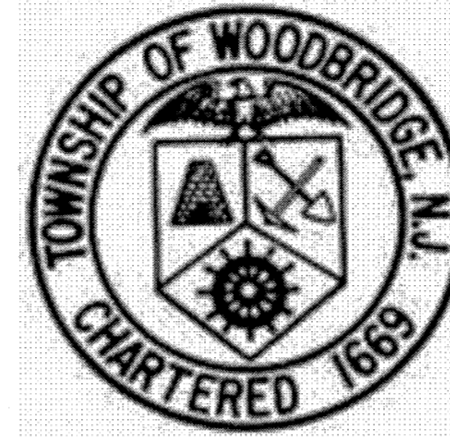


TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY

CYPRESS PARK - PHASE II



MAY 2023

JOHN E. McCORMAC - MAYOR

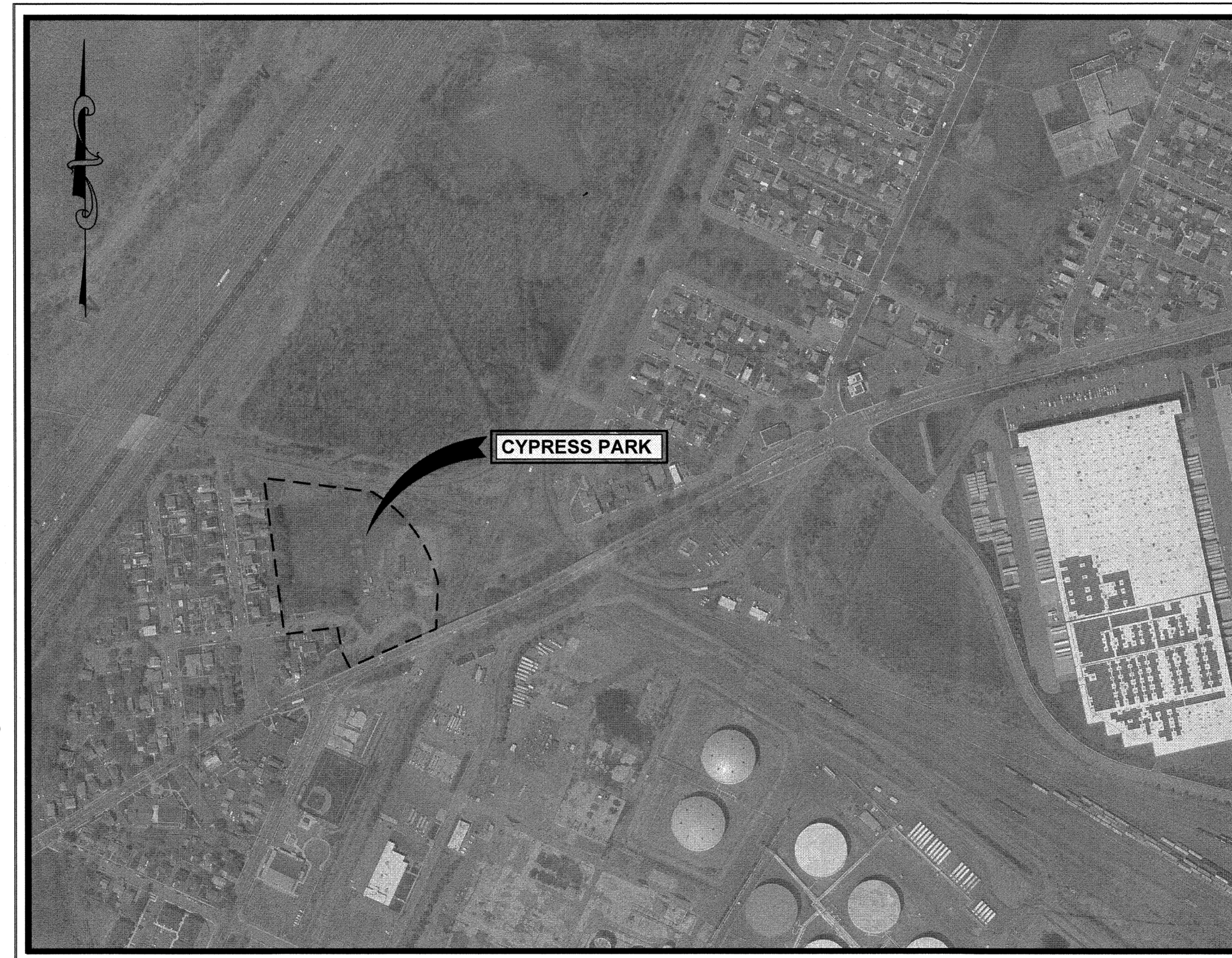
TOWNSHIP COUNCIL

GREGG M. FICARRA
KYLE ANDERSON
HOWIE BAUER
LIZBETH DEJESUS
SHARON MCAULIFFE
DEBBIE MEEHAN
VIRBHADRA N. PATEL
BRIAN SMALL
CORY SPILLAR

COUNCIL PRESIDENT
COUNCIL VICE PRESIDENT
COUNCILMAN
COUNCILWOMAN
COUNCILWOMAN
COUNCILWOMAN
COUNCILMAN
COUNCILMAN
COUNCILMAN

VITO CIMILLUCA
JOHN M. MITCH
JAMES P. NOLAN, JR., ESQ.
GEORGE T. BREW
MICHAEL GELIN, P.E.

BUSINESS ADMINISTRATOR
MUNICIPAL CLERK
DIRECTOR OF LAW
DIRECTOR OF PUBLIC WORKS
MUNICIPAL ENGINEER



LOCATION MAP

SCALE: N.T.S.

NEW JERSEY DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF 2019 AND ALL AMENDMENTS IN CME ASSOCIATES FORMAT THERETO SHALL GOVERN.

THE HEADING OF THE ARTICLES CONTAINED HEREIN CONFORM TO THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, DATED 2019 AND ALL ADDENDA THERETO, WHICH IS TO BE USED IN THE EXECUTION OF THIS CONTACT.

THE NEW JERSEY DEPARTMENT OF TRANSPORTATION "STANDARD ROADWAY CONSTRUCTION/TRAFFIC CONTROL/BRIDGE CONSTRUCTION DETAILS" BOOKLET DATED 2016 AND "ELECTRICAL BUREAU STANDARD DETAILS" (2007) TO GOVERN, EXCEPT FOR THOSE DETAILS CONTAINED HEREIN.

INDEX OF DRAWINGS

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2	SITE LOCATION PLAN & CONSTRUCTION NOTES
3	DEMOLITION PLAN
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5	SOIL EROSION & SEDIMENT CONTROL PLAN
6	SURVEY CONTROL PLAN
7	SITE PLAN
8	GRADING PLAN
9	CURB RAMP DESIGN PLAN
10	STORM SEWER PLAN
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12	ELECTRICAL NOTES, ABBREVIATIONS AND SYMBOLS
12A	ELECTRICAL SITE PLAN
13	PANELBOARD SCHEDULE & ONE LINE DIAGRAM
13A	ELECTRICAL DETAILS
14	LANDSCAPE PLAN
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20	SITE CROSS SECTIONS
21-25	CONSTRUCTION DETAILS
26	CONSTRUCTION STAGING PLAN

PREPARED BY:

Michael J. McClelland
MICHAEL J. McCLELLAND, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LICENSE No. 32468

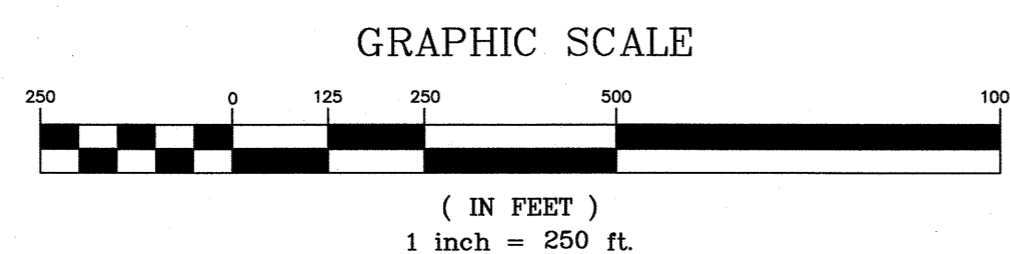


ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS

3201 BROADVIEW AVENUE, PARLIN, NEW JERSEY 08859 1400 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731



LOCATION PLAN



SPECIAL PROVISIONS

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

EXISTING UTILITIES

THE CONTRACTOR IS ADVISED THAT THE EXISTING GAS AND WATER MAIN LOCATIONS INDICATED ON THE PLANS ARE APPROXIMATE. THE EXACT LOCATIONS AND DEPTHS WERE NOT AVAILABLE AT THE TIME THE PLANS WERE PREPARED. ACCORDINGLY, THE CONTRACTOR SHALL REQUEST A UTILITY MARKOUT PRIOR TO COMMENCEMENT OF THE WORK AND SHALL PERFORM ALL INVESTIGATIONS NECESSARY TO LOCATE SAME.

HOCKEY RINK DASHER BOARDS

HOCKEY RINK DASHER BOARDS INCLUDING ALL GATES, FENCING, PLAYER BENCHES, TIMER TABLES AND HOCKEY GOALS TO BE PURCHASED BY THE TOWNSHIP UNDER SEPARATE CONTRACT AND INSTALLED BY OTHERS WITH THE COORDINATION AND COOPERATION OF THE GENERAL CONTRACTOR

SPORTS FIELD LIGHTING

HIGH MAST SPORTS LIGHTING TO BE PURCHASED BY THE TOWNSHIP UNDER SEPARATE CONTRACT AND INSTALLED BY OTHERS.

SITE LIGHTING

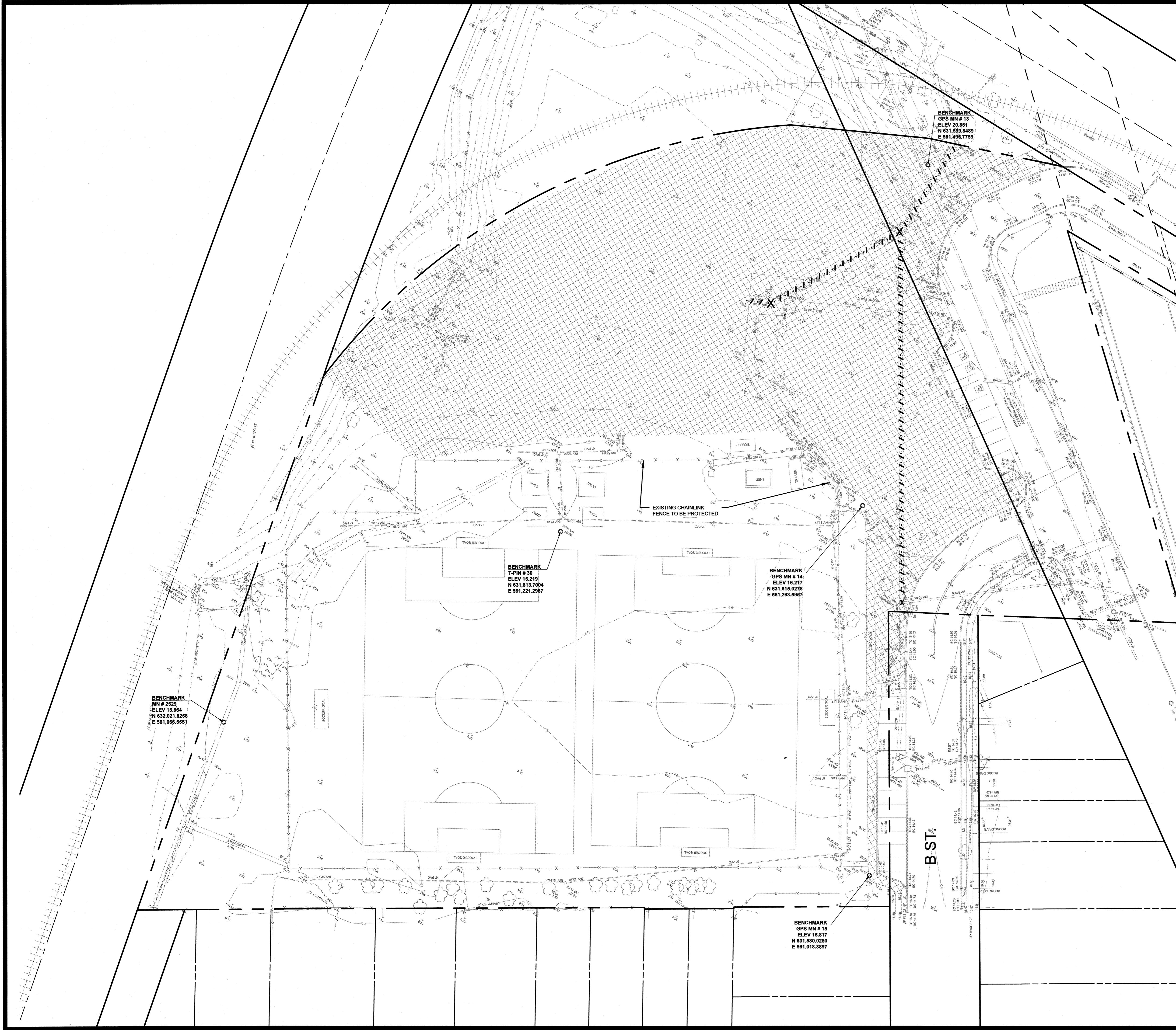
SITE LIGHTING TO BE PURCHASED BY THE TOWNSHIP UNDER SEPARATE CONTRACT AND INSTALLED BY OTHERS.

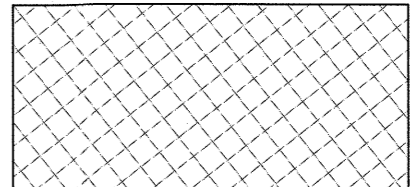

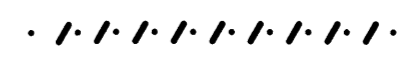
GENERAL CONSTRUCTION NOTES:

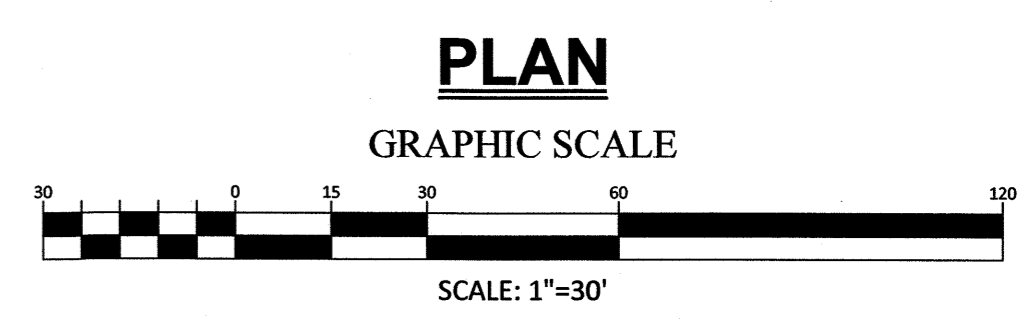
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY FOR CONSTRUCTION IN ACCORDANCE WITH EXISTING LOCAL, COUNTY, OR STATE REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION IN THESE MATTERS.
- THE CONTRACTOR IS RESPONSIBLE FOR AND SHALL VERIFY ALL DIMENSIONS AND DETAILS BEFORE PROCEEDING WITH WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
- ALL REGRADED AREAS AT THE SITE WHICH ARE NOT DESIGNATED AS PAVED OR GRAVEL AREAS SHALL BE TOPSOILED AND SODDED OR SEEDED AND SHALL BE STABILIZED IN ACCORDANCE WITH STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND THE CONTRACT SPECIFICATIONS.
- ALL GRADING OPERATIONS SHALL PROVIDE FOR POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AND STRUCTURES AND SHALL ELIMINATE PONDING AREAS.
- THE CONTRACTOR SHALL VISIT THE SITE AND MAKE ALL NECESSARY INVESTIGATIONS TO SATISFY HIMSELF AS TO THE EXISTING CONDITIONS PRIOR TO BIDDING WORK INCLUDING THE LOCATION OF EXISTING SUBSURFACE IRRIGATION AND UTILITY SYSTEMS.
- THE CONTRACTOR IS RESPONSIBLE TO COORDINATE THE LOCATION OF THE UTILITIES WITH THE UTILITY COMPANIES AND THE OWNER PRIOR TO CONSTRUCTION.
- THE COORDINATION OF THE LOCATION OR RELOCATION WHERE REQUIRED OF TELEPHONE, CABLE, ELECTRIC, GAS, IRRIGATION AND WATER FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR AND SAME SHALL BE COORDINATED TO INSURE COMPLETION WITHIN THE TIME PERMITTED.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN MEANS OF INGRESS AND EGRESS TO PEDESTRIANS THROUGHOUT THE COURSE OF THE WORK AND TO PROVIDE FOR THE MAINTENANCE AND PROTECTION OF TRAFFIC.
- THE CONTRACTOR'S LICENSED SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT.
- THE CONTRACTOR WILL NOT BE PERMITTED TO STOCKPILE EXCAVATED MATERIALS OVER EXISTING UTILITY LINES. THE STOCKPILED MATERIALS SHOULD BE PLACED SUFFICIENTLY AWAY FROM THE EDGE OF ANY EXCAVATION TO PREVENT CAVING OF THE TRENCH WALL AND TO PERMIT SAFE ACCESS ALONG THE TRENCH. WITH SHEETED TRENCHES, A MINIMUM OF FIVE (5) FEET FROM THE EDGE OF SHEETING TO TOE OF SPOIL BANK MUST BE MAINTAINED.
- THE CONTRACTOR SHALL TAKE EVERY PRECAUTION NECESSARY TO PRECLUDE DAMAGE TO EXISTING STRUCTURES, FACILITIES, AND UTILITIES DUE TO LOSS OF LATERAL SUPPORT AND/OR CONSTRUCTION LOADINGS. SPECIFIC DETAILS NECESSARY TO ACCOMPLISH SAME SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND APPROVAL PRIOR TO COMMENCING CONSTRUCTION.
- ALL WORK BY THE CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE NEW JERSEY STATUTE KNOWN AS CHAPTER 249 OF THE LAWS OF 1948, BEING SECTIONS 34:6-47.1 TO 47.9, INCLUSIVE OF THE REVISED STATUTES OF NEW JERSEY, 1937, AND IN ACCORDANCE WITH THE RULES AND REGULATIONS CONCERNING PRECAUTIONS TO BE TAKEN IN THE PROXIMITY OF HIGH-VOLTAGE LINES FOR THE PREVENTION OF ACCIDENTS PROMULGATED BY THE COMMISSIONER OF THE DEPARTMENT OF LABOR AND INDUSTRY OF THE STATE OF NEW JERSEY, EFFECTIVE DECEMBER 28, 1948, ALL AS AMENDED AND SUPPLEMENTED, AND IN ACCORDANCE WITH THE PROVISIONS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND OF SUBPART N, PARAGRAPH 1926.550 OF THE RULES AND REGULATIONS ISSUED UNDER SAID ACT.
- THE CONTRACTOR IS HEREIN ADVISED THAT ALL WORK TO BE PERFORMED SHALL BE GOVERNED BY THE LOCAL MUNICIPAL ORDINANCES. THIS SHALL INCLUDE THE PROVISIONS IN THEIR CODES WHICH SET FORTH PERMITTED HOURS OF CONSTRUCTION WITHIN THE MUNICIPALITY.
- THE CONTRACTOR IS ADVISED THAT THEY ARE RESPONSIBLE TO PAY FOR, ACQUIRE AND COMPLY WITH ANY ROAD OPENING PERMITS IF REQUIRED IN CONJUNCTION WITH THE PROPOSED IMPROVEMENTS.
- THE CONTRACTOR SHALL COMPLY WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES BY THE U.S.D.O.T.
- THE CONTRACTOR IS ADVISED THAT HE MUST MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES AND MUST COMPLETELY BACKFILL ALL TRENCHES PRIOR TO NON-DAYLIGHT HOURS.
- IN ORDER TO MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION, THE CONTRACTOR MAY FIND IT NECESSARY TO UTILIZE STEEL PLATES OVER TRENCHES AT NO ADDITIONAL COST TO THE OWNER.
- WHEN DISTURBING, REMOVING AND/OR DISPOSING OF ASBESTOS CEMENT PIPE, THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS INCLUDING BUT NOT LIMITED TO: CURRENT USEPA REGULATIONS (NESHAP, 40 CFR 61 SUBPART M); OSHA REGULATIONS (29 CFR 192658); THE CURRENT NEW JERSEY ASBESTOS HAZARD ABATEMENT SUBCODE (N.J.A.C. 5:23-8); THE CURRENT NJDEPE REGULATIONS (N.J.A.C. 7:26-1 ET. SEQ.); AND NOTIFICATION REGULATIONS (N.J.A.C. 5:23-8.6, 40 CFR 61 SUBPART M, AND N.J.A.C. 7:26-2:12).
- THE FREEHOLD SOIL CONSERVATION DISTRICT GOVERNS SOIL EROSION AND SEDIMENT CONTROL MEASURES WITHIN THE PROJECT AREA. ACCORDINGLY ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED AS PER THE REQUIREMENTS OF THE FREEHOLD SOIL CONSERVATION DISTRICT AND AS DIRECTED BY THE ENGINEER.
- AT CERTAIN TIMES THE SITE MAY BE OCCUPIED BY SEVERAL CONTRACTORS AND IT IS THEREFORE REQUIRED FOR ANY AND ALL CONTRACTORS OCCUPYING THE SITE TO COOPERATE WITH ONE ANOTHER. NO DELAYS RESULTING FROM MULTIPLE CONTRACTORS WORKING ON THE SITE WILL BE CONSIDERED.
- THE CONTRACTOR SHALL CONTINUOUSLY DEWATER ALL EXCAVATIONS UNTIL BACKFILLING OPERATIONS HAVE BEEN COMPLETED. PRIOR TO DISCHARGE TO STREAMS, SILT SHALL BE SETTLED OUT IN AN APPROVED SETTLING BASIN.
- THE CONTRACTOR SHALL MAINTAIN THE FLOW OF ALL STREAMS, DRAINAGE DITCHES, STORM SEWERS, AND SANITARY SEWERS AT ALL TIMES BY A MEANS ACCEPTABLE TO THE ENGINEER AND ALL THE RESPONSIBLE AGENCIES.
- THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICE FLOWS AND PRESSURES UNLESS WRITTEN APPROVAL BY THE RESPONSIBLE UTILITY COMPANY AND/OR OWNER AS APPLICABLE PERMITS HIM TO DO OTHERWISE.
- THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STATE OF NEW JERSEY WORKER HEALTH AND SAFETY ACT (N.J.A.C. 12:110 ET SEQ) AS AMENDED AND THE UNITED STATES OCCUPATIONAL SAFETY & HEALTH ACT (OSHA) (29 CFR 1910.), AS AMENDED WITH REGARD TO WORKER AND JOBSITE SAFETY.

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY					
CYPRESS PARK - PHASE II					
SITE LOCATION PLAN & CONSTRUCTION NOTES					
MICHAEL J. MCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER		SCALE As Shown	DATE May 2023	DRAWING NUMBER CN-1	
DRAWN BY LAK		DESIGNED BY LAK		SHEET 2 of 26	
CHECKED BY JCW		DATE 5.2.23			

REGISTERED NO. PWB00206.04 2-U CG



-  - EXISTING PARK FACILITIES TO BE REMOVED UNLESS OTHERWISE NOTED
-  - EXISTING DRAINAGE STRUCTURE TO BE REMOVED
-  - EXISTING DRAINAGE PIPE TO BE REMOVED



BENCHMARK
MN # 2529
ELEV 15.864
N 632,021.8298
E 561,066.5551

BENCHMARK
T-PIN # 30
ELEV 15.219
N 631,813.7004
E 561,221.2987

BENCHMARK
GPS MN # 14
ELEV 14.217
N 631,615.0278
E 561,263.6957

BENCHMARK
GPS MN # 13
ELEV 20.851
N 631,699.8489
E 561,495.7759

BENCHMARK
GPS MN # 15
ELEV 15.817
N 631,680.0280
E 661,016.3897


EXISTING CHANLINK
FENCE TO BE PROTECTED

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

CYPRESS PARK - PHASE II

DEMOLITION PLAN



ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
NO. CERTIFICATE OF AUTHORIZATION NO. 24628359000

(732) 727 8000 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 462 7400

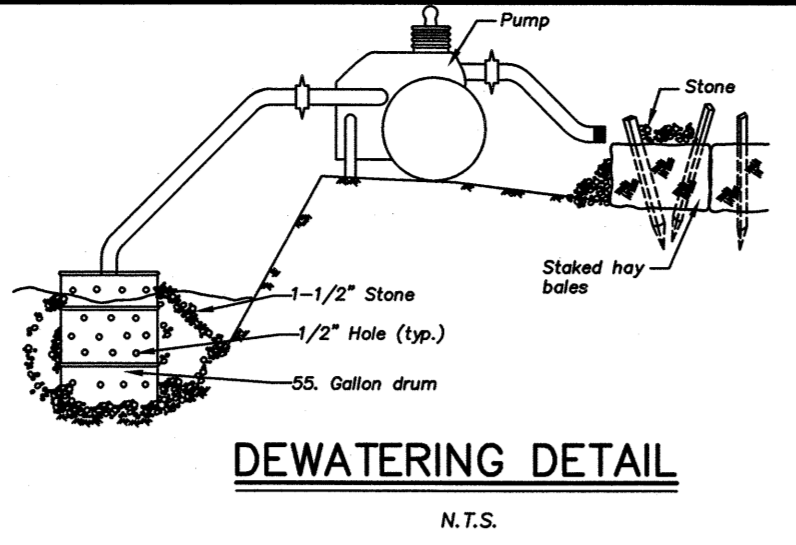
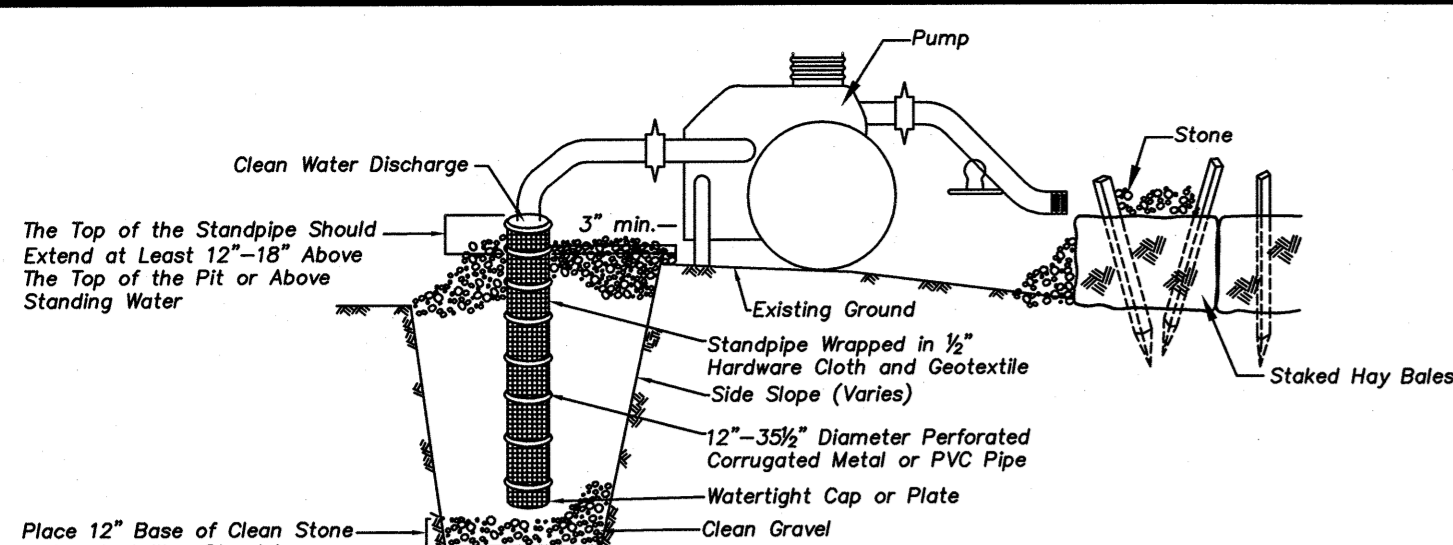
MICHAEL J. McCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER L.I.C. 32468

SCALE: As Shown	DATE: May 2023
DRAWN BY: LAK	DESIGNED BY: LAK
CHECKED BY: JCW	SHEET: 3 of 26

5.3.23

REGISTERED NO. 3-U CG
DRAWING NUMBER: PWB00206.04

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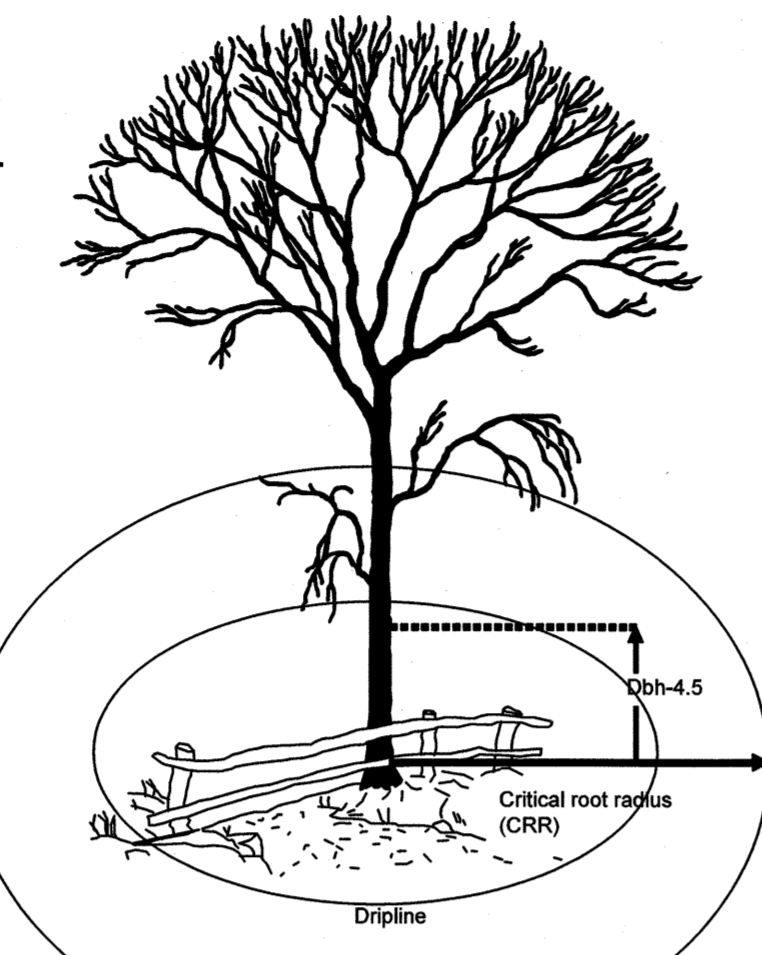


ACID SOILS MITIGATION METHODS AND MATERIALS

- LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID-PRODUCING SOILS ARE ENCOUNTERED.
- TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOILS.
- STOCKPILES OF HIGH ACID-PRODUCING SOIL SHOULD BE LOCATED ON LEVEL LAND TO MINIMIZE ITS MOVEMENT, ESPECIALLY WHEN THIS MATERIAL HAS A HIGH CLAY CONTENT.
- TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOIL MATERIAL TO BE STORED MORE THAN 48 HOURS SHOULD BE COVERED WITH PROPERLY ANCHORED, HEAVY GAUGE SHEETS OF POLYETHYLENE WHERE POSSIBLE. IF NOT POSSIBLE, STOCKPILES SHALL BE COVERED WITH A MINIMUM OF 3 TO 6 INCHES OF WOOD CHIPS TO MINIMIZE EROSION OF THE STOCKPILE. SILT FENCE SHALL BE INSTALLED AT THE TOE OF THE SLOPE TO CONTAIN MOVEMENT OF THE STOCKPILED MATERIAL. TOPSOIL SHALL NOT BE APPLIED TO THE STOCKPILES TO PREVENT TOPSOIL CONTAMINATION WITH HIGH ACID-PRODUCING SOIL.
- HIGH ACID-PRODUCING SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE (INCLUDING BORROW FROM CUTS OR DEGRADED SEDIMENT) SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS PER ACRE (OR 450 POUNDS PER 1,000 SQUARE FEET OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A PH OF 5.0 OR MORE EXCEPT AS FOLLOWS:
 - AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF 24 INCHES OF SOIL WITH A PH OF 5.0 OR MORE.
 - DISPOSAL AREAS SHALL NOT BE LOCATED WITHIN 24 INCHES OF ANY SURFACE OF A SLOPE OR BANK, SUCH AS BERMS, STREAM BANKS, DITCHES, AND OTHERS, TO PREVENT POTENTIAL LATERAL LEACHING DAMAGES.
- EQUIPMENT USED FOR MOVEMENT OF HIGH ACID-PRODUCING SOILS SHOULD BE CLEANED AT THE END OF EACH DAY TO PREVENT SPREADING OF HIGH ACID-PRODUCING SOIL MATERIALS TO OTHER PARTS OF THE SITE, INTO STREAMS OR STORMWATER CONVEYANCES, AND TO PROTECT MACHINERY FROM ACCELERATED RUSTING.
- NON-VEGETATIVE EROSION CONTROL PRACTICES (STONE TRACKING PADS, STRATEGICALLY PLACED LIMESTONE CHECK DAM, SEDIMENT BARRIER, WOOD CHIPS) SHOULD BE INSTALLED TO LIMIT THE MOVEMENT OF HIGH ACID-PRODUCING SOILS FROM, AROUND, OR OFF THE SITE.
- FOLLOWING BURIAL OR REMOVAL OF HIGH ACID-PRODUCING SOIL, TOPSOILING AND SEEDING OF THE SITE (SEE TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, AND TOPSOILING), MONITORING MUST CONTINUE FOR A MINIMUM OF 6 MONTHS TO ENSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH ACID-PRODUCING SOIL PROBLEMS EMERGE. IF PROBLEMS STILL EXIST, THE AFFECTED AREA MUST BE TREATED AS INDICATED ABOVE TO CORRECT THE PROBLEM.

Estimate a tree's Protected Root Zone (PRZ) by calculating the Critical Root Radius (CRR).

- Measure the dbh (diameter of tree at breast height, 4.5 feet above ground on the uphill side of tree) in inches.
 - Multiply measured dbh by 1.5 or 1.0. Express the result in feet.
- Dbh x 1.5: Critical root radius for older, unhealthy, or sensitive species.
Dbh x 1.0: Critical root radius for younger, healthy or tolerant species.



TEMPORARY SEEDBED PREPARATIONS

- APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS CO-OPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50X WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE.
- CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.
- WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.
- SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, PG 1-1.

SITE PREPARATION

- GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
- IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
- TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
- INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

SOIL EROSION AND SEDIMENT CONTROL NOTES:

- THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.
- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.
- N.J.S.A. 4:24-39 ET SEQ. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH A CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICANT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT-BY-LOT OR SECTION-BY-SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.
- ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 1/2 TONS PER ACRE, ACCORDING TO STATE STANDARDS FOR STABILIZATION WITH MULCH ONLY.
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND A MULCH ANCHOR, IN ACCORDANCE WITH STATE STANDARDS.
- A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF THE PRELIMINARY GRADING.
- THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONE AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ACCESS CONSISTING OF ONE INCH TO TWO INCH (1"-2") STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF.
- ALL SOIL WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS WILL BE REMOVED IMMEDIATELY.
- PERMANENT VEGETATION IS TO BE SEEDING OR SOODED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.
- AT THE TIME THAT THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A MANNER THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. THE REMOVAL OR TREATMENT OF SUCH SOILS WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
- IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDES SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRE (OR 450 LBS/1,000 SQ FT OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12" OF SETTLED SOIL WITH A PH OF 5.0 OR MORE, OR 24" WHERE TREES OR SHRUBS ARE TO BE PLANTED.
- CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
- UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH STANDARDS FOR DEWATERING.
- SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL.
- STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000 SQUARE FEET IS DISTURBED.
- ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6.
- THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORM WATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
- MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES TO BE 3:1.
- HAY BALES OR SEDIMENT CONTROL FABRIC TO BE PLACED IF EROSION BECOMES EVIDENT DURING CONSTRUCTION.
- TO PREVENT LARGE BILLOWS DOWNHILL DURING CONSTRUCTION, TEMPORARY MOUNTABLE STONE BERMS MAY BE INSTALLED, SHOULD FIELD CONDITIONS WARRANT WHICH WILL NOT IMPDE ACCESS FOR THE RESIDENTS AND EMERGENCY VEHICLES.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING ANY AND ALL SOIL EROSION AND SEDIMENT CONTROL PROCEDURES DEEMED NECESSARY BY THE FREEHOLD SOIL CONSERVATION DISTRICT OFFICE AGENTS DURING THE COURSE OF CONSTRUCTION.

TEMPORARY SEEDING SPECIFICATIONS

- APPLY 10-20-10 FERTILIZER AT A RATE OF 500 LBS. PER ACRE OR 11 LBS. PER 1,000 SQ. FT.
- APPLY LIMESTONE ACCORDING TO THE RATE RECOMMENDED BY SOIL TESTING.
- COOL SEASON GRASSES:
 - APPLY PERENNIAL RYE GRASS AT A RATE OF 100 LBS. PER ACRE OR 1 LB. PER 1,000 SQ. FT.
 - APPLY SPRING OATS AT A RATE OF 80 LBS. PER ACRE OR 2 LBS. PER 1,000 SQ. FT.
 - APPLY ANNUAL RYEGRASS AT A RATE OF 100 LBS. PER ACRE OR 1 LB. PER 1,000 SQ. FT.
 - APPLY WINTER BARLEY AT A RATE OF 90 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ. FT.
 - APPLY WINTER CEREAL RYE AT A RATE OF 112 LBS. PER ACRE OR 2.8 LBS. PER 1,000 SQ. FT.
- WARM SEASON GRASSES:
 - APPLY PEARL MILLET AT A RATE OF 20 LBS. PER ACRE OR 0.5 LBS. PER 1,000 SQ. FT.
 - APPLY MILLET (GERMAN OR HUNGARIAN) AT A RATE OF 30 LBS. PER ACRE OR 0.7 LBS. PER SQ. FT.

SEQUENCE OF CONSTRUCTION:

THIS PROJECT SHALL CONSIST ESSENTIALLY OF THE CONSTRUCTION OF POST-TENSIONED CONCRETE STREET HOKEY RINKS, WALKWAYS, UTILITY INSTALLATION AND ASSOCIATED GRADING, DRAINAGE, STORMWATER MANAGEMENT, SITE RESTORATION AND OTHER RELATED WORK. CONSTRUCTION SHOULD PROCEED IN THE FOLLOWING MANNER:

- INSTALLATION OF ALL SEDIMENT AND EROSION CONTROL DEVICES THAT CAN BE PLACED PRIOR TO ANY MAJOR SOIL DISTURBANCES. (2 DAYS)
- CLEAR AND REMOVE ALL EXISTING VEGETATION IN THOSE AREAS WHERE NECESSARY, ALL REMAINING VEGETATION TO BE PROPERLY PROTECTED AND TO REMAIN IN ITS NATURAL STATE. (1 WEEK)
- IMMEDIATE INSTALLATION OF ALL REMAINING SEDIMENT AND EROSION CONTROL DEVICES. (2 DAYS)
- ROUGH GRADE RINKS AND AMENITIES. INSTALL TEMPORARY SEEDING OF ALL DISTURBED AREAS. (2 WEEKS)
- INSTALL REMAINING SOIL EROSION AND SEDIMENT CONTROL DEVICES. (2 DAYS)
- CONSTRUCTION OF STORM WATER MANAGEMENT IMPROVEMENTS, INCLUDING ALL APPURTENANCES FOR COMPLETION. (6 WEEKS)
- UNDERGROUND ELECTRIC AND LIGHTING INSTALLATION. (1 WEEK)
- FINE GRADE RINKS AND AMENITIES. (1 WEEK)
- HOKEY RINK POST-TENSIONED CONCRETE INSTALLATION AND COMPLETION. (4 WEEKS)
- WALKWAY INSTALLATION (1 WEEK)
- REMOVAL OF APPROPRIATE TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES. (2 DAYS)

NON GROWING SEASON SOIL STABILIZATION:

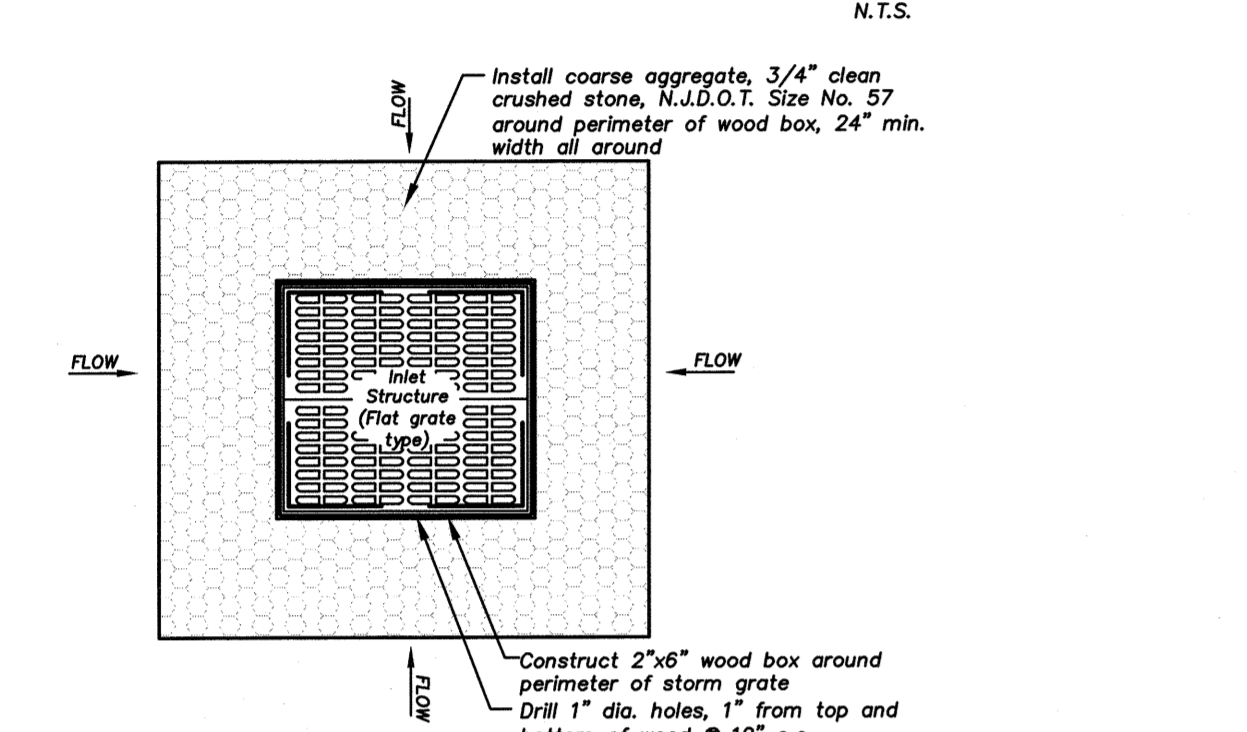
DURING NON GROWING SEASONS EXPOSED SOILS SHOULD BE STABILIZED USING NON-VEGETATIVE MATERIALS SUCH AS UNROTTED SMALL-GRAIN STRAW, OR SALT HAY AT A RATE OF 2.0 TO 2.5 TONS PER ACRE SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL. ORGANIC MULCH BINDERS, NETTING THE DOWNS OR OTHER SUITABLE MATERIALS AS APPROVED BY THE FREEHOLD SOIL CONSERVATION DISTRICT.

This plan to be used for Soil Erosion and Sediment Control purposes only

* FREEHOLD SOIL CONSERVATION DISTRICT
4000 KOZLOSKI RD.
FREEHOLD, NJ 07728
(732) 683-8500 PHONE
(732) 683-9140 FAX

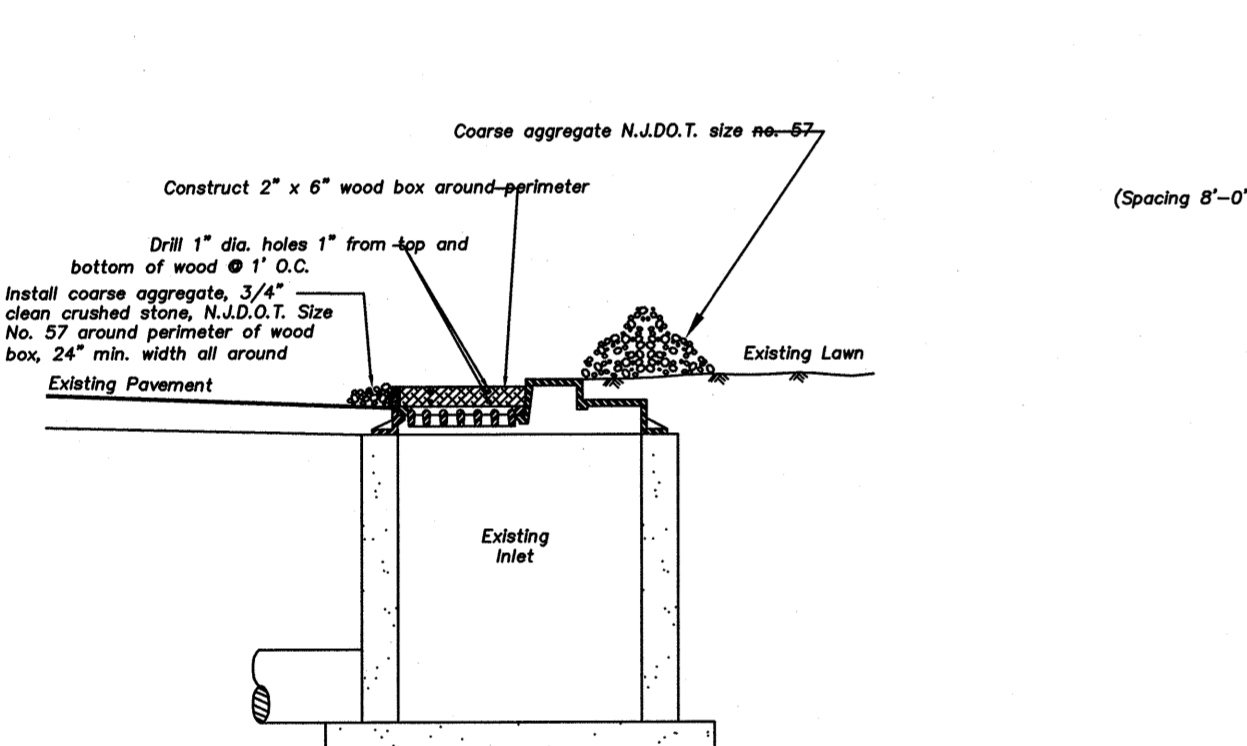
- Construction Specifications**
- Pit dimensions are variable with the minimum diameter being two(2) times the standpipe diameter.
 - The standpipe should be constructed by perforating a 12"-24" diameter corrugated or PVC pipe. Then wrapping with the 1/2" hardware slits or 1" diameter holes.
 - A base filter material consisting of clean gravel or ASTM C 33 stone should be placed in the pit to a depth of 12". After installing the standpipe, the pit surrounding the standpipe should then be backfilled with the same filter material.
 - The standpipe should extend 12"-18" above the lip of the pit or the riser crest elevation (basin dewatering only) and the filter material should extend 3" minimum above the anticipated standing water elevation.

DEWATERING DETAIL



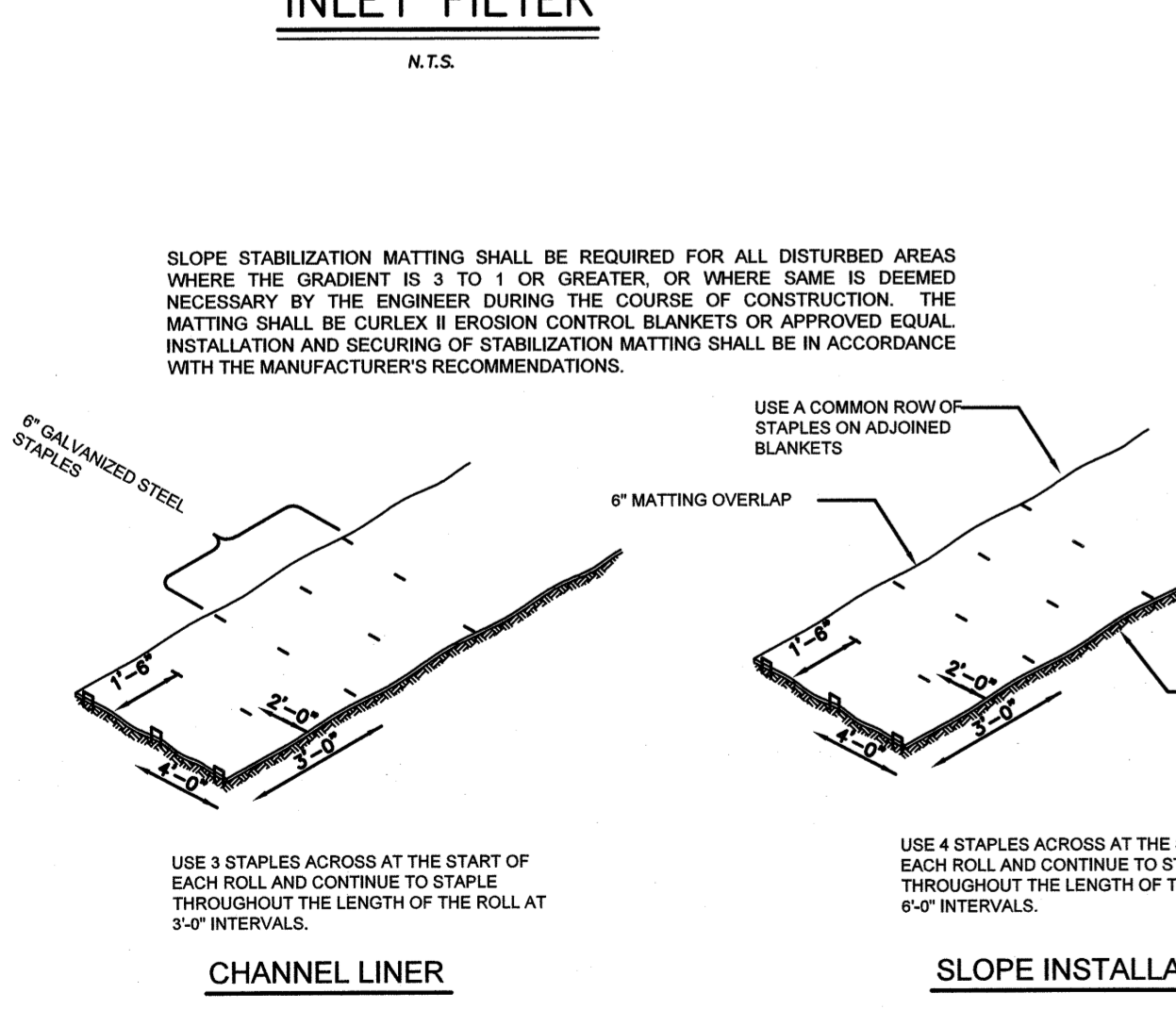
CONSTRUCTION NOTES:
Install siltation protection to remain until completion of final grading and establishment of cover. Also, periodic checks must be made after each rainfall to excavate and remove excess sediment from around inlets.

