INVITATION FOR BIDS
CCK-2342-19, Project #2446.2
UK Grehan Journalism Modernization Project
Trade Categories TC-004 thru TC-020
ADDENDUM # 1
July 27, 2018

ATTENTION: This is not an order. Read all instructions, terms and conditions carefully.

IMPORTANT: BID AND ADDENDUM MUST BE RECEIVED BY 08/02/2018 @ 3:00 P.M. LEXINGTON, KY TIME

Bidder must acknowledge receipt of this and any addendum as stated in the Invitation for Bids.

1. Please refer to and incorporate within the Offer, the attached ADDENDUM No. 1 from TURNER CONSTRUCTION COMPANY dated 7/26/18.


3. In addition, refer to and incorporate within the Offer, the attached Addendum No. 1 from MURPHYGROUP ARCHITECTS dated July 25th, 2018 titled UK Enoch Grehan Building Modernization, AE Project No. 1801.

4. Also, refer to and incorporate within the Offer, the attached Commissioning Specifications and Commissioning Plan REV 2.1 July 06, 2018 and OWNER’S PROJECT REQUIREMENTS REV 2.1 July 09, 2018

5. Finally refer to and incorporate within the Offer the attached Written Questions and Answers, CCK-2342-19, Project 2446.2 Modernization of Enoch Grehan Journalism Bldg. Bid Package 02, Question No. 1 thru 85.

OFFICIAL APPROVAL
UNIVERSITY OF KENTUCKY

________________________________________
Mike Mudd / (859) 257-5409

________________________________________
Typed or Printed Name

University of Kentucky
Purchasing Division
322 Peterson Service Building
Lexington, KY 40506-0005
UK Grehan Journalism Modernization Project
ADDENDUM No. 1
CCK-2342-19
7/26/18

Item No. 1
Re. Form of Proposal TC-005 Concrete, ADD Item 16.d as follows:

16.d This contractor TC-005 shall reference the project geotechnical report (Attachment J); any required rock excavation is to be included by TC-005 to install the foundations as shown. Coordinate with construction manager and testing agency. TC-003 Excavation contractor will excavate all rock to grades as specified for their scope and as indicated in TC-005 work scope item 16.

Item No. 2
Re: Form of Proposal TC-017, Fire Protection, Attachment B; Increase allowance #1 for BIM360 from $3,000 to $4,200.00. Use new attached bid breakout sheet with your bid submission.

Item No. 3
Re: Form of Proposal TC-018, Plumbing, Attachment B; Increase allowance #1 for BIM360 from $3,000 to $4,200.00. Use new attached bid breakout sheet with your bid submission.

Item No. 4
Re: Form of Proposal TC-019, Mechanical / HVAC, Attachment B; Increase allowance #1 for BIM360 from $3,000 to $4,200.00. Use new attached bid breakout sheet with your bid submission.

Item No. 5
Re: Form of Proposal TC-020, Elec. And Integrated Tech., Attachment B; Increase allowance #1 for BIM360 from $3,000 to $4,200.00. Use new attached bid breakout sheet with your bid submission.

Item No. 6
Revise Attachment A, 3A page, item ‘C’ and project manual Table of Contents to include Attachment D – CCIP Manual dated June 22, 2018 and include in your scope of work for all trades.

C. ADDITIONAL CONTRACT DOCUMENTS

- Attachment “B” – Trade Contractor ___ Scope of Work
- Project General Requirements
- Contract Document List - Refer to drawing G-002
- Attachment “C” Project Safety Program dated January 15, 2018
- Attachment “D” CCIP Manual dated June 22, 2018
- Attachment “E” Accounting Procedures
- Attachment “F” Percentage Markup Sheet
- Attachment “G” Project Schedule
- Attachment “H” Building Information Modeling/Coordination (BIM)
- Attachment “I” Lead and Asbestos Test Reports
- Attachment “J” CSI of KY Geotechnical Report dated March 2, 2018

Item No. 7
Re: Terms & Conditions and Attachments: Special Conditions ARTICLE 21 ALLOWANCES; TC-020 to use listed allowance in bid breakout of scope of work Attachment B.

- 21.4.1 The Trade Contractor(s) shall include an allowance of $76,000 for the work by SimplexGrinnell in the appropriate trade contractor’s scope of work.

- 21.4.2 The electrical contractor is to provide and install conduits and back boxes/junction boxes. All conduits will include a pull string. SimplexGrinnell will furnish and install all fire alarm and security equipment and wiring.

Item No. 8
Re. Form of Proposal TC-004 General Trades Item 13.c to be removed from this contractor’s scope of work.

13) Interim provisions:

- c) This contractor (TC-004) to provide Construction photograph progress using MultiVista for all trades shall be tracked at pre-determined intervals, but not less than once every thirty (30) calendar days.
Progressions). Progression documentation shall track both the exterior and interior construction of the building. Exterior Progressions shall track 360 degrees around the site and each building. Interior Progressions shall track interior improvements (horizontal and ceiling views) beginning when mobilization commences and continuing until Project completion. Photos are due to Turner before the 25th of the month. Only electronic versions are required and Turner will be the owner of the files and have all rights to the electronic media. Photos shall be of professional service quality.

**Item No. 9**
Re. Form of Proposal TC-019 Mechanical / HVAC Item 13. Use included sketch for reference of demolition of mechanical vault.

**Item No. 10**
Re. Form of Proposal TC-004 General Trades; ADD scope of work Item 14:

14) Maintain all environmental protection install previously by TC-003 Excavation and install new control measures as required for the project site. This includes, but not limited to erosion control, inlet protection and adequate dust control. This Trade Contractor must perform all erosion control work required by all local, state, and federal regulatory including SWPPP agencies. Reference project drawings and specifications for silt fence and silt trap details. Removal of silt fencing and inlet protection will be by this contractor near project completion. Erosion control shall include the temporary seeding of all disturbed areas at the conclusion of each stage of work. This contractor is to perform weekly maintenance of all SWPPP; and shall conduct inspections, repairs, and documentation to Turner after all rain events greater than one-quarter inch of rain. Utilize Turner reporting form and file all completed reports with construction manager within one day after the rain event. Maintain this work from December 1, 2018 until December 1, 2019. (add #1)

**Item No. 11**
Bid Scope form modifications to include Monitor Skylight Alternate. See attached updated Form of Proposal for TC-007, TC-008, TC-010, TC-011 and TC-014 to be utilized with bid submission.

ADD Alternate #1 to Section H of Attachment B, Scope of Work for each trade contract listed;

1) Include work shown as required by your specified work scope to provide and install new monitor skylight, structural support, enclosure work, and finishes as shown on the bid drawings and specifications. Utilize new Lump Sum Proposal sheet for TC packages with your bid submission.

**Item No. 12**
Re: Form of Proposal TC-010, Curtain Wall & Int. Glass, Attachment B. Use new attached bid breakout sheet. Modification to Section E Scope-Specific Items; added Division 13.

**DIVISION 13 -- SPECIAL CONSTRUCTION**

**SECTION 13 3424 – SPECIALTY GLAZED STRUCTURE AND CANOPY**

Modify item 19 to read:

19) Provide **GLASS CANOPY** complete as shown on the Contract Documents in accordance with section 13 3424.

**Item No. 13**
Re: Form of Proposal TC-004, General Trades, Attachment B. Modify line 26 to include frameless mirrors.

26) This contractor shall provide **TOILET ROOM ACCESSORIES** as shown on the Contract Documents and in accordance with SECTION 10 2800

   a) This includes all frameless mirrors as shown on Arch drawings.

**Frameless Mirrors**
Tempered Glass Mirrors: Mirror Glazing Quality for blemish requirements and complying with ASTM C 1048 for Kind FT, Condition A, tempered float glass before silver coating is applied; clear.

1. Nominal Thickness: 6.0 mm.

**Item No. 14**
Re: Form of Proposal TC-004, General Trades, Attachment B. TC-004 to include in scope of work (40) forty hours for selective demo in McVey Hall to be directed by CM. Include 10 linear feet of temporary wall to ceiling with temporary lockable door. Wall should be made of metal studs, drywall, finished grade and painted with primer. Reference Sheet A-102 for location, where new connector building connects to McVey Hall.
**Item No. 15**  Re: Form of Proposal TC-004, General Trades, Attachment B. TC-004 to include in scope of work:

TC-004 General Trades Contractor to furnish and install (2) two bollards at entry points of the connector building. Bollard to be CR Laurence #BLR64RV3S (Finish: Stainless Steel) or equal. Power will be in conjunction with the TC-020 Electrical Contractor.

**Item No. 16**  Re: Form of Proposal TC-005, Concrete, Attachment B; Include allowance #2 for under pinning of existing McVey Hall Foundation needed as a result of new foundation installation. All under pinning of existing foundations will require 3rd party engineering, this will be included under the allowance. Use new attached bid breakout sheet with you bid submission. Modify section I Allowance to include allowance #2.

I. **ALLOWANCES**

The following Allowances are to be included in the base bid:

1) Include $7,500 for additional reinforcing steel for use at the direction of the construction manager.
2) Include $95,000 for foundation under pinning at McVey Hall.

**Item No. 17**  Murphy Group Addendum No. 01 – include all work scope items, clarifications, etc. as detailed consistent with your trade contract work scope document.  

**Note:** Division 01 General Requirements specifications to be included in all TC bids. TC-018, TC-019, and TC-020 should include all work associated with the added commissioning specifications 220800, 230800 and 260800 in their bids respectively. Please also review and include the current Paladin commissioning plan.

**Item No. 18**  See Attached Written Questions and Answers
**BID BREAKOUT**

Fill in the following breakdown of costs included in your base bid. Each item is to include labor, material & equipment. These will not be considered unit prices nor will the numbers listed here limit obligations required in the bid documents. It will be used only to aid in verifying completeness of the bids.

<table>
<thead>
<tr>
<th>DESCRIPTION OF WORK</th>
<th>COST INCLUDED IN BID</th>
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</thead>
<tbody>
<tr>
<td>Engineering &amp; layout, Permits &amp; Fees, Shop drawings and submittals</td>
<td>$________________________</td>
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<tr>
<td>Mobilizations</td>
<td>$________________________</td>
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<tr>
<td>Building Footings, Grade Beams &amp; Pier/Pile Caps</td>
<td>$________________________</td>
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<tr>
<td>Foundation Walls</td>
<td>$________________________</td>
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<tr>
<td>Slab-on-Grade, Isolation column slab</td>
<td>$________________________</td>
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<tr>
<td>Elevated Slabs</td>
<td>$________________________</td>
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<tr>
<td>Interior Engineered Backfill</td>
<td>$________________________</td>
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<tr>
<td>Exterior Engineered Backfill &amp; Retention Removal</td>
<td>$________________________</td>
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<tr>
<td>Waterproofing (Foundation, Elevator Pit, etc.)</td>
<td>$________________________</td>
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<tr>
<td>Concrete stairs &amp; Pan filled</td>
<td>$________________________</td>
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<tr>
<td>Winter / Summer Weather Provisions</td>
<td>$________________________</td>
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<tr>
<td>Allowance – Additional reinforcement steel</td>
<td>$__________ 7,500_________</td>
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<tr>
<td>Allowance – Under Pinning McVey Hall</td>
<td>$__________ 95,000_________</td>
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<tr>
<td>General Work Requirements (Section F Items)</td>
<td>$________________________</td>
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<tr>
<td>Remaining work not listed above, Overhead &amp; Profit</td>
<td>$________________________</td>
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<tr>
<td>Safety</td>
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**TOTAL BID AMOUNT (SHOULD MATCH PROPOSAL)**

$________________________

Cost of Performance and Payment Bond

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<tr>
<td>SECTION 074216, 4293 METAL WALL PANELS &amp; SOFFIT PANELS</td>
<td>$________________________</td>
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<td>SECTION 08 4113 ALUM FRAMED ENTRANCES &amp; STOREFRONTS</td>
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<tr>
<td>SECTION 08 4423 GLAZED ALUMINUM CURTAIN WALL</td>
<td>$________________________</td>
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<td>SECTION 08 6300 METAL FRAMED SKYLIGHTS</td>
<td>$______________</td>
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<tr>
<td>SECTION 08 7100 DOORS, HARDWARE, &amp; OPERATORS</td>
<td>$______________</td>
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<tr>
<td>SECTION 08 8000 GLASS CANOPY</td>
<td>$______________</td>
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<tr>
<td>SECTION 08 8000 INTERIOR GLASS &amp; GLAZING</td>
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<td>SECTION 08 9119 FIXED LOUVERS</td>
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<tr>
<td>SECTION 13 3424 Specialty Glazed Structure &amp; Canopy</td>
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<td>Temporary Installations</td>
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<td>Fire Protection Site Work (U-100 Note 8)</td>
<td>$________________________</td>
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<td>Fire Protection Piping (Wet)</td>
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<td>MEP Coordination/BIM</td>
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<td>BIM 3-D Server allowance</td>
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<td>Fire-stopping</td>
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<td>Sanitary Piping System</td>
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<td>Building Water Systems</td>
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<td>Building Storm Systems</td>
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<tr>
<td>Hydronic Piping System</td>
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<td>Insulation</td>
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<td>Installation of Owner-furnished equipment</td>
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<td>Temporary Installations, General Req’s Items</td>
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<td>Testing</td>
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<td>Test and Balance</td>
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<td>Commissioning Participation</td>
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<td>BIM 3-D Server allowance</td>
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<td>Alterations allowance</td>
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<tr>
<td>Temporary Water Consumption Allowance</td>
<td>$15,000________________________</td>
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<td>Firestopping</td>
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TOTAL BID AMOUNT (SHOULD MATCH PROPOSAL) $________________________

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<td>Insulation – piping and HVAC</td>
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<td>Duct Insulation</td>
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<td>Grilles, Registers and Diffusers</td>
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<td>Equipment</td>
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<td>Temporary Installations, General Req’s Items</td>
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<td>Testing</td>
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<td>Test and Balance</td>
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<td>Controls &amp; Equipment</td>
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<td>MEP Coordination / BIM</td>
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<td>Alterations allowance</td>
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<td>Temporary Chilled Water and Steam Consumption Allowance</td>
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Cost of Performance and Payment Bond

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<td>Mechanical Equipment Power</td>
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<td>General Power (wiring devices with branch circuitry)</td>
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<td>Normal Power Panel Feeders</td>
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<tr>
<td>Emergency Power Panel Feeders</td>
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<td>General Lighting (branch circuitry)</td>
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<tr>
<td>Light Fixtures Package</td>
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<td>Installation of Owner-furnished Equipment</td>
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<td>Grounding</td>
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<td>Fire Alarm System Rough-In</td>
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<tr>
<td>Cable Tray System</td>
<td>$________________________</td>
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<td>Security System</td>
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<td>Telecommunications &amp; Data System</td>
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<td>Testing and Start-up</td>
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<td>Temporary Power &amp; Lighting</td>
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<td>Commissioning Participation</td>
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<td><strong>Audio Visual Package</strong></td>
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<td><strong>MEP Coordination / BIM</strong></td>
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<td><strong>BIM 3-D Server allowance</strong></td>
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<td>Alterations allowance</td>
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<td>Simplex Fire Alarm System Allowance</td>
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<td>Electric Consumption</td>
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<td>Firestopping</td>
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<td>Safety</td>
<td>$________________________</td>
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<tr>
<td>Housekeeping</td>
<td>$________________________</td>
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<td>Remaining work not listed above, Overhead &amp; Profit (not to exceed 10% of proposal)</td>
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**TOTAL BID AMOUNT (SHOULD MATCH PROPOSAL)**

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Cost of Performance and Payment Bond

*DO NOT INCLUDE THIS COST IN YOUR BID*

$________________________
SCOPE OF WORK

TC-007 – STRUCTURAL STEEL & MISC. STEEL

UNIVERSITY OF KENTUCKY
CAPITAL CONSTRUCTION PROCUREMENT SECTION
FORM OF PROPOSAL TC-007 STRUCTURAL STEEL

Project No. 2446.2  Project Title: UK GREHAN RENOVATION

Purchasing Officer: Jim Sutton

NOTE: The following Form of Proposal shall be followed exactly in submitting a proposal for this work. If this copy is lost, an additional copy will be furnished upon written request to the authority issuing Contract Documents.

This Proposal is submitted by: ________________________________

(NAME AND ADDRESS OF BIDDER)

Date: ________________________________

Telephone: ________________________________

TO: BID CLERK
UNIVERSITY OF KENTUCKY
CAPITAL CONSTRUCTION
PROCUREMENT
RM. 322 SERVICE BUILDING
LEXINGTON, KY. 40506-0005

INVITATION TO BID: CCK-2342-19
BID OPENING DATE: August 02, 2018
TIME: 3:00 P.M. E.D.T.

The Bidder, in compliance with your Invitation for Bids for the above referenced Project, having carefully examined the site of the Work, the Drawings and complete Contract Documents as defined in Article I of the General Conditions, as well as the Specifications affecting the work as prepared by the Consultant, hereby proposes to furnish all labor, materials, supplies and services required to construct the Project in accordance with the Contract Documents, within the time set forth therein, and at the price stated below without qualification. Bidder understands that successful bidder will enter into a contract with Turner Construction Company utilizing Turner’s Subcontract Agreement Form 36 without modification.

The Bidder hereby acknowledges receipt of the following Addenda:

ADDENDUM NO. ___________________________  DATED __________________
ADDENDUM NO. ___________________________  DATED __________________
ADDENDUM NO. ___________________________  DATED __________________
ADDENDUM NO. ___________________________  DATED __________________

(Here insert the number and date of any Addenda issued and received. If none has been issued and received, the word NONE should be inserted.)

NOTE: IN ADDITION TO THE SPECIFIC TRADE FORM OF PROPOSAL EACH SUBCONTRACTOR MUST ALSO SUBMIT FORMS FOUND IN THE SUPPLEMENTAL FORM OF PROPOSAL SECTION.
AUTHENTICATION OF BID AND STATEMENT OF NON-COLLUSION AND NON-CONFLICT OF INTEREST

I hereby certify:

1. That I am the Bidder (if the Bidder is an individual), a partner in the Bidder (if the Bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the Bidder is a corporation);

2. That the submitted Bid or Bids covering Capital Construction Procurement Section Invitation No. CCK-2342-19 have been arrived at by the Bidder independently and have been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other contractor, vendor of materials, supplies, equipment or services described in the Invitation to Bid, designed to limit independent bidding or competition; as prohibited by provision KRS 45A.325;

3. That the contents of the Bid or Bids have not been communicated by the Bidder or its employees or agents to any person not an employee or agent of the Bidder or its surety on any bond furnished with the Bid or Bids and will not be communicated to any such person prior to the official opening of the Bid or Bids;

4. That the Bidder is legally entitled to enter into the contracts with the University of Kentucky and Turner Construction Company and is not in violation of any prohibited conflict of interest, including those prohibited by the provisions of KRS 164.390, and 45A.330 to 45A.340 and 45A.455;

5. This offer is good for 60 calendar days from the date this Bid is opened. In submitting the above, it is expressly agreed that upon proper acceptance by the Capital Construction Procurement Section of any or all items Bid above, a contract shall thereby be created with respect to the items accepted;

6. That I have fully informed myself regarding and affirm the accuracy of all statements made in this Form of Proposal including Bid Amount.

7. Unless otherwise exempted by KRS 45.590, the Bidder intends to comply in full with all requirements of the Kentucky Civil Rights Act and to submit data required by the Kentucky Equal Employment Act upon being designated the successful contractor.

8. That the bidding contractor and all subcontractors to be employed do not and will not maintain any facilities they provide for employees in a segregated manner and they are in full compliance with provisions of 41 CFR 60-1.8 that prohibits the maintaining of segregated facilities.

9. In accordance with KRS45A.110(2), the undersigned hereby swears under penalty of perjury that he/she has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky and that the award of a contract to the bidder will not violate any provision of the campaign finance laws of the Commonwealth of Kentucky.

READ CAREFULLY - SIGN IN SPACE BELOW - FAILURE TO SIGN INVALIDATES BID

SIGNED BY __________________________ TITLE __________________________

PRINT NAME __________________________ FIRM __________________________

ADDRESS __________________________ AREA CODE & PHONE ______________

FAX __________________________

CITY __________________________ STATE __________________________ ZIP CODE __________________________

DATE __________________________ EMAIL __________________________
SCOPE OF WORK

TC-007 – STRUCTURAL STEEL & MISC. STEEL

LUMP SUM PROPOSAL

The Bidder agrees to furnish all labor, materials, supplies and services required to complete the Work, for the above referenced Project, for the Capital Construction Procurement Section, University of Kentucky, as described in the Specifications and Contract Documents and shown on the Drawings enumerated below and as modified by the Addenda listed above.

TC-007 STRUCTURAL STEEL

FOR THE LUMP SUM OF ____________________________________________________________

(USE WORDS)

__________________________________________DOLLARS AND ________________________CENTS.

(USE WORDS)

(USE WORDS)

($________________________ ) BIDDER MUST TURN IN BID BREAKOUT SHEET WITH THIS FORM OF PROPOSAL

(USE FIGURES)

ALTERNATES

Alternate No 1 – ("BP-02" Drawing S-207/A-205) Monitor Skylight Alternate $_______________

Current Experience Modification Rating ________________

OSHA Incident Rates: Recordable ___________ Date of Proposal ________________

THE FOLLOWING ITEMS ARE HEREWITH ENCLOSED AS REQUIRED BY KRS 45A.185:
1. Bid Bond or Certified Check in an amount not less than five percent (5%) of total Bid.
2. Authentication of Bid and Statement of Non-Collusion and Non-Conflict of Interest.
3. VENDOR NUMBER: It is imperative that you furnish your Federal Employer Identification Number in the space provided below. Failure to do so may delay the processing of purchase orders issued to your firm.

______________________________
(Nine Digit Number)

4. Form of Proposal Supplemental Information
5. TC-_____ Bid Breakout sheet (from Attachment ‘B’)

SUPERINTENDENT

In accordance with Article 17 of the General Conditions a full-time superintendent will be required on this project. Below, please list the superintendent your firm will employ on this project. The successful Bidder will be required to furnish a resume of the superintendent’s qualifications and or past projects.

List the Superintendent’s Name __________________________
UNIT PRICES

NOTE: Unit Prices shall include the furnishing of all labor, materials, supplies and services and shall include all items of cost, overhead and profit for the Contractor and any subcontractor involved, and shall be used uniformly without modifications for either additions or deductions. The Unit Prices as established shall be used to determine the equitable adjustment of the Contract Price in connection with changes, deletions or extra work performed under the Contract and the "Rules of Measurement" set forth in the General Conditions shall govern.

All Bidders will be required to complete and submit the following information with the bid. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

KY FAIRNESS ACT: UNIT PRICES SHALL BE SUBJECT TO REVIEW / ADJUSTMENT AT TIME OF BID REVIEW / AWARD BASED ON “NET COST” CONCEPT. PROVIDE DETAIL BREAKDOWN 24 HOURS AFTER BID.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Base rate</th>
<th>Fringes (Ins/taxes/other)</th>
<th>Burden (Pier Diems)</th>
<th>(if) (ST)</th>
<th>(SUM) (T&amp;1/2)</th>
<th>(SUM) (DT)</th>
<th>OH/P % (5%)</th>
</tr>
</thead>
<tbody>
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Scope of Work
## BID BREAKOUT

Fill in the following breakdown of costs included in your base bid. Each item is to include labor, material & equipment. These will not be considered unit prices nor will the numbers listed here limit obligations required in the bid documents. It will be used only to aid in verifying completeness of the bids.

<table>
<thead>
<tr>
<th>DESCRIPTION OF WORK</th>
<th>TAKE OFF QTY</th>
<th>COST INCLUDED IN BID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering &amp; layout, Permits &amp; Fees, Shop drawings and submittals</td>
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<td>$________________________</td>
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<tr>
<td>Mobilizations</td>
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<td>$________________________</td>
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<tr>
<td>Structural Steel</td>
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<td>$________________________</td>
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<tr>
<td>Grehan “In-Fill” Structural/Misc. Steel</td>
<td>__________ tns</td>
<td>$________________________</td>
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<tr>
<td>Miscellaneous Steel</td>
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<td>$________________________</td>
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<td>Architecturally Exposed Steel</td>
<td>__________ tns</td>
<td>$________________________</td>
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<tr>
<td>Stairs and Railings</td>
<td></td>
<td>$________________________</td>
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<tr>
<td>2” Composite Metal Decking</td>
<td>__________ sf</td>
<td>$________________________</td>
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<tr>
<td>1-1/2” Wide Rib Metal Roof Decking</td>
<td>__________ sf</td>
<td>$________________________</td>
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<td>Mobile Crane with Operator</td>
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<td>$________________________</td>
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<tr>
<td>Allowance - Misc. Fabrications at Existing Buildings</td>
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<td>$________________________</td>
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<tr>
<td>General Work Requirements (Section F Items)</td>
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<td>$________________________</td>
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<tr>
<td>Remaining work not listed above, Overhead &amp; Profit</td>
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<td>$________________________</td>
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<tr>
<td>Safety</td>
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<td>$________________________</td>
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**TOTAL BID AMOUNT (SHOULD MATCH PROPOSAL)** $________________________

Cost of Performance and Payment Bond $________________________

*DO NOT INCLUDE THIS COST IN YOUR BID*
Attachment A – Additional Provisions and Attachment B – (Technical) Scope of Work go together to define the requirements of this Subcontract. Attachment A is a more of a general Summary of the Contract Documents, Price, etc., while Attachment B is the Trade Specific (technical) Scope of Work.

The work of this Agreement shall include, but not be limited to, all labor, materials, apparatus, hoisting, rigging, tools, equipment, plant, supplies, accessories, samples, submittals, shop drawings, certifications, engineering, layout, transportation, storage, supervision, temporary construction, special services, contributions, insurance, taxes (unless specifically excluded by the Contract Documents), compliance with all governing agencies (city, county, state, federal and others as may be required), permits, fees, all other services and facilities and other items necessary for the performance of the **STRUCTURAL STEEL and MISCELLANEOUS STEEL** as shown, detailed and/or implied in the contract documents outlined in the General Scope of Work.

The Scope of Work Document is being provided for your use as a general guideline. Please note, this Document is not all-inclusive. It is this Subcontractor's responsibility to provide a complete bid, including all work for this trade indicated on ALL of the contract documents (include plans, specifications, Bid Manual, etc.). It is this Subcontractor's responsibility for the entire scope of this Bid Package and coordination between all trades.

E. WORK INCLUDED - SCOPE-SPECIFIC ITEMS

1) **Trade Specifications Specifically Included, but not limited to the following:**

- **DIVISION 0 – PROCUREMENT & CONTRACTING REQUIREMENTS (ALL SECTIONS)**
- **DIVISION 1 – GENERAL REQUIREMENTS (ALL SECTIONS)**
- **DIVISION 3 – CONCRETE**
  - SECTION 03 3000 – CAST-IN-PLACE CONCRETE (as related to Structural Steel Embeds)
- **DIVISION 5 – METALS (ALL SECTIONS)**
  - SECTION 05 1000 – STRUCTURAL ANCHORS
  - SECTION 05 1200 – STRUCTURAL STEEL FRAMING
  - SECTION 05 1213 – ARCHITECTURALLY EXPOSED STEEL
  - SECTION 05 3100 – STEEL DECKING
  - SECTION 05 5000 – METAL FABRICATIONS (as related to Structural Steel)
  - SECTION 05 5113 – METAL PAN STAIRS
  - SECTION 05 5213 – PIPE and TUBE RAILINGS
- **DIVISION 9 – FINISHES**
  - SECTION 09 0000 – PAINTING (as related to Structural Steel Primer)
- **DIVISION 14 – CONVEYING EQUIPMENT**
  - SECTION 14 2123.6 – MACHINE ROOM-LESS ELECTRIC TRACTION PASSENGER ELEVATORS (as related to this work scope)
  a) Bidder shall also include referenced specification sections listed in above specification sections as necessary to furnish complete work of this trade
  b) Subcontractor includes all work indicated in specification COMPLETE, unless this scope of work specifically and clearly excludes a portion of a specification.

2) **Contract Price is LUMP SUM.** There shall be NO additional labor and material escalations allowed

3) **Examination of Site – Subcontractor warrants that they have sufficiently reviewed the project site to inform themselves of all items about existing site that are relevant to their work, and the cost of their work.**

4) **Include protection all adjacent structures during performance of this work.** Plan for protection of adjacent structures must be part of the overall plan submitted for approval prior to start of work.

5) **SITE LOGISTICS:** Refer to the Site Logistics plans included in the Contract Documents. Delivery trucks are to be scheduled with Turner at least one (1) week in advance.
6) Subcontractor change order requests shall be provided with sufficient detail (as acceptable to Turner) to allow for satisfactory review. Subcontractor shall be allowed a maximum mark up for overhead and profit per the markup provisions included in the Subcontract Agreement, or as clarified in Contract Documents above.

7) Subcontractor understands that time is of the essence in the prosecution of Work under this agreement.

8) Verify layout provided by others. Where this subcontractor is performing work using layout provided by others, this subcontractor shall perform sufficient verification of that layout to reasonably ascertain the validity of that layout. Any deficiencies (or suspected deficiencies found) shall be reported to Turner immediately to allow corrections as needed before start of work by this subcontractor.

9) All Subcontractors must be licensed as required by local, State, or Federal jurisdiction required for work of this trade in this project location.

10) This Subcontractor will comply with Turner’s corporate safety policy and comply with Site Specific Safety Plan that will include but is not limited to 100% tie-off above 6 feet, 100% Safety Glasses, High Visibility Vests or High Vis style T-Shirts with reflective strips, 100% glove policy, Ladders Last Policy and Nothing Hits the Ground. If you are unfamiliar with any of these policies please ask to see the policy prior to submitting your bid. Failure to be familiar with these policies will not exclude you from complying with them.

11) Refer to Project General Work Requirements” in volume one of the project manual. Any costs for work scope items listed in this section shall be included in your lump sum bid. Some work items are listed for specific trade contractors and they shall include those costs in their respective total lump sum bid price.

12) In addition to the project specifications, provide the following Division 1 items:
   a) Include any site & street cleaning related to work performed by this scope.
   b) Provide water and electrical power required for this scope of work.
   c) This contractor shall provide a cable guardrail system with snow fence at all leading edge areas created by this contractor during the structural steel erection process including: all floors, all roofs. Guardrail safety system must be located to allow installation of the building envelope without modifying or dismantling system. TC-007 contractor will maintain assembly until “concrete” has been placed on metal deck in respective areas and the exterior envelope has been installed. TC-010 is also responsible to remove all levels of cable guardrails when directed by the construction manager.
      i. The safety netting system is to be blue in color and have “Turner” printed on face at 5'-0” intervals max. The system will hang from the standard cable guardrail and can be anchored to the SOMD to eliminate the need to toe boards. Coordinate with construction manager for company logo.

13) Furnish all embedded and steel anchored items and detailed setting drawings, required for the complete erection of the structural steel to the TC-005 Concrete and TC-006 Masonry Contractors. This includes all anchor bolts and concrete embeds for the attachment of Structural steel to the concrete and masonry work scopes.

14) This contractor shall provide all STRUCTURAL STEEL as shown on contract documents and as specified in Section 05 1000, 05 1200 Structural Steel. This includes the design and analysis of Structural Steel connections not specifically shown. Include all labor, materials, equipment, supplies, transportation, and taxes required to complete this scope of work, including but not limited to:
   a) Structural steel framing, bracing, anchor bolts, shear studs, bridging, high strength bolts and embedded items provided by this scope as indicated in the specifications and contract documents.
   b) Prime painting, galvanizing and Architecturally Exposed Structural Steel where indicated on the Drawing or noted in specifications.
   c) Provide all HSS framing and bracing at louvers as required.
   d) Provide labor, material, “scaffolding” and equipment for attachment of structural steel to existing structure.

15) This contractor shall provide all ARCHITECTURALLY EXPOSED STEEL complete as shown on contract documents and as specified in Section 05 1213.
   a) Coordinate with concrete contractor. Protect steel with heavy cardboard and insulation after installation for final finish and use at project completion. Coordinate with construction manager.

16) This contractor shall provide all METAL DECKING as shown on contract documents and as specified in Section 05 3100 Metal Decking. Include all labor, materials, equipment, supplies, transportation, and taxes required to complete this scope of work, including but not limited to:
   a) Metal floor and roof decking, metal deck closures and SOMD pour stops.
b) Provide roof sump pans for all roof drain locations.

17) This contractor shall provide all **METAL PAN STAIRS and RAILINGS** as shown on contract documents and as specified in division 05. This includes the design and analysis connections, spans and details not specifically shown. Include all labor, materials, equipment, supplies, transportation, and taxes required to complete this scope of work.

18) This contractor shall provide **METAL FABRICATIONS** (as related to Structural Steel or as specifically noted below) as shown on contract documents and as specified in Section **05 5000 METAL FABRICATIONS**. Include all labor, materials, equipment, supplies, transportation, and taxes required to complete this scope of work, including but not limited to:

   a) **Elevator Hoist Beams** as indicated on Structural plans S-206 and the Architectural plan A-422. This contractor shall coordinate work efforts with the Elevator Contractor to ensure that beams are correctly design and located. Accurate dimensional information will be provided by the Elevator contractor as needed.

   b) Provide elevator door sill support angles - sills are provided by TC-100 Elevators.

   c) Provide elevator pit ladders, supports, anchors, etc. Coordinate with elevator TC-016 for exact details.

   d) L4x4 Reinforcing at floor and roof openings as shown on the drawings per details on S-401. Include an additional $3,500 for additional floor/roof angle at the direction of the construction manager.

   e) All floor and roof decking bent plate, brick ledge angles and steel plating as shown on Structural drawings. All brick ledge angles must be galvanized and adjustable (slotted AB holes) to allow alignment with brick veneer.

   f) Install tie-back anchors (davits) on the Level 3 Roof as shown on S-206 and A5/A-104.

   g) This contractor to provide all loose lintels for installation by others including but not limited to: McVey Hall, elevator shaft locations and new exterior openings.

   h) This contractor shall provide all (compatible) **PRIME PAINTING** for finish paints as shown on contract documents and as specified in Section **09 9113 & 09 9123 Painting**.

19) This contractor TC-007 is responsible to provide mobile crane and operator for this work as needed. Include temp. protection for existing site utilities.

20) This contractor shall **coordinate** work efforts with the MEP Contractors to ensure that framing members provided for the MEP trades, deck & roof penetration are correctly designed & located. Accurate dimensional information will be provided by the MEP Contractors.

21) This contractor shall **verify conditions** are suitable for Structural Steel installation prior to beginning installation. This includes performing as-built surveys of the concrete foundations as related to structural steel, anchor bolt surveys, verifying elevations at existing buildings and conditions connecting to structural steel.

22) Protect all existing buildings & utilities from damage due to this work.

23) Coordinate with the **Owner’s Testing/Inspection Agency**.

**F. CONSTRUCTION SCHEDULE**

Contract Price is based on the project schedule included in Bid Manual and as clarified within these Additional Provisions.

**G. WORK EXCLUDED**

This Scope of Work shall **exclude** the following:

1) Payment & Performance Bond

**H. ALTERNATE PRICES**

Alternates shall be complete for providing only the Work with no other credits. All alternate prices are to be priced as stand-alone alternates. Any number of alternates, or no alternates, may be accepted as part of this Work. Indicate Add/Deduct Price on the Bid FORM

Alternate No 1 – (“BP-02” Drawing S-207/A-205) Monitor Skylight Alternate
I. ALLOWANCES

The following Allowances are to be included in the base bid:

1. Miscellaneous Steel Fabrications at Existing Buildings $10,000

The above allowances are to be included in the base bid/Subcontract Price. All overhead and profit related to the Work performed under each Allowance is to be included in the Base Bid/Subcontract Price. Only direct Labor and Material costs authorized in writing by the Construction Manager after approval by the Owner are to be charged to the Allowance. Progress Payments will be made against Allowance expenditures, based on approved monthly invoices & writing Allowance Authorization from the Construction Manager/Owner. Any unused funds remaining in these allowances will be credited back to the Project.

J. UNIT PRICES

The following unit prices are applicable for changes in the Work. The unit prices are for Work complete and in place and include all costs such as material, labor, equipment, freight, taxes, insurance, fringe benefits, and overhead and profit. Also include costs for coordination with other trades work where applicable. In the event the unit prices quoted exceed industry standards or fair market value, the Turner reserves the right to request pricing for changes at cost plus allowable mark-up for overhead and profit or a lump-sum under the terms of the Agreement

1) Labor Rates - Submit detailed labor rates to Turner Project Manager for approval. Detail shall show all fringes, benefits, taxes, insurance, markups, and any other add-ons to allow verification of rate.
   • See “Form of Proposal” (Bid Form) for bid day information. The apparent low bidder will submit detailed breakdown within 24 hours after bid day.

2) Equipment Rates – Submit detailed rates for equipment that may be used on project, and may be part of change order pricing.

3) Within 3 days of notification of contract award (unless otherwise stated), the successful bidder will provide the following:
FORM OF PROPOSAL
SUPPLEMENTAL INFORMATION

THE FOLLOWING INFORMATION PERTAINS TO ALL TRADE CONTRACTORS

NOTE: MUST BE SUBMITTED WITH THE BID SUBMITTED.
Failure to comply will result in rejection of Bidder’s Proposal.

Contractor Report of Prior Violations of
Chapters 136, 139, 141, 337, 338, 341, and 342

Pursuant to KRS 45A.485, the Contractor shall, prior to the award of a Contract, reveal final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 by the Contractor that have occurred in the previous five (5) year period.

This statute also requires for the duration of the Contract established, the Contractor be in continuous compliance with the provisions of Chapters 136, 139, 141, 337, 338, 341, and 342 that apply to the Contractor’s operations. The Contractor’s failure to reveal a final determination of a violation of KRS Chapters 136, 139, 141, 337, 338, 341, and 342, or failure to comply with any of the above cited statutes for the duration of the Contract shall be grounds for the cancellation of the Contract, and the disqualification from eligibility for future contracts for a period of two (2) years.

The Contractor, by signing and submitting a Bid on this Invitation, agrees as required by KRS 45A.485 to submit final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 that have occurred in the previous five (5) years prior to the award of a Contract and agrees to remain in continuous compliance with the provisions of these statutes during the duration of any contract that may be established. Final determinations of any violations of these statutes, must be provided to the University by the successful Contractor prior to the award of a Contract.

BUSINESS CLASSIFICATION

Please complete this form which is necessary for the University of Kentucky vendor database. Mark only one classification. Refer to "Definitions" for assistance in determining correct classification.

(01) Small Business
(02) Large Business
(03) Disadvantaged Small Business
(04) Disadvantaged Large Business
(05) Woman-Owned Small Business
(06) Woman-Owned Large Business
(07) Disadvantaged Woman-Owned Small Business
(08) Disadvantaged Woman-Owned Large Business
(09) Other
DEFINITIONS

(01) SMALL BUSINESS: A business concern that is organized for profit, is independently owned and operated, is not dominant in the field of operations in which it is bidding, and meets the size standards as prescribed in the Code of Federal Regulations, Title 13, Part 121. Consult your local or district Small Business Administration (SBA) office if further clarification is needed.

(02) LARGE BUSINESS: A business concern that exceeds the small business size code standards established by SBA.

(03) DISADVANTAGED SMALL BUSINESS: A business concern (a) that is at least 51 percent owned by one or more socially and economically disadvantaged individuals (as defined below), or a publicly owned business, having at least 51 percent of its stock owned by one or more socially and economically disadvantaged individuals; and (b) has its management and daily business operations controlled by one or more such individuals. Socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans and other minorities or individuals found to be disadvantaged by the SBA.

(04) DISADVANTAGED LARGE BUSINESS: A concern that meets the definition of socially and economically disadvantaged individuals, but which is not a small business by the SBA's size standards.

(05) WOMAN-OWNED SMALL BUSINESS: A small business that is at least 51 percent owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" means actively involved in the day to day management.

(06) WOMAN-OWNED LARGE BUSINESS: A concern that meets the definition of woman owned and operated, but which is not a small business by the SBA's standards.

(07) DISADVANTAGED, WOMAN-OWNED SMALL BUSINESS: A concern that meets the definition of both (03) and (05) above.

(08) DISADVANTAGED, WOMAN OWNED LARGE BUSINESS: A concern that meets the definition of both (04) and (06) above.

(09) OTHER: A concern that does not meet any of the above definitions.

BIDDER'S QUALIFICATIONS

The Commonwealth of Kentucky Model Procurement Code (KRS 45A.080) requires contracts to be awarded, “to the responsive and responsible bidder whose bid offers the best value” to the University of Kentucky. In order to determine if the Bidder has the experience, qualifications, resources and necessary attributes to provide the quality workmanship, materials and management required by the plans and specifications, the Bidder may be required to complete and submit the information requested on the University of Kentucky Contractor Bidder Determination of Responsibility questionnaire. Failure to provide the information requested on the questionnaire or failure to provide any additional submittals or information that may be requested to make this determination may be grounds for a declaration of nonresponsibility with respect to the Bidder. A copy of the Contractor Determination of Responsibility questionnaire is available upon request to all Bidders.
SCOPE OF WORK
TC-007 – STRUCTURAL STEEL & MISC. STEEL

TIME LIMIT FOR EXECUTION OF CONTRACT DOCUMENTS

It is further agreed, that in the event this Proposal is accepted by the Owner and the undersigned shall fail to execute the Contract and furnish satisfactory Payment and Performance Bond within ten (10) consecutive calendar days from the date of notification of the award of the Contract, the Owner may at his option, determine that the undersigned has abandoned the Contract and thereupon, the Proposal shall become null and void and the Bid guarantee, check or Bid bond which accompanied it shall be forfeited and become the property of the Owner as liquidated damages for each failure and no protest pursuant to such action will be made. If the Undersigned shall execute the Contract, and furnish satisfactory Payment Bond and Performance Bond, it is understood that the Bid Guarantee or Bid Bond will be returned to the undersigned by the Owner.

IDENTIFICATION OF MINORITY SUBCONTRACTORS AND MATERIAL SUPPLIERS

Participation of Minority and Women owned Contractors and businesses.

The University of Kentucky encourages and supports the participation of minority and women owned businesses. Goal is 10% MBE/WBE

1. Minority and Women Subcontractors

   __________________________________________________
   __________________________________________________
   __________________________________________________
   __________________________________________________

2. Minority and Women Material Suppliers

   __________________________________________________
   __________________________________________________
   __________________________________________________

This proposal includes ______% certified MBE participation
This proposal includes ______% certified WBE participation

If your firm has no minority or women owned subcontractors or suppliers, it is required that you complete the list of minority and/or women owned businesses below. List the names of firms that were solicited to bid the project and describe why they were not successful (i.e. not low bid, did not respond, etc).
**RECORD OF MBE/WBE SOLICITATION**

Certifies that the following Minority/Women-Owned firms were contacted to solicit pricing as subcontractors/suppliers for Invitation to Bid No. ____________ The following firms were not selected for use on this project for the reasons stated in the RESULT column.

This list of Minority or Women owned firms is to be executed and submitted as a part of the Bidder’s Proposal. Failure to comply will result in rejection of Bidder’s Proposal.

<table>
<thead>
<tr>
<th>FIRM NAME</th>
<th>MBE/WBE</th>
<th>WORK ITEMS SOLICITED</th>
<th>RESULT: NO RESPONSE OR NOT LOW BIDDER</th>
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</tbody>
</table>

_Signature_  
_Date_

__________________________  ____________
Title
LIST OF MATERIALS AND EQUIPMENT

The apparent low bidder will be required to furnish this information within 24 hours of bid submittal. Failure to comply will result in rejection of Bidder's Proposal.

Each item listed under the different phases of construction must be clearly identified so that the Owner will definitely know what the Bidder proposes to furnish.

The use of a manufacturer's or dealer's name only, or stating "as per Plans and Specifications," will not be considered as sufficient identification.

Where more than one "Make" or "Brand" is listed for any one item, the Owner has the right to select the one to be used.

| CONTRACTOR NAME & ADDRESS: | | |
|----------------------------|-------------------|
| __________________________| __________________|
| __________________________| __________________|
| __________________________| __________________|

<table>
<thead>
<tr>
<th>TRADE CONTRACT: TC- (INSERT NUMBER)</th>
<th>SCOPE OF WORK: (INSERT NAME OF TRADE CONTRACT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Steel Fabricator</td>
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<tr>
<td>Steel Deck Supplier</td>
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</table>

The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>MATERIALS AND EQUIPMENT</th>
<th>BRAND OR MANUFACTURER</th>
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<tr>
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<td></td>
<td>Steel Deck Supplier</td>
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</tbody>
</table>
PRIMARY LIST OF PROPOSED SUBCONTRACTORS

The apparent low bidder will be required to furnish this information within 24 hours of bid submittal. Failure to comply will result in rejection of Bidder’s Proposal.

All subcontractors are subject to the approval of the Capital Construction Procurement Section and Capital Project Management Division, University of Kentucky, Lexington, KY.

If certain branches of the Work are to be done by the Prime Contractor, so state.

**CONTRACTOR NAME & ADDRESS:** ________________________________

______________________________

______________________________

**TRADE CONTRACT: TC - _______**  **SCOPE OF WORK:** (INSERT NUMBER)  **(INSERT NAME OF BID CATEGORY)**

<table>
<thead>
<tr>
<th>DIVISION OF WORK</th>
<th>NAME AND ADDRESS OF SUBCONTRACTOR</th>
</tr>
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<tbody>
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</tbody>
</table>

**END OF TECHNICAL SCOPE OF WORK**
SCOPE OF WORK
TC-008 – ROOFING & FLASHING

UNIVERSITY OF KENTUCKY
CAPITAL CONSTRUCTION PROCUREMENT SECTION
FORM OF PROPOSAL TC-008 ROOFING & FLASHING

Project No. 2446.2  Project Title: UK GREHAN RENOVATION

Purchasing Officer: Jim Sutton

NOTE: The following Form of Proposal shall be followed exactly in submitting a proposal for this work. If this copy is lost, an additional copy will be furnished upon written request to the authority issuing Contract Documents.

This Proposal is submitted by:

________________________________________

(NAME AND ADDRESS OF BIDDER)

Date: ____________________

Telephone: ____________________

TO: BID CLERK

INVITATION TO BID: CCK-2342-19

UNIVERSITY OF KENTUCKY  BID OPENING DATE: August 02, 2018

CAPITAL CONSTRUCTION  TIME: 3:00 P.M. E.D.T.

PROCUREMENT  RM. 322 SERVICE BUILDING

LEXINGTON, KY. 40506-0005

The Bidder, in compliance with your Invitation for Bids for the above referenced Project, having carefully examined the site of the Work, the Drawings and complete Contract Documents as defined in Article I of the General Conditions, as well as the Specifications affecting the work as prepared by the Consultant, hereby proposes to furnish all labor, materials, supplies and services required to construct the Project in accordance with the Contract Documents, within the time set forth therein, and at the price stated below without qualification. Bidder understands that successful bidder will enter into a contract with Turner Construction Company utilizing Turner’s Subcontract Agreement Form 36 without modification.

The Bidder hereby acknowledges receipt of the following Addenda:

ADDENDUM NO. _______________________________ DATED _______________________________  

ADDENDUM NO. _______________________________ DATED _______________________________  

ADDENDUM NO. _______________________________ DATED _______________________________  

ADDENDUM NO. _______________________________ DATED _______________________________

(Here insert the number and date of any Addenda issued and received. If none has been issued and received, the word NONE should be inserted.)

NOTE: IN ADDITION TO THE SPECIFIC TRADE FORM OF PROPOSAL EACH SUBCONTRACTOR MUST ALSO SUBMIT FORMS FOUND IN THE SUPPLEMENTAL FORM OF PROPOSAL SECTION.
FORM OF PROPOSAL

AUTHENTICATION OF BID AND STATEMENT OF NON-COLLUSION AND NON-CONFlict OF INTEREST

I hereby certify:

1. That I am the Bidder (if the Bidder is an individual), a partner in the Bidder (if the Bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the Bidder is a corporation);

2. That the submitted Bid or Bids covering Capital Construction Procurement Section Invitation No. CCK-2342-19 have been arrived at by the Bidder independently and have been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other contractor, vendor of materials, supplies, equipment or services described in the Invitation to Bid, designed to limit independent bidding or competition; as prohibited by provision KRS 45A.325;

3. That the contents of the Bid or Bids have not been communicated by the Bidder or its employees or agents to any person not an employee or agent of the Bidder or its surety on any bond furnished with the Bid or Bids and will not be communicated to any such person prior to the official opening of the Bid or Bids;

4. That the Bidder is legally entitled to enter into the contracts with the University of Kentucky and Turner Construction Company and is not in violation of any prohibited conflict of interest, including those prohibited by the provisions of KRS 164.390, and 45A.330 to 45A.340 and 45A.455;

5. This offer is good for 60 calendar days from the date this Bid is opened. In submitting the above, it is expressly agreed that upon proper acceptance by the Capital Construction Procurement Section of any or all items Bid above, a contract shall thereby be created with respect to the items accepted;

6. That I have fully informed myself regarding and affirm the accuracy of all statements made in this Form of Proposal including Bid Amount.

7. Unless otherwise exempted by KRS 45.590, the Bidder intends to comply in full with all requirements of the Kentucky Civil Rights Act and to submit data required by the Kentucky Equal Employment Act upon being designated the successful contractor.

8. That the bidding contractor and all subcontractors to be employed do not and will not maintain any facilities they provide for employees in a segregated manner and they are in full compliance with provisions of 41 CFR 60-1.8 that prohibits the maintaining of segregated facilities.

9. In accordance with KRS45A.110(2), the undersigned hereby swears under penalty of perjury that he/she has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky and that the award of a contract to the bidder will not violate any provision of the campaign finance laws of the Commonwealth of Kentucky.

READ CAREFULLY - SIGN IN SPACE BELOW - FAILURE TO SIGN INVALIDATES BID

SIGNED BY____________________________________ TITLE____________________________________
PRINT NAME_________________________________ FIRM____________________________________
ADDRESS____________________________________ AREA CODE & PHONE________________________
________________________________ FAX________________________________
CITY________________________________ STATE____ ZIP CODE______________________________
DATE_________________________________ EMAIL________________________________________________

Scope of Work  Page 2 of 14  6/2018
LUMP SUM PROPOSAL

The Bidder agrees to furnish all labor, materials, supplies and services required to complete the Work, for the above referenced Project, for the Capital Construction Procurement Section, University of Kentucky, as described in the Specifications and Contract Documents and shown on the Drawings enumerated below and as modified by the Addenda listed above.

TC-008 ROOFING AND FLASHING

FOR THE LUMP SUM OF ________________________________

(USE WORDS)

_____________________________ DOLLARS AND ___________________________ CENTS.

(USE WORDS) (USE WORDS)

($ ________________________ ) BIDDER MUST TURN IN BID BREAKOUT SHEET WITH THIS FORM OF PROPOSAL

(USE FIGURES)

ALTERNATES

Alternate No 1 – (“BP-02” Drawing S-207/A-205) Monitor Skylight Alternate $__________

Current Experience Modification Rating _________________

OSHA Incident Rates: Recordable __________ Date of Proposal ______________

THE FOLLOWING ITEMS ARE HERewith ENCLOSED AS REQUIRED BY KRS 45A.185:

1. Bid Bond or Certified Check in an amount not less than five percent (5%) of total Bid.

2. Authentication of Bid and Statement of Non-Collusion and Non-Conflict of Interest.

3. VENDOR NUMBER: It is imperative that you furnish your Federal Employer Identification Number in the space provided below. Failure to do so may delay the processing of purchase orders issued to your firm.

______________________________

(Nine Digit Number)

4. Form of Proposal Supplemental Information

5. TC-____ Bid Breakout sheet (from Attachment ‘B’)

SUPERINTENDENT

In accordance with Article 17 of the General Conditions a full-time superintendent will be required on this project. Below, please list the superintendent your firm will employ on this project. The successful Bidder will be required to furnish a resume of the superintendent’s qualifications and or past projects.

List the Superintendent’s Name ______________________________
UNIT PRICES

NOTE: Unit Prices shall include the furnishing of all labor, materials, supplies and services and shall include all items of cost, overhead and profit for the Contractor and any subcontractor involved, and shall be used uniformly without modifications for either additions or deductions. The Unit Prices as established shall be used to determine the equitable adjustment of the Contract Price in connection with changes, deletions or extra work performed under the Contract and the "Rules of Measurement" set forth in the General Conditions shall govern.

All Bidders will be required to complete and submit the following information with the bid. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

KY FAIRNESS ACT: UNIT PRICES SHALL BE SUBJECT TO REVIEW / ADJUSTMENT AT TIME OF BID REVIEW / AWARD BASED ON “NET COST” CONCEPT. PROVIDE DETAIL BREAKDOWN 24 HOURS AFTER BID.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Base rate</th>
<th>Fringes</th>
<th>Burden</th>
<th>(if)</th>
<th>(SUM)</th>
<th>(SUM)</th>
<th>(SUM)</th>
<th>OH/P %</th>
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<td>SUM</td>
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</tbody>
</table>

Scope of Work Page 4 of 14 6/2018
BID BREAKOUT

Fill in the following breakdown of costs included in your base bid. Each item is to include labor, material & equipment. These will not be considered unit prices nor will the numbers listed here limit obligations required in the bid documents. It will be used only to aid in verifying completeness of the bids.

<table>
<thead>
<tr>
<th>DESCRIPTION OF WORK</th>
<th>COST INCLUDED IN BID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering &amp; layout, Permits &amp; Fees, Shop drawings and submittals</td>
<td>$________________________</td>
</tr>
<tr>
<td>Mobilizations</td>
<td>$________________________</td>
</tr>
<tr>
<td>Roof Demolition</td>
<td>$________________________</td>
</tr>
<tr>
<td>Roofing</td>
<td>$________________________</td>
</tr>
<tr>
<td>Sheathing</td>
<td>$________________________</td>
</tr>
<tr>
<td>Sheet Metal &amp; Trim</td>
<td>$________________________</td>
</tr>
<tr>
<td>General Work Requirements (Section F Items)</td>
<td>$________________________</td>
</tr>
<tr>
<td>Remaining work not listed above, Overhead &amp; Profit</td>
<td>$________________________</td>
</tr>
<tr>
<td>Safety</td>
<td>$________________________</td>
</tr>
</tbody>
</table>

TOTAL BID AMOUNT (SHOULD MATCH PROPOSAL) $________________________

Cost of Performance and Payment Bond $________________________

DO NOT INCLUDE THIS COST IN YOUR BID
The work of this Agreement shall include, but not be limited to, all labor, materials, apparatus, hoisting, rigging, tools, equipment, plant, supplies, accessories, samples, submittals, shop drawings, certifications, engineering, layout, transportation, storage, supervision, temporary construction, special services, contributions, insurance, taxes (unless specifically excluded by the Contract Documents), compliance with all governing agencies (city, county, state, federal and others as may be required), permits, fees, all other services and facilities and other items necessary for the performance of the Roofing and Flashing Work as shown, detailed and/or implied in the contract documents outlined in the General Scope of Work.

The Scope of Work Document is being provided for your use as a general guideline. Please note, this Document is not all-inclusive. It is this Subcontractor's responsibility to provide a complete bid, including all work for this trade indicated on ALL of the contract documents (include plans, specifications, Bid Manual, etc). It is this Subcontractor's responsibility for the entire scope of this Bid Package and coordination between all trades.

