

LEGAL NOTICE

Sealed bids will be received at the office of the Hardin County Commissioners, One Courthouse Square, Suite 100, Kenton, Ohio 43326, until 10:30 a.m. on the 13th day of April, 2021. At that time, the bids will be publicly opened and read for the HARDIN COUNTY COURTHOUSE NETWORK CABLING PROJECT.

The Board of Hardin County Commissioners is seeking bids to provide Construction of Network Cabling throughout the Courthouse in preparation for upgrades to telephones and internet services. Bid includes all materials, labor and removal of abandoned cable. Successful Bidder must provide documentation of all network and fiber connections at the completion of the project.

All bids shall be sealed and marked as "Bid for Hardin County Courthouse Network Cabling Project."

A pre-bid meeting will be held at 10:30 a.m. on Wednesday, April 7, 2021 in Veteran's Hall of the Hardin County Courthouse, One Courthouse Square, Kenton, Ohio 43326. It is recommended that all who plan on bidding shall be present at the pre-bid meeting.

Successful bidder must be an Equal Employment Opportunity Employer. The Commissioners reserve the right to reject any and all bids. Successful bid will be the lowest and best bid as per specifications. Each bid must contain an up to date Workers Compensation Certificate as well as a Certificate of Liability.

Notice also posted on the Board of Hardin County Commissioners web site at:
[www.http://www.co.hardin.oh.us/legals.php](http://www.co.hardin.oh.us/legals.php)

**BY ORDER OF THE
BOARD OF HARDIN COUNTY COMMISSOINERS
HARDIN COUNTY, OHIO**

Please advertise March 27, 2021

Hardin County Courthouse Network Infrastructure Cabling Project

1 Introduction

The Board of Hardin County Commissioners is seeking bids to provide construction and complete installation of network infrastructure including distribution cabling, fiber optic cabling and distribution frames throughout the Courthouse. All bids must be comprehensive to include all materials and labor required to complete the entire scope of work and meet the requirements and specifications designated below.

2 Overview of Network Project

Hardin County will be deploying a multi-site network including servers, workstations, laptops, mobile devices, security cameras and UCaaS. The courthouse will be a central site in this project and will therefore need the current cabling and network infrastructure upgraded to current specifications.

3 Scope of Work

The network infrastructure project includes a maximum of (325) Category 6 network data drops on 4 floors: sub to 3rd floor. It includes construction of cable raceway where necessary. It includes the construction of multiple Intermediate Distribution Frames (IDFs) on floors 2 and 3 with power and vendor provided rack-mounted APC UPS (see specification for model designation.) It includes construction of a redundant 10GB fiber backbone between the DEMEARC, MDF and IDFs. It includes mounting (35) pre-programmed customer-provided Fortinet Access Points on all 4 floors at designated areas. It includes removing existing network cabling after successful migration to new network. The historic and aesthetic integrity of the Courthouse must be preserved throughout the project.

Cat6 Cable: All data distribution cables shall meet or exceed Category 6 specifications. Plenum and non-plenum cable may be used where applicable. All cable installed in an air plenum environment must be plenum-rated. Vendor shall ensure that plenum-rated cable is installed where required. All cable should be installed to meet BICSI and manufacturer standards. All cable must be tested and certified after termination.

Cat6 Cable Installation:

-All cable must be installed inside wall or within covered surface mount cable raceway/wiremold for drops unable to be fished in wall.

-For drops in raceway/wiremold, an externally mounted box should be installed with matching faceplate.

- All raceway/wiremold should be neutral in color and match external boxes and faceplates.
- All cables, faceplates and patch panels need to be clearly labeled at both ends. Hand-written labels are not acceptable.
- All cable should be independently supported by J-hooks, rings, covered cable tray or ladder racks. (Ladder rack at MDF is already constructed.)
- All cable should be to point to point (home run) from MDF/IDF to device endpoint.
- Please include a minimum 10' service loop at each IDF location.
- All cable jacket should be free from defect or damage.
- All cable bundles should be secured with cable ties. Velcro cable ties to be used within 20 feet of MDF/IDFs; no nylon cable ties.
- All CAT6 riser/distribution cable should be blue.
- All cable should be installed per manufacturers specifications and BICSI standards with minimum bend radius, tension, etc.
- All floor and wall penetrations should be properly sleeved and use approved firestop.
- Outdoor UTP cable should be used for the external security cameras (4).
- Remove existing network cabling after the successful migration to new network infrastructure.

