

SCOPE OF WORK

The scope of services to be provided to The University of Florida includes machine and hand trenching, pushing / boring under or saw cutting of asphalt, concrete surfaces (sidewalks, streets, road ways, etc.), machine or hand digging splice/test holes, laying PVC conduit or other pipes for utility services, placing telecommunications cabling and fiber optic cables, termination of telecommunications cabling and fiber optics, constructing above ground communications cabinets and larger prefab vaults, placement of blue light emergency telephone units and associated concrete foundations, installation of related electrical, piping, sanitary or mechanical work and other work underground services related work.

The location of the work to be provided by the Contractor will largely be confined to the University of Florida main campus. The size of each project will vary from directing the Contractor to provide a singular splice pit, a trench a few feet in length to a conduit structure thousands of feet in length with many man / hand holes. All services shall be performed on an as needed basis.

Special Note: The University of Florida has an exceptionally high concentration of underground utilities which include a very extensive steam and chilled water distribution system. Along with active underground utilities, there are abandoned conduit, pipe and other structures. The contractor must use precautionary measures to prevent damage to the active systems. Adjustments in the trench depth, placement and width in the process of working alongside, under and avoiding these activities or other obstacles is considered incidental by the University. Therefore, the contractor shall bear this in mind when responding to the price schedule.

Additionally, the University of Florida campus has an exceptionally high concentration of pedestrians, bicycles, and vehicular traffic. Precautionary measures that the Contractor must take in protecting the project work, as well as protecting pedestrians, is considered by the University as incidental to the work of this agreement.

This solicitation will result in an award to one or more contractors to provide services as described above.

UNIVERSITY DEMOGRAPHICS

The University of Florida is a major public land-grant research university. The state's oldest, largest, and most comprehensive university, the University of Florida is among the nation's most academically diverse public universities. The University has a long history of established programs in international education, research, and service. It is one of only 17 public land-grant universities nationwide and the only university in Florida belonging to the Association of American Universities. With more than 50,000 students, the University of Florida is now one of the five largest universities in the nation.

The University of Florida has a 2,000-acre campus and more than 900 buildings (including 170 with classrooms and laboratories). The northeast corner of campus is listed as a historic district on the National Register of Historic Places.

The University's extensive capital improvement program has resulted in facilities ideal for 21st century research including the McKnight Brain Institute, the Health Professions, Nursing and Pharmacy Building, the Cancer and Genetics Research Complex, and the Proton Therapy Institute in Jacksonville. Overall, the university's current facilities have a book value of more than \$1 billion and a replacement value of \$2 billion.

For any additional information about the University of Florida, please visit the University's web page at: <http://www.ufl.edu/>.

END OF SECTION

SOLICITATION STRUCTURE & INSTRUCTIONS

This bid will consist of two (2) phases.

Phase 1 is a Pre-qualification phase comprised of a timely and complete response to the Phase 1 Criteria and the supporting documentation of adequate pre-qualification considerations.

Phase 2 is the evaluation of the Unit Pricing Schedule (Attachment A) and award of the solicitation. Attachment A will include various descriptions of labor, description of equipment that may be used and percentage on markups for material, outside rentals, and subs.

NOTE: Contractors are to submit Bids for both Phase 1 and Phase 2 at the same time and are to be submitted in separate packages/envelopes clearly marked "Phase 1" and "Phase 2". Bids that do not meet the requirements of Phase 1 may be rejected and not considered for Phase 2.

Incomplete bid packages may be disqualified. This includes, but is not limited to:

- Failure to submit proposal by the stated time and date
- Failure to sign the Invitation to Bid Acknowledgement Form
- Missing, invalid, or expired license
- Missing, invalid, or expired proof of corporate status in the State of Florida
- Insufficient proof of insurance coverage
- Insufficient proof of size/financial stability of bonding company
- Failure to include safety (EMR) data
- Failure to present Phase 1 packages in TABULAR format
- Failure to have 2 packages/envelopes labeled Phase 1 and Phase 2

PHASE 1 CRITERIA

The following criteria shall be used in Phase 1 to pre-qualify contractors to continue to Phase 2 (*bid packages are to be presented in TABULAR format as per outline below*):

TAB 1 Past Performance

The Owner will evaluate the quality of the applicant's past performance considering currency, relevancy, sources, context and trends. This evaluation is separate and distinct from the responsibility determination. The assessment of the applicant's past performance will be used as a means of evaluating the relative capability of the firm to successfully perform the Work. The University reserves the right to obtain information for use in the evaluation of past performance from any and all sources it deems necessary. The applicant shall demonstrate satisfactory performance on five (5) similar projects within the past five (5) years of projects considered "similar" to the University of Florida. Provide complete information including description, location date of completion and names and addresses of owners and contact information.

Acceptable renovation projects are defined as those with the following scopes or characteristics:

- University campus or government project experience
- Projects with intense schedule, management, and logistical demands - busy campus, adjacent residential facilities that will remain occupied during the work

TAB 2 Qualifications & Experience

Identify the personnel who will manage and supervise this project, as well as the staff responsible for job-site safety, quality control, and other specialties. Provide each person's title and project-specific responsibilities, including license, qualifications and resume. **Lack of detailed information on the resumes may result in a less favorable evaluation.** Provide an organization chart or diagram if necessary, to clearly explain lines of authority, duties & responsibilities, etc.

Proof of a staffed office with available construction personnel located within 60 miles of the Gainesville for the ability to respond and perform the task on hand within a 30-minute time frame.

Provide proof of license to perform work as a Certified Underground Utility and Excavation Contractor from the Department of Business and Professional Regulation.

Provide proof of corporation, Limited Liability Corporation or partnership registered to operate in the State of Florida by the Department of State (Division of Corporations). Such proof shall take the form of a certificate of corporate status from the Florida Department of State.

Provide list of fleet and equipment inventory and availability.

TAB 3 Financial Standing

Provide the contact information, references, and statements required by Sections 4 and 5 of AIA Document A305.

Provide proof of the applicant's ability to provide liability insurance coverage in the amounts of \$1 million per occurrence General Liability, \$1 million Automobile Liability, Workers' Compensation per requirements of Chapter 440 of the Florida Statutes, and \$5 million Umbrella. Such proof may take the form of a draft 'ACORD' certificate or a letter of intent from the respective carrier or agent.

TAB 4 Safety Record

Outline the firm's approach to job-site safety management, training & education, and enforcement. Provide a copy of the firm's insurance experience modification rate (EMR) for the past three years.

TAB 5 Workload

Provide a simple list of all current and pending work by the applicant firm. Further, provide a more detailed list of all current and pending work that involves the key personnel identified in Tab 2 (Qualifications & Experience), noting the size, contract amount, scope, owner, A/E, general or prime contractor (if your firm is serving, or will serve. as a subcontractor), current status, and projected completion date of each.

EVALUATION

Each proposal will be reviewed in **Phase 1** by a committee consisting of UF representatives from Planning, Design & Construction, the Department of Housing & Residential Education, Facilities Services, Institute of Food and Agricultural Sciences, and UF Information Technology (UFIT).

The contractor's response to each of the (5) above-listed criteria will be evaluated by each committee member.

Failure to provide proof of current license(s) may be grounds for immediate disqualification.

NOTE: This process concludes with the determination of pre-qualified contractors who are eligible to bid. The pre-qualification process will bear no relevance to the bidding process.

END OF SECTION

NON-TECHNICAL SPECIFICATIONS

- 1. TERM OF CONTRACT** - The University reserves the right to add and/or delete elements, or to change any element of the coverage and participation at any time without prior notification and without any liability of any kind or amount.

Term of Contract - The effective period of contract resulting from this bid will be December 1, 2019 through November 30, 2020.

The University shall have the option to renew this bid for four (4), one (1) year renewal periods under the same terms, if it should be deemed advisable and advantageous to do so. Renewal of this contract shall be contingent upon mutual acceptance by the University and Contractor.

Prior to renewal, the Contractor will have the opportunity to adjust labor prices for the contract that will be in force for the subsequent year. Price change requests shall be submitted to Procurement Services in writing, submitted at least sixty (60) days prior to the end of the current Agreement period, and shall be supported by written evidence of increased costs to the Successful Contractor. The University will not approve unsupported price increases that will merely increase the gross profitability of the Successful Contractor at the expense of the University. Price change requests shall be a factor in the Agreement extension review process. The University shall, in its sole opinion, determine whether the requested price increase or an alternate option is in the best interest of the University.

- 2. NON-MANDATORY PRE-BID CONFERENCE** - A non-mandatory pre-bid conference will be held on **October 9, 2019 at 2:00 PM**, at Procurement Services, 971 Elmore Drive, Room 101, Gainesville, FL. The purpose of this conference is to hear any and all questions arising from this Invitation to Bid. Answers to any questions that might arise will be in the form of an Addendum to the Invitation to Bid, prior to the bid opening. All such revisions must be acknowledged by signature and returned with the bid proposal. Failure to attend this meeting will result in the rejection of your bid.
- 3. INVITATION TO BID FORM** - All bids should be submitted on the University of Florida's Invitation to Bid/Bidders Acknowledgment form, within including Package Phase 1 and Package Phase 2, plus one electronic copy on a flash drive or CD/DVD in a sealed envelope, with the following information on the outside of the envelope: bid number, date and time of bid opening, and company name in order to be considered in the award.
- 4. BID SUBMITTALS** – Contractors shall ensure that the submittal envelope(s) clearly and conspicuously display the following identifying information in addition to any other information otherwise required for transmittal and are sealed.

Proposals must be delivered sealed to:

University of Florida
Procurement Services
971 Elmore Drive
Gainesville, FL 32611-5250
on or prior to **October 29, 2019 at 3:00 PM**
ITB20KO-116

The above address is a valid campus address for any courier service.

