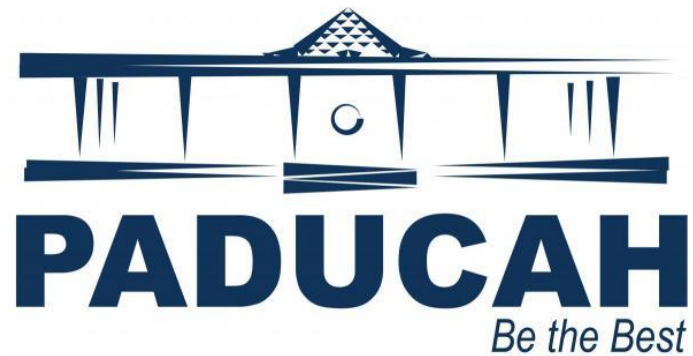


# **CITY OF PADUCAH**

## **DEPARTMENT OF PARKS AND RECREATION**



### **CONSTRUCTION OF ROBERT CHERRY CIVIC CENTER PARKING LOT REHABILITATION**

#### **PROJECT MANUAL & BID DOCUMENTS**

04/10/2024

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## INVITATION TO BID

### RECEIPT OF PROPOSALS

The City of Paducah, Department of Parks and Recreation will receive bids for **Robert Cherry Civic Center Parking Lot Rehabilitation** on **Wednesday, May 1, 2024**, at **10:00 a.m., local time**. All Bids shall be received at City Hall, in the City Clerk's office and shall be clearly labeled as "BID for CONSTRUCTION OF ROBERT CHERRY CIVIC CENTER PARKING LOT REHABILITATION". Bids will be publicly opened and read aloud in the Commission Chambers, Second Floor, City Hall, 300 South 5th Street, Paducah, Kentucky. A **PRE-BID MEETING** will be held **on the Project Site at the Robert Cherry Civic Center, Friday, April 19, 2024** at **10:00 a.m., local time**. The PRE-BID Meeting is NOT Mandatory, but informational only.

### PROJECT DESCRIPTION

Project includes removal of asphalt and base, backfill with topsoil, seeding, and installation of hot mix asphalt per the project drawings and specifications.

### OBTAINING CONTRACT DOCUMENTS

Copies of and specifications may be obtained at:

#### **River City Printing, LLC**

222 Kentucky Ave., Paducah, Kentucky 42001

Phone: (270) 557-7837

Web: <http://www.rivercityprintingllc.com>

Email: [info@rivercityprintingllc.com](mailto:info@rivercityprintingllc.com)

Paper or Electronic copies of the plans may be obtained upon payment as required by **River City Printing, LLC**.

Plans and specifications are also available for viewing only at the following locations:

City of Paducah  
Department of Parks and Recreation  
1400 H.C. Mathis Drive  
Paducah Kentucky 42003

AGC of Western Kentucky  
2201 McCracken Boulevard  
Paducah KY 42001

### BID SECURITY

A satisfactory Bid Bond executed by the Bidder or a certified bank cashier's check in an amount equal to **five percent (5%)** of the bid shall be submitted with each bid. No other forms of security will be accepted. Failure to submit a bid bond or certified bank cashier's check will result in disqualification of the bid. This Security is furnished to the Owner as a guarantee that the agreement will be executed and all bonds required shall be furnished within ten (10) days after award of the Contract to the undersigned.

### PREFERENCE TO KENTUCKY BIDDERS

In accordance with KRS 45A.365, prior to a contract being awarded, a resident bidder of the Commonwealth shall be given a preference against a non-resident bidder registered in any state that gives or requires a preference to bidders from that state. The preference shall be equal to the preference given or required by the state of the non-resident bidder.

### EQUAL EMPLOYMENT OPPORTUNITY

The Contractor shall ensure that employees and applicants for employment are not discriminated against because of their race, religion, color, sex national origin, age, or disability.

OWNER'S RIGHTS RESERVED

Bids will be awarded to the responsible bidder who submits responsive bid of lowest bid price in accordance with the Specifications after the application of any reciprocal preferences for Resident Bidders. The City of Paducah, KY reserves the right to reject any and all bids in accordance with the City of Paducah's Code of Ordinances and the Project Specifications.

Acceptance of Alternates: The City reserves the right to accept/reject Additive and/or Deductive Alternates in any order it deems appropriate regardless of cost or order in which they are listed within the Bid Documents.

## INFORMATION FOR BIDDERS

### BIDS

All competitive sealed bids and purchasing procedures shall be in accordance with the City of Paducah's Code of Ordinances Chapter 2 Procurement, KRS 45A.345 – 45A.460, and the specifications contained herein.

All bids shall be submitted on forms supplied by the City of Paducah. Wording of the Bid Form or Bid Proposal shall not be altered, changed and/or modified. Bids submitted showing any alterations, changes, and/or modifications to the Bid Proposal shall be rejected. Unauthorized conditions, limitations, or provision attached to the proposal shall be cause for rejection of the proposal. Alterations by erasure or interlineations must be explained or noted in the bid over the signature of the Bidder.

Bid Documents including the Bid Guaranty, shall be enclosed in an envelope clearly labeled with the words "**Bid Documents, Name of Project, Name of Bidder, and Date and Time of Bid Opening,**" in order to guard against premature opening of the bid.

Each bid shall be addressed and delivered to the **City of Paducah Department of Parks and Recreation, c/o Paducah City Clerk, City Hall, 300 South 5th Street, P.O. Box 2267, Paducah, Kentucky, 42002-2267**, on or before the day and hour set for opening of bids. It is the sole responsibility of the bidder to see that the bid is received on time and is properly labeled. The Owner will not be responsible for premature opening of a bid not properly addressed and identified.

No electronic bid, faxed bid, telegraphic bid or telegraphic modifications of bid will be considered. No bids received after the time fixed for receiving bids will be considered. **Late bids will be returned to the sender unopened.**

### BIDDER OF RECORD

**Bidders shall be listed as a plan holder** on the Owner's Official Plan Holder's list located wherever Bid Documents are available for purchase (refer to "Invitation to Bid"). **Bids received from Bidders who are not listed on the Owner's Official Plan Holder's list will be rejected.**

### INTERPRETATIONS

Any Bidder having questions regarding any portion of the specifications, or may be in doubt as to the true meaning of any part of the specifications, or finds discrepancies in or omissions from any part of the specifications, can submit a **WRITTEN** request **via FAX or email** for interpretation no later than **12:00 p.m. noon Local Time on Wednesday, April 24, 2024** to the Attention of:

**Kenny McDaniel**  
BFW Engineering & Testing, Inc.  
Via FAX # (270)-444-1904  
EMAIL: [kmcdaniel@bfwengineers.com](mailto:kmcdaniel@bfwengineers.com)

### ADDENDUM

All clarifications addressed during the meeting along with requests for written interpretations received will be formally addressed by Addendum. The Addendums will be e-mailed or faxed to each Official Plan Holder of record, with the Bidder being required to acknowledge receipt.

Any Addendum that may be issued to amend and or clarify the Plans and/or Specifications must be applied when calculating the Bid and certified by the Bidder on the Bid Proposal. Failure to use the correct and most recent addenda may result in the bid being rejected. When the Addendum conflicts with the Original Specifications, the Addendum shall govern.

### BIDDER'S QUALIFICATIONS

The City of Paducah (hereinafter referred to as Owner) shall have the right to take such steps necessary to determine the ability of the bidder to perform his obligations under the Contract. Any Bidder

may be required to furnish evidence satisfactory to the Owner that he and his any proposed subcontractors have sufficient means and experience in the types of work called for to assure completion of the Contract in a satisfactory manner.

The Owner reserves the right to inspect the plant facilities and place of business of any Bidder participating in this bid. The right is reserved to reject any bid where an investigation of the available evidence or information does not satisfy the Owner that the bidder is qualified to properly carry out the terms of the Contract.

#### KENTUCKY REQUIRED BIDDER'S CERTIFICATIONS

The Certifications required by the laws of the Commonwealth of Kentucky as contained within Section 00320 of these Specifications shall be signed, notarized, and submitted with the Bid Proposal. **Failure of the Bidder to comply with these provisions will make the Bid Non-Responsive and shall result in disqualification of the submitted Bid Proposal.**

#### SUBCONTRACTORS

A list of subcontractors who the bidder proposes to use on the project shall be listed on the Bid Proposal. Once the bidder's proposal has been accepted, there shall be no deviations from the list, except as requested by, or upon approval of, the Owner.

#### CONFLICTS, GRATUITIES AND KICKBACKS

The Owner shall adhere to the provision of KRS 45A.455 relative to conflicts of interests, gratuities, kickbacks, and use of confidential information in all bid offerings. During the bid process, Bidders shall not contact any employee of the Owner in reference to this Bid, with the exception of the Owner's designee(s). Failure to abide by this provision may serve as grounds for disqualification for award of this contract to the firm.

#### EXAMINATION OF SPECIFICATIONS AND PROJECT SITE

Before submitting a bid, each bidder shall carefully examine the specifications and visit the project site. Each bidder shall fully inform himself prior to bidding as to all existing conditions and limitations under which the work is to be performed and shall include in his bid a sum to cover all costs of all items necessary to complete the project as set forth in the plans and specifications. No allowance will be made to any bidder due to lack of such examination or knowledge. The submission of a bid will be construed as conclusive evidence that the bidder has made such examination.

#### BID SECURITY

A properly completed Satisfactory Bid Bond or a Certified Bank Cashier's Check in an amount equal to **Five Percent (5%)** of the bid shall be submitted with each bid. No other forms of security will be accepted. A satisfactory Bid Bond shall be issued by an authorized representative of a Surety Company and shall be accompanied by a certified power of attorney dated on or before the date of bid. The Bid Bond shall include language, which assures that the bidder/principal shall give a bond or bonds as may be specified in the bidding or contract documents, with good and sufficient surety for the faithful performance of the contract.

Failure to submit a Bid Bond or a Certified bank cashier's check will result in disqualification of the bid. The successful bidder's security will be retained until a contract has been signed and the required Labor and Materials Payment and Performance Bond submitted as specified. If any bidder refuses to enter into a contract, the owner will retain the Bid Bond as liquidated damages, but not as a penalty. The Bid Security of the remaining bidders will be returned as soon as practical. However, the Owner reserves the right to retain the security of the remaining bidders until 60 days after the bid opening.

#### OPENING OF BIDS

At the time and place fixed for the opening of bids, the Owner will publicly open and read aloud every bid received within the time set for receiving bids, irrespective of any irregularities therein. Bidders and other persons properly interested may be present in person or by representative. The time of bid opening shall be in accordance with the time stated in the Advertisement and Invitation to Bid. **The official time set for the opening of the Bids shall be established by the City of Paducah's synchronized computer time as shown digitally on the City Clerk's computer.**



#### WITHDRAWAL OF BIDS

Any Bidder may withdraw his submitted bid by written request 24 hours or more prior to the scheduled time for opening bids. No bidder may withdraw his bid for a **period of 60 days** after the date set for opening thereof, and all bids shall be subject to acceptance by the Owner during this period.

However, under justifiable circumstances, the Owner may release a bid if the Bidder can demonstrate from worksheets or other documents that an obvious error was made while preparing the bid.

#### PREFERENCE TO LOCAL MATERIALS AND LABOR

Preference will be given to local resident bidders for the purchase of local materials and to the employment of local labor if price and other factors within the bids received are equal.

#### PREFERENCE TO KENTUCKY BIDDERS

In accordance with KRS 45A.365, prior to a contract being awarded, a resident bidder of the Commonwealth shall be given a preference against a non-resident bidder registered in any state that gives or requires a preference to bidders from that state. The preference shall be equal to the preference given or required by the state of the non-resident bidder. **The bidder shall indicate the state of residence on the Bid Proposal. The non-resident bidder shall indicate also if any preference is given by the Bidder's state.** The determination of state residency of the non-resident Bidder, according to Kentucky Administrative Regulations:

- The state of residency shall be the principal office as identified in the Bidder's Certificate of Authority to transact business in Kentucky as filed with the Commonwealth of Kentucky, Secretary of State
- If the Bidder is not required to obtain a Certificate of Authority (by the Secretary of State) to transact business in Kentucky, the state of Residency shall be the mailing address provided in the Bid Proposal.

#### BID EVALUATION - AWARD OF CONTRACT

After reasonable consideration of all bids received, a Notice of Award will be given to the **responsible bidder** who submits the **responsive bid of lowest bid price in accordance** with the Specifications.

The **responsible bidder** shall have the capability in all respects to perform fully the contracts requirements, and the moral integrity and reliability of which to assure good faith performance. The **responsive bidder** shall submit a bid that conforms in all material respects to the specifications without any deviations of the invitation for bids.

#### BONDS AND EXECUTION OF AGREEMENT

Subsequent to Notice of Award, and **within ten (10) days** after the prescribed forms are presented for signature, the successful bidder shall execute and deliver to the Owner:

1. A Contract Agreement in the form included in the specifications, in such number of copies as the Owner may require.
2. A Performance Bond and a Labor and Material Payment Bond each in the amount of **100%** of the Contract as awarded. The bonds shall be used as security for the faithful performance of the Contract and shall be in the form included in the specifications.
3. A Certificate of Insurance showing that the required insurance as set forth in the specifications is in force and shall contain appropriate wording to the effect that the policies described cover the Contractor's operations under this contract.

The failure of the successful bidder to execute such Agreement and to supply the required Bonds & Insurance within ten (10) days after the prescribed forms are presented for signature or within such extended period as the Owner may grant, based upon reasons determined sufficient by the Owner, shall constitute a default, and the Owner may either award the contract to the next lowest responsible bidder or re-advertise for bids, and may charge against the bidder the difference between the amount of the bid

and the amount for which a contract for the work is subsequently executed provided that the amount thus due shall be limited to the amount of the Bid Bond. If a more favorable bid is received by re-advertising, the defaulting bidder shall have no claim against the Owner for any refund of the bid security or expense the Bidder incurred to develop the bid.

#### NOTICE TO PROCEED

Following the execution of the Contract by the Owner and submittal of all required documents, a written Notice to Proceed will be given to the Contractor. The Contractor shall begin and shall prosecute the Work regularly and uninterruptedly thereafter (unless otherwise directed in writing by the Owner) with such force as to secure the completion of the work in a responsible and timely manner.

#### PRE-CONSTRUCTION CONFERENCE

Prior to issuance of the Notice to Proceed, a Pre-Construction conference will be held with representatives of the Contractor, Sub-Contractors and Owner/Engineer in attendance. Discussion will center on each party's responsibility towards the other, the Contractor's plans for prosecution of the work and subcontracting.

#### CONTRACT TIME

The work that the Contractor is required to perform under this Contract shall be commenced at the time stipulated by the Owner in the Notice to Proceed to the Contractor and be fully completed within **Thirty (30) consecutive calendar days** thereafter as stated in the Agreement. Saturday, June 8, 2024 is a black-out day where no work is allowed. Contractor must make provisions to have parking lot free of equipment and material so that it can be fully used by the Owner on the black-out day. Every calendar day, except as provided herein, shall be counted as a working day.

#### LIQUIDATED DAMAGES

Since actual damages for any delay in completion of the work which the Contractor is required to perform under this Contract are impossible to determine, the Contractor and his Sureties shall be liable for and pay to the Owner the sum of **Two-Hundred-Fifty Dollars (\$250.00)** as fixed liquidated damages for each consecutive calendar day for failure to meet the final completion date and the total amount shall be withheld from the final payment as provided in accordance with Specifications.

#### LICENSE REQUIREMENT

All firms doing business in the City of Paducah are required to be licensed in accordance with the City of Paducah Code of Ordinances. The successful Bidder shall be required to obtain a City of Paducah Business License at the time of Notice of Award. Information regarding business license can be obtained at the City's website: [www.paducahky.gov](http://www.paducahky.gov).

