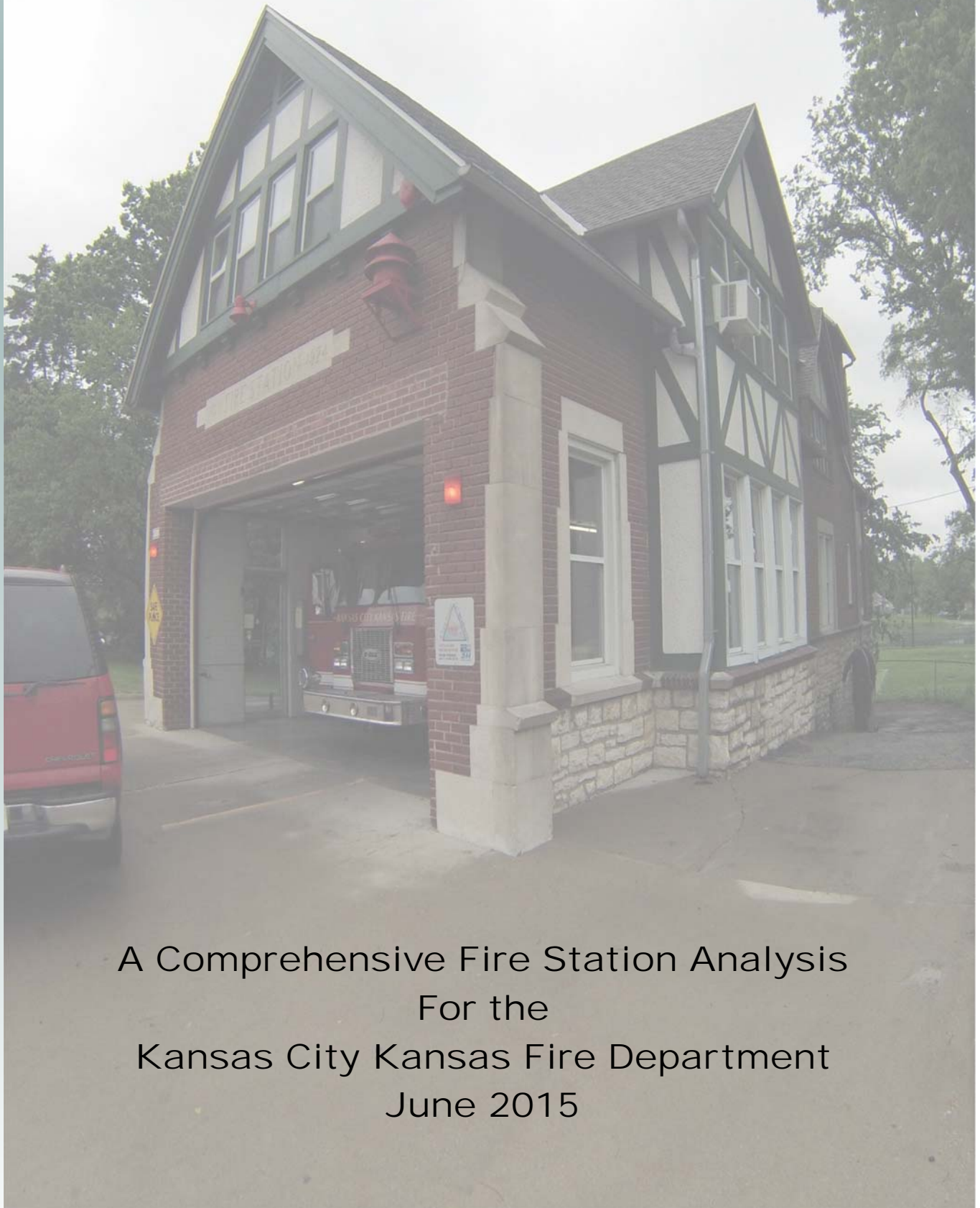




FACETS
CONSULTING



KANSAS CITY FIRE



A Comprehensive Fire Station Analysis
For the
Kansas City Kansas Fire Department
June 2015



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Kansas City Kansas Fire Department Project Narrative:

Date of Inspections: 5/18/15 - 5/20/15

Person Performing Inspection: Jim Zwerg, AIA Architect / Facility Manager Phoenix Fire Department

Most of the KCKFD fire stations are over 30 years old with an average age of 51. Fifteen of the 18 stations were built prior to 1980 and 3 of those are "pre World War II". It should be acknowledged that although there are no codes, or guides, as to the functional life of a fire station, the nationally accepted goal is for a 50-year facility life. It is also generally accepted that in that 50-year life, significant renovations and remodeling are anticipated so that trends in firefighting and apparatus can be applied to the fire station, thus extending the functional life. It was apparent that although minor changes have been made to a few of the fire stations, most were as originally designed and constructed with only minor improvements.

Several stations in the outlying areas were originally designed and constructed as "volunteer" fire stations, inherited by KCKFD to be used as "career" stations. At these locations, renovations were performed to convert these stations to house the crews and apparatus. These modifications and improvements converted adjacent bay spaces to "living quarters" for the firefighters, but due to physical constraints could not meet most code related requirements.

All Stations, (except the 2 newest stations 10 and 6) have no fire sprinklers, fire alarms, smoke or carbon monoxide detectors, and are not in current code compliance.

The Unified Government of Wyandotte County and Kansas City, Kansas have recognized and adopted the following codes and ordinances, Chapter 8 - Buildings and Building regulations;

Section 8 - 24	2009 International Building Codes (Adopted, and Amended)
Section 8 - 125	NFPA 70 Electrical Code, 2008 Edition (Adopted)
Section 8 - 281	2009 International Mechanical Code (Adopted)
Section 8 - 350	2009 Uniform Plumbing Code (Adopted)
Section 8 - 653	2009 International Energy Conservation Code (Adopted)
Chapter 15	NFPA 101 Life Safety Code, 2003 Edition, & referenced standards and all appendices, dated May 2004
Per Federal Law, the Americans with Disabilities Act of 1990, (or ADA) and 2010 ADA Standards for Accessible Design.	

Exterior of Stations and Grounds:

All but the three stations have significant damage to the front apparatus aprons, driveways, parking areas and sidewalks. Most parking and access drives are in such disrepair that complete removal and re-pavement is required.

All 18 stations are in need of a thorough restoration of painted materials as any fresh paint will not adhere properly to the damaged substrate.

All stations had noticeable roof leaks, several with significant damage occurring to the interior finishes. Once roof repairs are completed, multiple projects will need to be performed to replace plaster, drywall, ceiling tiles, paint, sealants, etc.

Landscaping consists of native plants, trees and grass. Some trees and shrubs require pruning, but all lawns are groomed and well kept.

Interior of Station Condition:

All station kitchens, bathrooms and dorm rooms require renovating.

All stations require significant renovations to plumbing, mechanical, electrical, tele/data and dispatch systems.

All furniture is provided by the crews and is very worn, dirty, and in various stages of degradation.

All interior finishes need to be painted, all ceiling tiles replaced, all floors cleaned and re-waxed, all carpeting removed and new flooring installed.

Plumbing/Mechanical/Electrical Condition:

Plumbing: All supply pipe for hot and cold water, and all sewer waste and vent pipe are an ongoing issue for breaks and leaks. Some fixtures have been replaced, but no standard has been established or maintenance program has been incorporated.

HVAC: A variety of HVAC systems were observed; split systems, package units, window A/C units and radiant base heaters. All require periodic maintenance, filter changes, cleaning, and occasional replacement.

Electrical: All panels are very old, full, and can not be updated without significant cost and disruption.

General Comments:

Due to age, reactive responses to equipment breakdowns, and normal wear, all KCKFD stations will require significant repairs, remodeling, and renovations to extend their useful life and comply with current codes. In several locations, these costs will exceed the cost to replace the station, thus the suggestion to build a new Fire Station was made. All station crews are maintaining their facilities to the best of their abilities.



Kansas City Kansas Fire Department Station Disposition Explanation:

Date of Inspections: 5/18/15 - 5/20/15

Person Performing Inspection: Jim Zwerg, AIA Architect / Facility Manager Phoenix Fire Department

Station inspections were performed by a Registered Architect specializing in fire station design, construction, renovation and maintenance. Station inspections were supervised by the KCKFD Logistics Chief. Station inspections consisted of a thorough walk-through of all spaces, and pictures taken with a wide angle lens to document conditions and space relationships. Stations were not given advanced notification of these visits so that actual working and living conditions could be observed.

The station disposition descriptions found on the following spreadsheet are defined as follows;

Minor Renovation:

This type of Fire Station is still within its 50 year life cycle, is code compliant in most aspects and has a functional first-due location. Minor renovation projects include painting of interior and exteriors, flooring replacement, kitchen and bathroom cabinet replacement, and small modifications toward complete code compliance. Routine maintenance should be performed to extend the useful life of equipment and station such as monthly filter changes, light fixture cleaning and re-lamping, drain line jetting, and roof cleaning and coatings.

Fire Stations 6, 10, and 15

Major Renovation:

This type of Fire Station is close, to or has exceeded its 50 year life cycle, but due to its location and site size could have improvements made to bring it up to code compliant. This station could also have additions made to increase station size and functionality. It also has a functional first-due location. In some instances, disruption to service delivery of the first due area could force the department to build new.

Fire Stations 2, 8, 9, 11, 18, and 19

Build New:

This type of Fire Station has exceeded its 50 year life cycle, and due to its age, can not be renovated, expanded, or improved without excessive costs incurred and additional expenses to remediate hazardous building materials. The floor plan can not be modified to be code compliant, and in some instances structural issues were observed. In some instances, disruption to service delivery or a lack of available property to build on could force the department to perform major renovations and/or additions.

Fire Stations 1 (Station Only), 3, 4, 5, 7, 14, 16, 17, and 20

General Comments:

It is recommended that the KCKFD create and adhere to a detailed Facilities Management Master Plan and Five Year Plan for budgeting maintenance and repairs department wide.

Immediate attention to the following items is suggested;

- Renovate all kitchens and bathrooms
- Provide new furniture and bedding at all fire stations
- Install a modern computer aided dispatch (CAD) system at all fire stations
- Install fire sprinkler systems and smoke alarms at all fire stations
- Begin the replacement of fire stations, starting with station 20 due to the structural concerns observed

