

## **GOODWIN PARK- PICKLE BALL COURT**

### INSTRUCTIONS FOR PRICE QUOTES

RE: FENCE INSTALLATION

#### PART 1 – PROPOSALS

- A. Price Quotes are requested for the installation of perimeter fencing around two pickle ball courts for the Fox Valley Park District, (hereinafter referred to as FVPD or Owner), to be performed in accordance with the attached Instructions, scope of work and sketches.
- B. The work site is located at Goodwin Elementary School, Goodwin Park, at the intersection of Cypress Lane and Harmony Court, North Aurora, Illinois.
- C. Documents consist of the following:
  - Instructions for Price Quotes
  - Prevailing Wage and Compliance Affidavit
  - Contractor's Drug Free Workplace Certification
  - Certificate Regarding Sexual Harassment Policy
  - Certificate Regarding Training
  - Layout showing the extent of perimeter fence along with associated details.
  - Section 32 31 13 – Chain Link Fences and Gates.
  - Section 32 13 13 – Concrete Pavement.

#### PART 2 – PRICE QUOTE

- A. Pricing shall be received prior to 3:00 pm, local time, on Thursday, March 16, 2017 at the Cole Center, administrative office of the Fox Valley Park District, 101 W. Illinois Ave., Aurora, Illinois 60506 or emailed to the attention of Greg Stevens, [gstevens@fvpd.net](mailto:gstevens@fvpd.net). prior to this time.
- B. The contractor is responsible for verifying quantities for pricing purposes. The lump sum price shall be for an installed and complete project as specified.
- C. Proposal submittals to consist of:
  - A formal lump sum proposal on company letterhead.
  - A signed Prevailing Wage and Compliance Affidavit
  - A signed Contractor's Drug Free Workplace Certification.
  - A signed Certificate Regarding Sexual Harassment Policy.
  - A signed Certificate of Training.

## PART 3 – SCOPE OF WORK

### A. FENCE INSTALLATION

#### Included:

1. The work shall consist of the installation of approximately two hundred, seventy-four (274) linear feet, of 6' high PVC coated fence.
2. The installation of two (2), 3' wide gates.
3. The installation of approximately twenty-five (25) square feet of concrete pad at the gate location.

#### Not Included:

1. The limestone screening maintenance strip and associated topsoil excavation under the fence location will be the responsibility of the Owner.

## PART 4 – WORK SCHEDULE

- A. The work under this proposal can begin as early as Monday, June 3, 2017 or when school is out for the summer, whichever occurs first, and be substantially complete by June 17, 2017.

## PART 5 - EXAMINATION OF DOCUMENTS AND INSPECTION OF SITE

- A. Before submitting a Proposal, Contractors shall carefully examine the Project Manual, Drawings and Specifications, visit the site of work, fully inform themselves of all existing conditions and limitations, and include in the Proposal a sum to cover the cost of all items to be constructed.
- B. The failure or omission of any contractor to receive or examine any form or document, or to visit the site and become acquainted with existing conditions shall in no way relieve the contractor from any obligation with respect to his proposal. No pleas of ignorance, oversight or miscalculation of the conditions prevailing shall suffice to secure withdrawal of a Proposal submitted or to invalidate the Contract or bond after its execution.

## PART 6 - ACCEPTANCE OR REJECTION OF PROPOSAL

The Contract, if awarded, will be awarded to the responsible contractor who submits the lowest responsive and best qualified proposal complying with these instructions and all other documents. The FVPD will accept or reject proposals after analysis of the proposals, and reserves the right to accept or reject any or all proposals, or to waive any informality or technicality in any proposal in the interest of the owner.

## PART 7 - SUBSTITUTIONS AND MODIFICATIONS

Use of an alternative product must be approved by the Owner. Failure to pre-approve an alternative product assumes (mandates) that the contractor has reflected an intended use of the materials and/or manufacturers of the products specified in the Drawings and Specifications.

Whenever in the Project Manual or on the Drawings any material, equipment, device or process is specified or indicated by patent or proprietary name, or by name of its manufacturer, such reference to a material, equipment, device or process has been used to establish a type and quality.

References to the term "equal" or "approved equal" shall mean that an item substituted for a proprietary item shall be of equal or greater quality and shall be approved in the manner described in this section.

