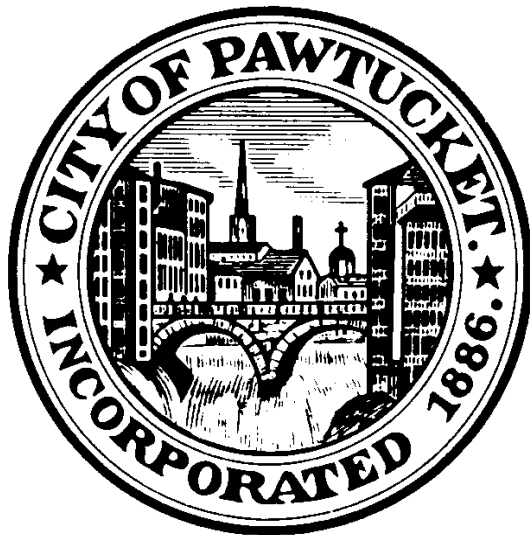


# **ADDENDUM NO. 1**

## **SLATER JR HIGH SYNTHETIC TURF FIELD INSTALLATION**

**BID #24-033**

**PAWTUCKET, RI**



### **PAWTUCKET, RHODE ISLAND**

DEPARTMENT OF PUBLIC WORKS

250 ARMISTICE BOULEVARD

PAWTUCKET, RHODE ISLAND

**ISSUED: April 4, 2024**

**Addendum #1 – April 4, 2024**

**SLATER JR HIGH SYNTHETIC TURF FIELD  
INSTALLATION  
BID #24-033  
Pawtucket, RI**

The attention of bidders submitting proposals for the above-referenced project is called to the following Addendum to the Request for Proposals indicated above. The items set forth herein, whether of omission, addition, substitution or other change, are all to be included in, and form a part of the proposed Contract Documents for the work.

Inclusion of this Addendum must be acknowledged in the spaces provided in the document entitled "Request for Proposals Bid #24-033; SLATER JR HIGH SYNTHETIC TURF FIELD INSTALLATION". Failure to acknowledge any and all addenda in the above specified bid form may be cause for rejection of the bids by the Owner on the grounds that it is not responsive.

This Addendum consists of Two (2) pages and four (4) attachments, (37 pages), for a total of 39 pages.

**1. QUESTIONS & ANSWERS RECEIVED AT THE PRE-BID CONFERENCE AND VIA EMAIL.**

*None Received*

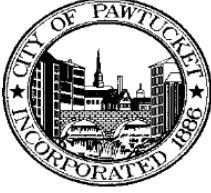
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**ATTACHMENTS:**

- A. Pre-Bid Meeting Agenda (3 pages including fly sheet)
- B. Pre-Bid Sign-In Sheet (1 page)
- C. Updated General Wage Decision (16 pages including fly sheet)
- D. Section 02790 Artificial Turf (17 pages including fly sheet)

Please contact Michael Wilcox (401-728-0500 ext 447), City of Pawtucket, with any questions.

## **Attachment A: Pre-Bid Agenda**



DONALD R. GREBIEN  
MAYOR

# CITY OF PAWTUCKET

137 ROOSEVELT AVENUE  
PAWTUCKET, RHODE ISLAND 02860

DEPARTEMENT OF PLANNING &  
REDEVELOPMENT

BIANCA POLICASTRO  
DIRECTOR

## Pre-Bid Meeting

**Project Title:** Slater Jr High Synthetic Turf Field Improvements **Date:** March 25, 2024

**Project Location:** Slater Middle School, 281 Mineral Spring Avenue, Pawtucket, RI

**Project Number:** 24-033

1. Introduction to City & A/E Project Management Team
  - City: Engineering Div. Mike Wilcox, ; Peter Wingate Purchasing Div., Michael Cotugno, Planning; Marlana Stachowiak, City Council
  - School Dept.: Lisa Benedetti-Ramzi; John Cote, Joanne Bonollo
  - Tim Gerrish, Garder+Gerrish
2. Discussion of Standard RFP Items, including:
  - Project Funded by a Community Development Block Grant (CDBG), see Section s 14
  - Build America Buy American Act (BABA) see Section 15.
  - Bonds / Insurance: Bid Bond 5% due at Bid submission; Performance & Payment Bonds due on Award
  - Davis Bacon Prevailing Wage Decision applies (per funding source) and is in the RFP.
  - Standard form of agreement, sample in RFP. Will initiate after award
  - Permissible hours of work: No work shall commence prior to 7am. (per noise ordinance)
3. Discussion of Project Specific Terms, including:
  - Permits
    - No Permits are anticipated.
  - Schedule
    - Bid Schedule
      - RFI 04/04/2024 at 1:00 pm
      - Addendum Issued on or about 04/05/2024
      - Bids Due: 04/11/2024 @ 12:00 pm
      - Bid Opening: 04/11/2024 @ 4 pm
      - Project Award: 04/25/2024
    - Construction schedule;
      - Notice to Proceed – 05/08/2024 +/-
      - Pre-Construction Conference – 05/08/2024 +/-
      - Start Construction On-Site: 06/17/2024
      - Substantial Completion – 08/15/2024
      - Final Completion – 09/20/2024
  - Funding Source(s), and their associated requirements per RFP
    - Funding is provided by CDBG. All requirements listed in RFP

(401) 728-0500 EXTENSION 447 • FAX (401) 727-4550 TDD (401) 722-8239

#### 4. A/E Additional Input

Improvements and Renovations to existing facilities shall include:

- Mobilization and provide controls as necessary to ensure public safety and facilitate construction;
  - • Maintenance and further installation of erosion and sediment control devices;
  - • Removal and proper disposal of select trees and stumps
  - • Removal and proper disposal of existing unclassified material including saw cutting, pavement;
  - • Removal & proper disposal of existing topsoil;
  - • Earthwork and site preparation including rough grading;
  - • Provision and installation of synthetic turf with new underdrain system;
  - • Installation of plantings; and
  - • Demobilize and final cleanup of the site including removal of remaining erosion and sediment control devices and any remaining sediment, pavement sweeping;
  
  - Coordination with owner
    - Access to school property.
5. Contractor Questions (if emailed, send to contacts in Section 1 of the RFP)

#### **PRE-BID Follow Up Items:**

(401) 728-0500 EXTENSION 447 • FAX (401) 727-4550 TDD (401) 722-8239

# Attachment B: Pre-Bid Sign-In Sheet



**CITY OF PAWTUCKET, PLANNING DEPARTMENT**  
 Slater Jr High School Synthetic Turf Field Installation  
 Bid #24-033

Pre-Construction Meeting: March 25, 2024 @ 3:30 PM  
 Location: Public Works Conference Room, 250 Armistice Blvd.