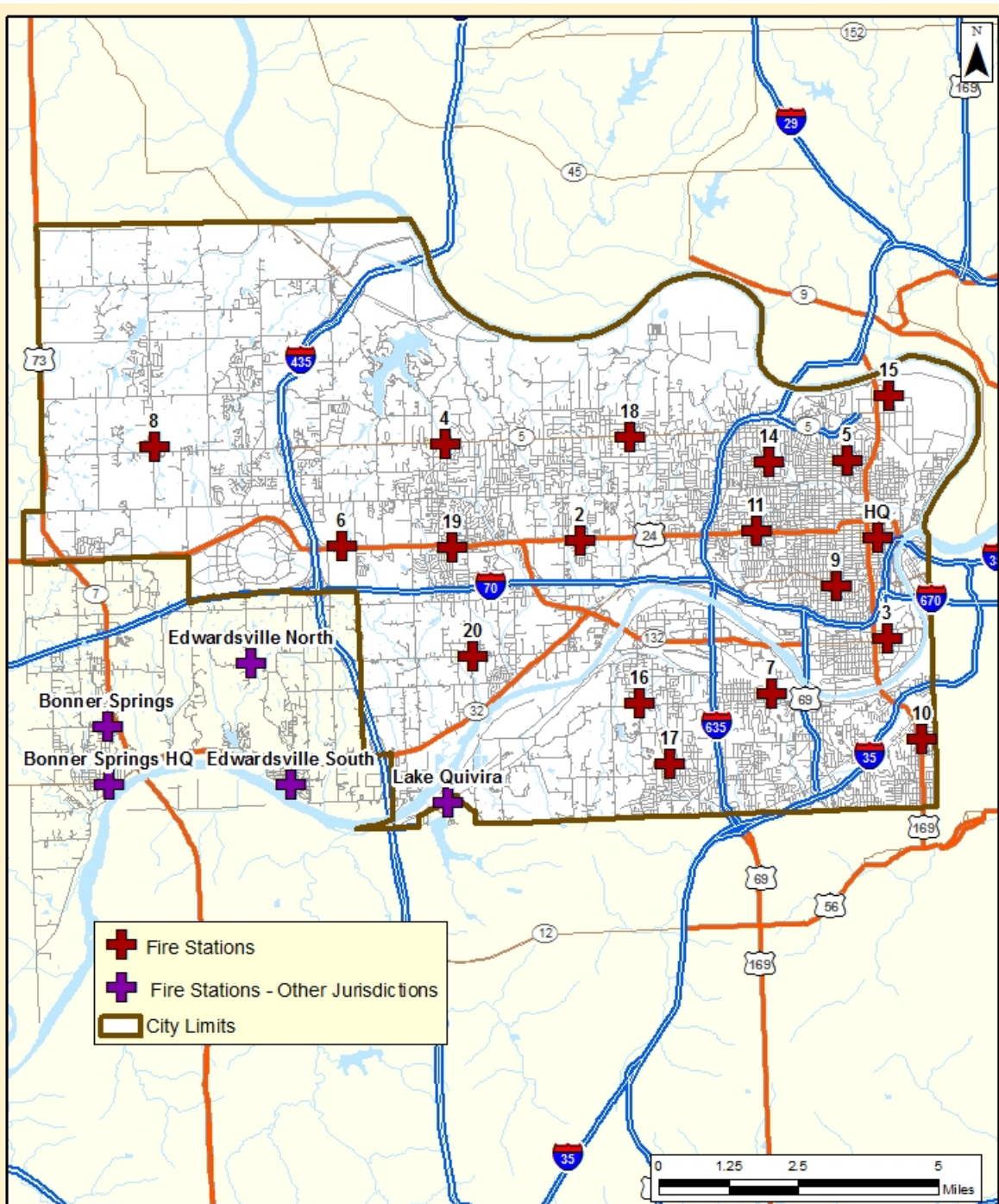


Kansas City Kansas Fire Department Station Information Spreadsheet:

KANSAS CITY FIRE

<u>Location</u>	<u>Year Built</u>	<u>Station Total Sq. Ft.</u>	<u># of Bays</u>	<u>Site Size</u>	<u>Station Description</u>	<u>Suggestion</u>	<u>Notes</u>
Fire Station 1	1930	36,663	6	Small	Dept. Benchmark	Build a New FS 1	Continue use at Headquarters with major renovations
Fire Station 2	1979	10,736	3	Small	Sister to FS 18	Major Renovation	Flexible bays, central location, sound structure
Fire Station 3	1951	7,056	2	Small	Sister to FS 7	Build a New FS 3	Age will make renovation costs exceed replacement
Fire Station 4	1957	2,580	2	Medium	Reuse site for new	Build a New FS 4	Age will make renovation costs exceed replacement
Fire Station 5	1955	6,336	2	Large	Reuse site for new	Build a New FS 5	Age will make renovation costs exceed replacement
Fire Station 6	2001	12,000	4	Large	Newest Station	Minor Renovations	Continue to maintain
Fire Station 7	1951	7,056	2	Large	Sister to FS 3	Build a New FS 7	Site shared with City park and tennis courts
Fire Station 8	1979	4,100	3	Large	Former volunteer FS	Major Renovation	Site is large enough to support additions and major renovations
Fire Station 9	1967	3,060	3	Small	Has Community Cntr	Major Renovation	Take occupancy of basement for FD training or offices
Fire Station 10	1996	13,568	3	Medium	2nd Newest Station	Minor Renovation	Continue to maintain
Fire Station 11	1924	3,834	1	Large	Oldest Station	Major Renovation	Very old but solid, not likely to remain usefull in first due area
No Station 12 Exists							
No Station 13 Exists							
Fire Station 14	1956	7,200	2	Large	Reuse site for new	Build a New FS 14	Age will make renovation costs exceed replacement
Fire Station 15 - Shop	1987	13,260	4	Large	3rd Newest Station	Minor Renovations	Continue to maintain
Fire Station 16	1936	2,200	1	Small	3rd Oldest Station	Build a New FS 16	Very old but solid, not likely to remain usefull in first due area
Fire Station 17	1952	3,600	2	Small	Old but well kept	Build a New FS 17	Site is too small to support a major remodel or additions
Fire Station 18	1978	9,372	2	Medium	Sister to FS 2	Major Renovation	Flexible bays, good location, significant code issues
Fire Station 19	1972	4,640	3	Small	Shared with PD	Major Renovation	Site is too small to expand on, if PD moved out could expand there
Fire Station 20	1967	3,484	2	small	Rough exterior	Build a new FS 20	Worst physical condition with significant structural issues

Kansas City Kansas Fire Department Station Location Map:



**Kansas City Fire Department
Fire Station Locations**



FIRE STATION INSPECTION SHEET

Station Number: 1 - HQ Built in: 1930 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



Fire Station 1 - Headquarters
Photo by KCKFD Bill Blackwell



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 1 - HQ Built in: 1930 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station has 3 levels

Basement level - is primarily used for training and EMS storage

1st Level - Apparatus bay floor, Fire Prevention, Main Receptionist and Physical Training

2nd Level - Administration Office, and Station Quarters

This station is of limestone masonry walls, cast-in-place concrete slabs and decks, and interior plaster/lath wall construction. It is a 6-bay, back-in type station housing all types of apparatus, surrounded by station quarters and administration space.

Station has a fuel pump in the front of the station with no retention or spill containment for cleanup.

The front apron has several asphalt patch jobs surrounding the concrete and is in need of replacement.

Front parking area designated ADA parking is non-compliant. **See ADA.**
Staff and visitor parking is curb side in a lot across the street to this facility.

Interior of Station Condition:

Old historic multi-story station - residential scale appliances, wood cabinets, vinyl tile floors in kitchen and dining area, stained concrete floors throughout, ceramic tile in the bathrooms, plaster wall partitions and most ceilings with some 2x4 suspended grid ceilings. Fluorescent light fixtures throughout with a few remaining historic original fixtures.

Standard dispatch system is speakers only and no house lighting is activated by dispatch.

The 2nd floor dormitory area is adequate. Personal locker space is large, bathroom has been updated and is in good shape, however it is small for this facility. Kitchen cabinets are in very bad shape and the kitchen needs an overall update. There is not enough storage, throughout the station and administrative spaces.

Apparatus bay lacks storage space for bay related equipment.

There is no separation of bays to living space and doorways are not well sealed. Pole holes need to be improved. **(see NFPA.)**

There is no fire alarm or sprinkler system, no smoke or carbon monoxide detectors, no security system.

Plumbing/Mechanical/Electrical:

Plumbing: Restrooms have been updated, core plumbing in walls and drains are an ongoing issue for breaks and leaks.

HVAC: Roof top package units are adequate, but suggest increases in tonnage as they are replaced.

Electrical: Old, panels are full and can not be updated without significant cost and disruption. Fluorescent lighting is throughout.

General Comments:

Suggest a "stacking" plan be created to assist the overall layout and coordination of floor space use and configuration.

Facility is in poor shape and difficult to maintain, but overall structurally sound. Storage is a huge issue in all areas and all uses.

Station does not comply with ADA, NFPA, or IBC's.

Station is approximately:	121' x 101' x 3 floors =	36,663 s.f.
App bay is approximately:	78' x 72' =	5,616 s.f.
Livable area is approximately:		31,047 s.f.



FIRE STATION INSPECTION SHEET

Station Number: 1 - HQ Built in: 1930 Date of Inspection: 5/19/15

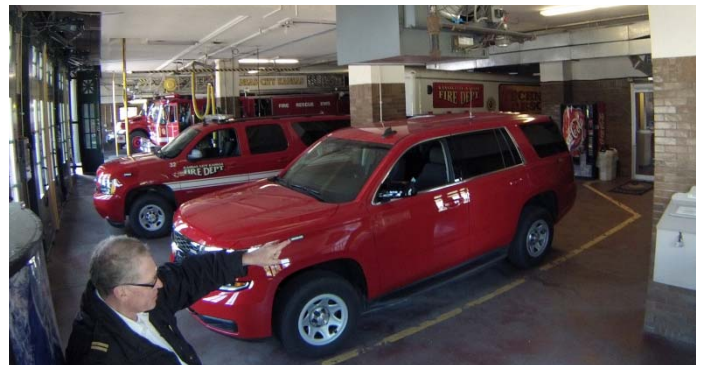
Interior Photos of Station 1:



Training Tower & Fuel Island



West Side & Entry



Apparatus Bays



Main Lobby and Receptionist



Lobby Entrance off Apparatus Bays

FIRE STATION INSPECTION SHEET

Station Number: 1 - HQ Built in: 1930 Date of Inspection: 5/19/15

Interior Photos of Station 1:



Day Room



Kitchen and Dining Area



Bathroom



Dormitory Hallway



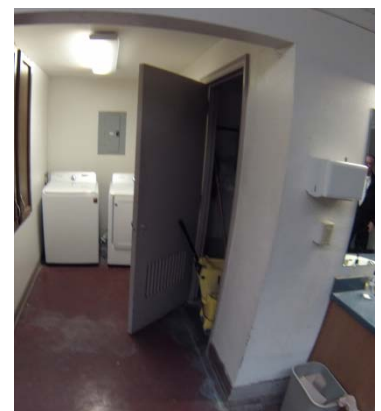
Damage at Kitchen Sink



Dorm Room



Weight Room



Laundry and Custodial Space

FIRE STATION INSPECTION SHEET

Station Number: 1 - HQ Built in: 1930 Date of Inspection: 5/19/15

Interior Photos of Headquarters:



EMS Supply Storage in Basement



Administrative Offices



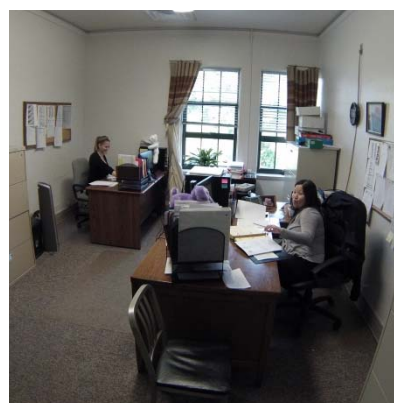
EMS Chief Office



Operations Chief Office



Fire Prevention Office



Administrative Secretaries Office



FIRE STATION INSPECTION SHEET

Station Number: 2 Built in: 1979 Date of Inspection: 5/18/15

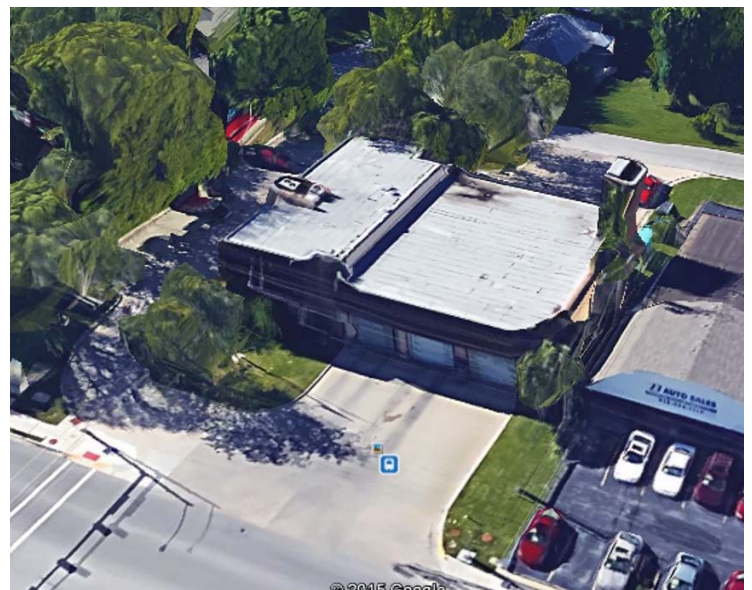
Person Performing Inspection: Jim Zwerg, AIA



Front Elevation of Station



Property View



Google Earth View



FIRE STATION INSPECTION SHEET

Station Number: 2 Built in: 1979 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station is a sister station to station 18. Built from ribbed concrete masonry walls, steel truss' and metal deck framing.