PLAN



INLET SILTATION PROTECTION DETAIL

INLET FILTER



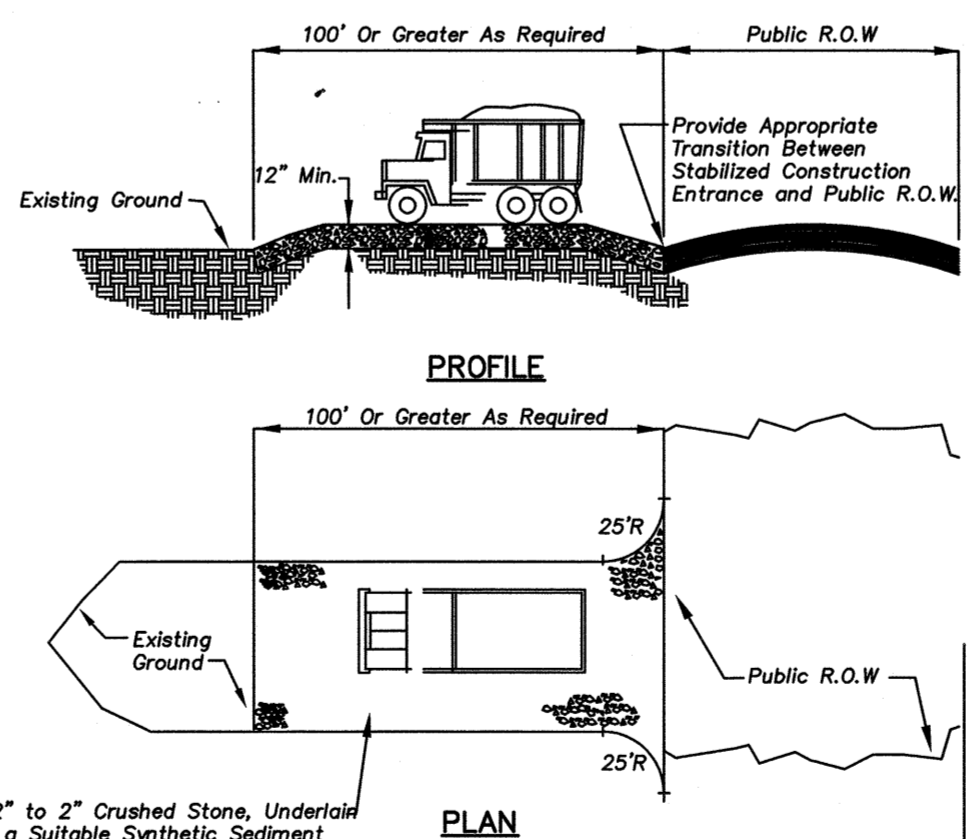
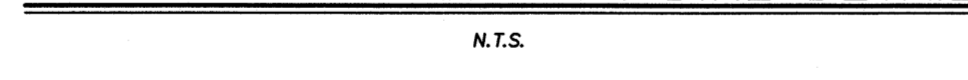
EXCELSIOR CURLEX II MATTING OR APPROVED EQUAL FOR SLOPE AND BERMS STABILIZATION STAPLE LOCATION

SILT STOP SEDIMENT BARRIER DETAIL

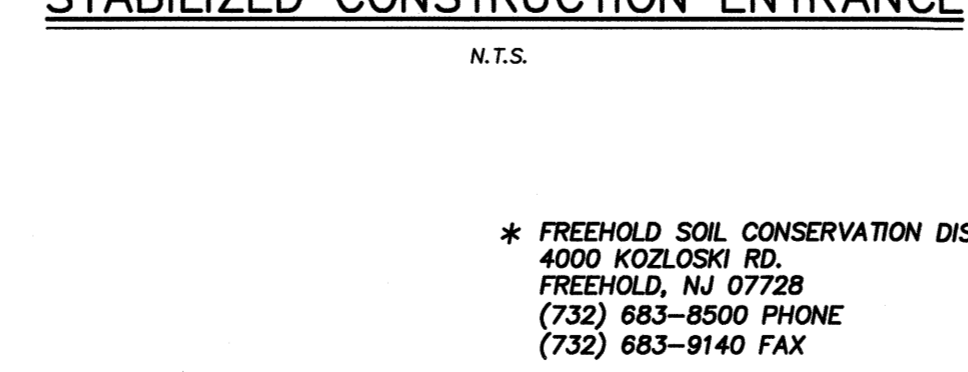
SILT STOP



STRAW BALE SILTATION DIKE DETAIL



STOCKPILE DETAIL



PERMANENT SEEDBED PREPARATIONS

- UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION OFFICES. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS CO-OPERATIVE EXTENSION OFFICES (HTTP://NAJES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50X WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
- WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- HIGH ACID PRODUCING SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED PREPARATION. TOPSOILING AND SEEDING OF THE DISTURBED AREAS SHALL BE IN ACCORDANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.

PERMANENT SEEDING SPECIFICATIONS:

- APPLY FERTILIZER AND LIME IN THE SAME RATES AS DENOTED IN THE TEMPORARY SEEDING SPECIFICATIONS ABOVE.
- APPLY THE FOLLOWING SEED MIXTURE ONLY DURING SPECIFIED PLANTING DATES AT THE SPECIFIED RATES.

FINE FESCUE (BLEND)	- 130 LBS. PER ACRE
HARD FESCUE	- 45 LBS. PER ACRE
CHEWING FESCUE	- 20 LBS. PER ACRE
OR KENTUCKY BLUEGRASS	- 5 LBS. PER ACRE
OR PERENNIAL RYEGRASS	- 5 LBS. PER ACRE
- APPLY MULCH AND MULCH ANCHORING AS SPECIFIED BELOW.

MULCHING

MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT OF THE VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

- STRAW OR HAY UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (20 TO 30 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

APPLICATION, SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 90% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FOOT SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

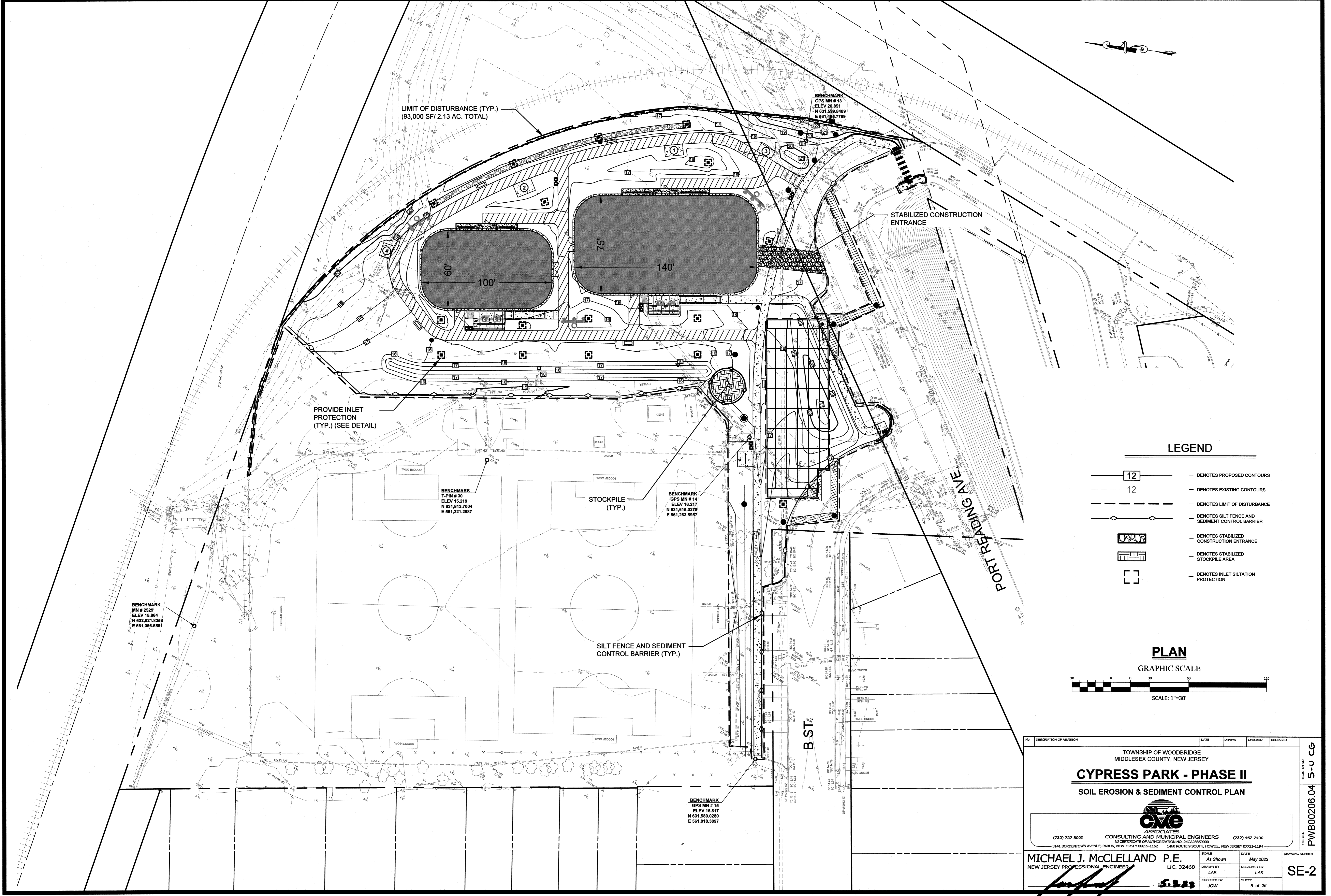
- ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.
 - PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE. TWINE SHOULD BE STAPLED TO THE MULCH. STAPLES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRIS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
 - MULCH NETTINGS. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
 - CRIMPER (MULCH ANCHORING TOOL). A TRACTOR-DRAWN IMPLEMENT, SOMETHING LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
 - LIQUID MULCH-BINDERS. - MAY BE USED TO ANCHOR HAY OR STRAW MULCH.
 - APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH IN VALLEYS, AND AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
 - USE ONE OF THE FOLLOWING:
 - ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWER BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANES NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOXIC EFFECT OR IMPEDS GROWTH OF TURFGRASSES. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE.
 - SYNTHETIC BINDERS - HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYS AND CURING SHALL, NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

NOTE: ALL NAMES GIVE ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A COMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

- WOOD-FIBER OR PAPER-FIBER MULCH SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS. USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PROJECT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.
- PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A TENDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 80-75 LBS./1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDS AREAS WHERE WEED-SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE.

APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH TO THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF GERMANTOWN MIDDLESEX COUNTY, NEW JERSEY					
CYPRESS PARK - PHASE II					
SOIL EROSION & SEDIMENT CONTROL NOTES AND DETAILS					
(732) 727 8000		CONSULTING AND MUNICIPAL ENGINEERS		(732) 462 7400	
1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194					
MICHAEL J. McCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER			DATE As Shown May 2023 DRAWN BY JD DESIGNED BY JD CHECKED BY JCW SHEET 4 of 26		
DRAWING NUMBER SE-1					

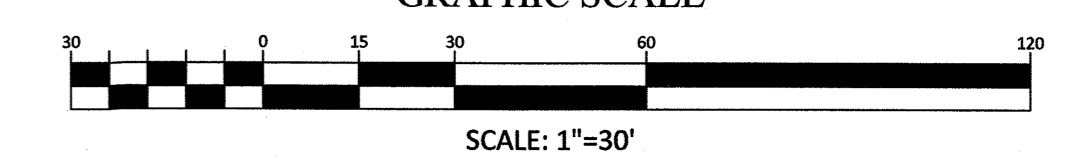




LEGEND

- DENOTES PROPOSED CONTOURS
- DENOTES EXISTING CONTOURS
- DENOTES LIMIT OF DISTURBANCE
- DENOTES SILT FENCE AND SEDIMENT CONTROL BARRIER
- DENOTES STABILIZED CONSTRUCTION ENTRANCE
- DENOTES STABILIZED STOCKPILE AREA
- DENOTES INLET SILTATION PROTECTION

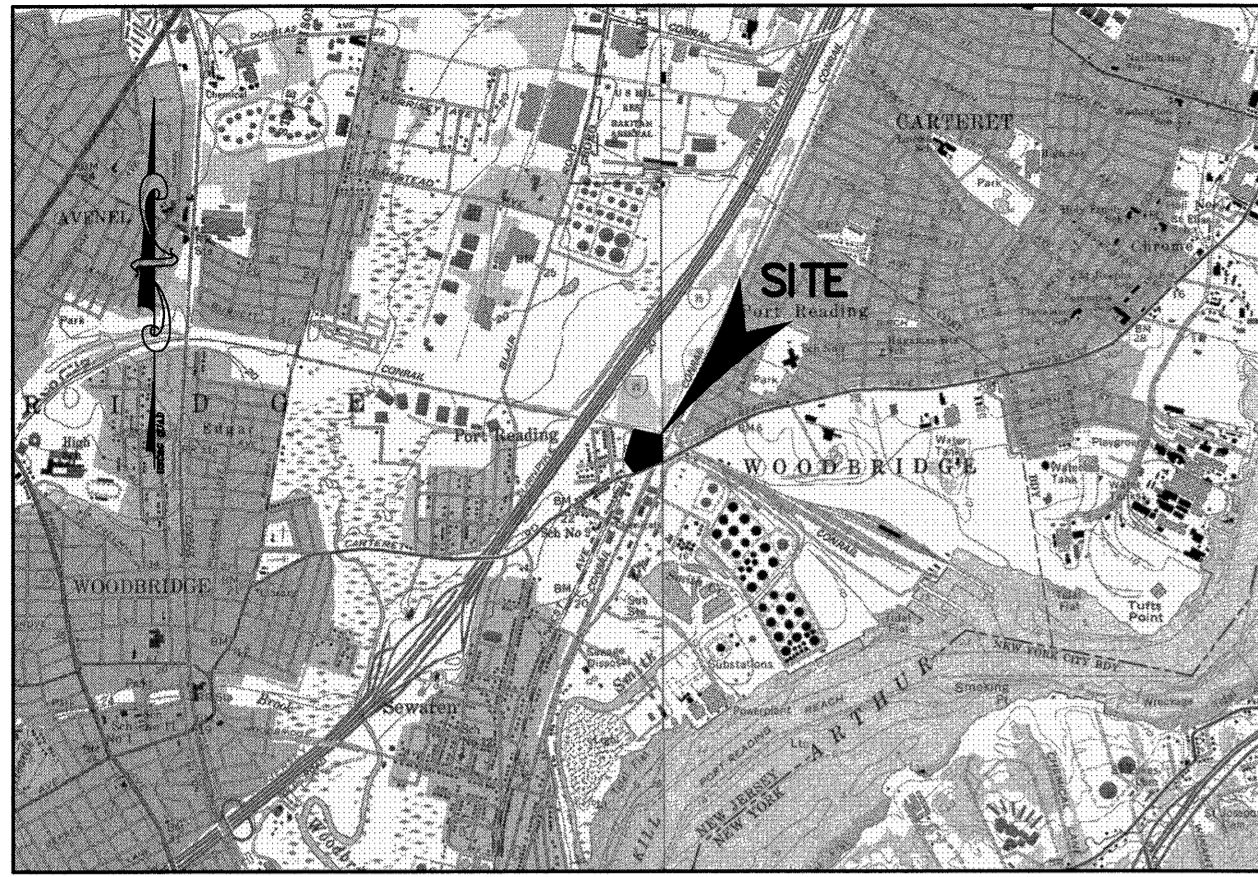
PLAN

GRAPHIC SCALE



No. DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY				
CYPRESS PARK - PHASE II				
SOIL EROSION & SEDIMENT CONTROL PLAN				
 (732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400 <small>NO CERTIFICATE OF AUTHORIZATION NO. 2462839000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194</small>				
MICHAEL J. McCLELLAND P.E. <small>NEW JERSEY PROFESSIONAL ENGINEER</small>		<small>SCALE: As Shown</small> <small>DRAWN BY: LAK</small> <small>CHECKED BY: JCW</small>		<small>DATE: May 2023</small> <small>DESIGNED BY: LAK</small> <small>SHEET: 5 of 26</small>
 5.2.23				SE-2

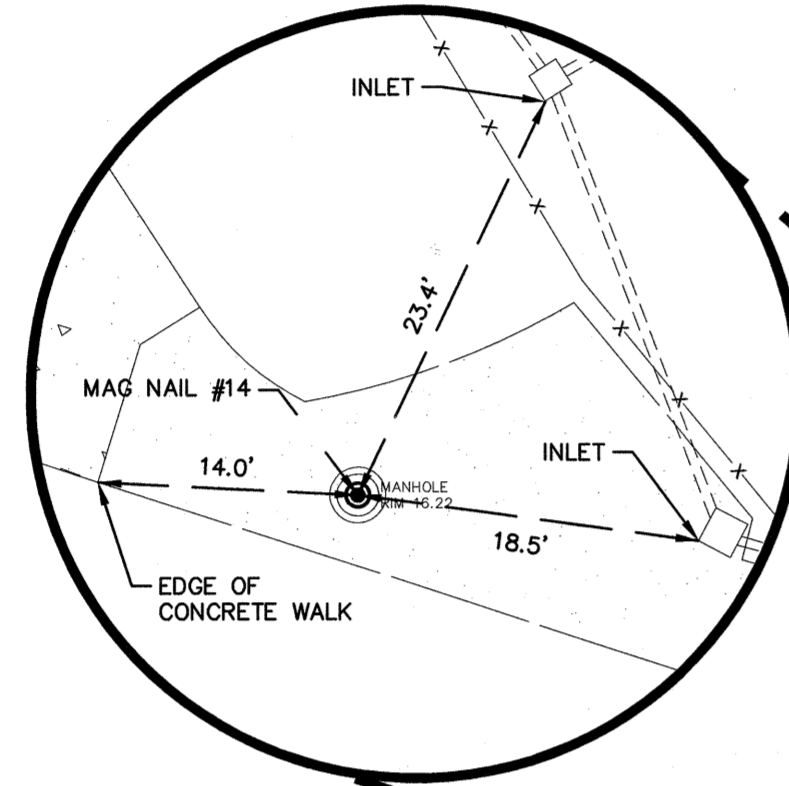
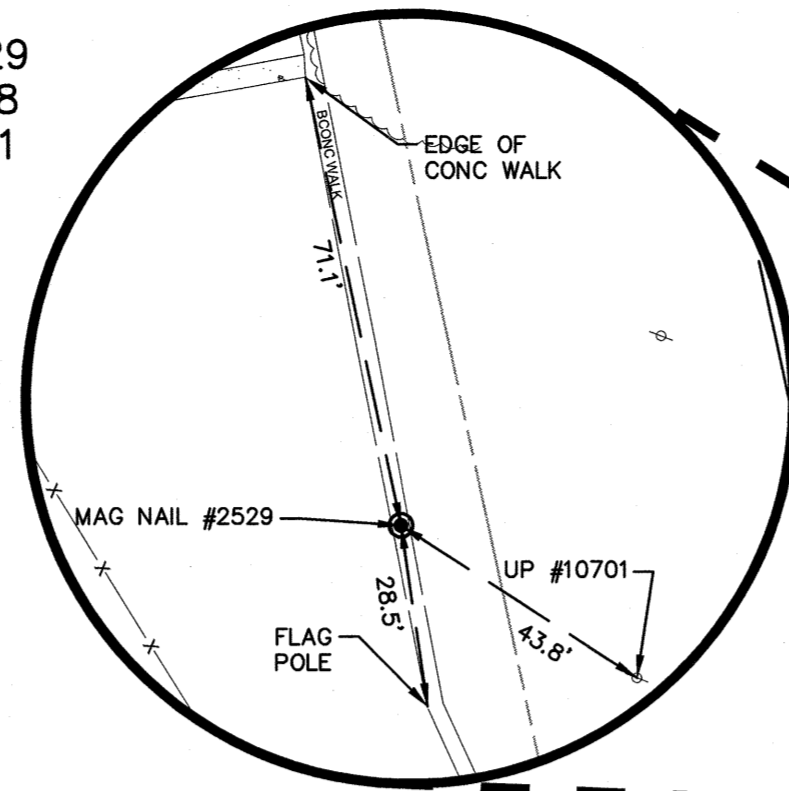
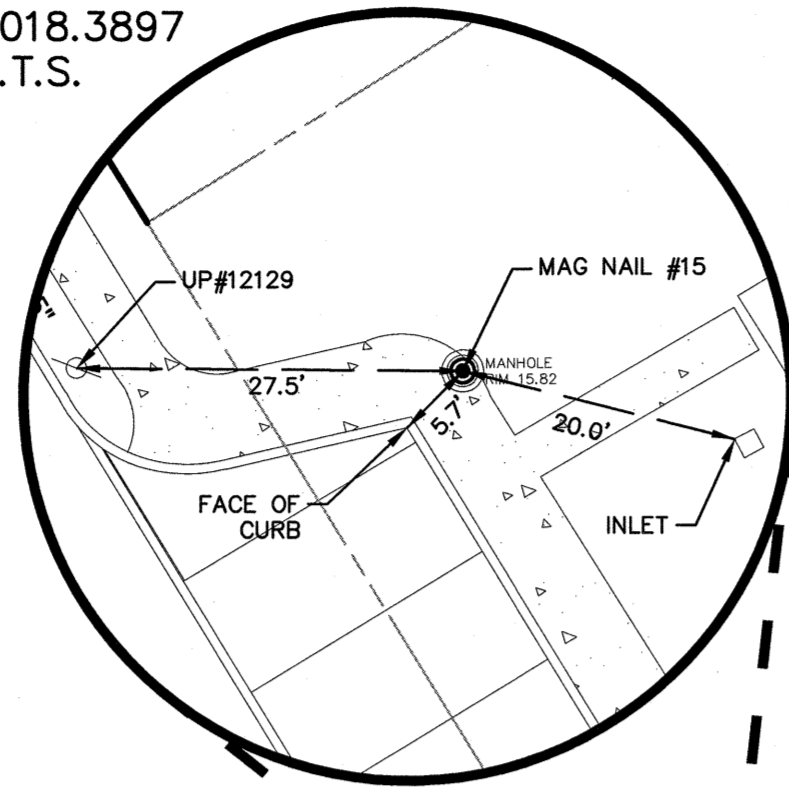
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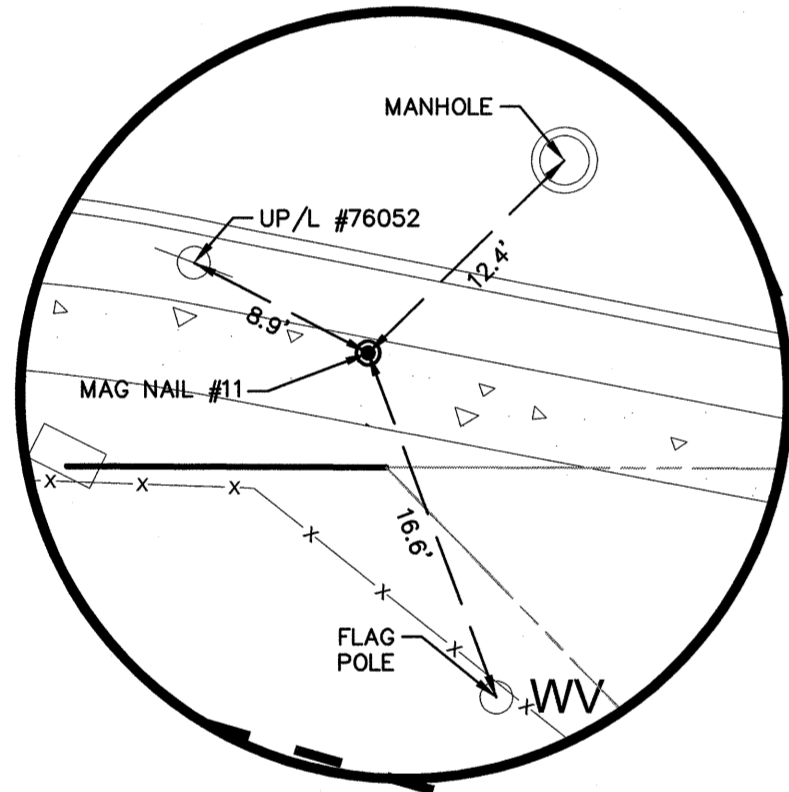
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SCALE 1:2,000

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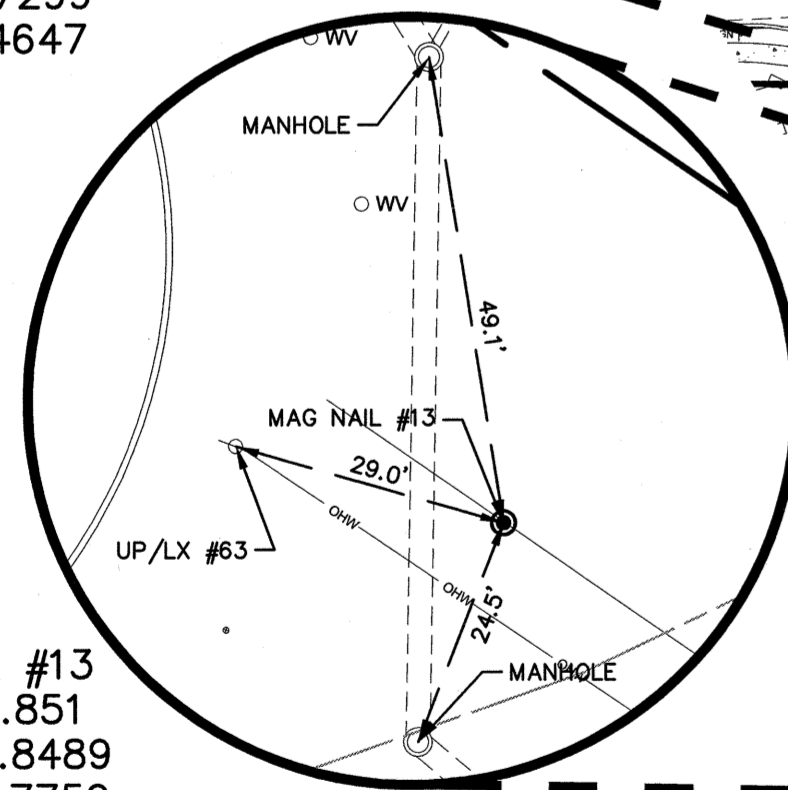
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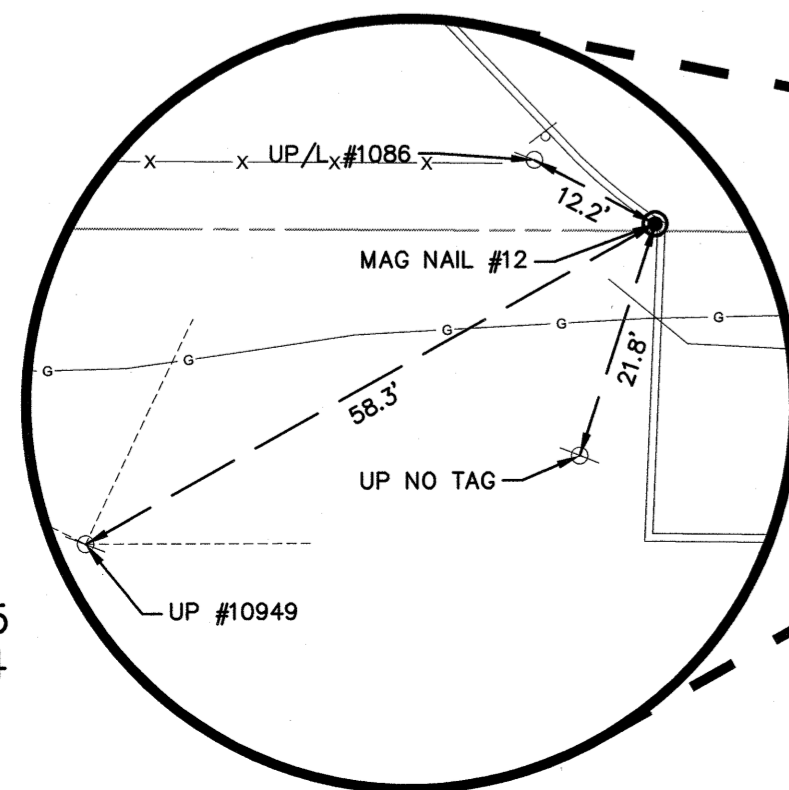
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MAG NAIL #13
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MAG NAIL #12
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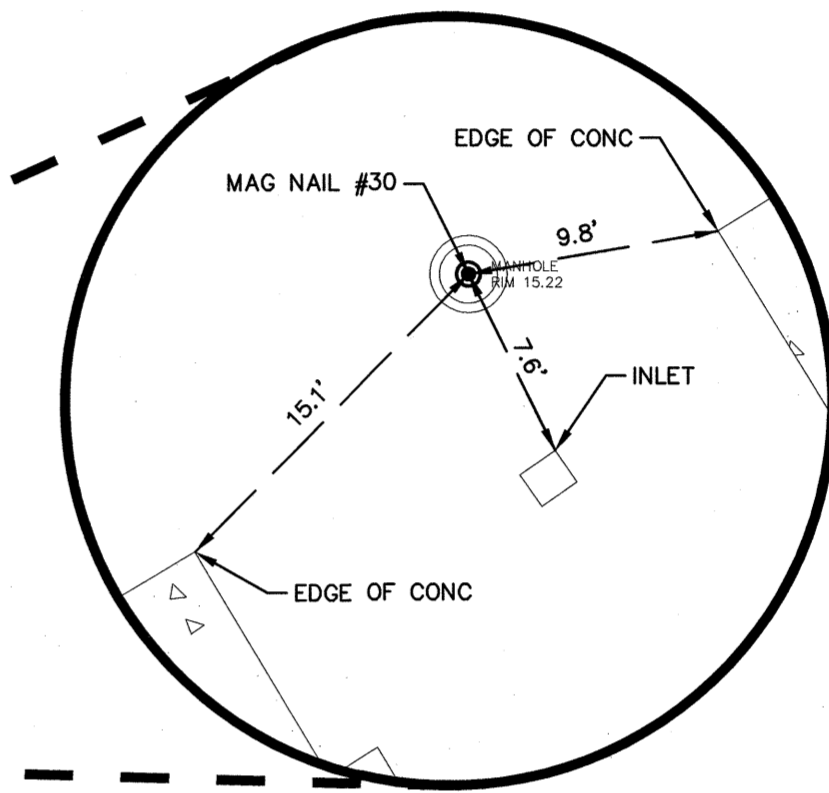
NOTES:

1. BASIS FOR BEARINGS IS THE NORTH AMERICAN DATUM OF 1983, NEW JERSEY STATE PLANE COORDINATE SYSTEM, UNITED STATES SURVEY FOOT, REDUCED TO GROUND COORDINATES.
2. VERTICAL DATUM DERIVED VIA REAL TIME KINEMATIC SURVEY IN COORDINATION WITH KEYSTONE KEYNET VRS NETWORK. VERTICAL DATUM - NORTH AMERICAN VERTICAL DATUM OF 1988. ALL VALUES EXPRESSED IN U.S. SURVEY FOOT.
3. COORDINATE VALUES ARE GROUND VALUES BASED UPON NJSPCS, NAD 83, U.S. SURVEY FOOT VALUES. DISTANCES ALONG BOUNDARY HAVE BEEN CONVERTED TO GROUND BASED DISTANCES. LOT 1.01 BLOCK 664.03, CENTROID = N 625,773.683, E 551,187.372, SCALE = 0.99990639.

LEGEND

⊙ - DENOTES TRAVERSE POINT SET/FOUND

NJSPCS (NAD83)
GROUND
U.S. SURVEY FOOT



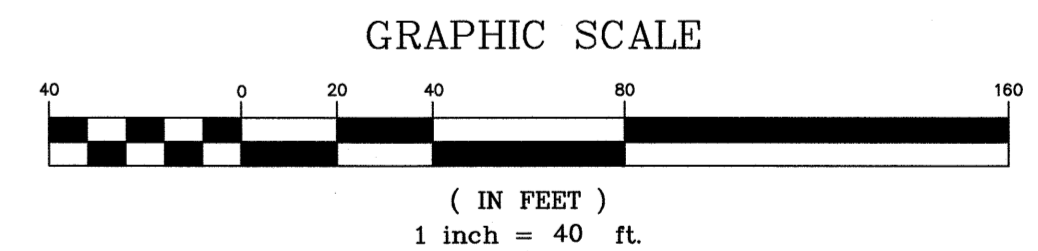
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PORT READING AVE.
(FORMERLY WOODBRIDGE
CARTERET RD.)
COUNTY RT. 604

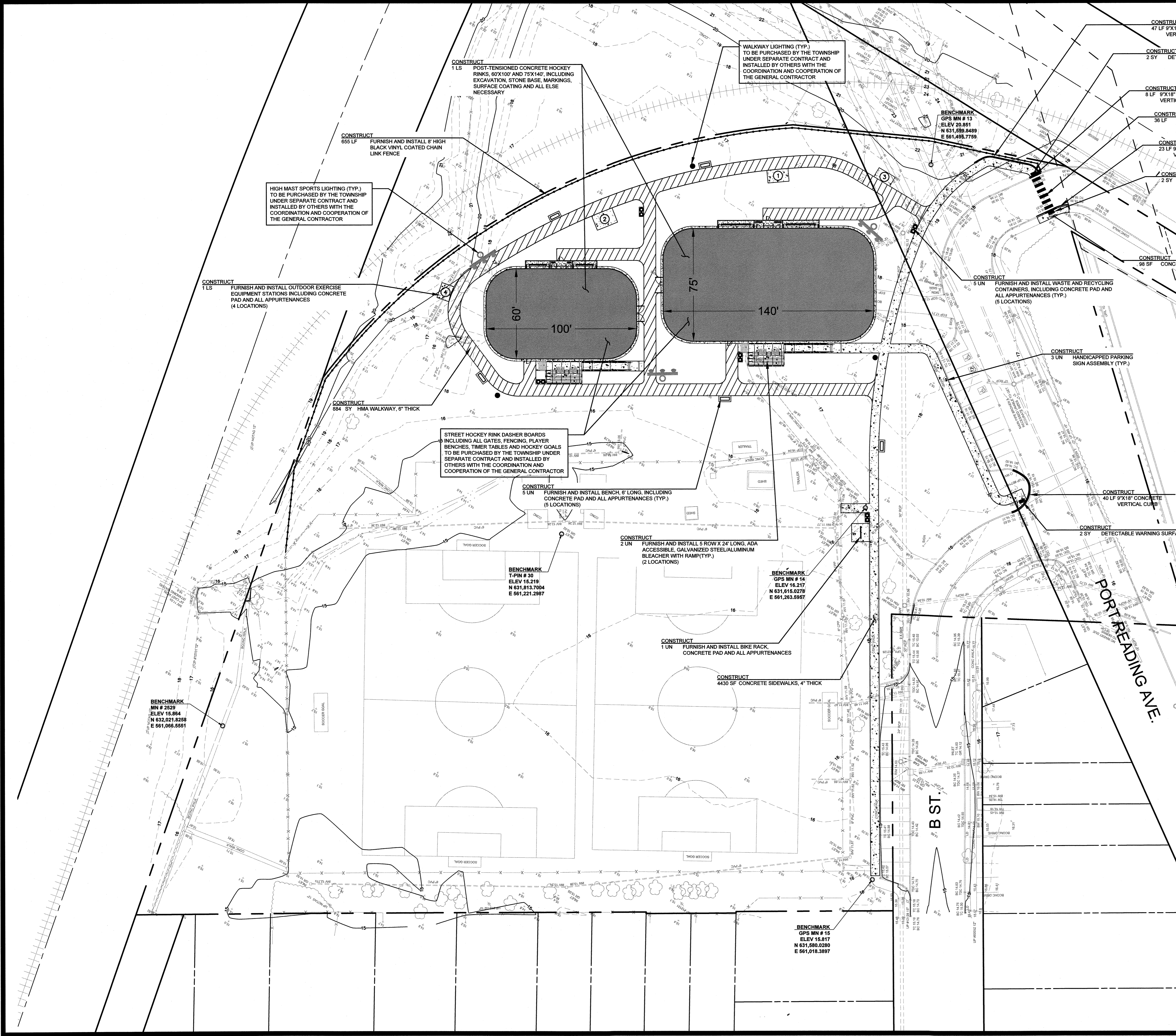
WEST AVE.
COUNTY RT. 611

649.01
1
N/E Woodbridge Township
1 Main Street, Woodbridge, NJ 07095
AREA = 281,385 Sq. Ft. or 6.000 AC. ± EXISTING
REMAINING AREA = 217,796 Sq. Ft. or 4.999 AC. ±

N/F Consolidated Railroad Corporation
Elizabethport & Perth Amboy Branch (Main Stem)



NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY CYPRESS PARK - PHASE II Survey Control Plan					
(732) 727 8000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162		CONSULTING AND MUNICIPAL ENGINEERS NO. CERTIFICATE OF AUTHORIZATION NO. 2462839000 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07721-1194		(732) 462 7400 DATE: May 2023	
MICHAEL J. MCGURL P.E.S. NEW JERSEY PROFESSIONAL LAND SURVEYOR			SCALE: As Shown DRAWN BY: MLB DESIGNED BY: MJB CHECKED BY: MJB DATE: 5/10/23		
FILE NO. PWB00206.04 REGISTERED NO. 6-0 CG			DRAWING NUMBER: T-1 SHEET: 6 of 26		



CONSTRUCT

1	LS	Site grading and earthwork including import and disposal of soils
1	LS	Construction of post-tensioned concrete hockey rinks
655	LF	Furnish and install 8' high black vinyl coated chain link fence
984	SY	Hot mix asphalt walkways, 6" thick
4523	SF	Concrete sidewalk, 4" thick (including bedding)
6	SY	Detectable warning surface
118	LF	9'x18" Concrete vertical curb
36	LF	Traffic stripes, long life, "thermoplastic", 24" wide, with glass beads
3	UN	Handicapped parking sign assembly
6051	SY	Topsoling 4" thick, including fine grading
4098	SY	Fertilizing
1953	SY	Fertilizing and seeding
4098	SY	Sodding
1953	SY	Straw mulching
2	UN	Furnish and install 5 row x 24' long elevated ADA accessible aluminum bleacher with ramp including concrete pad and all appurtenances
5	UN	Furnish and install waste and recycling containers, including liner, concrete pad and all appurtenances
5	UN	Furnish and install bench, 6' long, including concrete pad and all appurtenances
1	UN	Furnish and install bike rack, including concrete pad and all appurtenances
1	LS	Furnish and install outdoor exercise equipment stations including concrete pad and all appurtenances

SPECIAL PROVISIONS
 THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

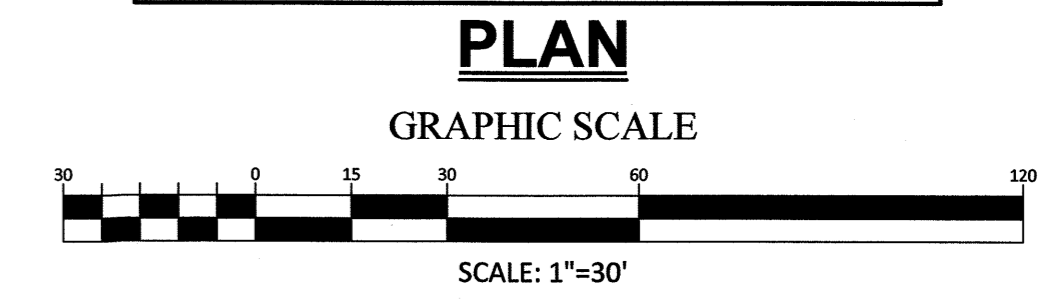
EXISTING UTILITIES
 THE CONTRACTOR IS ADVISED THAT THE EXISTING GAS AND WATER MAIN LOCATIONS INDICATED ON THE PLANS ARE APPROXIMATE. THE EXACT LOCATIONS AND DEPTHS WERE NOT AVAILABLE AT THE TIME THE PLANS WERE PREPARED. ACCORDINGLY, THE CONTRACTOR SHALL REQUEST A UTILITY MARKOUT PRIOR TO COMMENCEMENT OF THE WORK AND SHALL PERFORM ALL INVESTIGATIONS NECESSARY TO LOCATE SAME.

HOCKEY RINK DASHER BOARDS
 HOCKEY RINK DASHER BOARDS INCLUDING ALL GATES, FENCING, PLAYER BENCHES, TIMER TABLES AND HOCKEY GOALS TO BE PURCHASED BY THE TOWNSHIP UNDER SEPARATE CONTRACT AND INSTALLED BY OTHERS WITH THE COORDINATION AND COOPERATION OF THE GENERAL CONTRACTOR.

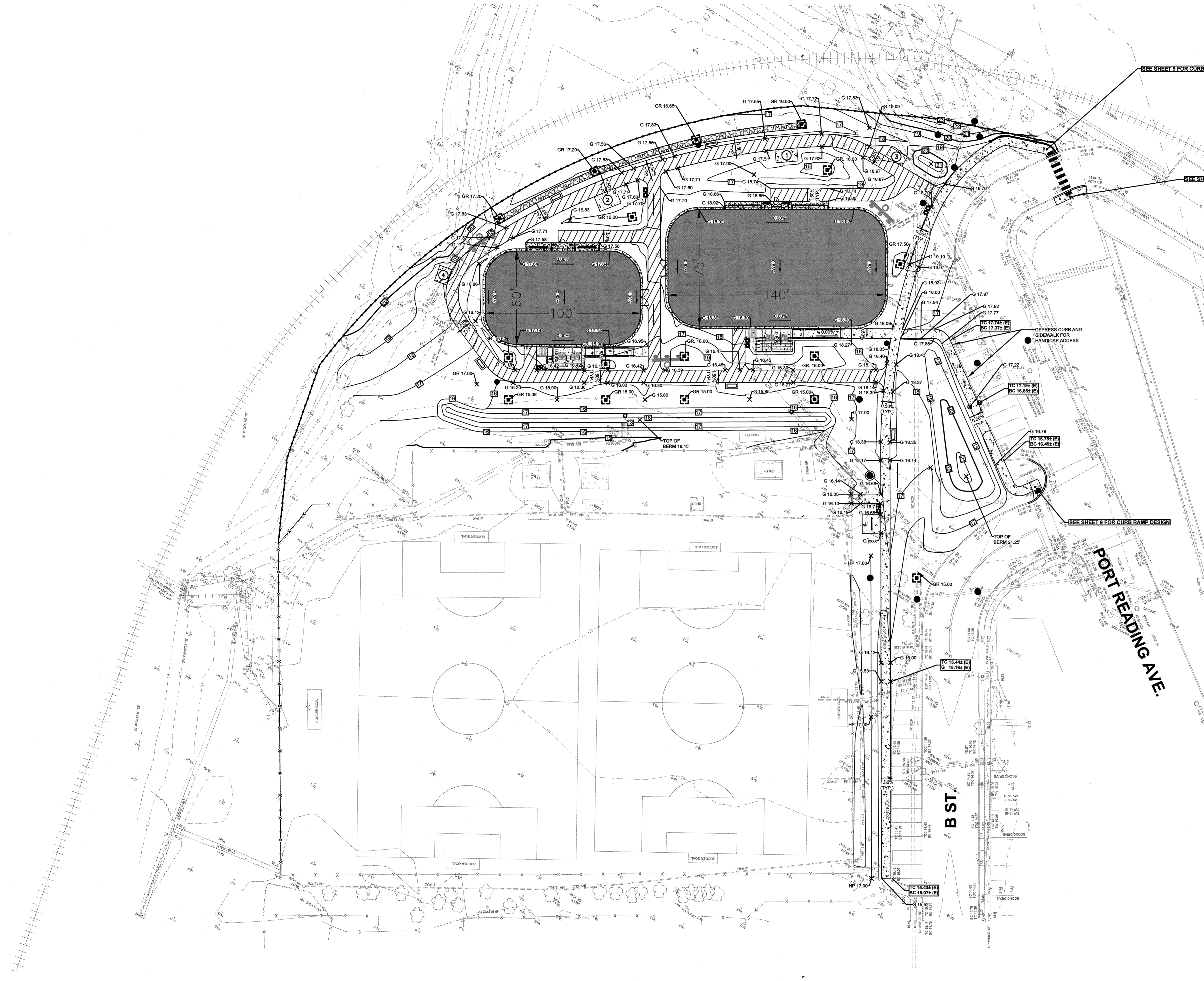
SPORTS FIELD LIGHTING
 HIGH MAST SPORTS LIGHTING TO BE PURCHASED BY THE TOWNSHIP UNDER SEPARATE CONTRACT AND INSTALLED BY OTHERS WITH THE COORDINATION AND COOPERATION OF THE GENERAL CONTRACTOR.

SITE LIGHTING
 SITE LIGHTING TO BE PURCHASED BY THE TOWNSHIP UNDER SEPARATE CONTRACT AND INSTALLED BY OTHERS WITH THE COORDINATION AND COOPERATION OF THE GENERAL CONTRACTOR.

SITE GRADING
 SITE GRADING SHALL INCLUDE ALL GRADING WITHIN THE LIMITS SPECIFIED IN ORDER TO ALLOW FOR THE CONSTRUCTION OF THE PROPOSED HOCKEY RINKS, DRAINAGE BASIN, UTILITIES, LANDSCAPED AREAS, WALKWAYS, CUT/FILL AREAS, DRAINAGE SWALES, SLOPES AND ALL OTHER IMPROVEMENTS, INCLUDING THE EXCAVATION, IMPORTATION OF THE NECESSARY FILL MATERIAL REQUIRED TO ACHIEVE THE PROPOSED SITE GRADING, TESTING ANALYSIS OF IMPORTED FILL MATERIAL, RESTORATION OF THE EFFECTED PROPERTY AND ALL WORK AS OUTLINED IN THE SPECIFICATIONS, AS DETAILED ON THE PLANS AND AS REQUIRED TO SATISFACTORILY COMPLETE SAME. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR SITE GRADING AS LISTED IN THE BID FORM.



