





User: lucas.keller File: J:\2022\22-53C.C06 Niles North HS Synthetic Fields V09 DESIGN DRAWINGS\02-SHEETS\22-53C.C06 - SPECIFICATIONS.dwg Time: Jul 13, 2023 - 11:20am

GENERAL NOTES AND CONDITIONS

- THE MUNICIPAL AUTHORITY GOVERNING THIS WORK IS THE MUNICIPALITY OF SKOKIE, IL.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING SPECIFICATIONS, IF A CONFLICT ARISES BETWEEN ANY PROVISION(S) OF THESE STANDARDS AND SPECIFICATIONS, THEN THE MOST RESTRICTIVE PROVISION(S) SHALL APPLY.
  - ILLINOIS DEPARTMENT OF TRANSPORTATION (I.D.O.T.) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION. (STANDARD SPECIFICATIONS)
  - "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" LATEST EDITION.
  - "ILLINOIS RECOMMENDED STANDARDS FOR SEWAGE WORKS" AS PUBLISHED BY THE I.E.P.A.
  - "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (M.U.T.C.D.) LATEST EDITION.
  - THE MUNICIPALITY'S CODES, REGULATIONS, AND STANDARDS.
  - DETAILS AND SPECIFICATIONS OF THE "ILLINOIS URBAN MANUAL" LATEST EDITION.
  - 2018 EDITION OF THE STATE OF ILLINOIS ACCESSIBILITY CODE AND/OR THE 2010 EDITION OF THE AMERICANS WITH DISABILITIES ACT (ADA).
- THE PROJECT SPECIFICATIONS SHALL GOVERN THE CONSTRUCTION OF THIS DEVELOPMENT WITH THE ABOVE SPECIFICATIONS. WHERE ANY CONFLICT MAY OCCUR, THE CONTRACTOR SHALL SUBMIT IN WRITING A NOTICE OF SUCH CONFLICT TO THE OWNER'S REPRESENTATIVE OR ENGINEER FOR A WRITTEN DECISION ON WHICH MAY GOVERN.
- IN THE EVENT OF CONFLICTS, ERRORS, OR AMBIGUITIES IN THE DOCUMENTS CLIENT AND OR CONTRACTOR, IF SUCH WORK HAS BEGUN OR COSTS INCURRED, REQUEST CLARIFICATION FROM THE ENGINEER WHOSE INTERPRETATION SHALL BE FINAL AND BINDING UPON ALL PARTIES CONCERNED. NEITHER CLIENT NOR CONTRACTOR SHALL TAKE ADVANTAGE OF CONFLICTS, ERRORS, OR AMBIGUITIES IN THE DOCUMENTS. OTHERWISE THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. FAILING TO SECURE SUCH CLARIFICATION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE.
- THE STANDARD SPECIFICATIONS, CONSTRUCTION PLANS AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE TO BE CONSIDERED A PART OF THE CONTRACT.
- THE MUNICIPALITY SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE AND REJECT THE CONSTRUCTION OF THE IMPROVEMENTS CONSTRUCTED UNDER THESE CONTRACT DOCUMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES INDICATED ON THE ENGINEERING PLANS. THE QUANTITIES SHOWN ARE ESTIMATED FOR BIDDING PURPOSES ONLY. ANY DISCREPANCIES SHALL BE REPORTED TO ENGINEER. THE BIDDER SHALL CAREFULLY EXAMINE ALL CONTRACT DOCUMENTS, VISIT THE PROJECT SITE AND FULLY INFORM THEMSELVES AS TO ALL CONDITIONS AND MATTERS WHICH CAN AFFECT THEIR WORK AND THE COST THEREOF. ANY DISCREPANCIES, OMISSIONS OR DOUBTS IN INTENT OF THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY AND OBTAIN CLARIFICATION PRIOR TO SUBMITTING OF ANY BID.
- THE IMPROVEMENTS SHOWN ON THE ENGINEERING PLANS SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL AND EQUIPMENT, ETC., AS NECESSARY TO PERFORM THE WORK INDICATED.
- NO CONSTRUCTION PLANS SHALL BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY MARKED "FOR CONSTRUCTION".
- ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH OSHA REQUIREMENTS AND MUNICIPALITY REGULATIONS AND STANDARDS AND SHALL CONFORM IN ALL RESPECTS TO ALL STATE AND FEDERAL LAWS.
- UTILITY INFORMATION SHOWN HEREON WAS OBTAINED FROM THE BEST AVAILABLE SOURCE AND MAY OR MAY NOT BE EITHER ACCURATE OR COMPLETE. THE CONTRACTOR MUST CALL 811 OR I.U.I.L.I.E AT 800.892-0123 AT LEAST 48 HOURS BEFORE THE START OF ANY CONSTRUCTION WORK. THE CONTRACTOR SHALL ON HIS INITIATIVE AND AT NO EXTRA COSTS HAVE LOCATED ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. NO CLAIMS FOR DAMAGES OR EXTRA COMPENSATION SHALL ACCRUE TO THE CONTRACTOR FROM THE PRESENCE OF SUCH PIPE, OTHER OBSTRUCTIONS OR FROM ANY DELAY DUE TO REMOVAL OR REARRANGEMENT OF THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND STRUCTURES. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL NON-SUBSCRIBING UTILITIES. THE CONTRACTOR(S) SHALL CONTACT LOCAL UTILITY LOCATION SERVICES IN LOCATING EXISTING UTILITIES. IF ANY EXISTING UTILITIES ARE ENCOUNTERED OR DAMAGED DURING CONSTRUCTION, THEY SHALL BE REPAIRED PROPERLY BY THE CONTRACTOR. IF THEY ARE UTILITIES TO BE ABANDONED, THEY SHALL BE CAPPED, SEALED AND ABANDONED PROPERLY PER THEIR RESPECTIVE OWNER'S CRITERIA.
- THE MUNICIPALITY SHALL BE NOTIFIED 48 HOURS IN ADVANCE PRIOR TO COMMENCEMENT OF ANY APPROVED CONSTRUCTION ACTIVITY AND TO SCHEDULE ALL REQUIRED INSPECTIONS.
- EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORD.
- EXCAVATIONS SHOULD COMPLY WITH THE REQUIREMENTS OF OSHA 29CFR, PART 1926, SUBPART P, "EXCAVATIONS" AND ITS APPENDICES, AS WELL AS OTHER APPLICABLE CODES. THIS DOCUMENT STATES THAT THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, CONSTRUCTION OF STABLE, TEMPORARY EXCAVATIONS. THE EXCAVATIONS SHOULD NOT ONLY BE IN ACCORDANCE WITH CURRENT OSHA EXCAVATION AND TRENCH SAFETY STANDARDS BUT ALSO WITH APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS. THE CONTRACTOR SHOULD SHORE, SLOPE OR BENCH THE EXCAVATION SIDES WHEN APPROPRIATE. THE CONTRACTOR'S RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL ALSO BE RESPONSIBLE FOR THE MEANS, METHODS AND SEQUENCING OF CONSTRUCTION OPERATIONS.
- REMOVED PAVEMENT, SIDEWALK, CURB AND GUTTER, EXCESS MATERIALS, DEBRIS, ETC. SHALL BE LEGALLY DISPOSED OF AT OFF-SITE LOCATIONS PROVIDED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- CONSTRUCTION SITE SAFETY IS SOLE RESPONSIBILITY OF THE CONTRACTOR WHO CONTROLS THE MEANS, METHODS, AND SEQUENCING OF CONSTRUCTION OPERATIONS. UNDER NO CIRCUMSTANCES SHALL THE INFORMATION PROVIDED HEREON BE INTERPRETED AS ASSUMING RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY, OR THE CONTRACTOR'S ACTIVITIES; SUCH RESPONSIBILITY SHALL NEITHER BE IMPLIED NOR INFERRED.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ADEQUATE SIGNS, BARRICADES, FENCING, TRAFFIC CONTROL DEVICES AND MEASURES AND ALL OTHER MEASURES THAT ARE NECESSARY TO PROTECT THE SAFETY OF THE SITE AT ALL TIMES. BARRICADES AND WARNING SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE 700 OF THE STANDARD SPECIFICATIONS.
- SITE ACCESS CONTROL INCLUDING SAFETY FENCES, AND ALL CONSTRUCTION MEANS AND METHODS AND SITE SAFETY ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EXISTING TRAFFIC SIGNS, STREET SIGNS, ETC., WHICH INTERFERE WITH CONSTRUCTION OPERATIONS AND NOT NOTED TO BE REMOVED OR DISPOSED OF, SHALL BE RESET BY THE CONTRACTOR AT LOCATIONS AS DESIGNATED BY THE ENGINEER. THIS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED. DAMAGE TO THESE ITEMS SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE. ALL SIGNS NOT REQUIRED TO BE RESET SHALL BE DELIVERED TO THE CITY OR COUNTY AS APPROPRIATE.
- ALL PERMANENT TYPE PAVEMENTS OR PERMANENT IMPROVEMENTS WHICH ABUT THE PROPOSED IMPROVEMENT AND MUST BE REMOVED, SHALL BE FULL DEPTH SAW-CUT PRIOR TO REMOVAL. ALL ITEMS SO REMOVED SHALL BE REPLACED WITH SIMILAR CONSTRUCTION MATERIALS TO THEIR ORIGINAL CONDITION OR BETTER. PAYMENT FOR SAWING SHALL BE INCLUDED IN THE COST FOR REMOVAL OF EACH ITEM AND REPLACEMENT WILL BE PAID UNDER THE RESPECTIVE ITEMS IN THE CONTRACT, UNLESS OTHERWISE INDICATED.
- WHERE OVERHANGING BRANCHES INTERFERE WITH OPERATIONS OF CONSTRUCTION, SAID BRANCHES SHALL BE TRIMMED AND SEALED IN ACCORDANCE WITH ARTICLE 253.09 OF THE STANDARD SPECIFICATIONS, AND THE COST OF SAME SHALL BE INCIDENTAL TO THE CONTRACT. IF TREES OR SHRUBS MUST BE REMOVED, THEY WILL BE PAID FOR IN ACCORDANCE WITH THE SPECIFICATIONS.
- WHenever the PERFORMANCE OF WORK IS INDICATED ON THE PLANS, AND NO ITEM IS INCLUDED IN THE CONTRACT FOR PAYMENT, THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- CONTRACTOR SHALL RETAIN THE SERVICES OF AN ILLINOIS PROFESSIONAL ENGINEER OR A PROFESSIONAL ILLINOIS LAND SURVEYOR TO PREPARE RECORD DRAWINGS SHOWING THE ELEVATION OF ALL RIMS AND INVERTS OF ALL PIPES AND STRUCTURES, LOCATIONS OF VENTS, MANHOLES, STRUCTURES, FIRE HYDRANTS, UNDERGROUND PIPES, AND RECORD INFORMATION ON THE RECORD DRAWINGS AT THE JOB SITE AS THE WORK PROGRESSES. UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL FURNISH A COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS SIGNED AND SEALED BY AN ILLINOIS PROFESSIONAL ENGINEER OR A PROFESSIONAL LAND SURVEYOR.
- CONTRACTOR SHALL RETAIN THE SERVICES OF AN ILLINOIS PROFESSIONAL SURVEYOR TO STAKE OUT THE GRADE AND HORIZONTAL LAYOUT OF THE NEW WORK. THIS WORK SHALL NOT BE PAID FOR SEPARATELY AND SHALL BE INCIDENTAL TO THE CONTRACT. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROTECT AND PRESERVE ANY ESTABLISHED REFERENCE POINTS AND STAKES AND SHALL MAKE NO CHANGES OR RELOCATIONS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER. CONTRACTOR SHALL REPORT TO ENGINEER WHENEVER ANY REFERENCE POINT IS LOST OR DESTROYED OR REQUIRES RELOCATION BECAUSE OF NECESSARY CHANGES IN GRADES OR LOCATIONS, AND SHALL BE RESPONSIBLE FOR THE ACCURATE REPLACEMENT OR RELOCATION OF SUCH REFERENCE POINTS BY PROFESSIONALLY QUALIFIED PERSONNEL AT HIS OR HER OWN EXPENSE.
- SPECIAL ATTENTION IS DRAWN TO THE FACT THAT ARTICLE 105.06 OF THE STANDARD SPECIFICATION'S REQUIRES THE CONTRACTOR TO HAVE A COMPETENT SUPERINTENDENT ON THE PROJECT SITE AT ALL TIMES IRRESPECTIVE OF THE AMOUNT OF WORK SUBLET. THE SUPERINTENDENT SHALL BE CAPABLE OF READING AND UNDERSTANDING THE PLANS AND SPECIFICATIONS, SHALL HAVE FULL AUTHORITY TO EXECUTE ORDERS TO EXPEDITE THE PROJECT, AND SHALL BE RESPONSIBLE FOR SCHEDULING AND HAVE CONTROL OF ALL WORK AS THE AGENT OF THE GENERAL CONTRACTOR. FAILURE TO COMPLY WITH THIS PROVISION WILL RESULT IN A SUSPENSION OF WORK AS PROVIDED IN ARTICLE 108.07.

26. N/A

- THE CONTRACTOR, BY AGREEING TO PERFORM THE WORK, AGREES TO INDEMNIFY AND HOLD HARMLESS THE OWNER, THE ENGINEER, THE CITY, AND ALL AGENTS AND ASSIGNS OF THOSE PARTIES, FROM ALL SUITS AND CLAIMS ARISING OUT OF THE PERFORMANCE OF SAID WORK, AND FURTHER AGREES TO DEFEND OR OTHERWISE PAY ALL LEGAL FEES ARISING OUT OF THE DEFENSE OF SAID PARTIES.
- ALL ROADS, SWALES, DRAINAGE STRUCTURES, MANHOLES AND PIPES MUST BE KEPT CLEAN AND FREE OF DIRT, SILT AND DEBRIS AT ALL TIMES.
- IF ANY EXISTING UNDERGROUND UTILITIES ARE ENCOUNTERED OR DAMAGED DURING CONSTRUCTION, THEY SHALL BE REPAIRED PROPERLY BY THE CONTRACTOR. IF THEY ARE UTILITIES TO BE ABANDONED, THEY SHALL BE CAPPED, SEALED AND ABANDONED PROPERLY PER THEIR RESPECTIVE OWNER'S CRITERIA.
- CONTRACTOR SHALL PURCHASE AND MAINTAIN FOR THE DURATION OF THE WORK INSURANCE TO PROTECT ENGINEER, OWNER, ALL OF THEIR AGENTS, EMPLOYEES, SUCCESSORS, AND ASSIGNS FROM ANY AND ALL CLAIMS ARISING OUT OF THE CONSTRUCTION OF THE WORK INCLUDING NAMING THEM AS ADDITIONAL INSURED ON THE CONTRACTORS GENERAL LIABILITY POLICY, WHICH SHALL STATE THAT IT IS PRIMARY IN COVERAGE TO ANY INSURANCE CARRIED BY AGENTS, EMPLOYEES, SUCCESSORS, OR ASSIGNS.
- ALL WORK PERFORMED BY THE CONTRACTOR SHALL BE GUARANTEED BY THE CONTRACTOR FOR A MINIMUM PERIOD OF TWELVE (12) MONTHS FROM THE DATE OF FINAL ACCEPTANCE, OR AS SPECIFIED IN THE PROJECT MANUAL. THIS GUARANTEE SHALL INCLUDE ALL DEFECTS IN MATERIALS AND WORKMANSHIP.
- ANY QUANTITIES CONTAINED IN THESE DOCUMENTS ARE APPROXIMATE AND ESTIMATED, AND ARE PRESENTED AS A GUIDE TO THE CONTRACTOR IN DETERMINING ALL QUANTITIES AND TO BECOME FAMILIAR WITH THE SITE CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALL MATERIAL QUANTITIES AND APPRAISE HIMSELF OF ALL SITE CONDITIONS. THE PRICE SUBMITTED BY THE CONTRACTOR SHALL BE CONSIDERED AS SUM FOR THE COMPLETE PROJECT, NO CLAIMS FOR EXTRA WORK WILL BE RECOGNIZED, UNLESS ORDERED IN WRITING BY THE OWNER.

EARTHWORK AND GRADING

- THE GEOTECHNICAL REPORT FOR THE PROJECT WAS PREPARED SHALL BE FOLLOWED. THE GEOTECHNICAL INVESTIGATION REPORT WILL BE PROVIDED.
- SOIL EROSION CONTROL SPECIFICATIONS SHALL BE CONSIDERED AS PART OF THIS SECTION. ALL SOIL EROSION CONTROL PLANS SHALL BE IN PLACE BEFORE THE START OF ANY SITE WORK, PER THE APPROVED EROSION CONTROL PLANS AND SWPPP.
- SOIL EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL IN ILLINOIS" SHALL BE FOLLOWED AT THE DISCRETION OF THE MUNICIPALITY.
- ALL PROPOSED PAVEMENT AREAS SHALL BE STRIPPED OF ALL TOPSOIL AND UNSUITABLE MATERIAL AND EXCAVATED OR FILLED TO DESIGN SUBGRADE.
- STOCKPILING OF SOIL SHALL BE AT LOCATIONS APPROVED BY THE OWNER.
- PROPOSED PAVEMENT AREAS AND WHEN APPLICABLE, BUILDING PADS, DRIVEWAYS AND SIDEWALKS SHALL BE EXCAVATED OR FILLED TO PLUS OR MINUS 0.1 FOOT OF DESIGN SUBGRADE ELEVATION BY THE CONTRACTOR. PRIOR TO PAVEMENT OF ANY PAVEMENTS, CURBS, WALK, ETC. THE SUBGRADE SHALL BE PROOF-ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK, MINIMUM OF 20 TONS. PROOF-ROLLING SHALL BE WITNESSED THE GEOTECHNICAL ENGINEER, PROVIDED BY THE OWNER, AND THE MUNICIPAL REPRESENTATIVE. THE DENSITY OF IN-PLACE BASE, SUBGRADE AND ASPHALT PAVEMENT MATERIALS SHALL BE TESTED BY THE GEOTECHNICAL ENGINEER. ALL TEST RESULTS SHALL BE SUBMITTED TO THE OWNER & ENGINEER.
- THE SUBGRADE SHALL BE FREE OF UNSUITABLE MATERIAL AND SHALL BE COMPACTED TO A MINIMUM OF NINETY-FIVE (95) PERCENT OF MOIST PROCTOR DENSITY. PER ASTM D-1557, CONTRACTOR TO COORDINATE TESTING FOR COMPACTION WITH THE GEOTECHNICAL ENGINEER, PROVIDED BY THE OWNER. ALL TEST RESULTS SHALL BE SUBMITTED TO THE OWNER & ENGINEER.
- DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL INSURE POSITIVE SITE DRAINAGE AT THE CONCLUSION OF EACH DAY. SITE DRAINAGE MAY BE ACHIEVED BY DITCHING, PUMPING OR ANY OTHER METHOD ACCEPTABLE TO THE ENGINEER. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.
- UPON COMPLETION OF THE SURFACE IMPROVEMENTS, THE CONTRACTOR SHALL RE-SPREAD A MINIMUM OF A 6" LAYER OF TOPSOIL ON ALL DISTURBED PARKWAY AND LANDSCAPED/LAWN AREAS AND RESTORE WITH SOD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL SPOILS MATERIAL AS NECESSARY, PREPARING THE PAVEMENT SUBGRADE, PLACING REQUIRED DEPTH OF TOPSOIL TO FINISH GRADE, GRADING OF DRAINAGE SWALES, AND ALL OTHER TASKS AS DIRECTED BY THE OWNER OR ENGINEER.

