BID #17-35

# REPAIR OF SELECTED CAMPUS WALKWAYS and ROADWAYS 2017

## SECTION "C" TECHNICAL SPECIFICATIONS

**OWNER**

Board of Trustees
Middlesex County College
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March 21, 2017

## SECTION C – TECHNICAL SPECIFICATIONS

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## 1. SCOPE OF WORK

1-1 The purpose of these specifications is the completion of a walkway and roadway repair contract. This work will be performed on the main Middlesex County College (MCC) campus in Edison, New Jersey.

1-2 The contractor shall provide all of the necessary labor, materials, tools and equipment required to complete the work described on the drawings and in these specifications.

1-3 Work required under this contract shall potentially be performed at twenty (20) separate areas on campus. These areas are identified on the Campus Site Plan and are detailed on sketches # SK-1 through SK-20.

1-4 The dimensions shown on the drawings are approximate and not all dimensions are shown. The contractor is responsible for verifying the actual sizes of the work areas.

1-5 **Prior to installation of concrete sidewalks, the contractor shall submit drawings for approval by the College. The drawings shall depict the locations of the necessary expansion, score joints and the size and layout of panels so as to match those in surrounding pavement area.**

1-6 The work to be performed in each area is described in general as follows:

a. **AREA #1-PARKING LOT #6 ENTRANCE - (SK-1) BASE BID**

Mill existing deteriorated asphalt 2" thick. Apply tack coat and install 2" thick hot mix asphalt (HMA) surface course using mix 9.5M64. Restore crosswalk and lane striping. See Drawing **SK-1** for details.

b. **AREA #2-PARKING LOT #6 TRENCH SURFACE REPAIR – (SK-2) – BASE BID**

Mill existing deteriorated asphalt 2" thick. Apply tack coat and install 2" thick hot mix asphalt (HMA) surface course using mix 9.5M64. See Drawing **SK-2** for details.

c. **AREA #3-EAST HALL ANNEX (EX) MAIL VEHICLE PARKING -(SK-3) – BASE BID**

Remove bench and save for MCC Grounds Department pick up. Remove existing 6" thick concrete area as indicated. Remove interfering tree roots. Grade and compact existing subbase stone and supplement as needed to achieve minimum 4". Install 6" thick concrete with 6"x6" #6 gauge wire mesh in accordance with NJDOT specifications. Provide foam expansion/isolation joints with ½" removable top for caulking where new concrete will meet existing concrete and at joints following a control joint. Joints shall be cold poured style using a sealer to match concrete color. Restore surrounding topsoil in accordance with specifications. See Drawing **SK-3** for details.

d. **AREA #4-HOF 111 AND EAST HALL ANNEX (EX) PARKING LINE STRIPING (SK-4) – BASE BID**

Line stripe areas with green paint striping, yellow paint striping and white paint direction arrows as indicated on drawing. See Drawing **SK-4** for details.

e. **AREA #5 - ALUMNI DRIVE WALKWAY - (SK-5) – BASE BID**

Remove 10 flags of 4" thick concrete along curved portion of walkway. Excavate for realigned concrete sidewalk. Utilize existing subbase stone for new sidewalk and supplement as needed to achieve minimum 4". Install 4" thick

by 5′ wide concrete with 6″ x 6″ #6 gauge reinforcing mesh. Excavate and install 4″ DGA base with 6″ x 6″ #6 gauge wire reinforcing mesh to add a triangular section of 6″ thick concrete to align adjacent walkway.

See specifications for expansion joint and topsoil restoration requirements. See Drawing **SK-5** for details.

f. **AREA #6 – INSTRUCTIONAL RESOURSE CENTER (IR) WALKWAY RAMP - (SK-6) – BASE BID**

Saw cut and mill 7′6″ x 79′ existing deteriorated asphalt walkway 2″ thick. Excavate and install new ADA approved trench drain across walkway and tie into existing inlet. Apply tack coat and install 2″ thick HMA surface course using mix 9.5M64. See Drawing **SK-6** for details.

g. **AREA #7- PARKING LOT #9 ENTRANCE-(SK-7) – BASE BID**

Excavate deteriorated asphalt pavement. Grade and compact subgrade stone. Apply tack coat and install 2″ thick HMA surface course using mix 9.5M64. See Drawing **SK-7** for details.

