

PROJECT MANUAL

INCLUDING BIDDING DOCUMENTS AND TECHNICAL SPECIFICATIONS

UNION COUNTY COURTHOUSE **I.T. NETWORK CABLE REPLACEMENT**

**215 West Fifth Street
Marysville, Ohio 43040**

Prepared for:

THE UNION COUNTY COMMISSIONERS

Steve Robinson, Dave Lawrence, Tom McCarthy

FACILITIES CONTACT:

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by



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10-06-25

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LEGAL NOTICE
NOTICE TO BIDDERS

Sealed bids for a single General Contract shall be received by the Board of County Commissioners of Union County, Ohio to provide all required labor and materials for the following project:

UNION COUNTY COURTHOUSE
I.T. NETWORK CABLE REPLACEMENT
215 West Fifth Street
Marysville, Ohio 43040

until 10:00 A.M. on Wednesday, November 05, 2025 at the Office of the Union County Commissioners, 233 West Sixth Street, Marysville, Ohio 43040. The bids shall be publicly opened and read aloud immediately thereafter at the Commissioners' Chambers, for the project known as **UNION COUNTY COURTHOUSE, I.T. NETWORK CABLE REPLACEMENT**. The Notice to Bidders is also posted on the Union County Website at www.co.Union.oh.us (click "Public Notices").

Project Cost Estimates:
Base Bid: \$150,000.

A single prime contract bid shall be received for all General and Electrical contract work.

In general, the scope of work provides for the following:

1. General demolition work.
2. Replacement of existing network cabling and components with specified new.
3. General refinishing work as required to accommodate cabling work.
4. This project is subject to the requirements of Prevail Wage laws.
5. Working Hours / Conditions: after hours work starting at 4:30pm will be required weekdays Monday through Friday. Saturdays may be approved pending confirmation with the County. All work performed in a day must be completed the same day so the network systems are ready for the next day

Bids shall be in accordance with the Plans and Specifications prepared by Mark Lecky Architects, LLC, Columbus, Ohio 43206. Bidding documents are on file at the Commissioners' Office for review by any bidder and may be obtained from the Union County Website at www.co.Union.oh.us (click "Public Notices").

A pre-bid meeting will be held at 11:00 A.M. on Tuesday, October 21, 2025 starting in the main (south) entrance lobby of the Courthouse, 215 West Fifth Street, Marysville, Ohio 43040. Any prospective bidders should confirm this time, date and location with the Commissioners' Office before the scheduled meeting time. Additional inspection times and dates may be scheduled with the Commissioners' Office

Each bid shall be submitted on the form(s) provided and in accordance with the instructions supplied and shall be accompanied by a Bid Guaranty and Contract Bond for the total amount of the base bid, or a certified check, cashier's check, or acceptable letter of credit on a solvent bank in an amount equal to ten (10%) percent of the total amount of the bid, payable to the Board of County Commissioners of Union County, Ohio. If a bidder fails or refuses to enter into a contract within ten (days) following notice of acceptance of this proposal, the bidder shall pay the penal sum in accordance with RC 153.54. No bidder may withdraw his bid within sixty (60) days after the date of the receipt of bids.

All bids shall be marked Bid for UNION COUNTY COURTHOUSE, I.T. NETWORK CABLE REPLACEMENT. Bids shall contain the full name and address of each person and company interested in the work.

The Bid Guaranty shall be returned to all unsuccessful bidders immediately after the Contract is executed. The Certified Check, Cashier's Check, or Letter of Credit shall be returned to the successful bidder only upon execution of the Contract Bond.

The Board of County Commissioners of Union County, Ohio reserves the right to reject any or all bids, to waive any informality in any bids, and to award the contract to the lowest and best bidder as determined by the Board of County Commissioners of Union County, Ohio.

BY ORDER OF THE BOARD OF UNION COUNTY COMMISSIONERS

Steve Robinson

Dave Lawrence

Tom McCarthy

INSTRUCTIONS TO BIDDERS

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A. BIDDER'S PLEDGE AND AGREEMENT

1. Each Bidder acknowledges that this is a public project involving public funds and that the Owner expects and requires that each successful Bidder adhere to the highest ethical and performance standards. Each Bidder by submitting a bid pledges and agrees that (a) it will act at all times with absolute integrity and truthfulness in its dealings with the Owner and the Design Professional, (b) it will use its best efforts to cooperate with the Owner and the Design Professional and all other Contractors on the Project and at all times will act with professionalism and dignity in its dealings with the Owner, Design Professional, and other Contractors, (c) it will assign only competent supervisors and workers to the Project, each of whom is fully qualified to perform the tasks that are assigned to him/her, and (d) it has read, understands and will comply with the terms of the Contract Documents.

B. EXAMINATION OF CONTRACT DOCUMENTS AND SITE CONDITIONS AND RELIANCE UPON TECHNICAL DATA

1. Each Bidder shall have a competent person carefully and diligently review each part of the Contract Documents, including the Divisions of the Specifications and parts of the Drawings that are not directly applicable to the Work on which the Bidder is submitting its bid. By submitting its bid, each Bidder represents and agrees, based upon its careful and diligent review of the Contract Documents, that it is not aware of any conflicts, inconsistencies, errors, or omissions in the Contract Documents for which it has not notified the Design Professional in writing at least ten (10) days prior to the bid opening. If there are any such conflicts, inconsistencies, errors, or omissions in the Contract Documents, the Bidder (i) will provide the labor, equipment, or materials of the better quality or greater quantity of Work and/or (ii) will comply with the more stringent requirements. The Bidder will not be entitled to any additional compensation for any conflicts, inconsistencies, errors, or omissions that would have been discovered by such careful and diligent review, unless it has given prior written notice to the Design Professional.
2. Each Bidder shall have a competent person carefully and diligently inspect and examine the entire site and the surrounding area, including all parts of the site applicable to the Work for which it is submitting its bid, including location, condition, and layout of the site and the location of utilities, and carefully correlate the results of the inspection with the requirements of the Contract Documents. The Bidder's bid shall include all costs attributable to site and surrounding area conditions that would have been discovered by such careful and diligent inspection and examination of the site and the surrounding area, and the Bidder shall not be entitled to any Change Order, additional compensation, or additional time on account of such conditions.
3. The Bidder may rely upon the general accuracy of any technical data identified in the Owner-Contractor Agreement (e.g., any soils exploration reports, soil boring logs, site survey, or abatement reports) in preparing its bid, but such technical data are not part of the Contract Documents. Except for the limited reliance described in the preceding sentence, Bidder may not, if awarded a contract for the Work, rely upon or make any Claim against the Owner or Design Professional, or any of their agents or employees, with respect to any of the following:
 - (a) the completeness of such reports and drawings for Bidder's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by the successful Bidder and safety precautions and programs incident thereto; or

- (b) any interpretation by the successful Bidder of or conclusion drawn from any technical data or any such other data, interpretations, opinions, or information. For example, all interpolations and extrapolations of data performed by the Bidder to estimate locations or quantities of subsurface strata are independent factual assumptions, which Owner does not warrant.
- 4. Each Bidder will be deemed to have actual knowledge of all information provided or discussed at the pre-bid meeting.

C. PROJECT

- 1. The Project is the Union County Courthouse I.T. Network Cable Replacement Project (the "Project"). In general, the scope of work provides for the following:
 - 1. General demolition work.
 - 2. Replacement of existing network cabling and components with specified new.
 - 3. General refinishing work as required to accommodate cabling work.
 - 4. This project is subject to the requirements of Prevail Wage laws.
 - 5. Working Hours / Conditions: after hours work starting at 4:30pm will be required weekdays Monday through Friday. Saturdays may be approved pending confirmation with the County. All work performed in a day must be completed the same day so the network systems are ready for the next day.
- 2. The Design Professional for the Project is:
Mark Lecky Architects, LLC
668 South Ninth Street
Columbus, Ohio 43206
Design Professional Representative: Mark Lecky, President
Email: lecky@mlarchs.com

Ralph Kramer, Kramer Engineers
rkramer@kramerengineers.com

D. WORK

- 1. Only one contract will be issued by the Owner for constructing the Project, the General Contract, which will cover all scopes of work necessary to construct the Project .
- 2. The Contractor awarded the General Contract (General Contractor) will be responsible for the performance and coordination of any and all subcontractors and suppliers either directly or indirectly contracted with the General Contractor.
- 3. Owner may provide Bidders access to the Project site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates. Outside of the pre-bid meeting, discussed below, Bidders may visit the Project site from the general public's perspective. Bidders may schedule a visit to the Project site and any other applicable nonpublic areas of the Owner's existing facilities, after submitting a written request that is approved in advance by the Owner. Such written request must be made by email to Jimmie Inskeep, Union County Facilities Manager, at jainskeep@unioncountyohio.gov . The Owner reserves the right to have a representative present.

E. ESTIMATE OF COST

1. The total estimated construction cost for the base bid is \$150,000.00.

F. CONTRACT DOCUMENTS AND PRE-BID MEETING

The Contract Documents consist of the Contract Documents listed in Section 1 of the Owner - Contractor Agreement.

Copies of the Contract Documents will be available in electronic form from the Design Professional. Submit all requests for Contract Documents to Jimmie Inskeep, Union County Facilities Manager, at jainskeep@unioncountyohio.gov or at 937-645-3175.

Bidders shall use complete sets of Contract Documents in preparing bids. Neither the Owner nor the Design Professional assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Contract Documents.

The Owner or the Design Professional, in making the Contract Documents available on the above terms, does so only for the purpose of obtaining bids on the Work and does not confer a license or grant for any other use.

A pre-bid meeting will be held at 11:00 A.M. on Tuesday, October 21, 2025 starting in the main (south) entrance lobby of the Courthouse, 215 West Fifth Street, Marysville, Ohio 43040. Any prospective bidders should confirm this time, date and location with the Commissioners' Office before the scheduled meeting time. Additional inspection times and dates may be scheduled with Jimmie Inskeep, Union County Facilities Manager, at jainskeep@unioncountyohio.gov or at 937-645-3175.

G. PREPARATION OF BIDS

1. All bids must be submitted on the "Bid Form" furnished with the Contract Documents.
2. All blank spaces shall be filled in, in ink or typewritten, in words and figures, and in figures only where no space is provided for words, and signed by the Bidder. The wording on the Bid Form shall be used without change, alteration, or addition. Any change in the wording or omission of specified accompanying documents may cause the bid to be rejected. If there is an inconsistency or conflict in the bid amount, the lowest amount shall control, whether expressed in numbers or words.
3. Bidders shall note receipt of Addenda on the Bid Form. If the Bidder fails to acknowledge receipt of each Addendum, the Bid shall be deemed non-responsive, unless the Bid amount clearly and unambiguously reflects receipt of the Addendum or the Addendum involves only a matter of form and does not affect the price, quantity or quality of the Work to be performed.
4. Each Bidder shall submit 1 original and 3 copies of its bid to the Owner. The Bid Form shall be signed with the name typed or printed below the signature. A Bid shall not be submitted by facsimile transmission. A Bidder that is a corporation shall sign its bid with the legal name of the corporation followed by the name of the state of incorporation and the legal signature of an officer authorized to bind the corporation to a contract.

5. Bids shall be enclosed in a sealed opaque envelope with the Bidder's name, plainly marked on the outside " UNION COUNTY COURTHOUSE, I.T. NETWORK CABLE REPLACEMENT PROJECT BID," and addressed as follows:

Office of the Union County Commissioners,
233 West Sixth Street,
Marysville, Ohio 43040.

Bids must be received at the location designated above before 10:00 A.M. local time on Wednesday, November 05, 2025. Immediately after the time for their filing is expired, the bids shall be publicly read.

6. The completed Bid Form shall be accompanied by the following documents: Bid Guaranty and if applicable, Contract Bond (See Paragraph G.8 below.) Contractor's Qualification Statement (See Paragraph H.4 below.) Non-collusion Affidavit
7. The Bidder shall take the following precautions in preparing its bid:
- a. Sign the bid and check to ensure all blank spaces have been filled in with requested information and that the specified accompanying documents (listed in Paragraph G.6 above) have been included in a sealed opaque envelope addressed as described in item 5 above.
 - b. When the Bid Form provides for quoting either an addition or deduction for an Alternate item, indicate whether the sum named is an addition or deduction. If it is not indicated, it will be conclusively presumed that the amount is a deduction.
 - c. When the Bid Form provides for quoting a unit price, the Bidder should quote the unit price as set forth in the Bid Documents.
 - d. When applicable, make sure that the Bid Guaranty is properly executed and signed by:
 - 1) The Bidder
 - 2) The Surety or Sureties
 - e. Make sure that the amount of the Bid Guaranty (if the Bid Guaranty is in the form of a certified check, letter of credit, or cashier's check) is for a specific sum in an amount as instructed in Paragraph G.8.a below. If the Bid Guaranty is in the form of the Bid Guaranty and Contract Bond, the amount may be left blank; if an amount is inserted, it must equal the total of the base bid plus the amount of all add alternates included in the bid. If inserted, then the failure to state an amount equal to the total of the base bid and all add alternates shall make the bid non-responsive if the Owner selects alternates not included in the amount.
 - f. Make sure that the appropriate bid package and scope of work is inserted in the correct space on the Bid Guaranty and Contract Bond Form. Failure to include work covered by the bid submitted may make the bid non-responsive.

8. Bonds and Guarantees

- a. Bid Guaranty: Bidder shall furnish a Bid Guaranty, in the form prescribed in Sections 153.54, 153.57, and 153.571 of the Ohio Revised Code, in the form of either: (1) a bond for the full amount of the Base Bid plus the amount of all Add Alternates included in the Bidder's bid, in the form of the Bid Guaranty and Contract Bond included in the Bid Documents; or (2) a certified check, cashier's check, or irrevocable letter of credit in a form satisfactory to the Owner in an amount equal to 10% of the bid. Bid amount shall be the total of all sums bid,

including all add alternatives, but excluding all deduct alternatives. NOTE: AIA Bid Bond forms are not acceptable.

- b. Contract Bond: The successful Bidder, who, as a Bid Guaranty, submits a certified check, cashier's check, or irrevocable letter of credit in an amount equal to 10% of the bid, shall furnish a Contract Bond in the form Contract Bond included in the Bid Documents in an

amount equal to 100% of the Contract Sum. NOTE: AIA Bond forms are not acceptable.

- c. The bond must be issued by a surety company authorized by the Ohio Department of Insurance to transact business in the State of Ohio and acceptable to the Owner. The bond must be issued by a surety capable of demonstrating a record of competent underwriting, efficient management, adequate reserves, and sound investments. These criteria will be deemed to be met if the surety currently has an A.M. Best Company Policyholders Rating of "A-" or better and has or exceeds the Best Financial Size Category of Class VI. Other sureties may be acceptable to the Owner, in its sole discretion
- d. All bonds shall be signed by an authorized agent of an acceptable surety and by the Bidder.
- e. Surety bonds shall be supported by credentials showing the Power of Attorney of the agent, a certificate showing the legal right of the Surety Company to do business in the State of Ohio, and a financial statement of the Surety.
- f. The Bid Guaranty, as applicable, shall be in the name of or payable to the order of the Owner.
- g. The name and address of the Surety and the name and address of the Surety's Agent should be typed or printed on each bond.

H. METHOD OF AWARD

1. All bids shall remain open for acceptance for sixty (60) days following the day of the bid opening, but the Owner may, in its sole discretion, release any bid and return the Bid Guaranty prior to that date. The Bid Guaranty shall be subject to forfeiture, as provided in the Ohio Revised Code, if a bid is withdrawn during the period when bids are being held.
2. The Owner reserves the right to reject any, part of any, or all bids and to waive any informalities and irregularities. The Bidder expressly acknowledges this right of the Owner to reject any or all bids or to reject any incomplete or irregular bid. Bidders must furnish all information requested on or accompanying the Bid Form. Failure to do so may result in disqualification of the bid.
3. Determination of the Lowest and Best Responsible Bid. Subject to the right of the Owner to reject any or all bids, the Owner will award the Contract for the Work to the bidder submitting the lowest and best responsible bid that is responsive to the bidding requirements, taking into consideration accepted alternates. In evaluating bids, the Owner may consider the qualifications of the Bidders, whether or not the bids comply with the prescribed requirements, and alternates and unit prices, if requested, on the Bid Form. The Owner may also consider the qualifications and experience of subcontractors and suppliers. The Owner may conduct such investigations as are deemed necessary to establish the qualifications and financial ability of the Bidder and its subcontractors and suppliers. The factors the Owner may consider in determining which bid is the lowest and best responsible include the factors set forth below.

The Owner, in its discretion, may consider and give such weight to these criteria as it deems appropriate.

- a. The Bidder's work history. The Bidder should have a record of consistent customer satisfaction and of consistent completion of projects, including projects that are comparable to or larger and more complex than the Owner's Project, on time and in accordance with the applicable Contract Documents, and the Bidder's claims history. If the Bidder's management operates or has operated another construction company, the Owner may consider the work history of that company in determining whether the Bidder submitted the lowest responsible bid.

The Owner will consider the Bidder's prior experience on other projects of similar scope and/or complexity including prior projects with the Owner and/or Design Professional, including the Bidder's demonstrated ability to complete its work on these projects in accordance with the Contract Documents and on time, and will also consider its ability to work with the Owner and Design Professional as a willing, cooperative, and successful team member. Bringing overstated claims, an excessive number of claims, acting uncooperatively, and filing lawsuits against project owners and/or their design professionals on prior projects of similar scope and/or complexity will be deemed evidence of a Bidder's inability to work with the Owner and Design Professional as a willing, cooperative, and successful team member.

The Bidder authorizes the Owner and its representatives to contact the owners and design professionals (and construction managers, if applicable) on projects on which the Bidder has worked and authorizes and requests such owners and design professionals (and construction managers) to provide the Owner with a candid evaluation of the Bidder's performance. By submitting its bid, the Bidder agrees that if it or any person, directly or indirectly, on its behalf or for its benefit brings an action against any of such owners or design professionals (or construction managers) or the employees of any of them as a result of or related to such candid evaluation, the Bidder will indemnify and hold harmless such owners, design professionals (and construction managers) and the employees of any of them from any claims whether or not proven that are part of or are related to such action and from all legal fees and expenses incurred by any of them arising out of or related to such legal action. This obligation is expressly intended for the benefit of such owners, design professionals (and construction managers), and the employees of each of them.

- b. The Bidder's financial ability to complete the Contract successfully and on time without resort to its Surety.
- c. The Bidder's prior experience with similar work on comparable or more complex projects.
- d. The Bidder's prior history of the successful and timely completion of projects, including the Bidder's history of filing claims and having claims filed against it.
- e. The Bidder's equipment and facilities.
- f. The adequacy, in numbers and experience, of the Bidder's work force to complete the Contract successfully and on time.
- g. The Bidder's compliance with federal, state, and local laws, rules, and regulations, including but not limited to the Occupational Safety and Health Act, the Ohio Prevailing Wage laws, and Ohio ethics laws.

- h. The foregoing information with respect to each of the Subcontractors and Suppliers that the Bidder intends to use on the Project.
 - i. The Bidder's participation in a drug-free workplace program acceptable to the Owner, and the Bidder's record for both resolved and unresolved findings of the Auditor of State for recovery as defined in Section 9.24 of the Ohio Revised Code.
 - j. The Owner's prior experience with the Bidder's surety.
 - k. The Bidder's interest in the Project as evidenced by its attendance at any pre-bid meetings or conferences for bidders.
 - l. Depending upon the type of the work, other essential factors, as the Owner may determine and as are included in the Specifications.
4. **Qualifications Statement. Each Bidder will submit with its bid a completed Contractor Qualifications Statement, which is included with the Contract Documents, and thereafter provide the Design Professional promptly with such additional information as the Design professional may request regarding the Bidder's qualifications. A Bidder shall submit any requested additional information within 24 hours of the date on the request.**
5. The failure to submit requested information on a timely basis may result in the determination that the Bidder has not submitted the lowest responsible bid.
6. By submitting its bid, the Bidder agrees that the Owner's determination of which bidder is the lowest and best responsible bidder shall be final and conclusive, and that if the Bidder or any person on its behalf challenges such determination in any legal proceeding, the Bidder will indemnify and hold the Owner and its employees and agents harmless from any claims included or related to such legal proceeding, whether or not proven, and from legal fees and expenses incurred by the Owner, its employees, or agents that arise out of or are related to such challenge.
7. After bid opening, within 24 hours of a request made by the Owner or Design Professional, the apparent low Bidder and any other Bidder so requested must submit the following:
- a. For all subcontracts with an estimated value of at least \$20,000, a list of all Subcontractors that the Bidder will use to construct the Project, as well as an indication of whether or not the Bidder has ever worked with a proposed Subcontractor before, including the following information for the three most recent projects on which the Bidder and each Subcontractor have worked together:
 - i. Project Owner
 - ii. Project Name
 - iii. Subcontract Scope
 - iv. Subcontract Value
 - v. Owner's contact name and phone number.

If Bidder and a proposed Subcontractor have not worked together on at least three projects in the five years, Bidder must submit the information set forth above for the three most recent similar projects to the Project that a proposed Subcontractor has worked on.

The above Subcontractor information, as well as the information pertaining to each proposed Subcontractor, shall be used in the Owner's determination of the lowest responsible bid.

Once a Bidder identifies its proposed Subcontractors as set forth herein, and Owner makes no objections, the list shall not be changed unless written approval of the change is authorized by the Owner and Design Professional.

8. Affidavit as to Personal Property Taxes. Each successful Bidder shall submit, prior to the time of the entry into the Contract, an affidavit in the form required by Section 5719.042, Ohio Revised Code, regarding the status of the Bidder's personal property taxes. A copy of the affidavit form is included with the Contract Documents.
9. No Bidder may withdraw its bid within sixty (60) days after the date bids are opened. The Owner reserves the right to waive any formalities or irregularities or to reject any or all bids.
10. The Owner reserves the right to disqualify bids, before or after opening, upon evidence of collusion with intent to defraud or other illegal practices on the part of the Bidder.
11. Award of Contract. The award of the Contract, when required, will only be made pursuant to a duly adopted resolution of the Owner.

I. EXECUTION OF CONTRACT

1. Within the time designated by the Design Professional after award of the Contract, the successful Bidder shall execute and deliver to the Design Professional the required number of copies of the Owner-Contractor Agreement, in the form included in the Contract Documents, and all accompanying documents requested, including, but not limited to, a Contract Bond (if applicable), insurance certificates, and a valid Workers' Compensation Certificate. The successful Bidder shall have no property interest or rights under the Owner-Contractor Agreement until the Agreement is executed by the Owner.

J. SUBSTITUTIONS/NON-SPECIFIED PRODUCTS

1. Certain brands of material or apparatus are specified. Each bid will be based on these brands, which may be referred to in the Contract Documents as Standards. The use of another brand (referred to as a substitution or proposed equal in the Contract Documents, when a bidder or the contractor seeks to have a different brand of material or apparatus than that specified and approved by the Owner for use in the Project) may be requested as provided herein.
2. The products specified in the Contract Documents establish a standard of required function, dimension, appearance, and quality.
3. Bidders wishing to obtain approval to bid non-specified products shall submit written requests to the Design Professional a minimum of ten (10) calendar days before the bid date and hour. To facilitate the submission of requests, a Pre-Bid Substitution Form is included in the Contract Documents. The Bidder shall include the name of the material or equipment for which it is to be

substituted and a complete description of the proposed substitution, including the name of the proposed manufacturer and/or product and a complete description of the proposed product including manufacturer's name and model number or system proposed, drawings, product literature, performance and test data, color selections or limitations, and any other information necessary for evaluation. Include a statement including any changes in other materials, equipment, or other work that would be required if the proposed product is incorporated in the materials, equipment, or other work that would be required if the proposed product is incorporated in the work. The burden of proof of the merit of the proposed product is on the proposer. The Design Professional's decision on approval of a proposed product will be final. The following will be cause for rejection of a proposed substitution:

- a. Requests submitted by subcontractors, material suppliers, and individuals other than Bidders;
 - b. Requests submitted without adequate documentation;
 - c. Requests received after the specified cut-off date.
4. When the Design Professional approves a product submission before receipt of bids, the approval will be included in an Addendum, and Bidders may include the pricing of this product in their bid. Bidders shall not rely on approvals made in any other manner.
 5. In proposing a non-specified product or a substitution, the Bidder represents and warrants that each proposed product will not result in any changes to the Project, including changes to the Work of other contractors, or any decrease in the performance of any equipment or systems to be installed in the Project and agrees to pay any additional costs incurred by the Owner and the Owner's consultants as a result of a non-specified or substitute product that is accepted.
 6. Following the award of the Contract, there shall be no substitutions for specified products, except pursuant to a Change Order. The Owner in its sole discretion may decline to consider a substitution for a Change Order.

K. ALTERNATES

1. The Owner may request bids on alternates. If the Owner requests bids on alternates, the Bidder should include the cost of the alternates requested on its Bid Form.
2. At the time of awarding the contract, the Owner will select or reject alternates as it determines is in its best interest. A Bidder's failure to include on its Bid Form the cost of an alternate selected by the Owner and applicable to the Bidder's work shall render the bid non-responsive and be grounds for the rejection of the bid. Otherwise, the failure to include the cost of an alternate will not be deemed material.
3. The Bidder acknowledges that although there is an estimate for the cost of the Project, the market conditions may and frequently do result in the estimate being different from the sum of the bids received, either higher or lower. The Bidder understands that the Owner may include alternates, which may include deduct alternates as well as add alternates, to give it flexibility to build the Project with the funds available. The Bidder further understands and acknowledges that use of add and deduct alternates is a long held customary practice in the construction industry in the State of Ohio. The Bidder also acknowledges that the Owner will not make a decision about the alternates on which to base the award of contracts until the bids are received, and the Owner can compare its available funds with the base bids and the cost or

savings from selecting different alternates. The Bidder understands that the award to the Bidder submitting the lowest responsible bid will be based on the lowest base bid plus selected alternates, and may result in an award to a Bidder other than the Bidder that submitted the lowest base bid.

4. If, during the progress of the Work, the Owner desires to reinstate any alternate not included in the Contract, the Owner reserves the right to reinstate the alternate at the price bid by the Contractor provided that such action is taken in sufficient time so as not to delay the progress of the work or cause the Contractor additional expense.

L. UNIT PRICES

1. Where unit prices are requested in the Bid Form the Bidder should quote a unit price. Unless otherwise expressly provided in the Bid Documents, such unit prices shall include all labor, materials, services, overhead expenses, and profit necessary for the timely and proper installation of the item for which the unit prices are requested. The unit prices quoted in the bid shall be the basis for any Change Orders entered into under the Owner-Contractor Agreement, unless the Design Professional determines that the use of such unit prices will cause substantial inequity to either the Contractor or the Owner.

M. ADDENDA

1. The Owner reserves the right to issue Addenda changing, altering, or supplementing the Contract Documents prior to the time set for receiving bids. The Design Professional will issue the Addenda to clarify bidders' questions and/or to change, alter, or supplement the Contract Documents.
2. Any explanation, interpretation, correction, or modification of the Contract Documents will be issued in writing in the form of an Addendum, which shall be the only means considered binding; explanations, interpretations, etc., made by any other means shall NOT be legally binding. All Addenda shall become a part of the Contract Documents.
3. Bidders shall submit written questions to Mark Lecky, Mark Lecky Architects, LLC., at lecky@mlarchs.com by 12:00 p.m. noon at least 7 calendar days prior to the deadline to submit bids to allow sufficient time for the Design Professional to respond. All Addenda will be issued, except as hereafter provided, and e-mailed or otherwise furnished to persons who have obtained Contract Documents for the Project, at least seventy-two (72) hours prior to the published time for the opening of bids, excluding Saturdays, Sundays, and legal holidays. If any Addendum is issued within such seventy-two (72) hour period, then the time for opening of bids shall be extended one (1) week with no further advertising of bids required.
4. Copies of each Addendum will be sent only to the Bidders to whom Contract Documents have been issued and to Plan Rooms where copies of the Contract Documents are maintained. Receipt of Addenda shall be indicated by Bidders in the space provided on the Bid Form. Bidders are responsible for acquiring issued Addenda in time to incorporate them into their bid. Bidders should contact the Design Professional prior to the bid opening to verify the number of Addenda issued.
5. Each Bidder shall carefully read and review the Contract Documents and immediately bring to the attention of the Design Professional any error, omission, inconsistency, or ambiguity therein.

6. If a Bidder fails to indicate receipt of all Addenda through the last Addendum issued by the Design Professional on its Bid Form, the bid of such Bidder will be deemed to be responsive only if:
 - a. The bid received clearly indicates that the Bidder received the Addendum, such as where the Addendum added another item to be bid upon and the Bidder submitted a bid on that item; or
 - b. The Addendum involves only a matter of form or is one which has either no effect or has merely a trivial or negligible effect on price, quantity, quality, or delivery of the item bid upon.

N. INTERPRETATION

1. If a Bidder contemplating submitting a bid for the proposed Project is in doubt as to the true meaning of any part of the Contract Documents, it may submit a written request for an interpretation thereof to Mark Lecky, Mark Lecky Architects, LLC., at lecky@mlarchs.com by the deadline for questions per paragraph M.3 above. Any interpretation of the proposed documents will be made by Addendum only, duly signed by the Design Professional, and a copy of such Addendum will be mailed or delivered to each Bidder receiving a set of Contract Documents and each plan room where the Contract Documents are maintained. The Owner will not be responsible for any other explanation or interpretation of the proposed documents.
2. In interpreting the Contract Documents, words describing materials that have a well-known technical or trade meaning, unless otherwise specifically defined in the Contract Documents, shall be construed in accordance with the well-known meaning recognized by the trade.
3. Bidders are responsible for notifying the Owner and the Design Professional in a timely manner of any ambiguities, inconsistencies, errors, or omissions in the Contract Documents. The Bidder shall not, at any time after the execution of the Contract, be compensated for a claim alleging insufficient data, incomplete Contract Documents, or incorrectly assumed conditions regarding the nature or character of the Work, if no request was made by the Bidder prior to the bid opening.

O. STATE SALES AND USE TAXES

1. The Owner is a political subdivision of the State of Ohio and is exempt from taxation under the Ohio Sales Tax and Use Tax Laws. Building materials that the successful Bidder purchases for incorporation into the Project will be exempt from state sales and use taxes if the successful Bidder provides a properly completed Ohio Department of Taxation Construction Contract Exemption Certificate to the vendors or suppliers when the materials are acquired. The Owner will execute properly completed certificates on request.

P. DATE FOR SUBSTANTIAL COMPLETION/ DATE FOR FINAL COMPLETION /LIQUIDATED DAMAGES

1. The Date for Substantial Completion (aka Contract Time), Date for Final Completion, and Liquidated Damages shall be as defined and set forth in the Owner-Contractor Agreement. By submitting its Bid, each Bidder agrees that the period for performing its Work is reasonable.

Q. OWNER'S RIGHT TO WAIVE DEFECTS AND IRREGULARITIES

1. The Owner reserves the right to waive any and all irregularities provided that the defects and irregularities do not affect the amount of the bid in any material respect or otherwise give the Bidder a competitive advantage.

R. MODIFICATION/WITHDRAWAL OF BIDS

1. Modification. A Bidder may modify its bid by written communication to the Owner addressed to the Owner's Representative at any time prior to the scheduled closing time for receipt of bids, provided such written communication is received by Owner's Representative prior to the bid deadline. The written communication shall not reveal the bid price, but should provide the addition or subtraction or other modification so that the final prices or terms will not be known until the sealed bid is opened. If the Bidder's written instructions with the change in bid reveal the bid amount in any way prior to the bid opening, the bid may be rejected as non-responsive.
2. Withdrawal Prior to Bid Deadline. A Bidder may withdraw its bid at any time for any reason prior to the bid deadline for the opening of bids established in the Request for Bids. The request to withdraw shall be made in writing to and received by the Owner's Representative prior to the time of the bid opening.
3. Withdrawal after Bid Deadline.
 - a. All bids shall remain valid and open for acceptance for a period of at least 60 days after the bid opening; provided, however, that a Bidder may withdraw its bid from consideration after the bid deadline when all of the following apply:
 - (1) the price bid was substantially lower than the other bids;
 - (2) the reason for the bid being substantially lower was a clerical mistake, rather than a mistake in judgment, and was due to an unintentional and substantial error in arithmetic or an unintentional omission of a substantial quantity of work, labor, or material;
 - (3) the bid was submitted in good faith; and
 - (4) the Bidder provides written notice to the Owner, to the attention of the Owner's Representative, within two (2) business days after the bid opening for which the right to withdraw is claimed.
 - b. No bid may be withdrawn under this provision if the result would be the awarding of the contract on another bid for the bid package from which the Bidder is withdrawing its bid to the same Bidder.
 - c. If a bid is withdrawn under this provision, the Owner may award the Contract to another Bidder determined by the Owner to be the lowest responsible bidder or the Owner may reject all bids and advertise for other bids. In the event the Owner advertises for other bids, the withdrawing Bidder shall pay the costs incurred in connection with the rebidding by the Owner, including the cost of printing new Contract Documents, required advertising, and printing and mailing notices to prospective bidders, if the Owner finds that such costs would not have been incurred but for such withdrawal.

S. COMPLIANCE WITH APPLICABLE LAWS

1. By submitting a bid for Work on the Project, the Bidder acknowledges that it is in compliance with applicable federal, state, and local laws and regulations, including, but not limited to, the following:
 - a. Equal Employment Opportunity/Nondiscrimination. The Bidder agrees that if it is awarded a contract that in the hiring of employees for performance of work under the contract or any subcontract, neither it nor any subcontractor, or any person acting on its behalf or its subcontractor's behalf, by reason of race, creed, sex, disability as defined in Section 4112.01 of the Ohio Revised Code, or color, shall discriminate against any citizen of the state in the employment of labor or workers who are qualified and available to perform work to which the employment relates. The Bidder further agrees that neither it nor any subcontractor or any person on its behalf or on behalf of any subcontractor, in any manner, shall discriminate against or intimidate any employees hired for the performance of the work under the contract on account of race, creed, sex, disability as defined in Section 4112.01 of the Ohio Revised Code, or color.
 - b. Ethics Laws. The Bidder represents that it is familiar with all applicable ethics law requirements, including without limitation Sections 102.04 and 3517.13 of the Ohio Revised Code, and certifies that it is in compliance with such requirements.

T. FINDINGS FOR RECOVERY

1. By submitting its bid, each Bidder certifies for reliance of the Owner that it has no unresolved finding for recovery against it issued by the Auditor of the State of Ohio on or after January 1, 2001, except as permitted by Section 9.24 (F) of the Ohio Revised Code.

U. PREVAILING WAGES

1. Prevailing wage rates apply to this project. The contractors shall review and incorporate the latest prevailing wage rates into their bids, and shall comply throughout the project as required by law.
2. Contractors shall be responsible for obtaining the latest and up to date prevailing wage rates from the Ohio Department of Commerce, Industrial Compliance, Wage & Hour Guides & Resources, website.
3. Contractors shall submit certified payroll reports with their pay applications for all contractors & subcontractors as applicable by law.
4. At the conclusion of the project, the contractors and subcontractors shall provide Affidavit Of Compliance with Prevailing Wages forms obtained from the Ohio Department of Commerce, Industrial Compliance.

OWNER-CONTRACTOR AGREEMENT

Owner:

Union County Board of Commissioners
233 West Sixth Street
Marysville, Ohio 43040

Contractor:**Contact:****Phone:****Email:**

Project: I.T. Network Cable Replacement Project

Location:

Union County Courthouse
215 West Fifth Street
Marysville, Ohio 43040

Owner, a political subdivision of the State of Ohio, and Contractor have entered into this Owner-Contractor Agreement ("Agreement") as of the date signed by Owner ("Effective Date"). The Project consists of, but is not limited to, I.T. Network Cable and Components Replacement at the Union County Courthouse (the "Project"). The Contractor was awarded the Contract for the Work pursuant to the statutory bidding process.

The Project Owner and Contractor agree as follows:

1. WORK.

- 1.1. Contractor will furnish all the labor, services, materials, plant, equipment, tools, scaffolds, appliances, and all other things (collectively called the "Work") necessary for the timely and proper completion of the Project.
- 1.2. Contractor must at all times furnish sufficient skilled workers, materials, and equipment to perform the Work in strict conformance with the Contract Documents and to the entire satisfaction of Owner, so as to complete the Project by the Date for Substantial Completion. All materials and equipment provided must be new, free from all defects, fit for the purpose for which intended, and merchantable.
- 1.3. Contractor will assign a competent Project Supervisor. At the Owner's request, Contractor will replace the Project Supervisor, provided that the request is reasonable. Owner will not be responsible for the acts or omissions of the Project Supervisor or his assistants.
- 1.4. Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or it make its parts fit together properly.