## PART 8 - INTERPRETATION OF DOCUMENTS

Questions may be directed to:

Greg Stevens  
Senior Park Planner  
Fox Valley Park District  
[gstevens@fvpd.net](mailto:gstevens@fvpd.net)  
630-897-0516

## PART 9 - APPLICABLE PREVAILING WAGE AND LABOR LAWS.

A signed Prevailing Wage and Compliance Affidavit shall be included in the proposal.

## PART 10 - SALES TAX EXEMPTION

The Fox Valley Park District is exempt from payment of the Retailer's Occupation Tax, the Service Occupation Tax (both state and local), the Use Tax and the Service Use Tax, as required by Illinois law. No tax shall be charged for purchases made on behalf of the Fox Valley Park District.

## PART 11 – SUBSTANCE ABUSE PREVENTION

The Contractor shall comply with and cause all subcontractors to comply with the requirements and provisions of the Illinois Substance Abuse Prevention on Public Works Projects Act (820 ILCS 265/1 et seq.) (the “Act”).

Failure by the Contractor to comply with the requirements of the Illinois Substance Abuse Prevention on Public Works Projects Act shall constitute a material default of the Contract and shall give the Owner the right to pursue any remedy available to it at law or in equity, including termination of the Agreement for cause in the Owner’s sole discretion and any other remedy as provided in the Contract. In the event of a default hereunder, Contractor shall also pay to the Owner all damages Owner is entitled to under the Contract that arise from the default, together with interest, costs and the Owner’s reasonable attorney fees.

## PART 12 – GRANT FUNDING

This project is not funded by the Illinois Department of Natural Resources through an Open Space Land Acquisition and Development (OSLAD) grant.

## PART 13 – BUILDING PERMITS

No building permits will be required for this work.

## PART 14 – INSURANCE

The Contractor shall maintain commercial general liability (CGL) insurance.

END OF INSTRUCTIONS FOR PRICE QUOTES

SECTION 00 45 27 - PREVAILING WAGE AND COMPLIANCE AFFIDAVIT

I, \_\_\_\_\_ on oath hereby state and certify  
(President)

that \_\_\_\_\_ pursuant to a contract  
(Company)

dated \_\_\_\_\_

with the Fox Valley Park District, an Illinois Municipal Corporation, has complied and will comply with all laws, including those relating to the employment of labor and the payment of the current general prevailing rate of hourly wages for each craft or type of worker or mechanic needed to execute the contract or perform such work, also the current general prevailing rate for legal holiday and overtime work, as ascertained by the Illinois Department of Labor for Kane County, Illinois, and those prevailing rates are paid and shall be paid for each craft or type of worker needed to execute the aforesaid contract or to perform such work.

I also certify that \_\_\_\_\_  
(Company)

shall abide by and comply with all applicable local and State laws relating workmen's compensation, fair employment practices, and prohibiting discrimination in employment as set forth in the IL Human Rights Act including having a written sexual harassment policy.

I further certify that \_\_\_\_\_  
(Company)

has not been barred from being awarded a contract with a unit of State or local government as a result of a violation or Section 33E-3 or 33E-4 of the Criminal Code of 1961.

\_\_\_\_\_  
Signature

Subscribed and sworn to before me

This \_\_\_\_\_ day of \_\_\_\_\_, 2017

\_\_\_\_\_  
(Notary Public)

