

**ADDENDUM
NO. 1**

July 19, 2024

Cherry Tree Softball Complex Renovation Phase 1 – Varsity Field
13989 Hazel Dell Parkway
Carmel, IN 46033

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications and the Drawings dated June 21, 2024, by Fanning/Howey. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 1-1, and attached Fanning/Howey Addendum No. 1 dated July 19, 2024, consisting of 3 items, 1 page, Revised Project Manual Section: Sections 32 18 13 – Synthetic Grass Surfacing, 32 18 13.01 – Sprinturf, and 32 18 13.02 – Sprinturf, Revised Drawing Sheets: GD1.01, G3.02, G4.01 and SU1.03.

ADDENDUM NO. 1

Cherry Tree Softball Complex Renovation

Carmel Clay Schools
Carmel, Indiana

Project No. 224041.00

Index of Contents

Addendum No. 1, 3 items, 1 page

Revised Project Manual Section: Sections 32 18 13 – Synthetic Grass Surfacing, 32 18 13.01 – Sprinturf,
and 32 18 13.02 – Sprinturf

Revised Drawing Sheets: GD1.01, G3.02, G4.01 and SU1.03

July 19, 2024

FANNING/HOWEY ASSOCIATES, INC.
ARCHITECTS/ENGINEERS/CONSULTANTS

TO: ALL BIDDERS OF RECORD

ADDENDUM NO. 1 to Drawings and Project Manual, dated June 21, 2024, for the Cherry Tree Softball Complex Renovation for Carmel Clay Schools, 5201 E. 131st St., Carmel, Indiana 46033; as prepared by Fanning/Howey Associates, Inc., Indianapolis, Indiana.

This Addendum shall hereby be and become a part of the Contract Documents the same as if originally bound thereto.

The following clarifications, amendments, additions, revisions, changes, and modifications change the original Contract Documents only in the amount and to the extent hereinafter specified in this Addendum.

Each bidder shall acknowledge receipt of this Addendum in his proposal or bid.

NOTE: Bidders are responsible for becoming familiar with every item of this Addendum. (This includes miscellaneous items at the very end of this Addendum.)

RE: ALL BIDDERS

ITEM NO. 1. REVISED PROJECT MANUAL SECTIONS

- A. Sections 32 18 13 – Synthetic Grass Surfacing, 32 18 13.01 – Sprinturf, and 32 18 13.02 – Sprinturf have been revised, dated 7/19/24, and is included with and hereby made a part of this Addendum.

ITEM NO. 2. PROJECT MANUAL, SECTION 11 68 33 – ATHLETIC FIELD EQUIPMENT

- A. Replace 2.3, A., 2., as follows: Softball System to include: Ultracross netting, 30 foot netting height, length per plan, (4) poles, 5'-0" pole embedment, footing per local conditions.

Note: Remaining subparagraphs are still applicable.

ITEM NO. 3. REVISED DRAWING SHEETS

- A. Drawing Sheets: GD1.01, G3.02, G4.01 and SU1.03 have been revised, dated 7/19/24, and is included with and hereby made a part of this Addendum. These Drawings supersede the original documents.

END OF ADDENDUM

SECTION 32 18 13 - SYNTHETIC GRASS SURFACING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to this Section.
- B. Section Includes:
 - 1. Synthetic grass infill system and accessories for Softball field.
 - a. New synthetic grass infill system on new base and suitable subgrade.
 - 2. Drainage testing of the existing natural turf and infield clay fields for suitable drainage for new infill turf field.
 - 3. Drainage testing of new infill turf field.
 - 4. FieldSpec 7' Drag Brush
 - 5. FTMAG – 7' Tow Behind Magnet
- C. Related Work:
 - 1. Division 31 Section "Site Clearing": For removal of existing synthetic grass surface.
 - 2. Division 31 Section "Earth Moving": For preparation of subgrade and field base materials.
 - 3. Division 33 Section "Sub-drainage": For storm drainage structures and field drainage system.

1.2 DEFINITIONS

- A. Terminology Definitions:
 - 1. Base Materials: Materials that provide porosity and stability such as crushed aggregate or porous pavement.
 - 2. Denier: The weight in grams of 9000 meters of fiber.
 - 3. Drainage System: A method of removing surface and subsurface moisture/water.
 - 4. Fiber: A specific form of fibrous textile material from which yarn is manufactured.
 - 5. Fiber Thickness: A measurement in microns (metric) or mils. (U.S.) of the thinnest cross section of a fiber.
 - 6. G-Max: A measurement of impact (shock absorption) in terms of gravity units as a ratio of deceleration.
 - 7. Infill: Loosely dispersed materials that are added to the synthetic turf system, typically sand, rubber, other suitable material, or a combination thereof.
 - 8. Knitted: A process in which the yard fibers of the pile are tied to the backing which was simultaneously constructed in the same over and under, crisscross process.
 - 9. Water Permeability: The rate at which water flows through a surface or system cross-section or components of the cross-section.
 - 10. Planarity: Uniformity of the surface as compared to certain fixed predetermined points or prescribed slopes.
 - 11. Primary Backing System: A single or multiple layers of woven or non-woven materials, into which the fiber is either tufted or knitted, to provide the initial construction of the synthetic turf.
 - 12. Secondary Backing System: A coating and/or woven or non-woven fabric layer(s) applied to the primary backing after the fiber pile has been locked into place which serves to provide tuft bind and additional structural integrity.
 - 13. Shock Absorbing System: Component(s) that add resiliency to the system.
 - 14. Subgrade: A stabilized foundation onto which the base materials and field systems are installed.
 - 15. Synthetic Pile Fiber: Grass-like blades made of synthetic materials.
 - 16. Tufted: A process by which the fiber yarns that form the pile are inserted into a previously prepared blanket-like primary backing.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Design of synthetic turf system is based on products and systems by manufacturers as specified in Part 2. Systems shall be engineered by manufacturer to provide a complete turf system.
- B. Standard Test Methods: Systems shall comply with all applicable test standards as follows:
1. ASTM F 1551; "Standard Test Methods for Characterization of Synthetic Turf Playing Surfaces and Materials."
 - a. Suffix-DIN 18-035, Part 6 – Water Permeability of Synthetic Turf Systems and Permeable Bases.
 - b. Suffix ASTM – Turf System Ball Bounce and Ball Rebound.
 2. ASTM D-1682; Grab Strength Test
 3. ASTM D-1335; Tuft bind
 4. ASTM D-4158; Uniform Abrasion Method
 5. ASTM F-1015; Relative Abrasiveness
 6. ASTM F-355; Procedure A; Shock Absorbency
 7. ASTM D-1876; Peel Resistance
- C. Field Markings: Conform to requirements of the National Federation of State High School Association's High School Softball Rules and Records.
- D. Shock Absorbency: Field shall achieve a minimum of 130 Gmax Shock Absorbency at all tested locations and a maximum of 175.
- E. Player-Surface Interface, ASTM F1936: The field surface should provide consistent footing across the entire field area in all directions. Footing includes traction, slip resistance, and rotational resistance. It should also allow for movement between the shoe and the field surface so that contact can be made between athletes without the foot locking into place.
1. Traction: The surface should provide good traction in all types of weather with the use of conventional athletic type shoes applicable to the sports and/or activity specified.
 2. Rotational Resistance: The surface should allow for twisting movements as is common in athletic activities. Rotational resistance measures the ability of the user to perform twisting motions when in contact with the surface.
 3. Slip Resistance Component: The system should enable a predictable range of movement between the user and the surface uniformly throughout. The surface should balance traction and slippage by way of the sliding coefficient.
 4. Surface Abrasiveness: The field surface should have fibers that minimize skin abrasions.
 5. Impact Absorption (force reduction): The field surface should have the ability to adequately absorb player impact with the surface.
 6. Surface Stability (vertical deformation): The surface should provide adequate stability so that the athlete can maintain body control to help prevent or properly control contact between athletes. This is an important consideration that should be balanced with the surfaces' ability to absorb impact. If the surface is too soft, the stability provided by the field may not be optimal for player movement and body control.
- F. Ball-Surface Interface, ASTM F1936: The field surface should provide consistent and predictable ball performance reaction characteristics.
1. Surface Uniformity: The synthetic turf playing field should be slightly sloping as noted on plans. The synthetic surface shall provide a true and uniform playing surface throughout.
 2. Ball Bounce: The synthetic turf field should provide a ball bounce as close to the optimal playing characteristics of the sport (Softball). The published standards for the regulatory organizations as applicable for each sport should be referenced.
 3. Ball Roll: The synthetic turf field should provide a ball roll as close to optimal playing characteristics of the intended sport (Softball). The published standards for the regulatory organizations as may be applicable for each sport should be referenced.
- G. Appearance: Unless otherwise dictated by design, the synthetic turf should have a consistent color and shade without significantly noticeable streaks or other irregularities when observed in any direction.