#### PERMITS, CERTIFICATES, LAWS, ORDINANCES, AND CODES

The Contractor shall, at his own expense, procure all permits, certificates and licenses required by the law for the execution of this project. The Contractor shall comply with all federal, state and local laws, ordinances or rules and regulations relating to the performance of the work. In case of difference between building codes, specifications, state laws, local standards and ordinance, industry standards, utility company regulations and the Contract Documents, the most stringent shall govern.

#### REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

Pursuant to KRS 176.085(1)(b), an agency, department, office, or political subdivision of the Commonwealth of Kentucky shall not award a state contract to a person that is a foreign entity required by KRS 14A.9-010 to obtain a certificate of authority to transact business in the Commonwealth ("certificate") from the Secretary of State under KRS 14A.9-030 unless the person produces the certificate within fourteen (14) days of the bid or proposal opening. If the foreign entity is not required to obtain a certificate as provided in KRS 14A.9-010, the foreign entity should identify the applicable exception. Foreign entity is defined within KRS 14A.1-070.

For all foreign entities required to obtain a certificate of authority to transact business in the Commonwealth, if a copy of the certificate is not received by the contracting agency within the time frame identified above. The foreign entity's solicitation response shall be deemed non-responsive or the awarded contract shall be cancelled.

Businesses can register with the Secretary of State at <https://secure.kentucky.gov/sos/ftbr/welcome.aspx>.

#### UNDERGROUND FACILITY DAMAGE PROTECTION

The Contractor is advised that the Underground Facility Damage Protection Act of 1994 became law January 1, 1995. It shall be the Contractor's responsibility to determine the impact of the act regarding this project and take all steps necessary to be in compliance with the provision of the act.

**Prior to initiation of excavation, the Contractor shall locate all utilities in work area in accordance with applicable governmental rules, laws and regulations. Utilities can be contacted for location requests by calling "811" B.U.D. 1-800-752-6007. Officials of B.U.D. request at least 3 days lead time for notification requests.**

#### EQUAL EMPLOYMENT OPPORTUNITY

The Contractor must ensure that employees and applicants for employment are not discriminated against because of their race, religion, color, sex national origin, age or disability.

#### DRUG FREE WORKPLACE

The City of Paducah has adopted a Drug and Alcohol-Free Workplace Policy in compliance with 803 KAR 25.280, in which drug and alcohol use and abuse in the workplace is prohibited. All contractors and subcontractors doing business for the City of Paducah shall adhere to this policy.

#### HEALTH AND SAFETY STANDARDS IN CONSTRUCTION CONTRACTS

It is a condition of this Contract, and shall be made a condition of each subcontract entered into pursuant to this Contract, that the Contractor and any subcontractor shall not require any laborer or mechanic employed in performance of the contract work in surroundings or under working conditions which are unsatisfactory, hazardous, or dangerous to his health or safety, as determined under Construction Safety and Health Standards Title 29, CFR Part 1518, 36FR 7340, promulgated by the U.S. Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act, 82 Stat. 96. Additionally, the Contractor shall comply with all OSHA requirements in accordance with 23 CFR 634 and KRS 338.

#### PROGRESS PAYMENTS

The Contractor may submit each month, and no more than once a month, a Request for Payment for Work completed in accordance with the Specifications. The Owner will make partial payments on or about thirty, **(30) days** after submission of a properly completed invoice and approval of the completed work. At the Engineer's discretion, a ten percent **(10%)** retainage may be held until final completion and acceptance of the work.

#### ACCEPTANCE AND FINAL PAYMENT

Final payment shall be due sixty, **(60) days** after substantial completion of the work, provided the work will then be fully completed and the Contract fully performed in accordance with the specifications.

#### REJECTION OF BIDS

The Owner reserves the right to reject any and all bids in accordance with the City of Paducah's Code of Ordinances and the Specifications.

#### OWNER'S RIGHTS RESERVED

The City reserves the right to reject any and all bids in accordance with the City of Paducah's Code of Ordinances and the Project Specifications. Additionally, any Award may be made to the lowest Bidder for all items, groups of items or on an individual item basis, whichever is deemed to be in the best interest of the City.

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**CITY OF PADUCAH, KENTUCKY  
DEPARTMENT OF PARKS AND RECREATION**

**BID PROPOSAL FOR: "ROBERT CHERRY CIVIC CENTER PARKING LOT REHABILITATION"**

Proposal of \_\_\_\_\_  
(hereinafter called Bidder), organized and existing under the laws of \_\_\_\_\_  
(state) and doing business as \_\_\_\_\_\*, as  
applicable to the City of Paducah, Kentucky (hereinafter referred to as Owner.)  
*\*Insert "A Corporation", A Partnership" or "An Individual"*

In compliance with your Invitation for Bid, Bidder hereby proposes to furnish all the necessary labor, materials, equipment, tools and services necessary for the construction of **CONSTRUCTION OF ROBERT CHERRY CIVIC CENTER PARKING LOT REHABILITATION** in accordance with the plans, specifications and other contract documents prepared by the Department of Parks & Recreation, at the prices stated below.

By submission of this Bid, each Bidder certifies that this Bid has been arrived at independent, without consultation, communication, or agreement as to any matter relating to this Bid with any other Bidder or with any other competitor.

Security in the sum of \$\_\_\_\_\_, in the form of a Bid Bond or cashier's check, said amount being equal to Five Percent (5%) of the Total Bid Amount, is submitted herewith in accordance with the Specifications. This Security is furnished to the Owner as a guarantee that the agreement will be executed and all bonds required shall be furnished within ten (10) days after award of the Contract to the undersigned.

Bidder has submitted with this Bid Proposal the required signed and notarized Certifications as required by the laws of the Commonwealth of Kentucky. **Failure of the Bidder to comply with these provisions will make the Bid Non-Responsive and shall result in disqualification of the submitted Bid Proposal.**

If Notice of Award is given to the Bidder within Sixty (60) days after the time of receipt of Bids, the Bidder agrees to execute and deliver a Contract Agreement in the prescribed form and furnish the required bonds within ten (10) days after the Contract is presented for signature.

Prior to commencing work, the successful Bidder shall furnish the Owner with a Certificate of Insurance showing that the required insurance as set forth in the Specifications is in force.

The work that the Contractor is required to perform under this Contract shall be commenced at the time stipulated by the Owner in the Notice to Proceed to the Contractor and be fully completed within **Thirty (30) consecutive calendar days** thereafter as stated in the Agreement. Saturday, June 8, 2024 is a black-out day where no work is allowed. Contractor must make provisions to have parking lot free of equipment and material so that it can be fully used by the Owner on the black-out day. Every calendar day, except as provided herein, shall be counted as a working day.

Bidder further agrees to pay as liquidated damages, the sum of **Two-Hundred-Fifty Dollars (\$250.00)** as for each consecutive calendar day thereafter until project completion as provided in accordance with Specifications.

In submitting this Bid, it is understood that the right is reserved by the Owner to reject any and all Bids in accordance with the City of Paducah's Code of Ordinances and the Specifications. Additionally, any Award may be made to the lowest Bidder for all items, groups of items, or on an individual item basis, whichever is deemed to be in the best interest of the City.

**BID PROPOSAL:**

The Bidder hereby satisfying all requirements of the specifications herein, proposes and agrees to furnish a **BID for the total amount of:**

**TOTAL BID: (\$ \_\_\_\_\_ )** (figures)

\_\_\_\_\_ (words)

*Total Bid price shall be shown in both words and figures. The amount shown in words shall govern in case of a discrepancy.*

**ADDENDUM**

The Bidder hereby acknowledges receipt of the following Addenda, if any, and is fully aware of the implications of the addendums on the Bid:

Addendum No(s) \_\_\_\_\_ Dated \_\_\_\_\_

**ATTACHMENTS TO THE BID PROPOSAL REQUIRED:**

1. Bid Bond in the amount of 5% of the bid.
2. Bidder's Required Certification Signed and Notarized.
3. All additional information as required within the Technical Specifications.

**SUB-CONTRACTORS:**

Subcontractors (if any) who the bidder proposes to use on the project shall be listed. Once the bidder's proposal has been accepted, there shall be no deviations from the list, except as requested by, or upon approval of, the Owner.

COMPANY	CONTACT	PHONE	WORK PROPOSED	%

**PREFERENCE TO KENTUCKY BIDDERS**

In accordance with KRS 45A.365, prior to a contract being awarded, a resident bidder of the Commonwealth shall be given a preference against a non-resident bidder registered in any state that gives or requires a preference to bidders from that state. The preference shall be equal to the preference given or required by the state of the non-resident bidder.

Bidder is a resident of the following state: \_\_\_\_\_

If Bidder is a non-resident of the Commonwealth of Kentucky, indicate if any preference is given by the resident's state: \_\_\_\_\_

**BID DOCUMENTS:**

Bid Documents including the Bid Guaranty, shall be enclosed in an envelope clearly labeled with the words "**Bid Documents, Name of Project, Name of Bidder, and Date and Time of Bid Opening,**" in order to guard against premature opening of the bid. **Bids received late will be disqualified and returned to the sender unopened.**

The Bidder herein certifies that all specifications have been reviewed and that any variations to the said specifications, including exceptions to or enhancements to same, are clearly indicated as an attachment to this bid.

THE ABOVE PROPOSAL IS HEREBY RESPECTFULLY SUBMITTED BY:

BIDDER: \_\_\_\_\_

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

CELL PHONE: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

FEDERAL TAXPAYER IDENTIFICATION NUMBER: \_\_\_\_\_

KENTUCKY TAXPAYER IDENTIFICATION NUMBER: \_\_\_\_\_

CITY OF PADUCAH BUSINESS LICENSE NUMBER: \_\_\_\_\_

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**CITY OF PADUCAH, KENTUCKY  
BIDDER'S REQUIRED CERTIFICATIONS**

The Bidder is hereby given notice that in accordance with the statutes of the Commonwealth of Kentucky, the Bidder is required to submit the following Certifications with the Bid Proposal. **Failure to comply with this requirement will make the Bid Non-Responsive and shall result in disqualification of the submitted Bid Proposal.**

1. **NON-COLLUSION**

The affiant does solemnly swear, under penalty of perjury under the Laws of the United States, that I, the undersigned Bidder, and/or any agents, officers, employees and/or subcontractors employed, or that may be employed for any activity covered by the above Project have not directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding in connection with this Bid Proposal.

2. **WORKERS' COMPENSATION AFFIDAVIT**

The affiant does solemnly swear, under penalty of perjury pursuant to KRS 198B.060(10), that I, the undersigned Bidder, and/or any agents, officers, employees and/or Subcontractors employed, or that may be employed, for any activity covered by the above Project shall be in full compliance with Kentucky's requirements for Workers' Compensation Insurance according to KRS 342, and Unemployment Insurance according to KRS Chapter 341.

The affiant acknowledges that failure on the affiant's part to comply with the foregoing assurances can result in a fine not to exceed four thousand dollars (\$4,000.00) or an amount equal to the sum of all uninsured and unsatisfied claims that might be prosecuted under the provisions of KRS 342 or unemployment insurance claims that might be prosecuted under the provisions of KRS 341, whichever is greater.

3. **CAMPAIGN FINANCE LAWS**

The affiant does solemnly swear, under penalty of perjury, that in accordance with KRS 45A.395, that I, the undersigned Bidder, and/or any agents, officers, employees and/or Subcontractors employed, or that may be employed, for any activity covered by the above Project have not knowingly violated any provisions of the **Campaign Finance Laws** of the Commonwealth of Kentucky; and that the award of a Contract to the Bidder or the entity in which he/she represents will not violate any provisions of the **Campaign Finance Laws** of the Commonwealth. This information provided by the Bidder will be considered confidential and exempt from the Kentucky Open Records Law.

4. **KRS 45A.343**

The affiant does solemnly swear, under penalty of perjury, that I, the undersigned Bidder, and/or any agents, officers, employees and/or Subcontractors employed, or that may be employed, for any activity covered by the above Project are fully aware of the requirements and penalties outlined in KRS 45A.343 requiring the following:

- (a) the Contractor and all Subcontractors performing the work under the Contract to reveal any final determination of a violation within the previous five (5) year period pursuant to KRS Chapters 136, 139, 141, 337, 338, 341, and 342 that apply to the Contractor or Subcontractor; and that
- (b) the Contractor and all Subcontractors performing the work under the Contract to be in continuous compliance with the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 that apply to the Contractor or Subcontractor for the duration of the Contractor.

**Failure to reveal a final determination of a violation or to comply with the statutes for the duration of the contract shall be grounds for cancellation of the contract and disqualification of the eligibility for future contracts for a period of two (2) years.**

5. **KY DEPT OF REVENUE**

The affiant does solemnly swear, under penalty of perjury, that in accordance with KRS 45A.395, that I, the undersigned Bidder, and/or any agents, officers, employees and/or Subcontractors employed, or that may be employed, for any activity covered by the above Project are **duly registered with the Kentucky Department of Revenue** to collect and remit the sales and use tax imposed by KRS Chapter 139, and will remain registered for the duration of any contract awarded.

6. **TAXES AND FEES**

The affiant does solemnly swear, under penalty of perjury, that in accordance with KRS 45A.395, that I, the undersigned Bidder, and/or any agents, officers, employees and/or Subcontractors employed, or that may be employed, for any activity covered by the above Project are **not delinquent on any State, City or County taxes or fees** owed to the Commonwealth of Kentucky, The City of Paducah, or any other governmental agency and will remain in good standing for the duration of any contract awarded.

Therefore, as a duly authorized representative for the Bidder, I have fully informed myself regarding the accuracy of all statements made in this affidavit, and acknowledge the City of Paducah, Kentucky is reasonably relying upon these statements in making a decision for contract award and any failure to accurately disclose such information may result in contract termination, repayment of funds, and other available remedies under law.

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

Date: \_\_\_\_\_

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ )

The foregoing instrument was sworn to and acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by \_\_\_\_\_, \_\_\_\_\_ (title) of \_\_\_\_\_ (Name of Company).

My commission expires: \_\_\_\_\_.

\_\_\_\_\_  
Notary Public, State at Large

S E A L

**CITY OF PADUCAH, KENTUCKY  
DEPARTMENT OF PARKS & RECREATION  
AGREEMENT FOR PROJECT**

**THIS AGREEMENT**, made this \_\_\_\_\_ day of \_\_\_\_\_, 2020 by and between the **CITY OF PADUCAH**, hereinafter called the **OWNER**, and \_\_\_\_\_, hereinafter called the **CONTRACTOR**, for the consideration hereinafter named, agree as follows:

ARTICLE 1. SCOPE OF WORK

The Contractor agrees to furnish all the necessary labor, materials, equipment, tools and services necessary for the construction of the **ROBERT CHERRY CIVIC CENTER PARKING LOT REHABILITATION**. All Work shall be in accordance with this Agreement, the Plans, Specifications and any Addendum(s) issued.

Throughout the performance of this Contract, the Parks & Recreation Department of the City of Paducah shall, in all respects, be acting as both Engineer and agent for the Owner, City of Paducah. All work done by the Contractor shall be completed under the general supervision of the Engineer.

ARTICLE 2. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

The work that the Contractor is required to perform under this Contract shall be commenced at the time stipulated by the Owner in the Notice to Proceed to the Contractor and be fully completed within **Thirty (30) consecutive calendar days** thereafter as stated in the Agreement. Saturday, June 8, 2024 is a black-out day where no work is allowed. Contractor must make provisions to have parking lot free of equipment and material so that it can be fully used by the Owner on the black-out day. Every calendar day, except as provided herein, shall be counted as a working day.