PAVING

- THE PROPOSED ASPHALT PAVEMENT SHALL CONSIST OF THE SUBGRADE COURSE (AS SPECIFIED) BASE COURSE, BITUMINOUS CONCRETE BINDER COURSE, AND BITUMINOUS CONCRETE SURFACE COURSE. OF THE THICKNESS AND MATERIALS AS SPECIFIED ON THE CONSTRUCTION PLANS. PRIME COAT MATERIAL SHALL BE BITUMINOUS M.C. 30, UNLESS SHOWN AS A BID ITEM, PRIME COAT SHALL BE CONSIDERED AS INCIDENTAL TO THE COST OF THE CONTRACT. ALL PAVEMENT MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE I.D.O.T. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," AND SUPPLEMENTAL SPECIFICATIONS, LATEST EDITIONS.
- ALL DAMAGED AREAS IN THE BINDER, BASE OR CURB AND GUTTER SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AND MUNICIPALITY PRIOR TO LAYING THE SURFACE COURSE. THE CONTRACTOR SHALL PROVIDE WHATEVER EQUIPMENT AND MANPOWER NECESSARY INCLUDING THE USE OF POWER BROOMS IF REQUIRED BY THE ENGINEER TO PREPARE THE PAVEMENT FOR APPLICATION OF THE SURFACE COURSE. EQUIPMENT AND MANPOWER FOR CLEANING SHALL BE CONSIDERED AS INCIDENTAL TO THE COST OF THE CONTRACT. PRIME COAT FOR THE BINDER COURSE SHALL ALSO BE CONSIDERED AS INCIDENTAL TO THE COST OF THE CONTRACT AND SHALL BE APPLIED TO THE BINDER AT A RATE OF 0.3 GALLONS PER SQUARE YARD.
- CONCRETE CURBS (& GUTTERS):
  - ALL CURB AND GUTTER SHALL BE CONSTRUCTED WITH IDOT CLASS "SI" CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 14 DAYS. ALL CONCRETE SHALL HAVE A MINIMUM FLEXURAL STRENGTH OF 650 PSI. ALL CONCRETE SHALL BE BROOM FINISHED.
  - CONTRACTION JOINTS SHALL BE SAW-CUT AT 20 FOOT INTERVALS AND CAULKED WITH JOINT SEALANT.
  - PREFORMED FIBER BOARD EXPANSION JOINTS, 3/4" INCH THICK, SHALL BE PLACED FIVE FEET EITHER SIDE OF STORM STRUCTURES IN CURB AND GUTTER, AT CURB RETURNS AND AT POINTS OF CURVATURE, AT ALL CONNECTIONS BETWEEN NEW AND EXISTING CURB AND GUTTER, AND AT 40 FOOT INTERVALS ON TANGENTS.
  - 2-#5 DOWELS, 2 FEET LONG, SHALL BE PROVIDED AT ALL EXPANSION JOINTS AND AT CONNECTIONS BETWEEN EXISTING AND NEW CURB AND GUTTER. DOWELS SHALL BE CENTERED ON THE JOINT, (DRILLED INTO EXISTING CURB AND GUTTER), AND SHALL BE INSTALLED WITH GREASE CAPS ON ONE SIDE.
  - THE PROPOSED CURB AND GUTTER AND PAVEMENT SHALL BE OF THE TYPE AND THICKNESS AS SPECIFIED IN THESE DRAWINGS, AND CONSTRUCTED IN CONFORMANCE WITH THE IDOT STANDARD SPECIFICATIONS PREVIOUSLY REFERENCED AND THE REQUIREMENTS OF THE GOVERNING MUNICIPALITY.
  - DEPRESSED CURB SHALL BE PROVIDED FOR HANDICAPPED RAMPS LOCATIONS.
  - G ALL JOINTS SHALL BE SEALED WITH CONCRETE JOINT SEALANT PER NOTE 6 BELOW.
- CONCRETE SIDEWALK (INCLUDING CURB RAMPS):
  - ALL SIDEWALK SHALL BE CONSTRUCTED WITH IDOT CLASS "SI" CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 14 DAYS. ALL CONCRETE SHALL HAVE A MINIMUM FLEXURAL STRENGTH OF 650 PSI. ALL CONCRETE SHALL BE LIGHTLY BROOM FINISHED.
  - TOOLED CONTRACTION JOINTS SHALL CONSTRUCTED AT EVERY ±5", OR AS SHOWN ON PLANS. TOOLED CONTRACTION JOINTS SHALL EXTEND TO 1/4 THE DEPTH OF THE SIDEWALK AND SHALL BE 1/4 INCH IN WIDTH.
  - PREFORMED FIBER BOARD EXPANSION JOINTS, 3/4" THICK, SHALL BE PLACED EVERY 100' AND AT ALL ABUTTING DRIVEWAYS AND CURB AND GUTTER. FOR SIDEWALK ADJACENT TO CURB, EXPANSION JOINT SPACING SHALL MATCH CURB EXPANSION JOINTS AS PRACTICAL. FIBER BOARDS SHALL BE PLACED 1/2 INCH BELOW THE FINISHED SURFACE OF THE SIDEWALK AND CAULKED WITH JOINT SEALANT, MATCHING THE COLOR OF THE SIDEWALK.
  - PREFORMED EXPANSION JOINTS, 1/2" THICK, SHALL BE PLACED BETWEEN BUILDINGS, LIGHT POLES, TRAFFIC SIGNALS, AND OTHER RIGID STRUCTURES AND CAULKED WITH JOINT SEALANT, MATCHING THE COLOR OF THE SIDEWALK.
  - ALL SIDEWALKS CROSSING UTILITY TRENCHES HAVE TWO #4 REINFORCING BARS, 10 FOOT LONG, CENTERED OVER TRENCH.

- DETECTIBLE WARNINGS SHALL CONSIST OF TRUNCATED DOMES MEETING THE REQUIREMENTS OF ADAAG AND INSTALLED AT LOCATIONS SHOWN ON PLAN AND WERE PEDESTRIANS ARE REQUIRED TO CROSS A HAZARDOUS VERTICAL CURB. DETECTIBLE WARNINGS SHALL BE AN APPROVED COLOR CONTRASTING TO THE CURB RAMP MATERIAL AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
- CONCRETE PAVEMENT AND DRIVE APRONS:
  - CONCRETE PAVEMENT SHALL BE CONSTRUCTED WITH IDOT CLASS "PV" CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 14 DAYS. IF A HIGH EARLY CONCRETE MIX IS REQUIRED TO REDUCE TRAFFIC CLOSURES, IDOT CLASS "PP" WITH PRIOR APPROVAL OF THE ENGINEER. ALL CONCRETE SHALL HAVE A MINIMUM FLEXURAL STRENGTH OF 650 PSI. ALL CONCRETE SHALL BE BROOM FINISHED.
  - ADEQUATE CONSTRUCTION JOINTS, CONTRACTION JOINTS FOR ISOLATION JOINTS SHOULD BE PROVIDED IN THE AREAS OF RIGID PAVEMENT TO REDUCE THE IMPACTS OF CRACKING AND SHRINKAGE. PLEASE REFER TO ACI 330R-01 GUIDE FOR DESIGN OF CONCRETE PARKING LOTS.
  - CONCRETE PAVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ARTICLE 420 OF THE I.D.O.T. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," AND SUPPLEMENTAL SPECIFICATIONS, LATEST EDITIONS.
  - ALL JOINTS, WITH THE EXCEPTION OF SAWED JOINTS, SHALL BE SEALED WITH CONCRETE JOINT SEALANT PER NOTE 6 BELOW.
- CURING AND PROTECTION OF ALL CONCRETE SHALL BE IN CONFORMANCE WITH SECTION 1020.13 OF THE IDOT STANDARD SPECIFICATIONS, PREVIOUSLY REFERENCED.
- CONCRETE JOINT SEALANT SHALL BE POURTHANE SL, SIKAFLEX 1C SL OR APPROVED EQUAL, MATCHING THE COLOR OF THE CONCRETE.
- THE PAVING CONTRACTOR IS RESPONSIBLE FOR THE FINAL SUBGRADE PREPARATION, THE PAVEMENT BASE, BINDER, AND SURFACE, AND ALL FINAL CLEAN-UP AND RELATED WORK ASSOCIATED WITH THE PAVING OPERATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL CORING, TESTING, AND PAVEMENT EVALUATION AS REQUIRED BY THE MUNICIPALITY FOR ACCEPTANCE AT HIS OWN EXPENSE. THE CONTRACTOR SHALL INCLUDE THIS AS A SEPARATE BID ITEM OR ELSE IT WILL BE ASSUMED THAT THIS COST HAS BEEN FIGURED INTO THE UNIT PRICES FOR THE PAVING ITEMS. ALL TESTING RESULTS SHALL BE MADE AVAILABLE TO THE MUNICIPALITY FOR REVIEW.
- IDOT APPROVED, RECYCLED CONCRETE CA-6, MAY BE SUBSTITUTED FOR CA-6 CRUSHED STONE AGGREGATE FOR PAVEMENT AND SIDEWALK SUBBASE MATERIALS.

STANDARD UTILITY PROVISIONS

- ALL UTILITY CONSTRUCTION WORK SHALL GOVERNED BY:
  - "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" LATEST EDITION. (STANDARD SPECIFICATIONS)
  - TITLE 35 ILLINOIS EPA REQUIREMENTS
  - PART 889 ILLINOIS PLUMBING CODE REQUIREMENTS
  - SANITARY DISTRICT REQUIREMENTS
  - MUNICIPAL/LOCAL REQUIREMENTS
  - ROADWAY AUTHORITIES REQUIREMENTS
- ALL UTILITY TRENCHES UNDER AND WITHIN TWO FEET OF PAVEMENT, SIDEWALK, CURB AND GUTTER, ETC. SHALL BE BACKFILLED WITH CA-6 CRUSHED STONE (GRADE 8 OR 9), COMPACTED IN 8" LIFTS TO 95% OF MODIFIED PROCTOR, PER ASTM D-1557.
- UTILITY CONNECTIONS WITHIN THE STREET RIGHT OF WAY SHALL BE ACCOMPLISHED BY SAW CUTTING AND REMOVING EXISTING PAVEMENT. BACKFILL AND RESTORATION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STREET JURISDICTIONAL AUTHORITY.
- THE UNDERGROUND CONTRACTOR, AT THE CONTRACTOR'S EXPENSE, SHALL REMOVE AND DISPOSE OF OFFSITE ANY EXCESS DIRT OR MATERIALS.
- "BAND/SEAL" OR SIMILAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPE OR DISSIMILAR MATERIALS.
- A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER MAIN AND ANY SEWERS WHEN THEY ARE PARALLEL. WHENEVER A SEWER CROSSES A WATER MAIN, A MINIMUM VERTICAL DISTANCE OF 18 INCHES MUST BE MAINTAINED BETWEEN THE OUTSIDE OF THE PIPES, AND THE SEWER JOINTS ARRANGED SO THEY ARE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS. WHEN IT IS NECESSARY FOR A SEWER TO CROSS OVER THE TOP OF A WATER MAIN WITH 18" SEPARATION, OR THE SEWER CROSSES UNDER THE WATERMAIN WITH LESS THAN 18" VERTICAL SEPARATION, OR 10' HORIZONTAL SEPARATION IS NOT MAINTAINED, THEN THE FOLLOWING METHOD MUST ALSO BE CONSTRUCTED:
  - THE SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO THE WATER MAIN PIPE FOR THE LENGTH OF THE INADEQUATE HORIZONTAL SEPARATION OR FOR A DISTANCE OF TEN (10) FEET EITHER SIDE OF A CROSSING AND SHALL BE PRESSURE-TESTED TO INSURE WATER TIGHTNESS PRIOR TO BACKFILLING.
  - FOR A STORM SEWER CROSSING, THE RCP STORM SEWER(ASTM C-361) SHALL BE CONSTRUCTED WITH O-RING GASKETED JOINTS (C-443) FOR A DISTANCE OF TEN (10') FEET EITHER SIDE OF A CROSSING.
- ALL CAST AND DUCTILE IRON PIPE AND FITTINGS SHALL BE ENCASED IN A 8-MIL POLYETHYLENE TUBING. THE TUBING SHALL COMPLY WITH THE AMERICAN NATIONAL STANDARD FOR POLYETHYLENE ENCASEMENT FOR GRAY AND DUCTILE IRON PIPING ANSI/AWWA C105/72/A21.5 OR AS REVISED. INSTALLATION PROCEDURES SHALL BE THOSE AS RECOMMENDED BY THE CAST IRON PIPE RESEARCH ASSOCIATION.
- ALL MANHOLES, CATCH BASINS, INLETS AND VALVE VAULTS SHALL BE CONSTRUCTED OF REINFORCED PRECAST CONCRETE RING CONSTRUCTION WITH TONGUE AND GROOVE JOINTS IN CONFORMANCE WITH THE LATEST REVISION OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION. ALL STRUCTURE SECTIONS AND ADJUSTING RINGS SHALL BE SECURELY SEALED TO EACH OTHER AND TO CASTING USING RESILIENT FLEXIBLE NON-HARDENING PREFORMED BITUMINOUS MASTIC (REM-NEK OR APPROVED EQUAL) OR BUTYL RUBBER JOINT SEALER (EASY STICK OR APPROVED EQUAL). CONTRACTOR SHALL REMOVE EXCESS MASTIC INSIDE STRUCTURE AND BUTTER JOINTS WITH MORTAR. ALL STORM AND SANITARY STRUCTURES SHALL HAVE OFFSET CONES, EXCEPT WHERE THE STRUCTURE IS REQUIRED TO BE A REINFORCED CONCRETE FLAT TOP. VALVE VAULTS SHALL HAVE CONCENTRIC CONES. A MAXIMUM OF 2 PRECAST CONCRETE ADJUSTMENT RINGS LIMITED TO 8 INCHES TOTAL HEIGHT SHALL BE PERMITTED. MOLDED PLASTIC, REINFORCED, MANHOLE STEPS SHALL BE PROVIDED. CONTRACTOR SHALL ADJUST STRUCTURES TO FINISHED GRADE AS NEEDED.
- SEE DETAIL SHEETS THIS SET FOR FURTHER INFORMATION REGARDING THE STORM, SANITARY AND WATERMAIN REQUIREMENTS, INCLUDING BUT NOT LIMITED TO BEDDING AND BACKFILL MATERIALS.

STANDARD STORM SEWER PROVISIONS

- STORM SEWER SHALL BE CONSTRUCTED OF ONE OR MORE OF THE FOLLOWING MATERIALS AS SPECIFIED ON THE PLANS:
  - REINFORCED CONCRETE PIPE PER ASTM C-76, IDOT CLASS IV, IN ACCORDANCE WITH ASTM C-361, WITH FLEXIBLE O-RING GASKETED JOINTS, IN ACCORDANCE WITH ASTM C-443 (WATERMAIN QUALITY PIPE AND JOINTS).
  - POLYVINYLCHLORIDE PLASTIC GRAVITY SEWER PIPE (PVC) SDR-26 (ASTM D-3034 WITH GASKETED JOINTS PER ASTM D-3212)
  - DUCTILE IRON PIPE CLASS 52 (ANSI A21.51 WITH ANSI A21.11 JOINTS)
  - ADS HP-STORM HDPE HIGH PERFORMANCE PIPE, PER ASTM F-2881, WITH JOINTS PER ASTM D-3212, INSTALLED AND BACKFILLED PER MANUFACTURERS RECOMMENDATIONS. A MINIMUM OF 100% OF THE INSTALLED PIPE SHALL BE DEFLECTION TESTED PER THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.
- STORM MANHOLES SHALL HAVE IN ADDITION TO THE GENERAL MANHOLE REQUIREMENTS:
  - ALL STORM STRUCTURE CASTINGS SHALL HAVE "DRAINS TO RIVER" AND "DUMP NO WASTE" CAST IN LID.
  - ALL STORM STRUCTURES SHALL HAVE OPEN GRATES.
  - STORM CATCH BASINS, INLETS AND MANHOLES, IN CURB LINES, SHALL HAVE E.J.I.W. 7210 CASTINGS WITH TYPE M1 GRATES, OR APPROVED EQUAL, UNLESS OTHERWISE NOTED.
  - STORM CATCH BASINS, INLETS IN OPEN PAVED AREAS, AND ALL MANHOLES, SHALL HAVE NEENAH R-2504-D CASTINGS, OR APPROVED EQUAL, UNLESS OTHERWISE NOTED.
  - STORM CATCH BASINS AND INLETS IN LANDSCAPED AREAS, SHALL HAVE NEENAH R-4340-B CASTINGS, OR APPROVED EQUAL, UNLESS OTHERWISE NOTED.
- ALL ROOF DRAINS, FOOTING DRAINS, AND OUTSIDE DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.
- ALL STORM SEWERS SHALL BE INSPECTED AND TESTED IN KEEPING WITH ALL GOVERNING AGENCY REQUIREMENTS

STANDARD SANITARY SEWER PROVISIONS:

- ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER.
  - ALL DOWNSPOUTS, FOOTING DRAINS, AND OUTSIDE DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM OR TO GRADE.
  - SANITARY SEWER SHALL BE CONSTRUCTED OF ONE OR MORE OF THE FOLLOWING MATERIALS AS SPECIFIED ON THE PLANS:
    - POLYVINYLCHLORIDE PLASTIC GRAVITY SEWER PIPE (PVC) SDR-26 (ASTM D-3034 WITH GASKETED JOINTS PER ASTM D-3212)
    - DUCTILE IRON PIPE CLASS 52 (ANSI A21.51 WITH ANSI A21.11 JOINTS)
    - ALL SANITARY PIPING SHALL BE INSTALLED ON CLASS "B" BEDDING
  - "BAND-SEAL" OR SIMILAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPE OF DISSIMILAR MATERIALS OR SIZES.
  - WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
    - CIRCULAR SAW-CUT OF THE SEWER MAIN BY PROPER TOOLS ("SEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUB-WYE SADDLE OR HUB-TEE SADDLE.
    - REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
    - WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND-SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.
    - INSTALL A NEW MANHOLE.
  - SANITARY MANHOLES SHALL HAVE IN ADDITION TO THE GENERAL MANHOLE REQUIREMENTS:
    - BASE AND BOTTOM SECTION SHALL BE MONOLITHICALLY CAST INCLUDING BENCHES, INVERTS AND FLOW LINES.
    - PIPE CONNECTION OPENINGS SHALL BE PRECAST WITH RESILIENT RUBBER WATERTIGHT PIPE SLEEVES CONFORMING TO ASTM C-923.
    - CHIMNEY SEAL OR APPROVED ALTERNATE AS REQUIRED BY MUNICIPALITY OR SANITARY DISTRICT.
    - ALL SANITARY MANHOLES SHALL BE TESTED PER ASTM C-969 OR ASTM C-1244.
    - SANITARY MANHOLES SHALL HAVE NEENAH R-1772 CASTINGS, WITH CONCEALED PICK HOLES, SELF-SEALING GASKET AND "SANITARY" CAST IN LID, OR APPROVED EQUAL.
  - ALL SEPTIC TANKS (IF ANY) BEING ABANDONED SHALL BE FILLED OR REMOVED. APPROVAL MUST BE OBTAINED FROM THE APPROPRIATE COUNTY HEALTH DEPARTMENT. ALL SEWER CONNECTIONS SHALL BE MADE UPSTREAM FROM THE TANK. CONTRACTORS SHALL OBTAIN ANY NECESSARY PERMITS FOR REMOVAL.
  - ALL SANITARY SEWERS SHALL BE TESTED PER THE "STANDARD SPECIFICATIONS" SECTION 31-1.12, IN KEEPING WITH ALL STATE AND MUNICIPALITY REQUIREMENTS. INFILTRATION SHALL NOT EXCEED 100 GALLONS/INCH DIAMETER/MILE/DAY. ALL CONSTRUCTION SHALL CONFORM TO "ILLINOIS RECOMMENDED STANDARDS FOR SEWER WORKS", LATEST EDITION, PUBLISHED BY THE ILLINOIS E.P.A. EXCEPT FOR CONFLICTS WITH THE MUNICIPALITY REQUIREMENTS, WHERE THE MUNICIPALITY REQUIREMENTS SHALL TAKE PRECEDENCE.
  - ALL SANITARY SEWER MANHOLES SHALL BE INSPECTED AND TESTED PER THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS, SECTION 32.12, IN CONFORMANCE WITH ASTM C-969 OR ASTM C-1244.
  - ALL FLEXIBLE (PVC) PIPE SHALL BE DEFLECTION TESTED PER THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", LATEST EDITION.
  - ALL SANITARY SEWERS SHALL BE TELEVIEWED AND TESTED AS REQUIRED BY THE MUNICIPALITY. TWO (2) COPIES OF THE VIDEO(S) AND REPORT(S) SHALL BE SUBMITTED TO THE ENGINEER.
- STANDARD WATER MAIN PROVISIONS
- WATER MAIN AND SERVICES SHALL BE CONSTRUCTED OF ONE OR MORE OF THE FOLLOWING MATERIALS AS SPECIFIED ON THE PLANS:
    - DUCTILE IRON PIPE CLASS 52 PER ANSI A 21.51 (AWWA C151), 150 PSI, CEMENT LINED PER ANSI A 21.4 (AWWA C104), WITH "PUSH ON" JOINTS.
    - TYPE K, OR GREATER, COPPER WATER TUBE, CONFORMING TO ASTM B88 AND ASTM B251.
    - POLYVINYLCHLORIDE PLASTIC PRESSURE PIPE, PER AWWA C-900, CLASS 150, WITH A DR OF 18, BLUE IN COLOR AND CLEARLY LABELED AS "WATER", BEAR THE NSF SEAL, WITH RUBBER COMPRESSION RING SEALS PER ASTM D-1869. PIPE INSTALLATION SHALL ALSO INCLUDE A 14-GAUGE UF TRACER WIRE WITH JOINT SEAL AND BLUE INSULATION.
  - FITTINGS TO BE FURNISHED AND INSTALLED AS NEEDED. FITTINGS FOR PIPE LARGER THAN 3 INCH DIAMETER SHALL SHALL BE MECHANICAL TYPE, IN ACCORDANCE WITH ANSI A21.10-03/AWWA C110 STANDARD AND HAVE A 250 PSI PRESSURE RATING. COMPACT FITTINGS IN ACCORDANCE WITH ANSI A21.53-00/AWWA C153, MAY ALSO BE USED. CAST AND DUCTILE IRON FITTINGS SHALL BE LINED, PER THE DUCTILE IRON PIPE SPECIFICATION ABOVE.
  - ALL JOINTS AT BENDS, TEES, OFFSETS, REDUCERS, ETC. SHALL HAVE MEGA-LUG 1100 MECHANICAL JOINT RESTRAINTS. THE LENGTH OF RUN AND BRANCH PIPING RESTRAINT SHALL BE IN ACCORDANCE WITH MANUFACTURERS GUIDELINES AND APPROVED PRIOR TO INSTALLATION.
  - ALL RUBBER GASKETS SHALL BE VULCANIZED NATURAL OR VULCANIZED SYNTHETIC RUBBER, NONPOROUS, FREE OF FOREIGN MATERIALS AND VISIBLE DEFECTS. NO RECYCLED RUBBER SHALL BE USED. THE RUBBER GASKETS SHALL BE IN ACCORDANCE WITH ANSI A21.11/AWWA C111 STANDARD.
  - THE PIPE JOINT SHALL BE SUCH THAT ELECTRICAL CURRENT WILL PASS FROM ONE PIPE TO THE OTHER. THIS MAY BE ACCOMPLISHED IN A MANNER WHICH IS STANDARD FOR THE TYPE OF JOINT SUPPLIED BY A PARTICULAR MANUFACTURER. LEAD TIP GASKET SHOULD NOT BE USED.
  - THE MINIMUM COVER FOR ALL WATER MAIN AND WATER SERVICE PIPE IS FIVE AND ONE-HALF FEET (5'-6") FROM FINISHED GRADE TO TOP OF PIPE.
  - ALL VALVE BASINS ARE TO BE A MINIMUM OF 5 FEET IN DIAMETER. "WATER" SHALL BE CAST INTO ALL LIDS.
  - VALVES SHALL BE MUELLER, OR APPROVED EQUAL, RESILIENT WEDGE GATE VALVES AND BE FURNISHED WITH CAST IRON BODY, BRONZE MOUNTED, BRONZE STEMMED, DOUBLE DISC PATTERN, WITH NON-RISING STEM AND BE DESIGNED FOR 300 POUNDS WORKING PRESSURE. ALL VALVES SHALL OPEN LEFT.
  - HYDRANTS SHALL BE IN ACCORDANCE WITH THE MUNICIPALITIES STANDARD DETAIL.
  - ALL WATER MAINS SHALL BE INSPECTED, TESTED AND DISINFECTED PER ALL GOVERNING AGENCY REQUIREMENTS.
  - ANY WELLS FOUND SHALL BE CAPPED/ABANDONED PER COUNTY HEALTH DEPARTMENT REQUIREMENTS.

