



भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान पुणे

INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH (IISER) PUNE

(An Autonomous Institution of the Ministry of HRD, Govt. of India)

Main Building, Dr. Homi Bhabha Road, Pashan, Pune – 411 008.

Tender for " Pre Engineered Roofing, structural glazing, internal, finishing, sports flooring, internal electrical works in the indoor sport complex and outdoor play courts at IISER Pune. NIT NUMBER: 27/ IISER/PUNE/2017-2018 Date of Issue : 14 02 2018

MINUTES OF PRE-BID MEETING

Pre bid Meeting Held at Office of IISER-Pune on 12th Feb, 2018 at 11.00hrs

IISER PUNE	M/s CRN	Representatives of bidders
1. Er. Y. S. Rajput, SE, IISER PUNE	1. Er. Yadav	As per attendance sheet
2. Er. C. B. Bhoyar, EE, IISER PUNE		

Pre bid Meeting for the above work was held at 11 00 hrs on 12 2 2018 at 11 00 at IISER Pune in the presence of above said members and representative of the bidders. The original tender document, terms and conditions uploaded on website shall stands modified to the extent of modifications defined in this MOM including attached Annexures & this MOM shall form part of tender document. Bidders are requested to take note of modifications & work out their market rates considering the modifications listed in the MOM and terms and other terms and conditions in the bid documented. Accordingly bidders should work out % above or below the estimated cost put to tender and quote accordingly. Soft copies of MOM are uploaded on <https://eprocure.gov.in/eprocure/app> & IISER Pune website. The following points raised by the intending bidders were discussed and clarified to the bidders by IISER Pune.

Sr. No.	Ref. to NIT/ BOQ	Point Discussed/BOQ Item	IISER Clarification/Changes in the BOQ items
1	General	During pre bid meeting bidder enquired about the status of existing building because there is no foundation item in the BOQ	It was clarified that the scope of work is of balance works in the Indoor sports complex consisting of roofing, finishing items, electrical and firefighting works inside the Indoor Complex building and playfields are required to be executed as per the scope of BOQ. Later representatives of the bidders were taken to site of work for site inspection. There is no change in tender conditions.

Sr. No.	Ref. to NIT/ BOQ	Point Discussed/BOQ Item	IISER Clarification/Changes in the BOQ items
2	BOQ item No 118	<p>Bidder requested to make the Sports flooring item i.e. BOQ item No 118 FLOORING IN BADMINTON more generic for wider participation of the Sports Flooring Manufacturers so as to get competitive quote: Nomenclature of the BOQ item as per BOQ item No 118: i.e.</p> <p>"Providing and laying of wooden sports flooring by using Flexlock Panel is a patented wood flooring system with a cross air ventilation subfloor design. With resilient foam pad underneath the system . The total system shall be laid on the perfectly levelled concrete floor surface as per the following sequence.</p> <p>a) Closed-Cell Resilient Foam: This foam layer laid over the concrete floor for the thick ness of 12 mm.</p> <p>b) – Cross Air Ventilation Subfloor: This layer consists of 25 mm x 150 mm wooden planks supports placed in a diagonal pattern maximize air flow beneath the system.</p> <p>c) – The top surface of the Flexlock Panel system is made of 25 mm Maple wood</p> <p>"</p> <p>The Multilayered sports Flooring shall be stored, used and installed by authorized dealer/authorized vendor in accordance with the manufacture guidelines using the tools and accessories recommended & certificate for the same to be produced. Cost to include complete finished goods covering the laid floor with necessary protection, cleaning for any stains before handover. etc. complete as per the drawing and to complete satisfaction of the</p>	<p>Accordingly, nomenclature of the BOQ Item No 118 stands modified as"</p> <p>"Providing and laying of approved make Mapple Wood Sports Flooring consisting of the following:</p> <p>i) Maple wood MFMA certified 2nd & better grade Northern Hard wood planks, minimum 57 mm width jointed together with the help of tongue and Groove joints and of random length varying from 230 mm to 2400mm</p> <p>ii) Substructure of maple wood flooring shall consist of sleeper 2"x3" size of Spruce or Pine or Fir wood substructure system as per approved make flooring system laid at a spacing of 305mm centre to centre in the perpendicular directions to the maple wood flooring.</p> <p>or</p> <p>plywood substructure having length between 1200 mm(minimum) to 2400 mm, and cross section of 25 mm (minimum) and laid in two layers perpendicular to the main flooring planks at a spacing between 225 mm to 305mm centre to centre complete as per approved makes standard sports wooden flooring products specifications.</p> <p>iii)Two stage Neoshock resilient pads at the maximum spacing of 300mm centre to centre on each sleeper,</p> <p>iv) 0.20mm (200µm) thick polyethylene membrane vapour barrier beneath the flooring system,</p> <p>v) Ant termite treatment of the existing concrete floor surfacing including fine levelling with self-levelling polymer mortar at required locations, machine sanding, one coat of oil modified Poly urethane Gym sealer and 2 coats of oil modified Poly urethane Gym sports finish in accordance with approved manufacturer specification &</p>

