

BID FORM
for
JOLIET JUNIOR COLLEGE, MFP PH2
Joliet, IL 60431
GILBANE JOB NO. 4764

BID RELEASE 19, BID PACKAGE 15M
HVAC, Temperature Controls, Mechanical & Lab Piping Work
Natural Sciences Addition & Renovation
September 20, 2010

MANDATORY PRE-BID: September 27, 2010
TIME: 9:00 AM CST
LOCATION: Joliet Junior College
Building "K" – Theatre K1000
Last date for Bidder's questions is 10/06/10 by 2:00 PM

SUBMIT 1 ORIGINAL
AND 2 COPIES

PROPOSAL DUE DATE: October 19, 2010
TIME: 9:00 AM CST
BID OPENING LOCATION: Joliet Junior College
Building "T" - Room T1002

Joliet Junior College, Illinois Community College District No. 525
Office of Business and Auxiliary Services
1215 Houbolt Road
Room H1018
Joliet, Illinois 60431-8938
Attn: Judy Mitchell, Director of Business and Auxiliary Services

FORWARD
PROPOSAL TO

FIRM NAME:

_____, the undersigned.

A. Proposes to furnish all labor, materials, equipment, and services as required to satisfactorily complete all **HVAC, Temperature Controls, Mechanical & Lab Piping Work** herein described as Bid Package **No. 15M** as required for the construction and completion of the Natural Sciences Addition & Renovation Project in accordance with the Drawings and Specifications as prepared by Legat Architects and their Consultants, the Contract Documents, Project Manual Volumes 1, 2, 3 dated September 20, 2010, this Bid Form, and all documents incorporated by reference. It is expressly understood by the Bidder that each of the enumerated documents as set forth in this paragraph are incorporated by reference as part of the Bid Proposal.

B. All work required by the foregoing documents will be accomplished for the Lump Sum Bid Price of _____

_____(\$ _____)
(Show amount in both words and figures, in case of discrepancy amount shown in words will govern)

The Lump Sum Bid Price above EXCLUDES all applicable sales, consumer, use and other similar taxes for the project on the equipment and materials to be incorporated into the work (project is tax-exempt); INCLUDES all insurance premiums required to meet Schedule "A" - Insurance Specifications; and INCLUDES all premiums for Performance and Labor & Material Payment Bonds in the sum of one hundred ten percent of the Contract price.

- C. Bidder agrees that upon award of the contract by Joliet Junior College if written notice of the acceptance of this bid is mailed or delivered to the undersigned within sixty (60) days after the Proposal Due Date, or any time thereafter before it is withdrawn, the undersigned shall meet with representatives of Joliet Junior College and Gilbane Building Company at Joliet Junior College's office or at a mutually agreed upon location to execute the contract which is included as an Exhibit within this Project Manual. The Trade Contractor's contract will be held by and made with Joliet Junior College; Gilbane Building Company will be acting on the behalf of Joliet Junior College as their Construction Manager (agent). A Performance Bond and Labor & Material Payment Bond will be delivered to the Construction Manager at the time of execution of the Contract on the form contained within the Project Manual identifying Joliet Junior College and Gilbane Building Company as dual obligees. Failure to execute said contract within ten (10) days after receipt of written Notice to Proceed may be considered a default under the obligation of the bid bond. Insurance certificates shall be provided before starting on-site activities if such activities occur before the Contract is signed.

By submitting its bid, the Bidder hereby agrees that the Owner may, in its sole discretion, decide which combination of base bid plus alternates, (if any) would provide the Owner with the most efficient expenditure of the Owner's funds with respect to any particular Bidder. Owner's selection and determination of which combinations of base bid plus alternates (if any) would provide the most efficient expenditure of the Owner's funds shall form the basis of awarding the contract. By submitting its bid, Bidder further agrees that the sum total of the base bid plus alternates (if any) as so determined by the Owner separately for each Bidder shall be deemed to be such Bidder's bid for purposes of determining the lowest responsible Bidder for such portion of the work or for such bid package. Such determination by the Owner shall not be subject to challenge by the Bidder.

- D. The above price includes all stipulations and requirements of Supplement Numbers: _____, which have been received and accepted by the undersigned.

E. MILESTONE SCHEDULE DATES

See the Draft Milestone/Sequencing Schedule for reference. Dates and durations given are for reference only and are subject to change. Each awarded Trade Contractor, within 30 calendar days of being notified of their award, shall provide a CPM schedule (utilizing Primavera Project Planner or SureTrack software) to the Construction Manager defining scope of work items, items requiring fabrication, etc.; each with their respective anticipated start dates, end dates and durations. Trade Contractor is to identify any areas of potential conflict which may impact the Draft Milestone/Sequencing Schedule durations and/or milestones and/or prevent the Trade Contractor in meeting the expected start and finish dates identified in the Draft Milestone/Sequencing Schedule. All work is to be completed in accordance with the Draft Milestone/Sequencing Schedule Dates as follows:

Bid Release 19 - Milestone Schedule Dates (Estimated)

	Start	Finish
Bid Proposals Due		10/19/2010
Anticipated Dates for Bid Scope Review	10/20/2010	10/22/2010
Anticipated Date of Contract Award		11/9/2010
Anticipated Contract Issuance (Insurance, Bond, etc.)	11/9/2010	11/30/2010
Anticipated Preconstruction Meeting		11/24/2010
Anticipated Mobilization/Site Prep	12/1/2010	12/10/2010
Submittals/Review/Procurement (varies per trade)	12/1/2010	7/25/2011
Building 3D coordination (BIM)	12/30/2010	3/24/2011
Chilled Water Mains ccoordination	12/30/2010	1/20/2012
New Addition		
Start Construction, Site Prep/Excavation/Ftgs/Fndtns.	12/1/2010	TBD
Structural Steel/Decking Erection	TBD	TBD
EPDM Roofing	TBD	TBD
Building Enclosure (EIFS/Curtainwall/Mtl Pnls)	TBD	TBD
Interior Layout/Walls/HM Frames	TBD	TBD
MEP/FP rough-in (Below slab/In wall/Overhead)	TBD	TBD
Equipment Pads/AHUs/Boilers	TBD	TBD
Interior Equipment/Trim/Finish	TBD	TBD
Commissioning (Addition)	TBD	TBD
Substantial Completion - Addition		5/1/2012
Remodeling Existing		
Relocate Existing /Disconnect MEP/FP	5/15/2012	TBD
Abatement	TBD	TBD
Demolition	TBD	TBD
Interior Layout/Walls/HM Frames	TBD	TBD
MEP/FP rough-in (Below slab/In wall/Overhead)	TBD	TBD
Interior Equipment/Trim/Finish	TBD	TBD
Commissioning (Remodeling)	TBD	TBD
Substantial Completion - Remodeling		8/15/2012
Remodeling Existing E2006/E2007		
Relocate Existing /Disconnect MEP/FP	8/15/2012	TBD
Abatement	TBD	TBD
Demolition	TBD	TBD
MEP/FP rough-in (In wall/Overhead)	TBD	TBD
Interior Equipment/Trim/Finish	TBD	TBD
Commissioning (E2006/E2007)	TBD	TBD
Substantial Completion - E2006/E2007		9/15/2012

BP 15M HVAC, Temperature Controls, Mechanical & Lab Piping Work

F. TRADE-SUBCONTRACTORS

The following trade subcontractors are proposed for the item of work listed. Trade Subcontractors are subject to review per the General Conditions. List only firms that will supply labor at the site.

ITEM OF WORK	TRADE SUBCONTRACTORS

G. NOT USED

H. UNIT PRICES

Unit Prices shall be used, where applicable, to make adjustments to the cost of the Work due to changes. ALL Unit Prices submitted shall be complete in-place prices and include all costs for overhead, profit, bond costs, labor, materials, equipment, engineering, shop drawings and any other incidentals related to the completion of the Work, and shall remain firm for the period of the contract. Deductive unit prices will be calculated at no less than 85% of the additive unit price.