NO	ISSUE	DATE
	• IFC SET	• 07/03/23
	•	•
	•	•
	•	•
	•	•
	•	•
	•	•
	•	•
	•	•
	•	•

SPECIFICATIONS

C0.1



STUDIO GC

architecture + interiors

223 West Jackson Boulevard, Suite 1200  
Chicago, Illinois 60606  
(312) 253-3400



rtm  
engineering consultants

650 E. Argonne Road | Suite 250  
Schmaling, IL 60073  
ph: 847.404.5239  
It Design Firm: 184006777-0002

Synthetic Turf Athletic Field Sitework

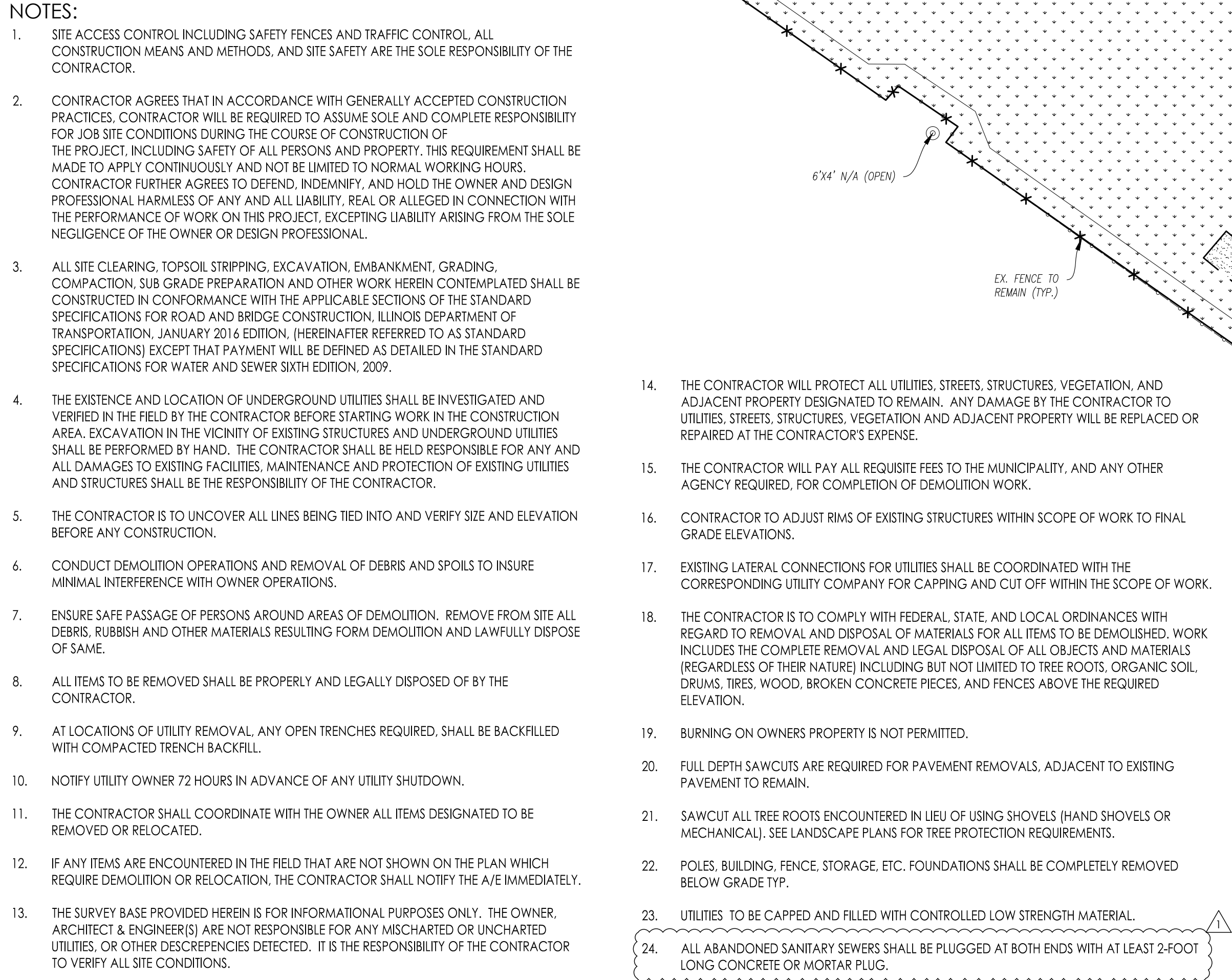
Niles Township High School District 219  
7700 Gross Point Rd, Skokie, Illinois 60077



User: lucas.keller File: J:\2022\22-59C.C06 Niles North HS Synthetic Fields\09-DESIGN DRAWINGS\09-SHEETS\22-59C.C06- SPECIFICATIONS.dwg Time: Jul 13, 2023 - 11:20am

<div><div>A. REFERENCED SPECIFICATIONS</div><div><div>1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS: * STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION; * STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION; * VILLAGE OF SKOKIE MUNICIPAL CODE; * THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL; * IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.</div></div><div><div>B. NOTIFICATIONS</div><div><div>1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055 OR SEND EMAIL NOTIFICATION WITH PROJECT NAME, LOCATION AND PERMIT NUMBER TO <a href="mailto:WMOJOBSTART@MWRD.ORG">WMOJOBSTART@MWRD.ORG</a>).</div><div>2. THE VILLAGE OF SKOKIE ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.</div><div>3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.</div></div><div><div>C. GENERAL NOTES</div><div><div>1. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONVERSION FACTOR IS <u>0.00</u> FT.</div><div>2. MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.</div><div>3. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.</div><div>4. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.</div><div>5. THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.</div><div>6. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.</div><div>7. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.</div><div>8. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.</div><div>9. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.</div><div>10. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.</div></div><div><div>D. SANITARY SEWER</div><div><div>1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.</div><div>2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.</div><div>3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.</div><div>4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).</div><div>5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.</div><div>6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.</div><div>7. ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:</div></div></div></div><div><div>PIPE MATERIAL</div><div>VITRIFIED CLAY PIPE</div><div>REINFORCED CONCRETE SEWER PIPE</div><div>CAST IRON SOIL PIPE</div><div>DUCTILE IRON PIPE</div><div>POLYVINYL CHLORIDE (PVC) PIPE</div><div>6-INCH TO 15-INCH DIAMETER SDR 26</div><div>18-INCH TO 27-INCH DIAMETER F/DY=46</div><div>HIGH DENSITY POLYETHYLENE (HDPE)</div><div>ASTM D-3350</div><div>ASTM D-3035</div><div>WATER MAIN QUALITY PVC</div><div>4-INCH TO 36-INCH</div><div>4-INCH TO 12-INCH</div><div>14-INCH TO 48-INCH</div><div>ASTM D-2241</div><div>AWWA C900</div><div>AWWA C905</div><div>THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.</div><div><div>PIPE MATERIAL</div><div>POLYPROPYLENE (PP) PIPE</div><div>12-INCH TO 24-INCH DOUBLE WALL</div><div>30-INCH TO 60-INCH TRIPLE WALL</div><div>ASTM F-2736</div><div>ASTM F-2764</div><div>D-3212, F-477</div><div>D3212, F-477</div></div><div><div>PIPE SPECIFICATIONS</div><div>ASTM C-700</div><div>ASTM C-76</div><div>ASTM A-74</div><div>ANSI A21.51</div><div>ASTM D-3034</div><div>ASTM F-679</div><div>ASTM D-3350</div><div>ASTM D-3035</div><div>ASTM D-2241</div><div>AWWA C900</div><div>AWWA C905</div><div>8. ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE ¼ " TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.</div><div>9. NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.</div><div>10. ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.</div><div>11. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED: a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE. b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION. c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.</div><div>12. WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.</div><div>13. ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.</div><div>14. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.</div><div>15. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.</div><div>16. ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.</div><div>17. EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.</div><div>18. A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.</div></div><div><div>JOINT SPECIFICATIONS</div><div>ASTM C-425</div><div>ASTM C-443</div><div>ASTM C-564</div><div>ANSI A21.11</div><div>ASTM D-3212</div><div>ASTM D-3212</div><div>ASTM D-3261,F-2620 (HEAT FUSION)</div><div>ASTM D-3212,F-477 (GASKETED)</div><div>ASTM D-3139</div><div>ASTM D-3139</div><div>ASTM D-3139</div></div></div><div><div>E. EROSION AND SEDIMENT CONTROL</div><div><div>1. THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.</div><div>2. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.</div><div>3. ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.</div><div>4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.</div><div>5. INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM: a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE. b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.</div><div>6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.</div><div>7. A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.</div><div>8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.</div><div>9. MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.</div><div>10. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.</div><div>11. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.</div><div>12. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).</div><div>13. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.</div><div>14. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.</div><div>15. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.</div><div>16. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.</div><div>17. THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.</div><div>18. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.</div><div>19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMAINS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.</div><div>20. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.</div><div>21. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.</div><div>22. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.</div><div>23. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.</div></div></div></div></div>
--



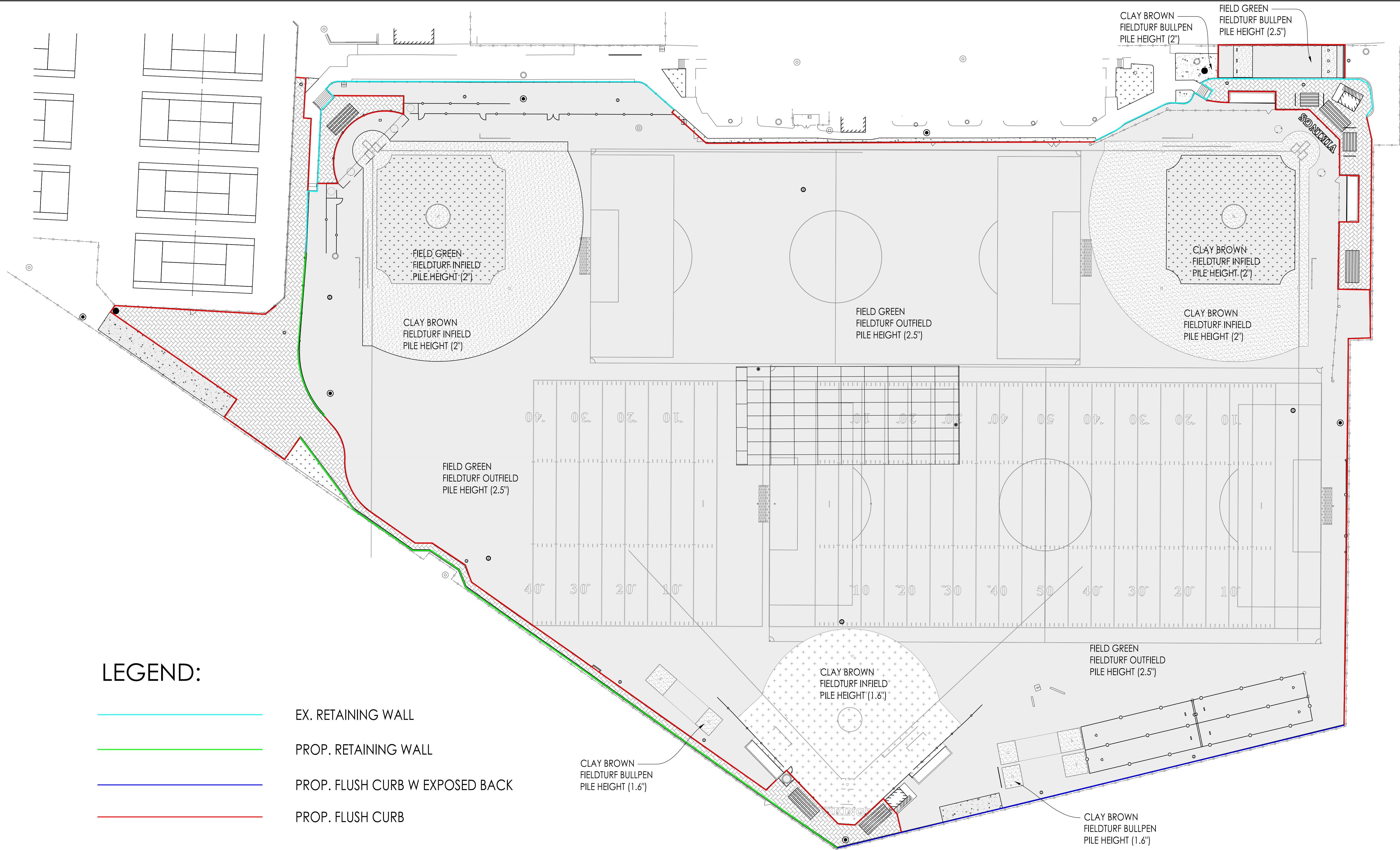








\\rtm\lucas\keller\file\J:\2022\22-55C.C06 Niles North HS Synthetic Fields\09 DESIGN DRAWINGS\02 SHEETS\22-55C.C06 - SITE PLAN.dwg Time: Jul 13, 2023 - 11:23 am



LEGEND:

- EX. RETAINING WALL
- PROP. RETAINING WALL
- PROP. FLUSH CURB W EXPOSED BACK
- PROP. FLUSH CURB

**D 219**  
NILES TOWNSHIP HIGH SCHOOL

**STUDIO GC**  
architecture + interiors  
223 West Jackson Boulevard, Suite 1200  
Chicago, Illinois 60605  
(312) 253-3400

**rtm**  
engineering consultants  
650 E. Algonquin Road | Suite 250  
Schaumburg, IL 60173  
ph: 847.404.5239  
IL Design Firm: 184006777-0002

Synthetic Turf Athletic Field Sitework

**Niles Township High School District 219**  
7700 Gross Point Rd, Skokie, Illinois 60077

NO	ISSUE	DATE
•	IFC SET	• 07/03/23
•		•
•		•
•		•
•		•
•		•
•		•
•		•
•		•
•		•

**CURB LIMIT EXHIBIT**

**C2.1**

22053

RTM PROJ. 22-55C.C06 COPYRIGHT 2023, STUDIOGC, INC.



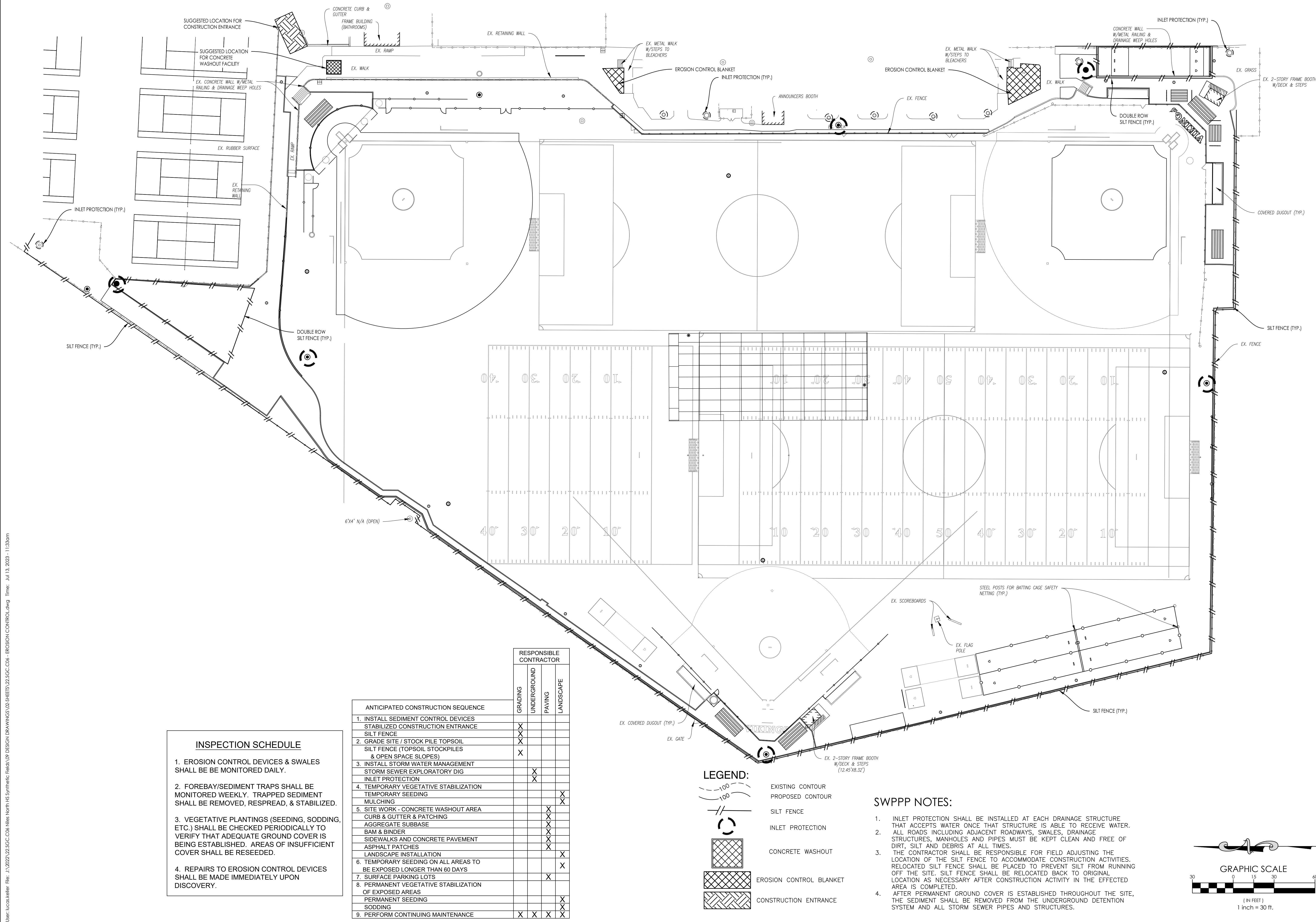








User: lucas.keller File: J:\2023\22.SSC.C06 Niles North HS Synthetic Field\08 DESIGN DRAWINGS\02 SHEETS\22.SSC.C06- EROSION CONTROL.dwg Time: Jul 13, 2023 - 11:33am



### INSPECTION SCHEDULE

1. EROSION CONTROL DEVICES & SWALES SHALL BE MONITORED DAILY.
2. FOREBAY/SEDIMENT TRAPS SHALL BE MONITORED WEEKLY. TRAPPED SEDIMENT SHALL BE REMOVED, RESPREAD, & STABILIZED.
3. VEGETATIVE PLANTINGS (SEEDING, SODDING, ETC.) SHALL BE CHECKED PERIODICALLY TO VERIFY THAT ADEQUATE GROUND COVER IS BEING ESTABLISHED. AREAS OF INSUFFICIENT COVER SHALL BE RESEEDDED.
4. REPAIRS TO EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY UPON DISCOVERY.