E. WORK INCLUDED – SCOPE-SPECIFIC ITEMS

1) Trade Specifications Specifically Included, but not limited to the following:

   DIVISION 00 – PROCUREMENT & CONTRACTING REQUIREMENTS (ALL SECTIONS)
   DIVISION 01 – GENERAL REQUIREMENTS (ALL SECTIONS)
   DIVISION 2 – EXISTING CONDITIONS (Partial) as required for this trade and as defined below
      SECTION 02 4119 – SELECTIVE DEMOLITION
   DIVISION 6 – WOODS, PLASTICS, AND COMPOSITES
      SECTION 06 1600 – SHEATHING
   DIVISION 7 – THERMAL AND MOISTURE PROTECTION
      SECTION 07 1326 – SELF-ADHERING SHEET WATERPROOFING
      SECTION 07 2100 – THERMAL INSULATION
      SECTION 07 5700 – COATED FOAM ROOFING
      SECTION 07 6200 – SHEET METAL FLASHING AND TRIM
      SECTION 07 7129 – MANUFACTURED ROOF EXPANSION JOINTS
      SECTION 07 7200 – ROOF ACCESSORIES
      SECTION 07 8413 – PENETRATION FIRESTopping
      SECTION 07 8446 – FIRE-RESISTIVE JOINT SYSTEM
      SECTION 07 9200 – JOINT SEALANTS
      SECTION 07 9513.16 – EXTERIOR EXPANSION JOINT COVER ASSEMBLIES

   a) Bidder shall also include referenced specification sections listed in above specification sections as necessary to furnish complete work of this trade
   b) Subcontractor includes all work indicated in specification COMPLETE, unless this scope of work specifically and clearly excludes a portion of a specification.

2) Contract Price is LUMP SUM. There shall be NO additional labor and material escalations allowed.

3) Examination of Site – Subcontractor warrants that they have sufficiently reviewed the project site to inform themselves of all items about existing site that are relevant to their work, and the cost of their work.

4) Include protection all adjacent structures during performance of this work. Plan for protection of adjacent structures must be part of the overall plan submitted for approval prior to start of work.
5) **SITE LOGISTICS**: Refer to the Site Logistics plans included in the Contract Documents. Delivery trucks are to be scheduled with Turner at least one (1) week in advance.

6) Subcontractor change order requests shall be provided with sufficient detail (as acceptable to Turner) to allow for satisfactory review. Subcontractor shall be allowed a maximum mark up for overhead and profit per the markup provisions included in the Subcontract Agreement, or as clarified in Contract Documents above.

7) Subcontractor understands that **time is of the essence** in the prosecution of Work under this agreement.

8) **Verify layout provided by others**. Where this subcontractor is performing work using layout provided by others, this subcontractor shall perform sufficient verification of that layout to reasonably ascertain the validity of that layout. Any deficiencies (or suspected deficiencies found) shall be reported to Turner immediately to allow corrections as needed before start of work by this subcontractor.

9) All Subcontractors must be licensed as required by local, State, or Federal jurisdiction required for work of this trade in this project location.

10) This Subcontractor will comply with Turner’s corporate safety policy and comply with Site Specific Safety Plan that will include but is not limited to 100% tie-off above 6 feet, 100% Safety Glasses, High Visibility Vests or High Vis style T-Shirts with reflective strips, 100% glove policy, Ladders Last Policy and Nothing Hits the Ground. If you are unfamiliar with any of these policies please ask to see the policy prior to submitting your bid. Failure to be familiar with these policies will not exclude you from complying with them.

11) **Refer to Project General Work Requirements** in volume one of the project manual. Any costs for work scope items listed in this section shall be included in your lump sum bid. Some work items are listed for specific trade contractors and they shall include those costs in their respective total lump sum bid price.

12) Keynote legend will help dictate your scope of work unless noted otherwise.

13) This contractor shall provide **SHEATHING** as shown on the Contract Documents and in accordance with Section 06 1600.
   a) Provide sheathing complete at all roof installations.

14) This contractor shall provide all **THERMAL INSULATION** roofing as shown on contract documents and as specified in Section 07 2100.
   a) Provide all spray polyurethane foam insulation roofing as shown.
   b) Provide all rigid insulation for roofing application, including all vertical roofing transitions.
   c) This contractor to include all elastomeric coatings.

15) This contractor shall provide all **COATED FOAM ROOFING** complete as shown on contract documents and as specified in Section 07 5700 Coated Foam Roofing.
   a) Provide tie-in and complete weathering in of all new installations of existing Grehan roof, including but not limited to: Skylight, MEP penetrations, new expansion joints, new stairs, etc.
   b) This contractor to include all elastomeric coatings.

16) This contractor shall provide all **SHEET METAL FLASHING AND TRIM** (AS RELATED TO THIS SCOPE OF WORK) as shown on contract documents and as specified in Section 07 6200 Sheet Metal Flashing and Trim.

17) This contractor shall receive, distribute and install **ROOF EXPANSION JOINTS** as shown on contract documents and as specified in Section 07 7129 Manufactured Roof Expansion Joints.

18) This contractor shall provide all **ROOF ACCESSORIES** as shown on contract documents and as specified in Section 07 9200.
   a) Provide box gutter and down spots all accessories at glazed canopy. Coordinate with Structural Steel and Curtain Wall trade contractors.

19) This contractor shall provide all **JOINT SEALANTS (as related to roofing)** as shown on contract documents and as specified in Section 07 9200.

20) This contractor to provide 4,000 sq. ft. of **Roof Protection** walkways at existing Grehan roof to allow for construction work to occur. Coordinate with existing roofing manufacturer for acceptable materials. Maintain during construction and remove at the end of scheduled work.

21) This Trade Contractor shall participate in the construction of the **on-site mock-ups**. This shall include providing the materials required for this trade contract scope of work, coordinating with other trade contractors with regard to sequencing of installations and protection of materials etc., furnishing shop drawings and/or setting drawings.

22) Protect all existing buildings & utilities from damage due to this work
23) Coordinate with the Owner’s Testing/Inspection Agency.

F. CONSTRUCTION SCHEDULE

Contract Price is based on the project schedule included in Bid Manual and as clarified within these Additional Provisions.

G. WORK EXCLUDED

This Scope of Work shall exclude the following

H. ALTERNATE PRICES

Alternates shall be complete for providing only the Work with no other credits. All alternate prices are to be priced as stand-alone alternates. Any number of alternates, or no alternates, may be accepted as part of this Work.

Indicate Add/Deduct Price on the BID FORM

Alternate No 1 – (“BP-02” Drawing S-207/A-205) Monitor Skylight Alternate

I. ALLOWANCES

1) None

The above allowances are to be included in the base bid/Subcontract Price. All overhead and profit related to the Work performed under each Allowance is to be included in the Base Bid/Subcontract Price. Only direct Labor and Material costs authorized in writing by the Construction Manager after approval by the Owner are to be charged to the Allowance. Progress Payments will be made against Allowance expenditures, based on approved monthly invoices & writing Allowance Authorization from the Construction Manager/Owner. Any unused funds remaining in these allowances will be credited back to the Project.

J. UNIT PRICES

The following unit prices are applicable for changes in the Work. The unit prices are for Work complete and in place and include all costs such as material, labor, equipment, freight, taxes, insurance, fringe benefits, and overhead and profit. Also include costs for coordination with other trades work where applicable. In the event the unit prices quoted exceed industry standards or fair market value, the Turner reserves the right to request pricing for changes at cost plus allowable mark-up for overhead and profit or a lump-sum under the terms of the Agreement

1) Labor Rates - Submit detailed labor rates to Turner Project Manager for approval. Detail shall show all fringes, benefits, taxes, insurance, markups, and any other add-ons to allow verification of rate.
   - See “Form of Proposal” (Bid Form) for bid day information. The apparent low bidder will submit detailed breakdown within 24 hours after bid day.

2) Equipment Rates – Submit detailed rates for equipment that may be used on project, and may be part of change order pricing.
FORM OF PROPOSAL
SUPPLEMENTAL INFORMATION

THE FOLLOWING INFORMATION PERTAINS TO ALL TRADE CONTRACTORS

NOTE: MUST BE SUBMITTED WITH THE BID SUBMITTAL.
Failure to comply will result in rejection of Bidder’s Proposal.

Contractor Report of Prior Violations of Chapters 136, 139, 141, 337, 338, 341, and 342

Pursuant to KRS 45A.485, the Contractor shall, prior to the award of a Contract, reveal final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 by the Contractor that have occurred in the previous five (5) year period.

This statute also requires for the duration of the Contract established, the Contractor be in continuous compliance with the provisions of Chapters 136, 139, 141, 337, 338, 341, and 342 that apply to the Contractor’s operations. The Contractor’s failure to reveal a final determination of a violation of KRS Chapters 136, 139, 141, 337, 338, 341, and 342, or failure to comply with any of the above cited statutes for the duration of the Contract shall be grounds for the cancellation of the Contract, and the disqualification from eligibility for future contracts for a period of two (2) years.

The Contractor, by signing and submitting a Bid on this Invitation, agrees as required by KRS 45A.485 to submit final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 that have occurred in the previous five (5) years prior to the award of a Contract and agrees to remain in continuous compliance with the provisions of these statutes during the duration of any contract that may be established. Final determinations of any violations of these statutes, must be provided to the University by the successful Contractor prior to the award of a Contract.

BUSINESS CLASSIFICATION

Please complete this form which is necessary for the University of Kentucky vendor database. Mark only one classification. Refer to “Definitions” for assistance in determining correct classification.

(01) Small Business
(02) Large Business
(03) Disadvantaged Small Business
(04) Disadvantaged Large Business
(05) Woman-Owned Small Business
(06) Woman-Owned Large Business
(07) Disadvantaged Woman-Owned Small Business
(08) Disadvantaged Woman-Owned Large Business
(09) Other
DEFINITIONS

(01) SMALL BUSINESS: A business concern that is organized for profit, is independently owned and operated, is not dominant in the field of operations in which it is bidding, and meets the size standards as prescribed in the Code of Federal Regulations, Title 13, Part 121. Consult your local or district Small Business Administration (SBA) office if further clarification is needed.

(02) LARGE BUSINESS: A business concern that exceeds the small business size code standards established by SBA.

(03) DISADVANTAGED SMALL BUSINESS: A business concern (a) that is at least 51 percent owned by one or more socially and economically disadvantaged individuals (as defined below), or a publicly owned business, having at least 51 percent of its stock owned by one or more socially and economically disadvantaged individuals; and (b) has its management and daily business operations controlled by one or more such individuals. Socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans and other minorities or individuals found to be disadvantaged by the SBA.

(04) DISADVANTAGED LARGE BUSINESS: A concern that meets the definition of socially and economically disadvantaged individuals, but which is not a small business by the SBA's size standards.

(05) WOMAN-OWNED SMALL BUSINESS: A small business that is at least 51 percent owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" means actively involved in the day to day management.

(06) WOMAN-OWNED LARGE BUSINESS: A concern that meets the definition of woman owned and operated, but which is not a small business by the SBA's standards.

(07) DISADVANTAGED, WOMAN-OWNED SMALL BUSINESS: A concern that meets the definition of both (03) and (05) above.

(08) DISADVANTAGED, WOMAN OWNED LARGE BUSINESS: A concern that meets the definition of both (04) and (06) above.

(09) OTHER: A concern that does not meet any of the above definitions.

BIDDER'S QUALIFICATIONS

The Commonwealth of Kentucky Model Procurement Code (KRS 45A.080) requires contracts to be awarded, “to the responsive and responsible bidder whose bid offers the best value” to the University of Kentucky. In order to determine if the Bidder has the experience, qualifications, resources and necessary attributes to provide the quality workmanship, materials and management required by the plans and specifications, the Bidder may be required to complete and submit the information requested on the University of Kentucky Contractor Bidder Determination of Responsibility questionnaire. Failure to provide the information requested on the questionnaire or failure to provide any additional submittals or information that may be requested to make this determination may be grounds for a declaration of nonresponsibility with respect to the Bidder. A copy of the Contractor Determination of Responsibility questionnaire is available upon request to all Bidders.
TIME LIMIT FOR EXECUTION OF CONTRACT DOCUMENTS

It is further agreed, that in the event this Proposal is accepted by the Owner and the undersigned shall fail to execute the Contract and furnish satisfactory Payment and Performance Bond within ten (10) consecutive calendar days from the date of notification of the award of the Contract, the Owner may at his option, determine that the undersigned has abandoned the Contract and thereupon, the Proposal shall become null and void and the Bid guarantee, check or Bid bond which accompanied it shall be forfeited and become the property of the Owner as liquidated damages for each failure and no protest pursuant to such action will be made. If the Undersigned shall execute the Contract, and furnish satisfactory Payment Bond and Performance Bond, it is understood that the Bid Guarantee or Bid Bond will be returned to the undersigned by the Owner.

IDENTIFICATION OF MINORITY SUBCONTRACTORS AND MATERIAL SUPPLIERS

Participation of Minority and Women owned Contractors and businesses.

The University of Kentucky encourages and supports the participation of minority and women owned businesses. **Goal is 10% MBE/WBE**

1. Minority and Women Subcontractors

   

   

   

   

2. Minority and Women Material Suppliers

   

   

   

   

   

This proposal includes ______% certified MBE participation
This proposal includes ______% certified WBE participation

If your firm has no minority or women owned subcontractors or suppliers, it is required that you complete the list of minority and/or women owned businesses below. List the names of firms that were solicited to bid the project and describe why they were not successful (i.e. not low bid, did not respond, etc).
**RECORD OF MBE/WBE SOLICITATION**

Certifies that the following Minority/Women-Owned firms were contacted to solicit pricing as subcontractors/suppliers for Invitation to Bid No. ____________ The following firms were not selected for use on this project for the reasons stated in the RESULT column.

This list of Minority or Women owned firms is to be executed and submitted as a part of the Bidder’s Proposal. Failure to comply will result in rejection of Bidder’s Proposal.

<table>
<thead>
<tr>
<th>FIRM NAME</th>
<th>MBE/WBE</th>
<th>WORK ITEMS SOLICITED</th>
<th>RESULT: NO RESPONSE OR NOT LOW BIDDER</th>
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________________________________________________    Certifies that the following

BIDDER’S NAME

Signature                                    Date

Title
LIST OF MATERIALS AND EQUIPMENT

The apparent low bidder will be required to furnish this information within 24 hours of bid submittal. Failure to comply will result in rejection of Bidder’s Proposal.

Each item listed under the different phases of construction must be clearly identified so that the Owner will definitely know what the Bidder proposes to furnish.

The use of a manufacturer’s or dealer's name only, or stating “as per Plans and Specifications,” will not be considered as sufficient identification.

Where more than one “Make” or ”Brand” is listed for any one item, the Owner has the right to select the one to be used.

CONTRACTOR NAME & ADDRESS: ___________________________________________  
                                                                                       ___________________________________________  
                                                                                       ___________________________________________

TRADE CONTRACT: TC- (INSERT NUMBER)  SCOPE OF WORK: (INSERT NAME OF TRADE CONTRACT)

The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>MATERIALS AND EQUIPMENT</th>
<th>BRAND OR MANUFACTURER</th>
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<td>ROOFING MANUFACTURER</td>
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</table>
PRIMARY LIST OF PROPOSED SUBCONTRACTORS

The apparent low bidder will be required to furnish this information within 24 hours of bid submittal. Failure to comply will result in rejection of Bidder's Proposal.

All subcontractors are subject to the approval of the Capital Construction Procurement Section and Capital Project Management Division, University of Kentucky, Lexington, KY.

If certain branches of the Work are to be done by the Prime Contractor, so state.

CONTRACTOR NAME & ADDRESS:  
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

TRADE CONTRACT: TC - _______ SCOPE OF WORK: _________
 (INSERT NUMBER) (INSERT NAME OF BID CATEGORY)

<table>
<thead>
<tr>
<th>DIVISION OF WORK</th>
<th>NAME AND ADDRESS OF SUBCONTRACTOR</th>
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END OF TECHNICAL SCOPE OF WORK
SCOPE OF WORK
TC-010 – CURTAIN WALL & METAL PANELS

UNIVERSITY OF KENTUCKY
CAPITAL CONSTRUCTION PROCUREMENT SECTION
FORM OF PROPOSAL – TC-010 CURTAIN WALL & METAL PANELS

Project No. 2446.2 Project Title: UK GREHAN RENOVATION
Purchasing Officer: Jim Sutton

NOTE: The following Form of Proposal shall be followed exactly in submitting a proposal for this work. If this copy is lost, an additional copy will be furnished upon written request to the authority issuing Contract Documents.

This Proposal is submitted by: __________________________________________________________

(NAME AND ADDRESS OF BIDDER)

Date: __________________________

Telephone: _______________________

TO: BID CLERK
UNIVERSITY OF KENTUCKY
CAPITAL CONSTRUCTION
PROCUREMENT
RM. 322 SERVICE BUILDING
LEXINGTON, KY. 40506-0005

INVITATION TO BID: CCK-2342-19
BID OPENING DATE: August 02, 2018
TIME: 3:00 P.M. E.D.T.

The Bidder, in compliance with your Invitation for Bids for the above referenced Project, having carefully examined the site of the Work, the Drawings and complete Contract Documents as defined in Article I of the General Conditions, as well as the Specifications affecting the work as prepared by the Consultant, hereby proposes to furnish all labor, materials, supplies and services required to construct the Project in accordance with the Contract Documents, within the time set forth therein, and at the price stated below without qualification. Bidder understands that successful bidder will enter into a contract with Turner Construction Company utilizing Turner's Subcontract Agreement Form 36 without modification.

The Bidder hereby acknowledges receipt of the following Addenda:

ADDENDUM NO. __________________________ DATED __________________________

ADDENDUM NO. __________________________ DATED __________________________

ADDENDUM NO. __________________________ DATED __________________________

ADDENDUM NO. __________________________ DATED __________________________

(Here insert the number and date of any Addenda issued and received. If none has been issued and received, the word NONE should be inserted.)

NOTE: IN ADDITION TO THE SPECIFIC TRADE FORM OF PROPOSAL EACH SUBCONTRACTOR MUST ALSO SUBMIT FORMS FOUND IN THE SUPPLEMENTAL FORM OF PROPOSAL SECTION.
AUTHENTICATION OF BID AND STATEMENT OF NON-COLLUSION AND NON-CONFLICT OF INTEREST
I hereby certify:

1. That I am the Bidder (if the Bidder is an individual), a partner in the Bidder (if the Bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the Bidder is a corporation);

2. That the submitted Bid or Bids covering Capital Construction Procurement Section Invitation No. CCK-2342-19 have been arrived at by the Bidder independently and have been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other contractor, vendor of materials, supplies, equipment or services described in the Invitation to Bid, designed to limit independent bidding or competition; as prohibited by provision KRS 45A.325;

3. That the contents of the Bid or Bids have not been communicated by the Bidder or its employees or agents to any person not an employee or agent of the Bidder or its surety on any bond furnished with the Bid or Bids and will not be communicated to any such person prior to the official opening of the Bid or Bids;

4. That the Bidder is legally entitled to enter into the contracts with the University of Kentucky and Turner Construction Company and is not in violation of any prohibited conflict of interest, including those prohibited by the provisions of KRS 164.390, and 45A.330 to 45A.340 and 45A.455;

5. This offer is good for 60 calendar days from the date this Bid is opened. In submitting the above, it is expressly agreed that upon proper acceptance by the Capital Construction Procurement Section of any or all items Bid above, a contract shall thereby be created with respect to the items accepted;

6. That I have fully informed myself regarding and affirm the accuracy of all statements made in this Form of Proposal including Bid Amount.

7. Unless otherwise exempted by KRS 45.590, the Bidder intends to comply in full with all requirements of the Kentucky Civil Rights Act and to submit data required by the Kentucky Equal Employment Act upon being designated the successful contractor.

8. That the bidding contractor and all subcontractors to be employed do not and will not maintain any facilities they provide for employees in a segregated manner and they are in full compliance with provisions of 41 CFR 60-1.8 that prohibits the maintaining of segregated facilities.

9. In accordance with KRS45A.110(2), the undersigned hereby swears under penalty of perjury that he/she has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky and that the award of a contract to the bidder will not violate any provision of the campaign finance laws of the Commonwealth of Kentucky.

READ CAREFULLY - SIGN IN SPACE BELOW - FAILURE TO SIGN INVALIDATES BID

SIGNED BY ___________________________ TITLE ___________________________

PRINT NAME ___________________________ FIRM ___________________________

ADDRESS ___________________________ AREA CODE & PHONE _______________

FAX ___________________________

CITY ______ STATE ______ ZIP CODE ______

DATE ___________________________ EMAIL ___________________________
LUMP SUM PROPOSAL

The Bidder agrees to furnish all labor, materials, supplies and services required to complete the Work, for the above referenced Project, for the Capital Construction Procurement Section, University of Kentucky, as described in the Specifications and Contract Documents and shown on the Drawings enumerated below and as modified by the Addenda listed above.

TC-010 CURTAIN WALL & METAL PANELS

FOR THE LUMP SUM OF

($                      )

DOLLARS AND  __________ CENTS.

($                      )  BIDDER MUST TURN IN BID BREAKOUT SHEET WITH THIS FORM OF PROPOSAL

ALTERNATES

Alternate No 1 – (“BP-02” Drawing S-207/A-205) Monitor Skylight Alternate   $_______________

Current Experience Modification Rating _______________________

OSHA Incident Rates: Recordable __________ Date of Proposal____________

THE FOLLOWING ITEMS ARE HERWITH ENCLOSED AS REQUIRED BY KRS 45A.185:

1. Bid Bond or Certified Check in an amount not less than five percent (5%) of total Bid.
2. Authentication of Bid and Statement of Non-Collusion and Non-Conflict of Interest.
3. VENDOR NUMBER: It is imperative that you furnish your Federal Employer Identification Number in the space provided below. Failure to do so may delay the processing of purchase orders issued to your firm.
   (Nine Digit Number)
4. Form of Proposal Supplemental Information
5. TC- _____ Bid Breakout sheet (from Attachment ‘B’)

SUPERINTENDENT

In accordance with Article 17 of the General Conditions a full-time superintendent will be required on this project. Below, please list the superintendent your firm will employ on this project. The successful Bidder will be required to furnish a resume of the superintendent’s qualifications and or past projects.

List the Superintendent’s Name _______________________________
UNIT PRICES

NOTE: Unit Prices shall include the furnishing of all labor, materials, supplies and services and shall include all items of cost, overhead and profit for the Contractor and any subcontractor involved, and shall be used uniformly without modifications for either additions or deductions. The Unit Prices as established shall be used to determine the equitable adjustment of the Contract Price in connection with changes, deletions or extra work performed under the Contract and the "Rules of Measurement" set forth in the General Conditions shall govern.

All Bidders will be required to complete and submit the following information with the bid. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

KY FAIRNESS ACT: UNIT PRICES SHALL BE SUBJECT TO REVIEW / ADJUSTMENT AT TIME OF BID REVIEW / AWARD BASED ON “NET COST” CONCEPT. PROVIDE DETAIL BREAKDOWN 24 HOURS AFTER BID.

<table>
<thead>
<tr>
<th>HOURLY RATES: Classification</th>
<th>Base rate</th>
<th>Fringes Ins/taxes/other</th>
<th>Burden Pier Diems</th>
<th>(if)</th>
<th>(SUM) (ST)</th>
<th>(SUM) (T&amp;1/2)</th>
<th>(SUM) (DT)</th>
<th>OH/P % (5%)</th>
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Scope of Work  Page 4 of 15  6/2018
### SCOPE OF WORK

**TC-010 – CURTAIN WALL & METAL PANELS**

**BID BREAKOUT**

Fill in the following breakdown of costs included in your base bid. Each item is to include labor, material & equipment. These will not be considered unit prices nor will the numbers listed here limit obligations required in the bid documents. It will be used only to aid in verifying completeness of the bids.

<table>
<thead>
<tr>
<th>DESCRIPTION OF WORK</th>
<th>COST INCLUDED IN BID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering &amp; layout, Permits &amp; Fees, Shop drawings and submittals</td>
<td>$________________________</td>
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<tr>
<td>Mobilizations</td>
<td>$________________________</td>
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<tr>
<td>SECTION 074216, 4293 METAL WALL PANELS &amp; SOFFIT PANELS</td>
<td>$________________________</td>
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<tr>
<td>SECTION 08 4113 ALUM FRAMED ENTRANCES &amp; STOREFRONTS</td>
<td>$________________________</td>
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<tr>
<td>SECTION 08 4423 GLAZED ALUMINUM CURTAIN WALL</td>
<td>$________________________</td>
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<tr>
<td>SECTION 08 6300 METAL FRAMED SKYLIGHTS</td>
<td>$________________________</td>
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<tr>
<td>SECTION 08 7100 DOORS, HARDWARE, &amp; OPERATORS</td>
<td>$________________________</td>
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<tr>
<td>SECTION 08 8000 GLASS CANOPY</td>
<td>$________________________</td>
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<tr>
<td>SECTION 08 8000 INTERIOR GLASS &amp; GLAZING</td>
<td>$________________________</td>
</tr>
<tr>
<td>SECTION 08 9119 FIXED LOUVERS</td>
<td>$________________________</td>
</tr>
<tr>
<td>SECTION 13 3424 Specialty Glazed Structure &amp; Canopy</td>
<td>$________________________</td>
</tr>
<tr>
<td>General Work Requirements (Section F Items)</td>
<td>$________________________</td>
</tr>
<tr>
<td>Remaining work not listed above, Overhead &amp; Profit</td>
<td>$________________________</td>
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<tr>
<td>Safety</td>
<td>$________________________</td>
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</table>

**TOTAL BID AMOUNT (SHOULD MATCH PROPOSAL)**

$________________________

Cost of Performance and Payment Bond

$________________________

**DO NOT INCLUDE THIS COST IN YOUR BID**
SCOPE OF WORK
TC-010 – CURTAIN WALL & METAL PANELS

Attachment A – Additional Provisions and Attachment B – (Technical) Scope of Work go together to define the requirements of this Subcontract. Attachment A is a more of a general Summary of the Contract Documents, Price, etc., while Attachment B is the Trade Specific (technical) Scope of Work.

The work of this Agreement shall include, but not be limited to, all labor, materials, apparatus, hoisting, rigging, tools, equipment, plant, supplies, accessories, samples, submittals, shop drawings, certifications, engineering, layout, transportation, storage, supervision, temporary construction, special services, contributions, insurance, taxes (unless specifically excluded by the Contract Documents), compliance with all governing agencies (city, county, state, federal and others as may be required), permits, fees, all other services and facilities and other items necessary for the performance of the Curtain Wall & Metal Panels Work as shown, detailed and/or implied in the contract documents outlined in the General Scope of Work.

The Scope of Work Document is being provided for your use as a general guideline. Please note, this Document is not all-inclusive. It is this Subcontractor's responsibility to provide a complete bid, including all work for this trade indicated on ALL of the contract documents (include plans, specifications, Bid Manual, etc.). It is this Subcontractor's responsibility for the entire scope of this Bid Package and coordination between all trades.

E. WORK INCLUDED - SCOPE-SPECIFIC ITEMS

1) Trade Specifications Specifically Included, but not limited to the following:

DIVISION 0 – PROCUREMENT & CONTRACTING REQUIREMENTS (ALL SECTIONS)
DIVISION 1 – GENERAL REQUIREMENTS (ALL SECTIONS)
DIVISION 5 – METALS
SECTION 05 1000 – STRUCTURAL ANCHORS
SECTION 05 4000 – COLD FORMED METAL FRAMING (as related to scope of work)

DIVISION 7 – THERMAL AND MOISTURE PROTECTION
SECTION 07 2100 – INSULATION (as related to scope of work)
SECTION 07 6200 – SHEET METAL FLASHING & TRIM (as related to scope of work)
SECTION 07 9200 – JOINT SEALANTS (as related to scope of work)

DIVISION 8 – OPENINGS
SECTION 08 1100 – HOLLOW METAL DOORS AND FRAMES (as related to scope of work)
SECTION 08 4113 – ALUM FRAMED ENTRANCES AND STOREFRONTS
SECTION 08 4423 – STRUCTURAL SEALANT GLAZED CURTAIN WALLS
SECTION 08 7100 – DOOR HARDWARE (as related to scope of work)
SECTION 08 8000 – GLAZING
SECTION 08 9119 – FIXED LOUVERS

DIVISION 13 – SPECIAL CONSTRUCTION
SECTION 13 3424 – SPECIALTY GLAZED STRUCTURE AND CANOPY

a) Bidder shall also include referenced specification sections listed in above specification sections as necessary to furnish complete work of this trade

b) Subcontractor includes all work indicated in specification COMPLETE, unless this scope of work specifically and clearly excludes a portion of a specification.

2) Contract Price is LUMP SUM. There shall be NO additional labor and material escalations allowed

3) Examination of Site – Subcontractor warrants that they have sufficiently reviewed the project site to inform themselves of all items about existing site that are relevant to their work, and the cost of their work.

4) Include protection all adjacent structures during performance of this work. Plan for protection of adjacent structures must be part of the overall plan submitted for approval prior to start of work
5) **SITE LOGISTICS:** Refer to the Site Logistics plans included in the Contract Documents. Delivery trucks are to be scheduled with Turner at least one (1) week in advance.

6) Subcontractor change order requests shall be provided with sufficient detail (as acceptable to Turner) to allow for satisfactory review. Subcontractor shall be allowed a maximum mark up for overhead and profit per the markup provisions included in the Subcontract Agreement, or as clarified in Contract Documents above.

7) Subcontractor understands that **time is of the essence** in the prosecution of Work under this agreement.

8) Verify layout provided by others. Where this subcontractor is performing work using layout provided by others, this subcontractor shall perform sufficient verification of that layout to reasonably ascertain the validity of that layout. Any deficiencies (or suspected deficiencies found) shall be reported to Turner immediately to allow corrections as needed before start of work by this subcontractor.

9) All Subcontractors must be licensed as required by local, State, or Federal jurisdiction required for work of this trade in this project location.

10) This Subcontractor will comply with Turner’s **corporate safety policy** and comply with Site Specific Safety Plan that will include but is not limited to 100% tie-off above 6 feet, 100% Safety Glasses, High Visibility Vests or High Vis style T-Shirts with reflective strips, 100% glove policy, Ladders Last Policy and Nothing Hits the Ground. If you are unfamiliar with any of these policies please ask to see the policy prior to submitting your bid. Failure to be familiar with these policies will not exclude you from complying with them.

11) **Refer to Project General Work Requirements** in volume one of the project manual. Any costs for work scope items listed in this section shall be included in your lump sum bid. Some work items are listed for specific trade contractors and they shall include those costs in their respective total lump sum bid price.

12) Keynote legend will help dictate your scope of work unless noted otherwise.

13) **Interim provisions:**
   a) Plan and sequence work to maintain dry-in and temporary heat conditions if applicable.
   b) Work at openings require tie-off provisions per OSHA and Turner’s safety program. This Trade Contractor must also include tie-off anchor point provisions.
   c) Include “Testing and inspections” as indicated by documents. In addition if not stipulated, contractor shall perform onsite water test observed by UK / Construction Manager. Test will be final installation of skylights and roofing system.
   d) Final clean all framing and glass including removal of any and all “stickers”, markings…
   e) This contractor will verify conditions are suitable for installation prior to beginning installation. This includes performing as-built surveys of structural steel framing members etc. Report any discrepancies to construction manager prior to starting installation work.
   f) Coordinate with the Owner’s Testing/Inspection Agency.
   g) Coordinate anchoring with section 05 1000.
   h) This contractor shall remove all cable guardrail, snow fencing, toe kicks, etc. during the installation of their work scope. Dispose of all materials to dumpster. Grind off flush steel angle posts to concrete.

14) The use of the words **“skylight”**, **“storefronts”**, **“entrances”** are intended to infer all scope of work items to create a weather tight system i.e. aluminum framing members, clips, anchors, flashings, gaskets & sealants, wood blocking, weeps, glass & glazing, formed metal panels, formed metal closure panels.

15) This contractor shall provide flashings and counter flashings, formed metal panels and formed metal closure panels that are integrated into supplied system.

16) Provide **ALUMINUM-FRAMED ENTRANCES & STOREFRONTS; AND GLAZED ALUMINUM CURTAIN WALL** complete as shown on the Contract Documents and in accordance with Sections 08 4113 and 08 4423.
   a) Provide sealants including to adjacent/contiguous surfaces
   b) Provide all angle closures, firestop stop spray/assemblies, metal closure panels (& insulation).
   c) Provide all miscellaneous steel and connections required to install your complete system. For example, ref. detail B2/A350. Miscellaneous steel noted 05 1200 supporting curtain wall and attached to concrete foundation is to be included by this contractor. Coordinate attachment and any needed embed plate to concrete with construction manager and design team.
   i. Ref. detail E6/A350. If steel plate (misc. steel) is directly connected to the structure steel framing, this steel will be provided by the TC-007 Steel Trade Contractor. Coordinate exact dimensions and specifications of plate needed for your system and installation.
d) All curtain wall clips shall be engineered and coordinated with the structural design. Include field welding of clips, brackets, etc. Paint all field welding and areas effected by installation. Coordinated shop welding of clips recommended.

e) Include all blocking and otherwise for the installation of your system.

f) Includes hardware for complete assembly. Any locksets, access switches, and other lockable devices shall be able to receive the University campus standard manufacture for cylinders or otherwise.

g) Ref detail D2/A350 (and sim. details) this contractor is to include mineral wool safing, fire stop spray/assembly, and closure angle. Secure proper inspections prior to closure. Coordinate insulation details with trades.

h) For all interior storefronts, assume frame setting and comeback with installation of doors.

17) Provide **METAL WALL PANELS** and **SOFFIT PANELS** complete as shown on the Contract Documents and in accordance with Section 07 4216, 07 4293.

a) Assembly clarification: This contractor to install all components “outside of the air barrier” as shown on the details. This includes rigid insulation, vented hat channels, metal panels, flashing, trims, reglets, sealants,

b) This contractor is to extend flashings and trims to adjacent, other work at roof terminations and foundations stops. Coordinate with roofing, concrete, drywall (exterior framing), and other contractors to construct a weather tight, exterior assembly.

c) Ref detail E1/A351, D1/A351 (and sim.) this contractor to include 05 4000.B1 vented hat channel; 07 2100.B4 insulation; include flashing and channels to underside of roofing. Include 07 6200 stainless steel flashings.

18) Provide **METAL FRAMED SKYLIGHTS** complete as shown on the Contract Documents and in accordance with Section 08 6300.

19) Provide **GLASS CANOPY** complete as shown on the Contract Documents in accordance with section 13 3424.

a) Include glass, point supports, stainless-steel standoffs, trims and sealants for this assembly. Ref. details on sheet A350. Box gutter and downspout is by roofing contractor.

20) Provide **AUTOMATIC DOOR OPERATORS** as shown on the Contract Documents and in accordance with specifications.

a) For all openings as it relates to this scope of work – including the north and south entrance doors.

21) Provide **GLAZING** as shown on the Contract Documents and in accordance with Section 08 8000.

a) At all curtain wall, storefronts, etc. – interior and exterior.

b) Includes view window sliding glass assemblies.

c) Includes Glazing Doors, and sidelights, View Windows (Borrowed lites).

d) Include any floor opening smoke baffle glass

e) Include “Butt Glazing” as shown.

22) Provide **JOINT SEALANTS** as shown on the Contract Documents and in accordance with Section 07 9200. This includes sealant to adjacent/contiguous surfaces unless stated otherwise.

23) Provide **INSULATION (PARTIAL)** as shown on the Contract Documents and in accordance with SECTION 07 2100.

a) Provide Foaming Mullions and other curtain wall components as required by contract documents.

24) Provide **LOUVERS AND VENTS** as shown on the Contract Documents and in accordance with Section 08 9119.

25) Coordinate with the Owner’s Testing/Inspection Agency.

26) This contractor shall verify conditions are suitable for installation of your work scope installations prior to beginning.

27) This contractor shall unload, store, and install all materials to be used in this scope of work without disrupting the use of adjacent roadways, institutions, or access ways.

F. **CONSTRUCTION SCHEDULE**

Contract Price is based on the project schedule included in the bid manual and as clarified within these Additional Provisions.

G. **WORK EXCLUDED**

This Scope of Work shall exclude the following

1) Payment & Performance Bond
2) Installation of new steel windows at Grehan (spec 08 5123.13) is by others, including removal, and temporary conditions.

H. ALTERNATE PRICES

Alternates shall be complete for providing only the Work with no other credits. All alternate prices are to be priced as stand-alone alternates. Any number of alternates, or no alternates, may be accepted as part of this Work.

Indicate Add/Deduct Price on the BID FORM

Alternate No 1 – (“BP-02” Drawing S-207/A-205) Monitor Skylight Alternate

I. ALLOWANCES

The following Allowances are to be included in the base bid:

1) None.

The above allowances are to be included in the base bid/Subcontract Price. All overhead and profit related to the Work performed under each Allowance is to be included in the Base Bid/Subcontract Price. Only direct Labor and Material costs authorized in writing by the Construction Manager after approval by the Owner are to be charged to the Allowance. Progress Payments will be made against Allowance expenditures, based on approved monthly invoices & writing Allowance Authorization from the Construction Manager/Owner. Any unused funds remaining in these allowances will be credited back to the Project.

J. UNIT PRICES

The following unit prices are applicable for changes in the Work. The unit prices are for Work complete and in place and include all costs such as material, labor, equipment, freight, taxes, insurance, fringe benefits, and overhead and profit. Also include costs for coordination with other trades work where applicable. In the event the unit prices quoted exceed industry standards or fair market value, the Turner reserves the right to request pricing for changes at cost plus allowable mark-up for overhead and profit or a lump-sum under the terms of the Agreement

1) Labor Rates - Submit detailed labor rates to Turner Project Manager for approval. Detail shall show all fringes, benefits, taxes, insurance, markups, and any other add-ons to allow verification of rate.
   • See “Form of Proposal” (Bid Form) for bid day information. The apparent low bidder will submit detailed breakdown within 24 hours after bid day.

2) Equipment Rates – Submit detailed rates for equipment that may be used on project, and may be part of change order pricing.

END OF TECHNICAL SCOPE OF WORK
FORM OF PROPOSAL
SUPPLEMENTAL INFORMATION

THE FOLLOWING INFORMATION PERTAINS TO ALL TRADE CONTRACTORS

NOTE: MUST BE SUBMITTED WITH THE BID SUBMITTAL.
Failure to comply will result in rejection of Bidder’s Proposal.

Contractor Report of Prior Violations of Chapters 136, 139, 141, 337, 338, 341, and 342

Pursuant to KRS 45A.485, the Contractor shall, prior to the award of a Contract, reveal final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 by the Contractor that have occurred in the previous five (5) year period.

This statute also requires for the duration of the Contract established, the Contractor be in continuous compliance with the provisions of Chapters 136, 139, 141, 337, 338, 341, and 342 that apply to the Contractor’s operations. The Contractor’s failure to reveal a final determination of a violation of KRS Chapters 136, 139, 141, 337, 338, 341, and 342, or failure to comply with any of the above cited statutes for the duration of the Contract shall be grounds for the cancellation of the Contract, and the disqualification from eligibility for future contracts for a period of two (2) years.

The Contractor, by signing and submitting a Bid on this Invitation, agrees as required by KRS 45A.485 to submit final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 that have occurred in the previous five (5) years prior to the award of a Contract and agrees to remain in continuous compliance with the provisions of these statutes during the duration of any contract that may be established. Final determinations of any violations of these statutes, must be provided to the University by the successful Contractor prior to the award of a Contract.

BUSINESS CLASSIFICATION

Please complete this form which is necessary for the University of Kentucky vendor database. Mark only one classification. Refer to "Definitions" for assistance in determining correct classification.

(01) Small Business
(06) Woman-Owned Large Business
(02) Large Business
(07) Disadvantaged Woman-Owned Small Business
(03) Disadvantaged Small Business
(08) Disadvantaged Woman-Owned Large Business
(04) Disadvantaged Large Business
(09) Other
(05) Woman-Owned Small Business

DEFINITIONS
SCOPE OF WORK

TC-010 – CURTAIN WALL & METAL PANELS

(01) SMALL BUSINESS: A business concern that is organized for profit, is independently owned and operated, is not dominant in the field of operations in which it is bidding, and meets the size standards as prescribed in the Code of Federal Regulations, Title 13, Part 121. Consult your local or district Small Business Administration (SBA) office if further clarification is needed.

(02) LARGE BUSINESS: A business concern that exceeds the small business size code standards established by SBA.

(03) DISADVANTAGED SMALL BUSINESS: A business concern (a) that is at least 51 percent owned by one or more socially and economically disadvantaged individuals (as defined below), or a publicly owned business, having at least 51 percent of its stock owned by one or more socially and economically disadvantaged individuals; and (b) has its management and daily business operations controlled by one or more such individuals. Socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans and other minorities or individuals found to be disadvantaged by the SBA.

(04) DISADVANTAGED LARGE BUSINESS: A concern that meets the definition of socially and economically disadvantaged individuals, but which is not a small business by the SBA's size standards.

(05) WOMAN-OWNED SMALL BUSINESS: A small business that is at least 51 percent owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" means actively involved in the day to day management.

(06) WOMAN-OWNED LARGE BUSINESS: A concern that meets the definition of woman owned and operated, but which is not a small business by the SBA's standards.

(07) DISADVANTAGED, WOMAN-OWNED SMALL BUSINESS: A concern that meets the definition of both (03) and (05) above.

(08) DISADVANTAGED, WOMAN OWNED LARGE BUSINESS: A concern that meets the definition of both (04) and (06) above.

(09) OTHER: A concern that does not meet any of the above definitions.

BIDDER'S QUALIFICATIONS

The Commonwealth of Kentucky Model Procurement Code (KRS 45A.080) requires contracts to be awarded, “to the responsive and responsible bidder whose bid offers the best value” to the University of Kentucky. In order to determine if the Bidder has the experience, qualifications, resources and necessary attributes to provide the quality workmanship, materials and management required by the plans and specifications, the Bidder may be required to complete and submit the information requested on the University of Kentucky Contractor Bidder Determination of Responsibility questionnaire. Failure to provide the information requested on the questionnaire or failure to provide any additional submittals or information that may be requested to make this determination may be grounds for a declaration of nonresponsibility with respect to the Bidder. A copy of the Contractor Determination of Responsibility questionnaire is available upon request to all Bidders.
TIME LIMIT FOR EXECUTION OF CONTRACT DOCUMENTS

It is further agreed, that in the event this Proposal is accepted by the Owner and the undersigned shall fail to execute the Contract and furnish satisfactory Payment and Performance Bond within ten (10) consecutive calendar days from the date of notification of the award of the Contract, the Owner may at his option, determine that the undersigned has abandoned the Contract and thereupon, the Proposal shall become null and void and the Bid guarantee, check or Bid bond which accompanied it shall be forfeited and become the property of the Owner as liquidated damages for each failure and no protest pursuant to such action will be made. If the Undersigned shall execute the Contract, and furnish satisfactory Payment Bond and Performance Bond, it is understood that the Bid Guarantee or Bid Bond will be returned to the undersigned by the Owner.

IDENTIFICATION OF MINORITY SUBCONTRACTORS AND MATERIAL SUPPLIERS

Participation of Minority and Women owned Contractors and businesses.

The University of Kentucky encourages and supports the participation of minority and women owned businesses. Goal is 10% MBE/WBE

1. Minority and Women Subcontractors

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

2. Minority and Women Material Suppliers

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

This proposal includes ______ % certified MBE participation
This proposal includes ______ % certified WBE participation

If your firm has no minority or women owned subcontractors or suppliers, it is required that you complete the list of minority and/or women owned businesses below. List the names of firms that were solicited to bid the project and describe why they were not successful (i.e. not low bid, did not respond, etc).
**RECORD OF MBE/WBE SOLICITATION**

Certifies that the following Minority/Women-Owned firms were contacted to solicit pricing as subcontractors/suppliers for Invitation to Bid No. ____________ The following firms were not selected for use on this project for the reasons stated in the RESULT column.

This list of Minority or Women owned firms is to be executed and submitted as a part of the Bidder’s Proposal. Failure to comply will result in rejection of Bidder’s Proposal.

<table>
<thead>
<tr>
<th>FIRM NAME</th>
<th>MBE/WBE</th>
<th>WORK ITEMS SOLICITED</th>
<th>RESULT: NO RESPONSE OR NOT LOW BIDDER</th>
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Signature ______________________ Date ________________

Title ____________________________
LIST OF MATERIALS AND EQUIPMENT

The apparent low bidder will be required to furnish this information within 24 hours of bid submittal. Failure to comply will result in rejection of Bidder’s Proposal.

Each item listed under the different phases of construction must be clearly identified so that the Owner will definitely know what the Bidder proposes to furnish.

The use of a manufacturer's or dealer's name only, or stating "as per Plans and Specifications," will not be considered as sufficient identification.

Where more than one "Make" or "Brand" is listed for any one item, the Owner has the right to select the one to be used.

| CONTRACTOR NAME & ADDRESS: | __________________________ |
| __________________________ | __________________________ |
| __________________________ | __________________________ |

TRADE CONTRACT: TC- (INSERT NUMBER)    SCOPE OF WORK: (INSERT NAME OF TRADE CONTRACT)

The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>MATERIALS AND EQUIPMENT</th>
<th>BRAND OR MANUFACTURER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal Wall Panel Manuf.</td>
<td>__________________________</td>
<td>__________________________</td>
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<tr>
<td>Curtainwall / Storefront Manuf.</td>
<td>__________________________</td>
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</table>
**PRIMARY LIST OF PROPOSED SUBCONTRACTORS**

The apparent low bidder will be required to furnish this information within 24 hours of bid submittal. Failure to comply will result in rejection of Bidder’s Proposal.

All subcontractors are subject to the approval of the Capital Construction Procurement Section and Capital Project Management Division, University of Kentucky, Lexington, KY.

If certain branches of the Work are to be done by the Prime Contractor, so state.

<table>
<thead>
<tr>
<th>CONTRACTOR NAME &amp; ADDRESS:</th>
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| TRADE CONTRACT: TC - _______ | SCOPE OF WORK:__________ |
| (INSERT NUMBER)             | (INSERT NAME OF BID CATEGORY) |

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<thead>
<tr>
<th>DIVISION OF WORK</th>
<th>NAME AND ADDRESS OF SUBCONTRACTOR</th>
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UNIVERSITY OF KENTUCKY
CAPITAL CONSTRUCTION PROCUREMENT SECTION
FORM OF PROPOSAL – TC-011 DRYWALL PARTITIONS

Project No. 2446.2  Project Title:  UK GREHAN RENOVATION
Purchasing Officer:  Jim Sutton

NOTE:  The following Form of Proposal shall be followed exactly in submitting a proposal for this work.  If this copy is lost, an additional copy will be furnished upon written request to the authority issuing Contract Documents.

This Proposal is submitted by:  ______________________________

(NAME AND ADDRESS OF BIDDER)

Date:  ______________________________

Telephone:  ______________________________

TO:  BID CLERK
INVITATION TO BID:  CCK-2342-19
UNIVERSITY OF KENTUCKY
BID OPENING DATE:  August 02, 2018
CAPITAL CONSTRUCTION
TIME:  3:00 P.M.  E.D.T.
PROCUREMENT
RM. 322 SERVICE BUILDING
LEXINGTON, KY.  40506-0005

The Bidder, in compliance with your Invitation for Bids for the above referenced Project, having carefully examined the site of the Work, the Drawings and complete Contract Documents as defined in Article I of the General Conditions, as well as the Specifications affecting the work as prepared by the Consultant, hereby proposes to furnish all labor, materials, supplies and services required to construct the Project in accordance with the Contract Documents, within the time set forth therein, and at the price stated below without qualification.  Bidder understands that successful bidder will enter into a contract with Turner Construction Company utilizing Turner’s Subcontract Agreement Form 36 without modification.

The Bidder hereby acknowledges receipt of the following Addenda:

ADDENDUM NO. ______________________________  DATED ______________________________
ADDENDUM NO. ______________________________  DATED ______________________________
ADDENDUM NO. ______________________________  DATED ______________________________
ADDENDUM NO. ______________________________  DATED ______________________________

(Here insert the number and date of any Addenda issued and received.  If none has been issued and received, the word NONE should be inserted.)

NOTE: IN ADDITION TO THE SPECIFIC TRADE FORM OF PROPOSAL EACH SUBCONTRACTOR MUST ALSO SUBMIT FORMS FOUND IN THE SUPPLEMENTAL FORM OF PROPOSAL SECTION.
FORM OF PROPOSAL

AUTHENTICATION OF BID AND STATEMENT OF NON-COLLUSION AND NON-CONFLICT OF INTEREST

I hereby certify:

1. That I am the Bidder (if the Bidder is an individual), a partner in the Bidder (if the Bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the Bidder is a corporation);

2. That the submitted Bid or Bids covering Capital Construction Procurement Section Invitation No. CCK-2342-19 have been arrived at by the Bidder independently and have been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other contractor, vendor of materials, supplies, equipment or services described in the Invitation to Bid, designed to limit independent bidding or competition; as prohibited by provision KRS 45A.325;

3. That the contents of the Bid or Bids have not been communicated by the Bidder or its employees or agents to any person not an employee or agent of the Bidder or its surety on any bond furnished with the Bid or Bids and will not be communicated to any such person prior to the official opening of the Bid or Bids;

4. That the Bidder is legally entitled to enter into the contracts with the University of Kentucky and Turner Construction Company and is not in violation of any prohibited conflict of interest, including those prohibited by the provisions of KRS 164.390, and 45A.330 to 45A.340 and 45A.455;

5. This offer is good for 60 calendar days from the date this Bid is opened. In submitting the above, it is expressly agreed that upon proper acceptance by the Capital Construction Procurement Section of any or all items Bid above, a contract shall thereby be created with respect to the items accepted;

6. That I have fully informed myself regarding and affirm the accuracy of all statements made in this Form of Proposal including Bid Amount.

7. Unless otherwise exempted by KRS 45.590, the Bidder intends to comply in full with all requirements of the Kentucky Civil Rights Act and to submit data required by the Kentucky Equal Employment Act upon being designated the successful contractor.

8. That the bidding contractor and all subcontractors to be employed do not and will not maintain any facilities they provide for employees in a segregated manner and they are in full compliance with provisions of 41 CFR 60-1.8 that prohibits the maintaining of segregated facilities.

9. In accordance with KRS45A.110(2), the undersigned hereby swears under penalty of perjury that he/she has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky and that the award of a contract to the bidder will not violate any provision of the campaign finance laws of the Commonwealth of Kentucky.

READ CAREFULLY - SIGN IN SPACE BELOW - FAILURE TO SIGN INVALIDATES BID

SIGNED BY_________________________ TITLE________________________

PRINT NAME_________________________ FIRM________________________

ADDRESS_________________________ AREA CODE & PHONE __________

FAX________________________

CITY________________________ STATE________________________ ZIP CODE________________________

DATE________________________ EMAIL________________________
LUMP SUM PROPOSAL

The Bidder agrees to furnish all labor, materials, supplies and services required to complete the Work, for the above referenced Project, for the Capital Construction Procurement Section, University of Kentucky, as described in the Specifications and Contract Documents and shown on the Drawings enumerated below and as modified by the Addenda listed above.

TC-011 DRYWALL PARTITIONS

FOR THE LUMP SUM OF ___________________________ (USE WORDS)

_____________________________ DOLLARS AND ___________________________ CENTS.

(USE WORDS) (USE WORDS)

($_________________________) BIDDER MUST TURN IN BID BREAKOUT SHEET WITH THIS FORM OF PROPOSAL

(USE FIGURES)

ALTERNATES

Alternate No 1 – (“BP-02” Drawing S-207/A-205) Monitor Skylight Alternate $__________

Current Experience Modification Rating __________________

OSHA Incident Rates: Recordable _____________ Date of Proposal _______________

THE FOLLOWING ITEMS ARE HEREWITH ENCLOSED AS REQUIRED BY KRS 45A.185:

1. Bid Bond or Certified Check in an amount not less than five percent (5%) of total Bid.

2. Authentication of Bid and Statement of Non-Collusion and Non-Conflict of Interest.

3. VENDOR NUMBER: It is imperative that you furnish your Federal Employer Identification Number in the space provided below. Failure to do so may delay the processing of purchase orders issued to your firm.

__________________________________________

(Nine Digit Number)

4. Form of Proposal Supplemental Information

5. TC-_____ Bid Breakout sheet (from Attachment ‘B’)

SUPERINTENDENT

In accordance with Article 17 of the General Conditions a full-time superintendent will be required on this project. Below, please list the superintendent your firm will employ on this project. The successful Bidder will be required to furnish a resume of the superintendent’s qualifications and or past projects.

List the Superintendent’s Name _____________________________
UNIT PRICES

NOTE: Unit Prices shall include the furnishing of all labor, materials, supplies and services and shall include all items of cost, overhead and profit for the Contractor and any subcontractor involved, and shall be used uniformly without modifications for either additions or deductions. The Unit Prices as established shall be used to determine the equitable adjustment of the Contract Price in connection with changes, deletions or extra work performed under the Contract and the "Rules of Measurement" set forth in the General Conditions shall govern.

All Bidders will be required to complete and submit the following information with the bid. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

KY FAIRNESS ACT: UNIT PRICES SHALL BE SUBJECT TO REVIEW / ADJUSTMENT AT TIME OF BID REVIEW / AWARD BASED ON “NET COST” CONCEPT. PROVIDE DETAIL BREAKDOWN 24 HOURS AFTER BID.

HOURLY RATES:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Base rate</th>
<th>Fringes</th>
<th>Burden</th>
<th>(if)</th>
<th>(SUM)</th>
<th>(SUM)</th>
<th>(SUM)</th>
<th>OH/P %</th>
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Material / Equipment Unit Prices

1. Wall Assemblies per linear foot, installed floor to deck above:
   a. Wall Type “S3C.D.A” - $_______________/LF
   b. Wall Type “S3B.D.2” - $_______________/LF
2. Acoustical Panel Ceiling System, installed - $_______________/SF
3. Gypsum Board Ceiling System, per sf installed - $_______________/SF
4. Prefinished metal vertical ceiling edge trim, per lf installed - $_______________/LF
Fill in the following breakdown of costs included in your base bid. Each item is to include labor, material & equipment. These will not be considered unit prices nor will the numbers listed here limit obligations required in the bid documents. It will be used only to aid in verifying completeness of the bids.

