



**Business Services
Contracts Office**

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ADDENDUM NO. 1

Date: October 10, 2022
Issued by: Sacramento City Unified School District
Project: **Project #0520-442**
Hiram Johnson HS Baseball/Softball/Golf Facility

This addenda shall supersede the original Information, attachments, and specifications regarding this project where it adds to, deletes from, clarifies or otherwise modifies them. All other conditions and any previous addenda shall remain unchanged.

BIDDING REQUIREMENTS: None

TECHNICAL REQUIREMENTS:

AD1.01: Specification section 32 18 00 32 18 00 Miscellaneous Paving and Surfacing replace with attached.

AD1.02: Specification section 32 18 14 Synthetic Turf Base replace with attached.

AD1.03: Specification section 32 33 00 Site Furnishings replace with attached.

DRAWINGS:

AD1.04: D5.1 Construction Detail – Golf replace with attached.

BIDDER QUESTIONS:

Q1: How deep is the concrete curb (note #18) that needs to be synthetic turf area?

A1: Base bid: Per plan, refer to Detail M on sheet D2.1. Edgeband to be 24.5" deep minimum all around.

If additive alternate is awarded: 12" Fence Edgeband located at the North and West to be 24.5" deep minimum, per detail F, Sheet D2.1. The Edgeband on the East shall be 6.5" deep minimum, per detail M, Sheet D2.1.

Q2: There's a decent amount of fence edgeband that is adjacent to the warning track fines (non-chemically treated area). I think the intent of the large curb between the lime treatment and non-treated areas is for planting and it shouldn't impact the warning track fines. The warning track is approximately 15ft wide. Can the edgeband between the flatwork and warning track be a standard depth edgeband?

A2: No, the concrete edgeband between the flatwork and warning track is to be a deep edge condition per construction details D2.1.



Q3: Is an expansion joint needed between the fence edgeband and the concrete flatwork or can we place the edgeband monolithically with the flatwork and cut a control joint where it calls for expansion?

A3: Yes, it is acceptable for the edgeband to be placed monolithically with the flatwork and cut a control joint where it calls for expansion joint.

Q4: E1.0 shows existing conduits and boxes for the power and signal that run almost to where the new panels and going to be installed, (see attached sheet). On the day of the walk these were not installed yet and were told that those might not run out that far and might stop closer to the football field. For bidding purposes do we go with what is shown on E1.0 or will a different sheet be sent out show a different location?

A4: Per the HJHS Stadium project (currently under construction), electrical boxes and conduits shown near the existing basketball court will be existing. Contractor to proceed with plan as shown on sheet E1.0.

Q5: Section 32 33 00 – Site Furnishings:

1. Item 'H' on the site furnishing matrix calls out for Basezone Field Wall Padding. The padding is not shown on the Material and Detail Reference Plan. Please clarify where it is to go and on which fields.

A: Item 'H' – Basezone Field Wall Padding – on the site furnishings matrix is not part of the project and shall be disregarded.

2. Item 'R' on the site furnishing matrix calls out for Outfield Distance banners. None are shown on the Material and Detail Reference Plan does not point them out. Please clarify how many are at each field.

A: Contractor to provide and install three Outfield Distance Banners at the baseball field and three Outfield Distance Banners at the softball field. A total of six outfield distance banners shall be provided per item 'R' on the site furnishings matrix.

3. Item 'Z' on the site furnishing matrix calls out for Golf Cups with Sleeve. None are shown on the Material and Detail Reference. Please clarify how many and where they are to be placed.

A: Contractor to provide and install a total of nine golf cups with sleeve. The golf cups are to be installed at the Golf Putting Green area. Refer to detail H Sheet D5.1 for locations.

Q6: Section 32 84 00 – Miscellaneous Paving and Surfacing:

1. Please provide Specs for decomposed granite.

A: Decomposed granite specification is provided under specification Section 32 18 00 Miscellaneous Paving.

2. Please provide specs for aggregate layer with bonding agent that is under sandbunker per detail G/D5.1

A: The 4" aggregate layer with bonding should be a graded stone aggregate having an average size of between 1.8 millimeters and 50 millimeters. Bonding agent to be Sportcrete.

Q7: Section Geotech Report:

1. The Geotech report states that lime treatment is/or can be used as alternate. Please clarify if this is required and if so, is it part of the base bid or is it an alternate?

A: Lime treatment is required and is part of the base bid. Refer to sheet L4.4 for Chemical treatment plan.

Q8: Sheet L7.1 and L7.2: Material and Detail Reference Plan:

1. There appears to be a pad of some kind where the booster pump assembly is to be placed. It is not clear here or on the irrigation plans. Please clarify if we are to put a concrete pad there and or if it also is to get a fenced enclosure around it.



A: Contractor shall install irrigation booster pump pad per Backflow and Booster Pump detail B on sheet D6.1. Booster pump shall not have a fenced enclosure around it.

Q9: Sheet L8.0: Irrigation Plan:

1. Please clarify that the system is not reclaimed.

A: Irrigation system does not use reclaimed water.

Q10: Sheet L9.1 & L9.2: Planting Plan:

1. Is the extent of the bio retention basins only from where the heavy dotted lines are shown? Please clarify.

A: The heavy dotted line represents the bottom of the bioretention area. Bioretention area shall be constructed per details A/D on sheet D1.2.

Q11: Sheet D2.1: Construction Details:

1. Detail D / D2.1 shows 4" perf as Sch 40 perf. Could we use CHDPE N12 as mentioned in the specs? Please advise.

A: Yes, it is acceptable to use CHDPE N12 per specifications.

Q12: Sheet D4.1: Construction Details:

1. Detail H/D4.1 has 2 options: Bagged Clay and Brick Clay. Please confirm that the bagged clay section is the only detail to be used since all the callouts for the baseball and softball home pitcher's plate are calling for this detail as well.

A: It is acceptable to only use the bagged clay section as shown on detail H/D4.1.

Q13: Will the district consider extending the bid date?

A13: No

Q14: Please provide the missing spec. sections listed here (since scope of works are applicable and to be included): cast-in-place concrete, masonry, strut. Steel/misc. metal fab., metal decking, architectural casework, joint sealants, athletic equipment and site drainage.

A14: Cast-in-place concrete is found under Section 32 32 15 Landscape Concrete.

Masonry is found under Section 32 32 00 Landscape Concrete Masonry and S1.1 Structural Notes & Material Grades

Strut. Steel/mics. Metal Fab is found on S1.1 Structural Notes & Material Grades

Metal Decking is found on S1.1 Structural Notes & Materials Grades

Architectural Casework is found under Section 08 11 13 Hollow Metal Doors and Frames

Joint Sealants are found under Section 31 13 13 Concrete Paving and Section 32 32 15 Landscape Concrete

Athletic Equipment is found under Section 32 33 00 Site Furnishings

Site Drainage is found under Section 33 40 00 Storm Drainage Utilities

Q15: Please clarify/confirm the line item on the bid schedule called TOTAL BID is Baseball+Softball+Golf+Owner's Allowance.

A15: Yes.

Q16: Specification # 32-33-00-3.07(C) Qty. states 1ea. However, it appears there are 3ea. (2 for bullpens and 1 for mound). Please confirm.

A16: Contractor to provide a total of three Baseball pitcher's rubber.



Q17: Specification # 32-33-00-3.07(D) Qty. states 1ea. However, it appears there are 3ea. (2 for bullpens and 1 for mound). Please confirm.

A17: Contractor to provide a total of three (3) Softball pitcher's rubber.

Q18: Specification # 32-33-00-3.07(E) Qty. states 1set. However, it appears there are 2sets. (1 set for each field). Please confirm.

A18: Contractor to provide a total of two (2) sets of the baseball/softball bases.

Q19: Specification # 32-33-00-3.07(F) Qty. states 1ea. However, it appears there are 8ea. (2 for bullpens, 1 for batting cage 1 for mound x 2 fields). Please confirm.

A19: Contractor to provide a total of eight (8) Home Plates.

Q20: Specification # 32-33-00-3.07(G) Qty. states 2ea. However, it appears there are 4ea. total (2 for Baseball and 2 for softball). Also, the Model # FPW420 is for a 20ft tall pole. This works for the softball field. However, the baseball field calls out for 30ft tall foul pole per plan sheet D-4.1/G. Provide correct model # for the baseball foul poles.

A20: Contractor to provide a total of four (4) Foul Poles.

The baseball field shall be Model FPW630 (30' High)

The softball field shall be Model FPW420 (20' High)

Q21: Specification # 32-33-00-3.07(H) Calls out for backstop wall padding. However, plan sheet D-3.3 A & B both do not show "Wall Padding". Clarify if wall padding is applicable?

A21: Item 'H' – Basezone Field Wall Padding – on the site furnishings matrix Section 32 33 00, is not part of the project and shall be disregarded.

Q22: Specification # 32-33-00-3.07(L) Qty. states 2ea. However, we are unable to locate any calls outs for these on the Materials Plan Sheet L-7.1 & 7.2. Clarify if these are required for the project and subject to field directed installation location.

A22: Contractor to provide a total of two (2) Scorer's Table. Refer to Callout #17 on sheets L7.1 and L7.2 for location.

Q23: Specification # 32-33-00-3.07(O) The # 440 WM calls out for "recessed Hose Bib",. However, according to MDF this is not an applicable option. They offer "External Hose Bib w/ Locking Cover" for a wall mount fountain. Confirm acceptable?

A23: Contractor to provide MDF 440 WM with external hose bib and locking cover.

Q24: Specification # 32-33-00-3.07(P) Qty. states 4ea. However, it appears the model number is for an 8ft long bench. If so, that would equate to a qty. 16ea (including all 4 dugouts) Clarify?

A24: Contractor to provide a total of sixteen (16) Dugout Benches.

Q25: Specification # 32-33-00-3.07(R) Distance Banners Qty. states "Per Plan". Upon review of the Materials Plan Sheet L-7.1 & 7.2 we are unable to locate any call-out. Clarify the total qty. of distance banner required.

A25: Contractor to provide and install three (3) Outfield Distance Banners at the baseball field and three (3) Outfield Distance Banners at the softball field. A total of six (6) outfield distance banners shall be provided per item 'R' on the site furnishings matrix.



Q26: Specification # 32-33-00-3.07(U) Bat Racks states qty. 4ea. Upon review of the Plan Sheet D-4.6 thru D-4.9/A, we are unable to locate any call-out for these bat racks. Clarify if these bat racks are applicable required.

A26: Item 'U' – Bat Rack – on the site furnishings matrix Section 32 33 00, is not part of the project and shall be disregarded.

Q27: Plan Sheet D-4.6/A calls out for “White Board 5’ x 3.5’ Max”. Provide model # for this white board.

A27: Dugout whiteboard to be model Game Day Dry Erase Board GDEB1 provided by PYT Sports. See specification Section 32 33 00 Site Furnishings.

Q28: Plan Sheet D-4.7/A calls out for “White Board 5’ x 3.5’ Max”. Provide model # for this white board.

A28: Dugout whiteboard to be model Game Day Dry Erase Board GDEB1 provided by PYT Sports. See specification Section 32 33 00 Site Furnishings.

Q29: Plan Sheet D-4.8/A calls out for “White Board 5’ x 3.5’ Max”. Provide model # for this white board.

A29: Dugout whiteboard to be model Game Day Dry Erase Board GDEB1 provided by PYT Sports. See specification Section 32 33 00 Site Furnishings.