### ANTICIPATED CONSTRUCTION SEQUENCE

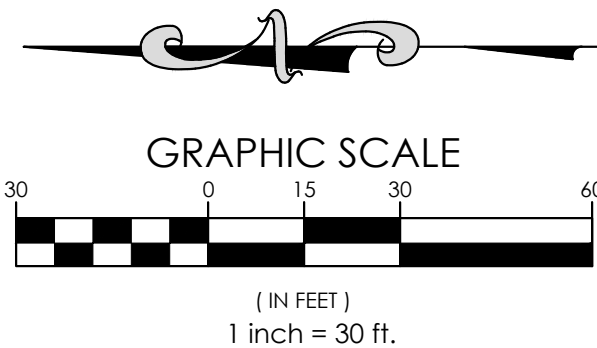
	GRADING	UNDERGROUND	PAVING	LANDSCAPE	RESPONSIBLE CONTRACTOR
1. INSTALL SEDIMENT CONTROL DEVICES					
STABILIZED CONSTRUCTION ENTRANCE	X				
SILT FENCE	X				
2. GRADE SITE / STOCK PILE TOPSOIL					
SILT FENCE (TOPSOIL STOCKPILES & OPEN SPACE SLOPES)	X				
3. INSTALL STORM WATER MANAGEMENT					
STORM SEWER EXPLORATORY DIG		X			
INLET PROTECTION		X			
4. TEMPORARY VEGETATIVE STABILIZATION					
TEMPORARY SEEDING				X	
MULCHING				X	
5. SITE WORK - CONCRETE WASHOUT AREA			X		
CURB & GUTTER & PATCHING			X		
AGGREGATE SUBBASE			X		
BAM & BINDER			X		
SIDEWALKS AND CONCRETE PAVEMENT			X		
ASPHALT PATCHES			X		
LANDSCAPE INSTALLATION				X	
6. TEMPORARY SEEDING ON ALL AREAS TO BE EXPOSED LONGER THAN 60 DAYS				X	
7. SURFACE PARKING LOTS			X		
8. PERMANENT VEGETATIVE STABILIZATION OF EXPOSED AREAS					
PERMANENT SEEDING				X	
SODDING				X	
9. PERFORM CONTINUING MAINTENANCE	X	X	X	X	

### LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- SILT FENCE
- INLET PROTECTION
- CONCRETE WASHOUT
- EROSION CONTROL BLANKET
- CONSTRUCTION ENTRANCE

### SWPPP NOTES:

1. INLET PROTECTION SHALL BE INSTALLED AT EACH DRAINAGE STRUCTURE THAT ACCEPTS WATER ONCE THAT STRUCTURE IS ABLE TO RECEIVE WATER.
2. ALL ROADS INCLUDING ADJACENT ROADWAYS, SWALES, DRAINAGE STRUCTURES, MANHOLES AND PIPES MUST BE KEPT CLEAN AND FREE OF DIRT, SILT AND DEBRIS AT ALL TIMES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD ADJUSTING THE LOCATION OF THE SILT FENCE TO ACCOMMODATE CONSTRUCTION ACTIVITIES. RELOCATED SILT FENCE SHALL BE PLACED TO PREVENT SILT FROM RUNNING OFF THE SITE. SILT FENCE SHALL BE RELOCATED BACK TO ORIGINAL LOCATION AS NECESSARY AFTER CONSTRUCTION ACTIVITY IN THE EFFECTED AREA IS COMPLETED.
4. AFTER PERMANENT GROUND COVER IS ESTABLISHED THROUGHOUT THE SITE, THE SEDIMENT SHALL BE REMOVED FROM THE UNDERGROUND DETENTION SYSTEM AND ALL STORM SEWER PIPES AND STRUCTURES.



Synthetic Turf Athletic Field Sitework

Niles Township High School District 219  
7700 Gross Point Rd., Skokie, Illinois 60077

NO	ISSUE	DATE
•	• IFC SET	• 07/03/23
•		
•		
•		
•		
•		
•		
•		
•		

STORM WATER  
POLLUTION  
PREVENTION  
PLAN

22053

C5.0



User: Local.keller File: J:\X202\22-GCC-006 Niles North IS Synthetic Field\09 DESIGN DRAWINGS\0203 SHEETS\22-GCC-006 - EROSION CONTROL.dwg Time: Jul 13, 2023 - 11:23am

## SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING

### 1.1 PROJECT/SITE INFORMATION

Project/Site Name:  
Project Street/Location:  
City: SKOKIE  
State: IL  
Zip Code:  
  
County or Similar Subdivision: Will County  
Latitude/Longitude  
Latitude: °N (degrees, minutes, seconds)  
Longitude: °W (degrees, minutes, seconds)  
Method for determining latitude/longitude: Google Earth

Is the project located in Indian country? No

Is this project considered a federal facility? No

NPDES project or permit tracking number: To be Determined

(This is the unique identifying number assigned to your project by your permitting authority after you have applied for coverage under the appropriate NPDES construction general permit.)

### 1.2 CONTACT INFORMATION/RESPONSIBLE PARTIES

Owner:  
TBD

Operator(s):  
TBD

Project Manager(s) or Site Supervisor(s):  
TBD

Stormwater Manager and SWPPP Contact(s):  
TBD

This SWPPP Was Prepared By:  
SCOTT A. DIGLIO, PE  
RTM ENGINEERS, INC.  
250 E. ALCONQUIN RD. SUITE 250  
SCHAMBURG, IL 60173  
312.216.0538

Emergency 24 hour contact:  
TBD

### 1.3 NATURE AND SEQUENCE OF CONSTRUCTION ACTIVITY

The project involves the construction of a educational building on an un-developed lot in a commercial subdivision. The proposed construction also includes a new sidewalk, utilities, parking lot pavement, playground equipment.

The improvements were designed to connect the existing storm sewer system, per original design conditions.

What is the function of the construction activity? New Building

#### Construction Schedule

1. Install perimeter sediment control silt fence
2. Clear & grub existing and demolish existing stework as required
3. Mass Grading
4. Construction new building and install new utility structures and piping
5. Install new sidewalks and paving
6. Fine grade and permanently stabilize all disturbed areas
7. Remove all sediment controls once disturbance has been permanently stabilized

Estimated Project Start Date: MARCH 2023  
Estimated Project Completion Date: AUGUST 2023

### 1.4 SOILS, SLOPES, VEGETATION, AND CURRENT DRAINAGE PATTERNS

#### Soil types:

- Geotechnical investigations have found the sub-surface soils to be predominately clay fill & lean clay.

#### Drainage Patterns:

- The site drains northerly and westerly to the subdivision detention pond.

#### Vegetation:

- The existing vegetation in the is lawn grass

### 1.5 CONSTRUCTION SITE ESTIMATES

The following are estimates of the construction site:

Construction Site Area to be disturbed:  
Percentage impervious area before construction:  
SCS Runoff coefficient before construction:  
Percentage impervious area after construction:  
SCS Runoff coefficient after construction:

### 1.6 RECEIVING WATERS

Description of receiving waters:

### 1.7 SITE FEATURES AND SENSITIVE AREAS TO BE PROTECTED

NONE

### 1.8 POTENTIAL SOURCES OF POLLUTION

Potential sources of sediment to stormwater runoff:

- Clearing and grubbing operations
- Grading and site excavation operations
- Vehicle tracking
- Topsoil stripping and stockpiling
- Landscaping operations

Potential pollutants and sources, other than sediment, to stormwater runoff:

- Vehicle and equipment fueling activities
- Vehicle and equipment maintenance
- Hazardous waste storage
- Material Storage including general building materials, solvents, adhesives, paving materials, paints, aggregates and trash
- Sanitary facilities

## SECTION 2: EROSION AND SEDIMENT CONTROL BMPs

### 2.1 MINIMIZE DISTURBED AREA AND PROTECT NATURAL FEATURES AND SOIL:

BMP Description: Topsoil stripped from the immediate construction area will be stockpiled. The stockpiles will be in areas that will not interfere with construction phases and at least 15 feet away from areas of concentrated flows or pavement. The slopes of the stockpile will be roughened by equipment tracking and will not exceed 2:1 to prevent erosion. A silt fence will be installed around the perimeter of each stockpile, in accordance with the silt fence design specifications in Section 2, Part 2.7. Stockpiles will also be temporarily stabilized with erosion controls as described in Section 2, Part 2.4.

- Installation Schedule: Topsoil stockpiles will be established during grading activities. The silt fence and temporary erosion controls will be installed immediately after the stockpile has been established.

- Responsible Staff: General Contractor

### 2.2 PHASE CONSTRUCTION ACTIVITY:

BMP Description: The contractor shall determine their means for construction phases. An emphasis shall be placed upon minimizing disturbed areas and provided vegetative cover immediately. To minimize potential erosion, only areas necessary to construct the construction exits, access road for the staging area and the sedimentation basin will be disturbed initially. These areas will be cleared, grubbed, and graded and the construction exits, access road and sedimentation basin will be installed. These areas will be stabilized with erosion control immediately after construction but no later than 14 days after construction.

- Installation Schedule: See Section 1.3 for the timeline of construction activity.
- Responsible Staff: General Contractor

### 2.3 CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT:

BMP Description: The site does not currently accept any off-site concentrated flow.

### 2.4 STABILIZE SOILS:

Temporary Stabilization (Growing Season)

BMP Description: Temporary vegetative cover will be established using hydroseeding for areas of exposed soil (including stockpiles) within 1 working day of temporary cessation of earth disturbing activities and shall be complete as soon as possible but no more than 14 days from the initiation of the stabilization of work in an area. Hydroseeding will consist of wood fibers, seed (Smooth Brome), fertilizer and stabilizing emulsion and applied at a rate of 8 pounds per acre. Seeding will be conducted during periods of the year when vegetation is more likely to be established.

- Installation Schedule: Temporary stabilization measures will be applied to portions of the site within 1 working day of temporary cessation of earth disturbing activities and shall be complete as soon as possible but no more than 14 days from the initiation of the stabilization of work in an area.
- Maintenance and Inspection: Stabilized areas will be inspected weekly and after storm events until a dense cover of vegetation has become established. If failure is noticed at the seeded area, the area will be reseeded, fertilized and mulched immediately

- Responsible Staff: General Contractor

Temporary Stabilization (Winter Months)

BMP Description: Hydromulching will provide immediate protection to exposed soils within 1 working day of temporary cessation of earth disturbing activities and shall be complete as soon as possible but no more than 14 days from the initiation of the stabilization of work in an area and over the winter months. Straw mulch and wood fiber will be mixed with a tackifier (amount specified per manufacturer's instructions) and applied uniformly by machine with an application rate of 90-100 pounds (2-3 bales) per 1,000 square feet or 2 tons (100-200 bales) per acre. If the tackifier does not appear effective in anchoring the mulch to the disturbed soil, crimping equipment will be used to provide additional binding to the soil. The mulch will cover 75 to 90 percent of the ground surface. In areas, where hydromulching is inaccessable, straw mulch will be applied by hand with an application rate of 90-100 pounds (2-3 bales) per 1,000 square feet.

- Installation Schedule: Winter stabilization will occur between November 15th and March 15th.
- Maintenance and Inspection: Mulched areas will be inspected weekly and after storm events to check for movement of mulch or erosion. If washout, breakage, or erosion occurs, the surface will be repaired, and new mulch will be applied to the damaged area.

- Responsible Staff: General Contractor

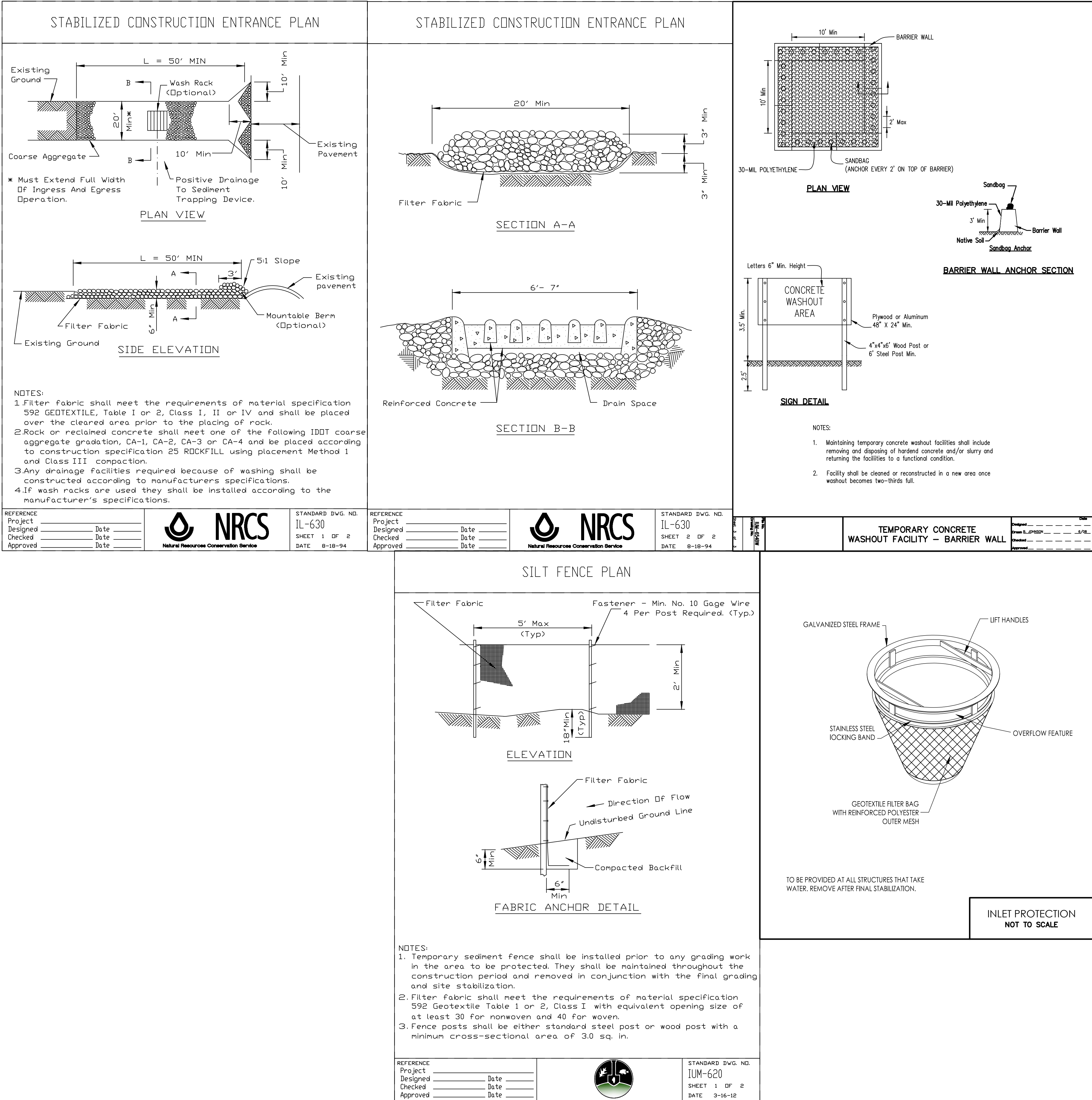
#### Permanent Stabilization

BMP Description: Permanent stabilization will be done within 1 working day of temporary cessation of earth disturbing activities reaching final design grades and shall be complete as soon as possible but no more than 14 days from the initiation of the stabilization of work in an area are achieved but no later than 14 days after construction ceases. Native species of plants will be used to establish vegetative cover on exposed soils. Permanent stabilization will be completed in accordance with the final stabilization procedures in Section 7.

- Installation Schedule: Portions of the site where construction activities have permanently ceased will be stabilized, within 1 working day of temporary cessation of earth disturbing activities and shall be complete as soon as possible

