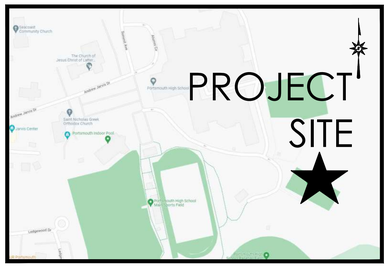
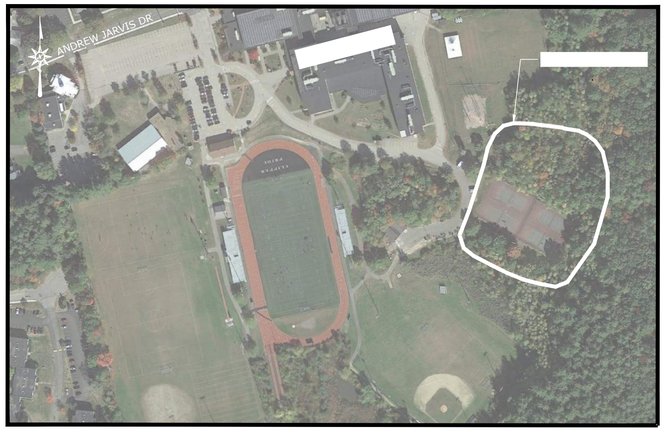


LOCATION MAP
NOT TO SCALE

PLANS FOR THE CONSTRUCTION

FOR

PORTSMOUTH HIGH SCHOOL TENNIS COURTS



VICINITY MAP
SCALE: 1"=200'

CITY OF
Portsmouth, NH

PREPARED FOR:

CITY OF PORTSMOUTH
SCHOOL DEPARTMENT
50 Andrew Jarvis Drive
Portsmouth, New Hampshire 03801

PREPARED BY:

BL Companies

ARCHITECTURE ENGINEERING ENVIRONMENTAL LAND SURVEYNG

2346 POST ROAD, SUITE 100
WARWICK, RI 02886
(401) 400-4492

CONTENTS

LICENSED LANDSCAPE ARCHITECT

PER _____
DOMINICK CELTRUDA, R.L.A.
NH LICENSED LANDSCAPE ARCHITECT NO 00190

DATE _____

DATES

ISSUE DATE: 01/03/2023
REVISION: TBD

CAD FILE: CV210192001

GENERAL NOTES:

1. THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS. THE CONTRACTOR SHALL PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE SAME AND COORDINATE WITH THE ENGINEER AND OWNER AS REQUIRED.
2. CONTRACTOR SHALL BE SOLEY RESPONSIBLE FOR JOB SITE SAFETY ALL CONSTRUCTION MEANS AND METHODS.
3. LIMIT OF WORK SHALL BE EROSION CONTROL BARRIERS, LIMIT OF GRADING AND/OR AS INDICATED ON THE PLANS.
4. PORTIONS OF THE PARK, WALK AND ADJACENT PROJECT AREA DISTURBED BY THE CONTRACTORS OPERATIONS SHALL BE RESTORED TO THEIR CONDITIONS PRIOR TO DISTURBANCE.
5. CONTRACTOR TO VERIFY UTILITY CONNECTION LOCATIONS AND ELEVATIONS IN THE FIELD PRIOR TO COMMENCING WORK.
6. ANY ALTERATIONS TO THE PLAN SET MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE CONTRACTOR ON RECORD DOCUMENTS.
7. ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO THE OWNER.
8. EXISTING TREES AND SHRUBS OUTSIDE THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON PRIOR APPROVAL OF THE OWNER.
9. FOR DRAWING LEGIBILITY, ALL TOPOGRAPHIC FEATURES, EXISTING UTILITIES, PROPERTY BOUNDARIES, EASEMENTS, ETC. MAY NOT BE SHOWN ON ALL DRAWINGS. REFER TO ALL REFERENCED DRAWINGS AND OTHER DRAWINGS IN THIS SET FOR ADDITIONAL INFORMATION.
10. THE CONTRACTOR SHALL IDENTIFY, LOCATE, AND PROTECT ALL EXISTING BOUNDS, MONUMENTS, AND BENCHMARKS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER BEFORE ANY DISTURBANCE OR RELOCATION.
11. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES DURING CONSTRUCTION.
12. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN CLEAR ACCESSIBLE PATHS NO LESS THAN 4' WIDE FOR ALL PEDESTRIANS.
13. THE CONTRACTOR SHALL NOT BE ALLOWED TO STORE ANY EXCESS MATERIAL WITHIN THE PROJECT LIMITS.
14. AT NO TIME SHALL THE CONTRACTOR BE ALLOWED TO STORE ANY EQUIPMENT, TOOLS, OR MATERIALS OUTSIDE OF THE EXISTING PROJECT AREA OR DESIGNATED AREAS. THE CONTRACTOR SHALL ENSURE PROPER SIGHT DISTANCE IS MAINTAINED AT ALL INTERSECTIONS AND DRIVEWAYS AT ALL TIMES.
15. AT THE END OF EACH WORK DAY, ANY EQUIPMENT, TOOLS, AND MATERIALS, INCLUDING SURPLUS FROM EXCAVATIONS, THAT ARE NOT TO BE RE-USED WITHIN 24 HOURS SHALL BE REMOVED FROM THE SITE UNLESS PREVIOUSLY APPROVED BY THE ENGINEER.
16. CONTRACTOR SHALL TAKE AND VERIFY ALL DIMENSIONS AND CONDITIONS OF THE WORK AND BE RESPONSIBLE FOR COORDINATION OF SAME. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK.
17. EXISTING SIGNS IMPACTED BY THE PROJECT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED AS DIRECTED BY INSPECTION PERSONNEL OR BY THE ENGINEER.
18. FINAL GRADE FOR WALKWAYS TO MATCH EXISTING WHERE POSSIBLE AND AT ALL EXISTING MANHOLE RIMS AND/OR CATCH BASIN FRAMES, WHEN RESET NOT SPECIFIED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
19. ALL ACCESSIBLE PARKING SPACES AND WALKWAYS MUST BE CONSTRUCTED TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT.
20. ALL WORK MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND CONDITIONS OF APPROVAL AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT.
21. THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE A PART OF THE CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN THE PLANS AND THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF ANY SUCH CONFLICT BETWEEN THE GEOTECHNICAL REPORT AND THE PLANS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.
22. THESE PLANS ARE BASED ON INFORMATION AVAILABLE AT THE TIME OF PREPARATION. CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ENGINEER IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS, OR IF THE PROPOSED WORK CONFLICTS WITH OTHER SITE FEATURES.
23. ALL DIMENSIONS SHOWN ON THE PLANS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST NOTIFY THE ENGINEER IF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES EXISTING PRIOR TO PROCEEDING WITH THE WORK. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE REDONE/REPAIRED DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THE PLAN SET PRIOR TO CONTRACTOR GIVING ENGINEER NOTICE.
24. DEBRIS MUST NOT BE BURIED ON THE SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL GOVERNMENTAL AUTHORITIES WHICH HAVE JURISDICTION OVER THIS PROJECT.
25. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF BUILDINGS AND PAVEMENT. UTILITIES, BUILDINGS AND INFRASTRUCTURE, WHICH ARE TO REMAIN AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED IN THE PROJECT.
26. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND TO NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
27. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
28. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY. THE ENGINEER OF RECORD HAS NOT BEEN RETAINED TO PERFORM OR BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER'S SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD IS NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES, AT ANY TIME.
29. ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME THE ENGINEER AND ITS SUBCONTRACTORS AS ADDITIONAL NAMED INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THIS HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH THE ENGINEER WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR ONE YEAR AFTER THE COMPLETION OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS THE ENGINEER, OWNER AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS, ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. CONTRACTOR MUST NOTIFY ENGINEER AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.
30. NEITHER THE PROFESSION ACTIVITIES OF THE ENGINEER, NOR THE PRESENCE OF THE ENGINEER AND/OR SUBCONSULTANTS AT A PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND COMPLIANCE WITH ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY.
31. IF THE CONTRACTOR DEVIATES FROM THE CONTRACT DOCUMENTS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK DONE WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING FROM THE DEVIATIONS.
32. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE R.O.W. OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE.
33. ALL SIGNING AND PAVEMENT STRIPING MUST CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR LOCALLY APPROVED SUPPLEMENT.
34. ENGINEER IS NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS.
35. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN AND, FURTHER ENGINEER IS NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES.
36. ALL DIMENSIONS MUST BE TO FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, UNLESS NOTED OTHERWISE.
37. ALL CONSTRUCTION AND MATERIALS MUST COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES AND CODES, AND ALL APPLICABLE OSHA REQUIREMENTS.
38. CONTRACTOR MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS.
39. CONTRACTOR IS RESPONSIBLE TO MAINTAIN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH EPA REQUIREMENTS FOR SITES WHERE ONE (1) ACRE OR MORE (UNLESS THE LOCAL JURISDICTION REQUIRES FEWER) IS DISTURBED BY CONSTRUCTION ACTIVITIES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE.

DEMOLITION & SITE PREPARATION NOTES:

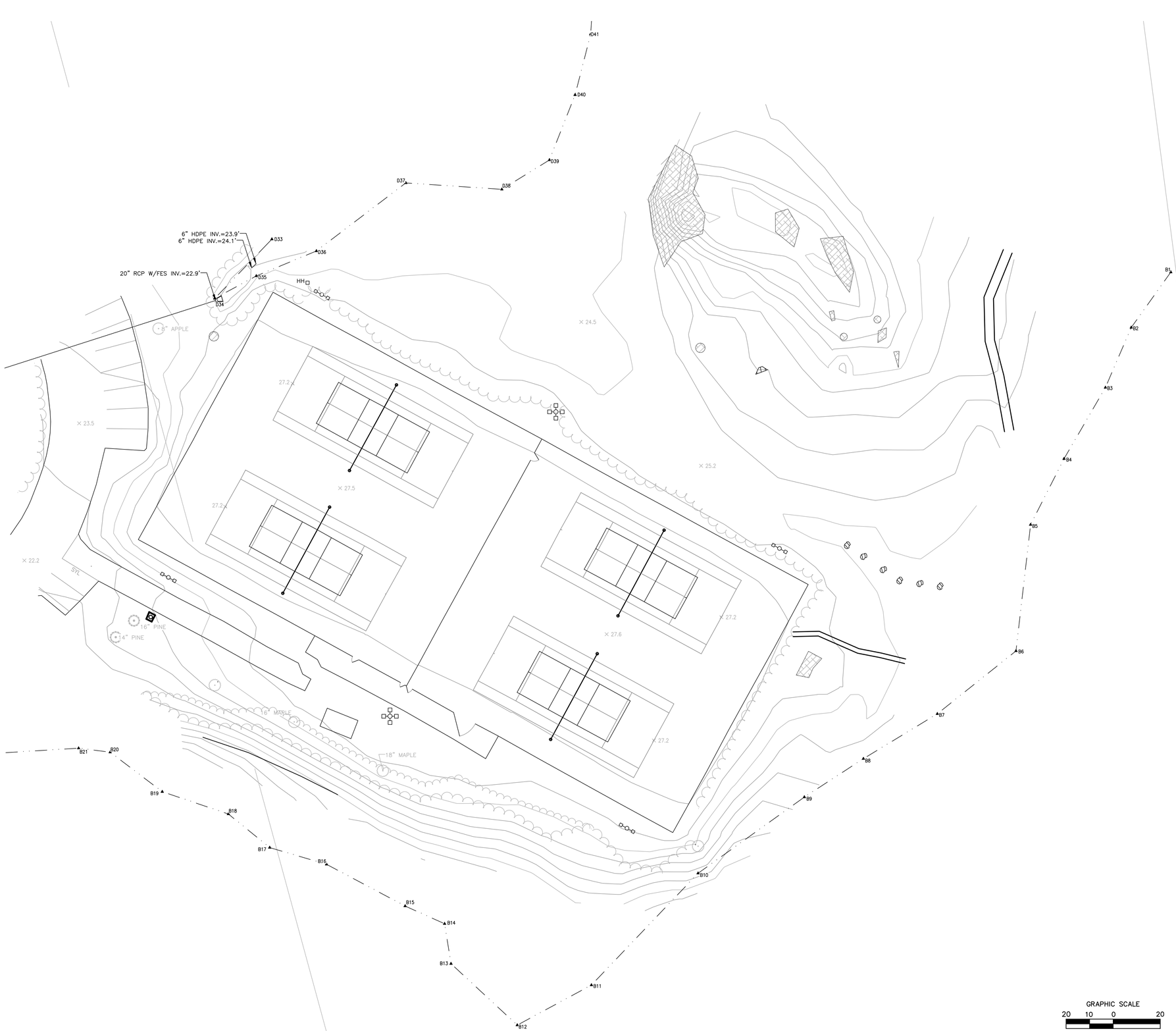
1. THE CONTRACTOR SHALL INCLUDE THE BID COST OF REMOVING ANY EXISTING SITE FEATURES AND APPURTENANCES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE CONTRACTOR SHALL ALSO INCLUDE IN THE BID THE COST NECESSARY TO RESTORE SUCH ITEMS IF THEY ARE SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE EXCAVATION AND DEMOLITION REQUIREMENTS AND TO DETERMINE EXCAVATION AND DEMOLITION REQUIREMENTS AND TO DETERMINE THE LOCATION OF THE PROPOSED SITE IMPROVEMENTS.
2. THE OWNER RESERVES THE RIGHT TO REVIEW ALL MATERIALS DESIGNATED FOR REMOVAL AND TO RETAIN OWNERSHIP OF SUCH MATERIALS. IF THE OWNER RETAINS ANY MATERIAL, THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNER TO HAVE THOSE MATERIALS REMOVED OFF SITE TO A DESIGNATED MUNICIPAL PROPERTY AT NO ADDITIONAL COST. ALL GEOTECHNICALLY OR UNSUITABLE EXCESS SOIL FROM CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE TOWN. REMOVAL ACTIVITIES SHALL BE IN ACCORDANCE WITH THE STATE AND LOCAL REGULATIONS AT NO ADDITIONAL COST TO THE TOWN.
3. UNLESS SPECIFICALLY NOTED TO BE REMOVED AND STOCKPILED (R&S) OR REUSED AND RELOCATED (R&R), ALL SITE FEATURES CALLED TO BE REMOVED AND DEMOLISHED (R&D) SHALL BE REMOVED WITH THEIR FOOTINGS, ATTACHMENTS, BASE MATERIAL, ETC. TRANSPORTED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER AT AN ACCEPTABLE DISPOSAL SITE AND AT NO ADDITIONAL COST TO THE OWNER.
4. ALL EXISTING SITE FEATURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PERIOD. ANY FEATURES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AND/OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.
5. DURING EARTHWORK OPERATIONS, CONTRACTOR SHALL TAKE CARE TO NOT DISTURB EXISTING MATERIALS TO REMAIN, OUTSIDE THE LIMITS OF EXCAVATION AND BACKFILL AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED AS SPECIFIED TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE REMAINDER OF THE CONTRACT WORK.
6. IT SHALL BE THE CONTRACTOR'S OPTION, WITH CONCURRENCE OF THE OWNER'S REPRESENTATIVE, TO REUSE EXISTING BITUMINOUS CONCRETE PAVEMENT BASE COURSE AND/ OR SUB BASE GRAVEL MATERIALS IF IT MEETS THE REQUIREMENT OF THE SPECIFICATIONS FOR DENSE GRADED CRUSHED STONE.
7. STRIP AND STOCKPILE EXISTING TOPSOIL FOR LATER REUSE AS REQUIRED. STOCKPILE SHALL HAVE APPROPRIATE EROSION AND SEDIMENT CONTROLS. THE CONTRACTOR SHALL CONFIRM THAT THE TOPSOIL IS SUITABLE FOR REUSE AND IT MEETS THE REQUIREMENTS OF THE SPECIFICATIONS FOR TOPSOIL LOAM BORROW.
8. CLEAR AND GRUB VEGETATION SHALL INCLUDE REMOVAL OF ALL GRASS/LAWN, SHRUBS, UNDERBRUSH, REMOVAL OF ROOTS.
9. THE CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN (SEE DETAIL). THE CONTRACTOR SHALL INSTALL TREE PROTECTION BARRIERS AFTER CLEARING TURF AND UNDERBRUSH BY HAND AND TAKE DUE CARE TO PREVENT INJURY TO TREES DURING CLEARING OPERATIONS.
10. THE STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED AT LOCATIONS DESIGNATED BY OWNER OR OWNER'S REPRESENTATIVE. PROTECTION OF STORED MATERIALS AND EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
11. ALL TREES TO REMAIN SHALL BE PRUNED BY LICENSED ARBORIST. CONTRACTOR MUST CONSULT WITH THE TOWN OF ENFIELD'S TREE WARDEN PRIOR TO ANY PRUNING WORK.
12. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 et seq.), AS AMENDED AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME.
13. THE ENGINEER AND OWNER HAVE NO CONTRACTUAL, LEGAL, OR OTHER RESPONSIBILITY FOR JOB SITE SAFETY OR JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME.
14. CONTRACTOR MUST RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THE CONSTRUCTION DOCUMENTS, CONCERNS REGARDING THE APPLICABLE SAFETY STANDARDS, OR THE SAFETY OF THE CONTRACTOR OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT, WITH THE ENGINEER, IN WRITING, AND RESPONDED TO BY THE ENGINEER, IN WRITING, PRIOR TO THE INITIATION OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY. ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES,REQUIREMENTS, STATUTES, ORDINANCES AND CODES.
15. PRIOR TO STARTING ANY DEMOLITION, CONTRACTOR IS RESPONSIBLE FOR: 1) OBTAINING ALL REQUIRED PERMITS AND MAINTAINING THEM ON SITE FOR REVIEW BY THE ENGINEER AND STATE ONE-CALL DAMAGE PROTECTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK, AND DEMOLITION WORK; 2) NOTIFYING, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND OWNER, 72 HOURS PRIOR TO THE START OF WORK; 3) INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE. 4) IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR MUST CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARKOUT, IN ADVANCE OF ANY EXCAVATION; 5) LOCATING AND PROTECTING ALL UTILITIES AND SERVICES WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR MUST USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.; 6) PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.; 7) ARRANGING FOR AND COORDINATING WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS. THE CONTRACTOR MUST PROVIDE THE UTILITY ENGINEER AND OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS.; 8) COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES. WORK REQUIRED TO BE DONE "OFF-PEAK" IS TO BE DONE AT NO ADDITIONAL COST TO THE OWNER.; AND 9) IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL, THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS, THE CONTRACTOR MUST IMMEDIATELY CEASE ALL WORK AND IMMEDIATELY NOTIFY THE OWNER AND ENGINEER OF THE DISCOVERY OF SUCH MATERIALS.
16. THE ENGINEER IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR MUST PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
17. THE CONTRACTOR MUST PROVIDE ALL MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN.
18. CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIR MUST INCLUDE THE RESTORATION OF ANY ITEMS REPAIRED TO THE PRE-DEMOLITION CONDITION, OR BETTER. CONTRACTOR SHALL PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE.
19. THE CONTRACTOR MUST NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE UNLESS SAME IS IN STRICT ACCORDANCE AND CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, AND/OR UNDER THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
20. CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL MUST BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS, AND MUST BE SUFFICIENTLY COMPACTED TO SUPPORT NEW IMPROVEMENTS AND PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE IN THE GEOTECHNICAL REPORT. BACKFILLING MUST OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES, AND MUST BE DONE SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES MUST BE GRADED TO PROMOTE POSITIVE DRAINAGE.
21. EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT OF BOTH THE OWNER AND ALL APPLICABLE GOVERNMENTAL AUTHORITIES. ALL THE REQUIRED PERMITS AND EXPLOSIVE CONTROL MEASURES REQUIRED BY THE FEDERAL, STATE, AND LOCAL GOVERNMENTS MUST BE IN PLACE PRIOR TO CONTRACTOR STARTING AN EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES.
22. CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FHWA "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY.
23. CONTRACTOR MUST CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
24. DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT WRITTEN PERMISSION OF THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION.
25. THE CONTRACTOR MUST USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, CONTRACTOR MUST CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.
26. CONTRACTOR IS RESPONSIBLE TO SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
27. CONTRACTOR IS RESPONSIBLE FOR SITE JOB SAFETY, WHICH MUST INCLUDE, BUT NOT BE LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING AND OTHER APPROPRIATE SAFETY ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITY.
28. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION AS TO THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED TO ACCOMPLISH THAT WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED MUST BE IN STRICT ACCORDANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
29. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES. THE CONTRACTOR MUST MAINTAIN RECORDS TO DEMONSTRATE PROPER DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.
30. CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS UPON WHICH IS INDICATED THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED, ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER, AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK.

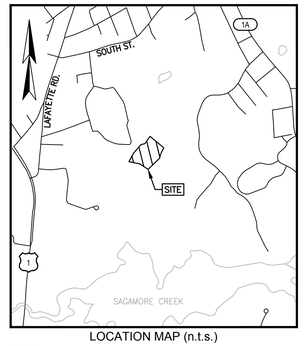
LAYOUT NOTES:

1. COORDINATE ALL LAYOUT ACTIVITIES WITH THE SCOPE OF WORK CALLED FOR BY DEMOLITION, GRADING, AND UTILITIES OPERATIONS ENCOMPASSED BY THIS CONTRACT. SET, PROTECT AND REPLACE REFERENCE STAKES AS NECESSARY OR AS REQUIRED BY THE OWNER'S REPRESENTATIVE.
2. ALL WORK SHALL BE PERFORMED BY CONTRACTOR UNLESS SPECIFICALLY INDICATED THAT THE WORK WILL BE PERFORMED "BY OWNER"
3. THE LAYOUT OF SITE AMENITIES MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
4. ALL PROPOSED SITE FEATURES SHALL BE LAID OUT AND STAKED FOR REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF INSTALLATION. ANY REQUIRED ADJUSTMENTS TO THE LAYOUT SHALL BE UNDERTAKEN AS DIRECTED, AT NO ADDITIONAL COST TO THE OWNER.
5. ALL PROPOSED PAVEMENTS SHALL MEET THE LINE AND GRADE OF EXISTING ADJACENT PAVEMENT SURFACES AND SHALL BE TREATED WITH AN RS-1 TACK COAT AT POINT OF CONNECTION. ALL PATHWAY WIDTHS SHALL BE AS NOTED ON THE LAYOUT AND MATERIALS PLAN.
6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND AND REPORT ANY DISCREPENCIES IMMEDIATELY TO THE OWNER.

GRADING & UTILITIES NOTES:

1. ALL WORK RELATING TO INSTALLATION, RENOVATION, OR MODIFICATION OF DRAINAGE SERVICES SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS OF THE CITY OF PORTSMOUTH AND ITS DEPARTMENT OF PUBLIC WORKS.
2. THE CON





LOCATION MAP (n.t.s.)

NOTES:

1. REFERENCE: PORTSMOUTH HIGH SCHOOL TENNIS COURTS
   PORTSMOUTH, NH
   D.S. PROJECT NO. 7155
2. FIELD SURVEY PERFORMED BY L.P.S. & D.D.L. DURING NOVEMBER, 2021 USING A TRIMBLE S7 TOTAL STATION AND A TRIMBLE R10 SURVEY GRADE GPS WITH A TRIMBLE TSC3 DATA COLLECTOR AND A TRIMBLE DINI DIGITAL AUTO LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.
3. HORIZONTAL DATUM BASED ON NAD83(2011) NEW HAMPSHIRE STATE PLANE COORDINATE ZONE (2800) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.
4. VERTICAL DATUM IS BASED ON APPROXIMATE NAVD88(GEOID12A) (±.2') DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.
5. JURISDICTIONAL WETLANDS DELINEATED BY JOSEPH W. NOEL DURING MAY/JUNE 2021 IN ACCORDING TO THE:
   - US ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1 (JANUARY, 1987).
   - REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION (2012).
   - NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). U.S. FISH AND WILDLIFE SERVICE (2013).
   - CODE OF ADMINISTRATIVE RULES. WETLANDS BOARD, STATE OF NEW HAMPSHIRE (CURRENT).
   - FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.0, 2016 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEHSTC (MAY 2017).
6. PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 1' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WIL DIMINISH THE INTEGRITY OF THE DATA, AND DOUCET SURVEY. WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.
7. ALL UNDERGROUND UTILITIES (ELECTRIC, GAS, TEL. WATER, SEWER DRAIN SERVICES) ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.

LEGEND

	MAJOR CONTOUR LINE
	MINOR CONTOUR LINE
	APPROXIMATE LOT LINE (PER GIS)
	TREE LINE
	SHRUB LINE
	CHAIN LINK FENCE
	TENNIS NET
	EDGE OF DELINEATED WETLAND
▲A-1	WETLAND FLAG
	WETLAND AREA
FES	FLARED END SECTION
	DRAIN LINE
	ROCK/BOULDER
	LEDGE OUTCROP
× 100.0	SPOT GRADE
	LIGHT POLE (MULTI-ARMS)
HH	HAND HOLE
	DECIDUOUS TREE
	CONIFEROUS TREE
	TYPICAL
EP	EDGE OF PAVEMENT
SWL	SINGLE WHITE LINE
SKL	SINGLE BLACK LINE
SBL	SINGLE BLUE LINE
SYL	SINGLE YELLOW LINE

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

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TENNIS COURT RENOVATION
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50 ANDREW JARVIS DR., PORTSMOUTH, NH 03801

REVISIONS
No. Date Desc.