h. **AREA #8-JOHNSON LEARNING CENTER (JL) DRIVEWAY APRON - (SK-8) – BASE BID**

Remove three flags of existing concrete sidewalk. Sawcut and remove section of asphalt driveway to accommodate new 5′ x 20′ concrete sidewalk. Mill existing 12′ x 20′ existing asphalt apron 2″. Excavate apron extensions and install 4″ base mix 19M64. Install new concrete sidewalk, 5′ x 36′ 9″, 6″ thick with 6″ x 6″ #6 gauge reinforcing wire mesh. Install ADA Detectable Warning Tiles. See Specifications for expansion joint, caulking and Warning Tile details. Install 2″ thick HMA surface course mix 9.5M64 on entire new apron. See Drawing **SK-8** for details.

i. **AREA #9-EDISON HALL (ED) ASPHALT & CONCRETE WALKWAY REPAIRS -(SK-9) - BASE BID**

Remove four deteriorated flags of concrete walkway 8′ x 30′. Grade and compact existing subgrade stone. Replace with 4″ thick concrete with 6″ x 6″ #6 gauge wire mesh.
Sawcut and mill asphalt 2″ thick 2′ x 9′ 6″ adjacent to concrete walkway. Apply tack coat and install 2″ thick HMA asphalt surface course mix 9.5M64.

See Drawing **SK-9** for details.

j. **AREA #10-JOHNSON LEARNING CENTER (JL) MAINTENANCE VEHICLE PARKING AREA – (SK-10) BASE BID**

Create a concrete parking area for MCC Maintenance Department vehicles. Excavate specified lawn area. Install 4″ DGA base and install concrete 6″ thick with 6″ x 6″ #6 gauge wire mesh. See Specifications for expansion joint and caulking details. See Drawing **SK-10** for details.

k. **AREA #11- INSTRUCTIONAL RESOURSE CENTER (IR) BUILDING ENTRANCE - (SK-11) – BASE BID**

The 4″ thick concrete slab installed in 2007 has settled. Raise the slab to meet doorway threshold by "slab jacking" method. See Drawing **SK-11** for details.

l. **AREA #12- LIBRARY (LI) MAINTENANCE VEHICLE PARKING AREA - (SK-12)–BASE BID**

Create an asphalt parking area for MCC Maintenance Department vehicles. Excavate specified lawn area. Install 4″ dense graded aggregate (DGA) base and 4″ base course mix 19M64. Install 2″ asphalt surface course mix 9.5M64. Apply tack coat to mating edge of existing asphalt. See Drawing **SK-12** for details.

m. **AREA #13-CENTER 1 WALKWAY REPAIR-(SK-13)-BASE BID**

Sawcut and mill indicated portion of existing asphalt walkway. Apply tack coat and install required thickness of HMA surface course mix 9.5M64 to meet height of sanitary sewer manhole located in walkway. See Drawing **SK-13** for details.

n. **AREA #14-CENTERS 3 & 4 WALKWAY TRENCH REPAIR - (SK-14) - BASE BID**

Sawcut and mill indicated portion of existing asphalt walkway to remove prior bad trench repair. Apply tack coat and install 2" HMA surface course mix 9.5M64. See Drawing **SK-14** for details.

o. **AREA #15-STUDIO THEATER WALKWAY REPAIR AT PARKING LOT #3 - (SK-15) BASE BID**

Sawcut and mill deteriorated asphalt 2" thick. Apply tack coat and install 2" thick surface course HMA 9.5M64. Reduce height of topsoil and grass area to facilitate water drainage. See Drawing **SK-15** for details.

p. **AREA #16-PARKING LOTS #3 & #6 ENTRANCE REPAIR - (SK-16) - BASE BID**

Sawcut and mill deteriorated asphalt 2" thick. Apply tack coat and install 2" thick surface course HMA 9.5M64. See Drawing **SK-16** for details.

q. **AREA #17-PHYSICAL EDUCATION CENTER (PE) FRONT WALKWAY REPAIR - SK-17 - BASE BID**

Sawcut and mill deteriorated asphalt walkway 2" thick. Apply tack coat and install 2" thick surface course HMA 9.5M64. See Drawing **SK-17** for details.

r. **AREA #18-PHYSICAL EDUCATION CENTER (PE) WALKWAY TO PARKING LOT #5 REPAIR – SK-18 – BASE BID**

Sawcut and mill deteriorated asphalt walkway 2" thick. Widen existing walkway to provide a radius area. Apply tack coat and install 2" thick surface course HMA 9.5M64. See Drawing **SK-18** for details.