1.4 ACTION SUBMITTALS

- A. Shop Drawings: Prepare at scale of the construction documents and contain all pertinent information regarding installation. Drawings shall include the following:
 - 1. Seaming plan.
 - 2. Installation details; edge detail, other inserts, etc.
 - 3. Striping plan; layouts for Softball field showing any field lines, markings and boundaries, and field logos as indicated.

- B. Samples for Verification: Synthetic Turf, 30 inches by 30 inches with two 4 inch by 12 inch lines, (1 white and 1 yellow), installed per manufacturers recommended method.
 - 1. Color samples of A/E selected colors to match School colors.
 - 2. Provide at project site for review by A/E representative and Owner.

- C. Product Submittals:
 - 1. Product Data: For each type of product indicated.
 - 2. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency for turf system performance.
 - a. Compliance with Pile Height, Face Weight and Total Fabric Weight per ASTM D418.
 - b. Primary and Secondary Backing Weights per ASTM Dd418.
 - c. Tuft Bind per ASTM D1335.
 - d. Grab Tear Strength per ASTM D1682.
 - 3. Certification of Installer: Proof of compliance with "Quality Assurance" provisions.
 - 4. Warranty: Manufacturer's warranty with provisions specified herein that will be utilized for the Project. Generic warranties are not acceptable.

1.5 CLOSEOUT DOCUMENTS

- A. General: Closeout Submittals are to be submitted with O and M Manuals only. Do not submit with other ACTION and INFORMATIONAL Submittals:
 - 1. Maintenance Data: For the proper care and preventative maintenance of the synthetic turf system, including painting and striping.
 - 2. Warranties: Special Warranties specified in this Section.

1.6 QUALITY ASSURANCE

- A. Manufacturer/Installer's
 - 1. The synthetic turf installer/manufacturer shall demonstrate experience with at least 3 similar projects with contract amounts over \$1,500,000.00. Submit information with the bid.
 - 2. The installer/manufacturer shall employ only qualified, experienced supervisors and technicians skilled in the installation of this system. All turf technicians shall be full time statutory employees of the turf manufacturer/installer.
 - 3. The turf installer/manufacturer must provide competent workmen skilled in this specific type of synthetic grass installation. The designated supervisory personnel on the project must be certified in writing by the turf manufacturer as competent in the installation of this material, including seaming and proper installation of the infill mixture. The manufacturer shall have a representative on site to certify the installation and warranty compliance.
 - 4. The manufacturer's representative and installation project manager shall observe establishment of subgrade, drainage system, and perimeter drain at periodic intervals during construction and notify the Architect of any items observed that may be detrimental to final installation of the synthetic turf.
 - 5. The Manufacturer must be a certified member of the Synthetic Turf Council (STC).

- B. Prospective bidders must meet the following criteria:
 - 1. Have proper license, in good standing, and have never had a license revoked.
 - 2. Have not been disqualified or barred from performing work for any public Owner or other contracting entity.
 - 3. Shall have demonstrable financial strength to fully service and warrant the systems through the provision of audited financial statement for the past 3 years.

1.7 WARRANTY

A. Manufacturer's Warranty: Manufacturer shall warrant synthetic grass surfacing. Coverage shall be for the full system, including drainage function, UV degradation, fiber strength, stability of the backing, tufted yarn and seam integrity, base construction, and all other related components of the synthetic turf system.

1. The warranty submitted must have the following provisions even if not part of Manufacturer's standard Warranty form.
 - a. Warranty Period: Eight (8) years from date of Substantial Completion.
 - b. **Warranty coverage shall be a single-source, third-party insured warranty from an A-rated domestic insurance carrier. Letters of credit, financial statements, and related-party companies are not permissible. Per claim, coverage shall meet or exceed \$5,000,000 in protection to the owner and a copy of the coverage must be provided with your bid.**
 - c. **All warranties shall be in writing and remain valid should the Manufacturer, discontinue operations or be acquired by another company prior to the conclusion of said warranty.**
 - d. Warranty shall include materials and workmanship.
 - e. Must have a provision to either make a cash refund or repair or replace such portions of the installed materials that are no longer serviceable to maintain a serviceable and playable surface.
 - f. Must be a warranty from a single source covering workmanship and all self-manufactured or procured materials for the field surface and installation.
 - g. Warrant that the yarn used to make the grass-like tufts will maintain its UV stability and tensile strength such that the strength of the fiber when measured in accordance with ASTM D-2256 will not decrease by more than 50% during the warranty period due to breakdown of UV stability.

1.8 MAINTENANCE SERVICE

- A. Maintenance Proposal: Provide a separate maintenance proposal, not included in base bid, from Manufacturer/Installer to the Owner in a form of a standard one-year maintenance agreement. State the services to be provided, obligations, conditions and terms for agreement period and for future renewal options.

1.9 EXTRA MATERIALS

- A. Furnish one additional standard infill container of each infill type used for the owners use. Container shall contain a min of 45 c.f. of sand, rubber and Greenplay infill material.
- B. Furnish roll of additional of each synthetic turf fabric used and in each color used for owners use. Roll shall contain a min. of 1500 s.f of turf fabric.
 1. All salvageable pieces of colored turf used during the installation should be left with the Owner.
- C. Removable synthetic turf panels, four sets, for each area indicated on Drawings.

PART 2 - PRODUCTS

2.1 MANUFACTURERS/PRODUCTS

A. Varsity Softball Stadium - Manufacturers: Basis of Design:

1. **Sprinturf, Atlanta, Georgia**
 - a. **Infield and Warning Track: Ultrablade 50 Sharktooth.**
 - b. **Outfield: DFE Sharktooth**
2. **Subject to compliance with the product requirements as specified, approved equal products from one the manufacturers specified below.**
 - a. **Fieldturf, Tarkett, Calhoun, Georgia**
 - b. **Motz Group, Cincinnati, Ohio**

- B. Products of other manufacturers will be considered for acceptance provided they equal or exceed the material requirements and functional qualities of the specified product. Requests for Architect's approval must be accompanied by the "Substitution Request Form" and complete technical data for evaluation. All materials for evaluation must be received by the Project Manager and Specification Department at least 10 days prior to bid due date. Additional approved manufacturers will be issued by Addendum.
 - 1. With substitution request, manufacturer must submit all information in a matrix format that provides the same product information included in the attached product cut sheets..

2.2 SYSTEM COMPONENTS

- A. Drainage System, by Division 33, Section "Sub-drainage".
- B. Base Materials by Division 31, Section "Earthwork"
- C. Materials: All components and their installation method shall be designed and manufactured for use on outdoor athletic fields. The materials as hereinafter specified, should be able to withstand full climatic exposure in the area of the Project, be resistant to insect infestation, rot, fungus, and mildew; to ultra-violet light and heat degradation, and shall have the basic characteristic of flow-through drainage allowing free movement of surface run-off through turf where such water may flow to the subbase and into the field drainage system.
- D. Synthetic Turf: The synthetic turf surface should provide the performance characteristics, components and construction that meet the needs of the declared use for the playing field (Softball).
 - 1. Synthetic turf construction should provide a system that is resistant to weather, rot, mildew and fungus growth. The system components should be non-toxic, not cause commonly known allergic reactions, and conform to environmental requirements. Each synthetic turf system should be constructed to provide dimensional stability and resist damage from wear and tear during athletic and recreational usage. Each system should be resistant in its entirety to excessive ultraviolet degradation.
 - 2. Fibers for Tufted Systems: The polypropylene or polyethylene fiber should be of flat film, extruded or texturized slit film for softball field.
 - 3. Primary Backing Systems: The primary backing materials should be either polyester tire cord, utilized in the knitting process, or a woven, non-woven, or other suitable materials in one or more layers, utilized in the tufting process.
 - 4. Secondary Backing Systems: The secondary backing materials should be applied through a coating process that can be single or multiple applications of one or several different materials. A knitted turf fabric should receive an initial acrylic coating followed by different options of polyurethane or suitable latex coatings in various weights and thickness configurations, depending on individual system design. A tufted turf fabric should receive a polyurethane or suitable latex pre-coat or a performance-based acceptable equal which than can be followed by an attached cushion or a laminated secondary backing utilizing polyurethane, suitable latex, or an acceptable performance-based equal. The purpose of the secondary backing is to provide the desired level of tuft bind and structural integrity of the turf components. In cases where an increased level of system resilience is desired, multiple layers of secondary backing materials of different physical characteristics can be applied.
 - 5. Water Permeability Rate: Permeable system by design with adequate drainage, perforations should be put through all of the backing coatings to provide for adequate drainage through the system as specified.
 - a. Rate: greater than 30 inch/hour.
 - 6. Seams: New synthetic turf materials are manufactured in panels or rolls that are usually 15 feet wide. Each panel or roll should be attached to the next with a seam to form the fabric of the field. Seams to be sewn with high strength sewing thread.
 - 7. Adhesive: All adhesives used in bonding the system together should be resistant to moisture, bacterial and fungus attacks, meet local/regional environmental requirements and be resistant to ultraviolet rays at all locations within the installed system. The bonding or fastening of all system material components should provide a permanent, tight, secure, and hazard-free, athletic playing surface.