NO.		DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY CYPRESS PARK - PHASE II SITE PLAN						
(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS NJ CERTIFICATE OF AUTHORIZATION NO. 24G028359000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194				(732) 462 7400		
MICHAEL J. MCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER			LIC. 32468 As Shown LAK LAK JCW		DATE May 2023 DESIGNED BY LAK SHEET 7 of 28	
DRAWING NUMBER C-1						REGISTERED NO. 7-0 CG FILE NO. PWB00206.04



PROPOSED LEGEND

- DENOTES EXISTING CONTOURS
- DENOTES PROPOSED CONTOURS
- SWALE** - DENOTES SWALE
- X.XX%** - DENOTES SLOPE
- TC XX.XX** - DENOTES CURB GRADE
- BC XX.XX** - DENOTES DEPRESSED CURB GRADE
- TW XX.XX** - DENOTES WALL GRADE
- BW XX.XX** - DENOTES WALL BERM
- HP** - DENOTES HIGH POINT
- G XX.XX** - DENOTES GRADE
- GR XX.XX** - DENOTES INLET GRATE ELEVATION
- RIM XX.XX** - DENOTES MANHOLE RIM ELEVATION

WALKWAY GRADING
SEE SHEETS 17 & 18 FOR WALKWAY PROFILES AND TYPICAL SECTIONS

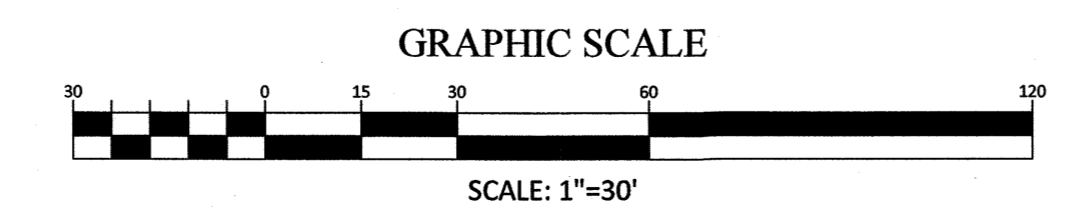
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SPORTS FIELD LIGHTING
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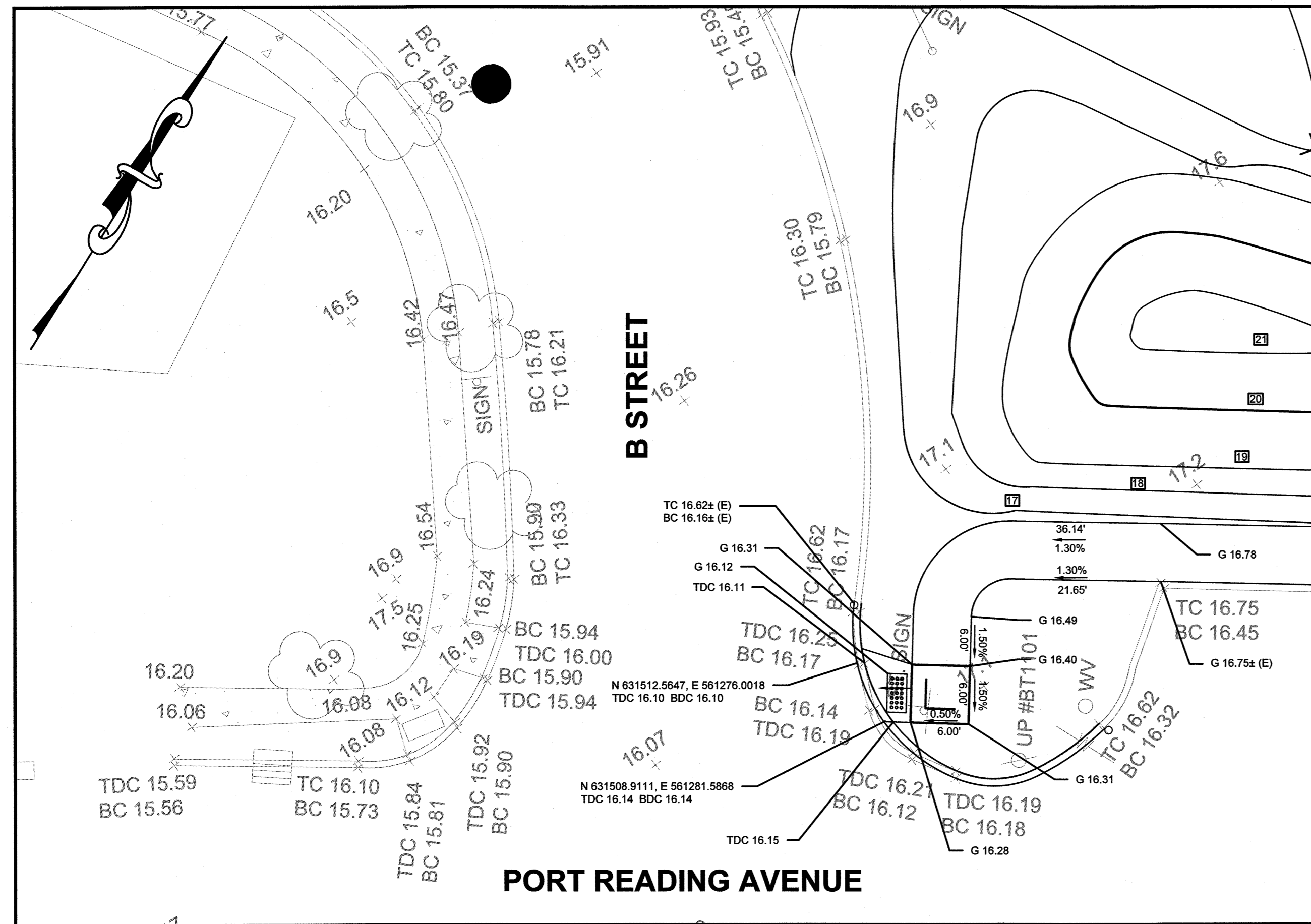
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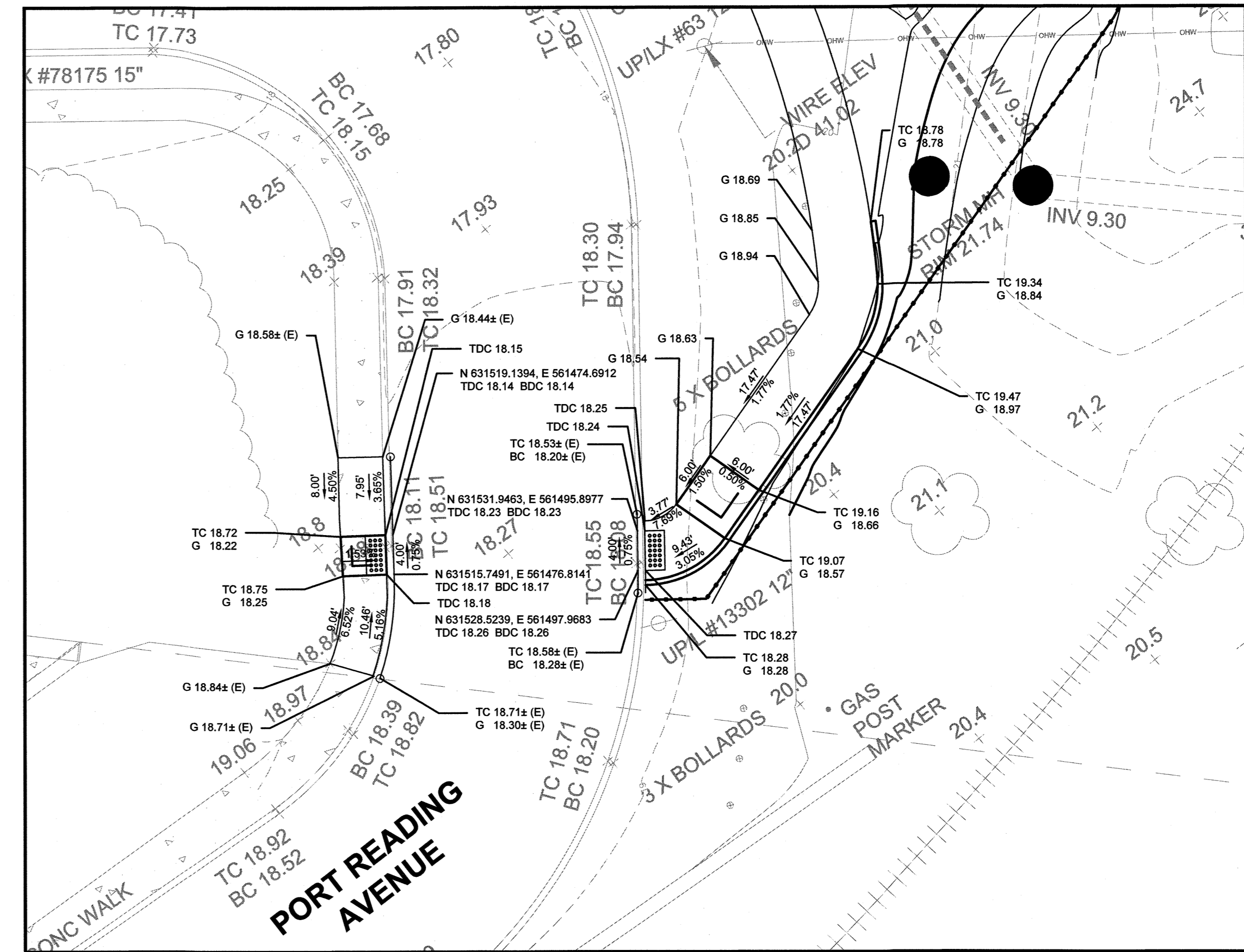
NO. DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY				
CYPRESS PARK - PHASE II				
GRADING PLAN				
(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400 NO. CERTIFICATE OF AUTHORIZATION NO. 24628359000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194				
MICHAEL J. McCLELLAND P.E.		SCALE: As Shown	DATE: May 2023	G-1
NEW JERSEY PROFESSIONAL ENGINEER		DRAWN BY: JD	DESIGNED BY: JD	
LIC. 32468		CHECKED BY: JCW	SHEET: 8 of 28	

PROJECT NO. PWB00206.04

SHEET NO. 8-U CG



B STREET AND PORT READING AVENUE

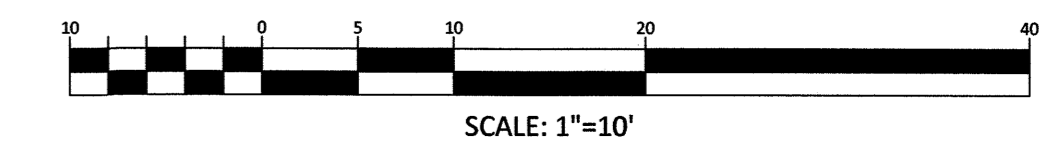


PORT READING AVENUE

PROPOSED LEGEND:


- DENOTES PROPOSED CURB
- DENOTES 4'x4' LANDING AREA @ 2.0% MAX SLOPE
- DENOTES DETECTABLE WARNING SURFACE
- DENOTES PROPOSED CURB RAMP
- DENOTES PROPOSED SLOPE ALONG SIDEWALK
- DENOTES PROPOSED GRADE ALONG SIDEWALK

GRAPHIC SCALE

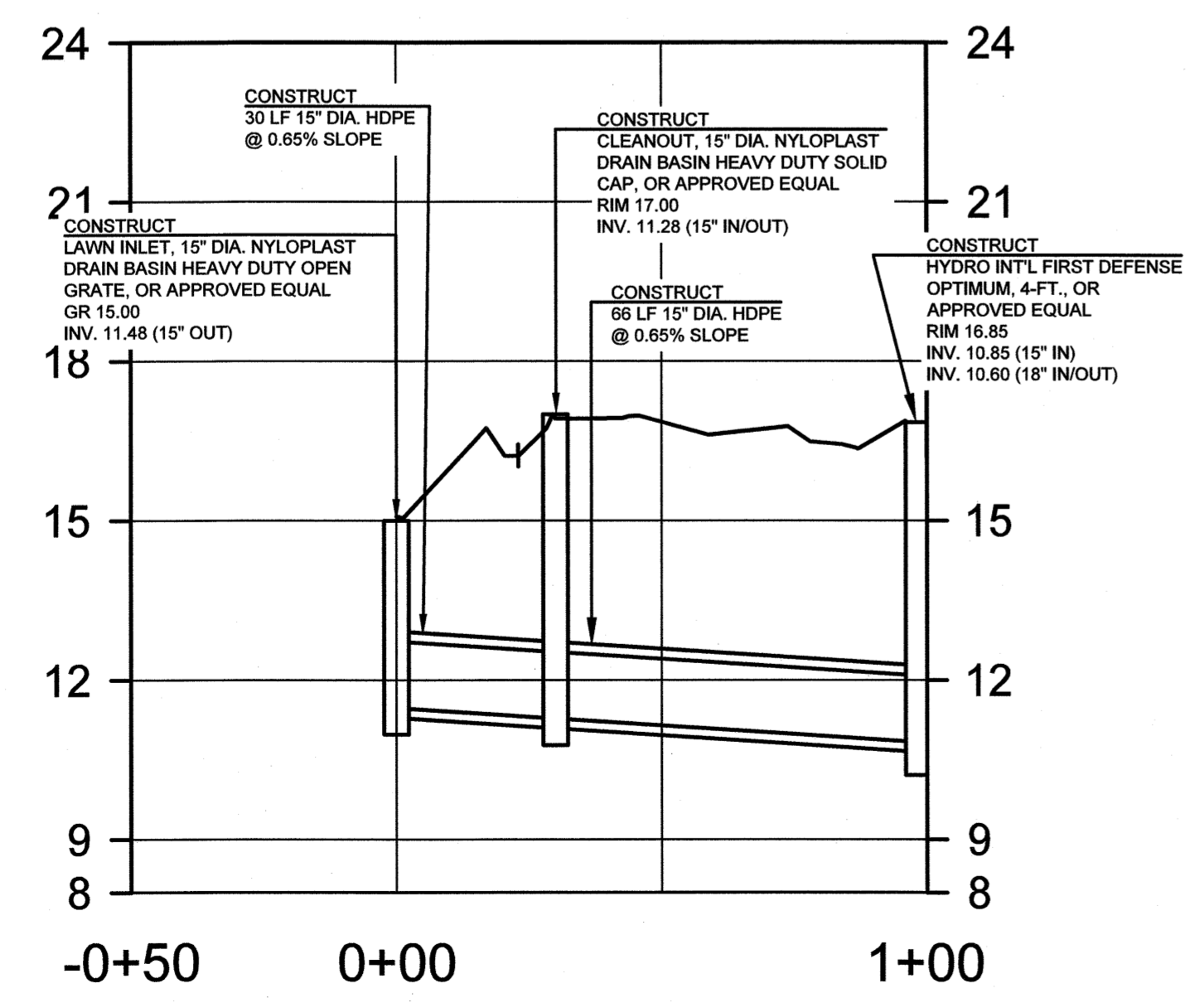
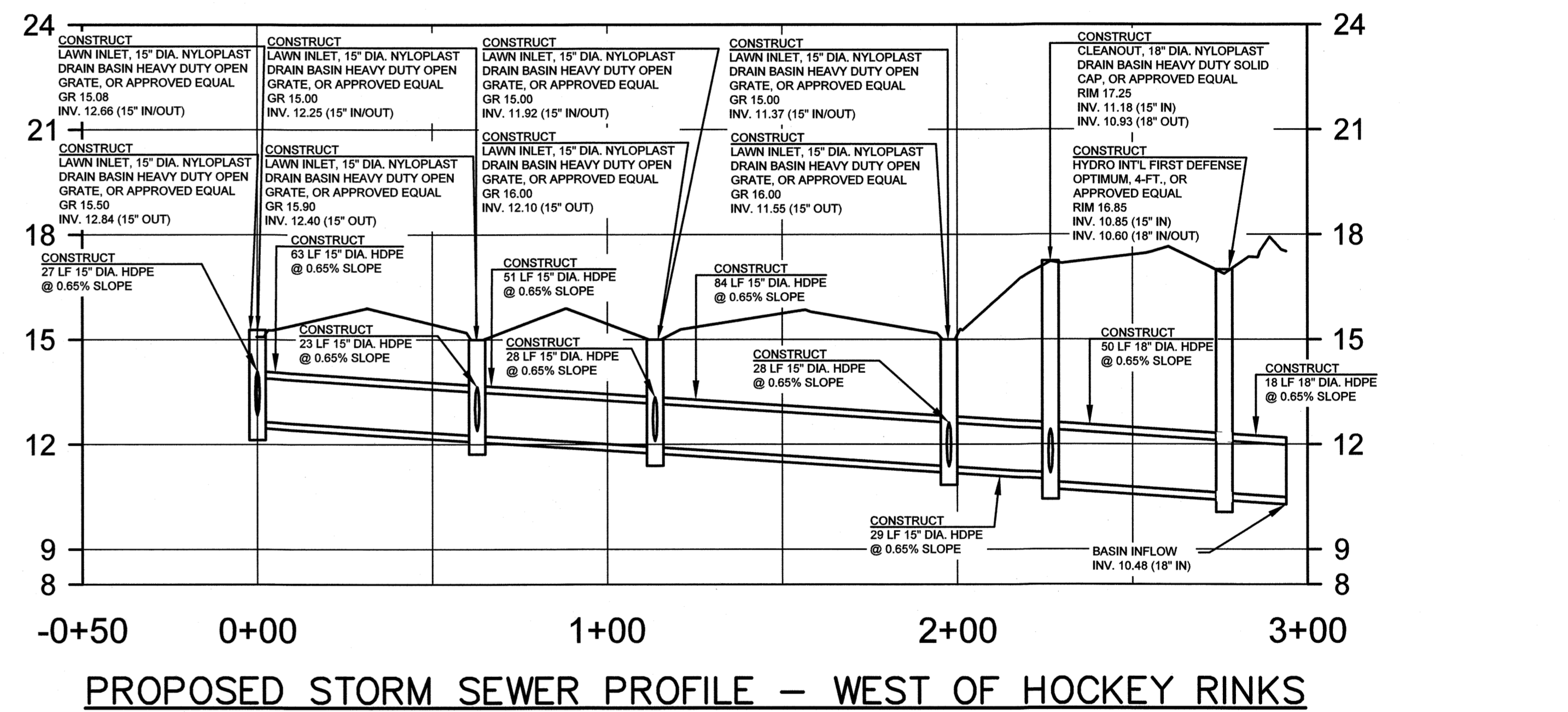
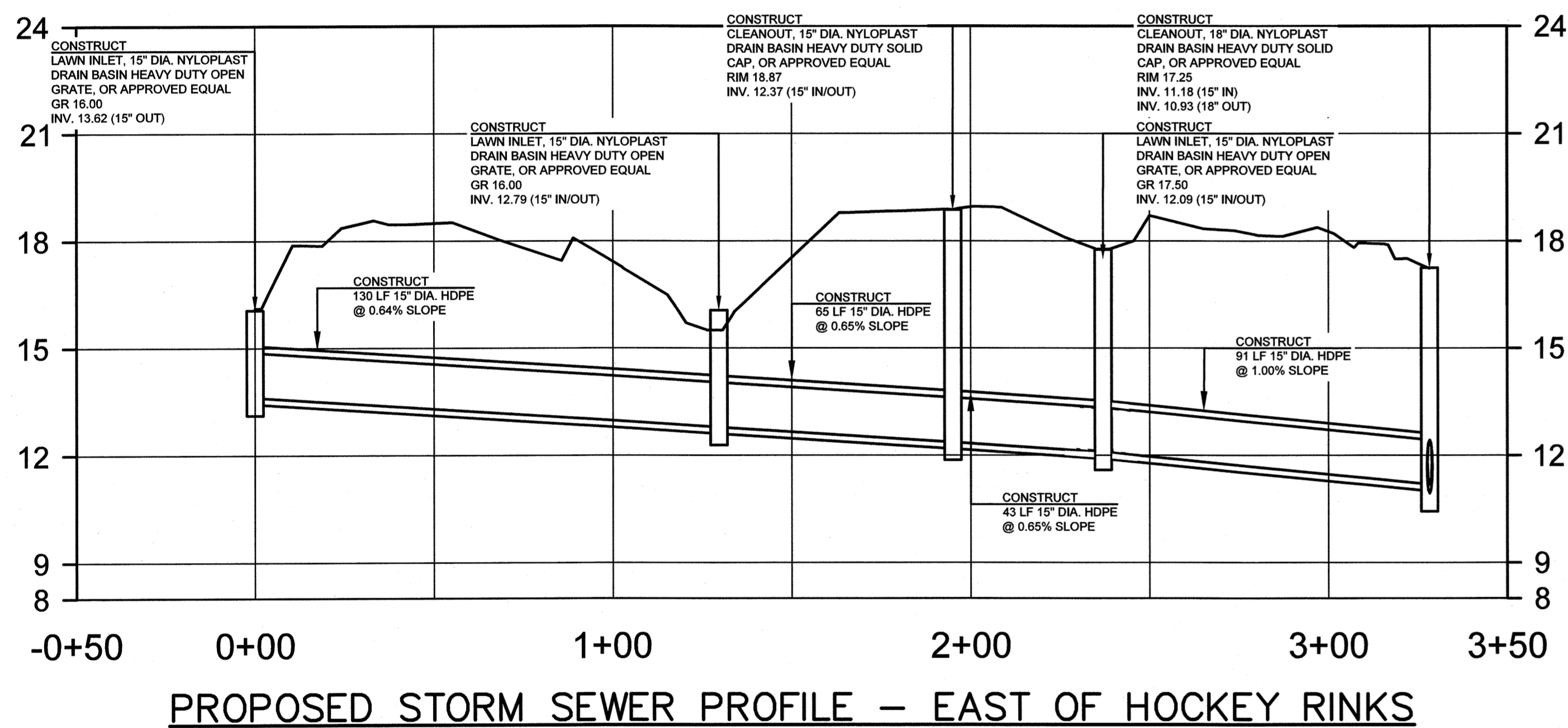
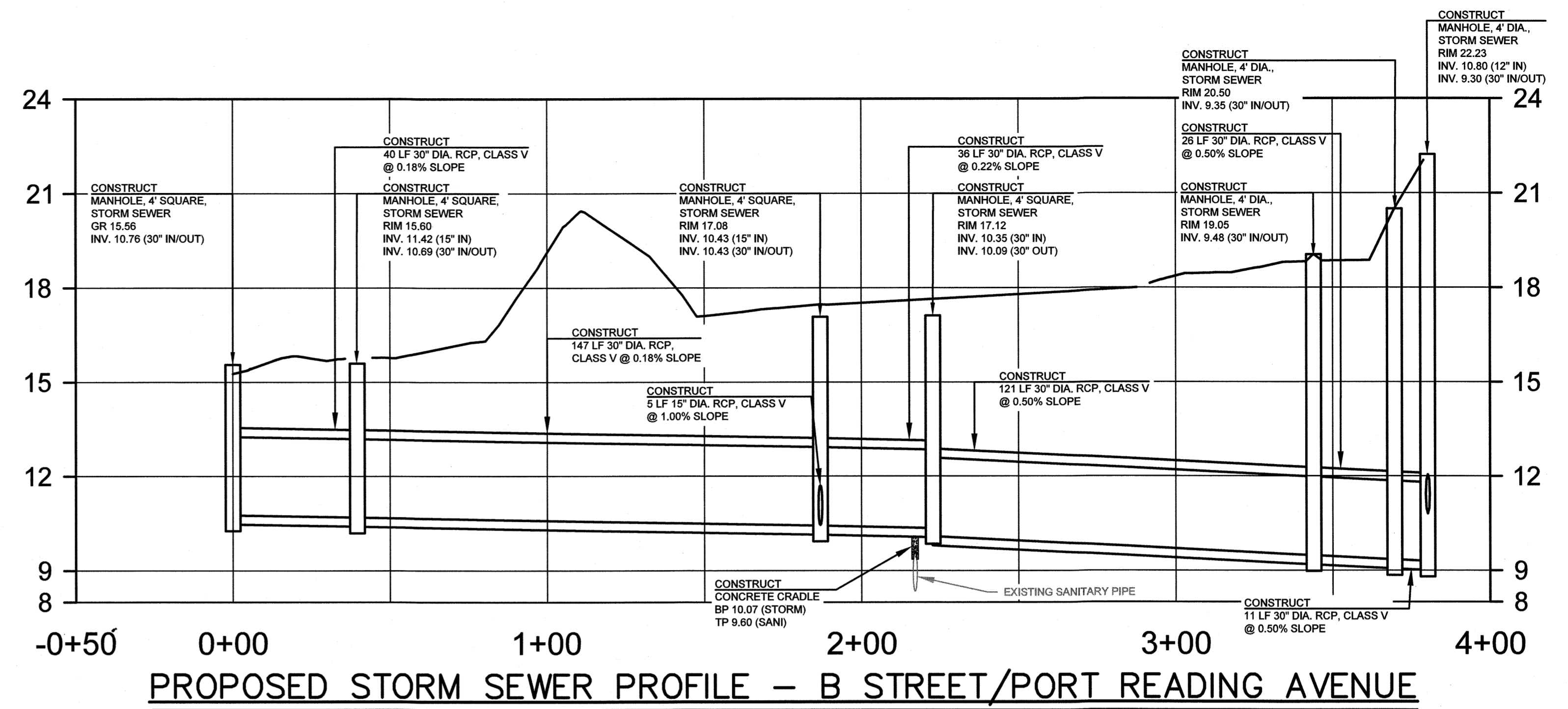
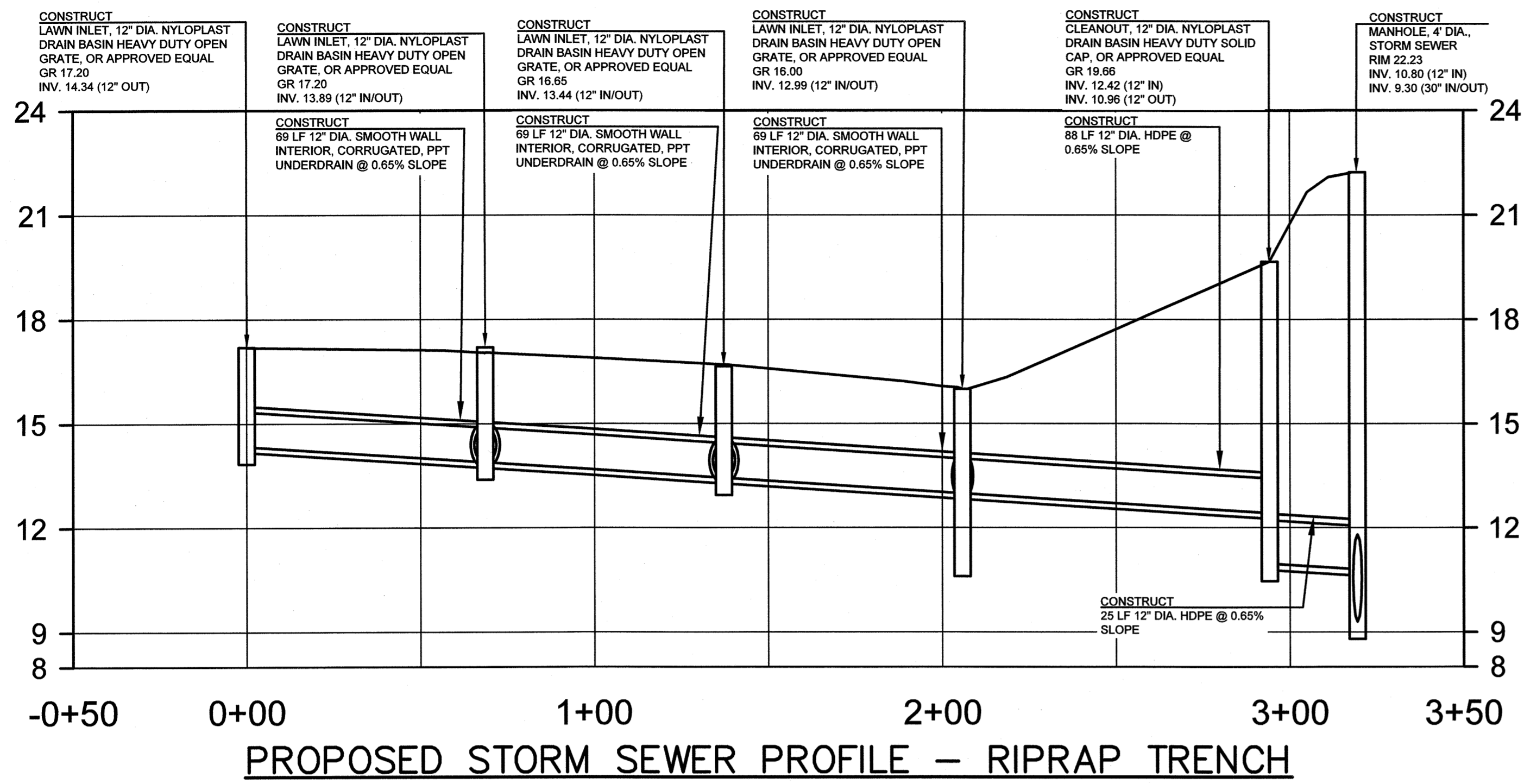


EXISTING UTILITIES

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NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY CYPRESS PARK - PHASE II CURB RAMP DESIGN PLAN					
 <small>(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400</small> <small>ASSOCIATES</small> <small>NO. CERTIFICATE OF AUTHORIZATION NO. 24632839000</small> <small>3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194</small>					
MICHAEL J. McCLELLAND P.E. <small>NEW JERSEY PROFESSIONAL ENGINEER</small>			<small>SCALE: As Shown</small> <small>DRAWN BY: JD</small> <small>CHECKED BY: JCW</small>		<small>DATE: May 2023</small> <small>DESIGNED BY: JD</small> <small>SHEET: 9 of 26</small> CR-1

DRAWING NO. PWB00206.04
 REGISTERED NO. 9-0 CG



SCALE: 1"=30' (HORZ.)
1"=3' (VERT.)

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY CYPRESS PARK - PHASE II STORM SEWER PROFILES					
(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400 NO. CERTIFICATE OF AUTHORIZATION NO. 24628335000 1400 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194					
MICHAEL J. MCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER			SCALE: As Shown DATE: May 2023 DRAWN BY: RB DESIGNED BY: RB CHECKED BY: SCB SHEET: 11 of 28		
DRAWING NUMBER: SS-2					REGISTERED NO. PWB00206.04 11-U CG

ELECTRICAL GENERAL NOTES:

1. INSTALL ALL WORK IN ACCORDANCE WITH THE CURRENT NATIONAL ELECTRIC CODE AND ALL APPLICABLE STATE AND LOCAL CODES. WHERE THE PROJECT DRAWINGS AND/OR SPECIFICATIONS DIFFER FROM THE GOVERNING CODE THE MORE STRINGENT REQUIREMENTS WILL GOVERN THE INSTALLATION.
2. CONTRACTOR SHALL PAY FOR ALL REQUIRED PERMITS AND LICENSES REQUIRED UNDER THIS CONTRACT.
3. THE CONTRACTOR SHALL VISIT AND INSPECT THE PREMISES IN ORDER TO BE FAMILIAR WITH THE EXISTING SITE CONDITIONS WHICH MAY AFFECT THE INSTALLATION OF THE WORK SHOWN ON THE PROJECT DRAWINGS. NO ADDITIONAL COMPENSATION SHALL BE GRANTED FOR THE CONTRACTOR'S FAILURE TO VISIT AND INSPECT THE SITE.
4. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL WORK AS SHOWN ON THE PROJECT DRAWINGS AND SPECIFICATIONS WITH THE FOLLOWING UNDERSTANDINGS:
 - A. THE PROJECT DRAWINGS ARE ONLY DIAGRAMMATIC IN NATURE AND ARE INTENDED TO OUTLINE THE BASIC SYSTEMS TO BE PROVIDED. THEREFORE MINOR DETAILS AND APPURTENANCES MAY OR MAY NOT BE SHOWN. THE OMISSION OF A MINOR COMPONENT SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO FURNISH AND INSTALL ALL SUCH ITEMS NECESSARY TO PROVIDE A COMPLETE, OPERATIVE, AND CODE COMPLIANT SYSTEM TO THE OWNER. IF THERE ARE ANY DOUBTS TO THE EXTENT OR SCOPE OF WORK REQUIRED THE ENGINEER SHALL BE CONTACTED TO PROVIDE CLARIFICATION DURING THE BID PHASE.
 - B. THE PROJECT DRAWINGS SHOW INTENDED EQUIPMENT LOCATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MINOR ADJUSTMENTS OR RELOCATIONS NECESSARY DUE TO THE CHOICE OF EQUIPMENT AND COORDINATION CONFLICTS. ALL EQUIPMENT RELOCATIONS MUST BE APPROVED BY THE OWNER OR ENGINEER.
 - C. ALL SPORTS AND PATHWAY LIGHTING FACILITIES SHALL BE PURCHASED BY THE TOWNSHIP UNDER STATE CONTRACT AND INSTALLED BY MUSCO SPORTS LIGHTING, LLC AND THEIR SUBCONTRACTOR(S).
5. WORK UNDER THIS CONTRACT INCLUDES THE FURNISHING OF EQUIPMENT, MATERIAL, TOOLS, TRANSPORTATION, SERVICES, SCAFFOLDING, SUPERVISION, LABOR AND OTHER APPURTENANCES REQUIRED FOR THE FABRICATION, INSTALLATION, OR APPLICATION AND COMPLETION OF THE WORK UNDER THIS SECTION AS SHOWN OR IMPLIED ON THE PROJECT DRAWINGS AND SPECIFICATIONS.
6. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, EXISTING UTILITY LOCATIONS, AND ELECTRICAL EQUIPMENT REQUIREMENTS PRIOR TO STARTING WORK.
7. CONTRACTOR TO SUBMIT CUTSHEETS AND CALCULATIONS WHERE APPLICABLE FOR ANY EQUIPMENT OR DEVICES THAT DIFFER FROM THOSE SPECIFIED ON THE PROJECT DRAWINGS OR SPECIFICATIONS PRIOR TO THE START OF WORK.
8. COORDINATE ALL WORK WITH THAT OF OTHER TRADES AFFECTING, OR EFFECTED BY, WORK OF THIS SECTION. COOPERATE WITH SUCH TRADES TO ASSURE THE STEADY PROGRESS OF ALL WORK UNDER THIS CONTRACT.
9. ARRANGE ALL WORK TO PROCEED AS RAPIDLY AS POSSIBLE IN COOPERATION WITH OTHER TRADES. COOPERATE WITH OTHER TRADES TO HAVE ALL WORK RACEWAY, WIRING, ETC TO THE BEST ADVANTAGE.
10. ALL EQUIPMENT, MATERIALS, INSTALLATIONS AND CONSTRUCTION ACTIVITIES SHALL COMPLY WITH ALL REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION WHEREVER THEY APPLY.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR PLANNING HIS OWN WORK AND FOR ANY DAMAGE CAUSED TO THE OWNER OR OTHER CONTRACTORS BY IMPROPER WORK EXECUTION OR PLACEMENT OF RACEWAYS, WIRING, AND EQUIPMENT
12. PROVIDE TEMPORARY LIGHTING AND POWER DURING CONSTRUCTION AS REQUIRED.
13. MAINTAIN ELECTRIC SERVICE CONTINUITY TO ALL EQUIPMENT OUTSIDE OF CONSTRUCTION AREA. NOTIFY OWNER IN WRITING 48 HOURS IN ADVANCE OF ANTICIPATED UTILITY OUTAGES. OBTAIN WRITTEN PERMISSION TO CONDUCT ALL WORK REQUIRING AN OUTAGE.
14. CONDUIT RUNS ARE DIAGRAMMATIC AND EQUIPMENT LOCATIONS ARE APPROXIMATE. ELECTRICAL CONTRACTOR IS TO ROUTE CONDUIT AND TO VERIFY EXISTING CONDITIONS IN THE FIELD.
15. ALL CIRCUITS SHALL BE RUN IN RGS WHERE EXPOSED OR IN FRAMED PARTITIONS FROM THE PANEL BOARD TO DISCONNECT OR CONTROLLER, UNLESS OTHERWISE NOTED.
16. ALL CONDUIT TERMINATING AT MOTORS, SOLENOID VALVES, VIBRATING DEVICES, DUCT AND PIPE MOUNTED SWITCHES AND DEVICES SHALL TERMINATE IN FLEXIBLE METAL CONDUIT FOR INDOOR EQUIPMENT OR LIQUID-TIGHT FLEXIBLE METAL CONDUIT FOR OUTDOOR EQUIPMENT OR IN DAMP OR WET LOCATIONS.
17. ALL BRANCH CIRCUITS SHALL BE IN CONDUIT.
18. ALL WIRING TO BE COPPER WITH 600V INSULATION. ALL WIRING TO #4 AND SMALLER SHALL BE TYPE THHN/THWN, ALL WIRING LARGER THAN #4 SHALL BE XHHW, ALL WIRING UNDERGROUND TO BE TYPE XHHW-2, UNLESS OTHERWISE NOTED.
19. ALL POWER WIRING TO BE MINIMUM #12 AWG SIZE, ALL CONTROL WIRING TO BE #14 AWG UNLESS OTHERWISE NOTED
20. ALL CONDUIT TO BE 3/4" MINIMUM SIZE UNLESS OTHERWISE NOTED.
21. WIRE ALL 20A CIRCUITS USING #12 AWG, ALL 30A CIRCUITS USING #10 AWG UNLESS OTHERWISE NOTED. #12 AWG SHALL BE MINIMUM POWER WIRE SIZE.
22. SIZE BRANCH CIRCUITS, PANEL HOME RUNS, AND DEVICE CIRCUITING PER NEC 310-15. WHERE SINGLE PHASE 20A AND 30A BRANCH CIRCUITS EXCEED 100 FEET IN LENGTH INCREASE CONDUCTOR SIZE ONE SIZE FOR EVERY ADDITIONAL 100 FEET OF CONDUCTOR LENGTH UNLESS THE CONDUCTOR HAS ALREADY BEEN INCREASED DUE TO CONDUIT FILL DEGRADING. SUBMIT VOLTAGE DROP CALCULATIONS TO THE ENGINEER FOR APPROVAL.
23. ALL BRANCH CIRCUITS ARE TO CONTAIN A GREEN COLORED EQUIPMENT GROUNDING CONDUCTOR SIZED PER NEC TABLE 250.95.
24. GROUNDING AND BONDING OF ALL NON CURRENT CARRY METALLIC PARTS OF ALL ELECTRICAL EQUIPMENT AND ENCLOSURES INCLUDING CONDUITS, SUPPORTS, CONTROLLERS, RACEWAYS, TRANSFORMERS, ELECTRICAL PANELS, MOTOR FRAMES, ETC. INSTALLED OR CONNECTED UNDER THIS CONTRACT SHALL BE PROPERLY CONNECTED TO THE GROUNDING SYSTEM, REGARDLESS OF WHETHER OR NOT THE CONNECTIONS ARE SHOWN ON THE PROJECT DRAWINGS.
25. ALL CIRCUITS SHALL NOT SHARE NEUTRALS UNLESS SHOWN OTHERWISE ON THE PROJECT DRAWINGS. EACH CIRCUIT SHALL BE ROUTED WITH IT'S OWN DEDICATED NEUTRAL FROM OVER CURRENT PROTECTION DEVICE TO POINT OF CONNECTION AT EQUIPMENT.
26. ALL ISOLATED GROUND CIRCUITS SHALL HAVE A DEDICATED #12 AWG CONDUCTOR INSTALLED IN ADDITION TO THE SAFETY GROUND CONDUCTOR.
27. PROVIDE INSULATING BUSHINGS FOR CONDUCTOR PROTECTION AT CONDUIT

TERMINATIONS.

28. SEAL ALL FLOOR AND WALL PENETRATIONS TO MAINTAIN FIRE RATING OF WALL OR FLOOR. CONSULT SPECIFIED TECHNOLOGIES INC. PRODUCT AND APPLICATION GUIDE (OR EQUIVALENT) TO DETERMINE THE APPROPRIATE FIRE STOP SYSTEM TO BE UTILIZED FOR A GIVEN PENETRATION TYPE. PROVIDE PRODUCTS AND SEAL PENETRATION PER THE MANUFACTURER'S INSTRUCTIONS IN ORDER TO MAINTAIN THE LISTINGS OF THE SEALED PENETRATION. PROVIDE ALL NECESSARY DOCUMENTATION TO THE AUTHORITY HAVING JURISDICTION.
29. BEFORE ENERGIZING OR STARTING ANY DEVICE OR PIECE OF EQUIPMENT VERIFY THAT IT HAS BEEN INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ADHERE TO ALL MANUFACTURER'S GUIDELINES AND START-UP REQUIREMENTS.
30. ALL DISCONNECT SWITCHES, STARTERS, OPERATORS, AND ENCLOSURES SHALL BE UL LISTED AND/OR FACTORY MUTUAL (FM) APPROVED.
31. LOCATE ELECTRICAL EQUIPMENT IN THE FIELD AS SPACE LIMITATIONS AND CONDITIONS PERMIT IN ORDER TO SATISFY MINIMUM WORKING SPACE OF NEC 110-26.
32. PROVIDE MOUNTING FRAMES AND STRUCTURAL SUPPORT FROM PLATFORMS, FLOORS, AND CEILING STEEL AS REQUIRED FOR ELECTRICAL EQUIPMENT. STRUCTURAL SUPPORT SHALL BE CONSTRUCTED TO MAINTAIN A SAFETY FACTOR OF 4 WITH A 200 LB MINIMUM.
33. LABEL ALL NEW ELECTRICAL EQUIPMENT AND PANELS WITH MINIMUM 1/2" LETTERS USING THERMAL TRANSFER LABEL SYSTEM. PROVIDE TYPE WRITTEN PANEL SCHEDULES FOR ALL PANEL BOARDS.
34. CONTRACTOR TO FOLLOW ALL OWNER SITE AND SAFETY RULES. CONTRACTOR IS RESPONSIBLE FOR DAILY SITE CLEANING FOR THEIR ACTIVITIES. BROOM CLEAN DAILY AND REMOVE ALL CONSTRUCTION DEBRIS FROM THE BUILDING AND GROUNDS DAILY.
35. CONTRACTOR SHALL CONDUCT A TEST OF THE EMERGENCY AND EGRESS LIGHTING WHEN REQUIRED BY THE TOWNSHIP OF WOODBRIDGE.
36. UPON COMPLETION PROVIDE AN ACCURATE "MARKED-UP" SET OF PROJECT DRAWINGS REFLECTING ALL FIELD CHANGES TO THE ENGINEER.
37. ALL TRANSFORMER WINDINGS, PANEL BUSES AND ALL CURRENT CARRYING COMPONENTS TO BE COPPER.
38. ALL PANELS TO HAVE A MINIMUM SHORT CIRCUIT INTERRUPTING RATING OF 22,000 AIC UNLESS OTHERWISE NOTED.
39. ALL UNDERGROUND CONDUIT TO BE PVC SCHEDULE 40 WITH EXPANSION COUPLINGS EVERY 100 FT. UNLESS OTHERWISE NOTED. CONTRACTOR SHALL PROVIDE PULL-IN LINE, TO BE PLACED IN CONDUIT DURING CONSTRUCTION.
40. PROVIDE DISCONNECTS FOR ALL EQUIPMENT REQUIRED BY THE CURRENT EDITION OF THE NATIONAL ELECTRIC CODE.
41. ALL ELECTRICAL DEVICES SHOWN, INCLUDING BUT NOT LIMITED TO, PANELBOARDS, CONDUITS AND HANDHOLES ARE SHOWN DIAGRAMMATICALLY FOR CLARITY.
42. PREPARE SUBMITTALS FOR REVIEW BY ENGINEER. THE FOLLOWING LISTED ITEMS INDICATES THE MINIMUM REQUIRED SUBMITTALS:
 - A. RACEWAYS, CONNECTORS AND ACCESSORIES
 - B. CABLE, CONNECTORS, AND ACCESSORIES
 - C. SUPPORTING DEVICES, CONNECTORS, AND ACCESSORIES
 - D. GROUNDING AND BONDING, CONNECTORS, AND ACCESSORIES
 - E. PANELBOARDS
 - F. SAFETY / DISCONNECT SWITCHES
 - G. TRANSFORMERS
 - H. ENCLOSURES
 - I. LIGHTING FIXTURES AND CONTROLS
 - J. WIRED DEVICES (E.G. RECEPTACLES, SWITCHES, BOXES, ETC.)
 - K. SPECIALTY EQUIPMENT
 - L. SHORT CIRCUIT STUDY AND ANALYSIS
 - M. REQUIRED TESTING SHEETS AND FACTORY WITNESS SHEETS
 - N. ADDITIONAL SUBMITTALS AS REQUIRED PER SPECIFICATIONS.

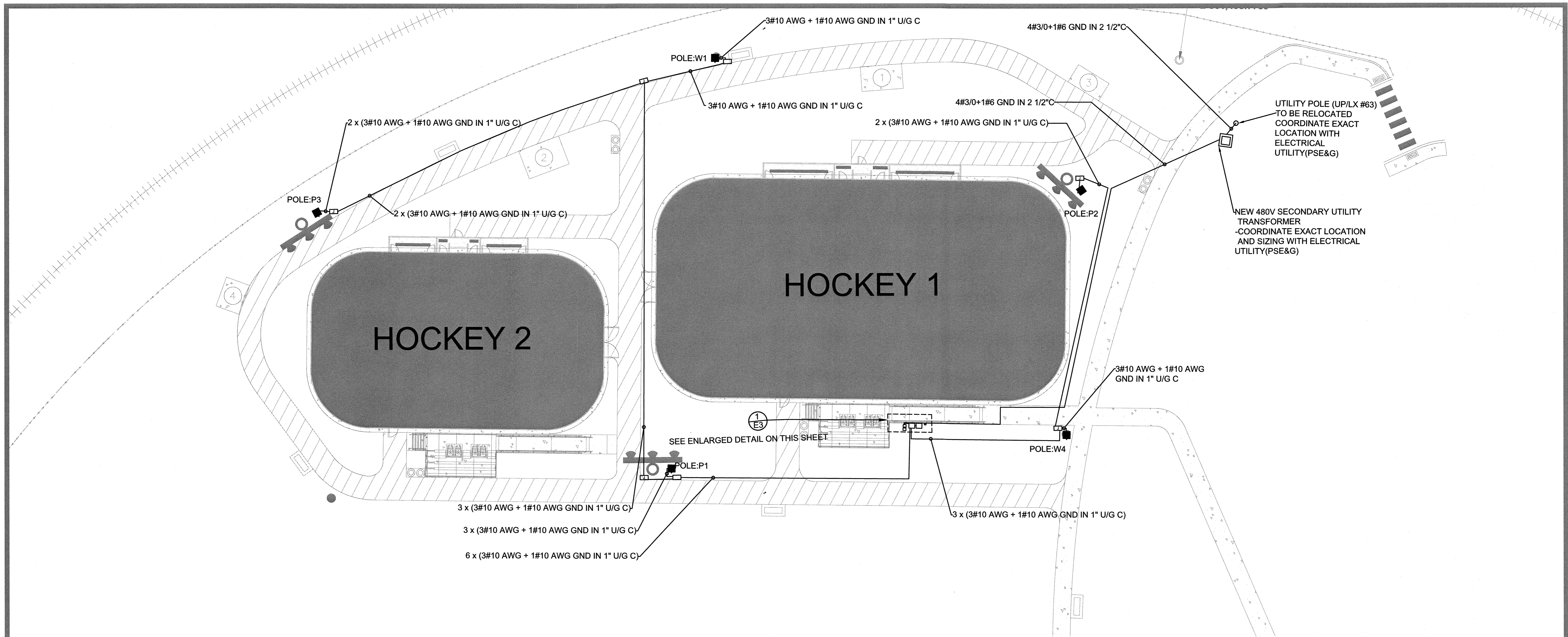
ABBREVIATIONS:

- A / AMP AMPERAGE
- AC ALTERNATING CURRENT
- ADJ ADJACENT
- AFF ABOVE FINISHED FLOOR
- AFG ABOVE FINISHED GRADE
- ARCH ARCHITECTURAL
- ATS AUTOMATIC TRANSFER SWITCH
- C CONDUIT
- CAB CABINET
- CB CIRCUIT BREAKER
- CKT(S) CIRCUIT(S)
- COL COLUMN
- CP CONTROL PANEL
- DIA DIAMETER
- D.S. DISCONNECT SWITCH
- DWG(S) DRAWING(S)
- EF EXHAUST FAN
- ELEC ELECTRIC / ELECTRICAL
- EMT ELECTRICAL METALLIC TUBING
- EX EXISTING
- GFI GROUND FAULT INTERRUPT
- G / GND GROUND
- J / JB JUNCTION BOX
- KVA KILOVOLT-AMP
- KW KILOWATT
- LTG LIGHTING
- MTD MOUNTED
- N NEUTRAL
- NEMA NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION
- N.T.S. NOT TO SCALE
- OHM OHMS
- P POLE(S)
- PH PHASE
- PB PULL BOX
- PNL PANEL / PANELBOARD
- PRI PRIMARY
- RGS RIGID GALVANIZED STEEL
- S.D. SERVICE DISCONNECT
- SEC SECONDARY
- SPEC SPECIFICATIONS
- SS STAINLESS STEEL
- STD STANDARD
- SW SWITCH
- TRANS TRANSFORMER
- TYP. TYPICAL
- U.O.N. UNLESS OTHERWISE NOTED
- V VOLT
- VA VOLT-AMP
- W WATT
- WP WATERPROOF
- XFMR TRANSFORMER

ELECTRICAL SYMBOL LIST

SYMBOL	DESCRIPTION
	TRANSFORMER
	CIRCUIT BREAKER
	JUNCTION BOX
	DISCONNECT SWITCH

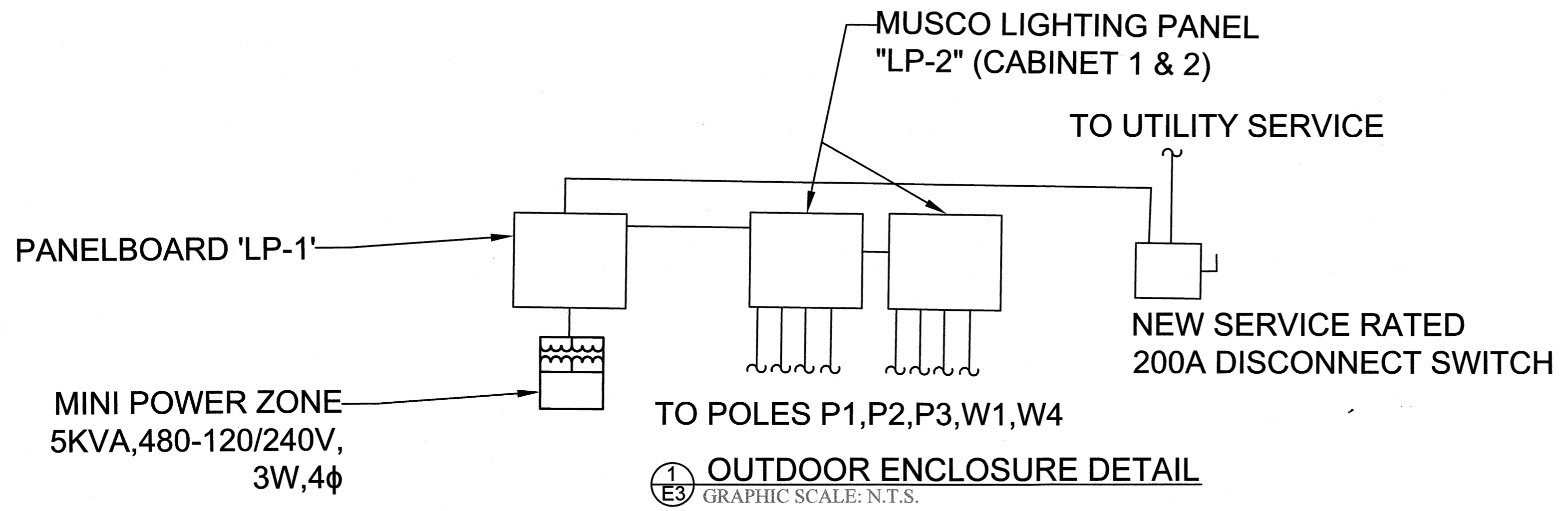
No. _____ DESCRIPTION OF REVISION _____	DATE _____	DRAWN _____	CHECKED _____	RELEASED _____
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY <h2 style="margin: 0;">CYPRESS PARK - PHASE II</h2> <h3 style="margin: 0;">ELECTRICAL NOTES, ABBREVIATIONS AND SYMBOLS</h3>				
 CME ASSOCIATES CONSULTING AND MUNICIPAL ENGINEERS <small>BY CERTIFICATE OF AUTHORIZATION NO. JAG03289000</small> (732) 727 8000 3141 BORDENTOWN AVENUE, PARSIPpany, NEW JERSEY 08859-1162 3460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 462 7400				
JAMES COYLE, PE NJ LIC. NO. 033825 DATE: 05/03/2023	SCALE As Shown	DATE May 2023	DRAWN BY DP	DESIGNED BY DP
CHECKED BY HL	SHEET 12 of 26	DRAWING NUMBER PWB00206.04	PROJECT NO. 12-0 CG	SHEET NO. E-1



UTILITY POLE (UP/LX #63)
TO BE RELOCATED
COORDINATE EXACT
LOCATION WITH
ELECTRICAL
UTILITY(PSE&G)

NEW 480V SECONDARY UTILITY
TRANSFORMER
-COORDINATE EXACT LOCATION
AND SIZING WITH ELECTRICAL
UTILITY(PSE&G)

ELECTRICAL PLAN
SCALE: 1"=16'-0"

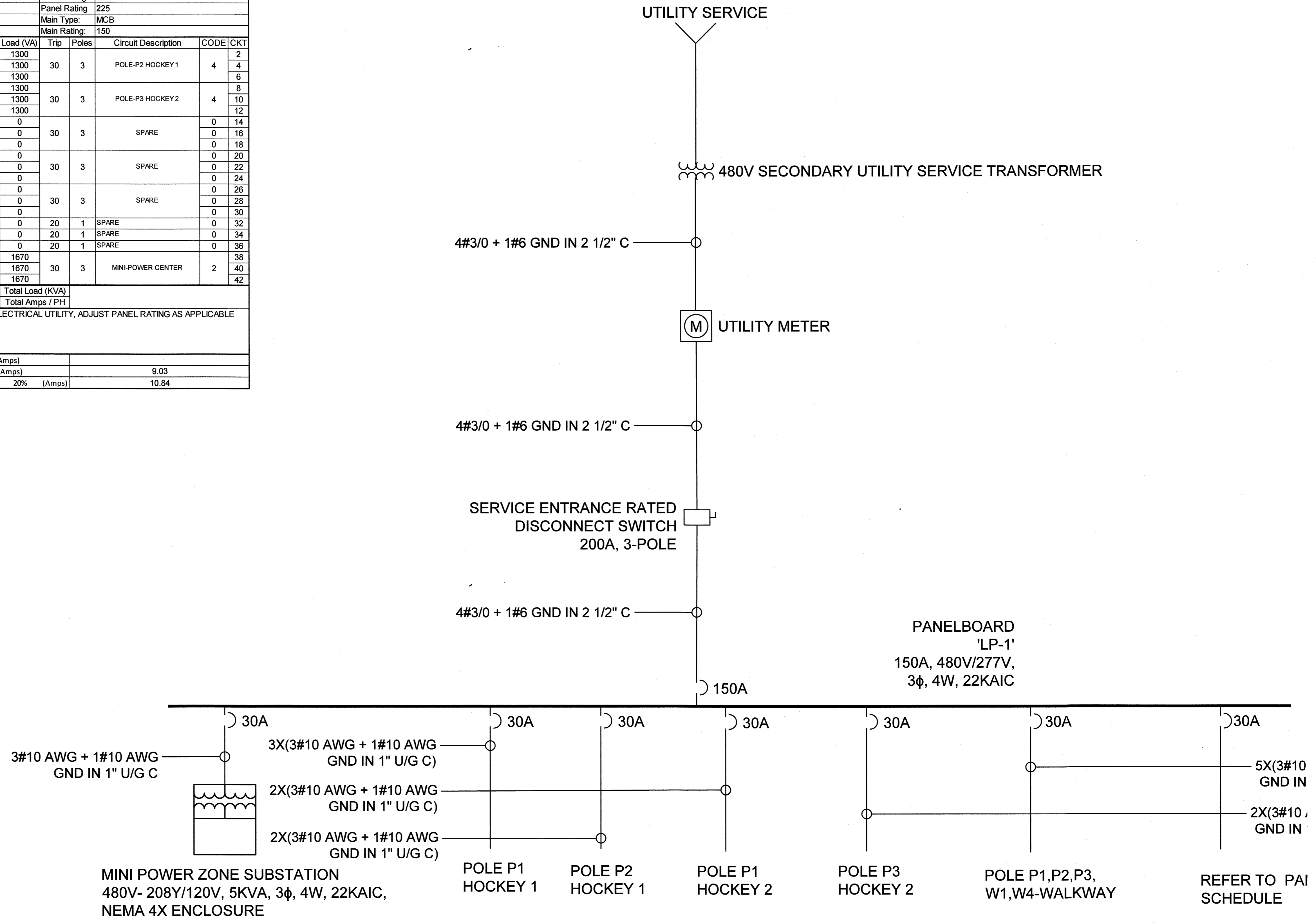


No. DESCRIPTION OF REVISION		DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY					
CYPRESS PARK - PHASE II					
ELECTRICAL SITE PLAN					
732) 727 8000		CONSULTING AND MUNICIPAL ENGINEERS		732) 462 7400	
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194					
JAMES COYLE, PE NJ LIC. NO. 033825		MICHAEL J. McCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER		LIC. 32468	
DATE: 05/03/2023		SCALE: As Shown		DATE: May 2023	
DRAWN BY: DP		DESIGNED BY: DP		SHEET: 12A of 26	
CHECKED BY: HL		DATE: 5/2/23		DRAWING NUMBER: E-2	