Unit Prices (furnished and installed unless noted otherwise) <u>Description</u>	<u>Cost</u>
Additional rectangular duct, single wall, including joints, supports & anchors, per lb based on 50 lb of material	\$ /lb
Additional rectangular duct, double wall, including joints, supports & anchors, per lb based on 50 lb of material	\$ /lb
Additional rectangular duct, acoustical, including joints, supports & anchors, per lb based on 50 lb of material	\$ /lb
Additional fume exhaust stainless steel, including joints, supports & anchors, per lb based on 50 lb of material	\$ /lb
Additional underfloor duct, including joints, per lb based on 50 lb of material	\$ /lb
Additional duct insulation, per sf based on 100 sf of material	\$ /sf
Additional flex duct, 8" dia, per lf, based on 2 lf	\$ /lf
Additional Diffusers, Type CD-1	\$ /unit
Additional Diffusers, Type CD-2	\$ /unit
Additional Registers, Type RG-1	\$ /unit
Additional Registers, Type SG-1	\$ /unit

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Additional Registers, Type EG-1	\$	/unit
Additional Registers, Type EG-2	\$	/unit
Additional Fire Dampers, 2sf or less	\$	/unit
Additional Fire Dampers, 2sf to 4sf	\$	/unit
Additional Fire Dampers, 4sf to 8sf	\$	/unit
Additional Manual Volume Dampers	\$	/unit
Additional Duct Access Doors up to 12" square	\$	/unit
Additional Duct Silencers, Type DS-1	\$	/unit
Additional Exhaust Fan, Type EF-1	\$	/unit
Additional Control Valves	\$	/unit
Additional Cabinet Heater, Type CAB-1	\$	/unit
Additional Cabinet Heater, Type CAB-2	\$	/unit
Additional Hydronic Piping, 1" - per lf based on 50 lf material	\$	/lf
Additional Hydronic Piping, 1-1/4" - per lf based on 50 lf material	\$	/lf
Additional Hydronic Piping, 1-1/2" - per lf based on 50 lf material	\$	/lf
Additional Hydronic Piping, 2" - per lf based on 50 lf material	\$	/lf
Additional Hydronic Piping, 3" - per lf based on 50 lf material	\$	/lf
Additional Hydronic Piping, 4" - per lf based on 50 lf material	\$	/lf
Additional Hydronic Piping, 6" - per lf based on 50 lf material	\$	/lf
Additional Hydronic Piping, 8" - per lf based on 50 lf material	\$	/lf
Additional Hydronic Piping, 10" - per lf based on 50 lf material	\$	/lf
Additional Hydronic Piping, 14" - per lf based on 50 lf material	\$	/lf
Additional Polished Water Piping, 1/2" - per lf based on 50 lf material	\$	/lf
Additional Polished Water Piping, 3/4" - per lf based on 50 lf material	\$	/lf
Additional Polished Water Piping, 1" - per lf based on 50 lf material	\$	/lf
Additional Polished Water Piping, 1-1/4" - per lf based on 50 lf material	\$	/lf
Additional Polished Water Piping, 2" - per lf based on 50 lf material	\$	/lf
Additional Gas Piping, 3/4" - per lf based on 50 lf material	\$	/lf
Additional Gas Piping, 1" - per lf based on 50 lf material	\$	/lf
Additional Gas Piping, 1-1/4" - per lf based on 50 lf material	\$	/lf
Additional Gas Piping, 1-1/2" - per lf based on 50 lf material	\$	/lf

Additional Gas Piping, 2" - per lf based on 50 lf material	\$	/lf
Additional Gas Piping, 2-1/2" - per lf based on 50 lf material	\$	/lf
Additional Gas Piping, 4" - per lf based on 50 lf material	\$	/lf
Additional Gas Piping, 6" - per lf based on 50 lf material	\$	/lf
Additional Vacuum Piping, 3/4" - per lf based on 50 lf material	\$	/lf
Additional Vacuum Piping, 1" - per lf based on 50 lf material	\$	/lf
Additional Vacuum Piping, 1-1/4" - per lf based on 50 lf material	\$	/lf
Additional Vacuum Piping, 1-1/2" - per lf based on 50 lf material	\$	/lf
Additional Vacuum Piping, 3" - per lf based on 50 lf material	\$	/lf
Additional Pipe Insulation, 1-1/2" - per lf based on 50 lf material	\$	/lf
Additional Pipe Insulation, 2" - per lf based on 50 lf material	\$	/lf
Additional Pipe Insulation, 3" - per lf based on 50 lf material	\$	/lf
Additional Gas Fixture, ea	\$	ea
Additional Polished Water Fixture	\$	ea
Additional Vacuum Fixture	\$	ea

I. ALTERNATE PRICES

An Alternate Price shall include all costs associated with the changes, omissions, additions or other adjustments to the Work of this Bid Package (Contract), which are described in the Alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate prices shall also include all costs of overhead, profit and bond costs associated with the work of the Alternate, whether additive or deductive.

The Drawings, Specifications and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternates. The Owner and the Construction Manager expressly reserve the right to accept or reject any, or all, Alternate Prices, and in any sequence. If any combination of alternates is accepted, the classrooms identified must be completed within the time periods provided.

Alternates:

- Alternate 1: Convert six (6) existing air handling unit controls and all other pneumatic controls serving the existing Science Building from pneumatic to the latest Johnson Controls Metasys Direct Digital Control (DDC). Eliminate the existing Network Controller (NC) serving the existing building and tie new controls into the Network Automation Engine (NAE) being provided for the Science Addition (Module B).

ADD \$ _____ TO THE BASE BID.

J. COST ALLOWANCES

The Bidder includes the following Cost Allowances in the total Lump Sum Amount of the Base Bid for this Bid Package. See General Conditions for definition of Allowances.

The Trade Contractor must include the cost of the allowances in the Base Bid. The Base Bid cost of this package should include the appropriate mark-up on the allowances. All work completed under the allowance will be paid at cost since the mark-up is incorporated in the base bid. Trade Contractors are not entitled to any unspent balance.

Cost Allowances:

1	<p>General Cleanup Allowance: Notwithstanding the Trade Contractor's obligation for his own cleanup under the general conditions, include in the base bid a sum of \$75.00 for every 80 man-hours (or fraction thereof) actually expended on-site regardless of trade or labor classification. This cost will be used for cleanup of unidentifiable trash and debris as directed by the Construction Manager, and will be deducted from the Contract Sum periodically to pay for cleanup services. Trade Contractors are not entitled to any unspent balance. Costs for this scope of work item are over and above costs for cleanup required by the general conditions. This requirement does not eliminate this Trade Contractors responsibility for the daily clean up of his/her work efforts. The formula for this fee is as follows: $\frac{\text{Total Man hours}}{80} \times \\$75.00 = \\$ \text{CLEANUP FEE}$ Bidder to fill in: _____ man-hours</p>	<p>\$ _____ (Bidder to Fill In)</p>
2	<p>Miscellaneous Work Allowance: Miscellaneous work to be completed at the direction of the Construction Manager</p>	<p>\$30,000</p>
3	<p>Miscellaneous Demolition/Duct & Temp Heating Work Allowance: Miscellaneous demolition/ ductwork and temporary heating work to be provided in addition to the requirements in this scope of work, to be completed at the direction of the Construction Manager</p>	<p>\$30,000</p>
4	<p>Miscellaneous Piping Work Allowance: Miscellaneous piping work in addition to the requirements in this scope of work, to be completed at the direction of the Construction Manager</p>	<p>\$20,000</p>
5	<p>Winter Protection Allowance: Fuel allowance as may be required and as directed by the Construction Manager</p>	<p>\$30,000</p>

K. COST AND QUANTITY BREAKDOWN

In order to properly evaluate the Proposal, provide the following information. The Scope of Work to be awarded will not be influenced by the cost and quantity information requested here. Do NOT include the cost of any alternates in base bid or in the following information. Cost and quantity breakdown shall include all related work to the subject category.

1. Cost Breakdown

Air Handling Unit	\$
Cabinet & Unit Heaters	\$
Terminal Air Box Units	\$
Boilers	\$
Pumps	\$
Fin Tube Radiation	\$
Other Equipment	\$
Fumehood Exhaust Stainless Steel Ductwork	\$
Supply and General Exhaust Ductwork	\$
Underfloor Exhaust Ductwork	\$
Duct Insulation	\$
Duct Silencers	\$
Exhaust Fans	\$
Diffusers/ Registers/ Grills	\$
Mechanical Demolition	\$
Temporary Exhaust for Existing Cadaver Rooms	\$
Hydronic Piping	\$
Natural Gas Piping	\$
Polished Water System complete including piping	\$
Vacuum Piping	\$
Vacuum Pump	\$
Air Valves	\$
Heating Coils	\$
Building Automation System	\$
Labor cost to operate rented heating equipment during 2011-2012 cold weather season	\$
Total cost for use of permanent fixtures for temporary heating use (including refurbishing, formal startup &	\$

commissioning requirements).	
Fire Safing and Caulking	\$
Duct Cleaning	\$
Testing, Adjusting and Balancing	\$
Commissioning	\$
Hoisting	\$
General Conditions	\$
Cleanup of Own Debris	\$
\$75/ 80MH of Clean-Up Allowance	\$
Allowances described above	\$ 110,000
Total bond cost	\$
Mobilization	\$
Shop Drawings & Submittals	\$
BIM Coordination	\$
Miscellaneous not included above (define below)	\$
Total Bid (Total of all items above including the Allowances)	\$
Estimated total of On-Site Man-hours (required)	(Man-hours)

1. Quantity Breakdown

Item	Quantity	Material Cost	Installation Cost	Total Cost
Underfloor Exhaust Ductwork	lbs	\$	\$	\$
Supply & General Exhaust Ductwork	lbs	\$	\$	\$
Stainless Steel Ductwork	lbs	\$	\$	\$
Exhaust Fans	ea	\$	\$	\$
Diffusers/ Registers & Grilles	ea	\$	\$	\$
Duct Insulation	sf	\$	\$	\$
Fin Tube Radiation	lf	\$	\$	\$
Cabinet & Units Heaters	ea	\$	\$	\$
Gas Piping	lf	\$	\$	\$
Vacuum piping	lf	\$	\$	\$
DI Water Piping	lf	\$	\$	\$
Hydronic Piping	lf	\$	\$	\$