Failure of the Contractor to complete the work in the time specified above plus any extensions allowed in accordance with the General Conditions shall result in the assessment of liquidated damages for the delay (not as a penalty). Liquidated damages shall be in the amount of **Two-Hundred-Fifty Dollars (\$250.00)** per consecutive calendar day for failure to meet the final completion date and shall be withheld from final payment.

ARTICLE 3. THE CONTRACT SUM

The Owner agrees to pay the Contractor for the performance of the Contract, subject to additions and deductions provided therein: \_\_\_\_\_ (\$\_\_\_\_\_) as quoted in the Bid Proposal by the Contractor dated \_\_\_\_\_ which shall constitute full compensation for the work and services authorized herein.

ARTICLE 4. PROGRESS PAYMENTS

The Contractor may submit each month, and no more than once a month, a Request for Payment for work completed in accordance with the Specifications. The Owner will make partial payments on or about thirty (**30**) days after submission of a properly completed invoice and approval of the completed work. At the Engineer's discretion, a ten percent (**10%**) retainage may be held until final completion and acceptance of the work.

ARTICLE 5. ACCEPTANCE AND FINAL PAYMENT

Final payment shall be due sixty, (**60**) days after substantial completion of the work, provided the work will then be fully completed and the Contract fully performed in accordance with the specifications.

ARTICLE 6. GOVERNING LAW

The Parties agree that this Agreement and any legal actions concerning its validity, interpretation and performance shall be governed by the laws of the Commonwealth of Kentucky. The parties further agree that the venue for any legal proceeding relating to this Agreement shall exclusively be in McCracken County, Kentucky.

ARTICLE 7. THE CONTRACT DOCUMENTS

The Plans, Specifications and any addendum that may have been issued are fully a part of this Contract as if thereto attached or herein repeated.

IN WITNESS WHEREOF:

The parties hereto have executed this Agreement, the day and year first above written.

**CONTRACTOR**

BY \_\_\_\_\_

TITLE \_\_\_\_\_

ADDRESS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**CITY OF PADUCAH, KENTUCKY**

BY \_\_\_\_\_

Hon. George P. Bray, Mayor

ADDRESS:

Post Office Box 2267  
Paducah, Kentucky 42002-2267

**FORM OF BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we \_\_\_\_\_  
(Name of Principal - Bidder)

as Principal, hereinafter called the Principal, and \_\_\_\_\_  
(Name of Surety - Insurance Company)

a Corporation duly organized under the laws of the State of \_\_\_\_\_  
(State)

as Surety, hereinafter called the Surety, are held and firmly bound unto the **CITY OF PADUCAH, KENTUCKY**, as Obligee, hereinafter called the Obligee, in the sum of:

\$ \_\_\_\_\_ ( \_\_\_\_\_ Dollars and \_\_\_\_\_ Cents)

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a Bid for \_\_\_\_\_  
(Name of Project)

Dated \_\_\_\_\_ to the **CITY OF PADUCAH, KENTUCKY**, Obligee.

NOW, THEREFORE:

If the Obligee shall accept the bid of the Principal and the Principal shall enter into a contract with the Obligee in accordance with the terms of such bid and give such bond or bonds as may be specified in the bidding or contract documents with good and sufficient surety for the faithful performance of such contract documents and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

**PRINCIPAL:** Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

\_\_\_\_\_  
(Principal - Bidder)

\_\_\_\_\_  
(Title)

(SEAL)

**CERTIFICATE AS TO CORPORATE PRINCIPAL**

I, \_\_\_\_\_, certify that I am the \_\_\_\_\_ Secretary of the Corporation named as Principal in the within Bond; that \_\_\_\_\_ who signed the said Bond on behalf of the Principal was then \_\_\_\_\_ of said Corporation; that I knew his/her signature, and his/her signature thereto is genuine; and that said Bond was duly signed, sealed and attested to for and in behalf of said Corporation by authority of its governing body.

\_\_\_\_\_  
(Principal- Bidder Corporate Secretary)

(Corporate Seal)

**SURETY:** Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

\_\_\_\_\_  
(Surety - Insurance Company)

\_\_\_\_\_  
(Title)

(SEAL)

Attach Surety Power of Attorney

**FORM OF PERFORMANCE BOND**

BOND NO. \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, that we \_\_\_\_\_, as Principal, hereinafter  
(Name of Principal)

called the Principal and \_\_\_\_\_ a Corporation duly organized under  
(Name of Surety - Insurance Company)

the laws of the State of \_\_\_\_\_ as Surety, hereinafter called the Surety, are held and firmly  
(State)

bound unto the **CITY OF PADUCAH, KENTUCKY**, as Oblige, hereinafter called the Oblige, in the sum of:

\$ \_\_\_\_\_ ( \_\_\_\_\_ Dollars and \_\_\_\_\_ Cents)

which sum, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, by these Presents.

WHEREAS, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, the Principal entered into a contract with the **CITY OF PADUCAH, KENTUCKY**, for \_\_\_\_\_ (Name of Project), which Contract is by reference made a part hereof and is hereafter referred to as the Contract:

NOW, THEREFORE, the Condition of this Obligation is such that, if the Principal shall faithfully perform said Contract according to its terms, covenants, and conditions, then this obligation shall be void; otherwise it shall remain in full force and effect.

**PRINCIPAL:** Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

\_\_\_\_\_  
(Principal - Bidder)

\_\_\_\_\_  
(Title)

(SEAL)

**SURETY:** Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

\_\_\_\_\_  
(Surety - Insurance Company)

\_\_\_\_\_  
(Title)

(SEAL)

Attach Surety Power of Attorney

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**FORM OF LABOR AND MATERIAL PAYMENT BOND**

BOND NO. \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, that we \_\_\_\_\_, as Principal, hereinafter  
(Name of Principal)

called the Principal and \_\_\_\_\_ a Corporation duly organized under  
(Name of Surety - Insurance Company)

the laws of the State of \_\_\_\_\_ as Surety, hereinafter called the Surety, are held and firmly  
(State)

bound unto the **CITY OF PADUCAH, KENTUCKY**, as Oblige, hereinafter called the Oblige, in the sum of:

\$ \_\_\_\_\_ ( \_\_\_\_\_ Dollars and \_\_\_\_\_ Cents)

which sum, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, by these Presents.

WHEREAS, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, the Principal entered into a contract with the **CITY OF PADUCAH, KENTUCKY**, for \_\_\_\_\_ (Name of Project), which Contract is by reference made a part hereof and is hereafter referred to as the Contract:

NOW, THEREFORE, the Condition of this Obligation is such that, if the Principal shall pay all laborers, mechanics, subcontractors, materialmen and all persons who shall supply said Principal or said subcontractors with provisions and supplies for the carrying on of such work, then this obligation shall be null and void; otherwise to remain in full force and effect.

**PRINCIPAL:** Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
(Principal - Bidder)

\_\_\_\_\_  
(Title)

(SEAL)

**SURETY:** Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
(Surety - Insurance Company)

\_\_\_\_\_  
(Title)

(SEAL)

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**NOTICE OF AWARD**

**TO:** \_\_\_\_\_

**PROJECT:** ROBERT CHERRY CIVIC CENTER PARKING LOT REHABILITATION

After consideration of all Bids received for the above referenced construction of the above-mentioned project, you are hereby notified that your Bid dated \_\_\_\_\_, has been accepted as the responsive bid with the lowest bid price in accordance with the specifications. This Award is contingent upon final approval of the City of Paducah Board of Commissioners.

You are hereby required by the Information for Bidders to execute and deliver the Contract Agreement and to furnish the required Bond(s) and Certificate of Insurance within **Ten (10) calendar days** from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said Bond(s) and Certificate of Insurance within the stipulated time period, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your bid as abandoned and as a forfeiture of your Bid Bond. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

**OWNER**  
CITY OF PADUCAH, KY

By: \_\_\_\_\_  
Director of Parks and  
Recreation

Date: \_\_\_\_\_

**ACCEPTANCE OF NOTICE**

Receipt of this NOTICE is hereby acknowledged by: \_\_\_\_\_

of \_\_\_\_\_ (Name of Company), this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

By \_\_\_\_\_

Title \_\_\_\_\_

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**NOTICE TO PROCEED**

TO: \_\_\_\_\_

PROJECT: ROBERT CHERRY CIVIC CENTER PARKING LOT REHABILITATION

You are hereby notified to commence work in accordance with the Agreement dated \_\_\_\_\_, on or before \_\_\_\_\_, and you are to complete the WORK within **Thirty (30) consecutive calendar days thereafter** as stated in the Agreement. Saturday, June 8, 2024 is a black-out day where no work is allowed. Contractor must make provisions to have parking lot free of equipment and material so that it can be fully used by the Owner on the black-out day. Every calendar day, except as provided herein, shall be counted as a working day. The date of completion of all WORK is therefore June 19, 2024.

The contract completion date shall be adjusted for all documented shut down periods and approved extensions as outlined in the specifications.

You are required to return an acknowledged copy of this NOTICE TO PROCEED to the OWNER.

**OWNER**  
CITY OF PADUCAH, KY

By: \_\_\_\_\_  
Director of Parks and  
Recreation

Date: \_\_\_\_\_

**ACCEPTANCE OF NOTICE**

Receipt of this NOTICE is hereby acknowledged by: \_\_\_\_\_

of \_\_\_\_\_ (Name of Company), this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

By \_\_\_\_\_

Title \_\_\_\_\_

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**CITY OF PADUCAH  
DEPARTMENT CHANGE ORDER**

CHANGE ORDER NO: \_\_\_\_\_  
DATE: \_\_\_\_\_  
NAME OF PROJECT: Robert Cherry Civic Center Parking Lot Rehabilitation  
OWNER: City of Paducah, Kentucky  
VENDOR: \_\_\_\_\_

THE FOLLOWING CHANGES ARE HEREBY MADE TO THE CONTRACT DOCUMENTS:

ADDITIONS \$ \_\_\_\_\_  
DEDUCTIONS \$ \_\_\_\_\_

CONTRACT PRICE DUE TO THIS CHANGE ORDER WILL BE INCREASED BY: \$ \_\_\_\_\_  
ORIGINAL CONTRACT PRICE: \$ \_\_\_\_\_  
CURRENT CONTRACT PRICE ADJUSTED BY PREVIOUS CHANGE ORDERS: \$ \_\_\_\_\_  
NEW CONTRACT PRICE INCLUDING THIS CHANGE ORDER WILL BE: \$ \_\_\_\_\_  
THE CONTRACT TIME WILL BE INCREASED BY: \_\_\_\_\_ Days

APPROVALS REQUIRED:

\_\_\_\_\_  
VENDOR

\_\_\_\_\_  
DATE

\_\_\_\_\_  
PARKS & RECREATION DIRECTOR

\_\_\_\_\_  
DATE

\_\_\_\_\_  
MAYOR:

\_\_\_\_\_  
DATE

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## PROGRESS AND COMPLETION OF WORK

### NOTICE TO PROCEED

Following the execution of the Contract by the Owner, written Notice to Proceed with the work will be given to the Contractor. The Contractor shall begin and shall prosecute the work regularly and uninterruptedly thereafter (unless otherwise directed in writing by the Owner) with such force as to secure the completion of the work in a responsible and timely manner.

### PRE-CONSTRUCTION CONFERENCE

Prior to issuance of the Notice to Proceed, a pre-construction conference will be held with representatives of the Contractor, Sub-Contractors and Engineer in attendance. Discussion will center on each party's responsibility towards the other, the Contractor's plans for prosecution of the work and subcontracting.

### CONTRACT TIME

The work that the Contractor is required to perform under this Contract shall be commenced at the time stipulated by the Owner in the Notice to Proceed to the Contractor and be fully completed within **Thirty (30) consecutive calendar days** thereafter as stated in the Agreement. Saturday, June 8, 2024 is a black-out day where no work is allowed. Contractor must make provisions to have parking lot free of equipment and material so that it can be fully used by the Owner on the black-out day. Every calendar day, except as provided herein, shall be counted as a working day.

### SCHEDULE OF COMPLETION

The Contractor shall submit, at such times as may reasonable be requested by the Engineer, schedules which shall show the order in which the Contractor proposes to carry on the work, with dates at which the Contractor will start the several parts of work, the anticipated monthly payments to become due the Contractor, and estimated dates of completion of the several parts.

### LIQUIDATED DAMAGES

Contractor acknowledges that the time for completion is an essential element and consideration for this contract. The liquidated damages charge, as set forth below, is not a penalty but is intended to compensate the Owner for expense, public inconvenience, and increased time in administering the contract, particularly for engineering and inspection required beyond the time specified in the contract, with time extensions, if any, taken into consideration.

It shall be the responsibility of the Owner to render decisions in connection with the liquidated damages, and such decisions rendered shall be final. Time extension requests must be submitted each month with the monthly estimate documented; otherwise, it will be expected that no request is needed and no time extensions will be allowed for that period.

At the expiration of the time allowed for completion, including any time extensions granted in writing, the liquidated damages charges shall be in the amount of **Two-Hundred-Fifty Dollars (\$250.00)** per each consecutive calendar day. The liquidated damages charges shall be deducted by the Owner from the Contractor's contract payments.

### CHANGES IN THE WORK

The Owner may, as the need arises, order changes in the work through additions, deletions or modifications without invalidating the Contract. Compensation affected by the change shall be adjusted at the time of ordering such change.

### EXTRA WORK

New and unforeseen items of work found to be necessary and which cannot be covered by any item or combination of items for which there is a Contract price shall be classed as extra work. The Contractor shall do such extra work and furnish such materials as may be required for the proper completion or construction of the whole work contemplated upon written order from the Owner as approved by the Engineer.

In the absence of such written order, no claim for extra work will be considered. Extra work will be performed in accordance with these Specifications where applicable and work not covered by the Specifications or Special Provisions shall be done in accordance with the best practice as approved by the Engineer. Extra work required in an emergency to protect life and property shall be performed by the Contractor as required.

#### EXTENSION OF CONTRACT TIME

A delay beyond the Contractor's control occasioned by an Act of God, or act or omission on the part of the Owner as noted as Excusable Delays, may entitle the Contractor to an extension of time in which to complete the work as determined by the Engineer, provided, however, that the Contractor shall within ten (10) days of such occurrence, give written notice to the Engineer or cause of such delay and of his intention to request an extension of Contract time. If, on the basis of the facts and the terms of this contract, the delay is properly excusable, the Owner shall extend the time for completing the work to a period of time commensurate with the period of excusable delay.

#### EXCUSABLE DELAYS

The Contractor may request an extension of Contract time based on the following Excusable Delays, and the Contractor shall not be terminated nor shall the Contractor be charged with liquidated damages for any delays in the completion of the work due to:

- (1) Any acts of the federal government, including controls or restrictions or requisitioning of materials, equipment, tools or labor by reason of war, national defense or any other national emergency;
- (2) Any acts of the Owner;
- (3) Causes not reasonably foreseeable by the parties at the time of the execution of the contract that are beyond the control and without the fault or negligence of contractor, including, but not restricted to, acts of God, acts of the public enemy, acts of another contractor in the performance of some other contract with the Owner, earthquake, fire, flood, epidemic, strike or work stoppage, freight embargo, and weather of unusual severity such as hurricane, tornado, cyclone and other extreme weather conditions; and
- (4) Any delay of any subcontractor occasioned by any of the above-mentioned causes. However, Contractor must promptly notify the Owner within ten (10) days of the occurrence of a delay attributable to one or more of the aforementioned causes in writing of the cause of the delay.