s. **AREA #19 - MAIN HALL (MH) WALKWAYS - REPAIR AND REMOVE – SK-19 – BASE BID**

Sawcut and mill deteriorated asphalt walkway sections 2" thick as indicated. Apply tack coat and install 2" thick surface course HMA 9.5M64. Sawcut and remove section of existing asphalt as indicated. Replace with topsoil, seed and straw. See Specifications and Drawing **SK-19** for details.

t. **AREA #20 – PARKING LOT #4 ASPHALT REPAIR – SK-20 – BASE BID**

Sawcut and mill deteriorated asphalt sections 2" thick as indicated. Apply tack coat and install 2" thick surface course HMA 9.5M64. See Drawing **SK-20** for details.

1-7 At each intersection of new and existing walkways or roadways having an asphalt sub base, saw-cut pavement and construct a keyway, as indicated on drawing, and provide a smooth and gradual transition between the two surfaces.

1-8 The edges of all asphalt walkways shall be straight and even to within plus or minus one inch. The contractor shall saw-cut all uneven edges to a straight edge at no additional cost to the College.

1-9 Final payment will not be made until all work is completed and all close-out documents are received.

1-10 The contractor shall be required to attend a pre-construction meeting on Campus at a time to be scheduled after the contract is awarded and other job progress meetings as required by the College.

**Contract drawings**

**The following is a list of drawings that are attached and are a part of these specifications and contract:**

**CAMPUS SITE PLAN AND DIRECTORY**

**PLAN SKETCHES**

| | |
|---|---|
| **SK-1** | **SK-11** |
| **SK-2** | **SK-12** |
| **SK-3** | **SK-13** |
| **SK-4** | **SK-14** |
| **SK-5** | **SK-15** |
| **SK-6** | **SK-16** |
| **SK-7** | **SK-17** |
| **SK-8** | **SK-18** |
| **SK-9** | **SK-19** |
| **SK-10** | **SK-20** |

## 2. MATERIALS & INSTALLATION

2-1 Materials used under this contract shall be as specified on the drawings and in the specifications, be of a quality acceptable to the Engineer and meet applicable codes.

2-2 The following standard specifications, as outlines, shall be considered as being part of these specifications and shall govern the construction of this project except where otherwise modified:

Standard Specifications for Road and Bridge Construction of the State of New Jersey, 2007 edition (Standard Specification).

a. Wherever the terms "Department" or "Commissioner" are used in the Standard Specification, the Contractor shall construe such term to mean the Owner.

b. Wherever Section numbers are listed, they refer to the Standard Specifications unless otherwise specified.

2-3 MILLING, REPAIRING & RESURFACING

The locations to be milled and paved over are to have the surface coat milled to the base course, have base

course repairs made as required, and have a new 2" minimum (or as otherwise specified) bituminous surface coat installed in accordance with these specifications:

MILLING

The milling of bituminous concrete shall consist of the removal of approximately 2" of bituminous concrete surface course or as otherwise specified. Milling shall be done in accordance with Section 400 of the Standard Specifications.

The milling operation, including removal of the milled material, shall be carried out in a manner that will prevent dust and other particulate matter from escaping into the air.

Provisions shall be made for removal of any water that may be trapped due to the milling operation, such as by lateral saw cuts into the shoulder area. In the event that all milled areas which are opened to traffic have not been milled to a flush surface by the end of the day, the longitudinal edges of the milled area, exceeding 1-1/2" high shall be sloped and a smooth transition shall be provided at the transverse edges.

The surface of the milled area shall be swept clean prior to being opened to traffic and prior to the following construction or resurfacing stage. Sweepings shall be disposed of in accordance with Sections 201 and 202.

The milled area that will be opened to traffic before resurfacing shall be free from gouges, continuous grooves, ridges and delaminated areas. They shall have a uniform textured appearance consisting of discontinuous longitudinal striations which shall not deviate more than 1" in 200' from a line parallel to the center of the traveled way and shall not exceed 3/8" depth. They shall provide a skid resistance not less than that of the original surface prior to milling and permit passage of traffic at the posted speed limit without vehicle operators experiencing impaired directional control.

Where called for on the drawings, install Petromat® 4598 System non-woven polypropylene stabilization fabric, by Propex (www.Geotextile.com) or equal, prior to installing the surface course. Install

according to manufacturer's instructions.