2. CONTRACT DOCUMENTS.

- 2.1. The Contract Documents consist exclusively of the following documents incorporated by reference:

- A. Legal Notice;
- B. Instructions to Bidders;
- C. Bid Form;
- D. Owner-Contractor Agreement, including all exhibits attached hereto;
- E. Drawings prepared by prepared by Mark Lecky Architects, LLC, dated June 23, 2022;
- F. Executed Bid Guaranty and Contract Bond;
- G. Sales & Use Tax/ Construction Contract Exemption Certificate;
- H. Statement of Claim Form;
- I. Design Professional's Certificate of Substantial Completion;
- J. Contractor's Affidavit of Payment or Amounts Withheld;
- K. Contractor's Qualification Statement;
- L. Contractor Waiver and Release Affidavit;
- M. Subcontractors/ Suppliers Waiver and Release Affidavit;
- N. Contractor's Final Lien Waiver and Release Affidavit;

- O. Subcontractors/ Suppliers Final Lien Waiver and Release Affidavit;
 - P. Pre-Bid Substitution Form;
 - Q. Addenda issued;
 - R. Executed Contractor's Personal Property Tax Affidavit (O.R.C. 5719.042);
 - S. Non-Collusion Affidavit; and
 - T. Modifications issued after the execution of the contract, including:
 - a. A written amendment to the Agreement signed by both parties;
 - b. A Change Order; or
 - c. A Construction Change Directive
- 2.2. Contractor agrees that it will use the State of Ohio Subcontract Form for all subcontracted work.
- 2.3. Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings. Days shall mean calendar days unless noted otherwise.
- 2.4. Notwithstanding anything in the Contract Documents to the contrary, in the event of any inconsistency, the provisions of this Agreement shall control over any other Contract Document, proposal, document, or other attachment. In the event inconsistencies, conflicts, or ambiguities between or among the Contract Documents are discovered after execution of the Agreement, Contractor shall provide the better quality or greater quantity of Work or comply with the more stringent requirements.

3. OWNER REPRESENTATIVE AND DESIGN PROFESSIONAL.

- 3.1. **Design Professional.** The Design Professional for this Project is Mark Lecky Architects, LLC. The Design Professional prepared the drawings for the Work. The Contractor will coordinate with the Design Professional, as instructed by the Owner.
- 3.2. Jimmie Inskeep, Union County Facilities Manager, is the Owner's Representative with respect to all matters involving Owner.
- 3.2.1. Except as specifically stated to the contrary elsewhere in this Agreement, Contractor will direct all communications to Owner through the Owner's Representative.
- 3.3. Contractor will coordinate the Work with the Owner and Owner's separate contractors, consultants, or other agents. Contractor will provide access to the Work at all times.

4. TIME FOR COMPLETION AND PROJECT COORDINATION.

- 4.1. **Contract Time.** The Work shall commence as of the Effective Date of this Agreement (the "Date of Commencement"), with all associated Work being completed on or before **January 30, 2026** (the "Date for Substantial Completion").

4.1.1. **Substantial Completion.** Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. Notwithstanding anything in the Contract Documents to the contrary, this shall include, but is not limited to, start up and successful testing of all systems and equipment.

4.1.2. Following Substantial Completion of the Work or a designated portion thereof, as certified by the Design Professional or confirmed by the Owner, and Owner's receipt of consent of the Contractor's surety, if any, the Owner shall make a payment of retainage applying to such Work. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents. The Owner is entitled to withhold 200% of the value of such incomplete or nonconforming Work.

4.1.3. **Date of Final Completion.** Final Completion shall mean that the Work is complete in all respects in accordance with the Contract Documents and the Contractor has submitted to the Owner all required documents. The date of Final Completion shall be within **30** calendar days from the Date of Substantial Completion.

4.2. Time is of the Essence. THE DATES IN THE CONTRACT DOCUMENTS ARE OF THE ESSENCE OF THIS AGREEMENT. CONTRACTOR WILL PROSECUTE ITS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, INCLUDING ANY AMENDMENTS THERETO.

4.3. Contractor's Construction and Submittal Schedules

4.3.1. The Contractor shall prepare for Owner's review and approval the construction schedule ("Construction Schedule") and a corresponding detailed schedule of values pursuant to the Ohio Revised Code Section 153.13 within seven (7) calendar days after the Effective Date. The schedule of values must be broken out into labor and materials for each line item. The Contractor shall prepare the Construction Schedule in Critical Path Method ("CPM") format unless provided otherwise in the Contract Documents or otherwise in writing by the Owner. Each major category of Work shall be shown separately in the Construction Schedule with all the significant activities involved, showing durations of time, manpower requirements, and restraints. The Construction Schedule is for the purpose of coordinating the timing, phasing, and sequence of the Work of the Contractor and shall not change or modify the Date for Substantial Completion. The Date for Substantial Completion shall only be changed or modified by Change Order, other Modification, or a Claim that is Finally Resolved, regardless of the dates in the Construction Schedule.

4.3.1.1. The Contractor shall update the Construction Schedule each month;

4.3.1.2. The Construction Schedule shall be manpower loaded;

4.3.1.3. The Contractor shall, on a weekly basis, prepare and submit to the Owner a written report describing the activities begun or finished during the preceding week, Work in progress, expected completion of the Work, a look-ahead projection of all activities to be started or finished in the upcoming two (2) weeks, including without limitation the Contractor's workforce crew size and total resource hours associated with such Work and any other information requested;

4.3.1.4. The float in the Construction Schedule and any updates to it shall belong to the Owner. Float shall mean the amount of time by which activities may be delayed without affecting the Date for Substantial Completion; and

4.3.1.5. The Contractor's obligation to submit requested scheduling information is a material term of its Contract. If the Contractor fails to submit requested scheduling information in writing within five (5) days of a request for such information from the Owner, the Contractor shall pay and the Owner may withhold from the Contractor Liquidated Damages at the rate of Fifty Dollars (\$50.00) a day for each calendar day thereafter that the Contractor fails to submit the requested information.

4.3.2. The Contractor shall perform the Work in accordance with the most recent Construction Schedule submitted to the Owner, provided that the Contractor shall comply with any orders under Section 4.3.3. However, preparation of such schedule shall not constitute a waiver of the Owner's rights under the Contract to have the Work completed by the Date for Substantial Completion.

4.3.3. If the Owner determines that the performance of the Work has not progressed so that it is likely that the Contractor will not achieve Substantial Completion of its Work by the Date for Substantial Completion, the Owner shall have the right to order the Contractor to take corrective measures necessary to expedite the Work, including, without limitation: (i) working additional shifts or overtime; (ii) supplying additional manpower, equipment, and facilities, and (iii) other similar measures ("Corrective Measures"). If the Owner orders the Contractor to take such corrective measures, the Contractor shall take and continue such Corrective Measures until the Owner is satisfied that the Contractor is likely to achieve Substantial Completion of its Work by its Date for Substantial Completion.

4.3.3.1. The Contractor shall not be entitled to adjustment in the Contract Sum in connection with the Corrective Measures required by the Owner pursuant to this Section 4.3.3, unless the Contractor is able to establish that it is entitled to additional compensation under the terms of the Contract Documents.

4.4. Delays and Accelerations.

4.4.1. Notice of Delays. Contractor will give Owner written notice of any delay affecting its Work in the form and with the information specified in the Contract Documents within forty-eight (48) hours of the commencement of the delay; provided that the 48-hour notice will be extended to ten (10) days for

unusually severe weather conditions not reasonably anticipatable. The failure to give the required notice constitutes an irrevocable waiver of Contractor's right to seek an extension of time and/or additional compensation/damages for the delay.

4.4.2. Acceleration of the Work. Owner may require Contractor to accelerate its Work by adding workers or working additional shifts, extended shifts or overtime, so that the Work is in final form before the Date for Substantial Completion. If Owner requires Contractor to accelerate its Work, Contractor will within five (5) days take the required action, and Owner thereafter will issue a Change Order increasing the Contract Sum to pay for Contractor's additional costs of accelerating its Work so that the Work is in final form before the Date for Substantial Completion. If there is a dispute as to whether Contractor is entitled to a Change Order for accelerating its Work, Contractor must proceed to accelerate its Work without waiting for a Change Order or payment of any additional compensation, but may reserve its right to make a claim against Owner for its additional costs incurred in accelerating its Work. Contractor's additional costs for accelerating its Work will be determined in accordance with Section 4.4.3.

4.4.3. Compensation for Acceleration of the Work.

4.4.3.1. Owner's Obligation to Pay. When Owner initiates the acceleration of the Work, Owner will pay Contractor, as provided in Section 4.4.3.2, for Contractor accelerating its Work so that its Work is substantially complete by the Date for Substantial Completion. However, when Contractor's Work is ordered to be accelerated as a result of Contractor's own fault or the fault of its subcontractors or suppliers, Owner will not pay Contractor for such acceleration.

4.4.3.2. Compensation for Acceleration of the Work. To the extent that Owner requires Contractor to accelerate its Work so that the Work is in final form before the Date for Substantial Completion, Owner will pay Contractor for Contractor's reasonable additional costs of accelerating its Work, as determined in accordance with this section. The additional costs of accelerating the Work will be (a) any premium for overtime, additional shift work, or extended shift work, (b) the cost of any additional supervision or general conditions required by the acceleration, (c) out of pocket cost of any additional equipment required for the acceleration, (d) to the extent Contractor can document lost productivity due to the acceleration, the cost associated with such lost productivity, and (e) overhead, including home office overhead, and profit equal to 10% of the total amount of the other items for which additional compensation is permitted under this section. The foregoing are the only additional compensation and/or damages Contractor will be entitled to receive for accelerating its Work so that it is complete before the Date for Substantial Completion. As a condition precedent to its recovery of additional compensation, Contractor must provide Owner with full information about the costs of accelerating its Work in the form and format requested by Owner.

5. CORRECTIVE ACTION.

5.1. If Owner determines that Contractor is in default by not cooperating or coordinating its Work properly with its subcontractors, not supplying sufficient skilled workers, not cleaning up the Project, not furnishing the necessary materials, equipment, or any temporary services or facilities to perform the Work in strict conformance with the Contract Documents, or Contractor is not on schedule, or is not otherwise performing its obligations under the Contract Documents, CONTRACTOR MUST WITHIN TWO (2) BUSINESS DAYS AFTER NOTICE OF SUCH DETERMINATION, (1) COMMENCE SUCH ACTION AS IS NECESSARY TO CORRECT THE DEFICIENCIES NOTED BY OWNER, (2) PROCEED TO CORRECT SUCH DEFICIENCIES WITHIN FIFTEEN (15) DAYS OF SUCH NOTICE OR, (3) IF OWNER INSTRUCTS CONTRACTOR TO TAKE URGENT CORRECTIVE ACTION TO PROTECT PERSONS OR PROPERTY, IMMEDIATELY TAKE SUCH CORRECTIVE ACTION, including but not limited to increasing the number of skilled workers, providing temporary services or facilities, and cleaning up the Project. Such corrective action shall be taken and continued without interruption and without waiting to initiate any dispute under this Agreement or the resolution of any dispute initiated under this Agreement. Failure to comply with this provision shall be an additional default.

6. COMPENSATION.

6.1. Contract Sum. The Contract Sum to be paid by Owner to Contractor, as provided herein, for the satisfactory performance and completion of the Work and all of the duties, obligations and responsibilities of Contractor under this Agreement and the other Contract Documents is \$ _____. The Contract Sum includes the following:

6.1.1. Base Bid Amount: \$_____ (Lump Sum Bid);

6.1.2. Accepted Alternates, included in the Contract Sum:

Alternate No.	Description	Amount
E-1	shall include all labor and materials - to provide the following: All work to provide and install CAT6A cabling and system components in lieu of CAT6. The system shall include all system components for a complete network upgrade.	\$_____
N/A	N/A	\$_____

6.1.3. [Not Used.]

6.1.4. Unit Prices - If directed by the Design Professional, such Work will be paid for in accordance with the Unit Prices bid and identified below:

Item	Description	Unit	Price Per Unit
1	Add additional cable runs	Per 100 lf	\$_____
2	Add 1-1/2 diameter pipe sleeve in max 24" thick masonry wall.	Per each	\$_____

6.2. The Contract Sum includes all federal, state, county, municipal, and other taxes imposed by law, including but not limited to any sales, use, and personal property taxes payable by or levied against Contractor on account of the Work or the materials incorporated into the Work. Contractor is responsible to pay any such taxes.

6.3. The Contract Sum includes fees and costs for any required building permit as well as other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time negotiations are concluded. Contractor is responsible to secure any such permits, fees, licenses, and inspections.

6.4. Liquidated Damages.

6.4.1. Contractor must achieve Substantial Completion by the date stated in Section 4.1. By entering into this Agreement, Contractor agrees that the period for performing the Work is reasonable and that Contractor can achieve Substantial Completion by the date stated in this Agreement.

6.4.2. If Contractor does not achieve Substantial Completion of its Work on the Project by the Date for Substantial Completion stated in Section 4.1, Contractor shall pay the Owner (and the Owner may set off from sums coming due Contractor) liquidated damages in the per diem amount stated in the following chart for each calendar day beyond the Date for Substantial Completion, as may be modified in accordance with the Contract Documents, that the Contractor fails to achieve Substantial Completion.

Contract Sum Amount	Dollars Per Day
\$0.01 to \$50,000.00	\$100.00
\$50,000.01 to \$150,000.00	\$200.00

\$150,000.01 to \$500,000.00	\$300.00
\$500,000.01 to \$750,000.00	\$400.00
\$750,000.01 to \$1,000,000.00	\$500.00
\$1,000,000.01 to \$2,000,000.00	\$700.00
More than \$2,000,000.01	\$1,000.00

6.4.3. Contractor acknowledges by signing this Agreement with Owner that the amount of liquidated damages represent a reasonable estimate of the actual damages Owner would incur if the Work is not substantially complete by the foregoing date and that the damages that may result from the failure to substantially complete the work by the foregoing date are uncertain and difficult to ascertain. No waiver of consequential damages shall preclude the Owner from recovering liquidated damages.

6.4.4. Nothing in this Section 6.4 shall preclude the Owner from recovering its actual damages from the Contractor for third-party claims against the Owner or damages not associated with delay.

7. PAYMENT AND RETAINAGE.

7.1. Payment.

7.1.1. Applications for Payment. Payment applications shall be submitted on a monthly basis and shall reflect the amount of Work completed as of the date the application for payment is submitted consistent with the schedule of values. Payment applications must be received by the Owner not later than the fifteenth (15th) day of the month; payment applications received after the 15th day of the month will be deemed to be received in the following month and will be held for payment during the following payment period. With each application for payment the Contractor shall submit one copy of the following documentation:

- (a) Invoice for Work performed and materials and equipment provided for the previous pay period;
- (b) Lien waivers from itself and all subcontractors, suppliers, and any other party that performed Work or supplied materials for the Project in a form acceptable to the Owner for the Work performed during the current billing period; and
- (c) Such other supplemental information as the Owner may require. Such other information may include a schedule of all materials and equipment stored on site.

7.1.2. Owner may withhold payment in whole or in part, and may demand that Contractor refund amounts previously paid, to protect Owner from loss because of:

- (a) Contractor's default or failure to perform any of its obligations under the Contract Documents, including but not limited to: failure to provide sufficient skilled workers; Work, including equipment or materials, which is defective or otherwise does not conform to the Contract Documents; failure to conform to the Contract Time or Construction Schedule; and failure to follow the directions of or instructions from Owner;
- (b) Contractor's default or failure to perform any of its obligations under another contract that it has with Owner;
- (c) The filing of third party claims, or reasonable evidence that third party claims have been or will be filed;
- (d) The Work has not proceeded to the extent set forth in the application for payment;
- (e) Any representations made by Contractor are untrue;
- (f) The failure of Contractor to make payments to its Subcontractors;
- (g) Damage to Owner's property or the property of another person or laborer;

(h) The determination that there is a substantial possibility that the Work cannot be completed for the unpaid balance of the Contract Sum; and/or

(i) Liens filed or reasonable evidence indicating the probable filing of such liens.

7.1.3. Owner will pay Contractor within thirty (30) days after receipt of the Contractor's payment application, provided that the payment application has been properly submitted on a timely basis and is accompanied by all of the required documentation. Amounts unpaid after thirty (30) days after Owner's receipt of the payment application shall bear interest at the rate of zero percent (0%).

7.2. Retainage.

7.2.1. Amount of Retainage.

7.2.1.1. Payments for Labor. Payments for labor incorporated into the Work will be at the rate of 92% of the amount set forth in Contractor's payment application and approved by Owner until the Work is 50% complete, unless the parties agree otherwise. When the Work is 50% complete, the payment for labor incorporated into the Work will be at the rate of 100% of the amount set forth in Contractor's payment application and approved by Owner.

7.2.1.2. Payments for Materials and Equipment. Payments for materials and equipment will be at the rate of 96% of the invoice cost of materials and equipment delivered to the Project site or other storage site approved by Owner. The balance of the invoice cost will be payable when the materials or equipment are incorporated into the Work. Incorporated into the Work means such materials and equipment are installed and conform to the requirements of the Contract Documents. When payment is made on account of materials or equipment not yet incorporated into the Project, such materials and equipment will become the property of Owner; provided that if such materials or equipment are stolen, destroyed, or damaged before being fully incorporated into the Project, Contractor shall be required to replace them at its expense.

7.2.2. Interest on Retainage.

7.2.2.1. Contractor agrees that Owner may hold retained amounts in the project construction fund and is not required to deposit the retained funds into a separate interest-bearing savings account. The balance of the retained funds, plus interest, will be paid to Contractor as its final payment for the Project, less any amounts needed to cover damages or costs incurred by Owner related to the Work.

7.2.2.2. In lieu of the provisions of Section 7.2.2.1, the Contractor may request to have the Owner instead deposit the retained funds, when the Work is 50% complete, into a separate escrow account governed by an escrow agreement, employing an escrow agent, by providing written notice to the Owner of the request prior to the submission of the first pay application. If the Contractor so requests, the Contractor will be responsible for all expenses associated with the escrow agent and escrow account beyond the interest income from the account, and the change and expense must be expressly documented in a change to the contract. If the Contractor does not request an escrow account prior to submission of the first pay application, the Contractor will be deemed to have waived its rights under ORC 153.63 to have the retained funds so deposited and governed by an escrow agreement.

7.2.3. Documentation. Upon request, Contractor immediately will supply Owner with requested information so as to verify the amounts due to Contractor, including but not limited to original invoices for materials and equipment and documents showing that Contractor has paid for such materials and equipment, and so as to verify that amounts due laborers, subcontractors, and materialmen have been paid to them.

7.3. Final Payment.

7.3.1. The final application for payment shall be itemized and submitted after completion of the Work specified for the Project. Contractor shall ensure that the final application for payment shall contain one (1) copy of each of the following documents, if not previously delivered to Owner.

(a) All items required in Section 7.1.1;

(b) Contractor's Certificate of Insurance;

- (c) Contractor's Workers' Compensation Certificate;
- (d) Consent of Contractor's Surety to Payment;
- (e) An assignment to Owner of all warranties obtained or obtainable by Contractor from manufacturers and suppliers of equipment and materials incorporated into the Work by written instrument of assignment in a form acceptable to Owner; and
- (f) Such other documentation as required by the Contract Documents, Owner, or applicable law.

7.3.2. The making of Final Payment by Owner does not constitute a waiver of Claims by Owner for the following:

- (a) Liens, Claims, security interests, or encumbrances arising out of the Contract Documents that are unsettled;
- (b) Failure of the Work to comply with the requirements of the Contract Documents;
- (c) Terms of warranties required by the Contract Documents;
- (d) Claims for Indemnification;
- (e) Claims about which Owner has given Contractor notice; or
- (f) Claims arising after Final Payment.

8. CHANGES IN THE WORK.

8.1. Change Orders.

- 8.1.1.** A Change Order is a written instrument signed by Owner and Contractor stating their agreement upon a change in the Work, the amount of the adjustment or the method for computing the amount of the adjustment of the Contract Sum, if any, and the extent of the adjustment in the Contract Time, if any.
- 8.1.2.** All Change Orders shall be submitted with any supporting documentation requested by the Owner in advance of the performance of the Work that is the subject of the Change Order and must be approved by the Owner in writing in advance of the performance of the Work that is the subject of the Change Order.
- 8.1.3.** The agreement on any Change Order shall constitute a final settlement of all matters relating to the change in the Work that is the subject of the Change Order, including but limited to all direct, indirect, and cumulative costs that include reasonable overhead and profit associated with such change and any and all adjustments to the Contract Sum and in the Contract Time. Total cumulative overhead and profit for Contractor and all Subcontractors on any add or deduct Change Order shall not exceed 15% of the total cost of labor and material. The Contractor shall not proceed with any change in the Work without a signed Change Order. The Contractor's failure to timely seek and obtain such authorization as specified herein, shall constitute an irrevocable waiver by the Contractor of an adjustment to the Contract Sum or the Contract Time for the related work.

8.2. Construction Change Directives.

- 8.2.1.** A Construction Change Directive is a written order prepared and signed by the Owner, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.
- 8.2.2.** A Construction Change Directive shall be used in the absence of total agreement of a Change Order.
- 8.2.3.** Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Owner of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.
- 8.2.4.** When the Owner and Contractor agree with adjustments in the Contract Sum and Contract Time,

such agreement shall be effective immediately, and the Owner will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

- 8.2.5.** If the Contractor disagrees with the adjustment in the Contract Time or the Contract Sum, the Contractor may make a Claim in accordance with applicable provisions of Article 9.

9. CLAIMS AND DISPUTES.

- 9.1.** A Claim is a demand or assertion by one of the parties seeking, as a matter of right, adjustment, or interpretation of the terms of the Contract Documents, payment of money, extension of time, or other relief with respect to the terms of the Contract Documents, provided that Owner's decision to adjust or withhold payment under Section 7.1.2 will not be considered a Claim. The responsibility to substantiate claims shall rest with the party making the Claim. Contractor will not knowingly (as "knowingly" is defined in the federal False Claims Act, 31 U.S.C. Section 3729, *et seq.*) present or cause to be presented a false or fraudulent Claim. As a condition precedent to making a claim, Contractor must submit an affidavit sworn to before a notary public or other person authorized to administer oaths in the State of Ohio and executed by an authorized representative of Contractor, which states that:

The Claim submitted herewith complies with Section 9.1 of the Owner-Contractor Agreement, which provides that "Contractor will not knowingly present or cause to be presented a false or fraudulent Claim."

- 9.2.** Subject to the requirements of Article 9, if Contractor wishes to make a Claim for an increase in the Contract Sum, written notice must be given before proceeding to execute the Work.
- 9.3.** Subject to the requirements of Article 9, if Contractor wishes to make a Claim for additional time, the required written notice must include an estimate of cost and probable effect of delay on progress of the Work. In the event of continuing delay, only one Claim is necessary. If adverse weather conditions are the basis for a Claim for additional time, such claim must be documented by data substantiating that weather conditions were abnormal for the period of time and could not have been reasonably anticipated, and that weather conditions had an adverse effect on the scheduled construction.
- 9.3.1.** The delays for which the Contractor is entitled to additional time are "Excusable Delays." The only Excusable Delays are those delays on the critical path which the Contractor establishes were: (a) caused by the Owner or those in privity of contract with the Owner, (b) physical damage to the Project over which the Contractor has no control, (c) labor disputes beyond the control of the Contractor, (d) work days lost due to weather conditions as provided under Section 4.4.1, (e) concealed or unknown conditions under Section 9.4, and (f) other unforeseeable delays beyond the control of the Contractor and its subcontractors and suppliers of any tier. The delays for which the Contractor is entitled to additional time and money are "Compensable Delays." The only Compensable Delays are those Excusable Delays which the Contractor establishes were proximately caused by an improper action or failure to act by the Owner. Owner, in its sole and reasonable discretion, shall determine whether a delay entitles Contractor to time extension or additional compensation.
- 9.4.** If conditions are encountered at the site which are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then the Contractor shall give written notice to the Owner and the Design Professional, if any, promptly before conditions are disturbed and in no event later than forty-eight (48) hours after first observance of the conditions. If the conditions are materially different and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, Owner will issue an appropriate Change Order.
- 9.5.** Contractor must make all claims by written affidavit per Article 9 within seven (7) days after the occurrence of the event giving rise to the Claim. Proper notice of delay as required under Section 4.4.1 is a condition precedent to entitlement of a Claim. Failure to do so results in an irrevocable waiver of the Claim.
- 9.6.** Within ten (10) days of its receipt of a written request, Contractor must make available to Owner or its representative any books, records, or other documents in its possession or to which it has access

relating to any Claim and must require its Subcontractors, regardless of tier, and materialmen to do likewise.

9.7. If a Contractor's Claim has not been resolved at the time of Substantial Completion, the Contractor's exclusive remedy is to file suit in the Common Pleas Court for the county in which the Project is located within 90 days of Substantial Completion, unless the parties otherwise agree in writing, else such Claim is waived. Each party waives its right to remove any such suit to federal court.

9.8. Unless otherwise agreed in writing, Contractor shall continue its Work on the Project and shall maintain progress during any mediation, arbitration, or litigation proceedings, and the Owner shall continue to make payments to the Contractor in accordance with this Agreement, however, the Owner shall be under no obligation to make payments on or against any claim or amounts in dispute during the pendency of any mediation, arbitration, or litigation proceeding to resolve those claims or amounts in dispute.

9.9. Settlement Offers. If the Contractor initiates a claim, the Owner may make settlement offers to settle the Claim at any time up to the date of trial. Such settlement offers shall be subject to Rule 408 (Compromise and Offers of Compromise) of the Ohio Rules of Evidence. If at any stage of the litigation, including any appeals, the Contractor's Claim is dismissed or found to be without merit, or if the damages awarded to the Contractor on its Claim do not exceed the Owner's last settlement offer, the Contractor shall be liable to the Owner and shall reimburse the Owner for all the Owner's attorneys' fees and expenses, and arising out of or related to such Claim since the date of such last settlement offer.

9.10. Waiver of Claims for Consequential Damages. The Contractor waives Claims against the Owner for consequential damages arising out of or relating to this Contract. This waiver includes damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work. This waiver is applicable, without limitation, to all consequential damages due to the Owner's termination of the Agreement in accordance with this Agreement.

10. DEFAULT OF CONTRACTOR.

10.1. Events of Default. Each of the following constitutes an event of default of Contractor:

10.1.1. Contractor's failure to perform any of its obligations under the Contract Documents or failure to proceed to commence to correct such failure in accordance with Section 5.1.

10.1.2. Contractor's failure to pay its obligations incurred in connection with this Agreement as they become due or Contractor's insolvency.

10.2. Owner's Remedies. Upon the occurrence of an event of default, Owner has the following remedies, which are cumulative:

10.2.1. Order Contractor to stop the Work, which Contractor must do immediately;

10.2.2. To perform through others all or any part of the Work remaining to be done and to deduct the cost thereof from the unpaid balance of the Contract Sum or, if the unpaid balance of the Contract Sum is inadequate, to demand reimbursement of amounts previously paid to Contractor;

10.2.3. To terminate this Agreement and take possession of, for the purpose of completing the Work or any part of it, all materials, equipment, scaffolds, tools, appliances, and other items belonging to or possessed by Contractor, all of which Contractor hereby transfers and assigns to Owner for such purpose, and to employ any person or persons to complete the Work, including Contractor's employees, and Contractor will not be entitled to receive any further payment until the Work is completed;

10.2.4. To accept assignment of Contractor's subcontracts for the Project, pursuant to any prior rights of the surety, if any, and, at the Owners' sole discretion, to further assign the subcontracts to a successor contractor or other entity provided that (i) the Owner terminates this Agreement for cause, and (ii) provides written notice of such assignment to both Contractor and Subcontractor; and/or,

10.2.5. All other remedies that Owner may have at law or in equity or otherwise under the Contract Documents.

10.3. Termination of Agreement. The termination of this Agreement will be without prejudice to Owner's rights and remedies, including without limitation Owner's right to be indemnified by Contractor.

10.4. Payments Due Contractor. If the unpaid balance of the Contract Sum exceeds the cost of finishing the Project, including any costs, expenses, or damages incurred by Owner as a result of the event of default, including attorneys' and consultants' fees and the administrative expense of Owner's staff, such excess shall be paid to Contractor. If such costs exceed the unpaid balance, Contractor is responsible to pay the difference to Owner. The obligations under this section will survive termination of this Agreement.

11. DEFAULT OF OWNER.

11.1.1. Events of Default. The following constitutes the exclusive events of default of Owner:

11.1.1.1. Failure of Owner to perform any express material obligation under the Contract Documents and to correct such failure within thirty (30) days after receipt of written notice thereof from Contractor specifying the default and the necessary corrective action.

11.2. Contractor's Remedy.

11.2.1. Contractor's sole and exclusive remedy for the default of Owner shall be to follow the procedure set forth in Article 9.

11.2.2. Notwithstanding Section 11.2.1, if Owner fails to pay Contractor undisputed amounts as payment becomes due, Contractor may, upon fifteen (15) days written notice, stop the Work until payment of the undisputed amount owing has been received.

12. SUSPENSION OR TERMINATION FOR THE CONVENIENCE OF OWNER.

12.1. Suspension for the Convenience of Owner.

12.1.1. Owner may, without cause, order Contractor to suspend, delay, or interrupt the Work in whole or in part for such period of time as Owner may determine.

12.1.2. An equitable adjustment will be made for increases in the Contract Time and cost of performance of the Work, including profit and overhead on the increased cost of performance, caused by the suspension, delay or interruption, provided that the total cost of profit and overhead shall not exceed ten percent (10%) of the amount of the increased cost not attributable to profit or overhead. No adjustment will be made to the extent that:

- (a) performance is, was or would have been so suspended, delayed, or interrupted by another cause for which Contractor is responsible; or
- (b) an equitable adjustment is made or denied under another provision of this Agreement for a concurrent event.

12.2. Termination for the Convenience of Owner.

12.2.1. Owner may, in its discretion and without cause, upon three (3) business days' written notice to Contractor terminate this Agreement for Owner's convenience.

12.2.2. Upon receipt of a written notice from Owner terminating this Agreement for the Owner's convenience and without cause, the Contractor will (i) immediately cease performing any or all portions of the Work, unless otherwise directed by the Owner, in which case the Contractor will take the action directed by the Owner, (ii) immediately take all reasonable and necessary action to protect and preserve the Work, and (iii) unless otherwise directed by Owner, terminate or assign all agreements with Subcontractors and suppliers.

12.2.3. If this Agreement is terminated for the Owner's convenience and there exists no event of Contractor's default, as defined in this Agreement, the Contractor shall be entitled to receive payment (i) for Work properly executed up to the date the notice of termination is received by Contractor, including overhead and profit up to the date of termination, and (ii) for Work performed at the direction of the Owner on and after the date on which the notice of termination is received by the

Contractor, as determined by the procedures applicable to Change Orders.

- 12.2.4.** If this Agreement is terminated for the Owner's convenience and there exists an event of Contractor's default, as defined in this Agreement, Contractor will be entitled to receive only such sums as it would be entitled to receive following the occurrence of an event of default under this Agreement.
- 12.2.5.** The termination of this Agreement will be without prejudice to any rights or remedies that exist at the time of termination.

13. INSURANCE, INDEMNIFICATION, AND BOND.

- 13.1.** Contractor must maintain commercial general liability insurance in the minimum amount of \$1,000,000.00 per incident and \$2,000,000.00 aggregate, worker's compensation coverage as required by the Ohio Revised Code, automobile liability coverage in the minimum amount of \$1,000,000.00 per accident and \$2,000,000 aggregate, and an umbrella policy in the minimum amount of \$5,000,000.00, unless Owner approves other coverage limits in writing. Excess or umbrella coverage may be used to meet these levels of insurance. The Owner, Board of County Commissioners, Union County, Ohio., shall be named as an additional insured on the Contractor's insurance policies. The Contractor shall provide a certificate of insurance showing the required coverages, with the Owner named as a certificate holder and as an additional insured; Contractor also agrees to provide Owner with at least thirty (30) days' notice prior to any changes in coverage of the required insurance. The Contractor shall maintain all such coverage for a period of 3 years after the Date for Final Completion.
- 13.1.1.** The Contractor shall maintain Contractors Errors & Omissions Liability Insurance insuring against errors and omissions arising from the Work if the Work involves any construction management or the preparation of plans and drawings, with limits of not less than \$1,000,000.00 per claim. Such policy shall not contain any exclusions directed toward any types of materials, services or processes involved in the Work. The retroactive date for coverage will be no later than the commencement date of design and will state that in the event of cancellation or nonrenewal the discovery period for insurance claims will be at least three (3) years or otherwise as by written agreement with the Owner.
- 13.2.** Insurance furnished by the Owner, if any, is not intended to and does not cover equipment and materials before they are physically incorporated into the Work or tools. Contractor bears the entire risk of loss with respect to tools, equipment, and materials. Contractor is responsible for damages to Owner's property and to adjacent property caused by or related to the Work or actions by Contractor's employees or those of its subcontractors.
- 13.3.** The Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance on an "all-risk" or equivalent policy form, including builder's risk, in the amount of the initial Contract Sum, plus the value of subsequent modifications and cost of materials supplied and installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. 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 Section 7.3 or until no person or entity other than the Owner has an insurable interest in the property required by this Section 13.3 to be covered, whichever is later. The insurance shall include interests of the Owner, the Contractor, Subcontractors, and Sub-subcontractors in the Project.
- 13.4.** Owner and Contractor waive all rights, including all rights of subrogation, against each other and against Subcontractors, Sub-subcontractors, consultants, agents, and employees of the other for damages during construction, but only to the extent covered by (and not prohibited by) any applicable property insurance or builder's risk insurance, except such rights as they may have to the proceeds of such insurances.
- 13.5.** To the maximum extent permitted by law, Contractor shall indemnify and hold harmless Owner and Owner's consultants, agents, and employees from and against all claims, damages, losses, and expenses, including but not limited to attorneys' and consultants' fees, arising out of or related to the performance of the Work, including but not limited to the failure of Contractor to perform its obligations under the Contract Documents, any claims for bodily injury, sickness, disease, or death or to injury

to or destruction of or loss of use of real or personal property, claims for additional storage and handling charges, liens against funds, claims related to the alleged failure of the Contractor to perform in accordance with the Contract Documents, and/or claims related to the removal, handling, or use of any hazardous materials. Owner may withhold amounts equal to any sums for which it is entitled to be indemnified from the amounts otherwise due Contractor under the Contract Documents.

- 13.6.** In claims against any person or entity indemnified under this Contract by an employee of Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligations under this Contract shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable for Contractor or Subcontractor under workers' compensation acts, disability benefits acts, or other employee benefits acts. Contractor expressly waives any protection or immunity with respect to Workers' Compensation claims related to indemnification given under this Agreement.

13.7. Contract Bond.

- 13.7.1.** The Contractor shall provide a contract bond to guaranty payment and performance of the Work, as required by Ohio law. When the Contractor delivers the executed counterparts of the Agreement to the Owner, the Contractor shall deliver such bond to the Owner, along with other documents as may be required.

- 13.7.1.1.** If the surety on any bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of the Agreement or Ohio law, the Contractor shall promptly notify the Owner and shall, within twenty (20) days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of the Contract Documents and Ohio law.

- 13.7.2.** Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

- 13.7.3. Material Default or Termination.** If the Owner notifies the Contractor's surety that the Contractor is in material default or terminates the Contract, the surety will promptly and within twenty-one (21) days investigate the claimed material default or termination. If the Owner gives a notice of material default and then terminates the Contract, the surety shall complete its investigation within twenty-one (21) days of the notice of material default. As part of such investigation, the surety shall visit the offices of the Contractor and Owner to review the available project records. If the surety proposes to take over the Work, the surety shall do so no later than the expiration of the twenty-one (21) day period or ten (10) days after the date the Owner terminates the Contract, whichever is later. If the Owner terminates the Work, and the surety proposed to provide a replacement contractor, the replacement contractor shall be fully capable of performing the Work in accordance with the Contract Documents, including meeting all of the requirements of the Contract Documents. If the Contractor is terminated, the replacement contractor shall not be the Contractor. The surety will provide the Owner with the results of its investigation, including any written report or documents. This Section 13.7.3 is in addition to the Owner's rights under this Agreement to terminate the Contractor for cause and is not intended to create any rights of the surety, including but not limited to the right to take over the Contractor's obligations.

- 14. WARRANTIES.** In addition to any other warranties, guarantees, or obligations set forth in the Contract Documents or applicable as a matter of law and not in limitation of the terms of the Contract Documents, Contractor warrants and guarantees that:

- (a) Owner will have good title to the Work and all materials and equipment incorporated into the Work will be new;
- (b) The Work and all materials and equipment incorporated into the Work will be free from all defects, including any defects in workmanship or materials;
- (c) The Work and all equipment incorporated into the Work will be fit for the purpose for which intended;
- (d) The Work and all materials and equipment incorporated into the Work will be merchantable; and,

- (e) The Work and all materials and equipment incorporated into the Work will conform in all respects to the Contract Documents.