PWB00206.04 13-U CG

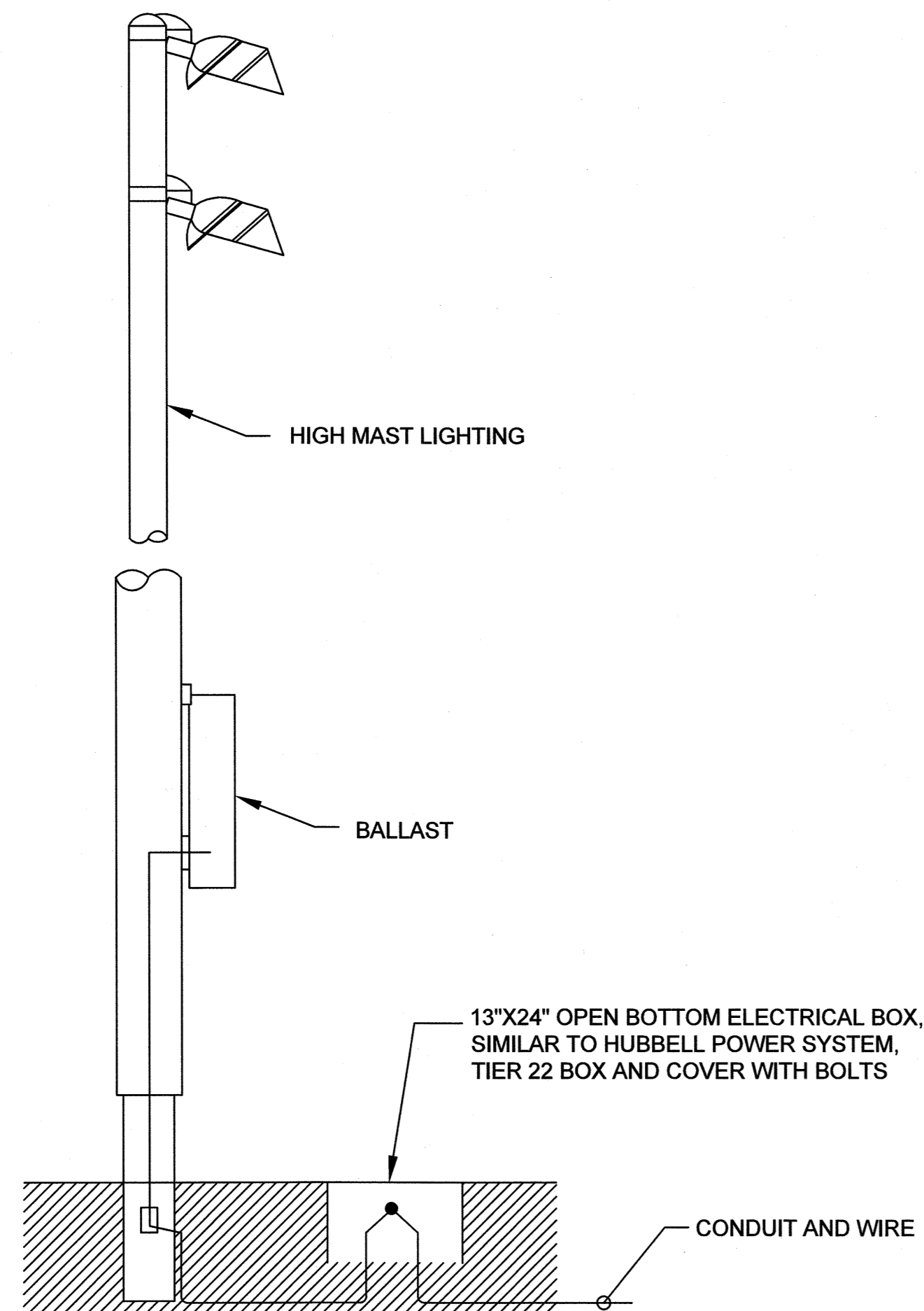
Panel Name: LP1		Location: HOCKEY 1		Voltage: 480/277V		A.I.C. Rating: 22KAIC									
Supply From: UTILITY		Phases: 3Ø		Panel Rating: 225		Main Type: MCB									
Mounting: UNI-STRUT		Wires: 4W		Main Rating: 150											
Enclosure: NEMA 4X															
CKT CODE	Circuit Description	Poles	Trip	Load (VA)	A	B	C	Load (VA)	Trip	Poles	Circuit Description	CODE	CKT		
1				1300	1300	1300		1300					2		
3	POLE-P1 HOCKEY 1	3	30	1300		1300		1300	30	3	POLE-P2 HOCKEY 1	4	4		
5				1300				1300					6		
7				1300	1300	1300		1300					8		
9	POLE-P1 HOCKEY 2	3	30	1300		1300		1300	30	3	POLE-P3 HOCKEY 2	4	10		
11				1300				1300					12		
13				640	640	0		0					14		
15	POLE P1, P2, P3, W1, W4- WALKWAY	3	30	640		640	0	0	30	3	SPARE		16		
17				640			640	0					18		
19				0	0	0		0					20		
21	SPARE	3	30	0		0	0	0	30	3	SPARE		22		
23				0			0	0					24		
25				0	0	0		0					26		
27	SPARE	3	30	0		0	0	0	30	3	SPARE		28		
29				0			0	0					30		
31				0	0	0		0	20	1	SPARE		32		
33				0		0	0	0	20	1	SPARE		34		
35				0			0	0	20	1	SPARE		36		
37	SPACE	1		0	1670			1670	30	3	MINI-POWER CENTER	2	38		
39	SPACE	1				0	1670	1670					40		
41	SPACE	1					0	1670					42		
DEMAND LOAD CALCULATIONS (KVA) (Amps)				7.510		7.510		7.510		Total Load (KVA)					
1	CONTINUOUS (125%)	0.00	0.00	62.58		62.58		62.58		Total Amps / PH					
2	NON-CONTINUOUS (100%)	1.67	2.01	Notes: CONFIRM SHORT CIRCUIT RATING OF LOCAL ELECTRICAL UTILITY, ADJUST PANEL RATING AS APPLICABLE TO ACCOMMODATE PANELBOARD RATING.											
3	RECEPTACLE	0.00	0.00												
4	LIGHTING (100%)	5.84	7.02												
	TOTAL	7.51	9.03												
Total Connected Load (KVA)				22.53				Total Connected Load (Amps)							
Total Est. Demand load (KVA)				7.51				Total Est. Demand Load (Amps)				9.03			
				Spare Capacity				20% (Amps)				10.84			

PANELBOARD SCHEDULE
NTS



SINGLE-LINE DIAGRAM

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY					
CYPRESS PARK - PHASE II PANELBOARD SCHEDULE & ONE LINE DIAGRAM					
<small>CONSULTING AND MUNICIPAL ENGINEERS NEW JERSEY PROFESSIONAL ENGINEER</small>					
<small>(732) 727 8000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162</small>					
<small>(732) 462 7400 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194</small>					
JAMES COYLE, PE NJ LIC. NO. 033825 <i>James Coyle</i> DATE: 05/03/2023		MICHAEL J. McCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468 <i>Michael J. McClelland</i>		SCALE: As Shown DATE: May 2023 DRAWN BY: DP CHECKED BY: HL SHEET: 13 of 28	
DRAWING NUMBER: PWB00206.04					
E-3					

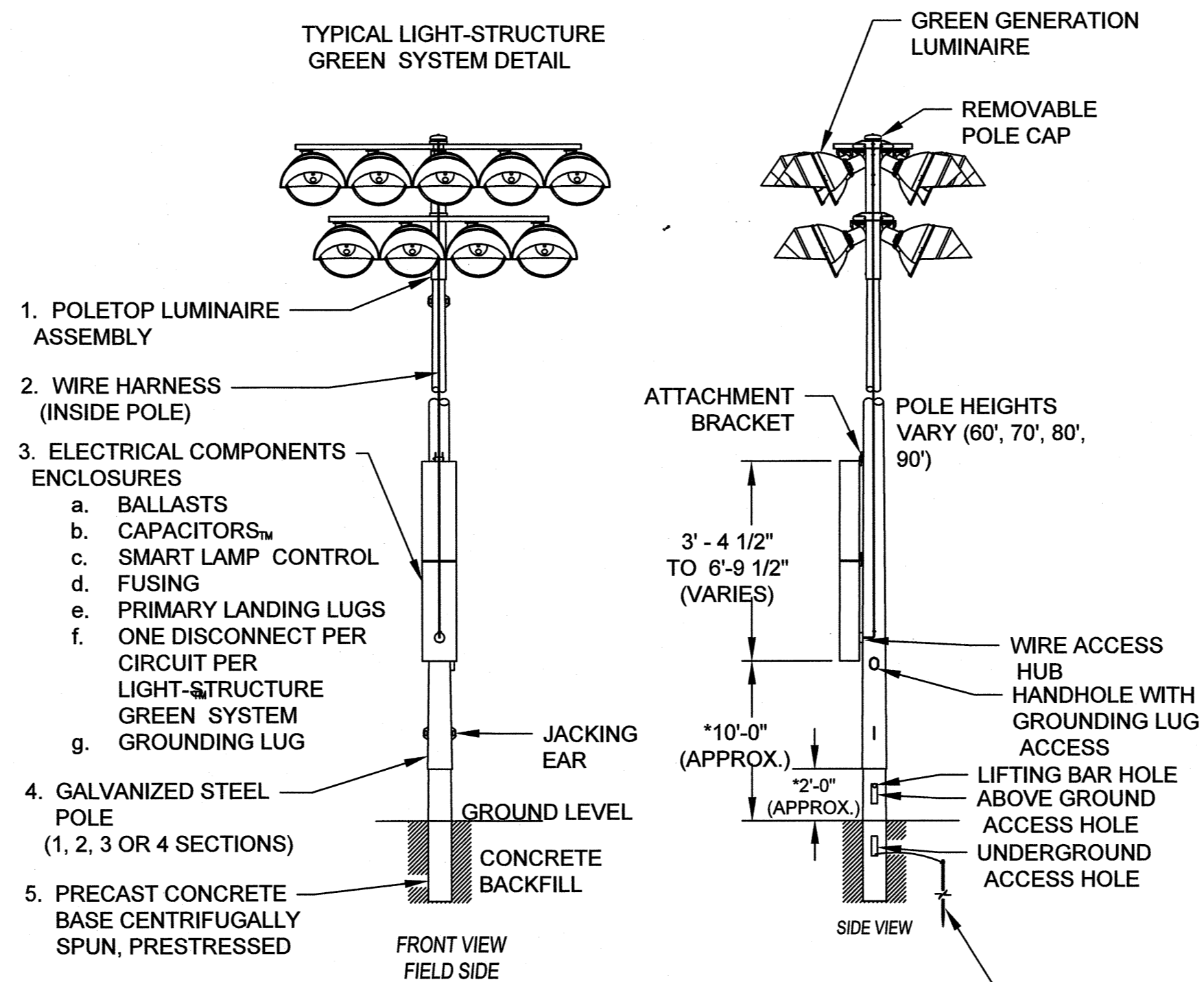


SPORTS LIGHTING POLE DETAIL - 1
NTS

LIGHTING GENERAL NOTES:

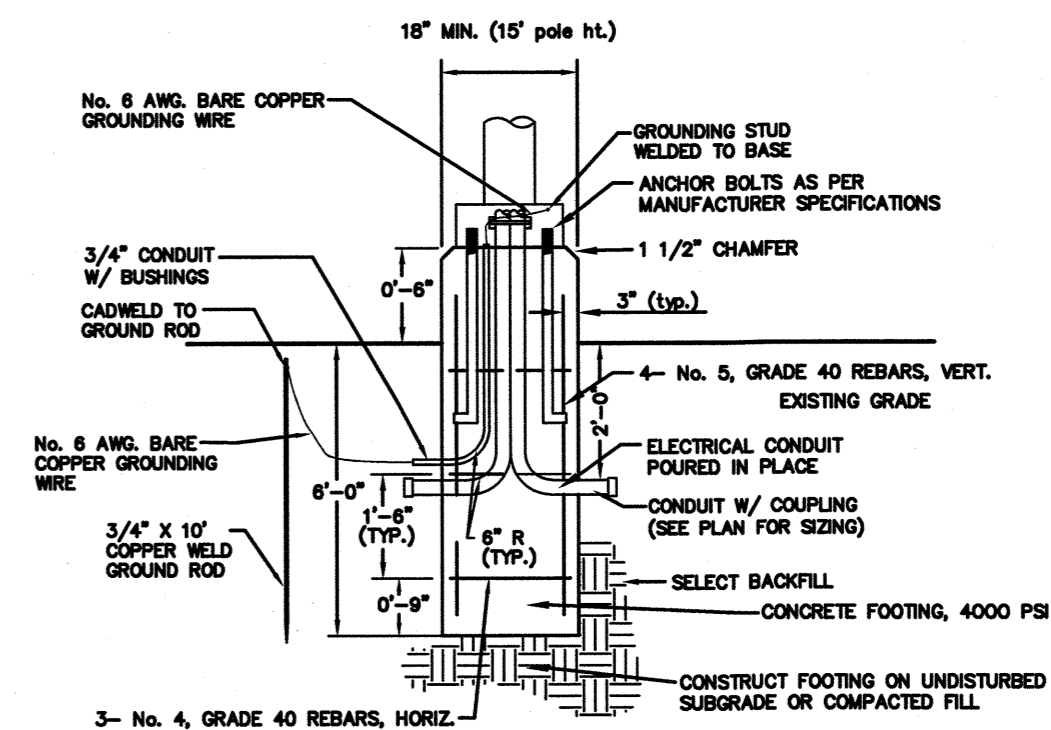
- MUSCO SPORTS LIGHTING, LLC AND THEIR SUBCONTRACTOR(S) SHALL FURNISH AND INSTALL LIGHTING IMPROVEMENTS INCLUDING LIGHT POLES, LIGHT FIXTURES, PENDANT STEMS, CONCRETE FOUNDATIONS AND LAMPS, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND AS PER MANUFACTURER'S RECOMMENDATIONS.
- MUSCO SPORTS LIGHTING, LLC AND THEIR SUBCONTRACTOR(S) SHALL FURNISH AND INSTALL MOUNTS, CONDUITS, WIRING, CONNECTIONS, ENCLOSURE, CIRCUITS, PANELS AND ALL APPURTENANCES NECESSARY TO ENERGIZE THE LIGHTING FACILITIES FOR THE SUBJECT SITE IMPROVEMENTS.
- MUSCO SPORTS LIGHTING, LLC AND THEIR SUBCONTRACTOR(S) WILL PROVIDE THE LIGHT POLE FOUNDATION COMPLETE WITH CONDUITS FOR POWER/GROUNDING AND ANCHOR BOLTS. COORDINATE THE NUMBER AND SIZE OF POWER CONDUITS REQUIRED IN EACH FOUNDATION WITH THE ELECTRICAL SITE PLAN. ONE GROUNDING CONDUCTOR IS REQUIRED FOR EACH.
- MUSCO SPORTS LIGHTING, LLC AND THEIR SUBCONTRACTOR(S) SHALL PROVIDE GROUND ROD AND MAKE CONNECTION TO GROUND STUD.
- THE SITE CONTRACTOR WILL NOT BE PERMITTED TO INSTALL ANY BASE PAVEMENT OR SIDEWALK ON THE PROJECT UNTIL IT HAS BEEN CONFIRMED THAT THE UNDERGROUND WIRING/CONDUITS HAVE BEEN INSTALLED IN THE AFFECTED AREAS. THE SITE CONTRACTOR WILL NOT BE PERMITTED TO INSTALL THE TOP COURSE OF PAVEMENT OR ANY TOPSOIL UNTIL SUCH A TIME AS ALL ELECTRICAL WORK ON THE PROJECT HAS BEEN COMPLETED.
- THE SITE CONTRACTOR SHALL COORDINATE THE LOCATION OF LIGHT POLES/CONDUIT RUNS WITH MUSCO SPORTS LIGHTING, LLC AND THEIR SUBCONTRACTOR(S) PRIOR TO CONSTRUCTION.
- MUSCO SPORTS LIGHTING, LLC AND THEIR SUBCONTRACTOR(S) ARE HEREIN ADVISED THAT SOIL BORINGS RELATED TO THE LIGHTING FACILITIES HAVE BEEN PERFORMED AND INCLUDED IN THE SPECIFICATIONS, HOWEVER, MUSCO SPORTS LIGHTING, LLC AND THEIR SUBCONTRACTOR(S) SHALL MAKE ALL NECESSARY INVESTIGATIONS INCLUDING SOIL BORINGS, TEST PITS OR BY OTHER ADEQUATE MEASURES TO SATISFY HIMSELF AS TO THE EXISTING SOIL CONDITIONS INCLUDING THE CHARACTER, GROUNDWATER ELEVATIONS AND AMOUNT OF VARIOUS CLASSES OF MATERIAL TO BE ENCOUNTERED IN THE WORK TO BE PERFORMED AND FOR THE DESIGN OF THE POLE FOUNDATIONS, PRIOR TO SUBMITTING A BID.

TYPICAL LIGHT-STRUCTURE GREEN SYSTEM DETAIL

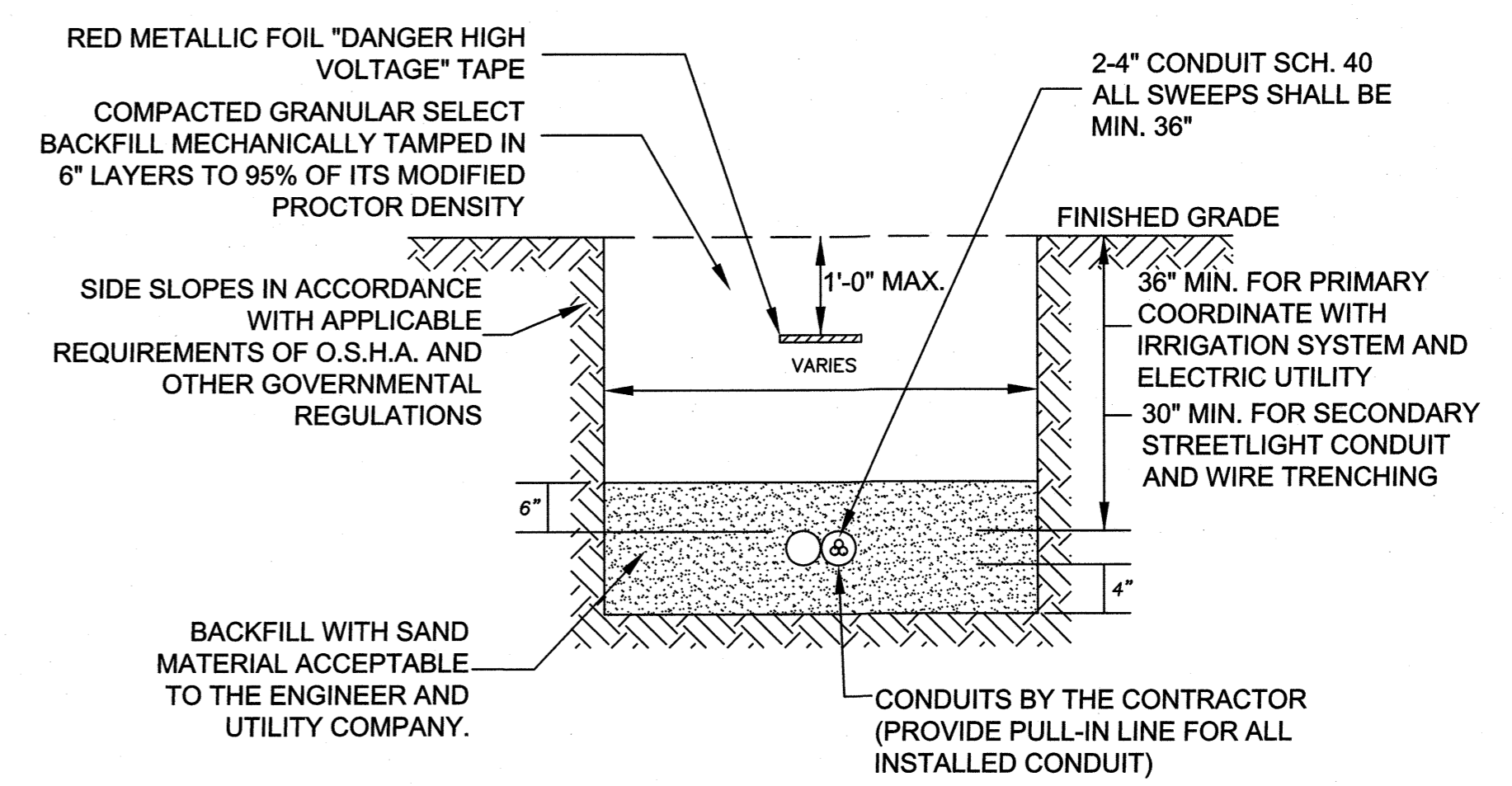


NOTE: PROVIDE 3/4\"/>

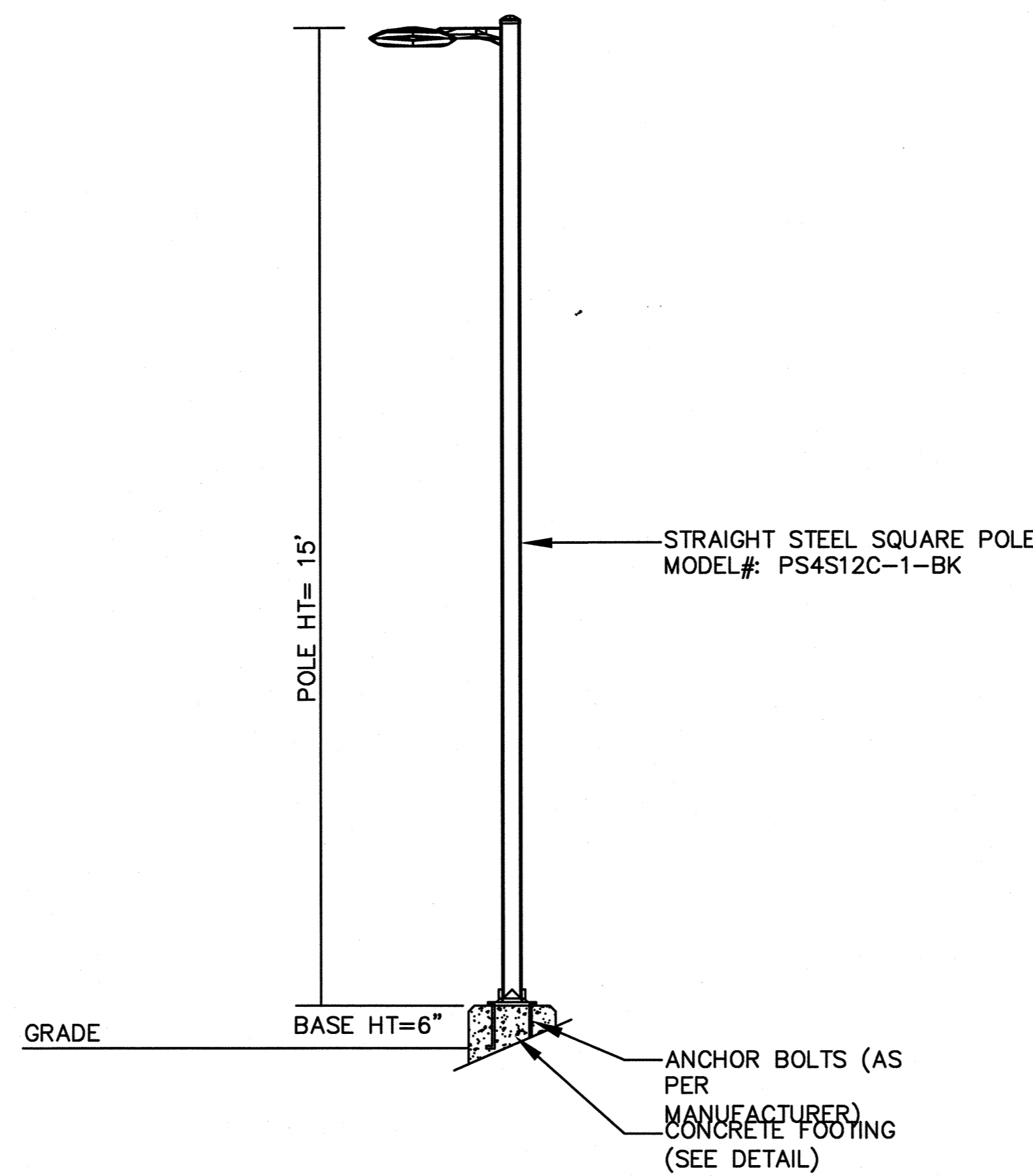
SPORTS LIGHTING DETAIL - 2
N.T.S.



CONCRETE FOOTING DETAIL
NOT TO SCALE



ELECTRIC UTILITY TYPICAL TRENCHING DETAIL - 4
N.T.S.



ALL POLES AND LED FIXTURES MANUFACTURED BY CREE LIGHTING (LA LIGHTING, 732-566-5100) OR APPROVED EQUAL

WALKWAY LED LUMINAIRE AND POLE DETAILS
NOT TO SCALE

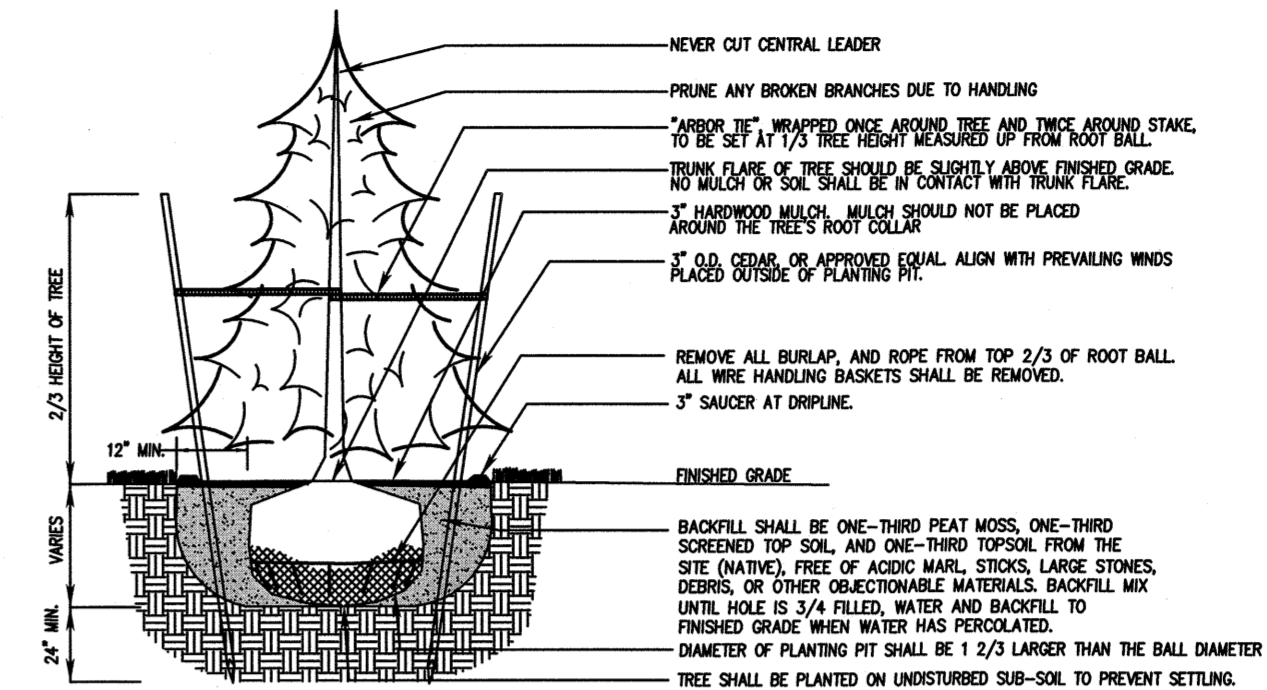
JAMES COYLE, PE NJ LIC. NO. 033825
DATE: 05/03/2023

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CYPRESS PARK - PHASE II ELECTRICAL DETAILS					
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162		1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194		(732) 462-7400	
MICHAEL J. McCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER L.C. 32468					
SCALE: As Shown	DATE: May 2023	DRAWING NUMBER: PWB00206.04			
DRAWN BY: DP	DESIGNED BY: DP	SHEET: 13A of 26			
CHECKED BY: HL	DATE: 05/03/2023	E-4			

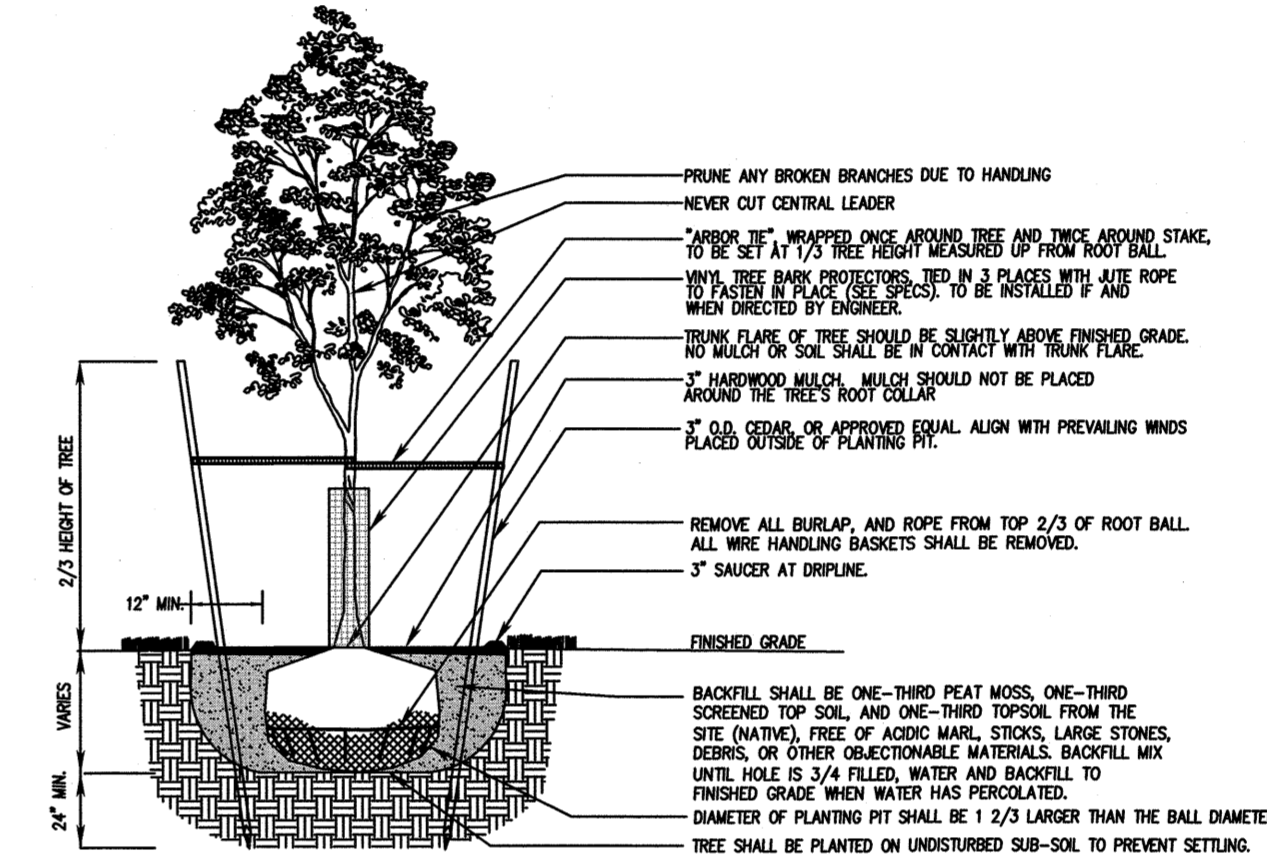
PLANT SCHEDULE					
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
SHADE TREES					
3	Ar	Acer rubrum 'October Glory'	October Glory Red Maple	2" - 2 1/2" cal.	B&B, Spacing as shown
3	Cj	Cercidiphyllum japonicum	Japanese Katsuratree	2 1/2" - 3" cal.	B&B, Spacing as shown
5	Up	Ulmus parvifolia 'Emer It'	Allee Lacebark Elm	2" - 2 1/2" cal.	B&B, 50' on center
11 Total					
ORNAMENTAL TREES					
5	Py	Prunus x yedoensis	Yoshino Flowering Cherry	10' - 12' ht.	B&B, Single Stem, Spacing as shown
4	Sp	Styrax japonicus 'Pink Chimes'	Pink Chimes Japanese Snowbell	8' - 10' ht.	B&B, Single Stem, Spacing as shown
9 Total					
SHRUBS					
59	lc	Ilex crenata 'Compacta'	Compact Japanese Holly	18" - 24" ht.	Container, 3' on center
19	lg	Ilex glabra 'Shamrock'	Shamrock Inkberry Holly	30" - 36" ht.	Container, 4.5' on center
41	lv	Itea virginica 'Little Henry'	Little Henry Virginia Sweetspire	18" - 24" ht.	Container, 3' on center
3	Kl	Kalmia latifolia 'Carol'	Carol Mountain Laurel	30" - 36" ht.	Container, 4.5' on center
19	Sj	Spiraea japonica 'Goldmound'	Goldmound Japanese Spirea	18" - 24" ht.	Container, 3' on center
141 Total					
PERENNIALS & ORNAMENTAL GRASSES					
33	Ck	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	3 gal.	Container, 2.5' on center
76	Pk	Pennisetum orientale 'Karley Rose'	Karley Rose Oriental Fountain Grass	3 gal.	Container, 2.5' on center
116	Pv	Panicum virgatum 'Northwind'	Northwind Switch Grass	3 gal.	Container, 2.5' on center
36	Rf	Rudbeckia fulgida var. sullivanti 'Goldstrum'	Black-Eyed Susan	1 gal.	Container, 1.25' on center
281 Total					

Note: All Trees To Be Balled & Burlapped and Shall Meet ANSI Z60.1 Standards
 Note: The Following List of Trees Are Considered to Have A High Risk of Failure When Dug From Growing Locations in The Fall (Autumn)

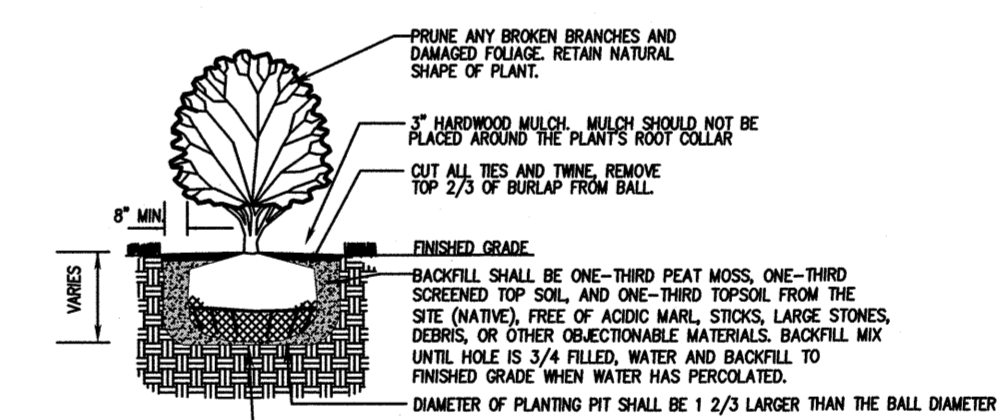
Betula varieties	Halesia varieties	Ostrya	Sorbus varieties
Carpinus varieties	Koelerutaria paniculata	Prunus - all stone fruits	Tilia tomentosa varieties
Celtis varieties	Liquidambar varieties	Pyrus varieties	Ulmus parvifolia varieties
Cercidiphyllum varieties	Liriodendron varieties	Quercus - all except Q. palustris	Zelkova varieties
Craegagus varieties	Malus - in leaf	Salix - weeping varieties	
Fagus varieties	Nyssa sylvatica		



CONIFER TREE PLANTING DETAIL



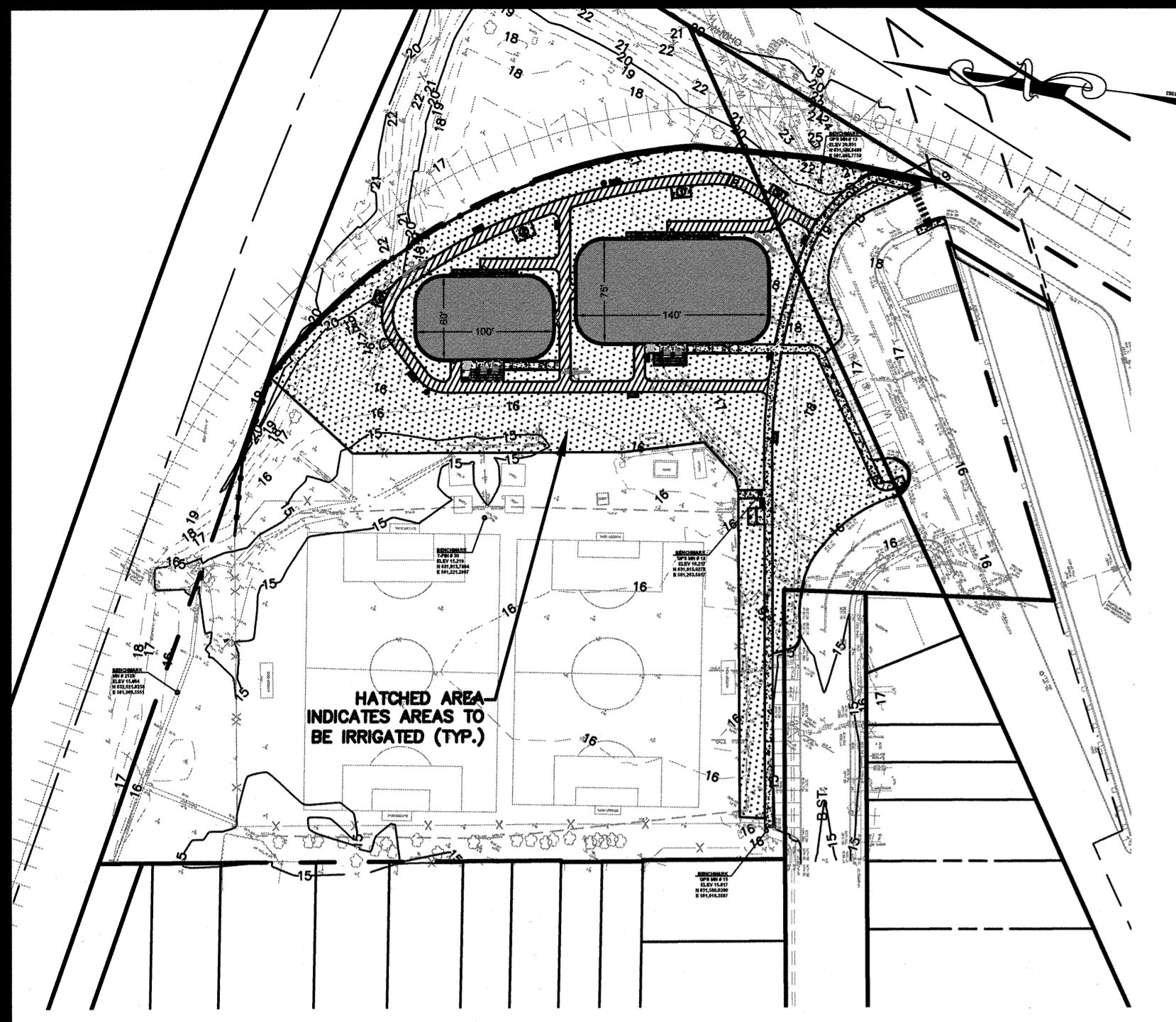
DECIDUOUS TREE PLANTING DETAIL



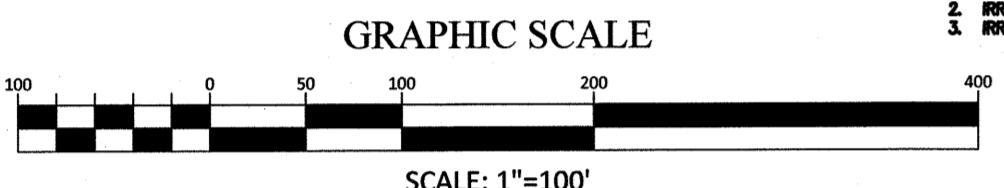
SHRUB PLANTING DETAIL

- PLANTING NOTES:**
- THE LANDSCAPE CONTRACTOR SHALL FURNISH ALL PLANT MATERIAL AND INSTALLATION AS INDICATED, INCLUDING ALL LABOR, MATERIALS, EQUIPMENT, INCIDENTALS (INCLUDING WATERING) AND CLEAN-UP.
 - THE LANDSCAPE CONTRACTOR SHALL PERFORM SOIL SAMPLING OF THE SITE, IF DESIRED NECESSARY, PRIOR TO ANY PLANT INSTALLATIONS TO DETERMINE SOIL CHARACTERISTICS. IF NECESSARY, ADJUSTMENTS SHALL BE MADE BY THE LANDSCAPE CONTRACTOR IN COOPERATION WITH THE OWNER BASED ON THE SOIL TEST REPORT TO ENSURE SURVIVAL OF ALL PLANT MATERIAL.
 - THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES AND/OR CONFLICTING SITE AMENITIES PRIOR TO STARTING THE WORK.
 - ALL PLANTS SHALL BE DUG, PACKED, TRANSPORTED, AND HANDLED WITH UTMOST CARE AND PROTECTION FROM ABUSE AND DESTRUCTION.
 - ALL PLANTS SHALL BE FREE FROM DISEASE AND INFESTATION.
 - THE CENTRAL LEADER SHALL NOT BE CUT, DAMAGED, OR BROKEN. NO PLANT WITH CENTRAL LEADER DAMAGE SHALL BE ACCEPTED.
 - PLANTS SHALL NOT BE PRUNED ON LOCATION UNLESS IT IS NECESSARY TO REMOVE BROKEN OR DAMAGED LIMBS.
 - ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN MOODURUS GROWING CONDITION AND HAVE AN ACCEPTABLE VARIETY. PROVISIONS SHALL BE MADE FOR A GROWTH GUARANTEE OF AT LEAST TWO YEARS FOR TREES AND A MINIMUM OF TWO GROWING SEASONS FOR SHRUBS OR AS FOLI THAT WHICH MAY BE STATED IN THE MUNICIPALITY'S LAND DEVELOPMENT ORDINANCE. REPLACEMENTS SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE WATER AND FERTILIZER TO ALL PLANT MATERIAL DURING THE GUARANTEE PERIOD TO ENSURE PLANT SURVIVAL.
 - THE MINIMUM DEPTH OF TOPSOIL IN PARKING LOT ISLANDS SHALL BE TWO FEET.
 - TREES SHALL BE ROOTED INTO THE BALL SO THAT SOIL OR MEDIA REMAINS INTACT AND TRUNK AND ROOTBALL MOVE AS ONE WHEN LIFTED. THE TREE TRUNK SHOULD BEGID WHEN GENTLY PUSHED, NOT PIVOT AT OR BELOW THE SOIL LINE.
 - THE POINT WHERE THE TOP-MOST ROOT IN THE ROOT BALL EMERGES FROM THE TRUNK (FLARE) SHALL BE VISIBLE AT THE SOIL SURFACE.
 - THE RELATIONSHIP BETWEEN CALIPER, HEIGHT AND ROOTBALL SIZE FOR ALL TREES SHALL MEET ANSI Z601.2014 OR LATEST EDITION STANDARDS.
 - ALL DECIDUOUS SHADE TREES SHALL HAVE ONE DOMINANT CENTRAL LEADER, MORE OR LESS STRAIGHT TO THE TOP OF THE TREE WITH THE LARGEST BRANCHES SPACED AT LEAST 8 INCHES APART. THERE CAN BE A DOUBLE LEADER IN THE TOP 1/3 OF THE TREE CANOPY.
 - THE TREE CANOPY SHOULD BE SYMMETRICAL, FREE OF LARGE HOLES, AND TYPICAL OF THE SPECIES OR CULTIVAR. LIVE CROWN RATIO (DISTANCE FROM BOTTOM OF CANOPY TO TREE TOP/TREE HEIGHT) SHOULD BE AT LEAST 80%.
 - SHADE TREE BRANCHES SHOULD BE LESS THAN 2/3 THE TRUNK DIAMETER, FREE OF BARK INCLUSIONS, AND MORE OR LESS RADIALLY DISTRIBUTED AROUND THE TRUNK.
 - TREE TRUNKS AND MAIN BRANCHES SHALL BE FREE OF WOUNDS, DAMAGED AREAS, CANKS, BLEEDING, AND SIGNS OF INSECTS OR DISEASE.
 - BACKFILL MATERIAL FOR PLANTING PITS SHALL BE ONE-THIRD PEAT MOSS, ONE THIRD SCREENED TOPSOIL, AND ONE THIRD TOPSOIL FROM THE SITE (NATIVE), FREE OF ACIDIC MARL, STICKS, LARGE STONES, DEBRIS, OR OTHER OBJECTIONABLE MATERIAL.
 - PLANTS SHALL BE SET TO ULTIMATE FINISH GRADE SO THAT THE ROOT COLLAR AND FLARE ARE EXPOSED AT THE SURFACE OF THE BALL. ANY EXCESS SOIL SHOULD BE GENTLY REMOVED AND PROPERLY DISPOSED OF OFF-SITE. ALL PLANTS SHALL BE SET PLUM AND STRAIGHT IN THE CENTER OF THE PIT.
 - ANY CORD EMERGING FROM THE BALL OF ALL BALLED AND BURLAPPED (B&B) PLANTS SHALL BE CUT AND REMOVED, AS WELL AS ALL BURLAP ON THE SIDES AND TOP OF THE ROOT BALL, AS MUCH BURLAP AS POSSIBLE MUST BE REMOVED FROM THE PLANTING PIT. ANY REMAINING BURLAP SHOULD BE TUCKED DOWN TO LIMIT THE FORMATION OF AIR POCKETS UPON BACKFILLING. SYNTHETIC MATERIALS SHALL BE COMPLETELY REMOVED. TREES INSTALLED WITH WIRE BASKETS SHOULD HAVE THE WIRE BASKET REMOVED COMPLETELY TO PREVENT THE POTENTIAL FOR GIRDLED ROOT GROWTH. IN THE EVENT THAT THE ROOT BALL IS UNUSUALLY LOOSE OR SNOWY, IT MAY BE PERMITTED TO REMOVE ONLY THE TOP 2/3 OF THE WIRE BASKETS, TOP 2/3 OF BURLAP, AND ALL ROPES OR BINDINGS. THIS CAN BE DETERMINED BY MUTUAL AGREEMENT BY THE STATE INSPECTOR AND THE AUTHORIZED AGENTS IN RESPONSIBLE CARE FOR THE OVERSEER OF TREE INSTALLATION.
 - TREES SHALL BE STAKED IMMEDIATELY AFTER PLANTING IN ACCORDANCE WITH THE DETAIL. ALL SUPPORT SYSTEMS IN DIRECT CONTACT WITH THE TREE TRUNK SHALL BE LOOSELY ATTACHED TO PREVENT GIRDLING. ALL TRUNK PROTECTION WRAPPING SHALL BE REMOVED AT THE TIME OF PLANTING.
 - ALL EVERGREENS AND DECIDUOUS TREES FIVE FEET OR GREATER IN HEIGHT SHALL BE STAKED AS PER DETAIL. ALL SUPPORTS SHALL BE REMOVED WITHIN ONE YEAR OF PLANTING FROM TREES THAT DO NOT NEED OBVIOUS STRAIGHTENING.
 - ALL PARKING ISLANDS SHALL BE MATCHED. ALL SHADE/ORNAMENTAL TREES SHALL BE SET IN 3" DIAMETER MALTED BEES (MINIMUM) WITH THE TRUNK CENTERED. IF A SHADE/ORNAMENTAL TREE IS IN CLOSE PROXIMITY TO SHRUB BASKETS, THE MALTED BEE SHALL BE EXTENDED AROUND THE TREE. ALL SUCH BEES SHALL RECEIVE A 3" THICK APPLICATION OF DOUBLE SHROUDED HARDWOOD MULCH. THE MULCH SHALL NOT BE PILED IN DIRECT CONTACT WITH THE ROOT COLLAR AREA OF THE TREE.
 - RED LINES SHALL HAVE A CLEAR, SHARP EDGE CUT WITH A SPADE UNLESS OTHERWISE SPECIFIED.
 - ANY CHANGES IN PLANT SPECIES, SIZE, OR LOCATION SHALL BE CONFIRMED AND APPROVED BY THE LANDSCAPE ARCHITECT (OR ASSOCIATES, 732-462-7400) PRIOR TO INSTALLATION. WRITTEN APPROVAL OF ANY PLANT MATERIAL CHANGE MAY BE REQUIRED BY THE MUNICIPALITY'S LANDSCAPE ARCHITECT OR SHADE TREE COMMISSION. ALL SUBSTITUTIONS WILL BE OF EQUAL OR GREATER SIZE THAN THE ORIGINALLY SPECIFIED SPECIES.
 - ALL PLANTING MATERIALS AND METHODS SHALL MEET OR EXCEED THE REQUIREMENTS SET FORTH BY THE MUNICIPALITY AND LATEST EDITION OF THE OF THE AMERICAN STANDARDS FOR NURSERY STOCK. THE LANDSCAPE CONTRACTOR SHOULD BE PREPARED TO MAKE AVAILABLE UPON REQUEST, A NURSERY STOCK CERTIFICATE OR PLANT QUALITY CERTIFICATION TO CONFIRM NURSERY STOCK CERTIFICATION BY THE NEW JERSEY DEPARTMENT OF AGRICULTURE.
 - ALL AREAS WHICH ARE TO BE DISTURBED BEYOND THE MALTED BEES SHALL BE SEEDED WITH THE TURF GRASS MIXTURE FOUND IN THE SOIL CROSS-SECTION AND SEEDMENT DETAIL SHEET.
 - NO SHADE TREES SHALL BE LOCATED CLOSER THAN 10' FROM ANY LIGHT FIXTURE.
 - TREES LOCATED WITHIN THE RIGHT TRIANGLE EXHAUSTS SHALL HAVE THE LOWEST BRANCH MAINTAINED AT A MINIMUM HEIGHT OF 10' ABOVE THE INTERSECTING CENTERLINES OR WHICH IS INDICATED BY THE MUNICIPALITY'S ORDINANCE. SHRUBS SHALL BE MAINTAINED AT A HEIGHT NOT TO EXCEED 3' ABOVE THE INTERSECTING CENTERLINES.
 - ALL TREES UTILIZED FOR STREET TREE PLANTINGS WILL BE NURSERY PRUNED TO 7 FEET.
 - ALL EXISTING LANDSCAPING LOCATED ON-SITE TO REMAIN, UNLESS OTHERWISE INDICATED ON THE PLAN.
 - IF THERE ARE ANY DISCREPANCIES BETWEEN PLANT LIST AND PLAN, PLAN SHALL BE CONTROLLING.
 - ALL SUBSTITUTIONS WILL BE OF EQUAL OR GREATER SIZE THAN THE ORIGINALLY SPECIFIED SPECIES.
 - INSURE THAT EXCESSIVE MULCH IS NOT PILED AGAINST THE TRUNKS OR STEMS OF THE PLANTS.
 - ADEQUATE CLEARANCE MUST BE PROVIDED FOR ALL DRIVEWAYS, UTILITIES AND WALKWAYS.

