
Q max (cfs) (5)	0.19	Q max (cfs) (5)	0.13
C (6)	0.6	C (6)	0.6
g (ft/s2) (7)	32.2	g (ft/s2) (7)	32.2
Required Orifice Diameter (in) (8)	**2.26**	Required Orifice Diameter (in) (8)	**1.84**

(1) Storage volume for extended detention
(2) Height of extended detention, above permanent pool
(3) Per VA DEQ Spec #15
(4) Qavg = SV/(Dt*3,600) (cfs)
(5) Qmax = 2*Qavg (cfs)
(6) Unitless coefficient
(7) Gravity
(8) Orifice Diameter = $24*(Qmax / (C * (2*g*hmax)^{0.5}))/ (pi))^{0.5}$)(VA SWM Handbook, 1999, Equation 5-7

E EXTENDED DETENTION COMPUTATIONS

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4501 Daly Drive
Chantilly, VA 20151
Phone: 703-263-1900
www.gordon.us.com

NUMBER	DATE	DESCRIPTION
REVISIONS		

SUR: GORDON
DES: M. BAUMAN
DRW: S. MOORE
CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

PERMEABLE PAVEMENT – DESIGN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-140.DWG
NCS: C-CJ-140
NUMBER: C-148

Gordon

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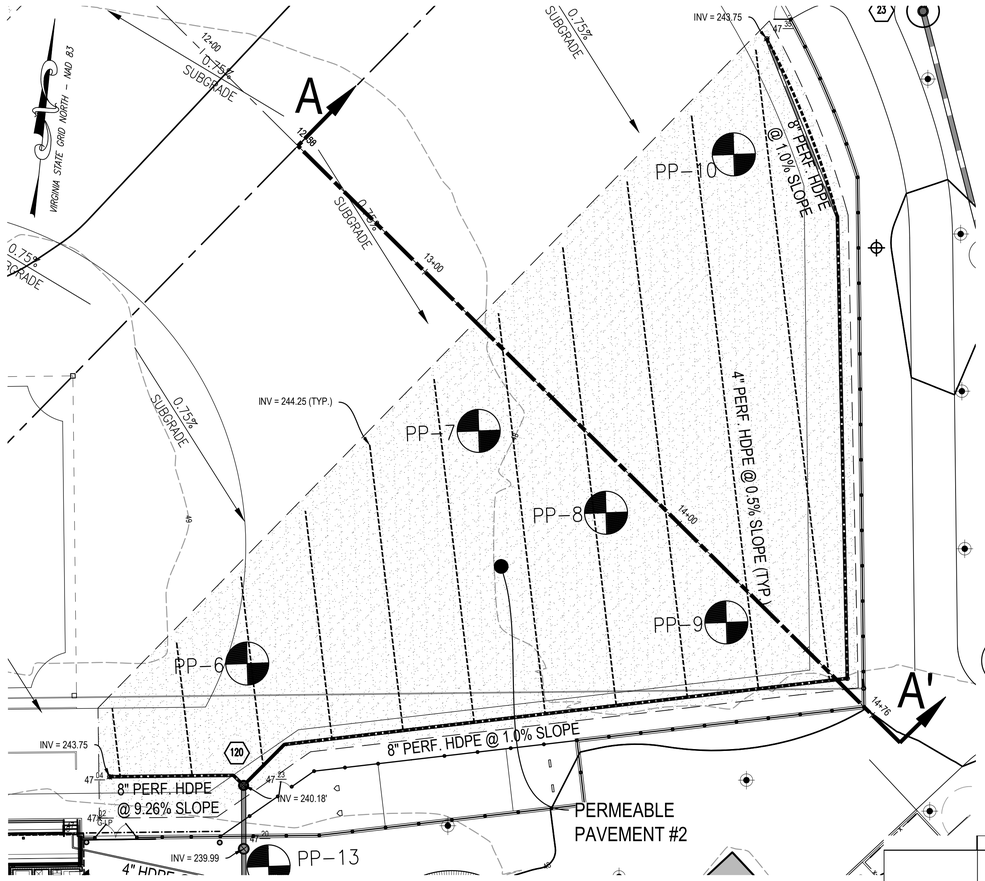
PERMEABLE PAVEMENT DESIGN

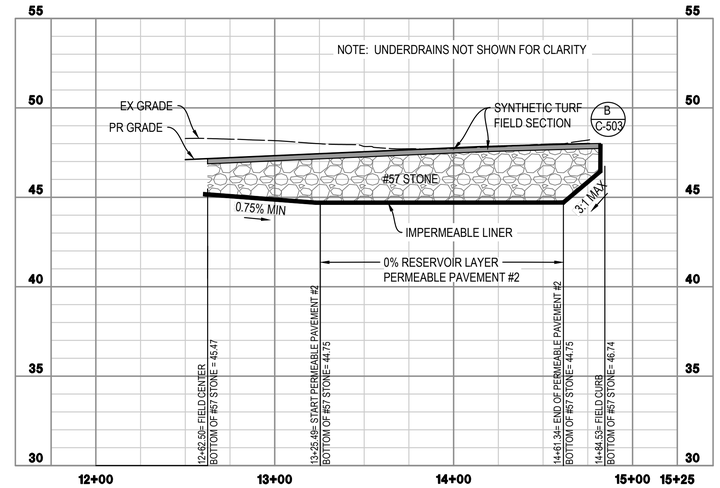


A PERMEABLE PAVEMENT #2 PLAN VIEW

HORIZONTAL SCALE: 1" = 20'

20 10 0 20 40 60

GRAPHICAL SCALE: 1" = 20'



PP2 PROFILE

B PERMEABLE PAVEMENT CROSS SECTION A - A'

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'

40 20 0 40 80 120

HORIZONTAL SCALE: 1" = 40'

4 2 0 4 8

VERTICAL SCALE: 1" = 4'

FACILITY	DESIGN LEVEL	TOTAL DRAINAGE AREA	CONTRIBUTING IMPERVIOUS AREA (Rv=0.95) (A_i)	CONTRIBUTING PERVIOUS AREA (Rv=0.25) (A_i)	PERMEABLE PAVEMENT AREA (Rv=0.95) (A_p)	RAINFALL DEPTH (P)	RAINFALL DEPTH (P)	WEIGHTED Rv (Rv)	REQUIRED STORAGE (Tv)(1)	EXTERNAL CDA (A_i) : FOOTPRINT (A_p) RATIO (2)	EXTERNAL CDA Rv (R_{vi})	POROSITY OF RESERVOIR LAYER (n_r)	REQUIRED DEPTH OF RESERVOIR LAYER (d_{stone})(3)	PROVIDED DEPTH OF RESERVOIR LAYER	PROVIDED STORAGE	% WATER QUALITY VOLUME	PERMEABLE PAVEMENT AREA (A_p)	BOTTOM OF SWM STORAGE AREA (0% RESERVOIR ELEVATION)
		REQUIREMENTS								COMPLIANCE							DESIGN	
		(ACRES)	(ACRES)	(ACRES)	(ACRES)	(IN)	(FT)	-	(CF)	-	-	-	(FT)	(FT)	(CF)	%	(SF)	(FT)
PP #2	Level 2	1.66	0.97	0.14	0.55	1.10	0.092	0.89	5,892	2.01	0.86	0.4	0.63	1.98	18,992	322%	24,000	44.75

(1) Tv = P * Rv* A/12; DEQ Spec. No. 7 (2013), Table 7.4
(2) EXTERNAL CDA (CONTRIBUTING IMPERVIOUS Ai + CONTRIBUTING PERVIOUS Ai) : FOOTPRINT (Ap) RATIO TO BE EQUAL TO OR LESS THAN 2.5:1, TABLE 7.4
(3) dstone = [(P * Ai * Rvi) + (P * Ap)] / (nr * Ap); DEQ Spec. No. 7 (2013), Equation 7.1; nr = 0.4

C PERMEABLE PAVEMENT SIZING SPREADSHEET

Extended Detention Computations PP#2			
Method 1 - Maximum Hydraulic Head Method, VA SWM Handbook, Chapter 5, Section 5-6.2			
Available Storage Volume (SV) (cf) (1)	18,992		
h max (ft) (2)	1.98		
Minimum drawdown time Dt (hr) (3)	48	Maximum drawdown time Dt (hr) (3)	72
Q average (cfs) (4)	0.11	Q average (cfs) (4)	0.07
Q max (cfs) (5)	0.22	Q max (cfs) (5)	0.15
C (6)	0.6	C (6)	0.6
g (ft/s2) (7)	32.2	g (ft/s2) (7)	32.2
Required Orifice Diameter (in) (8)	**2.44**	Required Orifice Diameter (in) (8)	**1.99**

(1) Storage volume for extended detention
(2) Height of extended detention, above permanent pool
(3) Per VA DEQ Spec #15
(4) Qavg = SV/(Dt*3,600) (cfs)
(5) Qmax = 2*Qavg (cfs)
(6) Unitless coefficient
(7) Gravity
(8) Orifice Diameter = $24*(Qmax / (C * (2*g*hmax)^{0.5}))/ (pi))^{0.5}$)(VA SWM Handbook, 1999, Equation 5-7

GEOTECHNICAL TESTING RESULTS
SOURCE: GEOTECH REPORT BY TERRACON DATED 11/3/22

FACILITY	BORING	BOTTOM ELEVATION	LOWEST UNDERDRAIN ELEVATION	SHWT ELEVATION	SHWT SOURCE	SEPARATION	LINER SELECTED
		(FT)	(FT)	(FT)		(FT)	
PP #2	PP-6	44.75	40.18	40.80	NOT ENCOUNTERED, BOTTOM OF BORING	0.08	IMPERMEABLE LINER ON BOTTOM AND SIDES PER GEOTECH RECOMMENDATION
	PP-7			40.10		0.78	
	PP-8			39.70		1.18	
	PP-9			39.40		1.48	
	PP-10			39.30		1.58	

D GEOTECHNICAL BORINGS

E EXTENDED DETENTION COMPUTATIONS

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EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
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NUMBER: C-149
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PERMEABLE PAVEMENT DETAILS

Nyloplast® A division of ADS

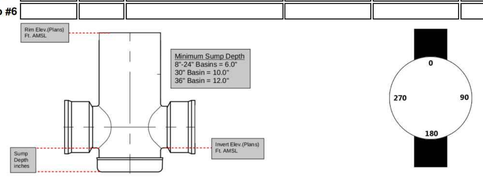
WEIR BASIN SHOP DRAWING

PO#	
Part Number	2830AG10WE
Customer approval	

Project Name	Simpson Park SF-332300	Dia.	30	Structure No. 410	Qty. 1
Prepared By	Erica Dryer ADS 8667461273 erica.dryer@ads-pipe.com	Grate	30; Solid;		
		Accessories	Weir Plate - 1; Straight Plate;		

Rim Elev.	Basin Height	Sump Depth
46.31 ft.	76.6 in.	10.00 in.

	Stub size	Angle	Pipe Type	Invert Elev. ft. AMSL	Production Depth inches	Weir Elevation Stub(s) Covered
Stub #1	12 in.	0 °	ADS N12	40.76 ft.	66.60 in.	45.00 ft.
Stub #2	12 in.	180 °	ADS N12	40.76 ft.	66.60 in.	
Stub #3						
Stub #4						
Stub #5						
Stub #6						



CUSTOMER NOTES	PART CODES	PRODUCTION NOTES
	3099CGC;	

Stub Covered	Orifice Diameter
1	2 in.
Weir Height	**Orifice Invert**
60.88 in.	66.6 in.

This product is made to order and non-Refundable
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Nyloplast® is a registered trademark of Advanced Drainage Systems®

Nyloplast® is not responsible for accuracy of shop drawings submitted by customer through Basin Configurator. Submission of shop drawings for purchase and fabrication constitute an approval for production as designed by customer.

A STRUCTURE 420 - OUTLET CONTROL STRUCTURE (PP #1)

N.T.S.

Nyloplast® A division of ADS

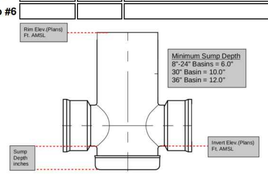
WEIR BASIN SHOP DRAWING

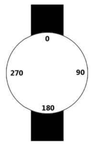
PO#	
Part Number	2830AG10WE
Customer approval	

Project Name	Simpson Park SF-332300	Dia.	30	Structure No. 140	Qty. 1
Prepared By	Erica Dryer ADS 8667461273 erica.dryer@ads-pipe.com	Grate	30; Solid;		
		Accessories	Weir Plate - 1; Straight Plate;		

Rim Elev.	Basin Height	Sump Depth
47.20 ft.	96.52 in.	10.00 in.

	Stub size	Angle	Pipe Type	Invert Elev. ft. AMSL	Production Depth inches	Weir Elevation Stub(s) Covered
Stub #1	12 in.	0 °	ADS N12	39.99 ft.	86.52 in.	45.75 ft.
Stub #2	12 in.	180 °	ADS N12	39.99 ft.	86.52 in.	
Stub #3						
Stub #4						
Stub #5						
Stub #6						





CUSTOMER NOTES	PART CODES	PRODUCTION NOTES
	3099CGC;	

Stub Covered	Orifice Diameter
1	2 in.
Weir Height	**Orifice Invert**
79.12 in.	86.52 in.

This product is made to order and non-Refundable
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B STRUCTURE 110 - OUTLET CONTROL STRUCTURE (PP #2)

N.T.S.

NOTE: EACH NYLOPLAST BASIN SHALL HAVE A LOCKING LID

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KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

PERMEABLE PAVEMENT – DETAILS

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: N/A VERT: N/A
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	C-CJ-140.DWG
NCS:	C-CJ-140
NUMBER:	C-150

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PERMEABLE PAVEMENT SPECIFICATIONS

MATERIALS:

PERMEABLE PAVEMENT MATERIAL SPECIFICATIONS PER DEQ SPECIFICATION NO. 7 (2013)

6.10. Material Specifications

Permeable pavement material specifications vary according to the specific pavement product selected. **Table 7.6** below describes general material specifications for the component structures installed beneath the permeable pavement. Note that the size of stone materials used in the reservoir and filter layers may differ. depending upon whether the system is PC, PA or IP (see **Table 7.2** above). A general comparison of different permeable pavements is provided in **Table 7.7** below, but designers should consult manufacturer's technical specifications for specific criteria and guidance.

Table 7.6. Material Specifications for Underneath the Pavement Surface

Material	Specification	Notes
Bedding Layer	PC: None PA: 2 in. of No. 57 stone IP: 2 in. of No. 8 stone over 4 inches of No. 57 stone	ASTM D448 size No. 8 stone (e.g. 3/8 to 3/16 inch in size). Should be washed and clean and free of all fines.
Reservoir Layer	PC: No. 57 stone PA: No. 2 stone IP: No. 2, 3, or 4 stone	ASTM D448 size No. 57 stone (e.g. 1 1/2 to 1/2 inch in size) No. 2 Stone (e.g. 3 inch to 3/4 inch in size). Depth is based on the pavement structural and hydraulic requirements. Should be washed and clean and free of all fines.
Underdrain	Use 4 to 6 inch diameter perforated PVC (AASHTO M 252) pipe, with 3/8-inch perforations at 6 inches on center; each underdrain installed at a minimum 0.5% slope located 20 feet or less from the next pipe [illegible] Perforated pipe installed for the full length of the permeable pavement cell, and non-perforated pipe, as needed, is used to connect with the storm drain system. T's and Y's installed as needed, depending on the underdrain configuration. Extend cleanout pipes to the surface with vented caps at the Ts and Ys.	
Filter Layer	The underlying native soils should be separated from the stone reservoir by a thin, 2 to 4 inch layer of choker stone (e.g. No. 8) covered by a 6 to 8 inch layer of coarse sand (e.g. ASTM C 33, gradation).	The sand should be placed between the stone reservoir and the choker stone, which should be placed on top of the underlying native soils.
Filter Fabric (optional)	Use an appropriate filter fabric for the particular application based on AASHTO M288-06 Filter Fabric should have a Flow Rate greater than 125 gpm/sq. ft. (ASTM D4491), and an Apparent Opening Size (AOS) equivalent to a US # 70 or # 80 sieve (ASTM D4751). The geotextile AOS selection is based on the percent passing the No. 200 sieve in "A" Soil subgrade, using FHWA or AASHTO selection criteria.	
Impermeable Liner	Use a thinly [illegible] PVC. Geomembrane [illegible] covered by 8 to 12 oz./sq. yd.2 non-woven geotextile. NOTE: THIS IS USED ONLY [illegible] REGIONS.	
Observation Well	Use a perforated 4 to 6 inch vertical PVC pipe (AASHTO M 252) with a lockable cap, installed flush with the surface.	

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C-154

CONSTRUCTION:

PERMEABLE PAVEMENT CONSTRUCTION SPECIFICATIONS PER DEQ SPECIFICATION NO. 7 (2013)

8.1 Necessary Erosion & Sediment Controls

- All permeable pavement areas should be fully protected from sediment intrusion by silt fence or construction fencing, particularly if they are intended to infiltrate runoff.
- Permeable pavement areas should remain outside the limit of disturbance during construction to prevent soil compaction by heavy equipment. Permeable pavement areas should be clearly marked on all construction documents and grading plans. To prevent soil compaction, heavy vehicular and foot traffic should be kept out of permeable pavement areas during and immediately after construction.
- During construction, care should be taken to avoid tracking sediments onto any permeable pavement surface to avoid clogging.
- Any area of the site intended ultimately to be a permeable pavement area should generally not be used as the site of a temporary sediment basin. Where locating a sediment basin on an area intended for permeable pavement is unavoidable, the invert of the sediment basin must be a minimum of 2 feet above the final design elevation of the bottom of the aggregate reservoir course. All sediment deposits in the excavated area should be carefully removed prior to installing the sub-base, base and surface materials.

8.2. Permeable Pavement Construction Sequence

The following is a typical construction sequence to properly install permeable pavement, which may need to be modified to depending on whether Porous Asphalt (PA), Pervious Concrete (PC) or Interlocking Paver (IP) designs are employed.

Step 1. Construction of the permeable pavement shall only begin after the entire contributing drainage area has been stabilized. The proposed site should be checked for existing utilities prior to any excavation. Do not install the system in rain or snow, and do not install frozen aggregate materials.

Step 2. As noted above, temporary erosion and sediment (E&S) controls are needed during installation to divert stormwater away from the permeable pavement area until it is completed. Special protection measures such as erosion control fabrics may be needed to protect vulnerable side slopes from erosion during the excavation process. The proposed permeable pavement area must be kept free from sediment during the entire construction process. Construction materials that are contaminated by sediments must be removed and replaced with clean materials.

Step 3. Where possible, excavators or backhoes should work from the sides to excavate the reservoir layer to its appropriate design depth and dimensions. For micro-scale and small-scale pavement applications, excavating equipment should have arms with adequate extension so they do not have to work inside the footprint of the permeable pavement area (to avoid compaction). Contractors can use a cell construction approach, whereby the proposed permeable pavement area is split into 500 to 1000 sq. ft. temporary cells with a 10 to 15 foot earth bridge in between, so that cells can be excavated from the side. Excavated material should be placed away from the open excavation so as to not jeopardize the stability of the side walls.

Step 4. The native soils along the bottom and sides of the permeable pavement system should be scarified or tilled to a depth of 3 to 4 inches prior to the placement of the filter layer or filter fabric. In large scale paving applications with weak soils, the soil subgrade may need to be compacted to 95% of the Standard Proctor Density to achieve the desired load-bearing capacity. (NOTE: This effectively eliminates the infiltration function of the installation, and it must be addressed during hydrologic design.)

Step 5. The filter layer should be installed on the bottom of the reservoir layer and, where appropriate, filter fabric can be placed on the sides.

Step 6. Provide a minimum of 2 inches of aggregate above and below the underdrains. The underdrains should slope down towards the outlet at a grade of 0.5% or steeper. The up-gradient end of underdrains in the reservoir layer should be capped. Where an underdrain pipe is connected to a structure, there should be no perforations within 1 foot of the structure. Ensure that there are no perforations in clean-outs and observation wells within 1 foot of the surface.

Step 7. Spread 6-inch lifts of the appropriate clean, washed stone aggregate. Place at least 4 inches of additional aggregate above the underdrain, and then compact it using a vibratory roller in static mode until there is no visible movement of the aggregate. Do not crush the aggregate with the roller.

Step 8. Install over-drain if required and connect into outlet conveyance system.

CONDUCT POST-INSTALLATION PERMEABILITY RATE TESTING TO DEMONSTRATE THAT THE FACILITY HAS A MINIMUM PERMEABILITY RATE OF 5 IN/HR. STANDARD PERMEABILITY TESTING PROCEDURES SHALL BE FOLLOWED FOR THE SELECTED PERMEABLE PAVEMENT SURFACE.

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CONSTRUCTION:

Construction Inspection Checklist: Permeable Pavement

Project Name: _____ Address: _____

DSP/DSUP/GRD #: _____ Construction Start Date: _____

Contractor: _____ Telephone: _____

Certifying Professional: _____ Telephone: _____

BMP ID and General Location: _____

- The certifying professional must be a Virginia licensed Professional Engineer, Landscape Architect or Land Surveyor
- A certification is required pursuant to 9VAC25-870-55 of the Virginia Stormwater Management Regulations for all stormwater BMP facilities.
- Inspectors should review the plans carefully and adjust these items and the timing of inspection verification as needed to ensure the intent of the design is met. The standard for design of this practice is based on the Virginia Stormwater BMP Clearinghouse.

Instructions:

- Mark each item as complete or write in "N/A" for those items that are not applicable.
- Fill in the blanks for requested information on dimensions, materials, etc.
- Provide one or more labeled photos for applicable items; check boxes indicate items that require photos. Photos requiring measurements (indicated with a dimension to be populated) must include visual verification (ruler, measuring tape, etc.).

Preconstruction Meeting			
Complete	Photo	Description	Date
☐		The tentative schedule for construction has been identified and the requirements and schedule for interim inspections verified.	
☐		A pre-construction meeting with the contractor designated to install the permeable pavement, the City SWM/ESC inspector, and the person completing this checklist has been conducted.	
☐		The SWPPP has been reviewed and requirements verified by the contractor, the person conducting inspections, and the City SWM/ESC inspector (projects over one acre of disturbance)	
☐		The sequence for building of permeable pavement has been determined. Measures for protection and surface cleaning have been reviewed.	

BMP Construction Preparation			
Complete	Photo	Description	Date
☐		The contributing drainage areas are stabilized and not eroding.	
☐		Runoff is diverted around the excavation area to a stabilized conveyance.	

Excavation			
Complete	Photo	Description	Date
☐		The permeable pavement area is marked, and the size and location conform to the approved plan.	
☐	☐	The excavation has achieved proper grades and the required geometry and elevations.	
☐		If the excavation is used as a sediment trap, verify that the bottom elevation of the proposed stone reservoir is lower than the bottom elevation of the existing trap.	

Excavation (continued)			
☐	☐	The subgrade surface is free of rocks and roots, and large voids. Any voids should be refilled with the base aggregate to create a level surface for the placement of aggregates and underdrain (if required).	
☐		Ensure the bottom of the excavation is scarified or tilled to a depth of 3-4 inches prior to placement of stone.	
☐		No groundwater seepage or standing water is present. Any standing water is dewatered to an acceptable dewatering device and the design consultant has been notified.	

Filter Layer, Underdrain, Stone Reservoir, and Bedding Layer Placement			
Complete	Photo	Description	Date
☐	☐	Sides of the excavation are covered with filter fabric prior to placing stone reservoir aggregate; no tears or holes, or excessive wrinkles are present.	
☐	☐	All aggregates, including, as required, the filter layer, the reservoir layer, and bedding layer conform to the approved plan/design specifications.	
☐	☐	The filter layer and initial layer of reservoir layer are spread (not dumped) to avoid aggregate segregation. Depth of filter layer _____ft.	
☐	☐	The aggregate layer for the installation of the underdrain system is installed per the approved plan/design specifications. Depth of aggregate layer_____ ft. Size of aggregate layer_____	
☐	☐	Underdrain size and perforations meet the approved plan/design specifications. (if applicable) Underdrain Diameter _____ inches Underdrain Material _____ Underdrain Spacing _____ ft. Perforation Size & Spacing _____inches. Number of Cleanouts_____	
☐		The placement of underdrains, observation wells, and underdrain fittings are in accordance with the approved plan/design specifications.	
☐	☐	The stone reservoir layer, aggregate placement, compaction, and thickness, are per the approved plan/design specifications. Depth of reservoir layer aggregate _____ inches	

Permeable Material Installation			
Complete	Photo	Description	Date
☐		The pavement surface is even and runoff spreads evenly across surface.	
☐		Concrete curbs and plastic/metal edge restraints are installed.	
☐		For porous asphalt and pervious concrete pavement, the full permeability of paved surface has been properly tested (clean water applied at a min. rate of 5 gpm over the entire surface), and all water infiltrated directly without puddle formation or surface runoff.	
☐	☐	Provide a photo of the completed BMP after completion of construction.	

Comments	Date

All items checked above have been inspected by me (or by an individual under my responsible charge) and have been completed to my satisfaction and conform to the approved plans and specifications (or deviations as noted above).

Signature: _____ Date: _____

Certifying Professional's License Number (or Seal): _____

MAINTENANCE:

PERMEABLE PAVEMENT MAINTENANCE SPECIFICATIONS PER DEQ SPECIFICATION NO. 7 (2013)

6.9. Maintenance Reduction Features

Maintenance is a crucial element to ensure the long-term performance of permeable pavement. The most frequently cited maintenance problem is surface clogging caused by organic matter and sediment, which can be reduced by the following measures:

- ***Periodic Vacuum Sweeping.*** The pavement surface is the first line of defense in trapping and eliminating sediment that may otherwise enter the stone base and soil subgrade. The rate of sediment deposition should be monitored and vacuum sweeping done once or twice a year. This frequency should be adjusted according to the intensity of use and deposition rate on the permeable pavement surface. At least one sweeping pass should occur at the end of winter.

9.2. Maintenance Tasks

It is difficult to prescribe the specific types or frequency of maintenance tasks that are needed to maintain the hydrologic function of permeable pavement systems over time. Most installations work reasonably well year after year with little or no maintenance, whereas some have problems right from the start.

The following tasks **must be avoided** on all permeable pavements:

- sanding
- re-sealing
- re-surfacing
- power washing
- storage of snow piles containing sand
- storage of mulch or soil materials
- construction staging on unprotected pavement

A preventative maintenance task for large-scale applications involves regenerative air vacuum sweeping on a frequency consistent with the use and loadings encountered in the parking lot. Many consider an annual, dry-weather sweeping in the spring months to be important. The contract for sweeping should specify that a vacuum sweeper be used that does not use water spray, since spraying may lead to subsurface clogging. Vacuum settings for large-scale interlocking paver applications should be calibrated so they *do not* pick up the small stones between pavement blocks.

Table 7.8. Recommended Maintenance Tasks for Permeable Pavement Practices

Maintenance Task	Frequency[1]
• For the first 6 months following construction, the practice and contributing drainage area should be inspected at least twice after storm events that exceed 1/2 inch of rainfall. Conduct any needed repairs or stabilization.	After installation
• Mow grass in grid paver applications	At least 4 times every 1-2 months during the growing season
• Stabilize the CDA to prevent erosion • Remove any soil or sediment deposited on pavement. • Replace or repair any necessary pavement surface areas that are degenerating or spalling	As needed
• Vacuum pavement with a standard street sweeper to prevent clogging	2-4 times per year (depending on use)
• Conduct a maintenance inspection • Spot weeding of grass applications	Annually
• Remove any accumulated sediment in pre-treatment cells and inflow points	Once every 2 to 3 years
• Conduct maintenance using a regenerative street sweeper • Replace any necessary joint material	If clogged

[1] Required frequency of maintenance will depend on pavement use, traffic loads, and surrounding land use.

9.3. Maintenance Inspections

It is highly recommended that a spring maintenance inspection and cleanup be conducted at each permeable pavement site, particularly at large-scale applications.

Maintenance of permeable pavement is driven by annual inspections that evaluate the condition and performance of the practice. Any permeable pavement installation that captures external drainage area (run-on) should be inspected more frequently during the first year (four seasons) to ensure that there are no unexpected loads of sediment or pavement particulates from the contributing area. If so, the property owner should assess ways to limit the contributions, or the maintenance schedule should be adjusted to ensure the pavement does not become clogged.

The following are suggested routine annual maintenance inspection points for permeable pavements:

- The drawdown rate should be measured at the observation well for three (3) days following a storm event in excess of 1/2-inch in depth. If standing water is still observed in the well after three days, this is a clear sign that clogging is a problem.
- Inspect the surface of the permeable pavement for evidence of sediment deposition, organic debris, staining or ponding that may indicate surface clogging. If any signs of clogging are noted, schedule a vacuum sweeper (no brooms or water spray) to remove deposited material. Then, test sections by pouring water from a five gallon bucket to ensure they work.
- Inspect the structural integrity of the pavement surface, looking for signs of surface deterioration, such as slumping, cracking, spalling or broken pavers. Replace or repair affected areas, as necessary.
- Check inlets, pretreatment cells and any flow diversion structures for sediment buildup and structural damage. Note if any sediment needs to be removed.
- Inspect the condition of the observation well and make sure it is still capped.
- Generally inspect any contributing drainage area for any controllable sources of sediment or erosion.

An example maintenance inspection checklist for permeable pavement can be accessed in **Appendix 9-C** of **Chapter 9** of the *Virginia Stormwater Management Handbook* (2nd edition, 2013). Based on inspection results, specific maintenance tasks will be triggered and scheduled to keep the facility in operating condition.

CITY OF ALEXANDRIA PERMEABLE PAVEMENT MAINTENANCE GUIDELINES

Permeable Pavement Maintenance Schedule and Guidelines

This document must be recorded as an addendum to the stormwater management/ BMP facilities operation and maintenance agreement

Routine Maintenance Guidelines

Permeable pavement must be inspected to ensure that it operates in good working condition and in accordance with the approved design and specifications. Items in need of repair must be immediately addressed.

Routine Maintenance Tasks	Frequency
Remove trash and debris	As needed
Check and repair eroded areas	Annually
Inspect for and remove excess sediment	Annually
Inspect facility for clogging and repair any clogging and improper drainage	Annually
Inspect for and repair any structural damage	Annually
Inspect for repair any clogged or damaged inlets and outlets	Annually

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CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED _____
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NUMBER	DATE	DESCRIPTION

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CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
K. Ryan
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

PERMEABLE PAVEMENT – SPECIFICATIONS

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-140.DWG
NCS: C-CJ-140
NUMBER: C-151

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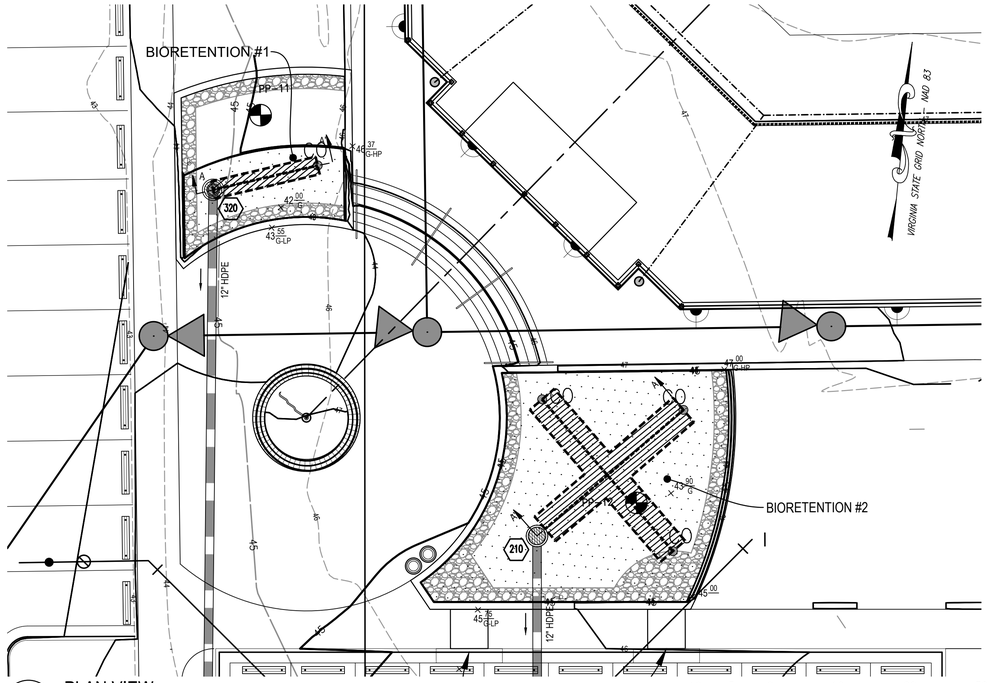
BIORETENTION DESIGN



A PLAN VIEW

SCALE = 1" = 10'

KEYED NOTES

SYMBOL	DESCRIPTION	DETAIL	HATCH/ SYMBOL
1	GRAVEL DIAPHRAGM	E C-154	
2	NYLOPLAST BASIN W/ DOME COVER & SUMP INSERT	A&B C-154	
3	STORMWATER MANAGEMENT FACILITY SIGN	C C-154	
4	GEOTEXTILE FABRIC EXTENTS (4.5' WIDE)		
5	MEDIA FOOTPRINT		
6	GEOTEXTILE FABRIC		
7	PONDING ELEVATION		
8	GEOTECHNICAL BORINGS		#

STRUCTURE INVERT TABLE

STRUCTURE #	INVERT ELEVATION	DETAIL
320	37.68	
BR 1 CO	37.75	F C-154
210	39.52	
BR 2 CO	39.65	F C-154

D STRUCTURE TABLE

BIORETENTION DESIGN NARRATIVE

BIORETENTION DESIGN NARRATIVE

- PURPOSE: THREE (3) BIORETENTIONS ARE PROPOSED WITH THIS APPLICATION TO PROVIDE QUALITY CONTROL FOR THE SITE.
- APPLICABLE DESIGN STANDARDS: VA DEQ DESIGN SPECIFICATION NO. 9 (DRAFT, 2013)
- LOCATION: THE THREE (3) BIORETENTIONS ARE LOCATED IN THE PLAZA AREA NEXT TO BIG SIMPSON FIELD.
- TYPE: THE FACILITIES ARE LEVEL 1 FACILITIES.
- WATER QUALITY SIZING: THE FACILITIES ARE SIZED TO TREAT THE 1" WATER QUALITY VOLUME.
- WATER QUANTITY SIZING: THE FACILITIES ARE ONLINE FACILITIES DESIGNED TO PASS THE 10-YEAR STORM TO THE DOWNSTREAM DETENTION FACILITY. THE 10-YEAR WATER SURFACE ELEVATION IS CONTAINED IN THE FACILITY WITH A MINIMUM OF 6" OF FREEBOARD FROM THE MAXIMUM 10-YEAR WATER SURFACE ELEVATION TO THE TOP OF THE FACILITY. SEE SIZING AND OVERFLOW BASIN COMPUTATIONS ON THIS SHEET AND SHEET C-153.
- PRE-TREATMENT: A LEVEL 1 BIORETENTION IS REQUIRED TO PROVIDE ONE (1) FORM OF PRE-TREATMENT AT EACH INFLOW POINT.
  - FOR BIORETENTIONS 1 AND 3, ALL DRAINAGE ENTERS THE FACILITY AS SHEETFLOW. A GRAVEL DIAPHRAGM IS PROPOSED AROUND THE SIDES OF THE FACILITY RECEIVING SHEETFLOW.
  - FOR BIORETENTION 2, ALL DRAINAGE ENTERS THROUGH THE SIDEWALK AND SEAT WALL SCUPPERS. A GRAVEL DIAPHRAGM WITH A LEVEL SPREADER BERM IS PROVIDED FOR THE CONCENTRATED INFLOW.
- SHORT-CIRCUITING: THE OVERFLOW BASINS ARE SET AT THE WATER QUALITY PONDING ELEVATION ABOVE THE MULCH. THE MULCH SURFACE IS FLAT TO ALLOW FOR UNIFORM PONDING. THEREFORE, THE DESIGN GEOMETRY PREVENTS SHORT-CIRCUITING AND MEETS THE REQUIREMENTS OF SECTION 6-1307.Q OF THE PFM.
- GEOTECHNICAL: PER THE GEOTECHNICAL REPORT PROVIDED BY TERRACON DATED NOVEMBER 3, 2022, SHWT WAS NOT ENCOUNTERED WITHIN TWO (2) FROM THE FACILITY BOTTOM. THEREFORE, THE SEPARATION REQUIREMENTS HAVE BEEN MET. A GEOTEXTILE FABRIC HAS BEEN PROVIDED ON THE SIDES AND ABOVE THE UNDERDRAIN ONLY.

SEE BIORETENTION DESIGN INFORMATION ON SHEETS C-152-C-153.

SEE BIORETENTION DETAILS ON SHEETS C-154.

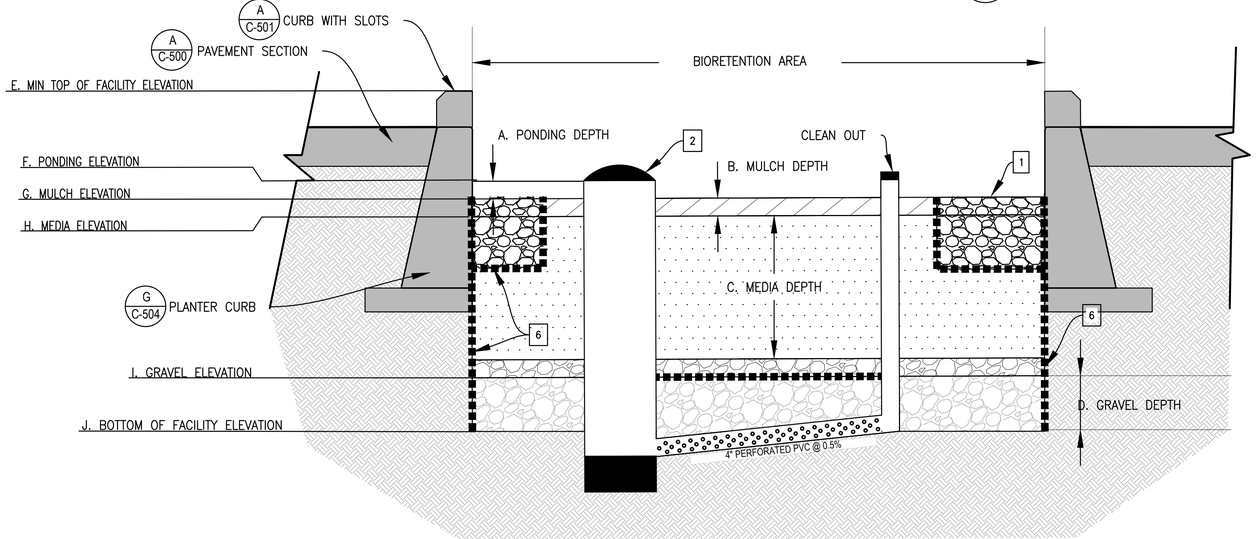
SEE BIORETENTION SPECIFICATIONS ON SHEETS C-155.

Bioretention #1 Overflow Basin	
Weir Computation	
Pervious Area (acres)	0.01
Impervious Area (acres)	0.06
C-factor (1)	0.85
Intensity (in/hr) (2)	6.77
Q (cfs) (3)	0.39
C (4)	3.3
D (ft) (5)	1.25
L (ft) (6)	3.93
H (ft) (7)	0.11
Maximum head (ft) (8)	0.25
Provided Weir Crest Elevation (9)	41.25
10-yr WSE (10)	41.36

Bioretention #2 Overflow Basin	
Weir Computation	
Pervious Area (acres)	0.09
Impervious Area (acres)	0.27
C-factor (1)	0.75
Intensity (in/hr) (2)	6.77
Q (cfs) (3)	1.86
C (4)	3.3
D (ft) (5)	2.50
L (ft) (6)	7.85
H (ft) (7)	0.18
Maximum head (ft) (8)	0.25
Provided Weir Crest Elevation (9)	43.15
10-yr WSE (10)	43.33

(2) 10yr, Tc=5 minutes
(3) 10yr flow
(4) Unitless weir coefficient
(5) Overflow basin diameter
(6) Overflow basin perimeter
(7) From Nyloplast capacity chart
(8) Maximum head to maintain 6" freeboard
(9) Bioretention ponding elevation
(10) Weir crest + Head

E OVERFLOW BASIN SIZING



B SECTION VIEW A-A'

SCALE = 1" = 1'

1 .5 0 1 2 3
GRAPHICAL SCALE: 1" = 1'

SCUPPER CURB INLET COMPUTATIONS
WATER QUALITY VOLUME (INTENSITY = 2"/HR)

DRAINAGE ID	BIORETENTION	INLET ID	THROAT LENGTH	GUTTER SLOPE	Road Cross Slope	DA	Runoff Coefficient C	I (1)	Q_{WQV}	GUTTER Q_{WQV}	$QBypass_{WQV}$
			(FT)	(FT/FT)		(ACRES)		(IN/HR)	(CFS)	(CFS)	(CFS)
2B-D	2	1	5.25	0.020	0.030	0.21	0.86	2	0.36	0.36	0.00
	2	2	5.25	0.020	0.030	0.07	0.93	2	0.12	0.12	0.00

SCUPPER CURB INLET CAPACITY COMPUTATIONS
10-YR STORM (INTENSITY = 6.77"/HR)

DRAINAGE ID	INLET TYPE	INLET ID	THROAT LENGTH	GUTTER SLOPE	Road Cross Slope	DA	Runoff Coefficient C	I	Q_{10YR}	GUTTER Q_{10YR} (1)	Q_{Bypass} (2)
			(FT)	(FT/FT)		(ACRES)		(IN/HR)	(CFS)	(CFS)	(CFS)
2B-D	SCUPPER	1	5.25	0.020	0.030	0.21	0.86	6.77	1.23	1.23	0.15
	SCUPPER	2	5.25	0.020	0.030	0.07	0.93	6.77	0.41	0.56	0.00

F SCUPPER SIZING COMPUTATIONS

GEOTECHNICAL TESTING RESULTS
SOURCE: GEOTECH REPORT BY TERRACON DATED 11/3/22

FACILITY	BORING	BOTTOM ELEVATION	LOWEST UNDERDRAIN ELEVATION	SHWT ELEVATION	SHWT SOURCE	MINIMUM SEPARATION	LINER SELECTED
		(FT)	(FT)	(FT)		(FT)	
BR #1	BR-1	37.75	37.68	29.20	NOT ENCOUNTERED, BOTTOM OF BORING	8.48	GEOTEXTILE ON SIDES AND ABOVE UNDERDRAIN ONLY
BR #2	BR-2	39.65	39.52	30.50	NOT ENCOUNTERED, BOTTOM OF BORING	9.02	GEOTEXTILE ON SIDES AND ABOVE UNDERDRAIN ONLY

G GEOTECHNICAL RESULT TABLE

BIORETENTION SIZING SPREADSHEET - VIRGINIA

Facility name/type	Level	Total Drainage Area	Pervious Area to Facility	Impervious Area to Facility	Rainfall Depth (P)	Rv	Target Storage (WQV)	Upstream BMP Volume	TOTAL Target Storage (WQV)(1)
		(acres)	(acres)	(acres)	(IN)		(CF)	(CF)	(CF)
BR#1	Level 1	0.07	0.01	0.06	1	0.89	218	0	218
BR#2	Level 1	0.37	0.09	0.27	1	0.77	1031.41	0	1031

A. Ponding Depth (n=1.0)	B. Mulch Depth (n=0.0)	C. Media Depth (n=0.25)	D. Gravel Depth(2) (n=0.4)	Gravel Sump (n=0.0)	Effective Storage Depth(3)	Required Surface Area(4)	Bottom Surface Area	Ponding Surface Area	Provided Storage	% WQV Captured
(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(SF)	(SF)	(SF)	(CF)	(%)
0.25	0.25	2	1	0	1.15	190	237	237	273	125%
0.25	0.25	2	1	0	1.15	897	1064	1064	1224	119%

E. Min Top of Facility Elevation	F. Ponding Elevation	G. Mulch Elevation	H. Media Elevation	I. Gravel Elevation	J. Bottom of Facility Elevation
(FT)	(FT)	(FT)	(FT)	(FT)	(FT)
42.00	41.25	41.00	40.75	38.75	37.75
43.90	43.15	42.90	42.65	40.65	39.65

C BIORETENTION SIZING COMPUTATIONS

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DES: M. BAUMAN
DRW: S. MOORE
CHK: K. RYAN

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KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

BIORETENTIONS 1 & 2 – DESIGN
EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-150.DWG
NCS: C-CJ-150
NUMBER: C-152
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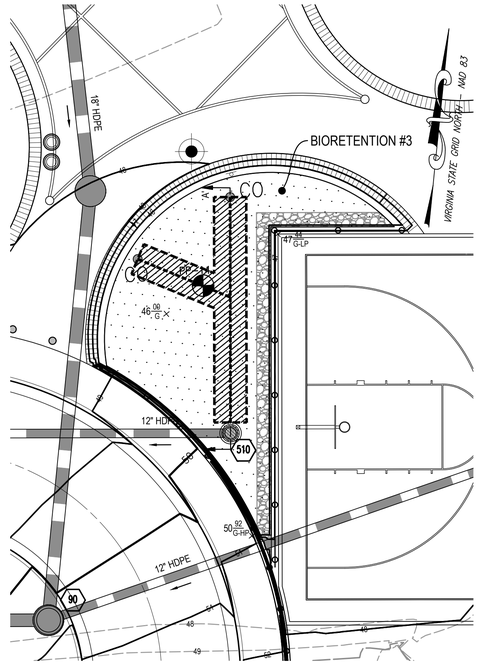
BIORETENTION DESIGN



A PLAN VIEW
SCALE = 1" = 10'
GRAPHICAL SCALE: 1" = 10'

KEYED NOTES

SYMBOL	DESCRIPTION	DETAIL	HATCH/ SYMBOL
1	GRAVEL DIAPHRAGM	E C-154	
2	NYLOPLAST BASIN W/ DOME COVER & SUMP INSERT	A&B C-154	
3	STORMWATER MANAGEMENT FACILITY SIGN	C C-154	
4	GEOTEXTILE FABRIC EXTENTS (4.5' WIDE)		
5	MEDIA FOOTPRINT		
6	GEOTEXTILE FABRIC		
7	PONDING ELEVATION		
8	GEOTECHNICAL BORINGS		#

Bioretention #3 Overflow Basin	
Weir Computation	
Pervious Area (acres)	0.04
Impervious Area (acres)	0.16
C-factor (1)	0.77
Intensity (in/hr) (2)	6.77
Q (cfs) (3)	1.05
C (4)	3.3
D (ft) (5)	1.50
L (ft) (6)	4.71
H (ft) (7)	0.18
Maximum head (ft) (8)	0.25
Provided Weir Crest Elevation (9)	45.25
10-yr WSE (10)	45.43

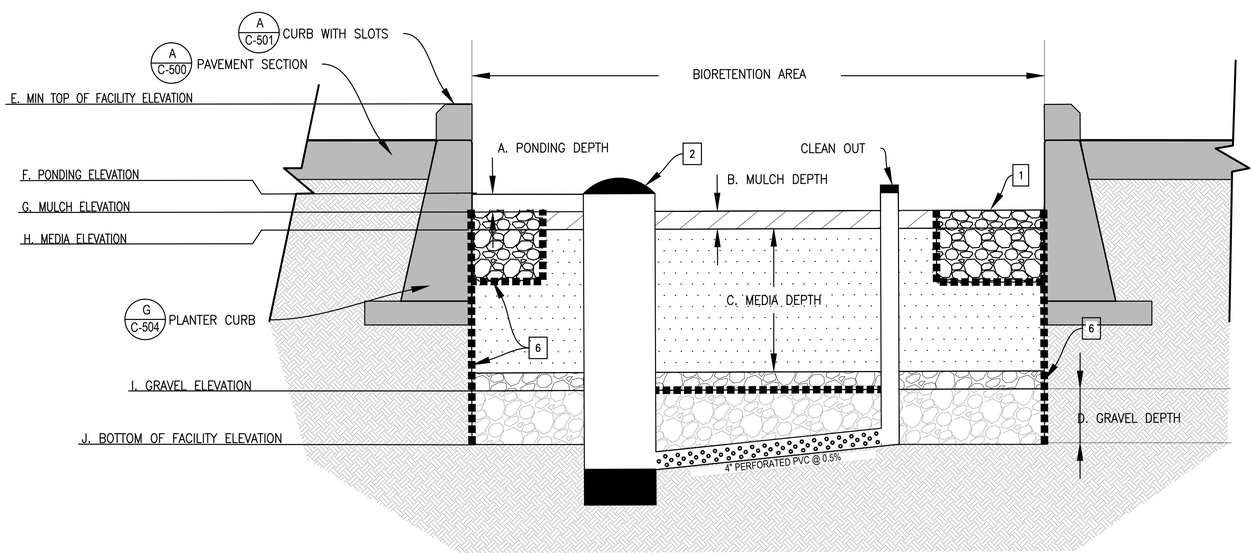
(2) 10yr, Tc=5 minutes
(3) 10yr flow
(4) Unitless weir coefficient
(5) Overflow basin diameter
(6) Overflow basin perimeter
(7) From Nyloplast capacity chart
(8) Maximum head to maintain 6" freeboard
(9) Bioretention ponding elevation
(10) Weir crest + Head

E OVERFLOW BASIN SIZING

STRUCTURE INVERT TABLE

STRUCTURE #	INVERT ELEVATION	DETAIL
510	41.59	
BR 3 CO	41.75	F C-154

D STRUCTURE TABLE



B SECTION VIEW A-A'
SCALE = 1" = 1'
GRAPHICAL SCALE: 1" = 1'

GEOTECHNICAL TESTING RESULTS
SOURCE: GEOTECH REPORT BY TERRACON DATED 11/3/22

FACILITY	BORING	BOTTOM ELEVATION (FT)	LOWEST UNDERDRAIN ELEVATION (FT)	SHWT ELEVATION (FT)	SHWT SOURCE	MINIMUM SEPARATION (FT)	LINER SELECTED
BR #3	BR-4	41.75	41.59	32.00	NOT ENCOUNTERED, BOTTOM OF BORING	9.59	GEOTEXTILE ON SIDES AND ABOVE UNDERDRAIN ONLY

F GEOTECHNICAL RESULT TABLE

BIORETENTION SIZING SPREADSHEET - VIRGINIA

Facility name/type	Level	Total Drainage Area	Pervious Area to Facility	Impervious Area to Facility	Rainfall Depth (P)	Rv	Target Storage (WQV)	Upstream BMP Volume	TOTAL Target Storage (WQV)(1)
BR#3	Level 1	0.20	0.04	0.16	1	0.80	585.41	0	585

A. Ponding Depth (n=1.0)	B. Mulch Depth (n=0.0)	C. Media Depth (n=0.25)	D. Gravel Depth(2) (n=0.4)	Gravel Sump (n=0.0)	Effective Storage Depth(3)	Required Surface Area(4)	Bottom Surface Area	Ponding Surface Area	Provided Storage	% WQV Captured
0.25	0.25	2	1	0	1.15	509	836	836	961	164%

E. Min Top of Facility Elevation	F. Ponding Elevation	G. Mulch Elevation	H. Media Elevation	I. Gravel Elevation	J. Bottom of Facility Elevation
46.00	45.25	45.00	44.75	42.75	41.75

C BIORETENTION SIZING COMPUTATIONS

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3/13/2023
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SEAL:

BIORETENTION 3 – DESIGN
EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-150.DWG
NCS: C-CJ-150
NUMBER: C-153
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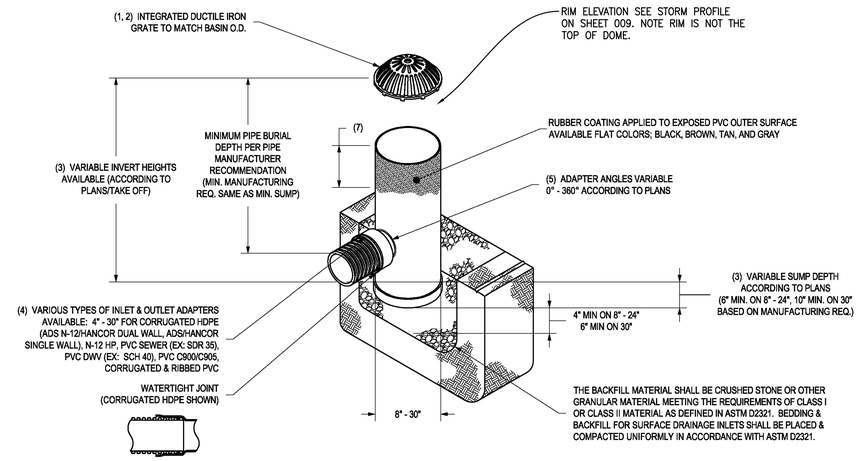
BIORETENTION DETAILS

NYLOPLAST DRAIN BASIN W/ DOME GRATE FOR BIO-RETENTION ABOVE SURFACE AND EXPOSURE COATING



1 - 8" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
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" - 24").
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.
7 - DETERMINED BY SITE ENGINEER FOR ABOVE SURFACE BASIN COLOR CHANGE AND UV PROTECTION.

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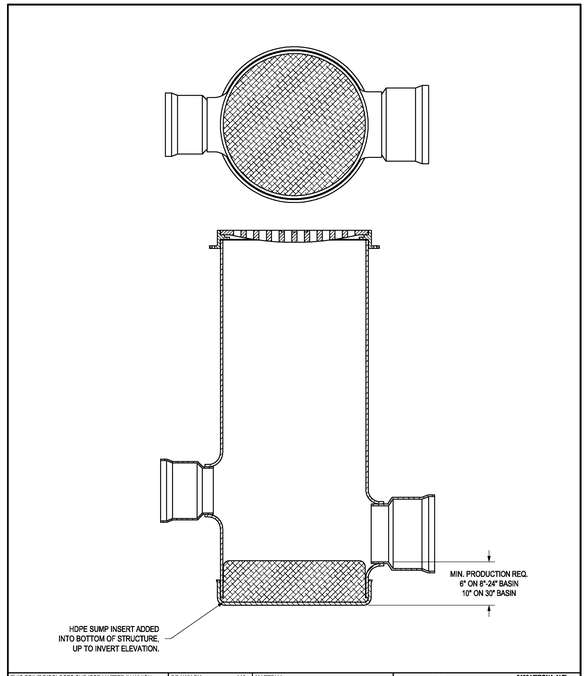
DATE 04-03-15			
APPD BY CJA	PROJECT NO./NAME	TITLE DRAIN BASIN W/ DOME GRATE FOR BIORETENTION ABOVE SURFACE AND EXPOSURE COATING	
DATE 04-03-13			
DWG SIZE A	SCALE 1:40 SHEET 1 OF 1	DWG NO. 7001-110-491	REV A

A 30" DOME NYLOPLAST BASIN DETAIL OR APPROVED EQUAL (STR 210)

NOTE: DOME TOP FOR OVERFLOW BASINS IS REQUIRED TO BE LOCKED.



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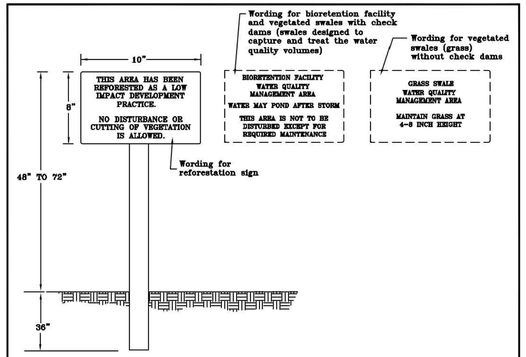
DRAWN BY JJC	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 7-16-12			
APPD BY JJC	PROJECT NO./NAME	TITLE 12" - 30" DRAIN BASIN WITH HDPE SUMP INSERT QUICK SPEC INSTALLATION DETAIL	
DATE 7-16-12			
DWG SIZE A	SCALE 1:12 SHEET 1 OF 1	DWG NO. 7001-110-413	REV B

B SUMP INSERT

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL

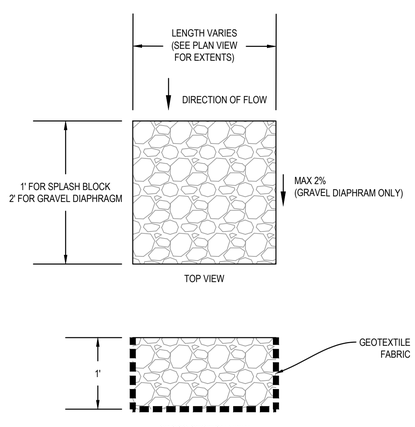


GENERAL REQUIREMENTS

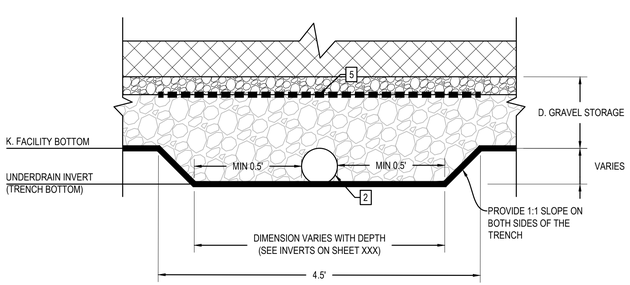
1) The sign is to be placed on a 3" "U" channel post 6' long.
2) The sign is to be placed at approximately 150 foot intervals along the perimeter of the reforested area or the bioretention facility. The sign is to be placed at approximately 150 foot intervals along the length of vegetated swales on alternating sides. Each reforested area, bioretention facility, and vegetated swale must have a minimum of one sign.
3) The sign must be made with reflective materials and be green with white border and standard 1/2" lettering.
4) Alternate design may be approved by the Director.
5) Sign is not to be placed in existing or proposed VDOT right-of-way.
6) Signs for bioretention facilities on individual single family lots may be placed on wood or metal posts at heights as low as 30" above ground and be made of non-reflective materials in colors other than green and white.

Ref. Sec. 6-1307.3C, 6-1308.3C, 6-1303.3D, 6-1304.3D, 6-1310.3C, 6-1312.3D, 6-1316.3C, 6-1316.3C, 6-1317.3C, 6-1318.3C, 6-1319.3C Rev. 3-07, 2011 Reprint, 2018 Reprint	REFORESTED AREA, BIORETENTION, OR VEGETATED SWALE SIGN	PLATE NO. 60-6	STD. NO.

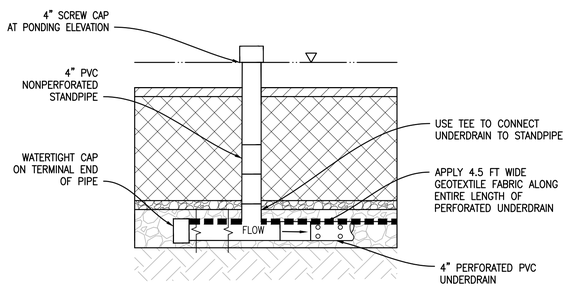
C BIORETENTION SIGN DETAIL



E SPLASH BLOCK/ GRAVEL DIAPHRAGM DETAIL



D UNDERDRAIN GRAVEL TRENCH DETAIL



F CLEANOUT DETAIL

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

DIRECTOR _____ DATE _____

CHAIRMAN, PLANNING COMMISION _____ DATE _____

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

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4501 Daly Drive
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PROGRAMMING AND PLANNING
CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
SURVEY AND MAPPING
SECURITY CONSULTING

REVISIONS

NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: M. BAUMAN
DRW: S. MOORE	CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

BIORETENTION – DETAILS

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-150.DWG
NCS: C-CJ-150
NUMBER: C-154
Gordon

G:\PROJECTS\JOBS\395 - ALEXANDRIA\0030\STPLAN\SC-CJ-150.DWG, 3/13/2023 10:41 AM, ezeeex VERT DATUM: NAVD 88 HORIZ DATUM: NAD 83
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BIORETENTION SPECIFICATIONS

MATERIALS:

BIORETENTION MATERIAL SPECIFICATIONS PER VA DEQ SPECIFICATION NO. 9 (DRAFT 2013)

Table 9.7. Bioretention Material Specifications

Material	Specification	Notes
Filter Media Composition	Filter Media to contain: • 80% - 90% sand • 10%-20% soil fines • 3%-5% organic matter	The volume of filter media based on 110% of the plan volume, to account for settling or compaction.
Filter Media Testing	Available P between L+ and M per DCR 2005 Nutrient Management Criteria.	The media should be certified by the supplier.
Mulch Layer	Use aged, shredded hardwood bark mulch or stable coarse compost.	Lay a 2 to 3 inch layer on the surface of the filter bed.
~~Alternative Surface Cover~~	~~Use river stone or pea gravel, coir and jute matting, or turf cover.~~	Lay a 2 to 3 inch layer of to suppress weed growth.
Top Soil For Turf Cover	Loamy sand or sandy loam texture, with less than 5% clay content, pH corrected to between 6 and 7, and an organic matter content of at least 2%.	3 inch surface depth.
Geotextile/Liner	Use a non-woven geotextile fabric with a flow rate of > 110 gal./min./sq. ft. (e.g., Geotex 351 or equivalent) 3'	Apply only to the sides and directly above the underdrain. For hotspots and certain karst sites only, use an appropriate liner on bottom.
Choking Layer	Lay ~~a 2 to 4 inch layer of sand~~ over a ~~2~~ inch layer of choker stone (typically #8 or #89 washed gravel), which is laid over the underdrain stone.	GRAVEL STORAGE LAYER
Stone Jacket for Underdrain and/or Storage Layer	1 inch stone should be double-washed and clean and free of all fines (e.g., VDOT #57 stone).	12 inches for the underdrain. 12 to 18 inches for the stone storage layer, if needed.
Underdrains, Cleanouts, and Observation Wells	Use 6 inch rigid schedule 40 PVC pipe ~~(or equivalent corrugated HDPE for micro bioretention)~~, with 3/8-inch perforations at 6 inches on center; position each underdrain on a 1% or 2% slope located nor more than 20 feet from the next pipe.	Lay the perforated pipe under the length of the bioretention cell, and install non-perforated pipe as needed to connect with the storm drain system. Install T's and Y's as needed, depending on the underdrain configuration. Extend cleanout pipes to the surface with vented caps at the Ts and Ys.
Plant	SEE PLANTING PLAN ON SHEETS C-166 - C-169.	Establish plant materials as specified in the landscaping plan and the recommended plant list. In general, plant spacing must be sufficient to ensure the plant material achieves 80% cover in the proposed planting areas within a 3-year period. If seed mixes are used, they should be from a qualified supplier, should be appropriate for stormwater basin applications, and should consist of native species (unless the seeding is to establish maintained turf).
IMPERMEABLE LINER	USE A THIRTY MIL (MINIMUM) PVC GEOMEMBRANE LINER WITH A MINIMUM OF 8 OZ/SQ. YD NONWOVEN GEOTEXTILE FABRIC LAYERED ON BOTH SIDES OF THE PVC GEOMEMBRANE.	

- ***General Filter Media Physical Composition.*** The mineral soil texture of the bioretention soil mix should be loamy coarse sand with no more than 10% clay, no more than 20% silt + clay and at least 75% of the sand fraction should be coarse or very coarse sand.
- To allow for appropriate Cation Exchange Capacity (CEC) and nutrient removal, ***the mix should contain at least 10% soil fines (silt + clay)*** while meeting the overall texture specification above. The particle size analysis must be conducted on the minus fraction only or following appropriate treatments to remove organic matter before particle size analysis.
- The Filter Media should contain ***3% to 5% organic matter*** by conventional Walkley-Black soil organic matter determination method or similar analysis. Soil organic matter is expressed on a dry weight basis and does not include coarse particulate (visible) components.
- The overall particle size distribution of the mix will vary since the sand fraction may contain some finer sizes as will native topsoils if utilized. As stated previously, the goal of the mixture is to achieve the desired constant head permeability. Therefore, the filter media composition noted above serves as the target recipe for the three ingredients, while the ultimate performance goal is to achieve a verified soil permeability or hydraulic conductivity (Ksat) of 1 to 2 inches per hour (or 30 to 60 cm/day).
- The following is the recommended composition of the three media ingredients:
  - **Sand** shall consist of silica based coarse aggregate, angular or round in shape and meet the mixture grain size distribution below. No substitutions of alternate materials such as diabase, calcium carbonate, rock dust or dolomitic sands are accepted. In particular, mica can make up no more than 5% of the total sand fraction. The sand fraction may also contain a limited amount of particles > 2.0 mm and < 9.5 mm per the table below, but the overall sand fraction must meet the specification of >75% being coarse or very coarse sand.

Sieve	Size	% Passing
3/8 in	9.50 mm	100
No. 4	4.75 mm	95 to 100
No. 8	2.36 mm	80 to 100
No. 16	1.18 mm	45 to 85
No. 30	0.6 mm	15 to 60
No. 50	0.3 mm	3 to 15
No. 100	0.15 mm	0 to 4
Effective Particle size (D10) > 0.3mm		
Uniformity Coefficient (D60/D10) < 4.0		

  - **Topsoil** is generally defined as the combination of the other ingredients referenced in the bioretention soil media: sand, fines (silt and clay), and any associated soil organic matter. Since the objective of the specification is to carefully establish the proper blend of these ingredients, the designer (or contractor or materials supplier) must carefully select the topsoil source material in order to not exceed the amount of any one ingredient.

    Generally, the use of a topsoil defined as a loamy sand, sandy loam, or loam (per the USDA Textural Triangle) will be an acceptable ingredient and in combination with the other ingredients meet the overall performance goal of the soil media.
  - **Organic matter** materials used in the soil media mix should consist of well-decomposed natural C-containing organic materials such as peat moss, humus, compost (consistent with the material specifications found in **Design Specification #4 Compost Soil Amendments**), pine bark fines or other organic soil conditioning material. However, per above, the combined soil mix should contain 3% to 5% soil organic matter on dry weight basis (grams organic matter per 100 grams dry soil) by the Walkley-Black method or other similar analytical technique.

  It may be advisable to start with an open-graded coarse sand material and proportionately mix in the topsoil materials that may contain anywhere from 10% to 30% soil fines (sandy loam, loamy sand, loam) to achieve the desired ratio of sand and fines. Sufficient suitable organic amendments can then be added to achieve the 3% to 5% soil organic matter target. The exact composition of organic matter and topsoil material will vary, making the exact particle size distribution of the final total soil media mixture difficult to define in advance of evaluating available materials.
- ***Available Soil Phosphorus (P).*** Plant-available soil P should be within the range of Low$^+$ (L$^+$) to Medium (M) as defined in Table 2.2 of DCR (2005) Virginia Nutrient Management Standards and Criteria. ***For the Mehlich I extraction procedure this equates to a range of 5 to 15 mg/kg P or 18 to 40 mg/kg P for the Mehlich III procedure.***

The filter media should contain sufficient plant available P to support initial plant establishment and plant growth, but not serve as a significant source of P for long term leaching. The media must also be relatively loose and non-compacted to allow for adequate inter-connected porosity to meet the required permeability (Ksat) specification. Saxton et al. (1986) estimated generalized bulk densities and soil-water characteristics from soil texture assumptions. The expected bulk density of the loamy sand soil composition described above should be in the range of 1.6 to 1.7 g/cm^3.

- ***Cation Exchange Capacity (CEC).*** The relative ability of soils to hold and retain nutrient cations like Ca and K is referred to as *cation exchange capacity* or CEC and is measured as the total amount of positively charged cations that a soil can hold per unit dry mass. CEC is also used as an index of overall soil reactivity and is commonly expressed in milliequivalents per 100 grams (meq/100g) of soil or cmol$^+$/kg (equal values). A soil with a moderate to high CEC indicates a greater ability to capture and retain positively charged contaminants, which encourages conditions to remove phosphorus, assuming that soil fines (particularly fine silts and clays) are at least partially responsible for CEC. The minimum CEC of a bioretention soil media mix for pollutant removal is 5.0 (meq/100 g or cmol$^+$/kg) or greater. The filter media CEC should be determined by the Unbuffered Salt, Ammonium Acetate, Summation of Cations or Effective CEC techniques (Sumner and Miller, 1996) or similar methods that do not utilize strongly acidic extracting solutions.

Coatings of Fe- and Al-oxides on mineral soil surfaces are also responsible for significant P retention and may be present in soils with low CEC. Thus, it is important for filter media P removal efficiency that some amount of mineral fines (10% - 20%) be present as long as the texture and permeability specifications cited herein are met. This is important due to the fact that soil organic matter per se is not active in adsorption of P.

The CEC of the soil is determined in part by the amount of clay and/or humus or organic matter present. Since the bioretention media is a coarse mineral texture, and since the added organic matter may not have the relatively high CEC of native humus, it may be difficult to achieve the ideal CEC for the mixture as a whole in freshly blended materials. However, it is expected that over time, natural accumulation of organic matter will improve soil reactivity. Therefore, the initial media mixture may require additional suitable organic matter to increase the CEC to the extent possible without overly compromising the filter media composition or elevating the available P.

- ***Filter Media Permeability:*** The bioretention soil media should have a minimum infiltration rate of 1 to 2 inches per hour (or 30 to 60 cm/day). Note: a proper soil mix will have an initial infiltration rate that is significantly higher.
- ***Depth.*** The standard minimum filter bed depth ranges from 24 and 36 inches for Level 1 and Level 2 designs, respectively, (18 to 24 inches for rain gardens or micro-bioretention). If trees are included in the bioretention planting plan, tree planting holes in the filter bed must be at least 4 feet deep to provide enough soil volume for the root structure of mature trees. Use turf, perennials or shrubs instead of trees to landscape shallower filter beds.
- ***Filter Media for Tree Planting Areas.*** A more organic filter media is recommended within the planting holes for trees, with a ratio of 50% sand, 30% toposoil and 20% acceptable leaf compost.
- ***Mulch.*** A 2 to 3 inch layer of mulch on the surface of the filter bed enhances plant survival, suppresses weed growth, and pre-treats runoff before it reaches the filter media. Shredded, aged hardwood bark mulch makes a very good surface cover, as it retains a significant amount of nitrogen and typically will not float away.
- ***Alternative to Mulch Cover.*** In some situations, designers may consider alternative surface covers such as turf, native groundcover, erosion control matting (coir or jute matting), river stone, or pea gravel. The decision regarding the type of surface cover to use should be based on function, cost and maintenance. Stone or gravel are not recommended in parking lot applications, since they increase soil temperature and have low water holding capacity.
- ***Media for Turf Cover.*** One adaptation is to design the filter media primarily as a sand filter with organic content only at the top. Leaf compost tilled into the top layers will provide organic content for the vegetative cover. If grass is the only vegetation, the ratio of compost may be reduced.

MAINTENANCE:

CITY OF ALEXANDRIA BIORETENTION MAINTENACE GUIDELINES

Bioretention Area Maintenance Schedule and Guidelines

This document must be recorded as an addendum to the stormwater management/ BMP facilities operation and maintenance agreement

First Year Maintenance Guidelines

Successful establishment of bioretention areas requires that the following tasks be undertaken in the first year following installation:

- Initial inspections. For the first 6 months following construction, the bioretention area should be inspected at least twice after storm events that exceed 1/2 inch of rainfall.
- Spot reseeding. Inspect for bare or eroding areas in the contributing drainage area or around the bioretention area, and make sure they are immediately stabilized with grass cover.
- Watering. Watering is needed once a week during the first 2 months, and then as needed during first growing season (April-October), depending on rainfall.
- Remove and replace dead plants.

Routine Maintenance Guidelines

Bioretention areas must be inspected to ensure that they operate in good working condition and in accordance with the approved design and specifications. Items in need of repair must be immediately addressed.

Routine Maintenance Tasks	Frequency
Remove trash and debris	As needed
Check and repair eroded areas	Annually
Inspect for and remove excess sediment	Annually
Mow grass filter strips and bioretention turf cover	At least four times per year
Weed and rake mulch	Twice during the growing season
Inspect plant composition for consistency with approved plans and correct any deficiencies	Annually
Remulch to maintain a three inch layer	Annually
Prune trees and shrubs	Annually
Inspect for clogging or ponding water in the filter bed	Annually
Remove invasive plants	As needed
Replace dead or damaged plant material	As needed
Repair broken pipes	As needed
Remove sediment in pretreatment cells and inflows	Every 2-3 years
Replace the mulch layer	Every 3 years

BIORETENTION MAINTENANCE SPECIFICATIONS PER DEQ SPECIFICATION NO. 9 (DRAFT 2013)

9.3. Maintenance Inspections

It is highly recommended that a spring maintenance inspection and cleanup be conducted at each bioretention area. The following is a list of some of the key maintenance problems to look for:

- Check to see if 75% to 90% cover (mulch plus vegetative cover) has been achieved in the bed, and measure the depth of the remaining mulch.
- Check for sediment buildup at curb cuts, gravel diaphragms or pavement edges that prevents flow from getting into the bed, and check for other signs of bypassing.
- Check for any winter- or salt-killed vegetation, and replace it with hardier species.
- Note presence of accumulated sand, sediment and trash in the pre-treatment cell or filter beds, and remove it.
- Inspect bioretention side slopes and grass filter strips for evidence of any rill or gully erosion, and repair it.
- Check the bioretention bed for evidence of mulch flotation, excessive ponding, dead plants or concentrated flows, and take appropriate remedial action.
- Check inflow points for clogging, and remove any sediment.
- Look for any bare soil or sediment sources in the contributing drainage area, and stabilize them immediately.
- Check for clogged or slow-draining soil media, a crust formed on the top layer, inappropriate soil media, or other causes of insufficient filtering time, and restore proper filtration characteristics.

Example maintenance inspection checklists for Bioretention areas can be accessed in Appendix C of Chapter 9 of the *Virginia Stormwater Management Handbook* (2010).

9.4. Routine and Non-Routine Maintenance Tasks

Maintenance of bioretention areas should be integrated into routine landscape maintenance tasks. If landscaping contractors will be expected to perform maintenance, their contracts should contain specifics on unique bioretention landscaping needs, such as maintaining elevation differences needed for ponding, proper mulching, sediment and trash removal, and limited use of fertilizers and pesticides. A customized maintenance schedule must be prepared for each bioretention facility, since the maintenance tasks will differ depending on the scale of bioretention, the landscaping template chosen, and the type of surface cover. A generalized summary of common maintenance tasks and their frequency is provided in **Table 9.8**.

The most common non-routine maintenance problem involves standing water. If water remains on the surface for more than 48 hours after a storm, adjustments to the grading may be needed or underdrain repairs may be needed. The surface of the filter bed should also be checked for accumulated sediment or a fine crust that builds up after the first several storm events. There are several methods that can be used to rehabilitate the filter (try the easiest things first, as listed below):

- Open the underdrain observation well or cleanout and pour in water to verify that the underdrains are functioning and not clogged or otherwise in need of repair. The purpose of this check is to see if there is standing water all the way down through the soil. If there is standing water on top, but not in the underdrain, then there is a clogged soil layer. If the underdrain and stand pipe indicates standing water, then the underdrain must be clogged and will need to be snaked.
- Remove accumulated sediment and till 2 to 3 inches of sand into the upper 8 to 12 inches of soil.
- Install sand wicks from 3 inches below the surface to the underdrain layer. Sand wicks can be installed by excavating or augering (using a tree auger or similar tool) down to the gravel storage zone to create vertical columns which are then filled with a clean open-graded coarse sand material (coarse sand mix similar to the gradation used for the soil media). A sufficient number of wick drains of sufficient dimension should be installed to meet the design dewatering time for the facility.
- Last resort - remove and replace some or all of the soil media.

Table 9.8. Suggested Annual Maintenance Activities for Bioretention

Maintenance Tasks	Frequency
• Mowing of grass filter strips and bioretention turf cover	At least 4 times a year
• Spot weeding, erosion repair, trash removal, and mulch raking	Twice during growing season
• Add reinforcement planting to maintain desired the vegetation density • Remove invasive plants using recommended control methods • Stabilize the contributing drainage area to prevent erosion	As needed
• Spring inspection and cleanup • Supplement mulch to maintain a 3 inch layer • Prune trees and shrubs	Annually
• Remove sediment in pre-treatment cells and inflow points	Once every 2 to 3 years
• Replace the mulch layer	Every 3 years

CITY OF ALEXANDRIA BIORETENTION CONSTRUCTION INSPECTION CHECKLIST

Construction Inspection Checklist: Urban Bioretention

Project Name: _____ Address: _____

DSP/DSUP/GRD #: _____ Construction Start Date: _____

Contractor: _____ Telephone: _____

Certifying Professional: _____ Telephone: _____

BMP ID and General Location: _____

- The certifying professional must be a Virginia licensed Professional Engineer, Landscape Architect or Land Surveyor
- A certification is required pursuant to 9VAC25-870-55 of the Virginia Stormwater Management Regulations for all stormwater BMP facilities.
- Inspectors should review the plans carefully and adjust these items and the timing of inspection verification as needed to ensure the intent of the design is met. The standard for design of this practice is based on the Virginia Stormwater BMP Clearinghouse.

Instructions:

- Mark each item as complete or write in "N/A" for those items that are not applicable.
- Fill in the blanks for requested information on dimensions, materials, etc.
- Provide one or more labeled photos for applicable items; checkboxes indicate items that require photos. Photos requiring measurements (indicated with a dimension to be populated) must include visual verification (ruler, measuring tape, etc.).

Preconstruction Meeting			
Complete	Photo	Description	Date
☐		The tentative schedule for construction has been identified and the requirements and schedule for interim inspections verified.	
☐		A pre-construction meeting with the contractor designated to install the urban bioretention practice, the City SWM/ESC inspector, and the person completing this checklist has been conducted.	
☐		The SWPPP has been reviewed and requirements verified by the contractor, the person conducting inspections, and the City SWM/ESC inspector (projects over one acre of disturbance)	

BMP Construction Preparation			
Complete	Photo	Description	Date
☐		All pervious areas of the contributing drainage areas have been adequately stabilized with a thick layer of vegetation or erosion control measures are still in place and stormwater has been diverted around the area.	
☐		Impervious cover draining to the BMP has been constructed and area is free of equipment, vehicles and material storage.	
☐	☐	Stormwater is diverted around the bioretention area and perimeter E&S controls to protect the BMP during construction have been installed.	

Excavation			
Complete	Photo	Description	Date
☐		The area is marked, and the size and location conform to the approved plan.	
☐	☐	Excavation has achieved proper grades and the required geometry and elevations.	

Excavation (continued)			
☐	☐	The box is constructed using the material specified and to the required dimensions as shown on the approved plan/design specifications. Constructed interior dimensions: _____	

Pretreatment, Filter Layer, Underdrain and Stone Reservoir Placement			
Complete	Photo	Description	Date
☐	☐	Energy dissipaters and pretreatment practices (forebay, splash rocks, etc.) are installed in accordance with the approved plans/design specifications.	
☐	☐	All aggregates (stone, sand, etc., as required) conform to the approved plan/design specifications.	
☐	☐	Impermeable liner/waterproofing (when required) is placed in accordance with manufacturer specifications and the approved plan.	
☐	☐	#57 stone is placed to achieve the required storage depth per the approved plan/design specifications. Depth of #57 stone_____ ft.	
☐	☐	Underdrain size and perforations conform to the approved plan/design specifications. (if applicable) Underdrain Diameter _____ inches Underdrain Material _____ Underdrain Spacing _____ ft. Perforation Size & Spacing _____inches. Number of Cleanouts_____	
☐		Placement of underdrain(s), cleanouts/observation wells, and underdrain fittings are in accordance with the approved plan/design specifications.	
☐		Elevations of underdrain(s) and the outlet structure are in accordance with approved plan.	
☐	☐	The filter layer (choker stone/pea gravel/sand) is installed per the approved plan/design specifications. Choker material: _____ Depth of choker material: _____	

Soil Media Placement			
Complete	Photo	Description	Date
☐		Soil media is certified by a supplier or contractor as conforming to the approved plan/design specifications.	
☐		Filter media is placed in 12-inch lifts to the design top elevation of the bioretention area. Elevation has been verified after settlement.	
☐	☐	Filter media depth conforms to the approved plan/design specifications. Depth: _____ ft.	

Plant and Outlet Installation			
Complete	Photo	Description	Date
☐	☐	The riser or other outlet structure is set to the elevation in the approved plan/design specifications and functional.	

Plant and Outlet Installation (continued)			
☐	☐	Mulch composition and depth conform to the approved plan/design specifications. Depth of mulch layer: _____ Inches	
☐	☐	Downspouts are installed in accordance with the approved plan/design specifications. (for planter boxes). Inlets are installed in accordance with the approved plan/design specifications. (for BMP tree wells)	
☐	☐	Ponding depth is in accordance with the approved plan/design specifications after plant and mulch placement. Depth of ponding area _____inches. (above mulch, 12" maximum)	
☐	☐	Signs are installed as shown on the approved plan.	
☐	☐	Plant installation conforms to the approved plan/design specifications and all plants are healthy.	
☐	☐	Provide a photo of the completed BMP after completion of construction.	

Comments	Date

All items checked above have been inspected by me (or by an individual under my responsible charge) and have been completed to my satisfaction and meet the approved plans and specification (or deviations as noted above).

Signature: _____ Date: _____

Certifying Professional's License Number (or Seal): _____

CONSTRUCTION:

BIORETENTION CONSTRUCTION SPECIFICATIONS PER VA DEQ SPECIFICATION NO. 9 (DRAFT 2013)

SECTION 8: CONSTRUCTION

8.1. Construction Sequence

Construction Stage E&S Controls. Micro-bioretention and small-scale bioretention areas should be fully protected by silt fence or construction fencing, particularly if they will rely on infiltration (i.e., have no underdrains). Ideally, bioretention should remain outside the limit of disturbance during construction to prevent soil compaction by heavy equipment. Bioretention basin locations may be used as small sediment traps or basins during construction. However, these must be accompanied by notes and graphic details on the ESC plan specifying that (1) the maximum excavation depth at the construction stage must be at least 1 foot above the post-construction maximum excavation, (2) the facility must contain an underdrain, and (3) the plan must also show the proper procedures for converting the temporary sediment control practice to a permanent bioretention facility, including dewatering, cleanout and stabilization.

8.2 Bioretention Installation

The following is a typical construction sequence to properly install a bioretention basin. The installation of a bioretention basin will include intermediate inspections at critical stages of construction with inspector sign-off that the particular elements of the bioretention are constructed according the approved plans and specifications. As an alternative, if allowed by the VSMP Authority, the contractor may rely on the engineer of record or other qualified individual to conduct the intermediate inspections and certifications of compliance. The construction sequence for micro-bioretention is more simplified. These steps may be modified to reflect different bioretention applications or expected site conditions:

Step 1. Construction of the bioretention area may only begin after the entire contributing drainage area has been stabilized with vegetation. It may be necessary to block certain curb or other inlets while the bioretention area is being constructed. The proposed site should be checked for existing utilities prior to any excavation. SEE BIORETENTION INSTALLATION NOTES ON SHEETS C-161-C-162.

Step 2. The designer and the installer should have a preconstruction meeting, checking the boundaries of the contributing drainage area and the actual inlet elevations to ensure they conform to original design. Since other contractors may be responsible for constructing portions of the site, it is quite common to find subtle differences in site grading, drainage and paving elevations that can produce hydraulically important differences for the proposed bioretention area. The designer should clearly communicate, in writing, any project changes determined during the preconstruction meeting to the installer and the plan review/inspection authority.

Step 3. Temporary E&S controls are needed during construction of the bioretention area to divert stormwater away from the bioretention area until it is completed. Special protection measures such as erosion control fabrics may be needed to protect vulnerable side slopes from erosion during the construction process.

Step 4. Any pre-treatment cells should be excavated first and then sealed to trap sediments.

Step 5. Excavators or backhoes should work from the sides to excavate the bioretention area to its appropriate design depth and dimensions. Excavating equipment should have scoops with adequate reach so they do not have to sit inside the footprint of the bioretention area. Contractors should use a cell construction approach in larger bioretention basins, whereby the basin is split into 500 to 1,000 sq. ft. temporary cells with a 10-15 foot earth bridge in between, so that cells can be excavated from the side.

Step 6. It may be necessary to rip the bottom soils to a depth of 6 to 12 inches to promote greater infiltration.

Step 7. Place geotextile fabric on the sides of the bioretention area with a 6-inch overlap on the sides. If a stone storage layer will be used, place the appropriate depth of #57 stone on the bottom, install the perforated underdrain pipe, pack #57 stone to 3 inches above the underdrain pipe, and add approximately 3 inches of choker stone/pea gravel as a filter between the underdrain and the soil media layer. If no stone storage layer is used, start with 6 inches of #57 stone on the bottom, and proceed with the layering as described above.

Step 8. Obtain soil the media from a qualified vendor, and store it on an adjacent impervious area or plastic sheeting. After verifying that the media meets the specifications, apply the media in 12-inch lifts until the desired top elevation of the bioretention area is achieved. Wait a few days to check for settlement, and add additional media, as needed, to achieve the design elevation.

Step 9. Prepare planting holes for any trees and shrubs, install the vegetation, and water accordingly. Install any temporary irrigation.

Step 10. Place the surface cover in both cells (mulch, river stone or turf), depending on the design. If coir or jute matting will be used in lieu of mulch, the matting will need to be installed prior to planting (**Step 9**), and holes or slits will have to be cut in the matting to install the plants.

Step 11. Install the plant materials as shown in the landscaping plan, and water them during weeks of no rain for the first two months.

8.3 Construction Inspection

Inspections during and immediately after construction are needed to ensure that all the elements of bioretention basins are built in accordance with these specifications. Use a detailed inspection checklist that requires sign-offs by qualified individuals at critical stages of construction and to ensure that the contractor's interpretation of the plan is consistent with the designer's intent. The following identifies the critical stages of construction where an intermediate inspection and sign-off by a qualified individual is recommended since the items can't be verified after construction is completed. A construction inspection checklist that includes certifications of inspection at critical stages is provided at the end of this specification.

The following represents items that are frequently overlooked during construction inspection but represent important elements for ensuring the success of the bioretention facility during the initial break-in period.

- Verify the proper coverage and depth of mulch, vegetation, or soil matting has been achieved following construction, both on the filter bed and the side-slopes.
- Inspect the pre-treatment forbays and filter strips to verify that they are properly installed, stabilized, and working effectively before opening the facility to runoff.
- Check that outfall protection/energy dissipation measures at concentrated inflow and outflow points are stable.

Upon final acceptance of the facility, log the practice's GPS coordinates and submit them for entry into the VSMP Authority's BMP maintenance tracking database.

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DIRECTOR DATE
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SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

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NUMBER	DATE	DESCRIPTION
		REVISIONS

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DES: M. BAUMAN
DRW: S. MOORE
CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

BIORETENTION – SPECIFICATIONS
EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-150.DWG
NCS: C-CJ-150
NUMBER: C-155
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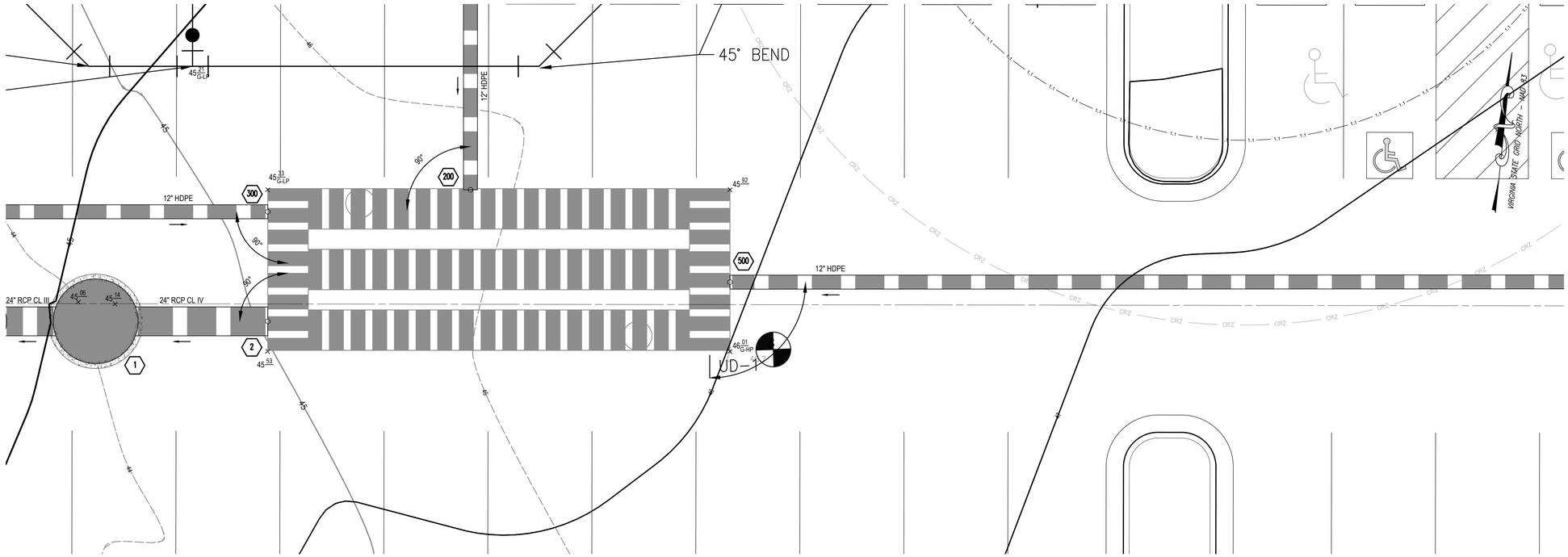
DETENTION FACILITY #1 - DESIGN



A PLAN VIEW

SCALE: 1" = 5'

GEOTECHNICAL TESTING RESULTS

SOURCE: GEOTECH REPORT, TERRACON, 11/3/2022

FACILITY	BORING	INVERT (FLOOR) (FT)	SHWT ELEVATION (FT)	SHWT SOURCE	MINIMUM SEPARATION (FT)	BUOYANCY ANALYSIS REQUIRED?
DETENTION 1	UD-1	34.20	29.80	NOT ENCOUNTERED, BOTTOM OF BORING	4.40	NOT REQUIRED

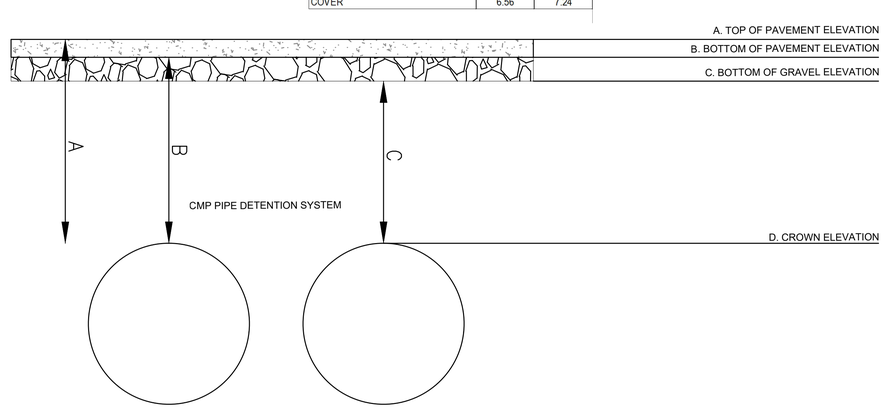
B GEOTECH RESULT TABLE

COVER ANALYSIS
DETENTION FACILITY #1

	ELEVATION (FT)
D. CROWN OF PIPE	37.90

ASPHALT, SEE DETAIL C, SHEET C-500	
ASPHALT PAVEMENT SECTION	0.38
GRAVEL SECTION	0.50

	MIN	MAX
A. TOP OF PAVEMENT	45.33	46.01
COVER	7.43	8.11
B. BOTTOM OF PAVEMENT	44.96	45.64
COVER	7.06	7.74
C. BOTTOM OF GRAVEL	44.46	45.14
COVER	6.56	7.24



C COVER ANALYSIS (SCHEMATIC)

NTS

DETENTION FACILITY NARRATIVE

- PURPOSE: AN UNDERGROUND DETENTION FACILITY IS PROPOSED TO PROVIDE QUANTITY CONTROL FOR THE SITE.
- LOCATION: THE FACILITY IS LOCATED IN THE PARKING LOT
- TYPE: THE DETENTION FACILITY IS A CMP PIPE SYSTEM.
- OUTLET CONTROL STRUCTURE: AN OUTLET CONTROL STRUCTURE IS PROPOSED DOWNSTREAM TO THE DETENTION FACILITY IN A MODIFIED MANHOLE.
- LOADING: THE DETENTION FACILITY IS DESIGNED TO WITHSTAND A HS-20 LOADING CONDITION. SEE COVER ANALYSIS ON THIS SHEET.
- WATERPROOFING: THE SYSTEM IS NOT A WATERTIGHT SYSTEM.
- GEOTECHNICAL: PER THE GEOTECHNICAL REPORT PROVIDED BY TERRACON DATED NOVEMBER 3, 2022, SHWT WAS NOT ENCOUNTERED AT OR ABOVE THE FACILITY BOTTOM. THEREFORE, NO FURTHER BUOYANCY ANALYSIS IS REQUIRED.

SEE DETENTION DESIGN INFORMATION ON THIS SHEET.

SEE DETENTION DETAILS ON SHEET C-157 - C-158.

SEE DETENTION SPECIFICATIONS ON SHEETS C-159 - C-160.

5 2.5 0 5 10 15

GRAPHICAL SCALE: 1" = 5'

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REVISIONS

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CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

DETENTION FACILITY #1 – DESIGN

EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 5'
VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-160.DWG
NCS: C-CJ-160
NUMBER: C-156

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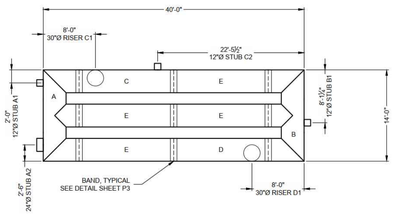
DETENTION FACILITY #1 - DETAILS & SPECIFICATIONS

STUB INFORMATION		
PIECE	STUB INVERT	SYSTEM INVERT
12"Ø STUB A1	34.50	34.26
24"Ø STUB A2	34.20	34.20
12"Ø STUB B1	36.65	34.40
12"Ø STUB C2	36.65	34.35

RISER INFORMATION		
PIECE	RIM ELEV.	SYSTEM INVERT
30"Ø RISER C1	45.40	34.30
30"Ø RISER D1	45.85	34.36



THE UNDERSIGNED HEREBY APPROVES THE ATTACHED (P4) PAGES INCLUDING THE FOLLOWING:

- **PIPE STORAGE = 1,223 CF**
- **MAINLINE PIPE GAGE = 16**
- **WALL TYPE = SOLID**
- **DIAMETER = 42"**
- **FINISH = ALT2**
- **CORRUGATION = 2 2/3x1/2**

CUSTOMER _____ DATE _____

ASSEMBLY
SCALE: 1" = 10'
PIPE STORAGE: 1,223 CF
LOADING: H20
PIPE INV. = 34.2'±
SLOPE @ 0.5%

NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE.
- ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD (EOR) PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2⅔" x ½" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE AS REQUIRED, BY CONTRACTOR.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL ACCESS GASTRINGS ARE THE RESPONISIBILITY OF THE CONTRACTOR AND ARE NOT SUPPLIED BY CONTECH.

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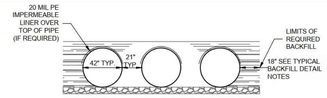
CONTECH CMP DETENTION SYSTEMS
PROPOSAL DRAWING

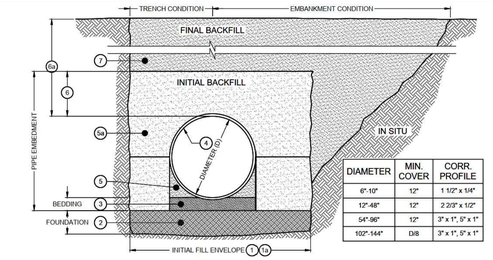
42"Ø UNDERGROUND DETENTION SYSTEM - 738644-010
EUGENE SIMPSON STADIUM PARK
ALEXANDRIA, VA
SITE DESIGNATION: DETENTION #1

PROJECT No: 738644 | SEQ. No: 010 | DATE: 1/17/2023
DESIGNED: JLW | DRAWN: JLW
CHECKED: | APPROVED:
SHEET NO: P1 OF P4



TYPICAL SECTION VIEW
NOT TO SCALE

NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.



DIAMETER	MIN. COVER	CORR. PROFILE
6"-10"	12"	1 1/2" x 1/4"
12"-48"	12"	2 2/3" x 1/2"
54"-96"	12"	3" x 1", 5" x 1"
102"-144"	D/8	3" x 1", 5" x 1"

BACKFILL REQUIREMENTS FOLLOW THE GUIDELINES OF AASHTO LRFD BRIDGE DESIGN (SEC 12) AND CONSTRUCTION (SEC 26)

1 MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER THE PIPE.
THE MINIMUM TRENCH WIDTH (12.6.6.1):
PIPE ≤ 12": D + 16"
PIPE > 12": 1.5D + 12"

1a MINIMUM EMBANKMENT WIDTH (IN FEET) FOR INITIAL FILL ENVELOPE (12.6.6.2):
PIPE < 24": 3.0D
PIPE 24" - 144": D + 4'0"
PIPE > 144": D + 10'0"

2 THE FOUNDATION UNDER THE PIPE AND SIDE BACKFILL SHALL BE ADEQUATE TO SUPPORT THE LOADS ACTING UPON IT (26.5.2).

3 ENGINEER TO DETERMINE IF BEDDING IS REQUIRED. BEDDING MATERIAL SHALL BE A RELATIVELY LOOSE MATERIAL THAT IS ROUGHLY SHAPED TO FIT THE BOTTOM OF THE PIPE, AND A MINIMUM OF TWICE THE CORRUGATION DEPTH IN THICKNESS, WITH THE MAXIMUM PARTICLE SIZE OF ONE-HALF OF THE CORRUGATION DEPTH (26.3.8.1, 26.5.3).

4 CORRUGATED STEEL PIPE (CSP / HEL-COR).

5 HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION (26.5.4).

5a INITIAL BACKFILL FOR PIPE EMBEDMENT TO MEET AASHTO A-1, A-2 OR A-3 CLASSIFICATION, OR APPROVED EQUAL, COMPACTED TO 90% STANDARD PROCTOR (T 99). MAXIMUM PARTICLE SIZE NOT TO EXCEED 3" (12.4.1.2). ALL LIFTS PLACED IN A CONTROLLED MANNER. IT IS RECOMMENDED THAT LIFTS NOT EXCEED AN 8" UNCOMPACTED LIFT HEIGHT TO PREVENT UNEVEN LOADING, AND THE LESSER OF 1/3 THE DIAMETER OR 24" AS THE MAXIMUM DIFFERENTIAL SIDE-TO-SIDE (26.5.4).