Upon notice of the breach of any of the foregoing warranties or guarantees or any other warranties or guarantees under the Contract Documents, Contractor, in addition to any other requirements in the Contract Documents, shall commence to correct such breach and all resulting damage within two (2) business days after written notice from the Owner. Contractor shall correct such breach and damage to the satisfaction of Owner within fifteen (15) days of such notice except when an extension of time is granted in writing by Owner; provided that if such notice is given after final payment hereunder, such 2-day period will be extended to seven (7) days and such 15-day period shall be extended to thirty (30) days. If Contractor fails to commence to correct such breach and damage, or to correct such breach and damage as provided above, Owner, upon written notice to Contractor and without prejudice to any of its other rights or remedies, may correct the deficiencies. Contractor upon written notice from Owner shall pay Owner, within ten (10) days after the date of such notice, all of Owner's costs and expenses incurred in connection with or related to such correction and/or breach, including without limitation Owner's administrative, legal, design, and consulting expenses. The foregoing warranties and obligations of Contractor will survive the final payment and/or termination of this Agreement. If the Contractor fails to pay the Owner any amounts due under this Article 14, Contractor will pay Owner, in addition to the amounts due, a late payment fee of one and one-half percent (1.5%) per month for each month or part thereof that the payments are not paid when due.

15. GENERAL.

15.1. Modification. No modification or waiver of any of the terms of this Agreement or of any other Contract Documents shall be effective against a party unless set forth in writing and signed by or on behalf of a party, which in the case of Owner shall require the signature of Owner pursuant to a specific resolution of Owner. Under no circumstances will forbearance, including the failure or repeated failure to insist upon compliance with the terms of the Contract Documents, constitute the waiver or modification of any such terms. The parties acknowledge that no person has authority to modify this Agreement or the other Contract Documents or to waive any of its or their terms, except as expressly provided in this Paragraph.

15.2. Assignment. Contractor may not assign this Agreement without the written consent of Owner, which Owner may withhold in its sole discretion.

15.3. Third Parties. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either Owner or Contractor.

15.4. Law and Jurisdiction. All questions regarding the validity, intention, or meaning of this Agreement or any modifications of it relating to the rights and obligations of the parties shall be construed and resolved under the laws of the State of Ohio. Any suit, which may be brought to enforce any provision of this Agreement or any remedy with respect hereto, shall be brought in the Common Pleas Court for the county in which the Project is located, and each party hereby expressly consents to the jurisdiction of such court. Each party waives its right to remove any such suit to federal court.

15.5. Statute of Limitations. Regardless of any provision to the contrary, the statute of limitations with respect to any defective or non-conforming Work that is not discovered by Owner will not commence until the discovery of such defective or non-conforming Work by Owner.

15.6. Notices. Notices, requests, or demands by either party shall be in writing, unless otherwise expressly authorized, and shall be personally served; forwarded by expedited messenger service; sent by facsimile transmission; sent by electronic mail with delivery confirmation; or be given by registered or certified mail, return receipt requested, postage prepaid, and addressed to the party at the address set forth at the beginning of this Agreement. Any party may change its address by giving written notice hereunder. All notices, requests, and demands shall be deemed received upon receipt in the case of personal delivery or delivery by expedited messenger service, including leaving the notice at the address provided herein during normal business hours; upon the expiration of forty-eight (48) hours from the time of deposit in the United States mail; or, in the case of a notice given by electronic mail or facsimile transmission, upon the expiration of 24 hours after the transmission is sent.

15.7. Construction. The parties acknowledge that each party has reviewed this Agreement and the other Contract Documents and has voluntarily entered into this Agreement. Accordingly, the normal rule of

construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Agreement, the other Contract Documents, or any amendments or exhibits to it or them.

15.8. Approvals. Except as expressly provided herein, the approvals and determinations of Owner will be subject to the sole discretion of Owner and will be valid and binding on Contractor, provided only that they be made in good faith, *i.e.*, honestly. If Contractor challenges any such approval or determination, Contractor bears the burden of proving by clear and convincing evidence that it was not made in good faith.

15.9. Partial Invalidity. If any term or provision of this Agreement is found to be illegal, unenforceable, or in violation of any laws, statutes, ordinances, or regulations of any public authority having jurisdiction, then, notwithstanding such term or provision, this Agreement shall remain in full force and effect, and such term shall be deemed stricken; provided this Agreement shall be interpreted, when possible, so as to reflect the intentions of the parties as indicated by any such stricken term or provision.

15.10. Compliance with Laws and Regulations. Contractor, at its expense, must comply with all applicable federal, state, and local laws, rules, and regulations applicable to the Work.

15.11. Project Safety. Contractor must follow all applicable safety and health regulations during the progress of the Project and monitor all of its employees and its subcontractors for compliance with such safety and health regulations. Owner assumes no responsibility for the development, review, or implementation of any project safety plan or for Project safety and has no authority to direct the means and methods of Contractor.

15.12. Equal Opportunity. Contractor will not, and it will ensure that its Subcontractors, regardless of tier, do not, discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin. Such action includes but is not limited to the following: employment, upgrading, demotion, transfer, recruitment or recruiting advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of nondiscrimination. Contractor is responsible to ensure that each of its Subcontractors, regardless of tier, states in all solicitations or advertisements for employees placed by them or on their behalf that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex, or national origin. No Findings for Recovery.

15.13. No Findings for Recovery. The Contractor represents that the Contractor is not subject to a finding for recovery under Section 9.24, Ohio Revised Code, or that the Contractor has taken the appropriate remedial steps required under Section 9.24, Ohio Revised Code, or otherwise qualifies under this section. If this representation and warranty is found to be false, the Contract is void, and Contractor will immediately repay Owner any funds paid to Contractor under this Contract.

15.14. Non-Discrimination. Contractor agrees:

(a) That in the hiring of employees for the performance of Work under this Agreement or in any subcontract, neither the Contractor, subcontractor, nor any person acting on behalf of either of them, shall by reason of race, creed, sex, handicap, or color, discriminate against any citizen of the state in the employment of labor or workers who are qualified and available to perform the Work to which the employment relates.

(b) That neither the Contractor, subcontractor, nor any person acting on behalf of either of them, shall, in any manner, discriminate against or intimidate any employee hired for the performance of Work under this Agreement on account of race, creed, sex, handicap, or color.

(c) That there shall be deducted from the amount payable to the Contractor by the Owner under this Agreement a forfeiture of twenty-five dollars (\$25.00) as required by Ohio Revised Code Section 153.60 for each person who is discriminated against or intimidated in violation of this Agreement.

(d) That this Agreement may be canceled or terminated by the Owner and all money to become due hereunder may be forfeited for a second or subsequent violation of the terms of this section of this Agreement.

15.15. Non-Contract Documents. The following are the reports and tests of subsurface conditions at or

contiguous to the Site, if any, that the Design Professional has used in preparing the Contract Documents. These are not Contract Documents. Geotechnical data is not a warranty of subsurface conditions and is not to be relied upon as a complete representation of all possible soil conditions. Neither Owner nor its consultants warrant the accuracy of the geotechnical data. It is possible that there may be other reports, and/or tests of subsurface conditions at or contiguous to the Site not prepared by or on behalf of Owner. The Owner makes no representation about such reports and/or tests, assuming they exist. Additional information, if needed by Contractor for geotechnical data or site survey, shall be obtained by the Contractor at no additional cost to Owner. The General Conditions, as modified, contain additional terms related to these reports and tests.

Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings listed below, and except for such reliance on "technical data," Contractor shall not rely upon or make any claim against Owner or Architect with respect to: (1) the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or (2) other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or (3) any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information. For example, all interpolations and extrapolations of data performed by Contractor to estimate locations or quantities of subsurface strata are independent factual assumptions which Owner does not warrant. (None, if none are listed.) Geotechnical Engineering and Drilling Services Report prepared by CTL Engineering, Inc. dated November 2, 2021

Note: Non-Contract Documents. The following are those reports and drawings related to any Hazardous Conditions at the Site, if any. These are not Contract Documents. The General Conditions, as modified, contain additional terms related to these reports and drawings. (None, if none are listed.) _____

15.16. Use of Owner's Facilities. Contractor will ensure that neither its employees, nor its Subcontractor's or material supplier's employees, regardless of tier, do any of the following without the express prior written consent of Owner:

- (a) use Owner's facilities including but not limited to, common areas, rest rooms, or phones;
- (b) use or bring any alcoholic beverages, controlled substances, or firearms on any property owned by Owner;
- (c) use any radios, tape or compact disc players, or sound amplification equipment; and
- (d) interact in any manner with building occupants, except where necessary to preserve the safety of building occupants.

Contractor must conspicuously post notice of the prohibitions listed in this section at the Project site in the same location as OSHA notices are required to be posted and shall verbally inform all of Contractor's employees, and the employees of Contractor's Subcontractors and materialmen, regardless of tier, of such prohibitions. The notice must be in a form acceptable to Owner.

15.17. Entire Agreement. This Agreement and the other Contract Documents constitute the entire agreement among the parties with respect to their subject matter and will supersede all prior and contemporaneous, oral or written, agreements, negotiations, communications, representations, and understandings with respect to such subject matter, and no person is justified in relying on such agreements, negotiations, communications, representations, or understandings.

15.18. Attachments. Attachments to this Agreement include:

Exhibit A: Contract Bond

Exhibit B: Sales and Use Tax Construction Contract Exemption Certificate

However, in the event of an inconsistency, the provisions of this Agreement control over any proposal, document, or other attachment.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their properly authorized representatives.

Owner:
Union County Board of Commissioners

Contractor:



Signature

Signature

By: _____
Printed Name and Title

By: _____
Printed Name and Title

Date: _____

Date: _____

CERTIFICATE OF FUNDS
(ORC Section 5705.41)

The undersigned, Union County Auditor, hereby certifies in connection with the Agreement to which this Certificate is attached that the amount required to meet the obligations under the contract, obligation, or expenditure for the services described in the attached agreement, has been lawfully appropriated for the purpose, and is in the treasury or in process of collection to the credit of an appropriate fund, free from any outstanding obligation or encumbrance.

Dated: _____

Union County Auditor

CONTRACTOR'S PAYMENT APPLICATION CHECKLIST

THE CONTRACTOR MUST COMPLETE THIS CHECKLIST AND SUBMIT IT TO THE DESIGN PROFESSIONAL WITH ITS PAYMENT APPLICATION AND ALL REQUIRED DOCUMENTATION.

1. Contractor's Name: _____
2. Name, title, and telephone and fax numbers of Contractor's representative to contact regarding the Payment Application and required documentation:
Name: _____ Title: _____
Office Telephone No.: (____) _____ FAX No.: (____) _____
3. Payment Application Number and Date:
No. _____ Date: _____, 20____
4. The following is a list of required documentation that must accompany its Payment Application. The Contractor certifies that it has submitted the documentation listed below with its Payment Application. If the Contractor cannot do so, the Contractor should explain why in Paragraph 5. Such explanations shall not excuse the Contractor from the requirements for submitting this documentation.
 - _____ .1 Five (5) copies of a properly completed and executed Application for Payment with a properly completed and executed Schedule of Values attached to each;
 - _____ .2 Properly Completed Contractor's Affidavit with List of Subcontractors and Suppliers and Any Amounts Withheld;
 - _____ .3 Contractor's Waiver and Release Agreement (beginning with the second Application for Payment);
 - _____ .4 For each of its Subcontractors and Suppliers, a Subcontractor's – Supplier's Waiver and Release Agreement (beginning with the second Application for Payment);
 - _____ .5 Schedule of all materials and equipment stored on-site;
 - _____ .6 For materials and equipment stored off-site:
 - _____ A list of the materials and equipment consigned and stored off-site in connection with the Project (which shall be clearly identified), giving the place of storage, together with copies of invoices and reasons why the materials and equipment cannot be delivered to the site;
 - _____ Certification that all items have been tagged for delivery to the Project and that they will not be used for any other purpose;
 - _____ A letter from the Contractor's surety bonding company indicating agreement to the arrangements and that payment to the Contractor shall not relieve either party of its responsibility to complete the facility;
 - _____ Evidence of adequate insurance covering the material and equipment in storage, which shall name the Owner as additional insured;

_____ Evidence that the Design Professional has visited the Contractor's place of storage and found that all the materials and equipment set forth in the payment request and represented to be stored off-site are stored at the place of storage (any costs incurred by the Design Professional to inspect material and equipment in off-site storage shall be paid by the Contractor); and

_____ Itemization of the materials and equipment and their cost, which were approved on previous Pay Applications and which remain in off-site storage.

_____ .7 Other documentation or information required by the Contract Documents or by the Design Professional or Owner.

5. Reason why required documentation is not submitted:

NOTE: The failure to submit required documentation, regardless of the reason, may result in non-payment, partial payment, and/or late payment.

Signature

Printed Name

Date

DESIGN PROFESSIONAL'S REVIEW

_____ Checklist and documentation complete.

_____ Checklist and documentation incomplete.

Signature

Printed Name

Date

BID FORM

NOTE 1 The wording of this Bid shall be retained throughout, without changes, alterations, or additions. Any change in the wording may cause the Bid to be rejected as not complying with the law.

NOTE 2 Before completing the Bid Form, the undersigned represents that it has carefully reviewed the Legal Notice, Instructions to Bidders, this Bid Form, Form of Bid Guaranty and Contract Bond, Contractor's Affidavit (O.R.C. 5719.042), Owner-Contractor Agreement, General Conditions of the Contract (AIA A201-2017) (as modified for the Project), Drawings, Project Specifications, and other Contract Documents. Failure to comply with provisions of the Contract Documents may be cause for disqualification of the bid.)

NOTE 3 Bidder is cautioned to bid only on the Brands or Standards specified.

NOTE 4 Failure to acknowledge receipt of all addenda on the Bid Form will result in rejection of bid.

BID

Submitted by: _____

_____ Date _____

To the Board of Commissioners of Union County in Marysville, Ohio. having read the specifications and examined the drawings entitled:

**UNION COUNTY COURTHOUSE
I.T. NETWORK CABLE REPLACEMENT**

215 West Fifth Street
Marysville, Ohio 43040

prepared by Mark Lecky Architects, LLC., 668 South Ninth St., Columbus, Ohio 43206 and the engineers of record,, for the BOARD OF COMMISSIONERS, UNION COUNTY, 233 West Sixth Street, Marysville, Ohio 43040, and having received, read, and taken into account Addenda Numbers; _____, and likewise having inspected the site of and conditions affecting and governing the construction of said project, the undersigned hereby proposes to furnish all materials and to perform all labor, as specified and described in the said drawings for said work, for the following sums:

BASE BID:

ITEM 1. GENERAL CONTRACT:

The Contractor shall provide separate line item costs for base bid labor, base bid materials, and total base bid for the General Contract work as indicated on the drawings and as specified:

_____ Dollars \$ _____
ALL LABOR for the sum of

_____ Dollars \$ _____
ALL MATERIAL for the sum of

_____ Dollars \$ _____
TOTAL BID for the sum of

ALTERNATES:

ITEM 2

- A. Alternate E-1 Shall include all labor and materials - to provide the following:
All work to provide and install CAT6A cabling and system components in lieu of CAT6. The system shall include all system components for a complete network upgrade.
If Alternate E-1 is accepted, add the following cost to the Base Bid.

ALL LABOR AND MATERIALS FOR THE SUM OF _____.

ITEM 3. UNIT COSTS FOR ADDITIONAL WORK:

3A. UNIT PRICE #1: The cost per 100LF of additional cable runs. _____

3B. UNIT PRICE #2: The cost per each to Add 1-1/2 diameter pipe sleeve in max 24" thick masonry wall.-

ITEM 4. BREAK OUT COSTS

4A. No Break Out Costs listed.

ITEM 5 CONTRACTOR QUALIFICATIONS INFORMATION:

ITEM 5A RELATED EXPERIENCE:

The General Contractor and his subcontractors shall provide proof of regular and successful business in the areas of work required for this project. Work experience to include:

In general, the scope of work provides for the following:

1. General demolition work.
2. Replacement of existing network cabling and components with specified new.
3. General refinishing work as required to accommodate cabling work.
4. This project is subject to the requirements of Prevail Wage laws.

Eligible Applicator:

- A. The general contractor and his subcontractors shall provide proof of regular and successful business in the areas of work required for this project. Work experience to include: network systems and wiring, historic buildings and/or pre-1920's buildings cable & electrical wiring and general interior remodeling and finishes work. A list of a minimum of (2) similar work projects in historic masonry buildings (pre 1920's) and (1) additional project, performed within the past (5) years including references shall be submitted for review by the County. Provide scope of work, names of skilled craftsmen providing the work and any other information needed to prove qualifications to meet this project's requirements. Provide additional submittal sheets as needed.

PROJECT 1 INFORMATION:

NAME: _____
LOCATION: _____
DATE COMPLETED: _____
DESCRIPTION OF WORK: _____

OWNER OR DESIGN PROFESSIONAL'S CONTACT INFORMATION:

COMPANY: _____
REPRESENTATIVE: _____
CONTACT INFO: _____

PROJECT 2 INFORMATION:

NAME: _____
LOCATION: _____
DATE COMPLETED: _____
DESCRIPTION OF WORK: _____

OWNER OR DESIGN PROFESSIONAL'S CONTACT INFORMATION:

COMPANY: _____
REPRESENTATIVE: _____
CONTACT INFO: _____

PROJECT 3 INFORMATION:

NAME: _____
LOCATION: _____
DATE COMPLETED: _____

DESCRIPTION OF WORK: _____

OWNER OR DESIGN PROFESSIONAL'S CONTACT INFORMATION:
COMPANY: _____
REPRESENTATIVE: _____
CONTACT INFO: _____

ITEM 6 LIST OF SUBCONTRACTORS/SUPPLIERS:

The General Contractor must list all proposed consultants, subcontractors, and suppliers anticipated for this project to enable the Engineer and County to evaluate skill, experience, responsibility, competence, and/or financial character of the contractor and his team.

The subcontractors shall provide a list of a minimum of 3 jobs completed in the past 5 years including references shall be submitted for review by the County. Provide scope of work, names of skilled craftsmen providing the work and any other information needed to prove qualifications to meet this project's requirements. Provide submittal sheets on company letter and include in this Bid Form.

I.T. Network Subcontractor	address	phone
Fire Stopping Subcontractor	address	phone
Painting Subcontractor	address	phone

NOTE "A" TIME OF COMPLETION

- a) The Contractors agree to complete all work embodied in this contract within 90 consecutive calendar days (and otherwise in accordance with specifications section 01005), after receipt of the Notice to Proceed.
- b) On failure to have all work completed within the period of time stated above, the contractors shall forfeit and pay, or cause to be paid, to the County, for and as liquidated damages to be deducted from any payments due or to become due to the said Contractor, the sum listed in 6.4.2 of the OWNER-CONTRACTOR AGREEMENT per consecutive calendar day, for each and every day thereafter that said work remains in an unfinished condition.

NOTE "B"

Bids submitted under this Bid are acknowledged by the County to be made under condition that the contractor shall not be prevented, due to strikes or other disruptions affecting sources of supply or the normal progress of the work, from obtaining materials necessary to carry out the contract and to complete the construction covered thereby. This does not mean that the County is responsible to the contractor for delays of this nature, therefore the County will not be held liable for the contractor's failure to complete the project within the time limits due to these or any other similar causes.

NOTE "C" BID GUARANTY

Bidder must submit with his Form of Bid one (1) of the following BID GUARANTIES meeting the requirements of Section 153.54 of the Ohio Revised Code.

- a) Bidder is cautioned that BID GUARANTY required by Section 153.54 (B) O.R.C. be submitted on Form of Bid Guaranty and Contract Bond, and that the Bond is signed by both the Surety (Sureties) and Bidder.

IF THE AMOUNT IS LEFT BLANK, THE PENAL SUM OF THE BID GUARANTY AND CONTRACT BOND WILL BE THE FULL AMOUNT OF THE PRINCIPAL'S BASE BID PLUS ADD ALTERNATES; ALTERNATIVELY, IF COMPLETED, THE AMOUNT MUST BE NOT LESS THAN THE FULL AMOUNT OF THE BASE BID PLUS ADD ALTERNATES, STATED IN DOLLARS AND CENTS. A PERCENTAGE IS NOT ACCEPTABLE.

The requirements of Section 3905.41 of the Ohio Revised Code may be applicable to require the Bid Guaranty and Contract Bond to be countersigned by an Ohio resident agent. It is the duty of the bidder to determine applicability of Section 3905.41. Non-compliance with Section 3905.41 will cause the bidder's bid to be rejected. Name and address of endorsers shall also be typed immediately below signatures.

- b) In lieu of the BID GUARANTY and Contract Bond required above in NOTE "C" (1), the bidder may submit the BID GUARANTEE required by Section 153.54 (C) O.R.C. in the form of a Certified Check, Cashier's Check, or Letter of Credit pursuant to Chapter 1305 Ohio Revised Code and shall be equal to ten (10%) percent of the total Bid. The BID GUARANTY shall be payable to the County.
- c) Lowest responsive and responsible bidder will be required to furnish Contract Bond for full amount of award.

NOTE "D"

Bidder is cautioned to bid on the "Standards" specified..

NOTE "E"

There shall be no discrimination based upon race, creed, color, religion, national origin, or ancestry.

NOTE "F"

The Bidder shall supplement bid by supplying the following information for use in the preparation of the Contract.

NAME OF INDIVIDUAL MEMBERS OF THE FIRM: _____

NAME OF COMPANY/CORPORATION: _____

NAME OF PRESIDENT: _____

CORPORATION IS ORGANIZED UNDER THE LAWS OF: _____

ADDRESS: _____

FEDERAL TAX I.D. #: _____

TELEPHONE #: _____ FACSIMILE #: _____

EXECUTION OF BID:

NOTE: Failure to sign bid may result in rejection of bid.

THIS BID SUBMITTED BY:

(NAME OF CONTRACTOR)

BY: _____ DATE: _____
(SIGNATURE OF CONTRACTOR OR AUTHORIZED REPRESENTATIVE)

Contact person for Contract processing: _____

Mailing address if different from above: _____

Tel: _____ Email: _____

CONTRACTOR'S QUALIFICATION STATEMENT

SUBMITTED TO: Union County Board of Commissioners
233 West Sixth Street197
Marysville, Ohio 43040

SUBMITTED BY:

NAME:

ADDRESS:

PRINCIPAL OFFICE:

- ☐ Corporation
- ☐ Partnership
- ☐ Individual
- ☐ Joint Venture
- ☐ Other

NAME OF PROJECT:

1. ORGANIZATION

- 1.1 How many years has your organization been in business as a Contractor?
- 1.2 How many years has your organization been in business under its present business name?
 - 1.2.1 Under what other or former names has your organization operated?
- 1.3 If your organization is a corporation, answer the following:
 - 1.3.1 Date of incorporation:
 - 1.3.2 State of incorporation:
 - 1.3.3 President's name:
 - 1.3.4 Vice President's name(s):
 - 1.3.5 Secretary's name:
 - 1.3.6 Treasurer's name:

- 1.4 If your organization is a partnership, answer the following:
- 1.4.1 Date of organization:
- 1.4.2 Type of partnership (if applicable):
- 1.4.3 Name(s) of general partner(s):
- 1.5 If your organization is individually owned, answer the following:
- 1.5.1 Date of organization:
- 1.5.2 Name of owner:
- 1.6 If the form of your organization is other than those listed above, describe it and name the principals:

2. LICENSING

- 2.1 List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.
- 2.2 List jurisdictions in which your organization's partnership or trade name is filed.

3. EXPERIENCE

- 3.1 List the categories of work that your organization normally performs with its own forces.
- 3.2 Claims and Lawsuits (If the answer to any of the questions below is yes, please attach details.)
- 3.2.1 Has your organization ever failed to complete any work?
- 3.2.2 Within the last five (5) years has your organization or any of its officers prosecuted any Claims, had any Claims prosecuted against it or them, or been involved in or is currently involved in any mediation or arbitration proceedings or lawsuits suits related to any construction project, or has any judgments or awards

outstanding against it or them? If the answer is yes, please attach the details for each Claim, including the names and telephone numbers of the persons who are parties, the amount of the Claim, the type of Claim and basis for the Claim, and the outcome.

Note: As used in this document "Claim" means a Claim initiated under the Contract Documents for a project.

- 3.3 Within the last five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? If the answer is yes, please attach details for each instance, including the names and telephone numbers of the persons who are parties to the contract, and the reason(s) the contract was not completed.

- 3.4 On a separate sheet, list construction projects your organization has in progress with an original Contract Sum of more than \$100,000.00, giving the name of project, owner and its telephone number, design professional and its telephone number, contract amount, percent complete and scheduled completion date.

3.4.1 State total amount of work in progress and under contract:

- 3.5 Provide the following information for each contract your organization has had during the last five (5) years, including current contracts, where the Contract Sum is fifty percent (50%) or more of the bid amount for this Project, including add alternates. If there are more than ten (10) of these contracts only provide information on the most recent ten (10) contracts, including current contracts.

Project And Work	Contract Sum	Owner's Representative & Telephone Number	Engineer's Or Architect's Representative Name & Telephone Number

Project And Work	Contract Sum	Owner's Representative & Telephone Number	Engineer's Or Architect's Representative Name & Telephone Number

- 3.5.1 Provide the following information for each project your organization has had during the last five (5) years, which your organization believes is of comparable or greater size and complexity than the Owner's project. If there are more than five (5) of these projects, only provide information on the most recent five (5) projects, including current projects.

Project And Work	Contract Sum	Owner's Representative & Telephone Number	Engineer's Or Architect's Representative Name & Telephone Number

- 3.5.2 State average annual amount of construction work your organization has performed during the last five years.

- 3.5.3 If any of the following members of your organization's management --president, chairman of the board, or any director--operates or has operated another construction company during the last five (5) years, identify the member of management and the name of the construction company.

- 3.5.4 If your organization is operating under a trade name registration with the Secretary of State for the State of Ohio, identify the entity for which the trade name is registered. If none, state "none."

3.5.5. If your organization is a division or wholly-owned subsidiary of another entity or has another relationship with another entity, identify the entity of which it is a division or wholly-owned subsidiary or with which it has another relationship and also identify the nature of the relationship. If none, state "not applicable."

3.6 On a separate sheet, list the construction education, training and construction experience for each person who will fill a management role on the Project, including without limitation the Project Executive, Project Architect, Project Manager, and Project Superintendent. For each person listed, include with the other information the last three projects on which the person worked and the name and telephone number of the Design Professional and the Owner.

4. REFERENCES

4.1 Trade References:

4.2 Bank References:

4.3 Surety:

4.3.1 Name of bonding company:

4.3.2 Name and address of agent:

5. FINANCING

5.1 Financial Statement

5.1.1 Attach a financial statement, preferably audited, including your organization's latest balance sheet and income statement showing the following items:

Current Assets (e.g., cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory and prepaid expenses);

Net Fixed Assets;

Other Assets;

Current Liabilities (e.g., accounts payable, notes payable, accrued expenses, provision for income taxes, advances, accrued salaries and accrued payroll taxes); and

Other Liabilities (e.g., capital, capital stock, authorized and outstanding shares par values, earned surplus and retained earnings).

5.1.2 Name and address of firm preparing attached financial statement, and date thereof.

5.1.3 Is the attached financial statement for the identical organization named on page one?

5.1.4 If not, explain the relationship and financial responsibility of the organization whose financial statement is provided (e.g., parent-subsidary).

5.2 Will the organization whose financial statement is attached act as guarantor of the contract for construction?

6 Does your organization participate in a drug-free workplace program?

7 Provide your organization's record for both resolved and unresolved findings of the Auditor of the State of Ohio for recovery as defined in Section 9.24 of the Ohio revised Code.

Certification. The undersigned certifies for the reliance of the Owner that after diligent investigation, to the best of the undersigned's belief, the information provided with this Contractor's Qualification Statement is true, accurate and not misleading.

SIGNATURE

Dated at this ____ day of _____, 20__.

Name of Organization: _____

By: _____[PRINT NAME]

Signature: _____

Title: _____

_____, being duly sworn, deposes and says that the information provided herein is true and sufficiently complete so as not to be misleading. The notarial act certified hereby is a jurat. An oath or affirmation was administered to the signer with regard to the notarial act certified to hereby.

Subscribed and sworn before me this ____ day of _____20__.

Notary Public

My Commission Expires: _____

SEAL

CONTRACTOR'S PERSONAL PROPERTY TAX AFFIDAVIT
(O.R.C. § 5719.042)

State of Ohio

County of _____, ss:

_____, being first duly sworn, deposes and says that he is the
(Name)

_____ of _____, with offices located at
(Title) (Contractor)

_____, and as its duly
(Address of Contractor)

authorized representative, states that effective this _____ day of _____, 20____,

(Name of Contractor)

- () is charged with delinquent personal property taxes on the general list of personal property as set forth below:

<u>County</u>	<u>Amount</u> (include total amount penalties and interest thereon)
_____ County	\$ _____
_____ County	\$ _____
_____ County	\$ _____

- () is not charged with delinquent personal property taxes on the general list of personal property in any Ohio county.

(Affiant)

Sworn to and subscribed this _____ day of _____, 20____. The notarial act certified hereby is a jurat. An oath or affirmation was administered to the signer with regard to the notarial act certified to hereby.

(Notary Public)

My commission expires

_____, 20____

**BID GUARANTY AND
CONTRACT BOND**
(O.R.C. § 153.571)

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned _____
_____, ("Contractor") as principal and _____
_____ as surety are hereby held and firmly bound unto the **Union County Board of Commissioners**, as obligee in the penal sum of the dollar amount of the bid submitted by the principal to the obligee on _____, 20__, to undertake the construction of the **Union County Courthouse I.T. Network Cable Replacement Project** ("Project"). The penal sum referred to herein shall be the dollar amount of the principal's bid to the obligee, incorporating any additive or deductive Alternates made by the principal on the date referred to above to the obligee, which are accepted by the obligee. In no case shall the penal sum exceed the amount of _____ Dollars (\$_____
_____). (If the foregoing blank is not filled in, the penal sum will be the full amount of the principal's bid, including add Alternates. Alternatively, if the blank is filled in the amount stated must not be less than the full amount of the bid including add Alternates, in dollars and cents. A percentage is not acceptable.) For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

Signed this _____ day of _____, 20__.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH that whereas the above named principal has submitted a bid for work on the Project.

Now, therefore, if the obligee accepts the bid of the principal and the principal fails to enter into a proper contract in accordance with the bid, plans, details, specifications, and bills of material; and in the event the principal pays to the obligee the difference not to exceed ten percent (10%) of the penalty hereof between the amount specified in the bid and such larger amount for which the obligee may in good faith contract with the next lowest bidder to perform the work covered by the bid; or in the event the obligee does not award the contract to the next lowest bidder and resubmits the project for bidding, the principal pays to the obligee the difference not-to-exceed ten percent (10%) of the penalty hereof between the amount specified in the bid, or the costs, in connection with the resubmission, of printing new contract documents, required advertising, and printing and mailing notices to prospective bidders, whichever is less, then this obligation shall be null and void, otherwise to remain in full force and effect; if the obligee accepts the bid of the principal and the principal within ten (10) days after the awarding of the contract enters into a proper contract in accordance with the bid, plans, details, specifications, and bills of material, which said contract is made a part of this bond the same as though set forth herein.

Now also, if the said principal shall well and faithfully do and perform the things agreed by said principal to be done and performed according to the terms of said contract; and shall pay all lawful claims of subcontractors, materialmen, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said contract; we agreeing and assenting that this undertaking shall be for the benefit of any materialman or laborer having a just claim, as well as for the obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; and surety shall indemnify the obligee against all damage suffered by failure of the principal to perform the contract according to its provisions and in accordance with the plans, details, specifications, and bills of material therefor and to pay all lawful claims of subcontractors, materialmen, and laborers for labor performed or material furnished in carrying forward, performing, or completing the contract and surety further agrees and assents that this undertaking is for the benefit of any subcontractor, materialman, or laborer having a just claim, as well as for the obligee; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

The said surety hereby stipulates and agrees that no modifications, omissions, or additions in or to the terms of the said contract or in or to the plans or specifications therefore shall in any wise affect the obligations of said surety on its bond, and does hereby waive notice of any such modifications, omissions or additions to the terms of the contract or to the work or to the specifications.

Signed and sealed this _____ day of _____, 20__.

PRINCIPAL

By: _____

Printed Name & Title: _____

SURETY

By: _____

Printed Name & Title: _____

Surety's Address: _____

Surety's Telephone Number: _____

Surety's Fax Number: _____

SURETY'S AGENT

Surety's Agent's Address: _____

Surety's Agent's Telephone Number: _____

Surety's Agent's Fax Number: _____

NOTE: The Contract Bond form that follows is to be used ONLY by a bidder that is awarded a contract and submits a form of bid guaranty other than the combined Bid Guaranty and Contract Bond with its bid. If a bidder submits a combined Bid Guaranty and Contract Bond, then the bid guaranty becomes the contract bond when the contract is awarded.

AIA Bid Bond or Payment and Performance Bond forms are not acceptable for this Project.

CONTRACT BOND
(O.R.C. § 153.57)

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned ("Contractor"), as principal, and _____, as surety, are hereby held and firmly bound unto the **Union County Board of Commissioners** ("Owner") as obligee, in the penal sum of _____

_____ Dollars (\$ _____), for the payment of which well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH that whereas, the above-named principal did on the _____ day of _____, 20__, enter into a contract with the Owner for construction of the **Union County Courthouse I.T. Network Cable Replacement Project** ("Project"), which said contract is made a part of this bond the same as though set forth herein:

Now, if the said Contractor shall well and faithfully do and perform the things agreed by the Contractor to be done and performed according to the terms of said contract; and shall pay all lawful claims of subcontractors, materialmen, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said contract; we agreeing and assenting that this undertaking shall be for the benefit of any materialman or laborer having a just claim, as well as for the obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

The said surety hereby stipulates and agrees that no modifications, omissions, or additions in or to the terms of the said contract or in or to the plans or specifications therefore shall in any wise affect the obligations of said surety on its bond, and does hereby waive notice of any such modifications, omissions or additions to the terms of the contract or to the work or to the specifications.

Signed and sealed this _____ day of _____, 20__.

(PRINCIPAL)

(SURETY)

By: _____

By: _____

Printed Name & Title: _____

Printed Name & Title: _____

Surety's Address: _____

Surety's Telephone Number: _____

Surety's Fax Number: _____

NAME OF SURETY'S AGENT

Surety's Agent's Address: _____

Surety's Agent's Telephone Number: _____

Surety's Agent's Fax Number: _____



Sales and Use Tax Construction Contract Exemption Certificate

Identification of Contract:

Contracture's (owner's) name Board of Commissioners of Union County

Exact location of job/project 233 West Sixth St. Marysville, Ohio 43040

Name of job/project as it appears
on contract documentation Union County Courthouse I.T. Network Replacement Project

The undersigned hereby certifies that the tangible personal property purchased under this exemption certificate was purchased for incorporation into:

☐	A building used exclusively for charitable purposes by a nonprofit organization operated exclusively for charitable purposes as defined in Ohio Revised Code (R.C.) section 5739.02(B)(12);	☒	Real property that is owned, or will be accepted for ownership at the time of completion, by the United States government, its agencies, the state of Ohio or an Ohio political subdivision;
☒	Real property under a construction contract with the United States government, its agencies, the state of Ohio or an Ohio political subdivision;	☐	A computer data center entitled to exemption under R.C. 122.175;
☐	A horticulture structure or livestock structure for a person engaged in the business of horticulture or producing livestock;	☐	A building under a construction contract with an organization exempt from taxation under section 501(c)(3) of the Internal Revenue Code of 1986 when the building is to be used exclusively for the organization's exempt purposes;
☐	A house of public worship or religious education;	☐	A hospital facility entitled to exemption under R.C. section 140.08;
☐	The original construction of a sports facility under R.C. section 307.696;	☐	Building and construction materials and services sold for incorporation into real property comprising a convention center that qualifies for property tax exemption under R.C. 5709.084 (until one calendar year after the construction is completed).
☐	Real property outside this state if such materials and services, when sold to a construction contractor in the state in which the real property is located for incorporation into real property in that state, would be exempt from a tax on sales levied by that state;		

The original of this certificate must be signed by the owner/contractee and/or government official and must be retained by the prime contractor. Copies must be maintained by the owner/contractee and all subcontractors. When copies are issued to suppliers when purchasing materials, each copy must be signed by the contractor or subcontractor making the purchase.