## **INSURANCE, LEGAL RESPONSIBILITY, AND PUBLIC SAFETY**

### INSURANCE

The Contractor shall secure and maintain such insurance from an insurance company authorized to write casualty insurance in the state where the work is located as will protect himself, his subcontractors, the Owner, including agents of the Owner, and the Engineer from claims for bodily injury, death or property damage, which may arise from operations under this Contract. The Contractor shall not commence work under this Contract until he has obtained all insurance required under this paragraph and shall have filed the certificate of insurance or a certified copy of the insurance policy with the Owner. Each insurance policy shall contain a clause providing that it shall not be canceled by the insurance company without ten (10) days written notice to the Owner of intention to cancel.

The Contractor shall procure and maintain the following insurance in addition to the insurance required by law:

1. Commercial General Liability-Occurrence:
  - a. \$2,000,000 Minimum General Aggregate,
  - b. \$2,000,000 Products & Complete Aggregate,
  - c. \$1,000,000 Personal & Advertising,
  - d. \$1,000,000 each occurrence.
2. Automobile Liability: \$1,000,000 per accident  
Liability shall include all owned, non-owned, and hired vehicles in connection with this project
3. Employers Liability:
  - a. \$1000,000 Each Accident Bodily Injury
  - b. \$500,000 Policy limit Bodily Injury by Disease
  - c. \$100,000 Each Employee Bodily Injury by Disease
4. The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
  - a. Policy contains no deductible clauses -or-
  - b. Policy contains \$\_\_\_\_\_ deductible property damage clause; however, Company will pay claim and collect the deductible from the Insured.
5. Kentucky Workmen's Compensation Insurance: The Contractor shall furnish evidence of coverage of all employees by executing and delivering to the Owner the Form included in the specifications.

The cost of insurance is incidental to all contract items. All subcontractors must meet the same minimum insurance requirements.

The Contractor shall obtain in the name of the Owner and shall maintain and pay the premiums for such insurance in such amount and with such provisions as will protect the Owner, its agents and employees, from contingent liability under this Contract and a copy of such insurance policy or policies shall be delivered to the Owner.

### INDEMNIFICATION

The Contractor covenants and agrees to indemnify, hold harmless and render whole the Owner for any loss, cost, and expense, including attorney fees, which are incurred by the Owner for reason of the Contractor's failure to properly perform under this agreement. Additionally, it is expressly agreed and understood that the Contractor shall at all times indemnify and save the Owner harmless from any and all loss or damage which may be sustained by the Owner by reason of any negligent act or omission committed by the Contractor, and/or its employees and agents, in the performance of its work hereunder. The Contractor shall indemnify and save the Owner harmless from any and all claims, demands, and causes of action arising either directly

or indirectly from any of such negligent act or omission including but not limited to claims by third parties for property damage or personal injury.

Notwithstanding the foregoing provisions, in the event loss or damage incurred by the Owner or claims, demands, or causes of action asserted against the Owner is attributable, in part, to the negligence of the Owner, through its employees and agents, the foregoing provisions shall not apply, but rather, the parties shall have such rights and remedies as provided by law.

Said indemnification shall also include reimbursement to the Owner for any attorney fees and court costs incurred by the Owner by reason of making a claim for loss or damage or by reason of the assertion of any claims, demands, or causes of action against it, provided; however, that in the event such attorney fees and costs of the Owner are reimbursed or paid by any insurance carrier, the foregoing provision shall not apply.

#### PERFORMANCE BOND AND LABOR AND MATERIALS PAYMENT BOND

The Contractor shall, at the time of his execution of the contract, furnish a **Corporate Surety Performance Bond** and a **Labor and Materials Payment Bond** in the sums equal to **One Hundred Percent (100%)** of the Contract amount. The bonds shall be used as security for the faithful performance of the Contract and for the payment of all persons, firms or corporations to whom the Contractor may become legally indebted for labor, materials, tools, equipment, or services of any nature including utility and transportation services employed or used by him in performing the work. Such Bonds shall be in the form included in the specifications and shall bear a date the same as or subsequent to, the date of the Contract. The person who signs for the Surety Company shall attach the current Power-of-Attorney to the Bond. These Bonds shall be signed by a Guaranty of a Surety Company authorized to do business in Kentucky. The Bonds of individual Sureties and bonds issued by partnerships or corporations not in the Surety business are not acceptable.

The Performance Bond shall remain in full force and effect through the guarantee period of **One (1) Year** from the date of substantial completion. The Labor and Material Payment Bond shall continue in full force and effect for a period of **Seven (7) Months** after the last labor is performed and/or materials are furnished to the Project.

#### TRAFFIC CONTROL

The Contractor shall provide adequate signs, barricades, caution lights and watchmen and take all necessary precautions for the protection of the work and the safety of the public, including signing for any specific detours. All warning signs shall be in accordance with the Commonwealth of Kentucky's Department of Transportation and the Manual on Uniform Traffic Control Devices for Highway Construction and Maintenance, (MUTCD). This item shall be considered incidental to this contract, and no separate payment shall be allowed.

#### PUBLIC SAFETY AND CONVENIENCE

The Contractor shall at all times so conduct work as to insure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work, and to insure the protection of persons and property in a manner satisfactory to the Engineer and proper governmental authority. Fire hydrants on or adjacent to the work shall be kept accessible to firefighting equipment at all times. Temporary provisions shall be made by the Contractor to ensure the use of sidewalks and the proper functioning of all gutters, sewer inlets, drainage ditches and irrigation ditches, which shall not be obstructed except as approved by the Engineer.

#### PRIVATE PROPERTY

The Contractor shall not enter upon private property for any purpose without obtaining permission, and he shall be responsible for the preservation of all public property, trees, monuments, etc., along and adjacent to the street, right-of-way, easement and/or site, and shall use every precaution necessary to prevent damage or injury thereto. He shall use suitable precautions to prevent damage to pipes, conduits, and other underground structures, and shall protect carefully from disturbance or

damage all monuments and property markers until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed by the Engineer.

#### DAMAGE TO EXISTING FACILITIES, PROPERTY, ETC.

The Contractor shall be responsible for the preservation of all public property, sidewalks, street, pavement, utilities, adjoining property, the work of other Contractors, trees, etc., along and adjacent to the street, right-of-way, easement and/or site, and shall use every precaution necessary to prevent damage or injury thereto. He shall use suitable precautions to prevent damage to pipes, conduits, and other underground structures, and shall protect carefully from disturbance or damage all monuments and property markers until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed by the Engineer. The Contractor shall not enter upon private property for any purpose without obtaining permission.

The contractor shall at his own expense completely repair any damage thereto caused by his operations. Any and all methods of repair required shall be approved by the Engineer.

#### LOCATION OF UTILITIES

It shall be the Contractor's responsibility to familiarize himself with the location of all utilities or other obstruction with the specified limits of his construction, and to accurately determine the location of such utilities or obstruction, in order that he may prevent all damage thereto.

**Prior to initiation of excavation, the Contractor shall locate all utilities in work area in accordance with applicable governmental rules, laws and regulations. Utilities can be contacted for location requests by calling "811" B.U.D. 1-800-752-6007. Officials of B.U.D. request at least 3 days lead time for notification requests.**

The Contractor shall take appropriate measures to verify the locations of and protect utilities, expose utilities located within the required limits of work utilizing hand tools, provide proper support as required to prevent damage during construction, immediately notify utility owner any time damage occurs to a utility installation, repair damaged utilities in accordance with utility company procedures at no extra cost to the Owner, and take such measures as necessary to minimize any disruption of utility service.

#### CROSSING UTILITIES

When new construction crosses highways, railroads, streets or utilities under the jurisdiction of state, county, city or other public agency, public utility or private entity, the Contractor shall secure written permission from the proper authority before executing such new construction. A copy of this written permission must be filed with the Owner before any work is done. The Contractor shall furnish a release from the proper authority before final acceptance of the work.

#### SANITARY FACILITIES

The Contractor shall furnish, install, and maintain ample sanitary facilities for the workers. As the needs arise, a sufficient number of enclosed temporary toilets shall be conveniently placed as required by the sanitary codes of the State and Local Government. Drinking water shall be provided from an approved source, so piped or transported as to keep it safe and fresh and served from single service containers or satisfactory types of sanitary drinking stands or fountains. All such facilities and services shall be furnished in strict accordance with existing and governing health regulations.

#### ACCIDENT PREVENTION

The contractor shall exercise proper precaution at all times for the protection of persons and property. The safety provisions of applicable law, building and construction codes and the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, Inc. as well as all OSHA requirements shall be observed, and the Contractor shall take or cause to be taken such additional safety and health measures as the Engineer may determine to be reasonably necessary. Machinery, equipment, and all hazards shall be guarded in accordance with the safety provisions of the "Manual of Accident Prevention in Construction", to the extent that such provisions are not in contravention of applicable law.

#### HEALTH AND SAFETY STANDARDS IN CONSTRUCTION CONTRACTS

"It is a condition of this Contract, and shall be made a condition of each subcontract entered into pursuant to this Contract, that the Contractor and any subcontractor shall not require any laborer or mechanic employed in performance of the contract work in surroundings or under working conditions which are unsatisfactory, hazardous, or dangerous to his health or safety, as determined under Construction Safety and Health Standards Title 29, CFR Part 1518, 36FR 7340, promulgated by the U.S. Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act, 82 Stat. 96". Additionally, the Contractor shall comply with all OSHA requirements in accordance with 23 CFR 634 and KRS 338.

#### COMPLIANCE WITH ALL LAWS

The Contractor shall be familiar with and comply with all Federal, State, County and City laws, by-laws, ordinances, and regulations, which control the work, actions and operations of those engaged or employed in the work or which affect materials used. The Contractor shall comply with all aforementioned governs and shall relieve the City of any or all claims made against the Contractor arising from violations of any such governs by the Contractor, his employees or his or their action. The Contractor shall be in good standing with all governmental entities and not be delinquent on any Federal, State, Local or property taxes, including penalty and interest charges.

#### GUARANTY

The Contractor shall guarantee all materials and equipment furnished and work performed for a period of **one (1)** year from the date of substantial completion. The Contractor warrants and guarantees for a period of **one (1)** year from the date of substantial completion of the system that the completed system is free from all defects due to faulty materials or workmanship and the Contractor shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The Owner will give notice of observed defects with reasonable promptness. In the event that the Contractor should fail to make such repairs, adjustment, or other work that may be made necessary by such defects, the Owner may do so and charge the Contractor the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period.

#### NON-BINDING MEDIATION

If a good faith effort to resolve a dispute on terms satisfactory to both parties is unsuccessful, the Owner and the Contractor may submit the dispute to non-binding mediation to be held in Paducah, Kentucky, unless the parties mutually agree otherwise.

Notice of the request for mediation shall be filled in writing with the other party to the contract documents and a copy shall be filed with the Engineer. Request for mediation shall in no event be made on any claim, dispute, or other matter in question which would be barred by the applicable statute of limitations.

The Contractor will carry on the work and maintain the progress schedule during any mediation proceedings, unless otherwise mutually agreed in writing.

#### BREACH-DEFAULT

In the event of breach or default, the Owner shall be entitled to recover any costs and expenses incurred in enforcing this Agreement, including any court costs, expenses, and reasonable attorney fees.

#### OWNER'S RIGHT TO TERMINATE CONTRACT AND COMPLETE THE WORK

The Owner shall have the right to terminate the employment of the Contractor after giving five (5) days written notice of termination to the Contractor in the event of any default by the Contractor.

## SPECIFICATIONS AND RELATED DATA

### INTENT OF SPECIFICATIONS

The intent of the Specifications is that the Contractor shall furnish all labor and materials, equipment and transportation necessary for the proper execution of the work unless specifically noted otherwise. The Contractor shall do all the work described in the Specifications and all incidental work considered necessary to complete the project in a substantial and acceptable manner, and to fully complete the work or improvement, ready for use, occupancy and operation by the Owner.

### SPECIFICATIONS

**All Work and Materials associated with this Project shall equal or exceed** the Kentucky Transportation Cabinet Department of Highways Standard Specifications for Road and Bridge Construction, current edition, unless otherwise specified herein.

### DRAWINGS AND SPECIFICATIONS

The Owner will furnish the Contractor, without charge, **three (3)** copies of the drawings and specifications. Additional copies may be obtained by the Contractor for the cost of reproduction.

### DISCREPANCIES IN SPECIFICATIONS

Any discrepancies found between the Specifications and site conditions or any errors or omissions in the Specifications shall be immediately reported to the Engineer, who will promptly correct such error or omission in writing. Any work done by the Contractor after his discovery of such discrepancies, errors or omissions shall be done at the Contractor's risk.

### ADEQUACY OF SPECIFICATIONS

Responsibility for adequacy of the design and for sufficiency of the Specifications will be borne by the Owner. The Complete requirements of the work to be performed under the Contract will be set forth in the Specifications to be supplied by the Owner through the Engineer or by the Engineer as representative of the Owner. Specifications furnished will be in accordance with the Contract Documents and will be true and accurate developments thereof.

### ADDITIONAL INSTRUCTIONS

Further instructions will be issued by the Engineer during the progress of the work by means of Drawings, or otherwise, to make the Specifications more clear or specific, or as may be necessary to explain or illustrate changes in the work to be done.

### OWNERSHIP OF SPECIFICATIONS

All original or duplicated Specifications, and other data prepared by the Engineer, shall remain the property of the Engineer, and they shall not be reused on other work, but shall be returned to the Engineer upon completion of the work.

### MEASUREMENTS

The Contractor shall be responsible for all field measurements. Owner will not take responsibility for dimensions.

### TESTING

All materials, equipment, and construction shall be subject to testing in accordance with the Kentucky Transportation Cabinet Department of Highway Standard Specifications for Road and Bridge Construction, latest edition, as directed by the Engineer. The Contractor shall provide, at his expense, the necessary testing services required. Inspections, tests, or approvals by persons other than the Contractor shall not relieve the Contractor from his obligations to perform the testing required. All test results and reports are to be forwarded directly to the Engineer for approval upon completion.

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## **ENGINEER-OWNER-CONTRACTOR RELATIONS**

### ENGINEER'S RESPONSIBILITY AND AUTHORITY

Throughout the performance of this Contract, the Parks & Recreation Director, or his designee, shall, in all respects, be acting as both Engineer and agent for the Owner being the City of Paducah. All work shall be done under the general supervision of the Engineer. The Engineer will decide any and all questions that may arise as to the quality and acceptability of materials furnished, work performed, rate of progress of work and interpretation of Drawings and Specifications.

### ENGINEER'S DECISIONS

All claims of the Contractor shall be presented to the Engineer for decision that will be made in writing within a reasonable time. All decisions of the Engineer shall be final except in cases where time and/or financial considerations are involved, which will be subject to mediation.

### SUSPENSION OF WORK

The Engineer shall have the authority to suspend the work, wholly or in part, for a period or periods of time, as may be deemed necessary. This suspension may result from unsuitable weather, failure on the part of the Contractor to carry out the provisions of the Contract, lack of materials meeting the requirements of the Specifications, or such other conditions considered unfavorable for prosecution of the work. The Contractor shall not suspend operation without the Engineer's permission once work has begun.

### INSPECTION OF WORK

All materials and each part or detail of the work shall be subject, at all times, to inspection by the Engineer, and the Contractor shall be held strictly to the true intent of the Specifications in regard to quality of materials, workmanship, and the diligent execution of the Contract. Such inspection may include mill, plant or shop inspection, and any material furnished under these Specifications is subject to such inspection. The Engineer shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.

### EXAMINATION OF COMPLETED WORK

If the Engineer requests it, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the Specifications. Should the work thus exposed or examined prove acceptable, the uncovering or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work but should the work so exposed or examined prove unacceptable, the uncovering, removing and replacing shall be at the Contractor's expense.