ATTENDANCE SHEET - PLEASE PRINT CLEARLY

Name	Company	Address	Phone No.	E-Mail Address
Mike Wilcox	City of Pawtucket	250 Armistice Blvd. Pawtucket, RI 02860	(401) 728-0500 X447	mwilcox@pawtucketri.gov
Eric Hammerschlag	City of Pawtucket	250 Armistice Blvd. Pawtucket, RI 02860	(401) 728-0600 X364	ehammerschlag@pawtucketri.gov
Deve Tetyer	City of Pawtucket	250 Armistice Blvd. Pawtucket, RI 02860	(401) 728-0600 X366	dtetyer@pawtucketri.gov
Peter Wingate	City of Pawtucket	137 Roosevelt Avenue. Pawtucket, RI 02860	(401) 728-0500 X350	pwingate@pawtucketri.gov
J. Milburn	East Coast Const.	202 Chase Pt Portsmouth	401 683 5555	SPENCER.EASTCOASTCONSTRUCTION.COM
Mike Cotugno	City of Pawtucket			MCotugno@pawtucketri.gov
Vina Chaffin	R.A.D. SPORTS	171 VFW BLVD ROCKLAND MA	508-400-0955	vc@redsports.com
Tim Gappner	GG	151 BROADWAY, SUITE 243, PVD 02903	401.269.3784	TIM@GAPPNER-GAPPNER.COM
Martine Stechowick	city of Pawtucket	22 Vivian Pawtucket	401 749 8055	msta@chemical.pawtucketri.gov

**Attachment C: Updated Prevailing Wage Decision**

**THIS UPDATED GENERAL WAGE DECISION SUPERCEDES THE GENERAL WAGE DECISION IN THE REQUEST FOR PROPOSALS.**

**"General Decision Number: RI20240001 03/22/2024**

**Superseded General Decision Number: RI20230001**

State: Rhode Island

Construction Types: Building, Heavy (Heavy and Marine) and Highway

Counties: Rhode Island Statewide.

**BUILDING CONSTRUCTION PROJECTS (does not include residential construction consisting of single family homes and apartments up to and including 4 stories) HEAVY, HIGHWAY AND MARINE CONSTRUCTION PROJECTS**

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

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If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022: Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.

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If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022: Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.



Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/05/2024
1	01/12/2024
2	02/23/2024
3	03/08/2024
4	03/22/2024

ASBE0006-006 09/01/2023

Rates Fringes

HAZARDOUS MATERIAL HANDLER  
 (Includes preparation, wetting, stripping, removal scrapping, vacuuming, bagging & disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems).....\$ 48.15 34.84

ASBE0006-008 09/01/2023

Rates Fringes

Asbestos Worker/Insulator  
 Includes application of all insulating materials, protective coverings, coatings & finishes to all types of mechanical systems.\$ 48.15 34.84

BOIL0029-001 01/01/2021

Rates Fringes

BOILERMAKER.....\$ 45.87 29.02

BRR0003-001 06/01/2022

Rates Fringes

Bricklayer, Stonemason, Pointer, Caulker & Cleaner.....\$ 46.86 29.14

BRR0003-002 09/01/2022

Rates Fringes

Marble Setter, Terrazzo Worker & Tile Setter.....\$ 46.54 30.34

BRR0003-003 09/01/2022

Rates Fringes

Marble, Tile & Terrazzo

Finisher.....\$ 38.78 29.61

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CARP0330-001 01/01/2024

Rates Fringes

CARPENTER (Includes Soft  
Floor Layer).....\$ 43.63 30.25  
Diver Tender.....\$ 44.88 30.25  
DIVER.....\$ 57.03 30.25  
Piledriver.....\$ 41.53 29.35  
WELDER.....\$ 44.88 30.25

FOOTNOTES:

When not diving or tending the diver, the diver and diver tender shall receive the piledriver rate. Diver tenders shall receive \$1.00 per hour above the pile driver rate when tending the diver.

Work on free-standing stacks, concrete silos & public utility electrical power houses, which are over 35 ft. in height when constructed: \$.50 per hour additional.

Work on exterior concrete shear wall gang forms, 45 ft. or more above ground elevation or on setback: \$.50 per hour additional.

The designated piledriver, known as the "monkey": \$1.00 per hour additional.

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CARP1121-002 01/02/2023

Rates Fringes

MILLWRIGHT.....\$ 41.54 30.73

-----  
ELEC0099-002 06/01/2023

Rates Fringes

ELECTRICIAN.....\$ 48.61 50.44%  
Teledata System Installer.....\$ 36.46 11.59%+15.31

FOOTNOTES:

Work of a hazardous nature, or where the work height is 30 ft. or more from the floor, except when working OSHA-approved lifts: 20% per hour additional.

Work in tunnels below ground level in combined sewer outfall: 20% per hour additional.

-----  
ELEV0039-001 01/01/2023

Rates Fringes

ELEVATOR MECHANIC.....\$ 59.36 37.335+a+b

FOOTNOTES:

a. PAID HOLIDAYS: New Years Day; Memorial Day; Independence Day; Labor Day; Veterans' Day; Thanksgiving Day; the Friday after Thanksgiving Day; and Christmas Day.

b. Employer contributes 8% basic hourly rate for 5 years or more of service of 6% basic hourly rate for 6 months to 5 years of service as vacation pay credit.

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\* ENGI0057-001 11/01/2023

	Rates	Fringes
Operating Engineer: (power plants, sewer treatment plants, pumping stations, tunnels, caissons, piers, docks, bridges, wind turbines, subterranean & other marine and heavy construction work)		
GROUP 1.....	\$ 41.95	29.75
GROUP 2.....	\$ 39.95	29.75
GROUP 3.....	\$ 35.23	29.75
GROUP 4.....	\$ 38.93	29.75
GROUP 5.....	\$ 38.93	29.75
GROUP 6.....	\$ 34.65	29.75
GROUP 7.....	\$ 28.65	29.75
GROUP 8.....	\$ 34.20	29.75
GROUP 9.....	\$ 43.17	29.45

a. BOOM LENGTHS, INCLUDING JIBS:

- 150 feet and over + \$ 2.00
- 180 feet and over + \$ 3.00
- 210 feet and over + \$ 4.00
- 240 feet and over + \$ 5.00
- 270 feet and over + \$ 7.00
- 300 feet and over + \$ 8.00
- 350 feet and over + \$ 9.00
- 400 feet and over + \$10.00

a. PAID HOLIDAYS:

New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, Christmas Day. a: Any employee who works 3 days in the week in which a holiday falls shall be paid for the holiday.

a. FOOTNOTES:

Hazmat work: \$2.00 per hour additional.  
Tunnel/Shaft work: \$5.00 per hour additional.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, lighters, boom trucks and derricks

GROUP 2: Digging machine, Ross Carrier, locomotive, hoist, elevator, bidwell-type machine, shot & water blasting machine, paver, spreader, graders, front end loader (3 yds.

and over), vibratory hammer & vacuum truck, roadheaders, forklifts, economobile type equipment, tunnel boring machines, concrete pump and on site concrete plants.

GROUP 3: Oilers on cranes.

GROUP 4: Oiler on crawler backhoe.

GROUP 5: Bulldozer, bobcats, skid steer loader, tractor, scraper, combination loader backhoe, roller, front end loader (less than 3 yds.), street and mobile-powered sweeper (3-yd. capacity), 8-ft. sweeper minimum 65 HP).