It is a 3 bay, pull - through type station housing a engine, ambulance, and a haz-mat rig.

Landscaping is the typical lawn with a few mature trees.

The front apron and rear aprons are concrete and are in bad shape, lots of spalls and patches. All aprons need to be replaced

No ADA parking observed. (See ADA.)

Interior of Station Condition:

70's style, 2 story station. App bay, day room, kitchen and dining, and captains dorms are on the first floor.

Crew dorms, bathrooms and lockers are on the 2nd floor. PT is at the end of the dorms on the 2nd floor.

Epoxy "ardex" floors throughout, drywall partitions and 2 x 4 suspended grid ceilings. Restrooms are dated and need upgrades. Showers are small and dark. Shower access is narrow. Right side shower has been redone with ceramic tile. Left side shower is concrete floor and drywall. No epoxy paint or tile. This shower needs to be redone. The door jamb is already rotted out at the bottom.

Kitchen is small relative to station size, has residential style wood cabinets and plastic laminate countertops and a vinyl tile floor.

The pole holes need to be modified to improve air-gap separation from apparatus bay.

The dispatch system is speakers only. No house lighting activated by dispatch.

This station has "google" fiber installed at phone board.

The apparatus bay lacks storage space for bay related equipment, especially for the haz-mat rig.

There is no separation of bays to living space and doorways are not well sealed. See NFPA.

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, no station has a security system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Adequate. The restrooms and kitchen need to be upgraded.

HVAC: Adequate. One roof top package unit observed. Did not find any condensing units or "Window" A/C units. Was not able to verify HVAC system or capacities.

Electrical: Adequate. Fluorescent lighting throughout is old and there are lots of tubes out. Good candidate for the next LED job.

General Comments:

This station is in fair shape but needs a thorough cleaning. It is structurally sound, no significant damage or cracks observed.

Storage is an issue throughout the station. Station does not comply with ADA, NFPA, or IBC.

Station is approximately: 88' x 61' x 2 = 10,736 s.f.

App bay is approximately: 59' x 58' = 3,422 s.f.

Livable area is approximately: 7,314 s.f.



FIRE STATION INSPECTION SHEET

Station Number: 2 Built in: 1979 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Kitchen, Dining, Day Room



Apparatus Bays



One of Three Poles



Haz-Mat Rig and adjacent storage

FIRE STATION INSPECTION SHEET

Station Number: 2 Built in: 1979 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Lavs and Urinals



Toilets



Lockers



PT Weight Area adjacent Dorms



FIRE STATION INSPECTION SHEET

Station Number: 3 Built in: 1951 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



Fire Station 3



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 3 Built in: 1951 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station is a sister style to station 7. Built from brick masonry walls, steel truss and metal deck framing, and interior glazed block construction. Landscaping is the typical lawn with a few mature trees.

It is a 2 bay, pull - through type station housing a ladder, ambulance and haz-mat rig.

The front apron is concrete in fair condition.

No ADA parking observed. (See ADA.)

The side parking lot has a fuel island. There is gravel over what is left of an asphalt drive. There is a short row of concrete for parking of personal vehicles.

Interior of Station Condition:

Old historic style - residential scale appliances, wood cabinets, vinyl composition tile floors throughout, glazed block walls with some plaster partitions and ceilings, gypsum wall divided dorm room with plaster ceilings. Fluorescent light fixtures throughout.

The dispatch system is speakers only. No house lighting activated by dispatch.

The apparatus bay lacks storage space for bay related equipment. Physical Training equipment is in an adjacent utility room.

There is no separation of bays to living space and doorways are not well sealed. (See NFPA.)

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, no station has a security system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Old. Copper that can be reached is okay. The sewer pipe is likely in bad shape. There is a single restroom with 2 toilets, 2 urinals and 2 pedestal sinks, 1 tile gang shower. The captains have a separate bath with toilet, lav and shower.

HVAC: Lots of exposed ductwork. Roof top package units are undersized and old. "Window" a/c units being used.

Electrical: The system is very old, and the panels are full. Fluorescent lighting is throughout.

General Comments:

This station is in poor shape. Storage is an issue. Station does not comply with any codes ADA, NFPA, or IBC's.

Station is approximately: 72' x 98' = 7,056 s.f.

App bay is approximately: 60' x 37' = 2,220 s.f.

Livable area is approximately: 4,836 s.f.



FIRE STATION INSPECTION SHEET

Station Number: 3 Built in: 1951 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



Back of Station



Apparatus Bay



App Bay Storage



Dining and Day Room

FIRE STATION INSPECTION SHEET

Station Number: 3 Built in: 1951 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



Kitchen view from sink



Very Old Electrical Gear



Bathroom



Day and Dining Area



Laundry



Dorms



FIRE STATION INSPECTION SHEET

Station Number: 4 Built in: 1957 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Fire Station 4



Site Photo



Google Earth View



FIRE STATION INSPECTION SHEET

Station Number: 4 Built in: 1957 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station is constructed with Concrete Masonry Unit block walls and bow truss' that are in good condition. It is a 2 bay back-in type station housing an Engine and Ambulance.

There is a stone retaining wall along the South side of the station which is on station property and is collapsing due to a large tree root growth and age. This wall could be removed and have the site re-graded to ease slope of adjacent property. The adjacent lot has become difficult to maintain due to this walls condition.

Front ADA parking is non-compliant, too narrow. (See ADA.) The "Front Door" has a bench blocking access or egress. "Safe Place" sign is next to the front door.

The rear driveway is asphalt that has crumbled to the point of being gravel. Rear access is achieved by use of adjacent non-city property.

Interior of Station Condition:

Typical residential style station quarters - residential scale appliances, wood cabinets, vinyl tile floors, painted gypsum walls, 2x4 suspended grid ceilings. Fluorescent light fixtures.

Standard dispatch system is speakers only. Did not verify if any house lighting was activated by dispatch.

The dormitory area is crowded and the lockers are in hallway area.

There are two bathrooms - 1 in back off of kitchen/day room area, 1 in dorm area with shower being repaired.

App bay lacks storage space for bay related equipment, PT equipment along north wall is cramped and poorly ventilated. Refrigerators should be relocated out of bay area.

No separation of bays to living space and doorways are not well sealed. See NFPA.

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, no security system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Water heater in dorm restroom closet does not have combustion air ducts. Fixtures are typical residential style - floor mounted toilets, "knob" handles on faucets, small fiberglass shower stalls.

This station has been closed due to a significant sewage back up that occurred the weekend of May 22, 2015

HVAC: Package units are ground mounted outside, and are old.

Electrical: Old and panels are full. Fluorescent lighting throughout is dated and inconsistent - multiple color tubes in any given fixture.

General Comments:

This station is old and in poor shape. Storage is an issue. This station does not comply with ADA, NFPA, or IBC's.

Station is approximately:	43' x 60' = 2580 s.f.
App bay is approximately:	30' x 42' = 1260 s.f.
Livable area is approximately:	1320 s.f.



FIRE STATION INSPECTION SHEET

Station Number: 4 Built in: 1957 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



App Bay Station Access



Structurally collapsing Retaining Wall



Rear of Station



Turn Out Locker Space Adjacent to Bay



Laundry and Refridge in App Bay



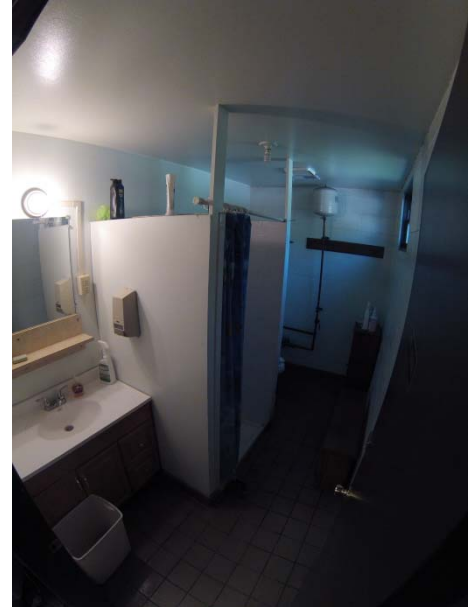
FIRE STATION INSPECTION SHEET

Station Number: 4 Built in: 1957 Date of Inspection: 5/18/15

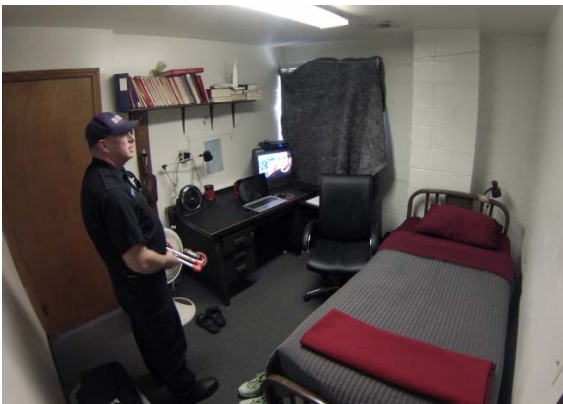
Person Performing Inspection: Jim Zwerg, AIA



Day Room, Dining Area and Kitchen



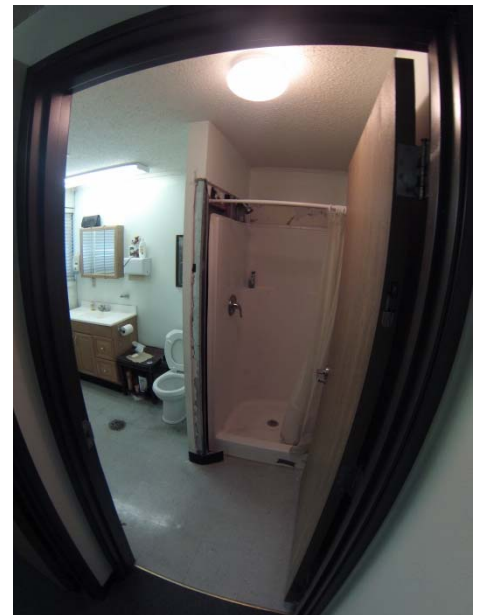
Station Bathroom



Captains Dorm



Dorm Bath Water Heater



Dorm Bathroom



FIRE STATION INSPECTION SHEET

Station Number: 5 Built in: 1955 Date of Inspection: 5/19/15

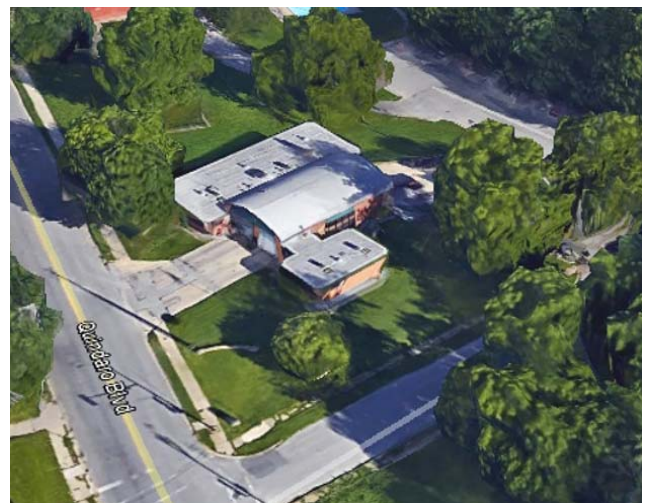
Person Performing Inspection: Jim Zwerg, AIA



Fire Station 5



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 5 Built in: 1955 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station is the only station with a functioning security alarm. It has a fenced parking area. This station has a similar style to stations 3 and 7 but has an arched bay roof. Built from brick masonry walls, steel truss and metal deck framing, and interior glazed block construction. This station has a small basement. It is a 2 bay, pull-through type station housing an engine and ambulance.