It is the contractor's responsibility to assure that the proposal is received no later than the date and time listed above. Late proposals will not be opened, and the University reserves the right to retain or dispose of such proposals at its discretion; however, the University may return such proposals to the proposer, but only at the proposer's request and at no cost or expense to the University. The University shall not accept proposals received by facsimile or email. The University shall, at the date and time listed above, open proposals that are otherwise in order. The University will make no immediate decision at such time, and there will be no disclosure of any information contained in any proposal until (a) the time University provides notice of a decision or intended decision, or (b) 30 days after the final competitive sealed proposals are all opened, whichever occurs earlier, at which time the proposals become public record.

Contractors will submit two 2 sealed envelopes in their proposals. Sealed Envelope 1 shall contain one hard copy and one electronic copy of Phase 1 Pre-Qualification submittals; Sealed Envelope2 shall contain one hard copy and one electronic copy (in excel format) of Phase 2 Unit Pricing Schedules (Appendix A). At the time of the bid opening, the

University will only acknowledge receipt of proposals. **Line items and qualifications submittals will not be reviewed at this time and receipt of bids will only be acknowledged.**

5. **INQUIRIES** - The University will not give verbal answers to inquiries regarding the specifications, or verbal instructions prior to or after the award of the bid. A verbal statement regarding same by any person shall be non-binding. The University is not liable for any increased costs resulting from the bidders accepting verbal direction. All changes, if necessary, shall be made by written Addendum to the bid.

Any explanation desired by bidders must be requested of UF Procurement Services in writing, and if an explanation is necessary, a reply shall be made in the form of an Addendum. Direct all inquiries to Karen Olitsky, Procurement Agent III, kolitsk@ufl.edu.

All addenda will be posted to UF Procurement Services website only: <https://procurement.ufl.edu/vendors/schedule-of-bids/>

Bidders who want the addenda supplied to them in another form must notify the Procurement Agent listed above of that request. Otherwise, it will be the bidder's responsibility to check the website for any additional information and addenda concerning this ITB.

The University may not respond to any inquiries that require addenda if received by the University after **October 15, 2019 at 5:00 PM.**

6. **AMERICANS WITH DISABILITY ACT** - If special accommodations are needed in order to attend the pre-bid meeting or the bid opening, contact Procurement Services at procurement@ufl.edu, three (3) business days prior to the event.
7. **COVERAGE AND PARTICIPATION** - The intended coverage of this solicitation and any resulting Agreement shall be for the use of all UF departments. With the consent and agreement of the successful bidder(s) purchases may be made under this ITB by other state universities, colleges, school boards, educational institutions, municipalities, state and governmental agencies.

The University reserves the right to add and/or delete elements, or to change any element of the coverage and participation at any time without prior notification and without any liability of any kind or amount.

8. **USE OF TERMS** - The terms University of Florida, UF, University, and Procurement Services are used synonymously in this ITB unless otherwise indicated. The terms contractor, proposer and bidder are used synonymously in this ITB unless otherwise indicated. The terms response, bid, proposal and submittal are used synonymously in this ITB unless otherwise indicated.
9. **PRICES** - Prices are to be a fixed price, and include provision of all labor, equipment, tools, consumables, maintenance, permits, liability insurance, builder's risk insurance, training manuals and services necessary and/or proper for the completion of the work, except as may be otherwise expressly provided in the contract documents associated with the materials to be provided by the University. The University will not be liable for any costs beyond those proposed herein and awarded. Time and materials quotes will be unacceptable. In some cases, the University may order material in excess of that required by the plans. This is to allow for wastage, change orders, and potential loss by inventory. Prices should be calculated based upon the plans provided, and not upon the quantity of materials ordered.
10. **AVAILABILITY OF FUNDS** - The State of Florida and the University's performance and obligation to pay under this contract is contingent upon an annual appropriation by the Legislature of the State of Florida.
11. **CANCELLATION** - The University, by written notice, may terminate in whole or in part any purchase order resulting from this Invitation to Bid, when such action is in the best interest of the University. If the purchase order is terminated, the University shall be liable only for payment of services rendered prior to the effective date of the termination. Services rendered will be interpreted to include the cost of items already delivered, plus the reasonable cost of supply action short of delivery.
12. **RIGHT TO TERMINATE** - The University reserves the right to terminate the Agreement in whole or part at any time when in the best interests of the University without penalty or cause. Upon receipt of the written notice, the Successful

Contractor shall immediately stop all work as directed in the notice, notify all subcontractors of the effective date of the termination and minimize all further costs to the University. In the event of termination under this provision, all documents, data and reports prepared by the Successful Contractor under the Agreement shall become the property of and delivered to the University. The Successful Contractor shall be entitled to receive just and equitable compensation for work in progress, work completed, and materials accepted before the effective date of termination. Such compensation shall be the Successful Contractor's sole remedy against the University in the event of termination under this provision.

- 13. STOP WORK ORDER** - The University may at any time, by written order to the Contractor, require the Contractor to stop all or any part of the work called for by the Agreement for a period of ninety (90) days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a Stop Work Order issued under this provision. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incidence of costs allocable to the work covered by the order during the period of work stoppage. If a Stop Work Order issued under this provision is canceled or the period of the order or any extension expires, the Contractor shall resume work. The University shall make an equitable adjustment in the delivery schedule or Agreement price, or both, and the Agreement shall be amended in writing accordingly.
- 14. CHANGES IN THE WORK - CONSTRUCTION** - The University may order in writing extra work or make changes by altering, adding to or deducting from the work, the Contract Sum and Time of Performance being adjusted accordingly. The value of any such change shall be determined by estimate and acceptance of a lump sum. Claims by the Contractor for extra cost must be made in writing before executing the work involved.
- 15. URGENT REQUIREMENTS** - In the case of a bona fide emergency and the Contractor cannot meet the delivery requirements; the University reserves the right to order from any Contractor that can meet such delivery requirement. This provision will not be used to circumvent the intent of the contract.
- 16. SUBCONTRACTORS** - When a subcontractor is necessary, the Contractor will show evidence, upon request, that each subcontractor was bid/negotiated in the following manner:

For subcontracts with a value of less than \$10,000, the Contractor may negotiate with the subcontractors to perform the work in its reasonable discretion. For subcontracts with a value between \$10,000 and \$74,999, the Contractor shall, where competition is available and feasible, obtain three (3) written quotes. For subcontracts with a value of \$75,000 and above, the Contractor shall advertise the subcontract at least once in the newspaper in general circulation in the applicable project area at least seven (7) calendar days prior to the published due date and accept written bids/proposals. The Contractor may be required to present evidence of the subcontractor being licensed and qualified in the applicable trade.

With approval of the UF Project Manager, the Contractor may use existing UF annual contracts in place for subcontractor work (e.g. Annual Contract for Mechanical Contractors, etc.) in lieu of quote requirements above. Each individual project included within the subcontractor's scope of work will have a maximum total construction cost of Two Hundred Thousand Dollars (\$200,000.00).
- 17. REPORTS** - The Contractor agrees to furnish reports to the University of total work made under this contract to include complete description list of jobs, line item amount, total amount.
- 18. PROTECTION OF PROPERTY** - The Contractor shall at all times guard against damage or loss to the property of the University or of other Contractors or Contractors and shall be held responsible for replacing or repairing any such loss or damage. The University may withhold payment or make such deductions as deemed necessary to insure reimbursement or replacement for loss or damage to property through negligence of the Contractor or his agents. The Contractor shall provide all barricades and take all necessary precautions to protect buildings and personnel.
- 19. DEBRIS** - The Contractor shall be responsible for the prompt removal of all debris which is a result of delivery, assembly, or installation.
- 20. INSPECTION, ACCEPTANCE AND TITLE** - The University shall at all times have access to the work wherever it is in preparation or in progress, and the Contractor shall provide proper facilities for such access and for inspection.

The Contractor shall not enclose any work until the University has inspected the work. Should the Contractor enclose the work prior to inspection by the University, the Contractor shall uncover the work for inspection by the University at no cost to the University, and then recover the work according to the specification contained herein.

The Contractor shall notify the University in writing when the work is ready for inspection. The University will inspect the work as expeditiously as possible after receipt of notification from the Contractor.

21. INSURANCE REQUIREMENTS - The Contractor shall purchase from and maintain with a company or companies lawfully authorized to do business in Florida such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. All insurance policies shall be issued and countersigned by representatives of such companies duly authorized for the State of Florida and shall be written on ISO standard forms or their equivalents. The Contractor shall provide the ISO Commercial General Liability policy for general liability coverages. All liability policies shall provide that the University is a named additional insured as to the operations of the Contractor under the University-Contractor Agreement and shall provide the Severability of Insured's Provision. The University shall be exempt from, and in no way liable for, any sums of money which may represent a deductible in any insurance policy. The payment of such deductible shall be the responsibility solely of the Contractor and/or Subcontractor providing such insurance. This insurance shall protect the Contractor from the following claims:

- A. Claims under worker's or workmen's compensation, disability benefit and other similar employee benefit acts which are applicable to the work to be performed;
- B. Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- C. Claims for damages because of bodily injury, sickness or disease, or death of any person other than the contractor's employees;
- D. Claims for damages insured by usual personal injury liability coverage including claims which are sustained (1) by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor, or (2) by another person;
- E. Claims for damages, other than to the work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- F. Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle; and
- G. Claims involving contractual liability insurance applicable to the Contractor's obligations in the A.I.A. General Conditions.

The required Contractor's Liability Insurance shall be written for limits of not less than \$100,000 per person, \$300,000 per occurrence. Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from date of commencement of work until date of final payment and termination of any coverage required to be maintained after final payment. The required insurance shall include contractual liability insurance applicable to the contractor's obligations in the A.I.A. General Conditions, and coverage for the "XCU" exposure.

Worker's Compensation - The Contractor shall secure and maintain for the life of this Agreement, valid Worker's Compensation Insurance as required by chapter 440, Florida Statutes.

Automobile Liability - The Contractor shall secure and maintain, during the life of this Agreement, Automobile Liability insurance on all vehicles against bodily injury and property damage in at least the amount of \$100,000.00 per person, \$300,000.00 per occurrence.