GROUP 6: Well-point installation crew.

GROUP 7: Utility Engineers and Signal Persons

GROUP 8: Heater, concrete mixer, stone crusher, welding machine, generator and light plant, gas and electric driven pump and air compressor.

GROUP 9: Boat & tug operator.

-----  
 \* ENGI0057-002 11/01/2023

	Rates	Fringes
Power Equipment Operator (highway construction projects; water and sewerline projects which are incidental to highway construction projects; and bridge projects that do not span water)		
GROUP 1.....	\$ 41.95	29.75
GROUP 2.....	\$ 39.95	29.75
GROUP 3.....	\$ 35.23	29.75
GROUP 4.....	\$ 38.93	29.75
GROUP 5.....	\$ 38.93	29.75
GROUP 6.....	\$ 34.65	29.75
GROUP 7.....	\$ 28.65	29.75
GROUP 8.....	\$ 34.20	29.75
GROUP 9.....	\$ 34.28	29.75

a. FOOTNOTE: a. Any employee who works three days in the week in which a holiday falls shall be paid for the holiday.

a. PAID HOLIDAYS: New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day & Christmas Day.

**POWER EQUIPMENT OPERATOR CLASSIFICATIONS**

GROUP 1: Digging machine, crane, piledriver, lighter, locomotive, derrick, hoist, boom truck, John Henry's, directional drilling machine, cold planer, reclaimer, paver, spreader, grader, front end loader (3 yds. and over), vacuum truck, test boring machine operator, veemere saw, water blaster, hydro-demolition robot, forklift, economobile, Ross Carrier, concrete pump operator and boats

GROUP 2: Well point installation crew

GROUP 3: Utility engineers and signal persons

GROUP 4: Oiler on cranes

GROUP 5: Combination loader backhoe, front end loader (less than 3 yds.), forklift, bulldozers & scrapers and boats

GROUP 6: Roller, skid steer loaders, street sweeper

GROUP 7: Gas and electric drive heater, concrete mixer, light plant, welding machine, pump & compressor

GROUP 8: Stone crusher

GROUP 9: Mechanic & welder

-----  
\* ENGI0057-003 12/01/2023

**BUILDING CONSTRUCTION**

	Rates	Fringes
Power Equipment Operator		
GROUP 1.....	\$ 46.07	29.75
GROUP 2.....	\$ 44.07	29.75
GROUP 3.....	\$ 42.60	29.75
GROUP 4.....	\$ 39.85	29.75
GROUP 5.....	\$ 37.00	29.75
GROUP 6.....	\$ 43.15	29.75
GROUP 7.....	\$ 42.72	29.75
GROUP 8.....	\$ 40.04	29.75

**a. BOOM LENGTHS, INCLUDING JIBS:**

- 150 ft. and over: + \$ 2.00
- 180 ft. and over: + \$ 3.00
- 210 ft. and over: + \$ 4.00
- 240 ft. and over: + \$ 5.00
- 270 ft. and over: + \$ 7.00
- 300 ft. and over: + \$ 8.00
- 350 ft. and over: + \$ 9.00
- 400 ft. and over: + \$10.00

a. PAID HOLIDAYS: New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day & Christmas Day. a: Any employee who works 3 days in the week in which a holiday falls shall be paid for the holiday.

- a. FOOTNOTE: Hazmat work: \$2.00 per hour additional.
- Tunnel/Shaft work: \$5.00 per hour additional.

**POWER EQUIPMENT OPERATORS CLASSIFICATIONS**

GROUP 1: Cranes, lighters, boom trucks and derricks.

GROUP 2: Digging machine, Ross carrier, locomotive, hoist, elevator, bidwell-type machine, shot & water blasting

machine, paver, spreader, front end loader (3 yds. and over), vibratory hammer and vacuum truck

GROUP 3: Telehandler equipment, forklift, concrete pump & on-site concrete plant

GROUP 4: Fireman & oiler on cranes

GROUP 5: Oiler on crawler backhoe

GROUP 6: Bulldozer, skid steer loaders, bobcats, tractor, grader, scraper, combination loader backhoe, roller, front end loader (less than 3 yds.), street and mobile powered sweeper (3 yds. capacity), 8-ft. sweeper (minimum 65 hp)

GROUP 7: Well point installation crew

GROUP 8: Heater, concrete mixer, stone crusher, welding machine, generator for light plant, gas and electric driven pump & air compressor

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IRON0037-001 09/16/2023

	Rates	Fringes
IRONWORKER.....	\$ 40.00	32.58

-----  
LABO0271-001 11/27/2022

**BUILDING CONSTRUCTION**

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 35.50	26.85
GROUP 2.....	\$ 35.75	26.85
GROUP 3.....	\$ 36.25	26.85
GROUP 4.....	\$ 36.50	26.85
GROUP 5.....	\$ 37.50	26.85

**LABORERS CLASSIFICATIONS**

GROUP 1: Laborer, Carpenter Tender, Mason Tender, Cement Finisher Tender, Scaffold Erector, Wrecking Laborer, Asbestos Removal [Non-Mechanical Systems]

GROUP 2: Asphalt Raker, Adzemen, Pipe Trench Bracer, Demolition Burner, Chain Saw Operator, Fence & Guard Rail Erector, Setter of Metal Forms for Roadways, Mortar Mixer, Pipelayer, Riprap & Dry Stonewall Builder, Highway Stone Spreader, Pneumatic Tool Operator, Wagon Drill Operator, Tree Trimmer, Barco-Type Jumping Tamper, Mechanical Grinder Operator

GROUP 3: Pre-Cast Floor & Roof Plank Erectors

GROUP 4: Air Track Operator, Hydraulic & Similar Self-Powered Drill, Block Paver, Rammer, Curb Setter, Powderman & Blaster

GROUP 5: Toxic Waste Remover

**LABORERS CLASSIFICATIONS**

GROUP 1: Laborer, Carpenter Tender, Mason Tender, Cement Finisher Tender, Scaffold Erector, Wrecking Laborer, Asbestos Removal [Non-Mechanical Systems]

GROUP 2: Asphalt Raker, Adzemen, Pipe Trench Bracer, Demolition Burner, Chain Saw Operator, Fence & Guard Rail Erector, Setter of Metal Forms for Roadways, Mortar Mixer, Pipelayer, Riprap & Dry Stonewall Builder, Highway Stone Spreader, Pneumatic Tool Operator, Wagon Drill Operator, Tree Trimmer, Barco-Type Jumping Tamper, Mechanical Grinder Operator

GROUP 3: Pre-Cast Floor & Roof Plank Erectors

GROUP 4: Air Track Operator, Hydraulic & Similar Self-Powered Drill, Block Paver, Rammer, Curb Setter, Powderman & Blaster