8. Seaming Tape: Seaming tape is commonly used for seams and/or inlaid lines and markings. The tape is comprised of a fabric that should be installed below the backing material on both sides of a seam or inlay. Adhesive is then applied to the seaming tape to provide a bond between adjacent turf panels to sections. The fabric used for seaming tape should provide dimensional strength and enough surface texture to bond well with the adhesive.
9. Turf Characteristics:
 - a. **Infield: Ultrablade Sharktooth**
 - 1) Fiber type: Slit Film.
 - 2) Yarn: UV-Resistant polyethylene.
 - 3) Tuft Bind Strength: 12 lbs/force
 - 4) Face/Pile Yarn Weight: Minimum of 50 oz/sqyd.
 - 5) Total Weight: Minimum of 83 oz.
 - 6) GMax Range: less than 200 for the full length of the warranty.
 - 7) Infill Materials: Sand (4 pounds) and Greenplay Fiber (1 pound)
 - 8) Infill Material Density: Minimum of 5 lbs/sf.
 - 9) Pile Height: 1-3/4 inch.
 - 10) Colors: 2 minimum, manufacturer's standard colors for white lines, infield and warning track.
 - b. **Outfield: Ultrablade DFE Sharktooth**
 - 1) Fiber type: Fibrillated Parallel Long-Slit / Monofilament
 - 2) Yarn: UV-Resistant polyethylene.
 - 3) Tuft Bind Strength: 12 lbs/force
 - 4) Face/Pile Yarn Weight: Minimum of 46 oz/sqyd.
 - 5) Total Weight: Minimum of 77 oz.
 - 6) GMax Range: less than 200 for the full length of the warranty.
 - 7) Infill Materials: 60% Rubber, 40% Sand (6 pounds)
 - 8) Infill Material Density: Minimum of 6 lbs/sf.
 - 9) Pile Height: 2 inch.
 - 10) Colors: 5 minimum, manufacturer's standard colors for white lines, outfield alternating panels, turf colored area outside of the foul lines and the 2 color logo.
- E. Infill Material: Infill materials are comprised of rubber and sand or sand and Greenplay Fiber..
 1. Sand: The sand material utilized as infill should be silt free, similarly sized, and rounded to sub-angular. The sand should be delivered to the site graded, washed and dried.
 2. Rubber: The rubber infill utilizes material that is either styrene butadiene rubber (SBR) or ethylene propylene dien polymerisat (EPDM) rubber granules. Both ambient and/or cryogenic rubber can be used.
 - a. Rubber granules must be clean and metal free.
 3. Greenplay® Fiber: 100% natural processed chemical free cocoanut coir fiber.
- F. Lines, Markings, Logos or text: Construction and materials used should be harmonious with the synthetic surface.
 1. Installation: Lines, markings, logos or text shall be inlaid in the synthetic turf surface. Paint shall not be used unless otherwise approved by A/E.
 2. Color of inlaid logos or text shall be in colors as selected by the Owner/Architect from full range of standard colors. Refer to Drawings for additional information.
 3. Consistency: Synthetic turf and fibers utilized for the tufted or inlaid lines, markings, logos or text should be similar to that used in all other areas of the field and installed to the same tolerances.
- G. Nailer Strip: New Installation - For new turf system Install 2 inch by 4 inch suitable "for ground contact".
- H. The entire synthetic turf system shall be "lead-free".
- I. In Ground utility boxes (if required): In ground utility boxes #3500 with infill retainer system for synthetic turf as supplied by Sportsfield Specialties, 888-975-3343 to be installed at each of the locations of existing boxes or as adjusted on site.

J. Field Groomer:

1. **Basis of Design: Turfcare TCA 1400 Groomer as manufactured by:**
 - a. **SMG Equipment, 2002 West Valley Hwy #200, Auburn, WA 98001**
2. System to Include:
 - a. Powder coated steel construction
 - b. Towable with small tractor or utility vehicle
 - c. Reversible & replaceable grooming brushes
 - d. Replaceable dethatching tines
 - e. Simplified height adjustment
 - f. Easily upgradable to 15' brush
 - g. Fully portable for off-field storage
 - h. Approx. Unit weight: 240 lbs.

K. FTMAG - 7' Tow Behind Magnet:

1. **Basis of Design: FTMAG - 7' Tow Behind Magnet and Accessories as Manufactured and/or Supplied by:**
 - a. Sportsfield Specialties, Inc.; P.O. Box 231, 41155 State Highway 10 Delhi, NY 13753, P. (888) 975-3343
2. System to Include:
 - a. Tow behind magnet system for synthetic infill turf
 - b. Pull handles allow debris to be released from magnet
 - c. Powder coated steel and aluminum construction
 - d. Compatible with SweepRight Pro and GroomRight
 - e. Approximate unit weight: 150 lbs.
 - f. Store inside when not in use

L. Velcro Removable Synthetic Turf Panels in sizes and within locations specified within drawings. Turf panels to be constructed of same material and manner as rest of synthetic grass surfacing. Provide manufacturer's standard Velcro type attachment system with turf areas to facilitate replacement.

1. Install removable synthetic turf panels per manufacturer's written instructions.
2. Provide an additional four (4) sets of removable panels for each area indicated as removable panels on the Drawings.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Inspection: Synthetic materials should be inspected prior to installation for:
1. Damaged or defective goods.
 2. Missing goods or quantities.
 3. Correct turf pile height.
 4. Correct backing perforation diameter and spacing if applicable.
 5. Materials out of tolerance with the specification.

3.2 GENERAL, INSTALLATION

- A. The installation shall be performed in full compliance with shop drawings and manufacturer's printed instructions.
- B. All installation operations shall be performed by personnel directly employed by the manufacturer, fully familiar with the materials and their application, under the full time direction and supervision of a qualified technical supervisor employed by the manufacturer of the synthetic turf.

3.3 INSTALLATION

- A. Subgrade Preparation, refer to Division 31, Section "Earthwork": The subgrade should provide a stabilized foundation upon which base materials and subsequent components of playing field systems will be installed.

1. Subgrade (Rough) Planarity: The tolerances for the finished subgrade should not exceed one inch as measured by a 10 foot straight edge. Grading of the subgrade shall minimize ponding to the extent practical.
- B. Aggregate refer to Division 31, "Earthwork": Installation of the aggregate base should provide a close, evenly textured surface meeting the required tolerances.
- C. Nailer: New installation - Attach the treated nailer for the turf attachment to the curbs/walks by means of a galvanized 3/8 inch minimum bolt at 4 feet on center, minimum. The elevation of the nailer shall be determined by the turf manufacturers specifications.
- D. Synthetic Turf Installation: All synthetic turf systems should be installed to provide stability that will prevent panels from shifting or bunching.
 1. Seaming Method: The synthetic turf panels should be securely fastened together for the warranted life of the system. Seam gaps should be uniform. For tufted infill systems the gap between the fibers should not exceed the gauge of the tufting. For other synthetic turf systems, the seam gaps should not exceed 1/16 inch.
 - a. Major panel seaming: Seams must be sewn. Seams shall be flat, tight and permanent with no separation or fraying.
 - b. Inlays shall be glued and warranted for workmanship per the Warranty Article.
 2. Edge Anchoring: Tie anchor to curbing. Provide a secure anchor.
- E. Infill Material Installation: Correct installation is critical to performance of these systems and should follow the manufacturer's recommendations.
 1. Environmental Conditions: It is recommended infill materials should be installed under dry field conditions.
 2. Method of Application: The infill material should be installed uniformly. The equipment used for the application of the infill materials should erect the fiber, place the infill materials, and should incorporate a metering method to provide consistent distribution. The equipment utilized should not distort or displace any base materials or damage to system in any way.
 - a. Apply infill in numerous thin lifts using specialized broadcasting equipment.
 - b. Infill material shall be installed to the depth appropriate for the turf type and the intended use of the field for maximum playability and performance..
 - c. Infill mixture can only be applied when dry.
- F. Fiber Conditioning: It is essential to maintain the integrity and uniformity of the fiber throughout the manufacturing, shipping and handling, installation and maintenance processes in order to prevent damage which could alter the specified performance and void the warranty.

