

Building Name: Police and Fire Station

Address: 200 Bridge Street

Building Use: Public Safety

Year of Construction: 1964 **Last Modification/Addition:** 1196, 2000

Report By: GGD **GSF** 16,637 **Date:** January 5, 2018

EXISTING SYSTEM:

Size of Service(s): 400Ampere 120/208V, 3phase, 4-wire.

400Ampere underground service from a utility pole riser on Bryant Street, feeds a 400AMP main disconnect switch which feeds a class 320AMP meter within Main Electric Room. The load side of the meter feeds a 400AMP, Square D main distribution panel. The main distribution panel "DP" feeds (2) air conditioning units (therefore they are not on emergency power). Then feeds a 400AMP automatic transfer switch. The load side of the automatic transfer switch feeds panel "EDP" which distributes power to the remainder of the facility, including the Fire Station. The emergency side of the transfer switch is fed from a 60kw diesel fired generator.

Generator: Exterior diesel fired 60kw/75kva at .8P.F. 120/208V, 3phase DMT Corporation Model DMT-60JD, Serial No. 97-204681-1 installed within a weatherproof enclosure on top of a belly tank.

Capacity: The service is undersized at 8.6W/SF. It would not be adequate for a substantial renovation or addition. The generator is undersized at 3.6W/SF and is beyond its serviceable life.

Electric Closet: First Floor Main Electric Room located in the EMS Wing contains the following:

- Utility Meter
- Main Disconnect Switch
- Main Distribution Panel

First Floor Main Emergency Electric Room located in the EMS Wing contains the following:

- Automatic Transfer Switch
- Normal/Emergency Distribution Panel

Basement of the Fire Station contains the following:

- Main Fire Department panel fed from "EDP" in Police Station.
- Dispatch panel "D"
- Branch current panel "B"

The remainder of the sub panels are located in storage closets on Ground, First and Second Floors.

Wiring: Metal clad cable and pipe/wire. Condition varies with the age when installed.

General Condition: Fair to Poor

Sub-Panels: Located in closets and Janitors Closets. All Electric Closets are used for storage as storage is limited in the facility. Refer to Electric Closet summary for more detail.

S-P Locations: Refer to Electric Closet summary for detail.

System Condition: Fair to Poor, there are some original vintage branch circuit panel boards in the Fire Station that are beyond their serviceable life.

Lighting: Fluorescent strips, recessed troffers and sconces. Lighting is in poor condition. Wall mount occupancy switch sensors are utilized throughout.

Receptacles: Quantity and location is fair. New outlets have been added where needed for specific equipment. GFI protection is compliant. No arch fault protection is provided in the dorms.

Emergency Ltg: Non-code compliant. Utilizes a single transfer switch, no separation of Life Safety and optional stand-by.

Fire Alarm: Yes, Notifier AFP 400 located in the Fire Department.

Smoke Detectors: Yes

Heat Detectors: Yes

Audible & Strobe: Yes

Annunciator Panel: Yes, Police Lobby 124.

PA System: None observed in Police, paging speakers connected to phone system to ring tones at the Fire Station.

Low Volt Systems: The following Low Voltage Systems were noted in the Facility:

- Voice and Data have been installed utilizing CAT6 cabling in the Fire Station and CAT5 in the Police Station. Cabling runs down to basement level of each department and terminates on wall mounted patch panels. Much of the Data wiring is installed exposed and not in conduit. Jacks and wall plates are in poor condition.
- Vision 21 Radio receiving equipment located in dispatch.
- Access Control System manufactured by RBH Access Technologies.
- CCTV System with Bosch NVR and VMS.
- E911 equipment rack is located in the Basement of the Police Station.
- NEC SV8100U VOIP telephone system located in the Basement of the Fire Station.

Code Issues: Fire Alarm System low frequency horns are not installed in the dorms as well as C.O. detectors in the dorms.

Arch fault breakers are not installed in the dorms.

Life Safety lighting does not comply with current code and is required to be separated from optional standby loads.

SUGGESTED ACTIONS:

Upgrade System: ☒ Under any substantial renovation or addition program, all Electrical systems shall be upgraded.

Replace System: ☐ All systems require upgrade/replacements.

Add to Existing: ☐ None

No Action Req'd: ☐ None

Code Compliance: Refer to code issues above.

RECOMMENDED ACTIONS:

Under any substantial renovation/addition program all Electrical Systems require upgrade/replacement.

GENERAL COMMENTS:



Utility Meter



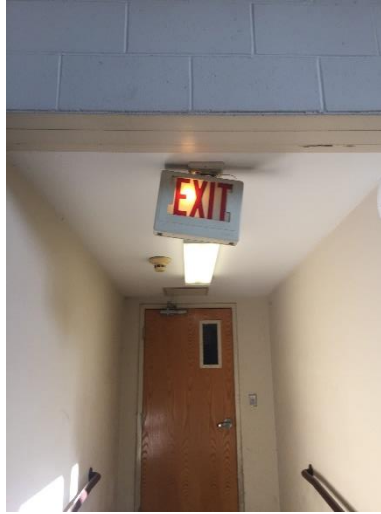
Transfer Switch and Emergency Distribution Panel



Typical Sub-Panels



Generator



Typical Exit Sign



Typical OCC Sensor Switch



Typical Lighting



Fire Department Main Panel



VOIP Phone System



Fire Alarm Control Panel



Typical CCTV Cameras



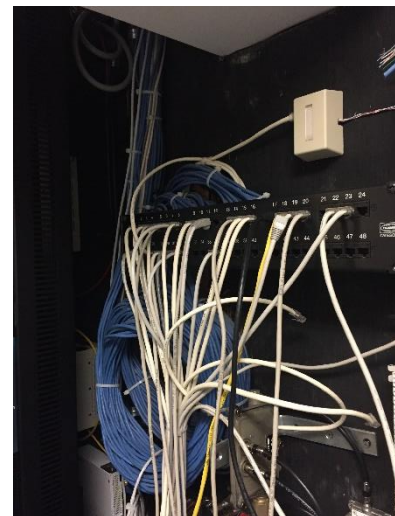
DVR and Monitor



Access Control System Head End



E911 Equipment Rack



Police Tel/Data Patch Panel