### CONTRACTOR'S SUPERINTENDENCE

A qualified superintendent, who is acceptable to the Engineer, shall be maintained on the work and provide supervision to the work until its completion. The superintendent shall have full authority to act on behalf of the Contractor, and all directions given to the superintendent will be considered given to the Contractor. In general, the Engineer's instructions will be confirmed in writing and will always be so confirmed upon written request from the Contractor.

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## RESPONSIBILITIES OF THE CONTRACTOR

### SCOPE OF CONTRACTOR'S SERVICES

Except as otherwise specifically stated in the Contract Documents and specifications, the Contractor shall provide and pay for all materials, labor, tools, testing, traffic control, temporary facilities, grade control and staking, equipment, water, light, heat, power, transportation, superintendence, temporary construction of every nature, charges, levies, fees or other expenses, and all services and facilities of every nature whatsoever necessary for the performance of the contract and to deliver all improvements embraced in this contract, complete in every respect within the specified time.

### COMMUNICATIONS

All notices, demands, claims, requests, instructions, approvals and proposals, must be in writing.

#### a. Notice to the Contractor

Any notice to, or demand upon, the Contractor shall be sufficiently given if delivered at the office of the Contractor stated on the signature page of the contract, or any other such office the Contractor may designate in writing to the Owner, or if deposited in the United States mail in a sealed, postage-paid envelop, by register mail, or if delivered with charges prepaid to any telegraph company for transmission, in each case addressed to such office.

#### b. Notice to the Owner

All papers required to be delivered to the Owner shall, unless specified in writing to the Contractor, be delivered to the City Engineer, City Hall, Paducah, Kentucky, and any such notice to or demand upon the Owner shall be sufficiently given if so delivered or if deposited in the United States mail in a sealed, postage-paid envelope, by registered mail, or if delivered with charges prepaid to any telegraph company for transmission to the above address, or any other such address as the Owner may subsequently specify in writing to the Contractor.

#### c. Time of Notices

Any such notice shall be deemed to have been given as of the time of actual delivery, or in the case of mailing or telegraph, at the time of actual receipt.

### SUPERVISION AND FINAL INSPECTION

The Engineer and/or his authorized representative will have personal supervision of the project during construction. Final inspection of the project shall be conducted in the presence of the Contractor and/or his authorized representative, the Owner and/or his authorized representative.

### SUBCONTRACTING

The Contractor may utilize the services of a specialty Subcontractor on those parts of the works that, under normal contractor practices, are performed by specialty Subcontractors upon approval by the Engineer. The Contractor shall be fully responsible to the Owner for the acts and omissions of his Subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind Subcontractors to the Contractor by the terms of the Contract documents insofar as applicable to the work of Subcontractors and to give the Contractor the same power as regards to terminating any subcontract that the Owner may exercise over the Contractor under any provision of the Contract documents. Nothing contained in this contract shall create any contractual relation between any Subcontractor and the Owner.

### RECORD DRAWINGS

If required by the Owner, at the completion of the Work, the Contractor shall deliver to the Engineer, a complete intact copy of Record Drawings. It shall be the responsibility of the Contractor to maintain an accurate set of As-Built Drawings as work progresses. This set of "As-Built Plans" shall be kept on the job site at all times. The "As-Built Plans" shall accurately depict the location of the new facilities installed and any deviations made from the Drawings.

Submission of the "As-Built Plans" will be required prior to issuance of final payment. In addition, verification by the Engineer that record drawings are periodically maintained will be required prior to each partial payment by the Owner.

## **MATERIALS AND WORKMANSHIP**

### **MATERIALS FURNISHED BY THE CONTRACTOR**

All materials used in the work shall be new, meet the requirements of the respective specifications, and no material shall be used until it has been approved by the Engineer. All materials not otherwise specifically indicated within the contract drawings and specifications that are necessary to complete the work shall be furnished by the Contractor at no extra cost to the Owner.

### **SHOP DRAWINGS**

The Contractor shall provide shop drawings as may be necessary for the prosecution of the work as required by the contract documents. The Engineer shall promptly review all shop drawings. The Engineer's approval of any shop drawing shall not release the Contractor from any responsibility for deviations from the contract documents. The approval of any shop drawing that substantially deviates from the requirement of the contract documents shall be evidenced by a change order.

When submitted for the Engineer's review, shop drawings shall bear the Contractor's certification that he has reviewed, checked and approved the shop drawings and that they are in conformance with the requirements of the contract documents.

Portions of the work requiring a shop drawing or sample submission shall not begin until the shop drawing or submission has been approved by the Engineer. A copy of each approved shop drawing and each approved sample shall be kept in good order by the Contractor at the site and shall be available to the Engineer.

### **STORAGE OF MATERIALS**

Materials shall be stored as to insure the preservation of their quality and fitness for the work in accordance with manufacturer storage recommendations. When considered necessary, they shall be placed on wooden platforms or other hard, clean surfaces, and not on the ground, and they shall be placed under cover. Stored materials shall be located so as to facilitate prompt inspection. Private property shall not be used for storage purposed without the written permission of the Owner or lessee.

### **CHARACTER OF WORKMEN**

The Contractor shall at all times be responsible for the conduct and discipline of his employees and/or any subcontractor or persons employed by subcontractors. All workmen must have sufficient knowledge, skill, and experience to perform properly the work assigned to them. Any foreman or workman employed by the Contractor or subcontractor who, in the opinion of the Engineer, does not perform his work in a skillful manner, or appears to be incompetent or to act in a disorderly or intemperate manner shall, at the written request of the Engineer, be discharged immediately and shall not be employed again in any portion of the work without the approval of the Engineer.

### **PREFERENCE TO LOCAL MATERIALS AND LABOR**

The Contractor shall give preference to the purchase of local materials and to the employment of local labor for all operations. It is understood that such preference will be carried out only to the extent that it will not impair the Contractor's performance, and likewise is not to be construed as prohibiting the Contractor from using his regular organization.

### **REJECTED WORK AND MATERIALS**

All materials that do not conform to the requirements of the Contract Documents, are not equal to samples approved by the Engineer, or are in any way unsatisfactory or unsuited to the purpose, for which they are intended, will be rejected. Any defective work, whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause shall be removed, within ten (10) days after written notice is given by the Engineer, and the work shall be re-executed by the Contractor.

The fact that the Engineer may have previously overlooked such defective work shall not constitute an acceptance of any part of it.

FAILURE TO REMOVE DEFECTIVE WORK

Failure of the Contractor to remove defective work and re-execute the work within ten (10) days after written notice shall result in default by the Contractor.

CORRECTION OF FAULTY WORK AFTER PAYMENT

Correction of faulty work after final payment shall be in accordance with Section 01009 of these specifications.

MANUFACTURER'S DIRECTIONS

Manufactured articles, material and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer unless herein specified to the contrary.

SUBSTITUTIONS

"Approved equal", "equal", and "equal with prior approval" phrases shall be defined as material and/or equipment of similar construction and equal quality only as approved by the Engineer. No substitutions or equivalents will be considered during the Contract Time, except for minor substitutions due to the unavailability of specified items.

Whenever a material, article or piece of equipment is identified on the drawings or specifications by reference to brand name or catalog number, it shall be understood that this is references for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The Contractor may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the contract documents by reference to brand name or catalog number, and if, in the opinion of the Engineer, such material, article, or piece of equipment is of equal substance and function to that specified, the Engineer may approve its substitution and use by the Contractor. Any cost differential shall be deductible from the contract price and the contract documents shall be appropriately modified by change order. The Contractor warrants that if substitutes are approved, no major changes in the function or general design of the project will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without a change on the contract price or contract time.

PATENTS

The Contractor shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the Owner harmless from loss on account thereof, except that the Owner shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, but if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Engineer.

CLEANING UP

The Contractor shall, at all times, keep the construction area, including storage areas used by him, free from accumulations of waste material or rubbish and, prior to completion of the work, remove any rubbish from and about the premises, and remove all tools, equipment, and materials, not the property of the Owner. Upon completion, and prior to final payment, the Contractor shall leave the premises in a neat, clean, and workmanlike condition satisfactory to the Engineer. All property, both public and private, which has been damaged in the prosecution of the work, shall be restored in an acceptable manner approved by the Engineer prior to final payment to the Contractor.

## MEASUREMENT AND PAYMENT

### REQUESTS FOR PAYMENT

The Contractor may submit each month, and no more than once a month, a Request for Payment for work completed and materials delivered and stored on the site. The Contractor shall furnish the Engineer all reasonable support documentation and weigh tickets to substantiate the progress and execution of the work. Payment for materials stored on the site will be conditioned upon evidence submitted by the Contractor to establish the Owner's title to such materials.

Each Request for Payment shall be computed from the work completed on all items listed in the detailed breakdown of the Contract amount, less ten percent (10%) to be retained until final completion and acceptance of the work less liquidated damages, if any, and less previous payments. Where unit prices are specified, the Request for Payment shall be based on the quantities completed. Any oversight of work not included in the submitted Request for Payment can be included with the following monthly Request for Payment.

### OWNER'S ACTION ON A REQUEST FOR PAYMENT

Within **Thirty (30) days** from the date of receipt of a Request for Payment with all required documentation attached, the Owner will:

- a. Pay the Properly Completed Invoice upon approval of the Work, or
- b. Pay such other amount as may be decided is due the Contractor, informing the Contractor in writing of his reasons for paying the amended amount, or
- c. Withhold payment, informing the Contractor of his reasons for withholding payment.

### OWNER'S RIGHT TO WITHHOLD

The Owner may withhold payment in whole or in part to the extent necessary to protect from the loss on account of any of the following causes discovered subsequent to approval of a Request for Payment by the Engineer.

- a. Defective or incomplete work.
- b. Evidence indicating the probable filing of claims by other parties against the Contractor.
- c. Failure of the Contractor to make payments to subcontractors, material supplier or labor.
- d. Damage to another contractor.

### PAYMENTS FOR EXTRA WORK

Written notice of claims for payments for extra work shall be given by the Contractor within ten (10) days after receipt of instructions from the Owner, as approved by the Engineer, to proceed with the extra work, and also before any work is commenced, except in emergency endangering life or property. No claim shall be valid unless so made. In all cases, the Contractor's itemized estimate sheets showing all labor and materials shall be submitted to the Engineer. The Owner's order for extra work shall specify any extension of the Contract time and one of the following methods of payment:

a. Unit Prices

Unit Prices or combinations of unit prices which formed the basis of the original Contract.

b. Lump Sum

A lump sum based on the Contractor's estimate, accepted by the Owner, and approved by the Engineer.

c. Cost Plus Multiplier

Actual cost plus a fixed fee, not to exceed fifteen percent (15%) of the cost of the work. The "cost of the work" shall be the actual cost of the following:

1. Labor, including foremen.
2. Materials entering permanently into the work.
3. The ownership or rental cost of construction plant and equipment during the time of use on the extra work.
4. Power and consumable supplies for the operation of power equipment.
5. Insurance.
6. Social Security and unemployment contributions.

- d. Negotiated Agreement  
Supplemental agreement between the Owner and Contractor.

AFFIDAVITS OF PAYMENT

The Owner may request the Contractor at any time during construction to furnish appropriate affidavits of payment, waivers and releases of liens from any subcontractor or material supplier to the extent of the payment made for labor or materials furnished to the project. These shall be obtained upon forms approved by the Owner.

ACCEPTANCE AND FINAL PAYMENT

When the Contractor has completed the work in accordance with the terms of the Contract Documents, the Engineer will certify his acceptance to the Owner and his approval of the Contractor's amount, plus all approved additions less all approved deductions, including liquidated damages, and less previous payments made. If required by the Owner, the Contractor shall furnish evidence that he has fully paid all debts for labor, materials and equipment incurred in connection with the work, following which the Owner will accept the work and release the Contractor, except as to the conditions of the required bonds, any legal rights of the Owner, required guarantees, and correction of faulty work after final payment, and shall authorize payment of the Contractor's final Request for Payment. The Contractor must allow sufficient time between the time of completion of the work and approval of the final Request for Payment for the Engineer to assemble and check the necessary data.

TERMINATION OF CONTRACTOR'S RESPONSIBILITY

The Contract will be considered complete when all work has been finished, the final inspection made by the Engineer, and the Project accepted in writing by the Owner. The Contractor's responsibility shall then cease, except as required by the guaranty period and as set forth in the bonding requirements.

CORRECTION OF FAULTY WORK AFTER FINAL PAYMENT

The approval of the final Request for Payment by the Engineer and the making of the final payment by the Owner to the Contractor shall not relieve the Contractor of responsibility for faulty materials or workmanship.



## SECTION 01 10 00 - SUMMARY

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Owner-furnished products.
4. Access to site.
5. Coordination with occupants.
6. Work restrictions.
7. Specification and drawing conventions.
8. Miscellaneous provisions.

- B. Related Requirements:

1. Section 01 50 00 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

#### 1.3 PROJECT INFORMATION

- A. Project Identification: **ROBERT CHERRY CIVIC CENTER – PARKING LOT REHABILITATION**

1. Architect/Engineer's Project No.: **23541**.
2. Project Location: Bob Noble Park (adjacent to Noble Park tennis courts), Paducah, KY 42001.

- B. Owner: City of Paducah, Parks and Recreation Department, 1400 HC Mathis Dr., Paducah, KY 42001.

1. Owner's Representative: Ms. Amie Clark, Director.

- C. Landscape Architect: Bacon Farmer Workman Engineering & Testing, Inc., 500 S. 17<sup>th</sup> St., Paducah, KY 42003.

- D. Architect's Consultants: The Architect has retained the following design professionals who have prepared designated portions of the Contract Documents:

1. Electrical Engineering: Marcum Engineering, LLC., 500 S. 17<sup>th</sup> St., Paducah, KY 42003.
2. Civil/Structural Engineering: Bacon Farmer Workman Engineering & Testing, Inc., 500 S. 17<sup>th</sup> St., Paducah, KY 42003.

#### 1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of the following:
  - 1. Removal of existing asphalt pavement and base, and replace with topsoil, fine grade area to drain, seed, straw and maintain until vegetation has been established.
  - 2. Install scratch coat of hot mix asphalt
  - 3. Install standard duty hot mix asphalt pavement.
  - 4. Install 2" hot mix asphalt surface course with tack coat.
  - 5. Install hot mix asphalt wedging variable depth and 2" hot mix asphalt surface course over wedging.
  - 6. Install 2" hot mix asphalt base course and 2" hot mix asphalt surface course
  - 7. Install 2" hot mix asphalt surface course over existing asphalt surface
  - 8. Install variable depth hot mix asphalt surface course over existing asphalt surface to ensure positive drainage away from building.
  - 9. All other miscellaneous removal, variable depth milling
- B. Type of Contract:
  - 1. Project will be constructed under a single prime contract.

#### 1.5 WORK BY OWNER

- A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.

#### 1.6 OWNER-FURNISHED PRODUCTS

- A. Owner will furnish products indicated. The Work includes receiving, unloading, handling, storing, protecting, and installing Owner-furnished products.
- B. Owner-Furnished Products:
  - 1. (Not Used)

#### 1.7 ACCESS TO SITE

- A. General: Contractor shall have full use of Project site for construction operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of Project.

- B. Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
  - 1. Limits: Confine construction operations to areas indicated on drawings within the boundaries of the temporary construction fencing including streets and sidewalks as permitted for closure.
  - 2. Driveways, Walkways and Entrances: Keep driveways loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
    - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
    - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

#### 1.8 COORDINATION WITH OCCUPANTS

- A. Owner Limited Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and limited occupancy shall not constitute acceptance of the total Work.