Surveyed
Drawn JW
Reviewed DC
Scale 1"=20'-0"
Project No. 2101920
Date 01/03/2023

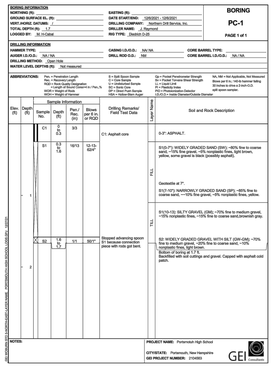
CAD File:

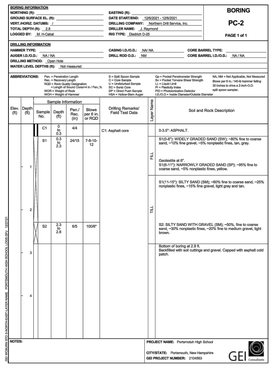
Title
EXISTING CONDITIONS PLAN

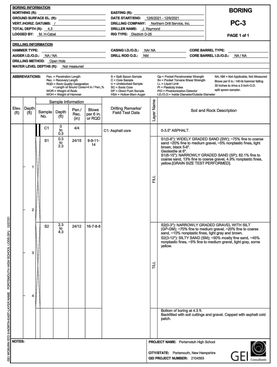
Sheet No.
EX-01

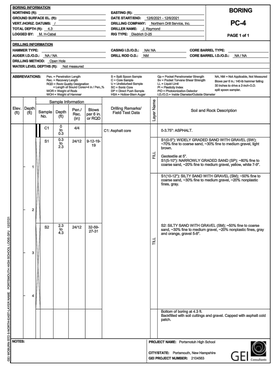
Xref (s): : B02100875 ; XZ210192001

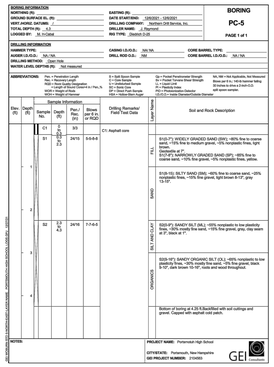
May 17, 2023 2:05pm JWheeler G:\JOBS21\19\2101920\DWG\EX2101920D1.dwg
Layout: EX-01

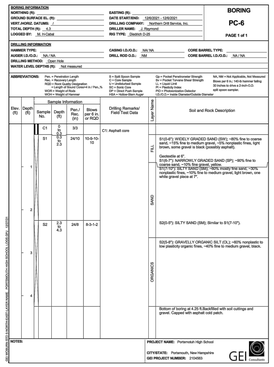


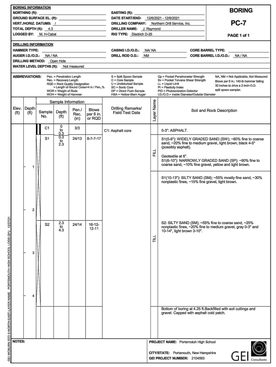


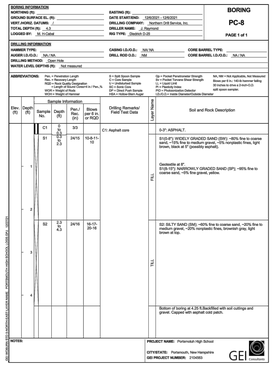


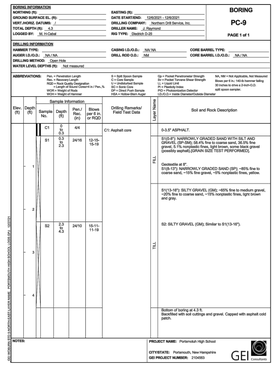


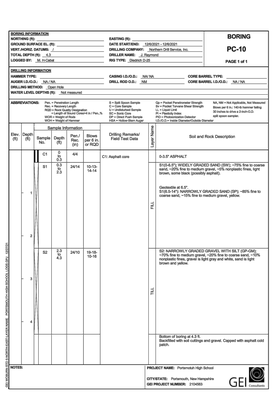


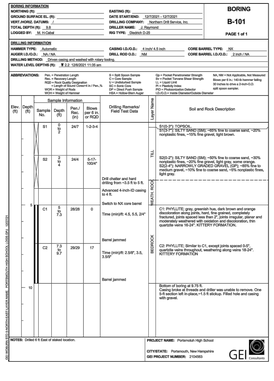


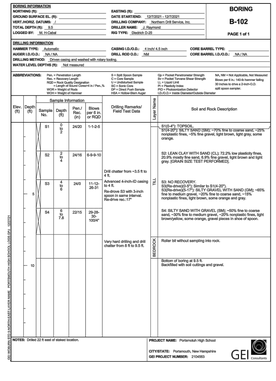


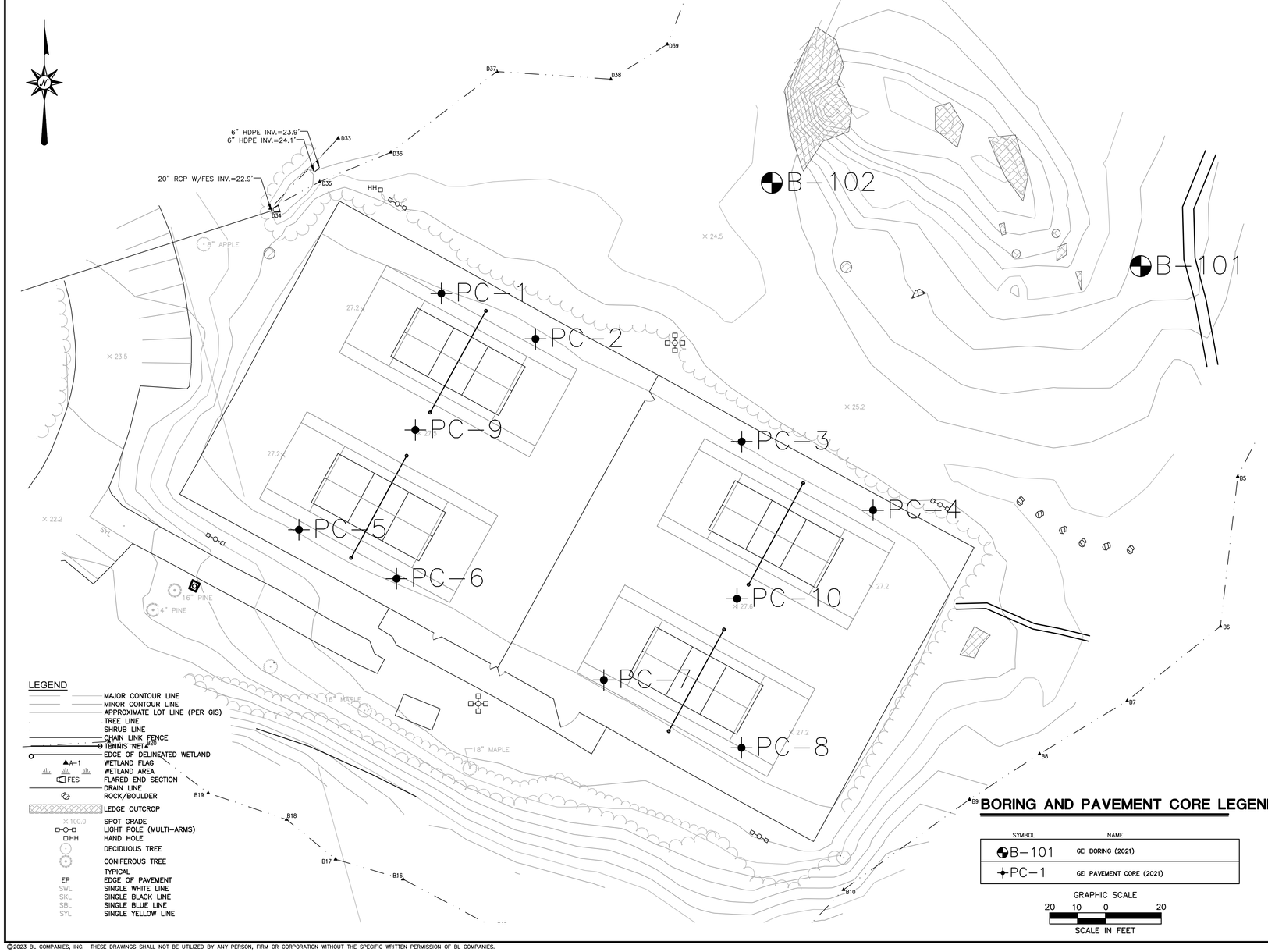












LEGEND

- MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- APPROXIMATE LOT LINE (PER GIS)
- TREE LINE
- SHRUB LINE
- CHAIN LINK FENCE
- 220 TENNIS NET
- EDGE OF DELINEATED WETLAND
- A–1 WETLAND FLAG
- WETLAND AREA
- FES FLARED END SECTION
- DRAIN LINE
- ROCK/BOULDER
- LEDGE OUTCROP
- × 100.0 SPOT GRADE
- LIGHT POLE (MULTI–ARMS)
- HH HAND HOLE
- DECIDUOUS TREE
- CONIFEROUS TREE
- TYPICAL
- EP EDGE OF PAVEMENT
- SWL SINGLE WHITE LINE
- SKL SINGLE BLACK LINE
- SBL SINGLE BLUE LINE
- SYL SINGLE YELLOW LINE

BORING AND PAVEMENT CORE LEGEND

SYMBOL	NAME
B–101	GEI BORING (2021)
PC–1	GEI PAVEMENT CORE (2021)

GRAPHIC SCALE
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SCALE IN FEET

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PORTSMOUTH HIGH SCHOOL
50 ANDREW JARVIS DR., PORTSMOUTH, NH 03801

REVISIONS
No. Date Desc.

Surveyed
Drawn JW
Reviewed JW
Scale 1"=20'–0"
Project No. 2101920
Date 01/03/2023

CAD File:

Title
BORING & PAVEMENT CORE PLAN

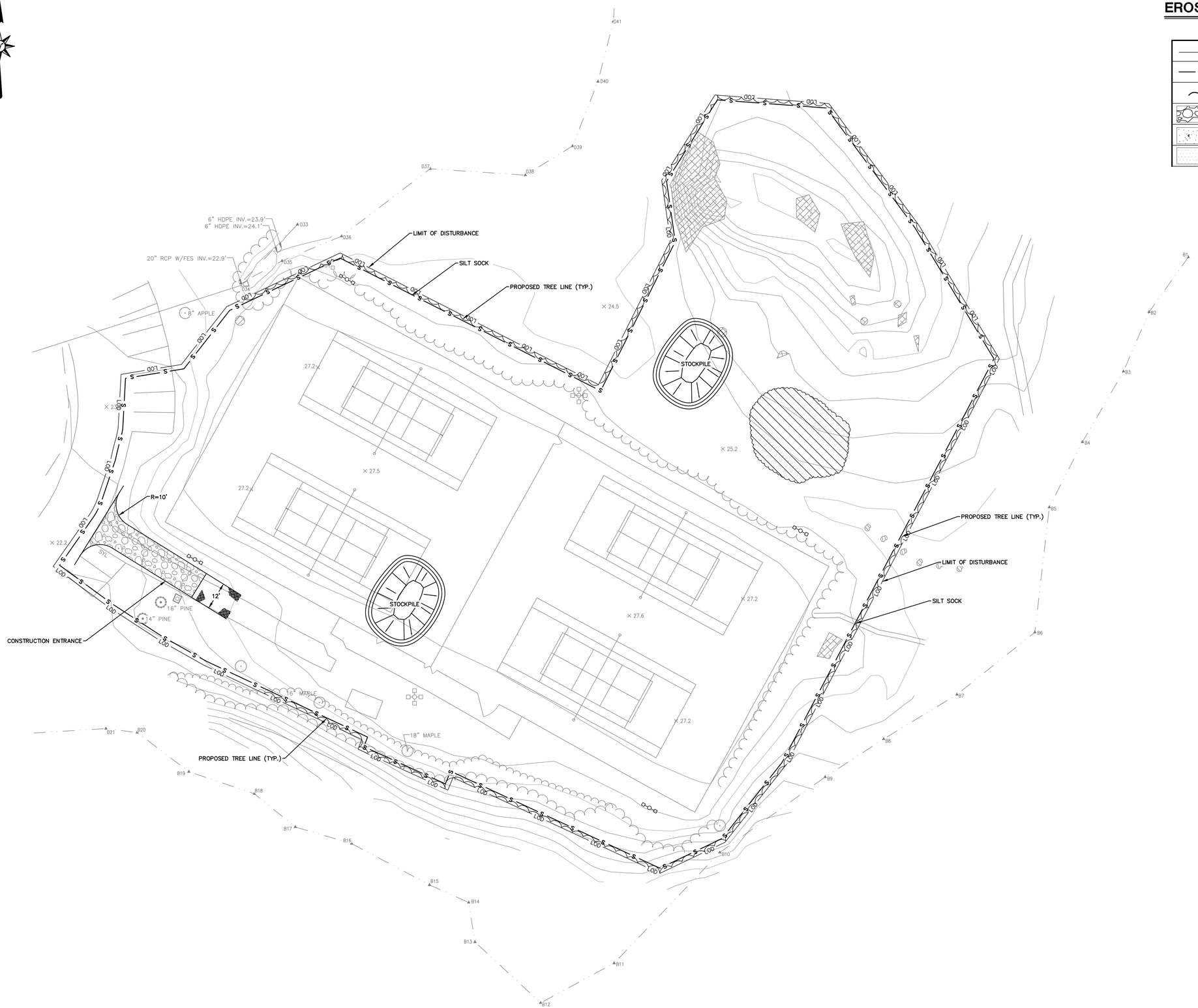
Sheet No.
BP–01

Xref (s): : B02100875 : X2210192001

May 17, 2023, 2:05pm JWheeler G:\JOBS\21\B\2101920\DWG\BP2101920I.dwg
Layout: BP–01

EROSION ? SED. CONTROL LEGEND

SYMBOL	NAME
LOD	LIMIT OF DISTURBANCE/CONTRACT LIMIT LINE
S S	SILT SOCK
	PROPOSED TREELINE
	5" WIDE CRUSHED STONE PERIMETER
	CONCRETE PAD
	BITUMINOUS PAVEMENT



GRAPHIC SCALE
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SCALE IN FEET

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REVISIONS
No. Date Desc.

Surveyed	
Drawn	R.B.
Reviewed	M.M.
Scale	1"=20'-0"
Project No.	2101920
Date	01/03/2023

CAD File:

Title
SEDIMENTATION AND EROSION CONTROL PLAN

Sheet No.
EC-01

Xref (s): ; B02100875 ; X2210192001 ; X0210192001 ; XC210192001-WALL

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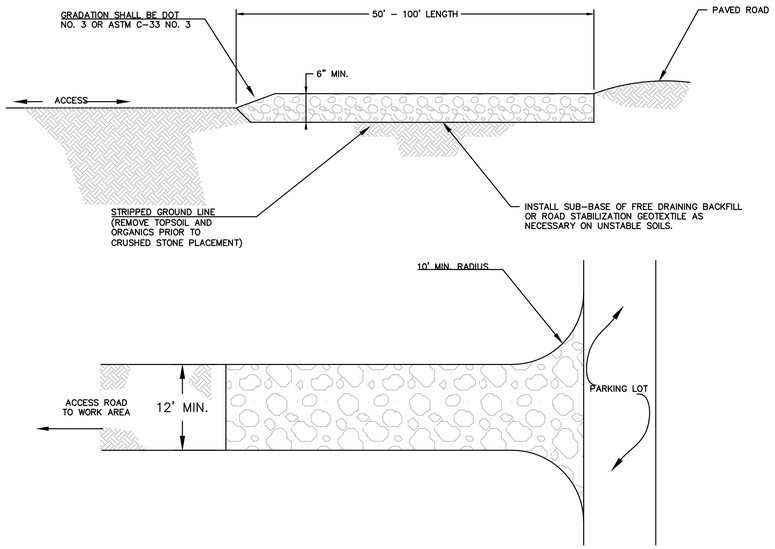
Layout: EC-01

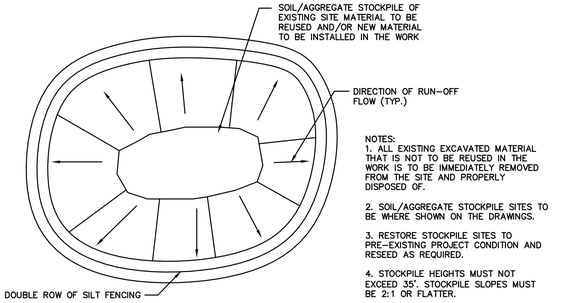
EROSION & SEDIMENT CONTROL NOTES:

1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE PUT INTO PLACE PRIOR TO BEGINNING ANY CONSTRUCTION OR DEMOLITION. REFER TO PLANS FOR APPROXIMATE LOCATION OF EROSION AND SEDIMENT CONTROL. REFER TO SPECIFICATION AND DETAILS FOR TYPE OF EROSION AND SEDIMENT CONTROL.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUAL MAINTENANCE OF ALL CONTROL DEVICES THROUGHOUT THE DURATION OF THE PROJECT.
3. CONTRACTOR SHALL MEET ALL THE STATE OF NEW HAMPSHIRE AND THE CITY OF PORTSMOUTH WETLAND ORDINANCE REGULATIONS FOR SEDIMENT AND EROSION CONTROL.
4. EXCAVATED MATERIAL STOCKPILED ON THE SITE SHALL BE SURROUNDED BY A RING OF UNBROKEN SEDIMENT AND EROSION CONTROL FENCE. THE LIMITS OF ALL GRADING AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE APPROVED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THE LIMIT OF CONTRACT SHALL REMAIN TOTALLY UNDISTURBED UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
5. ALL CATCH BASINS AND DRAIN GRATES WITHIN THE LIMIT OF WORK SHALL BE PROTECTED WITH SILT SACKS DURING THE ENTIRE DURATION OF CONSTRUCTION
6. EROSION CONTROL BARRIERS TO BE INSTALLED AT THE TOE OF SLOPES. SEE GRADING AND DRAINAGE PLANS, NOTES, DETAILS, AND SPECIFICATIONS.
7. THE CONTRACTOR SHALL PROVIDE DUST CONTROL FOR CONSTRUCTION OPERATIONS AS APPROVED BY THE OWNER'S REPRESENTATIVE AND NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SCIENCES REQUIREMENTS.
8. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ON TO PUBLIC/ PRIVATE ROADS.
9. ALL MATERIAL HAULING VEHICLES SHALL BE COMPLETELY COVERED PRIOR TO LEAVING THE SITE.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR WHEEL CLEANING OF ALL CONSTRUCTION VEHICLES PRIOR TO EXITING THE SITE. CONTRACTOR SHALL ENSURE THAT MATERIAL HAULING VEHICLES REMAIN ON PAVED SURFACES AS MUCH AS POSSIBLE.
11. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SCIENCES AND THE NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES.
12. ANY EROSION AND SEDIMENT CONTROL MEASURES FOR THE STABILIZATION OF SLOPES ARE TEMPORARY FOR CONSTRUCTION PHASES ONLY. SEE GRADING PLAN FOR FINAL STABILIZATION OF SLOPES.
13. SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF AND DURING ALL PHASES OF CONSTRUCTION AND BE CONSTRUCTED PRIOR TO AND IMMEDIATELY AFTER ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.
14. DAILY INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES SHALL BE PROVIDED TO ENSURE THAT THE INTENDED PURPOSES IS ACCOMPLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SEDIMENT LEAVING THE LIMIT OF WORK. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
15. ALL SEDIMENT WILL BE PREVENTED FROM ENTERING ANY STORM DRAINAGE SYSTEM.
16. ALL DRAINAGE SWALES AND GROUND SURFACES WITHIN THE LIMIT OF WORK SHALL BE PROTECTED.
17. AFTER SIGNIFICANT RAINFALL SEDIMENT CONTROL STRUCTURES SHALL BE INSPECTED FOR INTEGRITY. ANY DAMAGED DEVICES SHALL BE CORRECTED IMMEDIATELY.
18. ALL STOCKPILES SHALL BE PROTECTED. STOCKPILES SHALL BE PROTECTED FROM CONTACT WITH ONSITE STORMWATER RUNOFF USING TEMPORARY PERIMETER SEDIMENT BARRIERS. A COVER (TARP) OR APPROPRIATE TEMPORARY STABILIZATION WILL BE PROVIDED TO MINIMIZE SEDIMENT DISCHARGE.
19. STABILIZED PORTIONS OF A SITE SHALL BE INSPECTED AT LEAST ONCE PER MONTH.
20. ANY SEDIMENT TRACKED ONTO PAVED AREAS SHALL BE SWEPT AT THE END OF EACH WORKING DAY.
21. ALL TOPSOIL ENCOUNTERED WITHIN THE WORK AREA SHALL BE STRIPPED TO ITS FULL DEPTH AND STOCKPILED FOR REUSE. TOPSOIL NOT NEEDED AFTER COMPLETION OF ALL FINAL TOPSOIL SPREADING AND GRASSING SHALL BE REMOVED FROM THE SITE AND LEGALLY RECYCLED OR DISPOSED OF. TOPSOIL PILES SHALL REMAIN SEGREGATED FROM EXCAVATED SUBSURFACE SOIL MATERIALS.
22. TEMPORARY DIVERSION DITCHES, PERMANENT DITCHES, CHANNELS, EMBANKMENTS AND ANY DENUDED SURFACE WHICH WILL BE EXPOSED FOR A PERIOD OF 14 CALENDAR DAYS OR MORE SHALL BE CONSIDERED CRITICAL VEGETATION AREAS. THESE AREAS SHALL BE MULCHED WITH STRAW. MULCH SHALL BE SPREAD UNIFORMLY IN A CONTINUOUS BLANKET OF SUFFICENT THICKNESS TO COMPLETELY HIDE THE SOIL FROM VIEW.
23. AN EROSION CONTROL BARRIER SHALL BE INSTALLED ALONG THE EDGE OF PROJECT PRIOR TO COMMENCEMENT OF DEMOLITION OR CONSTRUCTION ACTIVITIES.
24. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL EROSION AND SEDIMENT CONTROLS AT THE COMPLETION OF SITE CONSTRUCTION.
25. MEANS OF EROSION AND SEDIMENT PROTECTION AS NOTED ON THE DRAWINGS INDICATE THE MINIMUM PROVISIONS NECESSARY. ADDITIONAL MEANS OF PROTECTION SHALL BE PROVIDED BY THE CONTRACTOR AS REQUIRED FOR CONTINUED OR UNFORSEEN EROSION PROBLEMS, AT NO ADDITIONAL EXPENSE TO THE OWNER.
26. THE CONTRACTOR SHALL USE TEMPORARY SEEDING, MULCHING OR OTHER APPROVED STABILIZATION MEASURES TO PROTECT EXPOSED AREAS DURING PROLONGED CONSTRUCTION OR OTHER LAND DISTURBANCES.
27. A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PREPARED PRIOR TO THE BEGINNING OF CONSTRUCTION CONSISTENT WITH THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT. THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLIANCE WITH CONDITIONS OF THE SWPPP THROUGHOUT CONSTRUCTION.



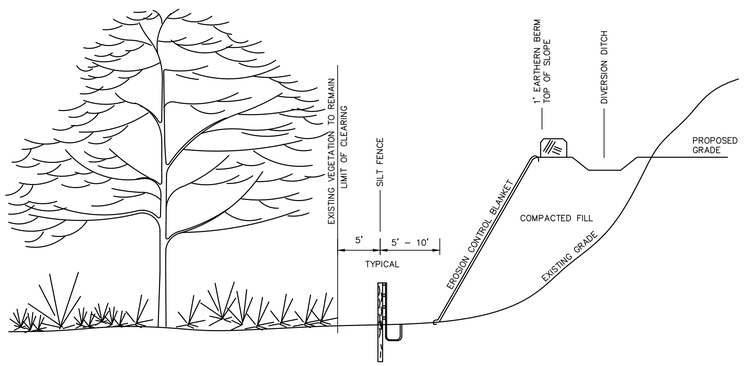
CONSTRUCTION ENTRANCE

N.T.S.



MATERIALS STOCKPILE DETAIL

N.T.S.

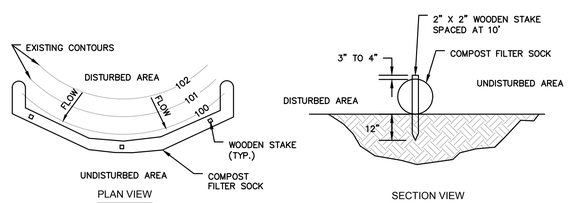


TYPICAL EROSION CONTROL ON SLOPES

N.T.S. BLEC-011

TREE PROTECTION

N.T.S.



SOCK FABRIC SHALL MEET STANDARDS SECTION 23 OF THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY. COMPOST SOCK SHALL ACT AS A SEDIMENT BARRIER AND BE AS SHOWN ON PLANS.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK SHALL BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

COMPOST FILTER SOCK DETAIL

N.T.S

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TENNIS COURT RENOVATION
PORTSMOUTH HIGH SCHOOL
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REVISIONS No.	Date	Desc.

Surveyed	
Drawn	JW
Reviewed	JW
Scale	
Project No.	2101920
Date	01/03/2023
CAD File:	

Title
SEDIMENTATION & EROSION CONTROL NOTES & DETAILS

Sheet No.
EC-02

Xref (s): : B02100875 ; : X21019001 ; X21019201

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Layout: EC-02

SITE PREPARATION LEGEND

SYMBOL	NAME
LOD	LIMIT OF DISTURBANCE/CONTRACT LIMIT LINE
S S	SILT SOCK
XXXXXXXXXXXXXXX	REMOVE AND DISPOSE EXISTING FENCE
	REMOVE AND DISPOSE EXISTING LANDSCAPE
×	REMOVE AND DISPOSE OF EXISTING STRUCTURE/FURNISHING/LANDSCAPE ITEM
(S)	PROTECT EXISTING TREE TO REMAIN (SYMBOL NOT TO SCALE)
	PROPOSED TREELINE

REMOVAL AND DISPOSAL OF STRUCTURES AND FURNISHINGS SHALL INCLUDE FOUNDATION UNLESS OTHERWISE NOTED

GRUBBING NOTE:
GRUBBING ACTIVITIES TO OCCUR IN STAGES AND ONLY WHERE EXCAVATION AND SUBSEQUENT STABILIZATION MEASURES ARE TO IMMEDIATELY FOLLOW.

REMOVE AND DISPOSE OF VERY LARGE LEDGE OUTCROPPING AREAS AS NEEDED FOR FINAL GRADING AND LAYOUT

REMOVE AND DISPOSE OF LARGER LEDGE OUTCROPPING AREAS AS NEEDED FOR FINAL GRADING AND LAYOUT

PRESERVE THE RCP & HDPE DRAINAGE PIPES

12" HDPE INV.=23.9'

6" HDPE INV.=24.1'

20" RCP W/FES INV.=22.9'

REMOVE AND DISPOSE OF MULTIFLORA ROSE USING BEST MANAGEMENT PRACTICES

REMOVE AND DISPOSE OF CHAIN LINK FENCE

REMOVE AND DISPOSE OF GLOSSY BUCKTHORN USING BEST MANAGEMENT PRACTICES

REMOVE LIGHTPOLE AND STOCKPILE FOR RE-LOCATION

PROPOSED TREE LINE (TYP.)

REMOVE AND DISPOSE OF GLOSSY BUCKTHORN USING BEST MANAGEMENT PRACTICES

REMOVE AND DISPOSE OF 6' STANDING STONE

REMOVE AND DISPOSE OF SMALLER LEDGE OUTCROPPING AREAS

APPLE

REMOVE AND DISPOSE OF PAVED TENNIS COURT

STOCKPILE

TRANSPLANT EXISTING HIGH BUSH BLUEBERRY TO OPEN SPACE SHOWN. FINAL LOCATIONS TO BE DETERMINED IN FIELD BY LANDSCAPE ARCHITECT AND/OR WETLAND SCIENTIST ADDITIONAL PLANTS SUCH AS CLETHRA ALNIFOLIA, VIBURNUM DENTATUM, CORNUS AMOMUM AND CORNUS SERICEA MAY BE ADDED AT THE DISCRETION OF THE LANDSCAPE ARCHITECT AND/OR WETLAND SCIENTIST.

REMOVE LIGHTPOLE AND STOCKPILE FOR RE-LOCATION

REMOVE AND DISPOSE OF 16" PINE

REMOVE LIGHTPOLE AND STOCKPILE FOR RE-LOCATION

PROPOSED TREE LINE (TYP.)

REMOVE AND DISPOSE OF MULTIFLORA ROSE USING BEST MANAGEMENT PRACTICES

LIMIT OF DISTURBANCE

SILT SOCK

STOCKPILE

REMOVE AND DISPOSE OF 14" PINE

EXISTING LIGHTPOLE TO REMAIN

REMOVE AND DISPOSE OF PAVED TENNIS COURT

REMOVE AND DISPOSE OF EXISTING PAVED SURFACE

REMOVE AND DISPOSE OF ASIATIC BITTERSWEET AND HONEYSUCKLE USING BEST MANAGEMENT PRACTICES

REMOVE AND DISPOSE OF EXISTING TREE

REMOVE AND DISPOSE OF CHAIN LINK FENCE

REMOVE AND DISPOSE OF EXISTING 16" MAPLE

REMOVE AND DISPOSE OF EXISTING BLEACHERS

REMOVE LIGHTPOLE AND STOCKPILE FOR RE-LOCATION

REMOVE AND DISPOSE OF 18" MAPLE

SAVE AND PROTECT EXISTING CHERRY TREE

REMOVE AND DISPOSE OF MULTIFLORA ROSE USING BEST MANAGEMENT PRACTICES

SAVE AND PROTECT EXISTING OAK TREE

PROPOSED TREE LINE (TYP.)

GRAPHIC SCALE
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REVISIONS
No. Date Desc.