<table>
<thead>
<tr>
<th>DESCRIPTION OF WORK</th>
<th>COST INCLUDED IN BID</th>
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<tbody>
<tr>
<td>Engineering &amp; layout, Permits &amp; Fees, Shop drawings and submittals</td>
<td>$__________________</td>
</tr>
<tr>
<td>Mobilizations</td>
<td>$__________________</td>
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<tr>
<td>Cold-Formed Metal Framing</td>
<td>$__________________</td>
</tr>
<tr>
<td>Sheathing</td>
<td>$__________________</td>
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<tr>
<td>Drywall Partitions (including framing and Fire-stopping, Sealants)</td>
<td>$__________________</td>
</tr>
<tr>
<td>Drywall Ceilings (include framing)</td>
<td>$__________________</td>
</tr>
<tr>
<td>Soffit Panels</td>
<td>$__________________</td>
</tr>
<tr>
<td>Acoustic Ceilings</td>
<td>$__________________</td>
</tr>
<tr>
<td>Install Hollow Metal Frames in drywall partitions</td>
<td>$__________________</td>
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<tr>
<td>Access Doors</td>
<td>$__________________</td>
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<tr>
<td>Thermal Batt Insulation</td>
<td>$__________________</td>
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<tr>
<td>Fluid Applied Membrane Air Barrier</td>
<td>$__________________</td>
</tr>
<tr>
<td>Interior Wall and Ceiling Expansion Control</td>
<td>$__________________</td>
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<tr>
<td>McVey Hall Allowance</td>
<td>$7,500</td>
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<tr>
<td>General Work Requirements (Section F Items)</td>
<td>$__________________</td>
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<tr>
<td>Remaining work not listed above, Overhead &amp; Profit</td>
<td>$__________________</td>
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<tr>
<td>Safety</td>
<td>$__________________</td>
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**TOTAL BID AMOUNT (SHOULD MATCH PROPOSAL)**

$__________________

Cost of Performance and Payment Bond

$__________________

**DO NOT INCLUDE THIS COST IN YOUR BID**
The work of this Agreement shall include, but not be limited to, all labor, materials, apparatus, hoisting, rigging, tools, equipment, plant, supplies, accessories, samples, submittals, shop drawings, certifications, engineering, layout, transportation, storage, supervision, temporary construction, special services, contributions, insurance, taxes (unless specifically excluded by the Contract Documents), compliance with all governing agencies (city, county, state, federal and others as may be required), permits, fees, all other services and facilities and other items necessary for the performance of the Drywall & Ceilings Work as shown, detailed and/or implied in the contract documents outlined in the General Scope of Work.

The Scope of Work Document is being provided for your use as a general guideline. Please note, this Document is not all-inclusive. It is this Subcontractor's responsibility to provide a complete bid, including all work for this trade indicated on ALL of the contract documents (include plans, specifications, Bid Manual, etc). It is this Subcontractor’s responsibility for the entire scope of this Bid Package and coordination between all trades.

E. WORK INCLUDED – SCOPE-SPECIFIC ITEMS

1) Trade Specifications Specifically Included, but not limited to the following:

DIVISION 00 – PROCUREMENT & CONTRACTING REQUIREMENTS (ALL SECTIONS)
DIVISION 01 – GENERAL REQUIREMENTS (ALL SECTIONS)
DIVISION 2 – EXISTING CONDITIONS (Partial) as required for this trade and as defined below
SECTION 02 4119 – SELECTIVE DEMOLITION

DIVISION 5 – METALS
SECTION 05 4000 – COLD-FORMED METAL FRAMING

DIVISION 6 – WOODS, PLASTICS, AND COMPOSITES
SECTION 06 1600 – SHEATHING

DIVISION 7 – THERMAL AND MOISTURE PROTECTION
SECTION 07 2100 – THERMAL INSULATION
SECTION 07 2726 – FLUID-APPLIED MEMBRANE AIR BARRIERS
SECTION 07 4293 – SOFFIT PANELS
SECTION 07 8413 – PENETRATION FIRESTOPPING (as related to Drywall partitions)
SECTION 07 9200 – JOINT SEALANTS

DIVISION 8 – OPENINGS (Partial) as...
SECTION 08 1113 – HOLLOW METAL DOORS AND FRAMES (frame install only)
SECTION 08 3113 – ACCESS DOORS AND FRAMES

DIVISION 9 – FINISHES (Complete)
SECTION 09 2216 – NON-STRUCTURAL METAL FRAMING
SECTION 09 2900 – GYPSUM BOARD
SECTION 09 5113 – ACOUSTICAL PANEL CEILINGS

a) Bidder shall also include referenced specification sections listed in above specification sections as necessary to furnish complete work of this trade

b) Subcontractor includes all work indicated in specification COMPLETE, unless this scope of work specifically and clearly excludes a portion of a specification.

2) Contract Price is LUMP SUM. There shall be NO additional labor and material escalations allowed.
3) **Examination of Site** – Subcontractor warrants that they have sufficiently reviewed the project site to inform themselves of all items about existing site that are relevant to their work, and the cost of their work.

4) Include protection all adjacent structures during performance of this work. Plan for protection of adjacent structures must be part of the overall plan submitted for approval prior to start of work.

5) **SITE LOGISTICS**: Refer to the Site Logistics plans included in the Contract Documents. Delivery trucks are to be scheduled with Turner at least one (1) week in advance.

6) Subcontractor change order requests shall be provided with sufficient detail (as acceptable to Turner) to allow for satisfactory review. Subcontractor shall be allowed a maximum mark up for overhead and profit per the markup provisions included in the Subcontract Agreement, or as clarified in Contract Documents above.

7) Subcontractor understands that **time is of the essence** in the prosecution of Work under this agreement.

8) **Verify layout provided by others.** Where this subcontractor is performing work using layout provided by others, this subcontractor shall perform sufficient verification of that layout to reasonably ascertain the validity of that layout. Any deficiencies (or suspected deficiencies found) shall be reported to Turner immediately to allow corrections as needed before start of work by this subcontractor.

9) All Subcontractors must be licensed as required by local, State, or Federal jurisdiction required for work of this trade in this project location.

10) This Subcontractor will comply with Turner’s corporate safety policy and comply with Site Specific Safety Plan that will include but is not limited to 100% tie-off above 6 feet, 100% Safety Glasses, High Visibility Vests or High Vis style T-Shirts with reflective strips, 100% glove policy, Ladders Last Policy and Nothing Hits the Ground. If you are unfamiliar with any of these policies please ask to see the policy prior to submitting your bid. Failure to be familiar with these policies will not exclude you from complying with them.

11) **Refer to Project General Work Requirements** in volume one of the project manual. Any costs for work scope items listed in this section shall be included in your lump sum bid. Some work items are listed for specific trade contractors and they shall include those costs in their respective total lump sum bid price.

12) Keynote legend will help dictate your scope of work unless noted otherwise.

13) This contractor shall provide **COLD-FORMED METAL FRAMING (CFMF)** complete as shown on the Contract Documents and in accordance with Section 05 4000.

   a) Reference sheet A-351 vented hat channel noted as 05 4000.B1 for metal panel system is by TC-010.

14) This contractor shall provide all **THERMAL INSULATION** (for your work scope) as shown on contract documents and as specified in Section 07 2100.

   a) Provide all batt insulation as shown on contract documents with the keynote 07 21 00 and as shown on sheet A-002 Partition Types and Details.

15) This contractor shall provide **FLUID-APPLIED MEMBRANE AIR BARRIERS** (complete) as shown on contract documents and as specified in Section 07 2726.

16) This contractor shall provide all **SOFFIT PANELS** as shown on contract document and as specified in Section 07 4293.

17) This contractor shall provide all **PENETRATION FIRESTOPPING** (as related to this scope of work) as shown on contract documents and as specified in Section 07 8413.

   a) Fire-stopping is to be installed as noted at interface between GWB partitions and structure, building envelope or other partitions (East stair enclosure).

   b) Identification and labeling of all smoke barriers and rated partitions. Use template to make stencil for red spray paint.

18) This contractor shall provide all **JOINT SEALANTS** (as related to this scope of work) included in drywall as shown on contract documents and as specified in Section 07 9200.

19) This contractor shall provide all **INTERIOR EXPANSION JOINT COVER ASSEMBLIES** (AS RELATED TO THIS SCOPE OF WORK) included in drywall as shown on contract documents and as specified in Section 07 9513.13 Interior Expansion Joint Cover Assemblies.

20) This contractor shall receive, distribute and install **HOLLOW METAL FRAMES** (in drywall partitions only) as shown on contract documents and as specified in Section 08 1113.

   a) Reference Door Schedule A-601 and Elevations for details.
21) This contractor shall provide all ACCESS DOORS and FRAMES as shown on contract documents and as specified in Section 08 3113 (indicated on the drawings).
   a) Receive, coordinate and install access doors noted by keynote 08 31 00 supplied by the MEP trades.

22) Furnish and install (10) extra access doors not shown on the drawings, to be installed at the direction of the CM.
   a) (5) Rated and (5) non-rated.

23) This contractor shall provide all NON-STRUCTURAL METAL FRAMING as shown on contract documents and as specified in Section 09 2216.
   a) Interior framing systems as indicated on the drawings and by keynote prefix 09 22 16 (i.e. supports for partition walls, suspended soffits, furring, etc.)
      i. This includes all interior partition types “S” listed on A-002.
   b) Interior suspension systems (i.e. supports for ceilings, suspended soffits, etc.)
   c) Sheet metal wall reinforcing and blocking indicated on the drawings (ALL wood blocking is by OTHERS).
   d) Coordinate installation of partition top track and/or clip angles with other trades before placement of spray on fireproofing and MEP rough-in.
   e) Vacuum all debris out of track before hanging board on walls.

24) This contractor shall provide all GYPSUM BOARD and SHEATHING as shown on contract documents and as specified in Sections 09 2900 and 06 1600.
   a) Provide all gypsum board and sheathing as indicated.
   b) Provide control joints in gypsum board wall construction as indicated. Verify final C.J. locations with CM and architect prior to work start.
   c) Provide an additional 60 hours of Gypsum board repair with the necessary finishing materials and tools to be used at the discretion and approval of the Construction Manager.
   d) Provide all cement backer board for ceramic tile.
   e) Provide plywood as indicated.
   f) This contractor to include interior gypsum board patching and repair at areas of renovation in McVey Hall.
   g) Finishing at joints, accessories and other surfaces. Provide flat taping and finish at window sills and other exposed edges.
   h) This contractor is to gypsum finish all existing walls to meet specifications (level 4 minimum).

25) This contractor shall provide all ACOUSTICAL CEILINGS as shown on contract documents and as specified in Section 09 5100 Acoustical Ceilings.
   a) Acoustical panels and exposed suspension systems for ceilings as indicated.
   b) Provide an additional 40 hours of Acoustical Ceiling repair to be used as directed by the CM.
   c) Provide an additional $3,000 for misc. ceiling material to be used by the direction of CM.

26) This contractor (TC-011) shall provide 300 LF of TEMPORARY PARTITIONS. The barriers will be constructed, maintained and removed at the direction of the Construction Manager and shall consist of 3-5/8” metal studs with GWB (1 hour partitions). Partitions shall be fully sealed to the floor, ceilings, and adjacent walls and to all MEP items to provide a “dust tight” condition. Provide fire caulking at all MEP items. Provide 4 each temporary doors, frames with lockable hardware and weather stripping to make a “dust tight” condition.

F. CONSTRUCTION SCHEDULE

Contract Price is based on the project schedule included in Bid Manual and as clarified within these Additional Provisions.

G. WORK EXCLUDED

This Scope of Work shall exclude the following

1) Payment & Performance Bond
2) All HM frames are furnished by TC-009 Doors & Hardware Supplier.
3) Fire-stopping at NEW MEP thru-wall penetrations are by trade creating penetration.
II. ALTERNATE PRICES

Alternates shall be complete for providing only the Work with no other credits. All alternate prices are to be priced as stand-alone alternates. Any number of alternates, or no alternates, may be accepted as part of this Work.
Indicate Add/Deduct Price on the BID FORM

Alternate No 1 – (“BP-02” Drawing S-207/A-205) Monitor Skylight Alternate

I. ALLOWANCES

1) Misc. Drywall and Ceiling work at McVey Hall $7,500

The above allowances are to be included in the base bid/Subcontract Price. All overhead and profit related to the Work performed under each Allowance is to be included in the Base Bid/Subcontract Price. Only direct Labor and Material costs authorized in writing by the Construction Manager after approval by the Owner are to be charged to the Allowance. Progress Payments will be made against Allowance expenditures, based on approved monthly invoices & writing Allowance Authorization from the Construction Manager/Owner. Any unused funds remaining in these allowances will be credited back to the Project.

J. UNIT PRICES

The following unit prices are applicable for changes in the Work. The unit prices are for Work complete and in place and include all costs such as material, labor, equipment, freight, taxes, insurance, fringe benefits, and overhead and profit. Also include costs for coordination with other trades work where applicable. In the event the unit prices quoted exceed industry standards or fair market value, the Turner reserves the right to request pricing for changes at cost plus allowable mark-up for overhead and profit or a lump-sum under the terms of the Agreement

1) Labor Rates - Submit detailed labor rates to Turner Project Manager for approval. Detail shall show all fringes, benefits, taxes, insurance, markups, and any other add-ons to allow verification of rate.
   • See “Form of Proposal” (Bid Form) for bid day information. The apparent low bidder will submit detailed breakdown within 24 hours after bid day.

2) Equipment Rates – Submit detailed rates for equipment that may be used on project, and may be part of change order pricing.
FORM OF PROPOSAL
SUPPLEMENTAL INFORMATION

THE FOLLOWING INFORMATION PERTAINS TO ALL TRADE CONTRACTORS

NOTE: MUST BE SUBMITTED WITH THE BID SUBMITTAL.
Failure to comply will result in rejection of Bidder’s Proposal.

Contractor Report of Prior Violations of Chapters 136, 139, 141, 337, 338, 341, and 342

Pursuant to KRS 45A.485, the Contractor shall, prior to the award of a Contract, reveal final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 by the Contractor that have occurred in the previous five (5) year period.

This statute also requires for the duration of the Contract established, the Contractor be in continuous compliance with the provisions of Chapters 136, 139, 141, 337, 338, 341, and 342 that apply to the Contractor’s operations. The Contractor’s failure to reveal a final determination of a violation of KRS Chapters 136, 139, 141, 337, 338, 341, and 342, or failure to comply with any of the above cited statutes for the duration of the Contract shall be grounds for the cancellation of the Contract, and the disqualification from eligibility for future contracts for a period of two (2) years.

The Contractor, by signing and submitting a Bid on this Invitation, agrees as required by KRS 45A.485 to submit final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 that have occurred in the previous five (5) years prior to the award of a Contract and agrees to remain in continuous compliance with the provisions of these statutes during the duration of any contract that may be established. Final determinations of any violations of these statutes, must be provided to the University by the successful Contractor prior to the award of a Contract.

BUSINESS CLASSIFICATION

Please complete this form which is necessary for the University of Kentucky vendor database. Mark only one classification. Refer to “Definitions” for assistance in determining correct classification.

(01) ___ Small Business
(02) ___ Large Business
(03) ___ Disadvantaged Small Business
(04) ___ Disadvantaged Large Business
(05) ___ Woman-Owned Small Business
(06) ___ Woman-Owned Large Business
(07) ___ Disadvantaged Woman-Owned Small Business
(08) ___ Disadvantaged Woman-Owned Large Business
(09) ___ Other
DEFINITIONS

(01) SMALL BUSINESS: A business concern that is organized for profit, is independently owned and operated, is not dominant in the field of operations in which it is bidding, and meets the size standards as prescribed in the Code of Federal Regulations, Title 13, Part 121. Consult your local or district Small Business Administration (SBA) office if further clarification is needed.

(02) LARGE BUSINESS: A business concern that exceeds the small business size code standards established by SBA.

(03) DISADVANTAGED SMALL BUSINESS: A business concern (a) that is at least 51 percent owned by one or more socially and economically disadvantaged individuals (as defined below), or a publicly owned business, having at least 51 percent of its stock owned by one or more socially and economically disadvantaged individuals; and (b) has its management and daily business operations controlled by one or more such individuals. Socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans and other minorities or individuals found to be disadvantaged by the SBA.

(04) DISADVANTAGED LARGE BUSINESS: A concern that meets the definition of socially and economically disadvantaged individuals, but which is not a small business by the SBA's size standards.

(05) WOMAN-OWNED SMALL BUSINESS: A small business that is at least 51 percent owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" means actively involved in the day to day management.

(06) WOMAN-OWNED LARGE BUSINESS: A concern that meets the definition of woman owned and operated, but which is not a small business by the SBA’s standards.

(07) DISADVANTAGED, WOMAN-OWNED SMALL BUSINESS: A concern that meets the definition of both (03) and (05) above.

(08) DISADVANTAGED, WOMAN OWNED LARGE BUSINESS: A concern that meets the definition of both (04) and (06) above.

(09) OTHER: A concern that does not meet any of the above definitions.

BIDDER'S QUALIFICATIONS

The Commonwealth of Kentucky Model Procurement Code (KRS 45A.080) requires contracts to be awarded, “to the responsive and responsible bidder whose bid offers the best value” to the University of Kentucky. In order to determine if the Bidder has the experience, qualifications, resources and necessary attributes to provide the quality workmanship, materials and management required by the plans and specifications, the Bidder may be required to complete and submit the information requested on the University of Kentucky Contractor Bidder Determination of Responsibility questionnaire. Failure to provide the information requested on the questionnaire or failure to provide any additional submittals or information that may be requested to make this determination may be grounds for a declaration of nonresponsibility with respect to the Bidder. A copy of the Contractor Determination of Responsibility questionnaire is available upon request to all Bidders.
SCOPE OF WORK
TC-011 – DRYWALL PARTITIONS

TIME LIMIT FOR EXECUTION OF CONTRACT DOCUMENTS

It is further agreed, that in the event this Proposal is accepted by the Owner and the undersigned shall fail to execute the Contract and furnish satisfactory Payment and Performance Bond within ten (10) consecutive calendar days from the date of notification of the award of the Contract, the Owner may at his option, determine that the undersigned has abandoned the Contract and thereupon, the Proposal shall become null and void and the Bid guarantee, check or Bid bond which accompanied it shall be forfeited and become the property of the Owner as liquidated damages for each failure and no protest pursuant to such action will be made. If the Undersigned shall execute the Contract, and furnish satisfactory Payment Bond and Performance Bond, it is understood that the Bid Guarantee or Bid Bond will be returned to the undersigned by the Owner.

IDENTIFICATION OF MINORITY SUBCONTRACTORS AND MATERIAL SUPPLIERS

Participation of Minority and Women owned Contractors and businesses.

The University of Kentucky encourages and supports the participation of minority and women owned businesses. Goal is 10% MBE/WBE

1. Minority and Women Subcontractors

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

2. Minority and Women Material Suppliers

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

This proposal includes ______% certified MBE participation
This proposal includes ______% certified WBE participation

If your firm has no minority or women owned subcontractors or suppliers, it is required that you complete the list of minority and/or women owned businesses below. List the names of firms that were solicited to bid the project and describe why they were not successful (i.e. not low bid, did not respond, etc).
RECORD OF MBE/WBE SOLICITATION

________________________________________________ Certifies that the following

BIDDER’S NAME

Minority/Women-Owned firms were contacted to solicit pricing as subcontractors/suppliers for
Invitation to Bid No. ____________ . The following firms were not selected for use on this project for the reasons stated
in the RESULT column.

This list of Minority or Women owned firms is to be executed and submitted as a part of the Bidder’s Proposal. Failure to
comply will result in rejection of Bidder’s Proposal.

<table>
<thead>
<tr>
<th>FIRM NAME</th>
<th>MBE/WBE</th>
<th>WORK ITEMS SOLICITED</th>
<th>RESULT: NO RESPONSE OR NOT LOW BIDDER</th>
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________________________________________________

Signature                                     Date

________________________________________________

Title
LIST OF MATERIALS AND EQUIPMENT

The apparent low bidder will be required to furnish this information within 24 hours of bid submittal. Failure to comply will result in rejection of Bidder’s Proposal.

Each item listed under the different phases of construction must be clearly identified so that the Owner will definitely know what the Bidder proposes to furnish.

The use of a manufacturer’s or dealer’s name only, or stating “as per Plans and Specifications,” will not be considered as sufficient identification.

Where more than one "Make" or "Brand" is listed for any one item, the Owner has the right to select the one to be used.

CONTRACTOR NAME & ADDRESS: ______________________  ______________________
                        ______________________  ______________________
                        ______________________  ______________________
                        ______________________  ______________________

TRADE CONTRACT: TC-_________  SCOPE OF WORK: ______________________
                        (INSERT NUMBER)  (INSERT NAME OF TRADE CONTRACT)

The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

<table>
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<th>ITEM</th>
<th>MATERIALS AND EQUIPMENT</th>
<th>BRAND OR MANUFACTURER</th>
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PRIMARY LIST OF PROPOSED SUBCONTRACTORS

The apparent low bidder will be required to furnish this information within 24 hours of bid submittal. Failure to comply will result in rejection of Bidder’s Proposal.

All subcontractors are subject to the approval of the Capital Construction Procurement Section and Capital Project Management Division, University of Kentucky, Lexington, KY.

If certain branches of the Work are to be done by the Prime Contractor, so state.

CONTRACTOR NAME & ADDRESS: ______________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________

TRADE CONTRACT: TC - ____ SCOPE OF WORK: _________________________________
(INSERT NUMBER) (INSERT NAME OF BID CATEGORY)

DIVISION OF WORK: ________________________________________________________________
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NAME AND ADDRESS OF SUBCONTRACTOR: __________________________________________
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_______________________________________________________________________________
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END OF TECHNICAL SCOPE OF WORK
SCOPE OF WORK

TC-014 – PAINTING & WALL COVERING

UNIVERSITY OF KENTUCKY
CAPITAL CONSTRUCTION PROCUREMENT SECTION
FORM OF PROPOSAL – TC-014 PAINTING & WALL COVERING

Project No. 2446.2  Project Title: UK GREHAN RENOVATION
Purchasing Officer: Jim Sutton

NOTE: The following Form of Proposal shall be followed exactly in submitting a proposal for this work. If this copy is lost, an additional copy will be furnished upon written request to the authority issuing Contract Documents.

This Proposal is submitted by: ______________________________________

(NAME AND ADDRESS OF BIDDER)

Date: ______________________________________

Telephone: ______________________________________

TO: BID CLERK
UNIVERSITY OF KENTUCKY
CAPITAL CONSTRUCTION
PROCUREMENT
RM. 322 SERVICE BUILDING
LEXINGTON, KY. 40506-0005

INVITATION TO BID: CCK-2342-19
BID OPENING DATE: August 02, 2018
TIME: 3:00 P.M. E.D.T.

The Bidder, in compliance with your Invitation for Bids for the above referenced Project, having carefully examined the site of the Work, the Drawings and complete Contract Documents as defined in Article I of the General Conditions, as well as the Specifications affecting the work as prepared by the Consultant, hereby proposes to furnish all labor, materials, supplies and services required to construct the Project in accordance with the Contract Documents, within the time set forth therein, and at the price stated below without qualification. Bidder understands that successful bidder will enter into a contract with Turner Construction Company utilizing Turner’s Subcontract Agreement Form 36 without modification.

The Bidder hereby acknowledges receipt of the following Addenda:

ADDENDUM NO. ___________________________  DATED ___________________________
ADDENDUM NO. ___________________________  DATED ___________________________
ADDENDUM NO. ___________________________  DATED ___________________________
ADDENDUM NO. ___________________________  DATED ___________________________

(Here insert the number and date of any Addenda issued and received. If none has been issued and received, the word NONE should be inserted.)

NOTE: IN ADDITION TO THE SPECIFIC TRADE FORM OF PROPOSAL EACH SUBCONTRACTOR MUST ALSO SUBMIT FORMS FOUND IN THE SUPPLEMENTAL FORM OF PROPOSAL SECTION.
FORM OF PROPOSAL

AUTHENTICATION OF BID AND STATEMENT OF NON-COLLUSION AND NON-CONFLICT OF INTEREST

I hereby certify:

1. That I am the Bidder (if the Bidder is an individual), a partner in the Bidder (if the Bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the Bidder is a corporation);

2. That the submitted Bid or Bids covering Capital Construction Procurement Section Invitation No. CCK-2342-19 have been arrived at by the Bidder independently and have been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other contractor, vendor of materials, supplies, equipment or services described in the Invitation to Bid, designed to limit independent bidding or competition; as prohibited by provision KRS 45A.325;

3. That the contents of the Bid or Bids have not been communicated by the Bidder or its employees or agents to any person not an employee or agent of the Bidder or its surety on any bond furnished with the Bid or Bids and will not be communicated to any such person prior to the official opening of the Bid or Bids;

4. That the Bidder is legally entitled to enter into the contracts with the University of Kentucky and Turner Construction Company and is not in violation of any prohibited conflict of interest, including those prohibited by the provisions of KRS 164.390, and 45A.330 to 45A.340 and 45A.455;

5. This offer is good for 60 calendar days from the date this Bid is opened. In submitting the above, it is expressly agreed that upon proper acceptance by the Capital Construction Procurement Section of any or all items Bid above, a contract shall thereby be created with respect to the items accepted;

6. That I have fully informed myself regarding and affirm the accuracy of all statements made in this Form of Proposal including Bid Amount.

7. Unless otherwise exempted by KRS 45.590, the Bidder intends to comply in full with all requirements of the Kentucky Civil Rights Act and to submit data required by the Kentucky Equal Employment Act upon being designated the successful contractor.

8. That the bidding contractor and all subcontractors to be employed do not and will not maintain any facilities they provide for employees in a segregated manner and they are in full compliance with provisions of 41 CFR 60-1.8 that prohibits the maintaining of segregated facilities.

9. In accordance with KRS45A.110(2), the undersigned hereby swears under penalty of perjury that he/she has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky and that the award of a contract to the bidder will not violate any provision of the campaign finance laws of the Commonwealth of Kentucky.

READ CAREFULLY - SIGN IN SPACE BELOW - FAILURE TO SIGN INVALIDATES BID

SIGNED BY____________________________________ TITLE________________________

PRINT NAME____________________________________ FIRM________________________

ADDRESS____________________________________ AREA CODE & PHONE ____________

FAX____________________________________

CITY__________________ STATE________ ZIP CODE ____________

DATE__________________ EMAIL________________________________

Scope of Work Page 2 of 14 6/2018
LUMP SUM PROPOSAL

The Bidder agrees to furnish all labor, materials, supplies and services required to complete the Work, for the above referenced Project, for the Capital Construction Procurement Section, University of Kentucky, as described in the Specifications and Contract Documents and shown on the Drawings enumerated below and as modified by the Addenda listed above.

TC-014 PAINTING & WALL COVERING

FOR THE LUMP SUM OF _____________________________________________

(USE WORDS)

___________________________________________DOLLARS AND _________________________COUNTERS.

(USE WORDS) (USE WORDS)

($________________________)  BIDDER MUST TURN IN BID BREAKOUT SHEET WITH THIS FORM OF PROPOSAL

ALTERNATES

Alternate No 1 – (“BP-02” Drawing S-207/A-205) Monitor Skylight Alternate $_______________

Current Experience Modification Rating ________________

OSHA Incident Rates: Recordable ____________ Date of Proposal ____________

THE FOLLOWING ITEMS ARE HEREBY ENCLOSURE AS REQUIRED BY KRS 45A.185:

1. Bid Bond or Certified Check in an amount not less than five percent (5%) of total Bid.

2. Authentication of Bid and Statement of Non-Collusion and Non-Conflict of Interest.

3. VENDOR NUMBER: It is imperative that you furnish your Federal Employer Identification Number in the space provided below. Failure to do so may delay the processing of purchase orders issued to your firm.

(Nine Digit Number)

4. Form of Proposal Supplemental Information

5. TC-_____ Bid Breakout sheet (from Attachment ‘B’)

SUPERINTENDENT

In accordance with Article 17 of the General Conditions a full-time superintendent will be required on this project. Below, please list the superintendent your firm will employ on this project. The successful Bidder will be required to furnish a resume of the superintendent’s qualifications and or past projects.

List the Superintendent’s Name ____________________________
UNIT PRICES

NOTE: Unit Prices shall include the furnishing of all labor, materials, supplies and services and shall include all items of cost, overhead and profit for the Contractor and any subcontractor involved, and shall be used uniformly without modifications for either additions or deductions. The Unit Prices as established shall be used to determine the equitable adjustment of the Contract Price in connection with changes, deletions or extra work performed under the Contract and the "Rules of Measurement" set forth in the General Conditions shall govern.

All Bidders will be required to complete and submit the following information with the bid. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

KY FAIRNESS ACT: UNIT PRICES SHALL BE SUBJECT TO REVIEW / ADJUSTMENT AT TIME OF BID REVIEW / AWARD BASED ON “NET COST” CONCEPT. PROVIDE DETAIL BREAKDOWN 24 HOURS AFTER BID.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Base rate</th>
<th>Fringes (Ins/taxes/other)</th>
<th>Burden (Pier Diems)</th>
<th>(if) (ST)</th>
<th>(SUM) (T&amp;1/2)</th>
<th>(SUM) (DT)</th>
<th>(SUM) (5%)</th>
<th>OH/P %</th>
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Material / Equipment Unit Prices

Interior Painting $__________________ / SF
Exterior Painting $__________________ / SF
Wall Covering $__________________ / SF
BID BREAKOUT

Fill in the following breakdown of costs included in your base bid. Each item is to include labor, material & equipment. These will not be considered unit prices nor will the numbers listed here limit obligations required in the bid documents. It will be used only to aid in verifying completeness of the bids.

<table>
<thead>
<tr>
<th>DESCRIPTION OF WORK</th>
<th>COST INCLUDED IN BID</th>
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</thead>
<tbody>
<tr>
<td>Engineering &amp; layout, Permits &amp; Fees, Shop drawings and submittals</td>
<td>$___________________________</td>
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<tr>
<td>Mobilizations</td>
<td>$___________________________</td>
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<tr>
<td>SECTION 07 9200 Joint Sealants</td>
<td>$___________________________</td>
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<tr>
<td>SECTION 09 9113 Exterior Painting</td>
<td>$___________________________</td>
</tr>
<tr>
<td>SECTION 09 9123 Interior Painting</td>
<td>$___________________________</td>
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<tr>
<td>General Work Requirements</td>
<td>$___________________________</td>
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<tr>
<td>Remaining work not listed above, Overhead &amp; Profit</td>
<td>$___________________________</td>
</tr>
<tr>
<td>Safety</td>
<td>$___________________________</td>
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</tbody>
</table>

TOTAL BID AMOUNT (SHOULD MATCH PROPOSAL) $___________________________

Cost of Performance and Payment Bond $___________________________

DO NOT INCLUDE THIS COST IN YOUR BID
SCOPE OF WORK
TC-014 – PAINTING & WALL COVERING

Attachment A – Additional Provisions and Attachment B – (Technical) Scope of Work go together to define the requirements of this Subcontract. Attachment A is a more of a general Summary of the Contract Documents, Price, etc., while Attachment B is the Trade Specific (technical) Scope of Work.

The work of this Agreement shall include, but not be limited to, all labor, materials, apparatus, hoisting, rigging, tools, equipment, plant, supplies, accessories, samples, submittals, shop drawings, certifications, engineering, layout, transportation, storage, supervision, temporary construction, special services, contributions, insurance, taxes (unless specifically excluded by the Contract Documents), compliance with all governing agencies (city, county, state, federal and others as may be required), permits, fees, all other services and facilities and other items necessary for the performance of the Painting Work as shown, detailed and/or implied in the contract documents outlined in the General Scope of Work.

The Scope of Work Document is being provided for your use as a general guideline. Please note, this Document is not all-inclusive. It is this Subcontractor’s responsibility to provide a complete bid, including all work for this trade indicated on ALL of the contract documents (include plans, specifications, Bid Manual, etc.). It is this Subcontractor’s responsibility for the entire scope of this Bid Package and coordination between all trades.

E. WORK INCLUDED - SCOPE-SPECIFIC ITEMS

1) Trade Specifications Specifically Included, but not limited to the following:

DIVISION 00 – PROCUREMENT & CONTRACTING REQUIREMENTS (ALL SECTIONS)

DIVISION 01 – GENERAL REQUIREMENTS (ALL SECTIONS)

DIVISION 7 – THERMAL AND MOISTURE PROTECTION (Partial) as...
SECTION 07 9200 – JOINT SEALANTS (Partial)

DIVISION 9 – FINISHES (Complete)
SECTION 09 7200 – WALL COVERINGS
SECTION 09 9113 – EXTERIOR PAINTING
SECTION 09 9123 – INTERIOR PAINTING

a) Bidder shall also include referenced specification sections listed in above specification sections as necessary to furnish complete work of this trade

b) Subcontractor includes all work indicated in specification COMPLETE, unless this scope of work specifically and clearly excludes a portion of a specification.

2) Contract Price is LUMP SUM. There shall be NO additional labor and material escalations allowed.

3) Examination of Site – Subcontractor warrants that they have sufficiently reviewed the project site to inform themselves of all items about existing site that are relevant to their work, and the cost of their work.

4) Include protection all adjacent structures during performance of this work. Plan for protection of adjacent structures must be part of the overall plan submitted for approval prior to start of work.

5) SITE LOGISTICS: Refer to the Site Logistics plans included in the Contract Documents. Delivery trucks are to be scheduled with Turner at least one (1) week in advance.

6) Subcontractor change order requests shall be provided with sufficient detail (as acceptable to Turner) to allow for satisfactory review. Subcontractor shall be allowed a maximum mark up for overhead and profit per the markup provisions included in the Subcontract Agreement, or as clarified in Contract Documents above.

7) Subcontractor understands that time is of the essence in the prosecution of Work under this agreement.

8) Verify layout provided by others. Where this subcontractor is performing work using layout provided by others, this subcontractor shall perform sufficient verification of that layout to reasonably ascertain the validity of that layout. Any deficiencies (or suspected deficiencies found) shall be reported to Turner immediately to allow corrections as needed before start of work by this subcontractor.
9) All Subcontractors must be licensed as required by local, State, or Federal jurisdiction required for work of this trade in this project location.

10) This Subcontractor will comply with Turner’s corporate safety policy and comply with Site Specific Safety Plan that will include but is not limited to 100% tie-off above 6 feet, 100% Safety Glasses, High Visibility Vests or High Vis style T-Shirts with reflective strips, 100% glove policy, Ladders Last Policy and Nothing Hits the Ground. If you are unfamiliar with any of these policies please ask to see the policy prior to submitting your bid. Failure to be familiar with these policies will not exclude you from complying with them.

11) Refer to Project General Work Requirements” in volume one of the project manual. Any costs for work scope items listed in this section shall be included in your lump sum bid. Some work items are listed for specific trade contractors and they shall include those costs in their respective total lump sum bid price.

12) Keynote legend will help dictate your scope of work unless noted otherwise.

13) This Contractor shall coordinate/incorporate the MATERIAL IDENTIFICATION CODES (AS RELATED TO THIS SCOPE OF WORK) into their scope of work as shown on the Contract Documents and SECTION 01 6600.

14) This contractor shall provide JOINT SEALANTS CODES (AS RELATED TO THIS SCOPE OF WORK) as shown on the Contract Documents and as specified in SECTION 07 9200.

   a) ALL Hollow Metal frames, Elevator door frames, Access doors and any other item (excluding casework, millwork, wall protection, aluminum-framed openings) requiring caulk/sealant.

   b) Include sealing bottoms of HM frames to scheduled flooring

   c) Include the caulking of the interior elements, i.e. GWB and window sills to the inside face of the exterior window systems or other “contiguous” building envelope systems.

15) This contractor shall provide WALL COVERINGS complete as shown on the Contract Documents and as specified in SECTION 09 7200.

16) This contractor shall provide PAINTING as shown on the Contract Documents and as specified in SECTION 09 9113 & 09 9123.

   a) Note: hardware is preinstalled on all doors. This contractor TC-014, is to include “cutting-in painting” for unfinished doors i.e. hollow metal doors, etc. Doors and Hardware supplier is responsible to apply first coat of finish paint on doors prior to hardware installation. This contractor TC-014, is responsible for the final coat on these doors.

   b) Repaint existing walls, soffits, doors, ceilings, etc. Expectation is to repaint existing surfaces from “corner to corner” of each disturbed area. Include painting opposite side of new partition(s) if shaded project boundaries and not designated to be painted.

   c) Ceilings may or may not be fully installed prior to prime or 1st paint coat installations on wall partitions.

   d) Pay particular attention to overspray of MEP specialty items, especially CAT6A data cable. Replacement at the expense of this contractor may be required if deemed “unacceptable” by UK and CNS standards.

   e) Include preparation of surfaces to receive finish. Painting a wall indicates acceptance of the wall finish.

   f) Assume the final coat of paint will be installed after the adjacent finishes and elements are in place, including but not limited to: flooring, floor base, ceiling grid, ceiling tiles, finished doors and hardware, casework and millwork, plumbing fixtures, Owner Furnished Equipment, light fixtures, light switch and receptacle covers, toilet accessories, marker boards, etc. This may include masking of finished installed items.

   g) Include painting of any exterior steel such as hand rails, lintels, and other non-shop painted installations.

   h) Include (180) additional labor hours of paint touch-up and misc. completions and (20) additional labor hours for door frame repair & touch-up (above & beyond base work scope) to be used at the discretion and approval of the Construction Manager. Usage of these dollars require email/ signature approval from the construction manager. These dollars will be tracked and any unused funds will be credited back to the University at project’s end.

F. CONSTRUCTION SCHEDULE

Contract Price is based on the project schedule included in the bid manual and as clarified within these Additional Provisions.
G. WORK EXCLUDED
This Scope of Work shall exclude the following:

1) Payment & Performance Bond

H. ALTERNATE PRICES
Alternates shall be complete for providing only the Work with no other credits. All alternate prices are to be priced as stand-alone alternates. Any number of alternates, or no alternates, may be accepted as part of this Work.

Indicate Add/Deduct Price on the BID FORM

Alternate No 1 – (“BP-02” Drawing S-207/A-205) Monitor Skylight Alternate

I. ALLOWANCES
The following allowances are to be included in the base bid:

1) None

The above allowances are to be included in the base bid/Subcontract Price. All overhead and profit related to the Work performed under each Allowance is to be included in the Base Bid/Subcontract Price. Only direct Labor and Material costs authorized in writing by the Construction Manager after approval by the Owner are to be charged to the Allowance. Progress Payments will be made against Allowance expenditures, based on approved monthly invoices & writing Allowance Authorization from the Construction Manager/Owner. Any unused funds remaining in these allowances will be credited back to the Project.

J. UNIT PRICES
The following unit prices are applicable for changes in the Work. The unit prices are for Work complete and in place and include all costs such as material, labor, equipment, freight, taxes, insurance, fringe benefits, and overhead and profit. Also include costs for coordination with other trades work where applicable. In the event the unit prices quoted exceed industry standards or fair market value, the Turner reserves the right to request pricing for changes at cost plus allowable mark-up for overhead and profit or a lump-sum under the terms of the Agreement

1) Labor Rates - Submit detailed labor rates to Turner Project Manager for approval. Detail shall show all fringes, benefits, taxes, insurance, markups, and any other add-ons to allow verification of rate.

2) Equipment Rates – Submit detailed rates for equipment that may be used on project, and may be part of change order pricing.

END OF TECHNICAL SCOPE OF WORK
THE FOLLOWING INFORMATION PERTAINS TO ALL TRADE CONTRACTORS

NOTE: MUST BE SUBMITTED WITH THE BID SUBMITTAL.
Failure to comply will result in rejection of Bidder’s Proposal.

Contractor Report of Prior Violations of
Chapters 136,139, 141, 337, 338, 341, and 342

Pursuant to KRS 45A.485, the Contractor shall, prior to the award of a Contract, reveal final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 by the Contractor that have occurred in the previous five (5) year period.

This statute also requires for the duration of the Contract established, the Contractor be in continuous compliance with the provisions of Chapters 136, 139, 141, 337, 338, 341, and 342 that apply to the Contractor’s operations. The Contractor’s failure to reveal a final determination of a violation of KRS Chapters 136, 139, 141, 337, 338, 341, and 342, or failure to comply with any of the above cited statutes for the duration of the Contract shall be grounds for the cancellation of the Contract, and the disqualification from eligibility for future contracts for a period of two (2) years.

The Contractor, by signing and submitting a Bid on this Invitation, agrees as required by KRS 45A.485 to submit final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 that have occurred in the previous five (5) years prior to the award of a Contract and agrees to remain in continuous compliance with the provisions of these statutes during the duration of any contract that may be established. Final determinations of any violations of these statutes, must be provided to the University by the successful Contractor prior to the award of a Contract.

BUSINESS CLASSIFICATION

Please complete this form which is necessary for the University of Kentucky vendor database. Mark only one classification. Refer to "Definitions" for assistance in determining correct classification.

(01)___ Small Business  (06)___ Woman-Owned Large Business
(02)___ Large Business  (07)___ Disadvantaged Woman-Owned Large Business
(03)___ Disadvantaged Small Business  (08)___ Disadvantaged Woman-Owned Large Business
(04)___ Disadvantaged Large Business  (09)___ Other
(05)___ Woman-Owned Small Business
DEFINITIONS

(01) SMALL BUSINESS: A business concern that is organized for profit, is independently owned and operated, is not dominant in the field of operations in which it is bidding, and meets the size standards as prescribed in the Code of Federal Regulations, Title 13, Part 121. Consult your local or district Small Business Administration (SBA) office if further clarification is needed.

(02) LARGE BUSINESS: A business concern that exceeds the small business size code standards established by SBA.

(03) DISADVANTAGED SMALL BUSINESS: A business concern (a) that is at least 51 percent owned by one or more socially and economically disadvantaged individuals (as defined below), or a publicly owned business, having at least 51 percent of its stock owned by one or more socially and economically disadvantaged individuals; and (b) has its management and daily business operations controlled by one or more such individuals. Socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans and other minorities or individuals found to be disadvantaged by the SBA.

(04) DISADVANTAGED LARGE BUSINESS: A concern that meets the definition of socially and economically disadvantaged individuals, but which is not a small business by the SBA's size standards.

(05) WOMAN-OWNED SMALL BUSINESS: A small business that is at least 51 percent owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" means actively involved in the day to day management.

(06) WOMAN-OWNED LARGE BUSINESS: A concern that meets the definition of woman owned and operated, but which is not a small business by the SBA's standards.

(07) DISADVANTAGED, WOMAN-OWNED SMALL BUSINESS: A concern that meets the definition of both (03) and (05) above.

(08) DISADVANTAGED, WOMAN OWNED LARGE BUSINESS: A concern that meets the definition of both (04) and (06) above.

(09) OTHER: A concern that does not meet any of the above definitions.

BIDDER'S QUALIFICATIONS

The Commonwealth of Kentucky Model Procurement Code (KRS 45A.080) requires contracts to be awarded, “to the responsive and responsible bidder whose bid offers the best value” to the University of Kentucky. In order to determine if the Bidder has the experience, qualifications, resources and necessary attributes to provide the quality workmanship, materials and management required by the plans and specifications, the Bidder may be required to complete and submit the information requested on the University of Kentucky Contractor Bidder Determination of Responsibility questionnaire. Failure to provide the information requested on the questionnaire or failure to provide any additional submittals or information that may be requested to make this determination may be grounds for a declaration of nonresponsibility with respect to the Bidder. A copy of the Contractor Determination of Responsibility questionnaire is available upon request to all Bidders.
TIME LIMIT FOR EXECUTION OF CONTRACT DOCUMENTS

It is further agreed, that in the event this Proposal is accepted by the Owner and the undersigned shall fail to execute the Contract and furnish satisfactory Payment and Performance Bond within ten (10) consecutive calendar days from the date of notification of the award of the Contract, the Owner may at his option, determine that the undersigned has abandoned the Contract and thereupon, the Proposal shall become null and void and the Bid guarantee, check or Bid bond which accompanied it shall be forfeited and become the property of the Owner as liquidated damages for each failure and no protest pursuant to such action will be made. If the Undersigned shall execute the Contract, and furnish satisfactory Payment Bond and Performance Bond, it is understood that the Bid Guarantee or Bid Bond will be returned to the undersigned by the Owner.

IDENTIFICATION OF MINORITY SUBCONTRACTORS AND MATERIAL SUPPLIERS

Participation of Minority and Women owned Contractors and businesses.

The University of Kentucky encourages and supports the participation of minority and women owned businesses. Goal is 10% MBE/WBE

1. Minority and Women Subcontractors

   __________________________________________
   
   __________________________________________
   
   __________________________________________

2. Minority and Women Material Suppliers

   __________________________________________
   
   __________________________________________
   
   __________________________________________

This proposal includes ______% certified MBE participation
This proposal includes ______% certified WBE participation

If your firm has no minority or women owned subcontractors or suppliers, it is required that you complete the list of minority and/or women owned businesses below. List the names of firms that were solicited to bid the project and describe why they were not successful (i.e. not low bid, did not respond, etc).
**RECORD OF MBE/WBE SOLICITATION**

Certifies that the following Minority/Women-Owned firms were contacted to solicit pricing as subcontractors/suppliers for Invitation to Bid No. ____________ The following firms were not selected for use on this project for the reasons stated in the **RESULT** column.

This list of Minority or Women owned firms is to be executed and submitted as a part of the Bidder’s Proposal. Failure to comply will result in rejection of Bidder’s Proposal.

<table>
<thead>
<tr>
<th>FIRM NAME</th>
<th>MBE/WBE</th>
<th>WORK ITEMS SOLICITED</th>
<th>RESULT: NO RESPONSE OR NOT LOW BIDDER</th>
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________________________________________
Signature                                      Date

________________________________________
Title
LIST OF MATERIALS AND EQUIPMENT

The apparent low bidder will be required to furnish this information within 24 hours of bid submittal. Failure to comply will result in rejection of Bidder’s Proposal.

Each item listed under the different phases of construction must be clearly identified so that the Owner will definitely know what the Bidder proposes to furnish.

The use of a manufacturer’s or dealer’s name only, or stating “as per Plans and Specifications,” will not be considered as sufficient identification.

Where more than one “Make” or “Brand” is listed for any one item, the Owner has the right to select the one to be used.

CONTRACTOR NAME & ADDRESS: ___________________________ ___________________________
_____________________________________________
_____________________________________________

TRADE CONTRACT: TC-(INSERT NUMBER) SCOPE OF WORK: (INSERT NAME OF TRADE CONTRACT)

The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

ITEM MATERIALS AND EQUIPMENT BRAND OR MANUFACTURER

Paint Manufacture
__________________________________________
__________________________________________
__________________________________________
__________________________________________
__________________________________________
__________________________________________
__________________________________________
**PRIMARY LIST OF PROPOSED SUBCONTRACTORS**

The apparent low bidder will be required to furnish this information within 24 hours of bid submittal. Failure to comply will result in rejection of Bidder’s Proposal.

All subcontractors are subject to the approval of the Capital Construction Procurement Section and Capital Project Management Division, University of Kentucky, Lexington, KY.

If certain branches of the Work are to be done by the Prime Contractor, so state.

<table>
<thead>
<tr>
<th>CONTRACTOR NAME &amp; ADDRESS:</th>
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| TRADE CONTRACT: TC - _______ | SCOPE OF WORK: _________________________ |
| (INSERT NUMBER)              | (INSERT NAME OF BID CATEGORY)             |

<table>
<thead>
<tr>
<th>DIVISION OF WORK</th>
<th>NAME AND ADDRESS OF SUBCONTRACTOR</th>
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</table>
TCCO Item No.09: Existing South mechanical room demolition plan.
Adherence to the Provisions of this Manual is a Requirement of Your Contract

This Manual Dated: June 22, 2018
University of Kentucky Grehan Renovation

Project Location:
Lexington, KY

Turner Business Unit: Cincinnati
250 West Court Street, Suite 300W, Cincinnati, OH
Telephone: 513.721.4224
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EXHIBIT 2 – SAMPLE EXCLUDED PARTY AND PARTIES NO LONGER COVERED BY THE CIP

WC FORM 1 – TURNER’S 90 DAY MODIFIED ALTERNATE DUTY PROGRAM

WORK FLOW FOR TURNER’S MODIFIED ALTERNATE DUTY PROGRAM

WC FORM 2 – DOCTOR’S INITIAL REPORT FORM

WC FORM 3 – POSITION DESCRIPTION

WC FORM 4 – MEDICAL AUTHORIZATION FORM
CCIP Overview

Welcome to the Turner Contractor Controlled Insurance Program (CCIP). A CCIP is a coordinated insurance program where Turner provides specified coverage for enrolled contractors performing work at the project site. Turner Construction Company (Turner) has purchased the coverage and is therefore the Sponsor of the CCIP. Turner Surety and Insurance Brokerage (TSIB) is the administrator for the CCIP.

About This Insurance Manual

This insurance manual (Manual) provides information about bidding procedures, contact information, coverages provided by the CCIP, insurance coverage required of enrolled and excluded Subcontractors, the CCIP enrollment process and claim procedures. The manual also provides information about participant responsibilities and obligations.

This Manual:
- Generally describes the structure of the CCIP
- Provides answers to basic questions about the CCIP
- Identifies responsibilities and obligations of the various parties involved in the Project
- Provides a basic description of CCIP coverage (CCIP coverage is determined exclusively by the terms of the CCIP insurance policies)
- Sets forth insurance requirements for project Subcontractors
- Sets forth enrollment requirements
- Describes audit and administrative procedures

This Manual does not:
- Provide complete information about coverages and policy exclusions
- Provide coverage interpretations
- Provide answers to specific claims questions

Refer questions about the CCIP, its coverage or administration to the contact provided in the Project Directory in Section 2.

Advisory

The information in this Manual is intended to outline the CCIP. CCIP coverage is provided as set forth in the CCIP insurance policies. If any conflict exists between this Manual and the CCIP insurance policies, the CCIP insurance policies will govern.
Notify Your Agent/Broker

It is important that you immediately notify your insurance agent(s) or broker(s) about your participation in the CCIP so they can consider your exposures and arrange your coverage in consideration of the CCIP. You can provide them a copy of this Manual. Your insurance representative should review the scope and limitations of the CCIP coverage since CCIP coverage only applies to work performed at the project site, after the inception date of your enrollment into this program.

Most liability policies include an exclusion for work covered by a controlled insurance program (CIP) or CCIP (often referred to as a “Wrap” exclusion). It is important for you and your agent or broker to fully understand the scope of the CIP exclusion on your policy and how it may apply to your operations or activities. You should ask your insurance agent or broker to endorse your liability coverage to be excess and contingent over the CCIP coverage provided by this Program. Any additional coverage you may wish to purchase will be at your option and expense.

Bid Instructions

You are required to prepare your bid to exclude the cost of your insurance for onsite workers’ compensation, employer’s liability, and primary and excess general liability. You must calculate the cost of insurance to be removed from your bid based on your current insurance rates at the time of bid. Turner may modify bidding and insurance cost identification procedures as necessary based on the specific project requirements.
CCIP Project Directory

CCIP Administration

**SUBCONTRACTOR PARTICIPANT CONTACT:**

Turner Surety and Insurance Brokerage Wrap-Up Services  
35 Nutmeg Drive, Suite 300  
Trumbull, CT 06611

**SERVICE CENTER WRAP ADMINISTRATOR**  
Keon Marrero  
Direct: 203.666.4326  
E-Mail: kmarrero@tsibinc.com

**TURNER PERSONNEL CONTACT:**

Turner Surety and Insurance Brokerage  
Regional Program Manager —  
Melissa Jarrett  
Direct: 256.665.1300  
E-Mail: mjarrett@tsibinc.com

**LOSS CONTROL CONTACT:**

Liberty Mutual Insurance Co  
Regional Loss Control Manager —  
LM Loss Control Manager  
Telephone: Loss Control Mgr. office#  
Direct: LM Loss Control Manager’s Cell #  
E-Mail: LM Loss Control Manager’s Email
<table>
<thead>
<tr>
<th>CCIP PROJECT DIRECTORY</th>
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| **TURNER CONSTRUCTION COMPANY –**
  **PROJECT TEAM**
| **PROJECT MANAGER –**
  Ben Noble
  Telephone: 859.509.5398
  Direct: TCCo PM’s Cell #
  E-Mail: bnoble@tcco.com
| **SITE SAFETY MANAGER –**
  TCCo Safety
  Telephone: TCCo Safety’s telephone #
  Direct: TCCo Safety’s Cell #
  E-Mail: TCCo Safety’s EMail
| **PROJECT SUPERINTENDENT –**
  Austin Stivers
  Telephone: 513.904.7631
  Direct: TCCo Superintendent’s Cell #
  E-Mail: astivers@tcco.com
| **PROJECT ENGINEER –**
  TCCo Project Engineer
  Telephone: TCCo PE telephone #
  Direct: TCCo Project Engineer Cell #
  E-Mail: TCCo Project Engineer EMail
| **CLAIM COORDINATOR –**
  Emily Viltrakis
  Telephone: 513.404.1060
  Direct: TCCo Claim’s cell #
  E-Mail: eviltrakis@tcco.com
| **CCIP COORDINATOR –**
  TCCo CCIP Coord
  Telephone: CCIP Coord’s telephone #
  Direct: TCCo CCIP Coord’s cell #
  E-Mail: TCCo CCIP Coord’s EMail

Project Definitions

The following list includes key CCIP definitions.

CCIP: A “CCIP,” or Contractor Controlled Insurance Program, is a coordinated insurance program providing certain coverages, as defined herein, for Turner and Enrolled Parties performing Work at the Project Site.

CCIP COVERAGE: Workers’ compensation and employer’s liability insurance, commercial general liability insurance, and excess liability insurance as detailed in the CCIP insurance policies for the benefit of Turner and Enrolled Parties performing Work at the Project Site.

CCIP ADMINISTRATOR: The party that provides administration services for the CCIP. Turner Surety and Insurance Brokerage (“TSIB”) is the CCIP Administrator.

CCIP INSURER: The insurance company(s) named on a policy or certificate of insurance. Liberty Mutual is the CCIP Insurer for workers’ compensation, employer’s liability and primary general liability.

CCIP SPONSOR: The party that purchases the CCIP. Turner Construction Company (“Turner” or “Turner Construction”) is the sponsor for the CCIP.

CERTIFICATE OF INSURANCE: A document providing information about one or more insurance policies.

CONTRACTOR PORTAL: The part of the CCIP website used by Subcontractors of any tier to manage their participation in the CCIP.

ELIGIBLE PARTIES/ELIGIBLE SUBCONTRACTOR OR SUB-SUBCONTRACTOR: Parties performing labor or services at the Project Site who are not Excluded Parties and are eligible to enroll in the CCIP.

ENROLLED PARTIES/ENROLLED SUBCONTRACTOR OR SUB-SUBCONTRACTOR: Those Eligible Parties or Eligible Subcontractors who have submitted all necessary enrollment information as detailed in Section 6, have been accepted and enrolled into the CCIP and have received a Welcome Letter and Certificate of Insurance as evidence of enrollment.
EXCLUDED PARTIES/EXCLUDED SUBCONTRACTOR OR SUB-SUBCONTRACTOR:

At the discretion of Turner, or subject to state regulations, the following parties are excluded from (not eligible for) enrollment in the CCIP:

1. Hazardous materials remediation, removal and/or transport companies and their consultants;
2. Any Subcontractor performing structural demolition which is the moving or relocating of load bearing beams, columns, or walls;
3. Architects, engineers, soil testing engineers, surveyors, and their consultants;
4. Vendors, suppliers, fabricators, material dealers, truckers, haulers, drivers and others who merely transport, pickup, deliver, or carry materials, personnel, parts or equipment or any other items or persons to or from the Project Site;
5. Subcontractors, and any of their respective Sub-subcontractors, who do not perform any actual labor on the Project Site;
6. Turner’s first tier Subcontractors with aggregate subcontract value of less than $25,000;
7. Third Party Crane Subcontractors / companies of any tier as well as Subcontractors of any tier engaged in the erecting, dismantling or “jumping” of cranes;
8. Building implosion Subcontractors of any tier, or Subcontractors of any tier involved with blasting or the use of explosives;
9. Window washing systems (davit type systems or equivalent).
10. Any Subcontractor of any tier involved with Exterior Insulation Finishing Systems (EIFS)
11. Any other Subcontractor of any tier which Turner, at its sole discretion (and as permitted by law), chooses to exclude from enrollment.