3.4 FIELD MARKINGS

- A. Installer shall install logos, numbers and additional markings as indicated in accordance with process indicated on shop drawings.

3.5 CLEANUP

- A. Contractor shall provide the labor, supplies and equipment as necessary for final cleaning of surfaces and installed items.
- B. All useable remnants of new material shall become the property of the Owner.
- C. The Contractor shall keep the area clean throughout the project and clear of debris.
- D. Surfaces, recesses, enclosures, etc. shall be cleaned as necessary to leave the work area in a clean, immaculate condition ready for immediate occupancy and use by the Owner.

3.6 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent testing agency to perform field quality-control testing.
- B. G-Max Testing, ASTM F1936:
 - 1. Temperature: Ambient shaded air temperature of 40 – 100 degrees Fahrenheit.
 - 2. Number: 10 tests shall be conducted throughout each field area at completion of work. Test locations shall conform as closely as possible to the test sites specified in ASTM F1936 (Softball).
 - a. Provide complete report of testing values and diagram of locations.
 - b. Acceptable industry manufacturer tolerance of +/- 2 percent.
 - c. Test results shall be between 130 and 175. If test results in values above 175, adjustments should be made to the installation and materials until test results are within the acceptable range.

3.7 DEMONSTRATION

- A. The synthetic turf installer shall provide detailed written maintenance instructions, suggested guidelines for the system, and training of maintenance personnel. Maintenance of the systems typically consists of cleaning, stain removal, minor seam repair, dragging or redistribution of any infill material, and management of infill compaction. Specialized equipment is typically required for the maintenance of the surface and should be included with the field contract. Utilizing this equipment as recommended by the installation builder will generate the proper maintenance in relation to any future warranty claims.

3.8 DISPOSAL

- A. Disposal: Remove surplus soil material, unsuitable infill, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.
 - 1. Burning of combustible cleared and grubbed materials is not permitted on Owner's property.

3.9 MANUFACTURER / PRODUCT INFORMATION REQUIREMENTS

- A. Manufacturer product characteristics and specifications shall be submitted for consideration by each contractor following bidding for consideration

END OF SECTION 32 18 13



ULTRABLADE™

SHARKTOOTH™

Sprinturf's parallel long slit fibrillated fibers are featured in the most fields in the nation over 10 years old. Sprinturf's SharkTooth™ fiber slitting technology provides a longer lasting, better looking playing surface and we are the only turf manufacturer in the western hemisphere that makes this technology available. Exclusively made in-house and in America.

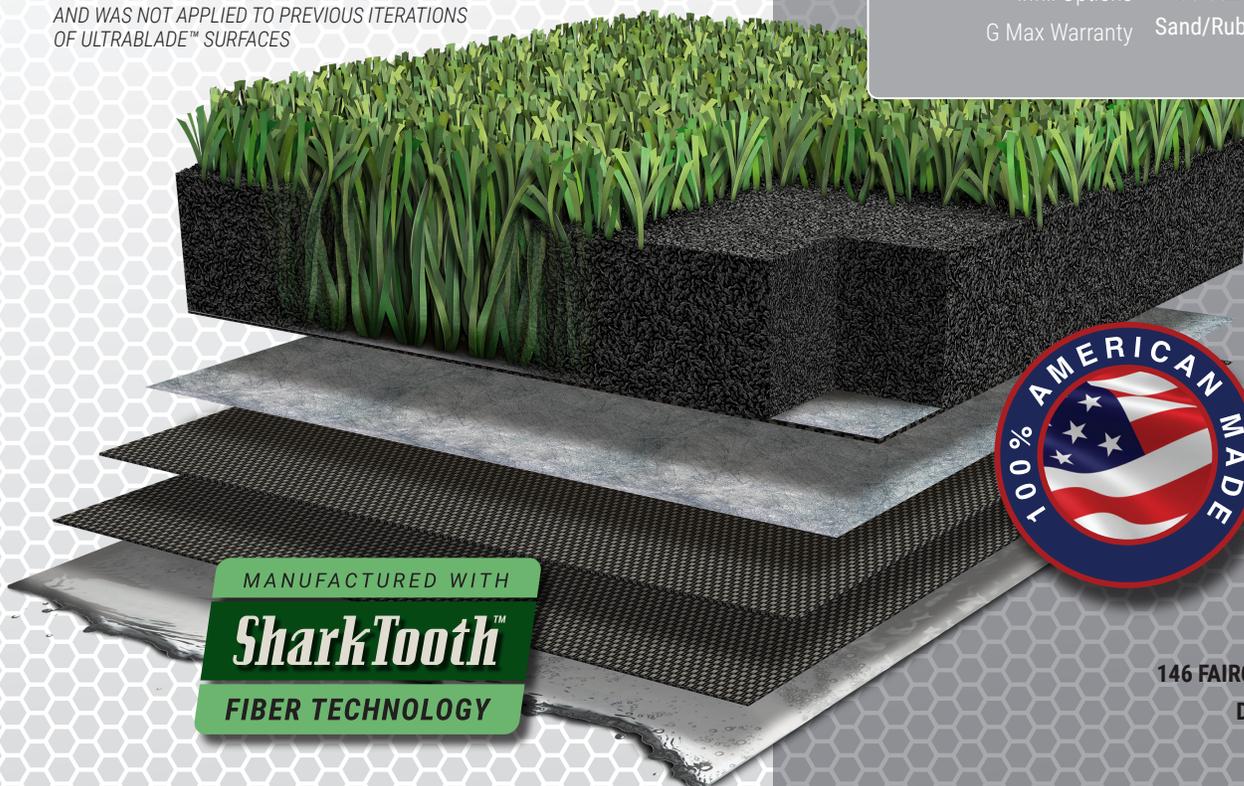
Sprinturf pioneered the Ultrablade parallel slit fiber system in 1998. Over 250 fields have been installed with Ultrablade since 2006 alone. The current Ultrablade slit fiber system features a proprietary Exxon metallacene resin. The 135 micron plus fiber provides unmatched durability. Tensile strengths average 40 percent higher than comparable Tencate XP fibers. Ultrablade routinely passes 100,000 plus cycles on Lisport accelerated testing. Installations include University of Pennsylvania, Valdosta State University and Ball State University.

SHARKTOOTH TECHNOLOGY IS BRAND NEW AND WAS NOT APPLIED TO PREVIOUS ITERATIONS OF ULTRABLADE™ SURFACES

SLIT-FILM FIBER

SPECIFICATIONS

Fiber	SharkTooth™ Slit-Film
Fiber Supplier	ITS - Sprinturf
Fiber Denier	10,000
Fiber Thickness	135 Microns
Pile Height	1.75j Infield
Face Weight	50 oz / yd2 and up
Primary Backing	Non-Woven/Woven/Woven
Primary Backing Weight	9 oz / yd2
Secondary Backing	Polyurethane
Secondary Backing Weight	24 oz / yd2
Total Weight (w/o infill)	83 oz / yd2
Tufting Gauge	3/8j
Tuft Bind	>12 lbs/force
Permeability	>60 inches/hour
Infill Options	4 lbs Sand, 1lb Greenplay Fibre
G Max Warranty	Sand/Rubber: < 200G's



MANUFACTURED WITH
SharkTooth™
FIBER TECHNOLOGY



The information provided above represents the standard characteristics for the named product. If required this product can be manufactured to meet alternative specification requirements within our manufacturing tolerances. The above referenced data and supporting reports apply only to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar products.