Prime Contractor

Name _____
Signed by _____
Title _____
Street address _____
City, state, ZIP code _____
Date _____

Subcontractor

Name _____
Signed by _____
Title _____
Street address _____
City, state, ZIP code _____
Date _____

Owner/Contractee

Name Board of Commissioners of Union County
Signed by _____
Title _____
Street address 233 West Sixth St.
City, state, ZIP code Marysville, Ohio 43040
Date _____

Political Subdivision

Name Same as Owner/Contractee
Signed by _____
Title _____
Street address _____
City, state, ZIP code _____
Date _____

STATEMENT OF CLAIM FORM

Claim No. ____ for Contractor

1. Name of Contractor: _____

2. Date written claim given: _____.

3. Contractor's representative to contact regarding the claim:

Name: _____ Title: _____

Telephone No. _____ (office) FAX No. _____

E-mail: _____

4. General description of claim:

5. Contract Documents. If the claim is based upon any part or provision in the Contract Documents, including but not limited to pages in the Drawings and/or paragraphs in the Specifications, Owner-Contractor Agreement, General Conditions or Supplementary General Conditions, state upon which parts or provisions the claim is based:

6. Delay claims:

6.1 Date delay commenced: _____

6.2 Duration or expected duration of the delay, if known: _____

6.3 Apparent cause of the delay and part of critical path affected:

6.4 Expected impact of the delay and recommendations for minimizing such impact:

7. Additional compensation. Set forth in detail all additional compensation to which the Contractor believes it is entitled with respect to this claim:

8. Instructions for Completing the Statement of Claim Form ("Instructions"). The Instructions are incorporated in this Form.

9. Truth of Claim. By submitting this claim, the Contractor and its representative certify that after conscientious and thorough review and to the best of his or her knowledge and belief a) the Contractor has complied fully with the Instructions, b) the information in this Statement of Claim is accurate, c) the Contractor is entitled to recover the compensation in paragraph 7, and d) the Contractor has not knowingly presented a false or fraudulent claim. The Contractor by its authorized representative must acknowledge this Statement of Claim before a notary public.

CONTRACTOR: _____

By: _____

Name and Title: _____

Date: _____

CONTRACTOR'S ACKNOWLEDGMENT

State of _____,

County of _____, ss:

_____ first being sworn, states that after conscientious and thorough review, the statements made in attached Statement of Claim Form are complete and true to the best of his or her knowledge and belief.

Sworn to before me a notary public by _____ on _____, 20__. The notarial act certified hereby is a jurat. An oath or affirmation was administered to the signer with regard to the notarial act certified to hereby.

Notary Public

WHEN COMPLETED, FORWARD A COPY OF THIS NOTICE AND STATEMENT OF CLAIM FORM TO THE OWNER AND DESIGN PROFESSIONAL.

INSTRUCTIONS FOR COMPLETING THE STATEMENT OF CLAIM FORM

1. Completing the Statement of Claim Form ("Claim Form") is a material term of the Contract. The Claim Form tells the Owner and Design Professional that the Contractor is making a Claim and that they need to act promptly to mitigate the effects of the occurrence giving rise to the Claim. The Claim Form also provides them with information so that they can mitigate such effects. The Contractor acknowledges that constructive knowledge of the conditions giving rise to the Claim through job meetings, correspondence, site observations, etc. is inadequate notice, because knowledge of these conditions does not tell the Owner and Design Professional that the Contractor will be making a Claim and most often is incomplete.
2. If the space provided in the Claim Form is insufficient, the Contractor, as necessary to provide complete and detailed information, must attach pages to the Claim Form with the required information.
3. Paragraph 4. The Contractor must state what it wants, *i.e.*, time and/or compensation, and the reason why it is entitled to time and/or compensation.
4. Paragraph 5. The Contractor must identify the exact provisions of the Contract Documents it is relying on in making its Claim. For example, if the Claim is for a change in the scope of the Contractor's Work, the Contractor must identify the specific provisions of the Specifications, and the Plan sheets and details that provide the basis for the scope change.
5. Paragraph 6. This paragraph applies to delay claims, including delays that the Contractor believes result in constructive acceleration. The Contractor must identify the cause of the delay, party or parties responsible, and what the party did or did not do that caused the delay, *i.e.*, specific work activities. The Contractor acknowledges that general statements are not sufficient, and do not provide the Owner with sufficient information to exercise the remedies available to the Owner or to mitigate the effects of the delay.

For example, if the Contractor claims a slow response time on submittals caused a delay, the Contractor must identify the specific submittals, all relevant dates, and then show on the applicable schedule, by circling or highlighting, the activities immediately affected by the delays. Also for example, if the Contractor claims it was delayed by another Contractor, the Contractor must identify the delaying Contractor, specifically what the delaying Contractor did or did not do that caused the delay, and then show the applicable schedule, by circling or highlighting, the activities immediately affected by the delays. Further by example, if the Contractor seeks an extension of time for unusually severe weather, the Contractor must submit comparative weather data along with a record of the actual weather at the job site and job site conditions.

6. Paragraph 6.4. Time is of the essence under the Contract Documents. If there is a delay, it is important to know what can be done to minimize the impact of the delay. It therefore is important that the Contractor provide specific recommendations on how to do so.
7. Paragraph 7. The Contractor must provide a specific and detailed breakdown of the additional compensation it seeks to recover. For future compensation, the Contractor shall provide its best estimate of such compensation.
8. Paragraph 8 and Acknowledgment. By submitting this Claim, the Contractor and its representative certify that after conscientious and thorough review and to the best of his or her knowledge and belief a) the Contractor has complied fully with the Instructions, b) the information in this Claim Form is accurate, c) the Contractor is entitled to recover the compensation in paragraph 7, and d) the Contractor has not knowingly presented a false or fraudulent claim. The Contractor by its authorized representative must acknowledge this Statement of Claim before a notary public.

End of Instructions

CERTIFICATE OF SUBSTANTIAL COMPLETION

Project:

Union County Courthouse I.T. Network
Cable Replacement Project

Contract For:

General Contract

Owner:

Union County Board of Commissioners

CONTRACTOR: [insert name and address]

The Design Professional hereby certifies that the Date for Substantial Completion of the Contractor's Work as set forth in the Owner-Contractor Agreement is:

(Insert Date for Substantial Completion of the Work)

The Design Professional hereby certifies that the Date for Substantial Completion in the Contractor's Agreement with the Owner (the "Agreement"), as extended by Change Orders and Claims submitted by the Contractor that have been Finally Resolved, as defined below, is:

1. Date for Substantial Completion in the Agreement
(above): _____
2. Additional days added to Date for Substantial Completion
by Change Order: _____
3. Additional days added by Claims that have been
Finally Resolved: _____
4. Date for Substantial Completion in the Contract
Adjusted by days under No. 2 and No. 3 _____

"Finally Resolved" means that the Design Professional has made a decision (or declined to make a decision) on the Claim under the General Conditions and that any litigation regarding the Claim has been concluded.

The Design Professional certifies that the Contractor's Work to the best of the Design Professional's knowledge, information, and belief was Substantially Complete, as Substantial Completion is defined in the Contract Documents, on _____.

The Design Professional hereby certifies that the difference between (a) the Date for Substantial Completion adjusted by the days under No. 2 and No. 3 above and (b) the date the Contractor's Work was Substantially Complete is _____ days.

NOTICES OF DELAY. The Design Professional hereby certifies that all "NOTICES OF DELAY" submitted by the Contractor and described in the General Conditions are attached to this Certificate. This certification is solely for the purpose of identifying all "NOTICES OF DELAY" submitted by the Contractor and is not intended to imply that any of these "NOTICES OF DELAY" were properly submitted in accordance with Contract Documents or are valid.

STATEMENT OF CLAIM FORMS. The Design Professional hereby certifies that all Statement of Claim Forms described in the General Conditions and submitted by the Contractor are attached to this Certificate. This certification is solely for the purpose of identifying all Statement of Claim Forms submitted by the Contractor and is not intended to imply that any of these Statement of Claim Forms were properly submitted in accordance with Contract Documents or are valid.

CERTIFICATE OF SUBSTANTIAL COMPLETION

CSC-1

PUNCHLIST ITEMS. A list of items to be completed by the Contractor is attached to this Certificate. The failure to include items on this list does not change the responsibility of the Contractor to complete its Work in accordance with the Contract Documents. The Contractor shall complete all items on the Punchlist in accordance with the Contract Documents.

Security, maintenance, utilities, damage to the Work and insurance are the responsibility of the Owner and the Contractor based on their operations pursuant to final completion of the Work.

Copies of this Certificate were provided to the Contractor and the Owner on _____

Signature: _____

Date: _____

**CONTRACTOR'S AFFIDAVIT and CERTIFICATION WITH LIST OF SUBCONTRACTORS
AND SUPPLIERS WITH ANY AMOUNTS WITHHELD**

PROJECT:

Union County Courthouse I.T. Network
Cable Replacement Project

CONTRACTOR:

In Support of PAYMENT APPLICATION No.: _____

For the Period Through: _____

STATE OF _____:
: SS,
COUNTY OF _____:

The undersigned after first being sworn swears that a) all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment; b) set forth below is a complete list of its Subcontractors and Suppliers; and c) set forth below is a complete description of all amounts withheld from any Subcontractor or Supplier and the reason why. Attach additional sheets if necessary.

Typed or Printed Name of Subcontractor or Supplier	Address of Subcontractor or Supplier	Telephone Number of Subcontractor or Supplier

WITHHOLDINGS FROM SUBCONTRACTORS AND/OR SUPPLIERS:

Typed or Printed Name of Subcontractor or Supplier	Amount Withheld	Reason for Withholding

Moreover, Contractor certifies that, except for as set forth immediately above, Contractor has paid all of its subcontractors and suppliers who were due to be paid with the proceeds of the prior Application for Payment and Contractor acknowledges that Owner is relying upon such certification when paying Contractor the amount asked for in the payment application that this Affidavit and Certification supports.

CONTRACTOR:

BY: _____
(Signature of authorized representative)

NOTARY PUBLIC

Subscribed and sworn to before me on this date by _____ on behalf of _____ . The notarial act certified hereby is a jurat. An oath or affirmation was administered to the signer with regard to the notarial act certified to hereby.

Signature of Notary Public

Notary Public: _____

My Commission Expires: _____

**CONTRACTOR'S WAIVER & RELEASE AFFIDAVIT
("AFFIDAVIT")**

Project: Union County Courthouse I.T. Network Cable Replacement Project

The undersigned hereby acknowledges receipt of payment for all Work on the Project through the date of the prior Application for Payment by the **Union County Board of Commissioners** (the "Owner") with which it has a contract for the Project.

In return for said payment, and/or pursuant to certain contractual obligations of the undersigned, the undersigned hereby waives and releases any rights it has or may have through the date of the last Application for Payment to any and all types of claims relating to the Project, including without limitation claims of payment, Mechanic's Lien, stop notice, equitable lien, labor and material bond, breach of contract or unjust enrichment, or any other claim against the Owner, for any labor, materials, or equipment the undersigned may have delivered or provided to the Project, except for any Claims the undersigned has made by properly and timely submitting a Statement of Claim form. The undersigned further certifies that this Affidavit covers claims by all contractors, subcontractors, and suppliers who may have provided any labor, material, or equipment to the Project through the undersigned or at the undersigned's request. The undersigned acknowledges that all such contractors, subcontractors, sub-subcontractors and suppliers have signed an affidavit in the form of this Affidavit releasing any and all claims against the Owner, except for any Claims the undersigned has made by properly and timely submitting a Statement of Claim form. The undersigned hereby represents and warrants that it has paid any and all welfare, pension, vacation or other contributions required to be paid on account of the employment by the undersigned of any laborers on the Project.

This Affidavit is for the benefit of, and may be relied upon by the Owner. The undersigned hereby agrees to indemnify, defend and hold harmless each of the foregoing, the Project, work of improvement, and real property from any and all claims, or liens that are or should have been released in accordance with this Affidavit.

Company Name

Authorized Signature (Company Officer)

Title

Date

State of: _____ County of _____

Subscribed and sworn to before me this _____
day of _____. The notarial
act certified hereby is a jurat. An oath or affirmation was
administered to the signer with regard to the notarial act
certified to hereby.

Notary Public: _____

My Commission Expires: _____

**SUBCONTRACTORS, SUPPLIERS
WAIVER & RELEASE AFFIDAVIT
("AFFIDAVIT")**

Project: Union County Courthouse I.T. Network Cable Replacement Project

The undersigned hereby acknowledges receipt of payment for all Work on the Project through the date of the prior Application for Payment by the Contractor ("Contractor") with which it has a contract.

In return for said payment, and/or pursuant to certain contractual obligations of the undersigned, the undersigned hereby waives and releases any rights it has or may have through the date of the Contractor's last Application for Payment and to any and all types of claims relating to the Project, including without limitation claims of payment, Mechanic's Lien, stop notice, equitable lien, labor and material bond, breach of contract or unjust enrichment, or any other claim against the Contractor, the Contractor's surety, and/or the **Union County Board of Commissioners** (the "Owner"), for any labor, materials, or equipment the undersigned may have delivered or provided to the Project, except for any Claims the undersigned has made by properly and timely submitting a Statement of Claim form, a copy of which has been delivered to the Owner. The undersigned further certifies that this Affidavit covers claims by all contractors, subcontractors and suppliers through the date of the Contractor's last Application for Payment who may have provided any labor, material, or equipment to the Project through the undersigned or at the undersigned's request. The undersigned acknowledges that all such contractors, subcontractors, sub-subcontractors and suppliers have signed an affidavit in the form of this Affidavit releasing any and all claims against the Contractor, the Contractor's surety, and/or the Owner, except for any Claims made by properly and timely submitting a Statement of Claim form a copy of which has been delivered to the Owner. The undersigned hereby represents and warrants that it has paid any and all welfare, pension, vacation or other contributions required to be paid on account of the employment by the undersigned of any laborers on the Project.

The undersigned agrees that upon receipt of the payment from the Contractor with respect to the Contractor's current Application for Payment, it shall, if applicable, immediately execute and cause to be filed or recorded a legally effective Satisfaction of Lien, Release of Lien, or any other legal instrument necessary to cause prejudicial dismissal and release of any lien, encumbrance, lawsuit, or other claim against the Contractor, the Contractor's surety and the Owner, the property where the Project is located, and/or any surety bond posted by the Contractor or the Owner to the extent of the foresaid payment. Upon request of the Contractor, the undersigned shall provide proof of having complied with this obligation.

This Affidavit is for the benefit of, and may be relied upon by, the Contractor, the Contractor's surety and the Owner. The undersigned hereby agrees to indemnify, defend and hold harmless each of the foregoing, the Project, its Work, and real property from any and all claims, or liens that are or should have been released in accordance with this Affidavit and from any liability, cost, or expense incurred as a result of any breach of this Affidavit by the undersigned.

Company Name

Authorized Signature (Company Officer)

Title

Date

State of: _____ County of _____

Subscribed and sworn to before me this _____
day of _____. The notarial
act certified hereby is a jurat. An oath or affirmation was
administered to the signer with regard to the notarial act
certified to hereby.

Notary Public: _____

My Commission Expires: _____

**CONTRACTOR'S FINAL WAIVER & RELEASE AFFIDAVIT
("AFFIDAVIT")**

Project: Union County Courthouse I.T. Network Cable Replacement Project

In consideration for payment received from the Union County Board of Commissioners (the "Owner") in the amount requested in Contractor's Final Application for Payment to the Owner, the receipt of which is hereby acknowledged, the undersigned Contractor hereby waives and releases any rights it has or may have to any and all types of claims relating to the Project, including without limitation claims of payment, Mechanic's Lien, stop notice, equitable lien, labor and material bond, breach of contract or unjust enrichment, or any other claim against the Owner, for any labor, materials, or equipment the undersigned may have delivered or provided to the Project, except for any Claims the undersigned has made by properly and timely submitting a Statement of Claim form. The undersigned further certifies that this Affidavit covers claims by all contractors, subcontractors, and suppliers who may have provided any labor, material, or equipment to the Project through the undersigned or at the undersigned's request. The undersigned acknowledges that all such contractors, subcontractors, sub- subcontractors and suppliers have signed an affidavit in the form of this Affidavit releasing any and all claims against the Owner, except for any Claims the undersigned has made by properly and timely submitting a Statement of Claim form. The undersigned hereby represents and warrants that it has paid any and all welfare, pension, vacation or other contributions required to be paid on account of the employment by the undersigned of any laborers on the Project.

This Affidavit is for the benefit of, and may be relied upon by the Owner. The undersigned hereby agrees to indemnify, defend and hold harmless each of the foregoing, the Project, work of improvement, and real property from any and all claims, or liens that are or should have been released in accordance with this Affidavit.

Company Name

Authorized Signature (Company Officer)

Title

Date

State of: _____ County of _____

Subscribed and sworn to before me this _____
day of _____. The notarial
act certified hereby is a jurat. An oath or affirmation was
administered to the signer with regard to the notarial act
certified to hereby.

Notary Public: _____

My Commission Expires: _____

**SUBCONTRACTORS, SUPPLIERS
FINAL WAIVER & RELEASE AFFIDAVIT
("AFFIDAVIT")**

Project: Union County Courthouse I.T. Network Cable Replacement Project

Upon receipt of payment in the amount of \$_____ received from _____ ("Prime Contractor") the undersigned Subcontractor or Supplier waives and relinquishes all rights of lien or claim that it may have either in law or equity (including but not limited to rights under Ohio Mechanics' Lien Laws, O.R.C. 1311.01 *et seq.*) with respect to the construction project known as Union County Courthouse I.T. Network Cable Replacement Project ("the Project"), for all labor, all equipment, and/or materials provided to or on behalf of the Project throughout its entirety, except for claims previously made pursuant to the agreement in place between Subcontractor or Supplier and Prime Contractor, and any lien previously perfected and remaining unreleased.

The undersigned Subcontractor or Supplier acknowledges and agrees that such payment represents final payment in full for all such labor, equipment and/or materials including retainage, if any, and that the Subcontractor or Supplier has completed its work on the Project. The undersigned Subcontractor or Supplier certifies that all amounts have been paid by the Subcontractor or Supplier for all work or materials furnished by others to the Subcontractor or Supplier for which the Subcontractor or Supplier has received previous payments from Prime Contractor, and Subcontractor or Supplier acknowledges that Prime Contractor is now making payment to the Subcontractor or Supplier in reliance upon such certification. The undersigned Subcontractor or Supplier further certifies that it will pay all amounts lawfully owing for all work or materials furnished by others to the Subcontractor or Supplier with the payment received from Contractor referenced herein.

This Affidavit is for the benefit of, and may be relied upon by, the Contractor, the Contractor's surety and the **Union County Board of Commissioners** ("Owner"). The undersigned hereby agrees to indemnify, defend and hold harmless each of the foregoing, the Project, its Work, and real property from any and all claims, or liens that are or should have been released in accordance with this Affidavit and from any liability, cost, or expense incurred as a result of any breach of this Affidavit by the undersigned.

IN WITNESS WHEREOF, the undersigned has caused this Affidavit to be executed by its authorized representative as of the date indicated below.

THE INDIVIDUAL SIGNING THIS AFFIDAVIT REPRESENTS THAT HE/SHE IS AUTHORIZED TO DO SO.

SUBCONTRACTOR OR SUPPLIER:

Company Name

Authorized Signature (Company Officer)

Title

Date

State of: _____ County of _____

Subscribed and sworn to before me this _____ day of _____. The notarial act certified hereby is a jurat. An oath or affirmation was administered to the signer with regard to the notarial act certified to hereby.

Notary Public: _____

My Commission Expires: _____

PRE-BID SUBSTITUTION FORM

Note. Certain brands of material or apparatus are specified. Each bid will be based on these brands, which may be referred to in the Contract Documents as Standards. The use of another brand (referred to as a substitution or proposed equal in the Contract Documents, when a bidder or the contractor seeks to have a different brand of material or apparatus than that specified by the Design Professional and approved by the Owner for use in the Project) may be requested as provided in the Instructions to Bidders.

The detailed procedures for submitting substitutions are set forth in Paragraph J of the Instructions to Bidders.

[illegible]

NONCOLLUSION AFFIDAVIT

State of _____

County of _____

BID Identification

CONTRACTOR _____, being duly sworn, deposes and says that he is _____ (Sole owner, a partner, president, secretary, etc.) of _____, the party making the foregoing BID; that such BID is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization, or corporation; that such BID is genuine and not collusive or sham; that said BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a fake or sham BID and has not directly or indirectly colluded, conspired, connived, or agreed with any BIDDER or anyone else to put in a sham BID, or that any one shall refrain from bidding; that said BIDDER has not in any manner directly or indirectly, sought by agreement, communication or conference with anyone to fix the BID price of said BIDDER or of any other BIDDER, or to fix any overhead, profit, or cost element of such BID price, or of that of any other BIDDER, or to secure any advantage against the Ohio Hi-Point Joint Vocational School District Board of Education awarding the contract or anyone interested in the proposed contract; that all statements contained in such BID are true; and, further, that said BIDDER has not, directly or indirectly, submitted his BID price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid and will not pay any fee in connection therewith, to any corporation, partnership, company, association, organization, BID depository, or to any member or agent thereof, or to any other individual except to such person or persons as have a partnership or other financial interest with said BIDDER in his general business.

Company Name

Authorized Signature (Company Officer)

Printed Name, Title

Date

State of: _____ County of _____

Subscribed and sworn to before me this _____
day of _____. The
notarial act certified hereby is a jurat. An oath or
affirmation was administered to the signer with regard to
the notarial act certified to hereby.

Notary Public: _____

My Commission Expires: _____

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 01005 - PROJECT INFORMATION

PART 1 - GENERAL

- 1.01 Related Documents:
- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.
- 1.02 Notes:
- A. Contractor is required to read the specifications for all branches of work. They form a part of these specifications in every detail and apply to all subcontracts.
- B. The Contractor is responsible for the coordination of the work with work of other Contractors and visiting the site to learn conditions affecting work. Failure to visit the site does not relieve the Contractor of responsibility to complete work to the County's satisfaction.
- C. It shall be the contractor's responsibility to provide a comprehensive site review and take their own measurements and determine the amount of materials needed to satisfactorily complete the project. Any amounts given or referred to in the drawings or specifications are to be used purely as approximates and not as a basis for exact amounts for bidding.
- 1.03 Eligible Applicator:
- A. The general contractor and his subcontractors shall provide proof of regular and successful business in the areas of work required for this project. Work experience to include: network systems and wiring, historic buildings and/or pre-1920's buildings cable & electrical wiring and general interior remodeling and finishes work.
- 1.04 Compliance:
- A. Contractor shall submit, at the Pre-construction meeting, documentation of compliance with the current OSHA Code Federal Regulations governing all aspects and conditions of this work.
- 1.05 Location:
- A. Union County Courthouse, 215 West Fifth Street, Marysville, OH 43040.
- 1.06 Completion:
- A. Contractor shall have 90 consecutive calendar days to complete the base bid work with the beginning date anticipated as on or after November 15, 2025. Actual beginning and completion dates shall be reviewed with the contractor, per the County's planning requirements prior to signing of the contract. Staging areas may be developed and materials stored on site in preparation for the start of work prior to the beginning date. All scheduling of deliveries, staging areas and general work is to be coordinated with the County.
- 1.07 County Representative:
- A. Jimmie Inskeep, Union County Risk/Facilities Manager
937-645-3175
jainskeep@unioncountyohio.gov
- 1.08 Architect & Engineering Representatives:
- A. Mark Lecky, Mark Lecky Architects, LLC
Lecky@MLArchs.com
- B. Ralph Kramer, Kramer Engineers
rkramer@kramerengineers.com

END OF SECTION

SECTION 01010 - SUMMARY OF WORK

PART 1 - GENERAL

1.01 Related Documents

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.
- B. For convenience, these specifications are arranged in divisions and sections, but such segregation shall not be considered as limiting the work required by any trade, except as otherwise provided herein, the division of work shall be the responsibility of the Contractors.

1.02 Description of Work:

- A. In general, the scope of work provides for the following:
 - 1. General demolition work.
 - 2. Replacement of existing network cabling and components with specified new.
 - 3. General refinishing work as required to accommodate cabling work.
 - 4. This project is subject to the requirements of Prevail Wage laws.
 - 5. Working Hours / Conditions: after hours work starting at 4:30pm will be required weekdays Monday through Friday. Saturdays may be approved pending confirmation with the County. All work performed in a day must be completed the same day so the network systems are ready for the next day.

1.03 Demolition:

- A. All required demolition, cutting, and patching work will be the responsibility of the Contractors performing the work.

1.04 Repair of Areas Disturbed:

- A. Repair / replace, to match existing, any areas disturbed / damaged by the Contractor or subcontractors as a result of work, but not included as part of the original project scope of work.
- B. Repair / replace pavement and sidewalks damaged by construction to match existing or as directed by the project representative.
- C. Areas of lawn & landscaping damaged as a result of the work of this project will be restored as directed, at no cost to the County. Contractor will provide protection for landscaping as submitted by the contractor and approved by the project representative.

1.05 Work Included:

- A. Extent: Furnish all labor, tools, equipment and materials to complete all work under each section heading as indicated on the drawings and specifications.
- B. Items included: Without restricting the volume or generality of the above "extent", the work to be performed under each section heading, shall include, but is not limited to, those items listed under "Description of Work" in each section.

1.06 Quality Assurance:

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and methods needed for proper performance of the work of each section of the specifications.

1.07 Industry Standards:

A. Except as otherwise indicated, where compliance with industry standard is required, comply with the standard in effect as of the date of the contract documents.

1.08 Contracts:

A. One (1) prime, general contract will be awarded for Contract Work including all related subcontract work.

1.09 Work provided by the County:

A. Refer to other sections of these specifications.

END OF SECTION

SECTION 01020 - BID ALLOWANCES AND UNIT PRICING

PART 1 - GENERAL

1.01 Related Documents

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.

1.02 Bid Allowances:

- A. The following allowances shall be included in base bid for labor and materials to provide, fabricate, deliver, and/or install any additional contract work required by unforeseen job conditions. The use of all allowances shall be directed by the Architect with the approval of the County. Any unused portions of the allowances shall revert to the County.

Note: Bid allowances are to be provided in addition to all replacement work and quantities specifically indicated on the drawings; this work shall be considered as base bid.

1. \$5,000 to be included for drilling new holes and openings into masonry walls greater than 12" in thickness. All new holes and openings less than 12" thickness shall be a part of the contractor's base bid costs. Existing and new holes & openings may be reused but shall be repaired and fire sealed and/or stopped as a per of the contractor's base bid costs.
2. \$5,000 to be included for additional cabling, hardware and accessories work directed and approved by the County representative.

1.03 Bid Unit Pricing:

- A. All bidders must submit bids on the Unit Prices described herein and listed on the Form of Proposal.
- B. Unit prices shall include all costs for all labor, materials, equipment, and any related costs incidental to the removal of damaged materials and the installation of new materials.
- C. Unit prices will apply for additions and deletions from the original Base Bid and will be the basis for the increased or decreased costs should removal, replacement, and installation of these items is required as determined by field inspection during the work.
- D. UNIT PRICE #1: Add additional cable runs, cost per 100 LF.
- E. UNIT PRICE #2: Add 1-1/2 diameter pipe sleeve in max 24" thick masonry wall, cost per each.

1.04. BREAK OUT COSTS (the following costs are a part of base bid costs).

- A. No break out pricing.

END OF SECTION

SECTION 01030 - ALTERNATES

PART 1 - GENERAL

1.01 Related Documents

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.

1.02 Related Sections:

- A. All

1.03 Alternates:

- A. Alternate E-1 shall include all labor and materials - to provide the following:
All work to provide and install CAT6A cabling and system components in lieu of CAT6. The system shall include all system components for a complete network upgrade.

PART 2 - PRODUCTS

- 2.01 Refer to Specifications and drawings for related information.

PART 3 - EXECUTION

- 3.01 Refer to Specifications and drawings for related information.

END OF SECTION

SECTION 01045 - CUTTING AND PATCHING

PART 1 - GENERAL

1.01 Related Documents

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.

1.02 Cutting and Patching:

- A. Each Prime Contractor shall be responsible for cutting and patching of their work as required to complete this project. All exterior surfaces / assemblies shall be made weather proofed.
- B. Cutting, when necessary, shall be done with such tools and methods to prevent unnecessary damage to surrounding areas or equipment. No cutting shall be done which will, in any way, reduce the structural strength of the building. Should such cutting be necessary consult with the Architect and do not proceed with such operations unless written approval is given.
- C. Patching shall match existing or adjacent surfaces as directed by Architect; and to the satisfaction of the County Representative.

END OF SECTION

SECTION 01050 - FIELD ENGINEERING

PART 1 - GENERAL

1.01 Related Documents

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.

1.02 Laying Out Work:

- 1. Each Contractor shall coordinate and lay out the work and shall be responsible for review of heights / elevations, conditions and measurements of work executed by him under the contract. Verify executed work as the work progresses. As one of the first steps in the project, each Contractor shall verify the critical building areas and sequencing for the least disruptive to the building and its occupants, and safest work methods. Each Contractor shall exercise proper precautions to verify figures shown on the drawings before work and will be held responsible for any error resulting from his failure to exercise such precautions.
- B. Before fabrication of materials, Each Contractor shall take all necessary measurements and shall be responsible for the fitting of fabricated work into the construction.

1.03 Field Changes and Means & Methods Work Changes:

- 1. Contractor requested changes that deviate from the contract documents shall be designed and sealed by a third party engineer (other than the project engineers). These details and all associated and related construction shall become the responsibility of the contractor and their engineer(s). The contractor shall provide documentation releasing the owner, project architect, engineer(s) and their companies of all responsibilities.
- 2. The contractor shall provide a request for change in writing prior to changes being made. The owner and the project architect and engineer(s) have the right to reject proposed changes.

END OF SECTION

SECTION 01060 - REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 Related Documents

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.
- B. For convenience, these specifications are arranged in divisions and sections, but such segregation shall not be considered as limiting the work required by any trade, except as otherwise provided herein, the division of work shall be the responsibility of the Contractor.

1.02 Description of Work:

- A. All work shall be in accordance with the latest edition of all Local Codes and Ordinances, State of Ohio Codes, National Standards and Safety Requirements, and any other Codes and Standards applicable to this project.
- B. The project representative on behalf of the County shall obtain and pay for the General Building Permit issued by the State of Ohio covering the general and electrical construction work.
- C. All other permits, licenses, inspections, and fees required shall be obtained and paid for by the Contractor.
- D. These codes and standards include, but are not limited to, the following:
 - 1. American Welding Society (AWS).
 - 2. American Society of Testing Materials (ASTM).
 - 3. American Institute of Steel Construction (AISC).
 - 4. American National Standards Institute A117.1 (ANSI).
 - 5. Americans with Disabilities Act (ADA).
 - 6. Environmental Protection Agency (EPA).
 - 7. Life Safety Code/NFPA 101 (LSC).
 - 8. National Electric Code (NEC).
 - 9. National Fire Protection Association (NFPA).
 - 10. National Institute for Occupational Safety & Health (NIOSH)
 - 11. Ohio Building Code (OBC).
 - 12. Ohio Department of Transportation (ODOT).
 - 13. Occupational Safety & Health Administration (OSHA).
 - 14. Sheet Metal & Air Conditioning Contractors National Association (SMACNA).
 - 15. Underwriters Laboratories (UL).
- E. All materials and equipment installed under this contract shall be new, unless otherwise stated and of a quality not less than the minimum specified.
- F. All workmanship shall be in accordance with the best practices of the trade. Immediately correct all work which is found unacceptable when it is contrary to the plans and/or specifications and/or the accepted codes and standards of good workmanship.
- G. All field adjustments other than minor adjustments shall be submitted to Architect for approval before starting the work.

END OF SECTION

SECTION 01100 - SPECIAL PROJECT PROCEDURES

PART 1 - GENERAL

1.01 Related Documents

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.

1.02 Bidder Qualifications:

- A. Eligible Applicator:

The general contractor and his subcontractors shall provide proof of regular and successful business in the areas of work required for this project. Work experience to include: general interior remodeling and finishes work.

- B. All work shall be performed by firms having not less than ten (10) years of successful and proven experience in comparable projects and shall employ experienced personnel with proven skills and experience in their chosen processes and operations. This experience must be with the bidding company or corporation.
- C. The network systems contractor is required to provide all final design for the system and components and shall provide for complete shop drawings and submittals. They have a Building Industry Consulting Service International, RCDD (Registered Communications Distribution Designer) for the design and preparation of the shop drawings. A current certificate is required.
- D. All contractors shall submit evidence demonstrating the required technical experience for this project including a list of projects completed successfully within the past five (5) years of operation and also the availability of required personnel for use on this project.

Note: references shall include a minimum of (2) similar work projects in historic masonry buildings (pre 1920's) preformed within the last (5) years.

- E. The general contractor and his subcontractors shall have a program for providing drug and alcohol testing for their employees and shall provide testing of employees that will be working on site at this project. Employees that test positive for drugs and/or alcohol shall not be permitted to work on this project.
- F. A Criminal Background check on all Employees entering site must be on file and available for review at the request of the point of contact with Union County Court.

1.03 Summary:

- A. The work shall be scheduled to allow for continued operation of the facility with special provisions for major events. The Contractor shall maintain means of ingress and egress, store materials in approved areas, assist in maintaining security, and provide weather protection.
- B. Working Hours / Conditions: after hours work starting at 4:30pm will be required weekdays Monday through Friday. Saturdays may be approved pending confirmation with the County. All work performed in a day must be completed the same day so the network systems are ready for the next day.

1.04 Special Procedures:

- A. Contractor must protect all building entrances and sidewalks, including handicap pathways, with adequate temporary framing and construction to protect pedestrians and building elements. Contractor may schedule temporary closing of exits as permitted by the County and in accordance with the mean of egress requirements of the Ohio Building Code.

1.05 Scheduling of Work:

- A. No work shall be started until the County and Architect have been notified and permission to start has been granted by the County.
- B. The building will be in operation during construction. Scheduling of all construction will be coordinated by the Contractor through the County and building coordinator to minimize disruptions to normal operations.
- C. All temporary adjustments to County utilities, shall be scheduled through the area maintenance supervisor.
- D. Building exits must remain in service at all times during construction operations and shall meet all applicable code requirements.
- E. Work shall be discontinued by the Contractor whenever conditions are deemed unsuitable for the building occupants to conduct activities without undue interference.
- F. The County or Architect may, at no additional cost to the project, at anytime during construction, notify the Contractor to temporarily stop work, the Contractor shall not begin again until permission is given by the County or Architect.
- G. The County representative will provide a list of dates that the project will need to be shut down to accommodate County and City events and festivals. The contractor shall provide the required measures as directed.

1.06 Protection of Existing Utilities and Facilities:

- A. The Contractor shall investigate for and protect existing utilities to remain in use. Damage to existing utilities, facilities, and equipment, as a result of work connected with this contract, and shall be repaired to the satisfaction of the Architect by the Contractor at no cost to the County.
- B. The Contractor shall protect his work, and any exposed and existing adjacent work, and the building and its contents against weather, and maintain the new and existing work, materials, apparatus, and fixtures free from injury or damage in accordance with the General Conditions during the entire construction period. Work likely to be damaged shall be covered or protected. Items damaged by failure to provide protection as required, shall be removed and replaced with new at the Contractor's expense or repaired to the Architect's satisfaction.
- C. Contractor shall provide landscape protection as follows:
 - 1. Trees - Provide snow fencing or wood barricades to prevent damage during construction.
 - 2. Shrubbery - Cover shrubbery with protection from construction.
 - 3. Grass / lawns / planting beds: protect all areas with plywood sheeting to support vehicles and equipment; cover all locations subject to debris.

Replace any damaged items as required by the owner's representative.

- D. N/A.
- E. Contractor to provide protection of the existing mechanical and electrical equipment on site: building electrical, mechanical and gas service. Provide temporary protection assemblies as required to cover the equipment and maintain services.

1.07 Disruptions:

- A. All disruptions in service and work affecting the operation of the existing building shall be coordinated with the County through the Architect and building coordinator. The Contractor shall coordinate all work affecting the existing facility with the County through the Architect.

1.08 Contractor's Responsibility:

- A. It shall be the duty of the Contractor to notify the various subcontractors when their presence is required on the job, expedite the flow of materials, and secure all necessary inspections. The Contractor shall give reasonable notice to the Architect when their presence is required for special consultation or decisions.
- B. The Contractor shall provide a full-time foreman for this project with no assignment other than supervision. This foreman shall be at the site whenever work of any nature under this contract is progress. This designated person shall give his emergency number and alternate number to the Architect.