GENERAL LIABILITY OBLIGATION:

A Subcontractor’s obligation to pay up to $5,000 of each occurrence, including court costs, attorney’s fees and costs of defense for bodily injury or property damage, to the extent losses payable under the CCIP General Liability Policy are attributable to Subcontractor’s Work, acts or omissions, or the Work, acts or omissions of any of Subcontractor’s Sub-subcontractors, or any other entity or party for whom Subcontractor may be contractually or legally responsible.

MOBILIZATION:

Obtaining all required insurance, bonds and permits, and commencement of preparatory work for on-site operations necessary for the movement of personnel, equipment, supplies, and incidentals to the Project Site.

PARTY NO LONGER COVERED BY THE CCIP:

A party whose CCIP insurance coverage has been terminated. Upon termination of CCIP coverages, the party is to provide insurance coverage for activities both on and off the Project Site as required by the Subcontract Agreement or Sub-Subcontract Agreement and outlined in Section 5.

PROJECT SITE:

The project location (designated in this Manual and more fully identified in the Subcontract Agreement) and adjacent or nearby areas as defined in the project documents where incidental operations are performed, excluding permanent locations of any insured party.
### Project Definitions

**Subcontractor:** Includes only those persons, firms, joint venture entities, corporations, or other parties that enter into a direct contractual agreement with Turner to perform Work at the Project Site.

**Sub-subcontractor:** Includes only those persons, firms, joint venture entities, corporations, or other parties of any tier that enter into a Sub-subcontract Agreement with a Subcontractor or Sub-subcontractor of any tier to perform Work at the Project Site.

**Subcontract/Subcontract Agreement:** A written agreement between Turner Construction and the Subcontractor.

**Sub-subcontract/Sub-subcontract Agreement:** A written agreement between Subcontractors of any tier.

**Subcontractor and Sub-subcontractor Insurance Cost (i.e., Insurance Cost):** The cost, at current corporate insurance rates, to provide insurance required by the Subcontract Agreement or Sub-subcontractor Agreement if the CCIP was not provided.

**Verified Insurance Cost:** The Subcontractor or Sub-subcontractors Insurance Cost that has been verified by the CCIP Administrator.

**Verified Blended Payroll Rate:** The composite rate determined by dividing an Enrolled Party’s total Verified Insurance Cost by the Enrolled Party’s estimated payroll multiplied by 100. The Verified Blended Payroll Rate is expressed as per $100 of payroll. The Verified Blended Payroll Rate formula equals (Verified Insurance Cost / Estimated Payroll) * 100.

**Final Insurance Cost Adjustment:** An adjustment to the subcontract price that Turner, at their sole discretion, can make in the event of an underestimate of payroll.

**Welcome Letter:** A document issued by the CCIP Administrator to notify an applicant of acceptance and enrollment into the CCIP.

**Work:** Operations or activities, as fully described in the Subcontract Agreement or Sub-subcontractor Agreement, performed at the Project Site.
CCIP Insurance Coverage

This Section provides a brief description of coverage provided by the CCIP. Participants should refer to the actual CCIP insurance policies for details about coverage, exclusions and limitations.

Disclaimer
Neither Turner nor TSIB assumes any obligation to provide insurance other than that specified in this Manual and the CCIP insurance policies. Turner’s arranging of CCIP coverages shall in no way relieve or limit, or be construed to relieve or limit, Subcontractor or any of its Sub-subcontractors of any responsibility, liability, or obligation imposed by the Subcontract Agreement or by law, including without limitation any indemnification obligations which Subcontractor or any of its Sub-subcontractors has to Turner or any other designated entity thereunder. Turner reserves the right at its option, without obligation to do so, to arrange other insurance coverage of various types and limits provided that such coverage is not less than that specified in the Subcontract Agreement.

Overview

As the Contractor Controlled Insurance Program (CCIP) sponsor, Turner has arranged with TSIB for this Project to be insured under Turner’s CCIP. Eligible Parties performing labor or services at the Project Site are eligible to enroll in the CCIP unless they are an Excluded Party or a Party No Longer Covered by the CCIP. The CCIP provides workers’ compensation and employer’s liability insurance, commercial general liability insurance, and excess liability insurance for the benefit of Enrolled Parties, as summarily described below, in connection with the performance of the Work (CCIP Coverage). CCIP Coverage shall cover only Enrolled Parties. Enrolled Parties are Turner, Eligible Subcontractors, and Eligible Sub-subcontractors of any tier and such other persons or entities as Turner at its sole discretion may designate who enroll in the CCIP and are provided a Welcome Letter and Certificate of Insurance as evidence of enrollment.

Excluded Parties and Parties No Longer Covered by the CCIP

Excluded Parties and Parties No Longer Covered by the CCIP are not granted any insurance coverage under the CCIP. Excluded Parties and Parties No Longer Covered by the CCIP must meet the insurance requirements in the Subcontract Agreement and outlined in Section 5, and provide evidence of coverage to Turner and TSIB.

Excluded Parties and Parties No Longer Covered by the CCIP shall require each of its Sub-subcontractors to obtain and maintain the insurance coverage specified in the Sub-Subcontract Agreement and outlined in Section 5. Excluded Contractors are to confirm there are no Wrap-Up Exclusions on their policies and must provide a copy of any Wrap-Up Exclusion endorsements for review with the COI.

Evidence of CCIP Coverage

The CCIP Administrator will provide a Certificate of Insurance evidencing CCIP Coverage to include workers’ compensation, general liability, and excess liability insurance to each Enrolled Party. Each Enrolled Party will be included as a named insured to the CCIP general liability insurance policy and excess liability policies. Each Enrolled Party will be issued an individual workers’ compensation policy provided by Liberty Mutual, the CCIP primary insurer. Liberty Mutual will furnish other documents including claim forms, and posting notices to each Enrolled Party. A copy of the primary General Liability policy
can be obtained upon Subcontractor’s written request to the CCIP Administrator. Copies of Excess/Umbrella policies are not available.

**Description of CCIP Coverage**

The summary descriptions of the CCIP Coverage in this Manual are not intended to alter or amend the actual CCIP Coverage. Rather, the CCIP Coverage and exclusions summarized in this Manual are set forth in full detail in their respective insurance policy forms. In the event any provision of this Manual conflicts with the CCIP insurance policies, the provisions of the actual CCIP insurance policies shall govern.

CCIP Coverage shall apply only to Enrolled Parties and only for those operations or activities performed at the Project Site in connection with the Work.

**CCIP Coverage Summary**

Turner will furnish the following CCIP Coverage to Enrolled Parties performing Work at the Project Site.

**Workers’ Compensation and Employer’s Liability**

A separate workers’ compensation policy will be issued to each Enrolled Party.

<table>
<thead>
<tr>
<th>Coverage:</th>
<th>Limits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part One -  Workers’ Compensation</td>
<td></td>
</tr>
<tr>
<td>Part Two - Body Injury by Accident, each accident</td>
<td>$2,000,000</td>
</tr>
<tr>
<td></td>
<td>Bodily Injury by Disease, each employee</td>
</tr>
<tr>
<td></td>
<td>Bodily Injury by Disease, policy limit</td>
</tr>
</tbody>
</table>

- Does not cover the offsite operations of any Enrolled Party.
- Primary insurance for all covered occurrences at the Project Site.

**How to Obtain a Copy of Your Workers’ Compensation Policy**

Approximately sixty (60) days after you enroll and receive your Welcome Letter and Certificate of Insurance, a copy of your workers’ compensation policy will be uploaded into the Contractor Portal. Please refer to Section 8 (Contractor Portal Instructions) for how to login to the Portal. If after ninety (90) days your policy is not posted, or if you have problems navigating through the Portal, please contact the Wrap Administrator listed in the CCIP Project Directory in Section 2 for assistance.

**Commercial General Liability**

A single general liability policy will be issued for all Enrolled Parties. Each Enrolled Party will be a named insured on the CCIP general liability policy.

**Coverage:** Third party bodily injury, property damage liability and personal and advertising liability per the policy terms, conditions and exclusions.

<table>
<thead>
<tr>
<th>Primary Policy:</th>
<th>Limits of Liability Shared by All Enrolled Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Aggregate Per Project</td>
<td>$4,000,000</td>
</tr>
<tr>
<td>Completed Operations Aggregate Per Project</td>
<td>$4,000,000</td>
</tr>
<tr>
<td>Each Occurrence Limit</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>Fire Damage Legal Liability (any one fire)</td>
<td>$100,000</td>
</tr>
<tr>
<td>Medical Expense Limit (any one person)</td>
<td>$5,000</td>
</tr>
</tbody>
</table>
CCIP INSURANCE COVERAGE

“Buffer” Layer Policy:

<table>
<thead>
<tr>
<th>Limits of Liability</th>
<th>Shared by All Enrolled Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Aggregate Per Project</td>
<td>$6,000,000</td>
</tr>
<tr>
<td>Completed Operations Aggregate Per Project</td>
<td>$6,000,000</td>
</tr>
<tr>
<td>Each Occurrence Limit</td>
<td>$3,000,000</td>
</tr>
</tbody>
</table>

Terms

- General liability insurance issued on a current Insurance Services Office (ISO) occurrence form.
- Provides primary coverage for all covered occurrences at the Project Site.
- Does not provide coverage to any insured party, vendor, supplier, off-site fabricator, material dealer or other party for any product manufactured, assembled or otherwise worked upon away from the Project Site.
- Does not cover offsite operations or activities of any Enrolled Party.
- Completed Operations coverage is extended with a single non-reinstated aggregate limit for the period beginning from the earliest occurrence of (i) when the Project is put to its intended use, (ii) project completion, or (iii) CCIP policy termination, and ending after the earlier occurrence of (a) ten (10) years or (b) the expiration of the applicable statute of repose established per the civil code or statute of the state where the Project is located. Consult your Insurance Professional and/or legal counsel for additional information regarding the statute of repose for the state where the Project is located.
- Notable exclusions are: Real & Personal Property in the care, custody or control of the insured; Asbestos; Exterior Insulation Finishing Systems (EIFS); Discrimination & Wrongful Termination; Architects & Engineers Errors & Omissions; Owned & Non-owned Aircraft, Watercraft, and Automobile Liability; Nuclear Broad Form Liability; Pollution except hostile fire. Refer to the policy for a complete list of exclusions.

Excess Liability

A tower of Excess Liability coverage will be issued, covering all Enrolled Parties.

<table>
<thead>
<tr>
<th>Minimum Limits of Liability</th>
<th>Shared by All Enrolled Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each Occurrence Limit (Combined Single Limit)</td>
<td>$100,000,000</td>
</tr>
<tr>
<td>Completed Operations Aggregate (Shared limit with other Projects)</td>
<td>$100,000,000</td>
</tr>
<tr>
<td>Annual General Aggregate Limit (Shared limit with other Projects)</td>
<td>$100,000,000</td>
</tr>
</tbody>
</table>

Enrolled Party General Liability Obligation

At Turner’s discretion, the Subcontractor may be required to pay up to the first $5,000 per occurrence to the extent that losses payable are attributable to Subcontractor’s Work, or the acts or omissions of its Sub-subcontractors, or any other party performing any of the Work for whom the Subcontractor may be contractually or legally responsible. All monies collected via this obligation will be reinvested into site safety / performance awards.

Coverage NOT Provided by the CCIP

The CCIP does not provide all coverage that may be needed by an Enrolled Party for their Work at the Project Site. Notably, the CCIP does not provide automobile coverage, professional liability, pollution liability or coverage for any Enrolled Party’s rented, owned, leased or borrowed equipment or materials not included for inclusion in the project. Enrolled Parties should consult with their agent(s) or broker(s) to arrange any coverage that may be needed in addition to the CCIP.
Subcontractor Insurance Requirements

Subcontractors and all Sub-subcontractors of any tier are required to provide and maintain coverage to protect against losses that occur away from the Project Site or that are otherwise not covered under the CCIP. All Certificates of Insurance must be submitted to the CCIP Administrator prior to start of Work at the Project Site.

The required coverage must protect the Subcontractor, Turner, the Project Owner, and all others as required by the Subcontract Agreement. Liability may arise from the Subcontractor of any tier’s operations performed away from the Project Site, from operations performed by Excluded Parties or Parties No Longer Covered by the CCIP or from operations or activities not covered by the CCIP. Insurance coverage must be maintained for the duration defined in the Subcontract Agreement or the Sub-subcontract Agreement.

Enrolled Parties

Enrolled Parties are to provide evidence of workers’ compensation, general liability and excess or umbrella liability insurance for its offsite activities, automobile liability (both onsite and offsite activity), and any other insurance required by the insurance specifications in the Subcontract Agreement or Sub-subcontractor Agreement. See Section 3 for the definition of Enrolled Parties.

Excluded Parties and Parties No Longer Covered by the CCIP

Excluded Parties and Parties No Longer Covered by the CCIP must provide evidence of workers’ compensation, general liability, excess/umbrella liability, automobile liability, and any other insurance as per the insurance specifications in the Subcontract Agreement for all activities both on and off the Project Site. See Section 3 for the definition of Excluded Parties and Parties No Longer Covered by the CCIP.

Proof of Required Coverage

Subcontractors shall provide an acceptable Certificate of Insurance and copies of Additional Insured endorsements as proof of compliance with the insurance requirements to the CCIP Administrator prior to start of Work at the Project Site and within three (3) days of any renewal, change or replacement of coverage.

Subcontractors are responsible for collecting, monitoring and retaining copies of their Sub-subcontractors’ Certificates of Insurance. Turner, at its sole discretion, may request copies of Sub-subcontractor’s Certificates of Insurance and/or Additional Insured endorsements to ensure compliance with the requirements of this Manual. Turner reserves the right to disapprove the use of Subcontractors or Sub-subcontractors unable to meet the insurance requirements or who do not meet other Turner policy requirements.

Sample Certificate of Insurance

A sample of an acceptable Certificate of Insurance that includes the requirements for waiver of subrogation, primary and non-contributory language and additional insured status is provided in Section 9 of this CCIP Insurance Manual.

Insurance Requirements

Subcontractor and their Sub-subcontractors shall obtain and maintain, and shall require each of its Sub-subcontractors to obtain and maintain, the insurance coverage specified in this Section and in each Subcontract Agreement in a form and from insurance companies reasonably acceptable to Turner. The insurance limits may be provided through a combination...
of primary and excess policies, including the umbrella form of policy. Each policy required under this Section, except for workers’ compensation and professional liability, shall name The Turner Corporation, Turner Construction Company, Owner, their respective officers, agents and employees, and any additional entities as Turner may request as additional insureds. Coverage is to be afforded on a primary and non-contributory basis with respect to any other insurance available to the additional insured. The additional insured endorsement utilized for the General Liability policy must provide coverage as broad as that available under the ISO CG 20 10 11 85 or its equivalent endorsement. The insurance obtained by Subcontractor and any Sub-subcontractor shall not contain any wrap-up exclusion or wrap-up excess endorsement that would bar or limit available coverage where the Subcontractor or Sub-subcontractor is not enrolled in the CCIP, or in instances where liability arises out of work performed by an enrolled Subcontractor away from the CCIP jobsite (i.e., offsite activities). Such insurance obtained by the Subcontractor and any Sub-subcontractor shall be primary to, and not contribute with, any CCIP insurance in any circumstance where the Named Insured is not enrolled in the CCIP or in instances where liability arises out of work performed by an enrolled Subcontractor away from the CCIP jobsite (i.e., offsite activities).

In the event that the law of the state in which the project is located (or other applicable law) limits the indemnity obligations of the Subcontractor, then the indemnity obligations of the Subcontractor shall be enforced to the fullest extent permitted by applicable law, and this Manual shall be read to conform to such law.

**Blanket Certificate of Insurance and Blanket Additional Insured Endorsement**
A so-called blanket Certificate of Insurance is a certificate that applies to all work versus a Certificate of Insurance that refers to a specific project. A blanket additional insured endorsement does not identify a specific additional insured but instead provides coverage to various additional insureds as detailed in the endorsement language. A blanket Certificate of Insurance and blanket additional insured endorsement conforming to Turner’s policies may be used for this project. Questions regarding Turner’s allowance of blanket Certificates of Insurance and blanket endorsements should be directed to Turner’s Procurement Agent for the project.

**Waiver of Claim / Waiver of Subrogation.** Where permitted by law, Subcontractor hereby waives all rights of recovery against Turner, Owner, the other additional insured parties, the CCIP Administrator, their respective officers, agents, or employees, and any other contractor, Subcontractor, or Sub-subcontractor performing Work or rendering services on behalf of Turner in connection with the planning, development and construction of the Project because of deductible clauses, inadequacy of limits of any insurance policy, limitations or exclusions of coverage, or any other reason. Where permitted by law, Subcontractor shall also require that all Subcontractor’s insurance coverage related to the Work include clauses providing that each insurer shall waive all of its rights of recovery by subrogation against the same parties referenced immediately above in this Section. Subcontractor shall require similar written express waivers and insurance clauses from each of its Sub-subcontractors. A waiver of claim / waiver of subrogation (as the case may be) shall be effective even if the party from which the claim against has been waived (a) would otherwise have a duty of indemnification, contractual or otherwise, (b) did not pay the insurance premium directly or indirectly, and (c) whether or not such individual or entity has an insurable interest in the property damaged.

**Insurance Requirements for Activities or Operations Not Insured Under the CCIP**

As to Enrolled Parties, the workers’ compensation, employer’s liability, and commercial general liability insurance required by this section shall only be for offsite activities or operations not insured under the CCIP Coverages. The following insurance coverages are to be provided by an insurance carrier selected by the Subcontractor and Sub-subcontractors and satisfactory to Turner. All costs for insurance coverages for offsite activities or operations are included in the Subcontract Agreement Price and are paid by Subcontractor.

(1) Standard commercial automobile liability insurance covering all owned, non-owned and hired automobiles, trucks, and trailers with a combined single limit of not less than $1,000,000 (both onsite and offsite coverage is required).

(2) Statutory workers’ compensation insurance and employer’s liability insurance, including maritime coverage, if appropriate. Workers’ compensation limits shall comply with the requirements of the governing jurisdiction. Employer’s liability limits shall be provided of not less than $1,000,000 each accident/$1,000,000 each

employee/$1,000,000 policy limit.

(3) Commercial general liability insurance providing coverage on a standard ISO form providing “occurrence” based coverage including completed operations and contractual liability insurance against the liability assumed herein. The required insurance shall also include independent contractors liability insurance (if the Subcontractor sublets to another all or any portion of the Work), personal injury liability insurance, and broad form property damage coverage (including completed operations, and explosion, collapse and underground hazards). The minimum insurance limits required are set forth in the “Invitation to Bid”, the Subcontract Agreement, or as otherwise instructed by Turner. If no indication is given, then the minimum required limits will be $5,000,000. Coverage shall be equivalent to the current ISO occurrence form.

(4) If required by Turner, aviation and/or watercraft liability insurance with limits of liability acceptable to Turner and from an insuring entity reasonably satisfactory to Turner.

(5) If required by Turner, contractor’s pollution liability insurance with limits of liability acceptable to Turner and from an insuring entity reasonably satisfactory to the Turner.

If the Subcontractor fails to procure and maintain the insurance required of Enrolled Parties, Excluded Parties, and Parties No Longer Covered by the CCIP, Turner shall have the right, but not the obligation, to procure and maintain said insurance for and in the name of the Subcontractor and/or Sub-subcontractor and the Subcontractor and/or Sub-subcontractor shall pay the cost thereof and shall furnish all necessary information to make effective and maintain such insurance. At Turner’s option, Turner may offset the cost incurred by Turner against amounts otherwise payable to Subcontractor hereunder.

Required Insurance Summary

Workers’ Compensation and Employer’s Liability

- **Enrolled Parties** will provide evidence of workers’ compensation insurance coverage for all activities away from the Project Site.
- **Excluded Parties** and **Parties No Longer Covered by the CCIP** will provide evidence of workers’ compensation insurance coverage for all activities away from the Project Site.

<table>
<thead>
<tr>
<th>Part One -</th>
<th>Workers’ Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Two -</td>
<td>Employer’s Liability</td>
</tr>
<tr>
<td></td>
<td>Bodily Injury by Accident, each accident</td>
</tr>
<tr>
<td></td>
<td>Bodily Injury by Disease, each employee</td>
</tr>
<tr>
<td></td>
<td>Bodily Injury by Disease, policy limit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Limits of Liability</th>
<th>Statutory Limit</th>
<th>Annual Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$1,000,000</td>
<td>$1,000,000</td>
</tr>
</tbody>
</table>

Commercial General Liability/Umbrella or Excess Liability

- **Enrolled Parties** shall provide evidence of general liability insurance for off-site activities with Turner and other required parties named as additional insured (ISO CG 20 10 11 85 version or its equivalent) to the policy. Coverage will apply away from the Project Site.
- **Excluded Parties** and **Parties No Longer Covered by the CCIP** shall provide evidence of general liability insurance applicable to this Project Site and must name Turner and other required parties named as additional insured (ISO CG 20 10 11 85 version or its equivalent) to their policy. Coverage will apply both onsite and offsite.

The required commercial general liability insurance shall include completed operations, contractual liability insuring against the liability assumed herein, personal injury liability, broad form property damage (including completed operations), and explosion, collapse and underground hazards, with the following minimum limits:
Limits of Liability

As stipulated in Article XXIV of the Subcontract Agreement, in the Invitation to Bid, or as otherwise instructed by Turner. If no indication is given, then the minimum required limits are $5,000,000.

Completed Operations Coverage

Each Enrolled Party will provide completed operations coverage from termination of the CCIP provided completed operations coverage (as shown in Section 4, Commercial General Liability, Terms) through the statute of repose applicable for the state in which the Project is located. All Enrolled Parties are strongly advised to provide a copy of this Manual and this provision to their insurance professional so the proper coverage extension is arranged.

Automobile Liability

All Subcontractors and Sub-subcontractors shall provide evidence of automobile liability insurance with Turner and other required parties named as additional insureds to the policy. The CCIP does not cover automobile liability. For Enrolled Parties, Excluded Parties and Parties No Longer Covered by the CCIP, coverage will apply both on and off the Project Site.

The Commercial Automobile Liability Insurance shall cover all owned, hired and non-owned automobiles, trucks and trailers used in connection with the work with the following minimum limits:

- Combined Single Limit – Each Accident Bodily Injury And Property Damage

  Limits of Liability

  As stipulated in Article XXIV of the Subcontract Agreement, in the Invitation to Bid, or as otherwise instructed by Turner. If no indication is given, then the minimum required limit is $1,000,000.

Property Insurance

The CCIP does not provide coverage for Subcontractor’s or Sub-subcontractor’s personal property. Subcontractors of any tier must provide their own insurance for owned, leased, rented and borrowed equipment, whether such equipment is located at a Project Site or in transit. Subcontractors of any tier are solely responsible for any loss or damage to their personal property including, without limitation, property or materials created or provided under the Subcontract Agreement or Sub-subcontract Agreement until installed at the Project Site, Subcontractor tools and equipment, scaffolding and temporary structures.

Watercraft and Aircraft Liability

The CCIP does not provide watercraft or aircraft liability insurance. The operator of any watercraft or aircraft of any kind must maintain liability insurance naming Turner, the Owner, and others as required, and the respective Subcontractor as an additional insured with primary and non-contributory wording. In addition, the limit of liability must be satisfactory to Turner. Such project-specific insurance requirements will be indicated in the Subcontract Agreement.

Professional Liability

The CCIP does not provide professional liability insurance. All professional service firms must provide professional liability insurance appropriate for their profession. Architect and engineering firms must provide insurance covering liability
arising out of design errors and omissions. Professional liability insurance requirements will be indicated in the Subcontract Agreement.

**Pollution Liability**

The CCIP does not provide pollution liability insurance. A Subcontractor whose Work involves removal or treatment of hazardous materials will provide and maintain contractors pollution liability insurance. Such coverage will specifically schedule the type of work defined in the Subcontract. Such project-specific insurance requirements will be indicated in the Subcontract Agreement Form.

**Limits of Liability**

The limits of liability shown for the insurance required of the Subcontractors and Sub-subcontractors are minimum limits only and are not intended to restrict the liability imposed on the Subcontractors for work performed under their Subcontract.

**Cancellation Notice**

Each Certificate of Insurance shall contain evidence that notice of cancellation will be provided to the certificate holder for cancellation or material change in coverage. The Certificate of Insurance must also include an endorsement allowing such notice attached to the Certificate for each applicable policy.

**Deductible, Self-Insured Retention (SIR) and Coverage Reduction Notification**

The Certificate of Insurance shall list all insurance carried by the Subcontractor or Sub-subcontractor for the coverage specified above and shall state the full policy limits, even if the limits exceed the amounts required above. All deductibles and/or self-insured retentions and all reductions in coverage from the standard policy forms shall be disclosed on the Certificate of Insurance. Turner reserves the right to reject the insurance obtained by the Subcontractor or Sub-subcontractor if the deductible or SIR exceeds a certain amount.
Subcontractor Responsibilities and Obligations

Throughout the course of the Project, Subcontractors of any tier will be responsible for reporting and maintaining certain records as outlined in this Section.

The Subcontractor and its Sub-subcontractors are required to cooperate with Turner, the insurance carrier(s), and the CCIP Administrator in all aspects of CCIP operation and administration.

Notice to Out-Of-State Subcontractors of Any Tier

All out-of-state Subcontractors of any tier are advised to contact the workers’ compensation department in the state where the project is located regarding requirements and compliance with the local workers’ compensation laws and regulations.

Identifying and Verifying Insurance Costs

Under the CCIP, Turner provides certain insurance (CCIP Coverage) for Enrolled Parties for Work performed at the Project Site and pays the premium for the CCIP Coverage. Accordingly each Enrolled Party will be required to identify the amount of Insurance Cost that was removed from its bid and submit copies of its policy documents to the CCIP Administrator for verification. The CCIP Administrator will provide you with the insurance cost calculation once all documents have been provided. This is done by accessing the Contractor Portal and uploading all required documents through the portal.

As part of the enrollment process Eligible Subcontractors of any tier are required to upload insurance policy pages that document their coverage and insurance rates using the Contractor Portal on the CCIP website. Required documentation includes the following pages from the workers’ compensation, general liability and umbrella or excess liability policies as follows:

- Declaration or Information Page
- Rate Page(s)
- Experience Modification Verification (Workers’ Compensation only)

If the Subcontractor is “self-insured”, carries a deductible or declares a dividend credit for its workers’ compensation and/or general liability program, then the following must also be provided:

- Deductible Page(s)
- Summary-5 Years of loss history for entities that retain losses
- Summary-5 Years of audited payroll by annual total

Umbrella or excess liability policies that are “flat rated” will be converted to a rating basis that matches the general liability policy and pro-rated for this project in order to include a value for it in the Insurance Cost calculation. Deductible credits will not be allowed for retroactively rated programs, including LRARO programs, in order to reflect the contractor’s loss fund for the program(s).

Enrolled Parties must also provide their estimated reportable payroll (follow the statutory guidelines in your state as to what is reportable) for that portion of the Work that will be performed at the Project Site (Initial Payroll Estimate) and

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their projected subcontract amount on the Contractor Portal.

Once the Initial Payroll Estimate and all policy documents are submitted and reviewed, the CCIP Administrator will review the information to verify the Insurance Cost. The CCIP Administrator will perform an Insurance Cost calculation based upon estimated payroll, contract volume and the rating information from the policy pages. The CCIP Administrator will apply discounts and modifiers in the order used by the insurance carrier and shown on the policy pages.

The Verified Insurance Cost, along with the Verified Blended Payroll Rate, will be available to the Enrolled party, and Turner, via the Contractor Portal. The Verified Blended Payroll Rate is determined by dividing the Enrolled Party’s total Verified Insurance Cost by the Enrolled Party’s Estimated On-Site Payroll as detailed in the Contractor Portal. The Verified Blended Payroll Rate is expressed as per $100 of on-site labor payroll. (Verified Blended Payroll Rate = Verified Insurance Cost / Estimated Initial Payroll * 100). Once established, the Verified Blended Payroll Rate is set for the life of the Enrolled Party’s performance of Work on site.

Until each Subcontractor or Sub-subcontractor submits all required documentation to enable verification and calculation of the Subcontractor of any tier’s Insurance Cost, an Insurance Cost equal to 3% (three percent) of the contract value may be assigned by Turner. Failure to submit the required documentation may result in a higher Final Insurance Cost Adjustment, if applicable.

Deductible and/or Dividend Credits

If Subcontractor or Sub-subcontractor fails to submit the required information summarized above, the CCIP Administrator will make one (1) written request via email for the information. If the required information is not received by the CCIP Administrator within seven (7) days of the written request, the Subcontractor or Sub-subcontractor’s Verified Insurance Cost and Verified Subcontractor Blended Payroll Rate will be calculated without any deductible and/or dividend credit. The Verified Insurance Cost and Verified Subcontractor Blended Payroll Rate may not be recalculated if Subcontractor submits the required information at a later date. Failure to submit the required documentation may result in a higher Final Insurance Cost Adjustment, if applicable.

Change Order Procedures

Enrolled Subcontractors of any tier are required to price all change orders to exclude their Insurance Cost for CCIP Coverage and must provide an estimate of payroll, including any payroll estimates for Eligible or Enrolled Sub-subcontractors for Work to be performed under the change order, unless otherwise directed by Turner.

Adjustments for Subcontractor Insurance Costs

Upon completion of the Work, Turner, at its sole discretion, unless subject to state regulations, may direct the CCIP Administrator to calculate the Subcontractor’s additional Insurance Cost, and Turner may deduct such costs from future payments, based on the following formula:

**Final Insurance Cost Adjustment Formula:**

\[
\text{Total Reported or Audited Payroll (including all Change Order Work)} \\
\text{Minus Initial Payroll Estimate} \\
\text{Minus Change Order Payroll Estimate(s)} \\
\text{Equals Payroll Overrun} \\
\text{Times Verified Blended Payroll Rate ($10 per $100 of payroll)} \\
\text{Equals Final Insurance Cost Adjustment}
\]
Final Insurance Cost Adjustment Formula Example

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Reported Payroll (including all Change Orders)</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Minus Initial Payroll Estimate</td>
<td>$700,000</td>
</tr>
<tr>
<td>Minus Change Order Payroll Estimate(s)</td>
<td>$100,000</td>
</tr>
<tr>
<td>Equals Payroll Overrun</td>
<td>$200,000</td>
</tr>
<tr>
<td>Times Verified Blended Payroll Rate ($10 per $100 of payroll)</td>
<td>$10</td>
</tr>
<tr>
<td>Equals Final Insurance Cost Adjustment</td>
<td>$20,000</td>
</tr>
</tbody>
</table>

At Turner’s sole discretion, the Final Insurance Cost Adjustment may include any or all Final Insurance Cost Adjustments resulting from Sub-subcontractors as follows:

Subcontractor’s Final Insurance Cost Adjustment

\[ \text{Subcontractor’s Final Insurance Cost Adjustment} = \text{Sum of all Sub-subcontractor’s Final Insurance Cost Adjustments} + \text{Subcontractor’s Final Insurance Cost Adjustment} \]

Turner will deduct the Final Insurance Cost Adjustment from the Subcontract price. Subcontractors are solely responsible for recovering Final Insurance Cost Adjustments from its Sub-subcontractors of any tier.

Interim Insurance Cost Adjustment

Turner, at its option, may choose to perform an interim Insurance Cost adjustment should an Enrolled Party’s reported payroll exceed the Initial Payroll Estimate for the Work.

Assignment of Premiums

Since Turner pays the cost of the CCIP Coverage as described above, all Enrolled Parties are required to assign to Turner all adjustments, refunds, premium discounts, dividends, costs or any other monies due from the CCIP insurer(s). The assignment is part of the online enrollment application. Subcontractors will ensure that its Sub-subcontractors of any tier execute such an assignment.

Withholding of Payments

In the event a Turner audit of a Subcontractor’s (of any tier) records reveals a discrepancy in the insurance, payroll, safety, or any other information required by the Subcontract Agreement, or reveals the inclusion of any Insurance Cost in any payment for the Work, Turner shall have the right to withhold or deduct from the Subcontract price all such Insurance Cost amounts. If the Subcontractor or its Sub-subcontractor fail to timely comply with the provisions of this Manual, Turner may withhold any payments due Subcontractor and its Sub-subcontractors until such time as they have met the requirements of the CCIP as outlined this Manual.

Failure to submit any information required by the CCIP may result in the withholding of payments by Turner until required documentation is received.
Enrollment

NOTE: The Application for Enrollment is required to be completed online via the Contractor Portal. Section 8 of this manual provides instructions on how to access the Contractor Portal and complete your online enrollment. Section 2 of this manual provides the corresponding Wrap Administrator’s contact information if you require assistance.

Each Subcontractor and Sub-subcontractor shall provide details about its Sub-subcontractors as necessary for CCIP enrollment. The information requested on the online Application for Enrollment is mandatory for enrollment. The online application must be completed through the Contractor Portal, and CCIP coverage subsequently confirmed by the CCIP Administrator, prior to Mobilization or the start of Work to obtain CCIP Coverage.

A separate online Application for Enrollment is required for each Eligible Sub-subcontractor of any tier that performs Work at the Project Site.

The CCIP Administrator will issue to each Enrolled Party a Welcome Letter and a CCIP Certificate of Insurance acknowledging acceptance of the applicant into the CCIP. The insurance carrier will issue a separate Workers’ Compensation policy to each Enrolled Party.

Enrollment Is Not Automatic
Eligible Subcontractors and Sub-subcontractors MUST complete the online enrollment forms through the Contractor Portal. Once successfully completed the CCIP Administrator who will confirm enrollment into the CCIP. Access to the Project Site will not be permitted until enrollment is complete. Enrollment is confirmed by a Welcome Letter and a CCIP Certificate of Insurance. If a Subcontractor of any tier obtains access to the Project Site, with or without Turner’s knowledge, no CCIP Coverage is provided if Subcontractor or Sub-subcontractor is not enrolled. There is no CCIP Coverage for unenrolled parties, Excluded Parties and Parties No Longer Covered by the CCIP.

Fines for Late Enrollments / Late Reporting
Should the insurance carrier(s) or any regulatory agency assess a fine or penalty for late enrollment and/or late reporting, Turner reserves the right to assess these fines to the Subcontractor. This reservation of rights applies whether fines and/or penalties are due to a Subcontractor or any of its Sub-subcontractors. If a fine or penalty is assessed to a Sub-subcontractor, the prime tier Subcontractor is solely responsible for recovering the fine or penalty amount from its Sub-subcontractor(s).

Payroll Reports

Each Enrolled Party is required to submit payroll and work hour information by the 10th of each month using Contractor Portal on the CCIP Website. Enrolled Parties must report payroll expended at the Project Site for each applicable workers’ compensation classification that was included in the Subcontractor’s Application for Enrollment.

A monthly payroll report must be submitted for each month, including months where there was zero payroll or work hours, until completion of the Work under each Subcontract. Once Subcontractor performs Work under multiple Subcontract Agreements, a separate monthly payroll report is required for each Subcontract.

The monthly payroll report should include reportable payroll for all CCIP qualified employees, including onsite supervisors and onsite clerical personnel. Please follow the required Statutory Guidelines in your state as to what is reportable.
All payrolls submitted for this project should be excluded from the payroll submitted to your corporate insurance carrier(s) to avoid paying premiums for exposures covered by the Turner CCIP. The workers’ compensation policy issued to you and the Certificate of Insurance naming you as an insured on the CCIP general liability policy can be used to provide evidence of your enrollment in the Turner CCIP to your corporate insurance carriers.

Failure to submit the payroll report, along with any other forms or documents required by the CCIP, may result in the withholding of payments by Turner until required documentation is received.

Insurance Company Payroll Audit

Each Enrolled Party is required to maintain payroll records for each Subcontract. Such records must allocate payroll by workers’ compensation classification(s) and exclude the excess or premium paid for overtime (i.e., except for projects in the state of Pennsylvania, Nevada, Utah, Delaware and applicable workers’ compensation monopolistic States), only the straight time rate will apply to overtime hours worked. Furthermore, such records will limit the payroll for executive officers, partners, and sole proprietors to the limitations as stated in the applicable state manual rules. It is important that you properly classify payrolls, as these are reported to the rating bureau for promulgation of future experience modifiers for your firm.

Modified Alternate Duty Program

Subcontractor and its Sub-subcontractor(s) must provide a modified return to work program for any of its injured employees insured under workers’ compensation as part of the CCIP. Failure to provide reasonable accommodations to an injured worker will result in a penalty assessment to the Subcontractor of any tier of $1,500 weekly until such time as the injured worker is returned to work. Subcontractors are responsible for the assessments of their Sub-subcontractors. Job expectations are defined as outlined in the Position Description for each Trade. Turner and the CCIP insurer will determine reasonable accommodations.

Claim Reporting

Subcontractor and its Sub-subcontractor(s) must immediately report all injuries, occupational-related illnesses or property damage to the Site Safety Manager. All Subcontractors of any tier will instruct employees and other personnel to report, in writing, within 24 hours all accidents and occurrences of any type to the Project Site Safety Manager. Failure to immediately report a claim and issue a written report to the Turner Site Safety Manager or Project Superintendent within 24 hours of an occurrence may result in a $5,000 penalty.

CCIP Closeout and Audit Procedures

When a Subcontractor has completed its Work at the Project Site and no longer has onsite workers, the Subcontractor must complete and submit the Work Completion Form electronically via the Contractor Portal. The Work Completion form should be e-signed by Turner for all Subcontractors and e-signed by the Subcontractors for all Sub-subcontractors of any tier. Note: Subcontractor electronic Completion Form closes out all Sub-subcontractors. The form will be used to initiate the final audit of
payroll and man-hours by the CCIP insurance carrier. Should the Subcontractor, or any of its Sub-subcontractors, return to the Project Site for any reason, they will not be insured under the CCIP but will be required to be insured under its own insurance program. In order to return to the Project Site a Subcontractor must provide Turner with a Certificate of Insurance that meets all requirements in the Subcontract Agreement prior to performing any Work at the Project Site.

Turner will not release final retention payment until all necessary CCIP forms and documents have been submitted and accepted by the CCIP Administrator for Subcontractor and all of its Sub-subcontractors as well as all other requirements of the Subcontract Agreement. Any outstanding general liability obligations for which the Subcontractor of any tier is responsible but unpaid will be considered at the time of closeout.

CCIP Termination or Modification

Turner reserves the right to terminate or modify the CCIP or any portion thereof, or modify this Manual. If Turner exercises this right, Subcontractors will be provided written notice as required by the terms of their individual Subcontract Agreements. At its option, Turner may procure alternate coverage or may require the Subcontractors to procure and maintain alternate insurance coverage.

Upon written notice, Turner may, for any reason, modify the CCIP Coverage, discontinue the CCIP, or request that Subcontractor or any of its Sub-subcontractors withdraw from the CCIP. Upon such notice, Subcontractor and/or one or more of its Sub-subcontractors, shall obtain and thereafter maintain replacement insurance. The form, content, limits of liability, cost, and the insurer issuing such replacement insurance shall be subject to Turner’s approval. The final cost of such insurance shall not exceed the amount of the applicable Subcontractor Insurance Cost, or its pro rata portion, as described elsewhere in this document.

Subcontractor’s CCIP Obligations

Subcontractor shall:

1. Incorporate the terms of this Manual in all Sub-subcontract Agreements.
2. Within five (5) days of execution of the Subcontract Agreement, or no less than forty five (45) days before Mobilization onsite, enroll in the CCIP and maintain enrollment in the CCIP, and ensure that Subcontractor’s eligible Sub-subcontractors enroll in the CCIP and maintain enrollment in the CCIP within five (5) days of sub-subcontracting or no less than forty five (45) days before Mobilization.
3. Comply with all of the administrative, safety, claims management, insurance, and other requirements contained in this Manual, the CCIP insurance policies, and the Subcontract Agreement.
4. Provide each of its Sub-subcontractors with a copy of this Manual and ensure Sub-subcontractor compliance with the provisions of this Manual, the CCIP insurance policies, and the Subcontract Agreement. The failure of (a) Turner to include this Manual in the bid documents, or (b) Subcontractor to provide each of its eligible Sub-subcontractors with a copy of it shall not relieve Subcontractor or any of its Sub-subcontractors from any of the obligations contained therein.
5. Provide timely evidence of required insurance to Turner and the CCIP Administrator.
6. Subcontractor shall access the Contractor Portal and upload copies of its workers’ compensation, general liability and umbrella or excess rates, deductible endorsement/page (if applicable), and other requirements set forth in Section 6 to verify the Insurance Cost calculation.
7. Be solely responsible for the recovery of any Sub-subcontractor Insurance Cost attributable to such Sub-subcontractors’ eligibility for participation in the CCIP. If unit pricing is the basis for the Subcontract price, Turner may, at its option, apply a “per unit” Subcontractor Insurance Cost where appropriate.
8. Notify the CCIP Administrator and Turner’s Project Site Superintendent of all Sub-subcontracts awarded (first tier and subsequent tiers). Accordingly, Subcontractor shall cause all Sub-subcontractors to submit an online Application for Enrollment and all documents required to verify their Insurance Cost.
9. Provide estimated onsite payroll amount for itself and its eligible or enrolled Sub-subcontractors for its Work. Subsequently identify estimated onsite payroll for each Change Order request.
10. Acknowledge, and require all of its Sub-subcontractors to acknowledge in writing, that Turner and the CCIP
Administrator are not agents, partners or guarantors of the insurance companies providing coverage under the CCIP ("CCIP Insurer") and that Turner is not responsible for any claims or disputes between or among Subcontractor, its Sub-subcontractors, and any CCIP Insurer(s). Any type of insurance coverage or limits of liability in addition to the CCIP coverages that Subcontractor or any Sub-subcontractor requires for its or their own protection, or that is required by applicable laws or regulations, shall be Subcontractor’s or its Sub-subcontractor’s sole responsibility and expense and shall not be billed to Turner or the Owner.

(11) Cooperate fully with the CCIP Administrator and the CCIP Insurers, as applicable, in its or their administration of the CCIP.

(12) Notify the CCIP Administrator immediately of any insurance cancellation or non-renewal of Subcontractor’s and Sub-subcontractor’s required insurance and any subsequent reinstatement of coverage.

(13) At Turner’s discretion, be required to pay a sum of up to $5,000 of each occurrence, including court costs, attorney’s fees and costs of defense for bodily injury or property damage to the extent losses payable under the CCIP General Liability Policy are attributable to Subcontractor’s Work, acts or omissions, or the Work, acts or omissions of any of Subcontractor’s Sub-subcontractors, or any other entity or party for whom Subcontractor may be contractually or legally responsible (General Liability Obligation). The General Liability Obligation shall remain uninsured by Subcontractor and will not be covered by the CCIP Coverages. All monies collected via this obligation will be reinvested into site safety/performance awards.

(14) Acknowledge that Turner shall pay the costs of premiums for the CCIP coverages on behalf of all Enrolled Parties and will receive or pay, as the case may be, all adjustments to such costs, whether by way of dividends, retroactive adjustments, return premiums, other moneys due, audits or otherwise. Accordingly, each Subcontractor and each of its Sub-subcontractors agrees to assign to Turner the right to receive all such adjustments.

Subcontractor Representations and Warranties to Turner

Subcontractor represents and warrants to Turner, on behalf of itself and its Sub-subcontractors:

(1) That all information it submits to Turner and/or the CCIP Administrator shall be accurate and complete.

(2) That they have had the opportunity to read this Manual request, read and analyze a copy of the CCIP general liability policy and that they understand the CCIP Coverage.

Duty of Care

Nothing contained in this Manual shall relieve the Subcontractor or any of its Sub-subcontractors of their respective obligations to exercise due care in the performance of their duties in connection with the Work and to complete the Work in strict compliance with the Subcontract Agreement.

Conflicts

In the event of a conflict, the provisions of the Subcontract Agreement and its other related Subcontract Agreement shall supersede the provisions of this Manual. Likewise, in cases of conflict regarding CCIP Coverage, the provisions of the policies supersede the provisions of this Manual.
**Claim Procedures**

This section describes basic procedures for reporting various types of claims: Workers’ Compensation, Liability, and damage to the project.

**General Procedures**

Subcontractors and Sub-subcontractors (of any tier) must immediately report all injuries, occupational-related illnesses or property damage to the Site Safety Manager. Subcontractors and Sub-subcontractors (of any tier) will instruct their onsite employees and other personnel to report, in writing, within 24 hours all accidents and occurrences of any type, including near misses, to the Site Safety Manager or Project Superintendent.

The Site Safety Manager or Project Superintendent contact information can be found in Section 2 of this Manual.

While all injuries and property damage must be reported immediately, the following list identifies losses which could represent substantial exposure. It is essential that the Site Safety Manager or the Project Superintendent be notified immediately of the following events so that a comprehensive investigation can be initiated at once:

- Any injury for which an ambulance is called
- Injury to head or neck
- Possible injury to back or spinal cord
- Unconscious employee
- Possible blindness
- Amputation of limbs
- Fatality
- Heart attack or stroke
- Hospitalization
- Property damage estimated over $1,000

Subcontractors may be assessed a $5,000 penalty for any claim not reported immediately and/or a written report not submitted within 24 hours of occurrence.

**Investigation Assistance**

Subcontractors and Sub-subcontractors (of any tier) will assist in the investigation of any accident or occurrence involving injury to persons or property. Involved parties will cooperate with CCIP insurers or representatives by securing and giving evidence and obtaining the participation and attendance of witnesses required for the adjustment, investigation and defense of any claim or suit.

**Workers’ Compensation Claims**

The main responsibility of any party is first to see that an injured worker receives immediate medical care. Next, the party should immediately notify the Site Safety Manager or Project Superintendent.

Subcontractors’ and Sub-subcontractors’ onsite personnel will follow these procedures if any employee is involved in an
accident or occurrence resulting in bodily injury:

1. Contact designated first aid/medical personnel and transport the injured party to the onsite first aid or medical facility, as necessary.
2. Report all injuries or occupational-related illnesses immediately to the Employer’s Project Supervisor and Turner’s Site Safety Manager or Project Superintendent.
3. Complete a Supervisor’s Accident Investigation Report and return to Turner’s Site Safety Manager within 24 hours of employee’s notice of injury/claim. The Turner Site Safety Manager will fax/mail the completed form to the Turner Claims Manager within 24 hours of receipt.
4. Supply the injured party with a Medical Information Claim Folder which shall include a Doctor’s Initial Report Form, Turner’s 90 Day Modified Alternate Duty Program, Position Description and a Medical Authorization Form which are to be returned by the injured party to the Turner Site Safety Manager by the end of the business day. (Please see Section 9 for all appropriate forms relative to the Return to Work Program).
5. Provide for Modified Alternate Duty based upon the work abilities given to the injured party from the treating physician.
6. Immediately send all subsequent medical return to work notes, inquiries or correspondence about an injured party to the Turner Site Safety Manager. No injured party will be allowed on a job site unless they have provided the Turner Site Safety Manager with the proper return to work note, either full duty or modified duty.

Liability Claims

Subcontractors must immediately report all accidents or occurrences at the Project Site involving death, injury, or damage to property of non-employee personnel (the public, tenants, and visitors) to the Turner Site Safety Manager or Turner Superintendent. As soon as the onsite personnel become aware of the accident or occurrence, they must:

1. Take appropriate emergency measures to prevent additional injury or damage, including contacting police and fire authorities.
2. Complete and submit a Supervisor’s Accident Investigation Report and General Liability Loss Notice to the Turner Site Safety Manager within 24 hours of the incident.
3. Immediately send all subsequent inquiries or correspondence about an insured loss or claim, including a summons or other legal documents, to the Site Safety Manager immediately.

Any involved party should not voluntarily admit liability or responsibility and should cooperate with Turner and the CCIP insurer representatives in the accident investigation. The accident should not be discussed with anyone other than Turner Personnel, CCIP insurer representatives, or legal counsel retained on Turner’s or the Enrolled Party’s behalf.

Property Claims

Any damages to your Work or the Work of any other Subcontractors of Sub-subcontractors (of any tier) should be immediately reported to the Project Site Safety Manager.

Automobile Claims

Automobile Insurance is not provided under the CCIP. It is the sole responsibility of each party to report accidents/claims involving their automobiles to their own insurers.

HOWEVER, all accidents occurring in or around the Project Site must be reported to Turner’s Site Safety Manager. Accident investigations will occur and focus on liability arising out of the project construction activities that could result in future claims (i.e. due to the conditions of the roads, etc.). Each involved party shall cooperate in the investigation of all automobile accidents.

Pollution Claims

The CCIP general liability policy may provide some coverage for sudden and accidental pollution but only if the incidents are
discovered and reported promptly in writing. Any known or suspected pollution incidents must be immediately reported to the Turner Site Safety Manager for investigation.

Joint Representation

In the event legal representation is required to defend parties insured under this CCIP, absent an actual conflict of interest between two or more insureds, the insurer shall have the right to retain one counsel to represent all such insureds in any action or proceeding in which more than one insured is joined.

An insured has an actual conflict, and is entitled to separate counsel, only in the following circumstances:

a. the CCIP insurer has issued a reservation of its rights to one, but not all, insureds joined in such action or proceeding;

b. a CCIP insurer’s reservation of rights issued to one insured contains reservations different that a reservation issued to another insured(s) joined in such action or proceeding; or

c. adequate, unexhausted limits of CCIP insurance are not available for the damages sought in such action or proceeding.

Any insured with an actual conflict of interest may waive that conflict.

Enrollment in this CCIP program shall be deemed a waiver of any conflict which does not meet the above definition of an actual conflict. As a condition of enrollment in this CCIP program, all insureds agree to perform any additional acts required to effectuate the waiver of any conflict which does not meet the above definition of an actual conflict.

Waiver of Insured Cross-Claims

As a condition of enrollment in this CCIP program, no insured shall be entitled to make a cross-claim (or any similar legal claim) against another insured if that cross-claim arises from “bodily injury”, “property damage” or “personal injury” to which this CCIP’s insurance applies and for which there is adequate unexhausted limits of insurance to pay damages in any such proceeding. Enrollment in this CCIP program shall be deemed a waiver of such claims. As a condition of enrollment in this CCIP program, all insureds agree to perform any additional acts required to effectuate the waiver of any such claim. This paragraph shall not apply to any suit or claim necessary to trigger CCIP coverage.

Availability of Claims Data

Turner has made claims data available to all CCIP Enrolled Parties. Data is accessible through the Contractor Portal of the CCIP Website also known as WrapWorks. Claim data is updated no less than quarterly. Claims are associated with each Subcontract.

If you know your User ID and Password, then please proceed to the Contractor Portal:

https://wrapup.vuewrapup.com/contractorportal

If you do not have a User ID and Password, then proceed to the Contractor Portal and click “Register Me”. Note: You will need to know your Federal ID (FEIN) as you will need to enter it (with the dash) into the Contractor Portal. Your User ID and Password information will be emailed to you.

Please direct all claim related questions to the Turner Claim Coordinator/Claim Manager listed in Section 2, CCIP Project Directory.
**Contractor Portal Instructions**

Contractor Portal Web Address: [https://wrapup.vuewrapup.com/contractorportal](https://wrapup.vuewrapup.com/contractorportal)

Please have your documents in hand and ready to upload - This will speed up the process.

*** MUST BE UPLOADED ***

- Your Rate Pages from your Workers Compensation, General Liability and Excess/Umbrella Policies, and Deductible Endorsement (if applicable)
- Your Non-CIP Certificate of Insurance (offsite COI) along with required endorsements

If you know your User ID and Password, then please proceed.

If you do not have one, then click on “Register Me”. You will need to know your Federal ID (with the dash). Your User ID and Password information will be emailed to you.
Welcome to the 1, 2, 3s of wrapworks

I am on a CIP Project What do I do?

BASIC FLOW CHART – Easy as 1,2,3
Everything is completed online via the Contractor Portal:
https://wrapup.vuewrapup.com/contractorportal

Step 1
Complete Enrollment – **Coverage will not start until you are enrolled.**
Answer ALL questions – **You must check a Primary Contact and Address.**
(This is the person who will receive all delinquency letters)
Enter any lower tier contractors you will have working for you.

Step 2
**Upload ALL Required Documents** (Name them appropriately)
1. Rate Pages (Declaration pages) for all applicable lines of coverage: Workers’ Compensation, General Liability and Excess/Umbrella (This supports your insurance cost entered for this contract).

Step 3
**Report Payroll Monthly by the due date in the Manual.**
All days need to be accounted for from the Start of your Enrollment date (Policy Start Date) until your contract is complete.
This is not certified payroll – Only man hours/gross and reportable payroll.

Got Delinquencies?
Print the Missing Data Report by Contract.
This will tell you exactly what is missing from each category:
Enrollment / ICW / Payroll / Non-CIP COI / Closeout
Forms

This Section contains the forms needed for administration of the CCIP.

Exhibit 1 SAMPLE ENROLLED PARTY Certificate of Insurance

Exhibit 2 SAMPLE EXCLUDED PARTY AND PARTIES NO LONGER COVERED BY THE CCIP Certificate of Insurance

WC Form 1 Turner’s 90 Day Modified Alternate Duty Program

WC Form 2 Doctor’s Initial Report Form

WC Form 3 Position Description

WC Form 4 Medical Authorization Form

For assistance in providing required information, please contact the Turner Surety and Insurance Brokerage Service Center. See Section 2 (CIP Project Directory) for the TSIB Wrap Administrator assigned to this Project.
## EXHIBIT 1 – SAMPLE ENROLLED PARTY Contractor Certificate of Insurance

### CERTIFICATE OF LIABILITY INSURANCE

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not affirmatively or negatively amend, extend or alter the coverage afforded by the policies below. This certificate of insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

### PRODUCER

Insurance Agency’s/Brokerage’s Name

And Address

### INSURED

Subcontractor’s Name and Address

Sample Certificate for Enrolled Parties

### REQUIRED INSURANCE

Complete the columns indicated. The INSURED will comply with the requirements in the columns indicated.

**CERTIFICATE NUMBER:**

**REVISION NUMBER:**

**INSR LTR**

**TYPE OF INSURANCE**

**ADDL INSUR**

**SUB INSUR**

**POLICY NUMBER**

**INSURER A:**

**INSURER B:**

**INSURER C:**

**CUSTOMER ID #:**

**PRODUCER NAME:**

**PHONE:** (A/C, No, Ext): 

**FAX:** (A/C, No): 

**E-MAIL:** 

**ADDRESS:** 

**AUTHORIZED REPRESENTATIVE:**

**SIGNATURE:**

**POLICY EFF DATE:**

**EXPIRATION DATE:**

**COVERAGE LIMITS**

**As required by Agreement**

**Limit equal to Full Coverage of Subcontractor’s owned or rented machinery, equipment, tools, & temporary structures not designed to become a permanent part of the Work**

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES** (Attach Additional Remarks Schedule if more space is required): RE: Work performed at the Turner Construction project:

University of Kentucky Grehan Renovation. Additional Insureds are on a Primary and Non-contributing basis on the General Liability (ISO endorsement CG 20 11 85) or its equivalent), Automobile and Excess/Umbrella Liability Policies. Waiver of Subrogation in favor of Certificate Holders applies to all policies. GL and WC coverage apply off-site.

**ADDITIONAL INSURED:** The University of Kentucky, its directors, officers, trustees and employees of the University, The Turner Corporation, Turner Construction Company, their officials, employees and agents and any wholly owned Subsidiaries or parent organizations, and all Enrolled Parties.

### CERTIFICATE HOLDER

Turner Construction Company

c/o Turner Surety and Insurance Brokerage, Inc.