Cat6 Cable Termination

- All cable should be terminated at the MDF/IDF in Category 6-rated 48-port patch panels.
- All cable should be terminated at the endpoint using Category 6 keystone jacks. Jacks should be blue in color.
- In-wall box or surface mounted box should be used at endpoint termination.
- In-wall box and faceplate should match surface-mount raceway/wiremold.
- Each face plate must be labeled with MDF/IDF—Patch Panel Letter—Port Number nomenclature; for example, IDF4—B—27.
- Faceplates may be 1, 2, 4 or 6 port depending on drop location.
- Drop endpoints should be located within 10' of device location.
- All cable drops should be fully tested and certified with an electronic meter and report provided at conclusion of project.

Fiber Optic Cable and Termination

- Install OM4 Multimode 12 strand fiber optic cable between DEMARC and MDF and MDF to each IDF (1 existing IDF on sublevel needs to be included.) Each fiber segment would preferably be under 150 meters for 10GB backbone and future 40/100GB use.
- Provide redundant fiber design between MDF and IDF locations.
- Install fiber optic cable in corrugated innerduct for each location; leave pull string in each innerduct segment for future use.
- Armored fiber optical cable may be installed in place of innerduct. If armored fiber optic cable is used, the same specification for fiber cable above must be used (OM4 MM 12-strand). Additionally, armored fiber optic cable needs to be labeled with "FIBER OPTIC CABLE" at regular distances for identifying purposes.
- All fiber optic cable shall be installed per manufacture specification and BICSI standards.
- All fiber optic cable shall be properly terminated at the DEMARC/MDF/IDF in 1U or 2U fiber enclosure.
- All fiber optic cable should be clearly labeled for location.
- All fiber optic cable should be tested and certified.
- LC/LC fiber optic patch cables will be used.

Intermediate Distribution Frames (IDFs)

- 12U Network Enclosures will be used at all IDF locations unless more than (1) 48 Port Patch Panel is required at the IDF location and then a 18U Network Enclosure will be required.
- Network Enclosures must have the following: swing-open design, locking door, cooling fans, and be a minimum of 24" deep for switch and UPS accommodation.
- Network Enclosure securely anchored to wall rated for 200 pounds.
- Power at all IDF locations; preferably inside the network enclosure.
- All new IDF locations must be properly grounded and bonded.
- Mount 48 Port Patch Panel(s).
- Mount 1U/2U Fiber Optic enclosure.
- Install/mount (1) vendor provided APC Smart Connect UPS SMC1500-2UC at each new IDF location.
- Label Network Enclosure with location label per customer specifications.

Wireless Access Point Mounting

Hardin County Courthouse will have (35) Fortinet FAP-200 Series Access Points on 4 floors that will be included in the (325) Cat 6 drops. The vendor will need to mount the APs at customer designated areas. Mounting locations will include ceiling and wall install.

-Customer will provide pre-programmed APs and mounting brackets; mounting hardware to be provided by vendor.

-Customer will label each AP clearly as to location to be mounted.

-Customer will provide vendor with instructions in PDF format for bracket and AP mounting from manufacturer.

4 Material List

Please list all materials and labor in the bid. Please include quantity, brand, and model number where applicable. (Note: APC Smart Connect UPS SMC1500-2UC is a required model number; no substitutions on this device.) Please breakdown materials and labor between these categories: **Category 6 Cabling and Termination, Fiber Optic Cabling and Termination, IDFs (Mounting and Power), and Wireless Access Point Installation.** Under the IDF category, please list the number of IDFs to be built and the locations of each IDF.

5 Communication

All technical communications and questions should be directed to the contact below:

Chris Griffith

iTech Managed Solutions, LLC

cgriffith@go-itech.com

All non-technical communications and questions should be directed to the contact below:

Randy Paul

Clerk to the Board

Hardin County Commissioners

clerk@co.hardin.oh.us

All questions and answers will be posted on the Hardin County website under Legal Notices section.