END OF SECTION 00 45 27

SECTION 00 45 47 – CONTRACTOR’S DRUG FREE WORKPLACE CERTIFICATION

- 1.01 Pursuant to 30 ILCS 580/1 et seq. (the “Drug Free Workplace Act”), the undersigned Contractor hereby certifies to the Fox Valley Park District that it will provide a drug free workplace by:
- A. Publishing a statement:
    - 1. Notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of controlled substance, including cannabis, is prohibited in the contractor’s workplace.
    - 2. Specifying the actions that will be taken against employees for violations of such prohibition;
    - 3. Notifying the employee that, as a condition of employment on such contract, that employee will;
      - a. Abide by the terms of the statement, and
      - b. Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than 5 days after such conviction.
  - B. Establishing a drug free awareness program to inform employees about:
    - 1. The dangers of drug abuse in the workplace;
    - 2. The contractor’s policy of maintaining a drug free workplace;
    - 3. Any available drug counseling, rehabilitation, and employee assistance programs, and;
    - 4. The penalties that may be imposed upon employees for drug violations.
  - C. Making it a requirement to give a copy of the statement required by subsection a) to each employee engaged in the performance of the contract and to post the statement in a prominent place in the workplace.
  - D. Notifying the contracting or granting agency within 10 days after receiving notice under part b) of paragraph 3) of subsection a) from an employee or otherwise receiving actual notice of such conviction.
  - E. Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by, any employee who is so convicted, as required by Section 5 of the Drug Free Workplace Act.
  - F. Assisting employees in selecting a course of action in the event of drug counseling, treatment, and rehabilitation is required and indicating that a trained referral team is in place.
  - G. Making a good faith effort to continue to maintain a drug free workplace through implementation of Section 3 of the Drug Free Workplace Act.

- H. Failure to abide by this Contractor's Drug Free Workplace Certification shall subject the Contractor to the penalties set forth in Sections 6, 7 and 8 of the Drug Free Workplace Act.
- I. Notice: This Contractor's Drug Free Workplace Certification is to be completed by any corporations, partnerships or other entities with twenty-five or more employees at the time of the contract, or a department, division or unit thereof, directly responsible for the performance of a contract of \$5,000 or more with the Fox Valley Park District.

\_\_\_\_\_  
Name of Contractor

By: \_\_\_\_\_

Its: \_\_\_\_\_

Attest:

By: \_\_\_\_\_

Its: \_\_\_\_\_

Dated: \_\_\_\_\_

1.02 INDIVIDUAL'S DRUG FREE WORKPLACE CERTIFICATION

A. Pursuant to 30 ILCS 580/1 et seq. (the "Drug Free Workplace Act"), the undersigned individual certifies to the Fox Valley Park District that the individual will not engage in the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance in the performance of the contract.

B. Failure to abide by this individual's Drug Free Workplace Certification shall submit the individual to the penalties set forth in Sections 6, 7 and 8 of the Drug Free Workplace Act.

C. Notice: This Individual's Drug Free Workplace Certification is to be completed by any individual directly responsible for the performance of a contract of \$5,000 or more with the Fox Valley Park District.

\_\_\_\_\_  
Name of Individual

By: \_\_\_\_\_

Dated: \_\_\_\_\_

END OF SECTION 00 45 47



SECTION 00 45 48 - CERTIFICATE REGARDING SEXUAL HARASSMENT POLICY

The undersigned, does hereby certify pursuant to section 2-105 of the Illinois Human Rights Act (775 ILCS 5/2-105) that it has a written sexual harassment policy that includes, at a minimum, the following information: (i) the illegality of sexual harassment; (ii) the definition of sexual harassment under State law; (iii) a description of sexual harassment, utilizing examples; (iv) an internal complaint process including penalties; (v) the legal recourse, investigative and complaint process available through the Department of Human Rights and Human Rights Commission; (vi) direction on how to contact the Department of Human Rights and Human Rights Commission; and (vii) protection against retaliation as provided by Section 6-101 of the Human Rights Act.

\_\_\_\_\_  
Name of Bidder (Please Print)

\_\_\_\_\_  
Submitted by (Signature)

\_\_\_\_\_  
Title

\_\_\_\_\_, 2017  
Date

END OF SECTION – 00 45 48

SECTION 00 45 49 - CERTIFICATE REGARDING TRAINING

Pursuant to the Fox Valley Park District's Responsible Bidder Ordinance, (16-473. Section 2.F), "The bidder for such public works contracts must participate in active apprenticeship and training programs approved and registered with the United States Department of Labor's Bureau of Apprenticeship and Training."

Describe any certificates, licenses or training your skilled labor has had or will receive:

Certificates:

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Licenses:

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Training:

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\_\_\_\_\_  
Name of Bidder (Please Print)

\_\_\_\_\_  
Submitted by (Signature)

\_\_\_\_\_  
Title

\_\_\_\_\_, 2017  
Date

END OF SECTION – 00 45 49

## SECTION 32 13 13 -CONCRETE PAVEMENT

### 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 exterior cement concrete pavement for the following:
  - 1. Concrete perimeter maintenance strip.
- B. Related Sections include the following:
  - 1. Division 32 Section "Decorative Concrete Paving" for general color additives and texture applications.

