

Procurement Services

INVITATION FOR BIDS CCK-2564.0-9-24 Construct Health Education Building BP-02 ADDENDUM #3 04/04/2024

IMPORTANT: BID AND ADDENDUM MUST BE RECEIVED BY: 04/10/2024 @ 3:00 P.M. LEXINGTON, KY TIME

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

ITEM #1: MODIFICATIONS TO THE ORIGINAL BID DOCUMENTS and QUESTIONS & ANSWERS

• Please refer to the enclosed documents as you prepare your bids.

OFFICIAL APPROVAL UNIVERSITY OF KENTUCKY

SIGNATURE

Ken Scott 04/04/2024

Contracting Officer / (859) 257-9102

Typed or Printed Name

University of Kentucky Purchasing Division 322 Peterson Service Building Lexington, KY 40506-0005





UK Construct Health Education Building ADDENDUM No. 3 UK-2564.0-9-24 4/3/2024

Item No. 01 Re: Replace "Attachment A" 3A Page with attached revised "Attachment A"

Item No. 02 Re: Form of Proposal TC-012, Trailer and Laydown, Attachment B, Use attached revised scope of work.

- Item No. 03 Re: Form of Proposal TC-013, Site Plumbing, Attachment B, Use attached revised scope of work.
- Item No. 04 Re: Form of Proposal TC-014, Site Excavation, Attachment B, Use attached revised scope of work.
- Item No. 05 Re: Form of Proposal TC-015, Foundations, Attachment B, Use attached revised scope of work.
- Item No. 06 Revise Project General Requirements Document to add item 8a:
 - 8a. UK student move in is from 8/18/24-8/25/24. Assume extreme traffic congestion on all roads surrounding the project site. Contractors to coordinate with Turner and UK for all onsite work during this timeframe. Assume no road closures or blockages will be allowed. Assume increased travel durations for manpower and material. (ADD #3)
- Item No. 06 Revise Project General Requirements Document to add item 47a subsection v:
 - v. Contractors will be able to park in the trailer lot as shown on SK-004.2 AFTER it is complete. Parking passes will be given out on an as needed basis. Contractor can assume 2 passes per prime contractor in this lot, one for their foreman and the other for their shuttle bus. (ADD #3)
- **Item No. 08** Revise Project General Requirements Document to add item 71b:
 - 71b. Provide (2) heated temporary hand washing stations similar to PolyJohn PSW3-2000. Electrical connection by others. Coordinate with CM on final locations. (ADD #3)
- Item No. 09 Replace SK-001 with revised SK-001.
- Item No. 10 Replace SK-002 with revised SK-002.
- Item No. 11 Replace SK-004 with revised SK-004.
- Item No. 12 Add Sketch SK-005 "Tower Crane Reinforcement"
- Item No. 13 Add Sketch SK-006 "BP-02 Site Storm Installation Plan"
- Item No. 14 Revise Special Conditions Article 2 to read:

The Lexington Fayette Urban County Government (LFUCG) Sewer Tap Fee shall be secured and paid for by the Trade Contractor(s). The sewer tap fee is for all projects, regardless of type, is presently calculated by the LFUCG and is based on \$1.56 per square foot. The total fee is anticipated to be \$702,000 \$811,200, based on 450,000 520,000 Total Square Feet. (ADD #3)

- Item No. 15 See answers to all submitted questions.
- <u>Item No. 16</u> JRA Architects Addendum No. 03 include all work scope items, clarifications, etc. as detailed consistent with your trade contract work scope document.

A. <u>GENERAL</u>

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 Additional Provisions and Scope of Work is intended to be general in nature. The intention is to have this Subcontractor perform all related work shown on the Contract Documents other than those items specifically indicated below to be excluded. The Additional Provisions and Scope of Work takes precedence over the Drawings & Specifications in the event of a conflict in trade assignment or responsibility. By accepting this contract, the Subcontractor is verifying that the plans and specifications clearly identify the Subcontractor's work.

The terms "Sub-contractor", "Trade contractor" & "Contractor" will be used interchangeably throughout the contract documents. A Sub-contractor, Trade contractor or contractor has a contract with Turner Construction Company, the Construction Manager. This Trade Contractor is responsible for all contract documents (specifications, drawings and scope of work).

B. <u>CONTRACT DOCUMENTS</u>

- Contract Drawings University of Kentucky Health Education Building #2564.0 as prepared by JRA Architects
- Project Manual, prepared by Turner Construction & JRA Architects. University of Kentucky Health Education Building
- Addendum #___ dated _____ prepared by Turner

C. ADDITIONAL CONTRACT DOCUMENTS

- Attachment "B" Trade Contractor ____ Scope of Work
- Project General Requirements
- Project General Conditions
- Project Special Conditions
- Turner Subcontract Form 36
- Attachment "C" Project Safety Program
- Attachment "E" Accounting Procedures
- Attachment "F" Percentage Markup Sheet
- Attachment "G" Project Schedule
- Attachment "H" BIM General Requirements
- Attachment "I" Lean Subcontract Exhibit
- Attachment "J" Electronic Agreement
- Attachment "K" CCIP Manual dated November 15th, 2023
- Attachment "L" UK HEB Tree Protection Standard
- Attachment "M" Construction Waste Management and Disposal
- Attachment "N" Turner Subcontractor Onboarding
- Attachment "O" Enhancing Worker Experience Plan
- Sketches SK-001 through <u>SK-004 SK-006 (ADD #3)</u>
- Note: The General Building Permit will be provided by the others (architect). Obtain all other required permits; submit copies to the Construction Manager.
- Note: This Trade Contractor is required to sign Turner form 36 subcontract agreement included in the scope of work manual, which takes precedence over the General & Special Conditions
- All "Additional Contract Documents" have either been provided to Subcontractor, or are attached to this
 contract. Signature of Contract by Subcontractor indicates receipt and acceptance of these documents as part
 of the Contract.

All contractors shall refer to Attachment N for the Subcontractor Onboarding Instructions. Contractors are
encouraged to complete this process prior to bid opening, as it will expedite contracting with Turner.

D. CONSTRUCTION SCHEDULE

- Refer to Project Milestone schedule (ATTACHMENT "G") included in project manual.
- Shift work, multiple mobilizations, and out of sequence work will be required. It is imperative that all milestones be met. The Bidders shall include all necessary costs, including, but not limited to, premium time, shift work, out of sequence work, etc. to meet these milestones.
- Due to the critical nature of the schedule, the Trade Contactor must supply the Construction Manager a detailed plan for his production on the project within 20 calendar days of Contract Award. Please note that this plan must be compatible and complimentary to the Project Schedule. Plan shall include the following items:
 - A. Starting, peak, and final manpower requirements, including subcontractors. Include production rates if requested
 - B. Shift work plan.
 - C. Number of Foremen
 - D. Anticipated lead times and permit approval.
 - E. The Trade Contractor shall work with the Construction Manager and Contractors in "Pull Planning" and the 6-week look-ahead schedule, including manpower information, on a weekly basis. Compliance is a prerequisite for payment.

E. WORK INCLUDED

Refer to Attachment "B" – Scope of Work

F. <u>SPECIAL REQUIREMENTS</u>

- <u>Sales/Use Tax Status</u>: Refer to "Instruction to Bidders" of Bid Manual for details. This project is taxable, all applicable taxes in your bid.
- Prevailing Wage: N/A, not required.
- <u>Insurance Program</u>: This Project shall utilize a Contractor Controlled Insurance Program ("CCIP"). Refer to attachment K of Bid Manual for details, instructions, etc.
- <u>Retainage</u>: <u>If job is Kentucky (any job)</u> Retainage Conditions shall be in accordance with the "Fairness in Construction Act" of 2007. Namely, Retainage for all Subcontractors shall be 10% until both the Project <u>and</u> the Subcontractor achieves 50% completion. At that point, retainage for all Subcontractors shall be reduced to 5% of Total Contract Value.
- <u>E&O Insurance:</u> N/A
- <u>Builders Risk:</u> (policy by Turner). Refer to Project General Requirements document for details including responsibility for deductible. Any such event occurring upon the Work site, covered under Builder's Risk policy and for which a claim is filed, the causing subcontractor shall be held responsible to incur the deductible cost of this policy in its entirety for said occurrence.
- Application for Payment: Unless otherwise directed or authorized, in writing, by Contractor, all Applications for Payment and all supporting documents (including but not limited to lien waivers, sworn statements, and the like) for Subcontractor and its sub-subcontractors and suppliers, shall be in electronic format and shall be submitted to Contractor using the Textura-CPM[™] payment management system. Subcontractor shall be responsible for the fees and costs owed associated with Subcontractor's use of the Textura-CPM[™] payment management system. Subcontractor shall include a similar provision in its sub-subcontracts and purchase orders. Fees to Subcontractors are calculated as 0.22% (22 basis points) of contract value, with a minimum fee of \$50 and a maximum fee of \$5,000. Fees to Subcontractors' sub-subcontractors and suppliers are a fixed fee of \$100 per sub-subcontractor or supplier contract.
- <u>Turner Accelerated Payment Program</u> The attached KENTUCKY Rider Accelerated Payment Program amends and supplements your Agreement with Turner and provides you the opportunity to enroll in the Program through Textura CPM and receive accelerated payments from Turner on your invoices. Formal enrollment into the Program can then be accomplished via the Textura CPM system. Additional information and Program benefits are included in the attached Turner Accelerated Payment Program summary. You may be contacted by a representative from Turner or Textura who can provide additional information on the Program

and answer questions you may have or you may call Textura at 1-866-TEXTURA (839-8872) with any questions.

- <u>OSHA 30 Hour Certification</u>: All subcontractors must have completed an OSHA 30 hour class. One person
 must be certified for all contracts under \$5M, and two people must be certified for contracts over \$5M. <u>The 30
 hour certified person(s) must be on-site 100% of the time</u>. This OSHA 30 hour certification must be updated
 through Turner's 1.5 hour Safety Update Training every two years through Turner University.
- Stormwater Compliance: If this project is required to obtain an NPDES permit per the EPA, all subcontractors working on the site will be required to attend the Turner Stormwater Subcontractor Orientation and Pre-Plan meeting prior to beginning work, and weekly coordination meetings. Furthermore, Subcontractors involved in earth moving/disturbing activities (excavation, foundation or utility trenching/excavation, grading, landscaping, paving, on site batch plant) or those responsible for installing or maintaining BMP's will be required to take the online Turner Stormwater Subcontractor Short Course Intro into Erosion and Sediment Control prior to attending the preconstruction meeting. The person or persons taking this online course must have a regular presence on the project. All subcontractors must comply with the requirements of the Stormwater Permit.
- Asbestos/ Lead Awareness: N/A
- Waste Tracking Requirements: Subcontractor who includes removal of waste from the project site ("dumpsters") as part of their scope of work, will submit all waste data using TurnerTracker account (monthly cost paid by subcontractor or their waste hauler). Data must be entered into the Online Waste Tracking system by the fifth (5th) day of the month following the invoice period. Subcontractor shall make every effort to maximize percentage of material recycled.

All Subcontractors shall comply with the project Construction Waste Plan. This may include sorting your construction waste and placing it in appropriate dumpsters (either co-mingled or site-sorted) per the project CWP. All subcontractors are required to recycle to the maximum extent possible per the terms of the Subcontract Agreement

- <u>MBE/WBE participation</u>: Refer to MBE/WBE Participation Goals document for details regarding the project inclusion program and/or goals for the University of Kentucky.
- No-Idling Standard: Trade partner agrees to comply with Turner's No-Idling Standard. All trade partner vehicles within the project site fence (including, but not limited to, transportation and construction equipment, delivery trucks and personal or company trucks) shall not idle. The only allowable exceptions to the standard are as follows:
 - 1. Ambient air temperature exceeds 85°F or falls below 32°F (or as defined by local or regional temperature limits, whichever is stricter)
 - 2. Engine idling is required for the function of auxiliary equipment (i.e. cranes, concrete pumps, etc.)

Additional Subcontract Agreement Article Pertaining to Harassment

This agreement includes and acknowledges the addition of the following Article as if inserted immediately following the Ethics and Compliance Article of this agreement as follows:

New Article XV: Harassment

It is the goal of Contractor to promote a work environment at the Project that is free from harassment of any kind. Contractor has ZERO TOLERANCE for harassment, including harassment on the basis of race, sex, gender, gender identity, gender expression, transgender status, sexual orientation, pregnancy, childbirth and other pregnancy-related conditions, color, national origin, ancestry, age, religious creed, citizenship, marital status (including registered domestic partners), parental status, physical disability, mental disability, medical condition, genetic information, military or veteran status (including protected veteran status), or any other characteristic or status protected by law. Subcontractor agrees to be bound by the Policy Statement on Harassment referenced in Article XXII below, and any violation or suspected violation of such policy by Subcontractor or any of its officers, agents, servants, employees, subcontractor to effectuate its rights and remedies under the provisions of Article XI of this Agreement. Subcontractor shall actively promote a harassment-free work environment among its officers, agents, servants, employees, subcontractor shall actively promote a harassment-free work environment among its officers, agents, servants, employees, subcontractors, and suppliers.

G. WORK EXCLUDED

Refer to Attachment "B" - Scope of Work

H. ALTERNATE PRICES

Refer to Attachment "B" - Scope of Work for Description of Alternate

I. <u>ALLOWANCES</u>

Refer to Attachment "B" - Scope of Work for Description of Allowances. Contract Prices INCLUDES Allowances

J. UNIT PRICES

Refer to Attachment "B" - Scope of Work for Description of Unit Prices

K. CONTRACT PRICE SUMMARY

Base Bid Amount <u>Adjustments</u>	\$
CONTRACT TOTAL	\$

By execution of this Agreement, Subcontractor agrees that Subcontractor's proposal, including all quantities, terms, and conditions, is Null and Void. This Subcontract Agreement details the terms of the Agreement, and shall be the primary reference point for clarifications of issues during course of project.

END OF ADDITIONAL PROVISIONS

Attachments:

Attachment B - Scope of Work for this Subcontract Agreement

UNIVERSITY OF KENTUCKY CAPITAL CONSTRUCTION PROCUREMENT SECTION FORM OF PROPOSAL: TC-012 Trailer and Laydown Area Setup

Project No. 2564.0 Project Title:	UK Construct Health Education Building
Purchasing Officer:	
NOTE: The following Form of Proposal shall lost, an additional copy will be furnished upon	be followed exactly in submitting a proposal for this work. If this copy is written request to the authority issuing Contract Documents.
This Proposal is submitted by:	
Date:	(NAME AND ADDRESS OF BIDDER)
Telephone:	
TO: BID CLERK UNIVERSITY OF KENTUCKY	INVITATION TO BID: CCK-
CAPITAL CONSTRUCTION	BID OPENING DATE: January 1, 2015
RM. 322 SERVICE BUILDING LEXINGTON, KY. 40506-0005	TIME <u>3:00 P.M. E.D.T</u> .

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.

The Bidder hereby acknowledges receipt of the following Addenda:

ADDENDUM NO	DATED
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.)

Attachment "B" SCOPE OF WORK TC-012 Trailer and Laydown Area Setup

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.

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.

FOR THE LUMP SUM OF

(USE WORDS)

(USE WORDS)

_DOLLARS AND_____(USE WORDS)

____CENTS.

(USE FIGURES)

<u>Alternates</u>: None

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

The apparent low bidder is requested to attend a post bid meeting on April 16, 2024 at 10:00 am in the Turner Field Office. All parties (prime and subcontractors) are required to attend in person. (ADD #3)

Attachment "B" SCOPE OF WORK TC-012 Trailer and Laydown Area Setup

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. <u>CCK-</u> 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

004100B01 Form University of Kei	of Proposal ntucky	FP-3		02/2024
BIDDER'S EMA	IL		DATE	
CITY	STATE	ZIP CODE		
		FAX		
ADDRESS		AREA COD	E & PHONE	
PRINT NAME		FIRM		
SIGNED BY		TITLE		

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

- (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: Asian, Black/African American, Hispanic or Latino, Native American, Native Hawaiian/Pacific Islander, Women, Disabled, Veteran and Disabled Veteran 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 as defined above, 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.

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. List of Proposed Subcontractors and Unit Prices. (if required)
- 3. Authentication of Bid and Statement of Non-Collusion and Non-Conflict of Interest.
- 4. List of Materials and Equipment.

5. 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)

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 non-responsibility 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.

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 Unit Prices with the bid.

Material	Unit (LF, SF, EA, etc.)	Unit Price
1 inch of Recycled Concrete #2s	CY	
(Installed)		
1 inch of 57s (Installed)	CY	
4" Thick Concrete walk, 8 Feet Wide, with 4" of subgrade	LF	
8' Tall Fencing (Installed)	LF	
20' Wide 6" DGA 4" base course	IE	
asphalt road		

HOURLY RATES

The Hourly Rates 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 Hourly Rates with the bid.

Note the following:

- Overhead & Profit to be <u>EXCLUDED</u> from rates below & will be calculated separately
- Complete a separate Wage Breakdown for each trade or subcontractor

STRAIGHT TI	STRAIGHT TIME CLASSIFICATION								
				_	Gen.	_	_		Other
Description	Unit	PM	Engineering	Super	Foreman	Foreman	Journeyman	Apprentice	()
Base Wage	/hr	\$	\$	\$	\$	\$	\$	\$	\$
H&W	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Pension	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Apprentice	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Vacation	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Annuity	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Education	/hr	\$	\$	\$	\$	\$	\$	\$	\$
FICA	%	\$	\$	\$	\$	\$	\$	\$	\$
Medicare	%	\$	\$	\$	\$	\$	\$	\$	\$
FUI	%	\$	\$	\$	\$	\$	\$	\$	\$
SUI	%	\$	\$	\$	\$	\$	\$	\$	\$
Workers Comp	%	\$	\$	\$	\$	\$	\$	\$	\$
GL Ins.	%	\$	\$	\$	\$	\$	\$	\$	\$
Other Fringe/Burder	n (List Below)							
		\$	\$	\$	\$	\$	\$	\$	\$
TOTAL		\$	\$	\$	\$	\$	\$	\$	\$

PREMIUM T	IME		CLASSIFICATION						
Description	Unit	PM	Engineering	Super	Gen. Foreman	Foreman	Journeyman	Apprentice	Other ()
Base Wage	/hr	\$	\$	\$	\$	\$	\$	\$	\$
						-			
H&W	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Pension	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Apprentice	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Vacation	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Annuity	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Education	/hr	\$	\$	\$	\$	\$	\$	\$	\$
FICA	%	\$	\$	\$	\$	\$	\$	\$	\$
Medicare	%	\$	\$	\$	\$	\$	\$	\$	\$
FUI	%	\$	\$	\$	\$	\$	\$	\$	\$
SUI	%	\$	\$	\$	\$	\$	\$	\$	\$
Workers Comp	%	\$	\$	\$	\$	\$	\$	\$	\$
GL Ins.	%	\$	\$	\$	\$	\$	\$	\$	\$
Other Fringe/Burde	n (List Below)							
		\$	\$	\$	\$	\$	\$	\$	\$
TOTAL		\$	\$	\$	\$	\$	\$	\$	\$

DOUBLE TI	ME	CLASSIFICATION							
Description	Unit	РМ	Engineering	Super	Gen. Foreman	Foreman	Journeyman	Apprentice	Other ()
Base Wage	/hr	\$	\$	\$	\$	\$	\$	\$	\$
H&W	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Pension	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Apprentice	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Vacation	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Annuity	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Education	/hr	\$	\$	\$	\$	\$	\$	\$	\$
					-				•
FICA	%	\$	\$	\$	\$	\$	\$	\$	\$
Medicare	%	\$	\$	\$	\$	\$	\$	\$	\$
FUI	%	\$	\$	\$	\$	\$	\$	\$	\$
SUI	%	\$	\$	\$	\$	\$	\$	\$	\$
Workers Comp	%	\$	\$	\$	\$	\$	\$	\$	\$
GL Ins.	%	\$	\$	\$	\$	\$	\$	\$	\$
Other Fringe/Burde	n (List Below)	-		•		-		
		\$	\$	\$	\$	\$	\$	\$	\$
TOTAL		\$	\$	\$	\$	\$	\$	\$	\$

Attachment "B" SCOPE OF WORK TC-012 Trailer and Laydown Area Setup

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.

		Labor			Unit	
	Description of Work	Hours	Quantity	Unit	Cost	Total
1	Engineering and Submittals				\$	\$
2	SWPPP Provisions				\$	\$
3	Site Fencing (Including Gates)				\$	\$
4	2 Lane Heavy Duty Drive				\$	\$
5	Temporary Side Walk				\$	\$
6	Laydown Area Install				\$	\$
7	Trailer Area Install				\$	\$
8	Photographic Documentation				\$	\$
9	Sanitary Tie In and Install				\$	\$
10	Water Tie In and Install				\$	\$
11	Electric Tie In and Install				\$	\$
12	Internet Tie In and Install				\$	\$
	Please list and breakdown b	elow any w	ork that has no	ot been	listed abov	re
13					\$	\$
14					\$	\$
15					\$	\$
16					\$	\$
17					\$	\$
18	Management				\$	\$
19	Safety and Housekeeping				\$	\$
20	General Work Requirements				\$	\$
21	Overhead and Profit				\$	\$
Allo	owances (to be included in bid amount)					
1	Additional Stone Allowance				\$	\$ 20,000
2	Unforeseen Utility Relocation Allowance				\$	\$ 20,000
3	Additional Utility "Potholing"				\$	\$ 20,000
4	Trailer and Laydown Monitoring Allowance				\$	\$ 55,000 (ADD #3)
						· · · · · ·
	TOTAL BID AMOUNT (This amount should match the Lump Sum listed on Form of Proposal)					\$
Cost of Payment & Performance Bond (DO NOT INCLUDE THIS COST IN BID AMOUNT)					ince Bond MOUNT)	\$

SCOPE OF WORK

Α.	GENERAL
1.	Provide labor, material, equipment, and all else necessary to furnish and install complete the TC-012 Work as required by the contract documents and as outlined below
2.	The following scope of work is intended to be general in nature. The purpose of this scope of work is not to identify or list every scope of work item already shown or described in the contract documents, but rather to coordinate, clarify, modify, and/or expand the scope.
3.	The intention is to have the successful Subcontractor perform all the TC-012 related work shown on the Contract Documents other than those items specifically indicated below to be excluded.
4.	Detail references are included for convenience, but are not intended to identify all applicable details. If the Contract Drawings and Specifications conflict, then the greater quantity and quality shall apply. The Scope of Work takes precedence over the drawings and specifications in the event of a conflict in trade assignment or responsibility. Attention is called to the Bid Manual and the Subcontractor shall include all costs necessary to provide all work to meet the requirements of this scope of work.
5.	In this Scope of Work, the term "provide" shall be defined as meaning "furnish and install."

B.	DOCUMENTS
1.	General Contract between Turner and the Owner including all attachments
2.	 All documents in bid manual including but not limited to: Drawings Specifications Scope of Work (Attachment B) General Requirements General Conditions Special Conditions Sample Subcontract Agreement Form (Form 36)
	Sample 3A Page
3.	Bid Manual including all Sketches and Attachments prepared by Turner Construction and listed below
4.	Attachments a. Attachment C - Safety Program b. Attachment E - Accounting Procedures c. Attachment F - Percentage Markup d. Attachment G - BP-02 Bid Schedule e. Attachment H - BIM General Requirements f. Attachment I - LEAN Subcontract Exhibit g. Attachment K - CCIP Manual h. Attachment L - Tree Protection Standards i. Attachment M – Waste Management Standard j. Attachment N – Turner Subcontractor Onboarding k. Attachment O – UK HEB Enhancing Worker Experience Plan
5.	Sketches
	 a. SK-001 – BMP Phasing Plan b. SK-002 – Phase Site Logistics Plan c. SK-003 – Estimated Rock Surface d. SK-004 – Trailer and Laydown Setup e. SK-005 – Tower Crane Reinforcement (ADD #3) f. SK-006 – BP-02 Site Storm Installation Plan (ADD #3)
6.	Specifications

	The following specification sections are listed as the responsibility of the Subcontractor in defining its area of work on this project. Unless specifically indicated otherwise or excluded below, this Contractor is responsible for the complete specification sections indicated below. a. 312000 – Earth Moving b. 312001 – SWPPP
7.	Divisions 00 and 01 of the Specifications are general in nature, and apply to all Subcontracts. These sections are included "complete" as part of this Subcontract Agreement.
8.	The Contractor is also responsible for trade specifications not specifically listed above but required by reference in the listed specifications or as required to perform the scope of work described herein, as well as the Bidding Requirements, Contracting Requirements and the use of the Construction Documents as a whole.

 Contract Price is LUMP SUM. There shall be NO additional labor and material escalations allowed 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. 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. 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. 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 or growing layout provided by others, this subcontractor shall perform sufficient verification of Work under this agreement. 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 need before start of work by this subcontractor. All 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% Satety Classes, High Visibility Vests or High Visibility. Vests or High Visibility is style T-Shitts with reflective strips, 10% glove provided by outfor submitting your bid. Failure to be familiar with have of these policies please ask to see the policy prior to submitting your bid. Failure to be familiar	C.	SPECIFIC SCOPE ITEMS					
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13.	This contractor to provide all erosion control measures as needed. This includes providing, installing maintaining, and replacing when needed inlet protection, wattles, silt fence, construction entrances, site BMPs shall be installed prior to the commencement of any construction activities unless directed otherwise by the CM. This Trade Contractor must perform all erosion control work required by all loc and federal regulations including Storm Water Pollution Prevention Plan (SWPPP) requirements. Construction entrances shall be level with adjacent ground. Any asphalt and earth removal required installation of any stone construction entrances. This contractor's responsibility. Include saw cutting asphalt to be removed at construction entrances. This contractor is to perform weekly maintenance SWPPP BMPs; and shall conduct inspections, repairs, and documentation to Turner after all rain ever 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. The management of all site erosion control the site SWPPP is this contractor's responsibility for the duration of their work. a. This contractor must meet all requirements outlined in specification 31 2001 including all		
14.	This contractor	to include \$2,000 for additional site dust control to be used at the discretion of the CM.	
15.	This contractor	shall include all work shown on SK-004	
	a. Contra	ctor shall provide, maintain for the duration of their contract, and leave after their contract is	
	comple	ete chain link fencing for the entire perimeter shown.	
	i. 	Fencing shall be 8' tall with screening the full height except for the gates.	
	II.	Fencing shall have LED lights every 8', shining down, that trigger with the sunset. Lights	
		shall not be ballery powered. Contractor to include all costs with tying these lights into a newer source. This source to be coordinated with the CM and LIK	
		Contractor shall include all gates as shown. Each gate shall have a combination lock similar	
		to Master Lock M176XDLHCCSEN associated Locks to be turned over to the CM	
		immediately upon fence installation.	
	iv.	Contractor shall include an Automatic Gate Opener for the Gate #10 with keypad access.	
		Assume this gate is 30' wide and full height of the fence. This gate shall be a rolling gate,	
		not a swinging gate. This gate shall have an auto close feature with a programmable timer.	
	V.	Fence post to be driven into the ground, except at gate locations. Contractor shall have	
		utilities marked prior to beginning fence installation. Any utilities that are close to a post	
		installation location shall be potholed to ensure utility is not struck by installation. All posts at	
	h Ormhur	gate locations shall be installed in concrete.	
	D. Contra	ctor shall provide and maintain for the duration of their contract trailer lots and a laydown	
	area	Assume Trailer Late shown shall consist of filter fabric laid on grass 2° of #2 stops, and 4°	
	I.	of compacted DGA. There are utilities in this area. Contractor shall have all utilities marked	
		prior to beginning work. Contractor shall turn over plan to the CM for coordination prior to	
		commencing with undercut. Contractor to maintain grading to existing catch basins (ADD	
		#3)	
	ii.	Assume Lavdown Area shown shall consist of geogrid laid on grass, 4" of #2 stone, and 4"	
		of compacted DGA. There are utilities in this area. Contractor shall have all utilities marked	
		prior to beginning work. Contractor shall turn over plan to the CM for coordination prior to	
		commencing with undercut. Contractor to maintain grading to existing catch basins (ADD	
		#3)	
	iii.	Assume 90,000 sqft for the Trailer Lots and 110,000 sqft for the Laydown Area for bidding	
		purposes. Areas to be coordinated with the CM.	
	iv.	Contractor shall provide protection for existing light poles to remain inside of the fenced in	
		area. This protection shall consist of orange show fencing and stakes in a 3 foot radius from	
		the center of the pole.	
		ctor shall provide and maintain for the duration of their contract an Entry/Exit Road at Gate	
	# 10 011	Road will consist of 6" 4" DGA 4" 6" has course asphalt Assume road to be 20' wide and	
		230' 450' long (ADD #3)	
		Include all required layout	
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	 iii. Include undercutting of soil so that roadway is flush with existing road and sidewalks. There are utilities in this area. Contractor shall have all utilities marked prior to beginning work. Contractor shall turn over plan to the CM for coordination prior to commencing with undercut. Undercut has been completed by contractor on the new dornitory project. This contractor is responsible to remove any temporary grading around the existing hardscapes in order for the asphalt to be installed flush with the adjacent hardscapes. (ADD #3) iv. Include installing steel plates over existing utilities, but under roadway. (ADD #3) v. Final road elevation to be a straight slope flush with existing asphalt at curb cut locations. vi. Road cross slope (.25" per foot) to drain toward existing yard drains and swells. vii. Include installing filter fabric/dandy bags over nearby existing yard drains within the trailer and laydown site and along Complex Drive as needed (ADD #3). viii. Road to be installed to miss existing light poles. ix. Stone and DGA to be installed upon mobilization. Include re-grading and compacting as required prior to asphalt installation. x. Include cutting down and reworking existing curb for entry/exit onto Complex Dr. d. Contractor shall provide and maintain for the duration of their contract a temporary sidewalk
	around the south wing of the University Flats building as shown on SK-004.
	i. Sidewalk shall be ADA compliant and flush with adjoining hardscapes. Undercut as
	necessary to achieve this.
16	II. Sidewalk shall be 8 feet wide. Assume 4" of subgrade and 4" of concrete.
10.	a Signage at each gate/entrance including gate number and contact information
	b. (6) "Site Maps" with "You Are Here" stars. Assume these are 2' x 3'.
	c. (4) "Sidewalk Closed"
	d. Signage shall meet all federal, state, KYTC signage standards
	e. This contractor to include \$15,000 for miscellaneous site signage and reproduction services and 60
	hours of labor for additional signage and maintenance.
17.	I his contractor is to include providing hookup locations for the future trailer complex utilities. This includes,
	a Contractor is to assume water and sewer shall be installed per SK-004/MU-100. Contractor shall
	make final hookups for both water and sewer to Turner Trailer and Restroom Trailer.
	i. Include metering at each service location.
	b. Contractor shall assume fiber line for internet is to run out of University Flats. Assume run is 1000ft
	and will be routed from University Flats closet to the Turner Trailer. Assume that there will need to
	be an outage associated with this work. Location and routes to be coordinated with the CM.
	Contractor shall assist internet provider in final hookups of Turner trailer as needed.
	c. Contractor shall assume electric will be run from University Flats. Contractor shall include running wire and making final bookups to both the Turner Trailer and Restroom Trailer.
	i. Contractor will need to provide a 480V to 120/208V step down transformer with a 1000A
	exterior weatherproof rated panel and disconnect switch. Wire from University Flats to
	inside the Trailer Area may be run overhead as long as it is supported in accordance with all
	applicable electrical codes and university standards.
	II. Assume that the transformer will be installed on a concrete pad provided by this contractor
	transformer and panel will be located within 50 feet of Gate #11 (see SK-004)
	iii. Panel shall have ten (10) 100 amp breakers.
	iv. Include metering at each service location.
18.	This contractor is to provide 1,500 sqft of wood decking around the Restroom and Turner trailers.
	a. Deck height shall such that finished deck height is flush with the doors into both the Turner Trailer
	and Restroom Trailer
	b. Deck shall be covered with root that sheds rain past the tootprint of the deck. Rooting material shall be weatherproof. Bare treated wood is NOT allowed
	i. Contractor shall install lights under the roofing every 5 feet. These lights to be tied in to the
	fence lighting and turn on/off with the sunset/sunrise.

Attachment "B" SCOPE OF WORK TC-012 Trailer and Laydown Area Setup

c. Deck shall have four (4) stairs with railings for entry/exit to the trailers. Locations to be coordinated with construction manager. A boot scrubber shall be mounted at the top of each stair.

D.	EXCLUSIONS
	The Scope of Work shall exclude the following:
1.	Payment & Performance Bond

E.	ALLOWANCES			
	 The Contract Sum shall be the addition of a base bid amount plus allowances. It is expressly understood and agreed that all allowance work will be completed within the original schedule. Progress Payments will be made against Allowance expenditures, based on approved monthly invoices & written Allowance Authorization from Turner. Any unused funds remaining in these allowances will be credited back to the Project. Only direct Labor, Material, and Equipment costs authorized in writing by Turner after approval by the Owner are to be charged to the Allowance. The Subcontractor's cost for all overhead and profit on the allowance amount shall be included in the base bid amount and not in the allowance amount. 			
1	Additional Stone Allowance	\$20,000		
2	Unforeseen Utility Relocation Allowance	\$20,000		
3	Additional Utility "Potholing"	\$20,000		
4	Trailer and Laydown Monitoring Allowance	\$55,000		
5				

F.	SCHEDULE				
1.	1. Schedule information is included within the bid manual (Attachment G) to aid the Subcontractor in anticipating material deliveries, and manpower and equipment requirements. The information describe only the major activities of this scope of work and does not attempt to describe any out of sequence w required.				
	The Contractor must confirm that you will meet the project schedule as indicated in the bid manual.				
	It is absolutely critical that the work of this contract be completed by the dates defined. The intention is that the Subcontractor must provide sufficient labor, equipment, overtime, supervision, etc. to overcome weather delays.				

G.	ALTERNATES
1.	The following "Alternate(s)" may be accepted and incorporated herein as part of the Scope of Work for the
	respective price. Inasmuch as these Alternates were anticipated from the inception of the project and were
	priced accordingly, all overhead, profit and escalation has been included within the lump sum amount and
	the price shall remain firm throughout the duration of the project, unless specifically noted. Indicate
	Add/Deduct Price on the Form of Proposal.
ALT.1	None

PRIMARY LIST OF PROPOSED SUBCONTRACTORS

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.

The apparent low bidders will be required to complete and submit to the University the following information by <u>twelve o'clock (12) noon</u> of the first working day following the bid opening. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

DIVISION OF WORK	NAME AND ADDRESS OF SUBCONTRACTOR
·	

LIST OF MATERIALS AND EQUIPMENT

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.

The apparent low bidders will be required to complete and submit to the University the following information by <u>twelve o'clock (12) noon</u> of the first working day following the bid opening. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

The apparent low bidder is requested to attend a post bid meeting which will be scheduled at a later date.

MATERIALS AND EQUIPMENT

BRAND OR MANUFACTURER

IDENTIFICATION OF DIVERSE BUSINESS ENTERPRISE SUBCONTRACTORS AND MATERIAL SUPPLIERS

Diverse Business Enterprises (DBE) consist of minority, women, disabled, veteran and disabled veteran owned business firms that are at least fifty-one percent owned and operated by an individual(s) of the aforementioned categories. Also included in this category are disabled business enterprises and non-profit work centers for the blind and severely disabled.

MBE, WBE, Veterans, Disable Veterans and Disabled make up Diverse Business Enterprises, DBE.

Participation of DBE owned Contractors and businesses.

The University of Kentucky encourages and supports the participation Diverse Business Enterprises. Please list Subcontractors and Material Suppliers according to following Ethnic Vendor List or if they are a Woman Owned Business:

- Asian
- Black/African American
- Hispanic or Latino
- Native American Native Hawaiian/Pacific Islander
- White
- Other
- 1. DBE (Ethnic or Woman) Subcontractors

2. DBE (Ethnic or Woman) Material Suppliers

UNIVERSITY OF KENTUCKY CAPITAL CONSTRUCTION PROCUREMENT SECTION FORM OF PROPOSAL: TC-013 – Site Plumbing

Projec	et No. 2564.0	Project Title:	UK Construct Health Education Building
Purch	asing Officer:		
NOTI lost, a	E: The following Form o in additional copy will be	f Proposal shall b e furnished upon	e followed exactly in submitting a proposal for this work. If this copy is written request to the authority issuing Contract Documents.
This I	Proposal is submitted by		
Deter			(NAME AND ADDRESS OF BIDDER)
Date:			
Telep	hone:		
TO:	BID CLERK UNIVERSITY OF KI	ENTUCKY	INVITATION TO BID: CCK-
	CAPITAL CONSTRU PROCUREMENT	JCTION	BID OPENING DATE: <mark>January 1, 2015</mark>
	RM. 322 SERVICE B LEXINGTON, KY. 4	UILDING 0506-0005	TIME <u>3:00 P.M. E.D.T</u> .

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.

The Bidder hereby acknowledges receipt of the following Addenda:

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.)

<u>Contractor Report of Prior Violations of</u> <u>Chapters 136,139, 141, 337, 338, 341, and 342</u>

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.

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.

FOR THE LUMP SUM OF

(USE WORDS)

(USE WORDS)

_DOLLARS AND_____(USE WORDS)

_____CENTS.

(USE FIGURES)

<u>Alternates</u>: None

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

The apparent low bidder is requested to attend a post bid meeting on April 17, 2024 at 2:00 pm in the Turner Field Office. All parties (prime and subcontractors) are required to attend in person. (ADD #3)

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. <u>CCK-</u> 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

004100B01 Form of Proposal University of Kentucky		FP-3		02/2024
BIDDER'S EMAIL			DATE	
CITY	STATE	ZIP CODE		
		FAX		
ADDRESS		AREA CODE	E & PHONE	
PRINT NAME		FIRM		
SIGNED BY		TITLE		

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

- (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: Asian, Black/African American, Hispanic or Latino, Native American, Native Hawaiian/Pacific Islander, Women, Disabled, Veteran and Disabled Veteran 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 as defined above, 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.

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. List of Proposed Subcontractors and Unit Prices. (if required)
- 3. Authentication of Bid and Statement of Non-Collusion and Non-Conflict of Interest.
- 4. List of Materials and Equipment.

5. 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)

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 non-responsibility 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.

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 Unit Prices with the bid.

Material	Unit (LF, SF, EA, etc.)	Unit Price

HOURLY RATES

The Hourly Rates 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 Hourly Rates with the bid.

Note the following:

- Overhead & Profit to be <u>EXCLUDED</u> from rates below & will be calculated separately
- Complete a separate Wage Breakdown for each trade or subcontractor

STRAIGHT TI	ME				CLASSIF	ICATION			
				_	Gen.	_	_		Other
Description	Unit	PM	Engineering	Super	Foreman	Foreman	Journeyman	Apprentice	()
Base Wage	/hr	\$	\$	\$	\$	\$	\$	\$	\$
H&W	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Pension	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Apprentice	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Vacation	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Annuity	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Education	/hr	\$	\$	\$	\$	\$	\$	\$	\$
FICA	%	\$	\$	\$	\$	\$	\$	\$	\$
Medicare	%	\$	\$	\$	\$	\$	\$	\$	\$
FUI	%	\$	\$	\$	\$	\$	\$	\$	\$
SUI	%	\$	\$	\$	\$	\$	\$	\$	\$
Workers Comp	%	\$	\$	\$	\$	\$	\$	\$	\$
GL Ins.	%	\$	\$	\$	\$	\$	\$	\$	\$
Other Fringe/Burder	n (List Below)							
		\$	\$	\$	\$	\$	\$	\$	\$
TOTAL		\$	\$	\$	\$	\$	\$	\$	\$

PREMIUM T	PREMIUM TIME CLASSIFICATION								
Description	Unit	PM	Engineering	Super	Gen. Foreman	Foreman	Journeyman	Apprentice	Other ()
Base Wage	/hr	\$	\$	\$	\$	\$	\$	\$	\$
			-		-	-			
H&W	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Pension	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Apprentice	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Vacation	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Annuity	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Education	/hr	\$	\$	\$	\$	\$	\$	\$	\$
FICA	%	\$	\$	\$	\$	\$	\$	\$	\$
Medicare	%	\$	\$	\$	\$	\$	\$	\$	\$
FUI	%	\$	\$	\$	\$	\$	\$	\$	\$
SUI	%	\$	\$	\$	\$	\$	\$	\$	\$
Workers Comp	%	\$	\$	\$	\$	\$	\$	\$	\$
GL Ins.	%	\$	\$	\$	\$	\$	\$	\$	\$
Other Fringe/Burde	n (List Below)		_					
		\$	\$	\$	\$	\$	\$	\$	\$
TOTAL		\$	\$	\$	\$	\$	\$	\$	\$

DOUBLE TIME CLASSIFICATION									
Description	Unit	РМ	Engineering	Super	Gen. Foreman	Foreman	Journeyman	Apprentice	Other ()
Base Wage	/hr	\$	\$	\$	\$	\$	\$	\$	\$
H&W	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Pension	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Apprentice	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Vacation	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Annuity	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Education	/hr	\$	\$	\$	\$	\$	\$	\$	\$
					-				•
FICA	%	\$	\$	\$	\$	\$	\$	\$	\$
Medicare	%	\$	\$	\$	\$	\$	\$	\$	\$
FUI	%	\$	\$	\$	\$	\$	\$	\$	\$
SUI	%	\$	\$	\$	\$	\$	\$	\$	\$
Workers Comp	%	\$	\$	\$	\$	\$	\$	\$	\$
GL Ins.	%	\$	\$	\$	\$	\$	\$	\$	\$
Other Fringe/Burde	n (List Below)	1		•		-		
		\$	\$	\$	\$	\$	\$	\$	\$
TOTAL		\$	\$	\$	\$	\$	\$	\$	\$

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.

		Labor			Unit	
	Description of Work	Hours	Quantity	Unit	Cost	Total
1	Engineering and Submittals				\$	\$
2	BIM Coordination				\$	\$
3	Demolition Work				\$	\$
4	Site Water Installation				\$	\$
5	Site Fire Protection Piping				\$	\$
6	Site Mechanical Piping				\$	\$
7	Excavation and Backfill			CY	\$	\$
8	Rock Removal				\$	\$
9	Shoring				\$	\$
10	Temporary Site Plumbing				\$	\$
11	Underslab Plumbing				\$	\$
12	Site Mechanical Piping				\$	\$
	Please list and breakdown	below any	work that ha	s not be	en listed a	above
14					\$	\$
15					\$	\$
16					\$	\$
17					\$	\$
18					\$	\$
19	Management				\$	\$
20	Safety and Housekeeping				\$	\$
21	General Requirements				\$	\$
22	Overhead and Profit				\$	\$
Allo	wances (to be included in bid amount)					
1	Document Control Server Allowance					\$ 3,000
2	Unforeseen Demo and Abatement					\$ 30,000
3	Additional Utility Locate Allowance					\$ 7,500 (ADD #3)
4						\$
5						\$
TOTAL BID AMOUNT (This amount should match the Lump Sum listed on Form of Proposal)					\$	
	Cost of Payment & Performance Bond (DO NOT INCLUDE THIS COST IN BID AMOUNT)					

SCOPE OF WORK

Α.	GENERAL
1.	Provide labor, material, equipment, and all else necessary to furnish and install complete the TC-013 Work as required by the contract documents and as outlined below
2.	The following scope of work is intended to be general in nature. The purpose of this scope of work is not to identify or list every scope of work item already shown or described in the contract documents, but rather to coordinate, clarify, modify, and/or expand the scope.
3.	The intention is to have the successful Subcontractor perform all the TC-013 related work shown on the Contract Documents other than those items specifically indicated below to be excluded.
4.	Detail references are included for convenience but are not intended to identify all applicable details. If the Contract Drawings and Specifications conflict, then the greater quantity and quality shall apply. The Scope of Work takes precedence over the drawings and specifications in the event of a conflict in trade assignment or responsibility. Attention is called to the Bid Manual and the Subcontractor shall include all costs necessary to provide all work to meet the requirements of this scope of work.
5.	In this Scope of Work, the term "provide" shall be defined as meaning "furnish and install."

В.	DOCUMENTS
1.	General Contract between Turner and the Owner including all attachments
2.	All documents in bid manual including but not limited to: Drawings Specifications Scope of Work (Attachment B) General Requirements General Conditions Special Conditions Sample Subcontract Agreement Form (Form 36) Sample 3A Page
3.	Bid Manual including all Sketches and Attachments prepared by Turner Construction and listed below
4.	Attachments
	 a. Attachment C - Safety Program b. Attachment E - Accounting Procedures c. Attachment F - Percentage Markup d. Attachment G - BP-02 Bid Schedule e. Attachment H - BIM General Requirements f. Attachment I - LEAN Subcontract Exhibit g. Attachment K - CCIP Manual h. Attachment L - Tree Protection Standards i. Attachment M – Waste Management Standard j. Attachment N – Turner Subcontractor Onboarding k. Attachment O – UK HEB Enhancing Worker Experience Plan
5.	Sketches
	 a. SK-001 – BMP Phasing Plan b. SK-002 – Phase Site Logistics Plan c. SK-003 – Estimated Rock Surface d. SK-004 – Trailer and Laydown Setup e. SK-005 – Tower Crane Reinforcement (ADD #3) f. SK-006 – BP-02 Site Storm Installation Plan (ADD #3)
6.	Specifications

	The following specification sections are listed as the responsibility of the Subcontractor in defining its area of work on this project. Unless specifically indicated otherwise or excluded below, this Contractor is responsible for the complete specification sections indicated below.
	a. Section 02 4116 – Structure Demolition
	D. Section 03 0300 – Structural Excavation and Backfill
	d Section 20 0100 - General Provisions - Mechanical
	e Section 20 0200 – Scope of the Mechanical Work
	f. Section 20 0300 – Shop Drawings, Descriptive Literature, Maintenance Manuals, Parts Lists,
	Special Keys and Tools
	g. Section 20 0400 – Demolition and Salvage
	h. Section 20 1100 – Sleeving, Cutting, Patching and Repairing
	i. Section 20 1200 – Excavation, Trenching, Backfilling & Grading
	j. Section 20 1300 – Pipe, Pipe Fittings, and Pipe Support
	k. Section 20 1310 – Welding
	 Section 20 2100 – Valves and Cocks
	m. Section 20 2200 – Insulation
	n. Section 20 2400 – Identifications, Tags, Charts, Etc.
	0. Section 20 2500 – Hangers, Glamps, Allachments, Elc.
	a Section 22 1313 – Facility Sanitary Sewers
	r Section 31 2000 – Earth Moving
	s. Section 31 2001 – Storm Water Pollution Prevention Plan
	t. Section 31 2319 – Dewatering
	u. Section 31 3116 – Termite Control (ADD #3)
	v. Section 31 6813 – Rock Anchors (ADD #3)
7.	Divisions 00 and 01 of the Specifications are general in nature, and apply to all Subcontracts. These
	sections are included "complete" as part of this Subcontract Agreement.
8.	The Contractor is also responsible for trade specifications not specifically listed above but required by reference in the listed specifications or as required to perform the scope of work described herein, as well as the Bidding Requirements, Contracting Requirements and the use of the Construction Documents as a whole.

C.	SPECIFIC SCOPE ITEMS
1.	Contract Price is LUMP SUM. There shall be NO additional labor and material escalations allowed.
2.	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.
3.	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.
4.	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.
5.	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.
6.	Subcontractor understands that time is of the essence in the prosecution of Work under this agreement.
7.	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.
8.	All Subcontractors must be licensed as required by local, State, or Federal jurisdiction required for work of
	this trade in this project location.
9.	This Subcontractor will comply with Turner's corporate safety policy contained in Attachment C of this
	Scope of Work.

10.	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.
11.	This contractor is required for their full-time superintendent to be onsite at all times to assist in the coordination of the project. This person is to have no labor responsibilities onsite.
12.	All unloading, distribution, staging, hoisting, rigging, scaffolding, lifts, platforms, scissor lifts, boom lifts, planking, guying, sheeting, shoring, dewatering, bracing transportation, access for material, equipment and personnel required to perform this work is included in this contract.
13.	This Subcontractor is responsible to repair any asphalt, roadway, curb/gutter, granite, and sidewalk outside the area of demolition that is damaged by this Contractor, their Subcontractors, or haulers.
14.	This contractor is to prepare and submit for review all plans and certifications, etc. required by the EPA, OSHA, Turner Construction policies, and all other governing bodies.
15.	Provide street cleaning as necessary, for work associated with this contract.
16.	This Trade Contractor shall be responsible to coordinate with established building layout, control points, and benchmarks.
17.	Early site environmental protection will be provided by TC-008. TC-013 will be responsible to provide and maintain any BMPs within the work area due to damages or negligence by this scope of work. Reference project drawings and specifications for silt fence and silt trap details. Removal of silt fencing will be by others near project completion. Include adequate dust control required for the scope of work and assume all dust-producing activities must be performed "wet" in accordance with the infection control guidelines.
	 This Trade Contractor must meet all requirements outlined in specification 31 2001 including all certifications, trainings, permits, etc.
18.	 This Trade Contractor shall provide BIM coordination as detailed in ATTACHMENT H. This work includes but is not limited to the following: a. All systems installed under this scope of work including under slab. b. Site electric installations performed by TC-009. i. Final locations to be provided by TC-009.
	 c. Sanitary and storm installations performed by TC-014. i. Include remaining storm systems within Contract Documents. d. Model "existing electric" (vaults, duct banks, switches, etc.).
19.	Provide all hauling and/or dumpsters required for all site demolition and/or mass excavation activities as needed. a. See section 01 7419 Construction Waste Management and Disposal for additional information.
20.	 This Trade Contractor shall provide SITE DEMOLITION as shown on Contract Documents and in accordance with section 02 4116 and division 01. This work includes but is not limited to the following: a. Trade Contractor is responsible for the removal of all existing utilities located within the limits of the project. Reference C200, MU-101, and MU-102 for known utilities that are to be demoed. If this Trade Contractor excavates an existing utility that is not called out to be demolished, contractor is to notify the Construction Manager immediately. Similarly, if this Trade Contractor exposes underground hazardous material, contractor is to notify the Construction Manager immediately. i. Include demo of steam piping and tunnel per MU-101 and MU-102. 1. This Trade Contractor to include FRP and waterproofing of existing vaults that are to remain once piping and utility tunnels are removed. Reference detail 6 on MU-302. 2. Where the crooked vault steam tunnel is removed, backfill in compacted lifts with structural fill and cap with DGA. ii. TC-007 Demo & Abatement contractor responsible for cut/cap of utilities 5' outside of existing building perimeters (Kelley Hall and Annex No. 5) iii. Coordinate with the Owner and Construction manager for any "make safe; necessary prior to utility demolition – assume all utilities are live. iv. Storm and sanitary system demolition by TC-014.
	v. Dilution pit demolition by TC-011.