6 INITIAL BACKFILL ABOVE PIPE MAY INCLUDE ROAD BASE MATERIAL (AND RIGID PAVEMENT IF APPLICABLE). SEE TABLE ABOVE.

6a TOTAL HEIGHT OF COMPACTED COVER FOR CONVENTIONAL HIGHWAY LOADS IS MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT (12.6.6.3).

7 FINAL BACKFILL MATERIAL SELECTION AND COMPACTION REQUIREMENTS SHALL FOLLOW THE PROJECT PLANS AND SPECIFICATIONS PER THE ENGINEER OF RECORD (26.5.4.1).

NOTES:

- ENGINEER TO DETERMINE IF GEOTEXTILE SHOULD BE USED TO PREVENT SOIL MIGRATION INTO VARYING SOIL TYPES (PROJECT ENGINEER).
- FOR MULTIPLE BARREL INSTALLATIONS THE RECOMMENDED STANDARD SPACING BETWEEN PARALLEL PIPE RUNS SHALL BE PIPE DIA./2 BUT NO LESS THAN 12", OR 36" FOR PIPE DIAMETERS 72" AND LARGER.
- CONTACT YOUR CONTECH REPRESENTATIVE FOR NONSTANDARD SPACING (TABLE C12.6.7-1).

TYPICAL BACKFILL DETAIL
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CONTECH CMP DETENTION SYSTEMS
PROPOSAL DRAWING

42"Ø UNDERGROUND DETENTION SYSTEM - 738644-010
EUGENE SIMPSON STADIUM PARK
ALEXANDRIA, VA
SITE DESIGNATION: DETENTION #1

PROJECT No: 738644 | SEQ. No: 010 | DATE: 1/17/2023
DESIGNED: JLW | DRAWN: JLW
CHECKED: | APPROVED:
SHEET NO: P2 OF P4

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DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISION _____ DATE _____
DATE RECORDED _____
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REVISIONS		
NUMBER	DATE	DESCRIPTION

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DRW: S. MOORE | CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

DETENTION FACILITY #1 – DETAILS & SPECIFICATIONS
EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
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CADD: C-CJ-160.DWG
NCS: C-CJ-160
NUMBER: C-157
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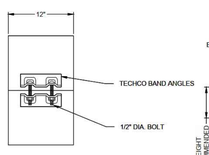
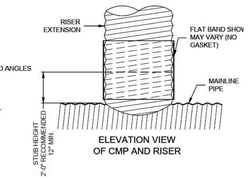
DETENTION FACILITY #1 - DETAILS & SPECIFICATIONS



CONNECTION DETAIL
7 1/2" TECHCO SHOWN - MAY VARY



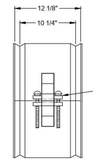
ELEVATION VIEW
OF CMP AND RISER

PLAIN END CMP RISER PIPE

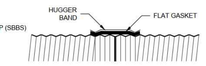
GENERAL NOTES:

1. **DELIVERED BAND STYLE AND FASTENER TYPE MAY VARY BY FABRICATION PLANT.**
2. JOINT IS TO BE ASSEMBLED PER AASHTO BRIDGE CONSTRUCTION SPECIFICATION SEC 26.4.2.4.
3. BAND MATERIAL AND GAGE TO BE SAME AS RISER MATERIAL.
4. IF RISER HAS A HEIGHT OF COVER OF 10' OR MORE, USE A SLIP JOINT.
5. BANDS ARE NORMALLY FURNISHED AS FOLLOWS:
   - 12" THRU 48" 1-PIECE
   - 54" 2-PIECES
6. ALL RISER JOINT COMPONENTS WILL BE FIELD ASSEMBLED.
7. MANHOLE RISERS IN APPLICATIONS WHERE TRAFFIC LOADS ARE IMPOSED REQUIRE SPECIAL DESIGN CONSIDERATIONS.
8. DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES.

12" RISER BAND DETAIL
NOT TO SCALE



CONNECTION DETAIL
(SBBS)



FLAT GASKET

2 2/3"x1/2" RE-ROLLED END HEL-COR PIPE

GENERAL NOTES:

1. JOINT IS TO BE ASSEMBLED PER AASHTO BRIDGE CONSTRUCTION SPECIFICATION SEC 26.4.2.4.
2. BAND MATERIALS AND/OR COATING CAN VARY BY LOCATION. CONTACT YOUR CONTECH REPRESENTATIVE FOR AVAILABILITY.
3. BANDS ARE SHAPED TO MATCH THE PIPE-ARCH WHEN APPLICABLE.
4. BANDS ARE NORMALLY FURNISHED AS FOLLOWS:
   - 12" THRU 48" 1-PIECE
   - 54" THRU 96" 2-PIECES
   - 102" THRU 144" 3-PIECES
5. BAND FASTENERS ARE ATTACHED WITH SPOT WELDS, RIVETS OR HAND WELDS.
6. ALL CMP IS REROLLED TO HAVE ANNULAR END CORRUGATIONS OF 2 2/3"x1/2"
7. DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
8. ORDER SHALL DESIGNATE GASKET OPTION, IF REQUIRED (SEE DETAILS ABOVE).

H-12 HUGGER BAND DETAIL
NOT TO SCALE

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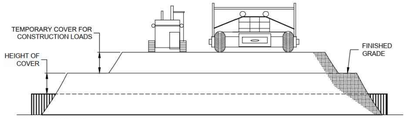
CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
7037 Ridge Road, Hanover, MD 21076
443-457-1500 410-740-8490 410-740-8492 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH
PROPOSAL
DRAWING

42"Ø UNDERGROUND DETENTION SYSTEM - 738644-010
EUGENE SIMPSON STADIUM PARK
ALEXANDRIA, VA
SITE DESIGNATION: DETENTION #1

PROJECT No.: 738644	SEQ. No.: 010	DATE: 1/17/2023	
DESIGNED: JLW	DRAWN: JLW		
CHECKED:	APPROVED:		
SHEET NO.: P3	OF	P4	



CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM
NOT TO SCALE

SPECIFICATION FOR CORRUGATED STEEL PIPE-ALUMINIZED TYPE 2 STEEL

SCOPE

THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE CORRUGATED STEEL PIPE (CSP) DETAILED IN THE PROJECT PLANS.

MATERIAL

THE ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M274 OR ASTM A929.

PIPE

THE CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M36 OR ASTM A760. THE PIPE SIZES, GAGES AND CORRUGATIONS SHALL BE AS SHOWN ON THE PROJECT PLANS.

ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.

HANDLING AND ASSEMBLY

SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION (NCSPA)

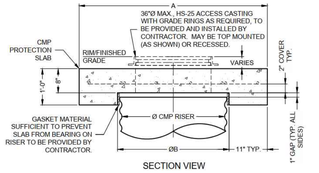
INSTALLATION

SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II OR ASTM A798 AND IN CONFORMANICE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

ANTI-FLOTATION PROVISIONS DUE TO HIGH GROUNDWATER OR OTHER FLOTATION CONCERNS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.

MATERIAL SPECIFICATION
NOT TO SCALE

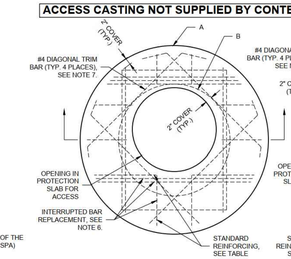


SECTION VIEW

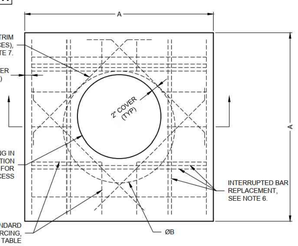
REINFORCING TABLE				
Ø CMP RISER	A	B Ø	REINFORCING	**BEARING PRESSURE (PSF)
24"	4'Ø 4'x4'	26"	#5 @ 10" OCEW #5 @ 10" OCEW	2,540 1,900
30"	4'-6"Ø 4'-6" x 4'-6"	32"	#5 @ 10" OCEW #5 @ 9" OCEW	2,280 1,670
36"	5'Ø 5' x 5'	38"	#5 @ 9" OCEW #5 @ 8" OCEW	2,060 1,500
42"	5'-6"Ø 5'-6" x 5'-6"	44"	#5 @ 8" OCEW #5 @ 8" OCEW	1,490 1,370
48"	6'Ø 6' x 6'	50"	#5 @ 7" OCEW #5 @ 7" OCEW	1,210 1,270

** ASSUMED SOIL BEARING CAPACITY

ACCESS CASTING NOT SUPPLIED BY CONTECH



ROUND OPTION PLAN VIEW



SQUARE OPTION PLAN VIEW

NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION AND ACI 350.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 4,000 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERS, ARCHITECTS AND LAND SURVEYORS, ENDWELL, NY.

MANHOLE CAP DETAIL
NOT TO SCALE

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42"Ø UNDERGROUND DETENTION SYSTEM - 738644-010
EUGENE SIMPSON STADIUM PARK
ALEXANDRIA, VA
SITE DESIGNATION: DETENTION #1

PROJECT No.: 738644	SEQ. No.: 010	DATE: 1/17/2023	
DESIGNED: JLW	DRAWN: JLW		
CHECKED:	APPROVED:		
SHEET NO.: P4	OF	P4	

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

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SECURITY CONSULTING
4501 Daly Drive
Chantilly, VA 20151
Phone: 703-263-1900
www.gordon.us.com

REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: M. BAUMAN
DRW: S. MOORE	CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

DETENTION FACILITY #1 – DETAILS & SPECIFICATIONS

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: N/A VERT: N/A
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	C-CJ-160.DWG
NCS:	C-CJ-160
NUMBER:	C-158

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G:\PROJECTS\JOBS\395 ALEXANDRIA\0030\DTL\ANSI C\J-160.DWG, 3/13/2023 7:42:48 AM, eclark VERT DATUM NAVD 88 HORIZ DATUM NAD 83
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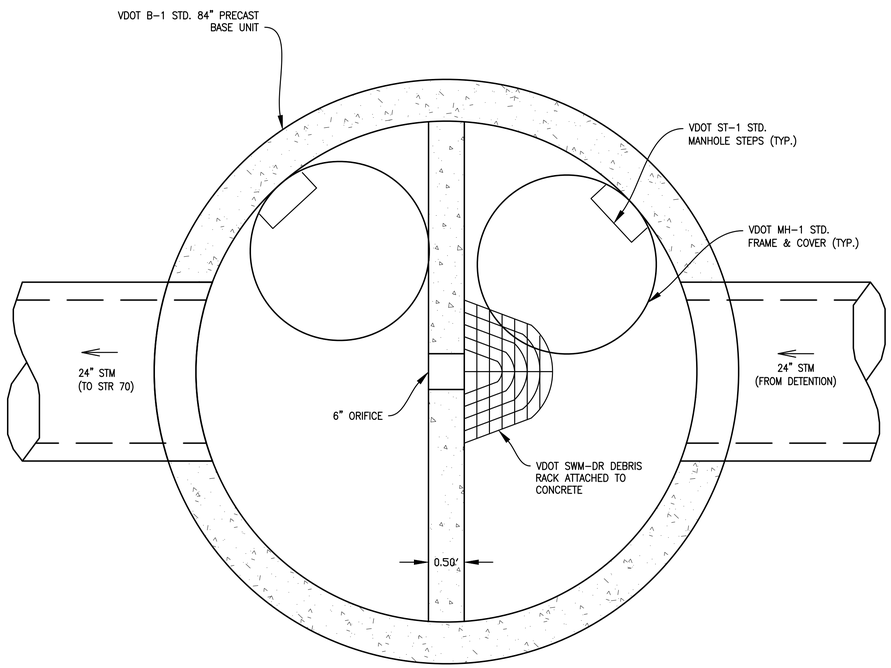
DETENTION FACILITY #1 - DETAILS & SPECIFICATIONS

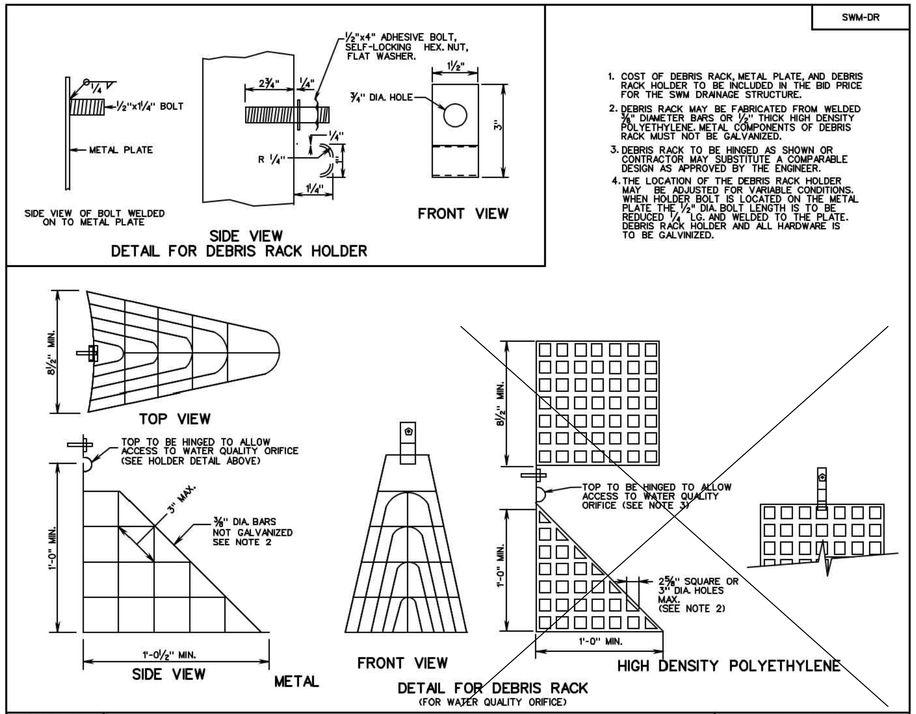


A OUTLET CONTROL STRUCTURE

SCALE: 1' = 1"

2016 ROAD & BRIDGE STANDARDS

SWM-DR



1. COST OF DEBRIS RACK, METAL PLATE, AND DEBRIS RACK HOLDER TO BE INCLUDED IN THE BID PRICE FOR THE SWM DRAINAGE STRUCTURE.
2. DEBRIS RACK MAY BE FABRICATED FROM WELDED 3/8" DIAMETER BARS OR 1/2" THICK HIGH DENSITY POLYETHYLENE. METAL COMPONENTS OF DEBRIS RACK MUST NOT BE GALVANIZED.
3. DEBRIS RACK TO BE HINGED AS SHOWN OR CONTRACTOR MAY SUBSTITUTE A COMPARABLE DESIGN AS APPROVED BY THE ENGINEER.
4. THE LOCATION OF THE DEBRIS RACK HOLDER MAY BE ADJUSTED FOR VARIABLE CONDITIONS. WHEN HOLDER BOLT IS LOCATED ON THE METAL PLATE THE 1/2" DIA. BOLT LENGTH IS TO BE REDUCED 1/4" LG. AND WELDED TO THE PLATE. DEBRIS RACK HOLDER AND ALL HARDWARE IS TO BE GALVINIZED.

SPECIFICATION REFERENCE	STORMWATER MANAGEMENT (SWM) DETAILS DEBRIS RACK, METAL PLATE, WATER QUALITY ORIFICE, CONCRETE CRADLE (FOR SWM DRAINAGE STRUCTURES, SWM RISER PIPES AND SWM DAMS) VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS
302		REVISION DATE / SHEET 2 OF 5 / 114.05

2016 ROAD & BRIDGE STANDARDS

Outlet Control Structure and Underground Detention Maintenance

AFTER A MAJOR STORM		
Inspection Item	**Inspection Requirements**	**Remedial Action**
Debris and Trash	Check for trash and debris in facility including inlets, outlets, trash rack, and/or orifice openings.	Remove all trash and debris and dispose in an acceptable manner. Unclog all openings.
ANNUAL INSPECTION		
Inspection Item	**Inspection Requirements**	**Remedial Action**
Debris and Trash	Check for trash and debris in facility including inlets, outlets, trash rack, and/or orifice openings.	Remove all trash and debris and dispose in an acceptable manner. Unclog all openings.
Sediment or Other Accumulation	Check for accumulated sediment in the structure. Check pipe system for evidence of salting/de-icing agents.	Remove sediment from within the structure. Rinse pipes including above the spring line soon after the spring thaw.
Structural Components	Check for evidence of structural deterioration, spalling, or cracking. Check for evidence of leakage or seepage. Check for misalignments, broken pipes, or blockages.	Contact appropriate structural engineer and vendor to determine extent of repair required.

B OUTLET CONTROL STRUCTURE AND DETENTION SYSTEM MAINTENANCE

1 .5 0 1 2 3

GRAPHICAL SCALE: 1" = 1'

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DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

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SECURITY CONSULTING
4501 Daly Drive
Chantilly, VA 20151
Phone: 703-263-1900
www.gordon.us.com

REVISIONS

NUMBER	DATE	DESCRIPTION

SUR: GORDON
DES: M. BAUMAN
DRW: S. MOORE
CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

DETENTION FACILITY #1 – DETAILS & SPECIFICATIONS

EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 1' VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-160.DWG
NCS: C-CJ-160
NUMBER: C-159

Gordon

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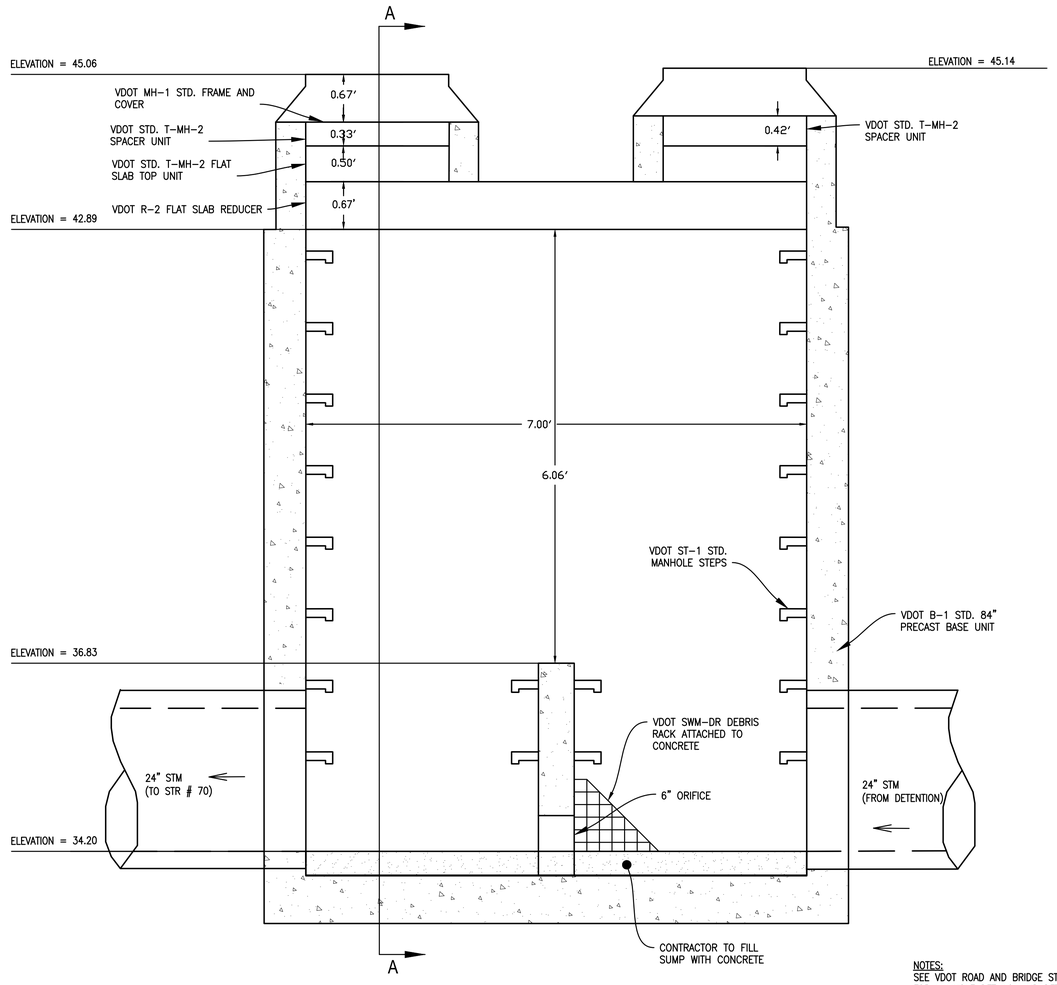
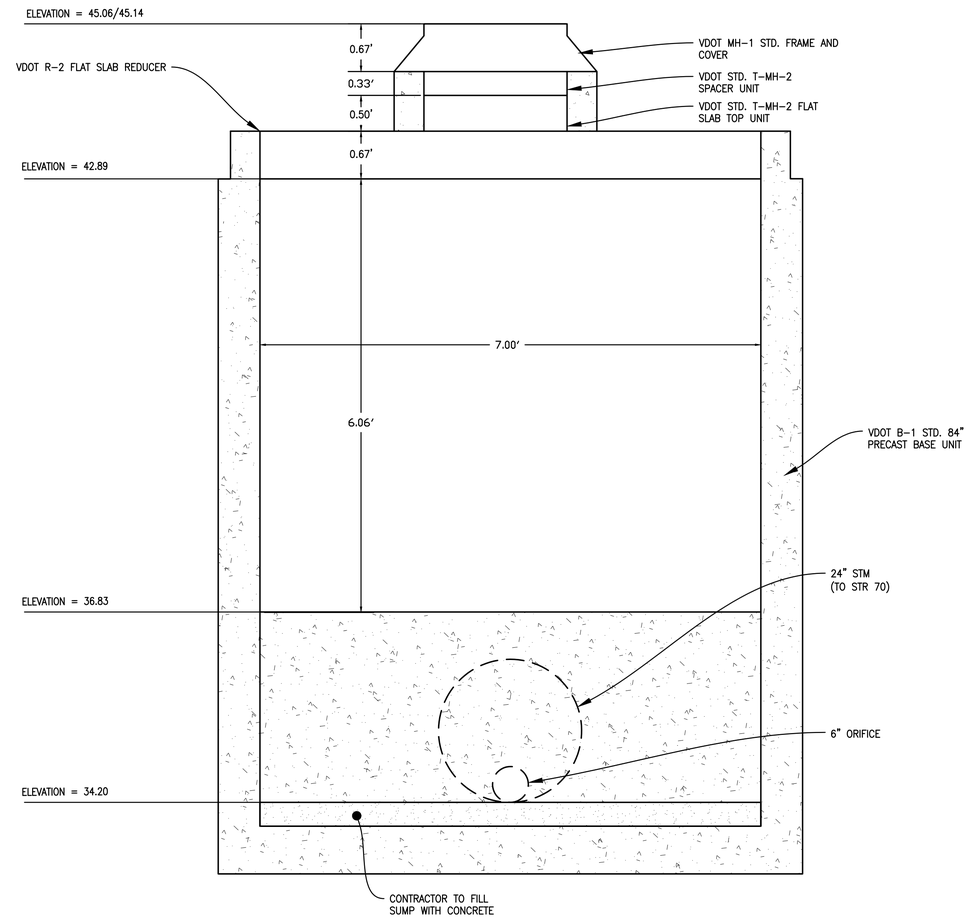
DETENTION FACILITY #1 - DETAILS & SPECIFICATIONS



A OUTLET CONTROL STRUCTURE

SCALE: 1' = 1"

NOTES:
SEE VDOT ROAD AND BRIDGE STANDARDS DETAILS 103.01, 103.09–103.11 & 106.02–106.07 FOR MANHOLE DETAILS, AND DETAIL 106.09 FOR MANHOLE STEP DETAIL.



SECTION A-A

SCALE = 1"=1'

GRAPHICAL SCALE: 1" = 1'

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DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
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CHAIRMAN, PLANNING COMMISION DATE
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COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

DETENTION FACILITY #1 – DETAILS & SPECIFICATIONS

EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 1' VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-160.DWG
NCS: C-CJ-160
NUMBER: C-160

Gordon

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STORMWATER SPECIFICATIONS

CITY OF ALEXANDRIA AS-BUILT STORMWATER DATA

As-Built Submittal

A complete as-built stormwater submittal must include the following:

1. As-Built Plan Set

All entities constructing stormwater best management practices (BMPs) installed to meet Virginia Stormwater Management Program (VSMP) regulations must submit a construction record drawing, or as-built plan, for approval. All grading plans, development site plans, and development special use permits installing BMPs for regulatory compliance must submit an as-built plan for review and approval.

Grading plans that install public storm sewer infrastructure must submit all information as described below. Grading plans that do not install public storm sewer infrastructure must only submit the stormwater as-built plan drawings, completed BMP construction inspection checklists with associated photos, and any required certification letters.

The following information must be included on the final as-built plan set submittal:

A. Structural BMPs and Detention Facilities:
   1. BMP Identifier
   2. X Coordinate of approximate center
   3. Y Coordinate of approximate center
   4. Owner - "Public" or "Private"
   5. Detailed description
   6. Volume
   7. Cross sectional diagram
   8. Detail of the outlet control and bypass/diversion structure
   9. Landscape/planting layout (for surface BMPs)

B. The stormwater As-Built Plan drawings must be signed by a VA professional engineer or land surveyor and the signature must appear on all sheets of the stormwater as-built plan set. All changes to as-built data must be clearly outlined. All stormwater calculations and stormwater profiles must be signed by a VA professional engineer.

2. CAD/shapefile with spatial reference data

Provide the following information in a digital, GIS compatible format, generally an industry standard CAD or shapefile, which can be incorporated directly in the City's overall GIS.

A. Storm Sewer Pipes
B. Storm Sewer Structures (catch basins, inlets, headwalls, swales, junction boxes, manholes, etc.)
C. Structural BMP and Detention Structure Footprints with associated pipes and structures

This information does not need to include any of the base data (e.g., buildings, roads, sidewalk, etc.), but must include a spatial reference. The digital submittal should be delivered on a separate CD with the final as-built plan submittal to Development Services and Right of Way. Files shall be named to match the as-built plan hard copy.

Preferred Reference Projections and Datums
- Projected Coordinate System: NAD_1983_StatePlane_Virginia_North_FIPS_4501_Feet
- Horizontal Datum: D_North_American_1983
- Vertical Datum: NAVD 88

The following language may be included with the CAD/shapefile at the discretion of the submitting professional:

The City and the Engineer agree that any as-built information contained in the Electronic CAD/shapefile submitted is for reference only. By accepting the CAD/shapefile, the Engineer and City acknowledge and agree that as-built information contained in the CAD/shapefile may have been prepared based upon information provided by others to the Engineer, and not information provided by the Engineer. The City and the Engineer further acknowledge and agree that the Engineer has not verified the accuracy and/or completeness of the information supplied by others and that the Engineer shall not be responsible for any errors and/or omissions that may be incorporated into, referenced in or designated on any construction drawings which City or City's agents, servants, employees, or contractors prepare as a result of erroneous information provided by others and, further, City hereby agrees to waive any and all Claim(s) and/or Damage(s) which result from or are related to Engineer's reliance upon the errors and/or omissions described above.

3. As-Built Stormwater Data Spreadsheet

The following information should be populated in the As-Built Stormwater Data Spreadsheet and submitted:

A. Storm Sewer Pipes
   1. Pipe Identifier
   2. Length (feet)
   3. Pipe Material
   4. Pipe Shape
   5. Diameter (inches)
   6. Upstream Invert
   7. Downstream Invert
   8. Owner - "Public" or "Private"

B. Storm Sewer Structures
   1. Structure Identifier
   2. X Coordinate
   3. Y Coordinate
   4. Type
   5. Construction Material
   6. Rim (Top) Elevation
   7. Owner - "Public" or "Private"

C. Structural BMPs and Detention Facilities
   1. BMP Identifier
   2. X Coordinate of approximate center
   3. Y Coordinate of approximate center
   4. BMP Function
   5. Total Impervious Area Treated
   6. Total Pervious Area Treated
   7. Owner - "Public" or "Private"

D. Stormwater Related Easements
   1. Deed book and page number(s) or instrument number(s)
   2. Type
   3. Description of location

The as built stormwater spreadsheet is available on the City's website as a supplemental document.

4. Completed BMP Construction Inspection Checklist and Associated Photos

The applicable BMP Construction Inspection Checklist(s) and associated photos must be included with the complete As-Built submittal package. The digital submittal should be delivered on a separate CD with the final as-built plan submittal to Development Services and Right of Way.

5. Signed and Sealed BMP, Detention, and Conveyance System Certifications

A stormwater BMP certification is required for each BMP certifying that it has been constructed in accordance with the approved plans. Copies of the certification (sample template is included in this document) must be submitted as a PDF on a CD with the complete As-Built submittal packet. The certification must be signed by a professional engineer.

A stormwater detention certification is required for each detention facility certifying that it has been constructed in accordance with the approved plans. Copies of the certification (sample template is included in this document) must be submitted as a PDF with the complete As-Built submittal packet. The certification must be signed by a professional engineer.

A stormwater conveyance system certification is required when included in the conditions of approval certifying that the conveyance system and BMPs on and adjacent to the

6. Notice of Termination

Projects covered under the General VPDES Permit for Discharges of Stormwater from Construction Activities (i.e., the Construction General Permit), must submit a notification of termination for permit coverage (NOT) with the as-built plan.

DEQ CONSTRUCTION GENERAL PERMIT NOTICE OF TERMINATION

STORMWATER MANAGEMENT FACILITIES CERTIFICATION

PURSUANT TO 9VAC25-870-55, I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE STORMWATER MANAGEMENT FACILITIES SHOWN ON THESE RECORD DRAWINGS, HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.

NAME _____ SIGNATURE _____

VIRGINIA LICENSE _____ DATE _____

"CERTIFY" MEANS TO THE STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS, MATERIAL TESTS, AS-BUILT SURVEY DATA, AND INFORMATION PROVIDED BY OTHER PROFESSIONALS AND THE CONTRACTOR, CONDUCTED DURING OR AFTER CONSTRUCTION.

NOTE: ONLY ONE (1) OF THE DOWNSTREAM CONVEYANCE SYSTEM CERTIFICATIONS IS REQUIRED.

Downstream Conveyance Certification Template- No maintenance required

Company Name
Address

Date

City of Alexandria
Transportation and Environmental Services-Development and Right of Way Division
301 King St. Room 4130
Alexandria, VA 22314

RE: Stormwater Conveyance System Certification
Project Name
Project Address
DSP#/GRD#/DSUP#

Dear Sir or Madam,

On (DATE) a field inspection was performed on the stormwater conveyance system on and adjacent to the above referenced project. Per the conditions of approval, the inspection was performed to determine if the conveyance system had been adversely affected by the construction of the above referenced project. In my professional opinion, the existing stormwater conveyance systems were not adversely affected by the construction and are operating as intended. There is no maintenance required on the stormwater conveyance systems at this time.

On (DATE) a field inspection was performed on the stormwater best management (BMP) facilities adjacent to the above referenced project. Per the conditions of approval, the inspection was performed to determine if the BMP facilities had been adversely affected by the construction of the above referenced project. In my professional opinion, the existing stormwater BMP facilities were not adversely affected by the construction. (INCLUDE IF APPLICABLE)

Name _____ Signature _____

Virginia License _____ Date _____

COMMONWEALTH OF VIRGINIA
NAME HERE
No. 000000
PROFESSIONAL ENGINEER

Downstream Conveyance Certification Template- Maintenance required

Company Name
Address

Date

City of Alexandria
Transportation and Environmental Services-Development and Right of Way Division
301 King St. Room 4130
Alexandria, VA 22314

RE: Stormwater Conveyance System Certification
Project Name
Project Address
DSP#/GRD#/DSUP#

Dear Sir or Madam,

On (DATE) a field inspection was performed on the stormwater conveyance system on and adjacent to the above referenced project. Per the conditions of approval, the inspection was performed to determine if the conveyance system had been adversely affected by the construction of the above referenced project. To certify that the conveyance systems were functioning properly, maintenance was required. On (DATE), the following maintenance was performed:

- (Describe maintenance activities)
-

In my professional opinion, the existing stormwater conveyance systems, are now operating as intended. There is no further maintenance required on the stormwater conveyance systems at this time.

On (DATE) a field inspection was performed on the stormwater best management (BMP) facilities adjacent to the above referenced project. Per the conditions of approval, the inspection was performed to determine if the BMP facilities had been adversely affected by the construction of the above referenced project. To certify that the BMP facilities were functioning properly, maintenance was required. On (DATE), the following maintenance was performed:

- (Describe maintenance activities)
-

In my professional opinion, no further maintenance is required on the existing stormwater BMP facilities. (INCLUDE IF APPLICABLE)

Name _____ Signature _____

Virginia License _____ Date _____

COMMONWEALTH OF VIRGINIA
NAME HERE
No. 000000
PROFESSIONAL ENGINEER

Certification Template for Stormwater Best Management Practices (BMPs)

Company Name
Address

Date

City of Alexandria
Transportation and Environmental Services-Stormwater Division
2900B Business Center Drive
Alexandria, VA 22314

RE: BMP Certification
Project Name
Project Address
DSP/GRD/DSUP#, BMP#, VPDES Construction General Permit #

Dear Sir or Madam,

A stormwater BMP, specifically, a (BMP TYPE), was constructed as part of the above referenced project.

Pursuant to 9VAC25-870-55, I hereby certify that to the best of my knowledge and belief the stormwater management facilities shown on these record drawings have been constructed in accordance with the approved plans and specifications.

Name _____ Signature _____

Virginia License _____ Date _____

"Certify means to state or declare a professional opinion based on sufficient and appropriate onsite inspections, material tests, as-built survey data, and information provided by other professionals and the contractor, conducted during or after construction."

COMMONWEALTH OF VIRGINIA
NAME HERE
No. 000000
PROFESSIONAL ENGINEER

Certification Template for Stormwater Detention Structures

Company Name
Address

Date

City of Alexandria
Transportation and Environmental Services-Development and Right of Way Division
301 King St. Room 4130
Alexandria, VA 22314

RE: Detention Certification
Project Name
Project Address
DSP#/GRD#/DSUP#

Dear Sir or Madam,

A stormwater detention structure, specifically, a (DETENTION TYPE), was constructed as part of the above referenced project.

Pursuant to 9VAC25-870-55, I hereby certify that to the best of my knowledge and belief the stormwater detention facilities shown on these record drawings have been constructed in accordance with the approved plans and specifications.

Name _____ Signature _____

Virginia License _____ Date _____

"Certify means to state or declare a professional opinion based on sufficient and appropriate onsite inspections, material tests, as-built survey data, and information provided by other professionals and the contractor, conducted during or after construction."

COMMONWEALTH OF VIRGINIA
NAME HERE
No. 000000
PROFESSIONAL ENGINEER

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

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SECURITY CONSULTING
4501 Daly Drive
Chantilly, VA 20151
Phone: 703-263-1900
www.gordon.us.com

NUMBER	DATE	DESCRIPTION
		REVISIONS

SUR: GORDON | DES: M. BAUMAN
DRW: S. MOORE | CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
K. Ryan
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

STORMWATER SPECIFICATIONS

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-170.DWG
NCS: C-CJ-170
NUMBER: C-161

Gordon

G:\PROJECTS\JOBS\395 - ALEXANDRIA PARKS\03TFA\ARCC-CJ-170.DWG 3/13/2023 10:42:AM plotted VERT DATUM NAVD 88 HORIZ DATUM NAD 83
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STORMWATER SPECIFICATIONS

STORMWATER MANAGEMENT (SWM) GENERAL NOTES

THESE NOTES APPLY TO THE FOLLOWING STORMWATER MANAGEMENT (SWM) FACILITIES: PERMEABLE PAVEMENT (X2), BIORETENTION (X3), AND UNDERGROUND DETENTION.

SWM SUBMITTAL NOTES

1. CONTRACTOR TO PROVIDE TO THE ENGINEER AND OWNER SUBMITTALS FOR THE FOLLOWING SWM FACILITIES PRODUCTS FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURING/ORDERING. SUBMITTALS SHALL INCLUDE PRODUCT DATA (NOT TECHNICAL SPECIFICATIONS) AND CURRENT TESTING RESULTS (LESS THAN 3 MONTHS OLD), AS APPLICABLE.

BIORETENTION

- GEOTEXTILE FABRIC
- PERFORATED UNDERDRAIN PIPE
- SOLID UNDERDRAIN PIPE
- CLEANOUTS AND CONNECTIONS
- OVERFLOW BASINS WITH SUMP INSERT
- #8 STONE
- #57 STONE
- BIORETENTION MEDIA
- MULCH
- RIVER STONE
- STORMWATER MANAGEMENT SIGN

PERMEABLE PAVEMENT

- SYNTHETIC TURF INFILL WITH PERMEABILITY RATE (IN/HR)
- SYNTHETIC TURF CARPET WITH PERMEABILITY RATE (IN/HR)
- SYNTHETIC TURF PAD WITH PERMEABILITY RATE (IN/HR)
- NO. 18 STONE (CHOKER LAYER)
- NO. 8 STONE (CHOKER LAYER)
- NO. 57 STONE
- PERFORATED UNDERDRAIN
- SOLID OUTFALL PIPE
- CLEANOUTS
- OBSERVATION WELLS
- OUTLET CONTROL STRUCTURE
- GEOTEXTILE FABRIC
- IMPERMEABLE LINER

DETENTION FACILITY

- TRASH RACK

2. CONTRACTOR TO PROVIDE TO THE ENGINEER AND OWNER A SHOP DRAWING PACKAGE FOR THE FOLLOWING SWM FACILITIES FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURING. THE SHOP DRAWING PACKAGE SHALL BE SIGNED AND SEALED BY A QUALIFIED, LICENSED PROFESSIONAL ENGINEER IN THE COMMONWEALTH OF VIRGINIA AND INCLUDE SIGNED AND SEALED CONTRACT DRAWINGS, FABRICATION DRAWINGS, AND ASSOCIATED STRUCTURAL COMPUTATIONS.
   a. UNDERGROUND DETENTION - CMP PIPE SYSTEM
   b. OUTLET CONTROL STRUCTURE
3. PROPOSAL DRAWINGS ARE NOT CONSIDERED FINAL AND SUITABLE FOR BID UNTIL THE SHOP DRAWING PACKAGE IS APPROVED.
4. APPROVAL OF THE SITE PLAN DOES NOT GRANT APPROVAL OF ANY STRUCTURAL INFORMATION SHOWN HEREIN. STRUCTURAL INFORMATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. STRUCTURAL DETAILS SHALL BE INCLUDED IN THE SHOP DRAWING PACKAGE FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURING.
5. ALL SUBMITTED PRODUCTS SHALL MEET THE REQUIREMENTS PER THE DETAILS AND SPECIFICATIONS ON THIS PLAN SET AND PROJECT SPECIFICATIONS. CONTRACTOR SHALL COMPLY WITH ALL PROJECT SPECIFICATION REQUIREMENTS FOR SUBMISSION OF THESE PRODUCTS OR ADDITIONAL PRODUCT SUBMITTALS TO THE OTHER DESIGN CONSULTANTS.

SWM INSTALLATION NOTES

1. CONTRACTOR SHALL STRICTLY ADHERE TO THE CONSTRUCTION SEQUENCING AND CONSTRUCTION INSPECTION PROCESS FROM THE CITY INSPECTOR AND CERTIFYING ENGINEER FOR THE INSTALLATION OF THE SWM FACILITIES, AS DISCUSSED IN THE PRE-CONSTRUCTION MEETING.
2. CONTRACTOR SHALL STRICTLY ADHERE TO MANUFACTURER'S REQUIREMENTS FOR THE INSTALLATION OF ANY PROPRIETARY PRODUCTS.
3. CONTRACTOR SHALL ADHERE TO ALL GEOTECHNICAL REQUIREMENTS AS OUTLINED IN THE GEOTECHNICAL REPORT ISSUED BY TERRACON, DATED NOVEMBER 2022, INCLUDING SPECIAL ATTENTION TO ALL STORMWATER MANAGEMENT FACILITY MATERIAL AND INSTALLATION SECTIONS.
4. THE SWM FACILITIES SHALL BE CONSTRUCTED AFTER THE UPSTREAM CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED. WITH APPROVAL FROM THE CITY INSPECTOR AND CERTIFYING ENGINEER, E&S PRACTICES MAY BE ADEQUATE TO PROTECT THE SWM FACILITIES AND DIVERT SEDIMENT AND DIRTY WATER AWAY PRIOR TO STABILIZATION OF THE CONTRIBUTING DRAINAGE AREA. SHOULD ANY SEDIMENT OR DIRTY WATER ENTER THE SWM FACILITIES, THE CITY INSPECTOR AND THE CERTIFYING ENGINEER SHALL BE NOTIFIED WITHIN 24-48 HOURS. THE MEANS FOR ADDRESSING THE IMPACTS SHALL BE PROVIDED IN WRITING FOR REVIEW AND APPROVAL BY THE CITY INSPECTOR AND CERTIFYING ENGINEER. ALL LAYERS INUNDATED WITH DIRTY WATER AND SEDIMENT SHALL BE REMOVED, WASHED (IF APPLICABLE TO REUSE THE MATERIAL), AND REPLACED IN THE SWM FACILITIES. FLUSHING OF THE SYSTEM IS NOT AN ADEQUATE MEANS TO REMOVE SEDIMENT. THE FACILITY SHALL BE REPLANTED AS NEEDED PER THE ORIGINAL PLANTING PLAN.
5. THE SWM FACILITIES SHALL BE PROTECTED FROM CONSTRUCTION EQUIPMENT, STAGING, LOADING, COMPACTION, AND OTHER CONSTRUCTION ACTIVITIES THAT MIGHT DAMAGE THE SWM FACILITIES. SHOULD ANY CONSTRUCTION ACTIVITY DAMAGE THE FACILITY, THE CITY INSPECTOR AND THE CERTIFYING ENGINEER SHALL BE NOTIFIED WITHIN 24-48 HOURS. THE MEANS FOR ADDRESSING THE IMPACTS SHALL BE PROVIDED IN WRITING FOR REVIEW AND APPROVAL BY THE CITY INSPECTOR AND CERTIFYING ENGINEER. ALL DAMAGED LAYERS SHALL BE REMOVED AND REPLACED IN THE SWM FACILITIES. SEE COVER ANALYSIS ON SHEET C-156.
   a. THE CONTRACTOR SHALL PROVIDE THE DETENTION MANUFACTURER ANTICIPATED MAXIMUM CONSTRUCTION LOADING FOR APPROVAL PRIOR TO CONSTRUCTION TO DETERMINE APPLICABLE CONSTRUCTION REQUIREMENTS.
   b. THE CONTRACTOR SHALL USE CAUTION AND CARE PER MANUFACTURER'S REQUIREMENT FOR USE OF CONSTRUCTION VEHICLES AND HEAVY TRAFFIC LOADING OVER THE DETENTION, ESPECIALLY PRIOR TO REACHING FINAL GRADE.
   c. THE CONTRACTOR SHALL CONSIDER APPROPRIATE MEANS AND METHODS TO PROHIBIT HEAVY CONSTRUCTION VEHICLES AND STOCKPILING OVER THE DETENTION, INCLUDING USE OF FLAGS/FENCING TO DELINEATE FOOTPRINT OF INSTALLED DETENTION SYSTEM.
   d. CONTRACTOR SHALL USE APPROPRIATE PROOF ROLLING TECHNIQUES OVER THE DETENTION SYSTEM PRIOR TO INSTALLATION OF PAVEMENT SECTION.

SWM INSPECTION NOTES

1. THE SWM FACILITIES PROPOSED WITH THIS PLAN SHALL BE CONSTRUCTED UNDER THE SUPERVISION OF A CITY INSPECTOR AND CERTIFYING ENGINEER. THE CERTIFYING ENGINEER SHALL BE A QUALIFIED LICENSED PROFESSIONAL ENGINEER IN THE COMMONWEALTH OF VIRGINIA MEETING THE EXEMPTION REQUIREMENTS OF THE CODE OF VIRGINIA WITH EXPERTISE IN BIORETENTION, PERMEABLE PAVEMENT, AND DETENTION FACILITY DESIGN.
   a. A QUALIFIED CIVIL ENGINEER SHALL INSPECT AND CERTIFY THE BIORETENTION AND PERMEABLE PAVEMENT FACILITIES.
   b. A QUALIFIED GEOTECHNICAL ENGINEER SHALL INSPECT AND CERTIFY THE PERMEABLE PAVEMENT UNDERCUT.
   c. A QUALIFIED GEOTECHNICAL ENGINEER SHALL INSPECT AND CERTIFY THE DETENTION FACILITY BEARING PRESSURE AND BACKFILL/COMPACTION
   d. A QUALIFIED CIVIL ENGINEER SHALL INSPECT AND CERTIFY THE DETENTION AND OUTLET CONTROL STRUCTURE AS-BUILT STORAGE AND ELEVATIONS.
2. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY INSPECTOR, CERTIFYING ENGINEER, ENGINEER OF RECORD (IF NOT THE CERTIFYING ENGINEER), OWNER, AND THE MANUFACTURER PRIOR TO COMMENCING ANY WORK ON THE STORMWATER MANAGEMENT FACILITIES (INCLUDING EXCAVATION).
3. THE CITY INSPECTOR AND CERTIFYING ENGINEER SHALL OBSERVE AND DOCUMENT ALL STAGES OF THE FACILITY CONSTRUCTION AS OUTLINED IN THE CONSTRUCTION SEQUENCE, CONSTRUCTION INSPECTION CHECKLIST, AND AS ESTABLISHED DURING THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR IS RESPONSIBLE FOR ALL NOTIFICATION TO THE CITY INSPECTOR AND CERTIFYING ENGINEER AT LEAST 72 HOURS PRIOR TO EACH REQUESTED INSPECTION.
4. THE CONTRACTOR SHALL OBTAIN AND PROVIDE ALL REQUESTED AS-BUILT INFORMATION FOR THE INTERNAL LAYERS OR COMPONENTS THAT WILL NOT BE ACCESSIBLE AFTER INSTALLATION TO THE CITY INSPECTOR AND CERTIFYING ENGINEER. THE CONTRACTOR SHALL PROVIDE ALL REQUESTED DELIVERY TICKETS AND FIELD TESTING RESULTS TO THE CITY INSPECTOR AND CERTIFYING ENGINEER.
5. THE CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR, CERTIFYING ENGINEER, ENGINEER OF RECORD, AND OWNER OF ANY DEVIATIONS FROM THE APPROVED PLANS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
6. THESE INSPECTIONS DO NOT RELIEVE THE CONTRACTOR FROM INSTALLING THE SWM FACILITIES IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND CONTRACT DRAWINGS, AND IN ACCORDANCE WITH INDUSTRY STANDARDS, MEANS, AND METHODS. THESE INSPECTIONS DO NOT RELIEVE THE SITE AS-BUILT REQUIREMENTS RELATED TO THE STORM SEWER AND/OR STORMWATER MANAGEMENT FACILITIES.

SWM AS-BUILT NOTES

1. THE CONTRACTOR SHALL OBTAIN ANY SWM FACILITY AS-BUILT INFORMATION THAT WILL NOT BE ACCESSIBLE AFTER CONSTRUCTION IS COMPLETE, INCLUDING, BUT NOT LIMITED TO, SWM FACILITY BOTTOM ELEVATIONS, INFLOW/OUTFLOW PIPES, INTERIOR LAYERS, ETC..
2. PER THE CITY OF ALEXANDRIA ENVIRONMENTAL ORDINANCE AND POLICY, A SWM AS-BUILT IS REQUIRED. THE SWM AS-BUILT SHOULD MINIMALLY INCLUDE THE FOLLOWING INFORMATION:
   a. LOCATIONS OF ALL STORM SEWER AND STRUCTURES WITH ELEVATIONS/INVERTS, DIMENSIONS, AND SLOPES
   b. LOCATIONS OF SWM FACILITIES WITH ELEVATIONS/INVERTS, DIMENSIONS, AND SLOPES,
   c. COMPLETED SWM FACILITY AS-BUILT TABLES
   d. ANY OTHER APPLICABLE CITY AS-BUILTS REQUIREMENTS
   e. SIGN AND SEAL BY A LICENSED SURVEYOR OR LICENSED PROFESSIONAL ENGINEER IN THE COMMONWEALTH OF VIRGINIA.
3. PER THE CITY OF ALEXANDRIA ENVIRONMENTAL ORDINANCE AND POLICY, A SWM CERTIFICATION IS REQUIRED FOR ALL SWM FACILITIES. THE SWM CERTIFICATION SHALL CERTIFY THAT THE SWM FACILITIES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND MINIMALLY INCLUDING THE FOLLOWING:
   a. COMPLETED CONSTRUCTION INSPECTION CHECKLIST
   b. CONSTRUCTION PICTURES FOR ALL MILESTONES OF SWM FACILITY INSTALLATION
   c. MATERIAL DELIVERY TICKETS
   d. OTHER SUPPORTING DOCUMENTATION
   i. INSPECTION REPORTS BY OTHERS
   ii. PERMEABILITY TESTING RESULTS
   iii. BEARING PRESSURE RESULTS
   e. SIGN AND SEAL BY A LICENSED PROFESSIONAL ENGINEER IN THE COMMONWEALTH OF VIRGINIA
4. PER THE DEQ CONSTRUCTION GENERAL PERMIT NOTICE OF TERMINATION REQUIREMENTS, AN ENGINEER'S CERTIFICATION IS REQUIRED. SEE ENGINEER'S CERTIFICATION ON SHEET C-161.
5. THE CONSTRUCTION GENERAL PERMIT NOTICE OF TERMINATION SHALL NOT BE SUBMITTED UNTIL THE SWM AS-BUILT AND SWM CERTIFICATION ARE APPROVED BY THE CITY.

SWM MAINTENANCE NOTES

1. THE OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE FOR ALL SWM FACILITIES PURSUANT TO SECTION 13-109.G OF THE CITY OF ALEXANDRIA ENVIRONMENTAL MANAGEMENT ORDINANCE AND THE EXECUTED BMP MAINTENANCE AGREEMENT.
2. THE SWM FACILITIES SHALL BE INSPECTED PERIODICALLY (AT LEAST ANNUALLY) TO DOCUMENT MAINTENANCE AND REPAIR NEEDS.
3. SEE ROUTINE MAINTENANCE ITEMS ON SHEETS C-151, C-155, AND C-157.

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DIRECTOR — DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR — DATE
CHAIRMAN, PLANNING COMMISION — DATE
DATE RECORDED _____
INSTRUMENT NO. — DEED BOOK NO. — PAGE NO.

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www.gordon.us.com

NUMBER	DATE	DESCRIPTION
REVISIONS		

SUR: GORDON | DES: M. BAUMAN
DRW: S. MOORE | CHK: K. RYAN

COMMONWEALTH OF VIRGINIA
KELSEY L. RYAN
Lic. No. 59936
3/13/2023
PROFESSIONAL ENGINEER
SEAL:

STORMWATER SPECIFICATIONS
EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: C-CJ-170.DWG
NCS: C-CJ-170
NUMBER: C-162
Gordon

S:\PROJECTS\JAN3395 - ALEXANDRIA PARKS\SHEETFILES\CC-CJ170.DWG, 3/13/2023 10:42 AM, mmore VERT DATUM NAVD 88 HORIZ DATUM NAD 83
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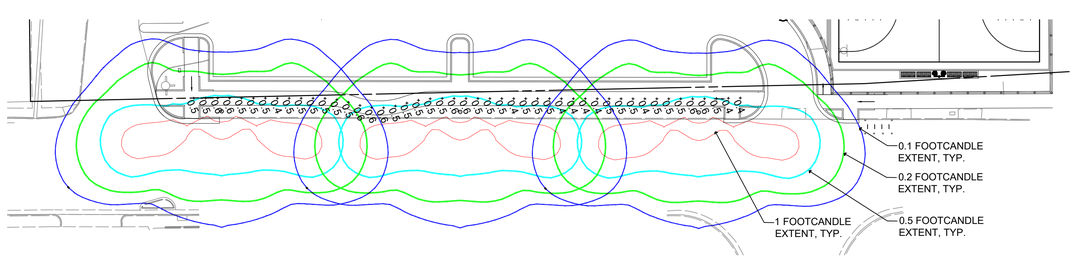
PARKING LOT LIGHTING



STREETSCAPE LIGHTING

LEGEND

- STREET LIGHT POLE LOCATION, THREE (3) TOTAL
- PARKING LOT LIGHT POLE LOCATION, SEVEN (7) TOTAL, 30' MOUNTING HEIGHT TYP.
- FOOT CANDLE READING (MEASURED AT 3' ABOVE GRADE)

FIXTURE TYPE SUMMARY

QTY	PRODUCT NUMBER	LUMENS	WATTAGE
7	DSX1 LED P6 40K TFTM MVOLT	19,037	163W

FIXTURE TYPE SUMMARY

QTY	PRODUCT NUMBER	LUMENS	WATTAGE
3	ACORN 150W HID EQ LP3	6,913	150W

NOTES

1. FOOT CANDLE READINGS SHOWN HERE HAVE BEEN PROVIDED BY FEDERAL LIGHTING FOR THE PROPOSED PARKING LOT LIGHTING AND BY LIGHTING DESIGNS BY DUGAN FOR THE PROPOSED STREETSCAPE LIGHT POLES.
2. FOOT CANDLE READINGS SHOWN HEREON DO NOT ACCOUNT FOR EXISTING OR PROPOSED TREES, STRUCTURES, WALLS, TOPOGRAPHY, FENCING, LIGHTS ALONG ROADWAYS AND ADJACENT PROPERTIES
3. THE SEAL AND SIGNATURE ON THIS SHEET CERTIFIES THIS DRAWING FOR INFORMATION ONLY AND DOES NOT CERTIFY TO ENGINEERING HEREON.
4. REFER TO EXTERIOR LIGHTING SPECIFICATION 260530 FOR MORE INFORMATION.

NORTH

30 15 0 30 60 90

GRAPHICAL SCALE: 1" = 30'

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DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
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DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
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NUMBER	DATE	DESCRIPTION

REVISIONS

SUR: GORDON
DES: B. CIPRIANO
DRW: P. MATHUR
CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

EXTERIOR PHOTOMETRIC PLAN – PARKING & STREET

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 30'
VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-LL101.DWG
NCS: PHOTOMETRIC PLAN – PARKING
NUMBER: C-163
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LEGEND

- PATH LIGHT POLE LOCATION, 14' MOUNTING HEIGHT TYP.
- WALL LIGHT LOCATION, 10' MOUNTING HEIGHT TYP.
- FOOT CANDLE READING (MEASURED AT 3' ABOVE GRADE)

FIXTURE TYPE SUMMARY

QTY	TYPE	PRODUCT NUMBER	LUMENS	WATTAGE
12	ARM	1710BLED-RD-IH6-NA-1L40TAL-MDLO5-NIL	3,520	20.7W
25	POLE	1720BLED-RD-IH6-R4-1L40TAL-MDLO7-NIL	4,814	45W

NOTES

1. FOOT CANDLE READINGS SHOWN HERE HAVE BEEN PROVIDED BY FEDERAL LIGHTING FOR THE PROPOSED PARKING LOT LIGHTING.
2. FOOT CANDLE READINGS SHOWN HEREON DO NOT ACCOUNT FOR EXISTING OR PROPOSED TREES, STRUCTURES, WALLS, TOPOGRAPHY, FENCING, LIGHTS ALONG ROADWAYS AND ADJACENT PROPERTIES
3. CENTER OF POLE LOCATIONS ARE SHOWN AS: AND CENTER OF WALL MOUNT LOCATIONS ARE SHOWN AS:
4. THE SEAL AND SIGNATURE ON THIS SHEET CERTIFIES THIS DRAWING FOR INFORMATION ONLY AND DOES NOT CERTIFY TO ENGINEERING HEREON.
5. REFER TO EXTERIOR LIGHTING SPECIFICATION 260530 FOR MORE INFORMATION ON POLE AND WALL MOUNTED LIGHTS.

NORTH

30 15 0 30 60 90

GRAPHICAL SCALE: 1" = 30'

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISION DATE

DATE RECORDED _____

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

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NUMBER	DATE	DESCRIPTION
REVISIONS		

SUR: GORDON
DES: B. CIPRIANO
DRW: P. MATHUR
CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

EXTERIOR PHOTOMETRIC PLAN – PATHWAYS

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 30'
VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-LL101.DWG
NCS: PHOTOMETRIC PLAN – PATHWAYS
NUMBER: C-164
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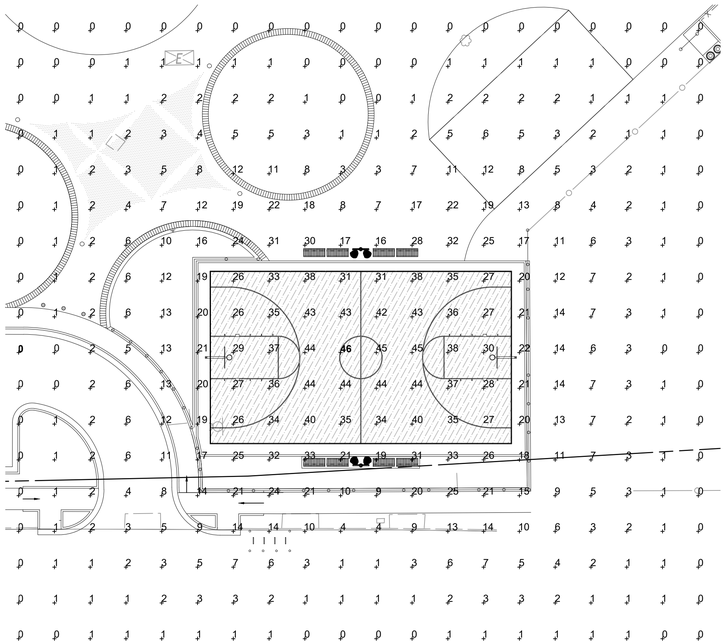
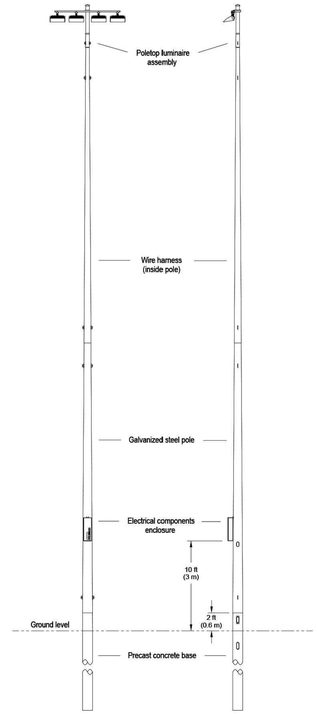


PHOTOMETRIC PLAN - BASKETBALL COURT

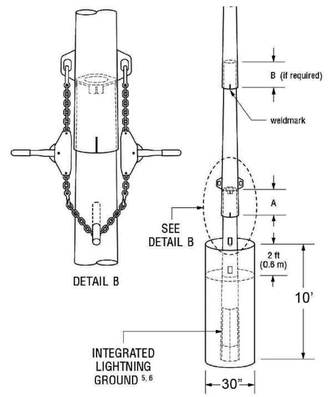
SCALE: 1" = 20'



POLE HEIGHT AND FIXTURE COUNT VARIES, SEE TABLES THIS SHEET

TYPICAL SPORTS LIGHT POLE

SCALE: N.T.S.



SPORTS LIGHTING POLE FOOTING AND ASSEMBLY

SCALE: N.T.S.

SPORTS LIGHTING LEGEND

- LIMITS OF athletic FIELD
- SPORTS LIGHT POLE LOCATION, FOUR (2) TOTAL, SEE PLAN FOR HEIGHT AT EACH LOCATION
- 3 FOOT CANDLE READING (MEASURED AT 3' ABOVE GRADE)

NOTES

1. FOOT CANDLE READINGS SHOWN HEREON HAVE BEEN PROVIDED BY MUSCO LIGHTING FOR THE PROPOSED LED SPORTS LIGHTING SYSTEM.
2. FOOT CANDLE READINGS SHOWN HEREON DO NOT ACCOUNT FOR EXISTING OR PROPOSED TREES, STRUCTURES, WALLS, TOPOGRAPHY, FENCING, LIGHTS ALONG ROADWAYS AND ADJACENT PROPERTIES.
3. CENTER OF POLE LOCATIONS ARE SHOWN AS:
4. THE SEAL AND SIGNATURE ON THIS SHEET CERTIFIES THIS DRAWING FOR INFORMATION ONLY AND DOES NOT CERTIFY TO ENGINEERING HEREON.
5. REFER TO SPORTS FIELD LIGHTING SPECIFICATION 265668 FOR MORE INFORMATION ON LIGHT POLES.

GRID SUMMARY

Size:	84' X 46'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

Scan Average:	8.6
Maximum:	46
Minimum:	0
Avg / Min:	4011.8
Max / Min:	21244.87
UG (adjacent pts):	185.7
CU:	1.00
No. of Points:	380

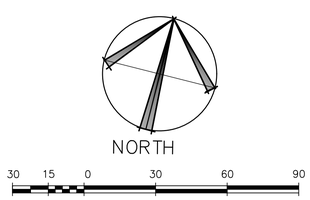
EQUIPMENT LIST

Pole				Luminaries		
QTY	LOCATION	POLE HEIGHT	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY/ POLE
2	BA1, BA2	40'	-	40'	TLC-LED-900	2
TOTALS						2

* This Structure utilizes a back to back mounting configuration.

FIXTURE TYPE SUMMARY

QTY	TYPE	LUMENS	WATTAGE	SOURCE
2	TLC-LED-900	89,600	890W	LED 5700K - 75 CRI



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DIRECTOR DATE
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SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

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SECURITY CONSULTING
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Phone: 703-263-1900
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REVISIONS

NUMBER	DATE	DESCRIPTION

SUR: GORDON
DES: B. CIPRIANO
DRW: P. MATHUR
CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

EXTERIOR PHOTOMETRIC PLAN – SPORT COURT

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 30' VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-LL101.DWG
NCS: PHOTOMETRIC PLAN – SPORT C
NUMBER: C-165
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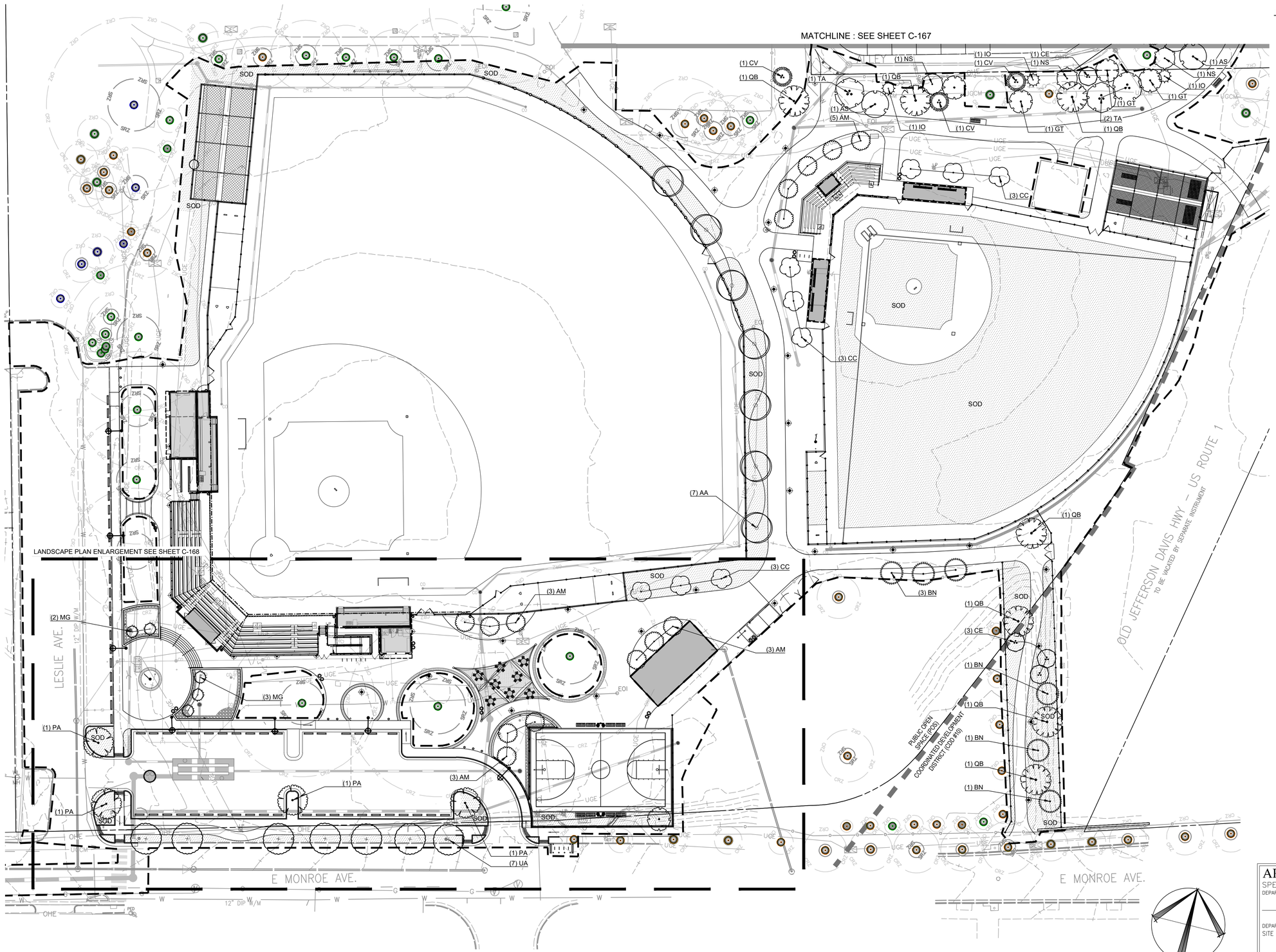

LEGEND

PROPOSED TREES

LIMITS OF WORK (LOW)

SOD

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DRW: P. MATHUR	CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
04-11-2023
LANDSCAPE ARCHITECT
SEAL:

LANDSCAPE PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: 1" = 30' VERT: N/A
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	3395-0301-L-LS101.DWG
NCS:	LANDSCAPE PLAN
NUMBER:	C-166

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MATCHLINE : SEE SHEET C-166

LEGEND

- PROPOSED TREES
- LIMITS OF WORK (LOW)
- SOD

PLANTING SCHEDULE

PLANT TYPE	PLAN INFORMATION		BOTANIC/COMMON NAME				SIZE	NOTES	CROWN COVER ALLOWANCE (CCA)		NATIVE PLANTS PROVIDED		
URBAN TREES	PLAN KEY	QUANTITY	GENUS	SPECIES	VAR./CULTIVAR/HYBRID	COMMON NAME	CALIPER/HEIGHT		CCA PER TREE (SF)	TOTAL CROWN COVER (SF)	LOCAL/ REGIONAL (#)	EASTERN U.S. (#)	TOTAL
	AM	9	Amelanchier	arborea		Downy Serviceberry	2" cal.	B&B	500	4,500	9		9
	PA	4	Platanus	x acerifolia		London Planetree	3" cal.	B&B	1,250	5,000	4	0	4
	UA	7	Ulmus	americana	Princeton'	American elm	3" cal.	B&B	N/A		7		7
	TOTALS	20							URBAN TREE CCA:	9,500	20	0	20
											100.0%	0.0%	100.0%
STANDARD TREES	PLAN KEY	QUANTITY	GENUS	SPECIES		COMMON NAME	CALIPER/HEIGHT		CCA PER TREE (SF)	TOTAL CROWN COVER (SF)	REGIONAL (#)	EASTERN U.S. (#)	TOTAL
	AA	7	Acer	rubrum	Armstrong'	Armstrong Red Maple	3" cal.	B&B	1,250	8,750	7		7
	AS	9	Acer	saccharum		Sugar Maple	3" cal.	B&B	1,250	11,250	9		9
	AM	5	Amelanchier	arborea		Downy Serviceberry	2" cal.	B&B	500	2,500	5		5
	BN	5	Betula	nigra		River Birch	3" cal.	B&B	750	3,750	5		5
	CC	9	Carpinus	caroliniana		American Hornbeam	2" cal.	B&B	500	4,500	9		9
	CE	4	Cercis	canadensis		Eastern Redbud	2" cal.	B&B	500	2,000	4		4
	CV	4	Chionanthus	virginicus		White Fringetree	2" cal.	B&B	500	2,000	4		4
	GT	10	Gleditsia	triacanthos		Honey Locust	3" cal.	B&B	750	7,500	10		10
	IO	4	Ilex	opaca		American Holly	2" cal.	B&B	250	1,000	4		4
	MG	5	Magnolia	virginiana		Sweetbay Magnolia	2" cal.	B&B	250	1,250	5		5
	NS	8	Nyssa	sylvatica		Black Gum	3" cal.	B&B	750	6,000	8		8
	QB	9	Quercus	bicolor		Swamp White Oak	3" cal.	B&B	1,250	11,250	9		9
	TA	11	Tilia	americana		American Linden	3" cal.	B&B	1,250	13,750	11		11
	TOTALS	90							STANDARD TREE CCA:	75,500	90	0	90
											100.0%	0.0%	100.0%

TRANSPLANTED TREES	PLAN KEY	QUANTITY	GENUS	SPECIES	COMMON NAME	CALIPER/HEIGHT
	TAG	2	Acer	griseum	Transplanted Paperbark Maple	2" cal.

CROWN COVER TABULATIONS	
TOTAL SITE DISTURBANCE AREA (SF)	336,198
25% CROWN COVER REQUIRED (SF)	84,050
EXISTING CROWN COVER (SF)	44,433
REMOVED CROWN COVER (SF)	44,433
PRESERVED CROWN COVER (SF)	
Crown Cover from Preserved Trees	0
Crown Cover from Preserved Shrubs	N/A
PROPOSED CROWN COVER (SF)	
Crown Cover from Proposed Trees	85,000
Crown Cover from Proposed Shrubs	N/A
TOTAL CROWN COVER PROVIDED (%)	25.3%
TOTAL CROWN COVER PROVIDED (SF)	85,000

NORTH

30 15 0 30 60 90

GRAPHICAL SCALE: 1" = 30'

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COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
04-11-2023
LANDSCAPE ARCHITECT
SEAL:

LANDSCAPE PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1" = 30' VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-LS101.DWG
NCS: LS102
NUMBER: C-167

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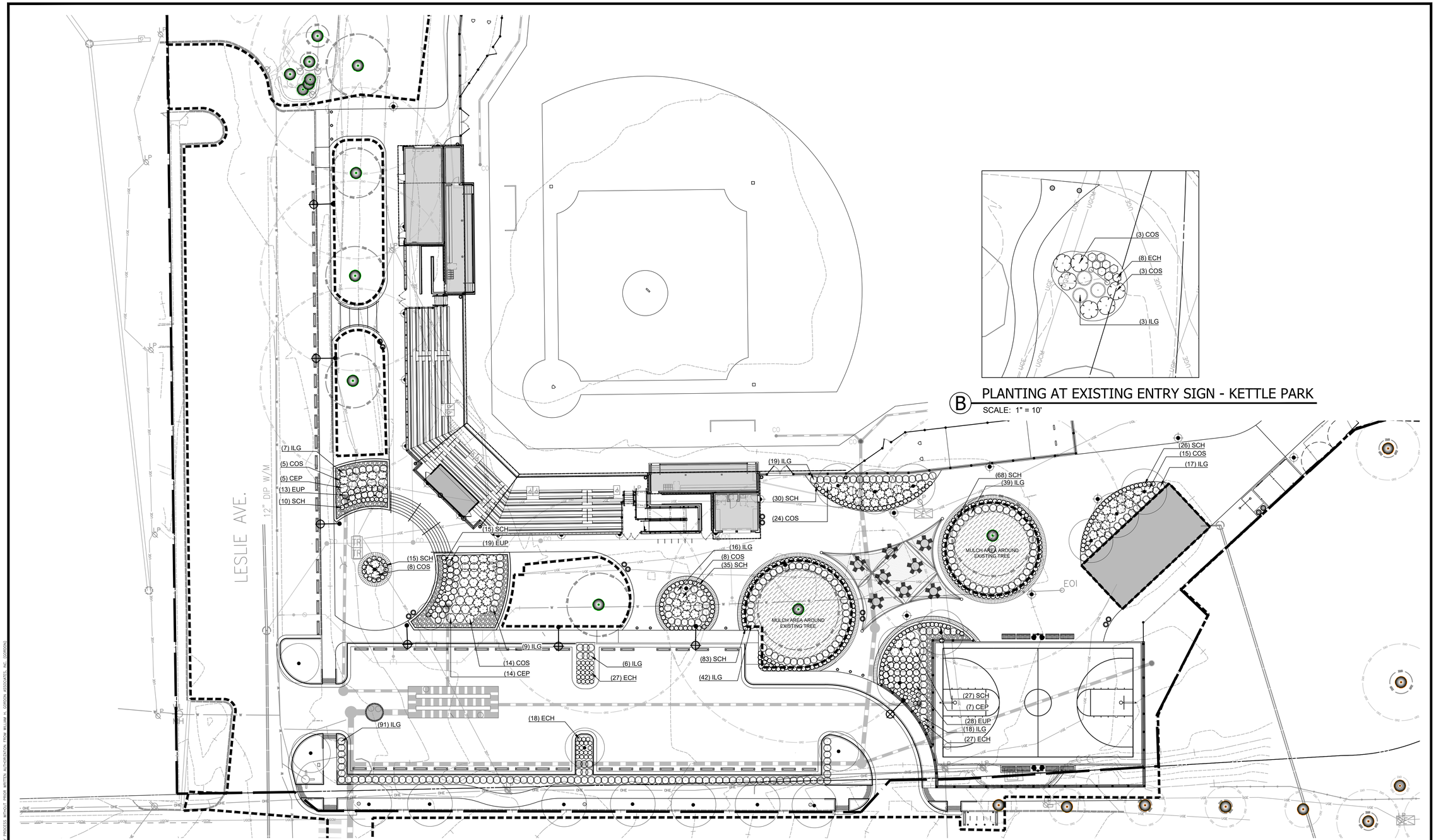

A PLANTING PLAN ENLARGEMENT

SCALE: 1" = 20'

B PLANTING AT EXISTING ENTRY SIGN - KETTLE PARK

SCALE: 1" = 10'

PLANTING SCHEDULE

PLANT TYPE	PLAN INFORMATION		BOTANIC/COMMON NAME				SIZE	NOTES
EVERGREEN SHRUBS	PLAN KEY	QUANTITY	GENUS	SPECIES	VAR./CULTIVAR/HYBRID	COMMON NAME	HEIGHT	
	ILG	267	Ilex	glabra	Shamrock'	Shamrock Inkberry Holly	30" ht.	
DECIDUOUS SHRUBS	PLAN KEY	QUANTITY	GENUS	SPECIES	VAR./CULTIVAR/HYBRID	COMMON NAME	HEIGHT	
	CEP	26	Cephalanthus	occidentalis	SMCOSS'	Sugar Shack Buttonbush	24" ht.	
	COS	73	Cornus	sericea	Farrow'	Arctic Fire Red-Twig Dogwood	30" ht.	
PERENNIALS, FERNS, ORNAMENTAL GRASSES	PLAN KEY	QUANTITY	GENUS	SPECIES	VAR./CULTIVAR/HYBRID	COMMON NAME	SIZE/CONT.	
	ECH	74	Echinachea	purpurea	PowWow White'	PowWow White Coneflower	1 gal.	
	EUP	61	Eupatorium	purpureum	Baby Joe'	Dwarf Joe Pye Weed	1 gal.	
	SCH	296	Schizachyrium	scoparium	Standing Ovation'	Standing Ovation Little Bluestem	1 gal.	

NORTH

20 10 0 20 40 60

GRAPHICAL SCALE: 1" = 20'

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COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT

SEAL:

LANDSCAPE PLAN ENLARGEMENT

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION

City of Alexandria, Virginia

SCALE: HORIZ: AS SHOWN VERT: N/A

DATE: MARCH 2023

PLAN:

JOB: 3395-0301

CADD: 3395-0301-L-LS101.DWG

NCS: LANDSCAPE PLAN ENLARGEMENT

NUMBER: C-168

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PLANTING NOTES

1. THE AREA SURROUNDING ALL TREES, SHRUBS, AND GROUNDCOVERS SHALL BE TOPPED WITH THREE INCHES OF SHREDDED HARDWOOD BARK MULCH.

2. NO CHANGES SHALL BE PERMITTED TO THE PLANT SCHEDULE UNLESS APPROVED BY LANDSCAPE ARCHITECT.

3. ALL MATERIALS' SPECIFICATIONS SHALL BE IN ACCORDANCE WITH THE INDUSTRY STANDARD FOR GRADING PLANT MATERIAL - THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1). PLANT MATERIALS SHALL BE OF STANDARD QUALITY OR BETTER, TRUE TO NAME AND TYPE OF THEIR SPECIES OR VARIETY. PLANT MATERIAL BELOW THIS STANDARD SHALL NOT BE CONSIDERED.
   A. ALL PLANTS MUST CONFORM TO REQUIREMENTS PER PLANT SCHEDULE;
   B. ALL PLANTS MUST BE NURSERY GROWN STOCK:
   C. ALL TREES MUST BE WELL BRANCHED, FULL CROWN.

4. AT LEAST 5 DAYS BEFORE TREE PLANTING, CONTRACTOR SHALL STAKE LOCATIONS OF ALL TREES AND NOTIFY LANDSCAPE ARCHITECT THAT PLANT LOCATIONS ARE AVAILABLE FOR INSPECTION.

5. ALL STAKING MATERIALS SHALL BE REMOVED AT THE END OF THE ESTABLISHMENT PERIOD (2 FULL GROWING SEASONS).

6. THE CONTRACTOR SHALL VERIFY THE PLANT SCHEDULE WITH THE SYMBOLS DRAWN ON THE PLAN AND CONTACT THE LANDSCAPE ARCHITECT AT GORDON IF A DISCREPANCY EXISTS. UNLESS DIRECTED OTHERWISE BY THE LANDSCAPE ARCHITECT, THE CONTRACTOR SHALL COMPLY WITH THE QUANTITIES AND LOCATIONS AS DRAWN ON THE LANDSCAPE PLAN.

7. THE CONTRACTOR SHALL COMPLY WITH THE LANDSCAPE SPECIFICATION GUIDELINES ADOPTED BY THE LANDSCAPE CONTRACTORS ASSOCIATION FOR PLANTING BED PREPARATION AND SOIL MIX GUIDELINES AND PROCEDURES.

8. THE CONTRACTOR IS RESPONSIBLE FOR EVALUATING INDIVIDUAL TREES FOR STABILITY AT THE TIME OF PLANTING. BASED ON THIS EVALUATION, TREES SHALL BE STAKED AND GUYED AS NECESSARY TO ENSURE THAT THEY REMAIN IN AN UPRIGHT POSITION. STAKES AND GUY WIRES ARE TO BE REMOVED BY CONTRACTOR AFTER ONE GROWING SEASON.

9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY FIELD CONDITIONS PRIOR TO CONSTRUCTION AND TO NOTIFY THE PROJECT OFFICER IF THE FIELD CONDITIONS ARE NOT IN CONFORMANCE WITH THE APPROVED PLANS.

10. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISH GRADE AS TO ORIGINAL GRADES BEFORE DIGGING.

11. ALL PLANTS TO BE BALLED IN BURLAP OR CONTAINERIZED.

12. CONTRACTOR SHALL BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING AND WILL CONTINUE UNTIL OWNER ACCEPTS PROJECT.

13. MAINTENANCE OF ALL TREES AND LANDSCAPE MATERIALS SHALL CONFORM TO ACCEPTED INDUSTRY STANDARDS SET FORTH BY THE LANDSCAPE CONTRACTORS ASSOCIATION, AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS, THE INTERNATIONAL SOCIETY OF ARBORICULTURE, AND THE AMERICAN NATIONAL STANDARDS INSTITUTE.

14. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR ONE (1) FULL YEAR FROM DATE OF ACCEPTANCE.

15. LANDSCAPE ARCHITECT SHALL INSPECT ALL PLANT MATERIAL PRIOR TO INSTALLATION.

16. PLANTS SPECIES HAVE BEEN CHOSEN FOR THEIR SURVIVAL BASED ON THE EXISTING SOIL TYPE AND SITE CONDITIONS. ALL SUBSTITUTIONS SHALL REQUIRE APPROVAL FROM LANDSCAPE ARCHITECT.

17. WATER ALL PLANTS THOROUGHLY TWICE WITHIN THE FIRST 48 HOURS OF LANDSCAPE INSTALLATION.

18. PLANTS SHALL BE FURNISHED AND INSTALLED AS INDICATED, INCLUDING ALL PLANTS, MATERIALS, AND EQUIPMENT.

19. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS, WELL-DEVELOPED DENSELY FOLIATED BRANCHES, AND VIGOROUS ROOT SYSTEMS; AND BE FREE FROM DEFECTS AND INJURIES.

20. PLANTS SHALL BE PLANTED ON THE DAY OF DELIVERY IF/WHEN PRACTICAL. IN THE EVENT THAT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE-DAY PERIOD AFTER DELIVERY. ANY PLANTS NOT INSTALLED DURING THIS PERIOD SHALL BE REJECTED, UNLESS OWNER AND CONTRACTOR PROVIDE OTHERWISE BY WRITTEN AGREEMENT. ALL PLANTS KEPT ON SITE FOR ANY PERIOD OF TIME SHOULD BE WATERED AND CARED FOR USING ANSI A300 STANDARDS.

21. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE ROOT BALL ONLY.

22. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOP SOIL THAT IS IN MUDDY OR FROZEN CONDITION. LAWNS, TREES AND SHRUBS SHALL BE INSTALLED BETWEEN 03/15 AND 06/15 OR BETWEEN 09/15 AND 12/01. IF A PROJECT COMPLETION IS OUTSIDE OF THIS PLANTING PERIOD, CONTACT THE ARLINGTON COUNTY URBAN FORESTER TO OBTAIN A DEFERRAL OR APPROVAL FOR PLANTING OUT OF SEASON.

23. NO PLANT, EXCEPT GROUNDCOVERS, SHALL BE PLANTED WITHIN TWO FEET OF A SIDEWALK.

24. TREES AND SHRUBS SHALL BE PLANTED IN HOLES TWO TO THREE TIMES AS WIDE AND TO THE DEPTH OF THE ROOT BALL.

25. PLANTS SHALL BE PLANTED IN IN SITU SOIL THAT IS THOROUGHLY WATERED.

26. SET ALL PLANTS PLUMB AND STRAIGHT SET AT SUCH LEVEL THAT NORMAL OR NATURAL RELATIONSHIP BETWEEN THE PLANT AND THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE THE PLANT IN THE CENTER OF THE PIT.

27. ALL DISTURBED AREAS NOT DESIGNATED FOR PLANTING SHALL BE TREATED WITH 6" TOP SOIL OR COMPOST AND SODDED .

28. ALL PLANT BEDLINES SHALL BE 4 INCH SPADED EDGES.

29. FOR PLANTING AREAS THAT HAVE BEEN PREVIOUSLY COMPACTED FROM CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL TILL AND AMEND THE SOIL AS NEEDED BASED ON SOIL SAMPLES TO A DEPTH OF 18 INCHES (PLANT BEDS) AND 2- 4 INCHES (LAWN) OVER THE ENTIRE AREA PRIOR TO INSTALLATION OF NEW LANDSCAPE MATERIAL.

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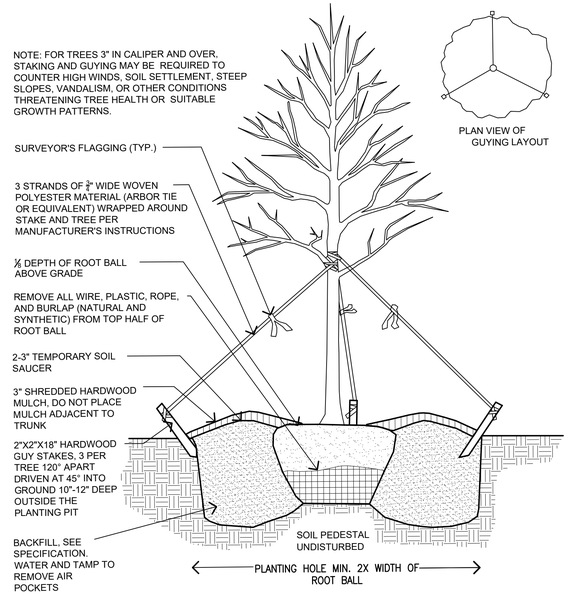
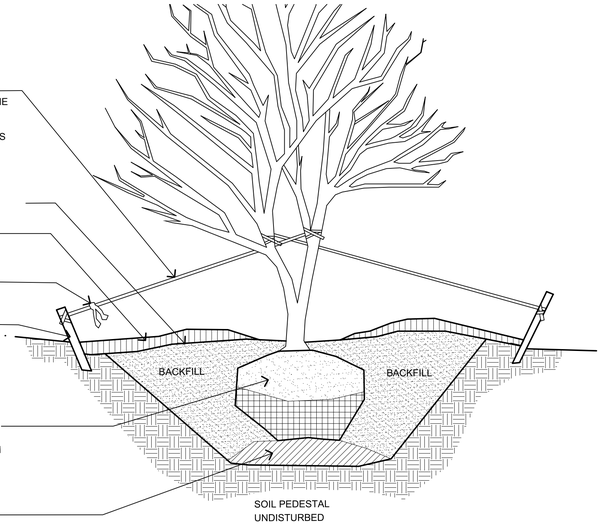


A DECIDUOUS PLANTING DETAIL (STANDARD)

SCALE: NTS



B MULTI-STEM PLANTING DETAIL (STANDARD)

SCALE: NTS

NOTES
1. AT PLANTING PRUNE ONLY BROKEN OR DEAD BRANCHES PER ANSI 300 STANDARD.

2. PLANTING PIT/TRENCH SHALL BE DUG DEEP ENOUGH TO ALLOW AT LEAST 1/8TH OF ROOT BALL
TO SET ABOVE EXISTING GRADE.

3. SET PLANTS IN ERECT, STABLE, AND UNIFORM POSITIONS. ORIENT BEST FACE OF PLANT TO BE THE MOST VISIBLE.

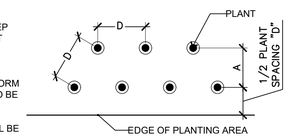
4. GROUND COVERS AND PERENNIALS SHALL BE INSTALLED WITH TRIANGULAR SPACING. REFER TO CHART.

5. UNLESS OTHERWISE DIRECTED BY PROJECT SPECIFICATIONS OR COUNTY URBAN FORESTER, BACKFILL SOIL MIXTURE WILL BE 3/4 EXISTING SOIL CLEANED OF DEBRIS (GRAVEL, ROCKS, STICKS, TRASH, ETC.) AND MIXED WITH 1/4 ORGANIC MATERIAL (COMPOSTED BARK, LEAF MOLD, OR OTHER PLANT DEBRIS PROCESSED TO A POINT OF DECAY AND APPROVED BY THE COUNTY URBAN FORESTER; PEAT MOSS SHALL NOT BE USED).

6. CONTRACTOR SHALL REMOVE EXCESS SOIL & DEBRIS FROM SITE.

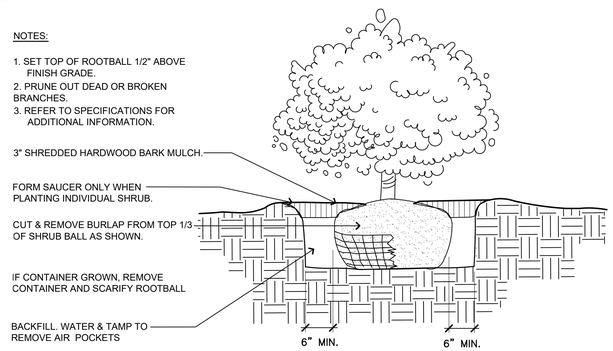
7. DO NOT PLACE MULCH IN CONTACT WITH STEM OF PLANTS.

ALL PLANTS MUST BE WATERED TWICE: ONCE AT INSTALLATION AND AGAIN WITHIN 48-HOURS OF INSTALLATION, PER THE SPECIFICATIONS.



PLANT SPACING "D" O.C.	ROW "A" O.C.	PLANTS PER S.F.
6"	5"	4.00
8"	7"	2.25
9"	8"	1.77
12"	10"	1.00
15"	13"	0.77
18"	16"	0.44

TRIANGULAR SPACING PLAN & CHART
NOT TO SCALE

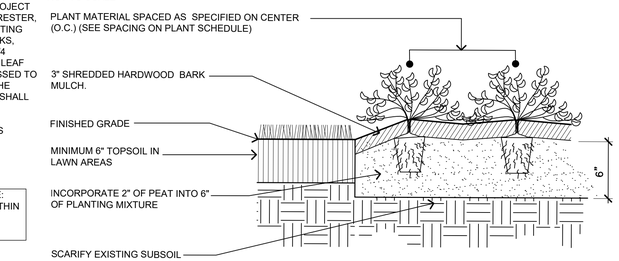


NOTES:

1. SET TOP OF ROOTBALL 1/2" ABOVE FINISH GRADE.
2. PRUNE OUT DEAD OR BROKEN BRANCHES.
3. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

C SHRUB PLANTING DETAIL

SCALE: NTS



D PERENNIAL/GROUNDCOVER PLANTING DETAIL

SCALE: NTS

NOTES
1. AT PLANTING PRUNE ONLY BROKEN OR DEAD BRANCHES PER ANSI 300 STANDARD.

2. PLANTING PIT/TRENCH SHALL BE DUG DEEP ENOUGH TO ALLOW AT LEAST 1/8TH OF ROOT BALL TO SET ABOVE EXISTING GRADE.

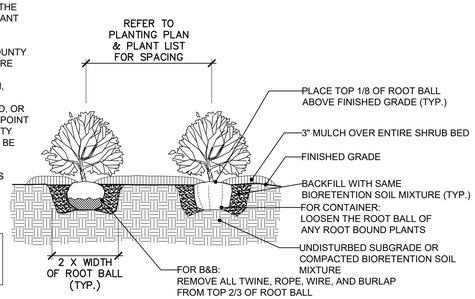
3. SET PLANTS IN ERECT, STABLE, AND UNIFORM POSITIONS IN THE CENTER OF THE PLANTING PIT. ORIENT BEST FACE OF PLANT TO BE THE MOST VISIBLE.

4. UNLESS OTHERWISE DIRECTED BY COUNTY URBAN FORESTER, BACKFILL SOIL MIXTURE WILL BE 3/4 EXISTING SOIL CLEANED OF DEBRIS (GRAVEL, ROCKS, STICKS, TRASH, ETC.) AND MIXED WITH 1/4 ORGANIC MATERIAL(COMPOSTED BARK, LEAF MOLD, OR OTHER PLANT DEBRIS PROCESSED TO A POINT OF DECAY AND APPROVED BY THE COUNTY URBAN FORESTER. PEAT MOSS MAY NOT BE USED).

5. CONTRACTOR SHALL REMOVE EXCESS SOIL & DEBRIS FROM SITE.

6. DO NOT PLACE MULCH IN CONTACT WITH STEM OF SHRUBS

ALL PLANTS MUST BE WATERED TWICE: ONCE AT INSTALLATION AND AGAIN WITHIN 48-HOURS OF INSTALLATION, PER THE SPECIFICATIONS.



E BIORETENTION SHRUB PLANTING DETAIL

SCALE: NTS

NOTES
1. AT PLANTING PRUNE ONLY BROKEN OR DEAD BRANCHES PER ANSI 300 STANDARD.

2. PLANTING PIT/TRENCH SHALL BE DUG DEEP ENOUGH TO ALLOW AT LEAST 1/8TH OF ROOT BALL
TO SET ABOVE EXISTING GRADE.

3. SET PLANTS IN ERECT, STABLE, AND UNIFORM POSITIONS. ORIENT BEST FACE OF PLANT TO BE THE MOST VISIBLE.

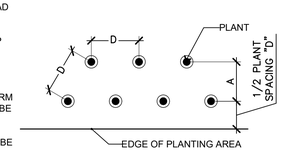
4. GROUND COVERS AND PERENNIALS SHALL BE INSTALLED WITH TRIANGULAR SPACING. REFER TO CHART.

5. UNLESS OTHERWISE DIRECTED BY PROJECT SPECIFICATIONS OR COUNTY URBAN FORESTER, BACKFILL SOIL MIXTURE WILL BE 3/4 EXISTING SOIL CLEANED OF DEBRIS (GRAVEL, ROCKS, STICKS, TRASH, ETC.) AND MIXED WITH 1/4 ORGANIC MATERIAL (COMPOSTED BARK, LEAF MOLD, OR OTHER PLANT DEBRIS PROCESSED TO A POINT OF DECAY AND APPROVED BY THE COUNTY URBAN FORESTER; PEAT MOSS SHALL NOT BE USED).

6. CONTRACTOR SHALL REMOVE EXCESS SOIL & DEBRIS FROM SITE.

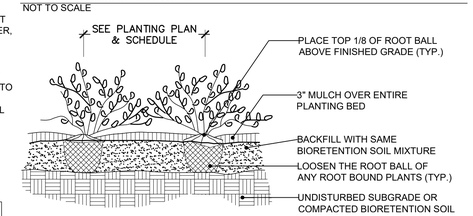
7. DO NOT PLACE MULCH IN CONTACT WITH STEM OF PLANTS.

ALL PLANTS MUST BE WATERED TWICE: ONCE AT INSTALLATION AND AGAIN WITHIN 48-HOURS OF INSTALLATION, PER THE SPECIFICATIONS.



PLANT SPACING "D" O.C.	ROW "A" O.C.	PLANTS PER S.F.
6"	5"	4.00
8"	7"	2.25
9"	8"	1.77
12"	10"	1.00
15"	13"	0.77
18"	16"	0.44

TRIANGULAR SPACING PLAN & CHART
NOT TO SCALE



F BIORETENTION PERENNIAL/GROUNDCOVER PLANTING DETAIL

SCALE: NTS

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISION DATE

DATE RECORDED _____

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

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REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: B. CIPRIANO
DRW: P. MATHUR	CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

PLANTING NOTES AND DETAILS

EUGENE SIMPSON STADIUM PARK

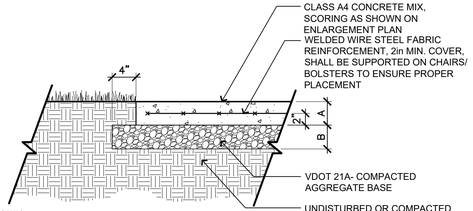
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: VERT:
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	3395-0301_L-LS501.DWG
NCS:	PLANTING NOTES AND DETAILS
NUMBER:	C-169

Gordon

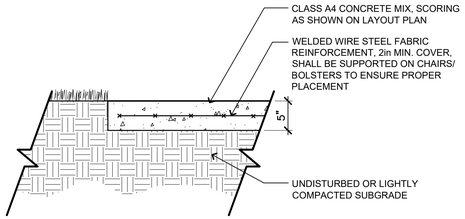
		'A'	'B'	W.W.F
HEAVY DUTY	DRIVEWAY/ WALKWAY AT TRACK	6in	8in	6"x6" W 4/4
LIGHT DUTY	PLAZA/BLEACHER AREAS/BATTING CAGE/BULLPEN/SIDEWALKS	4in*	4in	6"X6" W2.9/2.9
SPECIALTY	RAMPS	5in	4in	6"X6" W2.1/2.1

*BATTING CAGE SHALL BE 4" WITH 5" THICK BANDS ON OUTSIDE PERIMETER



NOTES:
1. PROVIDE HAND TOOLED CONTROL JOINTS AS SHOWN ON THE SITE PLANS. CONTROL (SCORE) JOINTS SHALL BE CUT 1/3 DEPTH OF TOTAL CONCRETE THICKNESS.
2. REFER TO LAYOUT AND MATERIALS PLAN AND CONSTRUCTION DETAILS FOR LOCATIONS OF EXPANSION JOINTS. EXPANSION JOINTS TO BE FILLED WITH EXPANDABLE JOINT SEALANT.
3. REFER TO CONCRETE PAVEMENT SPECIFICATION 321313 FOR ALL MATERIALS NEEDED FOR CONSTRUCTION OF PAVEMENT
4. ALL EXPANSION JOINTS TO BE DOWELED TO PREVENT FUTURE DIFFERENTIAL SETTLEMENT.
5. FINISH IN ACCORDANCE WITH VDOT 404.07, LIGHT BROOM SIDEWALK FINISH.

A CONCRETE PAVEMENT
SCALE: 1" = 1'-0"



NOTES:
1. PROVIDE HAND TOOLED CONTROL JOINTS AS SHOWN ON THE SITE PLANS. CONTROL (SCORE) JOINTS SHALL BE CUT 1/3 DEPTH OF TOTAL CONCRETE THICKNESS.
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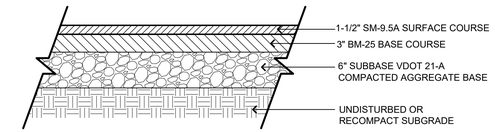
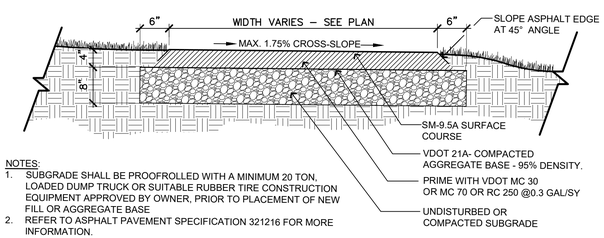
4. ALL EXPANSION JOINTS TO BE DOWELED TO PREVENT FUTURE DIFFERENTIAL SETTLEMENT.
5. FINISH IN ACCORDANCE WITH VDOT 404.07, LIGHT BROOM SIDEWALK FINISH.

B PLAZA CONCRETE PAVEMENT
SCALE: 1" = 1'-0"



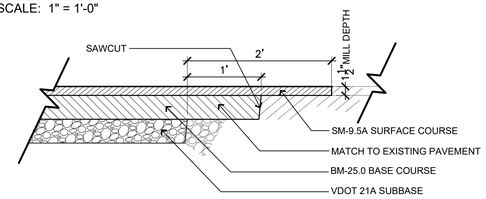
NOTES:
1. SAW CUT EXISTING PAVEMENT. BOTTOM AND ALL SIDES OF CUT TO BE PRIMED WITH ASPHALT PRIOR TO PLACING ASPHALT MIX.
2. REFER TO ASPHALT PAVEMENT SPECIFICATION 321216 FOR MORE INFORMATION.
3. METHODS AND MATERIALS SHALL CONFORM TO VDOT STANDARDS.