GROUP 5: Toxic Waste Remover

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LABO0271-002 11/27/2022

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
LABORER		
COMPRESSED AIR		
Group 1.....	\$ 55.40	24.15
Group 2.....	\$ 52.93	24.15
Group 3.....	\$ 42.45	24.15
FREE AIR		
Group 1.....	\$ 44.05	24.15
Free Air		
Group 1.....	\$ 46.00	24.15
FREE AIR		
Group 2.....	\$ 43.05	24.15
Free Air		
Group 2.....	\$ 45.00	24.15
FREE AIR		
Group 3.....	\$ 40.50	24.15
Free Air		
Group 3.....	\$ 42.45	24.15
LABORER		
Group 1.....	\$ 35.50	24.85
Group 2.....	\$ 35.75	24.85
Group 3.....	\$ 36.50	24.85
Group 4.....	\$ 29.00	24.85
Group 5.....	\$ 37.50	24.85
OPEN AIR CAISSON, UNDERPINNING WORK AND BORING CREW		
Bottom Man.....	\$ 41.50	24.15
Top Man & Laborer.....	\$ 35.60	24.15
TEST BORING		
Driller.....	\$ 41.95	24.15
Laborer.....	\$ 41.95	24.15
LABORER CLASSIFICATIONS		

GROUP 1: Laborer; Carpenter tender; Cement finisher tender; Wrecking laborer; Asbestos removers [non-mechanical systems]; Plant laborer; Driller in quarries

GROUP 2: Adzeperson; Asphalt raker; Barcotype jumping tamper; Chain saw operators; Concrete and power buggy operator; Concrete saw operator; Demolition burner; Fence and guard rail erector; Highway stone spreader; Laser beam operator; Mechanical grinder operator; Mason tender; Mortar mixer; Pneumatic tool operator; Riprap and dry stonewall builder; Scaffold erector; Setter of metal forms for roadways; Wagon drill operator; Wood chipper operator; Pipelayer; Pipe trench bracer

GROUP 3: Air track drill operator; Hydraulic and similar powered drills; Brick paver; Block paver; Rammer and curb setter; Powderperson and blaster

GROUP 4: Flagger & signaler

GROUP 5: Toxic waste remover

#### LABORER - COMPRESSED AIR CLASSIFICATIONS

GROUP 1: Mucking machine operator, tunnel laborer, brake person, track person, miner, grout person, lock tender, gauge tender, miner: motor person & all others in compressed air

GROUP 2: Change house attendant, powder watchperson, top person on iron

GROUP 3: Hazardous waste work within the ""HOT"" zone

#### LABORER - FREE AIR CLASSIFICATIONS

GROUP 1: Grout person - pumps, brake person, track person, form mover & stripper (wood & steel), shaft laborer, laborer topside, outside motorperson, miner, conveyor operator, miner welder, heading motorperson, erecting operator, mucking machine operator, nozzle person, rodperson, safety miner, shaft & tunnel, steel & rodperson, mole nipper, concrete worker, form erector (wood, steel and all accessories), cement finisher (this type of work only), top signal person, bottom person (when heading is 50' from shaft), burner, shield operator and TBM operator

GROUP 2: Change house attendant, powder watchperson

GROUP 3: Hazardous waste work within the ""HOT"" zone

#### LABORER CLASSIFICATIONS

GROUP 1: Laborer; Carpenter tender; Cement finisher tender; Wrecking laborer; Asbestos removers [non-mechanical systems]; Plant laborer; Driller in quarries

GROUP 2: Adzeperson; Asphalt raker; Barcotype jumping tamper; Chain saw operators; Concrete and power buggy operator; Concrete saw operator; Demolition burner; Fence and guard rail erector; Highway stone spreader; Laser beam operator; Mechanical grinder operator; Mason tender; Mortar mixer; Pneumatic tool operator; Riprap and dry stonewall builder; Scaffold erector; Setter of metal forms for roadways; Wagon drill operator; Wood chipper operator; Pipelayer; Pipe trench bracer



GROUP 3: Air track drill operator; Hydraulic and similar powered drills; Brick paver; Block paver; Rammer and curb setter; Powderperson and blaster

GROUP 4: Flagger & signaler

GROUP 5: Toxic waste remover

LABORER - COMPRESSED AIR CLASSIFICATIONS

GROUP 1: Mucking machine operator, tunnel laborer, brake person, track person, miner, grout person, lock tender, gauge tender, miner: motor person & all others in compressed air

GROUP 2: Change house attendant, powder watchperson, top person on iron

GROUP 3: Hazardous waste work within the ""HOT"" zone

LABORER - FREE AIR CLASSIFICATIONS

GROUP 1: Grout person - pumps, brake person, track person, form mover & stripper (wood & steel), shaft laborer, laborer topside, outside motorperson, miner, conveyor operator, miner welder, heading motorperson, erecting operator, mucking machine operator, nozzle person, rodperson, safety miner, shaft & tunnel, steel & rodperson, mole nipper, concrete worker, form erector (wood, steel and all accessories), cement finisher (this type of work only), top signal person, bottom person (when heading is 50' from shaft), burner, shield operator and TBM operator

GROUP 2: Change house attendant, powder watchperson

GROUP 3: Hazardous waste work within the ""HOT"" zone

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PAIN0011-005 06/01/2023

	Rates	Fringes
PAINTER		
Brush and Roller.....	\$ 37.62	22.85
Epoxy, Tanks, Towers, Swing Stage & Structural Steel.....	\$ 39.62	22.85
Spray, Sand & Water Blasting.....	\$ 40.62	22.85
Taper.....	\$ 38.37	22.85
Wall Coverer.....	\$ 38.12	22.85

-----  
PAIN0011-006 06/01/2022

	Rates	Fringes
GLAZIER.....	\$ 40.78	23.40

FOOTNOTES:

SWING STAGE: \$1.00 per hour additional.

PAID HOLIDAYS: Labor Day & Christmas Day.

-----  
PAIN0011-011 06/01/2023

	Rates	Fringes
Painter (Bridge Work).....	\$ 56.25	23.45

-----  
PAIN0035-008 06/01/2011

	Rates	Fringes
Sign Painter.....	\$ 24.79	13.72

-----  
PLAS0040-001 01/01/2024

BUILDING CONSTRUCTION

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 43.00	29.10

FOOTNOTE: Cement Mason: Work on free swinging scaffolds under 3 planks width and which is 20 or more feet above ground and any offset structure: \$.30 per hour additional.

-----  
PLAS0040-002 01/01/2024

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 38.45	25.30

-----  
PLAS0040-003 01/01/2024

	Rates	Fringes
PLASTERER.....	\$ 43.65	29.43

-----  
PLUM0051-002 08/28/2023

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 50.59	32.75

-----  
ROOF0033-004 12/01/2023

	Rates	Fringes
ROOFER.....	\$ 43.80	30.31

-----  
SFRI0669-001 01/01/2024

	Rates	Fringes
SPRINKLER FITTER.....	\$ 47.55	32.85

	Rates	Fringes
Sheet Metal Worker.....	\$ 38.58	36.73
-----		
TEAM0251-001 05/01/2023		

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 29.71	34.602+A+B
GROUP 2.....	\$ 29.86	34.602+A+B
GROUP 3.....	\$ 29.91	34.602+A+B
GROUP 4.....	\$ 29.96	34.602+A+B
GROUP 5.....	\$ 30.06	34.602+A+B
GROUP 6.....	\$ 30.46	34.602+A+B
GROUP 7.....	\$ 30.66	34.602+A+B
GROUP 8.....	\$ 30.16	34.602+A+B
GROUP 9.....	\$ 30.41	34.602+A+B
GROUP 10.....	\$ 30.21	34.602+A+B

FOOTNOTES:

A. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, plus Presidents' Day, Columbus Day, Veteran's Day & V-J Day, providing the employee has worked at least one day in the calendar week in which the holiday falls.