Q30: Plan Sheet D-4.9/A calls out for “White Board 5’ x 3.5’ Max”. Provide model # for this white board.

A30: Dugout whiteboard to be model Game Day Dry Erase Board GDEB1 provided by PYT Sports. See specification Section 32 33 00 Site Furnishings.

Q31: Plan Sheet D-4.6/A calls out for “Cubbies & Hat Racks”. Provide model # and manufacturer for these items. (Assuming Sportsfield Specialties).

A31: Contractor to provide Overhead Helmet & Coat Rack Storage Model SUWHCCRWM by Sportsfield Specialties.

Q32: Plan Sheet D-4.7/A calls out for “Cubbies & Hat Racks”. Provide model # and manufacturer for these items. (Assuming Sportsfield Specialties).

A32: Contractor to provide Overhead Helmet & Coat Rack Storage Model SUWHCCRWM by Sportsfield Specialties.

Q33: Plan Sheet D-4.8/A calls out for “Cubbies & Hat Racks”. Provide model # and manufacturer for these items. (Assuming Sportsfield Specialties).

A33: Contractor to provide Overhead Helmet & Coat Rack Storage Model SUWHCCRWM by Sportsfield Specialties.

Q34: Plan Sheet D-4.9/A calls out for “Cubbies & Hat Racks”. Provide model # and manufacturer for these items. (Assuming Sportsfield Specialties).

A34: Contractor to provide Overhead Helmet & Coat Rack Storage Model SUWHCCRWM by Sportsfield Specialties.

Q35: Plan Sheet L-4.4 shows “Chemical Treatment Area” and Plan Sheet D-2.1 shows the treatment for stabilization to be 12” depth. Due to the various utilities (sewer, domestic, water, Storm) that run under a vast majority of the chemical treatment area it would be difficult from a means and methods to soil stabilize 1st, then install utilities without compromising the soil stabilization during backfilling and compaction and we won’t be able to install many of the utilities 1st then stabilize soil due to potential conflicts with structures and pipe INV impeding into the soil stabilization section. Please provide an acceptable cross section if we elect to install additional baserock in lieu of chemical stabilization.

A35: The Geotechnical Report recommendations for exterior flat work indicate at least 12 inches of non-expansive fill material. Refer to Geotechnical Report Recommendations for additional information.



Q36: Specification 32-18-00-3.03B; confirm if the Sports Field Conditioner under 3.04 shall be included into the warning track mix areas as well.

A36: Contractor shall not install Sports Field Conditioner at the Warning Track Mix Areas.

Q37: Specification 32-18-00-2.01C. Clarify if the District will accept alternative infield mix products from locally sourced vendors or is there a specific reason this DuraEdge Product is specified (maybe the coaching staff must have this particular product manufacturer). These products are very expensive and we do not want to assume an or equal if the District/Verde are not accepting other products.

A37: As required by Bidder Information Section 00 21 13, the District did not receive any specified material substitutions; therefore the District is accepting Dura Edge specified products.

Q38: Plan Sheet D-5.1/H, please provide this detail to scale in order to quantify the different areas for square footage. The plans provide a different cross sections for different types of turf and quantifying the areas is imperative.

A38: Detail H on Sheet D5.1 is drawn at a 1"=10'-0" scale.

Q39: Specification 32-18-14-2.05 Manufactured Base Material calls out for Brock Powerbase YSR. However, the plans details do not call out for Brock Pad. Clarify if this material is required.

A39: Brock Powerbase YSR is not required. Refer to Sheet D5.1 – Construction Detail – Golf.

Q40: Please provide missing spec. section 32 33 00 (for benches and cubbies at dug-outs) mentioned per detail sheets A4.6 thru A4.8

A40: Revised specification Section 32 33 00 listing benches and cubbies at the dugouts is provided.

Q41: There're 4 drinking fountains in each dug-outs, please provide plumbing spec. section for these drinking fountains.

A41: The plans call for two (2) drinking fountains in each dugout. Each drinking fountain provides a high and low bowl for accessibility requirements. Refer to specification Section 32 33 00 Site Furnishings for model numbers. Refer to specification Section 33 30 00 Sanitary Sewer Utilities and Section 33 40 00 Storm Drainage Utilities for plumbing information related to the drinking fountains.

END OF ADDENDUM NO. 1

SECTION 32 18 00

MISCELLANEOUS PAVING AND SURFACING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Miscellaneous paving surfacing as shown on the Drawings including, but is not limited to, the following:
 - 1. Sand for bunkers.
 - 2. Infield fines mix.
 - 3. Infield clay mix; bag and brick material.
- B. Related Requirements:
 - 1. Section 32 33 00 - Site Furnishings
 - 2. Section 31 20 00 - Earth Moving
 - 3. Section 32 11 00 - Base Courses

1.02 ADMINISTRATIVE REQUIREMENTS

- A. Submittal Procedures: Action and Informational Submittals shall be submitted in accordance with Section 01 33 00 - Submittal Procedures.
- B. Sequencing and Scheduling:
 - 1. Coordinate applicable subgrade preparations, installations of base course materials, and all other work with work of this Section to insure a proper, timely installation.

1.03 ACTION SUBMITTALS

- A. Samples:
 - 1. Unless otherwise specified, submit 1-quart size samples of the following:
 - a. Infield fines mixture.
 - b. Infield clay mixture.

1.04 QUALITY ASSURANCE

- A. Materials Source: Sources of materials specified herein shall not be changed during course of work without review and written acceptance by the Owner's Representative.

1.05 WARRANTY

- A. Manufacturers: Provide Owner with the following manufacturers extended warranties.

PART 2 - PRODUCTS

2.01 SAND AND CLAY MATERIALS

- A. Suppliers:
 - 1. Sand: TMT Enterprises, Inc., San Jose, CA, 408-432-9040 as specified and the basis of design unless otherwise noted, or equal. Contact: Matt Moore.
 - 2. Fines and Clay: Ewing Irrigation and Landscape Supply, Sacramento, CA 916-383-2400 as specified and the basis of design unless otherwise noted, or equal. Contact: Jim Barbuto.

- B. Sand for bunkers: shall have a backfill with one of the following general characteristics:
1. USGA Root Zone Sand,

- a. 65 percent USGA Root Zone sand conforming to the following sieve range:

Sieve Size	USGA Spec
	Individual % Retained
#4 (4.75mm)	0
#10 (2mm)	0-10% Combined
#18 (1mm)	
#35 (0.5mm)	Minimum 60% Combined
#60 (.25mm)	
#100 (.15mm)	20% Maximum
#140 (.1mm)	5% Maximum Combined
#270 (.05mm)	
Silt (.05-.002mm)	5% Maximum
Clay (<.002mm)	3% Maximum

- b. 15 percent Coconut Coir Fiber.
 - c. 15 percent AXIS Calcined Diatomaceous Earth.
 - d. 5 percent Worm Castings.
2. Supplier: 'Terra Vida French Drain Backfill Mix' by TMT Enterprises. Contact: Matt Moore 408-432-9040

C. Infield Fines and Clay Mix

1. Mix shall be free of rocks, debris, vegetation, clay balls, foreign materials, etc. Infield mixes shall be sterilized to eliminate the possibility of any growth of vegetation.
2. Infield Fines: "DuraEdge Infield Fines" by DuraEdge Products, Inc. or equal.
 - a. The composition of the mix shall be achieved using mechanical blending equipment prior to delivery to the site and shall be as follows:
 - 1) Total sand content shall be 70-75 percent.
 - 2) The combined amount of sand retained on the medium, coarse and very coarse sieves shall be greater than or equal to 50 percent.
 - 3) The combined amount of silt and clay shall be 25-30 percent.
 - 4) The ratio of silt divided by clay, otherwise known as the SCR, shall be 0.5 – 1.0.
 - 5) No particles greater than 3 millimeters.
 - 6) Equal to or less than 5 percent of particles shall be retained on the 2 millimeter.
3. Warning Track: "DuraTrax CO Lava Warning Track" by DuraEdge Products, Inc. or equal.
 - a. Warning Track shall be clean, crushed red lava rock resulting in a mix that is red in color, having a yield of approximately 0.9 tons per cubic yard and possessing the following particle size analysis:

Sieve Size	Range of % Passing
3/8"	100
No. 4	90-100

Sieve Size	Range of % Passing
No. 8	60-80
No. 16	45-60
No. 30	30-50
No. 50	20-35
No. 100	10-25
No. 200	5-15

- b. Material meeting this specification would be DuraTrax Colorado Lava Warning Track as manufactured by DuraEdge Products, Inc. 866-867-0052, or an approved equal.

- 4. Pitchers' Mound Mix: 100 percent, high-density pure virgin clay; "DuraPitch ProLoc Block" by DuraEdge Products, Inc. or equal.
 - a. Color: Reddish Brown
 - b. Pitching mound and batter's box clay is pre-compressed clay blocks that are reddish brown in color and possessing the following particle size analysis:
 - 1) Total sand content shall be less than 15 percent.
 - 2) The overall clay/silt content shall be greater than 85 percent.

- 5. Home Plate and Bases Clay: 100 percent pure virgin clay blocks; "DuraPitch ProLoc Block" by DuraEdge Products, Inc. or equal.
 - a. Color: Reddish Brown
 - b. Pitching mound and batter's box clay is pre-compressed clay blocks that are reddish brown in color and possessing the following particle size analysis:
 - 1) Total sand content shall be less than 15 percent.
 - 2) The overall clay/silt content shall be greater than 85 percent.

- 6. Bases Clay: "TMT Pro-Grade Screened Clay."

- D. Sports Field Conditioner: ProSlide Calcined Clay Conditioner as supplied by DuraEdge Products Inc., or equal.

2.02 ADDITIONAL MATERIALS

- A. Aggregate Base: As specified in Section 32 11 00 - Base Courses.

2.03 NATURAL AGGREGATE PAVING

- A. Supplier: TMT Enterprises, Inc., San Jose, CA, 408-432-9040 as specified and the basis of design unless otherwise noted, or equal. Contact: Matt Moore.

- B. Decomposed Granite: "California Gold Track" fines.
 - 1. Track Fines: "California Gold Pathway."
 - 2. Shot Put Fines: "California Gold Pathway Track" fines.
 - 3. Drainage Edge at Shot Put: "California Gold" 3/8-inch fines.

- C. Binder for Decomposed Granite: Natural, non-toxic, colorless and odorless binding material for use with decomposed granite fines; "PHP Organic Aggregate Binder."
 - 1. Binder shall be pre-mixed with the track fines by supplier prior to delivery to project site.
 - 2. Rate: 12 pounds per ton of fines, unless otherwise recommended by fines supplier.

PART 3 - EXECUTION

3.01 SAND

- A. Spread sand to depth specified on Drawings.
- B. Rake then roll sand with water roller to establish firm, even surface at specified elevation.

3.02 INFIELD CLAY MIX AT HOME PLATE AND BASES

- A. Home Plate: Excavate evenly designated infield areas and lay a 1/2-inch course of loose clay and compact. Lay clay bricks across entire area and alternate brick joints in courses. Bricks to be worked together to bond and hand tamp. Apply 1/2-inch layer of loose clay to cover and finish with fines layer.
- B. Bases: Excavate evenly designated infield areas and lay loose clay in 2-inch lifts and compact. Lay additional clay lifts to achieve 4 inches of clay and compact.
- C. Water lightly and compact with 1,000 to 3,000-pound roller.
- D. Spread additional material, roll and compact to establish even finished grade at specified elevation.

