

MSA

MICHAEL SCHUSTER ASSOCIATES

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City of Middletown, Ohio
Fire Department | Facility Analysis and Master Plan

ARCHITECTURE | INTERIOR DESIGN | PLANNING | ENVIRONMENTAL GRAPHICS

This report is the result of a study commissioned by the City of Middletown, Ohio to present a Strategic Facilities Master Plan for the City Fire Department and to assess the needs as related to the current requirements and goals of the Fire Department, which occupies five stations on city-owned properties.

- Fire Station #81 is located at 307 N. Clinton Street.
- Fire Station #82 is located at 3765 Dixie Hwy. just south of Towne Blvd.
- Fire Station #83 (Headquarters) is located at 2300 Roosevelt Blvd.
- Fire Station #84 is located at 2600 Tytus Avenue.
- Fire Station #85 is located at 4310 Central Ave near the intersection of N. Breiel Blvd.

The Fire Department needs study included: Review of potential new site opportunities for Fire Stations #82 and #85, consolidation of facilities for Fire Stations #84 and #85, and the renovation and improvement opportunities at existing Fire Stations #81 and #83.

The City selected Michael Schuster Associates (MSA), an architectural and design firm with expertise in Municipal planning and building projects (with extensive experience in Fire Station design), to complete a master plan analysis of the above mentioned facilities. The results contained within this report were developed by the planning team in the context of a series of interviews with representatives from Middletown Fire Administration combined with a thorough site and existing facility analysis.

Goals

The goals for the Master Plan are primarily twofold. The first goal is to establish a cost-effective Construction Improvement Plan for MFD facilities in such a way as to allow the Department to implement the required construction in a fiscally-responsible manner. The second goal is to create a strategy to provide services to current areas while preparing for the future.

Process

Information for the City of Middletown's Master Plan analysis was gathered by MSA via discussions with representatives from the Fire Department Administration and through site/facility analysis. Topics discussed and reviewed included location and condition of existing facilities, response time mapping analysis and optimization, projected staffing needs, immediate and long-term building space needs, building life cycle analysis, functional adjacency needs, space needs analysis, Department goals and objectives as they relate to operations and allocations, preliminary planning/site diagrams, improvement and upgrade options, concept cost analysis, and cost benefit analysis.

This process included a series of information gathering meetings in which ideas were developed and reviewed in successive drafts that resulted in this final report.

Findings

The Middletown Fire Department currently operates from five existing fire station locations. The study recommends reducing the number of stations from five (5) down to four (4) in order to reduce the Department operation costs. Per the request of the Department Administration, new site locations for Fire Stations #82 and #85, and existing conditions at Fire Stations #83 and #81 have been studied.

Fire Station #81:

The current building housing Fire Station #81 was built in the mid 1950's. No major modifications have been made to the building in the last 55 years. The building was originally designed and used as a Department Fire Station. The Station is active with a full-time staff operating on a 24/7 schedule, and houses Fire, EMS and Haz-Mat.

MSA has identified the necessary upgrades to the building structure, the mechanical systems as well as the need to add additional program components essential to the operating methods and requirements of a 'modern-day' fire/safety facility.

The Middletown Fire Administration has requested that the master plan analysis include information adding all elements of a new Fire Station to this building, which will potentially extend the life of the building for another 15 years.

Fire Station #82

The study demonstrates the need to add a Fire Station in the east quadrant of the city in order to reduce response times to that area, and address the future potential growth as a result of the expanding business sector. The existing structure housing Fire Station #82 in this vicinity was acquired from Franklin Township fire district as part of an area annexed by the City of Middletown. The current structure was originally built as a volunteer fire station, which does not address certain NFPA living requirements for a full-time Department fire station. The Station is currently active with a full-time staff operating on a 24/7 schedule, and houses Fire and reserve EMS.

A general location for the new site along I-75 near the recently constructed Atrium Medical Center has been identified for the future relocation of Fire Station #82.

Fire Station #82 will be developed and programmed to match the requirements for a new Fire Station.

Fire Station #83

The current building housing Fire Station #83 was built in 1978, and serves as the Headquarters and Administration Building for the Fire Department. No major modifications have been made to the building in the last 30 years. The building was originally designed and used as a Department Fire Station. The Station is active with a full-time staff operating on a 24/7 schedule, and houses Fire, EMS and Command.

MSA has identified the necessary upgrades to the building structure, the mechanical systems as well as the need to add additional program components essential to the operating methods and requirements of a 'modern-day' fire/safety facility.

The Middletown Fire Administration has requested that the master plan analysis include information adding all elements of a new Fire Station to this building, which will potentially extend the life of the building for another 15 years.

Fire Station #84

The current building housing Fire Station #81 was built in the mid 1950's. No major modifications have been made to the building in the last 55 years. The building was originally designed and used as a Department Fire Station. The Station is active with a full-time staff operating on a 24/7 schedule, and houses Fire and reserve EMS. The study discusses the ability to relocate this facility and combine facilities with Fire Station #85, in order to add Fire coverage in the central area of the city as well as reduce response times to that area.

Fire Station #85

The study has presented the need to add a first response Fire Station in the central sector of the city in order to reduce response times to that area by consolidating Station #84 with this station. The existing structure housing Fire Station #85 was built as a department fire station to blend with the existing residential area, and was subsequently converted to an EMS station. The current structure was originally built similar to a private residence, which does not address certain current NFPA living requirements for a full-time Department fire station. The Station is currently active with a full-time staff operating on a 24/7 schedule, and houses EMS only.

A general location for the new site to the north of the existing facility along North Breiel Blvd has been identified for the possible future relocation of Fire Station #85.

Fire Station #85 will be developed and programmed to match the requirements for a new Fire Station.

Concept Designs

Concept designs, planning strategies and preliminary estimated costs are presented in sections 5.0 and 6.0 of this report. These conceptual diagrams are the result of input from the City of Middletown and represent immediate and long-term conceptual solutions to the space needs of the Middletown Fire Department. Estimated costs are based current construction dollars of similar facilities.

Conclusion

The study has determined that all work described in the Level 3 approach contained in this report is essential in order to bring the department up to present day standards and provide the majority of the areas with the best fire and safety services feasible.

A new Fire and EMS Station #82 is critical to meet the long-term needs of the fire department, and adequately serve the expanding business area east of Interstate 75. The need for a Fire Station #82 becomes more evident as the development of the business district along the east side of I-75 continues to grow. The area is currently covered by Fire Station #82 for fire and station #85 for EMS, which, not only stretches the resources of those stations within the area they are situated, but because of the locations of Station #82 and Station #85, response times to the business area do not meet minimum standards.

A new Fire and EMS Station #84 / #85 located in the central sector of the City is required to provide the required service coverage to this area. The existing Station #85 is the most at-risk facility in the department in terms of light-duty construction, on a site that does not provide sufficient area for a combined facility. Existing Station #84 is not properly situated in the City to provide suitable coverage for the central sector.

Stations #81 and #83 do not currently meet many of the NFPA and OSHA safety and health standards set for fire station facilities. Likewise, these stations do not meet current operating needs developed from the changing circumstances over the past thirty to fifty years.

The completion of Level 3 building and renovations mentioned within this report will satisfy the safety and service needs of the Middletown Fire Department for the next fifteen or more years for Stations #81 and #83, and the next forty or more years for Stations #82 and #85.