C ASPHALT PARKING LOT PAVEMENT
SCALE: 1" = 1'-0"



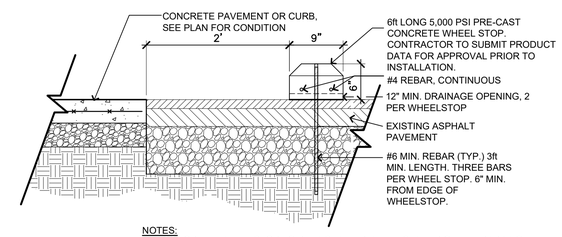
NOTES:
1. SUBGRADE SHALL BE PROOFROLLED WITH A MINIMUM 20 TON, LOADED DUMP TRUCK OR SUITABLE RUBBER TIRE CONSTRUCTION EQUIPMENT APPROVED BY OWNER, PRIOR TO PLACEMENT OF NEW FILL OR AGGREGATE BASE
2. REFER TO ASPHALT PAVEMENT SPECIFICATION 321216 FOR MORE INFORMATION.

D ASPHALT PATHWAY
SCALE: 3/4" = 1'-0"



NOTES:
1. SAW CUT EXISTING PAVEMENT. BOTTOM AND ALL SIDES OF CUT TO BE PRIMED WITH ASPHALT PRIOR TO PLACING ASPHALT MIX.
2. REFER TO ASPHALT PAVEMENT SPECIFICATION 321216 FOR MORE INFORMATION.
3. ASPHALT PAVEMENT WIDENING SHALL HAVE A PAVEMENT DESIGN IN ACCORDANCE WITH CURRENT VDOT PROCEDURES AND BE APPROVED BY THE ENGINEER.
4. THE PAVEMENT DESIGN FOR ASPHALT PAVEMENT WIDENING SHALL MEET OR EXCEED THE DEPTHS AND TYPES OF THE LAYERS OF EXISTING PAVEMENT. SUBSURFACE DRAINAGE OF THE EXISTING AND PROPOSED PAVEMENT SHALL BE ADDRESSED IN THE PAVEMENT DESIGN.
5. A MINIMUM OF THREE CORES SHALL BE TAKEN ALONG THE CENTER OF THE ADJACENT TRAVEL LAND TO DETERMINE THE TYPE AND THICKNESS O EXISTING PAVEMENT LAYERS. THESE CORES SHALL BE SPACED NO MORE THAN 500 FEET APART.
6. THE ADJACENT TRAVEL LANE SHALL BE MILLED A MINIMUM DEPTH OF 1 1/2 INCHES AND REPLACED WITH AN ASPHALT SURFACE COURSE TO MATCH THE PROPOSED PAVEMENT WIDENING SURFACE COURSE, UNLESS WAIVED BY THE ENGINEER.
7. THE ENGINEER MAY REQUIRE THE MILLING DEPTH OF THE EXISTING PAVEMENT TO BE ADJUSTED TO ACHIEVE AN ACCEPTABLE PAVEMENT CROSS-SLOPE AND EFFECTIVE SURFACE DRAINAGE.
8. EXISTING PAVEMENT MARKINGS AND MARKERS WITHIN THE PROJECT LIMITS SHALL BE RESTORED SUBJECT TO THE APPROVAL OF THE ENGINEER.
9. FINAL TRANSVERSE PAVEMENT TIE-IN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 315 OF THE SPECIFICATIONS EXCEPT THAT ALL JOINTS AT THE TIE-IN LOCATIONS SHALL BE TESTED USING A 10 FOOT STRAIGHTEDGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 315 OF THE SPECIFICATIONS.

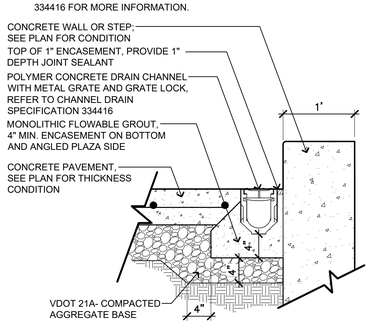
E ASPHALT WEDGE
SCALE: 1" = 1'-0"



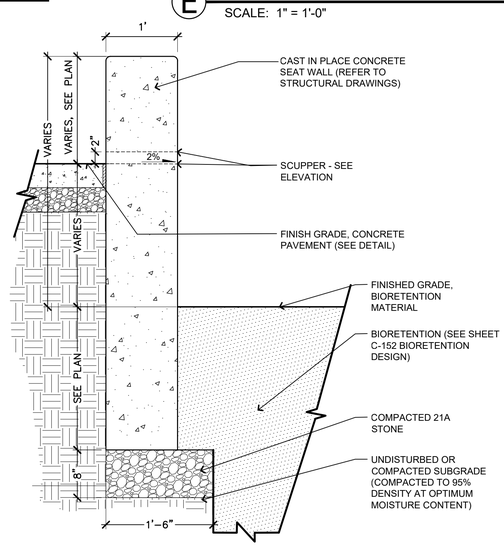
NOTES:
1. CONCRETE WHEEL STOP TO BE INSTALLED IN THE CENTER OF THE PARKING STALL.
2. CONTRACTOR TO PAINT WHEEL STOP BLUE USING ACRYLIC PAINT AS REFERENCED IN SPECIFICATION 099113.

F PRECAST CONCRETE WHEELSTOP
SCALE: 1" = 1'-0"

NOTE:
1. REFER TO CHANNEL DRAIN SPECIFICATION 334416 FOR MORE INFORMATION.



G CHANNEL DRAIN
SCALE: 3/4" = 1'-0"



H SEAT WALL SCUPPER
SCALE: 1" = 1'-0"

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NUMBER	DATE	DESCRIPTION
REVISIONS		

SUR: GORDON
DES: B. CIPRIANO
DRW: P. MATHUR
CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

CONSTRUCTION DETAILS – 1

EUGENE SIMPSON STADIUM PARK
BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-DT502.DWG
NCS: 1
NUMBER: C-500
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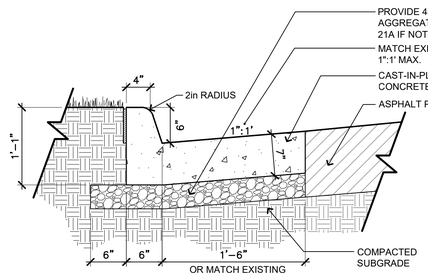
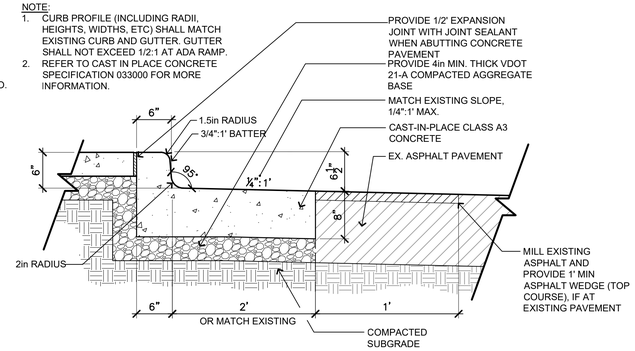


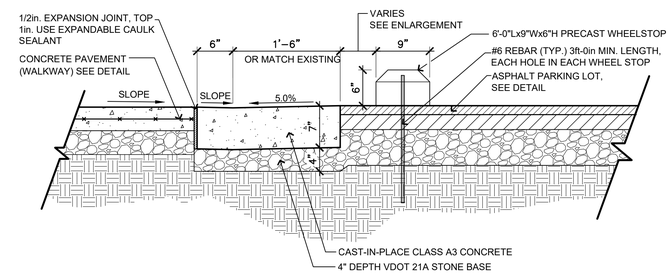
NOTE:
1. CURB PROFILE (INCLUDING RADII, HEIGHTS, WIDTHS, ETC) SHALL MATCH EXISTING CURB AND GUTTER. GUTTER SHALL NOT EXCEED 1/2:1 AT ADA RAMP.
2. REFER TO CAST IN PLACE CONCRETE SPECIFICATION 033000 FOR MORE INFORMATION.



A CONCRETE CURB AND GUTTER (REVERSE)

SCALE: 1"=1'-0"

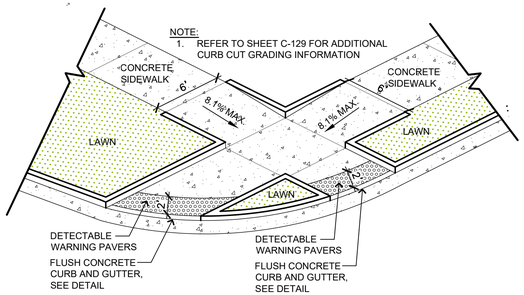
NOTE:
1. CONCRETE WHEEL STOP TO BE INSTALLED IN THE CENTER OF THE HANDICAP PARKING STALL; SEE PLAN



B FLUSH CONCRETE CURB

SCALE: 1"=1'-0"

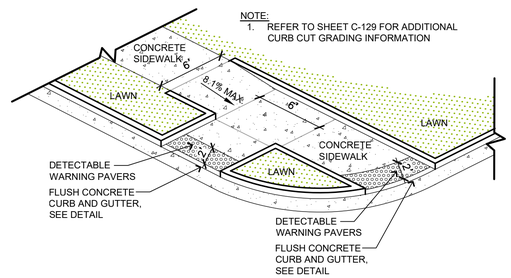
NOTE:
1. REFER TO SHEET C-129 FOR ADDITIONAL CURB CUT GRADING INFORMATION



C CURB CUT A

SCALE: NTS

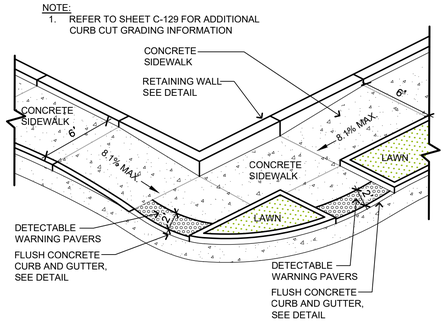
NOTE:
1. REFER TO SHEET C-129 FOR ADDITIONAL CURB CUT GRADING INFORMATION



D CURB CUT B

SCALE: NTS

NOTE:
1. REFER TO SHEET C-129 FOR ADDITIONAL CURB CUT GRADING INFORMATION



E CURB CUT C

SCALE: NTS

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NUMBER	DATE	DESCRIPTION	

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DRW: P. MATHUR	CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

CONSTRUCTION DETAILS – 2

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-DT502.DWG
NCS: 2
NUMBER: C-501

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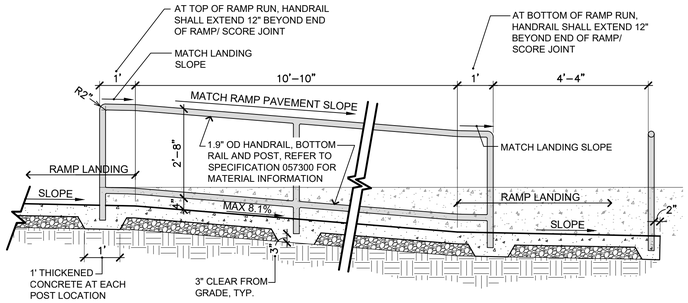
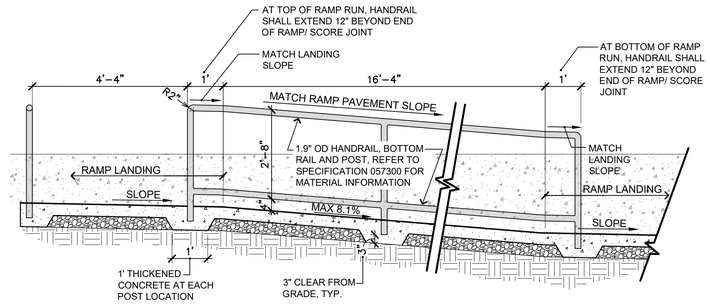
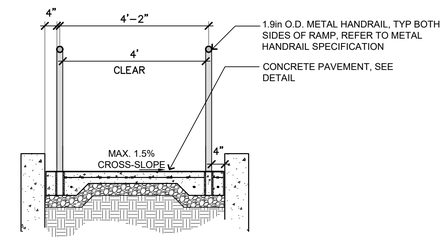
NOTES:
1. SEE GRADING PLAN FOR ACTUAL DESIGN SLOPES AND SPOT GRADES.
2. POSTS SHALL BE LOCATED ON SCORE JOINTS AND BE EQUALLY SPACED, SEE PLAN.
3. REFER TO METAL HANDRAIL SPECIFICATION 057300 FOR HANDRAIL MATERIAL AND FINISH.
4. CONTRACTOR TO SUBMIT SHOP DRAWING FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
5. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAIL.



A ADA RAMP - 1 (LENGTH SECTION)

SCALE: 1/2" = 1'-0"

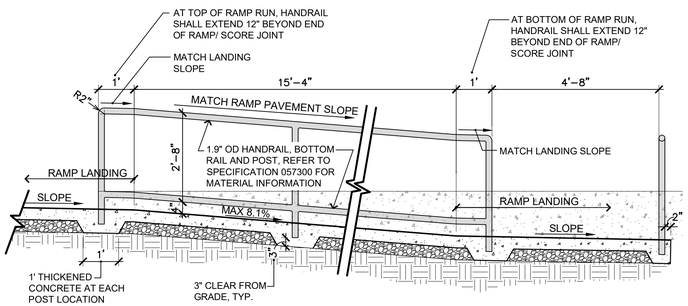


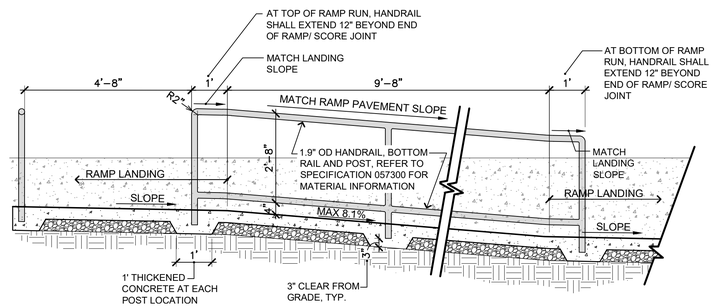


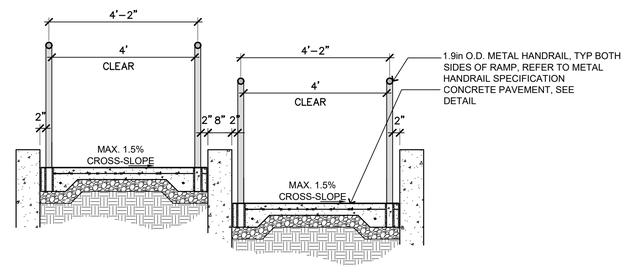
B ADA RAMP - 1 (WIDTH SECTION)

SCALE: 1/2" = 1'-0"

NOTES:
1. SEE GRADING PLAN FOR ACTUAL DESIGN SLOPES AND SPOT GRADES.
2. POSTS SHALL BE LOCATED ON SCORE JOINTS AND BE EQUALLY SPACED, SEE PLAN.
3. REFER TO METAL HANDRAIL SPECIFICATION 057300 FOR HANDRAIL MATERIAL AND FINISH.
4. CONTRACTOR TO SUBMIT SHOP DRAWING FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
5. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAIL.







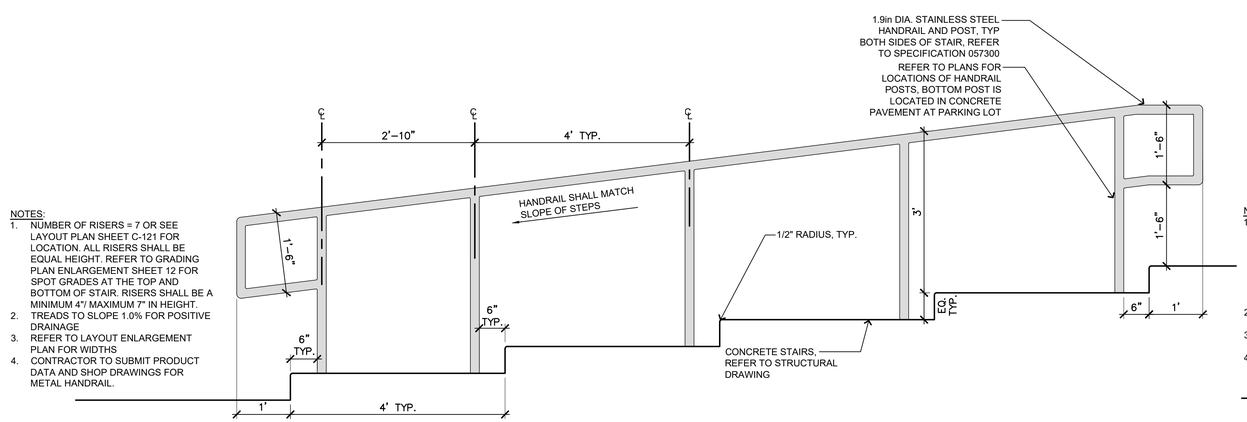
C ADA RAMP - 2 (LENGTH SECTION)

SCALE: 1/2" = 1'-0"

D ADA RAMP - 2 (WIDTH SECTION)

SCALE: 1/2" = 1'-0"

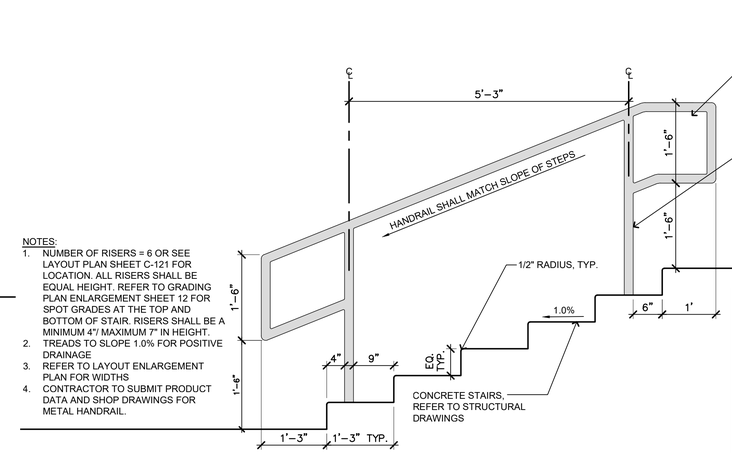
NOTES:
1. NUMBER OF RISERS = 7 OR SEE LAYOUT PLAN SHEET C-121 FOR LOCATION. ALL RISERS SHALL BE EQUAL HEIGHT. REFER TO GRADING PLAN ENLARGEMENT SHEET 12 FOR SPOT GRADES AT THE TOP AND BOTTOM OF STAIR. RISERS SHALL BE A MINIMUM 4"/ MAXIMUM 7" IN HEIGHT.
2. TREADS TO SLOPE 1.0% FOR POSITIVE DRAINAGE
3. REFER TO LAYOUT ENLARGEMENT PLAN FOR WIDTHS
4. CONTRACTOR TO SUBMIT PRODUCT DATA AND SHOP DRAWINGS FOR METAL HANDRAIL.



E CONCRETE STAIRS WITH METAL HANDRAIL AT PARKING LOT (SECTION)

SCALE: 3/4" = 1'-0"

NOTES:
1. NUMBER OF RISERS = 6 OR SEE LAYOUT PLAN SHEET C-121 FOR LOCATION. ALL RISERS SHALL BE EQUAL HEIGHT. REFER TO GRADING PLAN ENLARGEMENT SHEET 12 FOR SPOT GRADES AT THE TOP AND BOTTOM OF STAIR. RISERS SHALL BE A MINIMUM 4"/ MAXIMUM 7" IN HEIGHT.
2. TREADS TO SLOPE 1.0% FOR POSITIVE DRAINAGE
3. REFER TO LAYOUT ENLARGEMENT PLAN FOR WIDTHS
4. CONTRACTOR TO SUBMIT PRODUCT DATA AND SHOP DRAWINGS FOR METAL HANDRAIL.



F METAL HANDRAIL AT ENTRY PLAZA (SECTION)

SCALE: 3/4" = 1'-0"

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Phone: 703-263-1900
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REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: B. CIPRIANO
DRW: P. MATHUR	CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

CONSTRUCTION DETAILS – 3

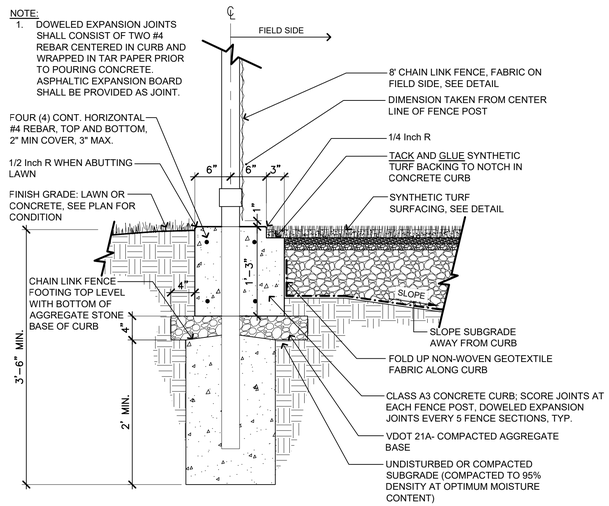
EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: N/A VERT: N/A
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	3395-0301-L-DT502.DWG
NCS:	3
NUMBER:	C-502

Gordon

NOTE:
1. DOWELED EXPANSION JOINTS SHALL CONSIST OF TWO #4 REBAR CENTERED IN CURB AND WRAPPED IN TAR PAPER PRIOR TO POURING CONCRETE. ASPHALTIC EXPANSION BOARD SHALL BE PROVIDED AS JOINT.

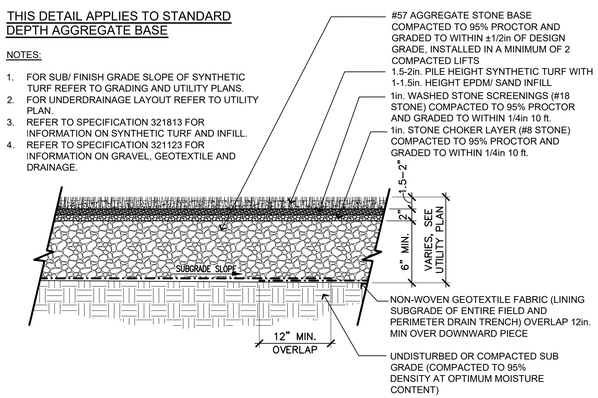


A 12" W. PERIMETER TURF CURB

SCALE: 1" = 1'-0"

THIS DETAIL APPLIES TO STANDARD DEPTH AGGREGATE BASE

NOTES:
1. FOR SUB/ FINISH GRADE SLOPE OF SYNTHETIC TURF REFER TO GRADING AND UTILITY PLANS.
2. FOR UNDERDRAINAGE LAYOUT REFER TO UTILITY PLAN.
3. REFER TO SPECIFICATION 321813 FOR INFORMATION ON SYNTHETIC TURF AND INFILL.
4. REFER TO SPECIFICATION 321123 FOR INFORMATION ON GRAVEL, GEOTEXTILE AND DRAINAGE.

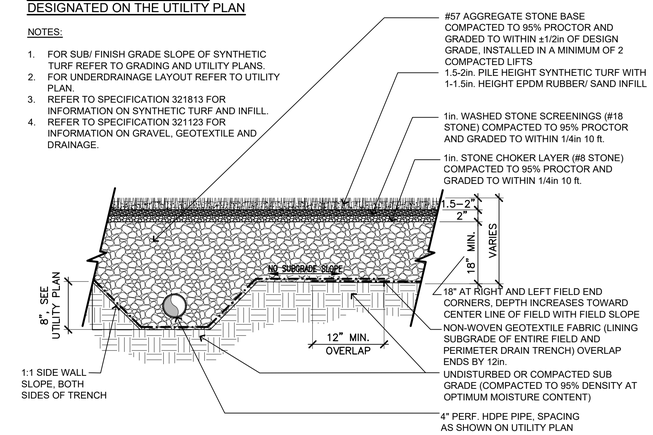


B SYNTHETIC TURF SURFACING

SCALE: 1" = 1'-0"

THIS DETAIL APPLIES TO EXTENDED DEPTH AGGREGATE BASE AS DESIGNATED ON THE UTILITY PLAN

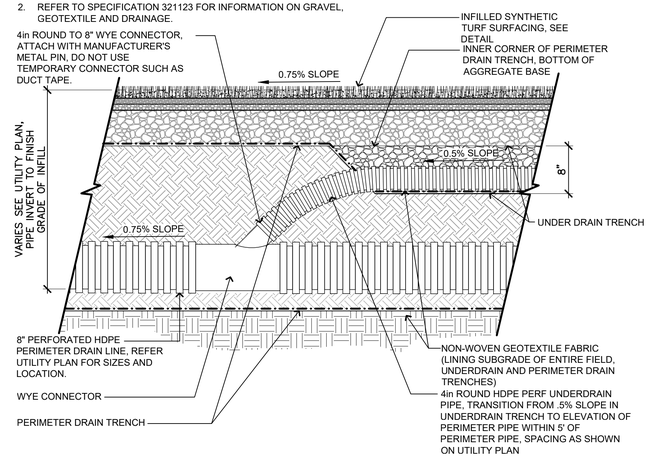
NOTES:
1. FOR SUB/ FINISH GRADE SLOPE OF SYNTHETIC TURF REFER TO GRADING AND UTILITY PLANS.
2. FOR UNDERDRAINAGE LAYOUT REFER TO UTILITY PLAN.
3. REFER TO SPECIFICATION 321813 FOR INFORMATION ON SYNTHETIC TURF AND INFILL.
4. REFER TO SPECIFICATION 321123 FOR INFORMATION ON GRAVEL, GEOTEXTILE AND DRAINAGE.



C SYNTHETIC TURF - UNDERDRAINAGE

SCALE: 1"=1'-0"

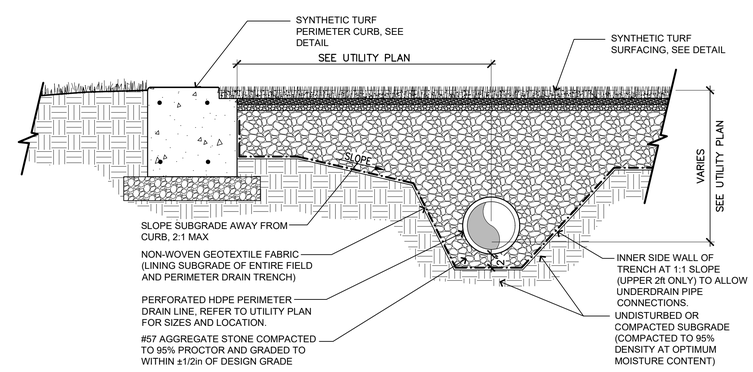
NOTES:
1. FOR SUB GRADE SLOPE OF SYNTHETIC TURF REFER TO UTILITY PLAN.
2. REFER TO SPECIFICATION 321123 FOR INFORMATION ON GRAVEL, GEOTEXTILE AND DRAINAGE.



E SYNTHETIC TURF - UNDERDRAIN CONNECTION

SCALE: 1" = 1'-0"

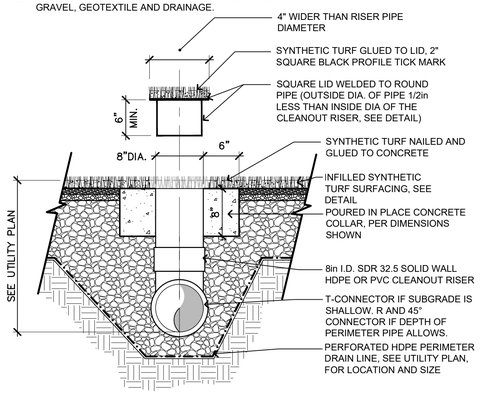
NOTES:
1. FOR SUB/ FINISH GRADE SLOPE OF SYNTHETIC TURF REFER TO GRADING AND UTILITY PLANS.
2. FOR UNDERDRAINAGE LAYOUT REFER TO UTILITY PLAN.
3. REFER TO SPECIFICATION 321123 FOR INFORMATION ON GRAVEL, GEOTEXTILE AND DRAINAGE.



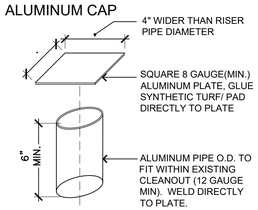
F SYNTHETIC TURF - PERIMETER DRAIN

SCALE: 1"=1'-0"

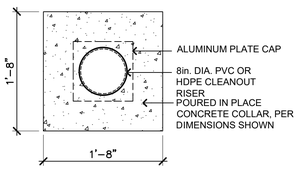
NOTES:
1. FOR SUB/ FINISH GRADE SLOPE OF SYNTHETIC TURF REFER TO GRADING AND UTILITY PLANS.
2. REFER TO SPECIFICATION 321123 FOR INFORMATION ON GRAVEL, GEOTEXTILE AND DRAINAGE.



ALUMINUM CAP



CONCRETE COLLAR (TOP VIEW)



D SYNTHETIC TURF - PERIMETER DRAIN CLEANOUT

SCALE: 1" = 1'-0"

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DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

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NUMBER	DATE	DESCRIPTION

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DRW: P. MATHUR	CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

CONSTRUCTION DETAILS – 4

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: N/A VERT: N/A
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	3395-0301-L-DT502.DWG
NCS:	4
NUMBER:	C-503

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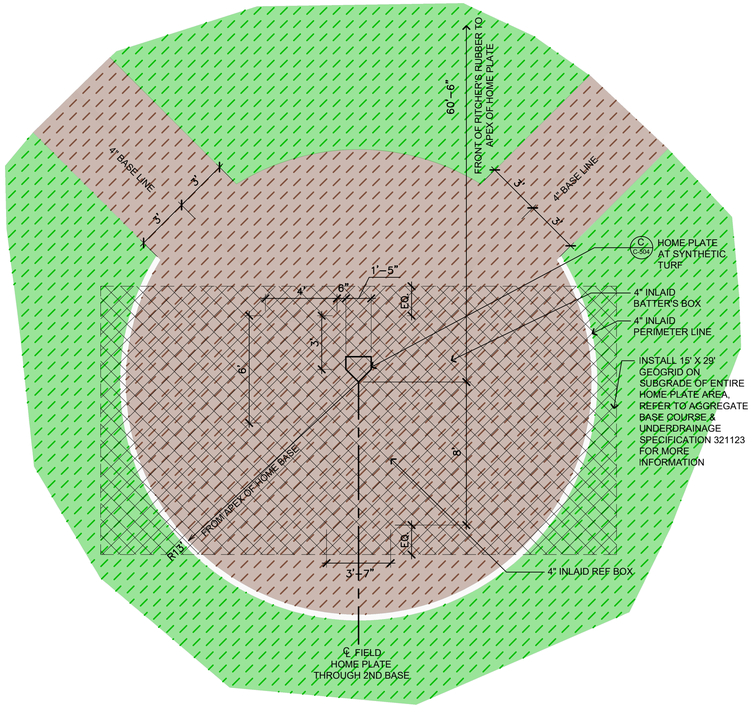
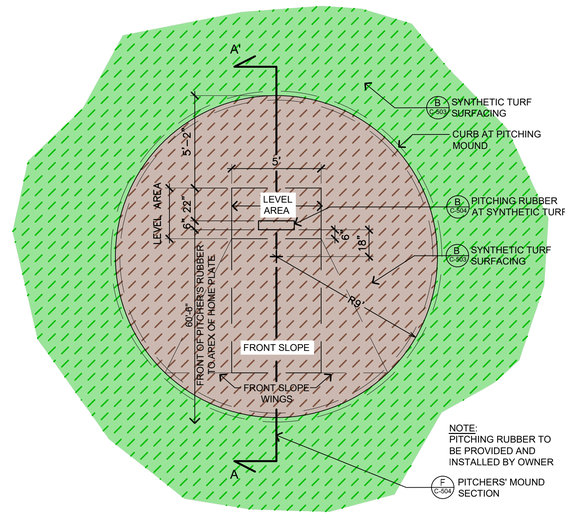


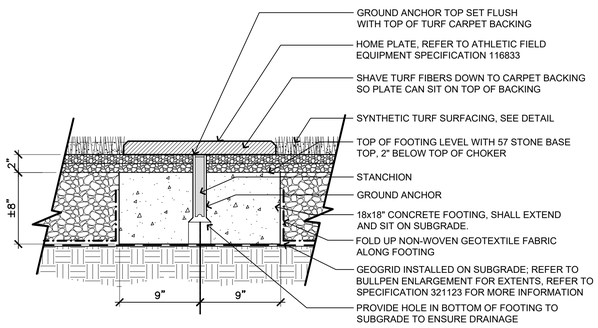
A HOME PLATE ENLARGEMENT - BIG SIMPSON

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



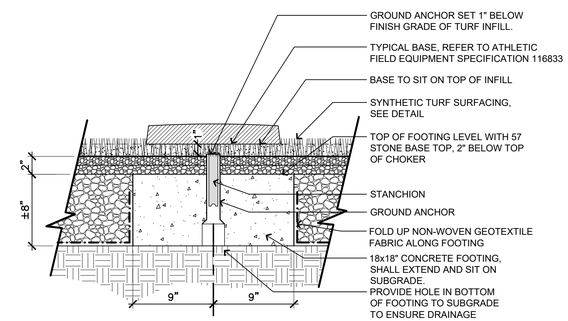
B PITCHERS MOUND ENLARGEMENT - BIG SIMPSON

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



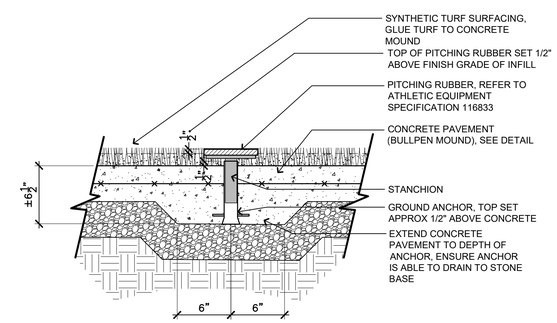
C HOME PLATE AT SYNTHETIC TURF

SCALE: 1 1/2" = 1'-0"



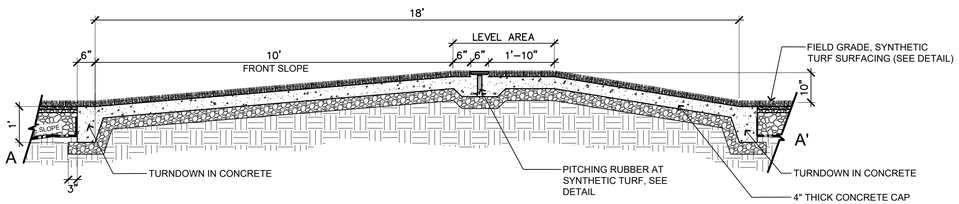
D BASE AT SYNTHETIC TURF

SCALE: 1 1/2" = 1'-0"



E PITCHING RUBBER AT SYNTHETIC TURF

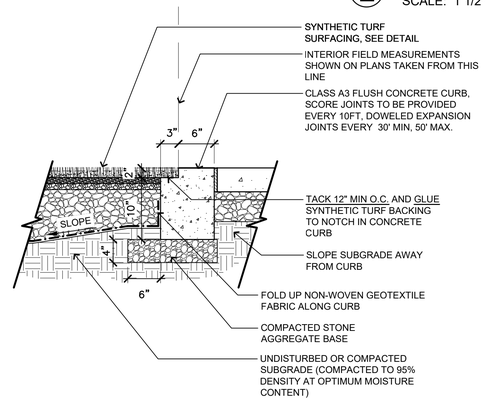
SCALE: 1 1/2" = 1'-0"



BIG SIMPSON

F PITCHERS MOUND (SECTION)

SCALE: 1/2" = 1'-0"



G 6" PERIMETER TURF CURB

SCALE: 1" = 1'-0"

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DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

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REVISIONS			
NUMBER	DATE	DESCRIPTION	

SUR: GORDON	DES: B. CIPRIANO
DRW: P. MATHUR	CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

CONSTRUCTION DETAILS – 5

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: N/A VERT: N/A
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	3395-0301-L-DT501.DWG
NCS:	CONSTRUCTION DETAILS – 5
NUMBER:	C-504

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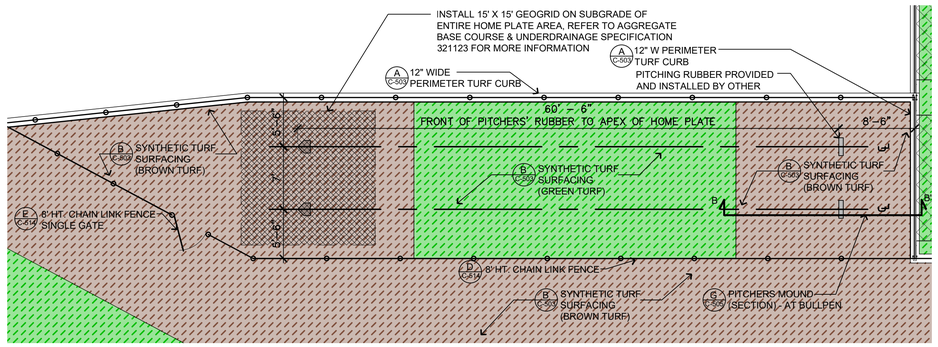
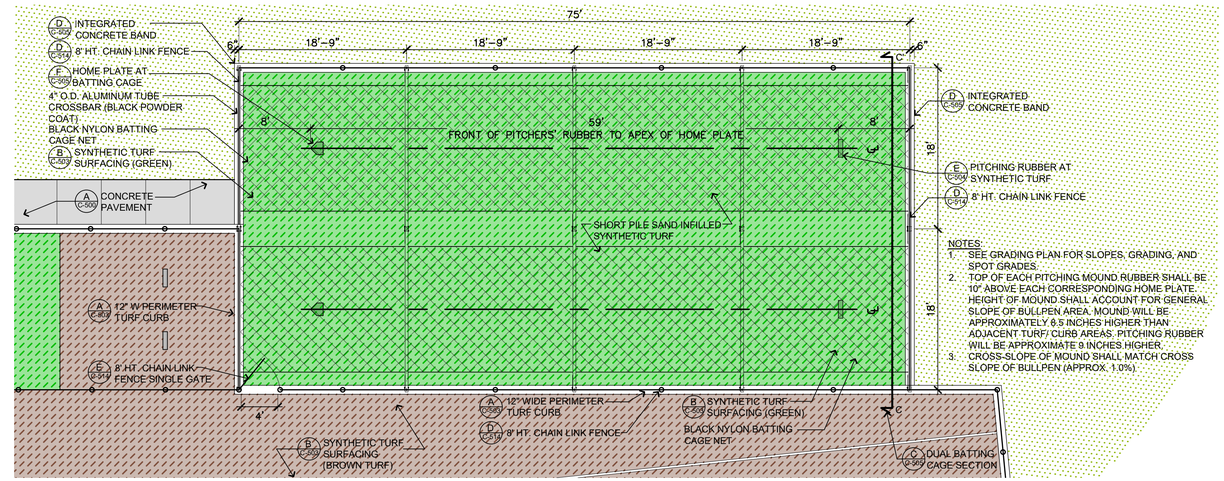


A DOUBLE BULL PEN ENLARGEMENT - BIG SIMPSON

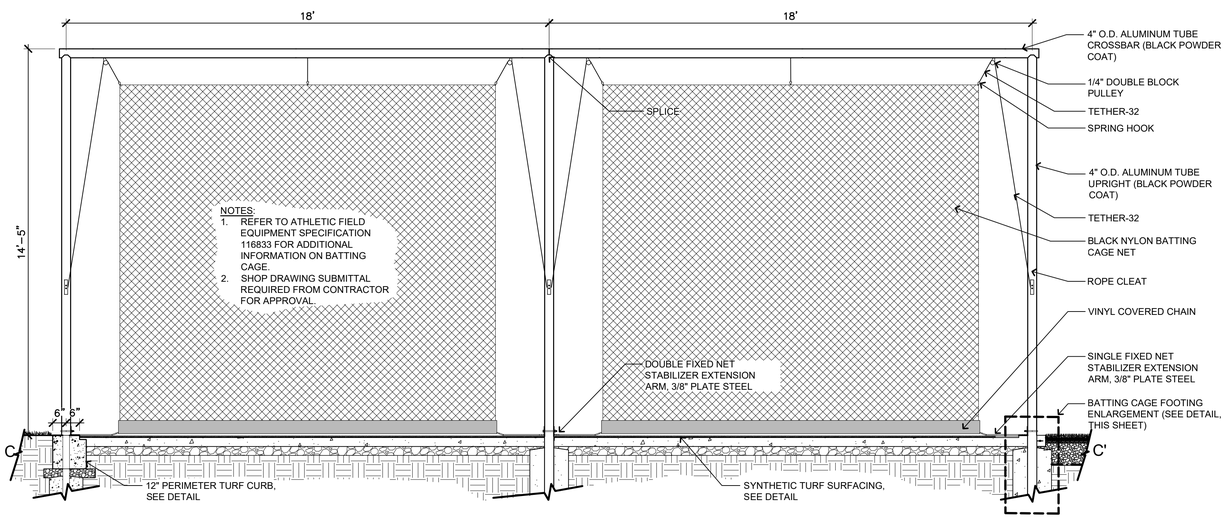
SCALE: 1/8" = 1'-0"



NOTES:
1. SEE GRADING PLAN FOR SLOPES, GRADING, AND SPOT GRADES.
2. TOP OF EACH PITCHING MOUND RUBBER SHALL BE 10" ABOVE EACH CORRESPONDING HOME PLATE. HEIGHT OF MOUND SHALL ACCOUNT FOR GENERAL SLOPE OF BULLPEN AREA. MOUND WILL BE APPROXIMATELY 8.5 INCHES HIGHER THAN ADJACENT TURF/ CURB AREAS. PITCHING RUBBER WILL BE APPROXIMATE 9 INCHES HIGHER.
3. CROSS-SLOPE OF MOUND SHALL MATCH CROSS SLOPE OF BULLPEN (APPROX. 1.0%)

B DUAL BATTING CAGE ENLARGEMENT - BIG SIMPSON

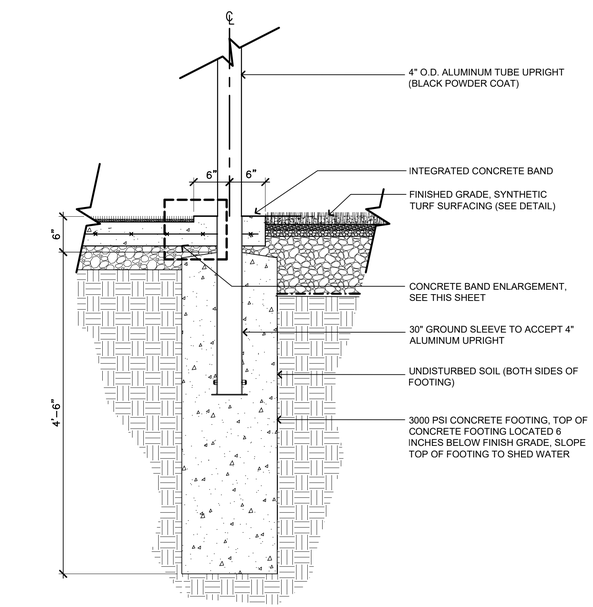
SCALE: 1/4" = 1'-0"



NOTES:
1. REFER TO ATHLETIC FIELD EQUIPMENT SPECIFICATION 116833 FOR ADDITIONAL INFORMATION ON BATTING CAGE.
2. SHOP DRAWING SUBMITTAL REQUIRED FROM CONTRACTOR FOR APPROVAL.

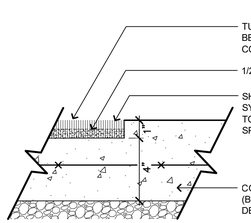
C DUAL BATTING CAGE SECTION

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



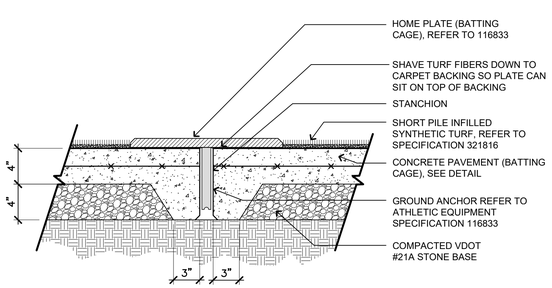
D INTEGRATED CONCRETE BAND

SCALE: 1" = 1'-0"



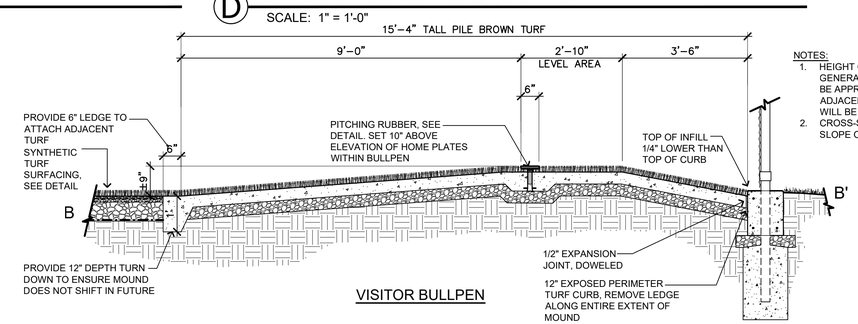
E CONCRETE BAND ENLARGEMENT

SCALE: 3" = 1'-0"



F HOME PLATE AT BATTING CAGE

SCALE: 1 1/2" = 1'-0"



NOTES:
1. HEIGHT OF MOUND SHALL ACCOUNT FOR GENERAL SLOPE OF BULLPEN AREA. MOUND WILL BE APPROXIMATELY 8.5 INCHES HIGHER THAN ADJACENT TURF/ CURB AREAS. PITCHING RUBBER WILL BE APPROXIMATE 9 INCHES HIGHER.
2. CROSS-SLOPE OF MOUND SHALL MATCH CROSS SLOPE OF BULLPEN (APPROX. 1.0%)

G PITCHERS MOUND (SECTION) - AT BULLPEN

SCALE: 1/2" = 1'-0"

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DIRECTOR — DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
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DIRECTOR — DATE
CHAIRMAN, PLANNING COMMISION — DATE
DATE RECORDED _____
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REVISIONS

NUMBER	DATE	DESCRIPTION

SUR: GORDON
DES: B. CIPRIANO
DRW: P. MATHUR
CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

CONSTRUCTION DETAILS – 6

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-DT501.DWG
NCS: CONSTRUCTION DETAILS – 6
NUMBER: C-505
Gordon

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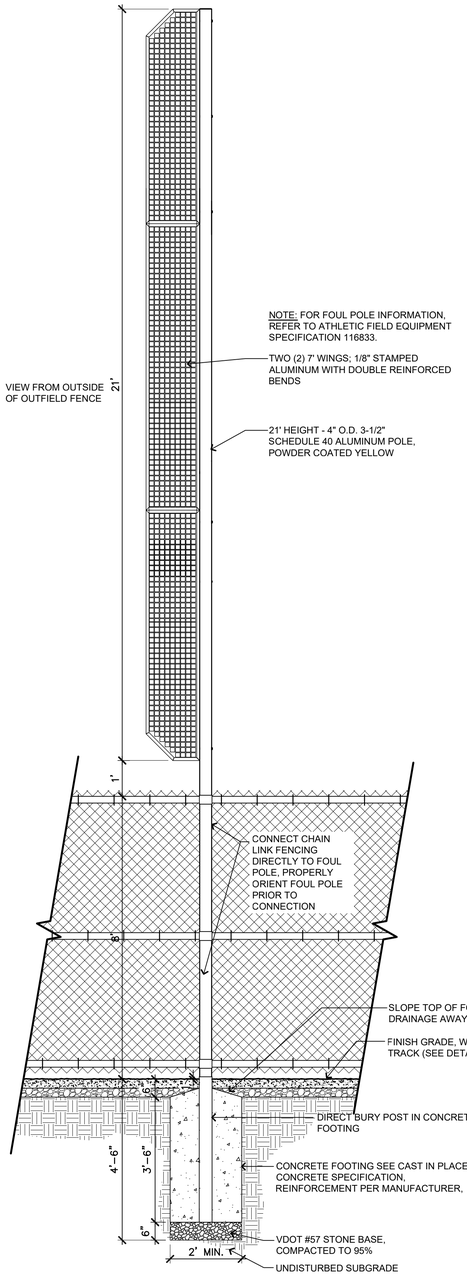
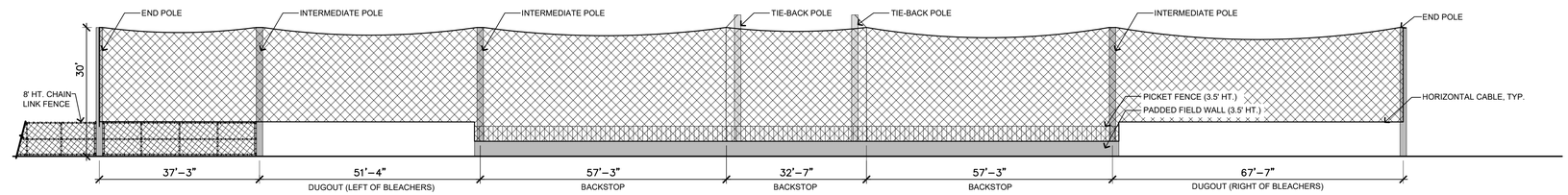


B 30' HT. FOUL POLE

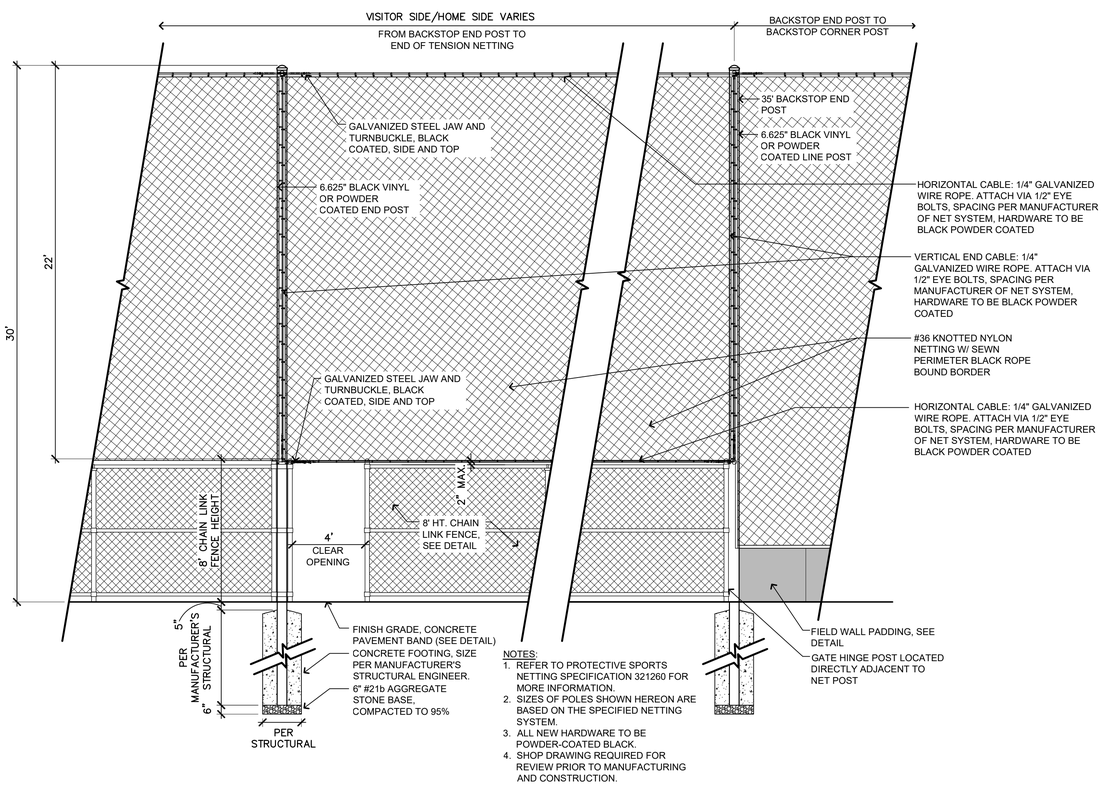
SCALE: 1/2" = 1'-0"



NOTE:
1. REFER TO PROTECTIVE SPORTS NETTING SPECIFICATION 321260 FOR MORE INFORMATION.

A 30' HT. PROTECTIVE SPORTS NETTING LAYOUT

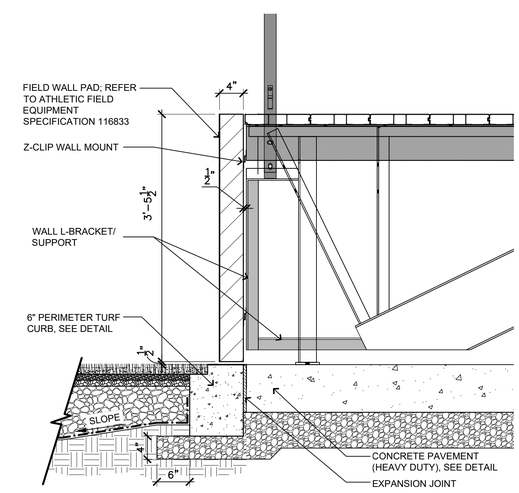
SCALE: 1/16" = 1'-0"



NOTES:
1. REFER TO PROTECTIVE SPORTS NETTING SPECIFICATION 321260 FOR MORE INFORMATION.
2. SIZES OF POLES SHOWN HEREON ARE BASED ON THE SPECIFIED NETTING SYSTEM.
3. ALL NEW HARDWARE TO BE POWDER-COATED BLACK.
4. SHOP DRAWING REQUIRED FOR REVIEW PRIOR TO MANUFACTURING AND CONSTRUCTION.

C 30' HT. PROTECTIVE SPORTS NETTING - BIG SIMPSON

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



D FIELD WALL PADDING

SCALE: 1" = 1'-0"

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DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISION DATE
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COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

CONSTRUCTION DETAILS – 7

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-DT501.DWG
NCS: CONSTRUCTION DETAILS – 7
NUMBER: C-506
Gordon

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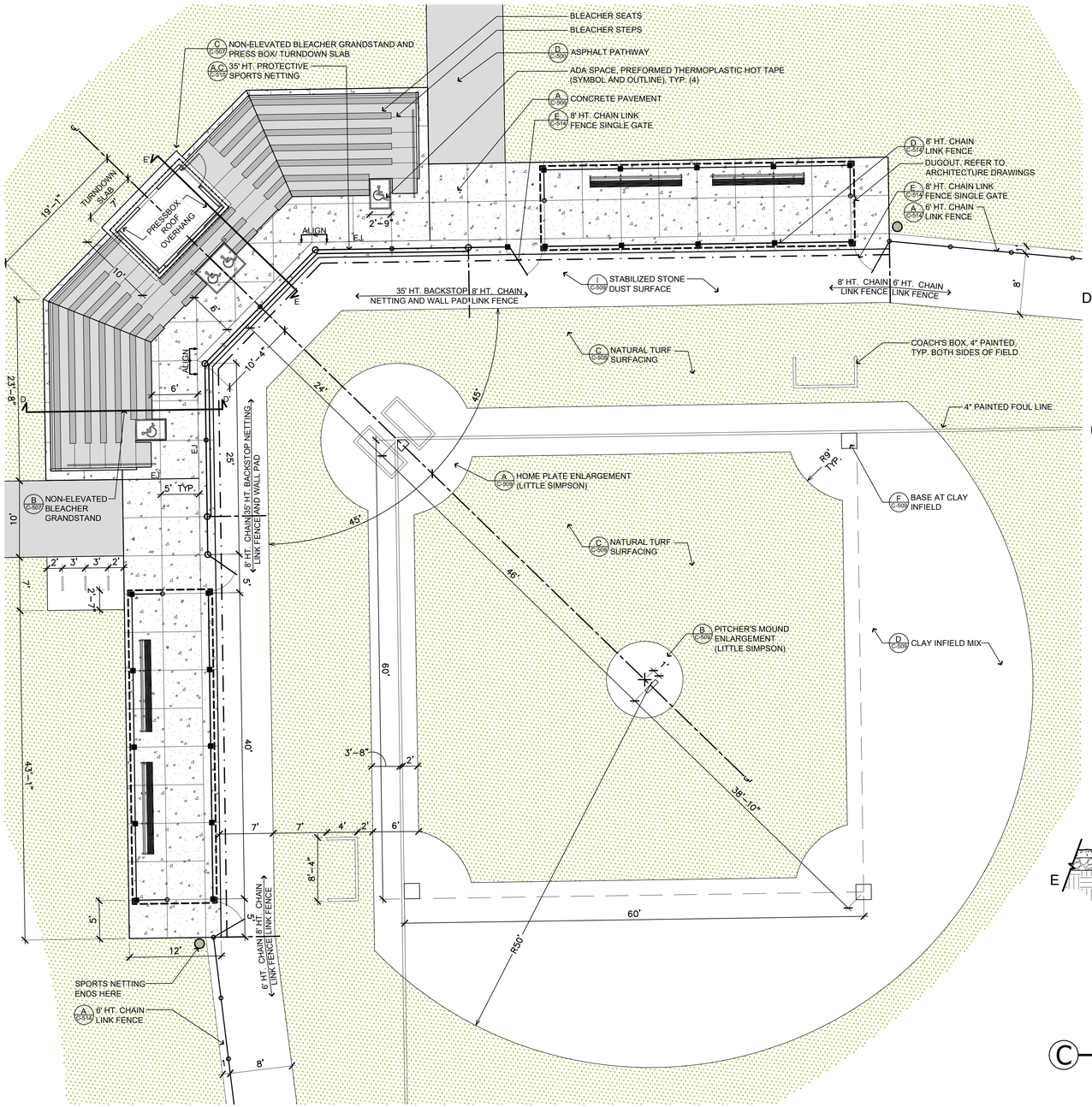
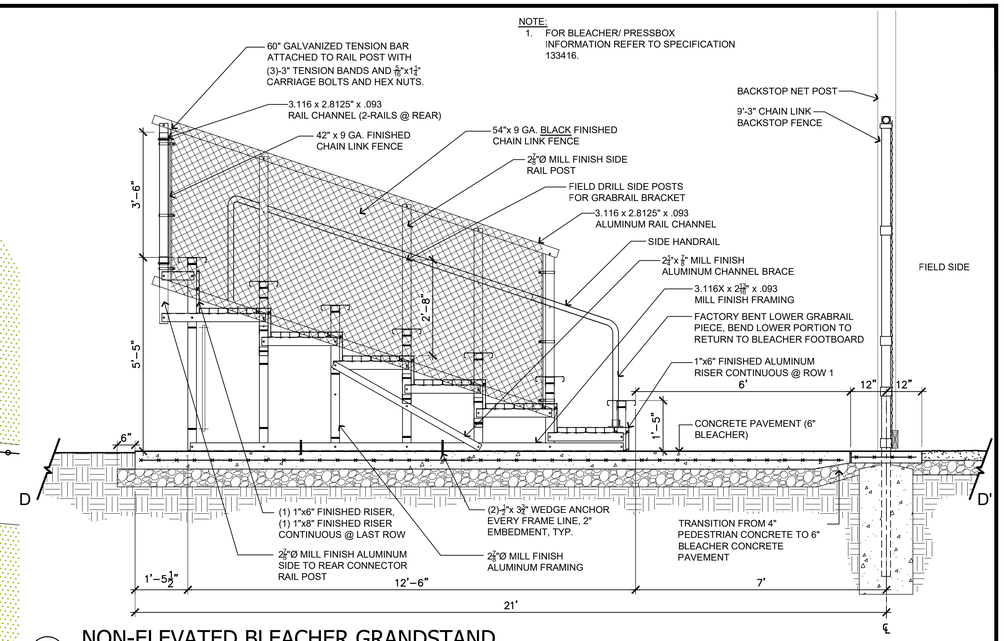
NOTES:
1. SEE GRADING PLAN FOR SLOPES, GRADING, AND SPOT GRADES.
2. FOR BLEACHER/ PRESSBOX INFORMATION REFER TO SPECIFICATION 133416.
3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR INSTALLATION OF BLEACHER SEATING BY MANUFACTURER OF BLEACHER. SHOP DRAWING SHALL CONFIRM INSTALLATION, CONNECTIONS ETC.
4. TOTAL BENCH SEATING CAPACITY: ±200



A LITTLE SIMPSON INFIELD ENLARGEMENT

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

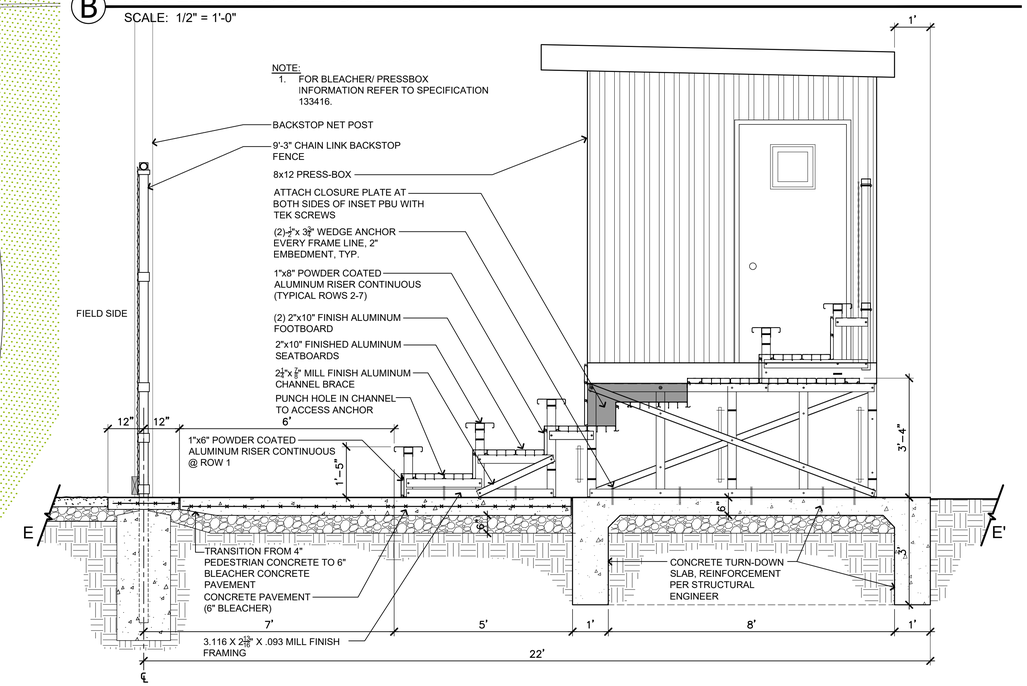
NOTE:
1. FOR BLEACHER/ PRESSBOX INFORMATION REFER TO SPECIFICATION 133416.



B NON-ELEVATED BLEACHER GRANDSTAND

SCALE: 1/2" = 1'-0"

NOTE:
1. FOR BLEACHER/ PRESSBOX INFORMATION REFER TO SPECIFICATION 133416.



C NON-ELEVATED BLEACHER GRANDSTAND AND PRESS BOX/ TURNDOWN SLAB

SCALE: 1/2" = 1'-0"

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR — DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR — DATE
CHAIRMAN, PLANNING COMMISION — DATE
DATE RECORDED _____
INSTRUMENT NO. — DEED BOOK NO. — PAGE NO.

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Chantilly, VA 20151
Phone: 703-263-1900
www.gordon.us.com

REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: B. CIPRIANO
DRW: P. MATHUR	CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

CONSTRUCTION DETAILS – 8

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ:	N/A
VERT:	N/A
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	3395-0301-L-DT501.DWG
NCS:	CONSTRUCTION DETAILS – 8
NUMBER:	C-507

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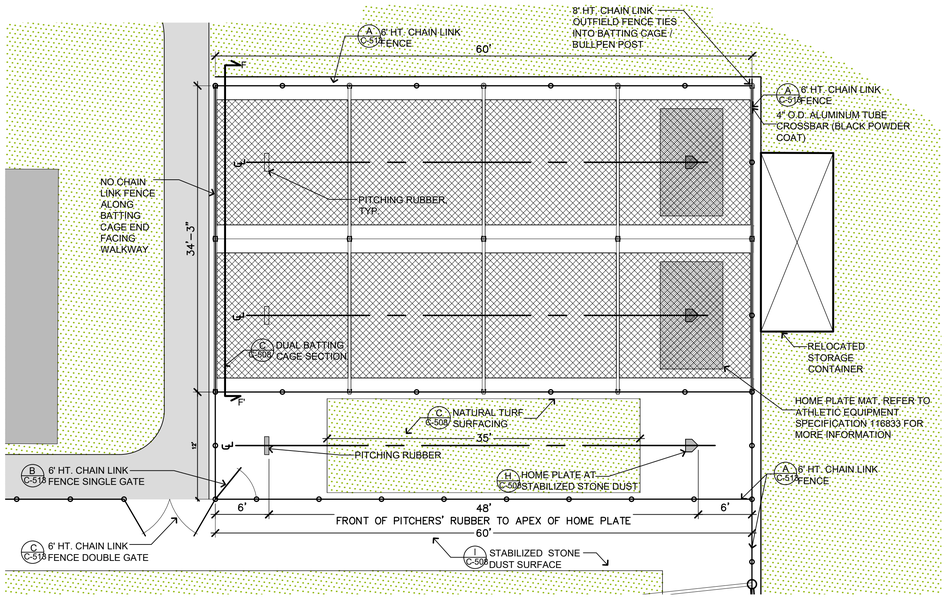
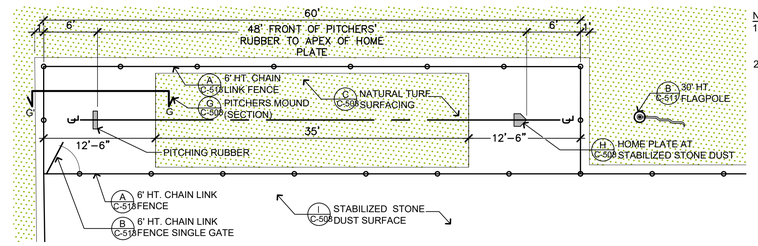


A DUAL BATTING CAGE AND SINGLE BULLPEN ENLARGEMENT - LITTLE SIMPSON

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

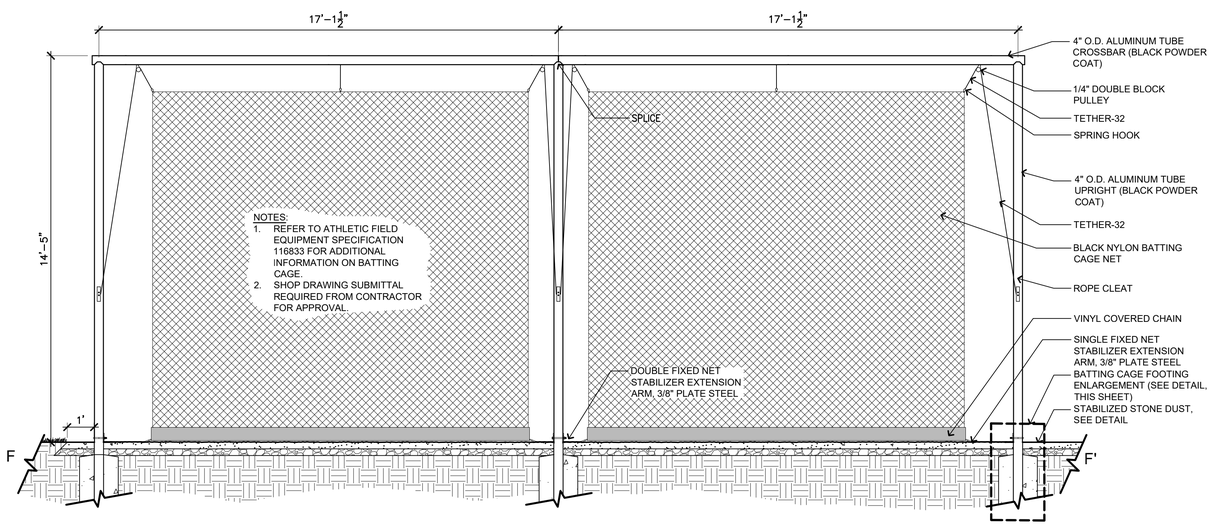
NOTES:
1. SEE GRADING PLAN FOR SLOPES, GRADING, AND SPOT GRADES.
2. TOP OF EACH PITCHING MOUND RUBBER SHALL BE 6" ABOVE EACH CORRESPONDING HOME PLATE. HEIGHT OF MOUND SHALL ACCOUNT FOR GENERAL SLOPE OF BULLPEN AREA. MOUND WILL BE APPROXIMATELY 4.5 INCHES HIGHER THAN ADJACENT TURF/ CURB AREAS. PITCHING RUBBER WILL BE APPROXIMATE 9 INCHES HIGHER.
3. CROSS-SLOPE OF MOUND SHALL MATCH CROSS SLOPE OF BULLPEN (APPROX. 1.0%)
4. REFER TO ATHLETIC FIELD EQUIPMENT SPECIFICATION 116833 FOR INFORMATION ON BATTING CAGE, HOME PLATES AND PITCHING RUBBERS.



NOTES:
1. SEE GRADING PLAN FOR SLOPES, GRADING, AND SPOT GRADES.
2. REFER TO ATHLETIC FIELD EQUIPMENT SPECIFICATION 116833 FOR INFORMATION ON HOME PLATES AND PITCHING RUBBERS.

B SINGLE BULLPEN ENLARGEMENT - LITTLE SIMPSON

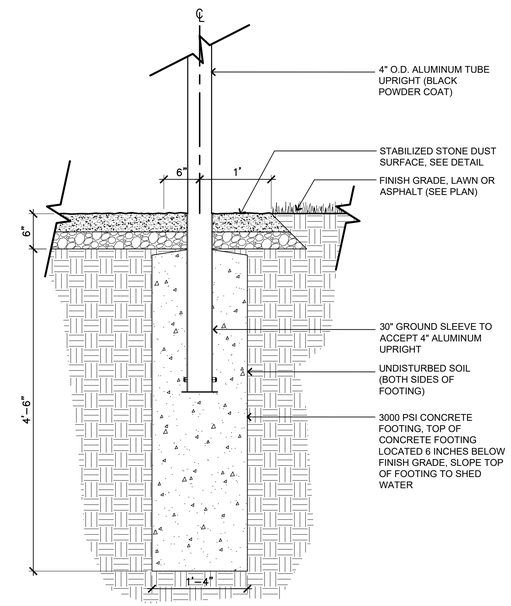
SCALE: 1/8" = 1'-0"



NOTES:
1. REFER TO ATHLETIC FIELD EQUIPMENT SPECIFICATION 116833 FOR ADDITIONAL INFORMATION ON BATTING CAGE.
2. SHOP DRAWING SUBMITTAL REQUIRED FROM CONTRACTOR FOR APPROVAL.

C DUAL BATTING CAGE SECTION

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



D BATTING CAGE FOOTING ENLARGEMENT

SCALE: 1" = 1'-0"

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DES: B. CIPRIANO
DRW: P. MATHUR
CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

CONSTRUCTION DETAILS – 9

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-DT501.DWG
NCS: CONSTRUCTION DETAILS – 9
NUMBER: C-508
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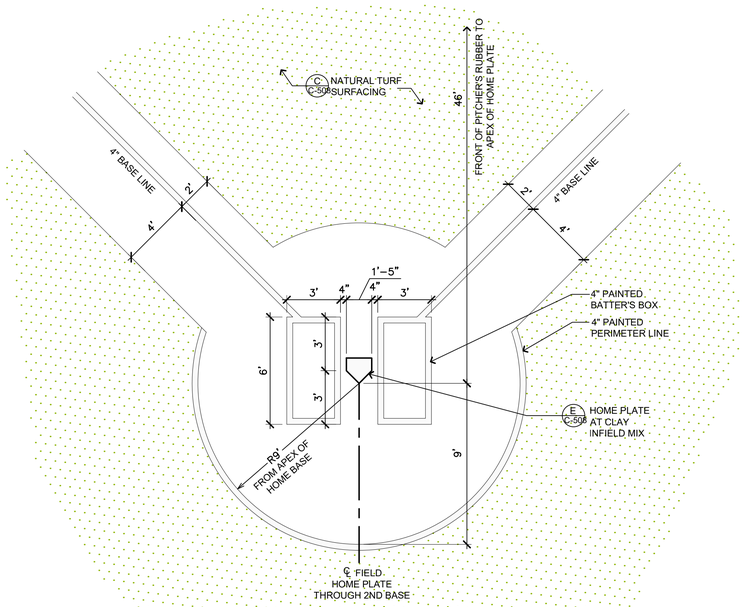
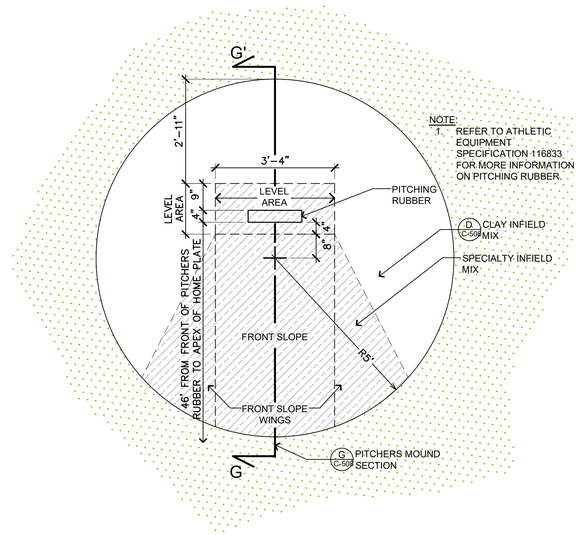


A HOME PLATE ENLARGEMENT - LITTLE SIMPSON

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

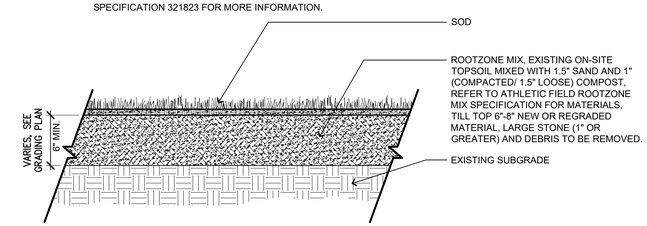


NOTE:
1. REFER TO ATHLETIC EQUIPMENT SPECIFICATION 116833 FOR MORE INFORMATION ON PITCHING RUBBER.

B PITCHERS MOUND ENLARGEMENT - LITTLE SIMPSON

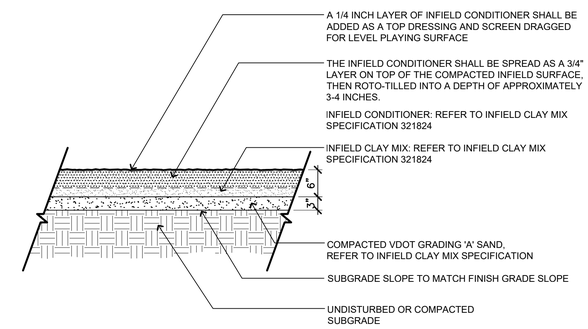
SCALE: 1/2" = 1'-0"

NOTES:
1. REFER TO SOD SPECIFICATION 329100 FOR MORE INFORMATION.
2. REFER TO ATHLETIC FIELD ROOTZONE SPECIFICATION 321823 FOR MORE INFORMATION.



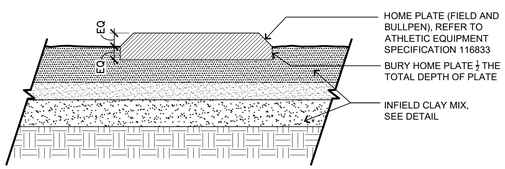
C NATURAL TURF SURFACING

SCALE: 1" = 1'-0"



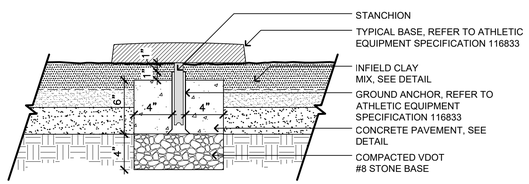
D CLAY INFIELD MIX

SCALE: 3/4" = 1'-0"



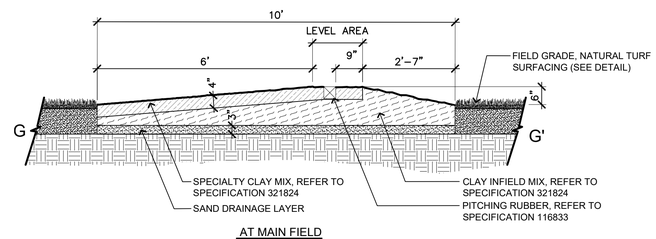
E HOME PLATE AT CLAY INFIELD

SCALE: 1-1/2" = 1'-0"



F BASE AT CLAY INFIELD

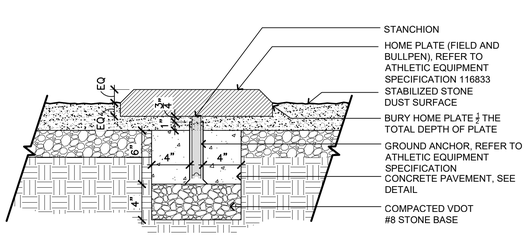
SCALE: 1-1/2" = 1'-0"



AT MAIN FIELD

G PITCHERS MOUND (SECTION) - LITTLE SIMPSON

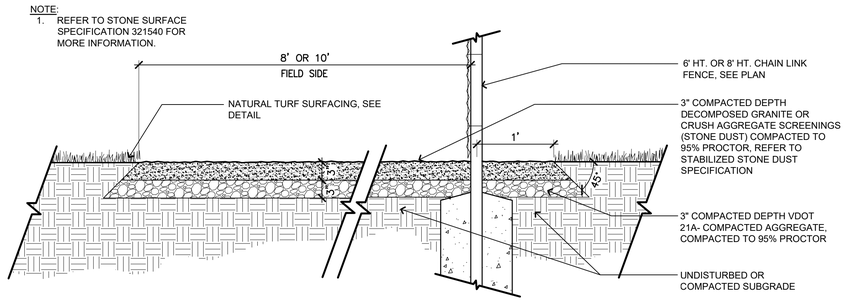
SCALE: 1/2" = 1'-0"



H HOME PLATE AT STABILIZED STONE DUST SURFACE

SCALE: 1-1/2" = 1'-0"

NOTE:
1. REFER TO STONE SURFACE SPECIFICATION 321540 FOR MORE INFORMATION.



I STABILIZED STONE DUST SURFACE (WARNING TRACK)

SCALE: 1" = 1'-0"

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REVISIONS

NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: B. CIPRIANO
DRW: P. MATHUR	CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

CONSTRUCTION DETAILS – 10

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-DT501.DWG
NCS: CONSTRUCTION DETAILS – 10
NUMBER: C-509
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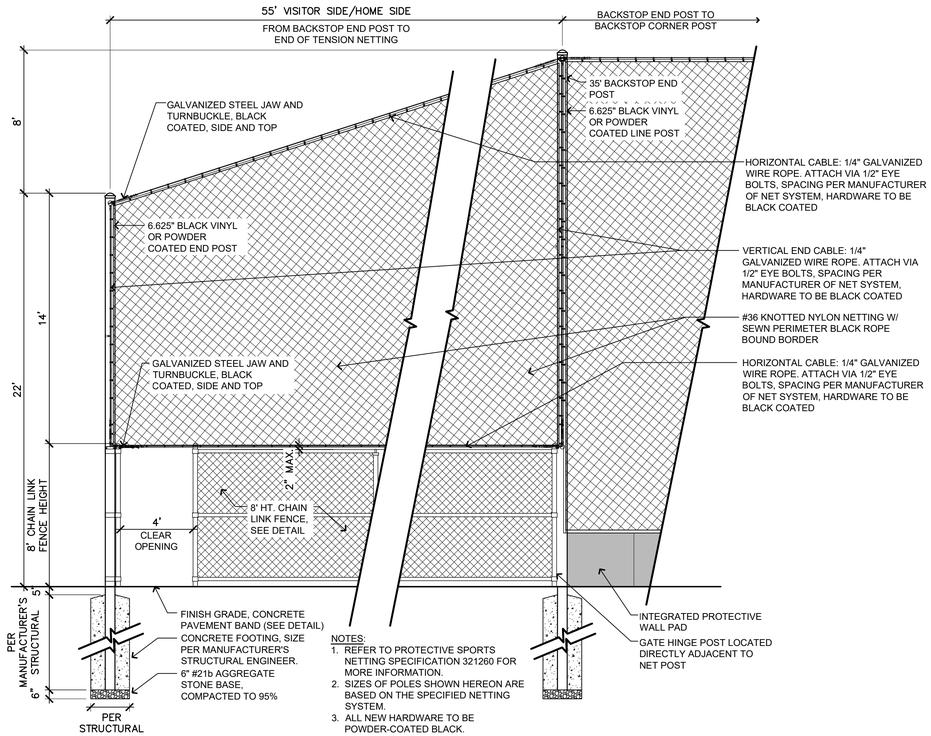
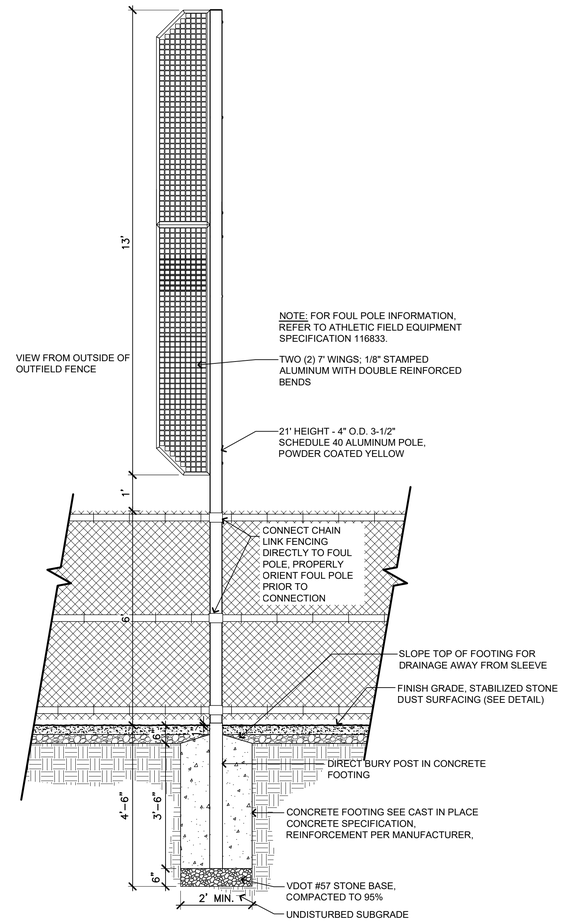


NOTES:
1. REFER TO PROTECTIVE SPORTS NETTING SPECIFICATION 321260 FOR MORE INFORMATION.
2. SIZES OF POLES SHOWN HEREON ARE BASED ON THE SPECIFIED NETTING SYSTEM.
3. ALL NEW HARDWARE TO BE POWDER-COATED BLACK.
4. SHOP DRAWING REQUIRED FOR REVIEW PRIOR TO MANUFACTURING AND CONSTRUCTION.

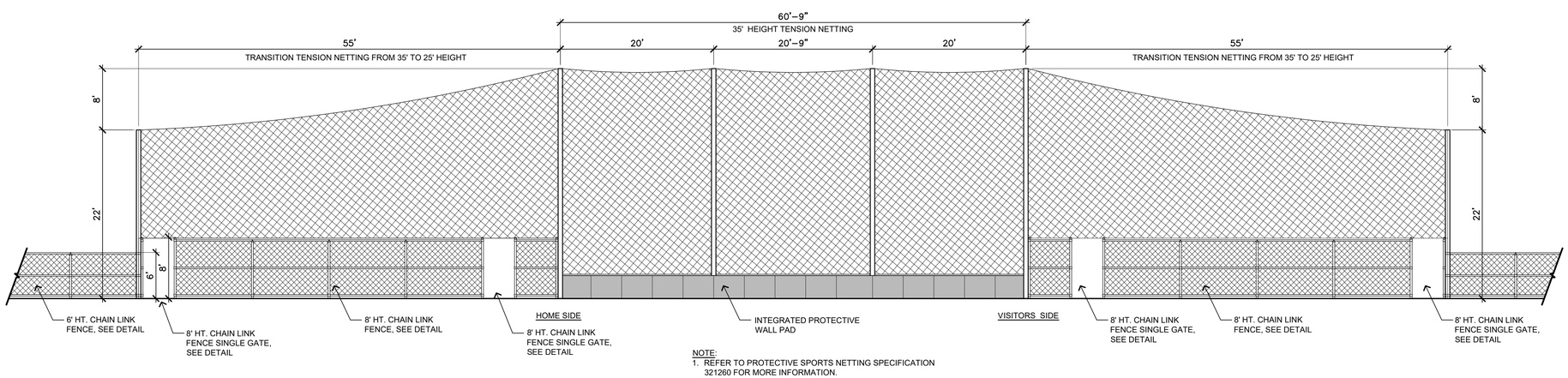
(A) 30' HT. PROTECTIVE SPORTS NETTING - LITTLE SIMPSON

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



(B) 20' HT. FOUL POLE

SCALE: 1/2" = 1'-0"



NOTE:
1. REFER TO PROTECTIVE SPORTS NETTING SPECIFICATION 321260 FOR MORE INFORMATION.

(C) 30' HT. PROTECTIVE SPORTS NETTING LAYOUT

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

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NUMBER	DATE	DESCRIPTION

SUR: GORDON
DES: B. CIPRIANO
DRW: P. MATHUR
CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

CONSTRUCTION DETAILS – 11

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-DT501.DWG
NCS: CONSTRUCTION DETAILS – 11
NUMBER: C-510
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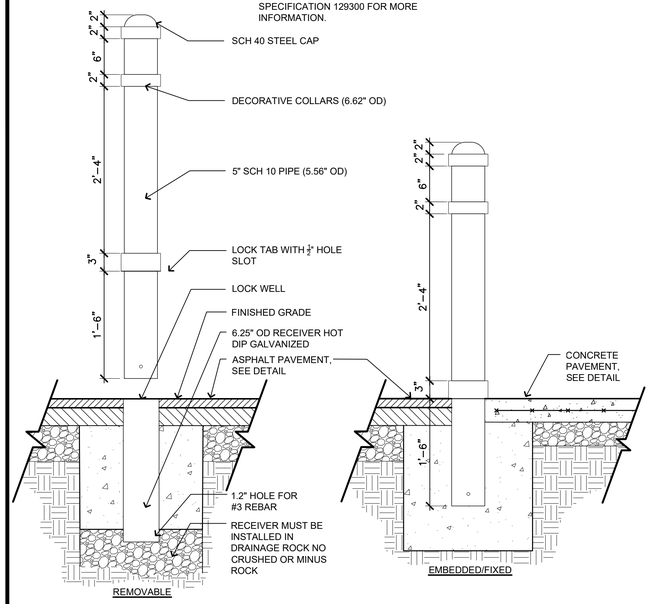
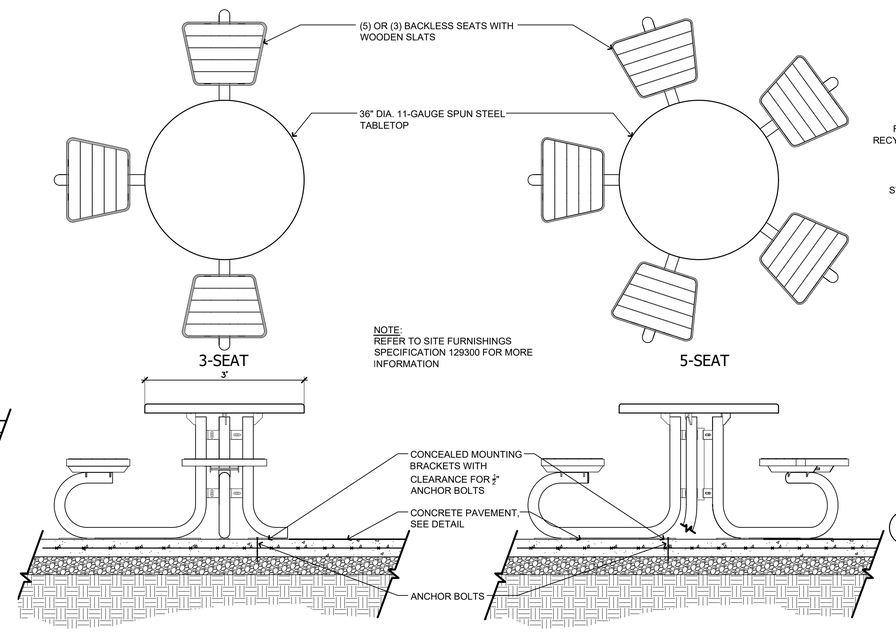
NOTE:
1. REFER TO SITE FURNISHINGS SPECIFICATION 129300 FOR MORE INFORMATION.



A METAL BOLLARD

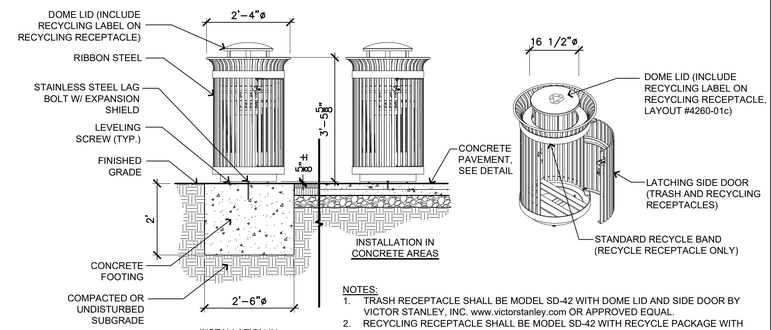
SCALE: 1" = 1'-0"



NOTE:
REFER TO SITE FURNISHINGS SPECIFICATION 129300 FOR MORE INFORMATION

B TABLE SEATING

SCALE: 3/4" = 1'-0"

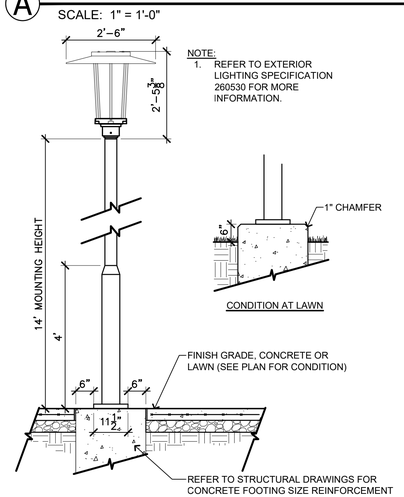


NOTES:
1. TRASH RECEPTACLE SHALL BE MODEL SD-42 WITH DOME LID AND SIDE DOOR BY VICTOR STANLEY, INC. www.victorstanley.com OR APPROVED EQUAL.
2. RECYCLING RECEPTACLE SHALL BE MODEL SD-42 WITH RECYCLE PACKAGE WITH DOME LID AND DECALS AND SIDE DOOR BY VICTOR STANLEY, INC. OR APPROVED EQUAL.
3. SEE PLANS FOR EXACT INSTALLATION CONDITIONS.
4. ANCHOR TO GROUND PER MANUFACTURER'S RECOMMENDATIONS.
5. REFER TO SITE FURNISHINGS SPECIFICATION 129300 FOR MORE DETAILS.

C TRASH AND RECYCLING RECEPTACLES

SCALE: 1/2" = 1'-0"

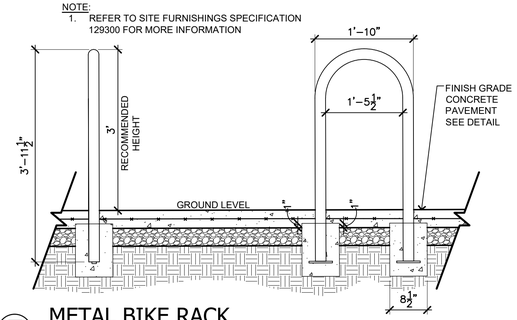
NOTE:
1. REFER TO EXTERIOR LIGHTING SPECIFICATION 260530 FOR MORE INFORMATION.



