## TEXAS WOMAN'S UNIVERSITY

#### **Denton Campus**

# REQUEST FOR OFFER

# Design and Installation of Cabling Infrastructure Classroom Faculty Office Tower

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#### 1.00 INTRODUCTION

Texas Woman's University (TWU) is seeking offers from qualified Firms to provide a complete data network and optical fiber cabling infrastructure system for the TWU Classroom Faculty Office Tower located in Denton, Texas. Please refer to the System Cost Sheet 1 for the details of the project. The building consists of thirteen (13) floors. A new Intermediate Distribution Frame (IDF) will be built out on each floor. This project will include but is not limited to the following: IDF build-outs; horizontal UTP data cabling/termination at both ends/testing; installation of a copper feeder cable and fiber optic cable(s); and re-termination of existing voice jacks. Upon completion of installing the new data network, all of the abandoned data network cables for the current (old) existing data network infrastructure will be removed by the Firm. [NOTICE: TWU is a 568A wired facility.]

#### 1.01 DEFINITIONS

- □ "RFO" means Request For Offer.
- □ "Firm" means a company, corporation, group, or organization that submits, or intends to submit, an offer in response to this RFO.
- "Selected Firm" or "Contractor" means a company, corporation, group, or organization that is awarded a Contract and enters into a formal Agreement with TWU under this RFO.
- "Agreement" means the written agreement (contract) resulting from this RFO executed by TWU and the Firm.
- "Project" means the work described by this Request for Offer.
- "Must", "will", "shall", or "mandatory" means a condition that must be met in order for it to satisfy a requirement of this RFO.
- "Premise" or "site" or "on-site" means the TWU building location.
- □ "OFE" means Owner Furnished (or existing) Equipment.
- "Services" means labor, resources and materials provided by the Firm or Service Provider as required to perform the work under the Agreement as executed.
- □ "Should" or "desirable" means a requirement having a significant degree of importance to the objectives of the Request for Offer.
- "TWU", "Owner", or "the University" means Texas Woman's University.

#### 1.02 PURPOSE

This RFO will result in the selection of a Firm to provide the materials and labor to install/replace/repair structured copper and optical fiber cabling system(s) which will meet the data network infrastructure needs of the University.

Through this Request for Offer, the University seeks to:

- Define and illustrate the scope of work for the Project
- Determine a best value offer and select a Firm to perform the work
- Specify terms and conditions necessary to insure successful completion of the work

#### 1.03 ISSUING OFFICE

This Request for Offer is issued by TWU Purchasing. Any question related to this RFO must be addressed *in writing* to:

Maybelle DeMore, CTP

**Purchasing Supervisor** 

TWU Purchasing

Email: mdemore@twu.edu

Fax: (940) 898-3580

#### 1.04 TECHNICAL and OPERATIONAL INQUIRIES

It is the responsibility of each Firm to inquire about, and to clarify, any requirements of this Request for Offer that are not understood.

Inquiries regarding technical requirements of this RFO will be addressed <u>in writing</u> to the Project Manager:

Larry Jackson

Manager of Telecommunications and Network Infrastructure

TWU Information Technology Services

Email: LJackson@twu.edu

Fax: (940) 898-3631

#### 1.05 PRE-OFFER SITE VISIT

All Firms intending to submit an offer <u>MUST attend one of the following Mandatory Pre-Offer</u> <u>Meetings and Site Inspection</u> scheduled on the TWU Denton Campus in the ACT building, Room 601. (Note: please contact the Project Manager listed above to make an appointment.)

Go to <a href="http://www.twu.edu/maps.asp">http://www.twu.edu/maps.asp</a> for map/directions to TWU.

Tuesday April 15, 2008 at 10:00 AM

Or

Tuesday April 15, 2008 at 2:00 PM

Or

Thursday April 17, 2008 at 10:00 AM

Or

Friday April 18, 2008 at 10:00 AM

Or

Friday April 18, 2008 at 2:00 PM

#### 1.06 KEY DATES

Listed below are the important events and the approximate target dates and times by which the events are expected to be completed:

■ RI	FO Issued and Posted to the Texas Market Place	April 11, 2008
■ M	andatory Pre-Bid Meetings / Site Visit	April 15 <sup>th</sup> or April 17 <sup>th</sup> or April 18 <sup>th</sup>
■ Cu	ut-off Date for Questions (5:00 PM)	April 18, 2008
<b>■</b> Of	ffers Due and Opened	May 2, 2008
■ A(	greement/PO Issued	May 9, 2008

#### 1.07 DEADLINE / OPENING DATE and TIME

Responses to this Request for Offer, signed by the Firm's authorized representative, must be received and time-stamped at TWU Purchasing **prior to 2:00 p.m. Central Time, May 2, 2008**. Late offers will not be considered under any circumstances and will be returned unopened.

#### 2.00 SUBMISSION GUIDELINES

In responding to this RFO, Firms must address each of the format requirements detailed in this section in the order shown. Failure to follow this format may be sufficient cause for the rejection and disqualification of the Firm's submission.

#### 2.01 OFFER SUBMISSION

Respondents shall submit one (1) original and one (1) copy of the Offer. Pages should be numbered and contain an organized, paginated table of contents corresponding to the section and pages of the Offer.

Offers should be placed in a separate envelope/package and correctly identified with RFO number and the submitted deadline/opening date and time. If submitting multiple responses, each response should be placed in a separate envelope and correctly identified with RFO number, and the submittal deadline/opening date and time. It is the respondent's responsibility to appropriately mark and deliver the offer to Texas Woman's University by the specified date.

Receipt of all addenda to this RFO should be acknowledged by returning a signed copy of each addendum with the response.

Respondents to this RFO are responsible for all costs of the offer preparation.

Telephone and facsimile offers are not an acceptable response to this RFO.

Offers shall be submitted to Texas Woman's University by one of the following methods:

U.S. MAIL	HAND DELIVERY	EXPRESS MAIL
Texas Woman's University	Texas Woman's University	Texas Woman's University
Purchasing Department	Purchasing Department	Purchasing Department
P.O. Box 425619	325 Texas Street	304 Administrative Bldg.,
TWU Station	Bralley Annex,	1st Floor
Denton, TX 76204-5619	Room 209	TWU Mail Station
	Denton, TX 76201	Denton, TX 76201

Offers will be opened at 325 Texas Street, Room 210, Denton, Texas. Offers will be received until the date and time established for receipt, then opened.