3.0 Space Needs Summary

Component	Existing Gross Square Feet	Level 2 Needs			Level 3 Needs			Remarks
		Dept. Net Sq. Ft.	Net to Gross Ratio	Bldg. Gross Sq. Ft.	Dept. Net Sq. Ft.	Net to Gross Ratio	Bldg. Gross Sq. Ft.	
3.1 Station #81	7,590	3,885	1.25	4,856	2,445	1.25	3,056	
3.2 Station #82	2,800	3,425	1.25	4,281	9,975	1.25	12,469	
3.3 Station #83	12,700	3,015	1.25	3,769	3,015	1.25	3,769	
3.4 Station #84	3,325	3,585	1.25	4,481	0	1.25	0	
3.5 Station #85	1,500	1,085	1.25	1,356	9,675	1.25	12,094	
Total All Surveyed Fire Stations	27,915			18,744			31,388	

3.1 Station #81

Component	Existing Net Square Feet	Level 2 Needs			Level 3 Needs			Remarks
		No. of Units	Space Standard	Net Square Feet	No. of Units	Space Standard	Net Square Feet	
3.1. 1 Lobby/Waiting Area	0	1	250	250	1	250	250	
3.1. 2 Public Restrooms	0	1	220	220	1	220	220	
3.1. 3 Receptionist	0	1	100	100	1	100	100	
3.1. 4 Interview/Blood Pressure Room	0	0	100	0	0	100	0	
3.1. 5 Fire Chief Office/Shift Commander	0	0	225	0	0	225	0	
3.1. 6 Lieutenant Office	0	0	150	0	0	150	0	
3.1. 7 General Work Room/Copy/Fax	0	0	150	0	0	150	0	
3.1. 8 Radio Room/Report Writing	0	0	100	0	0	100	0	
3.1. 9 Computer Equipment Room	0	0	80	0	0	80	0	
3.1. 10 Sleeping Quarters/Ind. Rooms	0	6	90	540	6	90	540	
3.1. 11 Restrooms/Showers - Fire/EMS	0	1	225	225	1	225	225	
3.1. 12 Laundry Room	0	0	100	0	0	100	0	
3.1. 13 Kitchen/Dining	0	0	350	0	0	350	0	
3.1. 14 Day Room	0	0	400	0	0	400	0	
3.1. 15 Fitness Room	0	1	300	300	1	300	300	
3.1. 16 Community Room	0	0	1,000	0	0	1,000	0	
3.1. 17 Kitchenette	0	0	80	0	0	80	0	
3.1. 18 Clean Room	0	1	80	80	1	80	80	
3.1. 19 Decontamination Room	0	1	80	80	1	80	80	
3.1. 20 Turnout Gear Room	0	1	150	150	1	150	150	
3.1. 21 EMS Storage/Area	0	1	250	250	1	250	250	
3.1. 22 Fire Storage	0	1	250	250	1	250	250	
3.1. 23 Laundry Facility Fire Gear	0	0	150	0	0	150	0	
3.1. 24 SCBA/Compressed Air Room	0	0	100	0	0	100	0	
3.1. 25 80' x 18' Apparatus Bay	0	1	1,440	1,440	0	1,440	0	
3.1. 26 Janitors Closets	0	0	50	0	0	50	0	
3.1. 27 Mechanical Room(s)	0	0	400	0	0	400	0	
Net Square Feet				3,885			2,445	
Net to Department Gross Factor				1.25			1.25	
Department Gross Square Feet	7,590			4856			3056	

3.2 Station #82

Component	Existing Net Square Feet	Level 2 Needs			Level 3 Needs			Remarks
		No. of Units	Space Standard	Net Square Feet	No. of Units	Space Standard	Net Square Feet	
3.2.1	Lobby/Waiting Area	0	0	250	0	1	250	250
3.2.2	Public Restrooms	0	0	220	0	1	220	220
3.2.3	Receptionist	0	0	100	0	1	100	100
3.2.4	Interview/Blood Pressure Room	0	0	100	0	1	100	100
3.2.5	Fire Chief Office/Shift Commander	0	0	225	0	1	225	225
3.2.6	Lieutenant Office	0	1	150	150	1	150	150
3.2.7	General Work Room/Copy/Fax	0	0	150	0	1	150	150
3.2.8	Radio Room/Report Writing	0	1	100	100	1	100	100
3.2.9	Computer Equipment Room	0	0	80	0	1	80	80
3.2.10	Sleeping Quarters/Ind. Rooms	0	0	90	0	8	90	720
3.2.11	Restrooms/Showers - Fire/EMS	0	1	225	225	2	225	450
3.2.12	Laundry Room	0	0	100	0	1	100	100
3.2.13	Kitchen/Dining	0	0	350	0	1	350	350
3.2.14	Day Room	0	1	400	400	1	400	400
3.2.15	Fitness Room	0	1	300	300	1	300	300
3.2.16	Community Room	0	0	1,000	0	0	1,000	0
3.2.17	Training Tower	0	0	300	0	1	300	300
3.2.18	Clean Room	0	1	80	80	1	80	80
3.2.19	Decontamination Room	0	1	80	80	1	80	80
3.2.20	Turnout Gear Room	0	1	150	150	1	150	150
3.2.21	EMS Storage/Area	0	1	250	250	1	250	250
3.2.22	Fire Storage	0	1	250	250	1	250	250
3.2.23	Laundry Facility Fire Gear	0	0	150	0	0	150	0
3.2.24	SCBA/Compressed Air Room	0	0	100	0	0	100	0
3.2.25	80' x 18' Apparatus Bay	0	1	1,440	1,440	3	1,440	4,320
3.2.26	Janitors Closets	0	0	50	0	1	50	50
3.2.27	Mechanical Room(s)	0	0	400	0	2	400	800
Net Square Feet				3,425			9,975	
Net to Department Gross Factor				1.25			1.25	
Department Gross Square Feet		2,800		4281			12469	

3.3 Station #83

Component	Existing Net Square Feet	Level 2 Needs			Level 3 Needs			Remarks
		No. of Units	Space Standard	Net Square Feet	No. of Units	Space Standard	Net Square Feet	
3.3. 1	Lobby/Waiting Area	0	250	0	0	250	0	
3.3. 2	Public Restrooms	1	220	220	1	220	220	
3.3. 3	Receptionist	0	100	0	0	100	0	
3.3. 4	Interview/Blood Pressure Room	1	100	100	1	100	100	
3.3. 5	Fire Chief Office/Shift Commander	0	225	0	0	225	0	
3.3. 6	Lieutenant Office	0	150	0	0	150	0	
3.3. 7	General Work Room/Copy/Fax	0	150	0	0	150	0	
3.3. 8	Radio Room/Report Writing	0	100	0	0	100	0	
3.3. 9	Computer Equipment Room	0	80	0	0	80	0	
3.3. 10	Sleeping Quarters/Incl. Rooms	4	90	360	4	90	360	
3.3. 11	Restrooms/Showers - Fire/EMS	1	225	225	1	225	225	
3.3. 12	Laundry Room	0	100	0	0	100	0	
3.3. 13	Kitchen/Dining	0	350	0	0	350	0	
3.3. 14	Day Room	1	400	400	1	400	400	
3.3. 15	Fitness Room	1	300	300	1	300	300	
3.3. 16	Community Room	0	1,000	0	0	1,000	0	
3.3. 17	Training - classroom	50	15	750	50	15	750	
3.3. 18	Clean Room	1	80	80	1	80	80	
3.3. 19	Decontamination Room	1	80	80	1	80	80	
3.3. 20	Turnout Gear Room	0	150	0	0	150	0	
3.3. 21	EMS Storage/Area	1	250	250	1	250	250	
3.3. 22	Fire Storage	1	250	250	1	250	250	
3.3. 23	Laundry Facility Fire Gear	0	150	0	0	150	0	
3.3. 24	SCBA/Compressed Air Room	0	100	0	0	100	0	
3.3. 25	80' x 18' Apparatus Bay	0	1,440	0	0	1,440	0	
3.3. 26	Janitors Closets	0	50	0	0	50	0	
3.3. 27	Mechanical Room(s)	0	400	0	0	400	0	
3.3. 17	Training tower	0	300	0	0	300	0	
Net Square Feet				3,015			3,015	
Net to Department Gross Factor				1.25			1.25	
Department Gross Square Feet		12,700		3769			3769	