3.03 INFIELD FINES AND WARNING TRACK MIX

- A. Spread infield fines mix evenly where shown in drawings and screed in 2-inch lifts. Thoroughly water each lift until the entire depth is moist.
- B. Roto-till specified sports field conditioner into the top 3 inches of fines at a rate of 1.0 ton per 1000 square feet.
- C. Compact with a 1,000 to 3,000-pound roller after grading and wetting final lift.
- D. Allow material to dry, then spike and mat drag to establish finish grade at specified elevations.
- E. Water to settle.
- F. Finish grade of infield and warning track fines shall be flush with concrete edgebands. If edge condition is a tall curb set finish grade to finish grade established on the grading Drawings.

3.04 SPORTS FIELD CONDITIONER

- A. As specified for infield fines mix.

3.05 AGGREGATE BASE

- A. Install as shown on the Drawings and in accordance with Section 32 11 00 – Base Courses.

3.06 PITCHER'S MOUND MIX

- A. Apply the pitchers' mound clay mix at 2-inch lifts, tamp, compact, and repeat.
- B. Compact with a 1,000 to 3,000-pound roller after grading and wetting final lift.
- C. Fill in back and sides of sloping to the edge of the circle.

3.07 DECOMPOSED GRANITE

- A. Install base course as specified per Section 31 11 00 - Base Courses.
- B. Spread evenly and compact in 2-inch lifts in designated areas.
- C. Water lightly and compact with roller.
- D. Spread additional material, roll and compact to establish even finished grade at specified elevation.

3.08 TOLERANCES

- A. Vertical deviation from specified lines, grades, and detail cross sections shall not exceed 0.04 foot for all surfacing specified in this Section.

END OF SECTION

SECTION 32 18 14

SYNTHETIC TURF BASE

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Base for the synthetic turf consisting of, but is necessarily limited to, the following:
 - 1. Vertical draining, porous stone aggregate base consisting of a uniform single stone base.
 - 2. Stone aggregate base for stability and leveling purposes, and substrate for porous drainage composite.
 - 3. Manufactured porous drainage composite.
- B. Related Requirements:
 - 1. Section 01 78 29 – Conformance Survey
 - 2. Section 31 20 00 – Earth Moving
 - 3. Section 31 23 00 – Excavation and Fill
 - 4. Section 32 18 13 – Synthetic Turf Playing Field

1.02 REFERENCES

- A. California Building Code (CBC):
 - 1. Chapter 33 – Site Work, Demolition, and Construction.
- B. American Society for Testing and Materials (ASTM):
 - 1. D 1557: "Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort."
 - 2. ASTM F2898-11: "Standard Test Method for Permeability of Synthetic Turf Sports Field Base Stone and Surface System by Non-confined Area Flood Test Method"
 - 3. ASTM D2434: "Standard Test Method for Permeability of Granular Soils (Constant Head)."
 - 4. ASTM C88: "Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate."
- C. California Occupational Safety and Health Standards (OSHA):
 - 1. Article 6 - Excavations and Shoring.
- D. State of California, Business and Transportation Agency, Department of Transportation (Caltrans) "Standard Specifications."

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Submittal Procedures:
 - 1. Action and Informational Submittals shall be submitted in accordance with Section 01 33 00 - Submittal Procedures.
 - 2. Closeout Submittals shall be submitted in accordance with Section 01 78 39 - Project Record Documents.

1.04 ACTION SUBMITTALS

- A. Product Data: Manufacturer's descriptive literature for pipe accessories, filter fabric, and porous drainage composite as applicable.

- B. Samples: Two 1-quart samples of each rock material and additional samples of each rock material to the Owner's testing agent as specified under Article "Material Testing," and Two 1-quart samples of Subdrain Trench Leveling Rock, as required.

1.05 INFORMATIONAL SUBMITTALS

- A. Manufacturer's installation instructions.
- B. Certification: Certification signed by Contractor and drainage system Installer that installed materials conform to specified requirements and system was successfully checked and tested prior to covering with engineered permeable rock base, trench drain rock, and/or subdrain trench leveling rock.

1.06 CLOSEOUT SUBMITTALS

- A. Project Record Drawings.

1.07 QUALITY ASSURANCE

- A. Control of Work: Conform to Section 5 of the Standard Specifications.
- B. Control of Materials: Conform to Section 6 of the Standard Specifications.
- C. Single-Source Responsibility: Crushed stone shall come from only one supplier.
- D. Material delivered to the site not meeting the Specifications will be rejected by the Owner. Material rejected by the Owner shall be removed from the site at the Contractor's expense.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Prior to trucking of material to project sites, crushed rock shall be washed so it is clean of impurities and fines created during rock crushing operations.
- B. Store products to be installed as part of the field base neatly and orderly, stacked and blocked to prevent damage and contamination.

1.09 FIELD CONDITIONS

- A. Protection of Project Site: Make provisions, and take the necessary precautions, for protect existing and completed work from damage during turf installation.
- B. Contractor shall be responsible for stabilizing top of subgrade elevations for the synthetic turf areas prior to receiving the stone aggregate base and for executing fine grading as may be necessary or incidental to placement of the synthetic turf.
- C. Contractor shall prevent surface water and subsurface or groundwater from flowing into excavations and flooding area to receive turf base. Contractor shall not allow water to accumulate in excavations. Contractor shall remove water to prevent softening of sub grades.

1.10 MATERIAL TESTING

- A. General:
 - 1. The Owner will employ and pay for the services of an Independent Testing Agency as specified in Section 01 45 00 - Quality Control.
 - 2. Payment for initial material testing is the responsibility of the Owner.

3. Employment by the Owner of the Testing Agency shall in no way relieve Contractor's obligations to perform the Work of the Contract.
 4. The Owner reserves the right to change its testing laboratory if the need arises.
 5. Cost of testing which are repeated on materials that have failed to meet specifications or are as a result of shortages shall be borne by the Contractor.
 6. The Contractor shall include the following with its sample submittals:
 - a. Identification of proposed source and supplier.
 - b. Current lab mechanical analysis of the proposed stone using ASTM standards for sieve analysis.
 - c. Sample sizes as specified.
 - d. Certification that the supplier can deliver the total quantity of material needed to complete the project in a timely manner.
- B. Pre-Construction Testing Procedures: The following tests will be performed by the Owner's Testing Agent prior to acceptance of rock provided under this Section. Testing of proposed Engineered Permeable Base Rock and Subgrade Trench Drain Rock will be performed in the following steps:
1. Engineered Permeable Base Rock and Subgrade Trench Drain Rock:
 - a. Contractor shall submit a 5-gallon separate composite to the Owner's Testing Agency, unless the Owner's Testing Agent elects to pull the sample directly at the quarry and/or requests test samples of varying quantities based on the testing labs' needs, for each porous base rock material. The Owner's testing agent will evaluate these materials as specified using ASTM C136 and ASTM D75 testing protocol as a guideline.
 - b. The submitted samples will be used for comparison with all subsequent samples submitted for acceptance during construction.
 - c. Material shall not be delivered to the project site until tests show it complies with the accepted material.
 - d. All rock to be provided for an Engineered Permeable Rock Base is required to pass the following qualifications:

Restrictions:

To ensure structural stability: $D_{60}/D_{10} > 5$ and $1 < \frac{D_{20}^2}{D_{10} * D_{60}} < 3$
Fragmentation shall be 100%.

"x" is the size of the sieve (in millimeters) that lets pass "x" percent of the stone. For example, D₆₀ is the size of the sieve that lets 60 percent of the stone pass. For calculation purposes, these sizes may be obtained by interpolation on a semi-log graph of the sieve analysis.

To ensure proper drainage: Porosity of Engineered Permeable Rock Base > 25%
(when stone is saturated and compacted to 92% Modified Proctor)

Permeability of stone base > 30 in/hr (Tested thru ASTM D2434 with rock saturated and compacted to 92% Modified Proctor)

Depending on the type of rock present in the crushed stone mix, other mechanical characteristics might be necessary for approval.

- e. Engineered Permeable Rock Base and Subdrain Trench Drain Rock shall be tested to show that both materials meet the following stability requirements:

Test Method	Criteria
LA Abrasion (California Test 211)	Not to exceed 35
Durability Index (California Test 229)	Not less than 40

Test Method	Criteria
Sulfate Soundness (ASTM C-88)	Not to exceed 12% loss for coarse aggregate, 10% for fine aggregate (based on a sulfate solution)

C. Testing During Construction:

1. During construction, samples will be taken and analyzed periodically by the Owner's representative/Testing Agent to assure strict compliance with the Specifications. The Owner may sample and test the rock material either at the source or at the project site upon delivery from incoming transfer trucks. Frequency of sampling for gradation testing would be to sample every 500 tons of Engineered Permeable Base Rock delivered to the site. Rock not meeting Specifications will be rejected by the Owner's representative. Materials rejected by the Owner's representative shall be removed from the site at the Contractor's expense. It is the Contractor's responsibility to ensure that all permeable stone for the synthetic turf base meet the above requirements throughout the installation process, including transfer and delivery to the site, placement, spreading, compaction, and installation of synthetic turf material. Proper investigation into rock sources may be required by the Contractor to ensure that the rock that was bid will meet the project specifications.
2. Subdrain Trench Leveling Rock: The leveling rock shall comply with section 2.04 A and be submitted to the Owner's Testing Agent for gradation testing. No additional tests are required for the leveling stone.

D. Permeability of placed engineered permeable rock base shall not be less than 10 in/hr (Tested per ASTM F2898-11)

E. If rock stability to water and vehicles is in question, the Owner has the option to perform additional testing to ensure material shall adhere to requirements of Caltrans Section 68.

1.11 PROJECT RECORD DOCUMENTS

- A. Accurately record location of pipe runs, connections, cleanouts and invert elevations. Include locations of utilities remaining, re-routed utilities, new utilities, and newly discovered utilities as applicable by horizontal dimensions, elevations, inverts, and slope gradients.

1.12 POROUS CLOSED-CELL COMPOSITE GUARANTY

- A. The manufacturer of the porous closed cell composite base shall provide a guaranty, in writing, that for a period of twenty five (25) years, the porous closed cell composite base shall be a part of a turf system that will not exceed a field average G-max of 120 g's as tested according to the ASTM 1936 Standard Specification.

PART 2 - MATERIALS

2.01 DESIGN AND PERFORMANCE CRITERIA

- A. The finished crushed stone or aggregate base supplied shall be stable, unyielding, and permeable.

2.02 ENGINEERED PERMEABLE ROCK BASE

- A. Engineered Permeable Rock Base: Virgin, un-recycled, crushed stone meeting the gradation criteria for the California Department of Transportation 3/4-inch Permeable Class II (Section 68) and the following gradation.

Mesh size	Percent Passing
1"	100
3/4"	90-100
3/8"	40-100
#4	25-40
#8	18-33
#30	5-15
#50	0-7
#200	0-3

- B. The above rock gradation range is a general recipe for the Contractor to use in order to meet the product performance requirements of the built stone base. The Contractor is responsible for ensuring that the type of rock and blend they submit and install will meet all the specified requirements, including those outlined in item 1.10 of this specification section.
- C. Soft rock materials, including sandstone, limestone, and shale, are not suitable. Rock supplier shall certify that all supplied rock will be void of this type of rock.