1.09 Structural Requirements:

- A. The Contractor shall not overload any floor or roof areas, porches, pavement, etc. with concentrated storage of materials, scaffolding or by impact loading. The contractor shall not provide any force to the building walls that may cause structural damage to the building.
- B. Contractor shall provide all design and structural engineering for scaffolding and building loading that the contractor will use on the project. The existing structure shall be analyzed as required for the intended design loads to assure safe loading and structural forces limits. An Ohio registered engineer is required for this work and shall provide calculations and design in a sealed submittal as required by the County and Building authority.

1.10 Security:

- A. The Contractor will be informed and instructed by the County regarding the security for the building. The Contractor shall maintain the desired security.

1.11 Building Occupancy and Safety Procedures:

- A. The Contractor shall coordinate the progress of work with the Architect and maintain adequate barricades and protection, as required, to protect the existing building and the operation of areas other than the construction area from excessive interference due to construction work. The Contractor's cooperation and planning input will be required during the project to accomplish this goal.
- B. The use of powder driven anchors is not permitted without prior approval by the Architect. Powder driven anchors are defined as anchors driven into place by any device which produces and imparts force by use of powder charge, compressed air, gas, or other propellants. With the building being occupied during the time of normal operations, the Contractor is required to exercise due care and provide adequate barricades and procedures, as required for safety of personnel and public.
- C. The Contractor shall utilize a "watchman" during the use of cranes and other equipment, to assist in the safety of building occupants while entering and exiting an area.

1.12 Staging Fence, Type and Installation:

- A. Orange Plastic fencing
 - 1. Orange plastic fencing will be four (4) feet high and supported by a weighted base with a steel post extending 4" above the top of the fence. Supports shall be placed not more than 10' apart. A toe-board will be secured to the bottom of the fence to alert sight impaired passers-by. The fence will be kept taught at all times.
 - 2. Attachment of the fence to any object other than supports will be prohibited.
- B. Contractor will submit at the Pre-construction meeting a plan for the staging area for approval. If the plan is not approved, the Contractor will take into consideration the suggestions made by the County.

END OF SECTION

SECTION 01300 - PROJECT MEETINGS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.

1.02 PRE-CONSTRUCTION MEETING

- A. The Architect will schedule and furnish the agenda for a pre-construction meeting after award of the contract(s). Attendance will be required for the successful bidder(s) and their project foreperson.
- B. The notice to proceed will be issued to the contractor at this meeting.
- C. The contractor shall bring to the pre-construction meeting the following:
 - 1. Project schedule showing project start time, work stages and completion date. The County shall control "float time ".
 - 2. Cost breakdown of the project.
 - 3. Submittals and proposed detail changes.
 - 4. Company Safety Manual (also refer to 01005, 1.04, A)
 - 5. Material Safety Data Sheets on products to be used.
 - 6. Emergency telephone list.

1.03 PROGRESS MEETING

- A. The Architect shall schedule job progress meetings with the Contractor as may be required, depending on progress of the work or problems that arise. Meetings to be scheduled at the pre-construction meeting.
- B. Agenda:
 - 1. Review prior meeting notes as required.
 - 2. Review work progress since last meeting.
 - 3. Note problems and decisions.
 - 4. Relate progress to construction schedule.
 - 5. Plan progress for coming week.
 - 6. Review submittals.
 - 7. Additional coordination.
- D. Attendance:
 - 1. Contractor and/ or representative authorized to make decisions.
 - 2. Sub contractors involved in major portions of the work may be required to attend meetings during their phase of construction.

1.04 CONSTRUCTION SCHEDULE

- A. Immediately following contract award, Contractor shall prepare construction progress schedule covering all divisions of work and shall submit copies of the schedule to all major subcontractors. Schedules, as received from subcontractors, with necessary revisions, shall be incorporated into the original schedule. Copies of the final schedule, bearing the approval signatures of all contractors, shall be distributed to all interested parties. The schedule shall be broken down to a degree which will permit proper and complete coordination of all trades in each division of the work. Tentative dates for interruption of utilities services shall be incorporated.

END OF SECTION

SECTION 01340 - SHOP DRAWINGS SAMPLES & CORRESPONDENCE

PART 1 - GENERAL

1.01 Related Documents

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.
- B. Submittals are divided into two general types or categories: contract submittals and technical submittals.
- C. Submit for all items as specified in various portions of these documents. Submit number which Contractor requires for distribution plus two (2) copies which will be distributed by the Architect to other parties. Accompany submittals & correspondences with transmittal letters, containing:
 - a. Date
 - b. Project title and number
 - c. Contractor
 - d. Other required information

The submittal will be rejected w/o the above information being provided. Submittals may be sent to the Architect by electronic sending as approved by the architect.

1.02 Contract submittals:

- A. Include such items as insurance, schedules, payment request, and other such items of a non-technical nature as required for contract administration both before and after the contract is signed.

1.03 Technical submittals:

- A. Include required submittals on materials and equipment to be included in the construction which enable the Architect to verify that the materials proposed to be furnished are in accordance with the requirements of the Contract Documents. These include shop drawings, samples, calculations and certificates.

1.04 Shop Drawings:

- A. Shop drawings are original drawings prepared by a Contractor, subcontractor, supplier, distributors, or manufacturers which illustrate some portion of the work, showing fabrication, layout, setting, and/or erection details.
- B. Shop drawings shall be prepared by a qualified detailer.
- C. Identify details by reference to sheet and detail numbers shown on Contract Drawings.
- D. Sheet sizes for shop drawings shall be 36" x 24" maximum

1.05 Product Data:

- A. Manufacturer's standard schematic drawings:
 - a. Modify drawings to delete information which is not applicable to project.
 - b. Supplement standard information to provide additional information applicable to project.

1.06 Contractor Responsibilities:

- A. Review all items prior to submission. All submittals must bear the Contractor's handwritten signature, in addition to his stamp of approval.
- B. Verify field measurements, field construction criteria, catalog numbers, and similar data. Coordinate each submittal with requirements of work and of Contract Documents.

- C. The Contractor's responsibility for errors and omissions in submittals is not relieved by the Architect's review of the submittals.
- D. Notify the Architect in writing at the times of submissions of any deviations in submittals from requirements of Contract Documents.
- E. Begin no work which requires submittals until return of submittals with Architect's stamp and initials or signature indicating approval.
- F. Specific requirements for submittals are listed in the technical sections of the documents. The Architect reserves the right to require additional submittals on individual items at his discretion.

END OF SECTION

SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.

1.02 TEMPORARY FACILITIES AND CONTROL, GENERAL

- A. Temporary services that are required, in addition to those specified, shall be provided by the Contractor and shall be provided as directed by the County.
- B. All temporary facilities shall be maintained and kept in good operating condition. Maintenance personnel necessary to perform this work shall be provided in accordance with the requirements. Maintenance time will include normal working hours for all trades and start up and shut down overtime, as required.
- C. Before connecting to existing County utilities, obtain approval through the County representative.
- D. Temporary work shall be installed in such a manner as not to interfere with the permanent construction. If such interference does occur, it shall be the responsibility of the Contractor to make such changes as may be required to overcome the interference.
- E. Utility services shall be maintained to the building at all times unless a specific request for temporary interruption is coordinated through the County.

1.03 SANITARY ARRANGEMENT

- A. The Contractor shall furnish, if required, portable furnishings for his personnel and shall locate as directed by the County. On-site facilities may be used but must be cleaned and maintained daily by the contractor.

1.04 TEMPORARY STORAGE

- A. Storage Trailers/Enclosures - Trailer for storage of building materials is permitted but shall be limited to (1) on the site.
- B. Storage of Flammables - not permitted on site.
- C. The County owned parking lots and grass areas may be used, in part, for the storage and staging of the project as approved. Contractor to provide temporary movable fencing as approved by the County representative.

1.05 TEMPORARY LIGHT AND POWER

- A. Temporary electric power shall be obtained from existing building electric service. Contractor shall provide material and maintain extension from existing service. The County will pay cost of power use through County meter. Contractor shall provide portable power generators if existing systems do not meet construction requirements. The Contractor shall provide safety, security and construction lighting, as required, for project.

1.07 TEMPORARY RAMPS, RUNWAYS, PROTECTED ACCESS, HOISTS, CRANES, AND SCAFFOLDS

- A. Furnish and maintain temporary ramps, runways, etc. as required, for general use or safety, for the proper execution of the work. Ramps to be completed with minimum 3/4" thick wood overhead protection, 10' headroom clearance, construction per state of Ohio requirements. Maintain protection until overhead work is complete. Construction shall meet all requirements of the labor laws and other State or Local laws applicable thereto.

- B. The contractor shall provide, erect, and maintain adequate hoist, cranes, and scaffolding equipment as required for his work and the work of subcontractors and shall coordinate the use between all users.
- C. The hoists, cranes, and scaffolding shall be located away from building entrances and exits to prevent potential injury from falling objects. The contractor shall provide a safety watch at entrances and exits to ensure that persons entering or exiting the building are safe from overhead or falling objects.
- D. The hoists, cranes, and scaffolding shall comply with OSHA requirements and shall have a top rail, mid rail, and toe board.
- E. Any special pads or reinforced surfaces adjacent to the building that may be required for equipment shall be the responsibility of the contractor. All such items shall be removed and all areas restored at the end of construction to original condition.

1.08 ROAD

- A. Protect existing roads and parking area from damage or debris.

1.09 SPECIAL CONTROLS

- A. Dust Control: The Contractor shall provide dust control, as required, to protect interior and exterior of building, adjacent parked cars, and facilities from dust and other contaminants.
- B. Drainage: The Contractor shall provide temporary site drainage, drains, sumps, pumps, or other items required to afford satisfactory working conditions for the execution and completion of the work. Water shall be diverted to or shall be pumped into existing drains and shall not be allowed to run onto ground area or overflow into building.

1.10 USE OF PREMISES

- A. Parking: Contractor shall secure parking permits as required from the County Traffic Department for all employees and must park cars in areas assigned to them. Parking in restricted areas is prohibited. At the beginning of the work, the contractor shall report to the County the approximate number of parking spaces which will be required for all employees, including Subcontractor's employees.
- B. Streets and roads on site to be used for access shall be as approved by the County. No others streets shall be used. Contractor shall clean up spills without delay or street will be cleaned at his expense.
- C. Damage to roads, parking surface, or other facilities on County property resulting from hauling, storage of materials, or other activities in connection with the work, shall be repaired or replaced, at no expense to the County, by the Contractor causing the damage. Repairs or replacement shall be made to the satisfaction of the County representative.
- D. A pre-construction inspection of the building and immediate work area will be made by the contractor and the Architect. It shall be the contractor's responsibility to bring damaged areas to the attention of the County before accessing area. Failure to contact the County, the contractor shall be liable for repairs or replacement.
- E. Materials shall be only in designated areas and delivery path shall have prior approval.

1.11 MAINTENANCE OF TRAFFIC FLOW

- A. Traffic flow will be only in designated as specified by the County. Deliveries that require temporary blockage of streets will be scheduled through the County and City before deliveries.

1.12 WEATHER PROTECTION

A. It is the intent of these specifications to have the Contractor protect new work and existing building or adjacent property against weather, to maintain the work, materials, equipment, apparatus and fixtures free from injury or damage in accordance with the General conditions during the entire construction period. Any work or equipment damaged by failure to provide protection required shall be removed and replaced with new work at the Contractor's expense. The Contractor shall provide protection from water and dust to the existing building and the contents.

B. Contractor shall remove all snow and ice as may be required for proper protection and safety of public.

1.13 BARRIERS

A. Provide and maintain fences, barricades, etc., for adequate protection of persons, new and existing construction, utilities, streets, trees, landscaping and adjoining property. Remove protective devices when work is complete or when authorized by the County representative. Streets, drives and walks shall be kept reasonably clean at all times.

B. Barriers and other safety devices shall be provided by Contractor to meet the requirements of the government of the governing authorities and applicable regulations. Provide lighted barriers and signs as required to direct and protect people in area of construction.

C. Restore surface areas that have been drilled/used for project staging area or bracing as per guidelines provided by the County. The Architect shall approve or reject the repairs. Rejected repairs shall be redone at the Contractors expense.

1.14 SECURITY AND SAFETY

A. The Contractor shall assist in maintaining the security of the building.

B. The contractor shall provide all necessary safety barricades, railings, and overhead protection at all times throughout the construction as required to permit safe entrance and exit for all occupants.

C. The contractor shall employ appropriate fall protection measures and equipment for workers on the job. The contractor shall also used appropriate protection measures for all materials, tools and equipment when in use or stored above the ground. Chutes used for disposal of demolition materials shall be the enclosed type and shall be located at areas designated by the County Representative and the Architect and shall be installed away from building air intakes to prevent entrainment of any dust.

D. Contractor shall provide accessibility for the architect and County representative to review and inspect all areas of work. Contractor shall provide harnesses and fall protection equipment for their use. Contractor shall make every effort to provide scaffolding and walk ways for inspections.

E. Contractor's safety program must be in full compliance with OSHA standards and all other applicable codes and regulations related to this work and the safety of workers, occupants, visitors, and pedestrians.

1.15 FIELD OFFICES

A. The contractor is not required to have a job trailer but is permitted to do so per final arrangements approved by the County representative. Contractor is to provide all office equipment and furnishings and indicated under "Temporary Field Offices" below, not otherwise provided in the building space for their use.

A field office is not required for this project but may be provided by the contractor at his option as follows.

Temporary Field Offices:

The Prime General Contractor is permitted to have a field office trailer. Trailer to be a suitable office trailer for use onsite as field offices for his use, for the Architect's use, for project meetings, and for the use of his trades, sub trades, subcontractors, and suppliers.

Offices shall be heated, air conditioned, lighted, clean, in good condition, lockable, and shall be equipped with telephone service, a fax machine, internet service, plan tables, meeting table, chairs, etc, for his use and the use of other designated project members for the duration of the project.

The Prime General Contractor or his authorized agent shall be present at the office or arrange to be called readily, at all times while the work is in progress.

The Prime General Contractor shall pay all basic and local telephone bills.

The Electrical Contractor shall provide all power as required to all temporary field offices provided on the site thru the duration of all work.

- B. The contractor will be required to have a cellular telephone on at all times during the normal business work day. The number will be provided to the Architect.

1.16 PROJECT SIGN

- A. No project sign is required or permitted.

1.17 SHORING AND BRACING

- A. Safety requirements shall be in accordance with the General Conditions.
- B. Install safety barricades, safety cable, covering the holes, temporary safety rails as required by code and in accordance with the General Conditions.
- C. The Contractor shall ensure that all pits and holes are guarded and barricaded to minimize the possibility of students, visitors, faculty, staff or employees from falling into unguarded areas.

1.18 Fire Protection

- A. The Contractor shall provide temporary ABC Fire Extinguishers and cabinets for the fire safety of the project, in accordance with State of Ohio Fire Code and the City Division of Fire requirements. Provide extinguishers at grade and roof level. Install and maintain temporary fire protection facilities of the types needed to protect against reasonable predictable and controllable fire losses. Comply with NFPA 10 " Standard for portable Fire Extinguishers " , and NFPA 241 " Standard for Safeguarding Construction, Alterations, and Demolition Operations.
- 1. Locate new/recharged A.B.C. fire extinguishers where convenient and effective for their intended purpose, but not less than three extinguishers at working areas and grade level.
- 2. Store combustible materials in containers in a fire safe location away from building or as directed by the Architect.
- 3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access routes for fighting fires.
- 4. Provide supervision of welding operations, combustion type temporary heating units, and similar sources of fire ignition after notifying the Architect of welding needs.

1.19 BUILDINGS SMOKING POLICY

- A. The County Buildings are SMOKE FREE institutions. Smoking is allowed in designated areas only. The County will identify the DESIGNATED SMOKING AREAS.

END OF SECTION

SECTION 01600 - MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.01 Related Documents:

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.

1.02 Delivery and Storage:

- A. Products and materials shall be handled, moved, moved, protected and stored as recommended by their manufacturer or producing association.
- B. The Contractor shall place orders for materials and equipment to be employed in this work as soon as possible after the award of the contract. The Contractor shall keep the Architect informed as to materials and equipment that may not be obtainable, either due to condition of the market or other governing factors.

1.03 Material Safety Data Sheets:

- A. Material Safety Data Sheets shall be made available and accessible on the job site for contractor, employees, and County officials. Material Safety Data Sheets shall be submitted with material data at the pre-construction conference.

1.04 Taxes:

- A. Materials purchased for use or consumption in connection with the proposed work will be exempt from the State of Ohio sales tax as provided for in Section 5739.02 of the Revised Code of Ohio, and also from the State of Ohio use tax, Section 5741.01. The amount for materials, entered in the Form of Proposal Form by the Contractor, will be considered as the amount of exemption claimed under this provision.
- B. Purchases by the Contractor of expendable items such as form lumber, tools, oils greases, fuel or equipment rentals, are subject to the application of the Ohio Sales use tax.

END OF SECTION

SECTION 01700 - CONTRACT CLOSE-OUT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Clean Up - Section 0170.
- B. Project Record Drawings - GENERAL CONDITIONS.
- C. Completion and Acceptance - GENERAL CONDITIONS.

1.03 CONTRACT CLOSE-OUT

- A. The Project will be closed out after the following are completed:
 - 1. Clean up.
 - 2. All guarantees, waivers, and affidavits shall be notarized and submitted.
 - 3. Operating and maintenance instruction submitted.
 - 4. Record drawing and as-built information submitted.
 - 5. Final inspection complete with all punch list items complete.
 - 6. All local, state and federal permit final approvals.
- B. Correct an emergency (as determined by the County representative) punch list or guarantee item as soon as notified, even though overtime labor payments may be encountered.

1.04 CLOSE-OUT CHECK LIST

- A. This schedule summarizes actions to be taken or submittals to be complete prior to issuance of the Contract completion Certificate.
 - 1. Basic Items (Required for Contract)
 - a. Prevailing Wages.
 - b. Drawing details submitted as-built and installed.
 - c. Affidavit of Wage Compliance.
 - d. Affidavit of Waiver of Lien.
 - e. Punch List Items.
 - f. Letter of Completion.
 - g. All Guarantees, warranties & certificates must be received by the County before final payment is made.

END OF SECTION

SECTION 01710 - CLEAN UP

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.

1.02 CLEAN UP AND MATERIAL MOVING

- A. The Contractor shall clean up, move materials that are in the way of construction and repair and replace any damage done by construction work.
- B. Clean up and remove trash from the building daily and from the site weekly or more often, if required for an orderly work area.
- C. The contractor shall do all cleaning of finish surfaces, interior and exterior, relative to the work, prior to acceptance of the work. Cleaning shall include removing all spots and smears resulting from the work of this project. Use only cleaning materials recommended by manufacturer of surface to be cleaned or as directed by County's Cleaning staff / agency.
- D. Restore site to original condition. Remove all temporary facilities and utilities. Repair all temporary attachment points to the satisfaction of the Architect.
- E. Burning and/ or burying of rubbish on the County's property is prohibited.
- F. Empty flammable containers will be removed from job site at the end of each day.
- G. All debris to be removed from the County's premises and disposed at a proper dump site at no additional cost to the County.

END OF SECTION

SECTION 01740 - WARRANTIES AND CERTIFICATES

PART 1 - GENERAL

1.01 Related Documents:

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.

1.02 Related Sections: See item 1.04.

1.03 Description of Work:

- A. Provide warranties and certificates as indicated in this section, as well as warranties indicated in all specifications sections, to the County with the Close Out documents.

1.04 Warranties:

A. General Contractor's Warranty -

1. The General Contractor shall Warranty the installation of all products and materials of this project, in accordance with the contract documents and manufacturer's guidelines and free from faults and defects in materials and workmanship for a period of (1) year from the date of substantial completion. Refer to alternates for extended warranty pricing.
2. Temporary type methods shall be used if weather or other conditions prohibit the installation of permanent repairs, but only until the conditions are conducive to make permanent repairs. Temporary repairs shall not be in place for more than 30 days weather permitting.

- B. Sealants - Manufacturer's warranty indicating that the products will not crack, crumble or deteriorate; and will not loose bond to applied surfaces if installed per the manufacturer's recommendations for a period of (5) years.

- C. Painting - Manufacturer's warranty indicating that the products will not peel, craze, crack, or deteriorate; and will not loose bond to applied surfaces if installed per the manufacturer's recommendations for a period of (5) five years. Contractor warranty to repair all defects for same (5) year period.

1.05 Certificates:

- A. Not applicable.

END OF SECTION

DIVISION 2 SITE WORK

02070 SELECTIVE DEMOLITION

PART 1 - GENERAL

1.01 Related Documents

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this section.

1.02 Description of Work

- A. Work includes removal of existing walls, furring systems, finishes, ceilings, plumbing fixtures and plumbing, electrical fixtures and electrical, mechanical work and related materials, trims and accessories. Work also includes removal of miscellaneous wood blocking, sealants and miscellaneous materials as specified and shown on the drawings, or otherwise required for a complete job.
- B. Hazardous Materials:
 - 1. All paint shall be treated as lead containing and shall be removed as required for the project scope of work, in accordance with the OSHA Lead in Construction Standard (29 CFR 1926-62). Demolition and removal work costs for this shall be included in the contractors bids.
 - 2. All asbestos containing materials shall be removed by the County's abatement subcontractor. Testing and project review has been and/or will be preformed by the subcontractor. Demolition and removal work costs for these selected materials in not to be included in the contractors bids.

Additional work to be provided by General Contractor and subcontractors:

- 1. Review of work areas and reporting of all suspect hazardous materials as uncovered during demolition.
- 2. If hazardous materials are found: coordination and scheduling of County's abatement contractor. Provide a schedule and phasing plan to facilitate an efficient use of all contractors' time and efforts and to maintain a safe working environment.
- 3. Cooperation with the abatement contractor and provide access for his work; facilitate containment requirement set ups, mobilization and removal.

1.03 Quality Assurance

- A. Comply with all governing codes, laws and regulations applicable to demolition work. If inspection by City, County and State authorities is required, Contractor shall arrange for and pay any costs involved for such inspections.
- B. Comply with requirements of ANSI A 10.6 "American National Standard Safety Requirements for Demolition".

1.04 Coordination

- A. Contractor shall be responsible for overall scheduling and coordination of work. Schedule is subject to the Architect's.
- B. Cooperate and coordinate with Architect and Subcontractors in scheduling work in order to cause the least inconvenience to County and minimize disruption of building operation.
- C. All utilities building equipment will remain active during County's normal workday hours, unless specifically approved otherwise by the County representative.
- D. Perform no work to the existing building outside of the County's normal work day hours. Notify two (2) days prior, for authorization from the County to change the starting time.

1.05 Security

- A. Access to work areas: must be arranged through the building County's personnel.
- B. Protect existing building(s) against intrusions and maintain the security of the building and its contents at all times.
- C. Access to areas, other than where work is being performed, is restricted.

1.06 Safety & Protection

- A. Contractor shall provide adequate protection for persons, adjacent property and construction during the demolition and reroofing work. Maintain existing public and occupant access and egress routes to and from building(s).
- B. Temporary barricades must be erected to ensure safety and access without obstructing the normal use of the building and grounds.
- C. Protect all trees, shrubs, landscaping, flower beds, mulch, lawns, site furniture, and other site and planting materials during all work. After construction is completed, replace any damaged planting materials, lawns, and site equipment with new materials of equal species, type, and growth, and restore the site to its original condition as found at the start of work.
- D. Protect all sidewalks and pavement. Document all pavement conditions prior to start of work in a walk through with the County's Representative. Replace all damaged walks with matching new materials.
- F. Protect all building(s) surrounding area mechanical and electrical equipment and plumbing services with construction coverings of scaffolding / platforms or site constructed framing assemblies. All damages to the equipment will be the responsibility of the contracts to repair / replace to the satisfaction of the County's representative.
- G. NO MATERIALS, DEBRIS, ETC. SHALL BE DROPPED OR THROWN FROM THE BUILDING AT ANY TIME. ALL MATERIALS MUST BE LOWERED BY MEANS OF A HOIST, ENCLOSED CHUTES OR BY HAND / BUCKET. THE DUMPSTER OR TRUCK SHALL BE ENCLOSED TO PREVENT DUST OR DEBRIS FROM BEING EJECTED INTO THE AIR OR SURROUNDING AREAS.

1.07 Salvage

- A. All materials, equipment and debris resulting from remodeling, not designated for reuse in new work nor designated to be salvaged, becomes the property of the Contractor and shall be removed from the County site as it accumulates.

PART 2 -PRODUCTS

N/A

PART 3 - EXECUTION

3.01 Inspection

- A. Contractor shall thoroughly inspect existing conditions to determine that the existing installation is as shown.
 - 1. Notify the Architect as soon as possible, of any deficiencies discovered prior to continuing work in that area or taking and corrective measures.

3.02 Weather Protection

- A. Contractor shall provide adequate weather protection for existing building(s) and its contents during all phases of the work.

- B. Contractor shall remove only the amount of materials that can be covered and made watertight at the end of each working day.

3,03 Noise and Dust Control

- A. Take measures to avoid dust, dirt and debris entering the building and surrounding buildings during all phases of work.
- B. Contractor shall erect, maintain and remove at the end of construction, dust proof temporary barriers and enclosures, as required, to allow occupants access to occupied areas of building(s) and to protect equipment. Maintain separation of occupant traffic areas and work areas.

3.04 Execution

- A. Coordinate all material removals with the intent of these specifications, the drawings, and any affected subcontractors to ensure proper removal extent as well as techniques and procedures. Remove existing materials and equipment in manner and methods to cause minimum injury to remaining surfaces. Provide for neat and orderly junctions between existing and new materials.
- B. Remove, replace and repair existing construction where indicated or in accord with drawings and specifications. In so far as possible all evidence of a deficient, damaged or unsafe condition of existing construction, shall be replaced/repared to satisfactory condition consistent with new work.
- C. Provide a means of catching and containing debris and dust from work areas, local to the work area, by means of tarps, water mist, vacuum, etc. as approved by the Architect.
- D. (not applicable).
- F. All existing materials shall be removed and disposed of off the job site as expeditiously as possible.
- G. Demolition:
 - 1. During demolition and replacement operations, the Contractor shall comply with OSHA 1926.500 regulations applicable to fall protection.
- I. Cutting:
 - 1. Contractor shall provide all cutting in existing construction.
 - 2. Neatly cut or drill new openings to correct size as indicated or required.
 - 3. Cutting shall be done with tools and methods to prevent unnecessary damage to surrounding areas or equipment. No cutting shall be done which will, in any way, reduce the structural strength of the building.
- J. Patching and Refinishing:
 - 1. Contractor shall be responsible for patching or refinishing any surface which becomes exposed, defaced or damaged as a result of remodeling or demolition.
 - 2. Where existing walls or roofs are damaged as a result of the work, patch or replace to match existing or with approved like-kind materials and assemblies.

3.05 Clean Up

- A. Prior to end of day's work, Contractor shall clean up dirt and debris caused by his work and shall completely remove all such dirt and debris after completion of the work operation.
- B. Contractor shall maintain public and occupant access and entrances, cleaned free of mud, dirt and debris. Clean daily and more frequently, if required, by construction and operations or as directed by the Architect.

- C. Contractor shall maintain corridor areas adjacent to construction and access paths or travel for workmen to and within existing building clear and clean.
- D. Contractor shall remove his temporary barricades and enclosures after work is completed, unless required during new construction operations.

END OF SECTION

DIVISION 07 THERMAL AND MOISTURE PROTECTION

07840 FIRESTOPPING

1. GENERAL

Related Documents:

Division 1 - General Requirements

Description of Work

All General and Electrical related firestopping work is to be provided as a part of each contractor's contract work. Each contractor is responsible for their own cutting of openings and penetrations, and for the firestopping of all fire rated assembly locations in accordance with UL listed details and products. Openings and penetrations in non-rated construction assemblies are to be draft stopped to prevent the passage of smoke.

Existing openings created from the removal of work shall be fire stopped by the contractor who's demolition created the opening. All existing openings in the area of work shall be firestopped by the General Contractor as required to facilitate obtaining a final inspection by the building authority.

All contractors are to coordinate their work with the General Contractor in conjunction with their work being installed.

Related Work:

All General and Electrical Sections of the drawings and specifications as applicable.

Submittals:

Submit a comprehensive list of materials, locations, assemblies (including UL reference numbers) for all areas of the project.

Submit manufacturer's literature and installation details for all assemblies and products.

Provide all necessary submittals to the building authority for approvals.

References:

Supplier's and manufacturer's design and installation standards in accordance with the UL Directory, 1999 edition and all amendments and additions.

Ohio Building Code - latest edition, Chapter 7, Fire-Resistance Rated Construction.

2. PRODUCTS

Materials:

Product manufacturer(s) to meet the standards established by the Owner (as applicable).

Products to be by STI, Hilti, 3M, Tremco or approved equal, and shall include but not be limited to the following:

1. Intumescent Mastic
2. Intumescent Wrap Strips
3. Intumescent collar and sleeve devices
4. Intumescent flowable putty and sealants
5. Fire prevention mortar
6. Acrylic and silicone sealants
7. Fire safing mineral wool and backer rods
8. Fire-rated gypsum products

All materials to be provided in accordance with the UL tested assemblies and manufacturer's assembly requirements.

3 EXECUTION

Installation:

Install in accordance with the UL tested assemblies and manufacturer's assembly requirements.

Coordinate all finish trim and construction details for a concealed appearance.

Coordinate all work to allow access to assemblies as required for inspections and maintenance.

END OF SECTION

07900 SEALANTS

PART 1 - GENERAL

1.01 Related Documents

- A. The drawings and General Provisions of the Contract, including the General and Supplementary Conditions and Division 1 as appropriate, apply to the work specified in this section.

1.02 Related Sections

- A. Division 9 Finishes
Mechanical, Plumbing & Electrical

1.03 Description of Work

- A. Provide all labor and materials to seal along all openings, joints and exposed flashings and at locations shown on the drawings as required for a complete weatherproof job.
- B. Provide all labor and materials to install sealant on the exterior and interior of the building as shown on the drawings and as otherwise required for a complete weatherproof job and for finish appearance work.
- C. Seal around doors, windows and walls typically, and other openings as well as at casework for finished appearance typically at all locations.

1.04 Coordination of Installation:

- A. Coordinate work of this section with the mechanical, plumbing and mechanical subcontractors.

1.05 Quality Assurance:

- A. The installer shall have a minimum of ten (5) years experience on comparable projects.

1.06 References:

- 1. ASTM C-920, type S, grade NS, and TT-S-00230C, type II, class A

1.07 Submittals:

- A. Manufacturers' Literature: Materials description and installation instructions.
- B. Color charts or cured materials samples for color selection and approval.

1.08 Delivery, Storage, and Handling:

- A. Deliver materials with manufacturer's labels intact and legible.
- B. Store materials on raised platforms indoors in a temperature controlled environment meeting acceptable temperature ranges established by the manufacturer.

1.09 Warranty:

- A. Manufacturer's warranty indicating that the products will not crack, crumble or deteriorate; and will not loose bond to applied surfaces if installed per the manufacturer's recommendations for a period of (5) years. Contractor warranty to repair all defects for same (5) year period.

1.05 Quality Assurance:

- A. The installer shall have a minimum of ten (10) years experience on comparable projects.

- B. The specified products shall be reviewed and provided for the project based on the outcome of the pull tests. Specified products shall be provided unless otherwise approved based on test results.
- C. Testing:
 - 1. The manufacturer's representative shall provide a walk-through with the contractors and Owner to review all joint locations and surfaces prior to testing. And shall confirm the products to be used.
 - 2. Metals to be painted including window framing and door framing, etc shall be prepared, primed and painted prior to the testing and allowed to cure as recommended by the painting manufacturer. The painting manufacturer's representative shall be consulted prior to the application of the paints and sealants.
 - 3. The applicator (subcontractor) shall provide pull testing for all different conditions on the project. After preparing and cleaning the surfaces, prime the surfaces with the manufacturers recommended products and apply the sealant. Note: masonry may be tested with and without primer as recommended by the mfr's representative. Allow to cure 7 – 10 days per mfr's recommendation. The manufacturer's representative shall provide the pull test on site and document the results, and issue a report of compliance.

PART 2 - PRODUCTS

2.01 Materials

- A. Exterior Sealants:
 - 1. Joint sealant shall be silicone equal to Tremco Spectrem 3 or Dow 790 and/or 795.
 - 2. Colors to be selected from manufacturer's standard colors or per tint-ability by architect to match existing material colors.
- B. Interior Sealants:

Joint sealant shall be one part acrylic sealant meeting ASTM-C 834-81 equal to Tremco Acrylic Latex 834. Other acceptable manufacturers include Sonneborn, Pecora, or equal. For general interior use only. Colors to be selected from manufacturer's standard colors. Tack free time 24 hours or less.
- C. Primers: Clear waterproof type as recommended by sealant manufacturer.
- D. Backing: Closed cell plastic foam sponge material (compression installed) using polystyrene, polystyrene, butyl, untreated.
- E. At locations where existing sealants have been used, review materials and submit applicable substitutions for review and approval.

PART 3 - APPLICATION

3.01 Inspection:

- A. Examine all surfaces to receive the accessories.
- B. Surfaces to which sealants are to be applied shall be sound, clean, dry and free from defects that might affect the application.

3.02 Preparation:

- A. Before applying compound clean all surfaces free of existing sealants, dust, dirt, film and moisture. Dust masonry surface with a stiff brush. Wipe surface with cleaning agents recommended by manufacturer and dry thoroughly.

3.03 Installation:

- A. Apply sealant directly from the container per manufacturer's directions. Do not thin.
- B. If joint is deep, fill with manufacturer's recommended joint filler.
- C. Do not install sealant when temperature is below 40°F. unless approved by Associate.
- D. Surfaces shall be clean and dry, free of oil, grease, etc.
- E. Prime masonry surfaces before applying sealant.
- F. Tool all joints with a brush.
- G. Joint Dimensions
For joints 1/4 in. (6mm) to 1/2 in. (13mm) wide, the width to depth ratio should be equal. Joints 1/2 in. (13mm) wide or greater should have a depth of 1/2 in. (13mm). Minimum joint size 1/4 in. by 1/4 in. (6mm by 6mm). Maximum joint width 3/4"
- H. Surface Preparation
For good adhesion, the joint interface must be sound, clean and dry. Depending on the substrates, the joint surface may require a thorough wire brushing, grinding, sandblasting, solvent washing and/or primer.
- I. Joint Backing / Bond Breaking Tape
Closed cell polyethylene backer rods are to be installed as a joint backing material to control depth of sealant bead. Where depth of joint will prevent use of joint backing, an adhesive backed polyethylene tape should be installed to prevent three-sided adhesion. Joint backing must be dry at the time of sealant application.
- J. Tooling & Cleaning
Tooling is required immediately after application to ensure firm, intimate contact with the joint interface. Dry tooling is preferred. Cleaning can be accomplished with solvents such as IPA, MEK or Xylol while sealant is in an uncured state.

3.04 Completion:

- A. All locations to be reviewed to be watertight. Test seals as necessary to determine bond performance. Repair / replace as required until satisfactory application is provided.
- B. All excess materials and debris to be removed from project site. Clean all excess sealant from surfaces.

END OF SECTION

DIVISION 09 FINISHES

09510 ACOUSTIC CEILING SYSTEM

1. GENERAL

Carefully remove, store and reinstall existing ceiling tile, grid systems, and related suspension wires and accessories as required to accommodate the new cable replacement work.

Damaged tiles and grid systems and components shall be replaced with matching new. If the tiles cannot be replaced to match new, then the contractor shall provide the specified new tile, grid and accessories as required. This shall be done throughout the entire ceiling area or space for a continuous appearance.

Components may be salvage from other areas of the building (ie: small offices or storage rooms) and used in larger areas (ie: corridors) and then the contractor will replace the smaller room(s) ceilings complete.

All replacement work and materials shall be reviewed and approved by the County's representative.

Workers shall have a minimum of ten (10) years experience in this type work.

Submit manufacturer's published literature on materials and installation instruction for approval.

Warranty:

(New) panels are to have a 15 year warranty against visible sag when used with the manufacturer's specified suspension system.

2. PRODUCTS

New total replacement areas:

Ceiling tiles shall be Armstrong as specified or equal as manufactured by US Gypsum, Celotex, or equal.

Tile & Grid:

Provide tiles as indicated on room finish schedule and shown on reflected ceiling plan, unless there is a conflict, in which case, review and resolve with the architect.

Existing Ceiling Locations:

Provide salvaged materials from demolition areas and/or provide new similar fissured tile as approved by County.

New S.A.T.:

Armstrong, Cirrus, Tegular, 2'x2' or 2'x4' (to match existing sizes) x3/4", 15/16" grid routing, installed in Prelude XL 15/16" grid system.

Colors:

All tile and grid colors to be white.

Accessories:

Touch up spray powder in color to match tile.