The front apron is badly spalled and in need of replacement.

No ADA parking observed. **See ADA.**

The side parking lot is fenced and access to trash dumpsters for pick-up is tight.

Interior of Station Condition:

This station has residential appliances, wood cabinets, ceramic tile floors, carpet in dorm and day rooms, glazed block walls with some plaster partitions and ceilings, open dorm room with 2x4 suspended grid ceilings. Fluorescent light fixtures throughout.

The dispatch system is speakers only. No house lighting is activated by dispatch.

The apparatus bay lacks storage space for bay related equipment, physical training equipment is cramped between rigs, and in a small space off the South East corner of the apparatus bays.

No separation of bays to living space and doorways are not well sealed. **(See NFPA.)**

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, Station has a security system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Comments from on duty captain are that the kitchen waste gets caught up in laundry waste debris and they have frequent back-ups and floods. The bathroom is down stream from these and there is a long run from station to sanitary sewer in street.

Single restroom with 2 toilets, 1 urinal and 2 pedestal sinks, 1 tile shower. Captain has a separate bath with toilet, lavatory and shower.

HVAC: No equipment noted. Apparently it is roof top package units. Several "window" a/c units being used.

Electrical: Old, panels are full. Fluorescent lighting throughout.

General Comments:

This station is in poor shape. Storage is an issue. **Station does not comply with any codes ADA, NFPA, or IBC's.**

Station is approximately:	99' x 64' = 6,336 s.f.
App bay is approximately:	33' x 55' = 1,815 s.f.
Livable area is approximately:	4,521 s.f.

FIRE STATION INSPECTION SHEET

Station Number: 5 Built in: 1955 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



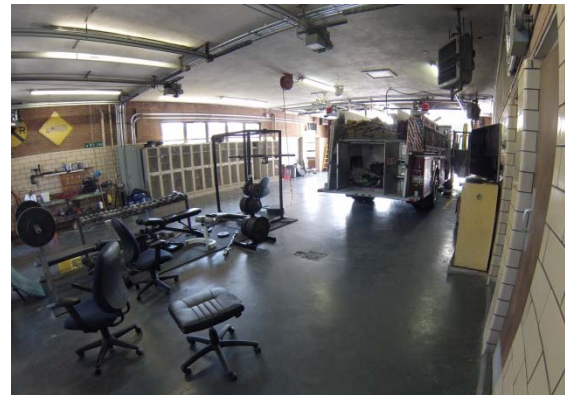
Downspout Erosion



Back of Station and Secure Staff Parking



Open Dorm Room (no dividers)



PT Equipment in App Bay



Basement Storage



Kitchen / Dining Room



FIRE STATION INSPECTION SHEET

Station Number: 5 Built in: 1955 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



Crew Bathroom



Captains Bathroom



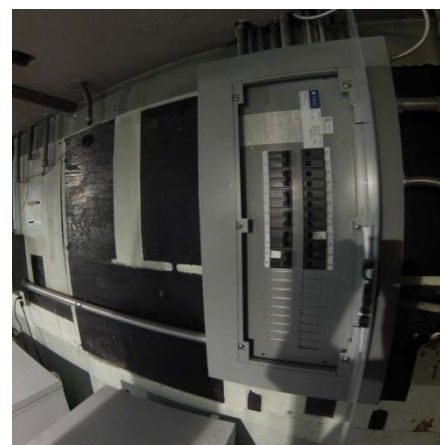
HVAC



Captains Dorm



Day Room



Electrical Panel



FIRE STATION INSPECTION SHEET

Station Number: 6 Built in: 2001(pre 911) Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Fire Station 6



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 6 Built in: 2001(pre 911) Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station is built with Concrete Masonry Unit block walls and steel truss structure is in very good condition. It is a 4 bay back-in type station housing a ladder and misc. trucks and trailers. This station has a small training tower in the back of the property and houses two Ebola patient ambulances, parked outside near prop.

All landscaping is lawn and mature trees that are well maintained.

The front ADA parking is compliant.

The rear driveway is asphalt in fair condition, needs to have cracks cleaned, filled, and entire surface slurry coated to extend life.

Interior of Station Condition:

This station has modern style station quarters and residential appliances, wood cabinets, vinyl tile floors, painted gypsum walls, 2x4 suspended grid ceilings. Fluorescent light fixtures.

The dispatch system is speakers only. No house lighting is activated by dispatch.

The dormitory area is adequate.

Bathrooms are adequate.

The apparatus bay lacks storage space for bay related equipment and miscellaneous equipment is sharing space in electrical and HVAC spaces. The physical training room adjacent to the bay is sufficient.

There is a small area of separation between bays and living space but not sealed and doorways are not well sealed. (See NFPA.)

This station has a fully automated fire alarm and sprinkler system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Adequate.

HVAC: Adequate.

Electrical: Adequate. Station has a standby diesel generator.

General Comments:

This station is in good condition and being reasonably maintained. Storage is an issue. Minor low cost maintenance items should be addressed soon to avoid costly repairs. Station is in compliance with IBC and ADA. Station is lacking in some areas of NFPA.

Station is approximately: 121' x 99' = 12,000 s.f.
App bay is approximately: 66' x 62' = 4,000 s.f.
Livable area is approximately: 8,000 s.f.



FIRE STATION INSPECTION SHEET

Station Number: 6 Built in: 2001(pre 911) Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Standby Diesel Generator



Training Tower



Parking and Drive Asphalt Deterioration



PT Space Adjacent to Bay



Apparatus Bay



Decon Sink, Ice Machine, Extractor



FIRE STATION INSPECTION SHEET

Station Number: 6 Built in: 2001(pre 911) Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Kitchen



Dining, Day Room, Kitchen



Dorm Rooms and Lockers



Dorm Room



Training Classroom



FIRE STATION INSPECTION SHEET

Station Number: 7 Built in: 1951 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



Fire Station 7



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 7 Built in: 1951 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station is a sister style to station 3. Built from brick masonry walls, steel truss and metal deck framing, and interior glazed block construction. Landscaping is the typical lawn with a few mature trees. It is a 2 bay, pull - through type station housing a engine and ladder.

The front apron is in the process of being replaced, the rear apron has already been completed.

There is no ADA parking. (See ADA.)

The side parking lot has a fuel island.

Interior of Station Condition:

This station has residential appliances, wood cabinets, vinyl composition tile floors throughout, glazed block walls with some plaster partitions and ceilings, gypsum wall divided dorm room with plaster ceilings. Fluorescent light fixtures throughout.

The dispatch system is speakers only. No house lighting is activated by dispatch.

The apparatus bay lacks storage space for bay related equipment. The physical training equipment in an adjacent utility room.

There is no separation of apparatus bays to the living space and doorways are not well sealed. (See NFPA.)

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, no station has a security system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Old. Copper that can be reached is okay. Sewer is likely in bad shape.

Single restroom with 2 toilets, 2 urinals and 2 pedestal sinks, 1 tile gang shower. Captains have a separate bath with toilet, lav and shower.

HVAC: Lots of exposed ductwork. Roof top package units are probably undersized, and are old. "Window" a/c units being used.

Electrical: Old, panels are full. Fluorescent lighting throughout.

General Comments:

This station is in poor shape. Storage is an issue. Station does not comply with any codes ADA, NFPA, or IBC's.

Station is approximately:	72' x 98' = 7,056 s.f.
App bay is approximately:	60' x 37' = 2,220 s.f.
Livable area is approximately:	4,836 s.f.



FIRE STATION INSPECTION SHEET

Station Number: 7 Built in: 1951 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



New Concrete Rear Apron



New Concrete Front Apron



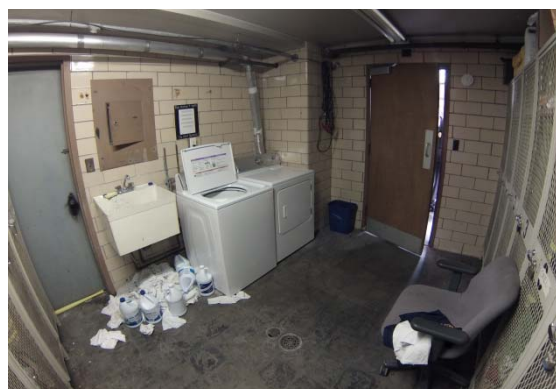
PT Space and Utilities



Apparatus Bay



App Bay Lockers



Laundry and Lockers

FIRE STATION INSPECTION SHEET

Station Number: 7 Built in: 1951 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



Crew Dorm



Captain Dorm



Kitchen, Dining, and Day Room



Kitchen



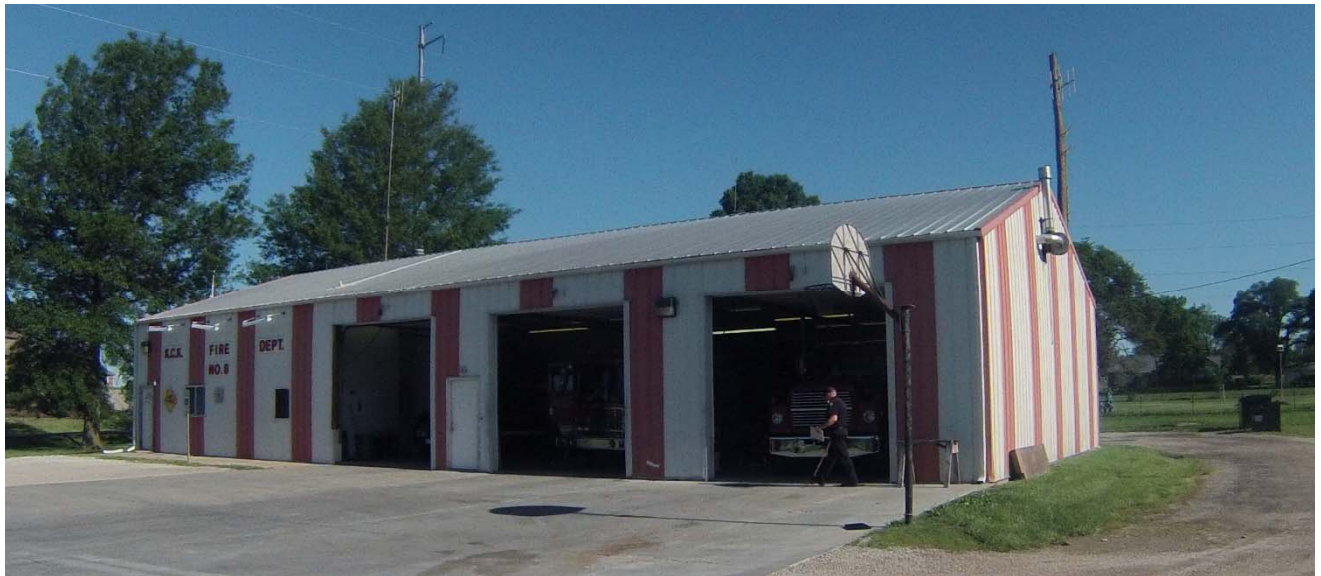
Crew Bathroom



FIRE STATION INSPECTION SHEET

Station Number: 8 Built in: 1979 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Fire Station 8



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 8 Built in: 1979 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station has a metal panel building, "pole-barn" type structure in good condition. Formerly a volunteer fire station inherited by KCKFD. It is a 3 bay back-in type station housing a tanker, engine and brush truck.