All submitted offers become the property of TWU after the RFO submittal deadline/opening date. Unless otherwise stated in the proposal, responses submitted shall constitute an offer until a selection is made by Texas Woman's University.

#### 2.02 OFFER CHECKLIST

In order to receive full consideration, the Offer shall be composed of the following documents. TWU reserves the right, in its sole judgment and discretion, to waive minor technicalities and errors in the best interest of the State.

Original bound Offer and one (1) complete bound copy (see 2.03)

- □ Signature Page of RFO (see 2.04)
- □ Cover Letter / Executive Summary (see 2.05)
- □ Historically Under-utilized Business (HUB) Subcontracting Form (see 2.06)
- □ Firm Profile (see 2.07)
- □ Firm Qualifications (see 2.08)
- □ References (see 2.09)
- □ Systems Cost Sheet (see 2.11 and SHEET 1)

#### 2.03 ORIGINAL BOUND OFFER and ONE (1) COMPLETE BOUND COPY

FIRM must provide a copy of the entire RFO package (and any subsequent addenda) to demonstrate that their BID is responsive to the RFO with/without any adds, changes, deletions, or corrections. FIRM will provide TWU with one original and one complete copy.

#### 2.04 SIGNATURE PAGE of RFO

Terms and Conditions cover document.

#### 2.05 COVER LETTER

The Cover Letter shall be no more than one (1) page in the form of a standard business letter, and shall be signed by an individual authorized to legally bind the Firm. The cover letter shall provide a summary of the services to be provided, and the name, telephone and fax number, and e-mail address of a contact person with the authority to answer questions regarding the offer. The letter shall also include the name and phone number of a contact person to be notified regarding contractual issues.

#### 2. 06 HISTORICALLY UNDER-UTILIZED BUSINESS (HUB) SUBCONTRACTING FORM

For total bid amounts in excess of \$100,000: The HUB Subcontracting Form accompanying this RFO must be completed and returned with the Offer or the Offer will be considered Non-Responsive. See also the HUB Forms Library at the Texas Building and Procurement Commission – <a href="http://www.window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan/">http://www.window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan/</a>

#### 2.07 FIRM PROFILE

The profile should be a brief company history including the principals of the Firm, when the Firm was established, and a current statement of finances.

#### 2.08 FIRM QUALIFICATIONS

This summary will include a list of past and present projects of similar scope, a list of the proposed project personnel and a brief description of their qualifications, including the qualifications and experience of the proposed Project Manager.

If the Firm uses the services of a sub-contractor or sub-contractors, and the total bid amount is in excess of \$100,000, the Firm shall identify the sub-contractor; describe the skills and qualifications of the sub-contractor; describe what portions of the Project will be assigned to the sub-contractor (see also HUB Subcontracting Form, Section 2.06).

#### 2.09 FIRM REFERENCES

Firms must supply a minimum of three references complete with client name, contact name and phone number from clients for whom the Firm has successfully completed projects, similar in scope, within the past 48-months.

#### 2.10 PROPOSED PROJECT PLAN

Work will begin upon award of the Purchase Order and conclude within 90 days.

#### 2.11 SYSTEMS COSTS

The Firm shall submit the Systems Cost Sheet (SHEET 1) listing lump sum costs for all components, materials, equipment, labor, labeling, testing, and associated incidentals to install/replace/repair a structured copper cabling system(s) which will meet the voice, data, and video communication needs of the university. Note: The Firm will list a lump sum total for any "Other" costs deemed necessary by the Firm and detail those costs on a separate attached sheet (if necessary).

#### 2.12 ADDITIONAL MATERIALS

Firms must include signed copies of all addenda. Firms may include additional materials such as a project schedule, figures, schematics, and drawings, technological innovations and recommendations, and other project related documentation.

#### 2.13 CONFIDENTIALITY

All Firm-supplied information regarding the items and conditions, financial and/or technical aspects of the Firm's Offer, which in the firm's opinion are of a proprietary or confidential nature should be clearly marked "Confidential" or "Proprietary" on each relevant item or page. All information marked confidential by the Firm will be held in strict confidence, and shall not be revealed directly or indirectly to any other party other than TWU representatives or agents directly involved in the Project without the consent of the Firm.

Similarly, information pertaining to TWU obtained by a Firm as a result of its participation in relation to this Request for Offer is confidential and must not be disclosed unless authorized by the University.

#### 2.14 INELIGIBILITY of OFFERS

It is essential that the Firm thoroughly address and complete each requirement identified in this RFO, in the order and format indicated.

Partial or conditional offers may be declared "incomplete" and non-responsive.

Offers that are improperly signed, illegible, obscure, or contain arithmetical errors, erasures, alterations, or irregularities of any kind may be deemed "incomplete" and non-responsive.

#### 2.15 OFFER SIGNING

The offer MUST be completed and executed by a principal, duly authorized to bind contracts on behalf of the Firm.

The Firm's legal name and the capacity in which the signing officer acts shall be against the signature.

Offers that do not contain an authorized signature may be deemed "incomplete" and may not be accepted for evaluation.

#### 2.16 FIRM'S KNOWLEDGE

It is hereby declared and agreed by the Firm that all Offers submitted to TWU by the Firm have been prepared on the basis of its own knowledge of the nature of the work to be performed, the locations of the work to be performed, as well as the general and local conditions and all other such matters which can affect the Firm's performance under any contract agreement between parties that might result from the Firm's offer.

The firm further agrees that it does not rely upon any information given, or on statements made, by unauthorized representatives of TWU with regard to the Firm's Offer of work to be performed.

#### 2.17 WITHDRAWAL CONDITIONS

The Firm may withdraw their Offer at any time prior to the RFO deadline/opening date and time by submitting a written withdrawal letter to the Purchasing Supervisor. Upon receipt of the withdrawal letter, the Offer will remain unopened, where it can clearly be identified that it is an offer submitted by the respective Firm making the request.

#### 2.18 ADDENDA and COPIES of OFFER DOCUMENTS

All addenda relating to this RFO will be posted on-line to the Texas Comptroller of Public Accounts, Electronic State Business Daily – <a href="http://esbd.cpa.state.tx.us/">http://esbd.cpa.state.tx.us/</a>

Additional copies of the Request for Offer documents may be obtained on-line at the same site.