B. Employee who has been on the payroll for 1 year or more but less than 5 years and has worked 150 Days during the last year of employment shall receive 1 week's paid vacation; 5 to 10 years - 2 weeks' paid vacation; 10 or more years - 3 week's paid vacation.

C. Employees on the seniority list shall be paid a one hundred dollar (\$100.00) bonus for every four hundred (400) hours worked, up to a maximum of five hundred dollars (\$500.00)

All drivers working on a defined hazard material job site shall be paid a premium of \$2.00 per hour over applicable rate.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Pick-up trucks, station wagons, & panel trucks

GROUP 2: Two-axle on low beds

GROUP 3: Two-axle dump truck

GROUP 4: Three-axle dump truck

GROUP 5: Four- and five-axle equipment

GROUP 6: Low-bed or boom trailer.

GROUP 7: Trailers when used on a double hook up (pulling 2

trailers)

GROUP 8: Special earth-moving equipment, under 35 tons

GROUP 9: Special earth-moving equipment, 35 tons or over

GROUP 10: Tractor trailer

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number

where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

## **Attachment D: Updated Specification(s)**

The following "Section 02790 Artificial Turf" replaces "Synthetic Turf Elevate 48" supplied in the Request for Proposals.

**SECTION 02790  
ARTIFICIAL TURF**

**PART 1 – GENERAL**

**1.01 DESCRIPTION OF WORK**

The extent of artificial turf work is shown on the drawings.

Artificial turf work includes, but is not limited to, the following:

A complete synthetic turf system, consisting of a vertical draining gravel blanket and nominal three quarter **inch (3/4")** polyethylene grass like fabric coated with secondary backing of high grade polyurethane. Refer to grid section 2,0A.

A resilient infill system, consisting of **sand only**.

Tufted-in game lines and perimeter lines per drawings. Remaining required game marking shall be permanently inlaid as per drawings; direction of Owner or Owner's Representative.

Pre-manufactured porous ShockPad. NOT IN CONTRACT.

Edge details.

Maintenance manual.

Written company warranty: **4-year warranty**, Letters of credit are not permissible..

Striping and seaming plan: Striping plan; layouts for the sports as shown on the drawings showing any field lines, logos, markings and boundaries. (NOT IN CONTRACT)

Train field maintenance personnel in proper care maintenance procedures.

Provide all materials, labor, equipment and services required to accomplish related work in accordance with the drawings and specifications.

The artificial turf shall be specifically designed, manufactured and installed for the intended sports and events. Typically sports include, but are not limited to soccer, lacrosse, field hockey, baseball and softball.



Copies of independent laboratory test reports on system or components:

ASTM D 792 Specific Gravity

ASTM D 1335 Tuft Bind

ASTM D 5034 Grab Breaking Strength

ASTM D 418 Pile Height, Tuft Spacing, Face Weight and Total Weight

ASTM D 2859 Flammability (Pill test)

ASTM F 1551 Water Permeability

Prior to Final Acceptance, the Contractor shall submit to the owner one copy of their maintenance manuals. These manuals will include all necessary instructions for the proper care and maintenance of the newly installed synthetic turf system.

## **1.02 SUBMITTALS**

**Submit the following within 48 hours of bid opening, as requested:**

- A. A copy of most recent installation/reference list for all projects of similar scope to this project completed in the last three years.
- B. One (1) 12" x 12" sample of proposed synthetic turf carpet and one (1) 12" x 12" boxed turf sample including infill representative of finished synthetic turf system. Also submit one copy of product data and testing documents demonstrating that proposed system meets or exceeds all specified requirements. One (1) 12" x 12" sample of rubber ShockPad must also be submitted, if applicable. (NOT IN CONTRACT)

**Note: If these submittal items are requested and deemed to be insufficient, the Contractor will not be approved.**

**Submit the following prior to the ordering of materials:**

- A. Provide a colored striping plan detailing lines, numbers and letters. Coordinate with Owner or Owner's Representative and Architect to get final approval of all designated colors, dimensions and logo/lettering designs.

B. Material Certificates and Samples: Provide seven (7) copies for each material from material producer that will be used for this project. Each material certificate must be stamped and checked as approved by the Contractor before submittal to the Architect.

C. Provide to the Architect materials samples of the following: Two (2) 12" x 12" samples of synthetic turf carpet and color yarn samples, two (2) bagged samples of sand infill material.

D. Submit two (2) 12" x 12" samples of 10mm (or specify thickness) rubber ShockPad with product data sheet, if Owner chooses this alternate. (NOT IN CONTRACT)

E. Submittals: Prior to order of materials, the Contractor shall submit a sample warranty, seam layout plan, striping plan and any details of construction that deviate from the plans and specifications.

F. Submit one copy of the resume of proposed installation foreman. Installation crew must meet or exceed all requirements outlined in Section 1.04.

G. One copy of Contractor 's recommended maintenance equipment cut sheets.

### **1.03 JOB CONDITIONS**

A. All job conditions in Section 02200 apply.

### **1.04 QUALITY ASSURANCE**

Provide a qualified installation foreman to coordinate and review the component parts of the artificial turf system. Submit a resume of experience for Architect's approval prior to starting work.

#### **Sand-Only Filled Artificial Turf:**

Factory-trained technicians skilled in the installation of athletic-caliber infilled synthetic turf systems will undertake the placement of the turf. Special brushing equipment and techniques will be used in the installation.

The designated installation crew shall have installed a minimum of ten high quality, stadium grade sand filled synthetic turf systems of 10,000 square feet or greater in the past three years.

A notarized letter from the Contractor that the installation crew and foreman are factory certified must be submitted prior to the start of turf installation.

The Contractor shall meet the following criteria:

**1. Manufacturer/Contractor 's Experience:**

a. The Turf Manufacturer and the Contractor must be experienced in the manufacturing and installation of this type of artificial turf system and provide project references of the synthetic grass system being installed at 25 similar exterior sites in the United States over the last 5 years, a minimum of 10,000 square feet each.

b. The Contractor must have actively been in business – under its current name and ownership – for at least the past five years; and must have a minimum of 25 athletic fields still in use in the United States for a minimum of the past 5 years.

c. The Contractor must provide competent workmen skilled in this type of artificial turf installation. The designated Supervisory personnel on the project must be certified, in writing, by the Contractor as competent in the installation of this material, including gluing or sewing seams and proper installation of the infill mixture. The Contractor shall have a qualified job foreman on site to certify the installation and warranty compliance.