D PEDESTRIAN LIGHT POLE

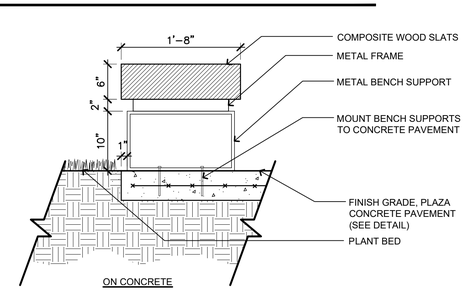
SCALE: 1/2" = 1'-0"

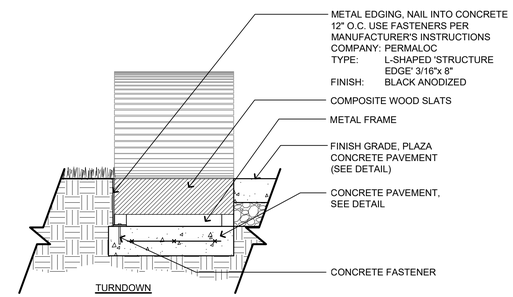
NOTE:
1. REFER TO SITE FURNISHINGS SPECIFICATION 129300 FOR MORE INFORMATION

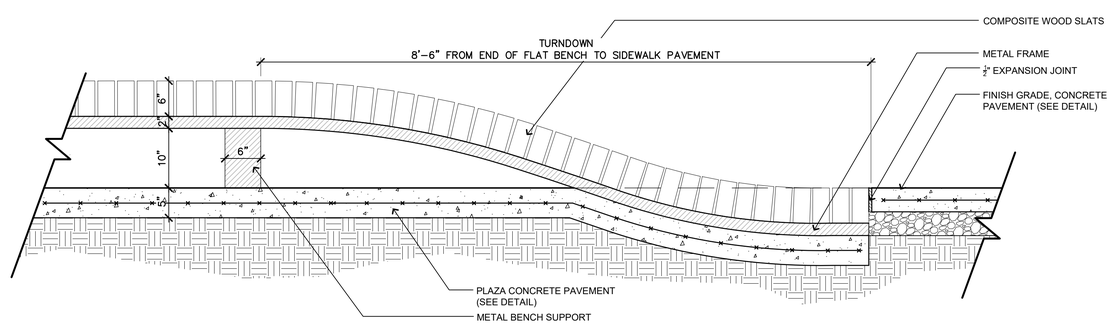


E METAL BIKE RACK

SCALE: 3/4" = 1'-0"

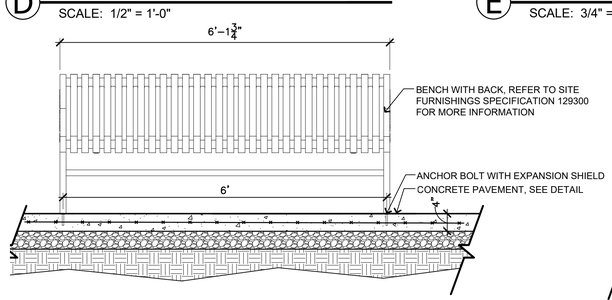


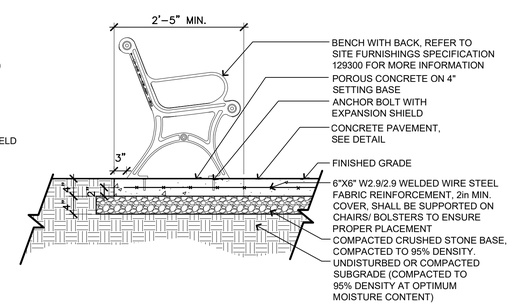




G WOODEN BENCH

SCALE: 1" = 1'-0"





F PARK BENCH

SCALE: 3/4" = 1'-0"

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REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR: GORDON	DES: B. CIPRIANO
DRW: P. MATHUR	CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

CONSTRUCTION DETAILS – 12

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: N/A VERT: N/A
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	3395-0301-L-DT502.DWG
NCS:	12
NUMBER:	C-511

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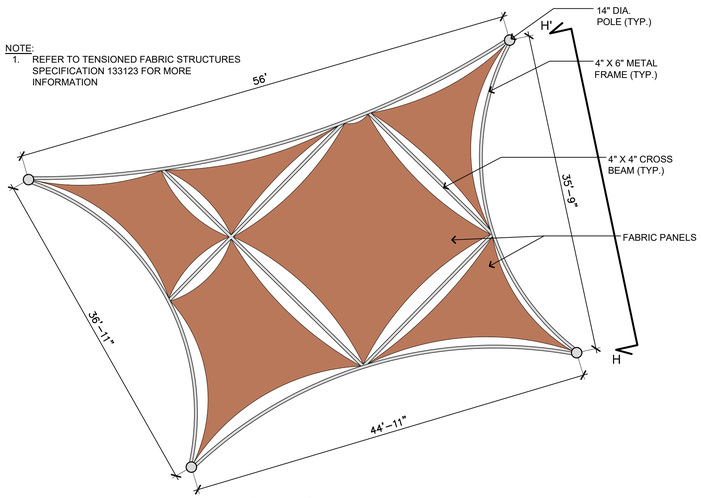
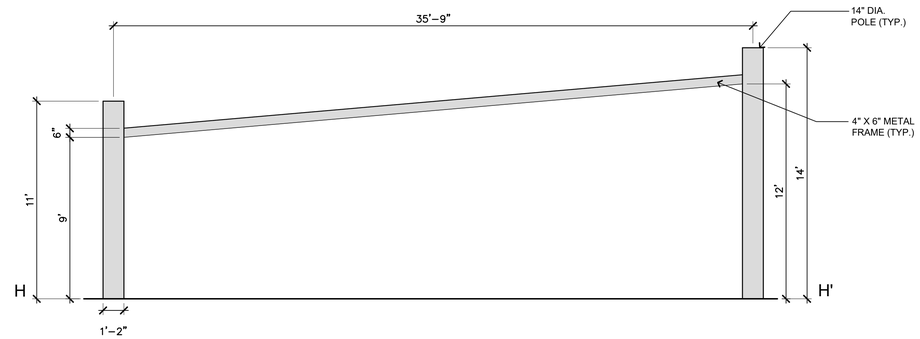
NOTE:
1. REFER TO TENSIONED FABRIC STRUCTURES SPECIFICATION 133123 FOR MORE INFORMATION



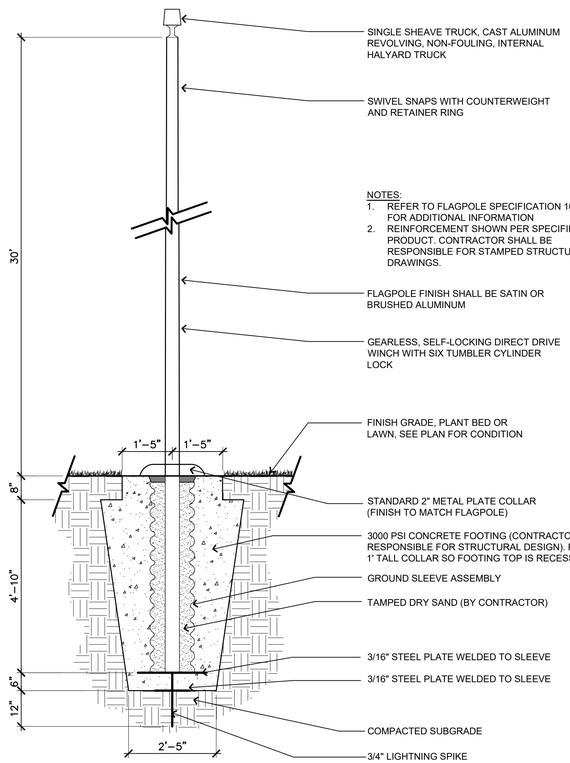
A SHADE STRUCTURE (PLAN)

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



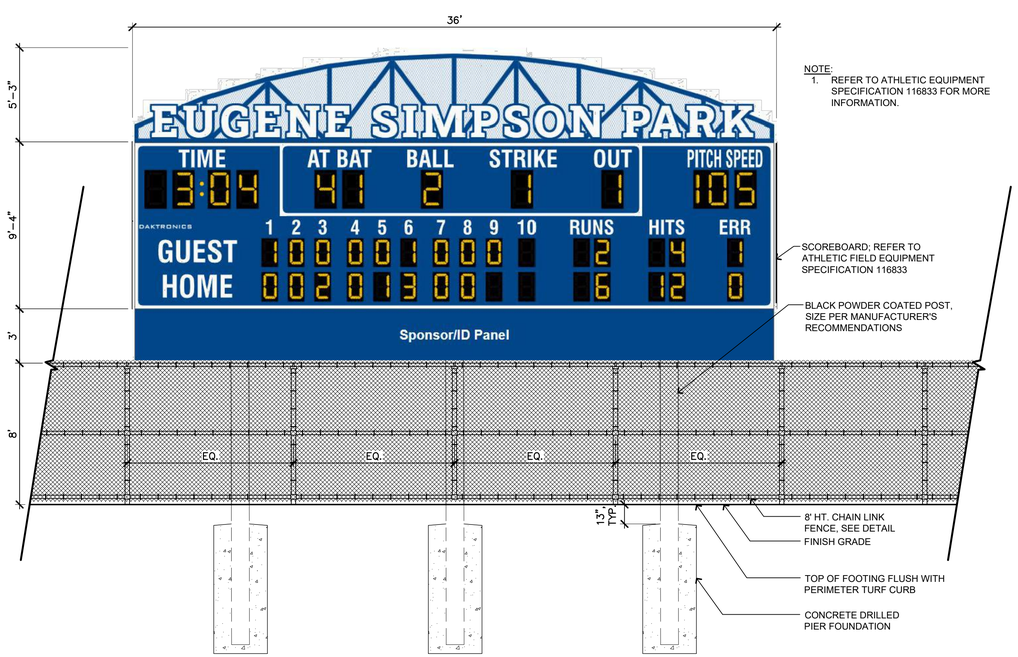
(SECTION)

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



B 30' HT. FLAGPOLE

SCALE: 1/2" = 1'-0"



C SCOREBOARD

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

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Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

CONSTRUCTION DETAILS – 13

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-DT502.DWG
NCS: 13
NUMBER: C-512
Gordon

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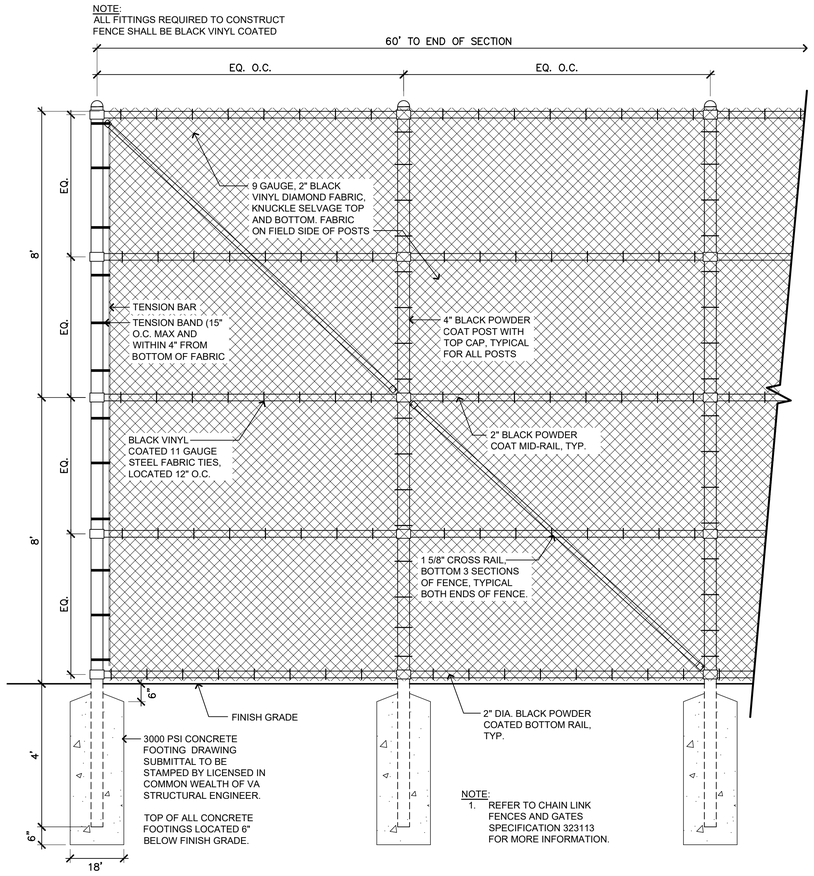
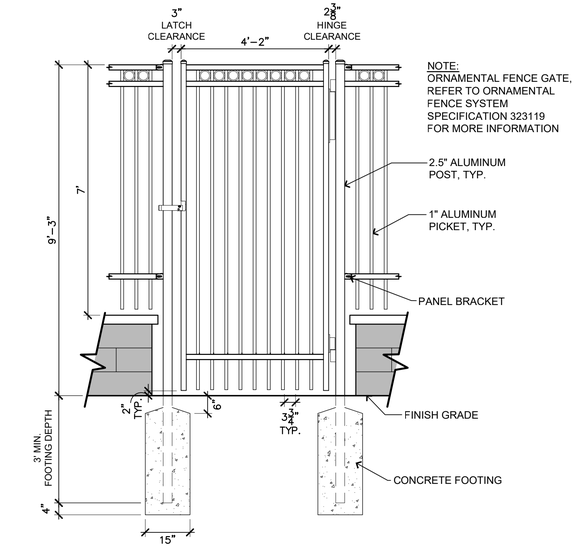


NOTE:
1. REFER TO CHAIN LINK FENCES AND GATES SPECIFICATION 323113 FOR MORE INFORMATION.

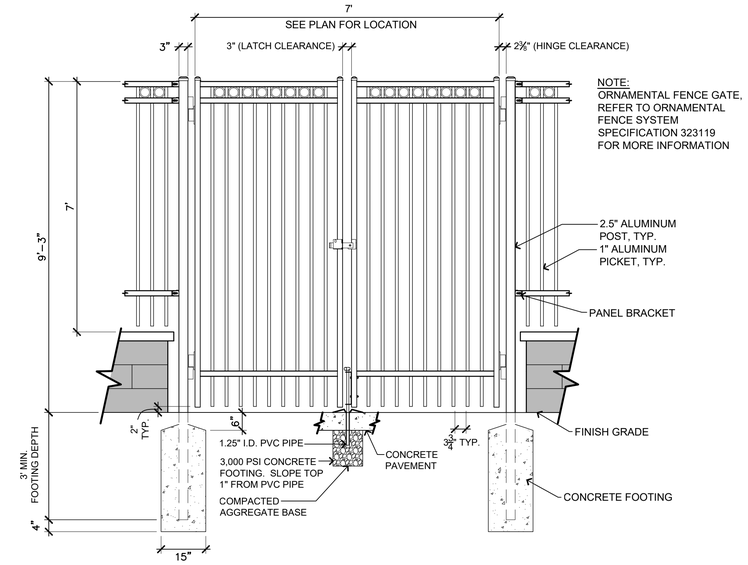
A 16' HT. CHAIN LINK FENCE @ MULTIPURPOSE FIELD

SCALE: 1/2" = 1'-0"



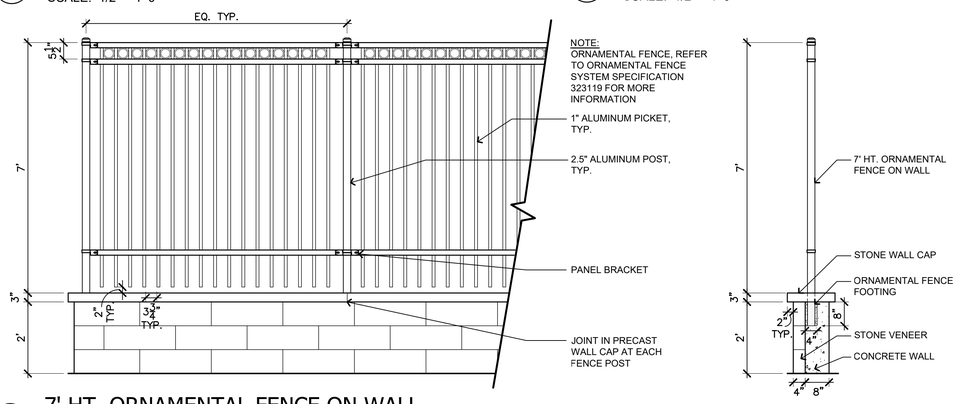
B 9' HT. ORNAMENTAL FENCE - SINGLE GATE

SCALE: 1/2" = 1'-0"



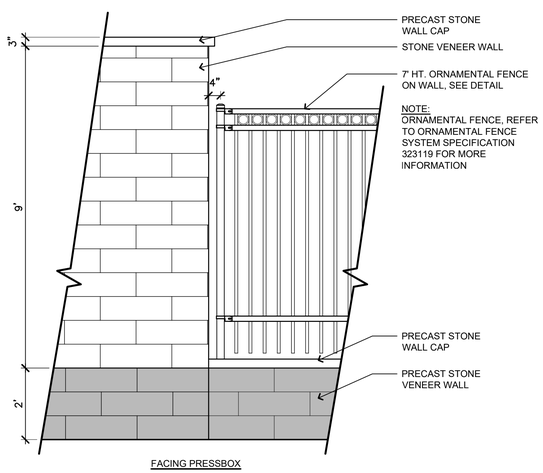
C 9' HT. ORNAMENTAL FENCE - DOUBLE GATE

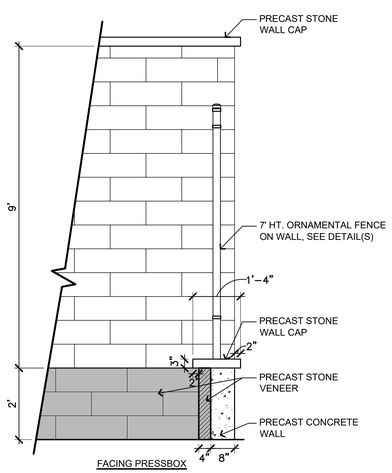
SCALE: 1/2" = 1'-0"

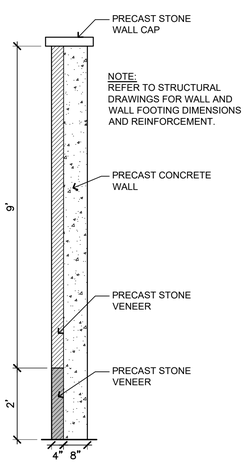


D 7' HT. ORNAMENTAL FENCE ON WALL

SCALE: 1/2" = 1'-0"

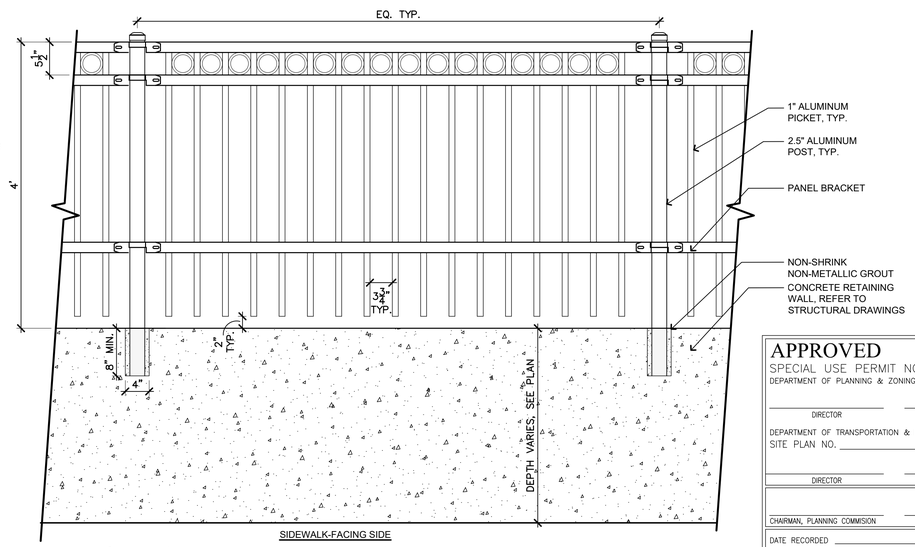






E WALL AT PRESSBOX

SCALE: 1/2" = 1'-0"



F 4' HT. ORNAMENTAL FENCE ON RETAINING WALL

SCALE: 1" = 1'-0"

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DRW: P. MATHUR	CHK: B. CIPRIANO

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BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
SEAL:

CONSTRUCTION DETAILS – 14

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: N/A VERT: N/A
DATE:	MARCH 2023
PLAN:	
JOB:	3395-0301
CADD:	3395-0301-L-DT502.DWG
NCS:	14
NUMBER:	C-513

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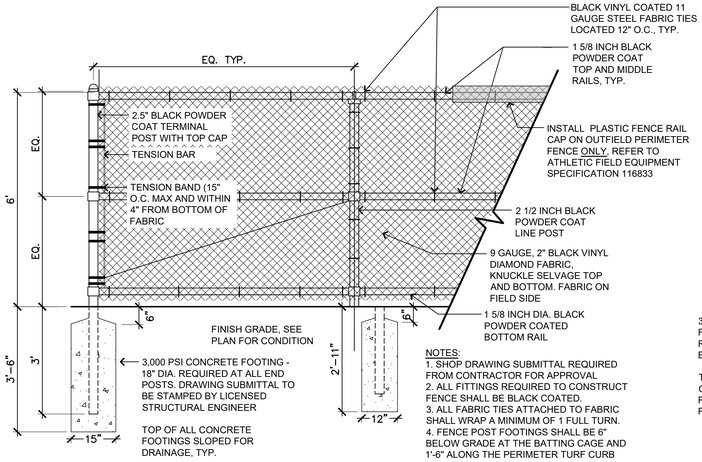
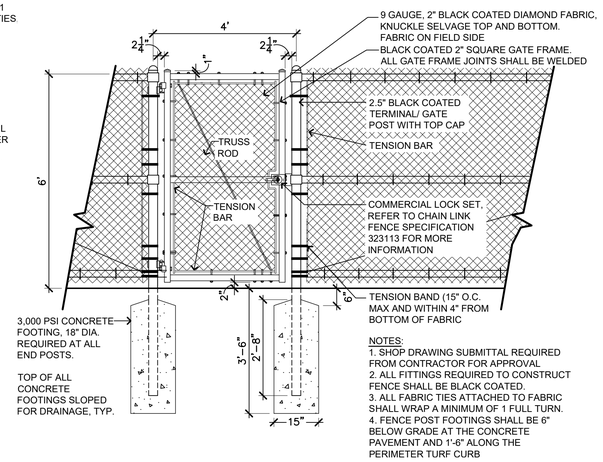


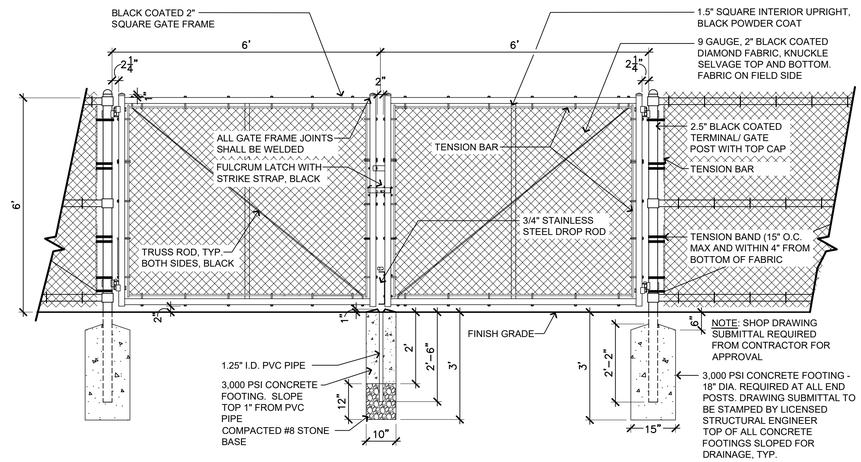
A 6' HT. CHAIN LINK FENCE

SCALE: 1/2" = 1'-0"



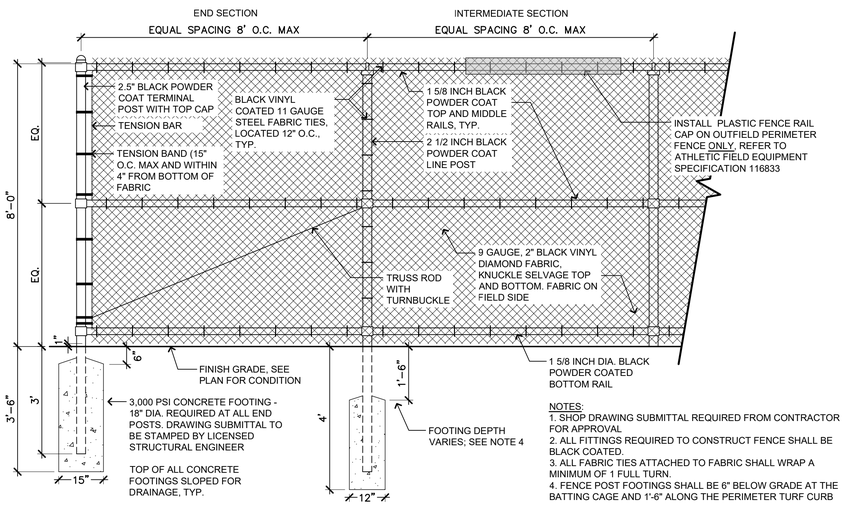
B 6' HT. CHAIN LINK FENCE - SINGLE GATE

SCALE: 1/2" = 1'-0"



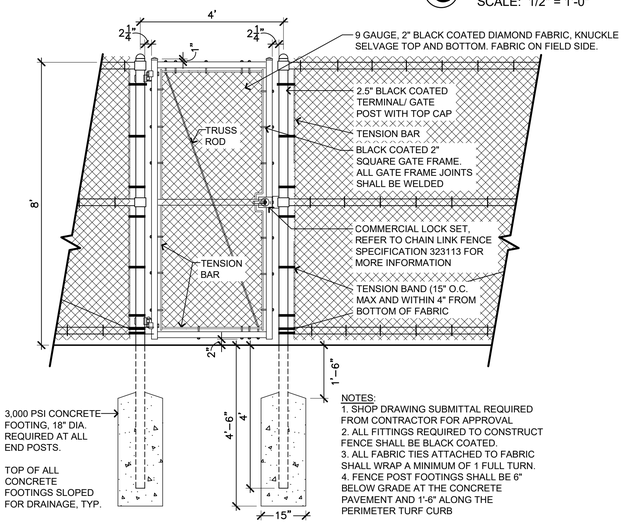
C 6' HT. CHAIN LINK FENCE - DOUBLE GATE

SCALE: 1/2" = 1'-0"



D 8' HT. CHAIN LINK FENCE

SCALE: 1/2" = 1'-0"

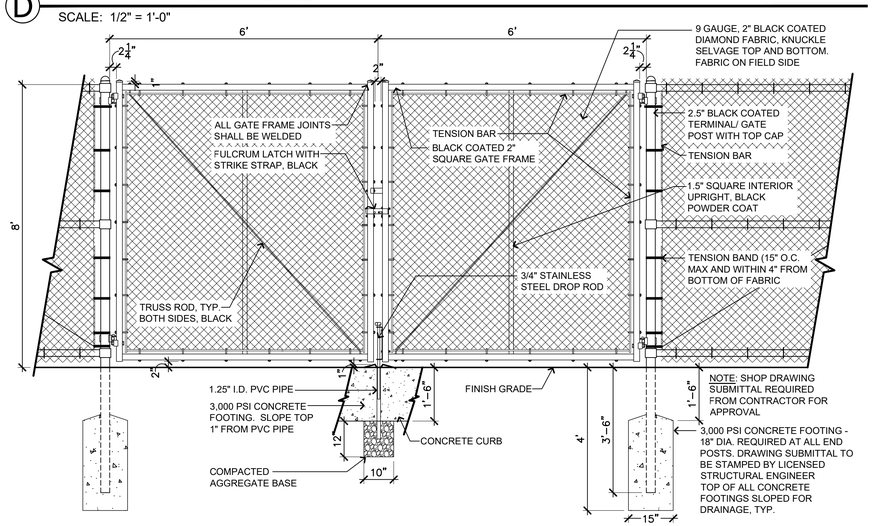


E 8' HT. CHAIN LINK FENCE - SINGLE GATE

SCALE: 1/2" = 1'-0"

NOTE:

1. REFER TO SPECIFICATION 323113 FOR MORE INFORMATION ON CHAIN LINK FENCES AND GATES.

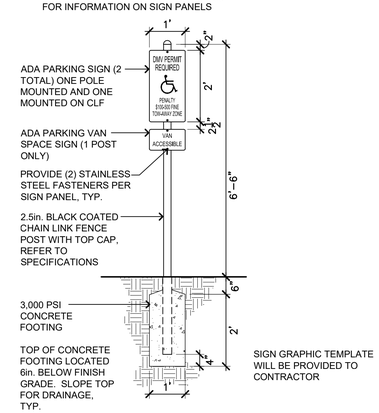


F 8' HT. CHAIN LINK FENCE - DOUBLE GATE

SCALE: 1/2" = 1'-0"

NOTE:

1. REFER TO SIGN SPECIFICATION 101400 FOR INFORMATION ON SIGN PANELS

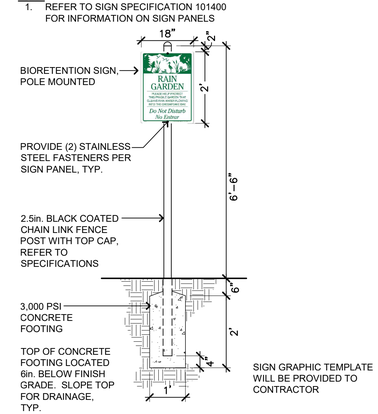


G ADA PARKING SIGN

SCALE: 1/2" = 1'-0"

NOTE:

1. REFER TO SIGN SPECIFICATION 101400 FOR INFORMATION ON SIGN PANELS



H BIORETENTION SIGN

SCALE: 1/2" = 1'-0"

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DES: B. CIPRIANO
DRW: P. MATHUR
CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
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CONSTRUCTION DETAILS – 15

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-DT502.DWG
NCS: 15
NUMBER: C-514
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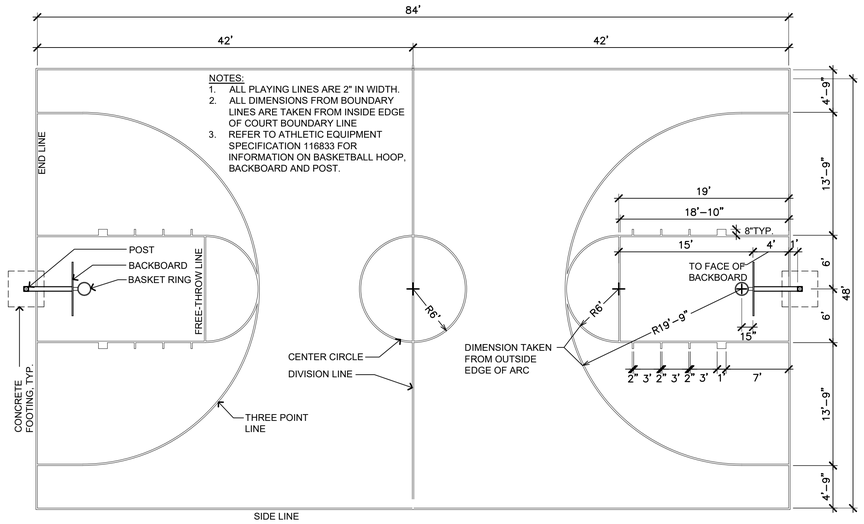
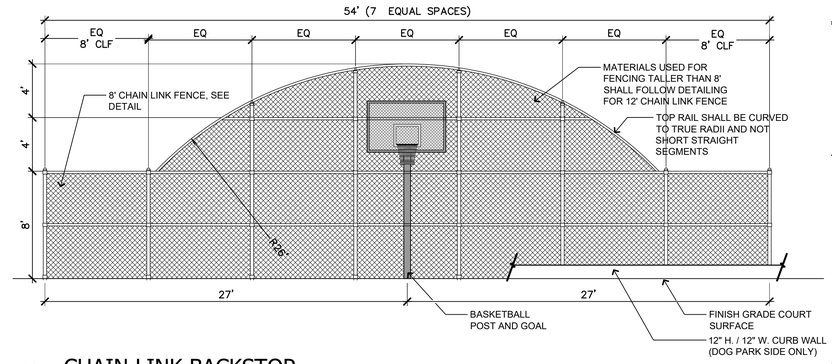


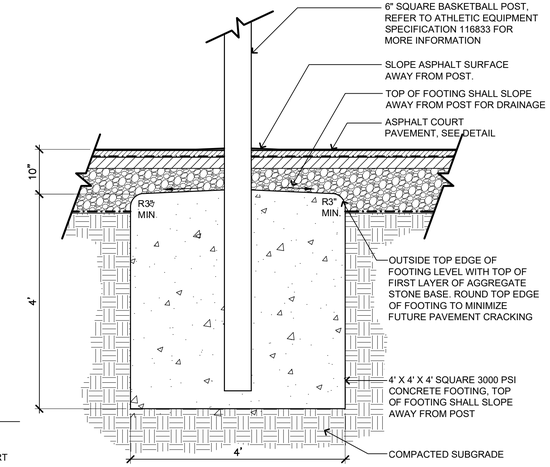
A BASKETBALL COURT LAYOUT

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



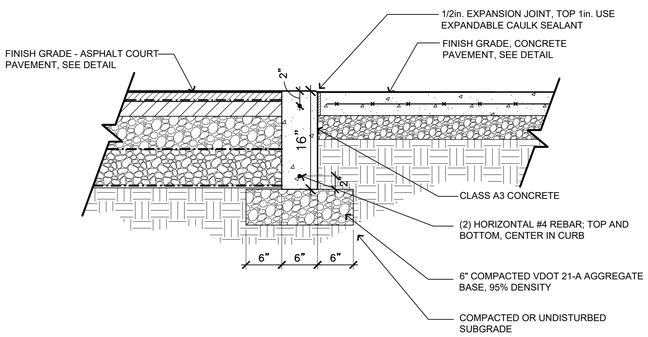
B CHAIN LINK BACKSTOP

SCALE: 3/16" = 1'-0"



C BASKETBALL HOOP POST FOOTING

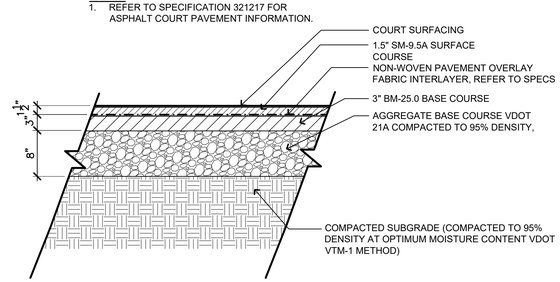
SCALE: 3/4" = 1'-0"



D FLUSH CONCRETE CURB AT COURT

SCALE: 1" = 1'-0"

NOTES:
1. REFER TO SPECIFICATION 321217 FOR ASPHALT COURT PAVEMENT INFORMATION.



E ASPHALT COURT PAVEMENT

SCALE: 1" = 1'-0"

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DRW: P. MATHUR | CHK: B. CIPRIANO

COMMONWEALTH OF VIRGINIA
BRIAN A. CIPRIANO
Lic. No. 01484
03-13-2023
LANDSCAPE ARCHITECT
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CONSTRUCTION DETAILS – 16

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: MARCH 2023
PLAN:
JOB: 3395-0301
CADD: 3395-0301-L-DT502.DWG
NCS: 16
NUMBER: C-515
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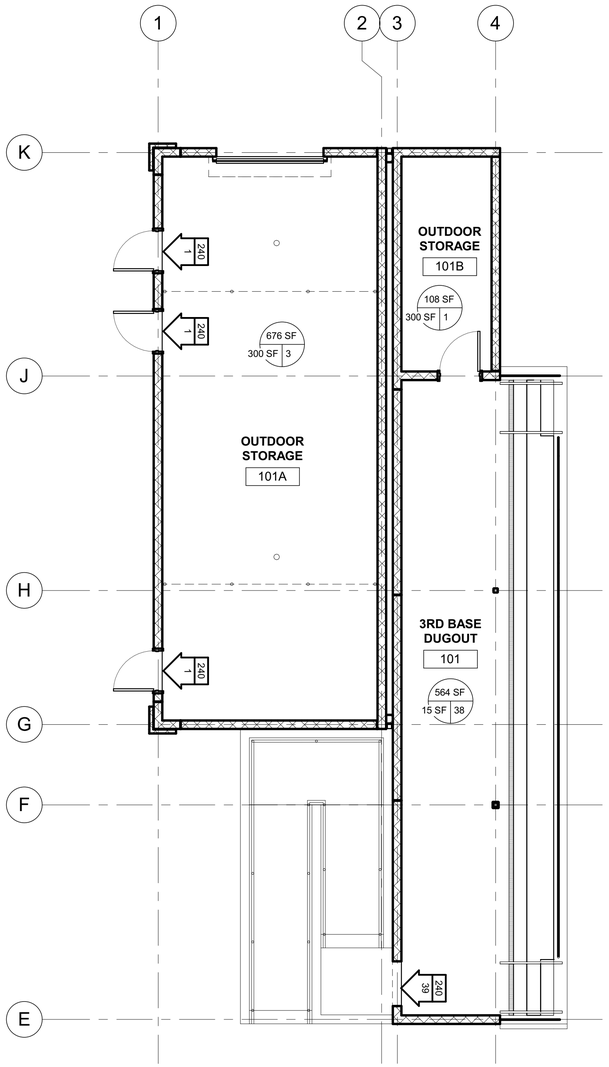
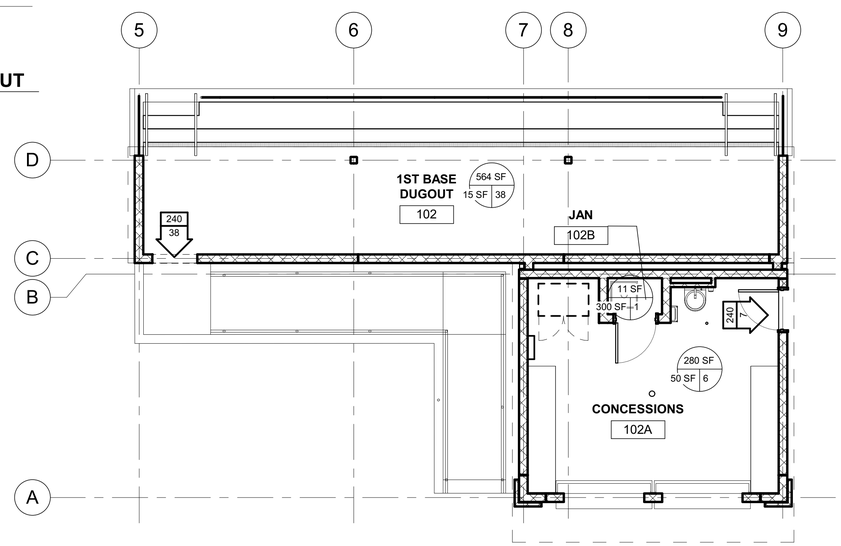


B5 A-001 **LIFE SAFETY PLAN - STORAGE-DUGOUT**
3/16" = 1'-0"



A3 A-001 **LIFE SAFETY PLAN - CONCESSIONS-DUGOUT**
3/16" = 1'-0"

LIFE SAFETY PLAN LEGEND

137'-9" — EXIT ACCESS TRAVEL DISTANCE

137'-9" — COMMON PATH OF EGRESS TRAVEL

444 / 20 23 — AREA SF; NUMBER OF OCCUPANTS; MAX SF PER OCCUPANT

EXIT SIGN - WALL MOUNTED. ARROW INDICATES DIRECTION TO EXIT

EXIT SIGN - CEILING MOUNTED. ARROW INDICATES DIRECTION TO EXIT

480 / 77 — MAXIMUM OCCUPANT LOAD AT EGRESS COMPONENT; ACTUAL OCCUPANT LOAD AT EGRESS COMPONENT

OCCUPANCY SCHEDULE

#	NAME	AREA (SF)	OCCUPANT LOAD FACTOR	OCCUPANCY CALCULATED
101	3RD BASE DUGOUT	564 SF	15 SF	38
101A	OUTDOOR STORAGE	676 SF	300 SF	3
101B	OUTDOOR STORAGE	108 SF	300 SF	1
102	1ST BASE DUGOUT	564 SF	15 SF	38
102A	CONCESSIONS	280 SF	50 SF	6
102B	JAN	11 SF	300 SF	1
Grand total				87

PROJECT NAME

SIMPSON STADIUM PARK
STORAGE BUILDING
CONCESSIONS BUILDING
TWO SUNKEN DUGOUTS, ONE WITH OUTDOOR STORAGE
TWO ON-GRADE DUGOUTS

PROJECT ADDRESS

426 E MONROE AVE, ALEXANDRIA, VA 22301

APPLICABLE CODES

2018 VIRGINIA CONSTRUCTION CODE (IBC) | USBC, PART 1
2009 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES (ICC/ANSI A117.7)
2018 VIRGINIA ENERGY CONSERVATION CODES
2018 VIRGINIA MECHANICAL CODE (IMC)
2018 VIRGINIA PLUMBING CODE (IPC)
2014 NATIONAL ELECTRICAL CODE

STORAGE BUILDING AND CONCESSIONS BUILDING CODE ANALYSIS

CODE SUMMARY

CONSTRUCTION TYPE	VB (PER TABLE 601)
USE GROUP	A-5
HIGH RISE BUILDING	NO (SECTION 403)
FULLY SPRINKLERED	NO (SECTION 903)
FIRE ALARM	NO (SECTION 907)

GENERAL BUILDING HEIGHT

LIMITATIONS PER TABLES 504.3 AND 504.4	ALLOWABLE	ACTUAL
ALLOWABLE HEIGHT (FEET)	40' - 0"	11' - 8" TO MIDPOINT OF SLOPED ROOF
ALLOWABLE HEIGHT (STORIES)	UL	1 STORY
HEIGHT INCREASE FOR SPRINKLERS	N/A	-

GENERAL BUILDING AREA

LIMITATIONS PER IBC SECTION 506	ALLOWABLE	ACTUAL
ALLOWABLE AREA PER FLOOR	UL	CONCESSIONS - 347 GSF STORAGE BUILDING - 751 GSF STORAGE OFF DUGOUT - 133 GSF DUGOUT - 633 GSF (EACH)
AREA INCREASE FOR SPRINKLERS	NOT TAKEN	ON-GRADE DUGOUT - 458 GSF (EACH)
AREA INCREASE FOR FRONTAGE	NOT TAKEN	
TOTAL ALLOWABLE AREA FOR OCCUPANCY	N/A	

SEPARATION REQUIREMENTS

PER IBC SECTION 508.3.3: SEPARATION IS NOT REQUIRED FOR NONSEPARATED / MIXED OCCUPANCIES.

F-R RATING REQUIREMENTS FOR BUILDING ELEMENTS PER IBC TABLE 601 FOR CONSTRUCTION TYPE VB

BUILDING ELEMENT	RATING (IN HOURS)
PRIMARY STRUCTURAL FRAME	0
BEARING WALLS	
EXTERIOR	0
INTERIOR	0
NON BEARING WALLS AND PARTITIONS	
EXTERIOR	0
INTERIOR	0
FLOOR CONSTRUCTION AND SECONDARY MEMBERS	0
ROOF CONSTRUCTION AND SECONDARY MEMBERS	0

MEANS OF EGRESS

EGRESS COMPONENT	MIN. WIDTH REQUIRED	WIDTH PROVIDED
DOORS	32" EA (IBC SECTION 1010.1.1)	32" MINIMUM

MAX. EXIT ACCESS TRAVEL DISTANCE		PROVIDED
A-5 USE	200' (IBC TABLE 1017.2)	<200'

MAX. COMMON PATH OF TRAVEL DISTANCE		
A-5 USE	75' (IBC TABLE 1006.2.1)	<75'

HUGHES GROUP ARCHITECTS
22630 DAVIS DRIVE, SUITE 175
STERLING, VIRGINIA 20164
703.437.6600

REVISIONS

NUMBER	DATE	ISSUE

FOR SITE PLAN REVIEW ONLY.
NOT FOR BUILDING PERMIT.

COMMONWEALTH OF VIRGINIA
CALVIN DUFFIELD MYERS
Lic No. 0401015324
ARCHITECT
SEAL:

PROJECT DATA, CODE ANALYSIS, AND LIFE SAFETY

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	A-001

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ABBREVIATIONS

ADA	AMERICANS WITH DISABILITIES ACT
&	AND
<	ANGLE
@	AT
℄	CENTERLINE
∅	DIAMETER OR ROUND
#	NUMBER
EX	EXISTING
ACOUS	ACOUSTICAL
ADJ	ADJUSTABLE
AGGR	AGGREGATE
AL	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASPH	ASPHALT
ACT	ACOUSTICAL TILE CEILING
AWP	ACOUSTIC WALL PANEL
AF	ATHLETIC FLOORING
BITUM	BITUMINOUS
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BOT	BOTTOM
CAB	CABINET
CB	CATCH BASIN
CT	CERAMIC TILE
CI	CAST IRON
CJ	CONTROL JOINT
CG	CORNER GUARD
CLG	CEILING
CLKG	CAULKING
CLO	CLOSET
CLR	CLEAR
CO	CLEAR OPENING
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CORR	CORRIDOR
CONT	CONTINUOUS
COORD	COORDINATE (ION)
CTG	COATING
CTR	CENTER
CPT	CARPET
CT	CERAMIC TILE
DIA	DIAMETER
DBL	DOUBLE
DEPT	DEPARTMENT
DEC	DECORATIVE
DF	DRINKING FOUNTAIN
DTL	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DN	DOWN
DO	DOOR OPENING
DS	DOWNSPOUT
DSP	DRY STANDPIPE
DWG	DRAWING
E	EAST
EA	EACH
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOSURE
EP	ELECTRICAL PANELBOARD
EQ	EQUAL
EQUIP	EQUIPMENT
EOS	EDGE OF SLAB
EWC	ELECTRIC WATER COOLER
EX	EXISTING
EXT	EXTERIOR
FA	FIRE ALARM
FOM	FACE OF MASONRY
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CAB.
FHC	FIRE HOSE CABINET
FIN	FINISH
FL	FLOOR
FLOUR	FLUORESCENT
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOS	FACE OF STUDS
FPRF	FIREPROOF
FRT	FIRE RETARDENT
FT	FOOT OR FEET
FTG	FOOTING
FURR	FURRING
FRT	FIRE RETARDANT
GA	GAUGE
GALV	GALVANIZED
GL	GLASS
GND	GROUND
GR	GRADE
GYP	GYPSUM BOARD
GL	GLASS
HB	HOSE BIBB
HC	HOLLOW CORE
HDWD	HARDWOOD
HDWR	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
HT	HEIGHT
HVAC	HEATING, VENTILATING AND AIR CONDITION
ID	INSIDE DIAMETER
INSUL	INSULATION
INSTALL	INSTALLATION
INT	INTERIOR
INTM	INTERMEDIATE
JAN	JANITOR
JT	JOINT
KIT	KITCHEN
LAB	LABORATORY
LAM	LAMINATE
LCKR	LOCKER
LT	LIGHT
LVR	LOUVER
MAX	MAXIMUM
MAS	MASONRY
MC	MEDICINE CABINET
MECH	MECHANICAL
MEMB	MEMBRANE
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTD	MOUNTED
MTL	METAL
MUL	MULLION
N	NORTH
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPNG	OPENING
OPP	OPPOSITE
OH	OPPOSITE HAND
PF	PREFINISHED
PC	PRECAST CONCRETE
PEMB	PRE ENGINEERED METAL BUILD
PL	PLATE
PLAM	PLASTIC LAMINATE
PLYWD	PLYWOOD
PR	PAIR
PTD	PAINTED
PTN	PARTITION
PLAM	PLASTIC LAMINATE
PTC	PORCELAIN TILE
PT	PAINT
QT	QUARRY TILE
QTY	QUANTITY
R	RISER
RAD	RADIUS
RD	ROOF DRAIN
REF	REFERENCE
REFR	REFRIGERATOR
REINF	REINFORCED
REQ	REQUIRED
RESIL	RESILIENT
RM	ROOM
RO	ROUGH OPENING
RX	REMOVE EXISTING
RB	RUBBER BASE
RT	RUBBER TREADS
S	SOUTH
SCHED	SCHEDULE
SF	SQUARE FOOT/FEET
SECT	SECTION
SHWR	SHOWER
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SSM	SOLID SURFACE
SOG	SLAB ON GRADE
SS	STAINLESS STEEL
STA	STATION
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRT	STRUCTURAL
SUSP	SUSPENDED
SC	SEALED CONCRETE
SSM	SOLID SURFACE MATERIAL
SS	STAINLESS STEEL
T	TREAD
TOC	TOP OF CURB
TOS	TOP OF STEEL
TEL	TELEPHONE
TZ	TERRAZZO
T&G	TONGUE & GROOVE
THK	THICK
TPD	TOILET PAPER DISPENSER
TV	TELEVISION
TOW	TOP OF WALL
TYP	TYPICAL
TZ	TERRAZZO
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
UMD	UNDERSIDE OF METAL DECK
VERT	VERTICAL
VTR	VENT THROUGH ROOF
VIF	VERIFY IN FIELD
VB	VINYL BASE
VCT	VINYL COMPOSITE TILE
W	WEST
W/	WITH
WC	WATER CLOSET
WM	WALK OFF MATT
WD	WOOD
WF	WOOD FLOORING
W/O	WITHOUT
WP	WORK POINT
WSCT	WAINSCOT
WT	WEIGHT

NOTE: ABBREVIATION LIST IS FOR CONTRACTORS CONVENIENCE AND MAY NOT BE COMPLETE. REFER ANY QUESTIONABLE ABBREVIATIONS TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

GENERAL NOTES

A. GENERAL NOTES:

1. THE CONTRACT, ADDENDA, SUPPLEMENTAL CONDITIONS, GENERAL REQUIREMENTS, GENERAL CONDITIONS, AND TECHNICAL SPECIFICATIONS SHALL HAVE PRECEDENCE OVER THESE GENERAL NOTES. ANY CONFLICT BETWEEN THESE GENERAL NOTES AND LANGUAGE FOUND IN THE ABOVE DOCUMENTS OR IN THE DRAWINGS OR IN ANY OTHER CONTRACT DOCUMENT SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY FOR FURTHER CLARIFICATION.

2. CONTRACTOR SHALL PROVIDE COMPLETE SYSTEMS AND ASSEMBLIES THAT INCLUDE ALL COMPONENTS NECESSARY FOR A FULLY FUNCTIONAL ASSEMBLY SATISFYING THE DESIGN INTENT, COMPLY WITH THE REQUIREMENTS INDICATED IN THE CONTRACT DOCUMENTS AND READY FOR THE INTENDED USE. REFERENCE CONDITIONS OF THE CONTRACT AND/OR GENERAL REQUIREMENTS FOR ADDITIONAL INFORMATION.

3. REFERENCE CONDITIONS OF THE CONTRACT AND/OR GENERAL REQUIREMENTS FOR ANY OCCUPANCY RESTRICTIONS OR REQUIREMENTS DURING CONSTRUCTION.

4. REFERENCE CONDITIONS OF THE CONTRACT AND/OR GENERAL REQUIREMENTS REGARDING REQUIREMENTS FOR DOCUMENTATION AND REPORTING OF FIELD CONDITIONS BY THE CONTRACTOR AND COORDINATION WITH THE CONTRACT DOCUMENTS.

5. REFERENCE CONDITIONS OF THE CONTRACT AND/OR GENERAL REQUIREMENTS REGARDING COORDINATION OF THE WORK OR OTHER SPECIAL COORDINATION REQUIREMENTS.

6. THE SCOPE OF WORK IS DEFINED IN THE DRAWINGS AND SPECIFICATIONS; REFERENCE TO BOTH IS REQUIRED.

7. ALL DRAWINGS, SPECIFICATIONS AND CONSTRUCTION NOTES FORMING PART OF THE CONSTRUCTION DOCUMENTS ARE COMPLIMENTARY AND WHAT IS CALLED FOR BY ONE SHALL BE BINDING AS IF CALLED FOR BY ALL. ANY WORK SHOWN OR REFERRED TO ON ANY ONE DOCUMENT SHALL BE PROVIDED AS THOUGH SHOWN ON ALL DOCUMENTS.

8. ALL CONSTRUCTION AND WORK SHOWN ON THE COMPLETE SET OF DOCUMENTS (DRAWINGS AND SPECIFICATIONS) IS ASSUMED TO BE NEW AND TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR, UNLESS SPECIFICALLY NOTED OTHERWISE.

9. ENGINEERING CONSULTANT DOCUMENTS ARE SUPPLEMENTARY TO THE ARCHITECTURAL DOCUMENTS. SHOULD THERE BE DISCREPANCY BETWEEN THE ARCHITECTURAL DOCUMENTS AND THE ENGINEERING CONSULTANT DOCUMENTS, SUCH DISCREPANCY IS TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. THE CONTRACTOR SHALL RECEIVE INTERPRETATION FROM THE ARCHITECT PRIOR TO INSTALLATION OR PERFORMANCE OF SAID WORK.

10. CONFLICTS BETWEEN THE DRAWINGS AND SPECIFICATIONS SHOULD IMMEDIATELY BE REFERRED TO THE ARCHITECT FOR CLARIFICATION.

11. IF A CONFLICT EXISTS BETWEEN DRAWINGS OF DIFFERENT SCALES, CONSULT THE ARCHITECT FOR CLARIFICATION.

B. DEFINITIONS:

1. "TYPICAL" OR "TYP" INDICATES IDENTICAL COMPLETE SYSTEM, ASSEMBLY OR COMPONENT SHALL BE PROVIDED FOR EACH OCCURRENCE OF THE CONDITION NOTED. DETAILS NOTES AS TYPICAL SHALL APPLY TO ALL APPROPRIATE CONDITIONS EVEN IF NOT SPECIFICALLY REFERENCED.

2. "SIMILAR" OR "SIM" INDICATES COMPLETE SYSTEM, ASSEMBLY AND COMPONENTS SHALL BE PROVIDED INCLUDING ANY ADJUSTMENTS REQUIRED DUE TO VARIATION AT A PARTICULAR CONDITION RESULTING IN COMPARABLE CHARACTERISTICS FOR THE "SIMILAR" CONDITION NOTED. THE ARCHITECT SHALL BE THE SOLE JUDGE OF A SIMILAR CONDITION'S COMPLIANCE WITH THE DESIGN INTENT.

3. "AS REQUIRED" INDICATES ITEMS OF WORK REQUIRED TO PROVIDE FOR A COMPLETE SYSTEM, ASSEMBLY OR COMPONENT AS INDICATED IN THE CONTRACT DOCUMENTS. ALL COMPONENTS OF THE NOTED SYSTEM SHALL BE PROVIDED AND INSTALLED, COMPLETE AND READY FOR THE INTENDED USE.

4. "ALIGN" INDICATES ACCURATELY PROVIDE FINISH FACES OF MATERIALS IN STRAIGHT, TRUE, LEVEL AND/OR PLUMB RELATION TO ADJACENT SURFACES WITHIN TOLERANCES DEFINED IN THE TECHNICAL SPECIFICATION.AND ROOF PENETRATIONS, SEE PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXTENT AND LOCATIONS. PROVIDE ALL SLEEVES, LINTELS, AND SEALANTS FOR ALL WALL PENETRATIONS.

C. DIMENSIONS:

1. DIMENSIONS ARE INDICATED TO THE CENTERLINE OF STRUCTURAL GRID, FACE OF UNIT MASONRY WALL, AND/OR TO THE FINISH FACE OF INTERIOR WALLS AND PARTITIONS AS SCHEDULED, UNLESS NOTED OTHERWISE.

2. FLOOR ELEVATIONS ARE INDICATED TO THE TOP SURFACE OF THE STRUCTURAL SLAB, UNLESS NOTED OTHERWISE.

3. CEILING HEIGHTS ARE INDICATED FROM FINISHED FLOOR ELEVATIONS TO THE FINISH FACE OF SUSPENDED CEILING SYSTEMS OR FACE OF FINISH MATERIALS AS INDICATED OR SCHEDULED.

4. DIMENSIONS SHOWN ON THE DRAWINGS SHALL INDICATE THE REQUIRED SIZES, CLEARANCES, AND DIMENSIONAL RELATIONSHIPS BETWEEN PROJECT SYSTEMS, ASSEMBLIES AND COMPONENTS. DIMENSIONS SHALL NOT BE DETERMINED BY SCALING THE DRAWINGS. USE WRITTEN DIMENSIONS ONLY. WHERE A DIMENSION IS MISSING, OR CANNOT BE DETERMINED MATHEMATICALLY, CONSULT THE ARCHITECT FOR CLARIFICATION.

5. WHERE EQUIPMENT OR COMPONENTS HAVE DIMENSIONAL VARIATION DEPENDENT ON THE SELECTED MANUFACTURER, THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ADJOINING CONSTRUCTION TO ACCOMMODATE THE SELECTED MANUFACTURER'S REQUIREMENTS.

D. PROJECT SPECIFIC NOTES

1. SECTIONS ILLUSTRATED ARE INTENDED TO SHOW THE SPECIFIC CONSTRUCTION WHERE REFERENCED AS WELL AS TO ESTABLISH THE GENERAL CONSTRUCTION DETAILS FOR SIMILAR ASSEMBLIES THROUGHOUT THE PROJECT FOR WHICH SECTIONS HAVE NOT BEEN PROVIDED.

2. EACH TRADE SHALL REFER TO CIVIL, STRUCTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR POTENTIAL CONFLICTS WITH WORK SPECIFIC TO THEIR TRADE. THE CONTRACTOR SHALL REFER ANY CONFLICTS TO THE ARCHITECT FOR CLARIFICATION PRIOR TO INSTALLATION OF CONFLICTING ITEMS.

3. WHERE ILLUSTRATED, LOCATE THERMOSTATS, FIRE ALARM DEVICES, AND OTHER ELECTRICAL OR MECHANICAL APPURTENANCES AS SHOWN ON THE ARCHITECTURAL DRAWINGS. WHERE NOT ILLUSTRATED ON THE ARCHITECTURAL DRAWINGS, CONFIRM EXACT LOCATIONS OF THESE ITEMS WITH THE ARCHITECT PRIOR TO INSTALLATION.

4. ARCHITECTURAL DRAWINGS DO NOT SHOW ALL WORK RELATING TO FLOOR, WALL AND ROOF PENETRATIONS FOR INSTALLATION OF MECHANICAL, ELECTRICAL, AND PLUMBING ITEMS. FOR WALL, FLOOR AND ROOF PENETRATIONS, SEE PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXTENT AND LOCATIONS. PROVIDE ALL SLEEVES, LINTELS, AND SEALANTS FOR ALL WALL PENETRATIONS.

DRAWING INDEX

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A-011	PARTITION TYPES
A-100	ARCHITECTURAL SITE PLAN
A-101A	STORAGE-DUGOUT FLOOR PLAN AND DIMENSION PLAN
A-101B	CONCESSIONS-DUGOUT FLOOR PLAN AND DIMENSION PLAN
A-101C	ON-GRADE DUGOUT FLOOR PLAN AND ROOF PLAN
A-105	ROOF PLANS
A-106	ROOF DETAILS
A-107	ROOF DETAILS
A-151A	STORAGE-DUGOUT REFLECTED CEILING PLAN AND DETAILS
A-151B	CONCESSIONS-DUGOUT REFLECTED CEILING PLAN AND DETAILS
A-201A	STORAGE-DUGOUT BUILDING ELEVATIONS
A-201B	CONCESSIONS-DUGOUT BUILDING ELEVATIONS
A-201C	ON-GRADE DUGOUT ELEVATIONS
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A-301	BUILDING SECTIONS
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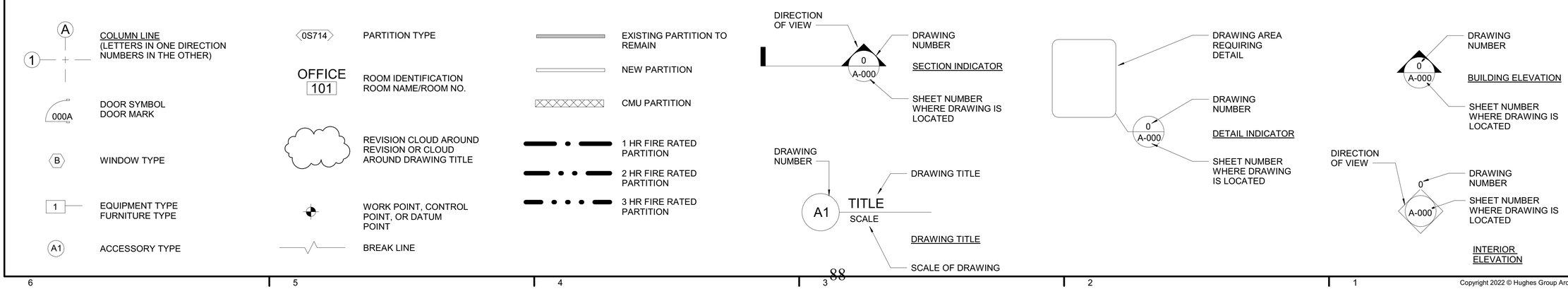
A-311	WALL SECTIONS
A-312	WALL SECTIONS
A-313	WALL SECTIONS AND DETAILS
A-315	PLAN DETAILS
A-320	SECTION DETAILS
A-401	ENLARGED PLANS AND MOUNTING HEIGHTS
A-405	STAIR PLANS AND DETAILS
A-631	FINISH SCHEDULE, MATERIAL SCHEDULE, FINISH DETAILS, AND SIGNAGE
A-632	DOOR SCHEDULE AND DETAILS

SYMBOLS AND CONVENTIONS



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DRAWING CONVENTIONS AND DRAWING INDEX

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	A-010

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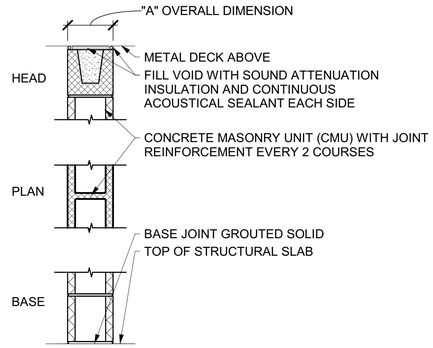

DESIGNATION			"S" MODIFIER
NO.	"A" DIM.	FIRE TEST	STC CLASS
0M040	3 5/8"	N/A	45
0M080	7 5/8"	N/A	50

0M NON-RATED CONCRETE MASONRY PARTITION

NON-LOAD BEARING

PARTITION LABELING LEGEND

PARTITION TYPE DESIGNATION

2 S 438 SW

- HOURLY RATING
- CORE STRUCTURE
- OVERALL PARTITION THICKNESS
- MODIFICATION DESIGNATIONS

HOURLY RATING		CORE STRUCTURE	
0	0 HOURS	S	STEEL STUD
1	1 HOUR	W	WOOD STUD
2	2 HOURS	M	CONCRETE MASONRY UNIT
3	3 HOURS	F	FURRING
4	4 HOURS	X	SHAFT WALL - STEEL STUD
S	SMOKE	C	CHASE WALL

MODIFICATION DESIGNATIONS

W	SUBSTITUTE SCHEDULE GYPSUM BOARD WITH GLASS MAT. WATER RESISTANT BACKING PANEL GYPSUM BOARD OF EQUAL THICKNESS AND FIRE RATING IN AREAS TO RECEIVE TILE
I	SUBSTITUTE THE OUTSIDE FACE LAYER OF THE SCHEDULED GYPSUM BOARD WITH HIGH IMPACT RESISTANT GYPSUM BOARD OF EQUAL THICKNESS AND FIRE RATING
S	SOUND ATTENUATION REQUIRED - COMPLY WITH SCHEDULED STC RATING AND TESTING ASSEMBLY REQUIREMENTS
X	EXTEND PARTITION TO 8" ABOVE FINISH CEILING AND BRACE TO STRUCTURE

GENERAL NOTES:

1. PROVIDE WOOD BLOCKING AT ALL WALL MOUNTED ACCESSORIES (I.E. GRAB BARS, ETC.)
2. NON-STRUCTURAL WOOD FRAMING/BLOCKING SHALL BE FIRE RETARDANT TREATED.
3. WOOD FRAMING/BLOCKING IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.

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Lic No. 0401013324
ARCHITECT

SEAL:

PARTITION TYPES

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	A-011

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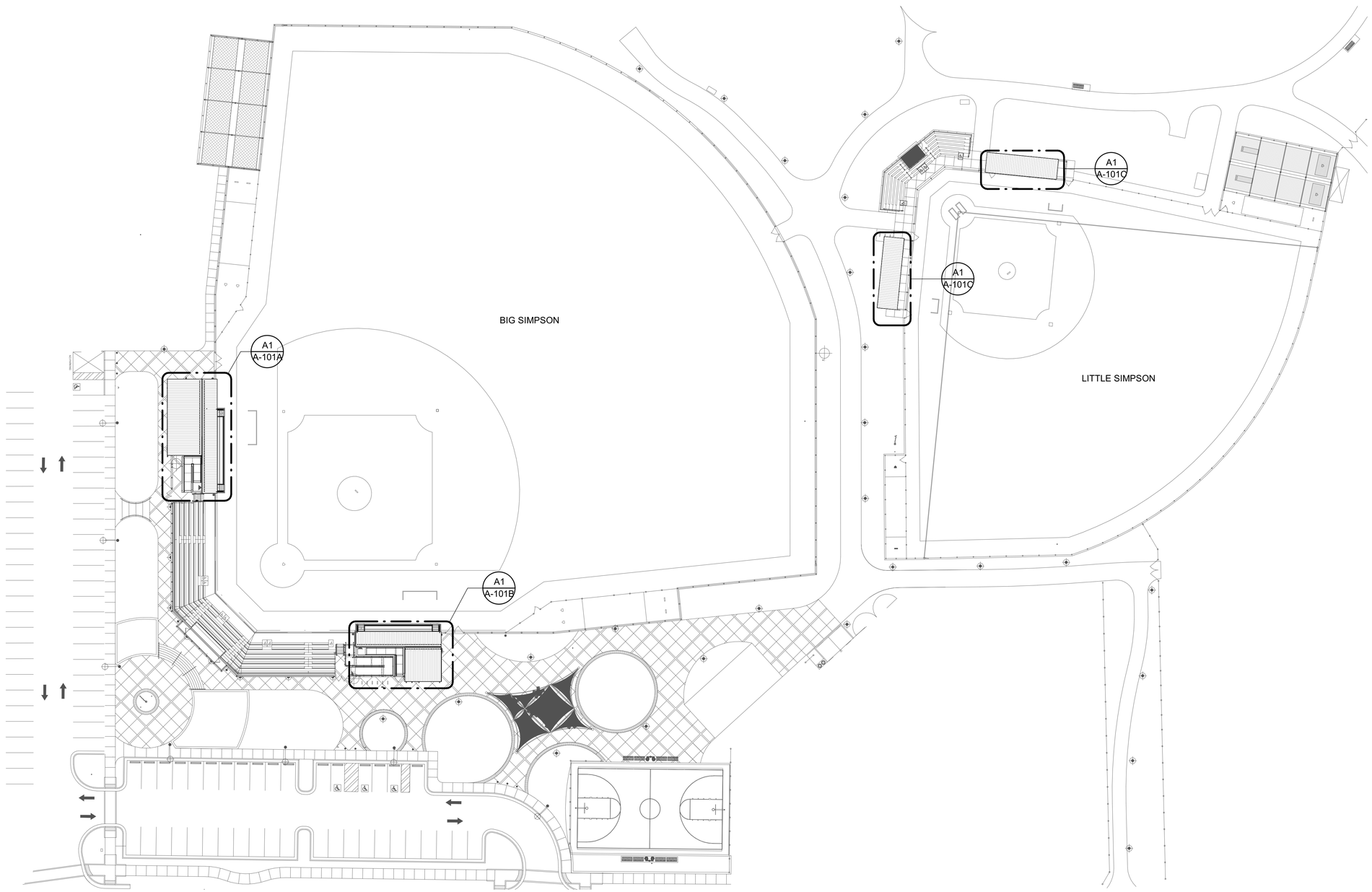
FOR REFERENCE ONLY. PLEASE REFER TO CIVIL PLAN FOR ALL SITE AND BALLFIELD RELATED DESIGNS.



A1 / A-100 ARCHTIECTURAL SITE PLAN
1" = 30'-0"

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ARCHITECTURAL SITE PLAN

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

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JOB:	2106
CADD:	
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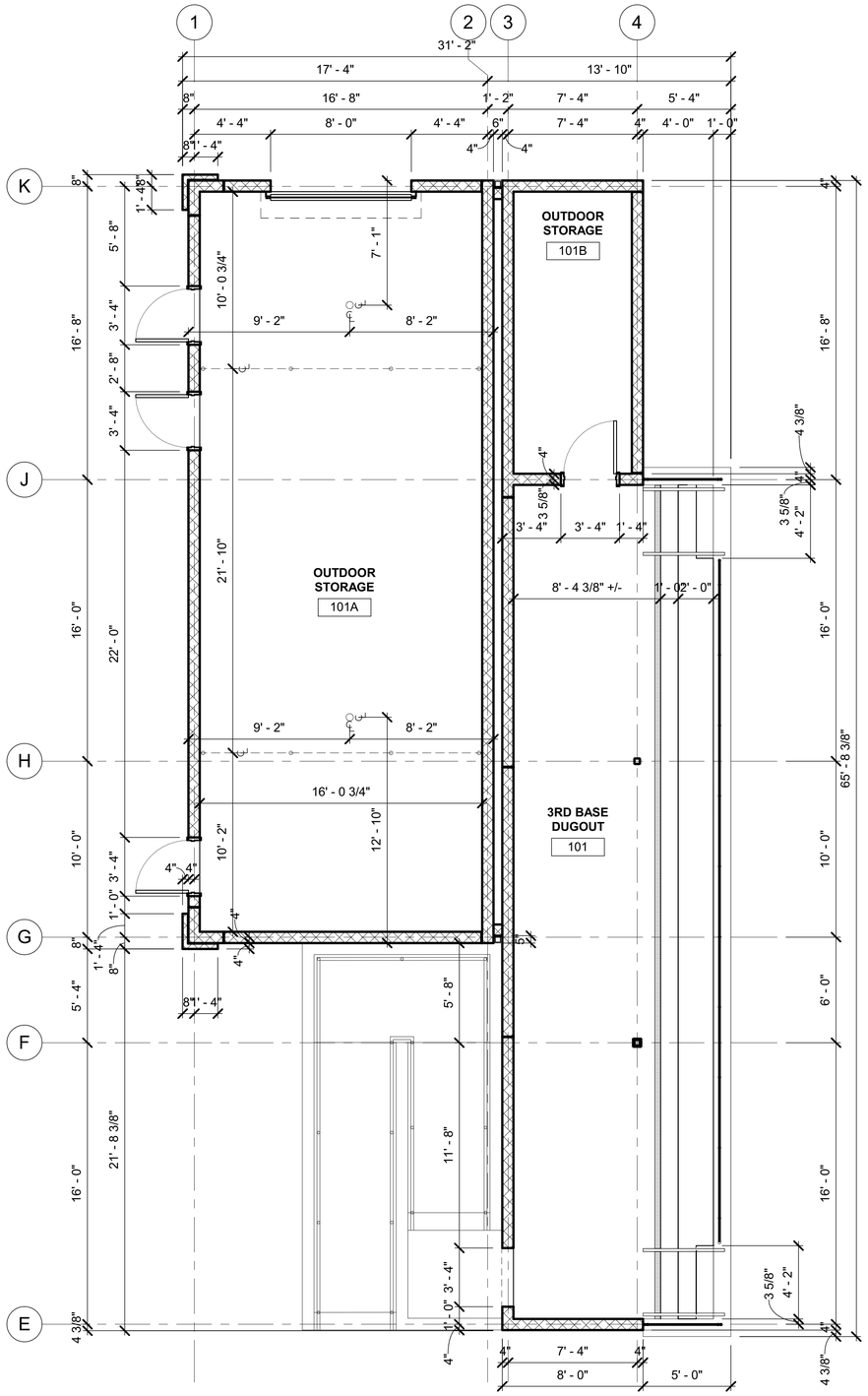
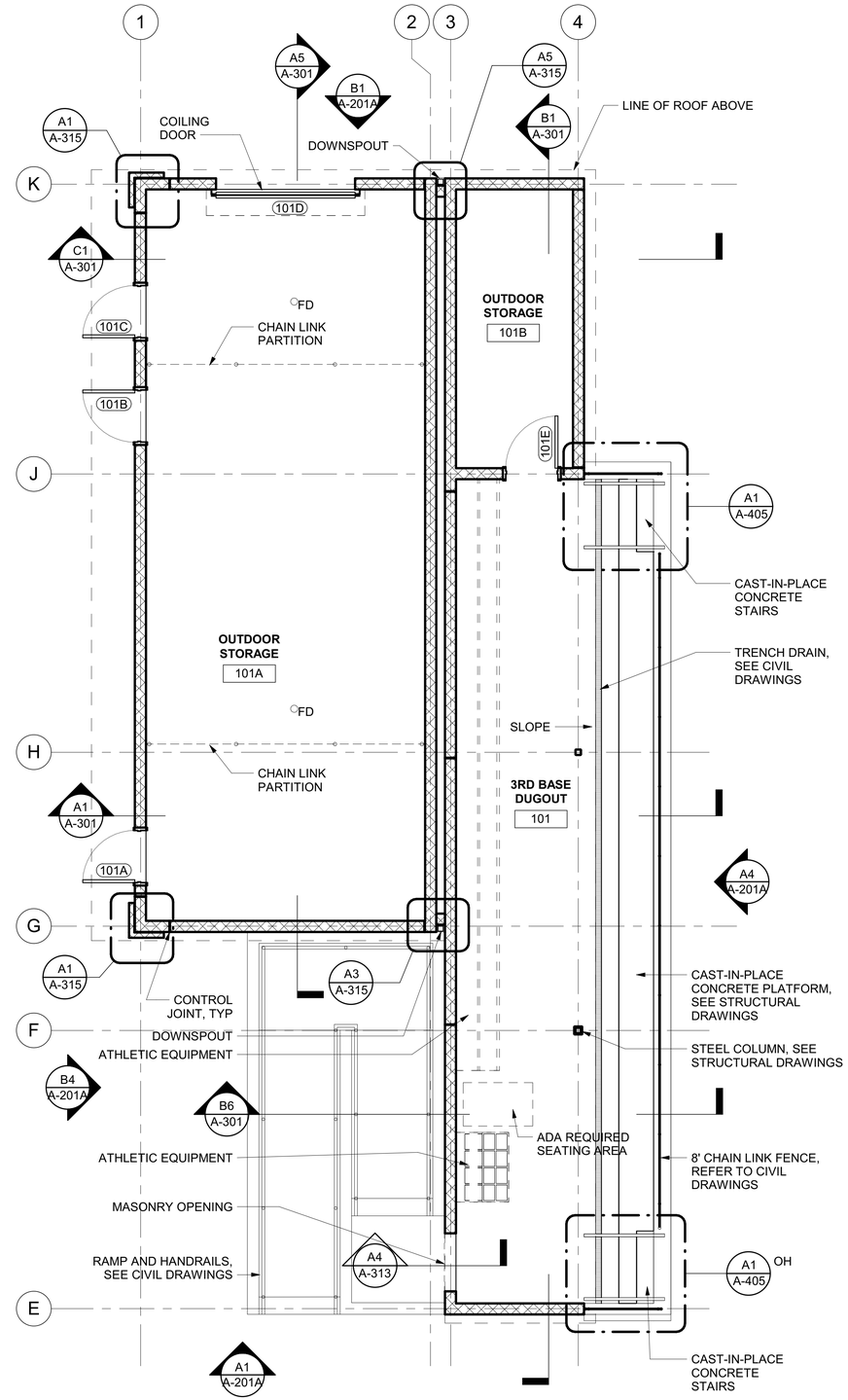


A4 A-101A **FIRST FLOOR DIMENSION PLAN - STORAGE-DUGOUT**

1/4" = 1'-0"



A1 A-101A **FIRST FLOOR PLAN - STORAGE-DUGOUT**

1/4" = 1'-0"

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STORAGE-DUGOUT FLOOR PLAN AND DIMENSION PLAN

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

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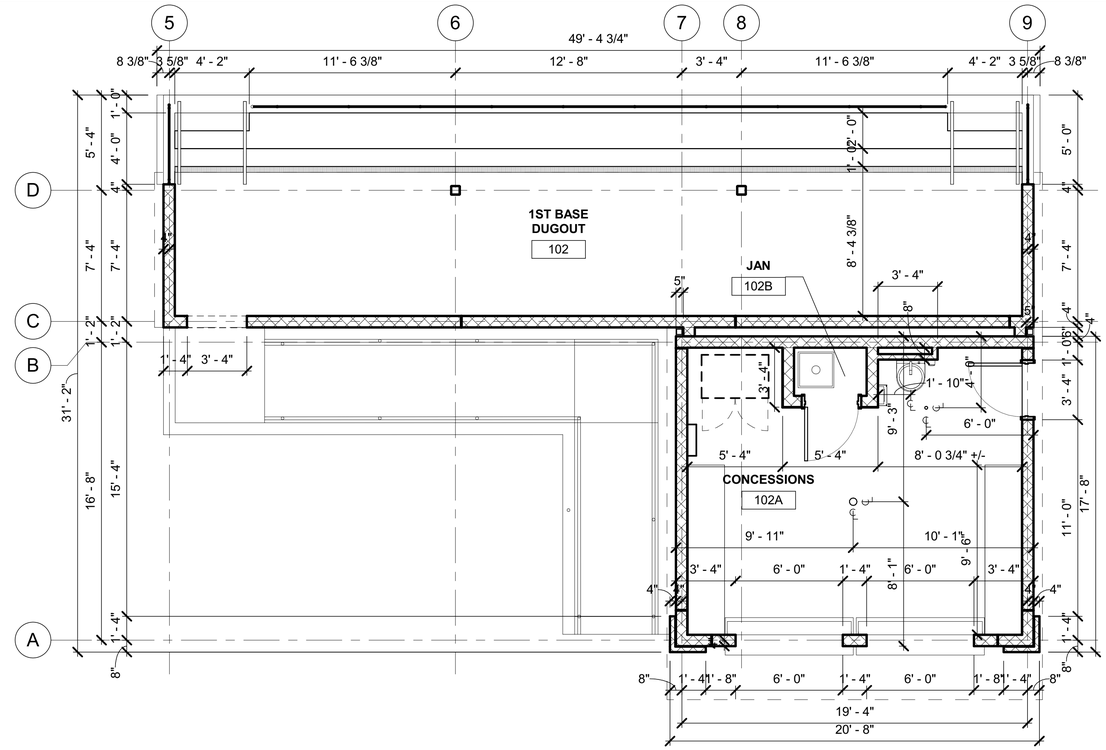
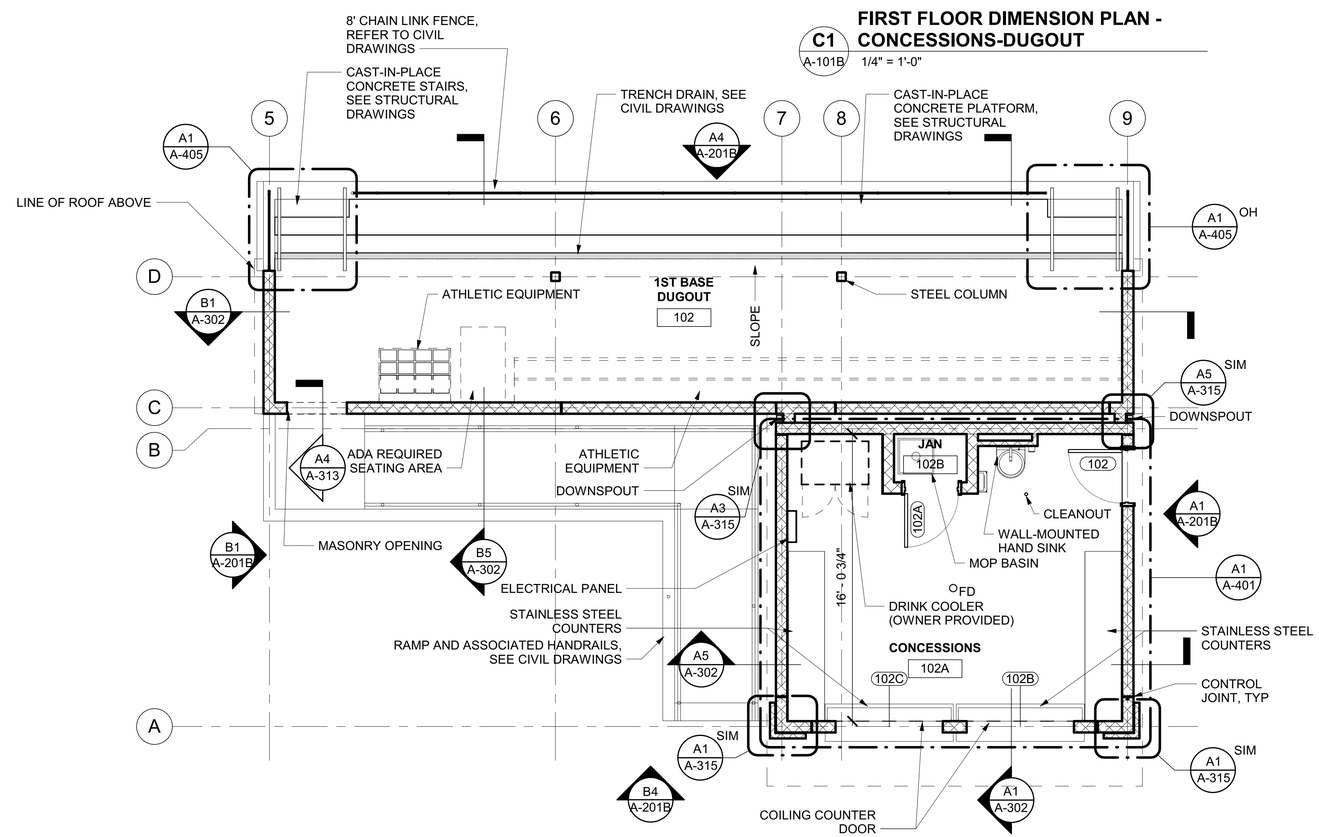


C1 A-101B **FIRST FLOOR DIMENSION PLAN - CONCESSIONS-DUGOUT**

1/4" = 1'-0"



A1 A-101B **FIRST FLOOR PLAN - CONCESSIONS-DUGOUT**

1/4" = 1'-0"

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CONCESSIONS-DUGOUT FLOOR PLAN AND DIMENSION PLAN

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
CADD:	
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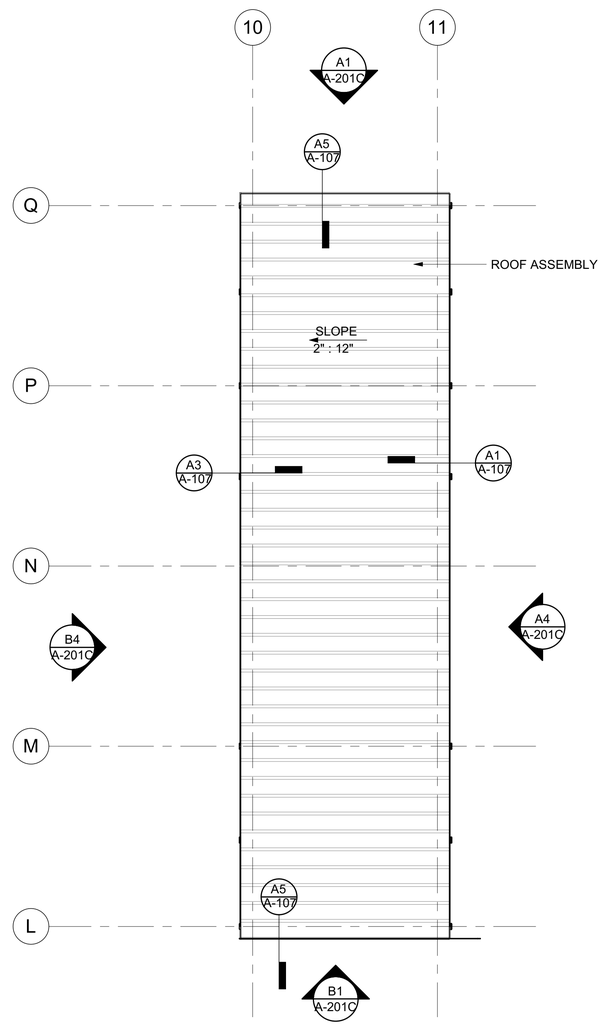
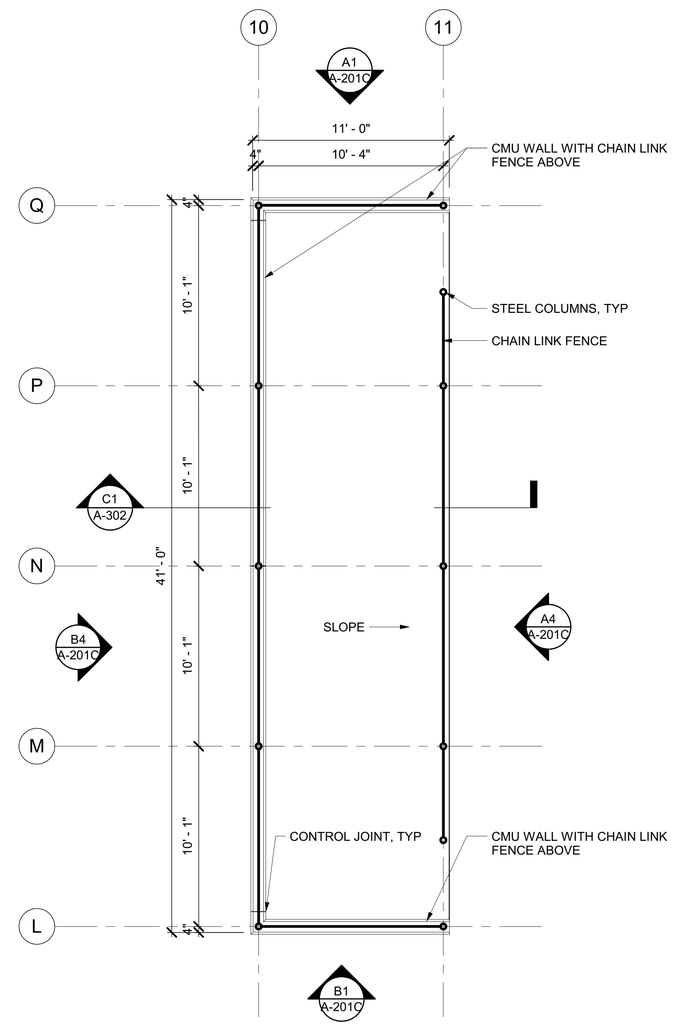


A4 A-101C **ROOF PLAN - ON-GRADE DUGOUT**
1/4" = 1'-0"



A1 A-101C **FIRST FLOOR PLAN - ON-GRADE DUGOUTS**
1/4" = 1'-0"

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ARCHITECT
SEAL:

ON-GRADE DUGOUT FLOOR PLAN AND ROOF PLAN

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
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NUMBER:	A-101C

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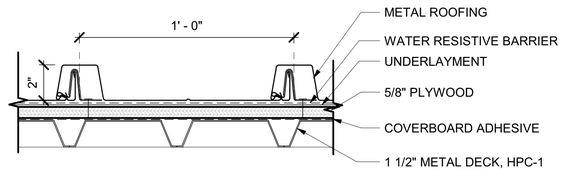
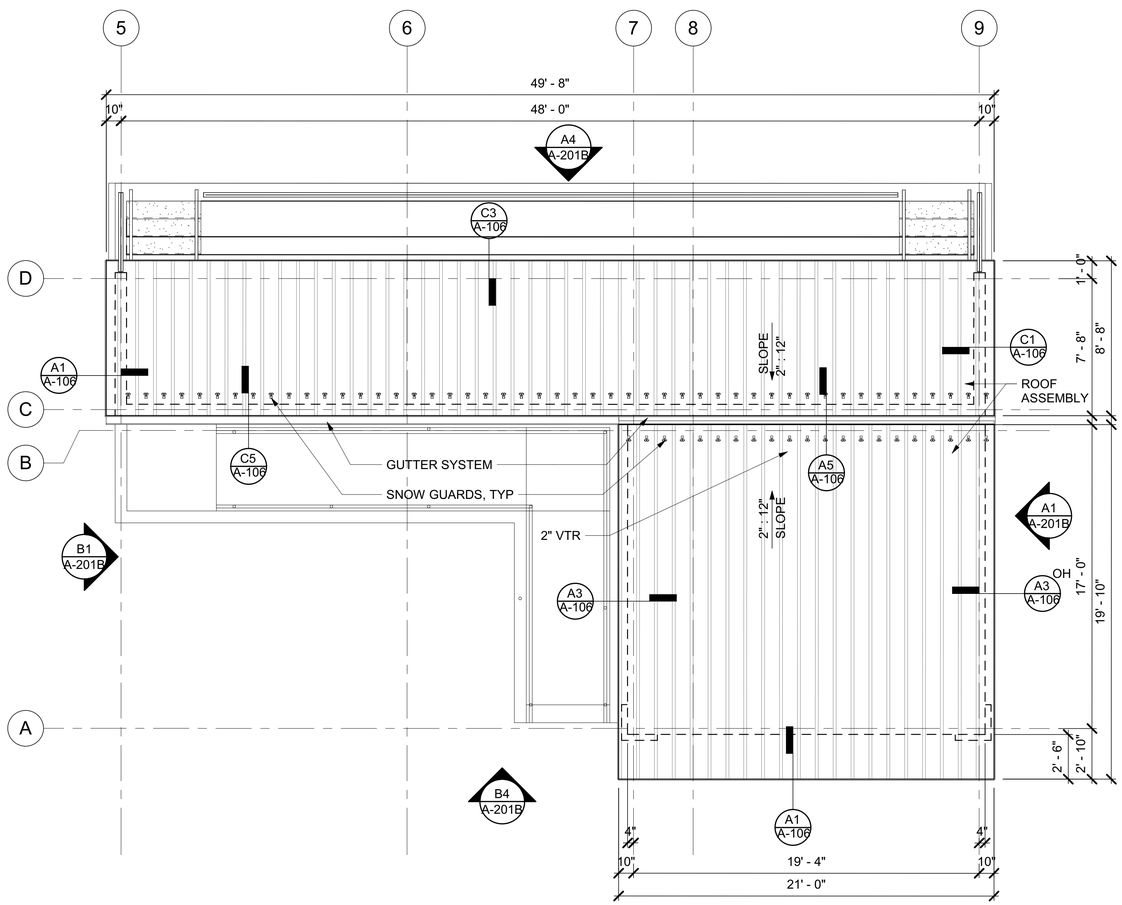
GENERAL NOTES

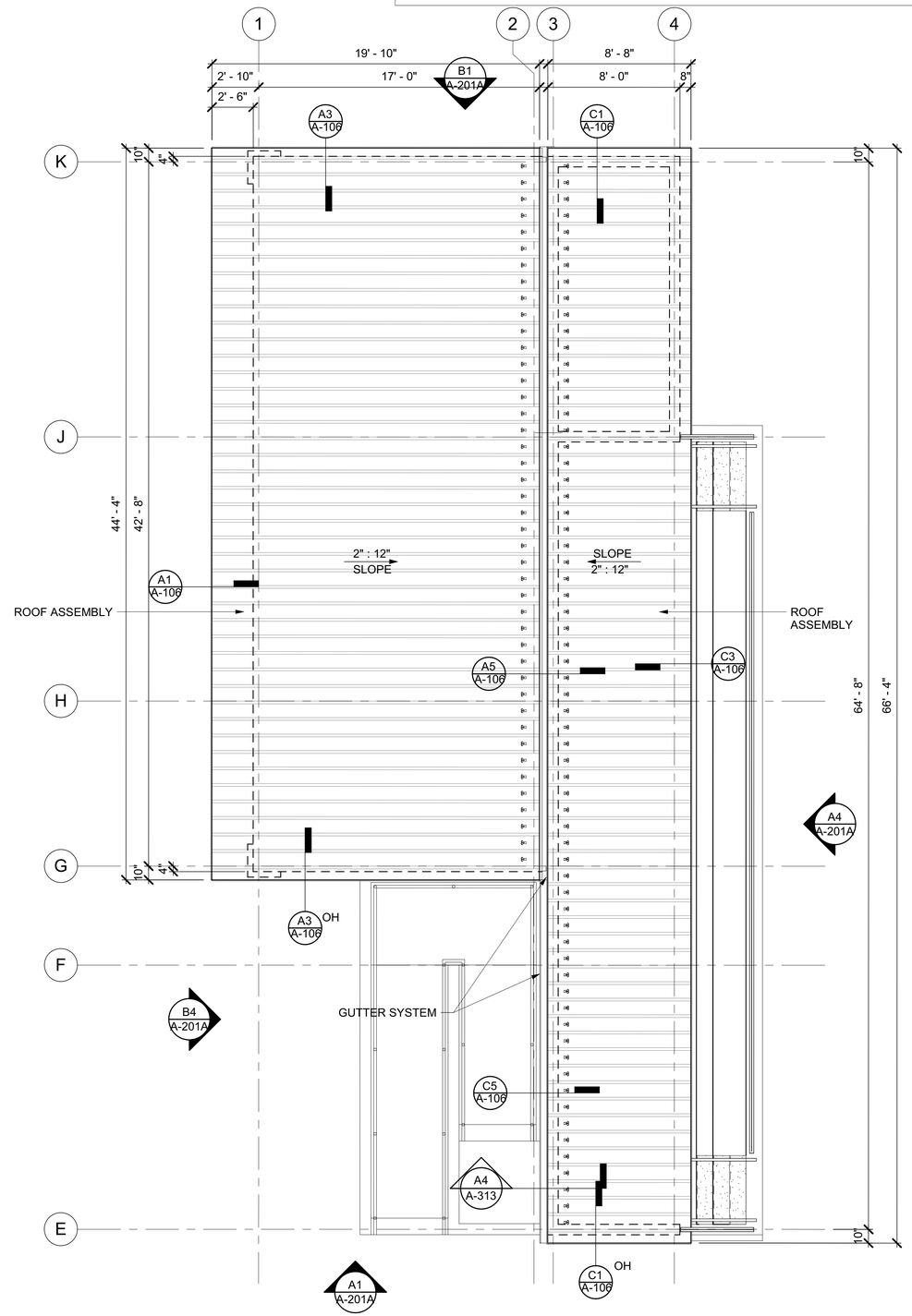
1. REFER TO SHEET A-311 FOR EXTERIOR ASSEMBLIES.



D4 A-105 **ROOF ASSEMBLY**
3" = 1'-0"



A4 A-105 **ROOF PLAN - CONCESSIONS-DUGOUT**
1/4" = 1'-0"



A1 A-105 **ROOF PLAN - STORAGE-DUGOUT**
1/4" = 1'-0"

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ROOF PLANS

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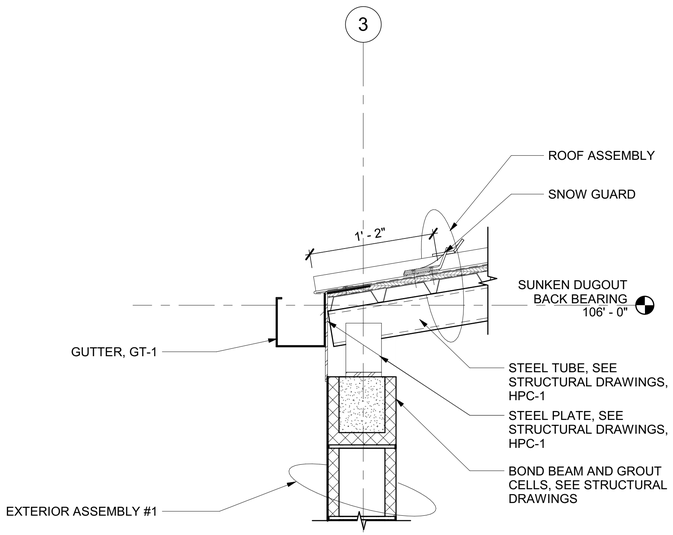
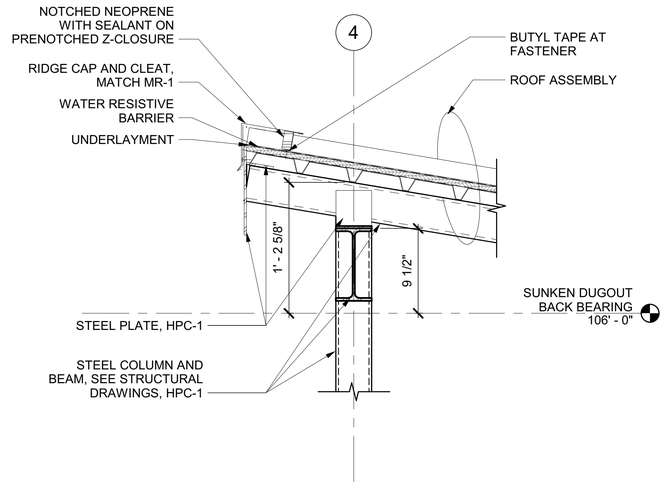
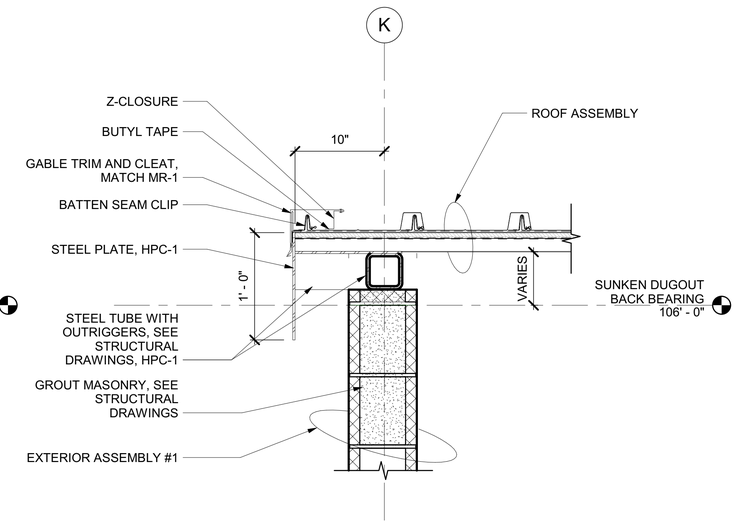


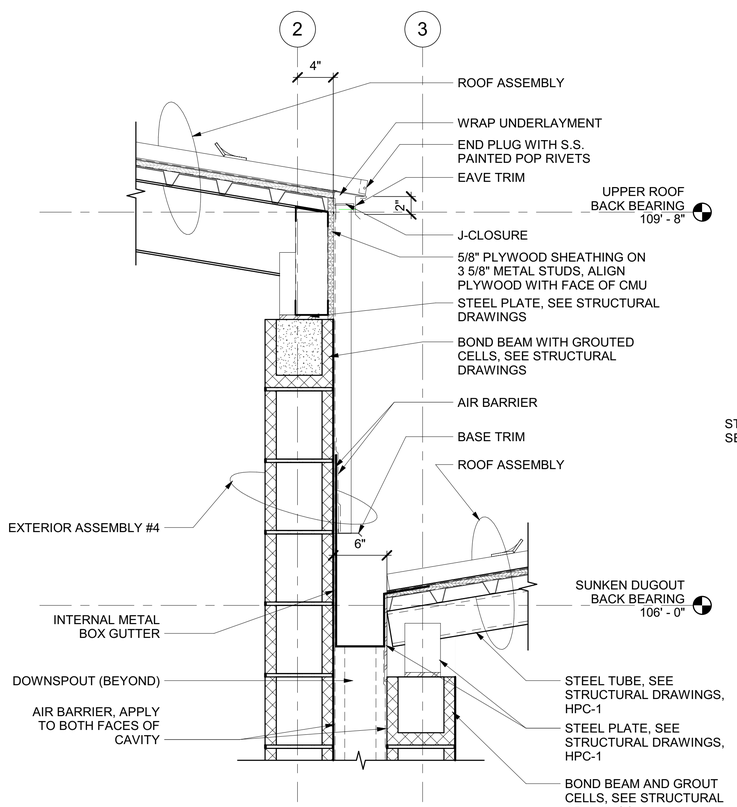
C5 A-106 **ROOF DETAIL**
1 1/2" = 1'-0"



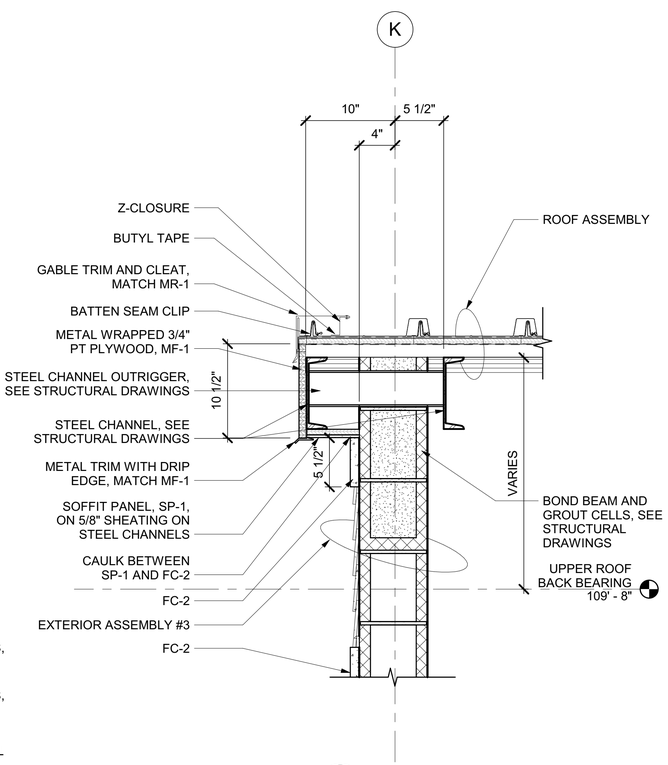
C3 A-106 **ROOF DETAIL**
1 1/2" = 1'-0"



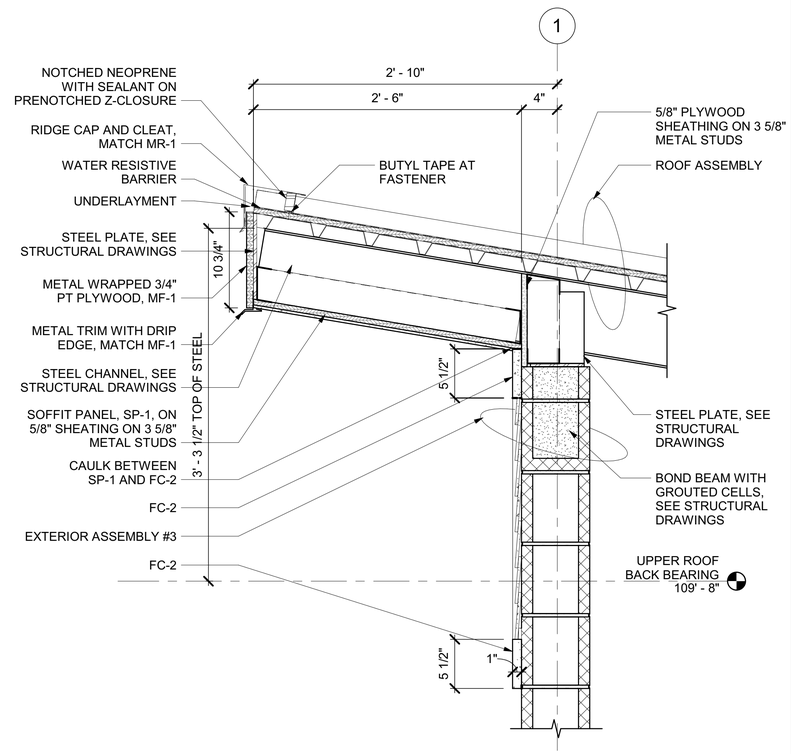
C1 A-106 **ROOF DETAIL**
1 1/2" = 1'-0"



A5 A-106 **ROOF DETAIL**
1 1/2" = 1'-0"



A3 A-106 **ROOF DETAIL**
1 1/2" = 1'-0"



A1 A-106 **ROOF DETAIL**
1 1/2" = 1'-0"

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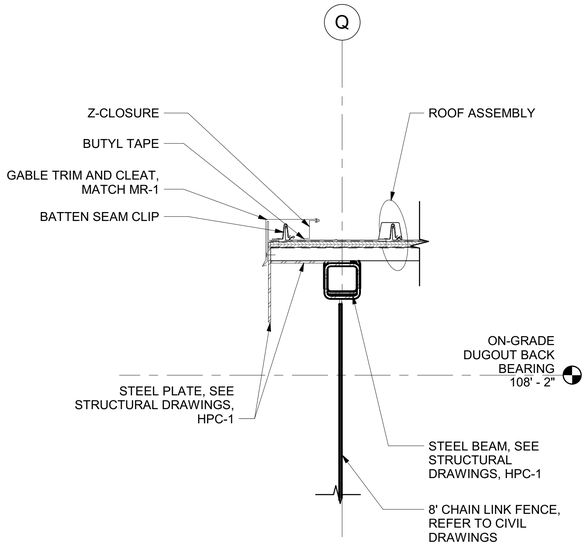
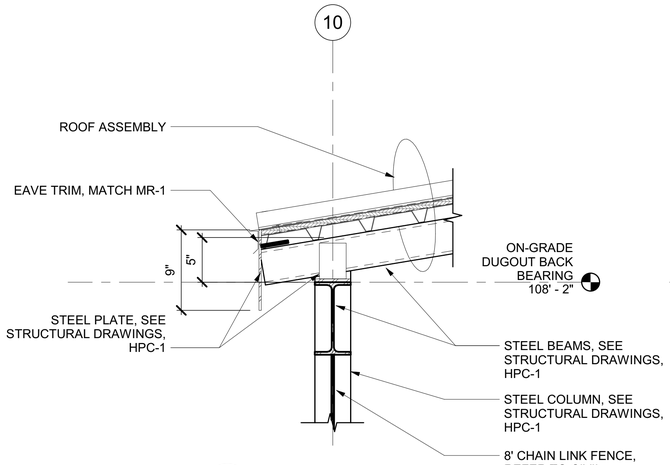
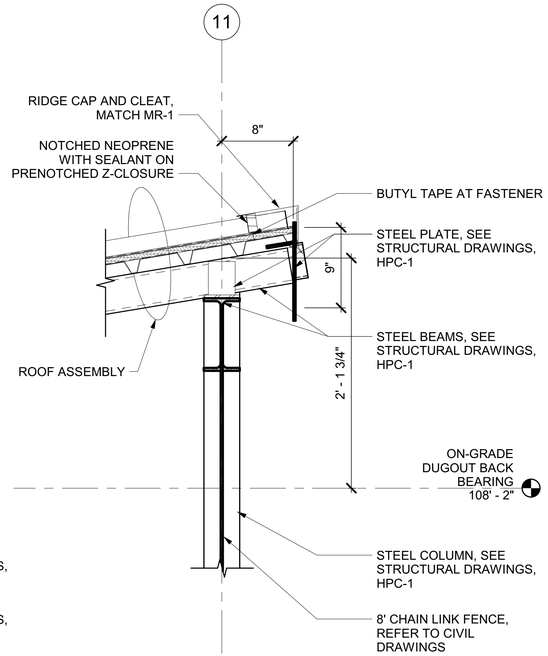


A5 A-107 **ROOF DETAIL**
1 1/2" = 1'-0"



A3 A-107 **ROOF DETAIL**
1 1/2" = 1'-0"



A1 A-107 **ROOF DETAIL**
1 1/2" = 1'-0"

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ROOF DETAILS

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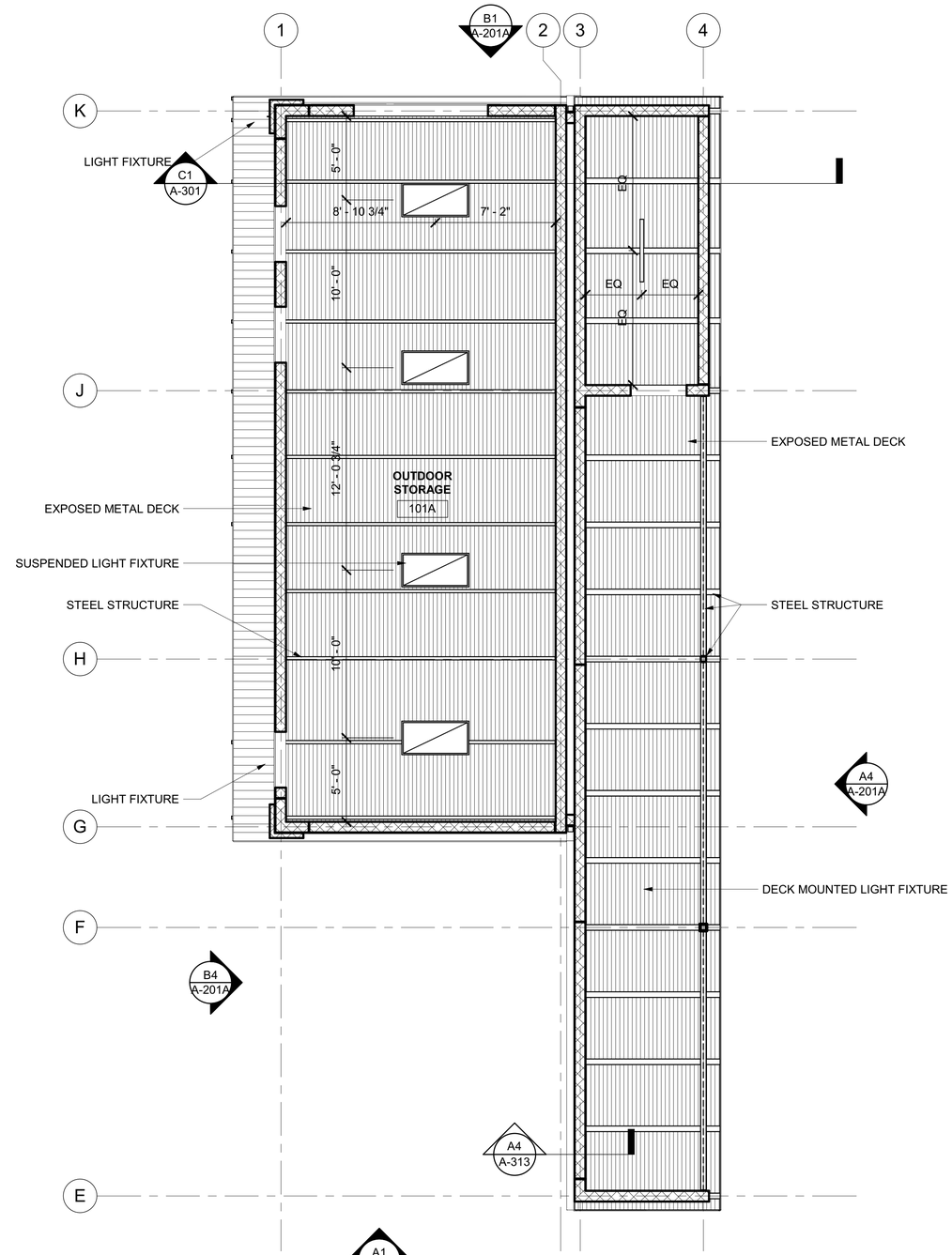
REFLECTED CEILING PLAN LEGEND

- ACT-1
- PTD. GYP CEILING
- MECHANICAL EQUIPMENT, SEE MECH DRAWINGS
- ELECTRICAL LIGHT FIXTURES, SEE ELEC DRAWINGS

GENERAL NOTES

1. CEILING HEIGHT DIMENSIONS ARE FROM FINISH FLOOR
2. ALL CEILING ELEMENTS (LIGHT FIXTURES, DIFFUSERS, SPRINKLER HEADS, EXIT SIGNS AND OTHER DEVICES) ARE TO BE INSTALLED IN THE CENTER OF CEILING PANELS UNLESS OTHERWISE NOTED; REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR TYPE, QUANTITY AND CONNECTION INFORMATION.
3. CEILING PANELS ARE TO BE CENTERED WITHIN THE SPACE AND SYMMETRICALLY CUT AT WALLS UNLESS INDICATED GRAPHICALLY OR NOTED OTHERWISE.
4. FOR WALL MOUNTED DEVICES, REFER TO ARCHITECTURAL ELEVATIONS AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.