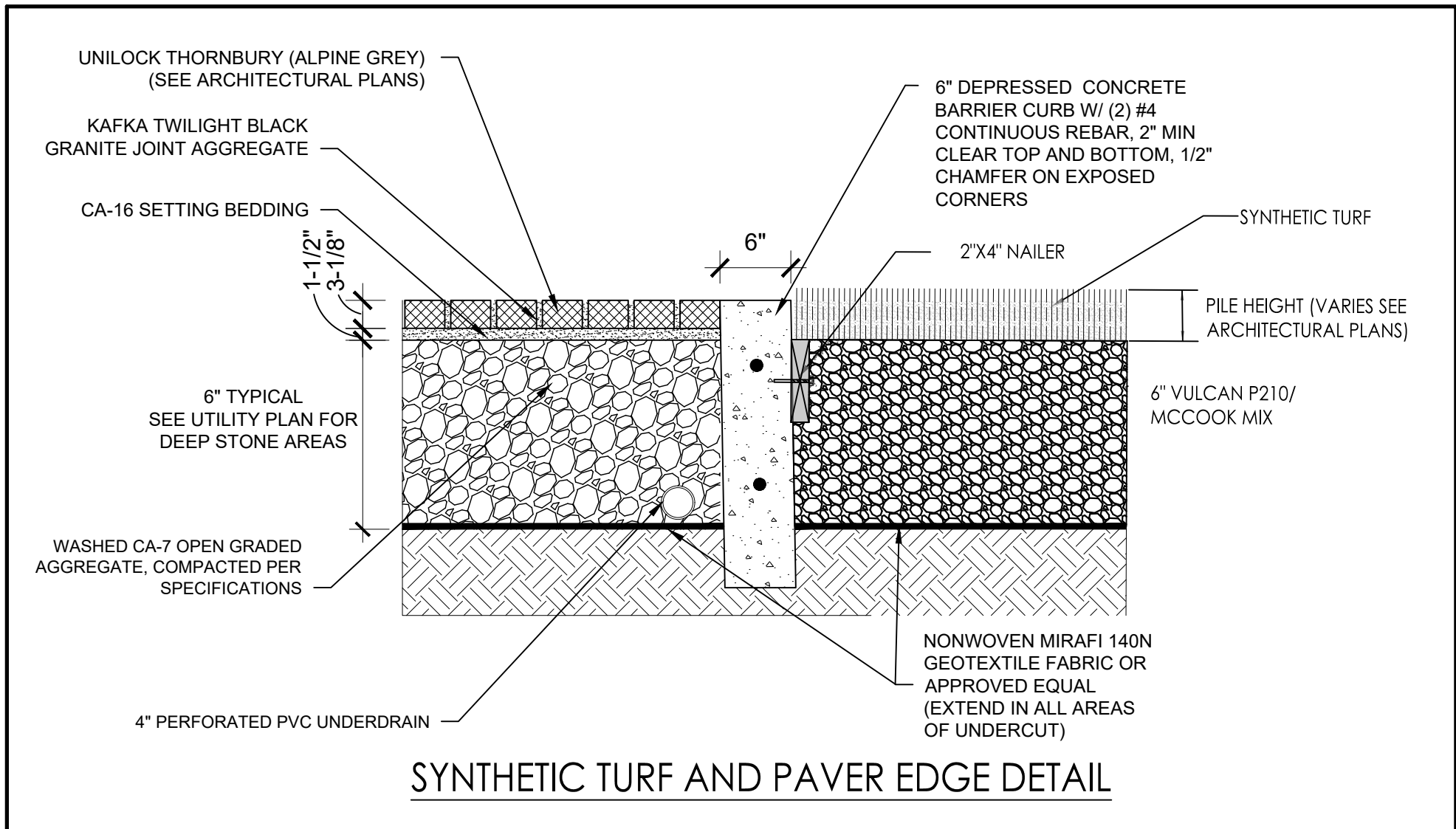
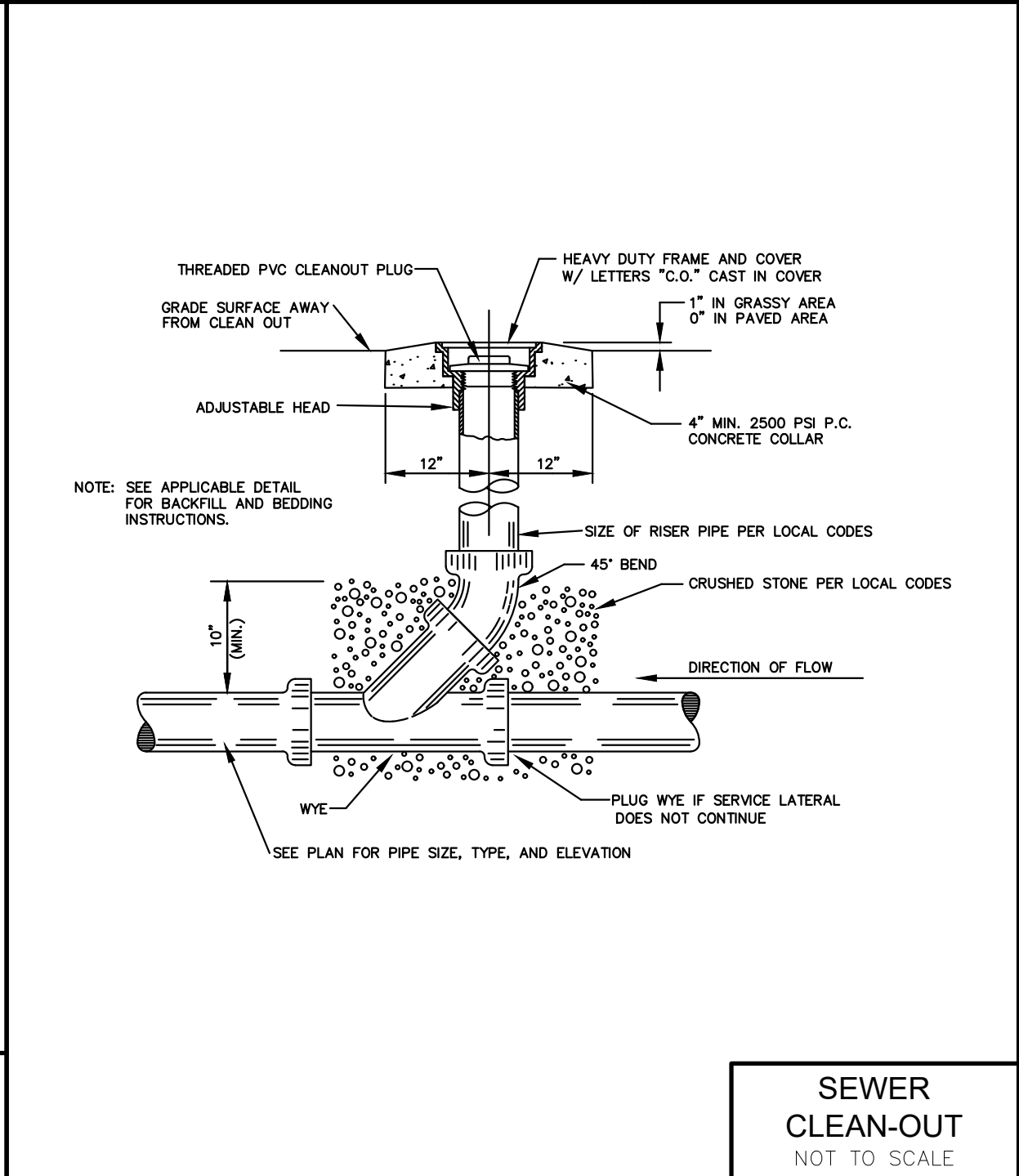
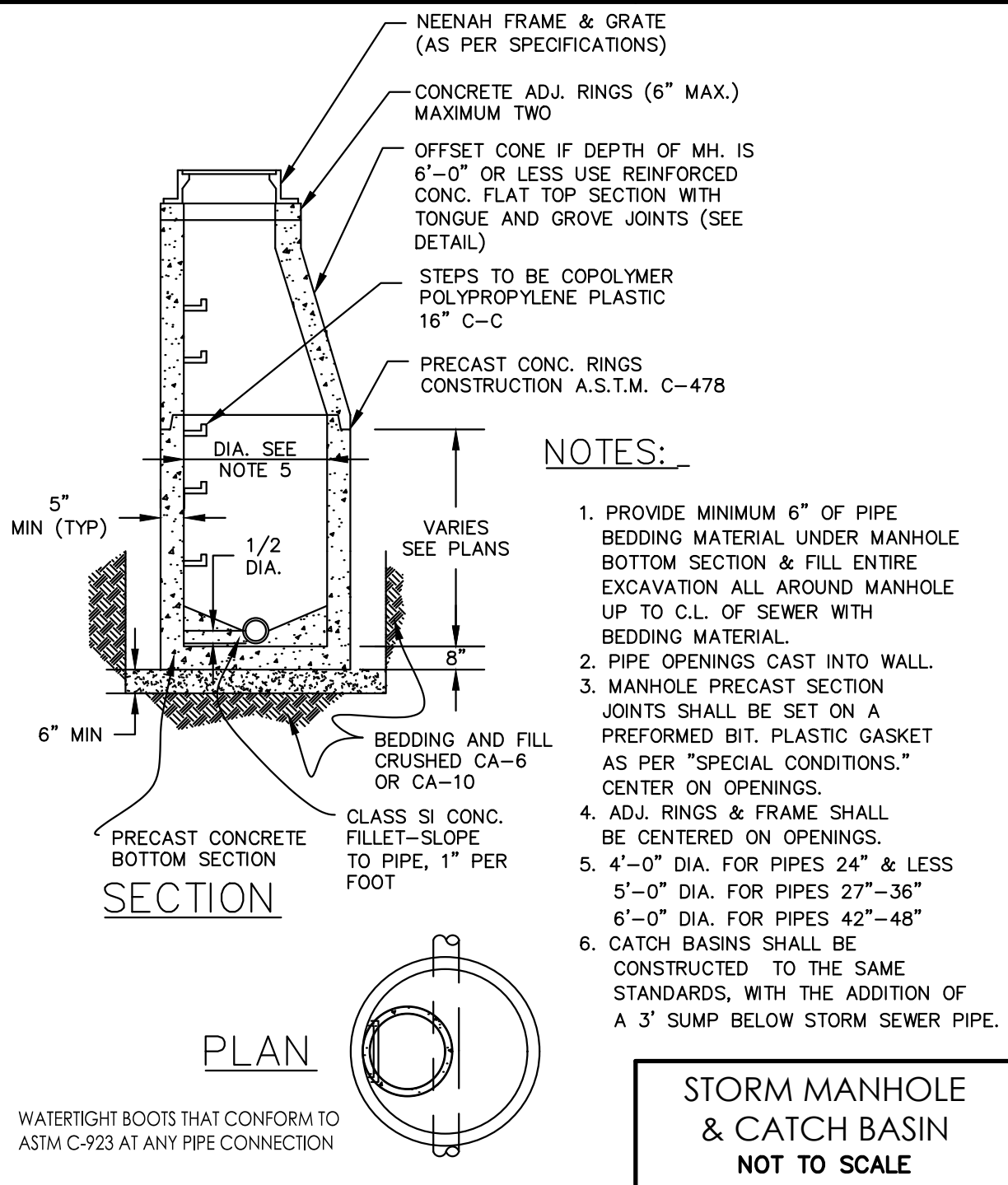
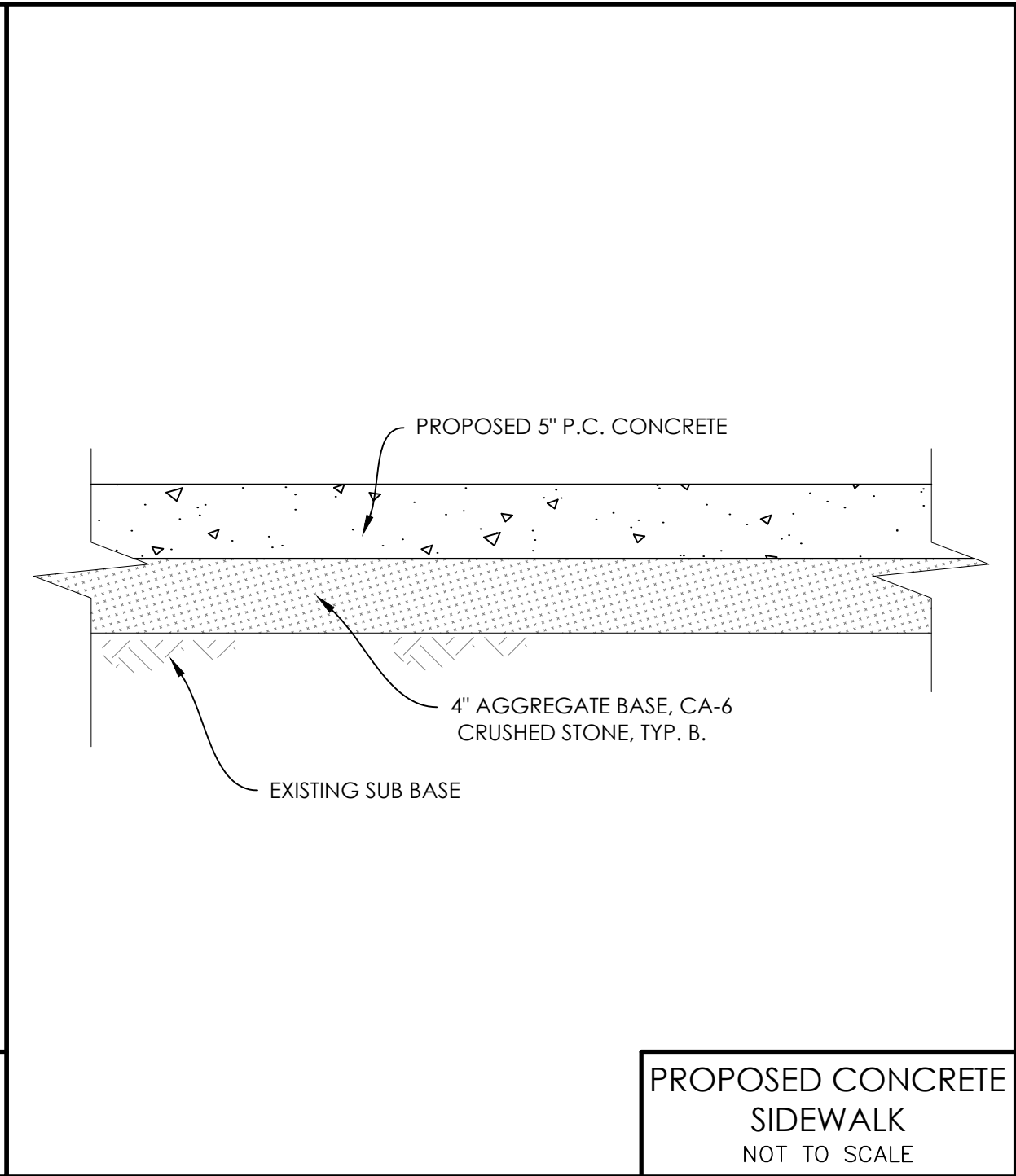
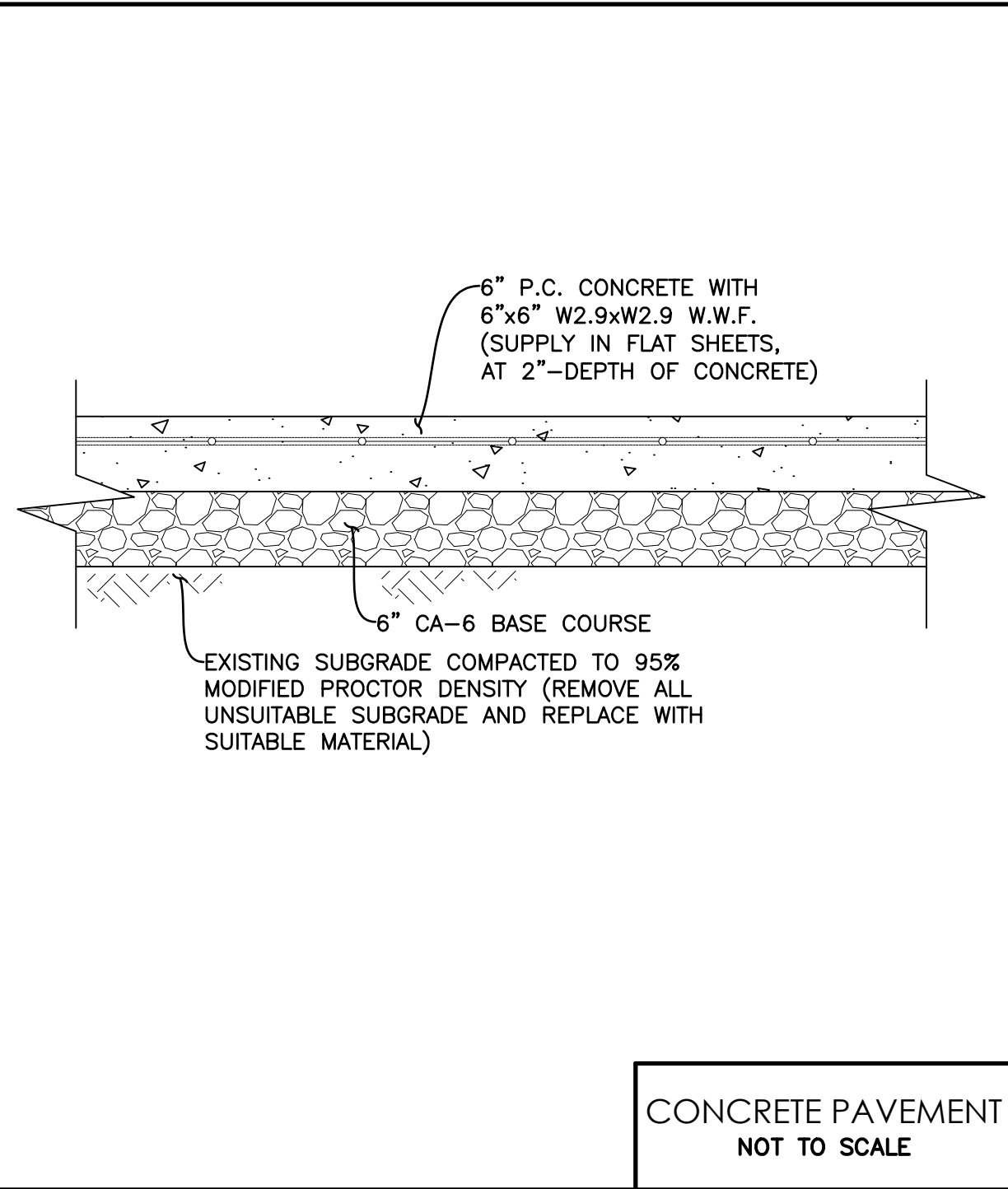


User: lucas.keller File: J:\2023\22.SSC.C06 Niles North HS Synthetic Field\08 DESIGN DRAWINGS\02 SHEETS\22.SSC.C06- DETAILS.dwg Time: Jul 13, 2023 - 1:33pm





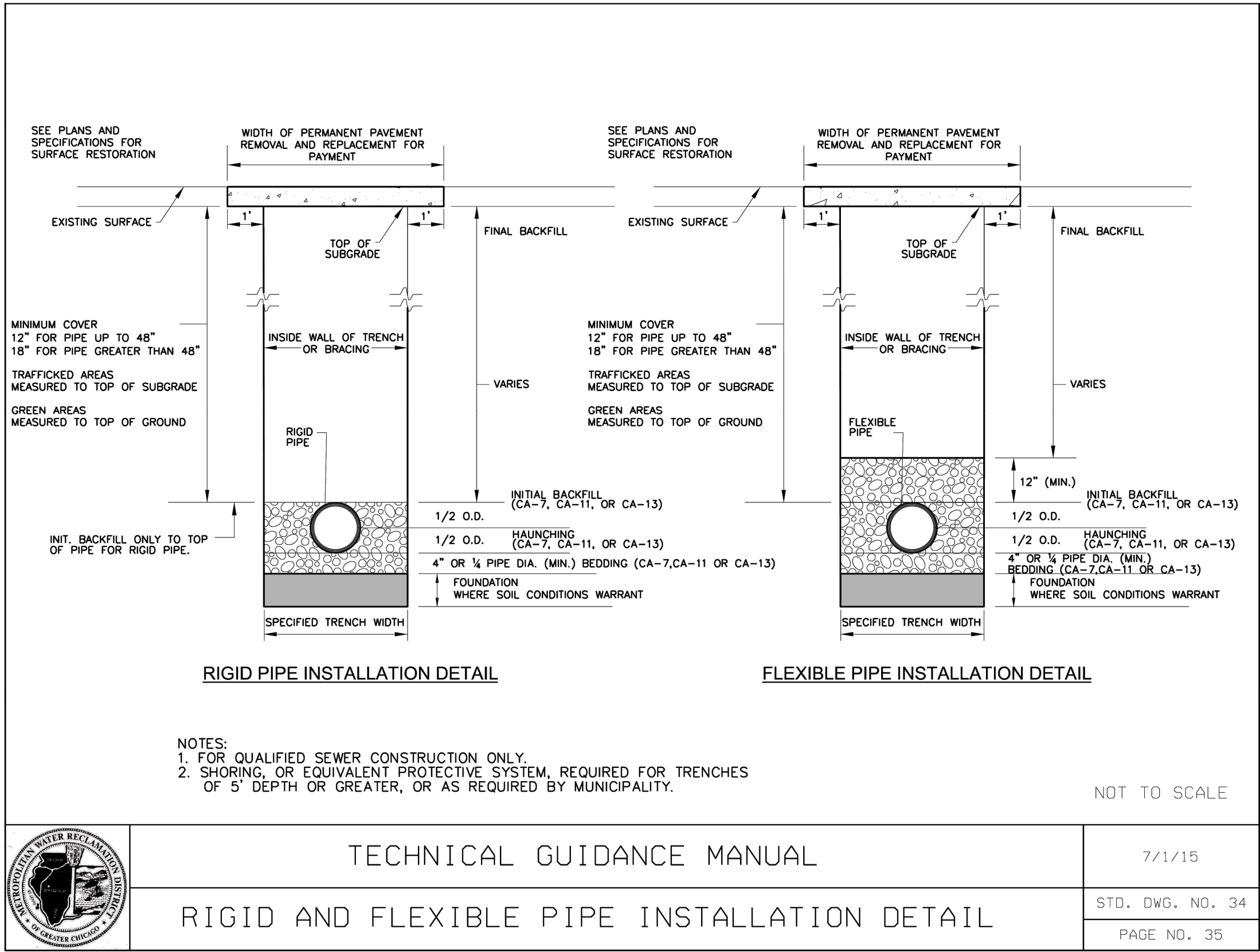
User: lucas.keller File: J:\2023\22.SSC.C06 Niles North HS Synthetic Field\08 DESIGN DRAWINGS\02 SHEETS\22.SSC.C06- DETAILS.dwg Time: Jul 13, 2023 - 11:33am



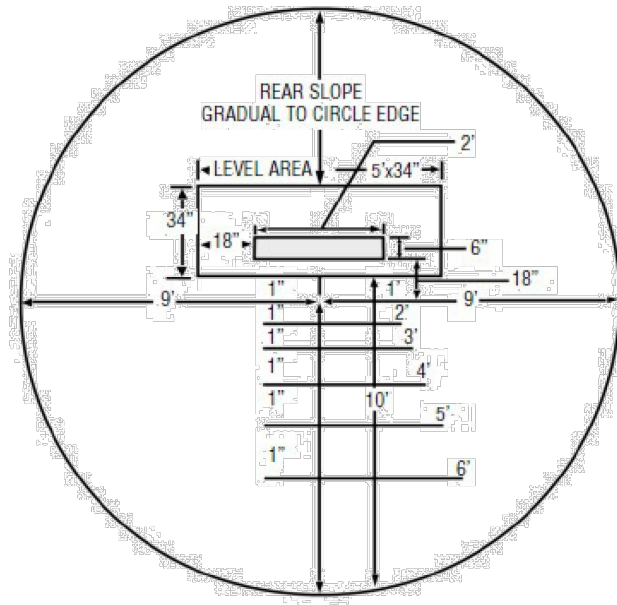
NO	ISSUE	DATE
•	• IFC SET	• 07/03/23
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•

DETAILS





SUGGESTED LAYOUT OF PITCHER'S MOUND



The top of the pitcher's plate must be 10 inches above the top surface of home plate. Inside the circle, a pitcher's mound should be constructed according to the specifications shown in the diagram.

The degree of slope from a point 6 inches in front of the pitcher's plate to a point 6 feet toward home plate shall be one inch to one foot, and such degree of slope shall be uniform.

The pitching mound is an 18-foot diameter circle, the center of which is 59 feet from the back point of home plate.

Locate the front edge of the rubber 18 inches behind the center of the mound.

The front edge of the rubber to the back point of home plate is 60 feet, 6 inches.

The slope starts 6 inches from the front edge of the rubber.

The slope shall be 6 inches from the starting point, 6 inches in front of the rubber to a point 6 feet in front of the rubber.

The level area surrounding the rubber should be 6 inches in front of the rubber, 18 inches to each side and 22 inches to the rear of the rubber. The total level area is 5 feet x 34 inches.

**ART. 7 . . .** The pitcher's mound may consist in part of synthetic material that is commercially manufactured for that purpose. If a mound pad is composed of natural soil and synthetic material, the synthetic material must be securely attached to the ground and be installed at least flush or slightly below the surface of the ground. The mound area shall meet suggested height and slope specifications found in the Suggested Layout of the Pitcher's Mound ([Diagram 3](#)).