3.4 Station #84

Component	Existing Net Square Feet	Level 2 Needs			Level 3 Needs			Remarks
		No. of Units	Space Standard	Net Square Feet	No. of Units	Space Standard	Net Square Feet	
3.4. 1	Lobby/Waiting Area	0	250	0	0	250	0	
3.4. 2	Public Restrooms	0	220	0	0	220	0	
3.4. 3	Receptionist	0	100	0	0	100	0	
3.4. 4	Interview/Blood Pressure Room	0	100	0	0	100	0	
3.4. 5	Fire Chief Office/Shift Commander	0	225	0	0	225	0	
3.4. 6	Lieutenant Office	0	150	0	0	150	0	
3.4. 7	General Work Room/Copy/Fax	0	150	0	0	150	0	
3.4. 8	Radio Room/Report Writing	0	100	0	0	100	0	
3.4. 9	Computer Equipment Room	0	80	0	0	80	0	
3.4. 10	Sleeping Quarters/Incl. Rooms	4	90	360	0	90	0	
3.4. 11	Restrooms/Showers - Fire/EMS	1	225	225	0	225	0	
3.4. 12	Laundry Room	0	100	0	0	100	0	
3.4. 13	Kitchen/Dining	0	350	0	0	350	0	
3.4. 14	Day Room	1	400	400	0	400	0	
3.4. 15	Fitness Room	1	300	300	0	300	0	
3.4. 16	Community Room	0	1,000	0	0	1,000	0	
3.4. 17	Kitchenette	0	80	0	0	80	0	
3.4. 18	Clean Room	1	80	80	0	80	0	
3.4. 19	Decontamination Room	1	80	80	0	80	0	
3.4. 20	Turnout Gear Room	1	150	150	0	150	0	
3.4. 21	EMS Storage/Area	1	250	250	0	250	0	
3.4. 22	Fire Storage	1	250	250	0	250	0	
3.4. 23	Laundry Facility Fire Gear	0	150	0	0	150	0	
3.4. 24	SCBA/Compressed Air Room	0	100	0	0	100	0	
3.4. 25	80' x 18' Apparatus Bay	1	1,440	1,440	0	1,440	0	
3.4. 26	Janitors Closets	1	50	50	0	50	0	
3.4. 27	Mechanical Room(s)	0	400	0	0	400	0	
Net Square Feet				3,585			0	
Net to Department Gross Factor				1.25			1.25	
Department Gross Square Feet		3,325		4481			0	



3.5 Station #85

Component	Existing Net Square Feet	Level 2 Needs			Level 3 Needs			Remarks
		No. of Units	Space Standard	Net Square Feet	No. of Units	Space Standard	Net Square Feet	
3.5.1	Lobby/Waiting Area	0	250	0	1	250	250	
3.5.2	Public Restrooms	0	220	0	1	220	220	
3.5.3	Receptionist	0	100	0	1	100	100	
3.5.4	Interview/Blood Pressure Room	0	100	0	1	100	100	
3.5.5	Fire Chief Office/Shift Commander	0	225	0	1	225	225	
3.5.6	Lieutenant Office	0	150	0	1	150	150	
3.5.7	General Work Room/Copy/Fax	0	150	0	1	150	150	
3.5.8	Radio Room/Report Writing	0	100	0	1	100	100	
3.5.9	Computer Equipment Room	0	80	0	1	80	80	
3.5.10	Sleeping Quarters/Ind. Rooms	0	90	0	8	90	720	
3.5.11	Restrooms/Showers - Fire/EMS	1	225	225	2	225	450	
3.5.12	Laundry Room	0	100	0	1	100	100	
3.5.13	Kitchen/Dining	0	350	0	1	350	350	
3.5.14	Day Room	0	400	0	1	400	400	
3.5.15	Fitness Room	1	300	300	1	300	300	
3.5.16	Community Room	0	1,000	0	0	1,000	0	
3.5.17	Kitchenette	0	80	0	0	80	0	
3.5.18	Clean Room	1	80	80	1	80	80	
3.5.19	Decontamination Room	1	80	80	1	80	80	
3.5.20	Turnout Gear Room	1	150	150	1	150	150	
3.5.21	EMS Storage/Area	1	250	250	1	250	250	
3.5.22	Fire Storage	0	250	0	1	250	250	
3.5.23	Laundry Facility Fire Gear	0	150	0	0	150	0	
3.5.24	SCBA/Compressed Air Room	0	100	0	0	100	0	
3.5.25	80' x 18' Apparatus Bay	0	1,440	0	3	1,440	4,320	
3.5.26	Janitors Closets	0	50	0	1	50	50	
3.5.27	Mechanical Room(s)	0	400	0	2	400	800	
Net Square Feet				1,085			9,675	
Net to Department Gross Factor				1.25			1.25	
Department Gross Square Feet		1,500		1356			12094	

General Building Description

Two story with a partial utility basement
OBC Use Group 'B' and 'S-2' and 'R-2', Non-Separated. Construction Type 3B
This structure is an Essential Facility which is required to remain operational in the event of extreme environmental loading from wind, flood, snow and earthquake.
The building was built around 1954, for the City of Middletown, and is located at 307 N. Clinton Street
The building is approximately 6,460 gross square feet on the first floor which includes three (3) back-in apparatus bays, and approximately 1,130 gross square feet on the upper floor
The building is not equipped with a Fire Suppression system throughout.
The building is used as a 24-hour fire station facility. This building serves as a substation for the Department and is staffed by five personnel. This facility houses Engine 1 (*81), Medic 1 (*81) and the Hazardous Material Response vehicles (*Hazmat 80 & 81).

OBC Compliance

It is assumed that the construction of the existing building and all modifications to date met the building codes in effect at the time of completion. The analysis however is based upon the current codes in effect at the time this report is published.

Construction: The building meets current building codes for area and height limitations based upon the use group and construction type. However, the exterior walls are required to be rated since they are so close to the property lines. The interior stairs are not enclosed with rated construction, and do not meet current code requirements. The door between the apparatus bay and office area is not rated as required per current code.

Fire Suppression: The building does not meet current building codes for Fire Suppression. All portions of this building are required to be equipped with a fire suppression system per current OBC requirements.

Egress: The building does not meet current building codes for egress. The sleeping area is required to be fire suppressed, and the windows do not meet minimum size requirements for egress.

ADA: The building generally does not meet current ADA accessibility requirements. The interior and exterior doors of the facility do not have lever operator handles. The toilet rooms within the building do not meet ADA accessibility requirements.

Structural: The building does not meet current structural requirements for an Essential Facility per the OBC.

Mechanical: The mechanical systems may not meet the current OBC requirements for make-up air.

General Building Condition

Overall, the facility is in good physical condition.

The building appears to be the original size, and has not been modified to any notable extent.