2.03 SUBDRAIN TRENCH DRAIN ROCK

- A. Shall be 3/4-inch x 1/2-inch crushed virgin, un-recycled, washed rock, meeting the following general gradation requirements:

Sieve Size	Percent Passing
1"	100
3/4"	90-100
1/2"	10-40
3/8"	0-15
#4	0-5

- B. The rock profile will extend from the bottom of the trench to the top of both sides of the subdrain trench, and to the top of rock elevation. The Engineered Permeable Base Rock shall not be installed over the subdrain trench drain rock.
- A. The Contractor is responsible for ensuring the type of rock and blend they submit and install will meet all the specified requirements, including those outlined in item 1.10 of this specification section.
- B. Soft rock materials, including sandstone, limestone, and shale, are not suitable. Rock supplier shall certify that all supplied rock will be void of this type of rock.

2.04 SUBDRAIN TRENCH LEVELING ROCK

- A. For planarity purposes, a clean uniform 3/8-inch crushed stone material, of the same source as the subdrain trench drain rock or Engineered Permeable Rock Base may be installed over the subdrain trench profile upon approval of Owner's representative. Maximum thickness for this stone layer is 1 inch.

2.05 GEOTEXTILE FILTER FABRIC

- A. Geotextile Filter Fabric: Mirafi 140 N, or accepted equal, conforming to the following minimum specifications, unless otherwise recommended by the Geotechnical Engineer:

Property	Test Method	Typical Values
Grab Strength	ASTM D 4632	80 lb.
Puncture Strength	ASTM D 4833	25 lb.
Burst Strength	ASTM D 3786	130 lb.
Trapezoid Tear	ASTM D 4533	25 lb.
Permeability	ASTM D 4491	0.1 cm/sec
Apparent Opening Size	ASTM D 4751	#50 Sieve size
Permittivity	ASTM D 4491	

2.06 DRAINAGE ELEMENTS

- A. Refer to Storm Drainage Specification Section for in-field drainage elements.

PART 3 - EXECUTION

3.01 SUBGRADE PREPARATION

- A. Contractor shall verify that subgrade has been prepared according to specification Section 31 20 00 – Earth Moving with regard to compaction, grade tolerances in accordance with Section 01 71 23 – Field Engineering and is free of debris, non-compactable material, topsoil, or organics prior to beginning work.
- B. Top of subgrade elevations shall be verified using laser-operation survey instruments. Refer to Conformance Surveying specifications for requirements.
- C. Once the subgrade conformance has been accepted and compaction has been properly achieved, the geotextile filter fabric shall be installed over the compacted and prepared subgrade, as shown on the plans, without disturbing grades.
- D. Geotextile fabric shall be installed with 6” overlap and stapled 6’ on-center along seams. Staples to be 6” staples.

3.02 INSTALLATION OF THE SUBDRAIN TRENCH AND IN-FIELD DRAINAGE

- A. Contractor to install drain rock and piping in strict compliance with the manufacturer’s written instructions and as indicated in the Drawings. Contractor to exercise caution and the appropriate sequencing of work, so as not to damage any drainage piping during the base rock installation.
- B. Contractor to protect drain trenches to ensure that pipe is not damaged in any way by construction operations and that the rock is not contaminated with native soils, unintended construction material, or deleterious materials during subsequent construction operations.

3.03 PLACING THE ENGINEERED PERMEABLE ROCK BASE

- A. The stone shall be laid without damaging the soil subgrade and the in-field drainage system. Do not create depressions in subgrade with heavy equipment. If damage to subgrade occurs, correct as specified for subgrade preparation.
- B. The crushed stone shall be carefully and evenly spread over the subgrade and up both sides of the subdrain trenches to the depth shown on the Drawings.
- C. Excess water shall not be applied during installation of rock base and rough grading due to the potential of softening the subgrade and altering the grading.
- D. Crushed stone shall be smoothed and compacted uniformly to design grades by alternating raking, water settling, and rolling operations. Minimal rolling is advisable to achieve design grades and compaction. Only static rolling is allowed, and max 3-5-ton rollers should be used on the permeable stone base. Vibratory rolling of the permeable stone is not permitted.
- E. If the required compacted depth of the base course exceeds 6 inches, the base stone course shall be constructed in 2 or more layers or lifts of approximate equal thickness. Each layer shall achieve a uniform 90 percent relative compaction.
- F. Top of porous rock elevations shall be verified using laser-operation survey instruments. Refer to Conformance Surveying specifications for requirements.
- G. The final grade shall be ideally compacted to a uniform 90 – 92 percent relative compaction.
- H. Contractor shall not overwork the stone material and consequently modify its gradation characteristics. Minimal moving of the stone upon placement of the material on the subgrade and rolling is advisable to achieve design grades and compaction. Do not compact greater than 93 percent relative compaction.
- I. Contractor shall manually screed the top stone surface to ensure tolerances are met.
- J. Top of rock elevations shall be verified using laser-operation survey instruments. Refer to Conformance Surveying specifications for requirements.
- K. Finish surface planarity shall be verified, and if necessary adjusted, by the Contractor using string line method.
 - 1. Entire finished surface shall be “walked” with mason’s line in increments of approximately 3 feet.
 - 2. A mason’s line shall be held taught between two workers separated by a distance of approximately 40 feet then placed directly on the finished surface parallel to the direction of greatest slope.
 - 3. A third worker shall check for separations between the mason’s line and the finished surface that are equal to or greater than the specified tolerances.
 - 4. Areas of separation shall be outlined with marking paint and the depth of separation indicated.
 - 5. Areas outlined with marking paint shall be filled with top rock to the depth indicated and raked by hand. Filled areas shall be compacted to provide a non-yielding, smooth, flat surface.
 - 6. Final finished surface planarity shall be approved by the Owner and the synthetic turf installer.
- L. Once the top of the Engineered Permeable Rock Base is installed and compacted, the Contractor shall notify the Owner Testing Agent that it is ready for the field permeability test.
 - 1. The Agent shall be given 2 working days’ notice and have 2 days to complete the in-field test which will consist of a minimum of 4 controlled field permeability tests per synthetic turf field.
 - 2. Tests shall be by the following test method: ASTM F2898-11: “Standard Test Method for Permeability of Synthetic Turf Sports Field Base Stone and Surface System by Non-confined Area Flood Test Method”

3. Permeability of placed Engineered Permeable Rock Base shall comply with specified requirements.
4. If the test does not comply with section 1.10, the Contractor shall provide within 48 hours a written repair procedure to correct the permeability deficiency.
5. Repair work, including associated delays, shall be the Contractor's sole responsibility. Fine tuning of the field base due to the testing operations is the responsibility of the Contractor.

3.04 INSTALLATION OF MANUFACTURED DRAINAGE MATERIAL

- A. Upon successful completion of installing the base, the porous drainage composite shall be installed in accordance with the Drawings and in strict compliance with the manufacturer installation instructions. Contractor to exercise extreme care in order to avoid disturbing the crushed stone base.
- B. Contractor to take measures to ensure that the product is not exposed to the outdoor elements longer than the manufacturer's recommendations. Product that exceeds this exposure time duration shall be removed from the project site immediately and not used on the project.
- C. Sections of the material shall be interlocked and/or connected to adjacent pieces of the drainage material in strict conformance with the manufacturer's written installation instructions.
- D. Provide geotextile filter fabric in the areas designated on the Drawings. Fabric shall be laid in shingle fashion overlapping 12 inches minimum following direction of slope with upslope fabric laying atop the down slope fabric.

END OF SECTION

SECTION 32 33 00

SITE FURNISHINGS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Site furnishings and installation accessories as shown on the Drawings including, but not necessarily limited to, the following:
 - a. Trash/recycling receptacles.
 - b. 4 Row Bleachers.
 - c. Baseball pitching rubbers.
 - d. Softball pitching rubbers.
 - e. Baseball/softball bases
 - f. Baseball/softball plates
 - g. Foul poles.
 - h. BaseZone field wall padding
 - i. Batting cage netting.
 - j. Netted Hood
 - k. Net barrier system.
 - l. Flagpole.
 - m. Drinking fountain.
 - n. Drinking fountain in dugout.
 - o. Two tier team benches.
 - p. Scoreboard.
 - q. Outfield Distance Banners
 - r. Fence Cap
 - s. Guard Rail System (dugouts)
 - t. Bat rack
 - u. Bat and Helmet Cubby
 - v. Golf mats.
 - w. Golf ball containers
 - x. Golf netting
 - y. Golf Cups with Sleeve
2. Site Furnishings Product Matrix

B. Related Requirements:

1. Section 32 12 16 – Asphalt Paving
2. Section 32 13 13 – Concrete Paving
3. Section 32 18 13 – Synthetic Turf Playing Field

1.02 REFERENCES

- A. State of California, Business and Transportation Agency, Department of Transportation (Caltrans) "Standard Specifications."

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Submittal Procedures: Action and Informational Submittals shall be submitted in accordance with Section 01 33 00 - Submittal Procedures.
- B. Scheduling and Sequencing:

1. Do not install site furnishings prior to acceptance by Owner's Representative of area to receive items.
2. Coordinate construction timing of installation of site furnishings in conformance with other work interfacing with installation of the site furnishing items.

1.04 ACTION SUBMITTALS

- A. Shop Drawings: Submit complete shop drawings for all materials or furnishings requiring field or shop fabrication.
- B. Product Data: Manufacturer's catalog cut sheets of materials and equipment to be provided.
 1. Include the manufacturer and distributor name, and subcontractor as applicable.
 2. Cut sheets clearly describe the specific product by catalog number and that additional non-specified products that may appear on the same cut sheet are crossed out where applicable.
- C. Samples: Colors and finishes for products and furnishings requiring selection by the Owner's Representative.

1.05 INFORMATIONAL SUBMITTALS

- A. Statement of qualifications for manufacturers and installer if requested by the Owner's Representative.

1.06 CLOSEOUT SUBMITTALS

- A. Provide operation and maintenance data for items with operable, movable, or replaceable parts, for items with mechanical connections, and for other items as applicable.
- B. Extended warranties as specified.

1.07 QUALITY ASSURANCE

- A. Furnishings shall be reviewed for conformance with the intent of the Contract Documents and accepted by the Contractor prior to installation.
- B. Site furnishings shall be in a new, "first-class" condition as determined by the Owner's Representative at the time of Final Acceptance.
- C. Field Samples and Mockups: As requested by the Owner's Representative.

1.08 DELIVERY, STORAGE AND HANDLING

- A. General:
 1. The Contractor is responsible for coordination of the delivery, acceptance, handling, and storage of site furnishings.
 2. Store and handle site furnishings as acceptable to the Owner's Representative and so that work or access of others is not impeded.
 3. Protect site furnishings from theft or damage until such items have been accepted by the Owner.
- B. Packaging and Labeling: Furnish materials in manufacturer's unopened, original packaging, bearing original labels showing quantity, description, and name of manufacturer. Verify that materials and components are adequately padded and securely bound in such a manner that no damage occurs to the product during delivery and unloading at the site.

- C. Storage: Damaged materials will be rejected. Remove damaged materials from job site immediately and pay cost of replacement. Determination of damage shall be the sole authority of the Owner's Representative.
- D. Painted Finishes: Provide non-scratching, non-staining, firmly bound covering for shop-painted finishes until installed and accepted.
- E. Protect wood materials from stains.

1.09 WARRANTY

- A. Manufacturers: Provide Owner with manufacturer's written extended product warranties as available for the specified products.