#### 2.19 EXAMINATION of DOCUMENTS

By submitting an offer, the Firm will be held to have personally examined the documents, carefully read the complete RFO, and to have satisfied themselves as to their ability to meet all the conditions attending the execution and successful completion of the Project(s) before the delivery of their Offer, and agree that the Firm will make no claims against the University based on errors, omissions, or misunderstanding of the provisions of the RFO or Agreement.

The Selected Firm is responsible for furnishing fully operational instructional technology systems to University upon completion of the Project(s). Items not specifically listed in this RFO, but required for proper operation of the systems herein described, will be the responsibility of the Selected Firm to provide as part of their specification.

#### 3.00 AWARD PROCESS

#### 3.01 BASIS of SELECTION

TWU shall award a contract to a Respondent whose Offer is considered to provide the best value to the State of Texas, as defined by Texas Government Code, Section 2155.074.

The selection of a Firm shall be based upon evaluation/weighting of the following:

25%

- The past experience of the Firm in similar work, including completion of similar projects over the last 4 years.
- The References from projects which are comparable in scope with this Project.
- The Qualifications of the technical and administrative staff, installation personnel, and sub-contractors.
- The stated financial soundness and capability of the Firm.

15%

The Firm's ability to effectively manage schedules and complete work on time, based on past projects, references, and evaluation of the Proposed Project Plan.

50%

- The proposed Project costs, as per SHEET 1.
- Added value services and materials.

10%

- The Firm's understanding of the Project as evidenced by the appearance and completeness of the submitted offer.
- Any other factors for which TWU, in its sole discretion, may consider appropriate to its evaluation.

#### 3.02 PRIVILEDGE CLAUSE

TWU is not bound to accept the lowest cost offer, or any offer of those submitted; nor is it bound to award to any Firm. Offers will be evaluated against the criteria stated in this RFO. TWU will be under no obligation to receive further information, whether written or oral, from any Firm. If a Firm fails to meet any one or more of the requirements specified in this RFO, TWU may reject that Offer without further evaluation.

The University reserves the right to:

- Cancel this Request for Offer.
- Issue subsequent Request for Offers.
- Remedy errors in the Request for Offer documents
- Seek clarifications from any one or more of the Firm's on any or all aspects of their Offer.
- Solicit best and final offers from all, one, or none of the submitters.
- Award an Agreement in whole or in part as it deems appropriate and in its best interests.
- In its sole and absolute discretion, to accept or reject any Offer that, in the view of TWU, is incomplete or contains exceptions and/or modifications to the terms and conditions of this Request for Offer.

Submission of an Offer indicates Respondent's acceptance of the evaluation criteria and Respondent's recognition that some subjective judgments must be made by the University during the award process.

#### 3.03 AWARD and PURCHASE ORDER

A response to this RFO is an offer to contract with Texas Woman's University based on the terms, conditions and specifications contained in the solicitation. The award will be determined based upon the evaluation criteria specified in the RFO (Section 3.01), and may be contingent upon completion of a formal contract agreement. TWU shall not be obligated to any Firm in any manner until an Agreement has been duly executed, and a purchase order generated and provided. Receipt of a purchase order shall then become the notification to begin work.

This award will be conducted in accordance with the State Purchasing Act, Title 10, Subtitle D, Chapters 2151 through 2177, of the Texas Government Code (TGC) and TBPC rules. Any agreement resulting from this award shall consist of one (1) document set. This document will contain all of the rights and duties of the parties extracted from the relevant terms and conditions of the RFO (including attachments, exhibits, drawings, supplements, and addenda) and the Selected Firm's Offer, including clarifications.

Any purchase order resulting from this RFO is subject to cancellation, without penalty, either in whole or in parts, if funds are not appropriated by the Texas Legislature. The purchase order for this procurement shall be governed, construed and interpreted by the laws of the State of Texas.

The purchase order is void if sold or assigned to another firm without written approval of Texas Woman's University. Written notification of changes to firm name, address, telephone number, etc. shall be provided to the University as soon as possible, but not later than thirty (30) days from the date of change.

Information, documentation, and other material generated in connection with this RFO or any resulting agreement may be subject to public disclosure pursuant to Chapter 552 of the Texas Government Code (the "Public Information Act").

#### 3.04 PAYMENT

Payment will be made based on the work completed and accepted. Payment will be made within thirty (30) days from receipt of a correct invoice or billing statement unless otherwise stated in this RFO.

Payment will be made in accordance with the Texas Prompt Payment law, TGC, Subtitle F, Chapter 2251. Firm shall submit an itemized invoice showing the purchase order number, payee I.D., remit to address, and telephone number on all copies.

TWU reserves the rights to withhold payment for any work that has not been completed, or any product that has not been delivered, or properly installed, or determined to be defective.

#### 3.05 DISPUTE RESOLUTION

The dispute resolution process provided for in Chapter 2260 of Texas Government Code shall be used by Texas Woman's University and the respondent to resolve all disputes arising under this RFO and any resultant Agreement.

#### 4.00 CONTRACTUAL PROVISIONS

#### 4.01 ACCEPTANCE of PROVISIONS

Unless a Firm expressly and specifically provides otherwise in its written Offer received by TWU in response to this Request for Offer, the Firm's Offer shall automatically be deemed to include the Firm's agreement to the Contractual Provisions.

#### 4.02 AUTHORIZED REPRESENTATIVES

The only persons who are, or shall be, authorized to speak or act for TWU in any way with respect to this Request for Offer and any Agreement resulting from it, is the Purchasing Supervisor or named designate. With regard to technical issues concerning this RFO, the authorized representatives for the University are the Manager of Telecommunications and Network Infrastructure or the Telecommunications Engineer Project Coordinator.

#### 4.03 NOTICES

All notices provided hereunder to be given in writing shall be deemed given when delivered to, or deposited in the mail, or upon facsimile transmission, or email and addressed to the TWU Purchasing Supervisor named in this RFO.

If to the Selected Firm:

The person signing the Selected Firm's Offer or Offer at the Selected Firm's address indicated in same Offer or Offers.

#### 4.04 AMENDMENTS and/or ADDENDA

No amendment to the negotiated Agreement shall be effective unless it is reduced to writing and executed by TWU Purchasing.

#### 4.05 SUB-CONTRACTORS

The Firm shall not sub-contract any part of the work or assign any part of the Agreement without prior consent of the University. Any consent to sub-contract shall not relieve the Firm from its obligations and every sub-contractor shall incorporate all the terms of the Agreement that can be reasonably applied thereto.

TWU reserves the right to review the credentials of the Sub-contractor and to approve the selection of such Sub-contractor.