		<p>Engineer. The adhesive used for laying the floor shall be as per written recommendation made by the manufacturer & as approved by the Architect / Engineer</p> <p>Approved Make : Tarkett / BOEN / Trott</p>	<p>technical specifications, line marking in accordance with manufacturers specifications etc. complete as per directions of Architect/Engineer-in-charge.</p> <p>Approved Make of Sports Flooring: Tarkett Sports / BOEN / Trott/CONNOR SPORTS FLOORING/ACTION FLOOR SYSTEM/ AACER SPORTS FLOORING</p>
			<p>Bidders are requested to take note of the change in the nomenclature of the BOQ item 118 and quote the tender taking into consideration of the changed nomenclature of the BOQ item No 118 and also additional approved makes as detailed above.</p> <p>However it may be noted that there is no change in the quantity, unit or rate of BOQ item No 118. Also there is no change in the total estimated cost put to tender.</p>
3		<p>Generic Technical Specifications for the BOQ item No 118</p>	<p>Technical Specification for Wooden Sports flooring are attached as Annexure 1 with MOM.</p>

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Superintending Engineer
IISER Pune

-----End of MOM-----

ANNEXURE -1

TECHNICAL SPECIFICATIONS FOR WOODEN SPORTS FLOORING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Supply and installation of MFMA Maple Wood Flooring System
- B. Application of the game lines
- C. References for the correct construction and preparation of concrete slabs to receive flooring.

1.2 SUBMITTALS

A. Product Data:

Manufacturer's promotional brochures, specifications and installation instructions

B. Samples:

- 1. Submit for selection and approval three (3) sets of brochures, samples or sample boards.
- 2. Submit color samples of all the available game line paint colors for selection and approval.

C. Closeout Submittals:

- 1. Submit three (3) copies of manufacturer's maintenance instructions.
- 2. Submit three (3) copies of the material and installation warranties as specified.

1.3 QUALITY ASSURANCE

A. Qualifications:

- 1. The indoor surfacing shall have been actively marketed for a minimum of five (5) years.
- 2. The MFMA Maple shall be produced by an FSC Certified Mill.
- 3. The MFMA Maple shall be produced by a US manufacturer.
- 4. The surfacing supplier shall be an established firm experienced in the field and appointed as a distributor by the manufacturer.

B. Certifications:

- 1. Installer to submit manufacturer's or distributor's certification attesting that they are an approved installer.

C. Testing:

Tests shall be relative for athletic use with certificates from independent testing resources to be made available upon request. Test results shall be no more than 5 years old and performed according to ASTM and/or EN standard testing procedures.

1.4 DELIVERY, STORAGE AND HANDLING

A. Delivery:

Material shall not be delivered until all related work is in place and finished and/or proper storage facilities and conditions can be provided and guaranteed stable according to FieldTurf USA, Inc. recommendations.

B. Storage:

Store the material in a secure, clean and dry location. A temperature range of 55° to 78° and a relative humidity of between 35% to 50% should be maintained.

1.5 PROJECT/SITE CONDITIONS

A. It is the responsibility of the general contractor/construction manager to maintain project/site conditions acceptable for the installation.

B. The area in which the surfacing will be installed shall be dry and weather tight. Permanent heat, light and ventilation shall be installed and operable. All other trades shall have completed their work prior to installation. All overhead work which includes the installation of mechanical work, lighting, backstops, scoreboards, etc., are installed. The general contractor or Construction Manager shall maintain a secure and clean working environment before, during and after the installation.

C. An effective low-permeance vapor barrier is placed directly beneath the concrete subfloor. For “on” or “below grade” installations, it is recommended to provide a permanent vapor barrier resistant to long term hydrostatic pressure/moisture emissions. Protrusions should be sealed to prevent moisture migration into the slab. Moisture should not be allowed to enter the slab after the completed construction.

D. Concrete substrate to be constructed and finished in accordance with MFMA recommendations. Slab’s finish shall be no more than 1/8” deflection within a 10ft radius.

E. Concrete subfloor must be clean and free of all foreign materials or objects.

F. Concrete slab shall be fortified with continual steel reinforcement. Fiber reinforcement alone shall not be considered adequate fortification.

1.6 WARRANTY

A. Materials:

The maple flooring shall be covered by the manufacturer against product defects for 10 years.

B. Installation:

The installation shall be covered against poor workmanship and faulty installation by a one year written, limited warranty provided by the contractor performing/overseeing the installation.

PART 2 PRODUCTS

2.1 MANUFACTURERS

The basis of the design for the surfacing is Clutch Court-Trainer 1 as supplied by FieldTurf USA, Inc./Approved makes Sports Mapple Wood Flooring Surfaces. All other installation accessories and related components must be either made or approved by the supplier. Other products may be approved as equal if deemed qualified and submitted in accordance with the General Conditions. Test reports confirming compliance from an Independent Sports Laboratory must be provided along

with samples, technical data, installation, maintenance, and warranty prior to acceptance as an alternative product.