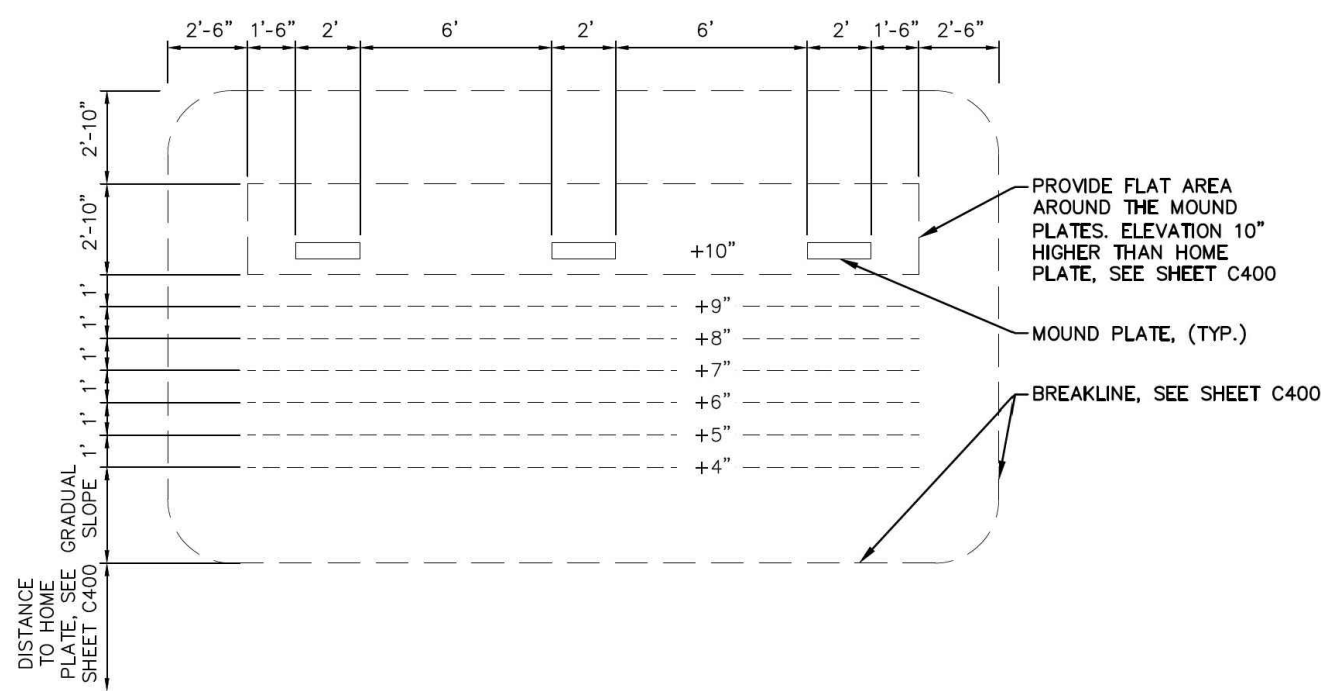
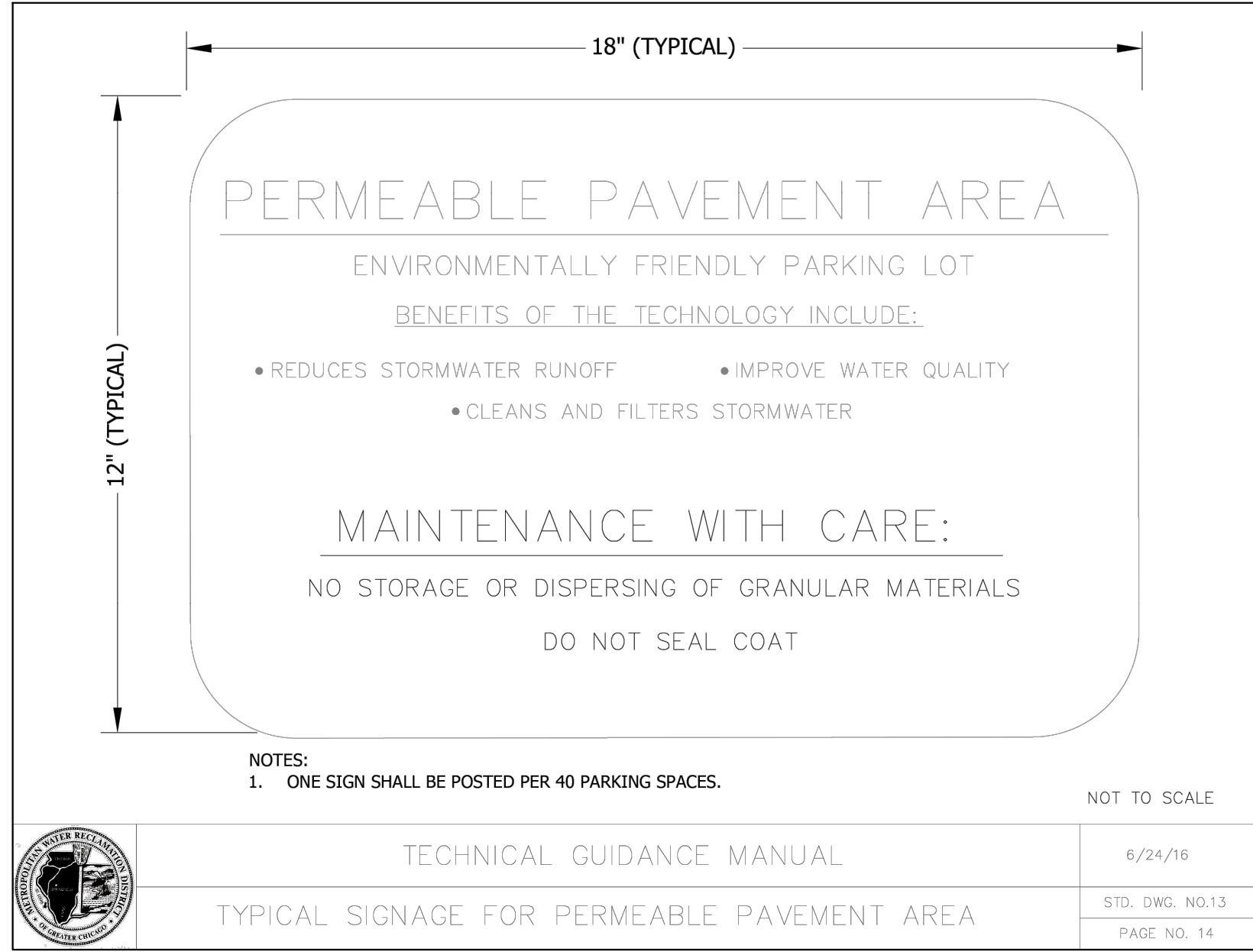
**ART. 8 . . .** Media shall be prohibited from being in live-ball area. If a designated media area is to be used, it shall be established before the game begins. The home team or game management shall designate a lined area for the media, which shall be considered dead-ball area.

**ART. 9 . . .** First, second and third bases shall be white bags, 15 inches square and 2 to 5 inches in thickness, and made of canvas filled with a soft material, or molded rubber or synthetic material, and shall be securely attached to the ground or an anchor system as in [Diagram 2](#). Bases may have tapered edges and/or be designed to disengage from their anchor systems. By state association adoption, a double first base is permitted. The double first base shall be a white base and a colored base. The colored base shall be located in foul territory. (See [Suggested Double First Base Rules](#))

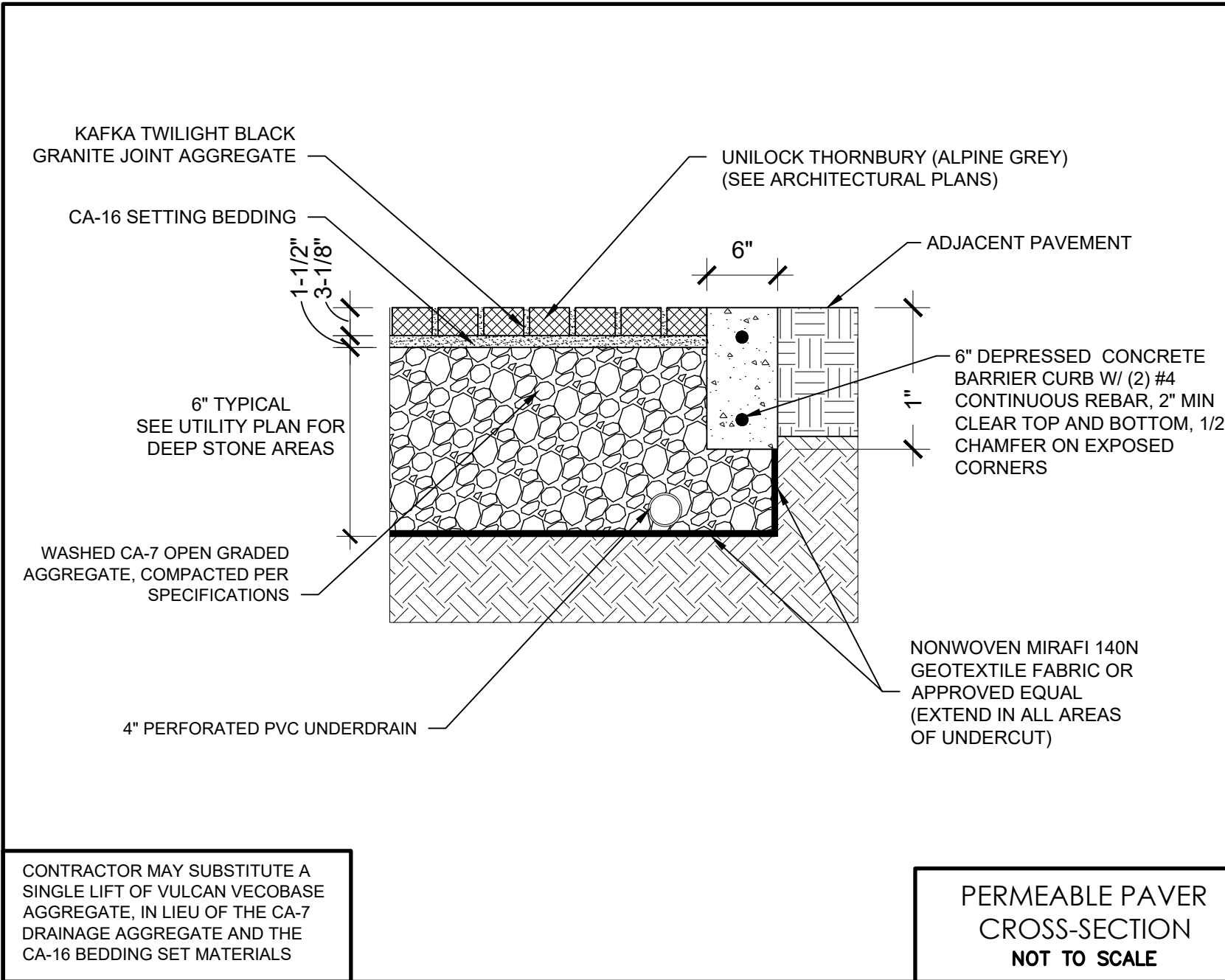
**ART. 10 . . .** Home plate shall be a five-sided slab of whitened rubber or other suitable similar material. One edge is 17 inches long, two are 8 ½ inches and two are 12 inches. It shall be set in the ground so that the two 12-inch edges coincide with the diamond lines extending from home plate to first base and to third base, with the 17-inch edge facing the pitcher's plate.

**ART. 11 . . .** The pitcher's plate shall be a rectangular slab of whitened rubber or suitable material, 24 inches by 6 inches. It shall be set in the ground as shown in [Diagram 2](#) so that the distance between the nearer edge of the pitcher's plate and the rear tip of home plate shall be 60 feet, 6 inches.

**ART. 12 . . .** Any game started on a nonregulation facility by mutual agreement of the opposing coaches shall not be protested for this reason.



3 BASEBALL HOME BULL PEN DETAIL  
SCALE: NTS



PERMEABLE PAVER CROSS-SECTION  
NOT TO SCALE

NO	ISSUE	DATE
•	• IFC SET	• 07/03/23
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•



DETAILS







1. STORMTRAP SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C891, STANDARD FOR INSTALLATION OF UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES, THE FOLLOWING ADDITIONS AND/OR EXCEPTIONS SHALL APPLY:
  1. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT PROPER/ADEQUATE EQUIPMENT IS USED TO SET/INSTALL THE MODULES.
  2. THE STORMTRAP MODULES SHALL BE PLACED ON A LEVEL CONCRETE FOUNDATION (SEE SHEET 2.1) WITH THE "1'-0" OVERHANG ON ALL SIDES THAT SHALL BE POURED IN PLACE BY INSTALLING CONTRACTOR. A QUALIFIED GEOTECHNICAL ENGINEER SHALL BE EMPLOYED BY THE CONTRACTOR TO PROVIDE A WRITTEN EVALUATING THE EXISTING SOIL CONDITIONS TO ENSURE THAT THE SOIL BEARING PRESSURE MEETS OR EXCEEDS THE STRUCTURAL DESIGN LOADING CRITERIA AS SPECIFIED ON SHEET 1.0.
  3. THE STORMTRAP MODULES SHALL BE PLACED SUCH THAT THE MAXIMUM SPACE BETWEEN ADJACENT MODULES DOES NOT EXCEED 2" (SEE SECTION 2.2). THE MODULES SHALL BE RESET WITH APPROPRIATE ADJUSTMENT MADE TO LINE AND GRADE TO BRING THE SPACE INTO SPECIFICATION.
  4. THE PERIMETER HORIZONTAL JOINT BETWEEN THE STORMTRAP MODULES AND THE CONCRETE FOUNDATION SHALL BE SEALED TO THE FOUNDATION WITH PRE-FORMED MASTIC JOINT SEALER ACCORDING TO ASTM C891, 8.8 AND 8.12 (JOINT DETAIL 1). THE EXTERIOR VERTICAL JOINTS BETWEEN THE STORMTRAP MODULES SHALL BE SEALED WITH 8" WIDE PRE-FORMED, COLD-APPLIED, SELF-ADHERING ELASTOMERIC RESIN, BONDED TO A WOVEN HIGHLY PUNCTURE RESISTANT POLYMER WRAP, CONFORMING TO ASTM C891 AND SHALL BE INTEGRATED WITH PRIMER AND SEALER APPROVED BY THE STORMTRAP GCSI DESIGNER. IF A JOINT WRAP DOES NOT PROVIDE WATER TIGHT SEAL, THE SOLE PURPOSE OF THE JOINT WRAP IS TO PROVIDE A SILT AND SOIL TIGHT SYSTEM. THE ADHESIVE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE FOLLOWING INSTALLATION INSTRUCTIONS:
    - 6.1. USE A BRUSH OR ROP CLOTH TO THOROUGHLY CLEAN THE OUTSIDE SURFACE AT THE POINT WHERE JOINT WRAP IS TO BE APPLIED.
    - 6.2. A RELEASE PAPER PROTECT THE ADHESIVE SIDE OF THE JOINT WRAP. PLACE THE ADHESIVE TAPE (ADHESIVE SIDE DOWN) AROUND THE STRUCTURE. REMOVING THE RELEASE PAPER, AS YOU GO, PRESS THE JOINT WRAP FIRMLY AGAINST THE STORMTRAP MODULE SURFACE WHEN APPLYING.
    7. IF THE CONTRACTOR NEEDS TO CANCEL ANY SHIPMENTS, THEY MUST DO SO 48 HOURS PRIOR TO THEIR SCHEDULED ARRIVAL AT THE JOB SITE, IF CANCELED AFTER THAT TIME, PLEASE CONTACT THE PROJECT MANAGER.
    8. IF THE STORMTRAP MODULE(S) IS DAMAGED IN ANY WAY, PRIOR, DURING, OR AFTER INSTALL, STORMTRAP MUST BE CONTACTED IMMEDIATELY TO REPORT THE DAMAGE AND DETERMINE WHETHER OR NOT THE MODULE(S) WILL NEED TO BE REPLACED. IF ANY MODULE ARRIVES AT THE JOBSITE DAMAGED DO NOT UNLOAD IT; CONTACT STORMTRAP IMMEDIATELY, ANY DAMAGE NOT REPORTED BEFORE THE TRUCK IS UNLOADED WILL BE THE CONTRACTOR'S RESPONSIBILITY.
  5. STORMTRAP MODULES CANNOT BE ALTERED IN ANY WAY AFTER MANUFACTURING WITHOUT WRITTEN CONSENT FROM STORMTRAP.

			
NOTES: (CDS) can be: [REV]/[SHEETNO.]/[PLOTNO.]			
1267 MIDWAY PARKWAY KNOXVILLE, TN 37646 615-541-8549 / F331-318-5347			
ENGINEER INFORMATION:			
RTM ENGINEERING CONSULTANTS 650 E ALGONQUIN RD STE 250 SCHAUMBURG, IL			
PROJECT INFORMATION:			
NILES NORTH HS  SYNTHETIC FIELD  SKOKIE, IL			
CURRENT ISSUE DATE:			
4/26/2023			
ISSUED FOR:			
PRELIMINARY			
REV	DATE:	ISSUED FOR:	OWN BY:
 4/26/2023		JH	
SCALE:			
NTS			
SHEET TITLE:			
SINGLETRAP INSTALLATION SPECIFICATIONS			
SHEET NUMBER:			
3.0			

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL (4) CHAINS/CABLES ARE SECURED PROPERLY TO THE LIFTING ANCHORS AND IN EQUAL TENSION WHEN LIFTING THE STORMTRAP MODULE (SEE RECOMMENDATIONS 2 & 3).
2. MINIMUM 7"-Ø" CHAIN/CABLE LENGTH TO BE USED TO LIFT STORMTRAP MODULES (SUPPLIED BY CONTRACTOR).
3. CONTRACTOR TO ENSURE MINIMUM LIFTING ANGLE IS 60° FROM TOP SURFACE OF STORMTRAP MODULE. SEE DETAIL.
4. IT IS UNDERSTOOD AND AGREED THAT AT ALL TIMES DURING WHICH HOISTING AND RIGGING EQUIPMENT IS BEING SUPPLIED TO THE PURCHASER, OPERATOR OF SUCH EQUIPMENT SHALL BE IN CHARGE OF HIS ENTIRE EQUIPMENT AND SHALL AT ALL TIMES BE THE JUDGE OF THE SAFETY AND PROPERTY OF ANY SUGGESTION TO HIM FROM THE SELLER, ITS AGENTS OR EMPLOYEES. PURCHASER AGREES TO SAVE, INDEMNIFY AND HOLD HARMLESS SELLER FROM ALL LOSS, CLAIMS, DEMANDS OR CAUSES OF ACTION, WHICH MAY ARISE FROM THE EXISTENCE OR OPERATION OF SAID EQUIPMENT.

**MODULE  
LIFTING DETAIL**

**END PANEL  
LIFTING DETAIL**

1. END PANELS WILL BE SUPPLIED TO CLOSE OFF OPEN ENDS OF ROWS.
2. PANELS SHALL BE INSTALLED IN A TILT UP FASHION DIRECTLY ADJACENT TO OPEN END OF MODULE (REFER TO SHEET 2.0 FOR END PANEL LOCATIONS).
3. CONNECTION HOOKS WILL BE SUPPLIED WITH END PANELS TO SECURELY CONNECT PANEL TO ADJACENT STORMTRAP MODULE (SEE PANEL CONNECTION ELEVATION VIEW).
4. ONCE CONNECTION HOOK IS ATTACHED, LIFTING CLUTCHES MAY BE REMOVED.
5. JOINT WRAP SHALL BE PLACED AROUND PERIMETER JOINT PANEL (SEE SHEET 3.0).

1. END PANELS WILL BE SUPPLIED TO CLOSE OFF OPEN ENDS OF ROWS.

2. PANELS SHALL BE INSTALLED IN A TILT UP FASHION DIRECTLY ADJACENT TO OPEN END OF MODULE (REFER TO SHEET 2.0 FOR END PANEL LOCATIONS).

3. CONNECTION HOOKS WILL BE SUPPLIED WITH END PANELS TO SECURELY CONNECT PANEL TO ADJACENT STORMTRAP MODULE (SEE PANEL CONNECTION ELEVATION VIEW).

4. ONCE CONNECTION HOOK IS ATTACHED, LIFTING CLUTCHES MAY BE REMOVED.

5. JOINT WRAP SHALL BE PLACED AROUND PERIMETER JOINT PANEL (SEE SHEET 3.0).

CONNECTION HOOKS PROVIDED BY STORMTRAP AND INSTALLED BY CONTRACTOR (SEE DETAIL 6)

1" # PRECAST OPENING FOR HOOK CONNECTION, CONTRACTOR TO SEAL FOR INSTALLATION

SIDE OF STORMTRAP MODULE

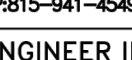
SIDE OF END PANEL

STEP 1

STEP 2

DETAIL 6

PANEL CONNECTION  
ELEVATION VIEW



HANSON LUMBER CO. | 247P.1@STORMTRAP.COM | HANSON

**1287 WINDHAM PARKWAY**  
**ROMEOVILLE, IL 60446**  
**P815-941-6249 / 7333-318-5347**

---

**ENGINEER INFORMATION:**

**RTM ENGINEERING**  
**CONSULTANTS**  
**650 E ALGONQUIN RD**  
**STE 250**  
**SCHAUMBURG, IL**

**PROJECT INFORMATION:**

**NILES NORTH HS**  
  
**SYNTHETIC FIELD**  
  
**SKOKIE, IL**

**CURRENT ISSUE DATE:**

**4/26/2023**

**ISSUED FOR:**

**PRELIMINARY**

REV.	DATE:	ISSUED FOR:	OWN BY:

**4/26/2023**

**SCALE:**

N.T.S.