The Firm's decision to use a Sub-contractor will not modify or abrogate the responsibility of the Firm for the acts, omissions, nonfeasance, malfeasance or misfeasance of any and all Sub-contractors.

The Firm shall preserve and protect the rights of the parties under the Agreement with respect to work to be performed under sub-contract, and shall:

- Enter into Agreements with Sub-contractors and Service Providers to require them to perform their work as provided in the Agreement;
- Incorporate the terms and conditions of the Agreement into all sub-contracting documents; and,
- Be responsible to TWU for acts and omissions of Sub-contractors, Service Providers and individuals directly or indirectly employed by them as for acts and omissions of individuals directly employed by the Firm.
- Submit all HUB Subcontracting Plan required forms.

The Firm shall employ only those Sub-contractors or Service Providers that it proposed in writing and that are acceptable by TWU at the time of the issuance of the purchase order.

Nothing contained in the contract documents shall create a contractual relationship between a Sub-contractor and/or Service Provider and the University.

#### 4.06 PAYMENT of PERFORMANCE BONDS

At the option of the University, the Selected Firm may be required to provide the University with proposed fees for Payment and Performance Bonds prior to execution of any Agreement resulting from this RFO. If approved by the University, the Selected Firm will immediately obtain and provide to the University labor and materials Payment and Performance Bond(s) from one or more companies authorized to do business in Texas and acceptable to the University as security for the faithful performance by the Selected Firm under the terms of the Agreement. The Payment and Performance Bonds will each be in an amount no less than the total fees listed in the Agreement and in the form prescribed by the State of Texas. Failure to obtain the required bonds in satisfactory form and substance may be grounds for immediate termination of the Agreement.

#### 4.07 INDEMNITY

Any Agreement resulting from this Request for Offer will require that the Selected Firm indemnify and save harmless the Chancellor of TWU, and its staff, officers, employees, students, agents, volunteers and independent contractors (all of whom are hereinafter collectively referred to as "TWU") from and against all claims, demands, losses, damages, costs and expenses made against or incurred, suffered or sustained by the University at any time or times (either before or after the expiration or sooner termination of this Contract) where the same or any of them are based upon or arise out of or from anything done or omitted by the Selected Firm or by any employee, officer, director or sub-contractor of the Selected Firm pursuant to the Contract excepting always liability arising out of the independent acts of TWU.

#### 4.08 INSURANCE

Listed below is the insurance which the Selected Firm must maintain under any Agreement resulting from this RFO. Each Firm will propose insurance which meets or exceeds the needs of TWU. No Agreement will be executed by the University until the Firm satisfies the insurance requirements of the University. The Selected Firm may be required to provide the University with a valid Certificate of Insurance before providing any goods or services to the University. TWU reserves the right to approve any insurance proposed by the Selected Firm.

#### Commercial/Comprehensive General Liability

The Selected Firm and any Subcontractor will provide a minimum Limit of Liability for bodily injury and property damage of \$500,000 per person/occurrence with coverage for:

Premises/Operations

**Independent Contractors** 

**Environmental Impairment** 

Contractual

Personal Injury

Property/Fire Legal

#### Automobile Insurance

The Selected Firm and any Sub-contractor will provide a minimum Limit of Liability for bodily injury of \$100,000/\$300,000 per person/occurrence and property damage of \$100,000 per occurrence with the following coverages for vehicles operated by their employees.

Any Automobile owned and Non-owner automobiles

**Garage Liability** 

#### **Equipment Insurance**

The Selected Firm and any Sub-contractor shall maintain insurance for the full replacement value of all Project components and materials which may be lost due to theft and/or damage during the time of the installation until such components and materials are formally accepted by the University.

#### Additional Insured

If the University requests to be named as an Additional Insured, the proper name is: "The Texas Woman's University, and the Chancellor of the University, its visitors, officers, employees and agents."

#### 4.09 WORKERS' COMPENSATION

Upon request, the Selected Firm shall submit a copy of the certificate showing that the Firm and its Agents are in good standing and are covered by workers' compensation, employees' liability and/or the Firm's insurance in amounts sufficient to satisfy all claims that might arise from its acts or those of the employees and agents. The Selected Firm is responsible for ensuring contractually that any Sub-contractors maintain workers' compensation insurance at all times during the term of the resulting Agreement. Failure to maintain coverage at any time during the term of any Agreement shall be deemed a material breach of the Agreement. Upon any such failure, the Agreement shall be deemed void in its entirety, and the Selected Firm shall not be entitled to any payment pursuant to the Agreement or otherwise.

#### 4.10 OCCUPATIONAL SAFETY and HEALTH COMPLIANCE

The Firm, the agents, and sub-contractors shall comply with all applicable Industrial Health and Safety Regulations, First Aid Regulations, Occupational Environment Regulations, Controlled Products Legislation, and the Federal and State Workplace Hazardous Materials Regulations while on TWU premises.

#### 4.11 PERMITS. NOTICES, LAWS AND RULES.

The Selected Firm shall obtain, pay for, and keep in effect, all necessary permits, licenses or fees required for the execution of the work.

The Selected Firm shall comply with all laws, rules and regulations of duly constituted authorities having jurisdiction over its activities.

The Selected Firm shall give all necessary notices and pay all fees required by law and comply with all laws, ordinances, rules and regulations, relating to the work and to the preservation of the public health and safety.

#### 4.12 TECHNOLOGY ACCESS CLAUSE

The Contractor expressly acknowledges that state funds may not be expended in connection with the purchase of an automated information system unless that system meets certain statutory requirements relating to accessibility by persons with visual impairments. Accordingly, the Contractor represents and warrants to TWU that the technology provided to TWU for purchase is capable, either by virtue of features included within the technology or because it is readily adaptable by use with other technology, of:

Providing equivalent access for effective use by both visual and non visual means;

Presenting information, including prompts used for interactive communications, in formats intended for both visual and non visual use; and

Being integrated into networks for obtaining, retrieving, and disseminating information used by individuals who are not blind or visually impaired.

For purposes of this clause, the phrase "equivalent access" means a substantially similar ability to communicate with or make use of the technology, either directly by features incorporated within the technology or by other reasonable means such as assistive devices or services that would constitute reasonable accommodations under the Federal Americans with Disabilities Act or similar state or federal laws. Examples of methods by which equivalent access may be provided include, but are not limited to, keyboard alternatives to mouse commands and other means of navigating graphical displays and customizable display appearance.