1	vi. Electrical and LV demolition by TC-009.	
21.	This Trade Contractor shall furnish and install all site utilities including excavation, shoring, backfill, thrust	
	blocks, piping, hydrants, valves, controls, cleanouts, testing, metering, supports, etc. for a complete system	
	related to this scope of work.	
22.	This Trade Contractor shall include all materials, labor, tools, and equipment required to install a complete and functioning DOMESTIC WATER service as shown on the Contract Documents and in accordance with	
	section 22 1113 and C401. This work includes but is not limited to the following:	
	a. Include new domestic water vault and connection at Huguelet Drive.	
	b. Provide chlorination as required for the domestic water system.	
	c. Installation of water lines into the building should be held as tight to new areaway wall as possible.	
	i. Include watertight seals where piping enters the new building or vaults.	
	d. Trade Contractor to provide thrust blocks as required by code or Contract Documents.	
	e. Assume invert of incoming pipes on west side of building to be 993'. (ADD #3)	
23.	This Trade Contractor shall include all materials, labor, tools, and equipment required to install a complete	
	and functioning FIRE PROTECTION service as shown on the Contract Documents and in accordance with	
	section 22 1113 and C401. This work includes but is not limited to the following:	
	a. Include all material and labor necessary for new hydrants and fire protection system.	
	b. Installation of water lines into the building should be held as tight to new areaway wall as possible.	
	i. Include watertight seals where piping enters the new building or vaults.	
0.1	c. Assume invert of incoming pipes on west side of building to be 993'. (ADD #3)	
24.	I his Trade Contractor shall include all materials, labor, tools, and equipment required to install a complete	
	Division 20, MU 201, and MU 202. This work includes but is not limited to the following:	
	Division 20, MO-201, and MO-202. This work includes but is not influed to the following.	
	a. This frace contractor is to include new valves, pipility, anchors, seals, pumps, insulation, sieeves,	
	i Include watertight seals where piping enters the new building or vaults	
	b. Include new insulation in vaults that remain and where new piping transitions to existing piping.	
	c. This Trade Contractor is responsible to furnish and install forced main sump pump piping from	
	vaults to storm structures as indicated on the Contract Documents. One discharge line will be routed	
	across Huguelet Drive and will require coordination with the Owner for potential road closure.	
	Include separate mobilizations to complete this work as grade is brought back up.	
	d. Control conduits from vaults (new and existing electrical, chilled water, steam, etc.) to basement are	
	included in this scope of work.	
	e. Assume steam piping at south side of building to be installed below grade and not above-grade as	
	indicated on the Contract Documents. Include 1,500 psi lean fill as backfill around temporary steam	
	piping. Remove temporary piping and lean fill after new lines are energized.	
	f. New chilled water vault structure will be installed by others. The intent is the structure is completely	
	cast and backfilled prior to 1C-013 installing any piping, valves, etc. within the structure.	
	I. Sleeves for the value should be provided by TC-015 and installed by TC-015.	
	G. Include 50 cubic yards of learn in for protection of underground dumies to be used at the discretion of CM (ADD #3)	
25	This Trade Contractor shall include all materials labor tools and equipment required to install a complete	
	and functioning UNDERSLAB PLUMBING PIPING system for under-slab building areas as shown on the	
	Contract Documents and in accordance with 20 1300. This work includes but is not limited to the following:	
	a. All sanitary piping, cleanouts, floor drains, floor troughs, hub drains, trap primers, etc.	
	b. Cap all new piping utilizing rubber caps. Extend a minimum of 24" above finished floor elevations	
	and protect until SOG is poured.	
	c. Coordinate with architectural drawings for correct wall layout and dimensions. Digital survey of all	
	piping risers is encouraged so to fit within new (future) wall cavities. This contractor will be required	
	to correct any incorrect installations.	
	d. Coordinate with structural drawings for elevation clashes where piping may run near new footings	
	and foundations to address pipe inverts and sleeve requirements. See S-301 for more details.	
	e. f.	 This Contractor is to demonstrate successful quality testing (i.e. pressure test) of installed systems meeting all specifications and code requirements prior to backfill and cover. This contractor is to include any granular pipe fill around all new piping installations. TC-014 site excavation contractor will excavate existing subgrades to elevations shown on C300. TC-015 will install granular backfill under interior slab on grade areas as shown after concrete footing installations. i. This Contractor shall provide adequate protection of trap primer piping and stub-ups during slab pours to ensure the systems remain free of damage. Coordinate with other trades accordingly.
-----	--	--
	g.	rainwater connection points ahead of work starting within the building footprint.
26.	This Tr in acco to the f a. b. c. c. d. e.	ade Contractor shall provide EXCAVATION AND BACKFILL as shown on Contract Documents and rdance with section 31 2000 as it pertains to this scope of work. This work includes but is not limited ollowing: Exercise care to preserve material below and beyond the limits of excavation. Where excavation is carried out, through error, below indicated grade or beyond the lines of excavation, backfill to the indicated grade and compact with approved fill at no additional cost to the Owner, and at the direction of the Engineer or Geotechnical Consultant. Contractor shall dewater all excavations associated with this scope due to rainwater / water infiltration while on-site. Assume use of filters, dewatering bags, or other means to prevent pumping / discharging fine sediments onto surrounding properties or into storm sewers or streams. For the excavation and backfill work contained in this work scope backfill must be imported granular material. Include all rock excavation and removal for this scope of work. Refer to the project Geotechnical Report and SK-003 for estimated rock elevations and location. This work is inclusive of exploratory work specified in the General Work Requirements. Protect all underground work, including stub-ups to ensure work is intact at time of concrete placement. Backfill and compaction with suitable material to proper subgrade elevation is included in this Contract. Spoils are to be removed and stored off site and/or properly disposed of. At the conclusion of this work, the subgrade shall be re-graded to a level acceptable to the Construction Manager. This contractor is to provide temporary fencing around all open excavations. This contractor is to provide temporary fencing adjacent structures and utilities. Any excavation deeper than 4'-0" will require an engineered shoring plan prior to excavation and shoring must be engineered and stamped by a Professional Engineer.
	T.	All excavations shall be returned to match adjacent conditions, including concrete, asphalt, lawn, landscape.
27.	Provide codes. a. b. c. d.	 all testing required to complete this scope of work per the Contract Documents and applicable This scope includes all testing & balancing associated with site plumbing work. All underground piping in this scope of work shall be tested and inspected prior to covering work. Provide testing and chlorination of new domestic water lines in preparation of tie-in to existing per the project specifications and owner requirements. Maintain and submit as a final record documentation reporting the results of all tests performed. Tests shall be categorized by the system and by the type of test performed. All testing documentation shall be submitted in a form acceptable to the Construction Manager and Architect/Engineer.
28.	Tempo	prary site plumbing
	a. b. c.	This contractor to include all pump around equipment and systems necessary to install the new sanitary, storm, and other systems. Coordinate connection with owner via outage process to minimize utility down time. Include temporary protection of all new and existing final at or above grade site water elements, including inlets, manholes, and pump stations. Provide and maintain functioning sump pumps in mechanical and electrical vaults for the duration of
		this scope of work including temporary power connections. Turn pumps over to CM at completion of this scope of work. Refer to MU-201 and MU-202 for vault locations.

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Attachment "B" SCOPE OF WORK *TC-013 – Site Plumbing*

29.	Include all necessary project coordination required to successfully complete the site plumbing work scope.
	a. It shall be the responsibility of this contractor to coordinate the installation of this work with the utility
	companies, other contractors working on the project and the engineer as needed to verify or
	determine size and routing of services being installed by this contractor.
	b. Coordinate connection/disconnection of permanent utilities with Owner to minimize downtime. This
	will include a fully detailed shutdown, testing and energize plan for work that is to be completed.
	Include any night shift work to limit impact to the operations. Plan will include a complete risk
	assessment and schedule with activities identified in 30-minute increments from shut down to re-
	energize. All outages are to be submitted via UK's outage request website.
	c. All work of this Trade Contract shall be properly coordinated with the LFCUG, UK, and any other
	authorities having jurisdiction inclusive of premium time for night work required by said authorities.
	d. Coordinate layout of all underground work part of this scope with drilled piers, concrete foundations,
	and temporary crane and buckhoist pads and foundation locations.
	I. This IC to provide IC-015 foundations contractor with all layout and sleeves for any
	penetrations that occur in foundation walls. This TC is to identify locations from grid lines
	and elevations prior to rebar shop drawings being submitted so that TC-015 foundation
	contractor can incorporate into their shop drawings.
	II. Coordinate foundation/wall penetrations with concrete trade contractor. Do not penetrate the
	waterproofing system without notification to the Construction Manager so waterproofing
	iii This TC to include installation of all cleaves that easur within or below foundation featings
	In. This TC to include installation of an sleeves that occur within of below foundation footings.
	301. Where sleeves or piping occurs below foundations as defined on detail Λ/S 301, this
	TC to coordinate installation with TC-015. Additional comeback work may be required to
	install and connect these sleeves to new piping that has already been installed
30.	Trade Contractor shall furnish and install thrust blocks as needed by code or the Contract Documents.
31.	Cap any piping noted as abandoned as it is uncovered by the site excavation contractor.
32.	Contractor shall verify all elevations of structures and piping during and after installation. Provide as-built
	drawings generated by a licensed surveyor documenting X, Y, Z coordinates of structures, invert elevations
	of all pipe and elevations of bottom of structures / castings (site sanitary and storm by others).
33.	All permit, tap fees, and costs associated with connecting to and from existing utilities is the responsibility of
	TC-013. Include any sanitizing, disinfection, and pigging of water lines.
34.	Trade Contractor shall furnish and install utility service markers as required by the Contract Documents.

D.	EXCLUSIONS
	The Scope of Work shall exclude the following:
1	Payment & Performance Bond
2	Demolition of any trees
3	Cutting and make safe building electric and communications

E. ALLOWANCES

The Contract Sum shall be the addition of a base bid amount plus allowances. It is expressly understood and agreed that all allowance work will be completed within the original schedule. Progress Payments will be made against Allowance expenditures, based on approved monthly invoices & written Allowance Authorization from Turner. Any unused funds remaining in these allowances will be credited back to the Project.

Only direct Labor, Material, and Equipment costs authorized in writing by Turner after approval by the Owner are to be charged to the Allowance. The Subcontractor's cost for all overhead and profit on the allowance amount shall be included in the base bid amount and not in the allowance amount.

1	Document Control Server Allowance	\$3,000
2	Unforeseen Demo and Abatement Allowance	\$30,000
3	Additional Utility Locate Allowance	\$7,500 (ADD #3)

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Attachment "B" SCOPE OF WORK TC-013 – Site Plumbing

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5	

F. SCHEDULE

Schedule information is included within the bid manual (Attachment G) to aid the Subcontractor in anticipating material deliveries, and manpower and equipment requirements. The information describes only the major activities of this scope of work and does not attempt to describe any out of sequence work required.

The Contractor must confirm that you will meet the project schedule as indicated in the bid manual.

It is **absolutely critical** that the work of this contract be completed by the dates defined. The intention is that the Subcontractor must provide sufficient labor, equipment, overtime, supervision, etc. to overcome weather delays.

G.	ALTERNATES
	The following "Alternate(s)" may be accepted and incorporated herein as part of the Scope of Work for the
	priced accordingly, all overhead, profit and escalation has been included within the lump sum amount and
	the price shall remain firm throughout the duration of the project, unless specifically noted. Indicate
	Add/Deduct Price on the Form of Proposal.
ALT.1	None

PRIMARY LIST OF PROPOSED SUBCONTRACTORS

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.

The apparent low bidders will be required to complete and submit to the University the following information by <u>twelve o'clock (12) noon</u> of the first working day following the bid opening. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

NAME AND ADDRESS OF SUBCONTRACTOR
· · · -

LIST OF MATERIALS AND EQUIPMENT

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.

The apparent low bidders will be required to complete and submit to the University the following information by <u>twelve o'clock (12) noon</u> of the first working day following the bid opening. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

The apparent low bidder is requested to attend a post bid meeting which will be scheduled at a later date.

MATERIALS AND EQUIPMENT

BRAND OR MANUFACTURER

IDENTIFICATION OF DIVERSE BUSINESS ENTERPRISE SUBCONTRACTORS AND MATERIAL SUPPLIERS

Diverse Business Enterprises (DBE) consist of minority, women, disabled, veteran and disabled veteran owned business firms that are at least fifty-one percent owned and operated by an individual(s) of the aforementioned categories. Also included in this category are disabled business enterprises and non-profit work centers for the blind and severely disabled.

MBE, WBE, Veterans, Disable Veterans and Disabled make up Diverse Business Enterprises, DBE.

Participation of DBE owned Contractors and businesses.

The University of Kentucky encourages and supports the participation Diverse Business Enterprises. Please list Subcontractors and Material Suppliers according to following Ethnic Vendor List or if they are a Woman Owned Business:

- Asian
- Black/African American
- Hispanic or Latino
- Native American Native Hawaiian/Pacific Islander
- White
- Other
- 1. DBE (Ethnic or Woman) Subcontractors

2. DBE (Ethnic or Woman) Material Suppliers

UNIVERSITY OF KENTUCKY CAPITAL CONSTRUCTION PROCUREMENT SECTION FORM OF PROPOSAL: TC-014 – Site Excavation

Projec	et No. 2564.0	Project Title:	UK Construct Health Education Building
Purch	asing Officer:		
NOTI lost, a	E: The following Form of additional copy will b	of Proposal shall be be furnished upon v	e followed exactly in submitting a proposal for this work. If this copy is vritten request to the authority issuing Contract Documents.
This F	Proposal is submitted by	/:	
			(NAME AND ADDRESS OF BIDDER)
Date:			
Telep	hone:		
TO:	BID CLERK UNIVERSITY OF K	ENTUCKY	INVITATION TO BID: <u>CCK-</u>
	CAPITAL CONSTR PROCUREMENT	UCTION	BID OPENING DATE: January 1, 2015
	RM. 322 SERVICE LEXINGTON, KY. 4	3UILDING 10506-0005	TIME <u>3:00 P.M. E.D.T</u> .

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.

The Bidder hereby acknowledges receipt of the following Addenda:

ADDENDUM NO	DATED
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.)

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.

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.

FOR THE LUMP SUM OF

(USE WORDS)

(USE WORDS)

_DOLLARS AND_____(USE WORDS)

_____CENTS.

(USE FIGURES)

<u>Alternates</u>: None

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

The apparent low bidder is requested to attend a post bid meeting on April 15, 2024 at 10:00 am in the Turner Field Office. All parties (prime and subcontractors) are required to attend in person. (ADD #3)

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. <u>CCK-</u> 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

004100B01 Form University of Ke	n of Proposal ntucky	FP-3		02/2024
BIDDER'S EMA	IL		DATE	
CITY	STATE	ZIP CODE		
		FAX		
ADDRESS		AREA CODE	E & PHONE	
PRINT NAME		FIRM	FIRM	
SIGNED BY		TITLE		

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

- (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: Asian, Black/African American, Hispanic or Latino, Native American, Native Hawaiian/Pacific Islander, Women, Disabled, Veteran and Disabled Veteran 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 as defined above, 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.

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. List of Proposed Subcontractors and Unit Prices. (if required)
- 3. Authentication of Bid and Statement of Non-Collusion and Non-Conflict of Interest.
- 4. List of Materials and Equipment.

5. 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)

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 non-responsibility 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.

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 Unit Prices with the bid.

Material	Unit (LF, SF, EA, etc.)	Unit Price

HOURLY RATES

The Hourly Rates 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 Hourly Rates with the bid.

Note the following:

- Overhead & Profit to be <u>EXCLUDED</u> from rates below & will be calculated separately
- Complete a separate Wage Breakdown for each trade or subcontractor

STRAIGHT TIME		CLASSIFICATION								
				_	Gen.	_	_		Other	
Description	Unit	PM	Engineering	Super	Foreman	Foreman	Journeyman	Apprentice	()	
Base Wage	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
H&W	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Pension	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Apprentice	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Vacation	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Annuity	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Education	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
FICA	%	\$	\$	\$	\$	\$	\$	\$	\$	
Medicare	%	\$	\$	\$	\$	\$	\$	\$	\$	
FUI	%	\$	\$	\$	\$	\$	\$	\$	\$	
SUI	%	\$	\$	\$	\$	\$	\$	\$	\$	
Workers Comp	%	\$	\$	\$	\$	\$	\$	\$	\$	
GL Ins.	%	\$	\$	\$	\$	\$	\$	\$	\$	
Other Fringe/Burder	n (List Below)								
		\$	\$	\$	\$	\$	\$	\$	\$	
TOTAL		\$	\$	\$	\$	\$	\$	\$	\$	

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PREMIUM TIME		CLASSIFICATION								
					Gen.				Other	
Description	Unit	PM	Engineering	Super	Foreman	Foreman	Journeyman	Apprentice	()	
Base Wage	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
			-	-						
H&W	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Pension	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Apprentice	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Vacation	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Annuity	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Education	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
FICA	%	\$	\$	\$	\$	\$	\$	\$	\$	
Medicare	%	\$	\$	\$	\$	\$	\$	\$	\$	
FUI	%	\$	\$	\$	\$	\$	\$	\$	\$	
SUI	%	\$	\$	\$	\$	\$	\$	\$	\$	
Workers Comp	%	\$	\$	\$	\$	\$	\$	\$	\$	
GL Ins.	%	\$	\$	\$	\$	\$	\$	\$	\$	
Other Fringe/Burder	n (List Below)								
		\$	\$	\$	\$	\$	\$	\$	\$	
TOTAL		\$	\$	\$	\$	\$	\$	\$	\$	

DOUBLE TIME		CLASSIFICATION								
				_	Gen.	_	_		Other	
Description	Unit	PM	Engineering	Super	Foreman	Foreman	Journeyman	Apprentice	()	
Base Wage	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
H&W	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Pension	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Apprentice	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Vacation	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Annuity	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
Education	/hr	\$	\$	\$	\$	\$	\$	\$	\$	
FICA	%	\$	\$	\$	\$	\$	\$	\$	\$	
Medicare	%	\$	\$	\$	\$	\$	\$	\$	\$	
FUI	%	\$	\$	\$	\$	\$	\$	\$	\$	
SUI	%	\$	\$	\$	\$	\$	\$	\$	\$	
Workers Comp	%	\$	\$	\$	\$	\$	\$	\$	\$	
GL Ins.	%	\$	\$	\$	\$	\$	\$	\$	\$	
Other Fringe/Burder	n (List Below)								
		\$	\$	\$	\$	\$	\$	\$	\$	
TOTAL		\$	\$	\$	\$	\$	\$	\$	\$	

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.

		Unit				
	Description of Work	Hours	Quantity	Unit	Cost	Total
1	Engineering and Submittals				\$	\$
2	Site Demolition			CY	\$	\$
3	Temporary Construction (Roadway)			LF	\$	\$
4	Site Sanitary Installation			LF	\$	\$
5	Site Storm Installation			LF	\$	\$
6	Shoring / Retention			CY	\$	\$
7	Mass Excavation / Grading			CY	\$	\$
8	Demolition and Site Clearing			CY	\$	\$
9	Rock Removal				\$	\$
10	Dewatering				\$	\$
11	Waterproofing and Drainage				\$	\$
12	Backfilling Building Pad and Foundation Walls				\$	\$
	Please list and breakdo	wn below ai	ny work that ha	is not b	een listed at	oove
13					\$	\$
14					\$	\$
15					\$	\$
16					\$	\$
17	Management				\$	\$
18	Safety and Housekeeping				\$	\$
19	General Work Requirements				\$	\$
20	20 Overhead and Profit				\$	\$
Allo	owances (to be included in bid amoun	t)				
1	Document Control Server Allowance					\$ 3,000
2	Additional Hydro Vacuum Allowance					\$ 20,000
3	Additional Stone Allowance					\$ 10,000
4	Additional Ductbank Temporary Support/Shoring Allowance					\$50,000 (ADD #3)
5						
	(This amount should mate	\$				
						1
	<u>(D</u>	\$				

SCOPE OF WORK

Α.	GENERAL
1.	Provide labor, material, equipment, and all else necessary to furnish and install complete the TC-014 Work as required by the contract documents and as outlined below
2.	The following scope of work is intended to be general in nature. The purpose of this scope of work is not to identify or list every scope of work item already shown or described in the contract documents, but rather to coordinate, clarify, modify, and/or expand the scope.
3.	The intention is to have the successful Subcontractor perform all the TC-014 related work shown on the Contract Documents other than those items specifically indicated below to be excluded.
4.	Detail references are included for convenience but are not intended to identify all applicable details. If the Contract Drawings and Specifications conflict, then the greater quantity and quality shall apply. The Scope of Work takes precedence over the drawings and specifications in the event of a conflict in trade assignment or responsibility. Attention is called to the Bid Manual and the Subcontractor shall include all costs necessary to provide all work to meet the requirements of this scope of work.
5.	In this Scope of Work, the term "provide" shall be defined as meaning "furnish and install."

В.	DOCUMENTS						
1.	General Contract between Turner and the Owner including all attachments						
2.	All documents in bid manual including but not limited to:						
	Drawings						
	Specifications						
	Scope of Work (Attachment B)						
	General Requirements						
	General Conditions						
	Special Conditions						
	Sample Subcontract Agreement Form (Form 36)						
3.	Bid Manual including all Sketches and Attachments prepared by Turner Construction and listed below						
4.	Attachments						
	a. Attachment C - Safety Program						
	b. Attachment E - Accounting Procedures						
	c. Attachment F - Percentage Markup						
	d. Attachment G - BP-02 Bid Schedule						
	e. Attachment H - BIM General Requirements						
	f. Attachment I - LEAN Subcontract Exhibit						
	g. Attachment K - CCIP Manual						
	h. Attachment L - Tree Protection Standards						
	I. Attachment M – Waste Management Standard						
	J. Attachment N – Turner Subcontractor Onboarding						
	K. Attachment O – UK HEB Enhancing Worker Experience Plan						
5.	Sketches						
	a. SK-001 – BMP Phasing Plan						
	b. SK-002 – Phase Site Logistics Plan						
	c. SK-003 – Estimated Rock Surface						
	d. SK-004 – Trailer and Laydown Setup						
	e. SK-UUD – LOWER CRANE KEINTORCEMENT (ADD #3)						
	T. SK-UUD – BY-UZ SITE STORM INSTAllatION Plan (ADD #3)						
6.	Specifications						

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	The following specification sections are listed as the responsibility of the Subcontractor in defining its area of work on this project. Unless specifically indicated otherwise or excluded below, this Contractor is responsible
	for the complete specification sections indicated below.
	a. Section 02 4116 – Structure Demolition (ADD #3)
	b. Section 03 0300 – Structural Excavation and Backfill
	c. Section 03 3000 – Cast-in-Place Concrete
	d. Section 07 1326 – Self Adhering Waterproofing
	e. Section 22 1313 – Facility Sanitary Sewers
	f. Section 31 2000 – Earth Moving
	g. Section 31 2001 – Storm Water Pollution Prevention Plan
	h. Section 31 2319 – Dewatering
	i. Section 31 3116 – Termite Control
	j. Section 33 0507.23 – Utility Auger Boring
	k. Section 33 4100 – Storm Utility Drainage Piping
7	Divisions 00 and 01 of the Specifications are general in nature, and apply to all Subcontracts. These
7.	sections are included "complete" as part of this Subcontract Agreement.
	The Contractor is also responsible for trade specifications not specifically listed above but required by
8	reference in the listed specifications or as required to perform the scope of work described herein, as well as
0.	the Bidding Requirements, Contracting Requirements and the use of the Construction Documents as a
	whole.

C.	SPECIFIC SCOPE ITEMS
1.	Contract Price is LUMP SUM. There shall be NO additional labor and material escalations allowed.
2.	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.
3.	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.
4.	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.
5.	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.
6.	Subcontractor understands that time is of the essence in the prosecution of Work under this agreement.
7.	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.
8.	All Subcontractors must be licensed as required by local, State, or Federal jurisdiction required for work of this trade in this project location.
9.	This Subcontractor will comply with Turner's corporate safety policy contained in Attachment C of this Scope of Work.
10.	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.
11.	This contractor is required for their full-time superintendent to be onsite at all times to assist in the coordination of the project. This person is to have no labor responsibilities onsite.
12.	All unloading, distribution, staging, hoisting, rigging, scaffolding, lifts, platforms, scissor lifts, boom lifts, planking, guying, sheeting, shoring, dewatering, bracing transportation, access for material, equipment and personnel required to perform this work is included in this contract.
13.	This Subcontractor is responsible to repair any asphalt, roadway, curb/gutter, granite, and sidewalk outside the area of demolition that is damaged by this Contractor, their Subcontractors, or haulers.
14.	This contractor is to prepare and submit for review all plans and certifications, etc. required by the EPA, OSHA, Turner Construction policies, and all other governing bodies.

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15.	Provide street cleaning as necessary, with a minimum of twice daily for the duration of this contract. Provide power sweeping and scrubbing of all paved areas, sidewalks, etc. soiled because of the work to the satisfaction of the Construction Manager. This Trade Contractor must clean all adjacent streets and maintain as if there were no construction site in the area. Street must be immediately swept and cleaned if there is excessive tracking as determined by the Construction Manager. All costs associated with street cleaning, inclusive of permits and fines will be the responsibility of this Trade Contract. Provide additional (40) hours to be used at the discretion of Construction Manager.
16.	Initial building control and benchmarks will be established by TC-006. TC-014 required to employ a registered surveyor to provide all engineering and layout to complete this scope of work. This Trade Contractor will also be responsible to maintain all survey layout within work area for the duration of the contract. a. Trade Contractor is also responsible for their own grade checks as work progresses. b. Provide additional (40) hours of survey to be used at the discretion of the Construction Manager.
17.	 Early site environmental protection will be provided by TC-008. TC-014 will be responsible to provide and maintain any BMPs within the work area due to damages or negligence by this scope of work. Reference project drawings and specifications for silt fence and silt trap details. Removal of silt fencing will be by others near project completion. Include adequate dust control required for the scope of work and assume all dust-producing activities must be performed "wet" in accordance with the infection control guidelines. a. TC-014 shall provide and maintain the phase 2 BMPs per SK-001. This includes necessary silt fence and (2) construction roads from Huguelet Drive. i. TC-014 to maintain "clean" and functional construction entrances to the site for the duration of the scope of work. b. This Trade Contractor must meet all requirements outlined in specification 31 2001 including all certifications, trainings, permits, etc.
18.	Provide all hauling and/or dumpsters required for all site demolition and/or mass excavation activities as needed. a. See section 01 7419 Construction Waste Management and Disposal for additional information.
19.	 This Trade Contractor shall provide SITE DEMOLITION as shown on Contract Documents and in accordance with section 02-4116 and division 01 (ADD #3). This work includes but is not limited to the following: a. All required cutting and removal of existing pavement, curbs, concrete, and associated base materials where required to perform the work. Properly dispose of all spoils off site. i. Include demo and removal of curb on east side of Dimock building. ii. Note the asphalt and curb within the tree canopy protection zone to remain per note 15 on C200. b. Trade Contractor to complete the storm and sanitary piping demolition as noted on C200, MU-101, and MU-102. i. Include all required patching of structures as indicated on the Contract Documents. c. Include demo of abandoned steam vault per note MD15 on MU-101 d. This Trade Contractor shall remove (12) tree stumps less than 24" in diameter within the building footprint as shown on SK-002.6.
20.	 This Trade Contractor shall provide temporary construction work as shown on the project logistics plan and as noted below: a. Trade Contractor to provide an 8" of "3-inch minus" gravel for roadways / staging areas as shown on SK-002.6. This is approximately 1800 cubic yards that is to be installed as directed by the CM. i. Include time and materials to maintain gravel for duration of work scope. ii. Repair and/or refresh gravel for roadways / staging areas prior to steel erection. Include separate remobilization to complete this work. b. Road plates at north side. (ADD #3) c. Provide continuous vibration monitoring at 3 separate locations for the duration of this scope of work. Locations to be coordinated with Monitoring functions shall have capabilities to alert if a certain threshold is exceeded and be able to produce data for real time analysis. (ADD #3)
21.	This Trade Contractor shall include all materials, labor, tools, and equipment required to install a complete and functioning SITE SANITARY system as shown on Contract Documents and in accordance with section 22 1313. This work includes but is not limited to the following:

 a. All excavation, shoring, serves, permits, manhole and piping installations. b. Provide temporary fencing around all open excavations. c. Include all necessary tree protection as required by the UK tree protection standards. Reference 'Attachment L'. i. This contractor to include \$5,000 for additional tree protection measures as directed by the CM(. ADD #3) d. Include all pump around equipment and systems necessary to install the new sanitary systems. Coordinate connection with owner via outage process to minimize utility down time. i. Refer to note 8 on C600 for potential pump around needs. e. All underground piping shall be tested and inspected prior to covering work. T.C-014 shall project the sanitary piping 5 into the new building footpinit for the final connections by others. Include plugging / capping of pipe ends where it enters the building. g. Coordinate layout of all underground work with concrete foundations, temporary crane pads and retention system layout. h. Work along Veterans Drive shall be coordinated and installed to allow the flow of traffic (i.e. no more than 1 lane to be obstructed). i. Trade Contractor shall include all necessary shoring / lagging for all bore pits, receiving pits, and open trench cuts as required to limit the amount of ground disturbed for the installation of this work. i. Include all patching and repairs to returm surfaces to like conditions because of this work. ii. Tor 2014 to include any necessary backfill and compaction of bore pit locations to match adjacent grade. iii. Tor 2014 to include any necessary backfill and compaction of bore dividual patching and tower states to like conditions because of this sorth. include all matching bays as stown on Contract Documents and in accordance with section 33 4100, 6600, and C604 any theorem is a stown on Contract Documents and in a			
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the Construction Manager.			i. Include an additional (10) 24" x 24" openings within the retention system to be directed by
			the Construction Manager.

004100B01 TURNER CONSTRUCTION COMPANY

	d.	The Trade Contractor's engineer shall validate needed systems to retain soil to prevent movement
		of any existing installations.
	e.	Retention system should be designed to withstand construction loading (i.e. fully loaded concrete
		trucks, ground forces for crane outriggers, etc.)
	f.	Retention shall also include cable guardrails with snow-fence for leading edge protection. Allow 4'-0"
		from outside of foundation wall or 18" from outside edge of footing (whichever is greater) to face of
		lagging.
		I. Cable guardrail design should adhere to Turner's corporate safety policy.
		1. Include (12) openings in cable guardrail at top of earth retention for walk planks
		into building and stair towers into the garden level. Locations to be determined by
		Construction Manager. The openings may occur later once level 1 SOMD is
	a	Illistalleu. This Contractor to include removal of the retention system (including guardrail system) to a
	y.	minimum 36" below finish grade in conjunction with foundation backfill. Maintain a leading-edge CAZ
		at all times; fence off when backfill operations are not being performed
		i Coordinate with other utilities or foundations that may require the lagging to be left at a
		lower elevation.
	h.	TC-014 to include retention for chilled water vault per MU-201. See S-702 and S-703 for sizing and
		details. Coordinate with foundations contractor for final location and sizing.
	i.	TC-014 to include retention for south crane pad location per SK-002.5. Assume the pad to be 25' x
		25' in size.
	j.	Provide as-built drawing of final retention system to be turned over to the Owner and Construction
		Manager for future coordination.
	Compl	ete all earthwork and grading as shown on contract documents and as specified in Division 31
	Earthw	rork. Work includes but is not limited to clearing and grubbing, excavation, hauling, stockpiling (no on-
	site sto	ockpiling), backfill (with suitable material), compaction, etc. as required by the Contract Documents.
	I NIS W	ork is inclusive of exploratory work specified in the General Work Requirements.
	a.	I his contractor is to include hydro-vacuum location of all existing utilities within the building pad and
		site areas prior to mass excavation. Contractor shall locate all individual utilities at three (5)
		work at the discretion of the Construction Manager
	b	Excavate the "main" building had area to the subgrade elevations shown on drawing C300 and other
	D.	civil drawings Excavate rock to minimum elevation shown or if rock is lower excavate subgrade to
		elevation indicated.
		i. Elevator pit rock removal included in this scope of work. Backfill with stone to surrounding
		elevations. Removal of loose stone by others.
	C.	Tower crane foundation excavation to be completed by this Trade Contractor and shall be
		coordinated with the retention system and concrete foundation contractor. Foundation to be
24.		excavated to bear on rock (reference included Geotechnical report). (ADD #3)
		i. Assume (2) 25' x 25' pads
		ii. South crane – top of pad is 981'. Assume pad thickness to be 5'-6" 6'-4" (ADD #3)
		iii. North crane – top of pad is 997'. Assume pad thickness to be $\frac{5'-6''}{6'-4''}$ (ADD #3)
	d.	Include "rough" trimming, shaping, and dressing of all slopes to an elevation of approximately 6"
		below tinish grading for disturbed areas. Final grading of the project site at completion is not part of
		uns work scope. Execution of unquitable material and dianocal of all executed material. Banlace unquitable
	e.	Excavation of unsultable material and usposal of all excavated material. Replace unsultable materials in conjunction with the specifications and Geotechnical Peport
	f	Fill back under cut of rock and soil excavation with 4" of #2 stone and 2" of compacted #57 stone
	'.	ner C.300
	a	Trade Contractor to include rock removal as necessary to slope into basement area on south and
		west for equipment access. Assume 10% grade on all ramps. Reference SK-002.5
	h.	Trade Contractor to ensure that wet soils can be hauled and disposed of. Rain days should not
		affect excavation activity of the main building pad.
	i.	TC-014 to maintain emergency egress throughout earthwork and grading activities.

	This Trade Contractor shall include all materials, labor, tools, and equipment required to install a complete and functioning DEWATERING system as shown on Contract Documents and in accordance with section 31
	 2319. a. In addition, this contractor is to install and leave at the completion of this scope four (4) sump pits for the purposes of dewatering the building excavation. Provide and leave four (4) utility pumps with integral floats with a minimum flow rate of 60gpm at 20 ft of head. Dewatering should include all necessary rigid piping for the pits and means to move the water outside of the excavation. Maintain pumps during your site activities.
25.	 Assume multiple rock trenches to be installed to create functional drainage system. b. Locations of pits to be determined by the Construction Manager with coordination of TC-015 Foundations contractor. c. This Contractor shall also include (2) temporary pumps with integral floats for manholes 8A and 8B.
	d. TC-014 to include direct bury of electrical pathways for protection of temporary power that is to be coordinated with TC-009 Site Electric contractor.
	 Assume use of litters, dewatering bags, or other means to prevent pumping / discharging line sediments onto surrounding properties or into storm sewers or streams. f. Trade Contractor responsible to ensure dewatering system functional for duration of this scope of work. Include off hours maintenance as required.
26.	 Work: Include of hours maintenance as required. This contractor is to include all waterproofing, protection board, insulation, sub-drainage, and backfill of new foundation walls from building subgrade to SOG, or as detailed in the project details. Complete in accordance with Contract Documents and with Division 07 Thermal and Moisture Protection, and Division 33 Utilities. a. Include all foundation sub-drainage piping per Division 33. Coordinate pipe outlet to nearest catch basin, manhole, or as shown on the site utility (or other) drawings. b. Include backfill of exterior foundation walls with qualified and allowed backfill materials per the specifications. This contractor to include granular "drainage column" above the foundation drain with backfill to rough project grades. This work will include the installation of the geotextile filter fabric per specifications. i. Trade Contractor shall install foundation drainage and install single lift of waterproofing system prior to SOG and level 1 SOMD being placed.
	 Full height backfill of foundation walls cannot be completed until SOG and level 1 SOMD is placed. Include separate mobilization for full height backfill and waterproofing of foundation walls. Fire blankets will be provided by others to protect initial lift of waterproofing systems. This Trade Contractor should include removal of blankets and any other protective materials ahead of new installations.
	Provide shoring, support and protection of existing communications vault and duct bank as needed to complete the site excavation scope of work. Hand excavation and temporary supports will be necessary
27.	 during mass excavation to protect existing utilities. a. Reference survey drawings for approximate location and bottom elevations of duct bank. b. Shoring system to be designed and stamped by a professional engineer registered in the Commonwealth of Kentucky under this contract. Coordinate shoring with level 1 structural steel layout. Temporary support and shoring system shall be submitted for review by project Engineer of Record (ADD #3).
	 c. Extreme care and caution should be taken near this area during excavation and all work around the utilities should be coordinated with the Construction Manager and Owner. d. Include \$10,000 allowance for third party review by a structural engineer firm of Turner's choosing to perform a 3rd party safety verification of this contractor's temporary support and shoring plan (ADD)
	 #3). e. This contractor shall support existing cables that are within the existing manhole that is to be demolished and removed by this contractor (ADD #3).
	f. Communications ductbank temporary support system shall not be supported by scaffolding or similar system. This support system shall be suspended utilizing overhead beams, trusses, pipes, etc If suspending ductbank from above, chains, cable, or metal strapping shall be used. Temporary support system shall provide sufficient clearance to allow foundation wall construction and concrete operations to occur. This includes any temporary support system above or adjacent to

	 the foundation wall. Temporary support system shall also provide adequate clearance above and adjacent to future building structural steel that will permanently support existing ductbank (ADD #3). g. Where necessary to incorporate interim post and lintels, within or outside the building footprint, tip elevations of posts shall be coordinated to be below a sufficient distance of bottom of nearby building foundation elevations. Extreme caution shall be taken while hoe ramming rock in the immediate post areas. Following excavation to subgrade elevation, all interim posts are to be protected by New movable concrete jersey barriers to provide protection of posts during construction activities that may occur beyond this scope of work. Barriers to be removed by this contractor after final steel support is installed but are to remain with the project. Include costs to transport to nearby Turner Construction laydown yard. No rental of concrete jersey barriers is allowed (ADD #3). h. This contractor shall coordinate their temporary support and shoring system of the existing communications ductbank with the final structural support steel of the existing communications ductbank with the final structural support steel design. Coordination includes but not limited to multiple meetings with project Engineer of Record and this contractors Engineer, and adjustment of interim post locations to avoid interference of future structural steel installations (ADD #3). i. Complete temporary support system to be removed by this contractor at a later date after 1st 		
	floor SOMD has been placed and cured in this area and final structural support structure installed. Reference Sheet S-408 for final comm duct bank support structure design. This contractor to remove all posts to be below SOG elevation and grout fill any abandoned posts. (ADD #3)		
28.	Exercise care to preserve material below and beyond the limits of excavation. Where excavation is carried out, through error, below indicated grade or beyond the lines of excavation, backfill to the indicated grade, compact with approved fill and/or place 4,000 psi structural fill at no additional cost to the Owner, and at the direction of the Engineer or Geotechnical Consultant.		
29.	Contractor shall verify all elevations of structures and piping during and after installation. Provide as-built drawings generated by a licensed surveyor documenting X, Y, Z coordinates of structures, invert elevations of all pipe and elevations of bottom of structures / castings.		
30.	All work of this Trade Contract shall be properly coordinated with the LFUCG, UK, and any other authorities having jurisdiction inclusive of premium time for night work required by said authorities.		
31.	At the conclusion of the project and upon approval from the Construction Manager, this Trade Contractor shall perform a thorough final cleaning of the project site inclusive of walks, slabs, adjacent roadways, and hardscaped areas to turn over in "new condition".		
32.	This contractor to include the sewer tap fees as outlined in Article 02 of the Special Conditions. (ADD #3)		

D.	EXCLUSIONS
1.	The Scope of Work shall exclude the following:
a.	Payment & Performance Bond

E.	ALLOWANCES				
	 The Contract Sum shall be the addition of a base bid amount plus allowances. It is expressly understood and agreed that all allowance work will be completed within the original schedule. Progress Payments will be made against Allowance expenditures, based on approved monthly invoices & written Allowance Authorization from Turner. Any unused funds remaining in these allowances will be credited back to the Project. Only direct Labor, Material, and Equipment costs authorized in writing by Turner after approval by the Owner are to be charged to the Allowance. The Subcontractor's cost for all overhead and profit on the allowance amount shall be included in the base bid amount and not in the allowance amount. 				
1	Document Control Server Allowance	\$3,000			
2	Additional Hydro Vacuum Allowance	\$20,000			
3	Additional Stone Allowance	\$10,000			

4	Additional Ductbank Temporary Support/Shoring Allowance	\$50,000 (ADD #3)
5		

F.	SCHEDULE
	Schedule information is included within the bid manual (Attachment G) to aid the Subcontractor in anticipating material deliveries, and manpower and equipment requirements. The information describes only the major activities of this scope of work and does not attempt to describe any out of sequence work required.
	The Contractor must confirm that you will meet the project schedule as indicated in the bid manual.
	It is absolutely critical that the work of this contract be completed by the dates defined. The intention is that the Subcontractor must provide sufficient labor, equipment, overtime, supervision, etc. to overcome weather delays.

G.	ALTERNATES
	The following "Alternate(s)" may be accepted and incorporated herein as part of the Scope of Work for the respective price. Inasmuch as these Alternates were anticipated from the inception of the project and were priced accordingly, all overhead, profit and escalation has been included within the lump sum amount and the price shall remain firm throughout the duration of the project, unless specifically noted. Indicate Add/Deduct Price on the Form of Proposal.
ALT.1	None

PRIMARY LIST OF PROPOSED SUBCONTRACTORS

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.

The apparent low bidders will be required to complete and submit to the University the following information by <u>twelve o'clock (12) noon</u> of the first working day following the bid opening. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

DIVISION OF WORK	NAME AND ADDRESS OF SUBCONTRACTOR

LIST OF MATERIALS AND EQUIPMENT

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.

The apparent low bidders will be required to complete and submit to the University the following information by <u>twelve o'clock (12) noon</u> of the first working day following the bid opening. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

The apparent low bidder is requested to attend a post bid meeting which will be scheduled at a later date.

MATERIALS AND EQUIPMENT

BRAND OR MANUFACTURER

IDENTIFICATION OF DIVERSE BUSINESS ENTERPRISE SUBCONTRACTORS AND MATERIAL SUPPLIERS

Diverse Business Enterprises (DBE) consist of minority, women, disabled, veteran and disabled veteran owned business firms that are at least fifty-one percent owned and operated by an individual(s) of the aforementioned categories. Also included in this category are disabled business enterprises and non-profit work centers for the blind and severely disabled.

MBE, WBE, Veterans, Disable Veterans and Disabled make up Diverse Business Enterprises, DBE.

Participation of DBE owned Contractors and businesses.

The University of Kentucky encourages and supports the participation Diverse Business Enterprises. Please list Subcontractors and Material Suppliers according to following Ethnic Vendor List or if they are a Woman Owned Business:

- Asian
- Black/African American
- Hispanic or Latino
- Native American Native Hawaiian/Pacific Islander
- White
- Other
- 1. DBE (Ethnic or Woman) Subcontractors

2. DBE (Ethnic or Woman) Material Suppliers

UNIVERSITY OF KENTUCKY CAPITAL CONSTRUCTION PROCUREMENT SECTION FORM OF PROPOSAL: TC-015 – Foundations

Projec	et No. 2564.0	Project Title:	UK Construct Health Education Building
Purch	asing Officer:		
NOTI lost, a	E: The following Form o in additional copy will be	f Proposal shall b e furnished upon v	e followed exactly in submitting a proposal for this work. If this copy is written request to the authority issuing Contract Documents.
This I	Proposal is submitted by		
Deter			(NAME AND ADDRESS OF BIDDER)
Date:			
Telep	hone:		
TO:	BID CLERK UNIVERSITY OF KI	ENTUCKY	INVITATION TO BID: <u>CCK-</u>
	CAPITAL CONSTRU PROCUREMENT	JCTION	BID OPENING DATE: <mark>January 1, 2015</mark>
	RM. 322 SERVICE B LEXINGTON, KY. 4	UILDING 0506-0005	TIME <u>3:00 P.M. E.D.T</u> .

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.

The Bidder hereby acknowledges receipt of the following Addenda:

ADDENDUM NO	DATED
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.)

<u>Contractor Report of Prior Violations of</u> <u>Chapters 136,139, 141, 337, 338, 341, and 342</u>

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.

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.

FOR THE LUMP SUM OF

(USE WORDS)

(USE WORDS)

_DOLLARS AND_____(USE WORDS)

_____CENTS.

(USE FIGURES)

<u>Alternates</u>: None

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

The apparent low bidder is requested to attend a post bid meeting on April 19, 2024 at 10:00 am in the Turner Field Office. All parties (prime and subcontractors) are required to attend in person. (ADD #3)

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. <u>CCK-</u> 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

004100B01 Form of Proposal University of Kentucky		FP-3		02/2024
BIDDER'S EMAIL			DATE	
CITY	STATE	ZIP CODE		
		FAX		
ADDRESS		AREA COD	E & PHONE	
PRINT NAME		FIRM		
SIGNED BY		TITLE		

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

- (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: Asian, Black/African American, Hispanic or Latino, Native American, Native Hawaiian/Pacific Islander, Women, Disabled, Veteran and Disabled Veteran 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 as defined above, 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.

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. List of Proposed Subcontractors and Unit Prices. (if required)
- 3. Authentication of Bid and Statement of Non-Collusion and Non-Conflict of Interest.
- 4. List of Materials and Equipment.

5. 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)

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 non-responsibility 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.

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 Unit Prices with the bid.

Material	Unit (LF, SF, EA, etc.)	Unit Price

HOURLY RATES

The Hourly Rates 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 Hourly Rates with the bid.

Note the following:

- Overhead & Profit to be <u>EXCLUDED</u> from rates below & will be calculated separately
- Complete a separate Wage Breakdown for each trade or subcontractor

STRAIGHT TI	ME	CLASSIFICATION							
				_	Gen.	_	_		Other
Description	Unit	PM	Engineering	Super	Foreman	Foreman	Journeyman	Apprentice	()
Base Wage	/hr	\$	\$	\$	\$	\$	\$	\$	\$
H&W	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Pension	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Apprentice	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Vacation	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Annuity	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Education	/hr	\$	\$	\$	\$	\$	\$	\$	\$
FICA	%	\$	\$	\$	\$	\$	\$	\$	\$
Medicare	%	\$	\$	\$	\$	\$	\$	\$	\$
FUI	%	\$	\$	\$	\$	\$	\$	\$	\$
SUI	%	\$	\$	\$	\$	\$	\$	\$	\$
Workers Comp	%	\$	\$	\$	\$	\$	\$	\$	\$
GL Ins.	%	\$	\$	\$	\$	\$	\$	\$	\$
Other Fringe/Burder	n (List Below)							
		\$	\$	\$	\$	\$	\$	\$	\$
TOTAL		\$	\$	\$	\$	\$	\$	\$	\$

004100B01 TURNER CONSTRUCTION COMPANY

Attachment "B" SCOPE OF WORK TC-015 – Foundations

PREMIUM TIME CLASSIFICATION									
Description	Unit	РМ	Engineering	Super	Gen. Foreman	Foreman	Journeyman	Apprentice	Other ()
Base Wage	/hr	\$	\$	\$	\$	\$	\$	\$	\$
H&W	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Pension	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Apprentice	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Vacation	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Annuity	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Education	/hr	\$	\$	\$	\$	\$	\$	\$	\$
FICA	%	\$	\$	\$	\$	\$	\$	\$	\$
Medicare	%	\$	\$	\$	\$	\$	\$	\$	\$
FUI	%	\$	\$	\$	\$	\$	\$	\$	\$
SUI	%	\$	\$	\$	\$	\$	\$	\$	\$
Workers Comp	%	\$	\$	\$	\$	\$	\$	\$	\$
GL Ins.	%	\$	\$	\$	\$	\$	\$	\$	\$
Other Fringe/Burder	n (List Below)	•	-	-	-	-		-
		\$	\$	\$	\$	\$	\$	\$	\$
TOTAL		\$	\$	\$	\$	\$	\$	\$	\$

DOUBLE TIN	DOUBLE TIME CLASSIFICATION								
Description	1114	014	En eine enine	Guman	Gen.	Farran	1	A	Other
Description	Unit	PIVI	Engineering	Super	Foreman	Foreman	Journeyman	Apprentice	()
Base Wage	/hr	\$	\$	\$	\$	\$	\$	\$	\$
	r								
H&W	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Pension	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Apprentice	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Vacation	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Annuity	/hr	\$	\$	\$	\$	\$	\$	\$	\$
Education	/hr	\$	\$	\$	\$	\$	\$	\$	\$
FICA	%	\$	\$	\$	\$	\$	\$	\$	\$
Medicare	%	\$	\$	\$	\$	\$	\$	\$	\$
FUI	%	\$	\$	\$	\$	\$	\$	\$	\$
SUI	%	\$	\$	\$	\$	\$	\$	\$	\$
Workers Comp	%	\$	\$	\$	\$	\$	\$	\$	\$
GL Ins.	%	\$	\$	\$	\$	\$	\$	\$	\$
Other Fringe/Burder	n (List Below)							
		\$	\$	\$	\$	\$	\$	\$	\$
TOTAL		\$	\$	\$	\$	\$	\$	\$	\$

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.

		Labor			Unit	
	Description of Work	Hours	Quantity	Unit	Cost	Total
1	Engineering, Layout, and Submittals				\$	\$
2	Mobilizations, Permits and Fees				\$	\$
3	Dewatering				\$	\$
4	Basement Footings, Grade Beams, and Foundation Walls				\$	\$
5	Basement Slab on Grade				\$	\$
6	Elevator Pits				\$	\$
7	Chilled Water Vault			Γ	\$	\$
8	Waterproofing		<u> </u>	Γ	\$	\$
9	Rock Anchors			Γ	\$	\$
10	Tower Crane Base Foundations			Γ	\$	\$
11	Termite Control				\$	\$
12	Rock Removal				\$	\$
13	Excavation				\$	\$
	Please list and breakdown below any work that has not been listed above					
14					\$	\$
15					\$	\$
16					\$	\$
17	Management				\$	\$
18	Safety and Housekeeping				\$	\$
19	General Work Requirements				\$	\$
20	Overhead and Profit				\$	\$
Allo	owances (to be included in bid amount)					<u> </u>
1	Document Control and Server Allowance					\$ 3,000
2	Additional Reinforcing Allowance		1	1		\$ 15,000
3	Additional Stone Allowance		1	1		\$ 100,000
4				1		
5				1		
TOTAL BID AMOUNT (This amount should match the Lump Sum listed on Form of Proposal)					\$	
Cost of Payment & Performance Bond (DO NOT INCLUDE THIS COST IN BID AMOUNT)					\$	

SCOPE OF WORK

Α.	GENERAL
1.	Provide labor, material, equipment, and all else necessary to furnish and install complete the TC-015 Work as required by the contract documents and as outlined below
2.	The following scope of work is intended to be general in nature. The purpose of this scope of work is not to identify or list every scope of work item already shown or described in the contract documents, but rather to coordinate, clarify, modify, and/or expand the scope.
3.	The intention is to have the successful Subcontractor perform all the TC-015 related work shown on the Contract Documents other than those items specifically indicated below to be excluded.
4.	Detail references are included for convenience but are not intended to identify all applicable details. If the Contract Drawings and Specifications conflict, then the greater quantity and quality shall apply. The Scope of Work takes precedence over the drawings and specifications in the event of a conflict in trade assignment or responsibility. Attention is called to the Bid Manual and the Subcontractor shall include all costs necessary to provide all work to meet the requirements of this scope of work.
5.	In this Scope of Work, the term "provide" shall be defined as meaning "furnish and install."