Motor Operated Dampers	ea	\$	\$	\$
Control Valves	ea	\$	\$	\$
Miscellaneous not included above (define)		\$	\$	\$

L. SCOPE OF WORK

1. Description of Work Included:

Except for those items (if any) specifically noted in the section below entitled "Work Excluded From This Bid Package", the work of this Bid Package shall INCLUDE, but is not necessarily limited to, all of the following:

- a. All items of work required by, and/or specified in, those sections of the Specifications which are listed herein under Section M SPECIFICATIONS – Specific Sections.
- b. All items of work related to the "Scope of Work", which are indicated in the Specifications which are listed herein under Section M SPECIFICATIONS – Related Sections.
- c. All items of work related to the "Scope of Work", which are shown on the Drawings listed herein under Section N CONTRACT DRAWINGS.
- d. The following "Specific Items to be Included" are related to those required by the above referenced documents and are to be provided under, and hereby form a part of, the Scope of Work of this Bid Package (Contract). Should any conflict exist between this written Scope of Work and any scope items implied by the above referenced documents, this Scope of Work shall govern.

SPECIFIC ITEMS TO BE INCLUDED

Perform complete "HVAC, Temperature Controls, Mechanical & Lab Piping Work" and related work as required by and in accordance with the Conditions of Contract, Drawings, Specifications, and elaborations below. The Work shall include all labor, materials, equipment, and related items necessary to complete all of the work defined in the following specification sections, except for those noted exclusions or clarifications listed below.

In general, the following clarifies the scope of work to be included. It is intended for clarification and convenience only and is not intended to limit any portion of the scope of this bid package.

- 1. Complete all HVAC Ventilation work, including but not limited to ductwork, fume exhaust stainless steel ductwork, diffusers, registers, grilles, dampers, sound attenuators, reheat coils, terminal air box, cabinet heaters, fire dampers, underfloor exhaust ducts including concrete encasement, air terminal units, condensate exhaust hoods , roof hoods and all associated piping insulation. This Trade Contractor shall provide any offsets or accessories not shown on the drawings or specifications but required for a proper and complete installation of the ventilation work.
- 2. Complete all HVAC piping work including but not limited to, natural gas piping, polished water

piping, vacuum piping, vent piping, valves, vacuum pump and all associated accessories for a complete installation. This Trade Contractor shall provide any offsets or accessories not shown on the drawings or specifications but required for a proper and complete installation of the HVAC piping work.

3. Provide complete Polished Water System as shown on the bid documents, including all piping.
4. Furnish and install custom air handling unit complete with filters, coils, fans, motors, dampers, sound attenuators, energy recovery wheel, housing, piping, piping connections, controls and all indicated accessories for a complete installation.
5. Provide demolition and removal of existing piping, ducts, fixtures, fumehoods and motor shafts, etc as identified within the bid documents.
6. Provided cleaning of the existing ducts in Mod A as identified and specified in the bid documents.
7. Provide complete gas piping work as identified in the bid documents. Gas main stub has been provided outside the existing building (Mod A). This Trade Contractor shall provide all tie-in, connections, any coring/ cutting, patching, vent piping, meters, and all associated accessories for a complete installation. Coordinate with other Trade Contractors as necessary.
8. The existing building (Mod A) has a post-tensioned concrete structure. An X-Ray scan and layout of the post-tensioned cables will be provided by the General Trades Contractor. Use extreme caution and coordinate the location of penetrations to completely avoid the post-tensioned cables. Written approval must be taken from the Construction Manager prior to any coring, drilling or floor cutting work.
9. Extension of the chilled water piping from 'Bunker D' to the Natural Science Addition (Mod B-Penthouse) will be a part of this Trade Contractors work. Provide for all work related to this chilled water extension, including but not limited to excavation, granular backfill, compaction, soil removal, piping, cutting, patching, etc. This Trade Contractor is also responsible for furnishing and installing an architectural cover to conceal the chilled water pipes on the exterior of the existing building.
10. This Trade Contractor shall be required to do a thorough review of the Lab Casework and Equipment Drawings to clearly identify all required mechanical/ lab piping scope items shown on these plans, including but not limited to downdrafts, bench units, service fixtures, fumehoods, etc. The plumbing work trade contractor shall be required to provide all required mechanical/ lab piping work, including but not limited to ductwork, piping, final connections and testing, to all science casework, service fixtures and equipment furnished by the casework contractor and the owner. Prior to any work being installed, this contractor shall coordinate all piping and rough-in requirements with the Lab Casework & Equipment Work Trade Contractor and the Construction Manager for owner furnished equipment.
11. Provide all mockups as required in the quality plan and/or specifications. In addition to those mockups specified, provide constructability mock-up of an Anatomy & Physiology Lab – Room # E2012. Materials used for these mockups shall be permanent materials as specified for the project. Work in this mockup room will be out of sequence with the construction of the surrounding area and will be conjunction with mockup activities many trades at the same time. Coordinate this special mockup activity with the Construction Manager and other trade contractors. Upon mockup approval, remove and reinstall mockup materials and equipment as necessary to allow completion of adjacent construction as performed by this Contractor or by other trades.
12. Rooms E1001, E2006 and E2007 will be set up as temporary preparation areas for the Science Faculty while the other areas are being renovated. Provide for temporary gas piping (only in Room E1001), and all other HVAC needs to keep all the three rooms functioning. Disconnect and relocate the gas stove from it's existing location to room E1001. Coordinate with the electrical contractor as necessary

for any disconnects. Renovation in rooms E2006 and E2007 will be done after work in all the other areas is complete and turned over to the owner for occupancy. Room E1001 does not call for any renovation and will remain 'as-is'.

13. Provide temporary exhaust for the existing cadaver rooms (in Mod A) for exhaust during the construction of the 'Addition- Mod B', as identified on the bid documents. Once the renovation begins, demolish the exhaust fan and all associated ductwork, accessories and control.
14. Perform all temperature controls work, including but not limited to DDC sensors, transducers, relays, switches, data communication network and all associated control wiring and conduit systems. Furnish and install all ductwork accessories including, but not limited to, automatic dampers, air flow stations, terminal unit controls, control valves, control devices, flow switches, flow meters, and pressure/temperature wells and sockets.
15. This trade contractor shall submit the base bid with Johnson Controls as the temperature controls subcontractor.
16. Provide and install all boilers, hot water pumps, chilled water pumps and unit heaters and accessories required for a complete installation.
17. Louvers will be furnished and installed by the Aluminum, Metal Wall Panels, Glass & Glazing Work Trade Contractor. This Trade Contractor must coordinate and provide the final required opening dimensions.
18. Review shop submittals for mechanical equipment and incorporate characteristics of vendor-provided controls into the project temperature control system. Any questions or issues regarding mechanical equipment submittals shall be submitted to the Construction Manager within 14 days after receipt of the submittal.
19. Provide interface with the fire alarm system, including all necessary wire and conduit, as required to activate the shutdown of air handling units upon receipt of signals from the fire alarm system. Participate in the testing and startup of fire alarm systems to ensure proper operation of all interfaces and participate in the troubleshooting of system functions, if necessary.
20. This Trade Contractor shall provide interface of fire alarm system, lighting control system and other building control systems as BAS, including all necessary wire and conduit.
21. Provide all control panels for mechanical equipment included in this Scope of Work. Control panels for mechanical equipment shall have the capability to interface with the Direct Digital Control System as indicated in the design documents.
22. Furnish and install all motors for equipment furnished under this bid package. Furnish and install motor controllers, starters, and disconnect switches not provided under Division 26, but required for any equipment installed as part of this bid package. This Trade Contractor shall provide all control conduit and wiring including, if necessary, conduit from starters to equipment if the starter is mounted apart from the equipment it serves. Provide any other interconnecting control conduit and wire required for a complete installation for any equipment installed as part of this bid package. Motors, starters and disconnects provided within this package must conform to the requirements of the electrical specifications.
23. Provide all sound and vibration control material/equipment required for equipment installed as part of this bid package. Provide all related restraints and supports.
24. Provide all fire dampers as necessary to meet the requirements of the contract documents and local and state codes and where necessary to ensure the integrity of rated walls and floors. Review the

architectural drawings to determine the fire rating of partitions.