#### 1.9 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
  - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7:00 a.m. to 5:00 p.m., Monday through Friday, unless otherwise indicated.
  - 1. Weekend Hours: Saturdays 7:00 a.m. to 3:00 p.m.
  - 2. Early Morning Hours: Verify with Owner/City of Paducah prior to early morning hours work.
  - 3. Hours for Utility Shutdowns: Negotiate/coordinate with Owner (City of Paducah).
  - 4. Black-out Dates: Saturday, June 8, 2024 is a NO WORK day. Contractor must make provisions to have parking lot free of equipment and material so that it can be fully used by the Owner.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
  - 1. Notify Owner not less than five days in advance of proposed utility interruptions.
  - 2. Obtain Owner's written permission before proceeding with utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
  - 1. Notify Owner not less than two days in advance of proposed disruptive operations.

2. Obtain Owner's written permission before proceeding with disruptive operations.
- E. Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.
- F. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.
1. Maintain list of approved screened personnel with Owner's representative.

#### 1.10 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
  2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
  2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings.
  3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

END OF SECTION 01 10 00

## SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. Coordination drawings.
  - 2. Requests for Information (RFIs).
  - 3. Project meetings.
- B. Related Requirements:
  - 1. Section 01 73 00 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.

#### 1.2 DEFINITIONS

- A. RFI: Request from Owner, Architect/Engineer/Engineer, or Contractor seeking information required by or clarifications of the Contract Documents.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
  - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
  - 2. Number and title of related Specification Section(s) covered by subcontract.
  - 3. Drawing number and detail references, as appropriate, covered by subcontract.

#### 1.4 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
  - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.

2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
  3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- 1.5 COORDINATION DRAWINGS (not used)
- 1.6 REQUESTS FOR INFORMATION (RFIs)
- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
1. Architect/Engineer/Engineer will return RFIs submitted to Architect/Engineer by other entities controlled by Contractor with no response.
  2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
  2. Project number.
  3. Date.
  4. Name of Contractor.
  5. Name of Architect/Engineer.
  6. RFI number, numbered sequentially.
  7. RFI subject.
  8. Specification Section number and title and related paragraphs, as appropriate.
  9. Drawing number and detail references, as appropriate.
  10. Field dimensions and conditions, as appropriate.
  11. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
  12. Contractor's signature.
  13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
- C. RFI Forms: AIA Document G716 or Software-generated form with substantially the same content as indicated above, acceptable to Architect/Engineer.

- D. Architect/Engineer's Action: Architect/Engineer will review each RFI, determine action required, and respond. Allow seven working days for Architect/Engineer's response for each RFI. RFIs received by Architect/Engineer after 1:00 p.m. will be considered as received the following working day.
1. The following RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for coordination information already indicated in the Contract Documents.
    - d. Requests for adjustments in the Contract Time or the Contract Sum.
    - e. Requests for interpretation of Architect/Engineer's actions on submittals.
    - f. Incomplete RFIs or inaccurately prepared RFIs.
  2. Architect/Engineer's action may include a request for additional information, in which case Architect/Engineer's time for response will date from time of receipt of additional information.
  3. Architect/Engineer's action on RFIs that may result in a change to the Contract Time, or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 01 26 00 "Contract Modification Procedures."
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect/Engineer in writing within 10 days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log every two weeks. Include the following:
1. Project name.
  2. Name and address of Contractor.
  3. Name and address of Architect/Engineer.
  4. RFI number including RFIs that were dropped and not submitted.
  5. RFI description.
  6. Date the RFI was submitted.
  7. Date Architect/Engineer's response was received.
- F. On receipt of Architect/Engineer's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect/Engineer within seven days if Contractor disagrees with response.
1. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

## 1.7 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.

1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect/Engineer of scheduled meeting dates and times.
  2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect/Engineer, within three (3) days of the meeting.
- B. Preconstruction Conference: Architect/Engineer will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect/Engineer, but no later than 15 days after execution of the Agreement.
1. Attendees: Authorized representatives of Owner Architect/Engineer, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  2. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Tentative construction schedule.
    - b. Phasing.
    - c. Critical work sequencing and long-lead items.
    - d. Designation of key personnel and their duties.
    - e. Procedures for processing field decisions and Change Orders.
    - f. Procedures for RFIs.
    - g. Procedures for testing and inspecting.
    - h. Procedures for processing Applications for Payment.
    - i. Distribution of the Contract Documents.
    - j. Submittal procedures.
    - k. Preparation of record documents.
    - l. Use of the premises.
    - m. Work restrictions.
    - n. Working hours.
    - o. Owner's occupancy requirements.
    - p. Responsibility for temporary facilities and controls.
    - q. Procedures for moisture and mold control.
    - r. Procedures for disruptions and shutdowns.
    - s. Construction waste management and recycling.
    - t. Parking availability.
    - u. Office, work, and storage areas.
    - v. Equipment deliveries and priorities.
    - w. First aid.
    - x. Security.
    - y. Progress cleaning.



3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
1. IF Owner or Architect/Engineer determines need of preinstallation conference, then:
    - a. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect/Engineer of scheduled meeting dates.
    - b. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Progress Meetings: Conduct progress meetings at regular intervals as determined necessary by Owner/Architect/Engineer. [To be determined]
1. Attendees: In addition to representatives of Owner and Architect/Engineer, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
  2. Agenda: Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
      - 1) Review schedule for next period.
    - b. Review present and future needs of each entity present, including the following:
      - 1) Interface requirements.
      - 2) Sequence of operations.
      - 3) Status of submittals.
      - 4) Deliveries.
      - 5) Off-site fabrication.
      - 6) Access.
      - 7) Site utilization.
      - 8) Temporary facilities and controls.

- 9) Progress cleaning.
  - 10) Quality and work standards.
  - 11) Status of correction of deficient items.
  - 12) Field observations.
  - 13) Status of RFIs.
  - 14) Status of proposal requests.
  - 15) Pending changes.
  - 16) Status of Change Orders.
  - 17) Pending claims and disputes.
  - 18) Documentation of information for payment requests.
3. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
- a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 31 00

## SECTION 01 60 00 - PRODUCT REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Requirements:
  - 1. Section 01 25 00 "Substitution Procedures" for requests for substitutions.

#### 1.2 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
  - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
  - 3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

#### 1.3 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product

request. Architect will notify Contractor of approval or rejection of proposed comparable product request within 3 days of receipt of request, or 5 days of receipt of additional information or documentation, whichever is later.

- a. Form of Approval: As specified in Section 01 33 00 "Submittal Procedures."
- b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.

- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 01 33 00 "Submittal Procedures." Show compliance with requirements.

#### 1.4 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

#### 1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

- B. Delivery and Handling:

- 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
- 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
- 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
- 4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

- C. Storage:

- 1. Store products to allow for inspection and measurement of quantity or counting of units.
- 2. Store materials in a manner that will not endanger Project structure.
- 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
- 4. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.

5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
6. Protect stored products from damage and liquids from freezing.

## 1.6 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
  1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
  2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
  1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
  2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
  3. Refer to other Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Section 01 77 00 "Closeout Procedures."

## PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
  1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
  2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
  3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
  4. Where products are accompanied by the term "as selected," Architect will make selection.
  5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.

B. Product Selection Procedures:

1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
3. Products:
  - a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered.
  - b. Nonrestricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.
4. Manufacturers:
  - a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered.
  - b. Nonrestricted List: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.
5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.

C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.

1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 01 25 00 "Substitution Procedures" for proposal of product.

- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

## 2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
  - 1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
  - 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
  - 3. Evidence that proposed product provides specified warranty.
  - 4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
  - 5. Samples, if requested.

## PART 3 - EXECUTION (Not Used)

END OF SECTION 01 60 00

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## SECTION 01 73 00 - EXECUTION

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
1. Construction layout.
  2. Field engineering and surveying.
  3. Installation of the Work.
  4. Cutting and patching.
  5. Coordination of Owner-installed products.
  6. Progress cleaning.
  7. Starting and adjusting.
  8. Protection of installed construction.
- B. Related Requirements:
1. Section 01 10 00 "Summary" for limits on use of Project site.

#### 1.2 INFORMATIONAL SUBMITTALS (not used)

#### 1.3 QUALITY ASSURANCE

- A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural element during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection
    - a. All adjacent existing building walls and foundations.
  2. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
  - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
  - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
  - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
  - 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
  - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  - 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Section 01 31 00 "Project Management and Coordination."

### 3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
  - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
  - 2. Establish limits on use of Project site.
  - 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
  - 4. Inform installers of lines and levels to which they must comply.
  - 5. Check the location, level and plumb, of every major element as the Work progresses.
  - 6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
  - 7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- D. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather

conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

### 3.4 FIELD ENGINEERING

- A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.

### 3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  - 1. Make vertical work plumb and make horizontal work level.
  - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  - 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
  - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
  - 2. Allow for building movement, including thermal expansion and contraction.

3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

### 3.6 CUTTING AND PATCHING

A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.

C. Temporary Support: Provide temporary support of work to be cut.

D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

E. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.

2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.

3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.

4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.

5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  6. Proceed with patching after construction operations requiring cutting are complete.
- F. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
  2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
- G. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

### 3.7 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
  3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
1. Remove liquid spills promptly.
  2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

### 3.8 STARTING AND ADJUSTING

- A. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

### 3.9 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 01 73 00

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## SECTION 02 41 19 - SELECTIVE DEMOLITION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Demolition and removal of selected portions of building or structure.
  - 2. Demolition and removal of selected site elements.
  - 3. Salvage of existing items to be reused or recycled.
- B. Related Requirements:
  - 1. Section 01 73 00 "Execution" for cutting and patching procedures.
  - 2. Section 31 10 00 "Site Clearing" for site clearing and removal of above- and below-grade improvements.

#### 1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.
- C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.
- D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

#### 1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.
- B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items

of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

## 1.5 PREINSTALLATION MEETINGS

- A. **Pre-demolition Conference:** Conduct conference at Owner's Request at Project Site – Bob Noble Park (Tennis Courts), Paducah, KY 42001.

1. Inspect and discuss condition of construction to be selectively demolished.
2. Review areas where existing construction is to remain and requires protection.

## 1.6 INFORMATIONAL SUBMITTALS

- A. Schedule of Selective Demolition Activities: Indicate the following:
1. Interruption of utility services. Indicate how long utility services will be interrupted.
  2. Coordination for shutoff, capping, and continuation of utility services.
- B. Pre-demolition Photographs or Video: Submit before Work begins.

## 1.7 FIELD CONDITIONS

- A. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
1. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- B. Storage or sale of removed items or materials on-site is not permitted.
- C. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.
- C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate, and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- E. Engage a professional engineer to perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.
  - 1. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.
- F. Survey of Existing Conditions: Record existing conditions by use of measured drawings preconstruction photographs preconstruction videotapes and templates.
  - 1. Inventory and record the condition of items to be removed and salvaged. Provide photographs or video of conditions that might be misconstrued as damage caused by salvage operations.

### 3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
  - 1. Comply with requirements for existing services/systems interruptions specified in Section 01 10 00 "Summary."
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
  - 1. Arrange to shut off indicated utilities with utility companies.
  - 2. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.

### 3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
  - 1. Comply with requirements for access and protection specified in Section 01 50 00 "Temporary Facilities and Controls."
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

### 3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
  - 1. Dispose of demolished items and materials promptly.

### 3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, then remove masonry between saw cuts.
- B. Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, then break up and remove.

### 3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site.
  - 1. Do not allow demolished materials to accumulate on-site.
  - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

### 3.7 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 02 41 19

## SECTION 31 10 00 - SITE CLEARING

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. Protecting existing vegetation to remain.
2. Removing existing vegetation.
3. Clearing and grubbing.
4. Stripping and stockpiling topsoil.
5. Removing above- and below-grade site improvements.
6. Disconnecting, capping, or sealing site utilities.
7. Temporary erosion and sedimentation control.

#### 1.2 PREINSTALLATION MEETINGS

- ##### A. Preinstallation Conference: Conduct conference at Project site.

#### 1.3 MATERIAL OWNERSHIP

- ##### A. Except for materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.
- ##### B. Items to remain Owner's Property:
1. Tree Trunks cut into 8 to 10 feet lengths (no branches, limbs, debris)
  2. Topsoil

#### 1.4 FIELD CONDITIONS

- ##### A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
  2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.
- ##### B. Salvageable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.
- ##### C. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.

- D. Do not commence site clearing operations until temporary erosion- and sedimentation-control measures are in place.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Section 31 20 00 "Earth Moving."
  - 1. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Verify that trees, shrubs, and other vegetation to remain or to be relocated have been flagged and that protection zones have been identified and enclosed.
- C. Protect existing site improvements to remain from damage during construction.
  - 1. Restore damaged improvements to their original condition, as acceptable to Owner.

### 3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion- and sedimentation-control measures in addition to the existing temporary measure in place to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.
- B. Contractor shall inherit existing temporary erosion and sedimentation control measures from previous phase contract. Contractor shall provide maintenance and modifications to measures as needed.
- C. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
- D. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.

- E. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

### 3.3 TREE AND PLANT PROTECTION

- A. Refer to Section 01 56 39 Temporary Tree and Plant Protection.
- B. Erect and maintain temporary fencing around tree protection zones before starting site clearing. Remove fence when construction is complete.
- C. Do not excavate within tree protection zones, unless otherwise indicated.
- D. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by Engineer.

### 3.4 EXISTING UTILITIES

- A. Locate, identify, disconnect, and seal or cap utilities indicated to be removed or abandoned in place.
  - 1. Arrange with utility companies to shut off indicated utilities.
- B. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others, unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
  - 1. Notify Engineer not less than two days in advance of proposed utility interruptions.
  - 2. Do not proceed with utility interruptions without Engineer's written permission.
- C. Removal of underground utilities is included in earthwork sections; in applicable fire suppression, plumbing, HVAC, electrical, communications, electronic safety and security, and utilities sections; and in Section 02 41 16 "Structure Demolition" and Section 02 41 19 "Selective Demolition."

### 3.5 CLEARING AND GRUBBING

- A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.
  - 1. Grind down stumps and remove roots larger than 3 inches in diameter, obstructions, and debris to a depth of 18 inches below exposed subgrade.
  - 2. Use only hand methods or air-spade for grubbing within protection zones.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.

1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches and compact each layer to a density equal to adjacent original ground.

### 3.6 TOPSOIL STRIPPING

- A. Remove sod and grass before stripping topsoil.
- B. Strip topsoil to depth of whatever is encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.
- C. Stockpile topsoil away from edge of excavations without intermixing with subsoil or other materials. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.

### 3.7 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate new construction.

### 3.8 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.
- B. Separate recyclable materials produced during site clearing from other nonrecyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities. Do not interfere with other Project work.

END OF SECTION 31 10 00



## SECTION 31 20 00 - EARTH MOVING

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes:

1. Excavating and filling for rough grading the Site.
2. Preparing subgrades for Structures.
3. Preparing subgrades for slabs-on-grade walks pavements turf and grasses and plants.
4. Subbase course for concrete walks and pavements.
5. Subbase course and base course for asphalt paving.
6. Excavating and backfilling trenches for utilities and pits for buried utility structures.

#### 1.2 DEFINITIONS

A. Backfill: Soil material used to fill an excavation.

1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
2. Final Backfill: Backfill placed over initial backfill to fill a trench.

B. Base Course: Aggregate layer placed between the subbase course and hot-mix asphalt paving.

C. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.

D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

E. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.

F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.

1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Architect. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Architect. Unauthorized excavation, as well as remedial work directed by Engineer, shall be without additional compensation.

- G. Fill: Soil materials used to raise existing grades.
- H. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- I. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement, or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.
- J. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.
- K. Utilities: On-site underground pipes, conduits, ducts, and cables as well as underground services within buildings.