Weathertightness: The existing flat membrane roof has a few current leaks, as reported by the Department. Standing water is presently on the roof, which will cause further problems in the long term. The roof is scheduled to be replaced in the near future, and the existing will be removed to the deck. The exterior windows were replaced within the last 10 to 12 years, and appear to be thermally

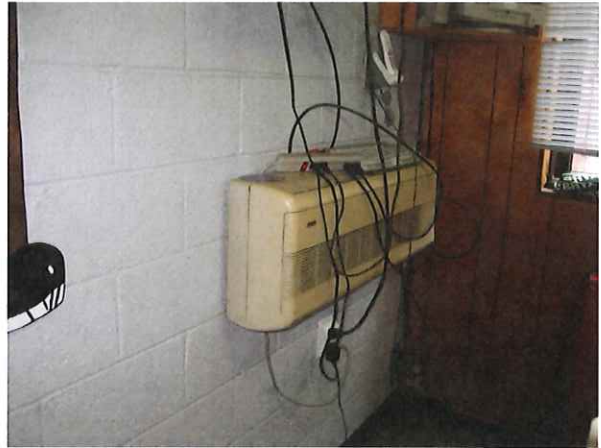
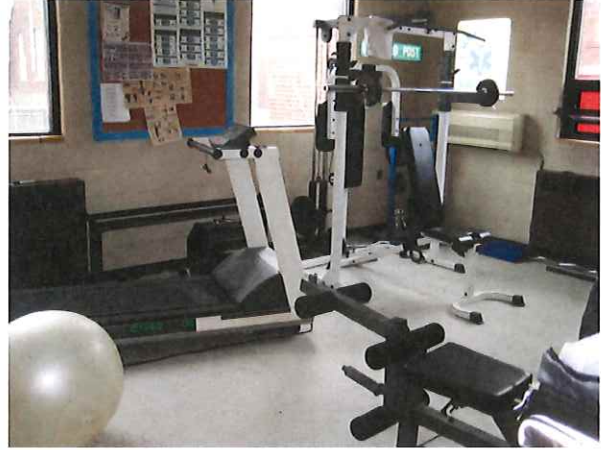
efficient. The apparatus bay overhead doors appear to be in good working order and functioning properly.

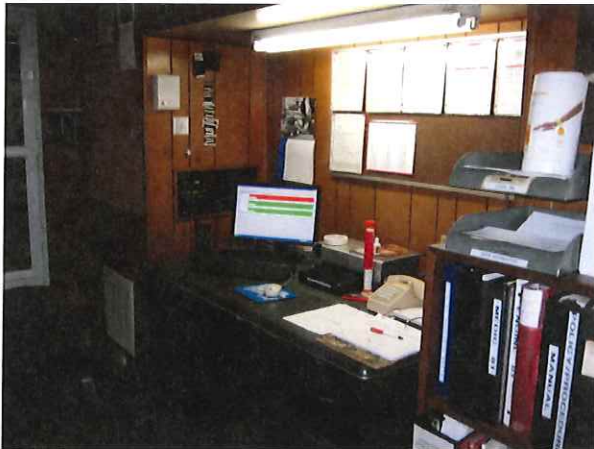
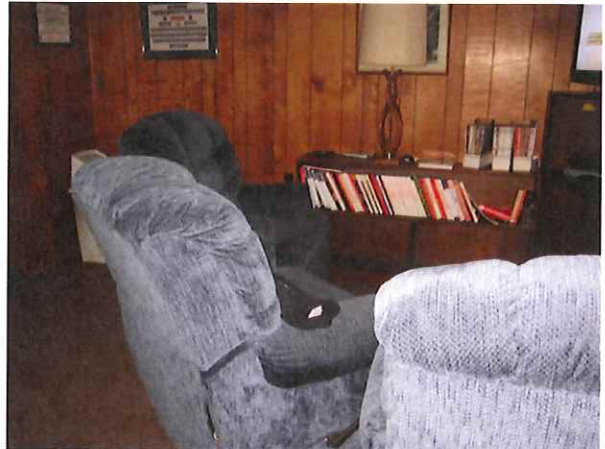
Mechanical, Electrical, Plumbing: The mechanical, electrical and plumbing appears to be in good working order. The plumbing fixtures are in good condition, but should be updated with current water-saving fixtures. No problems were reported with the existing apparatus bay heaters.

Finishes: The finishes appear to be in good to fair condition. The carpeting is showing signs of wear, and should be replaced. The ceilings are painted plaster with a smooth finish, and are in good condition. The kitchen cabinets were replaced 8 to 10 years ago with new cabinets and a stainless steel top. The exterior is in good order, and no pressing maintenance items were noted. The exterior trim was painted last year. The concrete apron in the front has a few stress cracks and some signs of age, but is still in serviceable condition. The asphalt areas are in fair condition.

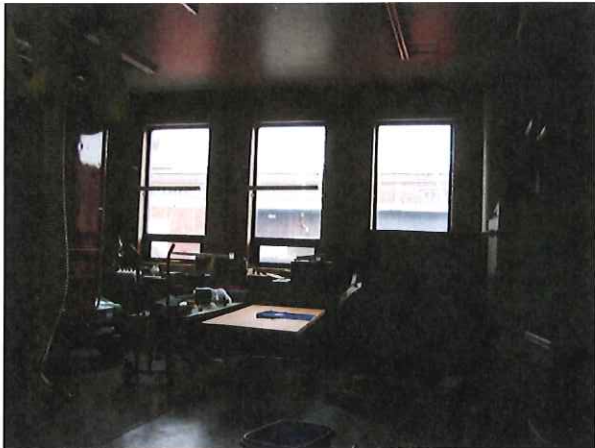
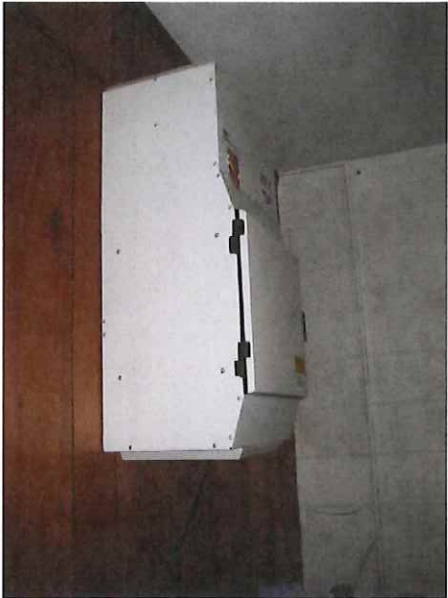
Equipment: The existing generator is in good condition, and is approximately 8 to 10 years old. A new MagneGrip engine exhaust system was installed around 2007 in all of the bays.











General Building Description

One story
OBC Use Group 'B' and 'S-2' and 'R-2', Non-Separated. Construction Type 5B
This structure is an Essential Facility which is required to remain operational in the event of extreme environmental loading from wind, flood, snow and earthquake.
The building was built in the 1960's, and was renovated in 1997 when purchased by the City of Middletown, and is located at 3765 Dixie Hwy. just south of Towne Blvd.
The building is approximately 2,800 gross square feet that includes two (2) back-in apparatus bays
The building is not equipped with a Fire Suppression system throughout.
The building is used as a 24-hour fire station facility. This building serves as a substation for the Department and is staffed by three personnel. This facility houses Engine 2 (*82), and a reserve engine.

OBC Compliance

Construction: The building meets current building codes for area and height limitations based upon the Use Group and construction type.
Fire Suppression: The building does not meet current building codes for Fire Suppression. All portions of this building are required to be equipped with a fire suppression system per current OBC requirements.
Egress: The building does not meet current building codes for egress. The sleeping area is required to be fire suppressed, and the window does not meet minimum size requirements for egress.
ADA: The building generally does not meet current ADA accessibility requirements. The interior and exterior doors of the facility have lever operator handles. The toilet rooms within the building do not meet ADA accessibility requirements.
Structural: The building does not meet current structural requirements for an Essential Facility per the OBC.
Mechanical: The mechanical systems may not meet the current OBC requirements for make-up air.