**PRELIMINARY**

**JH**

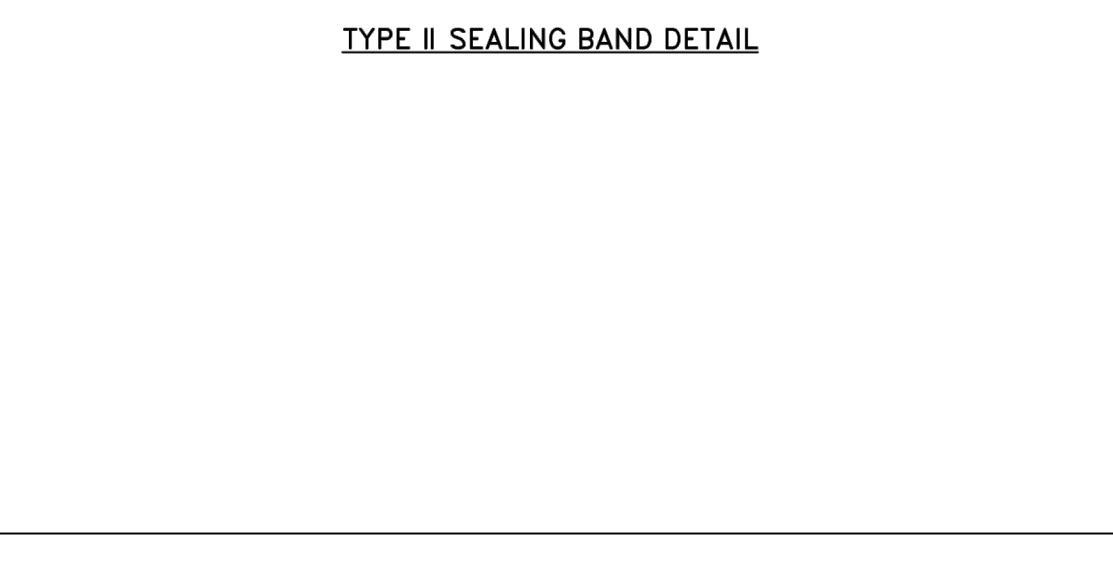
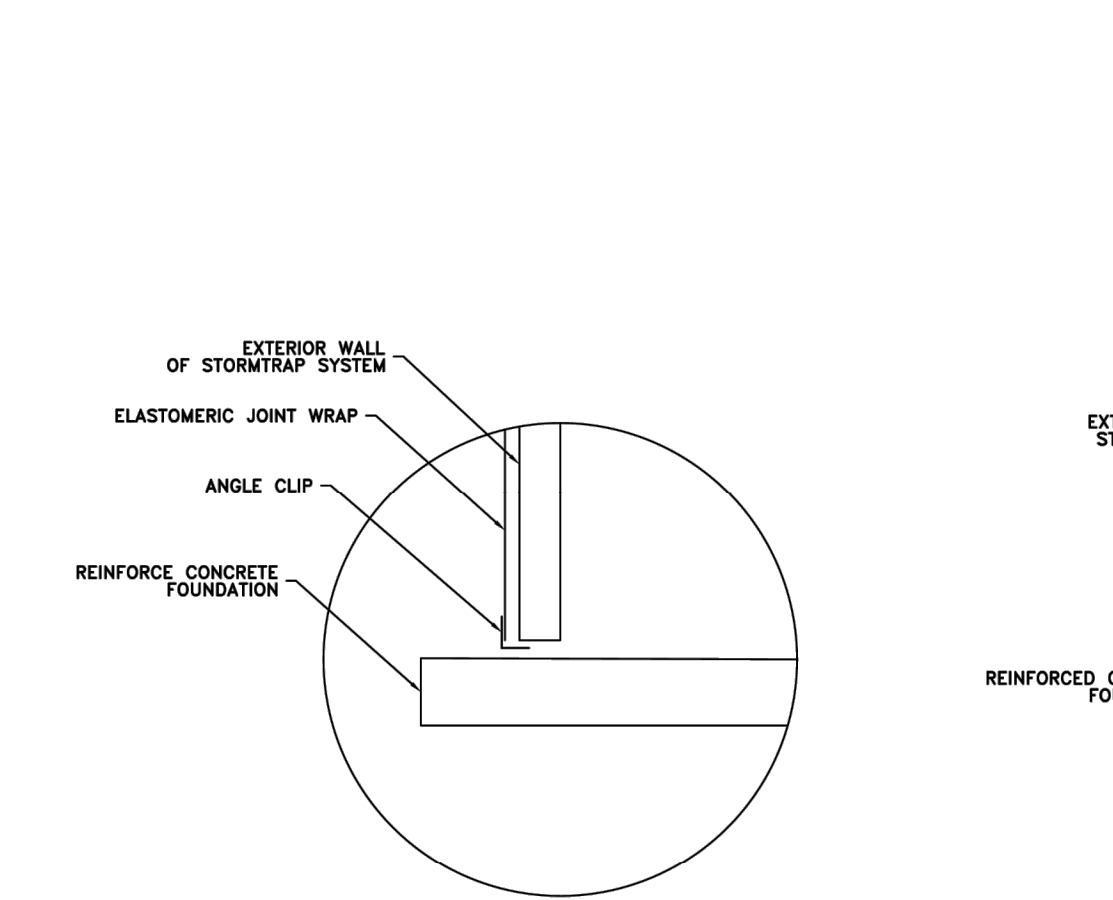
**SHEET TITLE:**


SINGLETRAP  
 INSTALLATION  
 SPECIFICATIONS

**SHEET NUMBER:**

3.1

ALL EXTERIOR JOINTS BETWEEN ADJACENT STORMTRAP MODULES SHALL BE SEALED WITH APPROVED ASTM C877, TYPE II, SEALING BANDS. PLACE ANGLE IRON UNDER THE EXTERIOR WALL OF THE STORMTRAP UNIT AS THE UNIT IS BEING PLACED ONTO THE CONCRETE FOUNDATION. ONCE THE UNIT IS SET INTO PLACE THE ANGLE IRON WILL BE HELD INTO PLACE BY THE WEIGHT OF THE UNIT. AFTER SETTING THE ADJACENT UNIT, THE SEALING BAND CAN BE TIGHTENED USING THE RATCHETS PROVIDED BY THE MANUFACTURER. PLACE SEALING BANDS UNDER WATER STOP PLACED AROUND THE PERIMETER OF THE SYSTEM WILL SEAL EXTERIOR JOINTS TO CONCRETE PAD. THE ADHESIVE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE MANUFACTURERS SPECIFICATIONS.



 <small>REDESIGN CENTER</small> <a href="http://www.stormtrap.com/redeign">http://www.stormtrap.com/redeign</a>			
<b>1287 MINCHAM PARKWAY</b> <b>ROSELAND, IL 60446</b> <b>P815-941-6649 / F331-518-5347</b>			
<b>ENGINEER INFORMATION:</b>			
<b>RTM ENGINEERING</b> <b>CONSULTANTS</b> <b>650 E ALGONQUIN RD</b> <b>STE 250</b> <b>SCHAUMBURG, IL</b>			
<b>PROJECT INFORMATION:</b>			
<b>NILES NORTH HS</b>  <b>SYNTHETIC FIELD</b>  <b>SKOKIE, IL</b>			
<b>CURRENT ISSUE DATE:</b>			
<b>4/26/2023</b>			
<b>ISSUED FOR:</b>			
<b>PRELIMINARY</b>			
REV	DATE	ISSUED FOR	OWN BY
<div style="display: flex; align-items: center;"> <div> <b>4/26/2023</b>    <b>PRELIMINARY</b>    <b>JH</b> </div> </div>			
<b>SCALE:</b>			
<b>1" = 10'</b>			
<b>SHEET TITLE:</b>			
<b>MAC-WRAP</b> <b>DETAIL</b>			
<b>SHEET NUMBER:</b>			
<b>3.2</b>			

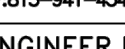
ZONE CHART		
ZONES	ZONE DESCRIPTIONS	REMARKS
ZONE 1	FOUNDATION AGGREGATE	#5 (1") STONE AGGREGATE (SEE NOTE 4 FOR DESCRIPTION)
ZONE 2	BACKFILL	UNIFIED SOILS CLASSIFICATION (GW, GP, SP, SW, SP) OR SEE BELOW FOR APPROVED BACKFILL OPTIONS
ZONE 3	FINAL COVER OVERTOP	MATERIALS NOT TO EXCEED 120 PCF

APPROVED ZONE 2 BACKFILL OPTIONS	
OPTION	REMARKS
1 <sup>st</sup> STONE AGGREGATE	THE STONE AGGREGATE SHALL CONSIST OF CLEAN AND FREE DRAINING ANGULAR MATERIAL. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" (25.4) AND 20% PASSING THE #40 (4.75) SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOBARFAR ALONG THE PERIMETER OF THE BACKFILL (ASTM #57) AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
SAND	MORTARED PURE SAND IS PERMITTED TO BE USED AS BACKFILL IF IT IS CLEAN AND FREE DRAINING. THE SAND USED FOR BACKFILL SHALL HAVE LESS THAN 40% PASSING #40 SIEVE AND LESS THAN 60% PASSING #200 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOBARFAR ALONG THE PERIMETER OF THE SAND BACKFILL.
CRUSHED GRAVEL OR GRAVEL	CLEAN, FREE DRAINING CRUSHED CONCRETE AGGREGATE MATERIAL CAN BE USED AS BACKFILL FOR STORMPUMP'S MODULES. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" (25.4) AND 20% PASSING THE #40 (4.75) SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOBARFAR ALONG THE PERIMETER OF THE BACKFILL.
ROAD PACK	STONE AGGREGATE 100% PASSING THE 1-1/2" SIEVE WITH LESS THAN 12% PASSING THE #200 SIEVE (ASTM #46) OR BACKFILL AS PER GEOTECHNICAL ENGINEER DETERMINATION.

FILL DEPTH	TRACK WIDTH	MAX VEHICLE WEIGHT (KIPS)	MAX GROUND PRESSURE
12"	12"	51.8	1690 psf
	18"	56.1	1219 psf
	24"	68.1	1111 psf
	30"	76.7	1000 psf
	36"	85.0	924 psf

NOTE:  
TRACK LENGTH NOT TO EXCEED 15'-4".  
ONLY TWO TRACKS PER VEHICLE.

1. THE FILL PLACED AROUND THE STORMTAP MODULS MUST DEPOSITED ON BOTH SIDES AT THE SAME TIME AND TO APPROXIMATELY THE SAME ELEVATION. AT NO TIME SHALL THE FILL BEHIND ONE SIDE WALL BE MORE THAN 2'-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL BE PLACED IN COMPARABLE LAYERS AND VIBRATED TO ENSURE THE PLACEMENT OF THE MATERIAL IS WELL SEALED AND PROPERLY INTER LOCKED. CARE SHALL BE TAKEN TO PREVENT ANY WEDGING ACTION AGAINST THE STRUCTURE, AND ALL SLOPES WITHIN THE AREA TO BE BACKFILLED MUST BE STABILIZED TO PREVENT EROSION. BACKFILL SHALL NOT BE TAKEN AS A MEANS TO NOT DISRUPT THE JOINT WRAP FROM THE JOINT DURING THE BACKFILL PROCESS. BACKFILL MUST BE FREE-DRAINING MATERIAL. SEE ZONE 2 BACKFILL CHART ON THIS PAGE FOR APPROVED BACKFILL OPTIONS. IF NATIVE AREA IS SUSCEPTIBLE TO MIGRATION, CONFIRM WITH GEOTECHNICAL ENGINEER AND PROVIDE PROTECTION AS REQUIRED (PROVIDED BY OTHERS).
2. DURING PLACEMENT OF MATERIAL OVER/ONTOP THE SYSTEM, AT NO TIME SHALL MACHINERY BE USE OVER/ONTOP THAT EXCEEDS THE DESIGN LOAD. THE SYSTEM, WHEN PLACED, IS PLACED ON A MATERIAL OVERTOP. MATERIAL SHALL BE PLACED SUCH THAT THE DIRECTION OF PLACEMENT IS PARALLEL WITH THE OVERALL LONGITUDINAL DIRECTION OF THE SYSTEM WHENEVER POSSIBLE.
3. THE FILL PLACED OVER/ONTOP THE SYSTEM SHALL BE PLACED AT A MINIMUM OF 6" LIFTS. AT NO TIME SHALL MACHINERY OR VEHICLES GREATER THAN THE DESIGN HS-20+ LOADING CRITERIA BE PLACED OVER/ONTOP THE SYSTEM. THE DESIGN HS-20+ LOADING CRITERIA IS THE MINIMUM OVER/ONTOP THE SYSTEM PRIOR TO ACHIEVING THE MINIMUM DESIGN COVER. SO IT MAY BE NECESSARY TO REDUCE THE ULTIMATE LOAD/BURDEN OF THE OPERATING MACHINERY SO AS TO MEET THE DESIGN HS-20+ LOADING CRITERIA. THE DESIGN HS-20+ LOADING CRITERIA IS THE MINIMUM REQUIRED COMPACT, HAD COMPACT MAY BE NECESSARY IN ORDER NOT TO EXCEED THE ALLOWABLE LONGITUDINAL LOADING. SEE CHART FOR TRACKED VEHICLE WIDTH AND ALLOWABLE MAXIMUM PRESSURE PER TRACK.
4. STONE AGGREGATE FOUNDATION IN ZONE 1 IS RECOMMENDED FOR LEVELING PURPOSES ONLY (OPTIONAL).

			
PRODUCTS LISTED AT: <a href="http://stormtrap.com/products">http://stormtrap.com/products</a>			
1287 WINCHEM PARKWAY ROMEVILLE, IL 60446 PB15-941-4649 / F331-319-5347			
ENGINEER INFORMATION:			
RTM ENGINEERING CONSULTANTS 650 E ALGONQUIN RD STE 250 SCHAUMBURG, IL			
PROJECT INFORMATION:			
NILES NORTH HS  SYNTHETIC FIELD  SKOKIE, IL			
CURRENT ISSUE DATE:			
4/26/2023			
ISSUED FOR:			
PRELIMINARY			
REV.	DATE:	ISSUED FOR:	OWN BY:
1	4/26/2023	PRELIMINARY	JH
SCALE:			
NTS			
SHEET TITLE:			
SINGLETRAP BACKFILL SPECIFICATIONS			
SHEET NUMBER:			
4.0			



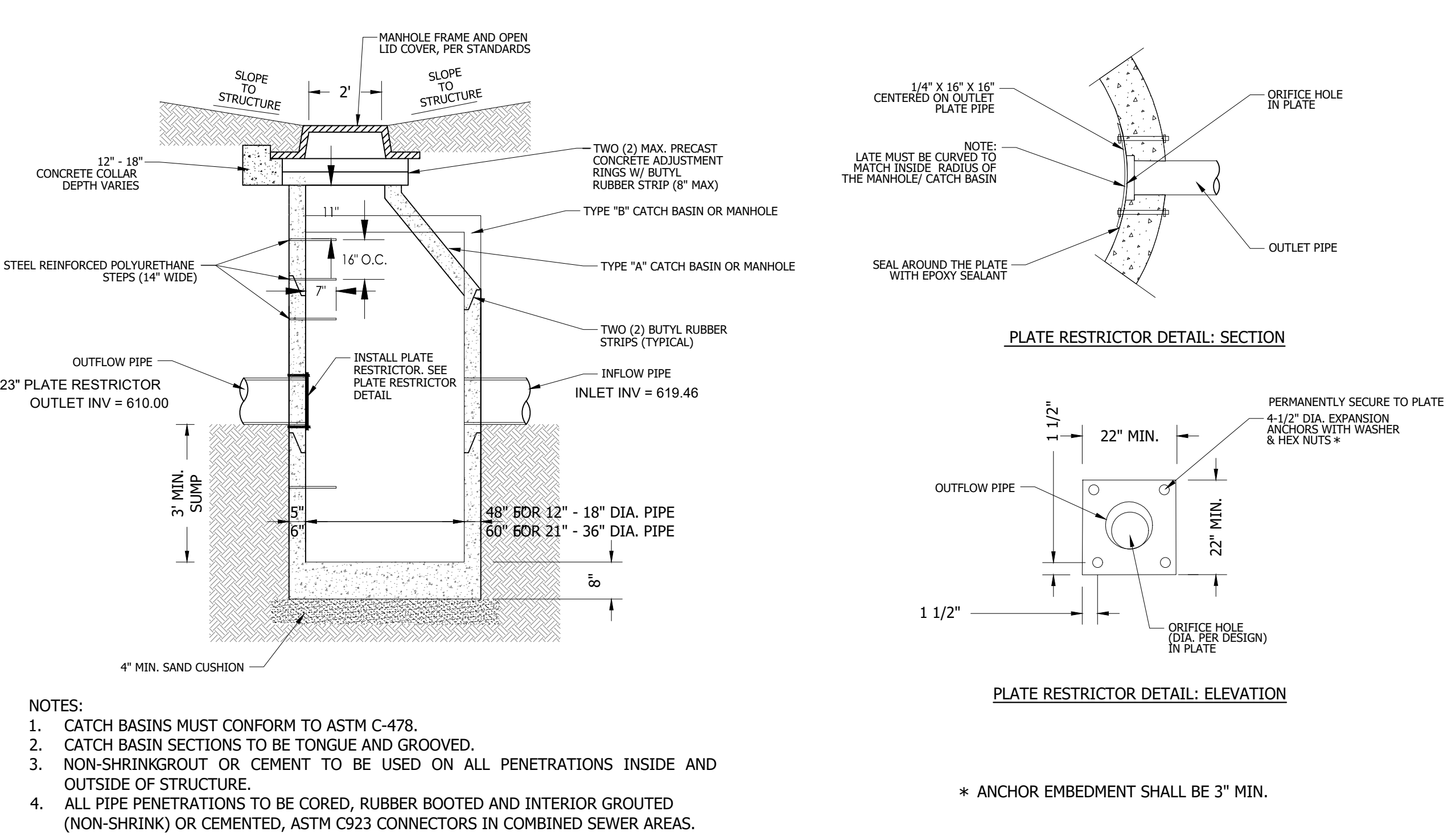
## Synthetic Turf Athletic Field Sitework