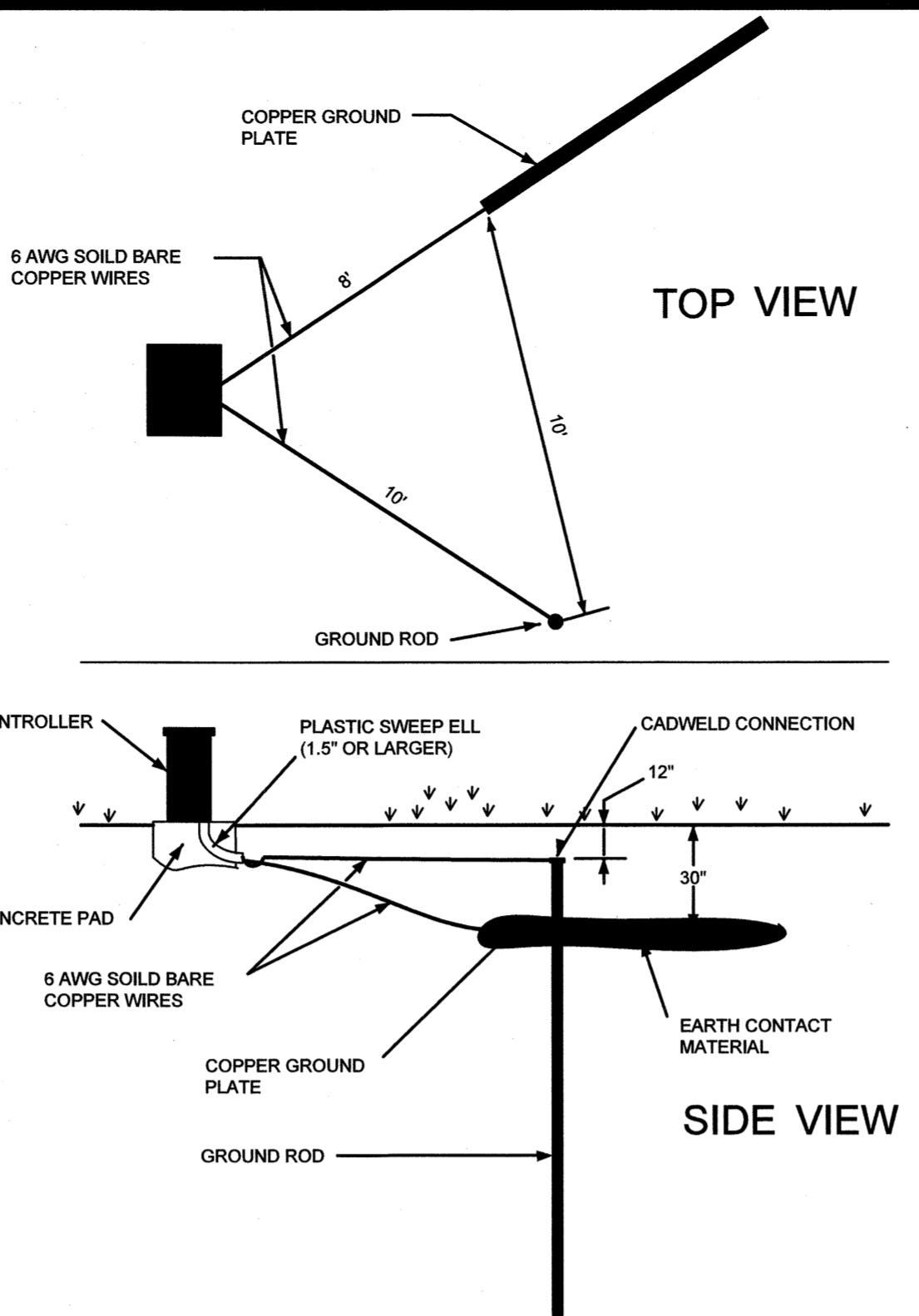
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TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY CYPRESS PARK - PHASE II LANDSCAPE NOTES & DETAILS					
(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400 NO CERTIFICATE OF AUTHORIZATION NO. 24628359000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194					
MICHAEL J. MCCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER			SCALE: As Shown DATE: May 2023 DRAWN BY: LAK DESIGNED BY: LAK CHECKED BY: JCW SHEET: 15 of 26		DRAWING NUMBER: L-2



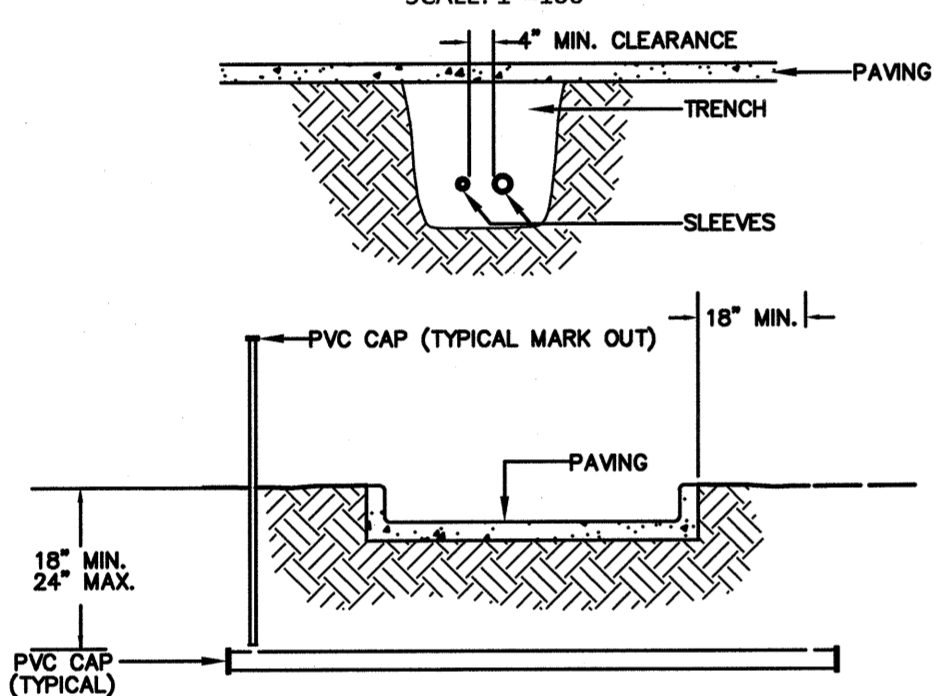
IRRIGATION PLAN



REGULATORY NOTES:
 1. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING AN IRRIGATION LAYOUT FOR APPROVAL PRIOR TO CONSTRUCTION. NO SEPARATE PAYMENT WILL BE MADE FOR LAYOUT OR DESIGN OF IRRIGATION SYSTEM. PAYMENT FOR SAME SHALL BE INCLUDED IN UNIT PRICE BID FOR ALL ITEMS REQUIRING SAME.
 2. IRRIGATION DESIGN TO PROVIDE HEAD TO HEAD COVERAGE IN ALL LAWN AREAS AND LANDSCAPE AREAS. IRRIGATION TO BE PROVIDED WITH LANDSCAPE. DRIP IRRIGATION IS NOT PERMITTED.

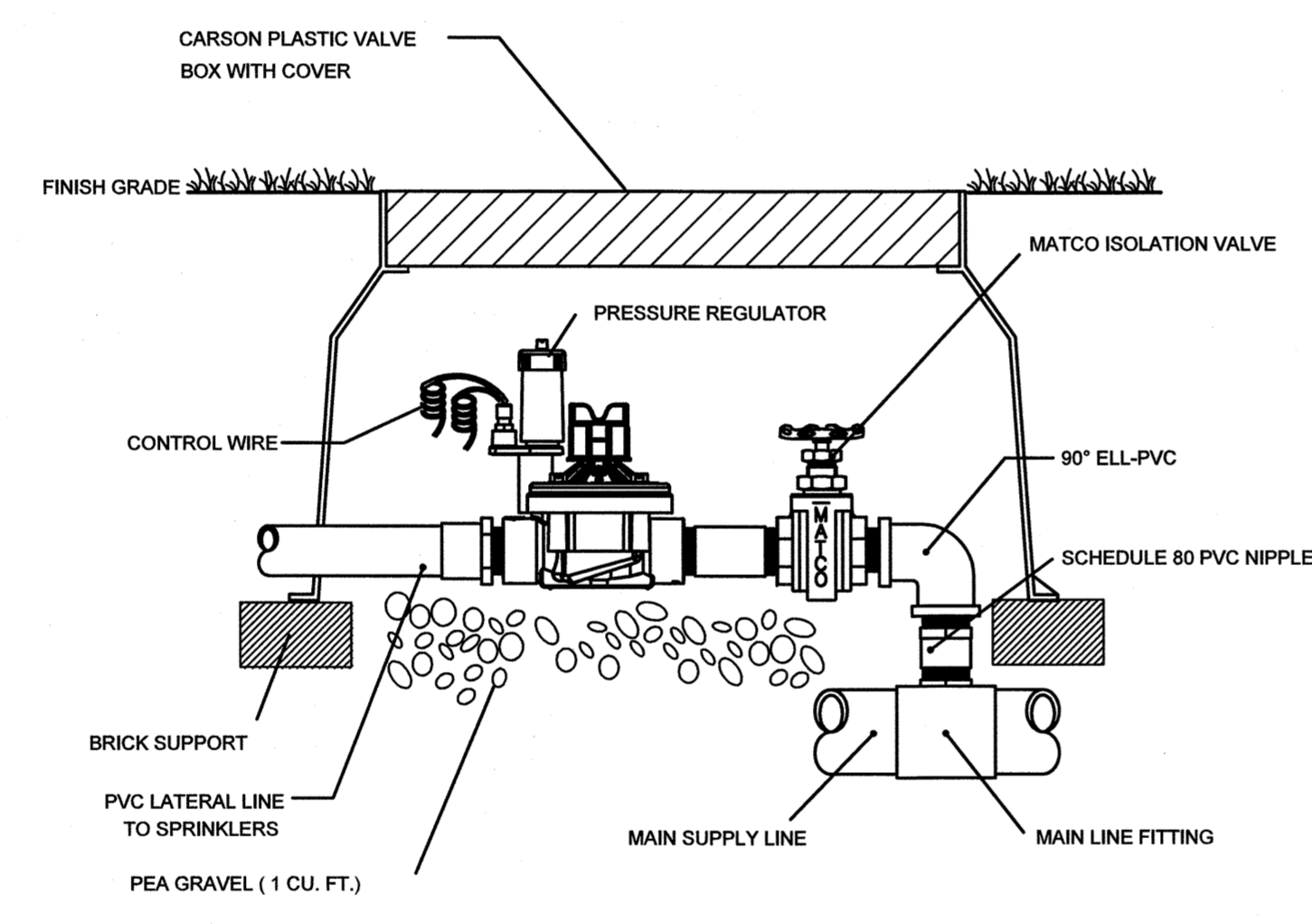


IRRIGATION CONTROLLER GROUNDING
 TYPICAL INSTALLATION N.T.S.

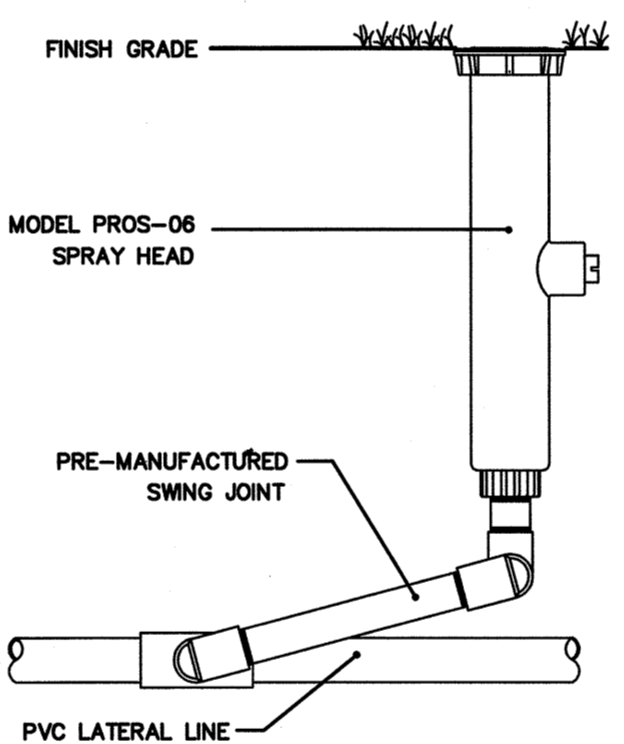


NOTES:
 1. ALL PVC IRRIGATION SLEEVES TO BE SCHEDULE 40
 2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT, MECHANICALLY TAMP
 3.

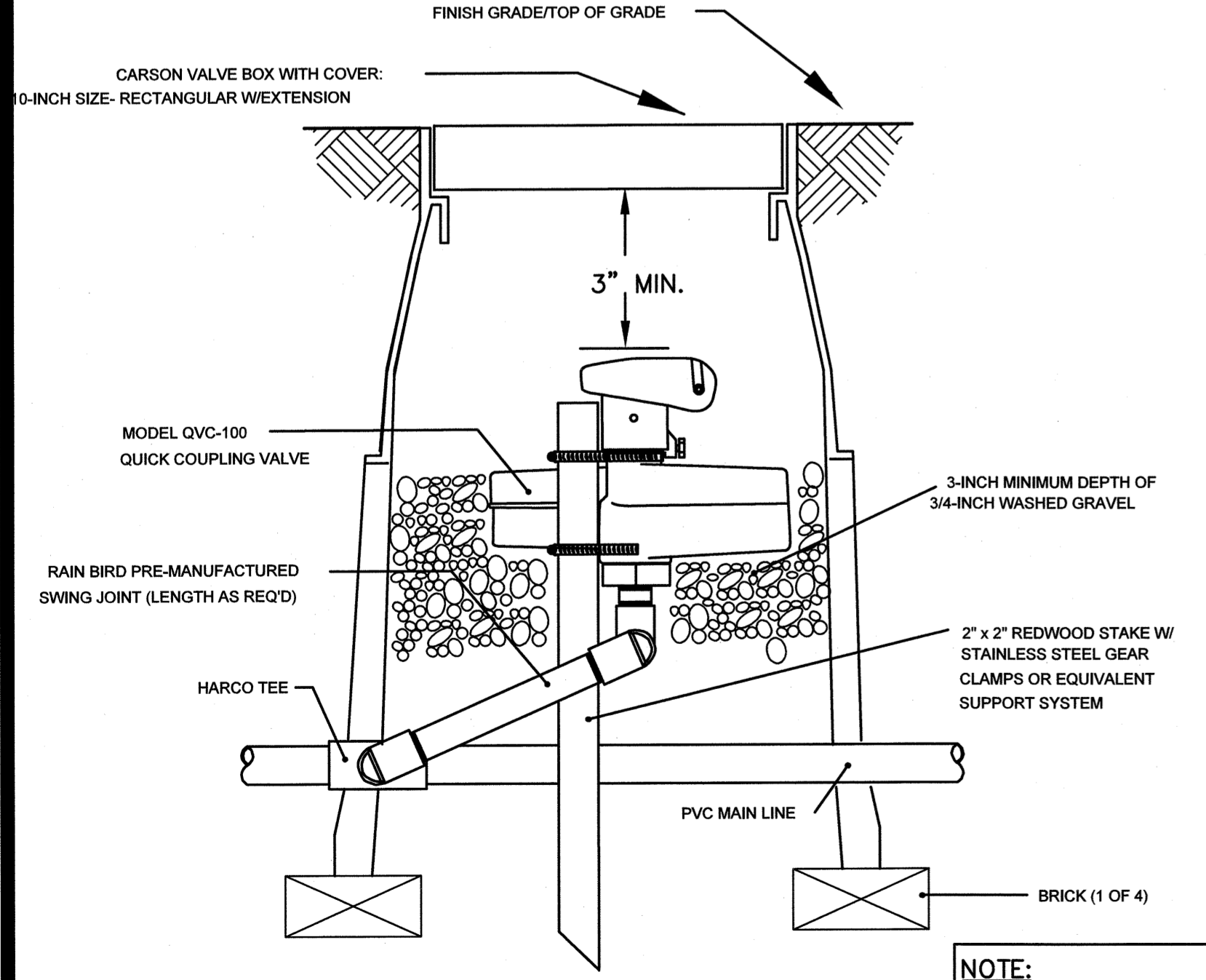
SLEEVING DETAIL
 N.T.S.



RAINBIRD ELECTRIC VALVES
 MODEL: RAINBIRD PGA PRS-D OR APPROVED EQUAL N.T.S.

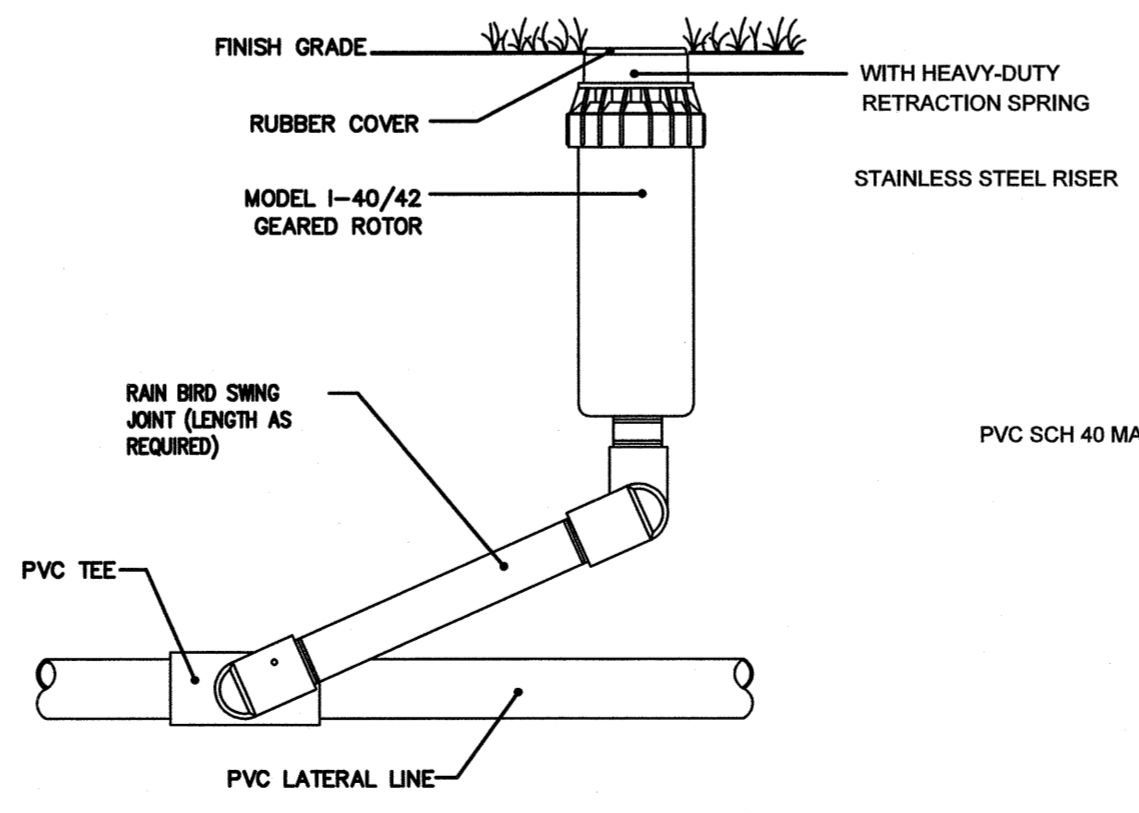


POP-UP SPRINKLER PRO SPRAY HEAD
 MODEL: HUNTER PROS-06 APPROVED EQUAL N.T.S.

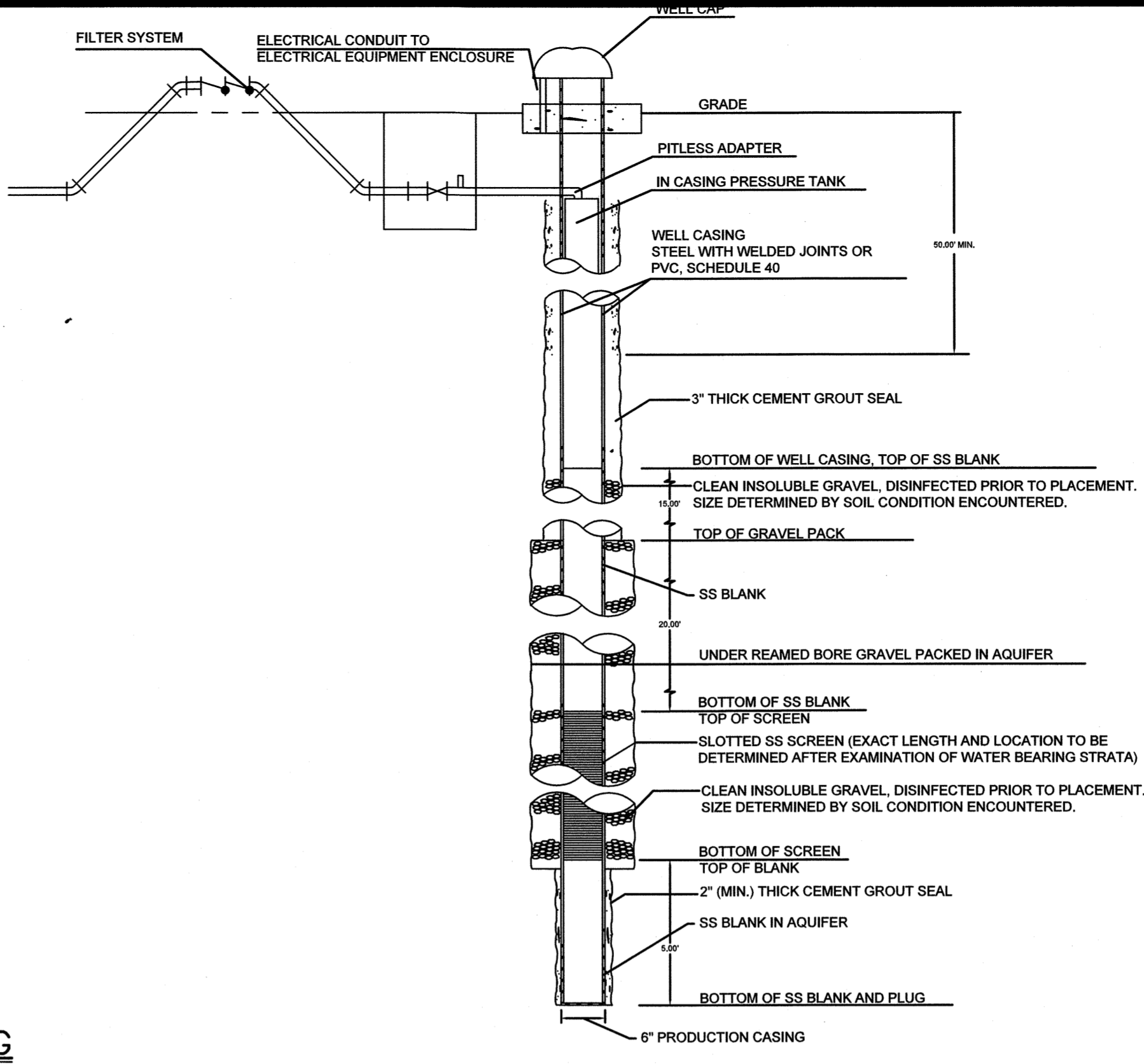


QUICK COUPLING VALVE
 MODEL: HUNTER QCV-100 N.T.S.

NOTE:
 CONTRACTOR TO PROVIDE ONE (1) KEY HANDLE WITH 1" KEY FOR EACH QUICK COUPLE VALVE INSTALLED.

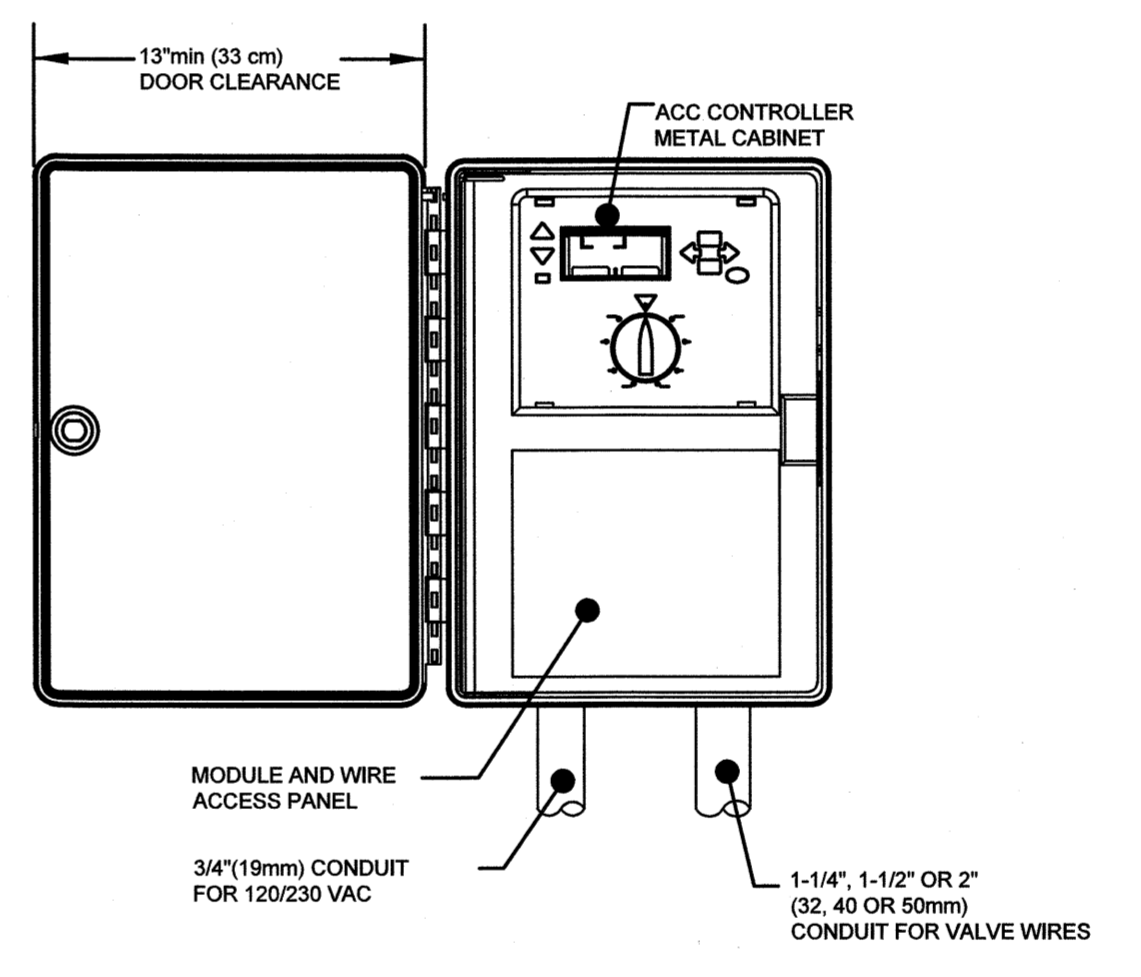


HUNTER ROTOR SPRINKLER
 MODEL: HUNTER I-40/42 OR APPROVED EQUAL N.T.S.



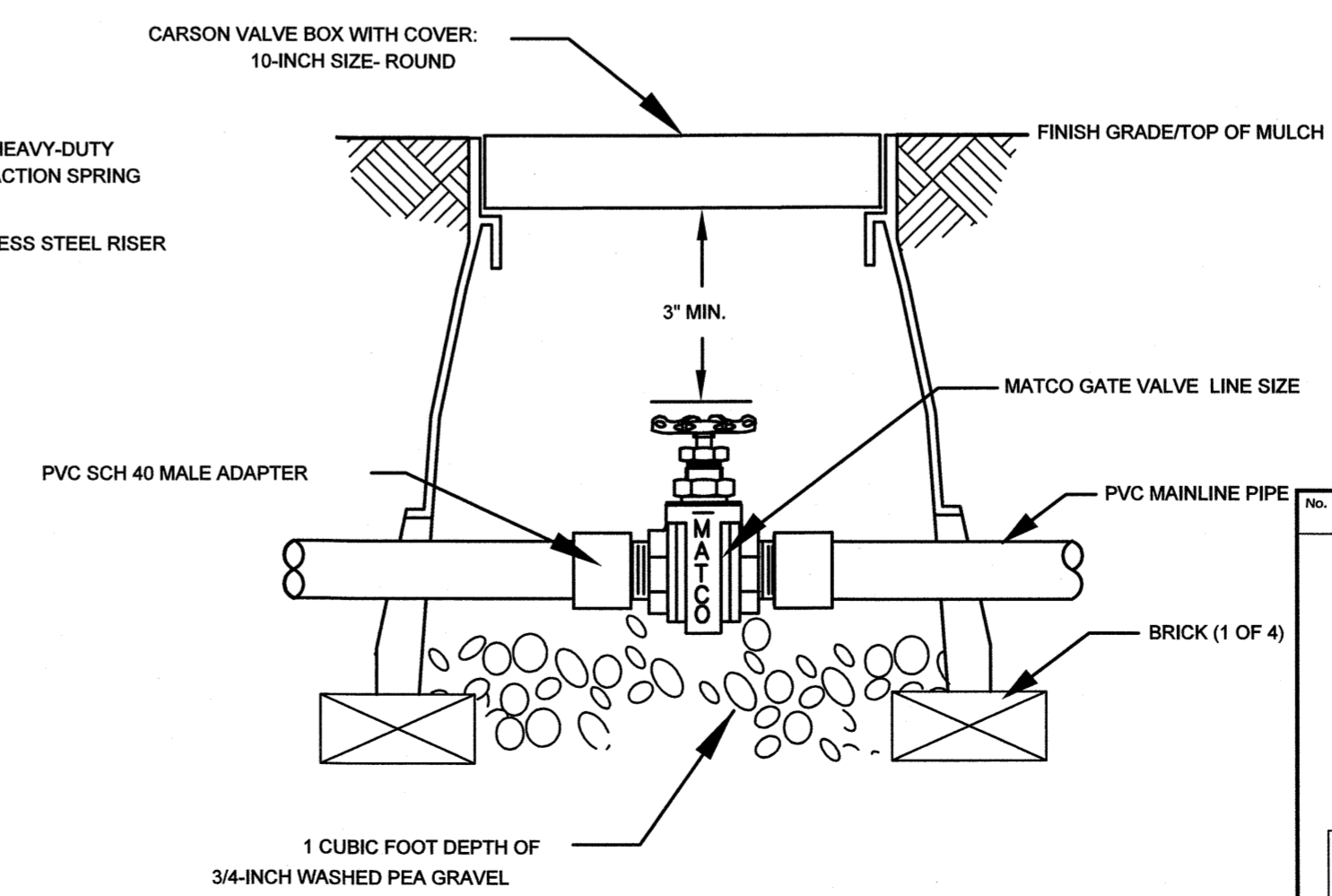
WELL CONSTRUCTION DETAIL
 N.T.S.

WELL TO BE CONSTRUCTED IN ACCORDANCE WITH AWWA-100, LATEST EDITION, AND SPECIFICATION REQUIREMENTS.

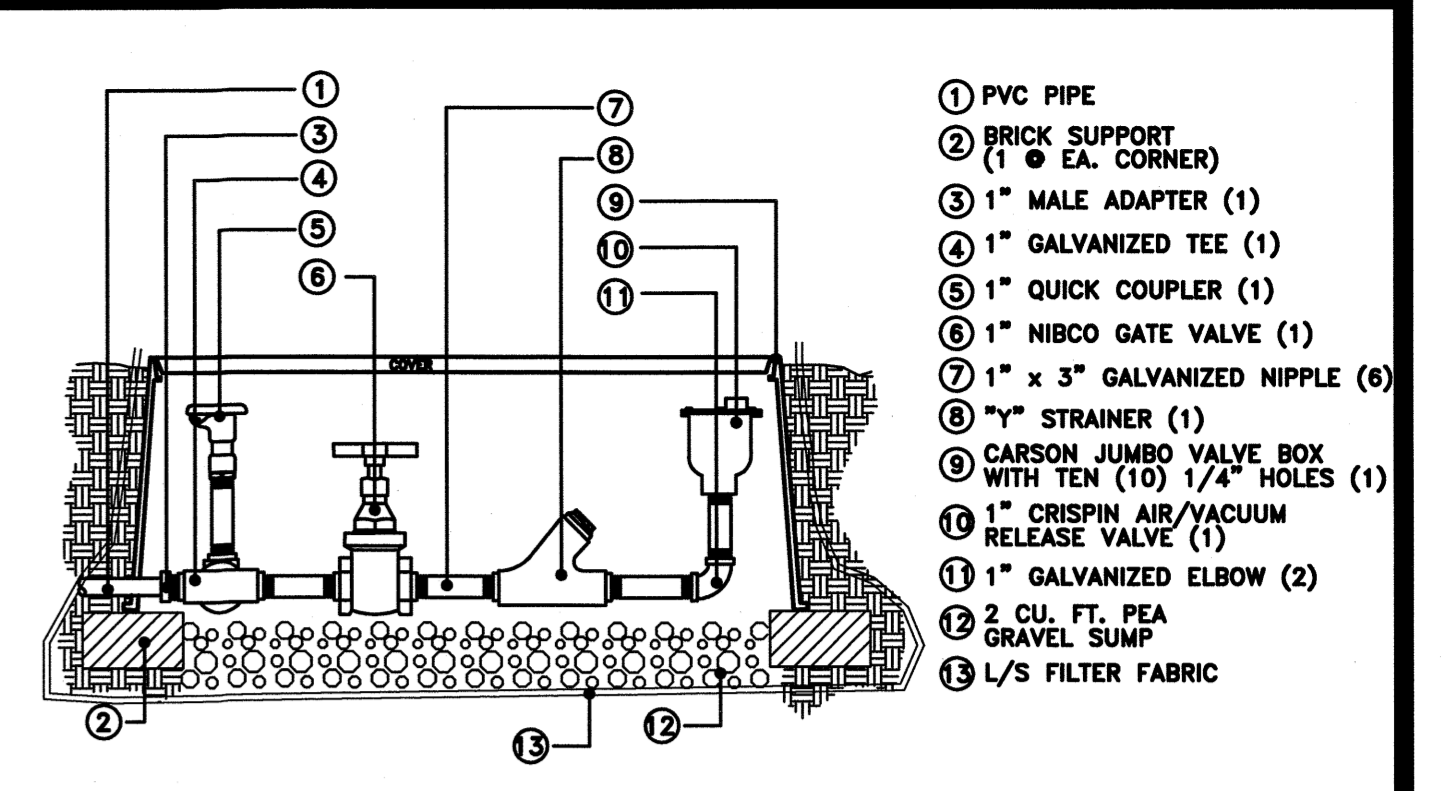


HUNTER IRRIGATION SYSTEM CONTROLLER
 MODEL: HUNTER ACC 1200 36 ZONE OR APPROVED EQUAL N.T.S.

NOTE: WALL MOUNTED CONTROLLER TO BE MOUNTED WITHIN PROPOSED EXTERIOR ELECTRIC CABINET.

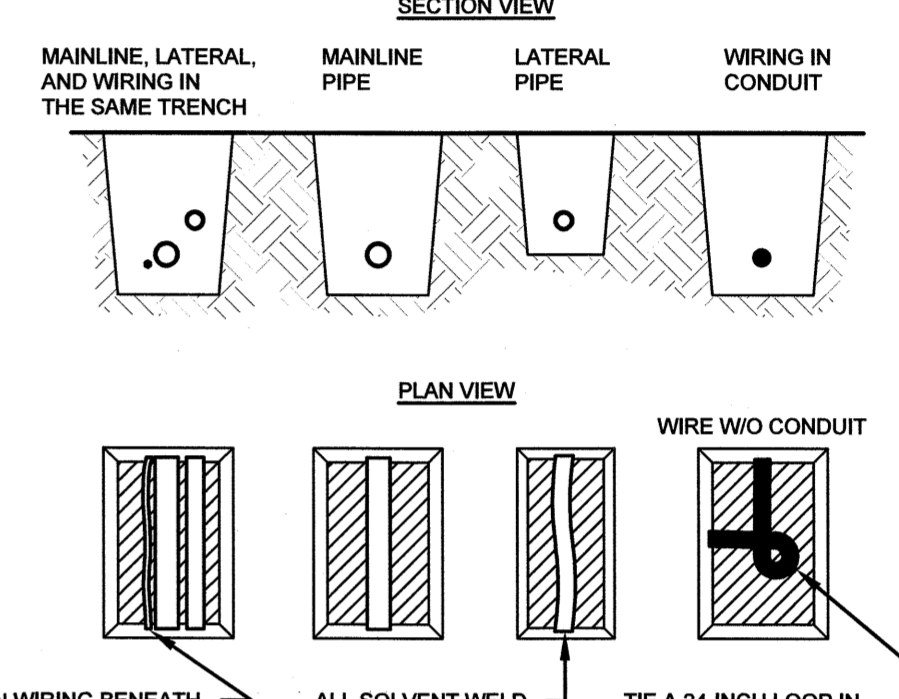


MATCO ISOLATION GATE VALVE
 N.T.S.



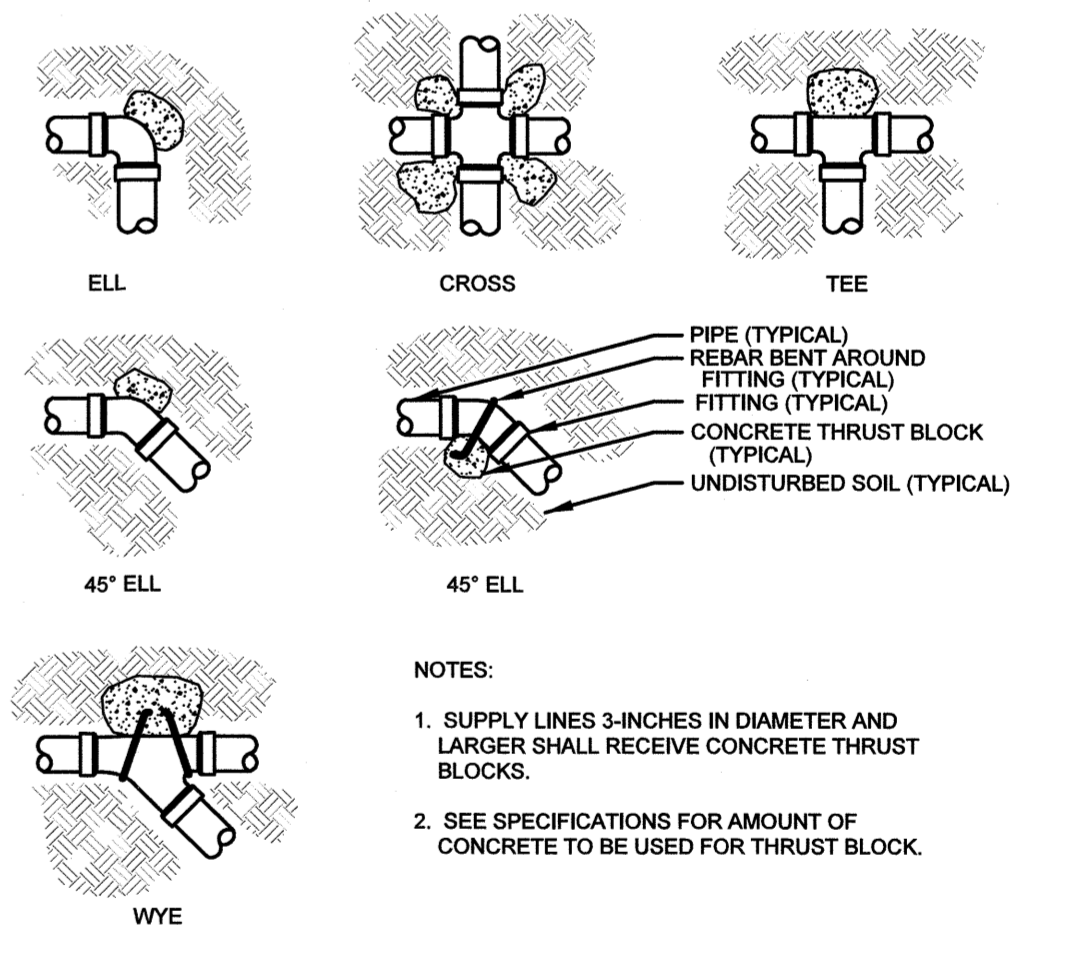
AIR/VACUUM RELEASE VALVE ASSEMBLY W/ QUICK COUPLER
 MODEL: CRISPIN IC-10 OR APPROVED EQUAL N.T.S.

NOTE: NUMBERS IN PARENTHESES DELINEATE THE TOTAL NUMBER REQUIRED FOR CONSTRUCTION



NOTES:
 1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH CLASS 200 PVC TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN
 2. FOR PIPE AND WIRE BURIAL DEPTHS SEE SPECIFICATIONS.

PIPE AND WIRE TRENCHING DETAIL

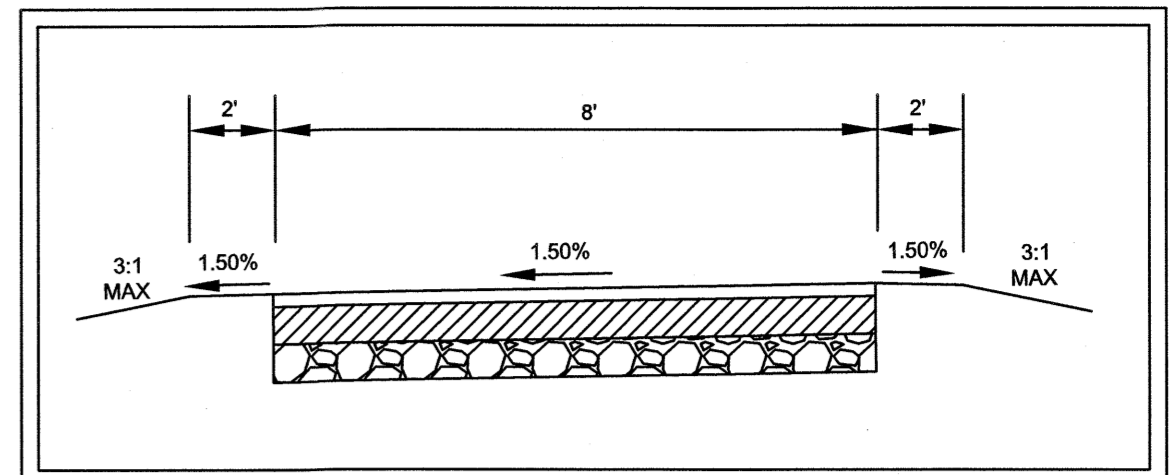
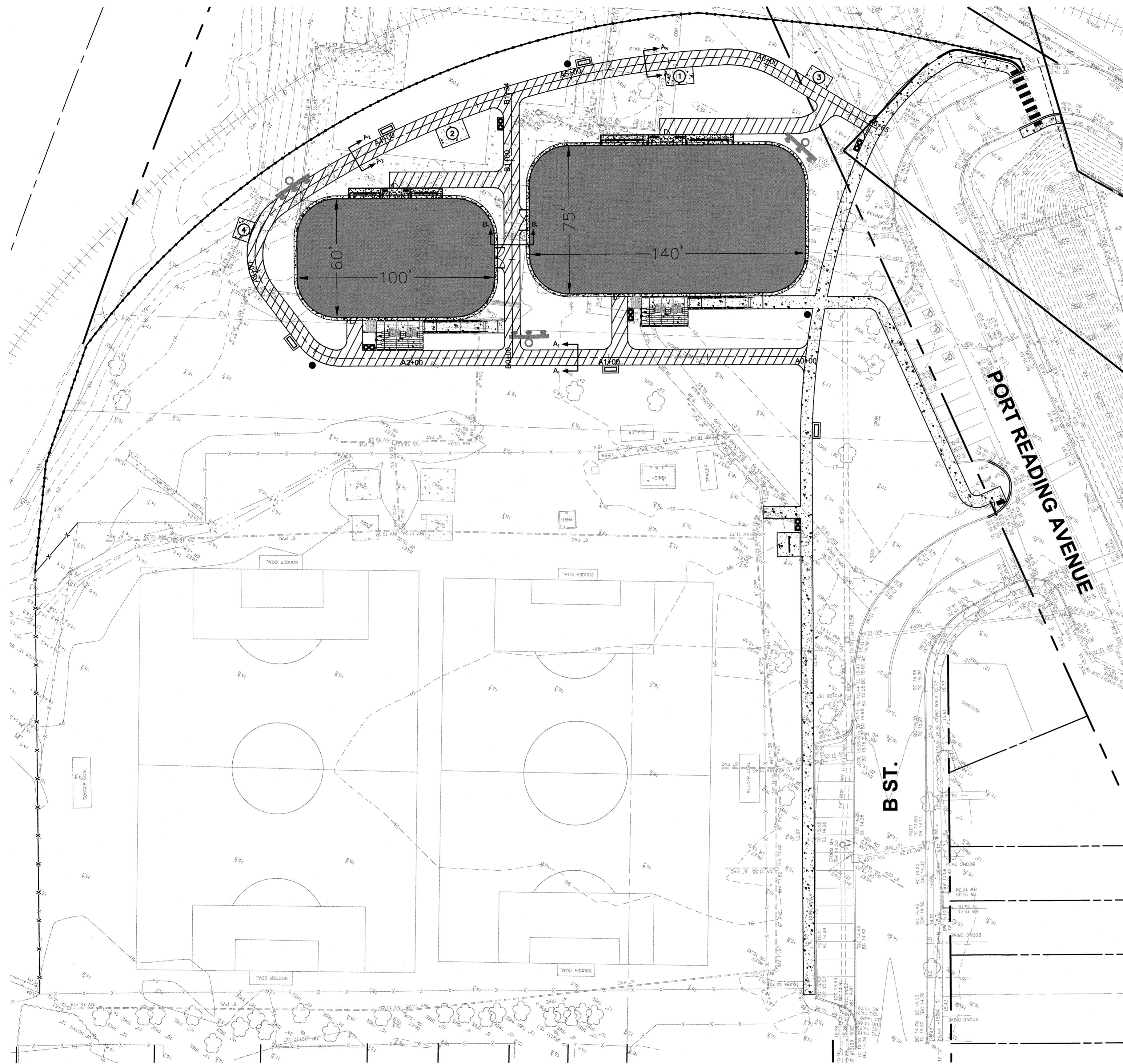


NOTES:
 1. SUPPLY LINES 3-INCHES IN DIAMETER AND LARGER SHALL RECEIVE CONCRETE THRUST BLOCKS.
 2. SEE SPECIFICATIONS FOR AMOUNT OF CONCRETE TO BE USED FOR THRUST BLOCK.

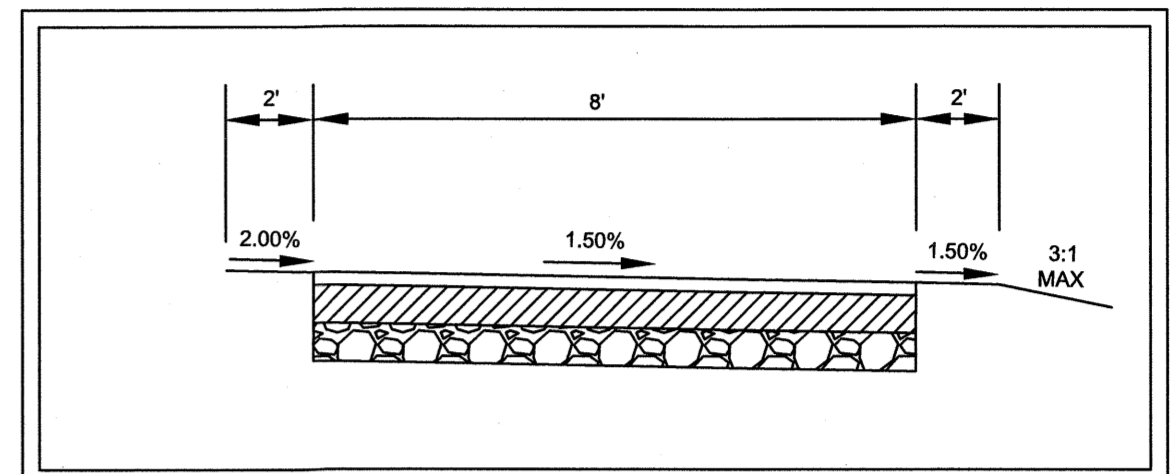
THRUST BLOCK

SCALE: 1"=50'

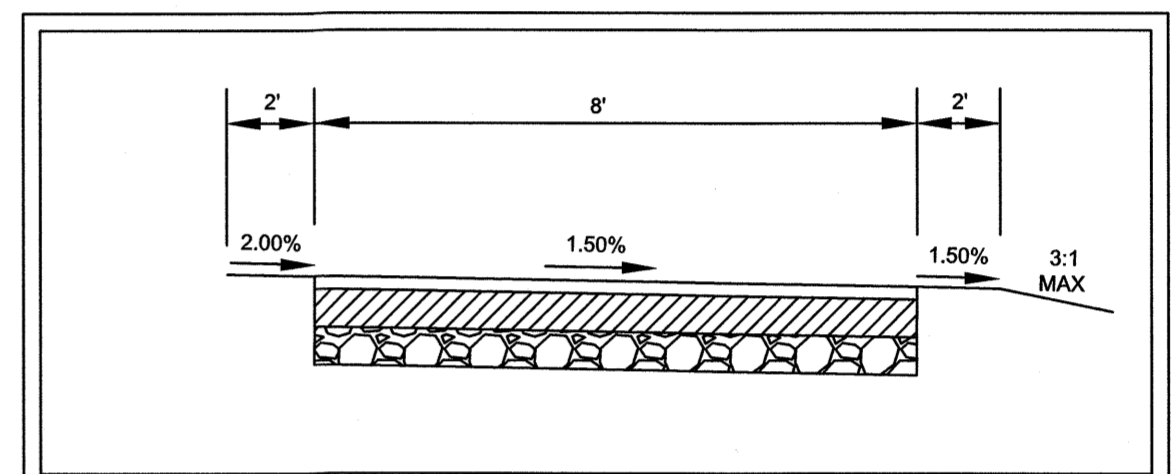
NO.		DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY CYPRESS PARK - PHASE II IRRIGATION PLAN & DETAILS						
(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS NO. CERTIFICATE OF AUTHORIZATION NO. 24528259000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194		(732) 462 7400		SCALE: As Shown DATE: May 2023 DRAWN BY: LAK DESIGNED BY: LAK CHECKED BY: JCW SHEET: 16 OF 26		
MICHAEL J. MCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468				DRAWING NUMBER: L-3 FILE NO.: PWB00206.04 / 8-u CG		



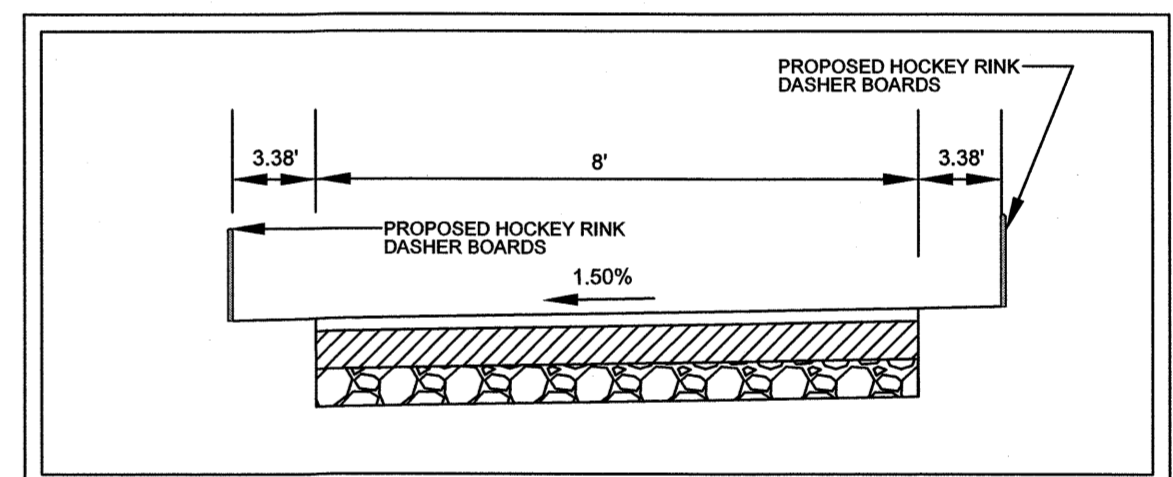
TYPICAL SECTION
A₁ - A₁
N.T.S.



TYPICAL SECTION
A₂ - A₂
N.T.S.



TYPICAL SECTION
A₃ - A₃
N.T.S.




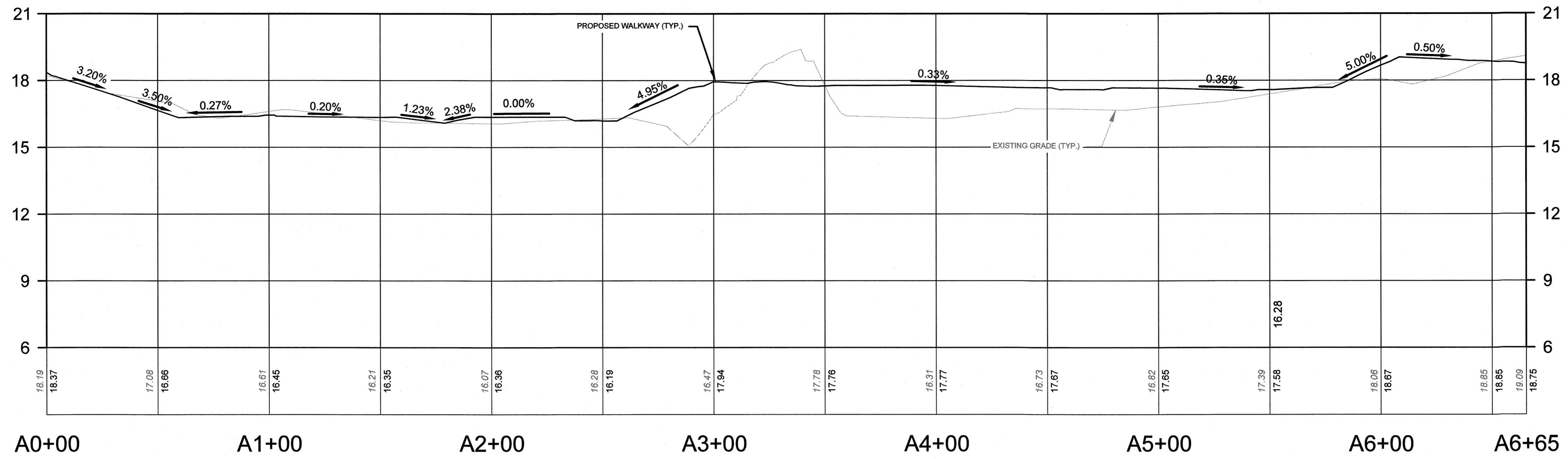
TYPICAL SECTION
B₁ - B₁
N.T.S.