3. EXECUTION

Install suspended grid tee system and tile as recommended by the manufacturer and as required by the building code using approved wire hangers, attachment clips and hardware. Provide additional support framing as required to span across areas where the structure above is obscured or otherwise inaccessible. All supports shall be attached to structural system components only.

The system shall be installed to permit border units of the greatest possible size. Refer to reflected ceiling plans for layouts and coordinate all changes with the architect prior to installation. Typically all

grids shall be laid out centered in the room or area and as otherwise required to accommodate the lighting layouts.

Coordinate all lighting and diffuser locations with electrical and mechanical contractors and with the architect for final layouts.

All members shall be aligned for true and level surfaces and straight lines.

Replace units which are damaged or improperly installed.

Install suspension wires for all light fixtures and/or secure to grid as required by the building code.

END OF SECTION

09900 PAINTING

PART 1 - GENERAL

1.01 Related Documents

- A. The drawings and General Provisions of the Contract, including the General and Supplementary Conditions and Division 1 as appropriate, apply to the work specified in this section.

1.02 Related Sections

- A. Miscellaneous work.

1.03 Description of Work

- A.. Provide all labor, materials, tools, scaffolds, and other equipment as required for complete preparation and painting of all surfaces that are disturbed, damaged or blemished as a part of the new cable replacement work. No new painting work except for where disturbed is scheduled to be provided. The extent of painting shall be provided to install an undetectable finish replacement. Surfaces shall be painted from edge to edge and to the full extent if the paint cannot be match to an undetectable level of finish.
- B. Work to include prepping and preparing all surfaces to be painted in accordance with paint manufacturers recommendations and technical support.
- C. Painting Contractor to properly protect surfaces with drop cloths or paper. Paint to be mixed in suitable containers and all necessary precautions to be taken to prevent fire.

1.04 Quality Assurance:

- A. Painting Contractor to have a minimum of ten (5) years experience in projects of this scope.
- B. Field Quality Control: Review first application(s) with Associate for color, texture and workmanship.

1.05 Submittals:

- A. Manufacturers' Literature: Materials description and installation instructions.
- B. Color Samples: Prepare painted surfaces at job site. Samples should be 12" X typical width of material or larger.

1.06 Delivery, Storage, and Handling:

- A. Deliver materials with manufacturer's labels intact and legible.
- B. Store materials on raised platforms indoors in a temperature controlled environment meeting acceptable temperature ranges established by the manufacturer.
- C. Restrict storage to paint materials and related equipment. Comply with health and fire regulations. Provide all paint materials in sealed containers with manufacturer's label intact on container.

1.07 Environmental Requirements:

- A. Comply with manufacturer's requirements as to environmental conditions under which coating systems can be applied. Do not apply finish in areas where dust is being generated.

1.08 Protection:

- A. Cover or protect finished work of other trades and surfaces not being painted concurrently or not to be painted.

1.09 Warranty:

- A. See Section 01740 - Warranties

PART 2 - PRODUCTS

2.01 Materials

- A. Acceptable Manufacturers: Paint specified is Sherwin-Williams (unless otherwise noted). Paint products to be Pratt & Lambert or, PPG. (NOTE: additional coats of paint may be required for material substitutions).
- B. Unspecified materials such as mineral spirits, paint strippers, etc. to be of the "best grade" or "first line" made by and bearing the labels of a reputable, recognized manufacturer. All paint products to be approved by the Associate.

PART 3 - EXECUTION

3.01 Preparation of Surfaces:

- A. Protect surrounding areas as required prior to stripping, scraping and cleaning operations.
- B. Exterior surfaces to be scraped of loose paint and chips are to be collected using vacuum equipment during the operation so that chips do not become air borne.
- C. Clean all painted and unpainted surfaces to receive paint with appropriate compatible products.
- D. All surfaces to be primed using appropriate compatible products base on investigation of the existing substrate or finish being applied over. Test areas to confirm application adherence and suitability.

3.02 Inspection:

- A. Work to be done by skilled mechanics. Examine all surfaces scheduled to receive paint and finishes for conditions that will adversely affect execution, permanence, or quality of work, and which cannot be put into an acceptable condition through preparatory work.
- B. Do not proceed with surface preparation or coating application until conditions are suitable.
- C. Do not apply additional coats until completed coat has been inspected by the Associate.

3.03 Application:

- A. Apply paint with suitable brushes and rollers. Rate of application to not exceed recommendations of paint manufacturer for surface involved.
- B. Keep brushes and rollers clean and dry, free from contaminates and suitable for finish required. Comply with recommendation of manufacturer for drying time between succeeding coats.
- C. Vary slightly the color of successive coats.
- D. Leave all parts of moldings and ornaments clean and true to details with no undue amount of paint in corners and depressions. Make edges of paint adjoining other materials or colors clean and sharp with no overlapping. Refinish whole length or area where portion of finish has been damaged or is not acceptable.

- E. Sand and dust between each coat to remove defects. Finish coats to be smooth, free of brush marks, streaks, laps or pile up of paints, and chipped or missed areas.
- F. Tint prime coat to match final coat where two (2) coats are specified.
- G. Back prime all wood to be exposed in the finished work.

3.04 Completion:

- A. At completion, damaged or defaced finish to be touched up, restored and left in first class condition.
- B. All excess materials and debris to be removed from project site. Clean all excess paint from surfaces. Remove spilled, splashed or splattered paint from all surfaces. Do not mar surface finish of item being cleaned.

PART 4 - PAINTING SCHEDULE -
EXTERIOR

- A. Not applicable

INTERIOR

- A. Gypsum Board (Eggshell, Low Odor - 0 VOC)
One Coat SW ProMar 200 Zero VOC Primer B28W2600
Two Coats SW ProMar 200 Zero VOC Latex Eg-Shel B20-2600 Series
- B. Metals (Enamel - Semi-Gloss Finish, Low Odor) including Exposed Metal Work, Conduits, Piping, etc.
One Coat SW ProCryl Universal Metal Primer B33-310
Or
Two Coats SW DTM Acrylic Semi-Gloss B66-200 Series
- C. Wood Trim (Stained or Natural Finish)
One coat SW Wood Classics 250 VOC wood stain A49-800 Series (Omit for Natural Finish)
Or
Two Coats SW Wood Classics Waterbased Polyurethane Satin or Gloss A68 Series
- D. Wood Trim - Painted (Semi-Gloss Finish, Low Odor - 0 VOC)
One Coat SW Premium Wall & Wood Primer B28W811
Two Coats SW ProMar 200 Zero VOC Semi-Gloss B31-2600 Series

END OF SECTION

**SECTION 26 00 00
GENERAL ELECTRICAL PROVISIONS**

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The General Conditions and other Contract Documents as set forth in the foregoing pages are hereby incorporated into and become a part of the Specifications for work under this title, insofar as they apply hereto.
- B. All Specifications under this Division Title are directed to and are the responsibility of the Electrical Contractor. Unless other trades or persons are specifically mentioned, "Electrical Contractor" is inferred and intended.

1.02 CONTRACT DRAWINGS

- A. The Drawings accompanying these Specifications are complementary each to the other and what is called for by one shall be as if called for by both.
- B. Consult all Contract Drawings which may affect the location of equipment, conduit and wiring and make minor adjustments in location to secure coordination.
- C. Wiring layout is schematic and exact locations shall be determined by structural and other conditions. This shall not be construed to mean that the design of the system may be changed; it refers only to the exact locations of conduit and equipment to fit into the building as constructed and with the coordination of conduit and other equipment with piping and equipment included under other divisions of the Specifications.
- D. Coordinate layout of work with other trades. Make minor adjustments in location required for coordination. Locations of structural systems, heating work and plumbing lines shall take preference over locations of conduit lines where conflict occurs.
- E. Other than minor adjustments shall be submitted to the Engineer for approval before proceeding with the work.
- F. The location of outlets and switches shown on the Drawings is approximate, and the Engineer shall have the right to relocate any outlets or switches before they are installed without additional cost.

1.03 MANUFACTURER'S DRAWINGS

- A. Submit to the ENGINEER for review, six (6) copies of Manufacturer's Drawings for the following items:

<u>ITEMS</u>	<u>TYPE SUBMITTALS REQUIRED</u>
Cables	Catalog cuts
Jacks	Catalog cuts
Patch panels	Catalog cuts
Racks	Catalog cuts
Labels	Catalog cuts

- B. Thoroughly review each submittal and indicate the exact item to be furnished. Each submittal shall be stamped with the Contractor's approval before submitting to the Engineer.

- C. Engineer's review of Manufacturer's Drawings or Schedules shall not relieve the Contractor from responsibility for errors or omissions in Manufacturer's Drawing or Schedules and deviation from Engineer's Drawings and/or Specifications.

1.04 JOB-SITE COPY OF DOCUMENTS

- A. Maintain at the site, one copy of all Drawings, Specifications, Addenda, approved Shop Drawings, Change Orders and other modifications in good order. The Drawing shall be marked to record all changes made during construction especially deviations made necessary to incorporate equipment different from base equipment specified. These shall be available to the Engineer. The Drawings marked to record all changes made during construction shall be delivered to the Engineer for the User upon completion of the work. An additional set of drawings will be furnished by the Engineer for this purpose upon request.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. All materials shall be new and undeteriorated and of a quality not less than the minimum specified.
- B. Materials and equipment for which there are Underwriters' Laboratories Standard requirements, listing and labels, shall have listing of Underwriters' Laboratories and be so labeled.

2.02 GUARANTEES

- A. The Electrical Contractor shall be responsible for all defects, repairs and replacements in materials and workmanship for a period of one (1) year after final written acceptance by the Engineer and Owner.
- B. Product guarantees greater than one (1) year shall be passed along to the Owner's representative for full benefit of the manufacturer's warranty.

2.03 QUANTITIES

- A. Items may be referred to as singular or plural on the Drawings and in the Specifications. The Contractor is responsible for determining quantity of each item required.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Furnish and install all necessary hangers, supports, straps, boxes, fittings and other similar appurtenances not indicated on the Drawings but which are required for a complete and properly installed system consistent with the Architectural treatment of the building.
- B. Contractor shall inform himself fully regarding peculiarities and limitations of space available for installation of materials and apparatus under this contract, and see that all equipment necessary to be reached from time to time for operation and maintenance are

made easily accessible. Clearances, when possible, shall be greater than those required by code.

- C. Working Clearances: At least 6'-3" clear headroom must be maintained in front of all electrical equipment. Provide at least 3'-6" for 480/277 volt and 3'-0" for 208/120 volt clear space in front of all electrical equipment as wide as the equipment with a minimum of 2'-6" wide. The same clearance shall be required at the rear of rear access equipment.
- D. **All circuits shall have dedicated neutrals. No shared neutrals shall be permitted.**

3.02 WORKMANSHIP

- A. Electrical work shall meet or exceed the standards of installation and workmanship set forth in the latest edition of the National Electrical Contractors Association publication entitled NECA Standard of Installation, except as otherwise modified in these specifications or shown on the Drawings.
- B. The Owner's representative or Engineer reserves the right to direct the removal and replacement of any item which, in his opinion, which does not present an orderly, neat or workmanlike appearance, provided that such item can be properly installed in an orderly way by methods usual in such work, or which does not comply with the contract drawings or these specifications. Perform such removals or replacements when directed in wiring by the Engineer and at the Contractor's expense.
- C. The Electrical Contractor, insofar as the work is concerned, shall at all times keep the premises in a neat and orderly condition, and at the completion of the work shall properly clean up and cart away debris and excess materials.
- D. Fire stop all rated wall and floor assemblies with a U.L. approved system. See Drawings for specific areas.

END OF SECTION

SECTION 26 02 00 WORK INCLUDED

PART 1 - GENERAL

1.01 SCOPE

- A. Furnish all materials, labor, tools, transportation, incidentals and appurtenances to complete in every detail and leave in working order all items of work called for herein and/or shown on the accompanying Drawings.
- B. It is the intent that the ensuing work shall be complete in every respect and that any material or work not specifically mentioned or shown on the Drawings, but necessary to fully complete the work, shall be furnished.
- C. For all hard wired equipment, the electrical contractor shall provide wiring and make all final connections.

1.02 COORDINATION OF PLANS AND SPECIFICATIONS

- A. Contact the Architect/Engineer immediately if there is any question regarding the meaning or intent of either Plans or Specifications, or upon noticing any discrepancies or omissions in either Plans or Specifications.

PART 2 - PRODUCTS

- A. Not Applicable.

PART 3 - EXECUTION

3.01 SITE VISITATION

- A. It is suggested that the bidder visit the site and fully inform himself concerning all conditions affecting the scope of the work. Failure to visit the site shall not relieve him from any responsibility in the performance of this Contract.

3.02 SUPERVISION OF WORK

- A. The contractor shall have in charge of the work, at all times during construction, a competent superintendent with a large experience in the work to be done under this Specification.
- B. Refer to Specifications covering all branches of the work and keep fully informed of the progress of the general construction. Install all work that is concealed and built into the building in place in sufficient time to insure proper location without delays to the work of the trades. Properly attend the work during the process of building-in to prevent misalignment and damage.
- C. All workmanship shall be of the highest quality in accordance with the best practices of the trade by craftsmen skilled in this particular work.

3.03 EXISTING WORK AND DEMOLITION

- A. Locate existing utilities prior to beginning work. Reroute or replace existing utilities where necessary to permit installation of the work. Provide adequate means of protection during work operations. Repair existing utilities damaged during work operations to the satisfaction of the utility the Engineer, and the Owner's Representative at this Contractor's expense.
- B. Should uncharted or incorrectly charted piping or other utilities be encountered during work operations, notify the Engineer immediately for procedure directions. Cooperate with utility companies in maintaining active sewers and facilities in operation.
- C. Suitably and adequately protect the existing work within and immediately adjacent to, the new work areas from damage and injury during the process of installing the work under this Contract. Existing work that had been harmed, damaged or injured as a result of the Electrical Contractor's operations shall be repaired, restored or replaced at the Electrical Contractor's expense.
- D. Revise existing wiring as indicated or required. Existing work which remains shall be left in like new condition and properly reconnected.
- E. Reuse existing concealed conduit and flush mounted boxes where feasible. All unused boxes shall be labeled and covered with a blank coverplate. All new conduit and wire in remodeled areas shall be run concealed where possible. In mechanical rooms and other unfinished areas new conduit and wire shall be run exposed along the wall in thin wall EMT to surface boxes as required.

3.04 FIRESTOPPING

- A. Apply firestopping to cable and raceway penetrations of fire-rated floor and wall assemblies to achieve fire-resistance rating of the assembly. Use UL approved firestopping method.

3.05 CUTTING AND PATCHING

- B. Avoid cutting of concrete, masonry and other work by use of inserts and sleeves, and when necessary shall be done by the Electrical Contractor with such tools and methods as to prevent unnecessary damage to surrounding areas or equipment. All cutting and patching is by this contractor.
- C. This Contractor shall be responsible for location and sizes of all openings required for the installation of electrical equipment before walls, etc., are started.
- D. No cutting shall be done which will in any way reduce the structural strength of the building. Should such cutting be found necessary, the Engineer must first be fully informed of, and consent to, the proposed operation.
- E. All cutting through poured concrete slabs and walls shall be done with core drills. No jack hammers will be allowed.
- F. Patching shall match existing surfaces in kind and finish and shall be appropriate tradesperson at the Electrical Contractor's expense. This includes patching existing ceilings and floors where required and patching holes left by removal of existing conduits, bus duct, equipment, etc. See GENERAL CONDITIONS.
- G. Repair of damages, by this Contractor, to newly patched and refinished areas shall be done by an appropriate tradesperson at the Electrical Contractor's expense.

- H. All conduits, bus ducts, equipment, etc., that penetrates walls or floors shall have openings, sleeves, etc., filled and closed off to prevent the possible spread of fire or products of combustion through the wall or floor. Seal with a UL approved fire caulk or other approved UL approved method.

3.05 CLEANING AND PAINTING

- A. All electrical equipment shall be kept dry and clean during the construction period. Equipment shall be covered with plastic sheeting as a minimum form of protection. Provide additional protection, if job conditions so require. Existing equipment to remain shall be left in working condition as was before the start of work.
- B. Interiors of all enclosures shall be cleaned and all dirt and debris removed before installing trim or covers.
- C. All finished surfaces of equipment furnished under this Contract shall be thoroughly cleaned of dirt and all scratched or damaged surfaces shall be touched up with matching materials before final acceptance of the work. No exposed ferrous metal surfaces shall be left unpainted. Touch-up all galvanized, if scratched, with two coats of aluminum paint.
- D. Prime and paint all steel hangers, boxes, straps, rods, etc. which are not provided with rust-protective finish or the protective finish is damaged in installation. Paint to be zinc chromate primer and aluminum bronze finish. This includes unfinished and mechanical spaces as well as "exposed to view" locations.
- E. When all work is completed and all work has been satisfactorily tested and accepted by the Architect/Engineer, all fixtures, conduit and other exposed surfaces shall be thoroughly cleaned.
- F. Dust must be held to a minimum when work is performed inside of the existing building.

END OF SECTION

SECTION 26 02 50
CODES

PART 1 - GENERAL

1.01 CODES

- A. Codes and standards: Completed electrical installations shall comply with applicable Local, State of Ohio, and Federal laws, codes, standards, and ordinances, including the following:
1. National Electrical Contractors Association (NECA):
 - a. NECA "Standard of Installation."
 2. National Fire Protection Association (NFPA):
 - a. NFPA No.70 "National Electrical Code."
 3. Ohio Department of Industrial Relations:
 - a. Ohio Building Code (OBC).
 4. Underwriters' Laboratories, Inc. (UL):
 - a. Materials requiring UL examination service shall bear UL labels or be UL listed.
 5. Work under jurisdiction of Local Fire Marshal shall comply with requirements set forth by the Fire Marshal's Office and NFPA.
 6. Nothing contained in the drawings and specifications shall be construed to conflict with these laws, codes, and ordinances and they are hereby made a part of these specifications. Comply with drawing and specification requirements which are in excess of minimum code requirements.

PART 2 - PRODUCTS

- A. The electrical contractor shall test the operation of all electrical work. This work shall include but not be limited to; lights, equipment, grounding systems, etc.

PART 3 - EXECUTION

- A. Refer to "Tests and Inspections" in Section 271513, PART 2 – PRODUCTS, 2.1 PERFORMANCE REQUIREMENTS.

END OF SECTION

SECTION 27 15 13

COMMUNICATIONS COPPER HORIZONTAL CABLING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Category 6 twisted pair cable.
 - 2. Category 6a twisted pair cable.
 - 3. Twisted pair cable hardware, including plugs and jacks.
 - 4. Cable management system.

1.2 COPPER HORIZONTAL CABLING DESCRIPTION

- A. Horizontal cabling system shall provide interconnections between Distributor A, Distributor B, or Distributor C, and the equipment outlet, otherwise known as "Cabling Subsystem 1," in the telecommunications cabling system structure. Cabling system consists of horizontal cables, intermediate and main cross-connects, mechanical terminations, and patch cords or jumpers used for horizontal-to-horizontal cross-connection.
 - 1. TIA-568-C.1 requires that a minimum of two equipment outlets be installed for each work area.
 - 2. Horizontal cabling shall contain no more than one transition point or consolidation point between the horizontal cross-connect and the telecommunications equipment outlet.
 - 3. Bridged taps and splices shall not be installed in the horizontal cabling.
- B. The maximum allowable horizontal cable length is 295 feet. This maximum allowable length does not include an allowance for the length of to the workstation equipment or in the horizontal cross-connect.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance data.

1.5 QUALITY ASSURANCE

- A. Testing Agency Qualifications: Testing agency must have personnel certified by BICSI on staff.
 - 1. Testing Agency's Field Supervisor: Currently certified by BICSI as an RCDD.

1.6 COORDINATION

- A. Coordinate layout and installation of telecommunications pathways and cabling with Owner's telecommunications and LAN equipment and service suppliers.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General Performance: Horizontal cabling system shall comply with transmission standards in TIA-568-C.1, when tested according to test procedures of this standard.
- B. Telecommunications Pathways and Spaces: Comply with TIA-569-D.
- C. Grounding: Comply with TIA-607-B.

2.2 GENERAL CABLE CHARACTERISTICS

- A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction as complying with the applicable standard and NFPA 70 for the following types:
 - 1. Communications, Plenum Rated: Type CMP complying with NFPA 262.
- B. Surface-Burning Characteristics: Comply with ASTM E84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Flame-Spread Index: 25 or less.
 - 2. Smoke-Developed Index: 50 or less.
- C. RoHS compliant.

2.3 CATEGORY 6 TWISTED PAIR CABLE

- A. Description: Four-pair, balanced-twisted pair cable certified to meet transmission characteristics of Category 6 cable at frequencies up to 250MHz.
- B. GenSPEED 6 or approved equal.
- C. Standard: Comply with TIA-568.2-D for Category 6 cables.
- D. Conductors: 100-ohm, 23 AWG solid copper.
- E. Shielding/Screening: Unshielded twisted pairs (UTP).
- F. Cable Rating: Plenum.
- G. Jacket: thermoplastic, color per owner.

2.4 CATEGORY 6a TWISTED PAIR CABLE

- A. Description: Four-pair, balanced-twisted pair cable, certified to meet transmission characteristics of Category 6a cable at frequencies up to 500MHz.
- B. GenSPEED 10 UTP or approved equal.
- C. Standard: Comply with TIA-568-D for Category 6a cables.
- D. Conductors: 100-ohm, 23 AWG solid copper.
- E. Shielding/Screening: Unshielded twisted pairs (UTP).
- F. Cable Rating: Plenum.
- G. Jacket: thermoplastic, color per owner.

2.5 TWISTED PAIR CABLE HARDWARE

- A. Description: Hardware designed to connect, splice, and terminate twisted pair copper communications cable.
- B. UTP Jack Modules and patch panel to be by Panduit or approved equal.
- C. General Requirements for Twisted Pair Cable Hardware:
 - 1. Comply with the performance requirements of Category 6 and Category 6a.
 - 2. Comply with TIA-568-C.2, IDC type, with modules designed for punch-down caps or tools.
 - 3. Cables shall be terminated with connecting hardware of same category or higher.
- D. Source Limitations: Obtain twisted pair cable hardware from single source from single manufacturer.
- E. Patch Panel: Modular panels housing numbered jack units with IDC-type connectors at each jack location for permanent termination of pair groups of installed cables.
 - 1. Features:
 - a. Universal T568A and T568B wiring labels.
 - b. Labeling areas adjacent to conductors.
 - c. Replaceable connectors.
 - 2. Construction: 16-gauge steel and mountable on 19-inch equipment racks.
- F. Patch Cords: Factory-made, four-pair cables in 36-inch lengths; terminated with an eight-position modular plug at each end.
 - 1. Patch cords shall have bend-relief-compliant boots and color-coded icons to ensure performance. Patch cords shall have latch guards to protect against snagging.
 - 2. Patch cords shall have color-coded boots for circuit identification.

G. Plugs and Plug Assemblies:

1. Male; eight position; color-coded modular telecommunications connector designed for termination of a single four-pair, 100-ohm, unshielded twisted pair cable.
2. Standard: Comply with TIA-568-C.2.
3. Marked to indicate transmission performance.

H. Jacks and Jack Assemblies:

1. Female; eight position; modular; fixed telecommunications connector designed for termination of a single four-pair, 100-ohm, unshielded twisted pair cable.
2. Designed to snap-in to a patch panel or faceplate.
3. Standard: Comply with TIA-568-C.2.
4. Marked to indicate transmission performance.

I. Faceplate:

1. Two, Four or Six port, vertical single gang faceplates designed to mount to single gang wall boxes.
2. Plastic Faceplate: High-impact plastic. Coordinate color with owner.
3. For use with snap-in jacks accommodating any combination of twisted pair, optical fiber, and coaxial work area cords.
 - a. Flush mounting jacks, positioning the cord at a 45-degree angle.

J. Legend:

1. Machine printed, in the field, using adhesive-tape label.
2. Snap-in, clear-label covers and machine-printed paper inserts.

PART 3 - EXECUTION

3.1 INSTALLATION OF TWISTED-PAIR HORIZONTAL CABLES

- A. Comply with NECA 1 and NECA/BICSI 568.
- B. Wiring Method: Install cables in raceways and cable trays, except within consoles, cabinets, desks, and counters and except in accessible ceiling spaces, attics, and gypsum board partitions where unenclosed wiring method may be used.
 1. Install plenum cable in environmental air spaces, including plenum ceilings.
- C. Wiring within Enclosures: Bundle, lace, and train cables within enclosures. Connect to terminal points with no excess and without exceeding manufacturer's limitations on bending radii. Provide and use lacing bars and distribution spools. Install conductors parallel with or at right angles to sides and back of enclosure.
- D. General Requirements for Cabling:
 1. Comply with TIA-568-C.1.

2. Comply with BICSI's Information Transport Systems Installation Methods Manual, Ch. 5, "Copper Structured Cabling Systems," "Cable Termination Practices" Section.
3. Install 110-style IDC termination hardware unless otherwise indicated.
4. Do not untwist twisted pair cables more than 1/2 inch from the point of termination to maintain cable geometry.
5. Terminate all conductors; no cable shall contain unterminated elements. Make terminations only at indicated outlets, terminals, cross-connects, and patch panels.
6. Cables may not be spliced. Secure and support cables at intervals not exceeding 30 inches and not more than 6 inches from cabinets, boxes, fittings, outlets, racks, frames, and terminals.
7. Install lacing bars to restrain cables, prevent straining connections, and prevent bending cables to smaller radii than minimums recommended by manufacturer.
8. Bundle, lace, and train conductors to terminal points without exceeding manufacturer's limitations on bending radii, but not less than radii specified in BICSI information Transport Systems Installation Methods Manual, Ch. 5, "Copper Structured Cabling Systems," "Cable Termination Practices" Section. Use lacing bars and distribution spools.
9. Do not install bruised, kinked, scored, deformed, or abraded cable. Do not splice cable between termination, tap, or junction points. Remove and discard cable if damaged during installation, and replace it with new cable.
10. Cold-Weather Installation: Bring cable to room temperature before dereeling. Heat lamps shall not be used for heating.
11. In the communications equipment room, install a 10-foot long service loop on each end of cable.
12. Pulling Cable: Comply with BICSI Information Transport Systems Installation Methods Manual, Ch. 5, "Copper Structured Cabling Systems," "Pulling and Installing Cable" Section. Monitor cable pull tensions.

E. Group connecting hardware for cables into separate logical fields.

F. Separation from EMI Sources:

1. Comply with recommendations from BICSI's "Telecommunications Distribution Methods Manual" and TIA-569-D for separating unshielded copper communication cable from potential EMI sources, including electrical power lines and equipment.

3.2 IDENTIFICATION

A. Provide identification labels on the patch panel.

B. Provide identification labels on faceplate ports.

C. Cable and Wire Identification:

1. Label each cable within 4 inches of each termination and tap, where it is accessible in a cabinet or junction or outlet box, and elsewhere as indicated.

D. Labels shall be preprinted or computer-printed type, with a printing area and font color that contrast with cable jacket color but still comply with TIA-606-B requirements for the following:

1. Cables use flexible vinyl or polyester that flexes as cables are bent.

3.3 FIELD QUALITY CONTROL

- A. Perform tests and inspections.
- B. Tests and Inspections:
 - 1. Visually inspect jacket materials for NRTL certification markings. Inspect cabling terminations in communications equipment rooms for compliance with color-coding for pin assignments, and inspect cabling connections for compliance with TIA-568-C.1.
 - 2. Visually inspect cable placement, cable termination, grounding and bonding, equipment and patch cords, and labeling of all components.
 - 3. Test twisted pair cabling for DC loop resistance, shorts, opens, intermittent faults, and polarity between conductors. Test operation of shorting bars in connection blocks. Test cables after termination but not cross-connection.
- C. Data for each measurement shall be documented. Data for submittals shall be printed in a summary report that is formatted similarly to Table 10.1 in BICSI's "Telecommunications Distribution Methods Manual," or shall be transferred from the instrument to the computer, saved as text files, printed, and submitted.
- D. Remove and replace cabling where test results indicate that they do not comply with specified requirements.
- E. End-to-end cabling will be considered defective if it does not pass tests and inspections.
- F. Prepare test and inspection reports.

END OF SECTION

GenSPEED® 6 Category 6 Cable (23 AWG)

Standards-Compliant Extended Frequency

Features and Benefits

- Unique separator design engineered for consistent electrical performance
- TRU-Mark® print legend contains footage markings from 1000' to 0'
- Third-party verified for guaranteed performance
- Made in U.S.A.

Applications

- IEEE 802.3: 1000 BASE-T, 100 BASE-TX, PoE, PoE+, and PoE++
- ANSI/TIA 854: 1000 BASE-TX
- CDDI, Token Ring, ATM
- Digital Video
- Broadband and Baseband Analog Video

Standard Compliances

- ANSI/TIA 568.2-D
- NEC/CEC Type CMR (UL 1666) for Non-Plenum
- NEC/CEC Type CMP (NFPA 262) for Plenum
- UL 444
- RoHS Compliant Directive 2011/65/EU
- ANSI/TIA 862 (Building Automation)
- ICEA S-116-732
- ISO/IEC 11801 Ed. 2.0 (Class E)

Last Revision: October 2023



CONSTRUCTION

Conductors

- 23 AWG solid bare annealed copper

Insulation

- Non-Plenum: Polyolefin
- Plenum: FEP, Polyolefin

Color Code

- Pair 1: Blue-White/Blue
- Pair 2: Orange-White/Orange
- Pair 3: Green-White/Green
- Pair 4: Brown-White/Brown

Separator

- Divider

Rip Cord

- Applied longitudinally under jacket

Jacket

- Non-Plenum: Flame-Retardant PVC
- Plenum: Low-Smoke, Flame-Retardant PVC

PHYSICAL DATA

	CMR (Non-Plenum)	CMP (Plenum)
Nominal Cable Diameter (in)	0.220	0.205
Nominal Cable Weight (lbs/1000 ft)	24	25
Minimum Bend Radius (in)	1.0	1.0
Maximum Pulling Force (lbs)	32	32
Temperature Rating (°C)		
Installation:	0 to +60	0 to +60
Operation:	-20 to +75	-20 to +75

PART NUMBERS

Standard packaging: 1000' Pull-Pac® II

Jacket Color	Pull-Pac® II		Spool-Pac®		Spool	
	CMR (Non-Plenum)	CMP (Plenum)	CMR (Non-Plenum)	CMP (Plenum)	CMR (Non-Plenum)	CMP (Plenum)
Blue	7133800	7131100	7133840	7131140	7133860	7131160
White	7133801	7131101	7133841	7131141	7133861	7131161
Yellow	7133802	7131102	7133842	7131142	7133862	7131162
Gray	7133803	7131103	7133843	7131143	7133863	7131163
Red	7133804	7131104	7133844	7131144	7133864	7131164
Orange	7133805	7131105	7133845	7131145	7133865	7131165
Green	7133806	7131106	7133846	7131146	7133866	7131166
Black	7133807	7131107	7133847	7131147	7133867	7131167
Pink	7133808	7131108	7133848	7131148	7133868	7131168
Purple	7133809	7131109	7133859	7131159	7133869	7131169

Note: Bulk reels are available as a special request with a maximum allowable length of 3000 feet per reel. Minimum run and lead time may apply.

Non-stock items may be subject to minimum order quantities.

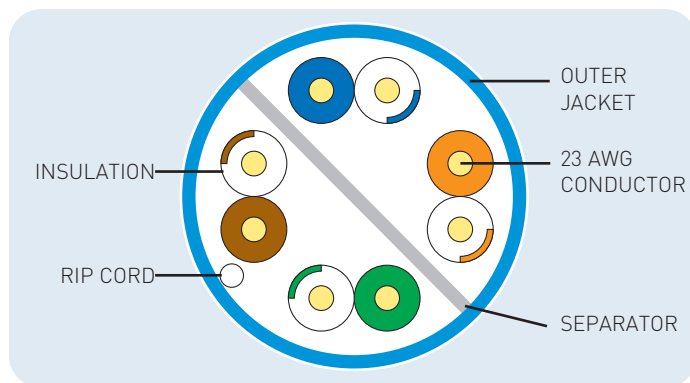
ELECTRICAL PERFORMANCE

Frequency MHz	PSACR* (min)	ACR* (min)	Insertion Loss (max)	PSNEXT (min)	NEXT (min)	PSACRF (min)	ACRF (min)	Return Loss (min)	TCL (min)	ELTCTL (min)
1	70.3	72.3	2.0	72.3	74.3	64.8	67.8	20.0	40.0	35.0
4	59.3	61.5	3.8	63.3	65.3	52.8	55.7	23.0	40.0	23.0
10	51.3	53.3	6.0	57.3	59.3	44.8	47.8	25.0	40.0	15.0
16	46.7	48.7	7.6	54.2	56.2	40.7	43.7	25.0	38.0	10.9
20	44.3	46.3	8.5	52.8	54.8	38.8	41.7	25.0	37.0	9.0
31.25	39.2	41.2	10.7	49.9	51.9	34.9	37.9	23.6	35.1	—
62.5	29.9	32.0	15.4	45.4	47.4	28.9	31.8	21.5	32.0	—
100	22.5	24.5	19.8	42.3	44.3	24.8	27.8	20.1	30.0	—
150	14.9	16.9	24.7	39.7	41.7	21.3	24.3	18.9	28.2	—
200	8.8	10.8	29.0	37.8	39.8	18.8	21.8	18.0	27.0	—
250	3.5	5.5	32.8	36.3	38.3	16.8	19.8	17.3	26.0	—
350	—	—	39.8	34.1	36.1	13.9	16.9	16.3	—	—
400	—	—	43.0	33.3	35.3	12.8	15.8	15.9	—	—
500	—	—	48.9	31.8	33.8	10.8	13.8	15.2	—	—

Note: Values are expressed in dB per 100 m (328 ft.) length @ 20°C. Results beyond 250 MHz are for reference only.

*PSACR & ACR not specified in ANSI/TIA 568.2-D

GenSPEED® 6 CATEGORY 6 (23 AWG) CROSS-SECTION



Note: Plenum cable, Pair 2/Orange, is non-striped

ELECTRICAL CHARACTERISTICS

	Max.	Nom.
DC Resistance Ohms/100 m (328 ft) @ 20°C	9.38	7.50
DC Resistance Unbalance Individual Pair %	4.00	< 1
Nom. Velocity of Propagation % Speed of Light	CMP: 70 CMR: 68	
Characteristic Impedance Frequency (f): 1-250 MHz	Ohms 100 ± 15	

GenSPEED® 10 UTP Category 6A Cable

Reliable Performance in the Industry's Smallest Full Channel 6A Cable

Features and Benefits

- Innovative design provides guaranteed performance using the industry's smallest 6A cable.
- Smaller cable diameter allows for greater cable density, reducing cable management costs.
- Simplified design and improved bend radius make it easier to strip, terminate and route, reducing installation time and expense.
- CMP 90°C jacket rating provides consistent performance in a wide range of operating environments.
- UL Listed CMP-LP 0.6A with certified performance for high power PoE applications.
- UL Listed CMR-LP 0.5A with certified performance for high power PoE applications.
- CMP - UL verified with certified performance for 100W power over HDBaseT.
- Innovative cross-web separator with patented design provides superior internal electrical characteristics by locking the pairs into a systematic orientation within the cable.
- Streamlined design allows for 36 reels per pallet, improving distribution and warehousing efficiency.
- TRU-MARK® print legend contains footage markings from 1000' to 0'.
- All GenSPEED products are Made in the U.S.A.

Applications

- IEEE 802.3: 10G BASE-T, 1000 BASE-T, 100 BASE-TX, 10 BASE-T, PoE, PoE+ and PoE++
- ANSI/TIA 854: 1000 BASE-TX
- Digital Video
- Broadband and Baseband Analog Video
- CDDI, Token Ring, ATM

Standard Compliances

- ANSI/TIA 568.2-D
- NEC/CEC Type CMP (NFPA 262) for Plenum
- NEC/CEC Type CMR (UL 1666) for Riser
- UL Listed CMP-LP 0.6A
- UL Listed CMR-LP 0.5A
- UL 444
- UL 4299
- RoHS Compliant Directive 2011/65/EU
- ANSI/TIA 862 (Building Automation)
- ICEA S-116-732
- ISO/IEC 11801 Ed. 2.0 (Class E_A)



CONSTRUCTION

Conductors

- 23 AWG solid bare annealed copper

Insulation

- Plenum: Fluoropolymer
- Non-Plenum: Thermoplastic

Color Code

- Pair 1: Blue-White
- Pair 2: Orange-White
- Pair 3: Green-White
- Pair 4: Brown-White

Separator

- Engineered Cross-Web

Jacket

- Plenum: Low-Smoke, Flame-Retardant PVC
- Non-Plenum: Flame-Retardant PVC

ANEXT Protection

- Encapsulated Isolation Wrap

PHYSICAL DATA

	CMP (Plenum)	CMR (Non-Plenum)
Nominal Cable Diameter (in)	0.250	0.260
Nominal Cable Weight (lbs/1000 ft)	32	32
Minimum Bend Radius (in)	1	1.06
Maximum Pulling Force (lbs)	40	40
Temperature Rating (°C)		
Installation:	0 to +60	0 to +60
Operation:	-20 to +90	-20 to +75

PART NUMBERS

Standard packaging: 1000' Pull-Pac or spool. Spool-Pac by special order.