25. Install duct heat and smoke detectors provided by others (Electrical/Fire Alarm Trade Contractor). This Trade Contractor shall furnish control wiring for fan shut down.
26. Provide all testing, adjusting and balancing required for the ductwork system, the mechanical piping system, and all equipment included in this bid package. Provide additional dampers required to balance the system and for proper operation of the system at no additional cost. Repair all system defects detected during balancing in a timely fashion so as not to delay the completion of the testing and balancing work.
27. Participate in the Commissioning Process as required for equipment/systems included in this bid package. Provide additional copies of approved submittals and shop drawings for the use of the Commissioning Authority.
28. This Trade Contractor will be responsible for providing layout, installation and coordination of all concrete housekeeping pads required for their scope of work, whether or not shown on the drawings.
29. Furnish and install all roof curbs and pipe rails (with counter-flashing) required for roof-mounted equipment provided as part of this bid package. Coordinate type, size and location of roof curbs with the concrete contractor and the roofing contractor.
30. Coordinate the installation of diffusers with wall and ceiling installation. Provide extended neck slot diffusers as required to clear ceiling support tees and ceiling tile. Review architectural drawings to determine ceiling conditions to be encountered.
31. Provide all ductwork, piping and equipment identification as required in the contract documents for this Scope of Work.
32. This Trade Contractor is responsible to ensure that all ductwork, piping, fittings, etc, does not interfere with the installation and operation of the casework and lab equipment.
33. Furnish and install complete, the underfloor duct exhaust systems as shown, including but not limited to excavation, concrete encasement, granular backfill, compaction and spoil removal. Anticipate the stone subbase for the slab on grade to be in place prior to starting underground MEP rough-in. After installation of the underfloor exhaust duct systems, the subbase should be compacted and returned to the same condition as when the work began.
34. Provide all sleeves required for this Scope of Work. Coordinate the size and location of floor penetration with the concrete trade contractor. This trade contractor will be required to provide layout drawings of ductwork openings and sleeve openings in order for the masonry work trade contractor to lay-out and install the sleeves furnished by the HVAC trade contractor.
35. Include all caulking and sealants associated with this work and between this work and adjacent work.
36. Provide firestopping as required at all penetrations through rated walls, floors and ceilings in accordance with the specifications.
37. Provide all means of support and attachments to the structure for the HVAC work, including any inserts and hangers to clear ductwork or other interference. Provide all miscellaneous steel supports which are not shown on the project drawings, but which are required to complete the work of this bid package; include primer and touch-up. This Trade Contractor shall furnish all blocking (wood or other) backing, supports and attachments for all your devices, panels and fixtures back to the structure.
38. Furnish and install all terminal boxes complete with reheat coils where required.
39. This Trade Contractor shall provide access doors in ductwork as required for in-duct coils or any other

installation.

40. Provide all thermometers, gauges and flow elements associated with the HVAC Sheet Metal Work, mechanical piping and equipment installed as part of this bid package.
41. This Trade Contractor will cover all stored duct prior to installation, set on blocking and cover open ends of installed duct at end of each day and through construction.
42. This Trade Contractor is responsible for all insulation for work installed as part of this bid package. No duct insulation is to be installed until duct and piping have been completely tested according to specifications. Provide all necessary equipment to allow testing to meet the project schedule. Identify duct and piping after insulation is installed prior to painting and after painting. Coordinate with Painting Trade Contractor and verify proper color coding of duct and equipment.
43. This Trade Contractor shall coordinate and furnish if necessary any auxiliary contacts required for their systems to operate in conjunction with equipment furnished by others.
44. Provide complete finned tube radiation system, including all insulation and accessories. Include protection of the units during construction and cleaning of the coils and exposed surfaces after construction.
45. Provide all fittings required for the complete installation of the systems as required by the coordination drawing process whether or not such fittings were shown on the bidding documents.
46. Make-up all final connections to equipment of this package as well as equipment supplied under other bid packages, including but not limited to fumehoods, downdrafts, etc.
47. Provide the breeching, vents, chimneys and stacks for all equipment including guying requirements.
48. Provide all cutting, coring and patching of the slab as necessary to complete the scope of work in this bid package. All patching work should be done properly to ensure a smooth and leveled finish.
49. Provide all testing and start-up of the equipment provided in this bid package.
50. Provide all flushing and testing of mechanical piping. Coordinate the filling, testing and flushing of the systems with the Construction Manager. Provide Glycol and Water solutions along with the Chemical Treatment System for a complete operational system for all interior piping. Provide additional glycol solutions, water solutions and chemicals as necessary for start-up and the temporary use of permanent equipment.
51. Because of the congestion and tight coordination needed for above ceiling ductwork, plumbing, piping, fire sprinkler and electrical work, schedule will be critical. The General Requirements of the Contract spell out the process. Drywall partitions tops will need to be installed prior to the above ceiling ductwork, plumbing, piping, fire sprinkler and electrical work in a large portion of the project. Layout on the floor the wall opening penetrations and install sleeves as necessary so the drywall work can proceed prior to the above ceiling ductwork, plumbing, piping, fire sprinkler and electrical. If you have to cut holes in the partitions you are responsible to patch and sound/fire seal your penetrations.
52. Furnish and install all meters as required for this scope of work.
53. Provide for temporary use the operation of permanent air handling unit, ductwork, controls, etc. as required to provide temporary heat for the entire new building beginning on 10/01/11. Provide maintenance, filters (MERV rating 8 or greater), and other consumables as required to run HVAC equipment for the time period between temporary startup of 10/01/11 and substantial completion as indicated in the Milestone Schedule. Before starting the use of permanent mechanical units and ductwork for temporary heat, verify completed initial startup procedures with the Commissioning Agent. Immediately prior to substantial completion, refurbish units with new filters, belts, etc. and

provide formal startup and commissioning of all mechanical equipment used for temporary heat. Provide extended warranties as required to provide full warranty coverage as specified from the date of Substantial Completion. The cost to provide this work should be included in the base bid, above and beyond the allowances.

54. During temporary use of the permanent systems for temporary heating and cooling, only the supply ductwork shall be utilized. This Trade Contractor shall temporarily configure the air handling units to return building air via stairwells and shafts so as to save the return ductwork. The air handling units and supply ductwork shall be inspected by this Trade Contractor for cleanliness at the end of installation and shall be cleaned (by this Trade Contractor) as required prior to turn-over and occupancy.
55. In the event, permanent equipment will not be used for temporary heating, include in the base bid all labor for installing and operating temporary heating equipment during the 2011-2012 cold weather season. Only fuel and the heating equipment itself will be paid for out of the temporary winter protection allowance. The additional labor cost to operate the temporary equipment during this cold weather season should be included in the "COST AND QUANTITY BREAKDOWN", section K of this Bid Form, as a specific line item.
56. Provide and maintain construction filters at all air handling equipment specified to receive filters in this scope. Replace construction filters with balancing filters during the balancing operations. Replace balancing filters with new filters immediately prior to occupancy. Use a filtration media with a minimum MERV rating of 9 or greater.
57. Schedule and coordinate the installation of the natural gas meter with the natural gas utility. It is the intent to utilize the permanent gas meter and service for all temporary heating periods, both for construction heaters and for temporary use of the permanent systems.
58. Furnish all necessary extended warranties to account for the time period from initial start-up of all equipment to substantial completion and final acceptance of the Owner, including the period of use for temporary heating and cooling, testing and balancing and commissioning. This is in addition to the contractual required warranties.
59. This Trade Contractor shall provide maintenance for all equipment installed under this Scope of Work from initial start-up, during temporary use of permanent systems for temporary heating and cooling, and during balancing and commissioning until substantial completion and final acceptance by the Owner. Provide any additional filters, belts and other spare parts as necessary or required to run this equipment until final acceptance by the owner.
60. Provide all coordination and composite drawings/ models as required by the bid documents. The Mechanical Trade Contractor is to lead and participate in all MEP coordination meetings with the other trades, held a minimum of once every week during active MEP construction.
 - Upload all drawings into the BIM model as they are updated throughout the course of the project.
 - No compensation will be considered for improperly coordinated or uncoordinated installations; uncoordinated work will be removed and replaced at your expense.
 - Work that is not modeled cannot be installed until the modeled and coordinated systems are all in-place. At that point, "uncoordinated" or "field coordinated" systems can go in place.
 - Include all detailing costs for the project.

Refer to Manual 1, for complete requirements for the MEP BIM Coordination Plan.

61. Under slab coordination of HVAC Ventilation and Plumbing will be critical to the schedule. The Plumbing Work Trade Contractor will take the lead in the coordination process and shall be responsible for producing the final coordinated composite drawings. This Trade Contractor shall produce their work, shop drawings, and be actively involved in all coordination.
62. Caution should be taken with all operations next to or over areas that are complete and/or immediately adjacent to existing entrances. Consult with the CM before starting operations in this area.
63. As may be related to the work of this bid package, this project intersects with an existing building. It is this Trade Contractor's responsibility to field verifies any and all existing conditions prior to fabrication. Any rework, field adjustments, re-fabrication, dismantling and re-installation will be at this Trade Contractor's own expense.