Certificates of Insurance - The Contractor shall file with the University Certificates of Insurance acceptable to the University prior to the commencement of work. These Certificates and the insurance policies which are required shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least 30 days prior written notice has been given to the University. If any of the foregoing insurance coverages are required to remain in force after final payment an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment as required by Subparagraph 9.10.2, A.I.A. General Conditions. The Contractor shall furnish one copy of the Certificate of Insurance which shall be dated and show the name of the insured Contractor,

the specific job by name and job number, the name of the insurer, the number of the policy, its effective date, and its termination date.

Property Insurance - The Contractor shall purchase and maintain from a company or companies lawfully authorized to do business in Florida, property insurance, written on a Builder's Risk completed value form, in the amount of the initial contract sum, as well as, subsequent modifications for the entire work at the site on a replacement cost basis. Such property insurance shall be maintained, unless otherwise provided in the contract documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in the A.I.A. General Conditions or until no person or entity other than the University has an insurable interest in the property required to be covered, whichever is earlier. This insurance shall include interests of the University, the Contractor, and Sub-contractors in the work.

Property insurance shall be on a Special Causes of Loss form or its equivalent, including reasonable compensation for Architect/Engineer's services and expenses required as a result of such insured loss. The Contractor shall purchase and maintain the Building Ordinance Endorsement.

If the property insurance provides deductibles the Contractor shall pay costs not covered because of such deductibles.

Before an exposure to loss may occur, the Contractor shall file with the University a copy of each policy that includes the required Property Insurance coverages. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this project. Each policy shall contain a provision that the policy will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the University.

A loss insured under property insurance shall be adjusted by the University as fiduciary and made payable to the University as fiduciary for the insureds, as their interests may appear. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors in similar manner.

The University as fiduciary shall, upon occurrence of an insured loss, deposit in a separate account proceeds so received, which the University shall distribute in accordance with such agreement as the parties in interest may reach, or in accordance with an award based on a resolution of a matter in dispute, in which case the procedure shall be as provided in the A.I.A. General Conditions. If after such loss no other special agreement is made, replacement of damaged property shall be covered by appropriate Change Order.

22. INDEMNIFICATION/HOLD HARMLESS – Per General Terms and Conditions, Article 24.

23. PERFORMANCE AND PAYMENT BOND – Per General Terms and Conditions, Article 20.

24. NOTICE TO CONTRACTORS OF ASBESTOS-CONTAINING MATERIALS IN UNIVERSITY BUILDINGS - Asbestos Containing Materials (ACM) can be found in almost any building in the United States more than ten (10) years old. The University of Florida is no exception. The types of asbestos most commonly found are pipe and boiler insulation, fireproofing, hard panels known as "Transite", floor tile, and spray or trowel-applied ceiling finishes. ACM is generally not hazardous if left undisturbed.

The University has implemented an Asbestos Program to assure safe management and removal of ACM. Contractors, Consultants, and other Vendors providing service to the University may encounter ACM and must, therefore, comply with the following instructions:

- A. Avoid disturbing suspected ACM. Exercise caution and watch for possible ACM.
- B. If it is necessary to disturb ACM, first notify the appropriate Division Asbestos Representative listed in this notice, or the University of Florida Asbestos Coordinator, before proceeding with your work. You shall take whatever precautions are necessary to protect humans' health and the environment, and comply with all applicable Federal, State, and Local laws pertaining to asbestos.
- C. If you require additional information on possible locations of ACM in a building, contact the Asbestos Representative from the Division for which you are working.

<u>Division</u>	<u>Asbestos Representative</u>	<u>Telephone</u>
Facilities Services	Assoc. Dir. Facilities Services	(352) 392-7793
Health Center	Asst. Dir. Health Ctr Facilities Svcs.	(352) 392-4417
Housing & Res Ed	Housing Maintenance Superintendent	(352) 392-2161
Reitz Union	Maintenance Superintendent	(352) 392-1614
IFAS	Engineer	(352) 392-6488

25. SPECIFIC POLICE DEPARTMENT REQUIREMENTS – Per Division 1 Non-Technical Specifications, 01014 Builder's Use of the Premises, Item 1.7, PERSONNEL SCREENING.

26. OPEN COMPETITION - The University encourages free and open competition among contractors. Whenever possible, specifications and proposal terms and conditions are designed to accomplish the objective, consistent with the necessity to satisfy the University's needs and the accomplishment of a sound economical operation. The Contractor's signature on the proposal guarantees that the prices quoted have been established without collusion with other Contractors and without effort to preclude the University from obtaining the lowest possible competitive price. The Contractor certifies that its officers or employees have not bribed or attempted to bribe or influence in any way on officer, employee or agent of the University.

27. EQUAL OPPORTUNITY STATEMENT - The State Universities have established equal opportunity practices which conform to both the spirit and the letter of all laws against discrimination and prohibits discrimination based on race, creed, color, sex, age, national origin, marital status, or religion. To be considered for inclusion as a supplier under this agreement, the proposer commits to the following:

- A. The provisions of Executive Order 11246, September 24, 1966, and the rules, regulations, and relevant orders of the Secretary of Labor are applicable to each order placed against this agreement regardless of value.
- B. If the Contractor expects to receive \$10,000 in orders during the first twelve (12) months of this Agreement, a complete certificate of non-segregated facilities shall be attached to the proposal response.
- C. If the Contractor expects to receive \$50,000 in orders during the first twelve (12) months of this agreement and employs more than fifty (50) people, standard form 100 (EEO-1) must be filed prior to March 1st of each year.
- D. If the Contractor expects to receive \$50,000 in orders during the first twelve (12) months and employs more than fifty (50) people, a written program for affirmative action compliance must be maintained by the Contractor, subject to review upon request by the user agencies of this Agreement.

28. OSHA REGULATIONS - It is the responsibility of the Contractor to ensure that ALL OSHA regulations applying to this job are always adhered to.

29. PUBLIC ENTITY CRIME - A person or affiliate who has been placed on the Convicted Vendor List by the Department of Management Services, State of Florida, may not submit a proposal on a contract to provide any goods or services, including construction, repairs, or leases and may not be awarded or perform work as a Contractor, Supplier, Subcontractor, or Consultant for the University of Florida for a period of thirty-six (36) months from the date of being placed on the Convicted Vendor List, a "Person" or "Affiliate" includes any natural person or any entity, including predecessor or successor entities or any entity under the control of any natural person who is active in its management and who has been convicted of a Public Entity Crime (Rule 6C1-3.020 FAC).

30. FEDERAL DEBARMENT - By signing this bid/proposal, the Contractor certifies, to the best of its knowledge or belief, that the Contractor and its principals are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency; or have not within a three (3) year period preceding this offer, been convicted of or had a civil judgment rendered against them in connection with a public contract or subcontract; or are not criminally or civilly charged by a governmental entity with commission of offenses; or has not within a three (3) year period preceding this offer had a contract terminated for default by any Federal agency (Federal Acquisition Regulation 52.209-5).

31. DISCRIMINATION – An Entity or Affiliate who has been placed on the Discriminatory Vendor List may not submit a bid on a contract to provide goods or services to a Public Entity, may not submit a bid on a contract with a Public Entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public

entity, may not award or perform work as a Contractor, Supplier, Subcontractor or Consultant under contract with any Public Entity, and may not transact business with any public entity.

32. **NOTICE TO CONTRACTOR** - The University shall consider the employment by any Contractor of unauthorized aliens a violation of section 274A(e) of the Immigration and Nationality Act. Such violation shall be cause for unilateral cancellation of this contract.
33. **CONTRACTOR SHALL IMPLEMENT** - A drug-free workplace program in accordance with the requirements of Section 440.102, Florida Statutes. Additionally, the Contractor shall enforce the Owner's tobacco-free policy.
34. **SMALL BUSINESS PROGRAM** – University is an equal opportunity institution and, as such, encourages the use of small businesses, including women and minority-owned small businesses in the provision of goods and services. Small businesses should have a fair and equal opportunity to compete for dollars spent by the University. Competition ensures that prices are competitive, and a broad vendor base is available. Vendor shall use good faith efforts to ensure opportunities are available to small businesses, including women and minority-owned businesses. For questions about the University's Small Business Program contact Kathey Porter, Director of Small Business and Vendor Diversity, 352-392-0380.
35. **TOBACCO FREE CAMPUS** - The University of Florida campus is a tobacco-free campus. This policy was effective as of July 1, 2010. The use of cigarettes or other tobacco products in UF buildings, parking lots, or in vehicles in these areas is prohibited. The successful vendor is expected to respect this smoke free policy and fully comply with it.
36. **PUBLIC RECORDS** All proposal information submitted and opened becomes subject to the Public Records Law set forth in Chapter 119 F.S.

Any resulting Agreement may be unilaterally canceled for refusal by the vendor to allow public access to all documents, papers, letters, or other materials subject to the provisions of Chapter 119 F.S., and made or received by the Successful Vendor in conjunction with the Agreement.

37. **GENERAL TERMS AND CONDITIONS** - <http://facilities.ufl.edu/forms/contracts/GTC.pdf>
38. **NON-TECHNICAL SPECIFICATIONS (DIVISION 0)** - <http://facilities.ufl.edu/forms/contracts/Div0NonTechSpecs.pdf>
39. **NON-TECHNICAL SPECIFICATIONS (DIVISION 1)** - http://facilities.ufl.edu/forms/contracts/Div1_NonTech_Specs_JULY_2017.pdf
40. **UF DESIGN AND CONSTRUCTION STANDARDS** - <http://facilities.ufl.edu/forms/dcs.html>

END OF SECTION

REQUIREMENTS FOR FEMA PUBLIC ASSISTANCE PROGRAM PROCUREMENT

The terms of this section are considered part of this solicitation and are applicable for projects/work that may be reimbursed through the Federal Emergency Management Agency (FEMA) Public Assistant Program. In the event of a conflict in terms, the terms of this section will control.