В.	DOCUMENTS
1.	General Contract between Turner and the Owner including all attachments
2.	All documents in bid manual including but not limited to: • Drawings • Specifications • Scope of Work (Attachment B) • General Requirements • General Conditions • Special Conditions • Sample Subcontract Agreement Form (Form 36) • Sample 3A Page
3.	Bid Manual including all Sketches and Attachments prepared by Turner Construction and listed below
4.	Attachments
	 a. Attachment C - Safety Program b. Attachment E - Accounting Procedures c. Attachment F - Percentage Markup d. Attachment G - BP-02 Bid Schedule e. Attachment H - BIM General Requirements f. Attachment I - LEAN Subcontract Exhibit g. Attachment K - CCIP Manual h. Attachment L - Tree Protection Standards i. Attachment M – Waste Management Standard j. Attachment N – Turner Subcontractor Onboarding k. Attachment O – UK HEB Enhancing Worker Experience Plan
5.	Sketches
	 a. SK-001 – BMP Phasing Plan b. SK-002 – Phase Site Logistics Plan c. SK-003 – Estimated Rock Surface d. SK-004 – Trailer and Laydown Setup e. SK-005 – Tower Crane Reinforcement (ADD #3) f. SK-006 – BP-02 Site Storm Installation Plan (ADD #3)
6.	Specifications
Attachment "B" SCOPE OF WORK *TC-015 – Foundations*

	The following specification sections are listed as the responsibility of the Subcontractor in defining its area of work on this project. Unless specifically indicated otherwise or excluded below, this Contractor is responsible for the complete specification sections indicated below. a. Section 03 0300 – Structural Excavation and Backfill b. Section 03 3000 – Cast-in-Place Concrete c. Section 05 1000 – Structural Anchors d. Section 07 1326 – Self Adhering Waterproofing e. Section 07 2100 – Thermal Insulation f. Section 31 2000 – Earth Moving g. Section 31 2001 – Storm Water Pollution Prevention Plan h. Section 31 2319 – Dewatering i. Section 31 3116 – Termite Control
	J. Section 31 6813 – Rock Anchors
7.	Divisions 00 and 01 of the Specifications are general in nature, and apply to all Subcontracts. These sections are included "complete" as part of this Subcontract Agreement.
8.	The Contractor is also responsible for trade specifications not specifically listed above but required by reference in the listed specifications or as required to perform the scope of work described herein, as well as the Bidding Requirements, Contracting Requirements and the use of the Construction Documents as a whole.

C.	SPECIFIC SCOPE ITEMS
1.	Contract Price is LUMP SUM. There shall be NO additional labor and material escalations allowed.
2.	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.
3.	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.
4.	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.
5.	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.
6.	Subcontractor understands that time is of the essence in the prosecution of Work under this agreement.
7.	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.
8.	All Subcontractors must be licensed as required by local, State, or Federal jurisdiction required for work of this trade in this project location.
9.	This Subcontractor will comply with Turner's corporate safety policy contained in Attachment C of this Scope of Work.
10.	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.
11.	This contractor is required for their full-time superintendent to be onsite at all times to assist in the coordination of the project. This person is to have no labor responsibilities onsite.
12.	All unloading, distribution, staging, hoisting, rigging, scaffolding, lifts, platforms, scissor lifts, boom lifts, planking, guying, sheeting, shoring, dewatering, bracing transportation, access for material, equipment and personnel required to perform this work is included in this contract.
13.	This Subcontractor is responsible to repair any asphalt, roadway, curb/gutter, granite, and sidewalk outside the area of demolition that is damaged by this Contractor, their Subcontractors, or haulers.
14.	This contractor is to prepare and submit for review all plans and certifications, etc. required by the EPA, OSHA, Turner Construction policies, and all other governing bodies.

Attachment "B" SCOPE OF WORK TC-015 – Foundations

15.	Include all site & street cleaning related to work performed by this scope. This is to be performed on a continuous basis throughout the day as this contractor is performing the work.
16.	TC-006 Surveying is to establish initial benchmark(s) and building control. TC-015 Foundations contractor shall provide all engineering and layout (including controls) to complete this scope of work. This includes protection of reference points and replacement of such points that are lost or damaged during the execution of this work.
	 This Trade Contractor is responsible for all lines, elevations, and measurements executed under this contract.
	 b. This Trade Contractor shall layout and establish all lines and elevations required for this work. c. This Trade Contractor shall verify figures and dimensions shown on the drawings or indicated in the approved shop drawings before laying out the work. Verify conditions and dimensions of previously installed work. Report any perceived inconsistency or error in drawings, layout, or previously installed work to the Construction Manager prior to proceeding with the work. d. Include an additional (80) hours of surveying above and beyond your scope of work to be used at
17	the discretion of the CM.
17.	 Early site environmental protection will be provided by TC-008. TC-015 will be responsible to provide and maintain any BMPs within the work area due to damages or negligence by this scope of work. Reference project drawings and specifications for silt fence and silt trap details. Removal of silt fencing will be by others near project completion. Include adequate dust control required for the scope of work and assume all dust-producing activities must be performed "wet" in accordance with the infection control guidelines. a. Provide Concrete Wash-Down - Concrete wash-out is to be performed in a lined or prefabricated wash out dumpster at a location approved by Turner's Superintendent and cleaned out regularly by the Foundations contractor. Contractor to include moving dumpster as needed throughout the duration of their scope as directed by the CM. Dumpsters must follow all applicable environmental standards, OSHA requirements including railing or barricades and SWPPP requirements. Waste shall be hauled off-site and disposed of properly.
18.	Provide all hauling and/or dumpsters required for all site demolition and/or mass excavation activities this
	scope of work as needed. (ADD #3)
	 a. See section 01 7419 Construction Waste Management and Disposal for additional information. b. Assume all concrete wash out to be collected and recycled. Provide weight tickets and other documentation as outlined in Specification 017419. (ADD #3)
19.	 This Trade Contractor shall include all materials, labor, tools, and equipment required to maintain a complete and functioning DEWATERING system as shown on Contract Documents and in accordance with section 31 2319. This system will be provided and installed by TC-014 Site Excavation contractor and transferred to TC-015. This work includes but is not limited to the following: a. Maintain four (4) sump pits for the purposes of dewatering the building excavation. b. Maintain four (4) utility pumps with integral floats with a minimum flow rate of 60gpm at 20 ft of head. Dewatering includes all necessary rigid piping for the pits and means to move the water outside of the excavation. Maintain pumps during your site activities. c. Maintain two (2) utility pumps with integral floats that are to be used in manholes 8A and 8B. d. Assume use of filters, dewatering bags, or other means to prevent pumping / discharging fine sediments onto surrounding properties or into storm sewers or streams. e. Trade Contractor responsible to ensure dewatering system functional for duration of this scope of user to be used of the score are prevised.
	f. Locations of pits to be determined by the Construction Manager with coordination of TC-015 Foundations contractor.
20.	 Complete all footings, grade beams, and foundation walls including excavation of rock and overburden (continuous spoil removal) and backfill as shown on Contract Documents and in accordance with section 03 3000 Cast-in-Place Concrete. This work includes but is not limited to the following: a. Reference Detail A/S-301 Typical Rock-Bearing Footing Detail for areas where bottom of footing is not on competent rock. This contractor shall excavate, haul off, and provide structural concrete fill from competent rock to bottom of footing elevation as indicated on the documents. Refer to spec section 03 0300 Structural Excavation and Backfill as it relates to competent rock verification. b. Include probe holes below footings as indicated on the documents. Reference A/S-301 and General Notes.
L	

- c. Receive and set sleeves for MEP penetrations and embeds for new foundation walls and foundation wall footings.
 - i. Reference B & C S-301. This contractor to receive and install MEP sleeves below and within foundations footings. Include concrete around sleeves as indicated. Include additional reinforcement as shown for sleeves within footings.
 - ii. Assume (4) square openings 5' or less for electrical penetrations through the foundation wall. Coordinate these openings with CM.
 - iii. Furnish and install (6) 24" diameter schedule 80 steel pipe sleeves including associated rebar. Coordinate these openings with CM.
- d. Receive/inventory, unload, store, protect, distribute, layout and install anchor rod assemblies and embeds provided by others. This contractor shall include providing templates, and/or any special instructions required for the proper installation. The work shall also include an anchor bolt survey upon completion of installation. Prior to surveying this contractor to plumb up any anchor bolts that are leaning out of tolerance.
 - i. The survey shall specifically highlight any bolts that are out of tolerance by more than $\frac{1}{4}$ ". Any anchor bolts that aren't accepted by the steel contractor will be repaired by TC-015.
- e. Include grout below plate washers at steel columns shown on A/S-203. Include (8) separate remobilizations to grout base plates.
- f. Provide and maintain temporary guardrail system around all elevator pits. Re-install guardrail systems after SOG is cast. Maintain until completion of this TC scope of work.
- g. Include cleaning of rust/debris off all anchor bolts prior to column isolation protection.
- h. This trade contractor is to install the steps per N/S306 and include any fill required for the stair slab.
- i. Include leave out of concrete foundation walls for basement access at the West and South sides of the building. Reference SK-002.5. Include Dowel Bar Reinforcement (DBR's) for all horizontal rebar in the walls and vertical rebar in the footings to tie into at a later date by this contractor.
 - i. TC-014 will install gravel ramp access into basement. Reference SK-002.5. TC-015 contractor shall be responsible for removing the gravel ramp where footings and walls are located to complete scope of work and replace gravel ramp to bridge back over top of south footer as needed. Include compacting of gravel.
- j. Include Dowel Bar Reinforcement (DBR's) in foundation wall where future loading dock footings will tie into building foundation wall.
- k. There will be a **live communications ductbank** being shored and will have to work around the shoring. Small equipment will be able to cross below ductbank, but not concrete trucks or cranes, etc. Reference survey drawings for ductbank elevations.
 - i. Provide ten (10) box-outs at ductbank temporary support structure posts provided by TC-014. (ADD #3)
- I. Include backfill to subgrade for areas disturbed by foundation work.
- m. This trade contractor is to include perimeter insulation below grade for basement footers, slab on grade, chilled water vault, elevator pit and sump pits.
- n. Provide Control Joints and Expansion Joints within 24 hours of concrete placement in accordance with the contract documents as it pertains to this scope of work.
- o. Include patching/filling of form tie holes, honeycomb, aggregate pockets, holes, and other voids, and include grinding of any fins or protrusions for waterproofing installation by TC-014. (ADD #3)

This Contractor shall include all materials, labor, tools, and equipment required to install a complete CAST-IN-PLACE CONCRETE CHILLED WATER VAULT as shown on the Contract Documents. This work includes but is not limited to the following:

- a. There will be an existing 24" Chilled Water Line shown on page MU-101 that will be running through the area where the Chilled Water Vault will be installed. This trade contractor to assume forming and pouring this cast-in place Chilled Water Vault around the existing chilled water lines.
- b. Include a separate mobilization to do this work.
- c. Include embeds.
- Permanent covers will be installed by others later. This trade contractor to provide temporary road plates upon completion of this scope of work to remain. Removal of temporary road plates will be by others.

21.

Attachment "B" **SCOPE OF WORK** TC-015 – Foundations

	e. This trade contractor is to provide their own ladders to enter and exit the chilled water	vault until
	their scope of work is completed.	agging
	boards and cut off soldier beams 4' below grade as backfill is installed.	agging
	g. Include 2" concrete mudmat per C/S-703.	
	 Receive and set sleeves for MEP penetrations for new vault walls. Coordinate reinform energings per details in contract documents. 	cement for wall
	i. Provide all necessary shoring as required for the installation of the chilled water vault.	Include
	\$5,000 for 3 rd party review of vault lid shoring design as directed by CM. (ADD #3)	
22.	Complete all slab-on-grade (SOG), reinforcing, vapor retarder, and granular base as sho	wn on Contract
	Jocuments and in accordance with section 03 3000 Cast-in-Place Concrete. This work includ imited to the following:	es dut is not
	a. Include 6" minimum compacted dense graded aggregate. Reference detail G/S-304 fe	or fill
	requirements.	
	i. Include fine grading as necessary to place slab on grade. Assume subgrade	will be +/-1".
	 c. Provide and maintain (until completion of this TC scope of work) slab-on-grade columners. 	n isolation
	floor coverings. Steel contractor will remove column isolation floor coverings. Floor co	verings shall
	be ³ / ₄ " thick CDX plywood anchored with Tap Cons. Steel contractor will have tempora	ary guard rails
	Installed after all steel columns are in place in basement area for protection. This cont remove these temperany quark rolls prior to pouring back the column isolations. Indu	tractor shall
	seal covers to finish slab.	
	i. Include box outs for tier seating in basement classroom.	
	ii. Coordinate with steel contractor on box out sizes.	
	d. The intent is to place the SOG prior to commencement of structural steel erection. Inc remobilization(s) to pour back all box outs associated with the SOG and column isolation.	clude tions Refer to
	attachment G.	
23.	This contractor is to include all waterproofing, protection board, insulation, sub-drainage,	and backfill
	as required and detailed for new elevator pits and cast-in-place concrete chilled water vault. C	Complete in
	Division 33 Utilities.	on, and
	a. Include free draining backfill per contract documents.	
	b. Provide termination bar as required per manufacturer's instructions.	
24	c. Include waterproofing at mudmat on CHW vault as indicated on C/S-703. This Trade Contractor shall include all materials, labor, tools, and equipment required to provide the provided the prov	de a complete
24.	ROCK ANCHORS system as shown on Contract Documents and in accordance with section	31 6813. This
	vork includes but is not limited to the following:	
	a. Include all sleeving as necessary to install rock anchors per detail C/S-303.	
	b. Include all necessary testing equipment and any misc. materials needed to perform tr testing (crane mats, beams, etc.).	ie rock anchor
25.	This Trade Contractor shall include all materials, labor, tools, and equipment required to provi	de TOWER
	CRANE BASE FOUNDATIONS complete as shown on Contract Documents and as located in	n SK-002.5.
	his work includes but is not limited to the following:	ation
	Contractor.	
	b. Provide and install (2) 16' x 16' x 5'-9" tower crane foundation pads. Provide and insta	all tower crane
	foundation pads based on the following sizes. ADD #3	
	I. I ower crane base MD569 will be 25' square min. with 6'4" thickness.	(ADD #3) (ADD #3)
	c. High early strength concrete is required for tower crane base foundations. Concrete s	hould achieve
	full strength within 48 hours after being placed. University of Kentucky will provide all	concrete
	testing and will submit concrete break test results to CM within time frame.	
	 a. Provide and Install reinforcement per SK-005. (ADD #3) a. Include installing all necessary anchor rods, anchor plates and puts provided by steel 	contractor
	 f. Provide and install all rock anchors as required for the Tower Crane foundation pads. 	(ADD #3)
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Attachment "B" SCOPE OF WORK TC-015 – Foundations

-	
	i. Include 12 rock anchors for MD569. (ADD #3)
	ii. Include 8 rock anchors for MD485. (ADD #3)
	g. Include excavation and any necessary shoring and backfill to install West Tower Crane base
	foundation. (ADD #3)
	h. Include any necessary shoring and backfill to install North Tower Crane base foundation. (ADD #3)
26.	This trade contractor shall be responsible to meet all ACI 305.1 Hot Weather Concrete Placement and ACI
	306.1 Cold Weather Placement requirements. Contractor is to provide all necessary cooling, temp heat,
	blankets, and weather enclosures to meet the intent of the documents for complete scope of work. Not
	including costs for this based on schedule timelines does not relieve this trade contractor from
	having to perform these duties at no additional costs.
	a. Cast-in-place walls will need to be blanketed both before and after concrete placement to protect
	against freezing temperatures.
27.	This trade contractor is to include TERMITE CONTROL as specified in the construction documents.
	Reference the SPEC SECTION 31 3116.
	-

D.	EXCLUSIONS
	The Scope of Work shall exclude the following:
1.	Payment & Performance Bond
2.	MEP House Keeping and Equipment Pads
3.	Loading Dock Concrete
4.	Concrete infill for steel pan stairs
5.	South Patio foundations and slabs
6.	Ladders and Landscaping beds for Chilled Water Vault

E.	ALLOWANCES								
	The Contract Sum shall be the addition of a base bid amount plus allowances. It is expressly understood and agreed that all allowance work will be completed within the original schedule. Progress Payments will be made against Allowance expenditures, based on approved monthly invoices & written Allowance Authorization from Turner. Any unused funds remaining in these allowances will be credited back to the Project.								
	are to be charged to the Allowance. The Subcontractor's cost for all overhead and prof amount shall be included in the base bid amount and not in the allowance amount.	it on the allowance							
1	Document Control and Server Allowance	\$ 3,000							
2	Additional Reinforcing Allowance	\$ 15,000							
3	Additional Stone Allowance	\$ 100,000							
4									
5									

F. SCHEDULE

Attachment "B" SCOPE OF WORK TC-015 – Foundations

Schedule information is included within the bid manual **(Attachment G)** to aid the Subcontractor in anticipating material deliveries, and manpower and equipment requirements. The information describes only the major activities of this scope of work and does not attempt to describe any out of sequence work required.

The Contractor must confirm that you will meet the project schedule as indicated in the bid manual.

It is **absolutely critical** that the work of this contract be completed by the dates defined. The intention is that the Subcontractor must provide sufficient labor, equipment, overtime, supervision, etc. to overcome weather delays.

G.	ALTERNATES
	The following "Alternate(s)" may be accepted and incorporated herein as part of the Scope of Work for the respective price. Inasmuch as these Alternates were anticipated from the inception of the project and were priced accordingly, all overhead, profit and escalation has been included within the lump sum amount and the price shall remain firm throughout the duration of the project, unless specifically noted. Indicate Add/Deduct Price on the Form of Proposal.
ALT.1	None

PRIMARY LIST OF PROPOSED SUBCONTRACTORS

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.

The apparent low bidders will be required to complete and submit to the University the following information by <u>twelve o'clock (12) noon</u> of the first working day following the bid opening. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

DIVISION OF WORK	NAME AND ADDRESS OF SUBCONTRACTOR

LIST OF MATERIALS AND EQUIPMENT

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.

The apparent low bidders will be required to complete and submit to the University the following information by <u>twelve o'clock (12) noon</u> of the first working day following the bid opening. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

The apparent low bidder is requested to attend a post bid meeting which will be scheduled at a later date.

MATERIALS AND EQUIPMENT

BRAND OR MANUFACTURER

IDENTIFICATION OF DIVERSE BUSINESS ENTERPRISE SUBCONTRACTORS AND MATERIAL SUPPLIERS

Diverse Business Enterprises (DBE) consist of minority, women, disabled, veteran and disabled veteran owned business firms that are at least fifty-one percent owned and operated by an individual(s) of the aforementioned categories. Also included in this category are disabled business enterprises and non-profit work centers for the blind and severely disabled.

MBE, WBE, Veterans, Disable Veterans and Disabled make up Diverse Business Enterprises, DBE.

Participation of DBE owned Contractors and businesses.

The University of Kentucky encourages and supports the participation Diverse Business Enterprises. Please list Subcontractors and Material Suppliers according to following Ethnic Vendor List or if they are a Woman Owned Business:

- Asian
- Black/African American
- Hispanic or Latino
- Native American Native Hawaiian/Pacific Islander
- White
- Other
- 1. DBE (Ethnic or Woman) Subcontractors

2. DBE (Ethnic or Woman) Material Suppliers



BEFORE YOU DIG CALL KENTUCKY UNDERGROUND (811) TWO (2) WORKING DAYS IN ADVANCE OF DIGGING

EROSION CONTROL NOTES

- CONTRACTOR SHALL ENSURE THAT HE/SHE IS IN POSSESSION OF A SET OF APPROVED FINAL CONSTRUCTION DOCUMENTS AND STORM WATER POLLUTION PREVENTION PLANS APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION. COPIES OF THE APPROVED PLANS AND PERMITS SHALL BE KEPT ON THE SITE AT ALL TIMES AND MADE AVAILABLE TO INSPECTORS.
 AS PART OF THE KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT AN NOI-SWCA TO THE KENTUCKY DIVISION OF WATER. APPLICANTS MUST FILE USING THE ELECTRONIC WEB BASED NOI SUBMISSION SYSTEM AT THE FOLLOWING WEB ADDRESS: https://dep.gateway.ky.gov/eForms/default.aspx?FormID=7 COMPLETION OF THE NOI-SWCA SHALL BE COMPLETED A MINIMUM OF SEVEN (7) DAYS BEFORE THE PROPOSED DATE FOR COMMENCEMENT OF CONSTRUCTION ACTIVITIES. COPY OF THE APPROVED NOI-SWCA SHALL BE SUBMITTED TO CARMAN AND UK ENVIRONMENTAL DEPARTMENT. CONTRACTOR SHALL PERFORM INSPECTIONS AND KEEP ON-SITE RECORDS OF INSPECTIONS AND MAINTENANCE OF EROSION CONTROL DEVICES AS DESCRIBED IN THE
- SPECIFICATIONS AND KYR10.
 CONTRACTOR SHALL INSTALL CONSTRUCTION ENTRANCE AS INDICATED ON THE PLANS. CONSTRUCTION ENTRANCE SHALL BE UNDERLAIN WITH NON-WOVEN FILTER FABRIC.
 CONTRACTOR TO INSTALL CONCRETE WASH OUT PIT AS INDICATED ON THE PLANS, THOUGH LOCATION MAY MOVE (WITH APPROVAL OF UK
- ENVIRONMENTAL DEPARTMENT) AS NECESSARY TO BEST SUIT OPERATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CONCRETE WASH, FUNCTIONING PROPERLY WITH BUILDUP OF MATERIALS DISPOSED OF OFF-SITE IN A LAWFUL MANNER. 5. SILT FENCE AND WATTLES SHALL BE INSTALLED AS INDICATED ON THE PLAN PRIOR TO MOBILIZATION OF THE SITE. SILT FENCE IS TO BE INSTALLED FOLLOWING CONTOURS AS APPLICABLE. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF SILT FENCE AND REMOVAL
- OF SILTATION WHEN IT REACHES ONE-THIRD FENCE HEIGHT.) CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF SILT FENCE AT SUCH TIME THAT SEEDING IS 70% ESTABLISHED AND/OR SOD ESTABLISHED SO THAT NO EROSION IS OCCURRING REGARDLESS OF TIMING. SILT FENCE SHALL BE REMOVED AT NO COST TO THE OWNER. 6. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING ASPHALT FREE FROM MUD, DIRT, DEBRIS, ETC. 7. CONTRACTOR SHALL ESTABLISH IN ET PROTECTION FOR ALL PRODOSED AND EXISTING STRUCTURES. AND EXISTING ASPHALT FREE FROM MUD, DIRT, DEBRIS, ETC.
- CONTRACTOR SHALL ESTABLISH INLET PROTECTION FOR ALL PROPOSED AND EXISTING STRUCTURES AND SHALL MAINTAIN THE FUNCTIONALITY OF THE PROTECTION THROUGHOUT THE TIME EXTENT OF THE PROJECT.
 AFTER CONSTRUCTION ENTRANCE, SILT FENCE, CONCRETE WASHOUT PIT, AND INLET CONTROLS HAVE BEEN INSTALLED AND APPROVED BY THE UK ENVIRONMENTAL DEPARTMENT, PROCEED WITH TOPSOIL STRIPPING AND MASS EXCAVATION. TOPSOIL SHALL BE STOCKPILED OFF-SITE.
- 9. THE CONTRACTOR SHALL PHASE CONSTRUCTION TO MINIMIZE THE AMOUNT OF DISTURBED AREA AT ANY ONE TIME, STABILIZE AND COVER WITH GRAVEL OR SEEDING AS QUICKLY AS POSSIBLE. USE ON SITE CONTROLS SUCH AS DIVERSIONS, SUMPS, AND STRAW BALES AS NECESSARY TO PREVENT OFF SITE RUNOFF. EXTRA EFFORT SHOULD BE EXERCISED PRIOR TO WINTER OR RAINY SEASON TO HAVE ALL SITE CONTROLS IN PLACE. DISTURBED AREAS WHERE CONSTRUCTION WILL CEASE FOR MORE THAN 14 DAYS WILL BE STABILIZED WITH EROSION CONTROLS.
- CONTRACTOR SHALL MAINTAIN SITE AFTER ANY RAINFALL EVENT BY CLEANING SILT AND DEBRIS FROM STREETS, YARDS, ETC. AND THE RE-ESTABLISHMENT OF ANY DAMAGED EROSION CONTROL DEVICE OR MEASURE INCLUDING TEMPORARY OR PERMANENT SEEDING.
 CONTRACTOR SHALL INSPECT SITE DAILY AND IMMEDIATELY FOLLOWING A RAINFALL EVENT TO ENSURE THAT EROSION CONTROL DEVICES ARE FUNCTIONING PROPERLY AND, IF NOT, THE CONTRACTOR SHALL TAKE ACTIONS TO REMEDIATE ANY EROSION CONTROLS AT NO ADDITIONAL COST TO THE OWNER.
- 12. ALL WORK, CONSTRUCTION REQUIREMENTS, AND PERFORMANCE STANDARDS SHALL COMPLY WITH LOCAL AND STATE JURISDICTIONS AND/OR STANDARDS. 13. TEMPORARY STARILIZATION OF TOPSOIL STOCKPILE AND DISTUPPED PORTIONS OF THE SITE SHALL PEOPLE WITHIN 14 DAYS ON ADDR
- TEMPORARY STABILIZATION OF TOPSOIL STOCKPILE AND DISTURBED PORTIONS OF THE SITE SHALL BEGIN WITHIN 14 DAYS ON AREAS WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY (FOR 21 DAYS OR MORE) CEASED. TEMPORARY STABILIZATION CAN BE ACCOMPLISHED THROUGH SEEDING RYE (GRAIN) APPLIED AT A RATE OF 120 POUNDS PER ACRE AND/OR STRAW MULCHING AT A RATE OF 4,000 POUNDS OF STRAW PER ACRE.
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTIVE ACTION REQUIRED BY ANY LOCAL, STATE OR FEDERAL AGENCY THAT HAS
- JURISDICTION FOR SITE EROSION CONTROL. 15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY EROSION CONTROL DEVICES SUCH AS SILT FENCE, SEDIMENT RASINS POCK CHECKS IN ET PROTECTION FTO AT SUCH THE THE CITE HAS DECOME STORY OF ALL THE THE CITE HAS DECOME STORY.
- SEDIMENT BASINS, ROCK CHECKS, INLET PROTECTION, ETC AT SUCH TIME THE SITE HAS BECOME STABILIZED AND DEVICES OR CONTROLS ARE NO LONGER NECESSARY. AFFECTED ARES SHALL BE RETURNED TO THE CONTOURS PER THE GRADING PLAN.
 16. THIS PLAN REFLECTS THE MINIMUM REQUIRED EROSION CONTROL MEASURES TO STABILIZE THE SITE. ADDITIONAL MEASURES MAY BE NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE SITE AT NO COST TO THE OWNER.
- 17. ALL STORM INLETS OR OPEN PIPES SHALL BE FULLY PROTECTED TO PREVENT SEDIMENT FROM ENTERING THE SYSTEM. IF SEDIMENT ENTERS THE SYSTEM, THE CONTRACTOR SHALL FLUSH THE LINES CLEAN TO THE WQU WHERE A VAC TRUCK CAN REMOVE WITHOUT RELEASING DOWNSTREAM. NO SEDIMENT SHALL BE RELEASED DOWNSTREAM. VISUAL INSPECTION BY CAMERA MAY BE REQUESTED TO ENSURE THE SYSTEM IS PROPERLY MAINTAINED AT NO COST TO THE OWNER. [18. CONSTRUCTION DUMPSTERS SHALL BE COVERED EACH NIGHT AND WHEN NOT ACTIVELY BEING USED.
- 19. THE CONTRACTOR SHALL POST SIGNAGE OR OTHER NOTICE OF PERMIT COVERAGE AT A SAFE, PUBLICLY ACCESSIBLE LOCATION IN CLOSE PROXIMITY TO THE CONSTRUCTION SITE. THE NOTICE MUST BE LOCATED SO THAT IT IS VISIBLE FROM THE PUBLIC ROAD THAT IS NEAREST THE CONSTRUCTION TRAILER. THIS NOTICE (SIGNAGE) MUST INCLUDE THE KPDES PERMIT NUMBER, CONTACT NAME AND PHONE NUMBER FOR OBTAINING ADDITIONAL CONSTRUCTION SITE INFORMATION SUCH AS A COPY OF THE SWPPP. THE SIGNAGE MUST INCLUDE INFORMATION APPRISING THE PUBLIC ON HOW TO CONTACT THE STATE IF STORMWATER POLLUTION IS OBSERVED IN THE DISCHARGE.

CODED EROSION CONTROL NOTES

	KEY	SYMBOL	DESCRIPTION	DETAIL
			INLET PROTECTION – PROTECT INLETS UNTIL THEY ARE SUBJECT TO DEMOLITION	A/C101
By TC-015	2		CONCRETE WASHOUT PIT. LOCATE & SIZED AS NEEDED – CONTRACTOR SHALL DISPOSE AND INSTALL NEW WASHOUT ONCE 90% CAPACITY HAS BEEN FILLED. SEE DETAIL FOR ADDITIONAL MAINTENANCE REQUIREMENTS.	B/C101
	3		CONSTRUCTION ENTRANCE. EXISTING PAVEMENT MAY BE USED. 20' MINIMUM WIDTH	C/C101
UCT	4	SF	SILT FENCE	D/C101
ion stics Plan	• 5		CONSTRUCTION FENCE PER UK STANDARDS	_
	6	\sim	CONSTRUCTION GATE ENTRANCE	_
/			WATTLES	D/C101
<u>⁄o</u>			TEMPORARY CONCRETE SIDEWALK CREATED TO PROVIDE PEDSTRIAN ACCESS. CONNECT TO EXISTING SIDEWALK. 5' WIDE.	-
	8		WRAP GRATE COVER WITH NON-WOVEN FILTER FABRIC AND COVER WITH STONE FOR TEMPORARY ROADWAY	_
			TEMPORARY GRAVEL HAUL ROAD. 20' WIDE.	_
994			STONE RAMP INTO EXCAVATION FOR BASEMENT	_
- *8: 	{			

AT REVISION NOTE

Phase 1 BMPs

Phase 2 BMPs

SK-001











Tower Crane #1



65.6 ft 82 ft 98.4 ft 114.8 ft 131.2 ft 147.6 ft 164.1 ft 180.5 ft 196.9 ft 213.3 ft 229.7 ft 242.8 ft 246.1 ft

ASCE 7-10

SK-002.4

æ	35,274 lbs+	87.6 ft	lbs 35,274	35,274	30,865	25,794	22,046	18,960	16,755	14,771	13,228	11,905	10,803		9,700	
÷	70,548 lbs+	46.6 ft	lbs 46,297	35,054	27,778	22,487	19,401	16,094	13,669	11,685	10,141	8,598	7,496	6,393		

Tower Crane #2



للواحه لوا

262 ft	12	•	57	66	72	82	89	98	99	108	115	121	131	148	164	180	197	213	230	246	262	ft
			22.0	18.5	16.4	14	12.7	11.1	11.0	-11.0	10.3	9.6	8.7	7.5	6.6	5.8	5.2	4.6	4.2	3.7	3.4	USt
a						~~	~ ~														<i>e</i> .	



SK-002.5

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RETENTION SYSTEM RETENTION SYSTEM (AFTER RAMP REMOVAL) ACCESS RAMP GRAVEL ROADWAY / STAGING (67,250 sf) TOWER CRANE PADS BORE / RECEIVE PIT

-33 LAC	SS EXCAVATION ELOCID				
o	CONSTRUCTION FENCE - UK STANDARD (PROVIDED BY BP-01A & BP-01B)				
	NEW BUILDING FOOTPRINT				
	EXCAVATION BOTTOM – 982'-984' AS NOTED ON PLAN. PROVIDE SHORING FOR SOIL RETENTION ABOVE ROCK EXCAVATION AS NECESSARY. REFER TO C600 AND C601 SITE DRAINAGE PLANS FOR ADDITIONAL EXCAVATION FOR DEEP MANHOLES				
	SHORING SETBACK FROM ROCK EXCAVATION TO PERMIT UTILITY INSTALLATION. USE EXTREME CAUTION TO EXISTING WATER MAIN				
	TREE PROTECTION ZONE – TREE CANOPY OVERHANGING CONSTRUCTION FENCE MUST BE PROTECTED AND MAY NOT BE TRIMMED EXCEPT BY AUTHORIZED ARBORIST				
\mathbf{X}	ELEVATOR PIT – NOT INCLUDED IN INITIAL EXCAVATION				
	EXCAVATION TO 982' – EXCAVATE TO 982' AND EVENLY PLACE 4" DEPTH				

OF #2 STONE. THEN EVENLY PLACE 2" DEPTH OF #57 STONE.

OF #2 STONE. THEN EVENLY PLACE 2" DEPTH OF #57 STONE.

LOADING DOCK AREA – EXCAVATION SHALL BE DELAYED UNTIL AFTER BUILDING IS ERECTED AS DIRECTED BY CONSTRUCTION MANAGER

EXCAVATION TO 984' - EXCAVATE TO 984' AND EVENLY PLACE 4" DEPTH

MASS EXCAVATION LEGEND

EXISTING TREES TO BE SAVED. NO BURNING ON SITE.

MASS EXCAVATION NOTES

ENGINEER AND OWNER.

SUBGRADE OF FOOTINGS OR TO 36" FROM BOTTOM OF FLOOR SLAB. 6. BEFORE STARTING SITE EXCAVATION, CONTRACTOR SHALL STRIP ALL TOPSOIL FROM LIMITS OF MASS EXCAVATION AND STORE AT OFF-SITE LOCATION. CONTRACTOR SHALL BE RESPONSIBLE FOR HAULING TOPSOIL BACK TO THE SITE AND REDISTRIBUTING TOPSOIL IN ALL FINISHED GRADE AREAS, BACK FILLING CURBS, SIDEWALKS, ETC. CONTRACTOR SHALL STOCKPILE ANY/ALL EXCAVATED SOILS OFF-SITE THAT CANNOT BE PLACED IMMEDIATELY IN ENGINEERED FILLS ON SITE. THERE IS NO ROOM ON SITE FOR SOIL STOCKPILING.

9. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE QUANTITY OF ROCK EXCAVATION NECESSARY FOR MASS GRADING OR TRENCHING. ALL

11. CONTRACTOR IS RESPONSIBLE FOR DESIGN OF SHORING AND UNDERPINNING STRUCTURES AND UTILITIES AS REQUIRED. ANTICIPATE THAT SHORING WILL BE

12. CONTRACTOR SHALL DIRECT SURFACE RUNOFF AROUND AND AWAY FROM EXCAVATED AREA. DEWATERING PUMPS SHALL BE PROVIDED AT ALL TIMES AND

13. TREE PROTECTION ZONES SHALL BE PROTECTED DURING CONSTRUCTION. AREA WITHIN THE DRIP LINE OF TREES SHALL NOT BE DISTURBED EXCEPT FOR

REQUIRED AROUND THE ENTIRE PERIMETER OF EXCAVATION FOR THE BUILDING. CONTRACTOR SHALL PROVIDE SUBMITTAL DRAWINGS PREPARED AND SEALED

SIDEWALK REMOVAL. WHERE TREES/SHRUBS ARE DESIGNATED FOR REMOVAL, ALL VEGETATION, ROOTS, ETC. SHALL BE REMOVED TO A MINIMUM DEPTH OF THREE FEET BELOW FINISHED GRADE. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS NOT TO DAMAGE FOLIAGE, BRANCHES OR ROOTS OF

4. WITHIN THE LOADING DOCK AREA, FAT CLAY AND ELASTIC SILT AS IDENTIFIED IN THE GEOTECH REPORT SHALL BE OVER EXCAVATED TO MINIMUM OF 36" DEPTH BELOW SUBGRADE AND REPLACED WITH COMPACTED LEAN CLAY. 5. AREAS WITHIN BUILDING FOOTPRINT WHERE ROCK IS LOWER THAN DESIGNATED ELEVATION OF 982 OR 984, SHALL BE FILLED WITH 4,000 PSI CONCRETE TO

7. CONTRACTOR SHALL PROVIDE ARCHITECT WITH COMPACTION TESTING FROM AN INDEPENDENT TESTING AGENCY THAT IS PRE-APPROVED BY THE CIVIL

8. ELEVATIONS AND CONTOURS ON THIS PLAN ARE REFERENCED TO MEAN SEA LEVEL DATUM.

BY A PROFESSIONAL ENGINEER REGISTERED IN THE COMMONWEALTH OF KENTUCKY.

10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXCAVATION QUANTITIES.

EXCAVATION IS UNCLASSIFIED. THERE WILL BE NO EXTRA PAYMENT FOR ROCK EXCAVATION.

WATER SHALL BE FILTERED PRIOR TO DISCHARGE. 80% OF SUSPENDED SOLIDS MUST BE REMOVED.

REPAIR AND/OR REPLACE SAID DAMAGE AT THE CONTRACTOR'S EXPENSE. FINISHED REPAIRS OR REPLACEMENT SHALL MEET THE APPROVAL OF THE OWNER. ALL ROCK AND SOIL EXCAVATED FOR THE BUILDING AND SHORING SHALL BE HAULED AWAY. THERE IS NO ROOM ON SITE TO STOCKPILE MATERIAL.

CONSTRUCTION WILL NOT DAMAGE OR INTERFERE WITH EXISTING UTILITY LINES. SHOULD DAMAGE OCCUR, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO

2. PRIOR TO CONSTRUCTION OR DEMOLITION, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF ALL EXISTING UTILITIES SO THAT NEW

FUTURE BID PACKAGE SHALL INDICATE FINISH GRADES AND INCLUDE FILL UP AGAINST BASEMENT WALLS.

1. ALL CONTOURS INDICATE SUBGRADES WITH SLOPES LEFT AT 1/2:1 TO ACCOMMODATE CONSTRUCTION OF FIRST FLOOR BELOW GRADE (BASEMENT) WALLS





SITE DEMOLITION NOTES

- 1. PROVIDE UK STANDARD TREE PROTECTION FENCING FOR ALL EXISTING TREES THAT ARE NOT DESIGNATED TO BE REMOVED WITHIN THE CONSTRUCTION LIMITS. EXTREME CAUTION IS TO BE USED WITH EXISTING TREES ALONG UNIVERSITY DRIVE. A TREE CANOPY PROTECTION ZONE IS DELINEATED FOR THE TREES ALONG UNIVERSITY DRIVE. EXISTING PAVEMENT WITHIN THIS ZONE SHALL REMAIN AS A WORKING SURFACE DURING BUILDING CONSTRUCTION. IT WILL BE REMOVED AT COMPLETION OF BUILDING FACADE, AT WHICH TIME ADDITIONAL TREE PRESERVATION MEASURES WILL COMMENCE WITH NEW SITE WORK. 2. THE EXISTING FEATURES SHOWN ARE A COMPILATION OF DATA AS OBTAINED BY ENDRIS ENGINEERING. CARMAN MAKES NO ASSURANCES
- REGARDING THE ACCURACY OR VERACITY OF DATA SUPPLIED BY OTHERS OR SHOWN ON THE SUBSEQUENT DRAWINGS. THE SOURCE OF THE SITE SURVEY IS: ENDRIS ENGINEERING. 3. ALL EXISTING SITE FEATURES ARE SHOWN AS ACCURATELY AS REASONABLY POSSIBLE AND BELIEVED TO BE CORRECT. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES IN THE ALIGNMENT OR LOCATION OF ANY FEATURE. THE LANDSCAPE ARCHITECT/CIVIL ENGINEER
- SHALL BE NOTIFIED IMMEDIATELY AND NECESSARY ADJUSTMENTS WILL BE MADE IN THE FIELD 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO THE PROJECT LIMITS FOR ANY SITE DEMOLITION AND SHALL BE RESPONSIBLE FOR MAINTAINING ANY AND ALL WORK WITHIN THE LIMITS OF THE WORK AS DESIGNATED. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ENCROACHMENT BEYOND THE LIMITS AND SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS, PERMISSIONS, EASEMENTS, ETC TO UTILIZE AREAS BEYOND THE PROJECT LIMITS
- 5. CONTRACTOR SHALL LOCATE ALL UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO DEMOLITION WORK EITHER BY UTILIZATION OF B.U.D. OR A 3RD PARTY UTILITY LOCATE COMPANY. COSTS FOR ESTABLISHING THE LOCATION OF EXISTING UTILITIES SHALL BE THE COST OF THE CONTRACTOR. 6. CONTRACTOR SHALL OBTAIN DEMOLITION PERMITS FROM ANY AUTHORITY HAVING LOCAL JURISDICTION INCLUDING LOCAL, STATE OR FEDERAL
- AGENCIES, IF NECESSARY, AND PAY ALL ASSOCIATED FEES INCLUDING DISPOSITION FEES OR COSTS. 7. THE CONTRACTOR SHALL ESTABLISH TRAFFIC CONTROL AND SIGNING AS REQUIRED BY THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PROVIDE TEMPORARY BARRICADES, TRAFFIC BARRELS, AND FLAGGERS AS NECESSARY FOR CREW AND MOTORIST SAFETY. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ANY STREET CLOSURES, DETOURS, ETC. WITH AUTHORITIES HAVING JURISDICTION AND GOVERNING AGENCIES OF STREETS, PARKING AREAS OR ROADS.
- 8. IDENTIFICATION OF MATERIAL TO BE REMOVED/DEMOLISHED IS PROVIDED AS A CONVENIENCE TO THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR OBSERVING SITE AND PLANS TO COORDINATE DEMOLITION WITH ALL PROPOSED WORK. FAILURE TO IDENTIFY A MATERIAL REQUIRING REMOVAL/DEMOLITION IN ORDER FOR NEW WORK TO BE COMPLETED DOES NOT RELIEVE THE CONTRACTOR OF BEING RESPONSIBLE FOR PERFORMING THE NECESSARY WORK.
- 9. ASPHALT AND/OR CONCRETE REMOVED AS A RESULT OF UTILITY/STORM DEMOLITION THAT IS OUTSIDE OF PROJECT LIMITS IS TO BE RESTORED TO MATCH THE EXISTING SURFACE PRIOR TO SURFACE DEMOLITION. 10. DURING CONSTRUCTION, THE WORK AREA SHALL BE KEPT CLEAR OF DEBRIS. ALL DEMOLISHED MATERIALS NOT DESIGNATED TO BE TURNED OVER TO THE OWNER SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER. CONTRACTOR SHALL PAY ALL HAULING, LANDFILL EXPENSES AND OBTAIN ANY NECESSARY PERMITS TO DO SO.
- 11. PERIMETER CONSTRUCTION LIMITS FENCE SHALL CONSIST UK STANDARD CONSTRUCTION FENCING. LIMITS TO BE DETERMINED BY CONSTRUCTION MANAGER. 12. CONTRACTOR TO PROTECT EXISTING TREES OUTSIDE OF CONSTRUCTION LIMITS. NO MATERIAL IS TO BE STORED WITHIN A TREE DRIP LINE. 13. ALL EXISTING SITE IMPROVEMENTS INCLUDING BUT NOT LIMITED TO PAVING, CURBING, SIDEWALKS, UTILITIES, AND LANDSCAPING SCHEDULED TO REMAIN SHALL BE PROTECTED OR REPLACED IF DAMAGED.
- 14. SEE SITE UTILITY DRAWINGS FOR RELOCATION OF UTILITY FACILITIES.
- 15. CONTRACTOR RESPONSIBLE FOR OBSERVATION OF SITE PRIOR TO BIDDING TO DETERMINE QUALITY, QUANTITY, AND VALUE OF ITEMS TO BE DEMOLISHED AND REMOVED. 16. COORDINATE UTILITY DEMOLITION WITH CORRESPONDING MEP DRAWINGS, SITE UTILITY PLAN AND APPROPRIATE UTILITY COMPANY. 17. EXISTING AGGREGATE MATERIAL SHALL BE REMOVED AS NECESSARY TO ACCOMMODATE NEW ASPHALT. EXISTING AGGREGATE MAY BE REUSED IF CLEAN AND FREE OF SOIL AND APPROVED BY OWNER OR LANDSCAPE ARCHITECT/CIVIL ENGINEER.
- 18. SAWCUT EDGES OF PAVEMENT, CURBS AND WALLS TO REMAIN IN CLEAN STRAIGHT LINES. 19. REMOVE ALL SHRUBS, GROUND COVER, MULCH, ETC. WITHIN LIMITS OF CONSTRUCTION. REMOVE ONLY TREES DESIGNATED FOR REMOVAL. NO ORGANIC MATERIAL (IE. ROOTS, MULCH, GRASSES, TOPSOIL,) SHALL REMAIN IN SOIL THAT WILL BE USED FOR STRUCTURAL BACKFILL FOR BUILDINGS, PAVEMENTS, ETC. 20. SEE MEP DRAWINGS FOR DEMOLITION OF ELECTRIC, STEAM, CHILLED WATER, SANITARY SEWER, COMMUNICATION, AND GAS FACILITIES.
- CONTRACTOR IS TO CONTACT UTILITY COMPANIES TO COORDINATE ANY WORK INVOLVING PUBLIC UTILITIES, INCLUDING ELECTRIC, COMMUNICATIONS, WATER, GAS, ETC. UTILITY LINES SHOULD BE REMOVED, NOT ABANDONED IN PLACE UNLESS NOTED OTHERWISE. 21. ALL STORM SEWER LOCATED WITHIN LIMITS OF WORK, SHALL BE REMOVED, NOT ABANDONED IN PLACE. UNLESS NOTED AS OTHERWISE DEMOLITION OF FACILITIES THAT SERVE OTHER ADJACENT OFF-SITE AREAS OR BUILDINGS WILL NEED TO BE PHASED IN ORDER TO KEEP THEM ON-LINE UNTIL REPLACEMENT FACILITIES ARE CONSTRUCTED. FACILITIES THAT ARE NECESSARY TO DEWATER THE SITE DURING CONSTRUCTION SHALL REMAIN UNTIL NEW FACILITIES ARE CONSTRUCTED.
- 22. SEE MEP DEMOLITION DRAWINGS FOR SANITARY SEWER REMOVAL/RELOCATION. 23. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FULLY PROTECT ALL STRUCTURES SCHEDULED TO REMAIN AND NOT BE DEMOLISHED OR TO PROTECT UNTIL SUCH TIME THAT STRUCTURE IS SCHEDULED TO BE DEMOLISHED. CONTRACTOR SHALL BE RESPONSIBLE FOR
- REPAIRS TO DAMAGED STRUCTURES. THIS ALSO INCLUDES REPAIRS TO EXISTING ROADS AND SIDEWALKS. 24. THE CONTRACTOR RESPONSIBLE FOR SITE DEMOLITION SHALL VERIFY THE PRESENCE OF ANY UNDERGROUND STORAGE TANKS (UST) THAT MAY OR MAY NOT BE LOCATED ON THE SITE THAT MAY CONFLICT WITH ANY SITE OR BUILDING DEMOLITION. KNOWN UNDERGROUND STORAGE TANKS ARE REGISTERED AT http://waste.ky.gov/UST/Pages/default.aspx. THE CONTRACTOR SHALL CROSS-CHECK SITE SURVEYS, GEOTECHNICAL REPORTS OR ENVIRONMENTAL REPORTS FOR ACKNOWLEDGED OR REGISTERED UNDERGROUND STORAGE TANKS. SHOULD THIS DEMOLITION PLAN, OTHER REPORTS OR UST DATABASE LISTINGS INDICATE THE PRESENCE OF ANY UST, THE CONTRACTOR SHALL TAKE ANY AND ALL PRECAUTIONS TO PROTECT THE TANK AND THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGE, INCLUDING ANY ENVIRONMENTAL REMEDIATION AS A RESULT OF THE DAMAGE.
- 25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL OF UNWARRANTED DUST CREATED BY ANY DEMOLITION WORK ON THE SITE OR DEMOLITION OF BUILDINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING EQUIPMENT FOR WATERING INCLUDING THE COST OF WATER THAT MAY BE CHARGED FOR USING MUNICIPAL WATER SUPPLIES FROM FIRE HYDRANTS, ETC. 26. THIS SITE DEMOLITION PLAN DOES NOT SPECIFICALLY REFERENCE OR SPECIFY SHORING THAT MAY BE REQUIRED DURING SITE DEMOLITION SO THAT ADJACENT AREAS ARE PROTECTED FROM DAMAGE, COLLAPSE, ETC. SHOULD THE CONTRACTOR DETERMINE THAT SHORING IS REQUIRED FOR ADJACENT AREA PROTECTION OR TO PREVENT ENCROACHMENT OF DEMOLITION OUTSIDE OF PROJECT LIMITS, THE
- CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING PROPER SHORING MEANS, METHODS AND DESIGN PER LOCAL REGULATIONS OR PER REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION INCLUDING THE SHORING TYPE AND IF NECESSARY THE PREPARATION OF SHORING PLANS BY A LICENSED STRUCTURAL ENGINEER PER OSHA REQUIREMENTS. 27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING ANY OVERHEAD UTILITY LINES THAT MAY CONFLICT WITH ANY ASPECT OF THE SITE DEMOLITION AND SHALL BE RESPONSIBLE FOR SAFE OPERATION OF EQUIPMENT AND PERSONNEL THAT MAY CONFLICT WITH ANY
- OVERHEAD UTILITY SERVICES. 28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ANY LOCAL NOISE ORDINANCES OR UK REQUIREMENTS THAT MAY RESTRICT THE TYPE OF DEMOLITION EQUIPMENT OR TIMES OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE
- EXTENT, IF ANY, OF LOCAL NOISE ORDINANCES ASSOCIATED WITH CONSTRUCTION OR DEMOLITION ACTIVITIES. 29. SHOULD THE SITE DEMOLITION REQUIRE ANY EARTH EXCAVATION AND SHOULD THE PROJECT REQUIRE THE OBSERVATIONS OF A CULTURAL RESOURCE OR ARCHAEOLOGICAL CONSULTANT, THE CONTRACTOR SHALL FULLY COOPERATE WITH THE OWNER/CONSULTANT TO ALLOW THE CONSULTANT ACCESS TO ANY EXCAVATIONS TO DETERMINE IF THERE ARE ANY PRE-HISTORICAL OR HISTORICAL FINDINGS THAT NEED TO BE DOCUMENTED OR PRESERVED.
- 30. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT ALL UTILITIES THAT ARE OR MAY BE CONNECTED TO THE DEMOLISHED FACILITIES ARE DISCONNECTED BY CONTACTING ALL APPLICABLE UTILITY COMPANIES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY DISCONNECT COST ASSOCIATED WITH EACH AND ALL UTILITIES THAT MAY SERVE THE PROPERTY OR FACILITY THAT IS BEING DEMOLISHED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY FOR DETERMINING THESE COSTS DURING THE BIDDING PHASE AND SHALL INCLUDE THESE DISCONNECT COSTS IN THEIR COSTS SO THE OWNER WILL NOT INCUR COSTS AT A LATER DATE.

CODED SITE DEMOLITION NOTES

	KEY	DESCRIPTION
	1	PROTECT EXISTING TREE. TREE PROTECTION FENCE TO BE UTILIZED.
	2	REMOVE EXISTING WATERLINE
	3	REMOVE FIRE DEPARTMENT CONNECTION FOR WHITNEY-HENDRICKSON AFTER NEW FIRE DEPARTMENT CONNECTION IS OPERATIONAL
	4	REMOVE EXISTING 6" FIRE LINE AFTER NEW FIRE DEPARTMENT CONNECTION IS OPERATIONAL
	5	REMOVE FIRE HYDRANT AND WATER VALVE AFTER NEW FIRE HYDRANT IS OPERATIONAL
<u>67</u> {	6A	GRIND STUMP AND REMOVE ALL DELETERIOUS ROOTS
{	6B	REMOVE EXISTING TREE, GRIND STUMP AND REMOVE ALL DELETERIOUS ROOTS
	7	REMOVE CURB
	8	CONCRETE OR ASPHALT PAVEMENT TO BE REMOVED. REMOVE ALL BASE MATERIALS ASSOCIATED WITH PAVEMENT
	9	BUILDING TO BE DEMOLISHED, INCLUDING FOUNDATIONS AND ALL ASSOCIATED WALLS/STRUCTURES
	10	CURB TO BE PROTECTED
	(11)	PLUG STORM WATER PIPE TO PREVENT DOWNSTREAM FLOW.
	(12)	REMOVE STORM WATER PIPE OR STRUCTURE
	(13)	PROTECT EXISTING WATERLINE
	(14)	PROTECT EXISTING STORM UTILITY
	(15)	MAINTAIN ASPHALT AND CURB WITHIN TREE CANOPY PROTECTION ZONE UNTIL SUCH TIME THAT THE CONSTRUCTION MANAGER DETERMINES THAT IT SHALL BE REMOVED. SEE SITE DEMOLITION NOTE #1 THIS SHEET



REVISION NOTE

SK-002.6









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TELETON

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1775 S.