GENERAL PROVISIONS

1. The word Trade Contractor and the word Subcontractor are used interchangeably in the documents. Therefore where the words Trade Contractor or Subcontractor are used in the document, it shall mean a Contractor having a contract with the Owner unless it is apparent by the content of the usage that the Subcontractor reference is assumed to be a Subcontractor to a Contractor having a contract with the Owner.
2. This trade contractor shall protect all adjacent areas of work. Remove protection after completion of work of this bid package and repair all damaged areas as necessary and required.
3. This Trade Contractor shall make arrangements with the Construction Manager for any storage provisions prior to mobilization. Outside storage must be coordinated with Gilbane. All areas disturbed by the action of the Trade Contractor shall be returned to their original condition at no additional expense to the owner.
4. Electronic Data and Documentation Submittal (e-Doc): Trade Contractors shall provide construction documentation in electronic documentation to support the Owner's computerized asset, maintenance, or space management systems for: Equipment tagging, Updated as-built drawings, Submittal of Construction Documents, Asset Data, etc. Updated monthly and all submittals shall be completed prior to substantial completion. Refer to Manual 1 for more information on e-Doc.
5. Should the Plans or Specifications disagree in themselves or with each other, the Trade Contractor shall provide the better quality or greater quantity of work and/or materials unless otherwise directed by written addendum to the contract.
6. Each Trade Contractor is required to provide and maintain covers for any openings/ penetrations resulting from their scope of work until permanent installation is complete.
7. This bid package is phased construction and occupancy and will require additional mobilizations. Addition (Mod B) will be finished first and turned over to the owner for occupancy. The renovation of the existing building (Mod A) will be done in the second phase. Review included milestone dates/schedule and include in the base bid appropriate number of mobilizations as required to complete the work.
8. This Trade Contractor shall review all means of building access and make provisions to ensure that equipment provided by this Bid Package will fit through permanent doorways and/or structure.
9. This Trade Contractor is cautioned that its work will control the schedule of some of the work of other Trade Contractors. The schedule for this package is not an independent activity that can be completed

early without concurrence from other effected Trade Contractors. This provision shall be considered as a part of the cost of this Bid Package.

10. Each Trade Contractor shall field verify all existing conditions as required prior to commencing of work and shall make whatever modifications necessary to facilitate the installation of new work. Trade Contractor shall immediately notify the construction manager in writing of his findings, especially upon finding unsatisfactory conditions that may affect his work and the quality of the work of others.
11. Where the General Requirements or the Technical Specifications indicate that the Trade Contractor will be "directed by" or "as indicated or designated by" the Architect all such directions, indications and/or designations etc., shall be through the Construction Manager. All work performed by a Trade Contractor as directed by or as indicated or designated by the Owner, its consultants or the Architect which has not been communicated to the Trade Contractor through the Construction Manager shall not be an added cost to the Trade Contractor's contract with Gilbane and may be subject to rework at the expense of the offending Trade Contractor or Trade Contractors.
12. All debris and materials demolished by this Trade Contractor shall be removed from the project site daily. Stockpiling of debris on the site will not be permitted. Dumpsters for the completion of this work shall be provided by the General Trades contractor. Please note for this project, Gilbane has adopted a policy to reduce the amount of construction waste being sent to landfills by 75%. To that end, the successful General Trades contractor will be required to provide documentation indicating that at least 75% of the entire construction waste shipped from this project has been recycled. This trade contractor will be required to comply with Gilbane's construction waste management plan which is included in the front ends.
13. Site Benchmarks will be provided by the owner (3). Each Trade Contractor is responsible for their own layout utilizing these benchmarks only.
14. Use of Elevator in the existing building is prohibited for use by any Trade Contractor.
15. Provide a "long lead" item listing for the following, but not limited to: equipment and materials, which are required for early order to meet the project schedule. Provide this as a separate document on company letterhead and include within two weeks of receiving the contract from Gilbane.
16. There will be limited storage and field office areas available on site. These areas may be available for short periods of time and office/storage locations will need to be relocated to accommodate construction activities. This Trade Contractor shall make arrangements with the Construction Manager for any office or storage provisions prior to mobilization. All site areas disturbed by the action of this Trade Contractor shall be returned to its original condition at no additional expense to the owner. Trade Contractor shall coordinate all staging and storage with the Construction Manager inclusive of but not limited to, trailers, tool sheds, storage areas, etc.
17. Securely cover and tie down all materials nightly or when high winds are forecast to prevent damage and wind-blown debris.
18. Coordinate with the Construction Manager the delivery, storage, crane pick points, and laydown areas for the material consistent with the Site Utilization Plans. All erection shall be from outside the building. No erection equipment such as cranes, derricks, etc. will be permitted within the building lines. Any access, erection, cribbing, pads, mats, ramps, etc. required for cranes, hoists, etc. shall be provided, maintained and removed by this Trade Contractor. This requirement will include all mats which may be required for equipment movement on-site under wet conditions or foul weather.

19. This Trade Contractor shall submit complete shop drawings for the Construction Manager and Architect's review prior to commencing work.
20. Any housekeeping pads incidental to this scope of work shall be included in the base bid.
21. All abatement of hazardous materials will be conducted by the owner. The Trade Contractor must notify the Construction Manager immediately about any suspect material.
22. The Trade Contractor's Project Manager shall be responsible to maintain an accurate record of deviation and changes in the work and reasons there of. The Construction Manager and Architect may elect to review the status of these documents on a monthly basis. Failure on the part of the Trade Contractor to maintain the As-Built Documents will be cause to reject the Trade Contractor's monthly payment request in part or in total until the condition is corrected and the record documents are updated to reflect site conditions.
23. Trade Contractor shall immediately notify the Construction Manager in writing of his findings, especially upon finding unsatisfactory conditions that may affect his work and the quality of the work of others.
24. The campus is an extremely busy site. Traffic patterns can be very congested at times and parking lots can fill up quickly. Extreme caution should be used at all times when entering and exiting the site.
25. Each Trade Contractor shall coordinate their work with the works of other trades and with the Construction Manager.
26. The Owner has employed a testing agency for this project. This Trade Contractor shall conform to all testing requirements as identified within the Contract Documents. The Trade Contractor shall provide 48 hour notice to the Construction Manager prior to date testing agency needs to be on site to perform tests.
27. In addition to the requirements for safety defined in the Conditions of Contract and the Construction Manager's Safety Plan, the Trade Contractor shall submit within two weeks of Notice to Proceed a detailed safety plan defining it's intentions and procedures to be used on the project to comply with all requirements of OSHA and Project Safety Program, including work rules, fall protection, hoisting procedures, protection of other trades and finished materials, etc.
28. This Trade Contractor must include all costs necessary to address the requirements of the Safety and Project Quality Plan included in the Project Manual.
29. This Trade Contractor is required to fill out a Gilbane daily report and turn in to Gilbane on a daily basis.
30. This Trade Contractor shall be responsible for their cleanup and debris removal. Dumpsters for the general use of all trades shall be provided by the General Trades Contractor.
31. This project shall pursue a LEED certification with the United States Green Buildings Council (USGBC); see specifications for requirements and responsibilities of subcontractors
32. Each Trade Contractor shall submit a CPM schedule utilizing Primavera Project Planner or SureTrack software within 30 days after notice to proceed. This schedule shall include all construction activities of the Trade Contractor and shall abide by all the requirements indicated in the bid documents pertaining to Critical Path Method Scheduling. Monthly updates of the schedule are required to be submitted along with the monthly Application for Payment.
33. The Trade Contractor shall be required to enter the RFI's, Daily Work Reports and Submittals using i-Build (requires Internet Explorer 7 or higher and active X. no other software is required). The Project

Manager and Superintendent will be required to attend a two (2) hour Computer training by Gilbane which will teach them how to use this program. Refer to Manual 1 for more information on i-Build.

The above listed items are not intended to be an all-inclusive listing of the specified Contract Scope of Work, but are merely to highlight the major items of work.

SPECIFIC ITEMS TO BE EXCLUDED

The following specific item(s) of work contained in the above referenced documents are EXCLUDED from the work of this Bid Package (Contract):

1. Dumpsters

M. SPECIFICATIONS

The following Specifications, together with the Drawings and other related items of work as described herein, further define the Scope of Work of the Bid Package (Contract).