TOLL FREE: 877-686-887
FAX: 843-410-5712
146 FAIRCHILD STREET, SUITE 150
DANIEL ISLAND, SC 29492



ULTRABLADE™

DFE SHARKTOOTH

SLIT-FILM / MONOFILAMENT

Sprinturf has the most dual fiber fields in the nation. DFE Extreme™ fields feature a 330+ micron monofilament fiber and a 135 micron slit-film fiber. Sprinturf's SharkTooth™ fiber slitting technology provides a longer lasting, better looking playing surface and we are the only turf manufacturer in the western hemisphere that makes this technology available. Exclusively made in-house and in America.

The combination of monofilament and parallel-fibrillated fibers interlock to nearly eliminate infill flyout – a common complaint amongst athletes, coaches, and parents. The available two color configuration provides stunning aesthetics.

Sprinturf DFE Extreme fields feature two unique polymer technologies. State of the art C8 monofilament resins from Dow and Nova are married to a proprietary metallacene slit film resin from Exxon. The combined product featuring the greatest polymer suppliers in the world provide unmatched durability with exceptional resilience, playability, and safety.

AVAILABLE WITH OR WITHOUT THATCH ZONE



MANUFACTURED WITH
SharkTooth™
FIBER TECHNOLOGY



SPECIFICATIONS	
Fiber	SharkTooth™ Slit-Film Monofilament
Fiber Supplier	ITS - Sprinturf
Fiber Denier	10,000 / 10,800
Fiber Thickness	135 Microns / 330 Microns
Pile Height	2" Outfield
Face Weight	46 oz / yd2 and up
Primary Backing	Non-Woven/Woven/Woven
Primary Backing Weight	9 oz / yd2
Secondary Backing	Polyurethane
Secondary Backing Weight	22 oz / yd2
Total Weight (w/o infill)	77 oz / yd2
Tufting Gauge	3/8"
Tuft Bind	>12 lbs/force
Permeability	>60 inches/hour
Infill Options	60% Rubber 40% Sand
G Max Warranty	All Rubber: < 150G's Sand/Rubber: < 175G's

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**CHERRY TREE
SOFTBALL
COMPLEX
RENOVATION
PHASE 1 - VARSITY
FIELD**

13989 HAZEL DELL PARKWAY
CARMEL, IN 46033

**CARMEL CLAY
SCHOOL DISTRICT**



ARCHITECT

**FANNING
HOWEY**

317-848-0966 WWW.FHAI.COM
390 E NEW YORK ST #300, INDIANAPOLIS, IN 46204



KEY PLAN

CONSTRUCTION DOCUMENTS



PROJECT MANAGER: DB
DRAWN BY: KNB
PROJECT NUMBER: 224041.00
PROJECT ISSUE DATE: 06/21/2024

REV. NO.	DESCRIPTION	DATE
1	ADENDUM#1	07-19-2024

DEMOLITION PLAN

GD1.01

DEMOLITION KEYNOTE LEGEND

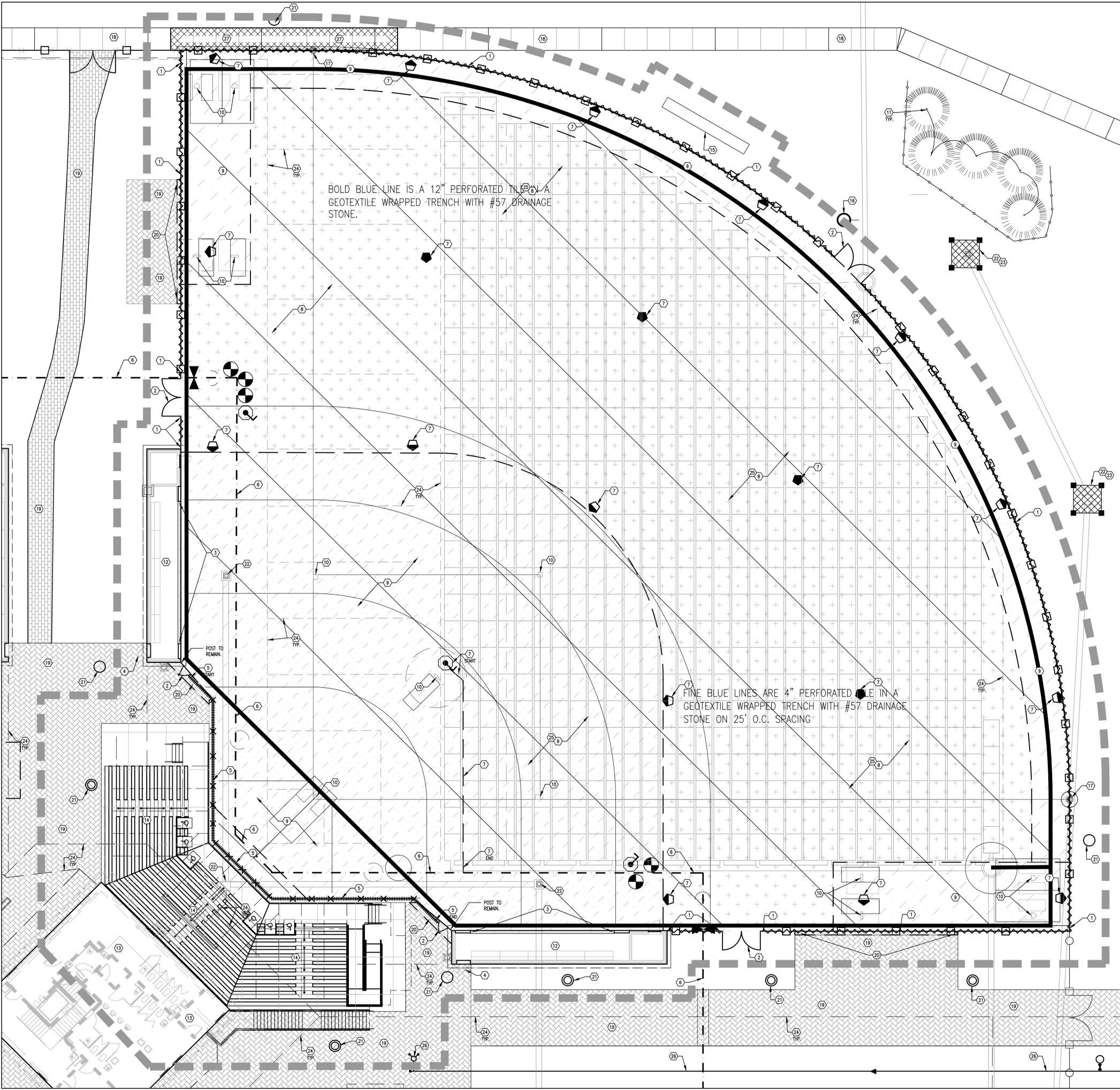
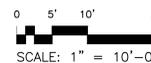
- LIMITS OF WORK**
- ① EXISTING CHAIN LINK POSTS TO REMAIN, PROTECT DURING CONSTRUCTION. REMOVE EXISTING CHAIN LINK FENCE FABRIC, HARDWARE, RAILS, FENCE TOPPER, AND TENSION WIRE.
 - ② REMOVE EXISTING PERMETER CHAIN LINK GATE, INCLUDING FOUNDATIONS AND DISPOSE OF OFF-SITE.
 - ③ REMOVE EXISTING DOUGLASS FENCE POSTS ARE TO REMAIN, PROTECT DURING CONSTRUCTION. REMOVE ALL CHAIN LINK FENCE FABRIC, HARDWARE AND RAILS ON THE FIELD SIDE OF DOUGLASS.
 - ④ EXISTING DOUGLASS CHAIN LINK GATE POSTS ARE TO REMAIN, PROTECT DURING CONSTRUCTION. REMOVE DOUGLASS GATES FROM POSTS.
 - ⑤ REMOVE EXISTING CHAIN LINK FENCE BACKSTOP SYSTEM, INCLUDING POSTS AND FOUNDATIONS AND DISPOSE OF OFF-SITE (BASE BR).
 - ⑥ EXISTING 2" DIA. IRRIGATION SYSTEM MAIN LINE TO REMAIN, PROTECT DURING CONSTRUCTION. NOTE: THESE LINES ARE PART OF THE IRRIGATION SYSTEM LOOP FEEDING ALL FOUR FIELDS.
 - ⑦ REMOVE EXISTING IRRIGATION SPRINKLERS AND WATER LINES AS REQUIRED FOR FIELD RENOVATION. CAP WATER LINES TIED INTO THE EXISTING 2" DIA. IRRIGATION SYSTEM WATER MAIN.
 - ⑧ REMOVE EXISTING TURF AND TOPSOIL IN AREAS RECEIVING NEW INFILL TURF. ALL EXCAVATED MATERIALS TO BE HAULED OFF-SITE.
 - ⑨ REMOVE INFILL, WARNING TRACK, AND BULL PEN MATERIAL. ALL EXCAVATED MATERIALS TO BE HAULED OFF-SITE.
 - ⑩ SALVAGE EXISTING BASES, PITCHING RUBBER, AND HOME PLATE. RETURN TO OWNER.
 - ⑪ EXISTING TREES TO REMAIN, PROTECT DURING CONSTRUCTION. NO CONSTRUCTION TRAFFIC, OR MATERIAL STORAGE WITHIN DRIP LINE OF THE TREE TO REMAIN. REFER TO THE PROJECT MANUAL.
 - ⑫ EXISTING DOUGLASS STRUCTURE TO REMAIN, PROTECT DURING CONSTRUCTION.
 - ⑬ EXISTING PRESS BOX STRUCTURE TO REMAIN, PROTECT DURING CONSTRUCTION.
 - ⑭ EXISTING BLEACHERS TO REMAIN, PROTECT DURING CONSTRUCTION.
 - ⑮ EXISTING SCOREBOARD TO REMAIN, PROTECT DURING CONSTRUCTION.
 - ⑯ EXISTING FLAGPOLE TO REMAIN, PROTECT DURING CONSTRUCTION.
 - ⑰ EXISTING FOUL POLE TO REMAIN, PROTECT DURING CONSTRUCTION.
 - ⑱ CONTRACTOR IS TO PROTECT EXISTING CONCRETE WALKS FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGED WALKWAYS WILL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
 - ⑲ EXISTING PAVERS TO REMAIN. ANY DAMAGED PAVERS WILL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
 - ⑳ REMOVE EXISTING PAVERS AS REQUIRED FOR CONCRETE CURB INSTALLATION, V.I.F. AND TURN OVER TO THE OWNER.
 - ㉑ EXISTING LIGHT POLES TO REMAIN, PROTECT DURING CONSTRUCTION.
 - ㉒ EXISTING STORM STRUCTURE TO REMAIN, REFER TO SU1.02.
 - ㉓ STORM INLET PROTECTION, REFER TO SHEET 60.03.
 - ㉔ EXISTING UNDERDRAIN TO REMAIN, PROTECT DURING CONSTRUCTION.
 - ㉕ EXISTING UNDERGROUND DETENTION SYSTEM, SEE CIVIL DRAWINGS.
 - ㉖ EXISTING WATER LINE TO REMAIN, V.I.F., PROTECT DURING CONSTRUCTION.
 - ㉗ REMOVE (AND REPLACE) EXISTING CONCRETE SIDEWALK AND ADJACENT FENCE POSTS IN THEIR ENTIRETY - REMOVE CONCRETE PANELS WHERE NEEDED TO COMPLETE NEW CURB, V.I.F. DISPOSE OFF-SITE.

