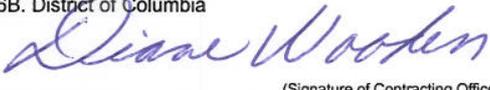


<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. Contract Number	Page of Pages 1   12	
2. Amendment/Modification Number M0002		3. Effective Date 24-Jan-08	4. Requisition/Purchase Request No.	5. Solicitation Caption Renovation Playground, Basketball ,	
6. Issued By: Diane Wooden Office of Contracting & Procurement (CDBR) 441 4th Street N.W. Suite 700 South Washington, DC 20001			7. Administered By (If other than line 6)		
8. Name and Address of Contractor (No. Street, city, country, state and ZIP Code)			<input checked="" type="checkbox"/> 9A. Amendment of Solicitation No. DCHA-2008-B-0024		
			<input type="checkbox"/> 9B. Dated (See Item 11) 21-Dec-07		
			10A. Modification of Contract/Order No.		
			10B. Dated (See Item 13)		
Code		Facility			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input checked="" type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning <u>2</u> copies of the amendment: (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or fax which includes a reference to the solicitation and amendment number. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or fax, provided each letter or telegram makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. Accounting and Appropriation Data (If Required)					
<b>13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14</b>					
<input checked="" type="checkbox"/>	A. This change order is issued pursuant to: (Specify Authority) The changes set forth in Item 14 are made in the contract/order no. in item 10A.				
	B. The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation date, etc.) set forth in item 14, pursuant to the authority of 27 DCMR, Chapter 36, Section 3601.2.				
	C. This supplemental agreement is entered into pursuant to authority of:				
	D. Other (Specify type of modification and authority)				
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.					
14. Description of amendment/modification (Organized by UCF Section headings, including solicitation/contract subject matter where feasible.)					
(1) The bid opening date is hereby extended from January 25, 2008 by 10:00 AM EST to February 1, 2008 by 10:00 AM EST					
(2) Add to Drawings Attachment J.1.2 Revised Drawings for Sheets, C-002,C-003,C-004,C-005,C-008,C-009,L-01,L-06 and L-07 Attached					
(3) Add to Construction Document Technical Specification Stead Park, Section 02781-Artificial Turf Attached					
<b>QUESTIONS AND ANSWERS FROM PERSPECTIVE BIDDER'S</b>					
QUESTION: Are there specification for the climbing holds on drawing L09 ?					
ANSWER: No proprietary products has been specifically identified for the climbing holds as such holds are generally uniform terms of material and construction.					
QUESTION: Stone under the synthetic turf, brick pavers and rubber play structure, do you have specifications for it ?					
ANSWER: See Technical Spec. "02300 Earthwork " part 2 "Product" 2.1 "Soil materials " base course and bedding					
QUESTION: Drawing L)^ Detail 1A calls for an alt turf, but this alternative is not on the bid for?					
ANSWER: Detail 1A/L 06 is not alternate, per spec. it is the "other" turf-to-hardscape detail, for where the turf meets the central circular plaza. Bid this detail.					
Except as provided herein, all terms and conditions of the document referenced in Item (9A or 10A) remain unchanged and in full force and effect					
15A. Name and Title of Signer (Type or print)			16A. Name of Contracting Officer Diane Wooden		
15B. Name of Contractor		15C. Date Signed	16B. District of Columbia	16C. Date Signed	
				1/24/08	
(Signature of person authorized to sign)		(Signature of Contracting Officer)			

# lee+papaandassociates

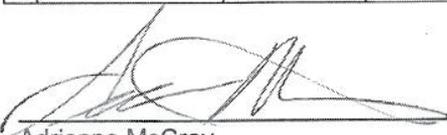
Landscape Architecture  
Urban Design  
Land Planning

## MEMO

PROJECT: STEAD PARK PROJECT # 05082  
DATE: 1-17-08  
RE: ADDENDUM A REVISIONS TO BID SET

The following revisions have been made to the bid package and should be reflected in the final bid.