REPAIRS

Any concrete or bituminous concrete below the specified milling depth that is broken, dislodged, delaminated or otherwise unstable, shall be repaired with bituminous stabilized base course in accordance with Standard Specifications. The repair areas are to be compacted properly, have aggregate installed as required, and the base course is to be a minimum of 4". The actual thickness will be determined by the requirement to match the existing adjacent elevations.

BITUMINOUS CONCRETE SURFACE COURSE, TACK COAT AND PRIME COAT

This work shall consist of the construction of a surface course of bituminous concrete. The bituminous concrete surface course shall be Mix 9.5M64 mix in accordance with the Standard Specifications.

The construction shall be in accordance with the Standard Specifications. Traffic will not be allowed on newly finished surfaces prior to their completion.

The thickness of the surface course shall be a minimum of 2". The actual thickness will be determined by the requirement to match the existing adjacent elevations.

A Prime Coat and a Tack Coat shall be selected and applied in accordance with the Standard Specifications Section 401.03.02. Materials to be asphaltic oil grade MC-30.

2-4 COMPLETE PAVEMENT REPLACEMENT

(Excavation, compaction, aggregate sub-base, aggregate base, bituminous base course, bituminous surface course)
The locations, to be completely removed and replaced with asphalt paving are to have the surface course and the bituminous base course removed to the soil (Phase I); protect the exposed soil from rain and extra moisture (Phase 2); excavate additional 4" soil, have the soil compacted, and have dense graded aggregate

sub-base and base courses, bituminous base course, and bituminous surface course installed in accordance with these specifications (Phase 3).

Pavement replacement shall include the cutting, excavation, removal and replacement of pavement in accordance with the type and thickness specified and shall be constructed to match the existing grades and inlet/manhole top elevations. The finished pavement surface shall maintain positive surface drainage.

All replacement or repair of roadways and paving shall conform to Township, County or State ordinances and applicable requirements of the Standard Specifications.

PAVEMENT EXCAVATION

This work shall consist of complete excavation of the roadway or parking lot materials to the soil surface.

When excavations are to be made in paved surfaces, the pavement shall be cut by means of "Wheel Line Cut" or other suitable tools to provide a clean, uniform edge with minimum disturbances of remaining pavement. All excavated material shall be disposed of as specified in these specifications.

Pavement excavation shall be in accordance with Section 202 – Roadway Excavation except as modified herein.

The Engineer will determine the exact limits of pavement excavation required to remove unsuitable material and/or lower the road sub-grade. The contractor shall saw cut the limits and shall remove all materials of whatever character encountered to the sub-grade depth. If excavation to the sub-grade depth results in unsuitable sub-grade material, the unsuitable material shall be excavated and back-filled with dense graded aggregate.

DENSE GRADED AGGREGATE BASE COURSE

This work shall consist of the construction of base courses or backfill of Dense Graded Aggregate. Milling materials may be used. Material and construction shall conform to the Standard Specifications Division 300.

BITUMINOUS CONCRETE BASE COURSE

This work shall consist of the construction of a base course of bituminous concrete.

Bituminous stabilized base course shall be Mix 19M64 in accordance with Standard Specifications Division 300.

A prime coat in accordance with Subsection 401.03.02 shall be applied at the rate of 0.25 gallon per square yard on all areas where bituminous stabilized base shall be applied and shall include all small areas which may be designated for surfacing that are not large enough for machine application. Materials to be asphaltic oil grade MC-30.

The construction shall conform to Sections 303 through 304.12. The thickness of the stabilized base shall be a minimum of 4". The actual thickness will be determined by the requirement to match the existing adjacent elevations.

BITUMINOUS CONCRETE SURFACE COURSE, TACK COAT AND PRIME COAT

This work shall consist of the construction of a surface course of bituminous concrete. The bituminous concrete surface course shall be Mix 9.5M64 in accordance with Section 405.

The construction shall be in accordance with the Standard Specifications. Traffic will not be allowed on newly finished surfaces prior to their completion.

The thickness of the surface course shall be a minimum of 2". The actual thickness will be determined by the requirement to match the existing adjacent elevations.

A Prime Coat and a Tack Coat shall be applied in accordance with Subsection 401.03.02 and shall include all small areas, which may be designated for surfacing and not large enough for machine application. Materials to be asphaltic oil grade MC-30. A Tack Coat shall be applied to all vertical surfaces where new surface course will meet old existing surface course.