1. Termination.

- a. Termination for Convenience. The Agreement may be terminated by UF without cause upon no less than thirty (30) days written notice.
- b. Termination for Cause. Each term and condition of the Agreement is material and any breach or default by either party in the performance of each such term and condition will be a material breach or default of the Agreement. Either party may terminate the Agreement in the event the other party materially breaches or defaults in the performance of any of its obligations hereunder, and such default continues for thirty (30) days after written notice thereof is provided to the breaching party by the non-breaching party. Any termination will become effective at the end of such thirty (30) day period unless the breaching party cures any such breach or default prior to the expiration of such period.
- c. Administration of Termination. All written notices must be delivered by certified mail, return receipt requested, or in person with proof of delivery. In case of termination under the Agreement, only fees for Services rendered by the Vendor through the date of termination, if any, will be due and payable, and all work in progress will become property of UF and will be turned over promptly by the Vendor. Upon receipt of written notice of termination, up until the date of termination, the Vendor will make reasonable efforts to limit the incursion of additional fees and perform only those Services necessary for the timely delivery of work in progress to UF and/or to correct a material breach or default, as applicable. The Parties will not be relieved of the duty to perform their obligations up to and including the date of termination. A termination penalty may not be charged against UF.

2. Equal Opportunity. If the Services provided under the Agreement include construction, then the Vendor agrees as follows:

- a. The Vendor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Vendor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Vendor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- b. The Vendor will, in all solicitations or advertisements for employees placed by or on behalf of the Vendor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
- c. The Vendor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Vendor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- d. The Vendor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- e. The Vendor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- f. In the event of the Vendor's noncompliance with the nondiscrimination clauses of the Agreement or with any of the said rules, regulations, or orders, the Agreement may be canceled, terminated, or suspended in whole or in part and the Vendor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- g. The Vendor will include the portion of the sentence immediately preceding paragraph (a) and the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24,

NOTE: ANY AND ALL SPECIAL CONDITIONS AND SPECIFICATIONS ATTACHED HERETO WHICH VARY FROM THE GENERAL CONDITIONS SHALL HAVE PRECEDENCE.

1965, so that such provisions will be binding upon each subcontractor or vendor. The Vendor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event Vendor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction by the administering agency the Vendor may request the United States to enter into such litigation to protect the interests of the United States.

3. **Davis-Bacon Act.** If the Agreement NOT TO EXCEED amount is in excess of Two Thousand & 00/100 Dollars (\$2,000.00) and Services include construction, then the Vendor must comply with the Davis-Bacon Act (40 U.S.C. § 3141-3144 and 3146-3148) as supplemented by Department of Labor regulations at 29 C.F.R. Part 5 (Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction).
4. **Compliance with Copeland “Anti-Kickback” Act.** If the Agreement NOT TO EXCEED amount is in excess of Two Thousand & 00/100 Dollars (\$2,000.00) and Services include construction, then the Vendor agrees as follows:
 - a. Contractor. The Vendor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into the Agreement.
 - b. Subcontracts. The Vendor shall insert in any subcontracts the clause above and such other clauses as FEMA may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Vendor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses.
 - c. Breach. A breach of the contract clauses above may be grounds for termination of the Agreement, and for debarment of Vendor and/or subcontractor(s), if any, as a contractor and subcontractor as provided in 29 C.F.R. § 5.12.
5. **Compliance with the Contract Work Hours and Safety Standards Act.** If the Agreement NOT TO EXCEED amount is in excess of One Hundred Thousand & 00/100 Dollars (\$100,000.00) and Vendor employs mechanics or laborers, then Vendor agrees as follows:
 - a. Overtime Requirements. The Vendor and their subcontractor(s), if any, providing Services under the Agreement which may require or involve the employment of laborers or mechanics will not require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty (40) hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times (1 ½) the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek.
 - b. Violation; Liability for Unpaid Wages; Liquidated Damages. In the event of any violation of the clause set forth in paragraph (a) of this section the Vendor and their subcontractor(s), if any, responsible therefor shall be liable for the unpaid wages. In addition, such Vendor and their subcontractor(s), if any, shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a) of this section.
 - c. Withholding for Unpaid Wages and Liquidated Damages. FEMA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Vendor and/or subcontractor(s), if any, under any such contract or any other Federal contract with UF, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by UF, such sums as may be determined to be necessary to satisfy any liabilities of Vendor and/or subcontractor(s), if any, for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b) of this section.
 - d. Subcontracts. The Vendor and subcontractor(s), if any, shall insert in any subcontracts the clauses set forth in paragraph (a) through (c) of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Vendor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a) through (d) of this section.
6. **Clean Air Act and the Federal Water Pollution Control Act.** If the Agreement NOT TO EXCEED amount is in excess of One Hundred Fifty Thousand & 00/100 Dollars (\$150,000.00), then the Vendor agrees as follows:
 - a. Clean Air Act.
 - i. Vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

- ii. Vendor agrees to report each violation to the (name of the state agency or local or Indian tribal government) and understands and agrees that the (name of the state agency or local or Indian tribal government) will, in turn, report each violation as required to assure notification to the (name of recipient), Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
 - iii. Vendor agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FEMA.
- b. **Federal Water Pollution Control Act.**
- i. Vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
 - ii. Vendor agrees to report each violation to UF and understands and agrees that UF will, in turn, report each violation as required to assure notification to Federal Emergency Management Agency and the appropriate Environmental Protection Agency Regional Office.
 - iii. Vendor agrees to include these requirements in each subcontract exceeding One Hundred Thousand & 00/100 Dollars (\$100,000) financed in whole or in part with Federal assistance provided by FEMA.
7. **Energy Policy and Conservation.** Vendor will comply with the Energy Policy and Conservation Act (P.L. 94-163; 42 U.S.C. § 6201-6422), and Florida's State Energy Management Plan adopted pursuant to § 255.257, F.S.
8. **Suspension and Debarment.**
- a. If the Agreement is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000, then the Vendor hereby certifies that neither the Vendor, its principals (defined at 2 C.F.R. § 180.995), nor its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
 - b. The Vendor must comply with 2 C.P.R. pt. 180, subpart C and 2 C.P.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transactions with subcontractors and/or suppliers.
 - c. This certification is a material representation of fact relied upon by UF. If it is later determined that the Vendor did not comply with 2 C.P.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the State of Florida and UF, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
 - d. The Vendor agrees to comply with the requirements of 2 C.P.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C throughout the period of the Agreement. The Vendor further agrees to include a provision requiring such compliance in its lower tier covered transactions with subcontractor and/or suppliers.
9. **Byrd Anti-Lobbying Amendment.** If the Agreement NOT TO EXCEED amount is One Hundred Thousand & 00/100 Dollars (\$100,000) or more, then Vendor shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.
10. **Procurement of Recovered/Recycled Materials.**
- a. In the performance of the Agreement, Vendor shall make maximum use of products containing recovered materials that are EPA designated items unless the product cannot be acquired:
 - i. Competitively within a timeframe providing for compliance with the contract performance schedule;
 - ii. Meeting contract performance requirements; or,
 - iii. At a reasonable price.
- Information about this requirement is available at EPA's Comprehensive Procurement Guidelines website, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>. The list of EPA-designate items is available at <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program#products>.

END OF SECTION

SUMMARY OF THE WORK

PART 1 - GENERAL

1.1 RELATED SECTIONS:

Documents affecting the work of this Section include, but are not necessarily limited to, the General Conditions, the Supplementary Conditions, and other Sections in Division 1 of these Specifications.

1.2 DESCRIPTION OF WORK INCLUDED:

The work includes:

The scope of this work is to provide a twelve-month agreement for underground construction services with the University of Florida effective November 1, 2019 through October 31, 2020. The agreement shall include the right of renewal upon mutual consent for four (4) additional one (1) year periods.

The scope of services to be provided include machine and hand trenching, pushing / boring under or saw cutting of asphalt, concrete surfaces (sidewalks, streets, road ways, etc.), machine or hand digging splice/test holes, laying PVC conduit or other pipes for utility services, placing telecommunications cabling and fiber optic cables, termination of telecommunications cabling and fiber optics, constructing above ground communications cabinets and larger Prefab vaults, placement of Blue light Emergency telephone units and associated concrete foundations, installation of related electrical, piping, sanitary or mechanical work and other work underground services related work.

The location of the work to be provided by the Contractor will largely be confined to the University of Florida main campus. The size of each project will vary from directing the Contractor to provide a singular splice pit, a trench a few feet in length to a conduit structure thousands of feet in length with many man / hand holes. All services shall be performed on an as needed basis.

Special Note: The University of Florida has an exceptionally high concentration of underground utilities which include a very extensive steam and chilled water distribution system. Along with active underground utilities, there are abandoned conduit, pipe and other structures. The contractor must use precautionary measures to prevent damage to the active systems. Adjustments in the trench depth, placement and width in the process of working alongside, under and avoiding these activities or other obstacles is considered incidental by the University. Therefore, the contractor shall bear this in mind when responding to the price schedule.

Additionally, the University of Florida campus has an exceptionally high concentration of pedestrians, bicycles, and vehicular traffic. Precautionary measures that the Contractor must take in protecting the project work, as well as protecting pedestrians, is again considered by the University as incidental to the work of this agreement.

References to Architect/Engineer in the contract documents shall be either a UF Telecommunications representative and/or the UF Project Manager for the designated project. For the purposes of the bidding process the Architect / Engineer shall be:

John Madey
Associate Director
UFIT Telecommunications
Tel: 352.273.1113
Email: jmadey@ufl.edu

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION 02224 - ENCASEMENT

1.0 PART 1 - GENERAL

1.1 SCOPE OF SECTION:

Steel casing provides an effective housing for underground utilities because it can be installed without interference to traffic. The preferred method of installing steel casing pipes is simultaneous boring and jacking.

1.2 ENCASEMENT:

1.2.1 Pipe used as casing pipe shall be new welded steel pipe. The pipe shall conform to ASTM specifications A139, Grade B, and have minimum yield strength of 35,000 pounds per square inch. The Underground Services Contractor shall leave enough clearance between the top of the conduit formation and the upper arch of the casing pipe.

1.2.2 Excavating the earth face in front of the casing by means of a water jet, or the use of water to lubricate the exterior of the casing pipe will not be permitted.