Surveyed	
Drawn	JW
Reviewed	DC
Scale	1"=20'-0"
Project No.	2101920
Date	01/03/2023

CAD File:

Title
SITE PREPARATION PLAN

Sheet No.
DM-01

DRAWING KEY NOTES:

(1) FURNISH AND INSTALL NEW LIGHTING CONTROL PANEL AND 120V LIGHTING CONTROL CIRCUIT TO NEW 20A/1P CIRCUIT BREAKER IN EXISTING 208/120V ELECTRICAL PANEL IN ELECTRICAL SHED WITH (2)#12, (1)#12G IN 3/4" CONDUIT AS INDICATED ON APPROVED MUSCO LIGHTING DESIGN PLANS. VERIFY EXACT LOCATION OF SHED AND MOUNTING LOCATION OF LIGHTING CONTROL PANEL IN FIELD.

(2) FURNISH AND INSTALL NEW BASE, POLE, POLE-TOP MOUNT AND LIGHT FIXTURES AS SPECIFIED ON APPROVED MUSCO LIGHTING DESIGN PLANS.

(3) FURNISH AND INSTALL NEW POLE-TOP MOUNT AND LIGHT FIXTURES ON EXISTING POLE/BASE TO REMAIN AS SPECIFIED ON APPROVED MUSCO LIGHTING DESIGN PLANS.

(4) FURNISH AND INSTALL NEW BASE, POLE-TOP MOUNT, LIGHT FIXTURES AND RELOCATED POLE TO NEW BASE AS SPECIFIED ON APPROVED MUSCO LIGHTING DESIGN PLANS.

(5) EXISTING FLUSH IN GRADE PULL/SPLICE BOX TO REMAIN. VERIFY EXACT LOCATION IN FIELD.

(6) FURNISH AND INSTALL NEW FLUSH IN GRADE PULL/SPLICE BOX OF SIZE AS REQUIRED AND CONNECT TO EXISTING AND NEW CONDUITS AS REQUIRED. VERIFY EXACT LOCATION IN FIELD.

(7) FURNISH AND INSTALL (3)#8, (1)#8G. IN 1" SCH 40 PVC BELOW GRADE FROM POLE BASE TO POLE MOUNTED LIGHT FIXTURES. T# INDICATED TENNIS COURT POLE NUMBER AND (LETTER) INDICATES LIGHTING CONTROL CIRCUIT CORRESPONDING WITH MUSCO LIGHTING DESIGN PLANS. VERIFY EXACT POLE LOCATION WITH SITE PLANS.

(8) FURNISH AND INSTALL (3)#8, (1)#8G. IN 1" SCH 40 PVC BELOW GRADE FROM PULL/SPLICE BOX TO POLE MOUNTED LIGHT FIXTURES. SPLICE INTO CIRCUIT "A" HOMERUN CIRCUIT WIRING IN PULL/SPLICE BOX. T# INDICATED TENNIS COURT POLE NUMBER AND (LETTER) INDICATES LIGHTING CONTROL CIRCUIT CORRESPONDING WITH MUSCO LIGHTING DESIGN PLANS. VERIFY EXACT POLE LOCATION WITH SITE PLANS.

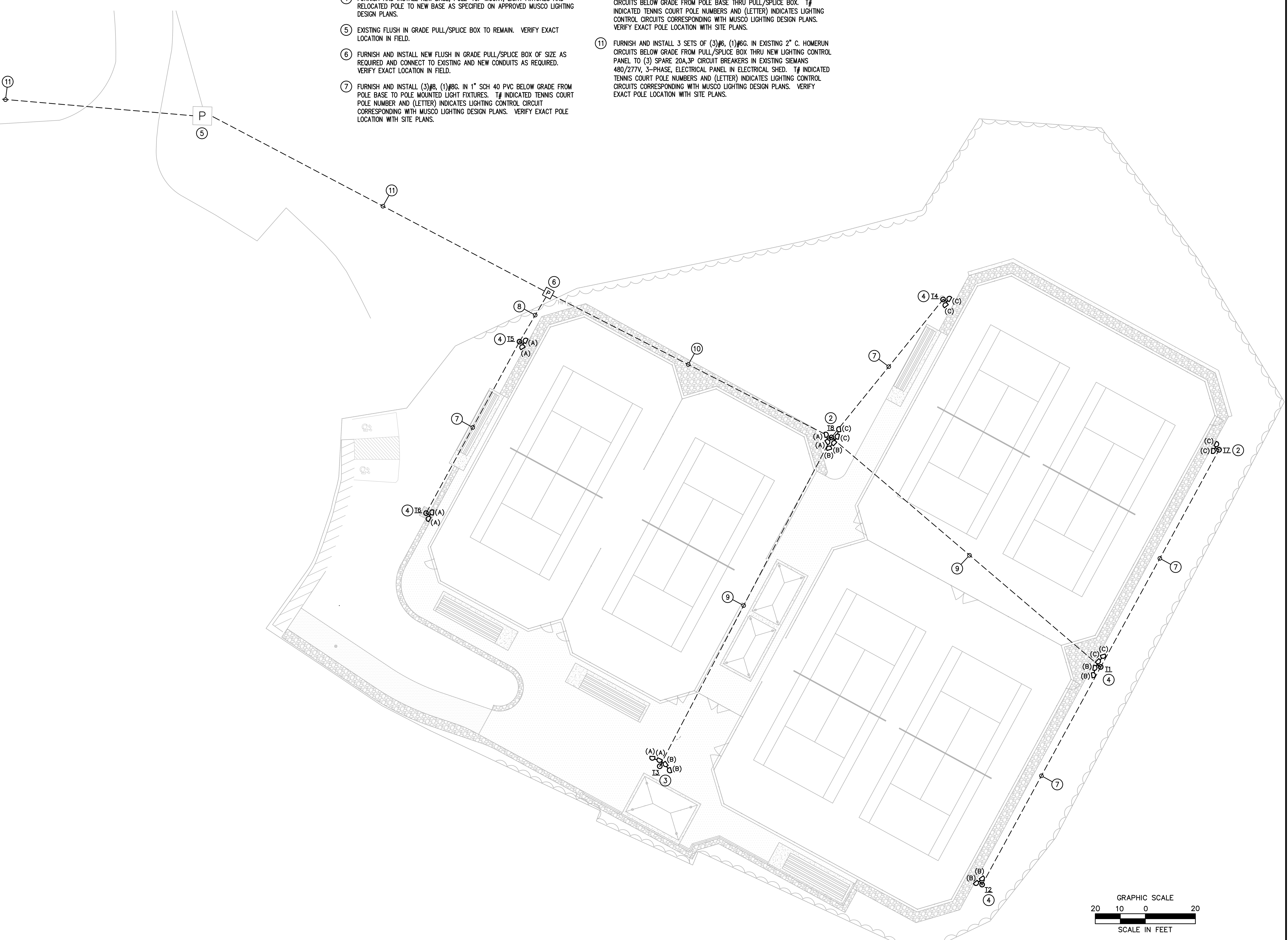
(9) FURNISH AND INSTALL 2 SET OF (3)#8, (1)#8G. IN 1-1/4" SCH 40 PVC BELOW GRADE FROM POLE BASE TO POLE MOUNTED LIGHT FIXTURES. T# INDICATED TENNIS COURT POLE NUMBER AND (LETTER) INDICATES LIGHTING CONTROL CIRCUITS CORRESPONDING WITH MUSCO LIGHTING DESIGN PLANS. VERIFY EXACT POLE LOCATION WITH SITE PLANS.

(10) FURNISH AND INSTALL 3 SETS OF (3)#6, (1)#6G. IN 2" SCH 40 PVC HOMERUN CIRCUITS BELOW GRADE FROM POLE BASE THRU PULL/SPLICE BOX. T# INDICATED TENNIS COURT POLE NUMBERS AND (LETTER) INDICATES LIGHTING CONTROL CIRCUITS CORRESPONDING WITH MUSCO LIGHTING DESIGN PLANS. VERIFY EXACT POLE LOCATION WITH SITE PLANS.

(11) FURNISH AND INSTALL 3 SETS OF (3)#6, (1)#6G. IN EXISTING 2" C. HOMERUN CIRCUITS BELOW GRADE FROM PULL/SPLICE BOX THRU NEW LIGHTING CONTROL PANEL TO (3) SPARE 20A,3P CIRCUIT BREAKERS IN EXISTING SIEMANS 480/277V, 3-PHASE, ELECTRICAL PANEL IN ELECTRICAL SHED. T# INDICATED TENNIS COURT POLE NUMBERS AND (LETTER) INDICATES LIGHTING CONTROL CIRCUITS CORRESPONDING WITH MUSCO LIGHTING DESIGN PLANS. VERIFY EXACT POLE LOCATION WITH SITE PLANS.

GENERAL SITE LIGHTING NOTES:

1. UPON COMPLETION OF THE JOB, IT WILL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO TURN OVER A SET OF AS-BUILT DRAWINGS TO THE OWNER IN REPRODUCIBLE FORM. THESE DRAWINGS DO NOT HAVE TO BE MADE FROM SCRATCH: THE CONTRACT SITE LIGHTING PLAN MAY BE USED AS BACKGROUNDS WITH THE ACTUAL CIRCUIT CHANGES ADDED.
2. THE ELECTRICAL LIGHTING DRAWINGS SHOW LIGHTING AND DEVICE LOCATIONS ONLY. WIRING SHOWN IS SCHEMATIC IN NATURE, INTENDED TO SHOW CIRCUITING AND CONTROL WIRING. REFER TO APPROVED MUSCO LIGHTING DESIGN PLANS FOR LIGHT FIXTURE, POLES, POLE-TOP MOUNTS, BASE AND CONTROL PANEL SPECIFICATIONS, REQUIREMENTS, WIRING DIAGRAMS AND DETAILS.
3. ELECTRICAL CONTRACTOR SHALL INSTALL AND WIRE ALL, LIGHT FIXTURES, LIGHTING CONTROLS, AS INDICATED ON SITE LIGHTING PLAN.



ELECTRICAL GENERAL NOTES

1. UPON COMPLETION OF THE JOB, IT WILL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO TURN OVER A SET OF AS-BUILT DRAWINGS TO THE OWNER IN REPRODUCIBLE FORM. THESE DRAWINGS DO NOT HAVE TO BE MADE FROM SCRATCH: THE CONTRACT SITE LIGHTING PLANS MAY BE USED AS BACKGROUNDS TO INDICATE ALL ACTUAL POLE/LIGHT, PULL BOXES, CONDUIT ROUTING AND ACTUAL CIRCUITS TO SITE LIGHTING FIXTURES.
2. ALL ELECTRICAL WORK MUST BE PERFORMED IN ACCORDANCE WITH AND SHALL CONFORM IN ALL ASPECTS TO THE NATIONAL ELECTRICAL CODE (NFPA CODES & LOCAL BUILDING CODES).
3. ALL PERMITS, LICENSES AND CERTIFICATES COVERING THE COMPLETE INSTALLATION OF ELECTRICAL WORK MUST BE OBTAINED AND PAID FOR BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ELECTRICAL PERMITS AS REQUIRED FOR ALL ELECTRICAL WORK DESCRIBED IN THE CONSTRUCTION DRAWINGS AND DOCUMENTS.
4. ALL CORE-BORING OR BACKFILLING AND RESURFACING REQUIRED FOR THE ELECTRICAL WORK MUST BE PROVIDED BY ELECTRICAL CONTRACTOR.
5. ALL CUTTING PATCHING AND REFINISHING OF WALLS, FLOORS AND CEILINGS, REQUIRED FOR THE ELECTRICAL WORK, MUST BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
6. THESE DRAWINGS ARE DIAGRAMMATIC ONLY; EXACT LOCATIONS OF ALL CONDUIT, ETC. MUST BE FIELD DETERMINED AND RUN TO AVOID OBSTRUCTIONS.
7. SITE VISITATION – PRIOR TO SUBMITTING A BID FOR WORK, ELECTRICAL CONTRACTOR SHALL VISIT THE SITE TO INSPECT THE NATURE AND EXTENT OF THE EXISTING CONDITIONS AND EQUIPMENT, AND DETERMINE HOW THEY WILL AFFECT THE INSTALLATION OF ELECTRICAL WORK. NO ADDITIONAL PAYMENT, IN EXCESS OF THE CONTRACT PRICE, WILL BE AUTHORIZED FOR "EXTRA" WORK PERFORMED DUE TO EXISTING CONDITIONS WHICH ARE OBVIOUS UPON INSPECTION.
8. ALL EQUIPMENT AND DEVICES MUST BE NEW & BEAR UL LABEL. ALL DEVICES MUST BE "SPECIFICATION" GRADE.
9. WORKMANSHIP: ONLY THE BEST IN WORKMANSHIP IN ACCORDANCE WITH PRESENT STANDARDS WILL BE ACCEPTABLE. ANY WORK INSTALLED AND ADJUDGED BY THE ENGINEER TO BE BELOW STANDARDS WILL BE TAKEN OUT AND REPLACED WITH PROPERLY DONE WORK AT ELECTRICAL CONTRACTOR'S EXPENSE.
10. GUARANTEE: ELECTRICAL CONTRACTOR MUST GUARANTEE ALL EQUIPMENT AND WIRING TO BE FREE FROM INHERENT MECHANICAL AND ELECTRICAL DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION OF PROJECT. ALL DEFECTS MUST BE REPAIRED, DURING THIS PERIOD, AT NO CHARGE TO OWNER (MISUSE OR ABUSE CAUSED PROBLEMS EXCEPTED).
11. ALL PROJECT SUBMITTALS TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. SUBSTITUTIONS OF EQUIPMENT: SPECIFIED PRODUCTS MUST BE USED AS THE BASIS OF BID AND SHALL BE PROVIDED; WHERE 2 OR MORE MANUFACTURERS ARE LISTED, THE CHOICE IS AT THE ELECTRICAL CONTRACTOR'S OPTION. AN APPROVED EQUAL SHALL BE DETERMINED BY ENGINEER.
12. ELECTRICAL CONTRACTOR SHALL PERFORM VOLTAGE DROP CALCULATIONS FOR BRANCH CIRCUITS LONGER THAN INDICATED AND SPECIFIED ON SITE LIGHTING PLAN AS PER NEC.
13. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES MUST BE FIRE STOPPED USING FIRE RETARDANT SEALANTS APPROVED BY THE ENGINEER. ELECTRICAL CONTRACTOR MUST SEAL ALL ELECTRICAL PENETRATIONS THRU FIRE RATED PARTITIONS WITH FIRE RATED MATERIAL EQUAL TO DOW CORNING FIRESTOP 3-6548 SILICONE RTV FOAM AS A MINIMUM. MATERIAL SELECTION SHALL BE BASED ON RATING OF PARTITION PENETRATED.
14. ELECTRICAL CONTRACTOR MUST FIELD VERIFY NAMEPLATE LOADS OF ALL EQUIPMENT (OWNER SUPPLIED) TO INSURE PROPER WIRE SIZING AND OVER-CURRENT PROTECTION AND SHALL NOTIFY ENGINEER OF DISCREPANCIES.
15. ALL SUPPLEMENTARY STEEL REQUIRED FOR ELECTRICAL WORK SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.
16. PROVIDE INSULATED GROUNDING CONDUCTOR IN ALL CONDUITS AND CABLE ASSEMBLIES TO COMPLY WITH NEC.
17. ACCESS TO AND CLEARANCES AROUND ELECTRICAL EQUIPMENT SHALL CONFORM TO NEC ARTICLE 110. CONSULT ENGINEER WHERE SPACE APPEARS INADEQUATE DUE TO FIELD CONDITIONS. DO NOT COVER, OBSCURE OR BLOCK ACCESS TO EQUIPMENT, ACCESS PANELS OR MAINTENANCE AREAS WITH THE ELECTRICAL WORK.
18. ALL PANEL DIRECTORIES, ASSOCIATED WITH THIS PROJECT, MUST BE "TYPED" AND COMPLETELY FILLED IN AT COMPLETION OF JOB IN ACCORDANCE WITH NEC 408.4. NO HAND-WRITTEN DIRECTORIES WILL BE ALLOWED.
19. ELECTRICAL CONTRACTOR MUST PRODUCE A LETTER ATTESTING THAT WORK HAS BEEN COMPLETED TO THE SATISFACTION OF THE OWNER WHO WILL CONFIRM HIS ACCEPTANCE BY AFFIXING HIS SIGNATURE TO THE LETTER IN A SPACE PROVIDED FOR THIS PURPOSE. WORK WILL NOT BE CONSIDERED AS BEING COMPLETE WITHOUT THIS LETTER.
20. PRIOR TO THE ELECTRICAL CONTRACTOR BEING RELEASED FROM ALL OBLIGATIONS, ELECTRICAL CONTRACTOR WILL OBTAIN AND TURN OVER TO THE OWNER THE ORIGINAL COPY OF THE "CERTIFICATE OF ELECTRICAL INSPECTION".
21. ELECTRICAL CONTRACTOR MUST COORDINATE ALL PLANNED POWER SHUTDOWN REQUIREMENTS APPROXIMATELY 5 DAYS IN ADVANCE WITH OWNER. ELECTRICAL CONTRACTOR MUST NOT PROCEED WITH POWER SHUTDOWN WITHOUT WRITTEN AUTHORIZATION FROM OWNER.
22. WHERE CONFLICTS OCCUR BETWEEN DRAWINGS OR BETWEEN DRAWINGS AND SPECIFICATIONS, THE MOST RESTRICTIVE, THE MOST EXPENSIVE REQUIREMENT SHALL APPLY.

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REVISIONS
No. Date Desc.

Surveyed	
Drawn	DT
Reviewed	MWB
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Project No.	2101920
Date	10/12/2022
CAD File:	EL2101901

Title
SITE LIGHTING PLAN

Sheet No.
EL-01

Xref (s): ; BD2100875 ; XC2101920001 ; XC2101920002 ; XZ2101920001 ; XZ2101920002 ; XEL2101920-01

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26-0500 (16050) – ELECTRICAL GENERAL PROVISIONS

A. CODES, REGULATIONS, AND STANDARDS

REGULATORY REQUIREMENTS: ALL WORK SHALL BE DONE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES. WHERE APPROVAL STANDARDS HAVE BEEN ESTABLISHED BY OSHA, UL, ASME, AGA, AMCA, ANSI, ARI, NFPA, THE STATE FIRE INSURANCE REGULATORY BODY, AND FM, FOLLOW THESE STANDARDS WHETHER INDICATED ON THE DRAWINGS AND SPECIFICATIONS. INCLUDE COST OF WORK REQUIRED TO COMPLY WITH REQUIREMENTS OF THESE AUTHORITIES IN THE ORIGINAL PROPOSAL. COMPLY WITH IEEE C2 WHERE APPLICABLE.

ALL ELECTRICAL SYSTEMS WILL BE DESIGNED TO COMPLY WITH THE REQUIREMENTS OF THE STATE BUILDING CODE INCLUDING ANY SUPPLEMENT(S) AND/OR AMENDMENT(S).

FURTHER, ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING APPROVED CODES AND STANDARDS:

1. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70 – NATIONAL ELECTRICAL CODE (NEC).
2. INTERNATIONAL BUILDING CODE (IBC).
3. INTERNATIONAL ENERGY CONSERVATION CODE (IECC).
4. NFPA 72 – NATIONAL FIRE ALARM AND SIGNALING CODE.
5. NFPA 101 – LIFE SAFETY CODE.
6. UNDERWRITER'S LABORATORY (UL) 924 – STANDARD FOR SAFETY OF EMERGENCY LIGHTING AND POWER EQUIPMENT.
7. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA).
8. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
9. ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA).
10. AMERICANS WITH DISABILITIES ACT (ADA).
11. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
12. INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS (IEEE).
13. ELECTRICAL TESTING LABORATORIES (ETL).
14. AMERICAN SOCIETY OF HEATING AND AIR-CONDITIONING ENGINEERS (ASHRAE) 90.1 – ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS.

B. DEFINITIONS

1. "FURNISH": SUPPLY AND DELIVER TO PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS.
2. "INSTALL": UNLOAD, TEMPORARILY STORE, UNPACK, ASSEMBLE, ERECT, PLACE, ANCHOR, APPLY, WORK TO DIMENSION, FINISH, CURE, PROTECT, CLEAN, AND SIMILAR OPERATIONS AT PROJECT SITE.
3. "PROVIDE": FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
4. "PROJECT SITE": SPACE AVAILABLE FOR PERFORMING CONSTRUCTION ACTIVITIES. THE EXTENT OF PROJECT SITE IS SHOWN ON DRAWINGS AND MAY OR MAY NOT BE IDENTICAL WITH THE DESCRIPTION OF THE LAND ON WHICH PROJECT IS TO BE BUILT.
5. "NEW": MANUFACTURED WITHIN THE LAST TWO-YEARS AND NEVER USED.
6. "EQUAL", "ACCEPTABLE", "EQUIVALENT": ACCEPTABLE FOR USE ON THE PROJECT, AS DETERMINED BY THE ENGINEER, BASED UPON DOCUMENTS PRESENTED FOR SUCH DETERMINATION.
7. "INDICATED": REQUIREMENTS EXPRESSED BY GRAPHIC REPRESENTATIONS OR IN WRITTEN FORM ON DRAWINGS, IN SPECIFICATIONS, AND IN OTHER CONTRACT DOCUMENTS. OTHER TERMS INCLUDING "SHOWN," "NOTED," "SCHEDULED," AND "SPECIFIED" HAVE THE SAME MEANING AS "INDICATED."

C. SCOPE

WORK UNDER THE ELECTRICAL CONTRACT SHALL INCLUDE LABOR, MATERIALS, EQUIPMENT, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE THE ELECTRICAL WORK SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.

D. GENERAL REQUIREMENTS

AFTER CAREFULLY STUDYING THE DRAWINGS AND SPECIFICATIONS, AND BEFORE SUBMITTING THE PROPOSAL, EACH BIDDER SHALL VISIT THE SITE TO ASCERTAIN CONDITIONS OF THE SITE, AND THE NATURE AND EXACT QUANTITY OF WORK TO BE PERFORMED; NO EXTRA COMPENSATION WILL BE AWARDED IF THE CONTRACTOR FAILS TO NOTIFY THE OWNER, IN WRITING, OF ANY DISCREPANCIES THAT HE MAY HAVE NOTICED BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS AND SPECIFICATIONS.

THE CONTRACTOR SHALL VERIFY ALL MEASUREMENTS OF HIS OWN, OR OTHERS, AT THE SITE, AND SHALL BE RESPONSIBLE FOR CORRECTNESS OF SAME AS RELATED TO HIS WORK.

OPENINGS AROUND ELECTRICAL PENETRATIONS THROUGH FIRE RESISTANCE RATED WALLS, PARTITIONS, FLOORS, OR CEILINGS SHALL BE FIRE STOPPED USING APPROVED METHODS. SEALANT SHALL BE RATED FOR 3-HOURS.

SLEEVE-SEAL SYSTEMS SHALL BE MODULAR SEALING DEVICE TYPE, DESIGNED FOR FIELD ASSEMBLY TO FILL ANNULAR SPACE BETWEEN SLEEVE AND RACEWAY OR CABLE. SEALING ELEMENTS SHALL BE EPDM RUBBER INTERLOCKING LINKS SHAPED TO FIT THE SURFACE AND PIPE. INCLUDE TYPE AND NUMBER REQUIRED FOR PIPE MATERIAL AND SIZE OF PIPE. PRESSURE PLATES SHALL BE STAINLESS STEEL WITH CONNECTING BOLTS/NUTS OF STAINLESS STEEL, LENGTH AS REQUIRED TO SECURE PRESSURE PLATES TO SEALING ELEMENTS.

PROVIDE DANGER LABELING AT ALL EQUIPMENT AND JUNCTION/PULL BOXES PER CODE.

ALL PANELBOARD COVERS SHALL BE REPLACED AT THE COMPLETION OF EACH DAY'S WORK. MAINTAIN GROUND CONTINUITY THROUGHOUT ALL SYSTEMS.

PRIOR TO ANY CHIPPING, CHASING, OR CHOPPING BEING PERFORMED, THE CONTRACTOR SHALL FIELD INVESTIGATE CONDITIONS AND COORDINATE WITH ALL APPROPRIATE TRADES TO ENSURE THAT WORK WILL BE IN HARMONY WITH OTHER WORK AND NOT AFFECT ANY EXISTING BUILDING SYSTEMS.

CLEANING

REMOVE CONSTRUCTION DEBRIS RESULTING FROM THIS WORK. CLEAN EQUIPMENT AND SYSTEMS FOLLOWING THE DETAILED PROCEDURES SPECIFIED HEREIN, OR AS DICTATED BY OWNER AT SITE.

EXCESS ELECTRICAL MATERIALS AND WASTE SHALL BE REMOVED FROM THE SITE DURING REGULAR BUSINESS HOURS AND SHALL BE TAKEN OFF-SITE NO LATER THAN THE START OF THE NEXT BUSINESS DAY. NO DEBRIS SHALL BE ALLOWED TO ACCUMULATE ON THE SITE. THE CONSTRUCTION SITE SHALL BE SWEPT CLEAN EACH DAY AND NO DUST OR DEBRIS SHALL BE PERMITTED TO ENTER THE AREA DRAINS.

ALL EXCESS ELECTRICAL MATERIALS AND WASTE SHALL BE TAKEN FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS AND ENVIRONMENTAL REGULATIONS. IF ANY EQUIPMENT IS REQUIRED TO BE TURNED OVER TO THE OWNER SHALL BE PLACED IN A MUTUALLY ACCEPTABLE LOCATION (COORDINATE LOCATION AND EQUIPMENT WITH OWNER).

E. PERMITS, FEES AND INSPECTIONS

THE ELECTRICAL CONTRACTOR SHALL:

1. GIVE ALL NECESSARY NOTICES.
2. ARRANGE WITH LOCAL AND STATE AUTHORITIES AND UTILITY COMPANIES FOR PERMITS AND SERVICE CONNECTIONS, VERIFYING LOCATIONS AND ARRANGEMENT.
3. SHALL INCLUDE IN HIS BID THE COST OF REQUIRED GOVERNMENT AND STATE SALES TAXES AND ALL APPLICABLE FEES INCLUDING INSPECTIONS.
4. THE CONTRACTOR SHALL FILE ALL DRAWINGS, COMPLETE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS FROM THE PROPER AUTHORITY OR AGENCY HAVING JURISDICTION.
5. SEE THAT ALL REQUIRED INSPECTIONS AND TESTS ARE MADE, AND OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION COVERING HIS WORK.

F. SUBMITTALS

SHOP DRAWINGS SUBMITTALS SHALL CONSIST OF ELECTRONIC FILES IN PDF FORMAT, OR AS SPECIFIED ELSEWHERE WITH IN THESE DOCUMENTS. SUBMIT SHOP DRAWINGS OF, BUT NOT LIMITED TO, THE FOLLOWING:

1. CONDUIT AND CONDUCTORS
2. SAFETY SWITCHES, DISCONNECTS, AND FUSES
3. CIRCUIT BREAKERS AND ENCLOSURES
4. LIGHTING FIXTURES AND LAMPS

J. MAINTENANCE OF EXISTING FACILITIES AND CONDUCT OF WORK

THIS FACILITY WILL BE OCCUPIED AND IN OPERATION DURING THE PROGRESS OF THE WORK; WHEN NECESSARY TO TEMPORARILY HALT BUILDING EGRESS OR FLOW OF PERSONNEL TRAFFIC, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A TIME MUTUALLY AGREED UPON; IT IS REQUIRED THAT THE WORK INDICATED AND/OR SPECIFIED SHALL BE CARRIED OUT WITH A MINIMUM OF INTERFERENCE TO THE ESTABLISHED ROUTINE OF THE OCCUPANTS.

THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR ALL COORDINATION OF HIS WORK WITH OTHER TRADES IN ORDER THAT ALL WORK MAY PROCEED WITH A MINIMUM OF DELAY AND INTERFERENCE. THE WORK SHALL BE CAREFULLY LAID OUT IN ADVANCE TO AVOID UNNECESSARY CUTTING, CHANNELING, CHASING OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS, OR OTHER SURFACES; WHERE SUCH WORK IS NECESSARY, THE WORK SHALL BE PATCHED AND/OR REPAIRED IN AN APPROVED MANNER BY SKILLED MECHANICS AT NO ADDITIONAL COST TO THE OWNER.

NO WORK SHALL BE LEFT INCOMPLETE NOR ANY HAZARDOUS SITUATIONS CREATED WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS; AT NO TIME SHALL THE WORK INTERFERE WITH OR CUTOFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S WRITTEN PERMISSION.

WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING BUILDING UTILITIES AND SERVICE SYSTEMS, INCLUDING FEEDER OR BRANCH CIRCUIT SUPPLYING EXISTING FACILITIES, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A MUTUALLY AGREED UPON TIME.

MAINTAIN EXISTING ELECTRICAL SERVICES IN THE BUILDING AREAS NOT AFFECTED BY THE ALTERATIONS DURING THE PROGRESS OF THE WORK INCLUDING PROVIDING TEMPORARY JUMPERS, CONDUITS, CAPS, PROTECTIVE DEVICES, CONNECTIONS AND EQUIPMENT REQUIRED.

K. QUALITY, WORKMANSHIP, MATERIALS AND SAFETY

PROVIDE LABOR, MATERIALS, APPARATUS, AND APPLIANCES ESSENTIAL TO THE COMPLETE FUNCTIONING OF THE SYSTEMS DESCRIBED OR INDICATED HEREIN, OR WHICH MAY BE REASONABLY IMPLIED AS ESSENTIAL WHETHER MENTIONED IN THE CONTRACT DOCUMENTS OR NOT. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND LISTED FOR THE DESCRIBED APPLICATION.

WORK SHALL BE FIRST-CLASS IN EVERY RESPECT AND SHALL BE NEATLY PERFORMED IN A PRACTICAL AND WORKMANLIKE MANNER BY PROFICIENT ELECTRICIANS SKILLED IN THE WORK THEY ARE TO DO, USING THE BEST PRACTICES OF THEIR TRADE, AND UNDER CONTINUOUS AND COMPETENT SUPERVISION.

THE WORK SHALL BE WELL ORGANIZED IN OPERATION, AND CARRIED OUT EFFICIENTLY WITHOUT DELAYS WHICH MAY IMPEDE PROGRESS OR THE QUALITY OF THE WORK OF OTHER TRADES AND THE JOB AS A WHOLE.

MATERIAL AND EQUIPMENT PROVIDED SHALL BE NEW AND APPROVED FOR THE APPLICATION AND SHALL CONFORM WITH THE SPECIFIED CODES AND STANDARDS; DEFECTIVE OR DAMAGED MATERIALS SHALL BE REPLACED OR REPAIRED IN A MANNER SATISFACTORY TO THE OWNER.

ELECTRICAL MATERIAL AND METHODS SHALL BE UL OR ETL LISTED AND FM APPROVED FOR THEIR INTENDED USE.

L. TESTS, INSPECTION AND APPROVAL

INSPECT EQUIPMENT, COMPONENTS AND MATERIALS INSTALLED OR CONNECTED UNDER THIS CONTRACT TO ENSURE:

1. PROPER CONDITIONS
2. COMPONENTS ARE IN PLACE ALIGNED AND SECURE
3. PROPER INTERNAL CONNECTIONS

BEFORE ENERGIZING ANY FACTORY FABRICATED EQUIPMENT, INSPECT EACH UNIT IN DETAIL; BOLTS AND CONNECTIONS SHALL BE TIGHT (TORQUE/TIGHTEN WHERE REQUIRED), COMPONENTS SHALL BE ALIGNED, AND THE EQUIPMENT SHALL BE IN SAFE, OPERATIONAL CONDITION.

THE COMPLETE ELECTRICAL SYSTEM SHALL BE FREE OF GROUNDS AND SHORT CIRCUITS AND SHALL OPERATE SATISFACTORILY UNDER FULL LOAD CONDITIONS, WITHOUT EXCESSIVE HEATING AT ANY POINT IN THE SYSTEM.

N. SERVICE MANUALS

UPON COMPLETION OF THE WORK, FULLY INSTRUCT THE OWNER AS TO THE OPERATION AND MAINTENANCE OF MATERIAL, EQUIPMENT, AND SYSTEMS. PROVIDE (3) COMPLETE BOUND SETS OF INSTRUCTIONS FOR OPERATING AND MAINTAINING SYSTEMS AND EQUIPMENT.

O. RECORD DRAWINGS

MAINTAIN, AT THE JOB SITE, A SET OF ELECTRICAL DRAWINGS INDICATING ALL CHANGES IN LOCATION OF EQUIPMENT, PANELS, DEVICES AND CIRCUIT NUMBERS FROM THE ORIGINAL LAYOUT. PLAINLY MARK IN RED, ALL CHANGES ON THE DRAWINGS. AT THE COMPLETION OF THE PROJECT, PROVIDE A COMPLETE SET OF AS-BUILT REPRODUCIBLE DRAWINGS SHOWING ALL CHANGES AND TURN OVER TO THE OWNER.

P. GUARANTEE

FURNISH, IN WRITING, A COMPLETE GUARANTEE AGAINST DEFECTIVE MATERIALS AND IMPROPER WORKMANSHIP, SATISFACTORY TO OWNER, FOR PARTS, COMPONENTS, AND OPERATION FOR A PERIOD OF (1) YEAR FROM THE DATE OF ACCEPTANCE, BY THE OWNER, OF THE COMPLETE INSTALLATION.

GUARANTEE SHALL INCLUDE COMPLETE MAINTENANCE OF SYSTEMS, INCLUDING REPLACEMENT PARTS, LABOR AND MATERIALS TO MAINTAIN THE SYSTEMS IN PROPER OPERATING CONDITION FOR THE GUARANTEE PERIOD.

Q. CUTTING AND PATCHING

ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING REQUIRED FOR THE WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

CUTTING OF BEAMS, FLOORS OR WALLS FOR PIPING OR CONDUIT, SHALL BE DONE ONLY AS APPROVED BY THE OWNER.

PROVIDE DRILLING AND PATCHING FOR EXPANSION BOLTS, HANGERS, AND OTHER SUPPORTS FOR PROPER AND SAFE INSTALLATION OF THE WORK.

PROVIDE UL LISTED ASSEMBLIES FOR FIRE STOPPING AND SEALING AROUND PENETRATIONS THROUGH RATED ASSEMBLIES; REFER TO ARCHITECTURAL SPECIFICATIONS.

PROVIDE COUNTER FLASHING, SLEEVES AND SEALS FOR FLOOR AND WALL PENETRATIONS.

26-0519 (16120) – LOW VOLTAGE POWER CONDUCTORS AND CABLES

A. BUILDING WIRE

HOMERUNS, FEEDERS AND BRANCH CIRCUITS NO. 8 AWG AND LARGER: COPPER, STRANDED CONDUCTOR, 600 VOLT INSULATION, XHHW-2, IN ACCORDANCE WITH NEMA WC5 AND NEMA WC3.

HOMERUNS, FEEDERS AND BRANCH CIRCUITS NO. 10 AWG AND SMALLER: COPPER CONDUCTOR, 600 VOLT INSULATION, XHHW-2; SOLID CONDUCTOR IN ACCORDANCE WITH NEMA WC5.

CONTROL WIRING SHALL BE COPPER, STRANDED CONDUCTOR 600 VOLT INSULATION, THHN/THWN-2, IN SINGLE CONDUCTORS OR PREFERABLY MULTI-CONDUCTOR CABLES WHEREVER POSSIBLE. CABLES SHALL BE PROVIDED WITH AN OVERALL FLAME-RETARDANT EXTRUDED JACKET, RATED FOR PLENUM USE.

B. WIRING CONNECTIONS AND SPLICES

CONDUCTORS NO. 8 AWG AND SMALLER SHALL BE TWISTED AND MADE MECHANICALLY TIGHT, THEN SECURED WITH PIGTAIL CONNECTORS – SELF-INSULATING, WIRE NUT CONNECTORS. CRIMP TYPE CONNECTORS SHALL NOT BE USED. UTILIZE UL LISTED "SILICON FILLED" PIGTAIL CONNECTORS WHERE LOCATED IN WET ENVIRONMENTS, OUTDOORS, OR IN DATA PROCESSING/COMMUNICATION ROOM RAISED FLOOR CAVITIES.

SPLICE OR TAP STRANDED COPPER CONDUCTORS (NO. 6 AWG AND LARGER) WITH PRESSURE INDENT, HIGH CONDUCTIVITY, WROUGHT COPPER, COLOR-KEYED COMPRESSION TYPE CONNECTORS – BURNDY, NEPCO, T&B, OR O.Z. GEDNEY WITH COMPOSITION INSULATING COVERS.

C. GENERAL WIRING METHODS

PROVIDE CONDUCTORS OF CONTINUOUS LENGTH WITHOUT JOINT OR SPLICE.

NEATLY TRAIN AND LACE WIRING INSIDE BOXES AND POLES.

USE NO WIRE SMALLER THAN NO. 10 AWG FOR POWER AND LIGHTING CIRCUITS, AND NO SMALLER THAN NO. 12 AWG FOR CONTROL WIRING.

PROVIDE NEUTRAL CONDUCTOR OF THE SAME SIZE AS THE PHASE CONDUCTORS IT IS ASSOCIATED WITH. COMMON NEUTRALS SHALL NOT BE USED FOR BRANCH CIRCUITS.

HOMERUNS AND BRANCH CIRCUIT CONDUCTOR SIZE SHALL BE AS INDICATED ON PLANS.

PROVIDE APPROPRIATELY SIZED LUGS AND TERMINATIONS AT ALL EQUIPMENT. DO NOT REDUCE WIRE SIZE AT EQUIPMENT LUGS.

D. WIRING INSTALLATIONS IN RACEWAY

PULL ALL CONDUCTORS INTO A RACEWAY AT THE SAME TIME. USE UL LISTED WIRE PULLING LUBRICANT. DO NOT EXCEED MANUFACTURER'S RECOMMENDED TENSION.

COMPLETELY AND THOROUGHLY SWAB RACEWAY SYSTEM BEFORE INSTALLING CONDUCTORS.

DO NOT INSTALL CONDUCTORS WHICH HAVE BEEN REMOVED FROM A RACEWAY. WIRE PREVIOUSLY PULLED INTO CONDUIT IS CONSIDERED USED AND SHALL NOT BE RE-PULLED.

INSTALL XHHW-2 CONDUCTORS IN RACEWAY FOR SERVICE ENTRANCE CONDUCTORS, AND UNDERGROUND FEEDERS AND BRANCH CIRCUITS.

INSTALL THHN/THWN-2 CONDUCTORS IN RACEWAYS FOR ABOVE-GRADE FEEDERS AND BRANCH CIRCUITS.

PROVIDE HOMERUN AND FEEDER CONDUCTORS OF CONTINUOUS LENGTH WITHOUT JOINT OR SPLICE FROM OVERCURRENT DEVICE TO FIRST LIGHT POLE.

26-0526 (16060) – GROUNDING AND BONDING

PROVIDE GROUNDING SYSTEMS, INCLUDING POWER SYSTEM GROUNDING, ELECTRICAL EQUIPMENT AND RACEWAY GROUNDING AND BONDING, STRUCTURAL STEEL GROUNDING, AND MISCELLANEOUS SYSTEM GROUNDING.

BUILDING EQUIPMENT GROUND:

1. PROVIDE A SEPARATE, INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDERS AND BRANCH CIRCUITS. TERMINATE EACH END ON A GROUNDING LUG, BUS, OR BUSHING. DO NOT USE CONDUIT AS GROUNDING CONDUCTOR.
2. PROVIDE 02 GEDNEY TYPE 'BJ' BONDING JUMPER AT ALL EXPANSION JOINTS, POINTS OF ELECTRICAL DISCONTINUITY OR CONNECTIONS IN CONDUIT WHERE FIRM MECHANICAL BOND IS NOT POSSIBLE, SUCH AS FLEXIBLE CONNECTIONS, INSULATION COUPLINGS, ETC.
3. BOND EVERY ITEM OF EQUIPMENT SERVED BY THE ELECTRICAL SYSTEM TO THE BUILDING EQUIPMENT GROUND SYSTEM. THIS INCLUDES NEW SWITCHBOARDS, PANELBOARDS, DISCONNECT SWITCHES, RECEPTACLES, CONTROLS, FANS, AIR HANDLING UNITS, PUMPS AND FLEXIBLE DUCT CONNECTIONS.

PROVIDE SUPPLEMENTARY GROUND BONDING WHERE METALLIC CONDUITS TERMINATE AT METAL CLAD EQUIPMENT (OR AT THE METAL PULL BOX OF EQUIPMENT) FOR WHICH A GROUND BUS IS SPECIFIED. ACCOMPLISH THIS BY EQUIPPING THE CONDUITS WITH A BUSHING OF THE GROUNDING TYPE CONNECTED INDIVIDUALLY TO GROUND BUS.

ALL GROUND WIRES SHALL BE SUITABLY PROTECTED FROM MECHANICAL INJURY.

BARE COPPER CONDUCTORS:

1. SOLID CONDUCTOR: ASTM B 3.
2. STRANDED CONDUCTORS: ASTM B 8.
3. TINNED CONDUCTORS: ASTM B 33.
4. BONDING CABLE: 28 KCMIL, 14 STRANDS OF NO. 17 AWG CONDUCTOR, 1/4 INCH (6 MM) IN DIAMETER.
5. BONDING CONDUCTOR: NO. 4 OR NO. 6 AWG, STRANDED CONDUCTOR.
6. BONDING JUMPER AND TINNED BONDING JUMPER: COPPER TAPE AND TINNED-COPPER TAPE, BRAIDED CONDUCTORS TERMINATED WITH COPPER FERRULES; 1-5/8 INCHES (41 MM) WIDE AND 1/16 INCH (1.6 MM) THICK.

GROUNDING BUS SHALL BE PRE-DRILLED RECTANGULAR BARS ON ANNEALED COPPER, 1/4 BY 8 INCHES (6.3 BY 200MM) IN CROSS SECTION MINIMUM, WITH 9/32 INCH (7.14MM) HOLES SPACED 1-1/8 INCHES (28MM) APART. STAND-OFF INSULATORS FOR MOUNTING SHALL COMPLY WITH UL 891 FOR USE IN SWITCHBOARDS, 600V AND SHALL BE LEXAN OR PVC. INSTALL IN ELECTRICAL EQUIPMENT ROOMS, ROOMS HOUSING SERVICE ENTRANCE EQUIPMENT, AND ELSEWHERE AS INDICATED.

CONNECTORS SHALL BE LISTED AND LABELED BY AN NRTL ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION FOR APPLICATIONS IN WHICH USED AND FOR SPECIFIC TYPES, SIZES, AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS CONNECTED.

WELDED CONNECTORS: EXOTHERMIC-WELDING KITS OF TYPES RECOMMENDED BY KIT MANUFACTURER FOR MATERIALS BEING JOINED AND INSTALLATION CONDITIONS.

GROUND RODS: COPPER-CLAD STEEL; 3/4 INCH BY 10 FEET (19 MM BY 3 M).

26-0533 (16130/16132) – RACEWAY AND BOXES

A. PULL AND JUNCTION BOXES

PROVIDE GALVANIZED SHEET METAL BOXES SHALL BE 4-11/16 INCH SQUARE OR LARGER CONFORMING TO NEMA OS 1.

PULL BOXES AND JUNCTION BOXES SHALL BE SIZED SO THAT THE MINIMUM BENDING RADIUS CRITERIA SPECIFIED FOR THE WIRES AND CABLE ARE MAINTAINED.

INCLUDE ALL REQUIRED JUNCTION/PULL BOXES REGARDLESS OF INDICATIONS ON THE DRAWINGS (WHICH DUE TO SYMBOLIC METHODS OF NOTATION, MAY NOT SHOW ALL THAT ARE REQUIRED.)

PROVIDE PULL OR JUNCTION BOXES IN ACCESSIBLE LOCATIONS WHERE SHOWN, AT LEAST EVERY 150-FEET IN STRAIGHT RUNS, AS REQUIRED BY CODE, OR AS NEEDED FOR PROPER INSTALLATION OF WIRING AND JUNCTIONS.

SET BOXES INSTALLED IN CONCEALED LOCATIONS FLUSH WITH THE FINISH SURFACES, AND PROVIDE WITH THE PROPER TYPE EXTENSION RINGS AND/OR COVERS WHERE REQUIRED.

ALL EQUIPMENT, DEVICE BOXES, JUNCTION BOXES, PULL BOXES AND OUTLET BOXES SHALL BE INSTALLED TO ALLOW ACCESS TO THE BOX.

IDENTIFY ALL JUNCTION BOXES BY PANEL AND CIRCUIT NUMBERS ON COVER WITH LEGIBLE PERMANENT INK MARKER.

BOXES AND ENCLOSURES INSTALLED ON CONCRETE SURFACES SHALL BE PROVIDED WITH 1/4 INCH AIR GAP MINIMUM.

B. CONDUIT MATERIALS

PROVIDE RIGID GALVANIZED STEEL CONDUIT (RGS) AND FITTINGS IN ACCORDANCE WITH ANSI C80.1; HOT DIP GALVANIZED UNLESS OTHERWISE SPECIFIED.

PROVIDE ELECTRICAL METALLIC TUBING (EMT) AND FITTINGS IN ACCORDANCE WITH ANSI C80. 3; HOT-DIPPED GALVANIZED TUBING UNLESS OTHERWISE SPECIFIED.

RIGID NON-METALLIC CONDUIT (RNC) SHALL BE POLYVINYL CHLORIDE (PVC) SCHEDULE 40, UNLESS OTHERWISE NOTED.

THREADED FITTINGS SHALL BE USED WITH RGS CONDUIT. STEEL SET SCREW OR STEEL COMPRESSION FITTINGS SHALL BE USED WITH EMT.

C. CONDUIT SIZING, ARRANGEMENT AND SUPPORT

MINIMUM SIZE OF CONDUIT SHALL BE 3/4-INCH.

CONDUIT SIZES INDICATED ON THE DRAWINGS ARE MINIMUM BASED ON XHHW-2, COPPER WIRE AND LARGER SIZES MAY BE USED FOR CONVENIENCE OF WIRE PULLING.

CONCEAL CONDUIT IN CEILING AND WALLS IN ALL FINISHED AREAS OF THE BUILDING. IN UNFINISHED AREAS WITHOUT CEILINGS, CONDUIT MAY BE RUN EXPOSED OVERHEAD.

INSTALL ALL CONDUIT, INCLUDING CONDUIT ABOVE ACCESSIBLE CEILING, PARALLEL OR PERPENDICULAR TO WALLS AND ADJACENT PIPING.

MAINTAIN MINIMUM 6-INCH CLEARANCE BETWEEN CONDUIT AND PIPING. MAINTAIN 12-INCH CLEARANCE BETWEEN CONDUIT AND HEAT SOURCES SUCH AS FLUES, STEAM PIPES, HOT WATER PIPES, AND HEATING APPLIANCES. WHERE CROSSINGS ARE UNAVOIDABLE, CONDUIT SHALL BE KEPT AT LEAST 1-INCH FROM THE INSULATED COVERING OF THE PIPE AND CROSS PERPENDICULAR.

ROUTE CONDUIT TO ALLOW FOR EQUIPMENT ACCESS AND MAINTENANCE.

ARRANGE CONDUIT SUPPORTS TO PREVENT DISTORTION OF ALIGNMENT BY WIRE PULLING OPERATIONS. FASTEN CONDUIT SECURELY TO BUILDING STRUCTURE USING CLAMPS, HANGERS AND THREADED ROD.

THE ROUTING OF CONDUITS INDICATED ON THE DRAWINGS IS DIAGRAMMATIC; BEFORE INSTALLING ANY WORK, EXAMINE THE WORKING LAYOUTS AND SHOP DRAWINGS OF THE OTHER TRADES TO DETERMINE THE EXACT LOCATIONS AND CLEARANCE.

FOR ALL SIZES OF CONDUIT LARGER THEN 1-1/2 INCHES, USE STANDARD MANUFACTURED ELBOWS. IN SMALLER SIZES, FIELD BENDS WILL BE PERMITTED INSTEAD OF USING MANUFACTURED ELBOWS BUT CARE MUST BE TAKEN NOT TO DAMAGE THE CONDUIT. THE RADIUS OF THE INNER CURVE OF ANY BEND SHALL NOT BE ANY LESS THAN THAT PERMITTED BY CODE.

CONDUIT SHALL BE SECURELY FASTENED IN PLACE. HANGERS, SUPPORTS, OR FASTENINGS SHALL BE PROVIDED AT EACH ELBOW AND AT EACH END OF STRAIGHT CONDUIT RUN TERMINATED AT A BOX OR CABINET. WHERE RISER CONDUITS PIERCE FLOOR SLABS, THEY SHALL REST ON EACH FLOOR WITH APPROVED BEAM CLAMPS, PIPE STRAPS OR HEAVY IRON TIES WIRED TO THE STRUCTURAL MEMBERS SUPPORTING EQUIPMENT. SIZE AND TYPE OF ANCHOR SHALL BE BASED ON THE COMBINED WEIGHTS OF CONDUIT, HANGER AND CABLES. ALL HANGERS AND RODS SHALL BE PAINTED WITH ONE COAT OF ENAMEL.

INSTALL CONDUIT EXPANSION FITTINGS IN EACH CONDUIT RUN WHEREVER IT CROSSES AN EXPANSION JOINT AND WHEREVER THE CONDUIT LENGTH EXCEEDS 200-FEET.

D. CONDUIT/BOX APPLICATION INDOORS

1. EXPOSED AREAS NOT SUBJECT TO PHYSICAL DAMAGE: EMT.
2. EXPOSED AREAS SUBJECT TO PHYSICAL DAMAGE: RGS BELOW 48 INCHES AND EMT 48 INCHES ABOVE FINISHED FLOOR. AREAS SUBJECT TO PHYSICAL DAMAGE INCLUDE, BUT ARE NOT LIMITED TO MECHANICAL AND ELECTRICAL ROOMS, RECEIVING AREA, MAINTENANCE SHOP, BOILER ROOM, SPRINKLER ROOM, AND LIKE UTILITY ROOMS, ETC.
3. AREAS SUBJECT TO MOISTURE, CORROSIVE AGENTS, PHYSICAL ABUSE, IN UNCONDITIONED SPACES, OR CONDUIT SIZES GREATER THAN 4 INCH: RGS.
4. DO NOT USE ELECTRICAL METALLIC TUBING IN AREAS SUBJECT TO MOISTURE, CORROSIVE AGENTS, OR PHYSICAL ABUSE.
5. CONCEALED IN CEILINGS AND WALLS: EMT.
6. CAST IN CONCRETE OR BELOW CONCRETE SLABS: RNC – SCHEDULE 40 PVC. EXCEPTION, EXPOSED CONDUIT ENTERING/EXITING THE CONCRETE SHALL BE RGS.
7. CONNECTION TO VIBRATING EQUIPMENT: IN AREAS SUBJECT TO MOISTURE, HIGH HUMIDITY, OR CORROSIVE AGENTS, USE LIQUID-TIGHT FLEXIBLE METAL STEEL CONDUIT (LFMC).
8. PLENUM SPACES: WIRING METHODS IN PLENUM SPACES SHALL CONFORM TO THE REQUIREMENTS OF NEC SECTION 300-22. ALL CONDUITS SHALL BE METAL.

26-0553 (16075) – IDENTIFICATION

PROVIDE WIRE AND CABLE MARKERS (SPLIT SLEEVE OR TUBING TYPE) ON ALL CONDUCTORS. PROVIDE WIRE MARKERS ON EACH CONDUCTOR IN SPLICE BOXES, PULL BOXES, AND AT FIRST LOAD CONNECTION ON HOMERUN. IDENTIFY WITH BRANCH CIRCUIT OR FEEDER NUMBER FOR POWER AND LIGHTING CIRCUITS, AND WITH CONTROL WIRE NUMBER AS INDICATED ON EQUIPMENT MANUFACTURERS SHOP DRAWING FOR CONTROL WIRING.

UNDERGROUND-LINE WARNING TAPE: DETECTABLE THREE-LAYER LAMINATE, CONSISTING OF A PRINTED PIGMENTED POLYOLEFIN FILM, A SOLID ALUMINUM-FOIL CORE, AND A CLEAR PROTECTIVE FILM THAT ALLOWS INSPECTION OF THE CONTINUITY OF THE CONDUCTIVE CORE, BRIGHT COLORED, CONTINUOUS PRINTED ON ONE SIDE WITH THE INSCRIPTION OF THE UTILITY, COMPOUNDED FOR DIRECT BURIAL SERVICE. WIDTH SHALL BE 3 INCHES (75 MM), OVERALL THICKNESS SHALL BE 5 MILS (0.125 MM), FOIL CORE THICKNESS SHALL BE 0.35 MILS (0.00889 MM), WEIGHT SHALL BE 28 LB/1000 SQ. FT. (13.7 KG/100 SQ. M), AND TENSILE SHALL BE ACCORDING TO ASTM D 882: 70 LBF (311.3 N) AND 4600 PSI (31.7 MPA). PRINTING ON TAPE SHALL BE PERMANENT AND SHALL NOT BE DAMAGED BY BURIL OPERATIONS. TAPE MATERIAL AND INK SHALL BE CHEMICALLY INERT AND NOT SUBJECT TO DEGRADATION WHEN EXPOSED TO ACIDS, ALKALIS, AND OTHER DESTRUCTIVE SUBSTANCES COMMONLY FOUND IN SOILS. PROVIDE RED-COLORED TAPE FOR ELECTRIC LINES.