#### 1.3 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, expansive hydraulic cement, fly ash and other pozzolans, ground granulated blast-furnace slag, and silica fume.

#### 1.4 SUBMITTALS

- A. Product Data: For each type of manufactured material and product indicated.
- B. Installer Qualifications: An experienced installer who has completed pavement work similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

## 1.5 PROJECT CONDITIONS

- A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.

## 1.6 PAYMENT:

- A. If concrete testing is required, it shall be the responsibility of the Contractor to pay for all testing and result documentation related to soil testing, aggregate base material testing and concrete testing.

## PART 2 - PRODUCTS

### 2.1 FORMS

- A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, smooth exposed surfaces.
  - 1. Use flexible or curved forms for curves of a radius 100 feet or less.
- B. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

### 2.2 STEEL REINFORCEMENT

- A. Epoxy-Coated Reinforcement Bars: ASTM A 775/A 775M; with ASTM A 615/A 615M, Grade 60, deformed bars.
- B. Epoxy-Coated Joint Dowel Bars: ASTM A 775/A 775M; with ASTM A 615/A 615M, Grade 60 , plain steel bars.
- C. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcement bars, welded wire fabric, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete or fiber-reinforced concrete of greater compressive strength than concrete, and as follows:
  - 1. Equip wire bar supports with sand plates or horizontal runners where base material will not support chair legs.
  - 2. For epoxy-coated reinforcement, use epoxy-coated or other dielectric-polymer coated wire bar supports.

- D. Epoxy Repair Coating: Liquid two-part epoxy repair coating, compatible with epoxy coating on reinforcement.

## 2.3 CONCRETE MATERIALS

- A. General: Use the same brand and type of cementitious material from the same manufacturer throughout the Project.
- B. Portland Cement: ASTM C 150, Type I.
  - 1. Fly Ash: ASTM C 618, Class F or C.
  - 2. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.
- C. Aggregate: ASTM C 33, uniformly graded, from a single source, with coarse aggregate as follows:
  - 1. Class: 4S.
  - 2. Maximum Aggregate Size: 1-1/2 inches nominal.
- D. Water: ASTM C 94.

## 2.4 ADMIXTURES

- A. General: Admixtures certified by manufacturer to contain not more than 0.1 percent water-soluble chloride ions by mass of cement and to be compatible with other admixtures.
- B. Air-Entraining Admixture: ASTM C 260.
- C. Water-Reducing Admixture: ASTM C 494, Type A.
- D. High-Range, Water-Reducing Admixture: ASTM C 494, Type F.
- E. Water-Reducing and Accelerating Admixture: ASTM C 494, Type E.
- F. Water-Reducing and Retarding Admixture: ASTM C 494, Type D.

## 2.5 FIBER REINFORCEMENT

- A. Synthetic Fiber: Fibrillated or monofilament polypropylene fibers engineered and designed for use in concrete pavement, complying with ASTM C 1116, Type III, 1/2" to 3/4" inches long.

B. Products: Subject to compliance with requirements, provide one of the following:

1. Monofilament Fibers:

- a. Fibrasol IIP; Axim Concrete Technologies.
- b. Fiberstrand 100; Euclid Chemical Co.
- c. Fibermix Stealth; Fibermesh, Div. of Synthetic Industries.
- d. Forta Mono; Forta Corporation.
- e. Grace MicroFiber; W. R. Grace & Co., Construction Products Div.
- f. Polystrand 1000; Metalcrete Industries.

## 2.6 CURING MATERIALS

A. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. dry.

B. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.

C. Water: Potable.

D. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.

E. Clear Waterborne Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B.

F. Products: Subject to compliance with requirements, provide one of the following:

1. Evaporation Retarder:

- a. Cimfilm; Axim Concrete Technologies.
- b. Finishing Aid Concentrate; Burke Group, LLC (The).
- c. Spray-Film; ChemMasters.
- d. Aquafilm; Conspec Marketing & Manufacturing Co., Inc.
- e. Sure Film; Dayton Superior Corporation.
- f. Eucobar; Euclid Chemical Co.
- g. Vapor Aid; Kaufman Products, Inc.
- h. Lambco Skin; Lambert Corporation.
- i. E-Con; L&M Construction Chemicals, Inc.
- j. Confilm; Master Builders, Inc.
- k. Waterhold; Metalcrete Industries.
- l. Rich Film; Richmond Screw Anchor Co.
- m. SikaFilm; Sika Corporation.
- n. Finishing Aid; Symons Corporation.
- o. Certi-Vex EnvioAssist; Vexcon Chemicals, Inc.