A1 A-151A **REFLECTED CEILING PLAN - STORAGE-DUGOUT**
1/4" = 1'-0"

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STORAGE-DUGOUT REFLECTED CEILING PLAN AND DETAILS

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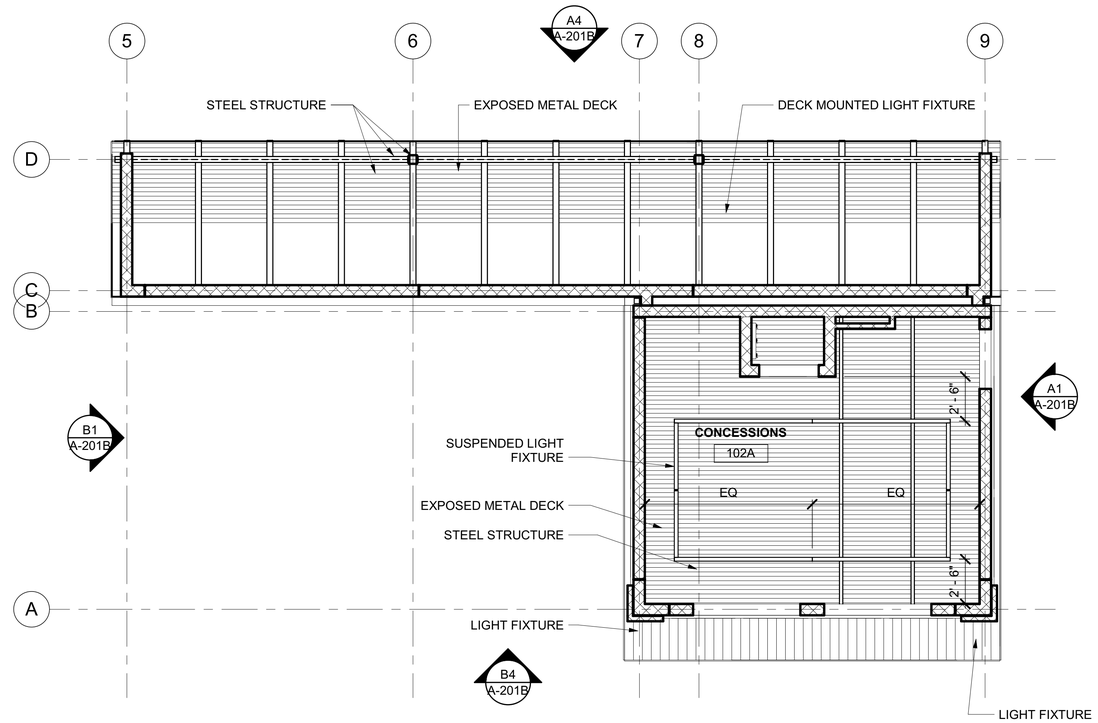
REFLECTED CEILING PLAN LEGEND

- ACT-1
- PTD. GYP CEILING
- MECHANICAL EQUIPMENT, SEE MECH DRAWINGS
- ELECTRICAL LIGHT FIXTURES, SEE ELEC DRAWINGS

GENERAL NOTES

1. CEILING HEIGHT DIMENSIONS ARE FROM FINISH FLOOR
2. ALL CEILING ELEMENTS (LIGHT FIXTURES, DIFFUSERS, SPRINKLER HEADS, EXIT SIGNS AND OTHER DEVICES) ARE TO BE INSTALLED IN THE CENTER OF CEILING PANELS UNLESS OTHERWISE NOTED; REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR TYPE, QUANTITY AND CONNECTION INFORMATION.
3. CEILING PANELS ARE TO BE CENTERED WITHIN THE SPACE AND SYMMETRICALLY CUT AT WALLS UNLESS INDICATED GRAPHICALLY OR NOTED OTHERWISE.
4. FOR WALL MOUNTED DEVICES, REFER TO ARCHITECTURAL ELEVATIONS AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.



A1 A-151B **REFLECTED CEILING PLAN - CONCESSIONS-DUGOUT**
1/4" = 1'-0"

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CONCESSIONS-DUGOUT REFLECTED CEILING PLAN AND DETAILS

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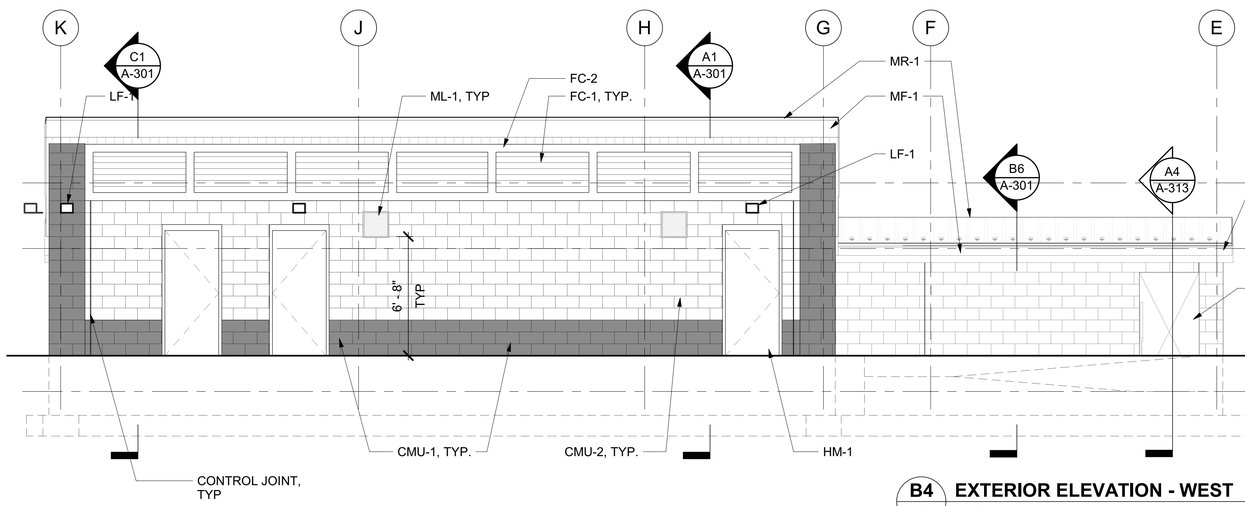
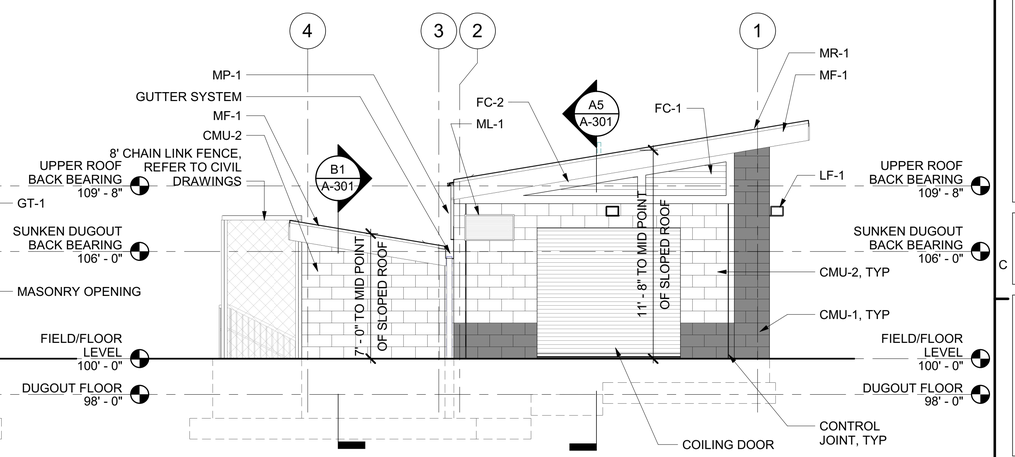
EXTERIOR MATERIALS LEGEND

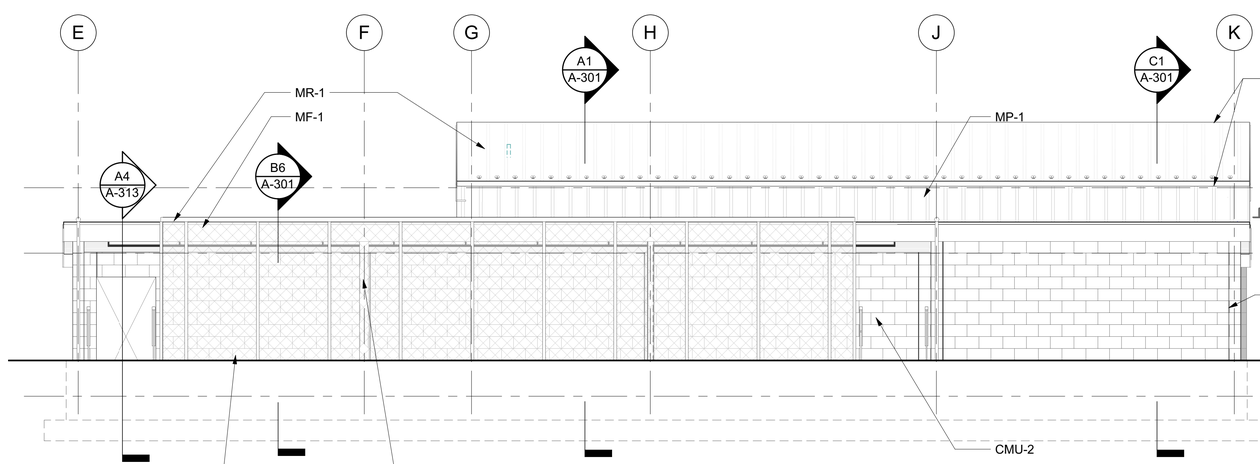
ABBREV.	MATERIAL	MANUFACTURER	BASIS-OF-DESIGN PRODUCT	COLOR	REMARKS
CMU-1	CONCRETE MASONRY UNIT	EP HENRY	SPLIT FACE BLOCK	54 N	REFER TO ELEVATIONS FOR LOCATION
CMU-2	CONCRETE MASONRY UNIT	EP HENRY	GROUND FACE BLOCK	4010 R	REFER TO ELEVATIONS FOR LOCATION
CS-1	CAST STONE CAP	CAST STONE SYSTEMS	WALL CAP	NATURAL	--
FC-1	FIBER CEMENT SIDING	HARDIE PLANK	HORIZONTAL PANEL SIDING	SMOOTH, COLOR MONTEREY TAUPE	--
FC-2	FIBER CEMENT SIDING TRIM	HARDIE PLANK	5/4 SMOOTH TRIM BOARD, 5.5"	SMOOTH, COLOR COBBLESTONE	--
DS-1	DOWNSPOUT TO BOOT	DIMENSIONAL METALS INC	--	MATCH MF-1	--
GT-1	GUTTER	DIMENSIONAL METALS INC	--	MATCH MF-1	--
HM-1	HOLLOW METAL DOOR & FRAME	--	--	SEE MATERIALS SCHEDULE ON A-631	--
HPC-1	HIGH PERFORMANCE COATING	SHERWIN WILLIAMS	PRIMER AND COATING	LIGHT FRENCH GRAY SW0055	COLUMNS, BEAMS, AND DECK@ DUGOUTS
LF-1	LIGHT FIXTURE	--	--	MATCH SITE LIGHTING	COORD. W/ ELECTRICAL DRAWINGS
MF-1	METAL FASCIA	ALUCOBOND	AXCENT	ALABASTER	--
ML-1	MECHANICAL LOUVER	--	--	MATCH CMU-2	COORD. W/ MECHANICAL DRAWINGS
ML-2	MECHANICAL LOUVER	--	--	MATCH MP-1	COORD. W/ MECHANICAL DRAWINGS
MP-1	METAL WALL PANEL	ATAS	MATCH MR-1	MATCH MR-1	--
MR-1	METAL ROOFING	ATAS	MONARCH BATTEN SEAM	SMOOTH TEXTURE, SLATE GRAY	12" COVERAGE WITH 2" TALL SEAMS
SP-1	FIBER CEMENT SOFFIT PANEL	HARDIE PLANK	SOFFIT PANEL	SMOOTH, COLOR TO MATCH FC-2	--
SG-1	SNOW GUARDS	ATAS	RSG100 SNOWGUARD	COLOR TO MATCH MR-1	



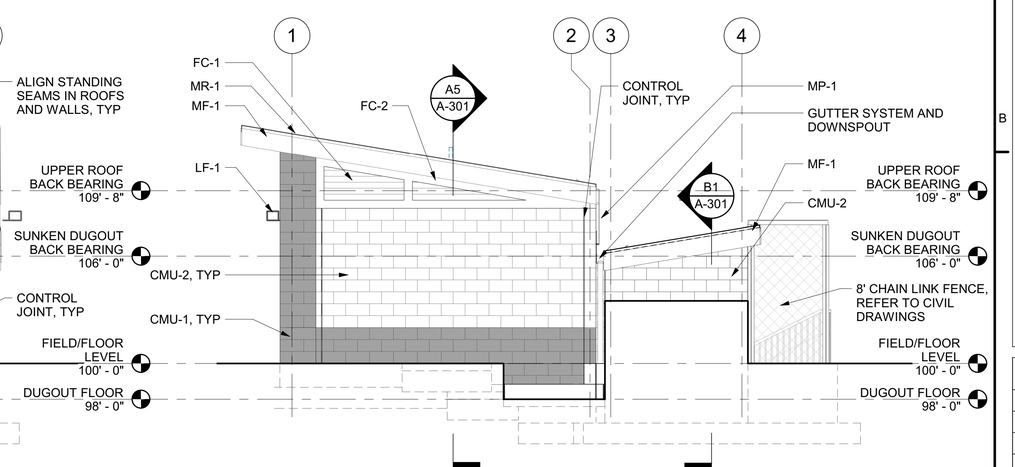
B4 A-201A **EXTERIOR ELEVATION - WEST**
1/4" = 1'-0"



B1 A-201A **EXTERIOR ELEVATION - NORTH**
1/4" = 1'-0"



A4 A-201A **EXTERIOR ELEVATION - EAST**
1/4" = 1'-0"



A1 A-201A **EXTERIOR ELEVATION - SOUTH**
1/4" = 1'-0"

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STORAGE-DUGOUT BUILDING ELEVATIONS

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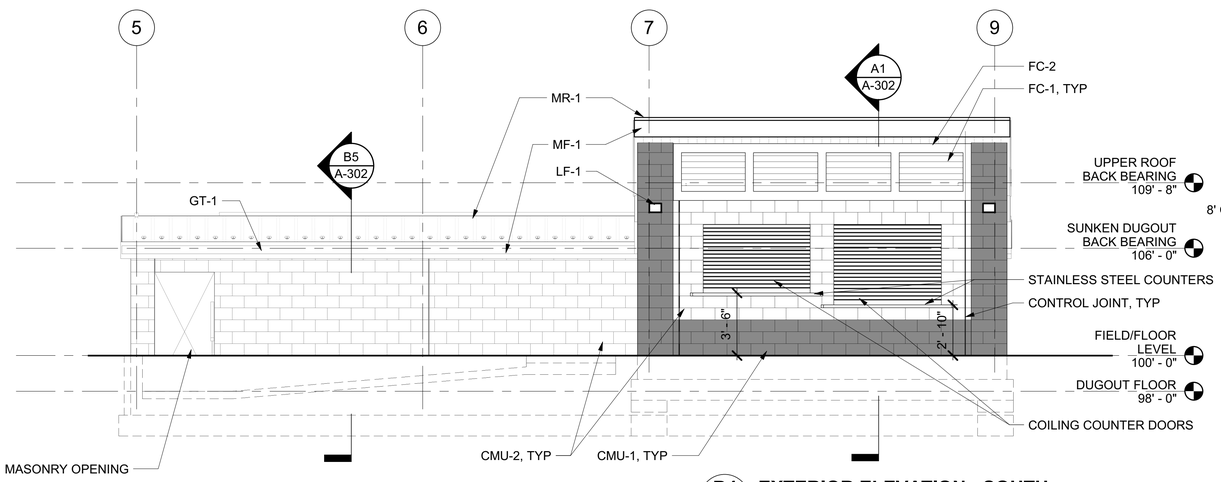
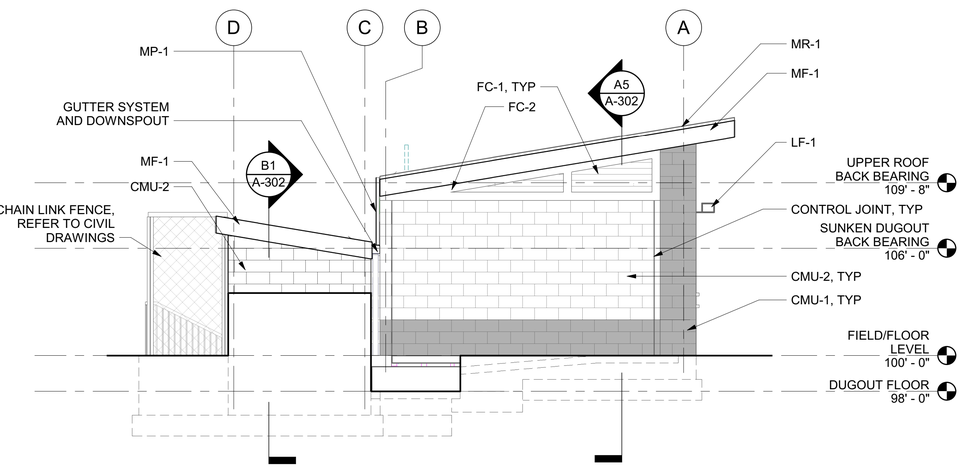
GENERAL NOTES

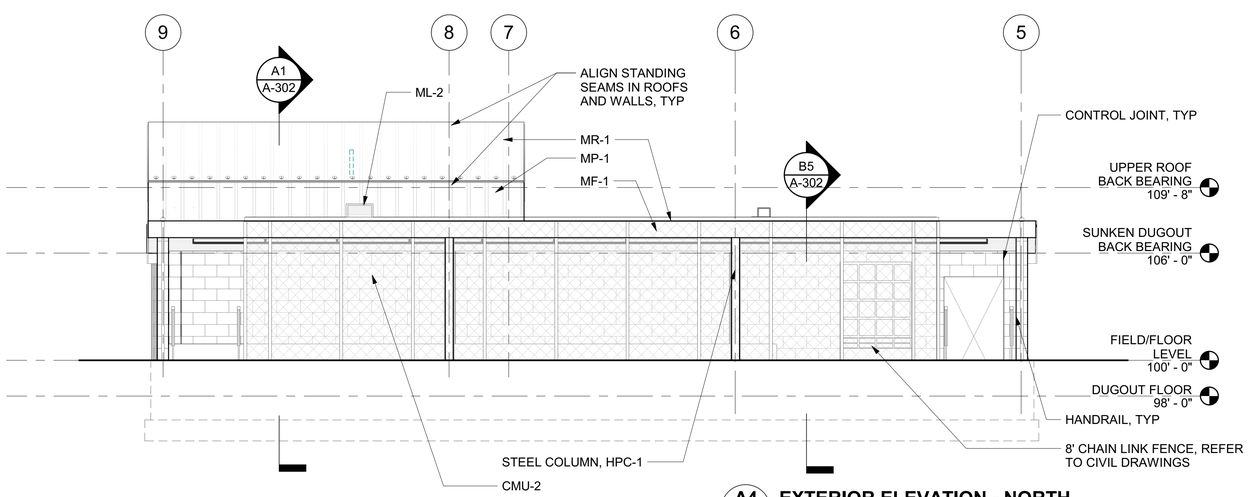
1. SEE EXTERIOR MATERIALS LEGEND ON A-201A FOR EXTERIOR MATERIALS.



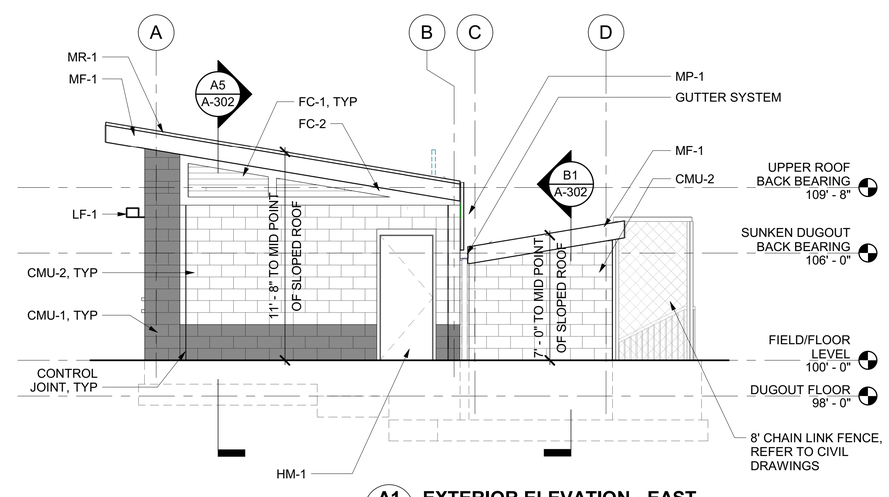
B4 A-201B **EXTERIOR ELEVATION - SOUTH**
1/4" = 1'-0"



B1 A-201B **EXTERIOR ELEVATION - WEST**
1/4" = 1'-0"



A4 A-201B **EXTERIOR ELEVATION - NORTH**
1/4" = 1'-0"



A1 A-201B **EXTERIOR ELEVATION - EAST**
1/4" = 1'-0"

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CONCESSIONS-DUGOUT BUILDING ELEVATIONS

EUGENE SIMPSON STADIUM PARK

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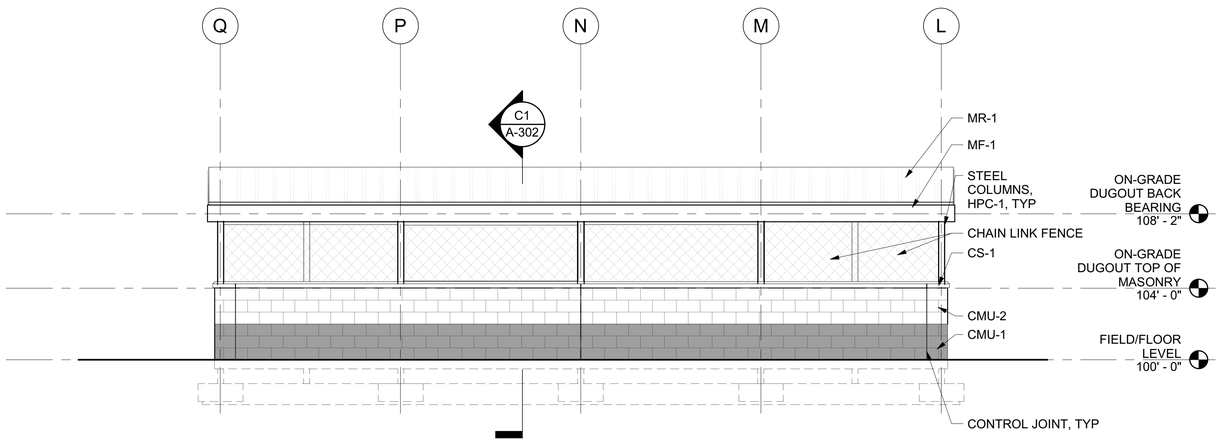
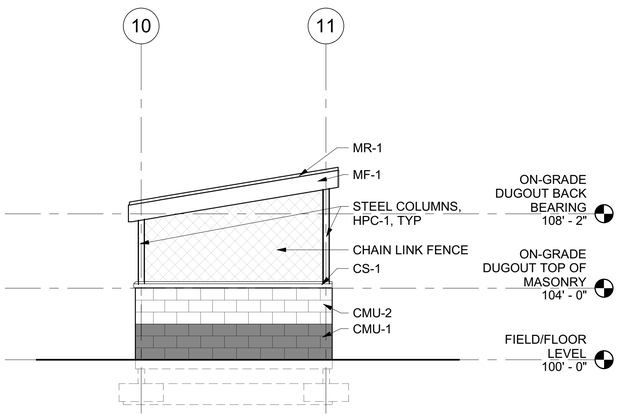
GENERAL NOTES

1. SEE EXTERIOR MATERIALS LEGEND ON A-201A FOR EXTERIOR MATERIALS.

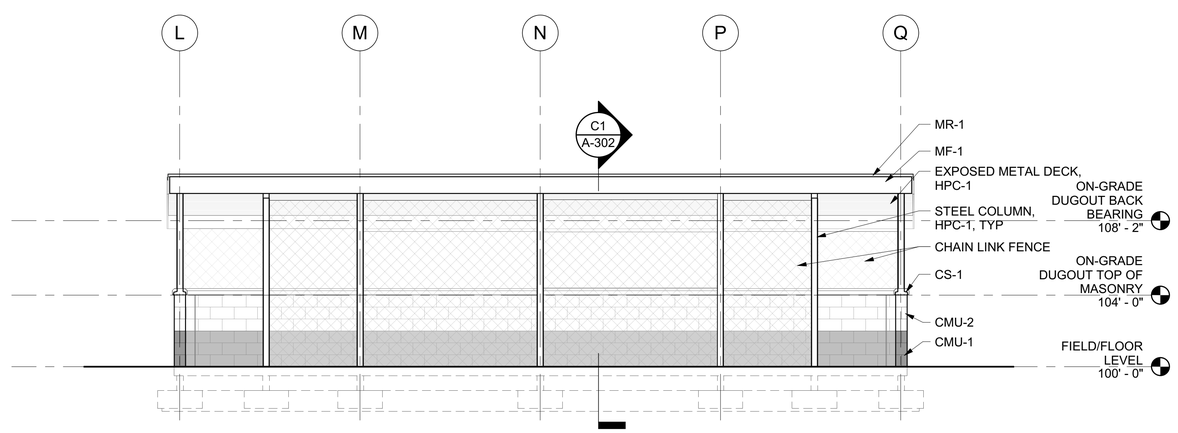
C4 / A-201C — ON-GRADE DUGOUT VISUALIZATION
12" = 1'-0"



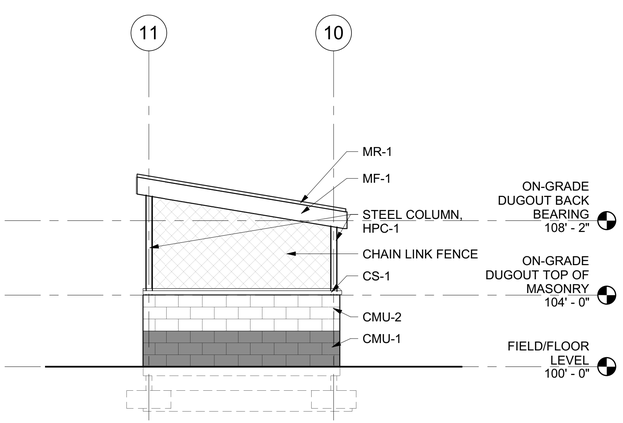
B4 / A-201C — EXTERIOR ELEVATION - WEST
1/4" = 1'-0"



B1 / A-201C — EXTERIOR ELEVATION - SOUTH
1/4" = 1'-0"



A4 / A-201C — EXTERIOR ELEVATION - EAST
1/4" = 1'-0"



A1 / A-201C — EXTERIOR ELEVATION - NORTH
1/4" = 1'-0"

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ON-GRADE DUGOUT ELEVATIONS

EUGUENE SIMPSON STADIUM PARK

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C4 A-201D **CONCESSIONS VISUALIZATION**
12" = 1'-0"

C1 A-201D **CONCESSIONS VISUALIZATION**
12" = 1'-0"

B4 A-201D **DUGOUT VISUALIZATION**
12" = 1'-0"

B1 A-201D **CONCESSIONS VISUALIZATION**
12" = 1'-0"

A4 A-201D **CONTEXT IMAGE**
12" = 1'-0"

A1 A-201D **CONTEXT IMAGE**
12" = 1'-0"

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CONTEXT AND VISUALIZATIONS

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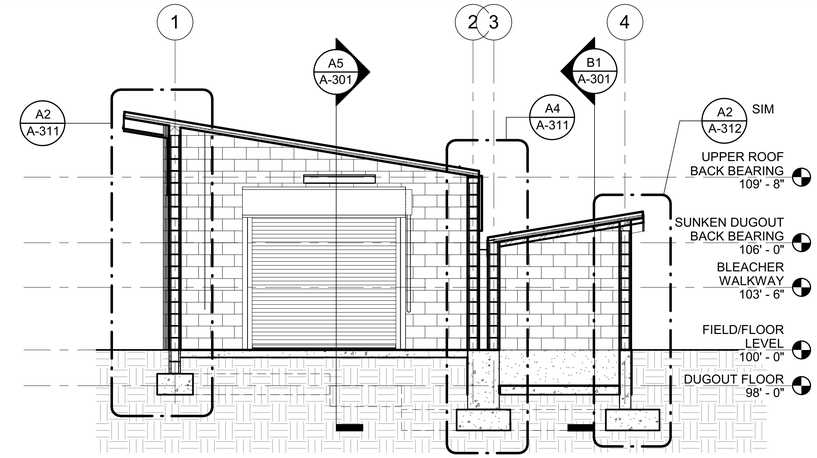
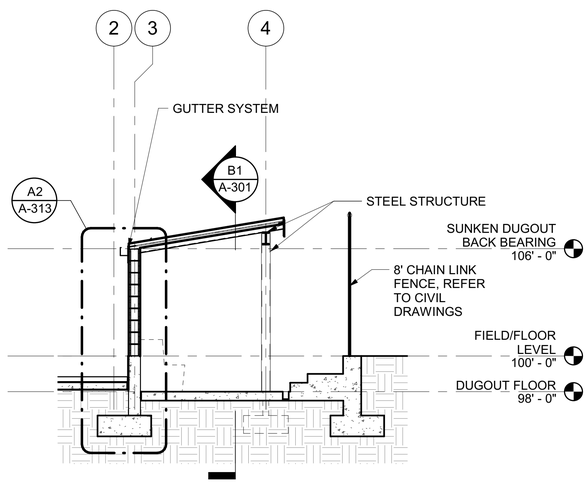
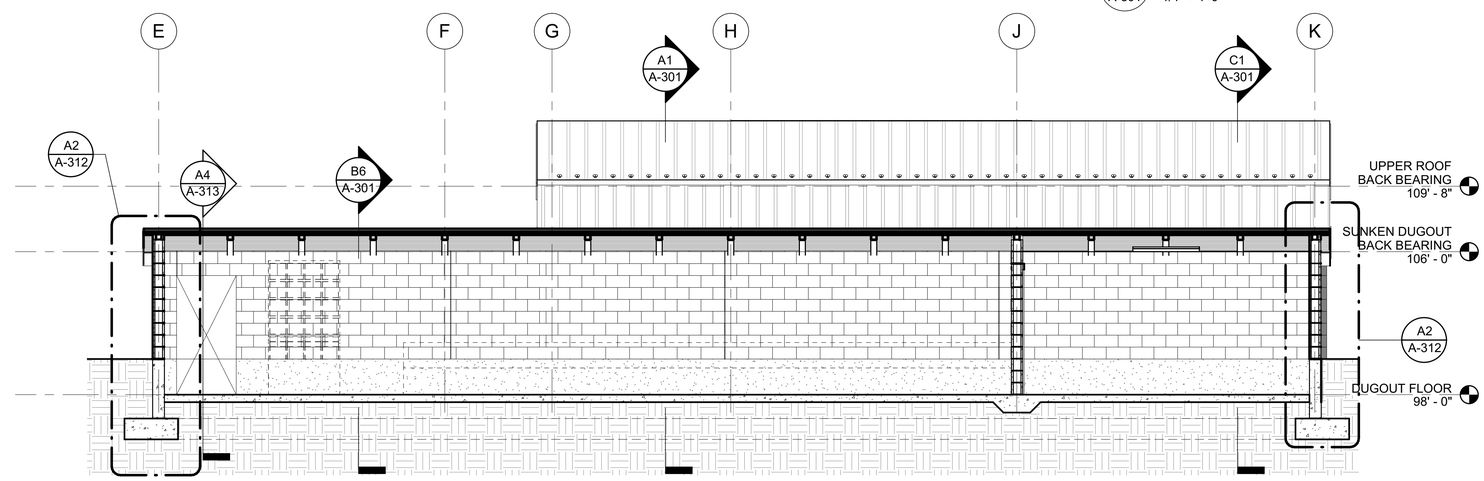


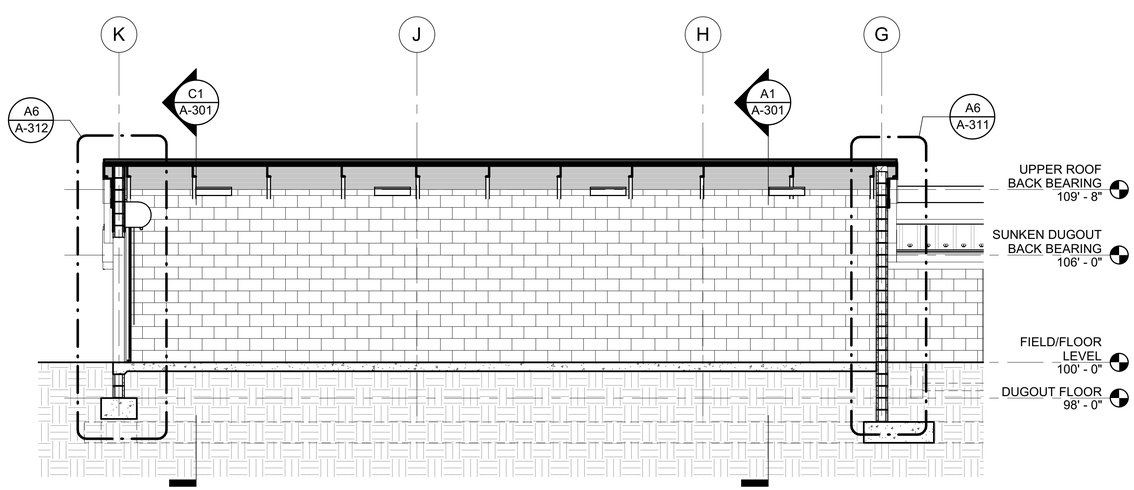
C1 A-301 **SECTION - STORAGE-DUGOUT**
1/4" = 1'-0"



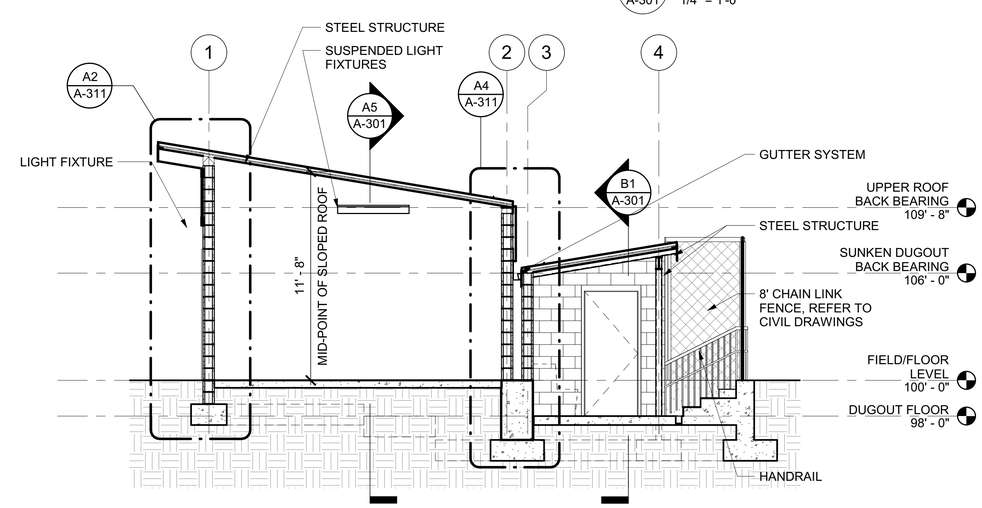
B6 A-301 **SECTION - STORAGE-DUGOUT**
1/4" = 1'-0"



B1 A-301 **SECTION - STORAGE-DUGOUT**
1/4" = 1'-0"



A5 A-301 **SECTION - STORAGE-DUGOUT**
1/4" = 1'-0"



A1 A-301 **SECTION - STORAGE-DUGOUT**
1/4" = 1'-0"

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BUILDING SECTIONS

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE., ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	A-301

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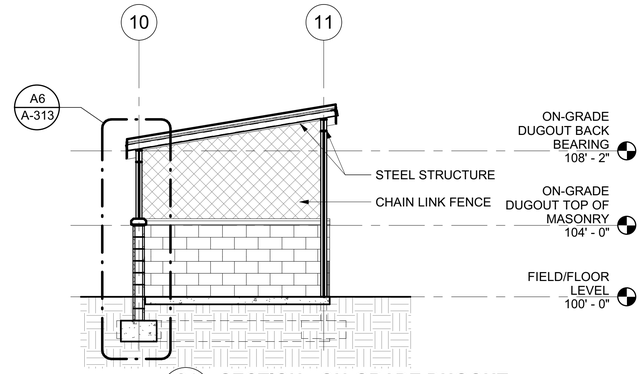
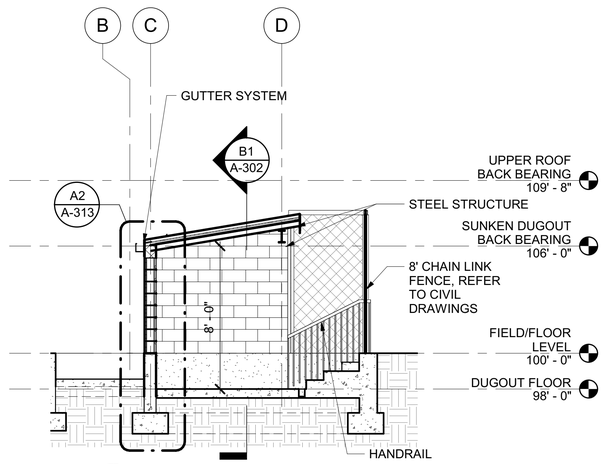
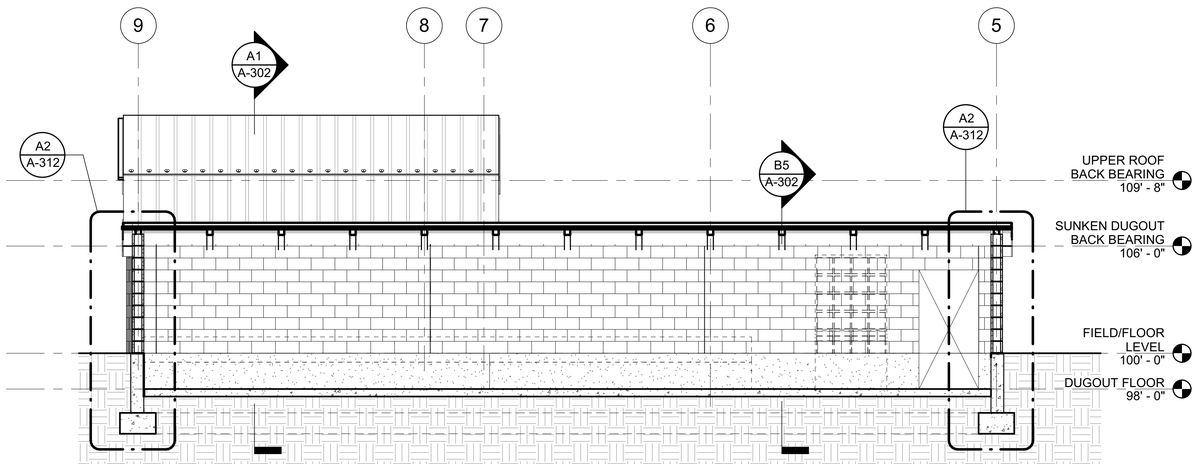


C1 A-302 **SECTION - ON-GRADE DUGOUT**
1/4" = 1'-0"



B5 A-302 **SECTION - CONCESSIONS-DUGOUT**
1/4" = 1'-0"



B1 A-302 **SECTION - CONCESSIONS-DUGOUT**
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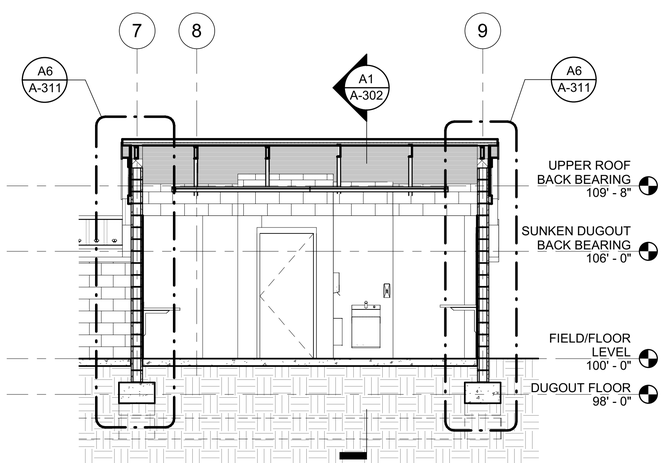
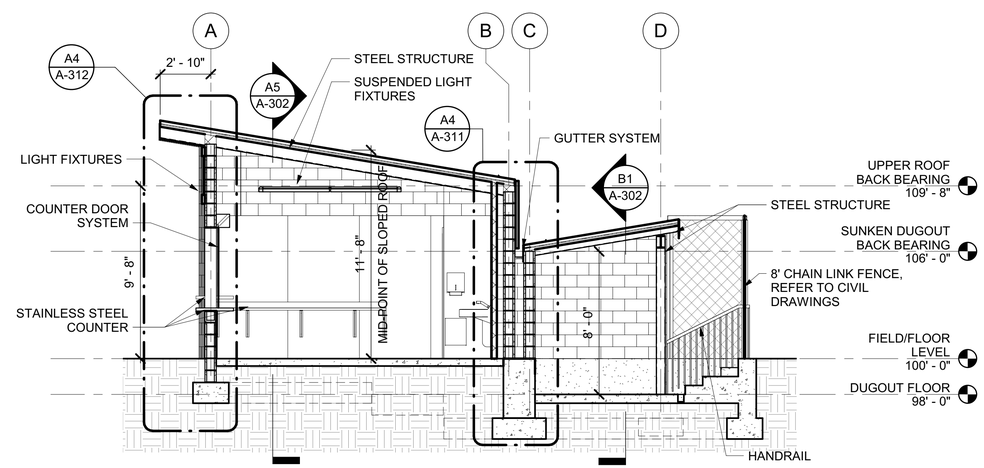


A5 A-302 **SECTION - CONCESSIONS-DUGOUT**
1/4" = 1'-0"



A1 A-302 **SECTION - CONCESSIONS-DUGOUT**
1/4" = 1'-0"

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BUILDING SECTIONS

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	A-302

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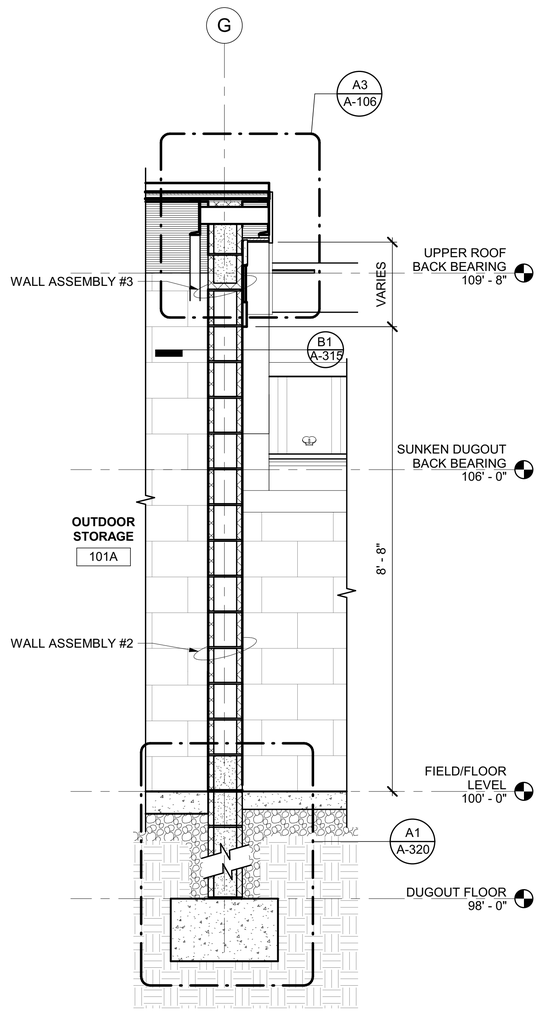
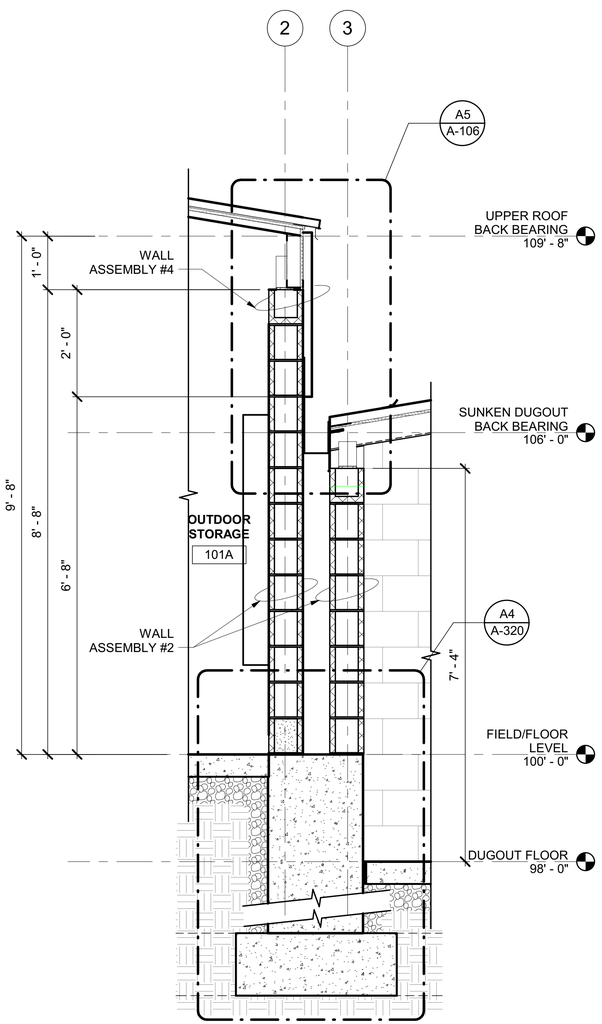
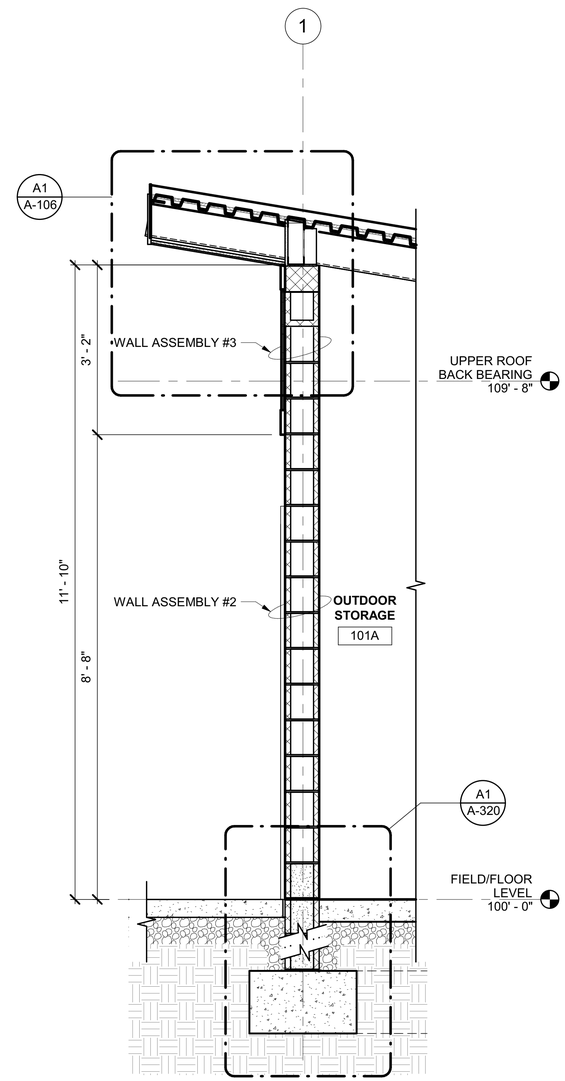


A6 WALL SECTION
A-311 3/4" = 1'-0"



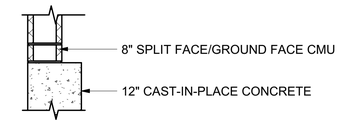
A4 WALL SECTION
A-311 3/4" = 1'-0"



A2 WALL SECTION
A-311 3/4" = 1'-0"

EXTERIOR ENVELOPE WALL ASSEMBLIES LEGEND

ASSEMBLY #1 (NOT THERMAL)



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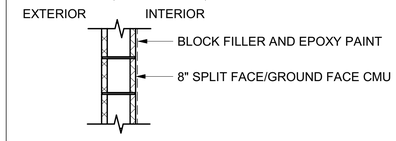
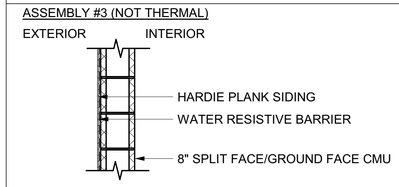
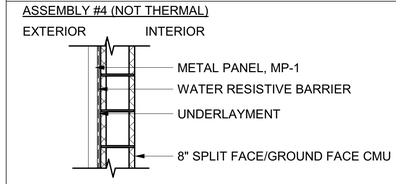


ASSEMBLY #3 (NOT THERMAL)



ASSEMBLY #4 (NOT THERMAL)



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GAVIN DUFFIELD MYERS
Lic No. 0401013324
ARCHITECT

SEAL:

WALL SECTIONS

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	A-311

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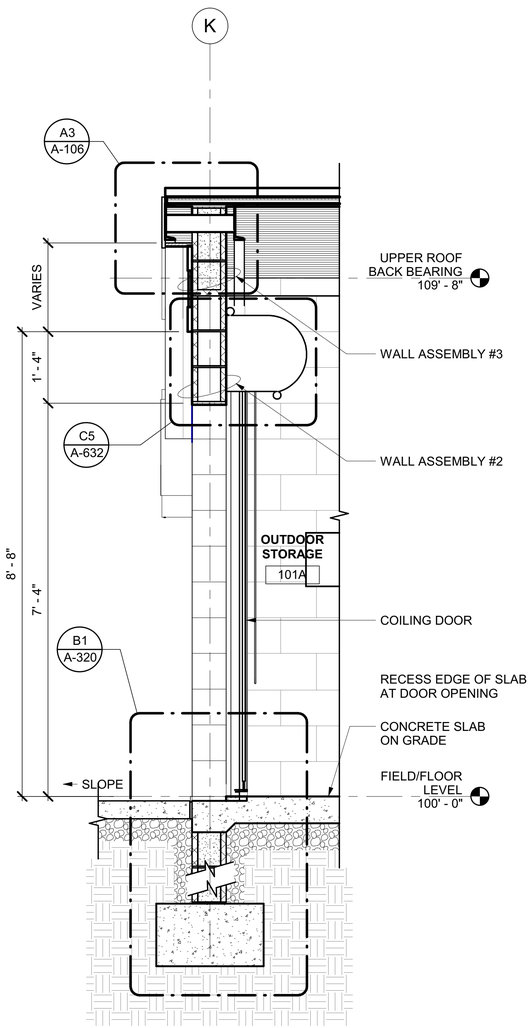
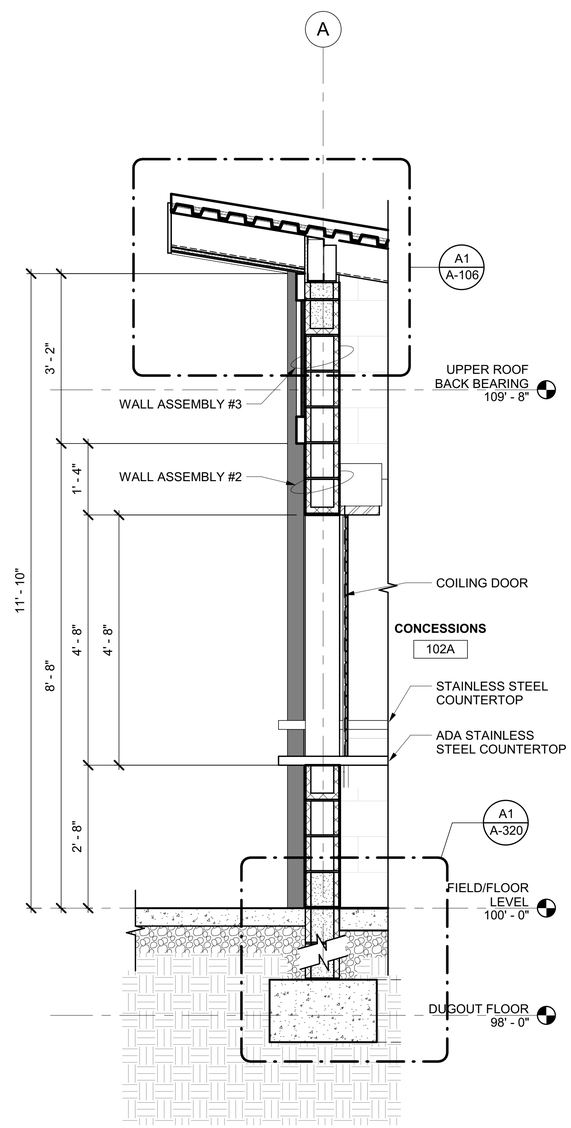
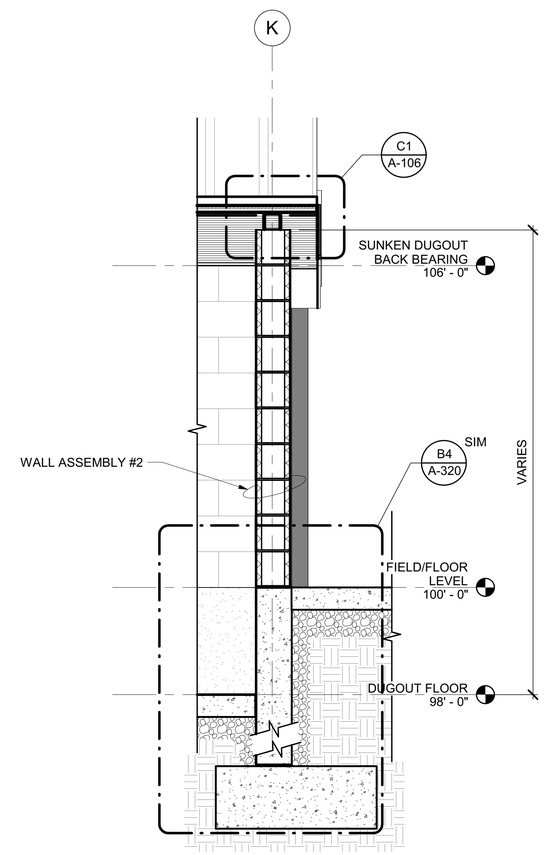


A6 WALL SECTION
A-312 3/4" = 1'-0"



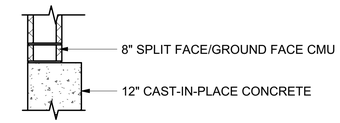
A4 WALL SECTION
A-312 3/4" = 1'-0"



A2 WALL SECTION
A-312 3/4" = 1'-0"

EXTERIOR ENVELOPE WALL ASSEMBLIES LEGEND

ASSEMBLY #1 (NOT THERMAL)



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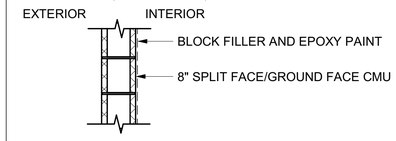

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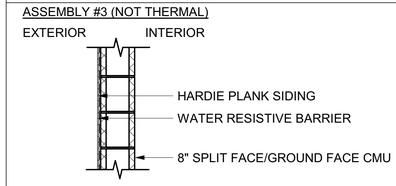

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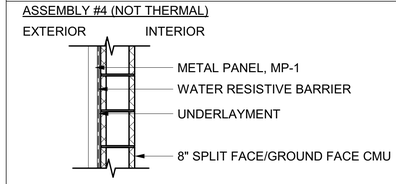

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GAVIN DUFFIELD MYERS
Lic No. 0401013324
ARCHITECT

SEAL:

WALL SECTIONS

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	A-312

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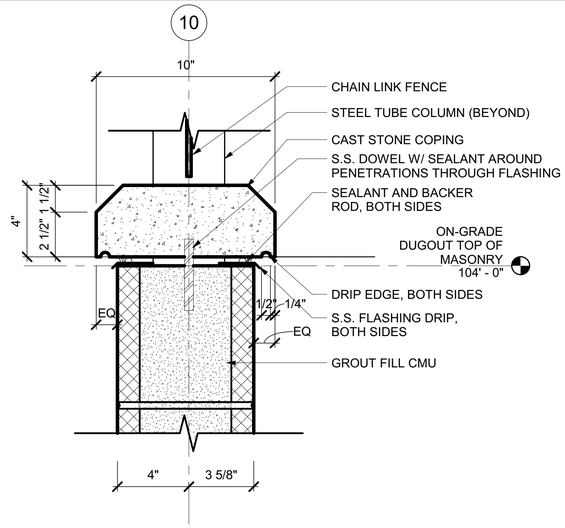
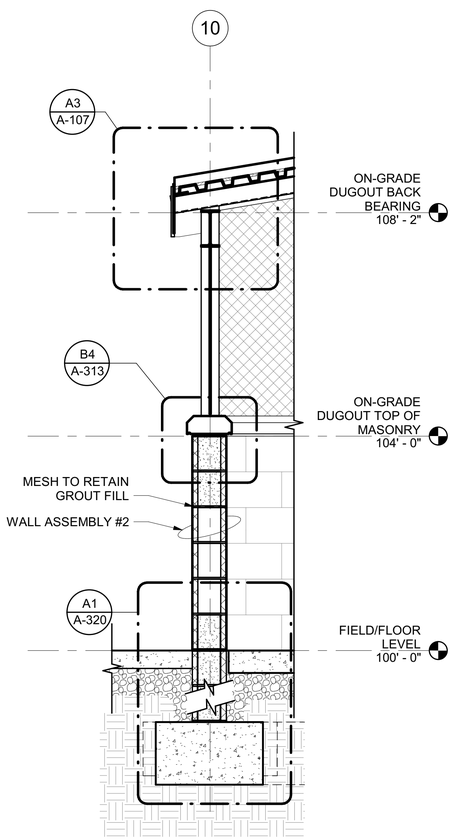
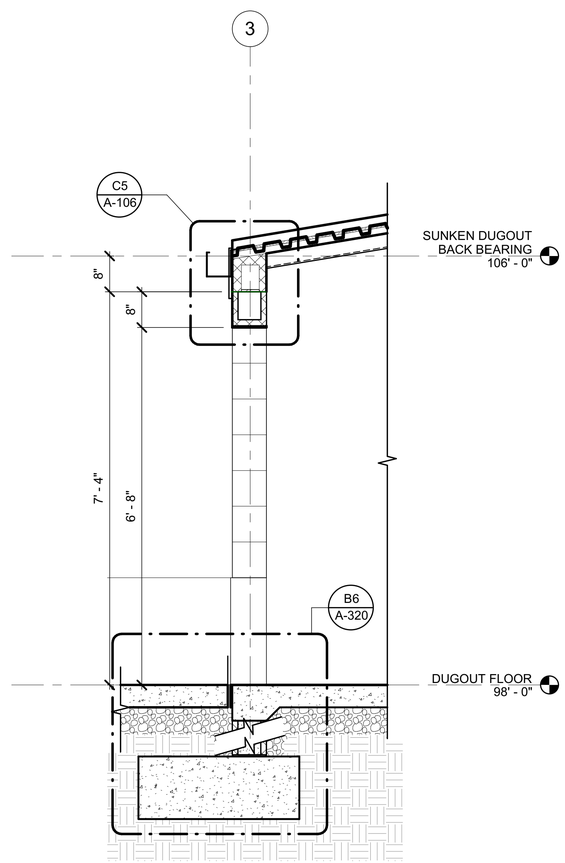


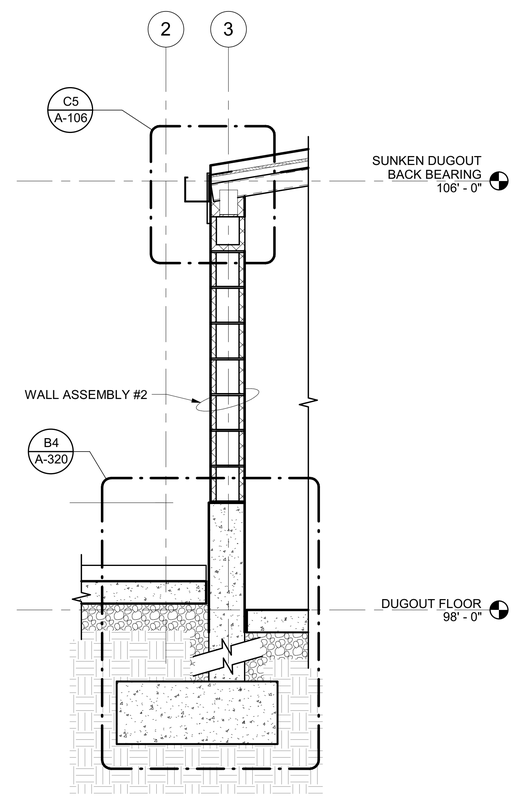
B4 A-313 **SECTION DETAIL - CAST STONE**
3" = 1'-0"



A6 A-313 **WALL SECTION - ON-GRADE DUGOUT**
3/4" = 1'-0"



A4 A-313 **WALL SECTION**
3/4" = 1'-0"

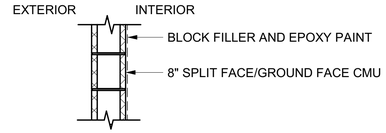


A2 A-313 **WALL SECTION**
3/4" = 1'-0"

EXTERIOR ENVELOPE WALL ASSEMBLIES LEGEND

ASSEMBLY #1 (NOT THERMAL)

ASSEMBLY #2 (NOT THERMAL)



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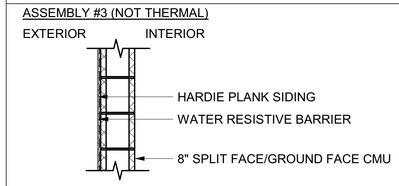

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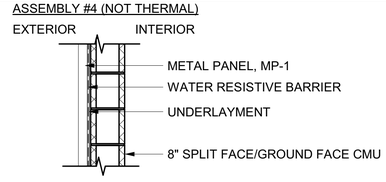

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WALL SECTIONS AND DETAILS

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
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NCS:	
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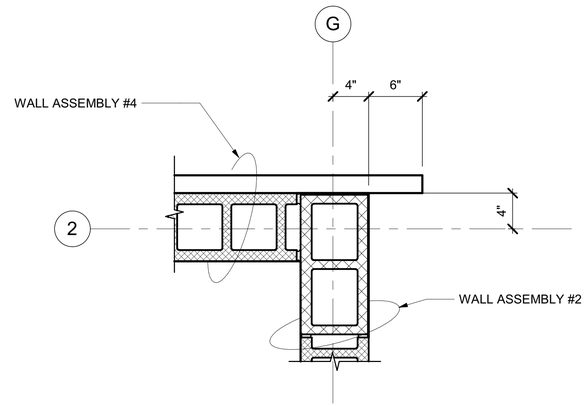
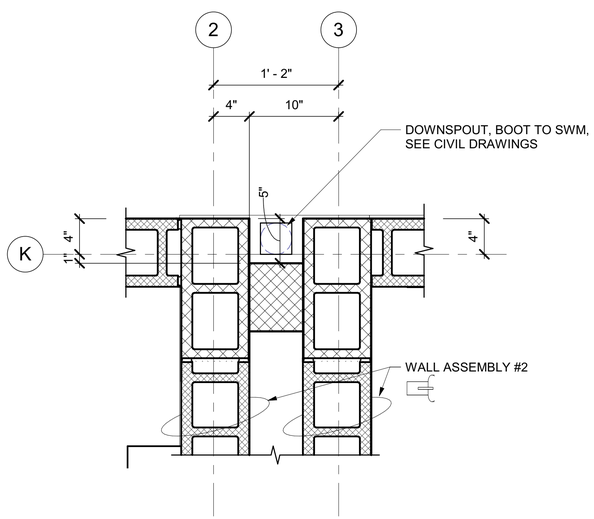
GENERAL NOTES

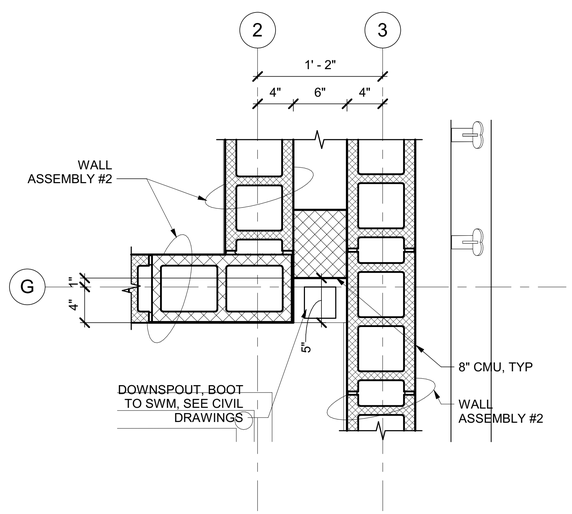
1. REFER TO SHEET A-311 FOR EXTERIOR ASSEMBLIES.



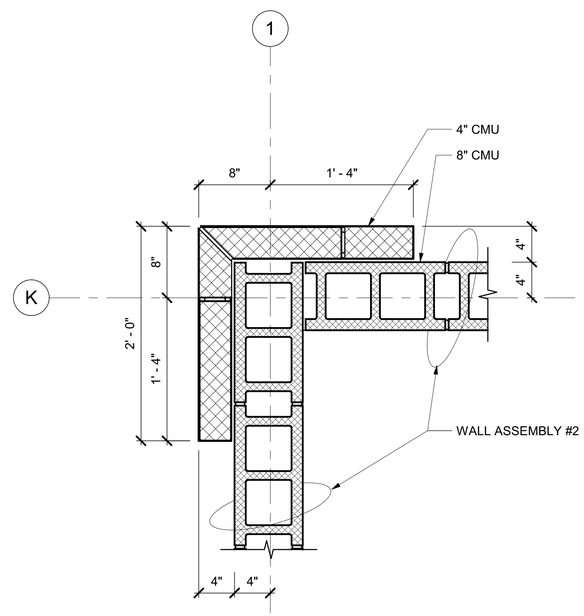
B1 A-315 **PLAN DETAIL**
1 1/2" = 1'-0"



A5 A-315 **PLAN DETAIL**
1 1/2" = 1'-0"



A3 A-315 **PLAN DETAIL**
1 1/2" = 1'-0"



A1 A-315 **PLAN DETAIL**
1 1/2" = 1'-0"

HUGHES GROUP ARCHITECTS
22630 DAVIS DRIVE, SUITE 175
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Lic No. 0401013324
ARCHITECT

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PLAN DETAILS

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	A-315

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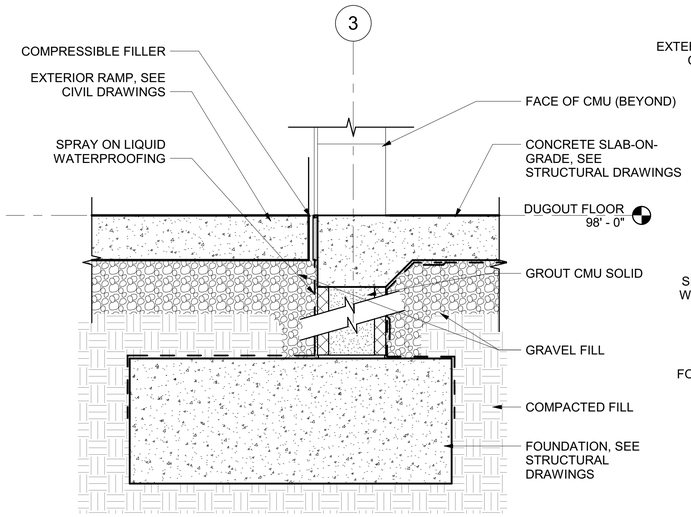
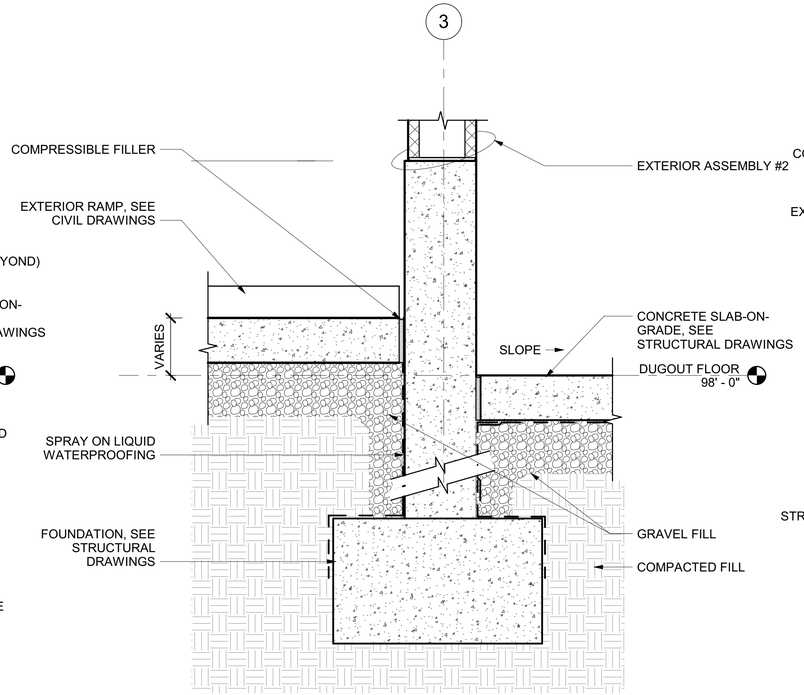
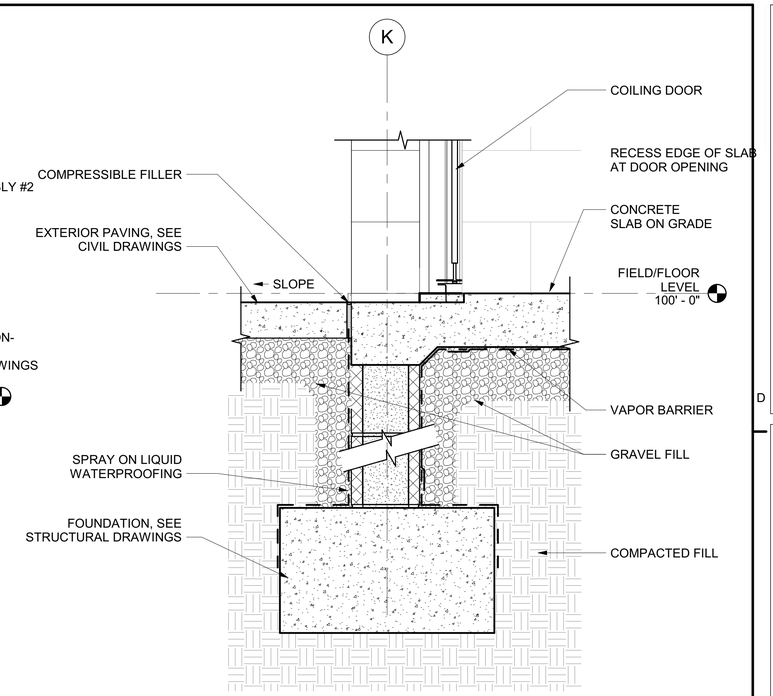


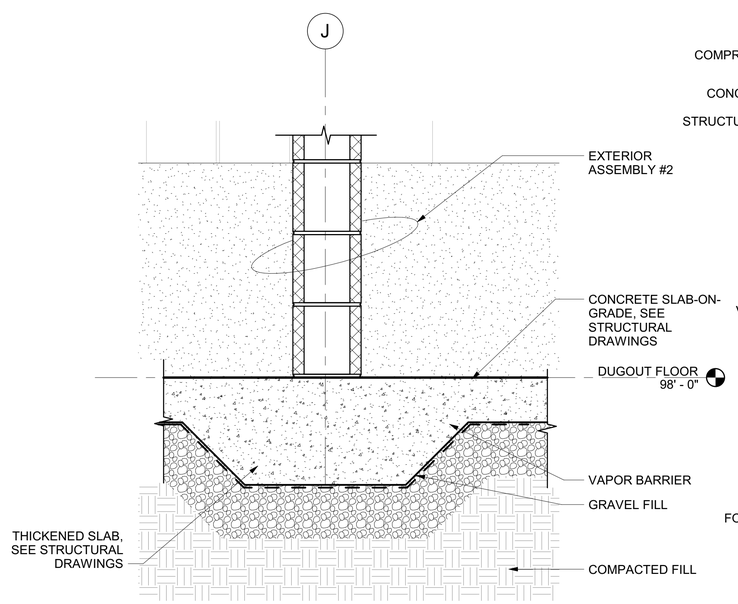
B6 A-320 **SECTION DETAIL - FOUNDATION**
1 1/2" = 1'-0"



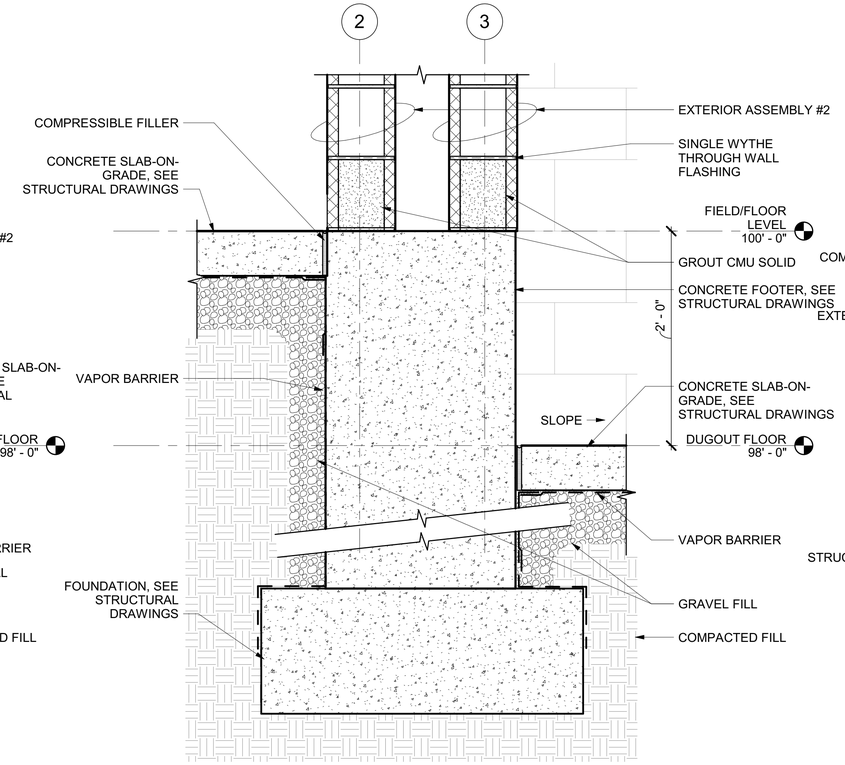
B4 A-320 **SECTION DETAIL - FOUNDATION**
1 1/2" = 1'-0"



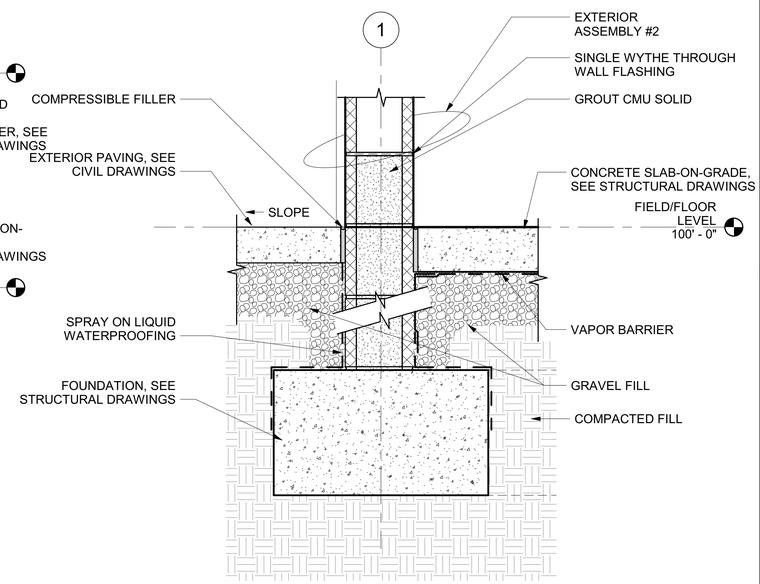
B1 A-320 **SECTION DETAIL - FOUNDATION**
1 1/2" = 1'-0"



A6 A-320 **SECTION DETAIL - FOUNDATION**
1 1/2" = 1'-0"



A4 A-320 **SECTION DETAIL - FOUNDATION**
1 1/2" = 1'-0"



A1 A-320 **SECTION DETAIL - FOUNDATION**
1 1/2" = 1'-0"

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SECTION DETAILS

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
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NCS:	
NUMBER:	A-320

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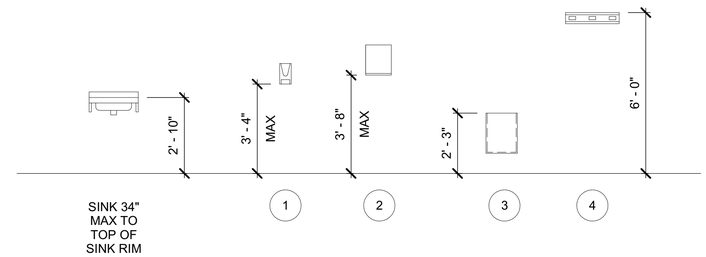
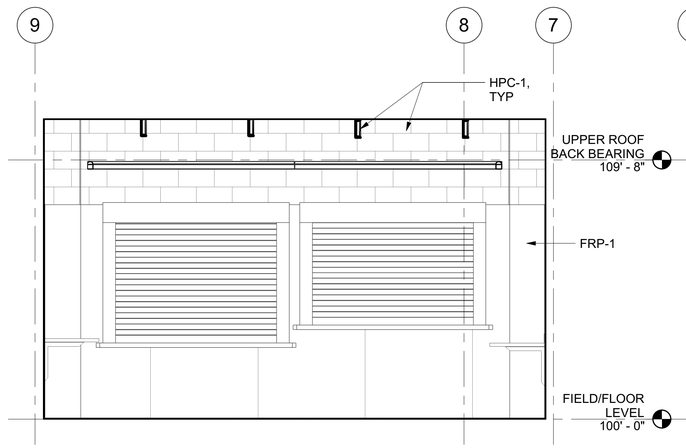
MOUNTING HEIGHTS

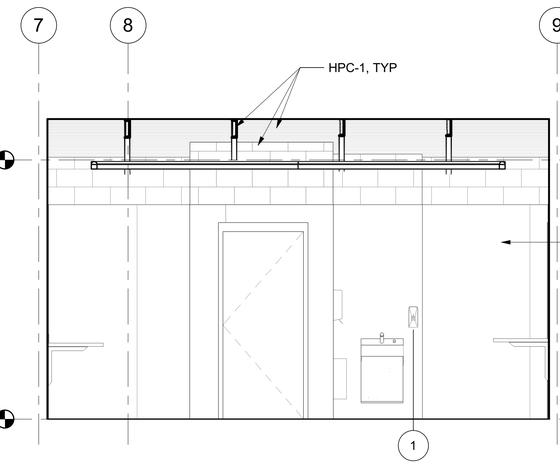


TOILET ACCESSORY SCHEDULE

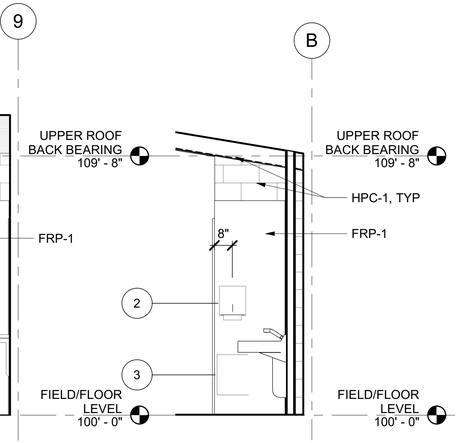
#	DESCRIPTION	MANUFACTURER	MODEL	COMMENTS
1	SOAP DISPENSER	BOBRICK	B-2111	
2	SURFACE MOUNTED PAPER TOWEL DISPENSER	BOBRICK	B-9262	
3	SURFACE MOUNTED WASTE RECEPTACLE	BOBRICK	B-279	
4	MOP STRIP AND SHELF	BOBRICK	B-223 x 24	



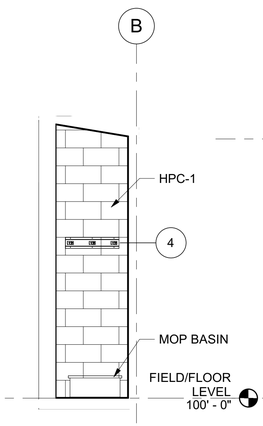
B6 INTERIOR ELEVATION
A-401 3/8" = 1'-0"



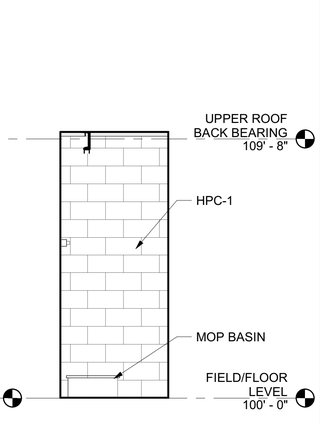
B4 INTERIOR ELEVATION
A-401 3/8" = 1'-0"



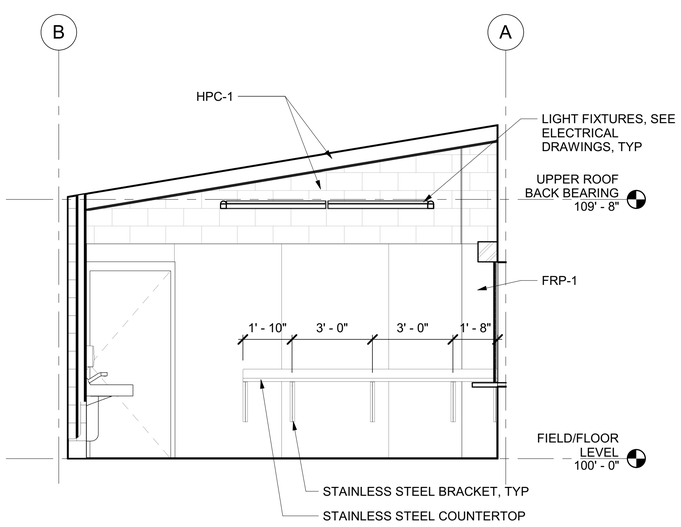
B3 INTERIOR ELEVATION
A-401 3/8" = 1'-0"



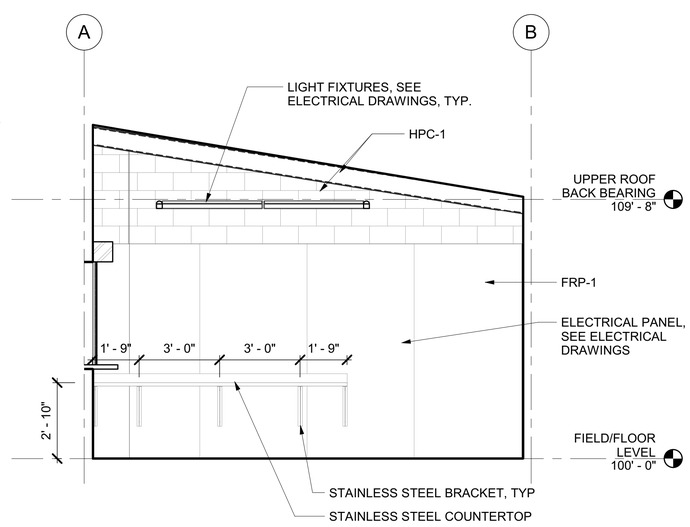
B2 INTERIOR ELEVATION
A-401 3/8" = 1'-0"



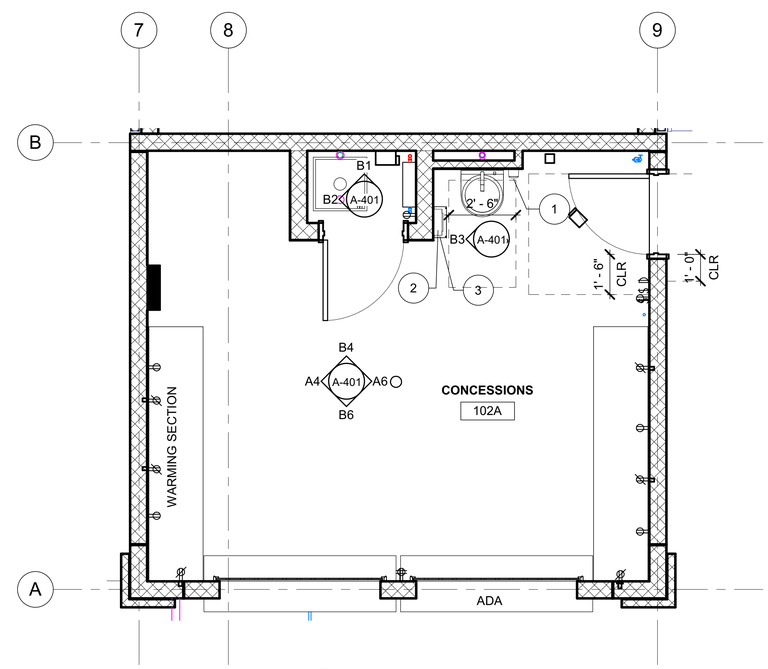
B1 INTERIOR ELEVATION
A-401 3/8" = 1'-0"



A6 INTERIOR ELEVATION
A-401 3/8" = 1'-0"



A4 INTERIOR ELEVATION
A-401 3/8" = 1'-0"



A1 ENLARGED PLAN - CONCESSIONS
A-401 3/8" = 1'-0"

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GAVIN DUFFIELD MYERS
Lic No. 0401018324
ARCHITECT

SEAL:

ENLARGED PLANS AND MOUNTING HEIGHTS

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	A-401

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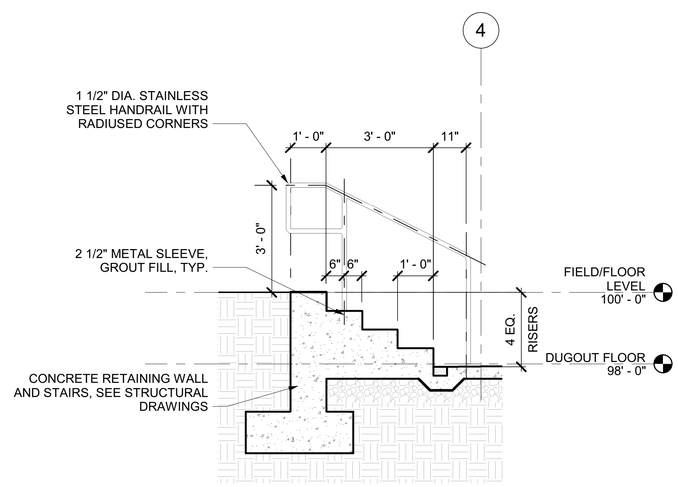
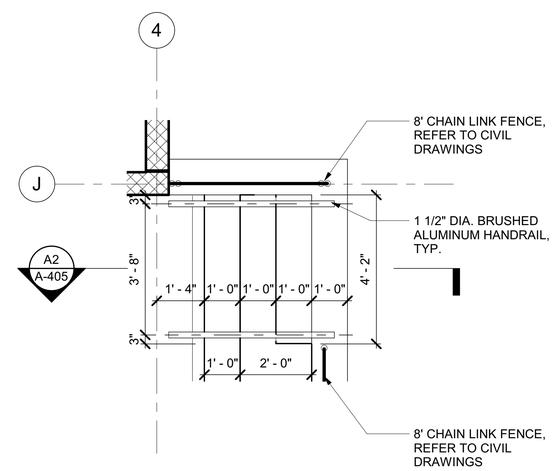


A2 A-405 **STAIR SECTION - DUGOUT**
1/2" = 1'-0"



A1 A-405 **STAIR PLAN - DUGOUT**
1/2" = 1'-0"

HUGHES GROUP ARCHITECTS
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CALVIN DUFFIELD MYERS
Lic No. 0401013324
ARCHITECT

SEAL:

STAIR PLANS AND DETAILS

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	A-405

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SIGNAGE SCHEDULE

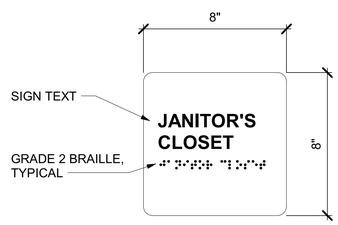
ROOM #	ROOM NAME	SIGN TYPE	FIRST LINE SIGN TEXT	SECOND LINE SIGN TEXT	REMARKS
101	3RD BASE DUGOUT				
101A	OUTDOOR STORAGE	TYPE 1	STORAGE		
101B	OUTDOOR STORAGE	TYPE 1	STORAGE		
102	1ST BASE DUGOUT				
102A	CONCESSIONS	TYPE 1	CONCESSIONS		
102B	JAN	TYPE 1	JANITOR'S	CLOSET	

ROOM SCHEDULE

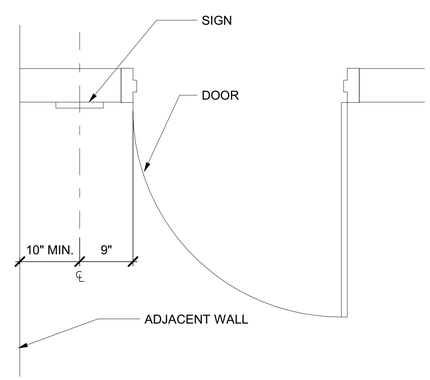
ROOM #	ROOM NAME	BASE	FLOOR	WALL	CEILING	COMMENTS
101	3RD BASE DUGOUT	--	CONC-1	HPC-1	--	
101A	OUTDOOR STORAGE	RB-1	CONC-2	HPC-1	EXP-1	
101B	OUTDOOR STORAGE	RB-1	CONC-2	HPC-1	EXP-1	
102	1ST BASE DUGOUT	--	CONC-1	HPC-1	--	
102A	CONCESSIONS	--	CONC-2	FRP-1/HPC-1	EXP-1	
102B	JAN	RB-1	CONC-2	HPC-1	EXP-1	

MATERIAL & COLOR SCHEDULE

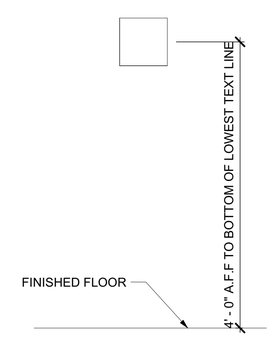
DESIGNATION	MATERIAL	MANUFACTURER / PRODUCT	NUMBER / COLOR / SIZE	REMARKS
A. CEILING				
EXP-1	PAINTED EXPOSED CEILING	SHERWIN WILLIAMS	MATCH HPC-1	-
B. WALL				
FRP-1	FIBER REINFORCED PANEL	CRANE COMPOSITES	WHITE, CLASS A FIRE RATING	INTERIOR OF CONCESSIONS STAND TO 10' AFF
FRP-1	CRANE COMPOSITES	VARIETEX	4' X 8', COTTON WHITE (1130) LINEN TEXTURE	
HPC-1	HIGH PERFORMANCE COATING	SHERWIN WILLIAMS	ALABASTER SW 7008	EGG-SHELL FINISH
C. BASE				
RB-1	RUBBER BASE	JOHNSONITE	4" HIGH, 28 MEDIUM GREY	
D. FLOOR				
CONC-1	BRUSHED CONCRETE	--	--	
CONC-2	TEXTURED SEALED CONCRETE COATING	--	--	
E. SPECIALTY				
PTD	PAINTED DOOR AND FRAME	SHERWIN WILLIAMS	MATCH RB-1	SEMI-GLOSS FINISH
SS-1	STAINLESS STEEL COUNTERTOP			



A4 A-631 **SIGNAGE TYPE 1**
3" = 1'-0"



A3 A-631 **SIGNAGE MOUNTING, PLAN DETAIL**
1" = 1'-0"



A1 A-631 **SIGNAGE MOUNTING HEIGHT, TYP**
1" = 1'-0"

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CALVIN DUFFIELD MYERS
Lic No. 0401013324
ARCHITECT

SEAL:

FINISH SCHEDULE, MATERIAL SCHEDULE, FINISH DETAILS, AND SIGNAGE

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	A-631

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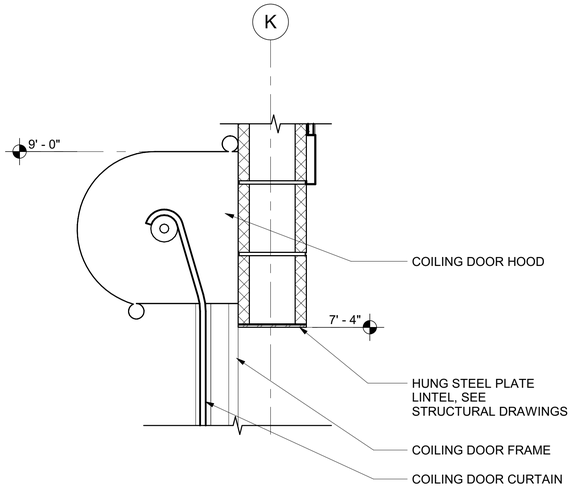
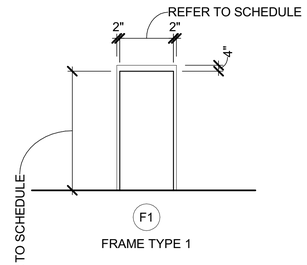
DOOR SCHEDULE

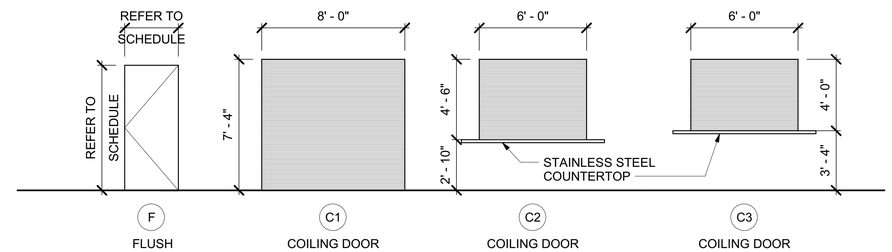
#	DOOR TYPE	DOOR WIDTH	DOOR HEIGHT	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	HEAD DETAIL	JAMB DETAIL	SILL DETAIL	SET NO.	COMMENTS
101A	F	3' - 0"	7' - 0"	HM	PTD	F1	HM	PTD	C1/A-632	B1/A-632	A1/A-632		
101B	F	3' - 0"	7' - 0"	HM	PTD	F1	HM	PTD	C1/A-632	B1/A-632	A1/A-632		
101C	F	3' - 0"	7' - 0"	HM	PTD	F1	HM	PTD	C1/A-632	B1/A-632	A1/A-632		
101D	C1	8' - 0"	9' - 1"	STEEL	ALUM	--	--	--	C5/A-632	B5/A-632	A5/A-632		CRANK OPERATION
101E	F	3' - 0"	7' - 0"	HM	PTD	F1	HM	PTD	C1/A-632	B1/A-632	A1/A-632		
102	F	3' - 0"	7' - 0"	HM	PTD	F1	HM	PTD	C1/A-632	B1/A-632	A1/A-632		
102A	F	3' - 0"	7' - 0"	HM	PTD	F1	HM	PTD	C1/A-632	B1/A-632	A1/A-632		
102B	C2	6' - 0"	7' - 4"	ALUM	ANODIZED	--	--	--	C3/A-632	B3/A-632	A3/A-632		
102C	C3	6' - 0"	7' - 4"	ALUM	ANODIZED	--	--	--	C3/A-632	B3/A-632	A3/A-632		



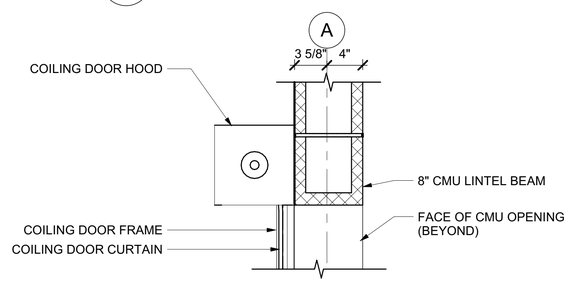
C5 A-632 **DOOR DETAIL - COILING DOOR HEAD**
1 1/2" = 1'-0"



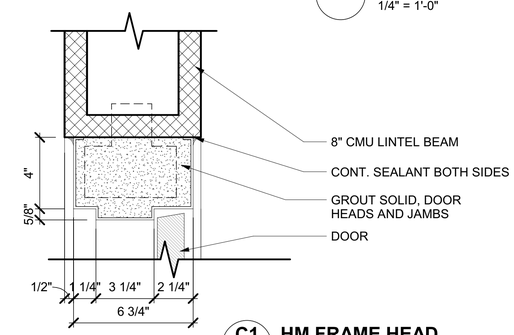
FRAME TYPE LEGEND
1/4" = 1'-0"



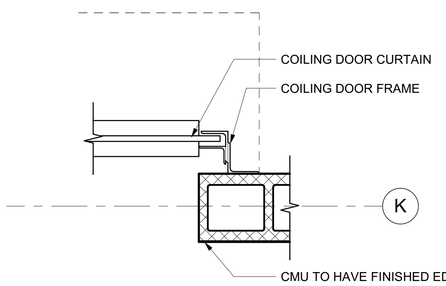
DOOR TYPE LEGEND
1/4" = 1'-0"



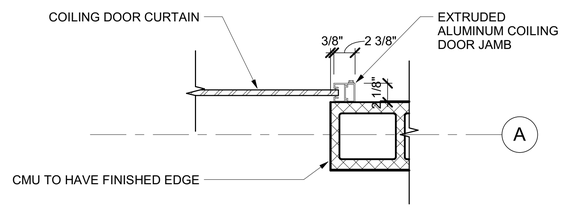
C3 A-632 **DOOR DETAIL - COILING DOOR HEAD**
1 1/2" = 1'-0"



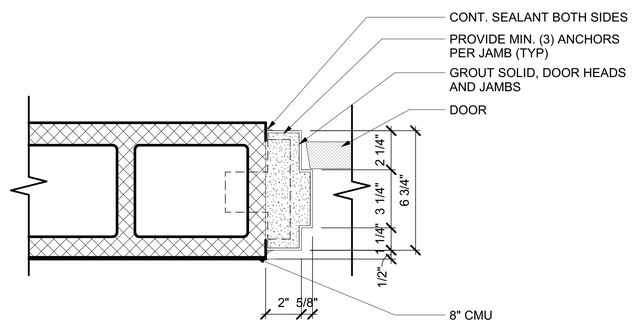
C1 A-632 **HM FRAME HEAD**
3" = 1'-0"



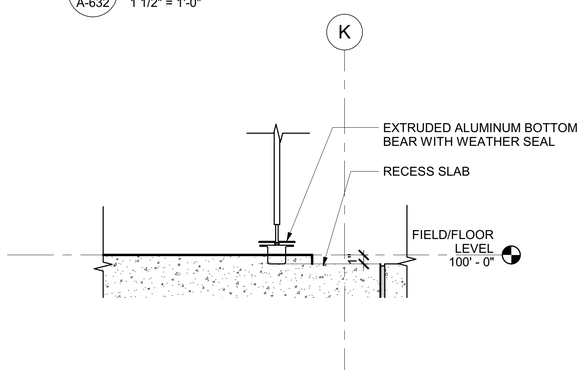
B5 A-632 **DOOR DETAIL - COILING DOOR JAMB**
1 1/2" = 1'-0"



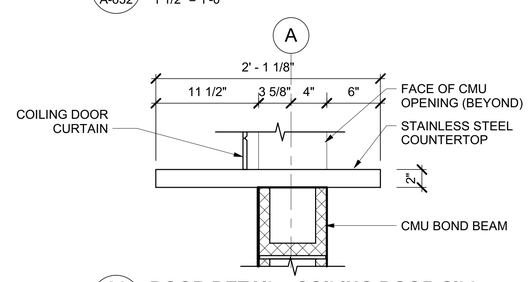
B3 A-632 **DOOR DETAIL - COILING DOOR JAMB**
1 1/2" = 1'-0"



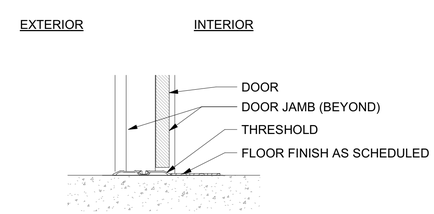
B1 A-632 **HM FRAME JAMB**
3" = 1'-0"



A5 A-632 **DOOR DETAIL - COILING DOOR SILL**
1 1/2" = 1'-0"



A3 A-632 **DOOR DETAIL - COILING DOOR SILL**
1 1/2" = 1'-0"



A1 A-632 **DOOR DETAIL - SILL**
1 1/2" = 1'-0"

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GAVIN DUFFIELD MYERS
Lic No. 0401013324
ARCHITECT

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DOOR SCHEDULE AND DETAILS

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	2/17/2023
PLAN:	SITE PERMIT SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	A-632

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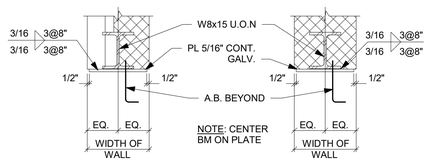
LINTEL SCHEDULE

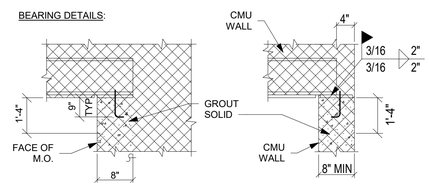
STANDARD INTERIOR C.M.U. WALLS (EXPOSED TO VIEW)		
MASONRY OPENING	WALL THICK	DESCRIPTION
0'-8" TO 4'-0"	6" 8" 12"	6" x 8" CMU LINTEL w\ 2#4B 8" x 8" CMU LINTEL w\ 2#4B 12" x 8" CMU LINTEL w\ 2#4B
4'-0" TO 6'-8"	6" 8" 12"	6" x 8" CMU LINTEL w\ 2#5B 8" x 8" CMU LINTEL w\ 2#5B 12"x 8" CMU LINTEL w\ 3#5B
ADDED LINTEL FOR BRICK/MASONRY WYTHE AT EXTERIOR WALLS		
MASONRY OPENING	WALL THICK	DESCRIPTION
0'-8" TO 4'-0"	4" 4" + 3" INSUL	L3 ½ x 3 ½ x 5/16 GALV. L6 x 4 x 5/16 LLH GALV.
4'-0" TO 6'-8"	4" 4" + 3" INSUL	L6 x 3 ½ x 5/16 LLH GALV. L6 x 6 x 5/16 GALV.
STANDARD LINTEL, MASONRY OPENING 6'-8" TO 13'-8"		



EXTERIOR WALL

INTERIOR WALL

BEARING DETAILS:



SUPPORTING WALL PARALLEL WITH BEAM LINTEL

SUPPORTING WALL PERPENDICULAR WITH BEAM LINTEL

NOTES:

1. SEE ARCHITECTURAL & MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MASONRY OPENINGS REQUIRING LINTELS. USE STANDARD LINTELS UNLESS OTHERWISE NOTED (UON).
2. PROVIDE MINIMUM 8" LONG BEARING EACH END FOR ALL LINTELS UON.
3. AT STANDARD LINTELS OVER 6'-4" PROVIDE STEEL BEAMS NOTED ABOVE WITH MINIMUM BEARING PLATES 3/8"x7"x0'-8" AND A 3/4"∅x9" LONG ANCHOR BOLT AT EACH END. CONTRACTORS OPTION: PROVIDE 2-3/4"∅x5" HEADED SHEAR CONNECTOR IN GROUT TO ANCHOR PLATE.
4. PROVIDE MINIMUM 16" DEEP SOLID C.M.U. BELOW BEARING PLATES NOTED ABOVE.
5. PROVIDE ADEQUATE SHORING AND FORM WORK FOR ALL CMU LINTELS DURING ERECTION UNTIL MASONRY GROUT OBTAINS DESIGN STRENGTH. DO NOT USE DOOR FRAME AS FORM. SOLID GROUTED DOOR FRAME MAY BE INSTALLED BETWEEN FORM AND C.M.U. LINTEL, IF SHORED ADEQUATELY TO PREVENT FRAME DEFLECTION. ALL C.M.U. LINTELS TO BE FILLED 100% WITH MASONRY GROUT.
6. GALVANIZE ALL STEEL ANGLE LINTELS AND EXPOSED PLATES IN ALL WALLS.