COLOR CODING SHALL BE BUILDING STANDARD. WHERE NO BUILDING STANDARD EXIST IS, FACTORY COLOR CODING SHALL BE AS FOLLOWS:

208Y/120V, 3 PH	PHASE 'A':	BLACK
	PHASE 'B':	RED
	PHASE 'C':	BLUE

Portsmouth High School Tennis Courts

Portsmouth, NH

Lighting System

Pole / Fixture Summary

Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
T1	40'	40'	2	TLC-LED-600	1.16 kW	C
		40'	2	TLC-LED-600	1.16 kW	B
T2	40'	40'	2	TLC-LED-600	1.16 kW	B
T3	50'	50'	2	TLC-LED-600	1.16 kW	B
		50'	2	TLC-LED-600	1.16 kW	A
T4, T7	50'	50'	2	TLC-LED-600	1.16 kW	C
T5-T6	40'	40'	2	TLC-LED-600	1.16 kW	A
T8	50'	50'	2	TLC-LED-600	1.16 kW	A
		50'	2	TLC-LED-600	1.16 kW	B
		50'	2	TLC-LED-600	1.16 kW	C
8			*24*		*13.92 kW*	

Circuit Summary

Circuit	Description	Load	Fixture Qty
A	Tennis 1-2	4.64 kW	8
B	Tennis 3-4	4.64 kW	8
C	Tennis 5-6	4.64 kW	8

Fixture Type Summary

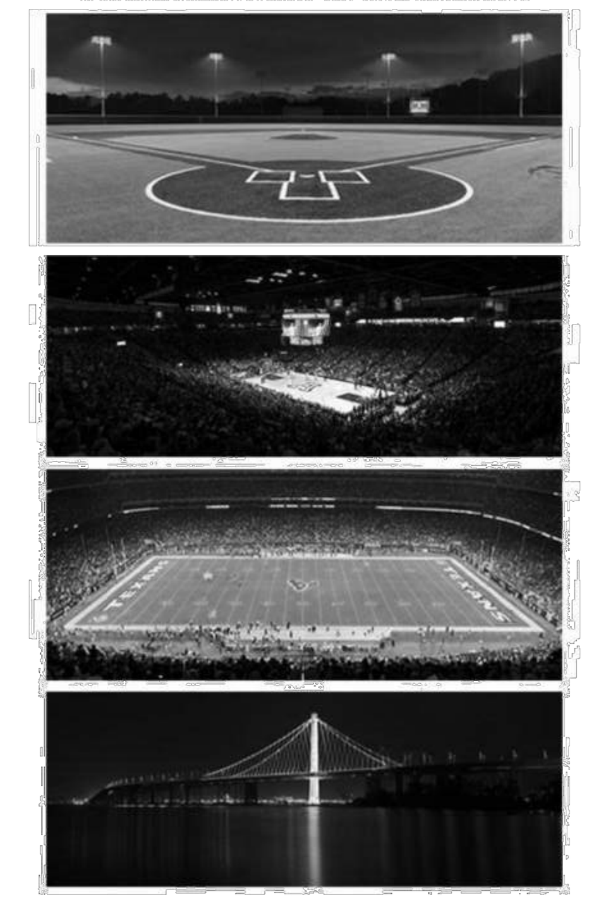
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-600	LED 5700K - 75 CRI	580W	65,600	>120,000	>120,000	>120,000	24

Light Level Summary

Calculation Grid Summary

Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Tennis 1-2	Horizontal Illuminance	34.4	27	47	1.75	1.28	A	8
Tennis 3-4	Horizontal Illuminance	35	27	48	1.75	1.29	B	8
Tennis 5-6	Horizontal Illuminance	35.7	27	45	1.67	1.32	C	8

From Hometown to Professional



ENGINEERED DESIGN By: · File #211130E · 19-Dec-22

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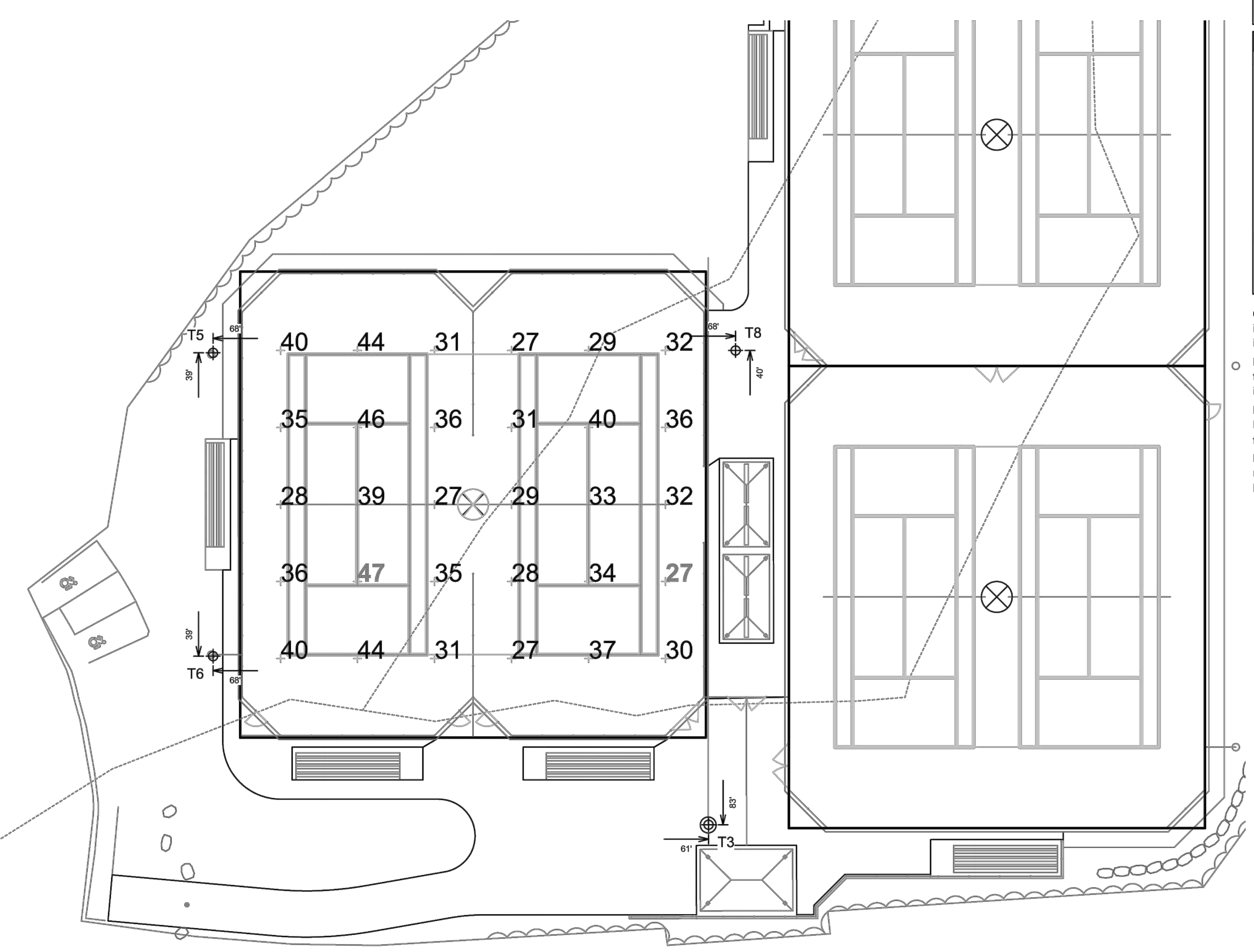
PROJECT SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	T3	50'	-	50'	TLC-LED-600	4	2	2
2	T5-T6	40'	-	40'	TLC-LED-600	2	2	0
1	T8	50'	-	50'	TLC-LED-600	2/4*	2	4
4	TOTALS					14	8	6

* This structure utilizes a back-to-back mounting configuration



Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

Portsmouth High School Tennis Courts
Portsmouth, NH

GRID SUMMARY

Name:	**Tennis 1-2**
Size:	2 Court - 24' Spacing
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Guaranteed Average:	30
Scan Average:	34.43
Maximum:	47
Minimum:	27
Avg / Min:	1.29
Guaranteed Max / Min:	2.5
Max / Min:	1.75
UG (adjacent pts):	0.00
CU:	0.79
No. of Points:	30
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	**8**
Total Load:	4.64 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

ENGINEERED DESIGN By: · File #211130E · 19-Dec-22

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ILLUMINATION SUMMARY

BL Companies
ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

TENNIS COURT RENOVATION
PORTSMOUTH HIGH SCHOOL
50 ANDREW JARVIS DR., PORTSMOUTH, NH 03801

REVISIONS
No. Date Desc.

Surveyed	
Drawn	DT
Reviewed	MWB
Scale	1"=20'-0"
Project No.	2101920
Date	10/12/2022
CAD File:	EL2101902

Title
MUSCO LIGHTING LAYOUT 1

Sheet No.
EL-03

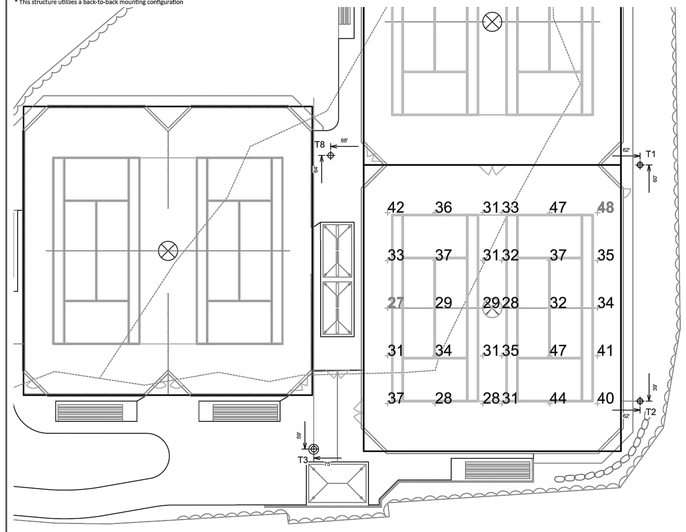
Xref (s): ; BD2100875 ; XC210192001 ; XC210192002 ; XZ210192001 ; XZ210192002 ; XEL2101920-01

May 17, 2023 2:05pm JWheeler G:\JOBS21\18\2101920\DWG\EL210192001.dwg
Layout: EL-03

EQUIPMENT LIST FOR AREAS SHOWN

				Pole	Luminaires			
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	T1	40'	0'	40'	TLC-LED-600	4	2	2
1	T2	40'	-	40'	TLC-LED-600	2	2	0
1	T3	50'	-	50'	TLC-LED-600	4	2	2
1	T8	50'	-	50'	TLC-LED-600	2/4*	2	4
4	TOTALS					16	8	8

* This structure utilizes a back-to-back mounting configuration



SCALE IN FEET 1 : 30
0' 30' 60'

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Pole location(s) ✛ dimensions are relative to 0,0 reference point(s) ⊗

Portsmouth High School Tennis Courts
Portsmouth, NH

GRID SUMMARY

Name:	Tennis 3-4
Size:	2 Court - 12' Spacing
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Guaranteed Average:	30
Scan Average:	34.95
Maximum:	48
Minimum:	27
Avg / Min:	1.28
Guaranteed Max / Min:	3.0
Max / Min:	1.75
UG (adjacent pts):	0.00
CU:	0.80
No. of Points:	30

LUMINAIRE INFORMATION

Applied Circuits:	B
No. of Luminaires:	8
Total Load:	4.64 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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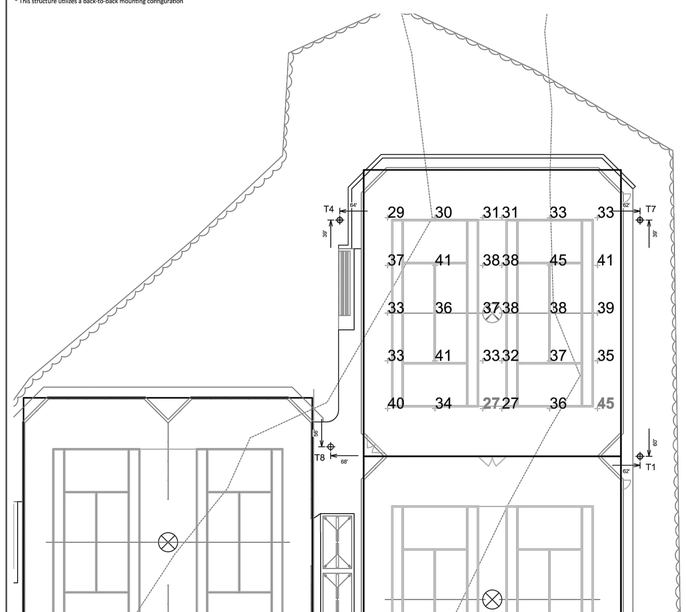
ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

				Pole	Luminaires			
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	T1	40'	0'	40'	TLC-LED-600	4	2	2
2	T4, T7	50'	-	50'	TLC-LED-600	2	2	0
1	T8	50'	0'	50'	TLC-LED-600	2/4*	2	4
4	TOTALS					14	8	6

* This structure utilizes a back-to-back mounting configuration



SCALE IN FEET 1 : 30
0' 30' 60'

ENGINEERED DESIGN By: · File #211130E · 19-Dec-22

Pole location(s) ✛ dimensions are relative to 0,0 reference point(s) ⊗

Portsmouth High School Tennis Courts
Portsmouth, NH

GRID SUMMARY

Name:	Tennis 5-6
Size:	2 Court - 12' Spacing
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Guaranteed Average:	30
Scan Average:	35.65
Maximum:	45
Minimum:	27
Avg / Min:	1.32
Guaranteed Max / Min:	3.0
Max / Min:	1.67
UG (adjacent pts):	0.00
CU:	0.83
No. of Points:	30

LUMINAIRE INFORMATION

Applied Circuits:	C
No. of Luminaires:	8
Total Load:	4.64 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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ILLUMINATION SUMMARY

BL Companies
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ENVIRONMENTAL
LAND SURVEYING

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

TENNIS COURT RENOVATION
PORTSMOUTH HIGH SCHOOL
50 ANDREW JARVIS DR., PORTSMOUTH, NH 03801

REVISIONS
No. Date Desc.

Surveyed
Drawn DT
Reviewed MWB
Scale 1"=20'-0"
Project No. 2101920
Date 10/12/2022

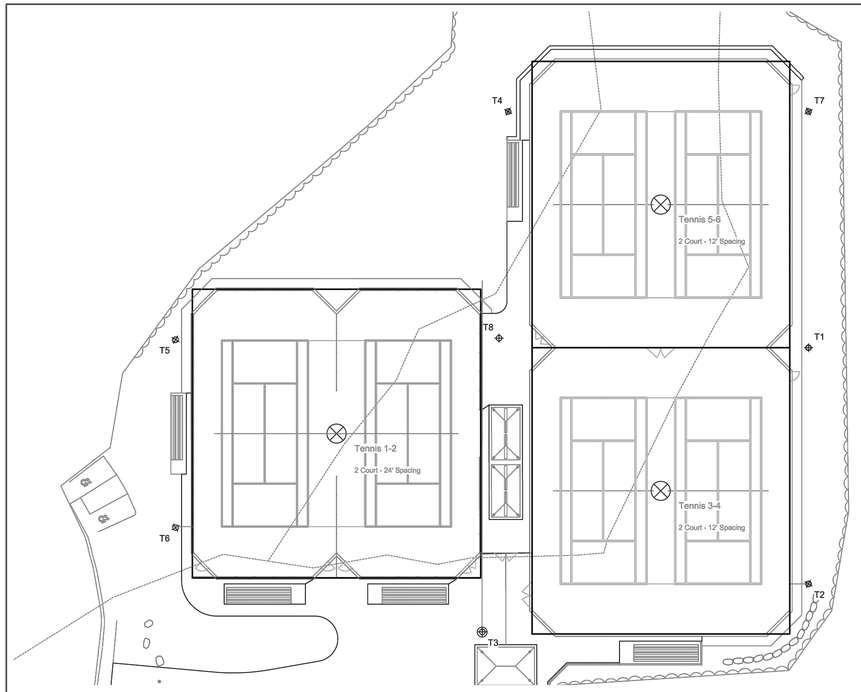
CAD File: EL2101902

Title
MUSCO LIGHTING LAYOUT 2

Sheet No.
EL-04

Xref (s): : BX2100875 : XC2101920001 : XZ2101920002 : XZ2101920001 : XZ2101920002 : XEL2101920-01

May 17, 2023 2:05pm JWheeler G:\JOBS\21\81\2101920\DWG\EL2101920D1.dwg
Layout: EL-04



Portsmouth High School Tennis Courts
Portsmouth, NH

EQUIPMENT LAYOUT

INCLUDES:
- Tennis 1-2
- Tennis 3-4
- Tennis 5-6

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires	
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
1	T1	40'	-	40'	TLC-LED-600	4
2	T2, T6	40'	-	40'	TLC-LED-600	2
1	T3	50'	-	50'	TLC-LED-600	4
2	T4, T7	50'	-	50'	TLC-LED-600	2
1	T5	40'	0'	40'	TLC-LED-600	2
1	T8	50'	-	50'	TLC-LED-600	2/4*
8			TOTALS			24

* This structure utilizes a back-to-back mounting configuration

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)					
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-LED-600	3.4	3.2	3.0	2.6	2.0	1.9	1.5

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

ENGINEERED DESIGN By: · File #211130E · 19-Dec-22

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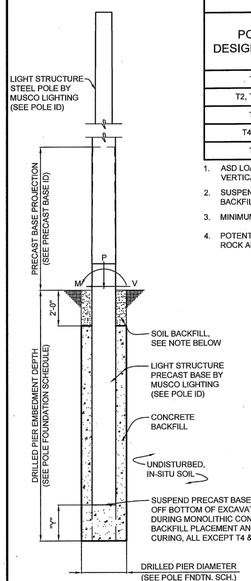
EQUIPMENT LAYOUT



POLE FOUNDATION SCHEDULE

POLE DESIGNATION	FORCES (1.)			DRILLED PIER			
	MOMENT (M) FT-LBS	SHEAR (V) LBS	VERTICAL (P) LBS	DIAMETER INCHES	EMBEDMENT DEPTH (4.)	SUSPENSION "Y" (2.)	CONCRETE BACKFILL YD^3 (3.)
T1	20,622	752	611	36	10'-0"	2'-0"	2.0
T2, T5, T6	14,469	591	481	36	10'-0"	2'-0"	2.0
T3	33,942	1,071	905	EXISTING FOUNDATION			
T4, T7	23,300	762	545	36	8'-0"	NA	1.5
T8	42,974	1,257	1,026	36	12'-0"	2'-0"	2.6

1. ASD LOAD COMBINATION D + 0.6W.
   VERTICAL FORCE IS WEIGHT OF DRESSED POLE (DOES NOT INCLUDE PRECAST BASE WEIGHT)
2. SUSPEND PRECAST BASE "Y" OFF THE BOTTOM OF THE EXCAVATION DURING MONOLITHIC CONCRETE BACKFILL PLACEMENT AND CURING. NA = NOT APPLICABLE, SUSPENSION NOT REQUIRED.
3. MINIMUM CONCRETE BACKFILL VOLUME, SITE CONDITIONS MAY REQUIRE ADDITIONAL BACKFILL.
4. POTENTIAL FOR ENCOUNTERING ROCK BEFORE REACHING EMBEDMENT DEPTH. ROCK AUGERING EQUIPMENT MAY BE REQUIRED.

PRECAST BASE IDENTIFICATION

PRECAST BASE TYPE	PRECAST BASE WEIGHT	PRECAST BASE LENGTH	PROJECTION ABOVE GRADE	STANDARD EMBEDMENT	OUTSIDE DIAMETER
1B	920 LBS	15'-2"	7'-2"	8'-0"	9.56"
2B	1,690 LBS	17'-3"	7'-3"	10'-0"	12.00"

POLE IDENTIFICATION

POLE DESIGNATION	POLE TYPE	PRECAST BASE TYPE	FIXTURE CONFIGURATION (FIX. PER XARM)	FIXTURE AND ACCESSORIES EPA (FT^2)
T1	LSS40A	1B	4 (4)	7.7
T2, T5, T6	LSS40A	1B	2 (2)	4.2
T3	LSS50AB	2B	4 (4)	8.5
T4, T7	LSS50A	1B	2 (2)	4.4
T8	LSS50AB	2B	6 (2) / (4)	12.7

POLE FOUNDATION ELEV.

SCALE: NOT TO SCALE

SOIL BACKFILL NOTE:
THE TOP TWO FEET OF ANNULUS SHALL BE BACKFILLED WITH SOIL, WITH A CLASSIFICATION OF CLASS 5 (TABLE 1806.2) OR BETTER. COMPACTION, 95% FOR COHESIVE SOIL AND 98% FOR A COHESIONLESS SOIL BASED UPON STANDARD PROCTOR TESTING (ASTM D698).

DESIGN NOTES

DESIGN PARAMETERS:
WIND: V_{ult} = 130 MPH, V_{asd} = 101 MPH (EXPOSURE C, RISK CATEGORY II) PER INTERNATIONAL BUILDING CODE, 2015 EDITION (ASCE 7-10). DESIGN WIND PARAMETERS ARE AS NOTED, ACTUAL EXPOSURE MUST BE VERIFIED FOR THE SITE BY THE PROPER GOVERNING OFFICIAL.

GEOTECHNICAL PARAMETERS:
ALLOWABLE END BEARING SOIL PRESSURE: 4,000 PSF
LATERAL SOIL RESISTANCE PARAMETERS:
AS PROVIDED IN WESTON & SAMPSON REPORT, PAGE 4
IN ACCORDANCE WITH THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE, CHAPTER 18.

DESIGN SOIL PARAMETERS ARE AS NOTED. ACTUAL ALLOWABLE SOIL PARAMETERS MUST BE VERIFIED ON SITE. REFERENCE GEOTECHNICAL ENGINEERING REPORT (11/17/2015), PROJECT NO. 2140758.K, BY WESTON & SAMPSON; AND BORING LOGS B-101/B-102 (12/7/2021), PROJECT NO. 2104563, BY GEI CONSULTANTS.

A GEOTECHNICAL ENGINEER OR REPRESENTATIVE OF IS RECOMMENDED (NOT REQUIRED) TO BE AVAILABLE AT THE TIME OF THE FOUNDATION INSTALLATION TO VERIFY THE SOIL DESIGN PARAMETERS AND TO PROVIDE ASSISTANCE IF ANY PROBLEMS ARISE IN FOUNDATION INSTALLATION.

ENCOUNTERING SOIL FORMATIONS THAT WILL REQUIRE SPECIAL DESIGN CONSIDERATIONS OR EXCAVATION PROCEDURES MAY OCCUR. POLE FOUNDATIONS WILL NEED TO BE ANALYZED ACCORDING TO THE SOIL CONDITIONS THAT EXIST. IF ANY DISCREPANCIES OR INCONSISTENCIES ARISE, NOTIFY THE ENGINEER OF SUCH DISCREPANCIES. FOUNDATIONS WILL THEN BE REVISED ACCORDINGLY. REVISIONS WILL BE ANALYZED PER RECOMMENDATIONS DIRECTED BY A REGISTERED ENGINEER.

ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND CONCRETE BACKFILL PLACEMENT. TEMPORARY CASINGS OR DRILLERS SLURRY MAY BE USED TO STABILIZE THE EXCAVATION DURING INSTALLATION. CASINGS MUST BE REMOVED DURING CONCRETE BACKFILL PLACEMENT. CONCRETE BACKFILL MUST BE PLACED WITH A TREMIE WHEN SLURRY OR WATER IS PRESENT WITHIN THE EXCAVATION OR WHEN THE FREE DROP EXCEEDS 6'-0".

CONTRACTOR MUST BE FAMILIAR WITH THE COMPLETE SOIL INVESTIGATION REPORT AND BORINGS, AND CONTACT THE GEOTECHNICAL FIRM (IF NECESSARY) TO UNDERSTAND THE SOIL CONDITIONS AND THE POSSIBILITY OF GROUND WATER PUMPING AND EXCAVATION STABILIZATION OR BRACING DURING PRECAST BASE INSTALLATION AND PLACEMENT OF CONCRETE BACKFILL.

CONCRETE:
CONCRETE SHALL BE AIR-ENTRAINED AND HAVE A MINIMUM COMPRESSIVE DESIGN STRENGTH AT 28 DAYS OF 3,000 PSI. 3,000 PSI CONCRETE SPECIFIED FOR EARLY POLE ERECTION, ACTUAL REQUIRED MINIMUM ALLOWABLE CONCRETE STRENGTH IS 1,000 PSI. ALL PIERS AND CONCRETE BACKFILL MUST BEAR ON AND AGAINST FIRM UNDISTURBED SOIL.

GENERAL NOTES:
FIXTURES MUST BE LOCATED TO MAINTAIN 10'-0" MINIMUM HORIZONTAL CLEARANCE FROM ANY OBSTRUCTION. ENGINEER MUST BE NOTIFIED IF FOUNDATIONS ARE NEAR ANY RETAINING WALLS OR WITHIN / NEAR ANY SLOPES STEEPER THAN 3H : 1V. POLES, FIXTURES, PRECAST BASES, ELECTRICAL ITEMS AND INSTALLATION PER MUSCO LIGHTING.

STATE OF NEW HAMPSHIRE · KYLE G. LACINA No. 13331 · LICENSED PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW HAMPSHIRE.

KYLE G. LACINA - NO. 13831 DATE: 12-23-2022
SEPC OF IOWA - 1427

LICENSE RENEWAL DATE: NOVEMBER 30, 2023
DRAWING NO. COVERED BY THIS SEAL: C1

PORTSMOUTH HS
TENNIS COURTS
ATHLETIC LIGHTING
PORTSMOUTH, NH

MUSCO LIGHTING
CORPORATE: 100 1ST AVE. WEST
OSKALOOSA, IA 52577
(800) 825-6030

SEPC OF IOWA
114 NICHOLAS DRIVE
MARSHALLTOWN, IOWA 50158
PHONE NUMBER: 641-753-6334
EMAIL: MSL.INFO@SEPC.BIZ

DRAWING TITLE: POLE AND FOUNDATION SCHEDULE AND NOTES
SCAN #211130E

PROJECT NUMBER 211130

DATE 23 DECEMBER 2022

DRAWING NUMBER C1

OF ONE

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REVISIONS
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Drawn DT
Reviewed MWB
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Project No. 2101920
Date 10/12/2022

CAD File: EL2101902

Title
MUSCO LIGHTING LAYOUT 3

Sheet No.
EL-05

Xref (s): ; BS2100875 ; XC2101920001 ; XC2101920002 ; XZ2101920001 ; XZ2101920002 ; XEL2101920-01

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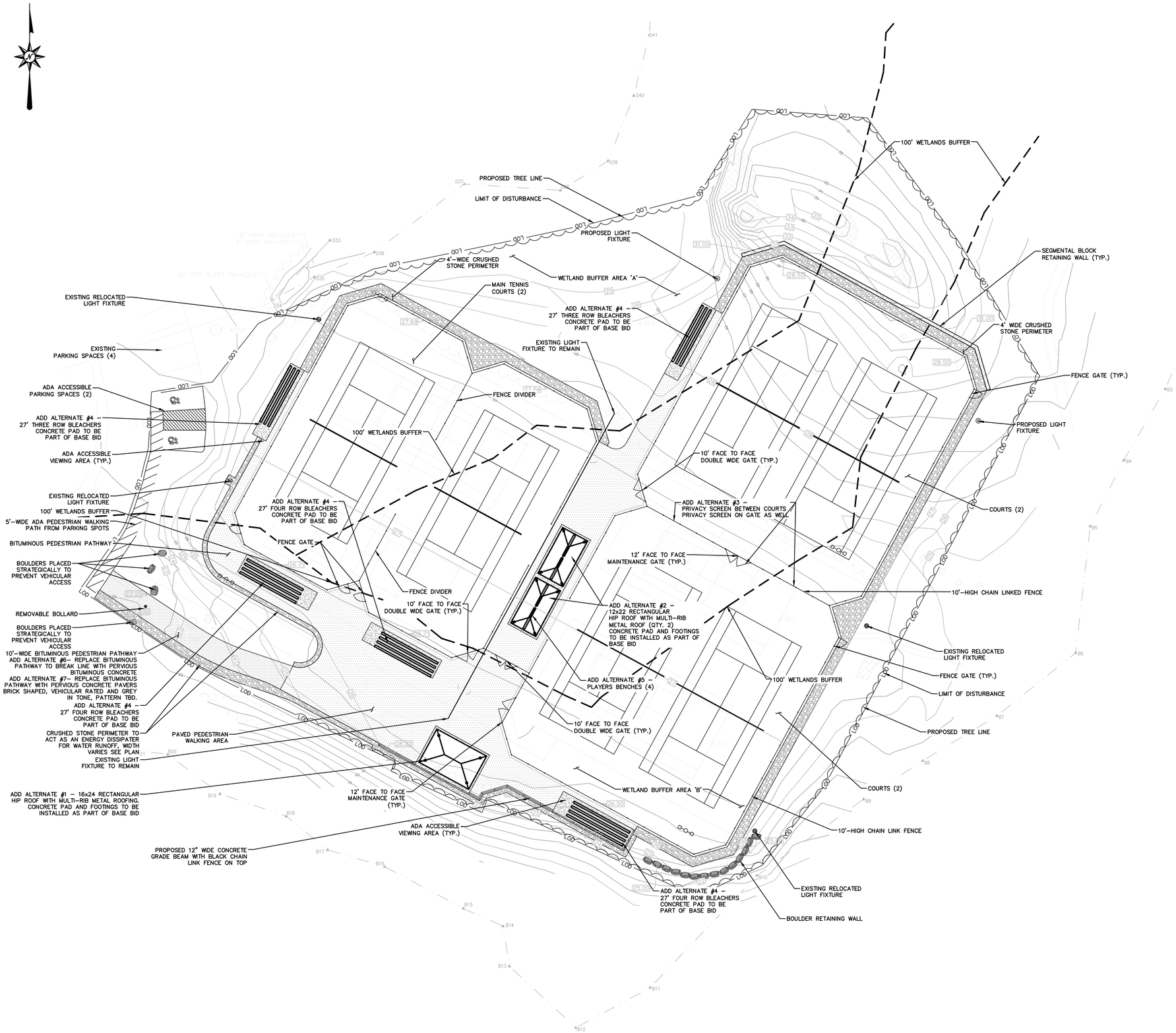
Layout: EL-05



MATERIALS PLAN LEGEND

SYMBOL	NAME
	CHAIN LINK FENCE
LOD	LIMIT OF DISTURBANCE
	WETLAND SETBACK
	CRUSHED STONE PERIMETER
	CONCRETE PAD
	BITUMINOUS PAVEMENT
	DOUBLE FENCE GATE
	SINGLE FENCE GATE
	21' THREE ROW BLEACHERS
	EXISTING RELOCATED LIGHT FIXTURE
	PROPOSED LIGHT FIXTURE
	EXISTING LIGHT FIXTURE TO REMAIN
	PROPOSED TREE LINE
	ADA HANDICAP PARKING SPACE AISLE

LOCATION: PORTSMOUTH HIGH SCHOOL TENNIS COURTS		
WETLAND BUFFER 'A'		
TOTAL AREA = 25,694 SQ FT	EXISTING IMPERVIOUS AREA = 7,873 SQ FT	PROPOSED IMPERVIOUS AREA = 10,264 SQ FT
WETLAND BUFFER 'B'		
TOTAL AREA = 30,075 SQ FT	EXISTING IMPERVIOUS AREA = 12,166 SQ FT	PROPOSED IMPERVIOUS AREA = 20,262 SQ FT

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

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REVISIONS
No. Date Desc.