Sheet or Spec #	Detail #	Revision Summary
Sheet C-002		Item 1: <u>Revised</u> Limit of Disturbance line Item 2: <u>Revised</u> construction entrance location Item 3: <u>Revised</u> pipe types and sizes Item 4: <u>Revised</u> location of pipe connecting structure AD2 to AD1 Item 5: <u>Changed</u> inlet structure AD1 and AD4 to control inlet structure
Sheet C-003		Item 1: <u>Revised</u> Limit of Disturbance line Item 2: <u>Added</u> spot elevations Item 3: <u>Revised</u> pipe types and sizes Item 4: <u>Revised</u> location of pipe connecting structure AD2 to AD1 Item 5: <u>Changed</u> inlet structure AD1 and AD4 to control inlet structure
Sheet C-004		Item 1: <u>Added</u> detail section for structure AD1 and AD4
Sheet C-005		Item 1: <u>Revised</u> Limit of Disturbance line Item 2: <u>Added</u> spot elevations Item 3: <u>Revised</u> location of pipe connecting structure AD2 to AD1 Item 4: <u>Changed</u> inlet structure AD1 and AD4 to control inlet structure Item 5: <u>Revised</u> construction entrance location Item 6: <u>Removed</u> inlet protection from northwest of the site
Sheet C-008		Item 1: <u>Revised</u> profile according to the new pipe location and sizes
Sheet C-009		Item 1: <u>Added</u> SWM calculation for storm water quality and quantity control per DC storm water management guidebook Item 2: <u>Revised/Added</u> Pondpack pool routing calculation and data for 2 & 15 years storm
Sheet L-01		Item 1: <u>Revised</u> Limit of Disturbance line Item 2: <u>Revised</u> synthetic turf area by enlarging to full ellipse area Item 3: <u>Added</u> new stormwater inlet in south east planting bed
Sheet L-06	6, 11	Item 1: <u>Revised</u> detail to show addition of drain slot in concrete curb to allow surface water to drain into adjacent planting bed Item 2: <u>Added</u> detail of drain slot elevation detail to coincide with Detail 6 on same sheet
Sheet L-07	1	Item 1: <u>Revised</u> detail to show how artificial turf meets seat walls
Spec 02781		Item 1: <u>Added</u> Spec Section Artificial Turf

  
Adrienne McCray

Date 1-17-08

**SECTION 02781 – ARTIFICIAL TURF****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes the following:
  - 1. Synthetic Turf
- B. Related Sections include the following:
  - 1. Division 2 Section "Cement & Concrete Paving" for protection of existing trees and planting, topsoil stripping and stockpiling, and site clearing.
  - 2. Division 2 Section "Earthwork" for excavation, filling, and rough grading and for subsurface aggregate drainage and drainage backfill materials.
  - 3. Division 2 Section "Subdrainage" for below-grade drainage of landscaped areas, paved areas, and wall perimeters.
  - 4. Division 3 Section "Cast In Place Concrete" For concrete footer

**1.3 SUBMITTALS**

- A. Product Data: For each
- B. Shop Drawings: Show the following:
  - 1. Installation details
  - 2. Seam layout plan
  - 3. Striping Plan
- C. Samples for Initial Selection: For each type of turf surface system indicated.
  - 1. One (1) 12" x 12" sample of proposed synthetic turf carpet and one (1) 12"x12" boxed turf sample including infill representative of finished synthetic turf system.
- D. Samples for Verification: For each type of surface system indicated.
- E. Qualification Data: For Installer

- F. Material Test Reports: From a qualified testing agency, indicating compliance with requirements.
- G. Material Certificates: For each turf sy
- H. stem, signed by manufacturer
- I. Field quality-control test reports.
- J. Maintenance Data: For turf system to include maintenance manuals.
- K. Warranty: Special warranty specified in this Section.

#### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer.
- B. Testing Agency Qualifications: An independent agency qualified according to ANSI Z34.1 for testing indicated.
- C. Source Limitations: Obtain synthetic turf system materials through one source from a single manufacturer.
  - 1. Provide secondary materials including adhesives, primers, and repair materials of type and from source recommended by manufacturer of synthetic turf system materials.

#### 1.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of playground surface system that fail in materials or workmanship within specified warranty period.
- B. The Contractor shall submit its Manufacturer's Warranty, which warrants the usability and playability of the artificial turf system for its intended uses for a minimum of an eight (8) year period commencing with the date of Substantial Completion. The warranty coverage shall not be prorated nor place limits on the amount of the field's usage.
  - 1. The Synthetic Turf Contractor's warranty must have the following characteristics:
    - a. Warrant materials and workmanship.
    - b. Warrant that the materials installed meet or exceed the product specifications.

- c. Repair or replace such portions of the installed materials that are no longer serviceable to maintain a serviceable and playable surface.
- d. Be from a single source covering workmanship and all materials.
- e. Assure the availability of exact or substantially the same replacement materials for the artificial turf system installed for the full warranty period.
- f. Include general wear and damage caused from UV degradation. The warranty shall specifically exclude vandalism and acts of God beyond the control of the manufacturer or installer.
- g. Cover defects in the installation and workmanship. Assure the installation was done in accordance with both the manufacturer's recommendations and any written directives of the manufacturer's on-site representative.
- h. Shall be limited to repair or replacement of the affected areas, (unless the field fails to meet the required G-Max rating in which case proceed to 1.01, D) at the option of the manufacturer, and shall include all necessary materials, labor, transportation costs, etc. to complete said repairs.

### 1.3 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit synthetic turf system installation to be performed according to manufacturers' written instructions and warranty requirements.