GRAPHIC SCALE

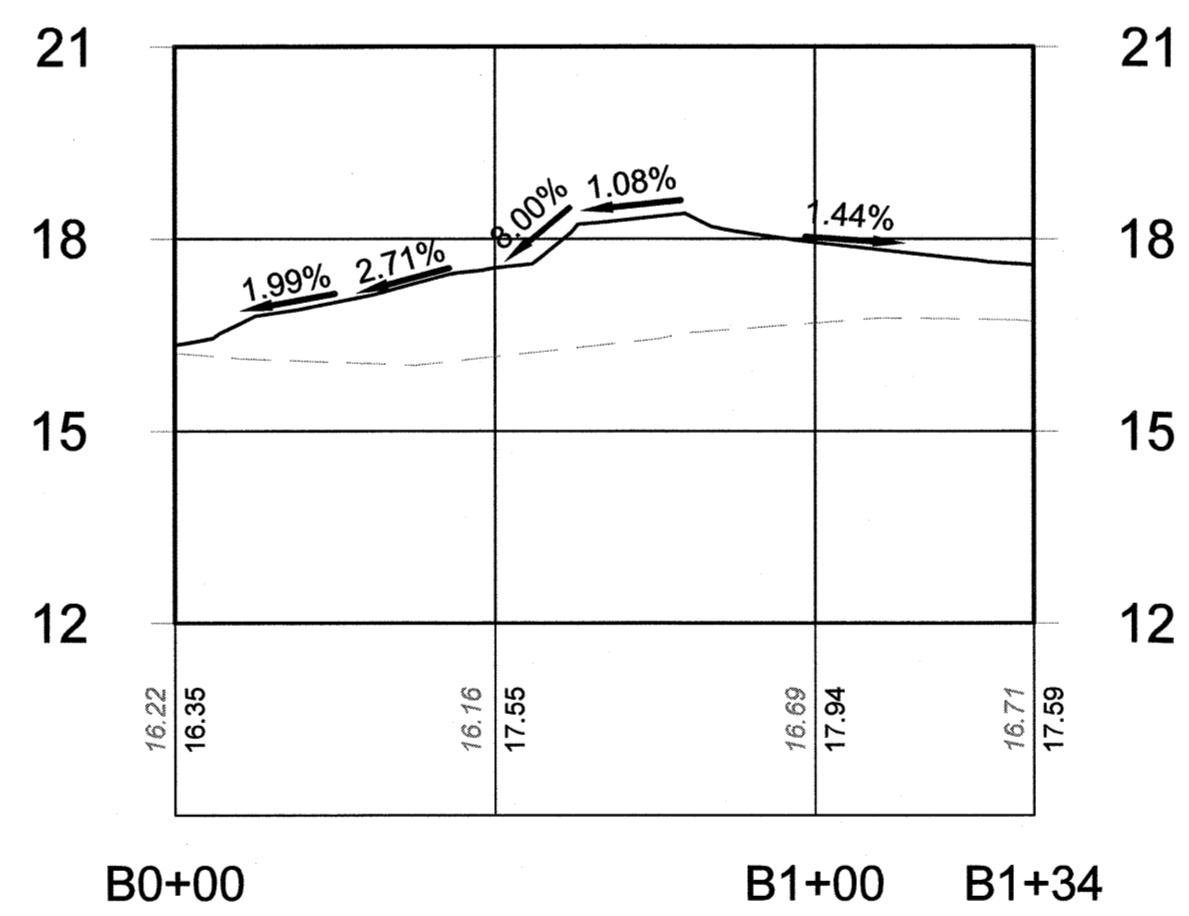


(IN FEET)
1 inch = 30 ft.

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY CYPRESS PARK - PHASE II WALKWAY LAYOUT PLAN					
 ASSOCIATES OVE CONSULTING AND MUNICIPAL ENGINEERS <small>(732) 727 8000 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 462 7400</small> <small>NO CERTIFICATE OF AUTHORIZATION NO. 24628359000</small>					
MICHAEL J. McCLELLAND P.E. <small>NEW JERSEY PROFESSIONAL ENGINEER</small>			<small>L.C. 32468</small>		<small>SCALE: As Shown</small> <small>DATE: May 2023</small> <small>DRAWN BY: JD</small> <small>DESIGNED BY: JD</small> <small>CHECKED BY: JCW</small> <small>SHEET: 17 of 26</small>
<small>REGISTERED NO. PWB00206.04</small>					<small>DRAWING NUMBER: W-1</small>

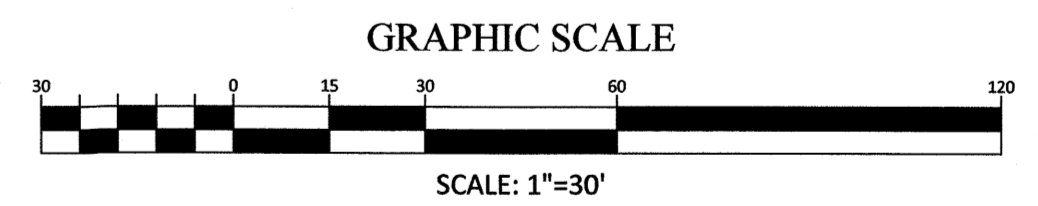


ALIGNMENT-A WALKWAY PROFILE

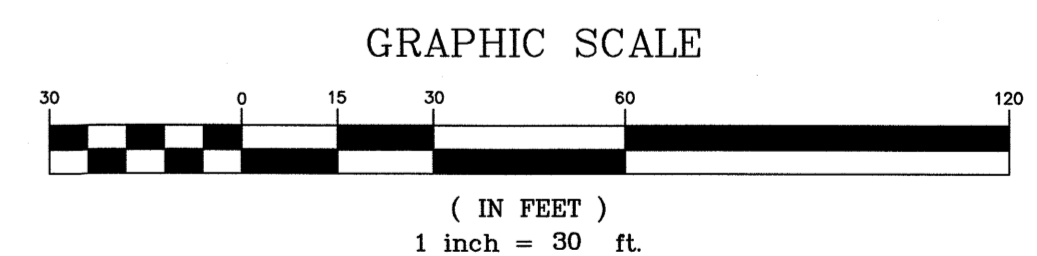
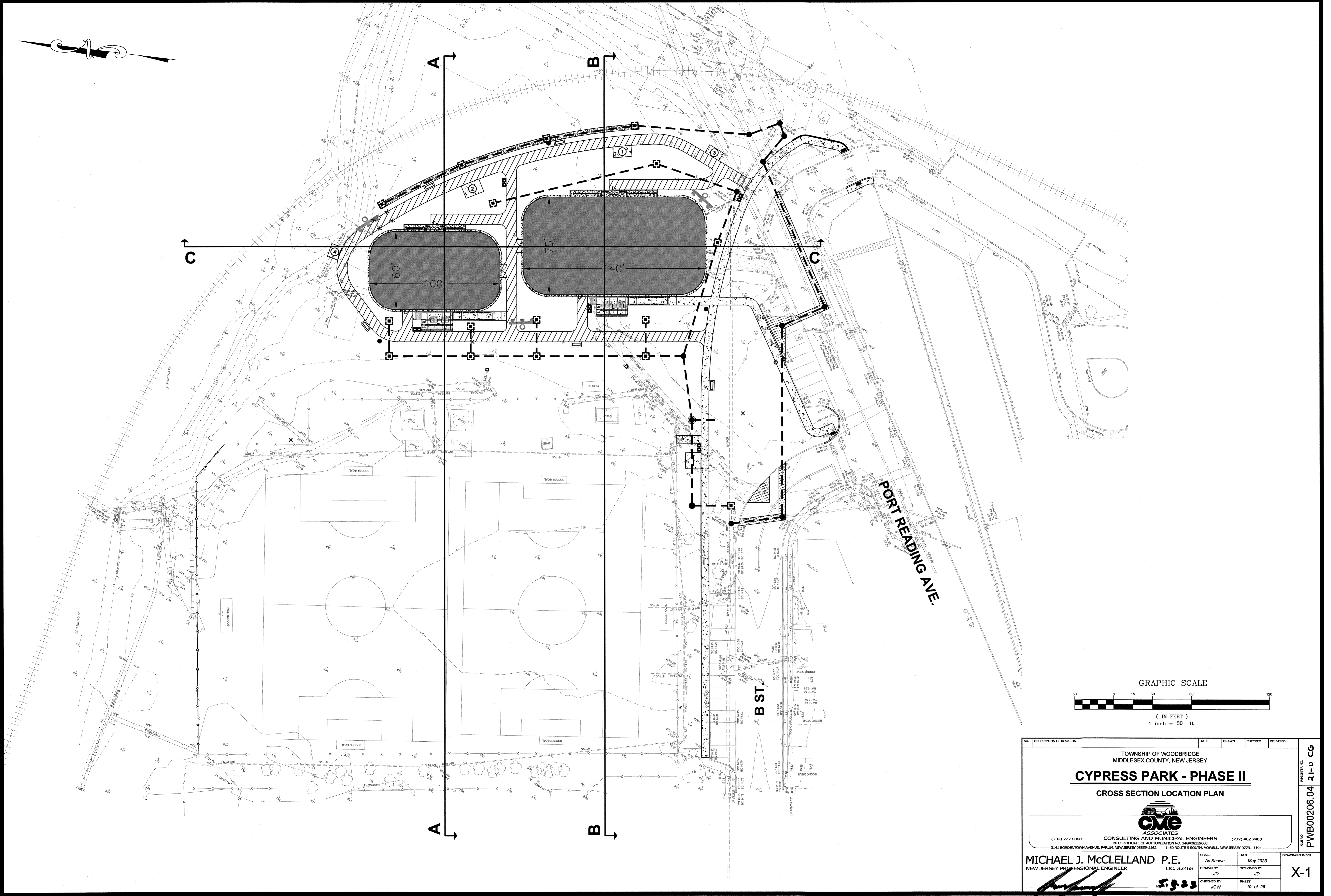




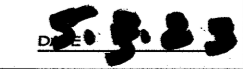
ALIGNMENT-B WALKWAY PROFILE

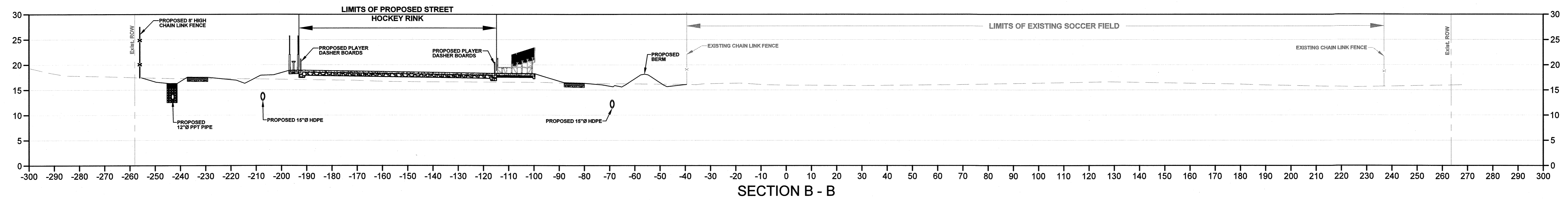
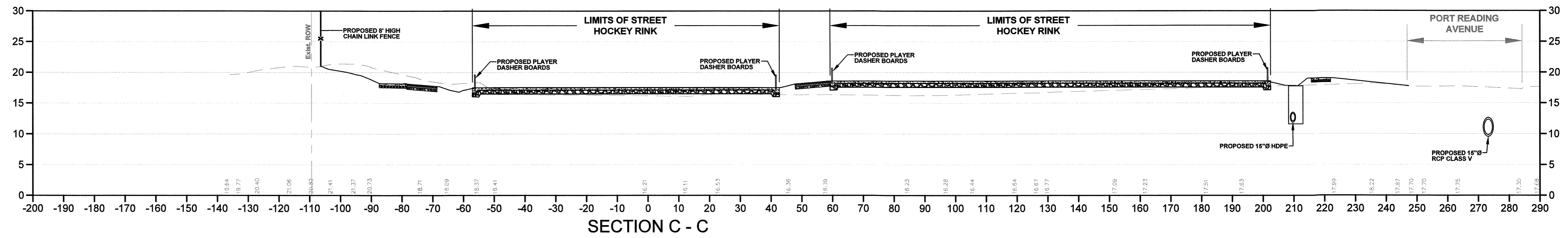
SCALE: 1"=3' (VERT.)
1"=30' (HORZ.)



NO.		DESCRIPTION OF REVISION		DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY CYPRESS PARK - PHASE II WALKWAY PROFILES							
<small>(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400 NJ CERTIFICATE OF AUTHORIZATION NO. 246A28359000 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194</small>							
MICHAEL J. McCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER L.I.C. 32468				SCALE: As Shown DATE: May 2023		DRAWN BY: JD DESIGNED BY: JD CHECKED BY: JCW SHEET: 18 of 26	
							W-2
DRAWING NUMBER: PWB00206.04							REGISTERED NO. 20-0 CG



NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY CYPRESS PARK - PHASE II CROSS SECTION LOCATION PLAN					
 CONSULTING AND MUNICIPAL ENGINEERS (732) 727 8000 NJ CERTIFICATE OF AUTHORIZATION NO. 245A28359000 (732) 462 7400 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194					
MICHAEL J. McCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER 		SCALE As Shown	DATE May 2023	DRAWING NUMBER PWB00206.04 21-U CG	
LIC. 32468		DRAWN BY JD	DESIGNED BY JD	SHEET 19 of 26	
		CHECKED BY JCW	SHEET 19 of 26	X-1	



CROSS SECTIONS

SCALE: 1"=20' (HORZ.)
1"=10' (VERT.)

GRAPHIC SCALE



SCALE: 1"=20'

GRAPHIC SCALE

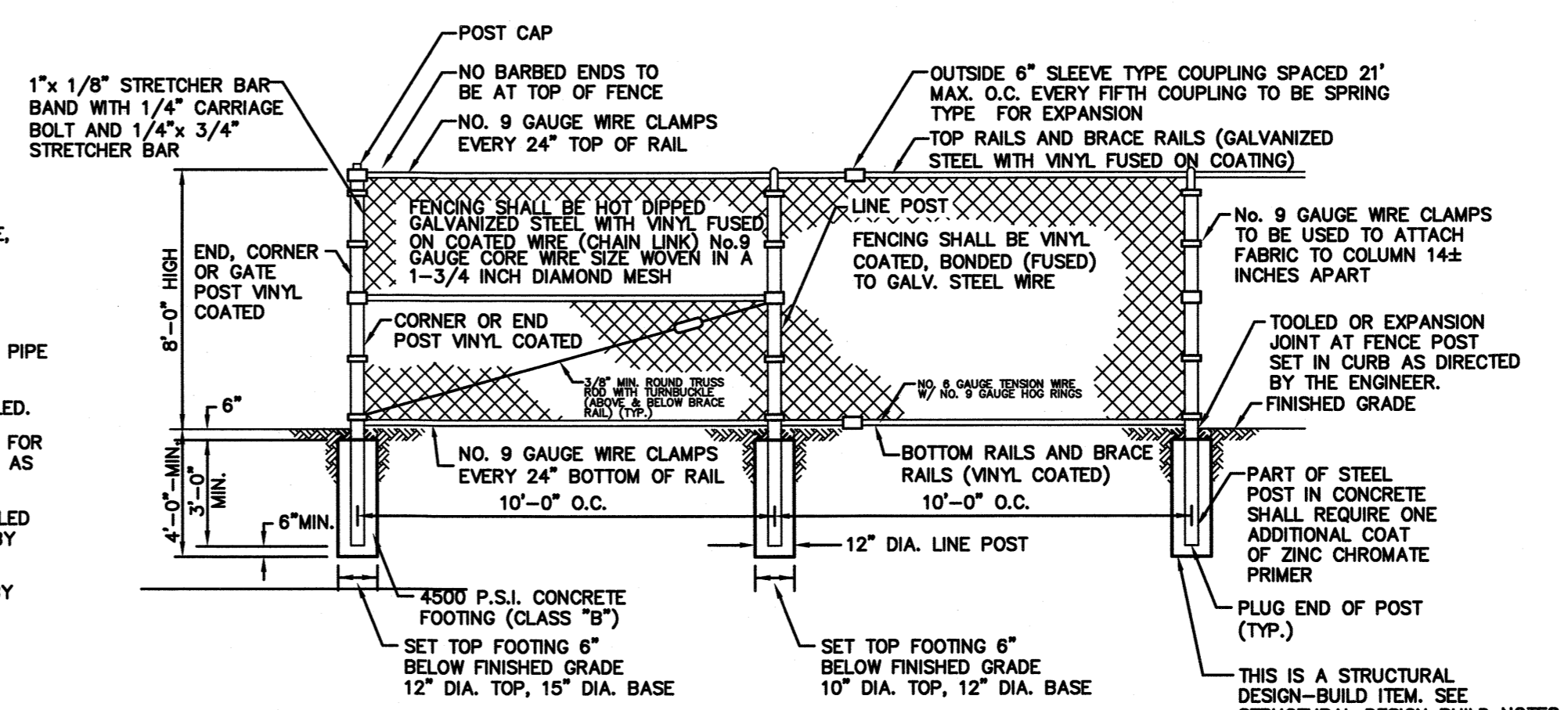


SCALE: 1"=10'

NOTE
ALL EARTHWORK ASSOCIATED WITH IMPORT OF SOILS AS NECESSARY TO MEET THE PROPOSED SITE GRADES SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE SPECIFICATIONS AND PAID FOR UNDER THE ITEM SITE GRADING AND EARTHWORK INCLUDING IMPORT AND DISPOSAL OF SOILS.

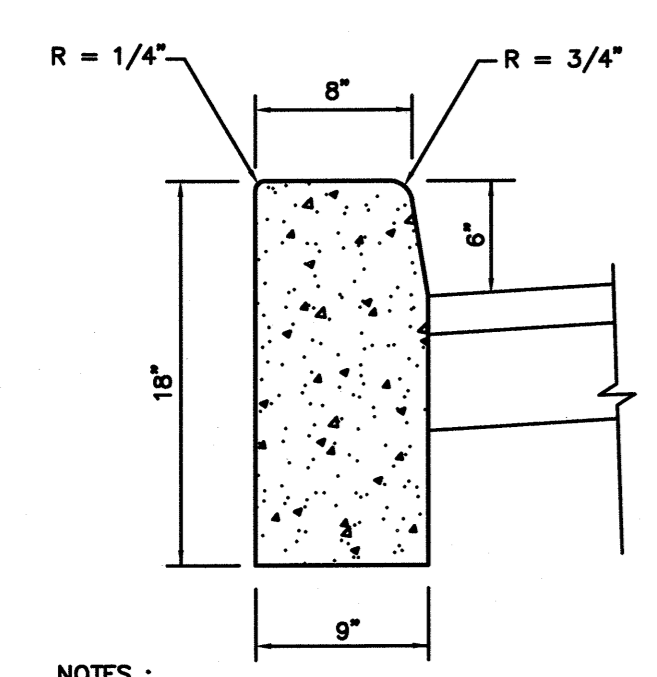
NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY CYPRESS PARK - PHASE II SITE CROSS SECTIONS					
(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400 NJ CERTIFICATE OF AUTHORIZATION NO. 24562839000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194					
MICHAEL J. McCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468			SCALE: As Shown DATE: May 2023 DRAWN BY: JD DESIGNED BY: JD CHECKED BY: JCW SHEET: 20 of 26		DRAWING NUMBER: X-2
REGISTERED NO. PWB00206.04 23-u CG					

- NOTES:
1. ALL PIPE FRAMEWORK, HARDWARE, AND FENCE FABRIC SHALL BE VINYL FUSED ON TO HOT DIPPED GALVANIZED STEEL.
 2. ALL POSTS & RAILS SHALL BE GALVANIZED SCHEDULE 40 STEEL PIPE AND PVC COATED.
 3. ALL SELVAGES SHALL BE KNUCKLED.
 4. REMOVE EXISTING ORGANIC SOILS FOR THE CONSTRUCTION OF FOOTINGS AS DIRECTED BY THE ENGINEER.
 5. FENCE SIDE OF FABRIC AS DETAILED ON THE PLAN OR AS DIRECTED BY THE ENGINEER.
 6. COLOR SHALL BE AS DIRECTED BY THE OWNER AND ENGINEER



VINYL COATED FUSED ON CHAIN LINK FENCE DETAIL

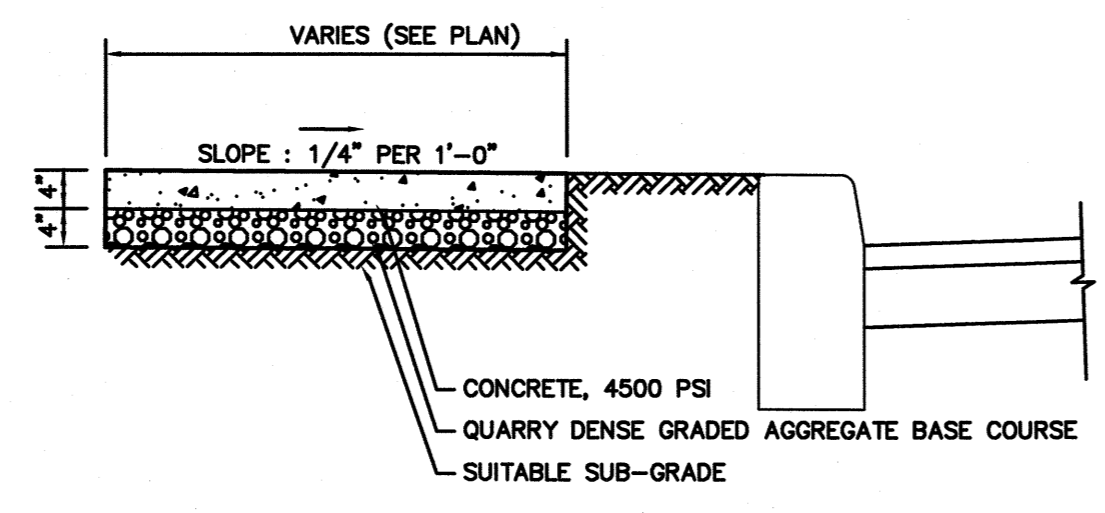
N.T.S.



- NOTES:
1. CONCRETE TO TEST 4500 PSI MINIMUM ON 28 DAY TEST AIR ENTRAINMENT 4% TO 7% SLUMP TO BE 5\"
 2. PROPOSED CURBING SHALL BE TAPERED TO MEET EXISTING CURBING WHERE NECESSARY.

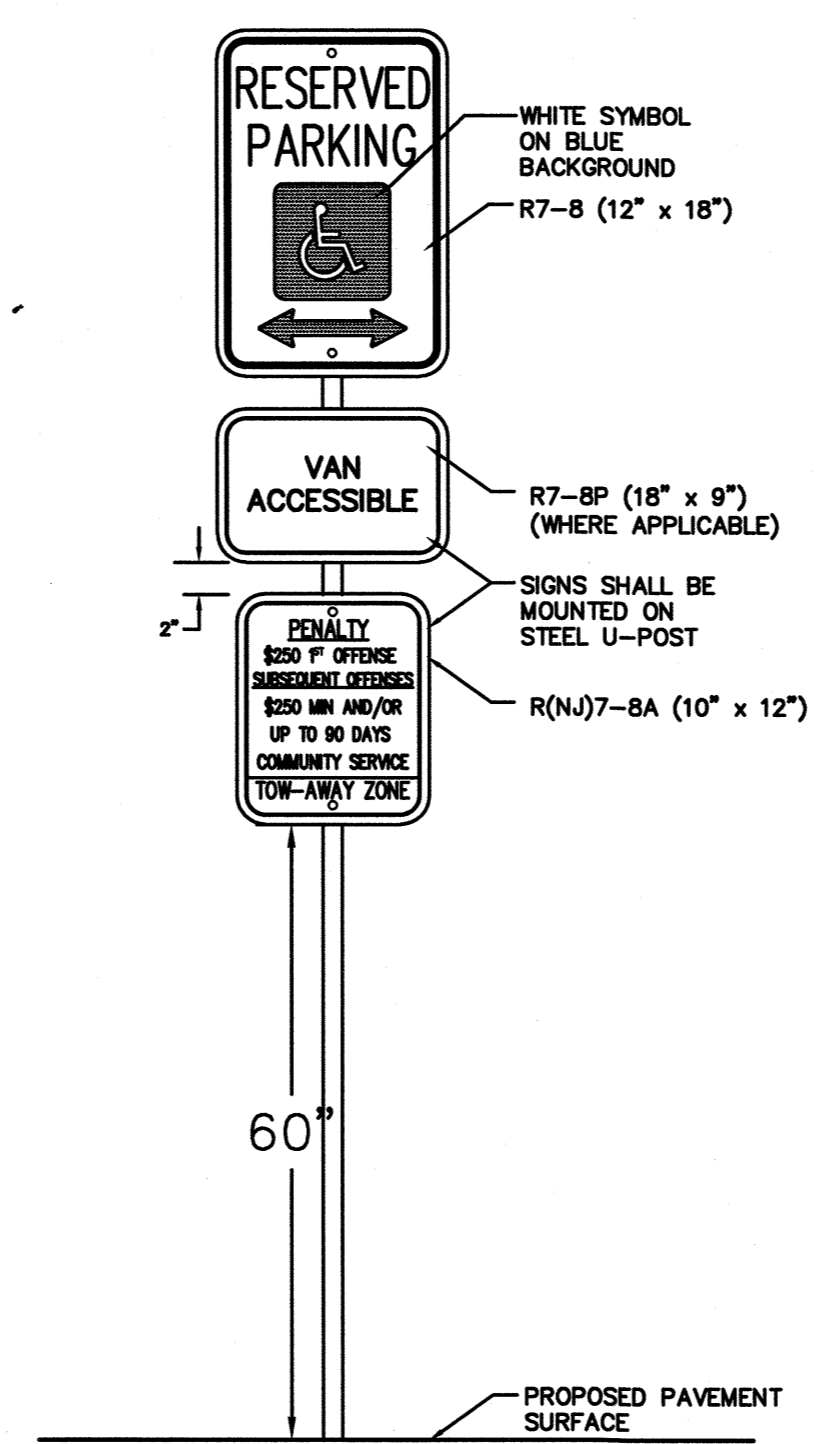
TYPICAL 9" x 18" CURB DETAIL

N.T.S.



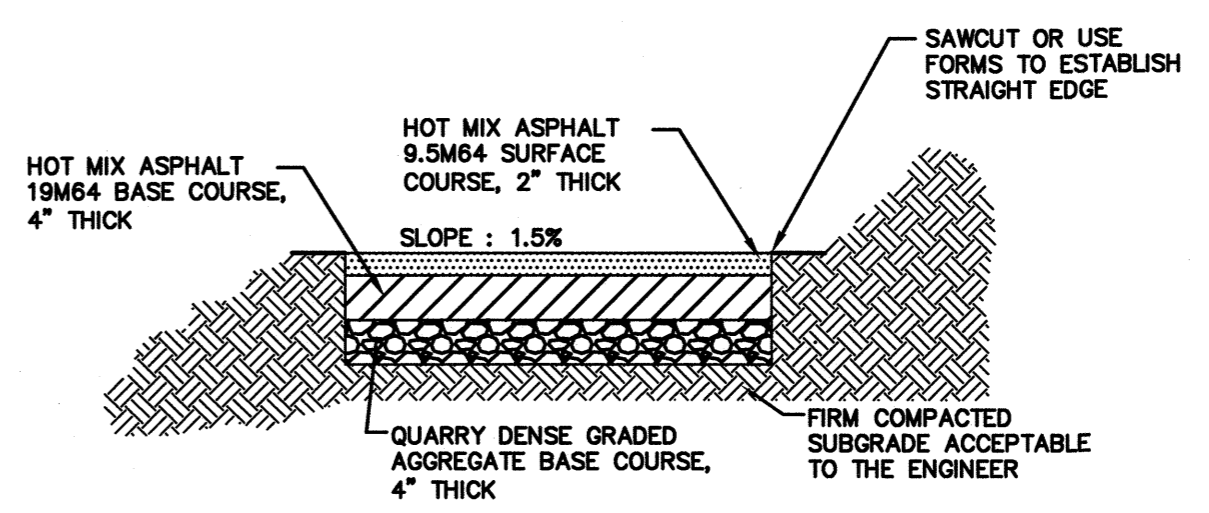
TYPICAL SIDEWALK DETAIL

N.T.S.