Surveyed
Drawn K.K.
Reviewed
Scale 1"=20'-0"
Project No. 2101920
Date 01/03/2023

CAD File:

Title
SITE MATERIALS PLAN

Sheet No.
SM-01

May 17, 2023 2:05pm JWheeler G:_ABS21\VR\2101920\DWG\MAT2101920I.dwg Layout: SM-01
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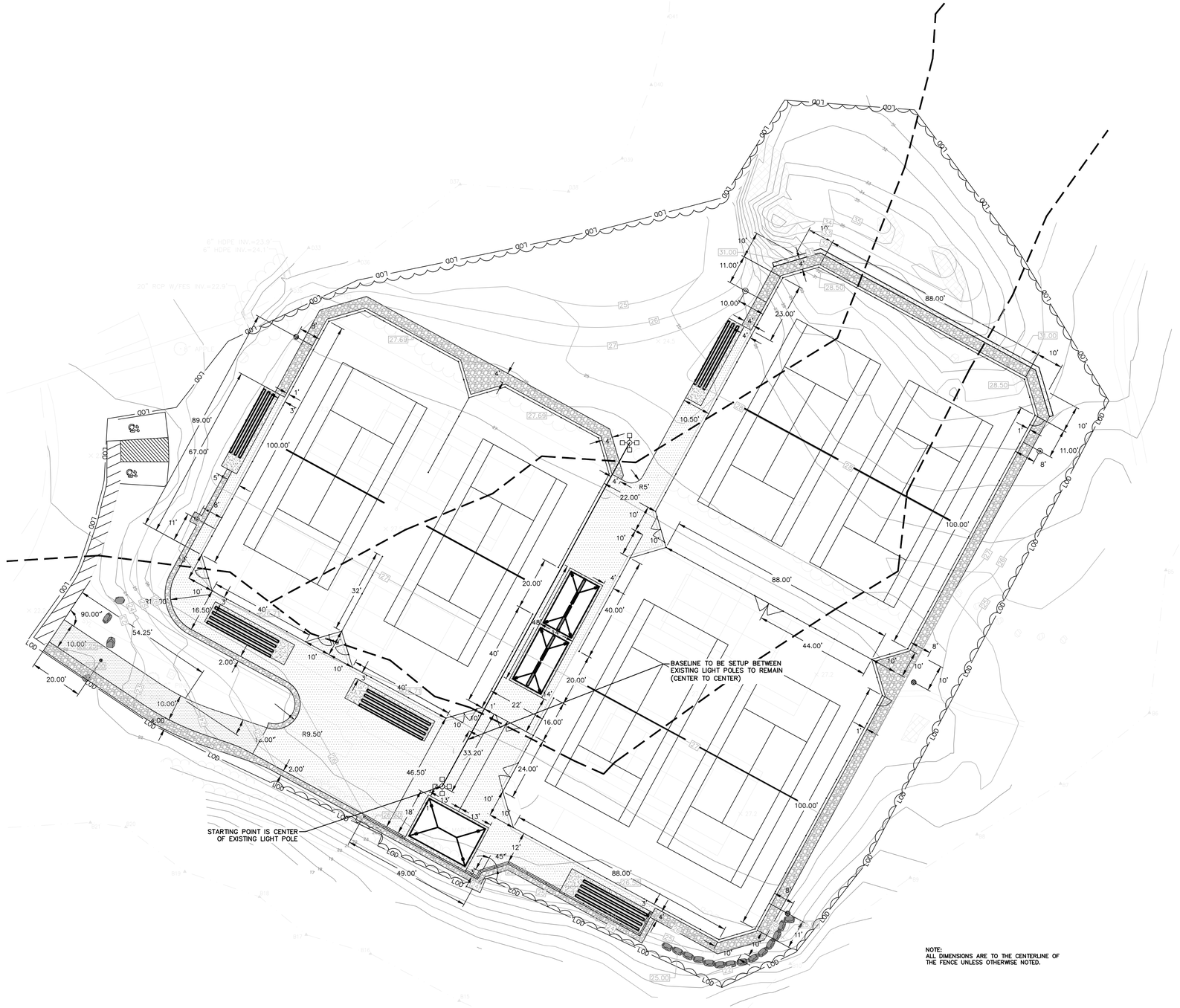

MATERIALS PLAN LEGEND

SYMBOL	NAME
	CHAIN LINK FENCE
LOD	LIMIT OF DISTURBANCE
	WETLAND SETBACK
	CRUSHED STONE PERIMETER
	CONCRETE PAD
	BITUMINOUS PAVEMENT
	DOUBLE FENCE GATE
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	21' THREE ROW BLEACHERS
	EXISTING RELOCATED LIGHT FIXTURE
	PROPOSED LIGHT FIXTURE
	EXISTING LIGHT FIXTURE TO REMAIN
	PROPOSED TREE LINE

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Project No. 2101920
Date 01/03/2023

CAD File:

Title

SITE LAYOUT PLAN

Sheet No.

SL-01

Xref (s): ; BD2100875 ; X221019200I ; XC210192002

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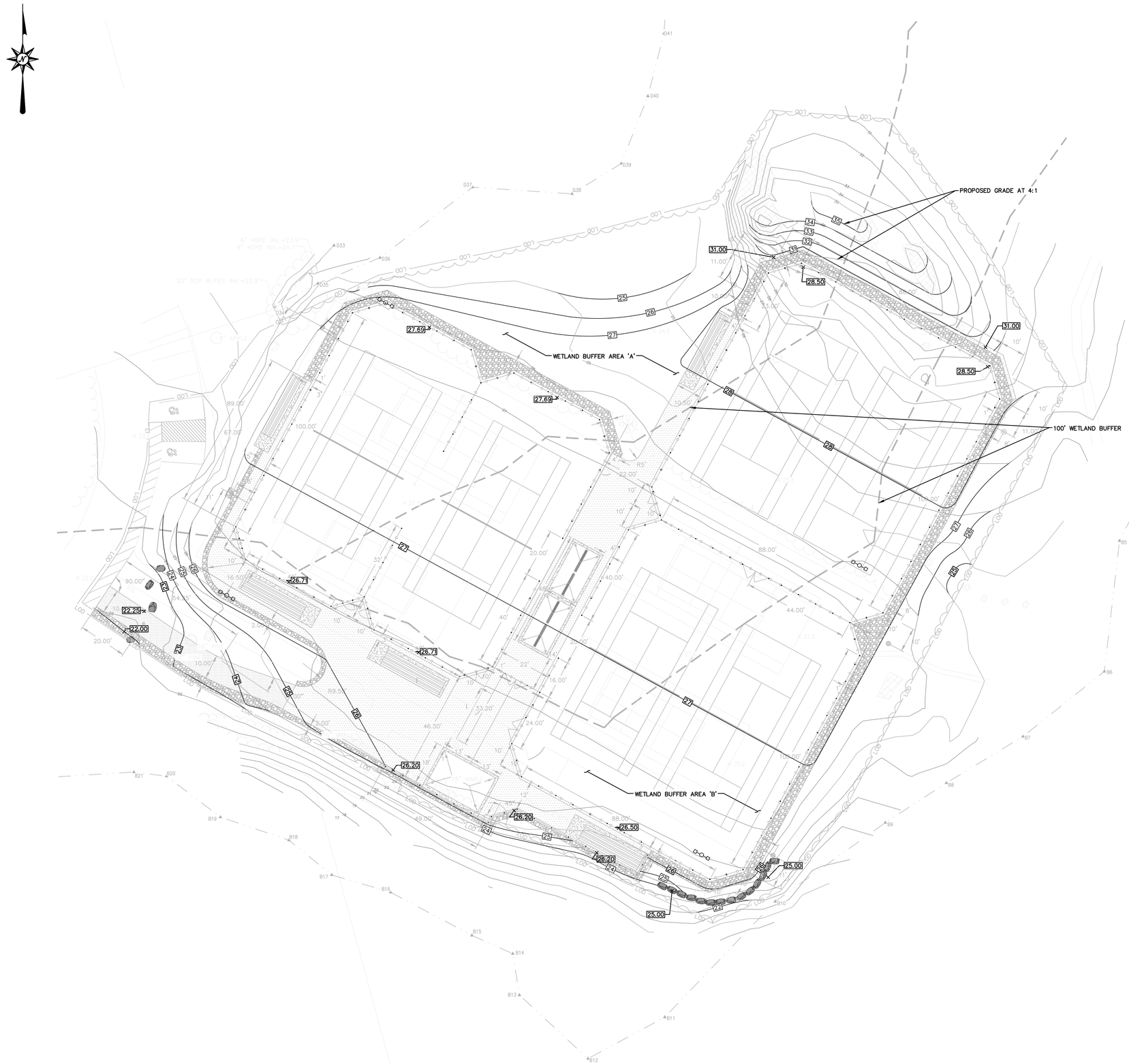

GRADING LEGEND:

SYMBOL	NAME
LOD	LIMIT OF DISTURBANCE/CONTRACT LIMIT LINE
100	PROPOSED CONTOUR LINES (1 FT INTERVALS)
×90.85	PROPOSED SPOT GRADES

LOCATION: PORTSMOUTH HIGH SCHOOL TENNIS COURTS		
WETLAND BUFFER 'A'		
TOTAL AREA = 25,694 SQ FT	EXISTING IMPERVIOUS AREA = 7,873 SQ FT	PROPOSED IMPERVIOUS AREA = 10,264 SQ FT
WETLAND BUFFER 'B'		
TOTAL AREA = 30,075 SQ FT	EXISTING IMPERVIOUS AREA = 12,166 SQ FT	PROPOSED IMPERVIOUS AREA = 20,262 SQ FT

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

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PORTSMOUTH HIGH SCHOOL
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REVISIONS
No. Date Desc.

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Reviewed DC
Scale 1"=20'-0"
Project No. 2101920
Date 01/03/2023

CAD File:

Title
SITE GRADING PLAN

Sheet No.
GD-01

Xref (s): ; BD2100875 ; XC2101920001 ; XC2101920002 ; XZ2101920001

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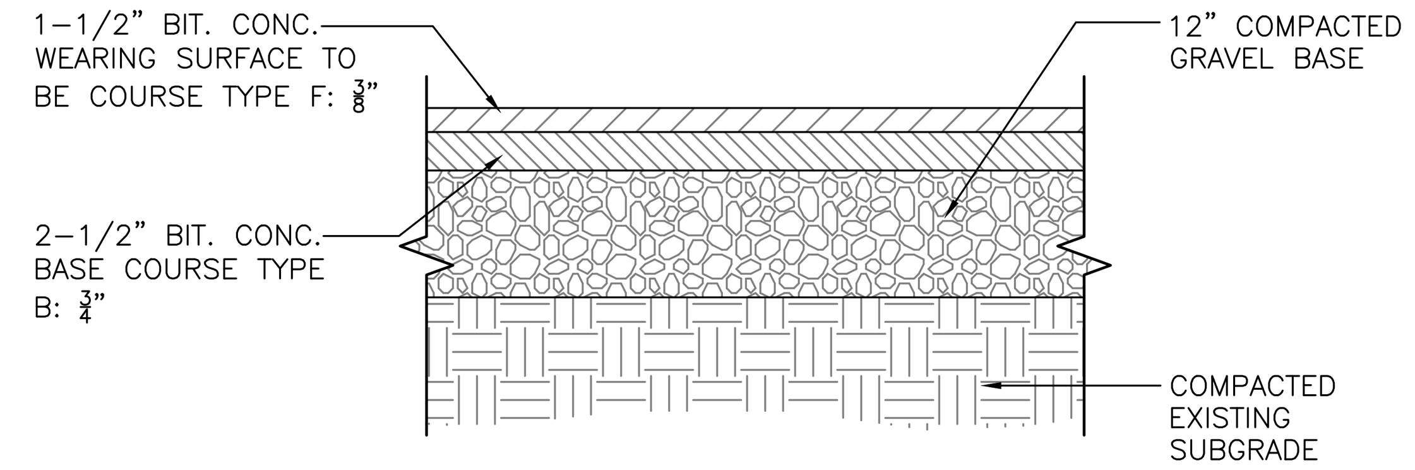
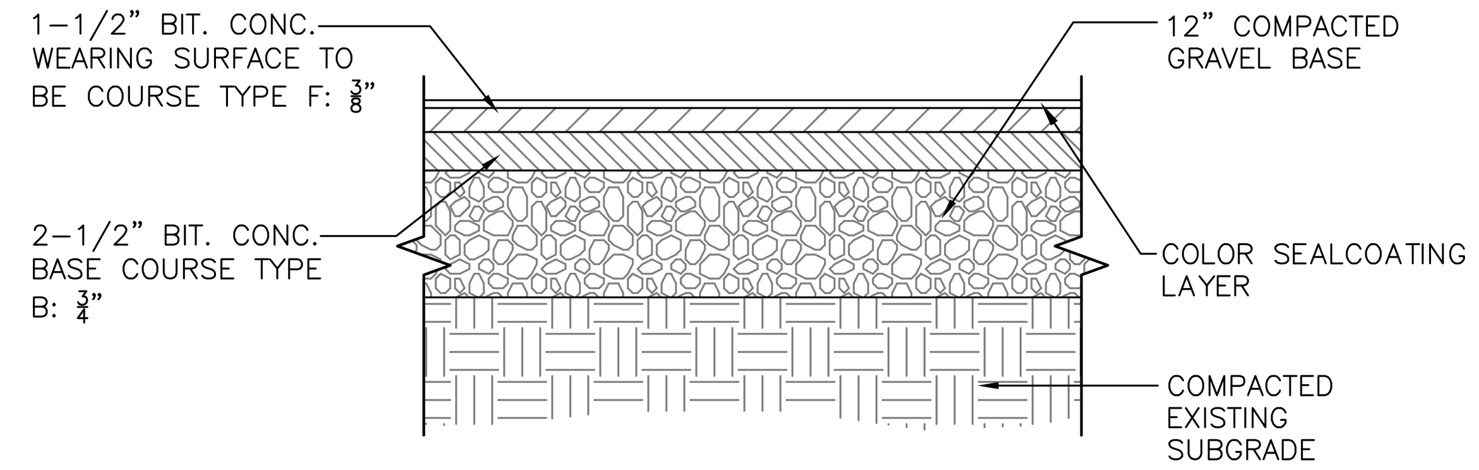


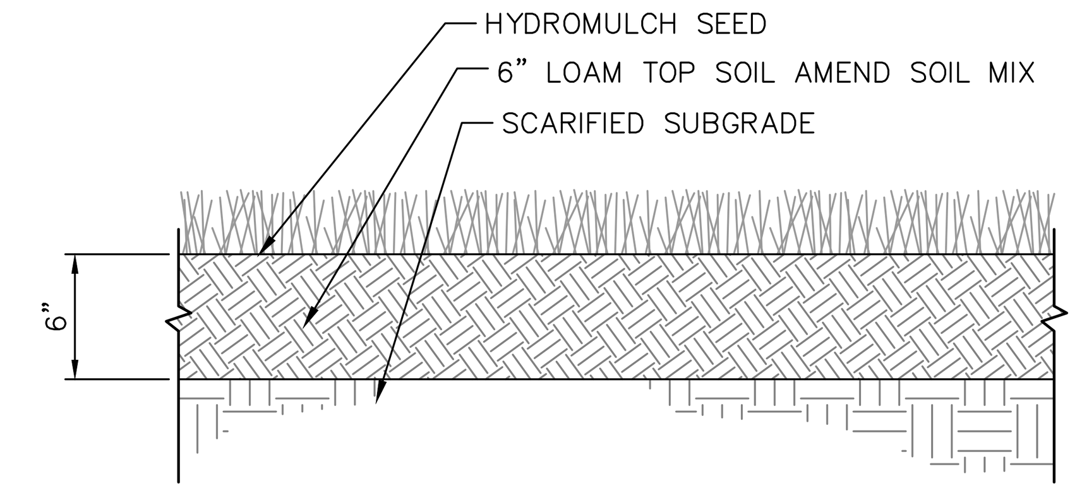
BITUMINOUS CONCRETE PAVEMENT

SCALE: N.T.S.



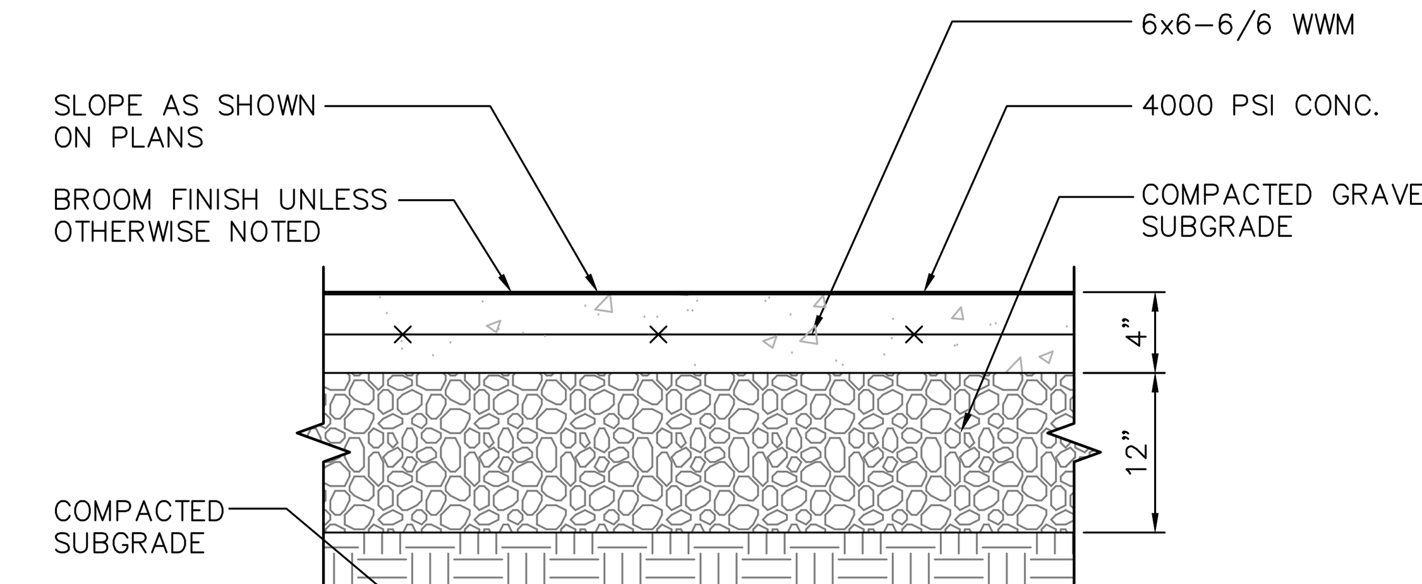
BITUMINOUS CONCRETE PAVEMENT FOR TENNIS COURTS

SCALE: N.T.S.



LOAM AND SEED, TYP.

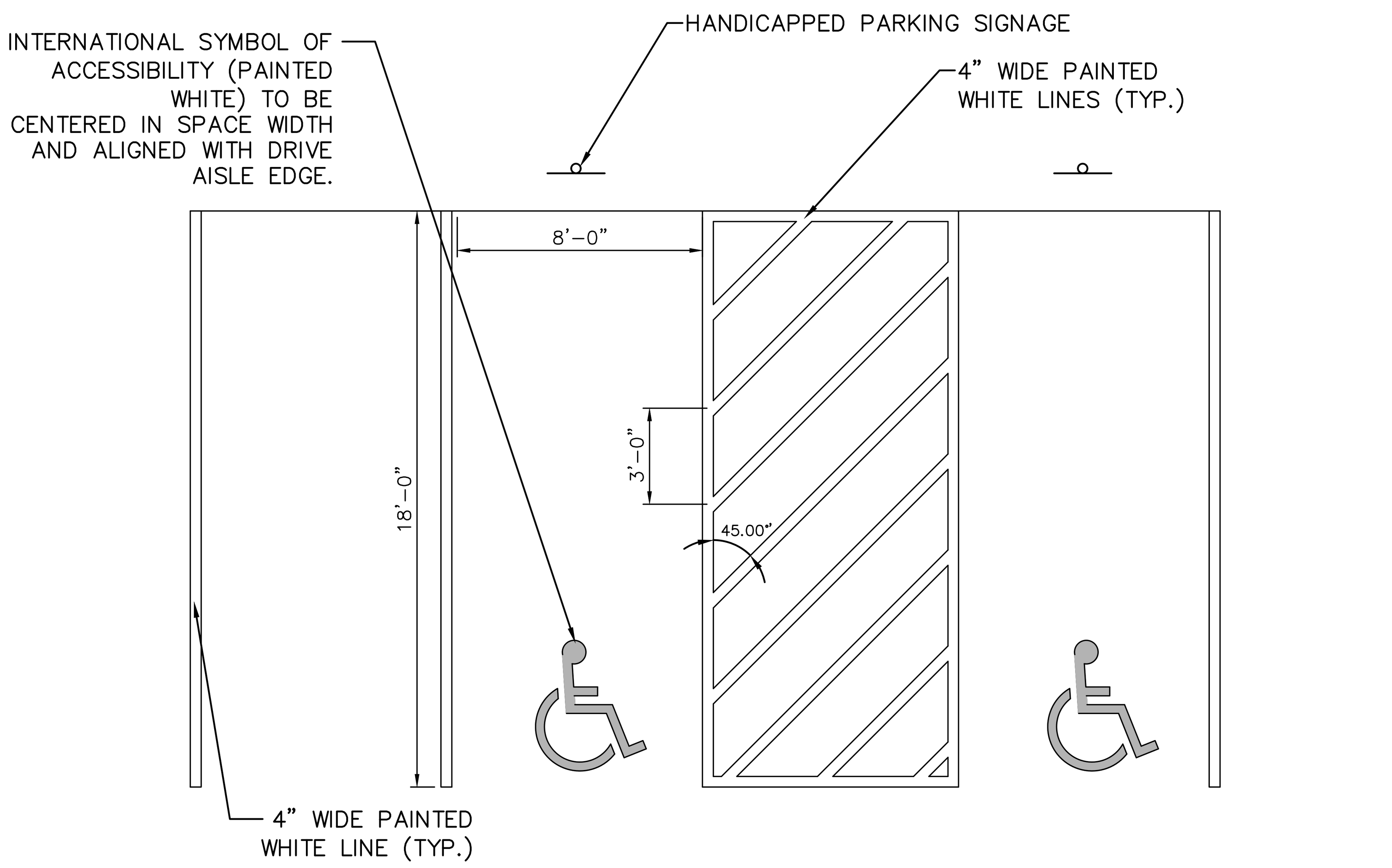
SCALE N.T.S.



NOTE:
SEE DETAIL SHEETS FOR CONTROL JOINT DETAIL AND EXPANSION JOINT DETAIL.

CONCRETE PAD

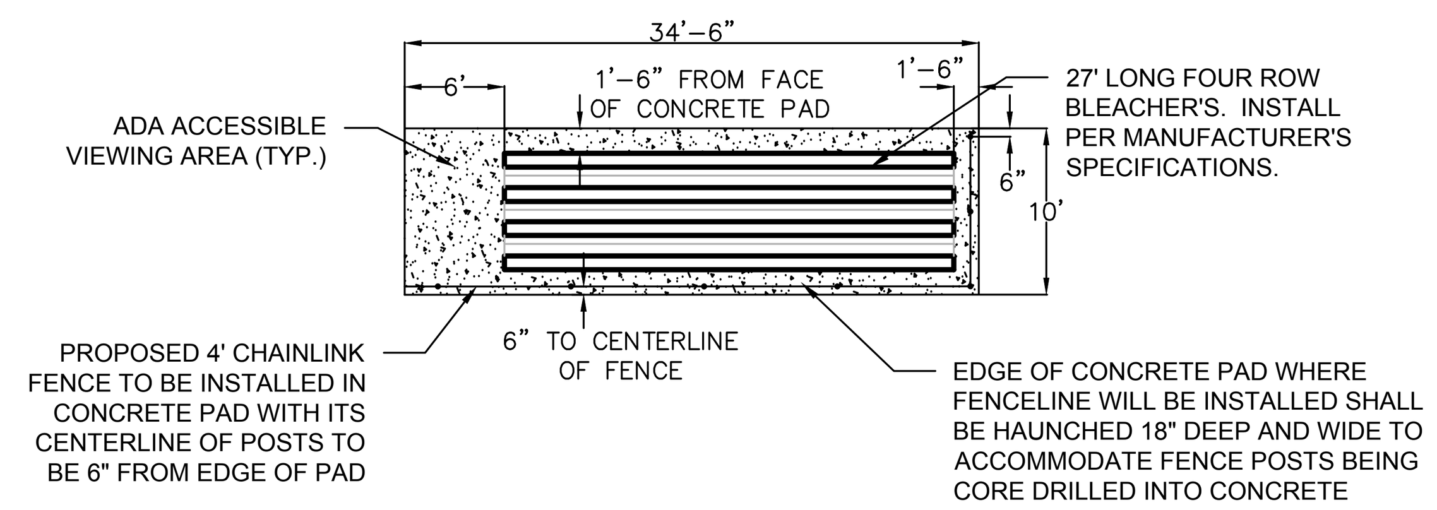
SCALE: NTS



NOTE:
1. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248 TYPE F, PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER.
2. SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN DISABILITIES ACT AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, AND THE STATE OF NEW HAMPSHIRE BUILDING CODE.
3. THE MINIMUM DIMENSIONS ARE SHOWN. STATE REGULATORS MAY REQUIRE LARGER DIMENSIONS.
4. APPLY 2 COATS OF TRAFFIC PAINT. ALLOW FOR MINIMUM CURE TIME OF 24 HOURS BETWEEN APPLICATIONS.