1.2.3 The diameter of the bored hole must not exceed the outside diameter of the casing pipe by more than one (1) inch. If for any reason the bore cannot be completed, the casing must be abandoned in place and filled with concrete.

1.2.4 All soil augured from the casing pipe should be removed from the jacking pit, leaving only undisturbed earth. Back fill both the jacking pit and target pit with well compacted granular material (processed stone or gravel) to the elevation of the conduit. The back-fill material shall be placed in lifts of no more than 6 inches and each lift shall be mechanically compacted. Processed stone or gravel of the following are acceptable for this purpose:

1.2.4.1 CLASS I: Angular $\frac{3}{4}$ inch to $\frac{1}{4}$ inch graded stone

1.2.4.2 CLASS II: Coarse sands and gravel with maximum particle $\frac{3}{4}$ inch

END OF SECTION

SECTION 030000 - CONCRETE

1.0 PART 1 – GENERAL

1.1 SCOPE OF SECTION:

This section contains the University requirements for the use of exposed concrete finishes and slabs on grade.

1.2 Refer to UF Design and Construction Standards:

1.2.1 Section 030000 Concrete: <http://facilities.ufl.edu/forms/dcs/030000.pdf>

END OF SECTION

SECTION 031000 – CAST-IN-PLACE CONCRETE

1.0 PART 1 - GENERAL

1.1 SCOPE OF SECTION:

The Underground Services Contractor shall provide work consisting of all labor, materials, equipment, supervision and other items incidental to provide cast-in-place concrete, including formwork and reinforcing as specified herein and as needed for a complete and proper installation. This section pertains to the installation of the prefab concrete vaults listed in the unit pricing section.

1.2 SUBMITTALS:

1.2.1 Submit to the Owner, four complete copies of mix design for concrete, prepared by concrete supplier.

1.2.2 Submit to the Owner, four complete copies of Shop Drawings for concrete reinforcement and welded wire fabric.

1.3 QUALITY ASSURANCE:

1.3.1 Use adequate numbers of skilled workers who are thoroughly trained and experienced with the necessary skills to perform the work.

1.3.2 Comply with "Specifications for Structural Concrete for Buildings" ACI 301, except as may be modified herein.

2.0 PART 2 – PRODUCTS

2.1 FORMS:

Design, erect, support, brace and maintain formwork so it will safely support all loads which might be applied until such loads can be supported safely by the concrete structure.

Construct forms to the exact sizes, shapes, lines and dimensions shown, as required to obtain accurate alignment, location, grade and level and plumb work in the finished structure.

2.2 REINFORCEMENT:

2.2.1 Reinforcement shall comply with the following minimum standards:

2.2.1.1 Bars: ASTM A615, grade 60, deformed bars

2.2.1.2 Welded Wire Fabric: ASTM A185

2.2.1.3 Bending: comply with ACI 318

2.2.2 Fabricate reinforcing to the required shapes and dimensions in accordance with standard practices outlined in the CRSI "Manual of Standard Practices".

2.3 CONCRETE:

Concrete shall comply with the minimum following standards:

2.3.1 Portland Cement: ASTM C150, type I or II

2.3.2 Aggregate, general: ASTM C30, uniformly graded and clean

2.3.3 Coarse: crushed rock or washed gravel with minimum size between $\frac{3}{4}$ inch and 1-1/2 inch with a maximum

size number 4

2.3.4 Fine: natural washed sand, hard and durable grains passing a 3/8 inch screen of which at least 12% shall pass a 50-mesh screen

2.3.5 Water: Clean and potable, free from injurious quantities of oil, alkali, deleterious materials and salts.

2.3.6 Admixtures to be used in concrete may be subject to prior approval by Owner. Manufacturer shall submit design mixes prepared by a quality control supervisor. Design mixes shall show the composition and performance of the concrete has remained the same. All admixtures shall conform to ASTM standards.

2.3.7 Provide concrete with the compressive strengths as required by the design for the scope of work being implemented, minimum shall be 3,000 psi.

3.0 PART 3 – EXECUTION:

3.1 SURFACE CONDITIONS:

Examine the areas and conditions under which the work shall be performed. Correct conditions detrimental to timely and proper completion of the work.

3.2 REINFORCING:

Comply with the following as well as specified standards:

3.2.1 Clean reinforcement and remove loose dust, rust, mill scale, earth and other materials which reduce bond with concrete.

3.2.2 Position, support and secure reinforcement against displacement by forms, construction or concrete placement operations.

3.2.3 Place reinforcement to obtain the required coverage for concrete placement. Provide minimum 1-1/2 inch of cover on reinforcing.

3.2.4 Lap bars 40 bar diameters, minimum.

3.2.5 Install WWF in as long lengths as practical, lapping pieces one full mesh minimum.

3.3 MIXING CONCRETE:

Transit mix concrete in accordance with ASTM C94.

Concrete slump shall be as specified by the design requirements for the scope of work being performed. When slump is not specified, a slump of 4 inches, plus or minus 1 inch shall be used.

Concrete must be placed no more than 90 minutes after water is first introduced into the mix.

3.4 PLACING CONCRETE:

Prepare forms and excavations to receive concrete prior to placement. Remove accumulated debris and foreign matter. Remove standing water, mud, and muck. Concrete must be placed in the dry, on firm and structurally sound material. Properly wet or oil wood forms and ensure forms are secured properly. Inspect all reinforcing for proper alignment. Reinforcing shall not be installed after concrete is placed (i.e. "floated in").

Perform concrete placing at such rate that concrete which is being integrated with fresh concrete is still plastic. Deposit concrete as nearly practical to its final location.

Deposit concrete in horizontal layers not deeper than 24 inches.

Consolidate layers of concrete immediately after placement by use of concrete vibrators, supplemented by rodding and tamping. Do not vibrate forms or reinforcement. Do not use vibrators to transport or facilitate movement of concrete in forms.

3.5 CONCRETE FINISHING:

Provide finishes as indicated by design requirements for the scope of work being provided as directed by the UF Project Manager. If finishes are not specified, provide the following finishes at the indicated locations:

- 3.5.1** Scratch Finish to monolithic slab surfaces to receive concrete floor topping of mortar bed.
- 3.5.2** Float Finish to monolithic slab surfaces to be covered with insulation, not exposed to view or to receive other finishes specified elsewhere.
- 3.5.3** Trowel Finish to monolithic slab surfaces exposed to view, to receive carpet, tile, paint, sealers or other thin film finish coatings.
- 3.5.4** Broom Finish to walks, drives, ramps, curbs and other similar pedestrian and vehicular areas. Provide broom finish perpendicular to line of travel.

END OF SECTION

SECTION 033050 – CONCRETE CAP PROTECTION

1.0 PART 1 - GENERAL

1.1 SCOPE OF SECTION:

Occasionally, it would be prudent to provide extra mechanical protection to main line or subsidiary conduits in certain areas of campus (normally any conduit placement in the main part of campus will be provided with extra mechanical protection).

1.2 EXECUTION:

- 1.2.1** The type of protection to be used by the Underground Services Contractor shall be a concrete cap with a minimum thickness of two inches consisting of non-reinforced 2500 psi concrete.
- 1.2.2** There shall be a minimum of 6 inch compacted fill between the top of the conduit to the bottom of the concrete cap. In certain special cases, a direct buried utility service / communications cable would require select back fill material with less abrasive characteristics such as sand.
- 1.2.3** Concrete cap protection shall be used over any conduit formation under paved road surfaces and where the standard 30 inch depth cannot be obtained due to subterranean obstacles.
- 1.2.4** All splice pits left open over night or for several days (depending on coordination with the local utility company) will be barricaded, with caution lights, and a plate placed over the opening. A 1/4 inch steel plate may be used for this purpose. In road openings, only a steel plate with sufficient traffic bearing strength shall be used in addition to the barricades.

END OF SECTION

SECTION 034000 – PRECAST MANHOLES / HANDHOLES

1.0 PART 1 – GENERAL

1.1 SCOPE OF SECTION:

The Underground Services Contractor is encouraged to use precast manholes or handholes wherever possible. Precast manholes or handholes shall be a standard product of the manufacturer and fabricated of concrete in compliance with NEC-70 Article 370-6, 370-18, 370-19 and 370-C.

1.2 EXECUTION:

1.2.1 Handholes must have floors with a hole for a French drain. Manholes must have concrete floors equipped with sumps.

1.2.2 All manholes and handholes shall be equipped with cable racks, pulling eyes, supports and miscellaneous fittings. All metal hardware shall be hot-dipped galvanized.

1.2.3 All manholes and handholes and their associated covers shall be rated traffic bearing, that is, manholes and handholes shall be designed to withstand subsurface water table at a depth of 3-1/2 feet and H20 traffic loading. Pre-cast manhole and handhole designs shall be in accordance with the requirements set forth by the Association of State Highway and Transportation Officials (AASHTO) HB-11th Edition or most current.

This requirement requires reinforcing bars in all floors, roofs and walls (grade 60 reinforcing steel) and 4000 psi concrete.

1.2.4 Generally, all manholes shall be equipped with a 24 inch high collar, 10 inch high frame and 30 inch frame and cover. Preferably the collar should be constructed of brick and mortar. All covers (manhole and handhole covers) shall be stenciled with the utility name it serves and be equipped with a hole or other device for cover extraction. Handhole cover plates shall be constructed of steel with an anti-skid design and traffic bearing.

1.2.5 Typical manhole / handhole sizes to be used at the University of Florida are as follows:

ITEM	SIZE	COLLAR / CHIMNEY TYPE	COVER
HANDHOLE	4' X 4' X 4' HEADROOM	GROUND LINE	TRAFFIC BEARING METAL PLATE
HANDHOLE	4' X 6' X 4' HEADROOM	GROUND LINE	TRAFFIC BEARING METAL PLATE
MANHOLE	6' X 9' X 7' HEADROOM	24 " MINIMUM	30 " TRAFFIC BEARING RING AND COVER
MANHOLE	6' X 12' X 7' HEADROOM	24 " MINIMUM	30 " TRAFFIC BEARING RING AND COVER

END OF SECTION

SECTION 131340 – CONCRETE EQUIPMENT SHELTER

1.0 PART 1 – GENERAL

1.1 SCOPE OF SECTION:

The work consists of furnishing all labor, materials, equipment, supervision and other items incidental for fabrication and installation of a prefabricated, pre-engineered concrete equipment shelter.