**Warranty:**

1. The warranty coverage shall not be prorated nor place limits on the amount of the field's usage.

2. The Contractor shall submit its written company warranty: **4-year warranty**, which warrants the usability and playability of the artificial turf system for its intended uses.

3. The Contractor 's warranty must have the following characteristics:

Provide full coverage for a minimum of **four (4)** years from the date of Substantial Completion.

**Warrant materials and workmanship.**

Warrant that the materials installed meet or exceed the system specifications.

Repair or replace such portions of the installed materials that are no longer serviceable to maintain a serviceable and playable surface.

Be from a single source covering workmanship and all materials.

Assure the availability of exact or substantially the same replacement materials for the artificial turf system installed for the full warranty period.

Include general wear and damage caused from UV degradation. The warranty shall specifically exclude vandalism and acts of God beyond the control of the Turf Manufacturer or Contractor.

Cover defects in the installation and workmanship. Assure the installation was done in accordance with both the Contractor 's recommendations and any written directives of the Contractor 's on-site representative.

Shall be limited to repair or replacement of the affected areas at the option of the Contractor, and shall include all necessary materials, labor, transportation costs, etc. to complete said repairs.

The Contractor may be required, upon the request of the Owner, to provide a list of ten (10) clients for which they have completed after-the-sale warranty work.

All designs, game markings and layouts shall conform to all currently applicable National Federation State High School Association or NCAA rules and regulations, or league specific requirements, depending on what applies. (NOT IN CONTRACT)

All components and Contractor 's installation method shall be designed and manufactured for use on outdoor athletic fields. The materials as hereinafter specified, shall withstand full climatic exposure in the location of the field, be resistant to insect infestation, rot, fungus and mildew; it shall also withstand ultra-violet rays and extreme heat, it shall allow the free flow of water horizontally to perimeter areas and vertically to the gravel blanket and into the field drainage system below the surface.

The adhesive bonded or sewn seams of all system components shall provide a permanent, tight, secure and hazard-free athletic playing surface. All inlaid markings (game lines, logos, etc.) shall remain in place throughout the duration of the warranty period.

The installed artificial turf system's drainage capability shall allow water flow through the system (turf & infill) at a rate of not less than 10 inches +/- per hour.

## **PART 2 – PRODUCTS**

### **2.01 SYNTHETIC GRASS SYSTEM**

Synthetic Grass – Elevate 48

Pile Yarn	Slit Film w/ Nylon Thatch	METHOD
Linear Density (Denier, Tape)*	8,000	ASTM D 1577
Linear Density (Denier, Nylon)*	4,400	ASTM D 1577
Yarn Thickness (Tape)	100 microns	ASTM D 3218
Yarn Thickness (Nylon)	100 microns	ASTM D 3218
Pile Weight****	48 oz./yd <sup>2</sup>	ASTM D 5848
Finished Pile Height****	.75	ASTM D 5823
Product Weight (total)***	76 oz./yd <sup>2</sup>	ASTM D 5848
Primary Backing Weight****	8 oz./yd <sup>2</sup>	ASTM D 5848
Secondary Coating Weight+	20 oz./yd <sup>2</sup>	ASTM D 5848
Fabric Width	15' (4.57m)	ASTM D 5793
Tuft Gauge	1/4"	ASTM D 5793
Grab Tear Strength Avg.	> 200lb - F	ASTM D 5034
Tuft Bind (Avg.)	> 10lb - F	ASTM D 1335
Infilltrometer	> 14	ASTM D3885

Except where noted the above specifications are nominal.

\* Values are +/- 8%. \*\*\*Values are +/- 10 oz. \*\*\*\*Values are +/- 5%.

+Values are +/- 3 oz./yd<sup>2</sup>.

The carpet shall be delivered in 15-foot wide rolls with the four (4") inch white lines tufted into each roll. The perimeter white line shall also be tufted into the individual sideline rolls, when applicable. The rolls shall be of sufficient length to go from sideline to sideline. Head seams, between the sidelines, will not be acceptable.

As applicable, provide game markings as follows: soccer, boys lacrosse, school logo and baseball infield related markings shall be cut in and glued in accordance with Contractor 's recommendations.

1. Provide a school logo as follows: **NOT IN CONTRACT**

C. Seaming Materials:

2. Adhesives for bonding tufted synthetic turf shall be two-component fast-set urethane adhesive obtained from a single manufacturer and be equivalent to Ultrabond Turf PU 2K as manufactured by Mapei Corporation, Deerfield Beach, FL (800) 992-6273, or one-part moisture-cured polyurethane obtained from a single manufacturer and be equivalent to 34-G as manufactured by Synthetic Surfaces, Inc., Scotch Plains, NJ (908) 233-6803, or approved equal as designated by the Contractor.

1. Seaming Tape: Tape for securing seams in the tufted synthetic turf and inlaid lines shall be high quality tape made with a minimum roll width of 12 inches.

3. If seams are to be sewn, they must be sewn with high quality cord/thread as recommended by Contractor.

D. Resilient Infill: A resilient infill system, consisting of 2 lbs. per square foot of sand.

1. Ambiently ground SBR Crumb Rubber. Granules shall contain minimal dust or contaminants and shall be derived from the ambient processing form of recycled tires. Color shall be substantially black and shall meet the 10 – 20 or 8 – 16 mesh size designation. (NOT IN CONTRACT)

The clean, uniformly sized particles shall be consistent in shape and particle size distribution.

The particles shall resist abrasion in high traffic and excessive wear applications and provide stability to artificial sports turf applications.

The particles shall be processed and sized under rigid specifications and Manufacturers' statistical and quality control assurance program.

Particles shall be structurally pure and consistently uniform in size distribution for predictable performance.

D. Sand Particulate. The sand provided as a component of the infill mixture shall be rounded or sub-angular so as to minimize abrasion to the athlete and synthetic grass fibers.

E. **BASE BID:** Standard of Quality shall be Shawgrass Elevate 48 synthetic turf system as built by Shawgrass. or Architect approved equal. Contact Shawgrass: 508-265-7486.

**Manufacturers for synthetic turf alternates shall meet or exceed the requirements listed in Part 2.01. If these submittal items are requested and deemed to be insufficient, the Contractor will not be approved.**

## **2.02 RESILIENT UNDERLAYMENT (PRE-MANUFACTURED RESILIENT SHOCKPAD) – (NOT IN CONTRACT)**

A. The ShockPad shall be a porous composite (100% SBR particles bound with polyurethane) rubber pad (6010SP) in typical thickness of **10mm** and shall have an infiltration rate of not less than 12 inches (12”) per hour, a minimum recovery rate of 94% at 100 psi per ASTM F36 and a tensile strength of 44 psi per ASTM D412, Die C. Material shall be delivered in four foot (4’) wide rolls with protective wrapping, and be of such continuous length to cover the width of the field allowing only one head seam per roll. Standard of quality shall be 6010SP resilient ShockPad as manufactured by ECORE International or Architect approved equal. Contact ECORE: 800-322-1923.