2. Clear Waterborne Membrane-Forming Curing Compound:
  - a. AH Curing Compound #2 DR WB; Anti-Hydro International, Inc.
  - b. Aqua Resin Cure; Burke Group, LLC (The).
  - c. Safe-Cure Clear; ChemMasters.
  - d. W.B. Resin Cure; Conspec Marketing & Manufacturing Co., Inc.
  - e. Day Chem Rez Cure (J-11-W); Dayton Superior Corporation.
  - f. Nitocure S; Fosroc.
  - g. Aqua Kure-Clear; Lambert Corporation.
  - h. L&M Cure R; L&M Construction Chemicals, Inc.
  - i. 1100 Clear; W. R. Meadows, Inc.
  - j. Resin Cure E; Nox-Crete Products Group, Kinsman Corporation.
  - k. Rich Cure E; Richmond Screw Anchor Co.
  - l. Resi-Chem Clear Cure; Symons Corporation.
  - m. Horncure 100; Tamms Industries Co., Div. of LaPorte Construction Chemicals North America, Inc.
  - n. Hydro Cure; Unitex.
  - o. Certi-Vex Enviocure; Vexcon Chemicals, Inc.

## 2.7 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: Proflex vinyl expansion joint or approved equal as manufactured by Right/Pointe Company, 234 Harvestore Drive, Dekalb, Illinois 60115, 888-755-5700 or [www.rightpointe.com](http://www.rightpointe.com).

## 2.8 CONCRETE MIXES

- A. Proportion mixes to provide concrete with the following properties:
  1. Compressive Strength (14 Days): 3500 psi .
  2. Maximum Water-Cementitious Materials Ratio: 0.50.
  3. Slump Limit: 4 inches.
- B. All concrete curb and gutter shall be constructed of Class SI concrete and shall be from finished. Concrete test cylinders shall be taken each day that concrete is being poured. A compressive strength of at least 3,500 psi shall be verified by an independent laboratory for the concrete work to be acceptable.
- C. All concrete work shall be sealed with Ozinga Water Stopper S-20 or approved equal, immediately after seven (7) days of curing at a rate of 300 S.F. per gallon utilizing a spray application. The surface must be thoroughly clean and dry for application.
- D. Synthetic Fiber: Uniformly disperse in concrete mix at manufacturer's recommended rate, but not less than 1.0 lb/cu. yd.

## 2.9 CONCRETE MIXING

- A. Ready-Mixed Concrete: Comply with requirements and with ASTM C 94 and ASTM C 1116.
  - 1. When air temperature is between 85 deg F and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Proof-roll prepared subbase surface to check for unstable areas and verify need for additional compaction. Proceed with pavement only after nonconforming conditions have been corrected and subgrade is ready to receive pavement.
- B. Remove loose material from compacted subbase surface immediately before placing concrete.

### 3.2 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides for pavement to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.
- B. Clean forms after each use and coat with form release agent to ensure separation from concrete without damage.

### 3.3 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating reinforcement and with recommendations in CRSI's "Placing Reinforcing Bars" for placing and supporting reinforcement.
  - 1. Apply epoxy repair coating to uncoated or damaged surfaces of epoxy-coated reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.



- C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.
- D. Install welded wire fabric in lengths as long as practicable. Lap adjoining pieces at least one full mesh, and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.
- E. Install fabricated bar mats in lengths as long as practicable. Handle units to keep them flat and free of distortions. Straighten bends, kinks, and other irregularities, or replace units as required before placement. Set mats for a minimum 2-inch (50-mm) overlap to adjacent mats.

#### 3.4 FIBER REINFORCEMENT:

- A. Fiber reinforcement shall be added to the concrete mix at a rate of 1.0 lbs./cubic yard of concrete. Add directly to the concrete mixing system during, or after, the batching of the other ingredients and mixed at the time and speed recommended by the mixer manufacturer, usually four to five minutes.