#### 4.13 FORCE MAJEURE

Either party shall be absolved from its obligations under this contract when and to the extent that performance is delayed, prevented, and in the case of TWU, when and to the extent that its need for the articles, materials or work to be supplied hereunder is reduced or eliminated by any course, except financial, for reasons beyond its control, including, but not limited to, fire, explosion, war, riots, strikes, labor disputes, and governmental laws, orders or regulations.

In addition, TWU shall be absolved from its obligations under any contract resulting from this RFO when and to the extent that its need for the goods or services to be supplied here under is reduced or eliminated due to reasons beyond its control and as long as the goods and/or services or portion of goods and/or services in question has not been delivered by the Firm and the University has given reasonable notice of these changes to the Firm.

#### 4.14 TRANSPORTATION

The Selected Firm shall be responsible for all transportation costs pertaining to the necessary personnel, equipment and supplies required to execute the work specified. TWU's Telecommunications will act as an intermediary with TWU's Department of Public Safety to provide a limited number of free parking permits for the Firm's work truck(s). The Firm must obey all TWU parking regulations. The Firm will be solely responsible for the payment of any parking fines/penalties.

#### 4.15 SAFETY

The Selected Firm shall take all necessary precautions for the safety of their employees and all others on the job, whether they are their own, or employees of others. The Selected Firm shall comply with all applicable provisions of State and Municipal safety laws to prevent accidents or injury to persons, on or about, or adjacent to, the area where the work is performed.

The Selected Firm shall erect and properly maintain at all times, as required by the conditions and progress of the work, all necessary safe-guards for the protection of workers and the public in general, and shall post danger signs warning against any possible hazards which may created by the job. All Firm employees shall be a minimum of 17-years of age and experienced in the type of work to be performed. No visitors, wives, husbands, children, of other relatives of the Firm's employees will be allowed on state property during working hours, unless they are bona fide employees of the Firm.

#### 4.16 INDEPENDENT FIRM

The Firm shall not be an employee or agent of TWU, but shall be an independent Firm. The Firm shall indemnify and hold TWU harmless with respect of all withholding and all other taxes or amounts of any kind relating to employment of any persons providing goods to TWU with respect to any contract resulting from this Offer.

Nothing in any contract resulting from this Offer shall be construed as authority for the Firm to make commitments that shall bind TWU, or to otherwise act on behalf of the University, except as TWU may expressly authorize in writing.

#### 4.17 CONFLICT OF INTEREST

The Firm may present a statement at the time of the Agreement that it presently has no interest and shall not acquire during the term of contract any interest, direct or indirect, which, would conflict with the performance of services which are required to be performed under the RFO. The Firm shall affirm that no person having such interest shall be employed in the performance of the work herein described. The Firm shall likewise advise TWU in the event it acquires such interest during the course of the Agreement.

The Firm shall disclose any existing or prior relationships with TWU. Upon request, the Firm shall provide a disclosure and/or organization and ownership information. Any Offer that does not include these assurances will be deemed not responsive to the RFO.

#### 4.18 AGREEMENT COMPLIANCE

During the term of the Agreement, the named TWU representative shall be responsible for monitoring the Firm's performance and compliance with the terms and conditions of the Agreement. It is specifically understood that the nature of the goods and services to be rendered pursuant to any Agreement resulting from this RFO are of such a nature that TWU is the sole judge of the adequacy of such goods and services.

#### 4.19 RIGHT TO AUDIT

The Firm understands that acceptance of funds under this agreement acts as acceptance of the authority of the State Auditor's Office, TWU, or any successor agency, to conduct an audit or investigation in connection with those funds.

The Firm further agrees to cooperate fully with the above parties in the conduct of the audit or investigation, including providing all records requested. Firms shall insure that this clause concerning the authority to audit funds received indirectly by sub-contractors through this agreement and the requirement to cooperate is included.

#### 4.20 TERMINATION

Termination with Default: TWU may terminate the agreement immediately for default by providing written notice to the Firm of such termination if the Firm fails to execute the work properly, performs work in an unsatisfactory manner, or fails to perform any provision of the Agreement. In the event of termination by default, TWU shall have all remedies against the Firm as provided by law and equity.

Termination Without Default: TWU may at its option and discretion terminate the Agreement at any time, for any reason whatsoever, by giving a written notice (the "Notice of Termination") to the Firm at least thirty (30) days prior to the effective date of the termination or reduction of the scope of work as set forth in the notice.

In the event of termination by TWU, the Firm shall be governed by the terms and conditions, and shall perform the acts as outlined: the Firm shall terminate all work under the Agreement to the extent and on the date specified in the Notice of Termination and until such date shall, to the extent stated in the Notice of Termination, do such work (and be compensated only for such work) as may be necessary as determined by the Agreement Administrator to preserve the work in progress and to protect materials, buildings, and equipment.

In the event of termination by TWU, the University shall pay the Firm for all goods provided for work satisfactorily performed up to the effective date of termination or reduction of scope of work, in accordance with the costs included in the Firms offer less all partial payments made on account prior to the effective date of termination or reduction of scope or work.

Termination by Firm: If for any reason, the Firm desires to terminate the Agreement, he/she may do so upon giving sixty (60) days written notice to Texas Woman's University.

In the event of termination by Firm, the Firm shall be governed by the terms and conditions, and shall perform the acts as outlined in the preceding section above.

#### 4.21 DISPUTE RESOLUTION

The dispute resolution process provided for in Chapter 2260 of Texas Government Code shall be used by Texas Woman's University and the respondent to resolve all disputes arising under this RFO and any resultant Agreement.

#### 5.00 PROJECT PROVISIONS

It is the University's intent to enter into an Agreement with the Selected Firm to provide the materials and labor to install/replace/repair structured copper and optical fiber cabling system(s) which will meet the voice, data, and video communication needs of the University including the necessary labor, system programming, components, accessories, cabling, installation materials, and other goods and services as outlined in this RFO. Specific requirements of the Goods and Services are provided in, but not limited to, the PROJECT SPECIFICATIONS and SHEET 1.

#### 5.01 GOODS and SERVICES

Please refer to Sheet 1.

#### 5.02 PROJECT MANAGER

The Selected Firm agrees to provide an individual "Project Manager" to implement, perform, and manage all Services. The Project Manager will be the University's primary contact, although the Project Manager will be assisted by other members of the Selected Firm's staff in completing key activities.