12:02

Trailer and Restroom Deck

Fransformer and Pa

Contractor Trailers



Restroom Trailer

12

Contractor Trailers





MECHANICAL SITE NOTES

- A DO NOT SCALE FROM MECHANICAL AND ELECTRICAL DRAWINGS. FIELD VERIFY REQUIRED DIMENSIONS.
- B CONTRACTOR SHALL CUT AND PATCH ALL PAVEMENT, CURBING, etc. AS REQUIRED FOR WORK. CONTRACTOR SHALL REPAIR ALL LANDSCAPING THAT IS DAMAGED FOR WORK.
- C FEDERAL, STATE, LOCAL, MUNICIPALITY AND UTILITY COMPANY CODES, RULES, REGULATIONS AND REQUIREMENTS APPLY UNLESS EXCEEDED BY THIS DESIGN. D WHEN INTERRUPTION OF AN EXISTING UTILITY OR SERVICES IS PLANNED OR OCCURS
- ACCIDENTALLY, THE CONTRACTOR(S) SHALL WORK CONTINUOUSLY AS NEEDED TO RESTORE SAME PROVIDING PREMIUM TIME AS NEEDED AT NO INCREASE IN THE CONTRACT PRICE.
- E PLANNED INTERRUPTION OF ANY SERVICE SHALL BE COORDINATED WITH THE APPROPRIATE MUNICIPALITY OR UTILITY COMPANY, THE ARCHITECT AND THE BUILDING OPERATORS AT LEAST TWO WEEKS IN ADVANCE OF ANTICIPATED INTERRUPTION. A SCHEDULE FOR THESE OUTAGES SHALL BE DEVELOPED AND AGREED UPON BETWEEN THE PARTIES MENTIONED TO AVOID UNNECESSARY INCONVENIENCE TO THE OWNER OR ANY AFFECTED PARTY. NOTIFY THE UTILITY COMPANY OF ANY ANTICIPATED SERVICES REQUIRED FROM THEM AT LEAST TWO WEEKS IN ADVANCE IN WRITING AND INSURE THAT THEY DO NOT DELAY WORK.
- LOCATIONS, DEPTHS, MATERIAL TYPES, ELEVATIONS, ETC. OF ALL APPURTENANCES, LINES, BUILDINGS, ETC. INDICATED ON THESE DRAWINGS WERE TAKEN FROM VARIOUS SOURCES, ARE DIAGRAMMATIC ONLY AND ARE SUBJECT TO SUBSTANTIAL VARIATION FROM EXISTING CONDITIONS. EXISTING UTILITIES LOCATIONS MAY VARY (CONSEQUENTLY ALL CONTRACTORS SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS INSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. ALL WORK SHALL BE PERFORMED IN ACCORD WITH ALL FEDERAL, STATE, AND/OR LOCAL RULES, REGULATIONS, STANDARDS AND SAFETY REQUIREMENTS. UTILITIES SHALL ALSO BE INSTALLED IN ACCORD WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY. IF ANY VARIATION OCCURS, CONSULT THE BUILDING ENGINEER AND THE
- VERIFY THE ROUTING OF ALL UTILITIES G CONTRACTOR SHALL REFER TO CIVIL PLANS FOR COORDINATION WITH OTHER UTILITIES. H COORDINATE ELEVATION AND LOCATION OF ALL PIPING ENTERING BUILDING WITH STRUCTURAL FOUNDATION. CONDUIT SHALL PASS THROUGH STEM WALL OF FOUNDATION OR UNDER FOOTING AS REQUIRED.
- I THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE DRAWINGS ARE APPROXIMATE ONLY. J THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY EXCAVATION WORK REQUIRED TO LOCATE UNDERGROUND UTILITIES. THE CONTRACTOR IS ALSO REQUIRED TO NOTIFY ANY OTHER AFFECTED UTILITY OWNERS PRIOR TO DIGGING. IN THE EVENT OF ACCIDENTAL INTERRUPTION OF SERVICE, CONTRACTOR WILL IMMEDIATELY NOTIFY THE OTHER UTILITY OWNERS.
- K THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD OTHER EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE OTHER UTILITIES. THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITIES UNEARTHED DURING CONSTRUCTION.
- M IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO INSURE THAT ANY ABANDONED PIPING UNCOVERED IN THE COURSE OF THEIR WORK SHALL BE CAPPED WATER TIGHT. N TRENCHES FOR UTILITIES SHALL BE BACKFILLED PER MECHANICAL DETAILS AND SPECIFICATIONS. PAVEMENT, ASPHALT, AND OTHER SURFACE WORK SHALL BE PER CIVIL
- ENGINEERING DRAWINGS AND SPECIFICATIONS. O THE CONTRACTOR SHALL ADJUST ALL EXISTING MANHOLE RINGS AND COVERS AFFECTED BY THIS PROJECT AS NECESSARY TO BE FLUSH WITH NEW GRADE.
- P CONTRACTOR SHALL COORDINATE RESPONSIBILITIES WITH CONSTRUCTION MANAGER. REFER TO SPECIFICATIONS FOR REQUIREMENTS.
- Q THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND SIZING OF ALL EXPANSION LOOPS PER PIPING MANUFACTURER'S REQUIREMENTS.
- R REFER TO ARCHITECT'S AND CONSTRUCTION MANAGER'S PHASING PLAN FOR CONSTRUCTION PHASING REQUIREMENTS. S ALL SITE WORK SHALL BE COORDINATED WITH UNIVERSITY OF KENTUCKY PHYSICAL PLANT DIVISION (PPD). ALL OUTAGES SHALL BE SCHEDULED A MINIMUM OF TWO WEEKS IN

TAGGED NOTES UT1

- CONNECT TEMPORARY TRAILER WASTE LINE TO EXISTING SANITARY MAHOLE. PRIOR TO TIE IN. THE CONTRACTOR SHALL VERIFY EXISTING MANHOLE DEPTH. MANHOLE IS LOCATED IN SIDEWALK. PATCH AND REPAIR AS NECESSARY. CONNECT TEMPORARY TRAILER WATER LINE TO EXISTING WATER MAIN. PROVIDE SHUTOFF VALVE AT CONNECTION. PROVIDE CONNECTION TO JOBSITE TRAILER. INSTALL 1" WATER LINE AND 4" SANITARY TO STUBBED OUT CONNECTION POINTS. INSULATE ALL EXPOSED PIPING. PROVIDE ISOLATION VAVLE ON WATER LINE.
- TO MAKE WATER LINE CONNECTION, AN OUTAGE WILL BE REQUIRED THAT WILL SHUT OFF ONE FIRE HYDRANT. COORDINATE OUTAGE WITH THE UNIVERSITY. VAVLES ARE IN PLACE TO ISOLATE THIS SECTION OF PIPE.
- PROVIDE 1-1/4" WATER LINE AND 4" SANITARY TO THE JOBSITE RESTROOM TRAILER. INSULATE ALL EXPOSED PIPING. PIPING TO BE A MINIMUM OF 18" BELOW GRADE AND SLOPE 1/8" PER FOOT TOWARD MANHOLE AT MINIMUM.

BEFORE YOU DIG

THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL CONTACT "BUD (BEFORE YOU DIG)" AT 1-800-752-6007 TO OBTAIN UNDERGROUND UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION. ANY CONTRACTOR OR SUBCONTRACTOR PERFORMING ANY TYPE OF EXCAVATION ON THIS PROJECT SHALL CALL "BUD" TO OBTAIN AN AUTHORIZATION NUMBER.



SK-005.1

	FC	UNDA	TION RE	EACTION FORCES	5		
Tower Crane	MD569.25			Anchor Stool	P850US		
Jb Length (ft)	262			Base Mast Section	K850		
Hook Height (ft)	248			Mast Leg Spacing	7.33	ft	
IN SE	RVICE CA	SE		OUT OF	SERVICE	E CASE	
Overturning Moment	Mo =	7,550	ft-kips	Overturning Moment	Mo =	11,646	ft-kips
Vertical Load	V =	497	kips	Vertical Load	V =	441	kips
Horizontal Load	H =	23	kips	Horizontal Load	H =	91	kips
Slewing Moment	Ms =	361	ft-kips	Slewing Moment	Ms =	0	ft-kips
Max. Axial Force	R1 =	853	kips	Max. Axial Force	R1 =	1,234	kips
Max. Uplift Force	R2 =	604	kips	Max. Uplift Force	R2 =	1,013	kips
Corner Force	R3 =	124	kips	Corner Force	R3 =	110	kips
REACTIONS DU	RING ASS	EMBLY	' CASE	WIND FROM TH	IE SIDE (62 MPH)	CASE
Overturning Moment	Mo =	6,499	ft-kips	Overturning Moment	Mo =	9,201	ft-kips
Vertical Load	V =	316	kips	Vertical Load	V =	441	kips
Horizontal Load	H =	15	kips	Horizontal Load	H =	59	kips
Slewing Moment	Ms =	361	ft-kips	Slewing Moment	Ms =	0	ft-kips
Max. Axial Force	R1 =	706	kips	Max. Axial Force	R1 =	998	kips
Max. Uplift Force	R2 =	548	kips	Max. Uplift Force	R2 =	777	kips
Corner Force	R3 =	79	kips	Corner Force	R3 =	110	kips

Reaction Force Notes:

1. Zero values indicate information is not available.

2. The foundation reactions shown are service loads applied to the foundation for the freestanding condition.

The foundation design shall be performed by a licensed professional engineer familiar with tower cranes. A copy of the signed and sealed design shall be provided for Maxim's records.



Out of Service Design Code =	ASME B30.3
Site ASCE 7 Wind Speed =	
Vult 3-sec (mph) =	120
ASCE 7 Risk Category =	I
ASCE 7 Exposure Category =	C
Tower Crane Duration =	1 - 2 Years
ASCE 37 Reduction =	0.85
Minimum Allowed Design Code	
Wind Speed = Vult code (mph) =	102
Wind Speed used for Design =	
Vult design (mph) =	109

Tower Section **Anchor Stool** (Survey for level here, prior to pouring concrete, on the top mating surface of the anchor stool



FOOTING REACTION NOMENCLATURE

- **OVERTURNING MOMENT**
- VERTICAL FORCE
- HORIZONTAL FORCE
- SLEWING MOMENT

R2

R3

- R1 MAXIMUM AXIAL FORCE FROM Mo & V
 - MAXIMUM UPLIFT FORCE FROM Mo & V
 - CORNER FORCE FROM Mo & V

Worst Case Shown

R2



Notes:

- 1. site specific geotechnical report.

Base Section Set Procedure:

- Install bottom reinforcement 1.
- 2.
- Place base assembly on leveling pads. 3.
- 4.
- Install center and top reinforcement mats. 6.



P850US FOUNDATION ELEVATION (4 SCALE: NTS





Potain MD569 Crane 1

The crane foundation shall be designed in accordance with the recommendations from a

2. Foundations located within a 1.5H:1V slope of the toe of an excavation shall not be permitted. The customer shall verify that there are no underground structures, utilities or obstructions in the area of the proposed crane location(s).

3. It is recommended the concrete foundation have a hard trowel finish.

Build leveling pads. Bottom reinforcing mat shall be continuous through leveling pads.

Confirm correct orientation of the mast section with the plan view.

5. Set base assembly level using shims as required. The base assembly shall be set level prior to pouring the foundation for the crane. The tower mast shall be erected plumb to within a tolerance of 1:500 (0.96 inches in 40 feet).

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7. The top surface of the stool must be flush with the top of the foundation concrete.

SK-005.2

	FC	DUNDA	TION RE	EACTION FORCES	<u> </u>		
Tower Crane	MD485B.20)		Anchor Stool	P800US		
Jb Length (ft)	all	available le	engths	Base Mast Section	K800		
Hook Height (ft)	225.4			Mast Leg Spacing	7.50	ft	
IN SE	RVICE CA	ASE		OUT OF	SERVICE	E CASE	
Overturning Moment	Mo =	3,976	ft-kips	Overturning Moment	Mo =	7,859	ft-kips
Vertical Load	V =	401	kips	Vertical Load	V =	345	kips
Horizontal Load	H =	19	kips	Horizontal Load	H =	70	kips
Slewing Moment	Ms =	349	ft-kips	Slewing Moment	Ms =	0	ft-kips
Max. Axial Force	R1 =	475	kips	Max. Axial Force	R1 =	827	kips
Max. Uplift Force	R2 =	275	kips	Max. Uplift Force	R2 =	655	kips
Corner Force	R3 =	100	kips	Corner Force	R3 =	86	kips
REACTIONS DUP	RING ASS	EMBLY	CASE	WIND FROM TH	E SIDE (6	62 MPH)	CASE
Overturning Moment	Mo =	4,693	ft-kips	Overturning Moment	Mo =	6,839	ft-kips
Vertical Load	V =	251	kips	Vertical Load	V =	345	kips
Horizontal Load	H =	13	kips	Horizontal Load	H =	50	kips
Slewing Moment	Ms =	349	ft-kips	Slewing Moment	Ms =	0	ft-kips
Max. Axial Force	R1 =	505	kips	Max. Axial Force	R1 =	731	kips
Max. Uplift Force	R2 =	380	kips	Max. Uplift Force	R2 =	559	kips
Corner Force	R3 =	63	kips	Corner Force	R3 =	86	kips

Reaction Force Notes:

1. Zero values indicate information is not available.

2. The foundation reactions shown are service loads applied to the foundation for the freestanding condition.

The foundation design shall be performed by a licensed professional engineer familiar with tower cranes. A copy of the signed and sealed design shall be provided for Maxim's records.



Out of Service Design Code =	ASME B30.3
Site ASCE 7 Wind Speed =	
Vult 3-sec (mph) =	120
ASCE 7 Risk Category =	I
ASCE 7 Exposure Category =	С
Tower Crane Duration =	1 - 2 Years
ASCE 37 Reduction =	0.85
Minimum Allowed Design Code	
Wind Speed = Vult code (mph) =	102
Wind Speed used for Design =	
Vult design (mph) =	102

(Survey for level here, prior to pouring concrete, on the top mating surface of the anchor stool)



FOOTING REACTION NOMENCLATURE

- OVERTURNING MOMENT
- VERTICAL FORCE
- HORIZONTAL FORCE
- SLEWING MOMENT
- MAXIMUM AXIAL FORCE FROM Mo & V
- MAXIMUM UPLIFT FORCE FROM Mo & V
- CORNER FORCE FROM Mo & V

Worst Case Shown



Tower Section -Anchor Stool Concrete poured and finished flush with top of anchor stool plate *Top Mat Center Mat Bottom Ma 24" Suggested -----~1,300 psf LEVELING PAD **P800US FOUNDATION ELEVATION** 4

SCALE: NTS

Notes:

- site specific geotechnical report.

Base Section Set Procedure:

- 1. Install bottom reinforcement
- 2.

- 6. Install center and top reinforcement mats.

Potain MD485 Crane 2

1. The crane foundation shall be designed in accordance with the recommendations from a

2. Foundations located within a 1.5H:1V slope of the toe of an excavation shall not be permitted. The customer shall verify that there are no underground structures, utilities or obstructions in the area of the proposed crane location(s).

3. It is recommended the concrete foundation have a hard trowel finish

Build leveling pads. Bottom reinforcing mat shall be continuous through leveling pads.

3. Place base assembly on leveling pads.

4. Confirm correct orientation of the mast section with the plan view.

5. Set base assembly level using shims as required. The base assembly shall be set level prior to pouring the foundation for the crane. The tower mast shall be erected plumb to within a tolerance of 1:500 (0.96 inches in 40 feet).

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7. The top surface of the stool must be flush with the top of the foundation concrete.







GENERAL SITE DRAINAGE NOTES

1. ALL SPOT ELEVATIONS INDICATE FINISH GRADE OF SURFACE. ADJUSTMENTS MUST BE MADE TO ESTABLISH GRADES OF SUB-BASE OR SUBGRADE. SPOT ELEVATIONS ARE INCLUSIVE OF ANY LANDSCAPE MULCH REQUIRED. 2. PRIOR TO CONSTRUCTION OR DEMOLITION, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF ALL EXISTING UTILITIES, SO THAT NEW CONSTRUCTION WILL NOT DAMAGE OR INTERFERE WITH EXISTING UTILITY LINES. SHOULD DAMAGE OCCUR, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REPAIR AND/OR REPLACE SAID DAMAGE AT THE CONTRACTOR'S EXPENSE. FINISHED REPAIRS OR REPLACEMENT SHALL MEET THE APPROVAL OF THE

OWNER. 3. ALL EXCESS EXCAVATED MATERIAL, OTHER THAN TOPSOIL, IS TO BE REMOVED FROM THE SITE AT CONTRACTOR'S COST 4. UNLESS OTHERWISE NOTED, ALL TREES AND VEGETATION SHALL BE PROTECTED DURING CONSTRUCTION. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS NOT TO DAMAGE FOLIAGE, BRANCHES OR ROOTS OF EXISTING TREES TO REMAIN.

5. SHOULD CONTRACTOR ENCOUNTER ROCK EXCAVATION, THE ROCK SHALL BE REMOVED TO A MINIMUM DEPTH OF SIX INCHES BELOW BOTTOM OF UTILITIES UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS INCLUDING THE GEOTECHNICAL REPORT 6. ELEVATIONS AND CONTOURS ON THIS PLAN ARE REFERENCED TO MEAN SEA LEVEL DATUM AND BENCHMARKS REFERENCED ON THE PLAN

7. IT SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY TO VERIFY IF ROCK EXCAVATION FOR MASS GRADING OR TRENCHING IS REQUIRED. ALL EXCAVATION IS UNCLASSIFIED. THERE WILL BE NO PAYMENT FOR ROCK EXCAVATION. 8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXCAVATION QUANTITIES. 9. IT IS THE DESIGN INTENT FOR ALL WATER TO BE DIRECTED AWAY FROM THE PROPOSED AND EXISTING BUILDINGS.

10. REFER TO THE SITE SURVEY FOR EXISTING SPOT ELEVATIONS.

SITE SURVEY FOR ALL EXISTING ON-SITE STORM SEWER INFORMATION. 12. CONTRACTOR IS RESPONSIBLE FOR DESIGN OF SHORING AND UNDERPINNING OF UTILITIES OR STRUCTURES AT LOCATIONS INDICATED. CONTRACTOR SHALL PROVIDE SUBMITTAL DRAWINGS PREPARED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE COMMONWEALTH OF KENTUCKY AS REQUIRED BY THE OCCUPATIONAL SAFETY HEALTH ADMINISTRATION. THE NEED FOR, MEANS AND METHODS FOR SHORING ARE THE RESPONSIBILITY OF THE CONTRACTOR

13. THE CONTRACTOR SHALL NOTE THAT TEMPORARY CONSTRUCTION ACTIVITY MAY DE-STABILIZE SUBGRADES FOR BUILDING OR PAVED AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS COST FOR THE TEMPORARY USE OF AREAS FOR CONSTRUCTION ACTIVITY AND SHALL ALSO BE RESPONSIBLE FOR RE-STABILIZING AREAS SHOULD TEMPORARY CONSTRUCTION ACTIVITY CONTRIBUTE TO THE NEED TO STABILIZE BUILDING OR PAVEMENT AREAS.

14. ELEVATIONS OF ALL RIMS, STRUCTURE COVERS, ACCESS DOORS AND TOPS OF ALL UTILITY VAULTS, MANHOLES, VENTS, VALVE BOXES, ETC. SHALL BE ADJUSTED TO MEET PROPOSED SURROUNDING GRADES. 15. BEFORE STARTING SITE EXCAVATION, CONTRACTOR SHALL BE FAMILIAR WITH THE REPORT OF GEOTECHNICAL EXPLORATION AND COMPLY WITH

RECOMMENDATION PROVIDED FOR SUBGRADE CONDITIONS. 16. TOPSOIL (BY OTHERS) SHALL BE SIX (6) INCHES DEEP IN ALL TURF AREAS AND TWELVE (12) INCHES DEEP IN ALL LANDSCAPE BED AREAS AFTER PLACEMENT AND REASONABLE SETTLEMENT. 17. CONTRACTOR SHALL NOT CREATE ANY SITE GRADING THAT WILL PREVENT THE NORMAL DRAINAGE OF WATER OF DAM WATER. SHOULD OFFSITE

TOPOGRAPHY OR CONTOURS SHOWN ON GRADING PLAN NOT DEPICT ACCURATE CONDITIONS THAT CREATE DRAINAGE PROBLEMS, THE CONTRACTOR SHALL BRING THIS TO THE ATTENTION OF THE OWNER, LANDSCAPE ARCHITECT AND/OR CIVIL ENGINEER, PRIOR TO BEGINNING WORK. 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNDERCUT OF UNUSABLE, UNSTABLE OR OTHERWISE UNACCEPTABLE MATERIALS THAT ARE INDICATED ON THIS PLAN, ASSOCIATED SPECIFICATIONS AND/OR REFERENCED IN THE GEOTECHNICAL REPORT. THE CONTRACTOR SHALL PAY FOR ALL UNDERCUT

EXCAVATION AND DISPOSITION OF MATERIALS IN AN ACCEPTABLE MANNER THAT SHALL INCLUDE HAULING OFFSITE. 19. CONTRACTOR SHALL ENSURE ALL PROPOSED IMPROVEMENTS MEET AND MATCH EXISTING AND/OR ADJACENT CONDITIONS. CONTRACTOR SHALL NOTIFY DESIGN ENGINEER UPON ANY DISCREPANCY WHICH WILL DETER ADHERENCE TO THIS CONDITION. 20. ALL STORM SEWER INFRASTRUCTURE NEEDS TO BE FLUSHED FREE OF SEDIMENT AND INSPECTED BY ENGINEER AT COMPLETION OF PROJECT.

21. SPOT ELEVATIONS LABELED WITH "EX" ARE EXISTING SPOTS THAT HAVE BEEN INTERPOLATED FROM THE SITE SURVEY AND NEED TO BE VERIFIED IN THE FIELD. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES. 22. CONTRACTOR TO FIELD VERIFY ALL LOCATIONS AND DEPTHS OF EXISTING STORM STRUCTURES PRIOR TO BEGINNING CONSTRUCTION TO INSURE ADEQUATE

23. IF ANY EXISTING ASBESTOS COATED SEWER LINE IS UNEARTHED, IT WILL REQUIRE ABATEMENT IN ACCORDANCE WITH CURRENT EPA GUIDELINES. 24. PROVIDE A MINIMUM OF 12" CRUSHED STONE BACKFILL OVER STORM PIPING. STORM PIPING UNDER PAVED SURFACES TO BE BACKFILLED FULL DEPTH WITH CRUSHED STONE.

25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEWATERING OF EXCAVATION AREAS FOR FOUNDATIONS AND/OR BASEMENTS AND SHALL NOT ALLOW PONDING OF WATER THAT WILL DESTABILIZE THE SOIL BEARING FOR FOUNDATIONS, SLABS, STRUCTURES, ETC. 26. CONTRACTOR SHALL UTILIZED DIGITAL FILES TO ESTABLISH COORDINATES FOR LOCATING DRAINAGE STRUCTURES. DIGITAL FILES CAN BE OBTAINED FROM

CARMAN. SHOULD THE CONTRACTOR NEED A LISTING OF STRUCTURE COORDINATES, THESE MAY BE REQUESTED FROM THE OFFICE OF CARMAN. 27. THE CONTRACTOR SHALL SUBMIT SITE SPECIFIC SHOP DRAWINGS, SAMPLES, ETC FOR ANY MANUFACTURED OR PRE-CAST EQUIPMENT OR STRUCTURES ASSOCIATED WITH STORM DRAINAGE OR STORMWATER MANAGEMENT IMPROVEMENTS.

28. ASIDE FROM DESIGNATED SUMP MANHOLES, ANY SUMPS REMAINING IN STORM STRUCTURES (PVC OR CONCRETE) BELOW THE INVERT ELEVATION OF THE OUTLET PIPE SHALL BE FILLED WITH CONCRETE TO ELIMINATE ANY STANDING WATER WITHIN THE STRUCTURES. 29. ALL GRAVITY STORM PIPING SHALL BE SDR35 PVC AS SPECIFIED.

SITE DRAINAGE CODED NOTES

KEY	DESCRIPTION	DETAILS
(1A)	12" CATCH BASIN WITH 12" CIRCULAR GRATED LID, FLUSH WITH ADJACENT SURFACE. GRATED LID TO CONFORM TO UK STANDARD HEEL PROOF REQUIREMENTS	A / C602
(1B)	CATCH BASIN WITH 12" CIRCULAR SOLID LID, FLUSH WITH ADJACENT SURFACE	A / C602
(2A)	12" YARD DRAIN WITH BEEHIVE GRATE	B / C602
2B	YARD DRAIN BASIN WITH OPEN GRATE FLUSH WITH ADJACENT SURFACE – SIZE VARIES	B / C602
3	CLEANOUT	C / C602
4	2'X3' CURB BOX INLET	D / C602
5	FOUNDATION DRAIN LINE – 6" PERFORATED HDPE PIPE IN FILTER SOCK. REFER TO STRUCTURAL AND MEP PLANS FOR ADDITIONAL INFORMATION	-
6	HEAVY DUTY TRENCH DRAIN	G / C602
(7A)	WQU #1: 6' DIAMETER WATER QUALITY UNIT	н / С602
(7B)	WQU #2: 6' DIAMETER WATER QUALITY UNIT	I / C602
8A	FOUNDATION DRAIN MANHOLE #1: 4' DIAMETER SUMPED MANHOLE FOR FOUNDATION DRAIN CONNECTIONS AND AREAWAY SUMP DISCHARGE. NEW MANHOLE TO HAVE WITH 2" FORCE MAIN TO DISCHARGE WATER TO STORM STRUCTURE A-3. SUMP TO INCLUDE PUMP PER MEP ENGINEER. <u>RIM ELEVATION: 1000.00 – FOUNDATION DRAIN</u> INV ELEVATION: 981.50 – AREAWAY SUMP INV: 977.90 – SUMP ELEVATION: 973.90	E / C602
(8B)	FOUNDATION DRAIN MANHOLE #2: 4' DIAMETER SUMPED MANHOLE FOR FOUNDATION DRAIN CONNECTIONS WITH 2" FORCE MAIN TO DISCHARGE WATER TO STORM STRUCTURE E-5:YD. SUMP TO INCLUDE PUMP PER MEP ENGINEER. RIM ELEVATION: 1001.00 - INVERT ELEVATION: 984.00 - SUMP ELEVATION: 980.00	E / C602
9	SET NEW 4' DIAMETER MANHOLE D-2 ON EXISTING 12" PIPE AND E-2 MH ON EXISTING 24" PIPE. SEAL CONNECTION TO PREVENT LEAKS. FIELD VERIFY INVERT ELEVATIONS.	E / C602
10	SET NEW 2'X3' CURB BOX INLET ON EXISTING 18" LINE. SEAL CONNECTION TO PREVENT LEAKS.	D / C602
(1)	EXISTING CURB BOX INLET	-
(12)	PERMEABLE PAVER MANHOLE #3: 4' DIAMETER SUMPED MANHOLE FOR PERMEABLE PAVER DRAINAGE SYSTEM WITH 2" FORCE MAIN TO DISCHARGE WATER TO STORM STRUCTURE E-2:MH. CONNECT 4" CONDENSATE DRAIN LINE FROM BUILDING TO MANHOLE AT INVERT ELEVATION 981.33. SUMP TO INCLUDE PUMP PER MEP ENGINEER. <u>RIM</u> ELEVATION: 985.00 - INVERT ELEVATION 981.33 - SUMP ELEVATION 977.33	E / C602
13	PERMEABLE PAVER DRAINAGE SYSTEM. 4" PERFORATED PIPE IN SOCK CONNECTED TO MANHOLE	-
(14)	FUTURE SITE WORK FOR REFERENCE ONLY	-
(15)	WALLS PER STRUCTURAL PLANS	-
(16)	SANITARY SEWER SYSTEM FOR REFERENCE ONLY – SEE SHEET C500–C502 FOR MORE INFORMATION REGARDING SANITARY SEWER	-
(17)	2' X 2' CONCRETE CATCH BASIN	F / C602

FOUNDATION PENETRATIONS FOR INTERNAL BUILDING DRAINAGE

KEY	DESCRIPTION
A	10" PIPE INVERT OUT OF BUILDING AT CO-1: 997.50
В	10" PIPE INVERT OUT OF BUILDING AT CO-2: 995.00
С	8" PIPE INVERT OUT OF BUILDING AT D-5:CI: 994.25
D	8" PIPE INVERT OUT OF BUILDING AT D-4:CI: 989.50





HIGHLIGHTED AREAS INDICATE STORM STRUCTURES AND PIPING TO BE INSTALLED AS PART OF **BP-02**.

UNLIGHTED STRUCTURES AND PIPING TO OTHERS IN A LATER PACKAGE.



GENERAL SITE DRAINAGE NOTES

- ALL SPOT ELEVATIONS INDICATE FINISH GRADE OF SURFACE. ADJUSTMENTS MUST BE MADE TO ESTABLISH GRADES OF SUB-BASE OR SUBGRADE. SPOT ELEVATIONS ARE INCLUSIVE OF ANY LANDSCAPE MULCH REQUIRED. PRIOR TO CONSTRUCTION OR DEMOLITION, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF ALL EXISTING UTILITIES, SO THAT NEW CONSTRUCTION WILL NOT DAMAGE OR INTERFERE WITH EXISTING UTILITY LINES. SHOULD DAMAGE OCCUR, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REPAIR AND/OR REPLACE SAID DAMAGE AT THE CONTRACTOR'S EXPENSE. FINISHED REPAIRS OR REPLACEMENT SHALL MEET THE APPROVAL OF THE OWNER.
- ALL EXCESS EXCAVATED MATERIAL, OTHER THAN TOPSOIL, IS TO BE REMOVED FROM THE SITE AT CONTRACTOR'S COST UNLESS OTHERWISE NOTED, ALL TREES AND VEGETATION SHALL BE PROTECTED DURING CONSTRUCTION. CONTRACTOR SHALL TAKE ALL NECESSARY
- PRECAUTIONS NOT TO DAMAGE FOLIAGE, BRANCHES OR ROOTS OF EXISTING TREES TO REMAIN. SHOULD CONTRACTOR ENCOUNTER ROCK EXCAVATION, THE ROCK SHALL BE REMOVED TO A MINIMUM DEPTH OF SIX INCHES BELOW BOTTOM OF UTILITIES UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS INCLUDING THE GEOTECHNICAL REPORT
- ELEVATIONS AND CONTOURS ON THIS PLAN ARE REFERENCED TO MEAN SEA LEVEL DATUM AND BENCHMARKS REFERENCED ON THE PLAN 7. IT SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY TO VERIFY IF ROCK EXCAVATION FOR MASS GRADING OR TRENCHING IS REQUIRED. ALL EXCAVATION IS UNCLASSIFIED. THERE WILL BE NO PAYMENT FOR ROCK EXCAVATION.
- 8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXCAVATION QUANTITIES. 9. IT IS THE DESIGN INTENT FOR ALL WATER TO BE DIRECTED AWAY FROM THE PROPOSED AND EXISTING BUILDINGS.
- 10. REFER TO THE SITE SURVEY FOR EXISTING SPOT ELEVATIONS.
- 11. EXISTING STORM SEWER RIMS AND INVERTS ARE TAKEN FROM THE SITE SURVEY AND SHOULD BE CROSS-REFERENCED WITH THE SITE SURVEY. REFER TO SITE SURVEY FOR ALL EXISTING ON-SITE STORM SEWER INFORMATION. 12. CONTRACTOR IS RESPONSIBLE FOR DESIGN OF SHORING AND UNDERPINNING OF UTILITIES OR STRUCTURES AT LOCATIONS INDICATED. CONTRACTOR SHALL PROVIDE SUBMITTAL DRAWINGS PREPARED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE COMMONWEALTH OF KENTUCKY AS REQUIRED BY
- THE OCCUPATIONAL SAFETY HEALTH ADMINISTRATION. THE NEED FOR, MEANS AND METHODS FOR SHORING ARE THE RESPONSIBILITY OF THE CONTRACTOR 13. THE CONTRACTOR SHALL NOTE THAT TEMPORARY CONSTRUCTION ACTIVITY MAY DE-STABILIZE SUBGRADES FOR BUILDING OR PAVED AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS COST FOR THE TEMPORARY USE OF AREAS FOR CONSTRUCTION ACTIVITY AND SHALL ALSO BE RESPONSIBLE FOR RE-STABILIZING AREAS SHOULD TEMPORARY CONSTRUCTION ACTIVITY CONTRIBUTE TO THE NEED TO STABILIZE BUILDING OR
- PAVEMENT AREAS. 14. ELEVATIONS OF ALL RIMS, STRUCTURE COVERS, ACCESS DOORS AND TOPS OF ALL UTILITY VAULTS, MANHOLES, VENTS, VALVE BOXES, ETC. SHALL BE ADJUSTED TO MEET PROPOSED SURROUNDING GRADES.
- 15. BEFORE STARTING SITE EXCAVATION, CONTRACTOR SHALL BE FAMILIAR WITH THE REPORT OF GEOTECHNICAL EXPLORATION AND COMPLY WITH RECOMMENDATION PROVIDED FOR SUBGRADE CONDITIONS. 16. TOPSOIL (BY OTHERS) SHALL BE SIX (6) INCHES DEEP IN ALL TURF AREAS AND TWELVE (12) INCHES DEEP IN ALL LANDSCAPE BED AREAS AFTER
- PLACEMENT AND REASONABLE SETTLEMENT. 17. CONTRACTOR SHALL NOT CREATE ANY SITE GRADING THAT WILL PREVENT THE NORMAL DRAINAGE OF WATER OF DAM WATER. SHOULD OFFSITE TOPOGRAPHY OR CONTOURS SHOWN ON GRADING PLAN NOT DEPICT ACCURATE CONDITIONS THAT CREATE DRAINAGE PROBLEMS, THE CONTRACTOR SHALL
- BRING THIS TO THE ATTENTION OF THE OWNER, LANDSCAPE ARCHITECT AND/OR CIVIL ENGINEER, PRIOR TO BEGINNING WORK. 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNDERCUT OF UNUSABLE, UNSTABLE OR OTHERWISE UNACCEPTABLE MATERIALS THAT ARE INDICATED ON THIS PLAN, ASSOCIATED SPECIFICATIONS AND/OR REFERENCED IN THE GEOTECHNICAL REPORT. THE CONTRACTOR SHALL PAY FOR ALL UNDERCUT
- EXCAVATION AND DISPOSITION OF MATERIALS IN AN ACCEPTABLE MANNER THAT SHALL INCLUDE HAULING OFFSITE. 19. CONTRACTOR SHALL ENSURE ALL PROPOSED IMPROVEMENTS MEET AND MATCH EXISTING AND/OR ADJACENT CONDITIONS. CONTRACTOR SHALL NOTIFY DESIGN ENGINEER UPON ANY DISCREPANCY WHICH WILL DETER ADHERENCE TO THIS CONDITION.
- 20. ALL STORM SEWER INFRASTRUCTURE NEEDS TO BE FLUSHED FREE OF SEDIMENT AND INSPECTED BY ENGINEER AT COMPLETION OF PROJECT. 21. SPOT ELEVATIONS LABELED WITH "EX" ARE EXISTING SPOTS THAT HAVE BEEN INTERPOLATED FROM THE SITE SURVEY AND NEED TO BE VERIFIED IN THE FIELD. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES. 22. CONTRACTOR TO FIELD VERIFY ALL LOCATIONS AND DEPTHS OF EXISTING STORM STRUCTURES PRIOR TO BEGINNING CONSTRUCTION TO INSURE ADEQUATE
- DEPTH. 23. IF ANY EXISTING ASBESTOS COATED SEWER LINE IS UNEARTHED, IT WILL REQUIRE ABATEMENT IN ACCORDANCE WITH CURRENT EPA GUIDELINES. 24. PROVIDE A MINIMUM OF 12" CRUSHED STONE BACKFILL OVER STORM PIPING. STORM PIPING UNDER PAVED SURFACES TO BE BACKFILLED FULL DEPTH
- WITH CRUSHED STONE. 25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEWATERING OF EXCAVATION AREAS FOR FOUNDATIONS AND/OR BASEMENTS AND SHALL NOT ALLOW
- PONDING OF WATER THAT WILL DESTABILIZE THE SOIL BEARING FOR FOUNDATIONS, SLABS, STRUCTURES, ETC. 26. CONTRACTOR SHALL UTILIZED DIGITAL FILES TO ESTABLISH COORDINATES FOR LOCATING DRAINAGE STRUCTURES. DIGITAL FILES CAN BE OBTAINED FROM CARMAN. SHOULD THE CONTRACTOR NEED A LISTING OF STRUCTURE COORDINATES, THESE MAY BE REQUESTED FROM THE OFFICE OF CARMAN.
- 27. THE CONTRACTOR SHALL SUBMIT SITE SPECIFIC SHOP DRAWINGS, SAMPLES, ETC FOR ANY MANUFACTURED OR PRE-CAST EQUIPMENT OR STRUCTURES ASSOCIATED WITH STORM DRAINAGE OR STORMWATER MANAGEMENT IMPROVEMENTS.
- 28. ASIDE FROM DESIGNATED SUMP MANHOLES, ANY SUMPS REMAINING IN STORM STRUCTURES (PVC OR CONCRETE) BELOW THE INVERT ELEVATION OF THE OUTLET PIPE SHALL BE FILLED WITH CONCRETE TO ELIMINATE ANY STANDING WATER WITHIN THE STRUCTURES. 29. ALL GRAVITY STORM PIPING SHALL BE SDR35 PVC AS SPECIFIED.

SITE DRAINAGE CODED NOTES

KEY	DESCRIPTION	DETAILS
(1A)	12" CATCH BASIN WITH 12" CIRCULAR GRATED LID, FLUSH WITH ADJACENT SURFACE. GRATED LID TO CONFORM TO UK STANDARD HEEL PROOF REQUIREMENTS	A / C602
(1B)	CATCH BASIN WITH 12" CIRCULAR SOLID LID, FLUSH WITH ADJACENT SURFACE	A / C602
(2A)	12" YARD DRAIN WITH BEEHIVE GRATE	B / C602
2B	YARD DRAIN BASIN WITH OPEN GRATE FLUSH WITH ADJACENT SURFACE – SIZE VARIES	B / C602
3	CLEANOUT	C / C602
4	2'X3' CURB BOX INLET	D / C602
5	FOUNDATION DRAIN LINE – 6" PERFORATED HDPE PIPE IN FILTER SOCK. REFER TO STRUCTURAL AND MEP PLANS FOR ADDITIONAL INFORMATION	-
6	HEAVY DUTY TRENCH DRAIN	G / C602
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(14)	FUTURE SITE WORK FOR REFERENCE ONLY	-
(15)	WALLS PER STRUCTURAL PLANS	-
(16)	SANITARY SEWER SYSTEM FOR REFERENCE ONLY – SEE SHEET C500–C502 FOR MORE INFORMATION REGARDING SANITARY SEWER	-
(17)	2' X 2' CONCRETE CATCH BASIN	F / C602

FOUNDATION PENETRATIONS FOR INTERNAL BUILDING DRAINAGE

KEY	DESCRIPTION
A	10" PIPE INVERT OUT OF BUILDING AT CO-1: 997.50
В	10" PIPE INVERT OUT OF BUILDING AT CO-2: 995.00
С	8" PIPE INVERT OUT OF BUILDING AT D-5:CI: 994.25
D	8" PIPE INVERT OUT OF BUILDING AT D-4:CI: 989.50

(IN FEET) 1 inch = 20 ft.

48' OF 8" @ 1.04%

CATCH BASUN

RE:996.00 (B) 8" IE IN:992.25 8" JE OUT:992.25



FOR THE PROJECT TITLED:

Health Education Building UK Project No. 2564 JRA Project No. 202170 University of Kentucky Lexington, Kentucky

To: Prospective Bidders

From: JRA Architects 3225 Summit Square Place, Suite 200 Lexington, KY 40509

Project Contact: D. Robert Deal, AIA, LEED AP

The Addendum will form a part of the Contract Documents and modifies the original Bidding Documents dated February 2024.

Bidders must acknowledge receipt of this Addendum in the space provided on the Form of Proposal. Failure to do so may subject the bidder to disqualification.

Bidding Documents, including the Drawings and Specifications, are amended as described herein.

ADDENDUM ITEMS:

ITEM NO. 3.01

Refer to attached sheet S-001. See added solar panel design loads and concrete shear wall design stresses.

ITEM NO. 3.02

Refer to attached sheet S-002. Abbreviation list has updated. Foundation Tag Notes and Framing Tag Notes have moved from all Plan sheets and are now located on this "General Notes & Structure Tag Notes" sheet.

ITEM NO. 3.03

Refer to attached sheet S-004. Updated isometric views included for reference only.

ITEM NO. 3.04

Refer to attached sheet S-005. Updated isometric views included for reference only.

ITEM NO. 3.05

Refer to attached sheet S-006. Added/modified gridlines and layout as design development progressed.

ITEM NO. 3.06

Refer to attached sheet S-110A. Foundation Tag Notes moved to sheet S-002. Updated Foundation Plan Notes. Spread Footing Schedule changes to footing sizes and reinforcement. Updated embed and bearing plates, gridlines and dimensions, rock anchor locations, pier sizes/locations, and footing sizes/locations, additional piers and footings for added columns. Added concrete beam for lateral wall support at west areaway.

ITEM NO. 3.07

Refer to attached sheet S-110B. Foundation Tag Notes moved to sheet S-002. Updated Foundation Plan Notes. Spread Footing Schedule changes to footing sizes and reinforcement. Updated gridlines and

dimensions, wall footings, rock anchor locations, pier sizes/locations, and footing sizes/locations, additional piers and footings for added columns.

ITEM NO. 3.08

Refer to attached sheet S-110C. Foundation Tag Notes moved to sheet S-002. Updated Foundation Plan Notes. Spread Footing Schedule changes to footing sizes and reinforcement. Updated gridlines and dimensions, rock anchor locations, pier sizes/locations, and footing sizes/locations, additional footings for added columns. Moved column from Gridline S2 to Gridline S1.

ITEM NO. 3.09

Refer to attached sheet S-111A. Framing Tag Notes moved to sheet S-002. Updated gridlines and dimensions and updated embed plates.

ITEM NO. 3.10

Refer to attached sheet S-111B. Framing Tag Notes moved to sheet S-002. Updated gridlines and dimensions. Added section at existing comm duct bank permanent support framing detail (for reference only).

ITEM NO. 3.11

Refer to attached sheet S-111C. Framing Tag Notes moved to sheet S-002. Updated gridlines and dimensions and updated embed plates, added tag notes clarifying reinforcement around window openings in concrete foundation wall.

ITEM NO. 3.12

Refer to attached sheet S-201. Updated baseplates on Steel Column Schedule, clarified intent of / design status of column schedule issued in BP-02.

ITEM NO. 3.13

Refer to attached sheet S-202. Updated baseplates on Steel Column Schedule, clarified intent of / design status of column schedule issued in BP-02.

ITEM NO. 3.14

Refer to attached sheet S-203. Updated baseplates on Steel Column Schedule, clarified intent of / design status of column schedule issued in BP-02.

ITEM NO. 3.15

Refer to attached sheet S-301. Deleted unused footing marks from schedule, updated reinforcement noted in schedule.

ITEM NO. 3.16

Refer to attached sheet S-302. Updated pier sizes and reinforcement. Added additional pier types.

ITEM NO. 3.17

Refer to attached sheet S-303. Miscellaneous changes to existing sections and details. Added new section for added concrete beam at areaway and added new section for first floor slab edge condition at stair landing.

ITEM NO. 3.18

Refer to attached sheet S-305. Updated bearing plate on masonry detail.

ITEM NO. 3.19

Refer to attached sheet S-306. Updated section for concrete shear wall and updated section for precast connection onto concrete stem wall.

ITEM NO. 3.20

Refer to attached sheet S-307. Miscellaneous changes to existing sections and details.

ITEM NO. 3.21

Refer to attached sheet S-308. Miscellaneous changes to existing sections and details. Updated detail for added concrete beam in areaway, updated embed angle size where lateral frames occur, ze added a new section for steel column on top of masonry wall.

ITEM NO. 3.22

Refer to the Mechanical Drawings. Mechanical Drawings shall be renumbered to be sequential with BP-1 site plans. Refer to the attached drawings. Item #2 <u>Refer to Mechanical Drawing MU-202</u>

ITEM NO. 3.23

Refer to the Mechanical Drawings. The invert elevation of the steam pipes including the HPR and pumped condensate return line shall be lowered to 992.7 to provide additional clearance between the steam pipes and new site storm piping in the area.

ITEM NO. 3.24

Refer to the Civil Drawings.

New Inlet on 'A' Line Between 3 and 4, added to circumvent the electrical vault

- New Inlet Is "B-1A: YD"
- RE:10001.2
- 15" IN: 996.80
- 12" IN: 996.80
- 15" OUT: 996.80

A-4 YD - Rim raised slightly to help grade

• RE-1001.25

A-5 YD - Moved plan south ~8' with Rim adjustment

• RE:1000.50

A-6 YD - Removed from project, this area to be gravel and enclosed per Arch

A-7 CB – Don't need inlet on TD and was removed.

A-8 TD - Shifted away from wall

A-9 CB - Shifted to apron/asphalt intersect (in concrete)

B-1 YD - 12" pipe from west removed due to vault.

- RE: 1000.50
- 15" IN: 996.70
- 10" IN: 996.22
- 18" OUT: 995.97

B-2 CI – Angle out changes to hit new box

• RE:1000.50

- 10" IN: 997.09
- 12" OUT: 997.09

B-3 CI - Shifted plan right to avoid Chilled water lines

- RE: 1000.12
- 10" OUT: 997.27

D-6 CI – Shifted South for curb line change

• RE:998.84

Pipe from CO-3 to E-8: YD orientation changed to avoid steam lines.

E-7:YD Rim Elevation corrected

• RE:998.50

The following pipes were changed to Ductile Iron due to heat concerns from steam lines

- 1. B1-A3
- 2. A3 to MH 3. C1-A3
- 4. D1-C2
- 5. C2-C3

ITEM NO. 3.25

Refer to Sheet C401 - Site Water Utility Plan. Coded Note 8 Changed. "Contractor" replaces "Owner".

END OF ADDENDUM NO. 3.00

GENERAL N	NOTES				
DESIGN LOADS STRUCTURAL RIS	K CATEGORY				CATEGORY III
LOOR LIVE LOAD)				
BASEME	NT/SLAB-ON-GF	RADE (UNLESS I		WISE)	125 PSF
FIRST FL FLOORS	.OOR ABOVE FIRST F	LOOR (UNLESS	NOTED OTHER	RWISE)	100 PSF
LIGHT ST	ORAGE				125 PSF
MECHAN MECHAN	IICAL ROOM SL/ IICAL PENTHOU	AB-ON-GRADE SE FLOOR			150 PSF 150 PSF
SECOND	FLOOR 200-PE	RSON CLASSRO	DOMS		100 PSF
STAIRS					100 PSF
THIRD FL WALL BA	LOOR PT/AT CLI CKFILL SURCH	NICAL ROOM ARGE, TYPICAL			150 PSF 100 PSF
WALL BA (LIVE LO)	CKFILL SURCH	ARGE, DRIVE LA CED PER KBC S	ANE ECTION 1607.1	0)	250 PSF
				-,	
TYPICAL	ROOF				
OCCUPIE	ED ROOF				100 PSF
TRAY SY	STEM GREEN F		****	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
SOLAR P ** (NON-F	REDUCED, ADD	ITIONAL LOADIN	JG)	in man	**10 PSF
OOF SNOW LOAI	D (PER ASCE 7-	10)			
GROUND	SNOW LOAD				Pg = 15 PSF
SNOW EX	ANCE FACTOR . XPOSURE FACT	OR			. Is = 1.10 . Ce = 1.0
THERMA					Ct = 10
(CAN	IOPIES)				Ct = 1.2
RAIN ON FLAT-RO	SINUW SURCH	אתGE 0* (Pf = 0.7CeCtl	sPg)		. Pr = 5 PSF
(BUIL					Pf = 11.6 PSF
MINIMUM	1-ROOF SNOW I	_OAD (IsPg)			Pm = 16.5 PSF
SLOPED- (BUIL	-ROOF SNOW L ⁱ _DING)	OAD* (Ps = Cs P	f)		. Ps = 11.6 PSF
(CAN *(INCREA	IOPIES)	NG PER ASCE 7	-10 SECTIONS	77&78)	Ps = 13.9 PSF
				1.1 & 1.0)	
ULTIMAT	ASCE 7-10) E DESIGN WINI) SPEED			. V <i>ULT</i> = 120 MPH
	DESIGN WIND	SPEED			VASD= 93 MPH
ENCLOS	URE			Fl	JLLY ENCLOSED
INTERNA END ZON	L PRESSURE C	OEFFICIENT			$GC_{pi} = \pm 0.18$ a = 26.8 FT
EFFECTIVE	ENTS & CLADDI	NG EXTERNAL F LOC	CATION PER AS	IMATE (LRFD) LC CE 7-10:	JADS (PSF)
WIND AREA (SQ FT)	1	2	3	4	5
≦10	16 -56 7	16 -89 1	16 -89 1	38.8 -38.8	38.8 -71 1
20	16	16	16	38.8	38.8
20	-53.6	-84.6	-84.6	-38.8	-71.1
50	16 -49.3	16 -78.7	16 -78.7	35.7 -36.7	35.7 -62.9
100	16	16	16	33.4	33.4
	-40.2	-74.5	-74.5	-35.2	-50.7
500	\checkmark	\checkmark	\checkmark	-31.6	-42.4
 NOTES: 1. WIND LOADI DESIGN MUI 2. LOADING PER RECALCULA SPECIFIED. 3. PRESSURES 4. PLUS AND M SURFACES, 5. EACH COMP 6. FOR COMPC LOADS MAY NEXT LOWE 7. INTERNAL P 8. THE NET C& SHALL NOT SURFACE. 9. NOTATION: a: 10 PERCE BUT NOT h 6. ANGLE C 	NG PROVIDED J TIPLY LOADS FOR ROVIDED IS FOR SOVIDED IS FOR SOVIDU	ARE ULTIMATE PROVIDED BY 0. WORST CASE SPECIFIC COM APPLIED NORMA GNIFY PRESSUF C BE DESIGNED F C BEFFECTIVE AF TED. OTHERWIS AREA. ENCLOSED BUI NCLUDING INTE THAN 16 PSF A HORIZONTAL DII THER 4% OF LEA FEET, EXCEPT 10% DOF FROM HOR 2 5 5 5 5 5 5 5 5	(LRFD) LOADIN 6. ROOF HEIGHT. PONENT HEIGH AL TO THE SURI RES ACTING TO OR MAXIMUM P REAS IN BETWE SE DESIGN LOA LDING IS INCLL ERNAL PRESSU ACTING IN EITH MENSION OR 0. AST HORIZONT THAT EAVE HE IZONTAL, IN DE	G. FOR ALLOWA DELEGATED DI ITS USING PARA FACE. WARD AND AWA OSITIVE AND NE EN TABULATED ID MUST BE TAK IDED IN ABOVE RE) FOR ANY CO ER DIRECTION N 4h, WHICHEVER AL DIMENSION O IGHT SHALL BE GREES.	ABLE STRESS ESIGNERS MAY AMETERS AY FROM THE EGATIVE FORCES VALUES, DESIGN CEN FROM THE VALUES. DMPONENT NORMAL TO THE R IS SMALLER, DR 3 FT. USED
ARTHQUAKE DES COUNTY	SIGN DATA / STATE			FAYF	TTE / KENTUCKY
	ANCE FACTOR) RESPONSE A	CCELFRATION		le = 1.25 Ss = 0.187

MAPPED 1 SECOND PERIOD RESPONSE ACCELERATION ..