PART 2 - PRODUCTS

2.01 SITE FURNISHINGS - GENERAL

- A. In addition to those described in the following Articles, refer to the Site Furnishing Matrix included at the end of this Section for complete list of items to be provided.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Prior to commencement of work described in this Section, carefully inspect installed work, and verify all such work is correct and complete. Immediately notify the Owner's Representative of any discrepancy before proceeding with work.

3.02 INSTALLATION - GENERAL

- A. Conform to layout shown on Drawings. Final placement shall be field verified with the Owner's Representative.
- B. Installation of products shall be as shown in the Drawings, or according to manufacturer's instructions. If discrepancies are found, or if information is lacking, consult with the Owner's Representative prior to beginning the work.
- C. Concrete footings shall conform to requirements of Section 32 32 15 – Landscape Concrete unless noted otherwise.
- D. Furnish anchorage and fastening required for installation to ensure proper fit and accurate placements. Bolts, where exposed, shall be cut back to within three threads of the nut.

3.03 TRASH RECEPTACLES

- A. Install level and plumb in accordance with manufacturer's instructions at locations indicated on the Drawings.

3.04 BICYCLE RACKS

- A. Surface flange mount level, plumb, square, accurately aligned, correctly located in accordance with the Drawings, and without warp.
- B. Secure in place with specified anchor bolts through flange holes.

3.05 BLEACHERS

- A. Temporary bleachers shall be installed on a concrete pad and bolted to concrete pad as shown on the Drawings.
- B. Three of the bleacher skids shall be bolted with a 3-inch concrete bolt with 4 bolts per skid.

3.06 CLEANING AND ADJUSTMENT

- A. Protect furnishings from damage until acceptance of work. Do not remove protective wrappings from furnishings until so instructed by the Owner's Representative.
- B. Clean soiled site furnishings prior to acceptance by Owner.
- C. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by the Owner's Representative.
- D. Replace damaged items to the satisfaction of the Owner's Representative. Replace missing accessories at no cost to Owner.

3.07 SITE FURNISHINGS MATRIX

ITEM	DESCRIPTION	MANUFACTURER	MODEL NO.	QTY.	FINISH/COLOR	DISTRIBUTOR/CONTACT
A.	Trash/Recycling Receptacle	Dumor	435-64SH	4 ea.	Powder-Coat-Deep Red	Dumor (800) 598-4018
B.	4 Row Bleachers	BSN Sports	SKU# TR0421P 4 Row Preferred Tip N' Roll Bleachers - 21'L x 30"H x 81"D - Seats 56 - Wt. 524 lbs	6 ea.	Anodized Aluminum	BSN Sports Dallas, TX 1-800-856-3488
C.	Baseball Pitcher's Rubber	Sportsfield Specialties	LGBBPB Schutt Hollywood MLB Official	3 ea.	White	Sportsfield Specialties Alex Fletcher (408) 659-6055
D.	Softball Pitcher's Rubber	Sportsfield Specialties	LGTURFBASEPR	3 ea.	White	Sportsfield Specialties Alex Fletcher (408) 659-6055
E.	Baseball/Softball Bases	Sportsfield Specialties	LGTURFBASE	2 sets	White	Sportsfield Specialties Alex Fletcher (408) 659-6055
F.	Baseball/Softball Home Plates	Sportsfield Specialties	LGSHP-UM Schutt Hollywood MLB Pro Style	8 ea.	White	Sportsfield Specialties Alex Fletcher (408) 659-6055
G.	Foul Pole Sets	Sportsfield Specialties	Baseball: FPW630 Softball: FPW420	4 ea.	Yellow	Sportsfield Specialties Alex Fletcher (408) 659-6055
H.	Not Used	Not Used	Not Used	-	-	-

DSA BACK CHECK SUBMITTAL TECHNICAL SPECIFICATIONS
08/11/2022

ITEM	DESCRIPTION	MANUFACTURER	MODEL NO.	QTY.	FINISH/COLOR	DISTRIBUTOR/CONTACT
I.	Batting Cage Netting	Sportsfield Specialties	BSSN60	TBD	Black	Sportsfield Specialties Alex Fletcher (408) 659-6055
J.	Netted Hood	Sportsfield Specialties	BSSNU C-1-3/4"	2 ea.	Black	Sportsfield Specialties Alex Fletcher (408) 659-6055
K.	Barrier Netting System	Sportsfield Specialties	TFBSS420P-SG StormGuard Ball Netting System	1 ea.	Black Netting and Posts	Sportsfield Specialties Alex Fletcher (408) 659-6055
L.	Scorer's Table	Sportsfield Specialties	ST8 Custom – Panel to read: "Johnson High School"	2 ea.	TBD	Sportsfield Specialties Alex Fletcher (408) 659-6055
M.	Flag Pole	Concord American Flagpole	IRW25D61 - TBD	1 ea.	TBD	Concord American Flagpole 800-527-3902
N.	Drinking Fountain w/ Jug Filler (ADA left)	Most Dependable Fountains	440 SMFA	4 ea.	Textured Burgundy	Most Dependable Fountain (800) 552-6331
O.	Drinking Fountain (wall mount)	Most Dependable Fountains	440 WM w/ hose bib and locking cover	4 ea.	Textured Burgundy	Most Dependable Fountain (800) 552-6331
P.	Two-Tier Team Benches	Sportsfield Specialties	LG-TTPY-08	16 ea.	Textured Burgundy	Sportsfield Specialties Alex Fletcher (408) 659-6055
Q.	Scoreboard (1 baseball & 1 softball)	Nevco	Model 1608 (1608-ETN-W) with Ad Board & MPCX2 Controller	2 ea.	TBD	Steve Warner (916) 716-4201
R.	Outfield Distance Banners	BSN Sports	SKU#1079647 BSN Sports 38" x 56" Banner w/ 24" Numbers	Per plan	TBD	BSN Sports Dallas, TX 1-800-856-3488
S.	Fence Cap	Aer-Flo, Inc.	PlastiCap	Per Plans	Yellow Black	Aer-Flo, Inc., Bradenton, FL 1-800-823-7356
T.	Guard Rail System	GRS42, 42' L section	GRS42, 42' L section	4	Custom size Color: TBD	Sportsfield Specialties Alex Fletcher (408) 659-6055
U.	Not Used	Not Used	-	-	-	-
V.	Bat and Helmet Cubby	Sportsfield Specialties	LG-HC-TP	4 ea.	Powder Coat Black	Sportsfield Specialties Alex Fletcher (408) 659-6055
W.	Golf Mats	Synthetic Turf International	EZTee Tee Hitting Mats Synthetic Turf (5'x5')	Per plans	Green	Synthetic Turf International 1-800-405-7455
X.	Golf Ball Containers	Range Servant America	ODA0015 Rubber Golf Ball Tray	Per plans	Black	Range Servant America 1-800-878-8050
Y.	Golf Netting	SportsField Specialties	#18 Knotted Nylon Netting 7/8" Square Mesh	Per plans	Black	Sportsfield Specialties Alex Fletcher (408) 659-6055
Z.	Golf Cups with Sleeve	FieldTurf	FieldTurf	Per plans.	TBD	
AA.	Helmet & Coat Rack Overhead Storage Cubby	Sportsfield Specialties	SUWHCCRWM	16	STD	Sportsfield Specialties Alex Fletcher (408) 659-6055
BB.	Dugout Whiteboard	PYT Sports	Game Day Dry Erase Board GDEB1	4	Black frame	PYT Sports (708) 634-2099

END OF SECTION



PERFORMANCE SPECIFICATIONS

SECTION 1

PROSLIDE® PLAY BALL!® CALCINED CLAY CONDITIONER

PART 1 – GENERAL

1.1 SUMMARY

- A. This section includes the material and labor requirements for application of conditioner to an infield skin surface for the following items:
 - 1. ProSlide® Play Ball!® Conditioner
- B. Related Sections
 - 1. Site Preparation
 - 2. Earthwork

1.2 SUBMITTALS

- A. Product Data: For the product specified, submit a 5-pound sample along with a private lab test result indicating the particle size analysis of the material specified. All tests shall be performed in accordance with ASTM F-1632.
- B. Approved Testing Lab: Turf & Soil Diagnostics.
Attn: Sam Ferro
35 King Street
Trumansburg, NY 14886
607-387-5694

1.3 PROJECT/SITE CONDITIONS

- A. All site work and earthwork shall be performed in accordance with the preceding sections.

DuraEdge Products, Inc.
Phone: (866) 867-0052 Fax: (724) 264-4174
149 S. Broad St. Grove City, PA 16127
www.duraedge.com

- B. In certain instances, and where warranted, a survey of the subgrade elevations shall occur prior to placement of the material.

1.4 QUALITY ASSURANCE

- A. **Installer Qualifications:** Installers of materials specified shall have, at minimum, five successful installations of similar projects and materials. Installers shall be in possession of and demonstrate knowledge of the use of laser guided finishing equipment.
- B. **Material:** If quality control samples are specified, they shall be completed at a rate of one per 50 tons of material delivered to the jobsite. All tests shall be conducted by the lab specified in Section 1.2 (B). All testing will be compared to and be in accordance with the material specifications provided in Section 2.2.

PART 2 – PRODUCT

2.1 MANUFACTURERS

- A. ProSlide Play Ball! Conditioner is produced by the following manufacturer on behalf of DuraEdge Products:
 - 1. EP Minerals
9785 Gateway Drive, Reno, NV 89521
800-366-7607
www.epminerals.com

2.2 MATERIALS

PROSLIDE PLAY BALL! CONDITIONER GRADATION

- A. ProSlide Play Ball! Conditioner is engineered to stay in place and provide less particle breakdown. This product is designed to have superior durability resulting in less contamination meaning it stays on the surface longer. Play Ball! is more attainable product for end users at all levels who want to implement a professional grade calcined. This product is intended to be utilized on the surface of your infield skinned areas not tilled in.

B. Performance Specification

1. Conditioner shall be natural in color with red-ish hue, having a yield of approximately 40 pounds per cubic foot and possessing the following particle size analysis:

Sieve Designation	Particle Size (mm)	Percent Retained
No. 6	>3.36	0.0%
No. 8	2.38 - 3.36	10% - 35%
No. 10	2.00 -2.38	10% - 25%
No. 16	1.19 – 2.00	35% - 55%
No. 20	0.841 - 1.19	5% - 20%
No. 30	0.595 - 0.841	0% - 3%
Pan	<0.595	<1%

Material meeting this specification would be ProSlide Playball Conditioner as manufactured by DuraEdge Products Inc., Slippery Rock, Pa. 866-867-0052, or an approved equal.

2.3

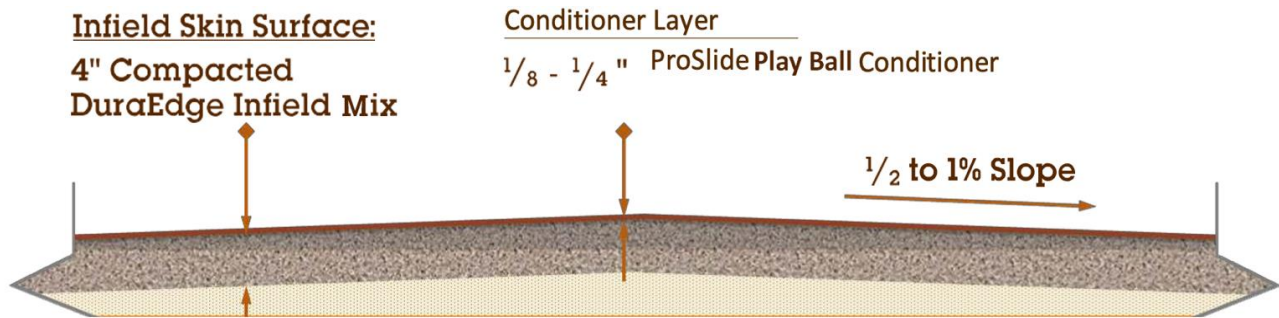
EXCESS MATERIALS

- A. Provide the owners’ authorized representative with a 1-ton pallet of material for future use.