Station has an above ground fuel tank in the back of the station adjacent to the gravel drive with no retention or spill containment or cleanup.

There is a sewage sump/pump station has been problematic and prone to break downs and back ups.

Front gravel area designated ADA parking is non-compliant. (See ADA.) The "Front Door" has a sign indicating "use other door", but there is no indication as to where this door is. "Safe Place" sign is next to the former front. The front door access' the dorm room area.

Rear driveway is gravel in good condition. The culvert drain pipe is crushed at drive entry due to wide turns and narrow entry width.

Interior of Station Condition:

Typical residential style station quarters - residential scale appliances, wood cabinets, Vinyl tile floors, painted gypsum walls, 2x4 suspended grid ceilings. Fluorescent light fixtures.

Standard dispatch system is speakers only. Did not verify if any house lighting was activated by dispatch.

Dormitory area is slightly crowded - lockers are in hallway area. 3 bathrooms - 1 is a half bath (no shower), 2 is a full restroom but shower is very small, 3rd is accessed via captains dorm and has a urinal.

South East corner of tanker bay has significant concrete cracking and spalling occurring, possibly caused by a water leak below slab. The apparatus bay lacks storage space for bay related equipment, the physical training equipment along the north wall is cramped and poorly ventilated. Refrigerators should be relocated out of bay area. North East corner area of bays appears to have roof leak(s).

No separation of bays to living space and doorways are not well sealed. (See NFPA.)

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, no security system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Water heater in HVAC closet does not have combustion air ducts. Fixtures are typical residential style - floor mounted toilets, "knob" handles on faucets, small fiberglass shower stalls.

HVAC: No apparent "outside air" source for HVAC equipment. New condensing unit outside.

Electrical: Adequate, panels are full. Fluorescent lighting throughout is dated and inconsistent - multiple color tubes in any given fixture.

General Comments:

This station is in good shape and being reasonably maintained. Storage is an issue. Restroom size and configuration could be revised for better flow. Minor low cost items to address with minimal remodeling. Station does not comply with ADA, NFPA, or IBC's.

Station is approximately: 91' x 45' = 4100 s.f.
App bay is approximately: 55' x 44' = 2420 s.f.
Livable area is approximately: 1680 s.f.



FIRE STATION INSPECTION SHEET

Station Number: 8 Built in: 1979 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Significant Cracking in Bay Corner



Rear of Station & Staff Parking



Sewage Lift Station



PT Equipment and Lack of Storage



Refridgerators in Apparatus Bay



Full Apparatus Bays

FIRE STATION INSPECTION SHEET

Station Number: 8 Built in: 1979 Date of Inspection: 5/18/15

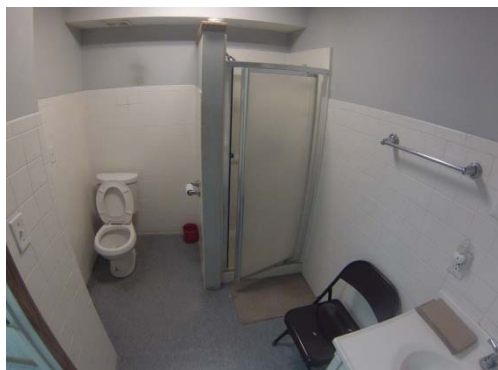
Person Performing Inspection: Jim Zwerg, AIA



Dorm Lockers



Kitchen



Crew Bathroom



Captain Dorm



Captain Bathroom



Crushed Culvert at Rear Drive



FIRE STATION INSPECTION SHEET

Station Number: 9 Built in: 1967 Date of Inspection: 5/20/15

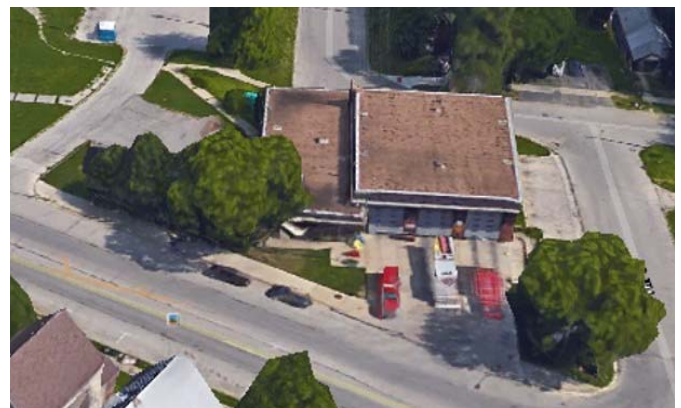
Person Performing Inspection: Jim Zwerg, AIA



Fire Station 9



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 9 Built in: 1967 Date of Inspection: 5/20/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station has a Neighborhood Senior Center below in a walk out basement section in the back of the station. This space has been closed by the City and is potentially usable space by the fire department.

This station is of red brick masonry walls, steel truss and metal deck framing, and interior glazed block construction. It is a 3 bay, back-in type station housing an engine, ambulance, brush truck and suburban. The station is in good condition. No structural issues were observed.

This station has a stand-by diesel generator.

The concrete front apron is in poor shape and has several asphalt patches and is in need of replacement.

The asphalt parking area is to the West of the station and is in poor condition. It also is the access drive to adjacent tennis courts. No ADA compliant parking space was observed for station use. **See ADA.**

Interior of Station Condition:

The front corner of the bay has the poop deck and adjacent captains quarters which are next to the day room. Adjacent to the day room is the kitchen and dining area. The kitchen has residential scale appliances, wood cabinets, plastic laminate counter tops, vinyl tile floors, painted block walls, 2x4 suspended grid ceilings and fluorescent light fixtures. The locker room is large and the bathroom has ceramic tile and standard fixtures but is in need of an updating. The dorm spaces have drywall partitions that are tall but not full height. Dorm area is also vinyl tile floor and suspended ceiling grid with fluorescent light fixtures. The private spaces are separate from the day spaces and are accessed by going through the apparatus bay.

The basement area houses the water heater, HVAC equipment, an abandoned boiler and the main electrical service entrance and panels. The electrical panels are in very bad shape and are a fire hazard because cardboard has been used to cover the circuit breaker spaces. There is a lot of storage clutter also sharing the space making maintenance difficult.

Standard dispatch system is speakers only. No house lighting is activated by dispatch.

Personal locker space is large, bathroom is tired, showers are small.

App bay lacks storage space for bay related equipment, PT equipment along back wall is cramped and poorly ventilated. There are 3 refrigerators on the bay floor that should be relocated, but space is not available. There is a new electrical panel at the back of the bays next to the basement stair case.

No separation of bays to living space and doorways are not well sealed. **(See NFPA.)**

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, no security system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Gas water heater in basement **does not have combustion air ducts**. The plumbing and waste lines are old and to update, repair or replace would be costly and disruptive to station activities. Fixtures are typical residential style - floor mounted toilets, "lever" handles on faucets, tile shower stalls.

HVAC: The split system blowers are in the basement and are difficult to access for repairs or filter replacement.

Electrical: Electrical is in very bad shape. The basement panels are a fire hazard and the panels are full. Due to the stations age, repairs and replacement of equipment will be costly and very disruptive to station activities.

General Comments:

Station is in good shape and being reasonably maintained. Storage is an issue. **Station does not comply with ADA, NFPA, or IBC's.**

Station is approximately: 90' x 69' = 6,210 s.f.

App bay is approximately: 50' x 63' = 3,150 s.f.

Livable area is approximately: 3,060 s.f.

FIRE STATION INSPECTION SHEET

Station Number: 9 Built in: 1967 Date of Inspection: 5/20/15

Person Performing Inspection: Jim Zwerg, AIA



Rear of Station and Senior Center Access



Station Front Door



Serious Electrical Problems



Typical Dispatch Cabinet Between Extra Refrigerators



Apparatus Bay Equipment Storage



FIRE STATION INSPECTION SHEET

Station Number: 9 Built in: 1967 Date of Inspection: 5/20/15

Person Performing Inspection: Jim Zwerg, AIA



Poop Deck



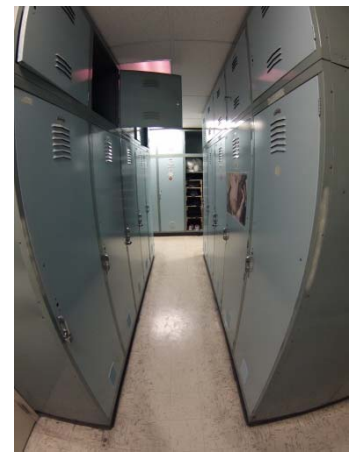
Day Room



Bathroom



Very Old Electrical



Lockers



Crew
Dorm



Kitchen & Dining



FIRE STATION INSPECTION SHEET

Station Number: 10 Built in: 1996 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



Fire Station 10



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 10 Built in: 1996 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station is built with Concrete Masonry Unit block walls and steel truss structure is in very good condition. It is a 3 bay pull-through station housing a ladder, engine, foam, BC, and truck/trailer.

All landscaping is lawn and well maintained.

Front ADA parking is compliant.

Rear driveway is concrete in good condition, rear yard is fenced.

Interior of Station Condition:

Typical modern style station quarters - residential scale appliances, wood cabinets, Vinyl tile floors, painted gypsum walls, 2x4 suspended grid ceilings. Fluorescent light fixtures.

Standard dispatch system is speakers only. No house lighting activated by dispatch.

Dormitory area is adequate.

Bathrooms are adequate.

App bay lacks storage space for bay related equipment, miscellaneous equipment is sharing space in electrical and hvac spaces. No PT room. Equipment is between apparatus. Poor ventilation unless bay doors are open.

No area of separation between bays and doorways are not well sealed. See NFPA.

Station has fully automated fire sprinkler system, however backflow preventer is down for repairs leaving system inoperable.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Adequate.

HVAC: Adequate.

Electrical: Adequate. Station has no standby generator.

General Comments:

This station is in good condition and being reasonably maintained. Storage is an issue. Minor low cost maintenance items should be addressed soon to avoid costly repairs. Station is in compliance with IBC, some of the ADA and is lacking in some areas of NFPA.

Station is approximately: 128' x 106' = 13,568 s.f.
App bay is approximately: 55' x 88' = 4,840 s.f.
Livable area is approximately: 8,728 s.f.



FIRE STATION INSPECTION SHEET

Station Number: 10 Built in: 1996 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



Utility Closet and Overflow Storage



Rear of Station and Fuel Island



Apparatus Bay



Air Compressor and EMS Storage



Extractor and SCBA Fill Station



FIRE STATION INSPECTION SHEET

Station Number: 10 Built in: 1996 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



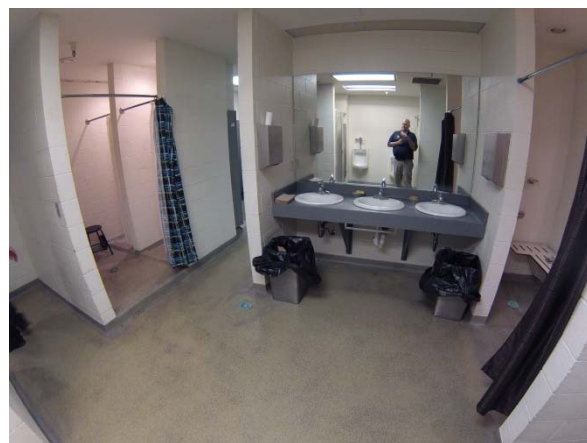
Dining Room



Day Room



Kitchen



Bathroom



Storage and Ice Machine



Crew Dorm



FIRE STATION INSPECTION SHEET

Station Number: 11 Built in: 1924 Date of Inspection: 5/20/15

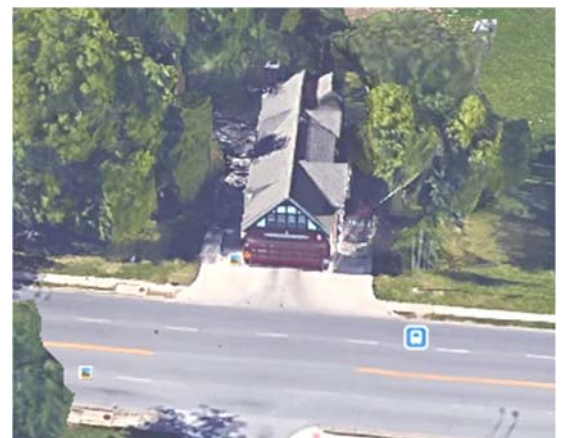
Person Performing Inspection: Jim Zwerg, AIA



Fire Station 11



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 11 Built in: 1924 Date of Inspection: 5/20/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station has 2 levels with a small walk-out basement.
Basement level is used for storage, laundry, and PT, and has the water heater.
1st level is the apparatus bay floor and watch room. 2nd level is the station living quarters.