DESIGN SHORT PERIOD SPECTRAL RESPONSE COEFFICIENT

DESIGN 1 SECOND PERIOD SPECTRAL RESPONSE COEFFICIENT

DETAILED FOR SEISMIC RESISTANCE & ORDINARY PRECAST SHEAR WALLS

SITE CLASS

SEISMIC DESIGN CATEGORY .

BASIC STRUCTURAL SYSTEM

METHOD OF ANALYSIS...

SEISMIC RESISTING SYSTEM ...

RESPONSE MODIFICATION FACTOR.

SEISMIC BASE SHEAR - PLAN NORTH WING ...

SEISMIC BASE SHEAR – PLAN SOUTH WING.

SEISMIC RESPONSE COEFFICIENT

CON	NCRETE (STRENGTH DESIGN) MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS:
	FUUTINGS, INTERIOR SLABS ON GRADE, GRADE BEAMS, WALLS, PIERS, I
	CONCRETE AT INTERIOR SHEAR WALLS FROM BSMT TO 3RD FLOOR fc =
	CUNCRETE PAVEMENT EXPOSED TO FREEZE/THAWfc = STRUCTURAL CONCRETE EXPOSED TO FREEZE/THAWfc =
PRE	STRESS STRANDS (ASTM A416) fpu =
REI	NFORCING BARS (ASTM A615 GRADE 60) fy =
WEI	LDED WIRE FABRIC (ASTM A1064) fy =
WID	E FLANGE AND TEE SHAPES DESIGNATED AS W AND WT (ASTM A992) fy =
	PEFLANGE AND TEE SHAPES DESIGNATED AS M, S, MT AND ST (ASTM 36) ty =
PLA	TES AND BARS \leq 4-INCHES THICK (ASTM A572, GRADE 50)
PLA	TES AND BARS > 4-INCHES THICK (ASTM A572, GRADE 42) fy =
CON	MPOSITE STEEL FLOOR DECK (ASTM A653)
HOL	LOW STRUCTURAL SECTIONS - RECTANGULAR STEEL TUBES
(AS HOL	IM ASOU GRADE C)
(AS	TM A500 GRADE C) fy =
STR	RUCTURAL STEEL PIPE (ASTM A53 GRADE B) fy =
C	ONCRETE MASONRY UNIT STRENGTH
Т	YPE S MORTAR STRENGTH fm =
MA: STR	SONRY GROUT (ASTM C476) MINIMUM COMPRESSIVE
BEA	RING PRESSURE FOR FOUNDATIONS (INTACT LIMESTONE BEDROCK)
DES	SIGN CRITERIA
1.	STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE 2018 KENTUCKY BUILD
	3 rd EDITION (2015 IBC).
2.	MAXIMUM ESTIMATED DEFLECTIONS (IN INCHES) ARE AS FOLLOWS:
	ROOF MEMBERS L/360 L/240
	FLOOR MEMBERS INTERIOR L/360 L/240
	FLOOR MEMBERS SPANDREL L/480 L/360
	FOR CANTILEVERS L = TWICE THE LENGTH OF THE CANTILEVER.
3.	NO PROVISION HAS BEEN MADE FOR FUTURE HORIZONTAL OR VERTICAL EX
4.	FIRE PROTECTION: STRUCTURAL SLABS ON METAL DECK AT FLOORS HAVE
	ADDITIONAL PROTECTION. STRUCTURAL SLABS ON METAL DECK AT ROOFS
	DESIGNED IN COMPLIANCE WITH UL D902 TO PROVIDE A 1 HOUR FIRE RATIN
	ADDITIONAL PROTECTION. STRUCTURAL STEEL BEAMS AND FLOOR SYSTEM STEEL FRAMED BLILLDING SYSTEMS ARE CLASSIFIED AS RESTRAINED
<u>GEN</u>	<u>IERAL</u>
1.	THE REQUIREMENTS OF THESE GENERAL NOTES APPLY UNLESS NOTED OTH
	PLANS OR IN SPECIFICATIONS.
2.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL CONTRACT
	TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE PREPA
	AND SUBMITTAL OF SHOP DRAWINGS, FABRICATION, AND INSTALLATION OF
3	STRUCTURAL MEMBERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL PREVIOUS.
0.	RELEASED BID PACKAGES, INCLUDING ANY REVISIONS THERETO, AND COOR
	THEIR WORK WITH THE PRIOR PACKAGES.
4.	THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO
	THAT MAY EXIST.
5.	ANY DISCREPANCIES BETWEEN STRUCTURAL AND ARCHITECTURAL DRAWIN
6	BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENG
7.	THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION A
	THEREFORE DEPENDENT UPON DIAPHRAGM ACTION OF THE ROOF DECK AN
	RESISTANCE TO WIND AND SEISMIC FORCES. THE CONTRACTOR SHALL FUR
	INSTALL ALL NECESSARY BRACING REQUIRED TO PROPERLY CONSTRUCT TH
	BUILDING UNTIL THESE ELEMENTS ARE COMPLETE AND CAPABLE OF PROVID
8.	THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS AND METHO
	CONSTRUCT THE STRUCTURE, INCLUDING VERIFICATION OF LOAD CAPACITY
	STRUCTURE, NEW OR EXISTING, TO SUPPORT CONSTRUCTION ACTIVITIES, E
	STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DE
	CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED. DAMAG
	STRUCTURE CAUSED BY CONSTRUCTION ACTIVITIES SHALL BE CORRECTED RESPONSIBLE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER
9.	SHOP DRAWINGS MUST BE CHECKED AND STAMPED BY THE CONTRACTOR P
	SUBMISSION.
10.	NON-STRUCTURAL ELEMENTS OF THE BUILDING (ARCHITECTURAL FINISHES,
	FOUNDATION/FLOOR/ROOF DRAINS, ETC.) ARE TYPICALLY NOT SHOWN ON T
	STRUCTURAL DRAWINGS. WHERE NON-STRUCTURAL ELEMENTS ARE SHOW
	STRUCTURAL DRAWINGS, THEY ARE SHOWN FOR REFERENCE AND DESIGN I
	ARCHITECTURAL, ELECTRICAL, MECHANICAL AND PLUMBING DRAWINGS.
11.	ELEVATIONS SHOWN ON STRUCTURAL DRAWINGS ARE IDEALIZED ELEVATION
	UN DECK THICKNESS AND SLOPES SHOWN ON DRAWINGS AND DO NOT ACCO
	COORDINATE ANY CAMBER OF THEIR WORK WITH OTHER TRADES AND ADJU
	ELEVATIONS AS NECESSARY TO ACCOUNT FOR DEAD LOAD DEFLECTION AN
12	VANIBER. WALL OPENINGS AND TERMINATIONS SHOWN ON THE STRUCTURAL DRAWIN
	DIAGRAMMATIC ONLY. WALL TERMINATIONS AND OPENING JAMBS, HEADS, A
	SHALL BE CONSTRUCTED AS SHOWN ON THE ARCHITECTURAL DRAWINGS.
	VENEERS WRAP JAMBS, DETAIL AND FABRICATE LINTELS TO BEAR ON SOLID STRUCTURE DO NOT BEAR LINTELS OR BEAMS ON VENEERS (BRICKS SIDIN
	THE ARCHITECTURAL DRAWINGS DO NOT INCLUDE DETAILS FOR ANY OF THE
	CONDITIONS, CONSULT WITH ARCHITECT FOR DIRECTION.
13.	EXISTING CONSTRUCTION SHOWN IS BASED ON EXISTING CONSTRUCTION D
	EXACT. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS RELE
	THEIR WORK PRIOR TO CONSTRUCTION.
14.	DETAILS LABELED TYPICAL ON THESE DRAWINGS SHALL APPLY TO ALL SITU/ OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR AND SHALL
	REGARDI ESS OF WHETHER THEY ARE KEYED ON THE PLANS CONSTRUCTION

DESIGN STRESSES

FOUNDATION CONSTRUCTION

..... S1 = 0.091

.... Sds = 0.125

.... Sd1 = 0.061

... BUILDING FRAME SYSTEM

... STEEL SYSTEMS NOT SPECIFICALLY

.. STRUCTURES ASSIGNED TO SEISMIC DESIGN

..CATEGORY "A" PER ASCE 7-10 SECTION 11.7

.... 0.01 (STATIC LATERAL FORCES)

.. CATEGORY A

....R = 3.0

.. = 461 KIPS

. = 241 KIPS

... CLASS B

FOR SIMILAR CONDITIONS.

1.	FOUNDATIONS ON THIS PROJECT ARE DESIGNED IN ACCORDANCE WIT
	RECOMMENDATIONS MADE BY S&ME, INC., GEOTECHNICAL ENGINEERS
	REPORT DATED AUGUST 26, 2022 AND ADDENDUM DATED OCTOBER 13
	GEOTECHNICAL REPORT IS PROVIDED AS REFERENCE INFORMATION A
	BIDDERS BUT IS NOT PART OF THE CONTRACT DOCUMENTS. THE STR
	ENGINEER IS NOT RESPONSIBLE OR LIABLE FOR THE ACCURACY OF THE
	PRESENTED IN THE GEOTECHNICAL REPORT.

- . ELEVATIONS GIVEN ARE TO THE TOP OF FOOTINGS AND GRADE BEAMS. 3. ALL FOOTINGS MUST BE SUPPORTED ON BEDROCK OR STRUCTURAL CONCRETE FILL (4000 PSI) PLACED OVER BEDROCK. REMOVE ALL SOIL BETWEEN PROPOSED FOUNDATION ELEVATION AND BEDROCK.
- 4. IN GRANULAR SOILS (SANDS AND GRAVEL) THE SOIL SHALL BE MECHANICALLY TAMPED TO A HARD SURFACE IMMEDIATELY PRIOR TO PLACING FOOTING. 5. LOCATE EXISTING UNDERGROUND UTILITIES IN AREAS OF CONSTRUCTION. COORDINATE WITH UTILITY COMPANIES FOR ANY SHUT-OFF REQUIREMENTS OF STILL-
- ACTIVE LINES. WHEN EXCAVATIONS APPROACH THE GROUND WATER LEVEL, THE WATER LEVEL SHALL BE LOWERED BY AN ACCEPTABLE DEWATERING SYSTEM SO THAT THE WATER LEVEL IS MAINTAINED CONTINUOUSLY A MINIMUM OF 2'-0" BELOW THE EXCAVATION.

- RS. INTERIOR ..f'c = 4.000 PSI 5,000 PS .f'c = 4,500 PSI ..f'c = 5,000 PSI fpu = 270,000 PSI fy = 60,000 PSI fv = 60.000 PSI fv = 65.000 PSI fy = 50.000 PSI fy = 36,000 PSI fv = 50.000 PSI fy = 50,000 PSI fv = 42.000 PSI fy = 33,000 PSI fy = 50,000 PSI fy = 50,000 PSI fy = 46,000 PSI fv = 35.000 PSI f'm = 2,000 PSI f'm = 2.000 PSI f'm = 2,000 PSI . f'm = 2,000 PSI 70,000 PSF
- BUILDING CODE, OAD
- NCHES) L EXPANSION AVE BEEN ATING WITHOUT OFS HAVE BEEN
- ATING WITHOUT TEMS WITHIN
- OTHERWISE ON RIBUTING SUCH
- REPARATION I OF ANY USLY
- COORDINATING
- REPANCIES AWINGS SHALL ENGINEER.
- ION AND IS **KAND FLOOR** LITY AND FOR
- FURNISH AND OVIDING THIS ETHODS TO ACITY OF THE
- ES, EQUIPMENT ED ON THE E DESIGN MAGE TO THE CTED BY THE
- OR PRIOR TO HES, MASONRY
- PIPING, ON THE HOWN ON THE **IGN INTENT**
- VN ON THE TIONS BASED ACCOUNT FOR
- ORS TO ADJUST AND THIS
- WINGS ARE ADS, AND SILLS IGS. WHERE OLID SIDING, ETC.). IF THESE
- ON DOCUMENTS TO BE TRUE OR RELEVANT TO
- SITUATIONS IALL APPLY JCTION NOT SPECIFICALLY INDICATED BY DETAIL OR SECTION SHALL BE SIMILAR TO DETAILS SHOWN
 - RS. IN THEIR 3. 2023. THE
 - AVAILABLE TO RUCTURAL THE INFORMATION

- 7. PROVIDE MINIMUM (2) #5 CONTINUOUS IN ALL FOOTINGS DIRECTLY UNDER MASONRY WALLS 8. BEFORE BACKFILL, ALL WALLS MUST BE ADEQUATELY BRACED. FOR BACKFILL REQUIREMENTS, SEE SPECIFICATIONS AND/OR GEOTECHNICAL ENGINEER'S REPORT. 9. RETAINING WALLS SHALL NOT BE BACKFILLED UNTIL COMPRESSIVE STRENGTH TESTS DEMONSTRATE THAT THE CONCRETE HAS DEVELOPED 100% OF THE REQUIRED 28-DAY COMPRESSIVE STRENGTH FOR THE CLASS OF CONCRETE SPECIFIED. THE CONTRACTOR MAY ELECT TO PREPARE ADDITIONAL TEST CYLINDERS IN ORDER TO DEMONSTRATE THAT THE REQUIRED COMPRESSIVE STRENGTH PRIOR TO THE MANDATORY 28-DAY COMPRESSIVE STRENGTH TESTS. IN NO CASE SHALL WALLS BE BACKFILLED PRIOR TO SEVEN (7) DAYS FROM PLACEMENT.
- 10. FOR PLACEMENT AND COMPACTION OF FILL UNDER SLABS ON GRADE. SEE SPECIFICATIONS. IF NOT NOTED OTHERWISE, COMPACT ALL FILL TO 98% OF OPTIMUM LABORATORY DENSITY IN ACCORDANCE WITH ASTM D698 STANDARD PROCTOR METHOD. PLACE FILL IN 6" TO 8" LAYERS AND COMPACT WITH VIBRATORY TAMPING EQUIPMENT
- 11. WHERE ELECTRICAL CONDUIT CONGREGATES BELOW ELECTRICAL ROOMS AND PANELS, CONTRACTOR SHALL HOLD DOWN SUBGRADE APPROPRIATELY FOR CONDUIT TO BE BELOW SLAB. COVER CONDUIT WITH FLOWABLE FILL (LEAN CONCRETE) TO BOTTOM OF SLAB ELEVATION.
- 12. SEE ARCHITECTURAL AND SITE DRAWINGS FOR CONTOUR AND LAYOUT OF SITE WALKS AND BREEZEWAYS. SLOPE EXTERIOR CONCRETE 1/8"/ FT AWAY FROM BUILDING, UNLESS NOTED OTHERWISE. 13. HIGH PLASTICITY ("FAT") CLAYS WITH A PLASTICITY INDEX OF 30 OR MORE WHICH ARE PRESENT WITHIN 3 FEET OF FINAL SUBGRADE ELEVATION OR FOOTING BEARING
- ELEVATION SHALL BE UNDERCUT FOR THE ENTIRE BUILDING AREA TO A DISTANCE OF 5 FEET OUTSIDE THE BUILDING FOOTPRINT. PROOFROLL AT UNDERCUT ELEVATION AND FURTHER UNDERCUT SOFT AND YIELDING MATERIALS TO FIRM MATERIAL AT THE DIRECTION OF THE SPECIAL INSPECTOR. BACKFILL UNDERCUT WITH ON-SITE LEAN CLAY SOILS OR BORROW MATERIALS WITH A PLASTICITY INDEX LESS THAN 18.
- 14. FOUNDATION CONCRETE SHALL BE PLACED IMMEDIATELY FOLLOWING EXCAVATION. 15. CONTRACTOR SHALL EXERCISE CAUTION THAT DENSE GRADED AGGREGATE BLANKET BELOW FLOOR SLAB DOES NOT BECOME SATURATED DURING CONSTRUCTION. CONTRACTOR SHALL CAST FLOOR SLAB OR PROVIDE TEMPORARY PROTECTION FOR SUBGRADE UNTIL SLAB IS CAST TO PREVENT WATER INFILTRATION INTO SUBGRADE. 16. SURFACE RUNOFF SHALL BE DIRECTED AWAY FROM FOUNDATION EXCAVATIONS AND
- NOT BE PERMITTED TO POND WITHIN THE BUILDING FOOTPRINT. PROVIDE DRAINAGE TRENCHES FROM FOUNDATION EXCAVATIONS TO DIRECT RAINWATER OUT OF EXCAVATIONS. 17. FOUNDATION THICKNESSES GIVEN IN SCHEDULES AND DETAILS ARE MINIMUM AND MAY REQUIRE ROCK EXCAVATION FOR INSTALLATION.
- 18. WHERE EXCAVATION IS PERFORMED BY BLASTING, OVER-SHOT MATERIAL SHALL BE EXCAVATED FROM BENEATH THE BUILDING FOOTPRINT AND BACKFILLED WITH 4,000 PSI CONCRETE FILL TO THE PLAN GRADES.
- CONCRETE CONSTRUCTION 1. ALL CONCRETE CONSTRUCTION TO BE IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE ACI 301. ACI 318 AND ACI DETAILING
- MANUAL, EXCEPT THAT CONSTRUCTION AND REMOVAL OF FORMS AND RESHORING SHALL BE INSPECTED BY THE CONTRACTOR'S ENGINEER.
- 2. FURNISH BAR SUPPORTS WHERE NECESSARY DURING CONSTRUCTION. 3. PROVIDE PLASTIC, PLASTIC-COATED (NOT PLASTIC-TIPPED) OR STAINLESS STEEL
- CHAIRS IN ALL CONCRETE EXPOSED TO VIEW IN COMPLETED STRUCTURE. 4. PROVIDE PIPE SLEEVES AND INSERTS IN CONCRETE WORK WHERE REQUIRED. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS.
- 5. OBTAIN APPROVAL OF STRUCTURAL ENGINEER BEFORE LOCATING SLEEVES, HOLES, OR INSERTS IN SLABS WITHIN 2'-0" OF FACE OF COLUMNS OR ANYWHERE OR COLUMNS. 6. PROVIDE A MINIMUM OF #4 DOWELS AT 12" O.C. CONNECTING FRAMED FLOORS TO
- CONCRETE WALLS. 7. CONSTRUCTION JOINTS SHALL BE POSITIONED SO AS NOT TO CHANGE THE STRUCTURAL DESIGN REQUIREMENTS. FRAMED FLOORS AND ROOFS SHALL HAVE CONSTRUCTION JOINTS SO THAT NO MORE THAN 10,000 S.F. IS IN ANY SINGLE POUR AND THE MAXIMUM LENGTH OF POUR IS 100'-0". RATIO OF LENGTH TO WIDTH OF POUR SHALL NOT EXCEED 2. LOCATION OF ALL CONSTRUCTION JOINTS SHALL BE APPROVED BY THE ENGINEER
- 8. WELDING OF REINFORCING BARS (INCLUDING TACK WELDING) IS NOT PERMITTED, UNLESS NOTED OTHERWISE. 9. PROVIDE HORIZONTAL KEYWAYS IN CONSTRUCTION JOINTS IN BEAMS, SUPPORTED SLABS. WALLS, AND WALL FOOTINGS; MINIMUM 1 1/2" DEPTH WITH HEIGHT EQUAL TO
- ONE-THIRD OF MEMBER DEPTH, UNLESS OTHERWISE SHOWN OR NOTED. 10. ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED 45 DEGREES. MINIMUM CHAMFER TO BE 1/2". CURVE THE LEADING EDGE OF STAIR TREADS TO 1/2" RADIUS. 11. REINFORCING FOR SLABS ON GROUND (IN FLAT SHEETS) SHALL BE IN THE MIDDLE OF
- THE SLAB, UNLESS NOTED OTHERWISE, AND SHALL BE POSITIVELY SUPPORTED AND MAINTAINED IN THIS POSITION DURING PLACEMENT OF CONCRETE. 12. IN CONCRETE ROOF FILLS OR FLOOR TOPPINGS 2" OR MORE, PROVIDE 6x6-W2.1xW2.1 WELDED WIRE FABRIC REINFORCING IN FLAT SHEETS, UNLESS NOTED OTHERWISE.
- 13. IN STEEL STAIR TREADS WITH CONCRETE FILL, PROVIDE 4x4-W1.4xW1.4 W.W.F. IN FLAT SHEETS. 14. BEND ALL HORIZONTAL WALL AND FOOTING BARS 1'-0" AROUND CORNERS OR PROVIDE CORNER BARS WITH 2'-0" LAP.
- 15. PROVIDE FOUNDATION DOWELS FOR ALL WALLS, PIERS, AND COLUMNS SAME SIZE AND SPACING AS VERTICAL STEEL 16. PROVIDE FOUNDATION DOWELS FOR MASONRY WALLS SAME SIZE AND SPACING AS VERTICAL STEEL. ALL DOWELS SHALL BE WITHIN 8" LATERALLY OF WALL REINFORCING ABOVE AND IN LINE WITH THE WALL REINFORCING PROVIDE DOWELS FOR ALL
- ADDITIONAL WALL REINFORCING AT CORNERS, ENDS, JAMBS, INTERSECTIONS AND BOTH SIDES OF CONTROL JOINTS. ONLY DOWELS AT THESE ADDITIONAL LOCATIONS MAY BE POST INSTALLED / DRILLED AND ADHESIVE FASTENED WITH EMBEDMENT AS REQUIRED TO DEVELOP FULL YIELD STRENGTH OF REINFORCING. 17. HORIZONTAL FLOORS THAT HAVE DEFLECTING STRUCTURAL MEMBERS (UNSHORED
- STEEL BEAMS, ETC.) SHALL BE FINISHED LEVEL. THE SLAB THICKNESS NOTED IS MINIMUM. ADD CONCRETE AS NECESSARY TO OVERCOME MEMBER DEFLECTIONS. 18. WHERE POCKETS OR VOIDS ARE FORMED INTO CONCRETE WALL FOR STEEL BEAMS OR COLUMNS, FILL POCKET WITH CONCRETE AFTER THE STEEL MEMBER HAS BEEN
- INSTALLED. 19. SPLICES: ALL REINFORCING SPLICES SHALL BE AS TENSION LAP. U.N.O. A. LAP ALL COMPRESSION SPLICES 30 BAR DIAMETERS OF THE LARGER BAR. B. LAP ALL TENSION SPLICES (ALL SPLICES EXCEPT COLUMN SPLICES, U.N.O.) IN ACCORDANCE WITH THE FOLLOWING TABLE. MODIFY LENGTHS AS NOTED:

_					
	BAR	CONCF	RETE COMP	RESSIVE	1. INCREASE SPLICE LENGTH BY THE FOLLOWING:
	SIZE	3,000 PSI	4,000 PSI	5,000 PSI	2. <u>NOTE:</u> INCREASED LENGTHS ARE ACCUMULATIVE
	#3	21"	19"	17"	
	#4	29"	25"	22"	1. HORIZONTAL TOP BARS WITH GREATER THAN 12" OF CONCRETE BELOW +30 %
	#5	36"	31"	28"	2. BAR SPACING LESS THAN 2 BAR
	#6	43"	37"	33"	DIAMETERS +50 %
	#7	62"	54"	48"	
	#8	71"	62"	55"	
	#9	80"	70"	62"	
	#10	90"	78"	70"	
0.	CON	CRETE PRO	TECTION FO		CEMENT: CO
	A. C	CONCRETE	CAST AGAIN	IST AND PER	MANENTLY EXPOSED TO EARTH
	В. С	CONCRETE	EXPOSED T	O EARTH OR	WEATHER
		NO. 6 Tł	IROUGH NC). 18 BARS	
		NO. 5 B/	AR, W31 OR	D31 WIRE AN	ND SMALLER
	C (

C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND SLABS AND WALLS NO. 11 BAR AND SMALLER BEAMS AND COLUMNS PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS...

- LOOSE LINTEL SCHEDULE 1. THIS SCHEDULE IS FOR LINTELS OVER MASONRY OPENINGS NOT OTHERWISE SHOWN OR NOTED ON DRAWINGS, INCLUDING NON-BEARING PARTITION WALLS AND VENEERS. A. ANGLES AND SUPPORT PLATES EXPOSED TO WEATHER SHALL BE HOT-DIP GALVANIZED. B. MINIMUM BEARING LENGTH FOR ANGLES AND WT'S SHALL BE 6" EACH END. MINIMUM BEARING LENGTH FOR TUBES SHALL BE 8" EACH END. SEE TYPICAL DETAILS FOR BOND BEAM CONSTRUCTION. C. PROVIDE STEEL LINTELS ABOVE ALL PENETRATIONS 16" AND WIDER THROUGH MASONRY WALLS OR MASONRY VENEERS; INCLUDING DUCT PENETRATIONS, LOUVERS, GROUPED CONDUITS, WINDOWS, ET CETERA D. FOR MULTI-WYTHE WALL CONSTRUCTION, PROVIDE LINTEL FOR EACH WYTHE PER SCHEDULE FOR GIVEN WYTHE THICKNESS. E. LINTELS ABOVE DOOR OPENINGS IN INTERIOR 8" PARTITION WALLS SHALL BE
- MASONRY BOND BEAM LINTELS. 2. FOR 4" MASONRY WALLS PROVIDE: <u>SPAN LIMITS</u> 0" TO 4'-0" 4'-1" TO 5'-6"
- L4x3 1/2x5/16 L.D.V. 5'-7" TO 7'-6" L5x3 1/2x5/16 L.D.V. 7'-7" TO 9'-6" L6x3 1/2x3/8 L.D.V. 3. FOR 8" MASONRY WALLS PROVIDE: <u>SPAN LIMITS</u>
- 0" TO 6'-0" 6'-1" TO 9'-6"
- <u>LINTEL SIZE</u> 8" BOND BEAM TYPE ML8** OR (2) L4x3 1/2x5/16 L.D.V. 16" BOND BEAM TYPE ML16** HSS8x4x1/4 + PL 1/4x7 (TYPE 1**) **SEE TYPICAL MASONRY DETAIL SHEET

ANGLE SIZE

L3 1/2x3 1/2x5/16

- MASONRY WALL CONSTRUCTION 1. MASONRY WALLS SHOWN ON STRUCTURAL DRAWINGS HAVE BEEN DESIGNED IN
- ACCORDANCE WITH BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530/ASCE 5/TMS 402). 2. MASONRY WALLS SHOWN ON STRUCTURAL DRAWINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1/ASCE 6/TMS 602) AND THE PROJECT SPECIFICATIONS. IF THERE ARE ANY
- CONFLICTS BETWEEN THE TWO, THE MORE RESTRICTIVE REQUIREMENT SHALL BE APPLICABLE. 3. DETERMINE COMPRESSIVE STRENGTH OF MASONRY (fm) BY THE UNIT STRENGTH METHOD (SECTION 1.4B.2 OF ACI 530.1/ASCE 6/TMS 602). THE STRENGTH OF GROUT
- SHALL BE DETERMINED BY TESTS IN ACCORDANCE WITH ASTM C1019. 4. MATERIALS ASTM C55 OR C90 C.M.U. -
- GROUT -ASTM C476 MORTAR -TYPE S 5. USE TYPE S MORTAR FOR ALL C.M.U. WALLS SHOWN ON THE STRUCTURAL DRAWING SHEETS
- 6. INTERSECTING C.M.U. WALLS SHALL BE ANCHORED BY ONE OF THE FOLLOWING METHODS. A. FIFTY PERCENT OF THE UNITS AT THE INTERSECTION SHALL BE LAID IN AN
- OVERLAPPING MASONRY BONDING PATTERN, WITH ALTERNATE UNITS HAVING A BEARING OF NOT LESS THAN 3" ON THE UNIT BELOW. B. WALLS SHALL BE TIED BY GALVANIZED STEEL STRAPS 1 1/2" x 1/4" x 24" WITH 2" BEND AT 90° EACH END. GROUT STRAPS SOLID INTO CORES OF BLOCK AT 24"
- MAXIMUM VERTICAL SPACING. C. THE ABOVE DO NOT APPLY AT CONTROL JOINTS OR WHERE NON-LOAD-BEARING PARTITIONS ABUT BEARING WALLS. 7. UNLESS NOTED OTHERWISE, PROVIDE GALVANIZED STEEL SLEEVE / 8 GA WIRE
- STABILIZING ANCHORS AT 24" O.C. VERTICAL AT ALL JOINTS BETWEEN MASONRY PARTITIONS AND IN-PLACE MASONRY OR CONCRETE WALL CONSTRUCTION, FASTEN ANCHOR TO IN-PLACE WALL W/ (2) 3/16"Ø x 1 1/4" MASONRY SCREWS. 8. CORNERS OF C.M.U. WALLS SHALL BE BUILT IN RUNNING BOND.
- 9. ALL STRUCTURAL WALLS SHALL BE LAID IN RUNNING BOND. STACK BOND IS NOT ALLOWED 10. PROVIDE A MINIMUM OF 16" DEPTH OF SOLID MASONRY UNDER THE BEARING ENDS OF
- ALL BEAMS. GROUT CELLS (2 MINIMUM) BELOW LINTEL BEARING AT JAMBS DOWN TO FOUNDATION OR BOND BEAM, WHICHEVER OCCURS FIRST. PROVIDE SOLID MASONRY MORTARED INTO PLACE AROUND BEARING ENDS OF AL
- BEAMS. COMPLETELY FILL BEARING POCKETS. CUT MASONRY NEATLY AT EXPOSED CONDITIONS. 12. NO CHASES, RISERS, CONDUITS, OR TOOTHING OF MASONRY SHALL OCCUR IN MASONRY WALLS WITHIN 18 INCHES OF BEAM BEARING CENTERLINE.
- 13. PROVIDE SHOP DRAWINGS THAT INDICATE SIZE, SPACING, BENDING DETAILS, AND TYPE OF ALL REINFORCING BARS PLACED IN MASONRY WALLS. COMPLY WITH ACI SP-066(04) "ACLIDETAILING MANUAL." PROVIDE WALL ELEVATION VIEWS OF ALL REINFORCED. WALLS SHOWING LOCATIONS OF ALL HORIZONTAL AND VERTICAL DEFORMED BAR REINFORCING. DEPTH/WIDTH OF GROUTING, OPENINGS, TOP OF BOND BEAM ELEVATIONS, AND DIMENSIONED LOCATIONS OF CONTROL JOINTS. COORDINATE SIZE AND LOCATION OF ALL WALL PENETRATIONS WITH MEP CONTRACTORS, AND DIMENSION ON WALL ELEVATIONS, PRIOR TO SUBMITTAL OF SHOP DRAWINGS.
- INCOMPLETE SUBMITTALS WILL BE REJECTED WITHOUT REVIEW. 14. PROVIDE HORIZONTAL JOINT REINFORCEMENT PER ASTM A951, GALVANIZED, AT 16" CENTERS VERTICALLY. SEE SPECIFICATIONS, UNLESS NOTED OTHERWISE, PROVIDE A GALVANIZED LADDER TYPE JOINT REINFORCEMENT.
- 15. WELDING OF REINFORCING BARS (INCLUDING TACK WELDING) IS NOT PERMITTED. 16. LAP SPLICES FOR REINFORCING CENTERED IN CORES TO BE IN ACCORDANCE WITH THE FOLLOWING TABLE.



- 17. SEE DETAILS AND SCHEDULES FOR LOCATIONS AND SIZES OF HORIZONTAL AND VERTICAL REINFORCEMENT.
- 18. REINFORCE BOND BEAMS WITH (2) #5 CONTINUOUS, UNLESS NOTED OTHERWISE. PROVIDE CORNER BARS FOR ALL BOND BEAM REINFORCEMENT 19. IN ADDITION TO SPACING INDICATED IN SCHEDULE, PROVIDE VERTICAL BARS AT ALL
- CORNERS, ENDS, JAMBS, INTERSECTIONS AND BOTH SIDES OF CONTROL JOINTS. 20. EXTEND ALL VERTICAL REINFORCEMENT THRU MID-HEIGHT BOND BEAMS. EXTEND VERTICAL REINFORCING INTO BOND BEAMS AT TOP OF WALL AND TERMINATE AT 2"
- DOWN FROM TOP OF WALL 21. PROVIDE DOWELS FROM SUPPORTING MEMBER (FOOTING, BEAM, OR SLAB) FOR ALL REINFORCED WALLS, SAME SIZE, LOCATION, AND SPACING AS WALL REINFORCING.
- 22. VERTICAL REINFORCEMENT SHALL BE CENTERED IN CELLS OF MASONRY UNIT, UNLESS NOTED OTHERWISE. 23. WHERE REQUIRED BY CONSTRUCTION GEOMETRY/DETAILING, BAR POSITIONERS SHALL
- BE USED TO HOLD BOND BEAM REINFORCEMENT IN PROPER ALIGNMENT. 24. BAR POSITIONERS SHALL BE USED TO HOLD VERTICAL REINFORCEMENT IN PROPER ALIGNMENT WHERE C.M.U. BLOCK IS CONSTRUCTED SUCH THAT THE GROUT POUR HEIGHT EXCEEDS 5 FEET 4 INCHES.
- 25. BAR POSITIONERS SHALL BE USED TO HOLD VERTICAL REINFORCEMENT IN PROPER ALIGNMENT FOR ALL C.M.U. CONSTRUCTION WHERE VERTICAL BARS ARE NOTED TO BE OFF-CENTER IN THE MASONRY CELL, REGARDLESS OF GROUT POUR HEIGHT. 26. BAR POSITIONERS ARE NOT REQUIRED WHERE GROUT POURS ARE 5 FEET 4 INCHES OR
- LESS WITH VERTICAL BARS CENTERED IN THE C.M.U. CELL. THE ENGINEER OF RECORD MAY REQUIRE THE USE OF BAR POSITIONERS REGARDLESS OF GROUT POUR HEIGHT IF SPECIAL INSPECTIONS AND/OR SITE OBSERVATIONS INDICATE THAT BARS ARE NOT BEING CORRECTLY POSITIONED. 7. WHERE BAR POSITIONERS ARE REQUIRED, VERTICAL BARS SHALL BE HELD IN POSITION
- AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 4 FEET. 28. GROUTING OF MASONRY LINTELS OVER OPENINGS SHALL BE ACCOMPLISHED IN ONE CONTINUOUS OPERATION.
- 29. WHERE LOW CUT WEB, OPEN CELLED C.M.U. ARE USED FOR BOND BEAMS, PROVIDE A CONTINUOUS METAL LATH GROUT RETAINER IN THE BED JOINT TO RETAIN GROUT IN CELLS.
- 30. VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM CLEARANCE OF 3/4" FROM THE MASONRY SURFACE AND NOT LESS THAN ONE BAR DIAMETER BETWEEN BARS.
- MAINTAIN CLEAR DISTANCE OF 1/4" MINIMUM FOR FINE GROUT OR 1/2" MINIMUM FOR COARSE GROUT BETWEEN REINFORCING BARS AND ANY FACE OF MASONRY UNIT.

32. MASONRY PROTECTION FOR REINFORCEMENT: A. MASONRY EXPOSED TO EARTH OR WEATHER NO. 6 BAR AND LARGER NO. 5 BAR AND SMALLER ...

- B. MASONRY NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND ALL BARS . 1 1/3" 33. WHERE MULTIPLE FULL-HEIGHT BARS ARE SPECIFIED FOR THE SAME MASONRY CELL, THE CLEAR DISTANCE BETWEEN PARALLEL BARS SHALL NOT BE LESS THAN THE
- NOMINAL BAR DIAMETER, NOR 1 INCH. 34. REMOVE MORTAR PROTRUSIONS GREATER THAN 1/2" FROM CELLS BEFORE GROUTING. 35. GROUTING SHALL BE STOPPED 1 1/2" BELOW THE TOP OF A COURSE TO FORM A KEY AT THE POUR JOINT.
- 36. GROUT ALL CELLS OF CONCRETE MASONRY UNITS BELOW GRADE. 37. DO NOT EXCEED THE MAXIMUM GROUT POUR HEIGHT FOR EACH GROUT TYPE AND SPACE GIVEN IN THE FOLLOWING TABLE:

GROUT TYPE	MAXIMUM GROUT POUR HEIGHT	MINIMUM WIDTH OF GROUT SPACE	MINIMUM GROUT SPACE DIMENSIONS FOR GROUTING CELLS OF HOLLOW UNITS
FINE	1'-0"	3/4"	1 1/2" x 2"
FINE	5'-4"	2"	2" x 3"
FINE	12'-8"	2 1/2"	2 1/2" x 3"
FINE	24'-0"	3"	3" x 3"
COARSE	1'-0"	1 1/2"	1 1/2" x 3"
COARSE	5'-4"	2"	2 1/2" x 3"
COARSE	12'-8"	2 1/2"	3" x 3"
COARSE	24'-0"	3"	3" x 4"

- 38. PLACE GROUT IN LIFTS NOT EXCEEDING 12'-8" WHERE MASONRY HAS CURED AT LEAST 4 HOURS, THE GROUT SLUMP IS MAINTAINED BETWEEN 10 AND 11 INCHES, AND THERE ARE NO INTERMEDIATE REINFORCED BOND BEAMS BETWEEN THE TOP AND THE BOTTOM OF THE POUR HEIGHT. AT ALL LOCATIONS ELSEWHERE PLACE GROUT IN LIFTS
- NOT EXCEEDING 5'-4". 39. CONSOLIDATE GROUT POURS 12 INCH OR LESS IN HEIGHT BY MECHANICAL VIBRATION OR PUDDLING. CONSOLIDATE POURS EXCEEDING 12 INCH IN HEIGHT BY MECHANICAL VIBRATION AND RECONSOLIDATE BY MECHANICAL VIBRATION AFTER INITIAL WATER
- LOSS AND SETTLEMENT HAS OCCURRED. 40. PROVIDE CLEANOUT HOLES AT LEAST 3 INCHES IN LEAST DIMENSION FOR GROUT
- POURS OVER 5 FEET IN HEIGHT. A. AT STRUCTURALLY REINFORCED WALLS PROVIDE CLEANOUT HOLES AT EACH
- STRUCTURAL VERTICAL REINFORCING BAR. B. AT SOLID GROUTED MASONRY, PROVIDE CLEANOUT HOLES AT NOT MORE THAN 32" ON CENTER.
- C. CLEANOUT CLOSURES SHALL BE BRACED TO RESIST GROUT PRESSURES. D. GROUT POURS SHALL BE PLANNED SO THAT CLEANOUT HOLES ARE CONCEALED BELOW SLAB OR BEHIND TRIM, CEILING, OR OTHER FINISHES. WHERE CLEANOUTS CANNOT BE CONCEALED, GROUT SHALL BE APPLIED IN POURS LESS THAN 5 FEET TALL TO FORGO CLEANOUTS.
- 41. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF VERTICAL CONTROL JOINTS. WHERE EXACT JOINT LAYOUT IS NOT LABELED ON DRAWINGS. COORDINATE CONTROL JOINT POSITIONS WITH ARCHITECT, STRUCTURAL ENGINEER, AND TYPICAL DETAILS PRIOR TO CONSTRUCTION
- 42. PROVIDE VERTICAL CONTROL JOINT BETWEEN ALL NON-LOADBEARING PARTITIONS AND BEARING WALLS. 43. UNLESS OTHERWISE SHOWN OR NOTED, SPACING OF CONTROL JOINTS SHALL NOT
- EXCEED 25 FEET 44. AT VERTICAL CONTROL JOINTS, BOND BEAM REINFORCEMENT AND JOINT REINFORCEMENT SHALL BE DISCONTINUOUS. PROVIDE TWO 3/4" DIAMETER SMOOTH DOWELS BY 1'-4" ACROSS EACH CONTROL JOINT AT EACH BOND BEAM. GREASE ONE END. PROVIDE 3/8" THICK FOAM POUR STOP IN HEAD JOINT OF ALL BOND BEAMS AT
- CONTROL JOINT TO PREVENT BINDING. 45. LAP SPLICES FOR HORIZONTAL REINFORCING SHALL BE A MINIMUM OF 40 BAR DIAMETERS. 46. DO NOT CONSTRUCT NON-LOADBEARING MASONRY TIGHT TO UNDERSIDE OF
- STRUCTURE, PROVIDE MINIMUM 3/4" GAP AROUND STRUCTURE AND INFILL WITH COMPRESSIBLE INSULATION/SEALANT AS REQUIRED TO MEET ARCHITECTURAL REQUIREMENTS. STEEL CONSTRUCTION
- 1. STEEL DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO THE AISC SPECIFICATIONS AND CODE OF STANDARD PRACTICE, AND THE AWS STRUCTURAL WELDING CODE. 2. CONNECTIONS - WELDED OR HIGH-STRENGTH BOLTED:
- A. A325-SC, CLASS A, WITH HARDENED WASHERS USE FOR ALL MOMENT CONNECTIONS, HANGERS, AND OTHER CONNECTIONS AS NOTED ON DRAWINGS. B. A325-N WITH HARDENED WASHERS - USE FOR ALL CONNECTIONS OTHER THAN SLIP CRITICAL CONNECTIONS.
- C. UNLESS SNUG-TIGHT CONNECTIONS ARE NOTED ON THE DRAWINGS AS BEING PERMITTED. ALL BOLTS SHALL BE TIGHTENED TO FULL PRETENSIONING LOAD. D. UNLESS SPECIFICALLY NOTED ON THE DRAWINGS OR WITHOUT WRITTEN
- PERMISSION FROM THE ENGINEER, ALL BOLTS FOR THE PROJECT SHALL BE OF ONE ASTM TYPE AND ONE DIAMETER.
- E. USE STANDARD HOLES WITH THE FOLLOWING EXCEPTIONS: OVERSIZE HOLES ARE PERMITTED WHEN BOLTS ARE LOADED IN TENSION; SHORT-SLOTTED HOLES ARE PERMITTED FOR SHEAR LOADING PERPENDICULAR TO THE SLOT IN ANY ONE PLY AT EACH FAYING SURFACE.
- F. HARDENED WASHERS SHALL BE USED OVER ALL OVERSIZED OR SHORT-SLOTTED HOLES IN AN OUTER PLY. WHERE LONG-SLOTTED HOLES ARE USED IN AN OUTER PLY, 5/16" THICK A36 PLATE WASHERS OR CONTINUOUS BAR WITH STANDARD HOLES SHALL BE PROVIDED G. WHERE REACTION IS NOTED, DEVELOP SAME. WHERE NOT NOTED, FOR NON-
- COMPOSITE BEAMS, CONNECTIONS SHALL DEVELOP ONE-HALF OF THE TOTAL UNIFORM LOAD CAPACITY OF THE BEAM: FOR COMPOSITE BEAMS, SEE TABLE
- H. WHEREVER POSSIBLE, USE FRAMED BEAM CONNECTIONS AS LISTED IN TABLES 10-1, 10-2, 10-3,10-4, 10-10, 10-11 AND 10-12 OF THE AISC STEEL CONSTRUCTION MANUAL, 14TH EDITION. THE LENGTH OF CONNECTION ANGLES AND PLATES SHALL BE NOT LESS THAN ONE-HALF OF THE T DISTANCE OF THE BEAM WEB.
- J. PREAPPROVED CONNECTION DETAILS ARE SHOWN ON THE TYPICAL FRAMING DETAILS DRAWING SHEET/S. K. SINGLE PLATE SHEAR CONNECTIONS ARE NOT PERMITTED WHERE THE REACTION EXCEEDS 50 KIPS, AT FIELD-APPLIED CONNECTIONS, OR CONNECTIONS TO
- COLUMNS (OTHER THAN AT SKEWED CONNECTIONS, MOMENT CONNECTIONS, PIPE COLUMNS, TUBE COLUMNS WITH FACE DIMENSION 4" OR LESS, OR CONNECTIONS WITH REACTIONS LESS THAN 15 KIPS) L. THROUGH PLATE CONNECTIONS AT TUBE COLUMNS ARE NOT PERMITTED, UNLESS
- NOTED OTHERWISE. SHEAR CONNECTIONS TO TUBE COLUMNS SHALL BE WT OR DOUBLE ANGLE KNIFE CONNECTIONS, EXCEPT AS NOTED ABOVE. M. WT SHEAR CONNECTIONS FROM GIRDERS (SUPPORTING PURLINS, PRECAST, ETC)
- TO TUBE COLUMNS SHALL BE 3 BOLTS MINIMUM DEPTH. WHERE GIRDER DEPTH ALLOWS ONLY 2 BOLT DEPTH, CONNECTION SHALL BE KNIFED DOUBLE ANGLE.
- N. SHEAR CONNECTIONS TO VERTICAL EMBED PLATES IN CONCRETE WALLS SHALL BE DOUBLE ANGLE TYPE.
- 3. WELDING ELECTRODES SHALL BE E70XX EXCEPT WHERE OTHER ELECTRODES ARE REQUIRED FOR COMPATIBILITY WITH MATERIAL BEING WELDED. A. USE E80XX ELECTRODES FOR WELDING ASTM A706 (WELDABLE) REBAR.
- 4. ALL SLIP CONNECTIONS SHALL BE PROVIDED WITH A MEANS OF PREVENTING THE NUTS FROM UNTHREADING. 5. SHOP DRAWINGS ARE REQUIRED AND SHALL NOTE TYPE OF ELECTRODES, SIZE OF ALL WELDS, AND TYPE AND SIZE OF ALL BOLTS.
- 6. SEE SPECIFICATIONS FOR ALL PRIMING REQUIREMENTS 7. BEAMS BEARING ON MASONRY SHALL BEAR A MINIMUM OF 5" ONTO THE WALL, UNLESS NOTED OTHERWISE. BEAR BEAMS FULL LENGTH OF BEARING PLATES. MASONRY SHALL BE BUILT TIGHT AROUND BEAM UNLESS NOTED OTHERWISE
- 8. ALL SHOP AND FIELD WELDING SHALL BE DONE BY A CERTIFIED WELDER. 9. FOR CONNECTIONS TO EXISTING CONCRETE, LOCATE THE REINFORCING BY MEANS OF A REBAR DETECTOR PRIOR TO DRILLING. ADJUST THE CONNECTION AS REQUIRED TO
- AVOID CUTTING ANY REINFORCING. 10. MISCELLANEOUS STEEL MEMBERS (ANGLES, TEES, CHANNELS, ETC.) THAT SUPPORT DECK AROUND THE PERIMETER OF A FLOOR OR ROOF AREA SHALL BE CONTINUOUS. EXCEPT AT BUILDING EXPANSION JOINTS. WHERE SPLICES IN THESE MEMBERS MUST OCCUR TO FACILITATE ERECTION, PROVIDE PARTIAL PENETRATION SQUARE GROOVE

WELD (BUTT JOINT) WITH 3/16" EFFECTIVE THROAT ON ONE SIDE, EACH LEG.

- 11. MISCELLANEOUS HANGING LOADS SUCH AS STAIR STRINGERS, PIPES, MECHANICAL UNITS, ETC., SUPPORTED BY STEEL MEMBERS SHALL HAVE THESE LOADS APPLIED IN SUCH A MANNER THAT NO TORSIONAL FORCES ARE INDUCED IN THESE MEMBERS, I.E., LOADS SHALL PASS THROUGH THE CENTERLINE OF WIDE FLANGE SECTIONS AND THROUGH THE SHEAR CENTER OF CHANNELS. 12. STEEL RELIEF ANGLES THAT SUPPORT MASONRY VENEER SHALL BE INSTALLED AS
- FOLLOWS: A. ANGLES SHALL BE DISCONTINUOUS AT ALL MASONRY VENEER EXPANSION JOINTS. WIDTH OF GAP BETWEEN ANGLES SHALL MATCH WIDTH OF MASONRY EXPANSION
- JOINT, NOT LESS THAN 1/2" OR MORE THAN 1". B. AT BUILDING CORNER, THE ANGLES SHALL BE MITER CUT. THE VERTICAL LEGS OF THE ANGLES SHALL NOT EXTEND PAST THE CORNER CAUSING INTERFERENCE WITH
- THE MASONRY VENEER C. CLEAN ALL FIELD WELDS, CUTS AND ABRADED AREAS AND APPLY GALVANIZING REPAIR PAINT

STEEL DECK CONSTRUCTION

<u>COVER</u>

.... 1 ½"

- 1. STEEL DECK DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO THE LATEST, AWS STRUCTURAL WELDING CODE AND THE STEEL DECK INSTITUTE
- SPECIFICATIONS. 2. STEEL ROOF DECK SHALL BE CONTINUOUS OVER A MINIMUM OF 3 SPANS. STEEL FLOOR DECK SHALL BE CONTINUOUS OVER A MINIMUM OF 2 SPANS.
- 3. DO NOT HANG OR SUPPORT ANY LOADS SUCH AS STUD WALLS, BULKHEADS, PIPES, ETC. FROM STEEL ROOF DECK. 4. WHERE BEAMS DO NOT ALIGN ON OPPOSITE SIDES OF A GIRDER AND A JOINT IS MADE
- IN THE DECK, PROVIDE AN ADDITIONAL LAYER OF SINGLE SPAN DECK ABOVE CANTILEVERED ENDS TO SPAN BETWEEN SUPPORTS. 5. ROOF DECK CLOSURES AND ACCESSORIES SHALL BE LOCATED IN THE FIELD OF
- DIAPHRAGM, NOT AT DIAPHRAGM COLLECTOR LOCATIONS SUCH AS MOMENT FRAMES, BRACED FRAMES OR SHEAR WALLS.

EQUIPMENT SUPPORT

1. APPLY LOADS TO MEMBERS THAT ARE DESIGNATED FOR ADDITIONAL LOADS AS NOTED ON DRAWINGS. NOTIFY ENGINEER IF LOADS NOTED ARE EXCEEDED, OR IF LOADS DO NOT OCCUR IN LOCATION ANTICIPATED AND AS INDICATED ON FRAMING PLANS.