PART 3 – EXECUTION

3.1 PLACEMENT

- A. Following successful inspection, conditioner shall be applied to the surface, never tilled in, for optimum product performance.
- B. Conditioner shall be added at a rate of 0.47 pounds per 1 square foot for 1/8” depth on surface or up to 0.94 pounds per 1 square foot for ¼” depth on surface.



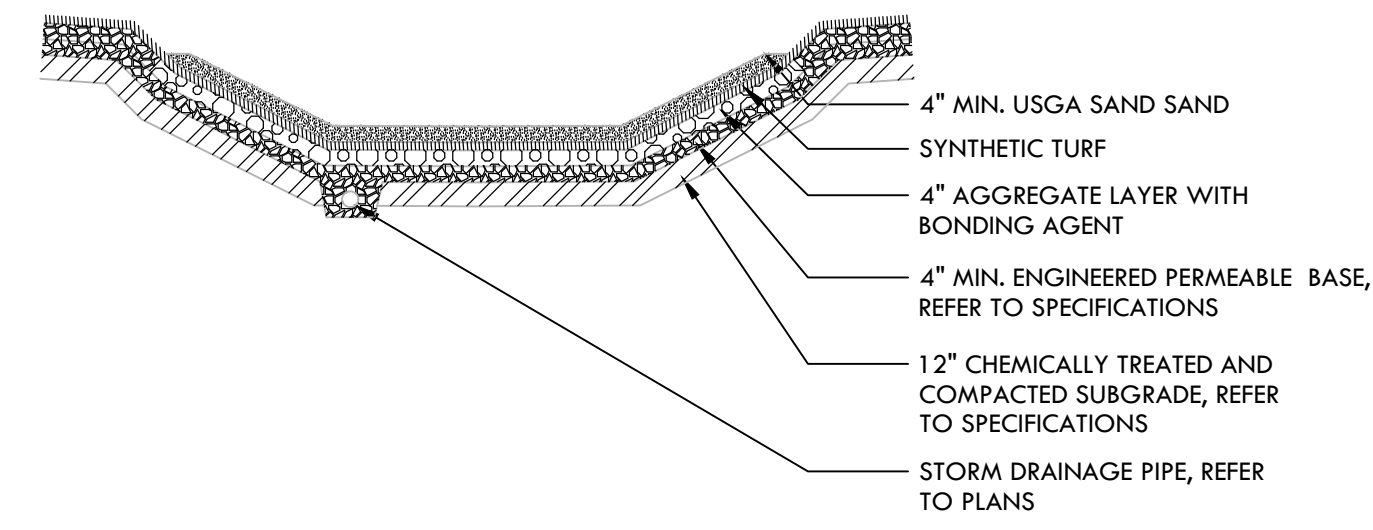
3.2 INSPECTION

- A. The finished surface of the infield shall be smooth and free from any visible dips, humps, bumps or other blemishes which would hinder the removal of water through positive surface drainage. Where warranted, a finished elevation survey shall be conducted to assure proper installation.

End of Section 1

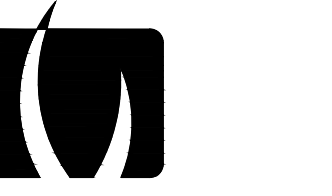
NOT USED

NOT USED



NOTES PERTAIN TO ALL DETAILS WITH SYNTHETIC TURF:

- IDENTIFIED FINISH GRADES OF SYNTHETIC TURF SHALL BE THE TOP OF INFILL MATERIAL. INFILL MATERIAL SHALL BE 1/2" BELOW ADJACENT SURFACES UNLESS EDGE IS A VERTICAL CURB. REFER TO GOLF DETAIL THIS SHEET FOR INFILL DEPTH.
- NO MANUFACTURER, CONTRACTOR OR VENDOR LOGOS ARE TO BE INSTALLED UNLESS SPECIFIED.
- NO CUT OUTS IN TURF SHALL BE MADE UNLESS OTHERWISE NOTED AND ESPECIALLY NO CUT OUTS IN THE FIELD OF PLAY. QUICK COUPLERS AND CLEANOUTS ARE THE ONLY UTILITIES TO BE CUT THROUGH TURF. QUICK COUPLERS ARE LOCATED ON THE PERIMETER AND OUT OF THE FIELD OF PLAY AREAS.



VERDE DESIGN
 LANDSCAPE ARCHITECTURE
 CIVIL ENGINEERING
 SPORT PLANNING & DESIGN
 1843 Iron Point Rd, Suite 140
 Folsom, CA 95630
 Tel: 916.415.6534
 Fax: 916.415.6525
 www.VerdeDesign.com

L

J

G

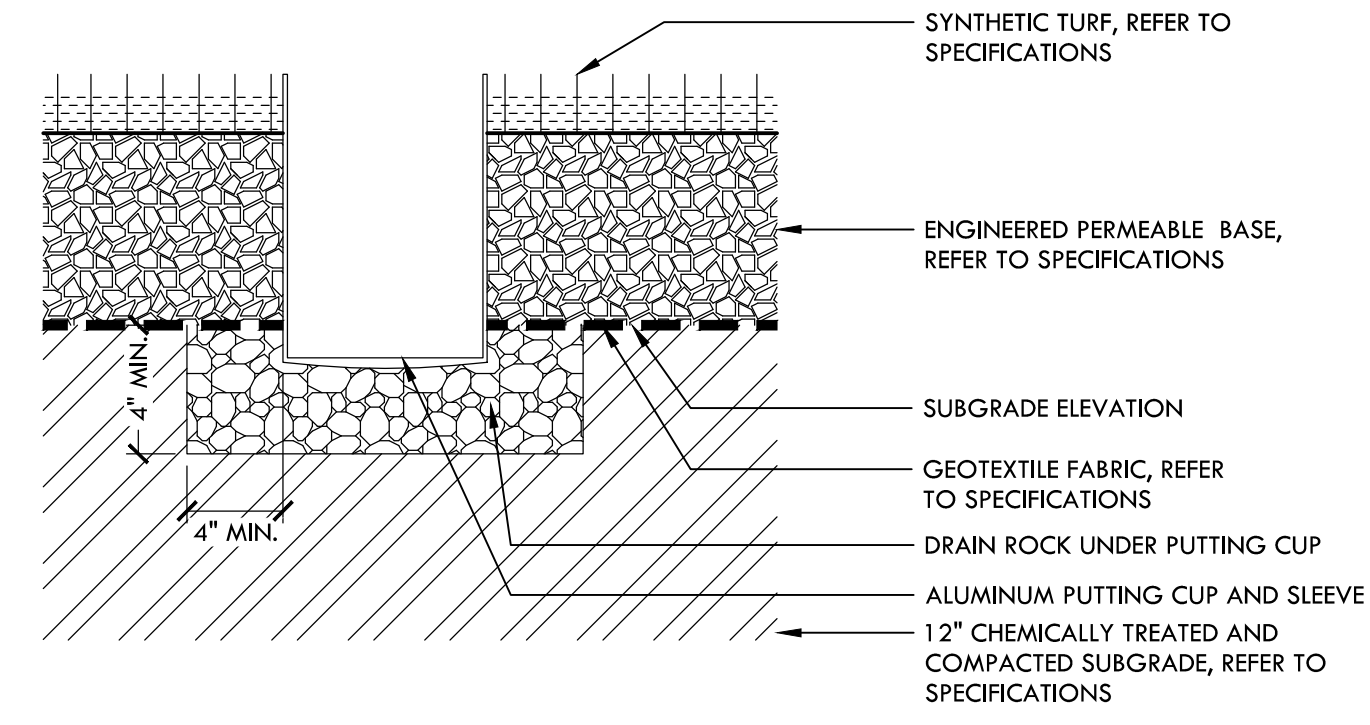
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E