Weather limitations and the transportation and delivery of the mixture shall be as specified in Subsection 401.03.

The surface will be tested using a 10 foot straightedge at selected locations. The variation of the surface from the testing edge of the straightedge between any two contacts with any surface shall at no point exceed 3/8". All humps or depressions exceeding 3/8" shall be corrected by removing the defective work and replacing it with new material.

## 2-5 CONCRETE SIDEWALKS AND CURBS

Concrete curb work is to be done in accordance with Section 607 and concrete sidewalks with Section 606 of the Standard Specifications.

Portland cement concrete shall conform to Section 914 and other materials shall conform to the Subsections as follows:

| | |
|---|---|
| Curing materials | 903 |
| Preformed expansion joint filler | 914 |

Concrete shall be air entraining Portland cement in accordance with ASTM specification C-94, proportioned to have a minimum compressive strength of 4000 psi (except where otherwise noted) at 28 days.

Compaction of underlying material shall be accomplished by mechanical tamping or rolling equipment in accordance with the Standard Specifications.

Forms shall be of wood, metal, or other suitable material and shall extend for the full depth of the concrete. All forms shall be true to line, free from warp, and of sufficient strength to resist the pressure of the concrete without deforming. Curved forms of proper radius shall be used on all radial sections and shall be such that the forms remain in both horizontal and vertical alignment until their removal.

Excavation and backfill shall conform to the Standard Specifications

Mixing, placing, and finishing concrete shall conform to Sections 405 and 607.

At any location where the curbing ends, it shall not end abruptly, but it shall be tapered into the surrounding elevation.

At any location where curbing is removed, the adjacent paving is to be saw-cut and repaired to match the surrounding surfaces.

## 2-6 TOPSOIL, SEED AND FERTILIZER

Place topsoil at a minimum of 4" over all disturbed areas that are not to be paved including surface restoration along the sides of paving areas. The topsoil shall be clean and free of roots, stones, clay, or any other undesirable material. It shall consist of at least 5% organic matter, conform to a PH acidity range of 5.0 to 7.0, and have similar soil characteristics to those found on the site. The contractor shall have the top soil tested to determine its characteristics. The test results shall be submitted to the College for approval prior to delivery.

Topsoil shall be spread evenly and the area is to be compacted or rolled with a 200# roller so as to produce a compact soil condition. Topsoil shall not be spread in a frozen or muddy condition. The finished surface shall conform to the existing lawn areas and be free from hollows, inequalities, or other extraneous matter.

Fertilizer, equivalent to a starter type shall be applied at a rate of 44# per 10,000 sq. ft. It shall be evenly spread and raked in uniformly. Ground limestone shall be evenly distributed in an amount related to the PH and worked lightly into the top 3" of soil.

Lawn areas are to be seeded at the rate of 5# per 1,000 sq. ft., sown in a uniform application method and lightly raked into the surface.

Lawn seed shall consist of two or more superior varieties of tall type fescue of at least 60%, one variety of Kentucky bluegrass of at least 10%, and 30% of a superior perennial ryegrass, Pennfine, or equivalent. The turf seed label shall be submitted for approval by the College prior to seeding.

All seeded areas shall be mulched immediately after seeding with either weed free straw, salt hay, or wood fiber. Apply at the rate of 2 tons per acre and anchor using a liquid mulch binder.

Adequate protection shall be provided at all times for lawns areas against trespassing and damage of any kind after completion of the work.

## 2-7 CONCRETE EXPANSION/ISOLATION JOINTS

### Joint Backing:

Expansion/isolation joint filler material shall be expanded polyethylene flexible foam such as A.P.S. Closed Cell Poly Foam by A.P.S. Supply Co. of Beverly, NJ (609-877-7900) or equal. Color shall be white. Thickness shall be ½" with ½" tear-off strip for caulking. The material shall meet the requirements of ASTM D1752, Sections 3.1 through 3.4 with modified compression requirements.

### Joint Sealant:

Joint Sealant shall be a one-part, moisture cure, self-leveling polyurethane type such as Vulkem 45 by Tremco Inc. of Beachwood, Ohio (800-321-7906) or equal. Color shall match that of the cured concrete.