Specific Specification Sections

<u>Number</u>	<u>Title</u>	<u>Date</u>
<u>DIVISION 00-GENERAL REQUIREMENTS:</u>		
002200	Geotech Data	9/20/10
<u>DIVISION 01- PROJECT REQUIREMENTS:</u>		
010010	LEED Compliance	9/20/10
011000	Summary	9/20/10
013000	Administrative Requirements	9/20/10
013514	LEED Requirements	9/20/10
013514.01	LEED-NC 2009 Credit Summary	9/20/10
013515	LEED Certification Procedures	9/20/10
013516	LEED Submittal Forms	9/20/10
014000	Quality Requirements	9/20/10
015721	Indoor Air Quality Controls	9/20/10
015713	Temporary Erosion and Sediment Control	9/20/10
016000	Product Requirements	9/20/10
016116	Volatile Organic Compound (VOC) Content Restrictions	9/20/10
016116.01	Accessory Material VOC Content Certification Form	9/20/10
017000	Execution and Closeout Requirements	9/20/10
017800	Closeout Submittals	9/20/10
017820	O&M Manuals	9/20/10
018100	General Commissioning Requirements	9/20/10
018120	Commissioning Submittals	9/20/10
018140	Commissioning Project Close Out	9/20/10
018200	O&M Training	9/20/10
<u>DIVISION 02 -EXISTING</u>		
024100	Demolition	9/20/10
<u>DIVISION 03 -CONCRETE</u>		
031000	Concrete Formwork	9/20/10
032000	Concrete Reinforcement	9/20/10
033000	Cast-In-Place Concrete	9/20/10

DIVISION 06 – WOODS, PLASTICS AND COMPOSITES:

061000 Rough Carpentry 9/20/10

DIVISION 07 – THERMAL AND MOISTURE PROTECTION:

078400 Firestopping 9/20/10

079005 Joint Sealers 9/20/10

DIVISION 11 – EQUIPMENT:

115313 Laboratory Fume Hoods 9/20/10

116210 Laboratory Service Fixtures 9/20/10

116220 Laboratory Accessories 9/20/10

DIVISION 23 – HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC):

230500 Basic HVAC Requirements 9/20/10

230503 Through Penetration Firestopping 9/20/10

230505 HVAC Demolition for Remodeling 9/20/10

230513 Motors 9/20/10

230529 HVAC Supports and Anchors 9/20/10

230548 Vibration Isolation 9/20/10

230553 HVAC Identification 9/20/10

230593 Testing, Adjusting and Balancing 9/20/10

230713 Ductwork Insulation 9/20/10

230716 HVAC Equipment Insulation 9/20/10

230719 HVAC Piping Insulation 9/20/10

230900 Controls 9/20/10

230913 Instrumentation 9/20/10

231500 Laboratory Utility Piping 9/20/10

232100 Hydronic Piping 9/20/10

232123 HVAC Pumps 9/20/10

232500 Chemical (Water) Treatment 9/20/10

233100 Ductwork 9/20/10

233300 Ductwork Accessories 9/20/10

233416 Centrifugal Fans 9/20/10

233423 Power Ventilators 9/20/10

233600 Air Terminal Units 9/20/10

233700 Air Inlets and Outlets 9/20/10

234000 Air Cleaning 9/20/10

235100 Breechings, Chimneys and Stacks 9/20/10

235216 Condensing Boilers 9/20/10

237323 Custom Air Handling Units 9/20/10

238200 Terminal Heat Transfer Units 9/20/10

238216 Air Coils 9/20/10

239970 Mechanical Systems Commissioning 9/20/10

Related Specification Sections

<u>Number</u>	<u>Title</u>	<u>Date</u>
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DIVISION 03 -CONCRETE

035400	Cast Underlayment	9/20/10
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DIVISION 04 -MASONRY

040511	Masonry Mortaring and Grouting	9/20/10
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042000	Unit Masonry	9/20/10
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DIVISION 05 –METALS

051223	Structural Steel	9/20/10
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052100	Steel Joists	9/20/10
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053100	Steel Deck	9/20/10
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054000	Cold-Formed Metal Framing	9/20/10
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055000	Metal Fabrications	9/20/10
055100	Metal Stairs	9/20/10
055213	Pipe and Tube Railings	9/20/10

DIVISION 06 – WOODS, PLASTICS AND COMPOSITES:

062000	Finish Carpentry	9/20/10
064216	Wood Veneer Paneling	9/20/10

DIVISION 07 – THERMAL AND MOISTURE PROTECTION:

072100	Thermal Insulation	9/20/10
072119	Foamed in Place Insulation	
072400	Exterior Insulation And Finish Systems	9/20/10
072500	Weather Barriers	9/20/10
074214	Insulated Metal Wall Panels	9/20/10
074264	Metal Composite Material Wall Panels	9/20/10
075300	Single Ply Roofing – Fully Adhered EPDM	9/20/10
076200	Sheet Metal Flashing And Trim	9/20/10
077200	Roof Accessories	9/20/10
079513	Expansion Joint Cover Assemblies	9/20/10

DIVISION 08 – OPENINGS:

081113	Hollow Metal Doors And Frames	9/20/10
081116	Aluminum Doors And Frames	9/20/10
081416	Flush Wood Doors	9/20/10
083100	Access Doors And Panels	9/20/10
083323	Overhead Coiling Doors	9/20/10
084413	Glazed Aluminum Curtain Walls	9/20/10
087100	Door Hardware	9/20/10
088000	Glazing	9/20/10

DIVISION 09 – FINISHES:

092116	Gypsum Board Assemblies	9/20/10
092216	Non-Structural Metal Framing	9/20/10
093000	Tiling	9/20/10
095100	Acoustical Ceilings	9/20/10
096500	Resilient Flooring	9/20/10
096700	Fluid-Applied Flooring	9/20/10
096813	Tile Carpeting	9/20/10
097200	Wall Coverings	9/20/10
098311	Acoustical Wall Systems	9/20/10
099000	Painting And Coating	9/20/10
099600	High-Performance Coatings	9/20/10

DIVISION 10 – SPECIALTIES:

101101	Visual Display Boards	9/20/10
102113.13	Metal Toilet Compartments	9/20/10
102800	Toilet, Bath, And Laundry Accessories	9/20/10
104400	Fire Protection Specialties	9/20/10
105100	Lockers	9/20/10

DIVISION 12 – FURNISHINGS:

122216	Drapery Track and Accessories	9/20/10
123553	Laboratory Casework	9/20/10
123600	Countertops	9/20/10
124813	Entrance Floor Mats	9/20/10

DIVISION 21 – FIRE SUPPRESSION:

210500	Basic Fire Suppression Requirements	9/20/10
210503	Through Penetration Firestopping	9/20/10
210529	Fire Suppression Supports and Anchors	9/20/10
210553	Fire Suppression Identification	9/20/10

211300 Fire Protection Systems 9/20/10

DIVISION 22 – PLUMBING:

220500 Basic Plumbing Requirements 9/20/10

220503 Through Penetration Firestopping 9/20/10

220505 Plumbing Demolition for Remodeling 9/20/10

220529 Plumbing Supports and Anchors 9/20/10

220548 Vibration Isolation 9/20/10

220553 Plumbing Identification 9/20/10

220719 Plumbing Piping Insulation 9/20/10

221000 Plumbing Piping 9/20/10

221030 Plumbing Specialties 9/20/10

221123 Domestic Water Pumps 9/20/10

223000 Plumbing Equipment 9/20/10

224000 Plumbing Fixtures 9/20/10

DIVISION 26 – ELECTRICAL:

260500 Basic Electrical Requirements 9/20/10

260503 Through Penetration Firestopping 9/20/10

260505 Electrical Demolition for Remodeling 9/20/10

260513 Wire And Cable 9/20/10

260515 Medium Voltage Cable & Accessories 9/20/10

260526 Grounding and Bonding 9/20/10

260527 Supporting Devices 9/20/10

260531 Boxes 9/20/10

260533 Conduit 9/20/10

260535 Surface Raceways 9/20/10

260553 Electrical Identification 9/20/10

260913 Power Monitoring and Control 9/20/10

260933 Lighting Control Systems 9/20/10

261200 Distribution Transformers 9/20/10

262200 Dry Type Transformers 9/20/10

262416 Panelboards 9/20/10

262419 Motor Control 9/20/10

262726 Wiring Devices 9/20/10

262816 Disconnect Switches 9/20/10

262923 Variable Frequency Drives 9/20/10

263600 Transfer Switch 9/20/10

264300 Surge Protection Devices 9/20/10

265100 Lighting 9/20/10

269970 Electrical Systems Commissioning 9/20/10

DIVISION 27 – COMMUNICATIONS:

270500 Basic Communications Systems Requirements 9/20/10

270505 Technology Demolition for Remodeling 9/20/10

270526 Communications Grounding 9/20/10

270528 Interior Communication Pathways 9/20/10

270553 Identification and Administration 9/20/10

271100 Communication Equipment Rooms 9/20/10

271300 Backbone Cabling Requirements 9/20/10

271500 Horizontal Cabling Requirements 9/20/10

271710 Testing 9/20/10

271720 Support and Warranty 9/20/10

274100 Professional Audio/Video System 9/20/10

275313 Central Clock System 9/20/10

DIVISION 28 – ELECTRONIC SAFETY AND SECURITY:

281300 Electronic Access Control 9/20/10

283100	Fire Alarm and Detection Systems	9/20/10
<u>DIVISION 31 – EARTHWORK:</u>		
312300	Foundation Excavation and Backfilling	9/20/10
312323.43	EPS Geofoam	9/20/10
<u>DIVISION 32 – EXTERIOR IMPROVEMENTS:</u>		
321216	Asphalt Paving	9/20/10
321313	Concrete Paving	9/20/10
329200	Turf and Grasses	9/20/10
<u>DIVISION 33 – UTILITIES:</u>		
331100	Water Utility Distribution Piping	9/20/10
333100	Sanitary Utility Sewerage Piping	9/20/10
334100	Storm Utility Drainage Piping	9/20/10
334913	Storm Drainage Inlets and Manholes, Frames and Covers	9/20/10