SYNTHETIC TURF NOTES

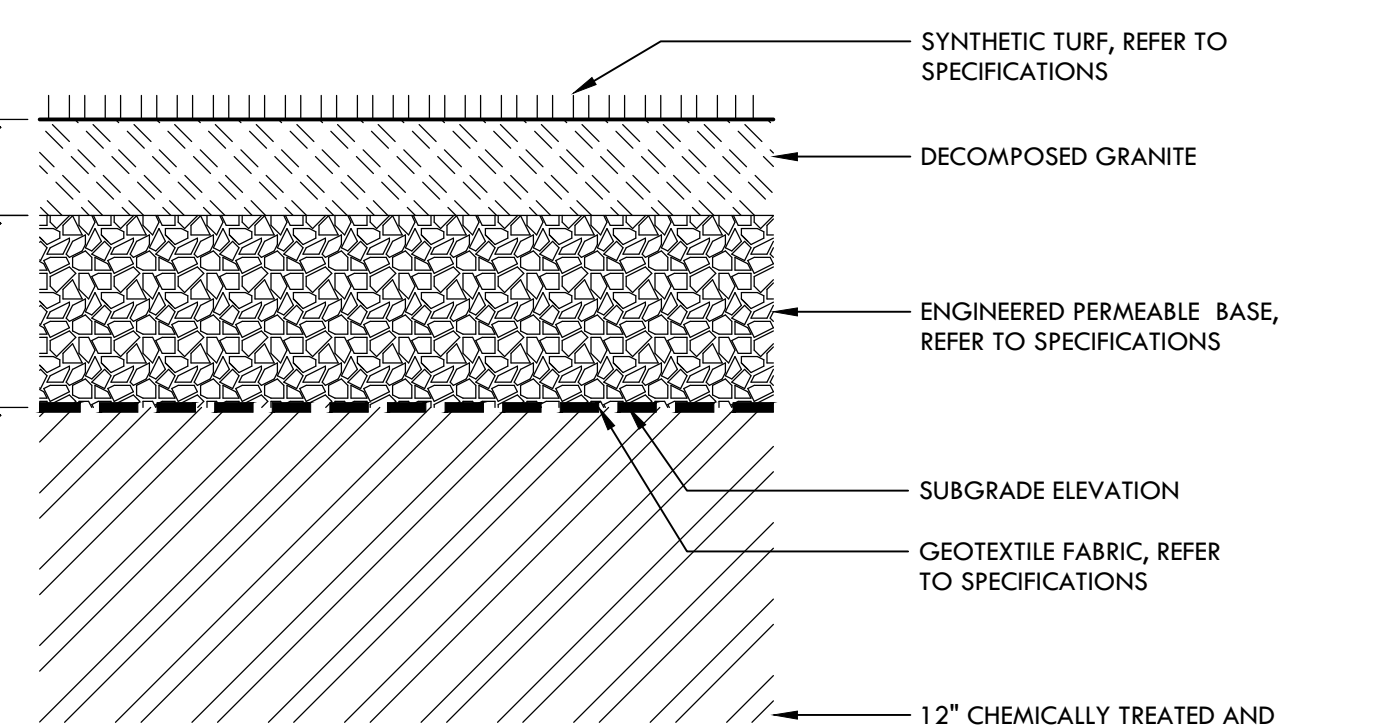
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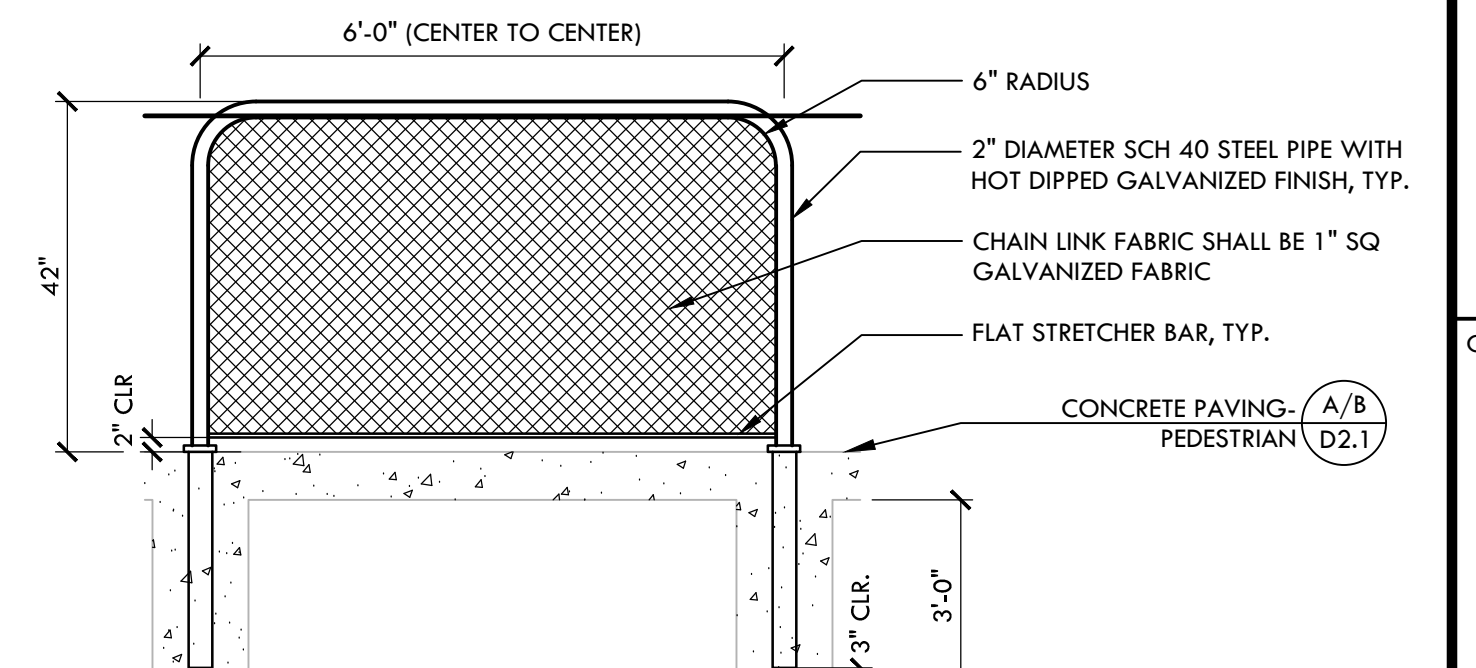
SYNTHETIC TURF SECTION

NOTE: REFER TO SYNTHETIC TURF NOTES, DETAIL E, THIS SHEET.



SYNTHETIC TURF SECTION

NOTE: REFER TO SYNTHETIC TURF NOTES, DETAIL E, THIS SHEET.



- NOTE:
- ALL PIPE TO BE SCHEDULE 40 WITH 1/2" THICKNESS, & SHALL BE GALVANIZED FINISH. VARIES, REFER TO PLANS.
 - ALL JOINTS SHALL BE FILLET WELD; GRIND SMOOTH JOINTS; TREAT ALL FINISHED WELDS WITH GALVANIZING.
 - ALL RAILINGS TO BE SHOP FABRICATED FOR FIELD INSTALLATION.
 - THIS DRAWING IS FOR DESIGN INTENT ONLY. SUBMIT SHOP DRAWING TO SHOW MATERIAL, WELDS AND FASTENERS.