2.2 MATERIALS

1. Physical properties of the flooring system shall conform to the following minimums:

MFMA Maple Width 2 ¼"

MFMA Maple Length Random

Maple Thickness 25/32"

MFMA Maple Grade 2nd or Better Northern Hard Maple WITH MFMA STAMPING Certified flooring

Total Thickness 2 5/8"

Expansion Plate- 150mm aluminium cover expansion plate around as per manufacturer specifications.

Vent Cove: -- 76mmx101mm vent cove base around wall

Subfloor

Construction 2" x 3" Pine Sleepers 4' or 8' length. Spaced 12" OC over with

Two stage Neoshock resilient pads (First Stage responsive to light load and second stage responsive to aggressive loads quick response contact points and excellent resilient load performance spaced 12" centre to centre along length of Sleepers

Force Reduction ASTM F2772 Category 2

Ball Bounce ASTM F2772 > 96%

Shock absorption ---- 60%

Vapor Barrier Minimum 6 mil-overlapped 6"-12" and taped

Ant termite treatment of existing Concrete sub floor and wall perimeter from approved pest control agency

Flush plate covers for electrical outlets or sleeves as per requirements.

Finish As selected from MFMA Certified finish providers.

2. Game Line Paint:

As approved by the finish manufacturer. Colors are to be selected from the manufacturer's standard range.

PART 3 EXECUTION

3.1 EXAMINATION

A. It is the responsibility of the general contractor/construction manager to ensure that project/site conditions are acceptable for the installation.

- B. Verify that the area is dry and weather tight. Verify that permanent heat, light, and ventilation are installed and operable.
- C. Verify that all other work that could cause damage, dirt and dust, or interrupt the normal pace of the indoor resilient athletic flooring installation is completed.
- D. Verify that temperature and humidity are within tolerances.
- E. Verify that there are no foreign materials or objects on the subfloor and that the subfloor is clean and ready for installation.
- F. Document the results indicating the slab is within manufacturer's tolerances for slab deviations and moisture emissions.

3.2 PREPARATION OF SURFACES

- A. Sweep the concrete slab so as to remove all dirt and dust.
- B. Remove debris or other contaminants that may affect installation.

3.3 INSTALLATION

- A. The installation area shall be closed to all traffic and activity for a period to be set by the installer. The installation shall not begin until the installer is familiar with the existing conditions.
- B. All necessary precautions should be taken to minimize noise, smell, dust, the use of hazardous materials and any other items that may inconvenience others.
- C. Install in strict accordance with the manufacturer's written instructions.
- D. Paint game lines using approved game line paint in strict accordance with the game line paint manufacturer's instructions.
- E. Apply seal and finish coats according to manufacturer's instructions.

Use only MFMA approved sealers and finishes.

- F. Install appropriate threshold plates or transition strips where necessary.
- G. Vented base is required. Install molded vented cove base along all vertical abutments. Pre-molded or field mitered outside corners are acceptable. Inside corners are to be field mitered. Corners and seams are to be installed flush with no gaps. Treat door casings or other vertical abutments not to receive vented cove according to manufacturer's recommendations.
- H. The finished surface of the maple Wood Sports flooring shall be in true line and level. Depressions or undulation in the existing cement concrete floor shall be attended with suitable self levelling mortar before installation of base.

3.4 CLEANING

- A. Remove all unused materials, tools, and equipment and dispose of any debris properly.

3.5 PROTECTION

If required, protect the indoor resilient athletic surfacing from damage using coverings approved by the manufacturer until acceptance of work by the customer or their authorized representative.

3.5 RELATED STANDARDS AND GUIDELINES

A. ASTM F1869 “Standard Test Method for Measuring Moisture Evaporation Rate of Concrete Subfloor Using Anhydrous Calcium Chloride”

B. ACI 302.2R-06 “Guideline for Concrete Slabs that Receive Moisture Sensitive Flooring Materials”

C. MFMA – Maple Flooring Manufacturer’s Association

4. Approved makes: CONNOR SPORTS FLOORING/ACTION FLOOR SYSTEM/Tarkett Sports/ AACER SPORTS FLOORING with above mentioned Technical specifications.

5. Rates: Quoted rate in the BOQ item of wooden sports flooring shall be deemed to be inclusive of cost of all the materials, labour, operations, all taxes and levies, storage, handling, Installation defects/maintenance warrantee for one year after the commissioning & handing over of flooring, marking of court lines, installation and commissioning, sealing/polishing, protection of the surface during execution period etc. and all other operations involved with execution of this items and nothing extra shall be payable over and above the quoted rate of the BOQ item.

5) Measurements: Length and breadth of finished floor shall be measured for working out the plan area of sports wooden flooring for the purpose of payment under BOQ item. Deduction for opening in floor if the plan area of opening/cut-out is more than 0.20 sqm.

---- End of Annexure – 1-----