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C-1.03	Existing Conditions	9/20/10
C-2.02	Site Demolition Plan	9/20/10
C-3.02	Site Utility Plan	9/20/10
C-3.11	Site Grading Plan	9/20/10
C-3.22	Temporary Paving Plan	9/20/10
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S-101-B	Foundation Plan - Module B	9/20/10
S-102-A	Existing Second Floor Framing Plan - Module A	9/20/10
S-102-B	Second Floor Framing Plan - Module B	9/20/10
S-103-A	Existing Roof Framing Plan - Module A	9/20/10
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A-515	Section Details	9/20/10
A-516	Section Details	9/20/10
A-520	Typical Roof Details	9/20/10
A-521	Roof Details	9/20/10
A-522	Roof Details	9/20/10
A-523	Roof Details	9/20/10
A-524	Roof Details	9/20/10
A-525	Roof Details	9/20/10
A-600	Partition Types	9/20/10
A-601	Door Schedule / Door and Frame Types	9/20/10
A-701-A	Partial First Floor Finish Plan	9/20/10
A-701-B	Partial First Floor Finish Plan	9/20/10
A-702-A	Partial Second Floor Finish Plan	9/20/10
A-702-B	Partial Second Floor Finish Plan	9/20/10
A-801-A	Level 1 Mod A - Furniture Plan (for Reference Only)	9/20/10
A-801-B	Level 1 Mod B - Furniture Plan(for Reference Only)	9/20/10
A-802-A	Level 2 Mod A - Furniture Plan(for Reference Only)	9/20/10
A-802-B	Level 2 Mod B - Furniture Plan (for Reference Only)	9/20/10
AC-101-A	Partial First Floor Reflected Ceiling Plan - Module A	9/20/10
AC-101-B	Partial First Floor Reflected Ceiling Plan - Module B	9/20/10
AC-102-A	Partial Second Floor Reflected Ceiling Plan - Module A	9/20/10
AC-102-B	Partial Second Floor Reflected Ceiling Plan - Module B	9/20/10
<u>ARCHITECTURAL EQUIPMENT DRAWING LIST</u>		
AQ-401	First Floor Equipment Plans	9/20/10

AQ-402	First Floor Equipment Plans	9/20/10
AQ-403	First Floor Equipment Plans	9/20/10
AQ-404	Second Floor Equipment Plans	9/20/10
AQ-405	Second Floor Equipment Plans	9/20/10
AQ-406	Second Floor Equipment Plans	9/20/10
AQ-501	Lab Casework Details	9/20/10
AQ-502	Student Station Details	9/20/10
AQ-503	Lab Equipment Details	9/20/10
AQ-504	Fume Hood Information	9/20/10
AQ-505	Fume Hood Information	9/20/10
AQ-601	Lab Casework Types	9/20/10
AQ-602	Lab Equipment Schedules	9/20/10
AQ-603	Lab Equipment Schedules	9/20/10

FIRE PROTECTION DRAWING LIST

FP-101B	First Floor Plan - Mod B - Fire Protection	9/20/10
FP-102B	Second Floor Plan - Mod B - Fire Protection	9/20/10
FP-103	Penthouse Plan - Fire Protection	9/20/10
FP-201B	First Floor Plan - Mod B - Fire Protection Sprinkler Layout	9/20/10
FP-202B	Second Floor Plan - Mod B - Fire Protection Sprinkler Layout	9/20/10
FP -203	Penthouse Plan - Fire Protection Sprinkler Layout	9/20/10
FP-400	Fire Protection Schedules and Riser Diagram	9/20/10

PLUMBING DRAWING LIST

PD-100A	Underfloor Plan - Mod A - Plumbing Demolition	09/20/10
PD-101A	First Floor Plan - Mod A - Plumbing Demolition	09/20/10
PD-102A	Second Floor Plan - Mod A - Plumbing Demolition	09/20/10
P-100A	Underfloor Plan - Mod A - Plumbing	09/20/10
P-100B	Underfloor Plan - Mod B - Plumbing	09/20/10
P-101A	First Floor Plan - Mod A - Plumbing	09/20/10
P-101B	First Floor Plan - Mod B - Plumbing	09/20/10
P-102A	Second Floor Plan - Mod A - Plumbing	09/20/10
P-102B	Second Floor Plan - Mod B - Plumbing	09/20/10
P-103	Penthouse Plan - Plumbing	09/20/10
P-104	Roof Plan - Plumbing	09/20/10
P-200A	Under floor Plan - Mod A - Cutting and Patching Plan	09/20/10
P-400	Enlarged Plans - Plumbing	09/20/10
P-500	Plumbing Details	09/20/10
P-501	Plumbing Details	09/20/10
P-600	Plumbing Material List	09/20/10

MECHANICAL DRAWING LIST

MD-101A	First Floor Plan - Mod A - Mechanical Demolition	09/20/10
MD-102A	Second Floor Plan - Mod A - Mechanical Demolition	09/20/10
MD-200A	Underfloor Plan - Mod A - Lab Utility Piping Demolition	09/20/10
MD-201A	First Floor Plan - Mod A - Lab Utility Piping Demolition	09/20/10
MD-202A	Second Floor Plan - Mod A - Lab Utility Piping Demolition	09/20/10
M-100	Mechanical Site Plan	09/20/10
M-100B	Underfloor Plan - Mod B - Ventilation	09/20/10
M-101A	First Floor Plan - Mod A - Ventilation	09/20/10
M-101B	First Floor Plan - Mod B - Ventilation	09/20/10
M-102A	Second Floor Plan - Mod A - Ventilation	09/20/10
M-102B	Second Floor Plan - Mod B - Ventilation	09/20/10
M-103	Penthouse Plan - Ventilation	09/20/10
M-104	Roof Plan - Ventilation	09/20/10
M-201A	First Floor Plan - Mod A - Heating	09/20/10

M-201B	First Floor Plan - Mod B - Heating	09/20/10
M-202A	Second Floor Plan - Mod A - Heating	09/20/10
M-202B	Second Floor Plan - Mod B - Heating	09/20/10
M-203	Penthouse Plan - Heating	09/20/10
M-301A	First Floor Plan - Mod A - Lab Utility Piping	09/20/10
M-301B	First Floor Plan - Mod B - Lab Utility Piping	09/20/10
M-302A	Second Floor Plan - Mod A - Lab Utility Piping	09/20/10
M-302B	Second Floor Plan - Mod B - Lab Utility Piping	09/20/10
M-303	Roof Plan and Penthouse Plan - Lab Utility Piping	09/20/10
M-400	Campus Chilled Water Schematic Diagram	09/20/10
M-401	Heating Water Schematic Diagram	09/20/10
M-402	Cooling Water Schematic Diagram	09/20/10
M-403	Mechanical Control Diagrams	09/20/10
M-404	Mechanical Control Diagrams	09/20/10
M-405	Mechanical Control Diagrams	09/20/10
M-406	Mechanical Sections	09/20/10
M-500	Mechanical Details	09/20/10
M-501	Mechanical Details	09/20/10
M-502	Mechanical Details	09/20/10
M-600	Mechanical Schedules	09/20/10
M-601	Mechanical Schedules	09/20/10
M-602	Mechanical Schedules	09/20/10

ELECTRICAL DRAWING LIST

ED-100	Electrical Demolition Site Plan	09/20/10
ED-101A	First Floor Plan - Mod A - Lighting Demolition	09/20/10
ED-102A	Second Floor Plan - Mod A - Lighting Demolition	09/20/10
ED-201A	First Floor Plan - Mod A - Power Demolition	09/20/10
ED-202A	Second Floor Plan - Mod A - Power Demolition	09/20/10
ED-301A	First Floor Plan - Mod A - Systems Demolition	09/20/10
ED-302A	Second Floor Plan - Mod A - Systems Demolition	09/20/10
E-000	Electrical Cover Sheet	09/20/10
E-100	Electrical Site Plan	09/20/10
E-101A	First Floor Plan - Mod A - Lighting	09/20/10
E-101B	First Floor Plan - Mod B - Lighting	09/20/10
E-102A	Second Floor Plan - Mod A - Lighting	09/20/10
E-102B	Second Floor Plan - Mod B - Lighting	09/20/10
E-103	Penthouse Plan - Lighting	09/20/10
E-201A	First Floor Plan - Mod A - Power	09/20/10
E-201B	First Floor Plan - Mod B - Power	09/20/10
E-202A	Second Floor Plan - Mod A - Power	09/20/10
E-202B	Second Floor Plan - Mod B - Power	09/20/10
E-203	Penthouse Plan - Power	09/20/10
E-301A	First Floor Plan - Mod A - Systems	09/20/10
E-301B	First Floor Plan - Mod B - Systems	09/20/10
E-302A	Second Floor Plan - Mod A - Systems	09/20/10
E-302B	Second Floor Plan - Mod B - Systems	09/20/10
E-303	Penthouse Plan - Systems	09/20/10
E-400	Enlarged Plan - Electrical	09/20/10
E-401	Enlarged Plan - Electrical	09/20/10
E-410	Medium Voltage One Line Diagram - Electrical	09/20/10
E-411	One Line Diagram - Electrical	09/20/10
E-412	One Line Diagram - Electrical	09/20/10
E-413	One Line Diagram - Electrical	09/20/10
E-414	Emergency One Line Diagram - Electrical	09/20/10