1.2 SUBMITTALS:

Submit to the Owner, four complete sets of Shop Drawings showing fabrication, erection and construction details. Shop Drawings shall be provided by shelter manufacturer and shall bear the seal of a professional engineer registered in the State of Florida.

Submittals shall be approved by the UF Project Manager prior to procurement by the Underground Services Contractor. Please note there is an extensive approval process for site selection and may require attendance by the Contractor to committee meetings for approval.

1.3 QUALITY ASSURANCE:

Qualifications: Manufacturer shall have a minimum of five years of experience in the manufacture and installation of precast concrete equipment shelters. Acceptable manufacturers are:

1.3.1 A to Z Precast Concrete Products, Tarpon Springs, FL

1.3.2 Concrete Systems, Inc. Hudson, NH

1.3.3 UNR-Rohn, Peoria, IL

2.0 PART 2 PRODUCTS

2.1 GENERAL:

Manufacturer shall supply their standard materials for construction for which they must meet the minimum requirements listed below.

2.2 MATERIALS:

2.2.1 Concrete shall have a compressive strength of 4,000 psi at 28 days. Mix design shall be lightweight structural concrete, 110-120 lb./cu. Ft. Concrete shall conform to ASTM Designation C320, ASTM Designation C150, ASTM Designation C333.

2.2.2 Reinforcing bars shall be Grade 60 deformed steel bars conforming to ASTM Designation A615.

2.2.3 Welded wire fabric shall conform to ASTM Designation A185.

2.2.4 Admixtures to be used in concrete may be subject to prior approval by the Owner. Manufacturer shall submit design mixes prepared by a quality control supervisor. Design mixes shall show the composition and performance of the concrete has remained the same. All admixtures shall conform to ASTM standards.

2.2.5 Water shall be free from injurious quantities of oil, alkali, deleterious materials and salts. Non-potable water shall not be used.

3.0 PART 3 EXECUTION

3.1 DESIGN REQUIREMENTS:

NOTE: ANY AND ALL SPECIAL CONDITIONS AND SPECIFICATIONS ATTACHED HERETO WHICH VARY FROM THE GENERAL CONDITIONS SHALL HAVE PRECEDENCE.

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Shelter shall be designed to meet the following minimum standards:

- 3.1.1** Roof Load: 50 lbs. per S.F.
- 3.1.2** Floor Live Load: 100 lbs. per S.F.
- 3.1.3** Wind Load: 115 MPH (sustained)
- 3.1.4** Fire Rating: 2 Hour per U.L. and U.B.C. and other applicable federal, state and local codes.
- 3.1.5** Shelter shall be completely sealed to resist dust and water infiltration.
- 3.1.6** Shelter shall be temperature and humidity controlled. Provide minimum 19,000 BTU reverse cycle A/C and heating. System shall be designed and installed at the factory and tested prior to shipment to jobsite.
- 3.1.7** Walls shall be manufacturer's standard design thickness of solid concrete. Hollow core walls will not be accepted. Walls shall be cast in one piece to minimize joints. All joints shall be sealed with a compressible, resilient sealant. All wall-to-wall seals shall be internal.
- 3.1.8** Roof shall have a minimum slope of 1/4 inch per foot.
- 3.1.9** All exterior wall surfaces shall be sealed with two coats of Thorosystem's Thoroglaze H roof sealer or equal. Apply in strict accordance with manufacturer's instructions. Exterior roof shall be sealed with two coats of Thorocoat Concrete Sealer or equal and with a top coat of Thorosystem's Thorosheen Sealer or equal. Apply in strict accordance of manufacturer's instructions. Color shall be Pearl Gray and as directed and approved by UF Project Manager.
- 3.1.10** All interior floor surfaces shall be covered with vinyl composition tile.
- 3.1.11** Exterior metal door (18 gage) and frame (16 gage) shall be galvanized steel, primed, painted and installed, complete with threshold at the factory. Frame shall be fully welded not "knock-down" type. Hinges shall be heavy duty, stainless steel, ball bearing type with non-removable pins. Provide door stop and weather-stripping.
- 3.1.12** Lockset shall be institutional grade, panic type device. Device shall be capable of being locked and unlocked by control cylinder on the inside of door. Device shall be 8800 Series xETL with US32D finish and shall have a Sargent 16 function. Lock cylinders shall be removable core, equal to Sargent #142 mortise and #134 rim. Cylinder shall be supplied by the PPD Key Department. The Contractor shall install.
- 3.1.13** Walls and roof shall have a minimum insulation value of R-12.
- 3.1.14** Interior wall section shall be foamboard insulation covered by 3/4 inch plywood covered by fiberglass reinforced plastic sheets. Furring strips shall be installed on minimum 24 inch centers. Provide solid blocking for factory installed accessories. Plastic joint or corner trim shall be installed at all panel joints. Floor to wall joints shall receive vinyl or rubber cove base.
- 3.1.15** Interior roof section shall be foamboard insulation covered by 3/4 inch plywood, covered by fiberglass reinforced plastic sheets. Plastic joint or corner trim shall be installed at all panel joints.
- 3.1.16** Shelter shall have a cast in permanent lifting devices with removable lifting rings or other devices. These devices shall allow the shelter to be lifted while completely assembled and shall be located in a manner to allow level lifting. Any lifting rings or other devices shall be furnished to the Owner at substantial completion for the work provided.
- 3.1.17** Shelter electrical requirements shall consist of the manufacturer's standard components for the following equipment (unless otherwise specified):

NOTE: ANY AND ALL SPECIAL CONDITIONS AND SPECIFICATIONS ATTACHED HERETO WHICH VARY FROM THE GENERAL CONDITIONS SHALL HAVE PRECEDENCE.

- 3.1.17.1** 200 Amp load center, 120/208 volt, 3 phase with cover and 30 positions.
- 3.1.17.2** Exterior mount fused Disconnect Switch – 200 Amp, 240-volt, 3 phase with RK fuses.
- 3.1.17.3** Copper ground bus bar with ground rod kit.
- 3.1.17.4** 12-inch continuous ladder type cable racks.
- 3.1.17.5** Lightning arrestor system, 3 phase
- 3.1.17.6** Interior fluorescent light fixtures with two 40-watt bulbs and diffuser. Provide switch adjacent to door.
- 3.1.17.7** Exterior light: 70-watt HPS with photocell.
- 3.1.17.8** Interior, 20 amp grounded duplex outlets.
- 3.1.17.9** Exterior, 20 amp grounded waterproof duplex outlet.
- 3.1.18** Provide block-out in floor for conduit. All penetrations through shelter shall be tightly sealed with non-shrink grout.
- 3.1.19** All installation, equipment and wiring shall conform to the latest edition of the NEC. Provide 4 sets of product literature for all specified equipment.

END OF SECTION

SECTION 310000 - EARTHWORK

1.0 PART 1 - GENERAL

1.1 SCOPE OF SECTION:

The work consists of furnishing all labor, materials, equipment, supervision and other items incidental for excavation, backfilling and compaction of footings, trenches and miscellaneous grading as required by the project and for prefabricated vaults.

Trenching shall be performed by hand wherever the possibility of encountering obstacles or any existing utility lines. The Underground Services Contractor will be totally responsible to ensure that no utility or service interruptions shall be caused and that no existing utilities or obstructions will prohibit installations of service under this contract at proper grade and location.

1.2 Refer to UF Design and Construction Standards:

1.2.1 Section 310000 Earthwork: <http://facilities.ufl.edu/forms/dcs/310000.pdf>

END OF SECTION

SECTION 321000 – BASES, BALLASTS, AND PAVING

1.0 PART 1 - GENERAL

1.1 SCOPE OF SECTION:

The Underground Services Contractor shall follow the usual practices of the Florida Department of Transportation for work similar character and extent and as noted below. The Contractor shall adequately and fully protect any and all parts of their work against damage until completed and accepted by the Owner for maintenance. Damages thereto shall be properly repaired by the Contractor at no additional expense to the Owner. The Contractor shall provide temporary barricades, properly lighted, to keep traffic off the work area through the duration of the contracted work. Where reference is made to the "Engineer", the appropriate representative shall be the UF Project Manager or designated owner's representative.

1.2 Refer to UF Design and Construction Standards:

1.2.1 Section 321000 Bases, Ballasts and Paving: <http://facilities.ufl.edu/forms/dcs/321000.pdf>

END OF SECTION

SECTION 328000 - IRRIGATION

1.0 PART 1 – GENERAL

1.1 SCOPE OF SECTION:

This section contains the requirements relating to transmission and distribution systems for irrigation water, except, the requirements for potable water transmission lines used for providing irrigation water are described in Section 331000.

1.2 Refer to UF Design and Construction Standards:

1.2.1 Section 328000 Irrigation: <http://facilities.ufl.edu/forms/dcs/328000.pdf>

END OF SECTION

SECTION 329000 - LANDSCAPING

1.0 PART 1 – GENERAL

1.1 SCOPE OF SECTION:

This section contains the requirements relating to lawns, trees, shrubs, and ground covers including protection of landscaping during construction, design and establishment of new landscaping and tree removal policies.

1.2 Refer to UF Design and Construction Standards:

1.2.1 Section 329000 Planting: <http://facilities.ufl.edu/forms/dcs/329000.pdf>

END OF SECTION

SECTION 330000 - UTILITIES

1.0 PART 1 - GENERAL

1.1 SCOPE OF SECTION:

This section contains the requirements regarding utility piping of various types of material, including fittings and accessories; requirements pertaining to systems for the transmission and distribution of water; requirements pertaining to systems for the transmission and distribution of fuel (gas and oil); requirements pertaining to piping and structures for collecting and transmitting wastewater and storm water including wastewater lift stations and force mains (refer to UF Design and Construction Standards Section 010000 General Requirements, 1.6 Utility Design, for requirements on incorporating Low Impact Development (LID) into the site design).