### 1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct pre-excavation conference at Project site.

### 1.4 INFORMATIONAL SUBMITTALS

- A. Material test reports.

### 1.5 FIELD CONDITIONS

- A. Utility Locator Service: Notify utility locator service for area where Project is located before beginning earth-moving operations.
- B. Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Architect and then only after arranging to provide temporary utility services according to requirements indicated.

## PART 2 - PRODUCTS

### 2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: Soil Classification Groups GC, SC, CL, ML, GW, GP, GM, SW, SP, and SM according to ASTM D 2487, or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
  - 1. Plasticity Index: Less than 20.
  - 2. Minimum Unit Weight: 100 lbs/cubic foot

- C. Unsatisfactory Soils: Soil Classification Groups OL, CH, MH, OH, and PT according to ASTM D 2487, or a combination of these groups.
  - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940/D 2940M; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
- E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 294/D 2940M 0; with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.
- F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940/D 2940M; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
- G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940/D 2940M; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve.
- H. Drainage Course: Narrowly graded mixture of washed crushed stone or crushed or uncrushed gravel; ASTM D 448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2-inch sieve and zero to 5 percent passing a No. 8 sieve.

## 2.2 ACCESSORIES

- A. Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility; colored to comply with local practice or requirements of authorities having jurisdiction.
- B. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored to comply with local practice or requirements of authorities having jurisdiction.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth-moving operations.
- B. Protect and maintain erosion and sedimentation controls during earth-moving operations.
- C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.
- D. Preparation of subgrade for earthwork operations including removal of vegetation, topsoil, debris, obstructions, and deleterious materials from ground surface is specified in Section 31 10 00 "Site Clearing".

### 3.2 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
  - 1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.

### 3.3 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
  - 1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.
  - 2. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1 inch. Do not disturb bottom of excavations intended as bearing surfaces.
- B. Excavations at Edges of Tree- and Plant-Protection Zones:
  - 1. Excavate by hand or with an air spade to indicated lines, cross sections, elevations, and subgrades. If excavating by hand, use narrow-tine spading forks

to comb soil and expose roots. Do not break, tear, or chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.

2. Excavate according to requirements of Section 01 56 39 Temporary Tree and Plant Protection

### 3.4 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

### 3.5 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated.
  1. Clearance: As indicated.
- C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
  1. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material, 4 inches deeper elsewhere, to allow for bedding course.
- D. Trenches in Tree- and Plant-Protection Zones:
  1. Hand-excavate to indicated lines, cross sections, elevations, and subgrades. Use narrow-tine spading forks to comb soil and expose roots. Do not break, tear, or chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.
  2. Do not cut main lateral roots or taproots; cut only smaller roots that interfere with installation of utilities.
  3. Cut and protect roots according to requirements in Section 01 56 39 Temporary Tree and Plant Protection.

### 3.6 SUBGRADE INSPECTION

- A. Proof-roll subgrade below the building slabs and pavements with a pneumatic-tired dump truck to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.

- B. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Architect, without additional compensation.

### 3.7 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi, may be used when approved by Architect.
  - 1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by Architect.

### 3.8 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
  - 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees. Provide temporary seeding when pile lays or is scheduled to lay idle for 21 days.

### 3.9 UTILITY TRENCH BACKFILL

- A. Place backfill on subgrades free of mud, frost, snow, or ice.
- B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
- C. Trenches under Footings: Backfill trenches excavated under footings and within 18 inches of bottom of footings with satisfactory soil; fill with concrete to elevation of bottom of footings. Concrete is specified in Section 03 30 00 "Cast-in-Place Concrete."
- D. Trenches under Improved Surfaces: Backfill trenches excavated under improved surfaces with flowable fill or dense graded aggregate compacted to 95% standard proctor density.
- E. Initial Backfill: Place and compact initial backfill of subbase material, free of particles larger than 1 inch in any dimension, to a height of 12 inches over the pipe or conduit.
  - 1. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.

- F. Final Backfill: Place and compact final backfill of satisfactory soil to final subgrade elevation.
- G. Warning Tape: Install warning tape directly above utilities, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

### 3.10 SOIL FILL

- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- B. Place and compact fill material in layers to required elevations as follows:
  - 1. Under grass and planted areas, use satisfactory soil material.
  - 2. Under walks and pavements, use satisfactory soil material.
  - 3. Under steps and ramps, use engineered fill.
  - 4. Under building slabs, use engineered fill.
  - 5. Under footings and foundations, use engineered fill.

### 3.11 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
  - 1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
  - 2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

### 3.12 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- B. Place and compact fill material at a minimum 1 vertical to 3 horizontal from the edge of improved surface or structure to daylight line of existing ground to compaction requirements of fill under improvement.
- C. Place backfill and fill soil materials evenly on all sides of structures to required elevations and uniformly along the full length of each structure.
- D. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 698:
  - 1. Under structures, building slabs, steps, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 98 percent.

2. Under pavements and walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 95 percent.
3. Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 92 percent.
4. For utility trenches, compact each layer of initial and final backfill soil material at 85 percent.
5. For utility trenches under improved surface areas, compact each layer of initial and final backfill soil material at 95 percent.

### 3.13 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
- B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to elevations required to achieve indicated finish elevations, within the following subgrade tolerances:
  1. Turf or Unpaved Areas: Plus or minus 1 inch.
  2. Walks: Plus or minus 1/2 inch.
  3. Pavements: Plus or minus 1/8 inch.
- C. Grading inside Building Lines and Tennis Court Area: Finish subgrade to a tolerance of 1/4 inch when tested with a 10-foot straightedge.

### 3.14 SUBBASE AND BASE COURSES UNDER PAVEMENTS AND WALKS

- A. Place subbase course and base course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place subbase course and base course under pavements and walks as follows:
  1. Shape subbase course and base course to required crown elevations and cross-slope grades.
  2. Place subbase course and base course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
  3. Compact subbase course and base course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 698.

### 3.15 DRAINAGE COURSE UNDER CONCRETE SLABS-ON-GRADE

- A. Place drainage course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place and compact drainage course under cast-in-place concrete slabs-on-grade as follows:



1. Place drainage course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
2. Compact each layer of drainage course to required cross sections and thicknesses to not less than 95 percent of maximum dry unit weight according to ASTM D 698.

### 3.16 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a qualified special inspector to perform inspections:
- B. Testing Agency: Owner will engage a qualified geotechnical engineering testing agency to perform tests and inspections.
- C. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.
- D. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Architect.
- E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; recompact and retest until specified compaction is obtained.
- F. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable.

### 3.17 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
  1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

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3.18 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION 31 20 00

## SECTION 32 12 16 - ASPHALT PAVING

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes:

1. Cold milling of existing asphalt pavement.
2. Hot-mix asphalt patching.
3. Hot-mix asphalt paving.
4. Hot-mix asphalt overlay.

B. Related Requirements:

1. Section 31 20 00 "Earth Moving" for subgrade preparation, fill material, unbound-aggregate subbase and base courses, and aggregate pavement shoulders.

#### 1.2 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated, include technical data and tested physical and performance properties.

1. Job-Mix Designs: Certification, by authorities having jurisdiction, of approval of each job mix proposed for the Work.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Material Certificates: For each paving material, from manufacturer.

#### 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A paving-mix manufacturer registered with and approved by authorities having jurisdiction or the DOT of state in which Project is located (Kentucky Department of Highways).

- B. Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of the Kentucky Department of Highways for asphalt paving work.

1. Measurement and payment provisions and safety program submittals included in standard specifications do not apply to this Section.

## 1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:
  1. Tack Coat: Minimum surface temperature of 60 deg F.
  2. Asphalt Base Course: Minimum surface temperature of 40 deg F and rising at time of placement.
  3. Asphalt Surface Course: Minimum surface temperature of 60 deg F at time of placement.
- B. Paving-Marking Paint: Proceed with pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature of 40 deg F for oil-based materials, 55 deg F for water-based materials, and not exceeding 95 deg F.

## PART 2 - PRODUCTS

### 2.1 PAVEMENT MATERIALS

- A. All pavement materials should conform to and be placed and compacted in accordance with the applicable sections of the Kentucky Department of Transportation (KDOT) Standard Specifications for Road and Bridge Construction, current edition.

### 2.2 AUXILIARY MATERIALS

- A. Recycled Materials for Hot-Mix Asphalt Mixes: Reclaimed asphalt pavement; reclaimed, unbound-aggregate base material; and recycled tires, asphalt shingles, or glass from sources and gradations that have performed satisfactorily in previous installations, equal to performance of required hot-mix asphalt paving produced from all new materials.

### 2.3 MIXES

- A. Hot-Mix Asphalt: Dense-graded, hot-laid, hot-mix asphalt plant mixes approved by authorities having jurisdiction; designed according to procedures in AI MS-2, "Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types"; and complying with the following requirements:
  1. Provide mixes with a history of satisfactory performance in geographical area where Project is located.
  2. Base Course:
    - a. Class I.

- b. Class II – Superpave Mix.
- 3. Surface Course:
  - a. Class I.
  - b. Class II – Superpave Mix.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Proof-roll subgrade below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
- B. Proceed with paving only after unsatisfactory conditions have been corrected.

#### 3.2 COLD MILLING

- A. Clean existing pavement surface of loose and deleterious material immediately before cold milling. Remove existing asphalt pavement by cold milling to grades and cross sections indicated.
  - 1. Mill to a depth of 1-1/2 inches.
  - 2. Patch surface depressions deeper than 1 inch after milling, before wearing course is laid.

#### 3.3 PATCHING

- A. Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement section to sound base. Excavate rectangular or trapezoidal patches, extending 12 inches into perimeter of adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate base course to form new subgrade.
- B. Portland Cement Concrete Pavement: Break cracked slabs and roll as required to reseal concrete pieces firmly.
  - 1. Remove disintegrated or badly cracked pavement. Excavate rectangular or trapezoidal patches, extending into perimeter of adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Recompact existing unbound-aggregate base course to form new subgrade.
- C. Tack Coat: Before placing patch material, apply tack coat uniformly to vertical asphalt surfaces abutting the patch. Apply at a rate of 0.05 to 0.15 gal./sq. yd.
  - 1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
  - 2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

- D. Placing Patch Material: Fill excavated pavement areas with hot-mix asphalt base mix for full thickness of patch and, while still hot, compact flush with adjacent surface.

### 3.4 SURFACE PREPARATION

- A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.
- B. Proof-roll subgrade below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
- C. Herbicide Treatment: Apply herbicide according to manufacturer's recommended rates and written application instructions. Apply to dry, prepared subgrade or surface of compacted-aggregate base before applying paving materials.
- D. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd..
  - 1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
  - 2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

### 3.5 PLACING HOT-MIX ASPHALT

- A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand in areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.
  - 1. Spread mix at a minimum temperature of 250 deg F.
  - 2. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
- B. Place paving in consecutive strips not less than 10 feet wide unless infill edge strips of a lesser width are required. **EACH COURSE OF ASPHALT PAVING FOR PICKLEBALL COURTS SHALL BE LAID IN THEIR ENTIRETY WITHIN IN A 12 HOUR PERIOD FROM START OF PLACEMENT TO FINISH OF COMPACTING. NO COLD JOINTS IN COURSES WILL BE ACCEPTED.**
- C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

### 3.6 JOINTS

- A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.
  - 1. Clean contact surfaces and apply tack coat to joints.
  - 2. Offset longitudinal joints, in successive courses, a minimum of 6 inches.
  - 3. Offset transverse joints, in successive courses, a minimum of 24 inches.
  - 4. Construct transverse joints at each point where paver ends a day's work and resumes work at a subsequent time. Construct these joints using either "bulkhead" or "papered" method according to AI MS-22, for both "Ending a Lane" and "Resumption of Paving Operations."

### 3.7 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.
  - 1. Complete compaction before mix temperature cools to 185 deg F.
- B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.
- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:
  - 1. Average Density: 92 percent of reference maximum theoretical density according to ASTM D 2041, but not less than 90 percent or greater than 96 percent.
- D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
- E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.
- F. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- G. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

### 3.8 INSTALLATION TOLERANCES

- A. Pavement Thickness: Compact each course to produce the thickness indicated within the following tolerances:
  - 1. Base Course: Plus or minus 1/2 inch.
  - 2. Surface Course: Plus 1/4 inch, no minus.
  
- B. Pavement Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot straightedge applied transversely or longitudinally to paved areas:
  - 1. Base Course: +/- 1/8 inch.
  - 2. Surface Course: + 1/8 inch / minus 0 inch.
  - 3. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4 inch.

### 3.9 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
  
- B. Replace and compact hot-mix asphalt where core tests were taken.
  
- C. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

### 3.10 WASTE HANDLING

- A. General: Handle Except for material indicated to be recycled, remove excavated materials from Project site and legally dispose of them in an EPA-approved landfill.

END OF SECTION 32 12 16



## SECTION 32 17 23 - PAVEMENT MARKINGS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes painted markings applied to asphalt and concrete pavement.

#### 1.2 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Owner's Request at Project site.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For each exposed product and for each color and texture specified.

### PART 2 - PRODUCTS

#### 2.1 PAVEMENT-MARKING PAINT

- A. Pavement-Marking Paint: MPI #32, alkyd traffic-marking paint.
  - 1. Color: White.
- B. Pavement-Marking Paint: MPI #97, latex traffic-marking paint.
  - 1. Color: White.
- C. Glass Beads: AASHTO M 247, Type 1 made of 100 percent recycled glass.

### PART 3 - EXECUTION

#### 3.1 PAVEMENT MARKING

- A. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Architect.
- B. Allow paving to age for a minimum of 30 days before starting pavement marking unless otherwise permitted by Architect/Engineer or Owner.
- C. Sweep and clean surface to eliminate loose material and dust.

- D. Apply paint with mechanical equipment to produce pavement markings, of dimensions indicated, with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15 mils.
  - 1. Apply graphic symbols and lettering with paint-resistant, die-cut stencils. Apply paint so that it cannot run beneath the stencil.
  - 2. Broadcast glass beads uniformly into wet markings at a rate of 6 lb./gal..

END OF SECTION 32 17 23

## SECTION 32 91 00 – TOPSOIL

### PART 1 - GENERAL

#### 1.1 SECTION INCLUDES

- A. This section describes placement of all soil materials designated as "Topsoil" on the drawings or as specified herein. Topsoil for landscape work will be supplied from off-site sources.

#### 1.2 SUBMITTALS

- A. Test Reports
  - 1. Prior to starting work, submit two certified copies of soil test reports to Owner's Representative for approval from each topsoil source. These test results shall include recommended fertilizer application rates.
  - 2. Cost of all testing to be borne by Contractor.

#### 1.3 QUALITY ASSURANCE

- A. All soil sampling and testing shall comply with procedures specified in U.S.D.A. Ag. Handbook 60: Diagnosis and Improvement of Saline and Alkali Soils.
- B. Testing Laboratories Testing Laboratories: Use certified facilities normally engaged in agronomic soil testing as approved by the Owner's Representative.
- C. Required Topsoil Tests
  - 1. Fertility: pH, nitrate nitrogen, ammonium nitrogen, phosphate phosphorous, potassium, calcium, magnesium, zinc, iron, manganese.
  - 2. Physical properties: organic content and particle size distribution.
  - 3. Soil texture analysis.
  - 4. Fertilizer recommendations for seeding and planting.

### PART 2 - PRODUCTS

#### 2.1 TOPSOIL

- A. Topsoil for landscape work shall be furnished as specified below:
  - 1. A fertile, friable, sandy loamy surface soil without admixture of subsoil and free of stones, stumps, root, trash, debris, and other materials deleterious to plant growth.