This station is of limestone foundation stem walls and double wythe red brick masonry walls, rough sawn wood floors and beams, and interior plaster/lath wall construction. It is a 1 bay, back-in type station housing an engine.
Exterior roof and gutters are very difficult to maintain due to height and steep slope of site.

The front apron is concrete in fair condition. The surrounding driveway is asphalt also in fair condition. Landscaping is lawn and mature trees.

No public parking is available and no ADA parking on site. **See ADA.**
Staff parking is in the back of the station and primary access is through the basement door. No public parking available on site.

Interior of Station Condition:

Old historic multi-story station - residential scale appliances, wood cabinets, Vinyl tile floors, ceramic tile in the bathrooms, plaster walls and ceilings. Fluorescent light fixtures throughout with a few remaining historic original fixtures.

Standard dispatch system is speakers only. No house lighting is activated by dispatch.

The 2nd floor is the dormitory area which is adequate. Locker space is in the open area of the dorm rooms, the bathroom has been updated and is in relatively good shape. Kitchen is a small galley type and needs to be updated. There is not enough storage, throughout the station.

App bay lacks storage space for bay related equipment. The East facing windows are leaning in, all windows should be replaced.

No separation of bays to living space and doorways are not well sealed. Pole hole needs to be improved. **See NFPA.**

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, no security system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Core plumbing in walls and drains are an ongoing issue for breaks and leaks. It can not be updated without significant cost and disruption.

HVAC: 2 split systems and 2 window units. Station hvac is undersized and difficult to maintain. It can not be updated without significant cost and disruption.

Electrical: Very old, one panel has been replaced, but overall can not be updated without significant cost and disruption.

General Comments:

This station is in good shape for its historic age but is difficult to maintain. It is overall structurally sound. Storage is a huge issue in all areas. Due to its age, asbestos containing materials, lead paint, and PCB light ballasts are likely present throughout also contributing to the difficulty and cost to maintain and/or update this station. **Station does not comply with ADA, NFPA, or IBC's.**

Station is approximately:	27' x 71' x 2 floors = 3,834 s.f.
App bay is approximately:	21' x 50' = 1,050 s.f.
Livable area is approximately:	2,784 s.f.

FIRE STATION INSPECTION SHEET

Station Number: 11 Built in: 1924 Date of Inspection: 5/20/15

Person Performing Inspection: Jim Zwerg, AIA



Apparatus Bay



Rear of Station



East Bay Windows



Damaged Concrete Driveway



Poop Deck



Bay Storage



FIRE STATION INSPECTION SHEET

Station Number: 11 Built in: 1924 Date of Inspection: 5/20/15

Person Performing Inspection: Jim Zwerg, AIA



Dorms, Lockers and Pole Hole



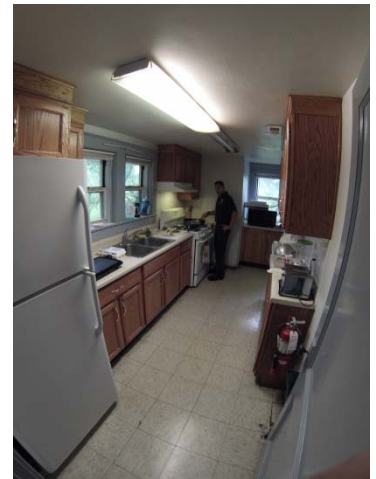
Day Room



App Bay Pole Hole



Station Access Stair and Hall



Kitchen



One Bathroom



Basement with Laundry and PT



FIRE STATION INSPECTION SHEET

Station Number: 14 Built in: 1956 Date of Inspection: 5/20/15

Person Performing Inspection: Jim Zwerg, AIA



Fire Station 14



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 14 Built in: 1956 Date of Inspection: 5/20/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station is located in a rough neighborhood. It has a fenced parking area that the crews use at night.

This station has a similar style to stations 3 and 7 but has a sloped bay roof. Built from red brick masonry walls, steel deck framing, and interior glazed block construction. This station is one story and is a 2 bay, pull-through type station housing an engine and ladder.

The front apron is spalled and in need of replacement, primarily at the street edge.

No ADA parking observed. **See ADA.**

The side and rear drive is gravel and has access to trash dumpsters. There is an above ground fuel tank and the pump is located between the rear bay doors on the back of the station.

Landscaping is lawn with a few mature trees.

Interior of Station Condition:

Old historic style - residential scale appliances, wood cabinets with plastic laminate counter tops. The cabinets are worn out and the base of the sink cabinet has rotted away. There are glazed block walls with some plaster partitions and ceilings are 2x4 suspended grid ceilings with fluorescent light fixtures.

The bathroom has ceramic tile floors and glazed block walls but is worn out and needing an upgrade.

The dorm area has tall drywall partitions but they are not full height. The hallway is vinyl tile and the dorm rooms have worn out commercial carpet. The ceilings are 2 x 4 suspended grid and fluorescent light fixtures. There is exposed ductwork in the hall that was an attempt at improving the air conditioning but it "sweats" in the summer time due to high humidity and air leaks in the doors and windows.

Standard dispatch system is speakers only. No house lighting activated by dispatch.

App bay lacks storage space for bay related equipment, and has the laundry washer and dryer on a side wall. PT equipment is in a small space off the corner of the app bays.

No separation of bays to living space and doorways are not well sealed. **See NFPA.**

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, or a security system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Due to station age and construction, the pipes and waste lines are needing to be upgraded. This work will be costly and disruptive to station activities.

HVAC: Air handling equipment is in storage rooms along the apparatus bay. It is old and needs to be updated which will be costly and disruptive to station activities. There is a lot of exposed ductwork as a result of past modifications.

Electrical: Old, two panels were replaced due to a fire, but balance of service entrance equipment is old and should be replaced. This work will be costly and disruptive to station operations.

General Comments:

Station is in poor shape. Storage is an issue. This station needs a thorough upgrade to all systems and spaces which will be costly and very disruptive to station activities.

Station does not comply with any codes ADA, NFPA, or IBC's.

Station is approximately: 80' x 90' = 7,200 s.f.

App bay is approximately: 34' x 55' = 1,870 s.f.

Livable area is approximately: 5,330 s.f.

FIRE STATION INSPECTION SHEET

Station Number: 14 Built in: 1956 Date of Inspection: 5/20/15

Person Performing Inspection: Jim Zwerg, AIA



Front Entry Area



Apparatus Bays



App Bay Storage, Dispatch, Laundry



Day Room & Poop Deck



Utility Room and Storage Off Bays



PT Room Off Bays

FIRE STATION INSPECTION SHEET

Station Number: 14 Built in: 1956 Date of Inspection: 5/20/15

Person Performing Inspection: Jim Zwerg, AIA



Rear Station Gravel Parking



Rear Fuel Island



Dorm



Pantry off Bays



Kitchen



Captain Dorm



Bathroom



Dorm Hallway



FIRE STATION INSPECTION SHEET

Station Number: 15 Built in: 1987 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



Fire Station 15 and Apparatus Shop



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 15 Built in: 1987 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

Concrete Masonry Unit "Jumbo Brick" block walls and steel truss structure is in good condition.
2 bay back-in type station housing an engine and utility truck, plus two bays for apparatus shop that are capable of pull through.

Due to lack of defined property lines, neighbors have encroached on station impacting access on North and East sides of property. Suggest a survey and fence delineation of property lines to aid in effective use of this site and placement of storage containers.

There is an abandoned underground fuel tank the department needs to make a decision on. Abandon or make safe and use.

Landscaping is lawn with a few mature trees.

No front ADA parking identified. See ADA. Public access to the front door is difficult and front door is close to the bays. Potential for bay egress being blocked by unauthorized vehicles is a potential.

Asphalt driveways and parking areas are in poor condition, a thick slurry and crack repair is needed.

Interior of Station Condition:

Station style is newer commercial style with residential scale appliances, wood cabinets, plastic laminate countertops, vinyl tile floors, painted gypsum walls, 2x4 suspended grid ceilings. Fluorescent light fixtures.

Standard dispatch system is speakers only. No house lighting is activated by dispatch.

Dormitory are typical with bunks and lockers in individual dorm spaces.

Bathrooms are large "gang" style, with ceramic tile floors and walls

App bay lacks storage space for bay related equipment. Station was originally a 4 bay facility, a demising wall was placed splitting the bays in half and a service pit created in the far East bay for servicing apparatus. The shop is undersized and understaffed for the volume of apparatus maintenance required. The shop has access to a storage mezzanine that overlooks the station bays. The mezzanine may not be code compliant for its use and loading. Turn-outs, small tools and SCBA service and distribution is located in spaces below the mezzanine.

No separation of bays to living space, doorways from bays have seals and sweeps.

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, no security system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Okay.

HVAC: Okay.

Electrical: Okay

General Comments:

The station is oversized for the current staffing load. Several odd conflicts - site, shop, staffing/apparatus, fuel tank. Station is in fair shape and being reasonably maintained. Storage is an issue. Minor low cost items to address with minimal remodeling. Station does not comply with ADA, NFPA, or IBC's.

Station is approximately: 130' x 102' = 13,260 s.f.

App bay is approximately: 31' x 40' = 1240 s.f. - Shop Bay is 40' x 102' = 4,080 - Total bays is 5,320

Livable area is approximately: 7940 s.f.



FIRE STATION INSPECTION SHEET

Station Number: 15 Built in: 1987 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



East Apparatus Bays & Shop



Rear of Station & Abandoned Fuel Island



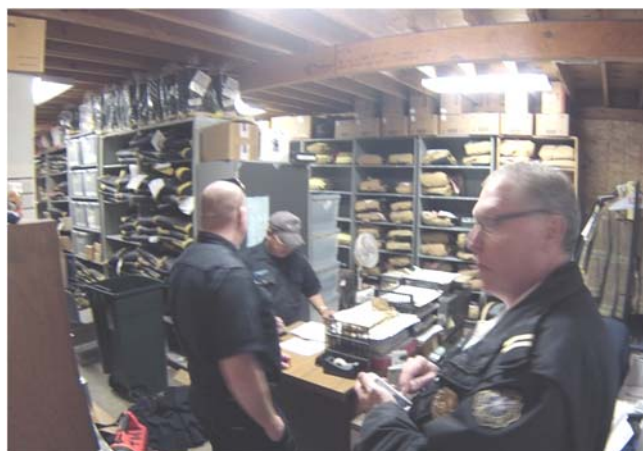
West Apparatus Bays



Entry Lobby



SCBA and Small Tool Shop



Turn-Out Distribution & Storage



FIRE STATION INSPECTION SHEET

Station Number: 15 Built in: 1987 Date of Inspection: 5/19/15

Person Performing Inspection: Jim Zwerg, AIA



Kitchen



Day Room



Dorm



Physical Training



Bathroom



Lockers and Showers



Dorm Hallway and Bay Access



FIRE STATION INSPECTION SHEET

Station Number: 16 Built in: 1936 Date of Inspection: 5/20/15

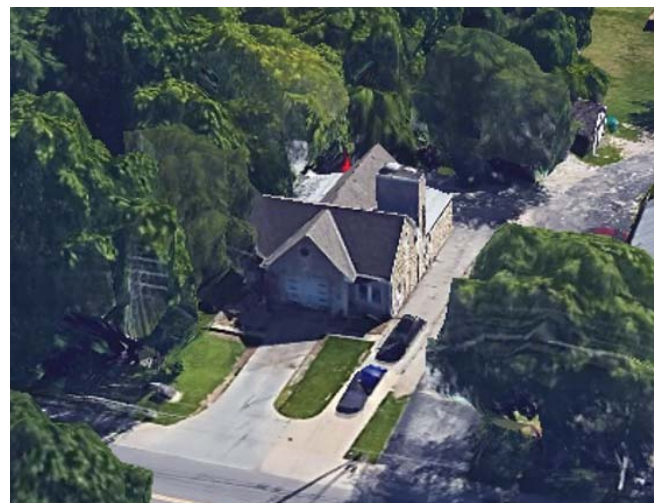
Person Performing Inspection: Jim Zwerg, AIA



Fire Station 16



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 16 Built in: 1936 Date of Inspection: 5/20/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station is of limestone masonry walls, rough sawn wood joists and beams, and interior plaster/lath wall construction. It is a 1 bay, back-in type station housing an engine.