STRUCTURAL GENERAL NOTES

A. GENERAL:

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTS AND SPECIFICATIONS.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE BEGINNING WORK.
3. TYPICAL DETAILS ARE PROVIDED ON THESE DRAWINGS TO DESCRIBE STANDARD CONSTRUCTION REQUIREMENTS TO BE APPLIED THROUGHOUT THE PROJECT. THE DETAILS SHALL BE ADJUSTED AS REQUIRED TO ACCOUNT FOR VARYING CONDITIONS IN THE FIELD. SIGNIFICANT ADJUSTMENTS SHALL BE PRESENTED TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION OR FABRICATION. ALL TYPICAL DETAILS SHALL BE REVIEWED BY THE CONTRACTOR AND APPROPRIATE SUBCONTRACTORS PRIOR TO ANY DETAILING, FABRICATION, AND INSTALLATION. ANY CONFLICTS OR CLARIFICATIONS SHALL BE RESOLVED BEFORE BEGINNING WORK.
4. PROVIDE ADEQUATE SHORING AND BRACING DURING CONSTRUCTION UNTIL SHEAR WALLS AND LOAD FRAMES ARE IN PLACE.
5. COORDINATE SIZE AND INSTALLATION OF ALL OPENINGS, SLEEVES, INSERTS, TIES, EQUIPMENT PADS, EQUIPMENT SUPPORTS, ETC. WITH APPROPRIATE TRADES AND CONTRACT DRAWINGS PRIOR TO INSTALLATION OR FABRICATION.
6. BOTH SIDES OF FOUNDATION WALLS SHALL BE BACKFILLED SIMULTANEOUSLY SO AS TO PREVENT OVERTURNING OR LATERAL MOVEMENT OF WALLS.

B. DESIGN CRITERIA:

1. CODES: (USE LATEST EDITIONS U.O.N.)
   a. VIRGINIA CONSTRUCTION CODE (VCC) 2018 (IBC 2018)
   b. BUILDING CLASSIFICATION: RISK CATEGORY II
   c. AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) MINIMUM DESIGN LOADS FOR BUILDINGS 7-16
   d. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI-318)
   e. SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS ANSI/AISC 360
   f. SPECIFICATIONS, LOAD TABLES, AND WEIGHT TABLES FOR STEEL JOISTS (STEEL JOIST INSTITUTE)
   g. DESIGN MANUAL FOR FLOOR DECKS AND ROOF DECKS (STEEL DECK INSTITUTE)
   h. DESIGN HANDBOOK OF THE CRSI (CONCRETE REINFORCING STEEL INSTITUTE)
2. GRAVITY LOADS:
   a. DEAD LOADS:
      - ROOF — 20 PSF
   b. LIVE LOADS:
      - ROOF MINIMUM LIVE LOAD — 30 PSF (300# CONCENTRATED)
3. WIND LOADS:
   a. WIND SPEED (Vult) — 110 MPH
   b. EXPOSURE
   c. INTERNAL PRESSURE COEFFICIENTS — +0.18 & -0.18
   d. WIND VELOCITY PRESSURE (q) — 25 PSF
   e. NET UPLIFT FOR ROOF AREAS — 20 PSF
   f. NET UPLIFT FOR ROOF OVERHANG — 47 PSF
   g. WALL COMPONENTS & CLADDING — +27.0 PSF & -30.0 PSF
4. SNOW LOAD:
   a. GROUND SNOW LOAD (Pg) — 25 PSF
   b. FLAT ROOF SNOW LOAD (Pf) — 22 PSF (PLUS DRIFT LOADS)
   c. SLOPED ROOF SNOW LOAD (PF) — 22 PSF (PLUS DRIFT LOADS)
   d. EXPOSURE FACTOR (Ce) — 1.0
   e. THERMAL FACTOR (Ct) — 1.0
   f. SLOPE FACTOR (Cs) — 1.0
   g. IMPORTANCE FACTOR (Is) — 1.0
5. EARTHQUAKE LOAD:
   a. SEISMIC DESIGN CATEGORY — B
   b. SITE CLASS — D
   c. SITE COEFFICIENTS — S_s = 0.135; S_1 = 0.044; S_{DS}=0.144; S_{D1}=0.07; Fa=1.6; Fv=2.4
   d. IMPORTANCE FACTOR (Ie) — 1.0
   e. BASIC SEISMIC FORCE RESISTING SYSTEM — STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC, R=3.0
   f. SEISMIC RESPONSE COEFFICIENT, — Cs=0.048
   g. ANALYSIS METHOD: EQUIVALENT LATERAL FORCE — TOTAL BASE SHEAR V = CsW
6. RAIN LOADS:
   a. RAIN INTENSITY — 3.25 INCH/HOUR MAX
7. DESIGN SOILS BEARING PRESSURE: ALLOWABLE BEARING PRESSURE OF 2000 PSF . ALL FOUNDATION BEARING FOR THIS BUILDING WILL BE VERIFIED IN THE FIELD FOR A MINIMUM 2000 PSF SAFE BEARING PRESSURE.

C. FOUNDATIONS:

1. FOOTING ARE DESIGNED TO BEAR ON EITHER ENGINEERED FILL OR NATURAL, COMPACTED SOILS. REFER TO THE SPECIFICATIONS AND ANY ADDITIONAL EXPLORATIONS BY CONTRACTOR TO IDENTIFY ACCEPTABLE BEARING STRATA. ANY EXISTING LOOSE OR UNCOMPACTED FILL MATERIALS ENCOUNTERED BELOW THE BUILDING SHALL BE REMOVED AS PART OF THE SITE PREPARATIONS. THE GEOTECHNICAL INVESTIGATION, REFERENCED ABOVE, NOTED POTENTIAL UNCONTROLLED FILL FROM 0 TO 5 FOOT DEPTHS AT THE NORTH-WEST CORNER OF THE SITE THAT FIT THIS CATEGORY.
2. ALL FOOTING EXCAVATIONS SHALL BE INSPECTED, PRIOR TO CONCRETE PLACEMENT, BY THE SOILS ENGINEER TO VERIFY SUITABLE BEARING MATERIAL AND CAPACITY AS NOTED. ANY AND ALL UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE ENGINEERED FILL MATERIAL AS REQUIRED. SOILS ENGINEER SHALL BE A REGISTERED PROFESSIONAL IN THE COMMONWEALTH OF VIRGINIA.

D. CONCRETE:

1. CONCRETE USED IN THE WORK SHALL MEET OR EXCEED THE FOLLOWING COMPRESSIVE STRENGTH AT 28 DAYS:

FOOTINGS	3500 PSI NORMAL WT
RETAINING WALL	4000 PSI NORMAL WT
SLABS ON GRADE	4000 PSI NORMAL WT
SUPPORTED SLABS	4000 PSI NORMAL WT
MASONRY GROUT	3000 PSI NORMAL WT

   ALL CONCRETE SUBJECT TO FREEZE/THAW CYCLES SHALL BE AIR ENTRAINED.
2. SAW-CUT OR TOOLED CONTROL JOINTS (C.J. ON PLANS) SHALL BE AS DETAILED SAW-CUTS ARE TO BE MADE AS SOON AS PRACTICAL WITHOUT DAMAGING THE SURFACE (12 HOURS MAX).
3. SLAB CONSTRUCTION JOINTS SHALL BE LOCATED, AS REQUIRED FOR CONSTRUCTION, AT CONTROL JOINT (C.J.) LOCATIONS NOTED ON PLANS.
4. PROVIDE ISOLATION JOINTS AT ALL COLUMNS WITH 1/2" PREFORMED JOINT FILLER AS INDICATED ON TYPICAL DETAILS.
5. CONSTRUCTION JOINTS IN WALLS AND SLABS SHALL HAVE REINFORCING CONTINUE THROUGH JOINT U.O.N. ON DETAILS. CONSTRUCTION JOINTS ARE TO BE LOCATED BY THE CONTRACTOR, TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE, AND SHALL BE APPROVED BY THE ENGINEER.
6. CUTTING AND/OR CORING CONCRETE SHALL BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION. NO REINFORCEMENT SHALL BE CUT.
7. EXPOSED CONCRETE EDGES SHALL BE BUILT SQUARE AND RUBBED TO A MINIMUM RADIUS CHAMFER, UNLESS SPECIFIC CHAMFERS ARE CALLED FOR IN DETAILS.
8. SEE ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS FOR LOCATIONS OF OPENINGS AND SLEEVES. DO NOT CUT REINFORCEMENT.
9. DEPRESS FLOOR SLABS AS INDICATED. SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF DEPRESSED AREAS AND DEPTH REQUIREMENTS.
10. CONDUITS POURED IN THE SUPORTED SLABS SHALL BE LIMITED TO 3/4" DIAMETER. NO CROSSINGS ARE ALLOWED EXCEPT BETWEEN HIGH HATS IN METAL DECK PROFILE. MULTIPLE CONDUITS RUNNING PARALLEL SHALL BE LIMITED TO FOUR AND SPACED AT A MINUMUM 3"oc. USE POKE THRUS AND RUN CONDUITS BELOW THE SUPPORTED FLOOR SLAB OR IN THE CEILING ABOVE TO LIMIT CONDUITS IN THE SLABS.

E. REINFORCEMENT:

1. REINFORCING STEEL SHALL BE DEFORMED BARS IN ACCORDANCE WITH ASTM A615 SPECIFICATIONS, GRADE 60. REBAR SUBJECT TO WELDING SHALL BE ASTM A706.
2. WELDED WIRE FABRIC REINFORCING SHALL CONFIRM TO ASTM A185.
3. MAINTAIN MINIMUM CONCRETE COVERAGE FOR REINFORCING AS SPECIFIED IN ACI-318 AND AS FOLLOWS:

CONCRETE CAST AGAINST GROUND	3"
CONCRETE EXPOSED TO GROUND OR WEATHER; #6 & LARGER	2"
CONCRETE EXPOSED TO GROUND OR WEATHER; #5 & SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO GROUND OR WEATHER:	
SLABS, WALLS, & JOISTS	1" TOP & 3/4" BOTTOM
BEAMS & COLUMNS	1 1/2"

4. ALL CONTINUOUS REINFORCING IN FOOTINGS SHALL BE LAP-SPLICED 1'-6". ALL OTHER SPLICE SHALL BE CLASS B TENSION, U.O.N.
5. ALL HOLES IN CONCRETE SLABS AND WALLS SHALL HAVE, ADDITIONALLY, 2#5 X (OPENING DIM. + 2 FT.) ALONG EACH SIDE OF OPENING AND 2 #5 X 5'-0" DIAGONALLY AT EACH CORNER.
6. DETAILING, FABRICATION, AND INSTALLATION OF REINFORCING BARS SHALL COMPLY WITH THE "DESIGN HANDBOOK OF THE CRSI" AND THE MANUAL OF STANDARD PRACTICE OF THE ACI.
7. PROVIDE DOWELS TO MATCH REINFORCEMENT IN ALL WALLS, PIERS, COLUMNS, AND FOUNDATIONS.

F. STRUCTURAL STEEL:

1. STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH ASTM SPECIFICATIONS. A992, GRADE 50 FOR SHAPES. A36 & A572, GR50 FOR PLATES AND MISCELLANEOUS. A500, GRADE B, FOR TUBES AND A53, TYPE E FOR PIPES. ALL STRUCTURAL STEEL AND CONNECTIONS EXPOSED TO WEATHER SHALL BE GALVANIZED (G60 MINIMUM) OR STAINLESS STEEL, UON.
2. FRAMING BOLTS SHALL CONFORM TO ASTM A325N, 3/4" DIAMETER MINIMUM. U.O.N.
3. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 (GRADE 36).
4. WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY D1.1-1, E-70xx ELECTRODES. FILLER METAL SHALL HAVE A MINIMUM YIELD STRENGTH OF 57 KSI.
5. PROVIDE 1/2" SPACE BETWEEN ENDS OF CONTINUOUS ANGLES, SUPPORTING DECKING OR MASONRY. ALL MASONRY SHELF ANGLES SHALL BE GALVANIZED.
6. WHERE CONNECTIONS OR REACTIONS ARE NOT INDICATED, THE FABRICATOR SHALL PROVIDE CONNECTIONS TO SUPPORT ONE-HALF OF THE ALLOWABLE UNIFORM LOAD SHOWN IN THE AISC MANUAL, 16TH EDITION TABLES OF ALLOWABLE UNIFORM LOADS, PART 2 FOR THE GIVEN BEAM, SPAN AND GRADE OF STEEL SPECIFIED.
7. MINIMUM NUMBER OF BOLTS PER CONNECTION SHALL BE AS FOLLOWS: W8 AND W10-2 BOLTS, W12 AND W14-3 BOLTS, W16 AND W18-4 BOLTS, W21-5 BOLTS, AND W24-6 BOLTS.
8. WHERE SLOTTED CONNECTION HOLES ARE USED, THE FABRICATOR SHALL ADJUST THE BOLT VALUES ACCORDINGLY.
9. THE FOLLOWING CONDITIONS SHALL BE CHECKED WHEN DESIGNING BEAM CONNECTIONS: BOLT SHEAR, BOLT BEARING ON CONNECTING MATERIAL, BLOCK WEB SHEAR ON THE NET AREA OF THE CONNECTING ANGLES OR PLATES AND LOCAL BENDING STRESSES.

G. METAL DECK:

1. GALVANIZED FLOOR AND ROOF DECK SHALL CONFORM TO ASTM A446 AND ZINC COATING ASTM A525. ALL METAL DECKS SHALL BE GALVANIZED.
2. ROOF DECK 1 (RD1) SHALL BE 1-1/2" DEEP 20 GA. WIDE OR INTERMEDIATE RIB CONFORMING TO THE REQUIREMENTS OF THE STEEL DECK INSTITUTE UON.
3. ROOF DECK SHALL BE COLD-FORMED, HAVING A MINIMUM YIELD STRENGTH OF 33,000 PSI (227MPA).
4. ROOF DECK SHALL BE ATTACHED TO SUPPORTING MEMBERS WITH 5/8"∅ PUDDLE WELDS WITH A MAXIMUM SPACING OF 12" ON CENTER AND SIDE LAPPED BY FUSION WELDS (OR #10 SELF TAPPING SCREWS) AT 2'-0"OC MAX. (REFER TO TYPICAL DETAIL)
5. PROVIDE SUPPORT FRAMING AROUND ALL OPENINGS WITH A DIMENSION OF 12" OR LARGER.
6. NO SUSPENDED/HANGING LOADS SHALL BE ATTACHED TO THE METAL ROOF DECK.

H. LIGHT GAGE STRUCTURAL STEEL FRAMING (LGSSF):

1. LIGHT GAGE STEEL FRAMING SYSTEMS SHALL BE DESIGNED AND DETAILED BY A SPECIALTY ENGINEER PROFESSIONALLY LICENSED IN THE COMMONWEALTH OF VIRGINIA. PROVIDE SEALED AND SIGNED SHOP DRAWINGS AND CALCULATIONS PREPARED, STAMPED AND SIGNED BY THE SPECIALTY PROFESSIONAL ENGINEER.
2. LIGHT GAGE DESIGN SHALL BE IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE (AISI) STANDARDS (LATEST EDITION) ALONG WITH OTHER CRITERIA AND LOADS NOTED ON THESE DRAWINGS, ALL PERFORMED IN CONCERT WITH THE PRIMARY STRUCTURAL FRAMING PLANS AND DETAILS. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. ARCHITECTURAL DIMENSIONS GOVERN.
3. LGSSF MEMBERS SHALL BE GALVANIZED STEEL ASTM A1003/A, STRUCTURAL GRADE, TYPE H, GRADE ST33H OR ST50H (AS REQUIRED) WITH A G60 COATING.
4. LGSSF RAFTER SPACING SHALL BE A MAXIMUM 2'-0"oc.
5. LGSSF DESIGN SHALL INCLUDE ALL CONNECTORS, CLIPS, STIFFENERS, ANCHORS, FASTENERS, AND BRACING, BOTH TEMPORARY AND PERMANENT, AS REQUIRED.
6. LGSSF MEMBER SIZES WHERE NOTED ON THE DRAWINGS ARE SCHEMATIC ONLY. SPECIALTY ENGINEER SHALL DETERMINE SIZE, GAGE, AND NUMBER OF MEMBERS REQUIRED FOR ALL FRAMING CONDITIONS AND CONNECTIONS. MINIMUM GAGE HOWEVER SHALL BE 20 AND MEMBER DEPTH SHALL MATCH THAT NOTED IN THE DETAILS. LIVE LOAD DEFLECTIONS SHALL NOT EXCEED L/360 FOR ROOF TRUSSES.

J. MASONRY:

1. MASONRY DESIGNED BY THE ALLOWABLE STRESS DESIGN PROVISIONS OF IBC.
2. CONCRETE MASONRY UNITS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI @ 28 DAYS AND BE NORMAL WEIGHT.
3. MORTAR SHALL BE TYPE M OR S.
4. MINIMUM CONCRETE PRISM STRENGTH (f'm) SHALL BE 1500 PSI.
5. REINFORCEMENT AND CONCRETE FILL ARE NOTED ABOVE.
6. ALL MASONRY BELOW GRADE SHALL BE GROUTED SOLID.
7. ALL MASONRY CELLS WITH REINFORCEMENT SHALL BE GROUTED SOLID.
8. SOLID MASONRY PIERS, IDENTIFIED AS SMP ON PLAN, SHALL BE GROUTED SOLID FULL HEIGHT OF WALL TO FOUNDATION.
9. PROVIDE CONTROL JOINTS IN MASONRY PER NCMA STANDARDS AND/OR AS SHOWN ON THE ARCHITECTURAL DRAWINGS.
10. INSTALL LINTELS AT ALL OPENINGS IN MASONRY WALLS. REFER TO LINTEL SCHEDULE AND ARCHITECTURAL DRAWINGS FOR SIZES AND LOCATIONS. PRECAST CONCRETE LINTELS ARE NOT ACCEPTABLE IN ANY LOCATIONS EXPOSED TO VIEW.
11. MASONRY CONSTRUCTION SHALL BE INSPECTED AND VERIFIED IN ACCORDANCE WITH TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ASCE 6 LEVEL B QUALITY ASSURANCE PROGRAM REQUIREMENTS.

K. DRILLED AND EPOXIED ADHESIVE ANCHOR BOLTS

1. ALL DRILLED AND EPOXIED ANCHOR BOLTS PLACED IN CONCRETE SHALL BE HILTI, HAS THREADED RODS WITH HIT HY-200 ADHESIVE SYSTEM OR APPROVED EQUAL (TYP., U.N.O.) ICBO ER-5193. USE HIT HY-270 AT MASONRY ANCHORAGE.
2. INSTALL ACCORDING TO MANUFACTURER'S SPECIFICATIONS. ANCHOR SIZES AND EMBEDMENT LENGTHS SHALL BE AS NOTED ON DRAWINGS.
3. ANCHOR HOLES SHALL BE CLEANED BY CONTRACTOR AND INSPECTED BY TESTING AND INSPECTIONS AGENCY PRIOR TO ADHESIVE BOLT INSTALLATION, NO EXCEPTIONS.

L. SPECIAL INSPECTIONS

1. SPECIAL INSPECTIONS ARE REQUIRED FOR SOILS, CONCRETE, STEEL, AND LIGHT GAGE FRAMING CONSTRUCTION, IN ACCORDANCE WITH THE VIRGINIA CONSTRUCTION CODE AND IBC 2018; CHAPTER 17.
2. REFER TO STATEMENT OF SPECIAL INSPECTIONS FOR APPLICABLE ITEMS.
3. PROVIDE SPECIAL INSPECTIONS ENGINEER OF RECORD AND TESTING AGENCY FULL ACCESS TO SITE AND CONSTRUCTION.

DRAWING LIST

S-001	COVER SHEET & STRUCTURAL GENERAL NOTES
S-101A	STORAGE-DUGOUT FLOOR PLAN AND ROOF PLAN
S-101B	CONCESSIONS-DUGOUT FLOOR PLAN AND ROOF PLAN
S-101C	ON-GRADE DUGOUT FLOOR PLAN AND ROOF PLAN - HOME
S-101D	ON-GRADE DUGOUT FLOOR PLAN AND ROOF PLAN - AWAY
S-201	TYPICAL DETAILS
S-301	WALL SECTIONS
S-302	WALL SECTIONS
S-303	WALL SECTIONS

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REVISIONS

COMMONWEALTH OF VIRGINIA
NATHANAL B. SALNICK
Lic. No. 0402053400
2/17/23
PROFESSIONAL ENGINEER

SEAL:

COVER SHEET & STRUCTURAL GENERAL NOTES

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE: 02/17/2023
PLAN: 60% SUBMISSION
JOB: 2106
CADD:
NCS:
NUMBER: S-001

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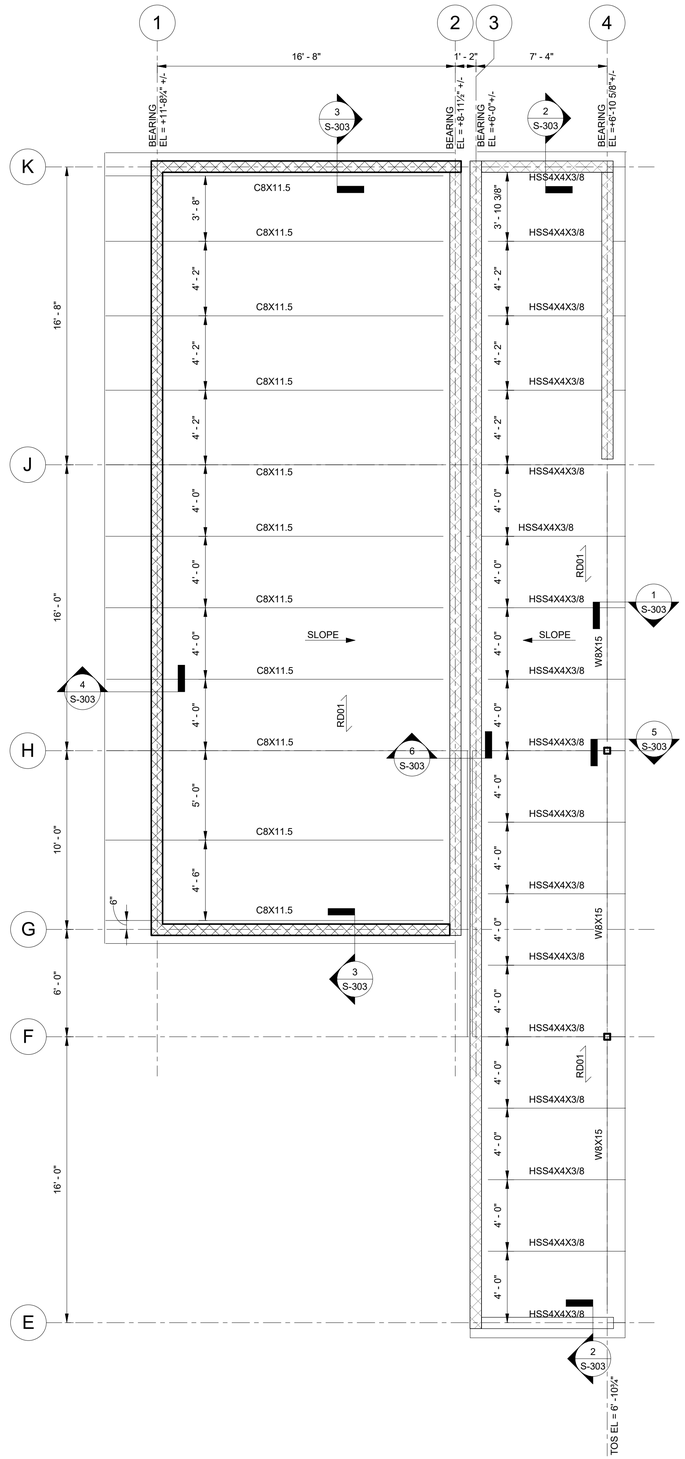
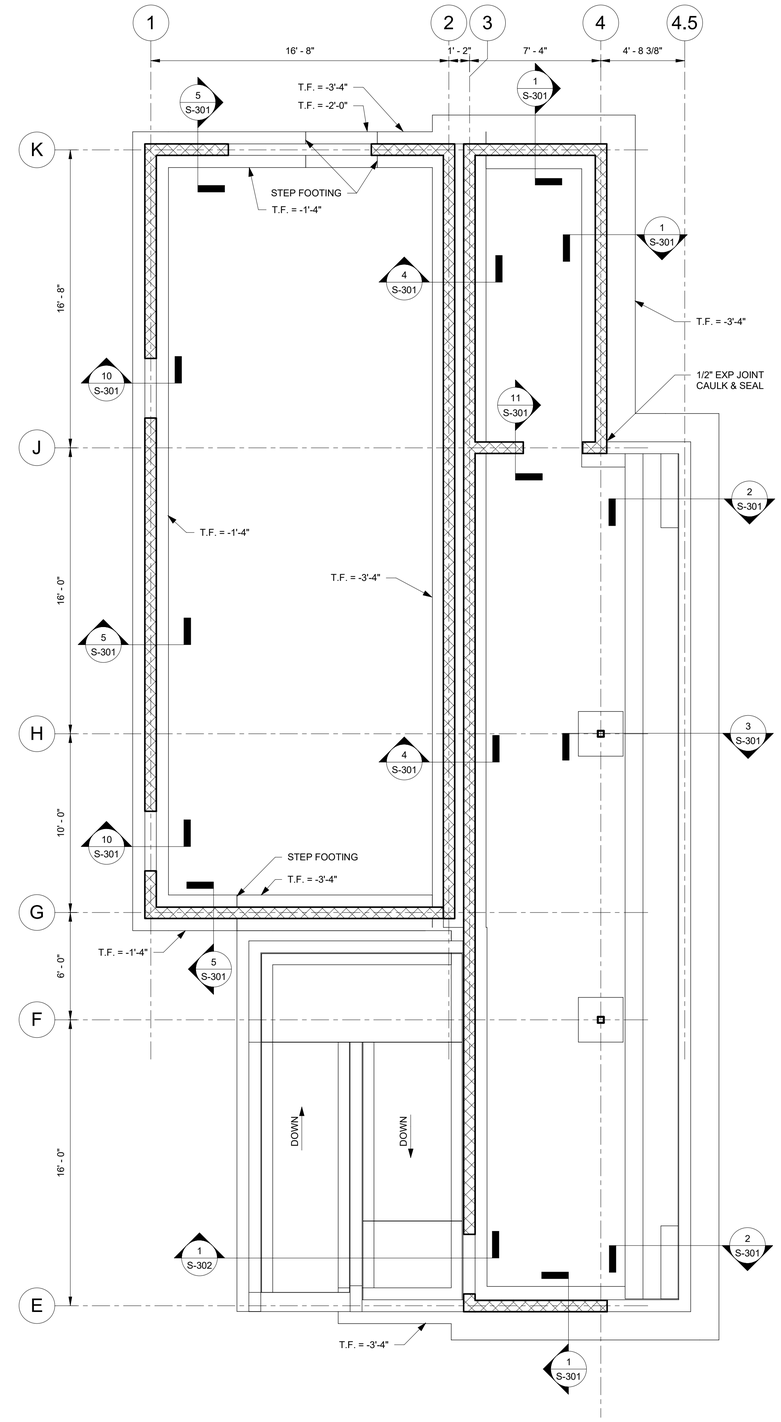


1 S-101A ROOF PLAN - STORAGE DUGOUT

1/4" = 1'-0"

PLAN NOTES:
1. TOP OF STEEL EL. = SEE PLAN
2. RD01 - 1½" x 20 GAGE GALVANIZED METAL ROOF DECK OVER ENTIRE AREA U.O.N.



2 S-101A FIRST FLOOR PLAN - STORAGE DUGOUT

1/4" = 1'-0"

PLAN NOTES:
1. FINISH FLOOR EL = VARIES
   SLAB ON GRADE 5" NORMAL WEIGHT CONCRETE WITH 6x6-W2.1xW2.1 WWF ON 6" STONE SUBBASE.
2. SLOPE SLAB SURFACE TO TRENCH DRAINS.
3. TOP OF FOOTING -1'-4" (BELOW FINISH FLOOR) UON. SEE SECTIONS FOR SIZES AND REINFORCEMENT.
4. REFER TO ARCHITECT DRAWINGS FOR ADDITIONAL DIMENSIONS, ELEVATIONS, EMBEDMENTS, AND OPENING LOCATIONS.

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STORAGE-DUGOUT FLOOR PLAN AND ROOF PLAN

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

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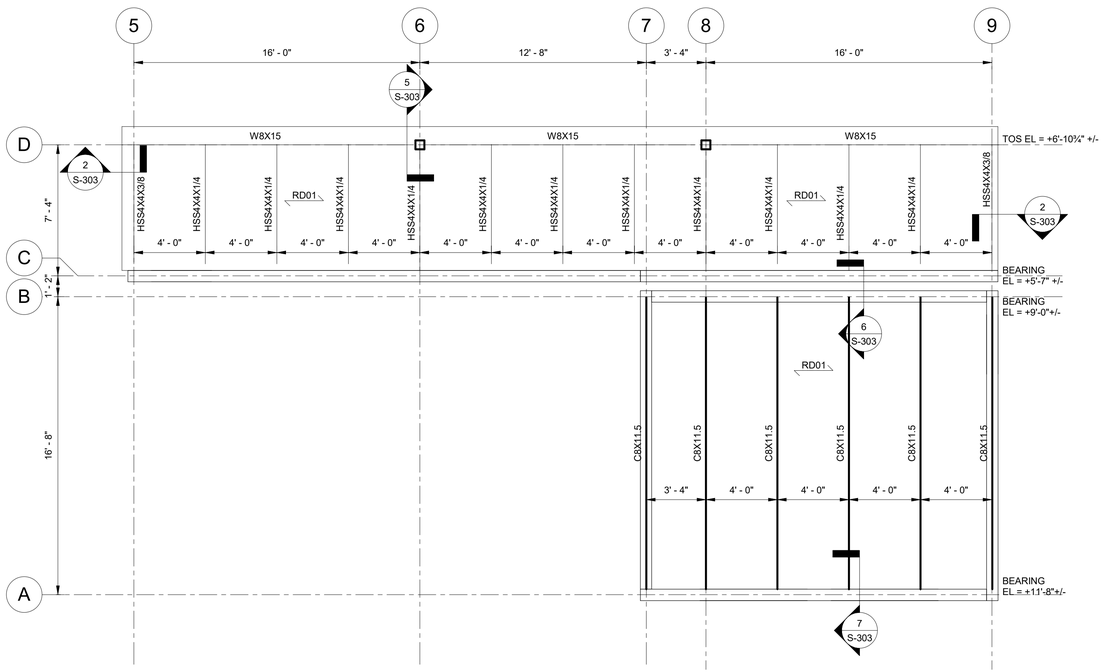
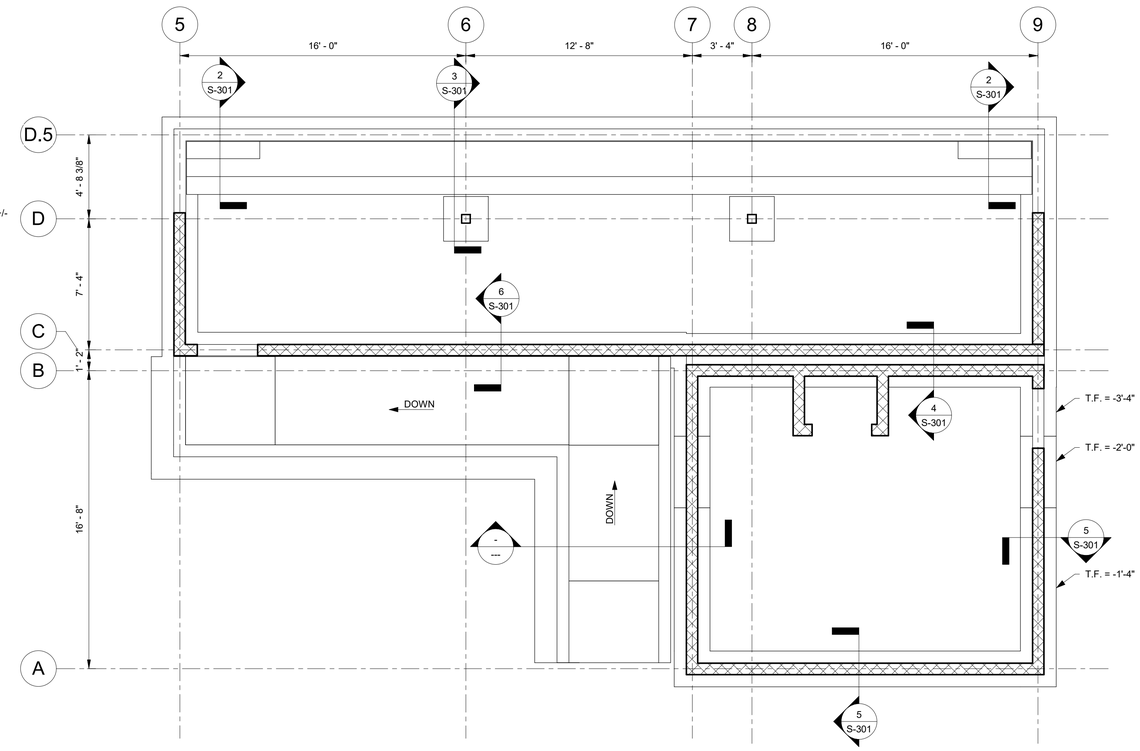


1 / S-101B ROOF PLAN - CONCESSIONS DUGOUT

1/4" = 1'-0"

PLAN NOTES:
1. TOP OF STEEL EL. = SEE PLAN
2. RD01 - 1½" x 20 GAGE GALVANIZED METAL ROOF DECK OVER ENTIRE AREA U.O.N.



2 / S-101B FIRST FLOOR PLAN - CONCESSIONS DUGOUT

1/4" = 1'-0"

PLAN NOTES:
1. FINISH FLOOR EL = VARIES
   SLAB ON GRADE 5" NORMAL WEIGHT CONCRETE WITH 6x6-W2.1xW2.1 WWF ON 6" STONE SUBBASE.
2. SLOPE SLAB SURFACE TO TRENCH DRAINS.
3. TOP OF FOOTING -1'-4" (BELOW FINISH FLOOR) UON. SEE SECTIONS FOR SIZES AND REINFORCEMENT.
4. REFER TO ARCHITECT DRAWINGS FOR ADDITIONAL DIMENSIONS, ELEVATIONS, EMBEDMENTS, AND OPENING LOCATIONS.

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CONCESSIONS-DUGOUT FLOOR PLAN AND ROOF PLAN

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

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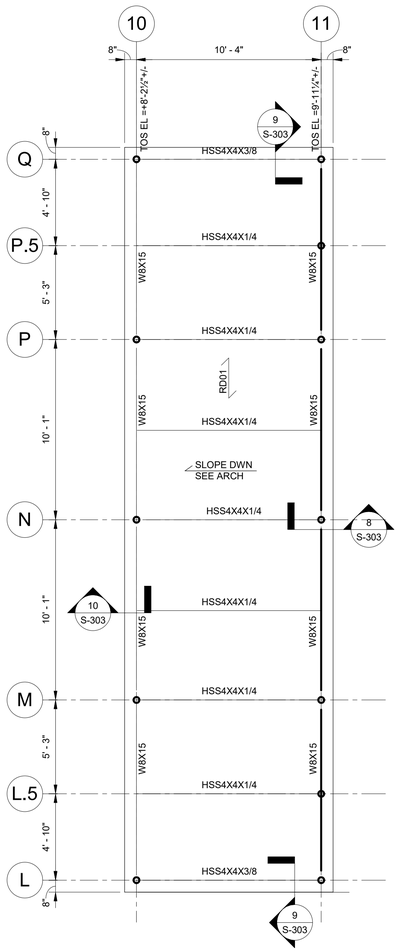
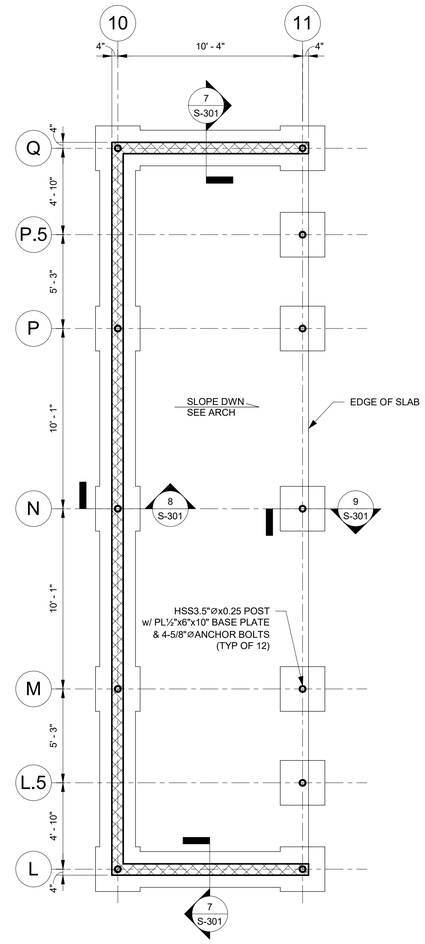


1 S-101C ROOF PLAN - ON-GRADE DUGOUT - HOME

1/4" = 1'-0"

PLAN NOTES:

1. TOP OF STEEL EL. = SEE PLAN
2. RD01 - 1½" x 20 GAGE GALVANIZED METAL ROOF DECK OVER ENTIRE AREA U.O.N.



2 S-101C FIRST FLOOR PLAN - ON-GRADE DUGOUT - HOME

1/4" = 1'-0"

PLAN NOTES:

1. FINISH FLOOR EL = VARIES
   SLAB ON GRADE 5" NORMAL WEIGHT CONCRETE WITH 6x6-W2.1xW2.1 WWF ON 6" STONE SUBBASE.
2. TOP OF FOOTING -1'-4" (BELOW FINISH FLOOR) UON. SEE SECTIONS FOR SIZES AND REINFORCEMENT.
3. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONS, ELEVATIONS, EMBEDMENTS, AND OPENING LOCATIONS.

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ON-GRADE DUGOUT FLOOR PLAN AND ROOF PLAN - HOME

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

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PLAN: 60% SUBMISSION
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CADD:
NCS:
NUMBER: S-101C

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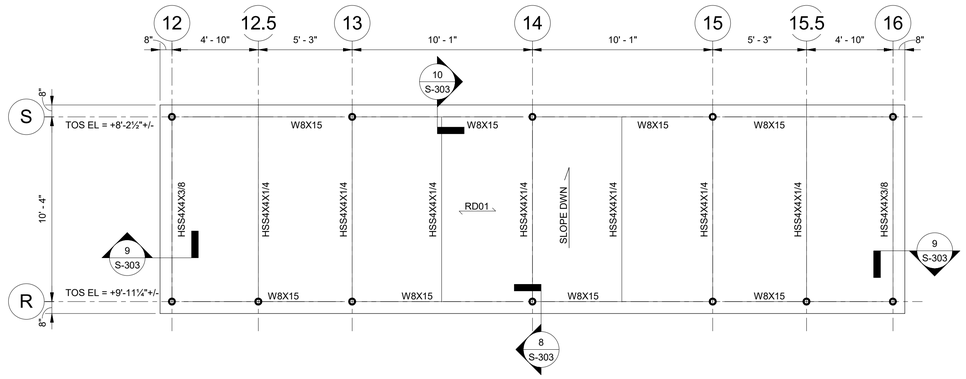
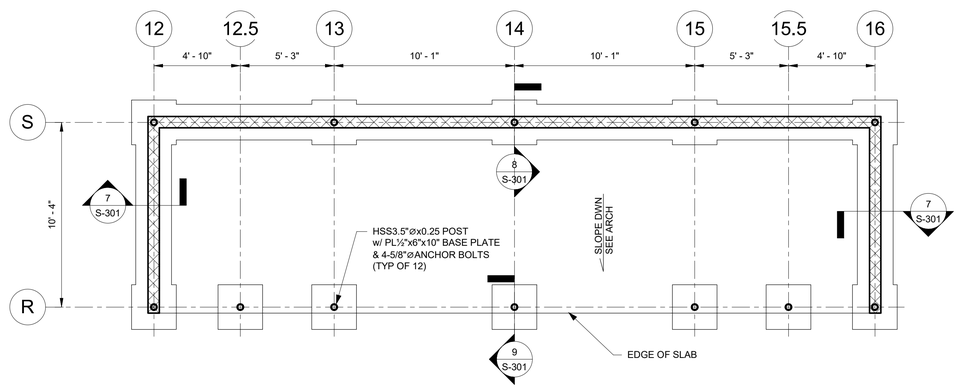


1 S-101D **ROOF PLAN - ON-GRADE DUGOUT - AWAY**

1/4" = 1'-0"

PLAN NOTES:

1. TOP OF STEEL EL. = SEE PLAN
2. RD01 - 1½" x 20 GAGE GALVANIZED METAL ROOF DECK OVER ENTIRE AREA U.O.N.



2 S-101D **FIRST FLOOR PLAN - ON-GRADE DUGOUT - AWAY**

1/4" = 1'-0"

PLAN NOTES:

1. FINISH FLOOR EL = VARIES
   SLAB ON GRADE 5" NORMAL WEIGHT CONCRETE WITH 6x6-W2.1xW2.1 WWF ON 6" STONE SUBBASE.
2. TOP OF FOOTING -1'-4" (BELOW FINISH FLOOR) UON. SEE SECTIONS FOR SIZES AND REINFORCEMENT.
3. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONS, ELEVATIONS, EMBEDMENTS, AND OPENING LOCATIONS.

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ON-GRADE DUGOUT FLOOR PLAN AND ROOF PLAN - AWAY

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE: 02/17/2023
PLAN: 60% SUBMISSION
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NUMBER: S-101D

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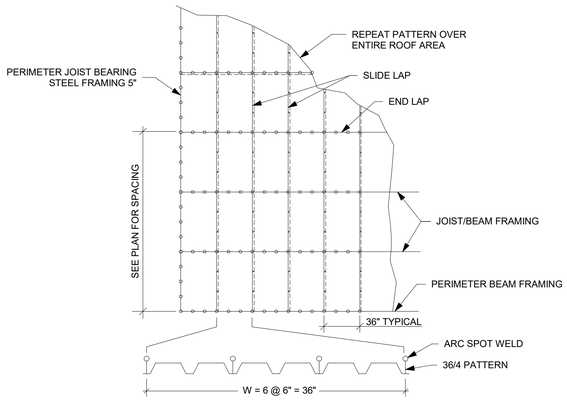
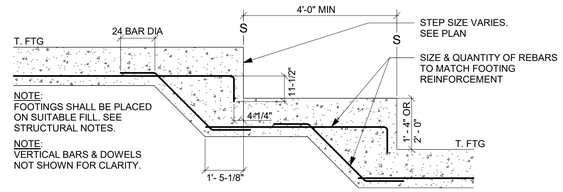
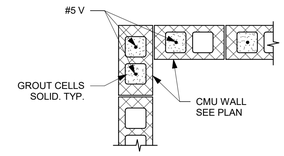


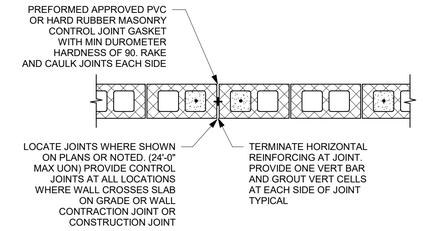
1 TYPICAL ROOF DECK WELDING



2 TYPICAL FOOTING STEP DETAIL



3 CMU WALL CORNER
3/4" = 1'-0"



4 DETAIL AT CONSTRUCTION JOINT
3/4" = 1'-0"

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STERLING, VIRGINIA 20164
703.437.6600

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Greenman-Pedersen, Inc.
Engineering and Construction Services
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240-268-1820 www.gpinet.com
Project #: 2200220.00
PM: MZZ M: HTL E: YWL P: SMT S:RKS

REVISIONS

NUMBER	DATE	ISSUE

COMMONWEALTH OF VIRGINIA
NATHANAL B. SALNICK
Lic. No. 0402053400
2/17/23
PROFESSIONAL ENGINEER
SEAL:

TYPICAL DETAILS

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE: 02/17/2023
PLAN: 60% SUBMISSION
JOB: 2106
CADD:
NCS:
NUMBER: S-201

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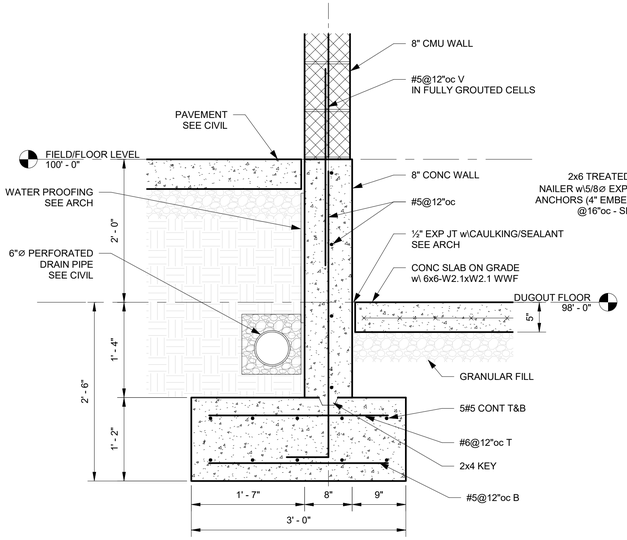

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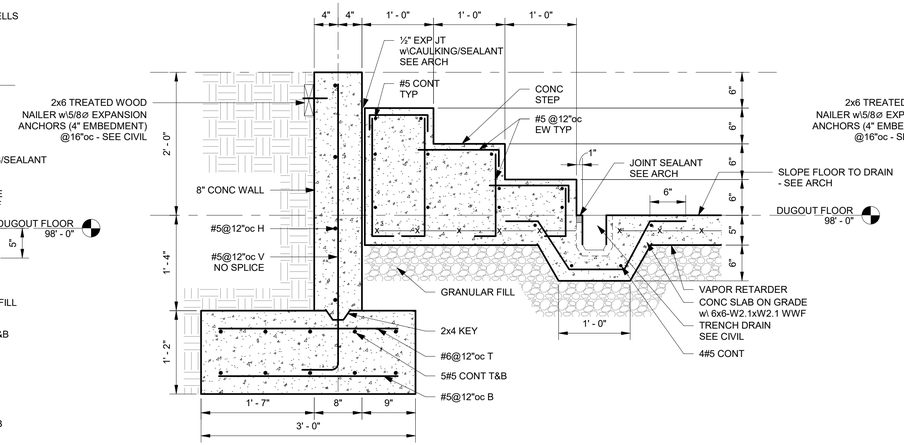

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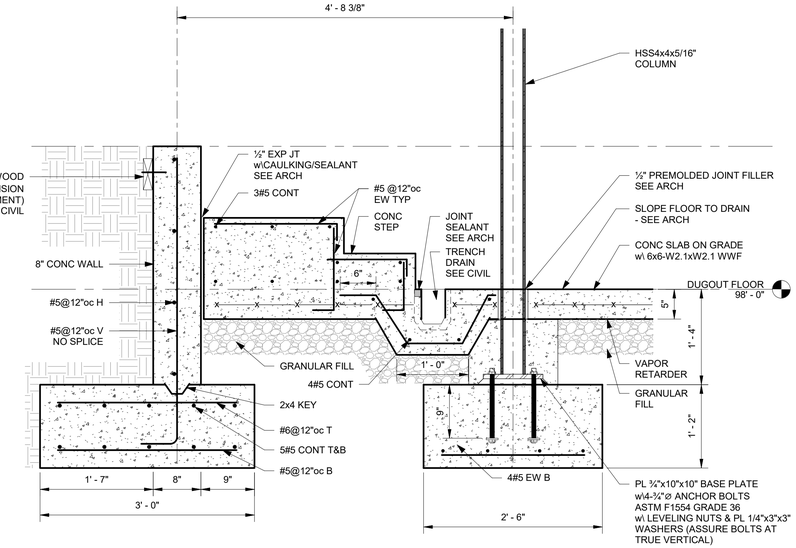

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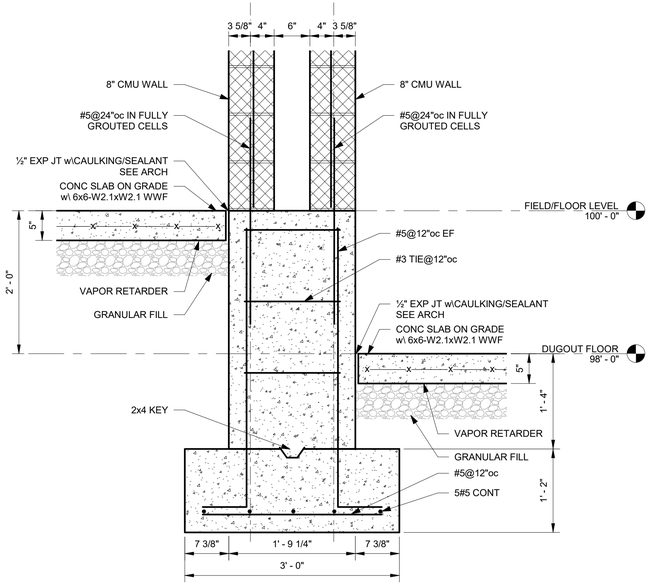

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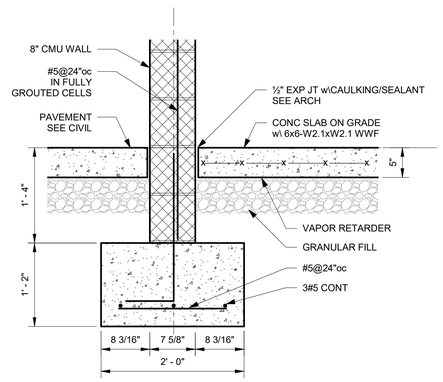

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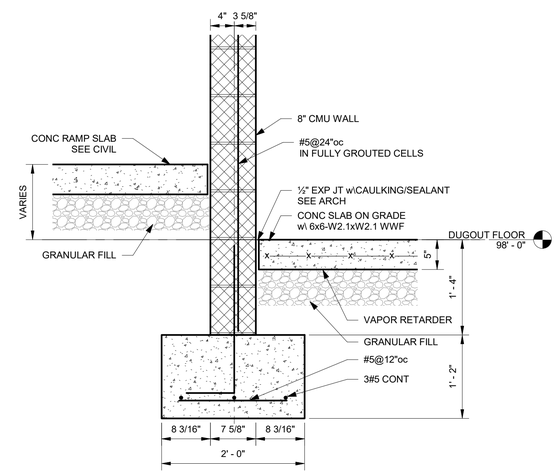

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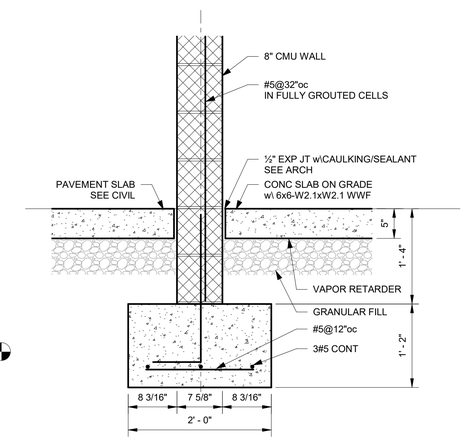

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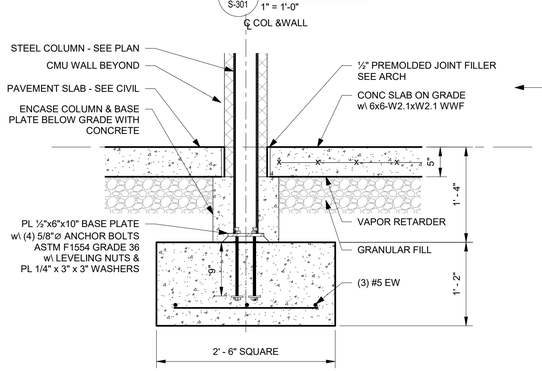

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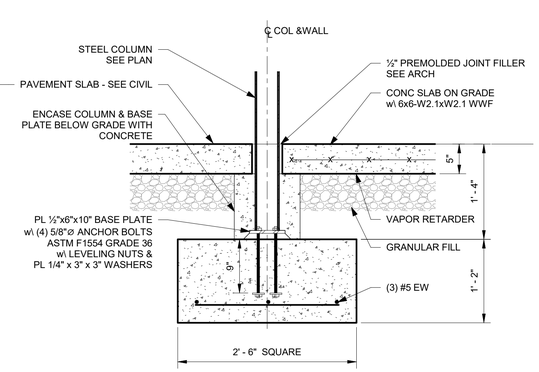

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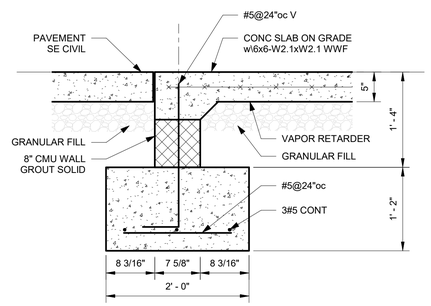

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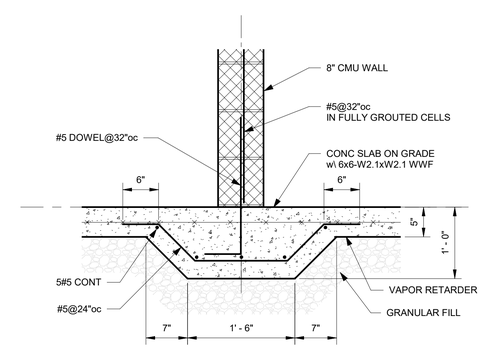

11 S-301 **SECTION**
1" = 1'-0"

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NUMBER	DATE	ISSUE	REVISIONS

COMMONWEALTH OF VIRGINIA
NATHANAL B. SALNICK
Lic. No. 0402053400
2/17/23
PROFESSIONAL ENGINEER
SEAL:

WALL SECTIONS

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	02/17/2023
PLAN:	60% SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	S-301

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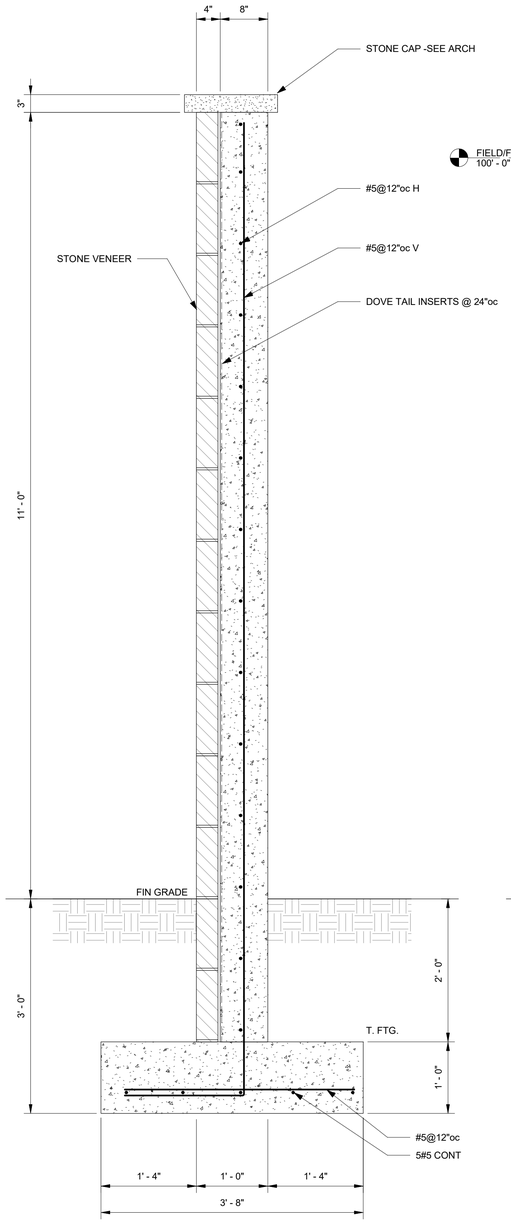
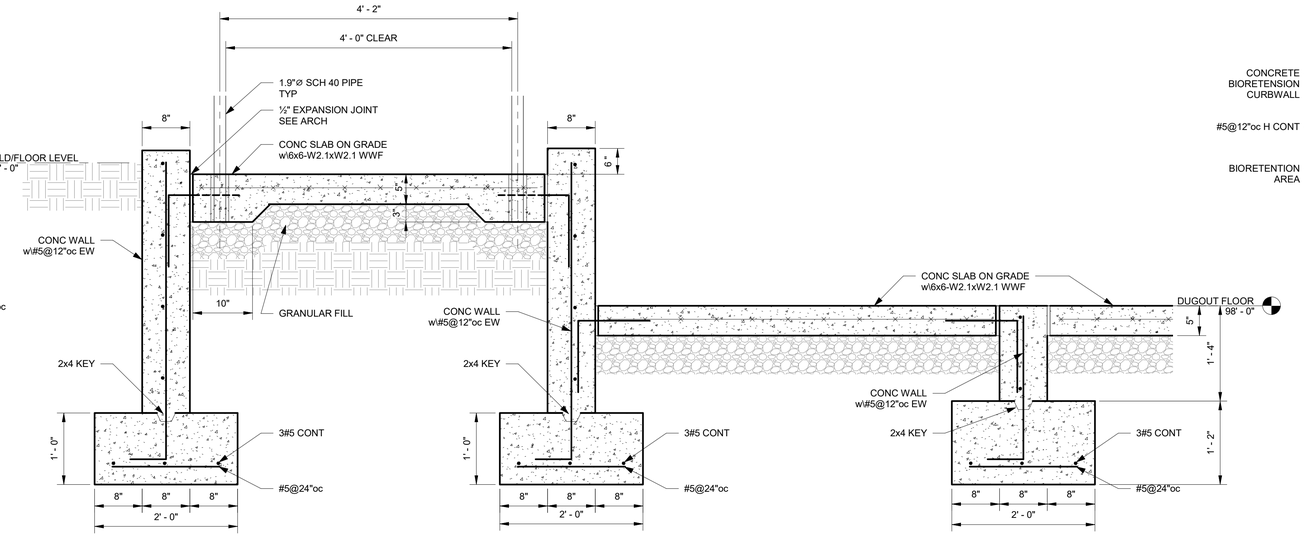


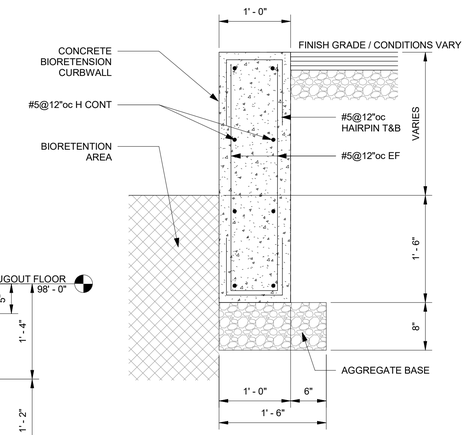
PRESSBOX TYPICAL HIGH WALL

SEE PLANS FOR WALL LOCATIONS & EXTENTS



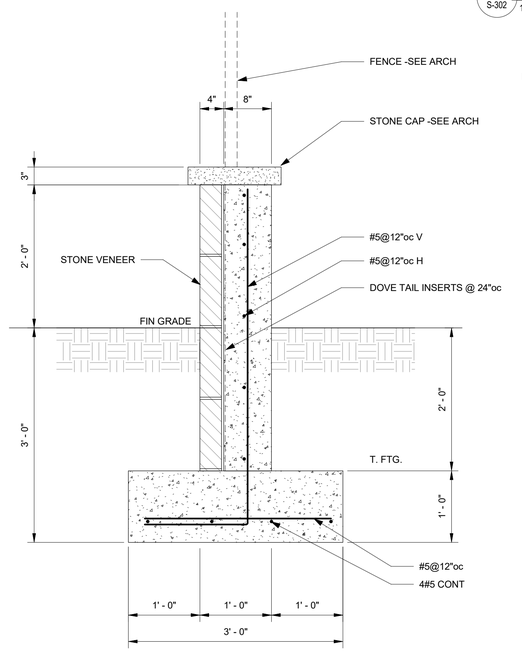
SECTION

1 / S-302 — 1" = 1'-0"



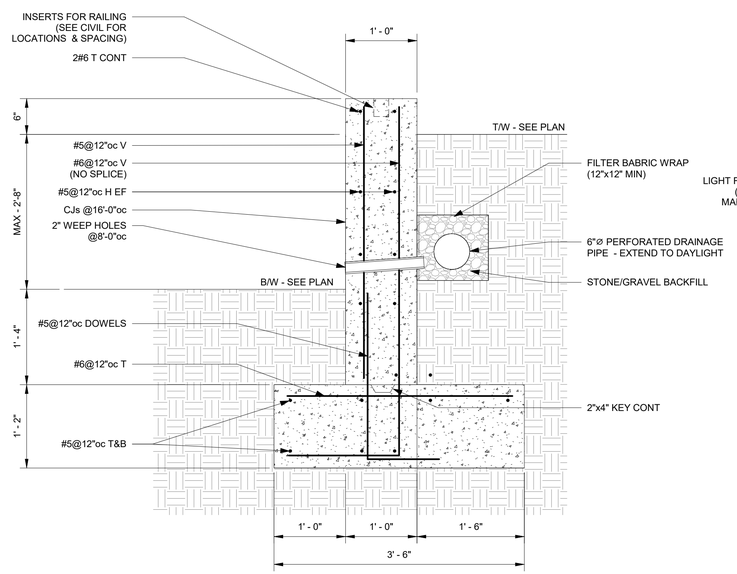
TYPICAL BIORETENTION CURBWALL DETAIL

SEE PLAN FOR LOCATIONS & EXTENTS



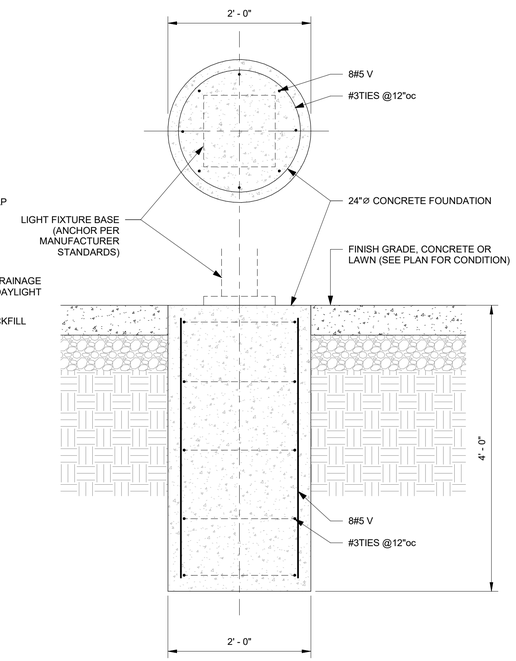
PRESSBOX TYPICAL LOW WALL

SEE PLANS FOR WALL LOCATIONS & EXTENTS



TYPICAL RETAINING WALL SECTION

SEE PLAN FOR LOCATION & EXTENT



TYPICAL PEDESTRIAN LIGHTING FOUNDATION DETAIL

SEE PLANS FOR LOCATIONS & NUMBER

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COMMONWEALTH OF VIRGINIA
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Lic. No. 0402053400
2/17/23
PROFESSIONAL ENGINEER
SEAL:

WALL SECTIONS

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	02/17/2023
PLAN:	60% SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	S-302

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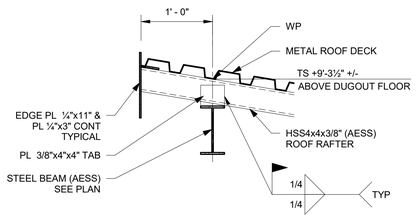

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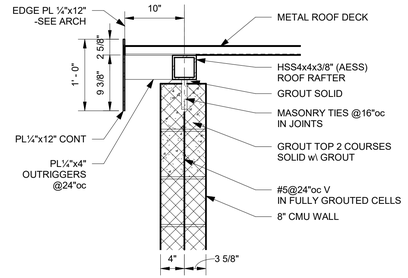

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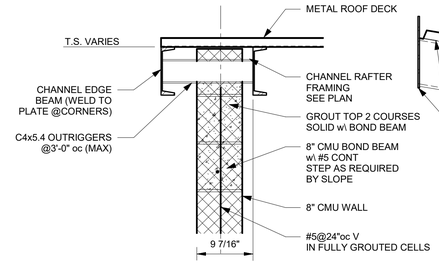

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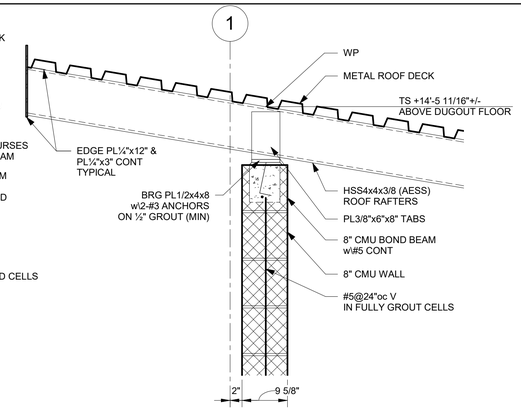

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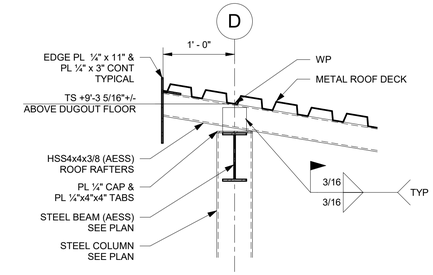

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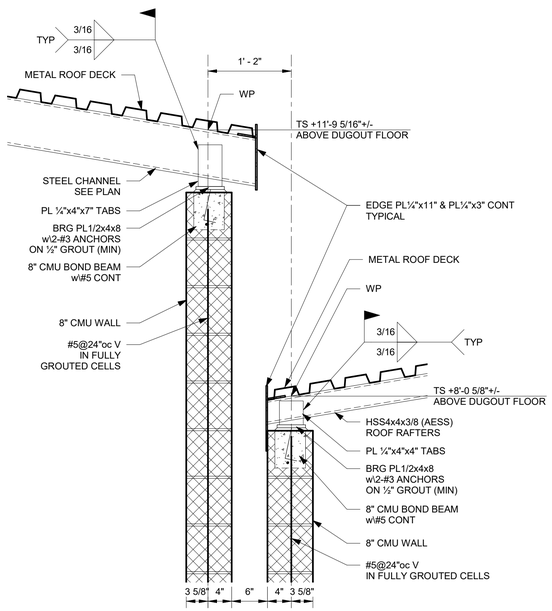

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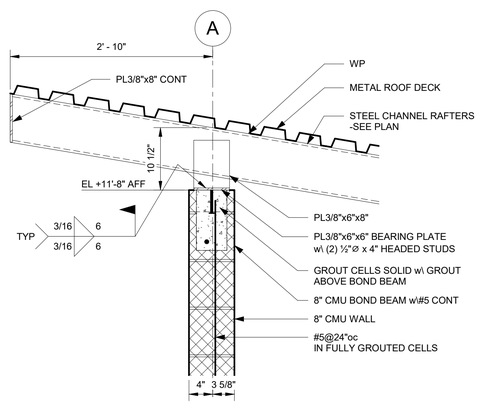

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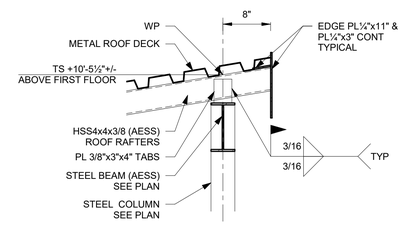

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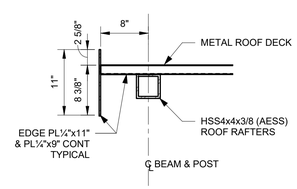

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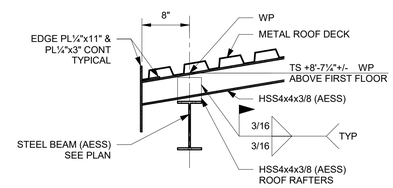

10 S-303 **SECTION**
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WALL SECTIONS

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE: 02/17/2023
PLAN: 60% SUBMISSION
JOB: 2106
CADD:
NCS:
NUMBER: S-303

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MECHANICAL GENERAL NOTES

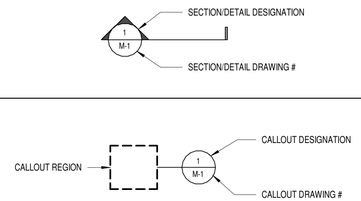
1. ALL WORK UNDER THIS AND OTHER SECTIONS SHALL BE SUBJECT TO THE OWNER'S "GENERAL CONDITIONS BY AND BETWEEN OWNER AND CONTRACTOR" AND "GENERAL CONTRACTOR AGREEMENT BETWEEN OWNER AND CONTRACTOR."
2. THE CONTRACTOR SHALL COMPLY WITH ALL THE LAWS, ORDINANCES, RULES AND REGULATIONS OF ALL LOCAL AND STATE GOVERNMENTAL AUTHORITIES, THE RULES OF THE NATIONAL FIRE PROTECTION ASSOCIATION AS INTERPRETED BY THE ENFORCING AUTHORITY HAVING JURISDICTION AND OF THE PUBLIC UTILITIES HAVING CONNECTION WITH ANY OF THE SYSTEMS HEREIN SPECIFIED.
3. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED BY ANY OF THE FOREGOING AUTHORITIES, AND PAY FOR ALL OTHER COSTS IN CONNECTION WITH THE WORK. ALL CERTIFICATES SHALL BE IN DUPLICATE AND SHALL BE DELIVERED TO THE OWNER.
4. CONTRACTOR SHALL THOROUGHLY EXAMINE THE CONTRACT DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL REPORT TO THE ENGINEER ANY CONDITIONS WHICH MIGHT MAKE INSTALLATION OF REQUIRED EQUIPMENT A PROBLEM. NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED FOR FAILURE TO INVESTIGATE CONDITIONS OR MISUNDERSTANDINGS OF THE CONTRACTUAL REQUIREMENTS.
5. THE CONTRACTOR SHALL INSTALL AND CONNECT ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE BEST ENGINEERING PRACTICE AND, UNLESS OTHERWISE SHOWN OR SPECIFIED, FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION REQUIREMENTS AND RECOMMENDATIONS AND FURNISH AND INSTALL ALL REQUIRED AUXILIARY ITEMS COMPLETE.
6. THE CONTRACTOR SHALL INSTALL ALL PIPING, DUCTWORK, ETC., AS HIGH AS POSSIBLE TO MAXIMIZE HEADROOM. ALL PIPING SHALL BE RUN PARALLEL TO OR PERPENDICULAR TO BUILDING WALLS IN A NEAT AND WORKMANLIKE MANNER. EQUIPMENT AND PIPING SHALL BE SUPPORTED FROM STRUCTURE ABOVE.
7. ALL EQUIPMENT AND WORKMANSHIP SHALL BE GUARANTEED IN FULL FROM DEFECT FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THIS WORK.
8. THE CONTRACTOR SHALL TEST ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT AND DEMONSTRATE TO THE OWNER ITS PROPER OPERATIONS. ALL NEW EQUIPMENT SHALL BE MOUNTED VIBRATION FREE.
9. ALL EQUIPMENT INSTALLED SHALL BE NEW AND THE CURRENT MODEL FOR WHICH REPLACEMENT PARTS ARE AVAILABLE. REFER TO THE SPECIFICATIONS FOR ACCEPTABLE MANUFACTURERS FOR EACH PIECE OF EQUIPMENT AND FOR SUBSTITUTION PROCEDURES. SUBSTITUTIONS SHALL ONLY BE ALLOWED AT THE DISCRETION OF THE OWNER, ARCHITECT, AND ENGINEER. SUBSTITUTIONS TO THE SPECIFIED EQUIPMENT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO EQUIPMENT PURCHASE AND INSTALLATION.
10. DEFINITIONS:
    1. "PROVIDE" UNDER THIS CONTRACT IS DEFINED AS FURNISH AND INSTALL.
    2. "CONCEALED" UNDER THIS CONTRACT IS DEFINED AS HIDDEN BY ARCHITECTURAL WALLS AND CEILINGS.
    3. "EXPOSED" UNDER THIS CONTRACT IS DEFINED AS VISIBLE TO VIEW.
    4. "INDICATED" UNDER THIS CONTRACT IS DEFINED AS SHOWN IN THE CONTRACT DOCUMENTS.
11. THE PLANS ARE GENERALLY DIAGRAMMATIC AND THE CONTRACTOR SHALL COORDINATE THE WORK OF THE DIFFERENT TRADES IN ORDER THAT INTERFERENCES BETWEEN WORK WILL BE AVOIDED. FURNISH ALL NECESSARY OFFSETS IN PIPING, DUCTWORK AND FITTINGS, ETC., REQUIRED TO PROPERLY INSTALL THE WORK. ALL OFFSETS REQUIRED SHALL BE FURNISHED AND INSTALLED WITHOUT ADDITIONAL EXPENSE TO THE OWNER. IN CASE INTERFERENCE DEVELOPS, THE ENGINEER WILL DECIDE WHICH EQUIPMENT SHALL BE RELOCATED REGARDLESS OF WHICH WAS FIRST INSTALLED. IF THE CONTRACTOR INSTALLS HIS WORK BEFORE COORDINATING WITH OTHER TRADES OR SO AS TO CAUSE INTERFERENCES WITH WORK OF OTHER TRADES, HE SHALL MAKE NECESSARY CHANGES IN HIS WORK TO CORRECT THE CONDITION WITHOUT EXTRA CHARGE.
12. CONTRACTOR SHALL LOCATE ALL EQUIPMENT WHICH MUST BE SERVICED, OPERATED OR MAINTAINED IN FULL ACCESSIBLE POSITIONS. IF REQUIRED FOR BETTER ACCESSIBILITY, FURNISH ACCESS DOORS FOR THIS PURPOSE. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ALLOW FOR BETTER ACCESSIBILITY, BUT CHANGES OF MAGNITUDE WHICH INVOLVE EXTRA COSTS SHALL NOT BE MADE WITHOUT APPROVAL.
13. HVAC UNITS WITHIN THE SCOPE OF WORK SHALL BE TURNED OFF DURING THE CONSTRUCTION PERIOD OR PROTECTED TO PREVENT THE ENTRANCE OF DUST, DEBRIS AND ODORS. SEAL ALL DUCT AND EQUIPMENT OPENINGS WITH PLASTIC. IF AIR HANDLERS MUST BE USED DURING CONSTRUCTION, FILTRATION MEDIA WITH A MERV-8 VALUE MUST BE USED AT EACH RETURN AIR GRILL AS DETERMINED BY ASHRAE 52.2-1999.
14. SHOP DRAWINGS AND PRODUCT DATA: SUBMIT TO ENGINEER, OWNER AND ARCHITECT ELECTRONIC COPIES OF SHOP DRAWINGS AND MANUFACTURER'S CERTIFIED CAPACITY DATA FOR ALL NEW EQUIPMENT. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
15. REFERENCE TO CATALOGS, STANDARDS, CODES, SPECIFICATIONS, RECOMMENDATIONS AND SIMILAR PUBLICATIONS SHALL MEAN THE USE OF THE LATEST EDITION OF SUCH PUBLICATIONS IN EFFECT AT THE DATE OF THE INVITATION TO BID, UNLESS OTHERWISE INDICATED. ALL WORK IN THIS DIVISION IS SUBJECT TO THE REQUIREMENTS OF ALL PERTINENT LOCAL CODES AND THE FOLLOWING:
    1. "HVAC DUCT CONSTRUCTION STANDARDS", 2005 EDITION, SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC.
    2. "NFPA-70 - NATIONAL ELECTRICAL CODE", NATIONAL FIRE PROTECTION ASSOCIATION.
    3. "NFPA-90A - AIR CONDITIONING AND VENTILATING STANDARDS", NATIONAL FIRE PROTECTION ASSOCIATION"
    4. "NFPA-90B - INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING SYSTEMS", NATIONAL FIRE PROTECTION ASSOCIATION.
    5. OCCUPATIONAL SAFETY AND HEALTH ACT.

MECHANICAL GENERAL NOTES

16. ALL OF THE MATERIALS WITHIN THE PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPMENT INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 723. ALSO ANY EQUIPMENT INSTALLED IN A PLENUM SHALL BE PLENUM RATED.
17. THE CONTRACTOR SHALL NOT INSTALL ANY DUCTWORK AND/OR PIPING ABOVE ANY SWITCHBOARDS, PANELBOARDS, AND/OR MOTOR CONTROL CENTERS.
18. DUCTWORK DIMENSIONS SHOWN ON THE PLAN ARE ACTUAL SHEET METAL SIZES, INCLUDE ANY INTERNAL LINING REQUIRED.
19. SIZE OF DUCT RUNOUTS TO DIFFUSERS AND GRILLES SHALL MATCH THE ASSOCIATED DEVICE NECK SIZE UNLESS OTHERWISE NOTED.
20. FLEXIBLE DUCT CONNECTIONS TO DIFFUSERS SHALL BE MAXIMUM 5'-0" LONG.
21. ALL DUCTWORK AND PIPING SHALL BE INSULATED ACCORDING TO THE SPECIFICATIONS. ANY DAMAGE TO THE INSULATION/VAPOR BARRIER DURING CONSTRUCTION SHALL BE REPAIRED AT NO COST TO THE OWNER.
22. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF AIR DEVICES.
23. PROVIDE CURBS FOR EQUIPMENT INSTALLED AT GRADE.
24. ARCHITECT AND OWNER SHALL CONFIRM THERMOSTATS AND SWITCH LOCATIONS.
25. FOLLOW MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS FOR COMPLETE PROPER INSTALLATION OF ALL NEW EQUIPMENT. CONFIRM THAT ALL NEW EQUIPMENT IS IN ACCORDANCE WITH MANUFACTURER'S CLEARANCE REQUIREMENTS. MODIFY AND RELOCATE ANY EQUIPMENT AS NECESSARY TO ACCOMODATE SITE CONDITIONS. EXTEND PIPING AND DUCTWORK AS REQUIRED.
26. CODES AND STANDARDS
    1. VIRGINIA BUILDING CODE - 2018
    2. VIRGINIA MECHANICAL CODE - 2018
    3. VIRGINIA FUEL GAS CODE - 2018
    4. VIRGINIA ENERGY CONSERVATION CODE - 2018
    5. ASHRAE - STANDARD 55 - 2010(THERMAL ENVIRONMENTAL CONDITIONS FOR HUMAN OCCUPANCY)
    6. ASHRAE - STANDARD 62.1 - 2010(VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY)
    7. ASHRAE - STANDARD 90.1 - 2010(ENERGY STANDARD FOR BUILDINGS)
    8. SMACNA - SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION INC
    9. NFPA 90A - 2012
27. ACCESS
    1. ALL MECHANICAL EQUIPMENT MUST BE INSTALLED IN A MANNER WHICH ALLOWS REASONABLE AND ADEQUATE ACCESS TO CONTROLS. SYSTEM COMPONENTS USED FOR BALANCING AND MAINTENANCE, ELECTRICAL/POWER, FILTERS FOR REPLACEMENT, ACCESS PANELS AND ANY OTHER COMPONENT REQUIRING ACCESS.
    2. ACCESS PANELS SHALL BE PROVIDED TO CLEAN COILS AND SERVICE DAMPERS, HEATERS VALVES AND ALL CONCEALED MECHANICAL EQUIPMENT.
    3. PROVIDE ACCESS DOORS IN GYPSUM BOARD CEILINGS FOR SERVICING OF MECHANICAL EQUIPMENT AND DEVICE. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION ON CEILING ACCESS DEVICES. ACCESS SHALL BE PROVIDED FOR THE FOLLOWING
        1. FIRE AND SMOKE/FIRE DAMPERS
        2. VOLUME DAMPERS
        3. EXHAUST SUPPLY FANS ABOVE GYP BOARD CEILINGS
        4. SMOKE DETECTORS IN DUCTS
    4. PROVIDE ACCESS DOORS OR PANELS FOR DUCT MOUNTED FIRE, SMOKE AND FIRE/SMOKE DAMPERS AND SMOKE DETECTORS
    5. SMOKE DETECTORS SHALL BE FURNISHED AND WIRED TO THE FIRE ALARM SYSTEM UNDER THE ELECTRICAL SECTION. UNDER THE MECHANICAL SECTION, THE CONTRACTOR SHALL MOUNT THE DETECTORS IN DUCTWORK, WHERE REQUIRED BY CODE, AND SHALL WIRE THE DETECTORS THE ATC SYSTEM AND FAN STARTERS FOR SHUTDOWN.
       SMOKE DAMPERS SHALL BE PROVIDED PER CODE FOR ANY DUCT PASSING THROUGH A DUCT PARTITION
    6. PROVIDE FIRE DAMPERS AND ASSOCIATED ACCESS PANELS WHERE SHOWN ON DRAWINGS AND WHERE REQUIRED BY NFPA 90A. FOR DUCTS THAT PENETRATE FIRE WALLS, FLOORS AND PARTITIONS PROVIDE SLEEVES WHERE PENETRATIONS ARE NOT PERPENDICULAR TO SURFACE PENETRATED. ENCLOSE DAMPERS IN 10 GAUGE STEEL SLEEVE.
28. MOUNT ROOM THERMOSTATS AT 48 INCHES AFF TO TOP OF DEVICE. MOUNT OCCUPANCY SENSORS AT 84 INCHES AFF UNLESS OTHERWISE INDICATED BY ADA REQUIREMENTS
29. DUCTWORK, PIPING, AND MECHANICAL EQUIPMENT SHALL NOT BE SUPPORTED FROM ROOF DECK OR THE LOWER CORD OF THE JOISTS.
30. CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
31. FOR ADDITIONAL INFORMATION PLEASE REFER TO BOOK SPECIFICATIONS.