Jacket Color	CMP (Plenum)		CMR (Non-Plenum)	
	Spool	Pull-Pac®	Spool	Pull-Pac®
 Blue	7141819	7141800	7143819	7143800
 White	7141820	7141801	7143820	7143801
 Yellow	7141822	7141802	7143822	7143802
 Gray	7141821	7141803	7143821	7143803
 Red	7141824	7141804	7143824	7143804
 Orange	7141826	7141805	7143826	7143805
 Green	7141823	7141806	7143823	7143806
 Black	7141828	7141807	7143828	7143807
 Pink	7141827	7141808	7143827	7143808
 Purple	7141825	7141809	7143825	7143809

Non-stock items may be subject to minimum order quantities.

ELECTRICAL PERFORMANCE

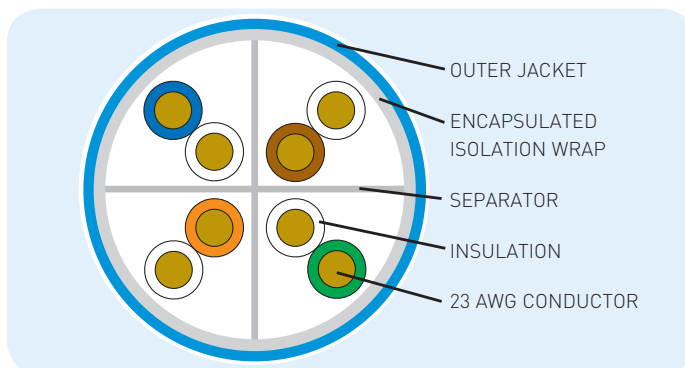
Frequency MHz	PSACR** (min)	ACR** (min)	Insertion Loss (min)	PSNEXT (min)	NEXT (min)	PSACRF (min)	ACRF (min)	Return Loss (min)	TCL (min)	PSANEXT (min)		PSAACRF (min)	
	TIA / GC Guaranteed	TIA / GC Guaranteed	TIA / GC Guaranteed	TIA / GC Guaranteed	TIA / GC Guaranteed	TIA / GC Guaranteed	TIA / GC Guaranteed	TIA / GC Guaranteed	TIA / GC Guaranteed	TIA	GC Guaranteed	TIA	GC Guaranteed
1	70.2	72.2	2.1	72.3	74.3	64.8	67.8	20.0	40.0	67.0	69.0	67.0	69.0
4	59.5	61.5	3.8	63.3	65.3	52.8	55.8	23.0	40.0	67.0	69.0	66.2	68.2
10	51.4	53.4	5.9	57.3	59.3	44.8	47.8	25.0	40.0	67.0	69.0	58.2	60.2
16	46.8	48.8	7.5	54.2	56.2	40.7	43.7	25.0	38.0	67.0	69.0	54.1	56.1
20	44.4	46.4	8.4	52.8	54.8	38.8	41.8	25.0	37.0	67.0	69.0	52.2	54.2
31.25	39.4	41.4	10.5	49.9	51.9	34.9	37.9	23.6	35.1	67.0	69.0	48.3	50.3
62.5	30.4	32.4	15.0	45.4	47.4	28.9	31.9	21.5	32.0	65.6	67.6	42.3	44.3
100	23.2	25.2	19.1	42.3	44.3	24.8	27.8	20.1	30.0	62.5	64.5	38.2	40.2
150	16.0	18.0	23.7	39.7	41.7	21.3	24.3	18.9	28.2	59.9	61.9	34.7	36.7
200	10.2	12.2	27.6	37.8	39.8	18.8	21.8	18.0	27.0	58.0	60.0	32.2	34.2
250	5.2	7.2	31.1	36.3	38.3	16.8	19.8	17.3	26.0	56.5	58.5	30.2	32.2
300	0.9	2.9	34.3	35.1	37.1	15.3	18.3	16.8	25.2	55.3	57.3	28.7	30.7
400	—	—	40.1	33.3	35.3	12.8	15.8	15.9	24.0	53.5	55.5	26.2	28.2
500	—	—	45.3	31.8	33.8	10.8	13.8	15.2	23.0	52.0	54.0	24.2	26.2
600*	—	—	50.1*	30.6*	32.6*	9.2*	12.2*	14.7*	22.2*	—	50.8*	—	22.6*
700*	—	—	54.5*	29.6*	31.6*	7.9*	10.9*	14.2*	21.5*	—	49.8*	—	21.3*
750*	—	—	56.7*	29.2*	31.2*	7.3*	10.3*	14.0*	21.2*	—	49.4*	—	20.7*

Note: Values are expressed in dB per 100 m (328 ft.) length @ 20°C.

*Values are for reference only.

**PSACR & ACR not specified in ANSI/TIA 568.2-D

CROSS-SECTION



ELECTRICAL CHARACTERISTICS

	Max.	Nom.
DC Resistance Ohms/100 m (328 ft) @ 20°C	9.38	7.50
DC Resistance Unbalance Individual Pair %	4.00	< 1
Delay Skew ns/100 m	45ns/100m	
Nom. Velocity of Propagation % Speed of Light	70	
Characteristic Impedance Frequency (f): 1-500 MHz	Ohms 100 ± 15	

Mini-Com® TX6™ PLUS UTP Jack Modules

PANDUIT® SPECIFICATION SHEET

specifications

Category 6/Class E, 8-position, UTP jack module shall terminate 4-pair, 22 – 26 AWG, 100 ohm unshielded twisted pair cable and shall not require use of a punchdown tool. UTP jack modules shall use a forward motion termination method to optimize performance by maintaining cable pair geometry while eliminating conductor untwist. The termination cap shall be color-coded white to designate Category 6 performance and shall include a universal label coded for T568A and T568B wiring schemes.



technical information

Category 6/Class E channel and component performance:	Exceeds channel requirements of ANSI/TIA-568-C.2 Category 6 and ISO 11801 Class E standards at swept frequencies 1 to 250 MHz Exceeds component requirements of ANSI/TIA-568-C.2 Category 6 and ISO 11801 Class E standards at swept frequencies 1 to 250 MHz
FCC and ANSI compliance:	Meets all applicable ANSI/TIA-968-A requirements; contacts plated with 50 microinches of gold for superior performance
IEC compliance:	Meets IEC 60603-7
RoHS compliance:	Compliant
PoE compliance:	Meets requirements of IEEE 802.3af and IEEE 802.3at for PoE applications
UL rated:	UL 1863 approved
Conductor termination range:	Wire cap compatible with 22 – 26 AWG solid or stranded cable with conductor insulation diameters of 0.060 in. max. and overall cable O.D. 0.200 in. to 0.330 in.

key features and benefits

100% performance tested	Confidence that each jack module will deliver the critical electrical performance requirements
Utilizes enhanced Giga-TX™ Technology	Optimizes performance by eliminating conductor untwist and reduces installation time and expense
Improved termination cap	Conductor retention slots simplify jack module termination
Modular	UTP jack modules snap in and out of all Mini-Com® Faceplates, Modular Patch Panels and Surface Mount Boxes for easy moves, adds, and changes
True strain relief	Controls cable bend radius for long term installed performance
Individually serialized	Marked with quality control number for future traceability
RJ45 interface	Industry standard interface provides a quick and easy plug and play connection to RJ45 patch cords; backwards compatible
Identification	Can be clearly identified with optional labels and icons for port identification
Keyed version available	Color-specific keys with positive and negative keying features mechanically and visually distinguish connections to prevent unintentional mating with unlike keyed or non-keyed modular plugs, offering network design flexibility, versatility, accommodating discrete networks for enhanced security
Termination tools (optional)	EGJT termination tool ensures conductors are fully terminated by utilizing a smooth forward motion without impact on critical internal components for maximum reliability; TGJT termination tool ideal for high volume installations
Block out device (optional)	Provides a simple and secure method to control access to data ports while not in use
Shuttered version (optional)	Integrated shuttered door keeps out dust and debris of unmated RJ45 jack modules

applications

Mini-Com® TX6™ PLUS UTP Jack Modules are a component of the TX6™ PLUS UTP Copper Cabling System. This end-to-end system is interoperable and backwards compatible, providing design flexibility to protect network investments well into the future. With certified performance to the ANSI/TIA-568-C.2 Category 6 and ISO 11801 Class E standards, this system is ideal for today's high performance workstation applications. With certified performance to the ANSI/TIA-568-C.2 Category 6 and ISO 11801 Class E Edition 2.1 standards, these systems will support the following applications:

- Ethernet 10BASE-T, 100BASE-T (Fast Ethernet), 1000BASE-T (Gigabit Ethernet)
- 155 Mb/s ATM, 622 Mb/s ATM, 1.2 Gb/s ATM
- Token Ring 4/16
- Digital video and broadband/baseband analog video
- Voice over Internet Protocol (VoIP)

www.panduit.com

TX6™ PLUS UTP Copper Cabling Systems

Mini-Com® TX6™ PLUS UTP Jack Modules

Jack module:	CJ688TGIW*
Shuttered jack module:	CJD688TGIW*
Keyed jack module:	CJK688TG**

TX6000™ UTP Copper Cable

Plenum:	PUP6004***
Riser:	PUR6004***
LSZH:	PUL6004***
CM:	PUC6004***

TX6™ PLUS UTP Patch Cords

CM (foot lengths):	UTPSP^Y
CM (meter lengths):	UTPSP^MY
LSZH (meter lengths):	UTPSPL^MY

Mini-Com® Angled Modular Patch Panels

24-port, 1 RU:	CPPLA24WBLY
48-port, 2 RU:	CPPLA48WBLY

Mini-Com® Flat Modular Patch Panels

24-port, 1 RU:	CPPL24WBLY
48-port, 2 RU:	CPPL48WBLY

For additional modular patch panels and punchdown patch panels, visit www.panduit.com

Tools and Accessories

Jack module termination tool:	EGJT or TGJT
Wire snipping tool:	CWST
Wire stripping tool:	CJAST
Clear dust cap:	MDC-C
Block out device:	PSL-DCJB-^^
Phone icons:	CPIW-C+
Data icons:	CIDIW-C+

*To designate color other than IW (Off White), replace IW suffix with EI (Electric Ivory), IG (International Gray), AW (Arctic White), BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), OR (Orange), or VL (Violet).

**To designate color, add suffix BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), OR (Orange), or VL (Violet). Each color representing a different keyed configuration.

***To designate color, add suffix BU (Blue) or WH (White). For additional cable colors, contact customer service.

^For lengths 1 to 20 feet (one foot increments) and 25, 30, 35, 40 feet, change the length designation in the part number to the desired length. For standard cable colors other than Off White, add suffix BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), OR (Orange), or VL (Violet). For example, the part number for a blue 15-foot patch cord is UTPSP15BUY.

^^For lengths 1 to 10 meters (one meter increments) and 2.5, 15, 20, 25, 30, 35, 40 meters, change the length designation in the part number to the desired length. For standard cable colors other than Off White, add suffix BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), OR (Orange), or VL (Violet). For example, the part number for a blue 15-meter patch cord is UTPSP15MBUY.

^^^To designate color other than Red, add suffix Black (BL), Blue (BU), Yellow (YL), Green (GR), Orange (OR), Off White (IW) or International Gray (IG) at the end of the part number. 10/package.

+To designate color other than IW (Off White), replace IW with EI (Electric Ivory), IG (International Gray), BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), OR (Orange), or VL (Violet) in the part number. 100/package.

Contact customer service for bulk packaged and/or keyed jack modules and patch cords.

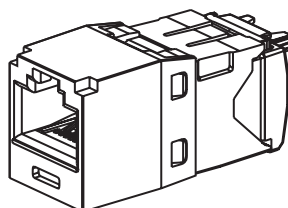
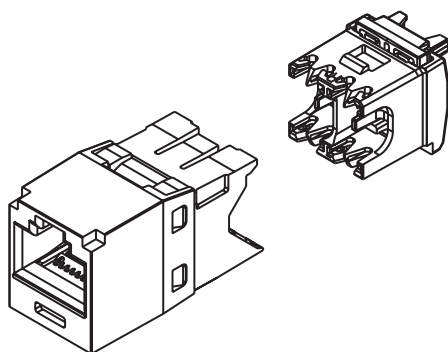
Mini-Com® TX6™ PLUS UTP Jack Modules

Test Results

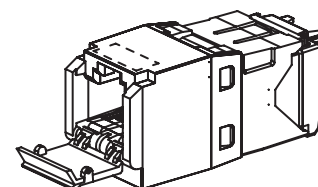
Mechanical Test	Test Method	Measurement	Typical Test Results
Normal Force	—	Load (grams)	>100
Vibration	IEC 512-6d	Circuit Resistance (mOhms)	<40
Shock	IEC 512-6c	Contact Disturbance (microseconds)	<5
Durability	IEC 512-9a	Circuit Resistance (mOhms)	<40
Mating/Un-Mating	IEC 512-13b	Mating Force (N)	<20
		Un-mating Force (N)	<20
Termination Cycles	IEC 352	Number of Cycles	>20

Electrical Test	Test Method	Measurement	Typical Test Results
Low Level Circuit Resistance	IEC 512-2a	Resistance (mOhms)	<20
Dielectric Withstand Voltage	IEC 512-4a	1000 V, 1 minute	Passed
Insulation Resistance	IEC 512-3a	Resistance (MOhms)	>500

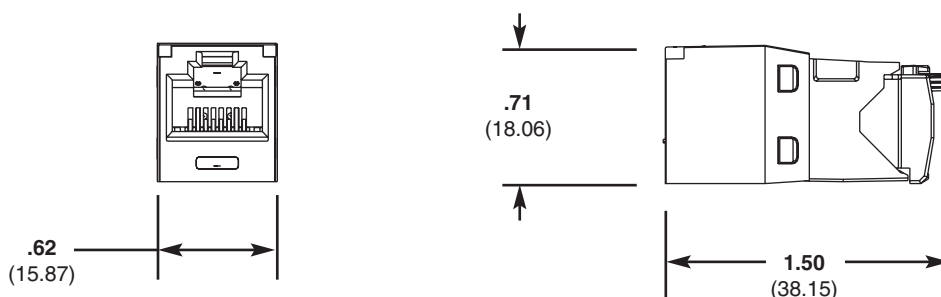
Environmental Test	Test Method	Measurement	Typical Test Results
Temperature Life	IEC 512-9b	Circuit Resistance (mOhms)	<40
Humidity	IEC 512-11c	Circuit Resistance (mOhms)	<40
Thermal Shock	IEC 512-11d	Circuit Resistance (mOhms)	<40
Climatic Sequence	IEC 512-11a	Circuit Resistance (mOhms)	<40
Flowing Mixed Gas Corrosion	IEC 512-11g	Circuit Resistance (mOhms)	<40



Jack Module



Shuttered Jack Module



Dimensions are in inches (Dimensions in parenthesis are metric)

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For a copy of Panduit product warranties, log on to www.panduit.com/warranty

For more information

Visit us at www.panduit.com

Contact Customer Service by email: cs@panduit.com
or by phone: 800-777-3300 and reference COSP48

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5/2011

Mini-Com® TX6A™ 10Gig™ UTP Jack Modules with MaTriX Technology

specifications

Category 6A/Class E_A, 8-position, UTP jack module shall terminate 4-pair, 22 – 26 AWG, 100 ohm unshielded twisted pair cable and shall not require use of a punchdown tool. UTP jack modules shall use a forward motion termination method to optimize performance by maintaining cable pair geometry while eliminating conductor untwist. The patent pending matrix split foil tape shall suppress the effects of alien crosstalk, allowing 10 Gb/s transmission even in high density 48-port, 1RU patch panels. The termination cap shall be color-coded blue to designate Category 6A performance and shall include a universal label coded for T568A and T568B wiring schemes. The Mini-Com® TX6A™ 10Gig™ UTP Jack Module must be installed as part of the TX6A™ 10Gig™ UTP Copper Cabling System to achieve IEEE 10GBASE-T certified performance.



technical information

Category 6A/Class E_A channel and component performance:	Exceeds channel requirements of ANSI/TIA-568-C.2 Category 6A and ISO 11801 Class E _A standards for supporting 10GBASE-T transmission over twisted pair cabling systems in a 4-connector configuration up to 100 meters at swept frequencies 1 to 500 MHz Exceeds component requirements of ANSI/TIA-568-C.2 Category 6A and ISO 11801 Class E _A standards at swept frequencies 1 to 500 MHz
FCC and ANSI compliance:	Meets all applicable ANSI/TIA-968-A requirements; contacts plated with 50 microinches of gold for superior performance
IEC compliance:	Meets IEC 60603-7
RoHS compliance:	Compliant
PoE compliance:	Meets requirements of IEEE 802.3af and IEEE 802.3at for PoE applications
UL rated:	UL1863 approved
Headroom warranty:	Guaranteed performance beyond the standard when a complete end-to-end TX6A™ 10Gig™ UTP Copper Cabling System is installed by a Panduit certified installer
Conductor termination range:	Wire cap compatible with 22 – 26 AWG solid or stranded cable with conductor insulation diameters of 0.060 in. max and overall cable O.D. 0.200 in. to 0.330 in.

key features and benefits

Interoperable	Compatible with components of the TX6A™ and TX6A-SD™ 10Gig™ UTP Copper Cabling System with MaTriX Technology (100 and 70 meter solutions) for increased design flexibility
Alien crosstalk suppression	Innovative MaTriX split foil technology provides superior alien crosstalk performance enabling high density applications (48-ports, 1 RU)
Advanced electrical compensation technology	Headroom over industry standards for lower risk and higher bandwidth network availability
100% performance tested	Confidence that each jack module will deliver the critical electrical performance requirements
Superior headroom warranty	Provides the highest margins above the industry standard for both electrical and alien crosstalk performance
Utilizes enhanced Giga-TX™ Technology	Optimizes performance by eliminating conductor untwist and reduces installation time and expense
Utilizes Flex technology	Shortens the tuning length of the jack module enabling higher performance
Improved termination cap	Conductor retention slots simplify jack module termination
Modular	UTP jack modules snap in and out of all Mini-Com® Faceplates, Modular Patch Panels and Surface Mount Boxes for easy moves, adds, and changes
True strain relief	Controls cable bend radius for long term installed performance
Individually serialized	Marked with quality control number for future traceability
RJ45 interface	Industry standard interface provides a quick and easy plug and play connection to RJ45 patch cords; backwards compatible
Identification	Can be clearly identified with optional labels and icons for port identification
Shuttered version available	Integrated shuttered door keeps out dust and debris of unmated RJ45 jack modules
Keyed version available	Color-specific keys with positive and negative keying features mechanically and visually distinguish connections to prevent unintentional mating with unlike keyed or non-keyed modular plugs, offering network design flexibility, versatility, accommodating discrete networks for enhanced security
Termination tools (optional)	EGJT termination tool ensures conductors are fully terminated by utilizing a smooth forward motion without impact on critical internal components for maximum reliability; TGJT termination tool ideal for high volume installations
Block out device (optional)	Provides a simple and secure method to control access to data ports while not in use

applications

Mini-Com® TX6A™ 10Gig™ UTP Jack Modules are a component of the TX6A™ 10Gig™ UTP Copper Cabling System with MaTriX Technology. This end-to-end system provides a cost effective medium for ensuring that network bandwidth needs are easily met today and in the future. The Panduit solution helps ensure organizations efficiently and reliably meet their data transmission needs. With certified performance to the ISO 11801 Class E_A

Edition 2.1, IEEE 802.3an-2006 and ANSI/TIA-568-C.2 Category 6A standards, this system will support high bandwidth applications with data centers and connections to high end workstations such as stacking switches and switch-to-switch links, storage area networks, aggregation of Gigabit Ethernet channels, real-time intensive financial transactions, streaming video, animation, scientific modeling, and medical imaging.

www.panduit.com

PANDUIT®

SPECIFICATION SHEET

TX6A™ 10Gig™ UTP Copper Cabling System with MaTriX Technology

Mini-Com® TX6A™ 10Gig™ UTP Jack Modules with Split Foil MaTriX Technology

Jack module: CJ6X88TG*
Shuttered jack module: CJD6X88TG*
Keyed jack module: CJK6X88TG**

TX6A™ 10Gig™ UTP Copper Cable with MaTriX Technology (100 Meter Solution)

Plenum: PUP6A04***-UG
Riser: PUR6A04***-UG¹
LSZH (60332-1): PUL6A04***+G
LSZH (60332-3): PUZ6A04***-EG
CM: PUC6A04***+G

TX6A-SD™ 10Gig™ UTP Copper Cable with MaTriX Technology (70 Meter Solution)

Plenum: PUP6ASD04***-UG
Riser: PUR6ASD04***-CG²
LSZH: PUL6ASD04‡-EG
CM: PUC6ASD04‡-EG

TX6A™ 10Gig™ UTP Patch Cords with MaTriX Technology (100 Meter Solution)

CM (foot lengths): UTP6A^
CM (meter lengths): UTP6A^MM

TX6A-SD™ 10Gig™ UTP Patch Cords with MaTriX Technology (70 Meter Solution)

CM (foot lengths): UTP6ASD^BU
CM (meter lengths): UTP6ASD^MMBU
LSZH (meter lengths): UTP6ASDL^MM

Mini-Com® Angled Modular Patch Panels

24-port, 1 RU: CPPA24FMWBLY
48-port, 2 RU: CPPA48FMWBLY
72-port, 2 RU: CPPLA72WBLY

Mini-Com® Flat Modular Patch Panels

24-port, 1 RU: CPP24FMWBLY
48-port, 1 RU: CPP48HDWBLY
48-port, 2 RU: CPP48FMWBLY
72-port, 2 RU: CPP72FMWBLY

For additional modular patch panels reference www.panduit.com

Tools and Accessories

Jack module
termination tool: TGJT or EGJT
Wire snipping tool: CWST
Wire stripping tool: CCAST
Clean dust cap: MDC-C
Blockout device: PSL-DCJB-^MM
Phone icons: CIPIW-C++
Data icons: CIDIW-C++

*To designate color, add suffix IW (Off White), EI (Electric Ivory), IG (International Gray), AW (Arctic White), BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), OR (Orange), or VL (Violet).
**To designate color, add suffix BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), OR (Orange), or VL (Violet). Each color representing a different keyed configuration.
*Substitute PUR6A04***-CG for alternative manufacturing location.
*Substitute PUR6ASD04***-UG for alternative manufacturing location.
***To designate color, add suffix BU (Blue), WH (White), IG (International Gray) or YL (Yellow).
‡To designate color, add suffix BU (Blue) or WH (White).
For additional cable colors, contact customer service.
^Add suffix E when ordering for countries in Europe, Middle East, or Africa.
^For lengths 3 to 20 feet (one foot increments) and 25, 30, 35, 40 feet, change the length designation in the part number to the desired length. For standard cable colors other than Off White, add suffix BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), OR (Orange), or VL (Violet). For example, the part number for a blue, 15-foot patch cord is UTP6A15BU.
^For lengths 1, 2, 2.5, 3, 5 meters, change the length designation in the part number to the desired length. For standard cable colors other than Off White, add suffix BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), OR (Orange), or VL (Violet). LSZH patch cable available in Off White or BU (Blue). For example, the part number for a blue, 5-meter patch cord is UTP5A5MBU.
^^To designate color other than Red, add suffix Black (BL), Blue (BU), Yellow (YL), Green (GR), Orange (OR), Off White (IW) or International Gray (IG) at the end of the part number.
10/package.
++To designate color other than IW (Off White), replace IW with EI (Electric Ivory), IG (International Gray), BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), OR (Orange) or VL (Violet) in the part number. 100/package
Contact customer service for bulk packaged and/or keyed jack modules and patch cords.

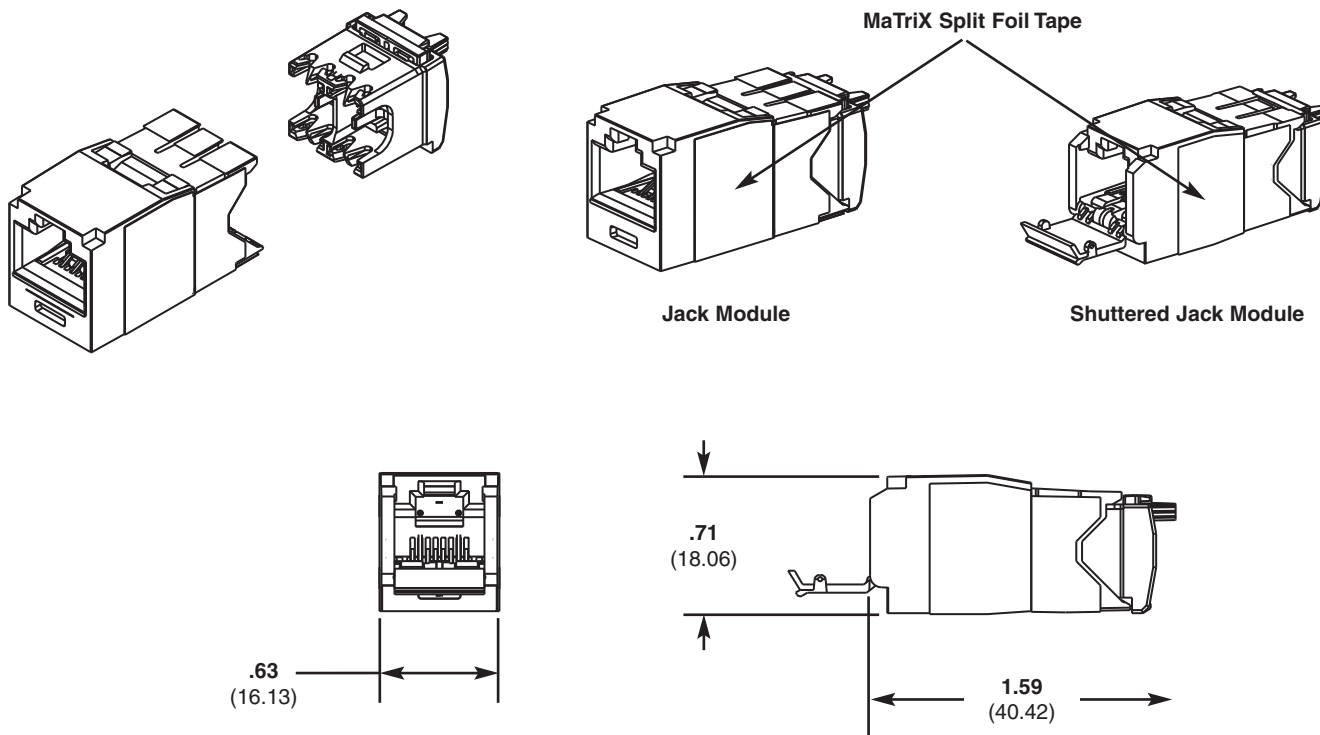
Mini-Com® TX6A™ 10Gig™ UTP Jack Modules with MaTriX Technology

Test Results

Mechanical Test	Test Method	Measurement	Typical Test Results
Normal Force	—	Load (grams)	>100
Vibration	IEC 512-6d	Circuit Resistance (mOhms)	<40
Shock	IEC 512-6c	Contact Disturbance (microseconds)	<5
Durability	IEC 512-6a	Circuit Resistance (mOhms)	<40
Mating/Un-Mating	IEC 512-6b	Mating Force (N)	<20
		Un-mating Force (N)	<20
Termination Cycles	IEC 352	Number of Cycles	>20

Electrical Test	Test Method	Measurement	Typical Test Results
Low Level Circuit Resistance	IEC 512-2a	Resistance (mOhms)	<20
Dielectric Withstand Voltage	IEC 512-4a	1000 V, 1 minute	Passed
Insulation Resistance	IEC 512-3a	Resistance (MOhms)	>500

Environmental Test	Test Method	Measurement	Typical Test Results
Temperature Life	IEC 512-9b	Circuit Resistance (mOhms)	<40
Humidity	IEC 512-11c	Circuit Resistance (mOhms)	<40
Thermal Shock	IEC 512-11d	Circuit Resistance (mOhms)	<40
Climatic Sequence	IEC 512-11a	Circuit Resistance (mOhms)	<40
Flowing Mixed Gas Corrosion	IEC 512-11g	Circuit Resistance (mOhms)	<40



Dimensions are in inches (Dimensions in parentheses are metric).

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For more information

Visit us at www.panduit.com

Contact Customer Service by email: cs@panduit.com
or by phone: 800.777.3300 and reference COSP196

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Modular Patch Panels

SELECTION GUIDE



An Extensive Selection of Patch Panels Supports Your Application

Panduit offers an extensive selection of modular patch panels, with various styles and port densities and an assortment of labeling options making them ideal for any installation. Select patch panels are available in a standard White color option.

Modular patch panels accept all Mini-Com® Modules in copper, fiber, and A/V, which snap in and out for easy moves, adds, and changes. This modular system is ideal for multimedia applications, providing flexibility to customize any installation. All patch panels mount to standard EIA 19-inch or 23-inch racks with optional extender brackets.

A variety of accessories are available to optimize the installation. Strain relief bars are recommended for all installations to properly support cables exiting the back of the panel. Covers and blank panels promote proper airflow and cooling by filling unused rack openings.

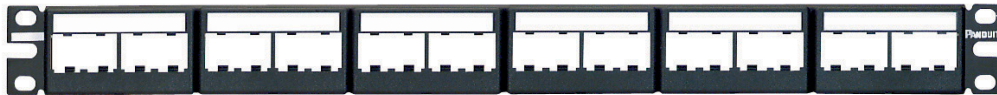
Unshielded and Shielded

Unshielded Patch Panels

Unshielded patch panels consist of a metal panel and molded snap-in faceplates. Removable faceplates on select panels allow front access to installed modules.

Available features:

- Label pockets for easy identification; designs without a label pocket accommodate optional adhesive labeling
- Standard and high density
- Flush mount and front access
- Flat, angled, and recessed designs

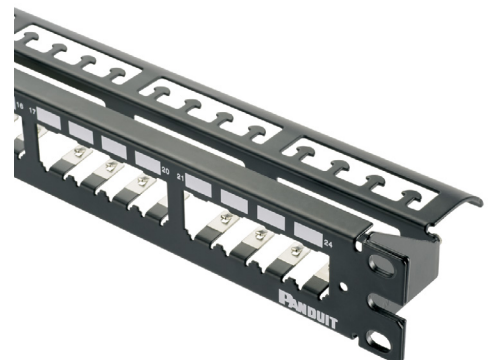


Shielded Patch Panels

Shielded patch panels are recommended for high RFI/EMI environments, where interference is a risk. Panduit's shielded offering includes integrated shielding which allows seamless integration with the Panduit® Structured Ground™ Grounding System.

Available features:

- Stainless steel construction
(48-port High Density includes a molded faceplate)
- Dedicated areas for port identification which accept adhesive labels
- Accept Mini-Com® Shielded Jack Modules
- Standard and High Density
- Flat and angled designs
- Select models include built-in strain relief bar



Style

Flat

Flat panels require horizontal cable managers to help organize and route cables into vertical managers. Extended strain relief bars are recommended to allow proper cable support.

Angled

Angled panels enable higher density by allowing cables to flow to each side of the rack, thus minimizing the need for horizontal cable managers and allowing patch cords to be routed directly into vertical cable managers. Straight strain relief bars are recommended, as closer mounting to the panel eliminates sagging and provides improved cable support.

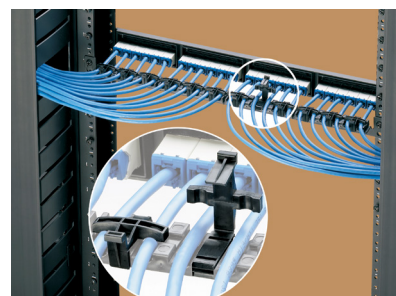
High-Density Patch Panels

High-density patch panels are an ideal solution for installations with space constraints, are available in flat and angled designs, with 48 ports in one rack space and 72 ports in two rack spaces. The angled design increases rack density, managing high-density applications in one-fourth the area needed for conventional cable management systems. (High capacity vertical managers are recommended.)

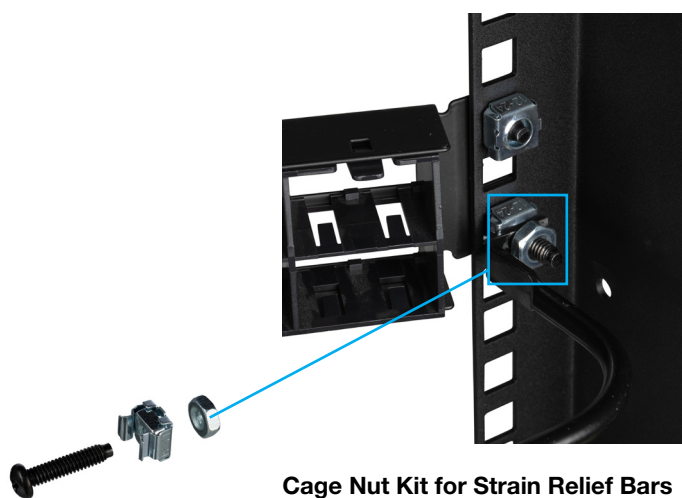
Strain Relief Bars

Strain relief bars (SRB) are used to support and manage cables in telecommunication rooms. Panduit's extensive selection offers the flexibility to fit in a variety of applications, and ranges from a simple straight bar to one with distinctive features such as integrated adjustable clips.

For single rail cabinets or racks, it is recommended to use the strain relief bar with direct patch panel mount or the cage nut kit for strain relief bars.



Strain relief bar with direct patch panel mount
(patch panel not included)



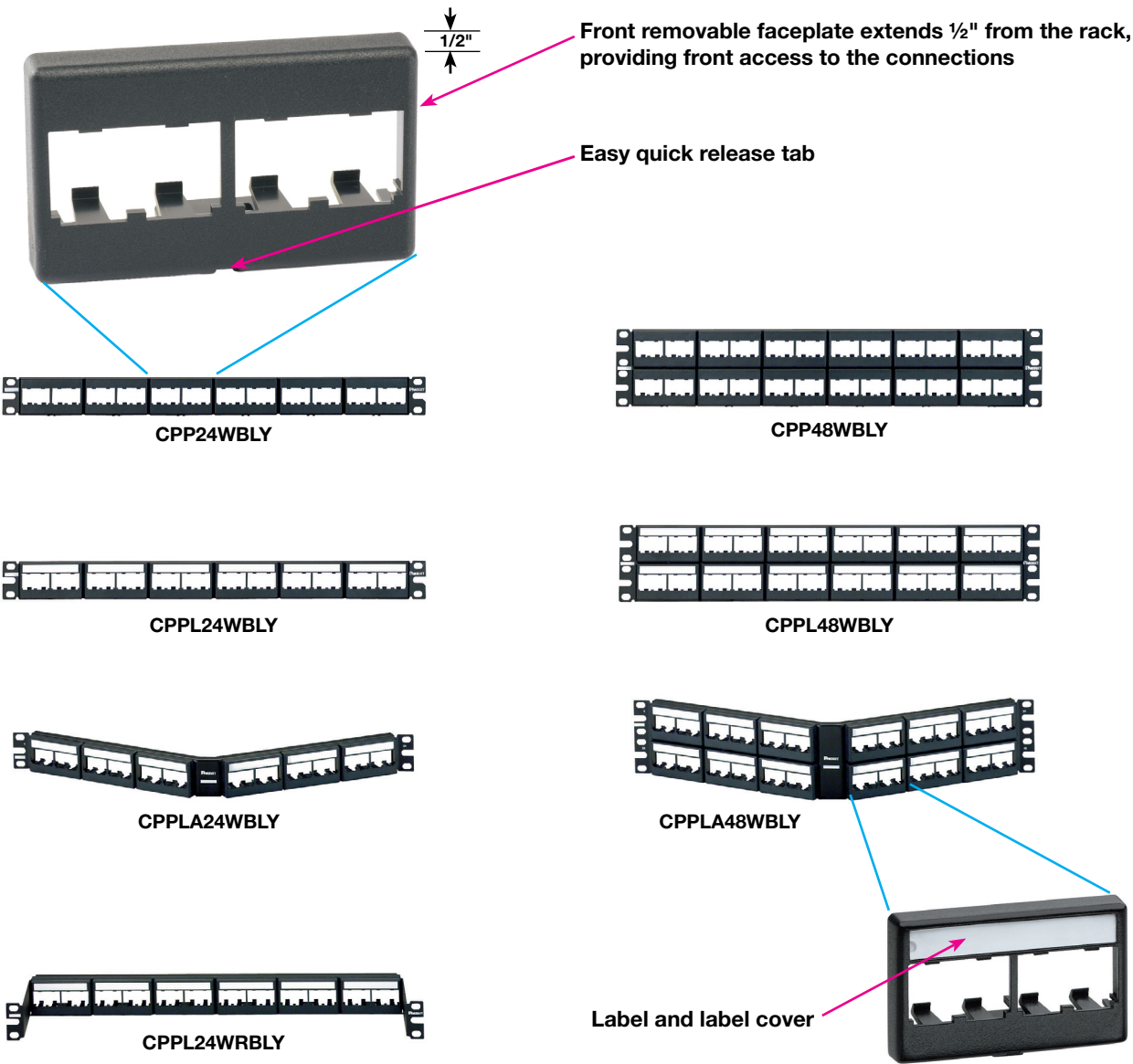
Cage Nut Kit for Strain Relief Bars

DISCLAIMER: The information contained herein is intended as a guide for use by persons having technical skill. Buyer shall determine the suitability of the Panduit product for his intended use and Buyer assumes all risk and liability whatsoever in connection therewith.