The front apron is concrete in fair condition. The surrounding driveway is asphalt in very poor condition. Landscaping is lawn.

No ADA parking on site. See ADA. Staff parking is in the back of the station and along the East side.

Interior of Station Condition:

Old historic station - residential scale appliances, wood cabinets with plastic laminate countertops, vinyl tile floors, ceramic tile in the bathroom, plaster walls and 2 x 4 suspended grid ceilings. Fluorescent light fixtures throughout.

Standard dispatch system is speakers only. No house lighting is activated by dispatch.

The 2nd floor is the dormitory area which is adequate. Locker space is in the open area of the dorm rooms, the bathroom has been updated and is in relatively good shape. Kitchen is a small galley type and needs to be updated. There is not enough storage, throughout the station.

App bay lacks storage space for bay related equipment.

No separation of bays to living space and doorways are not well sealed. See NFPA.

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, no security system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Core plumbing in walls and drains are an ongoing issue for breaks and leaks. It can not be updated without significant cost and disruption.

HVAC: 2 split systems and 2 window units. Station hvac is undersized and difficult to maintain. It can not be updated without significant cost and disruption.

Electrical: Very old, one panel has been replaced, but overall can not be updated without significant cost and disruption.

General Remarks on this Facility:

This station is in good shape for its historic age but is difficult to maintain. It is overall structurally sound. Storage is a huge issue in all areas. Due to its age, asbestos containing materials, lead paint, and PCB light ballasts are likely present throughout also contributing to the difficulty and cost to maintain and/or update this station.

Station does not comply with ADA, NFPA, or IBC's.

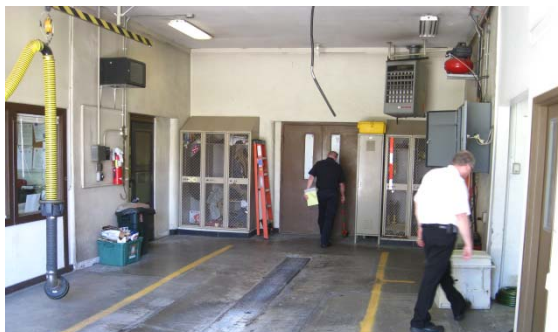
Station is approximately: 40' x 55' = 2,200 s.f.
App bay is approximately: 17' x 36' = 600 s.f.
Livable area is approximately: 1,600 s.f.



FIRE STATION INSPECTION SHEET

Station Number: 16 Built in: 1936 Date of Inspection: 5/20/15

Person Performing Inspection: Jim Zwerg, AIA



Apparatus Bay



Rear of Station



Poop Deck



Kitchen



Dorm Lockers



Day Room



FIRE STATION INSPECTION SHEET

Station Number: 16 Built in: 1936 Date of Inspection: 5/20/15

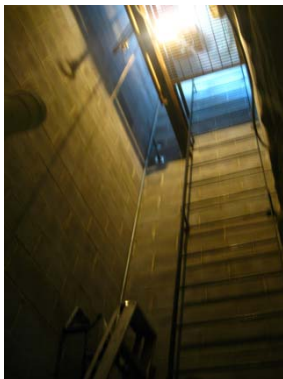
Person Performing Inspection: Jim Zwerg, AIA



Bathroom



Vanity



Hose Tower



Dispatch Cabinet



New Electrical Panel



Water Heater



Roof Leak Over Phone Equipment



FIRE STATION INSPECTION SHEET

Station Number: 17 Built in: 1952 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Fire Station 17



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 17 Built in: 1952 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station is built from red brick masonry walls, wood joists and wall framing, and interior plaster construction. It is a 2 bay, back-in type station housing an engine and ambulance. The exterior wood trim and fascia needs to be scraped and repainted soon as the exposed wood is beginning to rot. The air conditioning equipment Freon lines are not properly installed and the equipment is deteriorating and should be replaced. Most of the back patio is taken up by this equipment.

The landscaping is a typical lawn with some hedges and a few trees.

The front apron is in decent shape but the street asphalt is crumbling and in need of replacement.

There is an ADA designated parking space but the parking area is in very poor condition. **See ADA.**

The side parking lot is crumbling asphalt and is in poor condition and access to trash dumpsters for pick-up is tight.

Interior of Station Condition:

Residential scale appliances, wood cabinets, plastic laminate counter tops, vinyl tile floors in kitchen, dining, day room and bathroom. The dorm room is an addition to the back of the original station and has commercial carpet floors with 2x4 suspended grid ceilings and fluorescent light fixtures throughout. This station is being well kept by the crews but needs overall improvements due to its age.

Standard dispatch system is speakers only. No house lighting activated by dispatch.

App bay lacks storage space for bay related equipment and EMS supplies, No PT equipment was observed in this station.

No separation of bays to living space and doorways are not sealed, there are two additional dorm rooms that were added in the back of the West bay that are only accessed via the apparatus bay. **See NFPA.**

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, Station has a security system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Pipes and waste lines are old and difficult to maintain, repair or replace. Improvements would be costly and extremely disruptive. Single restroom with 1 toilets, 1 sink and vanity, 1 tile shower. Restroom can only be used by one member at a time. No female space.

HVAC: Dorms have a ground mounted package unit with exposed ductwork, station has a small split system air conditioner with unprotected refrigerant lines. This equipment takes up space on the small back patio.

Electrical: Old, panels are full. Fluorescent lighting throughout.

General Comments:

This station is in good shape considering its age. The crews take pride in their station and keep it neat and clean. Storage is an issue throughout. Improvements and repairs will be costly and disruptive due to the station's age and small size. It also will have asbestos, mold, lead paint and possibly PCB's in old ballasts contributing to the expense for improvements.

This station does not comply with any codes ADA, NFPA, or IBC's.

Station is approximately: 58' x 62' = 3,600 s.f.
App bay is approximately: 30' x 34' = 1,000 s.f.
Livable area is approximately: 2,600 s.f.



FIRE STATION INSPECTION SHEET

Station Number: 17 Built in: 1952 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Unsupported HVAC Cable



Rear of Station No Patio Access



Gravel Staff Parking



Apparatus Bays



EMS Storage In App Bays



2 Dorms In App Bays

FIRE STATION INSPECTION SHEET

Station Number: 17 Built in: 1952 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Kitchen



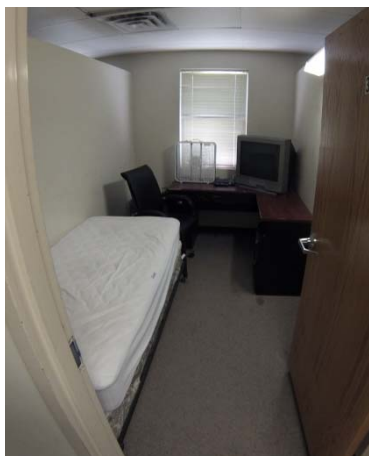
Dining Area



Dorm Hall and Lockers



Day Room with Extra Refrigerators



Crew Dorm



Shower



Individual Use Bathroom



FIRE STATION INSPECTION SHEET

Station Number: 18 Built in: 1978 Date of Inspection: 5/18/15

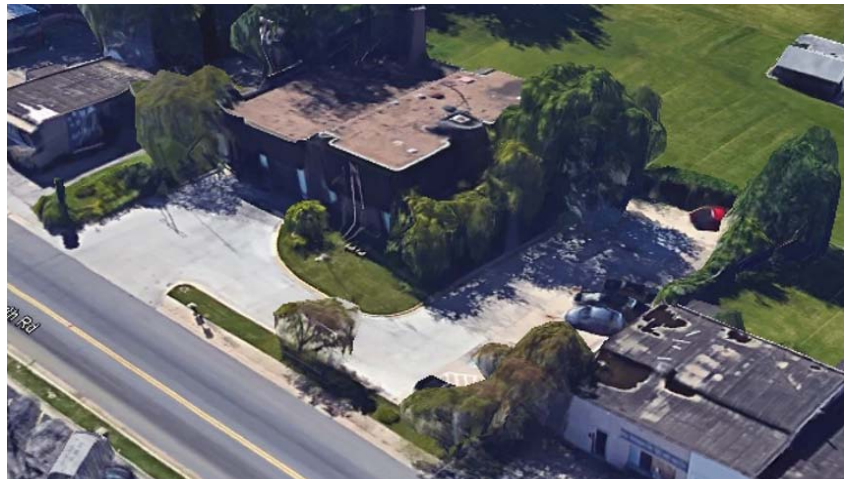
Person Performing Inspection: Jim Zwerg, AIA



Fire Station 18



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 18 Built in: 1978 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station is a sister to station 2. Built from ribbed concrete masonry walls, steel truss' and metal deck framing. It is a 2 bay, back - in type station housing a engine, and ambulance.

Landscaping is the typical lawn with a mature trees.

The front apron is concrete and is in fair condition, side parking lot is also in pair condition.

No ADA parking observed. **See ADA.**

Interior of Station Condition:

70's style, 2 story station. App bay, day room, kitchen and dining, and captains dorms are on the first floor. Crew dorms, bathrooms and lockers are on the 2nd floor. PT is at the end of the dorms on the 2nd floor. Epoxy "ardex" floors throughout, drywall partitions and 2 x 4 suspended grid ceilings. Restrooms are dated and need upgrades. Showers are small and dark. Shower access is narrow. Showers have ceramic tile walls, cast concrete pans and curtains.

Locker area base heaters do not work and show burn marks on walls above them.

Kitchen is small and has residential style wood cabinets and plastic laminate countertops and epoxy "ardex" floor.

Roof leaks and damaged ceiling tiles in corner of 2nd floor locker area and above men's bathroom sinks.

Pole holes need to be modified to improve air-gap separation from apparatus bay.

Standard dispatch system is speakers only. No house lighting activated by dispatch.

App bay lacks storage space for bay related equipment.

No separation of bays to living space and doorways are not well sealed. **See NFPA.**

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, no station has a security system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Okay. Restrooms and kitchen need to be upgraded.

HVAC: Okay. Did not find any condensing units or "Window" a/c units. Not able to verify have system or capacities.

Electrical: Okay. Fluorescent lighting throughout is old and there are lots of tubes out. LED lighting in app bay.

General Comments:

Station is in fair shape but needs a thorough cleaning. It is structurally sound, no significant damage or cracks observed. Storage is an issue throughout the station. **Station does not comply with ADA, NFPA, or IBC.**

Station is approximately: 71' x 66' x 2 = 9,372 s.f.
App bay is approximately: 39' x 59' = 2,300 s.f.
Livable area is approximately: 7,072 s.f.