GENERAL NOTES

1. THE CONTRACTOR IS TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION OPERATIONS. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGES TO UTILITIES NOT SCHEDULED FOR REMOVAL. CONTACT INDIAN 811 FOR CONFIRMATION OF UTILITY LOCATIONS. HIRE PRIVATE UTILITY LOCATION SERVICES AS REQUIRED TO LOCATE EXISTING UTILITIES.
2. THE CONTRACTOR SHALL WALK THE SITE PRIOR TO BID TO BE FULLY FAMILIAR WITH THE EXTENT OF REMOVAL ITEMS. THE CONTRACTOR IS RESPONSIBLE FOR ALL REMOVALS NECESSARY TO COMPLETE CONSTRUCTION. QUESTIONS REGARDING ITEMS TO BE REMOVED SHALL BE DIRECTED TO THE ARCHITECT.
3. CONTRACTOR SHALL APPLY AND RECEIVE ALL PERMITS NECESSARY TO COMPLETE WORK WITHIN PUBLIC RIGHT-OF-WAY. PROVIDE PROPER BARRIERS FOR WALKS AND STREETS ACCORDING TO INDIANA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
4. PROTECT ALL TREES AND SHRUBS NOT SCHEDULED FOR REMOVAL. MINIMIZE EQUIPMENT OPERATION WITHIN THE ORANGE FENCE AT THE EXISTING TREE DRIFLINE/ROOT ZONES. DO NOT STORE, STOCKPILE, OR PARK WITHIN THE DRIFLINE/ROOT ZONE OF ANY EXISTING VEGETATION. HOLD NECESSARY DISTURBANCE TO A MINIMUM.
5. MATERIALS AND STRUCTURES SHOWN FOR REMOVAL SHALL BE REMOVED IN ACCORDANCE WITH SECTION 024116.
6. IN THE EVENT THAT ANY STRUCTURES OR HISTORICAL ELEMENTS ARE DISCOVERED DURING CONSTRUCTION OPERATIONS, THESE ITEMS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK.
7. IN THE EVENT THAT ANY HAZARDOUS MATERIALS ARE DISCOVERED DURING CONSTRUCTION OPERATIONS, THESE ITEMS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK.
8. ANY ITEM THAT IS TO REMAIN THAT IS DAMAGED DURING CONSTRUCTION WILL BE REPLACED AT NO COST TO THE OWNER. THIS INCLUDES, BUT IS NOT LIMITED TO, ALL PAVEMENTS (CONCRETE, ASPHALT), VEGETATION (TREES, SHRUBS, LAWNS), BUILDINGS (ALL STRUCTURES), UTILITIES (ABOVE AND BELOW GROUND), OR OTHER PERMANENT IMPROVEMENTS.
9. CONTRACTOR IS TO INSTALL EROSION CONTROL AND SEDIMENT CONTROLS PRIOR TO COMMENCING DEMOLITION. OBTAIN EROSION CONTROL AND STORM WATER MANAGEMENT REVIEWS AND APPROVAL BY THE CITY OF CARMEL PRIOR TO STARTING CONSTRUCTION.
10. THE CONTRACTOR IS TO REFERENCE THE SITE UTILITY PLANS AND THE SITE ELECTRICAL PLANS FOR THE DEMOLITION, SALVAGE AND REUSE OF SITE IMPROVEMENTS SUCH AS STORM WATER STRUCTURES, SANITARY SEWER STRUCTURES, GAS LINES, WATER MAINS, AND ELECTRICAL UTILITY ITEMS SUCH AS RISERS, TRANSFORMERS, UTILITY POLES AND SITE LIGHTING.

DEMOLITION PLAN

SCALE: 1" = 10'-0"



**CHERRY TREE
SOFTBALL
COMPLEX
RENOVATION
PHASE 1 - VARSITY
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ARCHITECT

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350 E NEW YORK ST #300, INDIANAPOLIS, IN 46204