1.2 Refer to UF Design and Construction Standards:

1.2.1 Division 33 – Utilities

1.2.1.1 Section 330900 Utilities Metering: <http://facilities.ufl.edu/forms/dcs/330900.pdf>

1.2.1.2 Section 331000 Water Utilities: <http://facilities.ufl.edu/forms/dcs/331000.pdf>

1.2.1.3 Section 332000 Wells: <http://facilities.ufl.edu/forms/dcs/332000.pdf>

1.2.1.4 Section 333000 Sanitary Sewerage Utilities: <http://facilities.ufl.edu/forms/dcs/333000.pdf>

1.2.1.5 Section 334000 Storm Drainage Utilities: <http://facilities.ufl.edu/forms/dcs/334000.pdf>

1.2.1.6 Section 335000 Fuel Distribution Utilities: <http://facilities.ufl.edu/forms/dcs/335000.pdf>

1.2.1.7 Section 336000 Hydronic & Steam Energy Utilities: <http://facilities.ufl.edu/forms/dcs/336000.pdf>

1.2.1.8 Section 337000 Electric Utilities: <http://facilities.ufl.edu/forms/dcs/337000.pdf>

END OF SECTION

UNIT PRICE SCHEDULE

All unit prices must be responded to. If a unit price is for no charge, then that unit price shall be entered as N/C. The Underground Services Contractor (also referred to as the Contractor) is responsible for contacting and scheduling all parties affected by work or construction. The University of Florida's activities are very important, and contractors must schedule their work to accommodate those activities. The contractor will not be compensated for any inconvenience caused by UF activities. The contractor must follow Physical Plant Division's established Dig Permit process and acquire the appropriate approvals before any digging is performed. Depending on the scope of work the Dig Permit process can be very arduous and demanding.

The following are the unit prices to bid on:

I. TRENCHING

Generally, "unit prices" for machine trenching will be appreciably lower than those for hand or backhoe trenching. "Unit prices" will apply when digging conditions are reasonable and ready in that there are no obstacles (farm implements, immobilized vehicles, etc.) in the trench route, no right-of-way brush clearing to be done, etc. The "unit prices" will apply regardless of how many workers are employed to hand dig, supervisors required, trucks, lighting, protective fencing, barricades, etc. or of the type and size of trencher or backhoe used to open the trench. "Unit prices" include the machinery, trucks and/or manpower to perform the trenching and backfill operation. Unit prices for trenching will not include conduit or cable placement costs. "Unit prices" for machine and hand trenching shall apply to all soil conditions, grass, bare dirt or gravel, regardless of the method required for trenching such as shoring, proctors, density tests or special trenching equipment. Hand trenching or machine trenching shall provide a trench width up to 12 inches and backhoe trenching up to 24 inches. The depth of the trenches is determined by measurement from bottom of trench to ground line. Amount of cover in inches is determined by measurement from top of conduit, pipe or cable to ground line. See Section 310000 Earthwork for trench specifications.

TRENCHING UNIT PRICING: See Schedule in Appendix A

II. CONDUIT / PIPE PLACEMENT

The Contractor shall be compensated at a "Unit Price" per foot for each trenched foot of conduit / pipe placed. These "Unit Price" apply for labor for handling and placing conduit / pipe regardless of how many workers, supervisors, trucks or equipment needed to perform the work. Pricing does not include any materials such as conduit, concrete, etc. The "Unit Price" per foot of trenched foot of conduit placed applies to all sizes of conduit.

CONDUIT / PIPE PLACEMENT UNIT PRICING: See Schedule in Appendix A. The price schedule allows for number of single bore conduit placed, quantity of linear trench feet and depth of trench.

III. MECHANICAL PROTECTION CHARGES

In certain cases, it will be desirable to add mechanical protection above newly place underground utilities. See Section 033050 for specifications for the concrete protection policy. "Unit Prices" will include all labor required regardless of how many workers, supervisors, trucks or equipment needed to perform the work. The "Unit Prices" for concrete shall allow for the width of trench and cover required.

CONCRETE CAP PROTECTION UNIT PRICING: See pricing schedule in Appendix A

IV. MATERIAL COST

Contractor and the University both agree that for conduit and piping material, the University will be billed on a cost-plus basis. Contractor agrees to bill the University at actual costs plus no more than 15% profit for conduit and piping materials furnished by the Contractor. The Contractor must provide appropriate documentation of the actual cost incurred when billing the University. Contractor must provide proof of competitive pricing on all material costs and documentation shall accompany the invoice and be approved by UF's Project Manager.

V. SPLICE PITS

NOTE: ANY AND ALL SPECIAL CONDITIONS AND SPECIFICATIONS ATTACHED HERETO WHICH VARY FROM THE GENERAL CONDITIONS SHALL HAVE PRECEDENCE.

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“Unit Prices” shall apply to per cubic foot of excavated material and also for the eventual backfill operation. “Unit Prices” shall be provided for the machine and hand-dig regardless of size of machine required, number of workers, transportation, supervision, etc. Because of coordination with the local utility company, barricades, lights, and plates to cover pit openings shall be required when pits remain open overnight or for several days.

Hand excavation will be required in locating existing cables or other utilities and when machine excavation would be impractical due to other subsurface utilities. “Unit Prices” will apply for hand digging either test holes for locating the underground utility and the actual pit excavation volume.

SPLICE PIT UNIT PRICING: See pricing schedule in Appendix A.

VI. PULL TAPE

“Unit Prices” per conduit foot for furnishing and placing sequentially marked (footage or metric) metalized 1200 tensile strength tape.

PULL TAPE UNIT PRICING: See pricing schedule in Appendix A

VII. RODDING EXISTING CONDUIT

“Unit Prices” per conduit foot for rodding existing conduit.

RODDING EXISTING CONDUIT UNIT PRICING: See pricing schedule in Appendix A

VIII. CLEANING CONDUIT

A mandrel not less than ten (10) inches long, having a cross section approximately one-fourth (1/4) inch less than the inside cross section of the conduit shall be pulled through each conduit after which a brush with stiff bristles shall be pulled through. “Unit Prices” per conduit foot.

CLEANING CONDUIT UNIT PRICING: See pricing schedule in Appendix A

IX. CABLE PLACEMENT

“Unit Prices” per trench foot for cable placement.

CABLE PLACEMENT UNIT PRICING: See price schedule in Appendix A

X. IDENTIFICATION TAPE

“Unit Prices” per trench foot for furnishing and placement of identification tape as specified herein: All underground utilities and piping shall have identifying marker tape. All nonmetallic pipe installed underground (except pipe containing electrical lines) shall have a tracer wire attached to the pipe. Refer to other sections for the requirements relating to the identification of underground utilities and piping.

Provide identifying metalized plastic warning tape above utility conduit / piping. Warning tape shall be place 6 inch minimum and 18 inch maximum above the utility.

IDENTIFICATION TAPE UNIT PRICING: See price schedule in Appendix A

XI. TUNNELING AND BORING

The length of bore or tunnel is measured from the wall of the bore pit to the wall of the receive pit. The tunneling and boring prices shall include the cost of excavation and backfilling of bore and receive pit. Jack and bore will conform to Florida DOT construction standards.

TUNNELING AND BORING UNIT PRICING: See price schedule in Appendix A and note item description for pricing configurations.

XII. HANDHOLES AND MAN-HOLES

Furnish and install handholes and manholes that meet the H.20 traffic bearing requirements as specified in Section 034000. The "Unit Prices" shall include all labor, excavation, materials and hardware. Each handhole / manhole shall be equipped with cable racks pulling eyes, sumps, collars and traffic bearing ring and covers or steel plate (for handholes).

The "Unit Prices" shall include all labor and materials necessary to terminate the conduit and / or cable through the end walls including sealing the conduit with hydraulic cement regardless of the number of conduit.

The "Unit Prices" includes pricing provisions for standard size manholes. Occasionally the standard size handhole / manholes will not address the requirement due to unforeseen subsurface obstructions, design requirement or specific underground utility needs. In this case, the University Project Manager will approve a custom design manhole and the Contractor shall provide or construct it and bill the University at actual cost plus no more than 15% profit for time and material. Contractor must provide appropriate documentation of the actual cost incurred when billing the University and University Project Manager shall approve prior to payment.

HANDHOLE AND MANHOLE UNIT PRICING: Refer to pricing schedule in Appendix A

XIII. CORE BORING

Core boring of concrete to include labor and material. "Unit Prices" per diameter of bore in inches.

CORE BORING UNIT PRICING: See price schedule in Appendix A

XIV. PLACE CABLE IN CONDUIT

This price item shall include all labor and materials necessary to place cable in conduit where the conduit length is used for unit pricing not for the amount of cable placed. Any necessary rodding and cleaning shall be charged at the unit pricing listed above for those items. The cabling may be telephone, video (coaxial), fiber optic, etc.

PLACE CABLE IN CONDUIT UNIT PRICING: See price schedule in Appendix A

XV. SURFACE REMOVAL AND RESTORATION

Walkways, driveways, and roadways may be composed of various bases and toppings. It is intended to use the appropriate combination of unit prices for the various bases and toppings removed or restored. The unit prices listed shall be based on the following agreements:

- a. That non-standard thickness may be encountered in surface removal and Underground Services Contractor will be compensated in accordance with the "Unit Price" schedule listed for each 1 inch increment or part thereof for surfaces set forth under ITEMS 171 and 172 and for each standard thickness of concrete or part thereof set forth under ITEMS 173, 174 and 175.
- b. Surfaces shall be restored using standard thickness. Standard thickness for restoring sidewalk is 6 inches. See UF Construction Standards for sidewalk construction.
- c. That the Underground Services Contractor shall be compensated for surface removal regardless of the method (hand or machine).
- d. Removal of sidewalks must be from expansion joint to expansion joint.
- e. That the standard sod for the University is St. Augustine. Use type and variety as approved by UF Project Manager.