COLD-FORMED STEEL FRAMING

- 1. THE FOLLOWING NOTES APPLY ONLY TO LOAD BEARING FRAMING OR FRAMING LOCATED IN EXTERIOR WALLS. STUD WALLS SHOWN ON THE STRUCTURAL PLANS SHALL BE CONSIDERED BEARING WALLS. SEE ARCHITECTURAL DRAWINGS FOR NON-LOAD BEARING
- INTERIOR PARTITIONS, SOFFITS, AND OTHER MISCELLANEOUS FRAMING. 2. ALL COLD-FORMED STEEL FRAMING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE
- AMERICAN IRON AND STEEL INSTITUTE "COLD-FORMED STEEL DESIGN MANUAL" (AISI, LATEST EDITION) 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL TEMPORARY SHORING AND
- BRACING REQUIRED DURING CONSTRUCTION FOR ERECTION STABILITY AND SAFETY. THE FORMAT FOR MEMBER DESIGNATION IS AS FOLLOWS:
- WEB DEPTH; SECTION TYPE; FLANGE WIDTH BASE METAL THICKNESS (IN MILS) SECTION TYPE DESIGNATIONS ARE AS FOLLOWS: S STUD AND JOIST SECTION WITH FLANGE STIFFENERS (RETURN LIPS)
- T TRACK SECTIONS (NO FLANGE STIFFENERS) U COLD-ROLLED CHANNEL AND CHANNEL STUDS (NO FLANGE STIFFENERS) F FURRING CHANNEL
- EXAMPLE: 600S162-54 DESIGNATES A 6" STUD WITH A FLANGE WIDTH OF 1 5/8" AND 54 MILS BASE STEEL THICKNESS.
- EXAMPLE: 400T125-43 DESIGNATES A 4" TRACK WITH A FLANGE WIDTH OF 1 1/4" AND 43 MILS BASE STEEL THICKNESS. 5. THE MINIMUM BASE METAL THICKNESS FOR COLD-FORMED STEEL FRAMING MATERIAL SHALL BE AS FOLLOWS:

MIL THICKNESS (0.001 INCHES)	GAGE DESIGNATION (FOR REFERENCE ONLY)	MINIMUM BASE METAL THICKNESS PRIOR TO GALVANIZING (INCH)
18	25	0.0179
28	22	0.0269
33	20	0.0329
43	18	0.0428
54	16	0.0538
68	14	0.0677

0.0966

- 12 6. ALL MATERIAL SHALL BE COLOR-CODED TO INDICATE DIFFERENT STEEL MATERIAL
- THICKNESSES.
- 7. ALL MATERIAL EQUAL TO OR LESS THAN 43 MILS IN THICKNESS SHALL CONFORM TO ASTM A653 WITH G60 GALVANIZED COATING AND HAVE A MINIMUM YIELD STRENGTH OF 33 KSI. 8. ALL MATERIAL EQUAL TO OR GREATER THAN 54 MILS IN THICKNESS SHALL CONFORM TO ASTM A653 WITH G60 GALVANIZED COATING AND HAVE A MINIMUM YIELD STRENGTH OF 50 KSI
- 9. ALL STUD AND JOIST MATERIAL SHALL BE PRE-PUNCHED WITH 1 1/2" x 4" WEB OPENINGS SPACED AT 24" O.C. UNLESS NOTED OTHERWISE. ALL OPENINGS SHALL BE LOCATED A MINIMUM OF 10" (TO EDGE OF OPENING) FROM THE END OF THE MEMBER.
- 10. ALL SCREWS SHALL BE SELF-DRILLING, SELF-THREADING, ZINC-COATED STEEL DRILL SCREWS, WITH LOW PROFILE HEADS WHEN USED BENEATH SHEATHING. MAINTAIN MINIMUM CLEARANCES AS SPECIFIED BELOW

SCREW NUMBER DESIGNATION	NOMINAL SCREW DIAMETER (IN)	MINIMUM CENTER-TO- CENTER SPACING	MINIMUM EDGE DISTANCE	TOTAL PANEL THICKNESS STEEL TO STEEL
10	0.190	9/16"	9/16"	0.11 MAXIMUM #2 POINT 0.175 MAXIMUM #3 POINT
12	0.216	5/8"	5/8"	0.14 MAXIMUM #2 POINT 0.21 MAXIMUM #3 POINT
1/4"	0.250	3/4"	3/4"	0.175 MAXIMUM #2 POINT 0.21 MAXIMUM #3 POINT

- 11. POWDER ACTUATED FASTENERS USED FOR FASTENING COLD-FORMED METAL FRAMING (RUNNER TRACKS, CLIP ANGLES, ETC.) TO CONCRETE SHALL BE 1 1/4" LONG, 0.157" SHANK DIAMETER, WITH PRE-MOUNTED PLASTIC WASHER. OTHER FASTENERS OF EQUIVALENT OR LARGER DIMENSION AND WITH EQUIVALENT OR GREATER LOAD CAPACITY MAY BE SUBSTITUTED UPON REVIEW AND APPROVAL FROM THE STRUCTURAL ENGINEER.
- FASTENERS SHALL BE ZINC PLATED WITH A MINIMUM ZINC THICKNESS OF 5 MICRONS 12. POWDER ACTUATED FASTENERS USED FOR FASTENING COLD-FORMED METAL FRAMING (RUNNER TRACKS, CLIP ANGLES, ETC.) TO STEEL SHALL BE 3/4" LONG, 0.157" SHANK DIAMETER, WITH PRE-MOUNTED PLASTIC WASHER. OTHER FASTENERS OF EQUIVALENT OR LARGER DIMENSION AND WITH EQUIVALENT OR GREATER LOAD CAPACITY MAY BE SUBSTITUTED UPON REVIEW AND APPROVAL FROM THE STRUCTURAL ENGINEER.
- FASTENERS SHALL BE ZINC PLATED WITH A MINIMUM ZINC THICKNESS OF 5 MICRONS 13. ALL EXTERIOR WALLS SHALL BE BRACED BY EITHER 150U50-54 COLD ROLLED CHANNEL, RUN HORIZONTALLY THROUGH THE STUD PUNCHOUTS AND ATTACHED TO EACH STUD, OR BY MINIMUM 1 1/2" WIDE x 20 GA STEEL STRAP RUN HORIZONTALLY ON BOTH SIDES OF STUDS AND ATTACHED TO EACH STUD. VERTICAL SPACING OF THE BRACING IS LIMITED TO A MAXIMUM OF 48" THROUGHOUT THE HEIGHT OF THE FRAMING. THE BRIDGING SHALL BE MADE TAUT DURING INSTALLATION AND SHALL NOT SAG OR BOW ALONG ITS LENGTH.
- 14. STUDS AND JOIST ENDS SHALL BE SAWN TO FIT SQUARELY AND EVENLY AGAINST THE CONNECTING MEMBER. STUDS SHALL NOT BE THERMALLY CUT. 15. CONSTRUCT ALL CORNERS AND INTERSECTIONS WITH NOT LESS THAN THREE STUDS. 16. PROVIDE AND INSTALL A MINIMUM OF TWO FULL-HEIGHT STUDS (IN ADDITION TO JACK STUD OR STUDS) AT THE JAMBS OF ALL OPENINGS (WINDOWS, DOORS, LOUVERS, ETC.)
- EXCEEDING 2'-0" IN WIDTH. 17. SPLICES OR CUTOUTS IN THE FLANGES OF EXTERIOR WALL STUDS ARE PROHIBITED. EXTERIOR WALL STUDS SHALL RUN FULL HEIGHT FROM FLOOR TO FLOOR OR FLOOR TO
- ROOF WITHOUT SPLICE. 18. SEE HEADER SCHEDULE FOR HEADER SIZE AND NUMBER OF JACK STUDS. 19. SEE COLD-FORMED METAL FRAMING SCHEDULE FOR MATERIAL SIZES AND SPACINGS 20. WHERE A DEFLECTION CLIP OR STATIC/RIGID CLIP IS NOTED TO COLD-FORMED FRAMING, CLIP SHALL OCCUR AT EACH MEMBER IN THE FRAMING SYSTEM UNLESS NOTED OTHERWISE (e.g. CLIP NOTED TO STUD WALL FRAMING SHALL OCCUR AT EACH

STUD IN THE WALL SYSTEM).







RESPONSIBILITY FOR DEFECTS AND DEFICIENCIES, INCLUDING PROVIDING TESTING AND INSPECTION ONCE SUCH ARE DISCOVERED, AND FOR PROVIDING ENGINEERED CORRECTIVE ACTION FOR DESIGN TEAM REVIEW. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF BROWN+KUBICAN, PSC IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHALL NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY, QUANTITY, OR ACCURACY OF THE CONSTRUCTION WORK, BUT RATHER PERIODIC IN EFFORT TO INFORM THE CLIENT ABOUT GENERAL PROGRESS AND TO ADVISE THE CLIENT ABOUT OBSERVED DEFECTS AND DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

ROOF, FLOOR, OR WALL OPENINGS

- 1. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE NUMBER, SIZE, AND LOCATION OF ALL SLEEVES AND OPENINGS REQUIRED FOR MECHANICAL OR ELECTRICAL ITEMS. 2. SLEEVES AND OPENINGS SHALL BE LOCATED IN A MANNER THAT WILL MAINTAIN THE STRUCTURAL INTEGRITY OF THE ROOF, FLOOR, OR WALL SYSTEM.
- 3. NO STRUCTURAL ELEMENTS ARE TO BE CUT UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.
- OPENINGS / PENETRATIONS / ATTACHMENTS TO STRUCTURE BY OTHER TRADES 1. THE CONTRACTOR SHALL COORDINATE AND VERIFY THE NUMBER, SIZE, AND LOCATION OF ALL SLEEVES AND OPENINGS REQUIRED FOR OTHER TRADES IN STRUCTURAL ELEMENTS.
- TO GRADE BEAM FOUNDATIONS: 1. HORIZONTAL PENETRATIONS SHALL OCCUR IN MIDDLE THIRD OF MEMBER DEPTH AND MIDDLE THIRD OF SPAN. MAXIMUM SIZE TO BE 6". VERTICAL PENETRATIONS LARGER THAN 2" ARE PROHIBITED.
- 3. PENETRATIONS MAY NOT INTERRUPT OR CUT THROUGH REINFORCING. TO STRUCTURAL STEEL:
- 1. FIELD CUTTING/DRILLING OF HOLES LARGER THAN 3/8" INTO BEAM FLANGES OR COLUMNS IS PROHIBITED EXCEPT WHERE REQUIRED FOR STRUCTURAL STEEL CONNECTIONS 2. PENETRATIONS / HOLES THROUGH BEAM WEBS MAY BE POSSIBLE. TRADE CONTRACTOR SHALL BE RESPONSIBLE FOR ENGINEERING COST TO VERIFY ADEQUACY
- AND DESIGN AND FOR INSTALLATION COST OF OPENING AND ANY REINFORCEMENT. TO STRUCTURAL PRECAST CONCRETE: 1. CONTRACTORS SHALL COORDINATE PENETRATION REQUIREMENTS WITH STRUCTURAL ENGINEER AND STRUCTURAL MANUFACTURERS. TRADE CONTRACTORS SHALL COORDINATE AND MARK ALL PENETRATIONS LARGER THAN 2 INCHES IN DIAMETER/SQUARE THROUGH PRECAST CONCRETE WALLS DURING THE STRUCTURAL SUBMITTAL PROCESS. REINFORCEMENT OF SUBSEQUENT FIELD CUT OPENING OF 2"
- OR LARGER SHALL BE THE RESPONSIBILITY OF THE TRADE CONTRACTOR REQUIRING SUCH OPENING. ADJACENT GROUPED SMALL OPENINGS SHALL BE CONSIDERED AS ONE LARGE OPENING FOR STRUCTURAL PURPOSES. TO FLOOR DECK, ELEVATED SLABS, ROOF DECK: 1. NO PENETRATIONS LARGER THAN 12" IN DIAMETER / SQUARE SHALL BE FIELD CUT IN
- THE STRUCTURAL MEMBER WITHOUT APPROVAL OF THE ENGINEER OF RECORD FOR THAT ELEMENT. 2. CUTTING / CORING OF ADJACENT PENETRATIONS, PERPENDICULAR TO THE STRUCTURAL SPAN, SHALL BE AVOIDED. ADJACENT PENETRATIONS THAT REMOVE MORE THAN 20% OF SUCH STRUCTURAL ELEMENT, IN ANY GIVEN 3-FOOT LENGTH, ARE
- PROHIBITED. MAINTENANCE STATEMENT AND STRUCTURE LIFESPAN
- 1. THE ENGINEER MAKES NO CLAIM OR AGREEMENT AS TO THE LIFESPAN OF THE BUILDING STRUCTURE. THE CLIENT AND OWNER SHALL UNDERSTAND THAT STRUCTURAL TYPES DO HAVE LIFESPAN RELATIVE TO INITIAL COST AND MAINTENANCE AND THAT BY REQUESTING OR ACCEPTING A STRUCTURAL SYSTEM OF LOWER INITIAL COST THAT THE USEABLE LIFESPAN WILL DECREASE AND MAINTENANCE INCREASE. 2. ALL STRUCTURES REQUIRE PERIODIC MAINTENANCE TO EXTEND LIFESPAN AND TO
- ENSURE STRUCTURAL INTEGRITY FROM EXPOSURE TO THE ENVIRONMENT. THE ENGINEER SHALL NOT BE HELD LIABLE FOR MAINTENANCE REQUIREMENTS OR DETERIORATION RESULTING FROM LACK OF BUILDING MAINTENANCE. 3. A PLANNED PROGRAM OF MAINTENANCE SHALL INCLUDE ITEMS SUCH AS, BUT NOT
- LIMITED TO: PAINTING OF STRUCTURAL STEEL AND LINTELS, PROTECTIVE COATING FOR CONCRETE, SEALANTS, CAULKED JOINTS, EXPANSION JOINTS, CONTROL JOINTS TIMELY REPAIR OF SPALLS AND CRACKS IN CONCRETE, AND PRESSURE WASHING OF STRUCTURAL ELEMENTS EXPOSED TO A SALT ENVIRONMENT OR OTHER HARSH CHEMICALS.





CONCRETE

	CONCRETE FILL	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	RAISED FLOOR
	DENSE GRADED AGGREGATE (DGA)		RECESSED FLOOR
+ + + + + + + + + + + + + + + + + + +	PRECAST CONCRETE GROUT "IN SECTION"		C.M.U. "IN SECTION"
	MASONRY GROUT "IN SECTION"		BRICK "IN SECTION"

GRATING 1/8" SCALE

FOUNDATION PLANS TAG NOTES

- TOP OF SLAB ELEVATION AT HIGH POINT IN AREAWAY = (-18'-8"). CRICKET SIDES AND LOW SIDE OF AREAWAY SLAB TO SLOPE BACK TO DRAIN LOCATION.
- BOTTOM OF FOOTING SHALL BE AT LEAST AS LOW AS BOTTOM OF < 2 CRANE PAD USED ON SOUTH END OF BUILDING DURING CONSTRUCTION. EXTEND BOTTOM OF FOOTING FROM ELEVATIONS SHOWN AS NECESSARY TO MEET THIS RELATIONSHIP REQUIREMENT.
- THICKENED SLAB CENTERED BELOW TABLE LEG ANCHORAGE POINTS. 3 SEE DET R/S-306.
- \langle 4 \rangle UTILITY LINE PASSES BELOW FOOTING IN THIS AREA. SEE DETAIL
- 5 UTILITY LINE PASSES THROUGH FOOTING IN THIS AREA. SEE DETAIL C/S-301.
- EXTEND BOTTOM OF SPREAD FOOTING, WITH 4,000 PSI CONCRETE FILL, AS 6 EXTEND BUTTOM OF SPREAD FOUTING, WITH 4,000 FOLGONIC SURFACE IN REQUIRED TO BEAR AT OR BELOW TOP OF EXCAVATED ROCK SURFACE IN ADJACENT UTILITY PIPE BORING PIT. SEE SITE/CIVIL DWG C500.
- EXTEND PIER VERTICAL BARS TO 3" CLR TOP OF GRADE BEAM. TERMINATE BARS WITH STANDARD 90° HOOK.
- 8 CONCRETE HAUNCH FOR GRADE BEAM SUPPORT. TERMINATE HAUNCH AT BOTTOM OF GRADE BEAM. SEE DETAIL D/S-303
- $\langle \underline{9} \rangle$ CONCRETE STEP/S, SEE DETAIL B/S-306.
- 10 UTILITY LINE/S PASS THROUGH BASEMENT WALL IN THIS AREA. MAINTAIN 12" WIDTH MINIMUM BETWEEN ADJACENT OPENINGS. REINFORCE AROUND WALL PENETRATION PER DET H/S-301.
- \langle 11 \rangle STOP CONCRETE STEM WALL IN LINE WITH BASE OF RAMP.
- \langle 12 \rangle 6"ø vertical sleeve in footing for utility passage. . WHERE WINDOW/CURTAINWALL EXTENDS BELOW FIRST FLOOR LEVEL, REINFORCE AROUND BLOCKOUT PER DETAIL H/S-301 (INCLUDING ADDED
- JAMB BARS, BOTTOM BARS, AND DIAGONAL CORNER BARS.) L8x8x1/2 x 1'-8" WITH (3) 5/8"ø x 5" STUD ANCHORS ON EACH LEG @ 8" O.C. -EMBED ANGLE IN CONCRETE WALL AND PIER AT STAIR LANDING BEAMS.

FRAMING PLANS TAG NOTES

21	BEAMS ARE NOT PERPENDICULAR TO SUPPORT AT GRID SC, FROM GRIDS S12-S2, AND WHERE NOTED ELSEWHERE.
22	REINFORCEMENT BAR IN SLAB CENTERED OVER GIRDER BEAM. SEE DETAIL H/S-301 TYPICAL AT ALL STEEL GIRDERS SUPPORTING SLAB (METAL DECK.
$\langle 23 \rangle$	RIPPED HSS FOR EXTENT OF SLOPE THIS DIRECTION. SEE SECTION.
$\langle 24 \rangle$	SPECIAL CONNECTION. SEE DETAIL X/S-XXX.
25	SLAB RECESS AT RESTROOM, COORDINATE EXTENTS WITH ARCH D SPRAY-APPLIED FIRE-PROOFING ON UNDERSIDE OF DECK BELOW S RECESS AND TO 1'-0" BEYOND ON ALL SIDES. SEE ARCH DWGS FOR ADDITIONAL INFORMATION.
26	HSS6x6x3/8 HANGER TO PICK UP BALCONY BEAM. WELD HANGER TO ABOVE W/ 5/16" ALL AROUND FILLET WELD. ATTACH BALCONY BEAM HANGER WITH A STANDARD SHEAR CONNECTION.
27	THIS COLUMN HAS BEEN DESIGNED FOR AN ADDITIONAL 25 KIP DEA AND 25 KIP LIVE LOAD AT THE SECOND AND THIRD FLOOR TO ACCOMMODATE A FUTURE PEDWAY.
28	SCREEN WALL FRAME. SEE DETAIL C/S-420.
29	BEAM SHALL BE SHORED AT QUARTER POINTS (1/4, 1/2, AND 3/4 OF 1 SPAN) DURING CONCRETE SLAB-ON-DECK PLACEMENT. SLAB SHALL FINISHED TO A CONSTANT 5 1/2" DEPTH OVER THIS AREA (THE SHOF BEAM SLAB SURFACE WILL HAVE CAMBER IN THE FINISHED SLAB).
30	AT "FORCE PLATES" PROVIDE SOLID CONCRETE TOPPING SLAB TO STRUCTURAL SLAB BELOW. (SLAB BELOW FORCE PLATES SHALL NO VIBRATION ISOLATED.) RECESS SOLID CONCRETE TOPPING SLAB AS REQUIRED TO ESTABLISH TO OF FORCE PLATE FLUSH WITH ADJACE F.F.E.
31	SEE A/S-420 AND B/S-420 FOR SCREEN WALL ELEVATION VIEWS.
32	TIERED SEATING, WITH ACCESS STEPS AND RAMPS, SEE ARCH DRA RAISED AREA IS TO BE CONSTRUCTED OVER FLAT STRUCTURAL CONCRETE SLAB ON METAL DECK BELOW. RAISED AREA CONSTRU- IS TO BE COLD-FORM METAL STUD FRAMING, INCLUDING HORIZONT, FLOOR JOISTS, TOPPED WITH 3/4" THICK STRUCTO-CRETE FLOOR PA
33	BEAM PENETRATES CONCRETE WALL.
34	OPERABLE PARTITION SUPPORT BEAM. COORDINATE ELEVATION WI OPERABLE PARTITION MANUFACTURER.
35	HSS5x5x1/4 OPERABLE PARTITION SUPPORT POST. SEE DET X/XXX F BASE AND TOP CONNECTION.
36	HSS6x4x3/8 STAIR FRAMING SUPPORT POST BELOW. SEE DET X/XXX BASE AND TOP CONNECTION.
37	HSS5x3x3/8 STAIR FRAMING SUPPORT POST BELOW. SEE DET X/XXX BASE AND TOP CONNECTION.

GRID SC,

RDER BEAM. SEE PPORTING SLAB ON

N. SEE SECTION.

ITS WITH ARCH DWGS. F DECK BELOW SLAB

ARCH DWGS FOR

ELD HANGER TO BEAM BALCONY BEAM TO

ONAL 25 KIP DEAD LOAD FLOOR TO

1/2, AND 3/4 OF THE ENT. SLAB SHALL BE AREA (THE SHORED

PPING SLAB TO LATES SHALL NOT BE TOPPING SLAB AS

SH WITH ADJACENT

TION VIEWS. SEE ARCH DRAWINGS.

STRUCTURAL AREA CONSTRUCTION DING HORIZONTAL CRETE FLOOR PANELS.

TE ELEVATION WITH

SEE DET X/XXX FOR

. SEE DET X/XXX FOR

. SEE DET X/XXX FOR

















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- QUANTITY OF PROBE HOLES SHALL BE AS FOLLOWS:
- IS EQUAL TO OR LESS THAN 25 SQUARE FEET.
- SIZE EXCEEDS 25 SQUARE FEET. DURING CONSTRUCTION.

EP1	= EMBEDDED STEEL PLATE. SEE DETAIL J/S-304.
F40	= SPREAD FOOTING. SEE SCHEDULE.
WF40	= WALL FOOTING. SEE SCHEDULE.
RWF40	= RETAINING WALL FOOTING. SEE SCHEDULE.
P1	= CONCRETE PIER. SEE DETAIL A/S-302.
SF	= STEP FOOTING. SEE DETAIL D/S-301.
(-16'-8")	= TOP OF FOOTING ELEVATION.
-3/4",	= EXTENT OF SLAB DEPRESSION. DEPTH MEASURED FROM ADJACENT TOP OF CONCRETE. SEE DETAIL B/S-304.
SJ	= SAWN CONTRACTION JOINT. SEE DETAIL B/S-304.
CJ	= CONSTRUCTION JOINT. SEE DETAIL B/S-304.
TJ	= TOOLED CONTRACTION JOINT. SEE DETAIL B/S-304.
\$77.75	= PRECAST WALL.
	= CONCRETE WALL/PIER.
	= C.M.U. PARTITION WALL REINFORCED W/ #5@48" O.C. VERT CENTERED IN CORE.
\otimes F.D.	= FLOOR DRAIN. SEE DET E/S-304. COORDINATE EXACT DRA LOCATION & QUANTITY W/ M.E.P. DWGS.
\bullet	= TENSION ROCK ANCHOR. SEE DET C/S-303.
\sim	



ALL OTHER INFORMATION SHOWN FOR REFERENCE ONLY.



SF	PREA	D FOO	TING S	3
MARK	LENGTH	WIDTH	THICKNESS	
F40	4'-0"	4'-0"	2'-0"	T
F60	6'-0"	6'-0"	2'-0"	t
F60A	6'-0"	6'-0"	3'-0"	t
F65	6'-6"	6'-6"	2'-6"	T
F70	7'-0"	7'-0"	2'-0"	T
F75	7'-6"	7'-6"	4'-0"	T
F75A	7'-6"	7'-6"	2'-0"	
F7550	7'-6"	5'-0"	2'-0"	;
F8060	8'-0"	6'-0"	3'-0"	
\	VALL	FOOT	ING S(ートノ
MARK	VALL WIDTH	FOOT	ING SC REINFORCIN CONT BOTTC	
MARK RWF40	WALL WIDTH 4'-0"	FOOT THICKNESS 1'-4"	ING SC REINFORCIN CONT BOTTC SEE SECTION	
MARK RWF40 RWF65	WALL WIDTH 4'-0" 6'-6"	FOOT THICKNESS 1'-4" 1'-4"	REINFORCIN CONT BOTTO SEE SECTION SEE SECTION	
MARK RWF40 RWF65 RWF65A	WIDTH 4'-0" 6'-6" 6'-6"	FOOT THICKNESS 1'-4" 1'-4" 1'-6"	REINFORCIN CONT BOTTC SEE SECTION SEE SECTION SEE SECTION	
MARK RWF40 RWF65 RWF65A RWF115	WALL WIDTH 4'-0" 6'-6" 6'-6" 11'-4"	FOOT THICKNESS 1'-4" 1'-4" 1'-6" 1'-8"	REINFORCIN CONT BOTTO SEE SECTION SEE SECTION SEE SECTION SEE SECTION	
MARK RWF40 RWF65 RWF65A RWF115 WF20	WIDTH 4'-0" 6'-6" 6'-6" 11'-4" 2'-0"	FOOT THICKNESS 1'-4" 1'-6" 1'-8" 1'-8"	REINFORCIN CONT BOTTC SEE SECTION SEE SECTION SEE SECTION (3) #5 CONT	
MARK RWF40 RWF65 RWF65A RWF115 WF20 WF30	WIDTH 4'-0" 6'-6" 6'-6" 11'-4" 2'-0" 3'-0"	FOOT THICKNESS 1'-4" 1'-4" 1'-6" 1'-8" 1'-0" 1'-4"	REINFORCIN CONT BOTTC SEE SECTION SEE SECTION SEE SECTION SEE SECTION (3) #5 CONT (4) #5	
MARK RWF40 RWF65 RWF65A RWF115 WF20 WF20 WF30 WF40	WIDTH 4'-0" 6'-6" 6'-6" 11'-4" 2'-0" 3'-0" 4'-0"	FOOT THICKNESS 1'-4" 1'-4" 1'-6" 1'-8" 1'-0" 1'-4" 1'-6"	REINFORCIN CONT BOTTC SEE SECTION SEE SECTION SEE SECTION SEE SECTION (3) #5 CONT (4) #5 (5) #5	
MARK RWF40 RWF65 RWF65A RWF115 WF20 WF30 WF40 WF40A	WIDTH 4'-0" 6'-6" 6'-6" 11'-4" 2'-0" 3'-0" 4'-0"	FOOT THICKNESS 1'-4" 1'-4" 1'-6" 1'-8" 1'-0" 1'-4" 1'-6"	REINFORCIN CONT BOTTO SEE SECTION SEE SECTION SEE SECTION (3) #5 CONT (4) #5 (5) #5	

- LOCATIONS.
- AND BEDROCK. SEE DETAIL A/S-301.
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RWF40	= RETAINING WALL FOOTING. SEE SCHEDULE.
P1	= CONCRETE PIER. SEE DETAIL A/S-302.
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-3/4",	= EXTENT OF SLAB DEPRESSION. DEPTH MEASURED FROM ADJACENT TOP OF CONCRETE. SEE DETAIL B/S-304.
SJ	= SAWN CONTRACTION JOINT. SEE DETAIL B/S-304.
CJ	= CONSTRUCTION JOINT. SEE DETAIL B/S-304.
TJ	= TOOLED CONTRACTION JOINT. SEE DETAIL B/S-304.
\$7777	= PRECAST WALL.
	= CONCRETE WALL/PIER.
	= C.M.U. PARTITION WALL REINFORCED W/ #5@48" O.C. VERT CENTERED IN CORE.
\otimes F.D.	= FLOOR DRAIN. SEE DET E/S-304. COORDINATE EXACT DRA LOCATION & QUANTITY W/ M.E.P. DWGS.
•	= TENSION ROCK ANCHOR. SEE DET C/S-303.
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	CHEDULE	ING S	FOOT	PREAD	SF
	REINFORCING E.W. BOTTOM U.N.O.	THICKNESS	WIDTH	LENGTH	MARK
	(8) #6 BARS W/ STD HOOK	2'-0"	4'-0"	4'-0"	F40
	(12) #6 BARS W/ STD HOOK	2'-0"	6'-0"	6'-0"	F60
	(10) #8 BARS W/ STD HOOK	3'-0"	6'-0"	6'-0"	F60A
	(12) #7 BARS W/ STD HOOK	2'-6"	6'-6"	6'-6"	F65
	(14) #6 BARS W/ STD HOOK	2'-0"	7'-0"	7'-0"	F70
	(15) #8 BARS W/ STD HOOK	4'-0"	7'-6"	7'-6"	F75
	(13) #7 BARS W/ STD HOOK	2'-0"	7'-6"	7'-6"	F75A
ł	#8@6" O.C., E.W. W/ STD HOOP	2'-0"	5'-0"	7'-6"	F7550
ł	#8@6" O.C., E.W. W/ STD HOOP	3'-0"	6'-0"	8'-0"	F8060

WALL FOOTING SCHEDULE REINFORCING TRANSVERSE CONT BOTTOM REINFORCING BOTTOM SEE SECTIONS (3) #5 CONT #4@96" O.C. TRANSV (4) #5 #4@12" O.C. (5) #5 #5@12" O.C. TOP & BOT #5@12" O.C. TOP & BOT (5) #5 WF50 5'-0" 3'-0" (6) #8 TOP & BOT #5@12" O.C. TOP & BOT

- INCLUDING ALL KINK/VERTEX POINTS FOR FACETED GRIDS.

- LOCATIONS.
- AND BEDROCK. SEE DETAIL A/S-301. QUANTITY OF PROBE HOLES SHALL BE AS FOLLOWS:
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P1	= CONCRETE PIER. SEE DETAIL A/S-302.
SF	= STEP FOOTING. SEE DETAIL D/S-301.
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-3/4",	= EXTENT OF SLAB DEPRESSION. DEPTH MEASURED FROM ADJACENT TOP OF CONCRETE. SEE DETAIL B/S-304.
SJ	= SAWN CONTRACTION JOINT. SEE DETAIL B/S-304.
CJ	= CONSTRUCTION JOINT. SEE DETAIL B/S-304.
TJ	= TOOLED CONTRACTION JOINT. SEE DETAIL B/S-304.
¥7777	= PRECAST WALL.
	= CONCRETE WALL/PIER.
*****	= C.M.U. PARTITION WALL REINFORCED W/ #5@48" O.C. VERT CENTERED IN CORE.
\otimes F.D.	= FLOOR DRAIN. SEE DET E/S-304. COORDINATE EXACT DRA LOCATION & QUANTITY W/ M.E.P. DWGS.
•	= TENSION ROCK ANCHOR. SEE DET C/S-303.
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2. FINISHED FIRST FLOOR ELEVATION (+0'-0"). FINISHED SECOND FLOOR ELEVATION (+21'-0"). FINISHED THIRD FLOOR ELEVATION (+42'-0"). FINISHED FOURTH FLOOR ELEVATION (+57'-8"). FINISHED FIFTH FLOOR ELEVATION (+72'-10"). FINISHED SIXTH FLOOR ELEVATION (+88'-0"). FINISHED SEVENTH FLOOR ELEVATION (+103'-2"). FINISHED EIGHTH FLOOR ELEVATION (+118'-4"). FINISHED NINTH FLOOR ELEVATION (+133'-6"). FINISHED NORTH WING PENTHOUSE FLOOR ELEVATION (+149'-6"). 3. TOP OF FIRST FLOOR STEEL BEAMS = (-0'-6 1/2") U.N.O. TOP OF SECOND FLOOR STEEL BEAMS = (+20'-5 1/2") U.N.O. TOP OF THIRD FLOOR STEEL BEAMS = (+41'-5 1/2") U.N.O. TOP OF FOURTH FLOOR STEEL BEAMS = (+57'-1 1/2") U.N.O. TOP OF FIFTH FLOOR STEEL BEAMS = (+72'-3 1/2") U.N.O. TOP OF SIXTH FLOOR STEEL BEAMS = (+87'-5 1/2") U.N.O. TOP OF SEVENTH FLOOR STEEL BEAMS = (+102'-7 1/2") U.N.O. TOP OF EIGHTH FLOOR STEEL BEAMS = (+117'-9 1/2") U.N.O. TOP OF NINTH FLOOR STEEL BEAMS = (+132'-11 1/2") U.N.O. 4. SEE DWGS S-001 & S-002 FOR GENERAL NOTES. 5. SEE DWG S-003 FOR SPECIAL INSPECTION NOTES. INCLUDING ALL KINK/VERTEX POINTS FOR FACETED GRIDS. 7. SEE S-200 SERIES DRAWINGS FOR COLUMN SCHEDULES. 8. SEE S-400 SERIES DRAWINGS FOR TYPICAL FRAMING DETAILS. 9. SPACE BEAMS / JOISTS EVENLY THROUGHOUT BAY U.N.O. 10. SIZE AND LOCATION OF ROOF TOP MECHANICAL UNITS SHALL BE

1.5WR20	= 1 1/2" 20 GA GALVANIZED WIDE RIB STEEL ROOF DECK.
S5.5	= 3 1/2" NORMAL WEIGHT CONCRETE REINFORCED W/ 6x6-W2.1xW2.1 W.W.F. ON 2" 18 GA GALVANIZED COMPOSITE STEEL FLOOR DECK (5 1/2" TOTAL THICKNE
S6.5	= 4 1/2" NORMAL WEIGHT CONCRETE REINFORCED W/ 6x6-W2.1xW2.1 W.W.F. ON 2" 18 GA GALVANIZED COMPOSITE STEEL FLOOR DECK (6 1/2" TOTAL THICKNE
\$9.0	= 6" NORMAL WEIGHT CONCRETE REINFORCED W/ 6x6-W4.0xW4.0 W.W.F. ON 3" 18 GA GALVANIZED COMPOSITE STEEL FLOOR DECK (9" TOTAL THICKNESS)
+X'-X"	= TOP OF STEEL (BOTTOM OF DECK) SPOT ELEVATION. SLOPE STEEL EVENLY BETWEEN POINTS.
W16x26 [10] (15	 STEEL BEAM SIZE. NUMBER OF SHEAR STUDS, ZERO IF BLANK. SERVICE LOAD REACTION (KIPS) EACH END. Sk)
C=3/4" —	– CAMBER UPWARD AT MIDSPAN (INCHES).
(+20'-5 1/2")	= TOP OF STEEL BEAM ELEVATION REFERENCED FROM FINISHED FIRST FLOOR REFERENCE ELEVATION (0'-0").
MC1	= MOMENT CONNECTION. SEE DETAIL X/XXX.
•	= COLLECTOR / DRAG STRUT TENSION CONNECTION. SEE DETAIL X/XXX. SEE SCHEDULE ON X/XXX.
$\neg \vdash$	= DIAGONAL BRACING. SEE S-200 SERIES DRAWINGS FOR ELEVATIONS.
O [*]	= COLUMN STARTING AT AND EXTENDING UPWARD FROM THIS LEVEL.
(H)	= HSS6x6x3/8 STEEL HANGER BELOW. SEE DETAIL X/S-XXX FOR TOP CONNECTION AND DETAIL X/S-XXX FOR BOTTOM CONNECTION.
(H2)	= HSS4x4x5/16 STEEL HANGER BELOW. SEE DETAIL X/S-XXX FOR TOP CONNECTION AND BOTTOM CO
	= PRECAST WALL.
<u></u> <u></u>	= WALL BELOW DECK.
EP1	= EMBEDDED STEEL PLATE. SEE DETAIL J/S-304.
EP-PC	= EMBEDDED STEEL PLATE BY PRECAST CONCRETE DES
BP1	= STEEL BEARING PLATE. SEE DETAIL H/S-305.
FB1	= BEAM BOTTOM FLANGE BRACE. SEE DETAIL X/XXX.
CANT	= CANTILEVER BEAM END. SEE DET X/XX.
<u>رسیا</u> "2 استر	= EXTENT OF SLAB DEPRESSION. DEPTH MEASURED FROM ADJACENT TOP OF CONCRETE.
12	= ROOF SLOPE.
$RD\otimes$	= ROOF DRAIN. SEE DET X/XXX FOR FRAMING REQUIREN SEE ARCH DWGS FOR LOCATIONS.
W12	= W12x19 (12k).
W14	= W14x22 (15k).
\sim	




	FINISHED T FINISHED F FINISHED S FINISHED S FINISHED S FINISHED P FINISHED P FINISHED P	THIRD FLOOR ELEVATION (+42'-0"). FOURTH FLOOR ELEVATION (+57'-8"). FIFTH FLOOR ELEVATION (+72'-10"). SIXTH FLOOR ELEVATION (+88'-0"). SEVENTH FLOOR ELEVATION (+103'-2"). FIGHTH FLOOR ELEVATION (+118'-4"). NINTH FLOOR ELEVATION (+133'-6"). NORTH WING PENTHOUSE FLOOR ELEVATION (+149'-6"). NORTH WING PENTHOUSE ROOF DECK ELEVATION (+167'-6").
3.	Top of Fif Top of Se Top of Th Top of Fif Top of Si Top of Si Top of Ek Top of Nii Top of Nii Top of Nii Top of Nii	RST FLOOR STEEL BEAMS = (-0'-6 1/2") U.N.O. COND FLOOR STEEL BEAMS = (+20'-5 1/2") U.N.O. IIRD FLOOR STEEL BEAMS = (+41'-5 1/2") U.N.O. OURTH FLOOR STEEL BEAMS = (+57'-1 1/2") U.N.O. TH FLOOR STEEL BEAMS = (+72'-3 1/2") U.N.O. (TH FLOOR STEEL BEAMS = (+12'-7 1/2") U.N.O. WENTH FLOOR STEEL BEAMS = (+102'-7 1/2") U.N.O. GHTH FLOOR STEEL BEAMS = (+117'-9 1/2") U.N.O. NTH FLOOR STEEL BEAMS = (+132'-11 1/2") U.N.O. NTH FLOOR STEEL BEAMS = (+132'-11 1/2") U.N.O. ORTH WING PENTHOUSE FLOOR STEEL BEAMS = (+148'-11 1/2 ORTH WING PENTHOUSE ROOF STEEL BEAMS = (+167'-0 1/2")
4.	SEE DWGS	S-001 & S-002 FOR GENERAL NOTES.
5. 3	SEE DWG	S-003 FOR SPECIAL INSPECTION NOTES.
6. S	SEE DWG S INCLUDING	S-006 FOR DIMENSIONED OVERALL STRUCTURAL GRIDS LAY BALL KINK/VERTEX POINTS FOR FACETED GRIDS.
7. 3	SEE S-200	SERIES DRAWINGS FOR COLUMN SCHEDULES.
8. 3	SEE S-400	SERIES DRAWINGS FOR TYPICAL FRAMING DETAILS.
9. 3	SPACE BE/	AMS / JOISTS EVENLY THROUGHOUT BAY U.N.O.
10. 5	SIZE AND L COORDINA OF UNIT (IN SEE/	OCATION OF ROOF TOP MECHANICAL UNITS SHALL BE TED WITH THE MECHANICAL CONTRACTOR. OPERATING WE ICLUDING CURBS) SHALL NOT EXCEED WEIGHT SHOWN ON FOR ADDITIONAL FRAMING REQUIREMENTS AT UNITS.
		FRAMING LEGEND
1.5	WR20 =	1 1/2" 20 GA GALVANIZED WIDE RIB STEEL ROOF DECK.
	\$5.5 =	3 1/2" NORMAL WEIGHT CONCRETE REINFORCED W/ 6x6-W2.1xW2.1 W.W.F. ON 2" 18 GA GALVANIZED COMPOSITE STEEL FLOOR DECK (5 1/2" TOTAL THICKNESS).
S	6.5 =	4 1/2" NORMAL WEIGHT CONCRETE REINFORCED W/ 6x6-W2.1xW2.1 W.W.F. ON 2" 18 GA GALVANIZED COMPOSITE STEEL FLOOR DECK (6 1/2" TOTAL THICKNESS).
	59.0 =	6" NORMAL WEIGHT CONCRETE REINFORCED W/ 6x6-W4.0xW4.0 W.W.F. ON 3" 18 GA GALVANIZED COMPOSITE STEEL FLOOR DECK (9" TOTAL THICKNESS).
	-X'-X" =	TOP OF STEEL (BOTTOM OF DECK) SPOT ELEVATION. SLOPE STEEL EVENLY BETWEEN POINTS.
W16x26	[10] (15k)	STEEL BEAM SIZE. NUMBER OF SHEAR STUDS, ZERO IF BLANK. SERVICE LOAD REACTION (KIPS) EACH END.
C:	=3/4"	- CAMBER UPWARD AT MIDSPAN (INCHES).
(+20	'-5 1/2") =	TOP OF STEEL BEAM ELEVATION REFERENCED FROM FINISHED FIRST FLOOR REFERENCE ELEVATION (0'-0").
M	=	MOMENT CONNECTION. SEE DETAIL X/XXX.
•	=	COLLECTOR / DRAG STRUT TENSION CONNECTION. SEE DETAIL X/XXX. SEE SCHEDULE ON X/XXX.
7	- −	DIAGONAL BRACING. SEE S-200 SERIES DRAWINGS FOR BRACINGS.
\langle		COLUMN STARTING AT AND EXTENDING UPWARD FROM THIS LEVEL.
Œ	1) =	HSS6x6x3/8 STEEL HANGER BELOW. SEE DETAIL X/S-XXX FOR TOP CONNECTION AND DETAIL X/S-XXX FOR BOTTOM CONNECTION.
E	12 =	HSS4x4x5/16 STEEL HANGER BELOW. SEE DETAIL X/S-XXX FOR TOP CONNECTION AND BOTTOM CONN
		PRECAST WALL.
<u>}</u> -		WALL BELOW DECK.
E	EP1 =	EMBEDDED STEEL PLATE. SEE DETAIL J/S-304.
EF	P-PC =	EMBEDDED STEEL PLATE BY PRECAST CONCRETE DESIGN
E	3P1 =	STEEL BEARING PLATE. SEE DETAIL H/S-305.
F	=B1 =	BEAM BOTTOM FLANGE BRACE. SEE DETAIL X/XXX.
C	ANT =	CANTILEVER BEAM END. SEE DET X/XX.
2	<u></u>	EXTENT OF SLAB DEPRESSION. DEPTH MEASURED FROM ADJACENT TOP OF CONCRETE.
1	12 1/4 =	ROOF SLOPE.
R	D⊗ =	ROOF DRAIN. SEE DET X/XXX FOR FRAMING REQUIREMEN



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024 6:32:16 PM





S2.2

S2

S3





024 6:32:17 PM

<u>W14x43</u> 	W14x61	W10x45	W10x33		W14x90		W14x145		W14x120	HSS8x8x5/16	<u>W</u> 14×90	<u>W</u> 14x90	W10X45	W10X45	W10x45		W14x109		W14x145		W14x145	W10X33	11 PENTHOUSE ROOF 167'-6" 10 ROOF/PENTHOUSE FRAMING PLAN 149'-6" 09 NINTH FLOOR FRA 133'-6" 08 EIGHTH FLOOR FR
W14x109 W14x82					W14x176 W14x132		W14x342 W14x233		W14x283 W14x193		W14x159 W14x109	W14x145 W14x90					W14x193 W14x145		W14x342 W14x257		W14x283W14x211		118'-4" 07 SEVENTH FLOOR F 103'-2" 06 SIXTH FLOOR FRA 88'-0" 05 FIFTH FLOOR FRA 72'-10" 04 FOURTH FLOOR F ¹
W14x211 W14x159				W14x99 W14x68	49	49	W14x550 W14x455	35	W14x426 W14x398		W14x311 W14x257	W14x283 W14x211				W14x120 W14x61		64	W14x605 W14x500	65	W14x426W14x398		57'-8" 03THIRD FLOOR FRAM 42'-0" 02 SECOND FLOOR F 21'-0" 01 FIRST FLOOR 0"
2 3/4x28x24 (4) 1 1/2"ø H 				1 1/4x23x23 (4) 1"ø A 	1x18x18 (4) 1"ø A 	1x18x18 (4) 1"ø A 	4 1/2x34x34 (4) 1 1/2"ø A 	1 1/2x24x24 (4) 1"ø A 	4x32x30 (4) 1 1/2"ø A 		2 3/4x26x26 (4) 1 1/2"ø A 	2 1/2x26x24 (4) 1 1/2"ø G 				1 3/4x23x23 (4) 1"ø A 	1x18x18 (4) 1"ø A 	1x18x18 (4) 1"ø A 	4 1/2x34x34 (4) 1 1/2"ø A 	1 1/2x24x24 (4) 1"ø A 	3 1/2x32x30 (4) 1 1/2"ø A 		00 BASEMENT -16'-0"
A-9 A.8	-5.2 A.8-6	A.8-7	A.8-7.6	B-2	B-3	B-4	B-5	B-6	B-6.9	B-7.8	B-8	B-9	B.7-3.2	B.7-4	B.7-5.2	C-2	C-3	C-4	C-5	C-6	C-7	C-7.6	3
	ۍ ا	SS10x10x5/16		W10x33)X1/2			ISS6x6x3/8		W10x33	W10x33	W10x33	W10x33	W10X33	W10x33	4							11 PENTHOUSE ROOF 167'-6" 10 ROOF/PENTHOUSE FRAMING PLAN

	I		2/10	f				<u> </u>	- I														11 PENTHOUSE ROOF F
	0	LO LO	S10x10x	W10x33	×1/2			S S6x6x3		W10x33	W10x33	W10x33	W10x33	W10x33	W10x33	4							167'-6" 10 ROOF/PENTHOUSE F FRAMING PLAN
14x90	4x12(4×14	\leq	53	0×10				14x61	53	5 3	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	<u> </u>	x6x1							149'-6"
Ň	۲N	W1	×145		HSS1	60			Ň							1SS6	4x82	4x68	4x43		4x68		09 NINTH FLOOR FRAM
			× ×		$\left \begin{array}{c} - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - $	/14x1	4x82									$\frac{-1}{5}$	Ň	Ň	Ň	4x43	Ň		133'-6"
							A																08 EIGHTH FLOOR FRAM
132	176	511	176			176	159		6								109	6	61	(61	66)		118'-4"
V14X	V14x	V14X2	V14X			V14x	V14X		V14x								V14x	V14x	V14x	W14>	×14×		07 SEVENTH FLOOR FR
>	>					>											>						103'-2"
																							06 SIXTH FLOOR FRAM
kx176	+x233	1x257	tx233			1x233	1x233		1×109								×159	145	4x82	4x82	ix145		88'-0"
W12	×12	M12	W12			×12	×12		W1 ²								M12	×12	<u>×</u>		W12		72'-10"
																							04 FOURTH FLOOR FRA
																							57'-8"
4x257	4x342	4x370	1x342			4x342	4x342		4x145								tx233	4x211	4×105	1x132	4x211		03THIRD FLOOR FRAM
×1×	W14	×1	W1			W1	M1		W14								M1	N N	×1×	W1k	W14		42'-0"
 																							02 SECOND FLOOR FR/
311	(370	(426	×370			1×370	1×342		4x159								25	~	5	4x21.	4x23(62×	21'-0"
W14)	W14)	W14)	W1			W1 ⁴	W1 ⁴		W1								14x2!	14x25	14x13	W1	W1	W12	01 FIRST FLOOR
							L 1		L 1								3	Š	×	L L	1		0"
																							00 BASEMENT
Ţ	-	-				-												1	1				-16'-0"
$\searrow \frown \bigcirc$	$\frown \frown \frown \frown$			$ \ \ $	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	$\frown \frown \frown \frown$	$\frown \frown \frown \frown \frown$	$\frown \frown \frown \frown$	$\frown \frown \frown \frown$	\sim			$\checkmark \checkmark \checkmark$	$\frown \frown \frown \frown$	$\frown \frown \frown \frown \frown$	$\checkmark \checkmark \checkmark$	$\searrow \frown$	$\bigwedge $	\sim	\sim	$\frown \frown \frown \frown$		
2 3/4x26x26	3 1/2x32x30	3 1/2x32x30	2 3/4x2	6x26		3 1/2x32x30	2 1/2x26x24		1 1/2x20x20								2 3/4x26x26	2 3/4x26x26	6 2 3/4x26x26	2x24x24	2 3/4"x28x24	1 1/2x24x24	
A	(4) 1 1/2 Ø	A	(4) 1 A			(4) 1 1/2 Ø A	G (4) 1 1/2 Ø		(4) 1 Ø C								A	A	A	G (4) 1 0	E	A	$\left \right\rangle$
D-4	D-5	D-6	D-6.8 D-7	D-7.6	D-7.8	D-8	D-9	D.1-1	D.7-1	D.7-3.2	D.7-4	D.7-5	D.7-6	D.7-7	D.7-7.6	D.7-8.5	E-7	E-8	E-8.5	E-9	F-2.1	F-3	
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		$\uparrow$ $\downarrow$ $\downarrow$ $\downarrow$ $\downarrow$ $\downarrow$																					, -
	1								1														





<u>TYPE M1 & M2 (SEE SCHEDULE)</u>



				MOMENT CO	DLUMN SP	LICE SCHE	DULE					
			FLANGE CONNE	CTION				WEB CONNECTI	ON			
SPLICE TYPE		FLANGE PLA	ATES	BOLTS	6		WEB PLATE		BOLTS			
MARK	t,p (INCHES)	w,p (INCHES)	L,p (INCHES)	G, (INCHES)	n, ROWS	t,p (INCHES)	w,p (INCHES)	L,p (INCHES)	n, ROWS	m, COLS		
M1	1	9 1/2	22	6	3	1/2	7	13	2	2		
M2	1	11 1/2	29	8	4	1/2	7	13	2	3		
M3	1 11 1/2 36 8 5 3/4 9 13 2 3											

FILLER PL FLANGE PL EACH SIDE OF COLUMN FLANGE W/ 3/4"ø A325N BOLTS SEE SCHEDULE

- FLANGE PL EACH SIDE OF

COLUMN FLANGE

SEE SCHEDULE

W/ 3/4"ø A325N BOLTS

# ^B COLUMN SPLICE AT MOMENT CONNECTED COLUMNS

S-201 NOT TO SCALE

COLUMN SCHEDULE NOTES: 1. SEE PLAN FOR TOP OF FOUNDATION OR PIER ELEVATION.

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 CONTRACTOR MAY SUBMIT ALTERNATE COLUMN SPLICE LOCATIONS FOR REVIEW BY ENGINEER.
 SEE DETAIL A/S-203 FOR BASE PLATE INFORMATION.

CAP PLATES SHALL BE WELDED TO COLUMN WITH ALL-AROUND SEAL WELD U.N.O.
 WHERE COLUMN EXTENDS TO UNDERSIDE OF ROOF DECK, SLOPE TOP OF COLUMN TO MATCH ROOF DECK SLOPE.
 COORDINATE BOTTOM OF BASE PLATE ELEVATION WITH SUPPORTING FOUNDATION ELEMENT ELEVATION GIVEN

 COORDINATE BOTTOM OF BASE PLATE ELEVATION WITH SUPPORTING FOUNDATION ELEMENT ELEVATION GIVEN ON PLAN (FOOTING, PIER, PIER CAP, OR GRADE BEAM) & DETAIL A/S-203.
 WHERE TOP OF COLUMN ENDS AT FLOOR LEVEL (SLAB ON DECK CONSTRUCTION) TOP OF COLUMN SHALL MATCH

TOP OF ADJACENT STEEL BEAM FRAMING ELEVATION. WHERE TOP OF COLUMN ENDS AT ROOF LEVEL (DECK ON STEEL FRAMING) COORDINATE TOP OF COLUMN ELEVATION WITH ELEVATIONS NOTED ON PLAN & FRAMING SECTIONS.

 COORDINATE WITH PLANS AND MOMENT CONNECTION SCHEDULE FOR CAP PLATE DIM & PLATE ELEVATION WHERE MOMENT CONNECTION OCCURS AT TOP OF COLUMN.
 STEEL COLUMN SCHEDULE AS ISSUED IN BP-02 IS FOR ANCHOR RODS ONLY. COLUMN SIZES ARE TO BE FINALIZED IN BP-03 DOCUMENTS.