K

I

SYNTHETIC TURF - PUTTING GREEN CUP

NTS

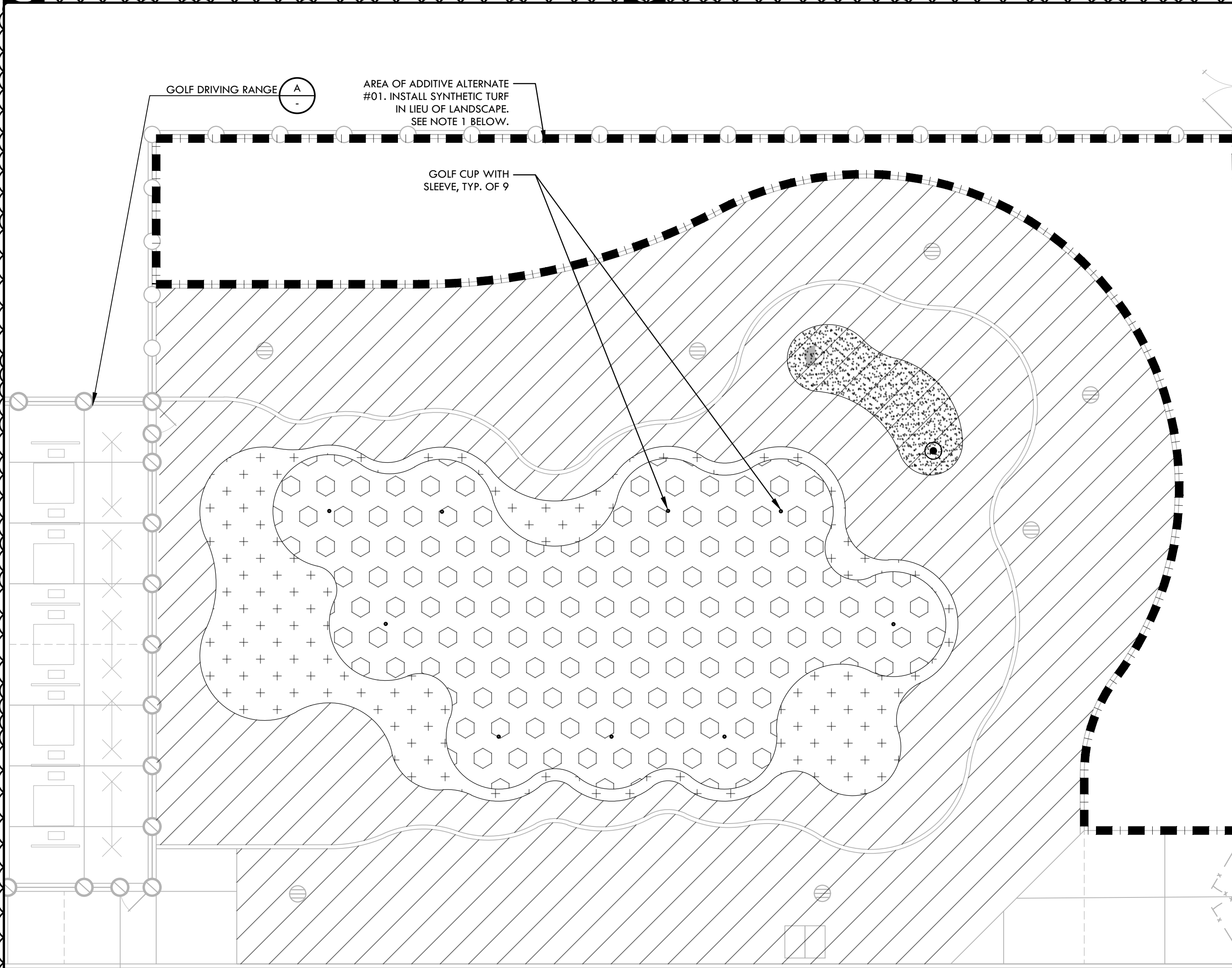
F

SYNTHETIC TURF - PUTTING GREEN SECTION

NTS

GUARD RAIL

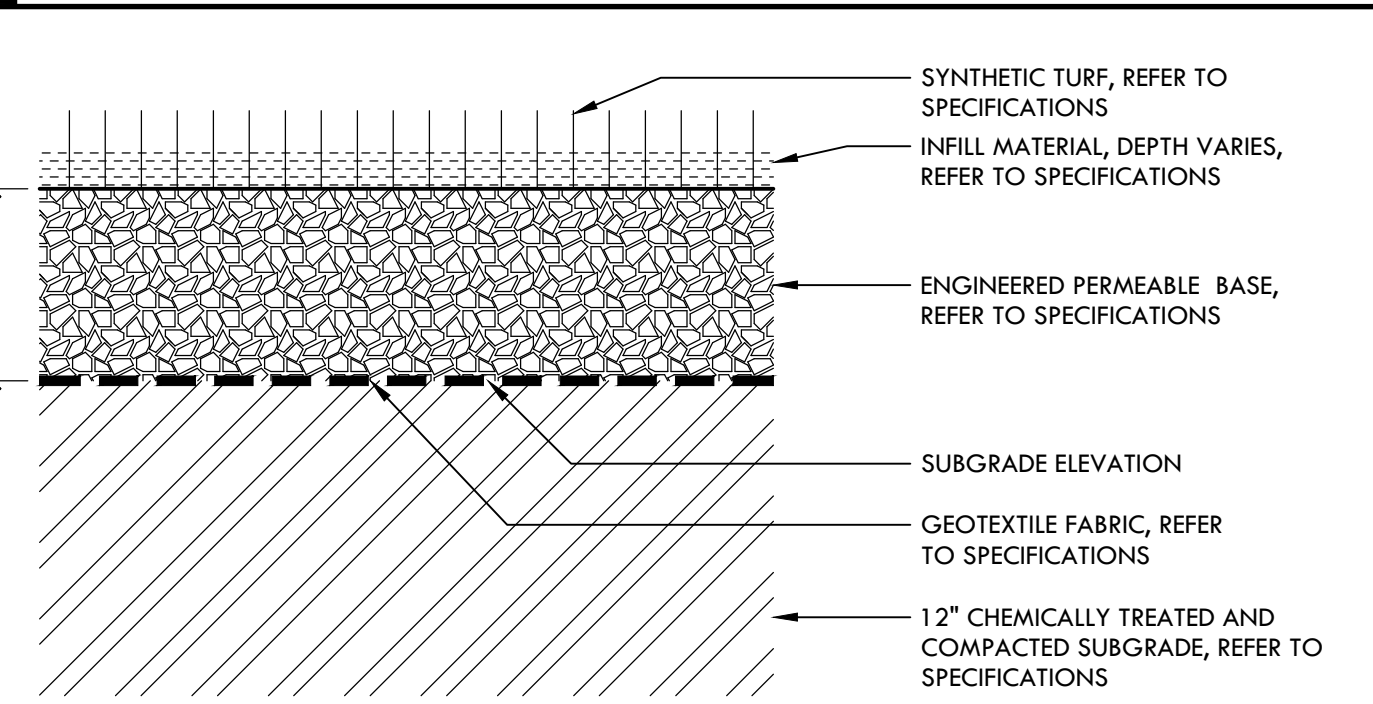
NTS



LEGEND

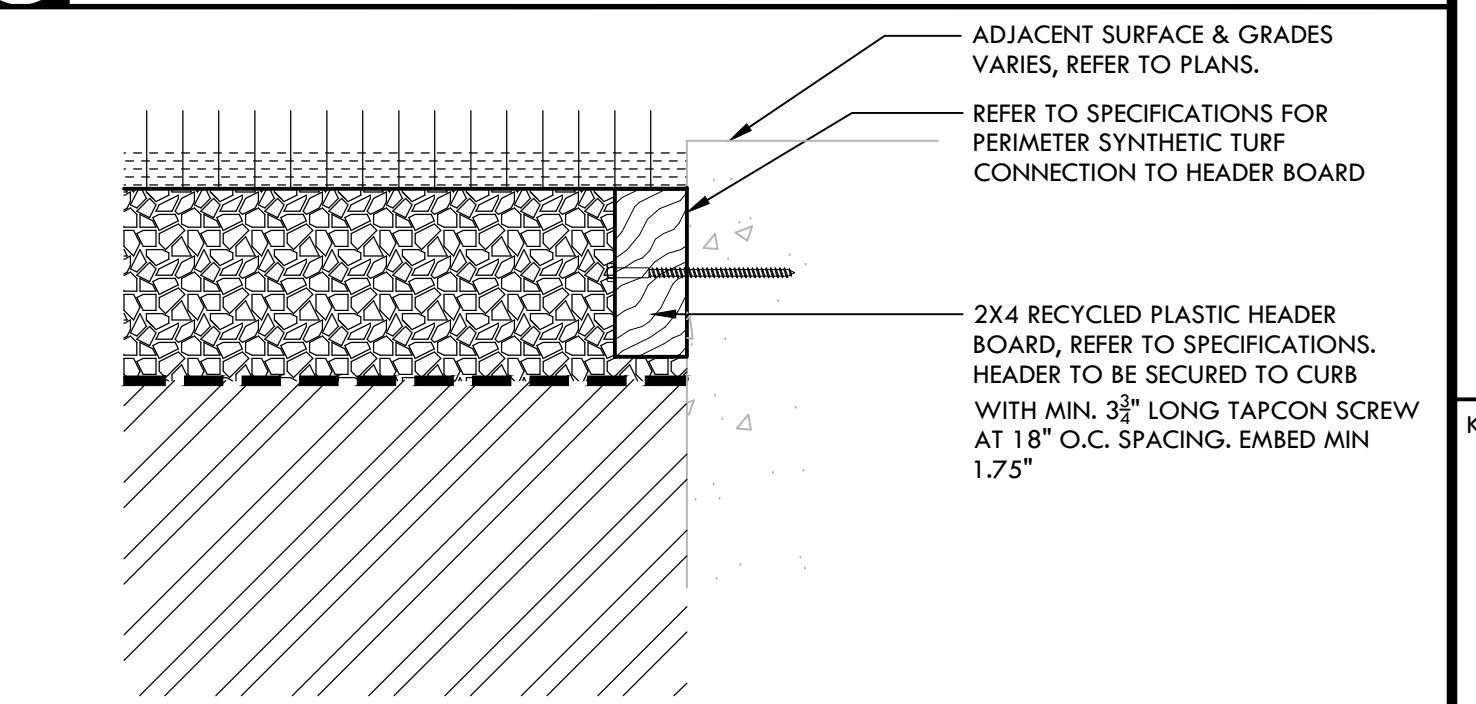
	PUTTING GREEN PRODUCT: FIELDTURF 'EZ-PUTT' PILE HEIGHT: 0.5"		2ND CUT PRODUCT: FIELDTURF 'ZL11' PILE HEIGHT: 2"
	FRINGE PRODUCT: FIELDTURF 'ZL02' PILE HEIGHT: 1"		BUNKER PRODUCT: USGA SAND OVER FIELDTURF 'ZL11'

- NOTE:
- IF ADDITIVE ALTERNATE 01 IS AWARDED, CONTRACTOR SHALL INSTALL FIELD TURF 'ZL11'. REFER TO MATERIALS PLAN FOR ADDITIONAL INFORMATION.
 - REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION.



SYNTHETIC TURF SECTION

NOTE: REFER TO SYNTHETIC TURF NOTES, DETAIL E, THIS SHEET.

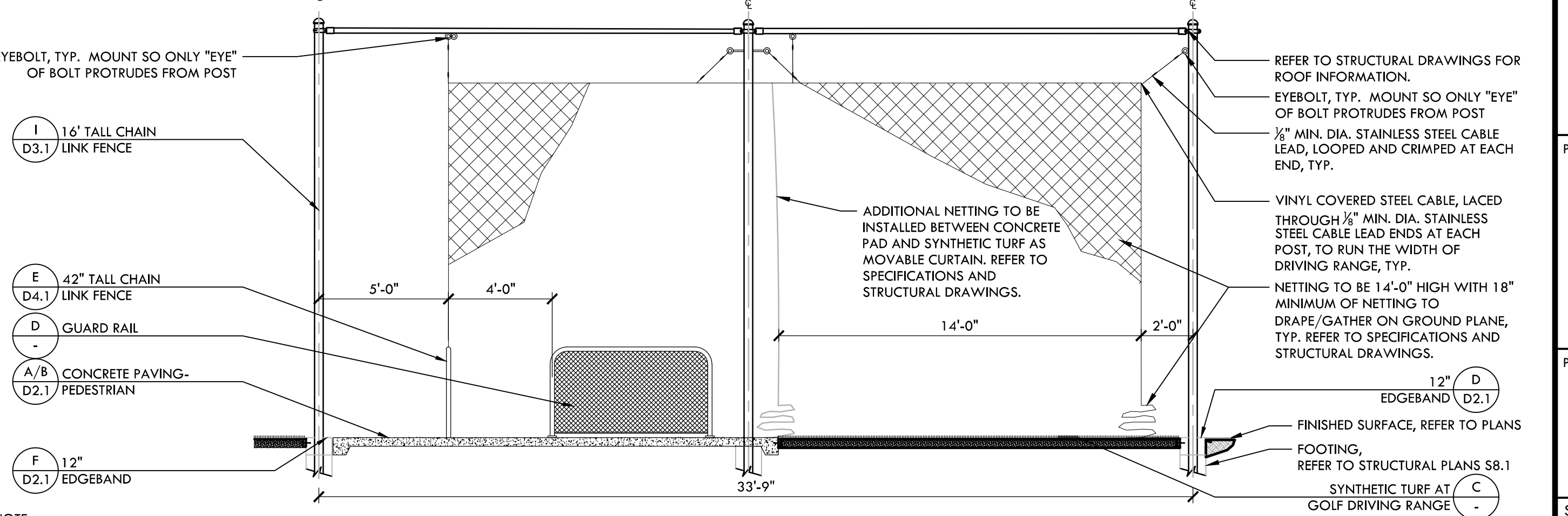


SYNTHETIC TURF CONNECTION

C

SYNTHETIC TURF - 2ND CUT AND FRINGE

NTS

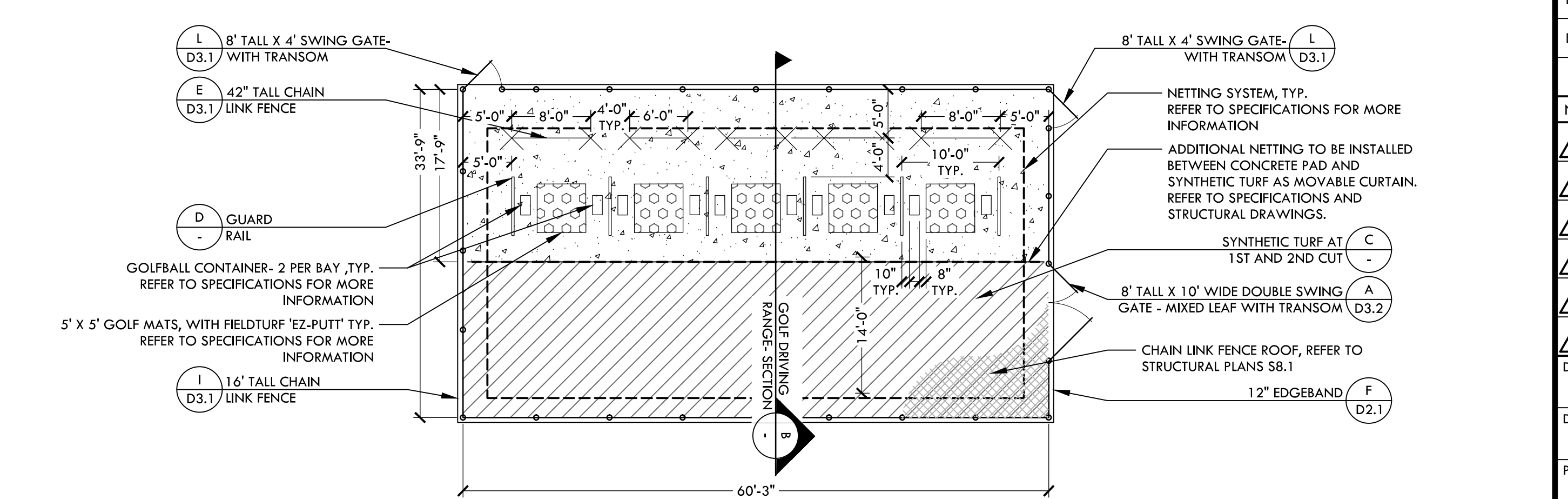


NOTE: REFER TO STRUCTURAL PLANS FOR MORE INFORMATION.

B

GOLF DRIVING RANGE - SECTION

NTS



H

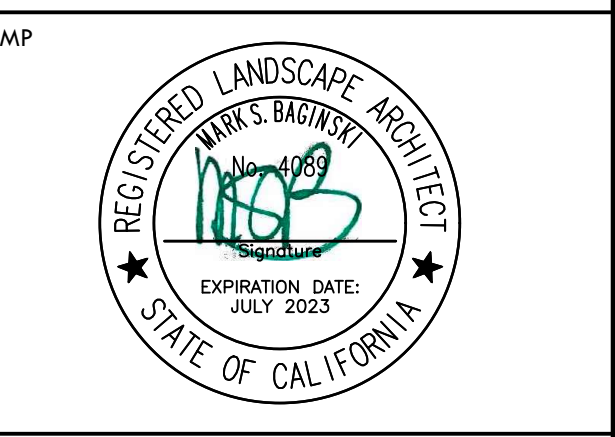
GOLF PUTTING GREEN

1"=10'-0"

A

GOLF DRIVING RANGE - PLAN

NTS



CONSULTANT

KEYMAP

SHEET TITLE

CONSTRUCTION DETAILS - GOLF

PROJECT NAME

**HIRAM JOHNSON
 HIGH SCHOOL
 GOLF PRACTICE FACILITY,
 VARSITY BASEBALL AND
 SOFTBALL FIELDS**

PROJECT ADDRESS

**6879 14TH AVENUE
 SACRAMENTO, CA 95820**

SUBMITTAL	DATE
DD 50% SUBMITTAL	04/15/22
100% DSA SUBMITTAL	05/27/22
DSA BACK CHECK	08/11/22
DSA ADDENDUM SUBMITTAL	09/16/22

NO.	REVISIONS	DATE
▲	ADDENDUM	09/16/22

DRAWN BY	VDI	CHECKED BY	MB/CS
DATE ISSUED	09/16/2022	SCALE	AS NOTED
PROJ. NO.	2203200		

SHEET NO. D5.1

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