KEY PLAN

CONSTRUCTION DOCUMENTS

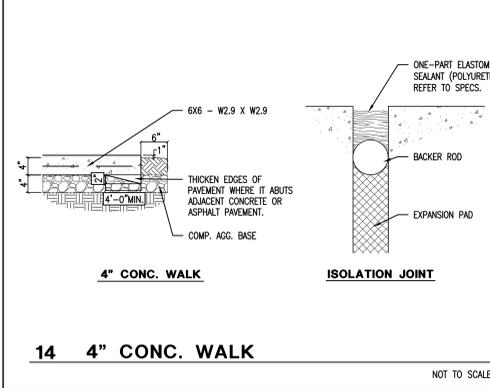
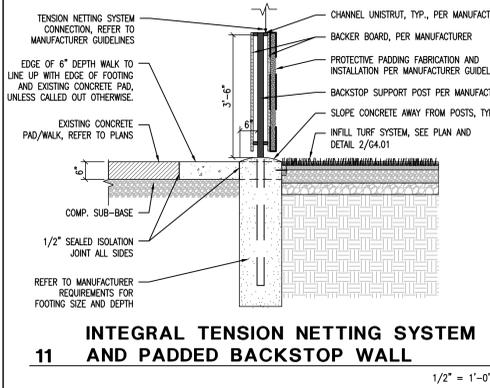
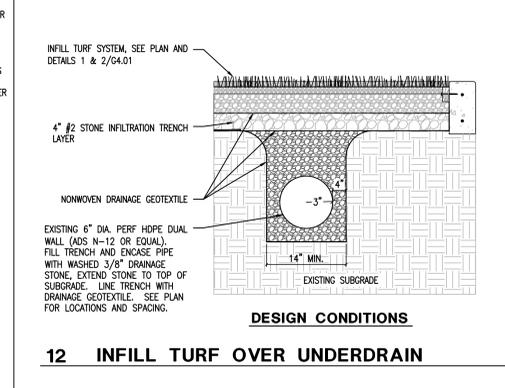
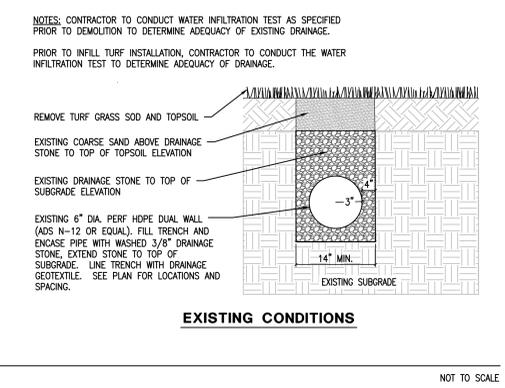
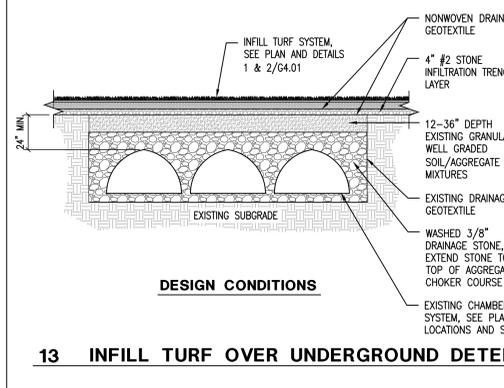
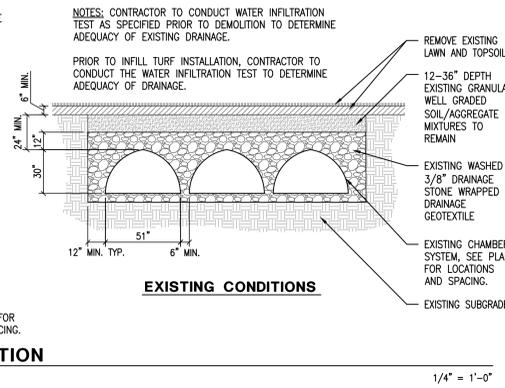
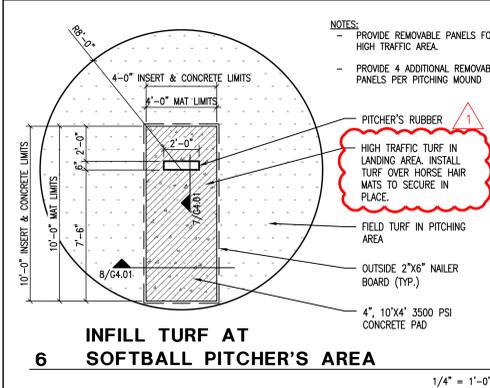
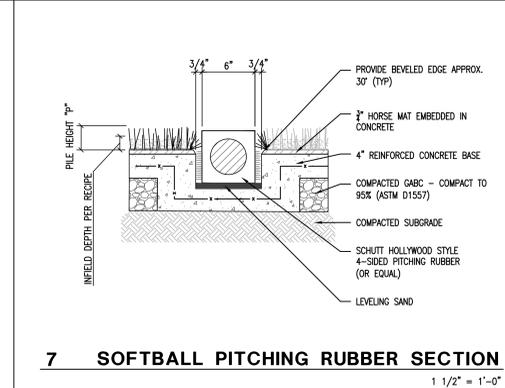
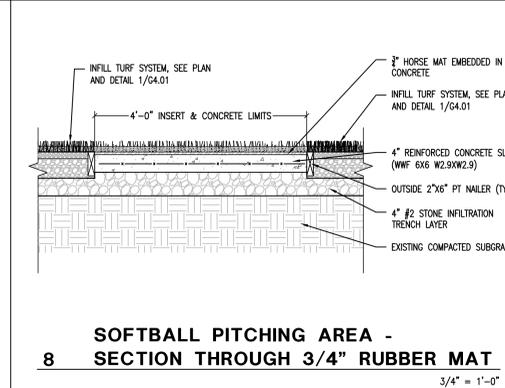
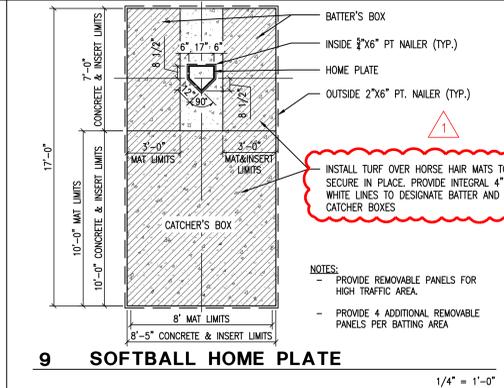
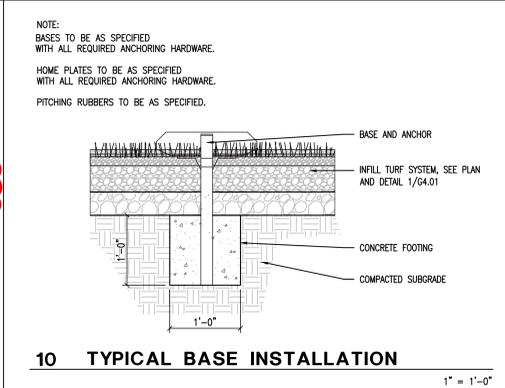
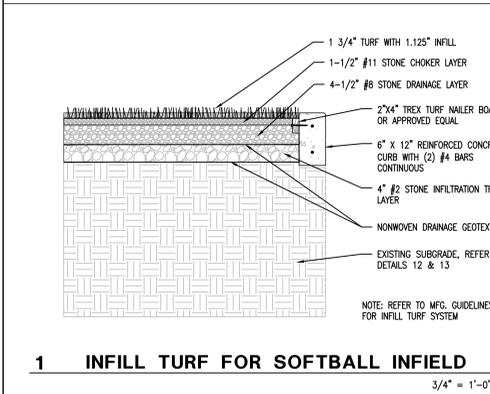
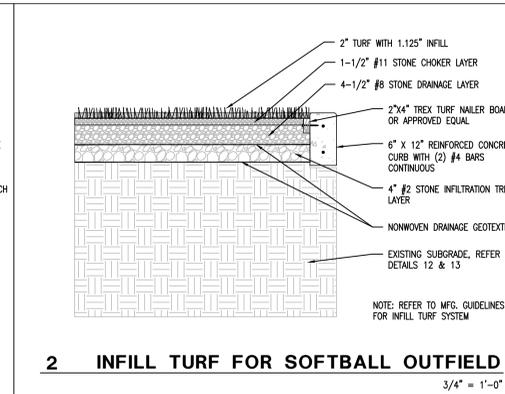
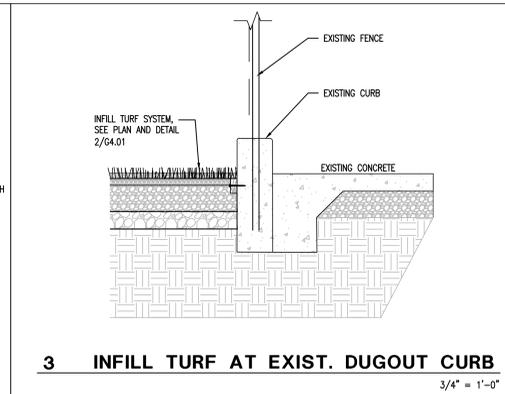
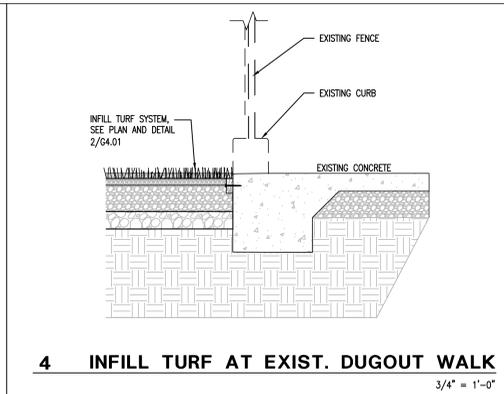
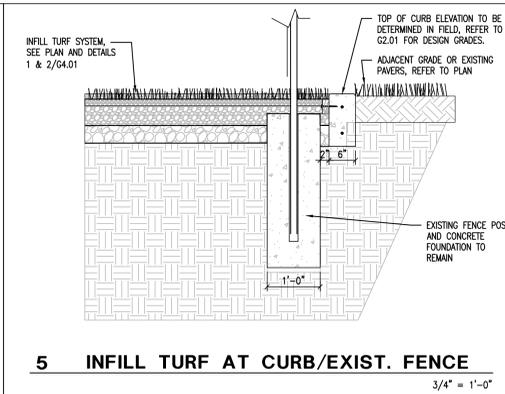