RESERVED HANDICAPPED PARKING STALL STRIPING

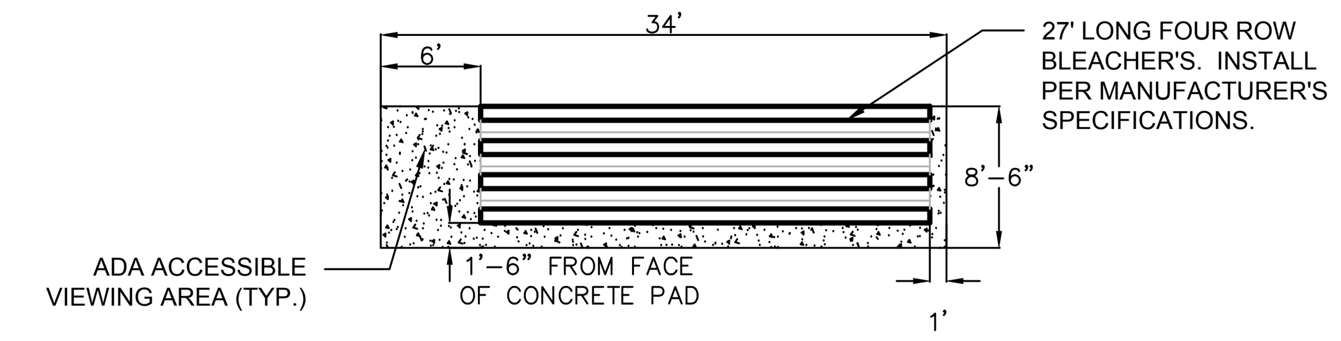
SCALE: N.T.S



NOTES:
1. ORIENTATION OF BLEACHERS ARE TO FACE TOWARDS TENNIS COURTS.
2. INSTALL BLEACHERS TO CONCRETE PAD PER MANUFACTURER'S SPECIFICATIONS.
3. SEE PLAN FOR LOCATION OF ADA VIEWING AREA, MAY CHANGE SIDES BASED ON LOCATION OF BLEACHERS.

27' FOUR ROW BLEACHER ON CONCRETE PAD WITH FENCING

SCALE: NTS



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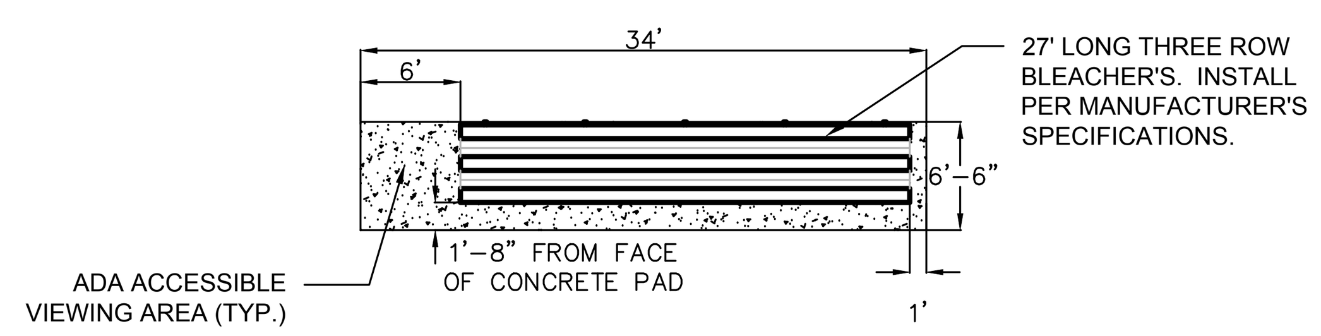
27' FOUR ROW BLEACHER ON CONCRETE PAD

SCALE: NTS



NOTES:
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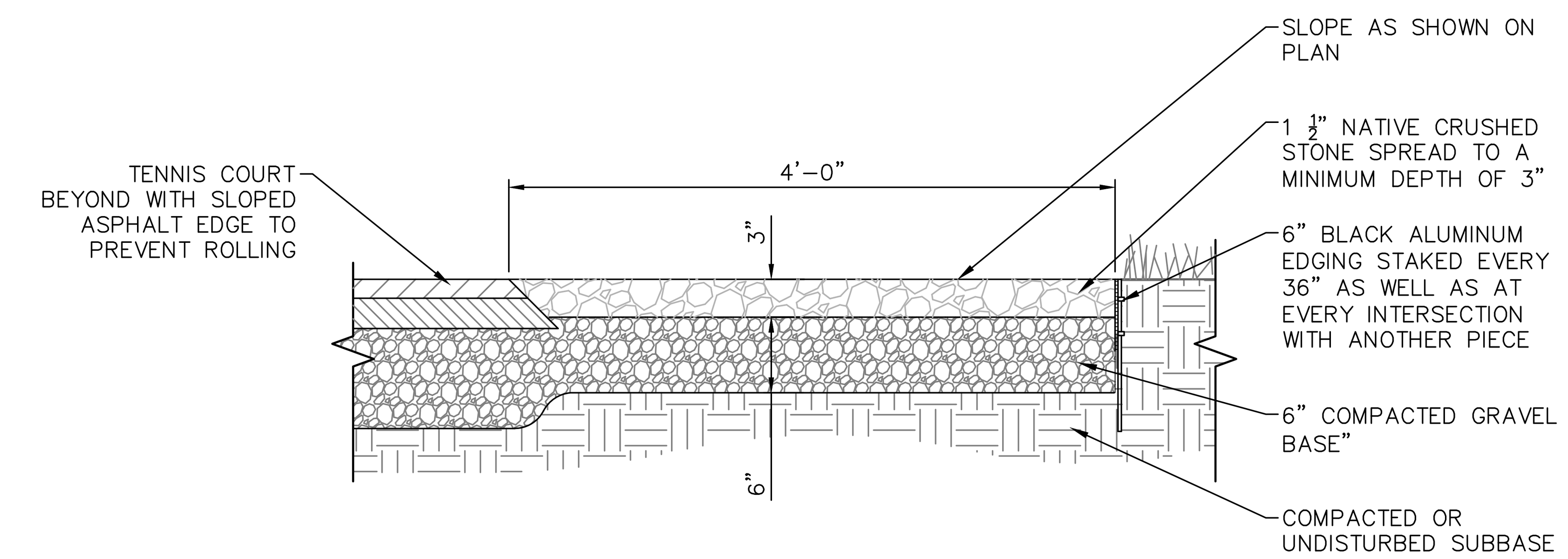
2. INSTALL BLEACHERS TO CONCRETE PAD PER MANUFACTURER'S SPECIFICATIONS.
3. SEE PLAN FOR LOCATION OF ADA VIEWING AREA, MAY CHANGE SIDES BASED ON LOCATION OF BLEACHERS.

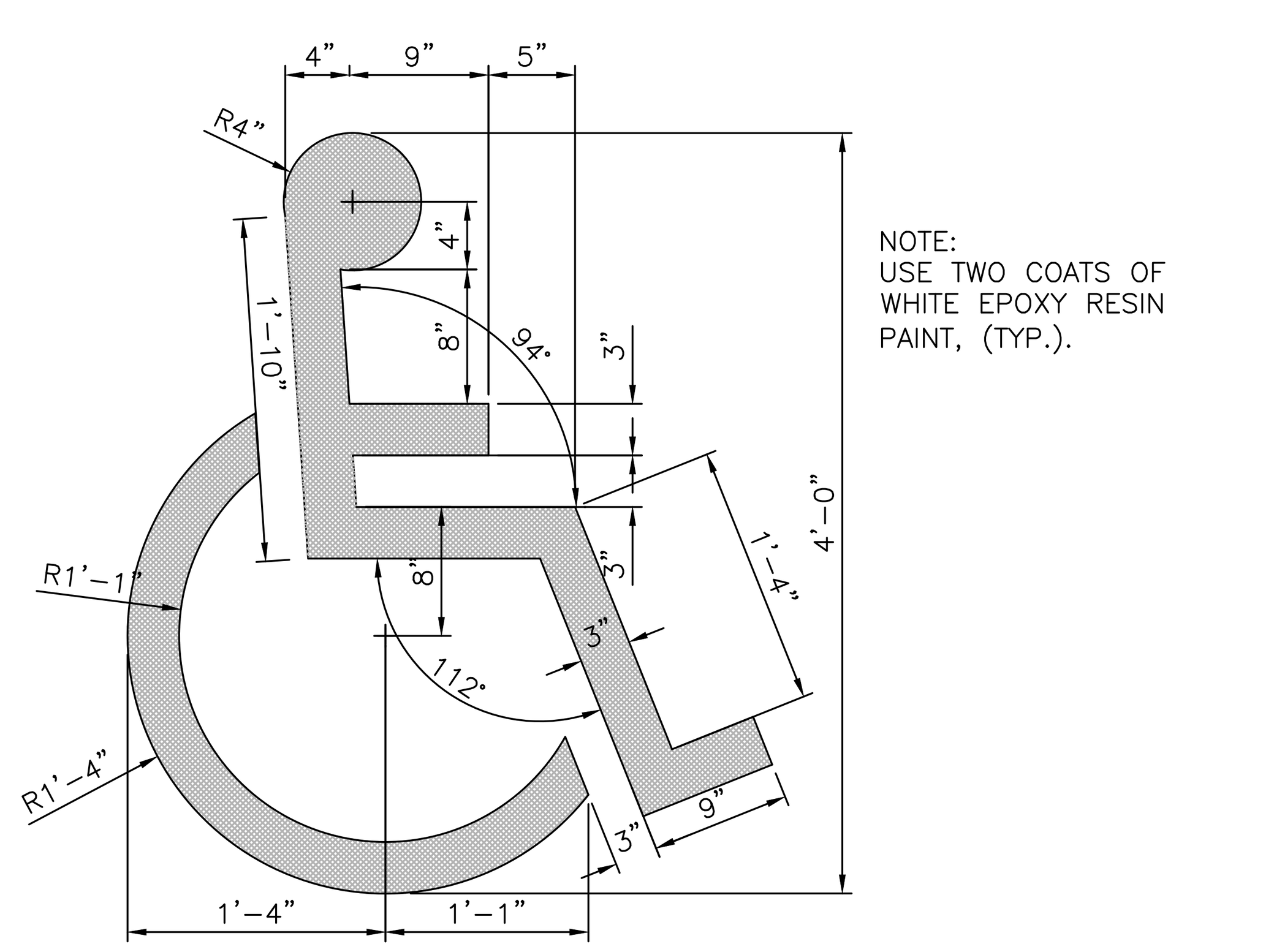
27' THREE ROW BLEACHER ON CONCRETE PAD

SCALE: NTS



CRUSHED STONE PERIMETER

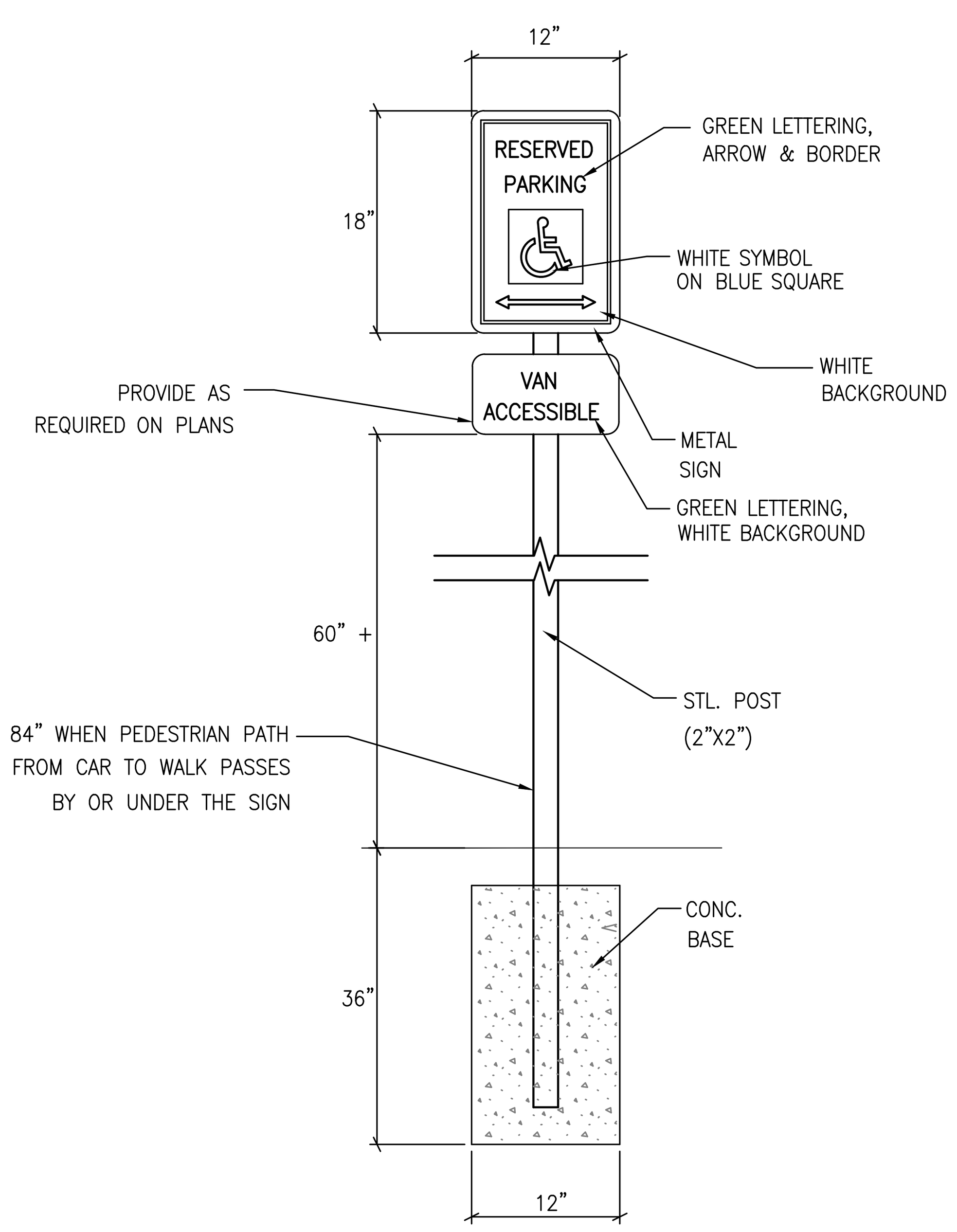
SCALE: NTS



NOTE:
USE TWO COATS OF WHITE EPOXY RESIN PAINT, (TYP.).

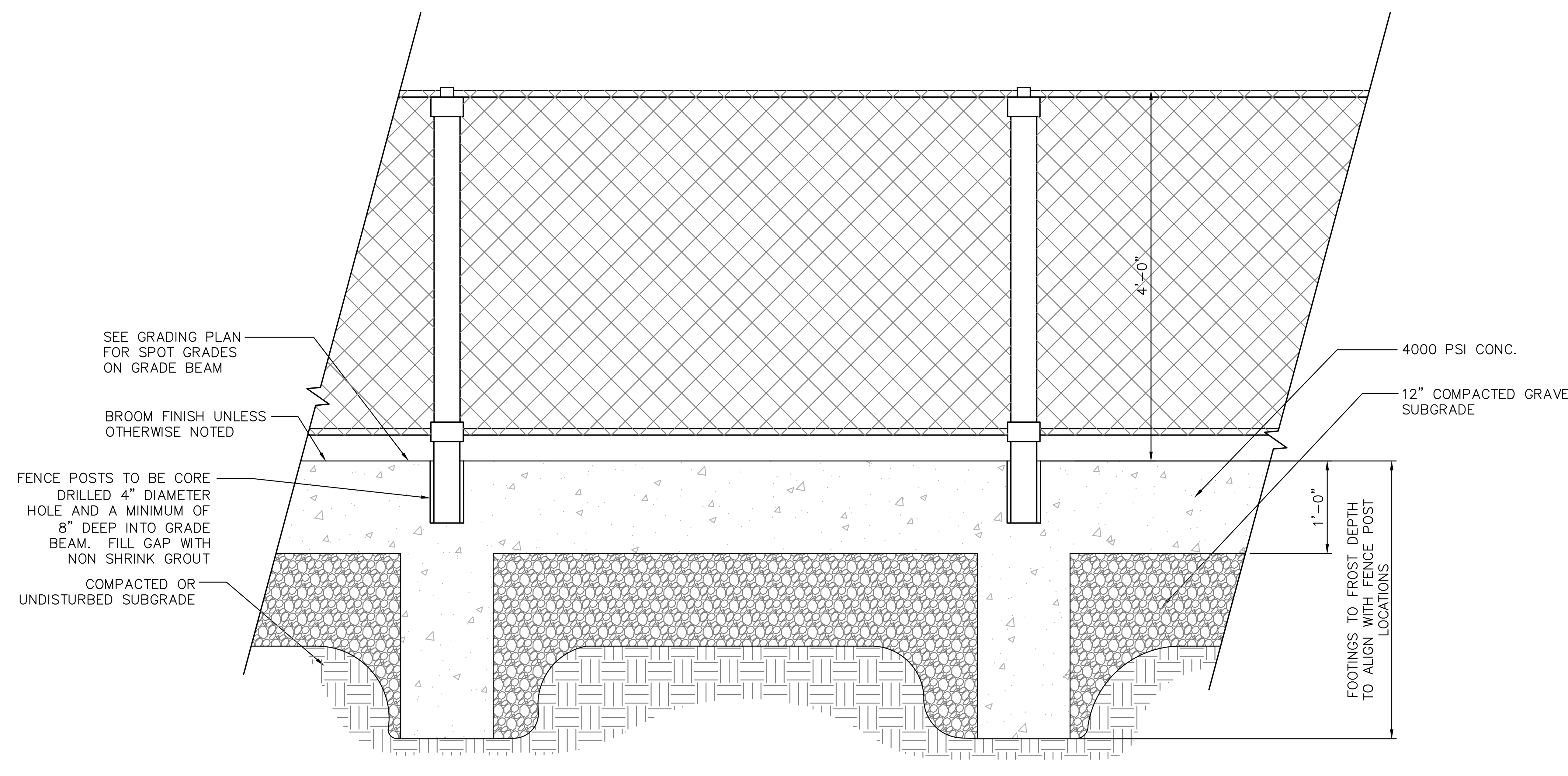
HANDICAP LOGO PAVING MARKER DETAIL

SCALE: NTS



HANDICAP PARKING SIGN DETAIL

SCALE: NTS



CONCRETE GRADE BEAM

SCALE: NTS

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Drawn	JW
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CAD File:	

Title
SITE DETAILS 1

Sheet No.
DN-01

Xref (s): : BD2100875 : XC2101920001 : XZ2101920001

May 17, 2023 2:06pm JWheeler G:\JOBS21\18\2101920\DWG\DN2101920001.dwg
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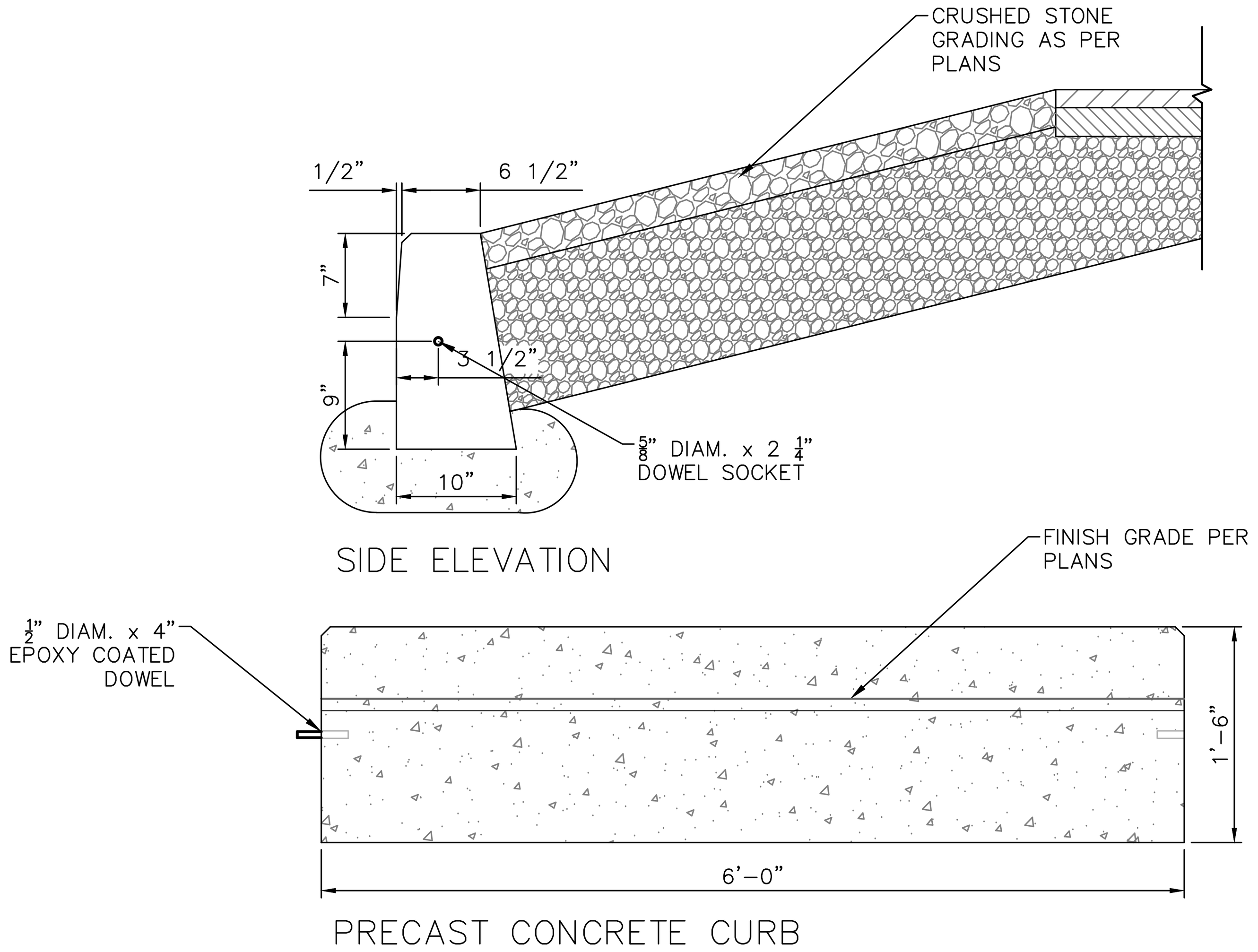

PRECAST CONCRETE CURB

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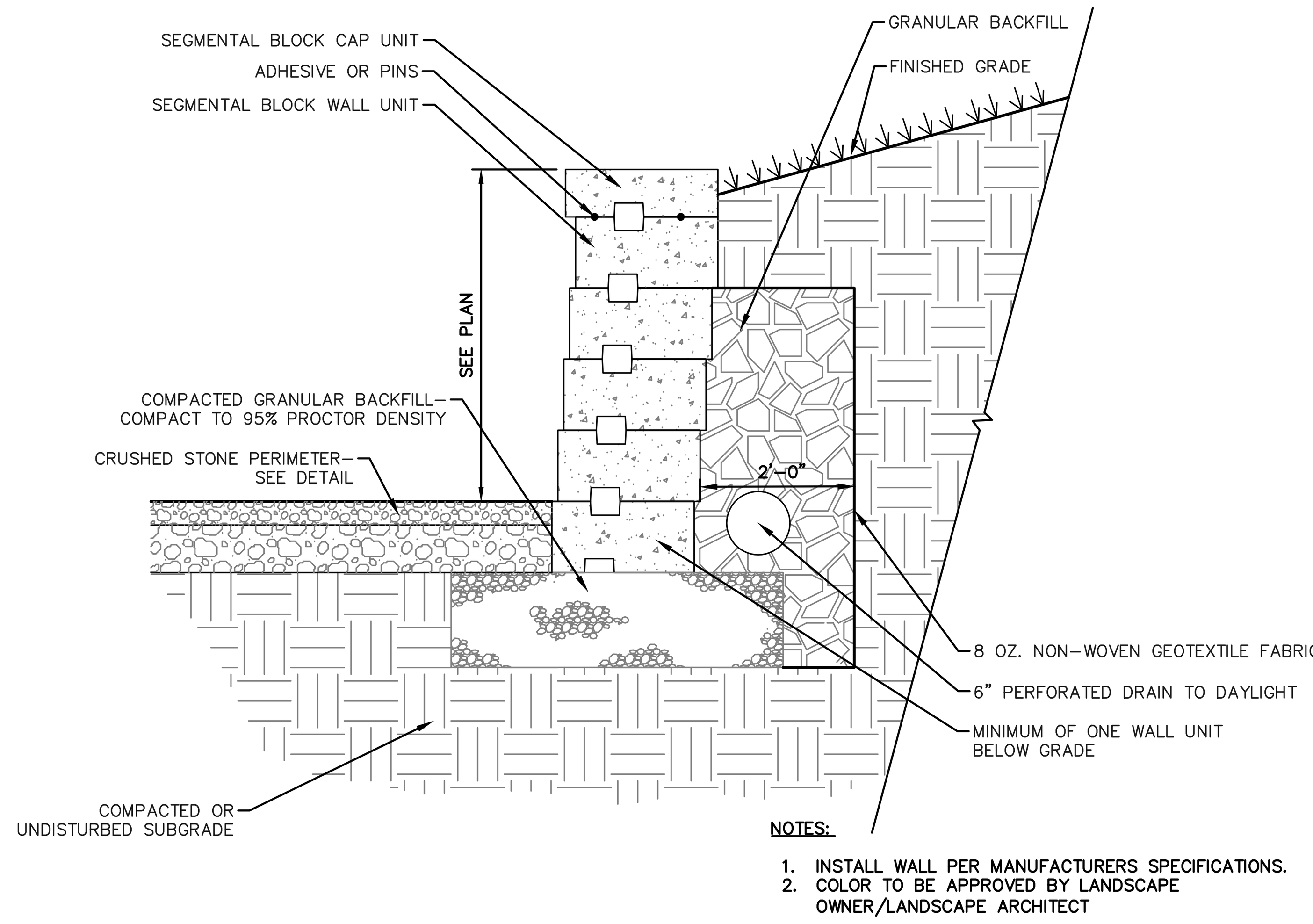
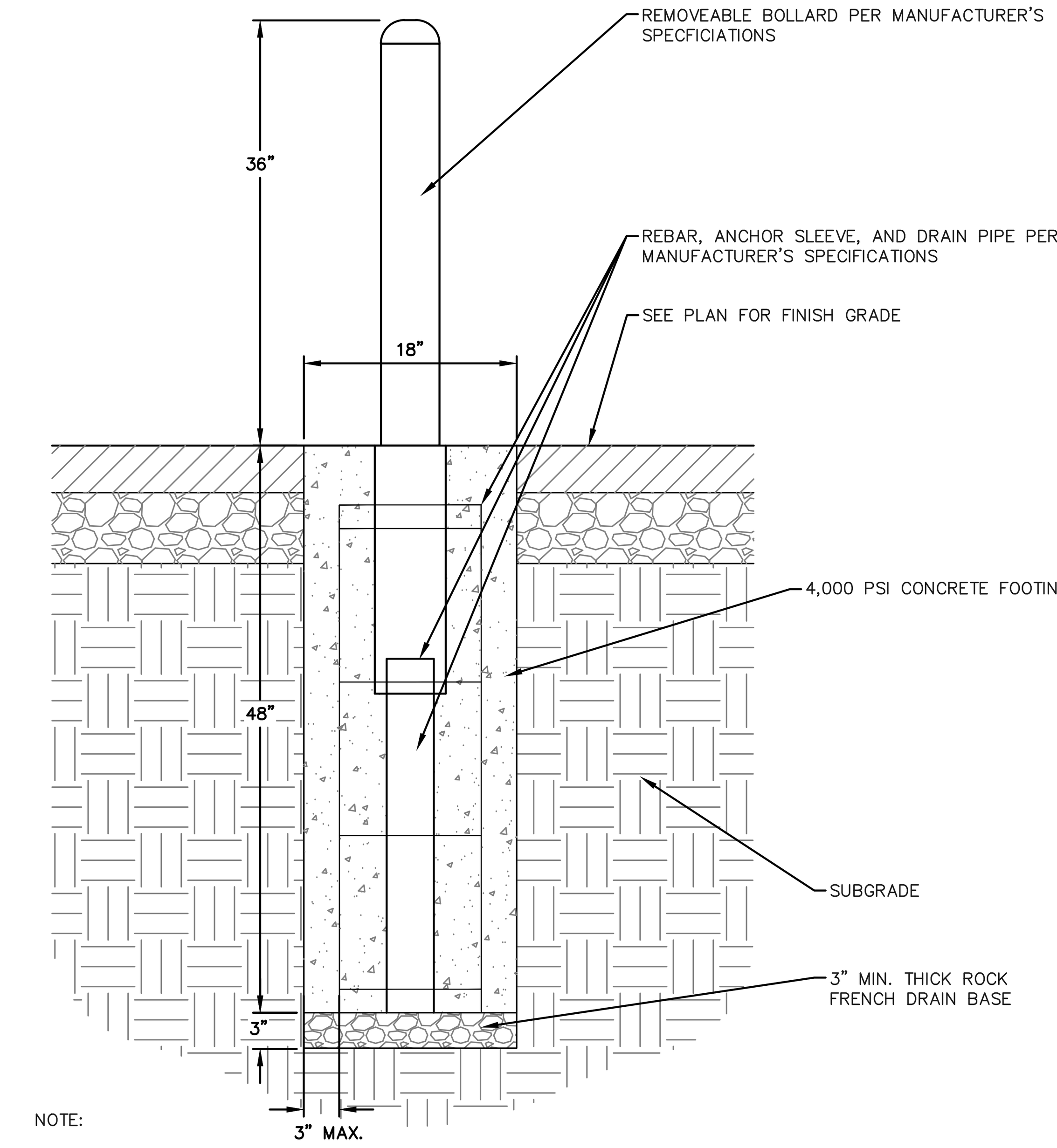