## 2-8 TEXTURED ASPHALT PAVEMENT (IF REQUIRED)

This specification is based on "StreetPrint" Pavement texturing by Integrated Paving Concepts, Inc., Blaine, WA. The work shall be performed by trained and experienced workmen.

### Imprinting of Hot Mix Asphalt

Layout and imprinting of the pattern into the surface of the HMA shall be as per the drawings. Imprinting can proceed immediately after the hot asphalt has been placed and compacted, while the asphalt is still in a warm to hot pliable state.

### Application of System

The "StreetBond"™ System to be used shall be

StreetBond Premium Series System HW Premium High Performance or equal. Four layers (applications) of StreetBond SP150E shall be applied. A net coverage of 150 sq.ft. per 5 gallon unit shall be achieved. One application shall yield a surface build of 10-15 mils thickness.

All work shall be done in accordance with the manufacturer's recommendations and procedures. The pattern shall be "StreetPrint"™ Offset Brick. Color shall be "StreetPrint"™ Brick.

The contractor shall submit a drawing of the pattern layout and color sample to the College for approval.

## 2-9 CATCH BASINS

Stormwater catch basin "Curb-Opening Inlets" to be replaced must meet the requirements of New Jersey Administrative Code (N.J.A.C.) 7:8. Basin grates to be replaced shall meet NJDOT "Bicycle Safe" grate specifications (Chapter 2.4 of NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines). High impact 24" x 24" plastic stormwater catch basins may be installed in grass areas where basin is not to be located over an existing concrete stormwater pipe. These catch basins / grates shall be Part No. 2400 and 2412 as manufactured by NDS, Inc., 851 North Harvard Ave., Lindsay, CA 93247, 1-800-726-1994, www.ndspro.com, with connection fittings, or equal.

## 2-10 ADA DETECTABLE WARNING TILES

Where applicable, new walkways shall have ADA compliant ramps incorporated including a **"Detectable Warning Tile"**. The tile is to be a "Tactical System", cast in place, Armor-Tile™ unit by Armor-Tile, 300 International Drive, Suite 100, Williamsville, NY 14221 (800)-682-2525 www.armor-tile.com or equal. Color of tile to be Light Gray (Federal No. 26280). Contractor to provide color sample before installation for approval.

## 2-11 CRACK REPAIR

Clean crack or fissure exceeding ¾" in width of debris, dirt or grass to a depth of 4". Tack coat edges of crack repair prior to installing sealing material per the Standard Specifications. Roll sealing material level with lot surface.

## 2-12 MISCELLANEOUS

a. Please note that the College will be in full operational status during construction. Extra caution must be taken regarding safety. All walkway and roadway work shall be done in sections so as to allow for vehicular and pedestrian traffic to pass safely or to detour reasonably and safely without adversely affecting the College's ongoing operations.

b. Area #11 is a high traffic area. Contractor must provide barriers to direct pedestrian traffic around work area. Work on this area can only be done on a Friday or Saturday.

c. An area work schedule shall be submitted to the college in advance and revised as necessary as time and work progresses. The College shall be notified at least 24 hours in advance of scheduled work in designated areas.

d. The contractor shall provide all necessary traffic cones, barricades, signage, etc. to identify work areas and hazards. The contractor shall also provide appropriate manpower to direct traffic both vehicular and pedestrian.

e. The contractor will be required to restore any lawn area disturbed or damaged. See Section 2-6 for topsoil, seed and fertilizer requirements.

f. The contractor will be responsible for installing / replacing line striping (paint and thermoplastic), and handicap logos in applicable /affected areas. MCC will provide contractor with color samples or paint identification.

g. After contractor's excavation, the College may, at locations to be determined, install empty electrical conduits, for future use. This work

would be done in a manner so as not to delay the contractor.

h. The CONCRETE walkways shall be 4" or 6" thick (see applicable drawing) 4,500 psi over 4" DGA with 6"x6" #6 gauge wire mesh unless noted otherwise on applicable drawings.

i. Where the term "Low Voltage" is listed on drawings as an underground utility, note that it is 120 volt A/C.

## 3. COMPLIANCE

3-1 The Contractor shall comply with all of the College's safety and work rules when performing work at the college. All contractor employees, subcontractors, etc., shall sign-in daily at the Facilities Management Building upon arrival on Campus to be issued a contractors identification badge. It is expected that all contractor employees will conduct themselves in a professional manner.