HANDICAPPED SIGN ASSEMBLY DETAIL

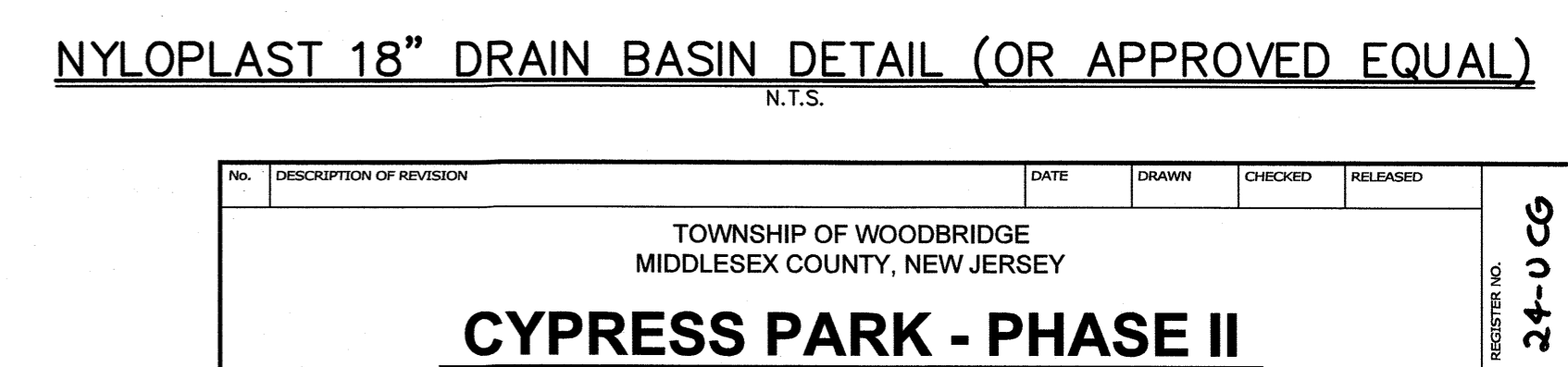
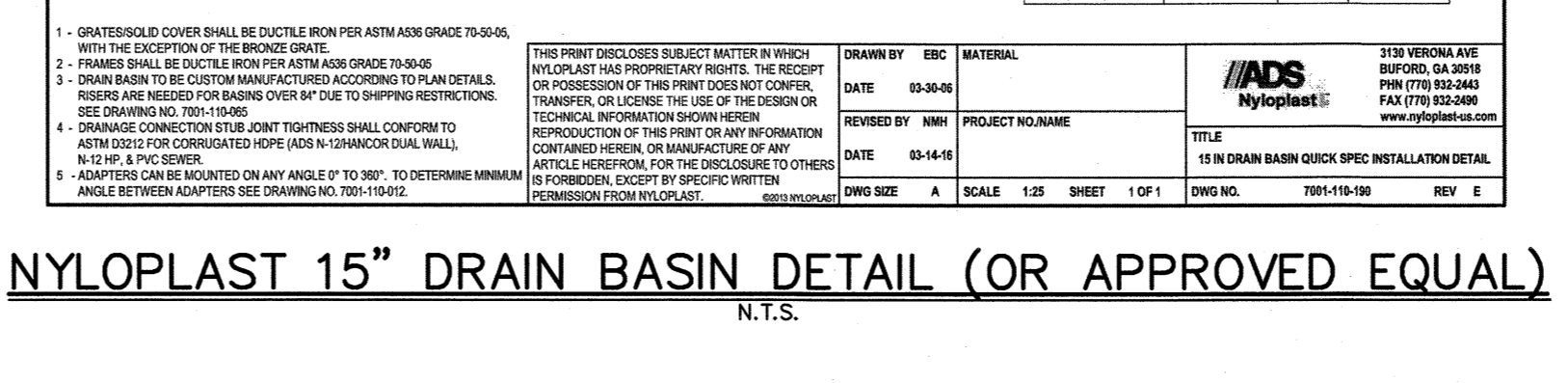
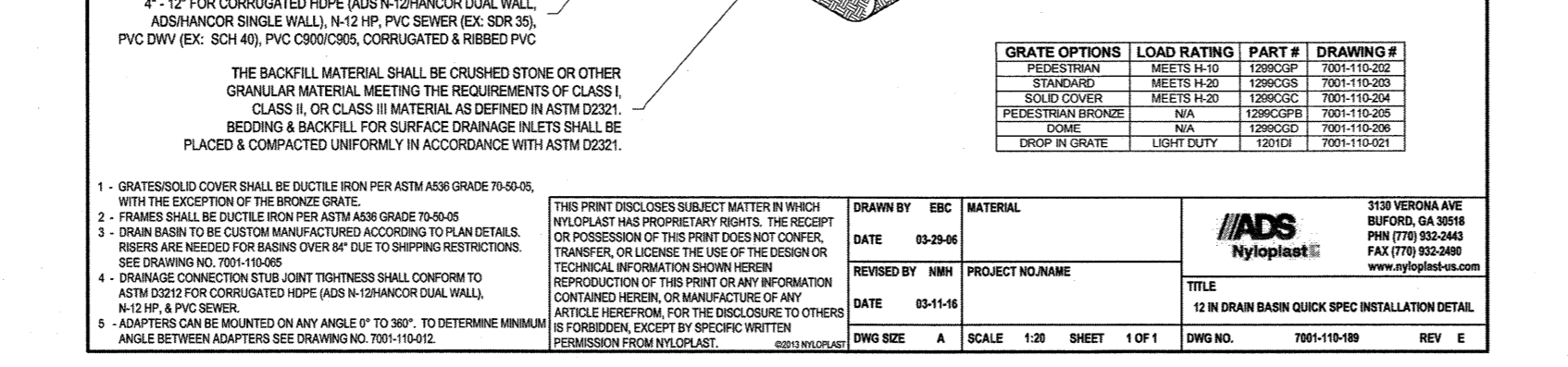
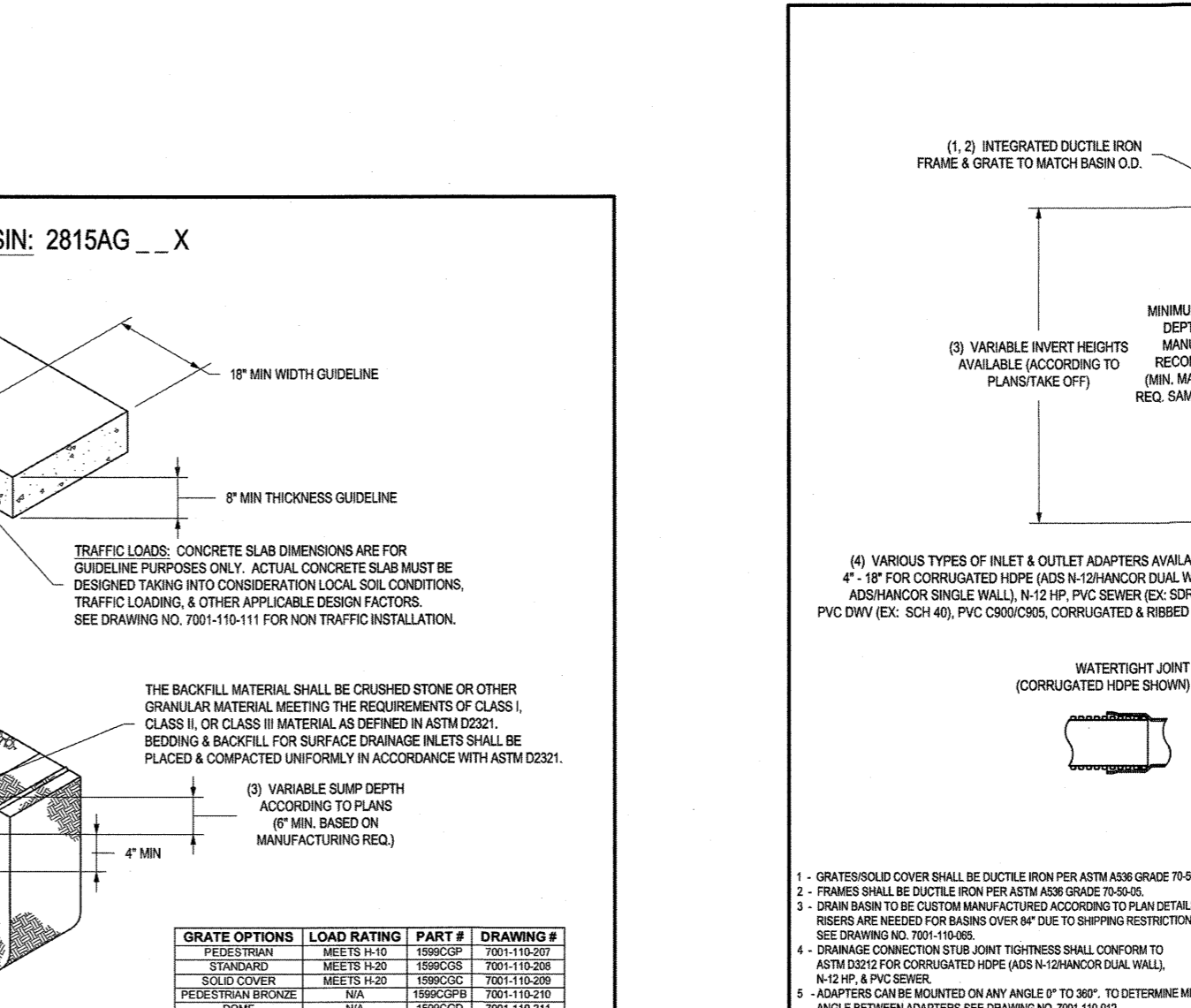
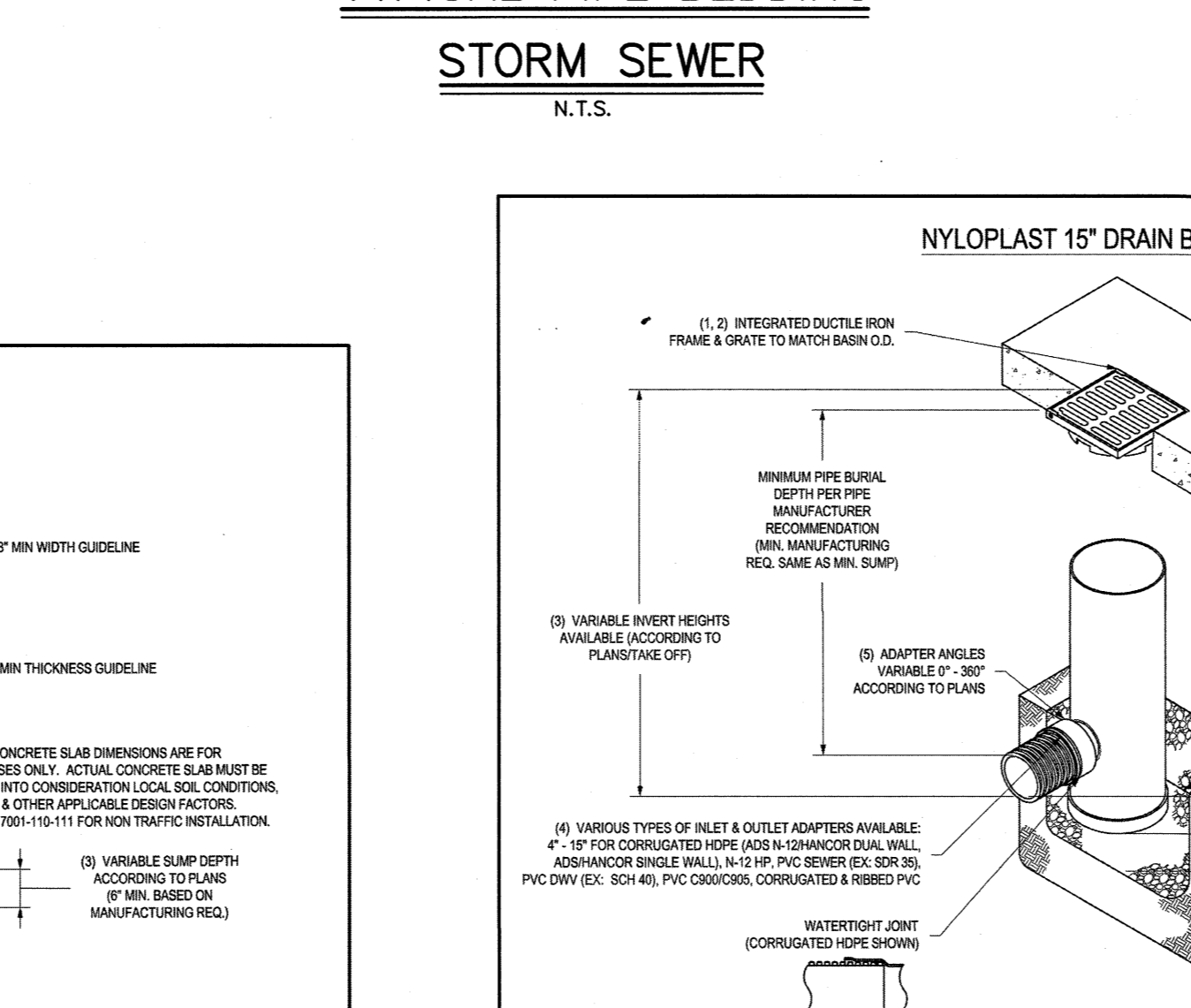
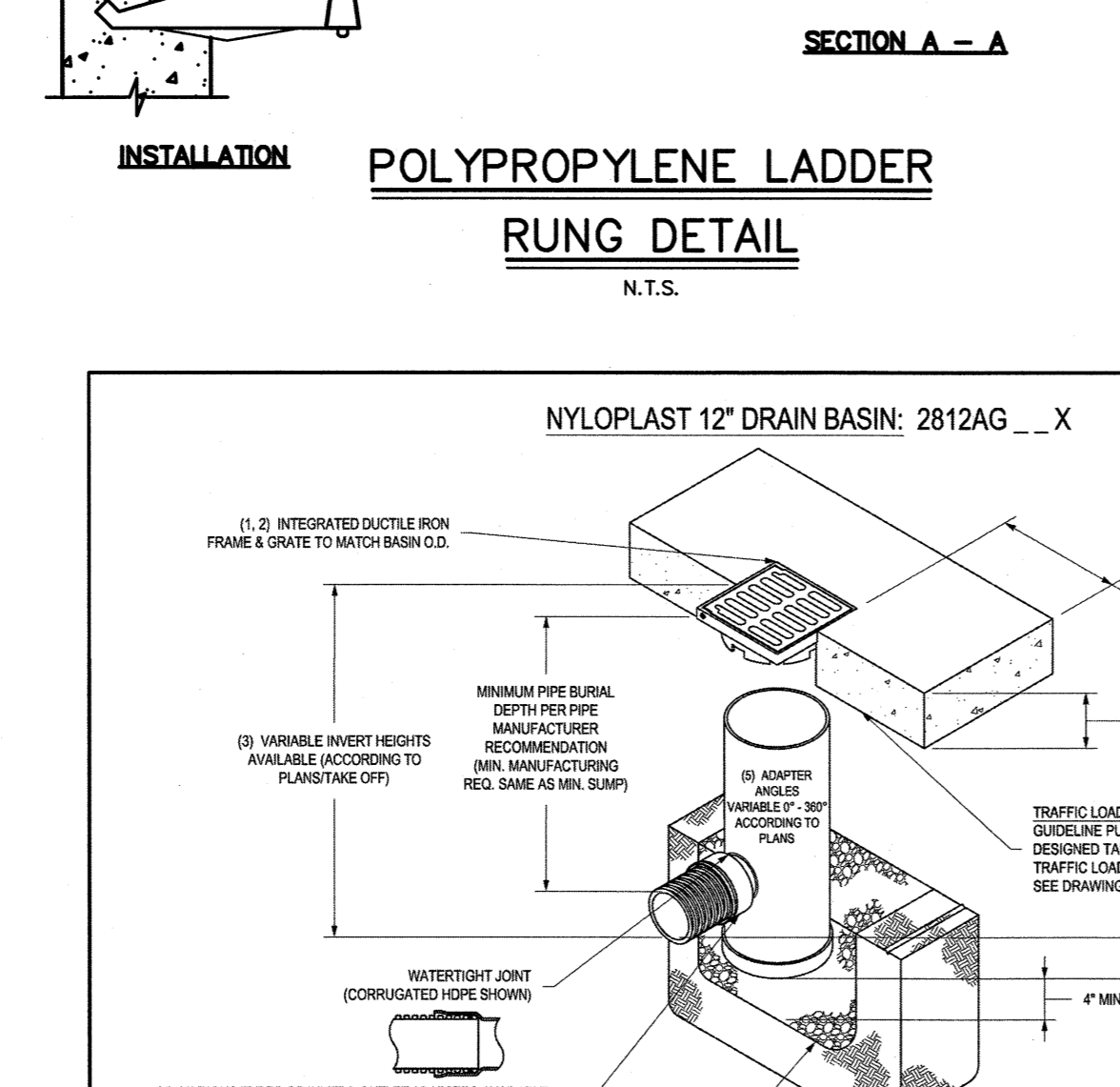
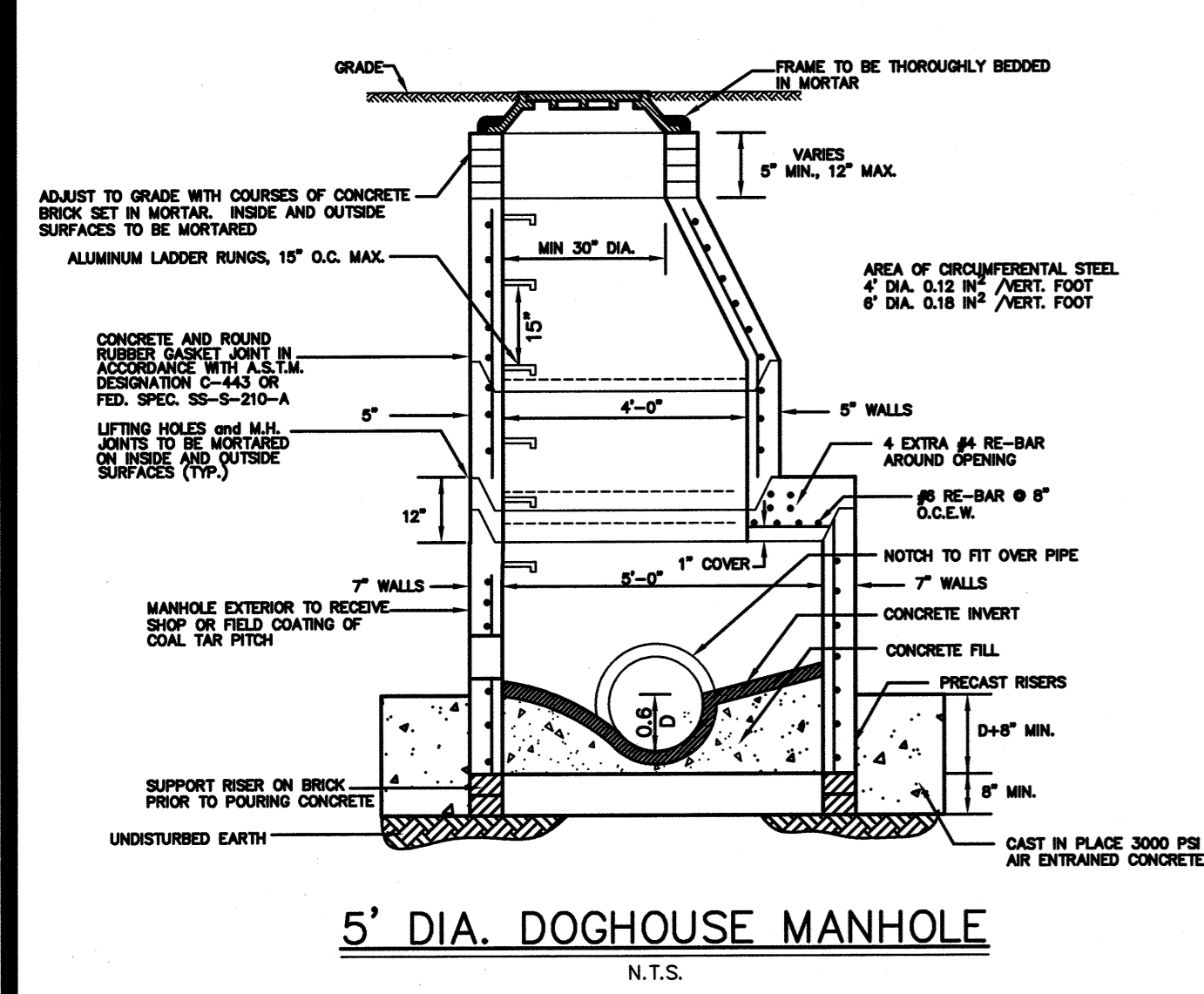
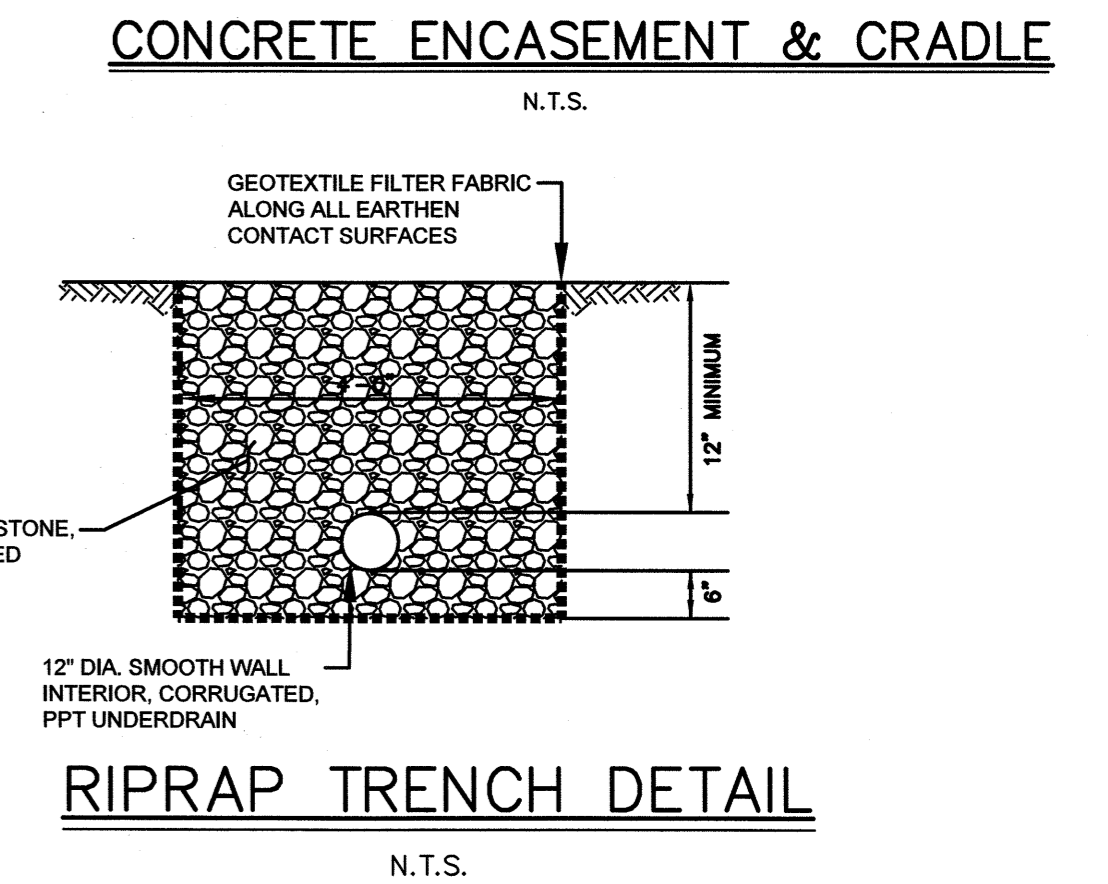
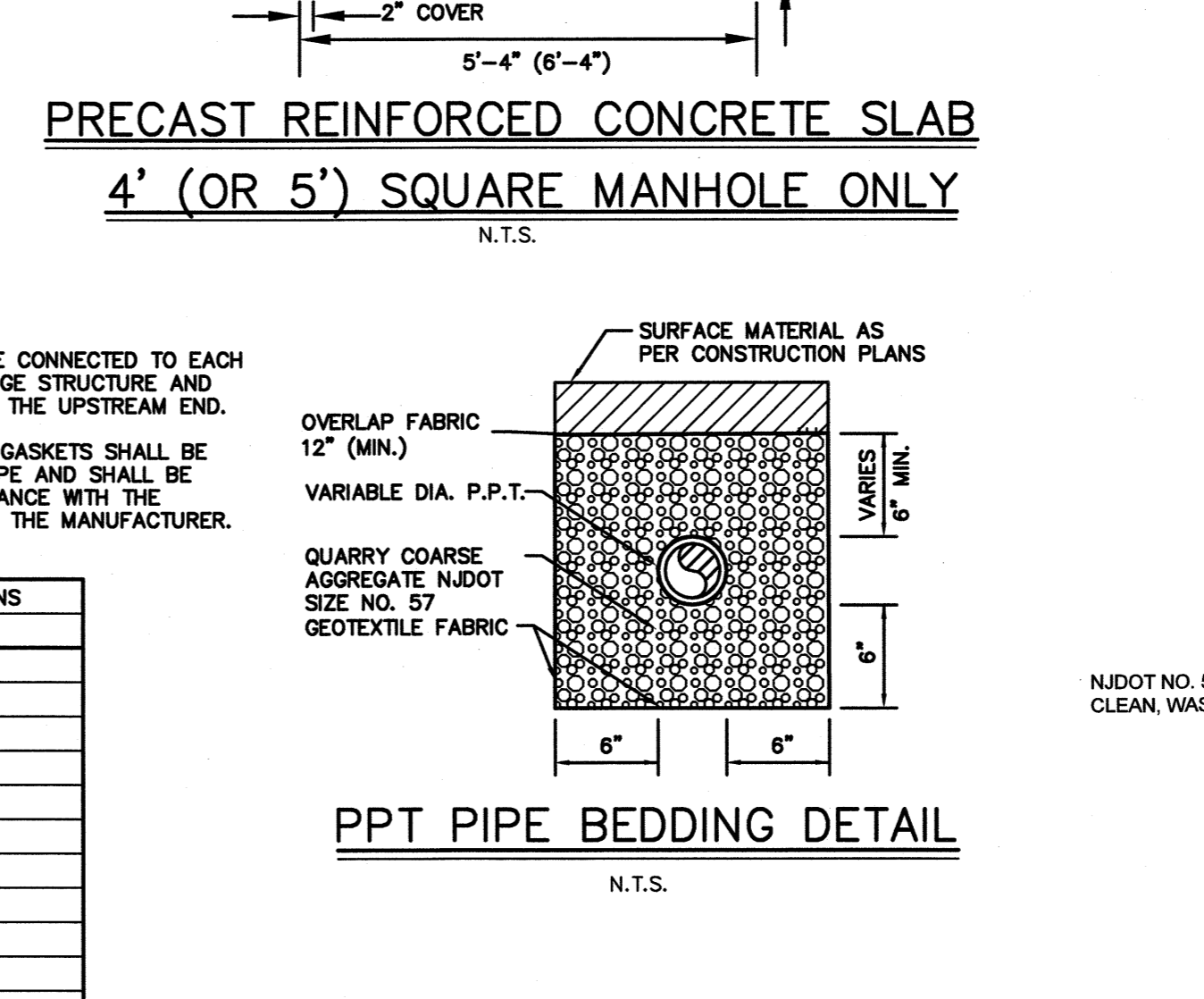
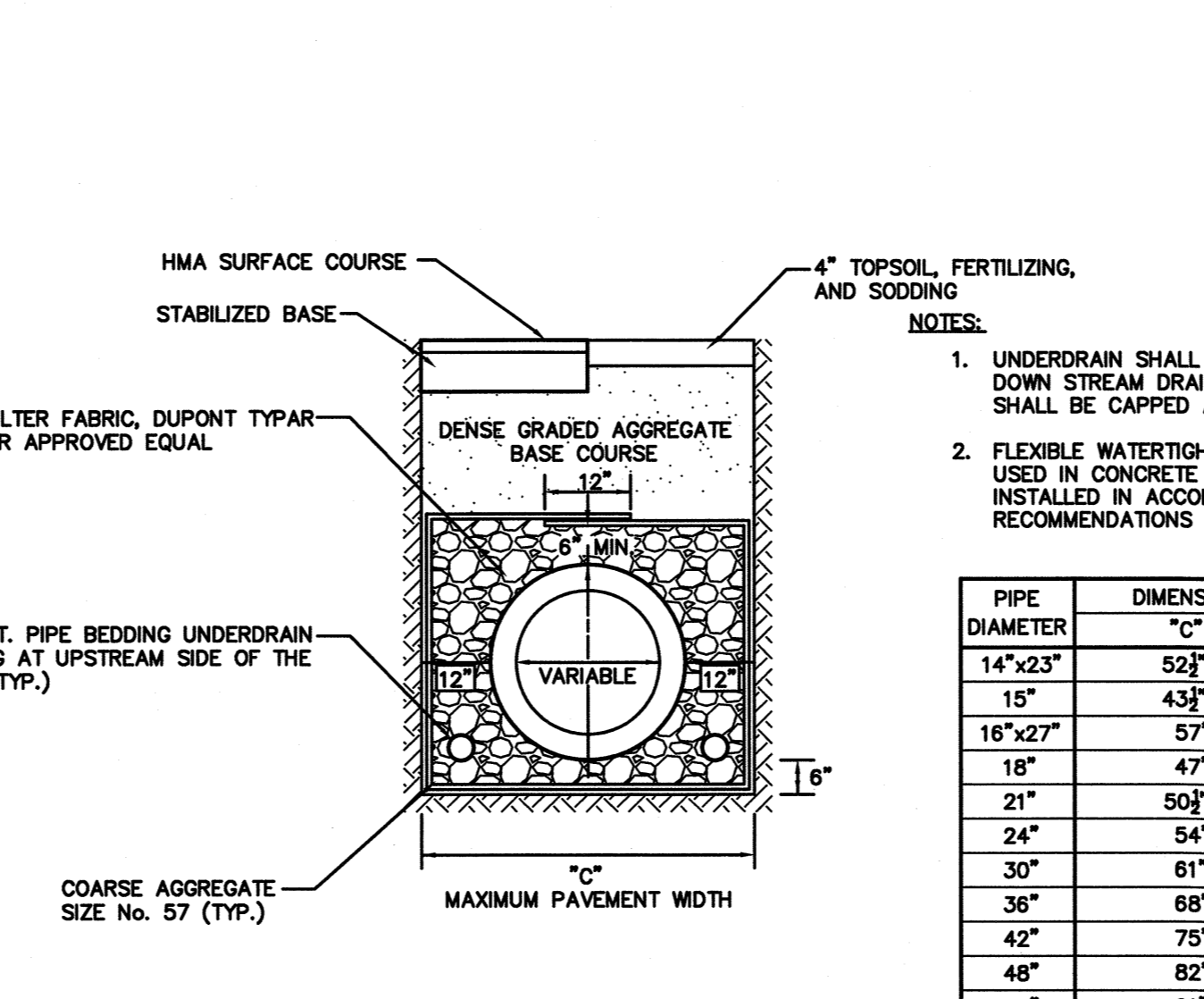
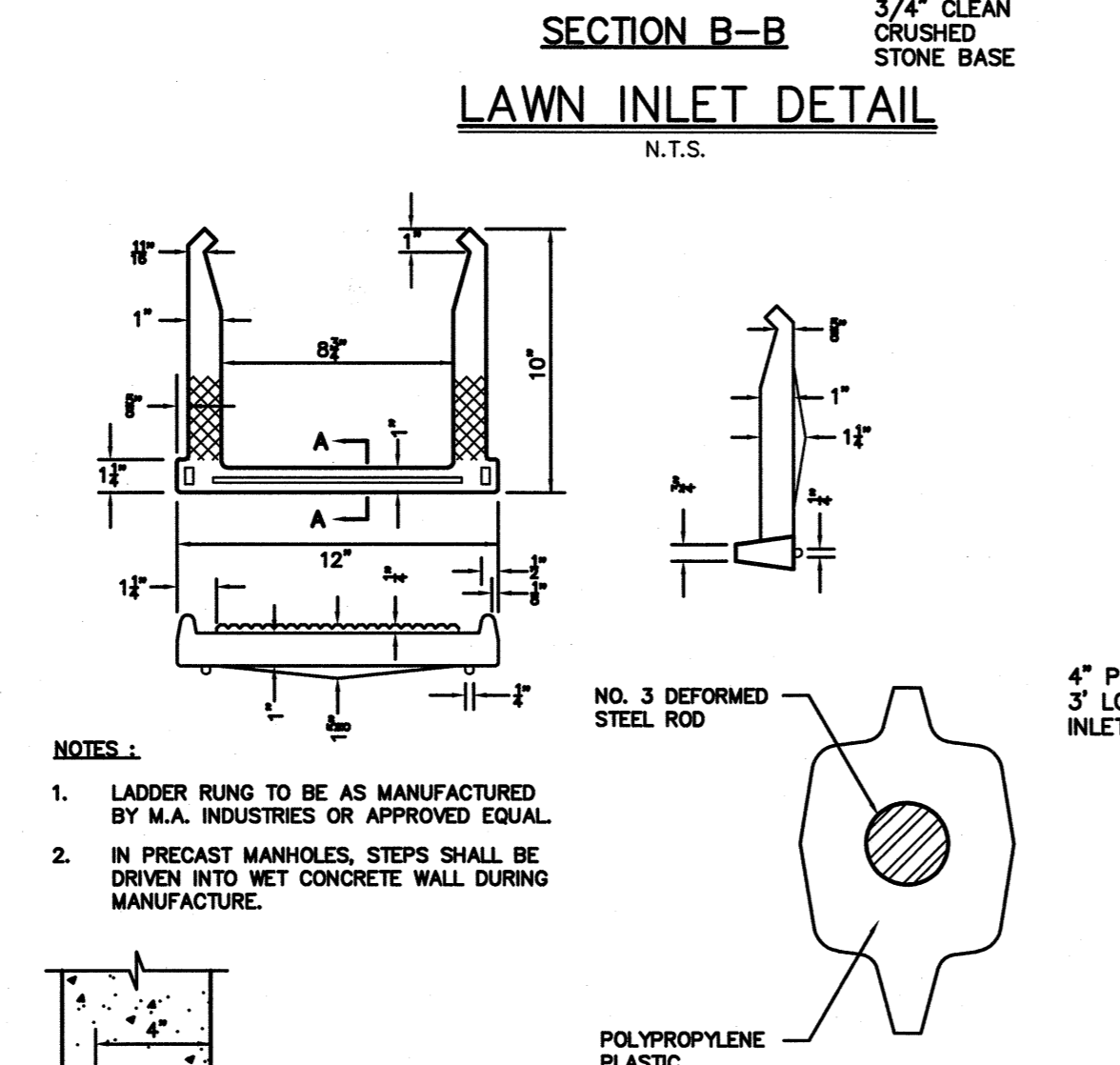
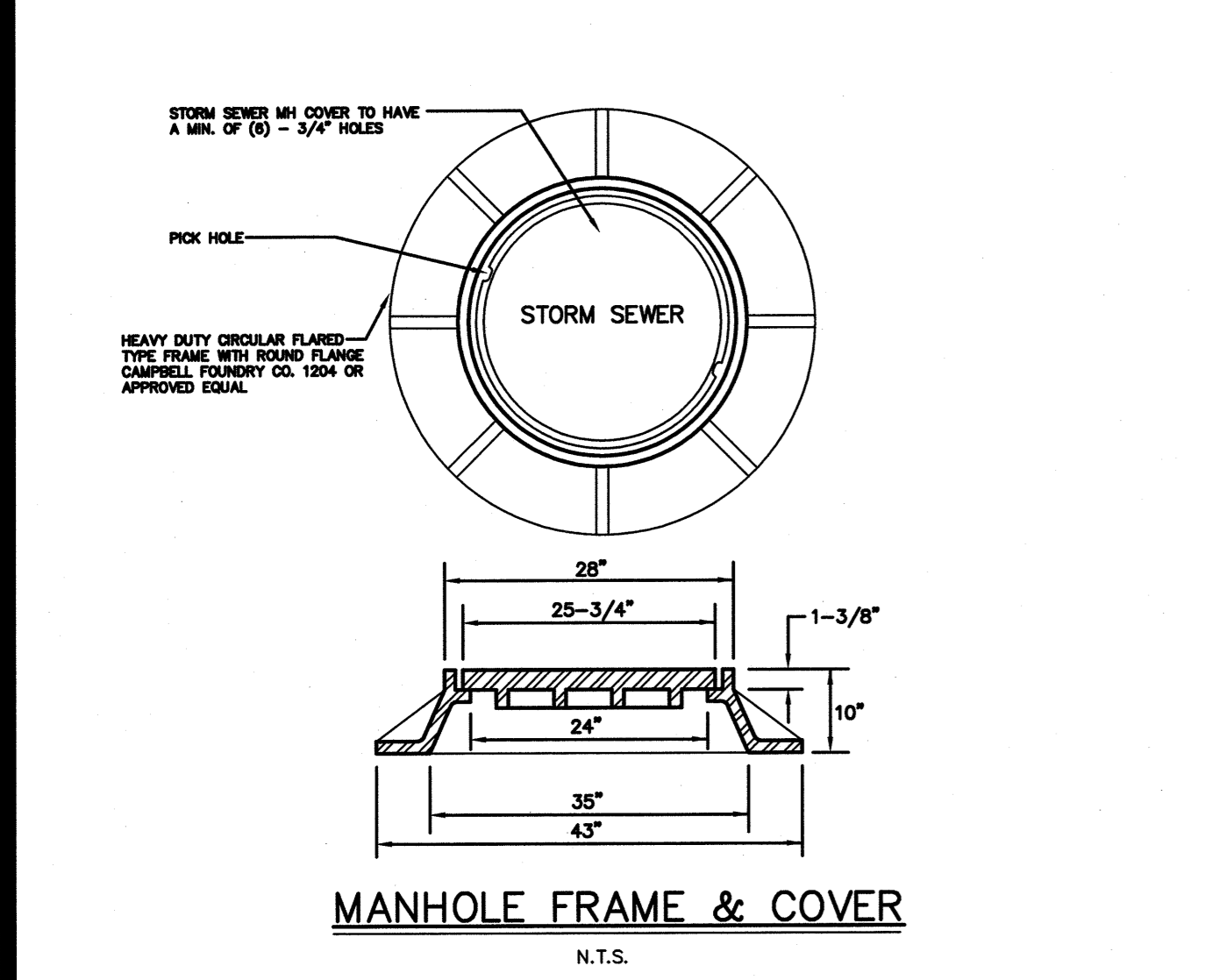
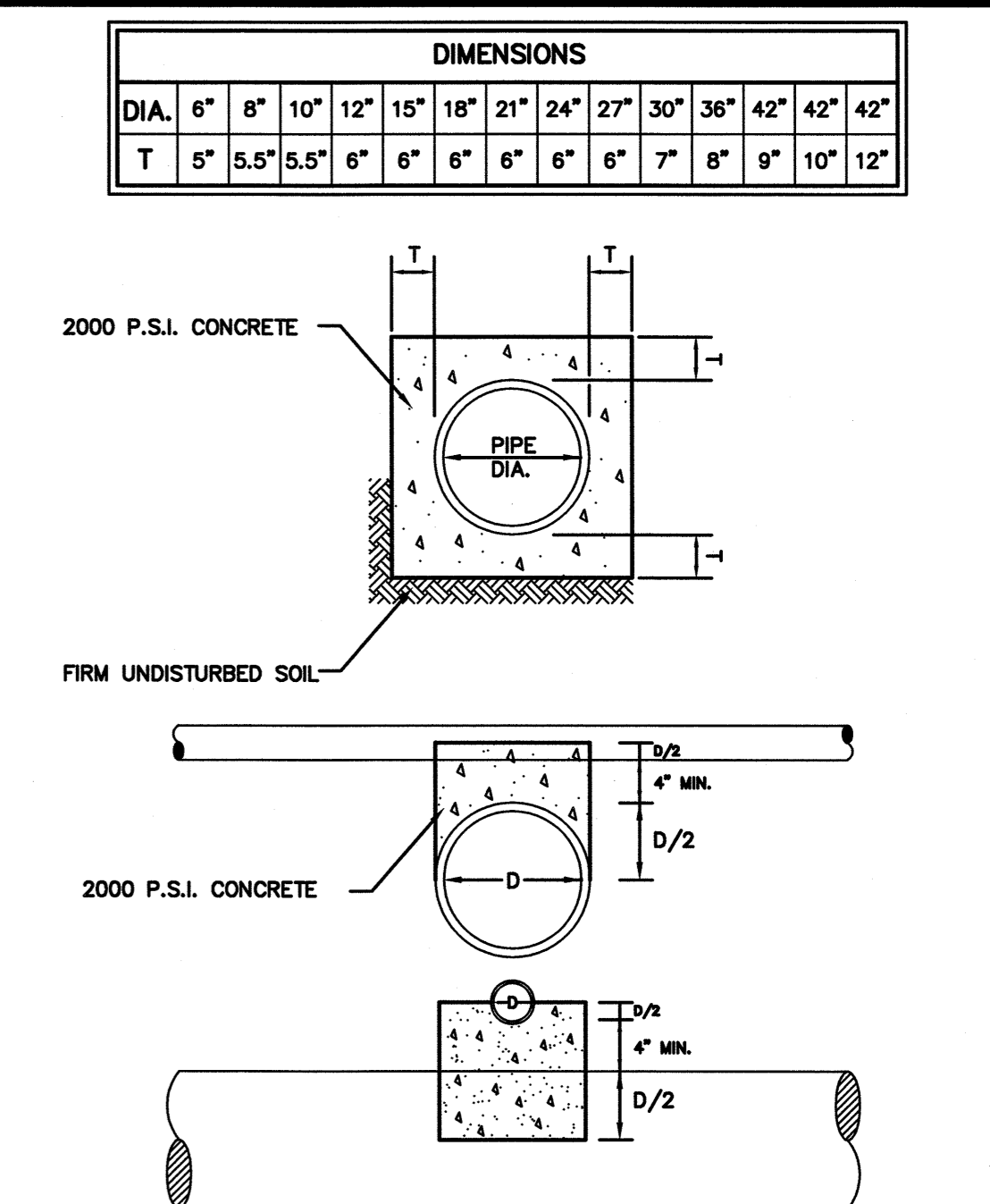
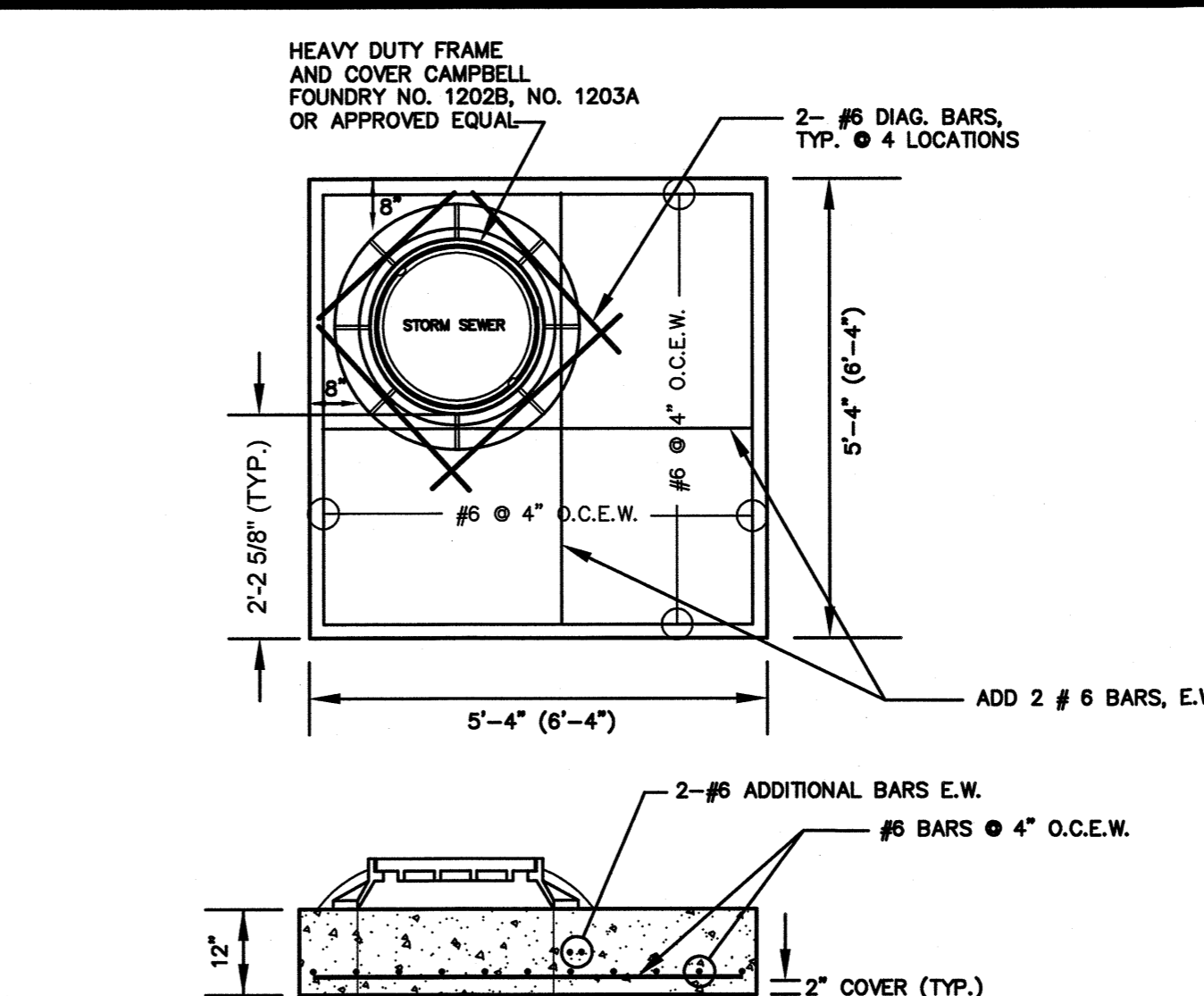
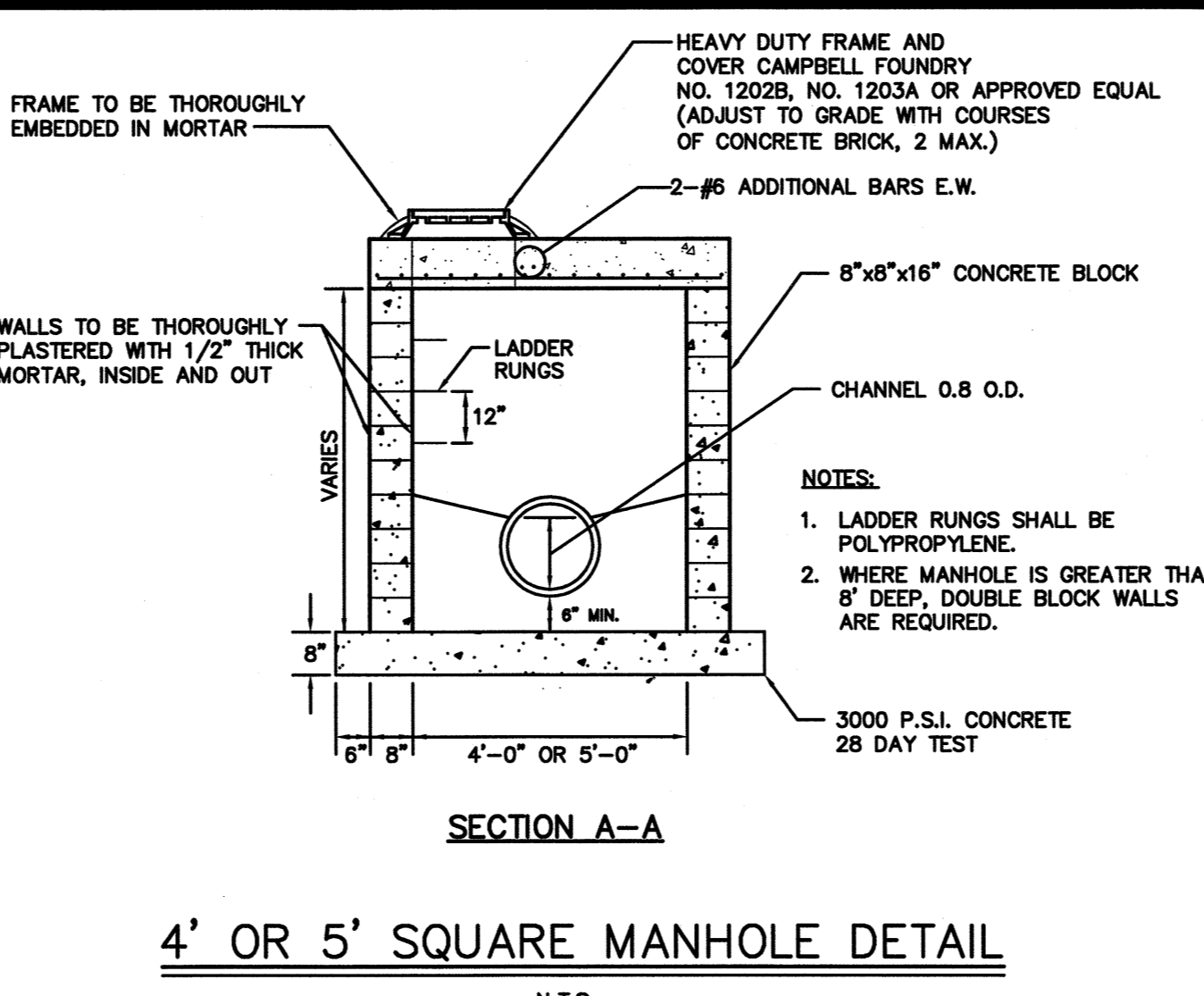
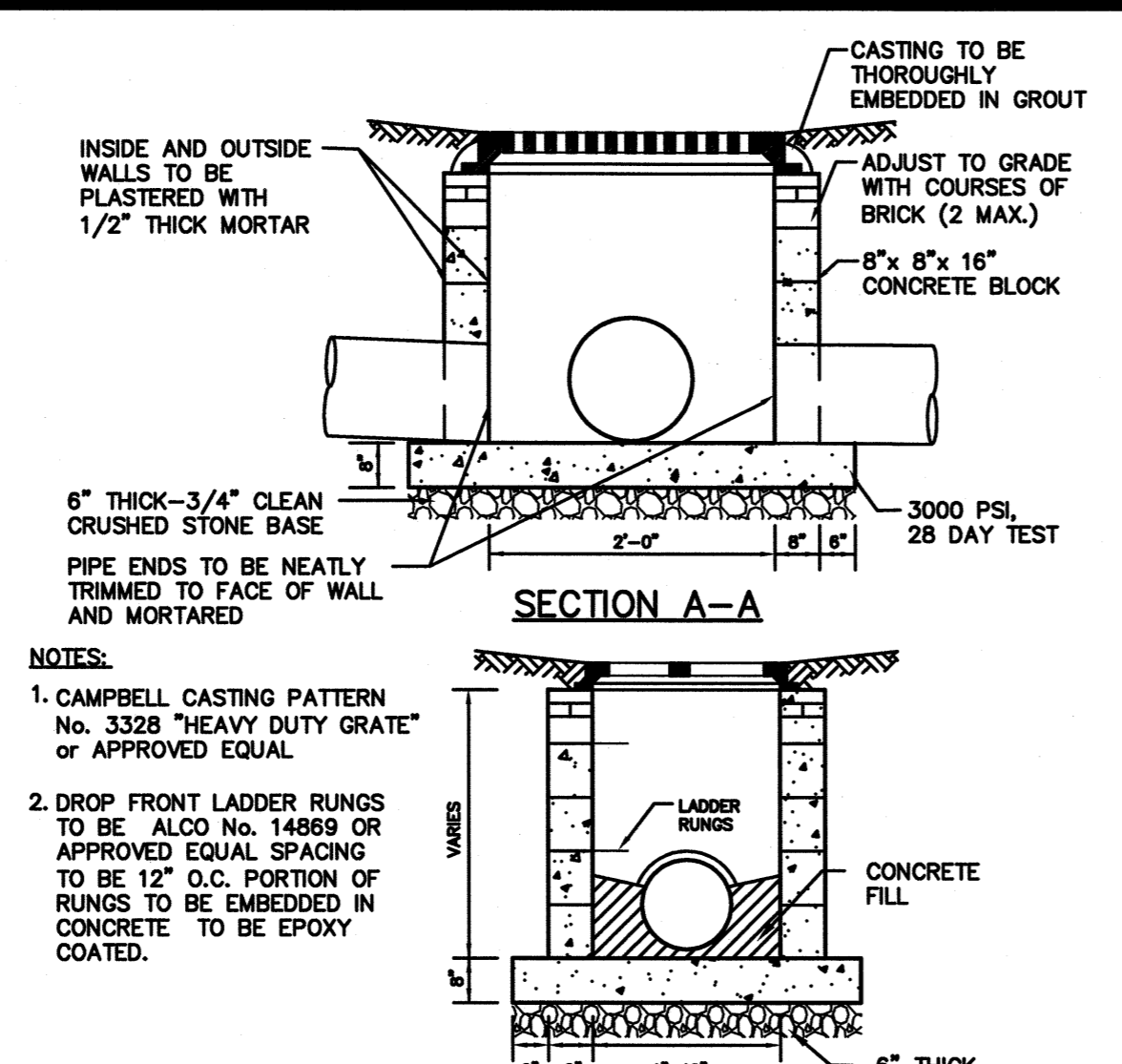
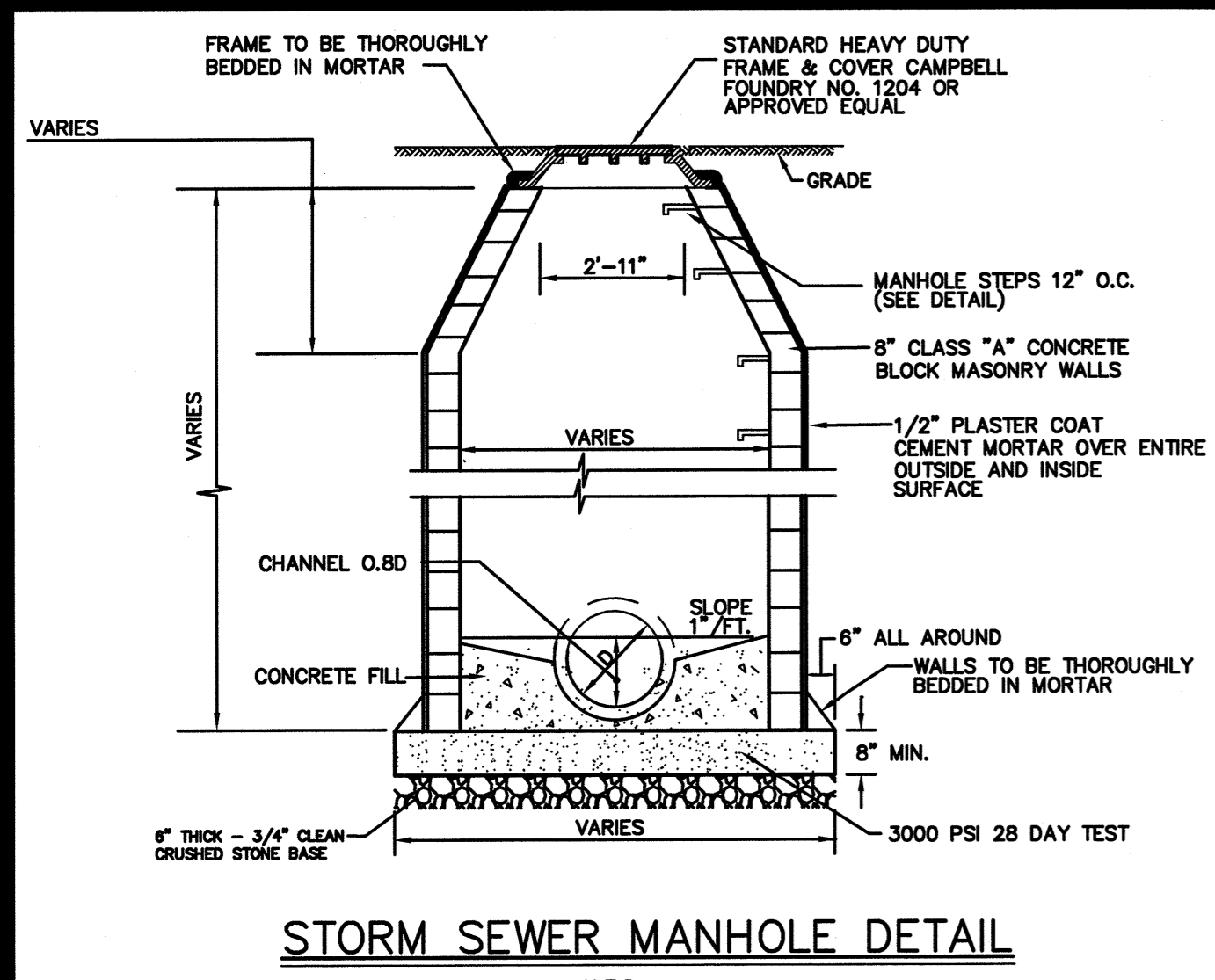
N.T.S.



HMA PATH DETAIL

N.T.S.

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY					
CYPRESS PARK - PHASE II					
CONSTRUCTION DETAILS (1 OF 5)					
<small>(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400 NO. CERTIFICATE OF AUTHORIZATION NO. 24628359000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194</small>					
MICHAEL J. McCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER		<small>SCALE</small> As Shown	<small>DATE</small> May 2023	<small>DRAWING NUMBER</small> CD-1	
<small>DRAWN BY</small> JD	<small>DESIGNED BY</small> LAK	<small>CHECKED BY</small> JCW	<small>SHEET</small> 21 of 26	<small>REGISTERED NO.</small> PW800206.04 <small>FILE NO.</small> 23-0 CG	



NYLOPLAST 12" DRAIN BASIN DETAIL (OR APPROVED EQUAL)
N.T.S.

1. GRATES/COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-60, WITH THE EXCEPTION OF THE BRONZE GRADE.

2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-60.

3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. REVISIONS ARE NEEDED FOR BASINS OVER 8' DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 700-110-101 FOR NON TRAFFIC INSTALLATION.

4. DRAINAGE CONSTRUCTION JOINT THRESHOLD SHALL CONFORM TO ASTM D2002 FOR CORRUGATED HDPE (AS IN 1-DRAINOR DUAL WALL) AND 4" P.V.C. SEWER.

5. ADAPTERS CAN BE MOUNTED ON ANY ANGLE UP TO 30° TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 700-110-102.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONSTITUTE A TRANSFER OF ANY RIGHTS OR THE USE OF THE DESIGN OR TECHNICAL INFORMATION HEREIN FOR REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLES REFERRED TO IN THE DISCLOSED TO OTHERS. FOR MORE INFORMATION, CONTACT THE MANUFACTURER, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
STANDARD	MEETS 1200	12800001	700-110-101
STANDARD	MEETS 1200	12800002	700-110-102
STANDARD	MEETS 1200	12800003	700-110-103
STANDARD	MEETS 1200	12800004	700-110-104
STANDARD	MEETS 1200	12800005	700-110-105
STANDARD	MEETS 1200	12800006	700-110-106
STANDARD	MEETS 1200	12800007	700-110-107
STANDARD	MEETS 1200	12800008	700-110-108
STANDARD	MEETS 1200	12800009	700-110-109
STANDARD	MEETS 1200	12800010	700-110-110

DATE: 02-24-14
REVISION: 01
PROJECT: NYLOPLAST
SCALE: 1/8" = 1'-0"
SHEET: 1 OF 1
DWG NO.: 700-110-101
REV: E

NYLOPLAST 15" DRAIN BASIN DETAIL (OR APPROVED EQUAL)
N.T.S.

1. GRATES/COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-60, WITH THE EXCEPTION OF THE BRONZE GRADE.

2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-60.

3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. REVISIONS ARE NEEDED FOR BASINS OVER 8' DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 700-110-101 FOR NON TRAFFIC INSTALLATION.

4. DRAINAGE CONSTRUCTION JOINT THRESHOLD SHALL CONFORM TO ASTM D2002 FOR CORRUGATED HDPE (AS IN 1-DRAINOR DUAL WALL) AND 4" P.V.C. SEWER.

5. ADAPTERS CAN BE MOUNTED ON ANY ANGLE UP TO 30° TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 700-110-102.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONSTITUTE A TRANSFER OF ANY RIGHTS OR THE USE OF THE DESIGN OR TECHNICAL INFORMATION HEREIN FOR REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLES REFERRED TO IN THE DISCLOSED TO OTHERS. FOR MORE INFORMATION, CONTACT THE MANUFACTURER, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
STANDARD	MEETS 1200	12800001	700-110-101
STANDARD	MEETS 1200	12800002	700-110-102
STANDARD	MEETS 1200	12800003	700-110-103
STANDARD	MEETS 1200	12800004	700-110-104
STANDARD	MEETS 1200	12800005	700-110-105
STANDARD	MEETS 1200	12800006	700-110-106
STANDARD	MEETS 1200	12800007	700-110-107
STANDARD	MEETS 1200	12800008	700-110-108
STANDARD	MEETS 1200	12800009	700-110-109
STANDARD	MEETS 1200	12800010	700-110-110

DATE: 02-24-14
REVISION: 01
PROJECT: NYLOPLAST
SCALE: 1/8" = 1'-0"
SHEET: 1 OF 1
DWG NO.: 700-110-101
REV: E

NYLOPLAST 18" DRAIN BASIN DETAIL (OR APPROVED EQUAL)
N.T.S.

1. GRATES/COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-60, WITH THE EXCEPTION OF THE BRONZE GRADE.

2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-60.

3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. REVISIONS ARE NEEDED FOR BASINS OVER 8' DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 700-110-101 FOR NON TRAFFIC INSTALLATION.

4. DRAINAGE CONSTRUCTION JOINT THRESHOLD SHALL CONFORM TO ASTM D2002 FOR CORRUGATED HDPE (AS IN 1-DRAINOR DUAL WALL) AND 4" P.V.C. SEWER.

5. ADAPTERS CAN BE MOUNTED ON ANY ANGLE UP TO 30° TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 700-110-102.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONSTITUTE A TRANSFER OF ANY RIGHTS OR THE USE OF THE DESIGN OR TECHNICAL INFORMATION HEREIN FOR REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLES REFERRED TO IN THE DISCLOSED TO OTHERS. FOR MORE INFORMATION, CONTACT THE MANUFACTURER, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
STANDARD	MEETS 1200	12800001	700-110-101
STANDARD	MEETS 1200	12800002	700-110-102
STANDARD	MEETS 1200	12800003	700-110-103
STANDARD	MEETS 1200	12800004	700-110-104
STANDARD	MEETS 1200	12800005	700-110-105
STANDARD	MEETS 1200	12800006	700-110-106
STANDARD	MEETS 1200	12800007	700-110-107
STANDARD	MEETS 1200	12800008	700-110-108
STANDARD	MEETS 1200	12800009	700-110-109
STANDARD	MEETS 1200	12800010	700-110-110

DATE: 02-24-14
REVISION: 01
PROJECT: NYLOPLAST
SCALE: 1/8" = 1'-0"
SHEET: 1 OF 1
DWG NO.: 700-110-101
REV: E

TOWNSHIP OF WOODBRIDGE
MIDDLESEX COUNTY, NEW JERSEY

CYPRESS PARK - PHASE II
CONSTRUCTION DETAILS (2 OF 5)

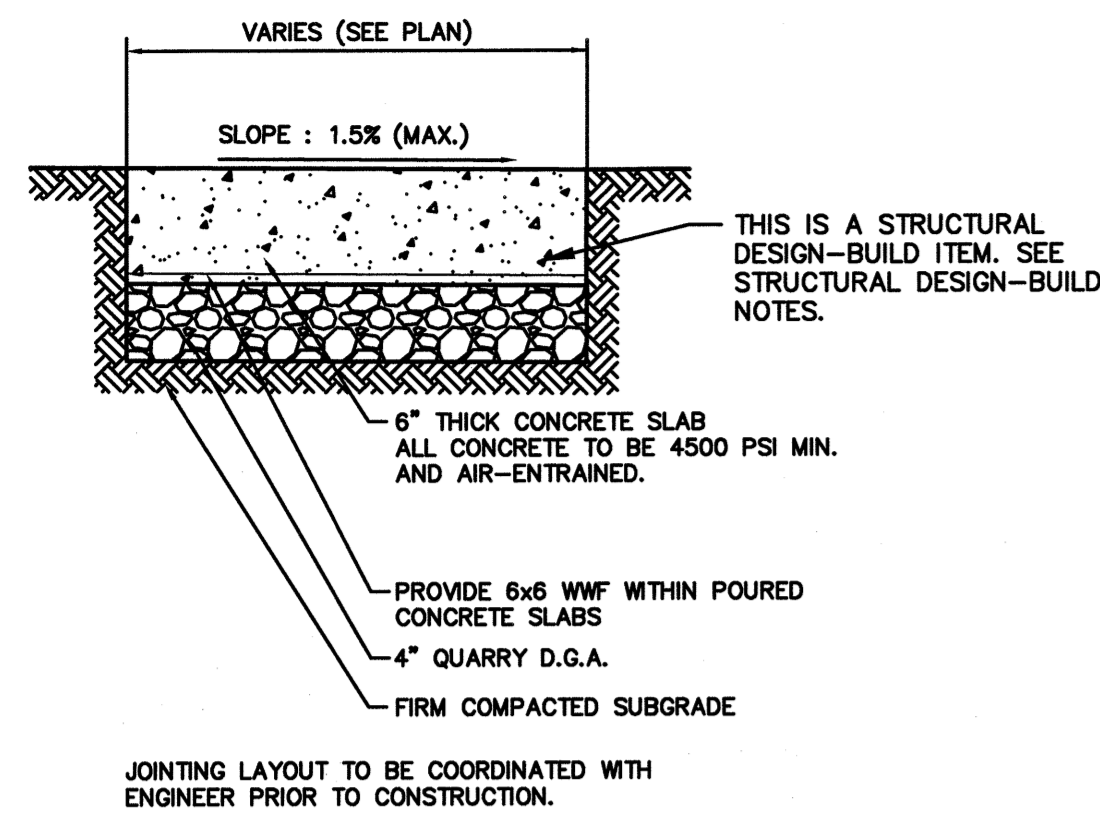
CME ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
732.727.8000
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162
LIC. 32468

MICHAEL J. MCLELLAND P.E.
NEW JERSEY PROFESSIONAL ENGINEER
LIC. 32468

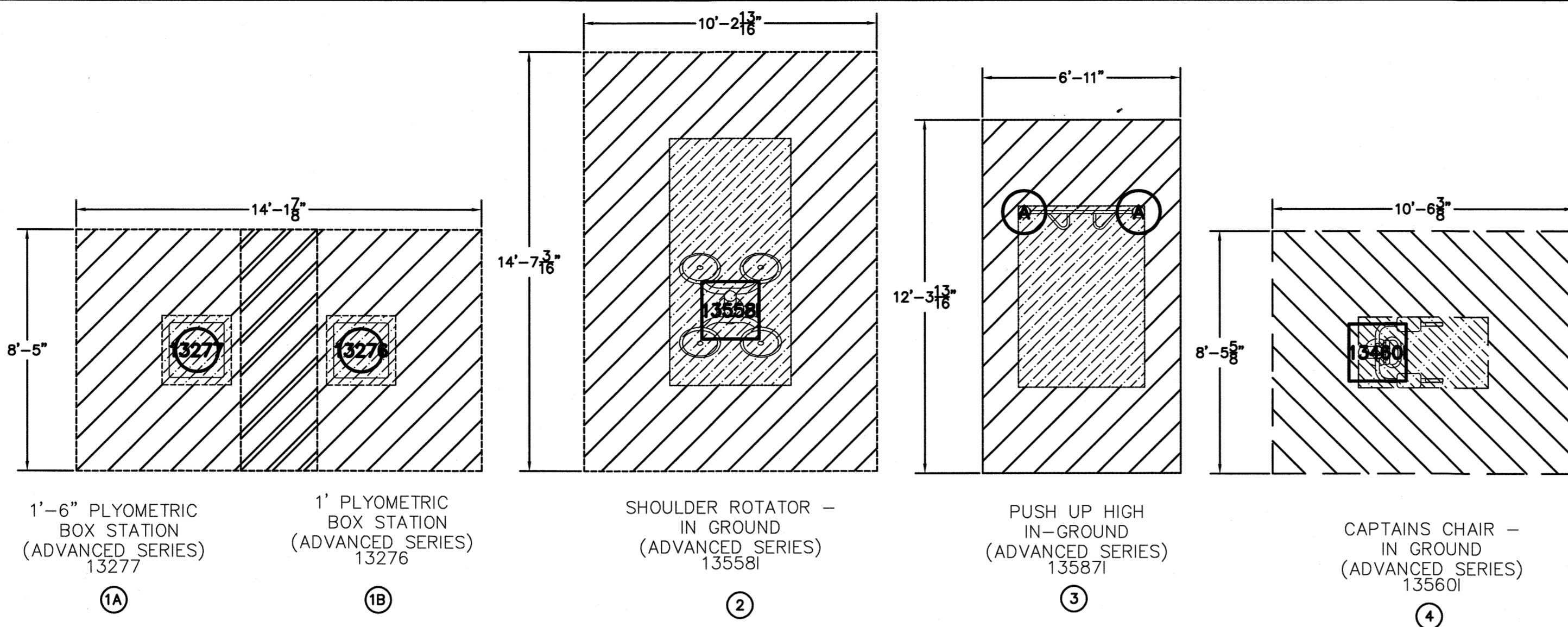
DATE: May 2023
SCALE: As Shown
DRAWN BY: JD
CHECKED BY: JCW
DESIGNED BY: SB
SHEET: 22 OF 28

DRAWING NUMBER: CD-2

PROJECT NUMBER: PWB00206.04

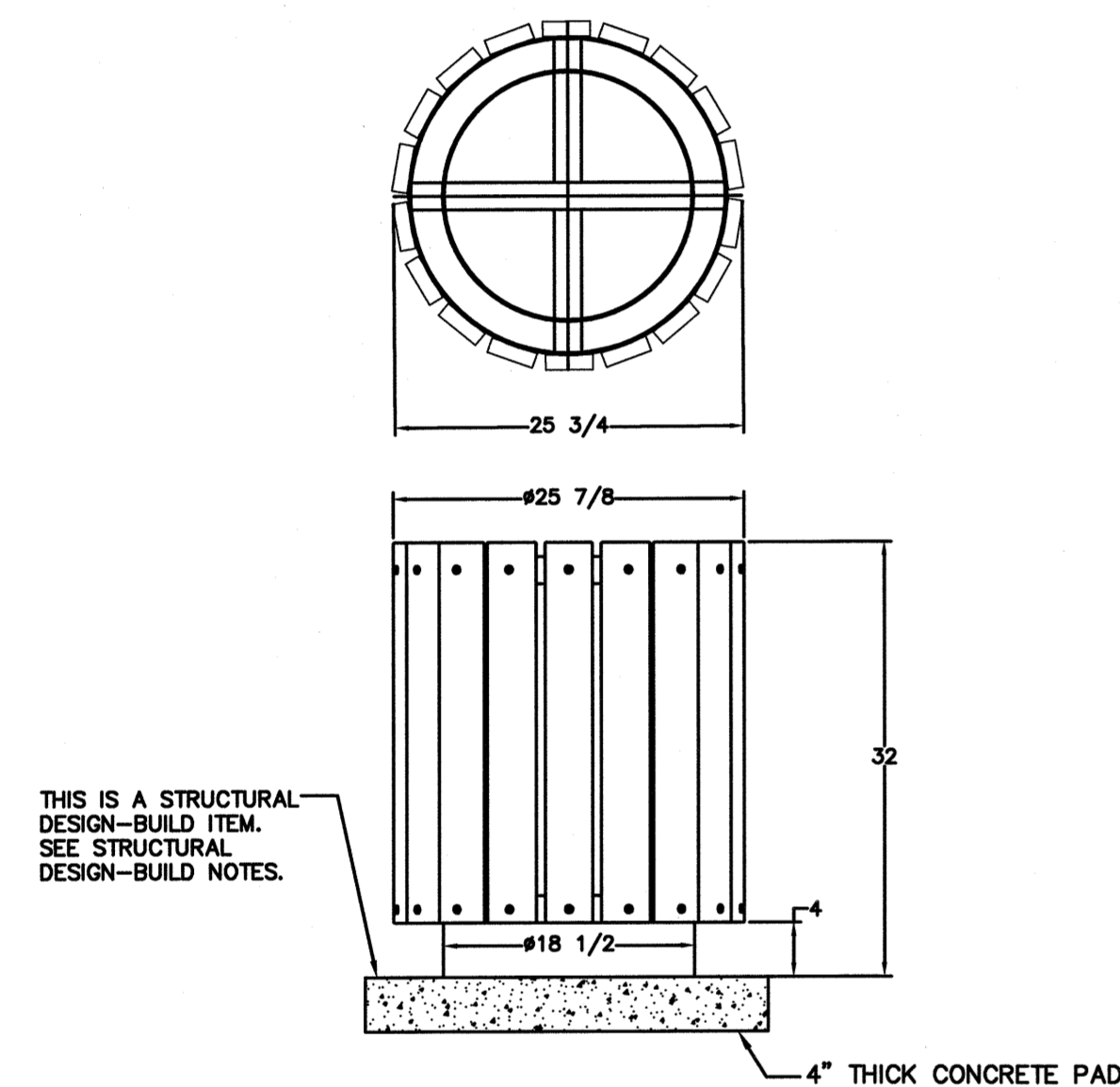


CONCRETE SLAB FOR EXERCISE EQUIPMENT
N.T.S.



EXERCISE STATION COMPONENTS
N.T.S.

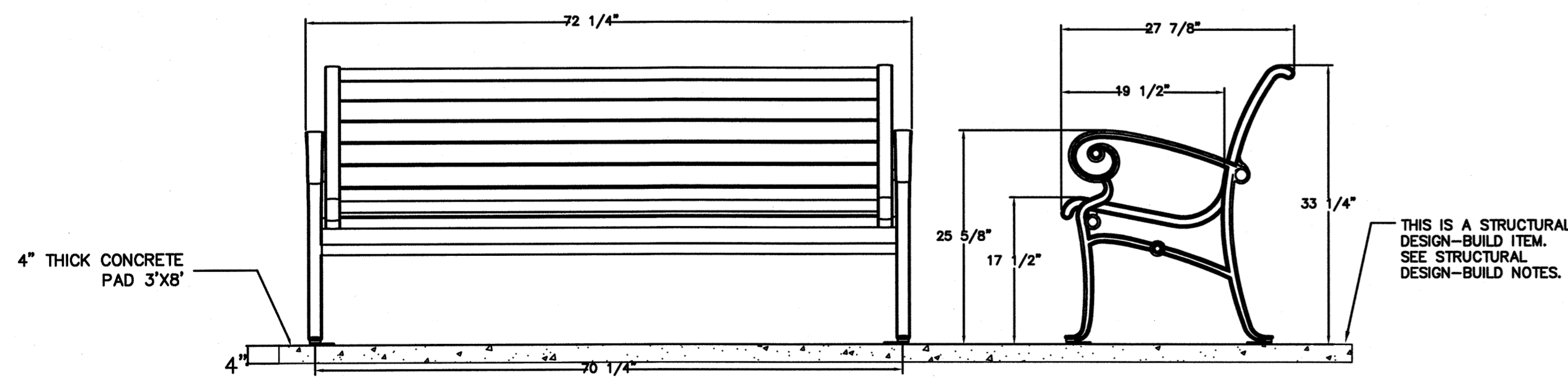
- NOTE: ALL COMPONENTS SHALL BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS. ALL COMPONENTS MANUFACTURED BY GAMETIME OR APPROVED EQUAL.
- PLYOMETRIC BOX STATION
A. 1'-6" (MODEL #13277)
B. 1' (MODEL #13276)
 - SHOULDER ROTATOR (MODEL #13558)
 - PUSH UP HIGH (MODEL #13587)
 - CAPTAINS CHAIR (MODEL #13560)



MODEL#	DESCRIPTION	COLOR
GV300G	GREEN VALLEY 32 GALLON LITTER RECEPTACLE WITH LINER	RECYCLED CEDAR SLATS
FT105N	FLAT TOP LID, 8" OPENING	BLACK
FT106N	RECYCLE FLAT TOP LID, 5" OPENING	BLUE

ALL COMPONENTS PROVIDED BY BOYCE ASSOCIATES (800-441-9400) AND MANUFACTURED BY WABASH VALLEY OR APPROVED EQUAL.