#### STEEL COLUMN SCHEDULE (CONTINUED) 11 PENTHOUSE ROOF FRAMING PLAN 167'-6" 10 ROOF/PENTHOUSE FLOOR FRAMING PLAN ____ 149'-6" 09 NINTH FLOOR FRAMING PLAN 133'-6" 08 EIGHTH FLOOR FRAMING PLAN 118'-4" 07 SEVENTH FLOOR FRAMING PLAN 103'-2" 06 SIXTH FLOOR FRAMING PLAN 88'-0" 05 FIFTH FLOOR FRAMING PLAN 72'-10" 04 FOURTH FLOOR FRAMING PLAN 57'-8" 03THIRD FLOOR FRAMING PLAN 42'-0" 02 SECOND FLOOR FRAMING PLAN 21'-0" 01 FIRST FLOOR 0" 00 BASEMENT -16'-0" 2x20x20 (4) 1"ø 3x28x24 (4) 1 1/2"ø BASE PLATE ANCHOR RODS BASE PL TYPE CAP PLATE NOTES 3 1/2x32x30 3 1/2x32x30 3 1/2x32x30 1 1/2x20x18 2 1/4x26x24 (4) 1 1/2"ø (4) 1 1/2"ø (4) 1 1/2"ø (4) 1 1/2"ø 2x20x20 (4) 1"ø 2 3/4x28x24 (4) 1"ø ----------Column Locations G-5 F-4 F-5 F-6 F.1-7 F.9-2.1 F.9-7.5 G-4 F.9-6.6