### 1.4 COORDINATION

- A. Coordinate installation of synthetic turf systems with installation of other sitework included in the construction documents.

## PART 2 - PRODUCTS

### 1.5 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:

1. Basis-of-Design Product: The design for each product is based on the product named. Subject to compliance with requirements, provide either the named product or a comparable product by one of the other manufacturers specified.
2. Manufacturer: All Recreation of Virginia, Inc., 20609 Gordon Park Square, Suite 190, Ashburn, VA 20147. 1-888-419-0001. Contact: Bert Weltens.

## 2.1 SYNTHETIC GRASS SYSTEM

### A. Synthetic Grass – GSE GeoSport Xtreme

Pile Weight: 60 oz/sy

Face Yarn Type: 100% polyethylene grass

Yarn Size: 10,000 denier

Yarn Thickness: 100 microns (ASTM D5848)

Color: Green

Relief (length of yarn above the infill): 1 inch

Stitch Rate: 10/3"

Tufting Gauge: 3/8"

Primary Backing: 3 Layers Woven

Secondary Backing: Polyolefin Hot-melt

Tertiary Backing: Monolithic Polymeric Fabric

Total Product Weight: 98 oz/sy (+/- 2 oz)

Infill Depth: <1 inch

Initial G-Max: <100

Ultimate G-Max <135

Tuft Bind: 15 lbs. (ASTM D1335)

Grab Tear Strength: 420/258 (X & Y) ASTM D5034

Infill material: 14-30 Ambient Ground SBR

Permeability: 64.5" per hour. (ASTM D4716)

Wear Resistance: 100,000 cycles (no loss of weight or length)

Flammability (PILL) Test: Pass (ASTM D2859)

Ball Bounce: Coefficient of restitution is 2.42

Tuft Density (Tufts per square inch): 19.5

### B. Drainage Blanket – ProDrain Dynamic (D – Layer)

1. Shall have continuous, uncut impervious core incorporating expansion joints every 4'. The drainage blanket so constructed must provide a completely impervious underlayment, over the entire area, when mechanically bound with impervious mechanical tape; and must not wrinkle, wave, float, buckle or

otherwise disturb the planarity of the artificial turf surface, even under the most elevated conditions for thermal expansion.

The blanket consists of a high density, no-degradable, frustrumated, polystyrene derived core, between a needle punched non-woven geotextile on one side and a heat-bonded non-woven geotextile on the other side.

Total weight of the blanket shall be min. 32 oz./sy

Compressive load of 32,000 psf.

2. Thickness of blanket shall be minimum .5 inches.

3. Fabric Properties

Material: Polypropylene

Grab tensile strength 365x200lbs

Puncture strength 105 lbs. (ASTM D4833)

Trapezoidal tear: 115x75 lbs (ASTM D4533)

Mullen burst strength: 480 psi (ASTM D3786)

Percent open area: 10%

AOS: 40 sieve (ASTM D4751)

Permittivity: 1.36 sec-1 (ASTM D4491)

Permeability: .092 cm/sec (ASTM D4491)

Vertical Flow Rate: 115 gpm/ft<sup>2</sup> (ASTM D4491)

4. Core Properties

Material: Polystyrene

Thickness: 7/16 inch

Compressive Strength: 32000 lbs/ft<sup>2</sup> (ASTM D 1621)

5. Product Properties

Horizontal Flow capacity: 36 gpm/ft

Roll Width: 8ft (expansion joints every 4'-0")

Evacuation Rate: 4.44 in/hr

## C. Stone Base Courses:

1. The free-draining base aggregate base layer shall consist of a consistent depth of open graded material. Base drainage aggregate used must achieve a 95% minimum overall compaction rate. The open graded aggregate material shall conform to the following criteria:

Base Aggregate: Open Graded Stone (OGS)

	<u>Weight Passing</u>	<u>Approximate Percentage Passing</u>
2" Sieve	36.99	100.0%
3/4" Sieve	34.04	92.0%
3/8" Sieve	21.5	58.0%
#4 Sieve	9.34	25.0%
#16 Sieve	203.3 grams	9.2%

2. The choker material (stone dust) shall be layer of porous, free draining material, number 1 stone sand or similar material, that will provide an 95% minimum overall compaction rate.

Choker Material: (Porous Stone Sand)

	<u>Weight Passing</u>	<u>Approximate Percentage Passing</u>
3/8" Sieve	579.3 grams	100.0%
#4 Sieve	561.5 grams	96.8%
#8 Sieve	420.0 grams	72.0%
#16 Sieve	260.1 grams	45.0%
#30 Sieve	148.8 grams	25.0%
#50 Sieve	74.9 grams	13.0%
#100 Sieve	29.9 grams	5.0%
#200 Sieve	14.7 grams	2.0%

D Adhesives for bonding tufted synthetic turf shall be one part moisture cured polyurethane obtained from a single manufacturer and be equivalent to Nordot 34-G as manufactured by Synthetic Surfaces, Inc., Scotch Plains, NJ (908) 233-6803.