Unshielded

Front Access

- Recommended for installations where access to the back of the rack is limited
- Label feature available, includes label and cover

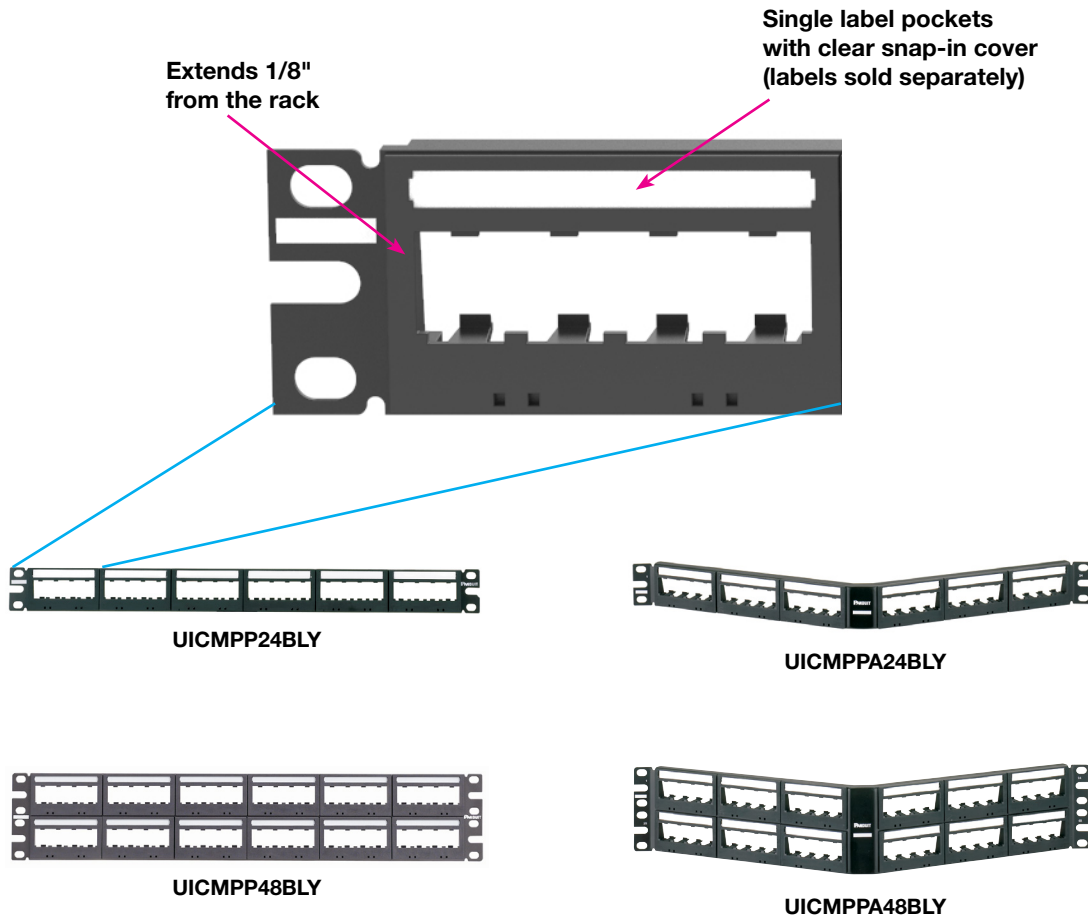


Part Number	Style	Ports	RU	Replacement Faceplate	Replacement Label	Label Type	Label Options Page 22
CPP24WBLY	Flat	24	1	CFFP4BL	—	Adhesive	A
CPP48WBLY		48	2		—		
CPPL24WBLY		24	1	CFFPL4BL	C4PPLK	Pocket	A, B
CPPL48WBLY		48	2				
CPPLA24WBLY	Angled	24	1				
CPPLA48WBLY		48	2				
CPPL24WRBLY	Recessed	24	1				

Unshielded

Ultimate ID® Patch Panels

- Recommended for installations that follow common labeling standard or where multiple labeling areas are needed
- Meet TIA-606-B labeling standards with ease

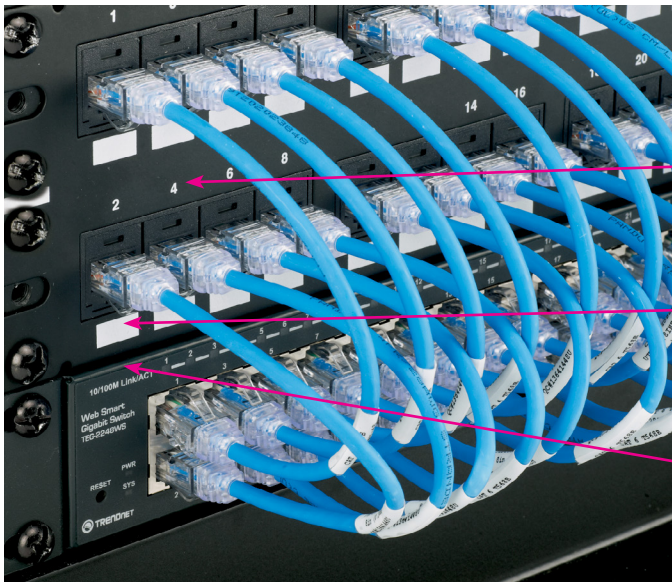


Part Number	Style	Ports	RU	Label Type	Label Options Page 22
UICMPP24BLY	Flat	24	1	Pocket	D
UICMPP48BLY		48	2		
UICMPPA24BLY	Angled	24	1		
UICMPPA48BLY		48	2		

Unshielded

Flush Mount

- Mount flush with the rack to match other product or equipment installed
- Optional vertical number sequence simplifies installation by mimicking common switch-port numbering
- Pre-printed numbers above each port
- White write-on areas for port or panel identification
- Available in white



Pre-printed numbers for easy identification

Write on areas for custom adhesive labels

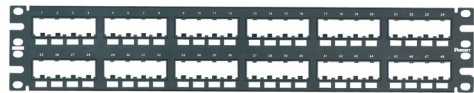
Flush mount design allows panel to align with other rack-mountable products



CPP24FMWBLY



CPPA24FMWBLY



CPP48FMWBLY



CPPA48FMWBLY

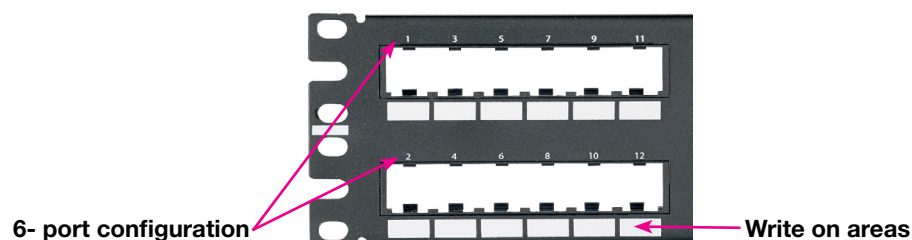
Part Number	Style	Ports	RU	Recommended SRB	Label Type	Label Options Page 22		
CPP24FMWBLY	Flat	24	1	Extended	Adhesive	A		
CPP48FMWBLY		48	2					
CPP48FMVNSWBLY								
CPPA24FMWBLY	Angled	24	1	Straight				
CPPA48FMWBLY		48	2					

Unshielded

6-Port Configuration

- Modules arranged in groups of six to match the layout of select switches
- Flush mount style (FM6) mounts flush with the rack to match other product or equipment installed
- Faceplate style (M6) includes label pocket with preprinted labels and cover

Flush Mount Style



CPP24FM6BL



CPP48FM6BL



CPPA24FM6BL



CPPA48FM6BL

Part Number	Style	Ports	RU	Label Type	Label Options Page 22
CPP24FM6BL	Flat	24	1	Adhesive	C, E
CPP48FM6BL		48	2		
CPPA24FM6BL	Angled	24	1		
CPPA48FM6BL		48	2		

Faceplate Style



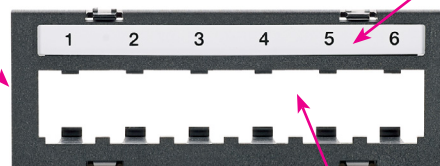
CPPL24M6BLY



CPPL48M6BLY

Extends 1/8" from the rack

Pre-printed
labels included



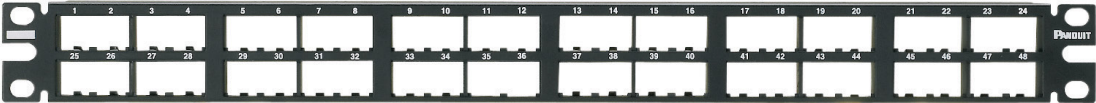
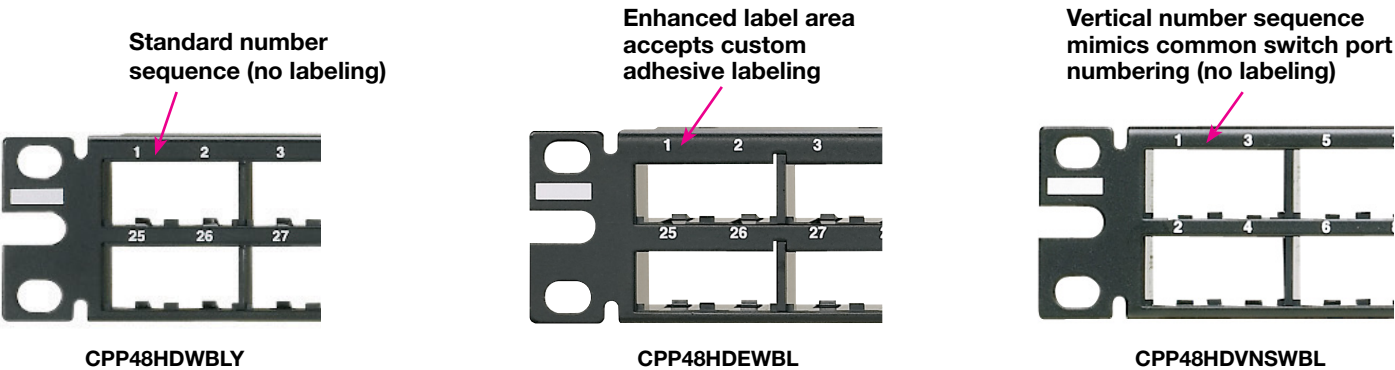
6-port configuration

Part Number	Style	Ports	RU	Replacement Label	Label Type	Label Options Page 22
CPPL24M6BLY	Flat	24	1	C6PPLK1-24	Pocket	C, F
CPPL48M6BLY	Flat	48	2	C6PPLK1-24 C6PPLK25-48		

Unshielded

High Density

- Recommended for installations with limited real estate
- Allows up to 48 unshielded connections per rack unit
- Select part numbers available in standard White color option on page 15



Part Number	Style	Ports	RU	Label Type	Label Options Page 22
CPP48HDWBLY	Flat	48	1	—	—
CPP48HDEWBL				Adhesive	D
CPP48HDVNSWBL				—	—
CPPA48HDWBLY	Angled			—	—
CPPA48HDEWBL				Adhesive	D
CPPA48HDVNSWBL				—	—

Unshielded

High Density

- Recommended for installations with limited real estate; allows up to 72 connections in 2 rack units

Faceplate Design

- Faceplate can be removed from the front of the panel, allowing easy access to the connections
- Recommended for installations with space limitation that need labeling
- Includes label pocket with labels and label covers

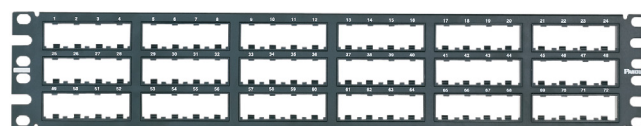
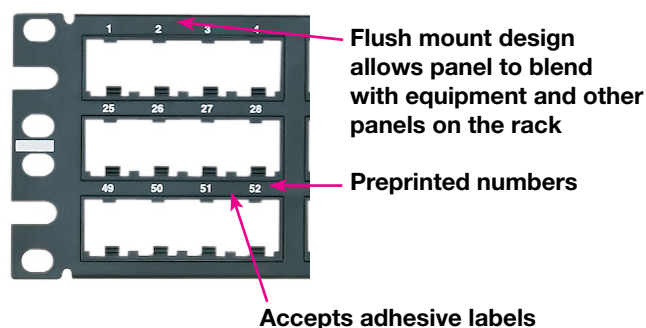


CPPL72WBLY



CPPLA72WBLY

Flush Mount Design



CPP72FMWBLY



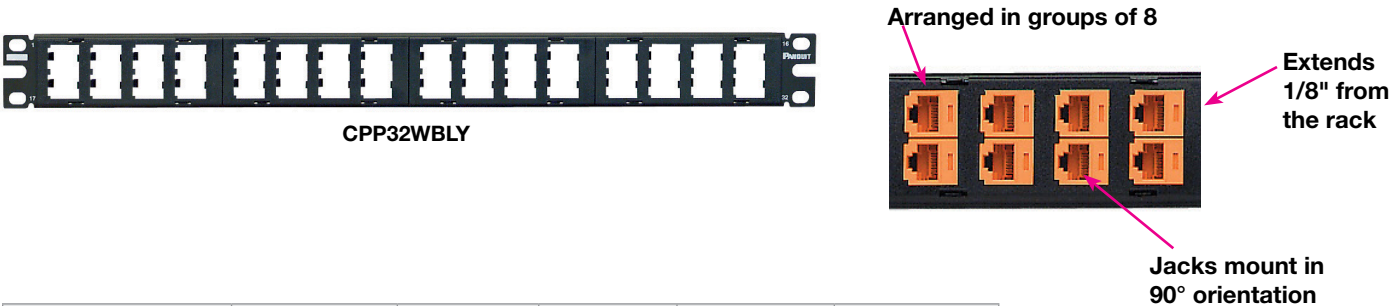
CPPA72FMWBLY

Part Number	Style	Ports	RU	Replacement Label	Label Type	Label Options Page 22
Flush Mount Design						
CPP72FMWBLY	Flat	72	2	NA	Adhesive	D
CPPA72FMWBLY	Angled					
Faceplate Design						
CPPL72WBLY	Flat	72	2	C72PPLK	Pocket	D
CPPLA72WBLY	Angled					

Unshielded

32 Port

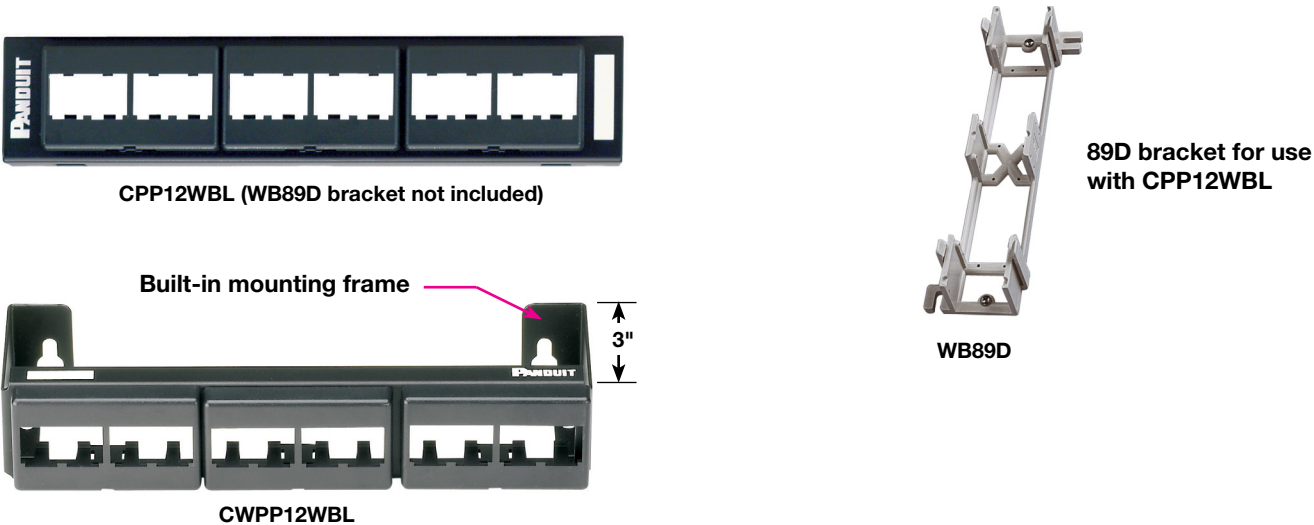
- Recommended for installations in need of a semi-high-density panel in 1 RU



Part Number	Style	Ports	RU	Label Type	Label Options Page 22
CPP32WBLY	Flat	32	1	Adhesive	D

Wall Mount

- Recommended for wall mount applications with limited space, when few ports are required
- Accepts custom adhesive labels
- Front access for easier access to connections

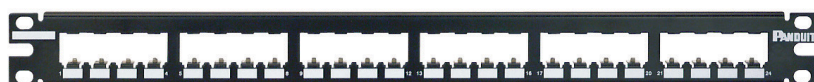


Part Number	Style	Ports	RU	Replacement Faceplate	Label Type	Label Options Page 22
CPP12WBL	89D	12	—	CFFP4BL	Adhesive	A
CWPP12WBL	Wall Mount		—			

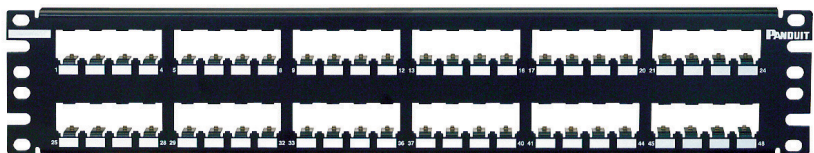
Shielded

Standard Density

- Recommended for environments with potential RFI/EMI interference
- Shielded jack module removal tool included
- White patch panel offering on page 16



CP24BLY



CP48BLY

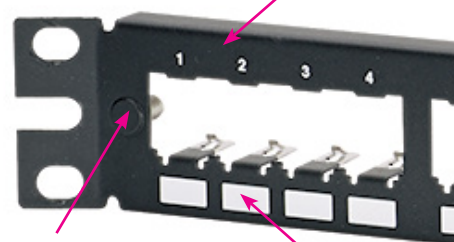


CPA24BLY



CPA48BLY

All stainless steel construction allows shielded jacks to bond directly to panels



Built in grounding lug bonds panel to rack

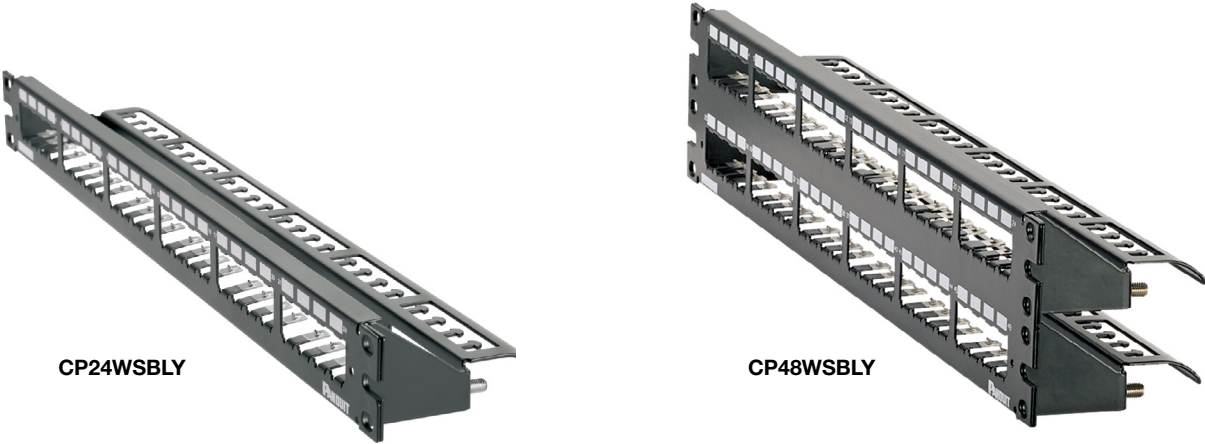
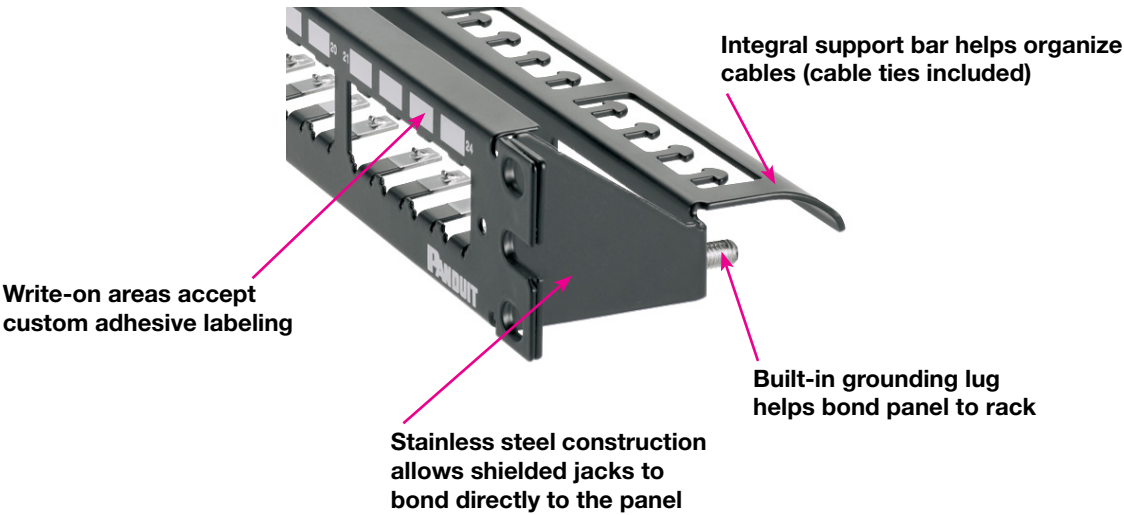
Write-on areas accept custom adhesive labeling

Part Number	Style	Ports	RU	Label Type	Label Options Page 22
CP24BLY	Flat	24	1	Adhesive	A
CP48BLY		48	2		
CPA24BLY	Angled	24	1		
CPA48BLY		48	2		

Shielded

Standard Density with Integral Support

- Recommended for environments with potential RFI/EMI interference
- Shielded jack module removal tool included

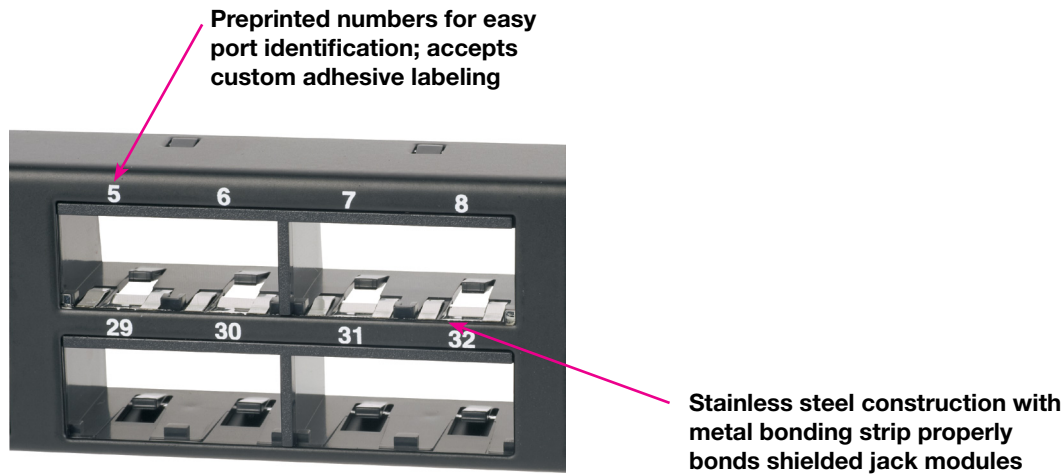


Part Number	Style	Ports	RU	Label Type	Label Options Page 22
CP24WSBLY	Flat	24	1	Adhesive	A
CP48WSBLY		48	2		

Shielded

High Density

- Recommended for installations with limited real estate and potential RFI/EMI interference
- 48 ports in 1 RU
- White patch panel offering on page 16



CP48HDBL



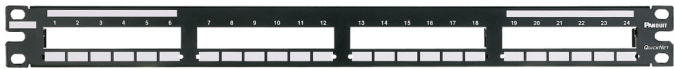
CPA48HDBL

Part Number	Style	Ports	RU	Label Type	Label Options Page 22
CP48HDBL	Flat	48	1	Adhesive	D
CPA48HDBL	Angled				

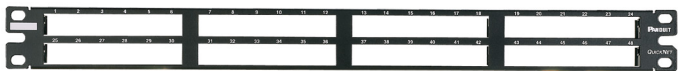
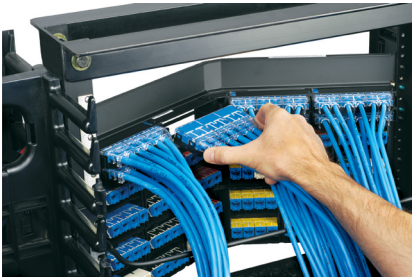
*Includes trilobular screws to properly bond the panel to the rack

QuickNet™ Patch Panels

- Designed to work with Panduit's preterminated Copper and Fiber systems
- High density available for areas with limited real estate
- For shielded or unshielded applications
- Select part numbers available in standard White color option on page 17



QPP24BL
QSP24BL^



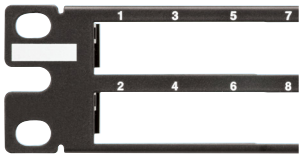
QPP48HDBL
QPP48HDVNSBL**
QSP48HDBL^



QAPP24BL
QASP24BL^



QAPP48HDBL
QAPP48HDVNSBL**
QASP48HDBL^



**Vertical numbering sequence

Part Number	Style	Ports	RU	Label Type	Label Options Page 22
QPP24BL	Flat	24	1	Adhesive/ QPPLC24	C, E
QSP24BL^				Adhesive/ QPPLC24	
QPP48HDBL		48		—	—
QPP48HDVNSBL				—	—
QSP48HDBL^				—	—
QAPP24BL	Angled	24	1	Adhesive/ QPPLC24	C, E
QASP24BL^				Adhesive/ QPPLC24	
QAPP48HDBL		48		—	—
QAPP48HDVNSBL				—	—
QASP48HDBL^				—	—

^Shielded

White Patch Panels

Standard Unshielded



CPP24FMWWH



CPP48FMWWH



CPPA24FMWWH



CPPA48FMWWH

Part Number	Style	Ports	RU	Recommended SRB's	Label Type	Label Options Page 22
CPP24FMWWH	Flat	24	1	Extended	Adhesive	A
CPP48FMWWH		48	2			
CPPA24FMWWH	Angled	24	1	Straight		
CPPA48FMWWH		48	2			

High Density Unshielded



CPP48HDWWH



CPP48HDEWWH



CPPA48HDWWH

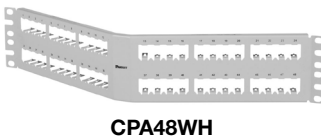
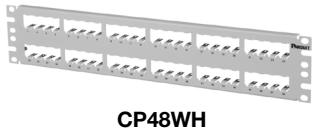


CPPA48HDEWWH

Part Number	Style	Ports	RU	Recommended SRB's	Label Type	Label Options Page 22
CPP48HDWWH	Flat	48	1	Extended	—	—
CPP48HDEWWH					ADH	D
CPPA48HDWWH	Angled			Straight	—	—
CPPA48HDEWWH					ADH	D

White Patch Panels

Standard Shielded



Part Number	Style	Ports	RU	Label Type	Label Options Page 22
CP24WH	Flat	24	1	Adhesive	A
CP48WH		48	2		
CPA24WH	Angled	24	1		
CPA48WH		48	2		

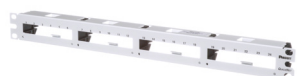
High Density Shielded



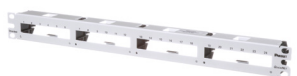
Part Number	Style	Ports	RU	Label Type	Label Options Page 22
CP48HDWH	Flat	48	1	Adhesive	D
CPA48HDWH	Angled				

White Patch Panels

Quick-Net™ Patch Panels



QPP24WH



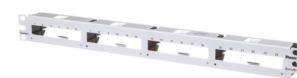
QSP24WH



QPP48HDWH



QPP48HDVNSWH



QSP48HDWH



QAPP24WH



QASP24WH



QAPP48HDWH



QAPP48HDVNSWH



QASP48HDWH

Part Number	Style	Ports	RU	Recommended SRB's	Label Type	Label Options Page 22
QPP24WH	Flat	24	1	Extended	Adhesive/ QPPLC24	C, F
QSP24WH^						
QPP48HDWH		48			—	—
QPP48HDVNSWH		48				
QSP48HDWH^		48				
QAPP24WH	Angled	24		Straight	Adhesive/ QPPLC24	C, F
QASP24WH^						
QAPP48HDWH		48			—	—
QAPP48HDVNSWH						
QASP48HDWH^						

^Shielded

Accessories



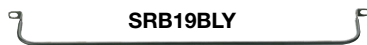
SRBS19BL-XY



SRBWCY



SRBM19BLY



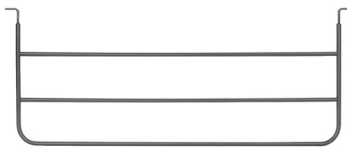
SRB19BLY



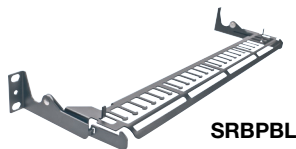
SRB19D5BL



SRB19D7BL



SRB19MDBL



SRBPBL



SRBPPQBRKT

Strain Relief Bars

Straight

SRBS19BL-XY	Straight strain relief bar. Package of 10.
SRBWCY	Straight strain relief bar with clips
SRBM19BLY	Straight strain relief bar with Tak-Ty® Hook & Loop Cable Ties

Extended

SRB19BLY	Extended strain relief bar — 2.8"
SRB19D5BL	Extended strain relief bar — 4.5"
SRB19D7BL	Extended strain relief bar — 7.6"
SRB19MDBL	Extended multi-depth strain relief bar — 7"
SRBPBL	Extended pivoting strain relief bar
SRBPPQBRKT	Direct mount PP strain relief bar

Accessories



SRBBRKT



CNSRBKIT-C



CPATCBL



CPAF1BLY



CPAF2BLY

Strain Relief Bars

Quick Release Bracket Kits

SRBBRKT	Quick release brackets
CNSRBKIT-C	Cage nut rail kit for strain relief bars

Angled Covers

CPATCBL	Transitional cover
CPAF1BLY	Blank angled cover — 1 RU
CPAF2BLY	Blank angled cover — 2 RU

Accessories (continued)



DPFP1



DPFP2



DPFP4



DPFP8



TLBP1S-V, TLBP1R-V



TLBP2S-V, TLBP2R-V



PEB1



PEB2

Flat Covers

DPFP1	Blank flat cover — 1 RU
DPFP2	Blank flat cover — 2 RU
DPFP4	Blank flat cover — 4 RU
DPFP8	Blank flat cover — 8 RU

Tool-Less Blanking Panels

TLBP1S-V	For 3/8" cage nut holes — 1 RU
TLBP2S-V	For 3/8" cage nut holes — 2 RU
TLBP1R-V	For tapped rails — 1 RU
TLBP2R-V	For tapped rails — 2 RU

Extender Brackets

PEB1	Converts 19" panels to 23" panels — 1 RU
PEB2	Converts 19" panels to 23" panels — 2 RU

Mounting Screws

	Standard	Bonding Green	Bonding Black
Imperial size #12-24 x 0.5" round head	S1224-C	RGTBSG-C	RGTBS-C
Metric size #M6-1.0mm x 0.15mm	SCREWM6-C	RGTBSM6G-C	—
M6 screw with cage nut	CNWSM6-C	—	—

White Patch Panel Accessories

Accessories



CPATCWH



CPAF1WH



CPAF2WH



DPFP1WH



DPFP2WH

<u>CPATCWH</u>	Transitional Cover
<u>CPAF1WH</u>	Blank angled cover - 1 RU
<u>CPAF2WH</u>	Blank angled cover - 2 RU
<u>DPFP1WH</u>	Blank flat cover - 1 RU)
<u>DPFP2WH</u>	Blank flat cover - 2 RU

Labeling



TDP43ME

Part Number	Description
<u>TDP43ME</u>	300 dpi printer; includes printer, Panduit® Easy-Mark™ Labeling Software, RMEH4BL hybrid black ribbon, AC power adapter with US power cord, USB cable, user manual, quick start card, and driver disk.



MP300

Part Number	Description
<u>MP300</u>	Includes MP300 printer, one (1) cassette of S100X150VAM self-laminating labels, rechargeable Li-ion Battery Pack, hard carrying case, AC power adapter, USB cable, magnetic attachments and quick reference card.

Labeling (continued)

Labeling Options			
	Laser/Ink	Laser/InkJet	MP300
A	C252X030YPT	C252X030FJJ	—
B	C261X035Y1T	C261X035Y1J	C261X035Y1M
C	T031X000FJT	—	—
D	T024X000FJT	—	T024X000FJM-BK
E	C379X030YPT	C379X030FJJ	—
F	C390X030Y1T	C390X030Y1J	—

 denotes Adhesive labels

Consult Label Selector at www.panduit.com for additional options

Modular Patch Panels - Unshielded

Ports	Part Number	Recommended Labels
24	CPP24WBLY	A
	CPPL24WBLY	A, B
	CPPL24M6BLY	C
	CPPL24WRBLY	A, B
	CPP24FMWBLY*	A
	CPPA24FMWBLY*	A
	CPPLA24WBLY	A, B
	CPP24FM6BL	C, E
	CPPA24FM6BL	C, E
	UICMPP24BLY	D
	UICMPPA24BLY	D
48	CPP48WBLY	A
	CPPL48WBLY	A, B
	CPPL48M6BLY	C
	CPP48FMWBLY*	A
	CPPA48FMWBLY*	A
	CPPLA48WBLY	A, B
	CPP48HDWBLY*	—
	CPP48HDEWBL*	D
	CPP48FM6BL	C, E
	CPPA48FM6BL	C, E
	CPP48HDVNSWBL	—
	CPPA48HDWBLY*	—
	CPPA48HDEWBL*	D
	CPPA48HDVNSWBL	—
	UICMPP48BLY	D
	UICMPPA48BLY	D
	CPPL72WBLY	D
MISC	CPPLA72WBLY	D
	CPP32WBLY	D
	CWPP12WBL	A, B
	CPP12WBL	A, B
	CPP72FMWBLY	D
	CPPA72FMWBLY	D

* Available in White

Modular Patch Panels - Shielded

Ports	Part Number	Recommended Labels
24	CP24BLY*	A
	CP24WSBLY	
	CPA24BLY*	
48	CP48BLY*	
	CPA48WSBLY	D
	CPA48BLY*	
	CP48HDBL*	
	CPA48HDBL*	

* Available in White

Quicknet patch panels*

Ports	Part Number	Recommended Labels
Unshielded:		
24	QPP24BL	C, E
	QAPP24BL	
48	QPP48HDBL	—
	QAPP48HDBL	
	QPP48HDVNSBL	
	QAPP48HDVNSBL	
Shielded:		
24	QSP24BL	C, E
	QASP24BL	
48	QSP48HDBL	—
	QASP48HDBL	

* Available in White



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