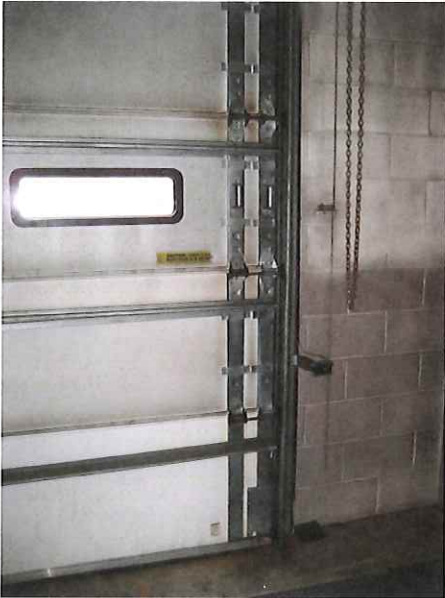
General Building Condition

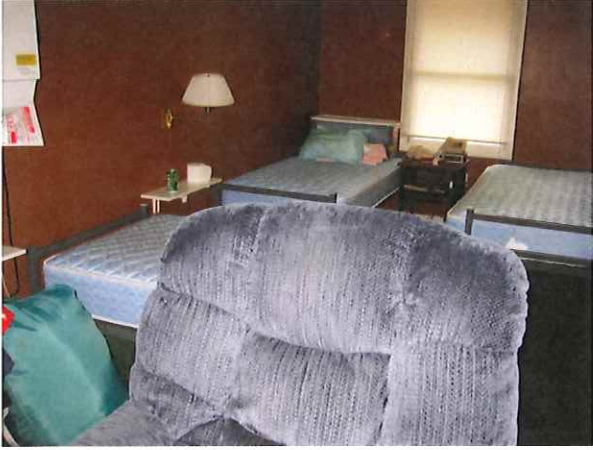
Overall, the facility is in good physical condition.
The building appears to be the original size, and has not been modified to any notable extent.
Weathertightness: The existing shingled roof does not have any current leaks, as reported by the Department, except for a few occasionally from the ridge vent. The exterior windows are replacement windows, and appear to be thermally efficient. The exterior asphalt area is adjacent to a stream, and has flooded in the past. The water from the flooding has entered the building at the back interior stair, but has never flooded the main floor. The apparatus bay overhead door appears to be in good working order and functioning properly.
Mechanical, Electrical, Plumbing: The mechanical, electrical and plumbing appears to be in good working order, and upgraded during the 1997 renovation. The plumbing fixtures are in good condition, but should be updated with current water-saving fixtures. No problems were reported with the existing apparatus bay heaters.
Finishes: The finishes appear to be in good condition. The carpeting has been replaced recently with new carpeting. The ceilings are painted gypsum board

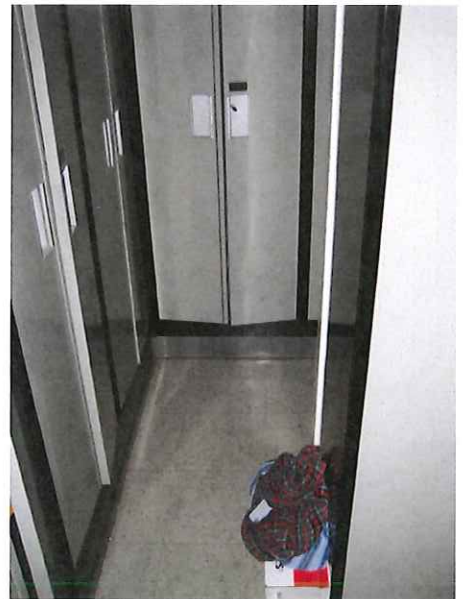
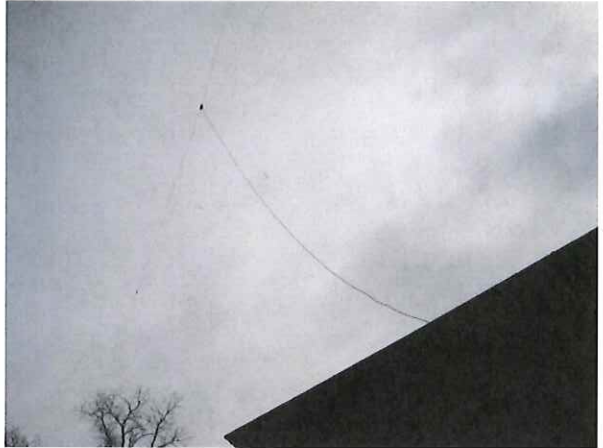
with a textured finish, and are in good condition. The exterior is in good order, and no pressing maintenance items were noted. The concrete apron in the front has a few stress cracks and some signs of age, but is still in serviceable condition. The asphalt areas are in good condition as well.

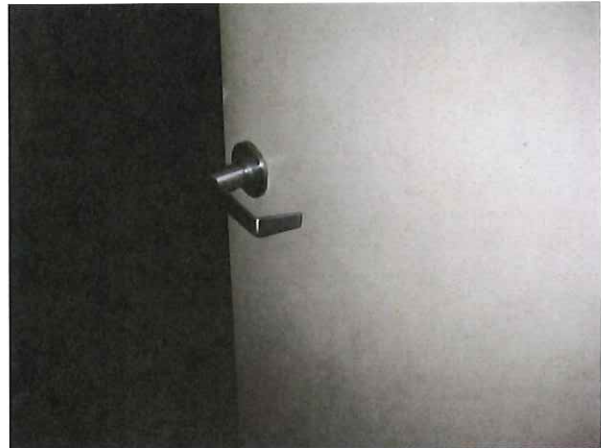
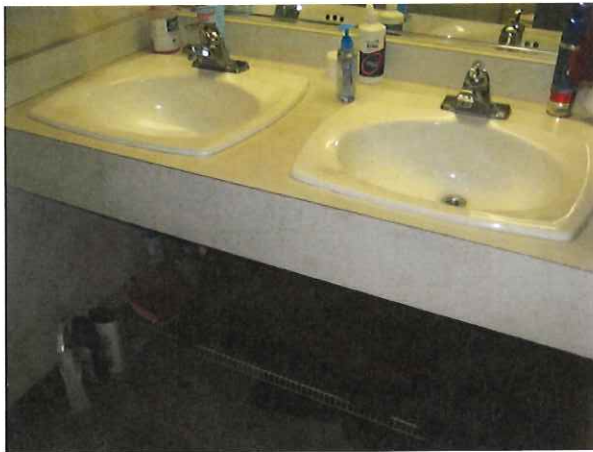
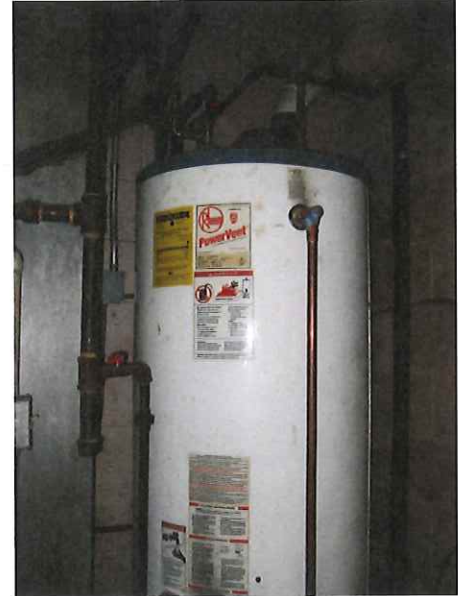
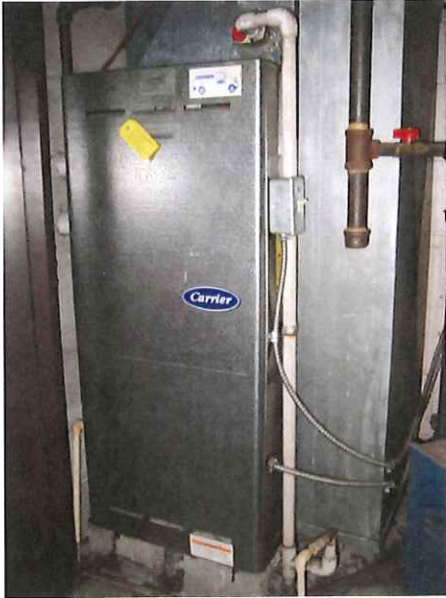
Equipment: The existing generator is in good condition, and is approximately 8 to 10 years old. A new MagneGrip engine exhaust system was installed around 2007 in all of the bays.