GENERAL LEGEND

SYMBOL	DESCRIPTION
#	KEYED NOTE, NEW WORK
XXXX	EQUIPMENT DESIGNATOR EQUIPMENT TYPES AC - A/C UNIT (SPLIT SYSTEM) AHU - AIR HANDLING UNIT C - CASSETTE (INDOOR VRF/VRV UNIT) CU - CONDENSING UNIT EF - EXHAUST FAN EUH - ELECTRIC UNIT HEATER FCU - FAN COIL UNIT HP - HEAT PUMP UH - UNIT HEATER VFD - VARIABLE FREQUENCY DRIVE VRF - VARIABLE REFRIGERANT FLOW VRV - VARIABLE REFRIGERANT VOLUME WH - WALL HEATER



ABBREVIATIONS

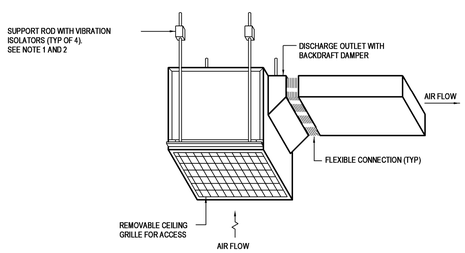
ACU	AIR CONDITIONING UNIT	LBS	POUNDS
AFF	ABOVE FINISHED FLOOR	LRA	LOCKED ROTOR AMPS
AHU	AIR HANDLING UNIT	LWT	LEAVING WATER TEMPERATURE
BTUH	BRITISH THERMAL UNITS PER HOUR	MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
C	CASSETTE	MCA	MINIMUM CIRCUIT AMPACITY
CFM	CUBIC FEET PER MINUTE	MIN	MINIMUM
CLG	CEILING	MOCP	MAXIMUM OVER-CURRENT PROTECTION
DB	DRY BULB TEMPERATURE	OA	OUTSIDE AIR
DN	DOWN	OED	OPEN ENDED DUCT
EAT	ENTERING AIR TEMPERATURE	PD	PRESSURE DROP
EF	EXHAUST FAN	PH	PHASE
EFF	EFFICIENCY	PSI	POUNDS PER SQUARE INCH
ESP	EXTERNAL STATIC PRESSURE	RA	RETURN AIR
EWB	ENTERING WET BULB TEMPERATURE	RH	RELATIVE HUMIDITY
EWT	ENTERING WATER TEMPERATURE	RLA	RUNNING LOAD AMPS
°F	DEGREES FAHRENHEIT	RPM	REVOLUTIONS PER MINUTE
FLA	FULL LOAD AMPS	SA	SUPPLY AIR
FT	FOOT, FEET	SL	SOUND LINING
GPM	GALLONS PER MINUTE	TAO	TRANSFER AIR OPENING (UNDUCTED)
HP	HORSEPOWER	TYP	TYPICAL
HZ	HERTZ (CYCLES PER SECOND)	V	VOLT, VOLTS
IN	INCH, INCHES	VRF	VARIABLE REFRIGERANT FLOW
IN WG	INCHES OF WATER GAUGE	VRV	VARIABLE REFRIGERANT VOLUME
KW	KILOWATTS	W/	WITH
LAT	LEAVING AIR TEMPERATURE	WB	WET BULB TEMPERATURE
		WG	WATER GAUGE

DRAWING LIST

M-001	DETAILS, SCHEDULES, LEGENDS, & ABBREVIATIONS
M-101A	STORAGE-DUGOUT FLOOR PLAN AND ROOF PLAN
M-101B	CONCESSIONS-DUGOUT FLOOR PLAN AND ROOF PLAN

DUCTWORK LEGEND

SYMBOL	DESCRIPTION
12x6	NEW DUCTWORK, EQUIPMENT OR PIPING
	DUCTWORK WITH SOUNDLINING
	SUPPLY DUCT TURNING UP
	RETURN/EXHAUST DUCT TURNING UP
	SUPPLY DUCT TURNING DOWN
	RETURN/EXHAUST DUCT TURNING DOWN
R R	RISE IN DUCT (ARROW INDICATES AIRFLOW DIRECTION)
D D	DROP IN DUCT (ARROW INDICATES AIRFLOW DIRECTION)
	TRANSITION IN DUCT, SQUARE TO SQUARE
	TRANSITION IN DUCT, SQUARE TO ROUND
	DUCT CAPPED AND SEALED
	SQUARE THROAT DUCT ELBOW WITHOUT TURNING VANES
	SQUARE THROAT DUCT ELBOW WITH TURNING VANES
	RADIUS ELBOW
	45 DEGREE TAP
	SPIN-IN RUNOUT FITTING WITH BALANCING DAMPER AND
	FLEXIBLE DUCT CONICAL TAP
	FLEXIBLE DUCT
	FLEXIBLE DUCT CONNECTION
VD	MANUAL BALANCING DAMPER
FD	FIRE DAMPER
SD	SMOKE DAMPER
FSD	COMBINATION FIRE/SMOKE DAMPER
MD	MOTORIZED DAMPER
BDD	BACKDRAFT DAMPER
	RECTANGULAR SUPPLY AIR DIFFUSER
	ROUND SUPPLY AIR DIFFUSER
	LINEAR SUPPLY DIFFUSER
	LINEAR RETURN DIFFUSER
	RETURN AIR GRILLE
T	THERMOSTAT
H	HUMIDITY SENSOR
S	FAN SPEED SWITCH/OR TIMER SWITCH
SD	DUCT SMOKE DETECTOR
CO_2	CO2 SENSOR
#	DIFFUSER OR GRILLE DESIGNATION SYMBOL
#	CFM DESIGNATION SYMBOL & QUANTITY



NOTES:

1. VIBRATION ISOLATOR SHALL BE SIMILAR TO MASON INDUSTRIES, TYPE HD.NEOPRENE HANGER.
2. SUPPORT FAN WITH ALL THREAD ROD & VIBRATION ISOLATION IN CONJUNCTION WITH HANGER BRACKETS PROVIDED ON THE EQUIPMENT. ATTACHMENT TO BUILDING STRUCTURE SHALL BE COORDINATED WITH THE BUILDING ENGINEER.

CEILING EXHAUST FAN DETAIL

SCALE: NOT TO SCALE

ELECTRIC UNIT HEATER SCHEDULE

UNIT NO.	SERVICE	TYPE	CFM	ELECTRICAL KW	AMPS	VOLTS	PH	QUANTITY	BASIS OF DESIGN	NOTES
EUH-1	CONCESSIONS	VERTICALLY MOUNTED FAN FORCED	350	3	14.5	208	1	1	QMARK MUH	1, 2, 3, 4, 5

NOTES	
1	PROVIDE THERMAL OVERLOAD CUT-OFF AND DISCONNECT SWITCH.
2	PROVIDE CONTROL TRANSFORMER AND LOW-VOLTAGE THERMOSTAT.
3	SEE SPECIFICATION 23, 8239 FOR MORE INFORMATION.
4	PROVIDE INTEGRAL THERMOSTAT & DISCONNECT SWITCH.
5	WALL HEATER TO BE CONTROLLED BY WALL SWITCH TIMER INSTALLED IN SERIES WITH THE THERMOSTAT. SEE ELECTRICAL PLANS FOR MORE INFORMATION

FAN SCHEDULE

UNIT NO.	SERVICE	LOCATION	TYPE	DRIVE	CFM	E.S.P. (IN WC)	RPM	INLET SONES	MOTOR W	VOLTS	PH	BASIS OF DESIGN	NOTES
EF-1	STORAGE 101	002	CEILING	DIRECT	300	0.3	1000		121	115	1	GREENHECK SP-A410	1, 2, 3, 4, 6
EF-2	JAN	003	CEILING	DIRECT	75	0.4	773		80	115	1	GREENHECK SP-B110	1, 2, 3, 4, 6

NOTES	
1	PROVIDE FACTORY-MOUNTED SOLID STATE SPEED CONTROLLER FOR BALANCING.
2	CONTROLLED BY THERMOSTAT.
3	PROVIDE BACKDRAFT DAMPER.
4	FURNISH WITH ALUMINUM GRILLE
5	CONTROLLED BY OCCUPANCY SENSOR
6	SEE SPECIFICATION SECTION 23 3423 FOR MORE INFORMATION.
7	RUN CONTINUOUSLY

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STERLING, VIRGINIA 20164
703.437.6600

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Project #: 2200220.00
PM: MZZ M: HTL E: YWL P: SMT S:RKS

NUMBER	DATE	ISSUE	REVISIONS

COMMONWEALTH OF VIRGINIA
MATTHEW M. ZIZARELLI
Reg. No. 0402052214
PROFESSIONAL ENGINEER
SEAL: FEB 17 2023

DETAILS, SCHEDULES, LEGENDS, & ABBREVIATIONS

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE: 02/17/2023
PLAN: 60% SUBMISSION
JOB: 2106
CADD:
NCS:
NUMBER: M-001

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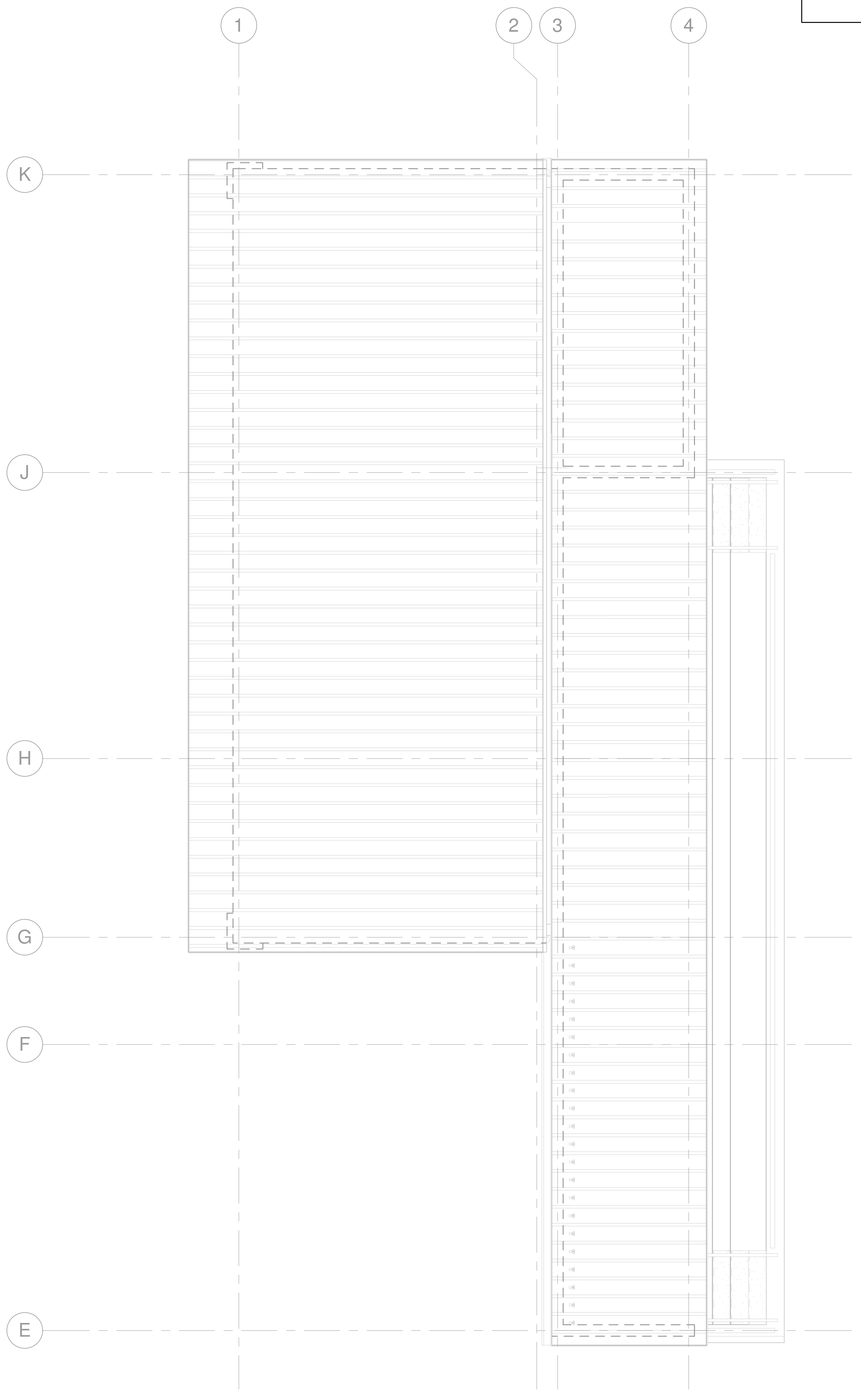
GENERAL NOTES - NEW WORK

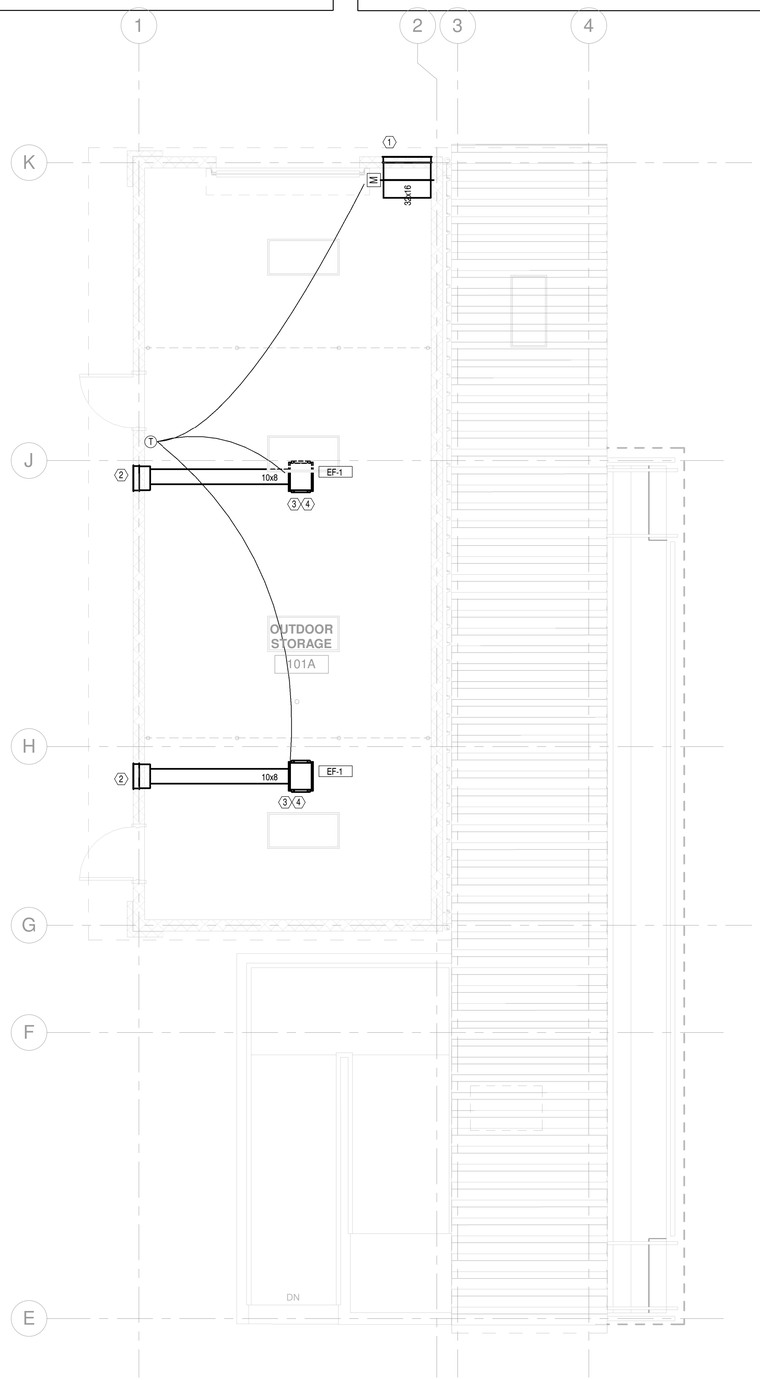
1. ALL LOUVERS TO BE ALIGNED WITH BRICK COURSING.

KEYED NOTES - NEW WORK

1. PROVIDE 32X16 INTAKE LOUVER SIZED FOR MINIMUM 1.2 SF NET FREE AREA WITH 8" DEEP PLENUM. BASIS OF DESIGN RUSKIN MODEL ELF375DX.
2. PROVIDE 16X16 EXHAUST LOUVER SIZED FOR MNIMUM 0.38 SF NET FREE AREA WITH 8" DEEP PLENUM. BASIS OF DESIGN RUSKIN MODEL ELF375DX.
3. INTERLOCK OUTSIDE AIR DAMPER WITH EF-1.
4. PROVIDE 300 CFM CEILING MOUNTED EXHAUST FAN SIMILAR TO GREENHECK MODEL SP-A410.



2 M-101A **ROOF PLAN - STORAGE DUGOUT**
1/4" = 1'-0"



1 M-101A **FIRST FLOOR PLAN - STORAGE-DUGOUT**
1/4" = 1'-0"

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COMMONWEALTH OF VIRGINIA
MATTHEW M. ZIGARELLI
Lic. No. 0402052214
PROFESSIONAL ENGINEER
SEAL: FEB 17 2023

STORAGE-DUGOUT FLOOR PLAN AND ROOF PLAN

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	02/17/2023
PLAN:	60% SUBMISSION
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CADD:	
NCS:	
NUMBER:	M-101A

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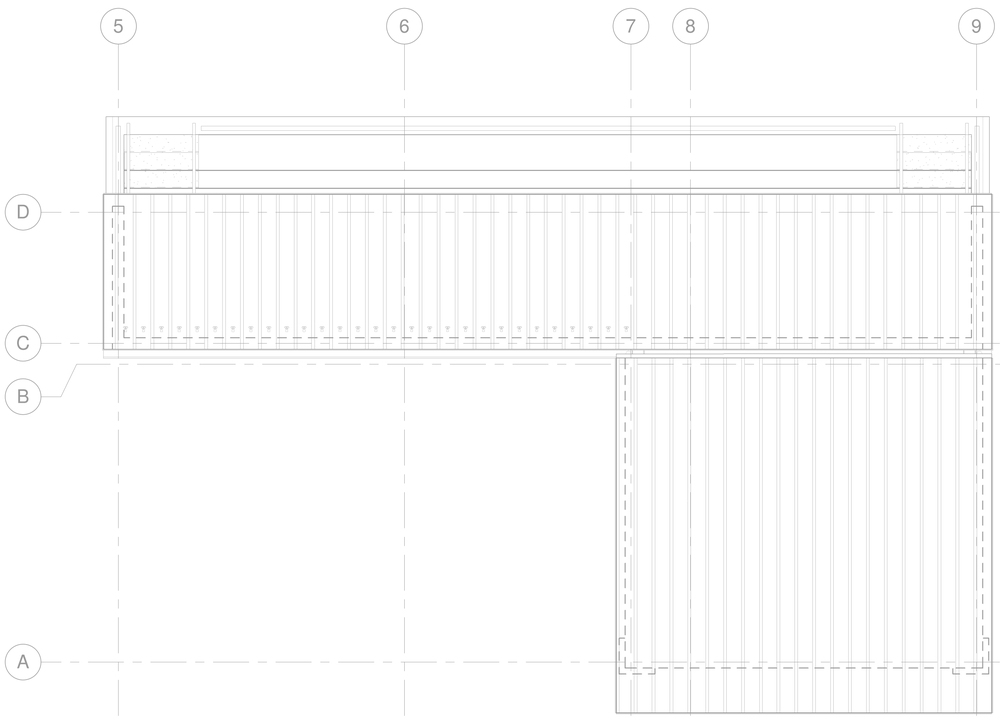
GENERAL NOTES - NEW WORK

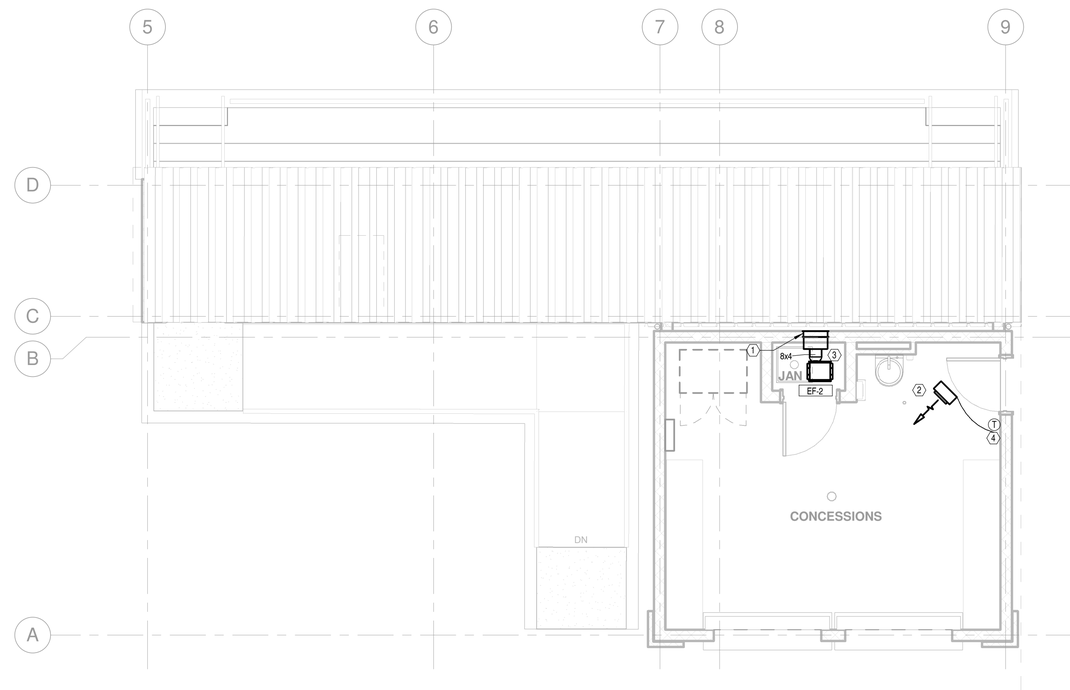
1. ALL LOUVERS TO BE ALIGNED WITH BRICK COURSING.

KEYED NOTES - NEW WORK

1. PROVIDE BRICK EXHAUST LOUVER APPROXIMATELY 15-5/8"X7-3/4" (SIZED FOR MINIMUM 0.24 SF NET FREE AREA) WITH 8" DEEP PLENUM. BASIS OF DESIGN RUSKIN MODEL BV100.
2. PROVIDE 3 KW ELECTRIC UNIT HEATER SIMILAR TO QMARK MODEL MUH.
3. PROVIDE 75 CFM CEILING MOUNTED EXHAUST FAN SIMILAR TO GREENHECK MODEL SP-B110.
4. WALL HEATER TO BE CONTROLLED BY WALL SWITCH TIMER INSTALLED IN SERIES WITH THE WALL MOUNTED LINE VOLTAGE THERMOSTAT. SEE ELECTRICAL PLANS FOR MORE INFORMATION



2 M-101B **ROOF PLAN - CONCESSION DUGOUT**
1/4" = 1'-0"



1 M-101B **FIRST FLOOR PLAN - CONCESSION DUGOUT**
1/4" = 1'-0"

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PROFESSIONAL ENGINEER
SEAL: FEB 17 2023

CONCESSIONS-DUGOUT FLOOR PLAN AND ROOF PLAN

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE: 02/17/2023
PLAN: 60% SUBMISSION
JOB: 2106
CADD:
NCS:
NUMBER: M-101B

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ELECTRICAL SPECIFICATIONS

A. GENERAL

1. THE CONTRACTOR SHALL COMPLY WITH ALL THE LAWS, ORDINANCES, RULES AND REGULATIONS OF ALL LOCAL AND STATE GOVERNMENTAL AUTHORITIES. THE RULES OF THE NATIONAL FIRE PROTECTION ASSOCIATION AS INTERPRETED BY THE ENFORCING AUTHORITY HAVING JURISDICTION AND OF THE PUBLIC UTILITIES HAVING CONNECTION WITH ANY OF THE SYSTEMS HEREIN SPECIFIED.

2. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED BY ANY OF THE FOREGOING AUTHORITIES, AND PAY FOR ALL OTHER COSTS IN CONNECTION WITH THE WORK. ALL CERTIFICATES SHALL BE IN DUPLICATE AND SHALL BE DELIVERED TO THE ARCHITECT/ENGINEER/OWNER.

3. THE SITE, LOCATION AND ROUTING OF SYSTEMS INDICATED TO HAVE NEW CONNECTIONS MADE TO THEM ARE SHOWN AS ACCURATELY AS FIELD CONDITIONS WOULD PERMIT. BIDDERS SHALL VISIT THE SITE AND THOROUGHLY EXAMINE THE CONTRACT DRAWINGS. BIDDERS WHO DO NOT VISIT THE SITE MAY BE UNILATERALLY NOT PERMITTED TO SUBMIT A BID IF THE OWNER SO DESIGNATES. ALL EXISTING CONDITIONS SHALL BE EXAMINED AND THEIR EXACT LOCATIONS VERIFIED. THE CONTRACTOR SHALL REPORT TO THE ARCHITECT/ENGINEER/OWNER BEFORE SUBMITTING A BID, ANY CONDITIONS WHICH MIGHT MAKE INSTALLATION OF REQUIRED EQUIPMENT A PROBLEM. NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED FOR FAILURE TO INVESTIGATE CONDITIONS OR MISUNDERSTANDINGS OF THE CONTRACTUAL REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL AND CONNECT ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE BEST ENGINEERING PRACTICE AND, UNLESS OTHERWISE SHOWN OR SPECIFIED, FOLLOW THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS AND FURNISH AND INSTALL ALL REQUIRED AUXILIARY ITEMS COMPLETE.

5. DRAWINGS SHALL BE CONSIDERED DIAGRAMMATIC AND FOR BIDDING PURPOSES ONLY. WHILE THE DRAWINGS ARE GENERALLY TO SCALE AND ARE AS ACCURATE AS THE SCALE WILL PERMIT, ALL IMPORTANT DIMENSIONS SHALL BE DETERMINED IN THE FIELD. THEY ARE NOT TO BE CONSIDERED TO BE ERECTION DRAWINGS.

6. COORDINATE WITH ALL TRADES TO AVOID INTERFERENCE AMONG MECHANICAL, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL ITEMS. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS IN CIRCUITRY AND OTHER ITEMS REQUIRED TO INSTALL THE WORK WITHOUT INTERFERENCES.

7. THE CONTRACTOR SHALL TEST ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT AND DEMONSTRATE TO THE OWNER ITS PROPER OPERATIONS. ALL NEW EQUIPMENT SHALL BE MOUNTED VIBRATION FREE.

8. ALL EQUIPMENT AND WORKMANSHIP SHALL BE GUARANTEED IN FULL FROM ALL DEFECTS FOR ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THIS WORK.

9. ALL EQUIPMENT INSTALLED SHALL BE NEW AND SHALL CONFORM IN ALL RESPECTS TO THE LATEST APPROVED STANDARDS OF IEEE, ANSI, NEMA AND UNDERWRITERS LABORATORIES, INC., UNLESS INDICATED OTHERWISE.

10. SHOP DRAWINGS AND PRODUCT DATA: SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR ALL NEW MATERIAL AND EQUIPMENT PROVIDED UNDER THIS WORK. MATERIAL AND EQUIPMENT SHALL BE SUBMITTED AND APPROVED BEFORE ORDERING. SUBMIT A MINIMUM OF 6 COPIES TO THE ARCHITECT/ENGINEER/OWNER FOR REVIEW. ELECTRONIC SUBMISSIONS ARE ACCEPTABLE. SUBSTITUTION ARE SUBJECT TO DISCRETION OF THE ARCHITECT/ENGINEER/OWNER. IF CONSIDERED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND SHALL MEET THE INTENT OF THE CONSTRUCTION DOCUMENTS.

11. DEFINITIONS:

    a. "PROVIDE" UNDER THIS CONTRACT IS DEFINED AS FURNISH AND INSTALL.

    b. "CONCEALED" UNDER THIS CONTRACT IS DEFINED AS WITHIN ARCHITECTURAL WALLS AND ABOVE CEILINGS.

    c. "EXPOSED" UNDER THIS CONTRACT IS DEFINED AS VISIBLE TO VIEW, INCLUDING ELECTRICAL ROOMS.

    d. "INDICATED" UNDER THIS CONTRACT IS DEFINED AS SHOWN IN THE CONTRACT DOCUMENTS.

    e. "CIRCUITRY" UNDER THIS CONTRACT IS DEFINED AS CONDUIT, FEEDER AND OR CIRCUIT.

12. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE CONTRACT AREA AND ALL OTHER AREAS USED FOR STORAGE, STAGING, ETC.

13. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER/OWNER WHEN THE PROJECT IS APPROXIMATELY 75% COMPLETED IN ORDER TO SCHEDULE A PRE-FINAL REVIEW OF CONSTRUCTION. NO WORK SHALL BE CONCEALED BY CEILINGS, WALLS, ETC. FINAL REVIEW SHALL BE SCHEDULED AT 100% COMPLETION. ALL PUNCH LIST ITEMS MUST BE ACCOMPLISHED PRIOR TO FINAL ACCEPTANCE.

14. THE CONTRACTOR SHALL PREPARE A COMPREHENSIVE METHOD OF PROCEDURE AND SUBMIT IT TO THE OWNER WITH SHOP DRAWINGS FOR REVIEW. THE SUBMITTAL SHALL ITEMIZE METHODS OF PROCEDURE FOR ALL POTENTIAL EMERGENCY SITUATIONS AND SHALL INCLUDE A LIST OF PERSONS REPRESENTING THE OWNER AND THE CONTRACTOR ALONG WITH DAYTIME EMERGENCY PHONE NUMBERS INDICATING WHO SHALL BE CONTACTED IN THE EVENT OF AN EMERGENCY. THIS LIST SHALL BE DISTRIBUTED TO THE OWNER'S REPRESENTATIVE AND THE CONTRACTORS SUPERINTENDENT OR FOREMAN AT THE SITE. EMERGENCY SITUATIONS SHALL INCLUDE BUT NOT BE LIMITED TO POWER OUTAGES, CHILLED AND CONDENSER WATER SYSTEM RUPTURES, AUTOMATIC TEMPERATURE CONTROL OUTAGES AND OWNER'S EQUIPMENT DAMAGE. THE COMPREHENSIVE METHOD OF PROCEDURE SHALL BE APPROVED BY THE OWNER PRIOR TO COMMENCEMENT OF ANY WORK.

15. PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER DEMOLITION OPERATIONS ARE COMPLETE.

16. FINAL TESTING: AT THE TIME OF FINAL INSPECTION AND TESTS, ALL CONNECTIONS AT PANELBOARDS, DEVICES AND EQUIPMENT AND ALL SPLICES MUST BE COMPLETED. EACH BRANCH CIRCUIT AND ITS RESPECTIVE CONNECTED EQUIPMENT MUST TEST FREE OF SHORT CIRCUITS. UPON COMPLETION OF THE WORK, CLEAN AND POLISH ALL EXPOSED SURFACES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

17. CONTRACTOR SHALL PROVIDE ACCESS PANEL FOR JUNCTION BOXES, DISCONNECT SWITCHES, OR OTHER DEVICES WHICH REQUIRE SERVICE ACCESS PER NEC.

B. RACEWAYS, BOXES AND CONDUITS

1. OUTDOORS WIRING METHODS: USE THE FOLLOWING WIRING METHODS:

    a. EXPOSED: CONDUCTORS IN RIGID METAL CONDUIT.

    b. CONCEALED: CONDUCTORS IN RIGID METAL CONDUIT.

    c. UNDERGROUND: CONDUCTORS IN RIGID NONMETALLIC CONDUIT, UNLESS OTHERWISE NOTED.

    d. CONNECTION TO VIBRATING EQUIPMENT: CONDUCTORS IN LIQUIDTIGHT FLEXIBLE METAL CONDUIT; LIMITATION: 3'-0" MAX LENGTH.

    e. BOXES AND ENCLOSURES: NEMA TYPE 3R.

2. INDOORS WIRING METHODS: USE THE FOLLOWING METHODS:

    a. CONNECTION TO VIBRATING EQUIPMENT: CONDUCTORS IN FLEXIBLE METAL CONDUIT, EXCEPT IN WET OR DAMP LOCATIONS USE LIQUIDTIGHT FLEXIBLE METAL CONDUIT;LIMITATION: 3'-0" MAX LENGTH.

    b. DAMP OR WET LOCATIONS: CONDUCTORS IN RIGID STEEL CONDUIT.

    c. EXPOSED: CONDUCTORS IN ELECTRICAL METALLIC TUBING.

    d. CONCEALED: CONDUCTORS IN ELECTRICAL METALLIC TUBING OR, AS APPROVED, METAL-CLAD (MC) CABLE.

    e. BOXES AND ENCLOSURES: NEMA TYPE 1, EXCEPT IN DAMP OR WET LOCATIONS USE NEMA TYPE 4, STAINLESS STEEL.

3. ALL CIRCUITRY IN FINISHED AREAS SHALL BE RUN CONCEALED.

4. MINIMUM SIZE CONDUIT SHALL BE 1/2".

5. EMT CONNECTORS AND COUPLINGS SHALL BE OF THE ALL-STEEL, COMPRESSION TYPE WITH INSULATED THROAT.

6. EXPOSED AND CONCEALED CIRCUITRY (WHETHER CONDUIT AND WIRE OR CABLE) SHALL BE RUN TIGHT TO CEILING SLAB (AS HIGH AS POSSIBLE TO MAXIMIZE HEADROOM) IN A NEAT, WORKMANLIKE MANNER. ALL RUNS SHALL BE PARALLEL OR PERPENDICULAR TO BUILDING WALLS.

7. ALL CIRCUITRY RUNS INDICATED ARE DIAGRAMMATIC. THE CONTRACTOR SHALL DETERMINE IN THE FIELD THE MOST SUITABLE ROUTES.

8. ALL EMPTY RACEWAYS SHALL CONTAIN A DRAG WIRE. EMPTY RACEWAYS 2" OR LARGER IN SIZE SHALL HAVE A MAXIMUM OF 3 - 90 DEGREE BENDS. UNLESS OTHERWISE NOTED, PROVIDE 3/4" EMT FROM EACH TELEPHONE OR COMMUNICATIONS OUTLET DEVICE TO CEILING SPACE.

9. EXPOSED LOW VOLTAGE WIRING SHALL BE INSTALLED IN A RACEWAY, UNLESS OTHERWISE NOTED.

10. OUTLET BOXES SHALL BE A MINIMUM OF 4" SQUARE WITH THE APPROPRIATE PLASTER RING OR TILE COVER.

C. WIRE AND CABLE

1. ALL CONDUCTORS SHALL BE COPPER, MINIMUM #12 WITH 600 VOLT TYPE "THHN-THWN" INSULATION. CONDUCTORS # 8 AND LARGER SHALL BE STRANDED.

ELECTRICAL SPECIFICATIONS (CONT.)

2. WHERE APPROVED BY THE AUTHORITIES HAVING JURISDICTION, "MC" CABLE MAY BE UTILIZED FOR INTERIOR BRANCH CIRCUITS.

3. ALL "MC" CABLE SHALL HAVE AN INTERNAL GREEN INSULATED EQUIPMENT GROUND CONDUCTOR.

4. ALL 120 VOLT CIRCUIT HOMERUNS WHICH ARE OVER 100 LINEAR FEET SHALL BE #10 CONDUCTORS MINIMUM.

5. RUN MULTIPLE HOMERUNS TO ALTERNATELY NUMBERED PANELBOARD CIRCUITS (I.E., 1, 3, 5)

D. WIRING DEVICES AND TELEPHONE/DATA OUTLETS

1. THE LOCATION OF ALL WIRING DEVICES AND TELEPHONE/DATA OUTLETS SHALL BE VERIFIED BEFORE INSTALLATION WITH THE ARCHITECT. THE ARCHITECT MAY, AT HIS OPTION, RELOCATE ANY DEVICE 5 FEET AT NO CHARGE TO THE OWNER.

2. WHERE TWO OR MORE DEVICES ARE SHOWN TOGETHER ON THE PLANS, A MULTI-GANG BOX AND PLATE SHALL BE USED. DEVICES OF DIFFERENT VOLTAGES SHALL BE SEPARATED BY PERMANENTLY INSTALLED BOX PARTITIONS.

3. ALL OUTLETS SHOWN ON A WALL BACK TO BACK SHALL BE OFFSET A MINIMUM OF 6" HORIZONTALLY.

4. WALL MOUNTED WIRING DEVICES SHALL BE A COLOR AS SELECTED BY THE ARCHITECT AND EQUAL TO THE FOLLOWING:

DUPLEX RECEPTACLE	HUBBELL 5352
DUPLEX RECEPTACLE WITH GFCI*	HUBBELL GF5362

*GFCI - GROUND FAULT CIRCUIT INTERRUPTER

5. DEVICE PLATES SHALL BE A FINISH AND COLOR SELECTED BY THE ARCHITECT.

6. COORDINATE LIGHT SWITCHES SHOWN ON DRAWINGS WITH DOOR SWINGS. LOCATE LIGHT SWITCH ON LOCK SIDE OF DOOR.

7. COORDINATE WALL MOUNTED TELEPHONE/DATA OUTLET LOCATIONS WITH THE ARCHITECT. TELEPHONE/DATA CONDUCTORS WILL BE INSTALLED BY OTHERS. ALL CONDUCTORS SHALL BE PLENUM RATED.

E. SUPPORTING DEVICES

1. INSTALL SUPPORTING DEVICES TO FASTEN ELECTRICAL COMPONENTS SECURELY AND PERMANENTLY IN ACCORDANCE WITH NEC REQUIREMENTS AND ANY ADDITIONAL LOCAL CODES.

2. STEEL SLOTTED SUPPORT SYSTEM HOT-DIPPED GALVANIZED AFTER FABRICATION.

3. COORDINATE WITH THE BUILDING STRUCTURAL SYSTEM AND WITH OTHER ELECTRICAL INSTALLATIONS.

F. ELECTRICAL IDENTIFICATION

1. CONDUCTOR COLOR CODING: PROVIDE COLOR CODING FOR FEEDERS AND BRANCH CIRCUIT CONDUCTORS AS FOLLOWS:

    208/120 VOLTS (PHASE A, BLACK; PHASE B, RED; PHASE C, BLUE; NEUTRAL, WHITE; GROUND, GREEN)
    480/277 VOLTS (PHASE A, BROWN; PHASE B, ORANGE; PHASE C, YELLOW; NEUTRAL, GRAY, GROUND, GREEN)

2. APPLY CIRCUIT/CONTROL/ITEM DESIGNATION LABELS OF ENGRAVED PLASTIC LAMINATE FOR POWER DISTRIBUTION AND CONTROL COMPONENTS LISTED BELOW.

3. APPLY EQUIPMENT IDENTIFICATION LABELS (MINIMUM 1" HIGH LETTERS) OF ENGRAVED PLASTIC-LAMINATE ON EACH MAJOR UNIT OF ELECTRICAL EQUIPMENT. APPLY LABELS FOR EACH UNIT OF THE FOLLOWING CATEGORIES OF ELECTRICAL EQUIPMENT, SUCH AS:

    a. PANELBOARDS, ELECTRICAL CABINETS AND ENCLOSURES.

    b. ACCESS DOORS AND PANELS FOR CONCEALED ELECTRICAL ITEMS.

    c. CONTACTORS.

    d. REMOTE-CONTROLLED SWITCHES.

    e. TRANSFORMERS.

G. GROUNDING

1. GROUND ELECTRICAL SYSTEMS AND EQUIPMENT IN ACCORDANCE WITH NEC EXCEPT WHERE GROUNDING IN EXCESS OF NEC REQUIREMENTS IS INDICATED.

2. ALL CIRCUITS SHALL CONTAIN AN INSULATED GROUNDING CONDUCTORS. ALL NEW RECEPTACLE CIRCUITS SHALL CONTAIN A #12 INSULATED GROUNDING CONDUCTOR.

H. TRANSFORMERS

1. DRY-TYPE TRANSFORMERS SHALL COMPLY WITH NEMA STANDARD ST20 "DRY-TYPE TRANSFORMERS FOR GENERAL APPLICATIONS" AND DOE-2016.

2. GENERAL-PURPOSE, DRY-TYPE TRANSFORMERS SHALL BE EQUAL TO SQUARE D CLASS 7400 GENERAL PURPOSE TRANSFORMERS.

3. TRANSFORMER WINDINGS SHALL BE ALUMINUM. TRANSFORMERS SHALL HAVE A TEMPERATURE RISE OF NOT MORE THAN 115C WITH CLASS H INSULATION WHEN OPERATING AT 40C AMBIENT TEMPERATURE PROVIDE (6)2-1/2% TAPS: 2 ABOVE AND 4 BELOW RATED PRIMARY VOLTAGE.

I. PANELBOARDS

1. ALL NEW ELECTRICAL EQUIPMENT AND PANELBOARDS PROVIDED UNDER THIS WORK SHALL BE FULLY RATED. SERIES RATED EQUIPMENT AND PANELBOARDS ARE NOT ACCEPTABLE.

2. IN PANELBOARDS, "EQUIPPED SPACE" OR "SPACE" IS DEFINED TO INCLUDE ALL NECESSARY BUS, DEVICE SUPPORTS AND CONNECTIONS FOR INSERTION OF A FUTURE DEVICE.

3. ALL PANELBOARDS SHALL BE EQUIPPED WITH COMMON KEYED LOCKS. PROVIDE A MINIMUM OF TWO KEYS PER PANEL. PANELBOARDS SHALL BE COMPLETE WITH COVERS AND TRIMS AND SHALL CONTAIN A GROUND BUS.

4. PANELBOARD CIRCUITING SHALL MATCH THE DRAWINGS. CIRCUITING CHANGES MUST BE APPROVED BY THE ENGINEER.

5. PANELBOARD BUS SHALL BE COPPER WITH BOLT-ON BRANCH CIRCUIT BREAKERS.

6. BEFORE ORDERING PANELBOARDS, COORDINATE ALL MOTOR CIRCUIT BREAKER TRIPS WITH MECHANICAL EQUIPMENT MANUFACTURER'S REQUIREMENTS. COORDINATE CONDUCTOR SIZE WITH ACTUAL MOTORS AND OTHER MECHANICAL AND ARCHITECTURAL EQUIPMENT FURNISHED BEFORE INSTALLING CIRCUITRY. ADJUSTABLE TRIP CIRCUIT BREAKERS SHALL BE SET BY THE CONTRACTOR IN THE FIELD AS APPROVED BY THE ENGINEER.

7. SURFACE MOUNTED PANELBOARD CABINETS SHALL BE INSTALLED ON AN APPROVED STEEL SLOTTED SUPPORT SYSTEM TO DISTRIBUTE THE WEIGHT EVENLY TO THE WALL AND FLOOR AND TO PROVIDE A 1-INCH AIR SPACE BETWEEN WALL AND CABINET.

8. PANELBOARD SHALL BE EQUAL TO SQUARE D TYPE EDB, QOB, OR MANUFACTURED EQUIVALENT BY GENERAL ELECTRIC, EATON/CUTLER HAMMER, OR SIEMENS.

9. PROVIDE HANDLE TIES ON CB's MULTI-WIRE BRANCH CIRCUITS OR SERVING SYSTEM FURNITURE TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS PER NEC ARTICLES 210.4 AND 605.7.

10. PROVIDE FRAMED, TYPED CIRCUIT DIRECTORY WITH EXPLICIT DESCRIPTION AND IDENTIFICATION OF ITEMS CONTROLLED BY EACH INDIVIDUAL BREAKER. PROVIDE NEW PANELBOARD DIRECTORY FOR ALL EXISTING AND NEW PANELBOARDS AFFECTED BY RENOVATION. PANELBOARD DIRECTORY SHALL BE REVISED TO REFLECT ALL REVISED FIELD CONDITIONS. MARK PANELBOARD SUPPLIED BY A FEEDER TO INDICATED THE DEVICE OR EQUIPMENT WHERE THE POWER SUPPLY ORIGINATES.

J. FUSES

1. INSTALL FUSES IN FUSIBLE DEVICES AS INDICATED.

2. INSTALL TYPEWRITTEN LABELS ON THE INSIDE DOOR OF EACH FUSED SWITCH TO INDICATE FUSE REPLACEMENT INFORMATION.

3. ALL FUSES SHALL BE CLASS RK-1 TIME DELAY TYPE, UNLESS OTHERWISE INDICATED.

4. SPARE FUSES: FURNISH QUANTITY EQUAL TO 20 PERCENT OF EACH FUSE TYPE AND SIZE INSTALLED, BUT NOT LESS THAN 1 SET OF 3 OF EACH TYPE AND SIZE.

ELECTRICAL SPECIFICATIONS (CONT.)

K. DISCONNECTS AND CIRCUIT BREAKERS

1. ENCLOSED NON-FUSIBLE SWITCH SHALL BE NEMA HEAVY-DUTY TYPE WITH ENCLOSURE CONSISTENT WITH ENVIRONMENT WHERE LOCATED, HANDLE LOCKABLE WITH 2 PADLOCKS, AND INTERLOCKED WITH COVER IN "CLOSED" POSITION.

2. ENCLOSED FUSIBLE SWITCHES SHALL BE NEMA HEAVY-DUTY TYPE WITH CLIPS TO ACCOMMODATE SPECIFIED FUSES, ENCLOSURE CONSISTENT WITH ENVIRONMENT WHERE LOCATED, HANDLE LOCKABLE WITH 2 PADLOCKS AND INTERLOCKED WITH COVER IN "CLOSED" POSITION. SWITCHES SHALL HAVE MINIMUM FAULT CURRENT RATING OF 200,000 SYMMETRICAL RMS AMPERES.

3. LOCATE DISCONNECT SWITCH (AND MOTOR CONTROLLER) FOR MECHANICAL EQUIPMENT TO PERMIT SERVICING OF EQUIPMENT. CHECK MOTORS FOR PROPER ROTATION. CONNECT CONDUCTORS AS REQUIRED BY MANUFACTURER.

4. ENCLOSED MOLDED-CASE CIRCUIT BREAKER: FRAME SIZE, TRIP RATING, NUMBER OF POLES, AND AUXILIARY DEVICES AS INDICATED; INTERRUPTING CAPACITY RATING TO MEET AVAILABLE FAULT CURRENT, 10,000 SYMMETRICAL RMS AMPERES MINIMUM; WITH APPROPRIATE APPLICATION LISTING WHEN USED FOR SWITCHING FLUORESCENT LIGHTING LOADS OR HEATING, AIR CONDITIONING, AND REFRIGERATION EQUIPMENT.

5. ENCLOSURE: NEMA TYPE 1, UNLESS SPECIFIED OR REQUIRED OTHERWISE TO MEET ENVIRONMENTAL CONDITIONS OF INSTALLED LOCATION.

    a. OUTDOOR LOCATIONS: TYPE 3R.

    b. OTHER WET OR DAMP INDOOR LOCATIONS: TYPE 4.

6. PROPERLY SUPPORT DISCONNECT OR ENCLOSED CIRCUIT BREAKER ON WALL WITH METAL FRAMING AS REQUIRED.

7. PROVIDE FUSES IF REQUIRED BY MANUFACTURER OF EQUIPMENT FOR UL APPROVAL OR HACR CIRCUIT BREAKERS.

L. MOTOR CONTROLLERS (STARTERS)

1. MOTOR CONTROLLER FEATURES: PROVIDE CONTROLLERS CONSISTENT WITH THE RATINGS AND CHARACTERISTICS OF THE SUPPLY CIRCUIT, THE MOTOR, THE REQUIRED CONTROL SEQUENCE, THE DUTY CYCLE OF THE MOTOR, DRIVE, AND LOAD, AND THE PILOT DEVICE, AND CONTROL CIRCUIT AFFECTING CONTROLLER FUNCTIONS. CONTROLLERS SHALL BE HORSEPOWER RATED TO SUIT THE MOTOR CONTROLLED.

    a. CONTACTS SHALL OPEN EACH UNGROUNDED CONNECTION TO THE MOTOR.

    b. OVERLOAD RELAYS: FOR MOTORS 1/3 HP OR LARGER, PROVIDE IN EACH PHASE AMBIENT COMPENSATED TYPE WITH INVERSE TIME-CURRENT CHARACTERISTIC, WITH HEATERS OR SENSORS IN EACH PHASE MATCHED TO NAMEPLATE FULL-LOAD CURRENT OF THE SPECIFIC MOTOR TO WHICH CONNECTED, WITH APPROPRIATE ADJUSTMENT FOR DUTY CYCLE.

    c. ENCLOSURES FOR INDIVIDUALLY MOUNTED MOTOR CONTROLLERS AND CONTROL DEVICES: SUITABLE FOR THE ENVIRONMENTAL CONDITIONS AT THE CONTROLLER LOCATION. PROVIDE NEMA TYPE 1 ENCLOSURES EXCEPT AS OTHERWISE INDICATED.

2. MANUAL MOTOR CONTROLLERS: QUICK-MATE, QUICK-BREAK TOGGLE ACTION WITH RED PILOT LIGHT AND HANDLE GUARD/LOCK OFF.

3. MAGNETIC MOTOR CONTROLLERS: PROVIDE FULL-VOLTAGE, NONREVERSING, ACROSS-THE-LINE, MAGNETIC CONTROLLER, EXCEPT WHERE ANOTHER TYPE IS INDICATED. CONTROLLERS TO BE EQUIPPED WITH 2 N.O. AND 2 N.C. AUXILIARY CONTACTS, HAND-OFF-AUTO SELECTOR SWITCH, RED AND GREEN PILOT LIGHTS.

    a. CONTROL CIRCUIT: MAXIMUM 120V CONTROL POWER. PROVIDE TRANSFORMER CONSISTENT WITH CONTROL CONTRACTOR VOLTAGE AND SIZE REQUIREMENTS. PROVIDE CONTROL POWER TRANSFORMER WITH ADEQUATE CAPACITY TO OPERATE CONNECTED PILOT, INDICATING AND CONTROL DEVICES, PLUS 100 PERCENT SPARE CAPACITY.

    b. COMBINATION CONTROLLER: SWITCH TYPE; FUSED OR NONFUSED AS INDICATED; QUICK-MAKE, QUICK-BREAK SWITCH FACTORY ASSEMBLED WITH CONTROLLER AND ARRANGED TO DISCONNECT IT. FOR FUSED SWITCHES, PROVIDE REJECTION-TYPE FUSE CLIPS AND FUSES RATED AS INDICATED. INTERLOCK SWITCH WITH UNIT COVER OR DOOR.

M. LIGHTING

1. COORDINATE RECESSED LIGHTING FIXTURES WITH MECHANICAL EQUIPMENT AND ARCHITECTURAL CEILING PLAN. GRID LAYOUT ON PLANS IS APPROXIMATE. ADJUST LIGHTING FIXTURES IN FIELD PER ARCHITECT.

2. PROVIDE FINISHING FRAMES FOR ALL RECESSED LIGHTING FIXTURES, TYPE TO BE COMPATIBLE WITH CEILING. COORDINATE ALL FIXTURE TYPES WITH CEILING SYSTEM BEFORE ORDERING FIXTURES. PROVIDE ALL MOUNTING ATTACHMENTS FOR A COMPLETE INSTALLATION.

3. ALL NEW LIGHTING FIXTURES SHALL BE INSTALLED COMPLETE WITH LAMPS. SEE PLANS FOR SPECIFIC REQUIREMENTS. COORDINATE LAMP COLOR TEMPERATURE WITH ARCHITECT.

4. COORDINATE LOW VOLTAGE DIMMERS WITH ELECTRONIC OR MAGNETIC LOW VOLTAGE LIGHTING PER MANUFACTURER OF LIGHTING FIXTURES.

5. IN LOCATIONS WHERE NEW DUCTWORK OR CEILING IS INSTALLED UNDER THIS CONTRACT BUT LIGHTING FIXTURES HAVE NOT BEEN REVISED, REMOVE EXISTING FIXTURES AS NECESSARY TO RUN THE NEW DUCTWORK OR CEILING AND RE-HANG AFTER THE MECHANICAL OR ARCHITECTURAL WORK IS COMPLETED.

6. FINISHES OF LIGHTING FIXTURES SHALL BE AS SELECTED BY THE ARCHITECT.

7. THE EXACT LOCATION OF LIGHTING FIXTURES IN MECHANICAL ROOM SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO PROVIDE LIGHT OVER SERVICE AREAS.

8. PROVIDE ALL REQUIRED ACCESSORIES FOR A COMPLETE AND OPERATIONAL INSTALLATION TO SUIT PROJECT CONDITIONS.

9. PROVIDE MEANS OF SUPPORT PER NEC 410.36. PROVIDE INDEPENDENT SUSPENSION FOR ALL LAY-IN LIGHTING FIXTURES TO ENSURE THAT THE LIGHTING FIXTURE WILL NOT DROP MORE THAN NOMINALLY TWO (2) OR THREE (3) INCHES WHEN FRAMING MEMBERS NO LONGER PROVIDE THE SUPPORT. FIRMLY SECURE # 12 AWG WIRE FROM THE LIGHTING FIXTURE TO THE BUILDING STRUCTURE.

N. EQUIPMENT CONNECTION

1. EXTEND WIRING TO ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AND MAKE FINAL AND COMPLETE CONNECTIONS TO ALL EQUIPMENT. BEFORE ROUGHING IN, THE LOCATION AND TYPE OF DEVICE SHALL BE VERIFIED FROM SHOP DRAWINGS OF THE EQUIPMENT. STARTERS AND DISCONNECTS AND OTHER ELECTRICAL CIRCUITRY AND DEVICES SHALL BE LOCATED TO ALLOW ACCESS TO DEVICES AND NOT INTERFERE WITH THE OPERATION OF THE MECHANICAL OR ARCHITECTURAL DEVICES OR THEIR POSSIBLE MAINTENANCE OR REMOVAL.

O. EQUIPMENT LOCATION

1. DO NOT INSTALL NEW PANELBOARDS, SWITCHBOARDS AND/OR MOTOR CONTROL CENTERS UNDERNEATH NEW OR EXISTING DUCTWORK AND/OR PIPING. IF SUCH CONDITIONS ARE ENCOUNTERED, NOTIFY THE ENGINEER FOR FURTHER EVALUATION AND DIRECTIVES. INSTALLING THE PANELBOARD IN A DIFFERENT LOCATION AGREED TO BY THE ENGINEER AND OWNER TO AVOID THIS SCENARIO SHALL BE AT SOLE COST TO THE CONTRACTOR.

GENERAL NOTES

1. ALL WORK IS NEW UNLESS OTHERWISE NOTED.

DRAWING LIST

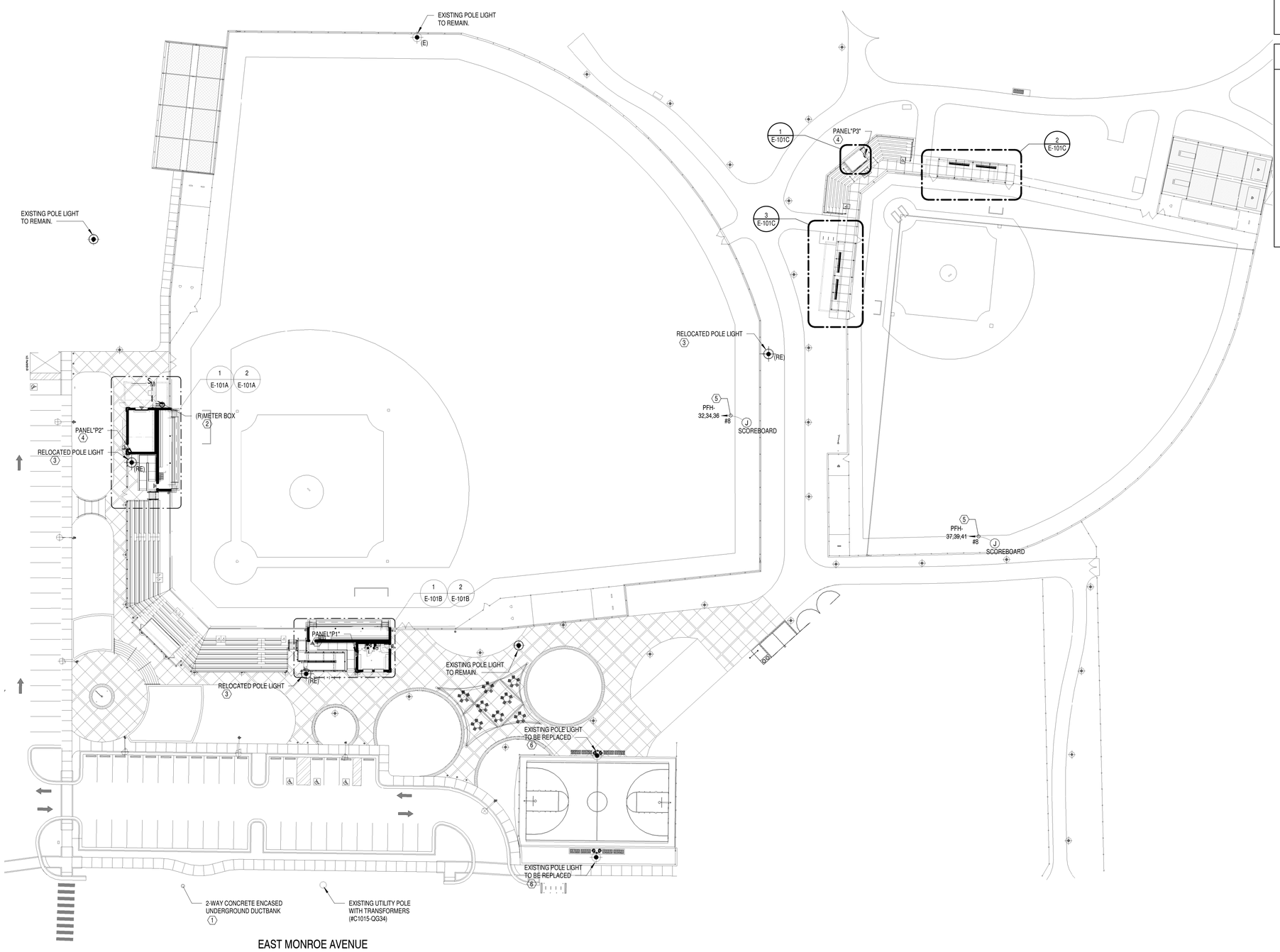
E-001	SPECIFICATIONS, LEGEND, NOTES, & ABBREVIATIONS
E-100	SITE PLAN
E-101A	STORAGE-DUGOUT FLOOR PLAN
E-101B	CONCESSIONS-DUGOUT FLOOR PLAN
E-101C	ON-GRADE DUGOUT FLOOR PLAN
E-300	POWER RISER DIAGRAM, PANELBOARD SCHEDULES & DETAILS
E-400	SCHEDULES & DETAILS

ELECTRICAL LEGEND

DESCRIPTION	MTG HGT TO CENTER LINE AFF (UON)
FLUORESCENT/LED LIGHTING FIXTURE - "A" INDICATES FIXTURE TYPE "a" (IF SHOWN) INDICATES SWITCH CONTROL	-
FLUORESCENT/LED LIGHTING FIXTURE - "A" INDICATES FIXTURE TYPE "a" (IF SHOWN) INDICATES SWITCH CONTROL	-
COMPACT FLUORESCENT OR LED TYPE LIGHTING FIXTURE "A" INDICATES FIXTURE TYPE AND "a" (IF SHOWN) INDICATES SWITCH CONTROL	-
FLUORESCENT/LED EMERGENCY LIGHTING FIXTURE - "A" INDICATES FIXTURE TYPE	-
INCANDESCENT, COMPACT FLUORESCENT OR LED EMERGENCY LIGHTING FIXTURE "A" INDICATES FIXTURE TYPE	-
FLUORESCENT/LED EMERGENCY LIGHTING FIXTURE - "A" INDICATES FIXTURE TYPE	-
CEILING MOUNTED EXIT LIGHT SINGLE FACE/DOUBLE FACE WITH ARROWS AS INDICATED	-
SINGLE POLE SWITCH	-
DUPLEX RECEPTACLE - NEMA 5-20R	18"
DUPLEX RECEPTACLE - NEMA 5-20R - ABOVE COUNTER MOUNTED	REFER TO ARCH. UON
DUPLEX RECEPTACLE - NEMA 5-20R WITH INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER	18"
DOUBLE DUPLEX RECEPTACLE - NEMA 5-20R	18"
CEILING MOUNTED JUNCTION BOX	-
WALL MOUNTED JUNCTION BOX	-
COMBINATION DATA/TELEPHONE OUTLET. STUB OUT 1" WITH PULL STRING 6" INTO CEILING SPACE. PROVIDE OUTLET BOX.	REFER TO ARCH. UON
TELEVISION - PROVIDE 4" SQUARE BOX AND STUB OUT 3/4" EC 6" INTO CEILING SPACE	REFER TO ARCH. UON
AV J-BOX - PROVIDE 4" SQUARE BOX AND STUB OUT 3/4" EC 6" INTO CEILING SPACE. COORDINATE WITH ARCHITECT/AV CONSULTANT FOR REQUIREMENTS	REFER TO ARCH. UON
TRANSFORMER	-
GROUND	-
PANELBOARD 120/208V SYSTEM	6'-0" TO TOP
PANELBOARD 277/480V SYSTEM	6'-0" TO TOP
MOTOR CONNECTION	-
NON-FUSED SAFETY DISCONNECT SWITCH - NUMERAL DENOTES SWITCH SIZE - 3 POLE UON	5'-0" TO TOP
FUSED SAFETY DISCONNECT SWITCH - UPPER NUMERAL DENOTES SWITCH SIZE, LOWER NUMERAL DENOTES FUSE SIZE - 3 POLE UON	5'-0" TO TOP
HOMERUN TO PANELBOARD - NO. OF ARROWHEADS INDICATE NO. OF CIRCUITS. NUMERALS & LETTERS ADJACENT TO ARROWHEADS INDICATE ASSIGNED PANEL & CIRCUIT NO.'S	-
TICK MARKS IN HOMERUN OR BRANCH CIRCUITRY, UNLESS OTHERWISE SCHEDULED, INDICATE THE QUANTITY (WHERE MORE THAN TWO) OF CURRENT CARRYING CONDUCTORS. NUMERAL ADJACENT TO TICKS INDICATES WIRE SIZE IF OTHER THAN #12. ALL WIRING SHALL ALSO CONTAIN AN INSULATED EQUIPMENT GROUND CONDUCTOR SIZED PER NEC. (NOT SHOWN)	-
GENERAL CIRCUITRY	-
CIRCUITRY INSTALLED CONCEALED IN OR BELOW FLOOR SLAB	-
DENOTES PLAN SPECIFIC NOTE	-
FEEDER DESIGNATION	-
FACTORY CONNECTION - PROVIDE CIRCUITRY CONNECTION AS NOTED ON PLAN	-
MANUAL MOTOR CONTROLLER SWITCH WITH THERMAL OVERLOAD PROTECTION	-
INDUSTRIAL SPECIFICATION GRADE SINGLE POLE SWITCH - RATING AT 30 AMP, 120V OR 277V	-
METER	-
DIGITAL TIMER SWITCH. REFER TO PLAN FOR SPEC	4'-0"
COMBINATION MOTOR CONTROLLER - 3PH UON.	
MOTOR CONTROLLER - 3PH UON.	
	-

ABBREVIATIONS

(E)	EXISTING TO REMAIN - CONTINUE IN SERVICE	MDP	MAIN DISTRIBUTION PANEL
(R)	EXISTING TO BE REMOVED AND REL



1 E-100 **SITE PLAN**
1" = 30'-0"

GENERAL NOTES - SITE PLAN

A. REFER TO THE ELECTRICAL COVER SHEET FOR SPECIFICATIONS, GENERAL NOTES, SYMBOLS & MOUNTING HEIGHT, AND ABBREVIATIONS.

B. REFER TO CIVIL DRAWINGS FOR EXACT LOCATIONS, AND RULES GOVERNING ORIENTATION AND RELOCATION OF THE EXISTING POLE LIGHTING UON. IF THERE ARE ANY DISCREPANCIES BETWEEN THE CIVIL AND ELECTRICAL DRAWINGS, THE CIVIL DRAWINGS SHALL SUPERSEDE ELECTRICAL DRAWINGS.

C. PVC CONDUIT SHALL BE USED SCHEDULE 40 FOR UNDERGROUND ROUTING AND RGB FOR EXPOSED CONDITION.

KEYED NOTES - SITE PLAN

1. COORDINATE WITH UTILITY COMPANY FOR RELOCATION OF EXIST. UTILITY SERVICE. REFER TO CIVIL DRAWINGS FOR THE ORIGINAL LOCATION OF EXIST. UTILITY SERVICE.
2. RELOCATE THE EXISTING METER BOX INSIDE OF THE ROOM. COORDINATE WITH UTILITY COMPANY FOR THE RELOCATION.
3. NEW LOCATION OF RELOCATED EXIST. POLE LIGHT. EXTEND, SPLICE AND RECONNECT THE EXISTING CIRCUIT, AND ASSOCIATED WIRES/CONDUIT BACK TO EXIST.PANEL"PFH" IN RELOCATED OUTDOOR ENCLOSURE. REFER TO CIVIL DRAWINGS FOR THE ORIGINAL LOCATION OF EXIST. POLE LIGHTING.
4. PROVIDE NEW PANELBOARDS. REFER TO POWER RISER DIAGRAM ON DWG.E-300 FOR DETAIL.
5. HOMERUN TO PANEL "HP" WITH 4#8+ 1#10 GND WITH 1" PVC SCHEDULE 40/80. EXPOSED PVC SHALL BE SCHDULE 80 AND CONDUIT SHALL CHANGE OVER TO PVC SCHEDULE 40 OF DIRECT BURIAL IN UNDERGROUND ROUTING WITH MINIMUM 18" BELOW GRADE. REFER TO DETAIL ON DWG.E-400.
6. REPLACE EXISTING POLE LIGHTING WITH NEW POLE LIGHTING, BUT EXISTING WIRES/CONDUIT TO REMAIN FOR REUSE. REDER TO CIVIL DRAWING FOR DETAILS.

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NUMBER	DATE	ISSUE

REVISIONS

COMMONWEALTH OF VIRGINIA
MATTHEW M. ZIZZARELLI
Lic. No. 0402052214
PROFESSIONAL ENGINEER
SEAL: FEB 17 2023

SITE PLAN

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	02/17/2023
PLAN:	60% SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	E-100

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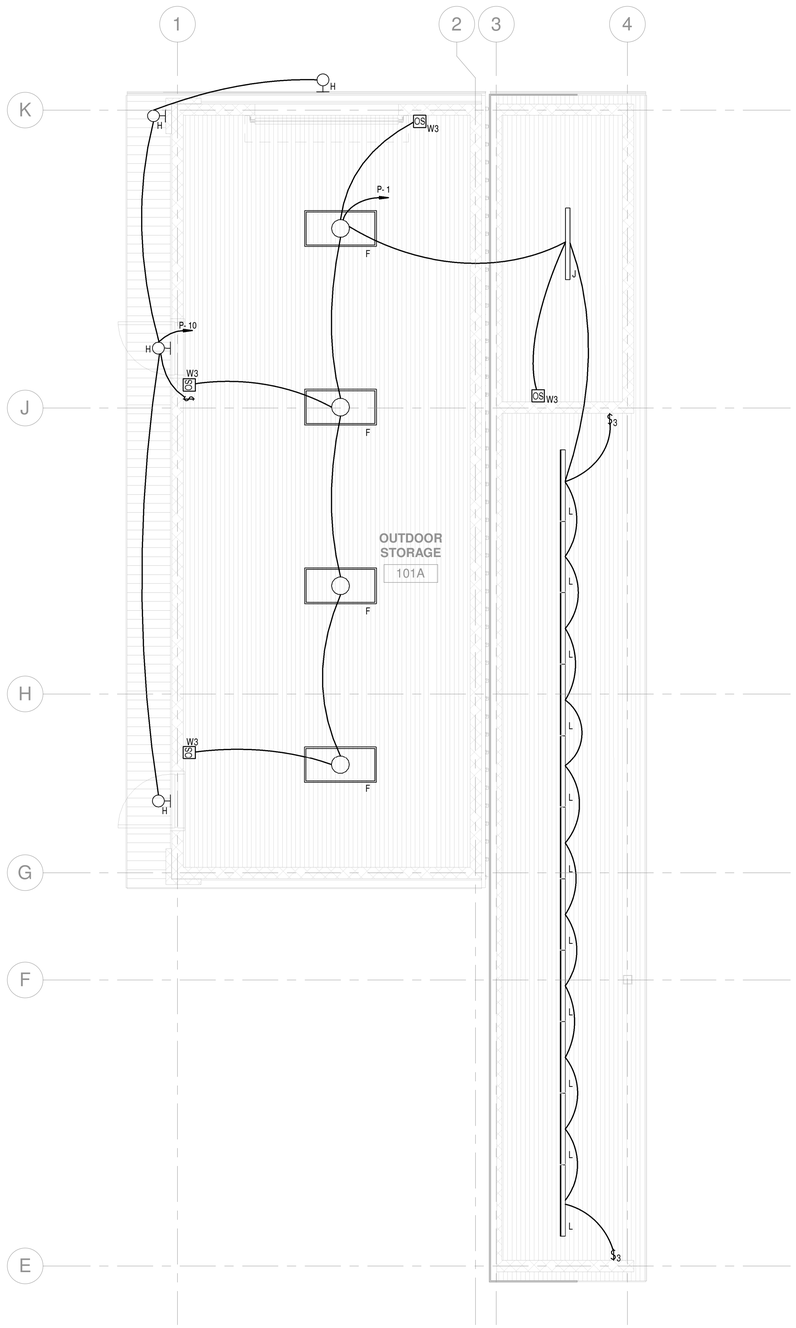
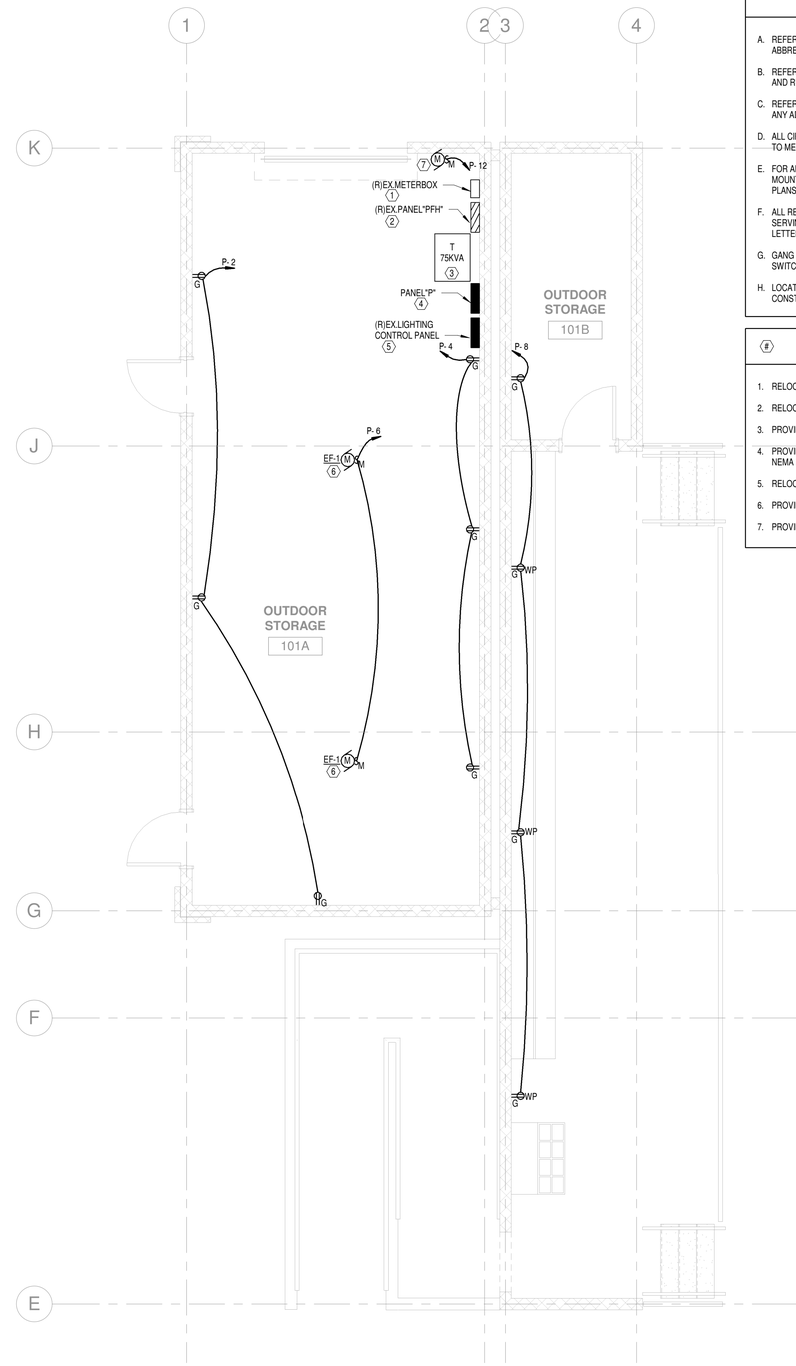


1 E-101A **STORAGE-DUGOUT - LIGHTING**
1/4" = 1'-0"



2 E-101A **STORAGE-DUGOUT - POWER**
1/4" = 1'-0"

GENERAL NOTES

A. REFER TO THE ELECTRICAL COVER SHEET FOR SPECIFICATIONS, GENERAL NOTES, SYMBOLS & MOUNTING HEIGHT, AND ABBREVIATIONS.

B. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS AND DETAILS FOR EXACT LOCATIONS, MOUNTING HEIGHTS, AND RULES GOVERNING ORIENTATION FOR ALL LIGHTING FIXTURES AND SWITCHES.

C. REFER TO THE ELECTRICAL DETAIL SHEET FOR LIGHTING FIXTURE SCHEDULES, OCCUPANCY SENSOR SCHEDULES, AND ANY ADDITIONAL SPECIFICATION/INSTALLATION INFORMATION.

D. ALL CIRCUITRY RUNS INDICATED ARE DIAGRAMMATIC. THE CONTRACTOR SHALL DETERMINE THE MOST SUITABLE ROUTES TO MEET THE DESIGN INTENT SHOWN ON DRAWINGS IN THE FIELD.

E. FOR ALL RECEPTACLES , THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT/TENANT FOR EXACT LOCATIONS, MOUNTING HEIGHTS, AND RULES GOVERNING THE ORIENTATION AND INSTALLATION, UON. REFER TO ARCHITECTURAL PLANS, DETAILS, ENLARGED PLANS, AND ELEVATIONS FOR ADDITIONAL INFORMATION.

F. ALL RECEPTACLE COVER PLATES SHALL BE FITTED WITH A LABEL INDICATING THE PANELBOARD AND CIRCUIT NUMBER SERVING THE ASSOCIATED RECEPTACLE. LABEL SHALL BE CLEAR, FIXED WITH ADHESIVE TAPE, AND SHALL USE BLACK LETTERING.

G. GANG OUTLETS WITH A SINGLE FACE PLATE WHERE MULTIPLE SWITCHES APPEAR IN A SINGLE LOCATION. LOCATION OF SWITCHES SHALL BE APPROVED BY ARCHITECT/TENANT PRIOR TO ROUGH-IN.

H. LOCATION, MOUNTING, AND LIGHTING FIXTURE TYPE TO BE COORDINATED WITH BATTING CAGE MANUFACTURER DURING CONSTRUCTION

KEYED NOTES

1. RELOCATE METER BOX. COORDINATE WITH VIRGINIA DOMINION POWER FOR RELOCATION.
2. RELOCATE EXIST.PANELBOARD "PFH".
3. PROVIDE DRY-TYPE TRANSFORMER (75 KVA, 480V-208Y/120V, COPPER WINDING) WITH NEMA 1 ENCLOSURE.
4. PROVIDE PANELBOARD (208/120V, 250AMP, 250A MCB, 3PHASE, 4 WIRES, 10 KAIC, SURFACE TYPE WITH 42 CIRCUITS & NEMA 1 ENCLLOSURE).
5. RELOCATE EXIST.MUSCO LIGHTING CONTROL PANEL. COORDINATE WITH MUSCO CONSULTANT FOR RELOCATION.
6. PROVIDE DISCONNECT FOR EF-1. REFER TO MACHANICAL PLANS FOR DETAILS.
7. PROVIDE DISCONNECT FOR MOTORIZED DAMPER. REFER TO MACHANICAL PLANS FOR DETAILS.

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Reg. No. 0402052214
PROFESSIONAL ENGINEER
SEAL: FEB 17 2023

STORAGE-DUGOUT FLOOR PLAN

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	02/17/2023
PLAN:	60% SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	E-101A

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GENERAL NOTES

A. REFER TO THE ELECTRICAL COVER SHEET FOR SPECIFICATIONS, GENERAL NOTES, SYMBOLS & MOUNTING HEIGHT, AND ABBREVIATIONS.

B. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS AND DETAILS FOR EXACT LOCATIONS, MOUNTING HEIGHTS, AND RULES GOVERNING ORIENTATION FOR ALL LIGHTING FIXTURES AND SWITCHES.

C. REFER TO THE ELECTRICAL DETAIL SHEET FOR LIGHTING FIXTURE SCHEDULES, OCCUPANCY SENSOR SCHEDULES, AND ANY ADDITIONAL SPECIFICATION/INSTALLATION INFORMATION.

D. ALL CIRCUITRY RUNS INDICATED ARE DIAGRAMMATIC. THE CONTRACTOR SHALL DETERMINE THE MOST SUITABLE ROUTES TO MEET THE DESIGN INTENT SHOWN ON DRAWINGS IN THE FIELD.

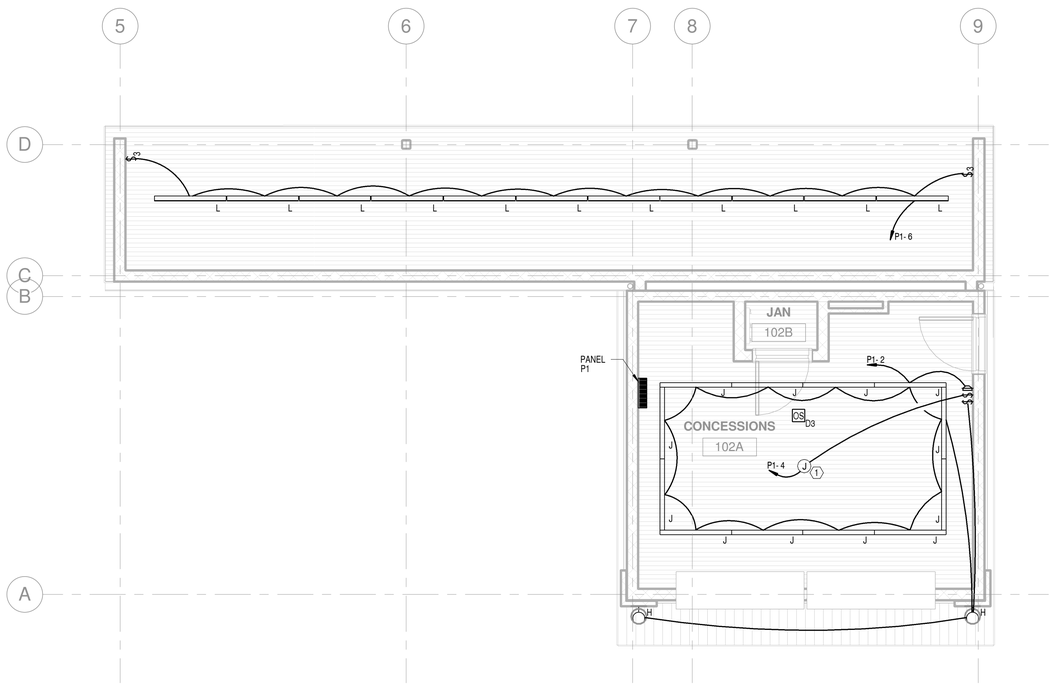
E. FOR ALL RECEPTACLES , THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT/TENANT FOR EXACT LOCATIONS, MOUNTING HEIGHTS, AND RULES GOVERNING THE ORIENTATION AND INSTALLATION, UON. REFER TO ARCHITECTURAL PLANS, DETAILS, ENLARGED PLANS, AND ELEVATIONS FOR ADDITIONAL INFORMATION.

F. ALL RECEPTACLE COVER PLATES SHALL BE FITTED WITH A LABEL INDICATING THE PANELBOARD AND CIRCUIT NUMBER SERVING THE ASSOCIATED RECEPTACLE. LABEL SHALL BE CLEAR, FIXED WITH ADHESIVE TAPE, AND SHALL USE BLACK LETTERING.

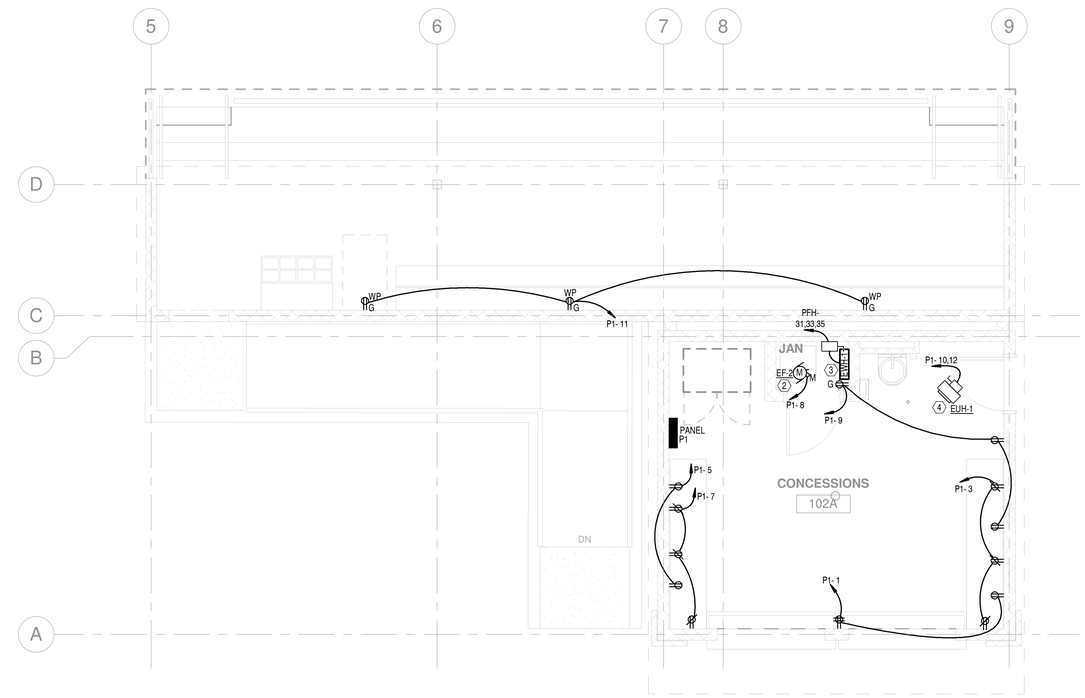
G. GANG OUTLETS WITH A SINGLE FACE PLATE WHERE MULTIPLE SWITCHES APPEAR IN A SINGLE LOCATION. LOCATION OF SWITCHES SHALL BE APPROVED BY ARCHITECT/TENANT PRIOR TO ROUGH-IN.

KEYED NOTES

1. PROVIDE JUNCTION BOX FOR CEILING FAN WITH ON/OFF TOGGLE SWITCH.
2. PROVIDE DISCONNECT FPR EF-2. REFER TO MECHANICAL PLANS FOR DETAILS.
3. (EWH-1) ELECTRIC WATER HEATER. REFER TO MECHANICAL PLANS FOR DETAILS.
4. (EUH-1) ELECTRIC UNIT HEATER. REFER TO MECHANICAL PLANS FOR DETAILS.



1 E-101B **CONCESSIONS-DUGOUT - LIGHTING**
1/4" = 1'-0"



2 E-101B **CONCESSIONS-DUGOUT - POWER**
1/4" = 1'-0"

HUGHES GROUP ARCHITECTS
22630 DAVIS DRIVE, SUITE 175
STERLING, VIRGINIA 20164
703.437.6600

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
530 Gaither Road, Suite 100, Rockville, MD 20850
240-268-1820 www.gpinet.com
Project #: 2200220.00
PM: MZZ M: HTL E: YWL P: SMT S:RKS

NUMBER	DATE	ISSUE

REVISIONS

COMMONWEALTH OF VIRGINIA
MATTHEW M. ZIGARELLI
Lic. No. 0402052214
PROFESSIONAL ENGINEER
SEAL: FEB 17 2023

CONCESSIONS-DUGOUT FLOOR PLAN

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

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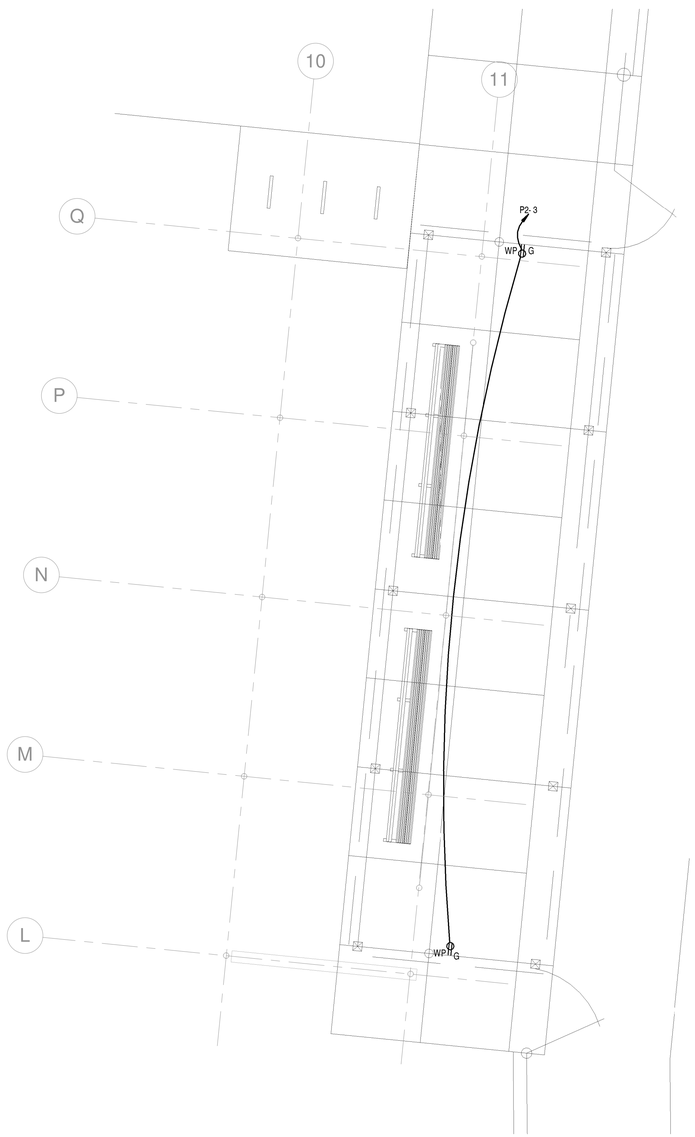
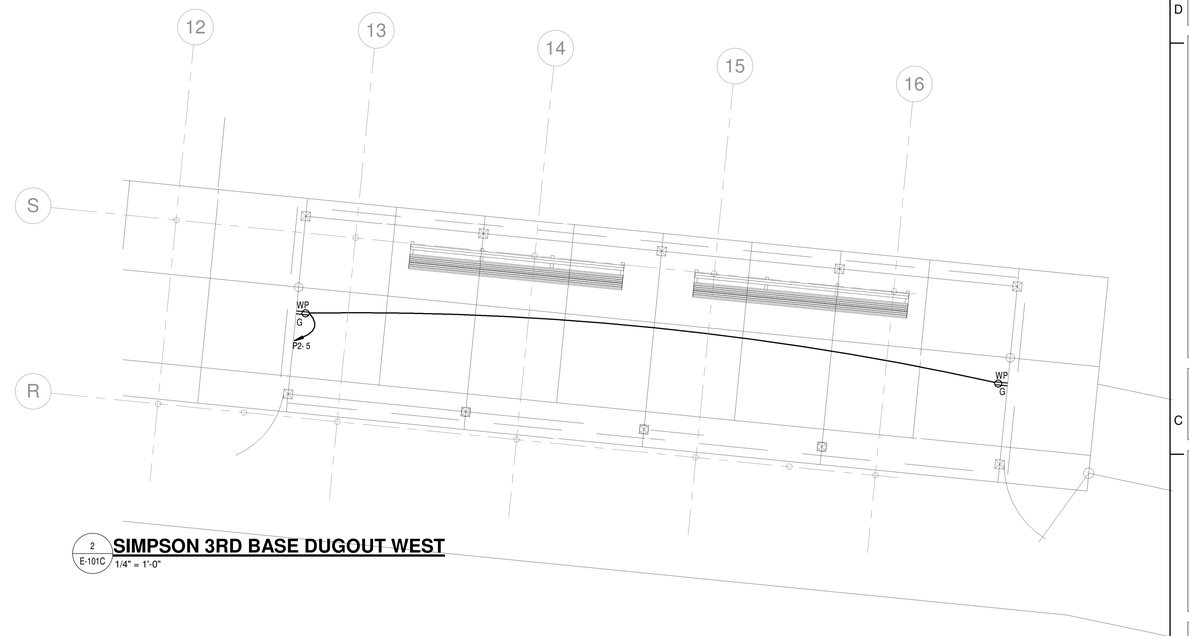
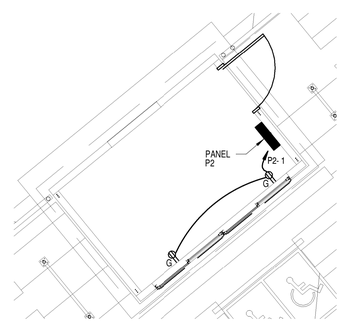
H. LOCATION, MOUNTING, AND LIGHTING FIXTURE TYPE TO BE COORDINATED WITH BATTING CAGE MANUFACTURER DURING CONSTRUCTION



3 E-101C **SIMPSON 1ST BASE DUGPOUT WEST**
1/4" = 1'-0"



2 E-101C **SIMPSON 3RD BASE DUGOUT WEST**
1/4" = 1'-0"



1 E-101C **WEST SIMPSON PRESS BOX**
1/4" = 1'-0"

HUGHES GROUP ARCHITECTS
22630 DAVIS DRIVE, SUITE 175
STERLING, VIRGINIA 20164
703.437.6600

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REVISIONS			
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COMMONWEALTH OF VIRGINIA
MATTHEW M. ZIGARELLI
Lic. No. 0402052214
PROFESSIONAL ENGINEER
SEAL: FEB 17 2023

ON-GRADE DUGOUT FLOOR PLAN

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NUMBER:	E-101C

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PANEL PFH

POLES: 42
MIN AIC RATING: EXISTING
NOTES:

VOLTS: 480/277 Wye
PHASES/WIRE: 3 PH/4 WIRES
BUS RATING: 250 A
NEUTRAL: 100%

MOUNTING: SURFACE
LOCATION: SEE FLOOR PLANS
FED FROM: SEE RISER DIAGRAM
MCB RATING: 250 AMP
MLO RATING: -

CKT	LOAD DESCRIPTION	NOTE	CB	POLES	A		B		C		POLES	CB	NOTE	LOAD DESCRIPTION	CKT
1,3,5					4.53	4.53									2,4,6
	EXIST.POLE LIGHT		30	3			4.53	4.53			3	30		EXIST.POLE LIGHT	
									4.53	4.53					
7,9,11					1.87	4.53									8,10,12
	EXIST.POLE LIGHT		30	3			1.87	4.53			3	30		EXIST.POLE LIGHT	
									1.87	4.53					
13,15,17					1.87	4.53									14,16,18
	EXIST.POLE LIGHT		30	3			1.87	4.53			3	30		EXIST.POLE LIGHT	
									1.87	4.53					
19,21,23					4.53	0.00									20,22,24
	EXIST.POLE LIGHT		30	3			4.53	0.00			3	30		SPARE	
									4.53	0.00					
25,27,29					4.53	3.18									26,28,30
	EXIST.POLE LIGHT		30	3			4.53	4.10			3	125		PANEL P THRU XFMR	
									4.53	3.79					
31,33,35					9.00	0.67									32,34,36
	WATER HEATER	1	60	3			9.00	0.67			3	20		LIGHTING	
									9.00	0.67					
37,39,41					0.67										38
	LIGHTING		20	3			0.67								40
									0.67						42
	TOTAL CONNECTED KVA PER PHASE:				44.45 kVA		45.37 kVA		45.06 kVA						
	TOTAL CONNECTED AMPS PER PHASE:				160 A		164 A		163 A						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	PANEL TOTALS	
LIGHTING	98.310 kVA	125.00%	122.888 kVA		
ELECTRIC MOTOR	0.800 kVA	115.63%	0.925 kVA	**TOTAL CONN. KVA:**	134.87
ELECTRICAL HEATING EQUIPMENT	3.000 kVA	125.00%	3.750 kVA	**TOTAL DEMAND KVA:**	167.07
HVAC	0.000 kVA	0.00%	0.000 kVA	**TOTAL CONN. AMPS:**	162
HVAC - Non-Coincidental	0.000 kVA	0.00%	0.000 kVA	**TOTAL DEMAND AMPS:**	201
KITCHEN EQUIPMENT	0.000 kVA	0.00%	0.000 kVA	**TOTAL MINIMUM FEEDER APACITY:**	201
Other	0.000 kVA	0.00%	0.000 kVA		
POWER	0.000 kVA	0.00%	0.000 kVA		
RECEPTACLES	5.760 kVA	100.00%	5.760 kVA		
WATER HEATER	27.000 kVA	125.00%	33.750 kVA		

Notes:
1. PROVIDE NEW CB OF OEM, COMPATIBLE FOR OPERATION IN EXISTING PANEL AND MATCH PANELBOARD MINIMUM AIC RATING.

PANEL P1

POLES: 30
MIN AIC RATING: 10,000
NOTES:

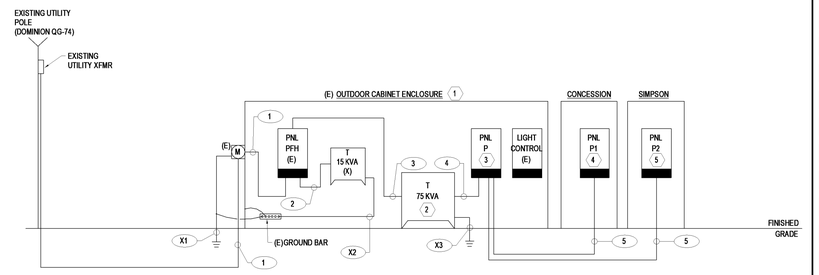
VOLTS: 120/208 Wye
PHASES/WIRE: 3 PH/4 WIRES
BUS RATING: 100 A
NEUTRAL: 100%

MOUNTING: SURFACE
LOCATION: SEE FLOOR PLANS
FED FROM: SEE RISER DIAGRAM
MCB RATING: 100 AMP
MLO RATING: -

CKT	LOAD DESCRIPTION	NOTE	CB	POLES	A		B		C		POLES	CB	NOTE	LOAD DESCRIPTION	CKT
1	RECEP. - CONCESSIONS		20	1	0.36	0.56					1	20		LIGHTING	2
3	RECEP. - CONCESSIONS		20	1			0.54	0.50			1	20		CEILING FAN	4
5	RECEP. - CONCESSIONS		20	1					0.36	0.33	1	20		LIGHTING / 1ST DUGOUT	6
7	RECEP. - CONCESSIONS		20	1	0.54	0.10					1	20		EF-2 / JANITOR RM	8
9	RECEP. - CONCESSIONS		20	1			0.54	1.50			2	20		EUH-1	10,12
11	RECEP. - 1ST BASE DUGOUT		20	1					0.54	1.50					
13	SPARE		20	1	0.00	--					1	--		SPACE	14
15	SPARE		20	1			0.00	--			1	--		SPACE	16
17	SPARE		20	1					0.00	--	1	--		SPACE	18
19	SPARE		20	1	0.00	--					1	--		SPACE	20
21	SPARE		20	1			0.00	--			1	--		SPACE	22
23	SPARE		20	1					0.00	--	1	--		SPACE	24
25	SPARE		20	1	0.00	--					1	--		SPACE	26
27	SPARE		20	1			0.00	--			1	--		SPACE	28
29	SPARE		20	1					0.00	--	1	--		SPACE	30
	TOTAL CONNECTED KVA PER PHASE:				1.56 kVA		3.08 kVA		2.73 kVA						
	TOTAL CONNECTED AMPS PER PHASE:				13 A		26 A		23 A						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	PANEL TOTALS	
LIGHTING	1.390 kVA	125.00%	1.738 kVA		
ELECTRIC MOTOR	0.100 kVA	125.00%	0.125 kVA	**TOTAL CONN. KVA:**	7.37
ELECTRICAL HEATING EQUIPMENT	3.000 kVA	125.00%	3.750 kVA	**TOTAL DEMAND KVA:**	8.49
HVAC	0.000 kVA	0.00%	0.000 kVA	**TOTAL CONN. AMPS:**	20
HVAC - Non-Coincidental	0.000 kVA	0.00%	0.000 kVA	**TOTAL DEMAND AMPS:**	24
KITCHEN EQUIPMENT	0.000 kVA	0.00%	0.000 kVA	**TOTAL MINIMUM FEEDER APACITY:**	24
Other	0.000 kVA	0.00%	0.000 kVA		
POWER	0.000 kVA	0.00%	0.000 kVA		
RECEPTACLES	2.880 kVA	100.00%	2.880 kVA		
WATER HEATER	0.000 kVA	0.00%	0.000 kVA		

Notes:



POWER RISER DIAGRAM - NEW WORK

SCALE: NOT TO SCALE

PANEL P

POLES: 42
MIN AIC RATING: 22,000
NOTES:

VOLTS: 120/208 Wye
PHASES/WIRE: 3 PH/4 WIRES
BUS RATING: 250 A
NEUTRAL: 100%

MOUNTING: SURFACE
LOCATION: SEE RISER DIAGRAM
FED FROM: SEE RISER DIAGRAM
MCB RATING: 250 AMP
MLO RATING: -

CKT	LOAD DESCRIPTION	NOTE	CB	POLES	A		B		C		POLES	CB	NOTE	LOAD DESCRIPTION	CKT
1,3,5					1.56	0.54					1	20		RECEP. - STORAGE	2
	PANEL P1		100	3			3.08	0.54			1	20		RECEP. - STORAGE	4
									2.73	0.20	1	20		EF-1 - STORAGE	6
7,9,11					0.36	0.72					1	20		RECEP. - 3RD BASE DUGOUT	8
	PANEL P2		50	3			0.36	0.12			1	20		LIGHTING	10
									0.36	0.50	1	20		MOTORIZED DAMPER	12
13	SPACE		--	1	--										14
15	SPACE		--	1			--								16
17	SPACE		--	1					--						18
19	SPACE		--	1	--										20
21	SPACE		--	1			--								22
23	SPACE		--	1					--						24
25	SPACE		--	1	--										26
27	SPACE		--	1			--								28
29	SPACE		--	1					--						30
31	SPACE		--	1	--										32
33	SPACE		--	1			--								34
35	SPACE		--	1					--						36
37	SPACE		--	1	--										38
39	SPACE		--	1			--								40
41	SPACE		--	1					--						42
	TOTAL CONNECTED KVA PER PHASE:				3.18 kVA		4.10 kVA		3.79 kVA						
	TOTAL CONNECTED AMPS PER PHASE:				27 A		34 A		32 A						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	PANEL TOTALS	
LIGHTING	1.510 kVA	125.00%	1.888 kVA		
ELECTRIC MOTOR	0.800 kVA	115.63%	0.925 kVA	**TOTAL CONN. KVA:**	11.07
ELECTRICAL HEATING EQUIPMENT	3.000 kVA	125.00%	3.750 kVA	**TOTAL DEMAND KVA:**	12.32
HVAC	0.000 kVA	0.00%	0.000 kVA	**TOTAL CONN. AMPS:**	31
HVAC - Non-Coincidental	0.000 kVA	0.00%	0.000 kVA	**TOTAL DEMAND AMPS:**	34
KITCHEN EQUIPMENT	0.000 kVA	0.00%	0.000 kVA	**TOTAL MINIMUM FEEDER APACITY:**	34
Other	0.000 kVA	0.00%	0.000 kVA		
POWER	0.000 kVA	0.00%	0.000 kVA		
RECEPTACLES	5.760 kVA	100.00%	5.760 kVA		
WATER HEATER	0.000 kVA	0.00%	0.000 kVA		

Notes:

PANEL P2

POLES: 12
MIN AIC RATING: 10,000
NOTES:

VOLTS: 120/208 Wye
PHASES/WIRE: 3 PH/4 WIRES
BUS RATING: 100 A
NEUTRAL: 100%

MOUNTING: SURFACE
LOCATION: SEE FLOOR PLANS
FED FROM: SEE RISER DIAGRAM
MCB RATING: 50 AMP
MLO RATING: -

CKT	LOAD DESCRIPTION	NOTE	CB	POLES	A (KVA)		B (KVA)		C (KVA)		POLES	CB	NOTE	LOAD DESCRIPTION	CKT
1	RECEP. / PRESS BOX		20	1	0.36										2
3	RECEP. / 1ST BATTING CAGE		20	1			0.36								4
5	RECEP. / 3RD BATTING CAGE		20	1					0.36						6
7															8
9															10
11															12
	TOTAL CONNECTED KVA PER PHASE:				0.36 kVA		0.36 kVA		0.36 kVA						
	TOTAL CONNECTED AMPS PER PHASE:				3 A		3 A		3 A						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	PANEL TOTALS	
LIGHTING	0.000 kVA	0.00%	0.000 kVA		
ELECTRIC MOTOR	0.000 kVA	0.00%	0.000 kVA	**TOTAL CONN. KVA:**	1.08
ELECTRICAL HEATING EQUIPMENT	0.000 kVA	0.00%	0.000 kVA	**TOTAL DEMAND KVA:**	1.08
HVAC	0.000 kVA	0.00%	0.000 kVA	**TOTAL CONN. AMPS:**	3
Other	0.000 kVA	0.00%	0.000 kVA	**TOTAL DEMAND AMPS:**	3
POWER	0.000 kVA	0.00%	0.000 kVA	**TOTAL MINIMUM FEEDER AMPACITY:**	3
RECEPTACLES	1.080 kVA	100.00%	1.080 kVA		

Notes:

FEEDER SCHEDULE

1. EXISTING 2-1/2" C, 4 # 250 KCMIL, 1 # 2 GRD.
2. REMOVE 3/4" C, 3 # 10 AWG, 1 # 10 GRD.
3. PROVIDE 1-1/4" C, 3 # 2 AWG, 1 # 8 GRD
4. PROVIDE 2-1/2" C, 4 # 4/0 AWG, 1 # 2 GRD.
5. PROVIDE 2" PVC CONDUIT FOR DIRECT BURIAL, 4 # 1/0 AWG, 1 # 6 GRD

X1 EXISTING 1 # 2 GROUNDING ELECTRODE CONDUCTOR.
X2 REMOVE 1 # 8 GROUNDING ELECTRODE CONDUCTOR BACK TO (E) MAIN GROUNDING SYSTEM.
X3 PROVIDE1 # 2 GROUNDING ELECTRODE CONDUCTOR TO (E) MAIN GROUNDING SYSTEM.