NOTES:
1. INSTALL WALL PER MANUFACTURERS SPECIFICATIONS.
2. COLOR TO BE APPROVED BY LANDSCAPE OWNER/LANDSCAPE ARCHITECT

SEGMENTAL BLOCK RETAINING WALL

SCALE: NTS

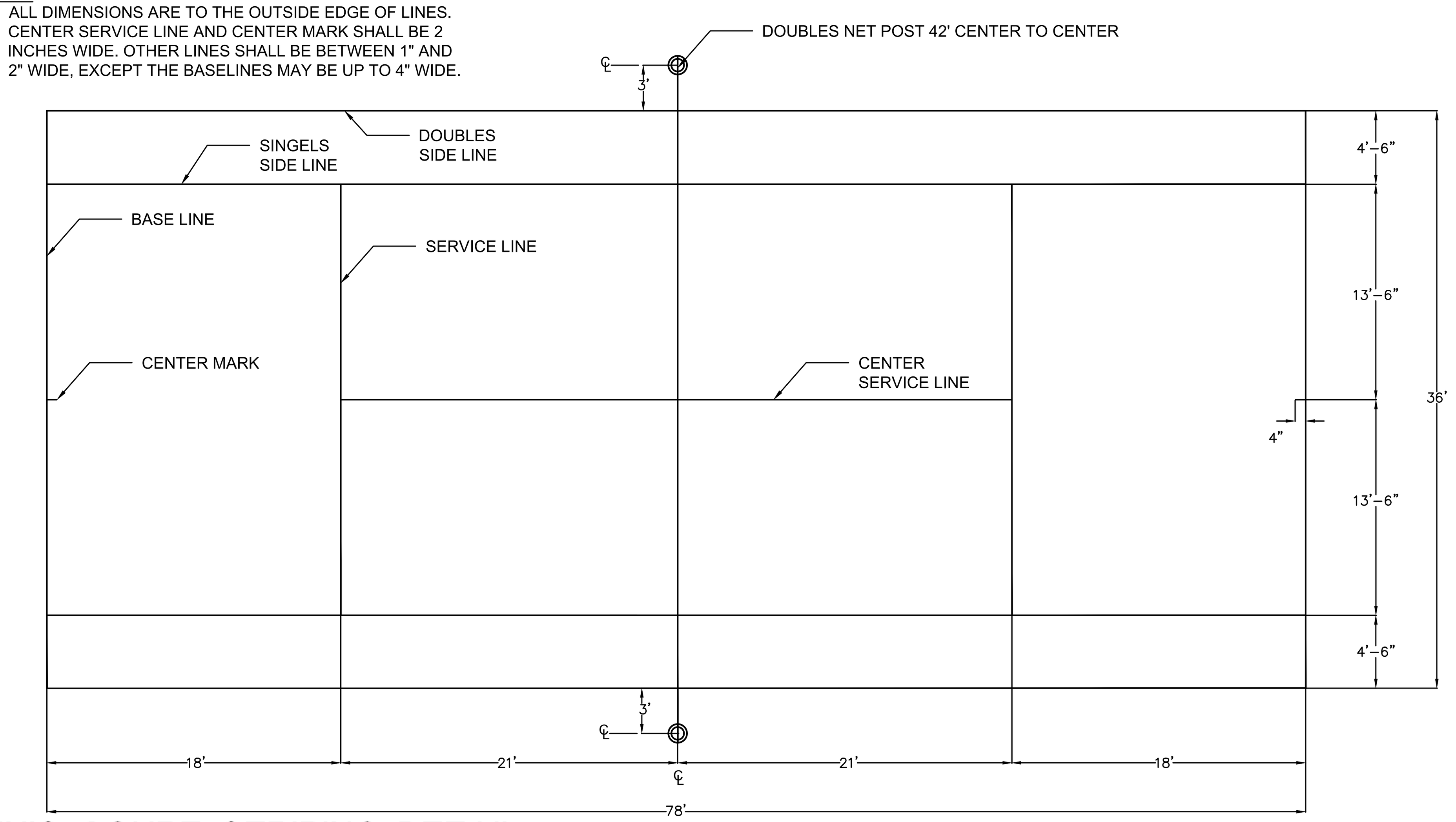


NOTE:
1. REMOVEABLE BOLLARD SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS

REMOVEABLE BOLLARD DETAIL

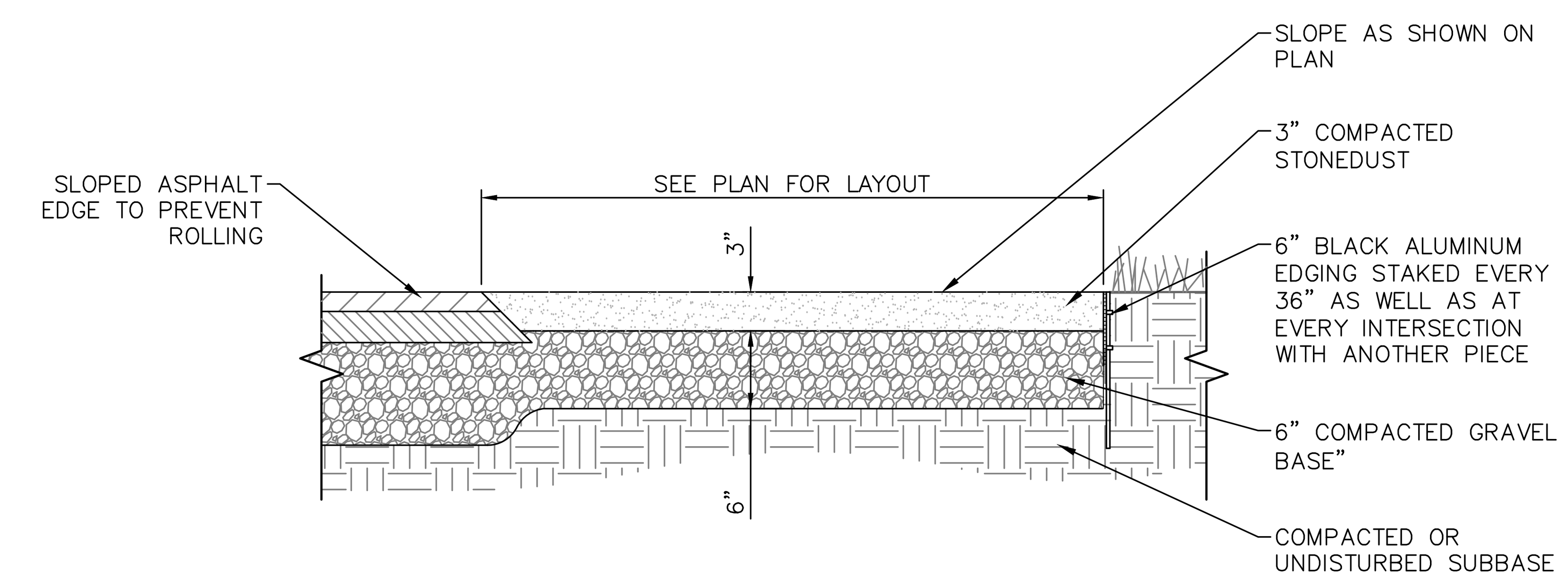
SCALE: NTS

NOTES:
1. ALL DIMENSIONS ARE TO THE OUTSIDE EDGE OF LINES.
2. CENTER SERVICE LINE AND CENTER MARK SHALL BE 2 INCHES WIDE. OTHER LINES SHALL BE BETWEEN 1" AND 2" WIDE, EXCEPT THE BASELINES MAY BE UP TO 4" WIDE.



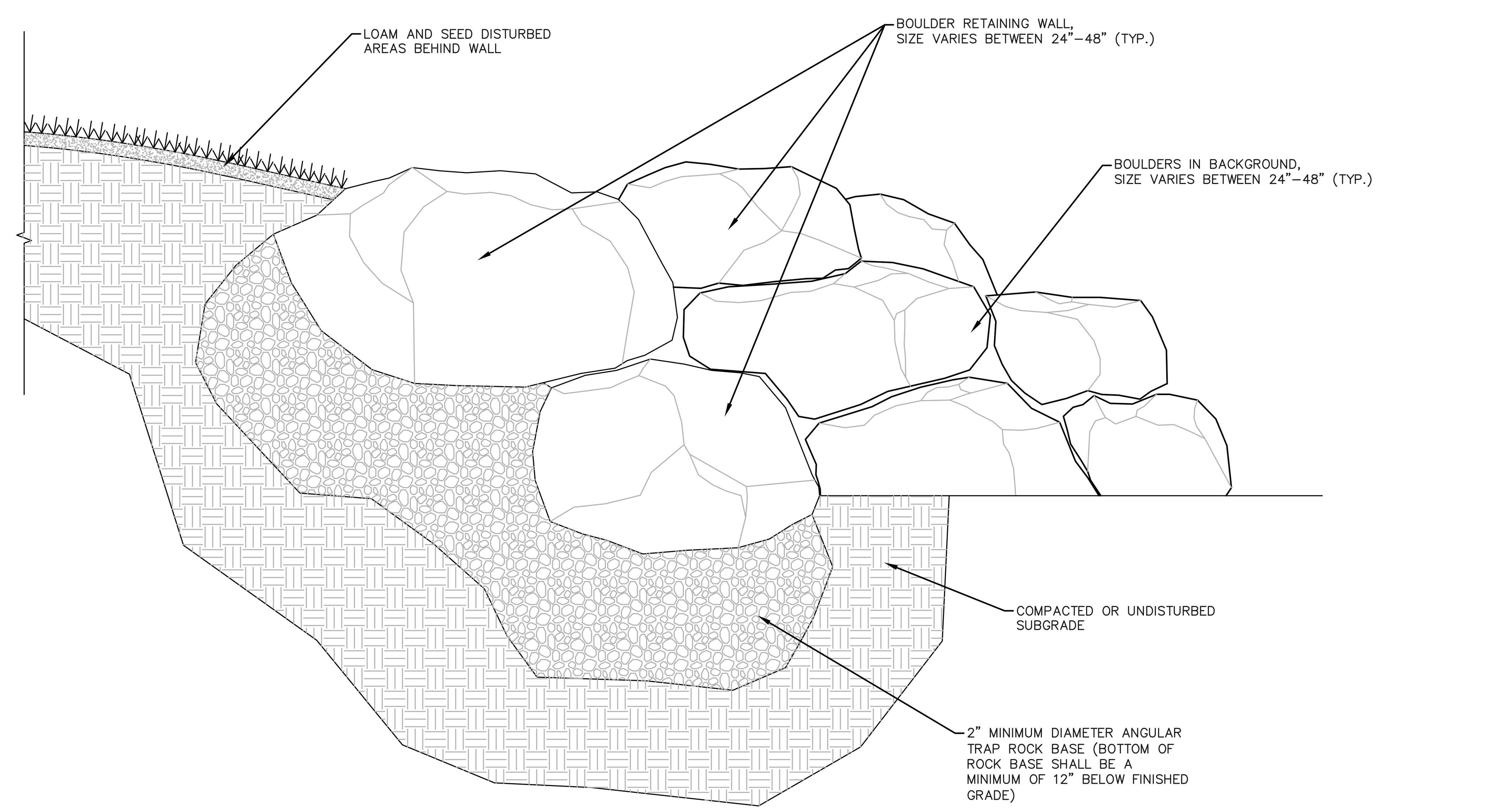
TENNIS COURT STRIPING DETAIL

SCALE: NTS



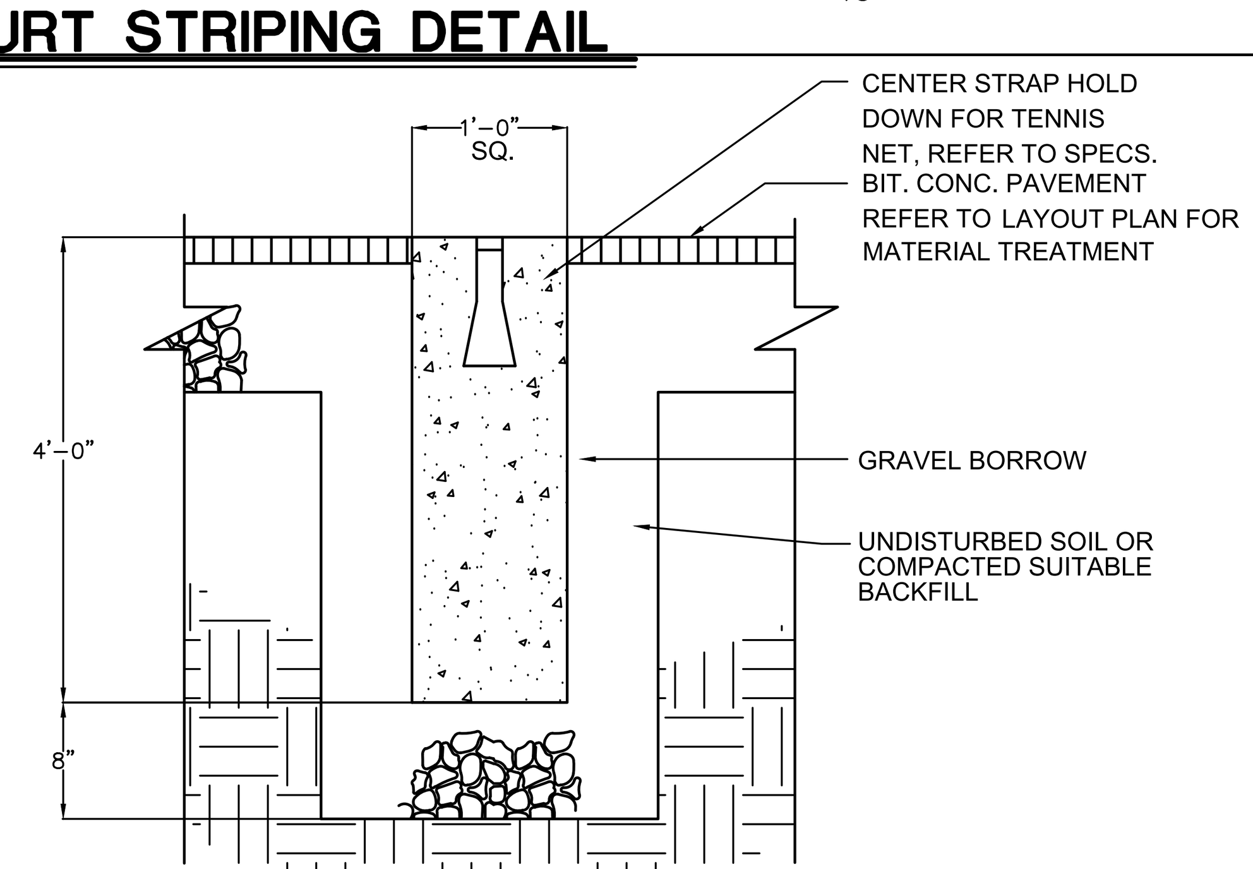
STONEDUST PAVING AT FOUNTAIN

SCALE: NTS



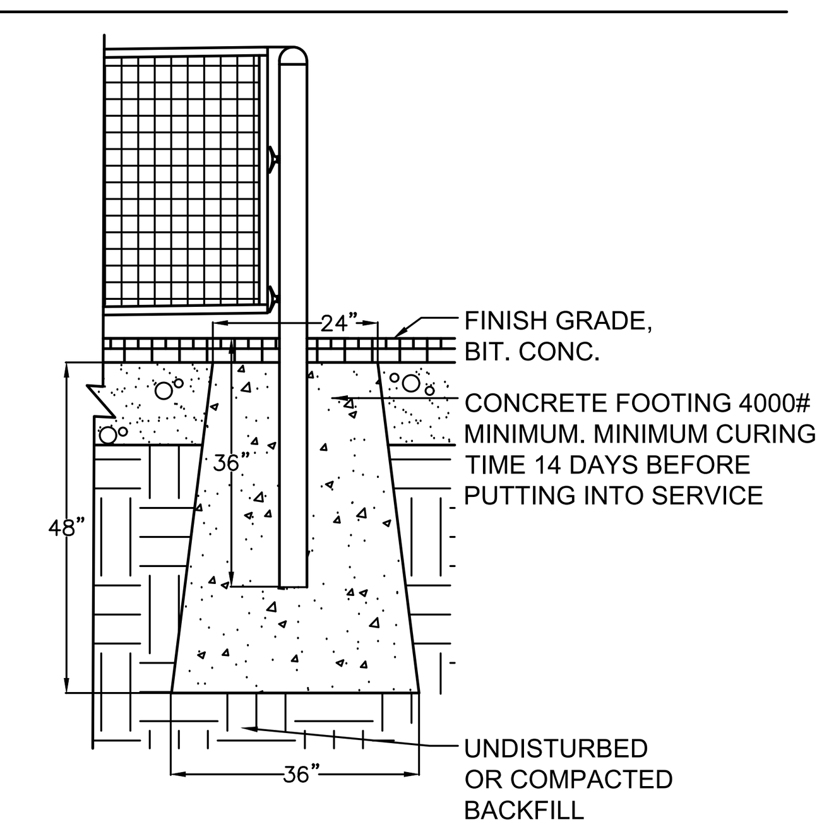
BOULDER WALL DETAIL

SCALE: NTS



TENNIS NET TIE DOWN

SCALE: NTS



TENNIS NET POST FOOTING

SCALE: NTS

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TENNIS COURT RENOVATION
PORTSMOUTH HIGH SCHOOL
50 ANDREW JARVIS DR., PORTSMOUTH, NH 03801

REVISIONS		
No.	Date	Desc.

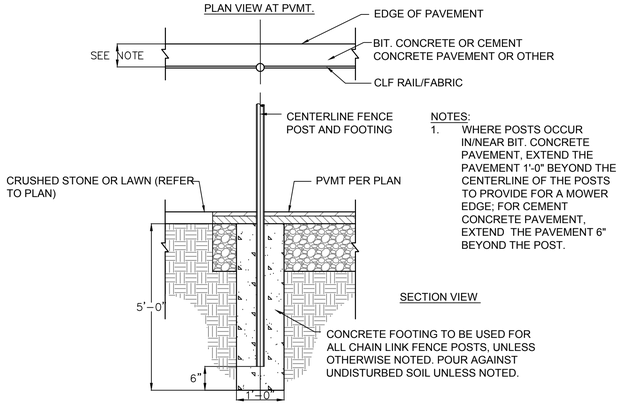
Surveyed	
Drawn	JW
Reviewed	JW
Scale	
Project No.	2101920
Date	01/03/2023
CAD File:	

Title
SITE DETAILS 2

Sheet No.
DN-02

Xref (s): ; BD2100875 ; XC2101920D01 ; XZ2101920D01

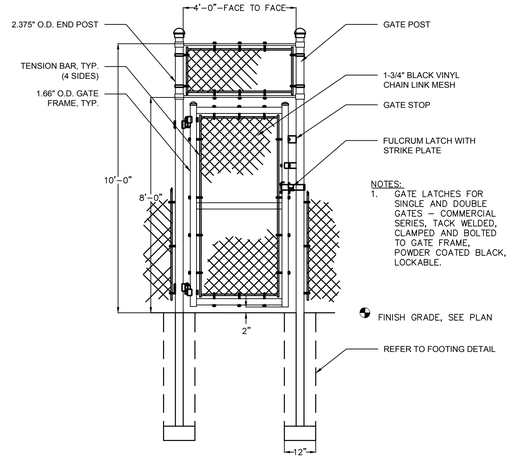
May 17, 2023 2:06pm JWheeler G:\JOBS21\18\2101920\DWG\DN2101920D01.dwg
Layout: DN-02



NOTES:
1. WHERE POSTS OCCUR IN/NEAR BIT. CONCRETE PAVEMENT, EXTEND THE PAVEMENT 1'-0" BEYOND THE CENTERLINE OF THE POSTS TO PROVIDE FOR A MOWER EDGE; FOR CEMENT CONCRETE PAVEMENT, EXTEND THE PAVEMENT 6" BEYOND THE POST.

TYPICAL FENCE POST FOOTING

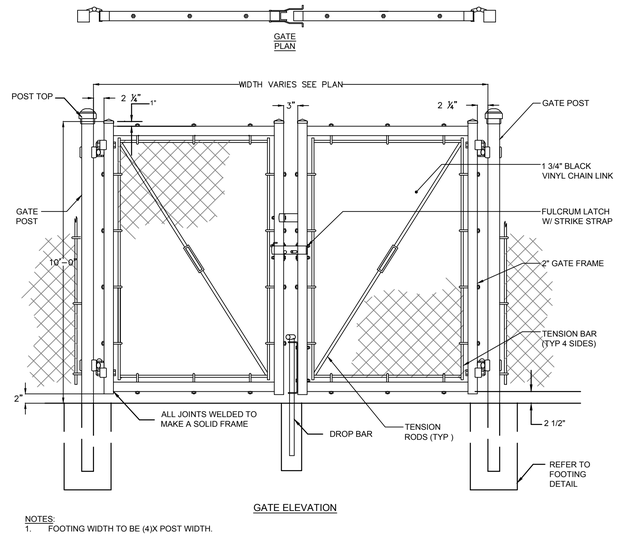
SCALE: NTS



NOTES:
1. GATE LATCHES FOR SINGLE AND DOUBLE GATES – COMMERCIAL SERIES, TACK WELDED, CLAMPED AND BOLTED TO GATE FRAME, POWDER COATED BLACK, LOCKABLE.

BLACK VINYL CHAIN LINK FENCE SINGLE GATE

SCALE: NTS



NOTES:
1. FOOTING WIDTH TO BE (4)X POST WIDTH.

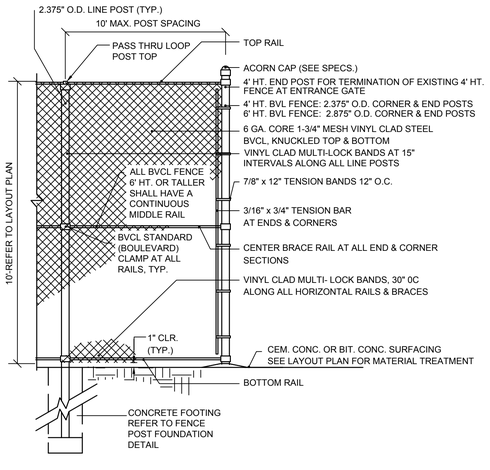
BLACK VINYL CHAIN LINK FENCE DOUBLE SWING GATE

SCALE: NTS

NOTES:
1. PROVIDE GATE STOP AT ALL FENCE GATES.

GATE STOP

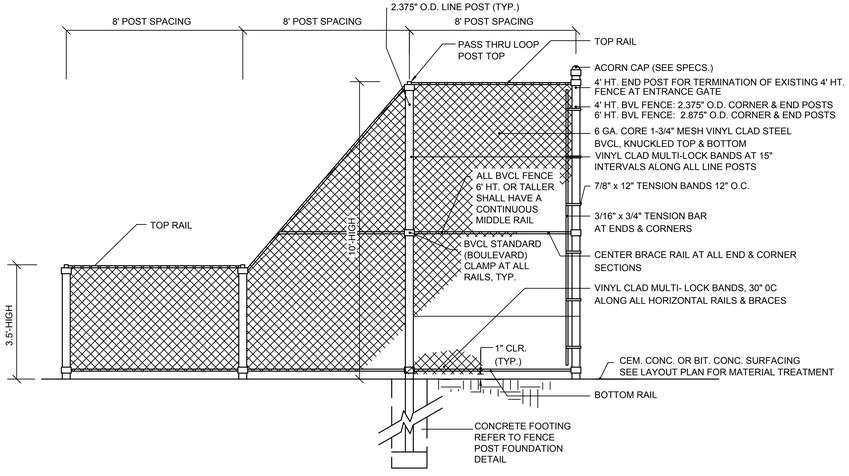
SCALE: NTS



NOTES:
1. 1 3/4" MESH VINYL-CLAD STEEL CHAIN LINK FABRIC, KNUCKLED TOP AND BOTTOM.
2. ALL FENCE PIPE SHALL BE SCH. 40, VINYL CLAD HOT DIP GALV. STEEL PIPE.
3. ALL LINE POSTS SHALL BE INSTALLED EQUALLY SPACED BETWEEN END & CORNER POSTS.
4. ALL RAILS SHALL BE 1.66" O.D. PIPE
5. ALL CLAMPS, TIES, POST TOPS, BANDS, POSTS, ETC. SHALL BE VINYL CLAD TO MATCH FABRIC.
6. REFER TO EL SERIES DRAWINGS FOR BONDING AND GROUNDING REQUIREMENTS
7. REFER TO SPECS. FOR GATE REQUIREMENTS.

BLACK VINYL CHAIN LINK FENCE - TENNIS COURT

SCALE: NTS



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6. REFER TO EL SERIES DRAWINGS FOR BONDING AND GROUNDING REQUIREMENTS
7. REFER TO SPECS. FOR GATE REQUIREMENTS.

BLACK CHAIN LINK FENCE VARYING HEIGHT DIVIDER

SCALE: NTS

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REVISIONS
No. Date Desc.

Surveyed
Drawn JW
Reviewed JW
Scale
Project No. 2101920
Date 01/03/2023

CAD File:

Title
SITE DETAILS 3

Sheet No.
DN-03

Xref (s): : B21001875 : XC210192001 : XZ210192001

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Layout: DN-03