167'-6"																		
10 ROOF/PENTHOUSE FLOOR FRAMING PLAN																		
149'-6"				8				3/8					8/8					œ
09 NINTH FLOOR FRAMING PLAN	0×3/E	848		10×3	84				48				×10×3	×48				10X3/
133'-6" 08 EIGHTH FLOOR FRAMING PLAN	HSS10X1	M14		HSS10	M 44	4		HSS10	W14	11/4			HSS10	M14:	5/17			HSS10x
118'-4" 07 SEVENTH FLOOR FRAMING PLAN	4×132	V14x90 HSS6x65		4x132	14×99		4x145		14x109	HSS6x6x		4×145		14x90	HSS6x6	~ .	4×132	
103'-2" 06 SIXTH FLOOR FRAMING PLAN	Ň		M14x6	Ř.		M14x55	M1				<u>W</u> 14x53	W1		>		<u>W</u> 14x53		
88'-0" 05 FIFTH FLOOR FRAMING PLAN	14x159	14x145	/14x74	14x159	14x145	14x68	14x159		14x145		V14x68	14x159		14x145		14x68	14x176	
72'-10" 04 FOURTH FLOOR FRAMING PLAN	>	>	>	>	>	>	3		×			>		>		3	3	
57'-8" 03THIRD FLOOR FRAMING PLAN	x211	×233	4×99	x211	x233	4x09	4x211		4x233		4x99	×211		×233		66×	.×257	
42'-0"	X 4	× 1	M N	X 7	×14	Š	>		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			W14		41 1		W14	W14	
02 SECOND FLOOR FRAMING PLAN			0	8		    					50			8		50	257	
01 FIRST FLOOR	W14x2	14x283	W14x12	W14x2	14x283	W14x1	W14x2		4x283		W14x1	W14x23		W14x2		W14x1	W14x	
0"	1	3	I.	1	>	L L	1		M		<u> </u>	L				Ŧ	-	
-16'-0"									<b>_</b>					<u> </u>				
			~~~~~				$\sim$	$\gamma \gamma \gamma \gamma$	$\gamma \gamma $		$\sim$				$\sim$	$\gamma \gamma $	$\gamma \gamma $	
BASE PLATE	3x30x22 (4) 1 1/2"ø	3 1/2x32x30	2x24x20	3x30x22 (4) 1 1/2"ø	3 1/2x32x30	2x24x20	3x30x22 (4) 1 1/2"ø		3 1/2x32x30		2x24x20 (4) 1"ø	3x30x22 (4) 1 1/2"ø		3 1/2x32x30		2x24x20 (4) 1"ø	3x30x22 (4) 1 1/2"ø	
BASE PL TYPE	D	A (4) 1 1/2 Ø	B	D	A (4) 1 1/2 Ø	B	D		A		B	D		A		B	D	
CAP PLATE																		
Column Locations																		
	S5-SA S5-SA.2	S5-SB S5-SB.6	S5-SC	S6-SA S6-SA.2	SIG-SB S	S6-SE	S7-SA	S7-SA.2	S7-SB	S7-SB.6	SI-SC	S8-SA	S8-SA.2	S8-SB	58-SB.6	S8-SC	S9-SA	59-SA.2
I T							_								_			

W14x99	W12x40				W14x53		W14x61		3/8			
W114x132	W12x40				W14x53	W14x53	W14x61	W14x48	HSS10x10x	<u></u>	E W12x53	E W12x53
M14x159	M12x53					W14x68	W14x74	W14x61		M14x90	M12x53	
W14x211	M.12X65				W14x90	W14x90	W14x109	W14x90		W14x109	W12x53	W12X53
W14x211	W12x87	HSS10x10x1/2	HSS10x10x1/2	H\$S10x10x1/2	W14x90	W14x109	W14x132	W14×90		W14x120	M12x53	W12x53
2 3/4x28x24 (4) 1"ø E	3x24x24 (4) 1 1/2"ø A	3/4x18x18 (4) 1"ø B	3/4x18x18 (4) 1"ø B	3/4x18x18 (4) 1"ø B	1 1/2x24x22 (4) 1"ø A	2x24x24 (4) 1"ø A	2 x24x24 (4) 1"ø A	1 1/2x24x22 (4) 1"ø A		2x24x20 (4) 1"ø B	1 3/4 x24x24 (4) 1"ø A	1 3/4 x24x2 (4) 1"ø A
 G-6	 G-7.8	 G.3-4.2	 G.3-5	 G.3-6.1		 S1-SA.5	 S1-SB.1	S2-SA	S2-SB.6	 S2-SC	 S2.2-SA.8	
	<u> </u>	h	m	M	hu	h	h	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>





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2. SP = COLUMN SPLICE. SEE DETAIL A/S-201 & B/S-201. 3. CONTRACTOR MAY SUBMIT ALTERNATE COLUMN SPLICE LOCATIONS FOR REVIEW BY ENGINEER.

4. SEE DETAIL A/S-203 FOR BASE PLATE INFORMATION. 5. CAP PLATES SHALL BE WELDED TO COLUMN WITH ALL-AROUND SEAL WELD U.N.O.

6. WHERE COLUMN EXTENDS TO UNDERSIDE OF ROOF DECK, SLOPE TOP OF COLUMN TO MATCH ROOF DECK SLOPE. 7. COORDINATE BOTTOM OF BASE PLATE ELEVATION WITH SUPPORTING FOUNDATION ELEMENT ELEVATION GIVEN ON PLAN (FOOTING, PIER, PIER CAP, OR GRADE BEAM) & DETAIL A/S-203.





SIEEL (COLUM	N SCH	EDULE	(CON1	INUE) 																						
USE ROOF FRAMING PLAN																												11 PENTHOUSE ROOF FF
																												167'-6"
ENTHOUSE FLOOR PLAN										x5/8		x5/8																10 ROOF/PENTHOUSE FI FRAMING PLAN
					53					10×10	53	10×10	61										8					149'-6"
LOOR FRAMING PLAN	88/1/2		×43		V12XE	4x43				S S S	W14x		W14x			6×3/8	64			3/8)X3/8		x6x3/					09 NINTH FLOOR FRAM
FLOOR FRAMING PLAN	SS8x	SS6x	V14	N		M1		±							8	SS6x	N14x	8		SS6x6	SS6x6		HSS6	x6x3/	8		ω	133-6" 08 EIGHTH FLOOR FRAI
		\leq		0×11:		~									3×8×3			3×8×3						, HSSe	3X8X3		×6x3/	118'-4"
H FLOOR FRAMING PLAN			/14x4	W1	/12x5	/14x6					/14x6		/14x6		HSS		4x99	HSS				4x61			HSS		HSSG	07 SEVENTH FLOOR FR/
			5		5	5			14x61		~		\$	14x90			W1		14x68			W1				14x61		103'-2"
LOOR FRAMING PLAN									≥																			06 SIXTH FLOOR FRAMIN
OOR FRAMING PLAN			4x61	0x112	2x53	4x90			4x68		4x90		4x82	14x90			132		4x90			4x90				4x68		88'-0"
			× 1	N 1					× ·		× 1		× 1				W14		× 1							5		72'-10"
FLOOR FRAMING PLAN																												04 FOURTH FLOOR FRAM
			0	12	3	50					20		60	5			-		5			32				0		57'-8"
OOR FRAMING PLAN			14×90	10×1	/12x5	14×12			14×90		14×12		14×10	14×13			14x21		14×13			14×13				/14x9		03THIRD FLOOR FRAMIN
			3	×	5	3			3		3		>	Š			Ň		Š			×				5		42'-0"
FLOOR FRAMING PLAN																												02 SECOND FLOOR FRA
			06						120		145		120	29			257		145			145				109	2 2 2	21'-0"
OOR			W14x	x112	2x53	K145			N14x		V14x		V14x	V14x1			V14x2		V14x			W14x				V14X		01 FIRST FLOOR
				W10	× 1	W14)					>																	
:NT																												00 BASEMENT
				L	L		L						Ł															-16'-0"
		$\widehat{}$		$\overline{}$		\sim	$\frown \frown \frown$		$\gamma \gamma \gamma \gamma$	$\overline{}$				$\neg \neg \neg$			$\uparrow \frown \frown$		$\frown \frown \frown \frown$	$\frown \frown \frown$	$\bigwedge $		$\frown \frown \frown \frown$		$\bigwedge \\$			\mathcal{A}
			1 1/2x24x22	2x24x24	2x24x24	2 3/4	x26x26		2x24x20		2 3/4x26x26		2 3/4x26x2	26 2x24x20			2 3/4x26	x26	2x24x20			2 3/4x26x26				2x24x20	1 1/	x22x22
			(4) 1 Ø A	(4) 1°ø A	(4) 1"ø A		B		(4) 1°ø B		(4) 1"ø A		(4) 1"ø A	(4) 1"ø B			(4) 1 1/2 A		(4) 1°ø B			A				(4) 1°Ø B		
ES																						-						
Locations																												\parallel
	S10.3-SD.5	S10.3-SD.7	S10.3-SE	S10.8-SD	S10.8-SD.	.4 S10.	9-SC.7 S	11-SB.6	S11-SC	S11.2-SD.1	S11.2-SE	S11.9-SD.1	S11.9-SE	S12-SC	S12.1-SB.6	S12.1-SC.7	S12.1-S	D S13-SB.6	S13-SC	S13-SC.7	S13-SC.9	S13-SD	S13.4-SC.7	S13.4-SC.9	S14-SB.6	S14-SC	S14-SC.9 S	14-SD
_						.																						
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COLUMN SCHEDULE NOTES: 1. SEE PLAN FOR TOP OF FOUNDATION OR PIER ELEVATION. 2. SP = COLUMN SPLICE. SEE DETAIL A/S-201 & B/S-201. 3. CONTRACTOR MAY SUBMIT ALTERNATE COLUMN SPLICE LOCATIONS FOR REVIEW BY ENGINEER.

4. SEE DETAIL A/S-203 FOR BASE PLATE INFORMATION. 5. CAP PLATES SHALL BE WELDED TO COLUMN WITH ALL-AROUND SEAL WELD U.N.O. 6. WHERE COLUMN EXTENDS TO UNDERSIDE OF ROOF DECK, SLOPE TOP OF COLUMN TO MATCH ROOF DECK SLOPE. 7. COORDINATE BOTTOM OF BASE PLATE ELEVATION WITH SUPPORTING FOUNDATION ELEMENT ELEVATION GIVEN ON PLAN (FOOTING, PIER, PIER CAP, OR GRADE BEAM) & DETAIL A/S-203. 8. WHERE TOP OF COLUMN ENDS AT FLOOR LEVEL (SLAB ON DECK CONSTRUCTION) TOP OF COLUMN SHALL MATCH TOP OF ADJACENT STEEL BEAM FRAMING ELEVATION. WHERE TOP OF COLUMN ENDS AT ROOF LEVEL (DECK ON STEEL FRAMING) COORDINATE TOP OF COLUMN ELEVATION WITH ELEVATIONS NOTED ON PLAN & FRAMING SECTIONS. 9. COORDINATE WITH PLANS AND MOMENT CONNECTION SCHEDULE FOR CAP PLATE DIM & PLATE ELEVATION WHERE





3 MOMENT CONNECTION OCCURS AT TOP OF COLUMN. 10. STEEL COLUMN SCHEDULE AS ISSUED IN BP-02 IS FOR ANCHOR RODS ONLY. COLUMN SIZES ARE TO BE FINALIZED IN









ALL OTHER INFORMATION SHOWN FOR REFERENCE ONLY

















	MECHANICAL GENERAL NOTES
A	COORDINATE THE LOCATION OF DRAINS, THERMOSTATS, GAS OUTLETS,
	ETC., WITH ALL CASEWORK EQUIPMENT, MECHANICAL ROOM EQUIPMENT, ETC., PRIOR TO COMMENCING INSTALLATION. WORK NOT SO
	COORDINATED SHALL BE REMOVED AND PROPERLY INSTALLED AT THE EXPENSE OF THE CONTRACTOR.
В	THE CONTRACTOR SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS TO ENSURE THAT THEY DO NOT INTERRUPT ANY
	EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR
	ELECTRICAL LINES. VERIFY THE LOCATION, SIZE, TYPE, ETC., OF EACH
	PERFORMED IN ACCORD WITH ALL FEDERAL, STATE AND/OR LOCAL
	RULES, REGULATIONS, STANDARD AND SAFETY REQUIREMENTS. UTILITIES SHALL BE INSTALLED IN ACCORD WITH THE APPLICABLE
	MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY.
С	WHERE WORK IS REQUIRED ABOVE EXISTING LAY-IN, PLASTER OR
	FOR REMOVAL AND REINSTALLATION (OR REPLACEMENT, IF DAMAGED) OF
	ALL CEILING OR TILE AND GRID MEMBERS NECESSARY TO PERFORM HIS WORK. NEW TILE AND GRID SHALL MATCH THE SURROUNDING AREAS. ALL
D	ALL NEW WORK SHALL BE HUNG FROM STRUCTURE. NOT FROM THE WORK
-	OF OTHER TRADES, WHETHER EXISTING OR NEW.
E F	PATCH, REPAIR AND PAINT OR PROVIDE WALL COVERING FOR (TO
	OWNER'S STANDARDS) EXISTING WALLS, CEILINGS, ETC., THAT ARE TO REMAIN IF DAMAGED DURING CONSTRUCTION. REPAIRS SHALL MATCH
	ADJACENT SURFACES TO THE SATISFACTION OF THE ARCHITECT AND OWNER.
G	OBSERVE ALL APPLICABLE CODES, RULES AND REGULATIONS THAT MAY
	FEDERAL, MUNICIPALITY, UTILITY COMPANY, COMMONWEALTH OF
Н	CONTRACTOR SHALL BE AWARE OF UNSEEN PLUMBING, HVAC AND
	ELECTRICAL WORK DURING DEMOLITION. IF ITEMS ARE UNCOVERED DURING DEMOLITION THEN FIELD VERIFY THE USE OF THE ITEMS AND
	PLAN AN ALTERNATE ROUTE TO RUN THESE ITEMS. THEN CONTACT THE ENGINEERS TO REVIEW THE ROUTING.
I	IF AREA OF CONSTRUCTION HAS A POST TENSION FLOOR SLAB.
	TO SURVEY THE EXISTING FLOOR STRUCTURE BEFORE MAKING ANY AND
J	WHERE FIRE PROOFING IS SPRAYED ON EXISTING STRUCTURE ALL
	EXISTING CONDUITS, WATER, HYDRONIC, STEAM, CHILLED WATER, FIRE PROTECTION LINES, MED GAS, ETC. SHALL BE LOWERED TO BE BELOW
K	FULL THICKNESS OF FIRE PROOFING WITH NO INTERFERENCE. ALL PENETRATIONS OF FIRE AND SMOKE RATED ASSEMBLIES SHALL BE
	APPROPRIATELY FIRE STOPPED PER AN APPROVED U.L. LISTED STANDARD. CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO
	INSULATED PIPING PENETRATIONS.
L	BE SCHEDULED 2 WEEKS IN ADVANCE, AND SHALL COMPLY WITH INTERIM
М	ALL DUCTWORK, PIPING, CONDUITS, ETC. IN ROOMS WITH CEILINGS SHALL
N	BE ABOVE CEILING EXCEPT AS NOTED. INSTALL AIR VENTS AT HIGH POINTS IN PIPING AND DRAINS IN LOW POINTS.
0	USE CARE TO AVOID FREEZING OF EXTERIOR VENTS. LOCATIONS OF PIPING. DUCTS AND EQUIPMENT ARE APPROXIMATE AND
-	SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. DO NOT SCALE THE DRAWINGS.
Ρ	ALL OFFSETS IN DUCTS AND PIPING ARE NOT NECESSARILY SHOWN.
Q	COORDINATE ALL HVGC WORK WITH ELECTRICAL, PLUMBING AND OTHER
	OTHER EQUIPMENT.
R	INSTALL ALL PIPING, DUCTWORK AND EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTION. IF IN CONFLICT WITH
	THE DESIGN INDICATED IN CONTRACT DOCUMENTS, ADVISE THE ENGINEERS PRIOR TO INSTALLATION FOR CLARIFICATION. PROVIDE
s	RECOMMENDED ACCESS AND SERVICE CLEARANCES FOR ALL EQUIPMENT.
т	WALLS, FLOORS AND ROOF. PROVIDE FIRE STOPPING IN FIRE PARTITION.
	EQUAL WATER BASED SEALANT.
U	ALL MOTOR DRIVEN EQUIPMENT SHALL BE INSTALLED WITH FLEXIBLE CONNECTIONS TO DUCTWORK, PIPING, ETC., UNLESS OTHERWISE NOTED.
V	THE CONTRACTOR SHALL RELOCATE OR AVOID ANY EXISTING EQUIPMENT APPURTENANCES, ETC., THAT CONFLICT WITH NEW WORK.
N	WHERE MOUNTING HEIGHTS ARE NOT INDICATED OR ARE IN CONFLICT
	INSTALLATION. REFER ALSO TO ARCHITECTURAL WALL INTERIOR AND EXTERIOR WALL FLEVATIONS. CEILING HEIGHTS AND OTHER DETAIL OF
.,	THESE DOCUMENTS.
X	RETURN, AND EXHAUST DUCTWORK ELBOWS. TURNING VANES NOT
Y	ANY VIBRATING, OSCILLATING OR OTHER NOISE OR MOTION PRODUCING
	EQUIPMENT SHALL BE ISOLATED FROM SURROUNDING SYSTEMS IN AN APPROVED MANNER. NOISY OR STRUCTURALLY DAMAGING
	INSTALLATIONS SHALL BE SATISFACTORILY REPLACED OR REPAIRED AT THE INSTALLING CONTRACTOR'S EXPENSE. THE FINAL DECISION ON THE
	SUITABILITY OF A PARTICULAR INSTALLATION'S ACCEPTABILITY SHALL BE THAT OF THE ENGINEER.
Z	DEVIATIONS IN SIZE, CAPACITIES, FIT, FINISH, ETC. FOR EQUIPMENT FROM THAT USED AS BASIS OF DESIGN SHALL BE THE RESPONSIBILITY OF THE
	PURCHASER OF THAT EQUIPMENT. ANY PROVISIONS REQUIRED TO ACCOMMODATE A DEVIATION. WHETHER APPROVED BY THE ENGINEERS
	OR NOT, SHALL BE THE RESPONSIBILITY OF THE PURCHASER.
٩A	VALVES, BALANCING DAMPERS OK ANY MECHANICAL/ELECTRICAL ITEM REQUIRING ACCESS SHALL NOT BE LOCATED ABOVE A HARD CEILING. IF
	SHALL BE PLACED UNDER THE ITEM TO ALLOW EASY MAINTENANCE AND
	UNREASONABLE DISTANCE ABOVE THE CEILINGS. IN GENERAL ALL SUCH
	THEMS UNLESS INDICATED OTHERWISE SHALL BE MOUNTED SIX TO TWELVE INCHES ABOVE THE CEILING. IF IN DOUBT, CONTACT ENGINEER
٨B	PRIOR TO INSTALLING. ALL MANHOLES, VAULTS AND SIMILAR UNDERGROUND STRUCTURES
	SHALL HAVE THE TOP ELEVATION SET FLUSH WITH FINISHED GRADE UNLESS SPECIFICALLY NOTED OTHERWISE.

AC PIPING SHALL NOT BE LOCATED UNDER A FOOTER OR IN THE ZONE OF INFLUENCE. THE ZONE OF INFLUENCE IS THE AREA UNDER THE FOOTER WITHIN A 45 DEGREE ANGLE PROJECTING DOWN FROM THE BOTTOM EDGE OF THE FOOTER OF ALL SIDES OF THE FOOTER. ADDITIONALLY, GREASE TRAPS, MANHOLES, VAULTS AND OTHER UNDERGROUND STRUCTURES SHALL BE HELD AWAY FROM BUILDING WALLS FAR ENOUGH TO BE OUTSIDE OF THE ZONE OF INFLUENCE.

AD WORK IN CONFINED AREAS SHALL BE IN ACCORDANCE WITH THE OWNER'S SAFETY POLICY REQUIREMENTS.

BBREVIA	TIONS	ABBREVIA	TIONS (CONTINUED)	ABBREVIA	TIONS (CONTINUED)
AC	ALTERNATING CURRENT	FD	FIRE DAMPER	NO	NORMALLY OPEN OR NUMBER
ADJ	ADJUSTABLE	FL	FLOOR	NTS	NOT TO SCALE
AFF	ABOVE FINISHED FLOOR	FLA	FULL LOAD AMPS	OC	ON CENTER
AFR	ABOVE FINISHED ROOF	FOB	FLAT ON BOTTOM	OD	OUTSIDE DI (-AMETER, -MENSION)
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	FOT	FLAT ON TOP	CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
AHJ	AUTHORITY HAVING JURISDICTION	FPC	FIRE PROTECTION CONTRACTOR	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
AMP	AMPERE (AMP, AMPS)	FPM	FEET PER MINUTE	OFOI	OWNER FURNISHED, OWNER INSTALLED
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE	FPS	FEET PER SECOND	OR	OPEN RECEPTACLE
APD	AIR PRESSURE DROP	FT	FEET OR FOOT	OZ	OUNCE (-S)
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND	FUT	FUTURE	PC	PLUMBING CONTRACTOR
ATU	AIR TERMINAL UNIT	FV	FACE VELOCITY	PD	PRESSURE DROP
AVG	AVERAGE	GA	GAGE/GAUGE	PH	PHASE [ELECTRICAL]
BAS	BUILDING AUTOMATION SYSTEM	GAL	GALLON (-S)	PLBG	PLUMBING
BHP	BREAK HORSEPOWER	 		 PPM	PARTS PER MILLION
BTU				PRS	
				PKV	POLINDE DER COLLARE FOOT
		GPM	GALLONS PER MINUTE	PSF	
CD	CONDENSATE DRAIN	GR	GRAINS	PSI	POUNDS PER SQUARE INCH
CFM	CUBIC FEET PER MINUTE	Н	HUMIDITY	PSIG	PPSI GAUGE
C.I.	CAST IRON	HD	HEAD	RH	RELATIVE HUMIDITY [%]
CLG	CEILING	HG	MERCURY	RLA	RUNNING LOAD AMPS
CLR	CLEAR	HORIZ	HORIZONTAL	RPM	REVOLUTIONS PER MINUTE
CO	CARBON MONOXIDE	HP	H (-ORSEPOWER, -EAT PUMP)	SD	SMOKE DAMPER
CO2	CARBON DIOXIDE	HR	HOUR (-S)	SP	STATIC PRESSURE
COND	CONDENS (-ER, -ING, -ATION, -ATE)	HVAC	HEATING, VENTILATING, & AIR-CONDITIONING	SQ	SQUARE
CONT	CONTINU (-ED, -OUS)	Hz	HERTZ	SQ FT	SQUARE FEET OR FOOT
CU FT	CUBIC FEET	ID	I (-DENTIFICATION, -NSIDE DIAMETER, -NSIDE DIMENSION)	SQ IN	SQUARE INCH OR INCHES
CU IN	CUBIC INCHES	IN	INCH (-ES)	ТАВ	TESTING AND BALANCING
CV	VALVE FLOW COEFFICIENT	INSUL	INSULAT (-ED, -ION)	TBD	TO BE DETERMINED
dB	DECIBEL	INT	INTER (-IOR, -ERVAL)	TE	TOP ELEVATION
DB	DRY BULB	IPS	IRON PIPE SIZE	TEMP	TEMPERATURE
DBT	DRY BULB TEMPERATURE	kW	KILOWATT	TSP	TOTAL STATIC PRESSURE
DC	DIRECT CURRENT	kWh	KILOWATT HOUR	ТҮР	TYPICAL
DD	DUCT SMOKE DETECTOR	LAT	LEAVING AIR TEMPERATURE	UNO	UNLESS NOTED OTHERWISE
DDC	DIRECT DIGITAL CONTROLS	LBS	POUNDS	V	VOLT (-AGE, -S)
DEG	DEGREE (-S)	LF	LINEAR FEET/FOOT	VAR	VARI (-ABLE, -IES)
DIA	DIAMETER (-S)	LRA	LOCKED ROTOR AMPS	VAV	VARIABLE AIR VOLUME
DN	DOWN	LWT	LEAVING WATER TEMPERATURE	VEL	VELOCITY
DWG	DRAWING	MAX	MAXIMUM	VFD	VARIABLE FEQUENCY DRIVE
EAT	ENTERING AIR TEMPERATURF	MRH	BTU PER HOUR [THOUSANDS]		WATT (-AGE, -S)
 FC				\//R	WET BULB
ELEV				۷۷۵ 	
		MIN		WPU	
		MISC		WT	
ESP	EXTERNAL STATIC PRESSURE	MOCP	MAXIMUM OVERCURRENT PROTECTION [AMPS]	W/	WITH
ETR	EXISTING TO REMAIN	MTG	MOUNTING	W/0	WITHOUT
EVAP	EVAPORAT (-E, -ING, -ED, -OR, -ION)	N/A	NOT APPLICABLE	%	PERCENT
	ENTERING WATER TEMPERATURE	NC	NOISE CRITERIA OR NORMALLY CLOSED	ΔΡ	DIFFERENTIAL PRESSURE
EWI					·
EXP	EXPANSION	NEBB	NATIONAL ENVIRONMENTAL BALANCING BUREAU	Τ	TEMPERATURE DIFFERENCE

MECHANICAL DEMOLITION NOTES

- A THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR AREAS IN WHICH THE CEILING IS REMAINING. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE EXISTING CEILING AS REQUIRED AND REINSTALLATION. TEMPORARILY SUPPORT LIGHTS, DIFFUSERS, CEILING ETC. REPLACE BROKEN CEILING TILES WITH NEW AT NO ADDITIONAL COST TO OWNER. FIELED VERIFY EXACT REQUIREMENTS.
- B DURING SPRINKLER SYSTEM OUTAGES THE CONTRACTORS SHALL PROVIDE FIRE WATCH OF AREAS WITH OUTAGES C ALL WALLS AND FLOOR SLABS SHALL BE REPAIRED TO MATCH EXISTING AND TO A LIKE NEW CONDITION. ALL RATED WALLS AND FLOOR SLABS SHALL BE
- PATCHED AND REPAIRED TO MAINTAIN RATING. D ALL EXISTING BUILDING FINISHES SHALL BE PROTECTED DURING THE
- DEMOLITION PHASE. E HEAVY DASHED LINES INDICATE ITEMS FOR REMOVAL (UON) AND LIGHT SOLID
- LINES INDICATE EXISTING ITEMS TO REMAIN. F COORDINATE DISPOSAL OF ALL FIXTURES, DEVICES, ETC. (INDICATED FOR DEMOLITION) WITH THE OWNER.
- G ALL OUTAGES SHALL BE SCHEDULED THROUGH THE UK CPMD PROJECT REPRESENTATIVE FOR PROPER COORDINATION. A REQUEST FOR AN OUTAGE
- SHALL BE SUBMITTED IN WRITING A MINIMUM OF TWO WEEKS IN ADVANCE. H ALL DUCTWORK, PIPING, CONDUIT, ETC. SHALL BE INSTALLED A MINIMUM OF 4" ABOVE THE TOP OF THE CEILING GRID PER UK STANDARDS.

MECHANICAL PHASING NOTES

A THIS PROJECT INTERFACES EXTENSIVELY WITH EXISTING BUILDING SERVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND PHASE ALL TIE-INS AND INTERRUPTIONS OF EXISTING SERVICES TO MINIMIZE OR ELIMINATE DOWNTIME. AS AN EXAMPLE, MAIN GAS SERVICE, WATER SERVICE, ELECTRICAL SERVICE, HVAC SERVICES, STEAM GENERATION, ETC., WILL BE AFFECTED AND REPLACED OR MOVED DURING THIS PROJECT. THE CONTRACTOR SHALL INSTALL ALL NEW SERVICES AND EQUIPMENT AND HAVE THEM TESTED AND FULLY AND RELIABLY FUNCTIONAL PRIOR TO INTERRUPTING, RELOCATING OR REMOVING ANY EXISTING SERVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BARE ANY AND ALL COSTS ASSOCIATED WITH THIS PHASING, INCLUDING TEMPORARY SERVICES, TEMPORARY RELOCATION, PREMIUM TIME WORK, ETC. CONTRACTOR SHALL COORDINATE ALL SAID WORK WITH THE OWNER AND APPLICABLE UTILITIES

PER THE CONTRACT DOCUMENTS.

MECHANICAL HAZARDOUS MATERIALS NOTES

- A THE CONTRACTOR IT IS HEREBY ADVISED THAT IS POSSIBLE THAT ASBESTOS AND/OR OTHER HAZARDOUS MATERIALS ARE OR WERE PRESENT IN THIS BUILDING(S). ANY WORKER, OCCUPANT, VISITOR, ETC., WHO ENCOUNTERS ANY MATERIAL OF WHOSE CONTENT THEY ARE NOT CERTAIN SHALL PROMPTLY REPORT THE EXISTENCE AND LOCATION OF THAT MATERIAL TO THE OWNER. FURTHERMORE, THE CONTRACTOR SHALL INSURE THAT NO ONE COMES NEAR TO OR IN CONTACT WITH ANY SUCH MATERIAL OR FUMES THEREFROM UNTIL ITS CONTENT CAN BE ASCERTAINED TO BE NON-HAZARDOUS.
- B CMTA, INC, HAS NO EXPERTISE IN THE DETERMINATION OF THE PRESENCE OF ANY HAZARDOUS MATERIAL. THEREFORE, NO ATTEMPT HAS BEEN MADE BY CMTA TO IDENTIFY THE EXISTENCE OR LOCATION OF ANY SUCH HAZARDOUS MATERIAL. FURTHERMORE, CMTA NOR ANY AFFILIATE HEREOF WILL NOT OFFER OR MAKE ANY RECOMMENDATIONS RELATIVE TO THE REMOVAL, HANDLING OR DISPOSAL OF SUCH MATERIAL.
- C IF THE WORK WHICH IS TO BE PERFORMED INTERFACES, CONNECTS OR RELATES IN ANY PHYSICAL WAY WITH OR TO EXISTING COMPONENTS WHICH CONTAIN OR BEAR ANY HAZARDOUS MATERIAL, ASBESTOS BEING ONE, THEN IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO CONTACT THE OWNER
- AND SO ADVISE HIM IMMEDIATELY. D THE CONTRACTOR BY EXECUTION OF THE CONTRACT FOR ANY WORK AND/OR BY THE ACCOMPLISHMENT OF ANY WORK THEREBY AGREE TO BRING NO CLAIM RELATIVE TO HAZARDOUS MATERIALS FOR NEGLIGENCE, BREACH OF CONTRACT, INDEMNITY, OR ANY OTHER SUCH ITEM AGAINST CMTA, ITS PRINCIPALS, EMPLOYEES, AGENTS OR CONSULTANTS. ALSO, THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD CMTA, ITS PRINCIPALS, EMPLOYEES, AGENTS AND CONSULTANTS HARMLESS FROM ANY SUCH RELATED CLAIMS WHICH MAY BE BROUGHT BY ANY SUBCONTRACTORS. SUPPLIERS OR ANY OTHER THIRD PARTIES.
- E THE CONTRACTOR IS DIRECTED TO THE SPECIFICATIONS FOR FURTHER INFORMATION.

APPLICABLE BUILDING CODES **APPLICABLE BUILDING CODES** YEAR DOCUMENT ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES ANSI A117.1 2009 FIRE SPRINKLER CODE NFPA 13 2013 INTERNATIONAL BUILDING CODE (IBC) STATE EDITION 2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) STATE EDITION 2012 INTERNATIONAL FIRE CODE (IFC) STATE EDITION 2015 2015 INTERNATIONAL FUEL GAS CODE (IFGC) STATE EDITION INTERNATIONAL MECHANICAL CODE (IMC) STATE EDITION 2015 2015 INTERNATIONAL PLUMBING CODE (IPC) STATE EDITION INTERNATIONAL EXISTING BUILDING CODE (IEBC) STATE EDITION 2009 NATIONAL ELECTRIC CODE (NEC) 2017 NFPA 70 NATIONAL FIRE ALARM & SIGNALING CODE NFPA 72 2013 UNIFORM STATEWIDE BUILDING CODE 2018

GENERAL S	SYMBOLS
#	TAGGED NOTE DESIGNATOR
\bigcirc	REVISION TRIANGLE
ROOM NAME RM #	ROOM TAG
TAG XXX-# INSTANCE XXXX	EQUIPMENT TAG
•	POINT OF CONNECTION / CONNECT TO EXISTING
\$	POINT OF DEMOLITION

HVAC LEGEND XX SUPPLY AIR DIFFUSER ØД RETURN AIR DIFFUSER ØД EXHAUST AIR DIFFUSER TRANSFER AIR DIFFUSER W/ SOUND ATTENUATING BOOT SIDEWALL DIFFUSER/GRILLE SIDEWALL DIFFUSER/GRILLE TAG XXX AIRFLOW #,### AIR DEVICE TAG (REGISTER, GRILLE, DIFFUSER,LOUVER) ##x## RECTANGULAR DUCT #ø | ROUND/SPIRAL DUCT { ##/## } FLAT OVAL DUCT SA SUPPLY AIR DUCT RA RETURN AIR DUCT EA | EXHAUST AIR DUCT OA OUTSIDE AIR DUCT TA TRANSFER AIR DUCT CAE COMBUSTION AIR EXHAUST DUCT CAI COMBUSTION AIR INTAKE DUCT SA AIR DUCT TURNING UP SA AIR DUCT TURNING DOWN RA AIR DUCT TURNING UP RA AIR DUCT TURNING DOWN EA AIR DUCT TURNING UP EA AIR DUCT TURNING DOWN E(XXX) + EXISTING DUCT - (XXX) DENOTES SYSTEM DUCT TO BE DEMOLISHED - (XXX) DENOTES SYSTEM A(XXX) AUDICE TO BE ABANDONED IN PLACE - (XXX) DENOTES SYSTEM 333 MITERED ELBOW WITH TURNING VANES ++++++ FLEXIBLE DUCT \bigcirc THERMOSTAT (T_s) EMPERATURE SENSOR (H)HUMIDITY SENSOR \odot CARBON DIOXIDE SENSOR \bigcirc TEMPERATURE & CARBON DIOXIDE SENSOR 티라 🖼 🗍 MANUAL BALANCING/VOLUME DAMPER MOTORIZED DAMPER **I**FIRE DAMPER COMBINATION FIRE & SMOKE DAMPER

MECHANICAL PIPING LEGEND ——O PIPE ELBOW TURNING UP ----BFW----- BOILER FEEDWATER COMBUSTION AIR INTAKE/EXHAUST —CAI/E— ----CBS/R----- CHILLED BEAM SUPPLY/RETURN -CHWS/R- CHILLED WATER SUPPLY/RETURN -----CST-------CLEAN STEAM PIPING —DTS/R— DUAL TEMP. WATER SUPPLY/RETURN -----GS/R------ GEOTHERMAL WATER SUPPLY/RETURN ——HPC—— HIGH PRESSURE STEAM CONDENSATE -----LPC------ LOW PRESSURE STEAM CONDENSATE -LPS(#)- LOW PRESSURE STEAM; (#) DENOTES PRESSURE ——MPC—— MEDIUM PRESSURE STEAM RETURN ---MPS(#)--- | MEDIUM PRESSURE STEAM; (#) DENOTES PRESSURE -----SPD----- STEAM CONDENSATE PUMPED DISCHARGE -----SVT------ STEAM VENT PIPING --D(XXX)-- | PIPING TO BE DEMOLISHED - (XXX) DENOTES SYSTEM -E(XXX) EXISTING PIPING - (XXX) DENOTES SYSTEM -A(XXX) ABANDONED IN PLACE PIPING - (XXX) DENOTES SYSTEM AUTOMATIC AIR VENT (AAV) → │ MANUAL AIR VENT (MAV) MANUAL BALANCING VALVE (BV) BUTTERFLY VALVE TRIPLE DUTY VALVE (TDV) MANUAL ISOLATION VALVE GLOBE VALVE OS&Y (GATE) VALVE PRESSURE REDUCING VALVE (STEAM, GAS, WATER, ETC.) AUTO-FLOW CONTROL VALVE FLEXIBLE PIPE CONNECTION FLOW METER (VENTURI) PRESSURE SWTICH —<u>—</u>—— THERMOMETER T______ PETE'S PLUG; TEMPERATURE/PRESSURE PORT





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- B CONTRACTOR SHALL CUT AND PATCH ALL PAVEMENT, CURBING, etc. AS REQUIRED FOR WORK. CONTRACTOR SHALL REPAIR ALL LANDSCAPING THAT IS DAMAGED FOR WORK.
- C FEDERAL, STATE, LOCAL, MUNICIPALITY AND UTILITY COMPANY CODES, RULES, REGULATIONS AND REQUIREMENTS APPLY UNLESS EXCEEDED BY THIS DESIGN. D WHEN INTERRUPTION OF AN EXISTING UTILITY OR SERVICES IS PLANNED OR OCCURS
- ACCIDENTALLY, THE CONTRACTOR(S) SHALL WORK CONTINUOUSLY AS NEEDED TO RESTORE SAME PROVIDING PREMIUM TIME AS NEEDED AT NO INCREASE IN THE CONTRACT PRICE.
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- F LOCATIONS, DEPTHS, MATERIAL TYPES, ELEVATIONS, ETC. OF ALL APPURTENANCES, LINES, BUILDINGS, ETC. INDICATED ON THESE DRAWINGS WERE TAKEN FROM VARIOUS SOURCES, ARE DIAGRAMMATIC ONLY AND ARE SUBJECT TO SUBSTANTIAL VARIATION FROM EXISTING CONDITIONS. EXISTING UTILITIES LOCATIONS MAY VARY (CONSEQUENTLY ALL CONTRACTORS SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS INSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. ALL WORK SHALL BE PERFORMED IN ACCORD WITH ALL FEDERAL, STATE, AND/OR LOCAL RULES, REGULATIONS, STANDARDS AND SAFETY REQUIREMENTS. UTILITIES SHALL ALSO BE INSTALLED IN ACCORD WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY. IF ANY VARIATION OCCURS, CONSULT THE BUILDING ENGINEER AND THE MECHANICAL ENGINEER'S REPRESENTATIVE). CONTRACTOR SHALL VISIT SITE AND FIELD
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- OR UNDER FOOTING AS REQUIRED. I THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE DRAWINGS ARE APPROXIMATE ONLY. J THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY EXCAVATION WORK REQUIRED TO LOCATE UNDERGROUND UTILITIES. THE CONTRACTOR IS ALSO REQUIRED TO NOTIFY ANY OTHER AFFECTED UTILITY OWNERS PRIOR TO DIGGING. IN THE EVENT OF ACCIDENTAL INTERRUPTION OF SERVICE, CONTRACTOR WILL IMMEDIATELY NOTIFY THE OTHER UTILITY OWNERS.
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- P CONTRACTOR SHALL COORDINATE RESPONSIBILITIES WITH CONSTRUCTION MANAGER. REFER TO SPECIFICATIONS FOR REQUIREMENTS.
- Q THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND SIZING OF ALL EXPANSION LOOPS PER PIPING MANUFACTURER'S REQUIREMENTS.
- R REFER TO ARCHITECT'S AND CONSTRUCTION MANAGER'S PHASING PLAN FOR CONSTRUCTION PHASING REQUIREMENTS.
- S ALL SITE WORK SHALL BE COORDINATED WITH UNIVERSITY OF KENTUCKY PHYSICAL PLANT DIVISION (PPD). ALL OUTAGES SHALL BE SCHEDULED A MINIMUM OF TWO WEEKS IN ADVANCE.

TAGGED NOTES

- MD4 EXISTING STEAM VAULT TO REMAIN. REFER TO DETAIL DRAWING FOR ADDITIONAL REQUIREMENTS. TO MINIMIZE SEWER OUTAGE, ALL NEW EXTERIOR SANITARY PIPING SHALL BE MD5 INSTALLED PRIOR TO THE DEMOLITION OF EXISTING PIPING. REMOVE EXISTING LAB WASTE DILUTION PIT AND DISPOSE OF IN A MANNER MD6 APPROVED BY THE UNIVERSITY ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT. MD7 DEMOLISH NATURAL GAS BACK TO MAIN. DEMOLISH EXISTING STEAM PIPING TO KELLY HALL AND ALL STEAM PIPING WITHIN MD8 KELLY HALL INCLUDING PRESSURE REDUCING STATION, CONDENSATE PIPING, PUMPS, ETC. MD13 DEMOLISH EXISTING STEAM PIPING TO ANNEX NO. 5 AND ALL STEAM WITHIN ANNEX NO. 5 INCLUDING PRESSURE REDUCING STATION, CONDENSATE PIPING, PUMPS, ETC. MD14 DEMOLISH EXISTING STEAM PIPING BACK TO EXTENTS INDICATED. CAP EXISTING PIPING FOR FUTURE CONNECTION. MD15 ABANDONED STEAM VAULT TO BE DEMOLISHED. DEMOLISH EXISTING NATURAL GAS METER. COORDINATE WITH COLUMBIA GAS. MD18 STEAM OUTAGE FOR THIS SECTION OF PIPING SHALL BE LIMITED TO COOLING MD19 SEASON (MAY THROUGH OCTOBER). ANY PROLONGED OUTAGE BEYOND THAT PERIOD SHALL REQUIRE TEMPORARY STEAM SERVICE TO THE BUILDING. EXISTING CHILLED WATER AIR VENTS SHALL REMAIN. REPLACE EXISTING COVERS MD20
- AND MODIFY RISER ELEVATION AS NECESSARY TO MEET NEW SITEWORK GRADE. MD21 THE UNIVERSITY HAS PREVIOUSLY SHUT OFF THE CHILLED WATER TO KELLY HALL. CAP PIPING TO REMAIN AND DEMOLISH PIPING TO KELLY HALL.

BEFORE YOU DIG

THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL CONTACT "BUD (BEFORE YOU DIG)" AT 1-800-752-6007 TO OBTAIN UNDERGROUND UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION. ANY CONTRACTOR OR SUBCONTRACTOR PERFORMING ANY TYPE OF EXCAVATION ON THIS PROJECT SHALL CALL "BUD" TO OBTAIN AN AUTHORIZATION NUMBER.







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- DEMOLISH SANITARY SEWER TO ANNEX BUILDING. REMOVE EXISTING LAB WASTE DILUTION PIT AND DISPOSE OF IN A MANNER APPROVED BY THE UNIVERSITY ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT. DEMOLISH EXISTING STEAM PIPING TO ANNEX NO. 5 AND ALL STEAM WITHIN ANNEX NO. 5 INCLUDING PRESSURE REDUCING STATION, CONDENSATE PIPING, PUMPS, ETC. ABANDONED STEAM VAULT TO BE DEMOLISHED. EXISTING SANITARY MANHOLE TO BE DEMOLISHED. CONTRACTOR SHALL PROVIDE TEMPORARY ABOVE-GRADE STEAM PIPING DURING DEMOLITION AND/OR CONSTRUCTION AS TO MINIMIZE SERVICE OUTAGE FOR THE PETER BOSOMWORTH HEALTH SCIENCE BUILDING. CONTRACTOR SHALL COORDINATE AND CONFIRM ANY SERVICE OUTAGES WITH THE UNIVERSITY. AT THE CONTRACTOR'S DISCRETION, A TEMPORARY STEAM BOILER MAY BE USED AS AN ALTERNATIVE TO PROVIDE TEMPORARY SERVICE. TEMPORARY PIPING SHALL BE FULLY INSULATED. PROVIDE TEMPORARY CONNECTION FOR BEHAVIORAL SCIENCE BUILDING PDR PIPE.
 - EXISTING STEAM VALVE BOX SHALL BE DEMOLISHED. THE CONTRACTOR MAY REUSE THE EXISTING OPEN BOTTOM VAULT IF IT CAN BE RELOCATED WITHOUT PATCH EXISTING MANHOLE PENETRATION. MANHOLE TO REMAIN IN SERVICE.

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- C FEDERAL, STATE, LOCAL, MUNICIPALITY AND UTILITY COMPANY CODES, RULES, REGULATIONS AND REQUIREMENTS APPLY UNLESS EXCEEDED BY THIS DESIGN. D WHEN INTERRUPTION OF AN EXISTING UTILITY OR SERVICES IS PLANNED OR OCCURS ACCIDENTALLY, THE CONTRACTOR(S) SHALL WORK CONTINUOUSLY AS NEEDED TO RESTORE SAME PROVIDING PREMIUM TIME AS NEEDED AT NO INCREASE IN THE CONTRACT
- PRICE. E PLANNED INTERRUPTION OF ANY SERVICE SHALL BE COORDINATED WITH THE APPROPRIATE MUNICIPALITY OR UTILITY COMPANY, THE ARCHITECT AND THE BUILDING OPERATORS AT LEAST TWO WEEKS IN ADVANCE OF ANTICIPATED INTERRUPTION. A SCHEDULE FOR THESE OUTAGES SHALL BE DEVELOPED AND AGREED UPON BETWEEN THE PARTIES MENTIONED TO AVOID UNNECESSARY INCONVENIENCE TO THE OWNER OR ANY AFFECTED PARTY. NOTIFY THE UTILITY COMPANY OF ANY ANTICIPATED SERVICES REQUIRED FROM THEM AT
- LEAST TWO WEEKS IN ADVANCE IN WRITING AND INSURE THAT THEY DO NOT DELAY WORK. F LOCATIONS, DEPTHS, MATERIAL TYPES, ELEVATIONS, ETC. OF ALL APPURTENANCES, LINES, BUILDINGS, ETC. INDICATED ON THESE DRAWINGS WERE TAKEN FROM VARIOUS SOURCES, ARE DIAGRAMMATIC ONLY AND ARE SUBJECT TO SUBSTANTIAL VARIATION FROM EXISTING CONDITIONS. EXISTING UTILITIES LOCATIONS MAY VARY (CONSEQUENTLY ALL CONTRACTORS SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS INSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. ALL WORK SHALL BE PERFORMED IN ACCORD WITH ALL FEDERAL, STATE, AND/OR LOCAL RULES, REGULATIONS, STANDARDS AND SAFETY REQUIREMENTS. UTILITIES SHALL ALSO BE INSTALLED IN ACCORD WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL
- APPLY. IF ANY VARIATION OCCURS, CONSULT THE BUILDING ENGINEER AND THE MECHANICAL ENGINEER'S REPRESENTATIVE). CONTRACTOR SHALL VISIT SITE AND FIELD VERIFY THE ROUTING OF ALL UTILITIES G CONTRACTOR SHALL REFER TO CIVIL PLANS FOR COORDINATION WITH OTHER UTILITIES.
- H COORDINATE ELEVATION AND LOCATION OF ALL PIPING ENTERING BUILDING WITH STRUCTURAL FOUNDATION. CONDUIT SHALL PASS THROUGH STEM WALL OF FOUNDATION OR UNDER FOOTING AS REQUIRED. I THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE DRAWINGS ARE APPROXIMATE ONLY.
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- K THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD OTHER EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE OTHER UTILITIES. THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITIES UNEARTHED DURING CONSTRUCTION.
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- P CONTRACTOR SHALL COORDINATE RESPONSIBILITIES WITH CONSTRUCTION MANAGER. REFER TO SPECIFICATIONS FOR REQUIREMENTS. Q THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND SIZING OF ALL EXPANSION
- LOOPS PER PIPING MANUFACTURER'S REQUIREMENTS. R REFER TO ARCHITECT'S AND CONSTRUCTION MANAGER'S PHASING PLAN FOR
- CONSTRUCTION PHASING REQUIREMENTS. S ALL SITE WORK SHALL BE COORDINATED WITH UNIVERSITY OF KENTUCKY PHYSICAL PLANT DIVISION (PPD). ALL OUTAGES SHALL BE SCHEDULED A MINIMUM OF TWO WEEKS IN ADVANCE.

TAGGED NOTES

UM1	EXISTING STEAM VAULT TO REMAIN. ALL INSULATION WITHIN THE VAULT SHALL BE REPLACED. CONTRACTOR SHALL MAINTAIN A FUNCTIONING SUMP PUMP AND PROVIDE TEMPORARY POWER IN THE VAULTS THROUGHOUT CONSTRUCTION. REFER TO DETAIL DRAWING FOR ADDITIONAL REQUIREMENTS.
UM2	NEW CHILLED WATER VAULT WITH ACCESS PROVIDED WITHIN PLANT BED. REFER TO DETAIL DRAWING FOR ADDITIONAL REQUIREMENTS.
UM4	EXISTING CHILLED WATER AIR VENTS SHALL REMAIN. ADJUST THE ELEVATION OF ACCESS POINT COVERS AS REQUIRED.
UM5	PROVIDE A MASTER TRAP PRIOR TO CONNECTING TO THE EXISTING MANHOLE. SEAL MANHOLE PENETRATION WATER TIGHT AND TEST IN ACCORDANCE WITH STATE AND MUNICIPAL REQUIREMENTS.
UM6	EXPANSION LOOPS TO BE SIZED BY PIPE MANUFACTURER. EXPANSION LOOP TO BE CALCULATED OFF 500°F TEMPERATURE. PROVIDE A MINIMUM OF SIX INCHES OF EXPANSION.
UM9	PIPE ANCHOR. PIPE SHALL BE CONCRETE ENCASED AT THIS LOCATION.
UM10	PIPING SHALL PASS THROUGH FOUNDATION WALL OR UNDER THE FOOTER OF THE LOADING DOCK. PIPE SHALL BE BACKFILLED WITH FLOWABLE FILL FOR THE WIDTH OF THE DOCK PLUS THREE FEET ON EITHER SIDE.
UM11	INSTALL A FIELD APPLIED INSULATION AND OUTER CONDUIT TO TRANSITION FROM THE NEW PIPING TO THE EXISTING PIPE. TRANSITION SHALL EXTEND A MINIMUM OF 18 INCHES ONTO THE NEW PIPE.
UM12	ELECTRICAL VAULT SHOWN FOR COORDINATION PURPOSES ONLY. REFER TO ELECTRICAL PLANS.
UM13	FORCED MAIN FROM VAULT SUMP PUMP TO DISCHARGE INTO NEAREST CURB STORM INLET.
UM14	PROVIDE THREE (3) 3/4" CONTROL CONDUITS FROM THE VAULT TO THE BUILDING BASEMENT.
UM15	PROVIDE A 3/4" CONTROL CONDUIT FROM THE VAULT TO THE BASEMENT MECHANICAL ROOM.
UM16	ADJUST EXISTING VAULT LID AND RISER TO ACCOMMODATE NEW SITE GRADING. LID SHALL BE ADJUSTED APPROXIMATELY ONE FOOT. REFER TO CIVIL DRAWINGS

FOR ADDITIONAL REQUIREMENTS.

BEFORE YOU DIG

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TAGGED NOTES

UM7

EXISTING STEAM VAULT

(UM12) (UM15)

BOT

	BOTTOM TO ALLOW DRAINAGE. VALVE SHALL BE CENTERED IN THE OPENING. MANHOLE SHALL BE 30 INCH DIAMETER WITH THE SERVIC ON THE LID.
UM8	WHERE NEW PIPING CONNECTS TO EXISTING, AT LEAST TWO FEET INSULATION SHALL BE REMOVED AND FIELD WRAPPED WITH NEW TO CONTINUOUS WITH THE NEW PIPE INSULATION.
UM12	ELECTRICAL VAULT SHOWN FOR COORDINATION PURPOSES ONLY. ELECTRICAL PLANS.
UM13	FORCED MAIN FROM VAULT SUMP PUMP TO DISCHARGE INTO NEAF STORM INLET.
UM15	PROVIDE A 3/4" CONTROL CONDUIT FROM THE VAULT TO THE BASE MECHANICAL ROOM.



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				V	'ENTII	LATIO	N FAN	SCHEE	DULE					
MARK	MFG.	MODEL	SERVICE	TYPE	CFM	ESP	RPM	HP	ELECTRICAL	DRIVE	STARTER/ DISC SW.	MAX SONE	MAX DBA	REMARKS
EF-1	TWIN CITY	TCPE	UTILITY VAULT	SIDEWALL PROPELLER	900	0.3"	1725	1/3	120/1	DIRECT	YES	9.1	56	1,2,3,4
REMARKS														

KEIMAKKO: PROVIDE BACKDRAFT DAMPER.

PROVIDE NEC DISCONNECT AND STARTER IN NEMA 3 ENCLOSURE. EQUIVALENT MANUFACTURERS ARE GREENHECK, TWIN CITY, AND LOREN COOK. 4. FAN TO BE ALL ALUMINUM.

				STEAM TR	APS						
MARK	MANUFACTURER	BUILDING	SERVICE	TYPE	MODEL	ORIFICE SIZE	MAX OP PRESS	CONN SIZE	CAPACITY* LB/HR	DIFF Press	REMARKS
T-1	ARMSTRONG	VAULT	HPS MAIN	INVERTED BUCKET	981	5/64"	600 PSIG	3/4"	200	155	1,2

REMARKS: 1. SERVICE: END OF MAIN TRAPS. THERMOSTATIC STEAM TRAP, FORGED STEEL BODY WITH ALL STAINLESS STEEL INTERNALS. INTEGRAL STRAINER RATED FOR 300 PSI AT 500 DEG F.

2. EQUIVALENT MANUFACTURERS ARE HOFFMAN, SPIRAX, AND SARCO.

		SUMP	PUI	MP				
& MODEL	SERVICE	TYPE	GPM	HEAD (FT)	% EFF.	HP	Volt/Ph	REMARK
WEIL 1411	STEAM VAULT SUMP	1750 RPM SUBMERSIBLE	25	20	_	1/2	120/1	1,2,3,4



5 VENTILATION EXHAUST DETAIL



2 TYP. 3-PIPE STEAM TRENCH SCALE: NONE



4 TYPICAL STEAM END OF MAIN DRIP LEG DETAIL SCALE: NONE



SITE UTILITY MARKER DETAIL 3 SCALE: NONE







2 SCALE: NONE

3 NEW CHILLED WATER VAULT



Autodesk Docs://202170 - UK Health Education Building/XKSM21 MEP SITE.r



2024 1:42:14 PM











SITE UTILITY NOTES

- 1. THE EXISTING UTILITIES ARE SHOWN ON THE DRAWINGS AS ACCURATELY AS THEY HAVE BEEN PROVIDED TO THE LANDSCAPE ARCHITECT/ENGINEER. THEIR LOCATIONS ARE NOT GUARANTEED. UTILITIES REMOVED AS PART AS BP-01A & BP-01B ARE NOT SHOWN ON
- THIS PLAN. 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL UTILITY COMPANIES AND TO HAVE ALL UTILITIES LOCATED PRIOR TO STARTING CONSTRUCTION. THE UTILITIES SHOWN REPRESENT OBSERVABLE FEATURES ALONG WITH INFORMATION PROVIDED ON THE SITE SURVEY AND IS THEREFORE NOT WARRANTED. PRIOR TO CONSTRUCTION THE CONTRACTOR IS TO FIELD VERIFY ALL UTILITY LOCATIONS, SIZES, TYPES, ETC. NEEDED TO COMPLETE THE WORK OF THE CONTRACT.
- ALL UTILITY WORK TO MEET THE LOCAL UTILITY COMPANY AND FIRE DEPARTMENT STANDARDS. 4. CONTRACTOR TO PAY ALL ASSOCIATED FEES AS REQUIRED BY LOCAL UTILITY COMPANIES FOR ALL UTILITIES SHOWN ON THIS PLAN INCLUDING WATER, SANITARY SEWER AND/OR GAS SERVICES. THIS INCLUDES TAP/CONNECTION FEES, LICENSE FEES, PERMITTING FEES
- AND/OR DISCONNECT FEES FOR EXISTING CONNECTIONS, METERS, ETC. 5. ALL WATERLINE FITTINGS TO BE BLOCKED SHALL BE WRAPPED WITH HEAVY PLASTIC BEFORE PLACEMENT OF CONCRETE. (MIN. THICKNESS 4 MILS)
- 6. THE WATER LINE SHALL BE PRESSURE TESTED AND DISINFECTED ACCORDING TO AWWA STANDARD C651, FLUSHING VELOCITIES SHALL BE NOT LESS THAN 2.5 FT/SEC.
- 7. WATER LINES SHALL BE ADEQUATELY PLUGGED DURING ANY TIME WHEN THE PIPE IN THE TRENCH IS LEFT UNATTENDED IN ORDER TO PREVENT FOREIGN MATERIALS AND RODENTS FROM ENTERING THE LINE.
- 8. THRUST BLOCKS SHALL BE PROVIDED AT ALL CHANGES OF DIRECTION, TEES, PLUGS, AND OTHER CRITICAL LOCATIONS AS REQUIRED PER THE STANDARD DETAILS INCLUDED ON THIS SHEET. 9. ALL PIPE AND FITTINGS SHALL BE HANDLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
- 10. PIPE LUBRICANTS SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURERS RECOMMENDATIONS. 11. ALL TRENCHING AND BACKFILL SHALL BE IN STRICT ACCORDANCE OF OSHA SAFETY REGULATIONS.
- 12. ALL WORK TO INSTALL THE DOMESTIC WATER SERVICE TO THE EXISTING BUILDING SHALL COMPLY WITH KENTUCKY DIVISION OF PLUMBING AND THE AUTHORITY HAVING JURISDICTION SPECIFICATIONS. THE LINE SHALL BE PRESSURE TESTED, FLUSHED, AND DISINFECTED PER LOCAL REQUIREMENTS. SHOULD CONTRACTOR BE REQUIRED TO REPAIR WATER LINES AFTER THE DISINFECTION HAS OCCURRED, THE CONTRACTOR SHALL BE REQUIRED TO DISINFECT THE WATER LINES AFTER THE REPAIRS AT NO COST TO THE OWNER. 13. ALL PIPE UNDER PAVEMENT SHALL BE BACKFILLED WITH FULL DEPTH CRUSHED STONE.
- 14. PIPE BENDS ARE NOT ALLOWED. CHANGES IN DIRECTION ARE TO BE ACHIEVED WITH APPROPRIATE FITTINGS. 15. WATER AND SEWER MAIN SEPARATION TO BE IN ACCORDANCE WITH THE LATEST 10 STATE STANDARDS.
- 16. ALL PUBLIC FACILITIES TO BE DESIGNED AND CONSTRUCTED ACCORDING TO THE AUTHORITY HAVING JURISDICTION SPECIFICATIONS, CURRENT VERSION. GENERAL SPECIFICATIONS TAKE PRIMACY GIVEN ANY DISCREPANCY TO PLAN SET.
- 17. ALL WATER LINE TAP AND METERING FEES ARE THE RESPONSIBILITY OF THE CONTRACTOR. 18. FIRE HYDRANTS TO BE MUELLER A425 DOUBLE STEAMER WITH TWO 4-1/2 INCH OUTLETS.
- 19. FITTINGS ALL FITTING AND ACCESSORIES SHALL BE DUCTILE IRON, RATED FOR MINIMUM OF 200 PSI WORKING PRESSURE. THE FITTINGS AND ACCESSORIES SHALL BE NEW AND UNUSED. ALL PIPE FITTING SHALL UTILIZE MECHANICAL JOINT FITTINGS. MECHANICAL JOINTS SHALL CONFORM TO AWWA C111, LATEST EDITION. 20. VALVES – ALL VALVES SHALL OPEN BY TURNING COUNTER-CLOCKWISE. VALVES 12 INCHES AND SMALLER SHALL BE RESILIENT SEATED
- GATE VALVES. NON-RISING STEM WITH "O" RING PACKING SEALS RATED AT 250 PSI MINIMUM WORKING PRESSURE AND CONFORM TO THE APPLICABLE PORTIONS OF AWWA STANDARD C509, LATEST EDITION. TAPPING SLEEVE AND VALVES SHALL BE DESIGNED FOR A MINIMUM WORKING PRESSURE OF 200 PSI. THE TAPPING SLEEVE TOGETHER WITH THE TAPPING VALVE SHALL BE TESTED AT 200 PSI FOR 20 MINUTES WITH NO LOSS OF PRESSURE. FULL GASKET STAINLESS STEEL TYPE TAPPING SLEEVES SHALL BE INSTALLED ON ALL SIZES OF WATER MAINS. DIRECT BURY VALVES SHALL INCLUDE VALVE BOX AND CONCRETE COLLAR TO ALLOW FOR ACCESS TO THE VALVE FOR OPERATION FROM THE SURFACE.
- 21. SHOULD CONFLICT OR DISCREPANCY OCCUR CONTACT CARMAN @ 859-254-9803. 22. PROVIDE WARNING TAPE 12" BELOW GRADE ON ALL UNDERGROUND UTILITIES.
- 23. CONTRACTOR SHALL NEATLY SAWCUT AND REMOVE EXISTING PAVEMENT AS NECESSARY. THE TRENCH AND ALL PAVEMENT SHALL BE RETURNED AS DESCRIBED IN SITE DETAILS. 24. ALL TRENCHING SHALL BE DONE AT THE REQUIRED MINIMUM DEPTHS PER REQUIREMENTS OR CODES OF UTILITY COMPANIES, LOCAL, STATE OR FEDERAL REQUIREMENTS. THE TRENCHING DEPTHS SHALL BE DETERMINED FROM THE FINISH SURFACE/GRADE ELEVATION ALONG
- TRENCHING ROUTE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE TRENCHING DEPTHS WITH THE APPROVED GRADING PLAN TO ENSURE THAT DEPTHS ARE REFERENCED TO PROPOSED FINISHED GRADES OF THE SITE. 25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING REQUIRED INSPECTIONS OF CONDUIT, UTILITY PIPE INSTALLATION BY ANY
- APPLICABLE AGENCY OR JURISDICTION PRIOR TO ENCASEMENT OF CONDUIT/PIPES AND/OR BACKFILL OF TRENCHING. 26. THE SITE UTILITY PLAN DOES NOT SPECIFICALLY REFERENCE OR SPECIFY SHORING THAT MAY BE REQUIRED DURING SITE DEMOLITION SO THAT ADJACENT AREAS ARE PROTECTED FROM DAMAGE, COLLAPSE, ETC. SHOULD THE CONTRACTOR DETERMINE THAT SHORING IS REQUIRED FOR ADJACENT AREA PROTECTION OR TO PREVENT ENCROACHMENT OF DEMOLITION OUTSIDE OF PROJECT LIMITS, THE
- CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING PROPER SHORING MEANS, METHODS AND DESIGN PER LOCAL REGULATIONS OR PER REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION INCLUDING THE SHORING TYPE AND IF NECESSARY THE PREPARATION OF SHORING PLANS BY A LICENSED STRUCTURAL ENGINEER PER OSHA REQUIREMENTS. 27. SITE SPECIFIC SHOP DRAWINGS SHALL BE SUBMITTED FOR ANY AND ALL MANUFACTURED EQUIPMENT OR COMPONENTS ASSOCIATED WITH SITE UTILITIES.

CODED SITE UTILITY NOTES

KEY	DESCRIPTION
1	KENTUCKY AMERICAN WATER CO. (KAWC) TO INSTALL NEW MAIN ALONG HUGUELET DRIVE FROM JACOBS SCIENCE BUILDING TO PROPOSED HEALTH EDUCATION BUILDING. KAWC TO MAKE TWO TAPS FOR 8" FIRE AND 4" DOMESTIC SERVICES. OWNER TO PAY KAWC DIRECTLY FOR KAWC WORK IN RIGHT-OF-WAY, UP TO THE POST INDICATOR VALVE. CONTRACTOR TO COORDINATE WITH KAW
(1A)	BEGINNING OF NEW KENTUCKY AMERICAN WATER CONNECTION
2	8" FIRE WATER LINE TO CONNECT TO NEW BUILDING – WATERLINE WITHIN 40' OF BUILDING MECHANICAL ROOM PENETRATION SHALI HAVE A MINIMUM OF 6'-0" OF COVER.
3	NEW FIRE HYDRANT ASSEMBLY BY KAWC, PAID DIRECTLY BY OWNER. FIRE HYDRANT SHALL COMPLY WITH AWWA C-502-80, LATES EDITION AND THE LFUCG FIRE DEPARTMENT. CONTRACTOR TO COORDINATE WITH KAWC.
4	FIRE DEPARTMENT CONNECTION AND 8" LINE FROM BUILDING MECHANICAL ROOM BY CONTRACTOR – WATERLINE WITHIN 40' OF BUILDING MECHANICAL ROOM PENETRATION SHALL HAVE A MINIMUM OF 6'-0" OF COVER.
5	POST INDICATOR VALVE (PIV) BY CONTRACTOR, SHALL MEET LEXINGTON FIRE DEPARTMENT STANDARDS. PIV SIGN TO BE INCLUDED
6	TEST HEADER ON BUILDING WALL BY CONTRACTOR. COORDINATE WITH FIRE SPRINKLER SYSTEM CONTRACTOR.
7	6" DOMESTIC WATER SERVICE TO CONNECT TO NEW BUILDING BY CONTRACTOR – WATERLINE WITHIN 40' OF BUILDING MECHANICAL ROOM PENETRATION SHALL HAVE A MINIMUM OF 6'-0" OF COVER.
8	6" DOMESTIC SERVICE WITH 6" METER PAID BY CONTRACTOR AND INSTALLED BY KAWC. VAULT IS PROVIDED BY CONTRACTOR PER KAWC STANDARDS.
9	8" FIRE WATER LINE TAPPED FROM EXISTING 8" UK WATER MAIN TO PROVIDE (2) SEPARATE TAPS FOR FIRE SUPPRESSION OF HIGH-RISE BUILDING AS REQUIRED BY BUILDING CODE.
(10)	FOR REFERENCE ONLY. SEE C400 UTILITY PLAN FOR WATER RELOCATION
(11)	EXISTING UK 8" WATER MAIN
(12)	EXISTING KAWC 12" WATER MAIN

KAWC SPECIAL NOTES

ALL WORK IS TO BE DONE IN ACCORDANCE WITH KENTUCKY AMERICAN WATER PIPELINE INSTALLATION SPECIFICATIONS AND THE APPLICATION FOR SPECIAL CONNECTION AND IS SUBJECT TO INSPECTION AND APPROVAL OF KENTUCKY AMERICAN WATER PRIOR TO BACKFILLING.

UTILITY CONTACTS WATER: KENTUCKY AMERICAN WATER COMPANY

MR. TYLER SINGER (859) 268-6385 2300 RICHMOND ROAD LEXINGTON, KENTUCKY 40502-1308

PLAN AND

EVATION PLUGS

-10" MIN.

16 #4 BARS AS SHOWN

ALL WATER LINES SHALL BE DUCTILE IRON.

<u>GENERAL NOTES:</u>

- FOR VERT. BEND DOWN IN EXCESS OF 11 1/4" BEND, ANCHORAGE SHALL BE DESIGNED BY ENGINEER.
- . FOR VERT. BEND UPWARD, BLOCKING TO BE SIMILAR TO THAT FOR HORIZ. BEND.
- GLANDS & BOLTS SHALL BE PROTECTED FROM CONC. BY PLASTIC SHEETING
- WHEN POURING THRUST BLOCKS. 4. ALL THRUST BLOCK & SUPPORT CONC
- SHALL BE 3000 PSI READY MIX CONC.
- . THRUST BLOCKS WITH "B" DIMENSION GREATER THAN 30" SHALL HAVE THE RESTRAINT JOINTS ARE REQUIRED.
- 6. IF UNDER 100 PSI WORKING PRESSURE, RESTRAINT JOINTS MUST BE USED.

PRESSURE = 200 psi BEARING = 2000 psf FACTOR OF SAFETY = 1.5



- THRUST -

BLOCK (TYP.)

PLAN BENDS

TYPICAL THRUST BLOCK DETAILS (\mathbf{A}) SCALE: N/A

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<u>A</u> REVISION NOTE

GENERAL SITE DRAINAGE NOTES

- ALL SPOT ELEVATIONS INDICATE FINISH GRADE OF SURFACE. ADJUSTMENTS MUST BE MADE TO ESTABLISH GRADES OF SUB-BASE OR SUBGRADE. SPOT ELEVATIONS ARE INCLUSIVE OF ANY LANDSCAPE MULCH REQUIRED.
 PRIOR TO CONSTRUCTION OR DEMOLITION, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF ALL EXISTING UTILITIES, SO THAT NEW CONSTRUCTION WILL NOT DAMAGE OR INTERFERE WITH EXISTING UTILITY LINES. SHOULD DAMAGE OCCUR, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REPAIR AND/OR REPLACE SAID DAMAGE AT THE CONTRACTOR'S EXPENSE. FINISHED REPAIRS OR REPLACEMENT SHALL MEET THE APPROVAL OF THE OWNER.
- ALL EXCESS EXCAVATED MATERIAL, OTHER THAN TOPSOIL, IS TO BE REMOVED FROM THE SITE AT CONTRACTOR'S COST
 UNLESS OTHERWISE NOTED, ALL TREES AND VEGETATION SHALL BE PROTECTED DURING CONSTRUCTION. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS NOT TO DAMAGE FOLIAGE, BRANCHES OR ROOTS OF EXISTING TREES TO REMAIN.
- SHOULD CONTRACTOR ENCOUNTER ROCK EXCAVATION, THE ROCK SHALL BE REMOVED TO A MINIMUM DEPTH OF SIX INCHES BELOW BOTTOM OF UTILITIES UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS INCLUDING THE GEOTECHNICAL REPORT
 ELEVATIONS AND CONTOURS ON THIS PLAN ARE REFERENCED TO MEAN SEA LEVEL DATUM AND BENCHMARKS REFERENCED ON THE PLAN
 IT SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY TO VERIFY IF ROCK EXCAVATION FOR MASS GRADING OR TRENCHING IS REQUIRED. ALL
- EXCAVATION IS UNCLASSIFIED. THERE WILL BE NO PAYMENT FOR ROCK EXCAVATION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXCAVATION QUANTITIES.
 IT IS THE DESIGN INTENT FOR ALL WATER TO BE DIRECTED AWAY FROM THE PROPOSED AND EXISTING BUILDINGS.
- 10. REFER TO THE SITE SURVEY FOR EXISTING SPOT ELEVATIONS. 11. EXISTING STORM SEWER RIMS AND INVERTS ARE TAKEN FROM THE SITE SURVEY AND SHOULD BE CROSS-REFERENCED WITH THE SITE SURVEY. REFER TO
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- 13. THE CONTRACTOR SHALL NOTE THAT TEMPORARY CONSTRUCTION ACTIVITY MAY DE-STABILIZE SUBGRADES FOR BUILDING OR PAVED AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS COST FOR THE TEMPORARY USE OF AREAS FOR CONSTRUCTION ACTIVITY AND SHALL ALSO BE RESPONSIBLE FOR RE-STABILIZING AREAS SHOULD TEMPORARY CONSTRUCTION ACTIVITY CONTRIBUTE TO THE NEED TO STABILIZE BUILDING OR PAVEMENT AREAS.
- ELEVATIONS OF ALL RIMS, STRUCTURE COVERS, ACCESS DOORS AND TOPS OF ALL UTILITY VAULTS, MANHOLES, VENTS, VALVE BOXES, ETC. SHALL BE ADJUSTED TO MEET PROPOSED SURROUNDING GRADES.
 BEFORE STARTING SITE EXCAVATION, CONTRACTOR SHALL BE FAMILIAR WITH THE REPORT OF GEOTECHNICAL EXPLORATION AND COMPLY WITH
- RECOMMENDATION PROVIDED FOR SUBGRADE CONDITIONS. 16. TOPSOIL (BY OTHERS) SHALL BE SIX (6) INCHES DEEP IN ALL TURF AREAS AND TWELVE (12) INCHES DEEP IN ALL LANDSCAPE BED AREAS AFTER PLACEMENT AND REASONABLE SETTLEMENT.
- CONTRACTOR SHALL NOT CREATE ANY SITE GRADING THAT WILL PREVENT THE NORMAL DRAINAGE OF WATER OF DAM WATER. SHOULD OFFSITE TOPOGRAPHY OR CONTOURS SHOWN ON GRADING PLAN NOT DEPICT ACCURATE CONDITIONS THAT CREATE DRAINAGE PROBLEMS, THE CONTRACTOR SHALL BRING THIS TO THE ATTENTION OF THE OWNER, LANDSCAPE ARCHITECT AND/OR CIVIL ENGINEER, PRIOR TO BEGINNING WORK.
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNDERCUT OF UNUSABLE, UNSTABLE OR OTHERWISE UNACCEPTABLE MATERIALS THAT ARE INDICATED
- ON THIS PLAN, ASSOCIATED SPECIFICATIONS AND/OR REFERENCED IN THE GEOTECHNICAL REPORT. THE CONTRACTOR SHALL PAY FOR ALL UNDERCUT EXCAVATION AND DISPOSITION OF MATERIALS IN AN ACCEPTABLE MANNER THAT SHALL INCLUDE HAULING OFFSITE. 19. CONTRACTOR SHALL ENSURE ALL PROPOSED IMPROVEMENTS MEET AND MATCH EXISTING AND/OR ADJACENT CONDITIONS. CONTRACTOR SHALL NOTIFY DESIGN ENGINEER UPON ANY DISCREPANCY WHICH WILL DETER ADHERENCE TO THIS CONDITION.
- ALL STORM SEWER INFRASTRUCTURE NEEDS TO BE FLUSHED FREE OF SEDIMENT AND INSPECTED BY ENGINEER AT COMPLETION OF PROJECT.
 SPOT ELEVATIONS LABELED WITH "EX" ARE EXISTING SPOTS THAT HAVE BEEN INTERPOLATED FROM THE SITE SURVEY AND NEED TO BE VERIFIED IN THE FIELD. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.
- 22. CONTRACTOR TO FIELD VERIFY ALL LOCATIONS AND DEPTHS OF EXISTING STORM STRUCTURES PRIOR TO BEGINNING CONSTRUCTION TO INSURE ADEQUATE DEPTH.
 23. IF ANY EXISTING ASBESTOS COATED SEWER LINE IS UNEARTHED, IT WILL REQUIRE ABATEMENT IN ACCORDANCE WITH CURRENT EPA GUIDELINES.
- 24. PROVIDE A MINIMUM OF 12" CRUSHED STONE BACKFILL OVER STORM PIPING. STORM PIPING UNDER PAVED SURFACES TO BE BACKFILLED FULL DEPTH WITH CRUSHED STONE.
- 25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEWATERING OF EXCAVATION AREAS FOR FOUNDATIONS AND/OR BASEMENTS AND SHALL NOT ALLOW PONDING OF WATER THAT WILL DESTABILIZE THE SOIL BEARING FOR FOUNDATIONS, SLABS, STRUCTURES, ETC.
 26. CONTRACTOR SHALL UTILIZED DIGITAL FILES TO ESTABLISH COORDINATES FOR LOCATING DRAINAGE STRUCTURES. DIGITAL FILES CAN BE OBTAINED FROM CARMAN. SHOULD THE CONTRACTOR NEED A LISTING OF STRUCTURE COORDINATES, THESE MAY BE REQUESTED FROM THE OFFICE OF CARMAN.
- THE CONTRACTOR SHALL SUBMIT SITE SPECIFIC SHOP DRAWINGS, SAMPLES, ETC FOR ANY MANUFACTURED OR PRE-CAST EQUIPMENT OR STRUCTURES ASSOCIATED WITH STORM DRAINAGE OR STORMWATER MANAGEMENT IMPROVEMENTS.
 ASIDE FROM DESIGNATED SUMP MANHOLES, ANY SUMPS REMAINING IN STORM STRUCTURES (PVC OR CONCRETE) BELOW THE INVERT ELEVATION OF THE
- OUTLET PIPE SHALL BE FILLED WITH CONCRETE TO ELIMINATE ANY STANDING WATER WITHIN THE STRUCTURES. 29. ALL GRAVITY STORM PIPING SHALL BE SDR35 PVC UNLESS OTHERWISE NOTED AS DUCTILE IRON ON THE PLAN AND AS SPECIFIED.

SITE DRAINAGE CODED NOTES

KEY	DESCRIPTION	DETAILS
(1A)	12" CATCH BASIN WITH 12" CIRCULAR GRATED LID, FLUSH WITH ADJACENT SURFACE. GRATED LID TO CONFORM TO UK STANDARD HEEL PROOF REQUIREMENTS	A / C602
(1B)	CATCH BASIN WITH 12" CIRCULAR SOLID LID, FLUSH WITH ADJACENT SURFACE	A / C602
(2A)	12" YARD DRAIN WITH BEEHIVE GRATE	B / C602
(2B)	YARD DRAIN BASIN WITH OPEN GRATE FLUSH WITH ADJACENT SURFACE – SIZE VARIES	B / C602
3	CLEANOUT	C / C602
4	2'X3' CURB BOX INLET	D / C602
5	FOUNDATION DRAIN LINE – 6" PERFORATED HDPE PIPE IN FILTER SOCK. REFER TO STRUCTURAL AND MEP PLANS FOR ADDITIONAL INFORMATION	-
6	HEAVY DUTY TRENCH DRAIN	G / C602
(7A)	WQU #1: 6' DIAMETER WATER QUALITY UNIT	н / С602
(7B)	WQU #2: 6' DIAMETER WATER QUALITY UNIT	I / C602
(8A)	FOUNDATION DRAIN MANHOLE #1: 4' DIAMETER SUMPED MANHOLE FOR FOUNDATION DRAIN CONNECTIONS AND AREAWAY SUMP DISCHARGE. NEW MANHOLE TO HAVE WITH 2" FORCE MAIN TO DISCHARGE WATER TO STORM STRUCTURE A-3. SUMP TO INCLUDE PUMP PER MEP ENGINEER. <u>RIM ELEVATION: 1000.00 – FOUNDATION DRAIN INV ELEVATION: 981.50 – AREAWAY SUMP INV: 977.90 – SUMP ELEVATION: 973.90</u>	E / C602
(8B)	FOUNDATION DRAIN MANHOLE #2: 4' DIAMETER SUMPED MANHOLE FOR FOUNDATION DRAIN CONNECTIONS WITH 2" FORCE MAIN TO DISCHARGE WATER TO STORM STRUCTURE E-5:YD. SUMP TO INCLUDE PUMP PER MEP ENGINEER. RIM ELEVATION: 1001.00 - INVERT ELEVATION: 984.00 - SUMP ELEVATION: 980.00	E / C602
9	SET NEW 4' DIAMETER MANHOLE D-2 ON EXISTING 12" PIPE AND E-2 MH ON EXISTING 24" PIPE. SEAL CONNECTION TO PREVENT LEAKS. FIELD VERIFY INVERT ELEVATIONS.	E / C602
(10)	SET NEW 2'X3' CURB BOX INLET ON EXISTING 18" LINE. SEAL CONNECTION TO PREVENT LEAKS.	D / C602
(11)	EXISTING CURB BOX INLET	-
(12)	PERMEABLE PAVER MANHOLE #3: 4' DIAMETER SUMPED MANHOLE FOR PERMEABLE PAVER DRAINAGE SYSTEM WITH 2" FORCE MAIN TO DISCHARGE WATER TO STORM STRUCTURE E-2:MH. CONNECT 4" CONDENSATE DRAIN LINE FROM BUILDING TO MANHOLE AT INVERT ELEVATION 981.33. SUMP TO INCLUDE PUMP PER MEP ENGINEER. <u>RIM</u> ELEVATION: 985.00 - INVERT ELEVATION 981.33 - SUMP ELEVATION 977.33	E / C602
(13)	PERMEABLE PAVER DRAINAGE SYSTEM. 4" PERFORATED PIPE IN SOCK CONNECTED TO MANHOLE	-
(14)	FUTURE SITE WORK FOR REFERENCE ONLY	-
(15)	WALLS PER STRUCTURAL PLANS	-
(16)	SANITARY SEWER SYSTEM FOR REFERENCE ONLY – SEE SHEET C500–C502 FOR MORE INFORMATION REGARDING SANITARY SEWER	-
(17)	2' X 2' CONCRETE CATCH BASIN	F / C602

FOUNDATION PENETRATIONS FOR INTERNAL BUILDING DRAINAGE

KEY	DESCRIPTION
A	10" PIPE INVERT OUT OF BUILDING AT CO-1: 997.50
В	10" PIPE INVERT OUT OF BUILDING AT CO-2: 995.00
С	8" PIPE INVERT OUT OF BUILDING AT D-5:CI: 994.25
D	8" PIPE INVERT OUT OF BUILDING AT D-4:CI: 989.50







GENERAL SITE DRAINAGE NOTES

- 1. ALL SPOT ELEVATIONS INDICATE FINISH GRADE OF SURFACE. ADJUSTMENTS MUST BE MADE TO ESTABLISH GRADES OF SUB-BASE OR SUBGRADE. SPOT ELEVATIONS ARE INCLUSIVE OF ANY LANDSCAPE MULCH REQUIRED. PRIOR TO CONSTRUCTION OR DEMOLITION, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF ALL EXISTING UTILITIES, SO THAT NEW CONSTRUCTION WILL NOT DAMAGE OR INTERFERE WITH EXISTING UTILITY LINES. SHOULD DAMAGE OCCUR, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY
- TO REPAIR AND/OR REPLACE SAID DAMAGE AT THE CONTRACTOR'S EXPENSE. FINISHED REPAIRS OR REPLACEMENT SHALL MEET THE APPROVAL OF THE OWNER. 3. ALL EXCESS EXCAVATED MATERIAL, OTHER THAN TOPSOIL, IS TO BE REMOVED FROM THE SITE AT CONTRACTOR'S COST
- 4. UNLESS OTHERWISE NOTED, ALL TREES AND VEGETATION SHALL BE PROTECTED DURING CONSTRUCTION. CONTRACTOR SHALL TAKE ALL NECESSARY
- PRECAUTIONS NOT TO DAMAGE FOLIAGE, BRANCHES OR ROOTS OF EXISTING TREES TO REMAIN. 5. SHOULD CONTRACTOR ENCOUNTER ROCK EXCAVATION, THE ROCK SHALL BE REMOVED TO A MINIMUM DEPTH OF SIX INCHES BELOW BOTTOM OF UTILITIES UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS INCLUDING THE GEOTECHNICAL REPORT 6. ELEVATIONS AND CONTOURS ON THIS PLAN ARE REFERENCED TO MEAN SEA LEVEL DATUM AND BENCHMARKS REFERENCED ON THE PLAN
- 7. IT SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY TO VERIFY IF ROCK EXCAVATION FOR MASS GRADING OR TRENCHING IS REQUIRED. ALL EXCAVATION IS UNCLASSIFIED. THERE WILL BE NO PAYMENT FOR ROCK EXCAVATION. 8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXCAVATION QUANTITIES.
- 9. IT IS THE DESIGN INTENT FOR ALL WATER TO BE DIRECTED AWAY FROM THE PROPOSED AND EXISTING BUILDINGS.
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- 21. SPOT ELEVATIONS LABELED WITH "EX" ARE EXISTING SPOTS THAT HAVE BEEN INTERPOLATED FROM THE SITE SURVEY AND NEED TO BE VERIFIED IN THE FIELD. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES. 22. CONTRACTOR TO FIELD VERIFY ALL LOCATIONS AND DEPTHS OF EXISTING STORM STRUCTURES PRIOR TO BEGINNING CONSTRUCTION TO INSURE ADEQUATE
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- 28. ASIDE FROM DESIGNATED SUMP MANHOLES, ANY SUMPS REMAINING IN STORM STRUCTURES (PVC OR CONCRETE) BELOW THE INVERT ELEVATION OF THE OUTLET PIPE SHALL BE FILLED WITH CONCRETE TO ELIMINATE ANY STANDING WATER WITHIN THE STRUCTURES. 29. ALL GRAVITY STORM PIPING SHALL BE SDR35 PVC UNLESS OTHERWISE NOTED AS DUCTILE IRON ON THE PLAN AND AS SPECIFIED.

SITE DRAINAGE CODED NOTES

6"E-5:YD 2A 12" YARD DRAIN -RE:997.20

8" IE IN:992.75

8" IE OUT:992.75

48' OF

(IN FEET) 1 inch = 20 ft.

8" @ 1.04%

6'E-4:CB

CATCH BASUN

/ RE:996.00 (1B)

8" IE IN:992.25 8" IE OUT:992.25

02 0		
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(1B)	CATCH BASIN WITH 12" CIRCULAR SOLID LID, FLUSH WITH ADJACENT SURFACE	A / C602
(2A)	12" YARD DRAIN WITH BEEHIVE GRATE	B / C602
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FOUNDATION PENETRATIONS FOR INTERNAL BUILDING DRAINAGE

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<u>/01</u> REVISION NOTE



	As Of: 03/28/24 @11:04AM	
#	Question	Response
1	Regarding demolition of Kelly Hall and the Medical Center Annex buildings to be performed by BP-01C, are existing floor slabs and underlying foundations to be removed entirely? Is BP-01C responsible to refill any below grade excavations associated with demolition?	From BP-01C Demo and Abatement Scope of Work: a. Include complete removal of foundations, spread footings, CMU walls, column pads, grade beams, elevator pits, slab-on-grade, and deep foundations (piers). b. Backfill existing footings and deep foundations (drilled piers) with like soil to top of existing footing or deep foundation elevations.
2	Street cleaning: per TC-014 Attachment "B" item 15, TC-014 is to minimum twice daily provide power sweeping and "must clean all adjacent streets and maintain as if there were no construction site in the area". Project General Requirements, item 64, "TC-008 Early Site General Trades shall provide a full-time on-site street sweepertwice dailyfor the duration of this contract" with a caveat per 64-a.: "TC-014 Excavation and TC-015 Foundations is responsible for their own street cleaning as outlined in their respective scopes of work". Is TC-014 responsible ONLY for street sweeping/associated cleaning for the TC-014 scope of work?	Correct
3	Reference Attachment "B" item 20: SK-002.6 is not included in the plan set indicating temporary construction . Please include in forthcoming addendum which is said to provide areas subject to temporary roadways, staging areas, and steel plates.	Released in Addendum 2.
4	Reference Attachment "B", item 23-a.: SK-002.5 is not included in the plan set. Please include in forthcoming addendum which is said to provide limits of the earth retention system.	Released in Addendum 2.
5	Reference Attachment "B", item 23-e.: "Retention system should be designed to withstand construction loading (i.e. fully loaded concrete trucks, ground forces for crane outriggers, etc.)". Please provide the distance from the retention system to the wheel base of concrete trucks (i.e.: trucks should stay a certain distance from the retention system and said distance needs to be known for retention system design). Moreover, crane outriggers need to be specifically spelled out for retention system design (i.e.: maximum outrigger load in terms of PSF and distance from retention system to be imparted upon the retention system). Also, can a set number of crane outrigger locations be stipulated, as retention system design for outrigger support requires heavier retention system components?	Retention system shall be designed so that fully loaded concrete trucks can drive within 6" of retention system.
6	Reference Attachment "B", item 23-f-i.: twelve (12) openings in the cable guardrail are to be incorporated into the retention system. Are 36" wide openings acceptable, and will any style special "landing" be required?	36" will suffice for any type of foot traffic. Landings / walkways to be installed by others (future GT).
7	Reference Plan Sheet C300, Keynote 5: "Areas within Building Footprint where rock is lower than designated elevation 982 or 984, shall be filled with 4,000 PSI concrete to subgrade of footings or to 36" from bottom of floor slab". Which Bid Package does this note apply: TC-014 Site Excavation or TC-015 – Foundations? Additionally, where subsequent earth excavation is directed in earthen areas below EL 982 or EL 984, is it not incumbent on TC-014 to design its retention system for the additional height of earth retention relative to said deeper excavation, although TC-015 may be assigned the duty as the party to perform the foregoing undercut with concrete refill (primarily for foundation support)?	Keynote 5 on C300 pertains to TC-015 Foundations. Lagging boards shall go to top of rock.
8	Is it permissible for an on-site 1,000 gallon double wall fuel tank surrounded by concrete barriers?	Onsite fuel storage is not permissible.
9	Reference Attachment "B", item 27: which Trade Contract removes the temporary retention system supporting the existing ductbank and when would this work be scheduled for removal if it is deemed within the TC-014 scope of work? Is the physical size of the ductbank known?	TC-014 is responsible for the removal of the temporary retention system for the existing ductbank. The work shall occur after the first floor slab is poured. Reference Survey drawings for ductbank size.
10	Reference Attachment "B", item 28: "where excavation is carried out, through error, below indicated grade or beyond the lines of excavation, backfill to the indicated grade, compact with approved fill and/or place 4,000 psi structural fill at no additional cost to the Owner, and at the direction of the Engineer or Geotechnical Consultant." Given the majority of the building footprint will experience native limestone at subgrade elevation, limestone will typically break to the next lower stratum. Can said unavoidable undercut be stipulated to be acceptable crushed stone and not 4,000 psi structural concrete?	As long as it is approved fill.
11	Reference Attachment "B", item 31: "At the conclusion of the project and upon approval from the Construction Manager, this Trade Contractor shall perform a thorough and final cleaning of the project site inclusive of walks, slabs, adjacent roadways, and hardscaped areas to turn over in "new condition"". Scheduled completion of the HEB project is June, 2026, long after TC-014 has completed its contract work. Please define what "conclusion of the project" means relative to TC-014. Also, there will be a long delay from substantial completion of the main TC-014 Sitework requirements, per se, until TC-014 returns to backfill and apply waterproofing to foundation walls next year. During the interim, will TC-014 NOT be responsible for having continued work responsibilities during this interim period (i.e.: site supervision, clean-up, maintenance, jobsite meetings, etc.)?	Final cleaning of project site outlined in item 31 shall occur after mass excavation and lagging activites are complete. TC-014 will be required to coordinate with project team in interim period to ensure no delays in comeback work completion.
12	In the Turner Construction Company General Work Requirements for BP-02, there are references to 1) dumpsters, 2) chain link fences and gates, 3) grass cutting and 4) toilets provided by the BP-01 TC-008 Early Site General Trades contractor. Sketches SK-004.1 and SK-004.2 were not included in the BP-01 trade package scopes of work, and thus, the language in the Turner Construction Company General Work Requirements for BP-02 gives the incorrect perception the BP-01 TC-008 Early Site General Trades contractor is responsible for 1) dumpsters, 2) chain link fences and gates and 3) grass cutting and 4) toilets in the Trailer and Laydown Area, which is not the case. While the BP-02 TC-012 Trailer and Laydown Area scope of work clearly includes the fencing for the Trailer and Laydown Area, in what trade package are the 1) dumpsters, 2) grass cutting and 3) toilets for the Trailer and Laydown Area included?	TC-012 to provide as needed and remove when complete temporary toilets for own workforce while performing Trailer and Laydown Area scope of work.
13	For Scope of Work Item 11(b) in trade package TC-012 Trailer and Laydown Area, what is the duration (months) of the aerial photos scope of work? 11. This contractor is to provide PHOTOGRAPHIC DOCUMENTATION as outlined is specification 01 3233. This includes the following:	Provide on photo of the trailer and laydown yard prior to starting work and one after the work has been completed. See updated scope of work.

	routes, window openings, entrances, landscaping, pavement, retaining walls, stairs, roof, etc. This is	
	to include properties and structures outside of, but adjacent to the construction limits. Survey is to	
	records.	
	b. Provide four (4) aerial photos per month for the duration of this work.	
14	For Scope of Work Item 12 in trade package TC-012 Trailer and Laydown Area, please specify the location and approximate camera height of the Earthcam cameras.	This will be captured in an allowance. See updated scope of work.
	12. Furnish (2) cameras with solar panels via Earthcam for use as site security monitoring . Mounting locations	
	be by others.	
		Contractor to include all EPSCs needed to capture any contaniments
15	For Scope of Work Item 13 in trade package TC-012 Trailer and Laydown Area, an EPSC plan does not exist for the Trailer and Laydown Area. Please provide either 1) an EPSC	created due to the installation of the trailer and laydown lots. This
	plan or 2) descriptions and quantities of the EPSC items to be included in the TC-012 Trailer and Laydown Area. For Scope of Work Item 15(c)(iv) in trade package TC-012 Trailer and Laydown Area, will AlturnaMAT® HDPE Ground Protection Mats located under the roadway above utilities	includes, but is not limited to: dandy bags, straw waddles, silt fence, etc.
16	suffice in lieu of steel plates located under the roadway above utilities?	These are no longer needed. See updated scope of work.
17	For Scope of Work Item 12 in trade package TC-012 Trailer and Laydown Area, are cameras provided and installed by Multivista/Oxblue an acceptable substitution in lieu of	
17		No.
	12. Furnish (2) cameras with solar panels via Earthcam for use as site security monitoring . Mounting locations	
	to be coordinated with Construction Manager. Include all installation costs. Costs for recording services will	
	be by others.	
18	Please provide a full size electronic, .pdf version of Sheet MU-100. The 1" = 40' scale of the drawing cannot be correctly extrapolated for use on Sheet MU-100 as the drawing has been saved to an 8.5" x 11" drawing size.	See revised SK-004 drawings for update scale drawings.
19	TC-12 Trailer & Laydown Area Setup:	
	SOW # 12 – Please clarify which cameras are to be used from Earthcam as there are several to choose from.	This will be captured in an allowance. See updated scope of work.
20	TC-12 - SOW #15 – Will the trailer and laydown areas receive the base course asphalt also?	No. Only the heavy duty drive is to receive the base course asphalt.
21	TC-12 – SOW #15 – Will the fencing for this project tie-in with the fencing currently being placed or will it be separate?	Yes , tie into existing fence. See updated SK-004.
22	TC-014 Scope of Work, item 24.f: reference is made to refilling rock undercut with 4" of #2 stone and 2" of #57 stone. As a general rule depth of rock undercut varies to the next underlying rock stratum and while the undercut depth is uncertain can rock undercut be refilled with one particular class of crushed stone vs another?	Undercut needs to be filled with free draining stone.
23	TC-014 Scope of Work, item 24-i.: through the term <i>"maintain emergency egress throughout earthwork and grading activities"</i> , is it the intent for emergency services to have vehicular access to the basement area at all times?	Access into excavation needs to be sufficient enough to allow personnel retrieval if an accident were to happen.
24	TC-014 Scope of Work, item 25-d.: While TC-014 should excavate regarding direct bury for temporary power to dewatering pumps, does TC-009 Site Electric install the	TC-009 has the conductors and connections for a quantity of 6 pumps.
	electrical conduit with wiring and connect same to the temporary on-site electric supply? TC-014 Scope of Work, item 14: can you be more specific regarding what plans and specifications are to be submitted for review by EPA, OSHA, Turner? It goes without saving	Excavation and pathways by TC-014.
25	that Turner would receive shop drawings and/or safety procedures and the like, but the EPA and OSHA?	Any plans as required for this scope of work.
26	TC-014: Aside from grade elevations pertinent to the basement, loading dock, and rim elevations of storm and sanitary sewers, there are no finish grade contours noted in the	Future trade contractor will be responsible to remove temp, readways
20	fills to develop exterior subgrade elevations for the finish product (e.g.: curbs, sidewalks, paving, etc.)?	and staging areas to bring surrounding area to final grade.
27	Please refer to Plan Sheet P-099A: at the far northwest corner of Area A, the 978.00 invert elevation of underground plumbing pipe exits the building with a note setting forth	
27	- REFER TO SITE UTILITIES FOR CONTINUATION. There is no piping located on the Huguelet Drive side of the building remotely deep enough for said under-basement plumbing line to be continued.	to receive the pipe in question.
28	Please refer to Plan Sheet C600, namely where the storm sewer crosses Huguelet Drive. The barrel of the 18" storm pipe is only 9"+/- to 12"+/- below top of asphalt. Are	
	these invert elevations correct, and if so, should Ductile Iron Pipe or a concrete encased pipe be installed?	i ne pipe under Hugueiet Drive is an existing pipe, not a new pipe.
		See updated site storm sketch ADD#3 for storm piping locations. Turner
	Again speaking to plan Sheet C600, some storm sewer lines are relatively shallow, especially to be installed early in the project with on-going construction traffic. To protect	shall address the timing of installation of these pipes. CARMAN does not
29	new storm sewer piping, should Ductile Iron pipe or concrete encasement be employed when top of the pipe barrel is less than, for example, 30" below finish grade	being said, a revised Storm Drainage Plan will be issued via addendum to
		change the material of some of these pipes to ductile iron due to
		proximity to steam piping. Some pipes will also be shifted to avoid
1		conflicts with other utilities as well.
30	Please refer to Plan Sheet C200, Note #15: when will the asphalt and curbs located east of the building be allowed to be removed for installation of the East elevation storm	conflicts with other utilities as well. Storm sewer installation on east side of building isn't part of this scope of
30	Please refer to Plan Sheet C200, Note #15: when will the asphalt and curbs located east of the building be allowed to be removed for installation of the East elevation storm sewers? Can you confirm Note 24.c.ii? The south crane pad top elevation is listed at 981, with a thickness of 5.5′, making the crane pad bottom elevation 975.5	conflicts with other utilities as well. Storm sewer installation on east side of building isn't part of this scope of work. Assume pad thickness of 6' 4". See revised TC-014 attachment B

32	Can the "Hourly Rates" spreadsheet be provided in an excel format?	No, fill out the wage rates on the given sh
33	Per note 20 of the TC-015 scope, TC-015 contractor is to excavate to competent rock in areas where the bottom of footing design elevation is not on competent rock. This would require additional excavation for the TC-015 contractor. The question is, should the TC-014 contractor include in their retention design this addition excavation depth	
	below the required 982' or 984' elevation?	TC-014 retention system shall be installed
34	TC-012: For bidding purposes, please define "contract duration" as stated throughout scope of work description.	Contract duration is the duration of time f contractors work through the completion work.
35	TC-012: Current schedule (Add1), shows only 20 days for "Trailer & Laydown Yard Setup". Considering the overall scope of work, completion of work on SK-004 is not feasible within the allotted time. Will the C.M. adjust performance time?	Within 20 days the asphalt road, site fence completed. Site utilities will need to be co order to not impact it.
36	TC-012, Scope #11.b & #12: Consider the requirements of BP-01C TC-008 to provide this scope of work for the building site, please define the areas to be monitored by TC-012 including location & quantity of monthly aerial photos. Would the CM consider an allowance for this item?	Item 11.b: Aerial photos should be of the the start of work and one at completion. S Item 12: This will be an allowance. See up addendum.
37	TC-012, Scope #13: Please verify BMP's are only for Trailer and Laydown lots (SK-004) as building site BMP's (SK-001) were provided by BP-01C TC-008.	TC-012 is to only provide BMPs for the Tra provided BMPs for jobsite in BP-01C
38	TC-012, Scope #15. b. i & ii: Trailer Lot to receive "filter fabric" and Laydown Lot to receive "geogrid", both of which are to be "laid on grass". Scope for both areas mentions "undercut". Please clarify that areas receive two types of "geo" materials and if undercut is required. If undercut is required, please state assumed depth for bidding purposes as no grading plan is provided.	Each area is to recieve the geo material as The intent is that the geo material is laid c undercut is performed.
39	TC-012, Scope #15. c. iv: SK-004.3 depicts potential utilities in proposed asphalt access road. Utility type and depths are not listed. Please provide a site survey for this area or, state a defined area (20'x30'??) that bidders should provide road plate protection.	The plates are no longer needed due to ar See updated scope of work.
40	TC-012, Scope #17. c: Lead times on electrical equipment will exceed performance time. Will the C.M. allow for alternative equipment and or setups in order to shorten lead times? Will performance time be extended to allow for installation? Will TC-012 "contract duration" be extended to match this time?	Alternative equipment and/or setups will final function of the scope is met. Contract the essence and items need to be procure impact the schedule.
41	Please reference specification section EARTH MOVING, Sub-Section 3.06 – FILLING, BACKFILLING, AND COMPACTING, pg 312000-6, Item 3.06-C-1.: "Trenches located in roads, parking lots, loading dock or loading dock access drive will be backfilled with flowable fill or lean concrete". Does this flowable fill or lean concrete backfill requirement apply to ALL utilities located beneath the aforementioned locations, regardless of total backfill depth? While there are several runs of shallow storm sewer which would benefit from flowable fill or lean concrete backfill, there are also much deeper storm sewers located beneath roadways seemingly better suited for more economic backfill material (for example: Storm Manholes D-2 and E-2 and associated storm lines some 14'+/- deep located in the far southwest corner of the project noted on Plan Sheet C601). Also, where the cited spec section references "utility trenches", this could seemingly apply to any underground utility service, also where the TC—013 Site Plumbing bid package is	
	subject to excavation and backfill requirements.	Proceed with current spec direction.
42	this bid package, please specify top of wall elevations. Locations are included in the below screen shots:	walls will be included in a future bid packa
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43			Vec. it needs to have retention but descent need to hear on resk
	Does the North Crane Pad need to be constructed with a retention system considering that the notes state the foundation is to be excavated to bear on rock?		This will be much of the TC 015 medians.
44	Sheet A-531, DETAIL A shows vapor barrier and 2" Perimeter insulation below the slab on grade, is this part of IC-014 or IC015 package?		I his will be part of the IC-U15 package.
45			The CAD file isn't part of the contract documents and won't be issue with
	Will UK issue the CAD file for bidding purposes?		this bid package.