#### 3.4 JOINTS

- A. General: Construct construction, isolation, and contraction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated.
  - 1. When joining existing pavement, place transverse joints to align with previously placed joints, unless otherwise indicated.
- B. Construction Joints: Set construction joints at side and end terminations of pavement and at locations where pavement operations are stopped for more than one-half hour, unless pavement terminates at isolation joints.
  - 1. Continue reinforcement across construction joints, unless otherwise indicated. Do not continue reinforcement through sides of pavement strips, unless otherwise indicated.
  - 2. Provide tie bars at sides of pavement strips where indicated.
  - 3. Use epoxy bonding adhesive at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
- C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.
  - 1. Locate expansion joints at intervals of 50 feet, unless otherwise indicated.
  - 2. Extend joint fillers full width and depth of joint.
  - 3. Terminate joint filler less than 1/2 inch or more than 1 inch below finished surface if joint sealant is indicated.

4. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.
  5. Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.
  6. Protect top edge of joint filler during concrete placement with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.
- D. Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt-coat one-half of dowel length to prevent concrete bonding to one side of joint.
- E. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, as follows:
1. Saw Cut Joints: Saw cut contraction joint after concrete has cured by establishing lines as shown on the Plan.
    - a. 1/8" W x 1/2" D
- F. Edging: Tool edges of pavement, gutters, curbs, and joints in concrete after initial floating with an edging tool to the following radius. Repeat tooling of edges after applying surface finishes. Eliminate tool marks on concrete surfaces.
1. Radius: 1/4 inch.

### 3.5 CONCRETE PLACEMENT

- A. Inspection: Before placing concrete, inspect and complete formwork installation, reinforcement steel, and items to be embedded or cast in. Notify other trades to permit installation of their work.
- B. Remove snow, ice, or frost from subbase surface and reinforcement before placing concrete. Do not place concrete on frozen surfaces.
- C. Moisten subbase to provide a uniform dampened condition at the time concrete is placed. Do not place concrete around manholes or other structures until they are at the required finish elevation and alignment.
- D. Comply with requirements and with recommendations in ACI 304R for measuring, mixing, transporting, and placing concrete.
- E. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.

- F. Consolidate concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, or tamping. Use equipment and procedures to consolidate concrete according to recommendations in ACI 309R.
  - 1. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand-spreading and consolidation. Consolidate with care to prevent dislocating reinforcement, dowels, and joint devices.
- G. Place concrete in two operations; strike off initial pour for entire width of placement and to the required depth below finish surface. Lay welded wire fabric or fabricated bar mats immediately in final position. Place top layer of concrete, strike off, and screed.
  - 1. Remove and replace portions of bottom layer of concrete that have been placed more than 15 minutes without being covered by top layer, or use bonding agent if approved by Architect.
- H. Screed pavement surfaces with a straightedge and strike off. Commence initial floating using bull floats or darbies to form an open textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading dry-shake surface treatments.
- I. When adjoining pavement lanes are placed in separate pours, do not operate equipment on concrete until pavement has attained 85 percent of its 28-day compressive strength.
- J. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
  - 1. When air temperature has fallen to or is expected to fall below 40 deg F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F and not more than 80 deg F at point of placement.
  - 2. Do not use frozen materials or materials containing ice or snow.
  - 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators, unless otherwise specified and approved in mix designs.
- K. Hot-Weather Placement: Place concrete according to recommendations in ACI 305R and as follows when hot-weather conditions exist:
  - 1. Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 deg F. Chilled mixing water or chopped ice may be used to

control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.

2. Cover reinforcement steel with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
3. Fog-spray forms, reinforcement steel, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

### 3.6 CONCRETE FINISHING

- A. General: Wetting of concrete surfaces during screeding, initial floating, or finishing operations is prohibited.
- B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and the concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats, or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots, and fill low spots. Refloat surface immediately to uniform granular texture.
  1. Medium-to-Fine-Textured Broom Finish: Draw a soft bristle broom across float-finished concrete surface perpendicular to the court surface to provide a uniform, fine-line texture.

### 3.7 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and follow recommendations in ACI 305R for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Begin curing after finishing concrete, but not before free water has disappeared from concrete surface.
- D. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination of these as follows:
  1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
    - a. Water.
    - b. Continuous water-fog spray.
    - c. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.