General Building Description

One story with a hose tower
OBC Use Group 'B' and 'S-2' and 'R-2', Non-Separated. Construction Type IIB
This structure is an Essential Facility which is required to remain operational in the event of extreme environmental loading from wind, flood, snow and earthquake.
The building was built in 1978, and is located at 2300 Roosevelt Blvd. at the intersection with Wicoff St.
Approximately 12,700 gross square feet that includes four (4) apparatus bays
The building is not equipped with a Fire Suppression system throughout.
The building is used as a 24-hour fire station facility, and houses the Fire Department's Administration, as well as Training and Prevention offices. This building serves as the headquarters for the Department. The majority of training is conducted at this facility due to its centralized location. This facility houses Medic 3 (*83), Engine 3 (*83), Ladder 3 (*83), Chief 3 (*Battalion 80), a reserve engine, and a reserve Medic.

OBC Compliance

Construction: The building meets current building codes for area and height limitations based upon the Use Group and construction type.
Fire Suppression: The building does not meet current building codes for Fire Suppression. All portions of this building are required to be equipped with a fire suppression system per current OBC requirements.
Egress: The building does not meet current building codes for egress. The corridors do not meet code, since the Occupant Load on the corridors exceeds 30, and therefore must be either rated or the building equipped with a Fire Suppression system. The corridors are used for the return air to the mechanical, which is not permitted by the OBC. The sleeping area is required to be fire suppressed, and the windows do not meet minimum size requirements for egress.
ADA: The building generally does not meet current ADA accessibility requirements. No interior and exterior doors of the facility have lever operator handles. The toilet rooms within the building do not meet ADA accessibility requirements.
Structural: The building does not meet current structural requirements for an Essential Facility per the OBC.
Mechanical: The mechanical systems may not meet the current OBC requirements for make-up air.

General Building Condition

Overall, the facility is in good physical condition.

The building is the original size as constructed in 1978, and has not been modified to any notable extent.
Weathertightness: The existing low-pitch metal roof was rehabilitated in 2009, with a 10 year warranty. A structural assessment was completed at that time which determined that the structural limits for the roof would not permit a higher pitch roof to be constructed over the existing roof. The exterior windows are the original single-pane metal windows, and are not thermally efficient. The rear exterior man doors have been replaced recently.
Mechanical, Electrical, Plumbing: The mechanical unit on the residential side of the building was replaced in kind with a new unit in 2009. The existing mechanical unit on the business half of the building is original equipment. The

apparatus bay heaters were upgraded around 2007 to be more efficient. The plumbing fixtures are in good condition, but should be updated with current water-saving fixtures. The lights appear to be the original 2 x 4 lay-in light fixtures, and should be replaced with new lights equipped with energy saving high-efficient ballasts.

Finishes: All of the ceiling tiles for the suspended ceilings have been replaced recently with new tiles. The carpeting has been replaced recently with new carpeting. The exterior was painted in 2009. The concrete apron in the front has a few stress cracks and some signs of age, but is still in serviceable condition.

Equipment: The existing generator is in good condition, and is approximately 8 to 10 years old. The two tank fills for the breathing apparatus are new, and are the only ones department-wide. The extractor is the only one in the department, and is approximately 10 years old. A new MagneGrip engine exhaust system was installed around 2007 in all of the bays.







General Building Description

One story structure with a partial utility basement and a three story training tower. OBC Use Groups 'S-2' and 'R-2', Non-Separated. Construction Type 2B
This structure is an Essential Facility which is required to remain operational in the event of extreme environmental loading from wind, flood, snow and earthquake.
The building was built around 1954, for the City of Middletown, and is located at 2600 Tytus Avenue.
The building is approximately 3,325 gross square feet which includes one (1) back-in apparatus bay.
The building is not equipped with a Fire Suppression system throughout.
The building is used as a 24-hour fire station facility and as a training facility. This building serves as a substation for the Department and is staffed by three personnel. This facility houses the 75' Quint 4 (*84), and reserve Medic 4 (*84).

OBC Compliance

It is assumed that the construction of the existing building and all modifications to date met the building codes in effect at the time of completion. The analysis however is based upon the current codes in effect at the time this report is published.

Construction: The building meets current building codes for area and height limitations based upon the Use Group and construction type. The interior stairs are not enclosed with rated construction, and do not meet current code requirements. The door between the apparatus bay and living area is not rated as required per current code.

Fire Suppression: The building does not meet current building codes for Fire Suppression. All portions of this building are required to be equipped with a fire suppression system per current OBC requirements.

Egress: The building does not meet current building codes for egress. The sleeping area is required to be fire suppressed, and the windows do not meet minimum size requirements for egress.

ADA: The building generally does not meet current ADA accessibility requirements. The interior and exterior doors of the facility do not have lever operator handles. The toilet rooms within the building do not meet ADA accessibility requirements.

Structural: The building does not meet current structural requirements for an Essential Facility per the OBC.

Mechanical: The mechanical systems may not meet the current OBC requirements for make-up air.

General Building Condition

Overall, the facility is in good physical condition.

The building appears to be the original size, and has not been modified to any notable extent. The grounds are well-groomed and generally appear to be well-maintained.

Weathertightness: The existing flat membrane roof has a few minor leaks, as reported by the Department. The roof over the training tower was replaced last year along with the roof drains, which stopped the leaks over the tower. The exterior windows appear to be the original metal windows, and are not assumed to be thermally efficient. The apparatus bay overhead door appears to be in good working order and functioning properly.

Mechanical, Electrical, Plumbing: The mechanical, electrical and plumbing appears to be in good working order. The plumbing fixtures are in good condition, but should be updated with current water-saving fixtures. No problems were reported with the existing apparatus bay heaters. Air purifiers were added to all of the rooms recently to address air quality concerns

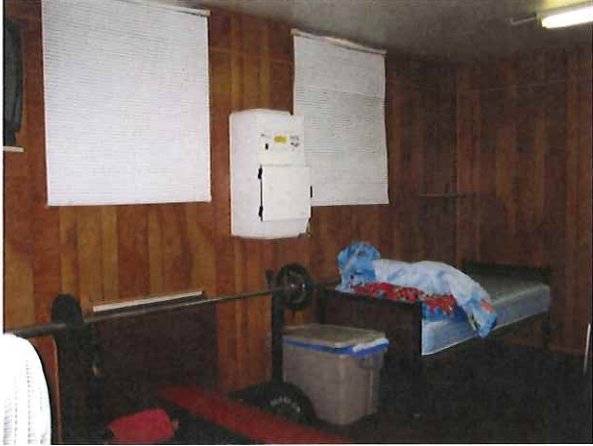
Finishes: The finishes appear to be in good to fair condition. The carpeting is showing signs of wear, and should be replaced. The ceilings are painted plaster with a smooth finish, and are in good condition. The kitchen cabinets were replaced 8 to 10 years ago with new cabinets and a stainless steel top. The exterior is in good order, and no pressing maintenance items were noted. The exterior trim was painted last year. A portion of the concrete floor in the apparatus bay was replaced, and there are cracks in the original portion of the bay. The concrete apron in the front has a few stress cracks and some signs of age, but is still in serviceable condition. The asphalt areas are in fair condition, and have a number of cracks running through all areas.

Equipment: The existing generator is in good condition, and is approximately 8 to 10 years old. A new MagneGrip engine exhaust system was installed around 2007 in all of the bays.















General Building Description

One story with a two story hose tower.
OBC Use Groups 'S-2' and 'R-2', Non-Separated. Construction Type 5B
This structure is an Essential Facility which is required to remain operational in the event of extreme environmental loading from wind, flood, snow and earthquake.
The building was built in 1966, for the City of Middletown, and is located at the intersection of Central Ave. and N. Breiel Blvd. at 4310 Central Ave.
The building is approximately 2,500 gross square feet which includes one (1) pull-through apparatus bay.
The building is not equipped with a Fire Suppression system throughout.
The building is used as a 24-hour facility. This building serves as a substation for the Department and is staffed by two personnel. This facility houses the Medic 5 (*84) unit only. A reserve engine is housed at this location, as reported by the Department.