35 Nutmeg Dr, Suite 300

Trumbull, CT 06611

Attention: Keon Marrero

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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---

**CERTIFICATE OF LIABILITY INSURANCE**

**DATE (MM/DD/YYYY):**

**CERTIFICATE HOLDER**

**CANCELLATION**

**PRODUCER**

Insurance Agency’s/Brokerage’s Name

And Address

**INSURED**

Subcontractor’s Name and Address

Sample Certificate for Enrolled Parties

**REQUIRED INSURANCE**

Complete the columns indicated. The INSURED will comply with the requirements in the columns indicated.

**CERTIFICATE NUMBER:**

**REVISION NUMBER:**

**INSR LTR**

**TYPE OF INSURANCE**

**ADDL INSUR**

**SUB INSUR**

**POLICY NUMBER**

**INSURER A:**

**INSURER B:**

**INSURER C:**

**CUSTOMER ID #:**

**PRODUCER NAME:**

**PHONE:** (A/C, No, Ext): 

**FAX:** (A/C, No): 

**E-MAIL:** 

**ADDRESS:** 

**AUTHORIZED REPRESENTATIVE:**

**SIGNATURE:**

**POLICY EFF DATE:**

**EXPIRATION DATE:**

**COVERAGE LIMITS**

**As required by Agreement**

**Limit equal to Full Coverage of Subcontractor’s owned or rented machinery, equipment, tools, & temporary structures not designed to become a permanent part of the Work**

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES** (Attach Additional Remarks Schedule if more space is required): RE: Work performed at the Turner Construction project:

University of Kentucky Grehan Renovation. Additional Insureds are on a Primary and Non-contributing basis on the General Liability (ISO endorsement CG 20 11 85) or its equivalent), Automobile and Excess/Umbrella Liability Policies. Waiver of Subrogation in favor of Certificate Holders applies to all policies. GL and WC coverage apply off-site.

**ADDITIONAL INSURED:** The University of Kentucky, its directors, officers, trustees and employees of the University, The Turner Corporation, Turner Construction Company, their officials, employees and agents and any wholly owned Subsidiaries or parent organizations, and all Enrolled Parties.

**CERTIFICATE HOLDER**

Turner Construction Company

c/o Turner Surety and Insurance Brokerage, Inc.

35 Nutmeg Dr, Suite 300

Trumbull, CT 06611

Attention: Keon Marrero

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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EXHIBIT 2 – SAMPLE EXCLUDED PARTY and PARTIES NO LONGER COVERED BY THE CIP Certificate of Insurance

CERTIFICATE OF LIABILITY INSURANCE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER

Insurance Agency’s/Brokerage’s Name

And Address

CONTACT NAME:

PHONE (A/C, No, Ext):

FAX (A/C, No):

EMAIL ADDRESS:

PRODUCER CUSTOMER ID #:

INSURER(A), AFFORDING COVERAGE

CERTIFICATE NUMBER:

NAIC #

INSURED

Subcontractor’s Name and Address

Sample Certificate for Excluded Parties and Parties No Longer Covered by the CCIP - Required Insurance

COVERAGES CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach Additional Remarks Schedule if more space is required): RE: Work performed at the Turner Construction project:

Limit equal to Full Coverage of Subcontractor’s owned or rented machinery, equipment, tools, & temporary structures not designed to become a permanent part of the Work

OTHER: EQUIPMENT FLOATER

LIMITS

EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CERTIFICATE HOLDER

Turner Construction Company

c/o Turner Surety and Insurance Brokerage, Inc.

35 Nutmeg Drive, Suite 300

Trumbull, CT 06611

Attention: Keon Marrero

ACORD 25 (2014/01)

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WC Form 1 – Turner’s 90 Day Modified Alternate Duty Program

RETURN TO WORK PROGRAM – Turner Construction Company CCIP

Purpose:

TURNER Construction Company is committed to providing a safe work place for both its employees and the subcontractors’ employees; facilitating prompt quality medical care in the event of a work related injury; and pursuing modified alternate duty to minimize the risks and financial burdens to its workforce.

TURNER Construction Company has established a return to work (RTW) program which is expected to be implemented by each subcontractor. Each subcontractor will provide a 90 day Modified Alternate Duty Program for an employee who has sustained a work related injury or illness and is medically unable to perform all or any part of his / her normal duties during all or any part of the normal workday or shift.

This applies to all Contractors on the project. The policy must include, but not be limited to:

1) All work related injuries will be reported to your supervisor and TURNER Construction Company immediately.
2) All injured employees will be provided with an approved medical treatment facility listing where appropriate, or a recommended panel listing. If there is any doubt as to where to go for treatment, the injured employee must contact TURNER Construction Company.
3) Subcontractors need to communicate to the injured employee and treating physician TURNER Construction Company’s 90 Day Modified Alternate Duty Program and facilitate Modified Alternate Duty with the treating physician and the employee.
4) Modified Alternate Duty assignments must comply with all medical limitations outlined by the treating physician so that injury or aggravation does not occur.
5) Project Managers, Supervisors and Foreman all must be informed of the modified alternate duty assignment, length of alternate duty, and the restrictions and responsible for the adherence.
6) Failure of a Subcontractor to provide reasonable Modified Alternate Duty to an injured worker will result in a $1500 weekly assessment against the Subcontractor until the injured employee is returned to work in either a modified alternate duty position or full duty.
7) The injured employee must provide the Project Managers, Supervisors and Foreman copies of all return to work notes, either modified duty or full duty.
8) The injured employee is not to assume normal work activities unless they have presented medical documentation releasing them to their normal duties to TURNER.
9) No injured employee on modified alternate duty will be allowed to work more than forty (40) hours per week or holidays.
10) The injured employee will remain on the project where the injury occurred while on Modified Alternate Duty or be transferred to another Project if the current Project’s work phase is completed.

Responsibilities:

The following will define the reporting responsibilities of each party involved in the CCIP or Corporate Program for Return to Work.

Injured Employee – A successful return to work program requires the cooperation and accountability of all your employees.

1) Ensure that your employees have attended training sessions and clarify any procedures which are unclear.
2) They are to report all injuries, even minor incidents, immediately within established reporting protocols.
3) They are to work closely with managers / supervisors and communicate all necessary information regarding their ability to return to work.
4) They are to provide the treating physician with the information necessary to help them determine how and when they can return to work.
5) They are to work within their medical stated limitations as outlined by their treating physician.
6) They are to help co-workers stay focused and provide a positive environment when they return to modified alternate duty.

Supervisor / Manager – Supervisors / Managers play a key role in the success of the return to work program. They must be willing to implement and manage the program.

1) Understand and support TURNER’S written policies / procedures and maintain a listing of Position Descriptions as outlined by TURNER.
2) Facilitate treatment procedures with injured employee and ensure that they have received a copy of the Medical Information Claim Folder.
3) Complete the Accident Investigation Form immediately after the incident and send to TURNER.
4) Coordinate Modified Alternate Duty with the injured employee and TURNER once you are aware and have received medical documentation outlining the injured employee’s work abilities.
5) Monitor the injured employee’s progress on modified alternate duty and provide weekly updates to the TURNER Claim Coordinator.

TURNER Claim Coordinator – The Claim Coordinator is the major communication link between the employee, the supervisor, the site safety personnel, the medical provider and Liberty Mutual.

1) Understand and promote the return to work program.
2) Field and answer questions regarding the Return to Work Program.
3) Ensure that all injuries / incidents are reported promptly to Liberty Mutual.
4) Follow up for medical documentation regarding working abilities and facilitate return to work in the modified alternate duty program where appropriate.
5) Maintain communication with the injured worker, treating physician and supervisor to ensure that the injured worker is working within their medical abilities.
6) Evaluate the modified alternate duty at a maximum of 30 day intervals.
7) Record and report progress and concerns to management at least quarterly.

Liberty Mutual Team – Are responsible for the daily claim handling guidelines outlined in their SSI.

1) Coordinate medical care and return to work issues.
2) Contact and communicate with the treating physician on an ongoing basis.
3) Manage issues related to claim file resolution.
4) Analyze losses and recommend corrective action.
**Work Flow for Turner’s Modified Alternate Duty Program**

The following charts outline the workflow guidelines for each anticipated return to work scenario and define the expectations of each involved party. It is imperative that all injured workers receive proper medical treatment and that they are not returned to work without proper medical documentation releasing them to either modified duty or full duty.

**NO LOST TIME w/ ONE TIME OFFICE VISIT**

<table>
<thead>
<tr>
<th>Role</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>Sustains Incident and reports immediately to their Supervisor</td>
</tr>
<tr>
<td>Supervisor</td>
<td>Supervisor reports Incident to Site Safety / Field Supervisor immediately</td>
</tr>
<tr>
<td>Site Safety / Field Supervisor</td>
<td>Upon Incident notification, gives Employee Medical Information Claim Folder and facilitates medical treatment where appropriate. Calls in Incident to Liberty 800 reporting number. CCIP 1-877-4-TURNER</td>
</tr>
<tr>
<td>Employee</td>
<td>Seeks immediate medical treatment where appropriate.</td>
</tr>
<tr>
<td>Site Safety / Field Supervisor</td>
<td>Gives the treating physician the Medical Information Claim Folder. Receives from the treating physician a return to work note indicating full duty. Immediately provides the Site Safety / Field Supervisor a copy of the medical note.</td>
</tr>
<tr>
<td>Employee</td>
<td>Immediately faxes medical note to Claim Coordinator and Liberty Mutual.</td>
</tr>
<tr>
<td>Claim Coordinator</td>
<td>Advises Liberty Mutual of RTW status of Employee.</td>
</tr>
<tr>
<td>Liberty Mutual</td>
<td>Creates claim file upon receipt of 800 report.</td>
</tr>
</tbody>
</table>

**NO LOST TIME w/ ON GOING TREATMENT**

<table>
<thead>
<tr>
<th>Role</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>Sustains Incident and reports immediately to their Supervisor</td>
</tr>
<tr>
<td>Turner Site Safety / Superintendent</td>
<td>Supervisor reports Incident to Site Safety / Superintendent immediately</td>
</tr>
<tr>
<td>Employee</td>
<td>Seeks immediate medical treatment where appropriate.</td>
</tr>
<tr>
<td>Turner Site Safety / Superintendent</td>
<td>Gives the treating physician the Medical Information Claim Folder. Receives from the treating physician a return to work note indicating full duty. Immediately provides the Site Safety / Field Supervisor a copy of the medical note.</td>
</tr>
<tr>
<td>Employee</td>
<td>Immediately faxes medical note to Claim Coordinator and Liberty Mutual.</td>
</tr>
<tr>
<td>Claim Coordinator</td>
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</tr>
<tr>
<td>Liberty Mutual</td>
<td>Creates claim file upon receipt of 800 report.</td>
</tr>
</tbody>
</table>

**RELEASED TO MODIFIED ALTERNATE DUTY w/ CONTINUED TREATMENT**

<table>
<thead>
<tr>
<th>Role</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>Sustains Incident and reports immediately to their Supervisor</td>
</tr>
<tr>
<td>Turner Site Safety / Superintendent</td>
<td>Supervisor reports Incident to Site Safety / Superintendent immediately</td>
</tr>
<tr>
<td>Employee</td>
<td>Seeks immediate medical treatment where appropriate.</td>
</tr>
<tr>
<td>Site Safety / Field Supervisor</td>
<td>Gives the treating physician the Medical Information Claim Folder. Receives from the treating physician a return to work note indicating work restrictions. Immediately provides the Site Safety / Field Supervisor a copy of the medical note noting work restrictions.</td>
</tr>
<tr>
<td>Employee</td>
<td>Immediately faxes medical note to Claim Coordinator and Liberty Mutual.</td>
</tr>
<tr>
<td>Claim Coordinator</td>
<td>Advises Liberty Mutual of RTW status of Employee.</td>
</tr>
<tr>
<td>Liberty Mutual</td>
<td>Creates claim file upon receipt of 800 report.</td>
</tr>
</tbody>
</table>

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*Turner Construction Company* CCIP Insurance Manual Version 10.05.2017

University of Kentucky Grehan Renovation, Lexington, KY
<table>
<thead>
<tr>
<th>Employee</th>
<th>Sustains Incident and reports immediately to their Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor</td>
<td>Supervisor reports Incident to Site Safety / Field Supervisor immediately</td>
</tr>
<tr>
<td>Turner Site Safety / Superintendent</td>
<td>Upon Incident notification, gives Employee Medical Information Claim Folder and facilitates medical treatment where appropriate. Calls in Incident to Liberty 800 reporting number. CCIP 1-877-4-TURNER; Corporate 1-877-4-TURNER</td>
</tr>
<tr>
<td>Employee</td>
<td>Seeks immediate medical treatment where appropriate. Gives the treating physician the Medical Information Claim Folder. Receives from the treating physician indicating out of work. Immediately provides the Site Safety / Field Supervisor a copy of the medical note noting out of work.</td>
</tr>
<tr>
<td>Turner Site Safety / Superintendent</td>
<td>Immediately faxes medical note to Claim Coordinator and Liberty Mutual. Discusses Modified Alternate Duty program with Employee and Supervisor.</td>
</tr>
<tr>
<td>Employee</td>
<td>Follows up with medical treatment as outlined by treating physician. At the end of each office visit, provides the Site Safety / Field Supervisor with a copy of the doctor's note regarding RTW and further treatment. Maintains weekly contact with Supervisor and Claim Coordinator regarding treatment and expected RTW.</td>
</tr>
<tr>
<td>Turner Site Safety / Superintendent</td>
<td>Immediately faxes all medical notes to Claim Coordinator and Liberty Mutual. Continues to provide information to Claim Coordinator upon verification of RTW.</td>
</tr>
<tr>
<td>Claim Coordinator</td>
<td>Faxes all medical notes to Liberty Mutual upon receipt. Monitors RTW status of Employee. Discussed Modified Alternate Duty options w/ Liberty Mutual on Weekly basis.</td>
</tr>
<tr>
<td>Liberty Mutual</td>
<td>Continues to follow up with treating physician within 24 hours of each office visit to monitor medical treatment / discharge and facilitate full duty return to work.</td>
</tr>
<tr>
<td>Employee</td>
<td>Is released to modified duty. Sees Modified Alternate Duty Table.</td>
</tr>
<tr>
<td>Turner Site Safety / Superintendent</td>
<td>See Modified Alternate Duty Table.</td>
</tr>
<tr>
<td>Claim Coordinator</td>
<td>See Modified Alternate Duty Table.</td>
</tr>
<tr>
<td>Liberty Mutual</td>
<td>Liberty immediately sends written verification via Certified Mail to Employee and a copy to Claim Coordinator of Modified Alternate Duty provided by Site once contacted by Site verifying modified duty provided. Continues to follow up with treating physician within 24 hours of each office visit to monitor medical treatment / discharge and verify full duty return to work. See Modified Alternate Duty Table.</td>
</tr>
</tbody>
</table>

**Note to Claim Coordinator:** Notify Liberty Mutual Claim Department when an employee returns to work and if they fail to return when released by the treating doctor. The employee’s Modified Alternate Duty will end when:
1) released to regular work
2) employee returns in another capacity
3) employee has exceeded 90 day program for modified alternate duty
4) employee quits or is terminated for reasons unrelated to the injury
5) worker’s compensation claim is closed
6) company withdraws the modified duty assignment

**Note to Supervisors:** You are to keep track of all modified alternate duty activity and report the progress of each injured employee weekly to the Claim Coordinator. You shall also provide copies of all medical releases, agreements, notes, etc. to the Claim Coordinator and keep a copy to maintain accurate records for the OSHA 300 log. Failure to provide appropriate modified alternate duty will result in a penalty assessment of $1500 weekly for each week the injured employee has not returned to work.

**OUT OF WORK w/ ON GOING TREATMENT**

| Employee | Liberty immediately sends written verification via Certified Mail to Employee and a copy to Claim Coordinator of Modified Alternate Duty provided by Site once contacted by Site verifying modified duty provided. |
| Turner Site Safety / Superintendent | Immediately faxes all medical notes to Claim Coordinator and Liberty Mutual. Verifies with Supervisor that Employee is still working with medical work abilities. Continues to provide information to Claim Coordinator upon verification of RTW. |
| Claim Coordinator | Faxes all medical notes and documentation to Liberty Mutual upon receipt. Monitors RTW status of Employee. |
| Liberty Mutual | Continues to follow up with treating physician within 24 hours of each office visit to monitor medical treatment / discharge and facilitate full duty return to work. |
| Employee | Is released to modified duty. Telecoms RTW status of Employee. |
| Turner Site Safety / Superintendent | Immediately faxes medical note to Claim Coordinator and Liberty Mutual. Verifies with Supervisor that Employee has actually returned to work full duty. Once verified, immediately provides information to Claim Coordinator. |
| Claim Coordinator | Faxes all medical notes and documentation to Liberty Mutual upon receipt. Verifies full duty RTW status of Employee. |
| Liberty Mutual | Continues to follow up with treating physician within 24 hours of each office visit to monitor medical treatment / discharge and verify full duty return to work. |

**Note to Claim Coordinator:** Notify Liberty Mutual Claim Department when an employee returns to work and if they fail to return when released by the treating doctor. The employee’s Modified Alternate Duty will end when:
1) released to regular work
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Doctor’s Initial Report Form

Completed by Site: [completed by site]
Injured Associate: [name of injured associate]

Associate Address: [address]
Telephone Number: [telephone number] Date of Injury: [date of injury]
Job Title: [job title] SSN / DOB: [social security number / date of birth]

Accident Description (include Body Part, Nature, Cause, etc.):
______________________________________________________________________________________________________________________________

Authorized By: [signature] Title: [title]

Note: If this medical condition is classified non-work related, the above individual shall be referred to his / her own personal physician for further evaluation.

AUTHORIZATION FOR CONTINUED TREATMENT MUST BE OBTAINED BY DIALING

☐ Worker’s Compensation ☒ Modified Alternate Duty Available ☐ Urine Drug Screen ☐ Breathalyzer Test

TO BE COMPLETED BY PHYSICIAN

Physician Data (Name, Address, Phone, etc.):
______________________________________________________________________________________________________________________________

Diagnosis:
______________________________________________________________________________________________________________________________

Accident History:
______________________________________________________________________________________________________________________________

Mechanism of Injury:
______________________________________________________________________________________________________________________________

Exam Findings / Treatment Recommendations:
______________________________________________________________________________________________________________________________

___Return to Full Duty Date: ___________ RTO: ___________
___Out of Work From: ___________ To: ___________ RTO: ___________
___Return to Work w/ Specific Restrictions Date: ___________ RTO: ___________

Please see SPECIFIC RESTRICTIONS below – NOTE – TURNER CONSTRUCTION HAS AN ACTIVE MODIFIED DUTY PROGRAM

SPECIFIC WORK RESTRICTIONS: EST. LENGTH OF MODIFIED DUTY: _______________ days / weeks

___Sedentary Work Only
___No Operating of Heavy Equipment
___No Work Requiring Continuous Walking and/or Standing for ___1hr ___2hrs ___3hrs ___4hrs ___5hrs+
___No Work Requiring Repetitive or Continuous Bending or Stooping for ___1hr ___2hrs ___3hrs ___4hrs ___5hrs+
___No Lifting Over __________lbs
___No Carrying / Pushing / Pulling Over __________lbs
___No Work Requiring Use of Arms above Shoulder Level
___Additional Restrictions:
______________________________________________________________________________________________________________________________

Physician Signature ___________________________ Date ___________
TURNER CONSTRUCTION JOB ANALYSIS

Task Description/Primary or Daily Duties:

I. Working Conditions:

II. Specific Equipment Operations or Specific Safety Devices or Other Relevant Factors:

III. Physical Demands

<table>
<thead>
<tr>
<th>Task</th>
<th>Continuous</th>
<th>Intermittent</th>
<th>Seldom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined Standing/Walking</td>
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<td></td>
</tr>
<tr>
<td>Sitting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifting/Lowering/Carrying – Weights</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>under 25 lbs.</td>
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<td></td>
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<tr>
<td>25-50 lbs.</td>
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<td></td>
</tr>
<tr>
<td>Over 50 lbs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifting/Lowering/Carrying - Ranges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floor to Knuckle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knuckle to Shoulder</td>
<td></td>
<td></td>
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<tr>
<td>Shoulder and above</td>
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<td></td>
<td></td>
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<tr>
<td>Bending</td>
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<tr>
<td>Twisting</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Reaching</td>
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<td></td>
<td></td>
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<tr>
<td>Pushing/Pulling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crouching/Stooping</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kneeling</td>
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<td></td>
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</tr>
<tr>
<td>Climbing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Arm Controls or Leg Controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Body-Shoulder/Elbow Use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand/Wrist Flexion-Extension</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noise/Dust/Chemical Exposures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confined Space Hazards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working at Heights</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Mobile Equipment/Machinery</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
WC Form 4 – Medical Authorization Form

Turner Construction
<address>
<address>
Attn: <Safety Manager>

Injured Worker: __________________________________________________________
Date of Injury: _________________________________________________________
Subcontractor: __________________________________________________________
Job Site: _______________________________________________________________

Medical Authorization Form

I, _________________________________________ (injured worker), hereby authorize ___________________________________________ (name of doctor) and any other provider of medical, dental, or hospital services to give to Turner Construction & Liberty Mutual, hereinafter called the company, any medical, dental or hospital records which have been acquired in the course of any examination of or treatment to _________________________________________ (injured worker), for a workers’ compensation injury or disease commencing on or about________________________________________ (date), including any medical history relating thereto.

This information is to be used in the evaluation by the company, its agents, employees, or any other person performing a business, professional, or insurance function for their benefit of a workers’ compensation claim presented to the company and will not be given, sold, transferred, or in any way relayed to another person without further written authorization, except as required by law. This information may, however, be redisclosed to persons or organizations engaged in the prevention, detection or prosecution of fraud or other illegal activities.

This authorization shall be valid for the duration of the subject claim. I know I may request a copy of this authorization. A photographic copy of this authorization shall be as valid as the original.

Signature__________________________________________ Date _________________
Addendum No. 1

July 25th, 2018

UK Enoch Grehan Building Modernization

BP # 2 – General Construction

AE Project No. 1801

This Addendum forms a part of the Contract Documents and supersedes all conflicting portions of drawings and specifications. Contractors shall include all omissions, additions, and adjustments of all trades as may be necessary because of each change, substitution, or omission. This Addendum hereby becomes a part of the Proposal Documents and will become part of the Contract Documents on the successful bidder(s).

Specifications

Item #1: Commissioning Documents:

- Add the following attached Commissioning Documents to the Specifications:
  COMMISSIONING SPECIFICATION INDEX

  DIVISION 01 GENERAL REQUIREMENTS
  017900 DEMONSTRATION AND TRAINING
  019113 GENERAL COMMISSIONING REQUIREMENTS
  019113.13 FUNCTIONAL TESTING

  DIVISION 22 PLUMBING
  220800 COMMISSIONING OF PLUMBING SYSTEMS

  DIVISION 23 HEATING, VENTILATING & AIR CONDITIONING
  230800 COMMISSIONING OF HVAC SYSTEMS

  DIVISION 26 ELECTRICAL
  260800 COMMISSIONING OF ELECTRICAL SYSTEMS

  REFERENCE DOCUMENT TO BE INCLUDED
  CURRENT COMMISSIONING PLAN

Item #2: Section 074216 – Metal Wall Panel / Rainscreen Assembly

- At Section 074216, revise par. 2.5.B.2 to read:

  Equal products from alternate manufacturers are acceptable but shall be subject to full compliance with specification requirements and shall be subject to the same performance requirements listed herein. Potential manufacturers include but are not limited to the following:

  a. Dri Design
  b. Pohl
c. Firestone - Metal Products - Flat Lock Wall Panel
d. Rheinzink – Flat lock Tiles
e. ATAS international, Inc – Versa-Lok
f. VMZinc – VMZ Flat Lock Panel
At Section 074216, delete paragraph 2.5.B.3.

Item #3: Section 085123.13 – Hot Rolled Steel Windows
• Basis of design changed herein to a Cold Rolled product. As such revise all references to “Hot-Rolled steel” shall be revised to “Hot or Cold Rolled steel”.
• At Section 085123.13 paragraph 2.1.A, add following to end of paragraph: “Products shall match existing profiles as close as possible in size, profile and configuration.”
• At Section 085123.13 paragraph 2.1.B, revise Basis of Design to be “Hope’s Windows Inc. (5000 Series) with Thermal Evolution Technology”.
• At Section 085123.13 paragraph 2.2.A.1, revise to read: “Profiles made from steel with flanges.”
• At Section 085123.13 paragraph 2.2.B.1, revise to read:
  o 1 Simulated Divided Lite Muntins:
    ▪ Interior and exterior muntins to match the existing profiles.
• At Section 085123.13 paragraph 2.2.G.3, revise to read: “E-coat primer”
• At Section 085123.13 paragraph 2.3.C.1, revise to read: “Simulated divided lite shall be coped and cross notched at the factory and will be surface mounted to the glass in the field.”

Item #4: Section 086300 – Metal Framed Skylights
• Add item 2.2.A.2.e to read: “Equal products complying with all requirements of the specifications are also acceptable.”

Item #5: Section 133424 – Specialty Glazed Structure and Canopy
• Add attached Section 133424 to cover exterior glass entrance canopies.

Item #6: Section 280500 – Common Work Results for Electronic Safety & Security:
• Refer to specification section 280500.2.01: The elevator lobby two-way communication device shall be Talkaphone #VOIP-500E.

Drawings

Item #7: Drawing L3.0 – Site Grading Plan:
Revise as per attached LX-3.0 drawing.

Item #8: Drawing L5.1 – Landscape Details:
Revise details as per attached LX-5.1 drawing.

Item #9: Drawing L6.0 – Site Details:
• Revise detail as per attached LX-6.0 drawing.

Item #10: Drawing L6.1 – Site Details:
• Revise detail as per attached LX-6.1 drawing.
• Revise detail Fas per attached LX-6.2 drawing.
Item #11: **Drawing S-203 – First Floor & Level 1.5 Framing Plans:**
- At Canopy Plan B/S-203: Revised dimensions. Deleted beam and respaced remaining beams as per attached SK-1 drawing.
- At Canopy Plan C/S-203: Revised dimensions. Deleted beam and respaced remaining beams as per attached SK-2 drawing.

Item #12: **A-101 – First Floor Architectural Plan:**
- Adjusting elevation markers in Reception 113 and Copier 113M as required to read C1/A-502 and C8/A-502 respectively.

Item #13: **Drawing A-102 – Second Floor Plan:**
- At Corridor #200C, add note to read: “Remove existing floor and prep floor for new finish. Provide new LVT-01 flooring, new resilient base RB-03, new ACT ceiling and paint on all walls for extents of Corridor #200C.”

Item #14: **Drawing A-105 – Enlarged Connector Plans:**
- At First Floor Enlarged Plan, add sink at counter adjacent to stairs as per attached AX-01 drawing.

Item #15: **Drawing A-150 – Basement and First Level Finish Plans:**
- At Basement Finish Plan D1/A-150 in Storage #014 add note to read: “Provide wall protection panels at all walls of Storage room #014 & #014A from base to 48” AFF. Panels to be CS "Acrovyn" Wall Panels system, InPro "Palladium" system, Koroseal "Koropanels" system or equal.
- Clarifying base finish in Stair 1, Stair 2 and Stair B to be MB-01 painted PT-08 and the landings in these stairs to be RB-03 where appropriate. The landings in Stair B are noted as "Wall base to match existing at modified landings where required."
- Clarifying bench mark locations of LVT in Computational Spaces 101, 102, 103, 104, 105 and 106 and also denoting TR-01 transition strip at north edge of Corridor 100B (see image below).
- Clarifying floor finish in Grad Space 120 to be VCT-C1 in lieu of carpet.
- Clarifying accent paint location in Stair B to be PT-04 on west wall at all levels.
- Clarifying floor finish in Storage 019A to be VCT-C1.
- Clarifying transition strips in Connector 100A to have same bench mark 18'-0" and 14'-0" dimensions as those indicated in Connector 008.
- Clarifying wall tile WT-01 behind drinking fountains in niche on north wall of Corridor 000B.

**Item #16: Drawing A-151 – Second and Third Level Finish Plans:**
- Clarifying base finish in Stair 1, Stair 2 and Stair B to be MB-01 painted PT-08 and the landings in these stairs to be RB-03 where appropriate. The landings in Stair B are noted as "Wall base to match existing at modified landings where required."
- Clarifying column paint color in Connector 200A and Stair A as PT-08.
- Clarifying riser paint color as PT-07 at stairs in Connector 200A.
- Clarifying accent paint start/stop locations where closet was removed in N/W corner by door of Classroom 202.

**Item #17: Drawing A-401 – Enlarged Plans:**
- Revise Toilet Room Accessories Legend as follows
  a. Add note that Paper Towel Dispensers 01C and Toilet Tissue Holders 03A are to be Owner Furnished and Contractor Installed.
  b. Delete references to Warm Air Hand Dryers 07A & 07B; none are required.
- Clarifying locations of SSM-01 and PLM-01 in elevations E3 and E7 per sketch below.

**Item #18: Drawing A-502 – Interior Elevations:**
- A1/A-502: Clarifying base is RB-02 all along this south corridor wall.
- B1/A-502: Clarifying base is RB-02 all along this north corridor wall and PT-01 as wall paint in niche to right of window system/door 113.
- C7/A-502: Wall paint and countertop finish clarification (as below)
- C8/A-502: Elevation number clarification per corrections on A-101, clarifying paint color behind casework as PT-04 and clarification of dimensions as 2'-10" tall base cabinets, 1'-10" space between countertop and underside of upper cabinets and 3'-0" tall upper cabinets.
- E1/A-502: Add note pointing to refrigerator stating, “OWNER PROVIDED EQUIPMENT. VERIFY SIZE REQUIREMENTS PRIOR TO FABRICATION.”

**Item #19: Drawing A-503 – Interior Elevations:**
Item #20: **Drawing A-504 – Interior Elevations:**
- A6/A504 Addition of vertical drywall reveals above case niche on first level as below

![Diagram]

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Item #21: **Drawing A-622 – Window Details:**
- At General Notes at the bottom of the sheet add the following: “Trim / panning (whether new or re-used) to match the finish of new windows, typical at all steel replacement windows.”

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Item #22: **Drawing A-650 – Finish Schedule and Details:**
- Modify as per attached revised A-650 drawings

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Item #23: **Plumbing Drawings:**
- Refer to sheets P-101, P-102, P-103, P-200, P-201, P-301, P-302, P-400 & P-401: Add sink S-1A as indicated.
- Refer to sheets P-010, P-100 for clarification on Generator Vault Areaway.

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Item #24: **HVAC Drawings:**
- H-100 R3 Basement HVAC Plan: Add ductwork and dampers for emergency generator.
- Refer to sheet H-302, Fans Schedule: EF-1, delete the requirement for VFD, shaft grounding ring, and flow measuring.

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Item #25: **Electrical Drawings:**
- Refer to sheets E-100 and E-200: Make revisions at the generator vault as indicated on the two attached drawings.
- Refer to sheet E-202: There exists a 1” conduit adjacent to the west side (plan-north) of the existing window where the new doors will be installed from the new connector into McVey Hall. This conduit runs from below the second floor slab, vertically through the second floor space, and up through the third floor slab with no connection points at the second floor. This conduit is to be relocated to allow space for the installation of the new doors/door frame. The conduit/circuit shall be intercepted below the second floor, shall be relocated where it is not in
conflict with the new door, and shall be reconnected to the existing conduit/circuit above the new door/door frame near the second floor ceiling. Field coordinate route for relocated conduit with construction manager before installation.

- Refer to sheet E-300: Route telecommunication conduits from the basement cable tray, through the new mechanical tunnel, to the cable tray in the existing utility tunnel in lieu of running new conduits below the basement slab. See attached revised drawing.
- Refer to sheet E-400: Note the 15V switch shall be a section connected to the switchgear as indicated on the floors plans and not a standalone section as indicated on E-400.

Item #26: **Security Drawing**:

- Incorporate changes as denoted on attached ESS1.1a, ESS1.2a, ESS1.3a, ESS1.3b, and ESS1.4a drawings.

Item #27: **AV3.1 – AV Details**:

- Incorporate changes as per attached revised sheet AV3.1.

End of A/E Addendum #1
## COMMISSIONING SPECIFICATION INDEX

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**REFERENCE DOCUMENT TO BE INCLUDED**

CURRENT COMMISSIONING PLAN

END COMMISSIONING SPECIFICATION INDEX
SECTION 017900 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.01 SUMMARY

A. Refer to specific specification sections for required demonstration and training of products and systems.

B. Training of Owner personnel in operation and maintenance is required for:
   1. All software-operated systems.
   2. HVAC Systems and equipment
   3. Plumbing Equipment
   4. Electrical Systems and equipment.
   5. Conveying Systems.
   6. Items specified in individual product Sections

C. Training of Owner personnel in care, cleaning, maintenance, and repair is required for:
   1. Roofing, waterproofing, and other weather-exposed or moisture protection products.
   2. Finishes, including flooring, wall finishes, ceiling finishes.
   3. Fixtures and fittings,
   4. Items specified in individual product Sections.

D. Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
   1. Demonstration of operation of commissioned systems, subsystems, and equipment.
   2. Training in operation and maintenance of commissioned systems, subsystems, and equipment.
   3. Demonstration and training video recordings.

E. A sample Owner Training Plan is contained in this Section.

1.02 RELATED REQUIREMENTS

A. Division 01 – Closeout Submittals: Operation and Maintenance Manuals

B. Section 019113 – General Commissioning Requirements: Additional requirements applicable to demonstration and training

C. Other Specification Sections: Additional Requirements for Demonstration and Training

1.03 INFORMATIONAL SUBMITTALS

A. Instruction Program: Submit outline of instructional program for demonstration and training, including a list of training modules and a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
   1. Indicate proposed training modules utilizing manufacturer-produced demonstration and training video recordings for systems, equipment, and products in lieu of video recording of live instructional module.
B. The following information will be submitted to the General Contractor for distribution to the Commissioning Authority eight (8) weeks after Contract Award.
   1. Responsible Contractor for training
   2. Firm completing the training
   3. Planned training date(s)

1.04 CLOSEOUT SUBMITTALS

A. Demonstration and Training Video Recordings: Submit two copies within seven days of end of each training module.
   1. At completion of training, submit complete training manual(s) for Owner's use.

1.05 QUALITY ASSURANCE

A. Facilitator Qualifications: A firm or individual experienced in training or educating maintenance personnel in a training program similar in content and extent to that indicated for this Project, and whose work has resulted in training or education with a record of successful learning performance.

B. Instructor Qualifications: A factory-authorized service representative, or other qualified representative, experienced in operation and maintenance procedures and training. Instructor shall be an individual familiar with the Project, systems design, systems installation, systems operation, and systems maintenance. The representative performing training will have at least five (5) years of experience in conducting Owner training sessions. The Trainer will have been associated with the manufacturer for at least one (1) year.

C. The Owner will not accept training from individuals or firms unfamiliar with the project. Training sessions will be rescheduled at no additional expense to the Owner.

1.06 COORDINATION

A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations.

B. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Architect.

C. Training sessions will be scheduled for completion prior to Substantial Completion award. Training will occur only after system is 100% functional. Training will be scheduled with the attendees, listed below, at least two (2) weeks in advance.

PART 2 - PRODUCTS

2.01 INSTRUCTION PROGRAM

A. Program Structure: Develop an instruction program that includes individual training modules for each system and for equipment not part of a system, as required by individual Specification Sections.
B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following as applicable to the system, equipment, or component:

1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
   a. System, subsystem, and equipment descriptions.
   b. Performance and design criteria if Contractor is delegated design responsibility.
   c. Operating standards.
   d. Regulatory requirements.
   e. Equipment function.
   f. Operating characteristics.
   g. Limiting conditions.
   h. Performance curves.

2. Documentation: Review the following items in detail:
   a. Emergency manuals.
   b. Operations manuals.
   c. Maintenance manuals.
   d. Project record documents.
   e. Identification systems.
   f. Warranties and bonds.
   g. Maintenance service agreements and similar continuing commitments.

3. Emergencies: Include the following, as applicable:
   a. Instructions on meaning of warnings, trouble indications, and error messages.
   b. Instructions on stopping.
   c. Shutdown instructions for each type of emergency.
   d. Operating instructions for conditions outside of normal operating limits.
   e. Sequences for electric or electronic systems.
   f. Special operating instructions and procedures.

4. Operations: Include the following, as applicable:
   a. Startup procedures.
   b. Equipment or system break-in procedures.
   c. Routine and normal operating instructions.
   d. Regulation and control procedures.
   e. Control sequences.
   f. Safety procedures.
   g. Instructions on stopping.
   h. Normal shutdown instructions.
   i. Operating procedures for emergencies.
   j. Operating procedures for system, subsystem, or equipment failure.
   k. Seasonal and weekend operating instructions.
   l. Required sequences for electric or electronic systems.
   m. Special operating instructions and procedures.

5. Adjustments: Include the following:
   a. Alignments.
   b. Checking adjustments.
   c. Noise and vibration adjustments.
   d. Economy and efficiency adjustments.

6. Troubleshooting: Include the following:
   a. Diagnostic instructions.
   b. Test and inspection procedures.

7. Maintenance: Include the following:
   a. Inspection procedures.
   b. Types of cleaning agents to be used and methods of cleaning.
   c. List of cleaning agents and methods of cleaning detrimental to product.
d. Procedures for routine cleaning  
e. Procedures for preventive maintenance.  
f. Procedures for routine maintenance.  
g. Instruction on use of special tools.  

8. Repairs: Include the following:  
a. Diagnosis instructions.  
b. Repair instructions.  
c. Disassembly; component removal, repair, and replacement; and reassembly instructions.  
d. Instructions for identifying parts and components.  
e. Review of spare parts needed for operation and maintenance.  

PART 3 - EXECUTION

3.01 GENERAL  
A. Demonstrations conducted during system start-up do not qualify as demonstrations for the purposes of this section, unless approved in advance by Owner.  
B. Demonstration may be combined with Owner personnel training if applicable.  
C. Operating Equipment and Systems: Demonstrate operation in all modes, including start-up. Shut-down, seasonal changeover, emergency conditions, troubleshooting, and maintenance procedures, including scheduled and preventative maintenance.  
   1. Perform demonstrations not less than two weeks prior to Substantial Completion.  
   2. For equipment or systems requiring seasonal operation, perform demonstration for other seasons within six months.  
D. Non-Operating Products: Demonstrate cleaning, scheduled and preventative maintenance, and repair procedures.  
   1. Perform demonstrations not less than two weeks prior to Substantial completion.  
E. Conduct training on-site unless otherwise indicated.  
F. Owner will provide classroom and seating at no cost to Contractor.  
G. Do not start training until Functional Testing is complete, unless otherwise specified or approved by the Commissioning Authority.  
H. The Commissioning Authority is responsible for determining that the training was satisfactorily completed and will provide approval forms.  
I. Training schedule will be subject to availability of Owner’s personnel to be trained; re-schedule training session as required by Owner; once schedule has been approved by Owner failure to conduct sessions according to schedule will cause for Owner to charge Contractor for personnel “show-up” time.  

3.02 PREPARATION  
A. Assemble educational materials necessary for instruction, including documentation and training module. Training equipment required, such as projector, projection screen, etc., to be provided by Contractor.  
B. The individuals being trained shall receive:  
   1. Written training agendas
2. Written training materials reviewed in a classroom setting
3. On-site explanation and demonstration of the equipment operation.
4. Explanation of common equipment operations such as: sequencing, programming, shut-down, emergency operation, start-up, etc.

C. Training agendas will be submitted to the Architect/Engineer/Commissioning Authority two (2) weeks prior to the training date for review and comment.

D. Training Agenda is:
1. Submitted to the CA for review and acceptance
2. Submitted not less than four weeks prior to start of training.
3. Revised and resubmitted until acceptable.
4. Provides an overall schedule showing all training sessions.
5. Includes at least the following for each training session:
   a. Identification, date, time, and duration.
   b. Description of products and/or systems to be covered.
   c. Name of firm and person conducting training; including qualifications.
   d. Intended audience, such as job description.
   e. Objectives of training and suggested methods of ensuring adequate training.
   f. Methods to be used, such as classroom lecture, live demonstrations, hands-on, etc.
   g. Media to be used, such as projector, projection screen, etc. to be provided by Contractor.
6. The trainer returns this information to the CA, who submits it to the Owners and the CM. Once approved by the Owners, the training session can be scheduled. The trainer provides a copy of the agenda to each trainee.

E. Training manual to conduct the training session. Specifically, the manual will:
1. Contain applicable portions of the O&M Manuals
2. Contain copies of all hand-outs, slides, overheads, video presentations, etc. that are not included in O&M Manuals
3. Provide a copy for each attendee.
4. Provide one (1) extra copy to be included in operations and maintenance data to the CA

F. Training Record. For each piece of equipment, trainers shall document, in the Training Record, the following information:
1. Trainee
2. Total training hours required
3. Training hours completed
4. Training date
5. Topics covered
6. List of attendee questions and written answers given, including copies of and references to supporting documentation required for clarification; include answers to questions that could not be answered in the original training session in writing within 3 days of training session.

3.03 INSTRUCTION

A. Facilitator: Engage a qualified facilitator to prepare instruction program and training modules, to coordinate instructors, and to coordinate between Contractor and Owner for number of participants, instruction times, and location.

B. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
   1. CA will furnish an instructor to describe basis of system design, operational requirements, and criteria.
C. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
   1. Schedule training with Owner, through General Contractor, with at least two weeks' advance notice.

D. Duration: Provide a minimum of two (2) hours training for systems and subsystems as identified in Part 1, Section 1.01, Paragraphs B and C of this Section. In addition, for HVAC Controls, provide a minimum of sixteen (16) hours distributed over four (4) occasions.

E. Evaluation: At conclusion of each training module, assess and document each participant's mastery of module by use of an oral performance-based test.

3.04 DEMONSTRATION AND TRAINING VIDEO RECORDINGS

A. General: Record demonstration and training video recordings. Record each training module separately. Include classroom instructions and demonstrations, board diagrams, and other visual aids, but not student practice.
   1. At beginning of each training module, record each chart containing learning objective and lesson outline.

B. Video Recording Format: Provide high-quality color video recordings with menu navigation in MP4 format or as acceptable to Architect. File Name shall include session identification and date.

C. Narration: Describe scenes on video recording by audio narration by microphone while video recording is recorded. Include description of items being viewed.

D. Pre-Produced Video Recordings: Provide video recordings used as a component of training modules in same format as recordings of live training.

END OF SECTION 017900
## OWNER TRAINING AND ORIENTATION PLAN

**PROJECT**
Enoch Grehan Building Modernization  
University of Kentucky

**DATE**
JUN 2018

**OWNER**
Enoch Grehan Building Modernization  
University of Kentucky

**FILE NO**
CPMD Project #2446.2

**PREPARED BY**
Attendees and Scope to be filled out by the Commissioning Authority in consultation with the Owner

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<td>EQUIPMENT / SYSTEM</td>
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<td>• B0 • E • P • ES • DR</td>
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<td>• B0 • E • HVE</td>
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Enoch Grehan Building Modernization  
Lexington, Kentucky  
CPMD Project #2446.2  
June 2018  

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<td>• BO</td>
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</tbody>
</table>

²General Scope Codes: (Refer to the specifications and to the specific equipment Training Agenda for additional details.)

A Provide an **overview** of the purpose and operation of this equipment, including required interactions of trainees with the equipment.

B At an **intermediate level**, provide technical information regarding the purpose, operation and maintenance of this equipment, expecting that serious malfunctions will be addressed by factory reps.

C At a **very technical level**, provide information regarding the purpose, operation, troubleshooting and maintenance of this equipment, expecting that almost all operation, service and repair will be provided by the trainees.

²Trainee Types:

- E= Electrician
- ES= Electronics
- P= Plumbers
- BO= Building Operator
- AC= AC Technician
- C= Carpenter
- DR= Delta Room
- J= Janitorial
- FS= Faculty / Staff
- HVE= High Voltage Electricians

*OSCI = Owner supplied, contractor installed

END OF DRAFT OWNER TRAINING PLAN
SECTION 019113 - GENERAL COMMISSIONING REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

B. Owner’s Project Requirements and Systems Basis of Design documentation are included by reference.

C. Commissioning Plan and Appendices.

1.02 SUMMARY

A. Section includes general requirements that apply to implementation of commissioning without regard to specific systems, assemblies, or components.

B. Related Sections:
   1. Section 017900 – Demonstration and Training
   2. Section 019113.13 – Functional Testing
   3. Section 210800 – Commissioning of Fire Suppression System
   4. Section 220800 – Commissioning of Plumbing System
   5. Section 230800 – Commissioning of HVAC System

1.03 DEFINITIONS

A. Commissioning (Cx): A quality-focused process for enhancing the delivery of a project. The process focuses upon verifying and documenting that the facility and all of its systems and assemblies are planned, designed, installed, tested, operated, and maintained to meet the Owner’s Project Requirements.

B. Commissioning Authority (CA): The designated person, company, agent, or combination thereof identified by the Owner. This entity will lead, plan, schedule, and coordinate the Commissioning Team in implementing the overall Commissioning Process.

C. Commissioning Plan: A document that outlines the organization, schedule, allocation of resources, and documentation requirements of the Commissioning Process. It includes a schedule of Commissioning Process activities, individual responsibilities, documentation requirements, communication and reporting protocols, and evaluation procedures. This document is updated throughout the project.
D. Functional Test (FT): A written protocol that defines methods, personnel, and specifications for test conducted on components, equipment, assemblies, systems, and interfaces among systems.


E. Owner’s Project Requirements (OPR). A written document that details the functional requirements of a project and the expectations of how it will be used and operated. This includes project goals, measurable performance criteria, cost considerations, benchmarks, success criteria, and supporting information. This document is updated throughout the project.


F. Construction Checklist (CC): A form used by the Contractor to verify that appropriate components are on-site, ready for installation, correctly installed, and functional. Checklists also include manufacturer’s installation start-up and checkout data. The Contractor is responsible for incorporating manufacturer’s information into the preliminary checklists provided by the Commissioning Authority.


G. Systems Basis of Design (SBoD): A document that identifies the design parameters of a project and how each criterion in the Owner’s Project Requirements will be addressed.¹ The document records the concepts, calculations, decisions, and product selections used to meet the Owner’s Project Requirements and to satisfy applicable regulatory requirements, standards, and guidelines. The document includes both narrative descriptions and lists of individual items that support the design process. This document is updated throughout the project.


H. Systems, Subsystems, Equipment, Assemblies and Components: Where these terms are used together or separately, they shall mean “as-built” systems, subsystems, equipment, assemblies and components.

1.04 COMMISSIONING TEAM

A. During the Construction Phase, members of the Commissioning Team consist of the Owner, Commissioning Authority, Project Manager, Contractor, members appointed by Contractor(s), Architect / Engineer, TAB Representative, Controls Contractor, and Commissioned System and Assembly Subcontractors, other installing subcontractors or suppliers of equipment, and Members Appointed by Owner(s).

B. Members Appointed by Contractor(s): Individuals, each having the authority to act on behalf of the entity he or she represents, explicitly organized to implement the commissioning process through coordinated action. These members shall consist of, but not be limited to, representatives of Contractor, including Project superintendent and subcontractors, installers, suppliers, and specialists deemed appropriate by the Commissioning Authority.

C. Members Appointed by Owner(s): Representatives of the facility user and operation and maintenance personnel.

D. The Commissioning Authority is under contract with the Owner for this project.
1.05 OWNER’S RESPONSIBILITIES

A. Provide the Owner's Project Requirements criteria to the Commissioning Authority for distribution to the Contractor.

B. Participate in Commissioning Process Meetings.

C. Assign operation and maintenance personnel and schedule them to participate in Functional Testing activities.

D. Approve the Systems Basis of Design documentation prepared by Architect / Engineer. Send notice of approval to the Commissioning Authority and Contractor so Systems Basis of Design may be used in developing the Construction Checklists and Functional Performance Tests.

1.06 CONTRACTOR’S RESPONSIBILITIES

A. Contractor shall assign representatives with expertise and authority to act on its behalf and shall schedule them to participate in and perform commissioning process activities including, but not limited to, the following:

1. Attend Construction Phase Commissioning Conference.
2. Satisfy applicable project Owner's Project Requirements.
3. Review the Commissioning Plan prepared by Commissioning Authority.
4. Evaluate performance deficiencies identified in test reports and, in collaboration with entity responsible for system and equipment installation, recommend corrective action.
5. Cooperate with the Commissioning Authority for resolution of issues recorded in the Issues Tracking Log. Resolution of some fashion will occur within one week of finding and notification.
6. Attend Commissioning Team Meetings.
7. Integrate and coordinate commissioning process activities with Construction Schedule.
8. Review, accept, and support execution of Construction Checklists provided by the Commissioning Authority.
9. Support completion of Construction Checklists as Work is completed.
10. Submit completed Construction Checklists to the Commissioning Authority as Work is completed.
11. Review and accept Functional Test Procedures provided by the Commissioning Authority.
12. Complete Functional Test Procedures, including seasonal and any deferred test procedures.
13. Provide Owner training as directed in equipment specification sections and Section 017900.
14. Provide O&M Manuals as required by the A/E.
15. Provide access to electrical, water, scaffolding, man-lifts, of other mechanical conveyances used by the contractors to perform their work during functional and performance testing under the direction of the CA. If mechanical conveyances are unavailable during the commissioning process, the Construction Manager will provide the necessary equipment for access required.
16. For descriptions of these responsibilities reference the Commissioning Plan and Related Sections.

1.07 COMMISSIONING AUTHORITY’S RESPONSIBILITIES

A. Review the Owner’s Project Requirements and Systems Basis of Design.

B. Organize and lead the Commissioning Team.

C. Provide Commissioning Plan.

D. Convene Commissioning Team Meetings.
E. Review submittals for commissioned equipment and building envelope components.

F. Provide Project specific Construction Checklists and Functional Test Procedures.

G. Verify the execution of commissioning process activities. Verification will include, but is not limited to, equipment and component submittals, Construction Checklists, training, operating and maintenance data, tests, and test reports to verify compliance with the Owner's Project Requirements. When there is a deviation from the standard, the Commissioning Authority will report the occurrence in the Issues Tracking Log.

H. Prepare and maintain the Issues Tracking Log.

I. Prepare and maintain a log of completed Construction Checklists.

J. Verify a sample of systems, assemblies, equipment, and component Construction Checklists.

K. Witness a sample of systems, assemblies, equipment, and component Functional Tests.

L. Compile test data, inspection reports, and certificates; include them in the Commissioning Report.

M. Coordinate Owner Training for commissioned systems.

N. Review commissioned systems operation during Warranty Period.


P. Complete the LEED Submittal Template(s) for commissioning.

1.08 SCHEDULING

A. Contractor shall integrate and coordinate commissioning process activities with Construction Schedule.

B. All activities relative to commissioning shall be completed by Substantial Completion. Seasonal functional tests may be deferred to the appropriate weather conditions. Anticipated seasonal functional tests are identified in Specification Sections 019113.13 and 019119.13 – Functional Testing.

C. Schedule shall include coordinating the following in addition to Contractor and Commissioning Authority commissioning process activities:
   1. Commissioning process activities associated with Owner-Contracted Functional Tests.

D. Functional Test Procedures may require scheduling of seasonal and deferred functional testing to be performed after the building acceptance period. The Contractor shall be responsible for coordinating seasonal and any deferred functional testing activities with the Commissioning Team.
   1. Based on the project's scheduled construction completion date, a list of Functional Test Procedures anticipated to require seasonal testing is included in the Functional Testing Plans in Specification Sections 019113.13 and 019119.13 – Functional Testing.

E. Owner Training Schedules shall be as described in Section 017900 – Demonstration and Training.

PART 2 - PRODUCTS [NOT USED]
PART 3 - EXECUTION

3.01 CONSTRUCTION CHECKLIST CREATION
A. Construction Checklists consist of Paladin created draft checklists, manufacturer installation, start-up, and checkout data, and important instructional data and procedures not covered in manufacturer field checkout sheets.
B. The Contract Documents and Commissioning Plan contain Construction Checklist information, sampling rates, and examples of Paladin’s Construction Checklists. When the CM is ready to review the Construction Checklists, Paladin will distribute entire Construction Checklist package.
C. Sample Construction Checklists are included as an attachment to this specification.
D. The following process will be used for this project to develop and approve the Construction Checklists.
   1. These checklists do not take the place of the manufacturer’s recommended checkout and start-up procedures or report. There may be redundancy between checklist procedures and typical factory field checkout sheets. Double documentation is required in those cases.
   2. The CA transmits draft Construction Checklists to the CM who then transmits the draft Construction Checklist(s) to the responsible Subcontractors for review and comment.
   3. The Subcontractor designated to support execution of Construction Checklists obtains manufacturer installation, start-up and checkout data, including actual field checkout sheets used by the field technicians. The Subcontractor returns any comments on Construction Checklists to the CA, through the CM.
   4. The CA reviews Construction Checklist comments and incorporates changes as appropriate prior to use.

3.02 EXECUTION OF CONSTRUCTION CHECKLISTS
A. The MEP Construction Checklists will be completed by the CA according to the Sampling Strategy for CA Observation of Construction Checklists contained in the Commissioning Plan, Section 1.4.
B. The Building Envelope assembly and components Construction Checklists are directed and executed by the Sub-contractor or vendor for 100% of all commissioned building envelope assemblies and components.
C. Four (4) weeks prior to startup, the Subcontractors and vendors schedule startup and initial checkout with the Construction Manager and CA.
D. MEP Construction Checklists must be complete for each piece of equipment prior to any manufacturer or Sub start-up.
E. As deficiencies are identified by the CA, they will be documented in an Issues Tracking Log. Please see the Commissioning Plan, Section 6.12 – Deficiencies and Issues Tracking for procedures related to issues tracking and closeout.

3.03 FUNCTIONAL TESTING
A. Functional Testing Plan and Functional Testing requirements are located in Specification Sections 019113.13. The CA will prepare and finalize the tests with information such as: change orders, updated points list, control sequences and setpoints, input from contractors, and input from the A/E.
3.04 OWNER TRAINING
   A. Reference Specification Section 017900 - Demonstration and Training for owner training requirements.

END OF SECTION 019113
### SAMPLE CONSTRUCTION CHECKLIST

**AIR HANDLING UNIT**

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<tr>
<th>COMPONENTS INCLUDE:</th>
<th>Supply Fan</th>
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<td>VFDs</td>
<td>Economizer</td>
<td>Pre-Filters</td>
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<td>Cooling Coil</td>
<td>Heating Coil</td>
<td>Humidifier</td>
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<tr>
<td>Air Blender</td>
<td>Final Filters</td>
<td>Duct Connections</td>
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#### SUBMITTAL / APPROVALS

1. **Submittal**. The above equipment and systems integral to them are complete and ready for functional testing. The checklist items are complete and have been checked off only by parties having direct knowledge of the event. This Construction Checklist is submitted for approval, subject to an attached list of outstanding items yet to be completed.

   ___ List attached.

2. Party completing this form and witnessing testing:

3. **Approvals**. This completed Construction Checklist has been reviewed. Its completion is approved with the exceptions noted below.

   Commissioning Authority __________ Date __________

   Owner’s Representative __________ Date __________

#### ASSOCIATED CHECKLISTS

The listed Associated Checklists reference equipment and systems that interface with this equipment. These Associated Checklists may be of assistance in completing this Construction Checklist.