#### 5.03 SHOP DRAWING REVIEW and APPROVAL [NOT APPLICABLE]

#### 5.04 CUSTOMER SERVICE

During the Project period, the Project Manager is required to respond to all calls and requests for information within one (1) business day, and be present at the project site as required to ensure timely and proper installation of products.

For tracking purposes, all Requests For Information (RFI) and any Change Order requests must be dated, numbered sequentially, and make specific reference to the Project. All RFI must be sent in writing to the Project Coordinator. All Change Orders must be approved in writing by the Manager of Telecommunications and Network Infrastructure or the Project Coordinator, prior to implementation.

#### 5.05 ALTERNATE SUBMITTALS

Alternate or substitute components, except in the case of a discontinued component, will not be considered. Substitution of a discontinued component with the manufacturer's current model will be the responsibility of the Selected Firm at no additional cost to the University. If the manufacturer does not provide a current model, the Selected Firm will propose an alternate component.

NOTE: A currently unavailable or back-ordered component will be considered discontinued only at the discretion of the Project Coordinator.

Any additions or revisions of wiring required by the use of approved substitute equipment will be the responsibility of the Selected Firm, at no additional cost to the University.

If requested by the University or its Manager of Telecommunications and Networks or the Project Coordinator, the Selected Firm will provide working samples of substitute equipment, to be delivered to the premises, for examination. The Selected Firm will be responsible for the arrangement of, and any fees associated with, comparative demonstrations required to determine "equal or better" status of proposed substitutes.

#### 5.06 UPGRADE SUBMITTALS

Suggested component upgrades due to new technology or processes will be considered only when they are specifically identified and are accompanied by sufficient catalog data, specifications, and technical information for evaluation in terms of an added value or cost-effective enhancement to the Project(s).

A suggested component upgrade will be presented and processed as a Change Order, and will not be implemented without the signature approval of the Manager of Telecommunications and Network Infrastructure or the Project Coordinator.

Any additions or revisions of wiring or electrical service required by the integration of approved upgraded equipment will be the responsibility of the University.

#### 5.07 EQUIPMENT and INSTALLATION WARRANTIES

All manufacturers' warranties will be honored to the full extent of written documentation, as furnished by the manufacturers. During the term of the manufacturer warranty, the Selected Firm will implement and process all warranty repair work and service. Equipment determined to be defective and replaced under warranty will be re-installed at no additional cost to the University.

Upon Final Acceptance, the Selected Firm will provide a twelve-month comprehensive warranty on the installation labor, including the work performed by sub-contractors, and all components and materials not otherwise covered above. During this 12-month guarantee period, the Selected Firm is required to answer service calls and requests for information within 2 business days, and repair or replace defective material, products, and/or equipment within 3 business days after initial notification, without additional cost to the University.

NOTE: This 12-month guarantee period will not apply to pre-existing system materials and/or Owner Furnished Equipment (OFE).

#### 5.08 CARE and CLEAN-UP

The Contractor shall take care in the process of working and make prudent actions towards protecting the University's buildings and property. The Selected Firm will safeguard all building surfaces/furniture/fittings/equipment from damage, including but not limited to that caused by chemical spill, stain, abrasions, impacts, scratches, punctures, rips, tears, fire, burns, and smudges. The Selected Firm will report all damage promptly to the Project Coordinator or to the TWU designated on-site representative. Timely repair of such damage, and payment for same, will become the responsibility of the Selected Firm as accessed and monitored by the University.

The Selected Firm shall take measures to protect all Information Technology Systems components from possible damage resulting from the work of other (sub) contractors. Repair and/or replacement of components damaged in this way will be the responsibility of the Selected Firm, without additional cost to the University.

It shall be the responsibility of the Selected Firm to remove all packaging and debris resulting from his/her work from the premises, to maintain a clean work environment, and leave the premises in a neat and clean condition.

The Firm must not use any trash bins located within any of TWU's buildings and must provide their own trash bags/containers.

The Selected Firm shall provide personnel barriers, signage, and safety devices as necessary.

#### 5.09 STANDARDS and CODES

Equipment will be installed in accordance with the latest standards of the National Fire Protection Association (NFPA), the Institute of Electrical and Electronic Engineers (IEEE), and the National Electrical Code (NEC). All work will also comply with the applicable state and municipal laws and codes covering each class of work.

All materials, where so required, will conform to the latest issue of standards by the National Electrical Manufacturer's Association (NEMA), the American National Standards Institute (ANSI), the Institute of Electrical and Electronic Engineers (IEEE), the National Board of Fire Underwriters (NBFU), and the Underwriter's Laboratories (UL), or other "accepted or approved Testing Laboratory."

- A. All materials shall comply with the applicable sections of the following Codes for installation of telecommunications cabling:
  - 1. Uniform Building Code (UBC)
  - 2. National Electrical Code (NEC/NFPA 70)
  - 3. National Electrical Safety Code (NESC IEEE C 2)IEEE Std 1100-1999
    Recommended Practice for Powering and Grounding Electronic Equipment
  - 4. Local Codes, amendments, and ordinances.
- B. All materials and installation practices shall comply with the applicable sections of the following Telecommunications Industry Standards:
  - 1. ANSI/TIA/EIA-568-B.1-2001, Commercial Building Telecommunications Cabling Standard, Part 1: General Requirements.
  - 2. ANSI/TIA/EIA-568-B.2-2001, Commercial Building Telecommunications Cabling Standard, Part 2: Balanced Twisted-Pair Cabling Components.
  - 3. ANSI/TIA/EIA-568-B.3-2000, Commercial Building Telecommunications Cabling Standard, Part 3: Optical Fiber Cabling Components Standard.ANSI/TIA/EIA-455-A-1991: Standard Test procedures for Fiber Optic Cables
  - 4. ANSI/CEA S83-596-1994p Fiber Optic Premises Distribution Cable
  - ANSI/TIA/EIA-526-7-1998: Optical Power Loss Measurements of Installed Single Mode Fiber Cable Plant-OFSTP-7
  - 6. ANSI/TIA/EIA-526-14-A-1998: Optical Power Loss Measurements of Installed Multi Mode Fiber Cable Plant-OFSTP-14A
  - 7. ANSI/TIA/EIA-568-B.2-1: Transmission Performance Specification for 4-Pair 100  $\Omega$  Category 6 Cabling (Standard).
  - 8. ANSI/TIA/EIA-569-A-2001 (Including 5 addendums), Commercial Building Standards for Telecommunications Pathways and Spaces
  - 9. ANSI/EIA/TIA-570-1991, Residential and Light Commercial Telecommunications Wiring Standard
  - 10. ANSI/TIA/EIA-606-1993, The Administration Standard for the Telecommunications infrastructure of Commercial Building
  - 11. ANSI/TIA/EIA-607-1994, Commercial Building Grounding and Bonding Requirements for Telecommunications
  - TIA/EIA 758-April 1999; Customer-Outside Plant Telecommunications Cabling Standard
  - 13. ANSI/TIA/EIA-607, Commercial Building Grounding and Bonding Requirements for Telecommunications
- C. Installers shall have read the above documents and shall be familiar with the requirements that pertain to this installation. The documents may be obtained from:
  - 1. Global Engineering Documents, 15 Inverness Way East, Englewood, CO, 80112-5776, 800-854-7179, fax: 303-397-2740, http://global.his.com/