PROJECT MANAGER: DB
DRAWN BY: KNB
PROJECT NUMBER: 224041.00
PROJECT ISSUE DATE: 05/21/2024

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	07/15/2024

DETAILS AND SECTIONS

G4.01



**CHERRY TREE
SOFTBALL
COMPLEX
RENOVATION
PHASE 1 - VARSITY
FIELD**

13989 HAZEL DELL PARKWAY
CARMEL, IN 46033

**CARMEL CLAY
SCHOOL DISTRICT**



ARCHITECT



317-848-0966 WWW.FHAI.COM
350 E NEW YORK ST #300, INDIANAPOLIS, IN 46204



KEY PLAN



CONSTRUCTION DOCUMENTS



PROJECT MANAGER: DB
DRAWN BY: KNS
PROJECT NUMBER: 224041.00
PROJECT ISSUE DATE: 06/21/2024

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	07/15/2024

FIELD MARKINGS PLAN

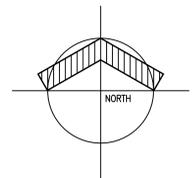
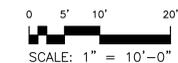
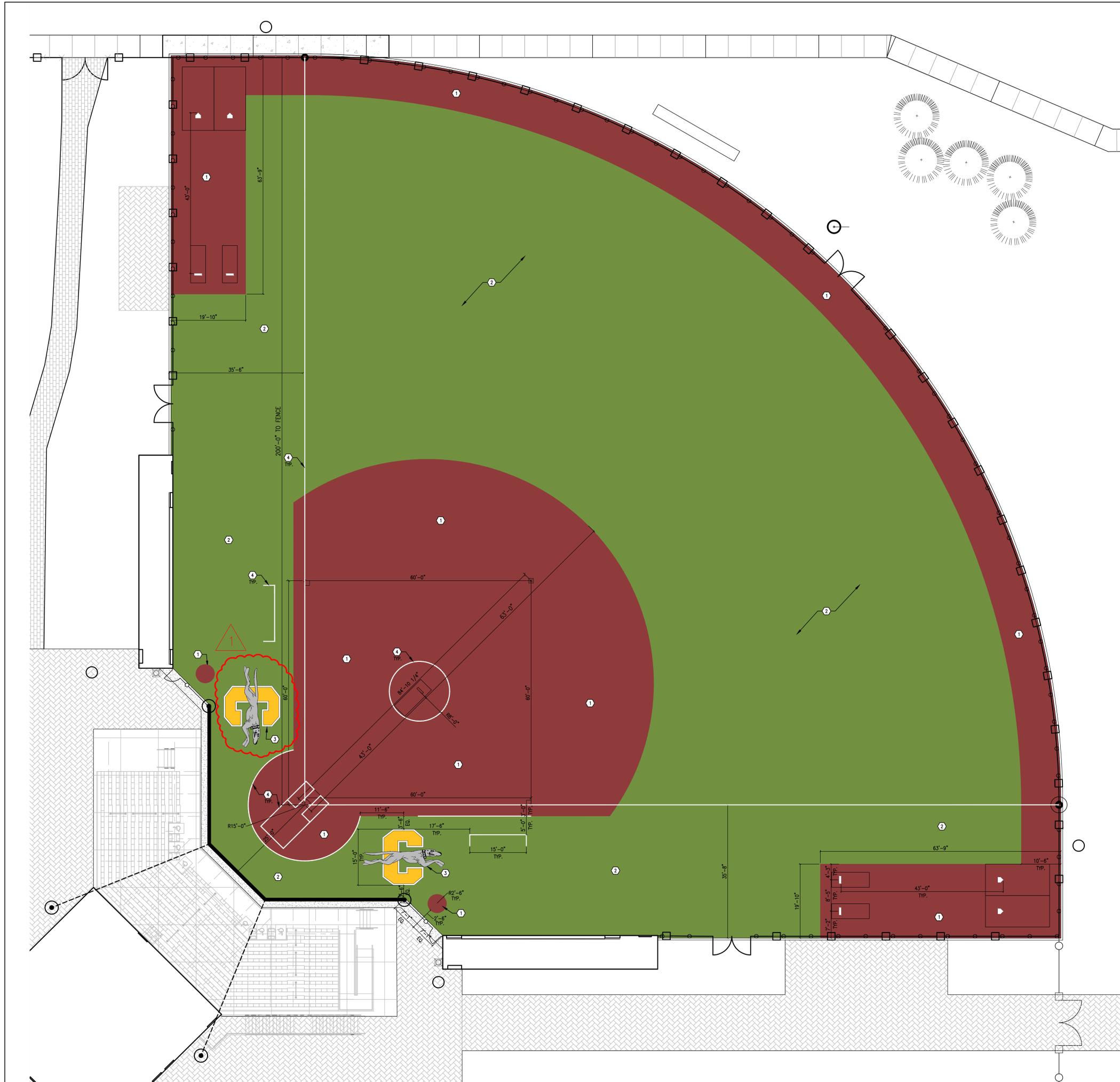
G3.02

MASTER LAYOUT KEYNOTE LEGEND

- ① NEW INFILL TURF FOR SOFTBALL INFIELD, WARNING TRACK, AND BULL PENS, REFER TO SPECIFICATIONS AND DETAILS ON SHEET G4.01, OWNER TO SELECT COLOR.
- ② NEW INFILL TURF FOR SOFTBALL OUTFIELD, REFER TO SPECIFICATIONS AND DETAILS ON SHEET G4.01, OWNER TO SELECT COLOR.
- ③ CARMEL GREYHOUND LOGO TO MATCH CARMEL HIGH SCHOOL STANDARD BRANDING LOGOS AND COLORS, WITH FINAL COLORS SELECTED BY OWNER.
- ④ ALL WHITE FIELD MARKINGS TO BE 2.5" INCHES WIDE.

GENERAL NOTES

- 1. CONTRACTOR IS TO CONFIRM EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE CONSTRUCTION MANAGER PRIOR TO COMMENCING WORK.
- 2. ALL LAYOUT IS TO BE STAKED BY A LICENSED PROFESSIONAL SURVEYOR PRIOR TO CONSTRUCTION.
- 3. DIMENSIONS ARE GIVEN TO FACE OF CURB UNLESS OTHERWISE NOTED "BOC" (BACK OF CURB).
- 4. DIMENSIONS ARE GIVEN TO THE FACE OF EXTERIOR WALLS.
- 5. SEAL ALL CONCRETE AND PAVEMENT ISOLATION JOINTS.
- 6. SEE CIVIL SERIES DRAWINGS FOR UTILITY PLAN, INSTALLATION DIRECTIONS, DETAILS, ETC.
- 7. ISOLATION JOINTS WITHOUT DOWELS TO BE PLACED BETWEEN CONCRETE FLATWORK AND VERTICAL WALLS, COLUMNS AND PROTRUDING FOOTINGS. ISOLATION JOINTS WITH DOWELS SHALL BE LOCATED WHERE CONCRETE WALKS ABOUT CONCRETE ENTRY STOODS AND AT INTERVALS OF 30 FEET MAXIMUM BETWEEN ADJACENT CONCRETE FLATWORK SUCH AS CONCRETE CURBS AND WALKS.



SOFTBALL FIELD MARKINGS PLAN

SCALE: 1" = 10'-0"