FIRE STATION INSPECTION SHEET

Station Number: 18 Built in: 1978 Date of Inspection: 5/18/15

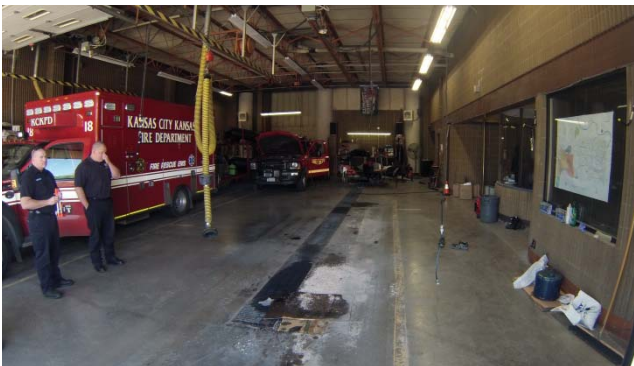
Person Performing Inspection: Jim Zwerg, AIA



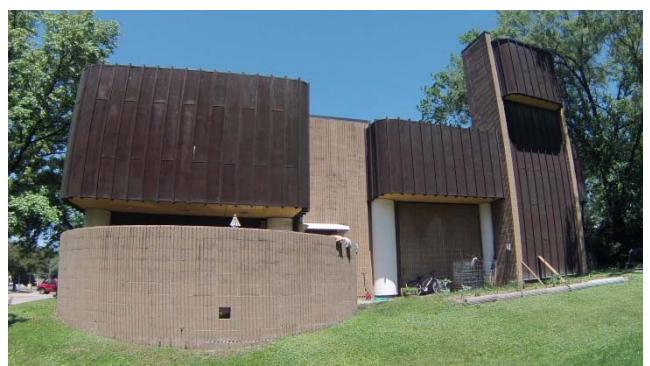
Front of Station



Side Entrance to Station



Apparatus Bays



Rear of Station



EMS Storage in Bays



Pole Hole and Station Access from Bays



FIRE STATION INSPECTION SHEET

Station Number: 18 Built in: 1978 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA

KANSAS CITY FIRE



Physical Training Area



Day Room, Dining Area, Kitchen



Bathroom



Lockers, Showers, Bathroom



Scorched Wall at Radiant Heat



Laundry



Crew Dorm



Captains Dorm



FIRE STATION INSPECTION SHEET

Station Number: 19 Built in: 1972 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Fire Station 19



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 19 Built in: 1972 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station has a police sub station adjacent to it that was not surveyed in this visit. This station is of rib-faced concrete masonry walls, steel truss and metal deck framing, and interior glazed block construction. It is a 3 bay, back-in type station housing a engine, ambulance, and brush truck.

Station has a fuel pump in the front of the station with no retention or spill containment or cleanup. Buried fuel tank location was not located on this visit.

The front apron is badly spalled and in need of replacement.

Front parking area designated ADA parking is non-compliant. **See ADA.**

The side parking lot is small and access to trash dumpsters for pick-up is tight.

Interior of Station Condition:

Typical 70's style, 2 story station - residential scale appliances, wood cabinets, Vinyl tile floors, glazed block walls with some drywall partitions, 2x4 suspended grid ceilings. Fluorescent light fixtures.

Standard dispatch system is speakers only. Did not verify if any house lighting was activated by dispatch.

The 2nd floor is the dormitory area which is adequate. Personal locker space is large, bathroom is tired, showers are small. At window strip in stairway there are some loose ceramic faced block and a large crack between stair stringer and glazed block exterior wall. This is probably a bad design issue as no other structural issues were noted.

App bay lacks storage space for bay related equipment, PT equipment along back wall is cramped and poorly ventilated.

No separation of bays to living space and doorways are not well sealed. Pole holes need to be improved. **See NFPA.**

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, no security system.

Plumbing/Mechanical/Electrical Condition:

Plumbing: Gas Water heater in laundry closet **does not have combustion air ducts**. Water Heater recirculation pump is badly corroded and probably does not function. Corrosion will cause a pipe to burst if not repaired immediately.

Fixtures are typical residential style - floor mounted toilets, "lever" handles on faucets, small tile shower stalls.

HVAC: No equipment noted. Apparently it is roof top package units.

Electrical: Generally Ok, panels are full. Fluorescent lighting throughout.

General Comments:

Station is in good shape and being reasonably maintained. Storage is an issue. **Station does not comply with ADA, NFPA, or IBC's.**

Station is approximately: 80' x 58' = 4,640 s.f.
App bay is approximately: 50' x 44' = 2,200 s.f.
Livable area is approximately: 2,440 x 2 = 4,880s.f.



FIRE STATION INSPECTION SHEET

Station Number: 19 Built in: 1972 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Apparatus Bays



Rear of Station



PT Area in Rear of Bays



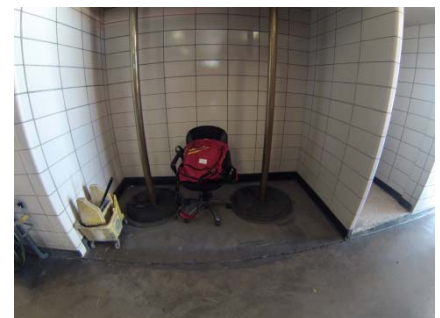
Turn-Out Lockers



Laundry



Front Apron Concrete Cracks



Pole Landing

FIRE STATION INSPECTION SHEET

Station Number: 19 Built in: 1972 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Day Room, Dining Area, Kitchen



Dorm Hallway and Pole Holes



Captains Dorm



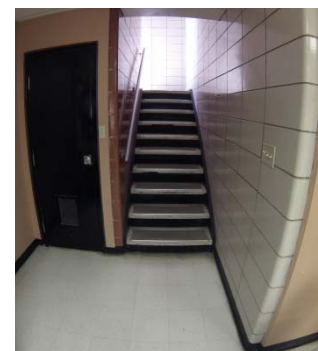
Crew Dorm



Bathroom



Locker Room



Stairway to 2nd Level



FIRE STATION INSPECTION SHEET

Station Number: 20 Built in: 1967 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA



Fire Station 20



Site Photo



Google Earth



FIRE STATION INSPECTION SHEET

Station Number: 20 Built in: 1967 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA

Exterior of Station and Grounds:

This station is a 2 bay, back-in type station housing an engine, and ambulance.

This station is brick masonry walls, with wood beams and wood joist framing. All of the wood is in very bad, failing condition. The structural beams have rotted on the exterior and all wood fascia and trim paint has degraded and the wood is now rotted and has to be replaced. The East beam is twisting along the depth of the apparatus bay contributing to its weakness. The front of the station has a small "watch room" area projecting out from the front of the station. The exterior wood slats have rotted and exposed the construction paper building wrap and the framing beneath. The masonry wall on the East side has an "infill" panel that has a large crack exposing the core of the wall to the elements. There are no patios, porches, or areas for the crews to Bar-B-Q outside.

The front concrete apron is spalled and in need of replacement. Adjacent and surrounding asphalt is also in bad shape.

Front parking area designated ADA parking is non-compliant. **See ADA.**

The side parking lot is small and access is tight. There is not enough room for crews to park personal vehicles.

Interior of Station Condition:

There are interior concrete masonry partitions and drywall partitions.

The day room, dining, and kitchen are along the side of the bay and have vinyl tile floors and 2 x 4 suspended ceiling grid with fluorescent light fixtures. This area is physically separate from the dorm, bathroom and locker room area which is across the back of the bays. The dorms and hallways have very old and worn out carpet. Egress from the dorms to the bays is small and cramped and has a sloped concrete slab with a lip to keep water from the apparatus bay from running into the dorm room area.

The hallway transition area from the bays to the bathroom has masonry walls with very large uneven cracks suggesting significant settling below this area or possibly a collapsed pipe below the slab. No space for PT was observed. There is an elliptical machine in between the apparatus in the bay.

Kitchen is very small with residential appliances, wood cabinets and plastic laminate counter tops, vinyl tile floors, masonry walls with some drywall partitions, 2x4 suspended grid ceilings and fluorescent light fixtures.

Standard dispatch system is speakers only. No house lighting is activated by dispatch.

App bay lacks storage space for bay related equipment, and is very narrow circulation around trucks. There is a significant crack and area on the North West side of the bay that is settling and sinking

No separation of bays to living space and doorways are not sealed. Access to adjacent space is only from the bays. **See NFPA.**

No fire alarm or sprinkler system, no smoke or carbon monoxide detectors, no security system.

Plumbing/Mechanical/Electrical Condition:

All utilities share a recessed space near the kitchen area of the apparatus bay. The electrical panels are old and inaccessible, and are adjacent to the gas water heater and small furnace. There is an "apartment style" stacked laundry washer and dryer in front of these items. There was one small compressor unit to a split system air conditioner that is old and undersized. The entire plumbing, mechanical and electrical systems would be very difficult and costly to maintain, repair, and/or replace due to station age and construction.

General Comments:

This station is being reasonably maintained by crews but is in terrible physical shape, has major structural issues and is too small for the apparatus assigned. Storage is a significant problem. **This station does not comply with ADA, NFPA, or IBC's.**

Station is approximately:	52' x 67' = 3,484 s.f.
App bay is approximately:	29' x 33' = 957 s.f.
Livable area is approximately:	2,527 s.f.



FIRE STATION INSPECTION SHEET

Station Number: 20 Built in: 1967 Date of Inspection: 5/18/15



Front Entry Siding Damage



Front of Station with Raw Wood Fascia and Beams



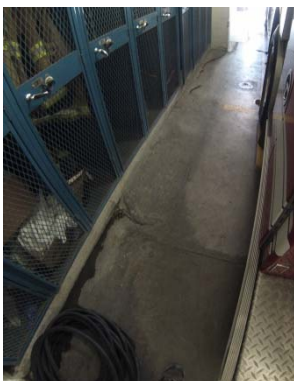
Wood Beams Twisting



Cracks in Masonry



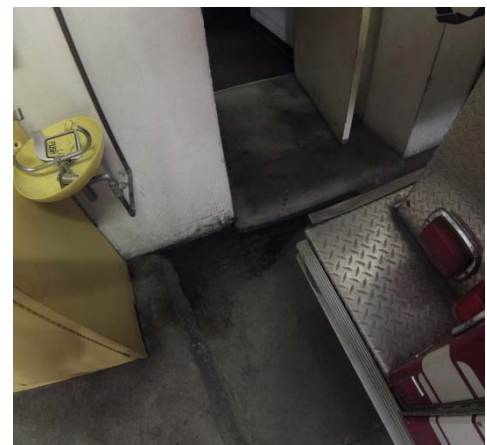
Rear of Station with Raw wood Beams and Fascia



Concrete Bay Slab Settling



Cramped Outdated Utilities



Dorm to Bay Access is Tight

FIRE STATION INSPECTION SHEET

Station Number: 20 Built in: 1967 Date of Inspection: 5/18/15

Person Performing Inspection: Jim Zwerg, AIA

KANSAS CITY FIRE



Day Room and Dining Area



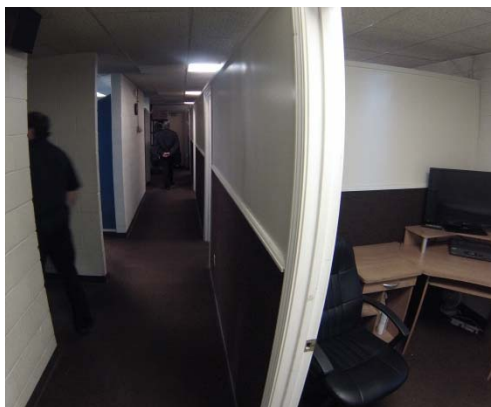
Large Crack in Hallway Masonry



Small Kitchen



Crack from Bathroom Side of Hall



Dormitory Hallway



Bathroom