OBC Compliance

It is assumed that the construction of the existing building and all modifications to date met the building codes in effect at the time of completion. This analysis however is based upon the current codes in effect at the time this report is published.

Construction: The building meets current building codes for area and height limitations based upon the Use Group and construction type. The openings between the apparatus bay and living area are not rated as required per current code.

Fire Suppression: The building does not meet current building codes for Fire Suppression. All portions of this building are required to be equipped with a fire suppression system per current OBC requirements.

Egress: The building does not meet current building codes for egress. The sleeping area is required to be fire suppressed, and the windows do not meet minimum size requirements for egress.

ADA: The building generally does not meet current ADA accessibility requirements. The interior and exterior doors of the facility do not have lever operator handles. The toilet rooms within the building do not meet ADA accessibility requirements.

Structural: The building does not meet current structural requirements for an Essential Facility per the OBC.

Mechanical: The mechanical systems may not meet the current OBC requirements for make-up air. There are operable windows on this facility which may provide the required make-up air for the occupants.

General Building Condition

Overall, the facility is in good physical condition.

The building appears to be the original size, and has not been modified to any notable extent. The grounds are well-groomed and generally appear to be well-maintained.

Weathertightness: The existing shingled roof has no current leaks, as reported by the Department. The roofing was replaced recently with new shingles. The exterior windows appear to be the original wood windows with single pane glass, and are not assumed to be thermally efficient. The apparatus bay overhead door appears to be in good working order and functioning properly.

Mechanical, Electrical, Plumbing: The mechanical, electrical and plumbing appears to be in good working order. The central furnace was replaced last year as reported by the Department. The plumbing fixtures are in good condition, but should be updated with current water-saving fixtures. No problems were reported with the existing apparatus bay heaters.

Finishes: The finishes appear to be in good to fair condition. The carpeting is showing some signs of wear, and should be replaced. The linoleum flooring is showing signs of age and wear, but is still in serviceable condition. The ceilings are painted gypsum board with a smooth finish, and are in good condition. The kitchen cabinets and top appear to be in good condition. The exterior is in good order, and no pressing maintenance items were noted. The concrete apron and asphalt drive in the front have a few stress cracks and some signs of age, but is still in serviceable condition. The asphalt areas in general are in fair condition, and have a number of cracks running through all areas.

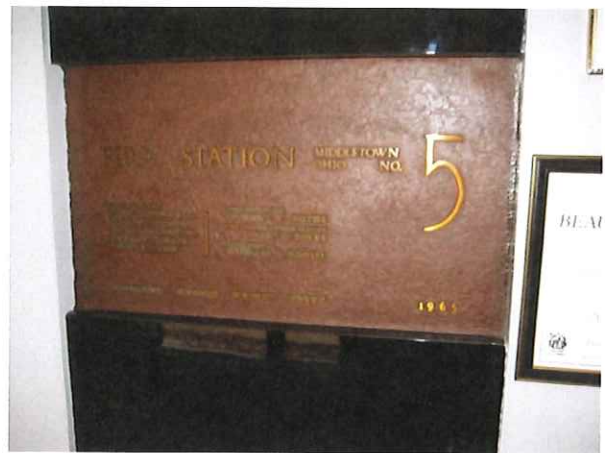
Equipment: The existing generator is in good condition, and is approximately 8 to 10 years old. A new MagneGrip engine exhaust system was installed around 2007 in all of the bays.









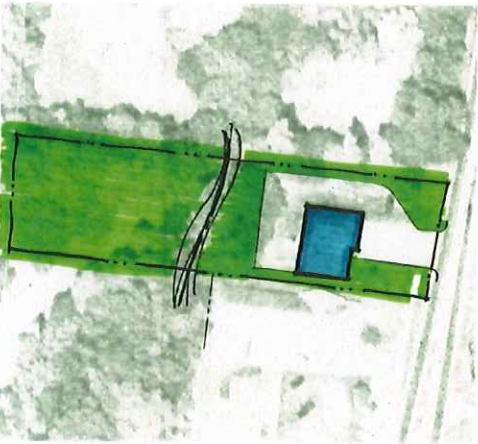




Station 81



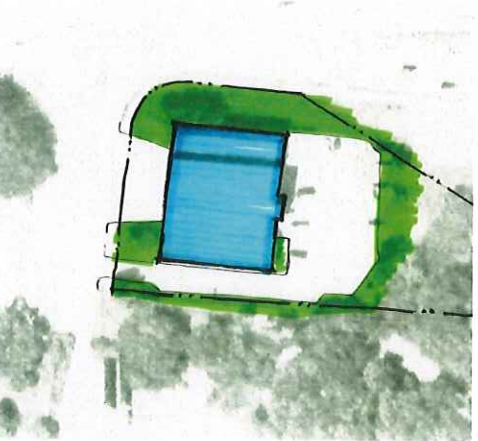
Station 84




Station 82



Station 85



Station 83

 Existing Structure

Level 1 - Repair/Minor Modifications

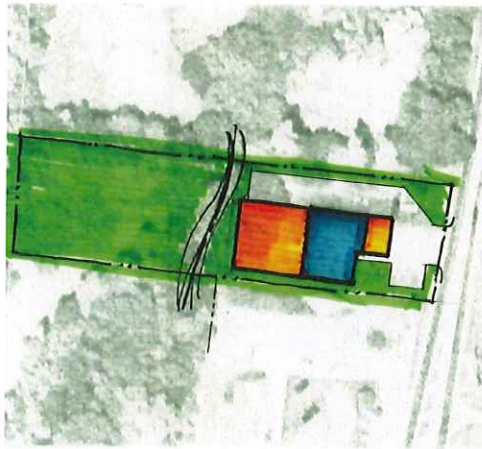
- Heating and A/C minor improvements
- Roof repairs
- Exterior envelope repairs i.e., windows, etc.
- Minor interior finishes, i.e., carpeting
- Minor pavement repairs



Station 81



Station 84





Station 82



Station 85

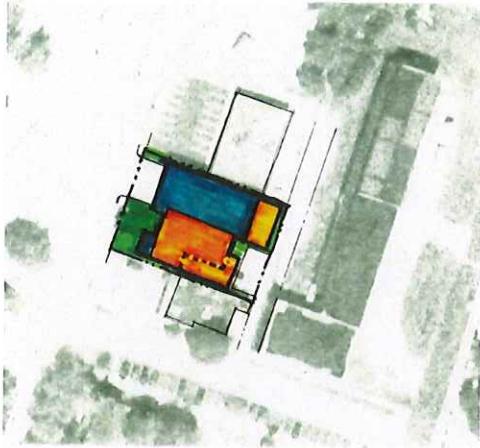


Station 83

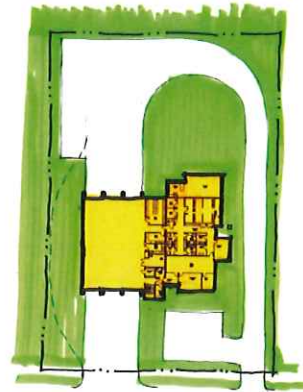
-  Existing Structure
-  New Construction/Addition

Level 2 - Upgrades/Additions/Renovation

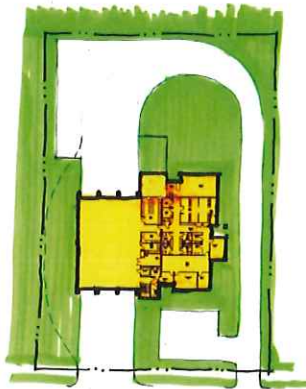
- Addition to existing building to provide infection control and related issues
- Roof replacement
- Exterior envelope improvements and upgrades
- Improved living areas
- Systems replacement and upgrades, i.e., lighting, electrical, HVAC, plumbing, fire protection, etc.
- Pavement replacement