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<thead>
<tr>
<th>ASSOCIATED CHECKLISTS</th>
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<tr>
<td>Constant-Speed Pumps</td>
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<td>Steam Traps</td>
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#### DOCUMENTATION REQUIREMENTS

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<td>Performance data</td>
<td>☐</td>
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<tr>
<td>Installation and startup manual and plan</td>
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## Factory test results

- [ ]

## Sequences and control strategies

- [ ]

## Warranty certificate

- [ ]

## Comments:

### MODEL VERIFICATION

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<td>Manufacturer</td>
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<td>Volts/Phase Rating</td>
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### CABINET AND GENERAL INSTALLATION

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<th>Reference</th>
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<td>1. Cabinet and general installation.</td>
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<tr>
<td>2. Permanent labels affixed, including for fans.</td>
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<tr>
<td>3. Casing condition good: no dents, leaks, door gaskets installed.</td>
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<tr>
<td>4. Access doors close tightly - no leaks.</td>
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<tr>
<td>5. Connection between duct and unit tight and in good condition.</td>
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<tr>
<td>6. Vibration isolation equipment installed and shipping blocks removed.</td>
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<td>7. Maintenance access acceptable for unit and components.</td>
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<tr>
<td>8. Perforated liner installed in correct locations, in accordance with specs.</td>
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<tr>
<td>9. Thermal insulation properly installed and according to specification.</td>
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<tr>
<td>10. Instrumentation installed according to specification (thermometers, pressure gages, flow meters, etc.).</td>
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<tr>
<td>11. Clean up of equipment completed per contract documents.</td>
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<td>12. Air blenders and diffuser plate installed in proper location and blades not damaged or bent.</td>
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<td>13. Filters installed and replacement type and efficiency permanently affixed to housing. DP Indicators Installed.</td>
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### PRE-HEAT VALVE, PIPING, AND COIL

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<td></td>
</tr>
<tr>
<td>2. Pipes properly labeled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Pipes properly insulated.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Strainers in place and clean, blowdown installed. □
5. Piping system properly flushed. □
6. No leaking apparent around fittings. □
7. All coils are clean and fins are in good condition. □
8. Valve properly labeled. □
9. Valve installed in proper direction. □
10. Hot water supply and Return temperature instrumentation properly installed and located. □
11. Test plugs (P/T), air vents, drain and isolation valves installed per drawings. □

Comments:

### CHILLED WATER VALVE, PIPING, AND COIL

<table>
<thead>
<tr>
<th>Check if Acceptable; Provide comment if unacceptable</th>
<th>Field Note #</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pipe fittings complete and pipes properly supported.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>2. Pipes properly labeled.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>3. Pipes properly insulated.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>4. Strainers in place and clean, blowdown installed.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>5. Piping system properly flushed.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>6. No leaking apparent around fittings.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>7. All coils are clean and fins are in good condition.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>8. All condensate drain pans clean and slope to drain, traps installed per spec.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>10. Valves installed in proper direction.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>11. Chilled water supply and Return temperature instrumentation properly installed and located.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>12. Test plugs (P/T), air vents, drain and isolation valves installed per drawings.</td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>

Comments:

### SUPPLY FAN

<table>
<thead>
<tr>
<th>Check if Acceptable; Provide comment if unacceptable</th>
<th>Field Note #</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fan and motor alignment correct.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>2. Fan belt tension and condition good.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>3. Fan protective shrouds for belts in place and secure.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>4. Fan area clean.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>5. Fan and motor properly lubricated.</td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>

Comments:
<table>
<thead>
<tr>
<th>RETURN FAN</th>
<th>Check if Acceptable; Provide comment if unacceptable</th>
<th>Field Note #</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fan and motor alignment correct.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Fan belt tension and condition good.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fan protective shrouds for belts in place and secure.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Fan area clean.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Fan and motor properly lubricated.</td>
<td>☐</td>
<td></td>
<td></td>
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<tr>
<td>Comments:</td>
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<table>
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<tr>
<th>PRE-FILTERS</th>
<th>Check if Acceptable; Provide comment if unacceptable</th>
<th>Field Note #</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Filters installed and efficiencies match schedule.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Filters clean and tight fitting to filter frame.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Filter pressure differential measuring device installed and functional.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Access doors seal and close tightly.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
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<table>
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<tr>
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<th>Check if Acceptable; Provide comment if unacceptable</th>
<th>Field Note #</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Filters installed and efficiencies match schedule.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Filters clean and tight fitting to filter frame.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Filter pressure differential measuring device installed and functional.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Access doors seal and close tightly.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>DUCT CONNECTIONS</th>
<th>Check if Acceptable; Provide comment if unacceptable</th>
<th>Field Note #</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sound attenuators installed.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Duct joint sealant properly installed.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. No apparent severe duct restrictions.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Turning vanes in square elbows as per drawings.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. OSA intakes located away from pollutant sources &amp; exhaust outlets.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Pressure leakage tests completed.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Branch duct control dampers operable.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Ducts cleaned as per specifications.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Balancing dampers installed as per drawings and TAB’s site visit.</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Smoke and fire dampers installed properly per contract docs (proper location, access doors, appropriate ratings verified).</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### ECONOMIZER

<table>
<thead>
<tr>
<th>Check if Acceptable; Provide comment if unacceptable</th>
<th>Field Note #</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Return Air, Relief Air, and Outside Air Dampers and actuators are installed and operate freely.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>2. Dampers seal tightly when closed and do not allow bypass air.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>3. Actuators are secure and linkages are tight.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>4. All control and power wiring to actuators are complete.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>5. Actuators are labeled and match control system labels.</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

Comments:

### ELECTRICAL AND CONTROLS

<table>
<thead>
<tr>
<th>Check if Acceptable; Provide comment if unacceptable</th>
<th>Field Note #</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Power disconnects located within site of the unit it controls and labeled.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>2. All electric connections tight.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>3. Grounding installed for components and unit.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>4. Safeties installed and operational.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>5. Starter overload breakers installed and correct size</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>6. All control devices and wiring complete.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>7. Control system interlocks connected and functional.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>8. Smoke detectors in place and wiring complete.</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

Comments:

### SUPPLY FAN VFD

<table>
<thead>
<tr>
<th>Check if Acceptable; Provide comment if unacceptable</th>
<th>Field Note #</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Drive location not subject to excessive temperatures, moisture, or dirt</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>2. Drive size matches motor size.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>3. Permanent label affixed and UL stamp approved.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>4. VFD interlocked to control system.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>5. Operation checked in HAND, OFF, and AUTO. As applicable operation also checked in BYPASS.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>6. Where applicable, ensure safeties are active in all modes.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>7. VFD powered (wired to controlled equipment).</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>8. VFD Checklist completed (see 23.02)</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

Comments:
### RETURN FAN VFD

<table>
<thead>
<tr>
<th>Check if Acceptable; Provide comment if unacceptable</th>
<th>Field Note #</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Drive location not subject to excessive temperatures, moisture, or dirt</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>2. Drive size matches motor size.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>3. Permanent label affixed and UL stamp approved.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>4. VFD interlocked to control system.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>5. Operation checked in HAND, OFF, and AUTO. As applicable operation also checked in BYPASS.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>6. Where applicable, ensure safeties are active in all modes.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>7. VFD powered (wired to controlled equipment).</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>8. VFD Checklist completed (see 23.02)</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

Comments:

### SENSORS AND GAGES

<table>
<thead>
<tr>
<th>Check if Acceptable; Provide comment if unacceptable</th>
<th>Field Note #</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Temperature, pressure, and flow gages and sensors installed.</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>2. Piping gages, BMS, and associated panel temperature and pressure readouts match.</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

Comments:

### TAB

<table>
<thead>
<tr>
<th>Check if Acceptable; Provide comment if unacceptable</th>
<th>Field Note #</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. TAB data has been spot checked.</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

Comments:
MANUFACTURER’S INSTALLATION INSTRUCTIONS

(Link to file.)

OPERATIONAL CHECK TEAM

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
</table>

OPERATIONAL CHECKS

These augment manufacturer’s list. This is not Functional Testing.

<table>
<thead>
<tr>
<th>Check if Acceptable; Provide comment if unacceptable</th>
<th>Field Note #</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Supply fan rotation correct (If VFD, check rotation in bypass and VFD Inverter mode).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Fans exhibit no unusual noise or vibration.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Inlet damper aligned in housing, actuator spanned, closes smoothly and on input signal from EMS.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. All dampers (OSA, RA, EA, etc.) stroke fully without binding and spans calibrated and BMS reading site verified.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Valves stroke fully and easily and spanning is calibrated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Valves verified to not be leaking through coils, humidifier, etc. when closed at normal operating pressure.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Specified point-to-point checks have been completed and documentation record submitted for this system.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Condensate Traps are operating properly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Steam Traps are operating properly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Vapor Trail being absorbed within available distance.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:

SENSOR AND ACTUATOR CALIBRATION

The following field-installed temperature, relative humidity, CO, CO2 and pressure sensors and gages, and all actuators (dampers and valves) on this piece of equipment were calibration checked.

<table>
<thead>
<tr>
<th>Sensor or Actuator &amp; Location</th>
<th>Location OK</th>
<th>1st Gage or BMS Value</th>
<th>Instr. Measured Value</th>
<th>Final Gage or BMS Value</th>
<th>Pass?</th>
</tr>
</thead>
</table>

Gage reading = reading of the permanent gage on the equipment.
FMS = Facility Management System
Instr. = Testing instrument
Visual = Actual observation
The Contractor’s own sensor check-out sheets may be used in lieu of the above, if the same recording fields are included and the referenced procedures are followed.

INSTRUMENTATION REFERENCES
(Link to file.)

**FIELD NOTES**

<table>
<thead>
<tr>
<th>Note #</th>
<th>Equip Tag</th>
<th>Corrected</th>
<th>Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

END SAMPLE HVAC EQUIPMENT CONSTRUCTION CHECKLIST
SECTION 019113.13 - FUNCTIONAL TESTING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

B. Owner’s Project Requirements and Systems Basis of Design documentation are included by reference.

C. Commissioning Plan and Appendices.

1.02 SUMMARY

A. Section includes:

1. Functional Testing of systems.
3. Acceptance criteria.

B. Scope.

1. This section describes Functional Testing (FT) procedures and requirements. It describes the Construction Manager’s and Sub-contractors’ requirements for supporting the Commissioning Authority (CA) with functional testing of systems. The section also identifies the level to which systems and equipment will be tested in order to be accepted by the Owner.

C. Related Sections:

1. Section 017900 – Demonstration and Training
2. Section 019113 – General Commissioning Requirements.
3. Section 220800 - Commissioning of Plumbing System
4. Select Division 22 Plumbing Specifications
5. Section 230800 - Commissioning of HVAC System
6. Select Division 23 HVAC Specifications
7. Section 260800 - Commissioning of Electrical System
8. Select Division 26 Electrical Specifications

1.03 DEFINITIONS

A. Refer to Section 019113 – General Commissioning Requirements.
1.04 FUNCTIONAL TESTING

A. Overview.

1. Functional testing is the dynamic testing of systems (rather than just components) under full operation. Systems are tested under various modes and are run through all of the control system’s sequences of operation and components are verified to be responding as the sequences state.

2. The CA develops the Functional Test Procedures and monitors the actual testing. Due to equipment warranties, the installing contractor or vendor manipulates the controls or equipment as described in the tests.

B. Functional Test Procedures.

1. This Specification contains the functional test criteria, Functional Test Plan, and a sample Functional Test. The CA will develop final tests with information such as: change orders, updated points list, control sequences and setpoints, input from contractors, and input from the A/E.

2. Functional testing and verification may be achieved by manual testing (persons manipulate the equipment and observe performance) or by monitoring the performance and analyzing the results using the control system’s trend log capabilities or by stand-alone dataloggers. The CA follows the Specifications and uses judgment where needed to determine which method is most appropriate.

3. The CA reviews Owner-contracted, factory, or required Owner acceptance tests and determines what further testing may be required to comply with the Specifications. Redundancy is minimized.

4. The following procedures will be used for this project for the development and approval of Functional Test Procedures:

   a. The CA develops Functional Test (FT) Procedures. This Specification is the basis for the Functional Tests. The CA transmits the FT Procedures to the Construction Manager (CM) and copies the Project Manager (PM).

   b. The CM transmits the FT Procedures to the responsible Sub-contractors (Subs) for their review.

   c. The designated Subs review the FT Procedures for feasibility, safety, warranty, and equipment protection. The Subs shall comment and update the FT Procedures as required and forward the FT Procedures to the CM.

   d. The CM forwards the updated FT Procedures to the CA, Architect, Engineer, and PM for review and approval prior to execution.

   e. The CA, Architect, Engineer, and PM review and approve the FT Procedures and convey approval to the CM.

   f. The CM schedules testing with the CA and Subs. The CA will bring FT Procedures and walk through the tests with a Sub representative knowledgeable in the systems, their installation, and their control.

C. Execution of Functional Test Procedures.

1. The CA organizes and directs the Functional Test Procedures.

2. The Subs perform the Functional Test Procedures and the CA records test results.

3. The CA monitors and witnesses the functional testing of commissioned equipment and systems.

4. Four (4) weeks prior to functional testing, the Subs schedule the functional tests with the CM and CA.

5. The Subs shall provide their reviews of the Functional Test Procedures created by the CA to the CM for review by the A/E, and PM at least three (3) weeks prior to the performance of the associated test. Subject to conformance with the Specifications and Commissioning Plan, the CA, A/E, and PM will approve the Functional Test Procedures.

D. Test Documentation.

1. The CA will conduct and/or witness tests. The CA will record all test results on the forms developed for testing. CA will “Pass” or “Fail” the testing and record the date and time for the test. Deficiencies shall be clearly indicated when the test is failed. When all related testing is completed successfully, CA shall recommend acceptance of the system or component.
E. Deficiencies and Re-Testing: When deficiencies are identified during testing, depending on their extent or magnitude, they can be corrected during the test and the testing can continue to successful completion. More significant deficiencies will require the failure of the test and re-testing at no cost to the Owner.

F. Sampling: Some types of identical equipment (such as terminal devices) will be tested using a sampling strategy. The sample percentage is indicated in the generic FT provided elsewhere in this Section.

G. Seasonal Testing: If directed by the CA, testing procedures shall be repeated and/or conducted as necessary during appropriate seasons. Opposite season testing will be required where scheduling prohibits thorough testing in all modes of operation.

H. Approval: The CA and A/E will review and approve or disapprove the test results based on methods, results and completeness of the specific data collected.

1.05 FUNCTIONAL TEST ACCEPTANCE CRITERIA

A. The acceptance criteria shall be as follows unless more specifically indicated within individual tests. CA may exercise professional judgment to relax requirements and pass tests and recommend approval when appropriate.

1. Capacity and/or equipment performance will generally be as specified +/- 5%.
2. Efficiency where specifically indicated in the documents will be +/- 5%. When inferred from manufacturer’s catalog data, criteria will be +/- 10%.
3. Balancing-related criteria will be +/- 5% for water and +/- 10% for air.
4. Accuracy/repeatability on sensing devices will be as specified for the device. CA and TAB will use calibrated gauges for independent validation and use judgment in passing or failing the devices. In many cases, the coordination of multiple related sensors is more important than absolute accuracy.
5. Loop response and setpoint deviation criteria will be as specified in Division 23.
6. HVAC sequence-related criteria will be as explicitly specified in the documents and as interpreted by the CA. Code required sequencing shall be per the applicable code.
7. System sequences shall be as required by the approved shop drawings.
8. Motor phase imbalance: shall be no more than 2% (Amps and Volts.)
9. Noise Levels:
   a. Occupied spaces: Noise levels shall be as recommended in the design documents or the most current version of the ASHRAE standards for the applicable occupancy when design requirements are not specified.
10. Indoor Environmental Parameters (T, RH, CO2, VOC): As indicated by the design documentation or as recommended in the most current version of the ASHRAE Handbooks for the applicable occupancy.
11. Air Pressurization: As indicated by the design documentation or as indicated in ASHRAE 90.1-2010 and associated standards. Smoke/shaft pressurization shall be as required by NFPA to maintain maximum door opening forces and restrict the passage of smoke.
12. Indoor Lighting Levels: As indicated by the design documentation.
14. Inter-system interfaces and coordination: As specified and generally to ensure safe, reliable, and robust operation.

B. Max Failure Limit and Sample Percentages: A Maximum Failure Limit is indicated along with the Sampling Percentages. The Max Failure Limit indicates the maximum percentage of the tested devices that may have any test that fails before an entirely new sample must be tested. This is based on the concept that if many failures occur, it is a result of inadequate start-up by the Contractor. When the
maximum number of failures is reached, testing on that sample will be terminated and re-testing will be scheduled.

1. If no Max Failure Limit is indicated, all tested samples must pass (Max Failure Limit = 0%).
2. Where sample tests involve multiple systems (i.e. checking strainers on different hydronic systems) the Max Failure Limit will apply per system.
3. The responsible Contractors shall redo the start-up/TAB for the applicable devices and systems.
4. All work necessitated by sample failures shall be at no cost to the Owner.
5. Regardless of whether the Maximum Failure Limit is reached, the Contractor is responsible for correcting all deficiencies identified during the testing.

PART 2 - PRODUCTS

2.01 INSTRUMENTATION

A. General: All testing equipment shall be of sufficient quality and accuracy to test and/or measure system performance within the specified tolerances. All equipment shall be calibrated according to manufacturer’s recommended intervals. Calibration tags shall be affixed or certificates readily available. Supplier of instrumentation shall submit the calibration certificates along with the start-up documentation.

1. Standard Testing Instrumentation: Standard instrumentation normally used for performance assessment and diagnosis will be provided by the CA for tests being exclusively performed by the CA, for all other tests provided by the Contractor.

B. Special Instruments and Tools: Special equipment, tools and instruments (only available from vendor, specific to a piece of equipment) required for testing equipment, according to these contract documents shall be included in the base bid price by the Contractor and provided to the Owner.

PART 3 - FUNCTIONAL TEST REQUIREMENTS

3.01 PRE-REQUISITES

A. Functional Testing Plan.

1. The Functional Testing Plan provides the Contractors with information about where functional testing lies in the schedule, what issues are preventing the start of testing, and which contractors are needed for each test. This plan includes the following information: equipment/system, whether the test includes prerequisites, needed participants at testing, and whether there is anticipated seasonal testing. The Functional Testing Plan is finalized after most equipment has been started up and when functional testing dates are approaching.

2. The Functional Testing Plan is attached to this Specification section.

3. The control system is tested before it is used to verify performance of other components or systems.

4. The air balancing, water balancing, and circuit testing is completed and debugged before functional testing of air-related or water-related equipment or systems.

5. Testing proceeds from components to subsystems to systems and finally to interlocks and connections between systems.

B. Approvals and Documentation.

1. Construction checklists completed, submitted, and approved by CA as ready for functional testing.

2. Start-up completed for each piece of equipment and startup reports submitted and approved by CA as ready for functional testing.

3. Functional testing procedures reviewed and approved by installing contractor.
4. All control system functions and interlocks are programmed and operable per contract documents, including final setpoints and schedules with debugging and loop tuning completed.
5. Instrument, sensors, and device calibration checks completed.
6. Control system trending configured and operational for all points identified in contract documents.
7. Test and balance (TAB) completed and approved by CA as ready for functional testing.
8. All Corrective Action and A/E punch list items resolved.
9. Safeties and operating ranges for each piece of equipment reviewed.
10. False loading equipment, systems and procedures provided and available (boilers, preheat or reheat coils, control loops, over-ride on OSA dampers, etc.)

3.02 FUNCTIONAL TESTING PROCESS
A. Functional Testing on any given system shall generally begin with testing device level elements; progress to component level; to system level, to inter-system level to building level.
B. Functional Testing of systems shall generally proceed from the utilities to the central systems, to the distribution systems, to the zone terminal units and services.
C. All operating modes, interlocks, control responses, and responses to abnormal or emergency conditions shall be tested verify proper response of building automation system controllers and sensors verified.
D. Tests will be performed using design conditions whenever possible.
E. Simulated conditions may need to be imposed using an artificial load when it is not practical to test under design conditions.
F. The Commissioning Authority may direct that set points be altered when simulating conditions is not practical.
G. The Commissioning Authority may direct that sensor values be altered with a signal generator when design or simulating conditions and altering set points are not practical.
H. If tests cannot be completed because of a deficiency outside the scope of the commissioned systems, the deficiency shall be documented and reported to the Construction Manager and Commissioning Authority. After deficiencies are resolved, tests shall be rescheduled.
I. Retesting of failed systems may incur charges by the contractor to cover personnel and incidental expenses associated with performing retests. Conditions that may incur these charges are misrepresentation of system readiness, misrepresentation of status of corrective action, failure of test participants to arrive as scheduled, or similar situations. Any restesting charges will be discussed by the Project Team and directed by the Project Owner prior to restest scheduling.
J. If the testing plan indicates specific seasonal testing, appropriate initial performance tests shall be performed and documented and seasonal portions scheduled.

3.03 COMMON ELEMENTS FOR ALL SYSTEMS
A. BAS and local controller panel graphics: The graphic displays for all components, systems, and areas required to be represented by the graphics shall be checked for adequacy and accuracy. Setpoints and other adjustable parameters shall be checked for functionality.
B.Where systems and zones are designed for various modes of operation, systems shall be tested to simulate all modes, including, but not limited to:
   1. Seasonal Modes.
   2. Sequencing Modes.
   3. Emergency Modes.
C. The intent of “Verify and Document” shall include, but not be limited to, the following:
   1. Taking the system or device through its entire range of control.
   2. Subjecting the system or device to all normal and emergency operating modes.
   3. Simulating system or device power and/or communications failure and documenting response.
   4. Simulating system or device conditions of increasing and decreasing load.

3.04 DOMESTIC HOT WATER SYSTEM
A. Summary: Functional Testing of domestic hot water heater(s), re-circulating domestic hot water distribution, and controls.
B. Participants:
   1. Commissioning Authority
   2. Mechanical Contractor
   3. Controls Contractor
C. Minimum allowable sample rate: 100%
D. Percent of testing Witnessed by CA: 100%
E. Scope of Testing:
   1. Verify and document operation of the domestic hot water heater(s).
   2. Verify and document tempering mixing valve operation.
   3. Verify and document temperature control and reset strategies.
   5. Verify and document operation of circulating pumps.
   6. Verify and document any interface with BAS.

3.05 HEATING HOT WATER / CHILLED WATER DISTRIBUTION PUMPING SYSTEM
A. Summary: Functional Testing of the heating hot water and chilled water system pumps.
B. Participants:
   1. Commissioning Authority
   2. Mechanical Contractor
   3. Controls Contractor
C. Minimum allowable sample rate: 100%
D. Percent of testing Witnessed by CA: 100%
E. Scope of Testing:
   1. Verify and document distribution loop pump startup and shutdown sequences including optimal start/stop strategies.
   2. Verify and document pump speed control, differential pressure set-point and reset strategies.
   3. Verify and document operation of loop components and sensor calibration.
   5. Verify and document interface with BAS.

3.06 MECHANICAL EQUIPMENT ROOM EXHAUST & REFRIGERANT MONITORING

A. Summary: Functional Testing of refrigerant monitoring system and mechanical equipment room exhaust fans and controls.

B. Participants:
   1. Commissioning Authority.
   2. Controls Contractor.
   3. Mechanical Contractor.

C. Minimum allowable sample rate: 100%

D. Percent of testing witnessed by CA: 100%.

E. Scope of Testing:
   1. Verify and document start/stop sequences.
   2. Verify and document operation of backdraft dampers.
   3. Verify proper operation of refrigerant monitoring system.
   4. Verify temperature control strategy is responding to specified sequence.
   5. Verify and document smoke-control sequences are in accordance with contract documents.
   7. Verify and document interface with BAS.

3.07 OUTSIDE AIR UNITS

A. Summary: Functional Testing of the Outside Air Units

B. Participants:
   1. Commissioning Authority
   2. Mechanical Contractor
   3. Controls Contractor

C. Minimum allowable sample rate: 100%

D. Percent of testing Witnessed by CA: 100%

E. Scope of Testing:
   1. Verify and document the outside air unit startup and shutdown sequences including optimal start/stop strategies.
   2. Verify and document the sensor calibration, temperature control and reset sequences.
   3. Verify and document makeup air unit operation in heating and ventilating modes.
   4. Verify and document miscellaneous controls (filter pressures, interlocks, etc.).
   5. Verify and document safeties.
   6. Verify and document interface with BAS.
3.08 MINI-SPLIT SYSTEM
A. Summary: Functional Testing of Mini-Split System and controls.
B. Participants:
   1. Commissioning Authority.
   2. Mechanical Contractor.
   3. Controls Contractor.
C. Minimum allowable sample rate: 100%.
D. Percent of testing witnessed by CA: 100%.
E. Scope of Testing:
   1. Verify and document cooling/heating sequences are implemented in accordance with contract documents.
   2. Verify and document zone temperature sensor calibration and set-points.
   3. Verify and document night-setback and morning warm-up.
   4. Verify and document interface with BAS.

3.09 BUILDING PRESSURIZATION
A. Summary: Functional Testing of controls and system interfaces related to building pressurization.
B. Participants:
   1. Commissioning Authority.
   2. Mechanical Contractor.
   3. Controls Contractor.
C. Minimum allowable sample rate: 100%.
D. Percent of testing witnessed by CA: 100%.
E. Scope of Testing:
   1. Verify and document building pressurization instrumentation is installed in proper locations and calibrated.
   2. Verify and document outside air/return air/relief air dampers in each AHU respond to building pressurization in accordance with sequence of operation.
   3. Verify and document accuracy and stability of control by monitoring trends over 1-week period and adjusting control loops accordingly.
   5. Verify and document interface with BAS.

3.10 FAN COIL UNITS
A. Summary: Functional Testing of fan coil units and controls.
B. Participants
   1. Commissioning Authority
   2. Controls Contractor
   3. Mechanical Contractor
C. Minimum allowable sample rate: 100%.
D. Percent of testing witnessed by CA: 100%.

E. Scope of Testing:
   1. Verify and document cooling/heating sequences are implemented in accordance with contract documents.
   2. Verify and document zone temperature sensor calibration and set-points.
   3. Verify and document night-setback and morning warm-up.
   4. Verify and document interface with BAS.

3.11 ELECTRIC FORCED AIR AND RADIANT HEATING UNITS

A. Summary: Functional Testing of the electric forced air and radiant heating units.

B. Participants:
   1. Commissioning Authority
   2. Mechanical Contractor
   3. Controls Contractor

C. Minimum allowable sample rate: 100%

D. Percent of testing Witnessed by CA: 100%

E. Scope of Testing:
   1. Verify and document the space sensor calibration, and temperature control sequences.
   2. Verify and document operation in primary HVAC system heating and cooling modes.
   3. Verify and document miscellaneous controls (interlocks, etc.).
   5. Verify and document interface with BAS.

3.12 GENERAL EXHAUST FANS

A. Summary: Functional Testing of the fans

B. Participants:
   1. Commissioning Authority
   2. Mechanical Contractor
   3. Controls Contractor

C. Minimum allowable sample rate: 100%

D. Percent of testing Witnessed by CA: 100%

E. Scope of Testing:
   1. Verify and document the fan’s startup and shutdown sequences.
   2. Verify and document the sensor calibration and temperature control sequences where applicable.
   3. Verify and document fan operation in applicable operating modes.
   4. Verify and document miscellaneous controls (interlocks, etc.).
   5. Verify and document safeties.
   6. Verify and document interface with BAS.
3.13 BUILDING AUTOMATION SYSTEM CONTROL INTERFACES AND REPORTS

A. Summary: Functional Testing of the control system interfaces with fire-alarm, security, sprinkler, elevator, and electrical systems, and testing of BAS reporting functions.

B. Participants:
   1. Commissioning Authority
   2. Mechanical Contractor
   3. Controls Contractor
   4. Fire Alarm Contractor
   5. Fire Suppression Contractor
   6. Electrical Contractor

C. Minimum allowable sample rate: 100%

D. Percent of testing Witnessed by CA: 100%

E. Scope of Testing:
   1. Verify and document interface between BAS and fire alarm, security, and elevator systems.
   2. Verify and document Alarm initiation and response between systems is consistent with contract documents.
   3. Verify and document interlocks between systems are consistent with contract documents.
   4. Verify trends and history information is being generated and stored.
   5. Verify BAS graphics are appropriate and accurate.

3.14 EMERGENCY POWER TRANSITION

A. Summary: Functional Testing of generator, automatic transfer switch and interfaces.

B. Participants:
   1. Commissioning Authority.
   2. Controls Contractor.
   3. Electrical Contractor.

C. Minimum allowable sample rate: 100%.

D. Percent of testing witnessed by CA: 100%.

E. Scope of Testing:
   1. Verify and document transition of generator and ATS system upon loss of power.
   2. Verify and document transition of ATS back to normal systems operation upon restoration of power per specified sequence.
   3. Verify and document load testing of generator.
   5. Verify and document interface of emergency power system with BAS.
3.15 OCCUPANCY SENSOR AND SCHEDULED LIGHTING CONTROL

A. Summary: Functional Testing of the room lighting control by occupancy and schedule

B. Participants:
   1. Commissioning Authority
   2. Electrical Contractor
   3. Controls Contractor

C. Minimum allowable sample rate: 100%

D. Percent of testing Witnessed by CA: 100%

E. Scope of Testing:
   1. Verify and document the occupancy sensors function.
   2. Verify and document the space sensor calibration,
   3. Verify and document interlocks with other components.
   4. Verify and document any interface with BAS.

3.16 UTILITY SYSTEM METERING

A. Summary: Functional Testing of the metering for campus and building utilities.

B. Participants:
   1. Commissioning Authority
   2. Mechanical Contractor
   3. Controls Contractor
   4. Electrical Contractor

C. Minimum allowable sample rate: 100%

D. Percent of testing Witnessed by CA: 100%

E. Scope of Testing:
   1. Verify and document interface between BAS and domestic water, chilled water, campus water,
      campus gas, campus electricity, and hot water systems.
   2. Verify trends and history information is being generated and stored.

3.17 COORDINATION OF ACCESS CONTROL TESTING

A. Summary: Coordinate the Functional Testing of the Access Control System by the Access Control Provider.

B. Participants:
   1. Commissioning Authority
   2. Electrical Contractor
   3. Access Control Contractor

C. Minimum allowable sample rate: 100% by Access Control Contractor

D. Percent of testing Witnessed by CA: 20%
E. Scope of Testing:

1. Verify and document access hardware installation.
2. Verify and document the access level and alarm setups.
3. Verify and document access functions.

END OF SECTION 019113.13
ATTACHMENT A
FUNCTIONAL TESTING PLAN

PROJECT Enoch Grehan Building Modernization DATE JUN 2018
ENG. FILE NO. CPMD Project #2446.2
PREPARED BY Paladin, Inc. [final sequence TBD]

Notes for Consideration and Coordination of Functional Test Schedule
The final Functional Testing Plan is to be developed by Contractor during the Construction Phase in consultation with the Commissioning Authority and Owner. Prerequisites for Functional Tests are indicated in each individual test. The following design /contractual issues need to be addressed to allow the development of this plan:

DIVISION 22: Plumbing
- All Plumbing systems must be operational prior to the domestic hot water system test.

DIVISION 23: HVAC
- All BAS systems must be operational prior to the HVAC test.

DIVISION 26: Electrical
- The Emergency Generator and ATS must be operational prior to Functional Testing.

Functional Test Sequences
The anticipated sequence of testing to be provided by the contractor in his Functional Testing Plan.

To be developed in combination with Project Team and additional Phasing Plans.

<table>
<thead>
<tr>
<th>SEQUENCE</th>
<th>DIVISION</th>
<th>TEST ID #</th>
<th>PARTICIPANTS</th>
<th>EQUIPMENT / SYSTEM AND RELATED CONTROLS</th>
<th>PREREQUISITES?</th>
<th>ANTICIPATED SEASONAL TESTING</th>
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<tr>
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<td>3.05</td>
<td>CA, MC, CC</td>
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<td>Domestic Water Systems</td>
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<tr>
<td>23</td>
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<td>CA, MC, CC</td>
<td>Outside Air Units</td>
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<td>☐</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>3.08</td>
<td>CA, MC, CC</td>
<td>Primary Heating Hot Water System</td>
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<tr>
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<td>Fan Coil Units</td>
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<td>☐</td>
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<tr>
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<td>CA, MC, CC</td>
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<tr>
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<td>CA, MC, CC</td>
<td>Electric Forced Air and Radiant Heating Units</td>
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<td>☐</td>
<td></td>
</tr>
<tr>
<td>SEQUENCE</td>
<td>DIVISION</td>
<td>TEST ID #</td>
<td>PARTICIPANTS</td>
<td>EQUIPMENT / SYSTEM AND RELATED CONTROLS</td>
<td>PREREQUISITES?</td>
<td>ANTICIPATED SEASONAL TESTING</td>
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<tr>
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<td>----------------------------------------</td>
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<td>3.06</td>
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<td>3.13</td>
<td>CA, EC, MC, CC</td>
<td>Global Command / Building Automation System</td>
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<td>□</td>
</tr>
</tbody>
</table>

CA = Commissioning Authority  
EL = Elevator Contractor  
LC = Lighting Contractor  
CCTR = Controls Contractor  
FA = Fire Alarm Contractor  
MC = Mechanical Contractor  
EC = Electrical Contractor  
FS = Fire Suppression Contractor  
SC = Security Contractor

**Anticipated Seasonal Tests**
Seasonal Testing may be required based on the actual construction schedule.

<table>
<thead>
<tr>
<th>DIVISION</th>
<th>TEST ID #</th>
<th>EQUIPMENT / SYSTEM AND RELATED CONTROLS</th>
<th>TEST PROCEDURE</th>
<th>CONDITIONS REQUIRED</th>
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<tr>
<td>23</td>
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</tr>
<tr>
<td>23</td>
<td>3.08</td>
<td>CA, MC, CC</td>
<td>Primary Heating Hot Water System</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>3.10</td>
<td>CA, MC, CC</td>
<td>Fan Coil Units</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>3.07</td>
<td>CA, MC, CC</td>
<td>Outside Air Units</td>
<td></td>
</tr>
</tbody>
</table>

END OF DRAFT FUNCTIONAL TESTING PLAN
SECTION 220800 - COMMISSIONING OF PLUMBING SYSTEMS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

B. Owner’s Project Requirements and Systems Basis of Design documentation are included by reference.

C. Commissioning Plan and Appendices.

1.02 SUMMARY

A. Section includes commissioning process requirements for Plumbing Systems, assemblies, and equipment.

B. Related Sections:
   1. Section 017900 - Demonstration and Training
   2. Section 019113 - General Commissioning Requirements
   3. Section 019113.13 – Functional Testing
   4. Division 22 Sections for plumbing equipment and assemblies.

1.03 SYSTEMS COMMISSIONED

A. Water Heaters

B. Expansion Tanks

C. DHW Recirculating Pumps

D. Air Compressor

E. Domestic Backflow Preventers

F. Sewage Ejectors

G. Elevator Sump Pump

H. Others, TBD
1.04 CONTRACTOR’S RESPONSIBILITIES

A. Attend Construction Phase Commissioning Conference.
B. Satisfy applicable project Owner's Project Requirements.
C. Review the Commissioning Plan prepared by Commissioning Authority.
D. Evaluate performance deficiencies identified in test reports and, in collaboration with entity responsible for system and equipment installation, recommend corrective action.
E. Cooperate with the Commissioning Authority for resolution of issues recorded in the Issues Tracking Log. Resolution will occur within one week of finding and notification.
F. Attend Commissioning Team Meetings held on a bi-weekly basis.
G. Integrate and coordinate commissioning process activities with Construction Schedule.
H. Review, accept, and support execution of Construction Checklists provided by the Commissioning Authority.
I. Support completion of Construction Checklists as Work is completed.
J. Review and accept Functional Test Procedures provided by the Commissioning Authority.
K. Support completion of Functional Test Procedures, including seasonal and any deferred test procedures.
L. Provide Owner training as directed in equipment specification sections and Section 017900.
M. Provide O&M Manuals as required by the A/E.
N. Provide project specific close-out documents as required for the systems manual per LEEDv2009: Fundamental and Enhanced Commissioning Credits.
O. Provide access to electrical, water, scaffolding, man-lifts, of other mechanical conveyances used by the contractors to perform their work during functional and performance testing under the direction of the CA. If mechanical conveyances are unavailable during the commissioning process, the Construction Manager will provide the necessary equipment for access required.

1.05 COMMISSIONING AUTHORITY’S RESPONSIBILITIES

A. See specification section 019113, 1.07 ‘Commissioning Authority’s Responsibilities’

1.06 COMMISSIONING SUBMITTALS

A. Equipment submittals for commissioned systems, assemblies, equipment, and components will be reviewed by the Commissioning Authority as part of the normal submission procedure.
B. All testing plans and schedules to be reviewed and approved by Commissioning Authority as indicated in this Section and the Commissioning Plan.
1.07 COMMISSIONING DOCUMENTATION

A. Contractor shall provide the following information to the Commissioning Authority during the commissioning process for inclusion in the Commissioning Plan:

1. Process and schedule for supporting completion of Construction Checklists for Plumbing Systems, assemblies, equipment, and components to be verified and tested.
2. Support completion of Construction Checklists for review and approval by Commissioning Authority and Architect / Engineer.

B. In addition to the requirements detailed in applicable Division 22 sections, the Contractor shall provide the following information, in electronic form, to the Architect / Engineer for inclusion in the Commissioning Report:

1. Identification of installed systems, assemblies, equipment, and components including design changes that occurred during the construction phase.
2. Test and inspection reports and certificates.
3. Completed Functional Test procedures.
4. Response to corrective action documents.
5. A record of Owner training sessions.

PART 2 - PRODUCTS [NOT USED]

PART 3 - EXECUTION

3.01 CONSTRUCTION CHECKLISTS PREPARATION

A. Refer to Section 019113 - General Commissioning Requirements for complete procedures and requirements.

3.02 CONSTRUCTION CHECKLISTS EXECUTION

A. Refer to Section 019113 - General Commissioning Requirements for complete procedures and requirements.

3.03 FUNCTIONAL TEST PREPARATION

A. Refer to Section 019113.13 - Functional Testing for complete procedures and requirements.

3.04 GENERAL FUNCTIONAL TESTING REQUIREMENTS

A. Refer to Section 019113.13 - Functional Testing for complete procedures and requirements.

3.05 FUNCTIONAL TEST EXECUTION

A. Refer to Section 019113.13 - Functional Testing for description of tasks to complete for this project.
3.06 POST ACCEPTANCE PERIOD
   A. Refer to Section 019113.13 – Functional Testing for complete seasonal or deferred testing procedures and requirements.

3.07 OWNER TRAINING
   A. Refer to Section 017900 – Demonstration and Training for Owner Training requirements for this project.

END OF SECTION 220800
SECTION 230800 - COMMISSIONING OF HVAC SYSTEMS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

B. Owner’s Project Requirements and Systems Basis of Design documentation are included by reference.

C. Commissioning Plan and Appendices.

1.02 SUMMARY

A. Section includes commissioning process requirements for HVAC Systems, assemblies, and equipment.

B. Related Sections:
   1. Section 017900 - Demonstration and Training
   2. Section 019113 - General Commissioning Requirements
   3. Section 019113.13 – Functional Testing
   4. Division 23 sections for HVAC equipment and assemblies

1.03 SYSTEMS COMMISSIONED

A. Fan Coil Units

B. Supply Fans

C. Exhaust Fans

D. Energy Recovery Wheel

E. Outside Air Units

F. Mini-Split Systems

G. Air Separators

H. Heating Hot Water Heat Exchangers

I. Chilled Water Pumps

J. Heating Hot Water Pumps

K. Steam Condensate Pump

L. Steam Pressure Release Valve [PRV]
M. Condensate Traps

N. Variable Frequency Drives [VFD’s]

1.04 CONTRACTOR’S RESPONSIBILITIES

A. Attend Construction Phase Commissioning Conference.

B. Satisfy applicable project Owner's Project Requirements.

C. Review the Commissioning Plan prepared by Commissioning Authority.

D. Evaluate performance deficiencies identified in test reports and, in collaboration with entity responsible for system and equipment installation, recommend corrective action.

E. Cooperate with the Commissioning Authority for resolution of issues recorded in the Issues Tracking Log. Resolution will occur within one week of finding and notification.

F. Attend Commissioning Team Meetings held on a bi-weekly basis.

G. Integrate and coordinate commissioning process activities with Construction Schedule.

H. Review, accept, and support execution of Construction Checklists provided by the Commissioning Authority.

I. Support completion of Construction Checklists as Work is completed.

J. Review and accept Functional Test Procedures provided by the Commissioning Authority.

K. Support completion of Functional Test Procedures, including seasonal and any deferred test procedures.

L. Provide Owner training as directed in equipment specification sections and Section 017900.

M. Provide O&M Manuals as required by the A/E.

N. Provide project specific close-out documents as required for the systems manual per LEED Credits: Fundamental and Enhanced Commissioning.

O. Provide access to electrical, water, scaffolding, man-lifts, of other mechanical conveyances used by the contractors to perform their work during functional and performance testing under the direction of the CA. If mechanical conveyances are unavailable during the commissioning process, the Construction Manager will provide the necessary equipment for access required.

1.05 COMMISSIONING AUTHORITY’S RESPONSIBILITIES

A. See specification section 019113, 1.07 ‘Commissioning Authority’s Responsibilities’
1.06 CONTROL CONTRACTOR’S RESPONSIBILITIES

A. Due to the impact the Facility Management System has on the success of functional testing, the following supplemental requirements shall apply.

B. Project specific responsibilities of Controls Contractor:
   1. Provide a written plan to the Commissioning Authority and Architect / Engineer describing process for completing checkout and start-up of Controls System.
   2. Refer to the specifications for controls for the scope of controls function verification the Commissioning Authority will complete after controls checkout.
   3. Provide resources to facilitate Functional Testing of HVAC Systems, assemblies, equipment, and components including but not limited to technicians, any necessary unique instruments for setting terminal units or controllers, and passwords for control system interfaces.
   4. Provide resources to facilitate testing, adjusting, and balancing of Work. Refer to Section 1.07 "TAB Commissioning Specialties" and Specification Section 019113.13 – Functional Testing.
   5. Functional testing of controls shall be completed and approved prior to start of TAB work. Refer to Section 1.07 "TAB Commissioning Specialties" and Specification Section 019113.13 – Functional Testing.

1.07 TAB COMMISSIONING SPECIALTIES

A. To facilitate the commissioning process the following requirements shall apply:
   1. Prior to TAB work, the Controls Contractor shall meet with TAB Contractor to coordinate capabilities and requirements of control system for use in TAB work. Verify with Commissioning Authority that controls Functional Testing has been completed and approved.
   2. Controls Contractor shall provide access to the TAB Contractor any unique instruments for setting terminal units, controllers, or other devices and instruct in their use.
   3. Controls Contractor shall provide a technician qualified to operate building controls to assist in TAB; coordinate scheduling with TAB Contractor.

1.08 COMMISSIONING SUBMITTALS

A. Equipment submittals for commissioned systems, assemblies, equipment, and components will be reviewed by the Commissioning Authority as part of the normal submission procedure.

B. All testing plans and schedules to be reviewed and approved by Commissioning Authority as indicated in this Section and the Commissioning Plan.
   1. Duct Pressure Testing
   2. System Flushout Reports
   3. Testing, Adjusting, and Balancing
   4. Building Automation System Graphical Interface
   5. Building Automation System Point-to-point Check

1.09 COMMISSIONING DOCUMENTATION

A. Contractor shall provide the following information to the Commissioning Authority during the commissioning process for inclusion in the Commissioning Plan:
   1. Process and schedule for supporting completion of Construction Checklists for HVAC Systems, assemblies, equipment, and components to be verified and tested.
2. Support completion of Construction Checklists for review and approval by Commissioning Authority and Architect / Engineer.

B. In addition to the requirements detailed in applicable Division 23 sections, the Contractor shall provide the following information, in electronic form, to the Architect / Engineer for inclusion in the Commissioning Report:

1. Identification of installed systems, assemblies, equipment, and components including design changes that occurred during the construction phase.
2. Test and inspection reports and certificates.
3. Completed Functional Test procedures.
4. Response to corrective action documents.
5. A record of Owner training sessions.

PART 2 - PRODUCTS [NOT USED]

PART 3 - EXECUTION

3.01 CONSTRUCTION CHECKLISTS PREPARATION

A. Refer to Section 019113 - General Commissioning Requirements for complete procedures and requirements.

3.02 CONSTRUCTION CHECKLISTS EXECUTION

A. Refer to Section 019113 - General Commissioning Requirements for complete procedures and requirements.

3.03 FUNCTIONAL TEST PREPARATION

A. Refer to Section 019113.13 – Functional Testing for complete procedures and requirements.

3.04 FUNCTIONAL TEST EXECUTION

A. Refer to Section 019113.13 – Functional Testing for description of tasks to complete for this project.

3.05 GENERAL FUNCTIONAL TESTING REQUIREMENTS

A. Refer to Section 019113.13 – Functional Testing for complete procedures and requirements.

3.06 POST ACCEPTANCE PERIOD

A. Refer to Section 019113.13 – Functional Testing for complete seasonal or deferred testing procedures and requirements.
3.07 OWNER TRAINING

A. Refer to Section 017900 – Demonstration and Training for Owner Training requirements for this project.

END OF SECTION 230800
SECTION 260800 - COMMISSIONING OF ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

B. Owner's Project Requirements and Systems Basis of Design documentation are included by reference.

C. Commissioning Plan and Appendices.

1.02 SUMMARY

A. Section includes commissioning process requirements for Electrical Systems, assemblies, and equipment.

B. Related Sections:
   1. Section 017900 – Demonstration and Training
   2. Section 019113 - General Commissioning Requirements
   3. Section 019113.13 – Functional Testing
   4. Division 26 Sections for electrical equipment and assemblies.

1.03 SYSTEMS COMMISSIONED

A. Generator

B. Automatic Transfer Switch [ATS]

C. UPS

D. Panels

E. Lighting + Controls

1.04 CONTRACTOR'S RESPONSIBILITIES

A. Attend Construction Phase Commissioning Conference.

B. Satisfy applicable project Owner's Project Requirements.

C. Review the Commissioning Plan prepared by Commissioning Authority.

D. Evaluate performance deficiencies identified in test reports and, in collaboration with entity responsible for system and equipment installation, recommend corrective action.
E. Cooperate with the Commissioning Authority for resolution of issues recorded in the Issues Tracking Log. Resolution will occur within one week of finding and notification.

F. Attend Commissioning Team Meetings held on a bi-weekly basis.

G. Integrate and coordinate commissioning process activities with Construction Schedule.

H. Review, accept, and support execution of Construction Checklists provided by the Commissioning Authority.

I. Support completion of Construction Checklists as Work is completed.

J. Review and accept Functional Test Procedures provided by the Commissioning Authority.

K. Support completion of Functional Test Procedures, including seasonal and any deferred test procedures.

L. Provide Owner training as directed in equipment specification sections and Section 017900.

M. Provide O&M Manuals as required by the A/E.

N. Provide project specific close-out documents as required for the systems manual per LEED Credits: Fundamental and Enhanced Commissioning.

O. Provide access to electrical, water, scaffolding, man-lifts, of other mechanical conveyances used by the contractors to perform their work during functional and performance testing under the direction of the CA. If mechanical conveyances are unavailable during the commissioning process, the Construction Manager will provide the necessary equipment for access required.

1.05 COMMISSIONING AUTHORITY'S RESPONSIBILITIES

A. See specification section 019113, 1.07 'Commissioning Authority's Responsibilities'

1.06 LIGHTING CONTROL CONTRACTOR'S RESPONSIBILITIES

A. Due to the impact the Lighting Controls System has on the success of functional testing, the following supplemental requirements shall apply.

B. Project specific responsibilities of Lighting Controls Contractor:
   1. Provide a written plan to the Commissioning Authority and Architect / Engineer describing process for completing checkout and start-up of Lighting Controls System.
   2. Provide resources to facilitate Functional Testing of Lighting and Daylighting Systems, assemblies, equipment, and components including but not limited to technicians, any necessary unique instruments for verifying photometric readings, and passwords for lighting control system interfaces.

1.07 COMMISSIONING SUBMITTALS

A. Equipment submittals for commissioned systems, assemblies, equipment, and components will be reviewed by the Commissioning Authority as part of the normal submission procedure.

B. All testing plans and schedules to be reviewed and approved by Commissioning Authority as indicated in this Section and the Commissioning Plan.
1. Lighting Controls System Point-to-Point Check
2. Grounding Study
3. Conductivity Test Results

1.08 COMMISSIONING DOCUMENTATION

A. Contractor shall provide the following information to the Commissioning Authority during the commissioning process for inclusion in the Commissioning Plan:
   1. Process and schedule for Supporting Completion of Construction Checklists for Electrical Systems, assemblies, equipment, and components to be verified and tested.
   2. Support Completion of Construction Checklists for review and approval by Commissioning Authority and Architect / Engineer.

B. In addition to the requirements detailed in applicable Division 26 sections, the Contractor shall provide the following information, in electronic form, to the Architect / Engineer for inclusion in the Commissioning Report:
   1. Identification of installed systems, assemblies, equipment, and components including design changes that occurred during the construction phase.
   2. Test and inspection reports and certificates.
   3. Completed Functional Test procedures.
   4. Response to corrective action documents.
   5. A record of Owner training sessions.

PART 2 - PRODUCTS [NOT USED]

PART 3 - EXECUTION

3.01 CONSTRUCTION CHECKLISTS PREPARATION
   A. Refer to Section 019113 - General Commissioning Requirements for complete procedures and requirements.

3.02 CONSTRUCTION CHECKLISTS EXECUTION
   A. Refer to Section 019113 - General Commissioning Requirements for complete procedures and requirements.

3.03 FUNCTIONAL TEST PREPARATION
   A. Refer to Section 019113.13 – Functional Testing for complete procedures and requirements.

3.04 GENERAL FUNCTIONAL TESTING REQUIREMENTS
   A. Refer to Section 019113.13 – Functional Testing for complete procedures and requirements.
3.05 FUNCTIONAL TEST EXECUTION
   A. Refer to Section 019113.13 – Functional Testing for description of tasks to complete for this project.

3.06 POST ACCEPTANCE PERIOD
   A. Refer to Section 019113.13 – Functional Testing for complete seasonal or deferred testing procedures and requirements.

3.07 OWNER TRAINING
   A. Refer to Section 017900 – Demonstration and Training for Owner Training requirements for this project.

END OF SECTION 260800
TABLE OF CONTENTS

SECTION 1. Commissioning Overview and Scope
SECTION 2. General Building Information and Project Schedule
SECTION 3. Roles and Responsibilities
SECTION 4. Commissioning Process | Design Phase
SECTION 5. Commissioning Process | Construction Phase
SECTION 6. Written Work Products

REFERENCES
Project Contacts
Design Schedule
Construction Schedule
PROJECT INFORMATION

PROJECT
Enoch Grehan Building Modernization
CPMD Project #2446.2
University of Kentucky
Lexington, Kentucky

OWNER CONTACTS
Sandy Redmon, CPMD - University of Kentucky

CA CONTACT
Mark Zoller, Paladin, Inc.
Candice Rogers, Paladin, Inc.

A/E CONTACT
Tim Doelling, Murphy Group Architects
Dan Bransom, Staggs and Fisher

CM CONTACT
TBD

REVISION HISTORY

FEB 23, 2018  Commissioning Plan REV 1.0 [Initial Draft]
MAR 28, 2018  Commissioning Plan REV 1.1 [Design Phase B]
APR 18, 2018  Commissioning Plan REV 2.0 [Design Phase C]
JUL 06, 2018  Commissioning Plan REV 2.1 [Design Phase C]
<table>
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<th>Abbreviation</th>
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<tr>
<td>AE</td>
<td>Architecture and Engineering Design Professionals</td>
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<td>Construction Checklist</td>
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<td>CCTR</td>
<td>Controls Contractor</td>
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<td>FT</td>
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</tr>
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<td>CM</td>
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</tr>
<tr>
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</tr>
<tr>
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<td>Mechanical Contractor</td>
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<tr>
<td>OPR</td>
<td>Owner’s Project Requirements</td>
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<td>Systems Basis of Design</td>
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<tr>
<td>Subs</td>
<td>MEP</td>
</tr>
<tr>
<td>TAB</td>
<td>Test and Balance Contractor</td>
</tr>
</tbody>
</table>
SECTION 1:
COMMISSIONING OVERVIEW AND SCOPE
COMMISSIONING OVERVIEW AND SCOPE

1.1 PURPOSE OF THE COMMISSIONING PLAN

A. University of Kentucky, UK anticipates commissioning of the MEP systems for the Enoch Grehan Building Modernization Project. Commissioning is a multi-disciplined, collaborative effort involving Owners, Design Professionals, Construction Managers, Subcontractors, and Commissioning Authorities to achieve optimal results from the commissioning process. Commissioning information, guidance, and resources can be addressed under the following four broad principles:

1. Establish Measurable Project Performance Requirements,
2. Plan and Execute the Commissioning Process,
3. Verify and Document Compliance with Requirements, and
4. Effectively Transfer Knowledge to the Building Operations Team.

B. It is expected that the MEP Commissioning process shall assist in the delivery of a project that:

1. Supports modernization of the Enoch Grehan Building;
2. Provides a safe and healthy facility;
3. Optimizes energy use;
4. Reduces operating costs;
5. Ensures adequate O&M staff orientation and training; and
6. Improves installed building systems documentation.

C. The commissioning process shall be in accordance and optimized to accomplish LEED-NC v2009: EAp1 and EAc3 – Fundamental and Enhanced Commissioning. The project will follow LEED-NCv2009 as a guideline but will not register with GBCI for LEED Certification.

D. The CA is not responsible for design or general construction scheduling, cost estimating, or construction management, but may assist with problem solving or addressing nonconformance issues or deficiencies.

E. The purpose of the Commissioning Plan is to capture the commissioning process definition and development for the Enoch Grehan Building Modernization. The Commissioning Plan outlines the project team’s organization, strategies, and responsibilities within commissioning process. This document provides an overview of the schedule of activities, documentation requirements, communication and reporting protocols, required resources, and evaluation procedures. This plan does not provide a detailed explanation of required testing procedures. The detailed testing requirements and procedures will be developed and included in the Commissioning Specifications.

1.2 COMMISSIONING SCOPE

A. Commissioning is a quality focused, systematic process of ensuring that all building systems perform interactively according to the UK operational needs and the project’s design intent.

B. Commissioning during Phase A: Schematic Design of this project intends to achieve the following objectives, according to LEED-NC v2009 guidelines, University of Kentucky Policies and Procedures, and Commissioning Contract:

1. Organize and lead the commissioning team.
2. Review and/or assist in the development of the “Owner’s Project Requirements (OPR)” and review the design team’s “Basis of Design (BOD)”.
C. Commissioning during **Design Development** of this project intends to achieve the following objectives, according to the LEED-NC v2009 guidelines, University of Kentucky Policies and Procedures, and Commissioning Contract:

1. Review and Reconcile the “Owner’s Project Requirements (OPR)” and design team’s “Basis of Design (BOD)” based on updated Design Narratives. Owner approved deviations from Design Criteria and reasoning for such shall be documented for Project Record.
2. Provide a Design Review of the current plans and specifications. Identify commissioning recommendations related to the design’s compliance with the OPR.
3. Prepare and maintain Design Phase Issues Tracking Log to record CA recommendations and Design Team responses.
4. Commissioning Authority shall attend one, (1) design review meeting
5. Provide Commissioning Specifications tailored to the Project.
6. Update the Commissioning Plan.
7. Prepare Commissioning Activities Schedule.