## **2.03 VERTICAL DRAINAGE BASE MATERIALS**

B. Excavation: Existing “natural grass field” shall be excavated to the depth established by the Architect and as shown on the excavation plan. The sub grade shall be shaped to achieve a slope from each sideline in order to mirror the grade of the finished synthetic turf surface. The sub grade shall also be compacted and proof rolled to a minimum of a 95% compaction rate.

C. Geotextile Filter Fabric: Non-woven polypropylene geotextile fabric shall be chemically and biologically inert and shall be Mirafi 140N, Mirafi Inc., Pendergrass, GA (888) 795-0808, or approved equal. (NOT IN CONTRACT)

E. Drainage Pipe: A network of perforated HDPE highway grade drainage pipe (1" x 12" flat panel pipe) shall be installed under a 6" layer of free draining base aggregate. The drainage pipe will be installed in a herringbone pattern every 20 feet on center and will be connected to **6"**perimeter collector lines as shown on drawings.

1. ADS AdvanEdge, 800-821-6710 or approved equal.

A. 1 inch by 12-inch flat drain.

B. 6-inch diameter **SOLID** collector drainpipe.

C. Architect approved equal.

F. Stone Base Courses:

4. The following gradation of stone is a typical and recommended specification. The synthetic turf Base Contractor is required to focus on achieving the planarity, porosity and compaction requirements to provide a sound crushed stone base for synthetic turf installation.

1. The free-draining base aggregate base layer shall consist of a consistent depth of open graded material. Base drainage aggregate must be rolled and compacted to eliminate settling. Material shall conform to the AASHTO #57 limestone classification. An open graded aggregate material may be used if available. Subgrade must achieve 95% compaction level and pass a proof roll before placement of the drainage stone can commence.

**#57 Base Aggregate: (5" depth)**

<u>Sieve</u>	<u>Approximate Percentage Passing</u>
1-1/2" Sieve	100%
1" Sieve	95-100%
1/2" Sieve	25-60%
#4 Sieve	0-10%
#8 Sieve	0-5%

**Finish Stone Layer – Crushed Limestone Blend (1" depth)**

<u>Sieve</u>	<u>Approximate Percentage Passing</u>
1/2"	100%
3/8"	95-100%
#4	70-85%
#8	45-60%
#16	25-40%
#100	8-15%
#200	0-5%

It is critically important that the finish stone layer is not laser-graded at more than 1" depth. Layers deeper than 1" are susceptible to over-compaction and restriction of porosity, leading to drainage issues.

**Subject to architectural approval, local or regional stone specifications that meet compaction and porosity requirements are permitted.**

## **PART 3 – EXECUTION**

### **3.01 SUBMITTALS**

A. Prior to ordering materials, submit a warranty policy, seam layout of field, striping plan and all details of construction that deviate from the plans and specifications.

### **3.02 VERTICALLY DRAINING BASE**

A. The synthetic turf Base Contractor shall strictly adhere to the installation procedures outlined under this section. Any variance from these requirements must be



accepted in writing, by the Contractor 's on-site representative, and submitted to the Architect/Owner, verifying that the changes do not in any way affect the warranty.

B. Install geotextile fabric over excavated and prepared sub-grade in accordance Contractor 's recommendations. Provide a 36" minimum overlap at all seams. Fabric shall first be installed in the drainage trenches prior to installation of perimeter collector lines. After backfilling of all trenches is complete, the entire field shall be covered with fabric prior to the base aggregate application.

C. Trenching, Drainage Pipe Installation and Backfilling: All piping shall be as specified and connected by Contractor 's couplers, plugs etc.

1. The base grade shall be shaped to mirror the finished grade and approved by the Architect and/or Owner's Representative. The Base Contractor shall begin layout and trenching for the drainage network as indicated on the drainage plan and all details that apply. Collector lines shall be installed before lateral lines and shall begin with the deepest elevations. Collector lines shall be connected to discharge outlet at the onset of operations. Trenching progress shall work upward in elevation to allow for immediate discharge of water from the entire field in the event of a rainfall.

2. No trenches, with or without pipe, shall be permitted, to remain unfilled overnight and/or while crews are not progressively working on site.

3. All perimeter trenches must be dug in accordance with the field drainage plan details.

4. After all collector and lateral lines have been installed, the Base Contractor shall repair any sub grade undulations prior to installing geotextile fabric.

D. Concrete Header Curb and Pressure Treated Wood Turf Nailer: The synthetic turf perimeter fastening structure shall be installed before the drainage aggregate.

1. The 6" x 12" concrete header curb (NOT IN CONTRACT) shall be installed in accordance with the Drawings and/or Shop Drawings and these Specifications. The foundation of the concrete header curb shall be a compacted free draining aggregate. Future water entering the foundation shall have a free draining path directly to the perimeter collector pipe.

2. Install a pressure treated wood 2" x 4" nailer. Pressure treated wood nailer shall be set below top of the existing asphalt by means of a Tapcon or ramset every 18

inches. This shall be the responsibility of the Base Contractor. See synthetic turf edge attachment detail.

E. Base Drainage Aggregate: The installation of the base drainage aggregate shall only begin after the drainage pipe installation has been inspected and approved by Owner's Representative. Installation of the Free Draining Base Aggregate shall follow procedures that protect the base grade soils and drainage pipe. The drainage pipe network and its existing elevations shall not be disrupted through ground pressures from trucks, dozers or by any other means.

1. The base grade subsoil shall be dry before undertaking the placement of base aggregate.

2. Delivery trucks shall enter the field only from the designated entrance point. Base course stone shall be dumped closest to the entrance first and continuously worked towards the furthest point of the field. Extreme care must be taken not to disturb sub grade or drainage network.

3. Track-type dozers shall push out the stone from behind the pile onto and toward the field center. Dozers shall only traffic the aggregate they are spreading.

4. Bulldozer blades shall be equipped with a laser-guided hydraulic system. Care shall be taken not to disturb or contact the base grade soils with the dozer blades or tracks. All equipment trafficking over the drainage aggregate shall insure there is a minimum depth of 4" of aggregate between the geotextile fabric and the dozer track ground contact position.

5. When the aggregate spreading is completed, the surface shall be further-firmed by a 5-ton roller. Static vibration shall not be part of this process.

6. The stone shall be left firm, but not over-compacted as to protect the porosity and drainage capabilities of the aggregate profile.

7. After the drainage stone has been uniformly spread throughout the surface, the surface shall receive a final laser finished grade. This process shall be accomplished using a turf-type tractor, or lightweight grader, equipped with high flotation tires and a hydraulically controlled laser blade.

8. The free-draining base course must be installed to a depth of FOUR (4) inches and shall be independently tested (NOT IN CONTRACT) for an overall compaction rate of 95% proctor.

F. Finish Stone Levels: The base drainage stone final elevations shall mirror the proposed finish stone layer final grade material. Care shall be taken not to allow the coarser aggregate to surface into the profile or finished grade of the finish stone layer.

1. It is critically important that the finish stone layer is not laser-graded at more than 1" depth. Layers deeper than 1" are susceptible to over-compaction and restriction of porosity, leading to drainage issues.

2. The finish stone layer shall be applied using high flotation grading equipment. The finish stone material shall be evenly spread throughout the proposed field surface to the final pre-pad or pre-turf elevations.