Station 81



Station 85




Station 82



Station 83

(Merge with Station 85)
Station 84

-  Existing Structure
-  New Construction/Addition

Level 3 - Alternative Station Locations

- Consolidate Station Locations and reduce the number of stations to 4 total
- Replace marginal facilities with new, state-of-the-art facilities
- Addition to existing building to provide infection control and related issues
- Roof replacement
- Exterior envelope improvements and upgrades
- Improved living areas
- Systems replacement and upgrades, i.e., lighting, electrical, HVAC, plumbing, fire protection, etc.
- Pavement replacement

6.1 Station #81 Budget

		Preliminary Budget		Total Level 2	Total Level 3
		Qty	Unit		
6.1. 1	Land Acquisition	0	Allow	500,000	0
6.1. 2	Site Work	12,000	SF	5	60,000
6.1. 3	Demolition				
6.1. 4	Roads				
6.1. 5	Buildings				
6.1. 6	Environmental Remediation				
6.1. 7	Grading				
6.1. 8	Utilities				
6.1. 9	Paving				
6.1. 10	Landscaping				
6.1. 11	Total				60,000
6.1. 12	Building Construction				
6.1. 13	Interior/Mech. Upgrades	0	SF	60	0
6.1. 14	Renovation	7,590	SF	120	910,800
6.1. 15	New Construction	4,856	SF	210	1,019,813
6.1. 17	Total				1,930,613
6.1. 18	Furniture, Fixtures & Equipment	0		80,000	0
6.1. 19	Soft Costs				
6.1. 20	A&E Fees	0.09		1,990,613	179,155
6.1. 21	Special Inspections	1		2,200	2,200
6.1. 22	Geotechnical	1		1,800	1,800
6.1. 23	Permits	1		3,000	3,000
6.1. 24	Testing	1		2,800	2,800
6.1. 25	Reimbursable	1		4,500	4,500
6.1. 26	Total				193,455
6.1. 27					
6.1. 28	10% Contingency				199,061
					161,261
	Total				2,383,129
					1,967,329

6.2 Station #82 Budget

		Preliminary Budget		Total Level 2	Total Level 3
		Qty	Unit		
6.2. 1	Land Acquisition	1	Allow	500,000	0
6.2. 2	Site Work	18,000	SF	6	108,000
6.2. 3	Demolition				
6.2. 4	Roads				
6.2. 5	Buildings				
6.2. 6	Environmental Remediation				
6.2. 7	Grading				
6.2. 8	Utilities				
6.2. 9	Paving				
6.2. 10	Landscaping				
6.2. 11	Total				108,000
6.2. 12	Building Construction				
6.2. 13	Interior/Mech. Upgrades	0	SF	60	0
6.2. 14	Renovation	2,800	SF	120	336,000
6.2. 15	New Construction	4,281	SF	210	899,063
6.2. 17	Total				1,235,063
6.2. 18	Furniture, Fixtures & Equipment	1		80,000	0
6.2. 19	Soft Costs				
6.2. 20	A&E Fees	0.09		1,343,063	120,876
6.2. 21	Special Inspections	1		2,200	2,200
6.2. 22	Geotechnical	1		1,800	1,800
6.2. 23	Permits	1		3,000	3,000
6.2. 24	Testing	1		2,800	2,800
6.2. 25	Reimbursable	1		4,500	4,500
6.2. 26	Total				135,176
6.2. 27					
6.2. 28	10% Contingency				134,306
	Total				1,612,544
					3,545,063

6.3 Station #83 Budget

		Preliminary Budget		Total Level 2	Total Level 3
		Qty	Unit		
6.3. 1	Land Acquisition	0	Allow	500,000	0
6.3. 2	Site Work	30,000	SF	5	150,000
6.3. 3	Demolition				
6.3. 4	Roads				
6.3. 5	Buildings				
6.3. 6	Environmental Remediation				
6.3. 7	Grading				
6.3. 8	Utilities				
6.3. 9	Paving				
6.3. 10	Landscaping				
6.3. 11	Total				150,000
6.3. 12	Building Construction				
6.3. 13	Interior/Mech. Upgrades	12,700	SF	60	762,000
6.3. 14	Renovation	0	SF	120	0
6.3. 15	New Construction	3,769	SF	210	791,438
6.3. 17	Total				1,553,438
6.3. 18	Furniture, Fixtures & Equipment	1		80,000	80,000
6.3. 19	Soft Costs				
6.3. 20	A&E Fees	0.09		1,783,438	160,509
6.3. 21	Special Inspections	1		2,200	2,200
6.3. 22	Geotechnical	1		1,800	1,800
6.3. 23	Permits	1		3,000	3,000
6.3. 24	Testing	1		2,800	2,800
6.3. 25	Reimbursable	1		4,500	4,500
6.3. 26	Total				174,809
6.3. 27					
6.3. 28	10% Contingency				170,344
	Total				2,128,591

6.4 Station #84 Budget

		Preliminary Budget		Total Level 2	Total Level 3
		Qty	Unit		
6.4. 1	Land Acquisition	0	Allow	500,000	0
6.4. 2	Site Work	12,000	SF	5	60,000
6.4. 3	Demolition				
6.4. 4	Roads				
6.4. 5	Buildings				
6.4. 6	Environmental Remediation				
6.4. 7	Grading				
6.4. 8	Utilities				
6.4. 9	Paving				
6.4. 10	Landscaping				
6.4. 11	Total				60,000
6.4. 12	Building Construction				
6.4. 13	Interior/Mech. Upgrades	0	SF	60	0
6.4. 14	Renovation	3,325	SF	120	399,000
6.4. 15	New Construction	4,481	SF	210	941,063
6.4. 17	Total				1,340,063
6.4. 18	Furniture, Fixtures & Equipment	0		80,000	0
6.4. 19	Soft Costs				
6.4. 20	A&E Fees	0.09		1,400,063	126,006
6.4. 21	Special Inspections	1		2,200	2,200
6.4. 22	Geotechnical	1		1,800	1,800
6.4. 23	Permits	1		3,000	3,000
6.4. 24	Testing	1		2,800	2,800
6.4. 25	Reimbursable	1		4,500	4,500
6.4. 26	Total				140,306
6.4. 27					
6.4. 28	10% Contingency				140,006
	Total				1,680,374
					0

6.5 Station #85 Budget

		Preliminary Budget		Total Level 2	Total Level 3
		Qty	Unit		
6.5. 1	Land Acquisition	1	Allow	500,000	0
6.5. 2	Site Work	18,000	SF	5	90,000
6.5. 3	Demolition				400,000
6.5. 4	Roads				
6.5. 5	Buildings				
6.5. 6	Environmental Remediation				
6.5. 7	Grading				
6.5. 8	Utilities				
6.5. 9	Paving				
6.5. 10	Landscaping				
6.5. 11	Total				90,000
6.5. 12	Building Construction				400,000
6.5. 13	Interior/Mech. Upgrades	0	SF	60	0
6.5. 14	Renovation	1,500	SF	120	180,000
6.5. 15	New Construction	1,356	SF	210	284,813
6.5. 17	Total				464,813
6.5. 18	Furniture, Fixtures & Equipment	1		80,000	0
6.5. 19	Soft Costs				80,000
6.5. 20	A&E Fees	0.09		554,813	49,933
6.5. 21	Special Inspections	1		2,200	260,888
6.5. 22	Geotechnical	1		1,800	2,200
6.5. 23	Permits	1		3,000	1,800
6.5. 24	Testing	1		2,800	3,000
6.5. 25	Reimbursable	1		4,500	2,800
6.5. 26	Total				4,500
6.5. 27					64,233
6.5. 28	10% Contingency				275,188
					55,481
					281,875
	Total				674,527
					3,455,813