E-500	Details – Electrical	09/20/10
E-501	Details – Electrical	09/20/10
E-502	Details – Electrical	09/20/10
E-503	Details – Electrical	09/20/10
E-600	Electrical Material List	09/20/10
E-700	Electrical Schedules	09/20/10
E-701	Electrical Schedules	09/20/10
E-702	Electrical Schedules	09/20/10

TELECOMMUNICATIONS DRAWING LIST

TD-101A	First Floor Plan - Mod A - Technology Demolition	09/20/10
TD-102A	Second Floor Plan - Mod A - Technology Demolition	09/20/10
T-000	Technology Cover Sheet	09/20/10
T-100	Technology Site Plan	09/20/10
T-101A	First Floor Plan - Mod A – Technology	09/20/10
T-101B	First Floor Plan - Mod B – Technology	09/20/10
T-102A	Second Floor Plan - Mod A – Technology	09/20/10
T-102B	Second Floor Plan - Mod B – Technology	09/20/10
T-103	Penthouse Plan – Technology	09/20/10
T-300	Enlarged Plans – Technology	09/20/10
T-400	Risers and Details – Technology	09/20/10
T-401	Risers and Details – Technology	09/20/10
T-500	Technology Material List	09/20/10

BP 15M HVAC, Temperature Controls, Mechanical & Lab Piping Work

O. SIGNATURE

By executing this Bid Proposal, the undersigned represents that he is duly authorized on behalf of his/her company to submit this Proposal Form, agrees to the terms and conditions contained in the General Instructions to Bidders, and if awarded the contract, will perform in accordance with the terms and conditions of this Proposal Form and the documents which have been incorporated by reference herein. The undersigned represents that these Proposals are made in good faith, without fraud, collusion, or connection of any kind with any other bidder of the same work, that he is completing in his own interest and in his own behalf, without connection of obligation to any undisclosed person, that no other person has any interest in regard to all conditions pertaining to the Work and in regard to the place where it is to be done, has made his own examination and estimates and from them makes this Proposal.

Bidder: _____
(LEGAL SIGNATURE)

(TYPE/PRINT NAME)

Firm: _____

Address: _____

City, State, Zip: _____

Business Phone No.: () _____

Business Fax No.: () _____

Email Address: _____

This bidder is a (an): _____
Individual, Partnership, Corporation

The full names, address and telephone numbers of all persons interested in the Proposal, as principals are as follows:

NOTE: This Proposal must bear the written signature of the Bidder.

- a. If the Bidder is an Individual doing business under a name other than his own name, the Proposal must so state, giving the address of the Individual.
- b. If the Bidder is a Partnership, the Proposal must so state, setting forth the names and addresses of all Partners, and must be signed by a Partner so designated as such.
- c. If the Bidder is a Corporation, the Proposal must be signed by a duly authorized officer or agent of the Corporation.

Bid Security Enclosed: 10% of base bid total (In Favor of Joliet Junior College).

Bid Bond _____ Cashier's Check _____ Certified Check _____

CERTIFICATE OF BIDDER ELIGIBILITY

720 ILCS 5/33E-11 requires that all contractors bidding for public agencies in the State of Illinois certify that they are not barred from bidding on public contracts for bid rigging or bid rotation.

The following certification must be signed and submitted with bidder's bid proposal. **FAILURE TO DO SO MAY RESULT IN DISQUALIFICATION OF THE BIDDER.**

_____, as part of its bid for _____

certifies that said contractor is not barred from bidding on the aforementioned contract as a result of a violation of either 720 ILCS 5/33E-3 or 720 ILCS 5/33E-4.

Firm Name: _____

By: _____
Authorized Agent of Contractor

Title

SUBSCRIBED AND SWORN TO before me
this _____ day of _____, 2010.

NOTARY PUBLIC

EXECUTE AND ATTACH TO PROPOSAL FORM

[Contractors With 25 or More Employees]

**CERTIFICATE OF COMPLIANCE WITH
ILLINOIS DRUG-FREE WORKPLACE ACT**

_____, having 25 or more employees, does hereby certify pursuant to Section 3 of the *Illinois Drug-Free Workplace Act* (30 ILCS 580/3) that [he, she, it] shall provide a drug-free workplace for all employees engaged in the performance of work under the contract by complying with the requirements of the *Illinois Drug-Free Workplace Act* and, further certifies, that [he, she, it] is not ineligible for award of this contract by reason of debarment for a violation of the *Illinois Drug-Free Workplace Act*.

By Authorized Agent

Date

SUBSCRIBED AND SWORN TO before me
this _____ day of _____, 2010.

NOTARY PUBLIC

EXECUTE AND ATTACH TO PROPOSAL FORM

NON-COLLUSION AFFIDAVIT

AFFIDAVIT: "I (we) hereby certify and affirm that my (our) proposal was prepared independently for this project and that it contains no fees or amounts other than for legitimate execution of this work as specified and that it includes no understanding or agreements in restraint of trade."

Name of Bidder: _____
Date: _____

(If an individual)
Signature of Bidder: _____

Business Address: _____

(Seal)

(If a Partnership)
Firm Name: _____

Business Address of all partners of the Firm:

(Seal)

(If a Corporation)
Name of Officers:
President: _____
Secretary: _____
Treasurer: _____
Attest: _____
Secretary

(Seal)

EXECUTE AND ATTACH TO PROPOSAL FORM

**CERTIFICATE REGARDING
SEXUAL HARASSMENT POLICY**

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

By: _____
Authorized Agent of Contractor

Title

SUBSCRIBED AND SWORN TO before me
this _____ day of _____, 2010.

NOTARY PUBLIC

EXECUTE AND ATTACH TO PROPOSAL FORM

CERTIFICATE REGARDING HUMAN RIGHTS ACT

Any company or organization to be awarded a contract for goods and/or services must be in compliance with the **Human Rights Act** and all rules and regulations thereunder. Our company has an Equal Employment Opportunity and Affirmative Action Program which complies with Executive Order 11246, the Vietnam Era Veterans' Readjustment Assistance Act of 1974 and the Rehabilitation Act of 1973.

YES _____ NO _____

CERTIFICATE REGARDING THE PREVAILING WAGE ACT

Our company certifies that it is eligible for bidding on public contracts, and has complied with section 11a of the Prevailing Wage Act, 820 ILCS 130/0.01-12(2000), and has not disregarded their obligations to employees under the Prevailing Wage Act on two (2) separate occasions, and that they, or any firm, corporation, partnership or association in which such contractors or subcontractors have an interest, are not prohibited from being awarded any contract or subcontract for a public works project. In addition, Joliet Junior College is requesting all Bidders/Awarded Trade Contractors to employ labor from a recognized apprenticeship training program as a condition of award.

YES _____ NO _____

CERTIFICATE REGARDING VALID BUSINESS LICENSE

Our company is eligible to do business in the State of Illinois and have submitted as part of this bid a valid business license and the Federal Employer Tax Identification Number (FEIN) or Social Security Number for individuals. Further, if applicable, our company will employ apprentices who are properly indentured into a Joint Apprenticeship Training Program which is registered and certified with the United States Department of Labor, Bureau of Apprenticeship and Training.

YES _____ NO _____

FEIN Number _____

By: _____
Authorized Agent of Contractor

Title

SUBSCRIBED AND SWORN TO before me
this _____ day of _____, 2010.

NOTARY PUBLIC

EXECUTE AND ATTACH TO PROPOSAL FORM

BIDDER INFORMATION FORM

Bidder Information Form is to be submitted with each Bid Form.

- 1) Total Bonding Capacity: \$ _____
Single Project Bonding Capacity: \$ _____
Work Currently Bonded: \$ _____
- 2) Work now under contract: \$ _____
Work in place last year: \$ _____
Average annual sales last 3 years: \$ _____
- 3) Current Experience Modification Rating (EMR): _____
- 4) Has firm ever failed to complete a contract: _____
- 5) Submit two (2) Owner or Architect/Engineer References:
 - a. Name: _____
Telephone Number: _____
 - b. Name: _____
Telephone Number: _____
- 6) Contractor Qualifications:
 - a. The Owner may require from any Bidder, prior to award of the contract, a detailed statement regarding the business organization, years in service, and the technical organization and plant of the Bidder that is available for the work contemplated.
 - b. The competency and responsibility of the bidders and of their proposed Subcontractors may be considered in making awards.

By _____

Authorized Agent of Contractor

Title

SUBSCRIBED AND SWORN TO before me
this _____ day of _____, 2010.

NOTARY PUBLIC

EXECUTE AND ATTACH TO BID FORM