- 2. IEEE-Institute of Electrical and Electronics Engineers, Inc., 345 East 47th Street, New York, NY, 10017-2394, 800-678-IEEE, fax: 732-981-9667, http://standards.ieee.org/
- 3. NFPA: 800-344-3555, 11 Tracy Drive, Avon, MA, 02322-9908

#### 5.10 FINAL INSPECTION / ACCEPTANCE

Contractor acknowledges that TWU will rely on contractor's ability, expertise and knowledge of the system. Contractor shall be obligated to exercise the highest standard of care in performing its obligations.

All connecting hardware and patch cords shall previously meet, as a minimum, all the requirements including the electrical and mechanical performance requirements of:

CSA UL 1863 ANSI/TIA/EIA-568-B ISO/IEC 11801 ISO/IEC 60603-7 CENELEC EN50173: 1995 NEC, NFPA70

#### Applicable Testing Standards for Copper:

Testing of individual components and channel shall be conducted in accordance with the following standards:

ASTM D 4566-94, Standard Test Methods for Electrical Performance Properties of Insulation and Jackets for Telecommunications Wire and Cable, 1994

ANSI/TIA/EIA-568-B, Commercial Building Telecommunications Standard, ISO/IEC 11801

Testing of cabling shall be performed prior to system cut-over, 100 percent of the UTP horizontal and riser pairs shall be tested for opens, shorts, polarity reversals, transposition and presence of AC voltage. UTP voice, data and building control device horizontal wiring pairs shall be tested to TIA/EIA 568-A wiring pattern from the information outlet to the IDF and from the IDF to the information outlet. In addition, all assigned circuits shall be tested from the information outlet/building control device to the IDF.

High speed unshielded twisted pair (UTP) data cable shall be performance verified using an automated test set. This test set shall be capable of testing for the continuity and length parameters defined above, and provide results for the following tests:

Near End Cross-Talk (NEXT)
Power Sum Near End Cross-Talk (PSNEXT)
Attenuation
Ambient Noise
Attenuation to Cross-Talk Ratio (ACR)
Line Mapping
Cable Length
Return Loss
Equal Level Far-End Cross-Talk (ELFEXT)
Power Sum Equal Level Far-End Cross-Talk (PSELFEXT)
Propagation Delay
Delay Skew

Test results shall be automatically evaluated by the equipment, using the most up-to-date criteria from the TIA/EIA Standard, and the result shown as pass/fail. Test results shall be printed directly from the test unit or from a download file using an application from the test equipment manufacturer. The printed test results shall include all tests performed, the expected test result and the actual test result achieved.

In order for unshielded twisted-pair cabling infrastructure to deliver high-speed performance, it is manufactured to very tight specifications. Consequently, to maintain the unshielded twisted-pair cabling system performance proper installation practices must be followed. Listed below are some requirements that shall be followed:

Use of Velcro cable ties Panduit TAK-TY tape in the IDF closet room is preferred.

Do not exceed the minimum bend of 4 x Outside Diameter (OD) for 4 pair UTP, 10 x OD for multi pair (more than 4 pair) UTP, 1.18 in. for two fiber cable, and 10 x OD for multi fiber cable.

Per TIA/EIA 568-B never un-twist the pairs of cable beyond the absolute minimum required for termination.

The cable jacket on UTP shall only be stripped back the minimum required to terminate to connecting hardware.

Cable management shall be used when terminating cable.

Maximum cable lengths shall not be exceeded.

Properly rated patch cables will be provided and tested. Silver satin line cord is not acceptable.

All horizontal runs, moves, adds, and changes must be documented. Link and Channel test results must be provided.

Only one pin-out throughout the total installation (T568A) is allowed for the data terminations. The voice terminations shall be made using the white/blue-blue/white pair in the center of the jack. The remaining voice pair wires shall be wrapped neatly around the outer jacket for future use.

Reinstalling cable that has been pulled out of modular furniture is not allowed.

All penetrations through fire rated building structures (walls and floors) shall have a metal stuffing pipe that extends beyond each side of the building structure and sealed with an appropriate fire stop system. This requirement applies to through penetrations (complete penetration) and membrane penetrations (through one side of a hollow fire rated structure). Any penetrating item i.e., riser slots and sleeves, cables, conduit, cable tray, and raceways, etc. shall be properly fire stopped.

#### Applicable Testing Standards for Fiber:

All fiber testing shall be performed on all fibers in the completed end to end system. There shall be no splice unless clearly defined in an RFO.

Testing shall consist of an end-to-end power meter test performed per EIA/TIA-455-53A. The system loss measurements shall be provided at 850 and/or 1300 nanometers for multimode fibers and 1310 and/or 1550 nanometers for single mode fibers. These tests also include continuity checking of each fiber.

Backbone multimode fiber cabling shall be tested at both 850nm and 1300nm (or 1310 and 1550 nm for single mode) in one direction.

Test set-up and performance shall be conducted in accordance with ANSI/EIA/TIA-526-14 Standard, Method B.

Where links are combined to complete a circuit between devices, the Contractor shall test each link from end to end to ensure the performance of the system. ONLY LINK TEST IS REQUIRED.

The Contractor can optionally install patch cords to complete the circuit and then test the entire channel. The test method shall be the same used for the test described above. The values for calculating loss shall be those defined in the ANSI/TIA/EIA Standard.

Attenuation testing shall be performed with a stable launch condition using two-meter jumpers to attach the test equipment to the cable plant. The light source shall be left in place after calibration and the power meter moved to the far end to take measurements.

#### Labeling and Documentation:

Each cable shall be labeled.

Each identifier shall be unique.