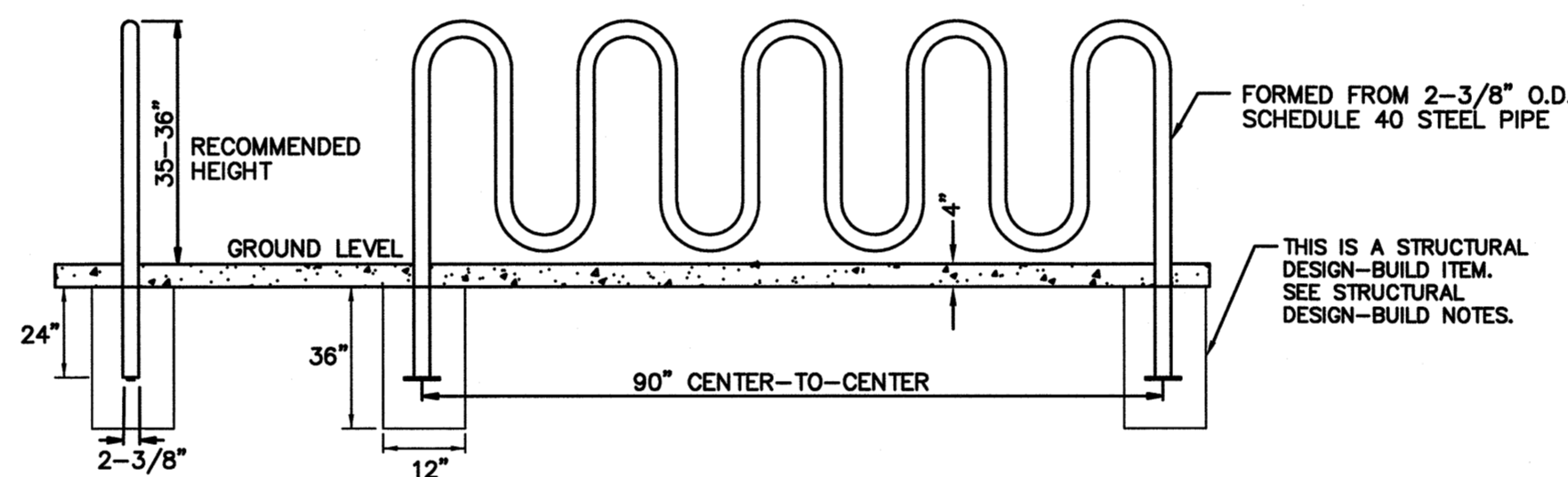
DECORATIVE TRASH RECEPTACLE
N.T.S.



MODEL#	DESCRIPTION	COLOR
AS1112C	ASHLEY COLLECTION 6' BENCH WITH BACK AND ARMS	BLACK FRAME, RECYCLED CEDAR SLATS

ALL COMPONENTS PROVIDED BY BOYCE ASSOCIATES (800-441-9400) AND MANUFACTURED BY WABASH VALLEY OR APPROVED EQUAL.

DECORATIVE BENCH
N.T.S.



9 LOOP BIKE RACK SHALL BE BLACK POWDER COAT FINISH, FORMED STEEL. BIKE RACK SHALL BE MODEL NUMBER 130-80-S-1, AS MANUFACTURED BY DUMOR, INC. AND SUPPLIED BY GENERAL RECREATION, INC. (800-728-4793) OR APPROVED EQUAL.

NOTE: DETAILS ARE FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL PROVIDE SHOP SUBMITTALS PRIOR TO CONSTRUCTION.

BIKE RACK DETAIL
N.T.S.

STRUCTURAL DESIGN-BUILD NOTES:

- THE CONTRACTOR IS HEREBY ADVISED THAT THESE DRAWINGS CONTAIN PRELIMINARY DESIGN LAYOUTS, SECTIONS AND/OR DETAILS FOR CERTAIN INDICATED STRUCTURES OR STRUCTURAL ELEMENTS THAT ARE TO BE CLASSIFIED AS "DESIGN-BUILD ITEMS" ON THIS PROJECT.
- THE DETAILS FOR THESE DESIGN-BUILD ITEMS PROVIDE FOR MINIMUM DIMENSIONS AND MINIMUM REQUIREMENTS FOR THE FOUNDATION SUPPORT SYSTEM OF THESE STRUCTURES AND STRUCTURAL ELEMENTS THAT ARE TO BE DESIGNED. AS A PART OF THIS PROJECT, THE CONTRACTOR WILL BE REQUIRED TO RETAIN THE SERVICES OF A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW JERSEY TO DESIGN THE FOUNDATION SUPPORT SYSTEM FOR THESE STRUCTURES AND STRUCTURAL ELEMENTS.
- THE CONTRACTOR'S ENGINEER WILL BE REQUIRED TO REVIEW THE PRELIMINARY DESIGN LAYOUTS, SECTIONS AND DETAILS FOR STRUCTURAL DESIGN LOADS, CODE COMPLIANCE AND CONSTRUCTABILITY AND TO PERFORM A GEOTECHNICAL INTERPRETATION OF THE BORING LOGS PROVIDED IN THE PROJECT SPECIFICATIONS TO DEVELOP SOIL DESIGN PROPERTIES FOR THE DESIGN OF THE FOUNDATION SUPPORT SYSTEM OF THESE STRUCTURES AND STRUCTURAL ELEMENTS. THE PROPOSED SOIL DESIGN PROPERTIES DEVELOPED BY THE CONTRACTOR'S ENGINEER MUST BE SUBMITTED TO THE OWNER'S ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING TO THE DESIGN OF THE FOUNDATION SUPPORT SYSTEMS. REFER TO THE STRUCTURAL DESIGN LOADS TO BE USED FOR THIS PROJECT.
- THE CONTRACTOR'S ENGINEER WILL BE REQUIRED TO SUBMIT SIGNED AND SEALED DETAILED DESIGN CALCULATIONS, SHOP DRAWINGS AND/OR CATALOG CUTS TO THE OWNER'S ENGINEER FOR REVIEW AND APPROVAL FOR THE FOUNDATION SUPPORT SYSTEM FOR THESE STRUCTURES AND STRUCTURAL ELEMENTS. THE CONTRACTOR'S ENGINEER'S LAYOUT SHALL BE BASED ON THE PRELIMINARY LAYOUT SHOWN ON THESE DRAWINGS, WHENEVER POSSIBLE. IF THE CONTRACTOR'S ENGINEER RECOMMENDS THAT A MORE CONSERVATIVE FOUNDATION SUPPORT SYSTEM IS REQUIRED, THEN THE OWNER'S ENGINEER MUST BE NOTIFIED BY THE CONTRACTOR'S ENGINEER IN WRITING IMMEDIATELY FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND/OR CONSTRUCTION.
- THE CONSTRUCTION OF THE FOUNDATION SUPPORT SYSTEM OF THESE STRUCTURES AND STRUCTURAL ELEMENTS WILL NOT BE PERMITTED WITHOUT APPROVED SIGNED AND SEALED CALCULATIONS AND SHOP DRAWINGS.
- UPON APPROVAL BY THE OWNER'S ENGINEER, THE CONTRACTOR'S LICENSED PROFESSIONAL ENGINEER SHALL PROVIDE SIX (6) SETS OF SIGNED AND SEALED DETAILED DOCUMENTS TO THE OWNER'S ENGINEER FOR USE BY THE CONTRACTOR DURING CONSTRUCTION. THE COSTS ASSOCIATED WITH RETAINING A LICENSED PROFESSIONAL ENGINEER, INCLUDING PROVIDING THE REQUIRED DOCUMENTS, SHALL BE INCLUDED IN THE PRICE BID FOR THE FOUNDATION SUPPORT SYSTEM FOR THESE STRUCTURES AND STRUCTURAL ELEMENTS, INCLUDING ALL APPURTENANCES, AS DESCRIBED.
- ALL REINFORCING STEEL BARS AND DOWELS SHALL BE ASTM A615 (GRADE 60).
- ALL REINFORCING STEEL BARS AND DOWELS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A767. ELECTRO PLATED GALVANIZING IS NOT ACCEPTABLE AND WILL BE REJECTED.

STRUCTURAL DESIGN LOADS

- BUILDING DESIGN CODE SPECIFICATIONS:**
 - N.J.A.C. CHAPTER 23 UNIFORM CONSTRUCTION
 - THE INTERNATIONAL BUILDING CODE 2018, NEW JERSEY EDITION.
 - REFERENCE STANDARD FOR LOAD CALCULATIONS: ASCE 7-2016
- CONSTRUCTION SPECIFICATIONS:**
 - PROJECT SPECIFICATION MANUAL UNLESS NOTED OTHERWISE.
 - 2019 NJDOT SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS MODIFIED BY THE PROJECT SPECIFICATIONS, IF AND WHERE INDICATED.
- BUILDING CRITERIA:**

BUILDING USE GROUP:	U	IBC2015-NJ Ed. Sec. 302.1, p 33
CONSTRUCTION TYPE:	TYPE III	IBC2015-NJ Ed. Sec. 602.3, p 103
OCCUPANCY LOAD:	N.A.	
OCCUPANCY OR RISK CATEGORY:	II	ASCE 7-16 Tab. 1.5-1, IBC2015 NJ Ed. - Tab. 1604.5, p 351
- DESIGN LOADS**
 - DEAD LOAD:**
DEAD LOADS SHALL INCLUDE THE UNIT WEIGHT OF ALL MATERIALS IMPOSING LOADS ON THE DESIGN STRUCTURE, INCLUDING BUT NOT LIMITED TO THE FOLLOWING: PAVEMENTS, EARTH LOADS, LANDSCAPE FIXTURES, RAILINGS, FENCES, BUILDING, EQUIPMENT, ETC. THE FOLLOWING MINIMUM UNIT WEIGHTS SHALL APPLY, UNLESS NOTED OTHERWISE (SEE EQUIPMENT LOADS, WHERE NECESSARY, FOR MORE INFORMATION):

CONCRETE:	150 PCF
STEEL:	490 PCF
ALUMINUM:	171 PCF
BACKFILL:	120 PCF SATURATED WEIGHT

EQUIPMENT DEAD LOADS: SEE MECHANICAL EQUIPMENT DRAWINGS AND APPROVED SHOP DRAWINGS FOR LOADS (WHERE REQUIRED). EQUIPMENT LOADS USED IN THE DESIGN OF THE PROJECT ARE SHOWN ON THE CONTRACT DRAWINGS. WEIGHTS SHOWN ARE MAXIMUM OPERATING WEIGHTS AND INCLUDE MISCELLANEOUS LOADS. THE CONTRACTOR SHALL VERIFY THAT THE WEIGHT OF EQUIPMENT TO BE INSTALLED DOES NOT EXCEED THE WEIGHT NOTED ON THE CONTRACT DRAWINGS. THE REQUIRED REINFORCEMENT FOR CONCENTRATED LOADS MUST BE ADHERED TO.

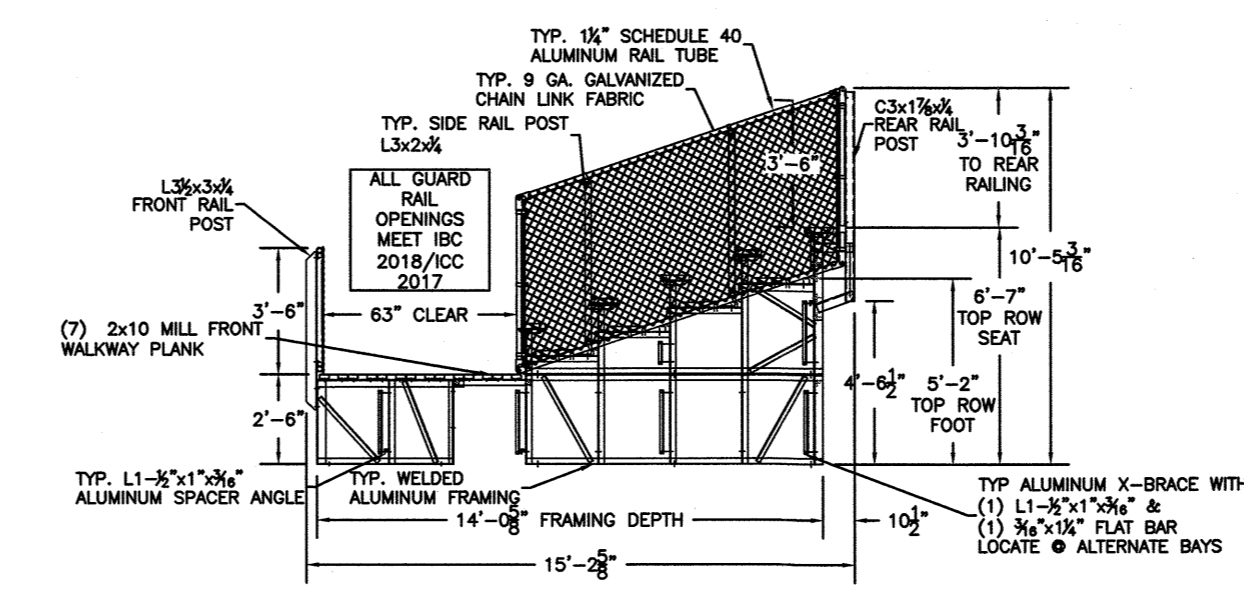
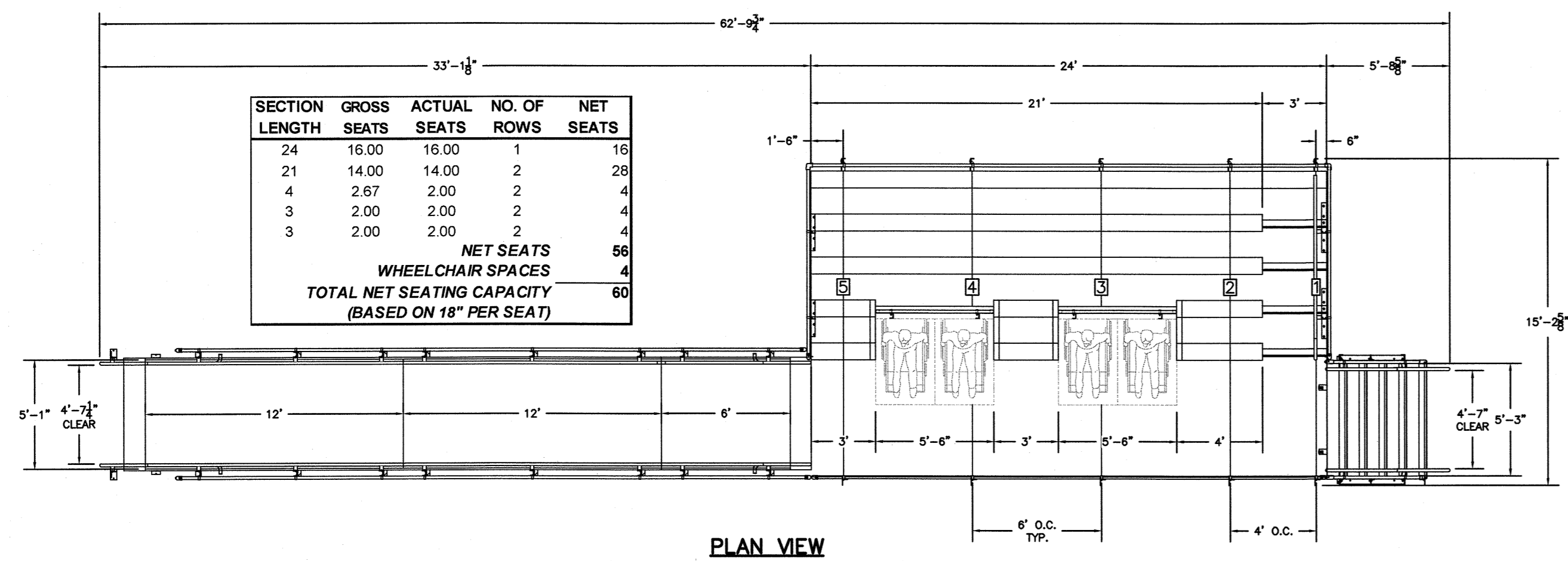
LIVE LOAD:
DESIGN LIVE LOAD, PEDESTRIAN: 100 PSF ASCE 7-16 Tab. 4.3-1, p 14, IBC2015 Tab. 1607.1, p 354

SNOW LOAD:
GROUND SNOW LOAD, $P_g = 25$ PSF ASCE 7-16 Fig. 7.2-1, p 52, IBC2015 Fig. 1608.2, p 364
SNOW LOAD RISK CATEGORY: II ASCE 7-16 Tab. 7.3-1, p 58
SNOW EXPOSURE FACTOR, $C_e = 1.0$ ASCE 7-16 Tab. 1.5-2, p 5
SNOW LOAD IMPORTANCE FACTOR, $I = 1.0$ ASCE 7-16 Tab. 7.3-2, p 58
THERMAL FACTOR, $C_t = 1.0$ ASCE 7-16 Sect. 7.3, p 51
FLAT ROOF SNOW LOAD, $P_f = 0.7 C_e C_p I P_g = 17.5$ PSF ASCE 7-16 Sect. 7.4.1, p 54, Fig. 7.4-1, p 59
HIP / OR GABLE ROOF FACTOR, $C_s = 1.0$ ASCE 7-16 Sect. 7.4.1, p 54, Fig. 7.4-1, p 59
SLOPED ROOF SNOW LOAD, $P_s = C_e C_p I = 19.25$ PSF ASCE 7-16 Sect. 7.4, p 54

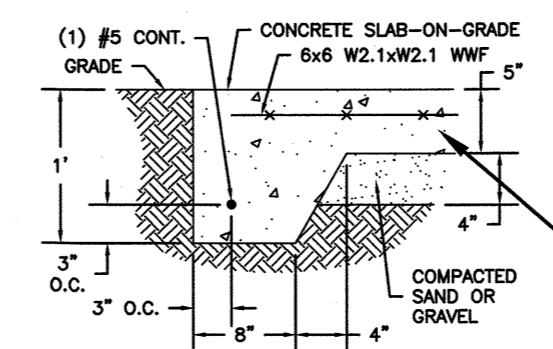
WIND DESIGN DATA:
BASIC WIND SPEED (3-SECOND GUST) = 114 MPH ASCE 7-16, Fig. 26.5-10, p 257
WIND LOAD RISK CATEGORY: II IBC2015 - NJ Ed. Tab. 1604.5, p 351
WIND EXPOSURE CATEGORY: C ASCE 7-16, Sect. 26.7.3, p 266
INTERNAL PRESSURE COEF., $G_c p_i = 0.55$ ASCE 7-16, Sect. 26.13, p 271 & Tab. 26.13-1, p 271

SEISMIC DESIGN DATA:
SEISMIC OCCUPANCY IMPORTANCE FACTOR, $I = 1.0$ ASCE 7-16 Tab. 1.5-2, p 5
RISK CATEGORY - II ASCE 7-16 Tab. 1.5-1, p 4, IBC2015, Tab. 1604.5, p 351
MAPPED SPECTRAL RESPONSE ACCELERATIONS:
 $S_s = 0.274 \times g$ IBC2015-NJ Ed., Fig. 1613.3.1, p 375
 $S_1 = 0.058 \times g$ ASCE7-16, Sec. 11.4.2, Fig. 22-1 & 2, pp 211, 212
SITE CLASS = D
 $F_0 = 1.581$ IBC2015-NJ Ed., Tab. 1613.3.3(1) & (2), p 376
 $F_v = 2.4$ ASCE 7-16, Tab. 11.4-1 & 2, p 84
MODIFIED SPECTRAL RESPONSE ACCELERATIONS:
 $S_{M1} = 0.433 \times g$ IBC2015-NJ Ed., Sec. 1612.3.3, p 376
 $S_{M2} = 0.139 \times g$ ASCE 7-16 Sect. 11.4.4, p 84
DESIGN SPECTRAL RESPONSE COEFFICIENTS:
 $S_{DS} = 0.289 \times g$ IBC2015-NJ Ed. Sec. 1613.3.4, p 376,
 $S_{D1} = 0.092 \times g$ ASCE 7-16 Sect. 11.4.5, p 84
PEAK GROUND ACCELERATION: $P_{GA} = 0.167$ IBC2015-NJ Ed., Fig. 1613.3.1(1)-(8), ASCE7-16, Sec. 11.8, p 85
SEISMIC DESIGN CATEGORY = B IBC2015-NJ Ed., Sec. 1613.3.5, p 387, Tab. 1613.3.5 (1 & 2), p 287, ASCE7-16, Tab. 11.6-1 & 2, p 85

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY					
CYPRESS PARK - PHASE II					
CONSTRUCTION DETAILS (4 OF 5)					
MICHAEL J. McCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER		L.C. 32468		DATE: May 2023	
DRAWN BY: JD		DESIGNED BY: LAK		SHEET: 24 of 28	
CHECKED BY: JCW		SCALE: As Shown		DRAWING NUMBER: CD-5	

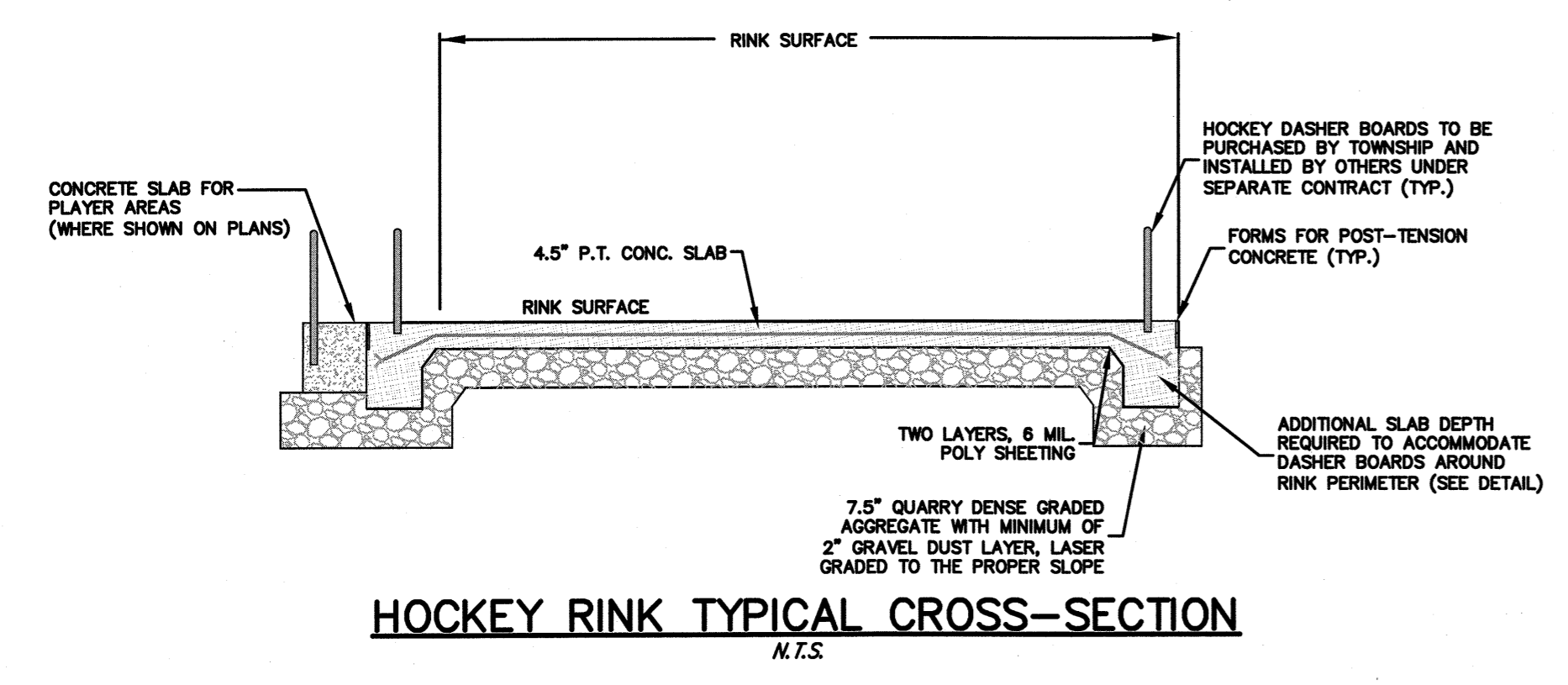


- NOTES:**
1. CUSTOM BLEACHER AS MANUFACTURED BY NATIONAL RECREATION SYSTEMS, INC. AND DISTRIBUTED BY MRC RECREATION (732-781-9034) OR APPROVED EQUAL. DETAILS ARE FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL PROVIDE SHOP SUBMITTALS PRIOR TO CONSTRUCTION.
 2. CHAIN LINK GUARDRAIL SYSTEM SHALL BE BLACK VINYL FENCING.
 3. CONCRETE SLAB FOUNDATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND IS A DESIGN-BUILD ITEM.

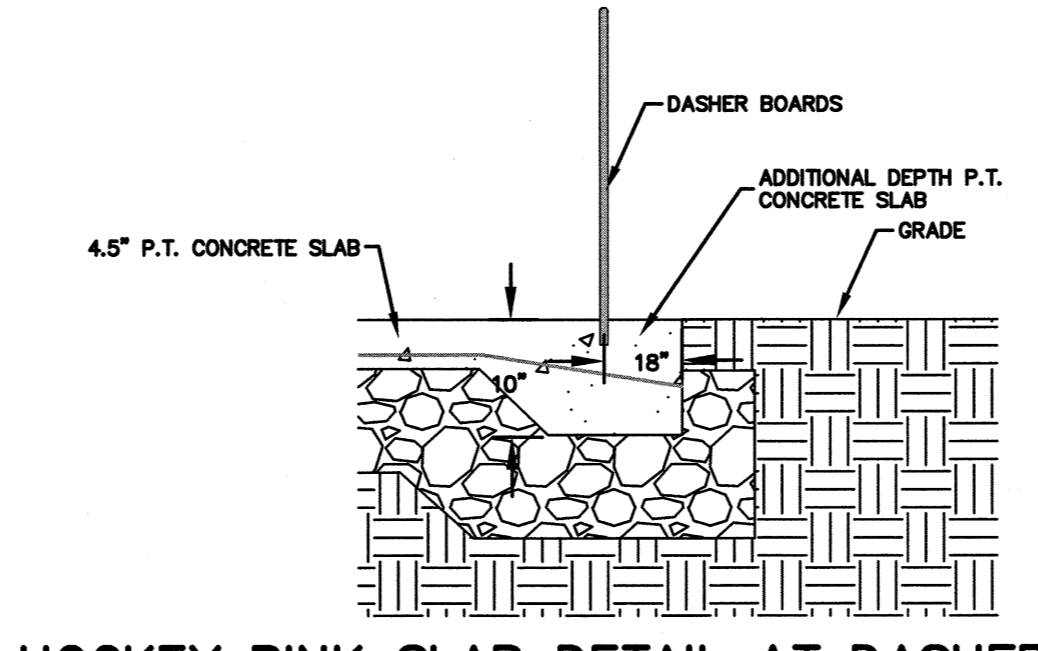


THIS IS A STRUCTURAL DESIGN-BUILD ITEM. SEE STRUCTURAL DESIGN-BUILD NOTES.

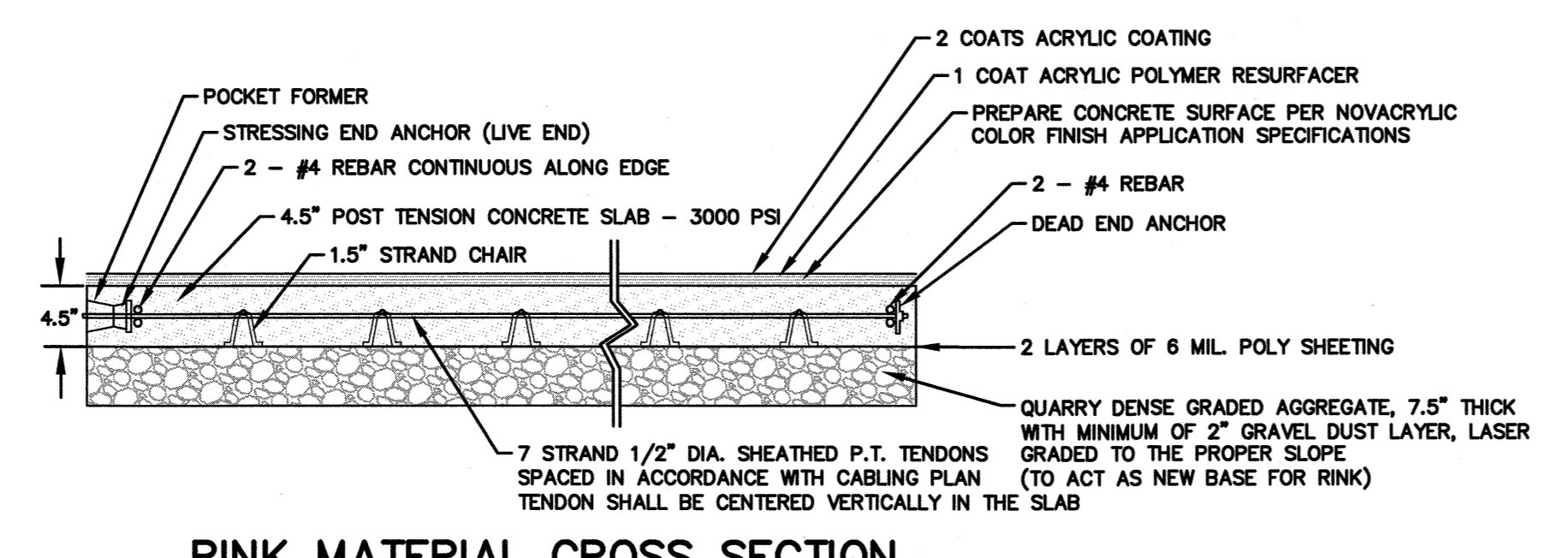
5-ROW, 24' LONG ELEVATED ADA ACCESSIBLE BLEACHER DETAIL
N.T.S.



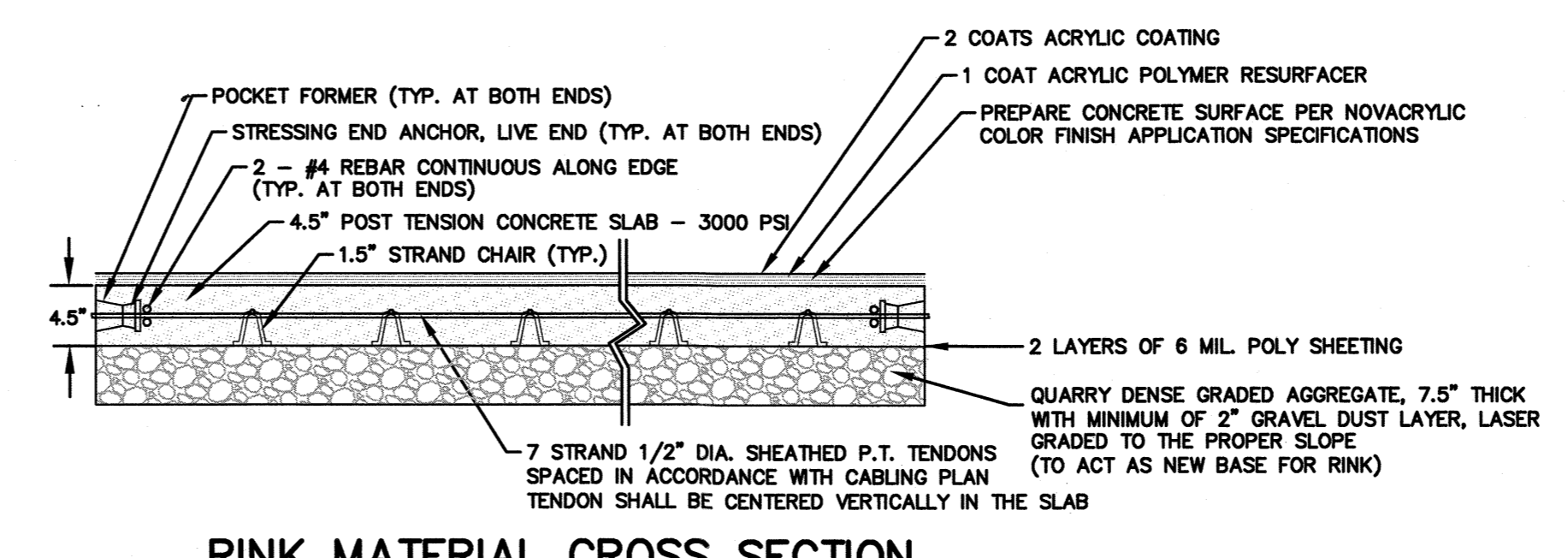
HOCKEY RINK TYPICAL CROSS-SECTION
N.T.S.



HOCKEY RINK SLAB DETAIL AT DASHER BOARDS
N.T.S.



RINK MATERIAL CROSS SECTION
ONE LIVE END (ALONG LONG EDGE OF RINK)
N.T.S.



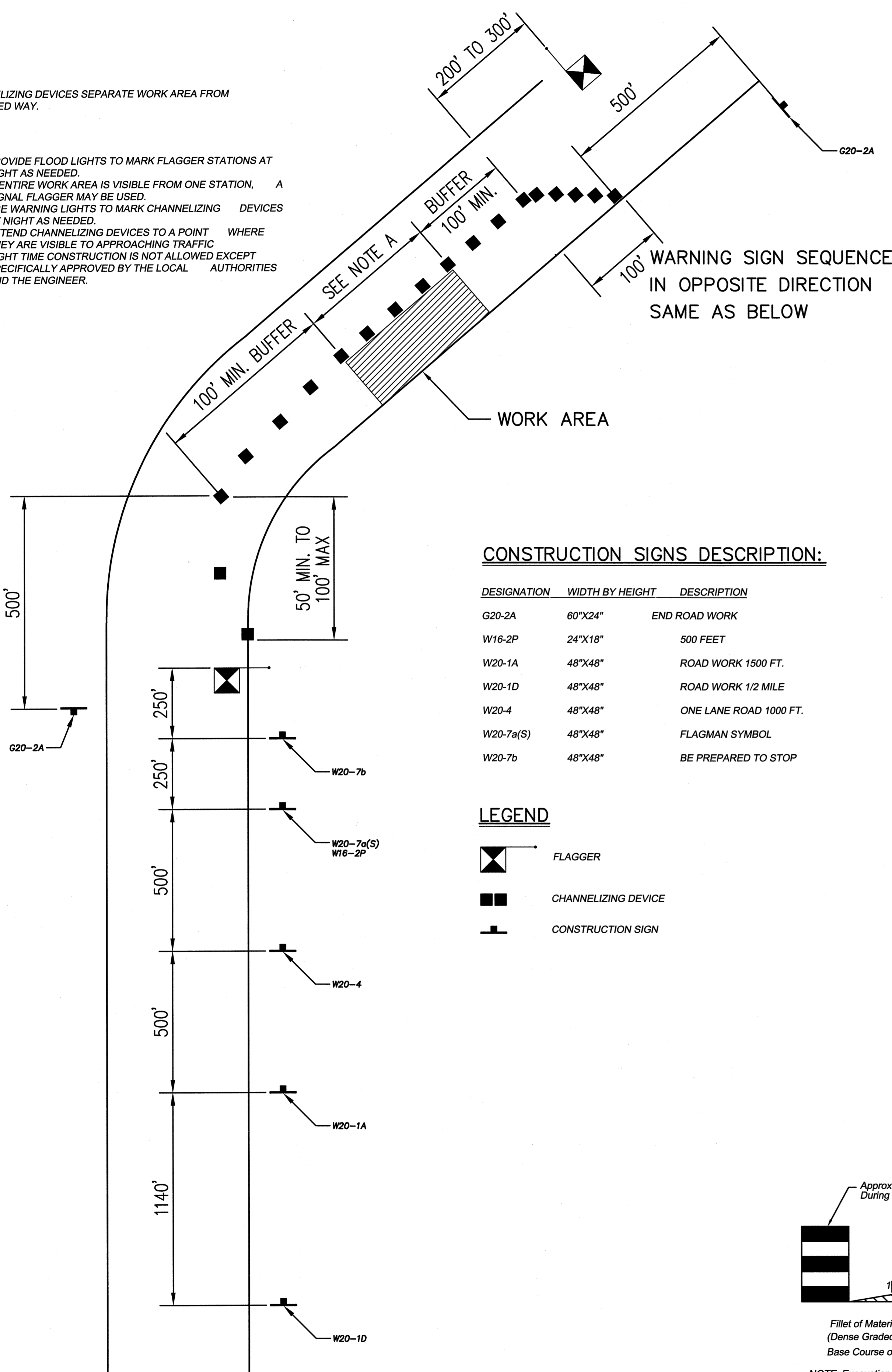
RINK MATERIAL CROSS SECTION
TWO LIVE ENDS (ALONG SHORT EDGES OF RINK)
N.T.S.

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY CYPRESS PARK - PHASE II CONSTRUCTION DETAILS (5 OF 5)					
(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400 NJ CERTIFICATE OF AUTHORIZATION NO. 24G28395000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194					
MICHAEL J. McCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468			SCALE: As Shown DATE: May 2023 DRAWN BY: JD DESIGNED BY: LAK CHECKED BY: JCW SHEET: 25 OF 28		DRAWING NUMBER: CD-6

REGISTERED NO. PWB00206.04 27-0 CG

NOTE A:
CHANNELIZING DEVICES SEPARATE WORK AREA FROM TRAVELED WAY.




- NOTE:
1. PROVIDE FLOOD LIGHTS TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
 2. IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SIGNAL FLAGGER MAY BE USED.
 3. USE WARNING LIGHTS TO MARK CHANNELIZING DEVICES AT NIGHT AS NEEDED.
 4. EXTEND CHANNELIZING DEVICES TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
 5. NIGHT TIME CONSTRUCTION IS NOT ALLOWED EXCEPT SPECIFICALLY APPROVED BY THE LOCAL AUTHORITIES AND THE ENGINEER.



CONSTRUCTION SIGNS DESCRIPTION:

DESIGNATION	WIDTH BY HEIGHT	DESCRIPTION
G20-2A	60"X24"	END ROAD WORK
W16-2P	24"X18"	500 FEET
W20-1A	48"X48"	ROAD WORK 1500 FT.
W20-1D	48"X48"	ROAD WORK 1/2 MILE
W20-4	48"X48"	ONE LANE ROAD 1000 FT.
W20-7a(S)	48"X48"	FLAGMAN SYMBOL
W20-7b	48"X48"	BE PREPARED TO STOP

LEGEND

-  FLAGGER
-  CHANNELIZING DEVICE
-  CONSTRUCTION SIGN



W20 - 1D
* THIS SIGN SHOULD BE INSTALLED FOR ROADS WITH A SPEED LIMIT OF 45 M.P.H. OR GREATER.

TRAFFIC CONTROL COORDINATION:

1. PRIOR TO THE START OF CONSTRUCTION, NOTIFY THE ENGINEER OF THE SINGLE SUPERVISORY LEVEL INDIVIDUAL, TRAINED IN THE PRINCIPLES OF SAFE TRAFFIC CONTROL, WHO, ALONG WITH THE DIRECTION OF THE POLICE DEPARTMENT'S TRAFFIC SAFETY DIVISION, WILL BE ASSIGNED THE RESPONSIBILITY AND AUTHORITY FOR THE IMPLEMENTATION AND MAINTENANCE OF THE TRAFFIC CONTROL.
2. THE ASSIGNED PERSON SHALL MAKE A CHECK OF ALL TRAFFIC CONTROL DEVICES IN USE ON THE ENTIRE PROJECT AT LEAST TWICE A DAY ON WORKING DAYS AND ONCE A DAY ON NON-WORKING DAYS. FILE THE NAME AND TELEPHONE NUMBER OF THE PERSON ASSIGNED TO PROVIDE SERVICES.

TRAFFIC CONTROL DEVICES:

1. KEEP CLEAN, & MAINTAIN TRAFFIC CONTROL DEVICES IN GOOD CONDITION INCLUDING REPLACEMENT IF LOST, STOLEN, OR DAMAGED UNTIL NO LONGER REQUIRED FOR THE PROJECT. ALL TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE DETAILS SHOWN ON THE PLANS, SUPPLEMENTARY SPECIFICATIONS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND STANDARD DETAILS FOR TRAFFIC CONTROL DEVICES AS DEVELOPED BY THE NEW JERSEY DEPARTMENT OF TRANSPORTATION.
2. PLACE TRAFFIC CONTROL DEVICES AS DIRECTED BY THE ENGINEER TO PROVIDE TRAFFIC CONTROL FOR PERSONNEL DOING INSPECTIONS, SAMPLING, TESTING, OR TAKING MEASUREMENTS REQUIRED FOR THE PROJECT.

CONSTRUCTION SIGNS:

1. INSTALL CONSTRUCTION SIGNS AS REQUIRED BY THE MUTCD AND THE POLICE DEPARTMENT AS THE FIRST ORDER OF WORK FOR CONSTRUCTION SIGNS FOR PROJECTS AND MAINTAINED THEM SO AS TO PROVIDE MAXIMUM VISIBILITY AND LEGIBILITY AT ALL TIME.
2. WHEN CONSTRUCTION SIGNS CONFLICT WITH EXISTING SIGNS, COVER THE EXISTING SIGNS. WHEN CONSTRUCTION SIGNS ARE NO LONGER REQUIRED, REMOVE THEM. IF THE CONSTRUCTION SIGNS ARE TEMPORARILY NOT REQUIRED, SUCH AS OVERNIGHT, EITHER TEMPORARILY REMOVE OR COVER THEM.
3. LIGHT EACH ADVANCE WARNING SIGN (W20-1) 24 HOURS A DAY WITH DUAL ALTERNATE FLASH HIGH INTENSITY WARNING LIGHTS OF EITHER THE STROBE OR INCANDESCENT TYPE AS SELECTED BY THE CONTRACTOR.

CONSTRUCTION STAGING PLAN:

1. THE CONSTRUCTION STAGING PLAN IS BASED ON THE MINIMUM REQUIREMENTS PROVIDED IN THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). WORK IN ACCORDANCE WITH THE PROVISIONS OF THE PLAN AND THE MUTCD AND ONLY DEVIATE FROM THE PLAN AFTER RECEIVING APPROVAL.
2. OBTAIN APPROVAL OF THE ENGINEER AND CONSENT OF THE LOCAL AUTHORITIES HAVING JURISDICTION BEFORE REROUTING TRAFFIC OVER DETOURS THAT ARE NOT SHOWN ON THE PLANS. MAKE ALL NECESSARY ARRANGEMENTS WITH SUCH AUTHORITIES REGARDING THE ESTABLISHMENT, MAINTENANCE AND REPAIR OF SUCH DETOURS, THE REGULATION AND DIRECTION OF TRAFFIC THEREON, AND SIGNING. FURNISH ADEQUATE DIRECTIONAL AND DETOUR SIGNS, ACCEPTABLE TO THE LOCAL AUTHORITIES, AND ERECT THEM AT THE LOCATIONS WHERE SUCH AUTHORITIES MAY DIRECT.
3. USE CONSTRUCTION STAGING PLANS IN CONJUNCTION WITH THE SPECIFICATIONS - SECTION 158. IF A CONFLICT ARISES BETWEEN THE PLANS AND SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. ITEMS AND QUANTITIES SHOWN ARE INTENDED ONLY AS A GUIDE TO THE CONTRACTOR AND ARE SUGGESTED MINIMUMS FOR THE CLOSURE OF ONE LANE OF TRAFFIC.

SUGGESTED GENERAL SEQUENCE OF CONSTRUCTION

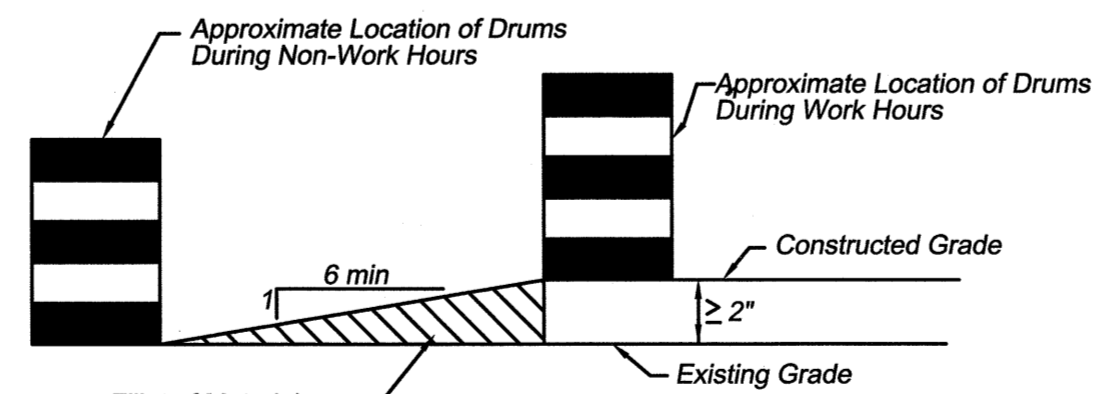
1. PROVIDE MINIMUM 24 HOUR ADVANCE NOTIFICATION TO THE LOCAL POLICE DEPARTMENT AND THE ENGINEER PRIOR TO MODIFICATION OF EXISTING TRAFFIC PATTERNS.
2. INSTALL "ADVANCE WARNING" SIGNS.
3. ESTABLISH DETOUR ROUTES, IF AND WHERE APPROVED BY THE ENGINEER AND/OR THE TRAFFIC SAFETY DIRECTOR, WHERE APPLICABLE.
4. INSTALL TEMPORARY TRAFFIC CONTROL DEVICES AS APPLICABLE.
5. COMPLETE INSTALLATION OF IMPROVEMENTS.
6. REMOVE TEMPORARY TRAFFIC CONTROL DEVICES, DETOUR SIGNS, AND "ADVANCE WARNING SIGNS".

GENERAL NOTES:

1. MAINTAIN VEHICULAR AND PEDESTRIAN TRAFFIC OVER THE EXISTING ROADWAYS AND INTO EXISTING DRIVEWAYS WITHIN THE SCOPE OF THE PROJECT AT ALL TIMES. TRAFFIC CONTROL IS TO BE COORDINATED WITH LOCAL AUTHORITIES.
2. FINAL RESPONSIBILITY FOR THE INSTALLATION OF ADEQUATE PRECAUTIONS AND FOR THE PROTECTION OF THE TRAVELING PUBLIC AND HIS OWN PERSONNEL, SHALL REST WITH THE CONTRACTOR.
3. ALTERNATE ONE-WAY TRAFFIC CONTROL MAY BE REQUIRED DURING CONSTRUCTION OPERATIONS. PERMISSION FOR COMPLETE STOPPAGE OF ONE DIRECTION OF TRAFFIC MUST BE OBTAINED FROM THE LOCAL POLICE AND THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO STOPPAGE. ALTERNATE ONE WAY TRAFFIC CONTROL WILL BE AFFECTED BY TWO UNIFORM TRAFFIC DIRECTORS, ONE AT EACH END OF THE WORK AREA. ALL TEMPORARY TRAFFIC LANES SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 11 FEET.
4. SITE FOR THE STORAGE OF EQUIPMENT AND MATERIALS DURING THE PROGRESS OF THE WORK SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.
5. COMPLIANCE WITH ALL PRESCRIBED SAFETY PRECAUTIONS CONTAINED HEREIN SHALL NOT RELIEVE THE CONTRACTOR OF HIS PRIMARY RESPONSIBILITY TO TAKE ALL NECESSARY MEASURES TO PROTECT AND SAFEGUARD THE PUBLIC NOR RELIEVE HIM OF ANY RESPONSIBILITIES DESCRIBED IN THE CONTRACT AGREEMENTS.
6. IF THE LOCAL POLICE DEPARTMENT NOTIFIES THE CONTRACTOR OR HIS SUPERINTENDENT OR THE ENGINEER OF ANY HAZARDOUS CONDITION OR VIOLATION OF TRAFFIC CONTROL IN THE WORK AREA REGULATIONS, IMMEDIATELY DISCONTINUE ALL OPERATIONS AND TAKE IMMEDIATE REMEDIAL ACTION TO THE SATISFACTION OF THE LOCAL POLICE BEFORE RESUMING WORK. ALL COSTS INCURRED AS A RESULT OF SUCH ACTION SHALL BE BORNE BY THE CONTRACTOR WITHOUT RECOURSE AGAINST THE OWNER.
7. DO NOT REDUCE OF THE NUMBER OF LANES AVAILABLE FOR TRAFFIC OR REDUCE THE EXISTING WIDTHS OF TRAVELED WAY UNTIL AFTER 9:00 A.M. AND REMOVE THESE RESTRICTIONS PRIOR TO 3:00 P.M. UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
8. DO NOT PERFORM WORK WHICH WILL INTERFERE WITH TRAFFIC OR RESTRICT THE WIDTH OF TRAVELED WAY AVAILABLE FOR TRAFFIC ON SATURDAYS, SUNDAYS, OR LEGAL HOLIDAYS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
9. PRIOR TO BEGINNING A SEASONAL SHUTDOWN OR ANY OTHER PROLONGED WORK STOPPAGE, OR WHEN WORK IS SUSPENDED BY THE ENGINEER, BRING ALL EXCAVATED AREAS WITHIN THE TRAVELED WAY OR ADJACENT THERETO TO A GRADE COMPATIBLE WITH THE EXISTING TRAVELED WAY OR TO FINISHED GRADE, AS APPROVED.
10. PROVIDE MAINTENANCE WITHIN THE PROJECT LIMITS UNTIL ACCEPTANCE. THIS MAINTENANCE SHALL CONSIST OF CONTINUOUS AND EFFECTIVE WORK PROSECUTED DAY BY DAY, WITH ADEQUATE EQUIPMENT AND FORCES TO THE END THAT THE ROADWAY IS KEPT IN SATISFACTORY CONDITION AT ALL TIMES.
11. IN THE CASE OF A CONTRACT REQUIRING THE PLACING OF A COURSE UPON A COURSE OF SUBGRADE PREVIOUSLY CONSTRUCTED, MAINTAIN THE PREVIOUS COURSE OF SUBGRADE DURING ALL CONSTRUCTION OPERATIONS.
12. BACKFILL ALL EXCAVATED AREAS WITHIN THE ROADWAY TO A GRADE COMPATIBLE WITH THE EXISTING TRAVELED WAY AT SUCH TIMES HE IS NOT ACTIVELY WORKING. THIS SHALL INCLUDE NIGHTS, WEEKENDS, AND PERIODS OF SHUTDOWNS.
13. EMPLOY COMPETENT, TRAINED, AND UNIFORMED TRAFFIC DIRECTORS AT EVERY POINT WHERE CONTRACTOR'S EQUIPMENT IS WORKING IMMEDIATELY ADJACENT TO, OR IS ENTERING, LEAVING, OR CROSSING ACTIVE TRAFFIC LANES. EMPLOY TRAFFIC DIRECTORS CONTINUOUSLY FOR THE FULL TIME SUCH CONDITIONS EXIST AS DETERMINED BY THE ENGINEER.
14. GIVE WRITTEN NOTICE TO THE OWNERS OF ADJOINING PROPERTIES AT LEAST ONE WEEK PRIOR TO THE BEGINNING OF ANY WORK WHICH INTERFERES WITH THE OWNERS' NORMAL PASSAGE.


POLICE TRAFFIC DIRECTORS SHALL BE OFF-DUTY POLICE OFFICERS FROM WITHIN THE TOWNSHIP WHERE THE WORK IS BEING PERFORMED. LOCATE POLICE TRAFFIC DIRECTORS WHERE SHOWN ON THE PLANS OR AT SPECIFIC LOCATIONS DESIGNATED BY THE POLICE DEPARTMENT OR ENGINEER DURING CONSTRUCTION HOURS. CONTACT THE TOWNSHIP IN ORDER TO OBTAIN THE SERVICES OF POLICE TRAFFIC DIRECTORS AND THE NAME, ADDRESS, AND TELEPHONE NUMBER OF THEIR LOCAL REPRESENTATIVE.

MINIMUM REQUIREMENTS FOR TEMPORARY LANE CLOSURE
N.T.S.



NOTE: Excavations or Edges of Lifts With Vertical Drop-Offs of 2" or More That Are to Remain During Non-Work Hours Are to be Ramped as Shown. There Will be no Separate Payment for the Construction of the Escape Ramp.

ESCAPE RAMP DETAIL
N.T.S.

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY CYPRESS PARK - PHASE II CONSTRUCTION STAGING PLAN					
 ASSOCIATES CONSULTING AND MUNICIPAL ENGINEERS NO. CERTIFICATE OF AUTHORIZATION NO. 24624839000 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194					
MICHAEL J. McCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER			(732) 727 8000 (732) 462 7400 SCALE: As Shown DATE: May 2023 DRAWN BY: JD DESIGNED BY: JD CHECKED BY: JCW SHEET: 28 of 28		
DRAWING NUMBER					SP-1

REGISTERED NO. PWB00206.04 48-U CG