2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

### 3.8 PAVEMENT CONCRETE SEALANT

- A. Allow newly poured concrete to cure for a minimum of 28 days before applying water repellent treatment.
- B. Surfaces must be structurally sound, dry, clean and free of all contaminants that will prevent the penetration of the repellent treatment.
- C. Apply per Manufacturer's recommended guidelines.
- D. Two (2) coats are to be provided.
- E. Allow a minimum of 24 hours drying time between coats.
- F. Protect areas from foot traffic a minimum of 24 hours before using.

### 3.9 TOLERANCES

- A. Comply with tolerances of ACI 117 and as follows:
  1. Elevation: 1/4 inch.
  2. Thickness: Plus 3/8 inch, minus 1/4 inch.
  3. Surface: Gap below 10-foot- long, unlevelled straightedge not to exceed 1/4 inch.
  4. Lateral Alignment and Spacing of Tie Bars and Dowels: 1 inch.
  5. Vertical Alignment of Tie Bars and Dowels: 1/4 inch.
  6. Alignment of Tie-Bar End Relative to Line Perpendicular to Pavement Edge: 1/2 inch.
  7. Alignment of Dowel-Bar End Relative to Line Perpendicular to Pavement Edge: Length of dowel 1/4 inch per 12 inches.
  8. Joint Spacing: 2 inches.
  9. Contraction Joint Depth: Plus 1/4 inch, no minus.
  10. Joint Width: Plus 1/8 inch, no minus.

3.10 REPAIRS AND PROTECTION

- A. Remove and replace concrete pavement that is broken, damaged, or defective, or does not meet requirements in this Section.
- B. Drill test cores where directed by Landscape Architect when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with portland cement concrete bonded to pavement with epoxy adhesive.
- C. Protect concrete from damage. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.
- D. Maintain concrete pavement free of stains, discoloration, dirt, and other foreign material. Sweep concrete pavement not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION 32 13 13

## SECTION 32 31 13 – COATED CHAIN LINK FENCING SYSTEM

### PART 1 – GENERAL

#### 1.1 SUMMARY

- A. Section includes chain link fencing and accessories for commercial and industrial use.

#### 1.2 SUBMITTALS

- A. Shop drawings: Layout of fences and gates with dimensions, details, and finishes of components, accessories, and post foundations.
- B. Product data: Manufacturer's catalog cut sheets indicating material compliance and specified options.
- C. Samples: Color selection for PVC finishes. If requested, samples of materials (e.g., fabric, wires, and accessories).

#### 1.3 WARRANTY

- A. Provide manufacturer's standard limited warranty that chain link fence fabric is free from defects in material and workmanship for a period of 15 years from the date of purchase.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURER

- A. Products shall originate from a qualified manufacturer having a minimum of five years' experience in manufacturing PVC coated chain link fencing.
- B. Obtain chain link fences and gates, including accessories, fittings, and fastenings, from a single source.

## 2.2 CHAIN LINK FENCE FABRIC

- A. PVC coated, 6 mil (0.15 mm) to 10 mil (0.25mm) thickness, thermally fused to zinc-coated steel core wire, per ASTM F668 Class 2b. Core wire tensile strength 75,000 psi.
- B. Size: Helically wound and woven to a height as indicated on the Ball Field Fence Schedule as part of the Drawings with a 2 inch diamond mesh with a finished gauge of 8 with a core wire diameter of 9 gauge as listed on the Ball Field Fence Schedule.
- C. Color: Black per ASTM F934.
- D. Selvage of fabric shall have a knuckled finish at the top and bottom.

## 2.3 STEEL FENCE FRAMING

- A. Framework: SS-40 or MT-40, fence framework conforming to Standard Specification ASTM F 1043, Group 1C. High-strength steel pipe triple coated per ASTM F 1043: external coating, Type B; internal coating, Type D.
- B. PVC Coated finish: In accordance with ASTM F 1043, apply supplemental color coating of 10 to 15 mils in Black color to match fabric.
- C. Pipe diameter: See Ball Field Fence Schedule on Drawings.