- f. That all roads, streets, sidewalks of concrete or asphalt construction must be restored within 72 hours from time of backfilling and compaction.
- g. That all non-paved surfaces (grass, sod, gravel, etc.) must be restored within 7 days of backfilling and compaction.
- h. The "Unit Prices" listed for the ITEMS of surface restoration shall include the cost of labor only from the Underground Services Contractor. The Contractor and University both agree that for restoration materials used, the University will be billed on a cost-plus basis. The Contractor agrees to bill the university at actual cost plus no more than 15% profit for restoration material furnished by the Contractor. The Contractor shall provide appropriate documentation of the actual cost incurred when billing the University and shall be approved by the UF Project Manager prior to payment.

SURFACE REMOVAL AND RESTORATION UNIT PRICING: See price schedule in Appendix A

XVI. SAW CUT

Saw Cut unit pricing for labor only. "Unit Prices" per linear foot.

SAW CUT UNIT PRICING: See price schedule in Appendix A

XVII. MISCELLANEOUS ITEMS

"Unit Prices" per item description.

MISCELLANEOUS ITEMS UNIT PRICING: See price schedule in Appendix A

XVIII. INNERDUCT PLACEMENT

The Underground Services Contractor shall be compensated at a "Unit Price" per foot for each foot of innerduct placed during conduit placement or pulled through existing conduit. These "Unit Prices" apply for handling and placing innerduct regardless of how many workers, supervisors, and trucks or how much equipment is needed to perform the work. The cost of the innerduct material is not included. These "Unit Prices" also apply for any innerduct configuration placed i.e. one innerduct or two innerduct simultaneously or 3, 4 innerducts simultaneously. For example: If the Contractor placed 4 innerducts simultaneously in an existing 4 inch conduit that is 400 feet in length, the cost calculation would be the number of innerducts (4) times the length (400 ft) times the unit price (Item No. 183).

The Underground Services Contractor and the University both agree that for the innerduct material, the University shall be billed on a cost-plus basis. The Contractor agrees to bill the University at actual cost plus no more than 15% profit for innerduct and documentation of the actual cost incurred by him when billing the University and as approved by the UF Project Manager.

INNERDUCT PLACEMENT UNIT PRICING: See price schedule in Appendix A

XIX. PUMPING, VENTILATING & CLEANING MANHOLES

The University may want the Underground Services Contractor to pump accumulated water out of a manhole of any size and ventilate for 15 minutes. This price item shall include all labor, pumps, blowers and misc. material necessary on a non-maintainable basis (ITEM 184).

Additionally, the University has needs for the Contractor to pump accumulated water out of a manhole of any size and ventilate per Item 184 and then to maintain the useable condition on a per hour basis while AT&T, splicers or other local utilities perform work in the hole. This per hour price shall include all labor, pumps, blowers and miscellaneous material necessary above the Item No. 184 charge.

The University may want the Contractor to clean a manhole or handhole of any size in order to allow work to be performed. This price item will include all labor, pumping, debris removal and miscellaneous materials necessary to accomplish the cleaning task on a per man/handhole basis. Confined space entry procedures required by the

University of Florida and OSHA shall be followed on all work involving manholes and areas defined as a confined space.

PUMPING, VENTILATING & CLEANING MANHOLES UNIT PRICING: See price schedule in Appendix A

XX. BLUE LIGHT PEDESTALS

Blue Light Emergency Phones shall be installed in accordance with the manufacture's requirements (Talk-A-Phone: <http://talkaphone.com>). The freestanding unit shall be mounted onto four bolts that are set in concrete. Standard 3/4 x 24 inch galvanized anchor bolts with galvanized nuts and washers shall be used as supplied. Unit shall mount one-half inch above the concrete to allow air movement. Review installation with UFIT-Telecom project manager prior to installation.

UF typically will purchase the pedestal units from Graybar or similar distributor and have them available at the Physical Plant Division Central Stores for the selected contractor to pick up as directed. These pedestal units are very large and heavy and require lifting equipment to pick up, transport and deliver at the job site and to rise into position on the concrete foundation specially made for the units. These blue light units require a reinforced base. This scope of work shall include all labor and materials to fabricate, install and connect the base's communications and electric power conduits to the trench communications and electric power conduits.

BLUE LIGHT UNIT PRICING: See price schedule in Appendix A

XXI. COMMUNICATIONS CABINET

Communications cabinets provide an above ground cabinet facility for cable terminations and electronic equipment placement. The communications cabinet is mounted on a concrete slab for stability and weed control. The cabinet has hinged doors on both sides for easy access to the internal mounting surfaces. The hinges consist of a continuous hinge using galvanized steel with a stainless-steel pin. The doors are equipped with two 3-point latching mechanisms operated by padlocking handles. The cabinet is made of 12-gauge galvanized steel with a drip-shield top and smooth, seam-free sides which slope front to back to prevent rain from entering the cabinet.

The cabinet is mounted on a 10-inch-thick concrete reinforced pad. Per unit prices shall include all labor, material, transportation, manufacture, supervision, and installation of the cabinets including the concrete pad. For unit pricing costing, use 84 X 48 X 10 INCH reinforced concrete slab, set 4 inches above grade.

COMMUNICATIONS CABINET WITH PAD UNIT PRICING: See pricing schedule in Appendix A

XXII. HOURLY COST ITEMS

These rates and charges apply to work performed by the Underground Services Contractor involving special projects that cannot be adequately priced using the specific "Unit Pricing" listed or for routine work that is complicated by unforeseen events or obstacles.

The Underground Services Contractor shall maintain such full and detailed accounts as may be necessary to substantiate billing rendered under provisions of this exhibit. The University shall be afforded access to all the Contractor's books, financial records, payrolls, correspondence, instructions, receipts, vouchers, memorandum, etc. relating to billing. The Contractor shall preserve all such records for a period of three (3) calendar years after final payments under this contract.

The Underground Services Contractor will not be compensated for transporting work crews. Trucks assigned to work crew for transportation of personnel are to be paid for on the basis of the number of hours that the crew works. Compensation for all other trucks and equipment used by the work crew will be paid for on the basis of the number of hours the truck, vehicle or equipment is actually in use or is available for use as per prior agreement with the University Project Manager. No compensation shall be made to the Contractor for time lost because of lack of equipment or equipment breakdowns or for equipment left on the job site, at the Contractor's discretion, after the University Project Manager advises that the equipment is no longer needed at the job site. The University will compensate the Contractor trucks and equipment needed on the job site at the minimum rate of two (2) hours per day. All prices of trucks and equipment are to include all operating costs. Labor hours for ITEMS 301 through 305 shall be defined as follows:

- a. REGULAR TIME: 8:00 AM through 5:00 PM, Monday – Friday
- b. OVERTIME: 5:00 PM – 8:00 AM, Monday – Friday; 5:00 PM to Midnight Friday, Saturday & Sunday
- c. Work schedule may be adjusted as directed or approved by the UF Project Manager.

HOURLY COST ITEMS UNIT PRICING: See pricing schedule in Appendix A

XXIII. FIBER AND TELECOMMUNICATIONS SPLICING AND TERMINATIONS:

Frequently the University requires the Contractor to furnish and place telecommunications cabling and fiber in conduit. The per-unit cost for pulling in the cable is covered by ITEMS 167, 168 and 169. The fiber optic cables that are used by UF include both single mode and multi-mode (FDDI compliant) fibers in a loose tube, high density sheath, jelly filled, and non-metallic construction. These cables could be of separate sheaths or composite construction. Telecommunications cabling is 24 or 22 AWG and either air core or waterproof filled cable. These cables will require polishing, termination and splicing. The termination hardware could either be rack or wall mounted as specified by the project requirements and/or UF Project Manager. Entrance telecommunications cabling requires surge suppression hardware or lightning protection terminations. The University will direct the Contractor to use require ST or SC connectors for fiber terminations and either 66 type or 110 type hardware for copper terminations. The Contractor will provide termination and splicing services that include labor and material necessary to polish and terminate fiber [ST or SC connectors, LIUs (either rack or wall mount)], racks (either wall or free standing), splice cases, fiber jumper management hardware, and all necessary miscellaneous material for turn-key work and to shoot the fiber to obtain dB losses between splices and termination on a per strand basis.

The Contractor may be directed not to terminate all the strands of a fiber cable but to place an LIU with enough ports (ST or SC sleeves) to support all terminations. The Contractor will provide termination and splicing service that include all work necessary to splice or terminate copper pairs, splice cases, 66-type or 110 type hardware (rack or wall mount), racks either wall or free standing and jumper/wire management hardware on a per pair basis. The per unit rates will not include lightning protectors with copper telephone cable work. The fiber termination process includes buffering the fiber strands. All fiber optic connectors, termination hardware, splicing hardware, splicing cases, lighting protectors and fiber cable must be approved by the UF Project Manager / Telecommunications prior to ordering and installation. All work for this pricing portion is to be above ground for communications cabinets, vaults and Telecommunications Rooms. All work shall be in accordance with UF Telecommunication Standards: (https://net-services.ufl.edu/library/pdf/Telecom_Standards_MARCH_2011.pdf). Telecommunications Standards labeling and testing must be followed.

SPLICING AND TERMINATIONS UNIT PRICING: See pricing schedule in Appendix A

XXIV. PREFAB EQUIPMENT SHELTERS OR COMMUNICATION VAULTS

The University uses Prefabricated Communication Vaults to house voice, video and data communications and electronics equipment. These units include air-conditioning equipment, and exterior light, a door, and internal furnishings as outlined in the specification document. The University prefers the brick concrete exterior finish to match existing facilities on campus. The unit pricing shall include all labor, the prefab building, foundation, preparation, and miscellaneous materials necessary for a turn-key installation of the immediate structure. The unit pricing will not include the cost of extending electrical power to the structure. The price will include the placement of electrical and communications conduits up to 5 feet from the structure.

PREFABRIATED EQUIPMENT/COMMUNICATIONS VAULT UNIT PRICING: See pricing schedule listed in Appendix A.

END OF SECTION