Components shall be marked where they are administrated (label at all punch down points, panels, blocks, outlets, etc.).

Moves, adds, or changes: all labels, records, and reports shall be updated.

All dedicated telecommunications grounding bus bars shall be labeled.

All work area outlets shall have labels on the plate and on the jack and cable.

Cross-connect fields shall be labeled according to ANSI/TIA/EIA 606-A.

#### Workmanship:

Components of the premise distribution system shall be installed in a neat, orderly manner consistent with the best telephone and data installation practices. Wiring color codes shall be strictly observed and termination shall be uniform throughout. Identification marking and systems shall be uniform, permanent and readable and in accordance with TIA/EIA-606-A standards. TIA/EIA 568-A wiring codes as shown on the drawings shall standardize all twisted pair wiring.

#### Inspection:

On-going inspections shall be performed during construction by the TWU Project Manager and Installation Project Managers. All work shall be performed in a high quality craftsman manner and the overall appearance shall be clean, neat and orderly. The following points will be examined:

Is the design documentation complete? Are all cables properly labeled from end-to-end?

Have all terminated cables been properly tested in accordance with the specifications for the required performance Level as well as tested for opens, shorts, polarity reversals, transposition and presence of AC and/or DC voltage?

Is the cable type suitable for its pathway? Are the cables bundled in parallel?

Have the pathway manufacturer's guidelines been followed? Are all cable penetrations installed properly and fire stopped according the code?

Have the contractors avoided excessive cable bending? Has the geometry of the cable been altered?

Have potential EMI and RFI sources been considered?

Is Cable Fill correct?

Are hanging supports within 1.5 meters (5 ft)?

Does hanging cable exhibit some sag?

Are telecommunications closet terminations compatible with applications equipment?

Have Patch Panel instructions been followed?

- jacket removal point
- termination positions
- all pair terminations tight with minimal pair distortions
- twists maintained up to the index strip

Have Modular Panel instructions been followed?

- cable dressing
- jackets remain up to the connecting block
- all pair terminations tight and undistorted
- twists maintained up to the connecting block

Are the correct outlet connectors used and turned right side up?

Are identification markings uniform, permanent and readable?

During each Project, the Manager of Telecommunications and Network Infrastructure, and/or the Project Coordinator will conduct an inspection of the work to verify compliance with the Agreement specifications. The Selected Firm will test and demonstrate that at least one System is fully operational according to the Specifications. Any deficiencies or failures, other than those directly attributed to existing system components or OFE, will be promptly and permanently corrected by the Selected Firm at its sole expense prior to Final Acceptance of the work.

The date on which the Final Acceptance for each project is signed and accepted by all named parties, will be considered to be the "Date of Acceptance," and will be the date on which all System and product warranties begin.

#### 5.11 PRODUCT DELIVERY, STORAGE, and HANDLING

The Selected Firm will:

Deliver equipment and materials securely wrapped in factory supplied packaging or containers;

Handle equipment and materials carefully to prevent breakage, denting and scoring finish;

Return all damaged units and materials to the manufacturer and secure replacements;

Store equipment and materials in clean dry spaces. Store in original cartons and protect from dirt, damp, and physical damage;

Take prudent measures to insure that equipment is stored and installed securely to prevent theft.

NOTE: It is the intention of the University to provide limited, secure storage space for Project components and materials during the installation phases.

#### 5.12 SERVICE CONTRACT OPTION [NOT APPLICABLE]

#### 5.13 INSTALLATION SCHEDULES and ACCESSIBILITY

Customer Responsibilities. TWU is responsible for the following:

Allowing the contractor's employees free access to the premises and facilities at all reasonable hours during the installation.

Providing free and clear access to existing conduit or the placement of new conduit if necessary to all work locations, floor, buildings, etc., to support the media installation and providing to the contractor access to these adjacent areas where and when required.

Providing access to 120 volt, 20 AMP, 60 Hz commercial power necessary for the installation and for future telecommunications equipment, or comparable 240 volt power.

Making alterations and repairs to the building, equipment or services if it is determined by the company to be desirable or necessary for safe operation.

Making inspections when notified by the contractor that the equipment or any part thereof is ready for acceptance.

Participation in a joint communications plan to schedule each project.

Contractor Responsibilities. The Firm is responsible for the following:

Providing all supervision, labor, tools, equipment, materials, transportation, erection, construction, unloading, inspection and inventory housing. The Firm must also return spare material as specified.

Furnishing and installing materials for a complete structured cabling system unless specific provisioning or installation of materials is denoted in this RFO.

Obtaining TWU's permission before proceeding with any work necessitating cutting into or through any part of the building structure such as girders, beams, concrete, tile floors or partition ceilings.

Promptly repairing all damage to the building due to carelessness of contractor employees and exercising reasonable care to avoid any damage to the building. Reporting to TWU any damage to the building that may exist or may occur during the contractor's occupancy of the building.

Taking necessary steps to ensure that required fire fighting apparatus is accessible at all times. Flammable materials shall be kept in suitable places outside the building.

Installing the wire, cable and hardware in accordance with the specifications outlined herein.

Conducting tests and inspections as specified post-installation.

Promptly notifying TWU at least one week prior to completion of work on equipment wherein such portions are ready for inspection.

Promptly correcting all defects for which contractor is responsible as determined by TWU.

Coordinating all work with TWU's representative that may be designated at a future date before the commencement of the installation.

Maintaining insurance and appropriate warranty bonds on the proposed distribution system until such time as it is accepted by TWU.

Removing all tools, equipment, rubbish and debris from the premises and leaving the premises clean and neat upon completion of the work each day.

Abiding by the safety and security rules in force on the work site per local and governmental regulation.

The Firm will not permit their work crews to use a radio or talk excessively loud. The use of foul language must not be permitted.

Following industry standard installation practices and as defined by Section 5.09.

With the exception of pre-builds, all installation labor will be performed on-site. As an upgrade to existing systems, off-site assembly and component testing will not be possible.

#### 5.14 SYSTEMS TRAINING [NOT REQUIRED]

#### 5.15 SYSTEMS DOCUMENTATION

The Contractor shall compile, and present to the Project Coordinator, one (1) copy of test results for the installed cabling projects and one copy (1) of the as-built drawings in electronic format.

The Contractor shall mount one hard copy of the "as-built" drawings in color of the floor plan in clear plastic lamination serving the communication room.

NOTE: Project Final Acceptance is dependent in part upon the receipt and acceptance of the Systems Documentation.