3. After the finish stone material has been uniformly spread throughout the surface by the described method, the surface shall receive a final laser finish grade. This process shall be accomplished using a turf-type tractor, or lightweight grader, equipped with high flotation tires and a hydraulically controlled laser blade.

4. Care shall be taken throughout the installation not to force the finish stone material into the porosity of the base aggregate below.

5. Final finish stone layer must be graded by means of a laser within 0 to 1/2 inch from design grade. The finished surface tolerance must not exceed 1/4 inch over 10 feet in all directions. Base Contractor must provide a topographical survey with a minimum of 200 shots demonstrating finished grade meets all written requirements. (NOT IN CONTRACT)

6. Final layer of stone must be installed at a depth of 1 inch. Finished aggregate base must be proof-rolled by means of 2- to 5-ton roller. The finished aggregate base must achieve an overall compaction rate of 95% proctor in accordance with ASTM D1557. It shall also be flush with top of pressure treated wood nailer.

7. The synthetic turf Base Contractor is required to stringline the entire field every five feet to identify high and low spots. And identified high and low spots must be eliminated prior to installation of the synthetic turf.

G. Base Acceptance: The Architect and/or Owner's Representative must jointly approve the base before ShockPad or turf installation can begin.

H. Optional Resilient ShockPad, when applicable (NOT IN CONTRACT):

1. After the finish stone layer grades have been approved and inspected, the resilient ShockPad shall be installed from sideline to sideline.

a. Equipment and personnel shall take extreme care to minimize disturbance of the stone base during ShockPad installation.

b. All operations shall work from behind the rolled out ShockPad or from adjacent, pre-installed pad surface.

c. One head seam shall be allowed per length. Head seams shall be staggered so as not to be within 10' of the previously installed roll.

d. The head seam shall overlap approximately 4 inches on original roll out. Second and subsequent rolls shall be rolled out within 1 inch, or less, of the previous roll and allowed to expand or contract before manually sliding in place.

e. After allowance for expansion or contraction, the padding shall slide into place so as to touch the edge or seam of the previous. Care shall be taken so as not to disturb the choker layer material when butting the seams together.

2. The Resilient ShockPad shall not receive a final cut or edging detail until the material has relaxed/expanded in direct sunlight for a minimum of six hours.

a. No open seams shall exceed 1/4" (in expanded state) after final seam or end cutting is complete.

b. Padding material shall stop just short of the exposed nailer board.

3. The Resilient ShockPad shall be inspected by the Contractor after completion to insure the surface is smooth with only minor bumps from stone particles or other material protruding from underneath that will not show up once the turf is laid over top.

a. Expansion bubbles and open seams shall be repaired prior to final inspection.

b. Repeat inspections shall be carried out prior to each roll of synthetic turf being installed.

I. Synthetic Turf and Infill Materials

1. After a final inspection of the Resilient ShockPad by the Contractor and the Owner's Representative, the synthetic turf installation shall begin. The first roll shall begin with the longest perpendicular cross-field distance. No head seams shall be permitted in the inbound playing surface.

2. The rolls of turf shall be rolled out a minimum of four hours prior to starting seaming procedures and allowed to relax/expand.

a. All visible wrinkles shall be stretched out before seaming.

b. Seams shall be flat, tight and permanent with no separation or fraying.

c. Synthetic turf yarn fabric that is trapped or glued between seams shall be freed from the seams by hand or other approved method to an upright position prior to the commencement of brushing and top dressing procedures.

d. All synthetic turf seams shall be assembled as follows: The full width rolls shall be laid out across the field. Utilizing standard state of the art adhering or sewing procedures, each roll shall be attached to the next.

e. When all of the rolls of the playing surface have been installed, the sideline areas shall be installed perpendicular to the playing field. The yard lines, game markings, sidelines, etc. of all applicable sports shall be tufted into carpet by the manufacturer wherever possible.

3. After all seaming is completed and inlaid lines, logos and lettering have been installed; the infill materials shall be spread evenly, using a drop spreader or top dresser.

a. **Sand** shall be applied in a uniform rate of multiple applications until the specified infill depth is achieved.

b. Infill material shall be brushed between infill applications with a motorized rotary broom and pull-type groomer brush simultaneously.

c. A minimum infill rate of 2 lbs. of sand per square foot is required.

J. Tufted and Inlaid Lines

1. Layout and descriptions of tufted, inlaid and/or painted lines shall be as indicated on final shop drawings.

2. Inlaid lines and field markings shall be cut in using seaming methods recommended by the Contractor.

K. Synthetic Turf Perimeter Attachment:

1. After final trimming of the turf, the turf shall be screwed, nailed or stapled to the pressure treated wood nailer system as per the Contractor 's recommendations.

### 3.03 FIELD LAYOUT

A. Field layout shall be as shown on the record drawings. Typically the final approved striping and seaming plan that was used to manufacture and install the field is acceptable. Any Owner-approved changes that took place during the installation must be marked in red and resubmitted.

### 3.04 CLOSEOUT

A. The Contractor must verify that a qualified Shawgrass representative has inspected the installation and that the finished field surface conforms to the Contractor 's requirements.

B. The Contractor shall provide a warranty to the Owner that covers defects in materials and workmanship of the turf for a period of 4 years from the date of Substantial Completion as described in 1.04 F.

C. The Contractor must submit a copy of its standard maintenance manual to the owner.

D. Contractor must train Owner's designated field personnel in proper grooming and care procedures. This includes training field personnel how to properly use grooming equipment as well as make minor repairs. (NOT IN CONTRACT)

E. Extra materials: Contractor must leave 100 lbs. of bagged sand and the equivalent of 5' x 10' (all pieces combined) of turf with Owner before leaving job site. All

salvageable pieces of colored turf used during the installation should be left with the Owner as well.

### **3.05 CLEAN UP**

A. Contractor shall provide the labor, supplies and equipment as necessary for final cleaning of surface and installed items.

B. All usable remnants of new material shall be neatly rolled up and turned over to the Owner at a place and area designated by the Owner.

C. During the contract and at intervals as directed by the Architect and as synthetic turf installation is completed, clear the site of all extraneous materials, rubbish, or debris and leave the site in a clean, safe, well draining, neat condition.

D. Surface, 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.

### **3.06 G-MAX TESTING (NOT IN CONTRACT)**

A. Optional at substantial completion, the Contractor can, as specified, hire an independent testing laboratory to perform a G-max test (ASTM 355, 1936 method) to verify that the shock attenuation properties of the field meet the requirements set forth in this specification. Submit one copy of the G-max test to the Owner.

At the time of substantial completion, the average G-max rating must not exceed 110 for a padded system and 135 for a non-padded system. The average G-max of a padded system must not exceed 145 and for a non-padded system 165 at any time during the life of the warranty. The Owner reserves the right to have the field tested for shock attenuation at its own cost at anytime it deems necessary. If at anytime the G-max ranges reach unacceptable levels, it is the responsibility of the Contractor to bring the field back into the required ranges at no cost to the Owner.