D. Commissioning during **Construction Documents** of this project intends to achieve the following objectives, according to the LEED-NC v2009 guidelines, University of Kentucky Policies and Procedures, and Commissioning Contract:

1. Review and Reconcile the “Owner’s Project Requirements (OPR)” and design team’s “Basis of Design (BOD)” based on updated Design Narratives. Owner approved deviations from Design Criteria and reasoning for such shall be documented for Project Record.
2. Prepare draft Construction Checklists and Functional Tests for commissioned systems.
3. Complete Design Review back-check of current plans and specifications. Identify resolution of CA recommendations and confirm design’s compliance with OPR.
4. Update Design Phase Issues Tracking Log to record Design Team responses and resolutions to Cx issues.
5. Attend three, (3) commissioning/design meetings.
6. Update Commissioning Specifications for A/E to include in the bid package.
7. Update Commissioning Plan.
8. Update Commissioning Activities Schedule.

E. Commissioning during the **Construction Phase** of this project intends to achieve the following objectives, according to the LEED-NC v2009 guidelines, University of Kentucky Policies and Procedures, and Commissioning Contract:

1. Attend Pre-Bid and Pre-Construction meeting and provide responses to commissioning questions as required.
2. Conduct a Commissioning Kick-Off Coordination Meeting.
4. Review submittals for commissioned systems.
5. Participate in Construction Phase Progress Meetings.
6. Convene commissioning team meetings for the purpose of coordination, communication, and conflict resolution; discuss progress of the commissioning processes. Prepare meeting minutes and distribute.
7. Complete Field Observation Reports for review of commissioned systems, installation and progress.
11. Attend and observe Equipment Start-Up per Section 1.3, Table 2.
12. Complete Construction Checklists for commissioned systems.
14. Maintain Issues Log for all findings from Commissioning Activities. Record updates to track resolution and/or acceptance.

F. Commissioning during the **Acceptance and Warranty Phases** of this project intends to achieve the following objectives, LEED-NC v2009 guidelines, University of Kentucky Policies and Procedures, and Commissioning Contract:

1. Verify content/quality of manufacturer’s owner training sessions for UK’s personnel
2. Develop overview systems level training for commissioned systems.
5. Complete seasonal or deferred Functional Testing.
6. Review the current building operation with O&M staff and occupants within the first ten (10) months after Substantial Completion.
### 1.3 COMMISSIONED SYSTEMS

The following systems will be commissioned in the Enoch Grehan Building Modernization Project. All general references to equipment in this document refer only to EQUIPMENT that is to be commissioned.

<table>
<thead>
<tr>
<th>Equipment or System</th>
<th>% Verified by CA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIVISION 22 – PLUMBING SYSTEMS</strong></td>
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<tr>
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<tr>
<td>EXPANSION TANKS</td>
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<tr>
<td>DHW RECIRCULATING PUMPS</td>
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</tr>
<tr>
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<tr>
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<td>100%</td>
</tr>
<tr>
<td>SEWAGE EJECTOR</td>
<td>100%</td>
</tr>
<tr>
<td>ELEVATOR SUMP PUMP</td>
<td>100%</td>
</tr>
<tr>
<td>OTHERS TBD</td>
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<tr>
<td><strong>DIVISION 23 – MECHANICAL SYSTEMS</strong></td>
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</tr>
<tr>
<td>FAN COIL UNITS</td>
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<td>OUTSIDE AIR HANDLING UNITS</td>
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<tr>
<td>MINI-SPLIT SYSTEMS</td>
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<td>AIR SEPARATORS</td>
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<td>HEATING HOT WATER HEAT EXCHANGERS</td>
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<td>STEAM TRAPS</td>
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<td><strong>DIVISION 26 – ELECTRICAL SYSTEMS</strong></td>
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<tr>
<td>EMERGENCY POWER GENERATOR</td>
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<td>AUTOMATIC TRANSFER SWITCH [ATS]</td>
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<td>UNINTERUPTABLE POWER SUPPLY [UPS]</td>
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<td>LOAD CENTERS AND DISTRIBUTION PANELS</td>
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### TABLE 1: CONSTRUCTION CHECKLIST VERIFICATION RATES

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<th>Equipment or System</th>
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<tbody>
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### TABLE 2: EQUIPMENT START-UP OBSERVATION

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<td>GENERATOR</td>
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### TABLE 3: FUNCTIONAL TEST VERIFICATION RATES

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<td>DOMESTIC WATER HEATER</td>
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<td>AIR COMPRESSORS</td>
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</tr>
<tr>
<td>SUMP PUMPS</td>
<td>100%</td>
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<td>SEWAGE EJECTOR</td>
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<td>HOT WATER PUMPS</td>
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<td>CHILLED WATER PUMPS</td>
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<td>MINI SPLIT SYSTEMS</td>
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<td>EMERGENCY GENERATOR</td>
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<td>% Functional Test Witnessed by CA</td>
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<tr>
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<td>LIGHTING AND CONTROLS</td>
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SECTION 2:
GENERAL BUILDING INFORMATION
AND PROJECT SCHEDULE
GENERAL BUILDING INFORMATION AND PROJECT SCHEDULE

2.1 PROJECT INFORMATION

PROJECT: Enoch Grehan Building Modernization
FILE NO.: CPMD Project #2446.2
PROJECT LOCATION: 107 Grehan Building
University of Kentucky
Lexington, Kentucky
OWNER: University of Kentucky
Lexington, Kentucky
PROJECT SIZE: Approx. $17.1M
Approx. 35,090 SF Renovation + 9,300 SF New Connector

2.2 SCHEDULE

The commissioning activities are integrated into the typical design and construction process. Some increases in the timetable of deliverables may occur.

The Design Phase Commissioning Schedule will be finalized along with the Project Team and Project Schedule. Currently, the schedule includes the following tentative dates:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Dates</th>
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<tbody>
<tr>
<td>DESIGN PHASE</td>
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<td>JUN 2018 – JUL 2018</td>
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<tr>
<td>OWNER TRAINING</td>
<td>NOV 2019 – DEC 2019</td>
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In creating the Construction Phase Schedule, the Construction Manager will get input from the CA for scheduling of activities. This will be done to enable verification testing to proceed as efficiently as possible, with testing completed by Substantial Completion. The actual Construction Phase Commissioning Schedule will be developed in conjuncture with the Owners, A/E, and CM upon contract award.

2.3 SCHEDULE CONSIDERATIONS

The following sequential priorities are to be considered in structuring the Project Construction Schedule:

1. Equipment is not “temporarily” started (for heating or cooling), until pre-start checklist items and all manufacturers’ pre-start procedures are completed and moisture, dust, and other environmental and building integrity issues have been addressed.
2. Functional testing is not begun until applicable Construction Checklist procedures are completed, for a given system (this does not preclude a phased approach).
3. Seasonal testing is not begun until environmental criteria are met. The Specifications contain this project’s seasonal test expectations in the Functional Testing Plan.
5. The controls system and equipment it controls are not functionally tested until all points have been calibrated and construction checklists completed.

6. TAB is not performed until the controls system has been functionally tested sufficiently and approved by the CA for TAB work.

7. TAB is not performed until the envelope is completely enclosed and ceiling complete, unless the return air is ducted.

8. Functional Testing is a requirement for achieving Substantial Completion.

### 2.4 COMMISSIONING ACTIVITIES SCHEDULE

<table>
<thead>
<tr>
<th>DESIGN / CONSTRUCTION DOCUMENTS PHASES</th>
<th>TASK</th>
<th>DATE</th>
<th>WHEN OCCURS</th>
<th>COMPLETE</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draft Commissioning Plan</td>
<td>Upon Contract Award</td>
<td>At start of commissioning</td>
<td>☒ -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accumulate and Update Owner’s Project Requirements</td>
<td>Upon Contract Award</td>
<td>Compiled at beginning of project. Updated throughout.</td>
<td>☒ -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commissioning Kick-off Meeting</td>
<td>FEB 2018</td>
<td>60 Days after Contract Award</td>
<td>☒ -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA Review of design documents: Plans, Design Narrative, and Basis of Design</td>
<td>MAR 2018</td>
<td>With submissions to OWNER for Review</td>
<td>☒ 1 week turnaround</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA Develops Commissioning Specifications</td>
<td>FEB 2018</td>
<td>One week prior to design set releases</td>
<td>☒ -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commissioning Schedule Drafted and Updated</td>
<td>Upon Contract Award</td>
<td>Throughout project</td>
<td>☒ -</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BID, CONSTRUCTION, AND WARRANTY PHASES</th>
<th>TASK</th>
<th>DATE</th>
<th>WHEN OCCURS</th>
<th>COMPLETE</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Phase Cx Kick-Off</td>
<td>TBD</td>
<td>60 Days after Construction Award</td>
<td>☐ -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commissioning Plan Construction Phase Updates</td>
<td>Following Cx Kick-Off</td>
<td>As needed, depending on stage in Construction Phase</td>
<td>☐ -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commissioning Activity Reports</td>
<td>Following Cx Activity on Site</td>
<td>☐ -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA Reviews Submittals</td>
<td>TBD – Completion</td>
<td>As soon as available.</td>
<td>☐ -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA develops Construction Checklists</td>
<td>MON YYYY</td>
<td>After approved submittals are received.</td>
<td>☐ -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide Construction Checklists to Contractor for Review.</td>
<td>MON YYYY</td>
<td>-</td>
<td>☐ -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA completes Construction Checklists</td>
<td>MON YYYY-MON YYYY</td>
<td>Weekly as equipment is installed.</td>
<td>☐ Throughout system installation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA develops FT Procedures and provides to contractors for comment</td>
<td>MON YYYY</td>
<td>3 weeks after receipt of approved Controls Submittals.</td>
<td>☐ -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA Field Observation</td>
<td>MON YYYY-MON YYYY</td>
<td>Periodically during construction. Combine with Progress Meetings.</td>
<td>☐ -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TASK</td>
<td>DATE</td>
<td>WHEN OCCURS</td>
<td>COMPLETE</td>
<td>DURATION</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-----------------------</td>
<td>--------------------------------------------------</td>
<td>----------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Issues Tracking Log Updates</td>
<td>TBD – Final Completion</td>
<td>After each site activity</td>
<td>☐</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Issues Tracking Log Responses from Contractors</td>
<td>TBD – Final Completion</td>
<td>Within one week of date issue is reported.</td>
<td>☐</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Equipment Start-Up Observation</td>
<td>MON YYYY-MON YYYY</td>
<td>When scheduled by CM</td>
<td>☐</td>
<td>&lt;&lt;# of days&gt;&gt;</td>
<td></td>
</tr>
<tr>
<td>Testing, Adjusting and Balancing</td>
<td>MON YYYY</td>
<td>After all necessary equipment is installed, including ceiling tile and controls</td>
<td>☐</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>by TAB Contractor.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA review of TAB report</td>
<td>MON YYYY</td>
<td>Within one week of receipt of TAB report</td>
<td>☐</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Functional Testing</td>
<td>MON YYYY-MON YYYY</td>
<td>After Construction Checklists and TAB have been completed and accepted, before occupancy occurs</td>
<td>☐</td>
<td>&lt;&lt;# of weeks&gt;&gt;</td>
<td></td>
</tr>
<tr>
<td>Functional Test issues transmitted</td>
<td></td>
<td>Daily during testing</td>
<td>☐</td>
<td>!</td>
<td></td>
</tr>
<tr>
<td>Owner Training</td>
<td>MON YYYY-MON YYYY</td>
<td>After Functional Testing, When scheduled by CM</td>
<td>☐</td>
<td>&lt;&lt;# of weeks&gt;&gt;</td>
<td></td>
</tr>
<tr>
<td>Owner Occupies Building</td>
<td>MON YYYY</td>
<td></td>
<td>☐</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Cx Report</td>
<td>MON YYYY</td>
<td>Within 3 weeks of completion of FT’s</td>
<td>☐</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Systems Manual</td>
<td>MON YYYY</td>
<td>After receipt of Record Drawings</td>
<td>☐</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Ongoing Commissioning Plan</td>
<td>MON YYYY</td>
<td>After receipt of Record Drawings</td>
<td>☐</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>LEED Submittal Templates</td>
<td>MON YYYY</td>
<td>Within 1 week of completion of preliminary Cx Report and Systems Manual</td>
<td>☐</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 3
ROLES AND RESPONSIBILITIES
ROLES AND RESPONSIBILITIES

The Project Team Contacts are included in the Commissioning Plan as a reference document to be updated throughout Design and Construction.

3.1 TEAM MEMBERS

A. The members of the Commissioning Team during the Design Phase consist of the CA, PM, Owner Representatives, and A/E Team.

B. During the Construction Phase, members of the Commissioning Team consist of the CA, PM, Owner Representatives, assigned members of the CM, A/E (particularly the mechanical and electrical engineers), mechanical contractor, electrical contractor, TAB representative, controls contractor, and any other installing subcontractors or suppliers of commissioned equipment.

3.2 GENERAL MANAGEMENT PLAN

A. Owner will directly contract the CA.

B. During Design Phase, the CA coordinates the commissioning activities and the PM, copying the A/E. The Commissioning Plan - Section 4, details the CA's Design Phase responsibilities. Please refer to the Design Phase Communication Plan in Section 4.1.

C. During the Construction Phase, the CA coordinates the commissioning activities and reports to the PM, copying the CM and A/E. The CA's Construction Phase responsibilities, along with all other contractors' commissioning responsibilities, are detailed in the Commissioning Plan – Section 5. Please refer to the Construction Phase Communication Plan in Section 5.1.

D. The Specifications provide greater detail of the CA's Construction Phase responsibilities. If discrepancies exist between the Specifications and the Commissioning Plan, the Specifications will take precedence.

3.3 GENERAL DESCRIPTIONS OF ROLES

General descriptions of the commissioning roles are as follows:

A/E Collaborates with CA in developing commissioning requirements and specifications for commissioned systems. Provides Project Program and Systems Basis of Design information. Uses commissioning deliverables in preparing Bid Documents. Performs construction observation; approves O & M manuals; and assists in resolving problems.

OWNER Provides information for Owner’s Project Requirements; receives commissioning and project related documentation for review and approval; and acts as final authority on Issues Tracking Log issue resolution.

CA Leads and coordinates the commissioning process; reviews the OPR and BoD; develops construction checklists and functional test procedures; conducts functional tests; coordinates and delivers all commissioning documentation (including checklists and test results); provides report on activities; completes warranty phase services and review.

MFR Provides documentation to facilitate the commissioning work and performs contracted startup.

CM Incorporates commissioning activities into the Project Schedule; supports scheduling of Cx Activities, coordinates various subs for commissioned systems, supports correction of Issues Tracking Log items, coordinates Owner Training and Close-Out Documentation.
<table>
<thead>
<tr>
<th>Subs</th>
<th>MEP</th>
</tr>
</thead>
</table>
SECTION 4:
COMMISSIONING PROCESS – DESIGN PHASE
4.1 DESIGN PHASE COMMUNICATION PLAN

This section sequentially details the commissioning process for the Design Phase by commissioning task or activity.

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>PROTOCOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner requests.</td>
<td>Owner comes to the CA and copies the PM and A/E.</td>
</tr>
<tr>
<td>Development of OPR. Changes in OPR.</td>
<td>PM and A/E develop the OPR. The CA reviews the OPR.</td>
</tr>
<tr>
<td>Scheduling commissioning process meetings.</td>
<td>CA submits schedule to A/E typically 2 weeks prior to the requested meeting. A/E adds to schedule and communicates schedule to involved parties. Requests for additional commissioning meetings must be per PM request or with PM approval.</td>
</tr>
<tr>
<td>Requests for information (RFI) or documentation requests.</td>
<td>The CA goes through the A/E, with copy to PM.</td>
</tr>
<tr>
<td>For minor or verbal information and clarifications.</td>
<td>The CA goes directly to the informed party.</td>
</tr>
<tr>
<td>Scheduling deliverables.</td>
<td>The CA submits a schedule of commissioning deliverables to the A/E (typically 3 weeks prior to requested due date). A/E adds to schedule and communicates schedule to involved parties. Commissioning deliverables are agreed upon at the beginning of a particular project phase.</td>
</tr>
<tr>
<td>Requests for significant changes.</td>
<td>The Owners approve changes. The CA has no authority to approve changes.</td>
</tr>
<tr>
<td>For making small changes in designs.</td>
<td>The CA may not make changes to designs. The CA may only document the finding, offer a suggestion, and submit for consideration by the A/E and Owner Teams.</td>
</tr>
<tr>
<td>A/E disagreeing with requests or interpretations by the CA.</td>
<td>The A/E resolves directly with the CA. If necessary, go to the PM with the topic in question.</td>
</tr>
</tbody>
</table>

4.2 DESIGN PHASE PROGRESS REPORTING AND ISSUES TRACKING LOGS

A. Progress Reports

The CA provides the Commissioning Team with commissioning progress reports regularly, typically every month. The progress reports contain: an update of the schedule with requested changes and new items added to the schedule, a list of new and outstanding deficiencies, a description of commissioning progress related to the Commissioning Plan, etc.

B. Issues Tracking Log

The CA will utilize an Issues Tracking Log to record, report, and track all comments and action items from commissioning reviews. It is expected that either correction or change or explanation will address each item identified in the Issues Tracking Log.

The Issues Tracking Log will be carried forward to the Construction Phase as discussed in Section 5.6. At the end of the project, the CA delivers to the PM a record showing commissioning-related issues identified throughout the project.
4.3 OWNER’S PROJECT REQUIREMENTS, PROJECT PROGRAM, AND BASIS OF DESIGN DOCUMENTATION

A. Definition

The Owner’s Project Requirements (OPR), which includes the Project Program, and Basis of Design, provides each party involved with an understanding of the building systems. The A/E is responsible for developing the OPR.

The CA uses the OPR as the basis for all design and construction reviews. The OPR is the standard by which the CA measures the project’s development and success.

The OPR includes information about: building goals and objectives, conceptual design, processes to complete design, processes to complete construction, processes to verify compliance during construction, and methods to aid building operations. All three of these documents (OPR, Project Program, and Basis of Design) are updated throughout the project.

B. Building Systems Covered by the Project Program and Systems Basis of Design

The A/E is responsible for developing the Project Program and Systems Basis of Design documentation for commissioned systems.

C. Creation

The OPR is developed by the A/E with review and approval by the Owner. The Architect creates the Project Program from the programming phase. The Engineer documents the Basis of Design. The CA will review the OPR and BoD for completeness and commission-ability.

4.4 COMMISSIONING PLAN

A. The Commissioning Plan provides the basis for Commissioning Specification development. When all drawings and specifications are complete, the CA finishes updating the Commissioning Plan which is then included in the Contract Document package.

B. The PM reviews and comments on the Commissioning Plan prior to acceptance. The CA makes recommended changes before implementation.

4.5 COMMISSIONING DESIGN REVIEWS

A. The CA will complete design reviews for this project. The Design reviews will occur at Design Development and Final Construction Documents Phases.

B. The Design Reviews will be for a review of system commissionability, satisfaction with the OPR, and overall operation of the system. Specific areas of focus will be for the:

1. Controls Sequences and Points Lists
2. Single Line Diagrams and System Risers
3. Equipment Details
4. Piping and Instrumentation Drawings and Details
5. Equipment Schedules
6. Routing, location, and access to equipment
7. Ability of the system to satisfy OPR criteria related to Energy Efficiency and Indoor Environmental Quality

C. Design Reviews are not quality control reviews for the Designer(s) of Record.
4.6 COMMISSIONING SPECIFICATION DEVELOPMENT

The CA and A/E collaborate to develop the commissioning portions of the Specifications for inclusion in the construction bid documents.

A. Specification Content

The commissioning specifications shall contain verification testing requirements, including the components and systems to be tested and the documentation, reporting, and scheduling requirements. Responsible parties for writing, executing, witnessing and signing-off on tests shall be included. Relationships between and requirements for start-up, construction checklists, functional tests, control system trend logs and stand-alone data logging shall also be given. The specifications will include submittal instructions, O&M training, and Systems Manual requirements.

B. Coordination, Reporting and Review

The CA develops the commissioning requirements for individual specification sections with input from the Commissioning Team. The CA then submits to the A/E for inclusion in their specifications.

Although the CA coordinates and reviews the commissioning portion of the specifications, the ultimate responsibility for their content and preparation lies with the A/E.

4.7 COMMISSIONING FACILITATION

One of the primary tasks for the CA is to aid in creating construction documents that facilitate the commissioning process during construction. The CA will provide assistance as required for creation of Specifications of commissioned systems. In addition, items from the list below shall be considered for incorporation into the project.

1. Meets the objectives for delivering a project that:
   a. Provides a safe and healthy facility;
   b. Optimizes energy use;
   c. Reduces operating costs;
   d. Ensures adequate O&M staff orientation and training; and
   e. Improves installed building systems documentation.
2. Complete and timely submittal review submission guidelines in the Specifications.
3. Descriptions of functional test acceptance criteria
5. Contractor performance and responsiveness requirements included in the Specifications.
6. Complete Owner training requirements in the specifications.
7. Provisions for a commissioning discussion at all Pre-Bid Conferences.
COMMISSIONING PROCESS – CONSTRUCTION PHASE

This section sequentially details the commissioning process by task or activity for the Construction Phase. Although the information in this section identifies the activities, plans, and intents of commissioning it does not quantify the number of visits, number of meetings, or schedules for the Construction Phase. Prior to acceptance, this Commissioning Plan information will be reviewed with the CM.

5.1 CONSTRUCTION PHASE COMMUNICATION

During the Construction Phase of this project, the Commissioning Team will use the following communication protocols. These protocols are representative of those encountered during the commissioning process, but are not an exhaustive list. The protocols do not supersede any contractual relationships among project participants.

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>PROTOCOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>For requests for information (RFI) or formal documentation requests.</td>
<td>The CA goes through the CM, copying the PM and A/E.</td>
</tr>
<tr>
<td>For minor or verbal information and clarifications.</td>
<td>The CA goes directly to the informed party.</td>
</tr>
<tr>
<td>For notifying contractors of deficiencies.</td>
<td>The CA documents deficiencies on the Issues Tracking Log. CA submits log to the CM, but may discuss deficiency issues with contractors prior to notifying the CM and copying the A/E. The PM receives copies of all correspondence.</td>
</tr>
<tr>
<td>For scheduling functional tests or owner training.</td>
<td>The CA may provide input for and do some coordination of testing, but does not do any scheduling. The CM schedules the testing. The CA may provide input for and do some coordination and scheduling of training.</td>
</tr>
<tr>
<td>For scheduling commissioning meetings.</td>
<td>The CA schedules through the CM.</td>
</tr>
<tr>
<td>For making a request for significant changes.</td>
<td>The CA has no authority to issue change orders.</td>
</tr>
<tr>
<td>For making small changes in specified sequences of operations.</td>
<td>The CA may not make changes to specified sequences without approval from the A/E.</td>
</tr>
<tr>
<td>Subcontractors disagreeing with requests or interpretations by the CA shall.</td>
<td>Try and resolve with the CA first. Then, work through the CM who will work with the CA directly. Finally, go through the PM to resolve the situation. A/E receives copies of all correspondence.</td>
</tr>
</tbody>
</table>

5.2 CONSTRUCTION PHASE COMMISSIONING CONFERENCE

A. Within 60 days of Contract Award, the CA will conduct Construction Phase Commissioning Conferences. Required attendees include the PM, CA, A/E, CM, controls contractor, Mechanical Subcontractor, and Electrical Subcontractor. If possible, third party testing agencies, such as TAB, should be in attendance.

1. At the meeting, the Commissioning Team is introduced, the commissioning process reviewed, and management and reporting lines determined. Also discussed is the flow of documents, how much submittal data the CA will receive, etc. Other activities include a review of the Commissioning Plan, a question and answer session for project processes, a review of lines of reporting and communication, and a discussion of the work products list. Finally covered is the general list of each party's responsibilities, verification testing, and the proposed commissioning schedule.

2. The intent of the meeting is to increase understanding of the commissioning process and each party's responsibilities. The meeting provides the CA additional information needed to finalize the Commissioning Plan for the Construction Phase and develop an accurate commissioning schedule.

3. The CA keeps notes from the meeting and distributes them to each attendee within five (5) working days.
5.3 FINAL COMMISSIONING PLAN
The CA finalizes the Commissioning Plan using the information gathered from the Construction Phase Commissioning Conference. The Commissioning Plan is approved by PM, A/E, and the CM.

5.4 SITE OBSERVATION
During the Construction Phase, the CA will make regular visits to the site to witness equipment and system installations. Following each Field Observation visit, the CA will provide a written report that documents all findings and observations to the CM, copying the PM and A/E.

5.5 CONSTRUCTION PHASE MEETINGS
The CA attends selected planning and job-site meetings in order to remain informed on construction progress and to update parties involved in commissioning. The CM provides the CA with information regarding substitutions, change orders, and any Architect’s supplemental instructions that may affect either commissioned equipment and systems or the commissioning schedule.

Commissioning Progress Meetings will be conducted concurrent with regular Construction Phase Progress Meetings.

Later during construction, the CA will schedule necessary meetings between various commissioning team parties through the CM, as required.

5.6 CONSTRUCTION PHASE PROGRESS REPORTING AND ISSUES TRACKING LOGS
A. Commissioning Progress Report
   The CA provides the Commissioning Team with regular commissioning progress reports. The progress reports contain: an update of the schedule with requested changes and new items added to the schedule, a list of new and outstanding deficiencies, a description of commissioning progress related to the Commissioning Plan, etc.

B. Issues Tracking Log
   The CA will utilize an Issues Tracking Log; see Section 4.2 and Section 5.12. It is expected that the CM and Subs will respond with a correction, change, or explanation to address each item identified in the Issues Tracking Log.

C. Unresolved Issues Tracking Log items may impact Substantial and Final Completion dates.

5.7 SUBMITTALS AND DOCUMENTATION
The CA will review submittals for commissioned systems and equipment. The CA will be part of the normal submittal chain. After the A/E comments on submittals, the CA will review and comment and return to the A/E for distribution to the CM. The CA’s submittal reviews are for commissionability and the satisfaction of the OPR.

5.8 CONSTRUCTION CHECKLISTS
A. Overview
   1. Construction Checklists (CC’s) are important to ensure that the equipment and systems are hooked-up and operational and that functional performance testing may continue without unnecessary delays. Each piece of equipment shall receive full construction checkout by the Contractor.
   2. The Contractor responsible for confirming that the equipment/building assemblies are ready for execution of CC’s.
   3. For MEP Systems and Equipment, the CA is responsible for CC implementation.
   4. In general, the Construction Checklists for a given system must be successfully completed prior to functional performance testing of equipment and systems.
   5. Construction Checklist items are combined with manufacturer’s start-up checklist items.
6. To facilitate data collection, Paladin will use a web-enabled system. Software will be made available to the Project.

B. Construction Checklists Creation

   1. Construction Checklists consist of Paladin created draft checklists, manufacturer installation, start-up, and checkout data, and important instructional data and procedures not covered in manufacturer field checkout sheets.

   2. The Contract Documents and Commissioning Plan contain Construction Checklist information, sampling rates, and examples of Paladin’s Construction Checklists. When the CM is ready to review the Construction Checklists, Paladin will distribute entire Construction Checklist package.

   3. The following process will be used for this project to develop and approve the Construction Checklists.

      b. These checklists do not take the place of the manufacturer’s recommended checkout and start-up procedures or report. There may be redundancy between checklist procedures and typical factory field checkout sheets. Double documentation is required in those cases.

      c. The CA transmits draft Construction Checklists to the CM who then transmits the draft Construction Checklist(s) to the responsible Subcontractors for review and comment.

      d. The Subcontractor returns any comments on Construction Checklists to the CA, through the CM.

      e. The CA reviews Construction Checklist comments and incorporates changes as appropriate prior to use.

C. Execution of Construction Checklists – MEP Systems

   1. The MEP Construction Checklists will be completed by the CA according to the Sampling Strategy for CA according to the Sampling Strategy for CA Observation of Construction Checklists contained in the Commissioning Plan, Section 1.3.

   2. Four (4) weeks prior to startup, the Subcontractors and vendors schedule startup and initial checkout with the Construction Manager and CA.

   3. MEP Construction Checklists must be complete for each piece of equipment prior to any manufacturer or Sub start-up.

   4. As deficiencies are identified by the CA, they will be documented in an Issues Tracking Log. Please see the Commissioning Plan procedures related to issues tracking and closeout.

5.9 TAB

   A. The CA will verify Testing, Adjusting and Balancing.

   B. For this Project, the CA will verify TAB by:

      1. TAB Report Review
      2. Sampling of Readings 20%

5.10 CONTROLS CHECKOUT PLAN

   A. Controls Checkout Plan

      The controls contractor develops and submits a written step-by-step plan to the CA and A/E which describes the process they intend to follow in checking out the control system and the forms on which they will document the process

   B. Coordination with TAB

      The controls contractor will also meet with the TAB contractor prior to the start of TAB and review the TAB plan to determine the capabilities of the control system for use in TAB. The controls contractor will provide the TAB with any necessary unique instruments for setting terminal unit boxes and instruct TAB in their use (handheld control system interface for use around the building
5.11 FUNCTIONAL TESTS

A. Overview

Functional testing is the dynamic testing of systems (rather than just components) under full operation. Systems are tested under various modes and are run through all of the control system’s sequences of operation and components are verified to be responding as the sequences state.

The CA develops the Functional Test Procedures and monitors the actual testing. Due to equipment warranties, the installing contractor or vendor manipulates the controls or equipment as described in the tests.

B. Functional Test Procedures

1. The Specifications contain the Functional Test Index, Plan, test criteria, and a sample Functional Test. The CA will develop final tests with information such as: change orders, updated points list, control sequences and setpoints, input from contractors, and input from the A/E.

2. Functional testing and verification may be achieved by manual testing (persons manipulate the equipment and observe performance), or by monitoring the performance and analyzing the results using the control system’s trend log capabilities. The CA follows the Specifications and uses judgment where needed to determine which method is most appropriate.

3. The CA reviews Owner-contracted, factory, or required Owner acceptance tests and determines what further testing may be required to comply with the Specifications.

4. The following procedures will be used for this project for the development and approval of Functional Test Procedures:
   a. The CA develops Functional Test Procedures. The Specifications contain a sample Functional Test (FT). The CA transmits the FT Procedures to the CM and copies the PM.
   b. The CM transmits the FT Procedures to the responsible Subs for their review.
   c. The designated Subs review the FT Procedures for feasibility, safety, warranty, and equipment protection. The Subs shall comment and update the FT Procedures as required and forward the FT Procedures to the CM.
   d. The CM forwards the updated FT Procedures to the CA, A/E, and PM for review and approval prior to execution.
   e. The CA, A/E, and PM review and approve the FT Procedures and convey approval to the CM.
   f. The CM schedules testing with the CA and Subs. The CA will bring FT Procedures and walk through the tests with a Sub representative knowledgeable in the systems, their installation, and their control.

C. Functional Testing Plan

1. The Functional Testing Plan provides the Contractors with information about where functional testing lies in the schedule, what issues are preventing the start of testing, and which contractors are needed for each test. This plan includes the following information: equipment/system, whether the test includes prerequisites, needed participants at testing, and whether there is anticipated seasonal testing. The Functional Testing Plan is finalized after most equipment has been started up and when functional testing dates are approaching.

2. The Functional Testing Plan is provided in the Specifications to the CM, Contractors, Subs, and PM in the Specifications.

3. The control system is tested before it is used to verify performance of other components or systems.

4. The air balancing, water balancing, and circuit testing is completed and debugged before functional testing of air-related or water-related equipment or systems.

5. Testing proceeds from components to subsystems to systems and finally to interlocks and connections between systems.
D. Execution of Functional Test Procedures

1. The CA organizes and directs the Functional Test Procedures.
2. The Subs perform the Functional Test Procedures and the CA records test results.
3. The CA monitors and witnesses the functional testing of commissioned equipment and systems.
4. Four (4) weeks prior to functional testing, the Subs schedule the functional tests with the CM and CA.
5. The Subs shall provide their reviews of the Functional Test Procedures created by the CA to the CM for review by the CA, A/E, and PM at least three (3) weeks prior to the performance of the associated test. Subject to conformance with the Specifications and Commissioning Plan, the CA, A/E, and PM will approve the Functional Test Procedures.
6. Within no later than one (1) week after completion of a functional test, results will be forwarded by the CA to the CM for distribution to the Subs. The CA and A/E will review and approve or disapprove the test results based on methods, results, and completeness of the specific data collected. A passed functional test does not preclude the need to address select corrective action findings associated with a test. A passed functional test does indicate the results were within the specified range of performance established by the project team.

5.12 DEFICIENCIES AND ISSUE TRACKING

A. Test Deficiencies

1. Sub Completed Checklists and Tests: The Subs shall clearly identify any outstanding items from their portion of Construction Checklists, Controls verification, and TAB tests that were not completed successfully. The Subs shall provide a list of test deficiencies to the CA (through the CM) within five (5) days of test completion. The CA will work with the Subs and vendors to correct and retest deficiencies or uncompleted items, involving the CM and others as necessary.

2. CA Completed Checklists and Tests: The CA shall clearly identify any findings associated with Field Observation, Construction Checklists, Controls verification, TAB Verification, and Functional Tests that were not completed successfully. The CA will provide this list to the Subs (through the CM) within five (5) days of identification. The CA will work with the Subs and vendors to correct and retest deficiencies or uncompleted items, involved the CM and others as necessary.

B. Issues Tracking Log Documentation

The CA will document deficiencies or non-conformance issues in the Issues Tracking Log and request or recommend corrective action as applicable. Subs shall perform the required action to correct the deficiencies. Subs shall document and certify the action taken and shall forward a completed Issue Resolution Report to the CA.

C. Resolution

Decisions regarding deficiencies and corrections are preferably made between the CA, the A/E, the CM, and the Sub. For areas in dispute, final authority resides with the Owner. The CA will review completed Issue Resolution Reports for adequacy. Corrective action issues shall generally be resolved prior to progressing through the Construction Phase.

D. Retesting

When deficiencies are identified during testing, depending on their extent or magnitude, they can be corrected during the test and the testing can continue to successful completion. More significant deficiencies will require failure of the test and re-testing.

E. Max Failure Limits

Maximum Failure Limits indicate the maximum percentage of the testing devices that may have any test that fails before an entirely new sample must be tested. When the maximum number of failures is reached, testing on that sample will be terminated and retesting will be scheduled. The responsible Contractor shall pay cost of the sample test, and redo the start-up / TAB / etc. for the
applicable devices / systems. All work necessitated by sample failures shall be at no cost to the Owner.

5.13  FINAL COMMISSIONING REPORT

A. The CA will provide a Final Commissioning Report to the PM. The report shall include:
   1. Executive summary of the process and results
   2. List of participants and roles
   3. Brief building description
   4. Overview of commissioning and testing scope
   5. Summary of the Commissioning process
   6. History of system deficiencies identified and how they were resolved – including any outstanding issues or seasonal testing scheduled for a later date.
   7. General description and evaluation of testing and verification methods.

B. For each commissioned system or piece of equipment, the final Cx Report should verify the adequacy of the equipment, documentation, and training has fulfilled the contract documents in the following areas:
   1. Equipment meeting the equipment specifications.
   2. Equipment installation.
   4. Equipment documentation.
   5. Operator training.

C. All outstanding non-compliance items shall be specifically listed. Recommendations for improvement to equipment or operations, future actions, commissioning process changes, etc. shall also be listed. Each non-compliance issue shall be referenced to the specific functional test, inspection, trend log, etc. where the deficiency is documented. The functional performance and efficiency section for each piece of equipment shall include a brief description of the verification method used and observations and conclusions from the testing.

5.14  O & M MANUALS
The CA will incorporate pieces of the O&M Manuals (reviewed by others) into the Project Systems Manual.

5.15  SYSTEMS MANUAL
The CA will submit a Systems Manual for this project. The Systems Manual will include, for commissioned systems:
   1. Final version of the basis of design
   2. System single-line diagrams
   3. As-built sequences of operations, control drawings, and original setpoints
   4. Operating instructions for building systems
   5. Recommended schedule of maintenance requirements and frequency, if not already included in the O&M manuals
   6. Recommended schedule for retesting of commissioned systems with blank test forms
   7. Recommended schedule for calibrating sensors and actuators
5.16  ONGOING COMMISSIONING PLAN

B. The CA will submit an Ongoing Commissioning Plan for this project. The Ongoing Commissioning Plan is included in the Systems Manual. The Plan will include, for commissioned systems:

1. Definition of ongoing commissioning process
2. Defined roles and responsibilities
3. Recommended schedule for recommissioning as-built systems
4. Continuous documentation and updating of building operating plan and current facility requirements throughout the building’s lifetime
5. Blank testing materials, including functional tests and an issues log
6. Direction for testing new and retrofitted equipment

5.17  TRAINING AND ORIENTATION

A. The CA will work through the CM to schedule and coordinate Owner Training Sessions at the convenience of the Owner. This will be on functional systems vs. installed systems. Equipment must be energized, running, and integrated to facilitate proper training. Documentation will be required from the manufacturers to support training sessions.

B. Owner Training Coordination includes the following activities for the Enoch Grehan Building Modernization Project:

<table>
<thead>
<tr>
<th>OWNER TRAINING COORDINATION AND VERIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>TASK</td>
</tr>
<tr>
<td>Prepare an Owner Training Plan</td>
</tr>
<tr>
<td>Identify Personnel Needed at Training Sessions</td>
</tr>
<tr>
<td>Coordinate with Construction Manager to schedule Training</td>
</tr>
<tr>
<td>Provide Agenda for Training Sessions</td>
</tr>
<tr>
<td>Conduct Training Sessions</td>
</tr>
<tr>
<td>Provide Videographer for recording Training Sessions</td>
</tr>
<tr>
<td>Verify Owner Training</td>
</tr>
<tr>
<td>Coordinate any follow-up Training as required</td>
</tr>
</tbody>
</table>

C. The CA will also prepare a customized system overview of the commissioned areas. The training delivery will be coordinated with the Owner and with the manufacturer-provided training sessions.

5.18  POST-ACCEPTANCE PERIOD AND SEASONAL TESTING

During the warranty period, seasonal testing and other deferred testing required is completed according to the Specifications. The CA coordinates this activity and schedules it with the Owners and as warranted, the CM and Subs. Tests are executed and deficiencies corrected by the appropriate Subs, witnessed by facilities staff and the CA. The CA will make any final adjustments to the O&M manual documentation. The A/E will be responsible for making final adjustments to the As-Built or Record Drawings due to seasonal testing.
SECTION 6:
WRITTEN WORK PRODUCTS
WRITTEN WORK PRODUCTS

The written work products from all parties are described below. The table describes each product, who is responsible for producing it, the general due date, the parties who receive it and who approves it, etc.

<table>
<thead>
<tr>
<th>DESIGN / CONSTRUCTION DOCUMENTS PHASES</th>
<th>CREATED BY</th>
<th>PRODUCT DESCRIPTION AND FORM</th>
<th>DUE DATE</th>
<th>RECEIVED BY</th>
<th>APPROVED BY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner’s Project Requirements</td>
<td>A/E, Owners</td>
<td>Detailed document of the facility’s functional requirements</td>
<td>Compiled during Design</td>
<td>All</td>
<td>Owners</td>
</tr>
<tr>
<td>Project Program</td>
<td>A/E</td>
<td>Document of spatial and architectural considerations</td>
<td>Compiled during Design</td>
<td>All</td>
<td>Owners</td>
</tr>
<tr>
<td>Basis of Design</td>
<td>Compiled by A/E Team from design assumptions</td>
<td>Detailed descriptions of systems, their operating guidelines, etc.</td>
<td>Compiled during Design</td>
<td>All</td>
<td>Owners</td>
</tr>
<tr>
<td>Commissioning Plan</td>
<td>CA</td>
<td>Description of the commissioning process, activities, dates, and communication chains</td>
<td>Four weeks after intent to award.</td>
<td>All</td>
<td>Owners</td>
</tr>
<tr>
<td>Commissioning Specifications</td>
<td>CA</td>
<td>Descriptions of commissioning activities for inclusion in Bid Specifications</td>
<td>Construction Documents</td>
<td>All</td>
<td>A/E, CM, Owners</td>
</tr>
<tr>
<td>Issues Tracking Log – Design Phase</td>
<td>CA</td>
<td>Record / track of all issues and deficiencies</td>
<td>Ongoing throughout Construction, with Progress Reports</td>
<td>A/E, CM, and Owners</td>
<td>NA</td>
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<table>
<thead>
<tr>
<th>BID, CONSTRUCTION, AND WARRANTY PHASES</th>
<th>CREATED BY</th>
<th>PRODUCT DESCRIPTION AND FORM</th>
<th>DUE DATE</th>
<th>RECEIVED BY</th>
<th>APPROVED BY</th>
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<tbody>
<tr>
<td>Construction Phase Cx Conference Meeting Minutes</td>
<td>CA</td>
<td>Minutes and notes of the meeting</td>
<td>5 days after meeting.</td>
<td>Attendees and All Cx team</td>
<td>NA</td>
</tr>
<tr>
<td>Commissioning Plan Updates</td>
<td>CA</td>
<td>Commissioning Plan for Construction Phase</td>
<td>Every 1 – 3 months</td>
<td>All Cx team</td>
<td>PM</td>
</tr>
<tr>
<td>Issues Tracking Log – Construction Phase</td>
<td>CA</td>
<td>List deficiencies discovered when implementing the Commissioning Activities</td>
<td>Five days after activity completion.</td>
<td>CM, PM, A/E, and Subs</td>
<td>N/A</td>
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<tr>
<td>Field Observation Reports</td>
<td>CA</td>
<td>Report of findings from site visits</td>
<td>5 days after visit</td>
<td>CM, A/E, and PM</td>
<td>Cx Team</td>
</tr>
<tr>
<td>PRODUCT</td>
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<td>PRODUCT DESCRIPTION AND FORM</td>
<td>DUE DATE</td>
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<tr>
<td>Construction Checklists</td>
<td>CA and Subs</td>
<td>List by equipment of Construction verification procedures</td>
<td>6 weeks before equipment is delivered to site</td>
<td>CM, Subs, and PM</td>
<td>Cx Team</td>
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<tr>
<td>Construction Checklist Results</td>
<td>CA and Subs</td>
<td>Filled out Construction Checklists</td>
<td>Weekly during checklist completion</td>
<td>CA, CM, and PM</td>
<td>CA</td>
</tr>
<tr>
<td>Equipment Start-up Reports</td>
<td>Subs and MFR</td>
<td>Report of results from equipment start-up</td>
<td>5 days after visit</td>
<td>CM, A/E, CA, and PM</td>
<td>CM and A/E</td>
</tr>
<tr>
<td>Equipment Start-up Observation Reports</td>
<td>CA</td>
<td>Report of results from equipment start-up</td>
<td>5 days after visit</td>
<td>CM, A/E, and PM</td>
<td>Cx Team</td>
</tr>
<tr>
<td>Controls Contractor Initial Check-out Plan</td>
<td>CCTR</td>
<td>Complete step-by-step plan on checkout and calibration procedures, including forms for documentation</td>
<td>4 weeks before beginning checkout</td>
<td>A/E, CA, PM, and CM</td>
<td>A/E and CA</td>
</tr>
<tr>
<td>TAB Plan and Approach</td>
<td>TAB</td>
<td>Outline of TAB plan, approach and schedule</td>
<td>4 weeks before TAB.</td>
<td>A/E, CA, CM, PM, CCTR.</td>
<td>A/E</td>
</tr>
<tr>
<td>TAB Progress Reports</td>
<td>TAB</td>
<td>List of discrepancies, interpretations needed, tests completed</td>
<td>Twice a week</td>
<td>A/E, CA, PM, and CM</td>
<td>A/E</td>
</tr>
<tr>
<td>TAB Report</td>
<td>TAB</td>
<td>TAB report with method and results</td>
<td>&lt; 2 weeks after TAB completion</td>
<td>A/E, CA, CM, PM, and normal others</td>
<td>A/E, CA</td>
</tr>
<tr>
<td>TAB Verification</td>
<td>CA</td>
<td>CA witness of two hours of TAB</td>
<td>One week after receipt of TAB report</td>
<td>A/E, CM, and PM</td>
<td>A/E</td>
</tr>
<tr>
<td>Functional Test Procedures</td>
<td>CA</td>
<td>Full description of system test procedures in &quot;form&quot; format</td>
<td>3 weeks after checklists are finished</td>
<td>CM and Subs</td>
<td>Cx Team</td>
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<tr>
<td>Completed Functional Tests</td>
<td>CA and Subs</td>
<td>Recorded documentation of the test on the form</td>
<td>With final report</td>
<td>CA and CM</td>
<td>CA, A/E</td>
</tr>
<tr>
<td>Documentation of Control Programs</td>
<td>CCTR</td>
<td>Documentation of all control programs. Points Lists, Controls Drawings, Record Sequences, and Operating Instructions</td>
<td>30 days, following functional testing</td>
<td>A/E, CA, and CM</td>
<td>CA, A/E</td>
</tr>
<tr>
<td>Test Deficiency Notification</td>
<td>CM and Subs or Party responsible for test completion</td>
<td>List of test number and description, date of test, and deficiencies discovered when implementing the test.</td>
<td>Five days after test completion.</td>
<td>CA, CM, and PM</td>
<td>N/A</td>
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<td>PRODUCT</td>
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<td>PRODUCT DESCRIPTION AND FORM</td>
<td>DUE DATE</td>
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<tr>
<td>Owner Training Recordings</td>
<td>CM and Subs</td>
<td>Recordings and documentation from Owner Training Sessions</td>
<td>Within 2 weeks of completion of training session</td>
<td>CM</td>
<td>Owners</td>
</tr>
<tr>
<td>Cx Report</td>
<td>CA</td>
<td>Summary report with important findings and all Cx documentation</td>
<td>Within 3 weeks of completion of FT’s</td>
<td>Owners</td>
<td>Owners</td>
</tr>
<tr>
<td>Systems Manual</td>
<td>CA</td>
<td>Documentation to assist with operating the facility</td>
<td>Within 60 days of Final Completion</td>
<td>Owners</td>
<td>Owners</td>
</tr>
<tr>
<td>Ongoing Commissioning Plan</td>
<td>CA</td>
<td>Documentation to assist with maintaining the facility operating parameters</td>
<td>Within 60 days of Final Completion</td>
<td>Owners</td>
<td>Owners</td>
</tr>
<tr>
<td>Warranty Walkthrough Report</td>
<td>CA</td>
<td>Report of observations and recommendations from warranty inspection</td>
<td>Within 5 days after visit</td>
<td>Owners</td>
<td>Owners</td>
</tr>
</tbody>
</table>
REFERENCE DOCUMENTS

A. Project Contacts
B. Design Schedule
C. Construction Schedule
OWNER’S PROJECT REQUIREMENTS

Enoch Grehan Building Modernization
CPMD Project #2446.2
University of Kentucky
Lexington, Kentucky
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<td>System Specific Criteria</td>
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</table>

### REFERENCES:

- UK Capital Project Management Division’s Guidelines for Mechanical and Electrical Systems
- Design Meeting Minutes
- LEED-NC v2009 Checklist
<table>
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<th><strong>PROJECT INFORMATION</strong></th>
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<tr>
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<td>University of Kentucky</td>
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<tr>
<td>Lexington, Kentucky</td>
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<tr>
<td><strong>OWNER CONTACTS</strong></td>
<td>Sandy Redmon, CPMD - University of Kentucky</td>
</tr>
<tr>
<td><strong>CA CONTACT</strong></td>
<td>Mark Zoller, Paladin, Inc.</td>
</tr>
<tr>
<td></td>
<td>Candice Rogers, Paladin, Inc.</td>
</tr>
<tr>
<td><strong>A/E CONTACT</strong></td>
<td>Tim Doelling, Murphy Group Architects</td>
</tr>
<tr>
<td></td>
<td>Dan Bransom, Staggs and Fisher</td>
</tr>
<tr>
<td><strong>CM CONTACT</strong></td>
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<thead>
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<th><strong>REVISION HISTORY</strong></th>
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</thead>
<tbody>
<tr>
<td>FEB 23, 2018</td>
<td>Owner’s Project Requirements REV 1.0 [Initial Draft]</td>
</tr>
<tr>
<td>MAR 28, 2018</td>
<td>Owner’s Project Requirements REV 1.1 [Design Phase B]</td>
</tr>
<tr>
<td>APR 18, 2018</td>
<td>Owner’s Project Requirements REV 2.0 [Design Phase C]</td>
</tr>
<tr>
<td>JUL 09, 2018</td>
<td>Owner’s Project Requirements REV 2.1 [Bid Documents]</td>
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INTRODUCTION

The Owner’s Project Requirements (OPR) document is a collection of information for University of Kentucky Enoch Grehan Building Modernization project. The OPR is written to guide the Design Team, to assist the Construction Team, and to serve as a tool for Operations and Maintenance. It is the document against which all project deliverables are measured by the Commissioning Authority. When the objectives laid out in the OPR are satisfied, the project is deemed a successful project.

The OPR is different from the Architect’s project programming and basis of design information. The OPR defines the target while the Project Program and Systems Basis of Design define the path to meet that target. The OPR will have some programming information included; however, the bulk of the information is general. The OPR also includes Performance Criteria or the measures by which the project team knows they have satisfied a requirement.

At the end of the project, the Owner’s Project Requirements will be delivered to University of Kentucky. The OPR will serve as an excellent starting point for operations, for expansions, or future renovations.

Paladin’s scope for commissioning the Project includes Fundamental and Enhanced Commissioning under the LEED v2009.

GENERAL PROJECT DESCRIPTION

The UK Enoch Grehan Building Modernization, is an approximately 33,000 sq. ft. of renovation project with 12,000 sq. ft of new construction. The purpose of the project is to modernize the 1950’s constructed facility to meet current learning, programming, and operational needs. The overall project budget is approximately $17.1M.

The renovation of the existing building includes new construction that will connect existing McVey Hall to renovated Grehan Journalism building. The new connector will stitch together the existing and renovated area and become the new “Front Door” to Engineering. It will aid in mitigating ADA access and security concerns, and provide for informal study and social space for students.

The construction will be a combination of renovation and new construction with the goal of maintaining original character of the building, windows, and façade elements and details. The existing roof is in good condition; therefore, plans for modification are not included in the project.

Finishes on the interior will be and selected for low maintenance and durability.

The building HVAC system is being designed around a 4 pipe fan coil systems with filter return grills to ease maintenance. A new outside air unit will be incorporated to serve the 3rd level of the new connector. The basement connector will house a new incoming service for chilled water and steam.

The Enoch Grehan Building Modernization transition the old vault into a generator room, a new Main electrical room and dedicated panel boards in the lab spaces. The electrical systems to support the equipment and lighting controls integrated into the building automation system.

Plumbing for this facility will consist of domestic cold and recirculating hot water systems and sanitation to satisfy code requirements.

The project will satisfy LEED-NC v2009 requirements to achieve a minimum of LEED Silver status but will not register the project with the Green Building Certification Institute, GBCI for certification.
SECTION 2:
PROJECT OBJECTIVES
COMMITMENT

The University of Kentucky recognizes that in its mission to improve the lives of Kentuckians, its greatest challenge in our time is to engage the University community to create policies and programs that will simultaneously advance economic vitality, ecological integrity and social equity, now and into the future. As such, it calls upon all levels and constituencies of the University to participate in a continuous and on-going effort to institute the teaching, research, and practice of sustainability and to establish an institutional culture of sustainability.

OPERATIONS

Each University unit shall participate in an ongoing University-wide collaborative process that seeks synergies and sustainable balances in the areas of physical planning and development, including building and infrastructure; operations; transportation; purchasing; and waste management and abatement. The results of this process will include:

- Meeting and working to exceed all applicable and emergent energy, building, and resource conservation regulatory requirements;
- Working to prevent pollution at its source;
- Working to attain carbon neutrality;
- Reducing dependence on non-renewable energy and encouraging renewable energy alternatives;
- Fostering the use of a life-cycle cost evaluation process in campus purchasing and construction.

PROJECT OBJECTIVES

There are several project objectives that University of Kentucky wishes to achieve as a result of this project. In no particular order, these include:

1. Maximize flexibility of spaces.
2. Create a new entry, “front door” or “gateway” to the engineering section of campus.
3. Enhancing wayfinding, and circulation through the connector.
4. Providing an accessible access point to Grehan and McVey.
5. A sustainable design per LEED certification.

CONSTRUCTION PROCESS OBJECTIVES OF THE OWNER

There are several objectives specific to the construction process that the University of Kentucky has set for this project. In no particular order, these include:

1. UK eCommunications will be user in the documentation process.
2. Monthly As-Built Drawing reviews to be executed.
3. Submittals will be distributed at the same time and the review comments will be submitted in sequence. This sequence of review comments upload will be determined at the pre-construction meeting.

SPECIAL OBJECTIVES OF THE OWNER

The Owner for this is the University of Kentucky. The facility will be maintained locally with support from University of Kentucky Physical Plant Division. As such, these entities have specific requirements relative to the design and construction of their facilities.

The Special Objectives for this project include:

1. Satisfy requirements of LEED v2009 with minimum of LEED Certified status.
2. Comply with UK’s Design Guidelines
3. Network Requirements:
   a. Provide standard giga-bit @ every port and WiFi throughout.
   b. 10-gig uplink to building with 10-gig uplink to each floor.
5. Allow for as much power as feasible for student laptops in Classrooms.
6. The BAS will tie into the university Delta Room.
7. Johnson Controls will be the BAS Vendor.

PROJECT CONSIDERATIONS AND LIMITATIONS

Like all projects, the Enoch Grehan Building Modernization Project has constraints and concerns that must be accommodated and considered during design and construction. These factors include:

1. The current User is the College of Engineering. It is possible that the building will need to be used by the College of Communication and Information. This decision will not be known until summer 2018.
2. The project scope needs to comply with energy efficiency standard ASHRAE 90.1-2010. It will be connected to the campus central plant for campus central plant for heating and cooling.
3. New performance goals for the project will be influenced by having to work within the existing historic context and having to utilize campus central plan resources.
4. Diesel generator is existing and will need to be upgraded. The upgrade will need to be phased to keep existing emergency power for Pence Hall and Kastle Hall. The generator may remain Diesel. Sidewalk is currently designed to accommodate refueling loads.
SECTION 3:
PROJECT REQUIREMENTS
OCCUPANCY REQUIREMENTS

The occupancy requirements of the UK Enoch Grehan Building Modernization result in a typical occupancy schedule of 358 days a year. Peak occupancy times are from 8:00 AM – 9:00 PM. The peak requirements for the building is 667 occupants.

SPACE REQUIREMENTS

The functional uses of the UK Enoch Grehan Building Modernization Project are classroom, seminar, and offices. Specific goals for each area include creation of open and flexible plan by demolishing all non-essential interior partitions. Incorporate modular solutions that are sub-dividable.

1. Student Design Space – modular floor area/table to accommodate various projects. Flexible storage. Provide 3-phase power. 10% maker space + 90% open project space. Exterior access via a large door. Provide point-of-use exhaust and a utility sink. Flooring should be VCT, Concrete or Epoxy.

2. Classrooms – larger flat floor classrooms

3. Small Seminar Classrooms – accommodates 10-12 students

4. Offices

5. Office Suite – include a secure closet.

6. Conference Rooms

7. Graduate Student Offices – directly open to faculty offices

8. Dry Labs Spaces / Computational – group together for maximum flexibility. Vinyl tile flooring. Provide infrastructure pathway to accommodate high-performing computing programs. Provide 1 240-V power in labs and place outlets high on wall for future monitors.