2. The pH range shall be 6.0 to 7.5. Topsoil that does not meet this pH range will be amended by the addition of pH adjusters approved by the Owner's Representative.
3. Nutrient data to be given in parts per million (ppm) parts dry soil.
4. Organic content shall not be less than 5 percent and not greater than 10 percent determined by loss through ignition.
5. Particle Size Distribution:

a.	<u>Sieve Designation</u>	<u>Percent Passing</u>
	1 inch screen	100
	1/4 inch screen	97 - 100
	No. 10 U.S.S. mesh sieve	95 - 100
	No. 140 U.S.S.	15 - 35

- b. Clay content determined by Bouyoucous Hydrometer Test shall range between 5 percent and 15 percent. Percentages shall be based on dry weight of the sample.

### PART 3 - EXECUTION

#### 3.1 SUBGRADE SOIL PREPARATION

- A. Remove all rocks, debris and/or vegetation from subgrade surface. Scarify areas to a depth of 6 inches prior to topsoil placement. Scarifications to have a maximum 2-foot separation and be cut in two directions, one perpendicular to the other.

#### 3.2 PLACING TOPSOIL

- A. Shred all topsoil before installing and mixing.
- B. Amend topsoil as necessary as determined by soil test.
- C. Place topsoil to achieve final grades indicated on drawings and specified herein, to within 1-inch of finished elevation or as otherwise noted, allowing for settlement. Place topsoil to provide a minimum thickness of 24 inches within landscape beds and a minimum thickness of 12 inches in lawn areas. Compact lightly to prevent settlement.
- D. Topsoil shall not be applied in any condition that would hamper a successful seeding or planting operation, including application while in a frozen or muddy condition, or when subgrade is too wet as result of saturation or flooding.

END OF SECTION 32 91 00

## SECTION 32 92 00 - TURF AND GRASSES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Seeding.
  - 2. Sodding.
  - 3. Erosion-control material(s).
- B. Related Requirements:
  - 1. Section 32 93 00 "Exterior Plants" for trees, shrubs, ground covers, and other plants as well as border edgings and mow strips (Not Used)
  - 2. Section 32 91 00 "Topsoil" for topsoil performance and submittal requirements – including testing.

#### 1.3 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. This also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- C. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- D. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth. See Section 32 91 13 "Soil Preparation" and drawing designations for planting soils.
- E. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.

#### 1.4 PRE-INSTALLATION MEETINGS

- A. Pre-installation Conference: Conduct conference at Project site.

### **1.5 INFORMATIONAL SUBMITTALS**

- A. Qualification Data: For landscape Installer.
- B. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture, stating the botanical and common name, percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
  - 1. Certification of each seed mixture for turfgrass sod. Include identification of source and name and telephone number of supplier.
- C. Product Certificates: For fertilizers, from manufacturer.
- D. Pesticides and Herbicides: Product label and manufacturer's application instructions specific to Project.

### **1.6 CLOSEOUT SUBMITTALS**

- A. Maintenance Data: Recommended procedures to be established by Owner for maintenance of turf during a calendar year. Submit before expiration of required maintenance periods.

### **1.7 MAINTENANCE SERVICE**

- A. Tree Maintenance Service: Maintain trees by pruning, cultivating, watering, weeding, fertilizing, and resetting to proper grades or vertical position, as required to establish healthy, viable plantings. Spray as required to keep trees free of insects and disease. Maintain trees for the following period.
- B.
  - 1. Trees: 90 Days following Substantial Completion.
- C. Initial Lawn Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until acceptable lawn is established, but for not less than the following periods:
  - 1. Seeded Lawns: 90 days after date of Substantial Completion.
    - a. When initial maintenance period has not elapsed before end of planting season, or if lawn is not fully established, continue maintenance during next planting season.
  - 2. Sodded Lawns: 60 days after date of Substantial Completion.
- D. Maintain and establish lawns by watering, fertilizing, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, and replant bare or eroded areas and re-mulch to produce a uniformly smooth lawn.
- E. Watering: Provide and maintain temporary piping, hoses, and lawn-watering equipment to convey water from sources and to keep lawns uniformly moist to a depth of 4 inches.
  - 1. Water lawn at the minimum rate of 1 inch per week.
  - 2.
- F. Mow lawns as soon as there is enough top growth to cut with mower set at specified height for principal species planted. Repeat mowing as required to maintain specified height without cutting more than 40 percent of the grass height. Do not mow when grass is wet.

- G. Postfertilization: Apply fertilizer to lawn after first mowing and when grass is dry.
  - 1. Use fertilizer that will provide actual nitrogen of at least 1 lb. per 1000 sq ft of lawn area.

## **1.8 QUALITY ASSURANCE**

- A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful turf establishment.
  - 1. Professional Membership: Installer shall be a member in good standing of either the Professional Landcare Network or the American Nursery and Landscape Association.
  - 2. Experience: Five years' experience in turf installation in addition to requirements in Section 01 40 00 "Quality Requirements."
  - 3. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
  - 4. Personnel Certifications: Installer's field supervisor shall have certification in one of the following categories from the Professional Landcare Network:
    - a. Landscape Industry Certified Technician - Exterior.
    - b. Landscape Industry Certified Lawncare Manager.
    - c. Landscape Industry Certified Lawncare Technician.
  - 5. Pesticide Applicator: State licensed, commercial.

## **1.9 DELIVERY, STORAGE, AND HANDLING**

- A. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of compliance with state and Federal laws, as applicable.
- B. Sod: Harvest, deliver, store, and handle sod according to requirements in "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" sections in TPI's "Guideline Specifications to Turfgrass Sodding." Deliver sod within 24 hours of harvesting and in time for planting promptly. Protect sod from breakage and drying.
- C. Bulk Materials:
  - 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
  - 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials; discharge of soil-bearing water runoff; and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
  - 3. Accompany each delivery of bulk materials with appropriate certificates.

## **1.10 FIELD CONDITIONS**

- A. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of planting completion.
  - 1. Spring Planting: March 1<sup>st</sup> - April 15<sup>th</sup>.
  - 2. Fall Planting: September 15<sup>th</sup> – October 31<sup>st</sup>.
- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

## **PART 2 - PRODUCTS**

### **2.1 SEED**

- A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Rules for Testing Seeds" for purity and germination tolerances.
- B. Seed Species:
  - 1. Quality: State-certified seed of grass species as listed below for solar exposure.
  - 2. Quality: Seed of grass species as listed below for solar exposure, with not less than 85 percent germination, not less than 95 percent pure seed, and not more than 0.5 percent weed seed:
  - 3. Sun and Partial Shade: Proportioned by weight as follows:
    - a. 50 percent tall fescue (*Festuca arundinacea*).
    - b. 30 percent chewings red fescue (*Festuca rubra* variety).
    - c. 20 percent perennial ryegrass (*Lolium* sp.)
  - 4. Contractor may submit alternate blends of sun and partial shade seed – Landscape Architect shall approve substitution prior to acceptance.

### **2.2 TURFGRASS SOD**

- A. Turfgrass Sod: Certified, complying with "Specifications for Turfgrass Sod Materials" in TPI's "Guideline Specifications to Turfgrass Sodding." Furnish viable sod of uniform density, color, and texture that is strongly rooted and capable of vigorous growth and development when planted.
  - a. Turfgrass Species: 50 percent tall fescue (*Festuca arundinacea*).
  - b. 30 percent chewings red fescue (*Festuca rubra* variety).
  - c. 20 percent perennial ryegrass (*Lolium* sp.)

### **2.3 TOPSOIL**

- A. Topsoil: ASTM D 5268, pH range of 5.5 to 7, a minimum of 4 percent organic material content; free of stones 1 inch or larger in any dimension and other extraneous materials harmful to plant growth.
  - 1. Topsoil Source: Reuse surface soil stockpiled on-site. Verify suitability of stockpiled surface soil to produce topsoil. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
    - a. Supplement with imported or manufactured topsoil from off-site sources when quantities are insufficient.
  - 2. Topsoil Source: Import topsoil or manufactured topsoil from off-site sources. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches deep; do not obtain from bogs or marshes.
  - 3. Topsoil Source: Amend existing in-place surface soil to produce topsoil. Verify suitability of surface soil to produce topsoil. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
    - a. Surface soil may be supplemented with imported or manufactured topsoil from off-site sources.



## **2.4 FERTILIZERS**

- A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
  - 1. Composition: 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
  - 2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.
- B. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
  - 1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.
  - 2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.

## **2.5 MULCHES**

- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.
- B. Compost Mulch: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1-inch sieve; soluble salt content of 2 to 5 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:
  - 1. Organic Matter Content: 50 to 60 percent of dry weight.
  - 2. Feedstock: Agricultural, food, or industrial residuals; bio-solids; yard trimmings; or source-separated or compostable mixed solid waste.
- C. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic and free of plant-growth or germination inhibitors; with a maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.
- D. Non-asphaltic Tackifier: Colloidal tackifier recommended by fiber-mulch manufacturer for slurry application; nontoxic and free of plant-growth or germination inhibitors.

## **2.6 PESTICIDES**

- A. General: Pesticide, registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
- B. Pre-Emergent Herbicide (Selective and Nonselective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.
- C. Post-Emergent Herbicide (Selective and Nonselective): Effective for controlling weed growth that has already germinated.

## **2.7 EROSION-CONTROL MATERIALS**

- A. Erosion-Control Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat enclosed in a photodegradable plastic mesh. Include manufacturer's recommended steel wire staples, 6 inches long.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Examine areas to be planted for compliance with requirements and other conditions affecting installation and performance of the Work.
  - 1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
  - 2. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
  - 3. Uniformly moisten excessively dry soil that is not workable or which is dusty.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.

### **3.2 PREPARATION**

- A. Protect structures; utilities; sidewalks; pavements; and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
  - 1. Protect adjacent and adjoining areas from hydroseeding and hydromulching overspray.
  - 2. Protect grade stakes set by others until directed to remove them.
- B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

### **3.3 TURF AREA PREPARATION**

- A. General: Prepare planting area for soil placement and mix planting soil according to Section 32 91 13 "Soil Preparation."
- B. Placing Planting Soil: Place and mix planting soil in place over exposed subgrade.
  - 1. Reduce elevation of planting soil to allow for soil thickness of sod.
- C. Moistening prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- D. Before planting, obtain Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

### **3.4 PREPARATION FOR EROSION-CONTROL MATERIALS**

- A. Prepare area as specified in "Turf Area Preparation" Article.
- B. For erosion-control blanket or mesh, install from top of slope, working downward, and as recommended by material manufacturer for site conditions. Fasten as recommended by material manufacturer.
- C. Moisten prepared area before planting if surface is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.

### **3.5 SEEDING**

- A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph.
  - 1. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
  - 2. Do not use wet seed or seed that is moldy or otherwise damaged.
  - 3. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.
- B. Sow seed at a total rate of 8 to 10 lbs/1000 sq. ft..
- C. Rake seed lightly into top 1/8 inch of soil, roll lightly, and water with fine spray.
- D. Protect seeded areas with slopes exceeding 1:4 with erosion-control blankets and 1:6 with erosion-control fiber mesh installed and stapled according to manufacturer's written instructions.
- E. Protect seeded areas with slopes not exceeding 1:6 by spreading straw mulch. Spread uniformly at a minimum rate of 2 tons/acre to form a continuous blanket 1-1/2 inches in loose thickness over seeded areas. Spread by hand, blower, or other suitable equipment.
  - 1. Anchor straw mulch by crimping into soil with suitable mechanical equipment.

### **3.6 SODDING**

- A. Lay sod within 24 hours of harvesting unless a suitable preservation method is accepted by Architect prior to delivery time. Do not lay sod if dormant or if ground is frozen or muddy.
- B. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod; do not stretch or overlap. Stagger sod strips or pads to offset joints in adjacent courses. Avoid damage to soil or sod during installation. Tamp and roll lightly to ensure contact with soil, eliminate air pockets, and form a smooth surface. Work sifted soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.
  - 1. Lay sod across slopes exceeding 1:3.
  - 2. Anchor sod on slopes exceeding 1:6 with wood pegs or steel staples spaced as recommended by sod manufacturer but not less than two anchors per sod strip to prevent slippage.
- C. Saturate sod with fine water spray within two hours of planting. During first week after planting, water daily or more frequently as necessary to maintain moist soil to a minimum depth of 1-1/2 inches below sod.

### **3.7 TURF RENOVATION**

- A. Renovate existing turf where indicated.
- B. Renovate turf damaged by Contractor's operations, such as storage of materials or equipment and movement of vehicles.
  - 1. Reestablish turf where settlement or washouts occur or where minor regrading is required.
  - 2. Install new planting soil as required.
- C. Remove sod and vegetation from diseased or unsatisfactory turf areas; do not bury in soil.
- D. Remove topsoil containing foreign materials, such as oil drippings, fuel spills, stones, gravel, and other construction materials resulting from Contractor's operations, and replace with new planting soil.
- E. Mow, dethatch, core aerate, and rake existing turf.
- F. Remove weeds before seeding. Where weeds are extensive, apply selective herbicides as required. Do not use pre-emergence herbicides.
- G. Remove waste and foreign materials, including weeds, soil cores, grass, vegetation, and turf, and legally dispose of them off Owner's property.
- H. Till stripped, bare, and compacted areas thoroughly to a soil depth of 6 inches.
- I. Apply soil amendments and initial fertilizer required for establishing new turf and mix thoroughly into top 4 inches of existing soil. Install new planting soil to fill low spots and meet finish grades.
  - 1. Soil Amendment(s): according to requirements of Section 32 91 13 "Soil Preparation."
  - 2. Initial Fertilizer: Commercial fertilizer applied according to manufacturer's recommendations.
- J. Apply seed and protect with straw mulch as required for new turf.
- K. Water newly planted areas and keep moist until new turf is established.

### **3.8 TURF MAINTENANCE**

- A. General: Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and re-mulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.
  - 1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in areas of subsidence.
  - 2. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
  - 3. Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.
- B. Watering: Install and maintain temporary piping, hoses, and turf-watering equipment to convey water from sources and to keep turf uniformly moist to a depth of 4 inches.

1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
  2. Water turf with fine spray at a minimum rate of 1 inch per week unless rainfall precipitation is adequate.
- C. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than one-third of grass height. Remove no more than one-third of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:
1. Mow bermudagrass to a height of 2 to 3 inches.
- D. Turf Post-fertilization: Apply commercial fertilizer after initial mowing and when grass is dry.
1. Use fertilizer that provides actual nitrogen of at least 1 lb/1000 sq. ft. to turf area.

### **3.9 SATISFACTORY TURF**

- A. Turf installations shall meet the following criteria as determined by Architect:
1. Satisfactory Seeded Turf: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. and bare spots not exceeding 5 by 5 inches.
  2. Satisfactory Sodded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities.
- B. Use specified materials to reestablish turf that does not comply with requirements and continue maintenance until turf is satisfactory.

### **3.10 PESTICIDE APPLICATION**

- A. Apply pesticides and other chemical products and biological control agents according to requirements of authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.
- B. Post-Emergent Herbicides (Selective and Nonselective): Apply only as necessary to treat already-germinated weeds and according to manufacturer's written recommendations.

### **3.11 CLEANUP AND PROTECTION**

- A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.
- C. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.

- D. Remove nondegradable erosion-control measures after grass establishment period.

### **3.12 MAINTENANCE SERVICE**

- A. Turf Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in "Turf Maintenance" Article. Begin maintenance immediately after each area is planted and continue until acceptable turf is established, but for not less than the following periods:
  - 1. Seeded Turf: 60 days from date of planting completion.
    - a. When initial maintenance period has not elapsed before end of planting season, or if turf is not fully established, continue maintenance during next planting season.
  - 2. Sodded Turf: 30 days from date of planting completion.

END OF SECTION 32 92 00