## 2.4 ACCESSORIES

- A. Chain link fence accessories: Provide items required to complete fence system. Galvanize each ferrous metal item and finish to match framing.
- B. Post caps: PVC-coated formed steel, cast malleable iron, or aluminum alloy weather tight closure cap for tubular posts. Provide one cap for each post.
- C. Top rail and brace rail ends: PVC-coated pressed steel per ASTM F626, for connection of rail and brace to terminal posts.
- D. Sleeves: Lengths of top rails to be connected using 6" PVC-coated sleeves that allow for expansion or contraction of the rail.
- E. Tie Wire: PVC-coated, 9 gauge (3.76 mm) galvanized steel or aluminum for attachment of chain link fabric to posts and rails. Hog rings attach fabric to tension wire to be 12 ½ Gauge (2.502) mm.
- F. Brace and tension (stretcher bar) bands: PVC-coated pressed steel.
- G. Tension (stretcher) bars made of one continuous piece of steel or aluminum, 3/16" x 3/4" (4.76 mm x 19 mm). Provide one bar per end or gate post and two bars per corner or pull post.



- H. Tension wire: PVC applied to metallic coated steel wire per ASTM F 1664, Class 2a, 6 gauge (4.88 mm) diameter core wire with tensile strength of 75,000 psi.
- I. Truss rods and tightener: PVC-coated steel rods with minimum diameter of 3/16" (7.9 mm). Capable of withstanding a tension of 2,000 lbs., minimum.
- J. Nuts and bolts are galvanized but not vinyl coated. Cans of PVC touch up paint are available to color coat nuts and bolts if desired.

## 2.7 SETTING MATERIALS

- A. Concrete: Minimum 28 day compressive strength of 3,000 psi.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verify areas to receive fencing are completed to final grades and elevations.
- B. Ensure property lines and legal boundaries or work are clearly established.

### 3.2 CHAIN LINE FENCE FRAMING INSTALLATION

- A. Install chain link fence in accordance with ASTM F 567 and manufacturer's instructions.
- B. Locate terminal post at each fence termination and change in horizontal or vertical direction of 30° or more.
- C. Space line posts uniformly at as shown on the Drawings, but not to exceed 10' o.c.
- D. Concrete set terminal and gate posts: Drill holes in firm, undisturbed or compacted soil. Holes shall have a diameter 4 times greater than outside dimension of post, and depths approximately 6" (152 mm) deeper than post bottom. Excavate deeper as required for adequate support in soft and loose solid, and for posts with heavy lateral loads. Set post bottom as shown on the Drawings. Place concrete around posts in a continuous pour. Trowel finish around post. Slope to direct water sway from posts.
- E. Check each post for vertical and top alignment, and maintain in position during placement and finishing operations.
- F. Bracing: Install horizontal pipe brace at mid-height for fences 6' (1829 mm) and over, on each side of terminal posts. Firmly attach with fittings. Install diagonal truss rods at these points. Adjust truss rod, ensuring posts remain plumb.

- G. Tension wire: Provide tension wire at bottom of fabric. Install tension wire before stretching fabric and attach to each post with ties. Secure tension wire to fabric with 12 ½ gauge (2.0502 mm) hog rings 24" (610 mm) o.c.
- H. Top rail: Install lengths, 21' (6400 mm). Connect joints with sleeves for rigid connections for expansion/contraction.
- I. Center rails are to be installed when fence fabric is 12' (3658 mm) or higher, or when shown on the Drawings.
- J. Bottom rails are to be installed as per the Drawings.

### 3.3 CHAIN LINK FABRIC INSTALLATION

- A. Fabric: Install fabric on security side and attach so that fabric remains in tension after pulling force is released. Leave approximately 1" between finish grade and bottom selvage. Attach fabric with wire ties to line posts at 15" (381 mm) on center and to rails, braces, and tension wire at 24" (600 mm) on center.
- B. Tension (stretcher) bars: Pull fabric taught, thread tension bar through fabric and attach to terminal posts with bands or clips spaced maximum of 15" (381 mm) on center.

### 3.4 ACCESSORIES

- A. Tie wires: Bend ends of wire to minimize hazard to persons and clothing.
- B. Fasteners: Install nuts on side of fence opposite fabric side of added security.

### 3.5 CLEANING

- A. Clean up debris and unused material, and remove from the site.

END OF SECTION 32 31 13