1. Seaming Tape: Tape for securing seams in the tufted synthetic turf and inlaid lines shall be high quality coated tape made with a minimum roll width of 12 inches.
- B. Sewn seams: If seams are to be sewn, they must be sewn with high quality cord/thread as recommended by synthetic turf manufacturer.

## 2.2 NEW GROOMING EQUIPMENT

- A. Provide one (1) pull behind "GreensGroomer" drag brush as manufactured by WorldWide, Inc., 888-298-8852, electrical unit, model number 720-FDU or comparable substitution.

### **PART 3 - EXECUTION**

#### **3.1 TURF INSTALLATION**

- 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 manufacturer'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 with Turf 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. Concrete footer (See Section 033000 Cast In Place Concrete Spec Section) 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 footer shall be installed in accordance with the Drawings and/or Shop Drawings. The foundation of the concrete header curb shall be a compacted free-draining aggregate.
  2. Install a pressure treated wood 2" x 4" nailer. Pressure treated wood nailer shall be set 1.5 inches below top of the curb by means of a Tapcon every 12 inches.
- D. Base Drainage Aggregate: Installation of the Free-Draining Base Aggregate shall follow procedures that protect the base grade soils.
  1. The base grade subsoil shall be dry before undertaking the placement of base aggregate.
  2. 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.
  3. The stone shall be left firm, but not over-compacted as to protect the porosity and drainage capabilities of the aggregate profile.

4. After the drainage stone has been uniformly spread throughout the surface, the surface shall receive a final laser finished grade.
  5. The free-draining base course must be installed to a depth of 4.5 inches and shall be independently tested for an overall compaction rate of 95% proctor.
  6. Final layer of stone must be installed at a depth of 1.5 inches. 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.
- E. Base Acceptance: The Architect and/or Owner's Representative must jointly approve the base before turf installation can begin.
- F. Drainage Blanket – ProDrain Dynamic (D – Layer)
1. Shall have continuous, uncut impervious core incorporating expansion joints every 4'.
  2. The drainage blanket so constructed must provide a completely impervious underlayment, over the entire area, when mechanically bound with impervious mechanical tape; and must not wrinkle, wave, float, buckle or otherwise disturb the planarity of the artificial turf surface, even under the most elevated conditions for thermal expansion.
  3. Drainage blanket shall be installed along full end-to end length of the field, perpendicular to the direction of the slope. The 4' or 8' wide rows should be installed starting at the crown (highest elevation) and shingle towards the lowest grade elevation
  4. The rows of drainage blanket shall be bonded and moisture sealed, using impervious Bonding Tape on all seams. All seams shall be sufficiently tight to leave no gaps or irregularities that could reflect through the synthetic grass surface. Care should be taken to maintain a minimum ¼" separation to allow for thermal expansion.
  5. The flanged edge of the roll must always butt with an un-flanged edge. At slope transitions such as crown, one flanged edge must be trimmed and removed to prevent a gap in the plane of the drainage blanket surface.

G. Synthetic Turf and Infill Materials

1. 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. Crumb rubber 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.

#### H. Synthetic Turf Perimeter Attachment:

1. After final trimming of the turf, the turf shall be screwed into the pressure treated wood nailer system as per the turf manufacturers recommendations.

### 3.03 SITE LAYOUT

- A. Field layout shall be as shown on the record drawings.

### 3.04 CLOSEOUT

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

- B. The Synthetic Turf Contractor must provide the Owner with the pull behind maintenance brush as outlined in section 2.2 New Turf Grooming Equipment.
- C. The turf manufacturer shall provide a warranty to the Owner that covers defects in materials and workmanship of the turf for a period of eight (8) years from the date of Substantial Completion as described in 1.04 F. Submit three (3) copies of the warranty.
- D. The 8-year warranty must also be supported by a 3rd party insured warranty from an A-rated domestic insurance carrier. The value of the policy shall be no less than \$350,000 per occurrence, no deductibles allowed. Submit three (3) copies of the insurance certificate to the Owner.
- E. The Synthetic Turf Contractor must submit three (3) copies of its maintenance manual to the Owner.
- F. Synthetic Turf 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.
- G. Extra materials: Synthetic Turf Contractor must leave one pail of adhesive, 100 lineal feet of seam tape, and one 15" x 10' roll 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 surfaces 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. Surfaces, recesses, enclosures, etc. shall be cleaned as necessary to leave the work area in a clean, immaculate condition ready for immediate occupancy and use by the Owner.

### **END OF SECTION 02781**