To support the primary functions listed above, the facility will use a combination of reception spaces and circulation areas including construction of a new connector between existing McVey and Grehan Building

SCHEDULE

<table>
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<tr>
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<th>ACTUAL</th>
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<tbody>
<tr>
<td>DESIGN PHASE</td>
<td>DEC 2017 – MAR 2018</td>
<td>MAR 2018 – JUN 2018</td>
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<td>MAR 2018 – MAY 2018</td>
<td>MAR 2018 – JUN 2018</td>
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<td>JUN 2018 – JUL 2018</td>
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<td>O+M MANUALS</td>
<td>NOV 2019</td>
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<tr>
<td>OWNER TRAINING</td>
<td>NOV 2019 – DEC 2019</td>
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</tbody>
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SECTION 4:
SYSTEM SPECIFIC CRITERIA
PROJECT SPECIFIC PERFORMANCE CRITERIA

The measures below will serve as the standard for verifying achievement of objectives detailed above.

1. Achieve the project’s LEED v2009 Certification target
2. Transition the building to Operations successfully
   b. Provide strong Owner Training sessions
   c. Verify controls integration via commissioning. Pay attention to FMS connection and reporting.
   d. Verifying that the contractor provides is what the Owner wanted via commissioning
   e. Reduce callbacks
   f. Strong submittal reviews provided by the A/E and CxA
   g. Communicate expectations of performance and inspect work throughout the project
3. Meet the project schedule with a working facility
   a. Have the functional testing completed by the Substantial Completion date of December 2019
4. Provide a good student experience
   a. High levels of indoor environmental quality as defined in the LEED Checklist
   b. High amounts of technology throughout the building to facilitate learning
   c. Gathering spaces for student interaction

SYSTEM SPECIFIC CRITERIA

For the systems criteria required for this project, a series of standards and reference documents have been identified. Those include:

Please reference University of Kentucky, Capital Project Management Division’s Design Guidelines for Mechanical and Electrical Systems. Those may be found at this location: http://www.uky.edu/EVPFA/Facilities/CPMD/standards/div00/div00.htm

LEED CRITERIA

Please reference LEED-NC v2009 Scorecard.
REFERENCE DOCUMENTS

A. UK Capital Project Management Division's Guidelines for Mechanical and Electrical Systems

B. Design Meeting Minutes

C. LEED-NC v2009 Scorecard
SECTION 0133424 – SPECIALTY GLAZED STRUCTURE AND CANOPY

PART 1 -
1.01 SCOPE

A. Comply with all requirements of Division 1.

B. Work under this section consists of furnishing everything necessary for and incidental to the execution and completion of the edge supported structural glass canopy system, AESS steel, and accessory work. The complete System shall be purchased from a single source.

C. The General Contractor as used herein refers to the entity contracting for the structural glass canopy.

1.02 DESCRIPTION OF WORK

A. The extent of the canopy work (edge supported structural glazing, AESS steel, and associated work as defined above and as shown on the architectural and structural drawings, in the bid documents, and the resulting approved shop drawings and structural calculations of the Specialty Glazed Structure Contractor.

B. The work includes the following:
   1. Engineering design of the structural glazing, stainless steel tension elements, AESS steel, and accessory parts including structural calculation submittals.
   2. Fabrication, packaging and delivery to job site.
   3. Installation.

1.03 QUALITY ASSURANCE

A. Specialty Glazed Structure Contractor Qualifications:
   1. The Specialty Glazed Structure Contractor shall provide in-house services which include engineering and installation service for the structural glazing and AESS steel as a single entity
   2. Provide product details, as necessary to demonstrate full compliance with the documents and visual/quality standards established under Section 2.03, noting exceptions where applicable.
   3. Must have ISO certification for a welded steel system.
   4. Contractor must have at least 10 completed projects using the specified systems or equal. And a minimum of five (5) years of relevant experience and the financial ability to perform.

B. Safety Glass:
   1. Where safety glass is indicated or required by authorities having jurisdiction, provide the types of products that comply with ANSI Z97.1 and CPSC 16 CFR 1201 Category II.
   2. If the Architect creates a design necessitating using safety glass or other requirements in accordance with governing authorities/codes/laws/jurisdictions/industry standards,
the Specialty Glazed Structure Contractor shall be informed of such requirements by the Architect or General Contractor, as applicable, to ensure such requirements are included in the Specialty Glazed Structure Contractors Engineering calculations.

1.04 SUBMITTALS

A. Structural Calculations: Prior to fabrication of the structural glazing, submit calculations prepared in accordance with current rules for structural glazing and applicable codes as called for by the Project Engineer. Include analysis and engineering for all combinations of load cases such as live, dead, wind, thermal, snow, seismic, etc...
   1. Supply structural reactions in each axis, at each typical support, for review and acceptance by the Project Engineer, and the maximum glass deflections in all axis.
   2. Supply calculations for support and other details as necessary.
   3. Panel thickness shall be sized by the Structural Glass Contractor.
   4. Existing text reports are only acceptable as proof of capacity calculations, but will not be acceptable in lieu of calculations.
   5. Structural calculations and drawings shall be stamped by Structural Engineer licensed in the State of Kentucky

B. Shop Drawings: Submit complete shop drawings including glass panel and support steel layouts and details. Show dimensioned layout of structural glazing in relation to adjacent work such as walls, columns, beams, slabs, etc...
   1. Include details of all supports and data to show provisions for vertical and horizontal expansion/contraction and building movements as necessary.
   2. Identify all materials, attachments devices and accessories including necessary tolerances.

C. Installation Drawings: After approval of shop drawings, provide a detailed set of field installation drawings and a written installation procedure. Identify each part by size and number.

D. Product Data: Material description for tapes, compounds, gaskets and other material.

E. Samples: Submit samples of glass and glazing materials required for the project. Samples of glass shall be 12” x 12”. Samples of sealants or gaskets shall be 12” long. Submit samples of fixing hardware assemblies, bolts and accessories.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

A. All glass and steel shall be manufactured, crated, stored, handled and shipped in a manner that will provide unscratched and undamaged units delivered to the site. Fittings which engage with the glass shall be individually boxed in a way to protect edges from damage and/or scratching.

B. Time the delivery of materials to the site to ensure uninterrupted progress of the installation work.

1.06 PROJECT CONDITIONS
A. Field Verifications: Where the system is indicated to fit against walls and other construction, the Specialty Glazed Structure Contractor shall verify dimensions in the field at the time of installation and notify General Contractor of any deviations from approved shop drawings. General Contractor shall correct conditions to comply with the system tolerances specified for the project and as indicated in the approval drawings, which may be tighter than industry standard.

B. Structural glass and support steel shall be fabricated in accordance with approved shop drawings which shall include dimensional approval from the Architect and General Contractor.

C. Coordinate fabrication schedule with construction progress to avoid delaying the work.

PART 2 - PRODUCTS

2.01 ENGINEERING REQUIREMENTS

A. Engineer the structural glazing and steel support system and applicable other components for the locations and conditions shown in the architectural and structural drawings and to the loading requirements and codes specified in the bid documents.

B. The Project Architect shall provide in the bid documents the following criteria that shall be accommodated in the system’s engineering:
   1. Deflections of edge beams due to loading applied after the installation of the cladding.
   2. Side sway movements of the adjacent structure due to wind and seismic load.
   3. Anticipated deflections due to self-weight of the structural glass system.
   4. Safety or other requirements to adhere to governing codes, laws, standards.

2.02 FABRICATION

A. Provide all glass, steel and structural hardware, connectors, fasteners and accessories required for a complete installation of the structural glazing as indicated in approved shop drawings.

B. Code each part for easy identification. Cross reference this coding to shop/installation drawings and to shipping lists.

2.03 SPECIALTY GLAZED STRUCTURE CONTRACTOR

A. Basis of Engineered System Products: The construction documents are based Novum Structures of Menomonee Falls, WI (Phone: 262-255-5561).

B. Linel, or other equal products are also acceptable provided they comply with all the requirements of the drawings and specifications.

C. System Description: The system is comprised of glass panels which are attached to the steel support structure as shown. Joints are comprised of wet silicone with an extruded silicone profile inner compression seal. General arrangement and profiles for the support structure as indicated on the drawings but the Specialty Glazed Structure Contractor shall be responsible for all engineering of the structural support system. All of these elements shall be provided by the Specialty Glazed Structure Contractor as a single source.

1. Metals for Glazing Attachment
a. Fittings and fasteners shall be A316 stainless steel in satin finish where exposed to view.

b. Perimeter Trim and Flashing: At the terminations of the glazing system to other trades, provide painted aluminum trim which is secured to the glass to prevent weather penetration. Additional flashing shall be as detailed in the construction documents.

2. Glass
   a. See section 088000 for general glass requirements. All glass shall be clear, insulated, fully tempered glass. Horizontal Glass to be laminated only. Overall thickness of the glass is to be determined by the Specialty Glazed Structure Contractor in accordance with specifications and drawings. Minimum interlayer thickness is to be 0.060". (Poured or cast resin laminates will not be permitted.). The Specialty Glazed Structure Contractor shall be responsible for identifying whether the Architect’s chosen design subjects the structural glass to code or other requirements necessitating safety glass or other safety measures.

3. Architecturally Exposed Steel Structure
   a. Shall meet the requirements of Division 5, Section “Structural Steel Framing” as amended herein. Sizing and engineering of all members as indicated on the wall and roof area shall be the responsibility of the Specialty Glazed Structure Contractor. Finish shall be as per Category III AESS.
   b. Plates and profiles shall typically be A36, A500 Gr. B or as required by the approved calculations and as indicated on the approved drawings.
   c. High-Strength Bolts, Nuts and Washers: Provide a standard carbon steel mechanically galvanized or with a dacromet coated finish, as necessary.
   d. Other Bolts and Nuts: Bolts that are not high-strength or stainless and are subject to corrosive environment, shall be hot dip galvanized, dacromat coated, mechanically galvanized or electroplated. In no circumstances shall bolts without any finish be used, unless noted in the approved drawings.
   e. Coating Specification: Surface Preparation: All surfaces must be cured, clean, sound and free of all mill scale, rust, oil, dirt, grease and any other contamination, including salt deposits, which would interfere with new coating adhesion. Surface may not be wet. Bare surfaces must be properly prepared prior to coating application.
      A. Ferrous Metal Surfaces:
         i. Power or hand washing is required to remove contamination.
         ii. Use of a cleaner/degreaser is required to remove any oil or grease.
         iii. All cleaning residue must be completely rinsed from surface and surface allowed to dry.
         iv. Abrasive blast new steel to SSPC-SP-10 Near-White Blast Cleaning to achieve a 1.5 to 2.0 mil profile.
         v. Blast surface to be primed before flash rusting occurs.
      B. Primer:
         a. PPG: Zinc Rich Epoxy Primer
            i. Product Series: 68
            ii. Product Name: Amercoat 68HS
            iii. One (1) coat application = 3.0 5.0 mils DFT (over blast profile).
C. Top Coat:
   a. PPG: Engineered Siloxane Coating
      i. Product Series: 700
      ii. Product Name: Amercoat PSX 700
      iii. One (1) coat application = 3.0 mils DFT.

D. Total Dry Film Thickness = 6.0 mils DFT.

4. Sealants: All glass shall be sealed with Dow Corning 795 Silicone Building Sealant in a black color. Backer material in joint shall be provided by an extruded black silicone profile material.
   a. Type: One-component, neutral-cure, RTV (room temperature vulcanizing) silicone rubber sealant for structural glazing. Sealant material shall meet or exceed the following standards:
      1. ASTM C920, Type S, Grade NS, Class 50, Use NT, G, A and O.
      2. ASTM C1184, Type S, Use G, A, and O.
      4. GSA CID A-A-1556-Sealing Compound Elastomeric Type, Single Component (For Caulking, Sealing, and Glazing in Buildings and Other Structures)
   b. Shelf Life: 12 months
   c. Tack-free time: 3 hours
   d. Working time: 20 to 30 minutes
   e. Curing time: 7 to 14 days
   f. Full adhesion time: 14 to 21 days
   g. Flow, sag, or slump: 2.5mm tested in accordance with ASTM C639.
   h. Volatile organic compound (VOC) content: 28grams/liter
   i. Cured Sealant Properties after 21 days at 50% relative humidity:
      1. Joint movement capability: Plus and minus 50%, tested in accordance with ASTM C719
      3. Maximum Peel Strength: 5.7kg/cm testing in accordance with ASTM C794.
      4. Staining: None on concrete, marble, granite, limestone, and brick, when tested in accordance with ASTM C1248.
      5. Service Temperature Range: Minus 40 to Plus 300 degrees F.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Scope of this section includes the installation of structural glass, point support glass fixings, support steel and accessories. The Erector shall check all metal components upon delivery for dents, gouges or other imperfections which may result in rejection of the appearance or reduce strength.

B. The Erector shall check the glass panels upon delivery for scratches, imperfections and edge damage. Damaged glass shall not be installed.
3.02 PREPARATION

A. Provide connections for temporary shoring, bracing and supports as noted on the installation drawings. Handle, lift and align pieces using padded slings, suction cups and/or other protection required to maintain the appearance of the system throughout the installation process.

B. Only lift at connections as approved by the system’s Engineer.

3.03 INSTALLATION

A. Erect structural glazing and accessory items in strict accordance with the approved shop/installation drawings and installation procedures.
   1. Glass shall not be positioned by the use of force. Provide temporary bracing and support as required to ensure stability during installation process.
   2. Bolt Head Orientation: All exposed bolt heads shall be oriented as indicated on the approved drawings. Where bolt head alignment is specified, the orientation shall be noted for each connection on the installation drawings. Where not noted, the bolt heads in a given connection shall be oriented to one side.
   3. Field Welding: If required at glazing arm supports, weld profile, quality and finish shall be consistent with the quality of any shop welds. If not visible, then welds shall comply with visual appearance specified in AWS D1.1. Weld size shall be per the approved shop drawings. Glass must be protected from heat and splatter.
   4. All bolts shall be fully tightened in accordance with methods indicated in the installation drawings. Specified pre-stressed bolts shall be tightened using the necessary tools and the torques checked. Reset calibrations often to ensure torque is accurate.
   5. Clean glazing connectors receiving glazing materials of deleterious substances that might impair the work. Remove protective coatings that might fail in adhesion or interfere with bond of sealants. Comply with the manufacturer’s instructions for final wiping of surfaces immediately before the application of primer and glazing sealants. Wipe metal surfaces with an appropriate cleaning agent.
   6. Sealants: Prime surfaces that are to receive glazing sealants in accordance with the manufacturer’s recommendations, using recommended primers.
   7. Locate setting blocks, if required by the drawings, at the quarter points of the sill, but no closer than 6 inches to corners of the glass. Use blocks of proper sizes to support the glass in accordance with the manufacturer’s recommendations.
   8. Ensure neoprene spacers separate the glass from attachment plates.
   9. Set the glass in a manner that produces the greatest possible degree of uniformity in appearance. Face all glass, which has a dissimilar face, with matching faces in the same direction. Carefully remove all stickers and clean affected area.
   10. Use masking tape or other suitable protection to limit the coverage of glazing materials on the surfaces intended for sealants.
   11. Tool the exposed surface of glazing materials.
   12. Clean excess sealant from the glass and support members immediately after the application, using solvents or cleaners recommended by the manufacturers.

B. Structural glazing shall be installed clean and in one visit. General Contractor shall provide protection measures for completed structural glazing and accessories to prevent damage or deterioration from subsequent work.
C. Obtain permission for any modification or field fabrication from the Engineer of the system. Glass cannot be modified.

3.04 FIELD QUALITY CONTROL AND CLEANING

A. Structural Requirements: The Owner will engage an independent testing and inspecting agency to perform field inspections, testing and prepare test reports.

B. Product Acceptance: The structural glazing and other items being supplied in the scope shall be installed clean by the Structural Glass Contractor and then protected by the General Contractor and any other following trades at their expense.

3.05 TOUCH-UP AND FINAL CLEANING

A. Touch-up Painting: Cleaning and touch-up painting of any field welds and abraded areas of shop paint or stainless parts shall be completed to blend with the adjacent surfaces of the product. Such touch-up work shall be done in accordance with manufacturer’s instructions.

B. Final cleaning prior to hand over to the Owner shall be by the General Contractor.

3.06 WARRANTY

A. Provide standard, exclusive five (5) year warranty on the engineering and installation workmanship. The start date of the warranty shall be thirty (30) days after completion of the scope of work.

B. Provide the glass manufacturer’s standard, exclusive five (5) year warranty.

END OF SECTION
**NOTES:**

1. TRIANGULATE PERENNIALS IN MASS PLANTINGS UNLESS OTHERWISE NOTED.
2. SOIL MIX - 4 PARTS TOPSOIL TO 1 PART ORGANIC MATTER (SEE SPECIFICATIONS).
3. 2" SHREDDED HARDWOOD BARK MULCH.
4. DISTANCE VARIES (SEE LANDSCAPE PLAN).
5. WEED BARRIER MAT.
6. EXISTING SUB-GRADE.
7. PLANTING BED SHALL BE TILLED AND AMENDED TO A DEPTH OF 12" PRIOR TO PLANT INSTALLATION.
8. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
9. REMOVE PLANTS FROM CONTAINERS PRIOR TO PLANTING.
10. INSTALL 4" ALUMINUM BED EDGING (BLACK) BETWEEN GROUNDCOVER TYPES. SEE PLAN FOR MORE INFO.

**EVERGREEN TREE PLANTING**

- Ball from top 1/3 of rootball
- Backfill w/ native soil (no stones > 1" dia.)
- Soil mix - 4 pts. topsoil to 1 pt. organic matter
- Finish grade
- 1/3 depth of rootball
- 2" mulch
- Remove burlap from top 1/3 of ball
- Exist. subgrade
- Prune as directed by landscape architect

**TYPICAL GROUND COVER / PERENNIAL PLANTING**

- Typical ground cover / perennial plan
- N.T.S.
- Typical ground cover/perennial plan
- N.T.S.

**LANDSCAPE DETAILS**

University of Kentucky
Grehan Building Renovation
Bid Package #2
NOTES:

1. HANOVER ARCHITECTURAL PRODUCTS: PREST PAVERS (OR APPROVED EQUAL)
2. INSTALL PER MANUFACTURER SPECIFICATIONS
3. 36" X 6" X 2.5" PREST PAVER
4. PAVERS TO BE LAID IN RANDOM PATTERN
5. TYPE 1 PAVER TO BE LIGHTER COLOR BLEND, TYPE 2 TO PAVER TO BE SLIGHTLY DARKER COLOR BLEND, SEE PLANS. COLORS TO BE SELECTED BY LANDSCAPE ARCHITECT.
BRICK VENEER RETAINING WALL

SITE DETAILS

University of Kentucky
Grehan Building Renovation
Bid Package #2

ADDENDUM #1

DRAWING NO. LX- 6.1

N.T.S.
CONCRETE STEPS WITH PAVER TREADS

N.T.S.

SITE DETAILS

University of Kentucky
Grehan Building Renovation
Bid Package #2

ADDENDUM #1

DRAWING NO. LX- 6.2
NOTE:
CANOPY FRAME MEMBERS AND COLUMNS ARE TO RECEIVE ZINC RICH PRIMER.
NOTE:
CANOPY FRAME MEMBERS AND COLUMNS TO RECEIVE ZINCH RICH PRIMER.
Partial Elevation A6/A-504

Partial Plan A2/A-105

A2/A105 First Floor Connector

University of Kentucky
Grehan Building Renovation
Bid Package #2
DESCRIPTION:
BASEMENT SECURITY PLAN
University of Kentucky
Grehan Building Renovation
Bid Package #2

ADDENDUM
#1

DRAWING NO.
ESS1.1a

JOB #: 1801
DATE: 07/25/18
DRAWN BY: -
NOTES: 

TAGGED NOTES

ESS 4 PROVIDE AND INSTALL CARD READER AND ACCESS CONTROL (ELECTRIC LOCKSET) WITHOUT DOOR POSITION SWITCH AND REQUEST TO EXIT FEATURE AT THIS LOCATION.

ESS 6 PROVIDE AND INSTALL 36" TALL DOOR ACTUATOR COORDINATE EXACT LOCATION WITH ARCHITECTURAL PLANS AND DETAILS FOR PEDESTAL.
TAGGED NOTES

ESS 6 PROVIDE AND INSTALL 36" TALL DOOR ACTUATOR
COORDINATE EXACT LOCATION WITH ARCHITECTURAL PLANS
AND DETAILS FOR PEDESTAL.

ESS 18 PROVIDE AND INSTALL EXTERIOR WALL MOUNTED CAMERA AT
THIS LOCATION.

ESS 19 PROVIDE AND INSTALL CARD READER AND 36" TALL
ACTUATOR IN BOLLARD COORDINATE EXACT LOCATION WITH
ARCHITECTURAL PLANS AND DETAILS FOR BOLLARD
PEDESTAL.
2nd Floor ESS Plan - SK-BP#2-ADD #1 a
1/8" = 1'-0"

TAGGED NOTES

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<td>ESS 14</td>
<td>PROVIDE AND INSTALL WIRED PANIC ALARM AT THIS LOCATION. BUTTON WILL SEND PANIC ALARM TO UKPD DISPATCH AND LOCK DOORS TO THIS ROOM ONLY. COORDINATE THE EXACT LOCATION AND ALARM FUNCTION WITH OWNER BEFORE FINAL INSTALLATION.</td>
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DESCRIPTION:
SECOND FLOOR SECURITY PLAN
University of Kentucky
Grehan Building Renovation
Bid Package #2

ADDENDUM
#1
DRAWING NO.
ESS1.3a

JOB #: 1801
DATE: 07/25/18
DRAWN BY: -
NOTES: 
2nd Floor ESS Plan - SK-BP#2-ADD #1 b

1/8" = 1'-0"

TAGGED NOTES

ESS 1
PROVIDE AND INSTALL CARD READER, ACCESS CONTROL, DOOR POSITION SWITCH AND REQUEST TO EXIT AT THIS LOCATION.

ESS 14
PROVIDE AND INSTALL WIRED PANIC ALARM AT THIS LOCATION. BUTTON WILL SEND PANIC ALARM TO UKPD DISPATCH AND LOCK DOORS TO THIS ROOM ONLY. COORDINATE THE EXACT LOCATION AND ALARM FUNCTION WITH OWNER BEFORE FINAL INSTALLATION.
TAGGED NOTES

ESS 4 PROVIDE AND INSTALL CARD READER AND ACCESS CONTROL (ELECTRIC LOCKSET) WITHOUT DOOR POSITION SWITCH AND REQUEST TO EXIT FEATURE AT THIS LOCATION.

ESS 5 PROVIDE AND INSTALL DOOR POSITION SWITCH AT THIS LOCATION.

University of Kentucky
Grehan Building Renovation
Bid Package #2
NOTE:
IT IS NOT INTENDED THAT THE PLANS SHOW ALL OFFSETS IN PIPES, CONDUITS, AND DUCTS REQUIRED FOR INSTALLATION OF THE WORK. DETAILS AND SECTIONS ARE INCLUDED FOR SOME AREAS TO SHOW INTENDED RELATIONSHIP OF THE WORK OF VARIOUS TRADES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SUB-CONTRACTORS TO COORDINATE INSTALLATION OF THE WORK AND TO PROVIDE THE NECESSARY OFFSETS, TRANSFORMATIONS, AND FITTINGS REQUIRED. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR CORRECTION CONFLICTS BETWEEN THE WORK OF VARIOUS TRADES. DETAILS AND SECTIONS ARE SHOWN FOR THE CONTRACTORS CONVENIENCE AND SHALL NOT BE CONSIDERED COMPLETE IN EVERY DETAIL.
NOTE:

IT IS NOT INTENDED THAT THE PLANS SHOW ALL OFFSETS IN PIPES, CONDUITS, AND DUCTS REQUIRED FOR INSTALLATION OF THE WORK. DETAILS AND SECTIONS ARE INCLUDED FOR SOME AREAS TO SHOW INTENDED RELATIONSHIP OF THE WORK OF VARIOUS TRADES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SUB-CONTRACTORS TO COORDINATE INSTALLATION OF THE WORK AND TO PROVIDE THE NECESSARY OFFSETS, TRANSFORMATIONS, AND FITTINGS REQUIRED. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR CORRECTION CONFLICTS BETWEEN THE WORK OF VARIOUS TRADES. DETAILS AND SECTIONS ARE SHOWN FOR THE CONTRACTOR'S CONVENIENCE AND SHALL NOT BE CONSIDERED COMPLETE IN EVERY DETAIL.

PROJECT NO. 18003.000

SHEET TITLE FIRST FLOOR SANITARY WASTE & VENT PLUMBING PLAN

SHEET NUMBER P-101

7/23/2018 11:14:26 AM
UK GREHAN RENOVATION
167 Funkhouser Drive
Lexington, KY 40526

Owner
University of Kentucky
410 Administration Drive
Lexington, Kentucky 40508
859-257-9000

Design Architect
RATIO Architects, Inc.
Indianapolis, Indiana 46204
317-633-4040

Architect
Murphy Group Architects
859-559-0504

Structural Engineer
2224 Young Drive
Lexington, Kentucky 40505
859-543-0933

Mechanical / Electrical Engineer
Staggs and Fisher Consulting Engineers
3264 Lochness Drive
Lexington, Kentucky 40517
859-271-3246

Drawings
DANIEL H. 14375

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Sheet Title
BASEMENT DOMESTIC WATER PLUMBING PLAN

Scale: 1/8" = 1'-0"

Baseline Domestic Water Plumbing Plan

Note: It is not intended that the plans show all offsets in pipes, conduits, and ducts required for installation of the work. Details and sections are included for some areas to show intended relationship of the work of various trades. It shall be the responsibility of the contractor shown for the contractors convenience and shall not be considered complete in every detail.

Sheet Number
P-200

7/23/2018 11:14:42 AM
1 3" DCW, 1-1/4" DHW & 3/4" DHWR FROM BELOW AND 2-1/2" DCW, 1" DHW & 3/4" DHWR UP.
2 PROVIDE ICE MAKER SUPPLY BOX, SIOUX CHIEF 696 SERIES WITH LEAD FREE BALL VALVE, FRAME
   AND DEBRIS COVER. MOUNT BOTTOM OF BOW 42" A.F.F.
3 3/4" DCW & DHW FROM BELOW AND 1/2" DCW, & DHW UP. 4 HOSE BIBB (HB): ZURN #1350-VB, BRONZE NICKEL PLATED BOX TYPE HYDRANT, 3/4" INLET,
   INTEGRAL AS 1011 VAUUM BREAKER, QUARTER TURN "T" HANDEL KEY, SCREW DRIVER STOP,
   3/4" THREADED HOSE CONNECTION, STAINLESS STEEL WALL BOX WITH CYLINDER LOCK.
RENOVATION
167 Funkhouser Drive
Lexington, KY 40526

Owner
University of Kentucky
101 South Pennsylvania Street
Indianapolis, Indiana 46204
317-633-4040

Design Architect
RATIO Architects, Inc.
3264 Lochness Drive
Lexington, Kentucky 40517
(859) 271-3246

Architect
Murphy Group Architects
3399 Tates Creek Road, Suite 250
Lexington, Kentucky 40502
(859) 559-0504

Structural Engineer
Brown + Kubican Structural Engineers
2224 Young Drive
Lexington, Kentucky 40505
(859) 271-5433

Mechanical / Electrical Engineer
Staggs and Fisher Consulting Engineers
3264 Lochness Drive
Lexington, Kentucky 40517
(859) 271-3246

Landscape Architect
Element Design
266 South Broadway
Lexington, Kentucky 40508
(859) 389-2

1 1/2" DHW
3/4" DHWR
4" DCW
1 1/4" DCW
6" S
4" V
FFD
- 2TP
WVR
01
P302

1. SANITARY SEWAGE EJECTOR, SEE DETAIL SHEET P-400.
2. 2" SUMP PUMP DISCHARGE PIPING FROM BELOW.
3. 4" DOMESTIC WATER SERVICE ENTRANCE, SEE DETAIL SHEET P-400.
4. DOMESTIC STEAM WATER HEATERS, RECIRC PUMPS AND EXPANSION TANKS. SEE DOMESTIC STEAM WATER HEATER PIPING DIAGRAM ON SHEET P-400 FOR CONTINUATION.
5. PRIMING ASSEMBLY OR EQUAL. UNIT DESIGNED TO SERVE UP TO 6 SEPARATE FLOOR DRAIN TRAPS WITH A MINIMUM OF 2 OUNCES OF WATER AT 20 PSIG. FACTORY PRESET TO DISCHARGE FOR 10 SECONDS EVERY 24 HOURS. ENTIRE MANIFOLD INCLUDING SOLENOID VALVE, VACUUM BREAKER AND FUSED 24 TIMER WITH MANUAL OVERRIDE/TEST BUTTON TO BE ASSEMBLED IN A STEEL SURFACE MOUNTED CABINET. 120V., 1 PHASE. MOUNT BOTTOM OF CABINET 54" A.F.F.
6. EXTEND 1/2" SOFT COPPER LINES FROM TRAP PRIMER UNIT TO EACH FLOOR DRAIN BELOW SLAB AND CONNECT FLOOR DRAIN CONNECTION.
7. 1" HVAC MAKE-UP DOWN. SEE HVAC FLOW DIAGRAM FOR ADDITIONAL ACCESSORIES AND FITTINGS.
8. Coordinate with HVAC contractor prior to construction.
9. 4" S
10. 4" RL & 4" S.
BASEMENT HVAC PLAN

Scale: 1/8" = 1'-0"

It is not intended that the plans show all offsets in pipes, conduits, and ducts required for installation of the work. Details and sections are included for some areas to show intended and sub for correction conflicts between the work of various trades. Details and sections are included for some areas to show intended and sub for correction conflicts between the work of various trades.
### Written Questions and Answers

**CCK-2342-19**  
**Project 2446.2 Modernization of Enoch Grehan Journalism Bldg.**  
**Bid Package 02**

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Can you please tell me what steel in addition to the two canopies is Architecturally exposed?</td>
<td>Per structural drawings, all steel framing between grids C1 &amp; C2 and between C4 to C6, including stair framing, to be AESS.</td>
</tr>
<tr>
<td>2</td>
<td>Will an onsite crane and/or material hoist be provided on the jobsite for contractors to use throughout the project?</td>
<td>The General Trades TC-004 will be providing a 10T Telescoping forklift; no other equipment will be provided; all equipment needed should be included in your bid.</td>
</tr>
<tr>
<td>3</td>
<td>Who is the warranty roofing contractor of record and what is the roof Manufacturer?</td>
<td>No current warranty to the roof; manufacturer is unknown.</td>
</tr>
<tr>
<td>4</td>
<td>Unit prices with bid or after bid? Bid documents and scopes have conflicting dictation.</td>
<td>With Bid</td>
</tr>
</tbody>
</table>
| 5   | Is TC-002 doing the interior demo of mechanical / plumbing items as shown on the AD plan sheets?  
No demo is shown on the Mechanical plan pages except few window unit removals. | Mechanical will be required to demo all mechanical systems within the mechanical vault at south side of building.                                                                                       |
<p>| 6   | Have Sanitary Sewer and Water Tap fees been addressed? Can this be by allowance or owner paid for? These figures can be very difficult to obtain at times. Especially when the project is a remodel / addition and on a college campus. | Fees should be picked up by TC-018 Plumbing contractor.                                                                                                                                                 |
| 7   | Which trade package is responsible for the Storm Water Pollution Plan as noted on L1.0? This is normally performed by Earthwork contractor, but since the Mechanical contractors have site storm in their bid package, wanted clarification. | Refer to ADD #1 Item No. 10.                                                                                                                                                                            |
| 8   | Please provide Mfg./Model number for Air Compressor shown on H-205         | The air compressor will be provided and sized by Johnson Controls based on their connected load. See specifications 23 0900 2.11                                                                          |</p>
<table>
<thead>
<tr>
<th></th>
<th>Written Questions and Answers – Page 2 of 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>On plan sheet U-100, note 8. This work is noted in both the Plumbing and Fire Protection scopes of work. Please clarify which trade is responsible. This should be by fire protection contractor, but just wanted clarification.</td>
</tr>
<tr>
<td>10</td>
<td>TC-019, Mechanical scope item #17a, mentions demo of equipment on roof. Not shown on mechanical plans. But there is HVAC equipment shown on AD 103, note D 32. Which trade package is responsible for demo of roof top HVAC equipment?</td>
</tr>
<tr>
<td>11</td>
<td>Spec sections 220000-6 Article I, Gen. Requirements for Plumbing and Spec section 230000 Art. I, both state Rock Allowances? Is this required on this project?</td>
</tr>
<tr>
<td>12</td>
<td>Does the piping on this project have to be made in the USA or Buy America? Buy American is stated in specs 220553 and 230713? In the past UK projects have required USA pipe only. Please Clarify.</td>
</tr>
<tr>
<td>13</td>
<td>Spec Section 230000 Article 1.4 Allowances, state allowances for HVAC Controls and Test and Balance, but prices are not listed. Please Clarify.</td>
</tr>
<tr>
<td>14</td>
<td>Which trade package is responsible for temp heat costs? Spec section 230000-17 Art. 1.44 B states Mechanical sub and General Requirements #33 C state TC-004 Gen. Trades will provide cost. Please Clarify.</td>
</tr>
<tr>
<td>15</td>
<td>Robbins Lightning, Inc. would like to be listed as an Approved Lightning Protection Manufacturer for this project</td>
</tr>
<tr>
<td>16</td>
<td>In reviewing the specs for the UK Enoch Grenhan Journalism Building Project BP2 on casework and countertops I noticed a requirement in Division 12 (SECTION 123623.13 – PLASTIC LAMINATE CLAD COUNTERTOPS) for AWI Certificates. We feel this requirement limits the number of bidders, and increases the cost for projects. While we certainly understand the need for quality for this project, we feel requiring this is not necessary. Having a requirement to “build to AWI quality” should be sufficient to make sure</td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
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<td>----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>You get high quality cabinets and casework for this project. Is it possible to remove the requirement for AWI Certificates?</td>
<td>This is to include the East Vault and the Stair In-Fill of existing Grehan</td>
</tr>
<tr>
<td>Is the steel for the East Vault considered as the Grehan “In-Fill” Structural/Misc. steel on the BID BREAKOUT sheet?</td>
<td>TC-019 should be utilized for bid form of combo bid of TC-018 and TC-019. Bid breakout items and unit pricing of form TC-018 should be included in combo bid along with bid breakout items and unit pricing of TC-019. To be clear, if bidding TC-018, TC-019 and a combo bid, (3) three separate bids will be required to be submitted on bid day. Label combo bid package “TC-018/TC-019”</td>
</tr>
<tr>
<td>If we do a mechanical combo bid, which bid form is suggested to use? The HVAC one or the Plumbing one? Reason I ask is they are a little different. Such as unit prices and the bid breakout sheet with the allowances on them. Please clarify how we should best proceed.</td>
<td>TC-019 should be utilized for bid form of combo bid of TC-018 and TC-019. Bid breakout items and unit pricing of form TC-018 should be included in combo bid along with bid breakout items and unit pricing of TC-019. To be clear, if bidding TC-018, TC-019 and a combo bid, (3) three separate bids will be required to be submitted on bid day. Label combo bid package “TC-018/TC-019”</td>
</tr>
<tr>
<td>How is the elevator card reader to function? How many floors are to be governed by the access control system? This will determine how the controls are engineered.</td>
<td>Elevator card reader function shall allow SMS to control access to each floor.</td>
</tr>
<tr>
<td>ESS1.1 – To verify, will/is the elevator control room in the basement? The door hardware schedule (ESS1.5) assigns a card reader to door 002AA but I cannot locate that door on the drawing? The drawing shows door X144 with access control on it but I do not see it listed on the door hardware schedule (ESS1.5)?</td>
<td>Intent is for Elevator to be Machine Room-less with controller in the shaft. Remove references to Door #002AA and #X144 from the documents.</td>
</tr>
<tr>
<td>ESS1.2 - The door hardware schedule (ESS1.5) assigns a card reader to door 100B-5 but I cannot locate that door on the drawing?</td>
<td>Door 100B-5 was changed to 200A and is assigned to Hardware Set CK02.</td>
</tr>
<tr>
<td>ESS1.3 - The door hardware schedule (ESS1.5) assigns a card reader to doors 201A, 201AA, 202AA, 203A, and 203AA but I cannot locate those doors on the drawing? The drawing shows door 200A with access control on it but I do not see it listed on the door hardware schedule (ESS1.5)?</td>
<td>All of these doors in the question’s first sentence were deleted. Per Section 087100, Door 200A is assigned to Hardware Set CK02, which has card readers on both sides and a double-sided fail secure electric mortise lockset; this door is not a required exit in either direction.</td>
</tr>
<tr>
<td>The project requires 50% recycled waste. Will space be made available for multiple dumpsters? There is no place in Fayette County where it is legal to sort trash once it has been hauled making</td>
<td>Anticipate the use of (3) dumpsters. Any additional sorting or material handling will be by TC-004.</td>
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<tr>
<td><strong>24</strong></td>
<td>TC-004 item 38 calls for an allowance of $48,000 for the temporary precast panels for the Panama canal and then tell bidder to contact Gates Precast for a quote. Is this an allowance or a bid item? Does the 48k include the Gates quote or is this for work in addition to the material quote? Is this allowance to cover all removal, storage, transportation and reinstall costs including disposal of temp panels? Does this allowance include the post shoring with engineering? Please provide the specs and detail for the expansive joint seal between panels.</td>
</tr>
<tr>
<td><strong>25</strong></td>
<td>Door 300BB calls for hardware set C03 on drawing ESS1.5 but spec 87100 has the note “Set not used.” Please verify.</td>
</tr>
<tr>
<td><strong>26</strong></td>
<td>Doors 201A and 203 call for hardware set E01 on drawing ESS1.5 but spec 87100 has the note “Set not used.” Please verify.</td>
</tr>
<tr>
<td><strong>27</strong></td>
<td>Stair section A5/A-424 shows the stair stringers as HSS 2x14. This is not a good size. 14” tubes are 14x4. Please advise what we should use for the stringers for the stairs.</td>
</tr>
<tr>
<td><strong>28</strong></td>
<td>In looking over the specs for the video surveillance system (282300) I see the specification for the headend gateway and the interior cameras. The drawings show exterior camera locations with a note saying such. But there is no specification for exterior cameras. Please verify.</td>
</tr>
<tr>
<td><strong>29</strong></td>
<td>TC-004 item 13 calls for this contractor to provide progress photographs by Multivista. Multivista informs us that they have already received a PO from UK CPMD for this project. Please clarify if we are to include this in our bid or is this being owner purchased.</td>
</tr>
<tr>
<td><strong>30</strong></td>
<td>TC-018 Plumbing &amp; TC-019 Mechanical will you offer a Combination Bid Pack for TC-018 &amp;TC-019.</td>
</tr>
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</tbody>
</table>
| 31 | **What is the budget for TC-018 & TC-019?** | **TC-018:** $ 650,000  
**TC-019:** $ 2,800,000 |
| 32 | **How is Roofing Contractor involved on cutting and flashing existing roof and penthouse roof for Mechanical and Plumbing penetrations.** | **Appropriate TC contractor needs to acquire roofing contractor as sub for their roof penetrations.** |
| 33 | **I have reviewed the project documents and drawings for the Enoch Grehan Journalism Building project. ECT Services is asking to have the Distech Control system with the Tridium Vykon N4-8000 accepted as an equal for the temperature control system for this project in specification 230900. ECT Services has provided, installed, commissioned and provided training for the Distech Control system at the University of Kentucky. Please contact Bobbie Tincher, UK Facilities Director, for further details if needed.** | **UK Campus requires controls to be by JCI.** |
| 34 | **I have a couple of questions regarding the generator for the Journalism Bldg. Please see below.**  
**Drawing E-200 & Spec 263213 – Conflicting maximum dimensions**  
• Tag Note 22 says max dims: 119”L x 54”W x 68”H  
• Section 1.9, A & 2.1, A say max dims: 13’L x 5’6” W x 10’H  
• Generac meets requirements spelled out in the specification but not on the drawing. Below is our dims, will these work for the project?  
  o **128”L** (10.6’L) x **53.4”W** (4.5’W) x **65.5”H** (5.45’H) to top of flex  
**263213:**  
• 2.4, B, 5: Which drawing details the remote fill station? I do not see it in the electrical, or plumbing drawings. No mechanical drawings are included. Is the remote fill to be provided by the generator supplier or is it in another scope?  
**Generator dimensions shall not exceed 12’-6” long by 5’ wide by 5’-8” high. Size of generator must be accommodated by ceiling height in the generator vault and the louvered opening in the generator vault areaway.**  
**The generator remote fill detail is shown on sheet E-500.** | |
<p>| 35 | <strong>The TC-007 Bid form says there are no alternates but drawing S-207 has steel designated as Alternate Monitor Skylight. Do I include that steel in the base bid or show an alternate price for it somewhere on the bid form?</strong> | <strong>Please reference new Attachment B that includes Monitor Skylight Alternate breakout. Item No. 11 of ADD #1.</strong> |</p>
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<tr>
<th></th>
<th>Question</th>
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<tbody>
<tr>
<td>36</td>
<td>Can any more details and/or type of material sought for the pipe rack and supports at the utility tunnel, as shown on H-204?</td>
<td>No. Can either be designed by a company like Unistrut or by a third party structural engineer. It can be L-angle, tube, U-tube… don’t care as long as it hold the loads.</td>
</tr>
<tr>
<td>37</td>
<td>Is the HVAC Water Treatment, spec. 232500, by owner or by mechanical sub-contractor?</td>
<td>By Div.23 TC-019</td>
</tr>
<tr>
<td>38</td>
<td>Request HVAC Controls be by allowance.</td>
<td>All controls should be handled under TC-019 to provide a complete and functioning system. Price to be included in base bid, not allowance. JCI will be a sub of TC-019.</td>
</tr>
<tr>
<td>39</td>
<td>Structural Sheet S-206 indicates the location of roof tie off anchors and the note says to see architectural drawings. I find no mention of these tie off anchors in the architectural drawings or the specifications. Please advise.</td>
<td>Delete reference to roof anchors, not required</td>
</tr>
</tbody>
</table>
| 40| Drawing ESS1.3 has a note, ESS14, concerning the installation of a panic button. What is the specification for the panic buttons? | Panic Button: **ROOM EMERGENCY LOCK DOWN FEATURE**
Upon activation of an Emergency Lockdown Button an input signal will be sent to the Mercury Controller initiating an Alarm Event in the Lenel Access Control System. This Alarm Event will automatically trigger an output on the same Mercury Panel to lock the doors in an assigned area (classroom, Lab, etc.) This action will allow free egress out of the locked area but will not allow ingress to the same area. During this Alarm Event only UKPD personnel or designated First Responders will be able to override the locked doors to gain access. The doors will remain in this locked state until being returned to normal operation by the UKPD Operations Center.

**SINGLE PUSH BUTTON WALL MOUNTED SWITCH WITH PROTECTIVE COVER**
Lock down switch for use in all room types where the Lock Down button needs to be wall mounted. Custom Signage to be coordinated with Owner. |
<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>When does the Bid Breakout Form on the Form of Proposal have to be filled out and turned in? With the bid or after?</td>
<td>It is going to be extremely difficult for the bigger trades to get this filled out in time with accurate pricing. Our material suppliers negotiate their pricing all the way up to the final time to turn in the bid. If we could at least have an hour after the bid to turn in would be helpful.</td>
</tr>
<tr>
<td>Drawing ESS1.1 has note ESS6 for door 00A-2 saying to provide a card reader. Drawing ESS1.5 provides a riser diagram (R1) for door 00A-2 WITHOUT a card reader shown. Nor does hardware set A01 list a reader. Please verify/clarify.</td>
<td>Door 000A-2 does not have a card reader on it. The card reader is on the exterior Door 000A-1. Hardware Set A01 for Door 000A-2 is correct.</td>
</tr>
<tr>
<td>Does wiring for lighting control devices have to be run in conduit?</td>
<td>Yes</td>
</tr>
<tr>
<td>I found the bid documents for your upcoming project on the bid database my company subscribes to. I see that you have (4) Middle Atlantic L5 Series lecterns indicated for the classrooms on this job. Although I found the drawings for the lecterns, I could not locate the written specification. Are you open to alternates on the lectern manufacturer? Depending on your requirements, we have several competitive options available.</td>
<td>Yes, we are open to alternate manufacturers. The MAP L5 was listed as basis of design but the University has utilized various other lectern manufacturers in the past. Please submit based on requirements shown on the plans (RU required, ventilation, shelves, ability to mount the cable cubby in the surface of the lectern, etc.)</td>
</tr>
<tr>
<td>Are the soffit panels specified in section 074293 the soffit panels to include in TC-010?</td>
<td>Spec section 074293 to be included in TC-011 Drywall.</td>
</tr>
<tr>
<td>Proposal Form (attachment B sheet 3 of 15 states ALTERNATES NONE) Sheet A-205 shows Monitor Skylight as Alternate, the Proposal does not show this. Please clarify.</td>
<td>Please reference new Attachment B that includes Monitor Skylight Alternate breakout. Item No. 11 of ADD #1.</td>
</tr>
<tr>
<td>Re: Spec section 085123.13 Hot Rolled Steel Windows (Thermal) 2.2.B.1 a,b,c Specifies True Divided Lite Muntins, plan sheet A-622 shows applied muntins. Please clarify which is correct.</td>
<td>Applied muntins is correct, see addendum drawing and spec items.</td>
</tr>
<tr>
<td>No.</td>
<td>Question</td>
</tr>
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</tr>
<tr>
<td>48</td>
<td>Re: Door Schedule Sheet A-601, shows Dr.# 001c as wood Doors in frame type F. Plan sheet A-621 shows Aluminum Storefront System, please clarify which is correct.</td>
</tr>
<tr>
<td>49</td>
<td>Re: Sheet A-350 Glass Entry Canopy, detail D/4, A-350, is the Canopy Steel Support to be furnished and erected by TC010? Please clarify.</td>
</tr>
<tr>
<td>50</td>
<td>Does the Monitor Skylight get Glazed with the same Glass as the Unitized Skylight in the Base Bid? Please clarify.</td>
</tr>
<tr>
<td>51</td>
<td>The Hopes windows specified in section 085123.13 will not accept the 1” glass as specified, 3/4” is max thickness, please verify this is acceptable.</td>
</tr>
<tr>
<td>52</td>
<td>Re: Connector on North Elevation sheet A-203. Does this North Elevation Glass get the same Ceramic Frit as the South Elevation?</td>
</tr>
<tr>
<td>53</td>
<td>Re: Spec Section 088000, 3.10.B.2, what location is this make-up with Dot Pattern Ceramic Frit used?</td>
</tr>
<tr>
<td>54</td>
<td>Re: Detail A3/A205, What is the Fascia Material at the top?</td>
</tr>
<tr>
<td>55</td>
<td>TC-010 calls for the Glass Canopies to be furnished under Spec Section 088000, I do not find any mention of the Glass Canopies in 088000. Please Clarify.</td>
</tr>
<tr>
<td>56</td>
<td>Which Trade Contractor is responsible for furnishing and installing the Insulating Glass in the new steel windows? Please clarify.</td>
</tr>
<tr>
<td>57</td>
<td>Need hardware set # for Door 100B-2.</td>
</tr>
<tr>
<td>58</td>
<td>Please furnish Mock Up Drawings for the following material sections. Section 074216, 4293 “ 0841113 “ 084423 “ 086300</td>
</tr>
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</tr>
<tr>
<td><strong>59</strong></td>
<td>In speaking with Scott Robinson of Gates precast, I was informed that the precast panels are sidewalks if this is the case where would the shoring be required?</td>
</tr>
<tr>
<td><strong>60</strong></td>
<td>Drawing A-002 Project Wide Key Notes state that division 12 will be by owner. Roller shades are division 12 will these be by owner?</td>
</tr>
<tr>
<td><strong>61</strong></td>
<td>In TC-019 scope of work # 13. Is all demo in vault at the south side of Grehan building on mechanical’s scope, is there a drawing for this? If mechanical contractor is to remove existing window units from adjacent McVey building, is there a drawing or count and are they in existing windows or in walls? Can general trades contractor carry the patching of the above created holes?</td>
</tr>
<tr>
<td><strong>62</strong></td>
<td>In TC-019 scope of work # 14. What work is needed for the access door in the mechanical tunnel and can the general trades carry it?</td>
</tr>
<tr>
<td><strong>63</strong></td>
<td>In TC-019 scope of work # 17. It mentions supplying booster humidifiers. Are they shown anywhere? It mentions to carry motor starters. Can this be carried by electric contractor?</td>
</tr>
<tr>
<td><strong>64</strong></td>
<td>In TC-019 scope of work # 20. If mechanical contractor is to carry all roof penetrations, what</td>
</tr>
<tr>
<td>Written Questions</td>
<td>Answers</td>
</tr>
<tr>
<td>------------------</td>
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</tr>
<tr>
<td><strong>roofing contractor currently carries the warranty?</strong></td>
<td>Air compressor and air piping to be supplied by TC-019 in conjunction with the controls package from JCI which is to be included in base bid of TC-019. For complete and functioning controls package.</td>
</tr>
<tr>
<td><strong>Both HVAC and plumbing drawings show an air compressor (not scheduled) in the sub-basement with no piping. If there any work for either trade?</strong></td>
<td>Air compressor and air piping to be supplied by TC-019 in conjunction with the controls package from JCI which is to be included in base bid of TC-019. For complete and functioning controls package.</td>
</tr>
<tr>
<td><strong>Drawing H-301, Fuel oil detail shows pipe to be run. Is there a drawing for this?</strong></td>
<td>No. It will go to the area way next to the generator room.</td>
</tr>
<tr>
<td><strong>Since chilled water and steam/condensate systems are delivered from the plant is the heating hot water system the only water treatment needed?</strong></td>
<td>See specification 23 2500. Chilled and hot water need to be cleaned and flushed. Hot water needs chemical treatment.</td>
</tr>
<tr>
<td><strong>Please provide the scope of work for the previously bid packages, particularly TC-002.</strong></td>
<td>Please reference Lynn Imaging for previous BP-01 documents.</td>
</tr>
<tr>
<td><strong>In Mechanical and Plumbing specs, it calls for us to paint all exposed plumbing, piping, and ductwork - if required, can it go into the painter’s scope?</strong></td>
<td>Painting to be included in TC-019.</td>
</tr>
<tr>
<td><strong>Please clarify what bid package is responsible for the Stormwater Pollution Prevention.</strong></td>
<td>Refer to ADD #1 Item No. 10.</td>
</tr>
<tr>
<td><strong>What trade contractor is responsible for Landscaping?</strong></td>
<td>This will be included in BP-03.</td>
</tr>
<tr>
<td><strong>Specification Section 27 2423 Audio Video Devices - Drawing AV1.2 Tagged Note V10 calls for an ELO 55” Monitor with IBASE digital signage. It is marked as a “FPD-60” which is a 60” Sharp TV. Which is correct, Sharp or Elo?</strong></td>
<td>Elo is correct for this instance.</td>
</tr>
<tr>
<td><strong>Specification Section 27 2423 Audio Video Devices Classroom wiring diagram lists “Wireless Mic Transceiver” There is no spec for this, please provide product information</strong></td>
<td>Refer to revised flow diagram issued with this addendum for this information. Audio Technica System 10 PRO with 2 lavaliers and packs.</td>
</tr>
<tr>
<td><strong>There are many Data outlets with no quantity of drops indicated: how many cables go to each of these?</strong></td>
<td>No data cables. These telecommunication receptacles are to have blank faceplates and are being installed to accommodate future data ports.</td>
</tr>
<tr>
<td><strong>What size cable tray throughout the building?</strong></td>
<td>12” wide by 4” deep loading capacity throughout except the corridor 200B on the second floor where a 6” wide by 4” deep loading capacity may be installed where the tray runs above the</td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
</tr>
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<td>-------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Specific demo noted on E-004 included in this package or demo package?</td>
<td>Work to be included in TC-020 Electrical.</td>
</tr>
<tr>
<td>Is the fuel piping for generator by electrical contractor?</td>
<td>Fuel piping by TC-019 per spec section 231113.</td>
</tr>
<tr>
<td>Is there a specified Part number for cord reel? Sheet E-200, coded note 1</td>
<td>See specification section 26276.2.14.</td>
</tr>
<tr>
<td>What trade contract has the bollard shown on E-200, codes note 5?</td>
<td>TC-004 Will provide and install bollard, TC-020 will provide all power, door push plates as shown on E-Drawings.</td>
</tr>
<tr>
<td>Does each door with access control require stub-up only, hard pipe to the tray, or hard pipe to the nearest access control panel? What size EMT?</td>
<td>Access control requires conduit from device to nearest cable tray or DATA cable pathway. Conduit size should follow requirements for DATA cable as specified in Division 27000.</td>
</tr>
<tr>
<td>Panel spec calls for series rated...the AIC on the schedules show 10K, but we cannot offer this if we series rate. It has to be 22k; is the acceptable or would they rather fully rate?</td>
<td>Panelboard, distribution board, and feeder breaker AIC ratings shall be meet the requirements determined by the results of the Overcurrent Protective Device Short-Circuit Study. Devices may be fully rated in lieu of series rated.</td>
</tr>
<tr>
<td>Atlas would like to bid on the Hollow Metal (081113) for the Enoch Grehan Journalism Building project. Attached is our Request for Manufacturer Substitution for our preferred manufacturer, Metal Products, Inc. (MPI) along with product data and a project resume.</td>
<td>MPI is an acceptable manufacturer as long as they can comply with all requirements of the drawings and specifications.</td>
</tr>
<tr>
<td>Our supplier’s standard hoistway sizes to meet code for a 3500# capacity front/rear opening MRL traction elevator requires the following dimensions: Hoistway-8'-8” wide x 7’-9 ½” deep (shown as 8’-8” wide x 7’-5 ¾” deep); Overhead-14’-2” minimum to underside of roof (shown as 13’-11 11/16” clear). Can these sizes be accommodated?</td>
<td>The increased hoistway depth and clear overhead dimensions noted can be accommodated. If the manufacturer is the successful bidder, revised drawings incorporating the dimensional changes will be issued post bid.</td>
</tr>
<tr>
<td>Crystal Structures, a division of Sunshine Rooms, Inc. is a manufacturer and installer of structural skylights. We would like to provide a quote for the Grehan Renovation at the University of Kentucky, but would first like to submit for prior approval. We have thoroughly reviewed the specifications and can meet or exceed all of the requirements.</td>
<td>Crystal Structures is an acceptable manufacturer provided they can comply with all requirements of the drawings and specifications.</td>
</tr>
<tr>
<td>I have reviewed the specification for the metal framed skylights and Kingspan Light + Air meets or exceeds the spec including air, water and structural performances. Typically there would be no mockup for a skylight of this nature but we would supply extrusion, finish and glass samples for approval.</td>
<td>Kingspan Light skylight system appears to be an acceptable product however the 9/12 pitch must be maintained as drawn.</td>
</tr>
<tr>
<td>We are able to supply our SkyQuick framing system that will have better lead times and install faster than &quot;stick built&quot; system. This system is available in a 4:12 pitch which is a deviation from the 9:12 as shown but will perform as indicated above and will allow the same amount of daylighting.</td>
<td></td>
</tr>
</tbody>
</table>