**Niles Township High School District 219**  
7700 Gross Point Rd Skokie, Illinois 60077

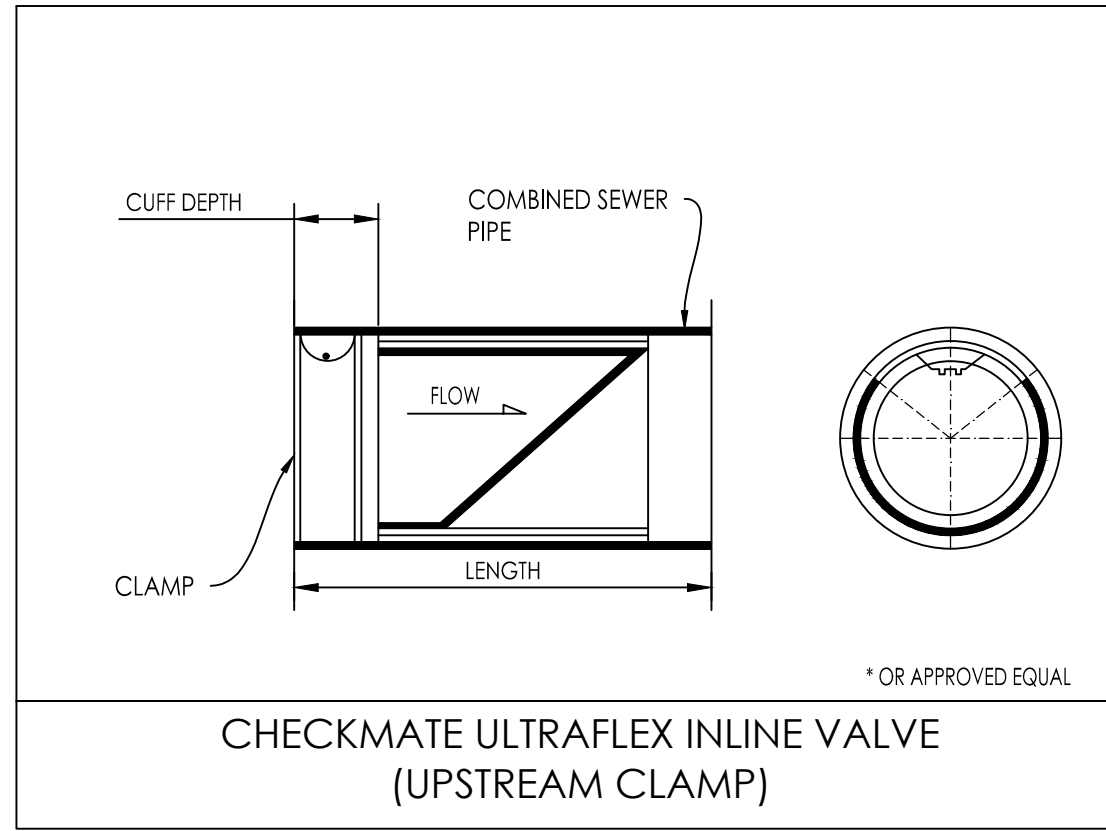




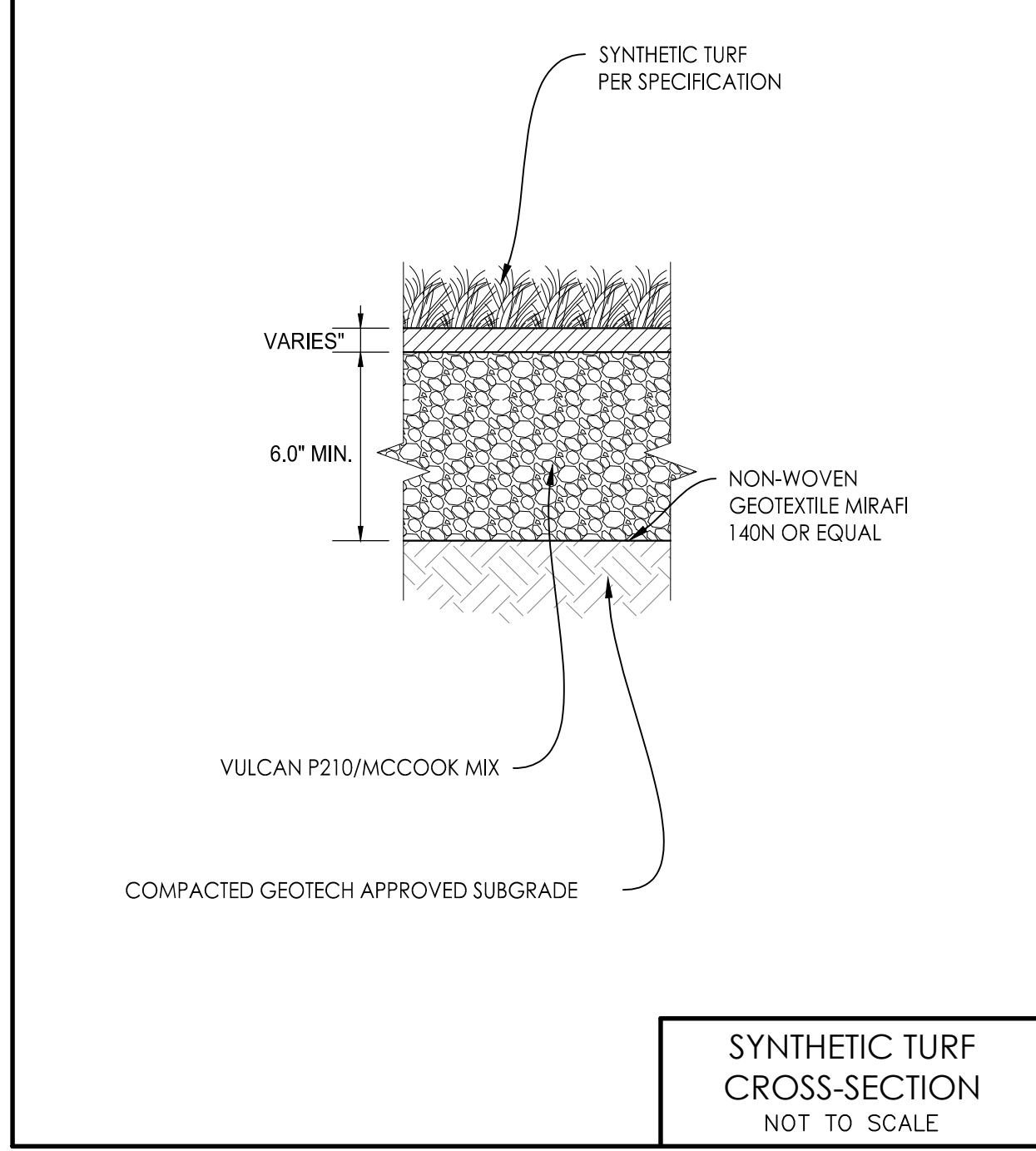




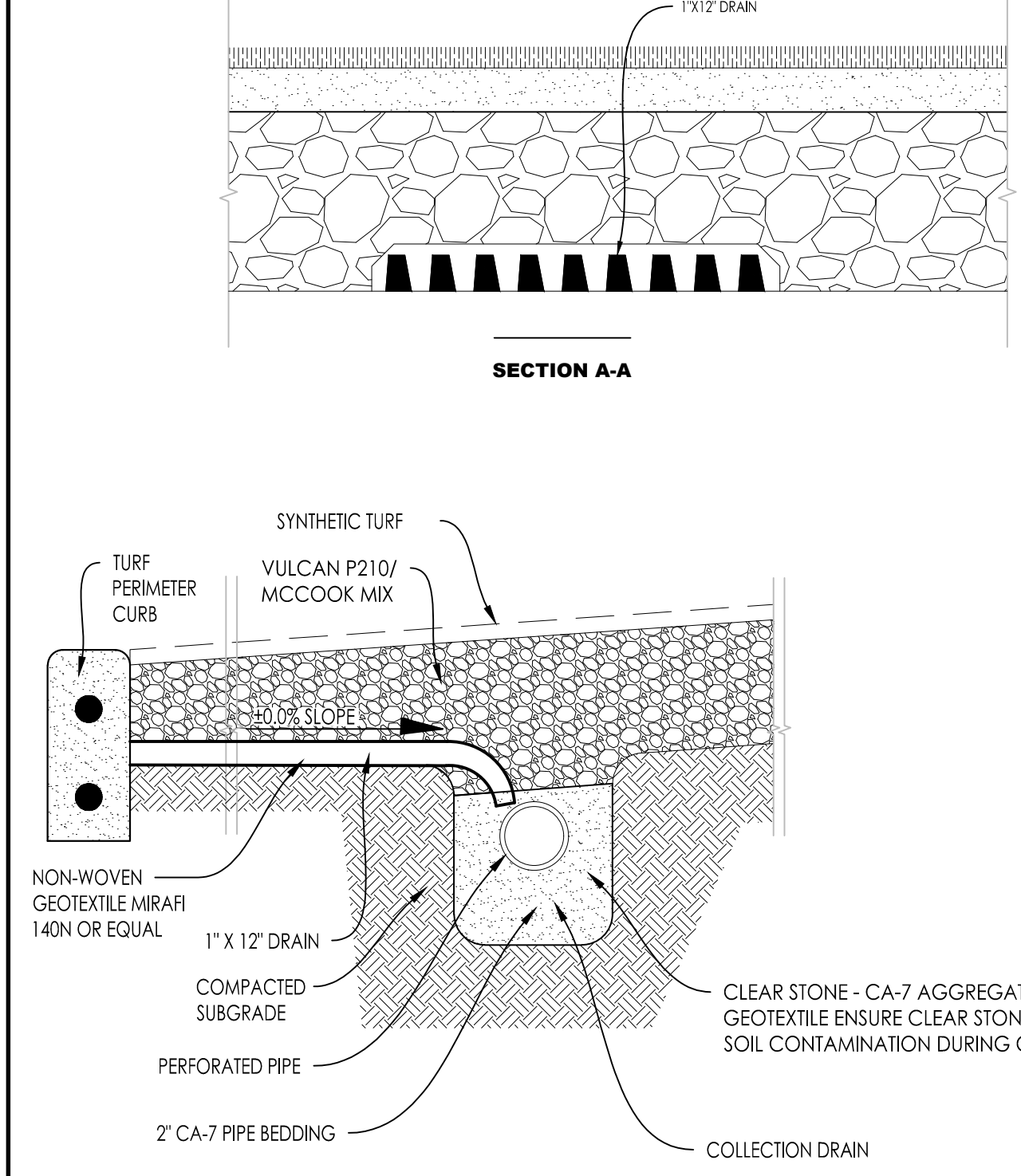
RESTRICTOR CATCH BASIN #4 DETAIL  
NOT TO SCALE



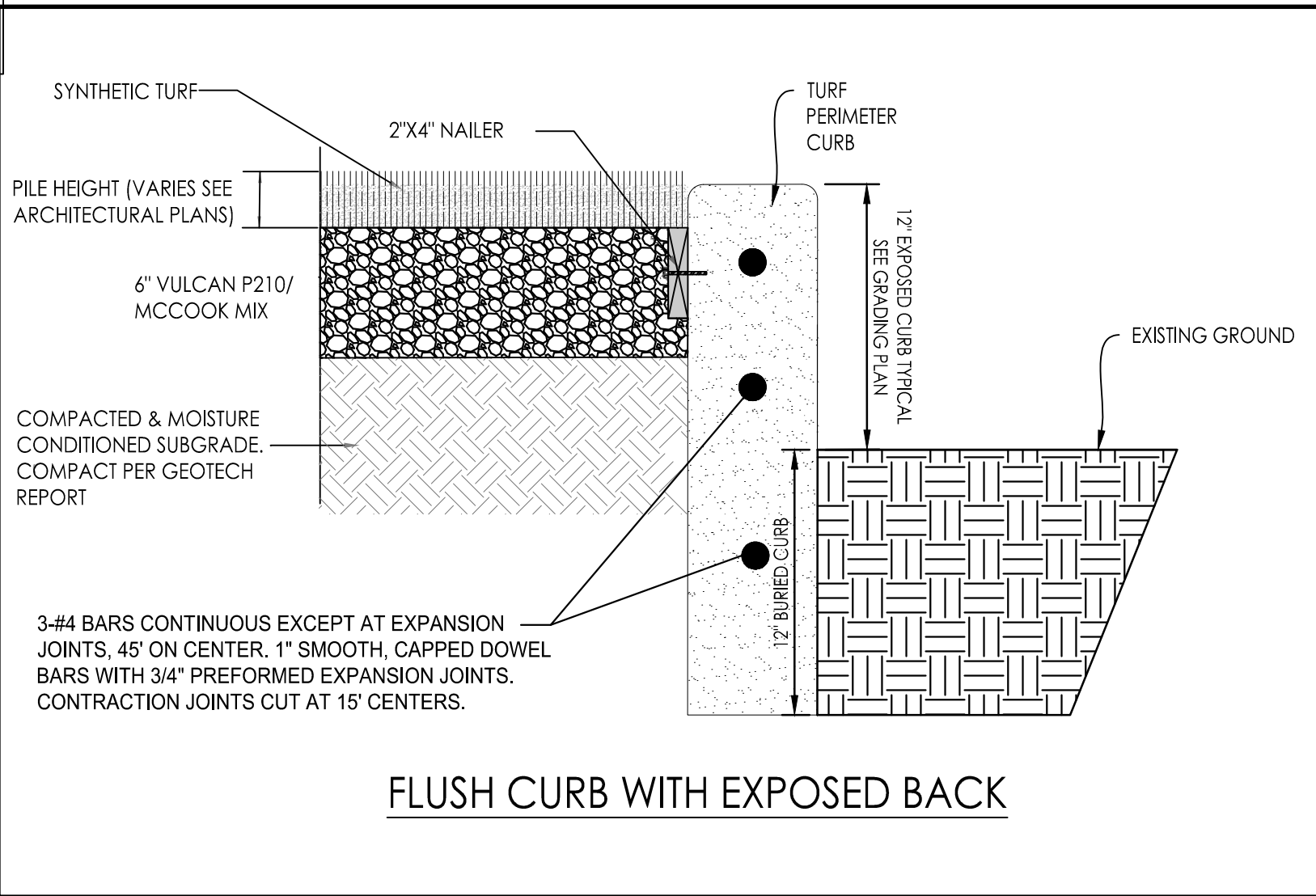
CHECKMATE ULTRAFLEX INLINE VALVE  
(UPSTREAM CLAMP)



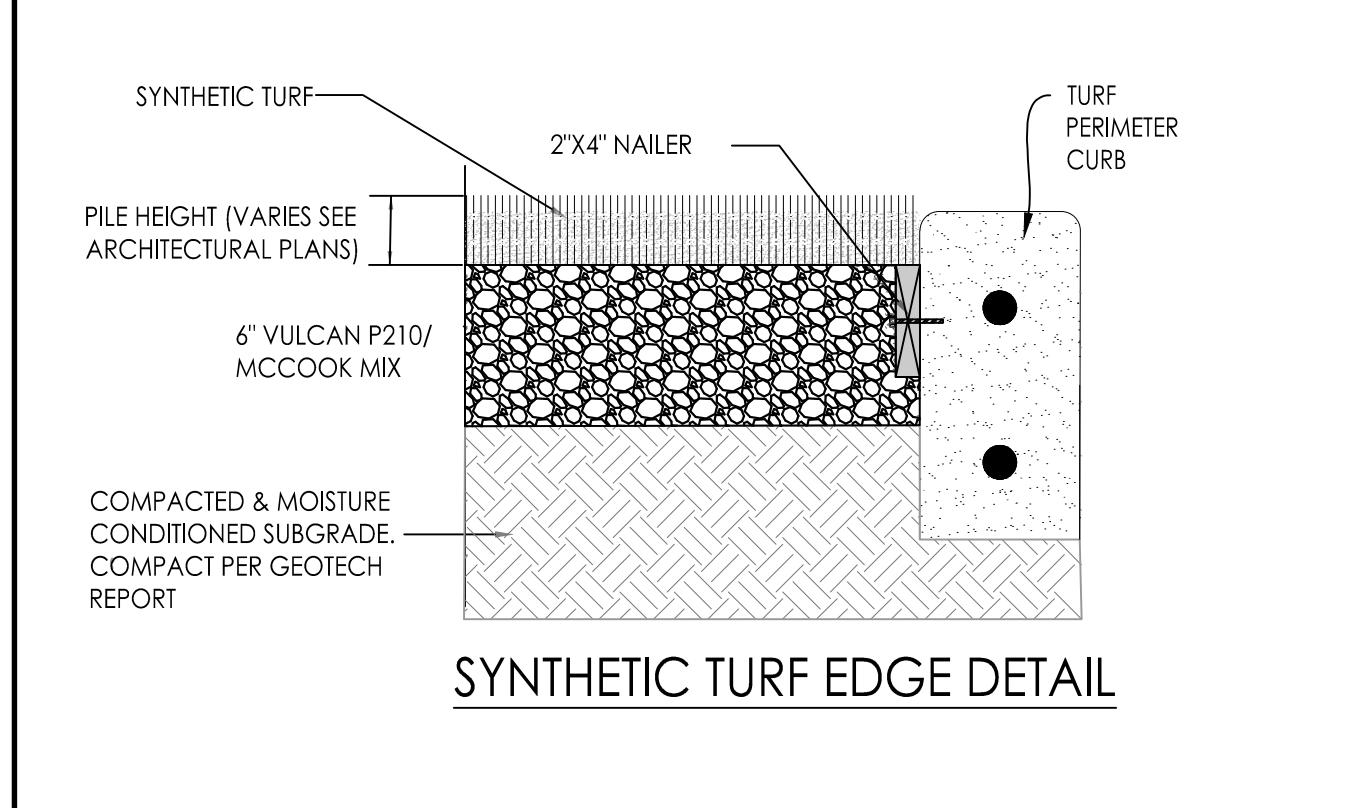
SYNTHETIC TURF CROSS-SECTION  
NOT TO SCALE



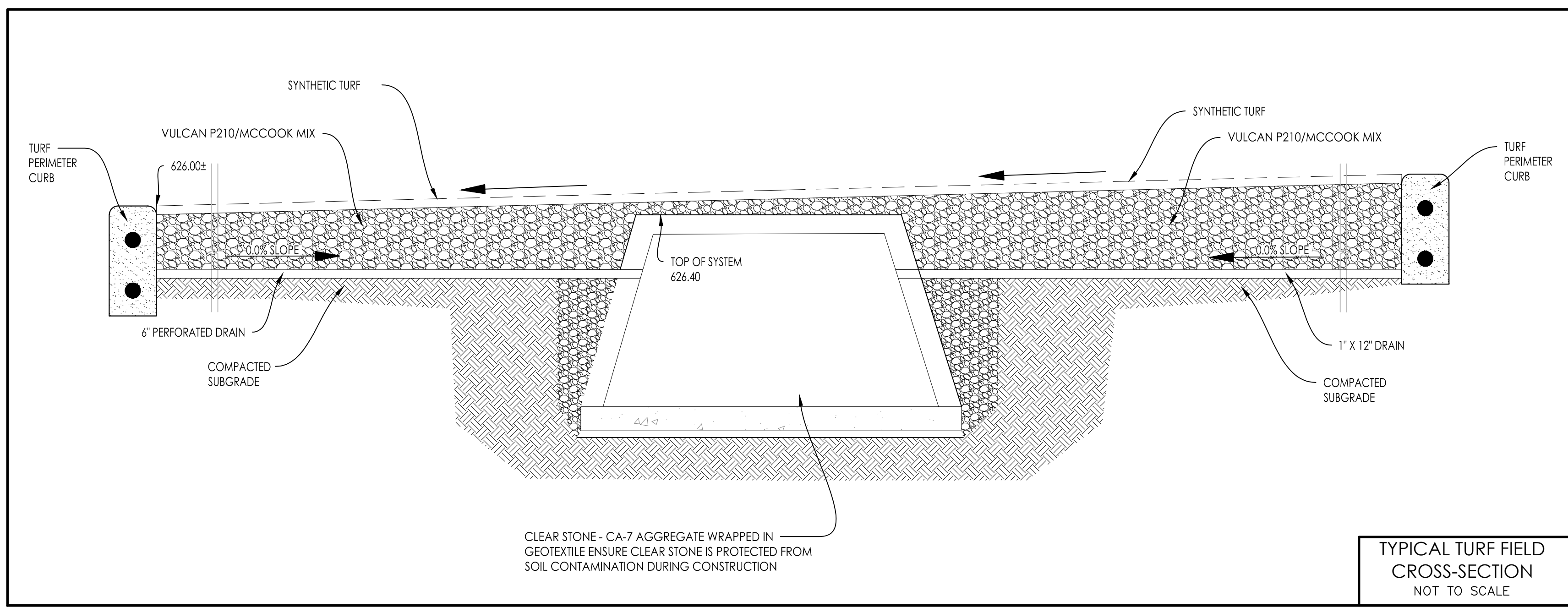
COLLECTOR DRAIN CROSS-SECTION  
NOT TO SCALE



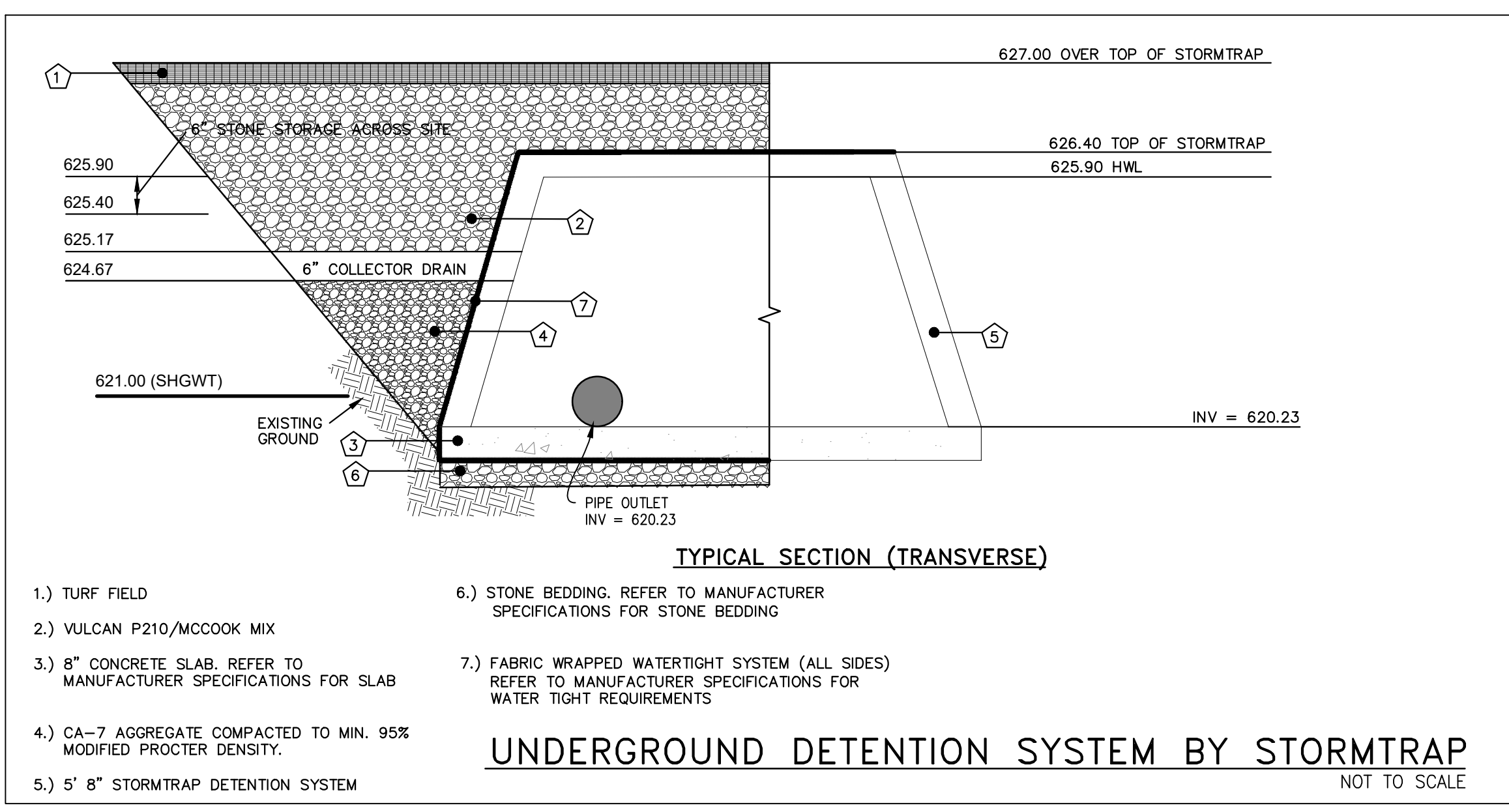
FLUSH CURB WITH EXPOSED BACK



SYNTHETIC TURF EDGE DETAIL



TYPICAL TURF FIELD CROSS-SECTION  
NOT TO SCALE



UNDERGROUND DETENTION SYSTEM BY STORMTRAP  
NOT TO SCALE

NO	ISSUE	DATE
•	• IFC SET	• 07/03/23
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•

DETAILS