3-2 Prior to performing any excavation work, the contractor shall call for a utility markout AND notify the College. Public utilities will be marked out by the appropriate utility and MCC personnel will mark out the College utilities.

The College Campus in Edison, New Jersey is located on a section of the Former Raritan Arsenal (FRA) which operated from 1918 through 1963. The Army Corps of Engineers (ACE) has completed investigations and remediation activities related to unexploded ordnance (UXO) materials on the Campus. While there are no known UXO's at this time, there remains a possibility that they can be discovered when excavating on Campus. The ACE has provided an information safety sheet which advises anyone excavating on the FRA to practice the "3R's". They are **Recognize, Retreat and Report.** If any material is discovered that appears to be ordnance, the contractor shall immediately stop work, leave the area, call 911, and notify the College. A procedure has been established for emergency responders and military personnel to safely address such a situation.

3-3 Middlesex County College is a smoke-free campus. Smoking is only permitted inside a person's personal vehicle. Smoking is not permitted anywhere else on

Campus or in any construction equipment. The College Police will issue summonses with fines to anyone found in violation of this policy.

3-4 Unless otherwise specified, all work is to be done in accordance with the NJDOT Standard Specifications for Road and Bridge Construction, 2007 edition.

3-5 The concrete slab jacking required at **AREA #6** shall be done in accordance with the current Concrete Repair Association's Best Management Standards / Specifications for concrete slab raising.

3-6 After a contract is awarded, the contractor must supply a **"Schedule of Values"** specifying the cost of each individual Work Area.

3-7 **A two (2) year Maintenance Bond is required for this project.**

## 4. SITE CLEANUP

4-1 The work area shall be cleaned on a daily basis. Any items remaining shall be secured and surrounded with safety tape and/or barriers. Any damage caused by the contractor shall be repaired at no cost to the college.

4-2 The contractor is to remove all trash, excavated materials, and other waste off site and disposed of it in accordance with current regulations. Provide the college with weight tickets for any materials that can be recycled. The cost for the testing of any materials prior to the removal from the Campus as required by regulatory agencies is the responsibility of the contractor.

## 5. TIME CONSTRAINTS

5-1 If the Board of Trustees of Middlesex County College has approved an award at least 10 days prior to May 8, 2017, the contractor shall begin work as soon as Notice of Award is received from the College but not before May 24, 2017. All work must be completed by August 11, 2017. If the Board has not approved the award by at least 10 days prior to May 8, 2017, then the College will advise the contractor of an alternate start date.

## 6. WORK HOURS

6-1 All work (except Area #11-see Section 2-12 b) is to be performed during normal work hours 8:00 am to 4:30 pm, Monday through Friday. If additional work hours are required to complete all work in the work period specified, they shall be included in the contractor's bid price. Approval of the College shall be requested by the contractor in writing 48 hours prior to the desired work date.

6-2 The work hours in this Section take precedent over and will supercede any conflicting references to hours of work elsewhere in these plans and specifications.

## 7. WARRANTY

7-1 All materials and workmanship shall be replaced at no cost for a period of two years from the date of final payment unless noted otherwise.

## 8. SCHEDULE OF ALLOWANCES

8-1 The purpose of the Allowance is to establish unit costs for Additions and Deletions of specific items that may be required during the course of construction. The Total Allowance amount shall be added to the Base Bid amount on Page D-1.3 to establish the basis of award. It is intended that a Contract be awarded for the total of the Base Bid amount. Items include the following:

Remove and replace damaged 4" stabilized base.
Remove and dispose of unsuitable soil & install 4" DGA.
Remove and dispose of unsuitable soil & install 24" DGA.
Install 4" stabilized base.
Install 2" asphalt surface course.
Install 4" thick concrete sidewalk w/6"x6" #6 mesh.
Install 6" thick concrete sidewalk w/6"x6" #6 mesh.
Install concrete curb.
Install ADA Detectable Warning Tile.

These amounts are to include **all** costs including Overhead and Profit. The Contractor's amount shall be arrived at using quantities indicated on the **CONTRACTOR'S PROPOSAL** form.

## 9. ADDITIONAL INFORMATION

9-1 Additional information may be obtained from the following individuals:

| | |
|---|---|
| Facility/Specifications: | Randolph R. Larate<br>Director, Facilities Engineering<br>732-906-7780<br>732-906-4199 Fax |
| Proposal: | David Fricke<br>Director of Purchasing<br>732-906-2519<br>732-906-4236 Fax |