VOLTAGE DROP CALCULATION

- PANELBOARD "P1" FROM PANELBOARD "P"
  FEEDER LENGTH : 120 FEET
  CONDUCTOR : #1/0 AWG in PVC
  DEMAND LOAD : 80.0 AMPERE

  VOLTAGE DROP (LINE-TO-NEUTRAL) per NEC chap.9 table 9(Copper)
  == 0.13 ohm x 120 ft/ 1000 ft x 80.0 = 1.25 volt
  VOLTAGE DROP (LINE-TO-LINE)
  == 1.25 volt x 1.732 = 2.165 volt

  208 volt - 2.165 volt = 205.835 volt

  Therefore, total voltage drop will be 1.04% in #1/0 AWG.

- PANELBOARD "P3" FROM PANELBOARD "P"
  FEEDER LENGTH : 600 FEET
  CONDUCTOR : #1/0 AWG in PVC
  DEMAND LOAD : 30.0 AMPERE

  VOLTAGE DROP (LINE-TO-NEUTRAL) per NEC chap.9 table 9(Copper)
  == 0.13 ohm x 600 ft/ 1000 ft x 30.0 = 2.34 volt
  VOLTAGE DROP (LINE-TO-LINE)
  == 2.34 volt x 1.732 = 4.05 volt

  208 volt - 4.05 volt = 203.95 volt

  Therefore, total voltage drop will be 1.95% in #1/0 AWG.

GENERAL NOTES - POWER RISER

A. REFER TO PANELBOARD SCHEDULE FOR ADDITIONAL INFORMATION.

KEYED NOTES - POWER RISER

1. RELOCATE EXISTING OUTDOOR ENCLOSURE. COORDINATE WITH UTILITY COMPANY FOR NEW LOCATION OF EXISTING SERVICE LINE AND RECONNECT EXISTING CIRCUITS OF POLE LIGHTING IN EXISTING PANEL "PFH".
2. PROVIDE DRY-TYPE TRANSFORMER (75 KVA, 480V-208Y/120V, COPPER WINDING) WITH NEMA 1 ENCLOSURE.
3. PROVIDE PANELBOARD "P" (208/120V, 200A, 200A MCB, 3 PHASE, 4 WIRES, SURFACE TYPE) WITH 42 CIRCUITS IN NEMA 1 ENCLOSURE.
4. PROVIDE PANELBOARD "P1" (208/120V, 100A, 100A MCB, 3 PHASE, 4 WIRES, SURFACE TYPE) WITH 30 CIRCUITS IN NEMA 1 ENCLOSURE.
5. PROVIDE PANELBOARD "P2" & "P3" (208/120V, 100A, 50A MCB, 3 PHASE, 4 WIRES, SURFACE TYPE) WITH 12 CIRCUITS IN NEMA 1 ENCLOSURE.

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COMMONWEALTH OF VIRGINIA
MATTHEW M. ZIZARELLI
Lic. No. 0402052214
PROFESSIONAL ENGINEER
SEAL: FEB 17 2023

POWER RISER DIAGRAM, PANELBOARD SCHEDULES & DETAILS

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE: 02/17/2023
PLAN: 60% SUBMISSION
JOB: 2106
CADD:
NCS:
NUMBER: E-300

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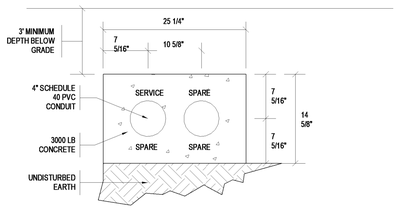
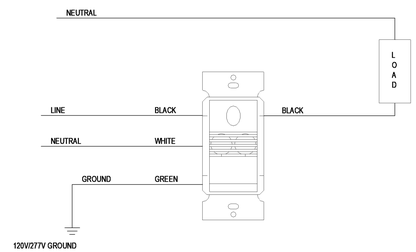


2-WAY DUCT BANK

SCALE: NOT TO SCALE



TYPICAL WIRING FOR OCCUPANCY SENSOR TYPE W3

SCALE: NOT TO SCALE

LIGHTING FIXTURE SCHEDULE

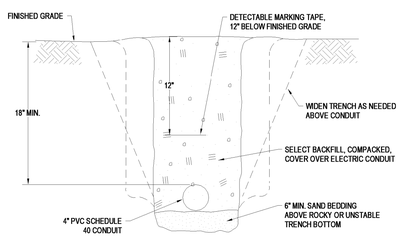
FIXTURE ID	DESCRIPTION	MANUFACTURER	CATALOG NO.	LAMP QUANTITY	LAMP TYPE	VOLTS	MOUNTING	DIMMING (YES OR NO)	KEYED NOTES
P	EXTERIOR POLE LIGHT	MUSCO LIGHTING	SEE CIVIL DRAWING			480V, 3PH	POLE	NO	
F	2X4 LIGHT	LITHONIA LIGHT	2GTL-F-4-48L-EZ1-LP835	-	LED-29.83W	UNIVERSAL (120/277V)	RECESSED	YES (0-10V)	
H	EXTERIOR WALL PACK	LITHONIA LIGHT	WPX1-LED-P2-40K-MVOLT-DDBXD-M4	-	LED-24W	UNIVERSAL (120/277V)	WALL	NO	
J	NARROW STRIP LIGHT	HE WILLIAMS	75R-4-L85/835-WG-75-DIM-UNV	-	LED-56W	UNIVERSAL (120/277V)	SURFACE	YES (0-10V)	
K	6" RECESSED LIGHT	PINNACLE LIGHTING	EV6-A-835-20 FEET-G1-U-FSD-1-(P)-W	-	LED-4.6W PER FT	UNIVERSAL (120/277V)	SUSPENDED	YES (0-10V)	
L	LED STRIP LIGHT	DESIGNPLAN	N2-65-LM04.104588.US	-	LED-19W PER 40 INCH	24V	SURFACE	YES (0-10V)	2

GENERAL NOTES

A. COORDINATE MOUNTING HEIGHT (PENDANT/SUSPENDED/WALL LUMINAIRES) & LENGTH (LINEAR LED LUMINAIRES) WITH ARCHITECT.
B. PROVIDE 0-10V STANDARD DIMMING DRIVER AS BASIC OF DESIGN AS REQUIRED.
C. PROVIDE COMPATIBLE DIMMER SWITCH (OR SYSTEM) WITH LED DIMMING DRIVER AS REQUIRED.
D. PROVIDE LAMP(S) AT 80 CRI OR BETTER. FINAL LAMP COLOR TEMPERATURE TO BE 3500K.
E. LIGHTING FIXTURE SCHEDULE SHALL ONLY PROVIDE DIMMING INFORMATION FOR DRIVER TYPE. REFER TO LIGHTING PLAN FOR EXACT FIXTURES TO BE CONTROLLED BY DIMMING SWITCHES/ROOM CONTROLLERS/POWER PACKS.

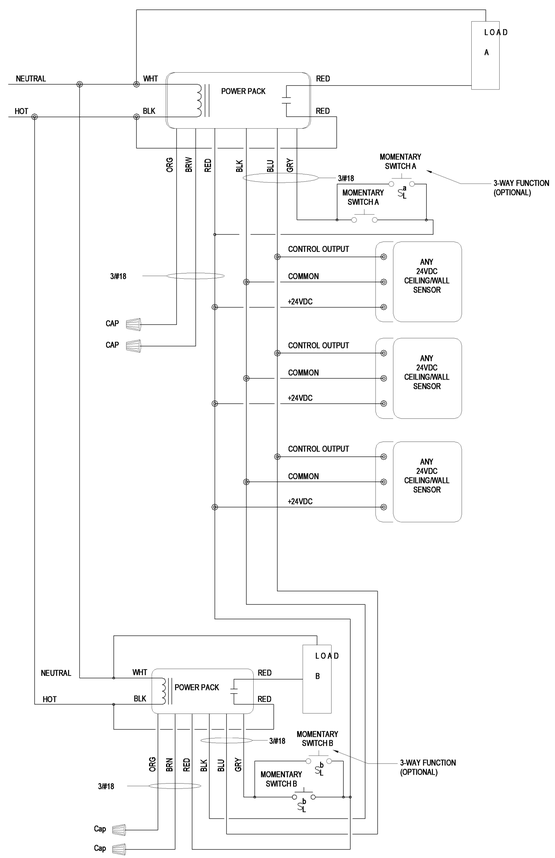
KEYED NOTES:

1. PROVIDE QUANTITY OF FACES, DIRECTIONAL ARROWS, AND MOUNTING AS SHOWN ON DRAWINGS. MATCH BUILDING STANDARD AS REQUIRED. PROVIDE PENDANT MOUNT OPTION IN OPEN CEILING AREA IF NECESSARY.
2. PROVIDE POWER SUPPLY (120/277V - 24V) PER MANUFACTURER'S REQUIREMENT.



CONDUIT IN DIRECT BURIED TRENCH (TYPICAL)

SCALE: NOT TO SCALE



TYPICAL WIRING FOR OCCUPANCY SENSOR TYPE L3

SCALE: NOT TO SCALE

OCCUPANCY SENSOR SCHEDULE

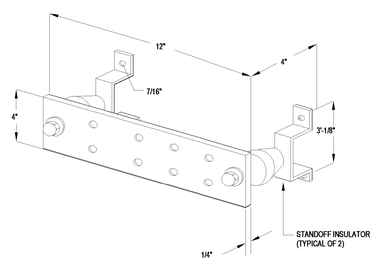
TYPE	DESCRIPTION	MANUFACTURER	CATALOG NO.	KEYED NOTES
OS W3	DUAL TECHNOLOGY WALL SWITCH SENSOR SINGLE RELAY	WATTSTOPPER	DW-100	1,2
OS L3	DUAL TECHNOLOGY CEILING SENSOR - LOW VOLTAGE	WATTSTOPPER	DT-305	3,4
	LOW VOLTAGE SINGLE SWITCH	WATTSTOPPER	LVSW-101	5
	LOW VOLTAGE DIMMING SWITCH	LEGRAND	DCLV2	5

GENERAL NOTES:

A. PROVIDE PRE-BID AND PRE-CONSTRUCTION MEETINGS WITH WATTSTOPPER AS REQUIRED. COORDINATE ALL WORK WITH SHOP DRAWINGS PRODUCED BY THE MANUFACTURER.
B. ADJUST SENSITIVITY SETTINGS ON THE BACK OF THE SENSOR AS NECESSARY TO PROVIDE THE DESIRED COVERAGE. WHEN THE AREA IS UNOCCUPIED (INDIVIDUALS MOVE OUT OF THE CONTROLLED AREA), THE LIGHTS SHALL TURN OFF.
C. INSTALL PASSIVE INFRARED WALL SWITCH SENSOR IN SPACE WHERE IT HAS A DIRECT, UNOBSTRUCTED VIEW OF THE TARGETED SPACE (FURNITURE OR OTHER OBSTACLES WILL PREVENT DETECTION).
D. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF REQUIRED NUMBER OF POWER PACKS:
D.A. ONE POWER PACK IS REQUIRED FOR EACH CONTROLLED CIRCUIT.
D.B. REFER TO INSTALLATION GUIDE FOR MAXIMUM NUMBER OF SENSORS CONNECTED TO POWER PACK.
D.C. IF MULTIPLE CIRCUITS ARE TO BE CONTROLLED BY A SINGLE SENSOR, AUXILIARY RELAYS MAY BE USED IN CONJUNCTION WITH A POWER PACK.
D.D. INSTALLATION: LOCATE POWER PACK AT ACCESSIBLE LOCATION. COORDINATE ACCESS DOOR LOCATION WITH THE ARCHITECT.
D.E. PROVIDE ALL ACCESSORIES AND COMPONENTS (NOT SHOWN ON PLAN) TO MAKE THE SYSTEM FULLY OPERATIONAL.
E. ALL SENSOR LOCATIONS ARE APPROXIMATE. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR INSTALLATION. IF PENDANT MOUNTED FIXTURES ARE PRESENT, LOCATION AND COVERAGE OF SENSORS SHOULD BE REVIEWED.
F. REFER TO TYPICAL OCCUPANCY SENSOR WIRING DETAILS FOR ADDITIONAL REQUIREMENTS.

KEYED NOTES:

1. AT 120VAC, 0-800W BALLAST/TUNGSTEN, 1/6 HP AND AT 277VAC, 0-1200W BALLAST.
2. SET SENSOR FOR MANUAL ON, AUTO OFF . UON SHOWN ON LIGHTING PLAN.
3. SET SENSOR FOR AUTO ON, AUTO OFF . UON SHOWN ON LIGHTING PLAN.
4. PROVIDE BZ-150 UNIVERSAL VOLTAGE POWER PACK AND MOUNTING HARDWARE AS REQUIRED.
5. LOWER-CASE LETTER INDICATES WHICH FIXTURES ARE CONTROLLED BY WHICH SWITCH. "#" INDICATES THE QUANTITY OF LIGHTING ZONES. COORDINATE WITH MANUFACTURER FOR 3-WAY SWITCH/DIMMER SWITCH CAT. NO., NUMBER OF BUTTONS, AND INSTALLATION AS REQUIRED. COORDINATE COMPATIBLE DIMMING BALLAST/DRIVER WITH DIMMING CONTROL AS REQUIRED.



GROUND BAR DETAIL

SCALE: NOT TO SCALE

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COMMONWEALTH OF VIRGINIA
MATTHEW M. ZIZARELLI
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PROFESSIONAL ENGINEER
SEAL: FEB 17 2023

SCHEDULES & DETAILS

EUGUENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE: 02/17/2023
PLAN: 60% SUBMISSION
JOB: 2106
CADD:
NCS:
NUMBER: E-400

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FIXTURE CONNECTION SCHEDULE

DESIGNATION	DESCRIPTION	PIPE SIZES				REMARKS
		WASTE	VENT	CW	HW	
L-1	LAVATORY	2"	1-1/2"	1/2"	1/2"	WALL MOUNTED, STAINLESS STEEL, HANDS FREE OPERATION - 0.5 GPM AERATOR (ADA COMPLIANT)
MS-1	MOP SINK	3"	1-1/2"	1/2"	1/2"	FLOOR MOUNTED, STAINLESS STEEL, 24" x 24" x 10" HIGH, WALL MOUNTED FAUCET WITH THREADED OUTLET AND VACUUM BREAKER, 2.2 GPM FLOW RATE. SEE ARCHITECTURAL DRAWINGS FOR MOP HANGER REQUIREMENTS.

NOTES:
1. PROVIDE INSULATION KIT FOR WASTE AND WATER SUPPLY PIPES OF ALL HANDICAPPED LAVATORIES. TRUEBRO, LAVGUARD OR EQUAL.
2. PROVIDE MIXING VALVES FOR ALL HAND WASHING SINKS. SYMMONS 5-210-CK OR EQUAL.
3. SEE ARCHITECTURAL DOCUMENTS FOR EXACT FIXTURE LOCATION AND MOUNTING HEIGHTS.

FLOOR DRAIN SCHEDULE

DESIGNATION	TYPE	LOCATION/AREA	SIZE	BASIS OF DESIGN (OR EQUAL)	REMARKS
FD-1	FLOOR DRAIN	STORAGE DUGOUT	5" STRAINER	ZURN #Z415B	TG: SURE SEAL TRAP SEALER, ASSE 1072 COMPLIANT

WALL HYDRANT SCHEDULE

DESIGNATION	TYPE	CONNECTION SIZE	BASIS OF DESIGN (OR EQUAL)	DESCRIPTION
WH-1	WALL HYDRANT (EXTERIOR)	3/4"	ZURN Z1300	ENCASED NON-FREEZE WALL HYDRANT WITH INTEGRAL VACUUM BREAKER AND KEY LOCK. INSTALL WALL HYDRANT 18" AFF.

NOTES:
1. INSTALL WALL HYDRANTS 18" ABOVE FINISHED FLOOR OR EXTERIOR GRADE/YARD.
2. WHEREVER FINISH OPTIONS ARE AVAILABLE, COORDINATE SELECTION WITH ARCHITECT OR OWNER.
3. COORDINATE INSTALLATION WITH THE ARCHITECTURAL DRAWINGS.

GENERAL PLUMBING NOTES

1. ALL PLUMBING WORK SHALL CONFORM WITH ALL APPLICABLE CODES, RULES, AND REGULATIONS.
2. PLUMBING CONTRACTOR SHALL SECURE AND PAY FOR ANY PERMITS.
3. ALL PLUMBING WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID ANY INTERFERENCE.
4. THESE DRAWINGS ARE DIAGRAMMATIC, REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS OF THE BUILDING AND EXACT LOCATION OF ALL FIXTURES AND EQUIPMENT.
5. ALL WATER PIPING AND VENT PIPING SHALL BE RUN AS HIGH AS POSSIBLE, CONCEALED ABOVE CEILINGS, UNLESS OTHERWISE NOTED. ALL SANITARY WASTE PIPING SHALL BE RUN AS HIGH AS POSSIBLE BELOW FLOOR SLAB, UNLESS OTHERWISE NOTED.
6. ALL SANITARY WASTE PIPING SHALL BE SLOPED AT APPROPRIATE SLOPE BASED ON PIPE SIZE AND APPLICABLE CODE(S).
7. ALL SLOPES AND INVERT ELEVATIONS SHALL BE CHECKED BEFORE ANY PIPING IS INSTALLED IN ORDER TO CONFIRM THAT PROPER SLOPES WILL BE MAINTAINED. CONTRACTOR SHALL VERIFY PIPING CAN BE ROUTED AS SHOWN ON DRAWINGS AND CONNECTIONS CAN BE PERFORMED PRIOR TO STARTING WORK.
8. MAKE PROPER WASTE, VENT, HOT, AND COLD WATER CONNECTIONS TO ALL FIXTURES AND EQUIPMENT, EVEN THOUGH ALL BRANCH MAINS, ELBOWS, AND CONNECTIONS ARE NOT SHOWN.
9. FOR ALL SIZES OF WASTE, VENT, HOT, AND COLD WATER PIPING TO FIXTURES AND EQUIPMENT, SEE SANITARY WASTE AND WATER RISER DIAGRAMS.
10. PLUMBING CONTRACTOR SHALL DISINFECT POTABLE WATER SYSTEM PER CODE.
11. PLUMBING CONTRACTOR SHALL INFORM SUBCONTRACTOR OF QUANTITY AND LOCATION OF ACCESS PANELS WHERE REQUIRED FOR ACCESS TO VALVES IN CEILINGS AND WALLS. ACCESS PANELS SHALL BE INSTALLED BY THE APPROPRIATE SUBCONTRACTOR.
12. CONTRACTOR SHALL PROVIDE ADDITIONAL WATER LINE DROPS IN WALL WHEN HORIZONTAL RUN IN WALL CONFLICTS WITH VENT PIPE IN WALL.
13. ALL PIPE PENETRATIONS BELOW LAVATORIES SHALL BE SEALED.
14. ALL PIPE PENETRATIONS THROUGH FLOOR SLAB SHALL BE SEALED WITH FIRE STOPPING MATERIAL.
15. PROVIDE INDIVIDUAL SHUT-OFF VALVES AT ALL PLUMBING FIXTURES AND APPLIANCES.
16. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION AND DIRECTION OF FLOW FOR EXISTING SEWER LINES WITHIN THE BUILDING AND BELOW FLOOR/GRADE PRIOR TO STARTING WORK.
17. SLAB PENETRATIONS: FOR ALL SLAB PENETRATIONS REQUIRED FOR NEW WORK, GROUND-PENETRATING RADAR OR X-RAY EQUIPMENT SHALL BE USED TO LOCATE REINFORCING BARS, POST-TENSION CABLES, PIPING CONDUITS, PIPING, CONDUITS, ETC. PRIOR TO ANY PENETRATION OF THE SLAB. ALL COMPONENTS SHALL BE CLEARLY MARKED ON THE SLAB SURFACE PRIOR TO DRILLING, CORING, ETC. THE CONTRACTOR SHALL NOT CUT REINFORCING BARS, CABLES, ETC. WITHOUT PRIOR AUTHORIZATION FROM THE LANDLORD AND SHALL IMMEDIATELY REPAIR ANY DAMAGES CAUSED BY SLAB PENETRATIONS IN VIOLATION OF THIS PARAGRAPH. ALL SLAB PENETRATIONS SHALL BE FIRE STOPPED AND WATER TIGHT. THE CONTRACTOR MUST RECEIVE THE APPROVAL OF THE LANDLORD'S STRUCTURAL ENGINEER BEFORE PROCEEDING WITH ANY SUCH WORK.
18. FURNISH THE OWNER WITH A WRITTEN GUARANTEE, STATING THAT ALL MATERIALS AND INSTALLATION ARE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ARE FULLY GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK, AND THAT ALL WORK WHICH PROVES DEFECTIVE DURING THAT TIME SHALL BE REPLACED AT NO COST TO THE OWNER.
19. SEE ARCHITECTURAL PLANS FOR PLUMBING FIXTURE SPECIFICATIONS.
20. PROVIDE AND INSTALL UNIONS AT CONNECTIONS TO DISSIMILAR METALS; DIELECTRIC TYPE AS REQUIRED.

PLUMBING LEGEND

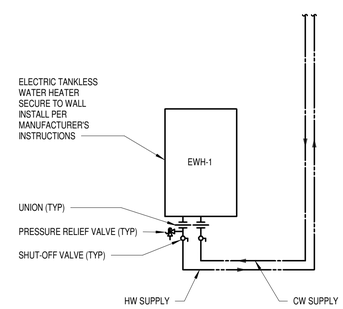
SYMBOL	ABBREVIATION	DESCRIPTION
	CW	DOMESTIC COLD WATER
	HW	DOMESTIC HOT WATER
	WP	SANITARY SOIL AND WASTE
	VP	SANITARY VENT
D	D	DRAIN LINE
	ST	STORM WATER
		PIPE TURNING UP
		PIPE TURNING DOWN
		VALVE IN VERTICAL
		PIPE BRANCH BOTTOM TAKEOFF
		PIPE BRANCH TOP TAKEOFF
		OFFSET IN PIPE
		UNION
		SHUT-OFF VALVE
"A"	WHA	WATER HAMMER ARRESTOR w/ PDI VALUE
		PIPE DIRECTION OF FLOW
		PIPE PITCHED IN DIRECTION OF FLOW
	FD EFD	FLOOR DRAIN EMERGENCY FLOOR DRAIN

ABBREVIATIONS

ABV	ABOVE	INV	INVERT ELEVATION
ADA	AMERICANS WITH DISABILITIES	IRH	INFRARED HEATER
AFF	ABOVE FINISHED FLOOR	KW	KILOWATTS
B	BOILER	L	LAVATORY
BFP	BACKFLOW PREVENTER	LBS	POUNDS
BFG	BELOW FINISH GRADE	MAX	MAXIMUM
CFH	CUBIC FEET PER HOUR	MECH	MECHANICAL
CISPI	CAST IRON SOIL PIPE INSTITUTE	MBH	THOUSANDS OF BTU'S PER HOUR
CLG	CEILING	MIN	MINIMUM
CO	CLEANOUT	MS	MOP SINK
CONT	CONTINUATION	NSF	NATIONAL SANITARY FOUNDATION
CM	COFFEE MAKER	OD	OVERFLOW DRAIN
CWFU	COLD WATER FIXTURE UNIT	OL	OVERFLOW LEADER
DF	DRINKING FOUNTAIN	OSD	OPEN SITE DRAIN
DFU	DRAINAGE FIXTURE UNITS	PH	PHASE
DN	DOWN	PSI	POUNDS PER SQUARE INCH
DW	DISHWASHER	RD	ROOF DRAIN
DWG	DRAWING	REF	REFRIGERATOR
DWH	DOMESTIC WATER HEATER	RL	RAIN LEADER
EA	EACH	RTU	ROOF TOP UNIT
EFD	EMERGENCY FLOOR DRAIN	SH	SHOWER
ELEC	ELECTRIC, ELECTRICAL	SK	SINK
ELEV	ELEVATION	SQ FT	SQUARE FOOT, FEET
EWC	ELECTRIC WATER COOLER	SS	SERVICE SINK
ERU	ENERGY RECOVERY UNIT	TD	TRENCH DRAIN
°F	DEGREES FAHRENHEIT	TG	TRAP GUARD
FCO	FLOOR CLEANOUT	TS	TAMPER SWITCH
FD	FLOOR DRAIN	TYP	TYPICAL
FS	FLOOR SINK	U	URINAL
GAL	GALLON, GALLONS	V	VOLT, VOLTS
GD	GARBAGE DISPOSAL	VS	VENT STACK
GPH	GALLONS PER HOUR	VTR	VENT THROUGH ROOF
GPM	GALLONS PER MINUTE	W/	WITH
HB	HOSE BIB	WC	WATER CLOSET
HD	HUB DRAIN	WH	WATER HEATER
HWFU	HOT WATER FIXTURE UNIT	WHA	WATER HAMMER ARRESTOR
HV	HEATING AND VENTILATION UNIT	WS	WASTE STACK
IM	ICE MAKER	WSFU	WATER SUPPLY FIXTURE UNITS

DRAWING LIST

P-001	COVER SHEET
P-101A	STORAGE-DUGOUT FLOOR PLAN AND ROOF PLAN
P-101B	CONCESSIONS-DUGOUT FLOOR PLAN AND ROOF PLAN
P-501	RISER DIAGRAMS



TANKLESS ELECTRIC WATER HEATER DETAIL

SCALE: NOT TO SCALE

MISC PLUMBING FIXTURE SPECIFICATIONS

BFP-1: BACKFLOW PREVENTER: WATTS SERIES LF007MQT-S OR APPROVED EQUAL, DUAL CHECK TYPE, INTEGRAL STRAINER. COMPLY WITH ASSE 1015. REFER TO RISER DIAGRAM FOR PIPE SIZES.

ECO: EXTERIOR CLEANOUT: ZURN Z1400-HD ADJUSTABLE CAST IRON EXTRA HEAVY-DUTY CLEANOUT.

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MATTHEW M. ZIZARELLI
Reg. No. 0402052214
PROFESSIONAL ENGINEER
SEAL: FEB 17 2023

COVER SHEET

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE: 02/17/2023
PLAN: 60% SUBMISSION
JOB: 2106
CADD:
NCS:
NUMBER: P-001

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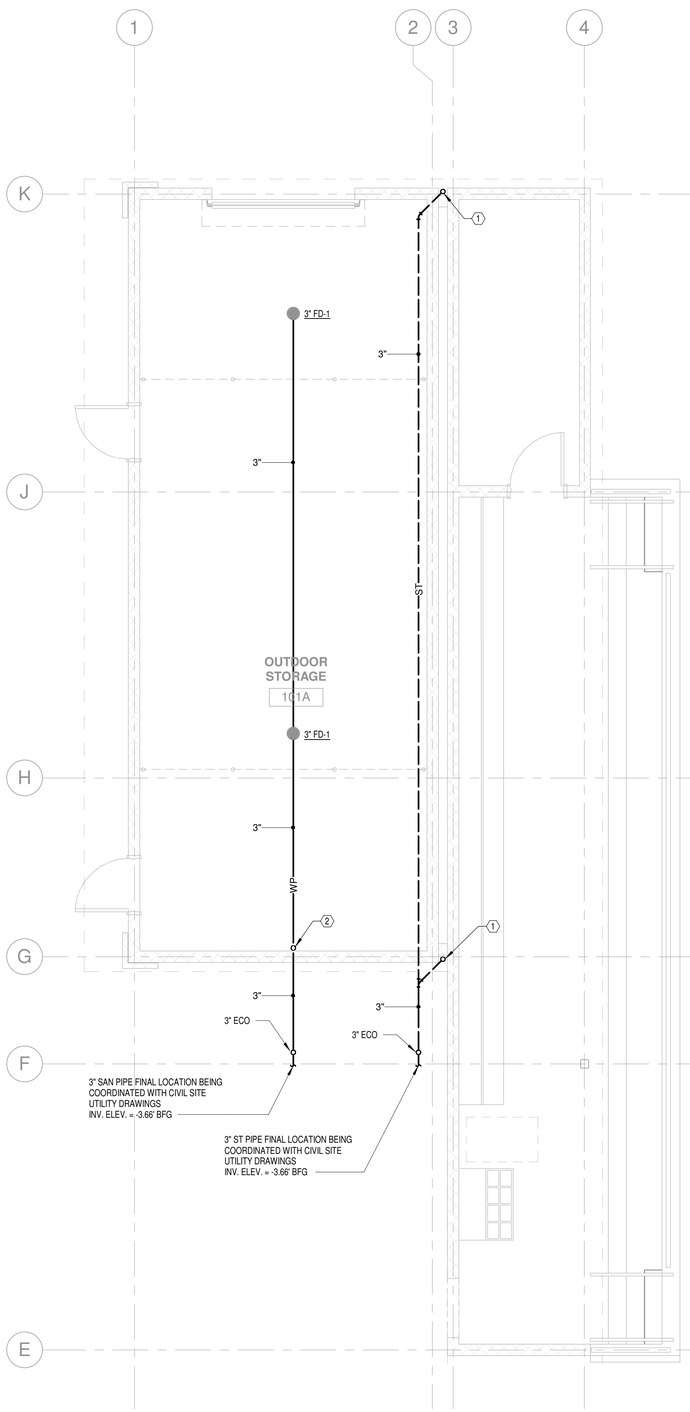
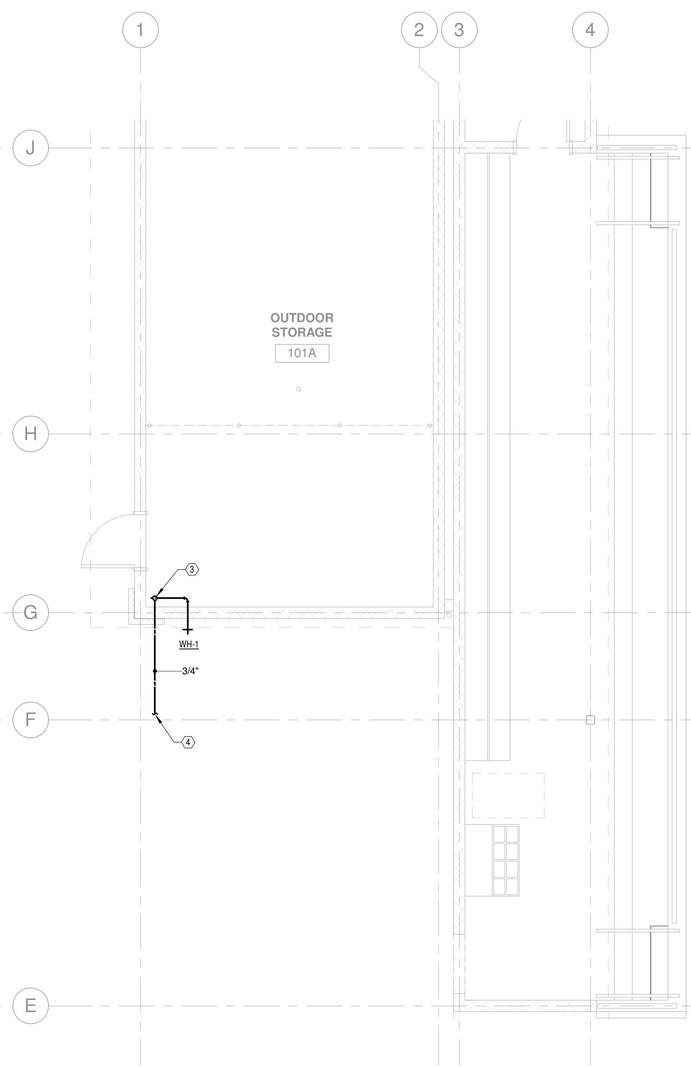
KEYED NOTES - NEW WORK

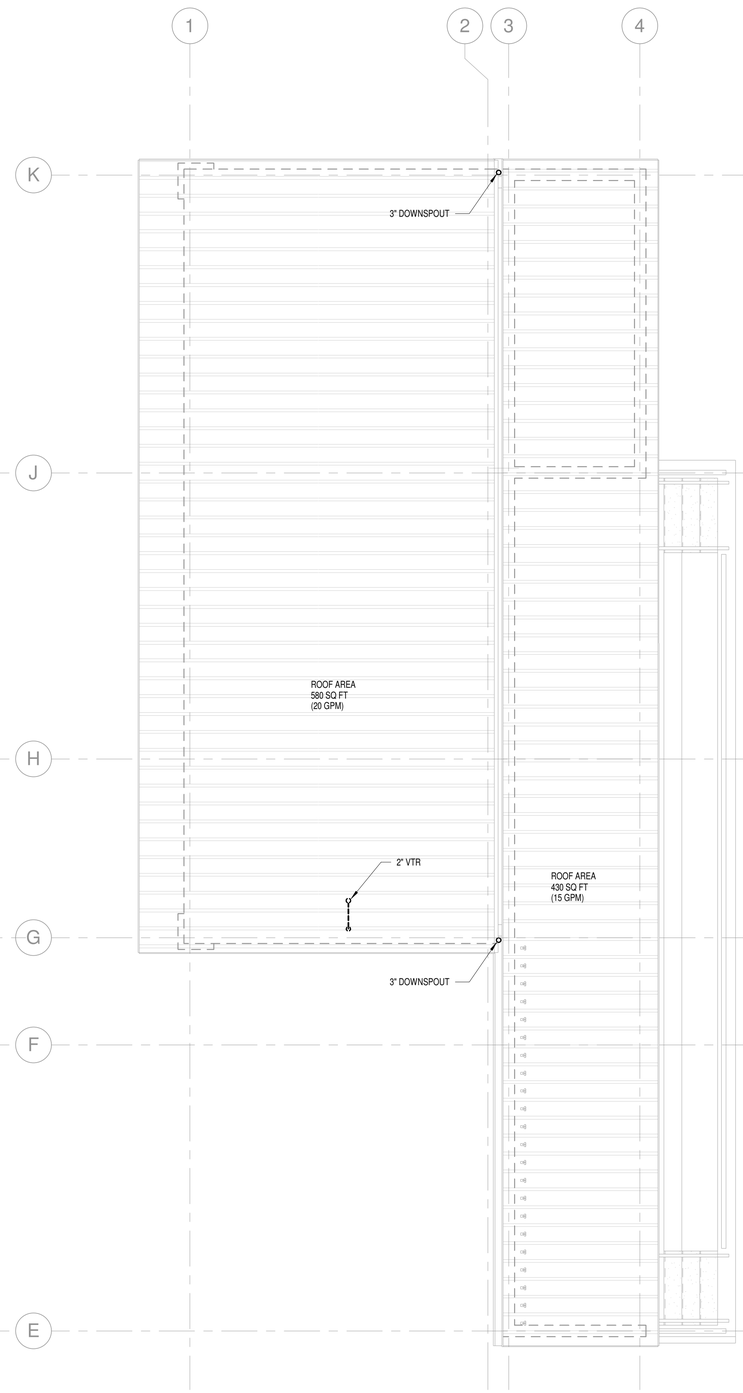
1. 3" DOWNSPOUT INTO 4"X3" DOWNSPOUT BOOT. BASIS OF DESIGN: ZURN MODEL Z192, 18" HIGH WITH CLEANOUT PLUG.
2. 2" VENT THROUGH ROOF (VTR). SECURE PIPE TO WALL.
3. 3/4" DOUBLE CHECK BACKFLOW PREVENTER (BFP) INSTALLED IN VERTICAL POSITION. ASSE 1015 COMPLIANT.
4. 3/4" DOMESTIC WATER SERVICE. COORDINATE LOCATION WITH CIVIL SITE UTILITY DRAWINGS.



1 P-101A **STORAGE-DUGOUT - SANITARY WASTE & VENT**
1/4" = 1'-0"



2 P-101A **STORAGE-DUGOUT - DOMESTIC WATER**
1/4" = 1'-0"



3 P-101A **ROOF PLAN - STORAGE-DUGOUT**
1/4" = 1'-0"

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Lic. No. 0402052214
PROFESSIONAL ENGINEER
SEAL: FEB 17 2023

STORAGE-DUGOUT FLOOR PLAN AND ROOF PLAN

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

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NUMBER:	P-101A

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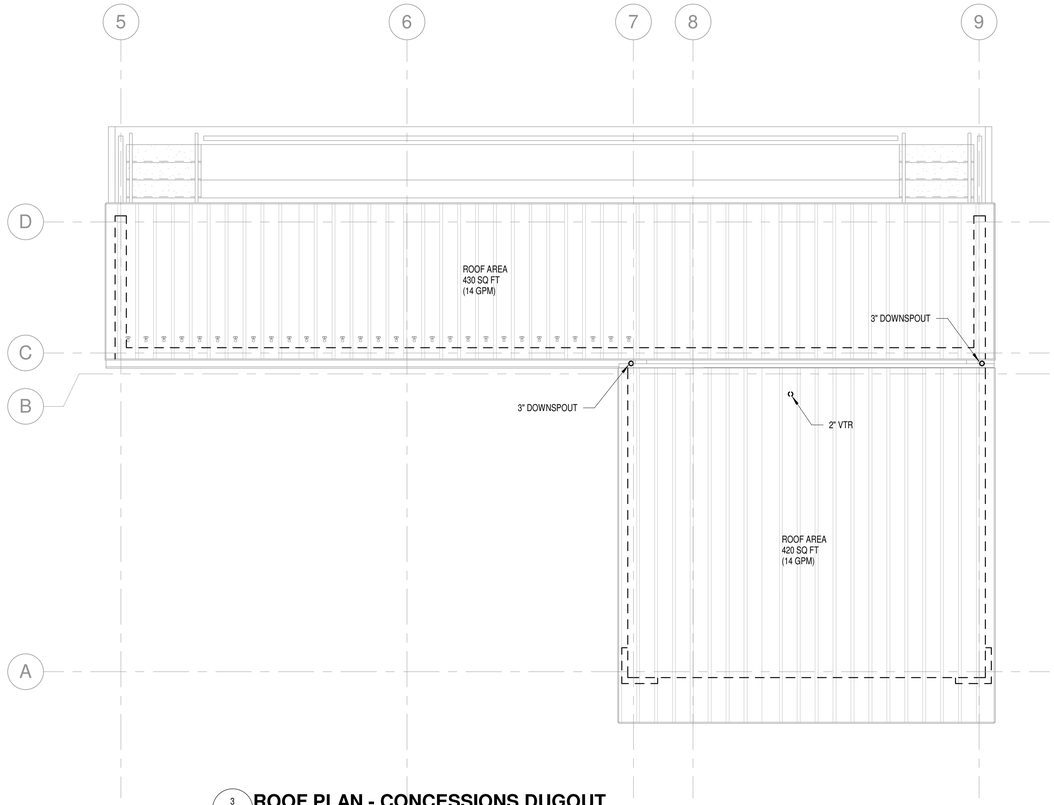
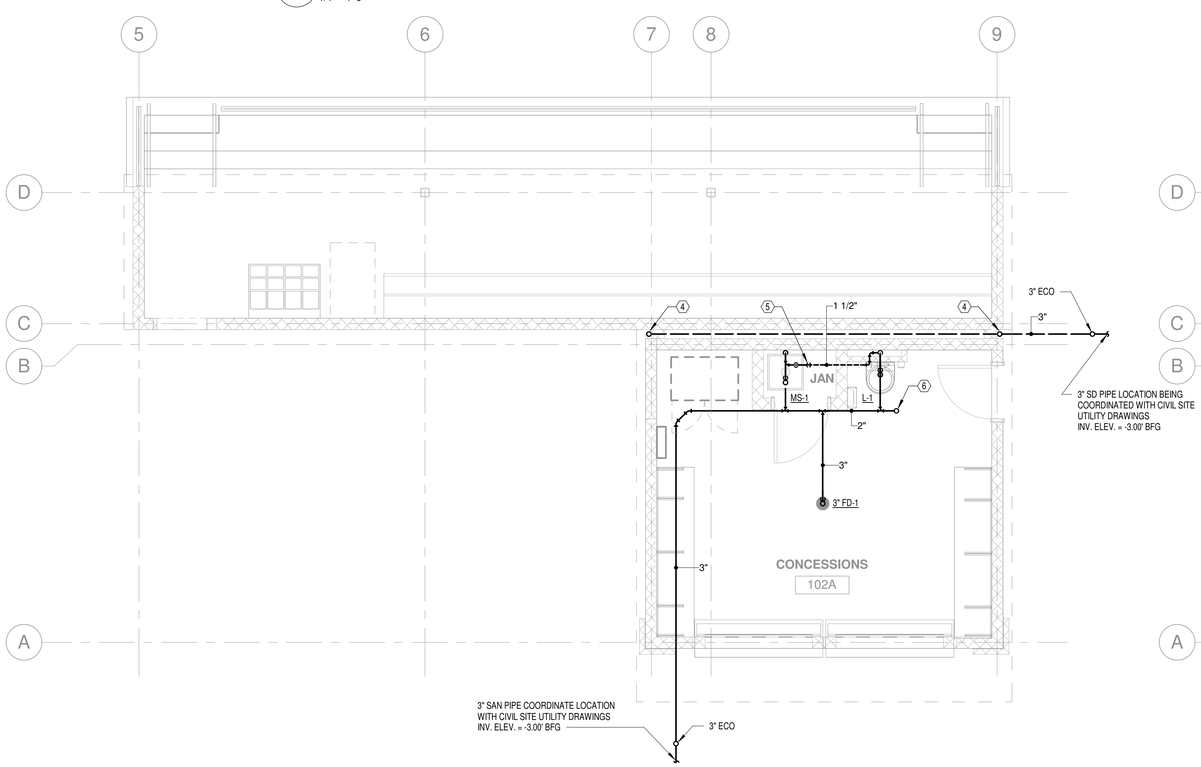


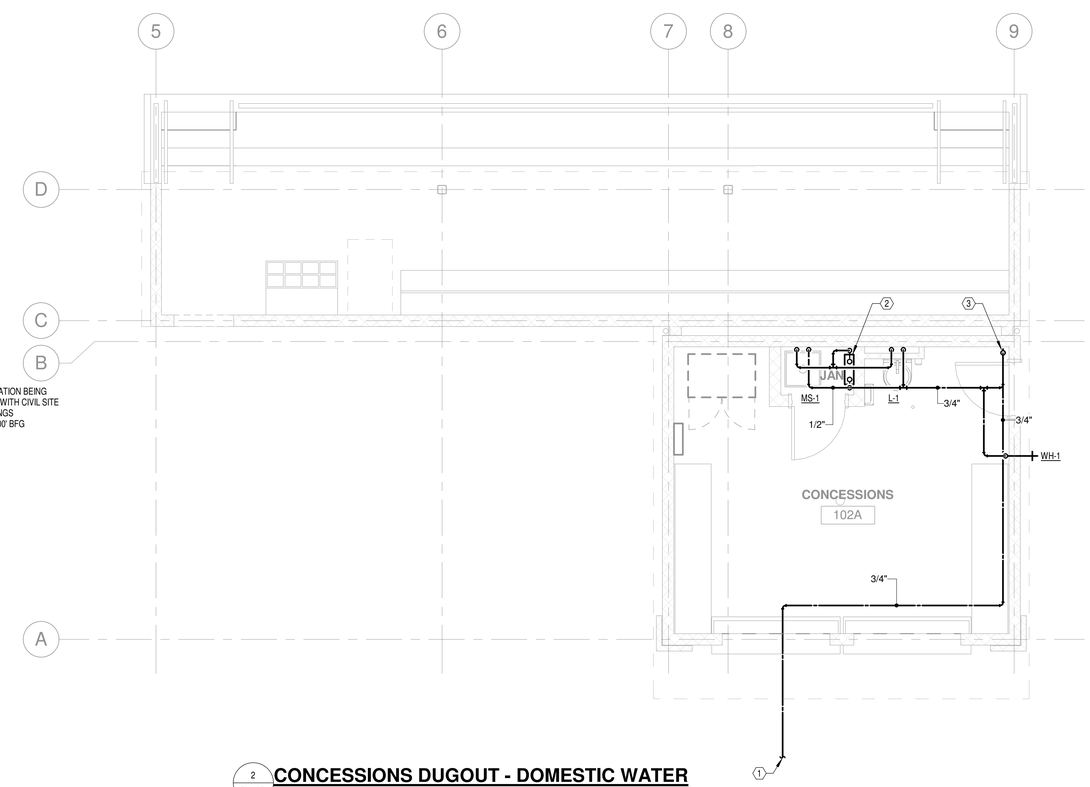
3 / P-101B **ROOF PLAN - CONCESSIONS DUGOUT**
1/4" = 1'-0"

KEYED NOTES - NEW WORK

1. 3/4" DOMESTIC WATER SERVICE. COORDINATE LOCATION WITH CIVIL SITE UTILITY DRAWINGS.
2. TANKLESS ELECTRIC WATER HEATER (EWH-1) MOUNTED ON WALL. BASIS OF DESIGN: EEMAX MODEL XTP027480, 27 KW, 480V, 3 PHASE, 0.5 ACTIVATION, 61-DEGREE F TEMP RISE @ 3.0 GPM. PROVIDE DISCONNECT SWITCH. REFER TO DETAIL ON DRAWING P-001.
3. 3/4" DOUBLE CHECK BACKFLOW PREVENTER (BFP) INSTALLED IN VERTICAL POSITION. ASSE 1015 COMPLIANT.
4. 3" DOWNSPOUT INTO 4"X3" DOWNSPOUT BOOT. BASIS OF DESIGN: ZURN MODEL Z192, 18" HIGH WITH CLEANOUT PLUG.
5. 2" VENT THROUGH ROOF (VTR).
6. 2" FLOOR CLEANOUT (FCO).



1 / P-101B **CONCESSIONS DUGOUT - SANITARY WASTE & VENT**
1/4" = 1'-0"



2 / P-101B **CONCESSIONS DUGOUT - DOMESTIC WATER**
1/4" = 1'-0"

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CONCESSIONS-DUGOUT FLOOR PLAN AND ROOF PLAN

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE:	02/17/2023
PLAN:	60% SUBMISSION
JOB:	2106
CADD:	
NCS:	
NUMBER:	P-101B

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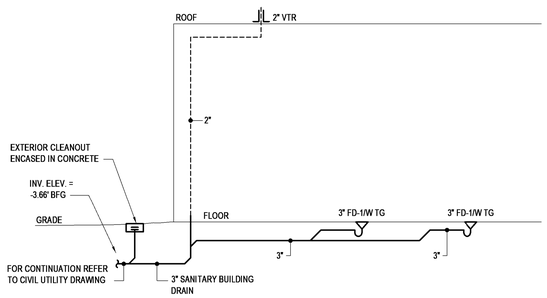
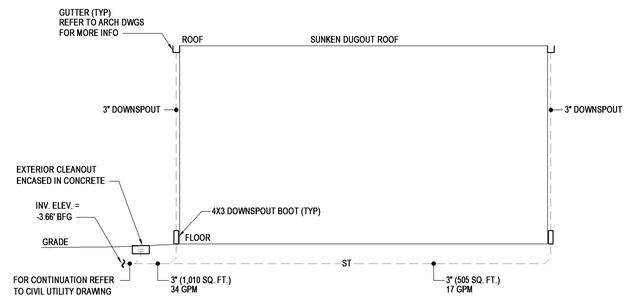


SANITARY RISER DIAGRAM - STORAGE DUGOUT

NO SCALE



STORM RISER DIAGRAM - STORAGE DUGOUT

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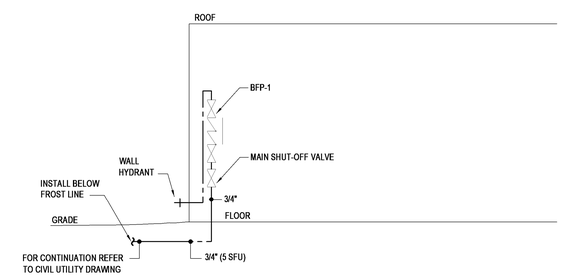

DOMESTIC WATER RISER DIAGRAM - STORAGE DUGOUT

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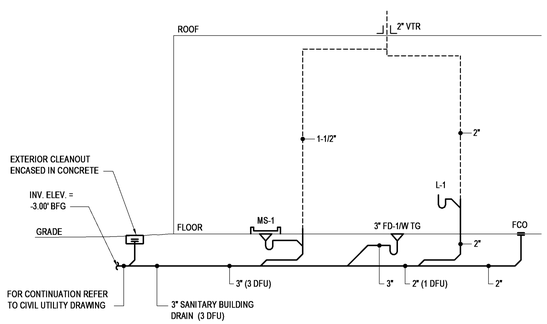
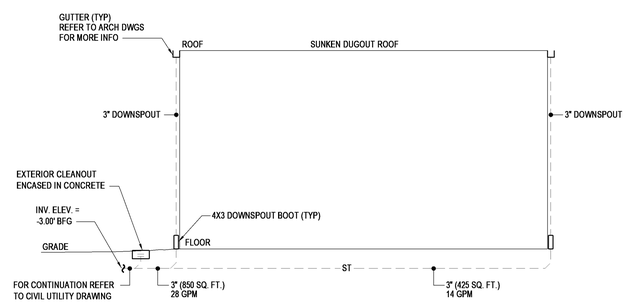


SANITARY RISER DIAGRAM - CONCESSIONS DUGOUT

NO SCALE



STORM RISER DIAGRAM - CONCESSIONS DUGOUT

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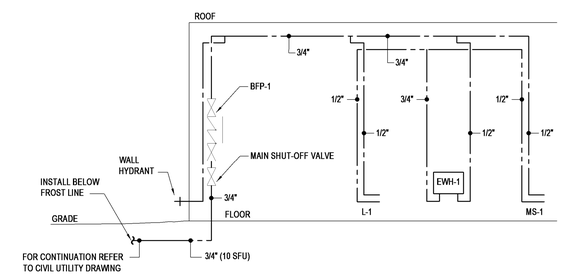

DOMESTIC WATER RISER DIAGRAM - CONCESSIONS DUGOUT

NO SCALE

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22630 DAVIS DRIVE, SUITE 175
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Engineering and Construction Services
530 Gaither Road, Suite 100, Rockville, MD 20850
240-268-1820 www.gpinet.com
Project #: 2200220.00
PM: MZZ M: HTL E: YWL P: SMT S:RKS

NUMBER	DATE	ISSUE

REVISIONS

COMMONWEALTH OF VIRGINIA
MATTHEW M. ZEJARELLI
Reg. No. 0402052214
PROFESSIONAL ENGINEER
SEAL: FEB 17 2023

RISER DIAGRAMS

EUGENE SIMPSON STADIUM PARK

426 E MONROE AVE, ALEXANDRIA, VA 22301

DATE: 02/17/2023
PLAN: 60% SUBMISSION
JOB: 2106
CADD:
NCS:
NUMBER: P-501

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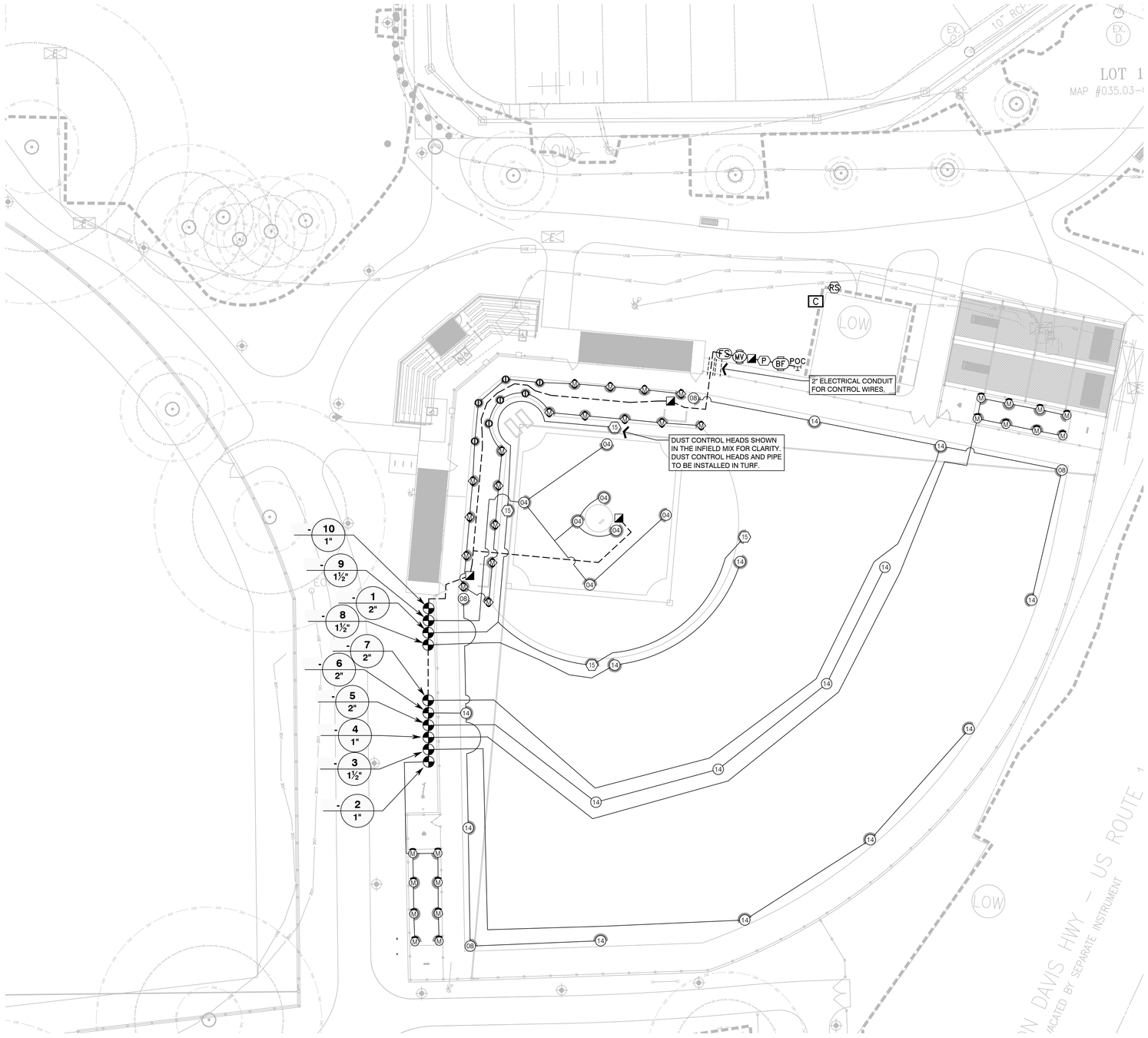

NORTH

20 10 0 20 40 60

GRAPHICAL SCALE: 1" = 20'

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
M L O	Hunter MP1000 PROS-06-PRS40-CV-F-R Turf Rotator, 6" pop-up with check valve, floguard, reclaimed body cap, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. M=Maroon adj arc 90 to 210, L=Light Blue 210 to 270 arc, O=Olive 360 arc.
800 A 800 F	Hunter MP800SR PROS-06-PRS40-CV-F-R Turf Rotator, 6" pop-up with check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. ADJ=Orange and Gray (arc 90-210), 360=Lime Green and Gray (arc 360)
M L O	Hunter MP815 PROS-06-PRS40-CV-F-R Turf Rotator, 6" pop-up with check valve, floguard, reclaimed body cap, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. M=Maroon and Gray adj arc 90 to 210, L=Light Blue and Gray 210 to 270 arc, O=Olive and Gray 360 arc

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
15	K-Rain 14053-SS (Dust Control Heads) 15 Turf Rotor with Triple Nozzle Configuration, 4.0" Pop-Up. Stainless Steel. With Factory Installed Check Valve. Adjustable and Full Circle. Radius from 45` to 77`. High Speed Nozzle. For Commercial and Sports Turf Applications
04	Rain Bird 8005-SS 04 Turf Rotor, 5" Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1" NPT Female Threaded Inlet.
08	Rain Bird 8005-SS 08 Turf Rotor, 5" Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1" NPT Female Threaded Inlet.
14	Rain Bird 8005-SS 14 Turf Rotor, 5" Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1" NPT Female Threaded Inlet.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Rain Bird PEB 1", 1-1/2", 2" Plastic Industrial Valves. Globe Configuration.
	Rain Bird 5-RC 1" Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Thermoplastic Rubber Cover, and 1-Piece Body.
MV	Rain Bird PESB 2" 1in., 1-1/2in., 2in. Plastic Industrial Master Valves. Low Flow Operating Capability, Globe Configuration. With Scrubber Technology.
BF	Zurn 975 2-1/2" Reduced Pressure Backflow Preventer installed inside a fiberglass enclosure.
C	Existing Irrigation Controller Existing Rain Bird controller to be relocated to this location.
RS	Rain Bird WR2-RFC Wireless Rain and Freeze Sensor Combo, includes 1 receiver and 1 rain/freeze sensor transmitter.
FS	Rain Bird FS-200-P 2in. Flow Sensor, Plastic PVC Model. Suggested Operating Range 10.0 GPM to 200.0 GPM.
P	Rain Bird Booster Pump Station Booster pump station. VFD drive. Pressure boost of 65 PSI at 65 GPM.
POC	Point of Connection: 65 GPM at 45 PSI New water connection. See Plumbing Plans.
	Irrigation Lateral Line: PVC Class 200 SDR 21
	Irrigation Mainline: PVC Class 200 SDR 21
	Pipe Sleeve: PVC Class 200 SDR 21

Valve Callout
- Valve Number
- Valve Flow
- Valve Size

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SURVEY AND MAPPING
SECURITY CONSULTING

REVISIONS

NUMBER	DATE	DESCRIPTION

SUR: | DES: KDS
DRW: KDS | CHK: MAK

MARC A. KOVACH
Certified Irrigation Designer
IRRIGATION ASSOCIATION
49690
SEAL:

IRRIGATION PLAN

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 1"=20' VERT:
DATE: FEBRUARY 17, 2023
PLAN:
JOB: 3584-0101
CADD:
NCS:
NUMBER: I-100

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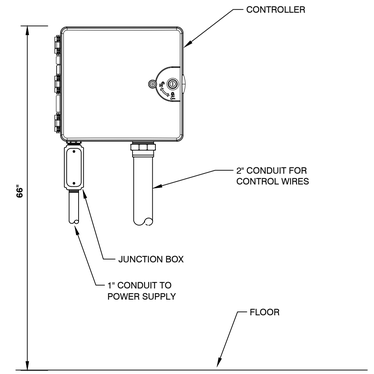
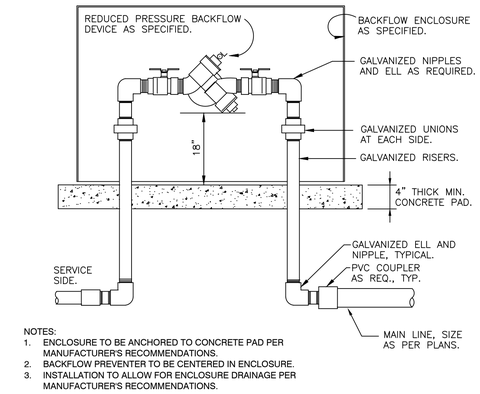
IRRIGATION NOTES

1. IRRIGATION POINT OF CONNECTION SHALL BE CAPABLE OF PROVIDING A PEAK FLOW RATE OF 65 GPM AND CONSTANT PRESSURE OF 45 PSI. POINT OF CONNECTION SHALL BE ABLE TO MAINTAIN THE MAXIMUM SPECIFIED FLOW RATE AND PRESSURE FOR THE DURATION OF AN IRRIGATION CYCLE. THE CONTRACTOR SHALL VERIFY THESE PARAMETERS AND NOTIFY OWNER'S REPRESENTATIVE AND IRRIGATION CONSULTANT IF THEY CANNOT BE MET.
2. IRRIGATION POINT OF CONNECTION SHALL BE PROTECTED BY A RPZ TYPE BACKFLOW PREVENTION DEVICE. WATER AVAILABLE DOWNSTREAM OF THE BACKFLOW PREVENTION DEVICE SHALL ONLY BE USED FOR IRRIGATION PURPOSES AND NO CROSS-CONNECTION SITUATIONS SHALL EXIST. IRRIGATION CONTRACTOR SHALL VERIFY THAT A BACKFLOW PREVENTION DEVICE IS PROPERLY INSTALLED, AND WITHOUT CROSS-CONNECTIONS, PRIOR TO SYSTEM OPERATION. IF IT IS NOT PROPERLY INSTALLED, OR A CROSS-CONNECTION EXISTS, CONTRACTOR SHALL NOTIFY OWNER AND IRRIGATION CONSULTANT AND SYSTEM SHALL BE CONSIDERED INOPERABLE UNTIL PROPERLY INSTALLED.
3. IRRIGATION SYSTEM IS DISPLAYED SCHEMATIC IN NATURE. MINOR FIELD ADJUSTMENTS MAY BE NECESSARY TO ACCOMMODATE FOR SITE CONDITIONS. THESE ADJUSTMENTS MAY BE MADE ONLY AFTER NOTIFYING THE OWNER'S REPRESENTATIVE AND IRRIGATION CONSULTANT.
4. MAINLINE, LATERALS AND CONTROL WIRES SHALL BE INSTALLED INSIDE THE SAME TRENCH WHENEVER POSSIBLE.
5. PIPE SIZING SHALL ALWAYS GO FROM LARGER TO SMALLER IN SIZE, IN THE DIRECTION OF FLOW, AS NOTED ON THE PLAN. VELOCITY OF WATER SHALL NEVER EXCEED 5 FEET PER SECOND. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THIS PRIOR TO AND DURING INSTALLATION. PIPE SIZES 1 1/4", 3/4", 1/2" OR SMALLER SHALL NOT BE USED.
6. SYSTEM TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
7. CONTROLLER SHALL BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS.
8. CONTROL WIRES SHALL BE NO. 14 AWG OR LARGER COPPER WIRE UL-APPROVED FOR DIRECT BURIAL IN GROUND. COMMON WIRE SHALL BE NO. 14 AWG OR LARGER COPPER WIRE UL-APPROVED FOR DIRECT BURIAL AND WHITE IN COLOR. SPARE WIRES SHALL BE NO. 14 AWG OR LARGER COPPER WIRE UL-APPROVED FOR DIRECT BURIAL AND BLUE IN COLOR. TWO SPARE WIRES SHALL BE RAN TO THE END OF EACH MAINLINE SPUR. ALL OTHER CONTROL WIRES SHALL BE RED IN COLOR.
9. ALL FIELD WIRE ABOVE GRADE OR WITHIN STRUCTURE TO BE INSTALLED IN CONDUIT PER LOCAL CODE.
10. ALL UNDERGROUND SPLICES TO UTILIZE 3M DBR/Y WATER PROOF SPLICE KITS. ALL SPLICES SHALL BE MADE INSIDE A VALVE BOX.
11. ALL VALVE BOXES SHALL BE INSTALLED OUTSIDE OF THE "FIELD OF PLAY".
12. DEPTH OF IRRIGATION PIPING: 24" ON MAINLINE; 18" ON LATERALS.
13. DEPTH OF SLEEVING SHALL BE 36" IN AREAS EXPERIENCING VEHICULAR TRAFFIC. ALL OTHER AREAS SHALL BE 24".
14. SEE SUPPLEMENTAL IRRIGATION SPECIFICATIONS SECTION 32 84 00 FOR ADDITIONAL IRRIGATION INSTALLATION SPECIFICATIONS AND REQUIREMENTS.
15. UNDERGROUND UTILITIES TO BE VERIFIED BEFORE ANY INSTALLATION BEGINS.
16. SPRINKLERS SHALL BE INSTALLED FLUSH AND PLUMB WITH FINISHED GRADE. SPRINKLERS SHALL BE INSTALLED ON PRE-MANUFACTURED SWING JOINTS. SIZE OF SWING JOINT SHALL MATCH THE INLET SIZE OF THE SPRINKLER. CONNECTIONS MAY ONLY BE MADE TO THE BOTTOM INLET OF SPRINKLER.
17. CHECK VALVES SHALL BE INSTALLED ON ALL SPRINKLERS.

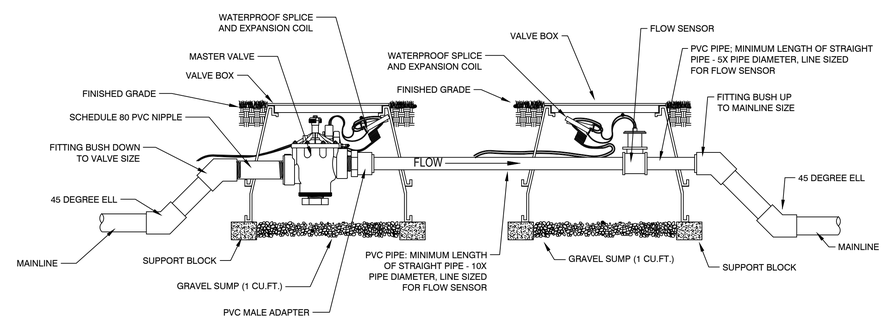


A IRRIGATION CONTROLLER
NOT TO SCALE K-CO-02

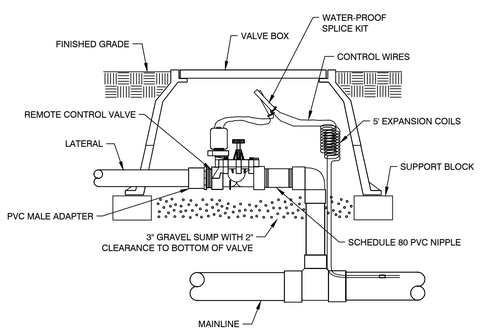


NOTES:
1. ENCLOSURE TO BE ANCHORED TO CONCRETE PAD PER MANUFACTURER'S RECOMMENDATIONS.
2. BACKFLOW PREVENTER TO BE CENTERED IN ENCLOSURE.
3. INSTALLATION TO ALLOW FOR ENCLOSURE DRAINAGE PER MANUFACTURER'S RECOMMENDATIONS.

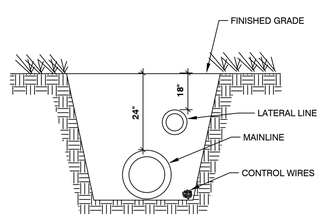
B RPZ BACKFLOW W/ENCLOSURE
NOT TO SCALE K-MI-11



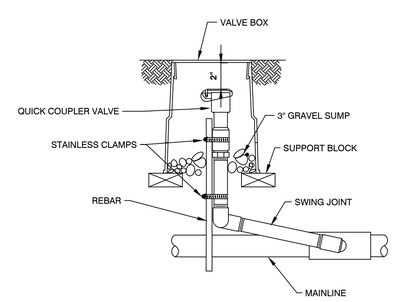
C REMOTE CONTROL MASTER VALVE AND FLOW SENSOR
NOT TO SCALE K-VA-01



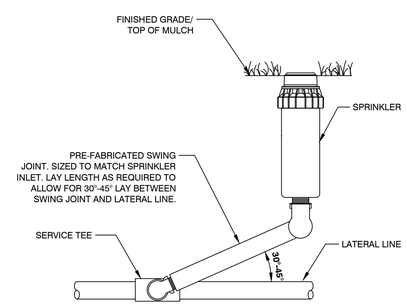
D REMOTE CONTROL VALVE
NOT TO SCALE K-VA-06



E TYPICAL TRENCH
NOT TO SCALE K-MI-01



F QUICK COUPLER VALVE
NOT TO SCALE K-VA-05



G SPRINKLER
NOT TO SCALE K-SP-05

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REVISIONS		
NUMBER	DATE	DESCRIPTION

SUR:	DES: KDS
DRW: KDS	CHK: MAK

MARC A. KOVACH
Certified Irrigation Designer
IRRIGATION ASSOCIATION
49690
SEAL:

IRRIGATION NOTES & DETAILS

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE:	HORIZ: NOT TO SCALE VERT:
DATE:	FEBRUARY 17, 2023
PLAN:	
JOB:	3584-0101
CADD:	
NCS:	
NUMBER:	I-101

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SHEET INDEX

AV-001	NOTES
AV-002	NOTES
AV-401	PRESS BOX AND BLEACHERS ENLARGEMENT - AUDIOVISUAL
AV-501	DETAILS
AV-601	LINE DIAGRAMS

ABBREVIATIONS

AAC	ABOVE ACCESSIBLE CEILING
ACS	ACCESS CONTROL SYSTEM
ACT	ACOUSTICAL CEILING TILE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
ATS	AUTOMATIC TRANSFER SWITCH
AVC	AUDIOVISUAL CONTRACTOR
AVCT	AUDIOVISUAL CABLE TRAY
AVR	AUDIO VIDEO RACK
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BBC	BACKBONE BONDING CONDUCTOR
BET	BUILDING ENTRANCE TERMINAL
BFC	BELOW FINISHED CEILING
BFF	BELOW FINISHED FLOOR
BICSI	BUILDING INDUSTRY CONSULTING SERVICES INTERNATIONAL
BMS	BUILDING MANAGEMENT SYSTEM
BRF	BELOW RAISED FLOOR
BTS	BASE TRANCEIVER STATION
CATV	CABLE TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CT	CABLE TRAY
DAS	DISTRIBUTED ANTENNA SYSTEM
EC	ELECTRICAL CONTRACTOR
EF	ENTRANCE FACILITY
EMT	ELECTRICAL METALLIC TUBING
ER	EQUIPMENT ROOM
ESD	ELECTROSTATIC DISSIPATIVE (FLOORING)
ESS	ELECTRONIC SAFETY AND SECURITY
ETS	EMERGENCY TRANSFER SWITCH
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FOC	FIBER OPTIC CABLE
FOV	FIELD OF VIEW
FRT	FIRE RETARDANT TREATED
GC	GENERAL CONTRACTOR
GE	GROUNDING EQUALIZER
GND	GROUND
GPS	GLOBAL POSITIONING SYSTEM
GUI	GRAPHICAL USER INTERFACE
HH	HAND HOLE
HVAC	"HEATING, VENTILATION, AND AIR CONDITIONING"
ID	INSIDE DIAMETER
IDF	INTERMEDIATE DISTRIBUTION FACILITY
JB	JUNCTION BOX
KO	KNOCK OUT
LAN	LOCAL AREA NETWORK
LCR	LIGHTING CONTROL RACK
LDR	LIGHTING DIMMER RACK
LVC	LOW VOLTAGE CONTROLLER
MC	MECHANICAL CONTRACTOR
MDF	MAIN DISTRIBUTION FACILITY
MER	MAIN EQUIPMENT ROOM
MH	MANHOLE OR MAINTENANCE HOLE
MIC	MICROPHONE
MM	MULTIMODE FIBER
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OSP	OUTSIDE PLANT
PB	PULL BOX
PBB	PRIMARY BONDING BUSBAR
PC	PLUMBING CONTRACTOR
PDU	POWER DISTRIBUTION UNIT
POE	POWER OVER ETHERNET
PON	PASSIVE OPTICAL NETWORK
PP	PATCH PANEL
PSRH	PROJECT STANDARD RECEPTACLE HEIGHT
PSSH	PROJECT STANDARD SWITCH HEIGHT
PTZ	PAN/ TILT/ ZOOM
RAF	RAISED ACCESS FLOOR
RAU	REMOTE ANTENNA UNIT
RC	REMOTE CONTROL
RCP	REFLECTED CEILING PLAN
RGS	RIGID GALVANIZED STEEL
SATV	SATELLITE ANTENNA TELEVISION
SBB	SECONDARY BONDING BUSBAR
SC	SECURITY CONTRACTOR
SCC	STRUCTURED CABLING CONTRACTOR
SEC	STAGE EQUIPMENT CONTRACTOR
SM	SINGLE MODE FIBER
SP	SPEAKER
STC	STUB TO CABLE TRAY
STD	STANDARD
STP	SHIELDED TWISTED PAIR CABLE
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TBC	TELECOMMUNICATIONS BONDING CONDUCTOR
TBD	TO BE DETERMINED
TC	TELECOM CLOSET
TE	TELECOMMUNICATIONS ENCLOSURE
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TR	TELECOMMUNICATIONS ROOM
TYP	TYPICAL
UG	UNDER GROUND
UON	UNLESS OTHERWISE NOTED
UTP	UNSHIELDED TWISTED PAIR CABLE
VOIP	VOICE OVER IP
W/L	WIRELESS
WAN	WIDE AREA NETWORK
WAP	"WIRELESS ACCESS POINT, WIFI"
WP	WEATHERPROOF
W	WATT
WPS	WINDOW POSITION SENSOR

GENERAL PROJECT NOTES

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL AV DEVICES.
2. DEVICE ICONS ARE NOT SCALED. DEVICE WILL BE CENTERED WHERE THE SYMBOL IS LOCATED AT EACH FLOOR, CEILING, AND WALL LOCATION.
3. WOOD BLOCKING IS REQUIRED AT ALL WALL MOUNTED RACK AND SPEAKER LOCATIONS AND SHALL BE PROVIDED AND INSTALLED BY GC.
4. ALL AV PLATES TO BE PROVIDED AND INSTALLED BY AVC UNLESS OTHERWISE NOTED.

AV CONDUIT AND BACK BOX REQUIREMENTS

1. AV DRAWINGS DO NOT INCLUDE CONDUIT FOR ELECTRICAL OR TELECOM REQUIREMENTS.
2. CONDUIT ARROWS ON DRAWINGS DO NOT REPRESENT OR SHOW DIRECTION OR PATH OF CONDUIT.
3. ALL JUNCTION BOXES, BACK BOXES, AND CONDUIT ARE TO BE SUPPLIED AND INSTALLED BY EC UNLESS OTHERWISE NOTED.
4. INSTALL ALL CONDUIT WITH PULL STRING. ANY INSTALLED CONDUIT NOT USED DURING PROJECT SHALL HAVE PULL STRING REMAIN IN PLACE FOR FUTURE USE.
5. ALL FIXTURE BOXES ASSUME DOUBLE DEEP UNLESS OTHERWISE NOTED.
6. ALL AV CONDUIT IS 1" UNLESS OTHERWISE NOTED.
7. AVC TO PROVIDE BLANK COVER PLATES FOR ALL AUDIOVISUAL WALL/ FLOOR BOXES THAT ARE NOT UTILIZED.
8. INSTALL RACEWAY AND OUTLET BOX SYSTEM CONTINUOUS FROM OUTLET TO JUNCTION BOX AND TO EQUIPMENT LOCATION WITH NO MORE THAN FOUR (4) QUARTER BENDS (360 DEGREES TOTAL).
9. PULL BOXES SHALL BE PROVIDED EVERY 100 FEET OF CONTINUOUS CONDUIT RUN.
10. PULL BOXES SHALL NOT BE USED IN-LIEU OF CONDUIT BENDS. PULL BOXES ARE FOR STRAIGHT-THROUGH CABLE ROUTING ONLY.
11. INSTALL RACEWAY FROM OUTLET BOXES TO CABLE TRAY IN CORRIDOR AS INDICATED WHERE REQUIRED.
12. INSTALL RACEWAY FROM OUTLET BOXES TO ACCESSIBLE CEILING SPACES WHERE REQUIRED.
13. ALL J-HOOKS REQUIRED TO SUPPORT AV CABLE TO BE INSTALLED BY GC.
14. BUSH AND REAM ALL CONDUIT ENDS. TERMINATE WITH INSULATED BUSHING IF CONDUIT END IS EXPOSED.
15. WHERE CABLE TRAY/ LADDER IS NOT UTILIZED, MAKE CONTINUOUS RUNS FROM BOX TO BOX WITH ISOLATION FROM BUILDING SYSTEMS AS REQUIRED.
16. PROVIDE SLEEVES AND APPROPRIATE WALL PENETRATIONS AS NEEDED FOR CABLE PATHWAYS FROM OUTLET AND JUNCTION BOX LOCATIONS TO CORRIDOR CABLE TRAY AND/OR J-HOOKS. MINIMUM SLEEVE SIZE FOR TYPICAL SPACES SHALL BE 2" EMT. FIRESTOP PER CODE AND FIREWALL RATINGS.

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Stan Simpson
#420313
Expires:
2025/10/31
AVIXA

SEAL:

NOTES

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: FEBRUARY 17, 2023
PLAN:
JOB: 3584–0101
CADD:
NCS:
NUMBER: AV-001

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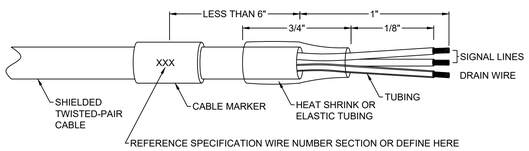
AV INFRASTRUCTURE DEVICE LEGEND

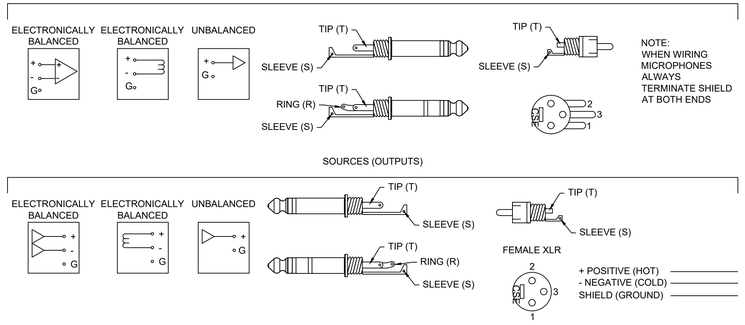
- XXX — WALL MOUNTED BOX/ DEVICE
- XXX — FLUSH MOUNTED BOX/ DEVICE IN FLOOR OR CEILING
- S — CEILING SPEAKER
- AVR — AUDIOVISUAL EQUIPMENT RACK
- XXX — PROJECTION SCREEN (SEE DEVICE SCHEDULE)
- STANDARD NETWORK OUTLET TO SUPPORT AV DEVICE
- 120 VOLT, 20 AMP QUAD POWER RECEPTACLE (UNLESS OTHERWISE NOTED)
- 120 VOLT, 20 AMP DUPLEX POWER RECEPTACLE (UNLESS OTHERWISE NOTED)
- NEMA L5-20R TWIST LOCK RECEPTACLE
- NEMA L6-30R TWIST LOCK RECEPTACLE
- AV — 120 VOLT, 20 AMP QUAD POWER RECEPTACLE (UNLESS OTHERWISE NOTED) FOR AUDIOVISUAL
- AV — 120 VOLT, 20 AMP DUPLEX POWER RECEPTACLE (UNLESS OTHERWISE NOTED) FOR AUDIOVISUAL

WIRE LABELING DETAIL



AUDIO PIN WIRING DETAIL

LOADS (INPUTS)



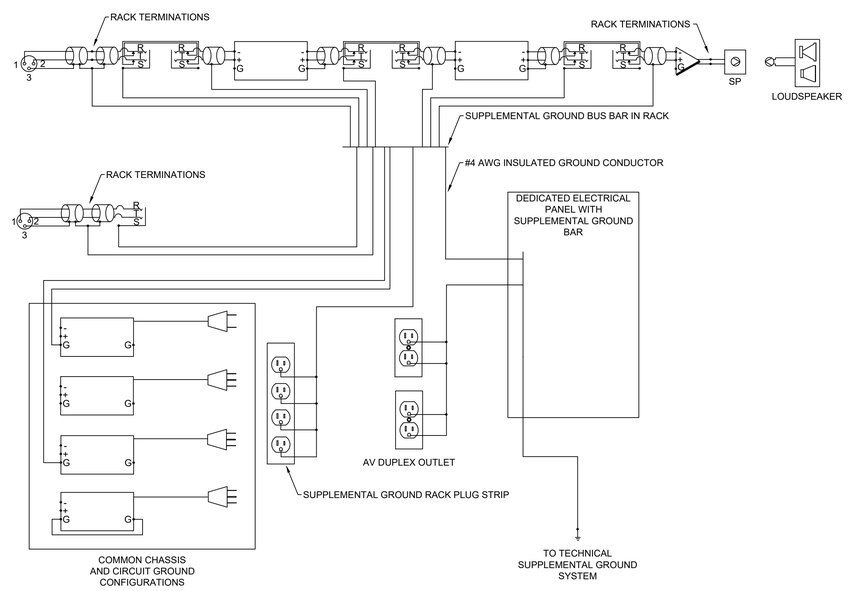
NOTE:
WHEN WIRING MICROPHONES ALWAYS TERMINATE SHIELD AT BOTH ENDS

SOURCES (OUTPUTS)

DEVICE SCHEDULE

DEVICE NAME	DESCRIPTION	POWER	PHONE/DATA	BOX SIZE	HEIGHT	COMMENTS
AVR	WALL MOUNTED AUDIO EQUIPMENT RACK	YES (DUPLEX x2)	NO	MA DWR-16-22PD	48" AFF	MIDDLE ATLANTIC DWR-16-22PD
RF	WALL MOUNTED BOX AND PLATE FOR RF ANTENNA	NO	NO	2-GANG	84" AFF	
SP1	POLE WITH MODIFIED WEATHERPROOF GASKET FOR POLE MOUNTED LOUDSPEAKERS	NO	NO	T.B.D.	T.B.D	
SP2	WALL MOUNTED BOX AND PLATE FOR PRESS BOX MOUNTED LOUDSPEAKERS	NO	NO	1-GANG	84" AFF	
WP1	WALL MOUNTED BOX AND PLATE FOR MICROPHONE CONNECTIONS	YES (DUPLEX)	NO	2-GANG	18" AFF	

TECHNICAL GROUNDING DETAILS



LINE DIAGRAM LEGENDS

SYMBOLS

- ANTENNA
- CHANNEL
- BRIDGED CHANNEL
- AMP
- TYPE
- AUDIO INPUT
- AUDIO OUTPUT
- INPUT
- OUTPUT
- COMMUNICATION PORT CONNECTION
- PATCH CONNECTION
- CATEGORY CABLE PATCH CORD
- FIBER PATCH CORD
- EQUIPMENT
- PATCH BAY
- CONNECTOR TYPE
- PLATE/ BOX NAME
- CABLES PASS THRU GROMMET IN PLATE
- PLATE/ BOX NAME
- MASS CONNECTOR (NUMBER OF TERMINATIONS MAY VARY)
- FACEPLATE
- MONITOR PATCH PANEL
- INPUT
- SCREEN CASE
- SCREEN
- SCREEN TYPE
- WALL MOUNTED SCREEN CONTROL
- PROJECTION SCREEN
- TRANSFORMER
- TAP VALUE
- QUANTITY
- TYPE AND LOCATION
- CONE SIZE
- 70V SPEAKER
- QUANTITY
- TYPE AND LOCATION
- CONE SIZE
- 8Ω SPEAKER
- TYPE AND LOCATION
- CABINET SPEAKER
- CHANNEL ASSIGNMENT
- PARALLEL
- TERMINATION STRIP
- VOLUME CONTROL

CONNECTION TYPES

SYMBOL	CONNECTOR
1/4	TRS PHONE
1/8	3.5MM TRS MINI PHONE
BNC	BAYONET NEILL-CONCELMAN
DIN	DEUTSCHES INSTITUT FÜR NORMUNG
DP	DISPLAY PORT
DVID	DVI-DIGITAL DUAL LINK
DVII	DVI-INTEGRATED DUAL LINK
F	COAX F
HD15	VGA 15-PIN
HD9	RS232 9-PIN
HDMI	HDMI
LC	FIBER OPTIC LC
LGT	LIGHTNING
MASS	MASS CONNECTOR
MXLR	MINI XLR MALE
NL4	NEUTRIK NL4
NL8	NEUTRIK NL8
PHX	PHOENIX
RCA	PHONO
RJ11	PHONE CONNECTOR
RJ45	CATEGORY CABLE
SC	FIBER OPTIC SC
SJ45	SHIELDED RJ45
ST	FIBER OPTIC ST
SVID	S-VIDEO MINI DIN
USBA	UNIVERSAL SERIAL BUS - TYPE A
USBB	UNIVERSAL SERIAL BUS - TYPE B
USBM	UNIVERSAL SERIAL BUS - TYPE B MINI
XLR	XLR FEMALE
XLR4	XLR 4-PIN FEMALE
XLR5	XLR 5-PIN FEMALE
XLRC	COMBO XLR 1/4" STEREO JACK
XLRM	XLR MALE

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NOTES

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: N/A VERT: N/A
DATE: FEBRUARY 17, 2023
PLAN:
JOB: 3584-0101
CADD:
NCS:
NUMBER: AV-002

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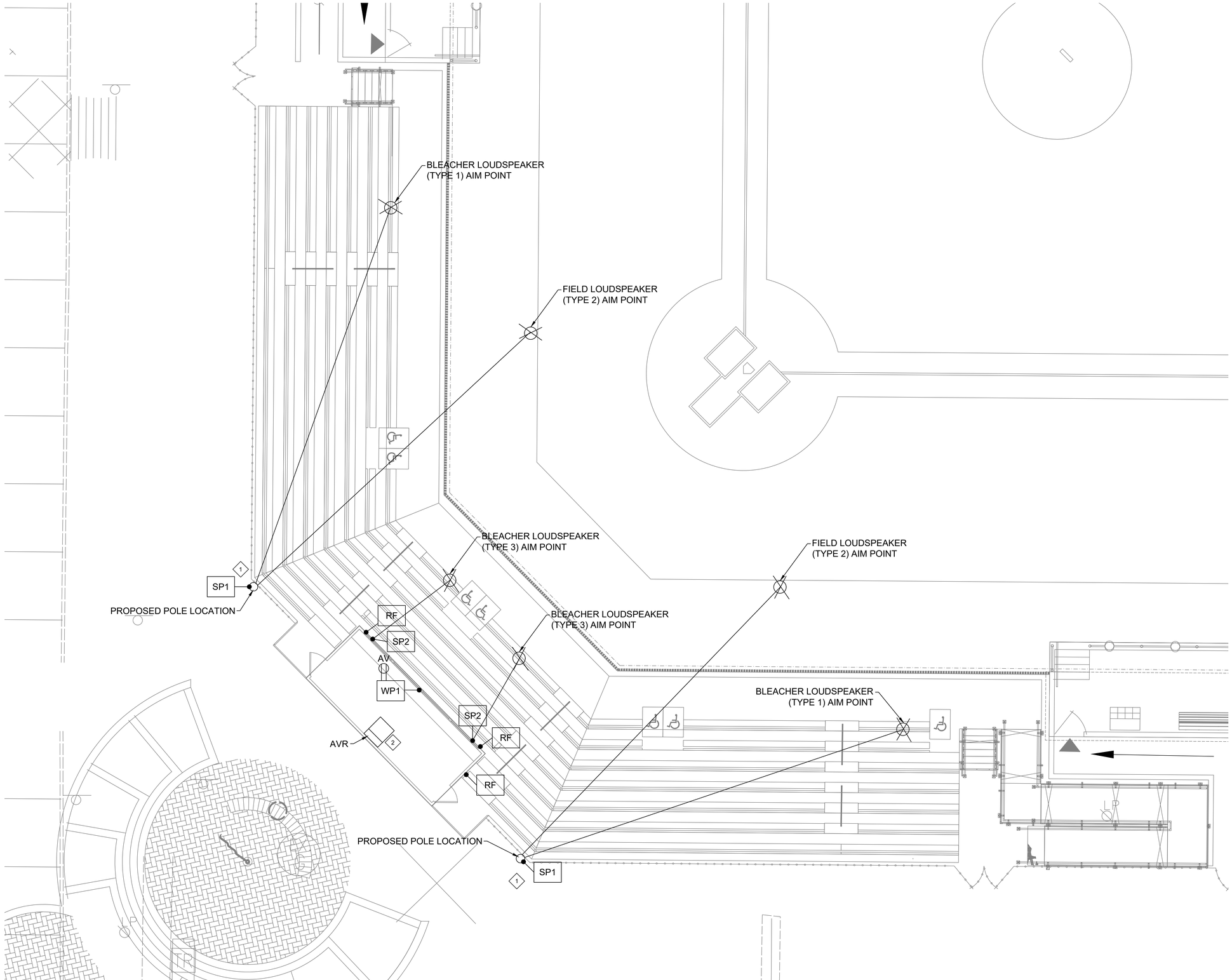

DEVICE	CONDUIT
AVR	NONE
RF	1" TO AVR
SP1	1" TO AVR
SP2	3/4" TO AVR
WP1	1" TO AVR

KEY NOTE: #

1. LOUDSPEAKER TYPES 1 AND 2 ARE TO BE POLE MOUNTED TO A FUTURE POLE. SEE AV501 DETAIL 1.
2. EC TO PROVIDE AND INSTALL (2) DEDICATED 20A, 120V CIRCUITS WITH DUPLEX RECEPTACLES FOR AVR. SEE AV501 DETAIL 6.

1 / AV401 PRESS BOX AND BLEACHERS ENLARGEMENT - AUDIOVISUAL
SCALE: 3/16" = 1'-0"

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PRESS BOX AND BLEACHERS ENLARGEMENT - AUDIOVISUAL

EUGENE SIMPSON STADIUM PARK

BALL FIELDS RENOVATION
City of Alexandria, Virginia

SCALE: HORIZ: 3/16" = 1'-0"
VERT: N/A
DATE: FEBRUARY 17, 2023
PLAN:
JOB: 3584–0101
CADD:
NCS:
NUMBER: AV-401
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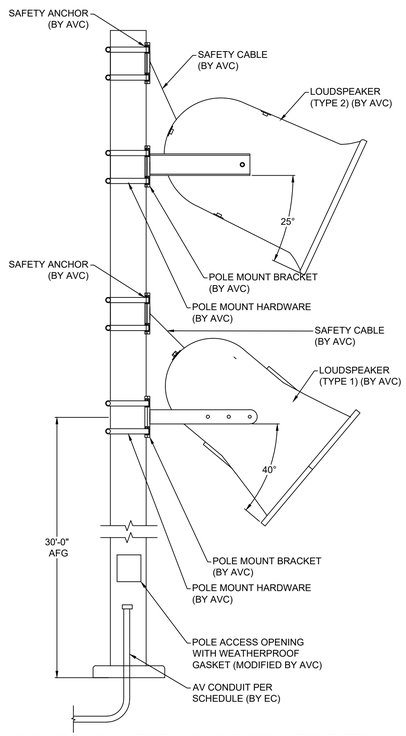
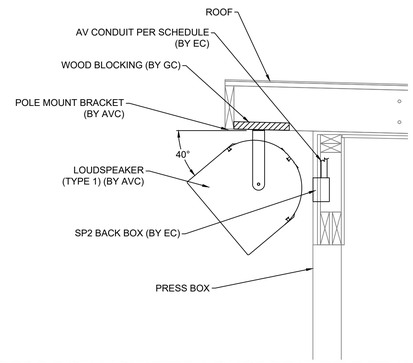
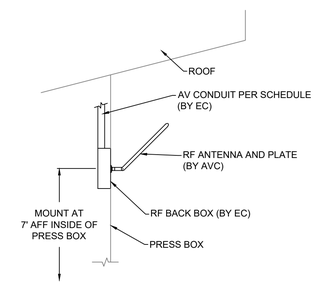
GENERAL NOTES:
1. EXACT SPEAKER MOUNTING ANGLES TO BE FIELD COORDINATED BY AVC FOR PROPER SPEAKER COVERAGE.



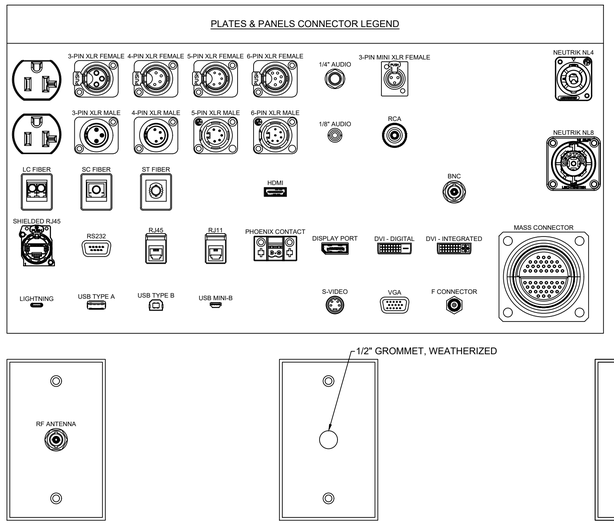
1 AV501 POLE MOUNTED LOUDSPEAKER DETAIL (SP1)
SCALE: NTS



2 AV501 PRESS BOX MOUNTED LOUDSPEAKER DETAIL (SP2)
SCALE: NTS

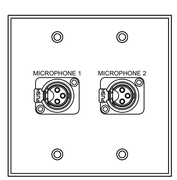


3 AV501 PRESS BOX MOUNTED RF ANTENNA DETAIL (RF)
SCALE: NTS



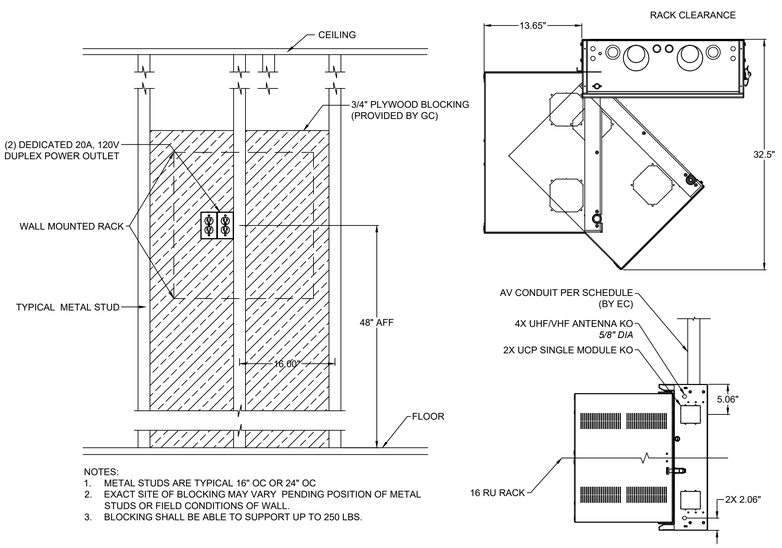
RF
WIRELESS ANTENNA PLATE
QUANTITY: SEE DRAWINGS
SIZE: ONE GANG
FINISH: STAINLESS STEEL
NOTE: PROVIDE WITH APPROPRIATE REDUCER RING

SP1 SP2
OUTDOOR LOUDSPEAKER PASS-THRU PLATE
QUANTITY: SEE DRAWINGS
SIZE: ONE GANG
FINISH: STAINLESS STEEL
NOTE: SP1 PLATE TO BE COORDINATED WITH POLE



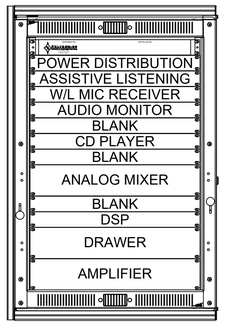
WP1
MICROPHONE INPUT PLATE
QUANTITY: SEE DRAWINGS
SIZE: TWO GANG
FINISH: POWDER COAT WHITE W/ BLACK ENGRAVED LETTERING
NOTE:

4 AV501 PLATES DETAILS
SCALE: NTS



NOTES:
1. METAL STUDS ARE TYPICAL 16" OC OR 24" OC
2. EXACT SITE OF BLOCKING MAY VARY PENDING POSITION OF METAL STUDS OR FIELD CONDITIONS OF WALL.
3. BLOCKING SHALL BE ABLE TO SUPPORT UP TO 250 LBS.

6 AV501 WALL MOUNTED RACK INFRASTRUCTURE DETAIL (AVR)
SCALE: NTS



AVR
PRESS BOX

TOTAL AMPS: 22
TOTAL WATTS: 1013
TOTAL BTU: 3445
CIRCUITS: (2) DEDICATED 20A, 120V CIRCUITS

7 AV501 RACK ELEVATION
SCALE: NTS

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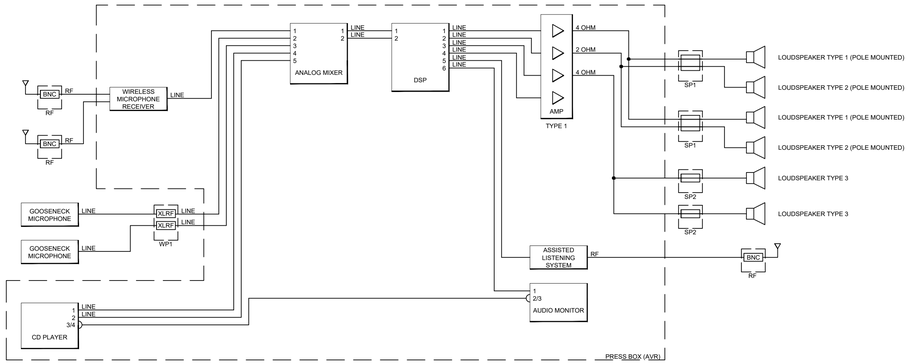

1 / AV601 PARK STADIUM AUDIO LINE DIAGRAM

SCALE: NTS

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City of Alexandria, Virginia

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